Calscience Environmental Laboratories, Inc.

Supplemental Report 1

The original report has been revised to include the Level IV deliverables package.

CALSCIENCE

WORK ORDER NUMBER: 13-11-0697

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: DTSC - Wildomar Autumnwood Development / NB1016075P

Attention: Joseph Bahde
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 02/07/2014 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

Contents

Client Project Name: DTSC - Wildomar Autumnwood Development / NB1016075P
Work Order Number: 13-11-0697

1 Work Order Narrative. 4

2 Sample Summary. 5

3 Detections Summary. 6

4 Client Sample Data. 10
4.1 EPA 6010B/7471A CAC Title 22 Metals (Solid). 10
4.2 EPA 6010B/7470A CAC Title 22 Metals (Aqueous). 21
4.3 EPA 7470A Mercury (Aqueous). 23
4.4 EPA 7471A Mercury (Solid). 24
4.5 EPA 8081A Organochlorine Pesticides (Solid). 26
4.6 EPA 8081A Organochlorine Pesticides (Aqueous). 37
4.7 EPA 8082 PCB Aroclors (Solid). 39
4.8 EPA 8082 PCB Aroclors (Aqueous). 45
4.9 EPA 8270C Semi-Volatile Organics (Aqueous). 46
4.10 EPA 8270C Semi-Volatile Organics (Solid). 52
4.11 EPA 8260B Volatile Organics (Aqueous). 76

5 Quality Control Sample Data. 84
5.1 MS/MSD. 84
5.2 LCS/LCSD. 93

6 Sample Analysis Summary. 105

7 Glossary of Terms and Qualifiers. 106

8 Chain of Custody/Sample Receipt Form. 107

9 Subcontract Narrative. 109

10 Subcontract - EPA 8315 CEL 13-11-0697. 110

11 Case Narrative 13-11-0697. 135

11.1 EPA 6010B Metals (solid). 146

11.2 EPA 6010B Metals (Aqueous). 289

Contents

11.3 EPA 7470A Mercury (Aqueous). 369

11.4 EPA 7471A Mercury (Solid). 443

11.5 EPA 8081A Organochlorine Pesticides (Solid). 531

11.6 EPA 8081A Organochlorine Pesticides (Aqueous). 711

11.7 EPA 8082 Aroclors (Solid). 833

11.8 EPA 8082 Aroclors (Aqueous). 953

11.9 EPA 8270C Semi-Volatile Organics (Aqueous). 1029

11.10 EPA 8270C Semi-Volatile Organics (Solid). 1189

11.11 EPA 8260B Volatile Organics (Aqeuous). 1440

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 11/08/13. They were assigned to Work Order 13-11-0697.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Return to Contents

Calscience Environmental Laboratories, Inc.

Sample Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 13-11-0697
Project Name: DTSC - Wildomar Autumnwood Development / NB1016075P
PO Number: C013101741
Date/Time Received: 11/08/13 18:03
Number of Containers: 24

Attn: Joseph Bahde

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
QCTB-11082013	13-11-0697-1	11/08/13 08:00	2	Aqueous
7-GW-23-28	13-11-0697-2	11/08/13 09:15	4	Aqueous
8-SS-5-6	13-11-0697-3	11/08/13 11:20	1	Solid
8-SS-9.5-10.5	13-11-0697-4	11/08/13 11:32	1	Solid
8-SS-14.25-15.25	13-11-0697-5	11/08/13 11:40	1	Solid
12-SS-5-6	13-11-0697-6	11/08/13 13:18	1	Solid
12-SS-9.5-10.5	13-11-0697-7	11/08/13 13:20	1	Solid
12-SS-13.25-15.25	13-11-0697-8	11/08/13 13:27	2	Solid
6-SS-5-6	13-11-0697-9	11/08/13 14:58	1	Solid
6-SS-9-11	13-11-0697-10	11/08/13 15:05	1	Solid
60-SS-9-11	13-11-0697-11	11/08/13 15:06	1	Solid
6-SS-13.75-14.75	13-11-0697-12	11/08/13 15:25	1	Solid
QCEB-11082013	13-11-0697-13	11/08/13 15:40	7	Aqueous

Return to Contents

Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 13-11-0697
Project Name: DTSC - Wildomar Autumnwood Development / NB1016075P
Received: 11/08/13

Attn: Joseph Bahde

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
8-SS-5-6 (13-11-0697-3)						
Arsenic	1.28		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	66.8		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	9.77		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.93		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	10.2		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	1.22		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	5.12		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	48.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	36.4		1.00	mg/kg	EPA 6010B	EPA 3050B
8-SS-9.5-10.5 (13-11-0697-4)						
Barium	68.8		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	9.17		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.79		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	9.81		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	0.566		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	4.99		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	45.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	37.0		1.00	mg/kg	EPA 6010B	EPA 3050B
8-SS-14.25-15.25 (13-11-0697-5)						
Barium	94.7		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.297		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	12.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	13.4		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	1.41		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	6.61		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	63.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	44.1		1.00	mg/kg	EPA 6010B	EPA 3050B

Return to Contents

* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 13-11-0697
Project Name: DTSC - Wildomar Autumnwood Development / NB1016075P
Received: 11/08/13

Attn: Joseph Bahde

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
12-SS-5-6 (13-11-0697-6)						
Barium	108		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.256		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	9.69		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.23		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	4.95		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	0.839		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	4.33		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	29.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	34.7		1.00	mg/kg	EPA 6010B	EPA 3050B
Bis(2-Ethylhexyl) Phthalate	2.6		2.5	mg/kg	EPA 8270C	EPA 3545
12-SS-9.5-10.5 (13-11-0697-7)						
Arsenic	0.855		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	60.5		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	9.36		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.91		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	8.76		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	4.51		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	51.1		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	32.4		1.00	mg/kg	EPA 6010B	EPA 3050B
12-SS-13.25-15.25 (13-11-0697-8)						
Barium	102		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.316		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	12.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	13.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	13.4		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	1.48		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	6.98		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	62.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	48.0		1.00	mg/kg	EPA 6010B	EPA 3050B

Return to Contents

* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Attn: Joseph Bahde

Work Order: 13-11-0697
Project Name: DTSC - Wildomar Autumnwood Development / NB1016075P
Received: 11/08/13

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
6-SS-5-6 (13-11-0697-9)						
Arsenic	1.67		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	75.4		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	11.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.2		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	12.7		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	1.05		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	5.70		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	58.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	42.1		1.00	mg/kg	EPA 6010B	EPA 3050B
6-SS-9-11 (13-11-0697-10)						
Arsenic	0.815		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	93.0		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.308		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	13.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	13.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	13.9		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	1.51		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	6.39		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	64.3		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	43.6		1.00	mg/kg	EPA 6010B	EPA 3050B
60-SS-9-11 (13-11-0697-11)						
Arsenic	0.822		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	101		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.326		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	13.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	14.3		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	15.1		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	1.46		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	6.95		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	66.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	46.6		1.00	mg/kg	EPA 6010B	EPA 3050B

Return to Contents

* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Attn: Joseph Bahde

Work Order: 13-11-0697
Project Name: DTSC - Wildomar Autumnwood Development / NB1016075P
Received: 11/08/13

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
6-SS-13.75-14.75 (13-11-0697-12)						
Barium	34.4		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	5.43		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	4.61		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	2.62		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	1.51		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	40.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	13.1		1.00	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
8-SS-5-6	**13-11-0697-3-A**	**11/08/13 11:20**	**Solid**	**ICP 7300**	**11/11/13**	**11/12/13 19:22**	**131111L01**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1	
Arsenic	1.28	0.750	1	
Barium	66.8	0.500	1	
Beryllium	ND	0.250	1	
Cadmium	ND	0.500	1	
Chromium	9.77	0.250	1	
Cobalt	9.93	0.250	1	
Copper	10.2	0.500	1	
Lead	1.22	0.500	1	
Molybdenum	ND	0.250	1	
Nickel	5.12	0.250	1	
Selenium	ND	0.750	1	
Silver	ND	0.250	1	
Thallium	ND	0.750	1	
Vanadium	48.6	0.250	1	
Zinc	36.4	1.00	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
8-SS-9.5-10.5	**13-11-0697-4-A**	**11/08/13 11:32**	**Solid**	**ICP 7300**	**11/11/13**	**11/12/13 19:23**	**131111L01**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1	
Arsenic	ND	0.750	1	
Barium	68.8	0.500	1	
Beryllium	ND	0.250	1	
Cadmium	ND	0.500	1	
Chromium	9.17	0.250	1	
Cobalt	9.79	0.250	1	
Copper	9.81	0.500	1	
Lead	0.566	0.500	1	
Molybdenum	ND	0.250	1	
Nickel	4.99	0.250	1	
Selenium	ND	0.750	1	
Silver	ND	0.250	1	
Thallium	ND	0.750	1	
Vanadium	45.9	0.250	1	
Zinc	37.0	1.00	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
8-SS-14.25-15.25	**13-11-0697-5-A**	**11/08/13 11:40**	**Solid**	**ICP 7300**	**11/11/13**	**11/12/13 19:28**	**131111L01**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1	
Arsenic	ND	0.750	1	
Barium	94.7	0.500	1	
Beryllium	0.297	0.250	1	
Cadmium	ND	0.500	1	
Chromium	12.6	0.250	1	
Cobalt	12.9	0.250	1	
Copper	13.4	0.500	1	
Lead	1.41	0.500	1	
Molybdenum	ND	0.250	1	
Nickel	6.61	0.250	1	
Selenium	ND	0.750	1	
Silver	ND	0.250	1	
Thallium	ND	0.750	1	
Vanadium	63.0	0.250	1	
Zinc	44.1	1.00	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
12-SS-5-6	**13-11-0697-6-A**	**11/08/13 13:18**	**Solid**	**ICP 7300**	**11/11/13**	**11/12/13 19:29**	**131111L01**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1	
Arsenic	ND	0.750	1	
Barium	108	0.500	1	
Beryllium	0.256	0.250	1	
Cadmium	ND	0.500	1	
Chromium	9.69	0.250	1	
Cobalt	6.23	0.250	1	
Copper	4.95	0.500	1	
Lead	0.839	0.500	1	
Molybdenum	ND	0.250	1	
Nickel	4.33	0.250	1	
Selenium	ND	0.750	1	
Silver	ND	0.250	1	
Thallium	ND	0.750	1	
Vanadium	29.4	0.250	1	
Zinc	34.7	1.00	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
12-SS-9.5-10.5	**13-11-0697-7-A**	**11/08/13 13:20**	**Solid**	**ICP 7300**	**11/11/13**	**11/12/13 19:30**	**131111L01**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1	
Arsenic	0.855	0.750	1	
Barium	60.5	0.500	1	
Beryllium	ND	0.250	1	
Cadmium	ND	0.500	1	
Chromium	9.36	0.250	1	
Cobalt	8.91	0.250	1	
Copper	8.76	0.500	1	
Lead	ND	0.500	1	
Molybdenum	ND	0.250	1	
Nickel	4.51	0.250	1	
Selenium	ND	0.750	1	
Silver	ND	0.250	1	
Thallium	ND	0.750	1	
Vanadium	51.1	0.250	1	
Zinc	32.4	1.00	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
12-SS-13.25-15.25	**13-11-0697-8-A**	**11/08/13 13:27**	**Solid**	**ICP 7300**	**11/11/13**	**11/12/13 15:29**	**131111L01**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1	
Arsenic	ND	0.750	1	
Barium	102	0.500	1	
Beryllium	0.316	0.250	1	
Cadmium	ND	0.500	1	
Chromium	12.0	0.250	1	
Cobalt	13.4	0.250	1	
Copper	13.4	0.500	1	
Lead	1.48	0.500	1	
Molybdenum	ND	0.250	1	
Nickel	6.98	0.250	1	
Selenium	ND	0.750	1	
Silver	ND	0.250	1	
Thallium	ND	0.750	1	
Vanadium	62.0	0.250	1	
Zinc	48.0	1.00	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
6-SS-5-6	**13-11-0697-9-A**	**11/08/13 14:58**	**Solid**	**ICP 7300**	**11/11/13**	**11/12/13 19:31**	**131111L01**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1	
Arsenic	1.67	0.750	1	
Barium	75.4	0.500	1	
Beryllium	ND	0.250	1	
Cadmium	ND	0.500	1	
Chromium	11.5	0.250	1	
Cobalt	11.2	0.250	1	
Copper	12.7	0.500	1	
Lead	1.05	0.500	1	
Molybdenum	ND	0.250	1	
Nickel	5.70	0.250	1	
Selenium	ND	0.750	1	
Silver	ND	0.250	1	
Thallium	ND	0.750	1	
Vanadium	58.0	0.250	1	
Zinc	42.1	1.00	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
6-SS-9-11	**13-11-0697-10-A**	**11/08/13 15:05**	**Solid**	**ICP 7300**	**11/11/13**	**11/12/13 19:32**	**131111L01**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1	
Arsenic	0.815	0.750	1	
Barium	93.0	0.500	1	
Beryllium	0.308	0.250	1	
Cadmium	ND	0.500	1	
Chromium	13.5	0.250	1	
Cobalt	13.7	0.250	1	
Copper	13.9	0.500	1	
Lead	1.51	0.500	1	
Molybdenum	ND	0.250	1	
Nickel	6.39	0.250	1	
Selenium	ND	0.750	1	
Silver	ND	0.250	1	
Thallium	ND	0.750	1	
Vanadium	64.3	0.250	1	
Zinc	43.6	1.00	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
60-SS-9-11	**13-11-0697-11-A**	**11/08/13 15:06**	**Solid**	**ICP 7300**	**11/11/13**	**11/12/13 19:34**	**131111L01**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1	
Arsenic	0.822	0.750	1	
Barium	101	0.500	1	
Beryllium	0.326	0.250	1	
Cadmium	ND	0.500	1	
Chromium	13.7	0.250	1	
Cobalt	14.3	0.250	1	
Copper	15.1	0.500	1	
Lead	1.46	0.500	1	
Molybdenum	ND	0.250	1	
Nickel	6.95	0.250	1	
Selenium	ND	0.750	1	
Silver	ND	0.250	1	
Thallium	ND	0.750	1	
Vanadium	66.4	0.250	1	
Zinc	46.6	1.00	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
6-SS-13.75-14.75	**13-11-0697-12-A**	**11/08/13 15:25**	**Solid**	**ICP 7300**	**11/11/13**	**11/12/13 19:35**	**131111L01**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1	
Arsenic	ND	0.750	1	
Barium	34.4	0.500	1	
Beryllium	ND	0.250	1	
Cadmium	ND	0.500	1	
Chromium	5.43	0.250	1	
Cobalt	4.61	0.250	1	
Copper	2.62	0.500	1	
Lead	ND	0.500	1	
Molybdenum	ND	0.250	1	
Nickel	1.51	0.250	1	
Selenium	ND	0.750	1	
Silver	ND	0.250	1	
Thallium	ND	0.750	1	
Vanadium	40.6	0.250	1	
Zinc	13.1	1.00	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-17609**	**N/A**	**Solid**	**ICP 7300**	**11/11/13**	**11/11/13 16:35**	**131111L01**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1	
Arsenic	ND	0.750	1	
Barium	ND	0.500	1	
Beryllium	ND	0.250	1	
Cadmium	ND	0.500	1	
Chromium	ND	0.250	1	
Cobalt	ND	0.250	1	
Copper	ND	0.500	1	
Lead	ND	0.500	1	
Molybdenum	ND	0.250	1	
Nickel	ND	0.250	1	
Selenium	ND	0.750	1	
Silver	ND	0.250	1	
Thallium	ND	0.750	1	
Vanadium	ND	0.250	1	
Zinc	ND	1.00	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-11082013	**13-11-0697-13-D**	**11/08/13 15:40**	**Aqueous**	**ICP 7300**	**11/11/13**	**11/12/13 16:19**	**131111LA5**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1	
Arsenic	ND	0.0100	1	
Barium	ND	0.0100	1	
Beryllium	ND	0.0100	1	
Cadmium	ND	0.0100	1	
Chromium	ND	0.0100	1	
Cobalt	ND	0.0100	1	
Copper	ND	0.0100	1	
Lead	ND	0.0100	1	
Molybdenum	ND	0.0100	1	
Nickel	ND	0.0100	1	
Selenium	ND	0.0150	1	
Silver	ND	0.00500	1	
Thallium	ND	0.0150	1	
Vanadium	ND	0.0100	1	
Zinc	ND	0.0100	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-003-13797**	**N/A**	**Aqueous**	**ICP 7300**	**11/11/13**	**11/12/13 13:27**	**131111LA5**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1	
Arsenic	ND	0.0100	1	
Barium	ND	0.0100	1	
Beryllium	ND	0.0100	1	
Cadmium	ND	0.0100	1	
Chromium	ND	0.0100	1	
Cobalt	ND	0.0100	1	
Copper	ND	0.0100	1	
Lead	ND	0.0100	1	
Molybdenum	ND	0.0100	1	
Nickel	ND	0.0100	1	
Selenium	ND	0.0150	1	
Silver	ND	0.00500	1	
Thallium	ND	0.0150	1	
Vanadium	ND	0.0100	1	
Zinc	ND	0.0100	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 7470A Total
Method: EPA 7470A
Units: mg/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-11082013	**13-11-0697-13-D**	**11/08/13 15:40**	**Aqueous**	**Mercury**	**11/11/13**	**11/12/13 12:18**	**131111L06**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-008-6716**	**N/A**	**Aqueous**	**Mercury**	**11/11/13**	**11/11/13 16:50**	**131111L06**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
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Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
8-SS-5-6	**13-11-0697-3-A**	**11/08/13 11:20**	**Solid**	**Mercury**	**11/11/13**	**11/11/13 17:26**	**131111L08**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0835	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
8-SS-9.5-10.5	**13-11-0697-4-A**	**11/08/13 11:32**	**Solid**	**Mercury**	**11/11/13**	**11/11/13 17:28**	**131111L08**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0835	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
8-SS-14.25-15.25	**13-11-0697-5-A**	**11/08/13 11:40**	**Solid**	**Mercury**	**11/11/13**	**11/11/13 17:30**	**131111L08**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0835	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
12-SS-5-6	**13-11-0697-6-A**	**11/08/13 13:18**	**Solid**	**Mercury**	**11/11/13**	**11/11/13 17:33**	**131111L08**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0835	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
12-SS-9.5-10.5	**13-11-0697-7-A**	**11/08/13 13:20**	**Solid**	**Mercury**	**11/11/13**	**11/11/13 17:35**	**131111L08**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0835	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
12-SS-13.25-15.25	**13-11-0697-8-A**	**11/08/13 13:27**	**Solid**	**Mercury**	**11/11/13**	**11/11/13 17:37**	**131111L08**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0835	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
6-SS-5-6	**13-11-0697-9-A**	**11/08/13 14:58**	**Solid**	**Mercury**	**11/11/13**	**11/11/13 17:48**	**131111L08**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0835	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
6-SS-9-11	**13-11-0697-10-A**	**11/08/13 15:05**	**Solid**	**Mercury**	**11/11/13**	**11/11/13 17:50**	**131111L08**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0835	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
60-SS-9-11	**13-11-0697-11-A**	**11/08/13 15:06**	**Solid**	**Mercury**	**11/11/13**	**11/11/13 17:53**	**131111L08**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0835	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
6-SS-13.75-14.75	**13-11-0697-12-A**	**11/08/13 15:25**	**Solid**	**Mercury**	**11/11/13**	**11/11/13 17:55**	**131111L08**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0835	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-007-9815**	**N/A**	**Solid**	**Mercury**	**11/11/13**	**11/11/13 17:21**	**131111L08**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0835	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
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Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
8-SS-5-6	**13-11-0697-3-A**	**11/08/13 11:20**	**Solid**	**GC 51**	**11/12/13**	**11/14/13 13:43**	**131112L26**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1	
Alpha-BHC	ND	5.0	1	
Beta-BHC	ND	5.0	1	
Chlordane	ND	50	1	
4,4'-DDD	ND	5.0	1	
4,4'-DDE	ND	5.0	1	
4,4'-DDT	ND	5.0	1	
Delta-BHC	ND	5.0	1	
Dieldrin	ND	5.0	1	
Endosulfan I	ND	5.0	1	
Endosulfan II	ND	5.0	1	
Endosulfan Sulfate	ND	5.0	1	
Endrin	ND	5.0	1	
Endrin Aldehyde	ND	5.0	1	
Endrin Ketone	ND	5.0	1	
Gamma-BHC	ND	5.0	1	
Heptachlor	ND	5.0	1	
Heptachlor Epoxide	ND	5.0	1	
Methoxychlor	ND	5.0	1	
Toxaphene	ND	100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	66	50-135	
2,4,5,6-Tetrachloro-m-Xylene	54	50-135	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
8-SS-9.5-10.5	**13-11-0697-4-A**	**11/08/13 11:32**	**Solid**	**GC 51**	**11/12/13**	**11/14/13 13:58**	**131112L26**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1	
Alpha-BHC	ND	5.0	1	
Beta-BHC	ND	5.0	1	
Chlordane	ND	50	1	
4,4'-DDD	ND	5.0	1	
4,4'-DDE	ND	5.0	1	
4,4'-DDT	ND	5.0	1	
Delta-BHC	ND	5.0	1	
Dieldrin	ND	5.0	1	
Endosulfan I	ND	5.0	1	
Endosulfan II	ND	5.0	1	
Endosulfan Sulfate	ND	5.0	1	
Endrin	ND	5.0	1	
Endrin Aldehyde	ND	5.0	1	
Endrin Ketone	ND	5.0	1	
Gamma-BHC	ND	5.0	1	
Heptachlor	ND	5.0	1	
Heptachlor Epoxide	ND	5.0	1	
Methoxychlor	ND	5.0	1	
Toxaphene	ND	100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	71	50-135	
2,4,5,6-Tetrachloro-m-Xylene	76	50-135	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
8-SS-14.25-15.25	**13-11-0697-5-A**	**11/08/13 11:40**	**Solid**	**GC 51**	**11/12/13**	**11/14/13 14:12**	**131112L26**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1	
Alpha-BHC	ND	5.0	1	
Beta-BHC	ND	5.0	1	
Chlordane	ND	50	1	
4,4'-DDD	ND	5.0	1	
4,4'-DDE	ND	5.0	1	
4,4'-DDT	ND	5.0	1	
Delta-BHC	ND	5.0	1	
Dieldrin	ND	5.0	1	
Endosulfan I	ND	5.0	1	
Endosulfan II	ND	5.0	1	
Endosulfan Sulfate	ND	5.0	1	
Endrin	ND	5.0	1	
Endrin Aldehyde	ND	5.0	1	
Endrin Ketone	ND	5.0	1	
Gamma-BHC	ND	5.0	1	
Heptachlor	ND	5.0	1	
Heptachlor Epoxide	ND	5.0	1	
Methoxychlor	ND	5.0	1	
Toxaphene	ND	100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	62	50-135	
2,4,5,6-Tetrachloro-m-Xylene	58	50-135	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
12-SS-5-6	**13-11-0697-6-A**	**11/08/13 13:18**	**Solid**	**GC 51**	**11/12/13**	**11/14/13 14:26**	**131112L26**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1	
Alpha-BHC	ND	5.0	1	
Beta-BHC	ND	5.0	1	
Chlordane	ND	50	1	
4,4'-DDD	ND	5.0	1	
4,4'-DDE	ND	5.0	1	
4,4'-DDT	ND	5.0	1	
Delta-BHC	ND	5.0	1	
Dieldrin	ND	5.0	1	
Endosulfan I	ND	5.0	1	
Endosulfan II	ND	5.0	1	
Endosulfan Sulfate	ND	5.0	1	
Endrin	ND	5.0	1	
Endrin Aldehyde	ND	5.0	1	
Endrin Ketone	ND	5.0	1	
Gamma-BHC	ND	5.0	1	
Heptachlor	ND	5.0	1	
Heptachlor Epoxide	ND	5.0	1	
Methoxychlor	ND	5.0	1	
Toxaphene	ND	100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	69	50-135	
2,4,5,6-Tetrachloro-m-Xylene	68	50-135	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
12-SS-9.5-10.5	**13-11-0697-7-A**	**11/08/13 13:20**	**Solid**	**GC 51**	**11/12/13**	**11/14/13 14:41**	**131112L26**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1	
Alpha-BHC	ND	5.0	1	
Beta-BHC	ND	5.0	1	
Chlordane	ND	50	1	
4,4'-DDD	ND	5.0	1	
4,4'-DDE	ND	5.0	1	
4,4'-DDT	ND	5.0	1	
Delta-BHC	ND	5.0	1	
Dieldrin	ND	5.0	1	
Endosulfan I	ND	5.0	1	
Endosulfan II	ND	5.0	1	
Endosulfan Sulfate	ND	5.0	1	
Endrin	ND	5.0	1	
Endrin Aldehyde	ND	5.0	1	
Endrin Ketone	ND	5.0	1	
Gamma-BHC	ND	5.0	1	
Heptachlor	ND	5.0	1	
Heptachlor Epoxide	ND	5.0	1	
Methoxychlor	ND	5.0	1	
Toxaphene	ND	100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	70	50-135	
2,4,5,6-Tetrachloro-m-Xylene	80	50-135	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
12-SS-13.25-15.25	**13-11-0697-8-A**	**11/08/13 13:27**	**Solid**	**GC 51**	**11/12/13**	**11/13/13 17:03**	**131112L26**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1	
Alpha-BHC	ND	5.0	1	
Beta-BHC	ND	5.0	1	
Chlordane	ND	50	1	
4,4'-DDD	ND	5.0	1	
4,4'-DDE	ND	5.0	1	
4,4'-DDT	ND	5.0	1	
Delta-BHC	ND	5.0	1	
Dieldrin	ND	5.0	1	
Endosulfan I	ND	5.0	1	
Endosulfan II	ND	5.0	1	
Endosulfan Sulfate	ND	5.0	1	
Endrin	ND	5.0	1	
Endrin Aldehyde	ND	5.0	1	
Endrin Ketone	ND	5.0	1	
Gamma-BHC	ND	5.0	1	
Heptachlor	ND	5.0	1	
Heptachlor Epoxide	ND	5.0	1	
Methoxychlor	ND	5.0	1	
Toxaphene	ND	100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	70	50-135	
2,4,5,6-Tetrachloro-m-Xylene	72	50-135	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
6-SS-5-6	**13-11-0697-9-A**	**11/08/13 14:58**	**Solid**	**GC 51**	**11/12/13**	**11/14/13 12:45**	**131112L26**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1	
Alpha-BHC	ND	5.0	1	
Beta-BHC	ND	5.0	1	
Chlordane	ND	50	1	
4,4'-DDD	ND	5.0	1	
4,4'-DDE	ND	5.0	1	
4,4'-DDT	ND	5.0	1	
Delta-BHC	ND	5.0	1	
Dieldrin	ND	5.0	1	
Endosulfan I	ND	5.0	1	
Endosulfan II	ND	5.0	1	
Endosulfan Sulfate	ND	5.0	1	
Endrin	ND	5.0	1	
Endrin Aldehyde	ND	5.0	1	
Endrin Ketone	ND	5.0	1	
Gamma-BHC	ND	5.0	1	
Heptachlor	ND	5.0	1	
Heptachlor Epoxide	ND	5.0	1	
Methoxychlor	ND	5.0	1	
Toxaphene	ND	100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	71	50-135	
2,4,5,6-Tetrachloro-m-Xylene	66	50-135	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
6-SS-9-11	**13-11-0697-10-A**	**11/08/13 15:05**	**Solid**	**GC 51**	**11/12/13**	**11/14/13 13:00**	**131112L26**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1	
Alpha-BHC	ND	5.0	1	
Beta-BHC	ND	5.0	1	
Chlordane	ND	50	1	
4,4'-DDD	ND	5.0	1	
4,4'-DDE	ND	5.0	1	
4,4'-DDT	ND	5.0	1	
Delta-BHC	ND	5.0	1	
Dieldrin	ND	5.0	1	
Endosulfan I	ND	5.0	1	
Endosulfan II	ND	5.0	1	
Endosulfan Sulfate	ND	5.0	1	
Endrin	ND	5.0	1	
Endrin Aldehyde	ND	5.0	1	
Endrin Ketone	ND	5.0	1	
Gamma-BHC	ND	5.0	1	
Heptachlor	ND	5.0	1	
Heptachlor Epoxide	ND	5.0	1	
Methoxychlor	ND	5.0	1	
Toxaphene	ND	100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	62	50-135	
2,4,5,6-Tetrachloro-m-Xylene	63	50-135	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
60-SS-9-11	**13-11-0697-11-A**	**11/08/13 15:06**	**Solid**	**GC 51**	**11/12/13**	**11/14/13 13:14**	**131112L26**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1	
Alpha-BHC	ND	5.0	1	
Beta-BHC	ND	5.0	1	
Chlordane	ND	50	1	
4,4'-DDD	ND	5.0	1	
4,4'-DDE	ND	5.0	1	
4,4'-DDT	ND	5.0	1	
Delta-BHC	ND	5.0	1	
Dieldrin	ND	5.0	1	
Endosulfan I	ND	5.0	1	
Endosulfan II	ND	5.0	1	
Endosulfan Sulfate	ND	5.0	1	
Endrin	ND	5.0	1	
Endrin Aldehyde	ND	5.0	1	
Endrin Ketone	ND	5.0	1	
Gamma-BHC	ND	5.0	1	
Heptachlor	ND	5.0	1	
Heptachlor Epoxide	ND	5.0	1	
Methoxychlor	ND	5.0	1	
Toxaphene	ND	100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	61	50-135	
2,4,5,6-Tetrachloro-m-Xylene	72	50-135	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
6-SS-13.75-14.75	**13-11-0697-12-A**	**11/08/13 15:25**	**Solid**	**GC 51**	**11/12/13**	**11/14/13 13:29**	**131112L26**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1	
Alpha-BHC	ND	5.0	1	
Beta-BHC	ND	5.0	1	
Chlordane	ND	50	1	
4,4'-DDD	ND	5.0	1	
4,4'-DDE	ND	5.0	1	
4,4'-DDT	ND	5.0	1	
Delta-BHC	ND	5.0	1	
Dieldrin	ND	5.0	1	
Endosulfan I	ND	5.0	1	
Endosulfan II	ND	5.0	1	
Endosulfan Sulfate	ND	5.0	1	
Endrin	ND	5.0	1	
Endrin Aldehyde	ND	5.0	1	
Endrin Ketone	ND	5.0	1	
Gamma-BHC	ND	5.0	1	
Heptachlor	ND	5.0	1	
Heptachlor Epoxide	ND	5.0	1	
Methoxychlor	ND	5.0	1	
Toxaphene	ND	100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	74	50-135	
2,4,5,6-Tetrachloro-m-Xylene	87	50-135	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-537-1532**	**N/A**	**Solid**	**GC 51**	**11/12/13**	**11/13/13 16:48**	**131112L26**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1	
Alpha-BHC	ND	5.0	1	
Beta-BHC	ND	5.0	1	
Chlordane	ND	50	1	
4,4'-DDD	ND	5.0	1	
4,4'-DDE	ND	5.0	1	
4,4'-DDT	ND	5.0	1	
Delta-BHC	ND	5.0	1	
Dieldrin	ND	5.0	1	
Endosulfan I	ND	5.0	1	
Endosulfan II	ND	5.0	1	
Endosulfan Sulfate	ND	5.0	1	
Endrin	ND	5.0	1	
Endrin Aldehyde	ND	5.0	1	
Endrin Ketone	ND	5.0	1	
Gamma-BHC	ND	5.0	1	
Heptachlor	ND	5.0	1	
Heptachlor Epoxide	ND	5.0	1	
Methoxychlor	ND	5.0	1	
Toxaphene	ND	100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	85	50-135	
2,4,5,6-Tetrachloro-m-Xylene	96	50-135	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3510C
Method: EPA 8081A
Units: ug/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-11082013	**13-11-0697-13-G**	**11/08/13 15:40**	**Aqueous**	**GC 44**	**11/11/13**	**11/15/13 17:23**	**131111L07**

Parameter	Result	RL	DF	Qualifiers
Alpha-BHC	ND	0.10	1	
Gamma-BHC	ND	0.10	1	
Beta-BHC	ND	0.10	1	
Heptachlor	ND	0.10	1	
Delta-BHC	ND	0.10	1	
Aldrin	ND	0.10	1	
Heptachlor Epoxide	ND	0.10	1	
Endosulfan I	ND	0.10	1	
Dieldrin	ND	0.10	1	
4,4'-DDE	ND	0.10	1	
Endrin	ND	0.10	1	
Endrin Aldehyde	ND	0.10	1	
4,4'-DDD	ND	0.10	1	
Endosulfan II	ND	0.10	1	
4,4'-DDT	ND	0.10	1	
Endosulfan Sulfate	ND	0.10	1	
Methoxychlor	ND	0.10	1	
Chlordane	ND	1.0	1	
Toxaphene	ND	2.0	1	
Endrin Ketone	ND	0.10	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	91	50-135	
2,4,5,6-Tetrachloro-m-Xylene	85	50-135	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3510C
Method: EPA 8081A
Units: ug/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-529-661**	**N/A**	**Aqueous**	**GC 44**	**11/11/13**	**11/15/13 16:40**	**131111L07**

Parameter	Result	RL	DF	Qualifiers
Alpha-BHC	ND	0.10	1	
Gamma-BHC	ND	0.10	1	
Beta-BHC	ND	0.10	1	
Heptachlor	ND	0.10	1	
Delta-BHC	ND	0.10	1	
Aldrin	ND	0.10	1	
Heptachlor Epoxide	ND	0.10	1	
Endosulfan I	ND	0.10	1	
Dieldrin	ND	0.10	1	
4,4'-DDE	ND	0.10	1	
Endrin	ND	0.10	1	
Endrin Aldehyde	ND	0.10	1	
4,4'-DDD	ND	0.10	1	
Endosulfan II	ND	0.10	1	
4,4'-DDT	ND	0.10	1	
Endosulfan Sulfate	ND	0.10	1	
Methoxychlor	ND	0.10	1	
Chlordane	ND	1.0	1	
Toxaphene	ND	2.0	1	
Endrin Ketone	ND	0.10	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	96	50-135	
2,4,5,6-Tetrachloro-m-Xylene	94	50-135	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
8-SS-5-6	**13-11-0697-3-A**	**11/08/13 11:20**	**Solid**	**GC 58**	**11/12/13**	**11/14/13 09:43**	**131112L27**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1	
Aroclor-1221	ND	50	1	
Aroclor-1232	ND	50	1	
Aroclor-1242	ND	50	1	
Aroclor-1248	ND	50	1	
Aroclor-1254	ND	50	1	
Aroclor-1260	ND	50	1	
Aroclor-1262	ND	50	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	84	50-130	
2,4,5,6-Tetrachloro-m-Xylene	59	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
8-SS-9.5-10.5	**13-11-0697-4-A**	**11/08/13 11:32**	**Solid**	**GC 58**	**11/12/13**	**11/14/13 16:56**	**131112L27**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1	
Aroclor-1221	ND	50	1	
Aroclor-1232	ND	50	1	
Aroclor-1242	ND	50	1	
Aroclor-1248	ND	50	1	
Aroclor-1254	ND	50	1	
Aroclor-1260	ND	50	1	
Aroclor-1262	ND	50	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	96	50-130	
2,4,5,6-Tetrachloro-m-Xylene	78	50-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
8-SS-14.25-15.25	**13-11-0697-5-A**	**11/08/13 11:40**	**Solid**	**GC 58**	**11/12/13**	**11/14/13 17:32**	**131112L27**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1	
Aroclor-1221	ND	50	1	
Aroclor-1232	ND	50	1	
Aroclor-1242	ND	50	1	
Aroclor-1248	ND	50	1	
Aroclor-1254	ND	50	1	
Aroclor-1260	ND	50	1	
Aroclor-1262	ND	50	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	80	50-130	
2,4,5,6-Tetrachloro-m-Xylene	61	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
12-SS-5-6	**13-11-0697-6-A**	**11/08/13 13:18**	**Solid**	**GC 58**	**11/12/13**	**11/14/13 17:50**	**131112L27**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1	
Aroclor-1221	ND	50	1	
Aroclor-1232	ND	50	1	
Aroclor-1242	ND	50	1	
Aroclor-1248	ND	50	1	
Aroclor-1254	ND	50	1	
Aroclor-1260	ND	50	1	
Aroclor-1262	ND	50	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	85	50-130	
2,4,5,6-Tetrachloro-m-Xylene	69	50-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
12-SS-9.5-10.5	**13-11-0697-7-A**	**11/08/13 13:20**	**Solid**	**GC 58**	**11/12/13**	**11/14/13 18:08**	**131112L27**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1	
Aroclor-1221	ND	50	1	
Aroclor-1232	ND	50	1	
Aroclor-1242	ND	50	1	
Aroclor-1248	ND	50	1	
Aroclor-1254	ND	50	1	
Aroclor-1260	ND	50	1	
Aroclor-1262	ND	50	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	88	50-130	
2,4,5,6-Tetrachloro-m-Xylene	75	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
12-SS-13.25-15.25	**13-11-0697-8-A**	**11/08/13 13:27**	**Solid**	**GC 58**	**11/12/13**	**11/14/13 18:26**	**131112L27**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1	
Aroclor-1221	ND	50	1	
Aroclor-1232	ND	50	1	
Aroclor-1242	ND	50	1	
Aroclor-1248	ND	50	1	
Aroclor-1254	ND	50	1	
Aroclor-1260	ND	50	1	
Aroclor-1262	ND	50	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	90	50-130	
2,4,5,6-Tetrachloro-m-Xylene	72	50-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
6-SS-5-6	**13-11-0697-9-A**	**11/08/13 14:58**	**Solid**	**GC 58**	**11/12/13**	**11/14/13 18:44**	**131112L27**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1	
Aroclor-1221	ND	50	1	
Aroclor-1232	ND	50	1	
Aroclor-1242	ND	50	1	
Aroclor-1248	ND	50	1	
Aroclor-1254	ND	50	1	
Aroclor-1260	ND	50	1	
Aroclor-1262	ND	50	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	87	50-130	
2,4,5,6-Tetrachloro-m-Xylene	69	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
6-SS-9-11	**13-11-0697-10-A**	**11/08/13 15:05**	**Solid**	**GC 58**	**11/12/13**	**11/14/13 19:02**	**131112L27**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1	
Aroclor-1221	ND	50	1	
Aroclor-1232	ND	50	1	
Aroclor-1242	ND	50	1	
Aroclor-1248	ND	50	1	
Aroclor-1254	ND	50	1	
Aroclor-1260	ND	50	1	
Aroclor-1262	ND	50	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	78	50-130	
2,4,5,6-Tetrachloro-m-Xylene	66	50-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
60-SS-9-11	**13-11-0697-11-A**	**11/08/13 15:06**	**Solid**	**GC 58**	**11/12/13**	**11/14/13 19:20**	**131112L27**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1	
Aroclor-1221	ND	50	1	
Aroclor-1232	ND	50	1	
Aroclor-1242	ND	50	1	
Aroclor-1248	ND	50	1	
Aroclor-1254	ND	50	1	
Aroclor-1260	ND	50	1	
Aroclor-1262	ND	50	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	79	50-130	
2,4,5,6-Tetrachloro-m-Xylene	73	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
6-SS-13.75-14.75	**13-11-0697-12-A**	**11/08/13 15:25**	**Solid**	**GC 58**	**11/12/13**	**11/14/13 19:38**	**131112L27**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1	
Aroclor-1221	ND	50	1	
Aroclor-1232	ND	50	1	
Aroclor-1242	ND	50	1	
Aroclor-1248	ND	50	1	
Aroclor-1254	ND	50	1	
Aroclor-1260	ND	50	1	
Aroclor-1262	ND	50	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	94	50-130	
2,4,5,6-Tetrachloro-m-Xylene	89	50-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-535-2367**	**N/A**	**Solid**	**GC 58**	**11/12/13**	**11/14/13 08:49**	**131112L27**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1	
Aroclor-1221	ND	50	1	
Aroclor-1232	ND	50	1	
Aroclor-1242	ND	50	1	
Aroclor-1248	ND	50	1	
Aroclor-1254	ND	50	1	
Aroclor-1260	ND	50	1	
Aroclor-1262	ND	50	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	109	50-130	
2,4,5,6-Tetrachloro-m-Xylene	97	50-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3510C
Method: EPA 8082
Units: ug/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-11082013	**13-11-0697-13-G**	**11/08/13 15:40**	**Aqueous**	**GC 58**	**11/11/13**	**11/15/13 16:41**	**131111L08**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	94	50-135	
2,4,5,6-Tetrachloro-m-Xylene	90	50-135	

Method Blank	099-12-533-859	N/A	Aqueous	GC 58	11/11/13	11/15/13 16:23	131111L08

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	95	50-135	
2,4,5,6-Tetrachloro-m-Xylene	91	50-135	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-11082013	**13-11-0697-13-F**	**11/08/13 15:40**	**Aqueous**	**GC/MS SS**	**11/12/13**	**11/14/13 15:50**	**131112L05**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	10	1	
Acenaphthylene	ND	10	1	
Aniline	ND	10	1	
Anthracene	ND	10	1	
Azobenzene	ND	10	1	
Benzidine	ND	50	1	
Benzo (a) Anthracene	ND	10	1	
Benzo (a) Pyrene	ND	10	1	
Benzo (b) Fluoranthene	ND	10	1	
Benzo (g,h,i) Perylene	ND	10	1	
Benzo (k) Fluoranthene	ND	10	1	
Benzoic Acid	ND	50	1	
Benzyl Alcohol	ND	10	1	
Bis(2-Chloroethoxy) Methane	ND	10	1	
Bis(2-Chloroethyl) Ether	ND	25	1	
Bis(2-Chloroisopropyl) Ether	ND	10	1	
Bis(2-Ethylhexyl) Phthalate	ND	10	1	
4-Bromophenyl-Phenyl Ether	ND	10	1	
Butyl Benzyl Phthalate	ND	10	1	
4-Chloro-3-Methylphenol	ND	10	1	
4-Chloroaniline	ND	10	1	
2-Chloronaphthalene	ND	10	1	
2-Chlorophenol	ND	10	1	
4-Chlorophenyl-Phenyl Ether	ND	10	1	
Chrysene	ND	10	1	
Di-n-Butyl Phthalate	ND	10	1	
Di-n-Octyl Phthalate	ND	10	1	
Dibenz (a,h) Anthracene	ND	10	1	
Dibenzofuran	ND	10	1	
1,2-Dichlorobenzene	ND	10	1	
1,3-Dichlorobenzene	ND	10	1	
1,4-Dichlorobenzene	ND	10	1	
3,3'-Dichlorobenzidine	ND	25	1	
2,4-Dichlorophenol	ND	10	1	
Diethyl Phthalate	ND	10	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	10	1	
2,4-Dimethylphenol	ND	10	1	
4,6-Dinitro-2-Methylphenol	ND	50	1	
2,4-Dinitrophenol	ND	50	1	
2,4-Dinitrotoluene	ND	10	1	
2,6-Dinitrotoluene	ND	10	1	
Fluoranthene	ND	10	1	
Fluorene	ND	10	1	
Hexachloro-1,3-Butadiene	ND	10	1	
Hexachlorobenzene	ND	10	1	
Hexachlorocyclopentadiene	ND	25	1	
Hexachloroethane	ND	10	1	
Indeno (1,2,3-c,d) Pyrene	ND	10	1	
Isophorone	ND	10	1	
2-Methylnaphthalene	ND	10	1	
1-Methylnaphthalene	ND	10	1	
2-Methylphenol	ND	10	1	
3/4-Methylphenol	ND	10	1	
N-Nitroso-di-n-propylamine	ND	10	1	
N-Nitrosodimethylamine	ND	10	1	
N-Nitrosodiphenylamine	ND	10	1	
Naphthalene	ND	10	1	
4-Nitroaniline	ND	10	1	
3-Nitroaniline	ND	10	1	
2-Nitroaniline	ND	10	1	
Nitrobenzene	ND	25	1	
4-Nitrophenol	ND	10	1	
2-Nitrophenol	ND	10	1	
Pentachlorophenol	ND	10	1	
Phenanthrene	ND	10	1	
Phenol	ND	10	1	
Pyrene	ND	10	1	
Pyridine	ND	10	1	
1,2,4-Trichlorobenzene	ND	10	1	
2,4,6-Trichlorophenol	ND	10	1	
2,4,5-Trichlorophenol	ND	10	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	68	31-120	
2-Fluorophenol	51	17-120	
Nitrobenzene-d5	84	34-124	
p-Terphenyl-d14	86	38-140	
Phenol-d6	37	2-120	
2,4,6-Tribromophenol	77	24-168	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-003-3729**	**N/A**	**Aqueous**	**GC/MS SS**	**11/12/13**	**11/13/13 12:14**	**131112L05**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	10	1	
Acenaphthylene	ND	10	1	
Aniline	ND	10	1	
Anthracene	ND	10	1	
Azobenzene	ND	10	1	
Benzidine	ND	50	1	
Benzo (a) Anthracene	ND	10	1	
Benzo (a) Pyrene	ND	10	1	
Benzo (b) Fluoranthene	ND	10	1	
Benzo (g,h,i) Perylene	ND	10	1	
Benzo (k) Fluoranthene	ND	10	1	
Benzoic Acid	ND	50	1	
Benzyl Alcohol	ND	10	1	
Bis(2-Chloroethoxy) Methane	ND	10	1	
Bis(2-Chloroethyl) Ether	ND	25	1	
Bis(2-Chloroisopropyl) Ether	ND	10	1	
Bis(2-Ethylhexyl) Phthalate	ND	10	1	
4-Bromophenyl-Phenyl Ether	ND	10	1	
Butyl Benzyl Phthalate	ND	10	1	
4-Chloro-3-Methylphenol	ND	10	1	
4-Chloroaniline	ND	10	1	
2-Chloronaphthalene	ND	10	1	
2-Chlorophenol	ND	10	1	
4-Chlorophenyl-Phenyl Ether	ND	10	1	
Chrysene	ND	10	1	
Di-n-Butyl Phthalate	ND	10	1	
Di-n-Octyl Phthalate	ND	10	1	
Dibenz (a,h) Anthracene	ND	10	1	
Dibenzofuran	ND	10	1	
1,2-Dichlorobenzene	ND	10	1	
1,3-Dichlorobenzene	ND	10	1	
1,4-Dichlorobenzene	ND	10	1	
3,3'-Dichlorobenzidine	ND	25	1	
2,4-Dichlorophenol	ND	10	1	
Diethyl Phthalate	ND	10	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	10	1	
2,4-Dimethylphenol	ND	10	1	
4,6-Dinitro-2-Methylphenol	ND	50	1	
2,4-Dinitrophenol	ND	50	1	
2,4-Dinitrotoluene	ND	10	1	
2,6-Dinitrotoluene	ND	10	1	
Fluoranthene	ND	10	1	
Fluorene	ND	10	1	
Hexachloro-1,3-Butadiene	ND	10	1	
Hexachlorobenzene	ND	10	1	
Hexachlorocyclopentadiene	ND	25	1	
Hexachloroethane	ND	10	1	
Indeno (1,2,3-c,d) Pyrene	ND	10	1	
Isophorone	ND	10	1	
2-Methylnaphthalene	ND	10	1	
1-Methylnaphthalene	ND	10	1	
2-Methylphenol	ND	10	1	
3/4-Methylphenol	ND	10	1	
N-Nitroso-di-n-propylamine	ND	10	1	
N-Nitrosodimethylamine	ND	10	1	
N-Nitrosodiphenylamine	ND	10	1	
Naphthalene	ND	10	1	
4-Nitroaniline	ND	10	1	
3-Nitroaniline	ND	10	1	
2-Nitroaniline	ND	10	1	
Nitrobenzene	ND	25	1	
4-Nitrophenol	ND	10	1	
2-Nitrophenol	ND	10	1	
Pentachlorophenol	ND	10	1	
Phenanthrene	ND	10	1	
Phenol	ND	10	1	
Pyrene	ND	10	1	
Pyridine	ND	10	1	
1,2,4-Trichlorobenzene	ND	10	1	
2,4,6-Trichlorophenol	ND	10	1	
2,4,5-Trichlorophenol	ND	10	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	71	31-120	
2-Fluorophenol	63	17-120	
Nitrobenzene-d5	92	34-124	
p-Terphenyl-d14	90	38-140	
Phenol-d6	47	2-120	
2,4,6-Tribromophenol	86	24-168	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
8-SS-5-6	**13-11-0697-3-A**	**11/08/13 11:20**	**Solid**	**GC/MS TT**	**11/11/13**	**11/14/13 04:17**	**131111L05**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	0.50	1	
Acenaphthylene	ND	0.50	1	
Aniline	ND	0.50	1	
Anthracene	ND	0.50	1	
Azobenzene	ND	0.50	1	
Benzidine	ND	10	1	
Benzo (a) Anthracene	ND	0.50	1	
Benzo (a) Pyrene	ND	0.50	1	
Benzo (b) Fluoranthene	ND	0.50	1	
Benzo (g,h,i) Perylene	ND	0.50	1	
Benzo (k) Fluoranthene	ND	0.50	1	
Benzoic Acid	ND	2.5	1	
Benzyl Alcohol	ND	0.50	1	
Bis(2-Chloroethoxy) Methane	ND	0.50	1	
Bis(2-Chloroethyl) Ether	ND	2.5	1	
Bis(2-Chloroisopropyl) Ether	ND	0.50	1	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1	
4-Bromophenyl-Phenyl Ether	ND	0.50	1	
Butyl Benzyl Phthalate	ND	0.50	1	
4-Chloro-3-Methylphenol	ND	0.50	1	
4-Chloroaniline	ND	0.50	1	
2-Chloronaphthalene	ND	0.50	1	
2-Chlorophenol	ND	0.50	1	
4-Chlorophenyl-Phenyl Ether	ND	0.50	1	
Chrysene	ND	0.50	1	
Di-n-Butyl Phthalate	ND	0.50	1	
Di-n-Octyl Phthalate	ND	0.50	1	
Dibenz (a,h) Anthracene	ND	0.50	1	
Dibenzofuran	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1	
3,3'-Dichlorobenzidine	ND	10	1	
2,4-Dichlorophenol	ND	0.50	1	
Diethyl Phthalate	ND	0.50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1	
2,4-Dimethylphenol	ND	0.50	1	
4,6-Dinitro-2-Methylphenol	ND	2.5	1	
2,4-Dinitrophenol	ND	2.5	1	
2,4-Dinitrotoluene	ND	0.50	1	
2,6-Dinitrotoluene	ND	0.50	1	
Fluoranthene	ND	0.50	1	
Fluorene	ND	0.50	1	
Hexachloro-1,3-Butadiene	ND	0.50	1	
Hexachlorobenzene	ND	0.50	1	
Hexachlorocyclopentadiene	ND	2.5	1	
Hexachloroethane	ND	0.50	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1	
Isophorone	ND	0.50	1	
2-Methylnaphthalene	ND	0.50	1	
1-Methylnaphthalene	ND	0.50	1	
2-Methylphenol	ND	0.50	1	
3/4-Methylphenol	ND	0.50	1	
N-Nitroso-di-n-propylamine	ND	0.50	1	
N-Nitrosodimethylamine	ND	0.50	1	
N-Nitrosodiphenylamine	ND	0.50	1	
Naphthalene	ND	0.50	1	
4-Nitroaniline	ND	0.50	1	
3-Nitroaniline	ND	0.50	1	
2-Nitroaniline	ND	0.50	1	
Nitrobenzene	ND	2.5	1	
4-Nitrophenol	ND	0.50	1	
2-Nitrophenol	ND	0.50	1	
Pentachlorophenol	ND	2.5	1	
Phenanthrene	ND	0.50	1	
Phenol	ND	0.50	1	
Pyrene	ND	0.50	1	
Pyridine	ND	0.50	1	
1,2,4-Trichlorobenzene	ND	0.50	1	
2,4,6-Trichlorophenol	ND	0.50	1	
2,4,5-Trichlorophenol	ND	0.50	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	55	38-134	
2-Fluorophenol	58	42-120	
Nitrobenzene-d5	59	42-150	
p-Terphenyl-d14	79	35-167	
Phenol-d6	60	46-118	
2,4,6-Tribromophenol	63	36-132	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
8-SS-9.5-10.5	**13-11-0697-4-A**	**11/08/13 11:32**	**Solid**	**GC/MS SS**	**11/11/13**	**11/14/13 18:26**	**131111L05**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	0.50	1	
Acenaphthylene	ND	0.50	1	
Aniline	ND	0.50	1	
Anthracene	ND	0.50	1	
Azobenzene	ND	0.50	1	
Benzidine	ND	10	1	
Benzo (a) Anthracene	ND	0.50	1	
Benzo (a) Pyrene	ND	0.50	1	
Benzo (b) Fluoranthene	ND	0.50	1	
Benzo (g,h,i) Perylene	ND	0.50	1	
Benzo (k) Fluoranthene	ND	0.50	1	
Benzoic Acid	ND	2.5	1	
Benzyl Alcohol	ND	0.50	1	
Bis(2-Chloroethoxy) Methane	ND	0.50	1	
Bis(2-Chloroethyl) Ether	ND	2.5	1	
Bis(2-Chloroisopropyl) Ether	ND	0.50	1	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1	
4-Bromophenyl-Phenyl Ether	ND	0.50	1	
Butyl Benzyl Phthalate	ND	0.50	1	
4-Chloro-3-Methylphenol	ND	0.50	1	
4-Chloroaniline	ND	0.50	1	
2-Chloronaphthalene	ND	0.50	1	
2-Chlorophenol	ND	0.50	1	
4-Chlorophenyl-Phenyl Ether	ND	0.50	1	
Chrysene	ND	0.50	1	
Di-n-Butyl Phthalate	ND	0.50	1	
Di-n-Octyl Phthalate	ND	0.50	1	
Dibenz (a,h) Anthracene	ND	0.50	1	
Dibenzofuran	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1	
3,3'-Dichlorobenzidine	ND	10	1	
2,4-Dichlorophenol	ND	0.50	1	
Diethyl Phthalate	ND	0.50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1	
2,4-Dimethylphenol	ND	0.50	1	
4,6-Dinitro-2-Methylphenol	ND	2.5	1	
2,4-Dinitrophenol	ND	2.5	1	
2,4-Dinitrotoluene	ND	0.50	1	
2,6-Dinitrotoluene	ND	0.50	1	
Fluoranthene	ND	0.50	1	
Fluorene	ND	0.50	1	
Hexachloro-1,3-Butadiene	ND	0.50	1	
Hexachlorobenzene	ND	0.50	1	
Hexachlorocyclopentadiene	ND	2.5	1	
Hexachloroethane	ND	0.50	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1	
Isophorone	ND	0.50	1	
2-Methylnaphthalene	ND	0.50	1	
1-Methylnaphthalene	ND	0.50	1	
2-Methylphenol	ND	0.50	1	
3/4-Methylphenol	ND	0.50	1	
N-Nitroso-di-n-propylamine	ND	0.50	1	
N-Nitrosodimethylamine	ND	0.50	1	
N-Nitrosodiphenylamine	ND	0.50	1	
Naphthalene	ND	0.50	1	
4-Nitroaniline	ND	0.50	1	
3-Nitroaniline	ND	0.50	1	
2-Nitroaniline	ND	0.50	1	
Nitrobenzene	ND	2.5	1	
4-Nitrophenol	ND	0.50	1	
2-Nitrophenol	ND	0.50	1	
Pentachlorophenol	ND	2.5	1	
Phenanthrene	ND	0.50	1	
Phenol	ND	0.50	1	
Pyrene	ND	0.50	1	
Pyridine	ND	0.50	1	
1,2,4-Trichlorobenzene	ND	0.50	1	
2,4,6-Trichlorophenol	ND	0.50	1	
2,4,5-Trichlorophenol	ND	0.50	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	66	38-134	
2-Fluorophenol	69	42-120	
Nitrobenzene-d5	78	42-150	
p-Terphenyl-d14	84	35-167	
Phenol-d6	76	46-118	
2,4,6-Tribromophenol	80	36-132	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
12-SS-5-6	**13-11-0697-6-A**	**11/08/13 13:18**	**Solid**	**GC/MS SS**	**11/11/13**	**11/15/13 14:07**	**131111L05**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	2.5	5	
Acenaphthylene	ND	2.5	5	
Aniline	ND	2.5	5	
Anthracene	ND	2.5	5	
Azobenzene	ND	2.5	5	
Benzidine	ND	50	5	
Benzo (a) Anthracene	ND	2.5	5	
Benzo (a) Pyrene	ND	2.5	5	
Benzo (b) Fluoranthene	ND	2.5	5	
Benzo (g,h,i) Perylene	ND	2.5	5	
Benzo (k) Fluoranthene	ND	2.5	5	
Benzoic Acid	ND	12	5	
Benzyl Alcohol	ND	2.5	5	
Bis(2-Chloroethoxy) Methane	ND	2.5	5	
Bis(2-Chloroethyl) Ether	ND	12	5	
Bis(2-Chloroisopropyl) Ether	ND	2.5	5	
Bis(2-Ethylhexyl) Phthalate	2.6	2.5	5	
4-Bromophenyl-Phenyl Ether	ND	2.5	5	
Butyl Benzyl Phthalate	ND	2.5	5	
4-Chloro-3-Methylphenol	ND	2.5	5	
4-Chloroaniline	ND	2.5	5	
2-Chloronaphthalene	ND	2.5	5	
2-Chlorophenol	ND	2.5	5	
4-Chlorophenyl-Phenyl Ether	ND	2.5	5	
Chrysene	ND	2.5	5	
Di-n-Butyl Phthalate	ND	2.5	5	
Di-n-Octyl Phthalate	ND	2.5	5	
Dibenz (a,h) Anthracene	ND	2.5	5	
Dibenzofuran	ND	2.5	5	
1,2-Dichlorobenzene	ND	2.5	5	
1,3-Dichlorobenzene	ND	2.5	5	
1,4-Dichlorobenzene	ND	2.5	5	
3,3'-Dichlorobenzidine	ND	50	5	
2,4-Dichlorophenol	ND	2.5	5	
Diethyl Phthalate	ND	2.5	5	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	2.5	5	
2,4-Dimethylphenol	ND	2.5	5	
4,6-Dinitro-2-Methylphenol	ND	12	5	
2,4-Dinitrophenol	ND	12	5	
2,4-Dinitrotoluene	ND	2.5	5	
2,6-Dinitrotoluene	ND	2.5	5	
Fluoranthene	ND	2.5	5	
Fluorene	ND	2.5	5	
Hexachloro-1,3-Butadiene	ND	2.5	5	
Hexachlorobenzene	ND	2.5	5	
Hexachlorocyclopentadiene	ND	12	5	
Hexachloroethane	ND	2.5	5	
Indeno (1,2,3-c,d) Pyrene	ND	2.5	5	
Isophorone	ND	2.5	5	
2-Methylnaphthalene	ND	2.5	5	
1-Methylnaphthalene	ND	2.5	5	
2-Methylphenol	ND	2.5	5	
3/4-Methylphenol	ND	2.5	5	
N-Nitroso-di-n-propylamine	ND	2.5	5	
N-Nitrosodimethylamine	ND	2.5	5	
N-Nitrosodiphenylamine	ND	2.5	5	
Naphthalene	ND	2.5	5	
4-Nitroaniline	ND	2.5	5	
3-Nitroaniline	ND	2.5	5	
2-Nitroaniline	ND	2.5	5	
Nitrobenzene	ND	12	5	
4-Nitrophenol	ND	2.5	5	
2-Nitrophenol	ND	2.5	5	
Pentachlorophenol	ND	12	5	
Phenanthrene	ND	2.5	5	
Phenol	ND	2.5	5	
Pyrene	ND	2.5	5	
Pyridine	ND	2.5	5	
1,2,4-Trichlorobenzene	ND	2.5	5	
2,4,6-Trichlorophenol	ND	2.5	5	
2,4,5-Trichlorophenol	ND	2.5	5	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	67	38-134	
2-Fluorophenol	59	42-120	
Nitrobenzene-d5	68	42-150	
p-Terphenyl-d14	62	35-167	
Phenol-d6	65	46-118	
2,4,6-Tribromophenol	63	36-132	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
12-SS-9.5-10.5	**13-11-0697-7-A**	**11/08/13 13:20**	**Solid**	**GC/MS SS**	**11/11/13**	**11/14/13 16:42**	**131111L05**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	0.50	1	
Acenaphthylene	ND	0.50	1	
Aniline	ND	0.50	1	
Anthracene	ND	0.50	1	
Azobenzene	ND	0.50	1	
Benzidine	ND	10	1	
Benzo (a) Anthracene	ND	0.50	1	
Benzo (a) Pyrene	ND	0.50	1	
Benzo (b) Fluoranthene	ND	0.50	1	
Benzo (g,h,i) Perylene	ND	0.50	1	
Benzo (k) Fluoranthene	ND	0.50	1	
Benzoic Acid	ND	2.5	1	
Benzyl Alcohol	ND	0.50	1	
Bis(2-Chloroethoxy) Methane	ND	0.50	1	
Bis(2-Chloroethyl) Ether	ND	2.5	1	
Bis(2-Chloroisopropyl) Ether	ND	0.50	1	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1	
4-Bromophenyl-Phenyl Ether	ND	0.50	1	
Butyl Benzyl Phthalate	ND	0.50	1	
4-Chloro-3-Methylphenol	ND	0.50	1	
4-Chloroaniline	ND	0.50	1	
2-Chloronaphthalene	ND	0.50	1	
2-Chlorophenol	ND	0.50	1	
4-Chlorophenyl-Phenyl Ether	ND	0.50	1	
Chrysene	ND	0.50	1	
Di-n-Butyl Phthalate	ND	0.50	1	
Di-n-Octyl Phthalate	ND	0.50	1	
Dibenz (a,h) Anthracene	ND	0.50	1	
Dibenzofuran	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1	
3,3'-Dichlorobenzidine	ND	10	1	
2,4-Dichlorophenol	ND	0.50	1	
Diethyl Phthalate	ND	0.50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1	
2,4-Dimethylphenol	ND	0.50	1	
4,6-Dinitro-2-Methylphenol	ND	2.5	1	
2,4-Dinitrophenol	ND	2.5	1	
2,4-Dinitrotoluene	ND	0.50	1	
2,6-Dinitrotoluene	ND	0.50	1	
Fluoranthene	ND	0.50	1	
Fluorene	ND	0.50	1	
Hexachloro-1,3-Butadiene	ND	0.50	1	
Hexachlorobenzene	ND	0.50	1	
Hexachlorocyclopentadiene	ND	2.5	1	
Hexachloroethane	ND	0.50	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1	
Isophorone	ND	0.50	1	
2-Methylnaphthalene	ND	0.50	1	
1-Methylnaphthalene	ND	0.50	1	
2-Methylphenol	ND	0.50	1	
3/4-Methylphenol	ND	0.50	1	
N-Nitroso-di-n-propylamine	ND	0.50	1	
N-Nitrosodimethylamine	ND	0.50	1	
N-Nitrosodiphenylamine	ND	0.50	1	
Naphthalene	ND	0.50	1	
4-Nitroaniline	ND	0.50	1	
3-Nitroaniline	ND	0.50	1	
2-Nitroaniline	ND	0.50	1	
Nitrobenzene	ND	2.5	1	
4-Nitrophenol	ND	0.50	1	
2-Nitrophenol	ND	0.50	1	
Pentachlorophenol	ND	2.5	1	
Phenanthrene	ND	0.50	1	
Phenol	ND	0.50	1	
Pyrene	ND	0.50	1	
Pyridine	ND	0.50	1	
1,2,4-Trichlorobenzene	ND	0.50	1	
2,4,6-Trichlorophenol	ND	0.50	1	
2,4,5-Trichlorophenol	ND	0.50	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	83	38-134	
2-Fluorophenol	77	42-120	
Nitrobenzene-d5	87	42-150	
p-Terphenyl-d14	94	35-167	
Phenol-d6	90	46-118	
2,4,6-Tribromophenol	85	36-132	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
6-SS-5-6	**13-11-0697-9-A**	**11/08/13 14:58**	**Solid**	**GC/MS SS**	**11/11/13**	**11/14/13 21:29**	**131111L05**

Comment(s): - The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	1.0	2	
Acenaphthylene	ND	1.0	2	
Aniline	ND	1.0	2	
Anthracene	ND	1.0	2	
Azobenzene	ND	1.0	2	
Benzidine	ND	20	2	
Benzo (a) Anthracene	ND	1.0	2	
Benzo (a) Pyrene	ND	1.0	2	
Benzo (b) Fluoranthene	ND	1.0	2	
Benzo (g,h,i) Perylene	ND	1.0	2	
Benzo (k) Fluoranthene	ND	1.0	2	
Benzoic Acid	ND	5.0	2	
Benzyl Alcohol	ND	1.0	2	
Bis(2-Chloroethoxy) Methane	ND	1.0	2	
Bis(2-Chloroethyl) Ether	ND	5.0	2	
Bis(2-Chloroisopropyl) Ether	ND	1.0	2	
Bis(2-Ethylhexyl) Phthalate	ND	1.0	2	
4-Bromophenyl-Phenyl Ether	ND	1.0	2	
Butyl Benzyl Phthalate	ND	1.0	2	
4-Chloro-3-Methylphenol	ND	1.0	2	
4-Chloroaniline	ND	1.0	2	
2-Chloronaphthalene	ND	1.0	2	
2-Chlorophenol	ND	1.0	2	
4-Chlorophenyl-Phenyl Ether	ND	1.0	2	
Chrysene	ND	1.0	2	
Di-n-Butyl Phthalate	ND	1.0	2	
Di-n-Octyl Phthalate	ND	1.0	2	
Dibenz (a,h) Anthracene	ND	1.0	2	
Dibenzofuran	ND	1.0	2	
1,2-Dichlorobenzene	ND	1.0	2	
1,3-Dichlorobenzene	ND	1.0	2	
1,4-Dichlorobenzene	ND	1.0	2	
3,3'-Dichlorobenzidine	ND	20	2	
2,4-Dichlorophenol	ND	1.0	2	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	1.0	2	
Dimethyl Phthalate	ND	1.0	2	
2,4-Dimethylphenol	ND	1.0	2	
4,6-Dinitro-2-Methylphenol	ND	5.0	2	
2,4-Dinitrophenol	ND	5.0	2	
2,4-Dinitrotoluene	ND	1.0	2	
2,6-Dinitrotoluene	ND	1.0	2	
Fluoranthene	ND	1.0	2	
Fluorene	ND	1.0	2	
Hexachloro-1,3-Butadiene	ND	1.0	2	
Hexachlorobenzene	ND	1.0	2	
Hexachlorocyclopentadiene	ND	5.0	2	
Hexachloroethane	ND	1.0	2	
Indeno (1,2,3-c,d) Pyrene	ND	1.0	2	
Isophorone	ND	1.0	2	
2-Methylnaphthalene	ND	1.0	2	
1-Methylnaphthalene	ND	1.0	2	
2-Methylphenol	ND	1.0	2	
3/4-Methylphenol	ND	1.0	2	
N-Nitroso-di-n-propylamine	ND	1.0	2	
N-Nitrosodimethylamine	ND	1.0	2	
N-Nitrosodiphenylamine	ND	1.0	2	
Naphthalene	ND	1.0	2	
4-Nitroaniline	ND	1.0	2	
3-Nitroaniline	ND	1.0	2	
2-Nitroaniline	ND	1.0	2	
Nitrobenzene	ND	5.0	2	
4-Nitrophenol	ND	1.0	2	
2-Nitrophenol	ND	1.0	2	
Pentachlorophenol	ND	5.0	2	
Phenanthrene	ND	1.0	2	
Phenol	ND	1.0	2	
Pyrene	ND	1.0	2	
Pyridine	ND	1.0	2	
1,2,4-Trichlorobenzene	ND	1.0	2	
2,4,6-Trichlorophenol	ND	1.0	2	
2,4,5-Trichlorophenol	ND	1.0	2	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	85	38-134	
2-Fluorophenol	77	42-120	
Nitrobenzene-d5	93	42-150	
p-Terphenyl-d14	89	35-167	
Phenol-d6	84	46-118	
2,4,6-Tribromophenol	82	36-132	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
6-SS-9-11	**13-11-0697-10-A**	**11/08/13 15:05**	**Solid**	**GC/MS SS**	**11/11/13**	**11/14/13 18:52**	**131111L05**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	0.50	1	
Acenaphthylene	ND	0.50	1	
Aniline	ND	0.50	1	
Anthracene	ND	0.50	1	
Azobenzene	ND	0.50	1	
Benzidine	ND	10	1	
Benzo (a) Anthracene	ND	0.50	1	
Benzo (a) Pyrene	ND	0.50	1	
Benzo (b) Fluoranthene	ND	0.50	1	
Benzo (g,h,i) Perylene	ND	0.50	1	
Benzo (k) Fluoranthene	ND	0.50	1	
Benzoic Acid	ND	2.5	1	
Benzyl Alcohol	ND	0.50	1	
Bis(2-Chloroethoxy) Methane	ND	0.50	1	
Bis(2-Chloroethyl) Ether	ND	2.5	1	
Bis(2-Chloroisopropyl) Ether	ND	0.50	1	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1	
4-Bromophenyl-Phenyl Ether	ND	0.50	1	
Butyl Benzyl Phthalate	ND	0.50	1	
4-Chloro-3-Methylphenol	ND	0.50	1	
4-Chloroaniline	ND	0.50	1	
2-Chloronaphthalene	ND	0.50	1	
2-Chlorophenol	ND	0.50	1	
4-Chlorophenyl-Phenyl Ether	ND	0.50	1	
Chrysene	ND	0.50	1	
Di-n-Butyl Phthalate	ND	0.50	1	
Di-n-Octyl Phthalate	ND	0.50	1	
Dibenz (a,h) Anthracene	ND	0.50	1	
Dibenzofuran	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1	
3,3'-Dichlorobenzidine	ND	10	1	
2,4-Dichlorophenol	ND	0.50	1	
Diethyl Phthalate	ND	0.50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1	
2,4-Dimethylphenol	ND	0.50	1	
4,6-Dinitro-2-Methylphenol	ND	2.5	1	
2,4-Dinitrophenol	ND	2.5	1	
2,4-Dinitrotoluene	ND	0.50	1	
2,6-Dinitrotoluene	ND	0.50	1	
Fluoranthene	ND	0.50	1	
Fluorene	ND	0.50	1	
Hexachloro-1,3-Butadiene	ND	0.50	1	
Hexachlorobenzene	ND	0.50	1	
Hexachlorocyclopentadiene	ND	2.5	1	
Hexachloroethane	ND	0.50	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1	
Isophorone	ND	0.50	1	
2-Methylnaphthalene	ND	0.50	1	
1-Methylnaphthalene	ND	0.50	1	
2-Methylphenol	ND	0.50	1	
3/4-Methylphenol	ND	0.50	1	
N-Nitroso-di-n-propylamine	ND	0.50	1	
N-Nitrosodimethylamine	ND	0.50	1	
N-Nitrosodiphenylamine	ND	0.50	1	
Naphthalene	ND	0.50	1	
4-Nitroaniline	ND	0.50	1	
3-Nitroaniline	ND	0.50	1	
2-Nitroaniline	ND	0.50	1	
Nitrobenzene	ND	2.5	1	
4-Nitrophenol	ND	0.50	1	
2-Nitrophenol	ND	0.50	1	
Pentachlorophenol	ND	2.5	1	
Phenanthrene	ND	0.50	1	
Phenol	ND	0.50	1	
Pyrene	ND	0.50	1	
Pyridine	ND	0.50	1	
1,2,4-Trichlorobenzene	ND	0.50	1	
2,4,6-Trichlorophenol	ND	0.50	1	
2,4,5-Trichlorophenol	ND	0.50	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	64	38-134	
2-Fluorophenol	66	42-120	
Nitrobenzene-d5	82	42-150	
p-Terphenyl-d14	85	35-167	
Phenol-d6	78	46-118	
2,4,6-Tribromophenol	70	36-132	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
60-SS-9-11	**13-11-0697-11-A**	**11/08/13 15:06**	**Solid**	**GC/MS SS**	**11/11/13**	**11/14/13 19:18**	**131111L05**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	0.50	1	
Acenaphthylene	ND	0.50	1	
Aniline	ND	0.50	1	
Anthracene	ND	0.50	1	
Azobenzene	ND	0.50	1	
Benzidine	ND	10	1	
Benzo (a) Anthracene	ND	0.50	1	
Benzo (a) Pyrene	ND	0.50	1	
Benzo (b) Fluoranthene	ND	0.50	1	
Benzo (g,h,i) Perylene	ND	0.50	1	
Benzo (k) Fluoranthene	ND	0.50	1	
Benzoic Acid	ND	2.5	1	
Benzyl Alcohol	ND	0.50	1	
Bis(2-Chloroethoxy) Methane	ND	0.50	1	
Bis(2-Chloroethyl) Ether	ND	2.5	1	
Bis(2-Chloroisopropyl) Ether	ND	0.50	1	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1	
4-Bromophenyl-Phenyl Ether	ND	0.50	1	
Butyl Benzyl Phthalate	ND	0.50	1	
4-Chloro-3-Methylphenol	ND	0.50	1	
4-Chloroaniline	ND	0.50	1	
2-Chloronaphthalene	ND	0.50	1	
2-Chlorophenol	ND	0.50	1	
4-Chlorophenyl-Phenyl Ether	ND	0.50	1	
Chrysene	ND	0.50	1	
Di-n-Butyl Phthalate	ND	0.50	1	
Di-n-Octyl Phthalate	ND	0.50	1	
Dibenz (a,h) Anthracene	ND	0.50	1	
Dibenzofuran	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1	
3,3'-Dichlorobenzidine	ND	10	1	
2,4-Dichlorophenol	ND	0.50	1	
Diethyl Phthalate	ND	0.50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1	
2,4-Dimethylphenol	ND	0.50	1	
4,6-Dinitro-2-Methylphenol	ND	2.5	1	
2,4-Dinitrophenol	ND	2.5	1	
2,4-Dinitrotoluene	ND	0.50	1	
2,6-Dinitrotoluene	ND	0.50	1	
Fluoranthene	ND	0.50	1	
Fluorene	ND	0.50	1	
Hexachloro-1,3-Butadiene	ND	0.50	1	
Hexachlorobenzene	ND	0.50	1	
Hexachlorocyclopentadiene	ND	2.5	1	
Hexachloroethane	ND	0.50	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1	
Isophorone	ND	0.50	1	
2-Methylnaphthalene	ND	0.50	1	
1-Methylnaphthalene	ND	0.50	1	
2-Methylphenol	ND	0.50	1	
3/4-Methylphenol	ND	0.50	1	
N-Nitroso-di-n-propylamine	ND	0.50	1	
N-Nitrosodimethylamine	ND	0.50	1	
N-Nitrosodiphenylamine	ND	0.50	1	
Naphthalene	ND	0.50	1	
4-Nitroaniline	ND	0.50	1	
3-Nitroaniline	ND	0.50	1	
2-Nitroaniline	ND	0.50	1	
Nitrobenzene	ND	2.5	1	
4-Nitrophenol	ND	0.50	1	
2-Nitrophenol	ND	0.50	1	
Pentachlorophenol	ND	2.5	1	
Phenanthrene	ND	0.50	1	
Phenol	ND	0.50	1	
Pyrene	ND	0.50	1	
Pyridine	ND	0.50	1	
1,2,4-Trichlorobenzene	ND	0.50	1	
2,4,6-Trichlorophenol	ND	0.50	1	
2,4,5-Trichlorophenol	ND	0.50	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	11/08/13
Work Order:	13-11-0697
Preparation:	EPA 3545
Method:	EPA 8270C
Units:	mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	58	38-134	
2-Fluorophenol	55	42-120	
Nitrobenzene-d5	71	42-150	
p-Terphenyl-d14	78	35-167	
Phenol-d6	67	46-118	
2,4,6-Tribromophenol	64	36-132	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-549-2702**	**N/A**	**Solid**	**GC/MS TT**	**11/11/13**	**11/14/13 01:36**	**131111L05**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	0.50	1	
Acenaphthylene	ND	0.50	1	
Aniline	ND	0.50	1	
Anthracene	ND	0.50	1	
Azobenzene	ND	0.50	1	
Benzidine	ND	10	1	
Benzo (a) Anthracene	ND	0.50	1	
Benzo (a) Pyrene	ND	0.50	1	
Benzo (b) Fluoranthene	ND	0.50	1	
Benzo (g,h,i) Perylene	ND	0.50	1	
Benzo (k) Fluoranthene	ND	0.50	1	
Benzoic Acid	ND	2.5	1	
Benzyl Alcohol	ND	0.50	1	
Bis(2-Chloroethoxy) Methane	ND	0.50	1	
Bis(2-Chloroethyl) Ether	ND	2.5	1	
Bis(2-Chloroisopropyl) Ether	ND	0.50	1	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1	
4-Bromophenyl-Phenyl Ether	ND	0.50	1	
Butyl Benzyl Phthalate	ND	0.50	1	
4-Chloro-3-Methylphenol	ND	0.50	1	
4-Chloroaniline	ND	0.50	1	
2-Chloronaphthalene	ND	0.50	1	
2-Chlorophenol	ND	0.50	1	
4-Chlorophenyl-Phenyl Ether	ND	0.50	1	
Chrysene	ND	0.50	1	
Di-n-Butyl Phthalate	ND	0.50	1	
Di-n-Octyl Phthalate	ND	0.50	1	
Dibenz (a,h) Anthracene	ND	0.50	1	
Dibenzofuran	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1	
3,3'-Dichlorobenzidine	ND	10	1	
2,4-Dichlorophenol	ND	0.50	1	
Diethyl Phthalate	ND	0.50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1	
2,4-Dimethylphenol	ND	0.50	1	
4,6-Dinitro-2-Methylphenol	ND	2.5	1	
2,4-Dinitrophenol	ND	2.5	1	
2,4-Dinitrotoluene	ND	0.50	1	
2,6-Dinitrotoluene	ND	0.50	1	
Fluoranthene	ND	0.50	1	
Fluorene	ND	0.50	1	
Hexachloro-1,3-Butadiene	ND	0.50	1	
Hexachlorobenzene	ND	0.50	1	
Hexachlorocyclopentadiene	ND	2.5	1	
Hexachloroethane	ND	0.50	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1	
Isophorone	ND	0.50	1	
2-Methylnaphthalene	ND	0.50	1	
1-Methylnaphthalene	ND	0.50	1	
2-Methylphenol	ND	0.50	1	
3/4-Methylphenol	ND	0.50	1	
N-Nitroso-di-n-propylamine	ND	0.50	1	
N-Nitrosodimethylamine	ND	0.50	1	
N-Nitrosodiphenylamine	ND	0.50	1	
Naphthalene	ND	0.50	1	
4-Nitroaniline	ND	0.50	1	
3-Nitroaniline	ND	0.50	1	
2-Nitroaniline	ND	0.50	1	
Nitrobenzene	ND	2.5	1	
4-Nitrophenol	ND	0.50	1	
2-Nitrophenol	ND	0.50	1	
Pentachlorophenol	ND	2.5	1	
Phenanthrene	ND	0.50	1	
Phenol	ND	0.50	1	
Pyrene	ND	0.50	1	
Pyridine	ND	0.50	1	
1,2,4-Trichlorobenzene	ND	0.50	1	
2,4,6-Trichlorophenol	ND	0.50	1	
2,4,5-Trichlorophenol	ND	0.50	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	77	38-134	
2-Fluorophenol	76	42-120	
Nitrobenzene-d5	80	42-150	
p-Terphenyl-d14	93	35-167	
Phenol-d6	78	46-118	
2,4,6-Tribromophenol	94	36-132	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCTB-11082013	**13-11-0697-1-A**	**11/08/13 08:00**	**Aqueous**	**GC/MS OO**	**11/13/13**	**11/14/13 00:20**	**131113L02**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1	
Benzene	ND	0.50	1	
Bromobenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1	
Bromodichloromethane	ND	1.0	1	
Bromoform	ND	1.0	1	
Bromomethane	ND	10	1	
2-Butanone	ND	10	1	
n-Butylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1	
Carbon Disulfide	ND	10	1	
Carbon Tetrachloride	ND	0.50	1	
Chlorobenzene	ND	1.0	1	
Chloroethane	ND	5.0	1	
Chloroform	ND	1.0	1	
Chloromethane	ND	10	1	
2-Chlorotoluene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	
1,2-Dibromoethane	ND	1.0	1	
Dibromomethane	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1	
1,1-Dichloroethene	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1	
1,3-Dichloropropane	ND	1.0	1	
2,2-Dichloropropane	ND	1.0	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1	
c-1,3-Dichloropropene	ND	0.50	1	
t-1,3-Dichloropropene	ND	0.50	1	
Ethylbenzene	ND	1.0	1	
2-Hexanone	ND	10	1	
Isopropylbenzene	ND	1.0	1	
p-Isopropyltoluene	ND	1.0	1	
Methylene Chloride	ND	10	1	
4-Methyl-2-Pentanone	ND	10	1	
Naphthalene	ND	10	1	
n-Propylbenzene	ND	1.0	1	
Styrene	ND	1.0	1	
1,1,1,2-Tetrachloroethane	ND	1.0	1	
1,1,2,2-Tetrachloroethane	ND	1.0	1	
Tetrachloroethene	ND	1.0	1	
Toluene	ND	1.0	1	
1,2,3-Trichlorobenzene	ND	1.0	1	
1,2,4-Trichlorobenzene	ND	1.0	1	
1,1,1-Trichloroethane	ND	1.0	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,1,2-Trichloroethane	ND	1.0	1	
Trichloroethene	ND	1.0	1	
Trichlorofluoromethane	ND	10	1	
1,2,3-Trichloropropane	ND	5.0	1	
1,2,4-Trimethylbenzene	ND	1.0	1	
1,3,5-Trimethylbenzene	ND	1.0	1	
Vinyl Acetate	ND	10	1	
Vinyl Chloride	ND	0.50	1	
p/m-Xylene	ND	1.0	1	
o-Xylene	ND	1.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	98	80-126	
1,2-Dichloroethane-d4	98	80-134	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
7-GW-23-28	**13-11-0697-2-B**	**11/08/13 09:15**	**Aqueous**	**GC/MS OO**	**11/14/13**	**11/14/13 17:39**	**131114L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1	
Benzene	ND	0.50	1	
Bromobenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1	
Bromodichloromethane	ND	1.0	1	
Bromoform	ND	1.0	1	
Bromomethane	ND	10	1	
2-Butanone	ND	10	1	
n-Butylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1	
Carbon Disulfide	ND	10	1	
Carbon Tetrachloride	ND	0.50	1	
Chlorobenzene	ND	1.0	1	
Chloroethane	ND	5.0	1	
Chloroform	ND	1.0	1	
Chloromethane	ND	10	1	
2-Chlorotoluene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	
1,2-Dibromoethane	ND	1.0	1	
Dibromomethane	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1	
1,1-Dichloroethene	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1	
1,3-Dichloropropane	ND	1.0	1	
2,2-Dichloropropane	ND	1.0	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1	
c-1,3-Dichloropropene	ND	0.50	1	
t-1,3-Dichloropropene	ND	0.50	1	
Ethylbenzene	ND	1.0	1	
2-Hexanone	ND	10	1	
Isopropylbenzene	ND	1.0	1	
p-Isopropyltoluene	ND	1.0	1	
Methylene Chloride	ND	10	1	
4-Methyl-2-Pentanone	ND	10	1	
Naphthalene	ND	10	1	
n-Propylbenzene	ND	1.0	1	
Styrene	ND	1.0	1	
1,1,1,2-Tetrachloroethane	ND	1.0	1	
1,1,2,2-Tetrachloroethane	ND	1.0	1	
Tetrachloroethene	ND	1.0	1	
Toluene	ND	1.0	1	
1,2,3-Trichlorobenzene	ND	1.0	1	
1,2,4-Trichlorobenzene	ND	1.0	1	
1,1,1-Trichloroethane	ND	1.0	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,1,2-Trichloroethane	ND	1.0	1	
Trichloroethene	ND	1.0	1	
Trichlorofluoromethane	ND	10	1	
1,2,3-Trichloropropane	ND	5.0	1	
1,2,4-Trimethylbenzene	ND	1.0	1	
1,3,5-Trimethylbenzene	ND	1.0	1	
Vinyl Acetate	ND	10	1	
Vinyl Chloride	ND	0.50	1	
p/m-Xylene	ND	1.0	1	
o-Xylene	ND	1.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	98	80-126	
1,2-Dichloroethane-d4	97	80-134	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-001-12427**	**N/A**	**Aqueous**	**GC/MS OO**	**11/13/13**	**11/13/13 23:27**	**131113L02**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1	
Benzene	ND	0.50	1	
Bromobenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1	
Bromodichloromethane	ND	1.0	1	
Bromoform	ND	1.0	1	
Bromomethane	ND	10	1	
2-Butanone	ND	10	1	
n-Butylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1	
Carbon Disulfide	ND	10	1	
Carbon Tetrachloride	ND	0.50	1	
Chlorobenzene	ND	1.0	1	
Chloroethane	ND	5.0	1	
Chloroform	ND	1.0	1	
Chloromethane	ND	10	1	
2-Chlorotoluene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	
1,2-Dibromoethane	ND	1.0	1	
Dibromomethane	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1	
1,1-Dichloroethene	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1	
1,3-Dichloropropane	ND	1.0	1	
2,2-Dichloropropane	ND	1.0	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1	
c-1,3-Dichloropropene	ND	0.50	1	
t-1,3-Dichloropropene	ND	0.50	1	
Ethylbenzene	ND	1.0	1	
2-Hexanone	ND	10	1	
Isopropylbenzene	ND	1.0	1	
p-Isopropyltoluene	ND	1.0	1	
Methylene Chloride	ND	10	1	
4-Methyl-2-Pentanone	ND	10	1	
Naphthalene	ND	10	1	
n-Propylbenzene	ND	1.0	1	
Styrene	ND	1.0	1	
1,1,1,2-Tetrachloroethane	ND	1.0	1	
1,1,2,2-Tetrachloroethane	ND	1.0	1	
Tetrachloroethene	ND	1.0	1	
Toluene	ND	1.0	1	
1,2,3-Trichlorobenzene	ND	1.0	1	
1,2,4-Trichlorobenzene	ND	1.0	1	
1,1,1-Trichloroethane	ND	1.0	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,1,2-Trichloroethane	ND	1.0	1	
Trichloroethene	ND	1.0	1	
Trichlorofluoromethane	ND	10	1	
1,2,3-Trichloropropane	ND	5.0	1	
1,2,4-Trimethylbenzene	ND	1.0	1	
1,3,5-Trimethylbenzene	ND	1.0	1	
Vinyl Acetate	ND	10	1	
Vinyl Chloride	ND	0.50	1	
p/m-Xylene	ND	1.0	1	
o-Xylene	ND	1.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	100	80-126	
1,2-Dichloroethane-d4	98	80-134	
Toluene-d8	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-001-12429**	**N/A**	**Aqueous**	**GC/MS OO**	**11/14/13**	**11/14/13 11:43**	**131114L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1	
Benzene	ND	0.50	1	
Bromobenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1	
Bromodichloromethane	ND	1.0	1	
Bromoform	ND	1.0	1	
Bromomethane	ND	10	1	
2-Butanone	ND	10	1	
n-Butylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1	
Carbon Disulfide	ND	10	1	
Carbon Tetrachloride	ND	0.50	1	
Chlorobenzene	ND	1.0	1	
Chloroethane	ND	5.0	1	
Chloroform	ND	1.0	1	
Chloromethane	ND	10	1	
2-Chlorotoluene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	
1,2-Dibromoethane	ND	1.0	1	
Dibromomethane	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1	
1,1-Dichloroethene	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1	
1,3-Dichloropropane	ND	1.0	1	
2,2-Dichloropropane	ND	1.0	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1	
c-1,3-Dichloropropene	ND	0.50	1	
t-1,3-Dichloropropene	ND	0.50	1	
Ethylbenzene	ND	1.0	1	
2-Hexanone	ND	10	1	
Isopropylbenzene	ND	1.0	1	
p-Isopropyltoluene	ND	1.0	1	
Methylene Chloride	ND	10	1	
4-Methyl-2-Pentanone	ND	10	1	
Naphthalene	ND	10	1	
n-Propylbenzene	ND	1.0	1	
Styrene	ND	1.0	1	
1,1,1,2-Tetrachloroethane	ND	1.0	1	
1,1,2,2-Tetrachloroethane	ND	1.0	1	
Tetrachloroethene	ND	1.0	1	
Toluene	ND	1.0	1	
1,2,3-Trichlorobenzene	ND	1.0	1	
1,2,4-Trichlorobenzene	ND	1.0	1	
1,1,1-Trichloroethane	ND	1.0	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,1,2-Trichloroethane	ND	1.0	1	
Trichloroethene	ND	1.0	1	
Trichlorofluoromethane	ND	10	1	
1,2,3-Trichloropropane	ND	5.0	1	
1,2,4-Trimethylbenzene	ND	1.0	1	
1,3,5-Trimethylbenzene	ND	1.0	1	
Vinyl Acetate	ND	10	1	
Vinyl Chloride	ND	0.50	1	
p/m-Xylene	ND	1.0	1	
o-Xylene	ND	1.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	96	80-126	
1,2-Dichloroethane-d4	95	80-134	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3050B
Method: EPA 6010B

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-SS-13.25-15.25	**Sample**	**Solid**	**ICP 7300**	**11/11/13**	**11/12/13 15:29**	**131111S01**
12-SS-13.25-15.25	**Matrix Spike**	**Solid**	**ICP 7300**	**11/11/13**	**11/12/13 15:30**	**131111S01**
12-SS-13.25-15.25	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**11/11/13**	**11/12/13 15:31**	**131111S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	2.201	9	4.623	18	50-115	71	0-20	3,4
Arsenic	ND	25.00	25.21	101	25.68	103	75-125	2	0-20	
Barium	101.8	25.00	119.9	4X	129.1	4X	75-125	4X	0-20	Q
Beryllium	0.3162	25.00	26.41	104	26.18	103	75-125	1	0-20	
Cadmium	ND	25.00	25.80	103	25.63	103	75-125	1	0-20	
Chromium	12.01	25.00	37.92	104	39.80	111	75-125	5	0-20	
Cobalt	13.45	25.00	39.33	104	40.60	109	75-125	3	0-20	
Copper	13.38	25.00	41.28	112	42.58	117	75-125	3	0-20	
Lead	1.476	25.00	27.17	103	26.88	102	75-125	1	0-20	
Molybdenum	ND	25.00	20.92	84	20.57	82	75-125	2	0-20	
Nickel	6.976	25.00	33.24	105	34.34	109	75-125	3	0-20	
Selenium	ND	25.00	22.66	91	22.35	89	75-125	1	0-20	
Silver	ND	12.50	13.66	109	13.85	111	75-125	1	0-20	
Thallium	ND	25.00	22.62	90	22.63	91	75-125	0	0-20	
Vanadium	61.98	25.00	82.54	82	87.36	102	75-125	6	0-20	
Zinc	47.96	25.00	71.60	95	75.86	112	75-125	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3010A Total
Method: EPA 6010B

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-11-0708-1	**Sample**	**Aqueous**	**ICP 7300**	**11/11/13**	**11/12/13 13:30**	**131111SA5**
13-11-0708-1	**Matrix Spike**	**Aqueous**	**ICP 7300**	**11/11/13**	**11/12/13 13:31**	**131111SA5**
13-11-0708-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**11/11/13**	**11/12/13 13:32**	**131111SA5**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.5000	0.5472	109	0.5525	111	72-132	1	0-10	
Arsenic	ND	0.5000	0.5580	112	0.5527	111	80-140	1	0-11	
Barium	0.2222	0.5000	0.7280	101	0.7245	100	87-123	0	0-6	
Beryllium	ND	0.5000	0.5363	107	0.5369	107	89-119	0	0-8	
Cadmium	ND	0.5000	0.5224	104	0.5219	104	82-124	0	0-7	
Chromium	0.1687	0.5000	0.7149	109	0.7187	110	86-122	1	0-8	
Cobalt	ND	0.5000	0.5458	109	0.5435	109	83-125	0	0-7	
Copper	0.01418	0.5000	0.5747	112	0.5702	111	78-126	1	0-7	
Lead	ND	0.5000	0.5227	105	0.5188	104	84-120	1	0-7	
Molybdenum	0.03415	0.5000	0.5521	104	0.5539	104	78-126	0	0-7	
Nickel	0.02710	0.5000	0.5658	108	0.5671	108	84-120	0	0-7	
Selenium	ND	0.5000	0.5513	110	0.5399	108	79-127	2	0-9	
Silver	ND	0.2500	0.2917	117	0.2917	117	86-128	0	0-7	
Thallium	ND	0.5000	0.5521	110	0.5538	111	79-121	0	0-8	
Vanadium	0.01474	0.5000	0.5432	106	0.5458	106	88-118	0	0-7	
Zinc	0.02545	0.5000	0.6010	115	0.6161	118	89-131	2	0-8	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 7470A Total
Method: EPA 7470A

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-11-0498-3	**Sample**	**Aqueous**	**Mercury**	**11/11/13**	**11/11/13 17:03**	**131111S06**
13-11-0498-3	**Matrix Spike**	**Aqueous**	**Mercury**	**11/11/13**	**11/11/13 17:05**	**131111S06**
13-11-0498-3	**Matrix Spike Duplicate**	**Aqueous**	**Mercury**	**11/11/13**	**11/11/13 17:08**	**131111S06**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.009451	95	0.009374	94	66-126	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-SS-13.25-15.25	**Sample**	**Solid**	**Mercury**	**11/11/13**	**11/11/13 17:37**	**131111S08**
12-SS-13.25-15.25	**Matrix Spike**	**Solid**	**Mercury**	**11/11/13**	**11/11/13 17:39**	**131111S08**
12-SS-13.25-15.25	**Matrix Spike Duplicate**	**Solid**	**Mercury**	**11/11/13**	**11/11/13 17:41**	**131111S08**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.6857	82	0.6782	81	71-137	1	0-14	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8081A

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-SS-13.25-15.25	**Sample**	**Solid**	**GC 51**	**11/12/13**	**11/13/13 17:03**	**131112S26**
12-SS-13.25-15.25	**Matrix Spike**	**Solid**	**GC 51**	**11/12/13**	**11/13/13 17:32**	**131112S26**
12-SS-13.25-15.25	**Matrix Spike Duplicate**	**Solid**	**GC 51**	**11/12/13**	**11/13/13 17:47**	**131112S26**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	25.00	16.43	66	16.50	66	50-135	0	0-25	
Alpha-BHC	ND	25.00	17.19	69	18.74	75	50-135	9	0-25	
Beta-BHC	ND	25.00	18.14	73	20.17	81	50-135	11	0-25	
4,4'-DDD	ND	25.00	17.63	71	18.58	74	50-135	5	0-25	
4,4'-DDE	ND	25.00	18.61	74	18.65	75	50-135	0	0-25	
4,4'-DDT	ND	25.00	17.13	69	17.32	69	50-135	1	0-25	
Delta-BHC	ND	25.00	18.30	73	19.25	77	50-135	5	0-25	
Dieldrin	ND	25.00	17.66	71	18.60	74	50-135	5	0-25	
Endosulfan I	ND	25.00	17.36	69	18.22	73	50-135	5	0-25	
Endosulfan II	ND	25.00	17.90	72	19.41	78	50-135	8	0-25	
Endosulfan Sulfate	ND	25.00	16.92	68	18.08	72	50-135	7	0-25	
Endrin	ND	25.00	15.53	62	15.99	64	50-135	3	0-25	
Endrin Aldehyde	ND	25.00	16.94	68	17.43	70	50-135	3	0-25	
Gamma-BHC	ND	25.00	17.76	71	18.96	76	50-135	7	0-25	
Heptachlor	ND	25.00	17.52	70	17.57	70	50-135	0	0-25	
Heptachlor Epoxide	ND	25.00	16.43	66	17.67	71	50-135	7	0-25	
Methoxychlor	ND	25.00	17.81	71	18.66	75	50-135	5	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8082

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-SS-13.25-15.25	**Sample**	**Solid**	**GC 58**	**11/12/13**	**11/14/13 18:26**	**131112S27**
12-SS-13.25-15.25	**Matrix Spike**	**Solid**	**GC 58**	**11/12/13**	**11/14/13 09:07**	**131112S27**
12-SS-13.25-15.25	**Matrix Spike Duplicate**	**Solid**	**GC 58**	**11/12/13**	**11/14/13 09:25**	**131112S27**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	93.64	94	93.92	94	50-135	0	0-20	
Aroclor-1260	ND	100.0	76.70	77	73.62	74	50-135	4	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
8-SS-9.5-10.5	**Sample**	**Solid**	**GC/MS SS**	**11/11/13**	**11/14/13 18:26**	**131111S05**
8-SS-9.5-10.5	**Matrix Spike**	**Solid**	**GC/MS TT**	**11/11/13**	**11/14/13 02:29**	**131111S05**
8-SS-9.5-10.5	**Matrix Spike Duplicate**	**Solid**	**GC/MS TT**	**11/11/13**	**11/14/13 02:57**	**131111S05**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acenaphthene	ND	10.00	8.227	82	8.467	85	49-133	3	0-18	
Acenaphthylene	ND	10.00	8.144	81	8.519	85	50-150	4	0-20	
Butyl Benzyl Phthalate	ND	10.00	9.344	93	9.574	96	50-150	2	0-20	
4-Chloro-3-Methylphenol	ND	10.00	8.602	86	8.536	85	50-128	1	0-17	
2-Chlorophenol	ND	10.00	7.612	76	8.213	82	57-111	8	0-17	
1,4-Dichlorobenzene	ND	10.00	6.597	66	7.425	74	49-127	12	0-20	
Dimethyl Phthalate	ND	10.00	8.663	87	8.928	89	50-150	3	0-20	
2,4-Dinitrotoluene	ND	10.00	9.485	95	9.523	95	50-128	0	0-18	
Fluorene	ND	10.00	8.945	89	9.060	91	50-150	1	0-20	
N-Nitroso-di-n-propylamine	ND	10.00	8.858	89	8.873	89	54-144	0	0-17	
Naphthalene	ND	10.00	7.428	74	8.006	80	50-150	7	0-20	
4-Nitrophenol	ND	10.00	7.531	75	7.682	77	30-144	2	0-21	
Pentachlorophenol	ND	10.00	8.730	87	9.478	95	29-113	8	0-22	
Phenol	ND	10.00	7.439	74	7.735	77	57-123	4	0-16	
Pyrene	ND	10.00	8.654	87	9.145	91	47-149	6	0-20	
1,2,4-Trichlorobenzene	ND	10.00	7.351	74	8.001	80	42-132	8	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 5030C
Method: EPA 8260B

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-11-0903-2	**Sample**	**Aqueous**	**GC/MS OO**	**11/13/13**	**11/14/13 00:46**	**131113S02**
13-11-0903-2	**Matrix Spike**	**Aqueous**	**GC/MS OO**	**11/13/13**	**11/14/13 01:13**	**131113S02**
13-11-0903-2	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS OO**	**11/13/13**	**11/14/13 01:39**	**131113S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	50.00	45.02	90	47.68	95	78-120	6	0-20	
Carbon Tetrachloride	ND	50.00	47.22	94	48.55	97	67-139	3	0-20	
Chlorobenzene	ND	50.00	45.43	91	47.73	95	80-120	5	0-20	
1,2-Dibromoethane	ND	50.00	48.40	97	50.14	100	80-123	4	0-20	
1,2-Dichlorobenzene	ND	50.00	45.07	90	47.28	95	76-120	5	0-20	
1,2-Dichloroethane	ND	50.00	45.01	90	48.00	96	76-130	6	0-20	
1,1-Dichloroethene	ND	50.00	45.09	90	47.63	95	70-130	5	0-27	
Ethylbenzene	ND	50.00	47.03	94	49.72	99	73-127	6	0-20	
Toluene	ND	50.00	46.41	93	49.90	100	72-126	7	0-20	
Trichloroethene	ND	50.00	48.39	97	49.93	100	74-122	3	0-20	
Vinyl Chloride	ND	50.00	46.91	94	48.78	98	65-131	4	0-24	
p/m-Xylene	ND	100.0	86.23	86	90.38	90	70-130	5	0-30	
o-Xylene	ND	50.00	42.46	85	44.76	90	70-130	5	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	47.22	94	47.29	95	69-123	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 5030C
Method: EPA 8260B

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-11-0910-2	**Sample**	**Aqueous**	**GC/MS OO**	**11/14/13**	**11/14/13 14:34**	**131114S01**
13-11-0910-2	**Matrix Spike**	**Aqueous**	**GC/MS OO**	**11/14/13**	**11/14/13 13:10**	**131114S01**
13-11-0910-2	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS OO**	**11/14/13**	**11/14/13 13:37**	**131114S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	50.00	47.35	95	47.33	95	78-120	0	0-20	
Carbon Tetrachloride	ND	50.00	49.94	100	49.81	100	67-139	0	0-20	
Chlorobenzene	ND	50.00	47.22	94	47.34	95	80-120	0	0-20	
1,2-Dibromoethane	ND	50.00	51.51	103	49.46	99	80-123	4	0-20	
1,2-Dichlorobenzene	ND	50.00	47.59	95	48.38	97	76-120	2	0-20	
1,2-Dichloroethane	ND	50.00	47.65	95	47.48	95	76-130	0	0-20	
1,1-Dichloroethene	ND	50.00	47.02	94	48.13	96	70-130	2	0-27	
Ethylbenzene	ND	50.00	49.62	99	49.55	99	73-127	0	0-20	
Toluene	ND	50.00	48.92	98	49.30	99	72-126	1	0-20	
Trichloroethene	ND	50.00	50.79	102	51.44	103	74-122	1	0-20	
Vinyl Chloride	ND	50.00	50.32	101	50.87	102	65-131	1	0-24	
p/m-Xylene	ND	100.0	90.23	90	90.50	91	70-130	0	0-30	
o-Xylene	ND	50.00	44.05	88	44.19	88	70-130	0	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	49.23	98	47.25	94	69-123	4	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3050B
Method: EPA 6010B

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-17609	**LCS**	**Solid**	**ICP 7300**	**11/11/13**	**11/11/13 16:41**	**131111L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	27.49	110	80-120	73-127	
Arsenic	25.00	25.34	101	80-120	73-127	
Barium	25.00	25.38	102	80-120	73-127	
Beryllium	25.00	25.15	101	80-120	73-127	
Cadmium	25.00	26.27	105	80-120	73-127	
Chromium	25.00	27.39	110	80-120	73-127	
Cobalt	25.00	27.83	111	80-120	73-127	
Copper	25.00	25.59	102	80-120	73-127	
Lead	25.00	25.94	104	80-120	73-127	
Molybdenum	25.00	25.11	100	80-120	73-127	
Nickel	25.00	27.28	109	80-120	73-127	
Selenium	25.00	24.05	96	80-120	73-127	
Silver	12.50	12.87	103	80-120	73-127	
Thallium	25.00	26.52	106	80-120	73-127	
Vanadium	25.00	24.71	99	80-120	73-127	
Zinc	25.00	27.80	111	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3010A Total
Method: EPA 6010B

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-13797	**LCS**	**Aqueous**	**ICP 7300**	**11/11/13**	**11/12/13 13:28**	**131111LA5**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.5000	0.5293	106	80-120	73-127	
Arsenic	0.5000	0.5219	104	80-120	73-127	
Barium	0.5000	0.4982	100	80-120	73-127	
Beryllium	0.5000	0.4941	99	80-120	73-127	
Cadmium	0.5000	0.5135	103	80-120	73-127	
Chromium	0.5000	0.5408	108	80-120	73-127	
Cobalt	0.5000	0.5490	110	80-120	73-127	
Copper	0.5000	0.4945	99	80-120	73-127	
Lead	0.5000	0.5144	103	80-120	73-127	
Molybdenum	0.5000	0.4956	99	80-120	73-127	
Nickel	0.5000	0.5463	109	80-120	73-127	
Selenium	0.5000	0.4826	97	80-120	73-127	
Silver	0.2500	0.2531	101	80-120	73-127	
Thallium	0.5000	0.5333	107	80-120	73-127	
Vanadium	0.5000	0.4854	97	80-120	73-127	
Zinc	0.5000	0.5318	106	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 7470A Total
Method: EPA 7470A

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-6716	**LCS**	**Aqueous**	**Mercury**	**11/11/13**	**11/11/13 16:57**	**131111L06**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.009574	96	85-121	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-007-9815	**LCS**	**Solid**	**Mercury**	**11/11/13**	**11/11/13 17:24**	**131111L08**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.8462	101	85-121	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8081A

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-537-1532	**LCS**	**Solid**	**GC 51**	**11/12/13**	**11/13/13 17:18**	**131112L26**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Aldrin	25.00	20.92	84	50-135	36-149	
Alpha-BHC	25.00	19.94	80	50-135	36-149	
Beta-BHC	25.00	21.71	87	50-135	36-149	
4,4'-DDD	25.00	23.02	92	50-135	36-149	
4,4'-DDE	25.00	24.19	97	50-135	36-149	
4,4'-DDT	25.00	21.57	86	50-135	36-149	
Delta-BHC	25.00	21.28	85	50-135	36-149	
Dieldrin	25.00	22.11	88	50-135	36-149	
Endosulfan I	25.00	20.50	82	50-135	36-149	
Endosulfan II	25.00	22.07	88	50-135	36-149	
Endosulfan Sulfate	25.00	20.59	82	50-135	36-149	
Endrin	25.00	17.28	69	50-135	36-149	
Endrin Aldehyde	25.00	23.40	94	50-135	36-149	
Gamma-BHC	25.00	20.37	81	50-135	36-149	
Heptachlor	25.00	21.69	87	50-135	36-149	
Heptachlor Epoxide	25.00	20.71	83	50-135	36-149	
Methoxychlor	25.00	22.15	89	50-135	36-149	

Total number of LCS compounds: 17
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3510C
Method: EPA 8081A

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-529-661	**LCS**	**Aqueous**	**GC 44**	**11/11/13**	**11/15/13 16:55**	**131111L07**
099-12-529-661	**LCSD**	**Aqueous**	**GC 44**	**11/11/13**	**11/15/13 17:09**	**131111L07**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Alpha-BHC	0.5000	0.4668	93	0.5460	109	50-135	36-149	16	0-25	
Gamma-BHC	0.5000	0.4652	93	0.5410	108	50-135	36-149	15	0-25	
Beta-BHC	0.5000	0.4950	99	0.5703	114	50-135	36-149	14	0-25	
Heptachlor	0.5000	0.4676	94	0.5418	108	50-135	36-149	15	0-25	
Delta-BHC	0.5000	0.4735	95	0.5468	109	50-135	36-149	14	0-25	
Aldrin	0.5000	0.4700	94	0.5502	110	50-135	36-149	16	0-25	
Heptachlor Epoxide	0.5000	0.4694	94	0.5445	109	50-135	36-149	15	0-25	
Endosulfan I	0.5000	0.4674	93	0.5425	108	50-135	36-149	15	0-25	
Dieldrin	0.5000	0.4696	94	0.5467	109	50-135	36-149	15	0-25	
4,4'-DDE	0.5000	0.4570	91	0.5310	106	50-135	36-149	15	0-25	
Endrin	0.5000	0.4380	88	0.5077	102	50-135	36-149	15	0-25	
Endrin Aldehyde	0.5000	0.4341	87	0.4988	100	50-135	36-149	14	0-25	
4,4'-DDD	0.5000	0.4697	94	0.5459	109	50-135	36-149	15	0-25	
Endosulfan II	0.5000	0.4797	96	0.5576	112	50-135	36-149	15	0-25	
4,4'-DDT	0.5000	0.4506	90	0.5261	105	50-135	36-149	15	0-25	
Endosulfan Sulfate	0.5000	0.4654	93	0.5383	108	50-135	36-149	15	0-25	
Methoxychlor	0.5000	0.4592	92	0.5296	106	50-135	36-149	14	0-25	

Total number of LCS compounds: 17
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8082

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-535-2367	**LCS**	**Solid**	**GC 58**	**11/12/13**	**11/14/13 08:31**	**131112L27**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Aroclor-1016	100.0	108.3	108	50-135	
Aroclor-1260	100.0	96.96	97	50-135	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3510C
Method: EPA 8082

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-533-859	**LCS**	**Aqueous**	**GC 58**	**11/11/13**	**11/15/13 15:47**	**131111L08**
099-12-533-859	**LCSD**	**Aqueous**	**GC 58**	**11/11/13**	**11/15/13 16:05**	**131111L08**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	2.000	2.071	104	2.059	103	50-135	1	0-25	
Aroclor-1260	2.000	2.008	100	1.932	97	50-135	4	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3510C
Method: EPA 8270C

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-003-3729	**LCS**	**Aqueous**	**GC/MS SS**	**11/12/13**	**11/13/13 12:40**	**131112L05**
095-01-003-3729	**LCSD**	**Aqueous**	**GC/MS SS**	**11/12/13**	**11/13/13 13:06**	**131112L05**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	200.0	160.4	80	159.8	80	62-120	52-130	0	0-20	
Acenaphthylene	200.0	159.7	80	159.1	80	56-120	45-131	0	0-20	
Butyl Benzyl Phthalate	200.0	166.7	83	164.9	82	51-129	38-142	1	0-20	
4-Chloro-3-Methylphenol	200.0	166.7	83	165.5	83	60-120	50-130	1	0-20	
2-Chlorophenol	200.0	152.8	76	150.7	75	60-120	50-130	1	0-20	
1,4-Dichlorobenzene	200.0	81.89	41	81.77	41	33-120	18-134	0	0-20	ME
Dimethyl Phthalate	200.0	151.5	76	151.2	76	63-120	54-130	0	0-20	
2,4-Dinitrotoluene	200.0	167.8	84	169.4	85	58-120	48-130	1	0-20	
Fluorene	200.0	176.1	88	176.3	88	63-120	54-130	0	0-20	
N-Nitroso-di-n-propylamine	200.0	208.6	104	206.6	103	48-120	36-132	1	0-20	
Naphthalene	200.0	127.6	64	127.6	64	54-120	43-131	0	0-20	
4-Nitrophenol	200.0	104.6	52	105.1	53	3-120	0-140	0	0-21	
Pentachlorophenol	200.0	165.4	83	168.2	84	31-127	15-143	2	0-21	
Phenol	200.0	89.44	45	88.68	44	16-120	0-137	1	0-20	
Pyrene	200.0	175.2	88	173.0	87	52-130	39-143	1	0-20	
1,2,4-Trichlorobenzene	200.0	101.1	51	101.2	51	49-120	37-132	0	0-20	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 3545
Method: EPA 8270C

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-549-2702	**LCS**	**Solid**	**GC/MS TT**	**11/11/13**	**11/14/13 01:09**	**131111L05**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acenaphthene	10.00	8.411	84	59-125	48-136	
Acenaphthylene	10.00	8.457	85	33-145	14-164	
Butyl Benzyl Phthalate	10.00	10.75	107	0-152	0-177	
4-Chloro-3-Methylphenol	10.00	9.260	93	61-121	51-131	
2-Chlorophenol	10.00	7.684	77	60-114	51-123	
1,4-Dichlorobenzene	10.00	7.075	71	61-121	51-131	
Dimethyl Phthalate	10.00	9.008	90	0-112	0-131	
2,4-Dinitrotoluene	10.00	10.09	101	51-141	36-156	
Fluorene	10.00	9.040	90	59-121	49-131	
N-Nitroso-di-n-propylamine	10.00	9.373	94	64-136	52-148	
Naphthalene	10.00	7.665	77	21-133	2-152	
4-Nitrophenol	10.00	8.082	81	38-152	19-171	
Pentachlorophenol	10.00	9.106	91	38-116	25-129	
Phenol	10.00	7.645	76	59-125	48-136	
Pyrene	10.00	10.46	105	51-141	36-156	
1,2,4-Trichlorobenzene	10.00	7.639	76	58-118	48-128	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 5030C
Method: EPA 8260B

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-001-12427	**LCS**	**Aqueous**	**GC/MS OO**	**11/13/13**	**11/13/13 23:01**	**131113L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	50.00	48.25	97	80-120	73-127	
Carbon Tetrachloride	50.00	50.01	100	66-138	54-150	
Chlorobenzene	50.00	48.19	96	80-120	73-127	
1,2-Dibromoethane	50.00	52.19	104	80-120	73-127	
1,2-Dichlorobenzene	50.00	48.02	96	80-120	73-127	
1,2-Dichloroethane	50.00	48.80	98	80-129	72-137	
1,1-Dichloroethene	50.00	47.67	95	71-131	61-141	
Ethylbenzene	50.00	50.14	100	80-123	73-130	
Toluene	50.00	49.51	99	79-121	72-128	
Trichloroethene	50.00	50.45	101	80-120	73-127	
Vinyl Chloride	50.00	48.53	97	70-136	59-147	
p/m-Xylene	100.0	91.04	91	75-125	67-133	
o-Xylene	50.00	44.77	90	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)	50.00	50.60	101	72-126	63-135	

Total number of LCS compounds: 14
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 11/08/13
Work Order: 13-11-0697
Preparation: EPA 5030C
Method: EPA 8260B

Project: DTSC - Wildomar Autumnwood Development / NB1016075P

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-001-12429	**LCS**	**Aqueous**	**GC/MS OO**	**11/14/13**	**11/14/13 10:41**	**131114L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	50.00	46.50	93	80-120	73-127	
Carbon Tetrachloride	50.00	49.22	98	66-138	54-150	
Chlorobenzene	50.00	46.80	94	80-120	73-127	
1,2-Dibromoethane	50.00	50.78	102	80-120	73-127	
1,2-Dichlorobenzene	50.00	47.29	95	80-120	73-127	
1,2-Dichloroethane	50.00	46.07	92	80-129	72-137	
1,1-Dichloroethene	50.00	46.45	93	71-131	61-141	
Ethylbenzene	50.00	49.45	99	80-123	73-130	
Toluene	50.00	48.65	97	79-121	72-128	
Trichloroethene	50.00	49.97	100	80-120	73-127	
Vinyl Chloride	50.00	48.72	97	70-136	59-147	
p/m-Xylene	100.0	89.86	90	75-125	67-133	
o-Xylene	50.00	43.93	88	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)	50.00	46.97	94	72-126	63-135	

Total number of LCS compounds: 14
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Sample Analysis Summary Report

Work Order: 13-11-0697

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3010A Total	469	ICP 7300	1
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7470A	EPA 7470A Total	769	Mercury	1
EPA 7471A	EPA 7471A Total	769	Mercury	1
EPA 8081A	EPA 3545	500	GC 51	1
EPA 8081A	EPA 3510C	842	GC 44	1
EPA 8082	EPA 3545	669	GC 58	1
EPA 8082	EPA 3510C	669	GC 58	1
EPA 8260B	EPA 5030C	486	GC/MS OO	2
EPA 8270C	EPA 3545	449	GC/MS SS	1
EPA 8270C	EPA 3545	859	GC/MS TT	1
EPA 8270C	EPA 3510C	449	GC/MS SS	1

Return to Contents

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

CHAIN-OF-CUSTODY RECORD

NB 27369

PROJECT NAME: DTSC - Wildomar Avtownwood Development		DATE: 11/8/13	PAGE 1 OF 1
PROJECT NUMBER: NB101607SP	LABORATORY NAME: Calscience	CLIENT INFORMATION:	REPORTING REQUIREMENTS:
RESULTS TO: Joe Bahde	LABORATORY ADDRESS: 7440 Lincoln Way		13-11-0697
TURNAROUND TIME: Standard 5 - Day TAT	Garden Grove, CA 92841		
SAMPLE SHIPMENT METHOD: Lab dropoff	LABORATORY CONTACT: Steve Nowak		GEOTRACKER REQUIRED YES NO
	LABORATORY PHONE NUMBER: 714-895-5494		SITE SPECIFIC GLOBAL ID NO.

SAMPLERS (SIGNATURE):

	DATE	TIME	SAMPLE NUMBER	ANALYSES: VOCs EPA 8260B	Formaldehyde EPA 8315	OCP EPA 8081B	SVOCs EPA 8270C	PCBs EPA 8082A	CAM 6010B EPA	CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
1	11/8/13	0800	QCTB-11082013	X						2x40ml VOA	W		HCl	✓		2	
2		0915	7-GW-23-28	X	X					1 Lamber, 3x40ml VOA	W		HCl	✓		4	
3		1120	8-SS-5-6			X	X	X	X	1x8oz jar	S			✓		1	
4		1132	8-SS-9.5-10.5			X	X	X	X		S			✓		1	
5		1140	8-SS-14.25-15.25			X		X	X		S			✓		1	
6		1318	12-SS-5-6			X	X	X	X		S			✓		1	
7		1320	12-SS-9.5-10.5			X	X	X	X		S			✓		1	
8		1327	12-SS-13.25-15.25		~~X~~ V.R	X		X	X		S			✓	✓	2	
—		~~1458~~	DP		V.R												
9		1458	6-SS-5-6			X	X	X	X	1x8 oz jar	S			✓		1	
10		1505	6-SS-9-11			X	X	X	X		S			✓		1	
11		1506	60-SS-9-11			X	X	X	X		S			✓		1	
12		1525	6-SS-13.75-14.75			X		X	X		S			✓		1	
13		V40	QCEB-11082013	X		X	X	X	X	3x1 Lamber, 3x40cc VOA, 1x250cc HDPE	W		HCl	✓		7	Hold sample for VOCs only

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
SIGNATURE:	11/8/13	18:03	SIGNATURE:	11/8/13	18:03
PRINTED NAME: Jorge Perez			PRINTED NAME: DANNY CE		
COMPANY: AMEC			COMPANY: CEL		
SIGNATURE:			SIGNATURE:		
PRINTED NAME:			PRINTED NAME:		
COMPANY:			COMPANY:		
SIGNATURE:			SIGNATURE:		
PRINTED NAME:			PRINTED NAME:		
COMPANY:			COMPANY:		

TOTAL NUMBER OF CONTAINERS:

SAMPLING COMMENTS: temperature blank included in cooler

121 Innovation Drive, Suite 200
Irvine, California 92617-3094
Tel 949.642.0245 Fax 949.642.4474

amec

Return to Contents

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-11-0697

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 11/08/13

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 3.2 °C - 0.2 °C (CF) = 3.0 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter **Checked by:** 659

CUSTODY SEALS INTACT:

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A **Checked by:** 659

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Checked by:** 659

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☑8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Aqueous: ~~☐VOA~~ 3 ☑VOA**h** 3 ☐VOA**na**$_2$ ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na**$_2$ ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB ☐250PB ☑250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na**$_2$ ☐_____ ☐_____ ☐_____

659 11/8/13

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:** 131031A **Labeled/Checked by:** 659

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** 728

Preservative: **h:** HCL **n:** HNO_3 **na**$_2$:$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** 728

Return to Contents

Subcontractor Analysis Report

One or more samples in this work order have tests that were subcontracted. The subcontract report(s) follows.

For subcontracted tests, please reference the laboratory information noted below.

1. Weck Laboratories, Inc. - City of Industry,CA NELAP 04229CA
   Formaldehyde

Return to Contents

Certificate of Analysis

Report Date: 11/15/13 11:55
Received Date: 11/09/13 09:35
Turnaround Time: Normal

Project: 13-11-0697

Phones: (714) 895-5494
Fax: (714) 894-7501

P.O. #:

Attn: Stephen Nowak

Client: Calscience Environmental Laboratories
7440 Lincoln Way
Garden Grove, CA 92841-1432

Dear Stephen Nowak :

Enclosed are the results of analyses for samples received 11/9/2013 with the Chain of Custody document. The samples were received in good condition, at 2.1 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab Sample ID: 3K11003-01 **Sample ID: 7-GW-23-28** **Matrix:** Water
Sampled by: Client **Sampled: 11/08/13 09:15**

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Formaldehyde	ND		30	ug/l	1	EPA 8315A	11/11/13	11/14/13 10:27	W3K0448	

Return to Contents

Weck Laboratories, Inc 14859 East Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634
www.wecklabs.com

Certificate of Analysis

Quality Control Section

Aldehydes by EPA Method 8315A - Quality Control

Batch W3K0448 - EPA 8315A

Blank (W3K0448-BLK1) — **Prepared: 11/11/13 Analyzed: 11/14/13 10:27**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Formaldehyde		ND		ug/l					

LCS (W3K0448-BS1) — **Prepared: 11/11/13 Analyzed: 11/14/13 10:27**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Formaldehyde		101		ug/l	100	101	44-173		

Matrix Spike (W3K0448-MS1) — **Source: 3K11003-01** — **Prepared: 11/11/13 Analyzed: 11/14/13 10:27**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Formaldehyde	ND	78.2		ug/l	100	78	32-164		

Matrix Spike Dup (W3K0448-MSD1) — **Source: 3K11003-01** — **Prepared: 11/11/13 Analyzed: 11/14/13 10:27**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Formaldehyde	ND	101	Q-12	ug/l	100	101	32-164	25	20

Return to Contents

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www.wecklabs.com

Certificate of Analysis

Notes:
The Chain of Custody document is part of the analytical report.
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.
The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).
For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature

Contact: Kim G Tu (Project Manager)

ELAP # 1132
LACSD # 10143
NELAC # 04229CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

Q-12	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on the percent recoveries and/or other acceptable QC data.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
Sub	Subcontracted analysis, original report enclosed.
DL	Method Detection Limit
RL	Method Reporting Limit
MDA	Minimum Detectable Activity
NR	Not Reportable

Return to Contents

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www.wecklabs.com

WECK LABORATORIES, INC.

Level "4" Deliverables (IC/LC) – EPA Method 8315

Lab Work Order No: 3K11003 Client Sample ID: See COA

1. Acronyms and Abbreviations 1

BLK:	Method Blank
BMI/AMI:	Before Manual Integration/After Manual Integration
BRL:	Below Reporting Limit
BS:	Blank Spike (or Lab Control Sample, LCS)
BSD:	Blank Spike Duplicate (or LCSD)
CCV:	Continuous Calibration Verification
COA:	Certificate of Analysis (Lab Report)
MS:	Matrix Spike
MSD:	Matrix Spike Duplicate
OCR:	Over Calibration Range
ORW:	Over Retention Time Window

2. Chain of Custody 2
3. Sample results with analysis and preparation dates: See "COA" (Lab Report).
4. Summary of QC samples (BLK, BS/BSD, MS/MSD): See "Quality Control Section" of the "COA".
5. Summary of surrogate recoveries: See "COA".
6. Case Narratives: See cover page of "COA".
7. Batch QC Check List 3
8. Preparation Bench Sheet 4
9. Injection logs 5
10. Raw data (chromatogram and quantitation report) 6-13
11. Summary of continuing calibration (%R) 14
12. Summary of initial calibration and raw data 15-20
13. Standard preparation records 21-22

Prepared by/Date: 01/21/2014 CWH Reviewed by/Date: 1-22-14

Return to Contents

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

TO: Weck Labs
City of Industry

3K11003

CHAI
DATE:
PAGE:

LABORATORY CLIENT:
Calscience Environmental Laboratories, Inc.

ADDRESS:
7440 Lincoln Way

CITY:
Garden Grove, CA 92841

TEL: **714-895-5494**

E-MAIL: snowak@calscience.com

CLIENT PROJECT NAME / NUMBER:
13-11-0697

PROJECT CONTACT:
Stephen Nowak

SAMPLER(S): (PRINT)

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ Standard

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ RCHIVE SAMPLES UNTIL ____ / ____ / ____

SPECIAL INSTRUCTIONS

REQUESTED AN

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	Formaldehyde by EPA 8315
	7-GW-23-28	11/08/13	9:15	W	1	X

Relinquished by: (Signature)

(CALSCIENCE)

Received by / Affiliation: (Signature)

2.1°C

Relinquished by: (Signature)

Received by / Affiliation: (Signature)

Relinquished by: (Signature)

Received by / Affiliation: (Signature)

Return to Contents

Appendix 1
Data Validation Worksheet

WECK LABORATORIES, INC.

Batch QC Check List - EPA 8315A

Date analyzed: 11/14/2013 Cal Std/CCV ID: ~~3101021~~ 3090345 Batch#: W3K0448

Analyst(s) initials: CWH ICV/LCS ID: 3100375 Inst.ID: LC02

QC	Frequency	Criteria	Status P	Status F	IR	Comments
ICAL						
r^2 or COD	when necessary	> 0.99	☐	☐	☐	
and						
low-level cal std	from ICAL	50-150%	☐	☐	☐	At or below RL
and						
mid and high level cal stds	from ICAL	85-115%	☐	☐	☐	
and						
ICV (extracted)		80-120%	☐	☐	☐	Mid-level
Daily analysis						
System Blank	beginning	< MRL	☑	☐	☐	
low-level CCV	beginning	50-150%	☑	☐	☐	At or below RL, if no same-day ICAL
Method Blank	1 in 20	< MRL	☑	☐	☐	
LCS	1 in 20	see current criteria	☑	☐	☐	
MS	1 in 20	see current criteria	☑	☐	☐	
MSD	1 in 20	see current criteria	☑	☐	☐	
RPD	1 in 20	≤ 20%	☑	☑	☐	MS-06
CCV	1 in 10 ^	85-115%	☑	☐	☐	Alternate mid and high levels
CCV	1 in 10 ^	85-115%	☐	☐	☐	Alternate mid and high levels

^ After every 10 samples, but also at the end of each batch

Comments:

Approved by/date: 11/15/13

PREPARATION BENCH SHEET

Batch: **W3K0448**

Pre

Lab Number Sample Name	Analysis Due Date	By	Prepared Sampled	Initial (ml)	Final (ml)	pH	Surrogate (ul)	Client	
3K11003-01 - 7-GW-23-28	8315 Water formaldehyde 11/21/13 12:00	par	11/11/13 14:00 11/08/13 09:15	100	10			Calscience Environmental Laboratories	Level 4 Data P

LabNumber	By	Prepared	Initial (ml)	Final (ml)	Source ID	Spike 1 ID Spike 1	Spike 1 Amt (ul)	Spike 2 ID Spike 2	Spike 2 Amt (ul)	Surrogate (ul)	Comments
W3K0448-BLK1 Blank	par	**11/11/13 09:12**	100	10	-						
W3K0448-BS1 LCS	par	**11/11/13 09:12**	100	10	-	**3100375** Pre-Prep	100				
W3K0448-MS1 Matrix Spike	par	**11/11/13 09:12**	100	10	3K11003-01	**3100375** Pre-Prep	100				
W3K0448-MSD1 Matrix Spike Dup	par	**11/11/13 09:12**	100	10	3K11003-01	**3100375** Pre-Prep	100				

ID	Description	Vendor	Lot Number	Type	Expiration	Init	Comments
3100375	8315 LCS spike	Ultra Scientific	CK-1754	Spike Mix	10/04/14	cwh	Ultra Scientific 2 analytes@ 1000ug/ml
3030370	Dichloromethane MeCl2/CS299-200	VWR	DH943	Reagent	03/11/24	fan	1 X 200 Liters
1090041	Acetonitrile, HP412	Spectrum	1AE0584	Reagent	09/01/15	alc	Acetonitrile, HPLC Grade

Return to Contents

Prepared By Date

Received By Date

Analyzed By

Title: EPA 8315A
Datasource: ICSTATION14_local
Location: LC#2\8315A\2013\11 Nov 2013
Timebase: LC#2 Created: 6/19/2006 10:21:19 AM by Station15
#Samples: 13 Last Update: 11/14/2013 10:16:53 AM by station14

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time	Weight	Dil. Factor	Sample ID	Comment
1	ccv 300 ppb	Standard	C6	50.0	8315A	8315A	Finished	11/11/2013 9:02:07 AM	1.0000	1.0000	3101021	
2	ccv 500 ppb	Standard	C7	50.0	8315A	8315A	Finished	11/11/2013 9:17:24 AM	1.0000	1.0000	3101021	
3	ccv 1000 ppb	Standard	C8	50.0	8315A	8315A	Finished	11/11/2013 9:32:42 AM	1.0000	1.0000	3101021	3090345
4	ccv 2000 ppb	Standard	C9	50.0	8315A	8315A	Finished	11/11/2013 9:48:00 AM	1.0000	1.0000	3101021	
5	ccv 3000 ppb	Standard	C10	50.0	8315A	8315A	Finished	11/11/2013 10:03:19 AM	1.0000	1.0000	3101021	
6	System Blank	Unknown	C1	50.0	8315A	8315A	Finished	11/14/2013 8:36:30 AM	1.0000	1.0000		
7	ccv 300 ppb	Unknown	C3	50.0	8315A	8315A	Finished	11/14/2013 8:52:01 AM	1.0000	1.0000	3101021	3090345
8	W3K0448-BLK	Unknown	C6	50.0	8315A	8315A	Finished	11/14/2013 9:10:20 AM	1.0000	1.0000		
9	W3K0448-BS	Unknown	C7	50.0	8315A	8315A	Finished	11/14/2013 9:25:38 AM	1.0000	1.0000	3100375	
10	3K11003-01	Unknown	C8	50.0	8315A	8315A	Finished	11/14/2013 9:40:56 AM	1.0000	1.0000	CEL	
11	W3K0448-MS	Unknown	C9	50.0	8315A	8315A	Finished	11/14/2013 9:56:14 AM	1.0000	1.0000	CEL/3100375	
12	W3K0448-MSD	Unknown	C10	50.0	8315A	8315A	Finished	11/14/2013 10:11:33 AM	1.0000	1.0000	CEL/3100375	
13	ccv 1000 ppb	Unknown	C4	50.0	8315A	8315A	Finished	11/14/2013 10:26:52 AM	1.0000	1.0000	3101021	3090345

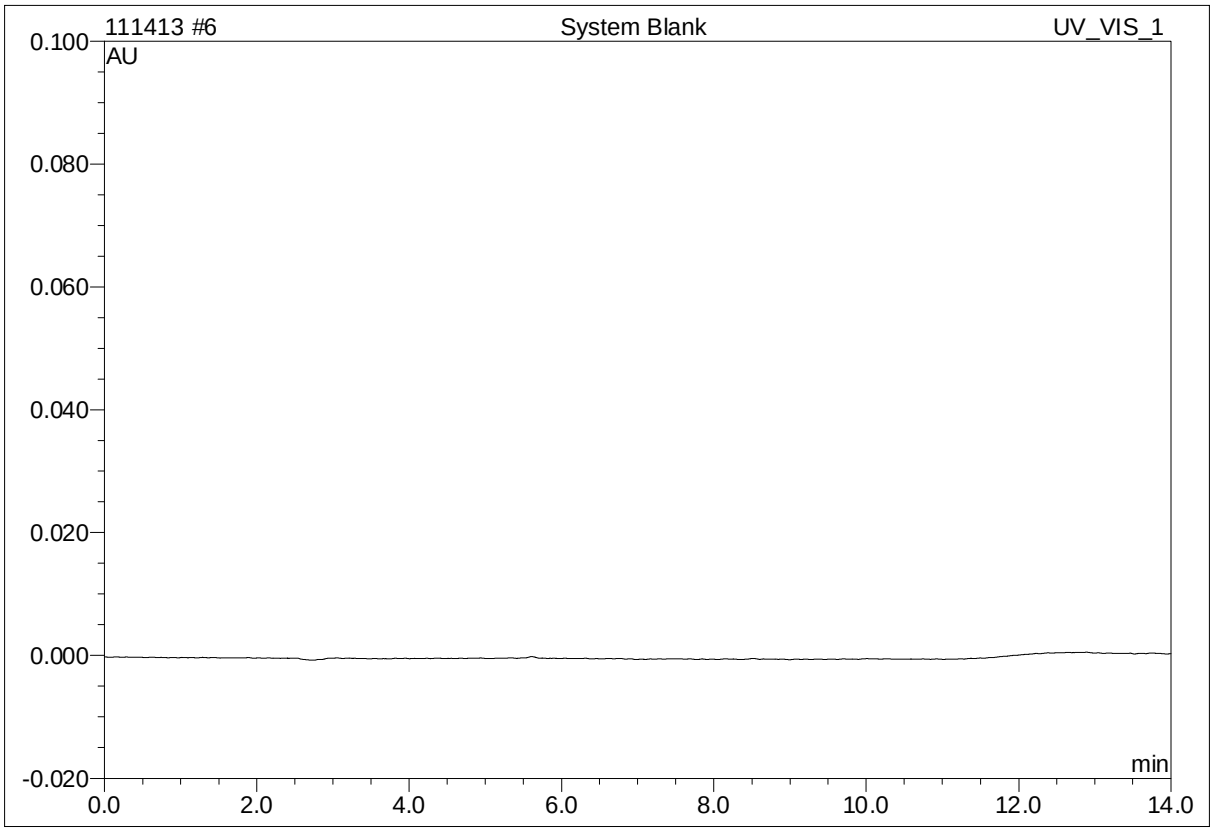
CWH 01/21/2014

Return to Contents

Chromeleon © Dionex Corporation, Version 6.80 Build 2212

6 System Blank

Sample Name:	**System Blank**	*Injection Volume:*	**50.0**
Vial Number:	**C1**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:		*Quantif. Method:*	**8315A**
Recording Time:	**11/14/13 08:36**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		

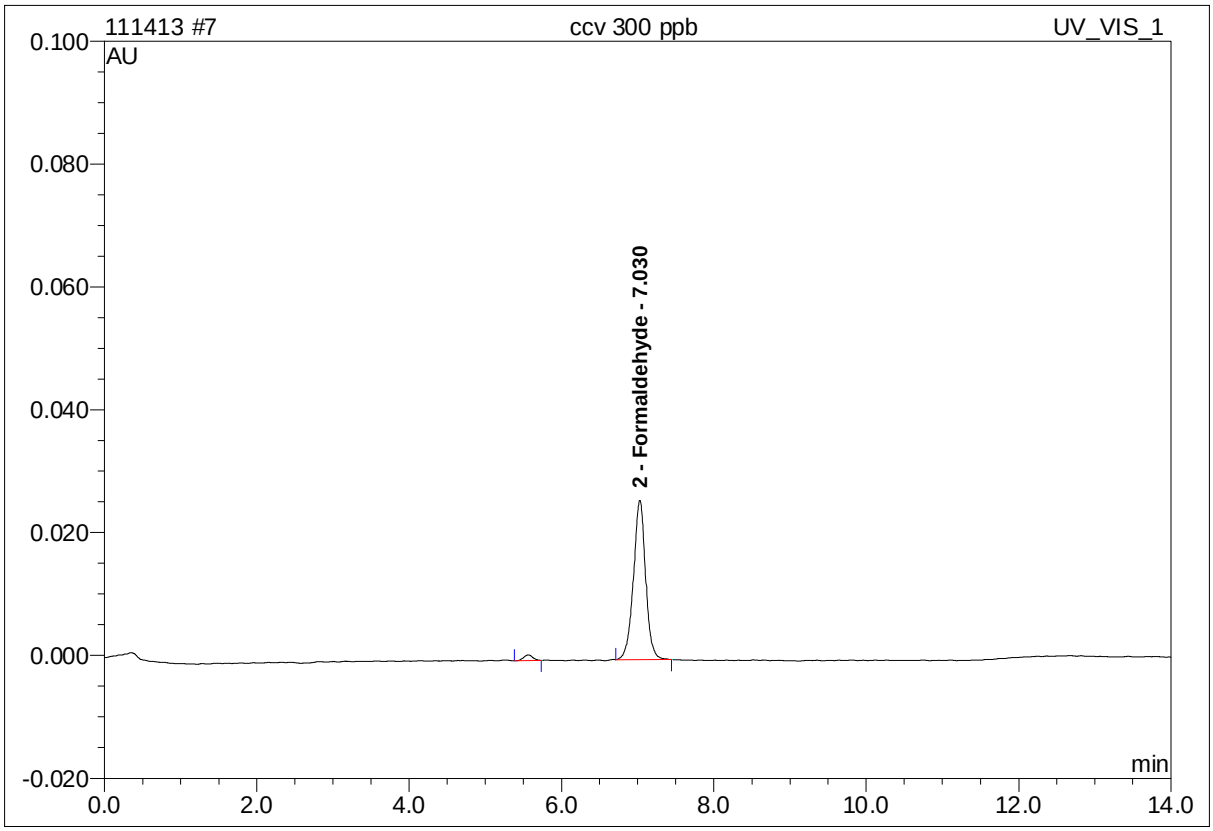


No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
Total:			0.000	0.000	0.00		0.000

Return to Contents

7 ccv 300 ppb

Sample Name:	**ccv 300 ppb**	*Injection Volume:*	**50.0**
Vial Number:	**C3**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:	~~3101021~~ 3090345 CWH 01/21/2014	*Quantif. Method:*	**8315A**
Recording Time:	**11/14/13 08:52**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		

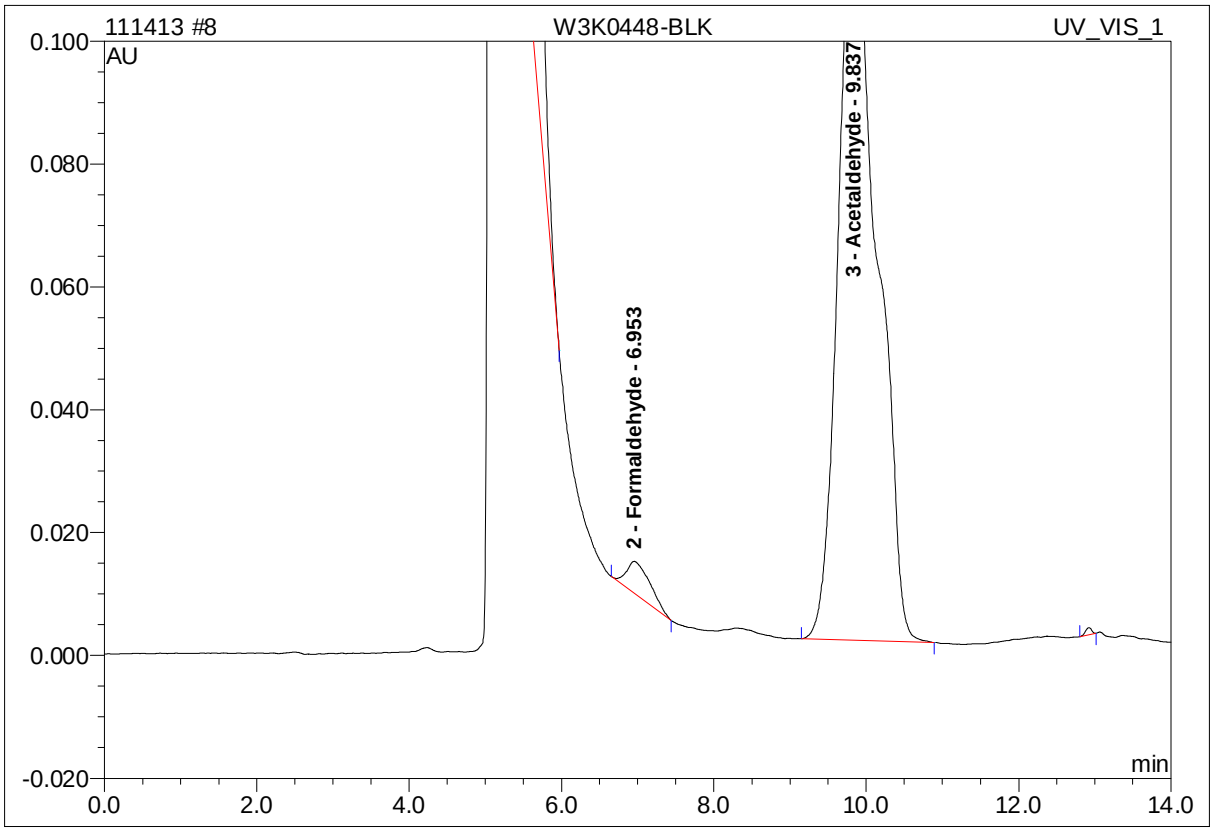


No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
2	7.03	Formaldehyde	0.026	0.005	97.40	0.90	273.188
Total:			0.026	0.005	97.40		273.188

Return to Contents

8 W3K0448-BLK

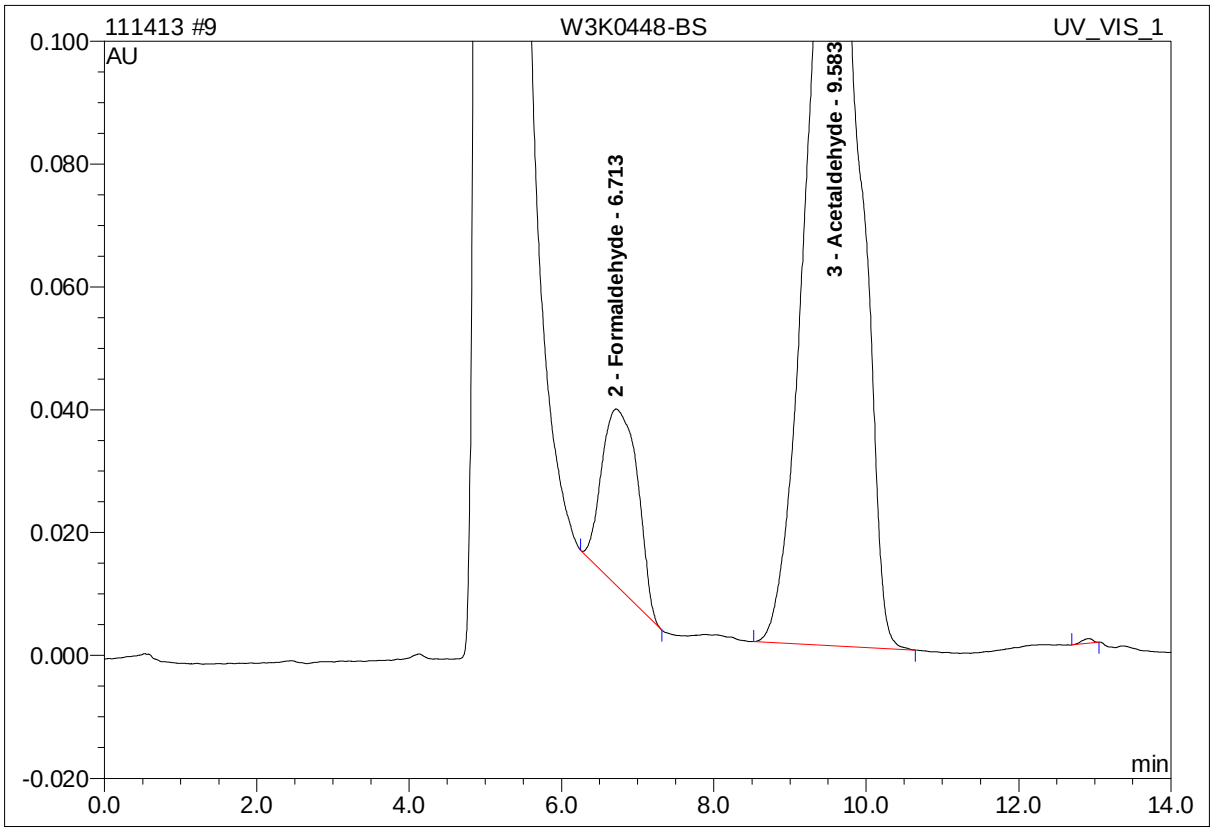
Sample Name:	**W3K0448-BLK**	*Injection Volume:*	**50.0**
Vial Number:	**C6**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:		*Quantif. Method:*	**8315A**
Recording Time:	**11/14/13 09:10**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
2	6.95	Formaldehyde	0.005	0.002	1.49	1.08	83.970
3	9.84	Acetaldehyde	0.120	0.070	53.39	1.02	n.a.
Total:			0.125	0.072	54.88		83.970

9 W3K0448-BS

Sample Name:	**W3K0448-BS**	*Injection Volume:*	**50.0**
Vial Number:	**C7**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:	**3100375**	*Quantif. Method:*	**8315A**
Recording Time:	**11/14/13 09:25**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		

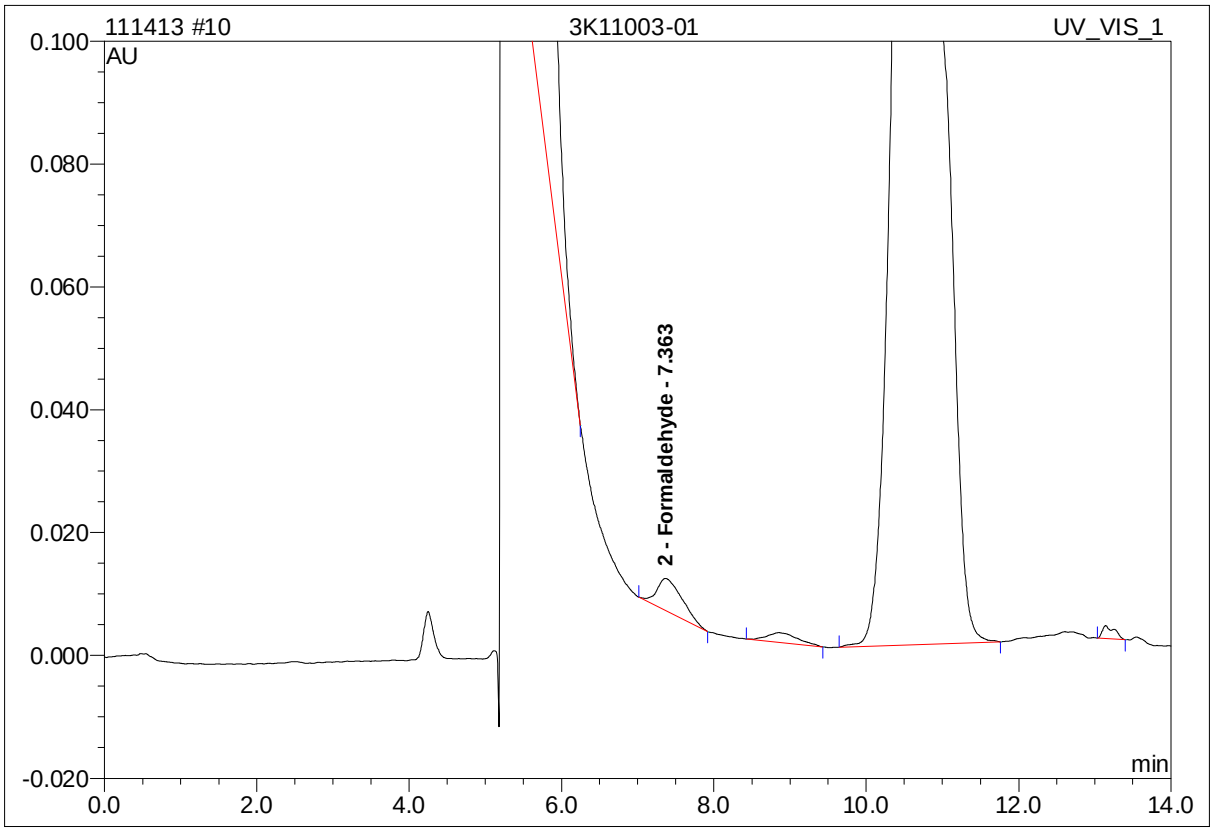


No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
2	6.71	Formaldehyde	0.029	0.016	11.38	1.25	1008.465
3	9.58	Acetaldehyde	0.156	0.114	81.78	0.99	n.a.
Total:			0.185	0.130	93.16		1008.465

Return to Contents

10 3K11003-01

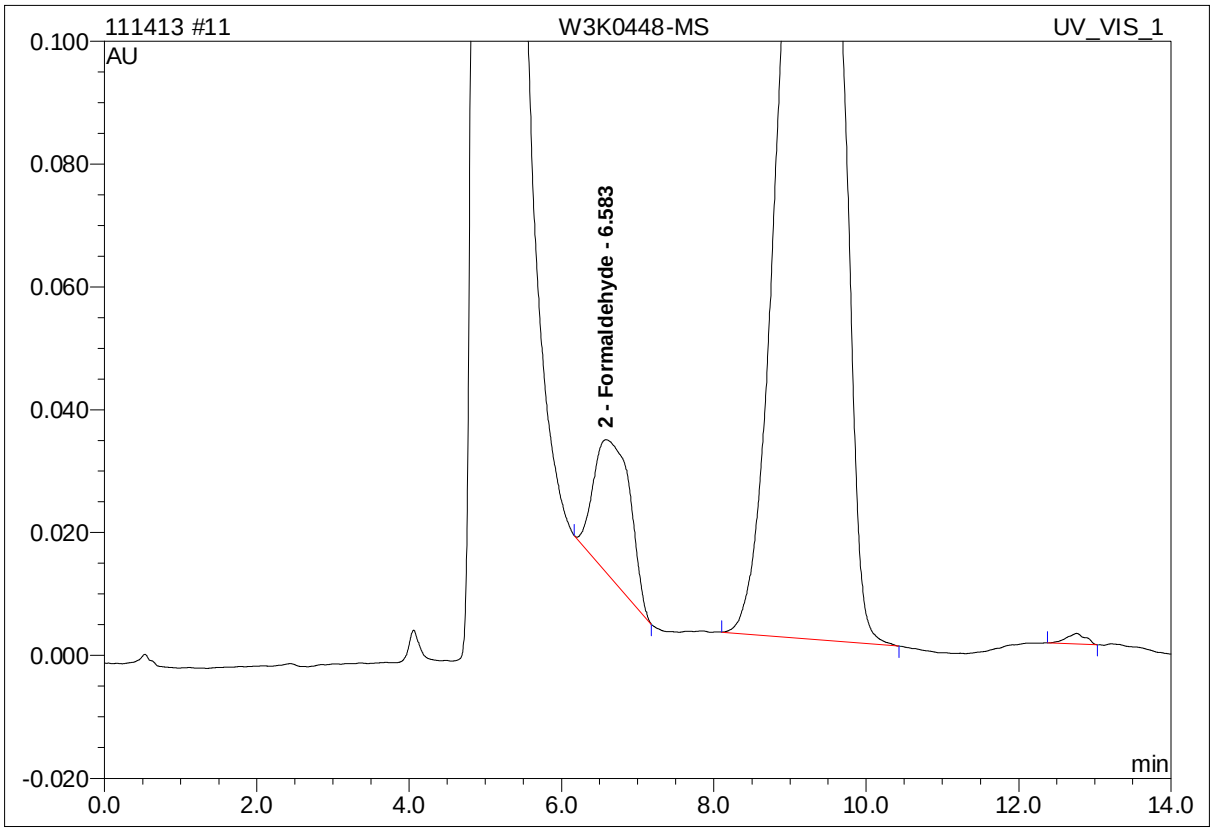
Sample Name:	**3K11003-01**	*Injection Volume:*	**50.0**
Vial Number:	**C8**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:	**CEL**	*Quantif. Method:*	**8315A**
Recording Time:	**11/14/13 09:40**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
2	7.36	Formaldehyde	0.005	0.002	1.00	1.03	90.494
Total:			0.005	0.002	1.00		90.494

11 W3K0448-MS

Sample Name:	**W3K0448-MS**	*Injection Volume:*	**50.0**
Vial Number:	**C9**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:	**CEL/3100375**	*Quantif. Method:*	**8315A**
Recording Time:	**11/14/13 09:56**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		

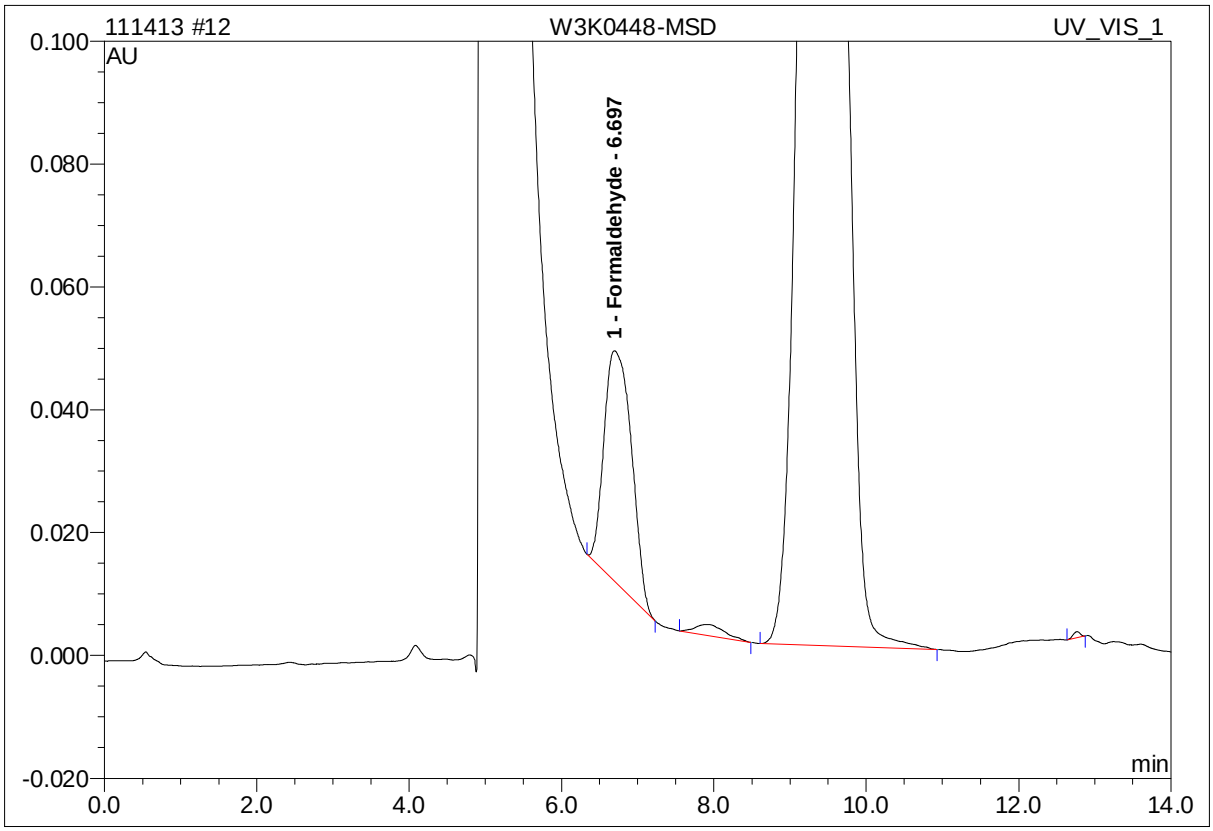


No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
2	6.58	Formaldehyde	0.022	0.012	6.94	1.28	782.043
Total:			0.022	0.012	6.94		782.043

Return to Contents

12 W3K0448-MSD

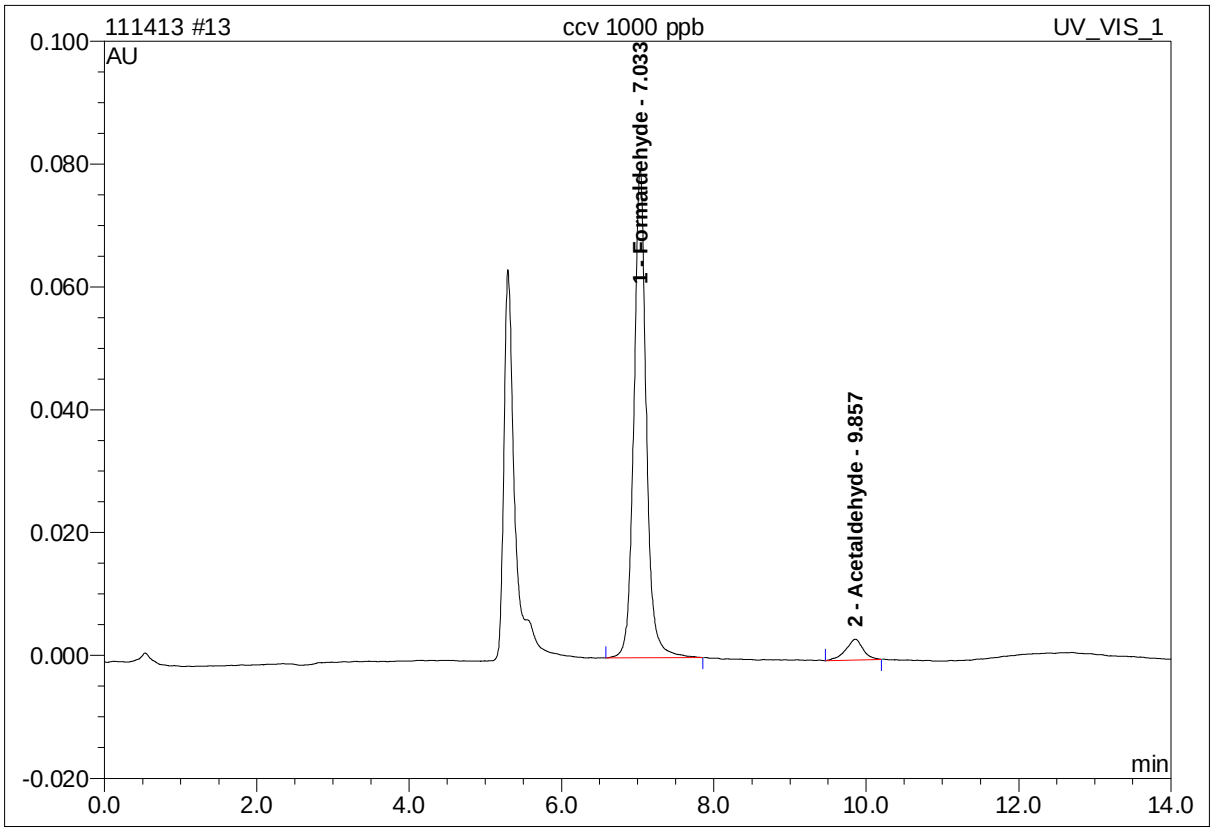
Sample Name:	**W3K0448-MSD**	*Injection Volume:*	**50.0**
Vial Number:	**C10**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:	**CEL/3100375**	*Quantif. Method:*	**8315A**
Recording Time:	**11/14/13 10:11**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
1	6.70	Formaldehyde	0.038	0.016	9.72	1.17	1007.951
Total:			0.038	0.016	9.72		1007.951

13 ccv 1000 ppb

Sample Name:	**ccv 1000 ppb**	*Injection Volume:*	**50.0**
Vial Number:	**C4**	*Channel:*	**UV_VIS_1**
Sample Type:	**unknown**	*Control Program:*	**8315A**
Sample ID:	~~3101021~~ 3090345 CWH 01/21/2014	*Quantif. Method:*	**8315A**
Recording Time:	**11/14/13 10:26**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
1	7.03	Formaldehyde	0.080	0.015	94.44	0.89	951.708
2	9.86	Acetaldehyde	0.003	0.001	5.56	0.82	n.a.
Total:			0.083	0.016	100.00		951.708

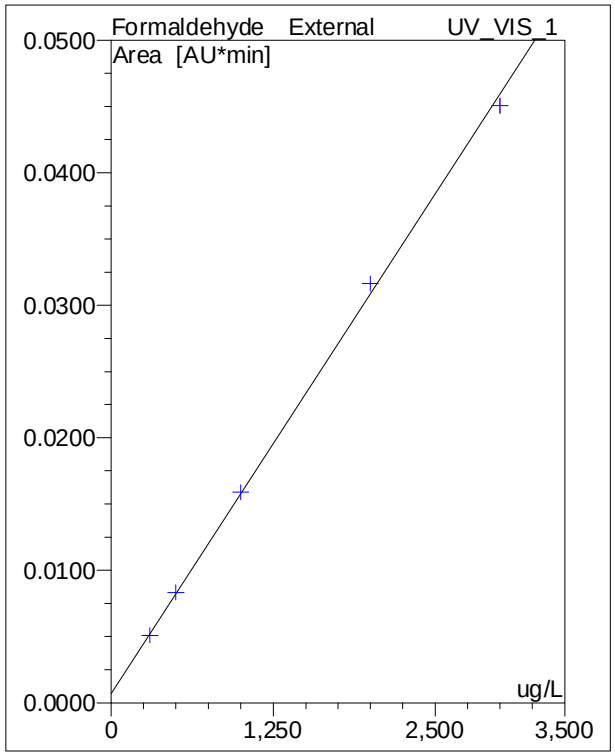
Continuing Calibration Verification
8315

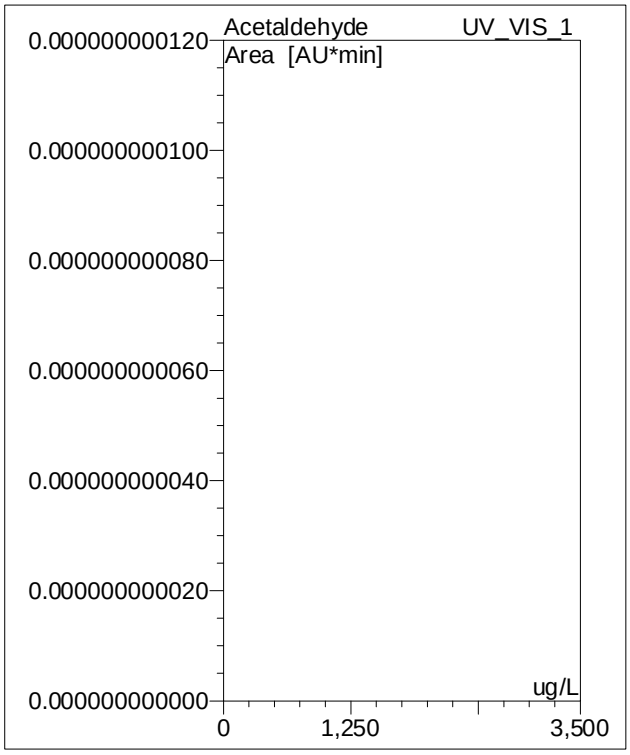
	Analysis Date/Time	True Value	Reported Value	Percent Recovery
CCV				
300	11/14/2013 8:52	300	273.188	91.06266667
1000	11/14/2013 10:26	951.708	973.051	102.2425996

Return to Contents

5 ccv 3000 ppb

Sample Name:	**ccv 3000 ppb**	*Injection Volume:*	**50.0**
Vial Number:	**C10**	*Channel:*	**UV_VIS_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**8315A**	*Bandwidth:*	**n.a.**
Quantif. Method:	**8315A**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/11/2013 10:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**14.00**	*Sample Amount:*	**1.0000**

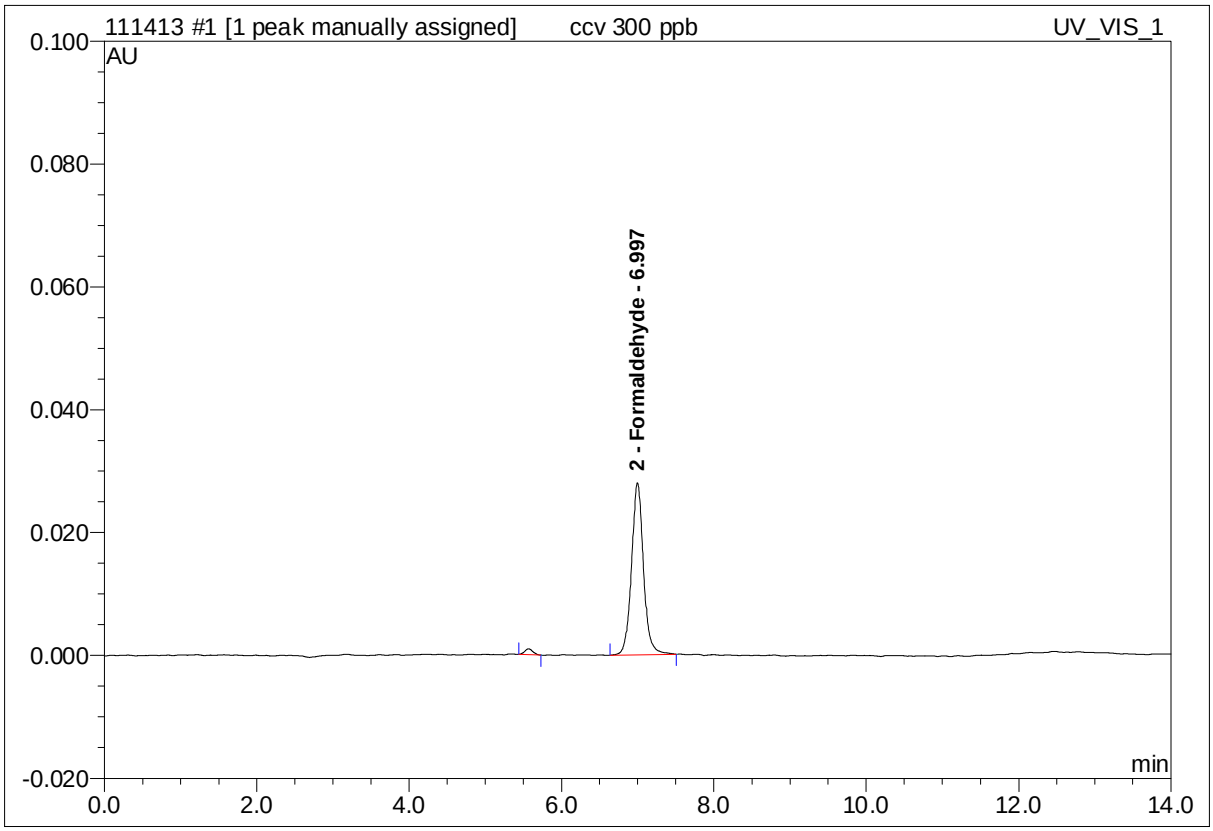




No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	5.51	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	6.93	Formaldehyde	XLOff	5	99.9569	0.6866	0.0151	0.00000
Average:					99.9569	0.6866	0.0151	0.0000

1 ccv 300 ppb

Sample Name:	**ccv 300 ppb**	*Injection Volume:*	**50.0**
Vial Number:	**C6**	*Channel:*	**UV_VIS_1**
Sample Type:	**standard**	*Control Program:*	**8315A**
Sample ID:	~~**3101021**~~ 3090345 CWH 01/21/2014	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 09:02**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		

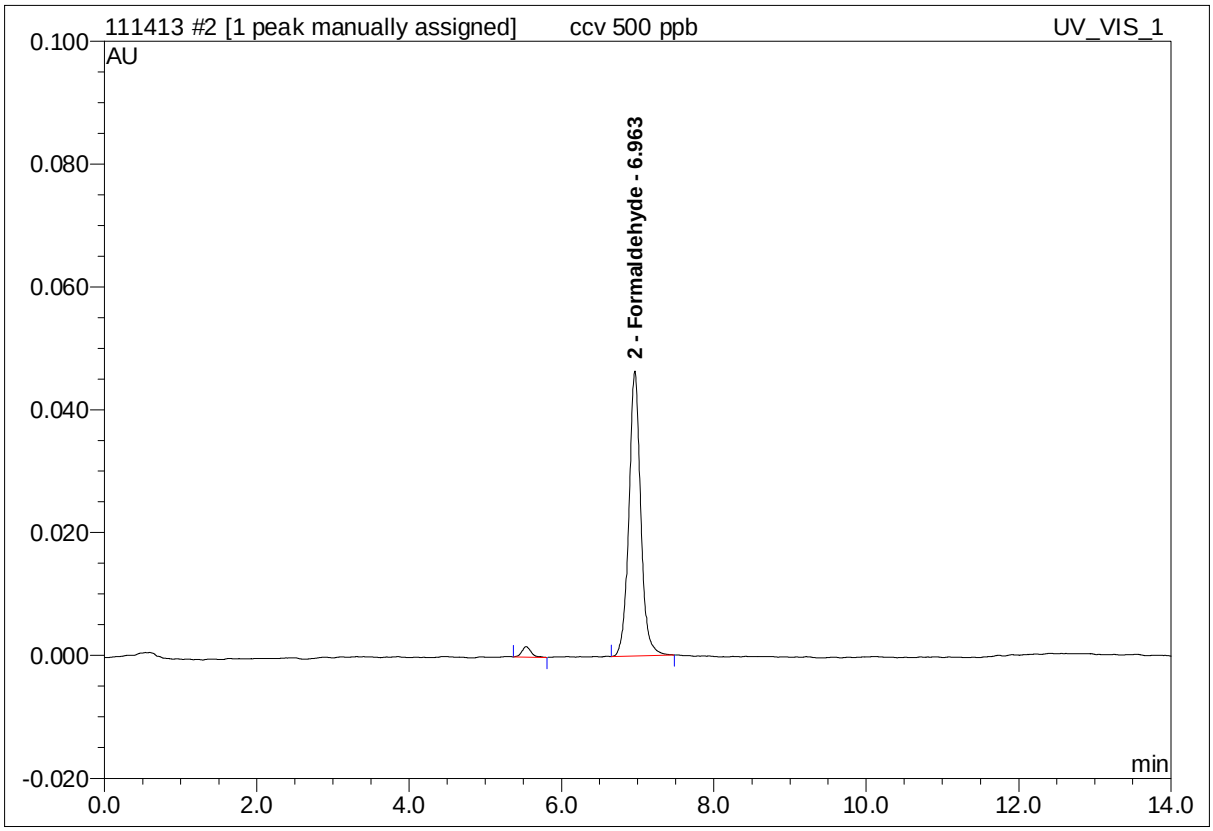


No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
2	7.00	Formaldehyde	0.028	0.005	97.77	0.89	291.959
Total:			0.028	0.005	97.77		291.959

Return to Contents

2 ccv 500 ppb

Sample Name:	**ccv 500 ppb**	*Injection Volume:*	**50.0**
Vial Number:	**C7**	*Channel:*	**UV_VIS_1**
Sample Type:	**standard**	*Control Program:*	**8315A**
Sample ID:	~~3101021~~ 3090345 CWH 01/21/2014	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 09:17**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		

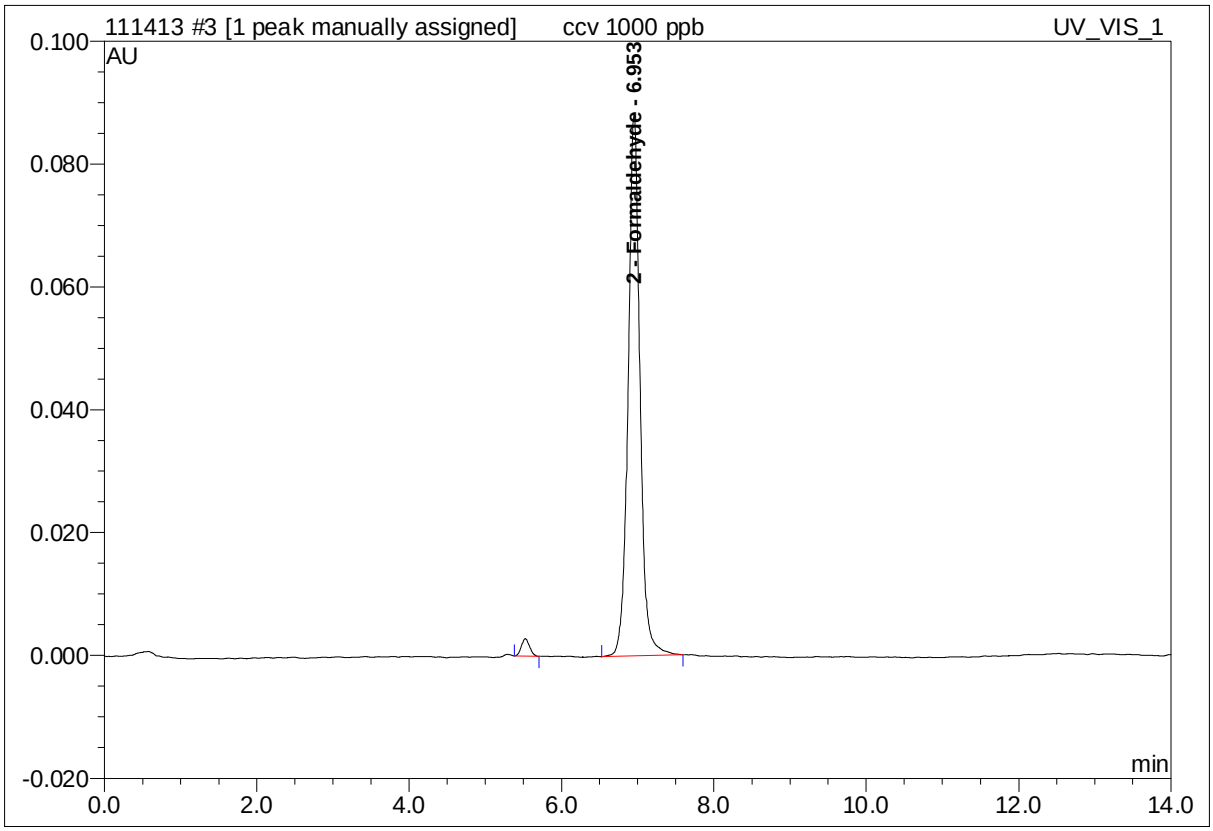


No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
2	6.96	Formaldehyde	0.046	0.008	97.24	0.88	506.248
Total:			0.046	0.008	97.24		506.248

Return to Contents

3 ccv 1000 ppb

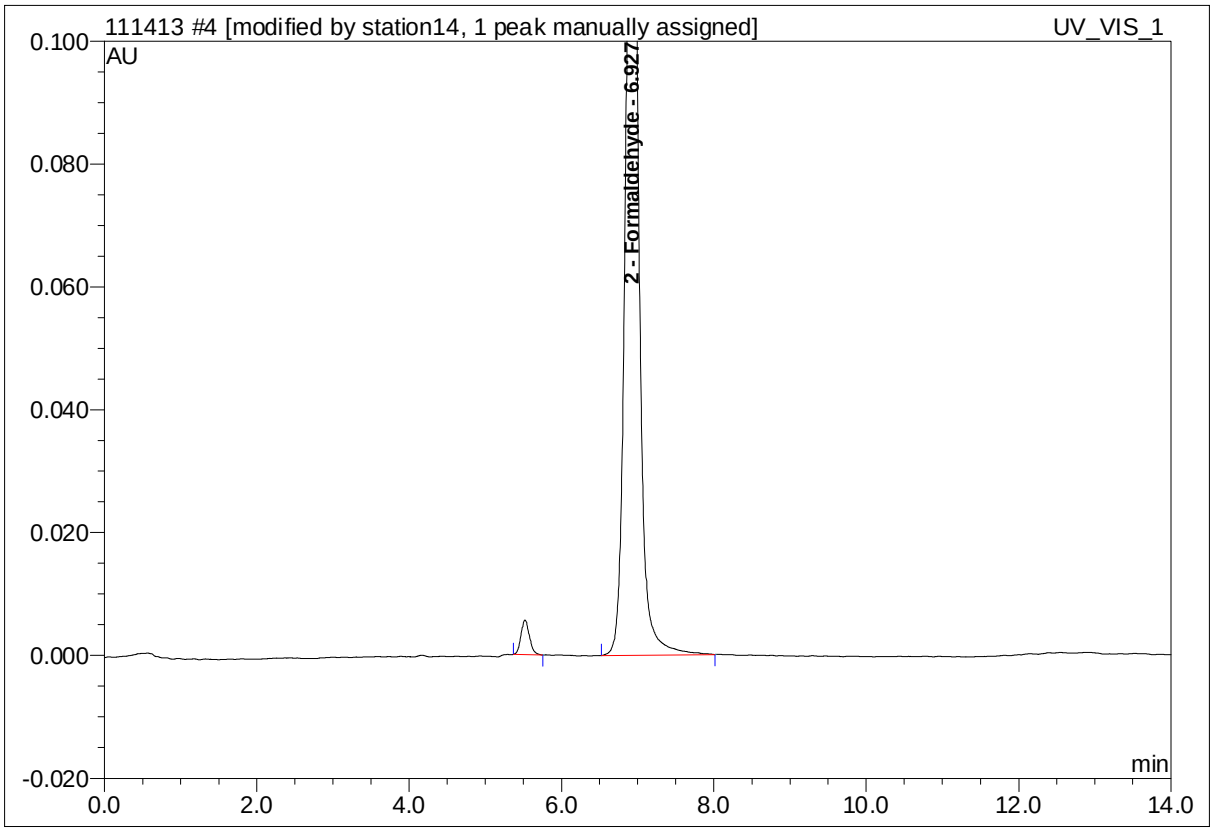
Sample Name:	**ccv 1000 ppb**	*Injection Volume:*	**50.0**
Vial Number:	**C8**	*Channel:*	**UV_VIS_1**
Sample Type:	**standard**	*Control Program:*	**8315A**
Sample ID:	~~**3101021**~~ 3090345 CWH 01/21/2014	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 09:32**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
2	6.95	Formaldehyde	0.088	0.016	97.82	0.89	1007.435
Total:			0.088	0.016	97.82		1007.435

4 ccv 2000 ppb

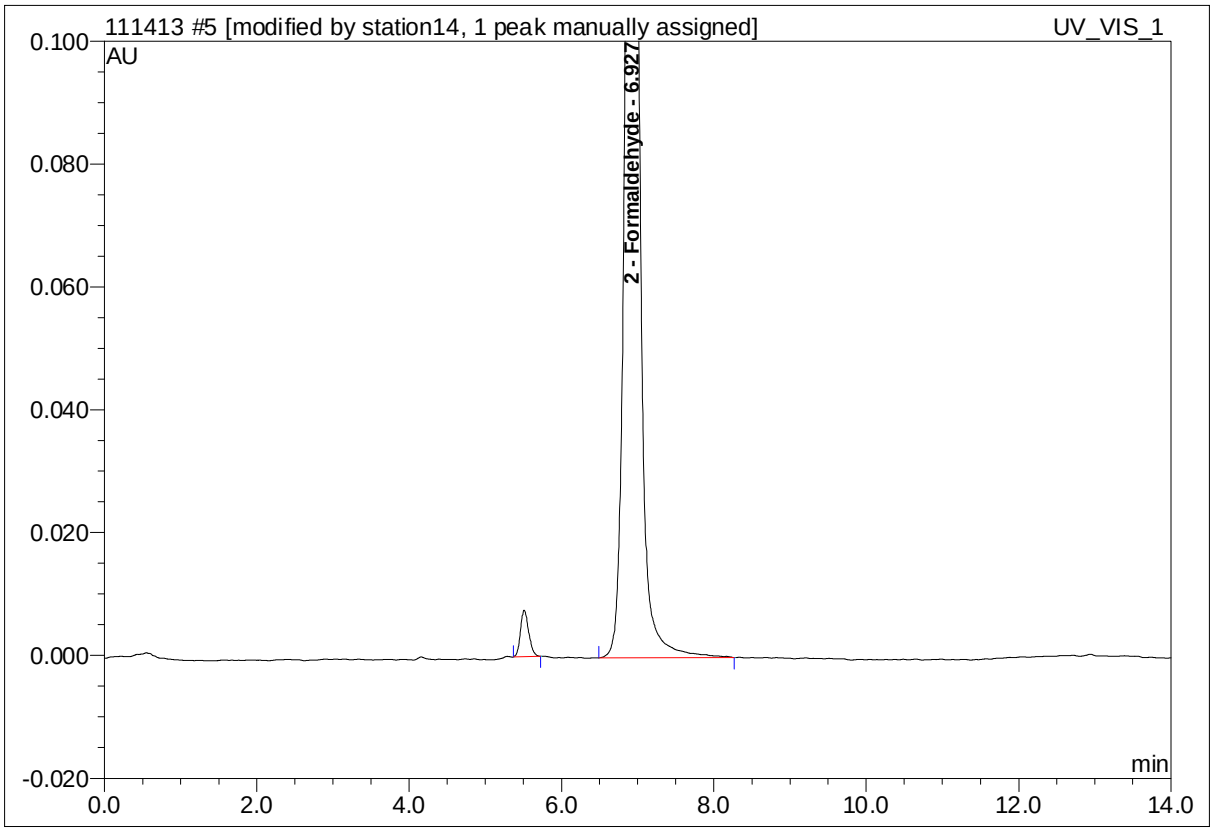
Sample Name:	**ccv 2000 ppb**	*Injection Volume:*	**50.0**
Vial Number:	**C9**	*Channel:*	**UV_VIS_1**
Sample Type:	**standard**	*Control Program:*	**8315A**
Sample ID:	~~**3101021**~~ 3090345 CWH 01/21/2014	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 09:48**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
2	6.93	Formaldehyde	0.174	0.032	97.77	0.88	2052.523
Total:			0.174	0.032	97.77		2052.523

5 ccv 3000 ppb

Sample Name:	**ccv 3000 ppb**	*Injection Volume:*	**50.0**
Vial Number:	**C10**	*Channel:*	**UV_VIS_1**
Sample Type:	**standard**	*Control Program:*	**8315A**
Sample ID:	~~**3101021**~~ 3090345 CWH 01/21/2014	*Quantif. Method:*	**8315A**
Recording Time:	**11/11/13 10:03**	*Dilution Factor:*	**1.0000**
Run Time (min):	**20.00**		



No.	Ret.Time min	Peak Name	Height AU	Area AU*min	Rel.Area %	PGF	Amount ug/L
2	6.93	Formaldehyde	0.244	0.045	97.96	0.89	2941.835
Total:			0.244	0.045	97.96		2941.835

Analytical Standard Record

Weck Laboratories, Inc

3090345

Description:	8315 Formaldehyde CCV	Expires:	10/10/17
Standard Type:	Calibration Stan	Prepared:	09/07/13
Solvent:	Acetonitrile	Prepared By:	James Hseu
Final Volume (mls):	1	Department:	HPLC-E
Vials:	1	Last Edit:	09/07/13 08:56 by cwh

Absolute Standards Formaldehyde-DNPH
P/N83547
Lot # 101012

Analyte	CAS Number	Concentration	Units
Formaldehyde	50-00-0	100	ug/mL

Return to Contents

Analytical Standard Record

Weck Laboratories, Inc

3100375

Description:	8315 LCS spike	Expires:	10/04/14
Standard Type:	Analyte Spike	Prepared:	10/04/13
Solvent:	Water	Prepared By:	James Hseu
Final Volume (mls):	3	Department:	HPLC-E
Vials:	1	Last Edit:	10/04/13 10:48 by cwh

Ultra Scientific 2 analytes@ 1000ug/mL in water
ALD-100-1
lot # CK1754

Analyte	CAS Number	Concentration	Units
Formaldehyde	50-00-0	100	ppm
Acetaldehyde	75-07-0	100	ppm

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
3060224	8315 LCS stock	06/07/13	James Hseu	06/30/15	06/07/13 08:30 by cwh	0.3

Return to Contents

Client Project Name: DTSC – Vildomar Autumnwood Development / NB1016075P
Work Order Number: 13-11-0697

CONDITION UPON RECEIPT:

Calscience Laboratories received three water samples and ten soil samples on November 8th, 2013. A total of 24 containers were received in good condition at temperatures of 3.0°C, which was within the recommended temperature criteria of >0°C – 6°C.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
QCTB-11082013	13-11-0697-1	11/08/13 08:00	11/08/13 18:03
7-GW-23-28	13-11-0697-2	11/08/13 09:15	11/08/13 18:03
8-SS-5-6	13-11-0697-3	11/08/13 11:20	11/08/13 18:03
8-SS-9.5-10.5	13-11-0697-4	11/08/13 11:32	11/08/13 18:03
8-SS-14.25-15.25	13-11-0697-5	11/08/13 11:40	11/08/13 18:03
12-SS-5-6	13-11-0697-6	11/08/13 13:18	11/08/13 18:03
12-SS-9.5-10.5	13-11-0697-7	11/08/13 13:20	11/08/13 18:03
12-SS-13.25-15.25	13-11-0697-8	11/08/13 13:27	11/08/13 18:03
6-SS-5-6	13-11-0697-9	11/08/13 14:58	11/08/13 18:03
6-SS-9-11	13-11-0697-10	11/08/13 15:05	11/08/13 18:03
60-SS-9-11	13-11-0697-11	11/08/13 15:06	11/08/13 18:03
6-SS-13.75-14.75	13-11-0697-12	11/08/13 15:25	11/08/13 18:03
QCEB-11082013	13-11-0697-13	11/08/13 15:40	11/08/13 18:03

DATA SUMMARY:

As per the chain-of-custody (COC), the samples were analyzed using one or more of the following methodologies:

- EPA 6010B for title 22 metals
- EPA method 7471A Mercury
- EPA method 7470A Mercury
- EPA 8081A for Organocholorine Pesticides
- EPA Method 8082 Polychlorinated Biphenyls
- EPA Method 8260B for Volatile Organic Compounds (VOCs)
- EPA Method 8270C Semi-Volatile Organics

The samples were analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Return to Contents

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Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Manual integration made to the data will be noted in the following narrative. The initial and amended chromatograms have been included in the data package.

All samples and analytical QC are within acceptance criteria unless otherwise noted.

EPA METHOD 6010B – Metals (Aqueous):

Sample 13-11-0697: -13 was analyzed for title 22 metals by EPA Method 6010B. The sample was prepared on 11/11/13 and analyzed on 11/12/13 in batch #s 131111LA5 / 131111SA5 on ICP 7300

The instrument ID on the initial calibration forms does not reflect the correct instrument.

Initial Calibration, Initial Calibration Verification and Initial Calibration Blank:

The initial calibration was performed on 11/12/13 on ICP 7300. All values were within acceptance criteria.

Continuing Calibration Verification and Continuing Calibration Blank:

All values were within acceptance criteria.

ICS-A/-AB:

All values were within acceptance criteria with the following exceptions: the absolute values for Copper, Antimony, and Zinc were above the control limit in the ICS A.

Sample and QC:

The method blank was non-detect for project-specific analytes. The LCS and MS/MSD were within acceptance criteria.

A non-client sample was used for the MS/MSD, please refer to the MS/MSD summary form for further information.

EPA METHOD 6010B – Metals (Soil):

Samples 13-11-0697: -2 through -12 were analyzed for title 22 metals by EPA Method 6010B. The samples were prepared on 11/11/13 and analyzed on 11/12/13 in batch #s 131111L01 / 131111S01 on ICP 7300

Return to Contents

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The instrument ID on the initial calibration forms does not reflect the correct instrument.

Initial Calibration, Initial Calibration Verification and Initial Calibration Blank:

11/11/13 ICP 7300: All values were within acceptance criteria.

11/12/13 ICP 7300: All values were within acceptance criteria.

Continuing Calibration Verification and Continuing Calibration Blank:

11/11/13 ICP 7300: All values were within acceptance criteria.

11/12/13 ICP 7300: All values were within acceptance criteria with the exception of Lead. Lead was detected in one or more CCBs above the RL but detected in the associated samples at greater than 10x either CCB level.

ICS-A/-AB:

11/11/13 ICP 7300: All values were within acceptance criteria with the following exceptions: the absolute values for Arsenic, Copper, and Zinc were above the control limit in the ICS A.

11/12/13 ICP 7300: All values were within acceptance criteria with the following exceptions: the absolute values for Copper, Antimony, and Zinc were above the control limit in the ICS A.

Sample and QC:

The method blank was non-detect for project-specific analytes. The LCS was within acceptance criteria for all project-specific analytes.

MS/MSD were within acceptance criteria for all project-specific analytes except for Antimony.

The MS/MSD was performed on sample -8.

EPA Method 7470A – Mercury (Aqueous):

Sample 13-11-0697: -13 was analyzed for Mercury by EPA method 7470A. The sample was prepared on 11/11/13 and analyzed on 11/12/13 in batch #s 131111L06 / 131111S06 on Mercury.

Initial Calibration, Initial Calibration Verification and Initial Calibration Blank:

11/11/13 Mercury: All values were within acceptance criteria.

Return to Contents

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11/12/13 Mercury: All values were within acceptance criteria.

Continuing Calibration Verification and Continuing Calibration Blank:

11/11/13 Mercury: All values were within acceptance criteria.

11/12/13 Mercury: All values were within acceptance criteria.

Sample and QC:

The method blank was non-detect. The LCS and MS/MSD were all within acceptance criteria.

A non-client sample was used for the MS/MSD, please refer to the MS/MSD summary form for further information.

EPA Method 7471A – Mercury (Soil):

Samples 13-11-0697: -2 through -12 were analyzed for Mercury by EPA method 7471A. The samples were prepared and analyzed on 11/11/13 in batch #s 131111L08 / 131111S08 on Mercury.

Initial Calibration, Initial Calibration Verification and Initial Calibration Blank:

The initial calibration was performed on 11/11/13 on Mercury. All values were within acceptance criteria.

Continuing Calibration Verification and Continuing Calibration Blank:

All values were within acceptance criteria.

Sample and QC:

The method blank was non-detect. The LCS and MS/MSD were all within acceptance criteria.

The MS/MSD was performed on sample -8.

EPA 8081A – Organochlorine Pesticides (Aqueous):

Sample 13-11-0697: -13 was analyzed for Organochlorine Pesticides by EPA Method 8081A. The sample was prepared on 11/11/13 and analyzed on 11/15/13 in batch # 131111L07 on GC 44.

Return to Contents

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Sample results were reported from the primary column (ECD1 A).

Initial Calibration and Initial Calibration Verification

- *Pesticides ICAL 11/04/13 on GC 44:* The ICAL was within the 20% RSD criteria, and the ICV was within the 15%D criteria for all target analytes, both columns

- *Chlordane ICAL 11/04/13 on GC 44:* The ICAL was within the 20% RSD criteria, and the ICV was within the 15%D criteria for Chlordane, both columns.

- *Toxaphene ICAL 11/04/13 on GC 44:* The ICAL was within the 20% RSD criteria, and the ICV was within the 15%D criteria for Toxaphene, both columns.

Breakdown Standards:

DDT and Endrin were within the 15% breakdown criteria in the associated degradation standards.

Continuing Calibration Verification

All values were within the 15% D acceptance criteria.

Sample and QC:

The method blank was non-detect. The LCS/LCSD were within acceptance criteria.

All surrogate recoveries were within acceptance criteria.

EPA 8081A – Organochlorine Pesticides (Soil):

Samples 13-11-0697: -3 through -12 were analyzed for Organochlorine Pesticides by EPA Method 8081A. The samples were prepared on 11/12/13 and analyzed on 11/13 - 14/13 in batch #s 131112L26 / 131112S26 on GC 51.

Sample results were reported from the primary column (ECD1 A).

Initial Calibration and Initial Calibration Verification

- *Pesticides ICAL 11/05/13 on GC 51:* The ICAL was within the 20% RSD criteria, and the ICV was within the 15%D criteria for all target analytes, both columns

Return to Contents

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- *Chlordane ICAL 11/05/13 on GC 51:* The ICAL was within the 20% RSD criteria, and the ICV was within the 15%D criteria for Chlordane, both columns.

- *Toxaphene ICAL 11/05/13 on GC 51:* The ICAL was within the 20% RSD criteria, and the ICV was within the 15%D criteria for Toxaphene, both columns.

Breakdown Standards:

DDT and Endrin were within the 15% breakdown criteria in the associated degradation standards.

Continuing Calibration Verification

All values were within the 15% D acceptance criteria.

Sample and QC:

The method blank was non-detect. The LCS and MS/MSD were within acceptance criteria.

The MS/MSD was performed on sample -8.

All surrogate recoveries were within acceptance criteria.

EPA 8082 – Polychlorinated Biphenyls (Aqueous):

Sample 13-11-0697: -13 was analyzed for PCBs by EPA 8082. The sample was prepared on 11/11/13 and analyzed on 11/15/13 in batch # 131111L08 on GC 58.

Sample results were reported from the primary column (ECD2 B).

Initial Calibration and Initial Calibration Verification

The initial calibration was performed on 08/27/13 on GC 58. The ICAL was within the 20% RSD criteria for Aroclors 1016 and 1260, for the primary column. The ICV was within the 15%D criteria for Aroclors 1016 and 1260, for the primary column. Single point response factors were generated for all other Aroclors.

Continuing Calibration Verification

The CCVs were within the 15% D criteria.

Return to Contents

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Sample and QC:

The method blank was non-detect. The LCS/LCSD were within acceptance criteria.

The surrogate recoveries were within acceptance criteria.

EPA 8082 – Polychlorinated Biphenyls (Soil):

Samples 13-11-0697: -3 through -12 were analyzed for PCBs by EPA 8082. The samples were prepared on 11/12/13 and analyzed on 11/14/13 in batch #s 131112L27 / 131112S27 on GC 58.

Sample results were reported from the primary column (ECD2 B).

Initial Calibration and Initial Calibration Verification

The initial calibration was performed on 08/27/13 on GC 58. The ICAL was within the 20% RSD criteria for Aroclors 1016 and 1260, for the primary column. The ICV was within the 15%D criteria for Aroclors 1016 and 1260, for the primary column. Single point response factors were generated for all other Aroclors.

Continuing Calibration Verification

The CCVs were within the 15% D criteria.

Sample and QC:

The method blank was non-detect. The LCS and MS/MSD were within acceptance criteria.

The MS/MSD was performed on sample -8.

The surrogate recoveries were within acceptance criteria.

EPA 8260B – Volatile Organic Compounds (Aqueous):

Samples 13-11-0697: -1 and -2 were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260B. Sample -1 was prepared on 11/13/13 and analyzed on 11/14/13 in batch #s 131113L02 / 131113S02 on GC/MS OO. Sample -2 was prepared and analyzed on 11/14/13 in batch #s 131114L01 / 131114S01 on GC/MS OO.

Return to Contents

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Initial Calibration and Initial Calibration Verification:

The initial calibration was performed on 11/12/13 on GC/MS OO. The % RSD for each project-specific analyte was ≤ 15% except for Bromomethane, Chloromethane, 2,2-Dichloroproane, t-1,3-Dichloropropene, and Vinyl Acetate.

The initial calibration verification was within the 20% D acceptance criteria for all project-specific analytes except for Bromomethane and Chloromethane were biased low.

Manual integrations were performed on one or more non-target analytes in one or more of the ICAL standards to correct the peak and/or baseline integration.

Continuing Calibration Verification:

- *CCV 131113B:* (Associated with sample -1)

All values were within the 20% D acceptance criteria for all project-specific except for Bromomethane, Chloromethane, and 2,2-Dichloropropane were biased low.

- *CCV 131114A:* (Associated with sample -2)

All values were within the 20% D acceptance criteria for all project-specific except for Bromomethane and Chloromethane were biased low.

Tuning Standards:

All instrument tuning standards (BFB) were within criteria.

Sample and QC Data:

- *QC Batch #s 131113L02 / 131113S02:* (Associated with sample -1)

The method blank was non-detect. The LCS and MS/MSD were within acceptance criteria for all project-specific analytes.

A non-client sample was used for the MS/MSD, please refer to the MS/MSD summary form for further information.

All surrogate and internal standard recoveries were within acceptance criteria.

Return to Contents

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- *QC Batch #s 131114L01 / 131114S01:* (Associated with sample -2)

The method blank was non-detect. The LCS and MS/MSD were within acceptance criteria for all project-specific analytes.

A non-client sample was used for the MS/MSD, please refer to the MS/MSD summary form for further information.

All surrogate and internal standard recoveries were within acceptance criteria.

EPA Method 8270C Semi-Volatile Organics (Aqueous):

Sample 13-11-0697: -13 was analyzed by EPA Method 8270C. The sample was prepared on 11/12/13 and analyzed on 11/14/13 in batch # 131112L05 GC/MS SS.

Initial Calibration and Initial Calibration Verification:

The initial calibration was performed on 09/11/13 on GC/MS SS. The percent RSDs in the initial calibration were ≤ 15%, $r^2 \geq 0.99$ for the associated target analytes.

The initial calibration verification was within the 20% D acceptance criteria except for 4,6-Dinitro-2-Methylphenol.

Manual integrations were performed on one or more target analytes in one or more of the ICAL standards to correct the peak and/or baseline integration.

Continuing Calibration Verification:

All values were within the 20% D acceptance for project target compounds except for Bis (2-Chlroethyl) Ether, Hexachlorocyclopentadiene, and Benzo (k) Fluoranthene while Bis (2-Chloroisopropyl) Ether, Azobenzene, Pyridine, Benzo (g,h,i) Perylene, Indeno (1,2,3-c,d) Pyrene, and Dibenz (a,h) Anthracene which were biased high.

Tuning Standards:

All instrument tuning standards (DFTPP) were within acceptance criteria.

Sample and QC:

The method blank was non-detect. The LCS/LCSD were within acceptance criteria for all project-specific analytes except for 1,4-Dichlorobenzene.

All surrogate recoveries were within acceptance criteria.

Return to Contents

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EPA Method 8270C Semi-Volatile Organics (Soil):

Samples 13-11-0697: -3, -4, -6, -7, -9, -10, and -13 were analyzed by EPA Method 8270C. The samples were prepared on 11/11/13 and analyzed on 11/14 - 15/13 in batch #s 131111L05 / 131111S05. Samples -4, -6, -7, -9, -10, and -13 were analyzed on GC/MS SS. Sample -3 and QCs were analyzed on GC/MS TT.

Initial Calibration and Initial Calibration Verification:

- *ICAL 130911 on GC/MS SS:*

The percent RSDs in the initial calibration were ≤ 15%, $r^2 \geq 0.99$ for project-specific analytes.

The initial calibration verification was within the 20% D acceptance criteria for project-specific analytes except for 4,6-Dinitro-2-Methylphenol.

Manual integrations were performed on one or more target analytes in one or more of the ICAL standards to correct the peak and/or baseline integration.

- *ICAL 131106 on GC/MS TT:*

The percent RSDs in the initial calibration were ≤ 15%, $r^2 \geq 0.99$ for project-specific analytes.

The initial calibration verification was within the 20% D acceptance criteria for project-specific analytes.

Continuing Calibration Verification:

- *CCV 131114 on GC/MS SS:*

All values were within the 20% D acceptance for project target compounds except for Bis(2-Chloroethyl) Ether, Hexachlorocyclopentadiene, Benzo (k) Fluoranthene while Bis (2-Chloroisopropyl) Ether, Azobenzene, Pyridine, Benzo (g,h,i) Perylene, Indeno (1,2,3-c,d) Pyrene, and Dibenz (a,h) Anthracene were biased high.

- *CCV 131115 on GC/MS SS:*

All values were within the 20% D acceptance for project target compounds except for Bis(2-Chloroethyl) Ether, Hexachlorocyclopentadiene, 2,4-Dinitrophenol, 4,-Nitrophenol, 4,6-Dinitro-2-Methylphenol, Benzidine, 3,3'-Dichlorobenzidine, Benzo (k) Fluoranthene while Bis (2-Chloroisopropyl) Ether, Benzo (g,h,i) Perylene, Indeno (1,2,3-c,d) Pyrene, and Dibenz (a,h) Anthracene were biased high while Pyridine was biased low.

Return to Contents

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- *CCV 131113A on GC/MS TT:*

All values were within the 20% D acceptance for project target compounds except Benzidine which was biased high while 3,3'-Dichlorobenzidine was biased low.

Tuning Standards:

All instrument tuning standards (DFTPP) were within acceptance criteria.

Sample and QC:

The method blank was non-detect. The LCS and MS/MSD were within acceptance criteria for all project-specific analytes.

All surrogate recoveries were within acceptance criteria.

The MS/MSD was performed on sample -4.

The following dilutions were performed and reported:

Sample -6:	5x	Sample -9:	2x

Return to Contents

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EPA METHOD 6010 B

RAW DATA

Return to Contents

EPA METHOD 6010 B

Initial Calibration
ICV/ICB
CCV/CCB
ICSA/B

Return to Contents

ICP-ICP/MS Linear Range Summary

Lab Name: Calscience Environmental Laboratories
Instrument ID: ICP 7300 **Date Performed:** 05/21/2013
Method: EPA 3050B

Element	Concentration Added (PPM)	Concentration Recovered (PPM)	Recovery Percent
Ag	50.00	49.00	98
Al	1,000.00	907.00	91
As	100.00	93.00	93
B	100.00	98.00	98
Ba	100.00	97.00	97
Be	5.00	5.07	101
Bi	100.00	105.00	105
Ca	1,000.00	1,029.00	103
Cd	100.00	92.00	92
Co	100.00	94.00	94
Cr	200.00	200.00	100
Cu	200.00	189.00	94
Fe	1,000.00	959.00	96
K	1,000.00	939.00	94
Li	50.00	51.00	102
Mg	1,000.00	968.00	97
Mn	100.00	97.00	97
Mo	100.00	94.00	94
Na	1,000.00	1,014.00	101
Ni	100.00	92.00	92
P	100.00	90.00	90
Pb	100.00	92.00	92
S	100.00	91.00	91
Sb	100.00	93.00	93
Se	100.00	93.00	93
Si	100.00	100.40	100
Sn	100.00	102.00	102
Sr	20.00	21.00	105
Ti	100.00	95.00	95
Tl	100.00	94.00	94
V	200.00	197.00	98
Zn 206	100.00	93.00	93
Zn 213	50.00	47.00	94

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Initial Calibration Verification

Work Order No: 13-11-0697
Instrument ID: ICP-07
Concentration Unit: mg/L

	Initial Calibration Verification			
		ICV-1		
Analyte	True	Observed	%D	Control Limit
Silver	0.500000	0.470000	6	+/-10
Arsenic	5.000000	4.790000	4	+/-10
Barium	1.000000	0.991200	1	+/-10
Beryllium	0.500000	0.499500	0	+/-10
Cadmium	1.500000	1.489000	1	+/-10
Cobalt	1.000000	1.050000	-5	+/-10
Chromium	0.400000	0.384000	4	+/-10
Copper	1.000000	0.989000	1	+/-10
Molybdenum	2.500000	2.389000	4	+/-10
Nickel	0.400000	0.401500	0	+/-10
Lead	5.000000	4.966000	1	+/-10
Antimony	2.000000	2.113000	-6	+/-10
Selenium	2.000000	1.901000	5	+/-10
Thallium	2.000000	2.051000	-3	+/-10
Vanadium	1.000000	0.959900	4	+/-10
Zinc	1.500000	1.482000	1	+/-10

Report Date/Time: 1/16/2014 3:03:05 PM

File: ICV-M082713c Analysis Date/Time: 11/11/2013 11:10:05 AM

Note: %D = (True - Observed) / True x 100%

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Initial Calibration Blank

Work Order No: 13-11-0697
Instrument ID: ICP-07
Concentration Unit: mg/L

	Initial Calibration Blank	
Analyte	ICB-1	RL
Silver	0.000100	0.005000
Arsenic	0.001500	0.010000
Barium	0.000000	0.010000
Beryllium	0.000000	0.010000
Cadmium	0.000000	0.010000
Cobalt	-0.000400	0.010000
Chromium	-0.000600	0.010000
Copper	0.000400	0.010000
Molybdenum	0.000500	0.010000
Nickel	-0.000500	0.010000
Lead	-0.000200	0.010000
Antimony	0.004900	0.015000
Selenium	0.004300	0.015000
Thallium	0.000600	0.015000
Vanadium	-0.000500	0.010000
Zinc	-0.000400	0.010000

Report Date/Time: 1/16/2014 3:03:05 PM

File: ICB-R04231201 Analysis Date/Time: 11/11/2013 11:13:53 AM

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Interference Check

ACCREDITED IN ACCORDANCE WITH nelac

Work Order No: 13-11-0697

Instrument ID: ICP-07

Concentration Unit: mg/L

Analyte	Interference Check						
	ICS-A-1		ICS-AB-1				
	Observed	Control Limit	True	Observed	%D	Control Limit	Comment
Silver	0.001500	< 0.005000	0.300000	0.323400	-8	+/-20	
Arsenic	-0.011600	< 0.010000	1.000000	1.020000	-2	+/-20	
Barium	0.001400	< 0.010000	0.300000	0.302700	-1	+/-20	
Beryllium	0.000000	< 0.010000	0.100000	0.101800	-2	+/-20	
Cadmium	-0.001600	< 0.010000	0.300000	0.306700	-2	+/-20	
Cobalt	0.000400	< 0.010000	0.300000	0.315300	-5	+/-20	
Chromium	-0.006500	< 0.010000	0.300000	0.288100	4	+/-20	
Copper	-0.026000	< 0.010000	0.300000	0.294400	2	+/-20	
Molybdenum	-0.001000	< 0.010000	0.300000	0.301700	-1	+/-20	
Nickel	0.000000	< 0.010000	0.300000	0.307500	-2	+/-20	
Lead	-0.004700	< 0.010000	1.000000	1.005000	-1	+/-20	
Antimony	-0.014200	< 0.015000	1.000000	1.097000	-10	+/-20	
Selenium	-0.007500	< 0.015000	0.500000	0.502600	-1	+/-20	
Thallium	-0.002300	< 0.015000	1.000000	1.044000	-4	+/-20	
Vanadium	-0.001600	< 0.010000	0.300000	0.304500	-2	+/-20	
Zinc	-0.011300	< 0.010000	0.300000	0.304000	-1	+/-20	

Report Time: 2/3/2014 4:01:29 PM

ICS-A-1 File: ICS_A -M042313B Analysis Time: 11/11/2013 11:21:06 AM

ICS-AB-1 File: ICS_AB -M042313A Analysis Time: 11/11/2013 11:22:30 AM

Return to Contents

EPA Method 6010B

Continuing Calibration Verification

Work Order No: 13-11-0697

Instrument ID: ICP-07

Concentration Unit: mg/L

Analyte	Continuing Calibration Verification						
	True	CCV-1		CCV-2		Control Limit	Comment
		Observed	%D	Observed	%D		
Silver	0.375000	0.372400	1	0.373600	0	+/-10	
Arsenic	3.750000	3.692000	2	3.784000	-1	+/-10	
Barium	7.500000	7.624000	-2	7.678000	-2	+/-10	
Beryllium	0.562500	0.567300	-1	0.575600	-2	+/-10	
Cadmium	0.750000	0.756000	-1	0.765700	-2	+/-10	
Cobalt	1.875000	1.874000	0	1.919000	-2	+/-10	
Chromium	0.600000	0.597400	0	0.603000	-1	+/-10	
Copper	0.937500	0.940700	0	0.939300	0	+/-10	
Molybdenum	0.600000	0.595300	1	0.602400	0	+/-10	
Nickel	0.600000	0.601500	0	0.612500	-2	+/-10	
Lead	3.750000	3.714000	1	3.751000	0	+/-10	
Antimony	4.500000	4.467000	1	4.537000	-1	+/-10	
Selenium	1.500000	1.488000	1	1.527000	-2	+/-10	
Thallium	1.500000	1.493000	0	1.526000	-2	+/-10	
Vanadium	1.875000	1.871000	0	1.882000	0	+/-10	
Zinc	2.500000	2.527000	-1	2.592000	-4	+/-10	

Report Time: 2/3/2014 4:41:02 PM

CCV-1 File: CCV= STD3x0.5 Analysis Time: 11/11/2013 1:20:50 PM

CCV-2 File: CCV= STD3x0.5 Analysis Time: 11/11/2013 4:20:24 PM

Note: Note: %D= (True-Observed) / True x 100%

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Blank

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Work Order No: 13-11-0697

Instrument ID: ICP-07

Concentration Unit: mg/L

	Continuing Calibration Blank			
Analyte	CCB-1	CCB-2	RL	Qualifier
Silver	0.000300	-0.000800	0.005000	
Arsenic	-0.001300	-0.005700	0.010000	
Barium	0.000100	0.000100	0.010000	
Beryllium	0.000000	0.000100	0.010000	
Cadmium	0.000100	-0.000100	0.010000	
Cobalt	0.000200	-0.000200	0.010000	
Chromium	0.000000	0.000200	0.010000	
Copper	0.000300	-0.000100	0.010000	
Molybdenum	0.000100	-0.000600	0.010000	
Nickel	-0.000400	-0.002500	0.010000	
Lead	0.002200	-0.000100	0.010000	
Antimony	0.004500	-0.006600	0.015000	
Selenium	0.000200	0.002000	0.015000	
Thallium	-0.000400	-0.000800	0.015000	
Vanadium	0.000100	0.000200	0.010000	
Zinc	0.000200	-0.000200	0.010000	

Report Time: 2/3/2014 4:41:02 PM

CCB-1 File: CCB-1 R04231301 Analysis Time: 11/11/2013 1:23:55 PM

CCB-2 File: CCB2-R04231301 Analysis Time: 11/11/2013 4:23:26 PM

Return to Contents

EPA Method 6010B

Continuing Calibration Verification

Work Order No: 13-11-0697

Instrument ID: ICP-07

Concentration Unit: mg/L

Analyte	Continuing Calibration Verification						
	True	CCV-3		CCV-4		Control Limit	Comment
		Observed	%D	Observed	%D		
Silver	0.375000	0.376400	0	0.367700	2	+/-10	
Arsenic	3.750000	3.737000	0	3.654000	3	+/-10	
Barium	7.500000	7.717000	-3	7.614000	-2	+/-10	
Beryllium	0.562500	0.570500	-1	0.565100	0	+/-10	
Cadmium	0.750000	0.759600	-1	0.757200	-1	+/-10	
Cobalt	1.875000	1.903000	-1	1.881000	0	+/-10	
Chromium	0.600000	0.607800	-1	0.590400	2	+/-10	
Copper	0.937500	0.941400	0	0.950800	-1	+/-10	
Molybdenum	0.600000	0.603200	-1	0.597500	0	+/-10	
Nickel	0.600000	0.612400	-2	0.597200	0	+/-10	
Lead	3.750000	3.727000	1	3.696000	1	+/-10	
Antimony	4.500000	4.516000	0	4.462000	1	+/-10	
Selenium	1.500000	1.495000	0	1.482000	1	+/-10	
Thallium	1.500000	1.514000	-1	1.497000	0	+/-10	
Vanadium	1.875000	1.890000	-1	1.855000	1	+/-10	
Zinc	2.500000	2.534000	-1	2.563000	-3	+/-10	

Report Time: 2/3/2014 4:41:02 PM

CCV-3 File: CCV= STD3x0.5 Analysis Time: 11/11/2013 4:37:09 PM

CCV-4 File: CCV= STD3x0.5 Analysis Time: 11/11/2013 4:45:35 PM

Note: Note: %D= (True-Observed) / True x 100%

Return to Contents

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EPA Method 6010B

Continuing Calibration Blank

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Work Order No: 13-11-0697

Instrument ID: ICP-07

Concentration Unit: mg/L

	Continuing Calibration Blank			
Analyte	CCB-3	CCB-4	RL	Qualifier
Silver	-0.000700	-0.000500	0.005000	
Arsenic	-0.005700	-0.005200	0.010000	
Barium	0.000000	-0.000100	0.010000	
Beryllium	0.000100	0.000100	0.010000	
Cadmium	-0.000200	-0.000100	0.010000	
Cobalt	0.000200	0.000300	0.010000	
Chromium	0.000000	0.000000	0.010000	
Copper	0.003600	0.003100	0.010000	
Molybdenum	-0.001100	-0.000600	0.010000	
Nickel	-0.002200	-0.002500	0.010000	
Lead	0.000700	0.000000	0.010000	
Antimony	-0.007100	-0.009200	0.015000	
Selenium	-0.001400	0.001000	0.015000	
Thallium	0.000000	-0.000500	0.015000	
Vanadium	0.000200	0.000100	0.010000	
Zinc	-0.000300	0.000100	0.010000	

Report Time: 2/3/2014 4:41:02 PM

CCB-3 File: CCB2-R04231301 Analysis Time: 11/11/2013 4:40:07 PM

CCB-4 File: CCB2-R04231301 Analysis Time: 11/11/2013 4:48:38 PM

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Initial Calibration Verification

ACCREDITED IN ACCORDANCE WITH nelac

Work Order No: 13-11-0697

Instrument ID: ICP-07

Concentration Unit: mg/L

Analyte Name	Initial Calibration Verification				
		ICV-1		Control	
	True	Observed	%D	Limit	Comment
Silver	0.500000	0.473900	5	+/-10	
Arsenic	5.000000	4.991000	0	+/-10	
Barium	1.000000	0.982800	2	+/-10	
Beryllium	0.500000	0.497100	1	+/-10	
Cadmium	1.500000	1.477000	2	+/-10	
Cobalt	1.000000	1.047000	-5	+/-10	
Chromium	0.400000	0.386200	3	+/-10	
Copper	1.000000	0.975200	2	+/-10	
Molybdenum	2.500000	2.423000	3	+/-10	
Nickel	0.400000	0.409700	-2	+/-10	
Lead	5.000000	4.932000	1	+/-10	
Antimony	2.000000	2.091000	-5	+/-10	
Selenium	2.000000	1.978000	1	+/-10	
Thallium	2.000000	2.103000	-5	+/-10	
Vanadium	1.000000	0.961200	4	+/-10	
Zinc	1.500000	1.474000	2	+/-10	

Report Time: 2/3/2014 4:43:44 PM

ICV-1 File: ICV-M082713c Analysis Time: 11/12/2013 10:35:32 AM

Note: Note: %D= (True-Observed) / True x 100%

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Initial Calibration Blank

ACCREDITED IN ACCORDANCE WITH nelac

Work Order No: 13-11-0697

Instrument ID: ICP-07

Concentration Unit: mg/L

	Initial Calibration Blank		
Analyte	ICB-1	RL	Comment
Silver	-0.000600	0.005000	
Arsenic	0.003400	0.010000	
Barium	-0.000100	0.010000	
Beryllium	0.000000	0.010000	
Cadmium	0.000000	0.010000	
Cobalt	0.000000	0.010000	
Chromium	-0.000200	0.010000	
Copper	0.000800	0.010000	
Molybdenum	0.000700	0.010000	
Nickel	-0.000800	0.010000	
Lead	0.000400	0.010000	
Antimony	0.003000	0.015000	
Selenium	-0.000700	0.015000	
Thallium	0.000500	0.015000	
Vanadium	0.000000	0.010000	
Zinc	-0.000200	0.010000	

Report Time: 2/3/2014 4:43:44 PM

ICB-1 File: ICB-R04231201 Analysis Time: 11/12/2013 10:39:18 AM

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Interference Check

ACCREDITED IN ACCORDANCE WITH nelac

Work Order No: 13-11-0697

Instrument ID: ICP-07

Concentration Unit: mg/L

Analyte	Interference Check						
	ICS-A-1		ICS-AB-1				
	Observed	Control Limit	True	Observed	%D	Control Limit	Comment
Silver	0.000800	< 0.005000	0.300000	0.317500	-6	+/-20	
Arsenic	-0.007200	< 0.010000	1.000000	1.021000	-2	+/-20	
Barium	0.001500	< 0.010000	0.300000	0.295300	2	+/-20	
Beryllium	0.000000	< 0.010000	0.100000	0.099700	0	+/-20	
Cadmium	-0.001600	< 0.010000	0.300000	0.297700	1	+/-20	
Cobalt	0.000400	< 0.010000	0.300000	0.304400	-1	+/-20	
Chromium	-0.006100	< 0.010000	0.300000	0.283400	6	+/-20	
Copper	-0.027100	< 0.010000	0.300000	0.282600	6	+/-20	
Molybdenum	-0.001100	< 0.010000	0.300000	0.299100	0	+/-20	
Nickel	-0.000300	< 0.010000	0.300000	0.305800	-2	+/-20	
Lead	-0.005900	< 0.010000	1.000000	0.985700	1	+/-20	
Antimony	-0.025200	< 0.015000	1.000000	0.983500	2	+/-20	
Selenium	-0.011300	< 0.015000	0.500000	0.507100	-1	+/-20	
Thallium	0.001200	< 0.015000	1.000000	1.052000	-5	+/-20	
Vanadium	-0.001600	< 0.010000	0.300000	0.296700	1	+/-20	
Zinc	-0.010900	< 0.010000	0.300000	0.283100	6	+/-20	

Report Time: 2/3/2014 4:43:44 PM

ICS-A-1 File: ICS_A -M042313B Analysis Time: 11/12/2013 10:42:29 AM

ICS-AB-1 File: ICS_AB -M042313A Analysis Time: 11/12/2013 10:43:52 AM

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Verification

ACCREDITED IN ACCORDANCE WITH nelac

Work Order No: 13-11-0697

Instrument ID: ICP-07

Concentration Unit: mg/L

Analyte	Continuing Calibration Verification						
	True	CCV-1		CCV-2		Control Limit	Comment
		Observed	%D	Observed	%D		
Silver	0.375000	0.365300	3	0.367500	2	+/-10	
Arsenic	3.750000	3.653000	3	3.687000	2	+/-10	
Barium	7.500000	7.452000	1	7.592000	-1	+/-10	
Beryllium	0.562500	0.559000	1	0.561100	0	+/-10	
Cadmium	0.750000	0.750800	0	0.755400	-1	+/-10	
Cobalt	1.875000	1.856000	1	1.866000	0	+/-10	
Chromium	0.600000	0.584100	3	0.596800	1	+/-10	
Copper	0.937500	0.924300	1	0.923100	2	+/-10	
Molybdenum	0.600000	0.590000	2	0.592700	1	+/-10	
Nickel	0.600000	0.590800	2	0.599700	0	+/-10	
Lead	3.750000	3.676000	2	3.687000	2	+/-10	
Antimony	4.500000	4.402000	2	4.426000	2	+/-10	
Selenium	1.500000	1.474000	2	1.470000	2	+/-10	
Thallium	1.500000	1.480000	1	1.488000	1	+/-10	
Vanadium	1.875000	1.849000	1	1.866000	0	+/-10	
Zinc	2.500000	2.483000	1	2.478000	1	+/-10	

Report Time: 2/3/2014 4:43:44 PM

CCV-1 File: CCV= STD3x0.5 Analysis Time: 11/12/2013 2:24:38 PM

CCV-2 File: CCV= STD3x0.5 Analysis Time: 11/12/2013 3:15:46 PM

Note: Note: %D= (True-Observed) / True x 100%

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Blank

ACCREDITED IN ACCORDANCE WITH nelac

Work Order No: 13-11-0697

Instrument ID: ICP-07

Concentration Unit: mg/L

	Continuing Calibration Blank			
Analyte	CCB-1	CCB-2	RL	Qualifier
Silver	0.000400	-0.000100	0.005000	
Arsenic	0.000000	0.000500	0.010000	
Barium	0.000100	0.000100	0.010000	
Beryllium	0.000000	0.000000	0.010000	
Cadmium	-0.000100	-0.000100	0.010000	
Cobalt	-0.000200	0.000000	0.010000	
Chromium	0.000000	0.000200	0.010000	
Copper	0.000900	0.002000	0.010000	
Molybdenum	0.000100	0.000300	0.010000	
Nickel	0.000200	0.000400	0.010000	
Lead	0.000800	-0.000100	0.010000	
Antimony	0.002200	-0.000900	0.015000	
Selenium	0.001200	0.001000	0.015000	
Thallium	0.000000	0.000100	0.015000	
Vanadium	0.000400	0.000900	0.010000	
Zinc	0.000100	0.000000	0.010000	

Report Time: 2/3/2014 4:43:44 PM

CCB-1 File: CCB-1 R04231301 Analysis Time: 11/12/2013 2:27:24 PM

CCB-2 File: CCB-1R04231301 Analysis Time: 11/12/2013 3:18:30 PM

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Verification

ACCREDITED IN ACCORDANCE WITH nelac

Work Order No: 13-11-0697

Instrument ID: ICP-07

Concentration Unit: mg/L

Analyte	Continuing Calibration Verification						
	True	CCV-3		CCV-4		Control Limit	Comment
		Observed	%D	Observed	%D		
Silver	0.375000	0.367900	2	0.366900	2	+/-10	
Arsenic	3.750000	3.698000	1	3.680000	2	+/-10	
Barium	7.500000	7.576000	-1	7.552000	-1	+/-10	
Beryllium	0.562500	0.565600	-1	0.568300	-1	+/-10	
Cadmium	0.750000	0.759600	-1	0.751900	0	+/-10	
Cobalt	1.875000	1.879000	0	1.869000	0	+/-10	
Chromium	0.600000	0.594800	1	0.595000	1	+/-10	
Copper	0.937500	0.941500	0	0.931700	1	+/-10	
Molybdenum	0.600000	0.593800	1	0.593500	1	+/-10	
Nickel	0.600000	0.598100	0	0.599900	0	+/-10	
Lead	3.750000	3.690000	2	3.705000	1	+/-10	
Antimony	4.500000	4.426000	2	4.435000	1	+/-10	
Selenium	1.500000	1.489000	1	1.488000	1	+/-10	
Thallium	1.500000	1.500000	0	1.489000	1	+/-10	
Vanadium	1.875000	1.860000	1	1.878000	0	+/-10	
Zinc	2.500000	2.517000	-1	2.529000	-1	+/-10	

Report Time: 2/3/2014 4:43:44 PM

CCV-3 File: CCV= STD3x0.5 Analysis Time: 11/12/2013 3:32:40 PM

CCV-4 File: CCV= STD3x0.5 Analysis Time: 11/12/2013 6:18:41 PM

Note: Note: %D= (True-Observed) / True x 100%

Return to Contents

EPA Method 6010B

Continuing Calibration Blank

Work Order No: 13-11-0697

Instrument ID: ICP-07

Concentration Unit: mg/L

	Continuing Calibration Blank			
Analyte	CCB-3	CCB-4	RL	Qualifier
Silver	-0.000400	-0.000400	0.005000	
Arsenic	-0.004900	0.003600	0.010000	
Barium	0.000000	-0.000100	0.010000	
Beryllium	0.000000	0.000100	0.010000	
Cadmium	-0.000100	-0.000100	0.010000	
Cobalt	-0.000100	0.000200	0.010000	
Chromium	-0.000100	-0.000400	0.010000	
Copper	0.007500	-0.000600	0.010000	
Molybdenum	0.000500	0.000200	0.010000	
Nickel	-0.001900	0.000400	0.010000	
Lead	0.001300	0.000000	0.010000	
Antimony	-0.009200	0.002700	0.015000	
Selenium	0.000600	0.003100	0.015000	
Thallium	0.001000	0.000000	0.015000	
Vanadium	0.000900	0.000500	0.010000	
Zinc	0.000000	0.000100	0.010000	

Report Time: 2/3/2014 4:43:44 PM

CCB-3 File: CCB2-R04231301 Analysis Time: 11/12/2013 3:35:25 PM

CCB-4 File: CCB-1 R04231301 Analysis Time: 11/12/2013 6:21:27 PM

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Verification

ACCREDITED IN ACCORDANCE WITH nelac

Work Order No: 13-11-0697

Instrument ID: ICP-07

Concentration Unit: mg/L

Analyte	Continuing Calibration Verification						
	True	CCV-5		CCV-6		Control Limit	Comment
		Observed	%D	Observed	%D		
Silver	0.375000	0.374900	0	0.372900	1	+/-10	
Arsenic	3.750000	3.767000	0	3.777000	-1	+/-10	
Barium	7.500000	7.765000	-4	7.761000	-3	+/-10	
Beryllium	0.562500	0.570000	-1	0.566800	-1	+/-10	
Cadmium	0.750000	0.763200	-2	0.763400	-2	+/-10	
Cobalt	1.875000	1.904000	-2	1.910000	-2	+/-10	
Chromium	0.600000	0.609500	-2	0.610900	-2	+/-10	
Copper	0.937500	0.921400	2	0.926100	1	+/-10	
Molybdenum	0.600000	0.599300	0	0.606200	-1	+/-10	
Nickel	0.600000	0.611800	-2	0.615400	-3	+/-10	
Lead	3.750000	3.731000	1	3.744000	0	+/-10	
Antimony	4.500000	4.482000	0	4.500000	0	+/-10	
Selenium	1.500000	1.512000	-1	1.522000	-1	+/-10	
Thallium	1.500000	1.521000	-1	1.516000	-1	+/-10	
Vanadium	1.875000	1.917000	-2	1.908000	-2	+/-10	
Zinc	2.500000	2.547000	-2	2.548000	-2	+/-10	

Report Time: 2/3/2014 4:43:44 PM

CCV-5 File: CCV= STD3x0.5 Analysis Time: 11/12/2013 7:10:42 PM

CCV-6 File: CCV= STD3x0.5 Analysis Time: 11/12/2013 7:25:01 PM

Note: Note: %D= (True-Observed) / True x 100%

Return to Contents

EPA Method 6010B

Continuing Calibration Blank

ACCREDITED IN ACCORDANCE WITH nelac

Work Order No: 13-11-0697

Instrument ID: ICP-07

Concentration Unit: mg/L

	Continuing Calibration Blank			
Analyte	CCB-5	CCB-6	RL	Qualifier
Silver	-0.001000	-0.000900	0.005000	
Arsenic	-0.002900	-0.006000	0.010000	
Barium	-0.000100	0.000000	0.010000	
Beryllium	0.000100	0.000100	0.010000	
Cadmium	-0.000100	0.000000	0.010000	
Cobalt	0.000000	-0.000200	0.010000	
Chromium	-0.000100	0.000400	0.010000	
Copper	-0.000100	-0.000100	0.010000	
Molybdenum	0.000100	-0.000100	0.010000	
Nickel	-0.002400	-0.002300	0.010000	
Lead	0.000400	-0.001100	0.010000	
Antimony	-0.010900	-0.007600	0.015000	
Selenium	0.004900	-0.000400	0.015000	
Thallium	-0.000600	-0.002000	0.015000	
Vanadium	-0.000100	0.000500	0.010000	
Zinc	0.000000	0.000400	0.010000	

Report Time: 2/3/2014 4:43:44 PM

CCB-5 File: CCB2-R04231301 Analysis Time: 11/12/2013 7:13:03 PM

CCB-6 File: CCB2-R04231301 Analysis Time: 11/12/2013 7:27:26 PM

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Verification

Work Order No: 13-11-0697
Instrument ID: ICP-07
Concentration Unit: mg/L

	Continuing Calibration Verification			
		CCV-7		
Analyte	True	Observed	%D	Control Limit
Silver	0.375000	0.373800	0	+/-10
Arsenic	3.750000	3.774000	-1	+/-10
Barium	7.500000	7.780000	-4	+/-10
Beryllium	0.562500	0.567600	-1	+/-10
Cadmium	0.750000	0.759700	-1	+/-10
Cobalt	1.875000	1.891000	-1	+/-10
Chromium	0.600000	0.612000	-2	+/-10
Copper	0.937500	0.915400	2	+/-10
Molybdenum	0.600000	0.596500	1	+/-10
Nickel	0.600000	0.613100	-2	+/-10
Lead	3.750000	3.743000	0	+/-10
Antimony	4.500000	4.453000	1	+/-10
Selenium	1.500000	1.513000	-1	+/-10
Thallium	1.500000	1.498000	0	+/-10
Vanadium	1.875000	1.910000	-2	+/-10
Zinc	2.500000	2.529000	-1	+/-10

Report Date/Time: 1/16/2014 3:07:55 PM

File: CCV= STD3x0.5 Analysis Date/Time: 11/12/2013 7:51:29 PM

Note: %D = (True - Observed) / True x 100%

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Blank

Work Order No: 13-11-0697
Instrument ID: ICP-07
Concentration Unit: mg/L

	Continuing Calibration Blank	
Analyte	CCB-7	RL
Silver	-0.001400	0.005000
Arsenic	-0.001500	0.010000
Barium	0.000000	0.010000
Beryllium	0.000100	0.010000
Cadmium	-0.000100	0.010000
Cobalt	-0.000300	0.010000
Chromium	0.000500	0.010000
Copper	0.000000	0.010000
Molybdenum	-0.000700	0.010000
Nickel	-0.002600	0.010000
Lead	**0.032800**	0.010000 *
Antimony	-0.002300	0.015000
Selenium	0.005000	0.015000
Thallium	-0.000600	0.015000
Vanadium	0.000000	0.010000
Zinc	0.000300	0.010000

Report Date/Time: 1/16/2014 3:07:55 PM

File: CCB2-R04231301 Analysis Date/Time: 11/12/2013 7:53:48 PM

* Samples are 10 times higher than CCB or MB

01/17/14

Return to Contents

Analysis Begun

Start Time: 11/11/2013 11:03:50 AM
Logged In Analyst: John Nguyen
Spectrometer Model: Optima 7300 DV, S/N 77c8120401
Plasma On Time: 11/11/2013 8:49:59 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\jn\Sample Information\13111101.sif
Batch ID:
Results Data Set: 131111C1
Results Library: W:\ICP_07\ICP_07\pe\7300\Results\Results.mdb

Sequence No.: 1
Sample ID: Cal blankR04231201_469
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 5
Date Collected: 11/11/2013 11:03:52 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Cal blankR04231201_469

Analyte	Back Pressure	Flow
All	122.0 kPa	0.50 L/min

Mean Data: Cal blankR04231201_469

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Ho 339.898	210806.9	1213.10	0.58%	5.000	mg/L
Ho 345.600	335797.0	2258.74	0.67%	5.000	mg/L
Tb 384.873	87791.2	1184.63	1.35%	5.000	mg/L
Tb 350.917	147800.2	2188.60	1.48%	5.000	mg/L
Y 324.227	1168300.2	8515.46	0.73%	5.000	mg/L
Y 371.029	2486587.1	9365.61	0.38%	5.000	mg/L
Ag 328.068*†	-4315.6	51.49	1.19%	[0.00]	mg/L
Ag 338.289†	-33.5	29.73	88.81%	[0.00]	mg/L
Al 308.215*†	-6222.5	105.24	1.69%	[0.00]	mg/L
Al 396.153†	-351.1	4.71	1.34%	[0.00]	mg/L
As 188.979†	1.8	11.51	643.12%	[0.00]	mg/L
As 193.696*†	32.9	12.72	38.71%	[0.00]	mg/L
B 249.677*†	-1332.5	60.28	4.52%	[0.00]	mg/L
B 249.772†	-2358.0	69.92	2.97%	[0.00]	mg/L
Ba 233.527*†	-13.5	3.76	27.80%	[0.00]	mg/L
Ba 455.403†	-77.3	20.41	26.42%	[0.00]	mg/L
Be 313.042*†	-3444.9	138.12	4.01%	[0.00]	mg/L
Be 313.107†	-1025.8	34.69	3.38%	[0.00]	mg/L
Bi 190.171*†	34.8	1.40	4.02%	[0.00]	mg/L
Bi 223.061†	-206.3	16.54	8.02%	[0.00]	mg/L
Ca 422.673†	17.2	17.25	100.15%	[0.00]	mg/L
Ca 317.933*†	267.7	5.17	1.93%	[0.00]	mg/L
Cd 226.502*†	-184.4	11.00	5.97%	[0.00]	mg/L
Cd 228.802†	-175.6	2.98	1.70%	[0.00]	mg/L
Co 228.616*†	-77.2	10.11	13.09%	[0.00]	mg/L
Co 230.786†	129.9	1.65	1.27%	[0.00]	mg/L
Cr 357.869†	596.8	26.50	4.44%	[0.00]	mg/L
Cr 267.716*†	-185.9	6.64	3.57%	[0.00]	mg/L
Cu 324.752*†	-2274.3	120.79	5.31%	[0.00]	mg/L
Cu 327.393†	-2620.0	48.09	1.84%	[0.00]	mg/L
Fe 259.939†	-154.4	1.35	0.87%	[0.00]	mg/L
Fe 239.562†	-147.2	4.08	2.77%	[0.00]	mg/L
Fe 273.955*†	-560.0	20.74	3.70%	[0.00]	mg/L
K 766.490*†	441.7	122.83	27.81%	[0.00]	mg/L
Li 670.784†	-187.3	41.85	22.34%	[0.00]	mg/L
Li 610.362*†	-17138.6	198.87	1.16%	[0.00]	mg/L
Mg 280.271†	24.9	8.13	32.66%	[0.00]	mg/L
Mg 279.077*†	-5292.6	64.42	1.22%	[0.00]	mg/L
Mn 257.610*†	-476.7	40.42	8.48%	[0.00]	mg/L
Mn 259.372†	-939.1	103.68	11.04%	[0.00]	mg/L
Mo 203.845†	-176.7	6.98	3.95%	[0.00]	mg/L
Mo 202.031*†	-130.5	0.15	0.11%	[0.00]	mg/L
Na 589.592*†	-179.6	25.20	14.03%	[0.00]	mg/L

Return to Contents

Na 330.237†	1452.6	0.71	0.05%	[0.00]	mg/L
Ni 231.604*†	487.4	28.02	5.75%	[0.00]	mg/L
Ni 232.003†	-254.8	4.81	1.89%	[0.00]	mg/L
P 214.914†	32.3	2.49	7.71%	[0.00]	mg/L
P 213.617*†	387.9	5.26	1.35%	[0.00]	mg/L
Pb 220.353*†	-175.4	0.63	0.36%	[0.00]	mg/L
Pb 217.000†	-18.0	10.41	57.72%	[0.00]	mg/L
S 180.669†	39.3	4.54	11.57%	[0.00]	mg/L
S 181.975*†	-21.2	8.42	39.76%	[0.00]	mg/L
Sb 217.582*†	69.9	12.08	17.28%	[0.00]	mg/L
Sb 206†	75.9	8.71	11.47%	[0.00]	mg/L
Sb 206.836†	13.4	1.57	11.74%	[0.00]	mg/L
Se 196.026*†	26.4	7.98	30.23%	[0.00]	mg/L
Se 203.985†	31.9	6.15	19.31%	[0.00]	mg/L
Si 288.158†	1581.5	24.65	1.56%	[0.00]	mg/L
Si 251.611*†	1107.5	15.22	1.37%	[0.00]	mg/L
Sn 189.927*†	3.8	0.39	10.45%	[0.00]	mg/L
Sn 242.170†	2566.6	129.70	5.05%	[0.00]	mg/L
Sr 407.771*†	-125.9	28.05	22.28%	[0.00]	mg/L
Sr 421.552†	-3940.0	2.91	0.07%	[0.00]	mg/L
Ti 336.121*†	-1820.4	7.74	0.43%	[0.00]	mg/L
Ti 334.940†	12370.2	31.48	0.25%	[0.00]	mg/L
Tl 351.924†	-115.9	82.35	71.05%	[0.00]	mg/L
Tl†	-37.6	3.99	10.61%	[0.00]	mg/L
Tl 190.801*†	-6.8	1.62	23.74%	[0.00]	mg/L
V 310.230†	82102.0	955.16	1.16%	[0.00]	mg/L
V 292.402*†	233.9	18.88	8.07%	[0.00]	mg/L
Zn 202.548†	-530.0	1.11	0.21%	[0.00]	mg/L
Zn 213.857*†	-335.7	17.30	5.15%	[0.00]	mg/L
Zn 206.200*†	-409.7	9.56	2.33%	[0.00]	mg/L

Return to Contents

Sequence No.: 2
Sample ID: STD3-M092713A_analyst 469
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/11/2013 11:05:44 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: STD3-M092713A_analyst 469

Analyte	Back Pressure	Flow
All	121.0 kPa	0.50 L/min

Mean Data: STD3-M092713A_analyst 469

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ho 339.898	197607.7	97.51	0.05%	4.687	mg/L
Ho 345.600	314596.4	282.09	0.09%	4.684	mg/L
Tb 384.873	83428.1	232.81	0.28%	4.752	mg/L
Tb 350.917	141284.6	15.34	0.01%	4.780	mg/L
Y 324.227	1113341.9	2073.25	0.19%	4.765	mg/L
Y 371.029	2350473.1	2262.47	0.10%	4.726	mg/L
Ag 328.068*†	112068.9	150.83	0.13%	[0.75]	mg/L
Ag 338.289†	60109.0	121.07	0.20%	[0.75]	mg/L
Al 308.215*†	549506.9	81.68	0.01%	[27.0]	mg/L
Al 396.153†	3304158.7	27067.16	0.82%	[27]	mg/L
As 188.979†	41927.3	108.58	0.26%	[7.50]	mg/L
As 193.696*†	29840.4	64.26	0.22%	[7.50]	mg/L
B 249.677*†	275466.0	1915.59	0.70%	[7.50]	mg/L
B 249.772†	628284.9	1917.55	0.31%	[7.50]	mg/L
Ba 233.527*†	2912471.4	178.96	0.01%	[15.0]	mg/L
Ba 455.403†	3660428.7	21630.11	0.59%	[15.0]	mg/L
Be 313.042*†	5887400.1	40565.23	0.69%	[1.125]	mg/L
Be 313.107†	2991285.3	21482.63	0.72%	[1.125]	mg/L
Ca 422.673†	597719.4	276.73	0.05%	[60.0]	mg/L
Ca 317.933*†	281101.3	1555.14	0.55%	[60.0]	mg/L
Cd 226.502*†	236738.4	116.07	0.05%	[1.50]	mg/L
Cd 228.802†	103536.9	320.13	0.31%	[1.50]	mg/L
Co 228.616*†	190194.7	32.05	0.02%	[3.75]	mg/L
Co 230.786†	184454.7	153.90	0.08%	[3.75]	mg/L
Cr 357.869†	78538.6	150.05	0.19%	[1.20]	mg/L
Cr 267.716*†	114110.2	357.82	0.31%	[1.20]	mg/L
Cu 324.752*†	259770.8	857.69	0.33%	[1.875]	mg/L
Cu 327.393†	231680.2	223.58	0.10%	[1.875]	mg/L
Fe 259.939†	18170.2	142.03	0.78%	[7.50]	mg/L
Fe 239.562†	13095.6	24.00	0.18%	[7.50]	mg/L
Fe 273.955*†	234140.4	24.95	0.01%	[7.50]	mg/L
K 766.490*†	79152.5	120.05	0.15%	[54.0]	mg/L
Mg 280.271†	523542.9	770.24	0.15%	[15.0]	mg/L
Mg 279.077*†	176703.7	414.21	0.23%	[15.0]	mg/L
Mn 257.610*†	846507.6	1044.38	0.12%	[1.50]	mg/L
Mn 259.372†	650936.2	2173.00	0.33%	[1.50]	mg/L
Mo 203.845†	20523.2	19.10	0.09%	[1.20]	mg/L
Mo 202.031*†	27960.3	16.03	0.06%	[1.20]	mg/L
Na 589.592*†	433581.3	126.56	0.03%	[72.0]	mg/L
Na 330.237†	40636.7	110.54	0.27%	[72.0]	mg/L
Ni 231.604*†	78676.7	332.81	0.42%	[1.20]	mg/L
Ni 232.003†	29996.7	158.95	0.53%	[1.20]	mg/L
P 214.914†	41589.7	164.42	0.40%	[12.0]	mg/L
P 213.617*†	81914.0	29.12	0.04%	[12.0]	mg/L
Pb 220.353*†	121554.7	15.31	0.01%	[7.50]	mg/L
Pb 217.000†	17103.3	43.88	0.26%	[7.50]	mg/L
Sb 217.582*†	38514.9	164.59	0.43%	[9.0]	mg/L
Sb 206†	37750.2	167.50	0.44%	[9.0]	mg/L
Sb 206.836†	39598.5	305.71	0.77%	[9.0]	mg/L
Se 196.026*†	8723.0	23.33	0.27%	[3.0]	mg/L
Se 203.985†	10213.3	7.75	0.08%	[3.0]	mg/L
Si 288.158†	278348.3	1256.22	0.45%	[12.0]	mg/L
Si 251.611*†	604840.0	1969.16	0.33%	[12.0]	mg/L
Sn 189.927*†	66532.8	126.86	0.19%	[6.0]	mg/L
Sn 242.170†	37641.9	4.29	0.01%	[6.0]	mg/L

Return to Contents

Sr 407.771*†	471325.2	638.56	0.14%	[0.60]	mg/L
Sr 421.552†	7334750.5	56125.39	0.77%	[0.60]	mg/L
Ti 336.121*†	589275.6	46.89	0.01%	[1.20]	mg/L
Ti 334.940†	804802.9	1414.26	0.18%	[1.20]	mg/L
Tl 351.924†	15434.2	139.37	0.90%	[3.0]	mg/L
Tl†	8070.2	21.10	0.26%	[3.0]	mg/L
Tl 190.801*†	9984.2	10.31	0.10%	[3.0]	mg/L
V 310.230†	815176.1	1350.07	0.17%	[3.75]	mg/L
V 292.402*†	423467.2	504.56	0.12%	[3.75]	mg/L
Zn 202.548†	459349.5	784.72	0.17%	[5.0]	mg/L
Zn 213.857*†	736461.0	31.98	0.00%	[5.0]	mg/L
Zn 206.200*†	324189.9	565.67	0.17%	[5.0]	mg/L

Return to Contents

User canceled analysis.

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Analysis Begun

Start Time: 11/11/2013 11:10:04 AM **Plasma On Time: 11/11/2013 8:49:59 AM**
Logged In Analyst: John Nguyen **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 77c8120401 Autosampler Model: AS-93plus

Sample Information File: C:\pe\jn\Sample Information\13111101.sif
Batch ID:
Results Data Set: 131111C1
Results Library: W:\ICP_07\ICP_07\pe\7300\Results\Results.mdb

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Sequence No.: 4 **Autosampler Location: 10**
Sample ID: ICV-M082713c **Date Collected: 11/11/2013 11:10:05 AM**
Analyst: 469 icp 7300 **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICV-M082713c

Analyte	Back Pressure	Flow
All	121.0 kPa	0.50 L/min

Mean Data: ICV-M082713c

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	194060.2	4.603	mg/L	0.0098				0.21%
Ho 345.600	307903.7	4.585	mg/L	0.0090				0.20%
Tb 384.873	82093.0	4.675	mg/L	0.0054				0.12%
Tb 350.917	139578.4	4.722	mg/L	0.0142				0.30%
Y 324.227	1102717.5	4.719	mg/L	0.0060				0.13%
Y 371.029	2335371.7	4.696	mg/L	0.0156				0.33%
Ag 328.068*†	70013.8	0.4700	mg/L	0.00206	0.4700	mg/L	0.00206	0.44%
QC value within limits for Ag 328.068* Recovery = 94.01%								
Ag 338.289†	35315.5	0.4384	mg/L	0.00111	0.4384	mg/L	0.00111	0.25%
Al 308.215*†	76593.2	3.711	mg/L	0.0004	3.711	mg/L	0.0004	0.01%
QC value within limits for Al 308.215* Recovery = 92.77%								
Al 396.153†	464687.9	3.797	mg/L	0.0109	3.797	mg/L	0.0109	0.29%
As 188.979†	27167.4	4.860	mg/L	0.0161	4.860	mg/L	0.0161	0.33%
As 193.696*†	19058.8	4.790	mg/L	0.0267	4.790	mg/L	0.0267	0.56%
QC value within limits for As 193.696* Recovery = 95.80%								
B 249.677*†	87292.7	2.382	mg/L	0.0345	2.382	mg/L	0.0345	1.45%
QC value within limits for B 249.677* Recovery = 95.30%								
B 249.772†	203350.7	2.394	mg/L	0.0305	2.394	mg/L	0.0305	1.28%
Ba 233.527*†	192430.1	0.9912	mg/L	0.00251	0.9912	mg/L	0.00251	0.25%
QC value within limits for Ba 233.527* Recovery = 99.12%								
Ba 455.403†	234201.0	0.9594	mg/L	0.00418	0.9594	mg/L	0.00418	0.44%
Be 313.042*†	2613822.0	0.4995	mg/L	0.00789	0.4995	mg/L	0.00789	1.58%
QC value within limits for Be 313.042* Recovery = 99.89%								
Be 313.107†	1327963.3	0.4994	mg/L	0.00793	0.4994	mg/L	0.00793	1.59%
Bi 190.171*†	39.7	0.0163	mg/L	0.00330	0.0163	mg/L	0.00330	20.23%
Bi 223.061†	-2837.5	-0.5077	mg/L	0.00369	-0.5077	mg/L	0.00369	0.73%
Ca 422.673†	192745.9	19.35	mg/L	0.099	19.35	mg/L	0.099	0.51%
Ca 317.933*†	90427.2	19.30	mg/L	0.149	19.30	mg/L	0.149	0.77%
QC value within limits for Ca 317.933* Recovery = 96.51%								
Cd 226.502*†	234995.1	1.489	mg/L	0.0001	1.489	mg/L	0.0001	0.01%
QC value within limits for Cd 226.502* Recovery = 99.26%								
Cd 228.802†	99771.7	1.445	mg/L	0.0005	1.445	mg/L	0.0005	0.03%
Co 228.616*†	53239.8	1.050	mg/L	0.0028	1.050	mg/L	0.0028	0.27%
QC value within limits for Co 228.616* Recovery = 104.97%								
Co 230.786†	51133.7	1.040	mg/L	0.0004	1.040	mg/L	0.0004	0.04%
Cr 357.869†	24081.2	0.3716	mg/L	0.00084	0.3716	mg/L	0.00084	0.22%
Cr 267.716*†	36749.5	0.3840	mg/L	0.00038	0.3840	mg/L	0.00038	0.10%
QC value within limits for Cr 267.716* Recovery = 96.01%								
Cu 324.752*†	137442.6	0.9890	mg/L	0.00460	0.9890	mg/L	0.00460	0.47%
QC value within limits for Cu 324.752* Recovery = 98.90%								
Cu 327.393†	122002.8	0.9809	mg/L	0.00444	0.9809	mg/L	0.00444	0.45%
Fe 259.939†	234291.4	96.71	mg/L	0.999	96.71	mg/L	0.999	1.03%

Return to Contents

Fe 239.562†	165768.7	94.94 mg/L	0.975	94.94 mg/L	0.975	1.03%
Fe 273.955*†	3083174.5	98.76 mg/L	1.586	98.76 mg/L	1.586	1.61%
QC value within limits for Fe 273.955* Recovery = 98.76%						
K 766.490*†	10817.0	7.380 mg/L	0.0576	7.380 mg/L	0.0576	0.78%
QC value within limits for K 766.490* Recovery = 92.25%						
Li 670.784†	Saturated3					
Li 610.362*†	811790.7	1.644 mg/L	0.0080	1.644 mg/L	0.0080	0.49%
Mg 280.271†	367647.3	10.53 mg/L	0.109	10.53 mg/L	0.109	1.04%
Mg 279.077*†	123359.8	10.55 mg/L	0.006	10.55 mg/L	0.006	0.05%
QC value within limits for Mg 279.077* Recovery = 105.53%						
Mn 257.610*†	555277.5	0.9839 mg/L	0.00063	0.9839 mg/L	0.00063	0.06%
QC value within limits for Mn 257.610* Recovery = 98.39%						
Mn 259.372†	479685.1	1.105 mg/L	0.0021	1.105 mg/L	0.0021	0.19%
Mo 203.845†	41089.1	2.403 mg/L	0.0064	2.403 mg/L	0.0064	0.27%
Mo 202.031*†	55662.0	2.389 mg/L	0.0062	2.389 mg/L	0.0062	0.26%
QC value within limits for Mo 202.031* Recovery = 95.56%						
Na 589.592*†	323753.0	53.76 mg/L	0.405	53.76 mg/L	0.405	0.75%
QC value within limits for Na 589.592* Recovery = 99.56%						
Na 330.237†	27385.9	48.52 mg/L	0.145	48.52 mg/L	0.145	0.30%
Ni 231.604*†	26325.3	0.4015 mg/L	0.00197	0.4015 mg/L	0.00197	0.49%
QC value within limits for Ni 231.604* Recovery = 100.38%						
Ni 232.003†	10252.5	0.4101 mg/L	0.00084	0.4101 mg/L	0.00084	0.21%
P 214.914†	16566.2	4.780 mg/L	0.0257	4.780 mg/L	0.0257	0.54%
P 213.617*†	32545.3	4.768 mg/L	0.0070	4.768 mg/L	0.0070	0.15%
QC value within limits for P 213.617* Recovery = 95.35%						
Pb 220.353*†	80478.2	4.966 mg/L	0.0030	4.966 mg/L	0.0030	0.06%
QC value within limits for Pb 220.353* Recovery = 99.31%						
Pb 217.000†	10960.5	4.806 mg/L	0.0097	4.806 mg/L	0.0097	0.20%
S 180.669†	458.5	0.2132 mg/L	0.00208	0.2132 mg/L	0.00208	0.97%
S 181.975*†	39.6	0.0303 mg/L	0.00145	0.0303 mg/L	0.00145	4.78%
Sb 217.582*†	9042.9	2.113 mg/L	0.0001	2.113 mg/L	0.0001	0.01%
QC value within limits for Sb 217.582* Recovery = 105.66%						
Sb 206†	8859.4	2.112 mg/L	0.0065	2.112 mg/L	0.0065	0.31%
Sb 206.836†	9359.8	2.127 mg/L	0.0263	2.127 mg/L	0.0263	1.24%
Se 196.026*†	5526.5	1.901 mg/L	0.0096	1.901 mg/L	0.0096	0.50%
QC value within limits for Se 196.026* Recovery = 95.03%						
Se 203.985†	5765.7	1.694 mg/L	0.0085	1.694 mg/L	0.0085	0.50%
Si 288.158†	27941.0	1.149 mg/L	0.0148	1.149 mg/L	0.0148	1.29%
Si 251.611*†	62780.6	1.202 mg/L	0.0142	1.202 mg/L	0.0142	1.18%
QC value less than the lower limit for Si 251.611* Recovery = 12.02%						
Sn 189.927*†	27953.6	2.521 mg/L	0.0058	2.521 mg/L	0.0058	0.23%
QC value within limits for Sn 189.927* Recovery = 100.84%						
Sn 242.170†	15460.7	2.464 mg/L	0.0023	2.464 mg/L	0.0023	0.09%
Sr 407.771*†	151472.3	0.1928 mg/L	0.00120	0.1928 mg/L	0.00120	0.62%
QC value within limits for Sr 407.771* Recovery = 96.41%						
Sr 421.552†	2436841.0	0.1993 mg/L	0.00340	0.1993 mg/L	0.00340	1.71%
Ti 336.121*†	2373274.6	4.833 mg/L	0.0067	4.833 mg/L	0.0067	0.14%
QC value within limits for Ti 336.121* Recovery = 96.66%						
Ti 334.940†	3275047.2	4.883 mg/L	0.0823	4.883 mg/L	0.0823	1.68%
Tl 351.924†	10165.4	1.976 mg/L	0.0212	1.976 mg/L	0.0212	1.08%
Tl†	5418.7	2.002 mg/L	0.0098	2.002 mg/L	0.0098	0.49%
Tl 190.801*†	6824.7	2.051 mg/L	0.0115	2.051 mg/L	0.0115	0.56%
QC value within limits for Tl 190.801* Recovery = 102.53%						
V 310.230†	215046.9	0.9999 mg/L	0.00023	0.9999 mg/L	0.00023	0.02%
V 292.402*†	107520.8	0.9599 mg/L	0.00085	0.9599 mg/L	0.00085	0.09%
QC value within limits for V 292.402* Recovery = 95.99%						
Zn 202.548†	139280.9	1.517 mg/L	0.0019	1.517 mg/L	0.0019	0.12%
Zn 213.857*†	220032.4	1.464 mg/L	0.0025	1.464 mg/L	0.0025	0.17%
QC value within limits for Zn 213.857* Recovery = 97.59%						
Zn 206.200*†	97478.9	1.482 mg/L	0.0023	1.482 mg/L	0.0023	0.15%
QC value within limits for Zn 206.200* Recovery = 98.83%						

QC Failed. Continue with analysis.

Return to Contents

User canceled analysis.

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Analysis Begun

Start Time: 11/11/2013 11:13:51 AM **Plasma On Time: 11/11/2013 8:49:59 AM**
Logged In Analyst: John Nguyen **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 77c8120401 Autosampler Model: AS-93plus

Sample Information File: C:\pe\jn\Sample Information\13111101.sif
Batch ID:
Results Data Set: 131111C1
Results Library: W:\ICP_07\ICP_07\pe\7300\Results\Results.mdb

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Sequence No.: 5 **Autosampler Location: 1**
Sample ID: ICB-R04231201 **Date Collected: 11/11/2013 11:13:53 AM**
Analyst: 469 icp 7300 **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICB-R04231201

Analyte	Back Pressure	Flow
All	120.0 kPa	0.50 L/min

Mean Data: ICB-R04231201

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	206060.9	4.887	mg/L	0.0254				0.52%
Ho 345.600	327119.7	4.871	mg/L	0.0063				0.13%
Tb 384.873	85542.4	4.872	mg/L	0.0196				0.40%
Tb 350.917	144582.8	4.891	mg/L	0.0327				0.67%
Y 324.227	1143754.4	4.895	mg/L	0.0074				0.15%
Y 371.029	2415617.8	4.857	mg/L	0.0104				0.21%
Ag 328.068*†	11.9	0.0001	mg/L	0.00021	0.0001	mg/L	0.00021	268.27%
Ag 338.289†	90.1	0.0011	mg/L	0.00056	0.0011	mg/L	0.00056	49.60%
Al 308.215*†	81.7	0.0040	mg/L	0.00303	0.0040	mg/L	0.00303	75.17%
Al 396.153†	-37.8	-0.0003	mg/L	0.00072	-0.0003	mg/L	0.00072	233.41%
As 188.979†	1.1	0.0002	mg/L	0.00271	0.0002	mg/L	0.00271	>999.9%
As 193.696*†	6.2	0.0015	mg/L	0.00140	0.0015	mg/L	0.00140	90.37%
B 249.677*†	586.4	0.0160	mg/L	0.00185	0.0160	mg/L	0.00185	11.61%
QC value within limits for B 249.677* Recovery = Not calculated								
B 249.772†	1303.3	0.0156	mg/L	0.00019	0.0156	mg/L	0.00019	1.25%
Ba 233.527*†	8.0	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	24.50%
Ba 455.403†	-29.8	-0.0001	mg/L	0.00033	-0.0001	mg/L	0.00033	273.45%
Be 313.042*†	143.9	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	35.87%
Be 313.107†	-206.1	-0.0001	mg/L	0.00003	-0.0001	mg/L	0.00003	36.85%
Bi 190.171*†	9.1	0.0038	mg/L	0.00355	0.0038	mg/L	0.00355	94.38%
Bi 223.061†	16.2	0.0029	mg/L	0.00333	0.0029	mg/L	0.00333	114.79%
Ca 422.673†	-0.4	0.0000	mg/L	0.00386	0.0000	mg/L	0.00386	>999.9%
Ca 317.933*†	-3.1	-0.0007	mg/L	0.00230	-0.0007	mg/L	0.00230	351.86%
Cd 226.502*†	3.2	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	40.24%
Cd 228.802†	-0.6	0.0000	mg/L	0.00004	0.0000	mg/L	0.00004	505.65%
Co 228.616*†	-22.5	-0.0004	mg/L	0.00025	-0.0004	mg/L	0.00025	56.70%
Co 230.786†	-9.9	-0.0002	mg/L	0.00025	-0.0002	mg/L	0.00025	124.42%
Cr 357.869†	-27.6	-0.0004	mg/L	0.00030	-0.0004	mg/L	0.00030	70.13%
Cr 267.716*†	-52.7	-0.0006	mg/L	0.00043	-0.0006	mg/L	0.00043	77.10%
Cu 324.752*†	59.9	0.0004	mg/L	0.00003	0.0004	mg/L	0.00003	7.89%
Cu 327.393†	97.2	0.0008	mg/L	0.00010	0.0008	mg/L	0.00010	13.32%
Fe 259.939†	5.1	0.0021	mg/L	0.00023	0.0021	mg/L	0.00023	10.96%
Fe 239.562†	1.6	0.0009	mg/L	0.00260	0.0009	mg/L	0.00260	275.77%
Fe 273.955*†	24.1	0.0008	mg/L	0.00066	0.0008	mg/L	0.00066	85.53%
K 766.490*†	66.2	0.0452	mg/L	0.05966	0.0452	mg/L	0.05966	132.08%
Li 670.784†	21428.3						1379.00	6.44%
Li 610.362*†	-30.3	-0.0001	mg/L	0.00021	-0.0001	mg/L	0.00021	348.68%
Mg 280.271†	-0.4	0.0000	mg/L	0.00006	0.0000	mg/L	0.00006	531.78%
Mg 279.077*†	-149.8	-0.0127	mg/L	0.00124	-0.0127	mg/L	0.00124	9.78%
Mn 257.610*†	24.3	0.0000	mg/L	0.00012	0.0000	mg/L	0.00012	275.13%
Mn 259.372†	33.4	0.0001	mg/L	0.00005	0.0001	mg/L	0.00005	59.25%
Mo 203.845†	10.9	0.0006	mg/L	0.00043	0.0006	mg/L	0.00043	66.66%

Return to Contents

Mo 202.031*†	11.0	0.0005 mg/L	0.00017	0.0005 mg/L	0.00017	35.25%
Na 589.592*†	234.0	0.0389 mg/L	0.00918	0.0389 mg/L	0.00918	23.63%
Na 330.237†	39.5	0.0699 mg/L	0.01008	0.0699 mg/L	0.01008	14.42%
Ni 231.604*†	-34.7	-0.0005 mg/L	0.00011	-0.0005 mg/L	0.00011	21.33%
Ni 232.003†	10.2	0.0004 mg/L	0.00140	0.0004 mg/L	0.00140	343.76%
P 214.914†	6.7	0.0019 mg/L	0.00141	0.0019 mg/L	0.00141	72.66%
P 213.617*†	10.1	0.0015 mg/L	0.00122	0.0015 mg/L	0.00122	82.17%
Pb 220.353*†	-3.9	-0.0002 mg/L	0.00097	-0.0002 mg/L	0.00097	402.34%
Pb 217.000†	6.8	0.0030 mg/L	0.00378	0.0030 mg/L	0.00378	126.73%
S 180.669†	11.1	0.0052 mg/L	0.00155	0.0052 mg/L	0.00155	30.00%
S 181.975*†	-2.8	-0.0021 mg/L	0.00203	-0.0021 mg/L	0.00203	95.80%
Sb 217.582*†	21.1	0.0049 mg/L	0.00053	0.0049 mg/L	0.00053	10.79%
Sb 206†	6.2	0.0015 mg/L	0.00330	0.0015 mg/L	0.00330	222.01%
Sb 206.836†	21.3	0.0048 mg/L	0.00133	0.0048 mg/L	0.00133	27.48%
Se 196.026*†	12.4	0.0043 mg/L	0.00072	0.0043 mg/L	0.00072	16.91%
Se 203.985†	18.6	0.0054 mg/L	0.00089	0.0054 mg/L	0.00089	16.32%
Si 288.158†	65.3	0.0028 mg/L	0.00188	0.0028 mg/L	0.00188	66.46%
Si 251.611*†	-10.8	-0.0002 mg/L	0.00178	-0.0002 mg/L	0.00178	926.97%
Sn 189.927*†	28.8	0.0026 mg/L	0.00028	0.0026 mg/L	0.00028	10.85%
Sn 242.170†	-413.0	-0.0658 mg/L	0.01783	-0.0658 mg/L	0.01783	27.08%
Sr 407.771*†	-4.6	0.0000 mg/L	0.00001	0.0000 mg/L	0.00001	226.18%
Sr 421.552†	-258.3	0.0000 mg/L	0.00000	0.0000 mg/L	0.00000	6.74%
Ti 336.121*†	155.2	0.0003 mg/L	0.00014	0.0003 mg/L	0.00014	43.18%
Ti 334.940†	300.8	0.0004 mg/L	0.00024	0.0004 mg/L	0.00024	52.80%
Tl 351.924†	23.4	0.0045 mg/L	0.00752	0.0045 mg/L	0.00752	165.48%
Tl†	-5.8	-0.0022 mg/L	0.00157	-0.0022 mg/L	0.00157	72.65%
Tl 190.801*†	1.9	0.0006 mg/L	0.00079	0.0006 mg/L	0.00079	141.81%
V 310.230†	2679.2	0.0123 mg/L	0.00102	0.0123 mg/L	0.00102	8.29%
V 292.402*†	-51.3	-0.0005 mg/L	0.00071	-0.0005 mg/L	0.00071	157.30%
Zn 202.548†	-20.9	-0.0002 mg/L	0.00005	-0.0002 mg/L	0.00005	21.52%
Zn 213.857*†	-21.5	-0.0001 mg/L	0.00000	-0.0001 mg/L	0.00000	2.18%
Zn 206.200*†	-27.0	-0.0004 mg/L	0.00006	-0.0004 mg/L	0.00006	13.93%

All analyte(s) passed QC.

Return to Contents

Sequence No.: 9
Sample ID: ICS_A -M042313B
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 11/11/2013 11:21:06 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICS_A -M042313B

Analyte	Back Pressure	Flow
All	121.0 kPa	0.50 L/min

Mean Data: ICS_A -M042313B

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Ho 339.898	195619.5	4.640	mg/L	0.0070				0.15%
Ho 345.600	317700.8	4.731	mg/L	0.0064				0.13%
Tb 384.873	83071.3	4.731	mg/L	0.0079				0.17%
Tb 350.917	141085.2	4.773	mg/L	0.0041				0.09%
Y 324.227	1115647.6	4.775	mg/L	0.0010				0.02%
Y 371.029	2313806.5	4.653	mg/L	0.0008				0.02%
Ag 328.068*†	-98.2	0.0015	mg/L	0.00016	0.0015	mg/L	0.00016	10.98%
Ag 338.289†	-4.7	-0.0099	mg/L	0.00006	-0.0099	mg/L	0.00006	0.56%
Al 308.215*†	480568.2	23.50	mg/L	0.110	23.50	mg/L	0.110	0.47%
Al 396.153†	2887886.5	23.60	mg/L	0.460	23.60	mg/L	0.460	1.95%
As 188.979†	-7.2	-0.0013	mg/L	0.00082	-0.0013	mg/L	0.00082	63.21%
As 193.696*†	-46.3	-0.0116	mg/L	0.00120	-0.0116	mg/L	0.00120	10.31%
B 249.677*†	-112.0	0.0006	mg/L	0.00056	0.0006	mg/L	0.00056	89.53%
B 249.772†	2621.7	-0.0025	mg/L	0.00024	-0.0025	mg/L	0.00024	9.70%
Ba 233.527*†	197.6	0.0014	mg/L	0.00007	0.0014	mg/L	0.00007	5.10%
Ba 455.403†	86.5	-0.0002	mg/L	0.00011	-0.0002	mg/L	0.00011	59.56%
Be 313.042*†	197.0	0.0000	mg/L	0.00002	0.0000	mg/L	0.00002	50.95%
Be 313.107†	-343.8	-0.0001	mg/L	0.00005	-0.0001	mg/L	0.00005	40.82%
Bi 190.171*†	39.0	0.0160	mg/L	0.00063	0.0160	mg/L	0.00063	3.95%
Bi 223.061†	28.9	0.0052	mg/L	0.00314	0.0052	mg/L	0.00314	60.72%
Ca 422.673†	1185205.6	119.0	mg/L	0.36	119.0	mg/L	0.36	0.30%
Ca 317.933*†	541100.6	115.5	mg/L	0.97	115.5	mg/L	0.97	0.84%
Cd 226.502*†	-256.5	-0.0016	mg/L	0.00014	-0.0016	mg/L	0.00014	8.88%
Cd 228.802†	-563.4	-0.0082	mg/L	0.00022	-0.0082	mg/L	0.00022	2.63%
Co 228.616*†	20.8	0.0004	mg/L	0.00033	0.0004	mg/L	0.00033	81.16%
Co 230.786†	-9.3	-0.0002	mg/L	0.00019	-0.0002	mg/L	0.00019	97.67%
Cr 357.869†	-136.5	-0.0029	mg/L	0.00045	-0.0029	mg/L	0.00045	15.71%
Cr 267.716*†	-39.4	-0.0065	mg/L	0.00012	-0.0065	mg/L	0.00012	1.78%
Cu 324.752*†	-2113.2	-0.0260	mg/L	0.00028	-0.0260	mg/L	0.00028	1.09%
Cu 327.393†	-322.6	-0.0187	mg/L	0.00051	-0.0187	mg/L	0.00051	2.72%
Fe 259.939†	233062.9	96.20	mg/L	0.023	96.20	mg/L	0.023	0.02%
Fe 239.562†	163460.8	93.62	mg/L	0.643	93.62	mg/L	0.643	0.69%
Fe 273.955*†	3028148.2	97.00	mg/L	1.377	97.00	mg/L	1.377	1.42%
K 766.490*†	130.5	0.0890	mg/L	0.01142	0.0890	mg/L	0.01142	12.83%
Li 670.784†	34530.2						1048.00	3.04%
Li 610.362*†	-30015.9	-0.0608	mg/L	0.00023	-0.0608	mg/L	0.00023	0.38%
Mg 280.271†	2076611.8	59.50	mg/L	0.249	59.50	mg/L	0.249	0.42%
Mg 279.077*†	730389.3	62.08	mg/L	0.130	62.08	mg/L	0.130	0.21%
Mn 257.610*†	-4349.8	-0.0077	mg/L	0.00010	-0.0077	mg/L	0.00010	1.29%
Mn 259.372†	48269.1	0.1112	mg/L	0.00047	0.1112	mg/L	0.00047	0.42%
Mo 203.845†	-18.7	-0.0011	mg/L	0.00074	-0.0011	mg/L	0.00074	67.76%
Mo 202.031*†	-23.7	-0.0010	mg/L	0.00004	-0.0010	mg/L	0.00004	3.95%
Na 589.592*†	126319.9	20.98	mg/L	0.099	20.98	mg/L	0.099	0.47%
Na 330.237†	10789.9	19.12	mg/L	0.098	19.12	mg/L	0.098	0.51%
Ni 231.604*†	2.7	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	30.10%
Ni 232.003†	204.0	0.0082	mg/L	0.00290	0.0082	mg/L	0.00290	35.52%
P 214.914†	-28.3	-0.0082	mg/L	0.00325	-0.0082	mg/L	0.00325	39.85%
P 213.617*†	11.9	0.0017	mg/L	0.00024	0.0017	mg/L	0.00024	13.99%
Pb 220.353*†	-76.1	-0.0047	mg/L	0.00009	-0.0047	mg/L	0.00009	1.92%
Pb 217.000†	29.8	0.0131	mg/L	0.00064	0.0131	mg/L	0.00064	4.93%
S 180.669†	2200.9	1.023	mg/L	0.0051	1.023	mg/L	0.0051	0.50%
S 181.975*†	-29.4	-0.0225	mg/L	0.00169	-0.0225	mg/L	0.00169	7.49%
Sb 217.582*†	-61.0	-0.0142	mg/L	0.00117	-0.0142	mg/L	0.00117	8.19%
Sb 206†	100.7	0.0240	mg/L	0.00534	0.0240	mg/L	0.00534	22.25%
Sb 206.836†	81.8	0.0186	mg/L	0.00001	0.0186	mg/L	0.00001	0.07%

Return to Contents

Se 196.026*†	-21.9	-0.0075 mg/L	0.00118	-0.0075 mg/L	0.00118	15.75%
Se 203.985†	-13.8	-0.0041 mg/L	0.00357	-0.0041 mg/L	0.00357	87.95%
Si 288.158†	191.4	-0.0062 mg/L	0.00156	-0.0062 mg/L	0.00156	25.14%
Si 251.611*†	254.4	-0.0036 mg/L	0.00028	-0.0036 mg/L	0.00028	7.95%
Sn 189.927*†	85.8	0.0077 mg/L	0.00020	0.0077 mg/L	0.00020	2.63%
Sn 242.170†	-824.5	-0.1314 mg/L	0.02477	-0.1314 mg/L	0.02477	18.85%
Sr 407.771*†	2177.9	0.0028 mg/L	0.00008	0.0028 mg/L	0.00008	3.06%
Sr 421.552†	34383.7	0.0028 mg/L	0.00003	0.0028 mg/L	0.00003	0.91%
Ti 336.121*†	-268.7	-0.0005 mg/L	0.00001	-0.0005 mg/L	0.00001	2.59%
Ti 334.940†	153.0	0.0002 mg/L	0.00004	0.0002 mg/L	0.00004	18.65%
Tl 351.924†	-15.7	-0.0031 mg/L	0.00917	-0.0031 mg/L	0.00917	300.47%
Tl†	-19.3	-0.0169 mg/L	0.00047	-0.0169 mg/L	0.00047	2.81%
Tl 190.801*†	-7.7	-0.0023 mg/L	0.00082	-0.0023 mg/L	0.00082	35.45%
V 310.230†	4252.6	0.0679 mg/L	0.00294	0.0679 mg/L	0.00294	4.33%
V 292.402*†	-910.5	-0.0016 mg/L	0.00056	-0.0016 mg/L	0.00056	34.29%
Zn 202.548†	-1010.5	0.0008 mg/L	0.00013	0.0008 mg/L	0.00013	16.29%
Zn 213.857*†	1364.7	-0.0103 mg/L	0.00031	-0.0103 mg/L	0.00031	3.01%
Zn 206.200*†	-37.9	-0.0113 mg/L	0.00018	-0.0113 mg/L	0.00018	1.57%

Return to Contents

Sequence No.: 10
Sample ID: ICS_AB -M042313A
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 11/11/2013 11:22:30 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICS_AB -M042313A

Analyte	Back Pressure	Flow
All	121.0 kPa	0.50 L/min

Mean Data: ICS_AB -M042313A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Ho 339.898	194064.0	4.603	mg/L	0.0025				0.05%
Ho 345.600	314249.7	4.679	mg/L	0.0058				0.12%
Tb 384.873	82509.2	4.699	mg/L	0.0058				0.12%
Tb 350.917	139983.5	4.736	mg/L	0.0010				0.02%
Y 324.227	1104838.1	4.728	mg/L	0.0091				0.19%
Y 371.029	2297106.2	4.619	mg/L	0.0044				0.10%
Ag 328.068*†	47991.4	0.3234	mg/L	0.00048	0.3234	mg/L	0.00048	0.15%
Ag 338.289†	25559.8	0.3096	mg/L	0.00045	0.3096	mg/L	0.00045	0.15%
Al 308.215*†	497980.8	24.35	mg/L	0.070	24.35	mg/L	0.070	0.29%
Al 396.153†	3062660.1	25.03	mg/L	0.121	25.03	mg/L	0.121	0.48%
As 188.979†	5744.1	1.028	mg/L	0.0030	1.028	mg/L	0.0030	0.29%
As 193.696*†	4058.1	1.020	mg/L	0.0014	1.020	mg/L	0.0014	0.14%
B 249.677*†	17355.0	0.4759	mg/L	0.00989	0.4759	mg/L	0.00989	2.08%
B 249.772†	43126.5	0.4780	mg/L	0.00844	0.4780	mg/L	0.00844	1.77%
Ba 233.527*†	58678.2	0.3027	mg/L	0.00056	0.3027	mg/L	0.00056	0.18%
Ba 455.403†	73412.3	0.3003	mg/L	0.00191	0.3003	mg/L	0.00191	0.64%
Be 313.042*†	532831.1	0.1018	mg/L	0.00032	0.1018	mg/L	0.00032	0.32%
Be 313.107†	270430.2	0.1017	mg/L	0.00011	0.1017	mg/L	0.00011	0.11%
Bi 190.171*†	34.2	0.0140	mg/L	0.00280	0.0140	mg/L	0.00280	19.97%
Bi 223.061†	-595.2	-0.1065	mg/L	0.00478	-0.1065	mg/L	0.00478	4.49%
Ca 422.673†	1236748.6	124.1	mg/L	0.56	124.1	mg/L	0.56	0.45%
Ca 317.933*†	562922.3	120.2	mg/L	0.69	120.2	mg/L	0.69	0.57%
Cd 226.502*†	48401.6	0.3067	mg/L	0.00123	0.3067	mg/L	0.00123	0.40%
Cd 228.802†	20566.4	0.2980	mg/L	0.00017	0.2980	mg/L	0.00017	0.06%
Co 228.616*†	15990.6	0.3153	mg/L	0.00027	0.3153	mg/L	0.00027	0.09%
Co 230.786†	15249.5	0.3100	mg/L	0.00004	0.3100	mg/L	0.00004	0.01%
Cr 357.869†	18718.3	0.2865	mg/L	0.00123	0.2865	mg/L	0.00123	0.43%
Cr 267.716*†	27979.6	0.2881	mg/L	0.00085	0.2881	mg/L	0.00085	0.29%
Cu 324.752*†	42054.8	0.2944	mg/L	0.00143	0.2944	mg/L	0.00143	0.49%
Cu 327.393†	38050.1	0.2934	mg/L	0.00029	0.2934	mg/L	0.00029	0.10%
Fe 259.939†	241926.5	99.86	mg/L	1.160	99.86	mg/L	1.160	1.16%
Fe 239.562†	169663.0	97.17	mg/L	0.150	97.17	mg/L	0.150	0.15%
Fe 273.955*†	3187303.0	102.1	mg/L	0.09	102.1	mg/L	0.09	0.09%
K 766.490*†	29875.0	20.38	mg/L	0.143	20.38	mg/L	0.143	0.70%
Li 670.784†	57627.5						1076.58	1.87%
Li 610.362*†	-31245.4	-0.0633	mg/L	0.00016	-0.0633	mg/L	0.00016	0.26%
Mg 280.271†	2158263.7	61.84	mg/L	0.108	61.84	mg/L	0.108	0.17%
Mg 279.077*†	747935.0	63.57	mg/L	0.284	63.57	mg/L	0.284	0.45%
Mn 257.610*†	111397.2	0.1974	mg/L	0.00088	0.1974	mg/L	0.00088	0.44%
Mn 259.372†	138501.0	0.3192	mg/L	0.00017	0.3192	mg/L	0.00017	0.05%
Mo 203.845†	5108.3	0.2987	mg/L	0.00103	0.2987	mg/L	0.00103	0.35%
Mo 202.031*†	7030.2	0.3017	mg/L	0.00074	0.3017	mg/L	0.00074	0.24%
Na 589.592*†	130004.1	21.59	mg/L	0.041	21.59	mg/L	0.041	0.19%
Na 330.237†	10979.7	19.45	mg/L	0.033	19.45	mg/L	0.033	0.17%
Ni 231.604*†	20162.5	0.3075	mg/L	0.00003	0.3075	mg/L	0.00003	0.01%
Ni 232.003†	7833.8	0.3134	mg/L	0.00039	0.3134	mg/L	0.00039	0.12%
P 214.914†	-0.5	-0.0001	mg/L	0.00256	-0.0001	mg/L	0.00256	>999.9%
P 213.617*†	10.2	0.0015	mg/L	0.00641	0.0015	mg/L	0.00641	428.83%
Pb 220.353*†	16291.9	1.005	mg/L	0.0019	1.005	mg/L	0.0019	0.19%
Pb 217.000†	2341.7	1.027	mg/L	0.0050	1.027	mg/L	0.0050	0.48%
S 180.669†	2315.2	1.076	mg/L	0.0001	1.076	mg/L	0.0001	0.01%
S 181.975*†	-6.0	-0.0046	mg/L	0.00099	-0.0046	mg/L	0.00099	21.74%
Sb 217.582*†	4693.6	1.097	mg/L	0.0035	1.097	mg/L	0.0035	0.32%
Sb 206†	4723.8	1.126	mg/L	0.0012	1.126	mg/L	0.0012	0.10%
Sb 206.836†	4939.3	1.123	mg/L	0.0050	1.123	mg/L	0.0050	0.45%

Return to Contents

Se 196.026*†	1461.5	0.5026 mg/L	0.00362	0.5026 mg/L	0.00362	0.72%
Se 203.985†	1730.4	0.5083 mg/L	0.00105	0.5083 mg/L	0.00105	0.21%
Si 288.158†	5169.7	0.1938 mg/L	0.00302	0.1938 mg/L	0.00302	1.56%
Si 251.611*†	11312.0	0.2014 mg/L	0.00102	0.2014 mg/L	0.00102	0.51%
Sn 189.927*†	-41.0	-0.0037 mg/L	0.00022	-0.0037 mg/L	0.00022	5.89%
Sn 242.170†	-800.2	-0.1275 mg/L	0.01803	-0.1275 mg/L	0.01803	14.14%
Sr 407.771*†	2257.8	0.0029 mg/L	0.00006	0.0029 mg/L	0.00006	1.95%
Sr 421.552†	34621.8	0.0028 mg/L	0.00001	0.0028 mg/L	0.00001	0.42%
Ti 336.121*†	490710.0	0.9993 mg/L	0.00146	0.9993 mg/L	0.00146	0.15%
Ti 334.940†	672887.9	1.003 mg/L	0.0013	1.003 mg/L	0.0013	0.13%
Tl 351.924†	5203.0	1.011 mg/L	0.0185	1.011 mg/L	0.0185	1.83%
Tl†	2780.9	1.021 mg/L	0.0172	1.021 mg/L	0.0172	1.68%
Tl 190.801*†	3474.1	1.044 mg/L	0.0099	1.044 mg/L	0.0099	0.95%
V 310.230†	69502.2	0.3705 mg/L	0.00528	0.3705 mg/L	0.00528	1.42%
V 292.402*†	33559.9	0.3045 mg/L	0.00060	0.3045 mg/L	0.00060	0.20%
Zn 202.548†	28200.9	0.3194 mg/L	0.00193	0.3194 mg/L	0.00193	0.60%
Zn 213.857*†	48639.6	0.3095 mg/L	0.00074	0.3095 mg/L	0.00074	0.24%
Zn 206.200*†	20453.3	0.3040 mg/L	0.00127	0.3040 mg/L	0.00127	0.42%

Return to Contents

Sequence No.: 1
Sample ID: Calblank R04231301_ 469
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 11/11/2013 1:17:35 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calblank R04231301_ 469

Analyte	Back Pressure	Flow
All	123.0 kPa	0.50 L/min

Mean Data: Calblank R04231301_ 469

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Ho 339.898	206962.0	2407.22	1.16%	5.000	mg/L
Ho 345.600	333995.6	3322.75	0.99%	5.000	mg/L
Tb 350.917	146928.4	1464.94	1.00%	5.000	mg/L
Tb 384.873	86587.1	688.07	0.79%	5.000	mg/L
Y 324.227	1177823.2	8450.82	0.72%	5.000	mg/L
Y 371.029	2412105.1	24443.07	1.01%	5.000	mg/L
Ag 328.068*†	-3994.6	110.77	2.77%	[0.00]	mg/L
Ag 338.289†	13.2	6.11	46.39%	[0.00]	mg/L
Al 308.215*†	-6251.1	32.32	0.52%	[0.00]	mg/L
Al 396.153†	-167.0	91.40	54.73%	[0.00]	mg/L
As 188.979†	-6.0	20.50	340.46%	[0.00]	mg/L
As 193.696*†	39.0	2.31	5.92%	[0.00]	mg/L
B 249.677*†	-1018.7	16.11	1.58%	[0.00]	mg/L
B 249.772†	-1683.6	25.21	1.50%	[0.00]	mg/L
Ba 233.527*†	-19.9	0.69	3.47%	[0.00]	mg/L
Ba 455.403†	-59.7	26.67	44.69%	[0.00]	mg/L
Be 313.042*†	-3828.9	240.60	6.28%	[0.00]	mg/L
Be 313.107†	-1215.1	108.40	8.92%	[0.00]	mg/L
Ca 317.933*†	287.6	0.03	0.01%	[0.00]	mg/L
Ca 422.673†	54.3	33.12	61.02%	[0.00]	mg/L
Cd 226.502*†	-186.6	3.74	2.00%	[0.00]	mg/L
Cd 228.802†	-175.2	5.08	2.90%	[0.00]	mg/L
Co 228.616*†	-96.6	2.70	2.80%	[0.00]	mg/L
Co 230.786†	126.9	5.53	4.36%	[0.00]	mg/L
Cr 267.716*†	-212.6	3.76	1.77%	[0.00]	mg/L
Cr 357.869†	598.7	6.57	1.10%	[0.00]	mg/L
Cu 324.752*†	-1799.9	3.26	0.18%	[0.00]	mg/L
Cu 327.393†	-3096.1	37.51	1.21%	[0.00]	mg/L
Fe 239.562†	-126.1	3.98	3.16%	[0.00]	mg/L
Fe 259.939†	-117.0	2.87	2.45%	[0.00]	mg/L
Fe 273.955*†	-28.5	14.08	49.37%	[0.00]	mg/L
K 766.490*†	534.3	5.26	0.98%	[0.00]	mg/L
Mg 279.077*†	-5454.3	57.02	1.05%	[0.00]	mg/L
Mg 280.271†	33.9	7.45	21.94%	[0.00]	mg/L
Mn 257.610*†	209.4	11.20	5.35%	[0.00]	mg/L
Mn 259.372†	-419.7	14.48	3.45%	[0.00]	mg/L
Mo 202.031*†	-121.4	2.49	2.05%	[0.00]	mg/L
Mo 203.845†	-169.8	1.86	1.09%	[0.00]	mg/L
Na 330.237†	2323.6	41.03	1.77%	[0.00]	mg/L
Na 589.592*†	13671.0	839.66	6.14%	[0.00]	mg/L
Ni 231.604*†	500.3	19.79	3.96%	[0.00]	mg/L
Ni 232.003†	-253.1	3.71	1.46%	[0.00]	mg/L
P 213.617*†	416.9	9.95	2.39%	[0.00]	mg/L
P 214.914†	30.6	2.14	7.00%	[0.00]	mg/L
Pb 217.000†	-11.0	3.61	32.82%	[0.00]	mg/L
Pb 220.353*†	-183.6	24.75	13.48%	[0.00]	mg/L
Sb 206†	88.3	6.16	6.98%	[0.00]	mg/L
Sb 206.836†	14.0	2.00	14.29%	[0.00]	mg/L
Sb 217.582*†	66.0	9.84	14.91%	[0.00]	mg/L
Se 196.026*†	37.5	1.48	3.96%	[0.00]	mg/L
Se 203.985†	38.9	7.31	18.77%	[0.00]	mg/L
Si 251.611*†	1269.1	72.59	5.72%	[0.00]	mg/L
Si 288.158†	1678.4	51.76	3.08%	[0.00]	mg/L
Sn 189.927*†	23.2	0.49	2.11%	[0.00]	mg/L
Sn 242.170†	1593.4	250.81	15.74%	[0.00]	mg/L

Return to Contents

Sr 407.771*†	-119.1	51.15	42.96%	[0.00]	mg/L
Sr 421.552†	-3728.2	26.44	0.71%	[0.00]	mg/L
Ti 334.940†	12812.0	107.44	0.84%	[0.00]	mg/L
Ti 336.121*†	-1768.6	46.05	2.60%	[0.00]	mg/L
Tl†	-53.2	1.88	3.52%	[0.00]	mg/L
Tl 190.801*†	-11.4	1.31	11.43%	[0.00]	mg/L
Tl 351.924†	-59.4	67.66	113.82%	[0.00]	mg/L
V 292.402*†	196.6	1.27	0.65%	[0.00]	mg/L
V 310.230†	83230.9	553.05	0.66%	[0.00]	mg/L
Zn 202.548†	-450.5	12.34	2.74%	[0.00]	mg/L
Zn 206.200*†	-357.5	9.14	2.56%	[0.00]	mg/L
Zn 213.857*†	-199.6	10.32	5.17%	[0.00]	mg/L

Return to Contents

Sequence No.: 2
Sample ID: STD3-M092713A-Analyst-469
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/11/2013 1:19:25 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: STD3-M092713A-Analyst-469

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: STD3-M092713A-Analyst-469

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ho 339.898	197995.4	1417.77	0.72%	4.783	mg/L
Ho 345.600	319306.3	2682.49	0.84%	4.780	mg/L
Tb 350.917	142732.5	1096.89	0.77%	4.857	mg/L
Tb 384.873	83403.3	588.40	0.71%	4.816	mg/L
Y 324.227	1148267.4	10756.02	0.94%	4.875	mg/L
Y 371.029	2336817.3	15575.99	0.67%	4.844	mg/L
Ag 328.068*†	108139.6	106.73	0.10%	[0.75]	mg/L
Ag 338.289†	57812.1	101.38	0.18%	[0.75]	mg/L
Al 308.215*†	547564.5	711.58	0.13%	[27.0]	mg/L
Al 396.153†	3254818.8	6139.29	0.19%	[27]	mg/L
As 188.979†	40791.7	564.42	1.38%	[7.50]	mg/L
As 193.696*†	29120.4	424.10	1.46%	[7.50]	mg/L
B 249.677*†	267995.8	585.80	0.22%	[7.50]	mg/L
B 249.772†	625571.8	1032.59	0.17%	[7.50]	mg/L
Ba 233.527*†	2839076.8	3816.06	0.13%	[15.0]	mg/L
Ba 455.403†	3623694.8	8451.18	0.23%	[15.0]	mg/L
Be 313.042*†	5759588.0	4512.14	0.08%	[1.125]	mg/L
Be 313.107†	2940303.8	3080.57	0.10%	[1.125]	mg/L
Ca 317.933*†	267433.6	6446.00	2.41%	[60.0]	mg/L
Ca 422.673†	587331.1	14218.64	2.42%	[60.0]	mg/L
Cd 226.502*†	237611.6	559.39	0.24%	[1.50]	mg/L
Cd 228.802†	103314.7	731.30	0.71%	[1.50]	mg/L
Co 228.616*†	189569.4	210.36	0.11%	[3.75]	mg/L
Co 230.786†	184646.0	66.46	0.04%	[3.75]	mg/L
Cr 267.716*†	110402.5	39.22	0.04%	[1.20]	mg/L
Cr 357.869†	76961.4	629.73	0.82%	[1.20]	mg/L
Cu 324.752*†	264813.7	625.25	0.24%	[1.875]	mg/L
Cu 327.393†	224340.6	7.47	0.00%	[1.875]	mg/L
Fe 239.562†	12228.1	349.41	2.86%	[7.50]	mg/L
Fe 259.939†	18056.2	386.82	2.14%	[7.50]	mg/L
Fe 273.955*†	234332.2	346.74	0.15%	[7.50]	mg/L
K 766.490*†	79198.0	1333.11	1.68%	[54.0]	mg/L
Mg 279.077*†	180499.1	350.59	0.19%	[15.0]	mg/L
Mg 280.271†	512268.0	13192.99	2.58%	[15.0]	mg/L
Mn 257.610*†	860479.6	783.19	0.09%	[1.50]	mg/L
Mn 259.372†	665638.1	1672.65	0.25%	[1.50]	mg/L
Mo 202.031*†	28056.9	266.49	0.95%	[1.20]	mg/L
Mo 203.845†	20328.9	212.96	1.05%	[1.20]	mg/L
Na 330.237†	40667.6	286.83	0.71%	[72.0]	mg/L
Na 589.592*†	433007.2	10912.90	2.52%	[72.0]	mg/L
Ni 231.604*†	76978.9	711.48	0.92%	[1.20]	mg/L
Ni 232.003†	29633.1	189.94	0.64%	[1.20]	mg/L
P 213.617*†	81674.8	666.81	0.82%	[12.0]	mg/L
P 214.914†	41750.9	418.81	1.00%	[12.0]	mg/L
Pb 217.000†	16645.8	189.89	1.14%	[7.50]	mg/L
Pb 220.353*†	122025.9	147.35	0.12%	[7.50]	mg/L
Sb 206†	37555.2	374.34	1.00%	[9.0]	mg/L
Sb 206.836†	39832.5	256.45	0.64%	[9.0]	mg/L
Sb 217.582*†	38651.0	455.56	1.18%	[9.0]	mg/L
Se 196.026*†	8630.8	58.08	0.67%	[3.0]	mg/L
Se 203.985†	10181.2	183.76	1.80%	[3.0]	mg/L
Si 251.611*†	597244.3	2470.14	0.41%	[12.0]	mg/L
Si 288.158†	268761.7	747.87	0.28%	[12.0]	mg/L
Sn 189.927*†	66336.2	838.09	1.26%	[6.0]	mg/L
Sn 242.170†	38262.1	140.56	0.37%	[6.0]	mg/L

Return to Contents

Sr 407.771*†	461943.9	12161.09	2.63%	[0.60]	mg/L
Sr 421.552†	7195764.9	433.42	0.01%	[0.60]	mg/L
Ti 334.940†	812688.8	1067.00	0.13%	[1.20]	mg/L
Ti 336.121*†	585777.0	606.30	0.10%	[1.20]	mg/L
Tl†	8266.5	53.53	0.65%	[3.0]	mg/L
Tl 190.801*†	9990.6	69.96	0.70%	[3.0]	mg/L
Tl 351.924†	15131.9	83.17	0.55%	[3.0]	mg/L
V 292.402*†	413150.2	78.02	0.02%	[3.75]	mg/L
V 310.230†	784100.2	856.37	0.11%	[3.75]	mg/L
Zn 202.548†	470897.4	597.73	0.13%	[5.0]	mg/L
Zn 206.200*†	332299.7	752.90	0.23%	[5.0]	mg/L
Zn 213.857*†	732819.4	654.68	0.09%	[5.0]	mg/L

Return to Contents

Sequence No.: 3
Sample ID: CCV= STD3x0.5
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/11/2013 1:20:50 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV= STD3x0.5

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	203735.0	4.922	mg/L	0.0187				0.38%
Ho 345.600	329382.4	4.931	mg/L	0.0060				0.12%
Tb 350.917	146005.6	4.969	mg/L	0.0180				0.36%
Tb 384.873	85519.7	4.938	mg/L	0.0076				0.15%
Y 324.227	1171414.4	4.973	mg/L	0.0053				0.11%
Y 371.029	2380637.4	4.935	mg/L	0.0302				0.61%
Ag 328.068*†	53672.8	0.3724	mg/L	0.00083	0.3724	mg/L	0.00083	0.22%
QC value within limits for Ag 328.068* Recovery = 99.31%								
Ag 338.289†	28111.6	0.3658	mg/L	0.00100	0.3658	mg/L	0.00100	0.27%
Al 308.215*†	268149.9	13.17	mg/L	0.024	13.17	mg/L	0.024	0.18%
QC value within limits for Al 308.215* Recovery = 97.57%								
Al 396.153†	1592813.1	13.21	mg/L	0.130	13.21	mg/L	0.130	0.99%
As 188.979†	20234.4	3.720	mg/L	0.0105	3.720	mg/L	0.0105	0.28%
QC value within limits for As 188.979 Recovery = 99.21%								
As 193.696*†	14333.7	3.692	mg/L	0.0108	3.692	mg/L	0.0108	0.29%
QC value within limits for As 193.696* Recovery = 98.44%								
B 249.677*†	133034.0	3.715	mg/L	0.0459	3.715	mg/L	0.0459	1.24%
QC value within limits for B 249.677* Recovery = 99.07%								
B 249.772†	312782.5	3.739	mg/L	0.0229	3.739	mg/L	0.0229	0.61%
Ba 233.527*†	1442845.1	7.624	mg/L	0.0339	7.624	mg/L	0.0339	0.44%
QC value within limits for Ba 233.527* Recovery = 101.65%								
Ba 455.403†	1833432.3	7.589	mg/L	0.0969	7.589	mg/L	0.0969	1.28%
Be 313.042*†	2904268.9	0.5673	mg/L	0.00222	0.5673	mg/L	0.00222	0.39%
QC value within limits for Be 313.042* Recovery = 100.85%								
Be 313.107†	1480520.9	0.5665	mg/L	0.00265	0.5665	mg/L	0.00265	0.47%
Ca 317.933*†	134539.5	30.18	mg/L	0.397	30.18	mg/L	0.397	1.32%
QC value within limits for Ca 317.933* Recovery = 100.62%								
Ca 422.673†	291629.6	29.79	mg/L	0.399	29.79	mg/L	0.399	1.34%
Cd 226.502*†	119754.5	0.7560	mg/L	0.00208	0.7560	mg/L	0.00208	0.27%
QC value within limits for Cd 226.502* Recovery = 100.80%								
Cd 228.802†	51375.4	0.7459	mg/L	0.00484	0.7459	mg/L	0.00484	0.65%
Co 228.616*†	94755.1	1.874	mg/L	0.0075	1.874	mg/L	0.0075	0.40%
QC value within limits for Co 228.616* Recovery = 99.97%								
Co 230.786†	91896.0	1.866	mg/L	0.0035	1.866	mg/L	0.0035	0.19%
Cr 267.716*†	54999.0	0.5974	mg/L	0.00035	0.5974	mg/L	0.00035	0.06%
QC value within limits for Cr 267.716* Recovery = 99.57%								
Cr 357.869†	36651.0	0.5768	mg/L	0.00287	0.5768	mg/L	0.00287	0.50%
Cu 324.752*†	131336.1	0.9407	mg/L	0.00586	0.9407	mg/L	0.00586	0.62%
QC value within limits for Cu 324.752* Recovery = 100.34%								
Cu 327.393†	110864.6	0.9373	mg/L	0.00237	0.9373	mg/L	0.00237	0.25%
Fe 239.562†	6047.1	3.709	mg/L	0.0705	3.709	mg/L	0.0705	1.90%
Fe 259.939†	8995.4	3.736	mg/L	0.0135	3.736	mg/L	0.0135	0.36%
Fe 273.955*†	118294.5	3.786	mg/L	0.0078	3.786	mg/L	0.0078	0.21%
QC value within limits for Fe 273.955* Recovery = 100.96%								
K 766.490*†	37225.9	25.38	mg/L	0.432	25.38	mg/L	0.432	1.70%
QC value within limits for K 766.490* Recovery = 94.01%								
Mg 279.077*†	91002.1	7.555	mg/L	0.0050	7.555	mg/L	0.0050	0.07%
QC value within limits for Mg 279.077* Recovery = 100.74%								
Mg 280.271†	260409.9	7.625	mg/L	0.1027	7.625	mg/L	0.1027	1.35%
Mn 257.610*†	434902.5	0.7581	mg/L	0.00067	0.7581	mg/L	0.00067	0.09%
QC value within limits for Mn 257.610* Recovery = 101.08%								
Mn 259.372†	336264.0	0.7578	mg/L	0.00108	0.7578	mg/L	0.00108	0.14%
Mo 202.031*†	13918.6	0.5953	mg/L	0.00441	0.5953	mg/L	0.00441	0.74%
QC value within limits for Mo 202.031* Recovery = 99.22%								
Mo 203.845†	10094.8	0.5959	mg/L	0.00053	0.5959	mg/L	0.00053	0.09%

Return to Contents

Na 330.237†	19163.9	33.93	mg/L	0.333	33.93 mg/L	0.333	0.98%
Na 589.592*†	214153.6	35.61	mg/L	0.424	35.61 mg/L	0.424	1.19%
QC value within limits for Na 589.592* Recovery = 98.91%							
Ni 231.604*†	38587.5	0.6015	mg/L	0.00032	0.6015 mg/L	0.00032	0.05%
QC value within limits for Ni 231.604* Recovery = 100.25%							
Ni 232.003†	14558.5	0.5896	mg/L	0.00262	0.5896 mg/L	0.00262	0.44%
P 213.617*†	40421.8	5.939	mg/L	0.0033	5.939 mg/L	0.0033	0.06%
QC value within limits for P 213.617* Recovery = 98.98%							
P 214.914†	20591.6	5.918	mg/L	0.0308	5.918 mg/L	0.0308	0.52%
Pb 217.000†	8131.1	3.664	mg/L	0.0073	3.664 mg/L	0.0073	0.20%
Pb 220.353*†	60432.3	3.714	mg/L	0.0158	3.714 mg/L	0.0158	0.43%
QC value within limits for Pb 220.353* Recovery = 99.05%							
Sb 206†	18628.0	4.464	mg/L	0.0099	4.464 mg/L	0.0099	0.22%
Sb 206.836†	19651.4	4.440	mg/L	0.0576	4.440 mg/L	0.0576	1.30%
Sb 217.582*†	19185.5	4.467	mg/L	0.0170	4.467 mg/L	0.0170	0.38%
QC value within limits for Sb 217.582* Recovery = 99.28%							
Se 196.026*†	4279.5	1.488	mg/L	0.0060	1.488 mg/L	0.0060	0.40%
QC value within limits for Se 196.026* Recovery = 99.17%							
Se 203.985†	5005.5	1.475	mg/L	0.0005	1.475 mg/L	0.0005	0.04%
Si 251.611*†	298872.6	6.005	mg/L	0.0323	6.005 mg/L	0.0323	0.54%
QC value within limits for Si 251.611* Recovery = 100.08%							
Si 288.158†	134647.0	5.923	mg/L	0.0449	5.923 mg/L	0.0449	0.76%
Sn 189.927*†	32975.0	2.983	mg/L	0.0068	2.983 mg/L	0.0068	0.23%
QC value within limits for Sn 189.927* Recovery = 99.42%							
Sn 242.170†	18584.2	2.914	mg/L	0.0360	2.914 mg/L	0.0360	1.24%
Sr 407.771*†	229353.9	0.2979	mg/L	0.00386	0.2979 mg/L	0.00386	1.30%
QC value within limits for Sr 407.771* Recovery = 99.30%							
Sr 421.552†	3658035.5	0.3050	mg/L	0.00173	0.3050 mg/L	0.00173	0.57%
Ti 334.940†	408426.1	0.6031	mg/L	0.00081	0.6031 mg/L	0.00081	0.13%
Ti 336.121*†	294143.6	0.6026	mg/L	0.00072	0.6026 mg/L	0.00072	0.12%
QC value within limits for Ti 336.121* Recovery = 100.43%							
Tl†	4115.6	1.478	mg/L	0.0140	1.478 mg/L	0.0140	0.95%
Tl 190.801*†	4972.6	1.493	mg/L	0.0044	1.493 mg/L	0.0044	0.29%
QC value within limits for Tl 190.801* Recovery = 99.55%							
Tl 351.924†	7230.6	1.434	mg/L	0.0181	1.434 mg/L	0.0181	1.26%
V 292.402*†	206018.0	1.871	mg/L	0.0094	1.871 mg/L	0.0094	0.50%
QC value within limits for V 292.402* Recovery = 99.76%							
V 310.230†	391352.0	1.883	mg/L	0.0152	1.883 mg/L	0.0152	0.81%
Zn 202.548†	238652.6	2.538	mg/L	0.0029	2.538 mg/L	0.0029	0.11%
Zn 206.200*†	167753.3	2.527	mg/L	0.0053	2.527 mg/L	0.0053	0.21%
QC value within limits for Zn 206.200* Recovery = 101.06%							
Zn 213.857*†	368588.2	2.517	mg/L	0.0080	2.517 mg/L	0.0080	0.32%
QC value within limits for Zn 213.857* Recovery = 100.68%							

All analyte(s) passed QC.

Return to Contents

Sequence No.: 5
Sample ID: CCB-1 R04231301
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 11/11/2013 1:23:55 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB-1 R04231301

Analyte	Back Pressure	Flow
All	123.0 kPa	0.50 L/min

Mean Data: CCB-1 R04231301

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	212179.6	5.126	mg/L	0.0656				1.28%
Ho 345.600	342890.5	5.133	mg/L	0.0597				1.16%
Tb 350.917	150409.0	5.118	mg/L	0.0604				1.18%
Tb 384.873	88790.1	5.127	mg/L	0.0663				1.29%
Y 324.227	1210999.7	5.141	mg/L	0.0915				1.78%
Y 371.029	2452534.3	5.084	mg/L	0.0804				1.58%
Ag 328.068*†	42.0	0.0003	mg/L	0.00022	0.0003	mg/L	0.00022	76.04%
QC value within limits for Ag 328.068* Recovery = Not calculated								
Ag 338.289†	-114.3	-0.0015	mg/L	0.00052	-0.0015	mg/L	0.00052	34.90%
Al 308.215*†	-56.4	-0.0028	mg/L	0.00054	-0.0028	mg/L	0.00054	19.32%
Al 396.153†	-138.5	-0.0011	mg/L	0.00016	-0.0011	mg/L	0.00016	13.65%
As 188.979†	20.5	0.0038	mg/L	0.00118	0.0038	mg/L	0.00118	31.27%
As 193.696*†	-4.9	-0.0013	mg/L	0.00078	-0.0013	mg/L	0.00078	62.57%
B 249.677*†	458.5	0.0128	mg/L	0.00071	0.0128	mg/L	0.00071	5.53%
B 249.772†	1055.8	0.0127	mg/L	0.00048	0.0127	mg/L	0.00048	3.83%
Ba 233.527*†	13.1	0.0001	mg/L	0.00007	0.0001	mg/L	0.00007	105.05%
Ba 455.403†	-59.2	-0.0002	mg/L	0.00026	-0.0002	mg/L	0.00026	106.22%
Be 313.042*†	-2.8	0.0000	mg/L	0.00002	0.0000	mg/L	0.00002	>999.9%
Be 313.107†	-9.3	0.0000	mg/L	0.00002	0.0000	mg/L	0.00002	430.75%
Ca 317.933*†	-6.2	-0.0014	mg/L	0.00006	-0.0014	mg/L	0.00006	4.41%
Ca 422.673†	8.8	0.0009	mg/L	0.00245	0.0009	mg/L	0.00245	274.14%
Cd 226.502*†	8.8	0.0001	mg/L	0.00005	0.0001	mg/L	0.00005	81.12%
Cd 228.802†	5.6	0.0001	mg/L	0.00015	0.0001	mg/L	0.00015	191.36%
Co 228.616*†	8.8	0.0002	mg/L	0.00002	0.0002	mg/L	0.00002	14.17%
Co 230.786†	-4.9	-0.0001	mg/L	0.00008	-0.0001	mg/L	0.00008	80.29%
Cr 267.716*†	3.5	0.0000	mg/L	0.00028	0.0000	mg/L	0.00028	733.55%
Cr 357.869†	-78.4	-0.0012	mg/L	0.00091	-0.0012	mg/L	0.00091	74.45%
Cu 324.752*†	42.1	0.0003	mg/L	0.00088	0.0003	mg/L	0.00088	294.77%
Cu 327.393†	63.6	0.0005	mg/L	0.00005	0.0005	mg/L	0.00005	8.81%
Fe 239.562†	6.8	0.0042	mg/L	0.00164	0.0042	mg/L	0.00164	39.47%
Fe 259.939†	10.7	0.0045	mg/L	0.00084	0.0045	mg/L	0.00084	18.73%
Fe 273.955*†	-16.0	-0.0005	mg/L	0.00045	-0.0005	mg/L	0.00045	88.41%
K 766.490*†	63.9	0.0436	mg/L	0.01272	0.0436	mg/L	0.01272	29.19%
Mg 279.077*†	158.4	0.0132	mg/L	0.00692	0.0132	mg/L	0.00692	52.53%
Mg 280.271†	0.0	0.0000	mg/L	0.00006	0.0000	mg/L	0.00006	>999.9%
Mn 257.610*†	-141.5	-0.0002	mg/L	0.00003	-0.0002	mg/L	0.00003	10.92%
Mn 259.372†	-86.5	-0.0002	mg/L	0.00004	-0.0002	mg/L	0.00004	21.26%
Mo 202.031*†	3.0	0.0001	mg/L	0.00015	0.0001	mg/L	0.00015	119.67%
Mo 203.845†	-0.2	0.0000	mg/L	0.00028	0.0000	mg/L	0.00028	>999.9%
Na 330.237†	-371.8	-0.6582	mg/L	0.16160	-0.6582	mg/L	0.16160	24.55%
Na 589.592*†	-5435.3	-0.9038	mg/L	0.13435	-0.9038	mg/L	0.13435	14.87%
Ni 231.604*†	-23.5	-0.0004	mg/L	0.00050	-0.0004	mg/L	0.00050	137.57%
Ni 232.003†	7.9	0.0003	mg/L	0.00006	0.0003	mg/L	0.00006	19.54%
P 213.617*†	-19.7	-0.0029	mg/L	0.00356	-0.0029	mg/L	0.00356	123.00%
P 214.914†	7.9	0.0023	mg/L	0.00010	0.0023	mg/L	0.00010	4.54%
Pb 217.000†	15.4	0.0069	mg/L	0.00113	0.0069	mg/L	0.00113	16.23%
Pb 220.353*†	35.4	0.0022	mg/L	0.00044	0.0022	mg/L	0.00044	20.05%
Sb 206†	1.6	0.0004	mg/L	0.00051	0.0004	mg/L	0.00051	138.52%
Sb 206.836†	13.4	0.0030	mg/L	0.00139	0.0030	mg/L	0.00139	45.88%
Sb 217.582*†	19.1	0.0045	mg/L	0.00521	0.0045	mg/L	0.00521	117.01%
Se 196.026*†	0.5	0.0002	mg/L	0.00104	0.0002	mg/L	0.00104	557.94%
Se 203.985†	9.5	0.0028	mg/L	0.00529	0.0028	mg/L	0.00529	189.05%
Si 251.611*†	47.3	0.0010	mg/L	0.00122	0.0010	mg/L	0.00122	128.61%
Si 288.158†	3.5	0.0002	mg/L	0.00168	0.0002	mg/L	0.00168	>999.9%
Sn 189.927*†	28.1	0.0025	mg/L	0.00038	0.0025	mg/L	0.00038	14.79%

Return to Contents

Sn 242.170†	-186.9	-0.0293	mg/L	0.02566	-0.0293 mg/L	0.02566 87.58%
Sr 407.771*†	25.3	0.0000	mg/L	0.00004	0.0000 mg/L	0.00004 127.62%
Sr 421.552†	-95.0	0.0000	mg/L	0.00000	0.0000 mg/L	0.00000 32.33%
Ti 334.940†	107.5	0.0002	mg/L	0.00005	0.0002 mg/L	0.00005 28.91%
Ti 336.121*†	16.4	0.0000	mg/L	0.00012	0.0000 mg/L	0.00012 357.85%
Tl†	6.7	0.0024	mg/L	0.00078	0.0024 mg/L	0.00078 32.26%
Tl 190.801*†	-1.3	-0.0004	mg/L	0.00120	-0.0004 mg/L	0.00120 302.38%
Tl 351.924†	-9.3	-0.0018	mg/L	0.00329	-0.0018 mg/L	0.00329 177.86%
V 292.402*†	7.5	0.0001	mg/L	0.00015	0.0001 mg/L	0.00015 218.96%
V 310.230†	-482.5	-0.0023	mg/L	0.00353	-0.0023 mg/L	0.00353 153.24%
Zn 202.548†	11.2	0.0001	mg/L	0.00012	0.0001 mg/L	0.00012 101.57%
Zn 206.200*†	13.5	0.0002	mg/L	0.00009	0.0002 mg/L	0.00009 44.90%
Zn 213.857*†	15.7	0.0001	mg/L	0.00004	0.0001 mg/L	0.00004 33.88%

All analyte(s) passed QC.

Return to Contents

Sequence No.: 1
Sample ID: CCV= STD3x0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 11/11/2013 4:20:24 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV= STD3x0.5

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	199297.2	4.815	mg/L	0.0380				0.79%
Ho 345.600	322162.7	4.823	mg/L	0.0419				0.87%
Tb 350.917	143216.0	4.874	mg/L	0.0346				0.71%
Tb 384.873	83527.2	4.823	mg/L	0.0303				0.63%
Y 324.227	1158655.1	4.919	mg/L	0.0368				0.75%
Y 371.029	2351515.3	4.874	mg/L	0.0438				0.90%
Ag 328.068*†	53864.8	0.3736	mg/L	0.00007	0.3736	mg/L	0.00007	0.02%
QC value within limits for Ag 328.068* Recovery = 99.62%								
Ag 338.289†	28202.5	0.3659	mg/L	0.00187	0.3659	mg/L	0.00187	0.51%
Al 308.215*†	271731.7	13.40	mg/L	0.000	13.40	mg/L	0.000	0.00%
QC value within limits for Al 308.215* Recovery = 99.25%								
Al 396.153†	1654124.4	13.72	mg/L	0.021	13.72	mg/L	0.021	0.15%
As 188.979†	20718.4	3.809	mg/L	0.0327	3.809	mg/L	0.0327	0.86%
QC value within limits for As 188.979 Recovery = 101.58%								
As 193.696*†	14690.5	3.784	mg/L	0.0044	3.784	mg/L	0.0044	0.12%
QC value within limits for As 193.696* Recovery = 100.89%								
Ba 233.527*†	1453160.9	7.678	mg/L	0.0264	7.678	mg/L	0.0264	0.34%
QC value within limits for Ba 233.527* Recovery = 102.37%								
Ba 455.403†	1801383.5	7.457	mg/L	0.0154	7.457	mg/L	0.0154	0.21%
Be 313.042*†	2946628.8	0.5756	mg/L	0.00038	0.5756	mg/L	0.00038	0.07%
QC value within limits for Be 313.042* Recovery = 102.32%								
Be 313.107†	1513009.4	0.5789	mg/L	0.00022	0.5789	mg/L	0.00022	0.04%
Cd 226.502*†	121294.7	0.7657	mg/L	0.00095	0.7657	mg/L	0.00095	0.12%
QC value within limits for Cd 226.502* Recovery = 102.09%								
Cd 228.802†	52568.6	0.7632	mg/L	0.00222	0.7632	mg/L	0.00222	0.29%
Co 228.616*†	97010.4	1.919	mg/L	0.0029	1.919	mg/L	0.0029	0.15%
QC value within limits for Co 228.616* Recovery = 102.35%								
Co 230.786†	94137.3	1.912	mg/L	0.0052	1.912	mg/L	0.0052	0.27%
Cr 267.716*†	55479.7	0.6030	mg/L	0.00190	0.6030	mg/L	0.00190	0.31%
QC value within limits for Cr 267.716* Recovery = 100.50%								
Cr 357.869†	37425.6	0.5835	mg/L	0.00144	0.5835	mg/L	0.00144	0.25%
Cu 324.752*†	132665.6	0.9393	mg/L	0.00013	0.9393	mg/L	0.00013	0.01%
QC value within limits for Cu 324.752* Recovery = 100.20%								
Cu 327.393†	111165.5	0.9291	mg/L	0.00278	0.9291	mg/L	0.00278	0.30%
Fe 239.562†	6267.0	3.844	mg/L	0.1096	3.844	mg/L	0.1096	2.85%
Fe 259.939†	9303.9	3.865	mg/L	0.0209	3.865	mg/L	0.0209	0.54%
Fe 273.955*†	120106.7	3.844	mg/L	0.0019	3.844	mg/L	0.0019	0.05%
QC value within limits for Fe 273.955* Recovery = 102.51%								
Mg 279.077*†	92487.5	7.686	mg/L	0.0079	7.686	mg/L	0.0079	0.10%
QC value within limits for Mg 279.077* Recovery = 102.48%								
Mg 280.271†	263922.4	7.728	mg/L	0.0277	7.728	mg/L	0.0277	0.36%
Mn 257.610*†	441426.0	0.7695	mg/L	0.00164	0.7695	mg/L	0.00164	0.21%
QC value within limits for Mn 257.610* Recovery = 102.60%								
Mn 259.372†	339080.0	0.7641	mg/L	0.00071	0.7641	mg/L	0.00071	0.09%
Mo 202.031*†	14085.3	0.6024	mg/L	0.00159	0.6024	mg/L	0.00159	0.26%
QC value within limits for Mo 202.031* Recovery = 100.41%								
Mo 203.845†	10170.2	0.6003	mg/L	0.00132	0.6003	mg/L	0.00132	0.22%
Ni 231.604*†	39291.2	0.6125	mg/L	0.00173	0.6125	mg/L	0.00173	0.28%
QC value within limits for Ni 231.604* Recovery = 102.08%								
Ni 232.003†	12985.1	0.5258	mg/L	0.00286	0.5258	mg/L	0.00286	0.54%
Pb 217.000†	8246.1	3.715	mg/L	0.0127	3.715	mg/L	0.0127	0.34%
Pb 220.353*†	61033.2	3.751	mg/L	0.0007	3.751	mg/L	0.0007	0.02%
QC value within limits for Pb 220.353* Recovery = 100.03%								
Sb 206†	19155.2	4.590	mg/L	0.0009	4.590	mg/L	0.0009	0.02%
Sb 206.836†	19994.4	4.518	mg/L	0.0215	4.518	mg/L	0.0215	0.48%

Return to Contents

Sb 217.582*†	19485.8	4.537 mg/L	0.0166	4.537 mg/L	0.0166	0.37%
QC value within limits for Sb 217.582* Recovery = 100.83%						
Se 196.026*†	4393.8	1.527 mg/L	0.0092	1.527 mg/L	0.0092	0.60%
QC value within limits for Se 196.026* Recovery = 101.82%						
Se 203.985†	5120.6	1.509 mg/L	0.0122	1.509 mg/L	0.0122	0.81%
Tl†	4219.0	1.531 mg/L	0.0018	1.531 mg/L	0.0018	0.12%
Tl 190.801*†	5082.0	1.526 mg/L	0.0005	1.526 mg/L	0.0005	0.03%
QC value within limits for Tl 190.801* Recovery = 101.74%						
Tl 351.924†	7338.2	1.455 mg/L	0.0006	1.455 mg/L	0.0006	0.04%
V 292.402*†	207350.1	1.882 mg/L	0.0025	1.882 mg/L	0.0025	0.13%
QC value within limits for V 292.402* Recovery = 100.38%						
V 310.230†	393653.9	1.883 mg/L	0.0001	1.883 mg/L	0.0001	0.01%
Zn 202.548†	245431.5	2.606 mg/L	0.0028	2.606 mg/L	0.0028	0.11%
Zn 206.200*†	172262.9	2.592 mg/L	0.0016	2.592 mg/L	0.0016	0.06%
QC value within limits for Zn 206.200* Recovery = 103.68%						

All analyte(s) passed QC.

Return to Contents

Sequence No.: 3
Sample ID: CCB2-R04231301
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 11/11/2013 4:23:26 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB2-R04231301

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: CCB2-R04231301

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	210799.9	5.093	mg/L	0.0761				1.49%
Ho 345.600	339793.0	5.087	mg/L	0.0751				1.48%
Tb 350.917	149087.8	5.073	mg/L	0.0764				1.51%
Tb 384.873	87911.4	5.076	mg/L	0.0659				1.30%
Y 324.227	1170098.4	4.967	mg/L	0.0056				0.11%
Y 371.029	2386936.0	4.948	mg/L	0.0144				0.29%
Ag 328.068*†	-115.5	-0.0008	mg/L	0.00079	-0.0008	mg/L	0.00079	98.49%
QC value within limits for Ag 328.068* Recovery = Not calculated								
Ag 338.289†	-112.3	-0.0015	mg/L	0.00003	-0.0015	mg/L	0.00003	1.90%
Al 308.215*†	-33.6	-0.0017	mg/L	0.00103	-0.0017	mg/L	0.00103	61.93%
Al 396.153†	-66.9	-0.0006	mg/L	0.00019	-0.0006	mg/L	0.00019	33.56%
As 188.979†	10.0	0.0018	mg/L	0.00091	0.0018	mg/L	0.00091	49.53%
As 193.696*†	-22.1	-0.0057	mg/L	0.00201	-0.0057	mg/L	0.00201	35.43%
Ba 233.527*†	15.0	0.0001	mg/L	0.00010	0.0001	mg/L	0.00010	120.14%
Ba 455.403†	62.1	0.0003	mg/L	0.00025	0.0003	mg/L	0.00025	95.85%
Be 313.042*†	509.1	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	25.11%
Be 313.107†	-32.3	0.0000	mg/L	0.00000	0.0000	mg/L	0.00000	3.11%
Cd 226.502*†	-14.3	-0.0001	mg/L	0.00004	-0.0001	mg/L	0.00004	48.01%
Cd 228.802†	-9.9	-0.0001	mg/L	0.00001	-0.0001	mg/L	0.00001	6.71%
Co 228.616*†	-8.0	-0.0002	mg/L	0.00027	-0.0002	mg/L	0.00027	169.46%
Co 230.786†	13.5	0.0003	mg/L	0.00021	0.0003	mg/L	0.00021	77.63%
Cr 267.716*†	16.8	0.0002	mg/L	0.00013	0.0002	mg/L	0.00013	69.84%
Cr 357.869†	-28.3	-0.0004	mg/L	0.00063	-0.0004	mg/L	0.00063	143.22%
Cu 324.752*†	-18.2	-0.0001	mg/L	0.00014	-0.0001	mg/L	0.00014	107.93%
Cu 327.393†	-128.3	-0.0011	mg/L	0.00045	-0.0011	mg/L	0.00045	41.60%
Fe 239.562†	-8.6	-0.0053	mg/L	0.00156	-0.0053	mg/L	0.00156	29.43%
Fe 259.939†	-9.5	-0.0040	mg/L	0.00047	-0.0040	mg/L	0.00047	11.95%
Fe 273.955*†	-194.5	-0.0062	mg/L	0.00016	-0.0062	mg/L	0.00016	2.51%
Mg 279.077*†	-131.1	-0.0109	mg/L	0.00500	-0.0109	mg/L	0.00500	45.92%
Mg 280.271†	16.0	0.0005	mg/L	0.00031	0.0005	mg/L	0.00031	65.81%
Mn 257.610*†	124.1	0.0002	mg/L	0.00002	0.0002	mg/L	0.00002	10.52%
Mn 259.372†	59.0	0.0001	mg/L	0.00003	0.0001	mg/L	0.00003	26.18%
Mo 202.031*†	-14.3	-0.0006	mg/L	0.00014	-0.0006	mg/L	0.00014	23.49%
Mo 203.845†	-11.6	-0.0007	mg/L	0.00003	-0.0007	mg/L	0.00003	4.91%
Ni 231.604*†	-159.4	-0.0025	mg/L	0.00015	-0.0025	mg/L	0.00015	5.94%
Ni 232.003†	-368.0	-0.0149	mg/L	0.00055	-0.0149	mg/L	0.00055	3.72%
Pb 217.000†	-97.4	-0.0439	mg/L	0.01079	-0.0439	mg/L	0.01079	24.59%
Pb 220.353*†	-2.1	-0.0001	mg/L	0.00100	-0.0001	mg/L	0.00100	761.82%
Sb 206†	8.6	0.0021	mg/L	0.00213	0.0021	mg/L	0.00213	103.00%
Sb 206.836†	-28.6	-0.0065	mg/L	0.00209	-0.0065	mg/L	0.00209	32.32%
Sb 217.582*†	-28.4	-0.0066	mg/L	0.00027	-0.0066	mg/L	0.00027	4.11%
Se 196.026*†	5.7	0.0020	mg/L	0.00043	0.0020	mg/L	0.00043	21.64%
Se 203.985†	-17.2	-0.0051	mg/L	0.00056	-0.0051	mg/L	0.00056	11.00%
Tl†	0.6	0.0002	mg/L	0.00076	0.0002	mg/L	0.00076	342.32%
Tl 190.801*†	-2.8	-0.0008	mg/L	0.00092	-0.0008	mg/L	0.00092	108.44%
Tl 351.924†	-70.0	-0.0139	mg/L	0.00333	-0.0139	mg/L	0.00333	23.98%
V 292.402*†	22.6	0.0002	mg/L	0.00016	0.0002	mg/L	0.00016	76.41%
V 310.230†	184.8	0.0009	mg/L	0.00011	0.0009	mg/L	0.00011	12.88%
Zn 202.548†	-27.3	-0.0003	mg/L	0.00003	-0.0003	mg/L	0.00003	8.94%
Zn 206.200*†	-14.8	-0.0002	mg/L	0.00017	-0.0002	mg/L	0.00017	74.83%

All analyte(s) passed QC.

Return to Contents

Sequence No.: 14
Sample ID: CCV= STD3x0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 11/11/2013 4:37:09 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV= STD3x0.5

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	201549.6	4.869	mg/L	0.0018				0.04%
Ho 345.600	324794.0	4.862	mg/L	0.0104				0.21%
Tb 350.917	144459.5	4.916	mg/L	0.0082				0.17%
Tb 384.873	85065.5	4.912	mg/L	0.0018				0.04%
Y 324.227	1163057.5	4.937	mg/L	0.0058				0.12%
Y 371.029	2376156.3	4.925	mg/L	0.0164				0.33%
Ag 328.068*†	54269.7	0.3764	mg/L	0.00077	0.3764	mg/L	0.00077	0.21%
QC value within limits for Ag 328.068* Recovery = 100.37%								
Ag 338.289†	28475.0	0.3694	mg/L	0.00057	0.3694	mg/L	0.00057	0.15%
Al 308.215*†	270891.1	13.36	mg/L	0.024	13.36	mg/L	0.024	0.18%
QC value within limits for Al 308.215* Recovery = 98.94%								
Al 396.153†	1668346.7	13.84	mg/L	0.034	13.84	mg/L	0.034	0.25%
As 188.979†	20591.6	3.786	mg/L	0.0081	3.786	mg/L	0.0081	0.21%
QC value within limits for As 188.979 Recovery = 100.96%								
As 193.696*†	14511.1	3.737	mg/L	0.0100	3.737	mg/L	0.0100	0.27%
QC value within limits for As 193.696* Recovery = 99.66%								
Ba 233.527*†	1460601.5	7.717	mg/L	0.0333	7.717	mg/L	0.0333	0.43%
QC value within limits for Ba 233.527* Recovery = 102.89%								
Ba 455.403†	1780468.4	7.370	mg/L	0.0094	7.370	mg/L	0.0094	0.13%
Be 313.042*†	2920679.4	0.5705	mg/L	0.00333	0.5705	mg/L	0.00333	0.58%
QC value within limits for Be 313.042* Recovery = 101.42%								
Be 313.107†	1500658.8	0.5742	mg/L	0.00321	0.5742	mg/L	0.00321	0.56%
Cd 226.502*†	120330.7	0.7596	mg/L	0.00211	0.7596	mg/L	0.00211	0.28%
QC value within limits for Cd 226.502* Recovery = 101.28%								
Cd 228.802†	52031.1	0.7554	mg/L	0.00028	0.7554	mg/L	0.00028	0.04%
Co 228.616*†	96214.9	1.903	mg/L	0.0006	1.903	mg/L	0.0006	0.03%
QC value within limits for Co 228.616* Recovery = 101.51%								
Co 230.786†	93254.0	1.894	mg/L	0.0010	1.894	mg/L	0.0010	0.05%
Cr 267.716*†	55920.3	0.6078	mg/L	0.00194	0.6078	mg/L	0.00194	0.32%
QC value within limits for Cr 267.716* Recovery = 101.30%								
Cr 357.869†	37700.6	0.5878	mg/L	0.00340	0.5878	mg/L	0.00340	0.58%
Cu 324.752*†	132962.9	0.9414	mg/L	0.00199	0.9414	mg/L	0.00199	0.21%
QC value within limits for Cu 324.752* Recovery = 100.42%								
Cu 327.393†	112353.6	0.9390	mg/L	0.00392	0.9390	mg/L	0.00392	0.42%
Fe 239.562†	6202.8	3.804	mg/L	0.0129	3.804	mg/L	0.0129	0.34%
Fe 259.939†	9170.2	3.809	mg/L	0.0124	3.809	mg/L	0.0124	0.32%
Fe 273.955*†	118827.3	3.803	mg/L	0.0047	3.803	mg/L	0.0047	0.12%
QC value within limits for Fe 273.955* Recovery = 101.42%								
Mg 279.077*†	91454.4	7.600	mg/L	0.0243	7.600	mg/L	0.0243	0.32%
QC value within limits for Mg 279.077* Recovery = 101.34%								
Mg 280.271†	257338.4	7.535	mg/L	0.0101	7.535	mg/L	0.0101	0.13%
Mn 257.610*†	436423.6	0.7608	mg/L	0.00002	0.7608	mg/L	0.00002	0.00%
QC value within limits for Mn 257.610* Recovery = 101.44%								
Mn 259.372†	337685.2	0.7610	mg/L	0.00042	0.7610	mg/L	0.00042	0.05%
Mo 202.031*†	14103.3	0.6032	mg/L	0.00106	0.6032	mg/L	0.00106	0.18%
QC value within limits for Mo 202.031* Recovery = 100.53%								
Mo 203.845†	10201.9	0.6022	mg/L	0.00215	0.6022	mg/L	0.00215	0.36%
Ni 231.604*†	39282.5	0.6124	mg/L	0.00006	0.6124	mg/L	0.00006	0.01%
QC value within limits for Ni 231.604* Recovery = 102.06%								
Ni 232.003†	12748.9	0.5163	mg/L	0.00516	0.5163	mg/L	0.00516	1.00%
Pb 217.000†	8255.3	3.720	mg/L	0.0137	3.720	mg/L	0.0137	0.37%
Pb 220.353*†	60636.5	3.727	mg/L	0.0042	3.727	mg/L	0.0042	0.11%
QC value within limits for Pb 220.353* Recovery = 99.38%								
Sb 206†	18938.7	4.539	mg/L	0.0005	4.539	mg/L	0.0005	0.01%
Sb 206.836†	19292.5	4.359	mg/L	0.0210	4.359	mg/L	0.0210	0.48%

Return to Contents

Sb 217.582*†	19395.6	4.516	mg/L	0.0143	4.516	mg/L	0.0143	0.32%
QC value within limits for Sb 217.582* Recovery = 100.36%								
Se 196.026*†	4300.7	1.495	mg/L	0.0080	1.495	mg/L	0.0080	0.53%
QC value within limits for Se 196.026* Recovery = 99.66%								
Se 203.985†	5031.1	1.482	mg/L	0.0007	1.482	mg/L	0.0007	0.05%
Tl†	4133.8	1.500	mg/L	0.0152	1.500	mg/L	0.0152	1.01%
Tl 190.801*†	5043.1	1.514	mg/L	0.0067	1.514	mg/L	0.0067	0.44%
QC value within limits for Tl 190.801* Recovery = 100.96%								
Tl 351.924†	7333.2	1.454	mg/L	0.0021	1.454	mg/L	0.0021	0.15%
V 292.402*†	208215.5	1.890	mg/L	0.0077	1.890	mg/L	0.0077	0.41%
QC value within limits for V 292.402* Recovery = 100.79%								
V 310.230†	392985.2	1.879	mg/L	0.0086	1.879	mg/L	0.0086	0.46%
Zn 202.548†	239669.1	2.545	mg/L	0.0034	2.545	mg/L	0.0034	0.13%
Zn 206.200*†	168410.1	2.534	mg/L	0.0056	2.534	mg/L	0.0056	0.22%
QC value within limits for Zn 206.200* Recovery = 101.36%								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 16
Sample ID: CCB2-R04231301
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 11/11/2013 4:40:07 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB2-R04231301

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: CCB2-R04231301

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	207060.4	5.002	mg/L	0.0172				0.34%
Ho 345.600	333437.1	4.992	mg/L	0.0172				0.34%
Tb 350.917	146215.4	4.976	mg/L	0.0208				0.42%
Tb 384.873	86291.6	4.983	mg/L	0.0254				0.51%
Y 324.227	1164686.8	4.944	mg/L	0.0225				0.46%
Y 371.029	2381324.5	4.936	mg/L	0.0290				0.59%
Ag 328.068*†	-108.1	-0.0007	mg/L	0.00040	-0.0007	mg/L	0.00040	53.60%
QC value within limits for Ag 328.068* Recovery = Not calculated								
Ag 338.289†	-4.6	-0.0001	mg/L	0.00063	-0.0001	mg/L	0.00063	>999.9%
Al 308.215*†	1.7	0.0001	mg/L	0.00203	0.0001	mg/L	0.00203	>999.9%
Al 396.153†	25.2	0.0002	mg/L	0.00017	0.0002	mg/L	0.00017	81.70%
As 188.979†	16.5	0.0030	mg/L	0.00136	0.0030	mg/L	0.00136	44.98%
As 193.696*†	-22.0	-0.0057	mg/L	0.00098	-0.0057	mg/L	0.00098	17.31%
Ba 233.527*†	3.0	0.0000	mg/L	0.00002	0.0000	mg/L	0.00002	110.43%
Ba 455.403†	-5.6	0.0000	mg/L	0.00017	0.0000	mg/L	0.00017	721.03%
Be 313.042*†	571.7	0.0001	mg/L	0.00005	0.0001	mg/L	0.00005	44.54%
Be 313.107†	-32.0	0.0000	mg/L	0.00002	0.0000	mg/L	0.00002	165.24%
Cd 226.502*†	-29.5	-0.0002	mg/L	0.00001	-0.0002	mg/L	0.00001	7.28%
Cd 228.802†	-16.5	-0.0002	mg/L	0.00004	-0.0002	mg/L	0.00004	18.71%
Co 228.616*†	8.5	0.0002	mg/L	0.00013	0.0002	mg/L	0.00013	80.53%
Co 230.786†	-5.7	-0.0001	mg/L	0.00009	-0.0001	mg/L	0.00009	73.79%
Cr 267.716*†	2.8	0.0000	mg/L	0.00014	0.0000	mg/L	0.00014	459.27%
Cr 357.869†	60.7	0.0009	mg/L	0.00068	0.0009	mg/L	0.00068	71.61%
Cu 324.752*†	512.1	0.0036	mg/L	0.00018	0.0036	mg/L	0.00018	4.87%
Cu 327.393†	392.0	0.0033	mg/L	0.00023	0.0033	mg/L	0.00023	7.09%
Fe 239.562†	-10.2	-0.0063	mg/L	0.00046	-0.0063	mg/L	0.00046	7.31%
Fe 259.939†	-11.8	-0.0049	mg/L	0.00068	-0.0049	mg/L	0.00068	13.98%
Fe 273.955*†	-132.1	-0.0042	mg/L	0.00008	-0.0042	mg/L	0.00008	1.97%
Mg 279.077*†	-204.8	-0.0170	mg/L	0.00494	-0.0170	mg/L	0.00494	29.04%
Mg 280.271†	6.5	0.0002	mg/L	0.00015	0.0002	mg/L	0.00015	78.15%
Mn 257.610*†	188.4	0.0003	mg/L	0.00006	0.0003	mg/L	0.00006	17.65%
Mn 259.372†	119.1	0.0003	mg/L	0.00003	0.0003	mg/L	0.00003	10.39%
Mo 202.031*†	-26.0	-0.0011	mg/L	0.00004	-0.0011	mg/L	0.00004	3.92%
Mo 203.845†	-14.6	-0.0009	mg/L	0.00010	-0.0009	mg/L	0.00010	11.67%
Ni 231.604*†	-143.1	-0.0022	mg/L	0.00010	-0.0022	mg/L	0.00010	4.33%
Ni 232.003†	-356.6	-0.0144	mg/L	0.00172	-0.0144	mg/L	0.00172	11.91%
Pb 217.000†	-95.9	-0.0432	mg/L	0.00256	-0.0432	mg/L	0.00256	5.92%
Pb 220.353*†	12.0	0.0007	mg/L	0.00065	0.0007	mg/L	0.00065	88.07%
Sb 206†	-3.2	-0.0008	mg/L	0.00072	-0.0008	mg/L	0.00072	92.83%
Sb 206.836†	-25.9	-0.0059	mg/L	0.00131	-0.0059	mg/L	0.00131	22.33%
Sb 217.582*†	-30.4	-0.0071	mg/L	0.00132	-0.0071	mg/L	0.00132	18.70%
Se 196.026*†	-4.0	-0.0014	mg/L	0.00086	-0.0014	mg/L	0.00086	61.92%
Se 203.985†	-25.9	-0.0076	mg/L	0.00157	-0.0076	mg/L	0.00157	20.64%
Tl†	-1.8	-0.0006	mg/L	0.00044	-0.0006	mg/L	0.00044	68.66%
Tl 190.801*†	0.2	0.0000	mg/L	0.00081	0.0000	mg/L	0.00081	>999.9%
Tl 351.924†	91.1	0.0181	mg/L	0.00695	0.0181	mg/L	0.00695	38.48%
V 292.402*†	18.5	0.0002	mg/L	0.00007	0.0002	mg/L	0.00007	42.64%
V 310.230†	646.6	0.0031	mg/L	0.00236	0.0031	mg/L	0.00236	76.41%
Zn 202.548†	-18.9	-0.0002	mg/L	0.00008	-0.0002	mg/L	0.00008	37.44%
Zn 206.200*†	-19.8	-0.0003	mg/L	0.00002	-0.0003	mg/L	0.00002	7.64%

All analyte(s) passed QC.

Return to Contents

Sequence No.: 20
Sample ID: CCV= STD3x0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 11/11/2013 4:45:35 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV= STD3x0.5

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	202126.5	4.883	mg/L	0.0068				0.14%
Ho 345.600	327814.7	4.907	mg/L	0.0068				0.14%
Tb 350.917	145228.8	4.942	mg/L	0.0104				0.21%
Tb 384.873	84924.7	4.904	mg/L	0.0154				0.31%
Y 324.227	1178478.3	5.003	mg/L	0.0117				0.23%
Y 371.029	2367056.3	4.907	mg/L	0.0183				0.37%
Ag 328.068*†	53013.1	0.3677	mg/L	0.00129	0.3677	mg/L	0.00129	0.35%
QC value within limits for Ag 328.068* Recovery = 98.05%								
Ag 338.289†	27709.7	0.3595	mg/L	0.00210	0.3595	mg/L	0.00210	0.58%
Al 308.215*†	270113.7	13.32	mg/L	0.006	13.32	mg/L	0.006	0.05%
QC value within limits for Al 308.215* Recovery = 98.66%								
Al 396.153†	1653432.7	13.72	mg/L	0.044	13.72	mg/L	0.044	0.32%
As 188.979†	20089.2	3.694	mg/L	0.0028	3.694	mg/L	0.0028	0.08%
QC value within limits for As 188.979 Recovery = 98.50%								
As 193.696*†	14189.3	3.654	mg/L	0.0031	3.654	mg/L	0.0031	0.09%
QC value within limits for As 193.696* Recovery = 97.45%								
Ba 233.527*†	1441114.1	7.614	mg/L	0.0159	7.614	mg/L	0.0159	0.21%
QC value within limits for Ba 233.527* Recovery = 101.52%								
Ba 455.403†	1793024.4	7.422	mg/L	0.0027	7.422	mg/L	0.0027	0.04%
Be 313.042*†	2893083.2	0.5651	mg/L	0.00198	0.5651	mg/L	0.00198	0.35%
QC value within limits for Be 313.042* Recovery = 100.46%								
Be 313.107†	1489389.7	0.5699	mg/L	0.00156	0.5699	mg/L	0.00156	0.27%
Cd 226.502*†	119952.9	0.7572	mg/L	0.00045	0.7572	mg/L	0.00045	0.06%
QC value within limits for Cd 226.502* Recovery = 100.97%								
Cd 228.802†	51642.1	0.7498	mg/L	0.00589	0.7498	mg/L	0.00589	0.79%
Co 228.616*†	95104.8	1.881	mg/L	0.0145	1.881	mg/L	0.0145	0.77%
QC value within limits for Co 228.616* Recovery = 100.34%								
Co 230.786†	92400.7	1.877	mg/L	0.0152	1.877	mg/L	0.0152	0.81%
Cr 267.716*†	54322.4	0.5904	mg/L	0.00046	0.5904	mg/L	0.00046	0.08%
QC value within limits for Cr 267.716* Recovery = 98.41%								
Cr 357.869†	37012.8	0.5771	mg/L	0.00370	0.5771	mg/L	0.00370	0.64%
Cu 324.752*†	134284.1	0.9508	mg/L	0.00336	0.9508	mg/L	0.00336	0.35%
QC value within limits for Cu 324.752* Recovery = 101.42%								
Cu 327.393†	110563.0	0.9241	mg/L	0.00783	0.9241	mg/L	0.00783	0.85%
Fe 239.562†	6111.2	3.748	mg/L	0.0504	3.748	mg/L	0.0504	1.34%
Fe 259.939†	9100.7	3.780	mg/L	0.0151	3.780	mg/L	0.0151	0.40%
Fe 273.955*†	118899.8	3.805	mg/L	0.0065	3.805	mg/L	0.0065	0.17%
QC value within limits for Fe 273.955* Recovery = 101.48%								
Mg 279.077*†	92074.9	7.652	mg/L	0.0361	7.652	mg/L	0.0361	0.47%
QC value within limits for Mg 279.077* Recovery = 102.02%								
Mg 280.271†	262311.1	7.681	mg/L	0.0162	7.681	mg/L	0.0162	0.21%
Mn 257.610*†	439190.9	0.7656	mg/L	0.00123	0.7656	mg/L	0.00123	0.16%
QC value within limits for Mn 257.610* Recovery = 102.08%								
Mn 259.372†	340723.6	0.7678	mg/L	0.00141	0.7678	mg/L	0.00141	0.18%
Mo 202.031*†	13970.1	0.5975	mg/L	0.00450	0.5975	mg/L	0.00450	0.75%
QC value within limits for Mo 202.031* Recovery = 99.58%								
Mo 203.845†	10093.3	0.5958	mg/L	0.00246	0.5958	mg/L	0.00246	0.41%
Ni 231.604*†	38307.2	0.5972	mg/L	0.00014	0.5972	mg/L	0.00014	0.02%
QC value within limits for Ni 231.604* Recovery = 99.53%								
Ni 232.003†	12950.7	0.5244	mg/L	0.00305	0.5244	mg/L	0.00305	0.58%
Pb 217.000†	8097.2	3.648	mg/L	0.0155	3.648	mg/L	0.0155	0.42%
Pb 220.353*†	60136.6	3.696	mg/L	0.0289	3.696	mg/L	0.0289	0.78%
QC value within limits for Pb 220.353* Recovery = 98.56%								
Sb 206†	18698.4	4.481	mg/L	0.0363	4.481	mg/L	0.0363	0.81%
Sb 206.836†	19246.4	4.349	mg/L	0.0619	4.349	mg/L	0.0619	1.42%

Return to Contents

Sb 217.582*†	19162.7	4.462	mg/L	0.0060	4.462	mg/L	0.0060	0.13%
QC value within limits for Sb 217.582* Recovery = 99.16%								
Se 196.026*†	4262.9	1.482	mg/L	0.0033	1.482	mg/L	0.0033	0.22%
QC value within limits for Se 196.026* Recovery = 98.78%								
Se 203.985†	4975.8	1.466	mg/L	0.0035	1.466	mg/L	0.0035	0.24%
Tl†	4155.1	1.508	mg/L	0.0090	1.508	mg/L	0.0090	0.60%
Tl 190.801*†	4986.2	1.497	mg/L	0.0013	1.497	mg/L	0.0013	0.09%
QC value within limits for Tl 190.801* Recovery = 99.82%								
Tl 351.924†	7275.8	1.442	mg/L	0.0210	1.442	mg/L	0.0210	1.46%
V 292.402*†	204380.0	1.855	mg/L	0.0119	1.855	mg/L	0.0119	0.64%
QC value within limits for V 292.402* Recovery = 98.94%								
V 310.230†	384611.0	1.839	mg/L	0.0019	1.839	mg/L	0.0019	0.11%
Zn 202.548†	242319.5	2.573	mg/L	0.0114	2.573	mg/L	0.0114	0.44%
Zn 206.200*†	170344.1	2.563	mg/L	0.0121	2.563	mg/L	0.0121	0.47%
QC value within limits for Zn 206.200* Recovery = 102.52%								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 22
Sample ID: CCB2-R04231301
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 11/11/2013 4:48:38 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB2-R04231301

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: CCB2-R04231301

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	212489.8	5.134	mg/L	0.0444				0.87%
Ho 345.600	343033.4	5.135	mg/L	0.0408				0.79%
Tb 350.917	150328.4	5.116	mg/L	0.0315				0.62%
Tb 384.873	88387.8	5.104	mg/L	0.0528				1.03%
Y 324.227	1173556.6	4.982	mg/L	0.0228				0.46%
Y 371.029	2388145.9	4.950	mg/L	0.0052				0.10%
Ag 328.068*†	-77.9	-0.0005	mg/L	0.00036	-0.0005	mg/L	0.00036	67.46%
QC value within limits for Ag 328.068* Recovery = Not calculated								
Ag 338.289†	-97.2	-0.0013	mg/L	0.00150	-0.0013	mg/L	0.00150	118.69%
Al 308.215*†	-91.5	-0.0045	mg/L	0.00031	-0.0045	mg/L	0.00031	6.81%
Al 396.153†	-50.2	-0.0004	mg/L	0.00052	-0.0004	mg/L	0.00052	123.76%
As 188.979†	10.9	0.0020	mg/L	0.00106	0.0020	mg/L	0.00106	52.85%
As 193.696*†	-20.1	-0.0052	mg/L	0.00195	-0.0052	mg/L	0.00195	37.60%
Ba 233.527*†	-16.5	-0.0001	mg/L	0.00002	-0.0001	mg/L	0.00002	22.41%
Ba 455.403†	24.4	0.0001	mg/L	0.00003	0.0001	mg/L	0.00003	30.25%
Be 313.042*†	355.1	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	31.71%
Be 313.107†	-77.9	0.0000	mg/L	0.00004	0.0000	mg/L	0.00004	149.59%
Cd 226.502*†	-16.3	-0.0001	mg/L	0.00010	-0.0001	mg/L	0.00010	94.29%
Cd 228.802†	-3.4	0.0000	mg/L	0.00011	0.0000	mg/L	0.00011	232.74%
Co 228.616*†	14.1	0.0003	mg/L	0.00006	0.0003	mg/L	0.00006	22.31%
Co 230.786†	-2.1	0.0000	mg/L	0.00015	0.0000	mg/L	0.00015	365.52%
Cr 267.716*†	2.7	0.0000	mg/L	0.00027	0.0000	mg/L	0.00027	897.60%
Cr 357.869†	-32.1	-0.0005	mg/L	0.00060	-0.0005	mg/L	0.00060	120.38%
Cu 324.752*†	436.5	0.0031	mg/L	0.00020	0.0031	mg/L	0.00020	6.56%
Cu 327.393†	262.4	0.0022	mg/L	0.00036	0.0022	mg/L	0.00036	16.41%
Fe 239.562†	-2.6	-0.0016	mg/L	0.00007	-0.0016	mg/L	0.00007	4.42%
Fe 259.939†	-6.3	-0.0026	mg/L	0.00206	-0.0026	mg/L	0.00206	78.13%
Fe 273.955*†	-98.8	-0.0032	mg/L	0.00054	-0.0032	mg/L	0.00054	17.01%
Mg 279.077*†	-46.6	-0.0039	mg/L	0.00426	-0.0039	mg/L	0.00426	109.88%
Mg 280.271†	4.0	0.0001	mg/L	0.00011	0.0001	mg/L	0.00011	90.88%
Mn 257.610*†	114.4	0.0002	mg/L	0.00000	0.0002	mg/L	0.00000	1.50%
Mn 259.372†	44.0	0.0001	mg/L	0.00003	0.0001	mg/L	0.00003	34.22%
Mo 202.031*†	-14.9	-0.0006	mg/L	0.00050	-0.0006	mg/L	0.00050	77.88%
Mo 203.845†	-17.5	-0.0010	mg/L	0.00024	-0.0010	mg/L	0.00024	22.94%
Ni 231.604*†	-161.6	-0.0025	mg/L	0.00020	-0.0025	mg/L	0.00020	7.93%
Ni 232.003†	-384.8	-0.0156	mg/L	0.00149	-0.0156	mg/L	0.00149	9.53%
Pb 217.000†	-103.3	-0.0465	mg/L	0.00709	-0.0465	mg/L	0.00709	15.24%
Pb 220.353*†	-0.3	0.0000	mg/L	0.00109	0.0000	mg/L	0.00109	>999.9%
Sb 206†	5.5	0.0013	mg/L	0.00033	0.0013	mg/L	0.00033	25.17%
Sb 206.836†	-25.0	-0.0057	mg/L	0.00134	-0.0057	mg/L	0.00134	23.76%
Sb 217.582*†	-39.6	-0.0092	mg/L	0.00228	-0.0092	mg/L	0.00228	24.76%
Se 196.026*†	2.9	0.0010	mg/L	0.00010	0.0010	mg/L	0.00010	9.80%
Se 203.985†	-18.0	-0.0053	mg/L	0.00310	-0.0053	mg/L	0.00310	58.36%
Tl†	3.0	0.0011	mg/L	0.00057	0.0011	mg/L	0.00057	52.35%
Tl 190.801*†	-1.7	-0.0005	mg/L	0.00107	-0.0005	mg/L	0.00107	206.42%
Tl 351.924†	-60.7	-0.0120	mg/L	0.01310	-0.0120	mg/L	0.01310	108.88%
V 292.402*†	15.3	0.0001	mg/L	0.00026	0.0001	mg/L	0.00026	185.75%
V 310.230†	-526.5	-0.0025	mg/L	0.00265	-0.0025	mg/L	0.00265	105.22%
Zn 202.548†	14.1	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	13.33%
Zn 206.200*†	9.1	0.0001	mg/L	0.00003	0.0001	mg/L	0.00003	20.60%

All analyte(s) passed QC.

Return to Contents

Analysis Begun

Start Time: 11/12/2013 10:31:45 AM
Plasma On Time: 11/12/2013 8:50:13 AM
Logged In Analyst: John Nguyen
Technique: ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 77c8120401 Autosampler Model: AS-93plus

Sample Information File: C:\pe\jn\Sample Information\13111201.sif
Batch ID:
Results Data Set: 131112C1
Results Library: W:\ICP_07\ICP_07\pe\7300\Results\Results.mdb

Sequence No.: 1
Autosampler Location: 5
Sample ID: Cal blankR04231201_469
Date Collected: 11/12/2013 10:31:46 AM
Analyst:
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:

Nebulizer Parameters: Cal blankR04231201_469

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: Cal blankR04231201_469

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ho 339.898	195946.8	1687.48	0.86%	5.000	mg/L
Ho 345.600	313711.4	2967.74	0.95%	5.000	mg/L
Tb 384.873	82166.9	90.02	0.11%	5.000	mg/L
Tb 350.917	139239.2	612.33	0.44%	5.000	mg/L
Y 324.227	1129820.9	11132.73	0.99%	5.000	mg/L
Y 371.029	2346982.1	25562.96	1.09%	5.000	mg/L
Ag 328.068*†	-4152.4	20.91	0.50%	[0.00]	mg/L
Ag 338.289†	-23.2	12.08	52.03%	[0.00]	mg/L
Al 308.215*†	-6009.3	19.04	0.32%	[0.00]	mg/L
Al 396.153†	-385.5	1.96	0.51%	[0.00]	mg/L
As 188.979†	3.4	6.07	178.02%	[0.00]	mg/L
As 193.696*†	42.4	14.32	33.78%	[0.00]	mg/L
B 249.677*†	-1636.5	27.68	1.69%	[0.00]	mg/L
B 249.772†	-3064.1	39.25	1.28%	[0.00]	mg/L
Ba 233.527*†	-13.0	16.40	125.79%	[0.00]	mg/L
Ba 455.403†	-73.1	9.05	12.39%	[0.00]	mg/L
Be 313.042*†	-4029.0	104.52	2.59%	[0.00]	mg/L
Be 313.107†	-1199.5	179.91	15.00%	[0.00]	mg/L
Bi 190.171*†	47.2	2.93	6.19%	[0.00]	mg/L
Bi 223.061†	-219.0	8.16	3.72%	[0.00]	mg/L
Ca 422.673†	89.2	7.11	7.97%	[0.00]	mg/L
Ca 317.933*†	283.4	4.15	1.47%	[0.00]	mg/L
Cd 226.502*†	-220.3	0.17	0.07%	[0.00]	mg/L
Cd 228.802†	-232.1	5.63	2.43%	[0.00]	mg/L
Co 228.616*†	-109.6	31.51	28.74%	[0.00]	mg/L
Co 230.786†	127.4	14.88	11.68%	[0.00]	mg/L
Cr 357.869†	548.7	5.36	0.98%	[0.00]	mg/L
Cr 267.716*†	-284.1	18.03	6.35%	[0.00]	mg/L
Cu 324.752*†	-2063.5	67.56	3.27%	[0.00]	mg/L
Cu 327.393†	-2591.2	39.70	1.53%	[0.00]	mg/L
Fe 259.939†	-175.7	2.04	1.16%	[0.00]	mg/L
Fe 239.562†	-166.4	1.92	1.16%	[0.00]	mg/L
Fe 273.955*†	-688.7	30.20	4.38%	[0.00]	mg/L
K 766.490*†	537.6	30.57	5.69%	[0.00]	mg/L
Li 670.784†	-99.3	111.30	112.04%	[0.00]	mg/L
Li 610.362*†	-22347.0	479.16	2.14%	[0.00]	mg/L
Mg 280.271†	28.2	8.23	29.21%	[0.00]	mg/L
Mg 279.077*†	-6461.7	46.36	0.72%	[0.00]	mg/L
Mn 257.610*†	-658.7	32.80	4.98%	[0.00]	mg/L
Mn 259.372†	-1183.6	18.11	1.53%	[0.00]	mg/L
Mo 203.845†	-214.7	8.69	4.05%	[0.00]	mg/L
Mo 202.031*†	-160.9	14.27	8.87%	[0.00]	mg/L
Na 589.592*†	1142.2	2.23	0.20%	[0.00]	mg/L

Return to Contents

Na 330.237†	1430.3	35.30	2.47%	[0.00]	mg/L
Ni 231.604*†	533.3	6.10	1.14%	[0.00]	mg/L
Ni 232.003†	-412.8	17.01	4.12%	[0.00]	mg/L
P 214.914†	35.3	2.42	6.84%	[0.00]	mg/L
P 213.617*†	500.3	0.92	0.18%	[0.00]	mg/L
Pb 220.353*†	-219.1	27.95	12.76%	[0.00]	mg/L
Pb 217.000†	-6.8	2.56	37.32%	[0.00]	mg/L
S 180.669†	48.9	2.35	4.81%	[0.00]	mg/L
S 181.975*†	-27.4	1.21	4.40%	[0.00]	mg/L
Sb 217.582*†	84.9	4.36	5.13%	[0.00]	mg/L
Sb 206†	94.1	9.48	10.07%	[0.00]	mg/L
Sb 206.836†	7.3	3.18	43.57%	[0.00]	mg/L
Se 196.026*†	40.0	4.58	11.44%	[0.00]	mg/L
Se 203.985†	65.3	2.11	3.23%	[0.00]	mg/L
Si 288.158†	1472.6	19.89	1.35%	[0.00]	mg/L
Si 251.611*†	1172.3	23.22	1.98%	[0.00]	mg/L
Sn 189.927*†	-3.2	1.99	61.42%	[0.00]	mg/L
Sn 242.170†	1730.6	78.93	4.56%	[0.00]	mg/L
Sr 407.771*†	-88.4	59.95	67.79%	[0.00]	mg/L
Sr 421.552†	-4336.1	157.00	3.62%	[0.00]	mg/L
Ti 336.121*†	-1979.6	80.72	4.08%	[0.00]	mg/L
Ti 334.940†	12413.7	27.85	0.22%	[0.00]	mg/L
Tl 351.924†	-83.8	8.26	9.85%	[0.00]	mg/L
Tl†	-51.5	4.03	7.83%	[0.00]	mg/L
Tl 190.801*†	-7.6	5.04	66.25%	[0.00]	mg/L
V 310.230†	76799.5	631.14	0.82%	[0.00]	mg/L
V 292.402*†	250.5	46.15	18.42%	[0.00]	mg/L
Zn 202.548†	-668.9	1.33	0.20%	[0.00]	mg/L
Zn 213.857*†	-394.9	13.83	3.50%	[0.00]	mg/L
Zn 206.200*†	-524.1	4.94	0.94%	[0.00]	mg/L

Return to Contents

Sequence No.: 2
Sample ID: STD3-M092713A_analyst 469
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/12/2013 10:33:22 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: STD3-M092713A_analyst 469

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: STD3-M092713A_analyst 469

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ho 339.898	183543.0	296.68	0.16%	4.683	mg/L
Ho 345.600	293190.5	23.76	0.01%	4.673	mg/L
Tb 384.873	77888.0	141.59	0.18%	4.740	mg/L
Tb 350.917	131997.8	67.93	0.05%	4.740	mg/L
Y 324.227	1079672.5	920.36	0.09%	4.778	mg/L
Y 371.029	2241526.4	9012.56	0.40%	4.775	mg/L
Ag 328.068*†	109750.8	219.14	0.20%	[0.75]	mg/L
Ag 338.289†	58739.6	96.82	0.16%	[0.75]	mg/L
Al 308.215*†	543915.4	143.02	0.03%	[27.0]	mg/L
Al 396.153†	3370778.5	40299.75	1.20%	[27]	mg/L
As 188.979†	43300.1	194.30	0.45%	[7.50]	mg/L
As 193.696*†	30569.7	108.52	0.35%	[7.50]	mg/L
B 249.677*†	282012.6	394.58	0.14%	[7.50]	mg/L
B 249.772†	651653.4	3215.55	0.49%	[7.50]	mg/L
Ba 233.527*†	2818135.1	6080.22	0.22%	[15.0]	mg/L
Ba 455.403†	3362439.5	36340.67	1.08%	[15.0]	mg/L
Be 313.042*†	5927600.3	54130.40	0.91%	[1.125]	mg/L
Be 313.107†	3017520.6	26884.63	0.89%	[1.125]	mg/L
Ca 422.673†	566761.5	1516.77	0.27%	[60.0]	mg/L
Ca 317.933*†	273082.7	1621.11	0.59%	[60.0]	mg/L
Cd 226.502*†	246323.1	69.50	0.03%	[1.50]	mg/L
Cd 228.802†	103591.9	82.18	0.08%	[1.50]	mg/L
Co 228.616*†	192556.0	174.77	0.09%	[3.75]	mg/L
Co 230.786†	187394.7	368.92	0.20%	[3.75]	mg/L
Cr 357.869†	74929.8	86.15	0.11%	[1.20]	mg/L
Cr 267.716*†	112730.2	367.35	0.33%	[1.20]	mg/L
Cu 324.752*†	258359.9	622.49	0.24%	[1.875]	mg/L
Cu 327.393†	226206.7	535.37	0.24%	[1.875]	mg/L
Fe 259.939†	17676.1	104.65	0.59%	[7.50]	mg/L
Fe 239.562†	12206.8	79.56	0.65%	[7.50]	mg/L
Fe 273.955*†	236477.8	207.69	0.09%	[7.50]	mg/L
K 766.490*†	78668.5	175.52	0.22%	[54.0]	mg/L
Mg 280.271†	508045.0	568.66	0.11%	[15.0]	mg/L
Mg 279.077*†	186146.5	560.55	0.30%	[15.0]	mg/L
Mn 257.610*†	852885.1	1976.00	0.23%	[1.50]	mg/L
Mn 259.372†	655322.8	1851.75	0.28%	[1.50]	mg/L
Mo 203.845†	19849.5	134.08	0.68%	[1.20]	mg/L
Mo 202.031*†	27252.1	103.84	0.38%	[1.20]	mg/L
Na 589.592*†	419519.0	984.41	0.23%	[72.0]	mg/L
Na 330.237†	40936.6	24.85	0.06%	[72.0]	mg/L
Ni 231.604*†	77566.4	357.91	0.46%	[1.20]	mg/L
Ni 232.003†	29515.7	142.22	0.48%	[1.20]	mg/L
P 214.914†	44054.7	125.03	0.28%	[12.0]	mg/L
P 213.617*†	86521.3	635.46	0.73%	[12.0]	mg/L
Pb 220.353*†	125453.8	139.66	0.11%	[7.50]	mg/L
Pb 217.000†	16439.8	69.91	0.43%	[7.50]	mg/L
Sb 217.582*†	39596.2	388.86	0.98%	[9.0]	mg/L
Sb 206†	38697.3	70.47	0.18%	[9.0]	mg/L
Sb 206.836†	41272.3	218.87	0.53%	[9.0]	mg/L
Se 196.026*†	9155.9	10.30	0.11%	[3.0]	mg/L
Se 203.985†	10674.4	41.70	0.39%	[3.0]	mg/L
Si 288.158†	283068.9	1667.08	0.59%	[12.0]	mg/L
Si 251.611*†	620589.3	4910.06	0.79%	[12.0]	mg/L
Sn 189.927*†	68228.8	285.40	0.42%	[6.0]	mg/L
Sn 242.170†	38632.6	75.96	0.20%	[6.0]	mg/L

Return to Contents

Sr 407.771*†	447004.0	1486.05	0.33%	[0.60] mg/L
Sr 421.552†	6928155.0	66160.51	0.95%	[0.60] mg/L
Ti 336.121*†	572453.6	204.38	0.04%	[1.20] mg/L
Ti 334.940†	792192.9	956.82	0.12%	[1.20] mg/L
Tl 351.924†	14746.2	29.69	0.20%	[3.0] mg/L
Tl†	8128.1	30.55	0.38%	[3.0] mg/L
Tl 190.801*†	9965.2	21.48	0.22%	[3.0] mg/L
V 310.230†	789852.9	1439.20	0.18%	[3.75] mg/L
V 292.402*†	414452.6	1622.30	0.39%	[3.75] mg/L
Zn 202.548†	498774.4	2886.28	0.58%	[5.0] mg/L
Zn 213.857*†	763970.0	1150.31	0.15%	[5.0] mg/L
Zn 206.200*†	350416.9	1734.09	0.49%	[5.0] mg/L

Return to Contents

Sequence No.: 4
Sample ID: ICV-M082713c
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 11/12/2013 10:35:32 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICV-M082713c

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: ICV-M082713c

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Ho 339.898	180946.5	4.617	mg/L	0.0159				0.34%
Ho 345.600	286915.4	4.573	mg/L	0.0247				0.54%
Tb 384.873	76649.7	4.664	mg/L	0.0099				0.21%
Tb 350.917	130598.0	4.690	mg/L	0.0133				0.28%
Y 324.227	1060589.1	4.694	mg/L	0.0128				0.27%
Y 371.029	2203575.0	4.694	mg/L	0.0029				0.06%
Ag 328.068*†	69139.3	0.4739	mg/L	0.00423	0.4739	mg/L	0.00423	0.89%
QC value within limits for Ag 328.068* Recovery = 94.79%								
Ag 338.289†	34695.7	0.4408	mg/L	0.00425	0.4408	mg/L	0.00425	0.96%
Al 308.215*†	76483.0	3.744	mg/L	0.0027	3.744	mg/L	0.0027	0.07%
QC value within limits for Al 308.215* Recovery = 93.60%								
Al 396.153†	464137.7	3.718	mg/L	0.0144	3.718	mg/L	0.0144	0.39%
As 188.979†	29053.0	5.032	mg/L	0.0394	5.032	mg/L	0.0394	0.78%
As 193.696*†	20342.2	4.991	mg/L	0.0234	4.991	mg/L	0.0234	0.47%
QC value within limits for As 193.696* Recovery = 99.82%								
B 249.677*†	90448.3	2.411	mg/L	0.0405	2.411	mg/L	0.0405	1.68%
QC value within limits for B 249.677* Recovery = 96.44%								
B 249.772†	211512.1	2.401	mg/L	0.0171	2.401	mg/L	0.0171	0.71%
Ba 233.527*†	184621.2	0.9828	mg/L	0.00402	0.9828	mg/L	0.00402	0.41%
QC value within limits for Ba 233.527* Recovery = 98.28%								
Ba 455.403†	217873.5	0.9716	mg/L	0.00480	0.9716	mg/L	0.00480	0.49%
Be 313.042*†	2619300.3	0.4971	mg/L	0.00236	0.4971	mg/L	0.00236	0.47%
QC value within limits for Be 313.042* Recovery = 99.42%								
Be 313.107†	1339653.5	0.4995	mg/L	0.00200	0.4995	mg/L	0.00200	0.40%
Bi 190.171*†	51.7	0.0198	mg/L	0.00174	0.0198	mg/L	0.00174	8.78%
Bi 223.061†	-2860.1	-0.4983	mg/L	0.00307	-0.4983	mg/L	0.00307	0.62%
Ca 422.673†	180884.5	19.15	mg/L	0.084	19.15	mg/L	0.084	0.44%
Ca 317.933*†	90630.5	19.91	mg/L	0.152	19.91	mg/L	0.152	0.77%
QC value within limits for Ca 317.933* Recovery = 99.56%								
Cd 226.502*†	242472.2	1.477	mg/L	0.0028	1.477	mg/L	0.0028	0.19%
QC value within limits for Cd 226.502* Recovery = 98.44%								
Cd 228.802†	101982.7	1.477	mg/L	0.0016	1.477	mg/L	0.0016	0.11%
Co 228.616*†	53767.9	1.047	mg/L	0.0005	1.047	mg/L	0.0005	0.05%
QC value within limits for Co 228.616* Recovery = 104.71%								
Co 230.786†	51616.8	1.033	mg/L	0.0002	1.033	mg/L	0.0002	0.02%
Cr 357.869†	23349.1	0.3776	mg/L	0.00030	0.3776	mg/L	0.00030	0.08%
Cr 267.716*†	36507.3	0.3862	mg/L	0.00401	0.3862	mg/L	0.00401	1.04%
QC value within limits for Cr 267.716* Recovery = 96.55%								
Cu 324.752*†	134779.3	0.9752	mg/L	0.00573	0.9752	mg/L	0.00573	0.59%
QC value within limits for Cu 324.752* Recovery = 97.52%								
Cu 327.393†	118930.7	0.9796	mg/L	0.00574	0.9796	mg/L	0.00574	0.59%
Fe 259.939†	229002.9	97.17	mg/L	0.227	97.17	mg/L	0.227	0.23%
Fe 239.562†	158347.7	97.29	mg/L	0.756	97.29	mg/L	0.756	0.78%
Fe 273.955*†	3058768.5	97.01	mg/L	0.489	97.01	mg/L	0.489	0.50%
QC value within limits for Fe 273.955* Recovery = 97.01%								
K 766.490*†	10787.9	7.405	mg/L	0.0046	7.405	mg/L	0.0046	0.06%
QC value within limits for K 766.490* Recovery = 92.56%								
Li 670.784†	Saturated3							
Li 610.362*†	853040.5	1.592	mg/L	0.0064	1.592	mg/L	0.0064	0.40%
Mg 280.271†	360204.2	10.64	mg/L	0.040	10.64	mg/L	0.040	0.37%
Mg 279.077*†	129102.3	10.48	mg/L	0.055	10.48	mg/L	0.055	0.53%
QC value within limits for Mg 279.077* Recovery = 104.83%								
Mn 257.610*†	550374.3	0.9680	mg/L	0.00296	0.9680	mg/L	0.00296	0.31%
QC value within limits for Mn 257.610* Recovery = 96.80%								
Mn 259.372†	474816.5	1.087	mg/L	0.0007	1.087	mg/L	0.0007	0.07%

Return to Contents

Mo 203.845†	40272.6	2.435	mg/L	0.0074	2.435	mg/L	0.0074	0.30%
Mo 202.031*†	55030.5	2.423	mg/L	0.0068	2.423	mg/L	0.0068	0.28%
QC value within limits for Mo 202.031* Recovery = 96.93%								
Na 589.592*†	309487.8	53.12	mg/L	0.183	53.12	mg/L	0.183	0.34%
QC value within limits for Na 589.592* Recovery = 98.36%								
Na 330.237†	28287.2	49.75	mg/L	0.253	49.75	mg/L	0.253	0.51%
Ni 231.604*†	26485.6	0.4097	mg/L	0.00223	0.4097	mg/L	0.00223	0.54%
QC value within limits for Ni 231.604* Recovery = 102.44%								
Ni 232.003†	10408.3	0.4232	mg/L	0.00334	0.4232	mg/L	0.00334	0.79%
P 214.914†	18119.4	4.936	mg/L	0.0115	4.936	mg/L	0.0115	0.23%
P 213.617*†	35446.0	4.916	mg/L	0.0145	4.916	mg/L	0.0145	0.29%
QC value within limits for P 213.617* Recovery = 98.32%								
Pb 220.353*†	82503.3	4.932	mg/L	0.0000	4.932	mg/L	0.0000	0.00%
QC value within limits for Pb 220.353* Recovery = 98.65%								
Pb 217.000†	10765.1	4.911	mg/L	0.0210	4.911	mg/L	0.0210	0.43%
S 180.669†	462.9	0.1847	mg/L	0.00305	0.1847	mg/L	0.00305	1.65%
S 181.975*†	50.9	0.0337	mg/L	0.00007	0.0337	mg/L	0.00007	0.20%
Sb 217.582*†	9200.5	2.091	mg/L	0.0014	2.091	mg/L	0.0014	0.07%
QC value within limits for Sb 217.582* Recovery = 104.56%								
Sb 206†	9029.8	2.100	mg/L	0.0129	2.100	mg/L	0.0129	0.61%
Sb 206.836†	9638.2	2.102	mg/L	0.0040	2.102	mg/L	0.0040	0.19%
Se 196.026*†	6037.2	1.978	mg/L	0.0137	1.978	mg/L	0.0137	0.69%
QC value within limits for Se 196.026* Recovery = 98.91%								
Se 203.985†	6243.8	1.755	mg/L	0.0113	1.755	mg/L	0.0113	0.65%
Si 288.158†	28616.1	1.157	mg/L	0.0173	1.157	mg/L	0.0173	1.49%
Si 251.611*†	64313.1	1.200	mg/L	0.0103	1.200	mg/L	0.0103	0.86%
QC value less than the lower limit for Si 251.611* Recovery = 12.00%								
Sn 189.927*†	29531.7	2.597	mg/L	0.0147	2.597	mg/L	0.0147	0.57%
QC value within limits for Sn 189.927* Recovery = 103.88%								
Sn 242.170†	16445.4	2.554	mg/L	0.0373	2.554	mg/L	0.0373	1.46%
Sr 407.771*†	142347.0	0.1911	mg/L	0.00057	0.1911	mg/L	0.00057	0.30%
QC value within limits for Sr 407.771* Recovery = 95.53%								
Sr 421.552†	2300392.4	0.1992	mg/L	0.00063	0.1992	mg/L	0.00063	0.32%
Ti 336.121*†	2293308.9	4.807	mg/L	0.0215	4.807	mg/L	0.0215	0.45%
QC value within limits for Ti 336.121* Recovery = 96.15%								
Ti 334.940†	3145479.0	4.765	mg/L	0.0107	4.765	mg/L	0.0107	0.23%
Tl 351.924†	10103.4	2.055	mg/L	0.0200	2.055	mg/L	0.0200	0.97%
Tl†	5609.5	2.058	mg/L	0.0110	2.058	mg/L	0.0110	0.53%
Tl 190.801*†	6985.5	2.103	mg/L	0.0117	2.103	mg/L	0.0117	0.56%
QC value within limits for Tl 190.801* Recovery = 105.15%								
V 310.230†	208531.6	1.001	mg/L	0.0074	1.001	mg/L	0.0074	0.74%
V 292.402*†	105376.7	0.9612	mg/L	0.00666	0.9612	mg/L	0.00666	0.69%
QC value within limits for V 292.402* Recovery = 96.12%								
Zn 202.548†	149912.6	1.504	mg/L	0.0079	1.504	mg/L	0.0079	0.53%
Zn 213.857*†	227281.9	1.458	mg/L	0.0017	1.458	mg/L	0.0017	0.12%
QC value within limits for Zn 213.857* Recovery = 97.21%								
Zn 206.200*†	104735.4	1.474	mg/L	0.0087	1.474	mg/L	0.0087	0.59%
QC value within limits for Zn 206.200* Recovery = 98.26%								

QC Failed. Continue with analysis.

Return to Contents

Sequence No.: 6 Autosampler Location: 6
Sample ID: ICV-2 M062013A Date Collected: 11/12/2013 10:38:32 AM
Analyst: 469 icp 7300 Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
User canceled analysis.

Analysis Begun

Start Time: 11/12/2013 10:39:18 AM Plasma On Time: 11/12/2013 8:50:13 AM
Logged In Analyst: John Nguyen Technique: ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 77c8120401 Autosampler Model: AS-93plus

Sample Information File: C:\pe\jn\Sample Information\13111201.sif
Batch ID:
Results Data Set: 131112C1
Results Library: W:\ICP_07\ICP_07\pe\7300\Results\Results.mdb

Sequence No.: 5 Autosampler Location: 1
Sample ID: ICB-R04231201 Date Collected: 11/12/2013 10:39:18 AM
Analyst: 469 icp 7300 Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICB-R04231201

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: ICB-R04231201

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	197537.4	5.041	mg/L	0.0030				0.06%
Ho 345.600	315304.6	5.025	mg/L	0.0072				0.14%
Tb 384.873	81513.2	4.960	mg/L	0.0175				0.35%
Tb 350.917	137861.8	4.951	mg/L	0.0084				0.17%
Y 324.227	1130677.2	5.004	mg/L	0.0093				0.19%
Y 371.029	2375331.4	5.060	mg/L	0.0059				0.12%
Ag 328.068*†	-81.8	-0.0006	mg/L	0.00004	-0.0006	mg/L	0.00004	6.43%
Ag 338.289†	80.2	0.0010	mg/L	0.00055	0.0010	mg/L	0.00055	53.34%
Al 308.215*†	79.6	0.0040	mg/L	0.00299	0.0040	mg/L	0.00299	75.42%
Al 396.153†	-95.8	-0.0008	mg/L	0.00036	-0.0008	mg/L	0.00036	47.03%
As 188.979†	13.1	0.0023	mg/L	0.00059	0.0023	mg/L	0.00059	25.87%
As 193.696*†	13.8	0.0034	mg/L	0.00156	0.0034	mg/L	0.00156	45.90%
B 249.677*†	368.8	0.0098	mg/L	0.00074	0.0098	mg/L	0.00074	7.51%
QC value within limits for B 249.677* Recovery = Not calculated								
B 249.772†	1006.7	0.0116	mg/L	0.00012	0.0116	mg/L	0.00012	1.02%
Ba 233.527*†	-11.7	-0.0001	mg/L	0.00014	-0.0001	mg/L	0.00014	218.40%
Ba 455.403†	-2.5	0.0000	mg/L	0.00004	0.0000	mg/L	0.00004	331.40%
Be 313.042*†	248.8	0.0000	mg/L	0.00003	0.0000	mg/L	0.00003	66.35%
Be 313.107†	-136.3	-0.0001	mg/L	0.00004	-0.0001	mg/L	0.00004	74.37%
Bi 190.171*†	-3.6	-0.0014	mg/L	0.00201	-0.0014	mg/L	0.00201	145.24%
Bi 223.061†	6.9	0.0012	mg/L	0.00383	0.0012	mg/L	0.00383	316.96%
Ca 422.673†	-55.2	-0.0058	mg/L	0.00058	-0.0058	mg/L	0.00058	9.87%
Ca 317.933*†	-25.4	-0.0056	mg/L	0.00076	-0.0056	mg/L	0.00076	13.55%
Cd 226.502*†	-7.6	0.0000	mg/L	0.00016	0.0000	mg/L	0.00016	354.45%
Cd 228.802†	11.4	0.0002	mg/L	0.00017	0.0002	mg/L	0.00017	100.21%
Co 228.616*†	-1.3	0.0000	mg/L	0.00021	0.0000	mg/L	0.00021	863.47%
Co 230.786†	3.9	0.0001	mg/L	0.00027	0.0001	mg/L	0.00027	347.17%
Cr 357.869†	-32.2	-0.0005	mg/L	0.00058	-0.0005	mg/L	0.00058	112.67%
Cr 267.716*†	-18.8	-0.0002	mg/L	0.00018	-0.0002	mg/L	0.00018	90.97%
Cu 324.752*†	110.9	0.0008	mg/L	0.00010	0.0008	mg/L	0.00010	12.31%
Cu 327.393†	-10.1	-0.0001	mg/L	0.00000	-0.0001	mg/L	0.00000	3.59%
Fe 259.939†	14.6	0.0062	mg/L	0.00746	0.0062	mg/L	0.00746	120.24%
Fe 239.562†	9.2	0.0056	mg/L	0.01304	0.0056	mg/L	0.01304	230.95%
Fe 273.955*†	13.7	0.0004	mg/L	0.00014	0.0004	mg/L	0.00014	31.81%
K 766.490*†	47.4	0.0325	mg/L	0.07537	0.0325	mg/L	0.07537	231.65%

Return to Contents

Li 670.784†	15591.8				1043.77	6.69%
Li 610.362*†	69.9	0.0001 mg/L	0.00017	0.0001 mg/L	0.00017	127.97%
Mg 280.271†	5.5	0.0002 mg/L	0.00087	0.0002 mg/L	0.00087	531.50%
Mg 279.077*†	-101.3	-0.0082 mg/L	0.00149	-0.0082 mg/L	0.00149	18.27%
Mn 257.610*†	28.2	0.0000 mg/L	0.00008	0.0000 mg/L	0.00008	165.79%
Mn 259.372†	18.7	0.0000 mg/L	0.00018	0.0000 mg/L	0.00018	428.71%
Mo 203.845†	16.1	0.0010 mg/L	0.00027	0.0010 mg/L	0.00027	27.45%
Mo 202.031*†	15.1	0.0007 mg/L	0.00009	0.0007 mg/L	0.00009	13.48%
Na 589.592*†	102.8	0.0176 mg/L	0.00646	0.0176 mg/L	0.00646	36.59%
Na 330.237†	10.7	0.0188 mg/L	0.18923	0.0188 mg/L	0.18923	>999.9%
Ni 231.604*†	-48.9	-0.0008 mg/L	0.00025	-0.0008 mg/L	0.00025	32.71%
Ni 232.003†	117.7	0.0048 mg/L	0.00012	0.0048 mg/L	0.00012	2.60%
P 214.914†	-14.6	-0.0040 mg/L	0.00423	-0.0040 mg/L	0.00423	106.50%
P 213.617*†	10.8	0.0015 mg/L	0.00115	0.0015 mg/L	0.00115	76.68%
Pb 220.353*†	7.2	0.0004 mg/L	0.00020	0.0004 mg/L	0.00020	45.48%
Pb 217.000†	-6.3	-0.0029 mg/L	0.00137	-0.0029 mg/L	0.00137	47.54%
S 180.669†	0.7	0.0003 mg/L	0.00046	0.0003 mg/L	0.00046	159.24%
S 181.975*†	6.7	0.0044 mg/L	0.00053	0.0044 mg/L	0.00053	12.04%
Sb 217.582*†	13.0	0.0030 mg/L	0.00036	0.0030 mg/L	0.00036	12.18%
Sb 206†	-2.3	-0.0005 mg/L	0.00067	-0.0005 mg/L	0.00067	122.22%
Sb 206.836†	-6.1	-0.0013 mg/L	0.00500	-0.0013 mg/L	0.00500	373.68%
Se 196.026*†	-2.2	-0.0007 mg/L	0.00031	-0.0007 mg/L	0.00031	41.95%
Se 203.985†	19.5	0.0055 mg/L	0.00002	0.0055 mg/L	0.00002	0.34%
Si 288.158†	141.1	0.0060 mg/L	0.00222	0.0060 mg/L	0.00222	37.14%
Si 251.611*†	4.1	0.0001 mg/L	0.00035	0.0001 mg/L	0.00035	438.81%
Sn 189.927*†	31.0	0.0027 mg/L	0.00010	0.0027 mg/L	0.00010	3.50%
Sn 242.170†	301.2	0.0468 mg/L	0.02852	0.0468 mg/L	0.02852	60.97%
Sr 407.771*†	30.5	0.0000 mg/L	0.00002	0.0000 mg/L	0.00002	60.08%
Sr 421.552†	-52.3	0.0000 mg/L	0.00001	0.0000 mg/L	0.00001	178.80%
Ti 336.121*†	35.7	0.0001 mg/L	0.00007	0.0001 mg/L	0.00007	91.60%
Ti 334.940†	-15.6	0.0000 mg/L	0.00003	0.0000 mg/L	0.00003	108.81%
Tl 351.924†	-13.6	-0.0028 mg/L	0.01615	-0.0028 mg/L	0.01615	584.64%
Tl†	-3.4	-0.0013 mg/L	0.00130	-0.0013 mg/L	0.00130	102.18%
Tl 190.801*†	1.7	0.0005 mg/L	0.00113	0.0005 mg/L	0.00113	215.99%
V 310.230†	2559.0	0.0121 mg/L	0.00156	0.0121 mg/L	0.00156	12.82%
V 292.402*†	5.0	0.0000 mg/L	0.00023	0.0000 mg/L	0.00023	498.96%
Zn 202.548†	-59.4	-0.0006 mg/L	0.00007	-0.0006 mg/L	0.00007	11.39%
Zn 213.857*†	-64.2	-0.0004 mg/L	0.00002	-0.0004 mg/L	0.00002	5.06%
Zn 206.200*†	-13.0	-0.0002 mg/L	0.00001	-0.0002 mg/L	0.00001	7.21%

All analyte(s) passed QC.

Return to Contents

Sequence No.: 7
Sample ID: ICS_A -M042313B
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 11/12/2013 10:42:29 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICS_A -M042313B

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: ICS_A -M042313B

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	181313.4	4.627	mg/L	0.0292				0.63%
Ho 345.600	293829.9	4.683	mg/L	0.0350				0.75%
Tb 384.873	77286.3	4.703	mg/L	0.0299				0.64%
Tb 350.917	130910.3	4.701	mg/L	0.0225				0.48%
Y 324.227	1065985.7	4.717	mg/L	0.0316				0.67%
Y 371.029	2211226.5	4.711	mg/L	0.0196				0.42%
Ag 328.068*†	-211.1	0.0008	mg/L	0.00021	0.0008	mg/L	0.00021	27.39%
Ag 338.289†	111.8	-0.0088	mg/L	0.00048	-0.0088	mg/L	0.00048	5.52%
Al 308.215*†	479995.1	23.72	mg/L	0.018	23.72	mg/L	0.018	0.07%
Al 396.153†	2983928.9	23.90	mg/L	0.020	23.90	mg/L	0.020	0.08%
As 188.979†	1.0	0.0002	mg/L	0.00325	0.0002	mg/L	0.00325	>999.9%
As 193.696*†	-29.5	-0.0072	mg/L	0.00081	-0.0072	mg/L	0.00081	11.18%
B 249.677*†	-436.2	-0.0079	mg/L	0.00013	-0.0079	mg/L	0.00013	1.59%
B 249.772†	2510.7	-0.0056	mg/L	0.00090	-0.0056	mg/L	0.00090	16.21%
Ba 233.527*†	199.5	0.0015	mg/L	0.00003	0.0015	mg/L	0.00003	2.07%
Ba 455.403†	120.0	0.0000	mg/L	0.00015	0.0000	mg/L	0.00015	920.87%
Be 313.042*†	146.5	0.0000	mg/L	0.00003	0.0000	mg/L	0.00003	101.81%
Be 313.107†	-343.6	-0.0001	mg/L	0.00001	-0.0001	mg/L	0.00001	4.99%
Bi 190.171*†	32.0	0.0123	mg/L	0.00470	0.0123	mg/L	0.00470	38.36%
Bi 223.061†	63.6	0.0111	mg/L	0.00126	0.0111	mg/L	0.00126	11.36%
Ca 422.673†	1129916.2	119.6	mg/L	0.22	119.6	mg/L	0.22	0.19%
Ca 317.933*†	554032.8	121.7	mg/L	0.59	121.7	mg/L	0.59	0.49%
Cd 226.502*†	-269.4	-0.0016	mg/L	0.00000	-0.0016	mg/L	0.00000	0.15%
Cd 228.802†	-555.6	-0.0080	mg/L	0.00004	-0.0080	mg/L	0.00004	0.46%
Co 228.616*†	19.7	0.0004	mg/L	0.00025	0.0004	mg/L	0.00025	64.04%
Co 230.786†	-7.9	-0.0002	mg/L	0.00036	-0.0002	mg/L	0.00036	227.47%
Cr 357.869†	-163.6	-0.0035	mg/L	0.00003	-0.0035	mg/L	0.00003	0.76%
Cr 267.716*†	12.0	-0.0061	mg/L	0.00035	-0.0061	mg/L	0.00035	5.78%
Cu 324.752*†	-2223.9	-0.0271	mg/L	0.00082	-0.0271	mg/L	0.00082	3.01%
Cu 327.393†	-413.0	-0.0197	mg/L	0.00102	-0.0197	mg/L	0.00102	5.18%
Fe 259.939†	229477.4	97.37	mg/L	0.717	97.37	mg/L	0.717	0.74%
Fe 239.562†	161305.5	99.11	mg/L	0.505	99.11	mg/L	0.505	0.51%
Fe 273.955*†	3116634.5	98.85	mg/L	0.289	98.85	mg/L	0.289	0.29%
K 766.490*†	225.0	0.1545	mg/L	0.01515	0.1545	mg/L	0.01515	9.81%
Li 670.784†	37947.9						1472.77	3.88%
Li 610.362*†	-30903.9	-0.0577	mg/L	0.00055	-0.0577	mg/L	0.00055	0.95%
Mg 280.271†	2055666.7	60.69	mg/L	0.233	60.69	mg/L	0.233	0.38%
Mg 279.077*†	765176.7	61.74	mg/L	0.025	61.74	mg/L	0.025	0.04%
Mn 257.610*†	-4397.4	-0.0077	mg/L	0.00007	-0.0077	mg/L	0.00007	0.90%
Mn 259.372†	48769.9	0.1116	mg/L	0.00031	0.1116	mg/L	0.00031	0.28%
Mo 203.845†	-13.7	-0.0008	mg/L	0.00040	-0.0008	mg/L	0.00040	48.23%
Mo 202.031*†	-25.5	-0.0011	mg/L	0.00046	-0.0011	mg/L	0.00046	40.76%
Na 589.592*†	123710.9	21.23	mg/L	0.117	21.23	mg/L	0.117	0.55%
Na 330.237†	11185.8	19.67	mg/L	0.004	19.67	mg/L	0.004	0.02%
Ni 231.604*†	-22.0	-0.0003	mg/L	0.00036	-0.0003	mg/L	0.00036	107.05%
Ni 232.003†	349.1	0.0142	mg/L	0.00099	0.0142	mg/L	0.00099	6.96%
P 214.914†	-27.6	-0.0075	mg/L	0.00033	-0.0075	mg/L	0.00033	4.44%
P 213.617*†	11.4	0.0016	mg/L	0.00049	0.0016	mg/L	0.00049	31.16%
Pb 220.353*†	-98.1	-0.0059	mg/L	0.00101	-0.0059	mg/L	0.00101	17.14%
Pb 217.000†	32.0	0.0146	mg/L	0.00266	0.0146	mg/L	0.00266	18.21%
S 180.669†	2181.1	0.8702	mg/L	0.00075	0.8702	mg/L	0.00075	0.09%
S 181.975*†	-31.1	-0.0206	mg/L	0.00759	-0.0206	mg/L	0.00759	36.86%
Sb 217.582*†	-110.7	-0.0252	mg/L	0.00517	-0.0252	mg/L	0.00517	20.56%
Sb 206†	25.5	0.0059	mg/L	0.00065	0.0059	mg/L	0.00065	10.97%
Sb 206.836†	11.3	0.0025	mg/L	0.00070	0.0025	mg/L	0.00070	28.47%

Return to Contents

Se 196.026*†	-34.6	-0.0113 mg/L	0.00128	-0.0113 mg/L	0.00128	11.31%
Se 203.985†	-9.8	-0.0028 mg/L	0.00291	-0.0028 mg/L	0.00291	105.58%
Si 288.158†	322.3	-0.0012 mg/L	0.00084	-0.0012 mg/L	0.00084	68.66%
Si 251.611*†	390.0	-0.0012 mg/L	0.00077	-0.0012 mg/L	0.00077	62.50%
Sn 189.927*†	96.8	0.0085 mg/L	0.00032	0.0085 mg/L	0.00032	3.76%
Sn 242.170†	-153.8	-0.0239 mg/L	0.07298	-0.0239 mg/L	0.07298	305.52%
Sr 407.771*†	2146.8	0.0029 mg/L	0.00005	0.0029 mg/L	0.00005	1.68%
Sr 421.552†	32719.6	0.0028 mg/L	0.00000	0.0028 mg/L	0.00000	0.15%
Ti 336.121*†	-221.9	-0.0005 mg/L	0.00006	-0.0005 mg/L	0.00006	13.38%
Ti 334.940†	-281.3	-0.0004 mg/L	0.00004	-0.0004 mg/L	0.00004	9.18%
Tl 351.924†	37.8	0.0077 mg/L	0.00038	0.0077 mg/L	0.00038	4.93%
Tl†	-12.3	-0.0145 mg/L	0.00094	-0.0145 mg/L	0.00094	6.48%
Tl 190.801*†	3.9	0.0012 mg/L	0.00023	0.0012 mg/L	0.00023	19.15%
V 310.230†	6436.2	0.0806 mg/L	0.00435	0.0806 mg/L	0.00435	5.40%
V 292.402*†	-895.9	-0.0016 mg/L	0.00115	-0.0016 mg/L	0.00115	72.59%
Zn 202.548†	-1015.4	0.0022 mg/L	0.00031	0.0022 mg/L	0.00031	14.15%
Zn 213.857*†	1427.6	-0.0103 mg/L	0.00024	-0.0103 mg/L	0.00024	2.32%
Zn 206.200*†	-27.2	-0.0109 mg/L	0.00021	-0.0109 mg/L	0.00021	1.89%

Return to Contents

Sequence No.: 8
Sample ID: ICS_AB -M042313A
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 11/12/2013 10:43:52 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICS_AB -M042313A

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: ICS_AB -M042313A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	182603.3	4.660	mg/L	0.0153				0.33%
Ho 345.600	295662.0	4.712	mg/L	0.0203				0.43%
Tb 384.873	77939.1	4.743	mg/L	0.0038				0.08%
Tb 350.917	132308.8	4.751	mg/L	0.0166				0.35%
Y 324.227	1079274.9	4.776	mg/L	0.0166				0.35%
Y 371.029	2224454.2	4.739	mg/L	0.0015				0.03%
Ag 328.068*†	46138.9	0.3175	mg/L	0.00145	0.3175	mg/L	0.00145	0.46%
Ag 338.289†	24710.9	0.3064	mg/L	0.00304	0.3064	mg/L	0.00304	0.99%
Al 308.215*†	476721.1	23.55	mg/L	0.033	23.55	mg/L	0.033	0.14%
Al 396.153†	2989706.7	23.95	mg/L	0.073	23.95	mg/L	0.073	0.30%
As 188.979†	5952.5	1.031	mg/L	0.0145	1.031	mg/L	0.0145	1.41%
As 193.696*†	4163.5	1.021	mg/L	0.0081	1.021	mg/L	0.0081	0.79%
B 249.677*†	17730.6	0.4747	mg/L	0.00649	0.4747	mg/L	0.00649	1.37%
B 249.772†	44868.0	0.4809	mg/L	0.00539	0.4809	mg/L	0.00539	1.12%
Ba 233.527*†	55383.3	0.2953	mg/L	0.00178	0.2953	mg/L	0.00178	0.60%
Ba 455.403†	67330.8	0.2998	mg/L	0.00031	0.2998	mg/L	0.00031	0.10%
Be 313.042*†	525477.7	0.0997	mg/L	0.00058	0.0997	mg/L	0.00058	0.59%
Be 313.107†	266690.1	0.0994	mg/L	0.00051	0.0994	mg/L	0.00051	0.52%
Bi 190.171*†	31.5	0.0121	mg/L	0.00151	0.0121	mg/L	0.00151	12.56%
Bi 223.061†	-567.2	-0.0988	mg/L	0.00333	-0.0988	mg/L	0.00333	3.37%
Ca 422.673†	1123230.5	118.9	mg/L	0.79	118.9	mg/L	0.79	0.67%
Ca 317.933*†	546206.1	120.0	mg/L	0.41	120.0	mg/L	0.41	0.34%
Cd 226.502*†	48887.0	0.2977	mg/L	0.00129	0.2977	mg/L	0.00129	0.43%
Cd 228.802†	20379.5	0.2951	mg/L	0.00131	0.2951	mg/L	0.00131	0.45%
Co 228.616*†	15631.6	0.3044	mg/L	0.00251	0.3044	mg/L	0.00251	0.83%
Co 230.786†	14975.0	0.2997	mg/L	0.00154	0.2997	mg/L	0.00154	0.51%
Cr 357.869†	17681.3	0.2836	mg/L	0.00008	0.2836	mg/L	0.00008	0.03%
Cr 267.716*†	27191.7	0.2834	mg/L	0.00175	0.2834	mg/L	0.00175	0.62%
Cu 324.752*†	40141.5	0.2826	mg/L	0.00053	0.2826	mg/L	0.00053	0.19%
Cu 327.393†	36260.4	0.2866	mg/L	0.00050	0.2866	mg/L	0.00050	0.18%
Fe 259.939†	232943.8	98.84	mg/L	0.952	98.84	mg/L	0.952	0.96%
Fe 239.562†	162625.3	99.92	mg/L	1.079	99.92	mg/L	1.079	1.08%
Fe 273.955*†	3086157.3	97.88	mg/L	0.457	97.88	mg/L	0.457	0.47%
K 766.490*†	30102.4	20.66	mg/L	0.103	20.66	mg/L	0.103	0.50%
Li 670.784†	31866.0						97.99	0.31%
Li 610.362*†	-30517.3	-0.0569	mg/L	0.00031	-0.0569	mg/L	0.00031	0.54%
Mg 280.271†	2040879.3	60.26	mg/L	0.267	60.26	mg/L	0.267	0.44%
Mg 279.077*†	760845.8	61.39	mg/L	0.171	61.39	mg/L	0.171	0.28%
Mn 257.610*†	108528.6	0.1909	mg/L	0.00014	0.1909	mg/L	0.00014	0.07%
Mn 259.372†	135463.2	0.3101	mg/L	0.00003	0.3101	mg/L	0.00003	0.01%
Mo 203.845†	4940.0	0.2986	mg/L	0.00109	0.2986	mg/L	0.00109	0.36%
Mo 202.031*†	6791.8	0.2991	mg/L	0.00235	0.2991	mg/L	0.00235	0.79%
Na 589.592*†	123189.7	21.14	mg/L	0.129	21.14	mg/L	0.129	0.61%
Na 330.237†	10931.0	19.23	mg/L	0.128	19.23	mg/L	0.128	0.66%
Ni 231.604*†	19763.7	0.3058	mg/L	0.00229	0.3058	mg/L	0.00229	0.75%
Ni 232.003†	7774.4	0.3161	mg/L	0.00175	0.3161	mg/L	0.00175	0.55%
P 214.914†	-18.1	-0.0049	mg/L	0.00396	-0.0049	mg/L	0.00396	80.41%
P 213.617*†	2.6	0.0004	mg/L	0.00160	0.0004	mg/L	0.00160	448.05%
Pb 220.353*†	16488.5	0.9857	mg/L	0.00869	0.9857	mg/L	0.00869	0.88%
Pb 217.000†	2227.5	1.016	mg/L	0.0041	1.016	mg/L	0.0041	0.40%
S 180.669†	2182.9	0.8709	mg/L	0.00681	0.8709	mg/L	0.00681	0.78%
S 181.975*†	-36.3	-0.0240	mg/L	0.00421	-0.0240	mg/L	0.00421	17.55%
Sb 217.582*†	4326.8	0.9835	mg/L	0.01586	0.9835	mg/L	0.01586	1.61%
Sb 206†	4371.5	1.017	mg/L	0.0173	1.017	mg/L	0.0173	1.70%
Sb 206.836†	4662.3	1.017	mg/L	0.0215	1.017	mg/L	0.0215	2.11%

Return to Contents

Se 196.026*†	1547.6	0.5071 mg/L	0.00851	0.5071 mg/L	0.00851	1.68%
Se 203.985†	1799.1	0.5056 mg/L	0.00536	0.5056 mg/L	0.00536	1.06%
Si 288.158†	4850.8	0.1774 mg/L	0.00060	0.1774 mg/L	0.00060	0.34%
Si 251.611*†	10805.3	0.1864 mg/L	0.00206	0.1864 mg/L	0.00206	1.10%
Sn 189.927*†	-43.5	-0.0038 mg/L	0.00066	-0.0038 mg/L	0.00066	17.12%
Sn 242.170†	-95.8	-0.0149 mg/L	0.00828	-0.0149 mg/L	0.00828	55.62%
Sr 407.771*†	2025.3	0.0027 mg/L	0.00004	0.0027 mg/L	0.00004	1.44%
Sr 421.552†	29914.0	0.0026 mg/L	0.00001	0.0026 mg/L	0.00001	0.53%
Ti 336.121*†	465501.4	0.9758 mg/L	0.00092	0.9758 mg/L	0.00092	0.09%
Ti 334.940†	645282.7	0.9775 mg/L	0.00136	0.9775 mg/L	0.00136	0.14%
Tl 351.924†	5128.2	1.043 mg/L	0.0101	1.043 mg/L	0.0101	0.97%
Tl†	2826.0	1.031 mg/L	0.0018	1.031 mg/L	0.0018	0.18%
Tl 190.801*†	3495.5	1.052 mg/L	0.0083	1.052 mg/L	0.0083	0.79%
V 310.230†	67614.4	0.3712 mg/L	0.00545	0.3712 mg/L	0.00545	1.47%
V 292.402*†	32010.8	0.2967 mg/L	0.00231	0.2967 mg/L	0.00231	0.78%
Zn 202.548†	28849.5	0.3016 mg/L	0.00098	0.3016 mg/L	0.00098	0.32%
Zn 213.857*†	47615.3	0.2922 mg/L	0.00054	0.2922 mg/L	0.00054	0.18%
Zn 206.200*†	20572.3	0.2831 mg/L	0.00220	0.2831 mg/L	0.00220	0.78%

Return to Contents

Analysis Begun

Start Time: 11/12/2013 2:21:40 PM
Logged In Analyst: John Nguyen
Spectrometer Model: Optima 7300 DV, S/N 77c8120401
Plasma On Time: 11/12/2013 8:50:13 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\jn\Sample Information\13111201.sif
Batch ID:
Results Data Set: 131112C1
Results Library: W:\ICP_07\ICP_07\pe\7300\Results\Results.mdb

Sequence No.: 1
Sample ID: Calblank R04231301_ 469
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 5
Date Collected: 11/12/2013 2:21:42 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calblank R04231301_ 469

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: Calblank R04231301_ 469

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ho 339.898	197053.0	370.77	0.19%	5.000	mg/L
Ho 345.600	318659.4	949.44	0.30%	5.000	mg/L
Tb 350.917	139889.0	418.68	0.30%	5.000	mg/L
Tb 384.873	82250.9	133.27	0.16%	5.000	mg/L
Y 324.227	1152358.0	4347.35	0.38%	5.000	mg/L
Y 371.029	2321809.3	2599.62	0.11%	5.000	mg/L
Ag 328.068*†	-4004.6	114.84	2.87%	[0.00]	mg/L
Ag 338.289†	14.1	38.15	270.74%	[0.00]	mg/L
Al 308.215*†	-6053.1	13.36	0.22%	[0.00]	mg/L
Al 396.153†	-203.5	27.43	13.48%	[0.00]	mg/L
As 188.979†	8.5	0.95	11.15%	[0.00]	mg/L
As 193.696*†	46.8	15.24	32.58%	[0.00]	mg/L
B 249.677*†	-1366.4	27.06	1.98%	[0.00]	mg/L
B 249.772†	-2344.1	26.92	1.15%	[0.00]	mg/L
Ba 233.527*†	-34.1	5.60	16.40%	[0.00]	mg/L
Ba 455.403†	-94.0	5.52	5.87%	[0.00]	mg/L
Be 313.042*†	-3773.2	53.23	1.41%	[0.00]	mg/L
Be 313.107†	-1194.1	79.56	6.66%	[0.00]	mg/L
Ca 317.933*†	287.7	9.03	3.14%	[0.00]	mg/L
Ca 422.673†	74.1	58.76	79.26%	[0.00]	mg/L
Cd 226.502*†	-201.1	1.62	0.80%	[0.00]	mg/L
Cd 228.802†	-212.0	9.00	4.25%	[0.00]	mg/L
Co 228.616*†	-115.8	6.78	5.86%	[0.00]	mg/L
Co 230.786†	140.4	11.76	8.38%	[0.00]	mg/L
Cr 267.716*†	-263.8	6.98	2.65%	[0.00]	mg/L
Cr 357.869†	527.8	33.16	6.28%	[0.00]	mg/L
Cu 324.752*†	-1996.5	27.22	1.36%	[0.00]	mg/L
Cu 327.393†	-3326.5	3.30	0.10%	[0.00]	mg/L
Fe 239.562†	-158.3	2.17	1.37%	[0.00]	mg/L
Fe 259.939†	-162.8	1.87	1.15%	[0.00]	mg/L
Fe 273.955*†	-569.6	5.50	0.96%	[0.00]	mg/L
K 766.490*†	631.6	28.47	4.51%	[0.00]	mg/L
Mg 279.077*†	-6484.6	43.39	0.67%	[0.00]	mg/L
Mg 280.271†	31.2	0.00	0.00%	[0.00]	mg/L
Mn 257.610*†	-273.4	10.45	3.82%	[0.00]	mg/L
Mn 259.372†	-922.2	14.81	1.61%	[0.00]	mg/L
Mo 202.031*†	-161.8	5.56	3.43%	[0.00]	mg/L
Mo 203.845†	-207.1	7.60	3.67%	[0.00]	mg/L
Na 330.237†	1542.8	49.38	3.20%	[0.00]	mg/L
Na 589.592*†	1287.8	27.22	2.11%	[0.00]	mg/L
Ni 231.604*†	494.6	7.71	1.56%	[0.00]	mg/L
Ni 232.003†	-294.2	4.89	1.66%	[0.00]	mg/L
P 213.617*†	482.2	5.88	1.22%	[0.00]	mg/L

Return to Contents

P 214.914†	25.1	3.62	14.40%	[0.00]	mg/L
Pb 217.000†	-2.9	10.45	363.40%	[0.00]	mg/L
Pb 220.353*†	-230.8	2.26	0.98%	[0.00]	mg/L
Sb 206†	93.1	9.31	10.01%	[0.00]	mg/L
Sb 206.836†	5.6	10.62	187.99%	[0.00]	mg/L
Sb 217.582*†	97.3	10.67	10.97%	[0.00]	mg/L
Se 196.026*†	47.2	2.46	5.20%	[0.00]	mg/L
Se 203.985†	64.6	2.24	3.47%	[0.00]	mg/L
Si 251.611*†	1382.2	47.72	3.45%	[0.00]	mg/L
Si 288.158†	1627.7	3.93	0.24%	[0.00]	mg/L
Sn 189.927*†	27.0	2.64	9.78%	[0.00]	mg/L
Sn 242.170†	819.0	238.82	29.16%	[0.00]	mg/L
Sr 407.771*†	-32.4	17.61	54.31%	[0.00]	mg/L
Sr 421.552†	-4250.8	142.16	3.34%	[0.00]	mg/L
Ti 334.940†	12674.0	113.49	0.90%	[0.00]	mg/L
Ti 336.121*†	-2033.9	40.51	1.99%	[0.00]	mg/L
Tl†	-58.7	4.49	7.65%	[0.00]	mg/L
Tl 190.801*†	-12.6	3.63	28.84%	[0.00]	mg/L
Tl 351.924†	-54.8	41.54	75.76%	[0.00]	mg/L
V 292.402*†	208.4	5.24	2.52%	[0.00]	mg/L
V 310.230†	78643.7	555.36	0.71%	[0.00]	mg/L
Zn 202.548†	-723.8	4.98	0.69%	[0.00]	mg/L
Zn 206.200*†	-553.6	4.94	0.89%	[0.00]	mg/L
Zn 213.857*†	-501.7	19.97	3.98%	[0.00]	mg/L

Return to Contents

Sequence No.: 2
Sample ID: STD3-M092713A-Analyst-469
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/12/2013 2:23:16 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: STD3-M092713A-Analyst-469

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: STD3-M092713A-Analyst-469

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ho 339.898	183986.7	82.83	0.05%	4.668	mg/L
Ho 345.600	296624.4	2479.01	0.84%	4.654	mg/L
Tb 350.917	132461.8	88.97	0.07%	4.735	mg/L
Tb 384.873	76761.1	92.59	0.12%	4.666	mg/L
Y 324.227	1105702.5	8375.42	0.76%	4.798	mg/L
Y 371.029	2211919.8	13572.80	0.61%	4.763	mg/L
Ag 328.068*†	107511.9	196.91	0.18%	[0.75]	mg/L
Ag 338.289†	56712.1	42.47	0.07%	[0.75]	mg/L
Al 308.215*†	547776.0	3608.48	0.66%	[27.0]	mg/L
Al 396.153†	3380620.7	35925.45	1.06%	[27]	mg/L
As 188.979†	43246.4	301.32	0.70%	[7.50]	mg/L
As 193.696*†	30603.7	181.86	0.59%	[7.50]	mg/L
B 249.677*†	277263.7	907.81	0.33%	[7.50]	mg/L
B 249.772†	657641.4	2116.32	0.32%	[7.50]	mg/L
Ba 233.527*†	2759746.6	18909.02	0.69%	[15.0]	mg/L
Ba 455.403†	3432107.4	7591.68	0.22%	[15.0]	mg/L
Be 313.042*†	5882833.3	42889.42	0.73%	[1.125]	mg/L
Be 313.107†	3011602.3	25847.17	0.86%	[1.125]	mg/L
Ca 317.933*†	267825.7	632.90	0.24%	[60.0]	mg/L
Ca 422.673†	558396.9	1551.64	0.28%	[60.0]	mg/L
Cd 226.502*†	244514.3	533.26	0.22%	[1.50]	mg/L
Cd 228.802†	106217.3	10.30	0.01%	[1.50]	mg/L
Co 228.616*†	191890.0	97.95	0.05%	[3.75]	mg/L
Co 230.786†	186905.6	183.26	0.10%	[3.75]	mg/L
Cr 267.716*†	109129.1	306.85	0.28%	[1.20]	mg/L
Cr 357.869†	75052.3	426.89	0.57%	[1.20]	mg/L
Cu 324.752*†	267618.8	1699.08	0.63%	[1.875]	mg/L
Cu 327.393†	221616.6	1247.90	0.56%	[1.875]	mg/L
Fe 239.562†	11719.8	117.33	1.00%	[7.50]	mg/L
Fe 259.939†	17991.5	416.03	2.31%	[7.50]	mg/L
Fe 273.955*†	237397.8	257.10	0.11%	[7.50]	mg/L
K 766.490*†	78817.3	1725.51	2.19%	[54.0]	mg/L
Mg 279.077*†	188694.3	455.26	0.24%	[15.0]	mg/L
Mg 280.271†	514784.1	2835.40	0.55%	[15.0]	mg/L
Mn 257.610*†	875540.4	4468.03	0.51%	[1.50]	mg/L
Mn 259.372†	676340.5	4004.62	0.59%	[1.50]	mg/L
Mo 202.031*†	27871.7	71.34	0.26%	[1.20]	mg/L
Mo 203.845†	20122.9	11.77	0.06%	[1.20]	mg/L
Na 330.237†	42943.7	79.82	0.19%	[72.0]	mg/L
Na 589.592*†	409947.1	436.21	0.11%	[72.0]	mg/L
Ni 231.604*†	77809.8	313.28	0.40%	[1.20]	mg/L
Ni 232.003†	29541.2	107.57	0.36%	[1.20]	mg/L
P 213.617*†	88583.0	341.95	0.39%	[12.0]	mg/L
P 214.914†	45187.7	16.88	0.04%	[12.0]	mg/L
Pb 217.000†	16295.2	127.22	0.78%	[7.50]	mg/L
Pb 220.353*†	125106.0	295.98	0.24%	[7.50]	mg/L
Sb 206†	39548.7	70.73	0.18%	[9.0]	mg/L
Sb 206.836†	41809.1	228.20	0.55%	[9.0]	mg/L
Sb 217.582*†	40375.8	135.51	0.34%	[9.0]	mg/L
Se 196.026*†	9287.6	30.21	0.33%	[3.0]	mg/L
Se 203.985†	10784.7	61.81	0.57%	[3.0]	mg/L
Si 251.611*†	619650.3	253.52	0.04%	[12.0]	mg/L
Si 288.158†	276031.8	179.80	0.07%	[12.0]	mg/L
Sn 189.927*†	69871.0	150.80	0.22%	[6.0]	mg/L
Sn 242.170†	39215.0	485.32	1.24%	[6.0]	mg/L

Return to Contents

Sr 407.771*†	436634.2	468.15	0.11%	[0.60]	mg/L
Sr 421.552†	6877125.0	67702.83	0.98%	[0.60]	mg/L
Ti 334.940†	809289.4	5050.25	0.62%	[1.20]	mg/L
Ti 336.121*†	574323.5	2969.26	0.52%	[1.20]	mg/L
Tl†	8428.2	48.68	0.58%	[3.0]	mg/L
Tl 190.801*†	10069.6	21.64	0.21%	[3.0]	mg/L
Tl 351.924†	14850.0	69.60	0.47%	[3.0]	mg/L
V 292.402*†	406911.2	1798.51	0.44%	[3.75]	mg/L
V 310.230†	766140.7	3508.44	0.46%	[3.75]	mg/L
Zn 202.548†	513706.7	3009.44	0.59%	[5.0]	mg/L
Zn 206.200*†	360703.9	2101.63	0.58%	[5.0]	mg/L
Zn 213.857*†	766917.7	4219.49	0.55%	[5.0]	mg/L

Return to Contents

Sequence No.: 3
Sample ID: CCV= STD3x0.5
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/12/2013 2:24:38 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV= STD3x0.5

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Ho 339.898	188912.1	4.793	mg/L	0.0222				0.46%
Ho 345.600	306917.0	4.816	mg/L	0.0203				0.42%
Tb 350.917	135985.9	4.860	mg/L	0.0198				0.41%
Tb 384.873	79696.1	4.845	mg/L	0.0405				0.84%
Y 324.227	1129708.0	4.902	mg/L	0.0165				0.34%
Y 371.029	2256603.7	4.860	mg/L	0.0331				0.68%
Ag 328.068*†	52342.0	0.3653	mg/L	0.00169	0.3653	mg/L	0.00169	0.46%
QC value within limits for Ag 328.068* Recovery = 97.41%								
Ag 338.289†	27115.7	0.3597	mg/L	0.00283	0.3597	mg/L	0.00283	0.79%
Al 308.215*†	266192.2	13.07	mg/L	0.015	13.07	mg/L	0.015	0.11%
QC value within limits for Al 308.215* Recovery = 96.82%								
Al 396.153†	1648049.5	13.16	mg/L	0.030	13.16	mg/L	0.030	0.23%
As 188.979†	20980.8	3.639	mg/L	0.0421	3.639	mg/L	0.0421	1.16%
QC value within limits for As 188.979 Recovery = 97.03%								
As 193.696*†	14905.0	3.653	mg/L	0.0290	3.653	mg/L	0.0290	0.79%
QC value within limits for As 193.696* Recovery = 97.41%								
B 249.677*†	135741.4	3.664	mg/L	0.0152	3.664	mg/L	0.0152	0.41%
QC value within limits for B 249.677* Recovery = 97.70%								
B 249.772†	321260.2	3.653	mg/L	0.0002	3.653	mg/L	0.0002	0.00%
Ba 233.527*†	1370983.5	7.452	mg/L	0.0191	7.452	mg/L	0.0191	0.26%
QC value within limits for Ba 233.527* Recovery = 99.37%								
Ba 455.403†	1705569.6	7.454	mg/L	0.0024	7.454	mg/L	0.0024	0.03%
Be 313.042*†	2922908.5	0.5590	mg/L	0.00084	0.5590	mg/L	0.00084	0.15%
QC value within limits for Be 313.042* Recovery = 99.37%								
Be 313.107†	1495226.5	0.5585	mg/L	0.00063	0.5585	mg/L	0.00063	0.11%
Ca 317.933*†	132245.3	29.63	mg/L	0.111	29.63	mg/L	0.111	0.38%
QC value within limits for Ca 317.933* Recovery = 98.75%								
Ca 422.673†	272740.3	29.31	mg/L	0.022	29.31	mg/L	0.022	0.07%
Cd 226.502*†	122388.0	0.7508	mg/L	0.00116	0.7508	mg/L	0.00116	0.15%
QC value within limits for Cd 226.502* Recovery = 100.11%								
Cd 228.802†	52220.7	0.7375	mg/L	0.00759	0.7375	mg/L	0.00759	1.03%
Co 228.616*†	94988.6	1.856	mg/L	0.0177	1.856	mg/L	0.0177	0.95%
QC value within limits for Co 228.616* Recovery = 99.00%								
Co 230.786†	92590.7	1.858	mg/L	0.0192	1.858	mg/L	0.0192	1.04%
Cr 267.716*†	53151.8	0.5841	mg/L	0.00629	0.5841	mg/L	0.00629	1.08%
QC value within limits for Cr 267.716* Recovery = 97.35%								
Cr 357.869†	35588.2	0.5743	mg/L	0.00663	0.5743	mg/L	0.00663	1.15%
Cu 324.752*†	130406.0	0.9243	mg/L	0.00153	0.9243	mg/L	0.00153	0.17%
QC value within limits for Cu 324.752* Recovery = 98.59%								
Cu 327.393†	107634.5	0.9213	mg/L	0.00292	0.9213	mg/L	0.00292	0.32%
Fe 239.562†	5767.3	3.691	mg/L	0.0048	3.691	mg/L	0.0048	0.13%
Fe 259.939†	8800.1	3.668	mg/L	0.0255	3.668	mg/L	0.0255	0.69%
Fe 273.955*†	118610.1	3.747	mg/L	0.0066	3.747	mg/L	0.0066	0.18%
QC value within limits for Fe 273.955* Recovery = 99.93%								
K 766.490*†	36006.1	24.67	mg/L	0.040	24.67	mg/L	0.040	0.16%
QC value within limits for K 766.490* Recovery = 91.37%								
Mg 279.077*†	94733.6	7.524	mg/L	0.0093	7.524	mg/L	0.0093	0.12%
QC value within limits for Mg 279.077* Recovery = 100.31%								
Mg 280.271†	254434.7	7.414	mg/L	0.0236	7.414	mg/L	0.0236	0.32%
Mn 257.610*†	437770.8	0.7500	mg/L	0.00231	0.7500	mg/L	0.00231	0.31%
QC value within limits for Mn 257.610* Recovery = 100.00%								
Mn 259.372†	335814.0	0.7448	mg/L	0.00122	0.7448	mg/L	0.00122	0.16%
Mo 202.031*†	13704.3	0.5900	mg/L	0.00877	0.5900	mg/L	0.00877	1.49%
QC value within limits for Mo 202.031* Recovery = 98.34%								
Mo 203.845†	9915.1	0.5913	mg/L	0.00462	0.5913	mg/L	0.00462	0.78%

Return to Contents

Na 330.237†	20029.6	33.58	mg/L	0.216	33.58	mg/L	0.216	0.64%
Na 589.592*†	202909.1	35.64	mg/L	0.024	35.64	mg/L	0.024	0.07%
QC value within limits for Na 589.592* Recovery = 98.99%								
Ni 231.604*†	38307.3	0.5908	mg/L	0.00580	0.5908	mg/L	0.00580	0.98%
QC value within limits for Ni 231.604* Recovery = 98.46%								
Ni 232.003†	14394.3	0.5847	mg/L	0.00551	0.5847	mg/L	0.00551	0.94%
P 213.617*†	43039.0	5.830	mg/L	0.0830	5.830	mg/L	0.0830	1.42%
QC value within limits for P 213.617* Recovery = 97.17%								
P 214.914†	22073.6	5.862	mg/L	0.0557	5.862	mg/L	0.0557	0.95%
Pb 217.000†	7884.5	3.629	mg/L	0.0510	3.629	mg/L	0.0510	1.40%
Pb 220.353*†	61321.7	3.676	mg/L	0.0403	3.676	mg/L	0.0403	1.10%
QC value within limits for Pb 220.353* Recovery = 98.03%								
Sb 206†	19380.1	4.410	mg/L	0.0601	4.410	mg/L	0.0601	1.36%
Sb 206.836†	20483.5	4.409	mg/L	0.0044	4.409	mg/L	0.0044	0.10%
Sb 217.582*†	19749.3	4.402	mg/L	0.0421	4.402	mg/L	0.0421	0.96%
QC value within limits for Sb 217.582* Recovery = 97.83%								
Se 196.026*†	4562.4	1.474	mg/L	0.0007	1.474	mg/L	0.0007	0.05%
QC value within limits for Se 196.026* Recovery = 98.25%								
Se 203.985†	5307.5	1.476	mg/L	0.0377	1.476	mg/L	0.0377	2.55%
Si 251.611*†	305502.8	5.916	mg/L	0.0395	5.916	mg/L	0.0395	0.67%
QC value within limits for Si 251.611* Recovery = 98.60%								
Si 288.158†	135499.6	5.803	mg/L	0.0350	5.803	mg/L	0.0350	0.60%
Sn 189.927*†	34114.1	2.929	mg/L	0.0387	2.929	mg/L	0.0387	1.32%
QC value within limits for Sn 189.927* Recovery = 97.65%								
Sn 242.170†	19213.2	2.940	mg/L	0.0353	2.940	mg/L	0.0353	1.20%
Sr 407.771*†	213475.8	0.2933	mg/L	0.00007	0.2933	mg/L	0.00007	0.03%
QC value within limits for Sr 407.771* Recovery = 97.78%								
Sr 421.552†	3463598.9	0.3022	mg/L	0.00131	0.3022	mg/L	0.00131	0.43%
Ti 334.940†	401709.3	0.5956	mg/L	0.00081	0.5956	mg/L	0.00081	0.14%
Ti 336.121*†	284453.7	0.5943	mg/L	0.00016	0.5943	mg/L	0.00016	0.03%
QC value within limits for Ti 336.121* Recovery = 99.06%								
Tl†	4199.1	1.479	mg/L	0.0216	1.479	mg/L	0.0216	1.46%
Tl 190.801*†	4969.2	1.480	mg/L	0.0202	1.480	mg/L	0.0202	1.37%
QC value within limits for Tl 190.801* Recovery = 98.70%								
Tl 351.924†	7073.4	1.429	mg/L	0.0139	1.429	mg/L	0.0139	0.98%
V 292.402*†	200550.3	1.849	mg/L	0.0088	1.849	mg/L	0.0088	0.48%
QC value within limits for V 292.402* Recovery = 98.61%								
V 310.230†	377543.1	1.859	mg/L	0.0037	1.859	mg/L	0.0037	0.20%
Zn 202.548†	256146.1	2.497	mg/L	0.0118	2.497	mg/L	0.0118	0.47%
Zn 206.200*†	178965.4	2.483	mg/L	0.0100	2.483	mg/L	0.0100	0.40%
QC value within limits for Zn 206.200* Recovery = 99.33%								
Zn 213.857*†	377907.9	2.466	mg/L	0.0040	2.466	mg/L	0.0040	0.16%
QC value within limits for Zn 213.857* Recovery = 98.64%								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 5
Sample ID: CCB-1 R04231301
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 11/12/2013 2:27:24 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB-1 R04231301

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: CCB-1 R04231301

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	196210.4	4.979	mg/L	0.0242				0.49%
Ho 345.600	318344.4	4.995	mg/L	0.0215				0.43%
Tb 350.917	139517.6	4.987	mg/L	0.0245				0.49%
Tb 384.873	81930.2	4.981	mg/L	0.0278				0.56%
Y 324.227	1155658.7	5.014	mg/L	0.0110				0.22%
Y 371.029	2309982.0	4.975	mg/L	0.0310				0.62%
Ag 328.068*†	59.1	0.0004	mg/L	0.00047	0.0004	mg/L	0.00047	113.15%
QC value within limits for Ag 328.068* Recovery = Not calculated								
Ag 338.289†	-65.0	-0.0009	mg/L	0.00015	-0.0009	mg/L	0.00015	17.10%
Al 308.215*†	-111.3	-0.0055	mg/L	0.00020	-0.0055	mg/L	0.00020	3.58%
Al 396.153†	-24.3	-0.0002	mg/L	0.00018	-0.0002	mg/L	0.00018	93.01%
As 188.979†	-4.2	-0.0007	mg/L	0.00352	-0.0007	mg/L	0.00352	488.66%
As 193.696*†	-0.1	0.0000	mg/L	0.00084	0.0000	mg/L	0.00084	>999.9%
B 249.677*†	291.7	0.0079	mg/L	0.00024	0.0079	mg/L	0.00024	2.98%
B 249.772†	675.9	0.0077	mg/L	0.00059	0.0077	mg/L	0.00059	7.65%
Ba 233.527*†	11.2	0.0001	mg/L	0.00005	0.0001	mg/L	0.00005	76.78%
Ba 455.403†	41.5	0.0002	mg/L	0.00017	0.0002	mg/L	0.00017	91.54%
Be 313.042*†	-69.2	0.0000	mg/L	0.00002	0.0000	mg/L	0.00002	161.30%
Be 313.107†	-49.2	0.0000	mg/L	0.00000	0.0000	mg/L	0.00000	21.52%
Ca 317.933*†	4.9	0.0011	mg/L	0.00116	0.0011	mg/L	0.00116	106.05%
Ca 422.673†	24.4	0.0026	mg/L	0.00223	0.0026	mg/L	0.00223	84.78%
Cd 226.502*†	-21.8	-0.0001	mg/L	0.00004	-0.0001	mg/L	0.00004	32.17%
Cd 228.802†	10.3	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	15.65%
Co 228.616*†	-9.8	-0.0002	mg/L	0.00034	-0.0002	mg/L	0.00034	176.98%
Co 230.786†	-19.1	-0.0004	mg/L	0.00001	-0.0004	mg/L	0.00001	2.24%
Cr 267.716*†	-0.1	0.0000	mg/L	0.00036	0.0000	mg/L	0.00036	>999.9%
Cr 357.869†	-6.3	-0.0001	mg/L	0.00095	-0.0001	mg/L	0.00095	977.03%
Cu 324.752*†	124.9	0.0009	mg/L	0.00013	0.0009	mg/L	0.00013	14.33%
Cu 327.393†	164.3	0.0014	mg/L	0.00027	0.0014	mg/L	0.00027	19.22%
Fe 239.562†	-3.5	-0.0022	mg/L	0.00441	-0.0022	mg/L	0.00441	197.24%
Fe 259.939†	-3.3	-0.0014	mg/L	0.00214	-0.0014	mg/L	0.00214	153.98%
Fe 273.955*†	1.6	0.0001	mg/L	0.00009	0.0001	mg/L	0.00009	173.30%
K 766.490*†	74.0	0.0507	mg/L	0.01773	0.0507	mg/L	0.01773	34.95%
Mg 279.077*†	11.7	0.0009	mg/L	0.00168	0.0009	mg/L	0.00168	178.03%
Mg 280.271†	-1.5	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	27.39%
Mn 257.610*†	-26.9	0.0000	mg/L	0.00003	0.0000	mg/L	0.00003	73.88%
Mn 259.372†	-18.5	0.0000	mg/L	0.00005	0.0000	mg/L	0.00005	115.90%
Mo 202.031*†	2.3	0.0001	mg/L	0.00020	0.0001	mg/L	0.00020	193.84%
Mo 203.845†	2.4	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	12.28%
Na 330.237†	26.4	0.0442	mg/L	0.22824	0.0442	mg/L	0.22824	515.89%
Na 589.592*†	226.4	0.0398	mg/L	0.00148	0.0398	mg/L	0.00148	3.71%
Ni 231.604*†	12.4	0.0002	mg/L	0.00003	0.0002	mg/L	0.00003	16.89%
Ni 232.003†	-30.5	-0.0012	mg/L	0.00020	-0.0012	mg/L	0.00020	16.23%
P 213.617*†	11.6	0.0016	mg/L	0.00137	0.0016	mg/L	0.00137	87.28%
P 214.914†	-9.6	-0.0025	mg/L	0.00114	-0.0025	mg/L	0.00114	44.88%
Pb 217.000†	-17.0	-0.0078	mg/L	0.00272	-0.0078	mg/L	0.00272	34.90%
Pb 220.353*†	12.7	0.0008	mg/L	0.00064	0.0008	mg/L	0.00064	84.89%
Sb 206†	18.2	0.0041	mg/L	0.00055	0.0041	mg/L	0.00055	13.35%
Sb 206.836†	33.5	0.0072	mg/L	0.00170	0.0072	mg/L	0.00170	23.54%
Sb 217.582*†	9.7	0.0022	mg/L	0.00068	0.0022	mg/L	0.00068	31.45%
Se 196.026*†	3.6	0.0012	mg/L	0.00196	0.0012	mg/L	0.00196	167.22%
Se 203.985†	-3.4	-0.0009	mg/L	0.00036	-0.0009	mg/L	0.00036	38.36%
Si 251.611*†	119.2	0.0023	mg/L	0.00141	0.0023	mg/L	0.00141	60.91%
Si 288.158†	69.0	0.0030	mg/L	0.00108	0.0030	mg/L	0.00108	36.34%
Sn 189.927*†	31.7	0.0027	mg/L	0.00114	0.0027	mg/L	0.00114	41.99%

Return to Contents

Sn 242.170†	-41.7	-0.0064 mg/L	0.02100	-0.0064 mg/L	0.02100	328.76%
Sr 407.771*†	4.2	0.0000 mg/L	0.00002	0.0000 mg/L	0.00002	322.47%
Sr 421.552†	-16.3	0.0000 mg/L	0.00000	0.0000 mg/L	0.00000	216.80%
Ti 334.940†	111.2	0.0002 mg/L	0.00006	0.0002 mg/L	0.00006	37.34%
Ti 336.121*†	-9.9	0.0000 mg/L	0.00016	0.0000 mg/L	0.00016	770.75%
Tl†	2.3	0.0008 mg/L	0.00190	0.0008 mg/L	0.00190	236.17%
Tl 190.801*†	0.2	0.0000 mg/L	0.00027	0.0000 mg/L	0.00027	564.32%
Tl 351.924†	5.0	0.0010 mg/L	0.00185	0.0010 mg/L	0.00185	184.68%
V 292.402*†	38.6	0.0004 mg/L	0.00002	0.0004 mg/L	0.00002	5.64%
V 310.230†	570.9	0.0028 mg/L	0.00371	0.0028 mg/L	0.00371	132.62%
Zn 202.548†	-6.5	-0.0001 mg/L	0.00007	-0.0001 mg/L	0.00007	103.65%
Zn 206.200*†	6.7	0.0001 mg/L	0.00007	0.0001 mg/L	0.00007	79.79%
Zn 213.857*†	14.7	0.0001 mg/L	0.00004	0.0001 mg/L	0.00004	46.53%

All analyte(s) passed QC.

Return to Contents

Sequence No.: 1
Sample ID: CCV= STD3x0.5
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/12/2013 3:15:46 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV= STD3x0.5

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Ho 339.898	186961.3	4.744	mg/L	0.0174				0.37%
Ho 345.600	302360.5	4.744	mg/L	0.0154				0.32%
Tb 350.917	134611.7	4.811	mg/L	0.0152				0.32%
Tb 384.873	79052.9	4.806	mg/L	0.0157				0.33%
Y 324.227	1117053.1	4.847	mg/L	0.0148				0.31%
Y 371.029	2258607.1	4.864	mg/L	0.0191				0.39%
Ag 328.068*†	52685.2	0.3675	mg/L	0.00007	0.3675	mg/L	0.00007	0.02%
QC value within limits for Ag 328.068* Recovery = 98.01%								
Ag 338.289†	27519.7	0.3651	mg/L	0.00056	0.3651	mg/L	0.00056	0.15%
Al 308.215*†	266331.6	13.08	mg/L	0.004	13.08	mg/L	0.004	0.03%
QC value within limits for Al 308.215* Recovery = 96.87%								
Al 396.153†	1674454.7	13.37	mg/L	0.009	13.37	mg/L	0.009	0.06%
As 188.979†	21229.1	3.682	mg/L	0.0091	3.682	mg/L	0.0091	0.25%
QC value within limits for As 188.979 Recovery = 98.18%								
As 193.696*†	15045.1	3.687	mg/L	0.0206	3.687	mg/L	0.0206	0.56%
QC value within limits for As 193.696* Recovery = 98.32%								
B 249.677*†	135888.8	3.668	mg/L	0.0098	3.668	mg/L	0.0098	0.27%
QC value within limits for B 249.677* Recovery = 97.81%								
B 249.772†	320365.3	3.643	mg/L	0.0062	3.643	mg/L	0.0062	0.17%
Ba 233.527*†	1396709.8	7.592	mg/L	0.0106	7.592	mg/L	0.0106	0.14%
QC value within limits for Ba 233.527* Recovery = 101.23%								
Ba 455.403†	1689142.3	7.382	mg/L	0.0881	7.382	mg/L	0.0881	1.19%
Be 313.042*†	2933920.7	0.5611	mg/L	0.00074	0.5611	mg/L	0.00074	0.13%
QC value within limits for Be 313.042* Recovery = 99.75%								
Be 313.107†	1509673.9	0.5639	mg/L	0.00075	0.5639	mg/L	0.00075	0.13%
Ca 317.933*†	132346.3	29.65	mg/L	0.293	29.65	mg/L	0.293	0.99%
QC value within limits for Ca 317.933* Recovery = 98.83%								
Ca 422.673†	270660.5	29.08	mg/L	0.260	29.08	mg/L	0.260	0.89%
Cd 226.502*†	123144.9	0.7554	mg/L	0.00002	0.7554	mg/L	0.00002	0.00%
QC value within limits for Cd 226.502* Recovery = 100.73%								
Cd 228.802†	52218.1	0.7374	mg/L	0.00151	0.7374	mg/L	0.00151	0.20%
Co 228.616*†	95473.4	1.866	mg/L	0.0041	1.866	mg/L	0.0041	0.22%
QC value within limits for Co 228.616* Recovery = 99.51%								
Co 230.786†	92811.3	1.862	mg/L	0.0037	1.862	mg/L	0.0037	0.20%
Cr 267.716*†	54303.0	0.5968	mg/L	0.00047	0.5968	mg/L	0.00047	0.08%
QC value within limits for Cr 267.716* Recovery = 99.46%								
Cr 357.869†	35808.7	0.5778	mg/L	0.00263	0.5778	mg/L	0.00263	0.45%
Cu 324.752*†	130230.3	0.9231	mg/L	0.00130	0.9231	mg/L	0.00130	0.14%
QC value within limits for Cu 324.752* Recovery = 98.47%								
Cu 327.393†	108441.6	0.9282	mg/L	0.00012	0.9282	mg/L	0.00012	0.01%
Fe 239.562†	5741.3	3.674	mg/L	0.0622	3.674	mg/L	0.0622	1.69%
Fe 259.939†	8653.1	3.607	mg/L	0.0921	3.607	mg/L	0.0921	2.55%
Fe 273.955*†	119108.6	3.763	mg/L	0.0006	3.763	mg/L	0.0006	0.02%
QC value within limits for Fe 273.955* Recovery = 100.35%								
K 766.490*†	35736.3	24.48	mg/L	0.306	24.48	mg/L	0.306	1.25%
QC value within limits for K 766.490* Recovery = 90.68%								
Mg 279.077*†	94425.7	7.499	mg/L	0.0012	7.499	mg/L	0.0012	0.02%
QC value within limits for Mg 279.077* Recovery = 99.99%								
Mg 280.271†	251368.7	7.324	mg/L	0.0923	7.324	mg/L	0.0923	1.26%
Mn 257.610*†	435207.6	0.7456	mg/L	0.00036	0.7456	mg/L	0.00036	0.05%
QC value within limits for Mn 257.610* Recovery = 99.41%								
Mn 259.372†	334787.2	0.7425	mg/L	0.00038	0.7425	mg/L	0.00038	0.05%
Mo 202.031*†	13767.0	0.5927	mg/L	0.00358	0.5927	mg/L	0.00358	0.60%
QC value within limits for Mo 202.031* Recovery = 98.79%								
Mo 203.845†	9897.5	0.5902	mg/L	0.00019	0.5902	mg/L	0.00019	0.03%

Return to Contents

Na 330.237†	19864.9	33.31	mg/L	0.128	33.31 mg/L	0.128	0.38%
Na 589.592*†	201023.9	35.31	mg/L	0.309	35.31 mg/L	0.309	0.88%
QC value within limits for Na 589.592* Recovery = 98.07%							
Ni 231.604*†	38885.7	0.5997	mg/L	0.00187	0.5997 mg/L	0.00187	0.31%
QC value within limits for Ni 231.604* Recovery = 99.95%							
Ni 232.003†	14535.5	0.5904	mg/L	0.00079	0.5904 mg/L	0.00079	0.13%
Pb 217.000†	7989.6	3.677	mg/L	0.0272	3.677 mg/L	0.0272	0.74%
Pb 220.353*†	61499.1	3.687	mg/L	0.0063	3.687 mg/L	0.0063	0.17%
QC value within limits for Pb 220.353* Recovery = 98.32%							
Sb 206†	19341.1	4.401	mg/L	0.0026	4.401 mg/L	0.0026	0.06%
Sb 206.836†	20518.0	4.417	mg/L	0.0864	4.417 mg/L	0.0864	1.96%
Sb 217.582*†	19854.0	4.426	mg/L	0.0109	4.426 mg/L	0.0109	0.25%
QC value within limits for Sb 217.582* Recovery = 98.35%							
Se 196.026*†	4549.9	1.470	mg/L	0.0024	1.470 mg/L	0.0024	0.16%
QC value within limits for Se 196.026* Recovery = 97.98%							
Se 203.985†	5260.5	1.463	mg/L	0.0071	1.463 mg/L	0.0071	0.49%
Si 251.611*†	304374.3	5.894	mg/L	0.0177	5.894 mg/L	0.0177	0.30%
QC value within limits for Si 251.611* Recovery = 98.24%							
Si 288.158†	136259.7	5.835	mg/L	0.0153	5.835 mg/L	0.0153	0.26%
Tl†	4176.3	1.471	mg/L	0.0086	1.471 mg/L	0.0086	0.58%
Tl 190.801*†	4994.4	1.488	mg/L	0.0040	1.488 mg/L	0.0040	0.27%
QC value within limits for Tl 190.801* Recovery = 99.20%							
Tl 351.924†	7074.5	1.429	mg/L	0.0030	1.429 mg/L	0.0030	0.21%
V 292.402*†	202370.6	1.866	mg/L	0.0011	1.866 mg/L	0.0011	0.06%
QC value within limits for V 292.402* Recovery = 99.50%							
V 310.230†	381781.7	1.880	mg/L	0.0024	1.880 mg/L	0.0024	0.13%
Zn 202.548†	255377.0	2.490	mg/L	0.0026	2.490 mg/L	0.0026	0.11%
Zn 206.200*†	178559.3	2.478	mg/L	0.0029	2.478 mg/L	0.0029	0.12%
QC value within limits for Zn 206.200* Recovery = 99.10%							
Zn 213.857*†	380044.9	2.480	mg/L	0.0020	2.480 mg/L	0.0020	0.08%
QC value within limits for Zn 213.857* Recovery = 99.20%							

All analyte(s) passed QC.

Return to Contents

Sequence No.: 3
Sample ID: CCB-1R04231301
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 11/12/2013 3:18:30 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB-1R04231301

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: CCB-1R04231301

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	193673.3	4.914	mg/L	0.0485				0.99%
Ho 345.600	312614.8	4.905	mg/L	0.0554				1.13%
Tb 350.917	137347.3	4.909	mg/L	0.0493				1.00%
Tb 384.873	80991.6	4.923	mg/L	0.0505				1.02%
Y 324.227	1132310.8	4.913	mg/L	0.0613				1.25%
Y 371.029	2284023.5	4.919	mg/L	0.0514				1.04%
Ag 328.068*†	-17.1	-0.0001	mg/L	0.00028	-0.0001	mg/L	0.00028	235.93%
QC value within limits for Ag 328.068* Recovery = Not calculated								
Ag 338.289†	-26.8	-0.0004	mg/L	0.00058	-0.0004	mg/L	0.00058	165.64%
Al 308.215*†	86.1	0.0042	mg/L	0.00230	0.0042	mg/L	0.00230	54.35%
QC value within limits for Al 308.215* Recovery = Not calculated								
Al 396.153†	133.9	0.0011	mg/L	0.00142	0.0011	mg/L	0.00142	132.34%
As 188.979†	-17.4	-0.0030	mg/L	0.00179	-0.0030	mg/L	0.00179	59.55%
As 193.696*†	2.0	0.0005	mg/L	0.00314	0.0005	mg/L	0.00314	626.85%
QC value within limits for As 193.696* Recovery = Not calculated								
B 249.677*†	166.1	0.0045	mg/L	0.00096	0.0045	mg/L	0.00096	21.41%
QC value within limits for B 249.677* Recovery = Not calculated								
B 249.772†	376.7	0.0043	mg/L	0.00061	0.0043	mg/L	0.00061	14.23%
Ba 233.527*†	10.8	0.0001	mg/L	0.00009	0.0001	mg/L	0.00009	145.02%
QC value within limits for Ba 233.527* Recovery = Not calculated								
Ba 455.403†	-2.8	0.0000	mg/L	0.00006	0.0000	mg/L	0.00006	512.14%
Be 313.042*†	-104.3	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	66.56%
QC value within limits for Be 313.042* Recovery = Not calculated								
Be 313.107†	-115.5	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	31.07%
Ca 317.933*†	-5.5	-0.0012	mg/L	0.00180	-0.0012	mg/L	0.00180	145.92%
QC value within limits for Ca 317.933* Recovery = Not calculated								
Ca 422.673†	14.1	0.0015	mg/L	0.00365	0.0015	mg/L	0.00365	241.65%
Cd 226.502*†	-23.4	-0.0001	mg/L	0.00008	-0.0001	mg/L	0.00008	55.63%
QC value within limits for Cd 226.502* Recovery = Not calculated								
Cd 228.802†	-9.4	-0.0001	mg/L	0.00006	-0.0001	mg/L	0.00006	45.83%
Co 228.616*†	2.1	0.0000	mg/L	0.00041	0.0000	mg/L	0.00041	>999.9%
QC value within limits for Co 228.616* Recovery = Not calculated								
Co 230.786†	4.6	0.0001	mg/L	0.00005	0.0001	mg/L	0.00005	54.83%
Cr 267.716*†	21.6	0.0002	mg/L	0.00028	0.0002	mg/L	0.00028	118.33%
QC value within limits for Cr 267.716* Recovery = Not calculated								
Cr 357.869†	-2.5	0.0000	mg/L	0.00065	0.0000	mg/L	0.00065	>999.9%
Cu 324.752*†	288.6	0.0020	mg/L	0.00015	0.0020	mg/L	0.00015	7.21%
QC value within limits for Cu 324.752* Recovery = Not calculated								
Cu 327.393†	87.5	0.0007	mg/L	0.00018	0.0007	mg/L	0.00018	24.69%
Fe 239.562†	-2.6	-0.0017	mg/L	0.00135	-0.0017	mg/L	0.00135	79.84%
Fe 259.939†	-1.0	-0.0004	mg/L	0.00099	-0.0004	mg/L	0.00099	246.74%
Fe 273.955*†	54.1	0.0017	mg/L	0.00074	0.0017	mg/L	0.00074	43.54%
QC value within limits for Fe 273.955* Recovery = Not calculated								
K 766.490*†	16.9	0.0116	mg/L	0.00127	0.0116	mg/L	0.00127	11.01%
QC value within limits for K 766.490* Recovery = Not calculated								
Mg 279.077*†	-137.8	-0.0110	mg/L	0.00009	-0.0110	mg/L	0.00009	0.84%
QC value within limits for Mg 279.077* Recovery = Not calculated								
Mg 280.271†	-5.1	-0.0001	mg/L	0.00008	-0.0001	mg/L	0.00008	51.89%
Mn 257.610*†	-61.4	-0.0001	mg/L	0.00004	-0.0001	mg/L	0.00004	39.14%
QC value within limits for Mn 257.610* Recovery = Not calculated								
Mn 259.372†	-59.3	-0.0001	mg/L	0.00004	-0.0001	mg/L	0.00004	32.83%
Mo 202.031*†	7.2	0.0003	mg/L	0.00007	0.0003	mg/L	0.00007	21.92%
QC value within limits for Mo 202.031* Recovery = Not calculated								
Mo 203.845†	-9.6	-0.0006	mg/L	0.00087	-0.0006	mg/L	0.00087	151.69%
Na 330.237†	22.7	0.0381	mg/L	0.06342	0.0381	mg/L	0.06342	166.38%

Return to Contents

Na 589.592*†	-693.9	-0.1219	mg/L	0.00287	-0.1219	mg/L	0.00287 2.36%
QC value less than the lower limit for Na 589.592* Recovery = Not calculated							
Ni 231.604*†	24.0	0.0004	mg/L	0.00055	0.0004	mg/L	0.00055 149.19%
QC value within limits for Ni 231.604* Recovery = Not calculated							
Ni 232.003†	-43.5	-0.0018	mg/L	0.00013	-0.0018	mg/L	0.00013 7.09%
Pb 217.000†	-16.1	-0.0074	mg/L	0.00588	-0.0074	mg/L	0.00588 79.11%
Pb 220.353*†	-2.2	-0.0001	mg/L	0.00141	-0.0001	mg/L	0.00141 >999.9%
QC value within limits for Pb 220.353* Recovery = Not calculated							
Sb 206†	3.2	0.0007	mg/L	0.00241	0.0007	mg/L	0.00241 332.31%
Sb 206.836†	22.2	0.0048	mg/L	0.00491	0.0048	mg/L	0.00491 102.94%
Sb 217.582*†	-3.8	-0.0009	mg/L	0.00357	-0.0009	mg/L	0.00357 417.82%
QC value within limits for Sb 217.582* Recovery = Not calculated							
Se 196.026*†	3.2	0.0010	mg/L	0.00157	0.0010	mg/L	0.00157 152.09%
QC value within limits for Se 196.026* Recovery = Not calculated							
Se 203.985†	-5.7	-0.0016	mg/L	0.00195	-0.0016	mg/L	0.00195 122.18%
Si 251.611*†	461.4	0.0089	mg/L	0.00100	0.0089	mg/L	0.00100 11.24%
QC value within limits for Si 251.611* Recovery = Not calculated							
Si 288.158†	245.2	0.0106	mg/L	0.00067	0.0106	mg/L	0.00067 6.33%
Tl†	-4.0	-0.0014	mg/L	0.00049	-0.0014	mg/L	0.00049 34.18%
Tl 190.801*†	0.2	0.0001	mg/L	0.00095	0.0001	mg/L	0.00095 >999.9%
QC value within limits for Tl 190.801* Recovery = Not calculated							
Tl 351.924†	-17.3	-0.0035	mg/L	0.00773	-0.0035	mg/L	0.00773 221.50%
V 292.402*†	100.5	0.0009	mg/L	0.00051	0.0009	mg/L	0.00051 55.37%
QC value within limits for V 292.402* Recovery = Not calculated							
V 310.230†	1524.4	0.0075	mg/L	0.00424	0.0075	mg/L	0.00424 56.82%
Zn 202.548†	-19.1	-0.0002	mg/L	0.00011	-0.0002	mg/L	0.00011 57.81%
Zn 206.200*†	-3.5	0.0000	mg/L	0.00005	0.0000	mg/L	0.00005 98.96%
QC value within limits for Zn 206.200* Recovery = Not calculated							
Zn 213.857*†	1.1	0.0000	mg/L	0.00011	0.0000	mg/L	0.00011 >999.9%
QC value within limits for Zn 213.857* Recovery = Not calculated							

QC Failed. Continue with analysis.

Return to Contents

Sequence No.: 11
Sample ID: CCV= STD3x0.5
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/12/2013 3:32:40 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV= STD3x0.5

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	185145.1	4.698	mg/L	0.0253				0.54%
Ho 345.600	300204.2	4.710	mg/L	0.0275				0.58%
Tb 350.917	133593.4	4.775	mg/L	0.0307				0.64%
Tb 384.873	77993.0	4.741	mg/L	0.0266				0.56%
Y 324.227	1113386.5	4.831	mg/L	0.0269				0.56%
Y 371.029	2227778.8	4.798	mg/L	0.0212				0.44%
Ag 328.068*†	52707.3	0.3679	mg/L	0.00020	0.3679	mg/L	0.00020	0.05%
QC value within limits for Ag 328.068* Recovery = 98.09%								
Ag 338.289†	27508.1	0.3649	mg/L	0.00372	0.3649	mg/L	0.00372	1.02%
Al 308.215*†	267993.4	13.16	mg/L	0.020	13.16	mg/L	0.020	0.15%
QC value within limits for Al 308.215* Recovery = 97.47%								
Al 396.153†	1680858.1	13.42	mg/L	0.017	13.42	mg/L	0.017	0.12%
As 188.979†	21473.4	3.724	mg/L	0.0365	3.724	mg/L	0.0365	0.98%
QC value within limits for As 188.979 Recovery = 99.31%								
As 193.696*†	15088.9	3.698	mg/L	0.0255	3.698	mg/L	0.0255	0.69%
QC value within limits for As 193.696* Recovery = 98.61%								
B 249.677*†	135907.3	3.668	mg/L	0.0224	3.668	mg/L	0.0224	0.61%
QC value within limits for B 249.677* Recovery = 97.82%								
B 249.772†	324027.2	3.684	mg/L	0.0169	3.684	mg/L	0.0169	0.46%
Ba 233.527*†	1393626.8	7.576	mg/L	0.0200	7.576	mg/L	0.0200	0.26%
QC value within limits for Ba 233.527* Recovery = 101.01%								
Ba 455.403†	1744081.4	7.622	mg/L	0.0182	7.622	mg/L	0.0182	0.24%
Be 313.042*†	2957677.4	0.5656	mg/L	0.00146	0.5656	mg/L	0.00146	0.26%
QC value within limits for Be 313.042* Recovery = 100.55%								
Be 313.107†	1524167.3	0.5694	mg/L	0.00122	0.5694	mg/L	0.00122	0.21%
Ca 317.933*†	134884.6	30.22	mg/L	0.047	30.22	mg/L	0.047	0.16%
QC value within limits for Ca 317.933* Recovery = 100.73%								
Ca 422.673†	279093.7	29.99	mg/L	0.040	29.99	mg/L	0.040	0.13%
Cd 226.502*†	123828.0	0.7596	mg/L	0.00120	0.7596	mg/L	0.00120	0.16%
QC value within limits for Cd 226.502* Recovery = 101.28%								
Cd 228.802†	52907.0	0.7472	mg/L	0.00083	0.7472	mg/L	0.00083	0.11%
Co 228.616*†	96170.8	1.879	mg/L	0.0036	1.879	mg/L	0.0036	0.19%
QC value within limits for Co 228.616* Recovery = 100.24%								
Co 230.786†	93648.9	1.879	mg/L	0.0010	1.879	mg/L	0.0010	0.05%
Cr 267.716*†	54129.1	0.5948	mg/L	0.00555	0.5948	mg/L	0.00555	0.93%
QC value within limits for Cr 267.716* Recovery = 99.14%								
Cr 357.869†	35968.8	0.5804	mg/L	0.00138	0.5804	mg/L	0.00138	0.24%
Cu 324.752*†	132858.3	0.9415	mg/L	0.00129	0.9415	mg/L	0.00129	0.14%
QC value within limits for Cu 324.752* Recovery = 100.43%								
Cu 327.393†	108615.8	0.9296	mg/L	0.00209	0.9296	mg/L	0.00209	0.22%
Fe 239.562†	5976.8	3.825	mg/L	0.0128	3.825	mg/L	0.0128	0.33%
Fe 259.939†	8998.8	3.751	mg/L	0.0297	3.751	mg/L	0.0297	0.79%
Fe 273.955*†	120088.6	3.794	mg/L	0.0050	3.794	mg/L	0.0050	0.13%
QC value within limits for Fe 273.955* Recovery = 101.17%								
K 766.490*†	36783.0	25.20	mg/L	0.008	25.20	mg/L	0.008	0.03%
QC value within limits for K 766.490* Recovery = 93.34%								
Mg 279.077*†	95720.0	7.602	mg/L	0.0086	7.602	mg/L	0.0086	0.11%
QC value within limits for Mg 279.077* Recovery = 101.36%								
Mg 280.271†	257753.6	7.511	mg/L	0.0239	7.511	mg/L	0.0239	0.32%
Mn 257.610*†	439485.9	0.7529	mg/L	0.00112	0.7529	mg/L	0.00112	0.15%
QC value within limits for Mn 257.610* Recovery = 100.39%								
Mn 259.372†	339127.8	0.7521	mg/L	0.00063	0.7521	mg/L	0.00063	0.08%
Mo 202.031*†	13792.5	0.5938	mg/L	0.00144	0.5938	mg/L	0.00144	0.24%
QC value within limits for Mo 202.031* Recovery = 98.97%								
Mo 203.845†	9957.4	0.5938	mg/L	0.00122	0.5938	mg/L	0.00122	0.21%

Return to Contents

Na 330.237†	20022.6	33.57	mg/L	0.139	33.57	mg/L	0.139	0.42%
Na 589.592*†	206329.0	36.24	mg/L	0.022	36.24	mg/L	0.022	0.06%
QC value within limits for Na 589.592* Recovery = 100.66%								
Ni 231.604*†	38784.0	0.5981	mg/L	0.00466	0.5981	mg/L	0.00466	0.78%
QC value within limits for Ni 231.604* Recovery = 99.69%								
Ni 232.003†	13161.3	0.5346	mg/L	0.00098	0.5346	mg/L	0.00098	0.18%
Pb 217.000†	7980.0	3.673	mg/L	0.0435	3.673	mg/L	0.0435	1.18%
Pb 220.353*†	61545.0	3.690	mg/L	0.0052	3.690	mg/L	0.0052	0.14%
QC value within limits for Pb 220.353* Recovery = 98.39%								
Sb 206†	19567.7	4.453	mg/L	0.0161	4.453	mg/L	0.0161	0.36%
Sb 206.836†	20182.0	4.344	mg/L	0.0629	4.344	mg/L	0.0629	1.45%
Sb 217.582*†	19855.1	4.426	mg/L	0.0089	4.426	mg/L	0.0089	0.20%
QC value within limits for Sb 217.582* Recovery = 98.35%								
Se 196.026*†	4609.7	1.489	mg/L	0.0114	1.489	mg/L	0.0114	0.77%
QC value within limits for Se 196.026* Recovery = 99.27%								
Se 203.985†	5355.2	1.490	mg/L	0.0104	1.490	mg/L	0.0104	0.70%
Si 251.611*†	312324.0	5.960	mg/L	0.0347	5.960	mg/L	0.0347	0.58%
QC value within limits for Si 251.611* Recovery = 99.34%								
Si 288.158†	138998.3	5.954	mg/L	0.0433	5.954	mg/L	0.0433	0.73%
Tl†	4184.1	1.474	mg/L	0.0214	1.474	mg/L	0.0214	1.46%
Tl 190.801*†	5034.1	1.500	mg/L	0.0068	1.500	mg/L	0.0068	0.45%
QC value within limits for Tl 190.801* Recovery = 99.99%								
Tl 351.924†	7193.6	1.453	mg/L	0.0041	1.453	mg/L	0.0041	0.28%
V 292.402*†	201725.9	1.860	mg/L	0.0049	1.860	mg/L	0.0049	0.27%
QC value within limits for V 292.402* Recovery = 99.18%								
V 310.230†	378882.1	1.866	mg/L	0.0082	1.866	mg/L	0.0082	0.44%
Zn 202.548†	259058.3	2.525	mg/L	0.0045	2.525	mg/L	0.0045	0.18%
Zn 206.200*†	181381.9	2.517	mg/L	0.0017	2.517	mg/L	0.0017	0.07%
QC value within limits for Zn 206.200* Recovery = 100.67%								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 13
Sample ID: CCB2-R04231301
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 11/12/2013 3:35:25 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB2-R04231301

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: CCB2-R04231301

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	193329.5	4.906	mg/L	0.0014				0.03%
Ho 345.600	312374.0	4.901	mg/L	0.0090				0.18%
Tb 350.917	137278.6	4.907	mg/L	0.0076				0.16%
Tb 384.873	80907.0	4.918	mg/L	0.0077				0.16%
Y 324.227	1130584.0	4.906	mg/L	0.0143				0.29%
Y 371.029	2284358.9	4.919	mg/L	0.0001				0.00%
Ag 328.068*†	-62.0	-0.0004	mg/L	0.00055	-0.0004	mg/L	0.00055	127.71%
QC value within limits for Ag 328.068* Recovery = Not calculated								
Ag 338.289†	-26.3	-0.0003	mg/L	0.00034	-0.0003	mg/L	0.00034	97.66%
Al 308.215*†	84.1	0.0041	mg/L	0.00217	0.0041	mg/L	0.00217	52.43%
Al 396.153†	143.2	0.0011	mg/L	0.00032	0.0011	mg/L	0.00032	28.14%
As 188.979†	-5.8	-0.0010	mg/L	0.00146	-0.0010	mg/L	0.00146	144.62%
As 193.696*†	-20.1	-0.0049	mg/L	0.00039	-0.0049	mg/L	0.00039	7.94%
B 249.677*†	106.2	0.0029	mg/L	0.00026	0.0029	mg/L	0.00026	9.09%
B 249.772†	289.5	0.0033	mg/L	0.00044	0.0033	mg/L	0.00044	13.20%
Ba 233.527*†	6.1	0.0000	mg/L	0.00000	0.0000	mg/L	0.00000	11.78%
Ba 455.403†	50.6	0.0002	mg/L	0.00019	0.0002	mg/L	0.00019	84.90%
Be 313.042*†	-69.2	0.0000	mg/L	0.00005	0.0000	mg/L	0.00005	380.18%
Be 313.107†	-195.8	-0.0001	mg/L	0.00002	-0.0001	mg/L	0.00002	33.25%
Ca 317.933*†	-8.0	-0.0018	mg/L	0.00187	-0.0018	mg/L	0.00187	104.22%
Ca 422.673†	80.7	0.0087	mg/L	0.00433	0.0087	mg/L	0.00433	49.99%
Cd 226.502*†	-18.0	-0.0001	mg/L	0.00008	-0.0001	mg/L	0.00008	71.12%
Cd 228.802†	-17.0	-0.0002	mg/L	0.00005	-0.0002	mg/L	0.00005	22.25%
Co 228.616*†	-3.6	-0.0001	mg/L	0.00003	-0.0001	mg/L	0.00003	41.70%
Co 230.786†	-7.3	-0.0001	mg/L	0.00006	-0.0001	mg/L	0.00006	41.81%
Cr 267.716*†	-6.6	-0.0001	mg/L	0.00008	-0.0001	mg/L	0.00008	106.86%
Cr 357.869†	-57.1	-0.0009	mg/L	0.00078	-0.0009	mg/L	0.00078	87.91%
Cu 324.752*†	1074.6	0.0075	mg/L	0.00010	0.0075	mg/L	0.00010	1.26%
Cu 327.393†	189.9	0.0016	mg/L	0.00008	0.0016	mg/L	0.00008	5.13%
Fe 239.562†	1.5	0.0009	mg/L	0.00063	0.0009	mg/L	0.00063	66.90%
Fe 259.939†	5.3	0.0022	mg/L	0.00029	0.0022	mg/L	0.00029	13.23%
Fe 273.955*†	120.9	0.0038	mg/L	0.00084	0.0038	mg/L	0.00084	22.10%
K 766.490*†	51.9	0.0355	mg/L	0.02102	0.0355	mg/L	0.02102	59.16%
Mg 279.077*†	-196.6	-0.0156	mg/L	0.00311	-0.0156	mg/L	0.00311	19.87%
Mg 280.271†	0.6	0.0000	mg/L	0.00010	0.0000	mg/L	0.00010	568.10%
Mn 257.610*†	-43.6	-0.0001	mg/L	0.00002	-0.0001	mg/L	0.00002	22.84%
Mn 259.372†	-19.8	0.0000	mg/L	0.00008	0.0000	mg/L	0.00008	189.21%
Mo 202.031*†	11.6	0.0005	mg/L	0.00015	0.0005	mg/L	0.00015	30.78%
Mo 203.845†	-5.3	-0.0003	mg/L	0.00034	-0.0003	mg/L	0.00034	107.39%
Na 330.237†	111.3	0.1867	mg/L	0.11861	0.1867	mg/L	0.11861	63.54%
Na 589.592*†	-770.0	-0.1352	mg/L	0.00206	-0.1352	mg/L	0.00206	1.52%
Ni 231.604*†	-121.0	-0.0019	mg/L	0.00044	-0.0019	mg/L	0.00044	23.47%
Ni 232.003†	-342.7	-0.0139	mg/L	0.00024	-0.0139	mg/L	0.00024	1.76%
Pb 217.000†	-149.3	-0.0687	mg/L	0.00274	-0.0687	mg/L	0.00274	3.98%
Pb 220.353*†	22.0	0.0013	mg/L	0.00003	0.0013	mg/L	0.00003	1.92%
Sb 206†	-2.8	-0.0006	mg/L	0.00352	-0.0006	mg/L	0.00352	550.75%
Sb 206.836†	-45.6	-0.0098	mg/L	0.00710	-0.0098	mg/L	0.00710	72.37%
Sb 217.582*†	-41.1	-0.0092	mg/L	0.00239	-0.0092	mg/L	0.00239	26.07%
Se 196.026*†	1.8	0.0006	mg/L	0.00069	0.0006	mg/L	0.00069	117.66%
Se 203.985†	1.1	0.0003	mg/L	0.00280	0.0003	mg/L	0.00280	955.09%
Si 251.611*†	1002.6	0.0194	mg/L	0.00165	0.0194	mg/L	0.00165	8.50%
Si 288.158†	481.5	0.0209	mg/L	0.00238	0.0209	mg/L	0.00238	11.40%
Tl†	3.0	0.0010	mg/L	0.00450	0.0010	mg/L	0.00450	431.03%
Tl 190.801*†	3.4	0.0010	mg/L	0.00482	0.0010	mg/L	0.00482	479.57%
Tl 351.924†	-6.9	-0.0014	mg/L	0.00030	-0.0014	mg/L	0.00030	21.74%

Return to Contents

V 292.402*†	96.2	0.0009 mg/L	0.00019	0.0009 mg/L	0.00019	21.52%
V 310.230†	1039.2	0.0051 mg/L	0.00199	0.0051 mg/L	0.00199	39.13%
Zn 202.548†	8.6	0.0001 mg/L	0.00005	0.0001 mg/L	0.00005	57.32%
Zn 206.200*†	0.6	0.0000 mg/L	0.00014	0.0000 mg/L	0.00014	>999.9%

All analyte(s) passed QC.

Return to Contents

Analysis Begun

Start Time: 11/12/2013 6:15:38 PM
Logged In Analyst: John Nguyen
Spectrometer Model: Optima 7300 DV, S/N 77c8120401 Autosampler Model: AS-93plus
Plasma On Time: 11/12/2013 8:50:13 AM
Technique: ICP Continuous

Sample Information File: C:\pe\jn\Sample Information\13111201.sif
Batch ID:
Results Data Set: 131112C1
Results Library: W:\ICP_07\ICP_07\pe\7300\Results\Results.mdb

Sequence No.: 1
Sample ID: Calblank R04231301_ 469
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 5
Date Collected: 11/12/2013 6:15:43 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calblank R04231301_ 469

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: Calblank R04231301_ 469

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ho 339.898	194473.5	2894.43	1.49%	5.000	mg/L
Ho 345.600	313577.1	5183.42	1.65%	5.000	mg/L
Tb 350.917	137876.0	1938.14	1.41%	5.000	mg/L
Tb 384.873	81313.0	1169.31	1.44%	5.000	mg/L
Y 324.227	1134695.4	77.10	0.01%	5.000	mg/L
Y 371.029	2304431.3	3951.61	0.17%	5.000	mg/L
Ag 328.068*†	-3951.7	58.82	1.49%	[0.00]	mg/L
Ag 338.289†	2.9	22.96	794.53%	[0.00]	mg/L
Al 308.215*†	-5932.7	95.57	1.61%	[0.00]	mg/L
Al 396.153†	-27.2	118.13	434.81%	[0.00]	mg/L
As 188.979†	2.4	19.98	847.74%	[0.00]	mg/L
As 193.696*†	45.2	5.98	13.22%	[0.00]	mg/L
B 249.677*†	-1546.4	17.77	1.15%	[0.00]	mg/L
B 249.772†	-2757.6	53.03	1.92%	[0.00]	mg/L
Ba 233.527*†	-16.4	3.40	20.75%	[0.00]	mg/L
Ba 455.403†	-60.2	1.00	1.67%	[0.00]	mg/L
Be 313.042*†	-4168.3	46.81	1.12%	[0.00]	mg/L
Be 313.107†	-1277.7	18.71	1.46%	[0.00]	mg/L
Ca 317.933*†	276.3	2.85	1.03%	[0.00]	mg/L
Ca 422.673†	116.5	43.65	37.46%	[0.00]	mg/L
Cd 226.502*†	-209.0	8.46	4.05%	[0.00]	mg/L
Cd 228.802†	-218.0	15.56	7.14%	[0.00]	mg/L
Co 228.616*†	-115.0	7.51	6.53%	[0.00]	mg/L
Co 230.786†	135.2	7.52	5.56%	[0.00]	mg/L
Cr 267.716*†	-251.7	13.45	5.35%	[0.00]	mg/L
Cr 357.869†	464.6	59.19	12.74%	[0.00]	mg/L
Cu 324.752*†	-1897.4	35.23	1.86%	[0.00]	mg/L
Cu 327.393†	-3229.7	19.13	0.59%	[0.00]	mg/L
Fe 239.562†	-163.0	4.15	2.55%	[0.00]	mg/L
Fe 259.939†	-166.4	9.09	5.46%	[0.00]	mg/L
Fe 273.955*†	-556.3	30.23	5.43%	[0.00]	mg/L
K 766.490*†	651.7	17.44	2.68%	[0.00]	mg/L
Mg 279.077*†	-6501.4	130.17	2.00%	[0.00]	mg/L
Mg 280.271†	28.7	2.29	7.97%	[0.00]	mg/L
Mn 257.610*†	-357.9	25.31	7.07%	[0.00]	mg/L
Mn 259.372†	-972.3	23.55	2.42%	[0.00]	mg/L
Mo 202.031*†	-164.8	8.35	5.06%	[0.00]	mg/L
Mo 203.845†	-220.0	6.54	2.97%	[0.00]	mg/L
Na 330.237†	1685.3	39.39	2.34%	[0.00]	mg/L
Na 589.592*†	2185.1	16.95	0.78%	[0.00]	mg/L
Ni 231.604*†	502.3	22.10	4.40%	[0.00]	mg/L
Ni 232.003†	-326.7	11.72	3.59%	[0.00]	mg/L
P 213.617*†	499.5	18.26	3.66%	[0.00]	mg/L

Return to Contents

P 214.914†	36.5	13.74	37.66%	[0.00]	mg/L
Pb 217.000†	-6.7	10.18	151.71%	[0.00]	mg/L
Pb 220.353*†	-230.6	28.37	12.30%	[0.00]	mg/L
Sb 206†	108.1	0.37	0.35%	[0.00]	mg/L
Sb 206.836†	46.0	8.68	18.87%	[0.00]	mg/L
Sb 217.582*†	79.0	13.91	17.61%	[0.00]	mg/L
Se 196.026*†	41.5	1.77	4.25%	[0.00]	mg/L
Se 203.985†	59.8	3.75	6.27%	[0.00]	mg/L
Si 251.611*†	1700.8	101.09	5.94%	[0.00]	mg/L
Si 288.158†	1771.5	91.86	5.19%	[0.00]	mg/L
Sn 189.927*†	-0.7	2.93	397.08%	[0.00]	mg/L
Sn 242.170†	908.6	174.02	19.15%	[0.00]	mg/L
Sr 407.771*†	-52.9	16.96	32.08%	[0.00]	mg/L
Sr 421.552†	-4783.6	74.53	1.56%	[0.00]	mg/L
Ti 334.940†	12581.4	105.96	0.84%	[0.00]	mg/L
Ti 336.121*†	-1984.7	36.05	1.82%	[0.00]	mg/L
Tl†	-57.4	5.75	10.02%	[0.00]	mg/L
Tl 190.801*†	-10.5	6.32	60.03%	[0.00]	mg/L
Tl 351.924†	-69.6	78.35	112.49%	[0.00]	mg/L
V 292.402*†	242.1	19.82	8.19%	[0.00]	mg/L
V 310.230†	78023.9	650.56	0.83%	[0.00]	mg/L
Zn 202.548†	-770.9	7.09	0.92%	[0.00]	mg/L
Zn 206.200*†	-573.3	4.15	0.72%	[0.00]	mg/L
Zn 213.857*†	-558.1	4.33	0.78%	[0.00]	mg/L

Return to Contents

Sequence No.: 2
Sample ID: STD3-M092713A-Analyst-469
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/12/2013 6:17:19 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: STD3-M092713A-Analyst-469

Analyte	Back Pressure	Flow
All	123.0 kPa	0.50 L/min

Mean Data: STD3-M092713A-Analyst-469

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ho 339.898	183746.4	111.80	0.06%	4.724	mg/L
Ho 345.600	292957.9	1154.76	0.39%	4.671	mg/L
Tb 350.917	132100.1	17.02	0.01%	4.791	mg/L
Tb 384.873	76765.4	195.67	0.25%	4.720	mg/L
Y 324.227	1088350.2	5416.56	0.50%	4.796	mg/L
Y 371.029	2183130.0	6802.19	0.31%	4.737	mg/L
Ag 328.068*†	106641.6	869.83	0.82%	[0.75]	mg/L
Ag 338.289†	56353.3	565.21	1.00%	[0.75]	mg/L
Al 308.215*†	539808.4	693.70	0.13%	[27.0]	mg/L
Al 396.153†	3371994.1	30843.40	0.91%	[27]	mg/L
As 188.979†	42848.3	285.75	0.67%	[7.50]	mg/L
As 193.696*†	30396.1	284.39	0.94%	[7.50]	mg/L
B 249.677*†	270823.8	67.90	0.03%	[7.50]	mg/L
B 249.772†	642234.4	297.17	0.05%	[7.50]	mg/L
Ba 233.527*†	2730433.0	6457.76	0.24%	[15.0]	mg/L
Ba 455.403†	3394688.2	8015.61	0.24%	[15.0]	mg/L
Be 313.042*†	5844644.8	75710.72	1.30%	[1.125]	mg/L
Be 313.107†	2989651.1	40388.46	1.35%	[1.125]	mg/L
Ca 317.933*†	264049.4	7057.93	2.67%	[60.0]	mg/L
Ca 422.673†	553551.6	7764.01	1.40%	[60.0]	mg/L
Cd 226.502*†	242563.8	631.11	0.26%	[1.50]	mg/L
Cd 228.802†	105283.3	214.96	0.20%	[1.50]	mg/L
Co 228.616*†	190093.4	289.27	0.15%	[3.75]	mg/L
Co 230.786†	185136.1	435.29	0.24%	[3.75]	mg/L
Cr 267.716*†	108420.3	763.63	0.70%	[1.20]	mg/L
Cr 357.869†	75583.6	36.14	0.05%	[1.20]	mg/L
Cu 324.752*†	262602.1	1411.09	0.54%	[1.875]	mg/L
Cu 327.393†	218521.5	634.81	0.29%	[1.875]	mg/L
Fe 239.562†	11717.1	318.27	2.72%	[7.50]	mg/L
Fe 259.939†	17448.5	388.74	2.23%	[7.50]	mg/L
Fe 273.955*†	235425.5	69.62	0.03%	[7.50]	mg/L
K 766.490*†	77227.4	1479.86	1.92%	[54.0]	mg/L
Mg 279.077*†	186501.6	310.36	0.17%	[15.0]	mg/L
Mg 280.271†	497426.8	6496.64	1.31%	[15.0]	mg/L
Mn 257.610*†	853751.8	2573.83	0.30%	[1.50]	mg/L
Mn 259.372†	662015.2	3098.86	0.47%	[1.50]	mg/L
Mo 202.031*†	27633.2	137.79	0.50%	[1.20]	mg/L
Mo 203.845†	19997.6	56.98	0.28%	[1.20]	mg/L
Na 330.237†	42947.1	26.41	0.06%	[72.0]	mg/L
Na 589.592*†	407026.9	5963.88	1.47%	[72.0]	mg/L
Ni 231.604*†	77073.7	429.79	0.56%	[1.20]	mg/L
Ni 232.003†	29486.9	153.62	0.52%	[1.20]	mg/L
P 213.617*†	87571.9	325.56	0.37%	[12.0]	mg/L
P 214.914†	44519.4	185.66	0.42%	[12.0]	mg/L
Pb 217.000†	16292.7	58.95	0.36%	[7.50]	mg/L
Pb 220.353*†	123647.6	503.60	0.41%	[7.50]	mg/L
Sb 206†	39357.0	143.00	0.36%	[9.0]	mg/L
Sb 206.836†	40963.6	195.85	0.48%	[9.0]	mg/L
Sb 217.582*†	40216.8	112.90	0.28%	[9.0]	mg/L
Se 196.026*†	9164.3	68.38	0.75%	[3.0]	mg/L
Se 203.985†	10660.3	92.17	0.86%	[3.0]	mg/L
Si 251.611*†	614141.3	2824.39	0.46%	[12.0]	mg/L
Si 288.158†	275045.8	1500.27	0.55%	[12.0]	mg/L
Sn 189.927*†	69540.1	407.71	0.59%	[6.0]	mg/L
Sn 242.170†	39032.3	433.68	1.11%	[6.0]	mg/L

Return to Contents

Sr 407.771*†	432533.5	5873.33	1.36%	[0.60]	mg/L
Sr 421.552†	6880034.8	60351.84	0.88%	[0.60]	mg/L
Ti 334.940†	790968.4	3358.17	0.42%	[1.20]	mg/L
Ti 336.121*†	563916.9	1398.94	0.25%	[1.20]	mg/L
Tl†	8327.4	3.00	0.04%	[3.0]	mg/L
Tl 190.801*†	9976.3	5.07	0.05%	[3.0]	mg/L
Tl 351.924†	14944.8	102.68	0.69%	[3.0]	mg/L
V 292.402*†	399548.0	1221.54	0.31%	[3.75]	mg/L
V 310.230†	751750.3	513.17	0.07%	[3.75]	mg/L
Zn 202.548†	499059.4	1652.02	0.33%	[5.0]	mg/L
Zn 206.200*†	350812.2	998.90	0.28%	[5.0]	mg/L
Zn 213.857*†	749544.3	743.80	0.10%	[5.0]	mg/L

Return to Contents

Sequence No.: 3
Sample ID: CCV= STD3x0.5
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/12/2013 6:18:41 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV= STD3x0.5

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	186642.1	4.799	mg/L	0.0815				1.70%
Ho 345.600	302037.9	4.816	mg/L	0.0981				2.04%
Tb 350.917	134297.8	4.870	mg/L	0.0897				1.84%
Tb 384.873	78748.9	4.842	mg/L	0.0731				1.51%
Y 324.227	1110128.3	4.892	mg/L	0.1152				2.36%
Y 371.029	2232587.9	4.844	mg/L	0.0669				1.38%
Ag 328.068*†	52140.8	0.3669	mg/L	0.00305	0.3669	mg/L	0.00305	0.83%
QC value within limits for Ag 328.068* Recovery = 97.83%								
Ag 338.289†	27362.1	0.3653	mg/L	0.00402	0.3653	mg/L	0.00402	1.10%
Al 308.215*†	265118.2	13.21	mg/L	0.028	13.21	mg/L	0.028	0.21%
QC value within limits for Al 308.215* Recovery = 97.85%								
Al 396.153†	1658916.0	13.28	mg/L	0.089	13.28	mg/L	0.089	0.67%
As 188.979†	21158.2	3.703	mg/L	0.0412	3.703	mg/L	0.0412	1.11%
QC value within limits for As 188.979 Recovery = 98.76%								
As 193.696*†	14913.4	3.680	mg/L	0.0240	3.680	mg/L	0.0240	0.65%
QC value within limits for As 193.696* Recovery = 98.13%								
B 249.677*†	135198.7	3.736	mg/L	0.0313	3.736	mg/L	0.0313	0.84%
QC value within limits for B 249.677* Recovery = 99.63%								
B 249.772†	319183.0	3.716	mg/L	0.0034	3.716	mg/L	0.0034	0.09%
Ba 233.527*†	1374615.8	7.552	mg/L	0.0275	7.552	mg/L	0.0275	0.36%
QC value within limits for Ba 233.527* Recovery = 100.70%								
Ba 455.403†	1719901.1	7.600	mg/L	0.1575	7.600	mg/L	0.1575	2.07%
Be 313.042*†	2952711.0	0.5683	mg/L	0.00729	0.5683	mg/L	0.00729	1.28%
QC value within limits for Be 313.042* Recovery = 101.04%								
Be 313.107†	1508225.7	0.5675	mg/L	0.00712	0.5675	mg/L	0.00712	1.25%
Ca 317.933*†	132884.7	30.20	mg/L	0.522	30.20	mg/L	0.522	1.73%
QC value within limits for Ca 317.933* Recovery = 100.65%								
Ca 422.673†	274931.4	29.80	mg/L	0.617	29.80	mg/L	0.617	2.07%
Cd 226.502*†	121581.4	0.7519	mg/L	0.00131	0.7519	mg/L	0.00131	0.17%
QC value within limits for Cd 226.502* Recovery = 100.25%								
Cd 228.802†	52032.4	0.7413	mg/L	0.00158	0.7413	mg/L	0.00158	0.21%
Co 228.616*†	94758.5	1.869	mg/L	0.0070	1.869	mg/L	0.0070	0.38%
QC value within limits for Co 228.616* Recovery = 99.70%								
Co 230.786†	92204.5	1.868	mg/L	0.0033	1.868	mg/L	0.0033	0.18%
Cr 267.716*†	53790.3	0.5950	mg/L	0.00476	0.5950	mg/L	0.00476	0.80%
QC value within limits for Cr 267.716* Recovery = 99.17%								
Cr 357.869†	35984.0	0.5766	mg/L	0.00442	0.5766	mg/L	0.00442	0.77%
Cu 324.752*†	128980.6	0.9317	mg/L	0.00810	0.9317	mg/L	0.00810	0.87%
QC value within limits for Cu 324.752* Recovery = 99.38%								
Cu 327.393†	107604.2	0.9341	mg/L	0.00593	0.9341	mg/L	0.00593	0.63%
Fe 239.562†	5818.4	3.724	mg/L	0.0082	3.724	mg/L	0.0082	0.22%
Fe 259.939†	8783.4	3.775	mg/L	0.0806	3.775	mg/L	0.0806	2.14%
Fe 273.955*†	117619.5	3.747	mg/L	0.0124	3.747	mg/L	0.0124	0.33%
QC value within limits for Fe 273.955* Recovery = 99.92%								
K 766.490*†	36210.9	25.32	mg/L	0.569	25.32	mg/L	0.569	2.25%
QC value within limits for K 766.490* Recovery = 93.78%								
Mg 279.077*†	93852.8	7.541	mg/L	0.0558	7.541	mg/L	0.0558	0.74%
QC value within limits for Mg 279.077* Recovery = 100.55%								
Mg 280.271†	253183.5	7.635	mg/L	0.2177	7.635	mg/L	0.2177	2.85%
Mn 257.610*†	432100.1	0.7592	mg/L	0.00420	0.7592	mg/L	0.00420	0.55%
QC value within limits for Mn 257.610* Recovery = 101.22%								
Mn 259.372†	332313.2	0.7530	mg/L	0.00654	0.7530	mg/L	0.00654	0.87%
Mo 202.031*†	13667.3	0.5935	mg/L	0.00200	0.5935	mg/L	0.00200	0.34%
QC value within limits for Mo 202.031* Recovery = 98.92%								
Mo 203.845†	9876.7	0.5927	mg/L	0.00056	0.5927	mg/L	0.00056	0.09%

Return to Contents

Na 330.237†	19859.9	33.29	mg/L	0.220	33.29	mg/L	0.220	0.66%
Na 589.592*†	204410.6	36.16	mg/L	0.755	36.16	mg/L	0.755	2.09%
QC value within limits for Na 589.592* Recovery = 100.44%								
Ni 231.604*†	38530.1	0.5999	mg/L	0.00546	0.5999	mg/L	0.00546	0.91%
QC value within limits for Ni 231.604* Recovery = 99.98%								
Ni 232.003†	14479.2	0.5892	mg/L	0.00124	0.5892	mg/L	0.00124	0.21%
P 213.617*†	43042.1	5.898	mg/L	0.0424	5.898	mg/L	0.0424	0.72%
QC value within limits for P 213.617* Recovery = 98.30%								
P 214.914†	21932.8	5.912	mg/L	0.0396	5.912	mg/L	0.0396	0.67%
Pb 217.000†	8004.2	3.685	mg/L	0.0172	3.685	mg/L	0.0172	0.47%
Pb 220.353*†	61080.9	3.705	mg/L	0.0043	3.705	mg/L	0.0043	0.12%
QC value within limits for Pb 220.353* Recovery = 98.80%								
Sb 206†	19405.7	4.438	mg/L	0.0508	4.438	mg/L	0.0508	1.14%
Sb 206.836†	20438.4	4.490	mg/L	0.0850	4.490	mg/L	0.0850	1.89%
Sb 217.582*†	19819.8	4.435	mg/L	0.0146	4.435	mg/L	0.0146	0.33%
QC value within limits for Sb 217.582* Recovery = 98.56%								
Se 196.026*†	4544.5	1.488	mg/L	0.0013	1.488	mg/L	0.0013	0.08%
QC value within limits for Se 196.026* Recovery = 99.18%								
Se 203.985†	5267.1	1.482	mg/L	0.0002	1.482	mg/L	0.0002	0.02%
Si 251.611*†	303268.6	5.926	mg/L	0.0038	5.926	mg/L	0.0038	0.06%
QC value within limits for Si 251.611* Recovery = 98.76%								
Si 288.158†	135309.7	5.814	mg/L	0.0239	5.814	mg/L	0.0239	0.41%
Sn 189.927*†	34414.0	2.969	mg/L	0.0194	2.969	mg/L	0.0194	0.65%
QC value within limits for Sn 189.927* Recovery = 98.98%								
Sn 242.170†	19054.1	2.929	mg/L	0.0299	2.929	mg/L	0.0299	1.02%
Sr 407.771*†	215601.2	0.2991	mg/L	0.00627	0.2991	mg/L	0.00627	2.10%
QC value within limits for Sr 407.771* Recovery = 99.69%								
Sr 421.552†	3488441.0	0.3042	mg/L	0.00199	0.3042	mg/L	0.00199	0.65%
Ti 334.940†	397098.4	0.6024	mg/L	0.00320	0.6024	mg/L	0.00320	0.53%
Ti 336.121*†	282634.8	0.6014	mg/L	0.00045	0.6014	mg/L	0.00045	0.08%
QC value within limits for Ti 336.121* Recovery = 100.24%								
Tl†	4116.9	1.467	mg/L	0.0031	1.467	mg/L	0.0031	0.21%
Tl 190.801*†	4951.3	1.489	mg/L	0.0073	1.489	mg/L	0.0073	0.49%
QC value within limits for Tl 190.801* Recovery = 99.26%								
Tl 351.924†	7077.4	1.421	mg/L	0.0132	1.421	mg/L	0.0132	0.93%
V 292.402*†	200006.6	1.878	mg/L	0.0149	1.878	mg/L	0.0149	0.79%
QC value within limits for V 292.402* Recovery = 100.15%								
V 310.230†	377148.0	1.893	mg/L	0.0181	1.893	mg/L	0.0181	0.96%
Zn 202.548†	253310.7	2.542	mg/L	0.0177	2.542	mg/L	0.0177	0.70%
Zn 206.200*†	177237.2	2.529	mg/L	0.0172	2.529	mg/L	0.0172	0.68%
QC value within limits for Zn 206.200* Recovery = 101.14%								
Zn 213.857*†	376652.4	2.515	mg/L	0.0024	2.515	mg/L	0.0024	0.09%
QC value within limits for Zn 213.857* Recovery = 100.59%								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 5
Sample ID: CCB-1 R04231301
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 11/12/2013 6:21:27 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB-1 R04231301

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: CCB-1 R04231301

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	193932.2	4.986	mg/L	0.0115				0.23%
Ho 345.600	312386.7	4.981	mg/L	0.0003				0.01%
Tb 350.917	137345.9	4.981	mg/L	0.0054				0.11%
Tb 384.873	81166.1	4.991	mg/L	0.0138				0.28%
Y 324.227	1127938.4	4.970	mg/L	0.0105				0.21%
Y 371.029	2296410.3	4.983	mg/L	0.0231				0.46%
Ag 328.068*†	-53.9	-0.0004	mg/L	0.00022	-0.0004	mg/L	0.00022	58.14%
QC value within limits for Ag 328.068* Recovery = Not calculated								
Ag 338.289†	-2.6	0.0000	mg/L	0.00063	0.0000	mg/L	0.00063	>999.9%
Al 308.215*†	99.5	0.0050	mg/L	0.00293	0.0050	mg/L	0.00293	58.94%
Al 396.153†	243.9	0.0020	mg/L	0.00007	0.0020	mg/L	0.00007	3.51%
As 188.979†	7.3	0.0013	mg/L	0.00059	0.0013	mg/L	0.00059	45.55%
As 193.696*†	14.6	0.0036	mg/L	0.00284	0.0036	mg/L	0.00284	78.54%
B 249.677*†	343.3	0.0095	mg/L	0.00029	0.0095	mg/L	0.00029	3.09%
B 249.772†	767.9	0.0090	mg/L	0.00002	0.0090	mg/L	0.00002	0.19%
Ba 233.527*†	-18.4	-0.0001	mg/L	0.00000	-0.0001	mg/L	0.00000	1.35%
Ba 455.403†	23.6	0.0001	mg/L	0.00004	0.0001	mg/L	0.00004	41.86%
Be 313.042*†	326.9	0.0001	mg/L	0.00003	0.0001	mg/L	0.00003	40.28%
Be 313.107†	-96.1	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	17.94%
Ca 317.933*†	-0.1	0.0000	mg/L	0.00044	0.0000	mg/L	0.00044	>999.9%
Ca 422.673†	-5.1	-0.0006	mg/L	0.00004	-0.0006	mg/L	0.00004	7.30%
Cd 226.502*†	-22.0	-0.0001	mg/L	0.00012	-0.0001	mg/L	0.00012	86.00%
Cd 228.802†	-6.5	-0.0001	mg/L	0.00006	-0.0001	mg/L	0.00006	66.65%
Co 228.616*†	8.8	0.0002	mg/L	0.00013	0.0002	mg/L	0.00013	74.58%
Co 230.786†	-3.6	-0.0001	mg/L	0.00007	-0.0001	mg/L	0.00007	103.14%
Cr 267.716*†	-33.2	-0.0004	mg/L	0.00014	-0.0004	mg/L	0.00014	37.62%
Cr 357.869†	111.1	0.0018	mg/L	0.00076	0.0018	mg/L	0.00076	43.15%
Cu 324.752*†	-88.5	-0.0006	mg/L	0.00036	-0.0006	mg/L	0.00036	57.30%
Cu 327.393†	-18.7	-0.0002	mg/L	0.00002	-0.0002	mg/L	0.00002	11.23%
Fe 239.562†	-2.7	-0.0017	mg/L	0.00673	-0.0017	mg/L	0.00673	393.25%
Fe 259.939†	2.3	0.0010	mg/L	0.00020	0.0010	mg/L	0.00020	20.40%
Fe 273.955*†	-29.9	-0.0010	mg/L	0.00009	-0.0010	mg/L	0.00009	9.59%
K 766.490*†	48.7	0.0340	mg/L	0.00702	0.0340	mg/L	0.00702	20.64%
Mg 279.077*†	-103.8	-0.0084	mg/L	0.00455	-0.0084	mg/L	0.00455	54.37%
Mg 280.271†	-2.7	-0.0001	mg/L	0.00018	-0.0001	mg/L	0.00018	226.03%
Mn 257.610*†	-44.7	-0.0001	mg/L	0.00003	-0.0001	mg/L	0.00003	33.41%
Mn 259.372†	-37.0	-0.0001	mg/L	0.00004	-0.0001	mg/L	0.00004	52.35%
Mo 202.031*†	5.3	0.0002	mg/L	0.00003	0.0002	mg/L	0.00003	11.09%
Mo 203.845†	8.6	0.0005	mg/L	0.00099	0.0005	mg/L	0.00099	190.65%
Na 330.237†	40.7	0.0683	mg/L	0.15511	0.0683	mg/L	0.15511	227.18%
Na 589.592*†	44.2	0.0078	mg/L	0.01693	0.0078	mg/L	0.01693	216.68%
Ni 231.604*†	27.0	0.0004	mg/L	0.00017	0.0004	mg/L	0.00017	39.47%
Ni 232.003†	-3.3	-0.0001	mg/L	0.00101	-0.0001	mg/L	0.00101	753.90%
P 213.617*†	5.7	0.0008	mg/L	0.00173	0.0008	mg/L	0.00173	220.21%
P 214.914†	-3.7	-0.0010	mg/L	0.00227	-0.0010	mg/L	0.00227	226.89%
Pb 217.000†	-11.5	-0.0053	mg/L	0.00788	-0.0053	mg/L	0.00788	149.30%
Pb 220.353*†	-0.6	0.0000	mg/L	0.00110	0.0000	mg/L	0.00110	>999.9%
Sb 206†	-8.9	-0.0020	mg/L	0.00024	-0.0020	mg/L	0.00024	11.75%
Sb 206.836†	-15.7	-0.0035	mg/L	0.00106	-0.0035	mg/L	0.00106	30.63%
Sb 217.582*†	12.1	0.0027	mg/L	0.00342	0.0027	mg/L	0.00342	126.04%
Se 196.026*†	9.5	0.0031	mg/L	0.00032	0.0031	mg/L	0.00032	10.37%
Se 203.985†	-3.0	-0.0008	mg/L	0.00254	-0.0008	mg/L	0.00254	301.57%
Si 251.611*†	-80.2	-0.0016	mg/L	0.00099	-0.0016	mg/L	0.00099	63.19%
Si 288.158†	-51.8	-0.0023	mg/L	0.00254	-0.0023	mg/L	0.00254	111.48%
Sn 189.927*†	39.2	0.0034	mg/L	0.00023	0.0034	mg/L	0.00023	6.82%

Return to Contents

Sn 242.170†	98.4	0.0151 mg/L	0.02416	0.0151 mg/L	0.02416	159.67%
Sr 407.771*†	11.0	0.0000 mg/L	0.00000	0.0000 mg/L	0.00000	5.32%
Sr 421.552†	371.4	0.0000 mg/L	0.00000	0.0000 mg/L	0.00000	1.53%
Ti 334.940†	-77.8	-0.0001 mg/L	0.00009	-0.0001 mg/L	0.00009	76.43%
Ti 336.121*†	-101.1	-0.0002 mg/L	0.00015	-0.0002 mg/L	0.00015	67.66%
Tl†	-2.2	-0.0008 mg/L	0.00205	-0.0008 mg/L	0.00205	262.28%
Tl 190.801*†	-0.1	0.0000 mg/L	0.00040	0.0000 mg/L	0.00040	>999.9%
Tl 351.924†	-5.7	-0.0011 mg/L	0.00823	-0.0011 mg/L	0.00823	720.42%
V 292.402*†	48.4	0.0005 mg/L	0.00003	0.0005 mg/L	0.00003	6.81%
V 310.230†	642.3	0.0032 mg/L	0.00262	0.0032 mg/L	0.00262	81.66%
Zn 202.548†	6.4	0.0001 mg/L	0.00003	0.0001 mg/L	0.00003	53.08%
Zn 206.200*†	4.6	0.0001 mg/L	0.00006	0.0001 mg/L	0.00006	92.75%
Zn 213.857*†	32.5	0.0002 mg/L	0.00009	0.0002 mg/L	0.00009	40.96%

All analyte(s) passed QC.

Return to Contents

Sequence No.: 11
Sample ID: CCV= STD3x0.5
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/12/2013 7:10:42 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV= STD3x0.5

Analyte	Back Pressure	Flow
All	123.0 kPa	0.50 L/min

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	184663.2	4.748	mg/L	0.0340				0.72%
Ho 345.600	296916.2	4.734	mg/L	0.0312				0.66%
Tb 350.917	132690.5	4.812	mg/L	0.0344				0.71%
Tb 384.873	77923.1	4.792	mg/L	0.0322				0.67%
Y 324.227	1092955.9	4.816	mg/L	0.0319				0.66%
Y 371.029	2237840.7	4.856	mg/L	0.0352				0.72%
Ag 328.068*†	53305.2	0.3749	mg/L	0.00009	0.3749	mg/L	0.00009	0.02%
QC value within limits for Ag 328.068* Recovery = 99.97%								
Ag 338.289†	28042.6	0.3732	mg/L	0.00311	0.3732	mg/L	0.00311	0.83%
Al 308.215*†	268495.0	13.43	mg/L	0.010	13.43	mg/L	0.010	0.07%
QC value within limits for Al 308.215* Recovery = 99.48%								
Al 396.153†	1668723.4	13.36	mg/L	0.009	13.36	mg/L	0.009	0.07%
As 188.979†	21719.8	3.802	mg/L	0.0286	3.802	mg/L	0.0286	0.75%
QC value within limits for As 188.979 Recovery = 101.38%								
As 193.696*†	15265.9	3.767	mg/L	0.0397	3.767	mg/L	0.0397	1.05%
QC value within limits for As 193.696* Recovery = 100.45%								
Ba 233.527*†	1413437.5	7.765	mg/L	0.0253	7.765	mg/L	0.0253	0.33%
QC value within limits for Ba 233.527* Recovery = 103.53%								
Ba 455.403†	1684342.7	7.443	mg/L	0.0459	7.443	mg/L	0.0459	0.62%
Be 313.042*†	2961474.8	0.5700	mg/L	0.00094	0.5700	mg/L	0.00094	0.16%
QC value within limits for Be 313.042* Recovery = 101.34%								
Be 313.107†	1520218.9	0.5721	mg/L	0.00128	0.5721	mg/L	0.00128	0.22%
Cd 226.502*†	123410.7	0.7632	mg/L	0.00195	0.7632	mg/L	0.00195	0.26%
QC value within limits for Cd 226.502* Recovery = 101.76%								
Cd 228.802†	52891.0	0.7536	mg/L	0.00466	0.7536	mg/L	0.00466	0.62%
Co 228.616*†	96513.7	1.904	mg/L	0.0102	1.904	mg/L	0.0102	0.53%
QC value within limits for Co 228.616* Recovery = 101.54%								
Co 230.786†	93814.3	1.900	mg/L	0.0124	1.900	mg/L	0.0124	0.65%
Cr 267.716*†	55071.8	0.6095	mg/L	0.00822	0.6095	mg/L	0.00822	1.35%
QC value within limits for Cr 267.716* Recovery = 101.59%								
Cr 357.869†	36627.9	0.5815	mg/L	0.00337	0.5815	mg/L	0.00337	0.58%
Cu 324.752*†	129052.6	0.9214	mg/L	0.00198	0.9214	mg/L	0.00198	0.21%
QC value within limits for Cu 324.752* Recovery = 98.29%								
Cu 327.393†	109838.8	0.9425	mg/L	0.00040	0.9425	mg/L	0.00040	0.04%
Fe 239.562†	5998.6	3.840	mg/L	0.0378	3.840	mg/L	0.0378	0.98%
Fe 259.939†	8673.3	3.728	mg/L	0.0004	3.728	mg/L	0.0004	0.01%
Fe 273.955*†	119197.4	3.797	mg/L	0.0128	3.797	mg/L	0.0128	0.34%
Mg 279.077*†	94282.1	7.583	mg/L	0.0120	7.583	mg/L	0.0120	0.16%
QC value within limits for Mg 279.077* Recovery = 101.11%								
Mg 280.271†	248604.6	7.497	mg/L	0.0761	7.497	mg/L	0.0761	1.02%
Mn 257.610*†	433670.9	0.7619	mg/L	0.00038	0.7619	mg/L	0.00038	0.05%
QC value within limits for Mn 257.610* Recovery = 101.59%								
Mn 259.372†	332851.5	0.7542	mg/L	0.00072	0.7542	mg/L	0.00072	0.10%
Mo 202.031*†	13799.5	0.5993	mg/L	0.00288	0.5993	mg/L	0.00288	0.48%
QC value within limits for Mo 202.031* Recovery = 99.88%								
Mo 203.845†	10027.6	0.6017	mg/L	0.00556	0.6017	mg/L	0.00556	0.92%
Ni 231.604*†	39291.5	0.6118	mg/L	0.00551	0.6118	mg/L	0.00551	0.90%
QC value within limits for Ni 231.604* Recovery = 101.96%								
Ni 232.003†	12782.8	0.5202	mg/L	0.00408	0.5202	mg/L	0.00408	0.78%
Pb 217.000†	8064.7	3.712	mg/L	0.0230	3.712	mg/L	0.0230	0.62%
Pb 220.353*†	61514.5	3.731	mg/L	0.0274	3.731	mg/L	0.0274	0.74%
QC value within limits for Pb 220.353* Recovery = 99.50%								
Sb 206†	19656.2	4.495	mg/L	0.0198	4.495	mg/L	0.0198	0.44%
Sb 206.836†	20001.0	4.394	mg/L	0.1117	4.394	mg/L	0.1117	2.54%
Sb 217.582*†	20029.4	4.482	mg/L	0.0261	4.482	mg/L	0.0261	0.58%

Return to Contents

QC value within limits for Sb 217.582* Recovery = 99.61%						
Se 196.026*†	4619.6	1.512	mg/L	0.0127	1.512 mg/L	0.0127 0.84%
QC value within limits for Se 196.026* Recovery = 100.82%						
Se 203.985†	5374.3	1.512	mg/L	0.0158	1.512 mg/L	0.0158 1.05%
Tl†	4168.6	1.502	mg/L	0.0100	1.502 mg/L	0.0100 0.67%
Tl 190.801*†	5056.4	1.521	mg/L	0.0107	1.521 mg/L	0.0107 0.71%
QC value within limits for Tl 190.801* Recovery = 101.37%						
Tl 351.924†	7180.7	1.441	mg/L	0.0022	1.441 mg/L	0.0022 0.16%
V 292.402*†	204227.7	1.917	mg/L	0.0007	1.917 mg/L	0.0007 0.04%
QC value within limits for V 292.402* Recovery = 102.23%						
V 310.230†	387434.0	1.933	mg/L	0.0056	1.933 mg/L	0.0056 0.29%
Zn 202.548†	255531.2	2.561	mg/L	0.0076	2.561 mg/L	0.0076 0.30%
Zn 206.200*†	178818.9	2.547	mg/L	0.0090	2.547 mg/L	0.0090 0.35%
QC value within limits for Zn 206.200* Recovery = 101.89%						

All analyte(s) passed QC.

Return to Contents

Sequence No.: 13
Sample ID: CCB2-R04231301
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 11/12/2013 7:13:03 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB2-R04231301

Analyte	Back Pressure	Flow
All	123.0 kPa	0.50 L/min

Mean Data: CCB2-R04231301

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	191800.1	4.931	mg/L	0.0111				0.22%
Ho 345.600	308233.0	4.915	mg/L	0.0180				0.37%
Tb 350.917	135743.9	4.923	mg/L	0.0145				0.29%
Tb 384.873	80107.7	4.926	mg/L	0.0204				0.41%
Y 324.227	1110311.5	4.893	mg/L	0.0191				0.39%
Y 371.029	2271288.8	4.928	mg/L	0.0098				0.20%
Ag 328.068*†	-141.0	-0.0010	mg/L	0.00061	-0.0010	mg/L	0.00061	61.07%
QC value within limits for Ag 328.068* Recovery = Not calculated								
Ag 338.289†	2.5	0.0000	mg/L	0.00025	0.0000	mg/L	0.00025	731.33%
Al 308.215*†	200.1	0.0100	mg/L	0.00121	0.0100	mg/L	0.00121	12.09%
Al 396.153†	190.4	0.0015	mg/L	0.00001	0.0015	mg/L	0.00001	0.50%
As 188.979†	7.9	0.0014	mg/L	0.00373	0.0014	mg/L	0.00373	270.51%
As 193.696*†	-11.7	-0.0029	mg/L	0.00211	-0.0029	mg/L	0.00211	73.18%
Ba 233.527*†	-15.0	-0.0001	mg/L	0.00010	-0.0001	mg/L	0.00010	126.24%
Ba 455.403†	47.1	0.0002	mg/L	0.00011	0.0002	mg/L	0.00011	53.37%
Be 313.042*†	460.2	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	20.27%
Be 313.107†	-74.1	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	41.34%
Cd 226.502*†	-11.0	-0.0001	mg/L	0.00012	-0.0001	mg/L	0.00012	182.63%
Cd 228.802†	-17.0	-0.0002	mg/L	0.00003	-0.0002	mg/L	0.00003	11.83%
Co 228.616*†	0.8	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	35.68%
Co 230.786†	5.3	0.0001	mg/L	0.00021	0.0001	mg/L	0.00021	195.53%
Cr 267.716*†	-5.3	-0.0001	mg/L	0.00042	-0.0001	mg/L	0.00042	708.63%
Cr 357.869†	55.4	0.0009	mg/L	0.00034	0.0009	mg/L	0.00034	38.67%
Cu 324.752*†	-12.3	-0.0001	mg/L	0.00054	-0.0001	mg/L	0.00054	621.27%
Cu 327.393†	8.6	0.0001	mg/L	0.00037	0.0001	mg/L	0.00037	503.13%
Fe 239.562†	-4.7	-0.0030	mg/L	0.00028	-0.0030	mg/L	0.00028	9.49%
Fe 259.939†	-0.4	-0.0002	mg/L	0.00150	-0.0002	mg/L	0.00150	803.60%
Fe 273.955*†	-29.1	-0.0009	mg/L	0.00045	-0.0009	mg/L	0.00045	48.49%
Mg 279.077*†	-206.4	-0.0166	mg/L	0.00154	-0.0166	mg/L	0.00154	9.29%
Mg 280.271†	6.5	0.0002	mg/L	0.00006	0.0002	mg/L	0.00006	28.59%
Mn 257.610*†	51.6	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	20.66%
Mn 259.372†	-19.8	0.0000	mg/L	0.00002	0.0000	mg/L	0.00002	44.08%
Mo 202.031*†	1.6	0.0001	mg/L	0.00001	0.0001	mg/L	0.00001	14.95%
Mo 203.845†	9.7	0.0006	mg/L	0.00068	0.0006	mg/L	0.00068	117.16%
Ni 231.604*†	-157.2	-0.0024	mg/L	0.00007	-0.0024	mg/L	0.00007	2.88%
Ni 232.003†	-282.1	-0.0115	mg/L	0.00017	-0.0115	mg/L	0.00017	1.49%
Pb 217.000†	-172.6	-0.0794	mg/L	0.02624	-0.0794	mg/L	0.02624	33.03%
Pb 220.353*†	7.4	0.0004	mg/L	0.00097	0.0004	mg/L	0.00097	216.43%
Sb 206†	-20.9	-0.0048	mg/L	0.00199	-0.0048	mg/L	0.00199	41.71%
Sb 206.836†	-79.3	-0.0174	mg/L	0.00815	-0.0174	mg/L	0.00815	46.77%
Sb 217.582*†	-48.8	-0.0109	mg/L	0.00412	-0.0109	mg/L	0.00412	37.80%
Se 196.026*†	15.0	0.0049	mg/L	0.00347	0.0049	mg/L	0.00347	70.49%
Se 203.985†	23.3	0.0066	mg/L	0.00501	0.0066	mg/L	0.00501	76.40%
Tl†	-6.2	-0.0022	mg/L	0.00158	-0.0022	mg/L	0.00158	70.38%
Tl 190.801*†	-2.0	-0.0006	mg/L	0.00226	-0.0006	mg/L	0.00226	369.41%
Tl 351.924†	-1.1	-0.0002	mg/L	0.00722	-0.0002	mg/L	0.00722	>999.9%
V 292.402*†	-14.6	-0.0001	mg/L	0.00031	-0.0001	mg/L	0.00031	225.72%
V 310.230†	1931.5	0.0096	mg/L	0.00299	0.0096	mg/L	0.00299	31.05%
Zn 202.548†	19.7	0.0002	mg/L	0.00001	0.0002	mg/L	0.00001	6.01%
Zn 206.200*†	-1.4	0.0000	mg/L	0.00003	0.0000	mg/L	0.00003	146.67%

All analyte(s) passed QC.

Return to Contents

Sequence No.: 24
Sample ID: CCV= STD3x0.5
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/12/2013 7:25:01 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV= STD3x0.5

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	184745.9	4.750	mg/L	0.0353				0.74%
Ho 345.600	298222.5	4.755	mg/L	0.0287				0.60%
Tb 350.917	133030.5	4.824	mg/L	0.0306				0.63%
Tb 384.873	78123.7	4.804	mg/L	0.0412				0.86%
Y 324.227	1098904.1	4.842	mg/L	0.0304				0.63%
Y 371.029	2232329.0	4.844	mg/L	0.0296				0.61%
Ag 328.068*†	53022.2	0.3729	mg/L	0.00023	0.3729	mg/L	0.00023	0.06%
QC value within limits for Ag 328.068* Recovery = 99.44%								
Ag 338.289†	28013.5	0.3728	mg/L	0.00011	0.3728	mg/L	0.00011	0.03%
Al 308.215*†	269356.8	13.47	mg/L	0.024	13.47	mg/L	0.024	0.17%
QC value within limits for Al 308.215* Recovery = 99.80%								
Al 396.153†	1679296.9	13.45	mg/L	0.014	13.45	mg/L	0.014	0.10%
As 188.979†	21800.9	3.816	mg/L	0.0032	3.816	mg/L	0.0032	0.08%
QC value within limits for As 188.979 Recovery = 101.76%								
As 193.696*†	15309.1	3.777	mg/L	0.0019	3.777	mg/L	0.0019	0.05%
QC value within limits for As 193.696* Recovery = 100.73%								
Ba 233.527*†	1412801.4	7.761	mg/L	0.0024	7.761	mg/L	0.0024	0.03%
QC value within limits for Ba 233.527* Recovery = 103.49%								
Ba 455.403†	1723322.5	7.615	mg/L	0.1415	7.615	mg/L	0.1415	1.86%
Be 313.042*†	2944696.5	0.5668	mg/L	0.00033	0.5668	mg/L	0.00033	0.06%
QC value within limits for Be 313.042* Recovery = 100.77%								
Be 313.107†	1512904.0	0.5693	mg/L	0.00004	0.5693	mg/L	0.00004	0.01%
Cd 226.502*†	123456.3	0.7634	mg/L	0.00060	0.7634	mg/L	0.00060	0.08%
QC value within limits for Cd 226.502* Recovery = 101.79%								
Cd 228.802†	52963.0	0.7546	mg/L	0.00416	0.7546	mg/L	0.00416	0.55%
Co 228.616*†	96841.3	1.910	mg/L	0.0116	1.910	mg/L	0.0116	0.61%
QC value within limits for Co 228.616* Recovery = 101.89%								
Co 230.786†	94193.1	1.908	mg/L	0.0099	1.908	mg/L	0.0099	0.52%
Cr 267.716*†	55197.6	0.6109	mg/L	0.00331	0.6109	mg/L	0.00331	0.54%
QC value within limits for Cr 267.716* Recovery = 101.82%								
Cr 357.869†	36750.3	0.5835	mg/L	0.00254	0.5835	mg/L	0.00254	0.43%
Cu 324.752*†	129707.6	0.9261	mg/L	0.00062	0.9261	mg/L	0.00062	0.07%
QC value within limits for Cu 324.752* Recovery = 98.79%								
Cu 327.393†	109152.2	0.9366	mg/L	0.00169	0.9366	mg/L	0.00169	0.18%
Fe 239.562†	6127.1	3.922	mg/L	0.0059	3.922	mg/L	0.0059	0.15%
Fe 259.939†	8995.0	3.866	mg/L	0.0015	3.866	mg/L	0.0015	0.04%
Fe 273.955*†	119517.4	3.807	mg/L	0.0035	3.807	mg/L	0.0035	0.09%
Mg 279.077*†	94700.5	7.617	mg/L	0.0105	7.617	mg/L	0.0105	0.14%
QC value within limits for Mg 279.077* Recovery = 101.55%								
Mg 280.271†	258451.6	7.794	mg/L	0.1899	7.794	mg/L	0.1899	2.44%
Mn 257.610*†	434951.3	0.7642	mg/L	0.00143	0.7642	mg/L	0.00143	0.19%
QC value within limits for Mn 257.610* Recovery = 101.89%								
Mn 259.372†	334484.7	0.7579	mg/L	0.00006	0.7579	mg/L	0.00006	0.01%
Mo 202.031*†	13959.6	0.6062	mg/L	0.00029	0.6062	mg/L	0.00029	0.05%
QC value within limits for Mo 202.031* Recovery = 101.03%								
Mo 203.845†	10085.3	0.6052	mg/L	0.00299	0.6052	mg/L	0.00299	0.49%
Ni 231.604*†	39526.7	0.6154	mg/L	0.00156	0.6154	mg/L	0.00156	0.25%
QC value within limits for Ni 231.604* Recovery = 102.57%								
Ni 232.003†	12982.4	0.5283	mg/L	0.00053	0.5283	mg/L	0.00053	0.10%
Pb 217.000†	8102.1	3.730	mg/L	0.0113	3.730	mg/L	0.0113	0.30%
Pb 220.353*†	61729.7	3.744	mg/L	0.0226	3.744	mg/L	0.0226	0.60%
QC value within limits for Pb 220.353* Recovery = 99.85%								
Sb 206†	19751.5	4.517	mg/L	0.0013	4.517	mg/L	0.0013	0.03%
Sb 206.836†	20373.7	4.476	mg/L	0.0153	4.476	mg/L	0.0153	0.34%
Sb 217.582*†	20110.0	4.500	mg/L	0.0246	4.500	mg/L	0.0246	0.55%

Return to Contents

QC value within limits for Sb 217.582* Recovery = 100.01%						
Se 196.026*†	4648.5	1.522	mg/L	0.0007	1.522 mg/L	0.0007	0.05%
QC value within limits for Se 196.026* Recovery = 101.45%						
Se 203.985†	5375.1	1.513	mg/L	0.0294	1.513 mg/L	0.0294	1.94%
Tl†	4180.1	1.506	mg/L	0.0073	1.506 mg/L	0.0073	0.49%
Tl 190.801*†	5042.7	1.516	mg/L	0.0081	1.516 mg/L	0.0081	0.54%
QC value within limits for Tl 190.801* Recovery = 101.09%						
Tl 351.924†	7286.2	1.463	mg/L	0.0060	1.463 mg/L	0.0060	0.41%
V 292.402*†	203297.0	1.908	mg/L	0.0020	1.908 mg/L	0.0020	0.11%
QC value within limits for V 292.402* Recovery = 101.76%						
V 310.230†	385160.8	1.921	mg/L	0.0058	1.921 mg/L	0.0058	0.30%
Zn 202.548†	255584.6	2.562	mg/L	0.0076	2.562 mg/L	0.0076	0.30%
Zn 206.200*†	178905.9	2.548	mg/L	0.0072	2.548 mg/L	0.0072	0.28%
QC value within limits for Zn 206.200* Recovery = 101.94%						

All analyte(s) passed QC.

Return to Contents

Sequence No.: 26
Sample ID: CCB2-R04231301
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 11/12/2013 7:27:26 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB2-R04231301

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: CCB2-R04231301

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	193402.7	4.972	mg/L	0.0279				0.56%
Ho 345.600	310534.8	4.951	mg/L	0.0295				0.60%
Tb 350.917	136765.0	4.960	mg/L	0.0214				0.43%
Tb 384.873	80695.7	4.962	mg/L	0.0342				0.69%
Y 324.227	1117583.0	4.925	mg/L	0.0382				0.78%
Y 371.029	2293679.8	4.977	mg/L	0.0316				0.63%
Ag 328.068*†	-134.9	-0.0009	mg/L	0.00014	-0.0009	mg/L	0.00014	14.67%
QC value within limits for Ag 328.068* Recovery = Not calculated								
Ag 338.289†	43.9	0.0006	mg/L	0.00062	0.0006	mg/L	0.00062	106.39%
Al 308.215*†	164.2	0.0082	mg/L	0.00346	0.0082	mg/L	0.00346	42.17%
Al 396.153†	178.1	0.0014	mg/L	0.00028	0.0014	mg/L	0.00028	19.40%
As 188.979†	-2.0	-0.0003	mg/L	0.00030	-0.0003	mg/L	0.00030	86.37%
As 193.696*†	-24.3	-0.0060	mg/L	0.00191	-0.0060	mg/L	0.00191	31.79%
Ba 233.527*†	1.9	0.0000	mg/L	0.00005	0.0000	mg/L	0.00005	451.04%
Ba 455.403†	48.9	0.0002	mg/L	0.00015	0.0002	mg/L	0.00015	70.44%
Be 313.042*†	440.7	0.0001	mg/L	0.00000	0.0001	mg/L	0.00000	2.17%
Be 313.107†	-154.4	-0.0001	mg/L	0.00004	-0.0001	mg/L	0.00004	64.01%
Cd 226.502*†	-0.8	0.0000	mg/L	0.00007	0.0000	mg/L	0.00007	>999.9%
Cd 228.802†	-22.9	-0.0003	mg/L	0.00013	-0.0003	mg/L	0.00013	38.59%
Co 228.616*†	-9.3	-0.0002	mg/L	0.00016	-0.0002	mg/L	0.00016	89.03%
Co 230.786†	-2.0	0.0000	mg/L	0.00026	0.0000	mg/L	0.00026	648.30%
Cr 267.716*†	35.4	0.0004	mg/L	0.00012	0.0004	mg/L	0.00012	31.56%
Cr 357.869†	55.7	0.0009	mg/L	0.00003	0.0009	mg/L	0.00003	3.73%
Cu 324.752*†	-10.7	-0.0001	mg/L	0.00025	-0.0001	mg/L	0.00025	321.64%
Cu 327.393†	-8.2	-0.0001	mg/L	0.00003	-0.0001	mg/L	0.00003	45.97%
Fe 239.562†	2.5	0.0016	mg/L	0.00080	0.0016	mg/L	0.00080	48.87%
Fe 259.939†	9.7	0.0042	mg/L	0.00258	0.0042	mg/L	0.00258	61.82%
Fe 273.955*†	149.4	0.0048	mg/L	0.00017	0.0048	mg/L	0.00017	3.49%
Mg 279.077*†	-265.1	-0.0213	mg/L	0.00431	-0.0213	mg/L	0.00431	20.22%
Mg 280.271†	7.1	0.0002	mg/L	0.00010	0.0002	mg/L	0.00010	48.36%
Mn 257.610*†	119.2	0.0002	mg/L	0.00002	0.0002	mg/L	0.00002	8.83%
Mn 259.372†	55.0	0.0001	mg/L	0.00008	0.0001	mg/L	0.00008	67.18%
Mo 202.031*†	-2.1	-0.0001	mg/L	0.00037	-0.0001	mg/L	0.00037	404.37%
Mo 203.845†	7.1	0.0004	mg/L	0.00042	0.0004	mg/L	0.00042	99.24%
Ni 231.604*†	-146.3	-0.0023	mg/L	0.00067	-0.0023	mg/L	0.00067	29.55%
Ni 232.003†	-329.1	-0.0134	mg/L	0.00142	-0.0134	mg/L	0.00142	10.60%
Pb 217.000†	-159.6	-0.0735	mg/L	0.00519	-0.0735	mg/L	0.00519	7.06%
Pb 220.353*†	-19.0	-0.0011	mg/L	0.00093	-0.0011	mg/L	0.00093	80.54%
Sb 206†	-6.7	-0.0015	mg/L	0.00133	-0.0015	mg/L	0.00133	86.93%
Sb 206.836†	-47.5	-0.0104	mg/L	0.00219	-0.0104	mg/L	0.00219	20.99%
Sb 217.582*†	-34.0	-0.0076	mg/L	0.00235	-0.0076	mg/L	0.00235	30.92%
Se 196.026*†	-1.4	-0.0004	mg/L	0.00042	-0.0004	mg/L	0.00042	93.56%
Se 203.985†	-4.8	-0.0014	mg/L	0.00033	-0.0014	mg/L	0.00033	24.31%
Tl†	-9.3	-0.0034	mg/L	0.00173	-0.0034	mg/L	0.00173	51.28%
Tl 190.801*†	-6.8	-0.0020	mg/L	0.00207	-0.0020	mg/L	0.00207	101.91%
Tl 351.924†	37.5	0.0075	mg/L	0.00500	0.0075	mg/L	0.00500	66.38%
V 292.402*†	51.6	0.0005	mg/L	0.00006	0.0005	mg/L	0.00006	11.45%
V 310.230†	2390.6	0.0119	mg/L	0.00326	0.0119	mg/L	0.00326	27.36%
Zn 202.548†	52.6	0.0005	mg/L	0.00003	0.0005	mg/L	0.00003	5.70%
Zn 206.200*†	27.8	0.0004	mg/L	0.00034	0.0004	mg/L	0.00034	85.74%

All analyte(s) passed QC.

Return to Contents

Analysis Begun

Start Time: 11/12/2013 7:51:25 PM
Plasma On Time: 11/12/2013 8:50:13 AM
Logged In Analyst: John Nguyen
Technique: ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 77c8120401 Autosampler Model: AS-93plus

Sample Information File: C:\pe\jn\Sample Information\13111201.sif
Batch ID:
Results Data Set: 131112C1
Results Library: W:\ICP_07\ICP_07\pe\7300\Results\Results.mdb

Sequence No.: 1
Autosampler Location: 3
Sample ID: CCV= STD3x0.5
Date Collected: 11/12/2013 7:51:29 PM
Analyst: 469 icp 7300
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:

Nebulizer Parameters: CCV= STD3x0.5

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Ho 339.898	188230.1	4.839	mg/L	0.0108				0.22%
Ho 345.600	302565.6	4.824	mg/L	0.0144				0.30%
Tb 350.917	135354.9	4.909	mg/L	0.0158				0.32%
Tb 384.873	79327.6	4.878	mg/L	0.0162				0.33%
Y 324.227	1111058.1	4.896	mg/L	0.0130				0.27%
Y 371.029	2279324.0	4.946	mg/L	0.0083				0.17%
Ag 328.068*†	53149.9	0.3738	mg/L	0.00048	0.3738	mg/L	0.00048	0.13%
QC value within limits for Ag 328.068* Recovery = 99.68%								
Ag 338.289†	28080.1	0.3737	mg/L	0.00600	0.3737	mg/L	0.00600	1.60%
Al 308.215*†	267909.1	13.40	mg/L	0.047	13.40	mg/L	0.047	0.35%
QC value within limits for Al 308.215* Recovery = 99.26%								
Al 396.153†	1664212.1	13.33	mg/L	0.024	13.33	mg/L	0.024	0.18%
As 188.979†	21739.2	3.805	mg/L	0.0856	3.805	mg/L	0.0856	2.25%
QC value within limits for As 188.979 Recovery = 101.47%								
As 193.696*†	15296.6	3.774	mg/L	0.0732	3.774	mg/L	0.0732	1.94%
QC value within limits for As 193.696* Recovery = 100.65%								
Ba 233.527*†	1416187.9	7.780	mg/L	0.0253	7.780	mg/L	0.0253	0.32%
QC value within limits for Ba 233.527* Recovery = 103.73%								
Ba 455.403†	1692542.2	7.479	mg/L	0.1640	7.479	mg/L	0.1640	2.19%
Be 313.042*†	2949016.6	0.5676	mg/L	0.00208	0.5676	mg/L	0.00208	0.37%
QC value within limits for Be 313.042* Recovery = 100.91%								
Be 313.107†	1513486.7	0.5695	mg/L	0.00196	0.5695	mg/L	0.00196	0.34%
Cd 226.502*†	122856.0	0.7597	mg/L	0.00383	0.7597	mg/L	0.00383	0.50%
QC value within limits for Cd 226.502* Recovery = 101.30%								
Cd 228.802†	52364.1	0.7460	mg/L	0.01161	0.7460	mg/L	0.01161	1.56%
Co 228.616*†	95843.5	1.891	mg/L	0.0305	1.891	mg/L	0.0305	1.61%
QC value within limits for Co 228.616* Recovery = 100.84%								
Co 230.786†	92930.3	1.882	mg/L	0.0255	1.882	mg/L	0.0255	1.36%
Cr 267.716*†	55297.5	0.6120	mg/L	0.01127	0.6120	mg/L	0.01127	1.84%
QC value within limits for Cr 267.716* Recovery = 102.01%								
Cr 357.869†	36751.1	0.5835	mg/L	0.00935	0.5835	mg/L	0.00935	1.60%
Cu 324.752*†	128206.2	0.9154	mg/L	0.00078	0.9154	mg/L	0.00078	0.08%
QC value within limits for Cu 324.752* Recovery = 97.64%								
Cu 327.393†	109576.2	0.9402	mg/L	0.00127	0.9402	mg/L	0.00127	0.14%
Fe 239.562†	6186.0	3.960	mg/L	0.0189	3.960	mg/L	0.0189	0.48%
Fe 259.939†	8873.5	3.814	mg/L	0.0272	3.814	mg/L	0.0272	0.71%
Fe 273.955*†	118737.9	3.783	mg/L	0.0144	3.783	mg/L	0.0144	0.38%
Mg 279.077*†	93931.8	7.555	mg/L	0.0364	7.555	mg/L	0.0364	0.48%
QC value within limits for Mg 279.077* Recovery = 100.73%								
Mg 280.271†	252008.1	7.599	mg/L	0.1748	7.599	mg/L	0.1748	2.30%
Mn 257.610*†	430308.4	0.7560	mg/L	0.00299	0.7560	mg/L	0.00299	0.39%
QC value within limits for Mn 257.610* Recovery = 100.80%								
Mn 259.372†	330718.9	0.7493	mg/L	0.00163	0.7493	mg/L	0.00163	0.22%

Return to Contents

Mo 202.031*†	13736.1	0.5965	mg/L	0.01104	0.5965	mg/L	0.01104	1.85%
QC value within limits for Mo 202.031* Recovery = 99.42%								
Mo 203.845†	9959.2	0.5976	mg/L	0.01011	0.5976	mg/L	0.01011	1.69%
Ni 231.604*†	39377.2	0.6131	mg/L	0.01385	0.6131	mg/L	0.01385	2.26%
QC value within limits for Ni 231.604* Recovery = 102.18%								
Ni 232.003†	12547.2	0.5106	mg/L	0.00530	0.5106	mg/L	0.00530	1.04%
Pb 217.000†	8195.9	3.773	mg/L	0.0754	3.773	mg/L	0.0754	2.00%
Pb 220.353*†	61714.6	3.743	mg/L	0.0651	3.743	mg/L	0.0651	1.74%
QC value within limits for Pb 220.353* Recovery = 99.82%								
Sb 206†	19590.7	4.480	mg/L	0.0723	4.480	mg/L	0.0723	1.61%
Sb 206.836†	20249.4	4.449	mg/L	0.0439	4.449	mg/L	0.0439	0.99%
Sb 217.582*†	19898.6	4.453	mg/L	0.0812	4.453	mg/L	0.0812	1.82%
QC value within limits for Sb 217.582* Recovery = 98.96%								
Se 196.026*†	4621.3	1.513	mg/L	0.0258	1.513	mg/L	0.0258	1.71%
QC value within limits for Se 196.026* Recovery = 100.85%								
Se 203.985†	5354.7	1.507	mg/L	0.0285	1.507	mg/L	0.0285	1.89%
Tl†	4094.4	1.475	mg/L	0.0264	1.475	mg/L	0.0264	1.79%
Tl 190.801*†	4982.7	1.498	mg/L	0.0266	1.498	mg/L	0.0266	1.77%
QC value within limits for Tl 190.801* Recovery = 99.89%								
Tl 351.924†	7155.3	1.436	mg/L	0.0227	1.436	mg/L	0.0227	1.58%
V 292.402*†	203483.8	1.910	mg/L	0.0072	1.910	mg/L	0.0072	0.38%
QC value within limits for V 292.402* Recovery = 101.86%								
V 310.230†	386057.8	1.926	mg/L	0.0101	1.926	mg/L	0.0101	0.53%
Zn 202.548†	253769.1	2.543	mg/L	0.0142	2.543	mg/L	0.0142	0.56%
Zn 206.200*†	177574.7	2.529	mg/L	0.0101	2.529	mg/L	0.0101	0.40%
QC value within limits for Zn 206.200* Recovery = 101.18%								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 3
Sample ID: CCB2-R04231301
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 11/12/2013 7:53:48 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB2-R04231301

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: CCB2-R04231301

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	193456.8	4.974	mg/L	0.0563				1.13%
Ho 345.600	309341.4	4.932	mg/L	0.0518				1.05%
Tb 350.917	136724.9	4.958	mg/L	0.0566				1.14%
Tb 384.873	80512.1	4.951	mg/L	0.0471				0.95%
Y 324.227	1111562.6	4.898	mg/L	0.0465				0.95%
Y 371.029	2291525.2	4.972	mg/L	0.0559				1.12%
Ag 328.068*†	-193.2	-0.0014	mg/L	0.00016	-0.0014	mg/L	0.00016	11.50%
QC value within limits for Ag 328.068* Recovery = Not calculated								
Ag 338.289†	-32.8	-0.0004	mg/L	0.00241	-0.0004	mg/L	0.00241	551.78%
Al 308.215*†	194.3	0.0097	mg/L	0.00347	0.0097	mg/L	0.00347	35.76%
Al 396.153†	170.0	0.0014	mg/L	0.00049	0.0014	mg/L	0.00049	35.92%
As 188.979†	13.2	0.0023	mg/L	0.00315	0.0023	mg/L	0.00315	136.42%
As 193.696*†	-6.0	-0.0015	mg/L	0.00090	-0.0015	mg/L	0.00090	61.45%
Ba 233.527*†	7.6	0.0000	mg/L	0.00007	0.0000	mg/L	0.00007	175.76%
Ba 455.403†	58.3	0.0003	mg/L	0.00019	0.0003	mg/L	0.00019	75.16%
Be 313.042*†	716.2	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	17.53%
Be 313.107†	-120.1	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	33.14%
Cd 226.502*†	-15.1	-0.0001	mg/L	0.00007	-0.0001	mg/L	0.00007	74.33%
Cd 228.802†	-14.8	-0.0002	mg/L	0.00025	-0.0002	mg/L	0.00025	117.53%
Co 228.616*†	-13.4	-0.0003	mg/L	0.00077	-0.0003	mg/L	0.00077	290.31%
Co 230.786†	-12.3	-0.0002	mg/L	0.00041	-0.0002	mg/L	0.00041	165.69%
Cr 267.716*†	48.3	0.0005	mg/L	0.00005	0.0005	mg/L	0.00005	9.19%
Cr 357.869†	-16.5	-0.0003	mg/L	0.00008	-0.0003	mg/L	0.00008	31.68%
Cu 324.752*†	-2.3	0.0000	mg/L	0.00018	0.0000	mg/L	0.00018	>999.9%
Cu 327.393†	-78.7	-0.0007	mg/L	0.00028	-0.0007	mg/L	0.00028	41.88%
Fe 239.562†	-3.9	-0.0025	mg/L	0.00488	-0.0025	mg/L	0.00488	196.41%
Fe 259.939†	7.8	0.0033	mg/L	0.00537	0.0033	mg/L	0.00537	160.58%
Fe 273.955*†	111.3	0.0035	mg/L	0.00062	0.0035	mg/L	0.00062	17.37%
Mg 279.077*†	-197.7	-0.0159	mg/L	0.00482	-0.0159	mg/L	0.00482	30.29%
Mg 280.271†	5.3	0.0002	mg/L	0.00013	0.0002	mg/L	0.00013	84.91%
Mn 257.610*†	55.4	0.0001	mg/L	0.00001	0.0001	mg/L	0.00001	7.01%
Mn 259.372†	5.1	0.0000	mg/L	0.00007	0.0000	mg/L	0.00007	618.05%
Mo 202.031*†	-17.1	-0.0007	mg/L	0.00017	-0.0007	mg/L	0.00017	22.54%
Mo 203.845†	16.9	0.0010	mg/L	0.00100	0.0010	mg/L	0.00100	98.35%
Ni 231.604*†	-167.6	-0.0026	mg/L	0.00026	-0.0026	mg/L	0.00026	10.14%
Ni 232.003†	-340.6	-0.0139	mg/L	0.00136	-0.0139	mg/L	0.00136	9.78%
Pb 217.000†	-52.7	-0.0243	mg/L	0.00764	-0.0243	mg/L	0.00764	31.48%
Pb 220.353*†	541.5	0.0328	mg/L	0.00392	0.0328	mg/L	0.00392	11.95%
Sb 206†	-3.2	-0.0007	mg/L	0.00076	-0.0007	mg/L	0.00076	105.47%
Sb 206.836†	-32.1	-0.0070	mg/L	0.00013	-0.0070	mg/L	0.00013	1.89%
Sb 217.582*†	-10.5	-0.0023	mg/L	0.00396	-0.0023	mg/L	0.00396	168.97%
Se 196.026*†	15.2	0.0050	mg/L	0.00502	0.0050	mg/L	0.00502	100.81%
Se 203.985†	-2.1	-0.0006	mg/L	0.00308	-0.0006	mg/L	0.00308	511.11%
Tl†	-2.6	-0.0009	mg/L	0.00156	-0.0009	mg/L	0.00156	170.16%
Tl 190.801*†	-2.1	-0.0006	mg/L	0.00069	-0.0006	mg/L	0.00069	109.15%
Tl 351.924†	51.3	0.0103	mg/L	0.01052	0.0103	mg/L	0.01052	102.19%
V 292.402*†	-1.5	0.0000	mg/L	0.00026	0.0000	mg/L	0.00026	>999.9%
V 310.230†	2288.8	0.0114	mg/L	0.00219	0.0114	mg/L	0.00219	19.22%
Zn 202.548†	47.3	0.0005	mg/L	0.00023	0.0005	mg/L	0.00023	49.41%
Zn 206.200*†	20.7	0.0003	mg/L	0.00016	0.0003	mg/L	0.00016	55.20%

All analyte(s) passed QC.

Return to Contents

EPA METHOD 6010 B

SAMPLE DATA

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 6010B

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: ICP 7300
D/T ANALYZED: 11/12/2013 19:22
ANALYST: 469
DATA FILE: W:\ICP-DATA\131112C1\13-11-0697-3.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3050B
D/T EXTRACTED: 11/11/2013 00:00

 # 3 **CLIENT SAMPLE NUMBER: 8-SS-5-6**

LCS/MB BATCH: 131111L01
MS/MSD BATCH: 131111S01
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Antimony	-0.0473	1	ND	0.750	50	mg/kg	
Arsenic	0.0255	1	1.28	0.750	50	mg/kg	
Barium	1.34	1	66.8	0.500	50	mg/kg	
Beryllium	0.00382	1	ND	0.250	50	mg/kg	
Cadmium	-0.00343	1	ND	0.500	50	mg/kg	
Chromium	0.195	1	9.77	0.250	50	mg/kg	
Cobalt	0.199	1	9.93	0.250	50	mg/kg	
Copper	0.205	1	10.2	0.500	50	mg/kg	
Lead	0.0244	1	1.22	0.500	50	mg/kg	
Molybdenum	-0.00634	1	ND	0.250	50	mg/kg	
Nickel	0.102	1	5.12	0.250	50	mg/kg	
Selenium	-0.0322	1	ND	0.750	50	mg/kg	
Silver	-0.00807	1	ND	0.250	50	mg/kg	
Thallium	-0.0538	1	ND	0.750	50	mg/kg	
Vanadium	0.973	1	48.6	0.250	50	mg/kg	
Zinc	0.727	1	36.4	1.00	50	mg/kg	

Return to Contents

Sequence No.: 22
Sample ID: 13-11-0697-3
Analyst: 469 icp 7300
Initial Sample Wt: 2 g
Dilution:

Autosampler Location: 230
Date Collected: 11/12/2013 7:22:53 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Nebulizer Parameters: 13-11-0697-3

Analyte	Back Pressure	Flow
All	126.0 kPa	0.50 L/min

Mean Data: 13-11-0697-3

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	167446.9	4.305	mg/L	0.0300				0.70%
Ho 345.600	270785.9	4.318	mg/L	0.0239				0.55%
Tb 350.917	127690.8	4.631	mg/L	0.0265				0.57%
Tb 384.873	69449.0	4.270	mg/L	0.0299				0.70%
Y 324.227	1159507.4	5.109	mg/L	0.0309				0.60%
Y 371.029	2332534.7	5.061	mg/L	0.0309				0.61%
Ag 328.068*†	-1147.6	-0.0081	mg/L	0.00042	-0.4035	mg/kg	0.02079	5.15%
Ag 338.289†	-6247.8	-0.0832	mg/L	0.00252	-4.158	mg/kg	0.1262	3.04%
Al 308.215*†	5142255.1	257.2	mg/L	0.39	12860	mg/kg	19.6	0.15%
Al 396.153†	Saturated3							
As 188.979†	86.0	0.0151	mg/L	0.00620	0.7528	mg/kg	0.30984	41.16%
As 193.696*†	103.5	0.0255	mg/L	0.00858	1.277	mg/kg	0.4290	33.59%
Ba 233.527*†	243226.7	1.336	mg/L	0.0003	66.81	mg/kg	0.016	0.02%
Ba 455.403†	285032.5	1.259	mg/L	0.0231	62.97	mg/kg	1.156	1.84%
Be 313.042*†	19871.1	0.0038	mg/L	0.00001	0.1912	mg/kg	0.00041	0.22%
Be 313.107†	11046.7	0.0042	mg/L	0.00007	0.2078	mg/kg	0.00372	1.79%
Cd 226.502*†	-554.8	-0.0034	mg/L	0.00035	-0.1716	mg/kg	0.01734	10.11%
Cd 228.802†	-2337.4	-0.0333	mg/L	0.00013	-1.665	mg/kg	0.0065	0.39%
Co 228.616*†	10068.6	0.1986	mg/L	0.00325	9.931	mg/kg	0.1627	1.64%
Co 230.786†	8633.3	0.1749	mg/L	0.00234	8.744	mg/kg	0.1170	1.34%
Cr 267.716*†	17654.2	0.1954	mg/L	0.00363	9.770	mg/kg	0.1814	1.86%
Cr 357.869†	12064.1	0.1915	mg/L	0.00072	9.577	mg/kg	0.0362	0.38%
Cu 324.752*†	28658.4	0.2046	mg/L	0.00049	10.23	mg/kg	0.025	0.24%
Cu 327.393†	29406.0	0.2523	mg/L	0.00006	12.62	mg/kg	0.003	0.03%
Fe 239.562†	639461.4	409.3	mg/L	7.60	20470	mg/kg	380.2	1.86%
Fe 259.939†	922784.7	396.6	mg/L	8.28	19830	mg/kg	414.2	2.09%
Fe 273.955*†	12050879.8	383.9	mg/L	1.32	19200	mg/kg	65.9	0.34%
Mg 279.077*†	1065880.1	85.73	mg/L	0.049	4286	mg/kg	2.4	0.06%
Mg 280.271†	2815727.1	84.91	mg/L	1.617	4245	mg/kg	80.8	1.90%
Mn 257.610*†	3754850.3	6.597	mg/L	0.0116	329.9	mg/kg	0.58	0.18%
Mn 259.372†	3085627.6	6.991	mg/L	0.0015	349.6	mg/kg	0.08	0.02%
Mo 202.031*†	-145.9	-0.0063	mg/L	0.00214	-0.3169	mg/kg	0.10685	33.72%
Mo 203.845†	-61.5	-0.0037	mg/L	0.00275	-0.1845	mg/kg	0.13752	74.53%
Ni 231.604*†	6582.7	0.1025	mg/L	0.00046	5.124	mg/kg	0.0229	0.45%
Ni 232.003†	1471.0	0.0599	mg/L	0.00344	2.993	mg/kg	0.1722	5.75%
Pb 217.000†	23.4	0.0108	mg/L	0.00485	0.5386	mg/kg	0.24270	45.06%
Pb 220.353*†	401.5	0.0244	mg/L	0.00207	1.218	mg/kg	0.1037	8.52%
Sb 206†	3.7	0.0009	mg/L	0.00017	0.0426	mg/kg	0.00857	20.12%
Sb 206.836†	-225.9	-0.0496	mg/L	0.00254	-2.482	mg/kg	0.1272	5.12%
Sb 217.582*†	-211.5	-0.0473	mg/L	0.00357	-2.366	mg/kg	0.1785	7.54%
Se 196.026*†	-98.4	-0.0322	mg/L	0.00145	-1.610	mg/kg	0.0725	4.51%
Se 203.985†	593.8	0.1671	mg/L	0.00949	8.356	mg/kg	0.4744	5.68%
Tl†	-227.1	-0.0818	mg/L	0.00495	-4.091	mg/kg	0.2477	6.05%
Tl 190.801*†	-178.9	-0.0538	mg/L	0.00602	-2.690	mg/kg	0.3011	11.19%
Tl 351.924†	35.6	0.0071	mg/L	0.00783	0.3570	mg/kg	0.39156	109.69%
V 292.402*†	103626.2	0.9726	mg/L	0.00106	48.63	mg/kg	0.053	0.11%
V 310.230†	206603.1	1.031	mg/L	0.0037	51.53	mg/kg	0.183	0.35%
Zn 202.548†	76958.7	0.7691	mg/L	0.00223	38.46	mg/kg	0.111	0.29%
Zn 206.200*†	54354.1	0.7270	mg/L	0.00064	36.35	mg/kg	0.032	0.09%

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 6010B

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: ICP 7300
D/T ANALYZED: 11/12/2013 19:23
ANALYST: 469
DATA FILE: W:\ICP-DATA\131112C1\13-11-0697-4.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3050B
D/T EXTRACTED: 11/11/2013 00:00

 # 4 **CLIENT SAMPLE NUMBER: 8-SS-9.5-10.5**

LCS/MB BATCH: 131111L01
MS/MSD BATCH: 131111S01
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Antimony	-0.0598	1	ND	0.750	50	mg/kg	
Arsenic	0.00698	1	ND	0.750	50	mg/kg	
Barium	1.38	1	68.8	0.500	50	mg/kg	
Beryllium	0.00376	1	ND	0.250	50	mg/kg	
Cadmium	-0.00299	1	ND	0.500	50	mg/kg	
Chromium	0.183	1	9.17	0.250	50	mg/kg	
Cobalt	0.196	1	9.79	0.250	50	mg/kg	
Copper	0.196	1	9.81	0.500	50	mg/kg	
Lead	0.0113	1	0.566	0.500	50	mg/kg	
Molybdenum	-0.00711	1	ND	0.250	50	mg/kg	
Nickel	0.0997	1	4.99	0.250	50	mg/kg	
Selenium	-0.0284	1	ND	0.750	50	mg/kg	
Silver	-0.00761	1	ND	0.250	50	mg/kg	
Thallium	-0.0501	1	ND	0.750	50	mg/kg	
Vanadium	0.918	1	45.9	0.250	50	mg/kg	
Zinc	0.739	1	37.0	1.00	50	mg/kg	

Return to Contents

Sequence No.: 23
Sample ID: 13-11-0697-4
Analyst: 469 icp 7300
Initial Sample Wt: 2 g
Dilution:

Autosampler Location: 231
Date Collected: 11/12/2013 7:23:57 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Nebulizer Parameters: 13-11-0697-4

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: 13-11-0697-4

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	167989.7	4.319	mg/L	0.0324				0.75%
Ho 345.600	270460.5	4.313	mg/L	0.0280				0.65%
Tb 350.917	127861.5	4.637	mg/L	0.0297				0.64%
Tb 384.873	69728.7	4.288	mg/L	0.0344				0.80%
Y 324.227	1157828.5	5.102	mg/L	0.0203				0.40%
Y 371.029	2320281.9	5.034	mg/L	0.0415				0.83%
Ag 328.068*†	-1081.4	-0.0076	mg/L	0.00050	-0.3803	mg/kg	0.02496	6.56%
Ag 338.289†	-6457.8	-0.0859	mg/L	0.00047	-4.297	mg/kg	0.0236	0.55%
Al 308.215*†	5141909.3	257.2	mg/L	0.08	12860	mg/kg	4.1	0.03%
Al 396.153†	Saturated3							
As 188.979†	50.9	0.0089	mg/L	0.00342	0.4451	mg/kg	0.17083	38.38%
As 193.696*†	28.3	0.0070	mg/L	0.00851	0.3491	mg/kg	0.42527	121.82%
Ba 233.527*†	250640.2	1.377	mg/L	0.0005	68.85	mg/kg	0.027	0.04%
Ba 455.403†	289665.3	1.280	mg/L	0.0190	64.00	mg/kg	0.950	1.48%
Be 313.042*†	19513.4	0.0038	mg/L	0.00002	0.1878	mg/kg	0.00120	0.64%
Be 313.107†	11080.5	0.0042	mg/L	0.00004	0.2085	mg/kg	0.00214	1.02%
Cd 226.502*†	-484.1	-0.0030	mg/L	0.00050	-0.1497	mg/kg	0.02506	16.75%
Cd 228.802†	-2262.0	-0.0322	mg/L	0.00046	-1.611	mg/kg	0.0230	1.42%
Co 228.616*†	9930.2	0.1959	mg/L	0.00120	9.795	mg/kg	0.0599	0.61%
Co 230.786†	8588.0	0.1740	mg/L	0.00055	8.698	mg/kg	0.0275	0.32%
Cr 267.716*†	16564.0	0.1833	mg/L	0.00183	9.167	mg/kg	0.0916	1.00%
Cr 357.869†	11580.3	0.1839	mg/L	0.00043	9.193	mg/kg	0.0215	0.23%
Cu 324.752*†	27488.8	0.1963	mg/L	0.00003	9.814	mg/kg	0.0013	0.01%
Cu 327.393†	28059.4	0.2408	mg/L	0.00108	12.04	mg/kg	0.054	0.45%
Fe 239.562†	603129.8	386.1	mg/L	7.39	19300	mg/kg	369.7	1.92%
Fe 259.939†	874558.1	375.9	mg/L	4.91	18800	mg/kg	245.6	1.31%
Fe 273.955*†	11773481.4	375.1	mg/L	1.42	18750	mg/kg	71.1	0.38%
Mg 279.077*†	1204360.9	96.86	mg/L	0.509	4843	mg/kg	25.5	0.53%
Mg 280.271†	3080547.3	92.89	mg/L	1.287	4645	mg/kg	64.3	1.39%
Mn 257.610*†	3730189.4	6.554	mg/L	0.0175	327.7	mg/kg	0.88	0.27%
Mn 259.372†	3067618.2	6.951	mg/L	0.0323	347.5	mg/kg	1.62	0.46%
Mo 202.031*†	-163.8	-0.0071	mg/L	0.00029	-0.3556	mg/kg	0.01449	4.08%
Mo 203.845†	-67.9	-0.0041	mg/L	0.00055	-0.2036	mg/kg	0.02769	13.60%
Ni 231.604*†	6406.7	0.0997	mg/L	0.00029	4.987	mg/kg	0.0144	0.29%
Ni 232.003†	1483.2	0.0604	mg/L	0.00038	3.018	mg/kg	0.0189	0.63%
Pb 217.000†	108.5	0.0500	mg/L	0.02766	2.498	mg/kg	1.3829	55.35%
Pb 220.353*†	186.7	0.0113	mg/L	0.00107	0.5663	mg/kg	0.05345	9.44%
Sb 206†	-10.2	-0.0023	mg/L	0.00077	-0.1170	mg/kg	0.03864	33.03%
Sb 206.836†	-217.0	-0.0477	mg/L	0.00112	-2.384	mg/kg	0.0559	2.34%
Sb 217.582*†	-267.1	-0.0598	mg/L	0.01485	-2.989	mg/kg	0.7423	24.84%
Se 196.026*†	-86.8	-0.0284	mg/L	0.00142	-1.421	mg/kg	0.0711	5.01%
Se 203.985†	553.5	0.1558	mg/L	0.00019	7.789	mg/kg	0.0096	0.12%
Tl†	-219.4	-0.0790	mg/L	0.00654	-3.951	mg/kg	0.3270	8.28%
Tl 190.801*†	-166.8	-0.0501	mg/L	0.00135	-2.507	mg/kg	0.0673	2.69%
Tl 351.924†	-17.7	-0.0035	mg/L	0.02281	-0.1774	mg/kg	1.14027	642.73%
V 292.402*†	97854.8	0.9184	mg/L	0.00232	45.92	mg/kg	0.116	0.25%
V 310.230†	195515.1	0.9753	mg/L	0.00131	48.76	mg/kg	0.065	0.13%
Zn 202.548†	78118.8	0.7812	mg/L	0.00440	39.06	mg/kg	0.220	0.56%
Zn 206.200*†	55189.1	0.7391	mg/L	0.00574	36.96	mg/kg	0.287	0.78%

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 6010B

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: ICP 7300
D/T ANALYZED: 11/12/2013 19:28
ANALYST: 469
DATA FILE: W:\ICP-DATA\131112C1\13-11-0697-5.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3050B
D/T EXTRACTED: 11/11/2013 00:00

 # 5 **CLIENT SAMPLE NUMBER: 8-SS-14.25-15.25**

LCS/MB BATCH: 131111L01
MS/MSD BATCH: 131111S01
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Antimony	-0.0563	1	ND	0.750	50	mg/kg	
Arsenic	0.0122	1	ND	0.750	50	mg/kg	
Barium	1.89	1	94.7	0.500	50	mg/kg	
Beryllium	0.00594	1	0.297	0.250	50	mg/kg	
Cadmium	-0.00425	1	ND	0.500	50	mg/kg	
Chromium	0.253	1	12.6	0.250	50	mg/kg	
Cobalt	0.258	1	12.9	0.250	50	mg/kg	
Copper	0.269	1	13.4	0.500	50	mg/kg	
Lead	0.0282	1	1.41	0.500	50	mg/kg	
Molybdenum	-0.0106	1	ND	0.250	50	mg/kg	
Nickel	0.132	1	6.61	0.250	50	mg/kg	
Selenium	-0.0378	1	ND	0.750	50	mg/kg	
Silver	-0.0107	1	ND	0.250	50	mg/kg	
Thallium	-0.0635	1	ND	0.750	50	mg/kg	
Vanadium	1.26	1	63.0	0.250	50	mg/kg	
Zinc	0.883	1	44.1	1.00	50	mg/kg	

Return to Contents

Sequence No.: 27
Sample ID: 13-11-0697-5
Analyst: 469 icp 7300
Initial Sample Wt: 2 g
Dilution:

Autosampler Location: 232
Date Collected: 11/12/2013 7:28:38 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Nebulizer Parameters: 13-11-0697-5

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: 13-11-0697-5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	162822.3	4.186	mg/L	0.0357				0.85%
Ho 345.600	264841.6	4.223	mg/L	0.0385				0.91%
Tb 350.917	126276.4	4.579	mg/L	0.0383				0.84%
Tb 384.873	66862.7	4.111	mg/L	0.0342				0.83%
Y 324.227	1176971.0	5.186	mg/L	0.0454				0.88%
Y 371.029	2361825.7	5.125	mg/L	0.0214				0.42%
Ag 328.068*†	-1528.2	-0.0107	mg/L	0.00066	-0.5374	mg/kg	0.03311	6.16%
Ag 338.289†	-7137.5	-0.0950	mg/L	0.00081	-4.750	mg/kg	0.0406	0.85%
Al 308.215*†	7246739.2	362.5	mg/L	2.85	18120	mg/kg	142.7	0.79%
Al 396.153†	Saturated3							
As 188.979†	50.3	0.0088	mg/L	0.01556	0.4398	mg/kg	0.77785	176.86%
As 193.696*†	49.3	0.0122	mg/L	0.02068	0.6081	mg/kg	1.03383	170.00%
Ba 233.527*†	344899.2	1.895	mg/L	0.0280	94.74	mg/kg	1.398	1.48%
Ba 455.403†	409509.0	1.809	mg/L	0.0083	90.47	mg/kg	0.414	0.46%
Be 313.042*†	30866.4	0.0059	mg/L	0.00013	0.2971	mg/kg	0.00669	2.25%
Be 313.107†	16826.8	0.0063	mg/L	0.00014	0.3166	mg/kg	0.00676	2.14%
Cd 226.502*†	-687.2	-0.0042	mg/L	0.00006	-0.2125	mg/kg	0.00300	1.41%
Cd 228.802†	-3035.8	-0.0433	mg/L	0.00063	-2.163	mg/kg	0.0313	1.45%
Co 228.616*†	13081.3	0.2581	mg/L	0.00103	12.90	mg/kg	0.052	0.40%
Co 230.786†	11361.3	0.2301	mg/L	0.00366	11.51	mg/kg	0.183	1.59%
Cr 267.716*†	22826.7	0.2526	mg/L	0.00511	12.63	mg/kg	0.256	2.02%
Cr 357.869†	16233.5	0.2577	mg/L	0.00205	12.89	mg/kg	0.103	0.80%
Cu 324.752*†	37638.8	0.2687	mg/L	0.00245	13.44	mg/kg	0.123	0.91%
Cu 327.393†	38344.3	0.3290	mg/L	0.00527	16.45	mg/kg	0.263	1.60%
Fe 239.562†	800162.4	512.2	mg/L	5.46	25610	mg/kg	272.8	1.07%
Fe 259.939†	1161634.2	499.3	mg/L	1.18	24970	mg/kg	59.0	0.24%
Fe 273.955*†	15114646.6	481.5	mg/L	2.56	24080	mg/kg	128.1	0.53%
Mg 279.077*†	1492507.0	120.0	mg/L	1.21	6002	mg/kg	60.6	1.01%
Mg 280.271†	3912079.5	118.0	mg/L	0.14	5898	mg/kg	7.1	0.12%
Mn 257.610*†	4972630.4	8.737	mg/L	0.1096	436.8	mg/kg	5.48	1.25%
Mn 259.372†	4077670.6	9.239	mg/L	0.0976	462.0	mg/kg	4.88	1.06%
Mo 202.031*†	-245.2	-0.0106	mg/L	0.00156	-0.5323	mg/kg	0.07792	14.64%
Mo 203.845†	-82.2	-0.0049	mg/L	0.00176	-0.2467	mg/kg	0.08798	35.67%
Ni 231.604*†	8494.3	0.1323	mg/L	0.00370	6.613	mg/kg	0.1850	2.80%
Ni 232.003†	2122.6	0.0864	mg/L	0.00348	4.319	mg/kg	0.1741	4.03%
Pb 217.000†	140.7	0.0648	mg/L	0.01222	3.238	mg/kg	0.6110	18.87%
Pb 220.353*†	464.3	0.0282	mg/L	0.00630	1.408	mg/kg	0.3151	22.38%
Sb 206†	11.6	0.0027	mg/L	0.01034	0.1329	mg/kg	0.51683	388.86%
Sb 206.836†	-299.5	-0.0658	mg/L	0.00778	-3.290	mg/kg	0.3889	11.82%
Sb 217.582*†	-251.6	-0.0563	mg/L	0.00239	-2.815	mg/kg	0.1194	4.24%
Se 196.026*†	-115.4	-0.0378	mg/L	0.00290	-1.889	mg/kg	0.1449	7.67%
Se 203.985†	775.0	0.2181	mg/L	0.02152	10.90	mg/kg	1.076	9.87%
Tl†	-274.9	-0.0990	mg/L	0.00381	-4.952	mg/kg	0.1903	3.84%
Tl 190.801*†	-211.3	-0.0635	mg/L	0.00304	-3.177	mg/kg	0.1522	4.79%
Tl 351.924†	-2.0	-0.0004	mg/L	0.00966	-0.0197	mg/kg	0.48321	>999.9%
V 292.402*†	134142.2	1.259	mg/L	0.0220	62.95	mg/kg	1.101	1.75%
V 310.230†	266190.7	1.328	mg/L	0.0247	66.39	mg/kg	1.234	1.86%
Zn 202.548†	94119.8	0.9413	mg/L	0.00753	47.07	mg/kg	0.376	0.80%
Zn 206.200*†	66675.0	0.8828	mg/L	0.00875	44.14	mg/kg	0.437	0.99%

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 6010B

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: ICP 7300
D/T ANALYZED: 11/12/2013 19:29
ANALYST: 469
DATA FILE: W:\ICP-DATA\131112C1\13-11-0697-6.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3050B
D/T EXTRACTED: 11/11/2013 00:00

 # 6 **CLIENT SAMPLE NUMBER: 12-SS-5-6**

LCS/MB BATCH: 131111L01
MS/MSD BATCH: 131111S01
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Antimony	-0.0325	1	ND	0.750	50	mg/kg	
Arsenic	0.00305	1	ND	0.750	50	mg/kg	
Barium	2.16	1	108	0.500	50	mg/kg	
Beryllium	0.00511	1	0.256	0.250	50	mg/kg	
Cadmium	-0.000992	1	ND	0.500	50	mg/kg	
Chromium	0.194	1	9.69	0.250	50	mg/kg	
Cobalt	0.125	1	6.23	0.250	50	mg/kg	
Copper	0.0989	1	4.95	0.500	50	mg/kg	
Lead	0.0168	1	0.839	0.500	50	mg/kg	
Molybdenum	-0.00415	1	ND	0.250	50	mg/kg	
Nickel	0.0865	1	4.33	0.250	50	mg/kg	
Selenium	-0.0230	1	ND	0.750	50	mg/kg	
Silver	-0.00654	1	ND	0.250	50	mg/kg	
Thallium	-0.105	1	ND	0.750	50	mg/kg	
Vanadium	0.587	1	29.4	0.250	50	mg/kg	
Zinc	0.694	1	34.7	1.00	50	mg/kg	

Return to Contents

Sequence No.: 28
Sample ID: 13-11-0697-6
Analyst: 469 icp 7300
Initial Sample Wt: 2 g
Dilution:

Autosampler Location: 233
Date Collected: 11/12/2013 7:29:46 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Nebulizer Parameters: 13-11-0697-6

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: 13-11-0697-6

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	171175.4	4.401	mg/L	0.0367				0.83%
Ho 345.600	261150.2	4.164	mg/L	0.0386				0.93%
Tb 350.917	127547.8	4.625	mg/L	0.0431				0.93%
Tb 384.873	68729.9	4.226	mg/L	0.0337				0.80%
Y 324.227	1127205.9	4.967	mg/L	0.0155				0.31%
Y 371.029	2226130.2	4.830	mg/L	0.0206				0.43%
Ag 328.068*†	-929.5	-0.0065	mg/L	0.00014	-0.3269	mg/kg	0.00723	2.21%
Ag 338.289†	-10748.8	-0.1431	mg/L	0.00033	-7.153	mg/kg	0.0164	0.23%
Al 308.215*†	4161413.7	208.1	mg/L	2.08	10410	mg/kg	104.2	1.00%
Al 396.153†	Saturated2							
As 188.979†	-186.5	-0.0326	mg/L	0.00134	-1.632	mg/kg	0.0669	4.10%
As 193.696*†	12.4	0.0030	mg/L	0.00091	0.1524	mg/kg	0.04536	29.76%
Ba 233.527*†	392517.4	2.156	mg/L	0.0153	107.8	mg/kg	0.76	0.71%
Ba 455.403†	449423.0	1.986	mg/L	0.0047	99.29	mg/kg	0.233	0.24%
Be 313.042*†	26566.4	0.0051	mg/L	0.00001	0.2557	mg/kg	0.00027	0.10%
Be 313.107†	15654.2	0.0059	mg/L	0.00003	0.2945	mg/kg	0.00127	0.43%
Cd 226.502*†	-160.4	-0.0010	mg/L	0.00011	-0.0496	mg/kg	0.00556	11.21%
Cd 228.802†	-1530.9	-0.0218	mg/L	0.00004	-1.091	mg/kg	0.0022	0.20%
Co 228.616*†	6317.9	0.1246	mg/L	0.00120	6.232	mg/kg	0.0599	0.96%
Co 230.786†	4432.4	0.0898	mg/L	0.00017	4.489	mg/kg	0.0084	0.19%
Cr 267.716*†	17502.0	0.1937	mg/L	0.00010	9.686	mg/kg	0.0049	0.05%
Cr 357.869†	12066.5	0.1916	mg/L	0.00070	9.579	mg/kg	0.0349	0.36%
Cu 324.752*†	13852.5	0.0989	mg/L	0.00000	4.945	mg/kg	0.0001	0.00%
Cu 327.393†	14558.0	0.1249	mg/L	0.00211	6.246	mg/kg	0.1054	1.69%
Fe 239.562†	410614.9	262.8	mg/L	1.83	13140	mg/kg	91.4	0.70%
Fe 259.939†	595792.9	256.1	mg/L	1.67	12800	mg/kg	83.4	0.65%
Fe 273.955*†	7922582.5	252.4	mg/L	2.12	12620	mg/kg	106.2	0.84%
Mg 279.077*†	940881.0	75.67	mg/L	0.007	3784	mg/kg	0.3	0.01%
Mg 280.271†	2444933.1	73.73	mg/L	0.284	3686	mg/kg	14.2	0.39%
Mn 257.610*†	2334236.6	4.101	mg/L	0.0066	205.1	mg/kg	0.33	0.16%
Mn 259.372†	1921485.4	4.354	mg/L	0.0020	217.7	mg/kg	0.10	0.05%
Mo 202.031*†	-95.7	-0.0042	mg/L	0.00014	-0.2077	mg/kg	0.00724	3.48%
Mo 203.845†	-62.4	-0.0037	mg/L	0.00032	-0.1872	mg/kg	0.01594	8.52%
Ni 231.604*†	5558.2	0.0865	mg/L	0.00034	4.327	mg/kg	0.0171	0.40%
Ni 232.003†	1472.2	0.0599	mg/L	0.00780	2.996	mg/kg	0.3901	13.02%
Pb 217.000†	-31.8	-0.0146	mg/L	0.02007	-0.7308	mg/kg	1.00368	137.33%
Pb 220.353*†	276.7	0.0168	mg/L	0.00128	0.8393	mg/kg	0.06419	7.65%
Sb 206†	-82.1	-0.0188	mg/L	0.00079	-0.9383	mg/kg	0.03940	4.20%
Sb 206.836†	-219.6	-0.0483	mg/L	0.00362	-2.413	mg/kg	0.1810	7.50%
Sb 217.582*†	-145.2	-0.0325	mg/L	0.00119	-1.625	mg/kg	0.0597	3.67%
Se 196.026*†	-70.3	-0.0230	mg/L	0.00308	-1.150	mg/kg	0.1538	13.37%
Se 203.985†	470.8	0.1325	mg/L	0.01202	6.625	mg/kg	0.6011	9.07%
Tl†	-471.1	-0.1697	mg/L	0.00309	-8.486	mg/kg	0.1544	1.82%
Tl 190.801*†	-350.8	-0.1055	mg/L	0.00181	-5.275	mg/kg	0.0905	1.72%
Tl 351.924†	222.9	0.0447	mg/L	0.00020	2.237	mg/kg	0.0099	0.44%
V 292.402*†	62590.7	0.5875	mg/L	0.00555	29.37	mg/kg	0.277	0.94%
V 310.230†	127492.8	0.6360	mg/L	0.00519	31.80	mg/kg	0.260	0.82%
Zn 202.548†	72812.4	0.7291	mg/L	0.00033	36.45	mg/kg	0.017	0.05%
Zn 206.200*†	51435.2	0.6945	mg/L	0.00048	34.72	mg/kg	0.024	0.07%

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 6010B

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: ICP 7300
D/T ANALYZED: 11/12/2013 19:30
ANALYST: 469
DATA FILE: W:\ICP-DATA\131112C1\13-11-0697-7.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3050B
D/T EXTRACTED: 11/11/2013 00:00

 # 7 **CLIENT SAMPLE NUMBER: 12-SS-9.5-10.5**

LCS/MB BATCH: 131111L01
MS/MSD BATCH: 131111S01
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Antimony	-0.0645	1	ND	0.750	50	mg/kg	
Arsenic	0.0171	1	0.855	0.750	50	mg/kg	
Barium	1.21	1	60.5	0.500	50	mg/kg	
Beryllium	0.00320	1	ND	0.250	50	mg/kg	
Cadmium	-0.00332	1	ND	0.500	50	mg/kg	
Chromium	0.187	1	9.36	0.250	50	mg/kg	
Cobalt	0.178	1	8.91	0.250	50	mg/kg	
Copper	0.175	1	8.76	0.500	50	mg/kg	
Lead	0.00972	1	ND	0.500	50	mg/kg	
Molybdenum	-0.00636	1	ND	0.250	50	mg/kg	
Nickel	0.0901	1	4.51	0.250	50	mg/kg	
Selenium	-0.0392	1	ND	0.750	50	mg/kg	
Silver	-0.00802	1	ND	0.250	50	mg/kg	
Thallium	-0.0612	1	ND	0.750	50	mg/kg	
Vanadium	1.02	1	51.1	0.250	50	mg/kg	
Zinc	0.648	1	32.4	1.00	50	mg/kg	

Return to Contents

Sequence No.: 29
Sample ID: 13-11-0697-7
Analyst: 469 icp 7300
Initial Sample Wt: 2 g
Dilution:

Autosampler Location: 234
Date Collected: 11/12/2013 7:30:47 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Nebulizer Parameters: 13-11-0697-7

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: 13-11-0697-7

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	166075.7	4.270	mg/L	0.0208				0.49%
Ho 345.600	266342.2	4.247	mg/L	0.0176				0.41%
Tb 350.917	126123.2	4.574	mg/L	0.0123				0.27%
Tb 384.873	69365.8	4.265	mg/L	0.0044				0.10%
Y 324.227	1124981.4	4.957	mg/L	0.0155				0.31%
Y 371.029	2262273.9	4.909	mg/L	0.0162				0.33%
Ag 328.068*†	-1140.8	-0.0080	mg/L	0.00031	-0.4012	mg/kg	0.01532	3.82%
Ag 338.289†	-6660.6	-0.0886	mg/L	0.00087	-4.432	mg/kg	0.0434	0.98%
Al 308.215*†	4947468.8	247.5	mg/L	0.11	12370	mg/kg	5.5	0.04%
Al 396.153†	Saturated3							
As 188.979†	25.7	0.0045	mg/L	0.00118	0.2248	mg/kg	0.05883	26.17%
As 193.696*†	69.3	0.0171	mg/L	0.00820	0.8555	mg/kg	0.40985	47.91%
Ba 233.527*†	220400.9	1.211	mg/L	0.0007	60.54	mg/kg	0.034	0.06%
Ba 455.403†	256708.7	1.134	mg/L	0.0019	56.72	mg/kg	0.094	0.16%
Be 313.042*†	16625.3	0.0032	mg/L	0.00002	0.1600	mg/kg	0.00078	0.49%
Be 313.107†	9470.2	0.0036	mg/L	0.00003	0.1782	mg/kg	0.00174	0.98%
Cd 226.502*†	-537.3	-0.0033	mg/L	0.00002	-0.1661	mg/kg	0.00084	0.51%
Cd 228.802†	-2277.0	-0.0324	mg/L	0.00102	-1.622	mg/kg	0.0509	3.14%
Co 228.616*†	9035.9	0.1783	mg/L	0.00219	8.913	mg/kg	0.1093	1.23%
Co 230.786†	7621.5	0.1544	mg/L	0.00324	7.719	mg/kg	0.1622	2.10%
Cr 267.716*†	16921.5	0.1873	mg/L	0.00193	9.364	mg/kg	0.0966	1.03%
Cr 357.869†	11496.3	0.1825	mg/L	0.00050	9.126	mg/kg	0.0252	0.28%
Cu 324.752*†	24542.0	0.1752	mg/L	0.00113	8.762	mg/kg	0.0566	0.65%
Cu 327.393†	25646.8	0.2201	mg/L	0.00082	11.00	mg/kg	0.041	0.37%
Fe 239.562†	613234.1	392.5	mg/L	0.87	19630	mg/kg	43.5	0.22%
Fe 259.939†	882797.6	379.5	mg/L	2.25	18970	mg/kg	112.3	0.59%
Fe 273.955*†	11483074.8	365.8	mg/L	1.86	18290	mg/kg	93.1	0.51%
Mg 279.077*†	1058916.5	85.17	mg/L	0.029	4258	mg/kg	1.4	0.03%
Mg 280.271†	2792619.2	84.21	mg/L	0.457	4211	mg/kg	22.8	0.54%
Mn 257.610*†	3082423.5	5.416	mg/L	0.0032	270.8	mg/kg	0.16	0.06%
Mn 259.372†	2568161.8	5.819	mg/L	0.0025	290.9	mg/kg	0.12	0.04%
Mo 202.031*†	-146.5	-0.0064	mg/L	0.00079	-0.3181	mg/kg	0.03974	12.49%
Mo 203.845†	-40.5	-0.0024	mg/L	0.00256	-0.1214	mg/kg	0.12777	105.21%
Ni 231.604*†	5788.9	0.0901	mg/L	0.00213	4.507	mg/kg	0.1063	2.36%
Ni 232.003†	1362.9	0.0555	mg/L	0.00082	2.773	mg/kg	0.0408	1.47%
Pb 217.000†	86.6	0.0399	mg/L	0.00899	1.994	mg/kg	0.4493	22.54%
Pb 220.353*†	160.3	0.0097	mg/L	0.00314	0.4861	mg/kg	0.15715	32.33%
Sb 206†	10.6	0.0024	mg/L	0.00175	0.1209	mg/kg	0.08749	72.38%
Sb 206.836†	-217.3	-0.0477	mg/L	0.01790	-2.387	mg/kg	0.8950	37.50%
Sb 217.582*†	-288.2	-0.0645	mg/L	0.01371	-3.225	mg/kg	0.6853	21.25%
Se 196.026*†	-119.7	-0.0392	mg/L	0.00619	-1.960	mg/kg	0.3096	15.80%
Se 203.985†	552.6	0.1555	mg/L	0.00853	7.776	mg/kg	0.4263	5.48%
Tl†	-273.7	-0.0986	mg/L	0.01196	-4.930	mg/kg	0.5981	12.13%
Tl 190.801*†	-203.5	-0.0612	mg/L	0.00081	-3.060	mg/kg	0.0406	1.33%
Tl 351.924†	77.8	0.0156	mg/L	0.01844	0.7805	mg/kg	0.92193	118.12%
V 292.402*†	108853.9	1.022	mg/L	0.0005	51.08	mg/kg	0.025	0.05%
V 310.230†	217938.8	1.087	mg/L	0.0024	54.36	mg/kg	0.121	0.22%
Zn 202.548†	68738.5	0.6870	mg/L	0.00082	34.35	mg/kg	0.041	0.12%
Zn 206.200*†	48664.6	0.6478	mg/L	0.00068	32.39	mg/kg	0.034	0.11%

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 6010B

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: ICP 7300
D/T ANALYZED: 11/12/2013 15:29
ANALYST: 469
DATA FILE: W:\ICP-DATA\131112C1\13-11-0697-8.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3050B
D/T EXTRACTED: 11/11/2013 00:00

 # 8 **CLIENT SAMPLE NUMBER: 12-SS-13.25-15.25**

LCS/MB BATCH: 131111L01
MS/MSD BATCH: 131111S01
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Antimony	-0.0865	1	ND	0.750	50	mg/kg	
Arsenic	-0.00392	1	ND	0.750	50	mg/kg	
Barium	2.04	1	102	0.500	50	mg/kg	
Beryllium	0.00632	1	0.316	0.250	50	mg/kg	
Cadmium	-0.00260	1	ND	0.500	50	mg/kg	
Chromium	0.240	1	12.0	0.250	50	mg/kg	
Cobalt	0.269	1	13.4	0.250	50	mg/kg	
Copper	0.268	1	13.4	0.500	50	mg/kg	
Lead	0.0295	1	1.48	0.500	50	mg/kg	
Molybdenum	-0.00342	1	ND	0.250	50	mg/kg	
Nickel	0.140	1	6.98	0.250	50	mg/kg	
Selenium	-0.0336	1	ND	0.750	50	mg/kg	
Silver	-0.00720	1	ND	0.250	50	mg/kg	
Thallium	-0.0771	1	ND	0.750	50	mg/kg	
Vanadium	1.24	1	62.0	0.250	50	mg/kg	
Zinc	0.959	1	48.0	1.00	50	mg/kg	

Return to Contents

Sequence No.: 8
Sample ID: 13-11-0697-8
Analyst: 469 icp 7300
Initial Sample Wt: 2 g
Dilution:

Autosampler Location: 330
Date Collected: 11/12/2013 3:29:05 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Nebulizer Parameters: 13-11-0697-8

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: 13-11-0697-8

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	161789.2	4.105	mg/L	0.0153				0.37%
Ho 345.600	264379.7	4.148	mg/L	0.0176				0.42%
Tb 350.917	126849.2	4.534	mg/L	0.0127				0.28%
Tb 384.873	65797.6	4.000	mg/L	0.0087				0.22%
Y 324.227	1206747.9	5.236	mg/L	0.0262				0.50%
Y 371.029	2350066.7	5.061	mg/L	0.0120				0.24%
Ag 328.068*†	-1451.0	-0.0072	mg/L	0.00018	-0.3598	mg/kg	0.00902	2.51%
Ag 338.289†	-8308.2	-0.1350	mg/L	0.00119	-6.748	mg/kg	0.0595	0.88%
Al 308.215*†	7895312.6	388.9	mg/L	4.18	19440	mg/kg	209.1	1.08%
Al 396.153†	Saturated3							
As 188.979†	138.5	0.0240	mg/L	0.00610	1.201	mg/kg	0.3049	25.38%
As 193.696*†	-16.0	-0.0039	mg/L	0.01521	-0.1959	mg/kg	0.76038	388.16%
B 249.677*†	-1296.5	-0.0139	mg/L	0.00379	-0.6944	mg/kg	0.18946	27.28%
B 249.772†	18006.6	0.0287	mg/L	0.00078	1.437	mg/kg	0.0390	2.71%
Ba 233.527*†	374479.8	2.035	mg/L	0.0059	101.8	mg/kg	0.30	0.29%
Ba 455.403†	463707.2	2.025	mg/L	0.0092	101.2	mg/kg	0.46	0.46%
Be 313.042*†	33071.3	0.0063	mg/L	0.00001	0.3162	mg/kg	0.00033	0.10%
Be 313.107†	18402.3	0.0069	mg/L	0.00005	0.3437	mg/kg	0.00270	0.79%
Ca 317.933*†	691269.8	154.9	mg/L	0.59	7743	mg/kg	29.4	0.38%
Ca 422.673†	1438632.8	154.6	mg/L	0.79	7729	mg/kg	39.3	0.51%
Cd 226.502*†	-424.0	-0.0026	mg/L	0.00000	-0.1300	mg/kg	0.00000	0.00%
Cd 228.802†	-3193.0	-0.0451	mg/L	0.00031	-2.255	mg/kg	0.0153	0.68%
Co 228.616*†	13764.2	0.2690	mg/L	0.00081	13.45	mg/kg	0.041	0.30%
Co 230.786†	11824.8	0.2372	mg/L	0.00042	11.86	mg/kg	0.021	0.18%
Cr 267.716*†	23974.2	0.2401	mg/L	0.00108	12.01	mg/kg	0.054	0.45%
Cr 357.869†	17298.6	0.2714	mg/L	0.00019	13.57	mg/kg	0.010	0.07%
Cu 324.752*†	45057.9	0.2677	mg/L	0.00019	13.38	mg/kg	0.009	0.07%
Cu 327.393†	42399.9	0.2899	mg/L	0.00020	14.49	mg/kg	0.010	0.07%
Fe 239.562†	837304.9	535.8	mg/L	1.57	26790	mg/kg	78.7	0.29%
Fe 259.939†	1272212.0	530.3	mg/L	4.42	26520	mg/kg	220.9	0.83%
Fe 273.955*†	16139588.2	509.9	mg/L	5.57	25490	mg/kg	278.6	1.09%
K 766.490*†	54658.5	37.45	mg/L	0.082	1872	mg/kg	4.1	0.22%
Mg 279.077*†	1591913.9	126.5	mg/L	0.05	6324	mg/kg	2.5	0.04%
Mg 280.271†	4123337.0	120.1	mg/L	0.51	6007	mg/kg	25.3	0.42%
Mn 257.610*†	5584632.6	9.568	mg/L	0.0969	478.4	mg/kg	4.85	1.01%
Mn 259.372†	4602739.0	10.21	mg/L	0.011	510.4	mg/kg	0.55	0.11%
Mo 202.031*†	-244.0	-0.0034	mg/L	0.00212	-0.1710	mg/kg	0.10617	62.08%
Mo 203.845†	-103.7	-0.0062	mg/L	0.00036	-0.3093	mg/kg	0.01815	5.87%
Na 330.237†	6773.7	11.36	mg/L	0.278	567.8	mg/kg	13.91	2.45%
Na 589.592*†	100453.5	17.64	mg/L	0.089	882.1	mg/kg	4.43	0.50%
Ni 231.604*†	9046.3	0.1395	mg/L	0.00063	6.976	mg/kg	0.0316	0.45%
Ni 232.003†	2177.4	0.0884	mg/L	0.00148	4.422	mg/kg	0.0738	1.67%
Pb 217.000†	151.6	0.0698	mg/L	0.01456	3.489	mg/kg	0.7281	20.87%
Pb 220.353*†	492.3	0.0295	mg/L	0.00168	1.476	mg/kg	0.0838	5.68%
Sb 206†	10.5	0.0024	mg/L	0.02074	0.1192	mg/kg	1.03713	870.29%
Sb 206.836†	-231.7	-0.0499	mg/L	0.01354	-2.494	mg/kg	0.6771	27.15%
Sb 217.582*†	-388.1	-0.0865	mg/L	0.01615	-4.325	mg/kg	0.8077	18.67%
Se 196.026*†	-104.1	-0.0336	mg/L	0.00245	-1.680	mg/kg	0.1225	7.29%
Se 203.985†	842.7	0.2344	mg/L	0.00730	11.72	mg/kg	0.365	3.12%
Si 251.611*†	1010051.0	19.48	mg/L	0.025	974.0	mg/kg	1.27	0.13%
Si 288.158†	447981.7	19.34	mg/L	0.001	967.1	mg/kg	0.05	0.00%
Tl†	-317.1	-0.1523	mg/L	0.00328	-7.616	mg/kg	0.1638	2.15%
Tl 190.801*†	-258.9	-0.0771	mg/L	0.00497	-3.856	mg/kg	0.2487	6.45%
Tl 351.924†	-83.0	-0.0168	mg/L	0.01252	-0.8382	mg/kg	0.62585	74.66%
V 292.402*†	130762.5	1.240	mg/L	0.0028	61.98	mg/kg	0.140	0.23%

Return to Contents

V 310.230†	259012.5	1.350 mg/L	0.0026	67.50 mg/kg	0.128	0.19%
Zn 202.548†	107527.5	1.060 mg/L	0.0007	53.02 mg/kg	0.035	0.07%
Zn 206.200*†	76020.3	0.9592 mg/L	0.00224	47.96 mg/kg	0.112	0.23%

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 6010B

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: ICP 7300
D/T ANALYZED: 11/12/2013 19:31
ANALYST: 469
DATA FILE: W:\ICP-DATA\131112C1\13-11-0697-9.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3050B
D/T EXTRACTED: 11/11/2013 00:00

 # 9 **CLIENT SAMPLE NUMBER: 6-SS-5-6**

LCS/MB BATCH: 131111L01
MS/MSD BATCH: 131111S01
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Antimony	-0.0630	1	ND	0.750	50	mg/kg	
Arsenic	0.0334	1	1.67	0.750	50	mg/kg	
Barium	1.51	1	75.4	0.500	50	mg/kg	
Beryllium	0.00457	1	ND	0.250	50	mg/kg	
Cadmium	-0.00368	1	ND	0.500	50	mg/kg	
Chromium	0.229	1	11.5	0.250	50	mg/kg	
Cobalt	0.223	1	11.2	0.250	50	mg/kg	
Copper	0.254	1	12.7	0.500	50	mg/kg	
Lead	0.0209	1	1.05	0.500	50	mg/kg	
Molybdenum	-0.00704	1	ND	0.250	50	mg/kg	
Nickel	0.114	1	5.70	0.250	50	mg/kg	
Selenium	-0.0281	1	ND	0.750	50	mg/kg	
Silver	-0.00958	1	ND	0.250	50	mg/kg	
Thallium	-0.0586	1	ND	0.750	50	mg/kg	
Vanadium	1.16	1	58.0	0.250	50	mg/kg	
Zinc	0.842	1	42.1	1.00	50	mg/kg	

Return to Contents

Sequence No.: 30
Sample ID: 13-11-0697-9
Analyst: 469 icp 7300
Initial Sample Wt: 2 g
Dilution:

Autosampler Location: 235
Date Collected: 11/12/2013 7:31:51 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Nebulizer Parameters: 13-11-0697-9

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: 13-11-0697-9

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	164299.6	4.224	mg/L	0.0317				0.75%
Ho 345.600	265255.6	4.230	mg/L	0.0351				0.83%
Tb 350.917	126279.7	4.579	mg/L	0.0387				0.84%
Tb 384.873	67967.2	4.179	mg/L	0.0513				1.23%
Y 324.227	1160747.7	5.115	mg/L	0.0424				0.83%
Y 371.029	2333757.4	5.064	mg/L	0.0363				0.72%
Ag 328.068*†	-1361.6	-0.0096	mg/L	0.00016	-0.4788	mg/kg	0.00801	1.67%
Ag 338.289†	-7292.8	-0.0971	mg/L	0.00006	-4.853	mg/kg	0.0032	0.07%
Al 308.215*†	6084939.0	304.4	mg/L	1.53	15220	mg/kg	76.7	0.50%
Al 396.153†	Saturated3							
As 188.979†	129.8	0.0227	mg/L	0.01151	1.136	mg/kg	0.5754	50.65%
As 193.696*†	135.5	0.0334	mg/L	0.00662	1.672	mg/kg	0.3312	19.81%
Ba 233.527*†	274544.5	1.508	mg/L	0.0044	75.41	mg/kg	0.218	0.29%
Ba 455.403†	314447.6	1.389	mg/L	0.0142	69.47	mg/kg	0.711	1.02%
Be 313.042*†	23729.6	0.0046	mg/L	0.00001	0.2284	mg/kg	0.00054	0.24%
Be 313.107†	13059.3	0.0049	mg/L	0.00000	0.2457	mg/kg	0.00014	0.06%
Cd 226.502*†	-594.6	-0.0037	mg/L	0.00045	-0.1838	mg/kg	0.02262	12.30%
Cd 228.802†	-2770.3	-0.0395	mg/L	0.00012	-1.973	mg/kg	0.0061	0.31%
Co 228.616*†	11313.7	0.2232	mg/L	0.00039	11.16	mg/kg	0.019	0.17%
Co 230.786†	9670.9	0.1959	mg/L	0.00034	9.794	mg/kg	0.0168	0.17%
Cr 267.716*†	20734.2	0.2295	mg/L	0.00134	11.47	mg/kg	0.067	0.59%
Cr 357.869†	14377.9	0.2283	mg/L	0.00073	11.41	mg/kg	0.036	0.32%
Cu 324.752*†	35588.2	0.2541	mg/L	0.00082	12.71	mg/kg	0.041	0.32%
Cu 327.393†	36453.3	0.3128	mg/L	0.00041	15.64	mg/kg	0.021	0.13%
Fe 239.562†	739644.8	473.4	mg/L	4.76	23670	mg/kg	238.2	1.01%
Fe 259.939†	1062202.8	456.6	mg/L	4.71	22830	mg/kg	235.4	1.03%
Fe 273.955*†	14036179.2	447.2	mg/L	3.20	22360	mg/kg	160.0	0.72%
Mg 279.077*†	1240348.0	99.76	mg/L	0.167	4988	mg/kg	8.3	0.17%
Mg 280.271†	3202871.3	96.58	mg/L	0.972	4829	mg/kg	48.6	1.01%
Mn 257.610*†	5476852.8	9.623	mg/L	0.0175	481.1	mg/kg	0.88	0.18%
Mn 259.372†	4439936.3	10.06	mg/L	0.015	503.0	mg/kg	0.74	0.15%
Mo 202.031*†	-162.1	-0.0070	mg/L	0.00109	-0.3519	mg/kg	0.05425	15.42%
Mo 203.845†	-74.6	-0.0045	mg/L	0.00002	-0.2237	mg/kg	0.00106	0.47%
Ni 231.604*†	7321.7	0.1140	mg/L	0.00101	5.700	mg/kg	0.0504	0.88%
Ni 232.003†	1827.2	0.0744	mg/L	0.00045	3.718	mg/kg	0.0223	0.60%
Pb 217.000†	58.7	0.0270	mg/L	0.03251	1.351	mg/kg	1.6257	120.29%
Pb 220.353*†	344.9	0.0209	mg/L	0.00318	1.046	mg/kg	0.1588	15.18%
Sb 206†	38.5	0.0088	mg/L	0.00948	0.4398	mg/kg	0.47424	107.83%
Sb 206.836†	-234.2	-0.0515	mg/L	0.00885	-2.573	mg/kg	0.4426	17.20%
Sb 217.582*†	-281.5	-0.0630	mg/L	0.01441	-3.150	mg/kg	0.7206	22.88%
Se 196.026*†	-85.7	-0.0281	mg/L	0.01124	-1.403	mg/kg	0.5622	40.07%
Se 203.985†	717.9	0.2020	mg/L	0.01549	10.10	mg/kg	0.774	7.67%
Tl†	-247.5	-0.0892	mg/L	0.00073	-4.458	mg/kg	0.0367	0.82%
Tl 190.801*†	-194.9	-0.0586	mg/L	0.00346	-2.930	mg/kg	0.1729	5.90%
Tl 351.924†	-134.7	-0.0270	mg/L	0.00460	-1.352	mg/kg	0.2301	17.03%
V 292.402*†	123589.9	1.160	mg/L	0.0032	58.00	mg/kg	0.162	0.28%
V 310.230†	247707.6	1.236	mg/L	0.0068	61.78	mg/kg	0.342	0.55%
Zn 202.548†	89402.5	0.8935	mg/L	0.00293	44.68	mg/kg	0.146	0.33%
Zn 206.200*†	63005.3	0.8415	mg/L	0.00275	42.08	mg/kg	0.137	0.33%

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 6010B

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: ICP 7300
D/T ANALYZED: 11/12/2013 19:32
ANALYST: 469
DATA FILE: W:\ICP-DATA\131112C1\13-11-0697-10.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3050B
D/T EXTRACTED: 11/11/2013 00:00

10 **CLIENT SAMPLE NUMBER: 6-SS-9-11**

LCS/MB BATCH: 131111L01
MS/MSD BATCH: 131111S01
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Antimony	-0.0523	1	ND	0.750	50	mg/kg	
Arsenic	0.0163	1	0.815	0.750	50	mg/kg	
Barium	1.86	1	93.0	0.500	50	mg/kg	
Beryllium	0.00616	1	0.308	0.250	50	mg/kg	
Cadmium	-0.00441	1	ND	0.500	50	mg/kg	
Chromium	0.271	1	13.5	0.250	50	mg/kg	
Cobalt	0.274	1	13.7	0.250	50	mg/kg	
Copper	0.278	1	13.9	0.500	50	mg/kg	
Lead	0.0301	1	1.51	0.500	50	mg/kg	
Molybdenum	-0.0114	1	ND	0.250	50	mg/kg	
Nickel	0.128	1	6.39	0.250	50	mg/kg	
Selenium	-0.0428	1	ND	0.750	50	mg/kg	
Silver	-0.0100	1	ND	0.250	50	mg/kg	
Thallium	-0.0573	1	ND	0.750	50	mg/kg	
Vanadium	1.29	1	64.3	0.250	50	mg/kg	
Zinc	0.872	1	43.6	1.00	50	mg/kg	

Return to Contents

Sequence No.: 31
Sample ID: 13-11-0697-10
Analyst: 469 icp 7300
Initial Sample Wt: 2 g
Dilution:

Autosampler Location: 236
Date Collected: 11/12/2013 7:32:56 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Nebulizer Parameters: 13-11-0697-10

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: 13-11-0697-10

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	160820.7	4.135	mg/L	0.0220				0.53%
Ho 345.600	261862.7	4.175	mg/L	0.0237				0.57%
Tb 350.917	124668.5	4.521	mg/L	0.0257				0.57%
Tb 384.873	65790.7	4.046	mg/L	0.0161				0.40%
Y 324.227	1168171.5	5.148	mg/L	0.0327				0.64%
Y 371.029	2358672.9	5.118	mg/L	0.0219				0.43%
Ag 328.068*†	-1425.0	-0.0100	mg/L	0.00037	-0.5011	mg/kg	0.01867	3.73%
Ag 338.289†	-6801.9	-0.0905	mg/L	0.00053	-4.526	mg/kg	0.0266	0.59%
Al 308.215*†	7519191.8	376.1	mg/L	0.02	18800	mg/kg	0.9	0.00%
Al 396.153†	Saturated3							
As 188.979†	92.5	0.0162	mg/L	0.00166	0.8092	mg/kg	0.08289	10.24%
As 193.696*†	66.0	0.0163	mg/L	0.01256	0.8148	mg/kg	0.62788	77.06%
Ba 233.527*†	338561.2	1.860	mg/L	0.0059	93.00	mg/kg	0.294	0.32%
Ba 455.403†	393599.6	1.739	mg/L	0.0449	86.96	mg/kg	2.247	2.58%
Be 313.042*†	32021.7	0.0062	mg/L	0.00004	0.3082	mg/kg	0.00218	0.71%
Be 313.107†	17230.7	0.0065	mg/L	0.00001	0.3242	mg/kg	0.00045	0.14%
Cd 226.502*†	-713.3	-0.0044	mg/L	0.00026	-0.2206	mg/kg	0.01308	5.93%
Cd 228.802†	-3131.8	-0.0446	mg/L	0.00005	-2.231	mg/kg	0.0023	0.10%
Co 228.616*†	13910.8	0.2744	mg/L	0.00023	13.72	mg/kg	0.011	0.08%
Co 230.786†	12178.0	0.2467	mg/L	0.00031	12.33	mg/kg	0.015	0.12%
Cr 267.716*†	24445.7	0.2706	mg/L	0.00226	13.53	mg/kg	0.113	0.84%
Cr 357.869†	17263.7	0.2741	mg/L	0.00057	13.70	mg/kg	0.028	0.21%
Cu 324.752*†	38917.4	0.2779	mg/L	0.00011	13.89	mg/kg	0.005	0.04%
Cu 327.393†	39999.7	0.3432	mg/L	0.00017	17.16	mg/kg	0.009	0.05%
Fe 239.562†	830440.9	531.6	mg/L	19.84	26580	mg/kg	992.2	3.73%
Fe 259.939†	1193819.6	513.1	mg/L	15.31	25660	mg/kg	765.6	2.98%
Fe 273.955*†	15500111.1	493.8	mg/L	0.65	24690	mg/kg	32.7	0.13%
Mg 279.077*†	1457143.4	117.2	mg/L	0.01	5860	mg/kg	0.3	0.00%
Mg 280.271†	3795173.2	114.4	mg/L	3.50	5722	mg/kg	174.9	3.06%
Mn 257.610*†	5042890.5	8.860	mg/L	0.0096	443.0	mg/kg	0.48	0.11%
Mn 259.372†	4134490.4	9.368	mg/L	0.0033	468.4	mg/kg	0.16	0.03%
Mo 202.031*†	-263.6	-0.0114	mg/L	0.00078	-0.5723	mg/kg	0.03883	6.79%
Mo 203.845†	-108.9	-0.0065	mg/L	0.00143	-0.3267	mg/kg	0.07175	21.96%
Ni 231.604*†	8209.4	0.1278	mg/L	0.00128	6.391	mg/kg	0.0641	1.00%
Ni 232.003†	2184.6	0.0889	mg/L	0.00008	4.445	mg/kg	0.0040	0.09%
Pb 217.000†	105.5	0.0486	mg/L	0.05095	2.429	mg/kg	2.5473	104.85%
Pb 220.353*†	496.8	0.0301	mg/L	0.00086	1.507	mg/kg	0.0432	2.86%
Sb 206†	43.1	0.0099	mg/L	0.00556	0.4928	mg/kg	0.27793	56.40%
Sb 206.836†	-247.4	-0.0544	mg/L	0.01561	-2.718	mg/kg	0.7806	28.72%
Sb 217.582*†	-233.6	-0.0523	mg/L	0.00174	-2.614	mg/kg	0.0870	3.33%
Se 196.026*†	-130.7	-0.0428	mg/L	0.00010	-2.139	mg/kg	0.0052	0.24%
Se 203.985†	836.2	0.2353	mg/L	0.00755	11.77	mg/kg	0.378	3.21%
Tl†	-266.6	-0.0960	mg/L	0.00485	-4.802	mg/kg	0.2423	5.05%
Tl 190.801*†	-190.7	-0.0573	mg/L	0.01200	-2.867	mg/kg	0.5999	20.93%
Tl 351.924†	-87.3	-0.0175	mg/L	0.00776	-0.8762	mg/kg	0.38800	44.28%
V 292.402*†	137034.2	1.286	mg/L	0.0027	64.31	mg/kg	0.134	0.21%
V 310.230†	274207.2	1.368	mg/L	0.0055	68.39	mg/kg	0.273	0.40%
Zn 202.548†	93475.2	0.9347	mg/L	0.00121	46.73	mg/kg	0.061	0.13%
Zn 206.200*†	66087.4	0.8718	mg/L	0.00226	43.59	mg/kg	0.113	0.26%

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 6010B

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: ICP 7300
D/T ANALYZED: 11/12/2013 19:34
ANALYST: 469
DATA FILE: W:\ICP-DATA\131112C1\13-11-0697-11.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3050B
D/T EXTRACTED: 11/11/2013 00:00

 # 11 **CLIENT SAMPLE NUMBER: 60-SS-9-11**

LCS/MB BATCH: 131111L01
MS/MSD BATCH: 131111S01
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Antimony	-0.0757	1	ND	0.750	50	mg/kg	
Arsenic	0.0164	1	0.822	0.750	50	mg/kg	
Barium	2.02	1	101	0.500	50	mg/kg	
Beryllium	0.00653	1	0.326	0.250	50	mg/kg	
Cadmium	-0.00445	1	ND	0.500	50	mg/kg	
Chromium	0.274	1	13.7	0.250	50	mg/kg	
Cobalt	0.286	1	14.3	0.250	50	mg/kg	
Copper	0.301	1	15.1	0.500	50	mg/kg	
Lead	0.0291	1	1.46	0.500	50	mg/kg	
Molybdenum	-0.0131	1	ND	0.250	50	mg/kg	
Nickel	0.139	1	6.95	0.250	50	mg/kg	
Selenium	-0.0357	1	ND	0.750	50	mg/kg	
Silver	-0.0112	1	ND	0.250	50	mg/kg	
Thallium	-0.0612	1	ND	0.750	50	mg/kg	
Vanadium	1.33	1	66.4	0.250	50	mg/kg	
Zinc	0.932	1	46.6	1.00	50	mg/kg	

Return to Contents

Sequence No.: 32
Sample ID: 13-11-0697-11
Analyst: 469 icp 7300
Initial Sample Wt: 2 g
Dilution:

Autosampler Location: 237
Date Collected: 11/12/2013 7:34:01 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Nebulizer Parameters: 13-11-0697-11

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: 13-11-0697-11

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	159197.7	4.093	mg/L	0.0047				0.12%
Ho 345.600	260014.8	4.146	mg/L	0.0068				0.16%
Tb 350.917	124120.2	4.501	mg/L	0.0059				0.13%
Tb 384.873	64835.6	3.987	mg/L	0.0219				0.55%
Y 324.227	1170531.4	5.158	mg/L	0.0022				0.04%
Y 371.029	2345012.6	5.088	mg/L	0.0123				0.24%
Ag 328.068*†	-1593.9	-0.0112	mg/L	0.00004	-0.5605	mg/kg	0.00207	0.37%
Ag 338.289†	-7245.6	-0.0964	mg/L	0.00038	-4.822	mg/kg	0.0191	0.40%
Al 308.215*†	7811776.5	390.7	mg/L	1.57	19540	mg/kg	78.7	0.40%
Al 396.153†	Saturated3							
As 188.979†	109.6	0.0192	mg/L	0.00419	0.9588	mg/kg	0.20958	21.86%
As 193.696*†	66.6	0.0164	mg/L	0.01377	0.8218	mg/kg	0.68861	83.79%
Ba 233.527*†	367841.2	2.021	mg/L	0.0104	101.0	mg/kg	0.52	0.51%
Ba 455.403†	432501.5	1.911	mg/L	0.0429	95.55	mg/kg	2.143	2.24%
Be 313.042*†	33907.5	0.0065	mg/L	0.00002	0.3263	mg/kg	0.00098	0.30%
Be 313.107†	18068.9	0.0068	mg/L	0.00005	0.3400	mg/kg	0.00269	0.79%
Cd 226.502*†	-720.1	-0.0045	mg/L	0.00002	-0.2226	mg/kg	0.00107	0.48%
Cd 228.802†	-3271.4	-0.0466	mg/L	0.00026	-2.330	mg/kg	0.0132	0.56%
Co 228.616*†	14514.2	0.2863	mg/L	0.00139	14.32	mg/kg	0.069	0.49%
Co 230.786†	12681.7	0.2569	mg/L	0.00141	12.84	mg/kg	0.071	0.55%
Cr 267.716*†	24788.4	0.2744	mg/L	0.00093	13.72	mg/kg	0.047	0.34%
Cr 357.869†	17410.7	0.2764	mg/L	0.00293	13.82	mg/kg	0.147	1.06%
Cu 324.752*†	42185.6	0.3012	mg/L	0.00088	15.06	mg/kg	0.044	0.29%
Cu 327.393†	42697.4	0.3664	mg/L	0.00027	18.32	mg/kg	0.014	0.07%
Fe 239.562†	876625.6	561.1	mg/L	14.67	28060	mg/kg	733.3	2.61%
Fe 259.939†	1252357.3	538.3	mg/L	12.82	26920	mg/kg	641.1	2.38%
Fe 273.955*†	16305895.5	519.5	mg/L	3.07	25970	mg/kg	153.4	0.59%
Mg 279.077*†	1582555.4	127.3	mg/L	0.85	6364	mg/kg	42.7	0.67%
Mg 280.271†	4107527.1	123.9	mg/L	2.84	6193	mg/kg	141.8	2.29%
Mn 257.610*†	5761775.0	10.12	mg/L	0.040	506.2	mg/kg	2.00	0.40%
Mn 259.372†	4631695.0	10.49	mg/L	0.049	524.7	mg/kg	2.43	0.46%
Mo 202.031*†	-302.7	-0.0131	mg/L	0.00085	-0.6573	mg/kg	0.04271	6.50%
Mo 203.845†	-86.2	-0.0052	mg/L	0.00015	-0.2586	mg/kg	0.00737	2.85%
Ni 231.604*†	8933.2	0.1391	mg/L	0.00051	6.954	mg/kg	0.0257	0.37%
Ni 232.003†	2475.1	0.1007	mg/L	0.00083	5.036	mg/kg	0.0417	0.83%
Pb 217.000†	189.4	0.0872	mg/L	0.02907	4.360	mg/kg	1.4533	33.33%
Pb 220.353*†	480.1	0.0291	mg/L	0.00006	1.456	mg/kg	0.0031	0.22%
Sb 206†	40.1	0.0092	mg/L	0.00817	0.4582	mg/kg	0.40850	89.16%
Sb 206.836†	-232.9	-0.0512	mg/L	0.00148	-2.559	mg/kg	0.0738	2.89%
Sb 217.582*†	-338.2	-0.0757	mg/L	0.01428	-3.785	mg/kg	0.7141	18.87%
Se 196.026*†	-109.0	-0.0357	mg/L	0.01209	-1.784	mg/kg	0.6047	33.90%
Se 203.985†	894.0	0.2516	mg/L	0.01460	12.58	mg/kg	0.730	5.80%
Tl†	-254.3	-0.0916	mg/L	0.00391	-4.582	mg/kg	0.1957	4.27%
Tl 190.801*†	-203.5	-0.0612	mg/L	0.00040	-3.059	mg/kg	0.0199	0.65%
Tl 351.924†	-46.3	-0.0093	mg/L	0.00479	-0.4644	mg/kg	0.23951	51.58%
V 292.402*†	141460.7	1.328	mg/L	0.0028	66.38	mg/kg	0.142	0.21%
V 310.230†	282911.5	1.411	mg/L	0.0104	70.56	mg/kg	0.519	0.74%
Zn 202.548†	99576.8	0.9958	mg/L	0.00966	49.79	mg/kg	0.483	0.97%
Zn 206.200*†	70471.9	0.9317	mg/L	0.00828	46.58	mg/kg	0.414	0.89%

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 6010B

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: ICP 7300
D/T ANALYZED: 11/12/2013 19:35
ANALYST: 469
DATA FILE: W:\ICP-DATA\131112C1\13-11-0697-12.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3050B
D/T EXTRACTED: 11/11/2013 00:00

12 **CLIENT SAMPLE NUMBER: 6-SS-13.75-14.75**

LCS/MB BATCH: 131111L01
MS/MSD BATCH: 131111S01
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Antimony	-0.0412	1	ND	0.750	50	mg/kg	
Arsenic	0.00685	1	ND	0.750	50	mg/kg	
Barium	0.689	1	34.4	0.500	50	mg/kg	
Beryllium	0.00139	1	ND	0.250	50	mg/kg	
Cadmium	-0.00357	1	ND	0.500	50	mg/kg	
Chromium	0.109	1	5.43	0.250	50	mg/kg	
Cobalt	0.0921	1	4.61	0.250	50	mg/kg	
Copper	0.0524	1	2.62	0.500	50	mg/kg	
Lead	0.00795	1	ND	0.500	50	mg/kg	
Molybdenum	-0.00444	1	ND	0.250	50	mg/kg	
Nickel	0.0302	1	1.51	0.250	50	mg/kg	
Selenium	-0.0267	1	ND	0.750	50	mg/kg	
Silver	-0.00518	1	ND	0.250	50	mg/kg	
Thallium	-0.0169	1	ND	0.750	50	mg/kg	
Vanadium	0.812	1	40.6	0.250	50	mg/kg	
Zinc	0.262	1	13.1	1.00	50	mg/kg	

Return to Contents

Sequence No.: 33
Sample ID: 13-11-0697-12
Analyst: 469 icp 7300
Initial Sample Wt: 2 g
Dilution:

Autosampler Location: 238
Date Collected: 11/12/2013 7:35:08 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Nebulizer Parameters: 13-11-0697-12

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: 13-11-0697-12

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	173984.6	4.473	mg/L	0.0492				1.10%
Ho 345.600	282241.9	4.500	mg/L	0.0430				0.95%
Tb 350.917	128563.2	4.662	mg/L	0.0496				1.06%
Tb 384.873	72529.8	4.460	mg/L	0.0587				1.32%
Y 324.227	1106431.9	4.875	mg/L	0.0409				0.84%
Y 371.029	2241264.4	4.863	mg/L	0.0685				1.41%
Ag 328.068*†	-736.9	-0.0052	mg/L	0.00031	-0.2591	mg/kg	0.01554	6.00%
Ag 338.289†	-2658.3	-0.0354	mg/L	0.00089	-1.769	mg/kg	0.0446	2.52%
Al 308.215*†	2161755.1	108.1	mg/L	0.33	5406	mg/kg	16.7	0.31%
Al 396.153†	13226252.9	105.9	mg/L	0.50	5295	mg/kg	24.8	0.47%
As 188.979†	63.9	0.0112	mg/L	0.00056	0.5593	mg/kg	0.02806	5.02%
As 193.696*†	27.8	0.0069	mg/L	0.00300	0.3426	mg/kg	0.15014	43.82%
Ba 233.527*†	125417.3	0.6890	mg/L	0.00570	34.45	mg/kg	0.285	0.83%
Ba 455.403†	143170.6	0.6326	mg/L	0.01450	31.63	mg/kg	0.725	2.29%
Be 313.042*†	7240.5	0.0014	mg/L	0.00003	0.0697	mg/kg	0.00172	2.47%
Be 313.107†	3702.0	0.0014	mg/L	0.00001	0.0697	mg/kg	0.00062	0.90%
Cd 226.502*†	-577.1	-0.0036	mg/L	0.00019	-0.1784	mg/kg	0.00969	5.43%
Cd 228.802†	-1370.1	-0.0195	mg/L	0.00028	-0.9760	mg/kg	0.01396	1.43%
Co 228.616*†	4670.8	0.0921	mg/L	0.00069	4.607	mg/kg	0.0346	0.75%
Co 230.786†	4071.6	0.0825	mg/L	0.00049	4.124	mg/kg	0.0247	0.60%
Cr 267.716*†	9808.8	0.1086	mg/L	0.00003	5.428	mg/kg	0.0016	0.03%
Cr 357.869†	6356.7	0.1009	mg/L	0.00042	5.046	mg/kg	0.0208	0.41%
Cu 324.752*†	7342.2	0.0524	mg/L	0.00125	2.621	mg/kg	0.0625	2.39%
Cu 327.393†	9266.1	0.0795	mg/L	0.00054	3.975	mg/kg	0.0268	0.67%
Fe 239.562†	376265.7	240.8	mg/L	7.11	12040	mg/kg	355.4	2.95%
Fe 259.939†	539468.7	231.9	mg/L	6.66	11590	mg/kg	332.8	2.87%
Fe 273.955*†	7249966.9	231.0	mg/L	1.15	11550	mg/kg	57.6	0.50%
Mg 279.077*†	360351.8	28.98	mg/L	0.029	1449	mg/kg	1.5	0.10%
Mg 280.271†	975316.2	29.41	mg/L	0.803	1471	mg/kg	40.1	2.73%
Mn 257.610*†	1744145.2	3.064	mg/L	0.0037	153.2	mg/kg	0.18	0.12%
Mn 259.372†	1451916.5	3.290	mg/L	0.0055	164.5	mg/kg	0.27	0.17%
Mo 202.031*†	-102.2	-0.0044	mg/L	0.00127	-0.2219	mg/kg	0.06327	28.51%
Mo 203.845†	-75.3	-0.0045	mg/L	0.00219	-0.2260	mg/kg	0.10953	48.47%
Ni 231.604*†	1940.5	0.0302	mg/L	0.00075	1.511	mg/kg	0.0374	2.48%
Ni 232.003†	141.1	0.0057	mg/L	0.00019	0.2871	mg/kg	0.00974	3.39%
Pb 217.000†	10.6	0.0049	mg/L	0.00374	0.2449	mg/kg	0.18703	76.38%
Pb 220.353*†	131.1	0.0080	mg/L	0.00016	0.3976	mg/kg	0.00809	2.03%
Sb 206†	26.9	0.0061	mg/L	0.00420	0.3074	mg/kg	0.21017	68.37%
Sb 206.836†	-156.5	-0.0344	mg/L	0.00638	-1.720	mg/kg	0.3191	18.56%
Sb 217.582*†	-184.2	-0.0412	mg/L	0.00867	-2.061	mg/kg	0.4334	21.03%
Se 196.026*†	-81.5	-0.0267	mg/L	0.00930	-1.334	mg/kg	0.4648	34.83%
Se 203.985†	312.4	0.0879	mg/L	0.01357	4.396	mg/kg	0.6784	15.43%
Tl†	-79.7	-0.0287	mg/L	0.00604	-1.435	mg/kg	0.3019	21.03%
Tl 190.801*†	-56.2	-0.0169	mg/L	0.00067	-0.8455	mg/kg	0.03348	3.96%
Tl 351.924†	-82.9	-0.0166	mg/L	0.00100	-0.8318	mg/kg	0.05017	6.03%
V 292.402*†	86488.3	0.8117	mg/L	0.00580	40.59	mg/kg	0.290	0.71%
V 310.230†	173400.2	0.8650	mg/L	0.00402	43.25	mg/kg	0.201	0.47%
Zn 202.548†	28222.8	0.2805	mg/L	0.00005	14.02	mg/kg	0.002	0.02%
Zn 206.200*†	19795.2	0.2623	mg/L	0.00341	13.11	mg/kg	0.171	1.30%

Return to Contents

EPA METHOD 6010 B

QUALITY CONTROL

Method Blank
LCS/LCSD
MS/MSD
PDS/PDSD
Serial Dilution

Return to Contents

METHOD BLANK ASSOCIATION SUMMARY FOR METHOD: EPA 6010B

MB Sample ID: 097-01-002-17609
MB Batch ID: 131111L01
Instrument: ICP 7300
Matrix: Soil
Analyst: 598
D/T Analyzed: 11/11/2013 16:35
Data File: W:\ICP-DATA\131111C1\131111-b-01__209.icp

Reviewed By: 43
D/T Reviewed: 11/12/2013 12:38
Extraction: EPA 3050B
D/T Extracted: 11/11/2013 00:00

Work Order #: 13-11-0697

Sample#	Client Sample ID	D/T Analyzed	Data File
3	8-SS-5-6	11/12/2013 19:22	W:\ICP-DATA\131112C1\13-11-0697-3.icp
4	8-SS-9.5-10.5	11/12/2013 19:23	W:\ICP-DATA\131112C1\13-11-0697-4.icp
5	8-SS-14.25-15.25	11/12/2013 19:28	W:\ICP-DATA\131112C1\13-11-0697-5.icp
6	12-SS-5-6	11/12/2013 19:29	W:\ICP-DATA\131112C1\13-11-0697-6.icp
7	12-SS-9.5-10.5	11/12/2013 19:30	W:\ICP-DATA\131112C1\13-11-0697-7.icp
8	12-SS-13.25-15.25	11/12/2013 15:29	W:\ICP-DATA\131112C1\13-11-0697-8.icp
9	6-SS-5-6	11/12/2013 19:31	W:\ICP-DATA\131112C1\13-11-0697-9.icp
10	6-SS-9-11	11/12/2013 19:32	W:\ICP-DATA\131112C1\13-11-0697-10.icp
11	60-SS-9-11	11/12/2013 19:34	W:\ICP-DATA\131112C1\13-11-0697-11.icp
12	6-SS-13.75-14.75	11/12/2013 19:35	W:\ICP-DATA\131112C1\13-11-0697-12.icp

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 6010B

WORK ORDER NUMBER: 097-01-002
INSTRUMENT NAME: ICP 7300
D/T ANALYZED: 11/11/2013 16:35
ANALYST: 598
DATA FILE: W:\ICP-DATA\131111C1\131111-b-01__209.icp

REVIEWED BY: 43
DATE REVIEWED: 11/12/2013 12:38
EXTRACTION : EPA 3050B
D/T EXTRACTED: 11/11/2013 00:00

MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 131111L01
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Antimony	-0.00860	1	ND	0.750	50	mg/kg	
Arsenic	-0.00572	1	ND	0.750	50	mg/kg	
Barium	-0.0000369	1	ND	0.500	50	mg/kg	
Beryllium	0.000157	1	ND	0.250	50	mg/kg	
Cadmium	-0.000128	1	ND	0.500	50	mg/kg	
Chromium	-0.000131	1	ND	0.250	50	mg/kg	
Cobalt	0.0000523	1	ND	0.250	50	mg/kg	
Copper	0.00447	1	ND	0.500	50	mg/kg	
Lead	0.000801	1	ND	0.500	50	mg/kg	
Molybdenum	-0.000899	1	ND	0.250	50	mg/kg	
Nickel	-0.00266	1	ND	0.250	50	mg/kg	
Selenium	0.00507	1	ND	0.750	50	mg/kg	
Silver	-0.000182	1	ND	0.250	50	mg/kg	
Thallium	-0.000762	1	ND	0.750	50	mg/kg	
Vanadium	0.000220	1	ND	0.250	50	mg/kg	
Zinc	0.000519	1	ND	1.00	50	mg/kg	

Return to Contents

LCS QUALITY CONTROL SHEET FOR METHOD: EPA 6010B

Work Order #: 13-11-0697
LCS/MB Batch ID: 131111L01
Instrument: ICP 7300
Analyst: 598
D/T Analyzed: 11/11/2013 16:41
Data File: W:\ICP-DATA\131111C1\131111-I-01__213.icp

Reviewed By: 43
D/T Reviewed: 11/12/2013 12:38
Extraction: EPA 3050B
D/T Extracted: 11/11/2013 00:00

Analyte	Conc. Added	Conc. Recovered	%Recovered	%Recovered Control Limit	ME Control Limit	Status	Qualifiers
Antimony	25.00	27.49	110	80-120	73-127	PASS	
Arsenic	25.00	25.34	101	80-120	73-127	PASS	
Barium	25.00	25.38	102	80-120	73-127	PASS	
Beryllium	25.00	25.15	101	80-120	73-127	PASS	
Cadmium	25.00	26.27	105	80-120	73-127	PASS	
Chromium	25.00	27.39	110	80-120	73-127	PASS	
Cobalt	25.00	27.83	111	80-120	73-127	PASS	
Copper	25.00	25.59	102	80-120	73-127	PASS	
Lead	25.00	25.94	104	80-120	73-127	PASS	
Molybdenum	25.00	25.11	100	80-120	73-127	PASS	
Nickel	25.00	27.28	109	80-120	73-127	PASS	
Selenium	25.00	24.05	96	80-120	73-127	PASS	
Silver	12.50	12.87	103	80-120	73-127	PASS	
Thallium	25.00	26.52	106	80-120	73-127	PASS	
Vanadium	25.00	24.71	99	80-120	73-127	PASS	
Zinc	25.00	27.80	111	80-120	73-127	PASS	
Aluminum	25.00	25.54	102	80-120	73-127	PASS	
Iron	25.00	26.29	105	80-120	73-127	PASS	
Magnesium	25.00	26.65	107	80-120	73-127	PASS	
Manganese	25.00	26.33	105	80-120	73-127	PASS	

Total number of LCS compounds: 20
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Compounds listed in bold are required to be reported.

Return to Contents

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 6010B

WORK ORDER:	**13-11-0697**	SAMPLE D/T EXTRACTED:	11/11/2013	EXTRACTION:	EPA 3050B
MS/MSD BATCH:	131111S01	MS D/T EXTRACTED:	11/11/2013	ANALYST:	469
SPIKED SAMPLE ID:	**13-11-0697-8**	MSD D/T EXTRACTED:	11/11/2013	SAMPLE INSTRUMENT NAME:	ICP 7300
REVIEWED BY:	43	SAMPLE D/T ANALYZED:	11/12/2013 15:29	MS INSTRUMENT NAME:	ICP 7300
DATE REVIEWED:	11/13/2013 14:28	MS D/T ANALYZED:	11/12/2013 15:30	MSD INSTRUMENT NAME:	ICP 7300
		MSD D/T ANALYZED:	11/12/2013 15:31		

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL ADDED	FINAL ADDED	MS CONC	% REC	MSD CONC	% REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Antimony	**ND**	**0.5000**	**25.00**	**2.201**	**9**	**4.623**	**18**	**50-115**	**71**	**0-20**	**FAIL**	**3G4**
Arsenic	ND	0.5000	25.00	25.21	101	25.68	103	75-125	2	0-20	PASS	
Barium	101.8	0.5000	25.00	119.9	4x	129.1	4x	75-125	4x	0-20	PASS	Q
Beryllium	0.3162	0.5000	25.00	26.41	104	26.18	103	75-125	1	0-20	PASS	
Cadmium	ND	0.5000	25.00	25.80	103	25.63	103	75-125	1	0-20	PASS	
Chromium	12.01	0.5000	25.00	37.92	104	39.80	111	75-125	5	0-20	PASS	
Cobalt	13.45	0.5000	25.00	39.33	104	40.60	109	75-125	3	0-20	PASS	
Copper	13.38	0.5000	25.00	41.28	112	42.58	117	75-125	3	0-20	PASS	
Lead	1.476	0.5000	25.00	27.17	103	26.88	102	75-125	1	0-20	PASS	
Molybdenum	ND	0.5000	25.00	20.92	84	20.57	82	75-125	2	0-20	PASS	
Nickel	6.976	0.5000	25.00	33.24	105	34.34	109	75-125	3	0-20	PASS	
Selenium	ND	0.5000	25.00	22.66	91	22.35	89	75-125	1	0-20	PASS	
Silver	ND	0.2500	12.50	13.66	109	13.85	111	75-125	1	0-20	PASS	
Thallium	ND	0.5000	25.00	22.62	90	22.63	91	75-125	0	0-20	PASS	
Vanadium	61.98	0.5000	25.00	82.54	82	87.36	102	75-125	6	0-20	PASS	
Zinc	47.96	0.5000	25.00	71.60	95	75.86	112	75-125	6	0-20	PASS	
Aluminum	19440	0.5000	25.00	19820	4x	21160	4x	75-125	4x	0-20	PASS	Q
Calcium	7743	0.5000	25.00	7275	4x	8939	4x	75-125	4x	0-20	PASS	Q
Iron	25490	0.5000	25.00	24270	4x	25830	4x	75-125	4x	0-20	PASS	Q
Magnesium	6324	0.5000	25.00	5962	4x	6577	4x	75-125	4x	0-20	PASS	Q
Manganese	478.4	0.5000	25.00	469.7	4x	516.8	4x	75-125	4x	0-20	PASS	Q
Potassium	1872	5.000	250.0	1948	4x	2154	4x	75-125	4x	0-20	PASS	Q
Sodium	882.1	5.000	250.0	1087	82	1164	113	75-125	7	0-20	PASS	
Boron	ND	0.5000	25.00	22.51	90	22.39	90	75-125	1	0-20	PASS	
Silicon	974.0	0.5000	25.00	1576	4x	1356	4x	75-125	4x	0-20	PASS	Q

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	13-11-0697-8 ms.icp	W:\ICP-DATA\131112C1\
MSD	13-11-0697-8 msd.icp	W:\ICP-DATA\131112C1\

Return to Contents

Sequence No.: 13
Sample ID: 131111-b-01
Analyst: 598 icp 7300
Initial Sample Wt: 2 g
Dilution:

Autosampler Location: 431
Date Collected: 11/11/2013 4:35:32 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Nebulizer Parameters: 131111-b-01

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: 131111-b-01

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	210589.0	5.088	mg/L	0.0203				0.40%
Ho 345.600	339363.7	5.080	mg/L	0.0300				0.59%
Tb 350.917	148847.1	5.065	mg/L	0.0290				0.57%
Tb 384.873	87273.1	5.040	mg/L	0.0262				0.52%
Y 324.227	1174208.3	4.985	mg/L	0.0321				0.64%
Y 371.029	2393169.0	4.961	mg/L	0.0079				0.16%
Ag 328.068*†	-26.2	-0.0002	mg/L	0.00000				1.43%
Ag 338.289†	1.3	0.0000	mg/L	0.00135				>999.9%
Al 308.215*†	62.6	0.0031	mg/L	0.00264				85.37%
Al 396.153†	268.0	0.0022	mg/L	0.00230				103.65%
As 188.979†	6.4	0.0012	mg/L	0.00038				32.09%
As 193.696*†	-22.2	-0.0057	mg/L	0.00071				12.47%
Ba 233.527*†	-7.0	0.0000	mg/L	0.00003				77.68%
Ba 455.403†	83.7	0.0003	mg/L	0.00041				118.04%
Be 313.042*†	804.8	0.0002	mg/L	0.00003				20.13%
Be 313.107†	-9.6	0.0000	mg/L	0.00001				396.31%
Cd 226.502*†	-20.2	-0.0001	mg/L	0.00008				63.88%
Cd 228.802†	-7.4	-0.0001	mg/L	0.00001				10.65%
Co 228.616*†	2.6	0.0001	mg/L	0.00018				338.23%
Co 230.786†	1.4	0.0000	mg/L	0.00013				439.07%
Cr 267.716*†	-12.1	-0.0001	mg/L	0.00008				57.67%
Cr 357.869†	-14.0	-0.0002	mg/L	0.00061				279.34%
Cu 324.752*†	631.3	0.0045	mg/L	0.00067				14.89%
Cu 327.393†	512.8	0.0043	mg/L	0.00003				0.78%
Fe 239.562†	-8.3	-0.0051	mg/L	0.00456				89.26%
Fe 259.939†	-11.0	-0.0046	mg/L	0.00108				23.60%
Fe 273.955*†	-182.2	-0.0058	mg/L	0.00000				0.03%
Mg 279.077*†	-110.1	-0.0091	mg/L	0.00509				55.59%
Mg 280.271†	24.3	0.0007	mg/L	0.00037				52.69%
Mn 257.610*†	320.2	0.0006	mg/L	0.00008				14.32%
Mn 259.372†	190.8	0.0004	mg/L	0.00012				27.77%
Mo 202.031*†	-21.0	-0.0009	mg/L	0.00014				16.07%
Mo 203.845†	-4.2	-0.0002	mg/L	0.00076				306.65%
Ni 231.604*†	-170.8	-0.0027	mg/L	0.00014				5.15%
Ni 232.003†	-402.1	-0.0163	mg/L	0.00195				12.00%
Pb 217.000†	-105.8	-0.0477	mg/L	0.00074				1.54%
Pb 220.353*†	13.0	0.0008	mg/L	0.00100				124.65%
Sb 206†	-2.8	-0.0007	mg/L	0.00019				27.99%
Sb 206.836†	-37.6	-0.0085	mg/L	0.00015				1.74%
Sb 217.582*†	-36.9	-0.0086	mg/L	0.00116				13.52%
Se 196.026*†	14.6	0.0051	mg/L	0.00154				30.33%
Se 203.985†	-37.6	-0.0111	mg/L	0.00003				0.28%
Tl†	-1.8	-0.0007	mg/L	0.00234				357.71%
Tl 190.801*†	-2.5	-0.0008	mg/L	0.00103				135.54%
Tl 351.924†	-2.2	-0.0004	mg/L	0.00436				>999.9%
V 292.402*†	24.3	0.0002	mg/L	0.00008				35.64%
V 310.230†	-270.0	-0.0013	mg/L	0.00304				235.33%
Zn 202.548†	44.3	0.0005	mg/L	0.00023				49.92%
Zn 206.200*†	34.5	0.0005	mg/L	0.00010				18.93%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Return to Contents

Sequence No.: 17
Sample ID: 131111-1-01
Analyst: 598 icp 7300
Initial Sample Wt: 2 g
Dilution:

Autosampler Location: 432
Date Collected: 11/11/2013 4:41:57 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Nebulizer Parameters: 131111-1-01

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: 131111-1-01

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	204680.2	4.945	mg/L	0.0120				0.24%
Ho 345.600	329521.3	4.933	mg/L	0.0129				0.26%
Tb 350.917	145685.7	4.958	mg/L	0.0166				0.34%
Tb 384.873	85493.2	4.937	mg/L	0.0080				0.16%
Y 324.227	1174787.3	4.987	mg/L	0.0228				0.46%
Y 371.029	2392389.1	4.959	mg/L	0.0073				0.15%
Ag 328.068*†	37125.1	0.2575	mg/L	0.00237				0.92%
Ag 338.289†	19938.5	0.2587	mg/L	0.00135				0.52%
Al 308.215*†	10360.3	0.5109	mg/L	0.00426				0.83%
Al 396.153†	59073.2	0.4900	mg/L	0.00341				0.69%
As 188.979†	2822.0	0.5189	mg/L	0.00110				0.21%
As 193.696*†	1967.5	0.5067	mg/L	0.00061				0.12%
Ba 233.527*†	96055.4	0.5075	mg/L	0.00402				0.79%
Ba 455.403†	115519.5	0.4782	mg/L	0.00577				1.21%
Be 313.042*†	2575610.1	0.5031	mg/L	0.00386				0.77%
Be 313.107†	1321314.0	0.5056	mg/L	0.00332				0.66%
Cd 226.502*†	83223.1	0.5254	mg/L	0.00240				0.46%
Cd 228.802†	34090.5	0.4950	mg/L	0.00419				0.85%
Co 228.616*†	28138.2	0.5566	mg/L	0.00380				0.68%
Co 230.786†	27187.4	0.5522	mg/L	0.00511				0.93%
Cr 267.716*†	50394.5	0.5478	mg/L	0.00597				1.09%
Cr 357.869†	30831.0	0.4807	mg/L	0.00324				0.67%
Cu 324.752*†	72285.2	0.5118	mg/L	0.00033				0.06%
Cu 327.393†	60090.3	0.5022	mg/L	0.00407				0.81%
Fe 239.562†	844.0	0.5177	mg/L	0.00779				1.50%
Fe 259.939†	1241.6	0.5157	mg/L	0.00797				1.55%
Fe 273.955*†	16427.7	0.5258	mg/L	0.00351				0.67%
Mg 279.077*†	6413.4	0.5330	mg/L	0.00217				0.41%
Mg 280.271†	19406.8	0.5683	mg/L	0.01082				1.90%
Mn 257.610*†	302069.4	0.5266	mg/L	0.00220				0.42%
Mn 259.372†	230587.2	0.5196	mg/L	0.00145				0.28%
Mo 202.031*†	11743.0	0.5023	mg/L	0.00448				0.89%
Mo 203.845†	8490.3	0.5012	mg/L	0.00431				0.86%
Ni 231.604*†	35001.6	0.5456	mg/L	0.00573				1.05%
Ni 232.003†	11086.1	0.4489	mg/L	0.00432				0.96%
Pb 217.000†	970.5	0.4373	mg/L	0.02925				6.69%
Pb 220.353*†	8439.6	0.5187	mg/L	0.00533				1.03%
Sb 206†	2289.7	0.5487	mg/L	0.01402				2.55%
Sb 206.836†	2339.5	0.5286	mg/L	0.00438				0.83%
Sb 217.582*†	2361.5	0.5499	mg/L	0.00655				1.19%
Se 196.026*†	1384.1	0.4811	mg/L	0.00992				2.06%
Se 203.985†	1636.1	0.4821	mg/L	0.00505				1.05%
Tl†	1445.7	0.5247	mg/L	0.00470				0.90%
Tl 190.801*†	1766.1	0.5303	mg/L	0.01046				1.97%
Tl 351.924†	2435.7	0.4829	mg/L	0.00627				1.30%
V 292.402*†	54439.2	0.4941	mg/L	0.00550				1.11%
V 310.230†	104307.0	0.4989	mg/L	0.00605				1.21%
Zn 202.548†	53153.4	0.5644	mg/L	0.00098				0.17%
Zn 206.200*†	36953.6	0.5560	mg/L	0.00456				0.82%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Return to Contents

Sequence No.: 9
Sample ID: 13-11-0697-8 ms
Analyst: 469 icp 7300
Initial Sample Wt: 2 g
Dilution:

Autosampler Location: 331
Date Collected: 11/12/2013 3:30:17 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Nebulizer Parameters: 13-11-0697-8 ms

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: 13-11-0697-8 ms

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	162458.0	4.122	mg/L	0.0046				0.11%
Ho 345.600	263210.1	4.130	mg/L	0.0023				0.05%
Tb 350.917	126613.5	4.526	mg/L	0.0031				0.07%
Tb 384.873	66388.0	4.036	mg/L	0.0083				0.21%
Y 324.227	1198595.9	5.201	mg/L	0.0039				0.08%
Y 371.029	2349773.2	5.060	mg/L	0.0125				0.25%
Ag 328.068*†	38831.8	0.2733	mg/L	0.00045	13.66	mg/kg	0.022	0.16%
Ag 338.289†	13073.3	0.1507	mg/L	0.00012	7.536	mg/kg	0.0059	0.08%
Al 308.215*†	8045581.7	396.3	mg/L	0.88	19820	mg/kg	44.1	0.22%
Al 396.153†	Saturated3							
As 188.979†	2975.3	0.5160	mg/L	0.00635	25.80	mg/kg	0.318	1.23%
As 193.696*†	2057.3	0.5042	mg/L	0.00953	25.21	mg/kg	0.477	1.89%
B 249.677*†	15959.7	0.4502	mg/L	0.00027	22.51	mg/kg	0.013	0.06%
B 249.772†	57535.2	0.4849	mg/L	0.00535	24.25	mg/kg	0.268	1.10%
Ba 233.527*†	441165.6	2.398	mg/L	0.0073	119.9	mg/kg	0.36	0.30%
Ba 455.403†	544297.1	2.377	mg/L	0.0050	118.8	mg/kg	0.25	0.21%
Be 313.042*†	2762258.4	0.5282	mg/L	0.00004	26.41	mg/kg	0.002	0.01%
Be 313.107†	1422693.0	0.5315	mg/L	0.00064	26.57	mg/kg	0.032	0.12%
Ca 317.933*†	649517.7	145.5	mg/L	0.31	7275	mg/kg	15.5	0.21%
Ca 422.673†	1393400.2	149.7	mg/L	0.29	7486	mg/kg	14.3	0.19%
Cd 226.502*†	84128.0	0.5161	mg/L	0.00048	25.80	mg/kg	0.024	0.09%
Cd 228.802†	33412.0	0.4718	mg/L	0.00039	23.59	mg/kg	0.020	0.08%
Co 228.616*†	40248.7	0.7866	mg/L	0.00128	39.33	mg/kg	0.064	0.16%
Co 230.786†	37555.6	0.7535	mg/L	0.00069	37.68	mg/kg	0.035	0.09%
Cr 267.716*†	71034.2	0.7584	mg/L	0.00132	37.92	mg/kg	0.066	0.17%
Cr 357.869†	51962.5	0.8279	mg/L	0.00228	41.40	mg/kg	0.114	0.28%
Cu 324.752*†	123984.4	0.8256	mg/L	0.00119	41.28	mg/kg	0.059	0.14%
Cu 327.393†	107174.3	0.8440	mg/L	0.00100	42.20	mg/kg	0.050	0.12%
Fe 239.562†	769406.2	492.4	mg/L	1.11	24620	mg/kg	55.7	0.23%
Fe 259.939†	1177874.0	491.0	mg/L	2.19	24550	mg/kg	109.3	0.45%
Fe 273.955*†	15364353.4	485.4	mg/L	1.29	24270	mg/kg	64.7	0.27%
K 766.490*†	56863.5	38.96	mg/L	0.020	1948	mg/kg	1.0	0.05%
Mg 279.077*†	1501285.9	119.2	mg/L	0.36	5962	mg/kg	18.2	0.31%
Mg 280.271†	3893679.2	113.5	mg/L	1.45	5673	mg/kg	72.3	1.27%
Mn 257.610*†	5483227.1	9.394	mg/L	0.0056	469.7	mg/kg	0.28	0.06%
Mn 259.372†	4506174.8	9.994	mg/L	0.0218	499.7	mg/kg	1.09	0.22%
Mo 202.031*†	9559.8	0.4183	mg/L	0.00237	20.92	mg/kg	0.118	0.57%
Mo 203.845†	6935.3	0.4136	mg/L	0.00280	20.68	mg/kg	0.140	0.68%
Na 330.237†	9005.7	15.10	mg/L	0.113	754.9	mg/kg	5.65	0.75%
Na 589.592*†	123783.5	21.74	mg/L	0.022	1087	mg/kg	1.1	0.10%
Ni 231.604*†	43104.1	0.6648	mg/L	0.00113	33.24	mg/kg	0.056	0.17%
Ni 232.003†	14906.3	0.6055	mg/L	0.00450	30.28	mg/kg	0.225	0.74%
Pb 217.000†	1221.4	0.5622	mg/L	0.02518	28.11	mg/kg	1.259	4.48%
Pb 220.353*†	9063.1	0.5433	mg/L	0.00156	27.17	mg/kg	0.078	0.29%
Sb 206†	592.6	0.1349	mg/L	0.01210	6.743	mg/kg	0.6051	8.97%
Sb 206.836†	304.6	0.0656	mg/L	0.01539	3.278	mg/kg	0.7697	23.48%
Sb 217.582*†	197.5	0.0440	mg/L	0.01620	2.201	mg/kg	0.8098	36.79%
Se 196.026*†	1402.8	0.4531	mg/L	0.01246	22.66	mg/kg	0.623	2.75%
Se 203.985†	2531.3	0.7041	mg/L	0.02065	35.21	mg/kg	1.032	2.93%
Si 251.611*†	1632882.2	31.52	mg/L	0.052	1576	mg/kg	2.6	0.17%
Si 288.158†	726403.9	31.43	mg/L	0.092	1571	mg/kg	4.6	0.29%
Tl†	1154.5	0.3699	mg/L	0.01631	18.49	mg/kg	0.816	4.41%
Tl 190.801*†	1518.3	0.4523	mg/L	0.00394	22.62	mg/kg	0.197	0.87%
Tl 351.924†	2732.3	0.5520	mg/L	0.01543	27.60	mg/kg	0.771	2.79%
V 292.402*†	175573.0	1.651	mg/L	0.0018	82.54	mg/kg	0.090	0.11%

Return to Contents

V 310.230†	341362.0	1.749 mg/L	0.0001	87.43 mg/kg	0.003	0.00%
Zn 202.548†	156188.5	1.534 mg/L	0.0044	76.68 mg/kg	0.221	0.29%
Zn 206.200*†	109765.5	1.432 mg/L	0.0061	71.60 mg/kg	0.307	0.43%

Return to Contents

Sequence No.: 10
Sample ID: 13-11-0697-8 msd
Analyst: 469 icp 7300
Initial Sample Wt: 2 g
Dilution:

Autosampler Location: 332
Date Collected: 11/12/2013 3:31:28 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Nebulizer Parameters: 13-11-0697-8 msd

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: 13-11-0697-8 msd

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	161250.7	4.092	mg/L	0.0093				0.23%
Ho 345.600	262122.7	4.113	mg/L	0.0166				0.40%
Tb 350.917	126473.3	4.520	mg/L	0.0089				0.20%
Tb 384.873	65746.7	3.997	mg/L	0.0170				0.43%
Y 324.227	1205608.5	5.231	mg/L	0.0199				0.38%
Y 371.029	2374798.4	5.114	mg/L	0.0161				0.31%
Ag 328.068*†	39301.0	0.2769	mg/L	0.00341	13.85	mg/kg	0.170	1.23%
Ag 338.289†	13003.4	0.1471	mg/L	0.00139	7.356	mg/kg	0.0696	0.95%
Al 308.215*†	8592013.4	423.2	mg/L	0.42	21160	mg/kg	21.0	0.10%
Al 396.153†	Saturated3							
As 188.979†	3006.6	0.5214	mg/L	0.01174	26.07	mg/kg	0.587	2.25%
As 193.696*†	2095.7	0.5136	mg/L	0.00689	25.68	mg/kg	0.344	1.34%
B 249.677*†	15859.9	0.4478	mg/L	0.00216	22.39	mg/kg	0.108	0.48%
B 249.772†	57793.3	0.4761	mg/L	0.00226	23.81	mg/kg	0.113	0.47%
Ba 233.527*†	475177.4	2.583	mg/L	0.0062	129.1	mg/kg	0.31	0.24%
Ba 455.403†	579789.1	2.532	mg/L	0.0189	126.6	mg/kg	0.94	0.75%
Be 313.042*†	2737717.3	0.5235	mg/L	0.00062	26.18	mg/kg	0.031	0.12%
Be 313.107†	1408154.9	0.5260	mg/L	0.00081	26.30	mg/kg	0.041	0.15%
Ca 317.933*†	798033.6	178.8	mg/L	1.03	8939	mg/kg	51.7	0.58%
Ca 422.673†	1711257.8	183.9	mg/L	0.63	9194	mg/kg	31.6	0.34%
Cd 226.502*†	83568.2	0.5127	mg/L	0.00579	25.63	mg/kg	0.290	1.13%
Cd 228.802†	32972.2	0.4656	mg/L	0.00466	23.28	mg/kg	0.233	1.00%
Co 228.616*†	41549.9	0.8120	mg/L	0.01325	40.60	mg/kg	0.662	1.63%
Co 230.786†	38687.2	0.7762	mg/L	0.00928	38.81	mg/kg	0.464	1.20%
Cr 267.716*†	74638.3	0.7960	mg/L	0.00787	39.80	mg/kg	0.393	0.99%
Cr 357.869†	54237.5	0.8638	mg/L	0.01045	43.19	mg/kg	0.523	1.21%
Cu 324.752*†	128095.9	0.8515	mg/L	0.00248	42.58	mg/kg	0.124	0.29%
Cu 327.393†	111856.8	0.8792	mg/L	0.00094	43.96	mg/kg	0.047	0.11%
Fe 239.562†	830577.0	531.5	mg/L	4.01	26580	mg/kg	200.4	0.75%
Fe 259.939†	1250055.3	521.1	mg/L	4.04	26060	mg/kg	202.1	0.78%
Fe 273.955*†	16349278.2	516.5	mg/L	0.46	25830	mg/kg	22.9	0.09%
K 766.490*†	62892.6	43.09	mg/L	0.404	2154	mg/kg	20.2	0.94%
Mg 279.077*†	1656125.8	131.5	mg/L	0.27	6577	mg/kg	13.7	0.21%
Mg 280.271†	4266033.6	124.3	mg/L	0.40	6215	mg/kg	20.1	0.32%
Mn 257.610*†	6033137.7	10.34	mg/L	0.027	516.8	mg/kg	1.33	0.26%
Mn 259.372†	4931345.4	10.94	mg/L	0.025	546.8	mg/kg	1.24	0.23%
Mo 202.031*†	9390.0	0.4114	mg/L	0.00469	20.57	mg/kg	0.235	1.14%
Mo 203.845†	6816.7	0.4065	mg/L	0.00391	20.33	mg/kg	0.195	0.96%
Na 330.237†	10177.7	17.06	mg/L	0.185	853.2	mg/kg	9.27	1.09%
Na 589.592*†	132590.3	23.29	mg/L	0.193	1164	mg/kg	9.6	0.83%
Ni 231.604*†	44529.9	0.6868	mg/L	0.00298	34.34	mg/kg	0.149	0.43%
Ni 232.003†	15014.9	0.6099	mg/L	0.01788	30.50	mg/kg	0.894	2.93%
Pb 217.000†	1272.4	0.5856	mg/L	0.00407	29.28	mg/kg	0.203	0.69%
Pb 220.353*†	8966.9	0.5376	mg/L	0.01057	26.88	mg/kg	0.528	1.97%
Sb 206†	585.0	0.1331	mg/L	0.00826	6.656	mg/kg	0.4131	6.21%
Sb 206.836†	342.9	0.0738	mg/L	0.00558	3.690	mg/kg	0.2788	7.56%
Sb 217.582*†	414.8	0.0925	mg/L	0.00334	4.623	mg/kg	0.1670	3.61%
Se 196.026*†	1383.7	0.4470	mg/L	0.01162	22.35	mg/kg	0.581	2.60%
Se 203.985†	2613.5	0.7270	mg/L	0.00162	36.35	mg/kg	0.081	0.22%
Si 251.611*†	1405865.6	27.12	mg/L	0.110	1356	mg/kg	5.5	0.40%
Si 288.158†	625891.5	27.05	mg/L	0.033	1353	mg/kg	1.6	0.12%
Tl†	1154.5	0.3665	mg/L	0.01844	18.32	mg/kg	0.922	5.03%
Tl 190.801*†	1519.2	0.4526	mg/L	0.01316	22.63	mg/kg	0.658	2.91%
Tl 351.924†	2745.0	0.5545	mg/L	0.00926	27.73	mg/kg	0.463	1.67%
V 292.402*†	185822.5	1.747	mg/L	0.0024	87.36	mg/kg	0.118	0.14%

Return to Contents

V 310.230†	362031.1	1.863 mg/L	0.0016	93.13 mg/kg	0.078	0.08%
Zn 202.548†	164821.1	1.621 mg/L	0.0001	81.05 mg/kg	0.005	0.01%
Zn 206.200*†	116161.1	1.517 mg/L	0.0032	75.86 mg/kg	0.161	0.21%

Return to Contents

EPA METHOD 6010 B

RUN LOG

Return to Contents

131111C1

M082713A 0.050 ml

INT STD M060613E **PDS/PDSD** **10 ml**

R.B. R04231302 **M082713B 0.050 ml**

No.	File Name	Date	Time	AnalystName	AutoSampleLocation	
1	Cal blankR04231201_469	11/11/2013	11:03:52 AM	469 icp 7300	5	
2	STD3-M092713A_analyst 469	11/11/2013	11:05:44 AM	469 icp 7300	2	
3	STD2 M040113A_analyst 469	11/11/2013	11:07:08 AM	469 icp 7300	7	
4	ICV-M082713c	11/11/2013	11:07:54 AM	469 icp 7300	10	* Icv std not pass. Rerun.
5	ICV-M082713c *	11/11/2013	11:10:05 AM	469 icp 7300	10	
6	ICB-R04231201	11/11/2013	11:12:01 AM	469 icp 7300	1	
7	ICB-2 R04231201	11/11/2013	11:13:53 AM	469 icp 7300	1	
8	ICV-2 M062013A	11/11/2013	11:15:45 AM	469 icp 7300	6	
9	icv_ag M082713bx0.002	11/11/2013	11:17:37 AM	469 icp 7300	402	
10	icv sb M006-11-14x0.004	11/11/2013	11:19:30 AM	469 icp 7300	401	
11	ICS_A -M042313B	11/11/2013	11:21:06 AM	469 icp 7300	8	
12	ICS_AB -M042313A	11/11/2013	11:22:30 AM	469 icp 7300	9	
13	CCV= STD3x0.5	11/11/2013	11:23:53 AM	469 icp 7300	3	
14	CCV-2=0.5XSTD-2	11/11/2013	11:25:25 AM	469 icp 7300	6	
15	CCB-R04231201	11/11/2013	11:27:14 AM	469 icp 7300	1	
16	CCB-2R04231301	11/11/2013	11:29:07 AM	469 icp 7300	5	
17	LLCV-M082713F	11/11/2013	12:03:24 PM	469 icp 7300	101	
18	131106-b-02	11/11/2013	12:05:58 PM	469 icp 7300	301	
19	131106-b-03	11/11/2013	12:07:51 PM	469 icp 7300	302	
20	131107-b-01	11/11/2013	12:17:12 PM	469 icp 7300	110	
21	131107-l-01	11/11/2013	12:19:04 PM	469 icp 7300	111	
22	13-11-0283-1	11/11/2013	12:20:37 PM	469 icp 7300	112	** Samples not reported.
23	13-11-0283-1 ms	11/11/2013	12:21:49 PM	469 icp 7300	113	
24	13-11-0283-1 msd **	11/11/2013	12:23:00 PM	469 icp 7300	114	
25	13-11-0308-star100-1	11/11/2013	12:24:11 PM	469 icp 7300	115	
26	13-11-0308-star100-2	11/11/2013	12:25:26 PM	469 icp 7300	116	

Reviewed/Assign to Logbook Date: 11-12-13
Analyst: 6610/2007 Chemist ID: 776
Logbook Page: 46 Instrument ID: icp7

Return to Contents

27	13-11-0308-1	*	11/11/2013	12:26:57 PM	469 icp 7300	117
28	13-11-0308-2	*	11/11/2013	12:28:12 PM	469 icp 7300	118
29	blank		11/11/2013	12:29:28 PM	469 icp 7300	119
30	CCV= STD3x0.5	**	11/11/2013	12:31:19 PM	469 icp 7300	3
31	CCV-2=0.5XSTD-2	**	11/11/2013	12:32:47 PM	469 icp 7300	6
32	CCB-R04231301	**	11/11/2013	12:34:36 PM	469 icp 7300	1
33	CCB-2R04231301	**	11/11/2013	12:36:28 PM	469 icp 7300	5
34	CCV= STD3x0.5	***	11/11/2013	12:38:05 PM	469 icp 7300	3
35	CCB-R04231301	***	11/11/2013	12:39:19 PM	469 icp 7300	1
36	CCB1-R04231301	***	11/11/2013	12:41:11 PM	469 icp 7300	5
37	13-11-0489-star5-1		11/11/2013	12:42:45 PM	469 icp 7300	102
38	13-11-0489-1		11/11/2013	12:44:38 PM	469 icp 7300	103
39	13-11-0489-1 ms		11/11/2013	12:46:22 PM	469 icp 7300	104
40	13-11-0489-1 msd		11/11/2013	12:47:54 PM	469 icp 7300	105
41	13-11-0489-1 ps		11/11/2013	12:49:26 PM	469 icp 7300	106
42	13-11-0489-1 psd		11/11/2013	12:50:58 PM	469 icp 7300	107
43	13-11-0489-2		11/11/2013	12:52:32 PM	469 icp 7300	108
44	13-11-0558-2		11/11/2013	12:54:18 PM	469 icp 7300	109
45	CCV= STD3x0.5		11/11/2013	12:55:54 PM	469 icp 7300	3
46	CCB-R04231301		11/11/2013	12:57:09 PM	469 icp 7300	1
47	CCB1-R04231301		11/11/2013	12:58:58 PM	469 icp 7300	5
48	131107-b-09		11/11/2013	1:00:33 PM	469 icp 7300	120
49	131107-l-09		11/11/2013	1:01:51 PM	469 icp 7300	121
50	13-11-0343-star5-1		11/11/2013	1:03:13 PM	469 icp 7300	122
51	13-11-0343-1		11/11/2013	1:04:20 PM	469 icp 7300	123
52	13-11-0343-1 ms		11/11/2013	1:05:29 PM	469 icp 7300	124
53	13-11-0343-1 msd		11/11/2013	1:06:38 PM	469 icp 7300	125
54	13-11-0343-1 ps		11/11/2013	1:07:47 PM	469 icp 7300	126
55	13-11-0343-1 psd		11/11/2013	1:08:56 PM	469 icp 7300	127
56	13-11-0343-2		11/11/2013	1:10:05 PM	469 icp 7300	128
57	13-11-0343-3		11/11/2013	1:11:13 PM	469 icp 7300	129
58	CCV= STD3x0.5		11/11/2013	1:13:03 PM	469 icp 7300	3
59	CCB-R04231301		11/11/2013	1:14:13 PM	469 icp 7300	1
60	CCB2-R04231301		11/11/2013	1:16:01 PM	469 icp 7300	5
61	Calblank R04231301_ 469		11/11/2013	1:17:35 PM	469 icp 7300	5

* Samples not reported.

** ccv/ccb for 6010 + Bi. S. Li

*** ccv/ccb for 6010 water.

Reviewed/Assign to Logbook Date: 11-12-13
Analysis: 6010/200.7 Chemist ID: 226
Logbook Page: 47 Instrument ID: icp7

Return to Contents

62	STD3-M092713A-Analyst-469		11/11/2013	1:19:25 PM	469 icp 7300	2
63	CCV= STD3x0.5		11/11/2013	1:20:50 PM	469 icp 7300	3
64	CCB-R04231301		11/11/2013	1:22:03 PM	469 icp 7300	1
65	CCB-1 R04231301		11/11/2013	1:23:55 PM	469 icp 7300	5
66	131108-b03		11/11/2013	1:25:32 PM	469 icp 7300	130
67	131108-l-03		11/11/2013	1:27:25 PM	469 icp 7300	131
68	131108-l-01		11/11/2013	1:28:44 PM	469 icp 7300	132
69	13-11-0497-1		11/11/2013	1:30:03 PM	469 icp 7300	133
70	13-11-0497-1 ms		11/11/2013	1:31:18 PM	469 icp 7300	134
71	13-11-0497-1 msd		11/11/2013	1:32:15 PM	469 icp 7300	135
72	13-11-0599-1		11/11/2013	1:33:15 PM	469 icp 7300	136
73	13-11-0599-1 ms		11/11/2013	1:34:26 PM	469 icp 7300	137
74	13-11-0599-1 msd		11/11/2013	1:35:38 PM	469 icp 7300	138
75	13-11-0495-1		11/11/2013	1:36:49 PM	469 icp 7300	139
76	CCV= STD3x0.5		11/11/2013	1:38:16 PM	469 icp 7300	3
77	CCB-R04231301		11/11/2013	1:39:27 PM	469 icp 7300	1
78	CCB2-R04231301		11/11/2013	1:41:19 PM	469 icp 7300	5
79	13-11-0385-1		11/11/2013	1:43:11 PM	469 icp 7300	140
80	CCV= STD3x0.5		11/11/2013	1:44:17 PM	469 icp 7300	3
81	CCB-R04231301		11/11/2013	1:45:28 PM	469 icp 7300	1
82	CCB2-R04231301		11/11/2013	1:47:16 PM	469 icp 7300	5
83	13-11-0385-2		11/11/2013	1:48:52 PM	469 icp 7300	141
84	13-11-0385-3		11/11/2013	1:49:38 PM	469 icp 7300	142
85	13-11-0385-4		11/11/2013	1:50:26 PM	469 icp 7300	143
86	13-11-0385-5		11/11/2013	1:51:14 PM	469 icp 7300	144
87	13-11-0385-6		11/11/2013	1:51:57 PM	469 icp 7300	145
88	13-11-0595-1		11/11/2013	1:52:41 PM	469 icp 7300	146
89	blank		11/11/2013	1:53:44 PM	469 icp 7300	147
90	CCV= STD3x0.5	*	11/11/2013	1:54:43 PM	469 icp 7300	3
91	CCB-R04231301	*	11/11/2013	1:55:34 PM	469 icp 7300	1
92	CCB2-R04231301	*	11/11/2013	1:56:38 PM	469 icp 7300	6
93	CCV= STD3x0.5	**	11/11/2013	1:59:23 PM	469 icp 7300	3
94	CCB-R04231301	**	11/11/2013	2:00:32 PM	469 icp 7300	1
95	CCB2-R04231301	**	11/11/2013	2:02:20 PM	469 icp 7300	5
96	131111-ba-1		11/11/2013	2:03:56 PM	598 icp 7300	403

* ccv / ccb for As. B only.

** ccv / ccb for Title 22 water

Reviewed/Assign to Logbook Date: 11-12-13
Analysts: bolo/200.7 Chemist ID: 776
Logbook Page: 48 Instrument ID: ICP7

Return to Contents

167	13-11-0514-1		11/11/2013	3:39:45 PM	469 icp 7300	313
168	13-11-0514-2		11/11/2013	3:40:53 PM	469 icp 7300	314
169	13-11-0514-3		11/11/2013	3:42:00 PM	469 icp 7300	315
170	13-11-0514-4		11/11/2013	3:43:08 PM	469 icp 7300	316
171	13-11-0412-1		11/11/2013	3:44:16 PM	469 icp 7300	317
172	CCV= STD3x0.5		11/11/2013	3:45:22 PM	469 icp 7300	4
173	CCB-R04231301		11/11/2013	3:46:32 PM	469 icp 7300	6
174	CCB2-R04231301		11/11/2013	3:48:24 PM	469 icp 7300	7
175	13-11-0545-1		11/11/2013	3:50:11 PM	469 icp 7300	318
176	13-11-0545-2		11/11/2013	3:51:20 PM	469 icp 7300	319
177	13-11-0383-1		11/11/2013	3:52:28 PM	469 icp 7300	320
178	13-11-0383-2		11/11/2013	3:53:42 PM	469 icp 7300	321
179	13-11-0585-1		11/11/2013	3:54:56 PM	469 icp 7300	322
180	13-11-0528-5		11/11/2013	3:56:09 PM	469 icp 7300	323
181	13-11-0673-1		11/11/2013	3:57:17 PM	469 icp 7300	324
182	13-11-0673-2		11/11/2013	3:58:39 PM	469 icp 7300	325
183	13-11-0673-3		11/11/2013	3:59:47 PM	469 icp 7300	326
184	13-11-0673-4		11/11/2013	4:00:54 PM	469 icp 7300	327
185	CCV= STD3x0.5	*	11/11/2013	4:02:01 PM	469 icp 7300	4
186	CCB-R04231301		11/11/2013	4:03:11 PM	469 icp 7300	6
187	CCB2-R04231301		11/11/2013	4:04:59 PM	469 icp 7300	7
188	CCV= STD3x0.5	**	11/11/2013	4:07:19 PM	469 icp 7300	3
189	CCB-R04231301		11/11/2013	4:08:29 PM	469 icp 7300	1
190	CCB2-R04231301		11/11/2013	4:10:20 PM	469 icp 7300	5
191	13-11-0288-2 o		11/11/2013	4:11:57 PM	598 icp 7300	428
192	13-11-0288-3 o		11/11/2013	4:13:22 PM	598 icp 7300	429
193	13-11-0288-2		11/11/2013	4:14:45 PM	598 icp 7300	430
194	CCV= STD3x0.5	**	11/11/2013	4:15:51 PM	469 icp 7300	3
195	CCB-R04231301		11/11/2013	4:17:02 PM	469 icp 7300	1
196	CCB2-R04231301		11/11/2013	4:18:50 PM	469 icp 7300	5
197	CCV= STD3x0.5	*	11/11/2013	4:20:24 PM	469 icp 7300	4
198	CCB-R04231301		11/11/2013	4:21:34 PM	469 icp 7300	6
199	CCB2-R04231301		11/11/2013	4:23:26 PM	469 icp 7300	7
200	13-11-0363-1		11/11/2013	4:25:16 PM	469 icp 7300	328
201	13-11-0419-1		11/11/2013	4:26:14 PM	469 icp 7300	329

* CCV / CCB for Title 22 soil.

** CCV / CCB for Title 22 water

Reviewed/Assign to Logbook Date: 11-12-13
Analysis: 6010/200.7 Chemist ID: 776
Logbook Page: 57 Instrument ID: icp7

Return to Contents

202	13-11-0389-1	11/11/2013	4:27:32 PM	469 icp 7300	330
203	13-11-0548-1	11/11/2013	4:28:58 PM	469 icp 7300	331
204	13-11-0549-1	11/11/2013	4:30:07 PM	469 icp 7300	332
205	13-11-0550-1	11/11/2013	4:31:13 PM	469 icp 7300	333
206	13-11-0551-1	11/11/2013	4:32:16 PM	469 icp 7300	334
207	13-11-0552-1	11/11/2013	4:33:18 PM	469 icp 7300	335
208	13-11-0474-1	11/11/2013	4:34:27 PM	469 icp 7300	336
209	131111-b-01	11/11/2013	4:35:32 PM	598 icp 7300	431
210	CCV= STD3x0.5	11/11/2013	4:37:09 PM	469 icp 7300	4
211	CCB-R04231301	11/11/2013	4:38:19 PM	469 icp 7300	6
212	CCB2-R04231301	11/11/2013	4:40:07 PM	469 icp 7300	7
213	131111-l-01	11/11/2013	4:41:57 PM	598 icp 7300	432
214	13-11-0760-5	11/11/2013	4:43:18 PM	598 icp 7300	433
215	13-11-0712-5	11/11/2013	4:44:27 PM	598 icp 7300	434
216	CCV= STD3x0.5	11/11/2013	4:45:35 PM	469 icp 7300	4
217	CCB-R04231301	11/11/2013	4:46:46 PM	469 icp 7300	6
218	CCB2-R04231301	11/11/2013	4:48:38 PM	469 icp 7300	7
219	131107-b-06	11/11/2013	4:50:12 PM	469 icp 7300	337
220	131107-b-07	11/11/2013	4:51:12 PM	469 icp 7300	338
221	131107-b-08	11/11/2013	4:52:15 PM	469 icp 7300	339
222	131107-l-06	11/11/2013	4:53:18 PM	469 icp 7300	340
223	131107-l-07	11/11/2013	4:54:01 PM	469 icp 7300	341
224	131107-l-08	11/11/2013	4:54:44 PM	469 icp 7300	342
225	13-11-0475-3 ms	11/11/2013	4:55:27 PM	469 icp 7300	343
226	13-11-0475-3 msd	11/11/2013	4:56:15 PM	469 icp 7300	344
227	13-11-0475-26 ms	11/11/2013	4:57:03 PM	469 icp 7300	345
228	13-11-0475-26 msd	11/11/2013	4:57:53 PM	469 icp 7300	346
229	CCV= STD3x0.5	11/11/2013	4:58:41 PM	469 icp 7300	3
230	CCB-R04231301	11/11/2013	4:59:32 PM	469 icp 7300	1
231	13-11-0475-43 ms	11/11/2013	5:00:32 PM	469 icp 7300	347
232	13-11-0475-43 ms	11/11/2013	5:01:24 PM	469 icp 7300	348
233	13-11-0384-46 msd	11/11/2013	5:02:13 PM	469 icp 7300	349
234	13-11-0475-1	11/11/2013	5:03:11 PM	469 icp 7300	350
235	13-11-0475-2	11/11/2013	5:04:09 PM	469 icp 7300	351
236	13-11-0475-3	11/11/2013	5:04:57 PM	469 icp 7300	352

Reviewed/Assign to Logbook Date: 11/12/13
Analysis: 6/10/2007 Chemist ID: 776
Logbook Page: 52 Instrument ID: 7007

Return to Contents

131112C1

M082713A 0.050 ml

INT STD M060613E **PDS/PDSD** **10 ml**

R.B. R04231302 **M082713B 0.050 ml**

No.	File Name		Date	Time	AnalystName	AutoSampleLocation	
1	Cal blank R04231301_469		11/12/2013	10:31:46 AM	469 icp 7300	5	
2	STD3-M092713A_analyst 469		11/12/2013	10:33:22 AM	469 icp 7300	2	
3	STD2 M040113A_analyst 469		11/12/2013	10:34:46 AM	469 icp 7300	7	
4	ICV-M082713c		11/12/2013	10:35:32 AM	469 icp 7300	10	
5	ICB-R04231301		11/12/2013	10:36:56 AM	469 icp 7300	1	
6	ICB-2 R04231301		11/12/2013	10:39:18 AM	469 icp 7300	1	
7	ICV-2 M062013A		11/12/2013	10:40:55 AM	469 icp 7300	6	
8	ICS_A -M042313B		11/12/2013	10:42:29 AM	469 icp 7300	8	
9	ICS_AB -M042313A		11/12/2013	10:43:52 AM	469 icp 7300	9	
10	CCV= STD3x0.5		11/12/2013	10:45:15 AM	469 icp 7300	3	
11	CCV-2=0.5XSTD-2		11/12/2013	10:46:47 AM	469 icp 7300	6	
12	CCB-R04231301		11/12/2013	10:48:21 AM	469 icp 7300	1	
13	CCB-2-R04231301		11/12/2013	10:49:58 AM	469 icp 7300	5	
14	LLCV-M082713F	***	11/12/2013	11:30:20 AM	469 icp 7300	101	*** LLCV did not pass. Rerun.
15	LLCV-M082713F	***	11/12/2013	11:31:56 AM	469 icp 7300	101	*** LLCV did not pass. Rerun.
16	131107-b-01		11/12/2013	11:33:32 AM	469 icp 7300	102	
17	131107-l-01		11/12/2013	11:35:31 AM	469 icp 7300	103	
18	CCV= STD3x0.5	*	11/12/2013	11:37:06 AM	469 icp 7300	3	* CCV/CCB for 6010 water and Bi. S. Li
19	CCV-2=0.5XSTD-2	*	11/12/2013	11:38:34 AM	469 icp 7300	6	* CCV/CCB for 6010 water and Bi. S. Li
20	CCB-R04231301	*	11/12/2013	11:40:10 AM	469 icp 7300	1	* CCV/CCB for 6010 water and Bi. S. Li
21	CCB-2R04231301	**	11/12/2013	11:41:46 AM	469 icp 7300	5	** CCV/CCB for Bi. S. Li
22	CCV-2=0.5XSTD-2	**	11/12/2013	11:43:06 AM	469 icp 7300	6	** CCV/CCB for Bi. S. Li
23	CCB2 R04231301	**	11/12/2013	11:44:15 AM	469 icp 7300	5	** CCV/CCB for Bi. S. Li
24	13-11-0283-1		11/12/2013	11:45:46 AM	469 icp 7300	104	
25	13-11-0283-1 ms		11/12/2013	11:46:44 AM	469 icp 7300	105	
26	13-11-0283-1 msd		11/12/2013	11:47:40 AM	469 icp 7300	106	

Reviewed/Assign to Logbook Date: 11-13-13
Analysis: 6010/200.7 Chemist ID: 776
Logbook Page: 59 Instrument ID: icp7

Return to Contents

97	13-11-0733-2	11/12/2013	1:13:52 PM	469 icp 7300	148	
98	13-11-0733-3	11/12/2013	1:15:12 PM	469 icp 7300	149	
99	13-11-0735-1	11/12/2013	1:16:48 PM	469 icp 7300	150	
100	13-11-0735-2	11/12/2013	1:18:25 PM	469 icp 7300	151	
101	13-11-0735-3	11/12/2013	1:20:02 PM	469 icp 7300	152	
102	CCV= STD3x0.5	11/12/2013	1:21:38 PM	469 icp 7300	3	
103	CCB-R04231301	11/12/2013	1:22:50 PM	469 icp 7300	1	
104	CCB2-R04231301	11/12/2013	1:24:23 PM	469 icp 7300	5	
105	131111-ba-5f	11/12/2013	1:25:40 PM	469 icp 7300	153	
106	131111-ba-5	11/12/2013	1:27:14 PM	469 icp 7300	154	
107	131111-la-5	11/12/2013	1:28:45 PM	469 icp 7300	155	
108	13-11-0708-1	11/12/2013	1:30:03 PM	469 icp 7300	156	
109	13-11-0708-1 ms	11/12/2013	1:31:15 PM	469 icp 7300	157	
110	13-11-0708-1 msd	11/12/2013	1:32:18 PM	469 icp 7300	158	
111	13-11-0735-f-1	11/12/2013	1:33:21 PM	469 icp 7300	159	
112	13-11-0735-f-2	11/12/2013	1:34:57 PM	469 icp 7300	160	
113	13-11-0735-f-3	11/12/2013	1:36:33 PM	469 icp 7300	301	
114	13-11-0733-f-1	11/12/2013	1:38:11 PM	469 icp 7300	302	
115	CCV= STD3x0.5 } *	11/12/2013	1:39:50 PM	469 icp 7300	3	} * ccv/ccb for Title 22 water
116	CCB-R04231301 } *	11/12/2013	1:41:00 PM	469 icp 7300	1	} * ccv/ccb for Title 22 water
117	CCB2-R04231301 } *	11/12/2013	1:42:32 PM	469 icp 7300	5	} * ccv/ccb for Title 22 water
118	CCV-2=0.5XSTD-2 } **	11/12/2013	2:01:19 PM	469 icp 7300	6	} ** ccv/ccb for Bi. S. Li
119	CCB2-R04231301 } **	11/12/2013	2:02:44 PM	469 icp 7300	5	} ** ccv/ccb for Bi. S. Li
120	13-11-0308-star100-1	11/12/2013	2:04:32 PM	469 icp 7300	107	
121	13-11-0308-star100-2	11/12/2013	2:06:08 PM	469 icp 7300	108	
122	CCV-2=0.5XSTD-2	11/12/2013	2:07:33 PM	469 icp 7300	6	
123	CCB2-R04231301	11/12/2013	2:09:00 PM	469 icp 7300	5	
124	Calblank R04231301_ 469	11/12/2013	2:10:17 PM	469 icp 7300	5	
125	STD3-M092713A-Analyst-469	11/12/2013	2:11:50 PM	469 icp 7300	2	
126	CCV= STD3x0.5	11/12/2013	2:13:12 PM	469 icp 7300	3	
127	CCB-R04231301	11/12/2013	2:14:25 PM	469 icp 7300	1	
128	CCB-1 R04231301	11/12/2013	2:16:01 PM	469 icp 7300	5	
129	LLCV-M082713F } ***	11/12/2013	2:17:58 PM	469 icp 7300	101	} *** LLCV did not pass. Recalibrate.
130	LLCV-M082713F } ***	11/12/2013	2:19:39 PM	469 icp 7300	101	} *** LLCV did not pass. Recalibrate.
131	Calblank R04231301_ 469	11/12/2013	2:21:42 PM	469 icp 7300	5	

Reviewed/Assign to Logbook Date: 11-13-13
Analyst: bolo/2007 Chemist ID: 776

Return to Contents

132	STD3-M092713A-Analyst-469	11/12/2013	2:23:16 PM	469 icp 7300	2
133	CCV= STD3x0.5	11/12/2013	2:24:38 PM	469 icp 7300	3
134	CCB-R04231301	11/12/2013	2:25:51 PM	469 icp 7300	1
135	CCB-1 R04231301	11/12/2013	2:27:24 PM	469 icp 7300	5
136	LLCV-M082713F	11/12/2013	2:28:42 PM	469 icp 7300	101
137	CCV= STD3x0.5	11/12/2013	2:30:57 PM	469 icp 7300	3
138	CCB-R04231301	11/12/2013	2:32:08 PM	469 icp 7300	1
139	CCB-1R04231301	11/12/2013	2:33:41 PM	469 icp 7300	5
140	131107-b-09	11/12/2013	2:40:13 PM	469 icp 7300	111
141	131107-l-09	11/12/2013	2:41:47 PM	469 icp 7300	112
142	13-11-0343-star5-1	11/12/2013	2:43:05 PM	469 icp 7300	113
143	13-11-0343-1	11/12/2013	2:44:27 PM	469 icp 7300	114
144	13-11-0343-1 ms	11/12/2013	2:45:34 PM	469 icp 7300	115
145	13-11-0343-1 msd	11/12/2013	2:46:43 PM	469 icp 7300	116
146	13-11-0343-1 ps	11/12/2013	2:47:52 PM	469 icp 7300	117
147	13-11-0343-1 psd	11/12/2013	2:49:01 PM	469 icp 7300	118
148	13-11-0343-2	11/12/2013	2:50:10 PM	469 icp 7300	119
149	13-11-0343-3	11/12/2013	2:51:17 PM	469 icp 7300	120
150	CCV= STD3x0.5	11/12/2013	2:52:25 PM	469 icp 7300	3
151	CCB-R04231301	11/12/2013	2:53:35 PM	469 icp 7300	1
152	CCB2-R04231301	11/12/2013	2:55:07 PM	469 icp 7300	5
153	131112-b-01	11/12/2013	2:56:24 PM	469 icp 7300	336
154	131112-l-01	11/12/2013	2:57:38 PM	469 icp 7300	337
155	131108-l-02d	11/12/2013	2:58:46 PM	469 icp 7300	338
156	13-11-0773-5	11/12/2013	2:59:54 PM	469 icp 7300	339
157	13-11-0773-5 ms	11/12/2013	3:01:00 PM	469 icp 7300	340
158	13-11-0773-5 msd	11/12/2013	3:02:05 PM	469 icp 7300	341
159	13-11-0419-1	11/12/2013	3:03:10 PM	469 icp 7300	342
160	13-11-0389-1	11/12/2013	3:04:09 PM	469 icp 7300	343
161	13-11-0363-star100-1	11/12/2013	3:05:21 PM	469 icp 7300	344
162	13-11-0497-2	11/12/2013	3:06:34 PM	469 icp 7300	345
163	CCV= STD3x0.5	11/12/2013	3:07:41 PM	469 icp 7300	3
164	CCB-R04231301	11/12/2013	3:08:49 PM	469 icp 7300	1
165	CCB2-R04231301	11/12/2013	3:10:04 PM	469 icp 7300	5
166	13-11-0475-1	11/12/2013	3:11:19 PM	469 icp 7300	346

Reviewed/Assign to Logbook Date: 11-13-13
Analysts: 6010/200.7 Chemist ID: 726
Logbook Page: 63 Instrument ID: ICP7

Return to Contents

167	CCV= STD3x0.5	*	11/12/2013	3:12:27 PM	469 icp 7300	3	* CCV / CCB for Title 22 soil.
168	CCB-R04231301		11/12/2013	3:13:35 PM	469 icp 7300	1	
169	CCB2-R04231301		11/12/2013	3:14:47 PM	469 icp 7300	5	
170	CCV= STD3x0.5	**	11/12/2013	3:15:46 PM	469 icp 7300	3	** CCV / CCB for 6010
171	CCB-R04231301		11/12/2013	3:16:57 PM	469 icp 7300	1	
172	CCB-1R04231301		11/12/2013	3:18:30 PM	469 icp 7300	5	
173	131111-b-01		11/12/2013	3:19:48 PM	469 icp 7300	323	
174	131111-b-03		11/12/2013	3:21:23 PM	469 icp 7300	324	
175	131111-l-03		11/12/2013	3:22:55 PM	469 icp 7300	325	
176	131111-l-01		11/12/2013	3:24:14 PM	469 icp 7300	326	
177	13-11-0805-1		11/12/2013	3:25:33 PM	469 icp 7300	327	
178	13-11-0805-1 ms		11/12/2013	3:26:44 PM	469 icp 7300	328	
179	13-11-0805-1 msd		11/12/2013	3:27:54 PM	469 icp 7300	329	
180	13-11-0697-8		11/12/2013	3:29:05 PM	469 icp 7300	330	
181	13-11-0697-8 ms		11/12/2013	3:30:17 PM	469 icp 7300	331	
182	13-11-0697-8 msd		11/12/2013	3:31:28 PM	469 icp 7300	332	
183	CCV= STD3x0.5		11/12/2013	3:32:40 PM	469 icp 7300	3	
184	CCB-R04231301		11/12/2013	3:33:52 PM	469 icp 7300	1	
185	CCB2-R04231301		11/12/2013	3:35:25 PM	469 icp 7300	5	
186	13-11-0607-1		11/12/2013	3:36:57 PM	469 icp 7300	333	
187	13-11-0608-1		11/12/2013	3:38:09 PM	469 icp 7300	334	
188	13-11-0797-1		11/12/2013	3:39:29 PM	469 icp 7300	335	
189	CCV= STD3x0.5	***	11/12/2013	3:40:35 PM	469 icp 7300	3	*** CCV / CCB for Title 22 + K.SI
190	CCB-R04231301		11/12/2013	3:41:47 PM	469 icp 7300	1	
191	CCB2-R04231301		11/12/2013	3:43:20 PM	469 icp 7300	5	
192	CCV= STD3x0.5	****	11/12/2013	3:44:38 PM	469 icp 7300	3	**** CCV / CCB for Title 22 water
193	CCB-R04231301		11/12/2013	3:45:48 PM	469 icp 7300	1	
194	CCB2-R04231301		11/12/2013	3:47:20 PM	469 icp 7300	5	
195	13-11-0733-f-2		11/12/2013	3:48:38 PM	469 icp 7300	303	
196	13-11-0733-f-3		11/12/2013	3:50:19 PM	469 icp 7300	304	
197	13-11-0663-2		11/12/2013	3:51:55 PM	469 icp 7300	305	
198	13-11-0693-1		11/12/2013	3:53:27 PM	469 icp 7300	306	
199	13-11-0693-2		11/12/2013	3:54:59 PM	469 icp 7300	307	
200	13-11-0693-3		11/12/2013	3:56:35 PM	469 icp 7300	308	
201	13-11-0693-4		11/12/2013	3:58:07 PM	469 icp 7300	309	

Reviewed/Assign to Logbook Date: 11-13-13
Analysis: 6010/2007 Chemist ID: 076
64 Instrument ID: 7407

Return to Contents

237	13-11-0145-36	11/12/2013	5:15:13 PM	469 icp 7300	105
238	13-11-0145-36 ms	11/12/2013	5:16:23 PM	469 icp 7300	106
239	13-11-0145-36 msd	11/12/2013	5:17:32 PM	469 icp 7300	107
240	13-11-0145-36 ps	11/12/2013	5:18:41 PM	469 icp 7300	108
241	13-11-0145-36 psd	11/12/2013	5:19:50 PM	469 icp 7300	109
242	13-11-0145-35	11/12/2013	5:20:57 PM	469 icp 7300	110
243	13-11-0145-37	11/12/2013	5:22:04 PM	469 icp 7300	111
244	CCV= STD3x0.5	11/12/2013	5:23:14 PM	469 icp 7300	3
245	CCB-R04231301	11/12/2013	5:24:24 PM	469 icp 7300	1
246	CCB2-R04231301	11/12/2013	5:26:00 PM	469 icp 7300	5
247	13-11-0860-6	11/12/2013	5:27:32 PM	469 icp 7300	112
248	13-11-0860-6 ms	11/12/2013	5:28:39 PM	469 icp 7300	113
249	13-11-0860-6 msd	11/12/2013	5:29:45 PM	469 icp 7300	114
250	13-11-0860-6 ps	11/12/2013	5:30:51 PM	469 icp 7300	115
251	13-11-0860-6 psd	11/12/2013	5:31:57 PM	469 icp 7300	116
252	ICS_AB -M042313A	11/12/2013	5:33:03 PM	469 icp 7300	9
253	CCV= STD3x0.5	11/12/2013	5:34:06 PM	469 icp 7300	3
254	CCB-R04231301	11/12/2013	5:35:15 PM	469 icp 7300	1
255	CCB2-R04231301	11/12/2013	5:36:47 PM	469 icp 7300	5
256	Calblank R04231301_ 469	11/12/2013	6:15:43 PM	469 icp 7300	5
257	STD3-M092713A-Analyst-469	11/12/2013	6:17:19 PM	469 icp 7300	2
258	CCV= STD3x0.5	11/12/2013	6:18:41 PM	469 icp 7300	3
259	CCB-R04231301	11/12/2013	6:19:54 PM	469 icp 7300	1
260	CCB-1 R04231301	11/12/2013	6:21:27 PM	469 icp 7300	5
261	131112-ba-2	11/12/2013	6:22:45 PM	469 icp 7300	201
262	131112-la-2	11/12/2013	6:24:19 PM	469 icp 7300	202
263	13-11-0812-1	11/12/2013	6:25:38 PM	469 icp 7300	203
264	13-11-0812-1 ms	11/12/2013	6:27:18 PM	469 icp 7300	204
265	13-11-0812-1 msd	11/12/2013	6:28:43 PM	469 icp 7300	205
266	13-11-0818-f-1	11/12/2013	6:30:08 PM	469 icp 7300	206
267	CCV= STD3x0.5	11/12/2013	6:31:44 PM	469 icp 7300	3
268	CCB-R04231301	11/12/2013	6:32:56 PM	469 icp 7300	1
269	CCB2-R04231301	11/12/2013	6:34:29 PM	469 icp 7300	5
270	131111-b-02	11/12/2013	6:35:46 PM	469 icp 7300	207
271	131111-l-02	11/12/2013	6:37:21 PM	469 icp 7300	208

Reviewed/Assign to Logbook Date: 11-13-13
Analysis: 6/6/2007 Chemist ID: 276
Logbook Page: 66 Instrument ID: icp7

Return to Contents

272	13-11-0722-1	11/12/2013	6:38:40 PM	469 icp 7300	209
273	13-11-0722-1 ms	11/12/2013	6:39:54 PM	469 icp 7300	210
274	13-11-0722-1 msd	11/12/2013	6:41:08 PM	469 icp 7300	211
275	13-11-0720-1	11/12/2013	6:42:22 PM	469 icp 7300	212
276	CCV= STD3x0.5	11/12/2013	6:43:42 PM	469 icp 7300	3
277	CCB-R04231301	11/12/2013	6:44:54 PM	469 icp 7300	1
278	CCB2-R04231301	11/12/2013	6:46:27 PM	469 icp 7300	5
279	13-11-0707-f-1	11/12/2013	6:47:45 PM	469 icp 7300	242
280	13-11-0707-f-2	11/12/2013	6:49:23 PM	469 icp 7300	243
281	13-11-0707-f-6	11/12/2013	6:50:57 PM	469 icp 7300	244
282	13-11-0707-f-7	11/12/2013	6:52:33 PM	469 icp 7300	245
283	13-11-0707-f-8	11/12/2013	6:54:09 PM	469 icp 7300	246
284	CCV= STD3x0.5	11/12/2013	6:55:45 PM	469 icp 7300	3
285	CCB-R04231301	11/12/2013	6:56:56 PM	469 icp 7300	1
286	CCB2-R04231301	11/12/2013	6:58:32 PM	469 icp 7300	5
287	131108- b-05	11/12/2013	6:59:50 PM	469 icp 7300	123
288	13-11-0611-1	11/12/2013	7:01:06 PM	469 icp 7300	213
289	13-11-0611-2	11/12/2013	7:02:14 PM	469 icp 7300	214
290	13-11-0611-3	11/12/2013	7:03:14 PM	469 icp 7300	215
291	13-11-0676-5	11/12/2013	7:04:19 PM	469 icp 7300	216
292	13-11-0676-10	11/12/2013	7:05:21 PM	469 icp 7300	217
293	13-11-0676-19	11/12/2013	7:06:22 PM	469 icp 7300	218
294	13-11-0676-24	11/12/2013	7:07:28 PM	469 icp 7300	219
295	13-11-0676-30	11/12/2013	7:08:33 PM	469 icp 7300	220
296	13-11-0676-34	11/12/2013	7:09:39 PM	469 icp 7300	221
297	CCV= STD3x0.5	11/12/2013	7:10:42 PM	469 icp 7300	3
298	CCB-R04231301	11/12/2013	7:11:51 PM	469 icp 7300	1
299	CCB2-R04231301	11/12/2013	7:13:03 PM	469 icp 7300	5
300	13-11-0676-41	11/12/2013	7:14:15 PM	469 icp 7300	222
301	13-11-0676-44	11/12/2013	7:15:23 PM	469 icp 7300	223
302	13-11-0676-48	11/12/2013	7:16:25 PM	469 icp 7300	224
303	13-11-0676-51	11/12/2013	7:17:30 PM	469 icp 7300	225
304	13-11-0778-1	11/12/2013	7:18:35 PM	469 icp 7300	226
305	13-11-0763-13	11/12/2013	7:19:42 PM	469 icp 7300	227
306	13-11-0763-14	11/12/2013	7:20:48 PM	469 icp 7300	228

Reviewed/Assign to Logbook Date: 11-13-13
Analysis: 6010/200.7 Chemist ID: 426
Logbook Page: 67 Instrument ID: 2497

Return to Contents

307	13-11-0763-15		11/12/2013	7:21:51 PM	469 icp 7300	229
308	13-11-0697-3		11/12/2013	7:22:53 PM	469 icp 7300	230
309	13-11-0697-4		11/12/2013	7:23:57 PM	469 icp 7300	231
310	CCV= STD3x0.5		11/12/2013	7:25:01 PM	469 icp 7300	3
311	CCB-R04231301		11/12/2013	7:26:10 PM	469 icp 7300	1
312	CCB2-R04231301		11/12/2013	7:27:26 PM	469 icp 7300	5
313	13-11-0697-5		11/12/2013	7:28:38 PM	469 icp 7300	232
314	13-11-0697-6		11/12/2013	7:29:46 PM	469 icp 7300	233
315	13-11-0697-7		11/12/2013	7:30:47 PM	469 icp 7300	234
316	13-11-0697-9		11/12/2013	7:31:51 PM	469 icp 7300	235
317	13-11-0697-10		11/12/2013	7:32:56 PM	469 icp 7300	236
318	13-11-0697-11		11/12/2013	7:34:01 PM	469 icp 7300	237
319	13-11-0697-12		11/12/2013	7:35:08 PM	469 icp 7300	238
320	13-11-0661-1		11/12/2013	7:36:09 PM	469 icp 7300	239
321	13-11-0688-1		11/12/2013	7:37:09 PM	469 icp 7300	240
322	13-11-0710-9		11/12/2013	7:38:22 PM	469 icp 7300	241
323	CCV= STD3x0.5	*	11/12/2013	7:39:32 PM	469 icp 7300	3
324	CCB-R04231301		11/12/2013	7:40:40 PM	469 icp 7300	1
325	CCB2-R04231301		11/12/2013	7:41:52 PM	469 icp 7300	5
326	CCV= STD3x0.5		11/12/2013	7:51:29 PM	469 icp 7300	3
327	CCB-R04231301		11/12/2013	7:52:36 PM	469 icp 7300	1
328	CCB2-R04231301		11/12/2013	7:53:48 PM	469 icp 7300	5
329	13-11-0688x100-1		11/12/2013	7:57:59 PM	469 icp 7300	240
330	13-11-0710x10-9		11/12/2013	7:59:06 PM	469 icp 7300	241
331	CCV= STD3x0.5	**	11/12/2013	8:00:02 PM	469 icp 7300	3
332	CCB-R04231301		11/12/2013	8:01:10 PM	469 icp 7300	1
333	CCB2-R04231301		11/12/2013	8:02:25 PM	469 icp 7300	5
334	CCV= STD3x0.5	***	11/12/2013	8:03:23 PM	469 icp 7300	3
335	CCB-R04231301		11/12/2013	8:04:32 PM	469 icp 7300	1
336	CCB2-R04231301		11/12/2013	8:06:04 PM	469 icp 7300	5
337	131112-ba-9		11/12/2013	8:11:38 PM	469 icp 7300	249
338	131112-la-9		11/12/2013	8:13:12 PM	469 icp 7300	250
339	13-11-0890-1		11/12/2013	8:14:30 PM	469 icp 7300	251
340	13-11-0889-1		11/12/2013	8:15:46 PM	469 icp 7300	252
341	CCV= STD3x0.5		11/12/2013	8:17:18 PM	469 icp 7300	3

carry-over from sample 321

* ccv did not pass. Rerun. pass

** ccv/ccb for Title 22 soil.

*** ccv/ccb for Title 22 water

Reviewed/Assign to Logbook Date: 11-13-13
Analysis: 6010/200.7 Chemist ID: 776
Logbook Page: 68 Instrument ID: icp7

Return to Contents

EPA METHOD 6010 B

PREPARATION LOG

Return to Contents

Metals Sample Preparation Logbook

METHOD: ☑ 6010 ☐ 200.7 ☐ 6020 ☐ 200.8 MATRIX: ☑ SOLID ☐ AQUEOUS ☐ OTHER (SPECIFY) _____ MS/MSD BATCH NUMBER: 131111-501

REAGENT ID(S): 1) HNO_3 B110513-2 2) HCl B110130I 3) H_2O_2 M006-12-19

LOT #: 1) Teflon Chip / Glass Bead M006-09-25 2) Digestion Tube 131006 3) Filter

ID #: 1) Block Digester #4 2) Thermometer A018 (CF 0°C) 3) Balance #54

Note: If digestion is not required due to turbidity < 1 NTU, then record the turbidity run date.

DATE	START TIME	ANALYST (STARTED BY)	FINISH TIME	ANALYST (FINISHED BY)	INITIAL pH	TURB (NTU)	TEMP (°C)	CEL ID #	ANALYTE(S)	SAMPLE INITIAL (g - S/O) (mL - A)	SAMPLE FINAL (mL)	SPIKE STANDARD (LCS/LCSD/MS/MSD) STANDARD ID	SPIKE STANDARD C (ppm)	SPIKE STANDARD V (mL)
11/11/13	13:30	BTG	15:00	BTG	NA	NA	95°	MS 13-11-0697-8A	Metals	2.00	100	M082712A M082713B	100	0.50
								MSD 13-11-0697-8A		2.00				
								LCS 131111-L01		2.00				
								LCSD						
								MB 131111-B01	Metals	2.00	100			
								13-11-0697-3A		2.01				
								4A		1.99				
								5A		2.01				
								6A		2.00				
								7A		2.01				
								8A		2.00				
								9A		2.01				
								10A		1.99				
								11A		2.01				
								12A		2.01				
	12:30		14:00					13-11-0712-5A		2.01				
	13:30		15:00					13-11-0688-1B		1.99				
								13-11-0760-5A		2.00				
								13-11-0661-1A		2.01				
								13-11-0607-1A		2.01				
								13-11-0608-1A		1.99				
								13-11-0710-9A		2.00				

COMMENTS: _____

Return to Contents

EPA METHOD 6010 B

RAW DATA

Return to Contents

EPA METHOD 6010 B

Initial Calibration
ICV/ICB
CCV/CCB
ICSA/B

Return to Contents

ICP-ICP/MS Linear Range Summary

Lab Name: Calscience Environmental Laboratories
Instrument ID: ICP 7300 **Date Performed:** 05/21/2013
Method: EPA 3050B

Element	Concentration Added (PPM)	Concentration Recovered (PPM)	Recovery Percent
Ag	50.00	49.00	98
Al	1,000.00	907.00	91
As	100.00	93.00	93
B	100.00	98.00	98
Ba	100.00	97.00	97
Be	5.00	5.07	101
Bi	100.00	105.00	105
Ca	1,000.00	1,029.00	103
Cd	100.00	92.00	92
Co	100.00	94.00	94
Cr	200.00	200.00	100
Cu	200.00	189.00	94
Fe	1,000.00	959.00	96
K	1,000.00	939.00	94
Li	50.00	51.00	102
Mg	1,000.00	968.00	97
Mn	100.00	97.00	97
Mo	100.00	94.00	94
Na	1,000.00	1,014.00	101
Ni	100.00	92.00	92
P	100.00	90.00	90
Pb	100.00	92.00	92
S	100.00	91.00	91
Sb	100.00	93.00	93
Se	100.00	93.00	93
Si	100.00	100.40	100
Sn	100.00	102.00	102
Sr	20.00	21.00	105
Ti	100.00	95.00	95
Tl	100.00	94.00	94
V	200.00	197.00	98
Zn 206	100.00	93.00	93
Zn 213	50.00	47.00	94

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Initial Calibration Verification

ACCREDITED IN ACCORDANCE WITH nelac

Work Order No: 13-11-0697

Instrument ID: ICP-07

Concentration Unit: mg/L

Analyte Name	Initial Calibration Verification				
	True	ICV-1		Control Limit	Comment
		Observed	%D		
Silver	0.500000	0.473900	5	+/-10	
Arsenic	5.000000	4.991000	0	+/-10	
Barium	1.000000	0.982800	2	+/-10	
Beryllium	0.500000	0.497100	1	+/-10	
Cadmium	1.500000	1.477000	2	+/-10	
Cobalt	1.000000	1.047000	-5	+/-10	
Chromium	0.400000	0.386200	3	+/-10	
Copper	1.000000	0.975200	2	+/-10	
Molybdenum	2.500000	2.423000	3	+/-10	
Nickel	0.400000	0.409700	-2	+/-10	
Lead	5.000000	4.932000	1	+/-10	
Antimony	2.000000	2.091000	-5	+/-10	
Selenium	2.000000	1.978000	1	+/-10	
Thallium	2.000000	2.103000	-5	+/-10	
Vanadium	1.000000	0.961200	4	+/-10	
Zinc	1.500000	1.458000	3	+/-10	

Report Time: 2/3/2014 5:07:53 PM

ICV-1 File: ICV-M082713c Analysis Time: 11/12/2013 10:35:32 AM

Note: Note: %D= (True-Observed) / True x 100%

Return to Contents

EPA Method 6010B

Initial Calibration Blank

ACCREDITED IN ACCORDANCE WITH nelac

Work Order No: 13-11-0697

Instrument ID: ICP-07

Concentration Unit: mg/L

	Initial Calibration Blank		
Analyte	ICB-1	RL	Comment
Silver	-0.000600	0.005000	
Arsenic	0.003400	0.010000	
Barium	-0.000100	0.010000	
Beryllium	0.000000	0.010000	
Cadmium	0.000000	0.010000	
Cobalt	0.000000	0.010000	
Chromium	-0.000200	0.010000	
Copper	0.000800	0.010000	
Molybdenum	0.000700	0.010000	
Nickel	-0.000800	0.010000	
Lead	0.000400	0.010000	
Antimony	0.003000	0.015000	
Selenium	-0.000700	0.015000	
Thallium	0.000500	0.015000	
Vanadium	0.000000	0.010000	
Zinc	-0.000400	0.010000	

Report Time: 2/3/2014 5:07:53 PM

ICB-1 File: ICB-R04231201 Analysis Time: 11/12/2013 10:39:18 AM

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Interference Check

ACCREDITED IN ACCORDANCE WITH nelac

Work Order No: 13-11-0697

Instrument ID: ICP-07

Concentration Unit: mg/L

Analyte	Interference Check						
	ICS-A-1		ICS-AB-1				
	Observed	Control Limit	True	Observed	%D	Control Limit	Comment
Silver	0.000800	< 0.005000	0.300000	0.317500	-6	+/-20	
Arsenic	-0.007200	< 0.010000	1.000000	1.021000	-2	+/-20	
Barium	0.001500	< 0.010000	0.300000	0.295300	2	+/-20	
Beryllium	0.000000	< 0.010000	0.100000	0.099700	0	+/-20	
Cadmium	-0.001600	< 0.010000	0.300000	0.297700	1	+/-20	
Cobalt	0.000400	< 0.010000	0.300000	0.304400	-1	+/-20	
Chromium	-0.006100	< 0.010000	0.300000	0.283400	6	+/-20	
Copper	-0.027100	< 0.010000	0.300000	0.282600	6	+/-20	
Molybdenum	-0.001100	< 0.010000	0.300000	0.299100	0	+/-20	
Nickel	-0.000300	< 0.010000	0.300000	0.305800	-2	+/-20	
Lead	-0.005900	< 0.010000	1.000000	0.985700	1	+/-20	
Antimony	-0.025200	< 0.015000	1.000000	0.983500	2	+/-20	
Selenium	-0.011300	< 0.015000	0.500000	0.507100	-1	+/-20	
Thallium	0.001200	< 0.015000	1.000000	1.052000	-5	+/-20	
Vanadium	-0.001600	< 0.010000	0.300000	0.296700	1	+/-20	
Zinc	-0.010300	< 0.010000	0.300000	0.292200	3	+/-20	

Report Time: 2/3/2014 5:07:53 PM

ICS-A-1 File: ICS_A -M042313B Analysis Time: 11/12/2013 10:42:29 AM

ICS-AB-1 File: ICS_AB -M042313A Analysis Time: 11/12/2013 10:43:52 AM

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B
Continuing Calibration Verification

Work Order No.: 13-11-0697

Instrument ID: ICP 7300

Concentration Unit: mg/L

Analyte	Continuing Calibration Verification			
		CCV-1		Control
	True	Observed	%D	Limit
Silver	0.3750	0.3675	2	0 - 10
Arsenic	3.7500	3.7450	0	0 - 10
Barium	7.5000	7.5192	0	0 - 10
Beryllium	0.5625	0.5637	0	0 - 10
Cadmium	0.7500	0.7441	1	0 - 10
Cobalt	1.8750	1.8715	0	0 - 10
Chromium	0.6000	0.5982	0	0 - 10
Copper	0.9375	0.9271	1	0 - 10
Molybdenum	0.6000	0.6014	0	0 - 10
Nickel	0.6000	0.6058	1	0 - 10
Lead	3.7500	3.7024	1	0 - 10
Antimony	4.5000	4.5079	0	0 - 10
Selenium	1.5000	1.4979	0	0 - 10
Thallium	1.5000	1.5005	0	0 - 10
Vanadium	1.8750	1.8535	1	0 - 10
Zinc	2.5000	2.4831	1	0 - 10

02/03/2014 17:05

CCV-1 File: CCV= STD3x0.5 11/12/2013 12:49:40 PM

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX:(714) 894-7501

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Blank

Work Order No: 13-11-0697
Instrument ID: ICP-07
Concentration Unit: mg/L

	Continuing Calibration Blank	
Analyte	CCB-1	RL
Silver	-0.000300	0.005000
Arsenic	0.001500	0.010000
Barium	0.000000	0.010000
Beryllium	0.000000	0.010000
Cadmium	0.000000	0.010000
Cobalt	-0.000400	0.010000
Chromium	-0.000100	0.010000
Copper	0.001400	0.010000
Molybdenum	0.000000	0.010000
Nickel	0.000200	0.010000
Lead	-0.001000	0.010000
Antimony	0.002900	0.015000
Selenium	0.004200	0.015000
Thallium	-0.000300	0.015000
Vanadium	0.000000	0.010000
Zinc	0.000100	0.010000

Report Date/Time: 1/16/2014 3:25:44 PM

File: CCB-1 R04231301 Analysis Date/Time: 11/12/2013 12:52:26 PM

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Verification

Work Order No: 13-11-0697
Instrument ID: ICP-07
Concentration Unit: mg/L

	Continuing Calibration Verification			
		CCV-2		
Analyte	True	Observed	%D	Control Limit
Silver	0.375000	0.369000	2	+/-10
Arsenic	3.750000	3.764000	0	+/-10
Barium	7.500000	7.615000	-2	+/-10
Beryllium	0.562500	0.563500	0	+/-10
Cadmium	0.750000	0.754900	-1	+/-10
Cobalt	1.875000	1.897000	-1	+/-10
Chromium	0.600000	0.598500	0	+/-10
Copper	0.937500	0.929600	1	+/-10
Molybdenum	0.600000	0.600800	0	+/-10
Nickel	0.600000	0.611700	-2	+/-10
Lead	3.750000	3.743000	0	+/-10
Antimony	4.500000	4.545000	-1	+/-10
Selenium	1.500000	1.508000	-1	+/-10
Thallium	1.500000	1.520000	-1	+/-10
Vanadium	1.875000	1.866000	0	+/-10
Zinc	2.500000	2.507000	0	+/-10

Report Date/Time: 1/16/2014 3:25:44 PM

File: CCV= STD3x0.5 Analysis Date/Time: 11/12/2013 1:21:38 PM

Note: %D = (True - Observed) / True x 100%

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Blank

Work Order No: 13-11-0697
Instrument ID: ICP-07
Concentration Unit: mg/L

	Continuing Calibration Blank	
Analyte	CCB-2	RL
Silver	-0.000100	0.005000
Arsenic	0.002600	0.010000
Barium	0.000000	0.010000
Beryllium	0.000000	0.010000
Cadmium	0.000100	0.010000
Cobalt	-0.000300	0.010000
Chromium	0.000000	0.010000
Copper	0.000500	0.010000
Molybdenum	0.000500	0.010000
Nickel	0.000400	0.010000
Lead	-0.000100	0.010000
Antimony	0.004600	0.015000
Selenium	0.005900	0.015000
Thallium	0.000000	0.015000
Vanadium	0.000100	0.010000
Zinc	-0.000500	0.010000

Report Date/Time: 1/16/2014 3:25:44 PM

File: CCB-R04231301 Analysis Date/Time: 11/12/2013 1:22:50 PM

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Verification

Work Order No: 13-11-0697
Instrument ID: ICP-07
Concentration Unit: mg/L

	Continuing Calibration Verification			
		CCV-3		
Analyte	True	Observed	%D	Control Limit
Silver	0.375000	0.367100	2	+/-10
Arsenic	3.750000	3.729000	1	+/-10
Barium	7.500000	7.655000	-2	+/-10
Beryllium	0.562500	0.563000	0	+/-10
Cadmium	0.750000	0.758200	-1	+/-10
Cobalt	1.875000	1.884000	0	+/-10
Chromium	0.600000	0.593900	1	+/-10
Copper	0.937500	0.934600	0	+/-10
Molybdenum	0.600000	0.599300	0	+/-10
Nickel	0.600000	0.608100	-1	+/-10
Lead	3.750000	3.722000	1	+/-10
Antimony	4.500000	4.510000	0	+/-10
Selenium	1.500000	1.493000	0	+/-10
Thallium	1.500000	1.507000	0	+/-10
Vanadium	1.875000	1.864000	1	+/-10
Zinc	2.500000	2.503000	0	+/-10

Report Date/Time: 1/16/2014 3:25:44 PM

File: CCV= STD3x0.5 Analysis Date/Time: 11/12/2013 1:39:50 PM

Note: %D = (True - Observed) / True x 100%

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Blank

Work Order No: 13-11-0697
Instrument ID: ICP-07
Concentration Unit: mg/L

	Continuing Calibration Blank	
Analyte	CCB-3	RL
Silver	-0.000200	0.005000
Arsenic	0.004700	0.010000
Barium	0.000000	0.010000
Beryllium	0.000000	0.010000
Cadmium	-0.000100	0.010000
Cobalt	-0.000500	0.010000
Chromium	-0.000300	0.010000
Copper	0.001400	0.010000
Molybdenum	0.000200	0.010000
Nickel	0.000300	0.010000
Lead	-0.000200	0.010000
Antimony	0.006300	0.015000
Selenium	0.007800	0.015000
Thallium	-0.000500	0.015000
Vanadium	0.000200	0.010000
Zinc	-0.000400	0.010000

Report Date/Time: 1/16/2014 3:25:44 PM

File: CCB-R04231301 Analysis Date/Time: 11/12/2013 1:41:00 PM

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Verification

Work Order No: 13-11-0697
Instrument ID: ICP-07
Concentration Unit: mg/L

	Continuing Calibration Verification			
		CCV-4		
Analyte	True	Observed	%D	Control Limit
Silver	0.375000	0.365300	3	+/-10
Arsenic	3.750000	3.653000	3	+/-10
Barium	7.500000	7.452000	1	+/-10
Beryllium	0.562500	0.559000	1	+/-10
Cadmium	0.750000	0.750800	0	+/-10
Cobalt	1.875000	1.856000	1	+/-10
Chromium	0.600000	0.584100	3	+/-10
Copper	0.937500	0.924300	1	+/-10
Molybdenum	0.600000	0.590000	2	+/-10
Nickel	0.600000	0.590800	2	+/-10
Lead	3.750000	3.676000	2	+/-10
Antimony	4.500000	4.402000	2	+/-10
Selenium	1.500000	1.474000	2	+/-10
Thallium	1.500000	1.480000	1	+/-10
Vanadium	1.875000	1.849000	1	+/-10
Zinc	2.500000	2.466000	1	+/-10

Report Date/Time: 1/16/2014 3:25:44 PM

File: CCV= STD3x0.5 Analysis Date/Time: 11/12/2013 2:24:38 PM

Note: %D = (True - Observed) / True x 100%

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Blank

Work Order No: 13-11-0697
Instrument ID: ICP-07
Concentration Unit: mg/L

	Continuing Calibration Blank	
Analyte	CCB-4	RL
Silver	0.000400	0.005000
Arsenic	0.000000	0.010000
Barium	0.000100	0.010000
Beryllium	0.000000	0.010000
Cadmium	-0.000100	0.010000
Cobalt	-0.000200	0.010000
Chromium	0.000000	0.010000
Copper	0.000900	0.010000
Molybdenum	0.000100	0.010000
Nickel	0.000200	0.010000
Lead	0.000800	0.010000
Antimony	0.002200	0.015000
Selenium	0.001200	0.015000
Thallium	0.000000	0.015000
Vanadium	0.000400	0.010000
Zinc	0.000100	0.010000

Report Date/Time: 1/16/2014 3:25:44 PM

File: CCB-1 R04231301 Analysis Date/Time: 11/12/2013 2:27:24 PM

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Verification

Work Order No: 13-11-0697
Instrument ID: ICP-07
Concentration Unit: mg/L

	Continuing Calibration Verification			
		CCV-5		
Analyte	True	Observed	%D	Control Limit
Silver	0.375000	0.381500	-2	+/-10
Arsenic	3.750000	3.896000	-4	+/-10
Barium	7.500000	7.872000	-5	+/-10
Beryllium	0.562500	0.581500	-3	+/-10
Cadmium	0.750000	0.798300	-6	+/-10
Cobalt	1.875000	1.949000	-4	+/-10
Chromium	0.600000	0.614800	-2	+/-10
Copper	0.937500	0.959700	-2	+/-10
Molybdenum	0.600000	0.609800	-2	+/-10
Nickel	0.600000	0.626200	-4	+/-10
Lead	3.750000	3.866000	-3	+/-10
Antimony	4.500000	4.658000	-4	+/-10
Selenium	1.500000	1.570000	-5	+/-10
Thallium	1.500000	1.566000	-4	+/-10
Vanadium	1.875000	1.921000	-2	+/-10
Zinc	2.500000	2.610000	-4	+/-10

Report Date/Time: 1/16/2014 3:25:44 PM

File: CCV= STD3x0.5 Analysis Date/Time: 11/12/2013 4:04:13 PM

Note: %D = (True - Observed) / True x 100%

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Blank

Work Order No: 13-11-0697
Instrument ID: ICP-07
Concentration Unit: mg/L

	Continuing Calibration Blank	
Analyte	CCB-5	RL
Silver	0.000100	0.005000
Arsenic	0.001500	0.010000
Barium	0.000000	0.010000
Beryllium	0.000000	0.010000
Cadmium	-0.000200	0.010000
Cobalt	-0.000700	0.010000
Chromium	-0.000100	0.010000
Copper	0.001500	0.010000
Molybdenum	0.001200	0.010000
Nickel	0.000900	0.010000
Lead	-0.000600	0.010000
Antimony	0.002900	0.015000
Selenium	0.000900	0.015000
Thallium	0.000500	0.015000
Vanadium	-0.000300	0.010000
Zinc	-0.000200	0.010000

Report Date/Time: 1/16/2014 3:25:44 PM

File: CCB-R04231301 Analysis Date/Time: 11/12/2013 4:05:23 PM

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Verification

Work Order No: 13-11-0697
Instrument ID: ICP-07
Concentration Unit: mg/L

	Continuing Calibration Verification			
		CCV-6		
Analyte	True	Observed	%D	Control Limit
Silver	0.375000	0.372600	1	+/-10
Arsenic	3.750000	3.838000	-2	+/-10
Barium	7.500000	7.788000	-4	+/-10
Beryllium	0.562500	0.574600	-2	+/-10
Cadmium	0.750000	0.779200	-4	+/-10
Cobalt	1.875000	1.941000	-4	+/-10
Chromium	0.600000	0.613000	-2	+/-10
Copper	0.937500	0.939900	0	+/-10
Molybdenum	0.600000	0.610000	-2	+/-10
Nickel	0.600000	0.618000	-3	+/-10
Lead	3.750000	3.831000	-2	+/-10
Antimony	4.500000	4.583000	-2	+/-10
Selenium	1.500000	1.547000	-3	+/-10
Thallium	1.500000	1.547000	-3	+/-10
Vanadium	1.875000	1.902000	-1	+/-10
Zinc	2.500000	2.538000	-2	+/-10

Report Date/Time: 1/16/2014 3:25:44 PM

File: CCV= STD3x0.5 Analysis Date/Time: 11/12/2013 4:22:21 PM

Note: %D = (True - Observed) / True x 100%

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Blank

Work Order No: 13-11-0697
Instrument ID: ICP-07
Concentration Unit: mg/L

	Continuing Calibration Blank	
Analyte	CCB-6	RL
Silver	-0.000500	0.005000
Arsenic	0.002700	0.010000
Barium	0.000100	0.010000
Beryllium	0.000000	0.010000
Cadmium	0.000000	0.010000
Cobalt	-0.000200	0.010000
Chromium	-0.000100	0.010000
Copper	0.001500	0.010000
Molybdenum	0.000800	0.010000
Nickel	-0.000200	0.010000
Lead	-0.000100	0.010000
Antimony	0.004700	0.015000
Selenium	0.001700	0.015000
Thallium	0.001000	0.015000
Vanadium	0.000600	0.010000
Zinc	-0.000100	0.010000

Report Date/Time: 1/16/2014 3:25:44 PM

File: CCB-R04231301 Analysis Date/Time: 11/12/2013 4:23:31 PM

Return to Contents

Analysis Begun

Start Time: 11/12/2013 10:31:45 AM
Logged In Analyst: John Nguyen
Spectrometer Model: Optima 7300 DV, S/N 77c8120401
Plasma On Time: 11/12/2013 8:50:13 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\jn\Sample Information\13111201.sif
Batch ID:
Results Data Set: 131112C1
Results Library: W:\ICP_07\ICP_07\pe\7300\Results\Results.mdb

Sequence No.: 1
Sample ID: Cal blankR04231201_469
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 5
Date Collected: 11/12/2013 10:31:46 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Cal blankR04231201_469

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: Cal blankR04231201_469

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ho 339.898	195946.8	1687.48	0.86%	5.000	mg/L
Ho 345.600	313711.4	2967.74	0.95%	5.000	mg/L
Tb 384.873	82166.9	90.02	0.11%	5.000	mg/L
Tb 350.917	139239.2	612.33	0.44%	5.000	mg/L
Y 324.227	1129820.9	11132.73	0.99%	5.000	mg/L
Y 371.029	2346982.1	25562.96	1.09%	5.000	mg/L
Ag 328.068*†	-4152.4	20.91	0.50%	[0.00]	mg/L
Ag 338.289†	-23.2	12.08	52.03%	[0.00]	mg/L
Al 308.215*†	-6009.3	19.04	0.32%	[0.00]	mg/L
Al 396.153†	-385.5	1.96	0.51%	[0.00]	mg/L
As 188.979†	3.4	6.07	178.02%	[0.00]	mg/L
As 193.696*†	42.4	14.32	33.78%	[0.00]	mg/L
B 249.677*†	-1636.5	27.68	1.69%	[0.00]	mg/L
B 249.772†	-3064.1	39.25	1.28%	[0.00]	mg/L
Ba 233.527*†	-13.0	16.40	125.79%	[0.00]	mg/L
Ba 455.403†	-73.1	9.05	12.39%	[0.00]	mg/L
Be 313.042*†	-4029.0	104.52	2.59%	[0.00]	mg/L
Be 313.107†	-1199.5	179.91	15.00%	[0.00]	mg/L
Bi 190.171*†	47.2	2.93	6.19%	[0.00]	mg/L
Bi 223.061†	-219.0	8.16	3.72%	[0.00]	mg/L
Ca 422.673†	89.2	7.11	7.97%	[0.00]	mg/L
Ca 317.933*†	283.4	4.15	1.47%	[0.00]	mg/L
Cd 226.502*†	-220.3	0.17	0.07%	[0.00]	mg/L
Cd 228.802†	-232.1	5.63	2.43%	[0.00]	mg/L
Co 228.616*†	-109.6	31.51	28.74%	[0.00]	mg/L
Co 230.786†	127.4	14.88	11.68%	[0.00]	mg/L
Cr 357.869†	548.7	5.36	0.98%	[0.00]	mg/L
Cr 267.716*†	-284.1	18.03	6.35%	[0.00]	mg/L
Cu 324.752*†	-2063.5	67.56	3.27%	[0.00]	mg/L
Cu 327.393†	-2591.2	39.70	1.53%	[0.00]	mg/L
Fe 259.939†	-175.7	2.04	1.16%	[0.00]	mg/L
Fe 239.562†	-166.4	1.92	1.16%	[0.00]	mg/L
Fe 273.955*†	-688.7	30.20	4.38%	[0.00]	mg/L
K 766.490*†	537.6	30.57	5.69%	[0.00]	mg/L
Li 670.784†	-99.3	111.30	112.04%	[0.00]	mg/L
Li 610.362*†	-22347.0	479.16	2.14%	[0.00]	mg/L
Mg 280.271†	28.2	8.23	29.21%	[0.00]	mg/L
Mg 279.077*†	-6461.7	46.36	0.72%	[0.00]	mg/L
Mn 257.610*†	-658.7	32.80	4.98%	[0.00]	mg/L
Mn 259.372†	-1183.6	18.11	1.53%	[0.00]	mg/L
Mo 203.845†	-214.7	8.69	4.05%	[0.00]	mg/L
Mo 202.031*†	-160.9	14.27	8.87%	[0.00]	mg/L
Na 589.592*†	1142.2	2.23	0.20%	[0.00]	mg/L

Return to Contents

Na 330.237†	1430.3	35.30	2.47%	[0.00]	mg/L
Ni 231.604*†	533.3	6.10	1.14%	[0.00]	mg/L
Ni 232.003†	-412.8	17.01	4.12%	[0.00]	mg/L
P 214.914†	35.3	2.42	6.84%	[0.00]	mg/L
P 213.617*†	500.3	0.92	0.18%	[0.00]	mg/L
Pb 220.353*†	-219.1	27.95	12.76%	[0.00]	mg/L
Pb 217.000†	-6.8	2.56	37.32%	[0.00]	mg/L
S 180.669†	48.9	2.35	4.81%	[0.00]	mg/L
S 181.975*†	-27.4	1.21	4.40%	[0.00]	mg/L
Sb 217.582*†	84.9	4.36	5.13%	[0.00]	mg/L
Sb 206†	94.1	9.48	10.07%	[0.00]	mg/L
Sb 206.836†	7.3	3.18	43.57%	[0.00]	mg/L
Se 196.026*†	40.0	4.58	11.44%	[0.00]	mg/L
Se 203.985†	65.3	2.11	3.23%	[0.00]	mg/L
Si 288.158†	1472.6	19.89	1.35%	[0.00]	mg/L
Si 251.611*†	1172.3	23.22	1.98%	[0.00]	mg/L
Sn 189.927*†	-3.2	1.99	61.42%	[0.00]	mg/L
Sn 242.170†	1730.6	78.93	4.56%	[0.00]	mg/L
Sr 407.771*†	-88.4	59.95	67.79%	[0.00]	mg/L
Sr 421.552†	-4336.1	157.00	3.62%	[0.00]	mg/L
Ti 336.121*†	-1979.6	80.72	4.08%	[0.00]	mg/L
Ti 334.940†	12413.7	27.85	0.22%	[0.00]	mg/L
Tl 351.924†	-83.8	8.26	9.85%	[0.00]	mg/L
Tl†	-51.5	4.03	7.83%	[0.00]	mg/L
Tl 190.801*†	-7.6	5.04	66.25%	[0.00]	mg/L
V 310.230†	76799.5	631.14	0.82%	[0.00]	mg/L
V 292.402*†	250.5	46.15	18.42%	[0.00]	mg/L
Zn 202.548†	-668.9	1.33	0.20%	[0.00]	mg/L
Zn 213.857*†	-394.9	13.83	3.50%	[0.00]	mg/L
Zn 206.200*†	-524.1	4.94	0.94%	[0.00]	mg/L

Return to Contents

Sequence No.: 2
Sample ID: STD3-M092713A_analyst 469
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/12/2013 10:33:22 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: STD3-M092713A_analyst 469

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: STD3-M092713A_analyst 469

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ho 339.898	183543.0	296.68	0.16%	4.683	mg/L
Ho 345.600	293190.5	23.76	0.01%	4.673	mg/L
Tb 384.873	77888.0	141.59	0.18%	4.740	mg/L
Tb 350.917	131997.8	67.93	0.05%	4.740	mg/L
Y 324.227	1079672.5	920.36	0.09%	4.778	mg/L
Y 371.029	2241526.4	9012.56	0.40%	4.775	mg/L
Ag 328.068*†	109750.8	219.14	0.20%	[0.75]	mg/L
Ag 338.289†	58739.6	96.82	0.16%	[0.75]	mg/L
Al 308.215*†	543915.4	143.02	0.03%	[27.0]	mg/L
Al 396.153†	3370778.5	40299.75	1.20%	[27]	mg/L
As 188.979†	43300.1	194.30	0.45%	[7.50]	mg/L
As 193.696*†	30569.7	108.52	0.35%	[7.50]	mg/L
B 249.677*†	282012.6	394.58	0.14%	[7.50]	mg/L
B 249.772†	651653.4	3215.55	0.49%	[7.50]	mg/L
Ba 233.527*†	2818135.1	6080.22	0.22%	[15.0]	mg/L
Ba 455.403†	3362439.5	36340.67	1.08%	[15.0]	mg/L
Be 313.042*†	5927600.3	54130.40	0.91%	[1.125]	mg/L
Be 313.107†	3017520.6	26884.63	0.89%	[1.125]	mg/L
Ca 422.673†	566761.5	1516.77	0.27%	[60.0]	mg/L
Ca 317.933*†	273082.7	1621.11	0.59%	[60.0]	mg/L
Cd 226.502*†	246323.1	69.50	0.03%	[1.50]	mg/L
Cd 228.802†	103591.9	82.18	0.08%	[1.50]	mg/L
Co 228.616*†	192556.0	174.77	0.09%	[3.75]	mg/L
Co 230.786†	187394.7	368.92	0.20%	[3.75]	mg/L
Cr 357.869†	74929.8	86.15	0.11%	[1.20]	mg/L
Cr 267.716*†	112730.2	367.35	0.33%	[1.20]	mg/L
Cu 324.752*†	258359.9	622.49	0.24%	[1.875]	mg/L
Cu 327.393†	226206.7	535.37	0.24%	[1.875]	mg/L
Fe 259.939†	17676.1	104.65	0.59%	[7.50]	mg/L
Fe 239.562†	12206.8	79.56	0.65%	[7.50]	mg/L
Fe 273.955*†	236477.8	207.69	0.09%	[7.50]	mg/L
K 766.490*†	78668.5	175.52	0.22%	[54.0]	mg/L
Mg 280.271†	508045.0	568.66	0.11%	[15.0]	mg/L
Mg 279.077*†	186146.5	560.55	0.30%	[15.0]	mg/L
Mn 257.610*†	852885.1	1976.00	0.23%	[1.50]	mg/L
Mn 259.372†	655322.8	1851.75	0.28%	[1.50]	mg/L
Mo 203.845†	19849.5	134.08	0.68%	[1.20]	mg/L
Mo 202.031*†	27252.1	103.84	0.38%	[1.20]	mg/L
Na 589.592*†	419519.0	984.41	0.23%	[72.0]	mg/L
Na 330.237†	40936.6	24.85	0.06%	[72.0]	mg/L
Ni 231.604*†	77566.4	357.91	0.46%	[1.20]	mg/L
Ni 232.003†	29515.7	142.22	0.48%	[1.20]	mg/L
P 214.914†	44054.7	125.03	0.28%	[12.0]	mg/L
P 213.617*†	86521.3	635.46	0.73%	[12.0]	mg/L
Pb 220.353*†	125453.8	139.66	0.11%	[7.50]	mg/L
Pb 217.000†	16439.8	69.91	0.43%	[7.50]	mg/L
Sb 217.582*†	39596.2	388.86	0.98%	[9.0]	mg/L
Sb 206†	38697.3	70.47	0.18%	[9.0]	mg/L
Sb 206.836†	41272.3	218.87	0.53%	[9.0]	mg/L
Se 196.026*†	9155.9	10.30	0.11%	[3.0]	mg/L
Se 203.985†	10674.4	41.70	0.39%	[3.0]	mg/L
Si 288.158†	283068.9	1667.08	0.59%	[12.0]	mg/L
Si 251.611*†	620589.3	4910.06	0.79%	[12.0]	mg/L
Sn 189.927*†	68228.8	285.40	0.42%	[6.0]	mg/L
Sn 242.170†	38632.6	75.96	0.20%	[6.0]	mg/L

Return to Contents

Sr 407.771*†	447004.0	1486.05	0.33%	[0.60]	mg/L
Sr 421.552†	6928155.0	66160.51	0.95%	[0.60]	mg/L
Ti 336.121*†	572453.6	204.38	0.04%	[1.20]	mg/L
Ti 334.940†	792192.9	956.82	0.12%	[1.20]	mg/L
Tl 351.924†	14746.2	29.69	0.20%	[3.0]	mg/L
Tl†	8128.1	30.55	0.38%	[3.0]	mg/L
Tl 190.801*†	9965.2	21.48	0.22%	[3.0]	mg/L
V 310.230†	789852.9	1439.20	0.18%	[3.75]	mg/L
V 292.402*†	414452.6	1622.30	0.39%	[3.75]	mg/L
Zn 202.548†	498774.4	2886.28	0.58%	[5.0]	mg/L
Zn 213.857*†	763970.0	1150.31	0.15%	[5.0]	mg/L
Zn 206.200*†	350416.9	1734.09	0.49%	[5.0]	mg/L

Return to Contents

Sequence No.: 4
Sample ID: ICV-M082713c
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 11/12/2013 10:35:32 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICV-M082713c

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: ICV-M082713c

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	180946.5	4.617	mg/L	0.0159				0.34%
Ho 345.600	286915.4	4.573	mg/L	0.0247				0.54%
Tb 384.873	76649.7	4.664	mg/L	0.0099				0.21%
Tb 350.917	130598.0	4.690	mg/L	0.0133				0.28%
Y 324.227	1060589.1	4.694	mg/L	0.0128				0.27%
Y 371.029	2203575.0	4.694	mg/L	0.0029				0.06%
Ag 328.068*†	69139.3	0.4739	mg/L	0.00423	0.4739	mg/L	0.00423	0.89%
QC value within limits for Ag 328.068* Recovery = 94.79%								
Ag 338.289†	34695.7	0.4408	mg/L	0.00425	0.4408	mg/L	0.00425	0.96%
Al 308.215*†	76483.0	3.744	mg/L	0.0027	3.744	mg/L	0.0027	0.07%
QC value within limits for Al 308.215* Recovery = 93.60%								
Al 396.153†	464137.7	3.718	mg/L	0.0144	3.718	mg/L	0.0144	0.39%
As 188.979†	29053.0	5.032	mg/L	0.0394	5.032	mg/L	0.0394	0.78%
As 193.696*†	20342.2	4.991	mg/L	0.0234	4.991	mg/L	0.0234	0.47%
QC value within limits for As 193.696* Recovery = 99.82%								
B 249.677*†	90448.3	2.411	mg/L	0.0405	2.411	mg/L	0.0405	1.68%
QC value within limits for B 249.677* Recovery = 96.44%								
B 249.772†	211512.1	2.401	mg/L	0.0171	2.401	mg/L	0.0171	0.71%
Ba 233.527*†	184621.2	0.9828	mg/L	0.00402	0.9828	mg/L	0.00402	0.41%
QC value within limits for Ba 233.527* Recovery = 98.28%								
Ba 455.403†	217873.5	0.9716	mg/L	0.00480	0.9716	mg/L	0.00480	0.49%
Be 313.042*†	2619300.3	0.4971	mg/L	0.00236	0.4971	mg/L	0.00236	0.47%
QC value within limits for Be 313.042* Recovery = 99.42%								
Be 313.107†	1339653.5	0.4995	mg/L	0.00200	0.4995	mg/L	0.00200	0.40%
Bi 190.171*†	51.7	0.0198	mg/L	0.00174	0.0198	mg/L	0.00174	8.78%
Bi 223.061†	-2860.1	-0.4983	mg/L	0.00307	-0.4983	mg/L	0.00307	0.62%
Ca 422.673†	180884.5	19.15	mg/L	0.084	19.15	mg/L	0.084	0.44%
Ca 317.933*†	90630.5	19.91	mg/L	0.152	19.91	mg/L	0.152	0.77%
QC value within limits for Ca 317.933* Recovery = 99.56%								
Cd 226.502*†	242472.2	1.477	mg/L	0.0028	1.477	mg/L	0.0028	0.19%
QC value within limits for Cd 226.502* Recovery = 98.44%								
Cd 228.802†	101982.7	1.477	mg/L	0.0016	1.477	mg/L	0.0016	0.11%
Co 228.616*†	53767.9	1.047	mg/L	0.0005	1.047	mg/L	0.0005	0.05%
QC value within limits for Co 228.616* Recovery = 104.71%								
Co 230.786†	51616.8	1.033	mg/L	0.0002	1.033	mg/L	0.0002	0.02%
Cr 357.869†	23349.1	0.3776	mg/L	0.00030	0.3776	mg/L	0.00030	0.08%
Cr 267.716*†	36507.3	0.3862	mg/L	0.00401	0.3862	mg/L	0.00401	1.04%
QC value within limits for Cr 267.716* Recovery = 96.55%								
Cu 324.752*†	134779.3	0.9752	mg/L	0.00573	0.9752	mg/L	0.00573	0.59%
QC value within limits for Cu 324.752* Recovery = 97.52%								
Cu 327.393†	118930.7	0.9796	mg/L	0.00574	0.9796	mg/L	0.00574	0.59%
Fe 259.939†	229002.9	97.17	mg/L	0.227	97.17	mg/L	0.227	0.23%
Fe 239.562†	158347.7	97.29	mg/L	0.756	97.29	mg/L	0.756	0.78%
Fe 273.955*†	3058768.5	97.01	mg/L	0.489	97.01	mg/L	0.489	0.50%
QC value within limits for Fe 273.955* Recovery = 97.01%								
K 766.490*†	10787.9	7.405	mg/L	0.0046	7.405	mg/L	0.0046	0.06%
QC value within limits for K 766.490* Recovery = 92.56%								
Li 670.784†	Saturated3							
Li 610.362*†	853040.5	1.592	mg/L	0.0064	1.592	mg/L	0.0064	0.40%
Mg 280.271†	360204.2	10.64	mg/L	0.040	10.64	mg/L	0.040	0.37%
Mg 279.077*†	129102.3	10.48	mg/L	0.055	10.48	mg/L	0.055	0.53%
QC value within limits for Mg 279.077* Recovery = 104.83%								
Mn 257.610*†	550374.3	0.9680	mg/L	0.00296	0.9680	mg/L	0.00296	0.31%
QC value within limits for Mn 257.610* Recovery = 96.80%								
Mn 259.372†	474816.5	1.087	mg/L	0.0007	1.087	mg/L	0.0007	0.07%

Return to Contents

Mo 203.845†	40272.6	2.435	mg/L	0.0074	2.435 mg/L	0.0074 0.30%
Mo 202.031*†	55030.5	2.423	mg/L	0.0068	2.423 mg/L	0.0068 0.28%
QC value within limits for Mo 202.031* Recovery = 96.93%						
Na 589.592*†	309487.8	53.12	mg/L	0.183	53.12 mg/L	0.183 0.34%
QC value within limits for Na 589.592* Recovery = 98.36%						
Na 330.237†	28287.2	49.75	mg/L	0.253	49.75 mg/L	0.253 0.51%
Ni 231.604*†	26485.6	0.4097	mg/L	0.00223	0.4097 mg/L	0.00223 0.54%
QC value within limits for Ni 231.604* Recovery = 102.44%						
Ni 232.003†	10408.3	0.4232	mg/L	0.00334	0.4232 mg/L	0.00334 0.79%
P 214.914†	18119.4	4.936	mg/L	0.0115	4.936 mg/L	0.0115 0.23%
P 213.617*†	35446.0	4.916	mg/L	0.0145	4.916 mg/L	0.0145 0.29%
QC value within limits for P 213.617* Recovery = 98.32%						
Pb 220.353*†	82503.3	4.932	mg/L	0.0000	4.932 mg/L	0.0000 0.00%
QC value within limits for Pb 220.353* Recovery = 98.65%						
Pb 217.000†	10765.1	4.911	mg/L	0.0210	4.911 mg/L	0.0210 0.43%
S 180.669†	462.9	0.1847	mg/L	0.00305	0.1847 mg/L	0.00305 1.65%
S 181.975*†	50.9	0.0337	mg/L	0.00007	0.0337 mg/L	0.00007 0.20%
Sb 217.582*†	9200.5	2.091	mg/L	0.0014	2.091 mg/L	0.0014 0.07%
QC value within limits for Sb 217.582* Recovery = 104.56%						
Sb 206†	9029.8	2.100	mg/L	0.0129	2.100 mg/L	0.0129 0.61%
Sb 206.836†	9638.2	2.102	mg/L	0.0040	2.102 mg/L	0.0040 0.19%
Se 196.026*†	6037.2	1.978	mg/L	0.0137	1.978 mg/L	0.0137 0.69%
QC value within limits for Se 196.026* Recovery = 98.91%						
Se 203.985†	6243.8	1.755	mg/L	0.0113	1.755 mg/L	0.0113 0.65%
Si 288.158†	28616.1	1.157	mg/L	0.0173	1.157 mg/L	0.0173 1.49%
Si 251.611*†	64313.1	1.200	mg/L	0.0103	1.200 mg/L	0.0103 0.86%
QC value less than the lower limit for Si 251.611* Recovery = 12.00%						
Sn 189.927*†	29531.7	2.597	mg/L	0.0147	2.597 mg/L	0.0147 0.57%
QC value within limits for Sn 189.927* Recovery = 103.88%						
Sn 242.170†	16445.4	2.554	mg/L	0.0373	2.554 mg/L	0.0373 1.46%
Sr 407.771*†	142347.0	0.1911	mg/L	0.00057	0.1911 mg/L	0.00057 0.30%
QC value within limits for Sr 407.771* Recovery = 95.53%						
Sr 421.552†	2300392.4	0.1992	mg/L	0.00063	0.1992 mg/L	0.00063 0.32%
Ti 336.121*†	2293308.9	4.807	mg/L	0.0215	4.807 mg/L	0.0215 0.45%
QC value within limits for Ti 336.121* Recovery = 96.15%						
Ti 334.940†	3145479.0	4.765	mg/L	0.0107	4.765 mg/L	0.0107 0.23%
Tl 351.924†	10103.4	2.055	mg/L	0.0200	2.055 mg/L	0.0200 0.97%
Tl†	5609.5	2.058	mg/L	0.0110	2.058 mg/L	0.0110 0.53%
Tl 190.801*†	6985.5	2.103	mg/L	0.0117	2.103 mg/L	0.0117 0.56%
QC value within limits for Tl 190.801* Recovery = 105.15%						
V 310.230†	208531.6	1.001	mg/L	0.0074	1.001 mg/L	0.0074 0.74%
V 292.402*†	105376.7	0.9612	mg/L	0.00666	0.9612 mg/L	0.00666 0.69%
QC value within limits for V 292.402* Recovery = 96.12%						
Zn 202.548†	149912.6	1.504	mg/L	0.0079	1.504 mg/L	0.0079 0.53%
Zn 213.857*†	227281.9	1.458	mg/L	0.0017	1.458 mg/L	0.0017 0.12%
QC value within limits for Zn 213.857* Recovery = 97.21%						
Zn 206.200*†	104735.4	1.474	mg/L	0.0087	1.474 mg/L	0.0087 0.59%
QC value within limits for Zn 206.200* Recovery = 98.26%						

QC Failed. Continue with analysis.

Return to Contents

Sequence No.: 6 Autosampler Location: 6
Sample ID: ICV-2 M062013A Date Collected: 11/12/2013 10:38:32 AM
Analyst: 469 icp 7300 Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
User canceled analysis.

Analysis Begun

Start Time: 11/12/2013 10:39:18 AM Plasma On Time: 11/12/2013 8:50:13 AM
Logged In Analyst: John Nguyen Technique: ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 77c8120401 Autosampler Model: AS-93plus

Sample Information File: C:\pe\jn\Sample Information\13111201.sif
Batch ID:
Results Data Set: 131112C1
Results Library: W:\ICP_07\ICP_07\pe\7300\Results\Results.mdb

Sequence No.: 5 Autosampler Location: 1
Sample ID: ICB-R04231201 Date Collected: 11/12/2013 10:39:18 AM
Analyst: 469 icp 7300 Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICB-R04231201

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: ICB-R04231201

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Ho 339.898	197537.4	5.041	mg/L	0.0030				0.06%
Ho 345.600	315304.6	5.025	mg/L	0.0072				0.14%
Tb 384.873	81513.2	4.960	mg/L	0.0175				0.35%
Tb 350.917	137861.8	4.951	mg/L	0.0084				0.17%
Y 324.227	1130677.2	5.004	mg/L	0.0093				0.19%
Y 371.029	2375331.4	5.060	mg/L	0.0059				0.12%
Ag 328.068*†	-81.8	-0.0006	mg/L	0.00004	-0.0006	mg/L	0.00004	6.43%
Ag 338.289†	80.2	0.0010	mg/L	0.00055	0.0010	mg/L	0.00055	53.34%
Al 308.215*†	79.6	0.0040	mg/L	0.00299	0.0040	mg/L	0.00299	75.42%
Al 396.153†	-95.8	-0.0008	mg/L	0.00036	-0.0008	mg/L	0.00036	47.03%
As 188.979†	13.1	0.0023	mg/L	0.00059	0.0023	mg/L	0.00059	25.87%
As 193.696*†	13.8	0.0034	mg/L	0.00156	0.0034	mg/L	0.00156	45.90%
B 249.677*†	368.8	0.0098	mg/L	0.00074	0.0098	mg/L	0.00074	7.51%
QC value within limits for B 249.677* Recovery = Not calculated								
B 249.772†	1006.7	0.0116	mg/L	0.00012	0.0116	mg/L	0.00012	1.02%
Ba 233.527*†	-11.7	-0.0001	mg/L	0.00014	-0.0001	mg/L	0.00014	218.40%
Ba 455.403†	-2.5	0.0000	mg/L	0.00004	0.0000	mg/L	0.00004	331.40%
Be 313.042*†	248.8	0.0000	mg/L	0.00003	0.0000	mg/L	0.00003	66.35%
Be 313.107†	-136.3	-0.0001	mg/L	0.00004	-0.0001	mg/L	0.00004	74.37%
Bi 190.171*†	-3.6	-0.0014	mg/L	0.00201	-0.0014	mg/L	0.00201	145.24%
Bi 223.061†	6.9	0.0012	mg/L	0.00383	0.0012	mg/L	0.00383	316.96%
Ca 422.673†	-55.2	-0.0058	mg/L	0.00058	-0.0058	mg/L	0.00058	9.87%
Ca 317.933*†	-25.4	-0.0056	mg/L	0.00076	-0.0056	mg/L	0.00076	13.55%
Cd 226.502*†	-7.6	0.0000	mg/L	0.00016	0.0000	mg/L	0.00016	354.45%
Cd 228.802†	11.4	0.0002	mg/L	0.00017	0.0002	mg/L	0.00017	100.21%
Co 228.616*†	-1.3	0.0000	mg/L	0.00021	0.0000	mg/L	0.00021	863.47%
Co 230.786†	3.9	0.0001	mg/L	0.00027	0.0001	mg/L	0.00027	347.17%
Cr 357.869†	-32.2	-0.0005	mg/L	0.00058	-0.0005	mg/L	0.00058	112.67%
Cr 267.716*†	-18.8	-0.0002	mg/L	0.00018	-0.0002	mg/L	0.00018	90.97%
Cu 324.752*†	110.9	0.0008	mg/L	0.00010	0.0008	mg/L	0.00010	12.31%
Cu 327.393†	-10.1	-0.0001	mg/L	0.00000	-0.0001	mg/L	0.00000	3.59%
Fe 259.939†	14.6	0.0062	mg/L	0.00746	0.0062	mg/L	0.00746	120.24%
Fe 239.562†	9.2	0.0056	mg/L	0.01304	0.0056	mg/L	0.01304	230.95%
Fe 273.955*†	13.7	0.0004	mg/L	0.00014	0.0004	mg/L	0.00014	31.81%
K 766.490*†	47.4	0.0325	mg/L	0.07537	0.0325	mg/L	0.07537	231.65%

Return to Contents

Li 670.784†	15591.8				1043.77	6.69%
Li 610.362*†	69.9	0.0001 mg/L	0.00017	0.0001 mg/L	0.00017	127.97%
Mg 280.271†	5.5	0.0002 mg/L	0.00087	0.0002 mg/L	0.00087	531.50%
Mg 279.077*†	-101.3	-0.0082 mg/L	0.00149	-0.0082 mg/L	0.00149	18.27%
Mn 257.610*†	28.2	0.0000 mg/L	0.00008	0.0000 mg/L	0.00008	165.79%
Mn 259.372†	18.7	0.0000 mg/L	0.00018	0.0000 mg/L	0.00018	428.71%
Mo 203.845†	16.1	0.0010 mg/L	0.00027	0.0010 mg/L	0.00027	27.45%
Mo 202.031*†	15.1	0.0007 mg/L	0.00009	0.0007 mg/L	0.00009	13.48%
Na 589.592*†	102.8	0.0176 mg/L	0.00646	0.0176 mg/L	0.00646	36.59%
Na 330.237†	10.7	0.0188 mg/L	0.18923	0.0188 mg/L	0.18923	>999.9%
Ni 231.604*†	-48.9	-0.0008 mg/L	0.00025	-0.0008 mg/L	0.00025	32.71%
Ni 232.003†	117.7	0.0048 mg/L	0.00012	0.0048 mg/L	0.00012	2.60%
P 214.914†	-14.6	-0.0040 mg/L	0.00423	-0.0040 mg/L	0.00423	106.50%
P 213.617*†	10.8	0.0015 mg/L	0.00115	0.0015 mg/L	0.00115	76.68%
Pb 220.353*†	7.2	0.0004 mg/L	0.00020	0.0004 mg/L	0.00020	45.48%
Pb 217.000†	-6.3	-0.0029 mg/L	0.00137	-0.0029 mg/L	0.00137	47.54%
S 180.669†	0.7	0.0003 mg/L	0.00046	0.0003 mg/L	0.00046	159.24%
S 181.975*†	6.7	0.0044 mg/L	0.00053	0.0044 mg/L	0.00053	12.04%
Sb 217.582*†	13.0	0.0030 mg/L	0.00036	0.0030 mg/L	0.00036	12.18%
Sb 206†	-2.3	-0.0005 mg/L	0.00067	-0.0005 mg/L	0.00067	122.22%
Sb 206.836†	-6.1	-0.0013 mg/L	0.00500	-0.0013 mg/L	0.00500	373.68%
Se 196.026*†	-2.2	-0.0007 mg/L	0.00031	-0.0007 mg/L	0.00031	41.95%
Se 203.985†	19.5	0.0055 mg/L	0.00002	0.0055 mg/L	0.00002	0.34%
Si 288.158†	141.1	0.0060 mg/L	0.00222	0.0060 mg/L	0.00222	37.14%
Si 251.611*†	4.1	0.0001 mg/L	0.00035	0.0001 mg/L	0.00035	438.81%
Sn 189.927*†	31.0	0.0027 mg/L	0.00010	0.0027 mg/L	0.00010	3.50%
Sn 242.170†	301.2	0.0468 mg/L	0.02852	0.0468 mg/L	0.02852	60.97%
Sr 407.771*†	30.5	0.0000 mg/L	0.00002	0.0000 mg/L	0.00002	60.08%
Sr 421.552†	-52.3	0.0000 mg/L	0.00001	0.0000 mg/L	0.00001	178.80%
Ti 336.121*†	35.7	0.0001 mg/L	0.00007	0.0001 mg/L	0.00007	91.60%
Ti 334.940†	-15.6	0.0000 mg/L	0.00003	0.0000 mg/L	0.00003	108.81%
Tl 351.924†	-13.6	-0.0028 mg/L	0.01615	-0.0028 mg/L	0.01615	584.64%
Tl†	-3.4	-0.0013 mg/L	0.00130	-0.0013 mg/L	0.00130	102.18%
Tl 190.801*†	1.7	0.0005 mg/L	0.00113	0.0005 mg/L	0.00113	215.99%
V 310.230†	2559.0	0.0121 mg/L	0.00156	0.0121 mg/L	0.00156	12.82%
V 292.402*†	5.0	0.0000 mg/L	0.00023	0.0000 mg/L	0.00023	498.96%
Zn 202.548†	-59.4	-0.0006 mg/L	0.00007	-0.0006 mg/L	0.00007	11.39%
Zn 213.857*†	-64.2	-0.0004 mg/L	0.00002	-0.0004 mg/L	0.00002	5.06%
Zn 206.200*†	-13.0	-0.0002 mg/L	0.00001	-0.0002 mg/L	0.00001	7.21%

All analyte(s) passed QC.

Return to Contents

Sequence No.: 7
Sample ID: ICS_A -M042313B
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 11/12/2013 10:42:29 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICS_A -M042313B

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: ICS_A -M042313B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	181313.4	4.627	mg/L	0.0292				0.63%
Ho 345.600	293829.9	4.683	mg/L	0.0350				0.75%
Tb 384.873	77286.3	4.703	mg/L	0.0299				0.64%
Tb 350.917	130910.3	4.701	mg/L	0.0225				0.48%
Y 324.227	1065985.7	4.717	mg/L	0.0316				0.67%
Y 371.029	2211226.5	4.711	mg/L	0.0196				0.42%
Ag 328.068*†	-211.1	0.0008	mg/L	0.00021	0.0008	mg/L	0.00021	27.39%
Ag 338.289†	111.8	-0.0088	mg/L	0.00048	-0.0088	mg/L	0.00048	5.52%
Al 308.215*†	479995.1	23.72	mg/L	0.018	23.72	mg/L	0.018	0.07%
Al 396.153†	2983928.9	23.90	mg/L	0.020	23.90	mg/L	0.020	0.08%
As 188.979†	1.0	0.0002	mg/L	0.00325	0.0002	mg/L	0.00325	>999.9%
As 193.696*†	-29.5	-0.0072	mg/L	0.00081	-0.0072	mg/L	0.00081	11.18%
B 249.677*†	-436.2	-0.0079	mg/L	0.00013	-0.0079	mg/L	0.00013	1.59%
B 249.772†	2510.7	-0.0056	mg/L	0.00090	-0.0056	mg/L	0.00090	16.21%
Ba 233.527*†	199.5	0.0015	mg/L	0.00003	0.0015	mg/L	0.00003	2.07%
Ba 455.403†	120.0	0.0000	mg/L	0.00015	0.0000	mg/L	0.00015	920.87%
Be 313.042*†	146.5	0.0000	mg/L	0.00003	0.0000	mg/L	0.00003	101.81%
Be 313.107†	-343.6	-0.0001	mg/L	0.00001	-0.0001	mg/L	0.00001	4.99%
Bi 190.171*†	32.0	0.0123	mg/L	0.00470	0.0123	mg/L	0.00470	38.36%
Bi 223.061†	63.6	0.0111	mg/L	0.00126	0.0111	mg/L	0.00126	11.36%
Ca 422.673†	1129916.2	119.6	mg/L	0.22	119.6	mg/L	0.22	0.19%
Ca 317.933*†	554032.8	121.7	mg/L	0.59	121.7	mg/L	0.59	0.49%
Cd 226.502*†	-269.4	-0.0016	mg/L	0.00000	-0.0016	mg/L	0.00000	0.15%
Cd 228.802†	-555.6	-0.0080	mg/L	0.00004	-0.0080	mg/L	0.00004	0.46%
Co 228.616*†	19.7	0.0004	mg/L	0.00025	0.0004	mg/L	0.00025	64.04%
Co 230.786†	-7.9	-0.0002	mg/L	0.00036	-0.0002	mg/L	0.00036	227.47%
Cr 357.869†	-163.6	-0.0035	mg/L	0.00003	-0.0035	mg/L	0.00003	0.76%
Cr 267.716*†	12.0	-0.0061	mg/L	0.00035	-0.0061	mg/L	0.00035	5.78%
Cu 324.752*†	-2223.9	-0.0271	mg/L	0.00082	-0.0271	mg/L	0.00082	3.01%
Cu 327.393†	-413.0	-0.0197	mg/L	0.00102	-0.0197	mg/L	0.00102	5.18%
Fe 259.939†	229477.4	97.37	mg/L	0.717	97.37	mg/L	0.717	0.74%
Fe 239.562†	161305.5	99.11	mg/L	0.505	99.11	mg/L	0.505	0.51%
Fe 273.955*†	3116634.5	98.85	mg/L	0.289	98.85	mg/L	0.289	0.29%
K 766.490*†	225.0	0.1545	mg/L	0.01515	0.1545	mg/L	0.01515	9.81%
Li 670.784†	37947.9						1472.77	3.88%
Li 610.362*†	-30903.9	-0.0577	mg/L	0.00055	-0.0577	mg/L	0.00055	0.95%
Mg 280.271†	2055666.7	60.69	mg/L	0.233	60.69	mg/L	0.233	0.38%
Mg 279.077*†	765176.7	61.74	mg/L	0.025	61.74	mg/L	0.025	0.04%
Mn 257.610*†	-4397.4	-0.0077	mg/L	0.00007	-0.0077	mg/L	0.00007	0.90%
Mn 259.372†	48769.9	0.1116	mg/L	0.00031	0.1116	mg/L	0.00031	0.28%
Mo 203.845†	-13.7	-0.0008	mg/L	0.00040	-0.0008	mg/L	0.00040	48.23%
Mo 202.031*†	-25.5	-0.0011	mg/L	0.00046	-0.0011	mg/L	0.00046	40.76%
Na 589.592*†	123710.9	21.23	mg/L	0.117	21.23	mg/L	0.117	0.55%
Na 330.237†	11185.8	19.67	mg/L	0.004	19.67	mg/L	0.004	0.02%
Ni 231.604*†	-22.0	-0.0003	mg/L	0.00036	-0.0003	mg/L	0.00036	107.05%
Ni 232.003†	349.1	0.0142	mg/L	0.00099	0.0142	mg/L	0.00099	6.96%
P 214.914†	-27.6	-0.0075	mg/L	0.00033	-0.0075	mg/L	0.00033	4.44%
P 213.617*†	11.4	0.0016	mg/L	0.00049	0.0016	mg/L	0.00049	31.16%
Pb 220.353*†	-98.1	-0.0059	mg/L	0.00101	-0.0059	mg/L	0.00101	17.14%
Pb 217.000†	32.0	0.0146	mg/L	0.00266	0.0146	mg/L	0.00266	18.21%
S 180.669†	2181.1	0.8702	mg/L	0.00075	0.8702	mg/L	0.00075	0.09%
S 181.975*†	-31.1	-0.0206	mg/L	0.00759	-0.0206	mg/L	0.00759	36.86%
Sb 217.582*†	-110.7	-0.0252	mg/L	0.00517	-0.0252	mg/L	0.00517	20.56%
Sb 206†	25.5	0.0059	mg/L	0.00065	0.0059	mg/L	0.00065	10.97%
Sb 206.836†	11.3	0.0025	mg/L	0.00070	0.0025	mg/L	0.00070	28.47%

Return to Contents

Se 196.026*†	-34.6	-0.0113 mg/L	0.00128	-0.0113 mg/L	0.00128	11.31%
Se 203.985†	-9.8	-0.0028 mg/L	0.00291	-0.0028 mg/L	0.00291	105.58%
Si 288.158†	322.3	-0.0012 mg/L	0.00084	-0.0012 mg/L	0.00084	68.66%
Si 251.611*†	390.0	-0.0012 mg/L	0.00077	-0.0012 mg/L	0.00077	62.50%
Sn 189.927*†	96.8	0.0085 mg/L	0.00032	0.0085 mg/L	0.00032	3.76%
Sn 242.170†	-153.8	-0.0239 mg/L	0.07298	-0.0239 mg/L	0.07298	305.52%
Sr 407.771*†	2146.8	0.0029 mg/L	0.00005	0.0029 mg/L	0.00005	1.68%
Sr 421.552†	32719.6	0.0028 mg/L	0.00000	0.0028 mg/L	0.00000	0.15%
Ti 336.121*†	-221.9	-0.0005 mg/L	0.00006	-0.0005 mg/L	0.00006	13.38%
Ti 334.940†	-281.3	-0.0004 mg/L	0.00004	-0.0004 mg/L	0.00004	9.18%
Tl 351.924†	37.8	0.0077 mg/L	0.00038	0.0077 mg/L	0.00038	4.93%
Tl†	-12.3	-0.0145 mg/L	0.00094	-0.0145 mg/L	0.00094	6.48%
Tl 190.801*†	3.9	0.0012 mg/L	0.00023	0.0012 mg/L	0.00023	19.15%
V 310.230†	6436.2	0.0806 mg/L	0.00435	0.0806 mg/L	0.00435	5.40%
V 292.402*†	-895.9	-0.0016 mg/L	0.00115	-0.0016 mg/L	0.00115	72.59%
Zn 202.548†	-1015.4	0.0022 mg/L	0.00031	0.0022 mg/L	0.00031	14.15%
Zn 213.857*†	1427.6	-0.0103 mg/L	0.00024	-0.0103 mg/L	0.00024	2.32%
Zn 206.200*†	-27.2	-0.0109 mg/L	0.00021	-0.0109 mg/L	0.00021	1.89%

Return to Contents

Sequence No.: 8
Sample ID: ICS_AB -M042313A
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 11/12/2013 10:43:52 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICS_AB -M042313A

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: ICS_AB -M042313A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	182603.3	4.660	mg/L	0.0153				0.33%
Ho 345.600	295662.0	4.712	mg/L	0.0203				0.43%
Tb 384.873	77939.1	4.743	mg/L	0.0038				0.08%
Tb 350.917	132308.8	4.751	mg/L	0.0166				0.35%
Y 324.227	1079274.9	4.776	mg/L	0.0166				0.35%
Y 371.029	2224454.2	4.739	mg/L	0.0015				0.03%
Ag 328.068*†	46138.9	0.3175	mg/L	0.00145	0.3175	mg/L	0.00145	0.46%
Ag 338.289†	24710.9	0.3064	mg/L	0.00304	0.3064	mg/L	0.00304	0.99%
Al 308.215*†	476721.1	23.55	mg/L	0.033	23.55	mg/L	0.033	0.14%
Al 396.153†	2989706.7	23.95	mg/L	0.073	23.95	mg/L	0.073	0.30%
As 188.979†	5952.5	1.031	mg/L	0.0145	1.031	mg/L	0.0145	1.41%
As 193.696*†	4163.5	1.021	mg/L	0.0081	1.021	mg/L	0.0081	0.79%
B 249.677*†	17730.6	0.4747	mg/L	0.00649	0.4747	mg/L	0.00649	1.37%
B 249.772†	44868.0	0.4809	mg/L	0.00539	0.4809	mg/L	0.00539	1.12%
Ba 233.527*†	55383.3	0.2953	mg/L	0.00178	0.2953	mg/L	0.00178	0.60%
Ba 455.403†	67330.8	0.2998	mg/L	0.00031	0.2998	mg/L	0.00031	0.10%
Be 313.042*†	525477.7	0.0997	mg/L	0.00058	0.0997	mg/L	0.00058	0.59%
Be 313.107†	266690.1	0.0994	mg/L	0.00051	0.0994	mg/L	0.00051	0.52%
Bi 190.171*†	31.5	0.0121	mg/L	0.00151	0.0121	mg/L	0.00151	12.56%
Bi 223.061†	-567.2	-0.0988	mg/L	0.00333	-0.0988	mg/L	0.00333	3.37%
Ca 422.673†	1123230.5	118.9	mg/L	0.79	118.9	mg/L	0.79	0.67%
Ca 317.933*†	546206.1	120.0	mg/L	0.41	120.0	mg/L	0.41	0.34%
Cd 226.502*†	48887.0	0.2977	mg/L	0.00129	0.2977	mg/L	0.00129	0.43%
Cd 228.802†	20379.5	0.2951	mg/L	0.00131	0.2951	mg/L	0.00131	0.45%
Co 228.616*†	15631.6	0.3044	mg/L	0.00251	0.3044	mg/L	0.00251	0.83%
Co 230.786†	14975.0	0.2997	mg/L	0.00154	0.2997	mg/L	0.00154	0.51%
Cr 357.869†	17681.3	0.2836	mg/L	0.00008	0.2836	mg/L	0.00008	0.03%
Cr 267.716*†	27191.7	0.2834	mg/L	0.00175	0.2834	mg/L	0.00175	0.62%
Cu 324.752*†	40141.5	0.2826	mg/L	0.00053	0.2826	mg/L	0.00053	0.19%
Cu 327.393†	36260.4	0.2866	mg/L	0.00050	0.2866	mg/L	0.00050	0.18%
Fe 259.939†	232943.8	98.84	mg/L	0.952	98.84	mg/L	0.952	0.96%
Fe 239.562†	162625.3	99.92	mg/L	1.079	99.92	mg/L	1.079	1.08%
Fe 273.955*†	3086157.3	97.88	mg/L	0.457	97.88	mg/L	0.457	0.47%
K 766.490*†	30102.4	20.66	mg/L	0.103	20.66	mg/L	0.103	0.50%
Li 670.784†	31866.0						97.99	0.31%
Li 610.362*†	-30517.3	-0.0569	mg/L	0.00031	-0.0569	mg/L	0.00031	0.54%
Mg 280.271†	2040879.3	60.26	mg/L	0.267	60.26	mg/L	0.267	0.44%
Mg 279.077*†	760845.8	61.39	mg/L	0.171	61.39	mg/L	0.171	0.28%
Mn 257.610*†	108528.6	0.1909	mg/L	0.00014	0.1909	mg/L	0.00014	0.07%
Mn 259.372†	135463.2	0.3101	mg/L	0.00003	0.3101	mg/L	0.00003	0.01%
Mo 203.845†	4940.0	0.2986	mg/L	0.00109	0.2986	mg/L	0.00109	0.36%
Mo 202.031*†	6791.8	0.2991	mg/L	0.00235	0.2991	mg/L	0.00235	0.79%
Na 589.592*†	123189.7	21.14	mg/L	0.129	21.14	mg/L	0.129	0.61%
Na 330.237†	10931.0	19.23	mg/L	0.128	19.23	mg/L	0.128	0.66%
Ni 231.604*†	19763.7	0.3058	mg/L	0.00229	0.3058	mg/L	0.00229	0.75%
Ni 232.003†	7774.4	0.3161	mg/L	0.00175	0.3161	mg/L	0.00175	0.55%
P 214.914†	-18.1	-0.0049	mg/L	0.00396	-0.0049	mg/L	0.00396	80.41%
P 213.617*†	2.6	0.0004	mg/L	0.00160	0.0004	mg/L	0.00160	448.05%
Pb 220.353*†	16488.5	0.9857	mg/L	0.00869	0.9857	mg/L	0.00869	0.88%
Pb 217.000†	2227.5	1.016	mg/L	0.0041	1.016	mg/L	0.0041	0.40%
S 180.669†	2182.9	0.8709	mg/L	0.00681	0.8709	mg/L	0.00681	0.78%
S 181.975*†	-36.3	-0.0240	mg/L	0.00421	-0.0240	mg/L	0.00421	17.55%
Sb 217.582*†	4326.8	0.9835	mg/L	0.01586	0.9835	mg/L	0.01586	1.61%
Sb 206†	4371.5	1.017	mg/L	0.0173	1.017	mg/L	0.0173	1.70%
Sb 206.836†	4662.3	1.017	mg/L	0.0215	1.017	mg/L	0.0215	2.11%

Return to Contents

Se 196.026*†	1547.6	0.5071 mg/L	0.00851	0.5071 mg/L	0.00851	1.68%
Se 203.985†	1799.1	0.5056 mg/L	0.00536	0.5056 mg/L	0.00536	1.06%
Si 288.158†	4850.8	0.1774 mg/L	0.00060	0.1774 mg/L	0.00060	0.34%
Si 251.611*†	10805.3	0.1864 mg/L	0.00206	0.1864 mg/L	0.00206	1.10%
Sn 189.927*†	-43.5	-0.0038 mg/L	0.00066	-0.0038 mg/L	0.00066	17.12%
Sn 242.170†	-95.8	-0.0149 mg/L	0.00828	-0.0149 mg/L	0.00828	55.62%
Sr 407.771*†	2025.3	0.0027 mg/L	0.00004	0.0027 mg/L	0.00004	1.44%
Sr 421.552†	29914.0	0.0026 mg/L	0.00001	0.0026 mg/L	0.00001	0.53%
Ti 336.121*†	465501.4	0.9758 mg/L	0.00092	0.9758 mg/L	0.00092	0.09%
Ti 334.940†	645282.7	0.9775 mg/L	0.00136	0.9775 mg/L	0.00136	0.14%
Tl 351.924†	5128.2	1.043 mg/L	0.0101	1.043 mg/L	0.0101	0.97%
Tl†	2826.0	1.031 mg/L	0.0018	1.031 mg/L	0.0018	0.18%
Tl 190.801*†	3495.5	1.052 mg/L	0.0083	1.052 mg/L	0.0083	0.79%
V 310.230†	67614.4	0.3712 mg/L	0.00545	0.3712 mg/L	0.00545	1.47%
V 292.402*†	32010.8	0.2967 mg/L	0.00231	0.2967 mg/L	0.00231	0.78%
Zn 202.548†	28849.5	0.3016 mg/L	0.00098	0.3016 mg/L	0.00098	0.32%
Zn 213.857*†	47615.3	0.2922 mg/L	0.00054	0.2922 mg/L	0.00054	0.18%
Zn 206.200*†	20572.3	0.2831 mg/L	0.00220	0.2831 mg/L	0.00220	0.78%

Return to Contents

Sequence No.: 1
Sample ID: Calblank R04231301_ 469
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 11/12/2013 12:46:38 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calblank R04231301_ 469

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: Calblank R04231301_ 469

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ho 339.898	197207.0	731.83	0.37%	5.000	mg/L
Ho 345.600	317798.3	1551.99	0.49%	5.000	mg/L
Tb 350.917	139846.6	782.46	0.56%	5.000	mg/L
Tb 384.873	82379.8	354.35	0.43%	5.000	mg/L
Y 324.227	1143700.4	886.18	0.08%	5.000	mg/L
Y 371.029	2331854.1	5182.25	0.22%	5.000	mg/L
Ag 328.068*†	-4003.9	163.22	4.08%	[0.00]	mg/L
Ag 338.289†	11.6	13.83	119.42%	[0.00]	mg/L
Al 308.215*†	-6015.6	115.76	1.92%	[0.00]	mg/L
Al 396.153†	-191.5	108.23	56.53%	[0.00]	mg/L
As 188.979†	0.1	17.97	>999.9%	[0.00]	mg/L
As 193.696*†	39.1	4.09	10.46%	[0.00]	mg/L
B 249.677*†	-1114.3	1.13	0.10%	[0.00]	mg/L
B 249.772†	-1788.4	69.41	3.88%	[0.00]	mg/L
Ba 233.527*†	-7.1	0.10	1.34%	[0.00]	mg/L
Ba 455.403†	-53.7	52.14	97.16%	[0.00]	mg/L
Be 313.042*†	-4214.1	13.90	0.33%	[0.00]	mg/L
Be 313.107†	-1437.1	8.79	0.61%	[0.00]	mg/L
Ca 317.933*†	290.0	3.36	1.16%	[0.00]	mg/L
Ca 422.673†	76.0	17.03	22.42%	[0.00]	mg/L
Cd 226.502*†	-223.9	16.49	7.36%	[0.00]	mg/L
Cd 228.802†	-219.8	2.46	1.12%	[0.00]	mg/L
Co 228.616*†	-102.7	9.05	8.81%	[0.00]	mg/L
Co 230.786†	144.5	11.65	8.06%	[0.00]	mg/L
Cr 267.716*†	-235.0	2.02	0.86%	[0.00]	mg/L
Cr 357.869†	512.8	50.66	9.88%	[0.00]	mg/L
Cu 324.752*†	-1989.1	36.49	1.83%	[0.00]	mg/L
Cu 327.393†	-3326.3	110.72	3.33%	[0.00]	mg/L
Fe 239.562†	-150.6	0.14	0.09%	[0.00]	mg/L
Fe 259.939†	-156.4	5.16	3.30%	[0.00]	mg/L
Fe 273.955*†	-443.2	100.34	22.64%	[0.00]	mg/L
K 766.490*†	620.5	72.13	11.63%	[0.00]	mg/L
Mg 279.077*†	-6344.1	13.99	0.22%	[0.00]	mg/L
Mg 280.271†	25.8	2.29	8.87%	[0.00]	mg/L
Mn 257.610*†	-327.1	6.65	2.03%	[0.00]	mg/L
Mn 259.372†	-929.3	28.01	3.01%	[0.00]	mg/L
Mo 202.031*†	-153.0	0.21	0.14%	[0.00]	mg/L
Mo 203.845†	-210.6	4.81	2.29%	[0.00]	mg/L
Na 330.237†	1391.4	28.09	2.02%	[0.00]	mg/L
Na 589.592*†	962.0	66.76	6.94%	[0.00]	mg/L
Ni 231.604*†	484.0	9.88	2.04%	[0.00]	mg/L
Ni 232.003†	-305.0	3.54	1.16%	[0.00]	mg/L
P 213.617*†	496.3	13.64	2.75%	[0.00]	mg/L
P 214.914†	19.6	8.02	40.84%	[0.00]	mg/L
Pb 217.000†	0.1	5.01	>999.9%	[0.00]	mg/L
Pb 220.353*†	-211.5	20.27	9.58%	[0.00]	mg/L
Sb 206†	86.3	4.82	5.59%	[0.00]	mg/L
Sb 206.836†	8.2	4.69	57.01%	[0.00]	mg/L
Sb 217.582*†	87.6	4.68	5.34%	[0.00]	mg/L
Se 196.026*†	31.1	8.14	26.17%	[0.00]	mg/L
Se 203.985†	80.3	0.92	1.14%	[0.00]	mg/L
Si 251.611*†	1359.3	19.61	1.44%	[0.00]	mg/L
Si 288.158†	1664.9	38.08	2.29%	[0.00]	mg/L
Sn 189.927*†	11.2	6.14	54.64%	[0.00]	mg/L
Sn 242.170†	1327.1	65.56	4.94%	[0.00]	mg/L

Return to Contents

Sr 407.771*†	-59.6	0.97	1.63%	[0.00]	mg/L
Sr 421.552†	-4515.3	43.43	0.96%	[0.00]	mg/L
Ti 334.940†	12507.0	49.15	0.39%	[0.00]	mg/L
Ti 336.121*†	-1967.4	31.84	1.62%	[0.00]	mg/L
Tl†	-54.5	2.03	3.73%	[0.00]	mg/L
Tl 190.801*†	-6.1	4.21	69.01%	[0.00]	mg/L
Tl 351.924†	-44.3	37.39	84.49%	[0.00]	mg/L
V 292.402*†	252.4	13.38	5.30%	[0.00]	mg/L
V 310.230†	79678.4	271.06	0.34%	[0.00]	mg/L
Zn 202.548†	-686.6	10.40	1.51%	[0.00]	mg/L
Zn 206.200*†	-510.4	8.05	1.58%	[0.00]	mg/L
Zn 213.857*†	-406.7	7.89	1.94%	[0.00]	mg/L

Return to Contents

Sequence No.: 2
Sample ID: STD3-M092713A-Analyst-469
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/12/2013 12:48:15 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: STD3-M092713A-Analyst-469

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: STD3-M092713A-Analyst-469

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ho 339.898	181726.2	1196.87	0.66%	4.607	mg/L
Ho 345.600	292973.1	1646.27	0.56%	4.609	mg/L
Tb 350.917	131491.9	695.37	0.53%	4.701	mg/L
Tb 384.873	76655.8	537.43	0.70%	4.653	mg/L
Y 324.227	1088113.9	7451.38	0.68%	4.757	mg/L
Y 371.029	2197019.0	10238.39	0.47%	4.711	mg/L
Ag 328.068*†	108758.8	233.51	0.21%	[0.75]	mg/L
Ag 338.289†	58175.2	370.39	0.64%	[0.75]	mg/L
Al 308.215*†	551037.8	423.37	0.08%	[27.0]	mg/L
Al 396.153†	3395484.6	7918.69	0.23%	[27]	mg/L
As 188.979†	43728.1	92.05	0.21%	[7.50]	mg/L
As 193.696*†	30973.2	7.70	0.02%	[7.50]	mg/L
B 249.677*†	281678.3	1885.01	0.67%	[7.50]	mg/L
B 249.772†	663945.6	1180.95	0.18%	[7.50]	mg/L
Ba 233.527*†	2798517.9	5135.58	0.18%	[15.0]	mg/L
Ba 455.403†	3547219.1	8920.85	0.25%	[15.0]	mg/L
Be 313.042*†	5981387.1	10876.60	0.18%	[1.125]	mg/L
Be 313.107†	3053961.6	4892.44	0.16%	[1.125]	mg/L
Ca 317.933*†	276782.8	6243.11	2.26%	[60.0]	mg/L
Ca 422.673†	571668.2	4124.65	0.72%	[60.0]	mg/L
Cd 226.502*†	249000.0	97.91	0.04%	[1.50]	mg/L
Cd 228.802†	106503.7	221.51	0.21%	[1.50]	mg/L
Co 228.616*†	194924.2	126.24	0.06%	[3.75]	mg/L
Co 230.786†	190232.3	246.17	0.13%	[3.75]	mg/L
Cr 267.716*†	111609.1	321.68	0.29%	[1.20]	mg/L
Cr 357.869†	75075.4	41.65	0.06%	[1.20]	mg/L
Cu 324.752*†	267079.1	88.10	0.03%	[1.875]	mg/L
Cu 327.393†	224713.8	333.98	0.15%	[1.875]	mg/L
Fe 239.562†	12266.4	24.33	0.20%	[7.50]	mg/L
Fe 259.939†	18427.6	13.09	0.07%	[7.50]	mg/L
Fe 273.955*†	240243.7	41.10	0.02%	[7.50]	mg/L
K 766.490*†	81264.6	363.23	0.45%	[54.0]	mg/L
Mg 279.077*†	191271.4	278.21	0.15%	[15.0]	mg/L
Mg 280.271†	520166.1	7607.15	1.46%	[15.0]	mg/L
Mn 257.610*†	879350.7	1343.21	0.15%	[1.50]	mg/L
Mn 259.372†	677416.4	1160.70	0.17%	[1.50]	mg/L
Mo 202.031*†	28086.4	48.81	0.17%	[1.20]	mg/L
Mo 203.845†	20337.5	59.68	0.29%	[1.20]	mg/L
Na 330.237†	42002.9	90.39	0.22%	[72.0]	mg/L
Na 589.592*†	418885.8	5131.40	1.23%	[72.0]	mg/L
Ni 231.604*†	78671.2	250.09	0.32%	[1.20]	mg/L
Ni 232.003†	29906.8	136.98	0.46%	[1.20]	mg/L
P 213.617*†	88756.4	265.68	0.30%	[12.0]	mg/L
P 214.914†	45319.3	173.75	0.38%	[12.0]	mg/L
Pb 217.000†	16603.7	87.64	0.53%	[7.50]	mg/L
Pb 220.353*†	126859.1	8.89	0.01%	[7.50]	mg/L
Sb 206†	39698.7	5.17	0.01%	[9.0]	mg/L
Sb 206.836†	41964.7	401.92	0.96%	[9.0]	mg/L
Sb 217.582*†	40698.6	36.52	0.09%	[9.0]	mg/L
Se 196.026*†	9412.2	23.66	0.25%	[3.0]	mg/L
Se 203.985†	10860.1	31.61	0.29%	[3.0]	mg/L
Si 251.611*†	623980.9	4102.14	0.66%	[12.0]	mg/L
Si 288.158†	279218.4	1623.15	0.58%	[12.0]	mg/L
Sn 189.927*†	69805.9	101.77	0.15%	[6.0]	mg/L
Sn 242.170†	39324.1	252.95	0.64%	[6.0]	mg/L

Return to Contents

Sr 407.771*†	448381.1	4499.11	1.00%	[0.60]	mg/L
Sr 421.552†	6953654.8	17436.24	0.25%	[0.60]	mg/L
Ti 334.940†	813317.2	18.08	0.00%	[1.20]	mg/L
Ti 336.121*†	579948.2	251.28	0.04%	[1.20]	mg/L
Tl†	8392.2	71.35	0.85%	[3.0]	mg/L
Tl 190.801*†	10109.7	33.02	0.33%	[3.0]	mg/L
Tl 351.924†	14815.7	73.17	0.49%	[3.0]	mg/L
V 292.402*†	413217.1	586.84	0.14%	[3.75]	mg/L
V 310.230†	781373.8	2134.47	0.27%	[3.75]	mg/L
Zn 202.548†	514364.9	33.27	0.01%	[5.0]	mg/L
Zn 206.200*†	361226.2	296.92	0.08%	[5.0]	mg/L
Zn 213.857*†	773866.8	1035.23	0.13%	[5.0]	mg/L

Return to Contents

Sequence No.: 3
Sample ID: CCV= STD3x0.5
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/12/2013 12:49:40 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV= STD3x0.5

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Ho 339.898	184546.0	4.679	mg/L	0.0540				1.15%
Ho 345.600	298046.0	4.689	mg/L	0.0480				1.02%
Tb 350.917	132630.0	4.742	mg/L	0.0464				0.98%
Tb 384.873	77553.2	4.707	mg/L	0.0518				1.10%
Y 324.227	1092130.4	4.775	mg/L	0.0455				0.95%
Y 371.029	2201991.2	4.722	mg/L	0.0531				1.12%
Ag 328.068*†	53263.8	0.3675	mg/L	0.00010	0.3675	mg/L	0.00010	0.03%
QC value within limits for Ag 328.068* Recovery = 97.99%								
Ag 338.289†	28228.7	0.3651	mg/L	0.00709	0.3651	mg/L	0.00709	1.94%
Al 308.215*†	267955.9	13.08	mg/L	0.004	13.08	mg/L	0.004	0.03%
QC value within limits for Al 308.215* Recovery = 96.88%								
Al 396.153†	1655000.4	13.16	mg/L	0.123	13.16	mg/L	0.123	0.94%
As 188.979†	21856.6	3.749	mg/L	0.1096	3.749	mg/L	0.1096	2.92%
QC value within limits for As 188.979 Recovery = 99.97%								
As 193.696*†	15465.7	3.745	mg/L	0.0880	3.745	mg/L	0.0880	2.35%
QC value within limits for As 193.696* Recovery = 99.87%								
B 249.677*†	137431.4	3.651	mg/L	0.0069	3.651	mg/L	0.0069	0.19%
QC value within limits for B 249.677* Recovery = 97.37%								
B 249.772†	324338.7	3.653	mg/L	0.0044	3.653	mg/L	0.0044	0.12%
Ba 233.527*†	1402703.5	7.519	mg/L	0.0111	7.519	mg/L	0.0111	0.15%
QC value within limits for Ba 233.527* Recovery = 100.26%								
Ba 455.403†	1756153.6	7.426	mg/L	0.1537	7.426	mg/L	0.1537	2.07%
Be 313.042*†	2997134.1	0.5637	mg/L	0.00557	0.5637	mg/L	0.00557	0.99%
QC value within limits for Be 313.042* Recovery = 100.22%								
Be 313.107†	1529228.7	0.5633	mg/L	0.00604	0.5633	mg/L	0.00604	1.07%
Ca 317.933*†	138529.1	30.03	mg/L	0.712	30.03	mg/L	0.712	2.37%
QC value within limits for Ca 317.933* Recovery = 100.10%								
Ca 422.673†	280868.6	29.48	mg/L	0.613	29.48	mg/L	0.613	2.08%
Cd 226.502*†	123514.3	0.7441	mg/L	0.00158	0.7441	mg/L	0.00158	0.21%
QC value within limits for Cd 226.502* Recovery = 99.21%								
Cd 228.802†	53101.6	0.7479	mg/L	0.01504	0.7479	mg/L	0.01504	2.01%
Co 228.616*†	97279.5	1.871	mg/L	0.0407	1.871	mg/L	0.0407	2.17%
QC value within limits for Co 228.616* Recovery = 99.81%								
Co 230.786†	94684.3	1.866	mg/L	0.0398	1.866	mg/L	0.0398	2.13%
Cr 267.716*†	55669.1	0.5982	mg/L	0.01561	0.5982	mg/L	0.01561	2.61%
QC value within limits for Cr 267.716* Recovery = 99.70%								
Cr 357.869†	36497.3	0.5886	mg/L	0.01245	0.5886	mg/L	0.01245	2.12%
Cu 324.752*†	130540.8	0.9271	mg/L	0.00088	0.9271	mg/L	0.00088	0.09%
QC value within limits for Cu 324.752* Recovery = 98.89%								
Cu 327.393†	109531.1	0.9246	mg/L	0.00116	0.9246	mg/L	0.00116	0.13%
Fe 239.562†	6042.9	3.695	mg/L	0.0237	3.695	mg/L	0.0237	0.64%
Fe 259.939†	8989.9	3.659	mg/L	0.0552	3.659	mg/L	0.0552	1.51%
Fe 273.955*†	119717.8	3.737	mg/L	0.0061	3.737	mg/L	0.0061	0.16%
QC value within limits for Fe 273.955* Recovery = 99.66%								
K 766.490*†	37136.9	24.68	mg/L	0.551	24.68	mg/L	0.551	2.23%
QC value within limits for K 766.490* Recovery = 91.40%								
Mg 279.077*†	94826.5	7.429	mg/L	0.0014	7.429	mg/L	0.0014	0.02%
QC value within limits for Mg 279.077* Recovery = 99.06%								
Mg 280.271†	261492.8	7.541	mg/L	0.1589	7.541	mg/L	0.1589	2.11%
Mn 257.610*†	438679.6	0.7483	mg/L	0.00036	0.7483	mg/L	0.00036	0.05%
QC value within limits for Mn 257.610* Recovery = 99.77%								
Mn 259.372†	336836.2	0.7459	mg/L	0.00022	0.7459	mg/L	0.00022	0.03%
Mo 202.031*†	14075.6	0.6014	mg/L	0.01270	0.6014	mg/L	0.01270	2.11%
QC value within limits for Mo 202.031* Recovery = 100.23%								
Mo 203.845†	10158.6	0.5994	mg/L	0.01242	0.5994	mg/L	0.01242	2.07%

Return to Contents

Na 330.237†	20163.4	34.56	mg/L	0.669	34.56	mg/L	0.669	1.93%
Na 589.592*†	209231.7	35.96	mg/L	0.748	35.96	mg/L	0.748	2.08%
QC value within limits for Na 589.592* Recovery = 99.90%								
Ni 231.604*†	39718.4	0.6058	mg/L	0.01494	0.6058	mg/L	0.01494	2.47%
QC value within limits for Ni 231.604* Recovery = 100.97%								
Ni 232.003†	14964.1	0.6004	mg/L	0.01323	0.6004	mg/L	0.01323	2.20%
P 213.617*†	44119.2	5.965	mg/L	0.1572	5.965	mg/L	0.1572	2.64%
QC value within limits for P 213.617* Recovery = 99.42%								
P 214.914†	22520.9	5.963	mg/L	0.1283	5.963	mg/L	0.1283	2.15%
Pb 217.000†	8142.7	3.678	mg/L	0.0914	3.678	mg/L	0.0914	2.49%
Pb 220.353*†	62624.0	3.702	mg/L	0.0733	3.702	mg/L	0.0733	1.98%
QC value within limits for Pb 220.353* Recovery = 98.73%								
Sb 206†	19996.8	4.533	mg/L	0.0923	4.533	mg/L	0.0923	2.04%
Sb 206.836†	20899.9	4.482	mg/L	0.0003	4.482	mg/L	0.0003	0.01%
Sb 217.582*†	20384.8	4.508	mg/L	0.1062	4.508	mg/L	0.1062	2.36%
QC value within limits for Sb 217.582* Recovery = 100.17%								
Se 196.026*†	4699.4	1.498	mg/L	0.0405	1.498	mg/L	0.0405	2.71%
QC value within limits for Se 196.026* Recovery = 99.86%								
Se 203.985†	5396.7	1.491	mg/L	0.0408	1.491	mg/L	0.0408	2.74%
Si 251.611*†	306298.7	5.891	mg/L	0.0273	5.891	mg/L	0.0273	0.46%
QC value within limits for Si 251.611* Recovery = 98.18%								
Si 288.158†	137091.6	5.804	mg/L	0.0256	5.804	mg/L	0.0256	0.44%
Sn 189.927*†	35168.5	3.023	mg/L	0.0786	3.023	mg/L	0.0786	2.60%
QC value within limits for Sn 189.927* Recovery = 100.76%								
Sn 242.170†	19187.2	2.928	mg/L	0.0072	2.928	mg/L	0.0072	0.25%
Sr 407.771*†	220831.3	0.2955	mg/L	0.00662	0.2955	mg/L	0.00662	2.24%
QC value within limits for Sr 407.771* Recovery = 98.50%								
Sr 421.552†	3523012.0	0.3040	mg/L	0.00209	0.3040	mg/L	0.00209	0.69%
Ti 334.940†	404455.8	0.5967	mg/L	0.00029	0.5967	mg/L	0.00029	0.05%
Ti 336.121*†	288388.7	0.5967	mg/L	0.00010	0.5967	mg/L	0.00010	0.02%
QC value within limits for Ti 336.121* Recovery = 99.45%								
Tl†	4165.6	1.473	mg/L	0.0195	1.473	mg/L	0.0195	1.32%
Tl 190.801*†	5056.6	1.501	mg/L	0.0308	1.501	mg/L	0.0308	2.05%
QC value within limits for Tl 190.801* Recovery = 100.03%								
Tl 351.924†	7266.0	1.471	mg/L	0.0381	1.471	mg/L	0.0381	2.59%
V 292.402*†	204169.0	1.854	mg/L	0.0052	1.854	mg/L	0.0052	0.28%
QC value within limits for V 292.402* Recovery = 98.85%								
V 310.230†	388625.8	1.876	mg/L	0.0008	1.876	mg/L	0.0008	0.04%
Zn 202.548†	256093.6	2.493	mg/L	0.0018	2.493	mg/L	0.0018	0.07%
Zn 206.200*†	179220.7	2.483	mg/L	0.0016	2.483	mg/L	0.0016	0.06%
QC value within limits for Zn 206.200* Recovery = 99.33%								
Zn 213.857*†	383097.8	2.477	mg/L	0.0021	2.477	mg/L	0.0021	0.08%
QC value within limits for Zn 213.857* Recovery = 99.10%								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 5
Sample ID: CCB-1 R04231301
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 11/12/2013 12:52:26 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB-1 R04231301

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: CCB-1 R04231301

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	195149.5	4.948	mg/L	0.0853				1.72%
Ho 345.600	314850.3	4.954	mg/L	0.0815				1.64%
Tb 350.917	138809.7	4.963	mg/L	0.0810				1.63%
Tb 384.873	81717.5	4.960	mg/L	0.0835				1.68%
Y 324.227	1142285.3	4.994	mg/L	0.0786				1.57%
Y 371.029	2321799.1	4.978	mg/L	0.0986				1.98%
Ag 328.068*†	-43.0	-0.0003	mg/L	0.00050	-0.0003	mg/L	0.00050	167.39%
QC value within limits for Ag 328.068* Recovery = Not calculated								
Ag 338.289†	-30.4	-0.0004	mg/L	0.00066	-0.0004	mg/L	0.00066	168.24%
Al 308.215*†	34.8	0.0017	mg/L	0.00233	0.0017	mg/L	0.00233	136.04%
Al 396.153†	65.7	0.0005	mg/L	0.00023	0.0005	mg/L	0.00023	43.65%
As 188.979†	5.2	0.0009	mg/L	0.00146	0.0009	mg/L	0.00146	164.10%
As 193.696*†	6.1	0.0015	mg/L	0.00141	0.0015	mg/L	0.00141	95.14%
B 249.677*†	234.9	0.0063	mg/L	0.00080	0.0063	mg/L	0.00080	12.85%
B 249.772†	568.5	0.0064	mg/L	0.00111	0.0064	mg/L	0.00111	17.23%
Ba 233.527*†	-0.8	0.0000	mg/L	0.00006	0.0000	mg/L	0.00006	>999.9%
Ba 455.403†	-9.3	0.0000	mg/L	0.00026	0.0000	mg/L	0.00026	659.01%
Be 313.042*†	91.7	0.0000	mg/L	0.00002	0.0000	mg/L	0.00002	120.30%
Be 313.107†	36.4	0.0000	mg/L	0.00003	0.0000	mg/L	0.00003	187.07%
Ca 317.933*†	-2.2	-0.0005	mg/L	0.00253	-0.0005	mg/L	0.00253	542.65%
Ca 422.673†	22.9	0.0024	mg/L	0.00325	0.0024	mg/L	0.00325	134.86%
Cd 226.502*†	6.5	0.0000	mg/L	0.00007	0.0000	mg/L	0.00007	165.79%
Cd 228.802†	4.9	0.0001	mg/L	0.00009	0.0001	mg/L	0.00009	124.64%
Co 228.616*†	-20.7	-0.0004	mg/L	0.00042	-0.0004	mg/L	0.00042	105.73%
Co 230.786†	-8.8	-0.0002	mg/L	0.00023	-0.0002	mg/L	0.00023	135.18%
Cr 267.716*†	-7.0	-0.0001	mg/L	0.00022	-0.0001	mg/L	0.00022	290.77%
Cr 357.869†	-76.2	-0.0012	mg/L	0.00103	-0.0012	mg/L	0.00103	84.58%
Cu 324.752*†	195.8	0.0014	mg/L	0.00019	0.0014	mg/L	0.00019	13.86%
Cu 327.393†	155.4	0.0013	mg/L	0.00037	0.0013	mg/L	0.00037	28.20%
Fe 239.562†	-1.9	-0.0011	mg/L	0.00168	-0.0011	mg/L	0.00168	148.23%
Fe 259.939†	-1.7	-0.0007	mg/L	0.00084	-0.0007	mg/L	0.00084	118.84%
Fe 273.955*†	-26.7	-0.0008	mg/L	0.00057	-0.0008	mg/L	0.00057	68.05%
K 766.490*†	7.9	0.0053	mg/L	0.04632	0.0053	mg/L	0.04632	880.45%
Mg 279.077*†	-128.4	-0.0101	mg/L	0.01100	-0.0101	mg/L	0.01100	109.19%
Mg 280.271†	3.0	0.0001	mg/L	0.00008	0.0001	mg/L	0.00008	93.61%
Mn 257.610*†	-7.1	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	80.29%
Mn 259.372†	26.2	0.0001	mg/L	0.00005	0.0001	mg/L	0.00005	83.16%
Mo 202.031*†	-0.1	0.0000	mg/L	0.00054	0.0000	mg/L	0.00054	>999.9%
Mo 203.845†	12.9	0.0008	mg/L	0.00034	0.0008	mg/L	0.00034	44.22%
Na 330.237†	113.0	0.1938	mg/L	0.05935	0.1938	mg/L	0.05935	30.63%
Na 589.592*†	157.3	0.0270	mg/L	0.01238	0.0270	mg/L	0.01238	45.81%
Ni 231.604*†	15.2	0.0002	mg/L	0.00012	0.0002	mg/L	0.00012	50.20%
Ni 232.003†	-8.9	-0.0004	mg/L	0.00018	-0.0004	mg/L	0.00018	51.00%
P 213.617*†	2.7	0.0004	mg/L	0.00107	0.0004	mg/L	0.00107	288.54%
P 214.914†	4.9	0.0013	mg/L	0.00242	0.0013	mg/L	0.00242	186.23%
Pb 217.000†	1.2	0.0005	mg/L	0.00693	0.0005	mg/L	0.00693	>999.9%
Pb 220.353*†	-16.3	-0.0010	mg/L	0.00062	-0.0010	mg/L	0.00062	64.33%
Sb 206†	6.5	0.0015	mg/L	0.00144	0.0015	mg/L	0.00144	98.43%
Sb 206.836†	26.8	0.0057	mg/L	0.00193	0.0057	mg/L	0.00193	33.58%
Sb 217.582*†	13.2	0.0029	mg/L	0.00060	0.0029	mg/L	0.00060	20.61%
Se 196.026*†	13.1	0.0042	mg/L	0.00129	0.0042	mg/L	0.00129	30.72%
Se 203.985†	-8.3	-0.0023	mg/L	0.00076	-0.0023	mg/L	0.00076	33.00%
Si 251.611*†	35.1	0.0007	mg/L	0.00109	0.0007	mg/L	0.00109	161.58%
Si 288.158†	16.2	0.0007	mg/L	0.00252	0.0007	mg/L	0.00252	362.09%
Sn 189.927*†	35.5	0.0031	mg/L	0.00042	0.0031	mg/L	0.00042	13.76%

Return to Contents

Sn 242.170†	-68.4	-0.0104 mg/L	0.01966	-0.0104 mg/L	0.01966	188.36%
Sr 407.771*†	-3.0	0.0000 mg/L	0.00006	0.0000 mg/L	0.00006	>999.9%
Sr 421.552†	402.2	0.0000 mg/L	0.00001	0.0000 mg/L	0.00001	19.27%
Ti 334.940†	126.4	0.0002 mg/L	0.00016	0.0002 mg/L	0.00016	84.89%
Ti 336.121*†	25.5	0.0001 mg/L	0.00009	0.0001 mg/L	0.00009	173.11%
Tl†	2.4	0.0009 mg/L	0.00227	0.0009 mg/L	0.00227	259.23%
Tl 190.801*†	-0.9	-0.0003 mg/L	0.00088	-0.0003 mg/L	0.00088	319.24%
Tl 351.924†	-9.4	-0.0019 mg/L	0.00438	-0.0019 mg/L	0.00438	230.43%
V 292.402*†	-0.3	0.0000 mg/L	0.00020	0.0000 mg/L	0.00020	>999.9%
V 310.230†	283.8	0.0014 mg/L	0.00334	0.0014 mg/L	0.00334	245.68%
Zn 202.548†	23.0	0.0002 mg/L	0.00019	0.0002 mg/L	0.00019	83.21%
Zn 206.200*†	5.4	0.0001 mg/L	0.00009	0.0001 mg/L	0.00009	123.04%
Zn 213.857*†	16.4	0.0001 mg/L	0.00004	0.0001 mg/L	0.00004	34.94%

All analyte(s) passed QC.

Return to Contents

Sequence No.: 20
Sample ID: CCV= STD3x0.5
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/12/2013 1:21:38 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV= STD3x0.5

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	181711.9	4.607	mg/L	0.0026				0.06%
Ho 345.600	293278.0	4.614	mg/L	0.0091				0.20%
Tb 350.917	130851.8	4.678	mg/L	0.0018				0.04%
Tb 384.873	76394.9	4.637	mg/L	0.0132				0.28%
Y 324.227	1085209.7	4.744	mg/L	0.0086				0.18%
Y 371.029	2192712.8	4.702	mg/L	0.0001				0.00%
Ag 328.068*†	53482.8	0.3690	mg/L	0.00155	0.3690	mg/L	0.00155	0.42%
QC value within limits for Ag 328.068* Recovery = 98.40%								
Ag 338.289†	28288.1	0.3658	mg/L	0.00445	0.3658	mg/L	0.00445	1.22%
Al 308.215*†	271413.7	13.25	mg/L	0.049	13.25	mg/L	0.049	0.37%
QC value within limits for Al 308.215* Recovery = 98.13%								
Al 396.153†	1687272.8	13.42	mg/L	0.024	13.42	mg/L	0.024	0.18%
As 188.979†	22051.8	3.782	mg/L	0.0616	3.782	mg/L	0.0616	1.63%
QC value within limits for As 188.979 Recovery = 100.86%								
As 193.696*†	15543.5	3.764	mg/L	0.0394	3.764	mg/L	0.0394	1.05%
QC value within limits for As 193.696* Recovery = 100.37%								
B 249.677*†	137943.9	3.665	mg/L	0.0297	3.665	mg/L	0.0297	0.81%
QC value within limits for B 249.677* Recovery = 97.73%								
B 249.772†	325186.4	3.662	mg/L	0.0254	3.662	mg/L	0.0254	0.69%
Ba 233.527*†	1420562.1	7.615	mg/L	0.0213	7.615	mg/L	0.0213	0.28%
QC value within limits for Ba 233.527* Recovery = 101.53%								
Ba 455.403†	1735837.1	7.340	mg/L	0.0204	7.340	mg/L	0.0204	0.28%
Be 313.042*†	2996014.8	0.5635	mg/L	0.00141	0.5635	mg/L	0.00141	0.25%
QC value within limits for Be 313.042* Recovery = 100.18%								
Be 313.107†	1539907.5	0.5673	mg/L	0.00138	0.5673	mg/L	0.00138	0.24%
Ca 317.933*†	140055.3	30.36	mg/L	0.029	30.36	mg/L	0.029	0.10%
QC value within limits for Ca 317.933* Recovery = 101.20%								
Ca 422.673†	278088.7	29.19	mg/L	0.056	29.19	mg/L	0.056	0.19%
Cd 226.502*†	125309.8	0.7549	mg/L	0.00285	0.7549	mg/L	0.00285	0.38%
QC value within limits for Cd 226.502* Recovery = 100.65%								
Cd 228.802†	53788.0	0.7576	mg/L	0.00967	0.7576	mg/L	0.00967	1.28%
Co 228.616*†	98590.9	1.897	mg/L	0.0237	1.897	mg/L	0.0237	1.25%
QC value within limits for Co 228.616* Recovery = 101.16%								
Co 230.786†	95995.2	1.892	mg/L	0.0275	1.892	mg/L	0.0275	1.45%
Cr 267.716*†	55701.3	0.5985	mg/L	0.00763	0.5985	mg/L	0.00763	1.27%
QC value within limits for Cr 267.716* Recovery = 99.75%								
Cr 357.869†	36540.8	0.5893	mg/L	0.00756	0.5893	mg/L	0.00756	1.28%
Cu 324.752*†	130889.6	0.9296	mg/L	0.00211	0.9296	mg/L	0.00211	0.23%
QC value within limits for Cu 324.752* Recovery = 99.16%								
Cu 327.393†	109982.3	0.9284	mg/L	0.00090	0.9284	mg/L	0.00090	0.10%
Fe 239.562†	6164.1	3.769	mg/L	0.0357	3.769	mg/L	0.0357	0.95%
Fe 259.939†	9193.6	3.742	mg/L	0.0473	3.742	mg/L	0.0473	1.26%
Fe 273.955*†	121140.3	3.782	mg/L	0.0151	3.782	mg/L	0.0151	0.40%
QC value within limits for Fe 273.955* Recovery = 100.85%								
K 766.490*†	37066.3	24.63	mg/L	0.017	24.63	mg/L	0.017	0.07%
QC value within limits for K 766.490* Recovery = 91.22%								
Mg 279.077*†	96112.7	7.530	mg/L	0.0279	7.530	mg/L	0.0279	0.37%
QC value within limits for Mg 279.077* Recovery = 100.40%								
Mg 280.271†	263385.6	7.595	mg/L	0.0730	7.595	mg/L	0.0730	0.96%
Mn 257.610*†	442749.3	0.7552	mg/L	0.00297	0.7552	mg/L	0.00297	0.39%
QC value within limits for Mn 257.610* Recovery = 100.70%								
Mn 259.372†	339873.6	0.7526	mg/L	0.00238	0.7526	mg/L	0.00238	0.32%
Mo 202.031*†	14060.8	0.6008	mg/L	0.00707	0.6008	mg/L	0.00707	1.18%
QC value within limits for Mo 202.031* Recovery = 100.13%								
Mo 203.845†	10160.2	0.5995	mg/L	0.00387	0.5995	mg/L	0.00387	0.65%

Return to Contents

Na 330.237†	20262.2	34.73	mg/L	0.584	34.73	mg/L	0.584	1.68%
Na 589.592*†	208354.2	35.81	mg/L	0.080	35.81	mg/L	0.080	0.22%
QC value within limits for Na 589.592* Recovery = 99.48%								
Ni 231.604*†	40104.8	0.6117	mg/L	0.00635	0.6117	mg/L	0.00635	1.04%
QC value within limits for Ni 231.604* Recovery = 101.96%								
Ni 232.003†	14997.2	0.6018	mg/L	0.00259	0.6018	mg/L	0.00259	0.43%
Pb 217.000†	8236.2	3.720	mg/L	0.0500	3.720	mg/L	0.0500	1.35%
Pb 220.353*†	63316.7	3.743	mg/L	0.0501	3.743	mg/L	0.0501	1.34%
QC value within limits for Pb 220.353* Recovery = 99.82%								
Sb 206†	20249.1	4.591	mg/L	0.0520	4.591	mg/L	0.0520	1.13%
Sb 206.836†	21569.1	4.626	mg/L	0.0168	4.626	mg/L	0.0168	0.36%
Sb 217.582*†	20553.6	4.545	mg/L	0.0509	4.545	mg/L	0.0509	1.12%
QC value within limits for Sb 217.582* Recovery = 101.00%								
Se 196.026*†	4732.4	1.508	mg/L	0.0230	1.508	mg/L	0.0230	1.53%
QC value within limits for Se 196.026* Recovery = 100.56%								
Se 203.985†	5394.5	1.490	mg/L	0.0232	1.490	mg/L	0.0232	1.55%
Si 251.611*†	310481.5	5.971	mg/L	0.0394	5.971	mg/L	0.0394	0.66%
QC value within limits for Si 251.611* Recovery = 99.52%								
Si 288.158†	139054.8	5.887	mg/L	0.0455	5.887	mg/L	0.0455	0.77%
Tl†	4258.5	1.507	mg/L	0.0355	1.507	mg/L	0.0355	2.36%
Tl 190.801*†	5121.7	1.520	mg/L	0.0301	1.520	mg/L	0.0301	1.98%
QC value within limits for Tl 190.801* Recovery = 101.32%								
Tl 351.924†	7301.2	1.478	mg/L	0.0150	1.478	mg/L	0.0150	1.02%
V 292.402*†	205574.0	1.866	mg/L	0.0037	1.866	mg/L	0.0037	0.20%
QC value within limits for V 292.402* Recovery = 99.54%								
V 310.230†	392634.2	1.896	mg/L	0.0083	1.896	mg/L	0.0083	0.44%
Zn 202.548†	261453.3	2.546	mg/L	0.0138	2.546	mg/L	0.0138	0.54%
Zn 206.200*†	182751.6	2.532	mg/L	0.0129	2.532	mg/L	0.0129	0.51%
QC value within limits for Zn 206.200* Recovery = 101.28%								
Zn 213.857*†	387720.9	2.507	mg/L	0.0089	2.507	mg/L	0.0089	0.36%
QC value within limits for Zn 213.857* Recovery = 100.29%								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 21
Sample ID: CCB-R04231301
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/12/2013 1:22:50 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB-R04231301

Analyte	Back Pressure	Flow
All	124.0 kPa	0.50 L/min

Mean Data: CCB-R04231301

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	195189.6	4.949	mg/L	0.0045				0.09%
Ho 345.600	315310.7	4.961	mg/L	0.0023				0.05%
Tb 350.917	138837.8	4.964	mg/L	0.0017				0.03%
Tb 384.873	81558.0	4.950	mg/L	0.0085				0.17%
Y 324.227	1146003.9	5.010	mg/L	0.0054				0.11%
Y 371.029	2319727.6	4.974	mg/L	0.0046				0.09%
Ag 328.068*†	-7.4	-0.0001	mg/L	0.00004	-0.0001	mg/L	0.00004	76.91%
QC value within limits for Ag 328.068* Recovery = Not calculated								
Ag 338.289†	-16.8	-0.0002	mg/L	0.00055	-0.0002	mg/L	0.00055	254.00%
Al 308.215*†	72.3	0.0036	mg/L	0.00190	0.0036	mg/L	0.00190	53.59%
Al 396.153†	44.1	0.0004	mg/L	0.00041	0.0004	mg/L	0.00041	117.67%
As 188.979†	10.5	0.0018	mg/L	0.00167	0.0018	mg/L	0.00167	93.02%
As 193.696*†	10.6	0.0026	mg/L	0.00126	0.0026	mg/L	0.00126	49.18%
B 249.677*†	26.1	0.0007	mg/L	0.00165	0.0007	mg/L	0.00165	237.13%
B 249.772†	67.9	0.0008	mg/L	0.00091	0.0008	mg/L	0.00091	118.19%
Ba 233.527*†	-4.7	0.0000	mg/L	0.00000	0.0000	mg/L	0.00000	1.69%
Ba 455.403†	16.7	0.0001	mg/L	0.00014	0.0001	mg/L	0.00014	201.19%
Be 313.042*†	-37.8	0.0000	mg/L	0.00003	0.0000	mg/L	0.00003	461.99%
Be 313.107†	-48.6	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	74.72%
Ca 317.933*†	-8.9	-0.0019	mg/L	0.00046	-0.0019	mg/L	0.00046	23.67%
Ca 422.673†	14.2	0.0015	mg/L	0.00094	0.0015	mg/L	0.00094	62.80%
Cd 226.502*†	11.3	0.0001	mg/L	0.00008	0.0001	mg/L	0.00008	124.37%
Cd 228.802†	-6.6	-0.0001	mg/L	0.00017	-0.0001	mg/L	0.00017	187.39%
Co 228.616*†	-13.4	-0.0003	mg/L	0.00001	-0.0003	mg/L	0.00001	3.73%
Co 230.786†	-1.7	0.0000	mg/L	0.00007	0.0000	mg/L	0.00007	206.20%
Cr 267.716*†	1.2	0.0000	mg/L	0.00021	0.0000	mg/L	0.00021	>999.9%
Cr 357.869†	-40.2	-0.0006	mg/L	0.00078	-0.0006	mg/L	0.00078	120.76%
Cu 324.752*†	69.4	0.0005	mg/L	0.00010	0.0005	mg/L	0.00010	19.85%
Cu 327.393†	79.4	0.0007	mg/L	0.00063	0.0007	mg/L	0.00063	94.27%
Fe 239.562†	-10.5	-0.0064	mg/L	0.00292	-0.0064	mg/L	0.00292	45.56%
Fe 259.939†	-8.1	-0.0033	mg/L	0.00265	-0.0033	mg/L	0.00265	80.40%
Fe 273.955*†	-74.5	-0.0023	mg/L	0.00194	-0.0023	mg/L	0.00194	83.47%
K 766.490*†	11.5	0.0077	mg/L	0.02754	0.0077	mg/L	0.02754	359.60%
Mg 279.077*†	-291.0	-0.0228	mg/L	0.00064	-0.0228	mg/L	0.00064	2.78%
Mg 280.271†	12.8	0.0004	mg/L	0.00013	0.0004	mg/L	0.00013	35.61%
Mn 257.610*†	28.8	0.0000	mg/L	0.00003	0.0000	mg/L	0.00003	56.03%
Mn 259.372†	0.1	0.0000	mg/L	0.00004	0.0000	mg/L	0.00004	>999.9%
Mo 202.031*†	10.9	0.0005	mg/L	0.00006	0.0005	mg/L	0.00006	13.06%
Mo 203.845†	7.2	0.0004	mg/L	0.00022	0.0004	mg/L	0.00022	52.24%
Na 330.237†	105.1	0.1801	mg/L	0.01176	0.1801	mg/L	0.01176	6.53%
Na 589.592*†	385.9	0.0663	mg/L	0.00761	0.0663	mg/L	0.00761	11.47%
Ni 231.604*†	24.1	0.0004	mg/L	0.00007	0.0004	mg/L	0.00007	18.37%
Ni 232.003†	-17.3	-0.0007	mg/L	0.00009	-0.0007	mg/L	0.00009	12.28%
Pb 217.000†	-22.2	-0.0100	mg/L	0.00622	-0.0100	mg/L	0.00622	62.14%
Pb 220.353*†	-2.2	-0.0001	mg/L	0.00027	-0.0001	mg/L	0.00027	212.64%
Sb 206†	16.5	0.0037	mg/L	0.00077	0.0037	mg/L	0.00077	20.62%
Sb 206.836†	30.9	0.0066	mg/L	0.00237	0.0066	mg/L	0.00237	35.74%
Sb 217.582*†	21.0	0.0046	mg/L	0.00304	0.0046	mg/L	0.00304	65.46%
Se 196.026*†	18.6	0.0059	mg/L	0.00178	0.0059	mg/L	0.00178	30.13%
Se 203.985†	0.7	0.0002	mg/L	0.00072	0.0002	mg/L	0.00072	389.34%
Si 251.611*†	262.8	0.0051	mg/L	0.00082	0.0051	mg/L	0.00082	16.28%
Si 288.158†	125.3	0.0054	mg/L	0.00048	0.0054	mg/L	0.00048	8.85%
Tl†	-1.0	-0.0004	mg/L	0.00128	-0.0004	mg/L	0.00128	356.32%
Tl 190.801*†	-0.1	0.0000	mg/L	0.00021	0.0000	mg/L	0.00021	476.73%
Tl 351.924†	-27.3	-0.0055	mg/L	0.00234	-0.0055	mg/L	0.00234	42.36%

Return to Contents

V 292.402*†	11.8	0.0001 mg/L	0.00068	0.0001 mg/L	0.00068	641.62%
V 310.230†	1769.7	0.0085 mg/L	0.00299	0.0085 mg/L	0.00299	35.29%
Zn 202.548†	-45.2	-0.0004 mg/L	0.00008	-0.0004 mg/L	0.00008	18.24%
Zn 206.200*†	-45.6	-0.0006 mg/L	0.00015	-0.0006 mg/L	0.00015	23.26%
Zn 213.857*†	-72.6	-0.0005 mg/L	0.00004	-0.0005 mg/L	0.00004	8.87%

All analyte(s) passed QC.

Return to Contents

Sequence No.: 11
Sample ID: CCV= STD3x0.5
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/12/2013 1:39:50 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV= STD3x0.5

Analyte	Back Pressure	Flow
All	126.0 kPa	0.50 L/min

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Ho 339.898	183656.2	4.656	mg/L	0.0277				0.59%
Ho 345.600	297166.5	4.675	mg/L	0.0263				0.56%
Tb 350.917	132417.3	4.734	mg/L	0.0341				0.72%
Tb 384.873	77195.7	4.685	mg/L	0.0185				0.40%
Y 324.227	1100446.4	4.811	mg/L	0.0366				0.76%
Y 371.029	2214650.6	4.749	mg/L	0.0178				0.37%
Ag 328.068*†	53231.8	0.3671	mg/L	0.00069	0.3671	mg/L	0.00069	0.19%
QC value within limits for Ag 328.068* Recovery = 97.89%								
Ag 338.289†	27933.9	0.3601	mg/L	0.00535	0.3601	mg/L	0.00535	1.49%
Al 308.215*†	273593.8	13.41	mg/L	0.027	13.41	mg/L	0.027	0.20%
QC value within limits for Al 308.215* Recovery = 99.30%								
Al 396.153†	1701775.3	13.53	mg/L	0.023	13.53	mg/L	0.023	0.17%
As 188.979†	21925.5	3.761	mg/L	0.0370	3.761	mg/L	0.0370	0.98%
QC value within limits for As 188.979 Recovery = 100.28%								
As 193.696*†	15400.0	3.729	mg/L	0.0301	3.729	mg/L	0.0301	0.81%
QC value within limits for As 193.696* Recovery = 99.44%								
Ba 233.527*†	1428181.4	7.655	mg/L	0.0307	7.655	mg/L	0.0307	0.40%
QC value within limits for Ba 233.527* Recovery = 102.07%								
Ba 455.403†	1737521.9	7.347	mg/L	0.0361	7.347	mg/L	0.0361	0.49%
Be 313.042*†	2993218.2	0.5630	mg/L	0.00230	0.5630	mg/L	0.00230	0.41%
QC value within limits for Be 313.042* Recovery = 100.08%								
Be 313.107†	1539764.1	0.5672	mg/L	0.00266	0.5672	mg/L	0.00266	0.47%
Cd 226.502*†	125857.7	0.7582	mg/L	0.00286	0.7582	mg/L	0.00286	0.38%
QC value within limits for Cd 226.502* Recovery = 101.09%								
Cd 228.802†	53239.1	0.7498	mg/L	0.00385	0.7498	mg/L	0.00385	0.51%
Co 228.616*†	97924.8	1.884	mg/L	0.0135	1.884	mg/L	0.0135	0.72%
QC value within limits for Co 228.616* Recovery = 100.47%								
Co 230.786†	95010.3	1.873	mg/L	0.0115	1.873	mg/L	0.0115	0.62%
Cr 267.716*†	55241.0	0.5939	mg/L	0.00522	0.5939	mg/L	0.00522	0.88%
QC value within limits for Cr 267.716* Recovery = 98.99%								
Cr 357.869†	36563.5	0.5844	mg/L	0.00393	0.5844	mg/L	0.00393	0.67%
Cu 324.752*†	133120.5	0.9346	mg/L	0.00259	0.9346	mg/L	0.00259	0.28%
QC value within limits for Cu 324.752* Recovery = 99.69%								
Cu 327.393†	109917.0	0.9171	mg/L	0.00296	0.9171	mg/L	0.00296	0.32%
Fe 239.562†	6132.6	3.750	mg/L	0.0474	3.750	mg/L	0.0474	1.26%
Fe 259.939†	9175.1	3.734	mg/L	0.0442	3.734	mg/L	0.0442	1.18%
Fe 273.955*†	121586.6	3.796	mg/L	0.0014	3.796	mg/L	0.0014	0.04%
QC value within limits for Fe 273.955* Recovery = 101.22%								
Mg 279.077*†	96863.8	7.596	mg/L	0.0076	7.596	mg/L	0.0076	0.10%
QC value within limits for Mg 279.077* Recovery = 101.28%								
Mg 280.271†	265022.5	7.642	mg/L	0.0232	7.642	mg/L	0.0232	0.30%
Mn 257.610*†	444193.0	0.7577	mg/L	0.00093	0.7577	mg/L	0.00093	0.12%
QC value within limits for Mn 257.610* Recovery = 101.03%								
Mn 259.372†	341460.2	0.7561	mg/L	0.00000	0.7561	mg/L	0.00000	0.00%
Mo 202.031*†	14027.8	0.5993	mg/L	0.00481	0.5993	mg/L	0.00481	0.80%
QC value within limits for Mo 202.031* Recovery = 99.89%								
Mo 203.845†	10157.1	0.5993	mg/L	0.00848	0.5993	mg/L	0.00848	1.42%
Ni 231.604*†	39866.6	0.6081	mg/L	0.00548	0.6081	mg/L	0.00548	0.90%
QC value within limits for Ni 231.604* Recovery = 101.35%								
Ni 232.003†	14827.7	0.5950	mg/L	0.00188	0.5950	mg/L	0.00188	0.32%
Pb 217.000†	8114.0	3.665	mg/L	0.0193	3.665	mg/L	0.0193	0.53%
Pb 220.353*†	62962.3	3.722	mg/L	0.0257	3.722	mg/L	0.0257	0.69%
QC value within limits for Pb 220.353* Recovery = 99.26%								
Sb 206†	20064.8	4.549	mg/L	0.0529	4.549	mg/L	0.0529	1.16%
Sb 206.836†	21193.0	4.545	mg/L	0.0330	4.545	mg/L	0.0330	0.73%

Return to Contents

Sb 217.582*†	20393.4	4.510	mg/L	0.0341	4.510 mg/L	0.0341	0.76%
QC value within limits for Sb 217.582* Recovery = 100.22%							
Se 196.026*†	4685.7	1.493	mg/L	0.0159	1.493 mg/L	0.0159	1.07%
QC value within limits for Se 196.026* Recovery = 99.57%							
Se 203.985†	5341.8	1.476	mg/L	0.0160	1.476 mg/L	0.0160	1.09%
Tl†	4231.0	1.512	mg/L	0.0294	1.512 mg/L	0.0294	1.94%
Tl 190.801*†	5078.2	1.507	mg/L	0.0247	1.507 mg/L	0.0247	1.64%
QC value within limits for Tl 190.801* Recovery = 100.46%							
Tl 351.924†	7188.0	1.455	mg/L	0.0011	1.455 mg/L	0.0011	0.08%
V 292.402*†	205352.0	1.864	mg/L	0.0083	1.864 mg/L	0.0083	0.44%
QC value within limits for V 292.402* Recovery = 99.39%							
V 310.230†	391760.6	1.880	mg/L	0.0091	1.880 mg/L	0.0091	0.49%
Zn 202.548†	263036.5	2.558	mg/L	0.0036	2.558 mg/L	0.0036	0.14%
Zn 206.200*†	183819.7	2.543	mg/L	0.0027	2.543 mg/L	0.0027	0.11%
QC value within limits for Zn 206.200* Recovery = 101.71%							
Zn 213.857*†	388428.2	2.503	mg/L	0.0063	2.503 mg/L	0.0063	0.25%
QC value within limits for Zn 213.857* Recovery = 100.10%							

All analyte(s) passed QC.

Return to Contents

Sequence No.: 12
Sample ID: CCB-R04231301
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/12/2013 1:41:00 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB-R04231301

Analyte	Back Pressure	Flow
All	126.0 kPa	0.50 L/min

Mean Data: CCB-R04231301

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	193914.4	4.917	mg/L	0.0750				1.53%
Ho 345.600	313205.1	4.928	mg/L	0.0909				1.85%
Tb 350.917	137936.2	4.932	mg/L	0.0922				1.87%
Tb 384.873	80993.0	4.916	mg/L	0.0848				1.72%
Y 324.227	1141665.5	4.991	mg/L	0.1049				2.10%
Y 371.029	2292460.0	4.916	mg/L	0.0541				1.10%
Ag 328.068*†	-27.4	-0.0002	mg/L	0.00077	-0.0002	mg/L	0.00077	409.28%
QC value within limits for Ag 328.068* Recovery = Not calculated								
Ag 338.289†	-75.3	-0.0010	mg/L	0.00017	-0.0010	mg/L	0.00017	17.66%
Al 308.215*†	7.6	0.0004	mg/L	0.00326	0.0004	mg/L	0.00326	870.84%
Al 396.153†	-7.2	-0.0001	mg/L	0.00076	-0.0001	mg/L	0.00076	>999.9%
As 188.979†	20.1	0.0034	mg/L	0.00104	0.0034	mg/L	0.00104	30.15%
As 193.696*†	19.5	0.0047	mg/L	0.00241	0.0047	mg/L	0.00241	51.09%
Ba 233.527*†	7.3	0.0000	mg/L	0.00009	0.0000	mg/L	0.00009	236.56%
Ba 455.403†	32.7	0.0001	mg/L	0.00010	0.0001	mg/L	0.00010	75.89%
Be 313.042*†	175.4	0.0000	mg/L	0.00002	0.0000	mg/L	0.00002	70.77%
Be 313.107†	-63.9	0.0000	mg/L	0.00005	0.0000	mg/L	0.00005	191.91%
Cd 226.502*†	-13.3	-0.0001	mg/L	0.00002	-0.0001	mg/L	0.00002	19.34%
Cd 228.802†	0.3	0.0000	mg/L	0.00005	0.0000	mg/L	0.00005	>999.9%
Co 228.616*†	-25.8	-0.0005	mg/L	0.00019	-0.0005	mg/L	0.00019	39.23%
Co 230.786†	-19.0	-0.0004	mg/L	0.00031	-0.0004	mg/L	0.00031	83.44%
Cr 267.716*†	-24.2	-0.0003	mg/L	0.00032	-0.0003	mg/L	0.00032	122.53%
Cr 357.869†	-14.6	-0.0002	mg/L	0.00024	-0.0002	mg/L	0.00024	103.74%
Cu 324.752*†	192.6	0.0014	mg/L	0.00019	0.0014	mg/L	0.00019	13.70%
Cu 327.393†	78.1	0.0007	mg/L	0.00052	0.0007	mg/L	0.00052	79.97%
Fe 239.562†	-14.9	-0.0091	mg/L	0.00314	-0.0091	mg/L	0.00314	34.47%
Fe 259.939†	-19.9	-0.0081	mg/L	0.00334	-0.0081	mg/L	0.00334	41.33%
Fe 273.955*†	-86.7	-0.0027	mg/L	0.00514	-0.0027	mg/L	0.00514	189.98%
Mg 279.077*†	-298.0	-0.0234	mg/L	0.01177	-0.0234	mg/L	0.01177	50.39%
Mg 280.271†	8.5	0.0002	mg/L	0.00020	0.0002	mg/L	0.00020	79.78%
Mn 257.610*†	107.4	0.0002	mg/L	0.00011	0.0002	mg/L	0.00011	61.96%
Mn 259.372†	63.0	0.0001	mg/L	0.00013	0.0001	mg/L	0.00013	96.55%
Mo 202.031*†	5.8	0.0002	mg/L	0.00017	0.0002	mg/L	0.00017	66.89%
Mo 203.845†	8.7	0.0005	mg/L	0.00029	0.0005	mg/L	0.00029	57.54%
Ni 231.604*†	22.9	0.0003	mg/L	0.00022	0.0003	mg/L	0.00022	63.61%
Ni 232.003†	-22.9	-0.0009	mg/L	0.00044	-0.0009	mg/L	0.00044	47.55%
Pb 217.000†	-8.0	-0.0036	mg/L	0.00804	-0.0036	mg/L	0.00804	223.17%
Pb 220.353*†	-3.0	-0.0002	mg/L	0.00104	-0.0002	mg/L	0.00104	588.91%
Sb 206†	12.7	0.0029	mg/L	0.00031	0.0029	mg/L	0.00031	10.73%
Sb 206.836†	38.4	0.0082	mg/L	0.00267	0.0082	mg/L	0.00267	32.41%
Sb 217.582*†	28.4	0.0063	mg/L	0.00042	0.0063	mg/L	0.00042	6.66%
Se 196.026*†	24.5	0.0078	mg/L	0.00080	0.0078	mg/L	0.00080	10.21%
Se 203.985†	0.1	0.0000	mg/L	0.00369	0.0000	mg/L	0.00369	>999.9%
Tl†	-2.2	-0.0008	mg/L	0.00445	-0.0008	mg/L	0.00445	561.71%
Tl 190.801*†	-1.6	-0.0005	mg/L	0.00304	-0.0005	mg/L	0.00304	643.23%
Tl 351.924†	-11.1	-0.0022	mg/L	0.01369	-0.0022	mg/L	0.01369	609.01%
V 292.402*†	23.4	0.0002	mg/L	0.00006	0.0002	mg/L	0.00006	29.46%
V 310.230†	1800.3	0.0086	mg/L	0.00463	0.0086	mg/L	0.00463	53.54%
Zn 202.548†	-55.1	-0.0005	mg/L	0.00016	-0.0005	mg/L	0.00016	29.95%
Zn 206.200*†	-48.8	-0.0007	mg/L	0.00027	-0.0007	mg/L	0.00027	39.92%
Zn 213.857*†	-63.7	-0.0004	mg/L	0.00001	-0.0004	mg/L	0.00001	2.63%

All analyte(s) passed QC.

Return to Contents

Analysis Begun

Start Time: 11/12/2013 2:21:40 PM
Logged In Analyst: John Nguyen
Spectrometer Model: Optima 7300 DV, S/N 77c8120401
Plasma On Time: 11/12/2013 8:50:13 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\jn\Sample Information\13111201.sif
Batch ID:
Results Data Set: 131112C1
Results Library: W:\ICP_07\ICP_07\pe\7300\Results\Results.mdb

Sequence No.: 1
Sample ID: Calblank R04231301_ 469
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 5
Date Collected: 11/12/2013 2:21:42 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calblank R04231301_ 469

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: Calblank R04231301_ 469

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ho 339.898	197053.0	370.77	0.19%	5.000	mg/L
Ho 345.600	318659.4	949.44	0.30%	5.000	mg/L
Tb 350.917	139889.0	418.68	0.30%	5.000	mg/L
Tb 384.873	82250.9	133.27	0.16%	5.000	mg/L
Y 324.227	1152358.0	4347.35	0.38%	5.000	mg/L
Y 371.029	2321809.3	2599.62	0.11%	5.000	mg/L
Ag 328.068*†	-4004.6	114.84	2.87%	[0.00]	mg/L
Ag 338.289†	14.1	38.15	270.74%	[0.00]	mg/L
Al 308.215*†	-6053.1	13.36	0.22%	[0.00]	mg/L
Al 396.153†	-203.5	27.43	13.48%	[0.00]	mg/L
As 188.979†	8.5	0.95	11.15%	[0.00]	mg/L
As 193.696*†	46.8	15.24	32.58%	[0.00]	mg/L
B 249.677*†	-1366.4	27.06	1.98%	[0.00]	mg/L
B 249.772†	-2344.1	26.92	1.15%	[0.00]	mg/L
Ba 233.527*†	-34.1	5.60	16.40%	[0.00]	mg/L
Ba 455.403†	-94.0	5.52	5.87%	[0.00]	mg/L
Be 313.042*†	-3773.2	53.23	1.41%	[0.00]	mg/L
Be 313.107†	-1194.1	79.56	6.66%	[0.00]	mg/L
Ca 317.933*†	287.7	9.03	3.14%	[0.00]	mg/L
Ca 422.673†	74.1	58.76	79.26%	[0.00]	mg/L
Cd 226.502*†	-201.1	1.62	0.80%	[0.00]	mg/L
Cd 228.802†	-212.0	9.00	4.25%	[0.00]	mg/L
Co 228.616*†	-115.8	6.78	5.86%	[0.00]	mg/L
Co 230.786†	140.4	11.76	8.38%	[0.00]	mg/L
Cr 267.716*†	-263.8	6.98	2.65%	[0.00]	mg/L
Cr 357.869†	527.8	33.16	6.28%	[0.00]	mg/L
Cu 324.752*†	-1996.5	27.22	1.36%	[0.00]	mg/L
Cu 327.393†	-3326.5	3.30	0.10%	[0.00]	mg/L
Fe 239.562†	-158.3	2.17	1.37%	[0.00]	mg/L
Fe 259.939†	-162.8	1.87	1.15%	[0.00]	mg/L
Fe 273.955*†	-569.6	5.50	0.96%	[0.00]	mg/L
K 766.490*†	631.6	28.47	4.51%	[0.00]	mg/L
Mg 279.077*†	-6484.6	43.39	0.67%	[0.00]	mg/L
Mg 280.271†	31.2	0.00	0.00%	[0.00]	mg/L
Mn 257.610*†	-273.4	10.45	3.82%	[0.00]	mg/L
Mn 259.372†	-922.2	14.81	1.61%	[0.00]	mg/L
Mo 202.031*†	-161.8	5.56	3.43%	[0.00]	mg/L
Mo 203.845†	-207.1	7.60	3.67%	[0.00]	mg/L
Na 330.237†	1542.8	49.38	3.20%	[0.00]	mg/L
Na 589.592*†	1287.8	27.22	2.11%	[0.00]	mg/L
Ni 231.604*†	494.6	7.71	1.56%	[0.00]	mg/L
Ni 232.003†	-294.2	4.89	1.66%	[0.00]	mg/L
P 213.617*†	482.2	5.88	1.22%	[0.00]	mg/L

Return to Contents

P 214.914†	25.1	3.62	14.40%	[0.00]	mg/L
Pb 217.000†	-2.9	10.45	363.40%	[0.00]	mg/L
Pb 220.353*†	-230.8	2.26	0.98%	[0.00]	mg/L
Sb 206†	93.1	9.31	10.01%	[0.00]	mg/L
Sb 206.836†	5.6	10.62	187.99%	[0.00]	mg/L
Sb 217.582*†	97.3	10.67	10.97%	[0.00]	mg/L
Se 196.026*†	47.2	2.46	5.20%	[0.00]	mg/L
Se 203.985†	64.6	2.24	3.47%	[0.00]	mg/L
Si 251.611*†	1382.2	47.72	3.45%	[0.00]	mg/L
Si 288.158†	1627.7	3.93	0.24%	[0.00]	mg/L
Sn 189.927*†	27.0	2.64	9.78%	[0.00]	mg/L
Sn 242.170†	819.0	238.82	29.16%	[0.00]	mg/L
Sr 407.771*†	-32.4	17.61	54.31%	[0.00]	mg/L
Sr 421.552†	-4250.8	142.16	3.34%	[0.00]	mg/L
Ti 334.940†	12674.0	113.49	0.90%	[0.00]	mg/L
Ti 336.121*†	-2033.9	40.51	1.99%	[0.00]	mg/L
Tl†	-58.7	4.49	7.65%	[0.00]	mg/L
Tl 190.801*†	-12.6	3.63	28.84%	[0.00]	mg/L
Tl 351.924†	-54.8	41.54	75.76%	[0.00]	mg/L
V 292.402*†	208.4	5.24	2.52%	[0.00]	mg/L
V 310.230†	78643.7	555.36	0.71%	[0.00]	mg/L
Zn 202.548†	-723.8	4.98	0.69%	[0.00]	mg/L
Zn 206.200*†	-553.6	4.94	0.89%	[0.00]	mg/L
Zn 213.857*†	-501.7	19.97	3.98%	[0.00]	mg/L

Return to Contents

Sequence No.: 2
Sample ID: STD3-M092713A-Analyst-469
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/12/2013 2:23:16 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: STD3-M092713A-Analyst-469

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: STD3-M092713A-Analyst-469

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ho 339.898	183986.7	82.83	0.05%	4.668	mg/L
Ho 345.600	296624.4	2479.01	0.84%	4.654	mg/L
Tb 350.917	132461.8	88.97	0.07%	4.735	mg/L
Tb 384.873	76761.1	92.59	0.12%	4.666	mg/L
Y 324.227	1105702.5	8375.42	0.76%	4.798	mg/L
Y 371.029	2211919.8	13572.80	0.61%	4.763	mg/L
Ag 328.068*†	107511.9	196.91	0.18%	[0.75]	mg/L
Ag 338.289†	56712.1	42.47	0.07%	[0.75]	mg/L
Al 308.215*†	547776.0	3608.48	0.66%	[27.0]	mg/L
Al 396.153†	3380620.7	35925.45	1.06%	[27]	mg/L
As 188.979†	43246.4	301.32	0.70%	[7.50]	mg/L
As 193.696*†	30603.7	181.86	0.59%	[7.50]	mg/L
B 249.677*†	277263.7	907.81	0.33%	[7.50]	mg/L
B 249.772†	657641.4	2116.32	0.32%	[7.50]	mg/L
Ba 233.527*†	2759746.6	18909.02	0.69%	[15.0]	mg/L
Ba 455.403†	3432107.4	7591.68	0.22%	[15.0]	mg/L
Be 313.042*†	5882833.3	42889.42	0.73%	[1.125]	mg/L
Be 313.107†	3011602.3	25847.17	0.86%	[1.125]	mg/L
Ca 317.933*†	267825.7	632.90	0.24%	[60.0]	mg/L
Ca 422.673†	558396.9	1551.64	0.28%	[60.0]	mg/L
Cd 226.502*†	244514.3	533.26	0.22%	[1.50]	mg/L
Cd 228.802†	106217.3	10.30	0.01%	[1.50]	mg/L
Co 228.616*†	191890.0	97.95	0.05%	[3.75]	mg/L
Co 230.786†	186905.6	183.26	0.10%	[3.75]	mg/L
Cr 267.716*†	109129.1	306.85	0.28%	[1.20]	mg/L
Cr 357.869†	75052.3	426.89	0.57%	[1.20]	mg/L
Cu 324.752*†	267618.8	1699.08	0.63%	[1.875]	mg/L
Cu 327.393†	221616.6	1247.90	0.56%	[1.875]	mg/L
Fe 239.562†	11719.8	117.33	1.00%	[7.50]	mg/L
Fe 259.939†	17991.5	416.03	2.31%	[7.50]	mg/L
Fe 273.955*†	237397.8	257.10	0.11%	[7.50]	mg/L
K 766.490*†	78817.3	1725.51	2.19%	[54.0]	mg/L
Mg 279.077*†	188694.3	455.26	0.24%	[15.0]	mg/L
Mg 280.271†	514784.1	2835.40	0.55%	[15.0]	mg/L
Mn 257.610*†	875540.4	4468.03	0.51%	[1.50]	mg/L
Mn 259.372†	676340.5	4004.62	0.59%	[1.50]	mg/L
Mo 202.031*†	27871.7	71.34	0.26%	[1.20]	mg/L
Mo 203.845†	20122.9	11.77	0.06%	[1.20]	mg/L
Na 330.237†	42943.7	79.82	0.19%	[72.0]	mg/L
Na 589.592*†	409947.1	436.21	0.11%	[72.0]	mg/L
Ni 231.604*†	77809.8	313.28	0.40%	[1.20]	mg/L
Ni 232.003†	29541.2	107.57	0.36%	[1.20]	mg/L
P 213.617*†	88583.0	341.95	0.39%	[12.0]	mg/L
P 214.914†	45187.7	16.88	0.04%	[12.0]	mg/L
Pb 217.000†	16295.2	127.22	0.78%	[7.50]	mg/L
Pb 220.353*†	125106.0	295.98	0.24%	[7.50]	mg/L
Sb 206†	39548.7	70.73	0.18%	[9.0]	mg/L
Sb 206.836†	41809.1	228.20	0.55%	[9.0]	mg/L
Sb 217.582*†	40375.8	135.51	0.34%	[9.0]	mg/L
Se 196.026*†	9287.6	30.21	0.33%	[3.0]	mg/L
Se 203.985†	10784.7	61.81	0.57%	[3.0]	mg/L
Si 251.611*†	619650.3	253.52	0.04%	[12.0]	mg/L
Si 288.158†	276031.8	179.80	0.07%	[12.0]	mg/L
Sn 189.927*†	69871.0	150.80	0.22%	[6.0]	mg/L
Sn 242.170†	39215.0	485.32	1.24%	[6.0]	mg/L

Return to Contents

Sr 407.771*†	436634.2	468.15	0.11%	[0.60]	mg/L
Sr 421.552†	6877125.0	67702.83	0.98%	[0.60]	mg/L
Ti 334.940†	809289.4	5050.25	0.62%	[1.20]	mg/L
Ti 336.121*†	574323.5	2969.26	0.52%	[1.20]	mg/L
Tl†	8428.2	48.68	0.58%	[3.0]	mg/L
Tl 190.801*†	10069.6	21.64	0.21%	[3.0]	mg/L
Tl 351.924†	14850.0	69.60	0.47%	[3.0]	mg/L
V 292.402*†	406911.2	1798.51	0.44%	[3.75]	mg/L
V 310.230†	766140.7	3508.44	0.46%	[3.75]	mg/L
Zn 202.548†	513706.7	3009.44	0.59%	[5.0]	mg/L
Zn 206.200*†	360703.9	2101.63	0.58%	[5.0]	mg/L
Zn 213.857*†	766917.7	4219.49	0.55%	[5.0]	mg/L

Return to Contents

Sequence No.: 3
Sample ID: CCV= STD3x0.5
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/12/2013 2:24:38 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV= STD3x0.5

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	188912.1	4.793	mg/L	0.0222				0.46%
Ho 345.600	306917.0	4.816	mg/L	0.0203				0.42%
Tb 350.917	135985.9	4.860	mg/L	0.0198				0.41%
Tb 384.873	79696.1	4.845	mg/L	0.0405				0.84%
Y 324.227	1129708.0	4.902	mg/L	0.0165				0.34%
Y 371.029	2256603.7	4.860	mg/L	0.0331				0.68%
Ag 328.068*†	52342.0	0.3653	mg/L	0.00169	0.3653	mg/L	0.00169	0.46%
QC value within limits for Ag 328.068* Recovery = 97.41%								
Ag 338.289†	27115.7	0.3597	mg/L	0.00283	0.3597	mg/L	0.00283	0.79%
Al 308.215*†	266192.2	13.07	mg/L	0.015	13.07	mg/L	0.015	0.11%
QC value within limits for Al 308.215* Recovery = 96.82%								
Al 396.153†	1648049.5	13.16	mg/L	0.030	13.16	mg/L	0.030	0.23%
As 188.979†	20980.8	3.639	mg/L	0.0421	3.639	mg/L	0.0421	1.16%
QC value within limits for As 188.979 Recovery = 97.03%								
As 193.696*†	14905.0	3.653	mg/L	0.0290	3.653	mg/L	0.0290	0.79%
QC value within limits for As 193.696* Recovery = 97.41%								
B 249.677*†	135741.4	3.664	mg/L	0.0152	3.664	mg/L	0.0152	0.41%
QC value within limits for B 249.677* Recovery = 97.70%								
B 249.772†	321260.2	3.653	mg/L	0.0002	3.653	mg/L	0.0002	0.00%
Ba 233.527*†	1370983.5	7.452	mg/L	0.0191	7.452	mg/L	0.0191	0.26%
QC value within limits for Ba 233.527* Recovery = 99.37%								
Ba 455.403†	1705569.6	7.454	mg/L	0.0024	7.454	mg/L	0.0024	0.03%
Be 313.042*†	2922908.5	0.5590	mg/L	0.00084	0.5590	mg/L	0.00084	0.15%
QC value within limits for Be 313.042* Recovery = 99.37%								
Be 313.107†	1495226.5	0.5585	mg/L	0.00063	0.5585	mg/L	0.00063	0.11%
Ca 317.933*†	132245.3	29.63	mg/L	0.111	29.63	mg/L	0.111	0.38%
QC value within limits for Ca 317.933* Recovery = 98.75%								
Ca 422.673†	272740.3	29.31	mg/L	0.022	29.31	mg/L	0.022	0.07%
Cd 226.502*†	122388.0	0.7508	mg/L	0.00116	0.7508	mg/L	0.00116	0.15%
QC value within limits for Cd 226.502* Recovery = 100.11%								
Cd 228.802†	52220.7	0.7375	mg/L	0.00759	0.7375	mg/L	0.00759	1.03%
Co 228.616*†	94988.6	1.856	mg/L	0.0177	1.856	mg/L	0.0177	0.95%
QC value within limits for Co 228.616* Recovery = 99.00%								
Co 230.786†	92590.7	1.858	mg/L	0.0192	1.858	mg/L	0.0192	1.04%
Cr 267.716*†	53151.8	0.5841	mg/L	0.00629	0.5841	mg/L	0.00629	1.08%
QC value within limits for Cr 267.716* Recovery = 97.35%								
Cr 357.869†	35588.2	0.5743	mg/L	0.00663	0.5743	mg/L	0.00663	1.15%
Cu 324.752*†	130406.0	0.9243	mg/L	0.00153	0.9243	mg/L	0.00153	0.17%
QC value within limits for Cu 324.752* Recovery = 98.59%								
Cu 327.393†	107634.5	0.9213	mg/L	0.00292	0.9213	mg/L	0.00292	0.32%
Fe 239.562†	5767.3	3.691	mg/L	0.0048	3.691	mg/L	0.0048	0.13%
Fe 259.939†	8800.1	3.668	mg/L	0.0255	3.668	mg/L	0.0255	0.69%
Fe 273.955*†	118610.1	3.747	mg/L	0.0066	3.747	mg/L	0.0066	0.18%
QC value within limits for Fe 273.955* Recovery = 99.93%								
K 766.490*†	36006.1	24.67	mg/L	0.040	24.67	mg/L	0.040	0.16%
QC value within limits for K 766.490* Recovery = 91.37%								
Mg 279.077*†	94733.6	7.524	mg/L	0.0093	7.524	mg/L	0.0093	0.12%
QC value within limits for Mg 279.077* Recovery = 100.31%								
Mg 280.271†	254434.7	7.414	mg/L	0.0236	7.414	mg/L	0.0236	0.32%
Mn 257.610*†	437770.8	0.7500	mg/L	0.00231	0.7500	mg/L	0.00231	0.31%
QC value within limits for Mn 257.610* Recovery = 100.00%								
Mn 259.372†	335814.0	0.7448	mg/L	0.00122	0.7448	mg/L	0.00122	0.16%
Mo 202.031*†	13704.3	0.5900	mg/L	0.00877	0.5900	mg/L	0.00877	1.49%
QC value within limits for Mo 202.031* Recovery = 98.34%								
Mo 203.845†	9915.1	0.5913	mg/L	0.00462	0.5913	mg/L	0.00462	0.78%

Return to Contents

Na 330.237†	20029.6	33.58 mg/L	0.216	33.58 mg/L	0.216	0.64%
Na 589.592*†	202909.1	35.64 mg/L	0.024	35.64 mg/L	0.024	0.07%
QC value within limits for Na 589.592* Recovery = 98.99%						
Ni 231.604*†	38307.3	0.5908 mg/L	0.00580	0.5908 mg/L	0.00580	0.98%
QC value within limits for Ni 231.604* Recovery = 98.46%						
Ni 232.003†	14394.3	0.5847 mg/L	0.00551	0.5847 mg/L	0.00551	0.94%
P 213.617*†	43039.0	5.830 mg/L	0.0830	5.830 mg/L	0.0830	1.42%
QC value within limits for P 213.617* Recovery = 97.17%						
P 214.914†	22073.6	5.862 mg/L	0.0557	5.862 mg/L	0.0557	0.95%
Pb 217.000†	7884.5	3.629 mg/L	0.0510	3.629 mg/L	0.0510	1.40%
Pb 220.353*†	61321.7	3.676 mg/L	0.0403	3.676 mg/L	0.0403	1.10%
QC value within limits for Pb 220.353* Recovery = 98.03%						
Sb 206†	19380.1	4.410 mg/L	0.0601	4.410 mg/L	0.0601	1.36%
Sb 206.836†	20483.5	4.409 mg/L	0.0044	4.409 mg/L	0.0044	0.10%
Sb 217.582*†	19749.3	4.402 mg/L	0.0421	4.402 mg/L	0.0421	0.96%
QC value within limits for Sb 217.582* Recovery = 97.83%						
Se 196.026*†	4562.4	1.474 mg/L	0.0007	1.474 mg/L	0.0007	0.05%
QC value within limits for Se 196.026* Recovery = 98.25%						
Se 203.985†	5307.5	1.476 mg/L	0.0377	1.476 mg/L	0.0377	2.55%
Si 251.611*†	305502.8	5.916 mg/L	0.0395	5.916 mg/L	0.0395	0.67%
QC value within limits for Si 251.611* Recovery = 98.60%						
Si 288.158†	135499.6	5.803 mg/L	0.0350	5.803 mg/L	0.0350	0.60%
Sn 189.927*†	34114.1	2.929 mg/L	0.0387	2.929 mg/L	0.0387	1.32%
QC value within limits for Sn 189.927* Recovery = 97.65%						
Sn 242.170†	19213.2	2.940 mg/L	0.0353	2.940 mg/L	0.0353	1.20%
Sr 407.771*†	213475.8	0.2933 mg/L	0.00007	0.2933 mg/L	0.00007	0.03%
QC value within limits for Sr 407.771* Recovery = 97.78%						
Sr 421.552†	3463598.9	0.3022 mg/L	0.00131	0.3022 mg/L	0.00131	0.43%
Ti 334.940†	401709.3	0.5956 mg/L	0.00081	0.5956 mg/L	0.00081	0.14%
Ti 336.121*†	284453.7	0.5943 mg/L	0.00016	0.5943 mg/L	0.00016	0.03%
QC value within limits for Ti 336.121* Recovery = 99.06%						
Tl†	4199.1	1.479 mg/L	0.0216	1.479 mg/L	0.0216	1.46%
Tl 190.801*†	4969.2	1.480 mg/L	0.0202	1.480 mg/L	0.0202	1.37%
QC value within limits for Tl 190.801* Recovery = 98.70%						
Tl 351.924†	7073.4	1.429 mg/L	0.0139	1.429 mg/L	0.0139	0.98%
V 292.402*†	200550.3	1.849 mg/L	0.0088	1.849 mg/L	0.0088	0.48%
QC value within limits for V 292.402* Recovery = 98.61%						
V 310.230†	377543.1	1.859 mg/L	0.0037	1.859 mg/L	0.0037	0.20%
Zn 202.548†	256146.1	2.497 mg/L	0.0118	2.497 mg/L	0.0118	0.47%
Zn 206.200*†	178965.4	2.483 mg/L	0.0100	2.483 mg/L	0.0100	0.40%
QC value within limits for Zn 206.200* Recovery = 99.33%						
Zn 213.857*†	377907.9	2.466 mg/L	0.0040	2.466 mg/L	0.0040	0.16%
QC value within limits for Zn 213.857* Recovery = 98.64%						

All analyte(s) passed QC.

Return to Contents

Sequence No.: 5
Sample ID: CCB-1 R04231301
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 11/12/2013 2:27:24 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB-1 R04231301

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: CCB-1 R04231301

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	196210.4	4.979	mg/L	0.0242				0.49%
Ho 345.600	318344.4	4.995	mg/L	0.0215				0.43%
Tb 350.917	139517.6	4.987	mg/L	0.0245				0.49%
Tb 384.873	81930.2	4.981	mg/L	0.0278				0.56%
Y 324.227	1155658.7	5.014	mg/L	0.0110				0.22%
Y 371.029	2309982.0	4.975	mg/L	0.0310				0.62%
Ag 328.068*†	59.1	0.0004	mg/L	0.00047	0.0004	mg/L	0.00047	113.15%
QC value within limits for Ag 328.068* Recovery = Not calculated								
Ag 338.289†	-65.0	-0.0009	mg/L	0.00015	-0.0009	mg/L	0.00015	17.10%
Al 308.215*†	-111.3	-0.0055	mg/L	0.00020	-0.0055	mg/L	0.00020	3.58%
Al 396.153†	-24.3	-0.0002	mg/L	0.00018	-0.0002	mg/L	0.00018	93.01%
As 188.979†	-4.2	-0.0007	mg/L	0.00352	-0.0007	mg/L	0.00352	488.66%
As 193.696*†	-0.1	0.0000	mg/L	0.00084	0.0000	mg/L	0.00084	>999.9%
B 249.677*†	291.7	0.0079	mg/L	0.00024	0.0079	mg/L	0.00024	2.98%
B 249.772†	675.9	0.0077	mg/L	0.00059	0.0077	mg/L	0.00059	7.65%
Ba 233.527*†	11.2	0.0001	mg/L	0.00005	0.0001	mg/L	0.00005	76.78%
Ba 455.403†	41.5	0.0002	mg/L	0.00017	0.0002	mg/L	0.00017	91.54%
Be 313.042*†	-69.2	0.0000	mg/L	0.00002	0.0000	mg/L	0.00002	161.30%
Be 313.107†	-49.2	0.0000	mg/L	0.00000	0.0000	mg/L	0.00000	21.52%
Ca 317.933*†	4.9	0.0011	mg/L	0.00116	0.0011	mg/L	0.00116	106.05%
Ca 422.673†	24.4	0.0026	mg/L	0.00223	0.0026	mg/L	0.00223	84.78%
Cd 226.502*†	-21.8	-0.0001	mg/L	0.00004	-0.0001	mg/L	0.00004	32.17%
Cd 228.802†	10.3	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	15.65%
Co 228.616*†	-9.8	-0.0002	mg/L	0.00034	-0.0002	mg/L	0.00034	176.98%
Co 230.786†	-19.1	-0.0004	mg/L	0.00001	-0.0004	mg/L	0.00001	2.24%
Cr 267.716*†	-0.1	0.0000	mg/L	0.00036	0.0000	mg/L	0.00036	>999.9%
Cr 357.869†	-6.3	-0.0001	mg/L	0.00095	-0.0001	mg/L	0.00095	977.03%
Cu 324.752*†	124.9	0.0009	mg/L	0.00013	0.0009	mg/L	0.00013	14.33%
Cu 327.393†	164.3	0.0014	mg/L	0.00027	0.0014	mg/L	0.00027	19.22%
Fe 239.562†	-3.5	-0.0022	mg/L	0.00441	-0.0022	mg/L	0.00441	197.24%
Fe 259.939†	-3.3	-0.0014	mg/L	0.00214	-0.0014	mg/L	0.00214	153.98%
Fe 273.955*†	1.6	0.0001	mg/L	0.00009	0.0001	mg/L	0.00009	173.30%
K 766.490*†	74.0	0.0507	mg/L	0.01773	0.0507	mg/L	0.01773	34.95%
Mg 279.077*†	11.7	0.0009	mg/L	0.00168	0.0009	mg/L	0.00168	178.03%
Mg 280.271†	-1.5	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	27.39%
Mn 257.610*†	-26.9	0.0000	mg/L	0.00003	0.0000	mg/L	0.00003	73.88%
Mn 259.372†	-18.5	0.0000	mg/L	0.00005	0.0000	mg/L	0.00005	115.90%
Mo 202.031*†	2.3	0.0001	mg/L	0.00020	0.0001	mg/L	0.00020	193.84%
Mo 203.845†	2.4	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	12.28%
Na 330.237†	26.4	0.0442	mg/L	0.22824	0.0442	mg/L	0.22824	515.89%
Na 589.592*†	226.4	0.0398	mg/L	0.00148	0.0398	mg/L	0.00148	3.71%
Ni 231.604*†	12.4	0.0002	mg/L	0.00003	0.0002	mg/L	0.00003	16.89%
Ni 232.003†	-30.5	-0.0012	mg/L	0.00020	-0.0012	mg/L	0.00020	16.23%
P 213.617*†	11.6	0.0016	mg/L	0.00137	0.0016	mg/L	0.00137	87.28%
P 214.914†	-9.6	-0.0025	mg/L	0.00114	-0.0025	mg/L	0.00114	44.88%
Pb 217.000†	-17.0	-0.0078	mg/L	0.00272	-0.0078	mg/L	0.00272	34.90%
Pb 220.353*†	12.7	0.0008	mg/L	0.00064	0.0008	mg/L	0.00064	84.89%
Sb 206†	18.2	0.0041	mg/L	0.00055	0.0041	mg/L	0.00055	13.35%
Sb 206.836†	33.5	0.0072	mg/L	0.00170	0.0072	mg/L	0.00170	23.54%
Sb 217.582*†	9.7	0.0022	mg/L	0.00068	0.0022	mg/L	0.00068	31.45%
Se 196.026*†	3.6	0.0012	mg/L	0.00196	0.0012	mg/L	0.00196	167.22%
Se 203.985†	-3.4	-0.0009	mg/L	0.00036	-0.0009	mg/L	0.00036	38.36%
Si 251.611*†	119.2	0.0023	mg/L	0.00141	0.0023	mg/L	0.00141	60.91%
Si 288.158†	69.0	0.0030	mg/L	0.00108	0.0030	mg/L	0.00108	36.34%
Sn 189.927*†	31.7	0.0027	mg/L	0.00114	0.0027	mg/L	0.00114	41.99%

Return to Contents

Sn 242.170†	-41.7	-0.0064 mg/L	0.02100	-0.0064 mg/L	0.02100	328.76%
Sr 407.771*†	4.2	0.0000 mg/L	0.00002	0.0000 mg/L	0.00002	322.47%
Sr 421.552†	-16.3	0.0000 mg/L	0.00000	0.0000 mg/L	0.00000	216.80%
Ti 334.940†	111.2	0.0002 mg/L	0.00006	0.0002 mg/L	0.00006	37.34%
Ti 336.121*†	-9.9	0.0000 mg/L	0.00016	0.0000 mg/L	0.00016	770.75%
Tl†	2.3	0.0008 mg/L	0.00190	0.0008 mg/L	0.00190	236.17%
Tl 190.801*†	0.2	0.0000 mg/L	0.00027	0.0000 mg/L	0.00027	564.32%
Tl 351.924†	5.0	0.0010 mg/L	0.00185	0.0010 mg/L	0.00185	184.68%
V 292.402*†	38.6	0.0004 mg/L	0.00002	0.0004 mg/L	0.00002	5.64%
V 310.230†	570.9	0.0028 mg/L	0.00371	0.0028 mg/L	0.00371	132.62%
Zn 202.548†	-6.5	-0.0001 mg/L	0.00007	-0.0001 mg/L	0.00007	103.65%
Zn 206.200*†	6.7	0.0001 mg/L	0.00007	0.0001 mg/L	0.00007	79.79%
Zn 213.857*†	14.7	0.0001 mg/L	0.00004	0.0001 mg/L	0.00004	46.53%

All analyte(s) passed QC.

Return to Contents

Sequence No.: 11
Sample ID: CCV= STD3x0.5
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/12/2013 4:04:13 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV= STD3x0.5

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	177706.5	4.509	mg/L	0.0298				0.66%
Ho 345.600	287030.2	4.504	mg/L	0.0186				0.41%
Tb 350.917	128071.4	4.578	mg/L	0.0179				0.39%
Tb 384.873	74445.3	4.526	mg/L	0.0371				0.82%
Y 324.227	1068679.4	4.637	mg/L	0.0141				0.30%
Y 371.029	2148405.0	4.627	mg/L	0.0324				0.70%
Ag 328.068*†	54688.2	0.3815	mg/L	0.00092	0.3815	mg/L	0.00092	0.24%
QC value within limits for Ag 328.068* Recovery = 101.73%								
Ag 338.289†	28266.3	0.3738	mg/L	0.00283	0.3738	mg/L	0.00283	0.76%
Al 308.215*†	281633.8	13.88	mg/L	0.020	13.88	mg/L	0.020	0.15%
QC value within limits for Al 308.215* Recovery = 102.83%								
Al 396.153†	1750198.7	13.98	mg/L	0.046	13.98	mg/L	0.046	0.33%
As 188.979†	22439.0	3.891	mg/L	0.0419	3.891	mg/L	0.0419	1.08%
QC value within limits for As 188.979 Recovery = 103.77%								
As 193.696*†	15896.6	3.896	mg/L	0.0704	3.896	mg/L	0.0704	1.81%
QC value within limits for As 193.696* Recovery = 103.89%								
Ba 233.527*†	1448369.6	7.872	mg/L	0.0414	7.872	mg/L	0.0414	0.53%
QC value within limits for Ba 233.527* Recovery = 104.96%								
Ba 455.403†	1703699.3	7.446	mg/L	0.0398	7.446	mg/L	0.0398	0.53%
Be 313.042*†	3040946.8	0.5815	mg/L	0.00148	0.5815	mg/L	0.00148	0.25%
QC value within limits for Be 313.042* Recovery = 103.38%								
Be 313.107†	1563557.0	0.5841	mg/L	0.00163	0.5841	mg/L	0.00163	0.28%
Cd 226.502*†	130133.5	0.7983	mg/L	0.00199	0.7983	mg/L	0.00199	0.25%
QC value within limits for Cd 226.502* Recovery = 106.44%								
Cd 228.802†	54268.0	0.7664	mg/L	0.00396	0.7664	mg/L	0.00396	0.52%
Co 228.616*†	99734.7	1.949	mg/L	0.0120	1.949	mg/L	0.0120	0.61%
QC value within limits for Co 228.616* Recovery = 103.95%								
Co 230.786†	97014.4	1.946	mg/L	0.0145	1.946	mg/L	0.0145	0.74%
Cr 267.716*†	55913.2	0.6148	mg/L	0.00678	0.6148	mg/L	0.00678	1.10%
QC value within limits for Cr 267.716* Recovery = 102.47%								
Cr 357.869†	37816.5	0.6046	mg/L	0.00424	0.6046	mg/L	0.00424	0.70%
Cu 324.752*†	136971.7	0.9597	mg/L	0.00115	0.9597	mg/L	0.00115	0.12%
QC value within limits for Cu 324.752* Recovery = 102.36%								
Cu 327.393†	113003.9	0.9561	mg/L	0.00370	0.9561	mg/L	0.00370	0.39%
Fe 239.562†	5981.1	3.828	mg/L	0.0205	3.828	mg/L	0.0205	0.54%
Fe 259.939†	8954.0	3.733	mg/L	0.0286	3.733	mg/L	0.0286	0.77%
Fe 273.955*†	124360.5	3.929	mg/L	0.0064	3.929	mg/L	0.0064	0.16%
QC value within limits for Fe 273.955* Recovery = 104.77%								
Mg 279.077*†	99645.2	7.921	mg/L	0.0068	7.921	mg/L	0.0068	0.09%
QC value within limits for Mg 279.077* Recovery = 105.62%								
Mg 280.271†	260401.4	7.588	mg/L	0.0408	7.588	mg/L	0.0408	0.54%
Mn 257.610*†	453606.4	0.7771	mg/L	0.00155	0.7771	mg/L	0.00155	0.20%
QC value within limits for Mn 257.610* Recovery = 103.62%								
Mn 259.372†	348312.2	0.7725	mg/L	0.00142	0.7725	mg/L	0.00142	0.18%
Mo 202.031*†	14163.7	0.6098	mg/L	0.00289	0.6098	mg/L	0.00289	0.47%
QC value within limits for Mo 202.031* Recovery = 101.64%								
Mo 203.845†	10219.1	0.6094	mg/L	0.00491	0.6094	mg/L	0.00491	0.81%
Ni 231.604*†	40601.3	0.6262	mg/L	0.00479	0.6262	mg/L	0.00479	0.77%
QC value within limits for Ni 231.604* Recovery = 104.36%								
Ni 232.003†	15134.6	0.6148	mg/L	0.00705	0.6148	mg/L	0.00705	1.15%
Pb 217.000†	8287.4	3.814	mg/L	0.0320	3.814	mg/L	0.0320	0.84%
Pb 220.353*†	64488.8	3.866	mg/L	0.0405	3.866	mg/L	0.0405	1.05%
QC value within limits for Pb 220.353* Recovery = 103.09%								
Sb 206†	20463.7	4.657	mg/L	0.0125	4.657	mg/L	0.0125	0.27%
Sb 206.836†	21977.2	4.731	mg/L	0.0524	4.731	mg/L	0.0524	1.11%

Return to Contents

Sb 217.582*†	20897.2	4.658	mg/L	0.0228	4.658 mg/L	0.0228 0.49%
QC value within limits for Sb 217.582* Recovery = 103.51%						
Se 196.026*†	4859.6	1.570	mg/L	0.0018	1.570 mg/L	0.0018 0.11%
QC value within limits for Se 196.026* Recovery = 104.65%						
Se 203.985†	5636.4	1.568	mg/L	0.0154	1.568 mg/L	0.0154 0.98%
Tl†	4369.4	1.555	mg/L	0.0117	1.555 mg/L	0.0117 0.75%
Tl 190.801*†	5255.2	1.566	mg/L	0.0131	1.566 mg/L	0.0131 0.84%
QC value within limits for Tl 190.801* Recovery = 104.38%						
Tl 351.924†	7442.2	1.503	mg/L	0.0034	1.503 mg/L	0.0034 0.23%
V 292.402*†	208402.3	1.921	mg/L	0.0077	1.921 mg/L	0.0077 0.40%
QC value within limits for V 292.402* Recovery = 102.43%						
V 310.230†	401134.7	1.963	mg/L	0.0046	1.963 mg/L	0.0046 0.24%
Zn 202.548†	274716.2	2.675	mg/L	0.0006	2.675 mg/L	0.0006 0.02%
Zn 206.200*†	191811.5	2.657	mg/L	0.0021	2.657 mg/L	0.0021 0.08%
QC value within limits for Zn 206.200* Recovery = 106.29%						
Zn 213.857*†	401519.0	2.610	mg/L	0.0055	2.610 mg/L	0.0055 0.21%
QC value within limits for Zn 213.857* Recovery = 104.42%						

All analyte(s) passed QC.

Return to Contents

Sequence No.: 12
Sample ID: CCB-R04231301
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/12/2013 4:05:23 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB-R04231301

Analyte	Back Pressure	Flow
All	126.0 kPa	0.50 L/min

Mean Data: CCB-R04231301

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	189389.3	4.806	mg/L	0.0128				0.27%
Ho 345.600	306495.2	4.809	mg/L	0.0141				0.29%
Tb 350.917	134609.0	4.811	mg/L	0.0135				0.28%
Tb 384.873	78966.9	4.800	mg/L	0.0074				0.15%
Y 324.227	1116637.3	4.845	mg/L	0.0201				0.42%
Y 371.029	2236253.1	4.816	mg/L	0.0131				0.27%
Ag 328.068*†	11.8	0.0001	mg/L	0.00018	0.0001	mg/L	0.00018	213.20%
QC value within limits for Ag 328.068* Recovery = Not calculated								
Ag 338.289†	-13.7	-0.0002	mg/L	0.00121	-0.0002	mg/L	0.00121	668.55%
Al 308.215*†	13.3	0.0007	mg/L	0.00209	0.0007	mg/L	0.00209	318.77%
Al 396.153†	173.2	0.0014	mg/L	0.00028	0.0014	mg/L	0.00028	20.02%
As 188.979†	3.8	0.0007	mg/L	0.00360	0.0007	mg/L	0.00360	544.58%
As 193.696*†	6.3	0.0015	mg/L	0.00115	0.0015	mg/L	0.00115	75.06%
Ba 233.527*†	-1.0	0.0000	mg/L	0.00003	0.0000	mg/L	0.00003	541.40%
Ba 455.403†	76.9	0.0003	mg/L	0.00007	0.0003	mg/L	0.00007	22.17%
Be 313.042*†	6.0	0.0000	mg/L	0.00007	0.0000	mg/L	0.00007	>999.9%
Be 313.107†	-488.5	-0.0002	mg/L	0.00000	-0.0002	mg/L	0.00000	0.87%
Cd 226.502*†	-32.3	-0.0002	mg/L	0.00011	-0.0002	mg/L	0.00011	54.57%
Cd 228.802†	-17.3	-0.0002	mg/L	0.00003	-0.0002	mg/L	0.00003	14.01%
Co 228.616*†	-37.5	-0.0007	mg/L	0.00023	-0.0007	mg/L	0.00023	31.34%
Co 230.786†	-0.9	0.0000	mg/L	0.00036	0.0000	mg/L	0.00036	>999.9%
Cr 267.716*†	-7.8	-0.0001	mg/L	0.00028	-0.0001	mg/L	0.00028	325.30%
Cr 357.869†	-68.0	-0.0011	mg/L	0.00177	-0.0011	mg/L	0.00177	162.31%
Cu 324.752*†	218.8	0.0015	mg/L	0.00026	0.0015	mg/L	0.00026	17.19%
Cu 327.393†	85.1	0.0007	mg/L	0.00094	0.0007	mg/L	0.00094	129.95%
Fe 239.562†	-30.6	-0.0196	mg/L	0.00067	-0.0196	mg/L	0.00067	3.41%
Fe 259.939†	-25.8	-0.0108	mg/L	0.00076	-0.0108	mg/L	0.00076	7.06%
Fe 273.955*†	-107.6	-0.0034	mg/L	0.00067	-0.0034	mg/L	0.00067	19.68%
Mg 279.077*†	-595.2	-0.0473	mg/L	0.00095	-0.0473	mg/L	0.00095	2.00%
Mg 280.271†	-4.1	-0.0001	mg/L	0.00004	-0.0001	mg/L	0.00004	31.78%
Mn 257.610*†	-311.2	-0.0005	mg/L	0.00000	-0.0005	mg/L	0.00000	0.47%
Mn 259.372†	-300.4	-0.0007	mg/L	0.00006	-0.0007	mg/L	0.00006	9.09%
Mo 202.031*†	27.6	0.0012	mg/L	0.00002	0.0012	mg/L	0.00002	1.46%
Mo 203.845†	1.3	0.0001	mg/L	0.00010	0.0001	mg/L	0.00010	119.10%
Ni 231.604*†	58.4	0.0009	mg/L	0.00017	0.0009	mg/L	0.00017	19.35%
Ni 232.003†	-60.8	-0.0025	mg/L	0.00115	-0.0025	mg/L	0.00115	46.69%
Pb 217.000†	-7.9	-0.0036	mg/L	0.00302	-0.0036	mg/L	0.00302	83.13%
Pb 220.353*†	-9.7	-0.0006	mg/L	0.00006	-0.0006	mg/L	0.00006	9.66%
Sb 206†	20.2	0.0046	mg/L	0.00521	0.0046	mg/L	0.00521	113.32%
Sb 206.836†	31.8	0.0068	mg/L	0.00357	0.0068	mg/L	0.00357	52.13%
Sb 217.582*†	13.2	0.0029	mg/L	0.00392	0.0029	mg/L	0.00392	133.77%
Se 196.026*†	2.9	0.0009	mg/L	0.00034	0.0009	mg/L	0.00034	36.71%
Se 203.985†	10.6	0.0029	mg/L	0.00011	0.0029	mg/L	0.00011	3.81%
Tl†	-1.8	-0.0006	mg/L	0.00120	-0.0006	mg/L	0.00120	190.29%
Tl 190.801*†	1.8	0.0005	mg/L	0.00173	0.0005	mg/L	0.00173	325.88%
Tl 351.924†	-83.7	-0.0169	mg/L	0.02401	-0.0169	mg/L	0.02401	142.06%
V 292.402*†	-31.2	-0.0003	mg/L	0.00034	-0.0003	mg/L	0.00034	117.70%
V 310.230†	5200.6	0.0255	mg/L	0.00015	0.0255	mg/L	0.00015	0.58%
Zn 202.548†	-79.9	-0.0008	mg/L	0.00005	-0.0008	mg/L	0.00005	6.70%
Zn 206.200*†	-73.1	-0.0010	mg/L	0.00004	-0.0010	mg/L	0.00004	3.74%
Zn 213.857*†	-33.0	-0.0002	mg/L	0.00004	-0.0002	mg/L	0.00004	19.05%

All analyte(s) passed QC.

Return to Contents

Sequence No.: 24
Sample ID: CCV= STD3x0.5
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/12/2013 4:22:21 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV= STD3x0.5

Analyte	Back Pressure	Flow
All	126.0 kPa	0.50 L/min

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Ho 339.898	183645.6	4.660	mg/L	0.0760				1.63%
Ho 345.600	297202.1	4.663	mg/L	0.0802				1.72%
Tb 350.917	132482.7	4.735	mg/L	0.0857				1.81%
Tb 384.873	77374.7	4.704	mg/L	0.0892				1.90%
Y 324.227	1103596.2	4.788	mg/L	0.0826				1.72%
Y 371.029	2216950.1	4.774	mg/L	0.0951				1.99%
Ag 328.068*†	53417.2	0.3726	mg/L	0.00208	0.3726	mg/L	0.00208	0.56%
QC value within limits for Ag 328.068* Recovery = 99.37%								
Ag 338.289†	28137.8	0.3721	mg/L	0.00393	0.3721	mg/L	0.00393	1.06%
Al 308.215*†	278259.4	13.72	mg/L	0.275	13.72	mg/L	0.275	2.01%
QC value within limits for Al 308.215* Recovery = 101.60%								
Al 396.153†	1719338.2	13.73	mg/L	0.050	13.73	mg/L	0.050	0.36%
As 188.979†	22173.3	3.845	mg/L	0.0498	3.845	mg/L	0.0498	1.29%
QC value within limits for As 188.979 Recovery = 102.54%								
As 193.696*†	15659.4	3.838	mg/L	0.0317	3.838	mg/L	0.0317	0.83%
QC value within limits for As 193.696* Recovery = 102.34%								
Ba 233.527*†	1432905.9	7.788	mg/L	0.0000	7.788	mg/L	0.0000	0.00%
QC value within limits for Ba 233.527* Recovery = 103.84%								
Ba 455.403†	1737540.3	7.594	mg/L	0.0790	7.594	mg/L	0.0790	1.04%
Be 313.042*†	3004916.8	0.5746	mg/L	0.00221	0.5746	mg/L	0.00221	0.38%
QC value within limits for Be 313.042* Recovery = 102.16%								
Be 313.107†	1545722.1	0.5774	mg/L	0.00171	0.5774	mg/L	0.00171	0.30%
Cd 226.502*†	127010.1	0.7792	mg/L	0.00201	0.7792	mg/L	0.00201	0.26%
QC value within limits for Cd 226.502* Recovery = 103.89%								
Cd 228.802†	54043.9	0.7632	mg/L	0.01127	0.7632	mg/L	0.01127	1.48%
Co 228.616*†	99324.7	1.941	mg/L	0.0313	1.941	mg/L	0.0313	1.61%
QC value within limits for Co 228.616* Recovery = 103.52%								
Co 230.786†	96539.7	1.937	mg/L	0.0319	1.937	mg/L	0.0319	1.65%
Cr 267.716*†	55745.0	0.6130	mg/L	0.00396	0.6130	mg/L	0.00396	0.65%
QC value within limits for Cr 267.716* Recovery = 102.16%								
Cr 357.869†	37192.4	0.5947	mg/L	0.00931	0.5947	mg/L	0.00931	1.57%
Cu 324.752*†	134152.2	0.9399	mg/L	0.00110	0.9399	mg/L	0.00110	0.12%
QC value within limits for Cu 324.752* Recovery = 100.26%								
Cu 327.393†	110319.3	0.9334	mg/L	0.00422	0.9334	mg/L	0.00422	0.45%
Fe 239.562†	6055.1	3.875	mg/L	0.0836	3.875	mg/L	0.0836	2.16%
Fe 259.939†	9112.9	3.799	mg/L	0.1131	3.799	mg/L	0.1131	2.98%
Fe 273.955*†	124746.1	3.941	mg/L	0.1168	3.941	mg/L	0.1168	2.96%
QC value within limits for Fe 273.955* Recovery = 105.09%								
Mg 279.077*†	97995.9	7.790	mg/L	0.0484	7.790	mg/L	0.0484	0.62%
QC value within limits for Mg 279.077* Recovery = 103.87%								
Mg 280.271†	260170.1	7.581	mg/L	0.0201	7.581	mg/L	0.0201	0.27%
Mn 257.610*†	447201.2	0.7662	mg/L	0.00261	0.7662	mg/L	0.00261	0.34%
QC value within limits for Mn 257.610* Recovery = 102.15%								
Mn 259.372†	344538.7	0.7641	mg/L	0.00035	0.7641	mg/L	0.00035	0.05%
Mo 202.031*†	14168.6	0.6100	mg/L	0.00591	0.6100	mg/L	0.00591	0.97%
QC value within limits for Mo 202.031* Recovery = 101.67%								
Mo 203.845†	10213.1	0.6090	mg/L	0.00494	0.6090	mg/L	0.00494	0.81%
Ni 231.604*†	40074.2	0.6180	mg/L	0.00373	0.6180	mg/L	0.00373	0.60%
QC value within limits for Ni 231.604* Recovery = 103.01%								
Ni 232.003†	15105.1	0.6136	mg/L	0.00726	0.6136	mg/L	0.00726	1.18%
Pb 217.000†	8253.1	3.799	mg/L	0.0402	3.799	mg/L	0.0402	1.06%
Pb 220.353*†	63909.7	3.831	mg/L	0.0435	3.831	mg/L	0.0435	1.14%
QC value within limits for Pb 220.353* Recovery = 102.17%								
Sb 206†	20213.6	4.600	mg/L	0.0781	4.600	mg/L	0.0781	1.70%
Sb 206.836†	21300.6	4.585	mg/L	0.0281	4.585	mg/L	0.0281	0.61%

Return to Contents

Sb 217.582*†	20562.2	4.583	mg/L	0.0529	4.583	mg/L	0.0529	1.15%
QC value within limits for Sb 217.582* Recovery = 101.85%								
Se 196.026*†	4788.6	1.547	mg/L	0.0270	1.547	mg/L	0.0270	1.75%
QC value within limits for Se 196.026* Recovery = 103.12%								
Se 203.985†	5519.9	1.535	mg/L	0.0183	1.535	mg/L	0.0183	1.19%
Tl†	4323.4	1.539	mg/L	0.0208	1.539	mg/L	0.0208	1.35%
Tl 190.801*†	5190.9	1.547	mg/L	0.0192	1.547	mg/L	0.0192	1.24%
QC value within limits for Tl 190.801* Recovery = 103.10%								
Tl 351.924†	7429.3	1.501	mg/L	0.0155	1.501	mg/L	0.0155	1.03%
V 292.402*†	206342.3	1.902	mg/L	0.0122	1.902	mg/L	0.0122	0.64%
QC value within limits for V 292.402* Recovery = 101.42%								
V 310.230†	393565.5	1.926	mg/L	0.0050	1.926	mg/L	0.0050	0.26%
Zn 202.548†	265977.1	2.590	mg/L	0.0137	2.590	mg/L	0.0137	0.53%
Zn 206.200*†	185839.3	2.575	mg/L	0.0085	2.575	mg/L	0.0085	0.33%
QC value within limits for Zn 206.200* Recovery = 102.98%								
Zn 213.857*†	390425.7	2.538	mg/L	0.0124	2.538	mg/L	0.0124	0.49%
QC value within limits for Zn 213.857* Recovery = 101.53%								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 25
Sample ID: CCB-R04231301
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/12/2013 4:23:31 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB-R04231301

Analyte	Back Pressure	Flow
All	126.0 kPa	0.50 L/min

Mean Data: CCB-R04231301

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	193950.7	4.921	mg/L	0.0121				0.25%
Ho 345.600	312903.9	4.910	mg/L	0.0154				0.31%
Tb 350.917	137789.9	4.925	mg/L	0.0109				0.22%
Tb 384.873	80974.2	4.922	mg/L	0.0132				0.27%
Y 324.227	1135396.0	4.926	mg/L	0.0221				0.45%
Y 371.029	2298643.5	4.950	mg/L	0.0127				0.26%
Ag 328.068*†	-69.1	-0.0005	mg/L	0.00028	-0.0005	mg/L	0.00028	58.53%
QC value within limits for Ag 328.068* Recovery = Not calculated								
Ag 338.289†	-50.3	-0.0007	mg/L	0.00024	-0.0007	mg/L	0.00024	36.56%
Al 308.215*†	86.0	0.0042	mg/L	0.00342	0.0042	mg/L	0.00342	80.77%
Al 396.153†	184.2	0.0015	mg/L	0.00066	0.0015	mg/L	0.00066	45.11%
As 188.979†	-0.3	-0.0001	mg/L	0.00230	-0.0001	mg/L	0.00230	>999.9%
As 193.696*†	11.1	0.0027	mg/L	0.00017	0.0027	mg/L	0.00017	6.24%
Ba 233.527*†	23.0	0.0001	mg/L	0.00010	0.0001	mg/L	0.00010	80.71%
Ba 455.403†	88.5	0.0004	mg/L	0.00013	0.0004	mg/L	0.00013	32.46%
Be 313.042*†	207.9	0.0000	mg/L	0.00003	0.0000	mg/L	0.00003	80.91%
Be 313.107†	-439.3	-0.0002	mg/L	0.00004	-0.0002	mg/L	0.00004	27.16%
Cd 226.502*†	-0.0	0.0000	mg/L	0.00000	0.0000	mg/L	0.00000	164.76%
Cd 228.802†	-25.5	-0.0004	mg/L	0.00017	-0.0004	mg/L	0.00017	46.66%
Co 228.616*†	-9.8	-0.0002	mg/L	0.00000	-0.0002	mg/L	0.00000	0.50%
Co 230.786†	-6.4	-0.0001	mg/L	0.00013	-0.0001	mg/L	0.00013	99.99%
Cr 267.716*†	-7.3	-0.0001	mg/L	0.00034	-0.0001	mg/L	0.00034	431.72%
Cr 357.869†	-26.8	-0.0004	mg/L	0.00004	-0.0004	mg/L	0.00004	9.21%
Cu 324.752*†	212.1	0.0015	mg/L	0.00027	0.0015	mg/L	0.00027	18.29%
Cu 327.393†	-65.8	-0.0006	mg/L	0.00050	-0.0006	mg/L	0.00050	89.36%
Fe 239.562†	-17.0	-0.0109	mg/L	0.00013	-0.0109	mg/L	0.00013	1.20%
Fe 259.939†	-15.4	-0.0064	mg/L	0.00283	-0.0064	mg/L	0.00283	44.12%
Fe 273.955*†	-75.1	-0.0024	mg/L	0.00022	-0.0024	mg/L	0.00022	9.31%
Mg 279.077*†	-400.1	-0.0318	mg/L	0.00979	-0.0318	mg/L	0.00979	30.80%
Mg 280.271†	2.7	0.0001	mg/L	0.00013	0.0001	mg/L	0.00013	163.79%
Mn 257.610*†	-336.0	-0.0006	mg/L	0.00002	-0.0006	mg/L	0.00002	4.26%
Mn 259.372†	-280.6	-0.0006	mg/L	0.00001	-0.0006	mg/L	0.00001	1.73%
Mo 202.031*†	18.6	0.0008	mg/L	0.00031	0.0008	mg/L	0.00031	38.66%
Mo 203.845†	-1.3	-0.0001	mg/L	0.00068	-0.0001	mg/L	0.00068	886.62%
Ni 231.604*†	-12.2	-0.0002	mg/L	0.00006	-0.0002	mg/L	0.00006	29.18%
Ni 232.003†	-56.6	-0.0023	mg/L	0.00121	-0.0023	mg/L	0.00121	52.48%
Pb 217.000†	-2.1	-0.0010	mg/L	0.00083	-0.0010	mg/L	0.00083	85.79%
Pb 220.353*†	-1.9	-0.0001	mg/L	0.00014	-0.0001	mg/L	0.00014	124.68%
Sb 206†	11.7	0.0027	mg/L	0.00289	0.0027	mg/L	0.00289	108.67%
Sb 206.836†	26.3	0.0057	mg/L	0.00428	0.0057	mg/L	0.00428	75.69%
Sb 217.582*†	20.9	0.0047	mg/L	0.00175	0.0047	mg/L	0.00175	37.53%
Se 196.026*†	5.3	0.0017	mg/L	0.00104	0.0017	mg/L	0.00104	60.13%
Se 203.985†	13.7	0.0038	mg/L	0.00092	0.0038	mg/L	0.00092	24.06%
Tl†	1.8	0.0006	mg/L	0.00364	0.0006	mg/L	0.00364	577.45%
Tl 190.801*†	3.5	0.0010	mg/L	0.00255	0.0010	mg/L	0.00255	243.35%
Tl 351.924†	19.3	0.0039	mg/L	0.00215	0.0039	mg/L	0.00215	55.22%
V 292.402*†	63.2	0.0006	mg/L	0.00049	0.0006	mg/L	0.00049	84.73%
V 310.230†	4247.7	0.0208	mg/L	0.00039	0.0208	mg/L	0.00039	1.88%
Zn 202.548†	-66.2	-0.0006	mg/L	0.00002	-0.0006	mg/L	0.00002	3.56%
Zn 206.200*†	-38.2	-0.0005	mg/L	0.00006	-0.0005	mg/L	0.00006	11.24%
Zn 213.857*†	-18.5	-0.0001	mg/L	0.00008	-0.0001	mg/L	0.00008	64.40%

All analyte(s) passed QC.

Return to Contents

EPA METHOD 6010 B

SAMPLE DATA

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 6010B

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: ICP 7300
D/T ANALYZED: 11/12/2013 16:19
ANALYST: 469
DATA FILE: W:\ICP-DATA\131112C1\13-11-0697-13.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3010A Total
D/T EXTRACTED: 11/11/2013 00:00

 # 13 **CLIENT SAMPLE NUMBER: QCEB-11082013**

LCS/MB BATCH: 131111LA5
MS/MSD BATCH: 131111SA5
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Antimony	0.00163	1	ND	0.0150	1	mg/L	
Arsenic	-0.000538	1	ND	0.0100	1	mg/L	
Barium	0.000177	1	ND	0.0100	1	mg/L	
Beryllium	-0.0000240	1	ND	0.0100	1	mg/L	
Cadmium	0.0000103	1	ND	0.0100	1	mg/L	
Chromium	-0.0000127	1	ND	0.0100	1	mg/L	
Cobalt	0.000233	1	ND	0.0100	1	mg/L	
Copper	0.000440	1	ND	0.0100	1	mg/L	
Lead	0.00153	1	ND	0.0100	1	mg/L	
Molybdenum	0.00270	1	ND	0.0100	1	mg/L	
Nickel	0.000545	1	ND	0.0100	1	mg/L	
Selenium	-0.00364	1	ND	0.0150	1	mg/L	
Silver	-0.0000254	1	ND	0.00500	1	mg/L	
Thallium	0.00209	1	ND	0.0150	1	mg/L	
Vanadium	0.000413	1	ND	0.0100	1	mg/L	
Zinc	0.00393	1	ND	0.0100	1	mg/L	

Return to Contents

Sequence No.: 22
Sample ID: 13-11-0697-13
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 321
Date Collected: 11/12/2013 4:19:19 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 13-11-0697-13

Analyte	Back Pressure	Flow
All	126.0 kPa	0.50 L/min

Mean Data: 13-11-0697-13

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	196834.3	4.994	mg/L	0.0230				0.46%
Ho 345.600	317501.3	4.982	mg/L	0.0190				0.38%
Tb 350.917	140425.6	5.019	mg/L	0.0130				0.26%
Tb 384.873	82848.8	5.036	mg/L	0.0368				0.73%
Y 324.227	1155649.6	5.014	mg/L	0.0018				0.04%
Y 371.029	2360762.1	5.084	mg/L	0.0288				0.57%
Ag 328.068*†	-3.6	0.0000	mg/L	0.00033	0.0000	mg/L	0.00033	>999.9%
Ag 338.289†	-128.3	-0.0017	mg/L	0.00116	-0.0017	mg/L	0.00116	68.32%
Al 308.215*†	109.9	0.0054	mg/L	0.00220	0.0054	mg/L	0.00220	40.65%
Al 396.153†	280.6	0.0022	mg/L	0.00058	0.0022	mg/L	0.00058	25.94%
As 188.979†	-12.4	-0.0022	mg/L	0.00087	-0.0022	mg/L	0.00087	40.39%
As 193.696*†	-2.2	-0.0005	mg/L	0.00584	-0.0005	mg/L	0.00584	>999.9%
Ba 233.527*†	32.6	0.0002	mg/L	0.00011	0.0002	mg/L	0.00011	64.52%
Ba 455.403†	53.3	0.0002	mg/L	0.00001	0.0002	mg/L	0.00001	5.47%
Be 313.042*†	-125.3	0.0000	mg/L	0.00002	0.0000	mg/L	0.00002	96.95%
Be 313.107†	-91.9	0.0000	mg/L	0.00002	0.0000	mg/L	0.00002	49.83%
Cd 226.502*†	1.7	0.0000	mg/L	0.00011	0.0000	mg/L	0.00011	>999.9%
Cd 228.802†	-7.7	-0.0001	mg/L	0.00004	-0.0001	mg/L	0.00004	36.08%
Co 228.616*†	11.9	0.0002	mg/L	0.00016	0.0002	mg/L	0.00016	69.08%
Co 230.786†	5.1	0.0001	mg/L	0.00016	0.0001	mg/L	0.00016	157.10%
Cr 267.716*†	-1.2	0.0000	mg/L	0.00010	0.0000	mg/L	0.00010	796.51%
Cr 357.869†	-20.9	-0.0003	mg/L	0.00066	-0.0003	mg/L	0.00066	197.32%
Cu 324.752*†	62.7	0.0004	mg/L	0.00018	0.0004	mg/L	0.00018	40.95%
Cu 327.393†	37.4	0.0003	mg/L	0.00011	0.0003	mg/L	0.00011	34.05%
Fe 239.562†	8.0	0.0051	mg/L	0.00002	0.0051	mg/L	0.00002	0.44%
Fe 259.939†	11.4	0.0047	mg/L	0.00109	0.0047	mg/L	0.00109	23.10%
Fe 273.955*†	55.9	0.0018	mg/L	0.00122	0.0018	mg/L	0.00122	69.19%
Mg 279.077*†	314.3	0.0250	mg/L	0.00595	0.0250	mg/L	0.00595	23.80%
Mg 280.271†	534.6	0.0156	mg/L	0.00122	0.0156	mg/L	0.00122	7.86%
Mn 257.610*†	-284.9	-0.0005	mg/L	0.00002	-0.0005	mg/L	0.00002	4.57%
Mn 259.372†	-135.0	-0.0003	mg/L	0.00001	-0.0003	mg/L	0.00001	2.56%
Mo 202.031*†	62.7	0.0027	mg/L	0.00007	0.0027	mg/L	0.00007	2.45%
Mo 203.845†	38.1	0.0023	mg/L	0.00028	0.0023	mg/L	0.00028	12.41%
Ni 231.604*†	35.3	0.0005	mg/L	0.00037	0.0005	mg/L	0.00037	67.44%
Ni 232.003†	25.1	0.0010	mg/L	0.00008	0.0010	mg/L	0.00008	7.80%
Pb 217.000†	-0.3	-0.0002	mg/L	0.00933	-0.0002	mg/L	0.00933	>999.9%
Pb 220.353*†	25.6	0.0015	mg/L	0.00114	0.0015	mg/L	0.00114	74.12%
Sb 206†	-18.6	-0.0042	mg/L	0.00232	-0.0042	mg/L	0.00232	54.68%
Sb 206.836†	-1.7	-0.0004	mg/L	0.00170	-0.0004	mg/L	0.00170	455.83%
Sb 217.582*†	7.3	0.0016	mg/L	0.00087	0.0016	mg/L	0.00087	53.49%
Se 196.026*†	-11.3	-0.0036	mg/L	0.00171	-0.0036	mg/L	0.00171	46.85%
Se 203.985†	39.8	0.0111	mg/L	0.00023	0.0111	mg/L	0.00023	2.04%
Tl†	8.2	0.0029	mg/L	0.00015	0.0029	mg/L	0.00015	5.13%
Tl 190.801*†	7.0	0.0021	mg/L	0.00054	0.0021	mg/L	0.00054	25.84%
Tl 351.924†	10.1	0.0020	mg/L	0.00024	0.0020	mg/L	0.00024	11.88%
V 292.402*†	44.8	0.0004	mg/L	0.00037	0.0004	mg/L	0.00037	89.13%
V 310.230†	65.2	0.0003	mg/L	0.00544	0.0003	mg/L	0.00544	>999.9%
Zn 202.548†	366.6	0.0036	mg/L	0.00012	0.0036	mg/L	0.00012	3.49%
Zn 206.200*†	260.6	0.0036	mg/L	0.00001	0.0036	mg/L	0.00001	0.29%
Zn 213.857*†	602.6	0.0039	mg/L	0.00004	0.0039	mg/L	0.00004	0.98%

Return to Contents

EPA METHOD 6010 B

QUALITY CONTROL

Method Blank
LCS/LCSD
MS/MSD
PDS/PDSD
Serial Dilution

Return to Contents

METHOD BLANK ASSOCIATION SUMMARY FOR METHOD: EPA 6010B

MB Sample ID: 097-01-003-13797
MB Batch ID: 131111LA5
Instrument: ICP 7300
Matrix: Water
Analyst: 469
D/T Analyzed: 11/12/2013 13:27
Data File: W:\ICP-DATA\131112C1\131111-ba-5__106.icp

Reviewed By: 0
D/T Reviewed:
Extraction: EPA 3010A Total
D/T Extracted: 11/11/2013 00:00

Work Order #: 13-11-0697

Sample#	Client Sample ID	D/T Analyzed	Data File
13	QCEB-11082013	11/12/2013 16:19	W:\ICP-DATA\131112C1\13-11-0697-13.icp

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 6010B

WORK ORDER NUMBER: 097-01-003
INSTRUMENT NAME: ICP 7300
D/T ANALYZED: 11/12/2013 13:27
ANALYST: 469
DATA FILE: W:\ICP-DATA\131112C1\131111-ba-5__106.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3010A Total
D/T EXTRACTED: 11/11/2013 00:00

MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 131111LA5
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Antimony	0.000853	1	ND	0.0150	1	mg/L	
Arsenic	0.00425	1	ND	0.0100	1	mg/L	
Barium	-0.000101	1	ND	0.0100	1	mg/L	
Beryllium	0.0000196	1	ND	0.0100	1	mg/L	
Cadmium	0.0000902	1	ND	0.0100	1	mg/L	
Chromium	-0.000192	1	ND	0.0100	1	mg/L	
Cobalt	-0.0000421	1	ND	0.0100	1	mg/L	
Copper	0.000970	1	ND	0.0100	1	mg/L	
Lead	-0.00174	1	ND	0.0100	1	mg/L	
Molybdenum	-0.000518	1	ND	0.0100	1	mg/L	
Nickel	0.000660	1	ND	0.0100	1	mg/L	
Selenium	0.00428	1	ND	0.0150	1	mg/L	
Silver	-0.000546	1	ND	0.00500	1	mg/L	
Thallium	0.0000902	1	ND	0.0150	1	mg/L	
Vanadium	-0.000496	1	ND	0.0100	1	mg/L	
Zinc	-0.000642	1	ND	0.0100	1	mg/L	

Return to Contents

LCS QUALITY CONTROL SHEET FOR METHOD: EPA 6010B

Work Order #: 13-11-0697
LCS/MB Batch ID: 131111LA5
Instrument: ICP 7300
Analyst: 469
D/T Analyzed: 11/12/2013 13:28
Data File: W:\ICP-DATA\131112C1\131111-la-5__107.icp

Reviewed By: 0
D/T Reviewed:
Extraction: EPA 3010A Total
D/T Extracted: 11/11/2013 00:00

Analyte	Conc. Added	Conc. Recovered	%Recovered	%Recovered Control Limit	ME Control Limit	Status	Qualifiers
Antimony	0.5000	0.5293	106	80-120	73-127	PASS	
Arsenic	0.5000	0.5219	104	80-120	73-127	PASS	
Barium	0.5000	0.4982	100	80-120	73-127	PASS	
Beryllium	0.5000	0.4941	99	80-120	73-127	PASS	
Cadmium	0.5000	0.5135	103	80-120	73-127	PASS	
Chromium	0.5000	0.5408	108	80-120	73-127	PASS	
Cobalt	0.5000	0.5490	110	80-120	73-127	PASS	
Copper	0.5000	0.4945	99	80-120	73-127	PASS	
Lead	0.5000	0.5144	103	80-120	73-127	PASS	
Molybdenum	0.5000	0.4956	99	80-120	73-127	PASS	
Nickel	0.5000	0.5463	109	80-120	73-127	PASS	
Selenium	0.5000	0.4826	97	80-120	73-127	PASS	
Silver	0.2500	0.2531	101	80-120	73-127	PASS	
Thallium	0.5000	0.5333	107	80-120	73-127	PASS	
Vanadium	0.5000	0.4854	97	80-120	73-127	PASS	
Aluminum	0.5000	0.5094	102	80-120	73-127	PASS	
Iron	0.5000	0.5159	103	80-120	73-127	PASS	
Magnesium	0.5000	0.5016	100	80-120	73-127	PASS	
Manganese	0.5000	0.5131	103	80-120	73-127	PASS	
Zinc	0.5000	0.5318	106	80-120	73-127	PASS	

Total number of LCS compounds: 20
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Compounds listed in bold are required to be reported.

Return to Contents

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 6010B

WORK ORDER:	**13-11-0697**	SAMPLE D/T EXTRACTED:	11/11/2013	EXTRACTION:	EPA 3010A Total
MS/MSD BATCH:	131111SA5	MS D/T EXTRACTED:	11/11/2013	ANALYST:	469
SPIKED SAMPLE ID:	**13-11-0708-1**	MSD D/T EXTRACTED:	11/11/2013	SAMPLE INSTRUMENT NAME:	ICP 7300
REVIEWED BY:	0	SAMPLE D/T ANALYZED:	11/12/2013 13:30	MS INSTRUMENT NAME:	ICP 7300
DATE REVIEWED:		MS D/T ANALYZED:	11/12/2013 13:31	MSD INSTRUMENT NAME:	ICP 7300
		MSD D/T ANALYZED:	11/12/2013 13:32		

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL ADDED	FINAL ADDED	MS CONC	% REC	MSD CONC	% REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Antimony	ND	0.5000	0.5000	0.5472	109	0.5525	111	72-132	1	0-10	PASS	
Arsenic	ND	0.5000	0.5000	0.5580	112	0.5527	111	80-140	1	0-11	PASS	
Barium	0.2222	0.5000	0.5000	0.7280	101	0.7245	100	87-123	0	0-6	PASS	
Beryllium	ND	0.5000	0.5000	0.5363	107	0.5369	107	89-119	0	0-8	PASS	
Cadmium	ND	0.5000	0.5000	0.5224	104	0.5219	104	82-124	0	0-7	PASS	
Chromium	0.1687	0.5000	0.5000	0.7149	109	0.7187	110	86-122	1	0-8	PASS	
Cobalt	ND	0.5000	0.5000	0.5458	109	0.5435	109	83-125	0	0-7	PASS	
Copper	0.01418	0.5000	0.5000	0.5747	112	0.5702	111	78-126	1	0-7	PASS	
Lead	ND	0.5000	0.5000	0.5227	105	0.5188	104	84-120	1	0-7	PASS	
Molybdenum	0.03415	0.5000	0.5000	0.5521	104	0.5539	104	78-126	0	0-7	PASS	
Nickel	0.02710	0.5000	0.5000	0.5658	108	0.5671	108	84-120	0	0-7	PASS	
Selenium	ND	0.5000	0.5000	0.5513	110	0.5399	108	79-127	2	0-9	PASS	
Silver	ND	0.2500	0.2500	0.2917	117	0.2917	117	86-128	0	0-7	PASS	
Thallium	ND	0.5000	0.5000	0.5521	110	0.5538	111	79-121	0	0-8	PASS	
Vanadium	0.01474	0.5000	0.5000	0.5432	106	0.5458	106	88-118	0	0-7	PASS	
Aluminum	4.546	0.5000	0.5000	4.996	4x	5.175	4x	73-145	4x	0-16	PASS	Q
Iron	6.634	0.5000	0.5000	6.176	4x	6.487	4x	65-149	4x	0-21	PASS	Q
Magnesium	4.929	0.5000	0.5000	5.120	4x	5.225	4x	56-140	4x	0-11	PASS	Q
Manganese	0.1240	0.5000	0.5000	0.6397	103	0.6370	103	86-116	0	0-7	PASS	
Zinc	0.02545	0.5000	0.5000	0.6010	115	0.6161	118	89-131	2	0-8	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	13-11-0708-1 ms.icp	W:\ICP-DATA\131112C1\
MSD	13-11-0708-1 msd.icp	W:\ICP-DATA\131112C1\

Return to Contents

Sequence No.: 2
Sample ID: 131111-ba-5
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 154
Date Collected: 11/12/2013 1:27:14 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 131111-ba-5

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: 131111-ba-5

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	192695.6	4.886	mg/L	0.0562				1.15%
Ho 345.600	310284.3	4.882	mg/L	0.0598				1.23%
Tb 350.917	136683.3	4.887	mg/L	0.0575				1.18%
Tb 384.873	80551.4	4.889	mg/L	0.0415				0.85%
Y 324.227	1125361.2	4.920	mg/L	0.0699				1.42%
Y 371.029	2287468.4	4.905	mg/L	0.0249				0.51%
Ag 328.068*†	-79.1	-0.0005	mg/L	0.00034	-0.0005	mg/L	0.00034	62.88%
Ag 338.289†	40.0	0.0005	mg/L	0.00035	0.0005	mg/L	0.00035	68.29%
Al 308.215*†	64.7	0.0032	mg/L	0.00053	0.0032	mg/L	0.00053	16.77%
Al 396.153†	-29.5	-0.0002	mg/L	0.00060	-0.0002	mg/L	0.00060	256.21%
As 188.979†	-3.4	-0.0006	mg/L	0.00210	-0.0006	mg/L	0.00210	362.71%
As 193.696*†	17.6	0.0043	mg/L	0.00209	0.0043	mg/L	0.00209	49.09%
Ba 233.527*†	-18.8	-0.0001	mg/L	0.00001	-0.0001	mg/L	0.00001	14.57%
Ba 455.403†	10.0	0.0000	mg/L	0.00011	0.0000	mg/L	0.00011	261.59%
Be 313.042*†	104.4	0.0000	mg/L	0.00008	0.0000	mg/L	0.00008	384.71%
Be 313.107†	-71.6	0.0000	mg/L	0.00005	0.0000	mg/L	0.00005	179.39%
Cd 226.502*†	15.0	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	19.43%
Cd 228.802†	-8.9	-0.0001	mg/L	0.00011	-0.0001	mg/L	0.00011	90.71%
Co 228.616*†	-2.2	0.0000	mg/L	0.00015	0.0000	mg/L	0.00015	348.08%
Co 230.786†	-8.1	-0.0002	mg/L	0.00005	-0.0002	mg/L	0.00005	34.24%
Cr 267.716*†	-17.8	-0.0002	mg/L	0.00008	-0.0002	mg/L	0.00008	44.18%
Cr 357.869†	-10.7	-0.0002	mg/L	0.00032	-0.0002	mg/L	0.00032	185.26%
Cu 324.752*†	138.2	0.0010	mg/L	0.00049	0.0010	mg/L	0.00049	50.73%
Cu 327.393†	118.3	0.0010	mg/L	0.00025	0.0010	mg/L	0.00025	24.96%
Fe 239.562†	-14.1	-0.0086	mg/L	0.00178	-0.0086	mg/L	0.00178	20.62%
Fe 259.939†	-15.6	-0.0064	mg/L	0.00479	-0.0064	mg/L	0.00479	75.27%
Fe 273.955*†	-127.9	-0.0040	mg/L	0.00000	-0.0040	mg/L	0.00000	0.09%
Mg 279.077*†	-305.3	-0.0239	mg/L	0.00712	-0.0239	mg/L	0.00712	29.73%
Mg 280.271†	-1.7	-0.0001	mg/L	0.00012	-0.0001	mg/L	0.00012	234.67%
Mn 257.610*†	-36.2	-0.0001	mg/L	0.00000	-0.0001	mg/L	0.00000	5.51%
Mn 259.372†	-51.2	-0.0001	mg/L	0.00006	-0.0001	mg/L	0.00006	55.53%
Mo 202.031*†	-12.1	-0.0005	mg/L	0.00020	-0.0005	mg/L	0.00020	39.09%
Mo 203.845†	-0.4	0.0000	mg/L	0.00055	0.0000	mg/L	0.00055	>999.9%
Ni 231.604*†	43.3	0.0007	mg/L	0.00027	0.0007	mg/L	0.00027	40.35%
Ni 232.003†	-41.4	-0.0017	mg/L	0.00039	-0.0017	mg/L	0.00039	23.61%
Pb 217.000†	-3.6	-0.0016	mg/L	0.00191	-0.0016	mg/L	0.00191	118.34%
Pb 220.353*†	-29.5	-0.0017	mg/L	0.00011	-0.0017	mg/L	0.00011	6.16%
Sb 206†	1.1	0.0003	mg/L	0.00225	0.0003	mg/L	0.00225	871.35%
Sb 206.836†	-4.3	-0.0009	mg/L	0.00580	-0.0009	mg/L	0.00580	629.71%
Sb 217.582*†	3.9	0.0009	mg/L	0.00163	0.0009	mg/L	0.00163	191.16%
Se 196.026*†	13.4	0.0043	mg/L	0.00660	0.0043	mg/L	0.00660	154.17%
Se 203.985†	-11.3	-0.0031	mg/L	0.00014	-0.0031	mg/L	0.00014	4.35%
Tl†	7.0	0.0025	mg/L	0.00182	0.0025	mg/L	0.00182	72.98%
Tl 190.801*†	0.3	0.0001	mg/L	0.00094	0.0001	mg/L	0.00094	>999.9%
Tl 351.924†	27.9	0.0057	mg/L	0.00367	0.0057	mg/L	0.00367	64.85%
V 292.402*†	-54.6	-0.0005	mg/L	0.00060	-0.0005	mg/L	0.00060	121.84%
V 310.230†	2238.0	0.0107	mg/L	0.00098	0.0107	mg/L	0.00098	9.15%
Zn 202.548†	-59.9	-0.0006	mg/L	0.00017	-0.0006	mg/L	0.00017	28.83%
Zn 206.200*†	-68.7	-0.0010	mg/L	0.00029	-0.0010	mg/L	0.00029	30.59%
Zn 213.857*†	-99.1	-0.0006	mg/L	0.00007	-0.0006	mg/L	0.00007	10.31%

Return to Contents

Sequence No.: 3
Sample ID: 131111-la-5
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 155
Date Collected: 11/12/2013 1:28:45 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 131111-la-5

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: 131111-la-5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	187726.6	4.760	mg/L	0.0348				0.73%
Ho 345.600	301579.4	4.745	mg/L	0.0470				0.99%
Tb 350.917	133793.0	4.784	mg/L	0.0362				0.76%
Tb 384.873	78403.7	4.759	mg/L	0.0313				0.66%
Y 324.227	1105351.2	4.832	mg/L	0.0572				1.18%
Y 371.029	2250045.6	4.825	mg/L	0.0283				0.59%
Ag 328.068*†	36707.2	0.2531	mg/L	0.00146	0.2531	mg/L	0.00146	0.58%
Ag 338.289†	19719.5	0.2542	mg/L	0.00216	0.2542	mg/L	0.00216	0.85%
Al 308.215*†	10396.9	0.5094	mg/L	0.00316	0.5094	mg/L	0.00316	0.62%
Al 396.153†	59224.1	0.4709	mg/L	0.00024	0.4709	mg/L	0.00024	0.05%
As 188.979†	3024.3	0.5187	mg/L	0.00106	0.5187	mg/L	0.00106	0.20%
As 193.696*†	2155.5	0.5219	mg/L	0.00756	0.5219	mg/L	0.00756	1.45%
Ba 233.527*†	92956.0	0.4982	mg/L	0.00214	0.4982	mg/L	0.00214	0.43%
Ba 455.403†	115130.0	0.4868	mg/L	0.00040	0.4868	mg/L	0.00040	0.08%
Be 313.042*†	2627194.0	0.4941	mg/L	0.00054	0.4941	mg/L	0.00054	0.11%
Be 313.107†	1347397.3	0.4963	mg/L	0.00015	0.4963	mg/L	0.00015	0.03%
Cd 226.502*†	85236.4	0.5135	mg/L	0.00008	0.5135	mg/L	0.00008	0.02%
Cd 228.802†	34910.5	0.4917	mg/L	0.00547	0.4917	mg/L	0.00547	1.11%
Co 228.616*†	28535.3	0.5490	mg/L	0.00696	0.5490	mg/L	0.00696	1.27%
Co 230.786†	27510.1	0.5423	mg/L	0.00789	0.5423	mg/L	0.00789	1.46%
Cr 267.716*†	50296.1	0.5408	mg/L	0.00234	0.5408	mg/L	0.00234	0.43%
Cr 357.869†	30004.8	0.4796	mg/L	0.00007	0.4796	mg/L	0.00007	0.01%
Cu 324.752*†	70438.8	0.4945	mg/L	0.00248	0.4945	mg/L	0.00248	0.50%
Cu 327.393†	58673.7	0.4896	mg/L	0.00083	0.4896	mg/L	0.00083	0.17%
Fe 239.562†	818.6	0.5005	mg/L	0.00594	0.5005	mg/L	0.00594	1.19%
Fe 259.939†	1232.8	0.5018	mg/L	0.00042	0.5018	mg/L	0.00042	0.08%
Fe 273.955*†	16524.3	0.5159	mg/L	0.00719	0.5159	mg/L	0.00719	1.39%
Mg 279.077*†	6395.9	0.5016	mg/L	0.00522	0.5016	mg/L	0.00522	1.04%
Mg 280.271†	19658.2	0.5669	mg/L	0.00295	0.5669	mg/L	0.00295	0.52%
Mn 257.610*†	300817.9	0.5131	mg/L	0.00224	0.5131	mg/L	0.00224	0.44%
Mn 259.372†	228474.4	0.5059	mg/L	0.00320	0.5059	mg/L	0.00320	0.63%
Mo 202.031*†	11600.4	0.4956	mg/L	0.00674	0.4956	mg/L	0.00674	1.36%
Mo 203.845†	8414.4	0.4965	mg/L	0.00854	0.4965	mg/L	0.00854	1.72%
Ni 231.604*†	35812.2	0.5463	mg/L	0.00790	0.5463	mg/L	0.00790	1.45%
Ni 232.003†	12996.1	0.5215	mg/L	0.00858	0.5215	mg/L	0.00858	1.64%
Pb 217.000†	1055.2	0.4766	mg/L	0.01202	0.4766	mg/L	0.01202	2.52%
Pb 220.353*†	8700.7	0.5144	mg/L	0.00699	0.5144	mg/L	0.00699	1.36%
Sb 206†	2381.4	0.5399	mg/L	0.00586	0.5399	mg/L	0.00586	1.09%
Sb 206.836†	2554.7	0.5479	mg/L	0.01680	0.5479	mg/L	0.01680	3.07%
Sb 217.582*†	2393.6	0.5293	mg/L	0.02160	0.5293	mg/L	0.02160	4.08%
Se 196.026*†	1514.1	0.4826	mg/L	0.00603	0.4826	mg/L	0.00603	1.25%
Se 203.985†	1733.1	0.4788	mg/L	0.01598	0.4788	mg/L	0.01598	3.34%
Tl†	1476.5	0.5278	mg/L	0.00378	0.5278	mg/L	0.00378	0.72%
Tl 190.801*†	1797.2	0.5333	mg/L	0.00314	0.5333	mg/L	0.00314	0.59%
Tl 351.924†	2384.5	0.4828	mg/L	0.01150	0.4828	mg/L	0.01150	2.38%
V 292.402*†	53487.9	0.4854	mg/L	0.00189	0.4854	mg/L	0.00189	0.39%
V 310.230†	105788.4	0.5077	mg/L	0.00297	0.5077	mg/L	0.00297	0.58%
Zn 202.548†	56340.5	0.5479	mg/L	0.00340	0.5479	mg/L	0.00340	0.62%
Zn 206.200*†	39088.6	0.5418	mg/L	0.00788	0.5418	mg/L	0.00788	1.45%
Zn 213.857*†	82362.8	0.5318	mg/L	0.00129	0.5318	mg/L	0.00129	0.24%

Return to Contents

Sequence No.: 5
Sample ID: 13-11-0708-1 ms
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 157
Date Collected: 11/12/2013 1:31:15 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 13-11-0708-1 ms

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: 13-11-0708-1 ms

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Ho 339.898	183696.9	4.657	mg/L	0.0595				1.28%
Ho 345.600	298432.5	4.695	mg/L	0.0614				1.31%
Tb 350.917	132899.9	4.752	mg/L	0.0614				1.29%
Tb 384.873	77881.8	4.727	mg/L	0.0360				0.76%
Y 324.227	1102480.7	4.820	mg/L	0.0751				1.56%
Y 371.029	2210908.0	4.741	mg/L	0.0374				0.79%
Ag 328.068*†	42306.7	0.2917	mg/L	0.00115	0.2917	mg/L	0.00115	0.39%
Ag 338.289†	22650.8	0.2920	mg/L	0.00047	0.2920	mg/L	0.00047	0.16%
Al 308.215*†	101968.7	4.996	mg/L	0.0105	4.996	mg/L	0.0105	0.21%
Al 396.153†	638739.0	5.079	mg/L	0.0147	5.079	mg/L	0.0147	0.29%
As 188.979†	3353.5	0.5752	mg/L	0.00061	0.5752	mg/L	0.00061	0.11%
As 193.696*†	2304.6	0.5580	mg/L	0.00075	0.5580	mg/L	0.00075	0.14%
Ba 233.527*†	135830.6	0.7280	mg/L	0.00098	0.7280	mg/L	0.00098	0.13%
Ba 455.403†	172089.5	0.7277	mg/L	0.01281	0.7277	mg/L	0.01281	1.76%
Be 313.042*†	2851462.0	0.5363	mg/L	0.00041	0.5363	mg/L	0.00041	0.08%
Be 313.107†	1465652.2	0.5399	mg/L	0.00005	0.5399	mg/L	0.00005	0.01%
Cd 226.502*†	86717.7	0.5224	mg/L	0.00244	0.5224	mg/L	0.00244	0.47%
Cd 228.802†	36887.8	0.5195	mg/L	0.00044	0.5195	mg/L	0.00044	0.08%
Co 228.616*†	28369.2	0.5458	mg/L	0.00008	0.5458	mg/L	0.00008	0.01%
Co 230.786†	27477.2	0.5417	mg/L	0.00158	0.5417	mg/L	0.00158	0.29%
Cr 267.716*†	66488.1	0.7149	mg/L	0.00313	0.7149	mg/L	0.00313	0.44%
Cr 357.869†	47758.5	0.7634	mg/L	0.00265	0.7634	mg/L	0.00265	0.35%
Cu 324.752*†	81858.4	0.5747	mg/L	0.00188	0.5747	mg/L	0.00188	0.33%
Cu 327.393†	66901.0	0.5582	mg/L	0.00346	0.5582	mg/L	0.00346	0.62%
Fe 239.562†	9926.0	6.069	mg/L	0.0965	6.069	mg/L	0.0965	1.59%
Fe 259.939†	15122.2	6.155	mg/L	0.0954	6.155	mg/L	0.0954	1.55%
Fe 273.955*†	197823.6	6.176	mg/L	0.0208	6.176	mg/L	0.0208	0.34%
Mg 279.077*†	65292.1	5.120	mg/L	0.0383	5.120	mg/L	0.0383	0.75%
Mg 280.271†	180633.6	5.209	mg/L	0.0737	5.209	mg/L	0.0737	1.41%
Mn 257.610*†	375006.9	0.6397	mg/L	0.00211	0.6397	mg/L	0.00211	0.33%
Mn 259.372†	293156.4	0.6491	mg/L	0.00267	0.6491	mg/L	0.00267	0.41%
Mo 202.031*†	12921.0	0.5521	mg/L	0.00086	0.5521	mg/L	0.00086	0.16%
Mo 203.845†	9294.9	0.5484	mg/L	0.00097	0.5484	mg/L	0.00097	0.18%
Ni 231.604*†	37092.4	0.5658	mg/L	0.00007	0.5658	mg/L	0.00007	0.01%
Ni 232.003†	14794.3	0.5936	mg/L	0.00241	0.5936	mg/L	0.00241	0.41%
Pb 217.000†	1228.5	0.5549	mg/L	0.00715	0.5549	mg/L	0.00715	1.29%
Pb 220.353*†	8841.4	0.5227	mg/L	0.00156	0.5227	mg/L	0.00156	0.30%
Sb 206†	2380.6	0.5397	mg/L	0.00713	0.5397	mg/L	0.00713	1.32%
Sb 206.836†	2531.5	0.5429	mg/L	0.01819	0.5429	mg/L	0.01819	3.35%
Sb 217.582*†	2474.6	0.5472	mg/L	0.01174	0.5472	mg/L	0.01174	2.14%
Se 196.026*†	1729.7	0.5513	mg/L	0.00024	0.5513	mg/L	0.00024	0.04%
Se 203.985†	1908.5	0.5272	mg/L	0.01609	0.5272	mg/L	0.01609	3.05%
Tl†	1526.1	0.5455	mg/L	0.00281	0.5455	mg/L	0.00281	0.51%
Tl 190.801*†	1860.6	0.5521	mg/L	0.00174	0.5521	mg/L	0.00174	0.32%
Tl 351.924†	2887.0	0.5846	mg/L	0.01918	0.5846	mg/L	0.01918	3.28%
V 292.402*†	59856.5	0.5432	mg/L	0.00332	0.5432	mg/L	0.00332	0.61%
V 310.230†	114871.2	0.5513	mg/L	0.00146	0.5513	mg/L	0.00146	0.26%
Zn 202.548†	59489.7	0.5786	mg/L	0.00613	0.5786	mg/L	0.00613	1.06%
Zn 206.200*†	41018.7	0.5681	mg/L	0.00002	0.5681	mg/L	0.00002	0.00%
Zn 213.857*†	93450.5	0.6010	mg/L	0.00233	0.6010	mg/L	0.00233	0.39%

Return to Contents

Sequence No.: 6
Sample ID: 13-11-0708-1 msd
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 158
Date Collected: 11/12/2013 1:32:18 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 13-11-0708-1 msd

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: 13-11-0708-1 msd

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Ho 339.898	183281.5	4.647	mg/L	0.0097				0.21%
Ho 345.600	296763.2	4.669	mg/L	0.0110				0.24%
Tb 350.917	132433.9	4.735	mg/L	0.0165				0.35%
Tb 384.873	77802.1	4.722	mg/L	0.0061				0.13%
Y 324.227	1093685.6	4.781	mg/L	0.0123				0.26%
Y 371.029	2214480.7	4.748	mg/L	0.0174				0.37%
Ag 328.068*†	42293.2	0.2917	mg/L	0.00059	0.2917	mg/L	0.00059	0.20%
Ag 338.289†	22624.6	0.2917	mg/L	0.00185	0.2917	mg/L	0.00185	0.63%
Al 308.215*†	105613.2	5.175	mg/L	0.0237	5.175	mg/L	0.0237	0.46%
Al 396.153†	659822.2	5.247	mg/L	0.0140	5.247	mg/L	0.0140	0.27%
As 188.979†	3355.4	0.5755	mg/L	0.00537	0.5755	mg/L	0.00537	0.93%
As 193.696*†	2282.4	0.5527	mg/L	0.01261	0.5527	mg/L	0.01261	2.28%
Ba 233.527*†	135172.5	0.7245	mg/L	0.00099	0.7245	mg/L	0.00099	0.14%
Ba 455.403†	171736.3	0.7262	mg/L	0.00453	0.7262	mg/L	0.00453	0.62%
Be 313.042*†	2854694.4	0.5369	mg/L	0.00120	0.5369	mg/L	0.00120	0.22%
Be 313.107†	1465263.0	0.5398	mg/L	0.00112	0.5398	mg/L	0.00112	0.21%
Cd 226.502*†	86642.0	0.5219	mg/L	0.00185	0.5219	mg/L	0.00185	0.36%
Cd 228.802†	36665.2	0.5164	mg/L	0.00308	0.5164	mg/L	0.00308	0.60%
Co 228.616*†	28251.6	0.5435	mg/L	0.00424	0.5435	mg/L	0.00424	0.78%
Co 230.786†	27378.8	0.5397	mg/L	0.00428	0.5397	mg/L	0.00428	0.79%
Cr 267.716*†	66841.9	0.7187	mg/L	0.00212	0.7187	mg/L	0.00212	0.29%
Cr 357.869†	47614.0	0.7611	mg/L	0.00208	0.7611	mg/L	0.00208	0.27%
Cu 324.752*†	81226.5	0.5702	mg/L	0.00081	0.5702	mg/L	0.00081	0.14%
Cu 327.393†	67392.9	0.5623	mg/L	0.00065	0.5623	mg/L	0.00065	0.11%
Fe 239.562†	10398.8	6.358	mg/L	0.0126	6.358	mg/L	0.0126	0.20%
Fe 259.939†	15683.1	6.383	mg/L	0.0542	6.383	mg/L	0.0542	0.85%
Fe 273.955*†	207784.2	6.487	mg/L	0.0293	6.487	mg/L	0.0293	0.45%
Mg 279.077*†	66624.8	5.225	mg/L	0.0080	5.225	mg/L	0.0080	0.15%
Mg 280.271†	182377.8	5.259	mg/L	0.0230	5.259	mg/L	0.0230	0.44%
Mn 257.610*†	373418.6	0.6370	mg/L	0.00099	0.6370	mg/L	0.00099	0.16%
Mn 259.372†	291192.4	0.6448	mg/L	0.00018	0.6448	mg/L	0.00018	0.03%
Mo 202.031*†	12964.9	0.5539	mg/L	0.00314	0.5539	mg/L	0.00314	0.57%
Mo 203.845†	9359.1	0.5522	mg/L	0.00109	0.5522	mg/L	0.00109	0.20%
Ni 231.604*†	37176.0	0.5671	mg/L	0.00127	0.5671	mg/L	0.00127	0.22%
Ni 232.003†	14805.1	0.5941	mg/L	0.00324	0.5941	mg/L	0.00324	0.55%
Pb 217.000†	1169.2	0.5281	mg/L	0.02166	0.5281	mg/L	0.02166	4.10%
Pb 220.353*†	8775.6	0.5188	mg/L	0.00477	0.5188	mg/L	0.00477	0.92%
Sb 206†	2401.4	0.5444	mg/L	0.00569	0.5444	mg/L	0.00569	1.05%
Sb 206.836†	2550.0	0.5469	mg/L	0.00079	0.5469	mg/L	0.00079	0.14%
Sb 217.582*†	2498.6	0.5525	mg/L	0.00371	0.5525	mg/L	0.00371	0.67%
Se 196.026*†	1693.9	0.5399	mg/L	0.00598	0.5399	mg/L	0.00598	1.11%
Se 203.985†	1936.7	0.5350	mg/L	0.01293	0.5350	mg/L	0.01293	2.42%
Tl†	1522.3	0.5442	mg/L	0.00344	0.5442	mg/L	0.00344	0.63%
Tl 190.801*†	1866.3	0.5538	mg/L	0.00162	0.5538	mg/L	0.00162	0.29%
Tl 351.924†	2959.0	0.5992	mg/L	0.02864	0.5992	mg/L	0.02864	4.78%
V 292.402*†	60138.8	0.5458	mg/L	0.00077	0.5458	mg/L	0.00077	0.14%
V 310.230†	115975.5	0.5566	mg/L	0.00394	0.5566	mg/L	0.00394	0.71%
Zn 202.548†	60576.6	0.5892	mg/L	0.00137	0.5892	mg/L	0.00137	0.23%
Zn 206.200*†	41705.4	0.5775	mg/L	0.00634	0.5775	mg/L	0.00634	1.10%
Zn 213.857*†	95813.1	0.6161	mg/L	0.00245	0.6161	mg/L	0.00245	0.40%

Return to Contents

Sequence No.: 4
Sample ID: 13-11-0708-1
Analyst: 469 icp 7300
Initial Sample Wt:
Dilution:

Autosampler Location: 156
Date Collected: 11/12/2013 1:30:03 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 13-11-0708-1

Analyte	Back Pressure	Flow
All	125.0 kPa	0.50 L/min

Mean Data: 13-11-0708-1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Ho 339.898	187134.6	4.745	mg/L	0.0502				1.06%
Ho 345.600	304071.5	4.784	mg/L	0.0488				1.02%
Tb 350.917	134956.8	4.825	mg/L	0.0535				1.11%
Tb 384.873	79589.4	4.831	mg/L	0.0476				0.99%
Y 324.227	1110369.6	4.854	mg/L	0.0372				0.77%
Y 371.029	2237170.1	4.797	mg/L	0.0444				0.93%
Ag 328.068*†	238.3	0.0016	mg/L	0.00007	0.0016	mg/L	0.00007	4.52%
Ag 338.289†	129.3	0.0017	mg/L	0.00012	0.0017	mg/L	0.00012	7.01%
Al 308.215*†	92771.4	4.546	mg/L	0.0321	4.546	mg/L	0.0321	0.71%
Al 396.153†	592680.9	4.713	mg/L	0.0090	4.713	mg/L	0.0090	0.19%
As 188.979†	53.7	0.0092	mg/L	0.00035	0.0092	mg/L	0.00035	3.77%
As 193.696*†	-43.8	-0.0106	mg/L	0.00149	-0.0106	mg/L	0.00149	14.08%
Ba 233.527*†	41464.6	0.2222	mg/L	0.00065	0.2222	mg/L	0.00065	0.29%
Ba 455.403†	52457.2	0.2218	mg/L	0.00653	0.2218	mg/L	0.00653	2.94%
Be 313.042*†	787.6	0.0001	mg/L	0.00003	0.0001	mg/L	0.00003	20.88%
Be 313.107†	351.4	0.0001	mg/L	0.00007	0.0001	mg/L	0.00007	52.31%
Cd 226.502*†	26.4	0.0002	mg/L	0.00001	0.0002	mg/L	0.00001	7.88%
Cd 228.802†	-53.5	-0.0008	mg/L	0.00015	-0.0008	mg/L	0.00015	19.48%
Co 228.616*†	196.3	0.0038	mg/L	0.00019	0.0038	mg/L	0.00019	5.11%
Co 230.786†	185.0	0.0036	mg/L	0.00050	0.0036	mg/L	0.00050	13.83%
Cr 267.716*†	15692.3	0.1687	mg/L	0.00184	0.1687	mg/L	0.00184	1.09%
Cr 357.869†	10987.9	0.1756	mg/L	0.00106	0.1756	mg/L	0.00106	0.60%
Cu 324.752*†	2020.2	0.0142	mg/L	0.00000	0.0142	mg/L	0.00000	0.01%
Cu 327.393†	936.6	0.0078	mg/L	0.00066	0.0078	mg/L	0.00066	8.43%
Fe 239.562†	10700.6	6.543	mg/L	0.2521	6.543	mg/L	0.2521	3.85%
Fe 259.939†	16100.4	6.553	mg/L	0.1843	6.553	mg/L	0.1843	2.81%
Fe 273.955*†	212502.6	6.634	mg/L	0.0467	6.634	mg/L	0.0467	0.70%
Mg 279.077*†	62852.0	4.929	mg/L	0.0265	4.929	mg/L	0.0265	0.54%
Mg 280.271†	172477.4	4.974	mg/L	0.1482	4.974	mg/L	0.1482	2.98%
Mn 257.610*†	72675.3	0.1240	mg/L	0.00093	0.1240	mg/L	0.00093	0.75%
Mn 259.372†	59606.2	0.1320	mg/L	0.00097	0.1320	mg/L	0.00097	0.73%
Mo 202.031*†	799.2	0.0341	mg/L	0.00002	0.0341	mg/L	0.00002	0.06%
Mo 203.845†	563.5	0.0332	mg/L	0.00029	0.0332	mg/L	0.00029	0.87%
Ni 231.604*†	1776.9	0.0271	mg/L	0.00021	0.0271	mg/L	0.00021	0.77%
Ni 232.003†	830.8	0.0333	mg/L	0.00085	0.0333	mg/L	0.00085	2.54%
Pb 217.000†	-3.5	-0.0016	mg/L	0.00571	-0.0016	mg/L	0.00571	358.98%
Pb 220.353*†	-0.2	0.0000	mg/L	0.00091	0.0000	mg/L	0.00091	>999.9%
Sb 206†	7.0	0.0016	mg/L	0.00077	0.0016	mg/L	0.00077	48.57%
Sb 206.836†	-8.8	-0.0019	mg/L	0.00287	-0.0019	mg/L	0.00287	151.88%
Sb 217.582*†	8.1	0.0018	mg/L	0.00032	0.0018	mg/L	0.00032	17.76%
Se 196.026*†	26.8	0.0085	mg/L	0.00338	0.0085	mg/L	0.00338	39.64%
Se 203.985†	-18.8	-0.0052	mg/L	0.00015	-0.0052	mg/L	0.00015	2.96%
Tl†	5.6	0.0020	mg/L	0.00140	0.0020	mg/L	0.00140	69.52%
Tl 190.801*†	13.7	0.0041	mg/L	0.00348	0.0041	mg/L	0.00348	85.97%
Tl 351.924†	-6.1	-0.0012	mg/L	0.00710	-0.0012	mg/L	0.00710	578.62%
V 292.402*†	1624.2	0.0147	mg/L	0.00004	0.0147	mg/L	0.00004	0.30%
V 310.230†	4088.8	0.0196	mg/L	0.01310	0.0196	mg/L	0.01310	66.75%
Zn 202.548†	2623.4	0.0255	mg/L	0.00013	0.0255	mg/L	0.00013	0.53%
Zn 206.200*†	1915.4	0.0260	mg/L	0.00018	0.0260	mg/L	0.00018	0.70%
Zn 213.857*†	4324.5	0.0254	mg/L	0.00021	0.0254	mg/L	0.00021	0.82%

Return to Contents

EPA METHOD 6010 B

RUN LOG

Return to Contents

131112C1

M082713A 0.050 ml

INT STD M060613E PDS/PDSD 10 ml

R.B. R04231302 M082713B 0.050 ml

No.	File Name	Date	Time	AnalystName	AutoSampleLocation	
1	Cal blank R04231301_469	11/12/2013	10:31:46 AM	469 icp 7300	5	
2	STD3-M092713A_analyst 469	11/12/2013	10:33:22 AM	469 icp 7300	2	
3	STD2 M040113A_analyst 469	11/12/2013	10:34:46 AM	469 icp 7300	7	
4	ICV-M082713c	11/12/2013	10:35:32 AM	469 icp 7300	10	
5	ICB-R04231301	11/12/2013	10:36:56 AM	469 icp 7300	1	
6	ICB-2 R04231301	11/12/2013	10:39:18 AM	469 icp 7300	1	
7	ICV-2 M062013A	11/12/2013	10:40:55 AM	469 icp 7300	6	
8	ICS_A -M042313B	11/12/2013	10:42:29 AM	469 icp 7300	8	
9	ICS_AB -M042313A	11/12/2013	10:43:52 AM	469 icp 7300	9	
10	CCV= STD3x0.5	11/12/2013	10:45:15 AM	469 icp 7300	3	
11	CCV-2=0.5XSTD-2	11/12/2013	10:46:47 AM	469 icp 7300	6	
12	CCB-R04231301	11/12/2013	10:48:21 AM	469 icp 7300	1	
13	CCB-2-R04231301	11/12/2013	10:49:58 AM	469 icp 7300	5	
14	LLCV-M082713F ***	11/12/2013	11:30:20 AM	469 icp 7300	101	*** LLCV did not pass. Rerun.
15	LLCV-M082713F	11/12/2013	11:31:56 AM	469 icp 7300	101	
16	131107-b-01	11/12/2013	11:33:32 AM	469 icp 7300	102	
17	131107-l-01	11/12/2013	11:35:31 AM	469 icp 7300	103	
18	CCV= STD3x0.5	11/12/2013	11:37:06 AM	469 icp 7300	3	* CCV/CCB for Golo water and Bi. S. Li
19	CCV-2=0.5XSTD-2 *	11/12/2013	11:38:34 AM	469 icp 7300	6	
20	CCB-R04231301	11/12/2013	11:40:10 AM	469 icp 7300	1	
21	CCB-2R04231301	11/12/2013	11:41:46 AM	469 icp 7300	5	
22	CCV-2=0.5XSTD-2 **	11/12/2013	11:43:06 AM	469 icp 7300	6	** CCV/CCB for Bi. S. Li
23	CCB2 R04231301	11/12/2013	11:44:15 AM	469 icp 7300	5	
24	13-11-0283-1	11/12/2013	11:45:46 AM	469 icp 7300	104	
25	13-11-0283-1 ms	11/12/2013	11:46:44 AM	469 icp 7300	105	
26	13-11-0283-1 msd	11/12/2013	11:47:40 AM	469 icp 7300	106	

Reviewed/Assign to Logbook Date: 11-13-13
Analysis: Golo/200.7 Chemist ID: 776
Logbook Page: 59 Instrument ID: icp7

Return to Contents

62	13-11-0384-45	11/12/2013	12:32:28 PM	469 icp 7300	127
63	13-11-0384-46	11/12/2013	12:33:11 PM	469 icp 7300	128
64	13-11-0384-58	11/12/2013	12:33:54 PM	469 icp 7300	129
65	13-11-0384-59	11/12/2013	12:34:37 PM	469 icp 7300	130
66	13-11-0384-60	11/12/2013	12:35:20 PM	469 icp 7300	131
67	13-11-0384-star100-1	11/12/2013	12:36:03 PM	469 icp 7300	132
68	CCV= STD3x0.5	11/12/2013	12:37:02 PM	469 icp 7300	3
69	CCB-R04231301	11/12/2013	12:37:52 PM	469 icp 7300	1
70	CCB-2 R04231301	11/12/2013	12:38:52 PM	469 icp 7300	6
71	13-11-0384-star100-3	11/12/2013	12:39:52 PM	469 icp 7300	133
72	13-11-0384-star100-11	11/12/2013	12:40:53 PM	469 icp 7300	134
73	13-11-0384-star100-25	11/12/2013	12:41:56 PM	469 icp 7300	135
74	13-11-0384-star100-26	11/12/2013	12:42:59 PM	469 icp 7300	136
75	CCV= STD3x0.5	11/12/2013	12:43:58 PM	469 icp 7300	3
76	CCB-R04231301	11/12/2013	12:44:47 PM	469 icp 7300	1
77	CCB-2 R04231301	11/12/2013	12:45:51 PM	469 icp 7300	6
78	Calblank R04231301_ 469	11/12/2013	12:46:38 PM	469 icp 7300	5
79	STD3-M092713A-Analyst-469	11/12/2013	12:48:15 PM	469 icp 7300	2
80	CCV= STD3x0.5	11/12/2013	12:49:40 PM	469 icp 7300	3
81	CCB-R04231301	11/12/2013	12:50:53 PM	469 icp 7300	1
82	CCB-1 R04231301	11/12/2013	12:52:26 PM	469 icp 7300	5
83	131111-ba-6	11/12/2013	12:53:45 PM	469 icp 7300	137
84	131111-la-6	11/12/2013	12:55:18 PM	469 icp 7300	138
85	131108-la-3	11/12/2013	12:56:37 PM	469 icp 7300	139
86	13-11-0651-1	11/12/2013	12:57:56 PM	469 icp 7300	140
87	13-11-0651-1 ms	11/12/2013	12:59:28 PM	469 icp 7300	141
88	13-11-0651-1 msd	11/12/2013	1:00:48 PM	469 icp 7300	142
89	13-11-0734-1	11/12/2013	1:02:08 PM	469 icp 7300	143
90	13-11-0734-1 ms	11/12/2013	1:03:40 PM	469 icp 7300	144
91	13-11-0734-1 msd	11/12/2013	1:05:00 PM	469 icp 7300	145
92	13-11-0734-2	11/12/2013	1:06:20 PM	469 icp 7300	146
93	CCV= STD3x0.5	11/12/2013	1:07:56 PM	469 icp 7300	3
94	CCB-R04231301	11/12/2013	1:09:08 PM	469 icp 7300	1
95	CCB2-R04231301	11/12/2013	1:10:44 PM	469 icp 7300	5
96	13-11-0733-1	11/12/2013	1:12:17 PM	469 icp 7300	147

Reviewed/Assign to Logbook Date: 11-13-13
Analysis: 6010/200.7 Chemist ID: 776
Logbook Page: 61 Instrument ID: 2007

Return to Contents

97	13-11-0733-2	11/12/2013	1:13:52 PM	469 icp 7300	148	
98	13-11-0733-3	11/12/2013	1:15:12 PM	469 icp 7300	149	
99	13-11-0735-1	11/12/2013	1:16:48 PM	469 icp 7300	150	
100	13-11-0735-2	11/12/2013	1:18:25 PM	469 icp 7300	151	
101	13-11-0735-3	11/12/2013	1:20:02 PM	469 icp 7300	152	
102	CCV= STD3x0.5	11/12/2013	1:21:38 PM	469 icp 7300	3	
103	CCB-R04231301	11/12/2013	1:22:50 PM	469 icp 7300	1	
104	CCB2-R04231301	11/12/2013	1:24:23 PM	469 icp 7300	5	
105	131111-ba-5f	11/12/2013	1:25:40 PM	469 icp 7300	153	
106	131111-ba-5	11/12/2013	1:27:14 PM	469 icp 7300	154	
107	131111-la-5	11/12/2013	1:28:45 PM	469 icp 7300	155	
108	13-11-0708-1	11/12/2013	1:30:03 PM	469 icp 7300	156	
109	13-11-0708-1 ms	11/12/2013	1:31:15 PM	469 icp 7300	157	
110	13-11-0708-1 msd	11/12/2013	1:32:18 PM	469 icp 7300	158	
111	13-11-0735-f-1	11/12/2013	1:33:21 PM	469 icp 7300	159	
112	13-11-0735-f-2	11/12/2013	1:34:57 PM	469 icp 7300	160	
113	13-11-0735-f-3	11/12/2013	1:36:33 PM	469 icp 7300	301	
114	13-11-0733-f-1	11/12/2013	1:38:11 PM	469 icp 7300	302	
115	CCV= STD3x0.5 *	11/12/2013	1:39:50 PM	469 icp 7300	3	* ccv/ccb for Title 22 water
116	CCB-R04231301 *	11/12/2013	1:41:00 PM	469 icp 7300	1	* ccv/ccb for Title 22 water
117	CCB2-R04231301 *	11/12/2013	1:42:32 PM	469 icp 7300	5	* ccv/ccb for Title 22 water
118	CCV-2=0.5XSTD-2 **	11/12/2013	2:01:19 PM	469 icp 7300	6	** ccv/ccb for Bi. S. Li
119	CCB2-R04231301 **	11/12/2013	2:02:44 PM	469 icp 7300	5	** ccv/ccb for Bi. S. Li
120	13-11-0308-star100-1	11/12/2013	2:04:32 PM	469 icp 7300	107	
121	13-11-0308-star100-2	11/12/2013	2:06:08 PM	469 icp 7300	108	
122	CCV-2=0.5XSTD-2	11/12/2013	2:07:33 PM	469 icp 7300	6	
123	CCB2-R04231301	11/12/2013	2:09:00 PM	469 icp 7300	5	
124	Calblank R04231301_ 469	11/12/2013	2:10:17 PM	469 icp 7300	5	
125	STD3-M092713A-Analyst-469	11/12/2013	2:11:50 PM	469 icp 7300	2	
126	CCV= STD3x0.5	11/12/2013	2:13:12 PM	469 icp 7300	3	
127	CCB-R04231301	11/12/2013	2:14:25 PM	469 icp 7300	1	
128	CCB-1 R04231301	11/12/2013	2:16:01 PM	469 icp 7300	5	
129	LLCV-M082713F ***	11/12/2013	2:17:58 PM	469 icp 7300	101	*** LLCV did not pass. Recalibrate.
130	LLCV-M082713F ***	11/12/2013	2:19:39 PM	469 icp 7300	101	*** LLCV did not pass. Recalibrate.
131	Calblank R04231301_ 469	11/12/2013	2:21:42 PM	469 icp 7300	5	

Reviewed/Assign to Logbook Date: 11/13/13
Analyst: 6010/200.7 Chemist ID: 426

Return to Contents

132	STD3-M092713A-Analyst-469	11/12/2013	2:23:16 PM	469 icp 7300	2
133	CCV= STD3x0.5	11/12/2013	2:24:38 PM	469 icp 7300	3
134	CCB-R04231301	11/12/2013	2:25:51 PM	469 icp 7300	1
135	CCB-1 R04231301	11/12/2013	2:27:24 PM	469 icp 7300	5
136	LLCV-M082713F	11/12/2013	2:28:42 PM	469 icp 7300	101
137	CCV= STD3x0.5	11/12/2013	2:30:57 PM	469 icp 7300	3
138	CCB-R04231301	11/12/2013	2:32:08 PM	469 icp 7300	1
139	CCB-1R04231301	11/12/2013	2:33:41 PM	469 icp 7300	5
140	131107-b-09	11/12/2013	2:40:13 PM	469 icp 7300	111
141	131107-l-09	11/12/2013	2:41:47 PM	469 icp 7300	112
142	13-11-0343-star5-1	11/12/2013	2:43:05 PM	469 icp 7300	113
143	13-11-0343-1	11/12/2013	2:44:27 PM	469 icp 7300	114
144	13-11-0343-1 ms	11/12/2013	2:45:34 PM	469 icp 7300	115
145	13-11-0343-1 msd	11/12/2013	2:46:43 PM	469 icp 7300	116
146	13-11-0343-1 ps	11/12/2013	2:47:52 PM	469 icp 7300	117
147	13-11-0343-1 psd	11/12/2013	2:49:01 PM	469 icp 7300	118
148	13-11-0343-2	11/12/2013	2:50:10 PM	469 icp 7300	119
149	13-11-0343-3	11/12/2013	2:51:17 PM	469 icp 7300	120
150	CCV= STD3x0.5	11/12/2013	2:52:25 PM	469 icp 7300	3
151	CCB-R04231301	11/12/2013	2:53:35 PM	469 icp 7300	1
152	CCB2-R04231301	11/12/2013	2:55:07 PM	469 icp 7300	5
153	131112-b-01	11/12/2013	2:56:24 PM	469 icp 7300	336
154	131112-l-01	11/12/2013	2:57:38 PM	469 icp 7300	337
155	131108-l-02d	11/12/2013	2:58:46 PM	469 icp 7300	338
156	13-11-0773-5	11/12/2013	2:59:54 PM	469 icp 7300	339
157	13-11-0773-5 ms	11/12/2013	3:01:00 PM	469 icp 7300	340
158	13-11-0773-5 msd	11/12/2013	3:02:05 PM	469 icp 7300	341
159	13-11-0419-1	11/12/2013	3:03:10 PM	469 icp 7300	342
160	13-11-0389-1	11/12/2013	3:04:09 PM	469 icp 7300	343
161	13-11-0363-star100-1	11/12/2013	3:05:21 PM	469 icp 7300	344
162	13-11-0497-2	11/12/2013	3:06:34 PM	469 icp 7300	345
163	CCV= STD3x0.5	11/12/2013	3:07:41 PM	469 icp 7300	3
164	CCB-R04231301	11/12/2013	3:08:49 PM	469 icp 7300	1
165	CCB2-R04231301	11/12/2013	3:10:04 PM	469 icp 7300	5
166	13-11-0475-1	11/12/2013	3:11:19 PM	469 icp 7300	346

Reviewed/Assign to Logbook Date: 11-13-13
Analysis: 6010/200.7 Chemist ID: 276
Logbook Page: 63 Instrument ID: 209

Return to Contents

202	13-11-0588-f-1	11/12/2013	3:59:39 PM	469 icp 7300	310
203	13-11-0588-f-2	11/12/2013	4:01:10 PM	469 icp 7300	311
204	13-11-0588-f-3	11/12/2013	4:02:41 PM	469 icp 7300	312
205	CCV= STD3x0.5	11/12/2013	4:04:13 PM	469 icp 7300	3
206	CCB-R04231301	11/12/2013	4:05:23 PM	469 icp 7300	1
207	CCB2-R04231301	11/12/2013	4:06:55 PM	469 icp 7300	5
208	13-11-0588-1	11/12/2013	4:08:27 PM	469 icp 7300	313
209	13-11-0588-2	11/12/2013	4:09:33 PM	469 icp 7300	314
210	13-11-0588-3	11/12/2013	4:10:47 PM	469 icp 7300	315
211	13-11-0562-1	11/12/2013	4:11:51 PM	469 icp 7300	316
212	13-11-0562-2	11/12/2013	4:13:23 PM	469 icp 7300	317
213	13-11-0562-3	11/12/2013	4:14:55 PM	469 icp 7300	318
214	13-11-0562-4	11/12/2013	4:16:31 PM	469 icp 7300	319
215	13-11-0738-1	11/12/2013	4:18:03 PM	469 icp 7300	320
216	13-11-0697-13	11/12/2013	4:19:19 PM	469 icp 7300	321
217	13-11-0688-2	11/12/2013	4:20:50 PM	469 icp 7300	322
218	CCV= STD3x0.5	11/12/2013	4:22:21 PM	469 icp 7300	3
219	CCB-R04231301	11/12/2013	4:23:31 PM	469 icp 7300	1
220	CCB2-R04231301	11/12/2013	4:25:03 PM	469 icp 7300	5
221	131112-ba-1	11/12/2013	4:26:35 PM	469 icp 7300	347
222	131112-la-1	11/12/2013	4:28:08 PM	469 icp 7300	348
223	13-11-0799-tc-1	11/12/2013	4:29:26 PM	469 icp 7300	349
224	13-11-0799-tc-1 ms	11/12/2013	4:30:58 PM	469 icp 7300	350
225	13-11-0799-tc-1 msd	11/12/2013	4:32:17 PM	469 icp 7300	351
226	13-11-0799-tc-2	11/12/2013	4:33:36 PM	469 icp 7300	352
227	13-11-0799-tc-3	11/12/2013	4:35:07 PM	469 icp 7300	353
228	13-11-0801-tc-1	11/12/2013	4:36:39 PM	469 icp 7300	354
229	13-11-0801-tc-2	11/12/2013	4:38:10 PM	469 icp 7300	355
230	13-11-0778-tc-1	11/12/2013	4:39:41 PM	469 icp 7300	356
231	CCV= STD3x0.5	11/12/2013	4:40:51 PM	469 icp 7300	3
232	CCB-R04231301	11/12/2013	4:42:01 PM	469 icp 7300	1
233	CCB2-R04231301	11/12/2013	4:43:33 PM	469 icp 7300	5
234	131112-b-03	11/12/2013	5:11:15 PM	469 icp 7300	102
235	131112-l-03	11/12/2013	5:12:51 PM	469 icp 7300	103
236	13-11-0145-star5-36	11/12/2013	5:14:09 PM	469 icp 7300	104

Reviewed/Assign to Logbook Date: 11-13-13
Analysis: 6010/200.7 Chemist ID: 776
Logbook No.: 65 Instrument ID: 200.7

Return to Contents

EPA METHOD 6010 B

PREPARATION LOG

Return to Contents

Metals Sample Preparation Logbook

METHOD: ☑ 6010 ☐ 200.7 ☐ 6020 ☐ 200.8 MATRIX: ☐ SOLID ☑ AQUEOUS ☐ OTHER (SPECIFY) _____ MS/MSD BATCH NUMBER: 131111-LAS

REAGENT ID(S): 1) HNO_3 M006-12-13 2) HCl M006-13-13 3) H_2O_2 _____

LOT #: 1) Teflon Chip / Glass Bead _____ 2) Digestion Tube 130924 3) Filter 65812

ID #: 1) Block Digester #2 2) Thermometer C24970 (CF 0°) 3) Balance _____

Note: If digestion is not required due to turbidity < 1 NTU, then record the turbidity run date.

DATE	START TIME	ANALYST (STARTED BY)	FINISH TIME	ANALYST (FINISHED BY)	INITIAL pH	TURB (NTU)	TEMP (°C)	CEL ID #	ANALYTE(S)	SAMPLE INITIAL (g - S/O) (mL - A)	SAMPLE FINAL (mL)	SPIKE STANDARD (LCS/LCSD/MS/MSD) STANDARD ID	SPIKE STANDARD C (ppm)	SPIKE STANDARD V (mL)
11/11/13	1300	781	1520	781	<2	NA	94	MS 13-11-0708-1G	T	50	50	M032713A		
					<2			MSD ↓				M032713B	100	0.25
								LCS 131111-LAS						
								~~LCSD~~ MPF BASF				131111-FB		
								MB BAS						
					<2			13-11-0708-1G	T					
					<2			13-11-0693-1A	T					
					<2			2A						
					<2			3A						
					<2			4A						
					<2			13-11-0588-1H	Fe, Mn					
					<2			2H						
					<2			3H						
					>2			1L	Mn			lab FB		
					>2			2L						
					>2			3L						
					<2			13-11-0582-1B	T					
					<2			2B						
					<2			3B						
					<2			4B						
					>2			13-11-0738-1G	T			lab FB		
					<2			13-11-0697-1B	T					
					<2			13-11-0688-2A	T					

COMMENTS: _____

Return to Contents

EPA METHOD 7470 A

RAW DATA

Return to Contents

EPA METHOD 7470 A

INITIAL CALIBRATION
ICV/ICB
CCV/CCB

SAMPLE DATA

QUALITY CONTROL
Method Blank
LCS/LCSD
MS/MSD

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 7470A
Initial Calibration Verification

Work Order No.: 13-11-0697

Instrument ID: HG 4 (D)

Concentration Unit: µg/L

Test Method: EPA 7470A

Analyte	Initial Calibration Verification			
	True	ICV-1 Observed	ICV-1 %D	Control Limit
Mercury	5.000000	4.999107	0	0 – 10

01/17/2014 14:50

ICV-1 File: ICV M102513B 11/11/2013 11:36:45 AM

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Calscience Environmental Laboratories, Inc.

EPA Method 7470A
Initial and Continuing Calibration Blanks

Work Order No.: 13-11-0697
Instrument ID: HG 4 (D)
Concentration Unit: µg/L
Test Method: EPA 7470A

Analyte	Initial and Continuing Calibration Blanks				
	ICB-1	CCB-1	CCB-2	CCB-3	RL (No PF)
Mercury	-0.022942	-0.014664	-0.015602	-0.015387	0.250000

01/17/2014 14:50

ICB-1 File: ICB 11/11/2013 11:39:03 AM
CCB-1 File: CCB 11/11/2013 04:27:52 PM
CCB-2 File: CCB 11/11/2013 04:54:48 PM
CCB-3 File: CCB 11/11/2013 05:21:45 PM
Note: Preparation factor (PF) = 2 L/L

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Calscience Environmental Laboratories, Inc.

EPA Method 7470A
Continuing Calibration Verification

Work Order No.: 13-11-0697
Instrument ID: HG 4 (D)
Concentration Unit: µg/L

Test Method: EPA 7470A

Analyte	Continuing Calibration Verification							
	True	CCV-1		CCV-2		CCV-3		Control Limit
		Observed	%D	Observed	%D	Observed	%D	
Mercury	2.000000	2.011146	1	1.947307	3	1.944937	3	0 – 20

01/17/2014 14:50

CCV-1 File: CCV 0.2x10ppb 11/11/2013 04:25:36 PM
CCV-2 File: CCV 0.2x10ppb 11/11/2013 04:52:33 PM
CCV-3 File: CCV 0.2x10ppb 11/11/2013 05:19:28 PM

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Calscience Environmental Laboratories, Inc.

EPA Method 7470A
Initial Calibration Verification

Work Order No.: 13-11-0697

Instrument ID: HG 4 (D)

Concentration Unit: µg/L

Test Method: EPA 7470A

Analyte	Initial Calibration Verification			
	True	ICV-1 Observed	ICV-1 %D	Control Limit
Mercury	5.000000	4.730690	5	0 – 10

01/17/2014 14:55

ICV-1 File: ICV M102513B 11/12/2013 11:33:09 AM

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Calscience Environmental Laboratories, Inc.

EPA Method 7470A
Initial and Continuing Calibration Blanks

Work Order No.: 13-11-0697
Instrument ID: HG 4 (D)
Concentration Unit: µg/L
Test Method: EPA 7470A

Analyte	Initial and Continuing Calibration Blanks			
	ICB-1	CCB-1	CCB-2	RL (No PF)
Mercury	-0.029120	-0.022469	-0.022108	0.250000

01/17/2014 14:55

ICB-1 File: ICB 11/12/2013 11:35:26 AM
CCB-1 File: CCB 11/12/2013 12:02:17 PM
CCB-2 File: CCB 11/12/2013 12:29:36 PM
Note: Preparation factor (PF) = 2 L/L

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Calscience Environmental Laboratories, Inc.

EPA Method 7470A
Continuing Calibration Verification

Work Order No.: 13-11-0697

Instrument ID: HG 4 (D)

Concentration Unit: µg/L

Test Method: EPA 7470A

Analyte	Continuing Calibration Verification					
	True	CCV-1		CCV-2		Control Limit
		Observed	%D	Observed	%D	
Mercury	2.000000	1.956406	2	1.926537	4	0 – 20

01/17/2014 14:55

CCV-1 File: CCV 0.2x10ppb 11/12/2013 12:00:02 PM

CCV-2 File: CCV 0.2x10ppb 11/12/2013 12:27:21 PM

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

RAW DATA SHEET FOR METHOD: EPA 7470A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: Mercury
D/T ANALYZED: 11/12/2013 12:18
ANALYST: 769
DATA FILE: W:\MERCURY_DATA\TEMP\131112d\13-11-0697-13.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 7470A Total
D/T EXTRACTED: 11/11/2013 00:00

13 **CLIENT SAMPLE NUMBER: QCEB-11082013**

LCS/MB BATCH: 131111L06
MS/MSD BATCH: 131111S06
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Mercury	-0.0000264	1	ND	0.000500	2	mg/L	

Return to Contents

METHOD BLANK ASSOCIATION SUMMARY FOR METHOD: EPA 7470A

MB Sample ID: 099-04-008-6716
MB Batch ID: 131111L06
Instrument: Mercury
Matrix: Water
Analyst: 769
D/T Analyzed: 11/11/2013 16:50
Data File: W:\MERCURY_DATA\FINAL\131111D1\131111-b-06.icp

Reviewed By: 0
D/T Reviewed:
Extraction: EPA 7470A Total
D/T Extracted: 11/11/2013 00:00

Work Order #: 13-11-0697

Sample#	Client Sample ID	D/T Analyzed	Data File
13	QCEB-11082013	11/12/2013 12:18	W:\MERCURY_DATA\TEMP\131112d\13-11-0697-13.icp

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 7470A

WORK ORDER NUMBER: 099-04-008
INSTRUMENT NAME: Mercury
D/T ANALYZED: 11/11/2013 16:50
ANALYST: 769
DATA FILE: W:\MERCURY_DATA\FINAL\131111D1\131111-b-06.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 7470A Total
D/T EXTRACTED: 11/11/2013 00:00

MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 131111L06
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Mercury	-0.0000328	1	ND	0.000500	2	mg/L	

Return to Contents

LCS QUALITY CONTROL SHEET FOR METHOD : EPA 7470A

WORK ORDER : **13-11-0697**
INSTRUMENT NAME: Mercury
D/T ANALYZED: 11/11/2013 16:57
ANALYST: 769
LCS/MB BATCH: **131111L06**
DATA FILE: W:\MERCURY_DATA\FINAL\131111D1\131111-I-06.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 7470A Total
D/T EXTRACTED: 11/11/2013 00:00

COMPOUND NAME	CONC ADDED	CONC REC	%RECOVERY	%REC CONTROL LIMIT	STATUS	QUALIFIERS
Mercury	0.01000	0.009574	96	85-121	PASS	

Compounds listed in bold are required to be reported

Return to Contents

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 7470A

WORK ORDER:	**13-11-0697**	SAMPLE D/T EXTRACTED:	11/11/2013	EXTRACTION:	EPA 7470A Total
MS/MSD BATCH:	131111S06	MS D/T EXTRACTED:	11/11/2013	ANALYST:	769
SPIKED SAMPLE ID:	**13-11-0498-3**	MSD D/T EXTRACTED:	11/11/2013	SAMPLE INSTRUMENT NAME:	Mercury
REVIEWED BY:	0	SAMPLE D/T ANALYZED:	11/11/2013 17:03	MS INSTRUMENT NAME:	Mercury
DATE REVIEWED:		MS D/T ANALYZED:	11/11/2013 17:05	MSD INSTRUMENT NAME:	Mercury
		MSD D/T ANALYZED:	11/11/2013 17:08		

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL ADDED	FINAL ADDED	MS CONC	% REC	MSD CONC	% REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Mercury	ND	0.005000	0.01000	0.009451	95	0.009374	94	66-126	1	0-20	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	13-11-0498-3 ms.icp	W:\MERCURY_DATA\FINAL\131111D1\
MSD	13-11-0498-3 msd.icp	W:\MERCURY_DATA\FINAL\131111D1\

Return to Contents

Reprocessing Begun
Logged In Analyst: Andy Chan Technique: AA FIMS-MHS

Results Data Set (original): 140116D1
Results Library (original): W:\data-AA\xue-wen xu\Results\results.mdb
Results Data Set (reprocessed):
Results Library (reprocessed):

Sequence No.: 1 Autosampler Location: 7
Sample ID: Calib blank Date Collected: 11/11/2013 11:17:47 AM
Analyst: Data Type: Reprocessed on 1/17/2014 10:11:11 AM
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: Calib blank

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0002	0.0012	0.0002	11:18:54	No
2		[0.00]	0.0002	0.0007	0.0002	11:19:38	No
Mean:		[0.00]	0.0002				
SD:		0.00	0.0000				
%RSD:		0.00	8.24				

Auto-zero performed.

Sequence No.: 2 Autosampler Location: 1
Sample ID: 0.025ppb 0.005x5ppb Date Collected: 11/11/2013 11:20:04 AM
Analyst: Data Type: Reprocessed on 1/17/2014 10:11:11 AM
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: 0.025ppb 0.005x5ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.025]	0.0002	0.0020	0.0004	11:21:08	No
2		[0.025]	0.0002	0.0010	0.0004	11:21:51	No
Mean:		[0.025]	0.0002				
SD:		0.000	0.0000				
%RSD:		0.000	11.62				

Standard number 1 applied. [0.025]
Correlation Coef.: 1.000000 Slope: 0.00904 Intercept: 0.00000

Sequence No.: 3 Autosampler Location: 2
Sample ID: 0.10ppb M102513AX0.0001 Date Collected: 11/11/2013 11:22:15 AM
Analyst: Data Type: Reprocessed on 1/17/2014 10:11:11 AM
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: 0.10ppb M102513AX0.0001

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.100]	0.0010	0.0055	0.0012	11:23:19	No
2		[0.100]	0.0010	0.0054	0.0012	11:24:03	No
Mean:		[0.100]	0.0010				
SD:		0.000	0.0000				
%RSD:		0.000	0.11				

Standard number 2 applied. [0.100]
Correlation Coef.: 0.999645 Slope: 0.01013 Intercept: -0.00001

Sequence No.: 4 Autosampler Location: 3
Sample ID: 1.00ppb M102513AX0.001 Date Collected: 11/11/2013 11:24:28 AM
Analyst: Data Type: Reprocessed on 1/17/2014 10:11:11 AM
Initial Sample Wt: Initial Sample Vol:

Return to Contents

Dilution: **Sample Prep Vol:**

Replicate Data: 1.00ppb M102513AX0.001

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[1.000]	0.0117	0.0568	0.0119	11:25:32	No
2		[1.000]	0.0117	0.0561	0.0119	11:26:17	No
Mean:		[1.000]	0.0117				
SD:		0.000	0.0000				
%RSD:		0.000	0.09				

Standard number 3 applied. [1.000]
Correlation Coef.: 0.999922 Slope: 0.01176 Intercept: -0.00008

==========

Sequence No.: 5 **Autosampler Location: 4**
Sample ID: 2.00ppb M102513AX0.002 **Date Collected: 11/11/2013 11:26:42 AM**
Analyst: **Data Type: Reprocessed on 1/17/2014 10:11:13 AM**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 2.00ppb M102513AX0.002

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.000]	0.0231	0.1123	0.0233	11:27:47	No
2		[2.000]	0.0233	0.1121	0.0235	11:28:32	No
Mean:		[2.000]	0.0232				
SD:		0.000	0.0001				
%RSD:		0.000	0.54				

Standard number 4 applied. [2.000]
Correlation Coef.: 0.999970 Slope: 0.01166 Intercept: -0.00006

==========

Sequence No.: 6 **Autosampler Location: 5**
Sample ID: 5.00ppb M102513AX0.005 **Date Collected: 11/11/2013 11:28:57 AM**
Analyst: **Data Type: Reprocessed on 1/17/2014 10:11:13 AM**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 5.00ppb M102513AX0.005

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.000]	0.0577	0.2824	0.0578	11:30:02	No
2		[5.000]	0.0577	0.2805	0.0579	11:30:47	No
Mean:		[5.000]	0.0577				
SD:		0.000	0.0000				
%RSD:		0.000	0.05				

Standard number 5 applied. [5.000]
Correlation Coef.: 0.999988 Slope: 0.01156 Intercept: -0.00001

==========

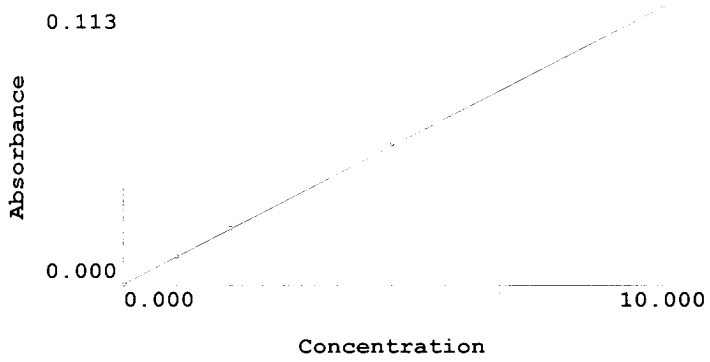
Sequence No.: 7 **Autosampler Location: 6**
Sample ID: 10.0ppb M102513AX0.01 **Date Collected: 11/11/2013 11:31:12 AM**
Analyst: **Data Type: Reprocessed on 1/17/2014 10:11:13 AM**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 10.0ppb M102513AX0.01

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.00]	0.1129	0.5579	0.1131	11:32:18	No
2		[10.00]	0.1130	0.5561	0.1132	11:33:02	No
Mean:		[10.00]	0.1130				
SD:		0.00	0.0001				
%RSD:		0.00	0.08				

Standard number 6 applied. [10.00]
Correlation Coef.: 0.999936 Slope: 0.01133 Intercept: 0.00022

Return to Contents



Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib blank	0.0000	0	-0.019255	0.00	8.2
0.025ppb 0.005x5ppb	0.0002	0.025	0.000694	0.00	11.6
0.10ppb M102513AX0.0001	0.0010	0.100	0.069486	0.00	0.1
1.00ppb M102513AX0.001	0.0117	1.000	1.013332	0.00	0.1
2.00ppb M102513AX0.002	0.0232	2.000	2.030000	0.00	0.5
5.00ppb M102513AX0.005	0.0577	5.000	5.075423	0.00	0.1
10.0ppb M102513AX0.01	0.1130	10.00	9.955321	0.00	0.1

Correlation Coef.: 0.999936 Slope: 0.01133 Intercept: 0.00022

Sequence No.: 8 **Autosampler Location: 8**
Sample ID: ICV M102513B **Date Collected: 11/11/2013 11:34:54 AM**
Analyst: **Data Type: Reprocessed on 1/17/2014 10:11:14 AM**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICV M102513B

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00496	4.96	0.0565	0.2786	0.0566	11:36:01	No
2	0.00503	5.03	0.0572	0.2758	0.0574	11:36:45	No
Mean:	0.00500	5.00	0.0568				
SD:	0.000049	0.0491	0.0006				
%RSD:	0.981	0.981	0.98				

QC value within limits for Hg 253.7 Recovery = 99.98%
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 7**
Sample ID: ICB **Date Collected: 11/11/2013 11:37:13 AM**
Analyst: **Data Type: Reprocessed on 1/17/2014 10:11:15 AM**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000026	-0.0256	-0.0001	-0.0016	0.0001	11:38:19	No
2	-0.000020	-0.0203	-0.0000	-0.0008	0.0002	11:39:03	No
Mean:	-0.000023	-0.0229	-0.0000				
SD:	0.000004	0.00370	0.0000				
%RSD:	16.1	16.1	100.42				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 9**
Sample ID: CRQL 0.25ppb **Date Collected: 11/11/2013 11:39:30 AM**
Analyst: **Data Type: Reprocessed on 1/17/2014 10:11:15 AM**

Return to Contents

Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: CRQL 0.25ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000212	0.212	0.0026	0.0129	0.0028	11:40:33	No
2	0.000211	0.211	0.0026	0.0123	0.0028	11:41:17	No
Mean:	0.000211	0.211	0.0026				
SD:	0.000001	0.000574	0.0000				
%RSD:	0.272	0.272	0.25				

==========

Sequence No.: 11 Autosampler Location: 4
Sample ID: CCV 0.2x10ppb Date Collected: 11/11/2013 11:41:41 AM
Analyst: Data Type: Reprocessed on 1/17/2014 10:11:15 AM
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: CCV 0.2x10ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00198	1.98	0.0226	0.1109	0.0228	11:42:46	No
2	0.00198	1.98	0.0226	0.1106	0.0228	11:43:30	No
Mean:	0.00198	1.98	0.0226				
SD:	0.000002	0.00237	0.0000				
%RSD:	0.120	0.120	0.12				

QC value within limits for Hg 253.7 Recovery = 98.90%
All analyte(s) passed QC.

==========

Sequence No.: 12 Autosampler Location: 7
Sample ID: CCB Date Collected: 11/11/2013 11:43:55 AM
Analyst: Data Type: Reprocessed on 1/17/2014 10:11:16 AM
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: CCB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000023	-0.0228	-0.0000	-0.0003	0.0001	11:45:02	No
2	-0.000015	-0.0151	0.0000	0.0008	0.0002	11:45:46	No
Mean:	-0.000019	-0.0190	0.0000				
SD:	0.000005	0.00546	0.0001				
%RSD:	28.7	28.7	>999.9%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Return to Contents

Sequence No.: 1
Sample ID: CCV 0.2x10ppb
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 4
Date Collected: 11/11/2013 4:23:47 PM
Data Type: Reprocessed on 1/17/2014 10:13:09 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV 0.2x10ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00200	2.00	0.0229	0.1143	0.0230	16:24:52	No
2	0.00202	2.02	0.0231	0.1138	0.0233	16:25:36	No
Mean:	0.00201	2.01	0.0230				
SD:	0.000018	0.0182	0.0002				
%RSD:	0.905	0.905	0.90				

QC value within limits for Hg 253.7 Recovery = 100.56%
All analyte(s) passed QC.

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 11/11/2013 4:26:01 PM
Data Type: Reprocessed on 1/17/2014 10:13:10 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000013	-0.0130	0.0001	0.0008	0.0002	16:27:08	No
2	-0.000016	-0.0163	0.0000	0.0002	0.0002	16:27:52	No
Mean:	-0.000015	-0.0147	0.0001				
SD:	0.000002	0.00235	0.0000				
%RSD:	16.0	16.0	51.21				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 3
Sample ID: 13-11-0698-8
Analyst:
Initial Sample Wt:
Dilution: 2X
Autosampler Location: 26
Date Collected: 11/11/2013 4:28:19 PM
Data Type: Reprocessed on 1/17/2014 10:13:10 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0698-8

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000027	-0.0136	0.0001	-0.0003	0.0002	16:29:24	No
2	-0.000009	-0.00434	0.0002	0.0010	0.0003	16:30:08	No
Mean:	-0.000018	-0.00899	0.0001				
SD:	0.000013	0.00657	0.0001				
%RSD:	73.1	73.1	64.01				

Sequence No.: 4
Sample ID: 13-11-0681-1
Analyst:
Initial Sample Wt:
Dilution: 2X
Autosampler Location: 27
Date Collected: 11/11/2013 4:30:34 PM
Data Type: Reprocessed on 1/17/2014 10:13:10 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0681-1

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000049	-0.0245	-0.0001	-0.0004	0.0001	16:31:39	No
2	-0.000051	-0.0255	-0.0001	-0.0005	0.0001	16:32:23	No
Mean:	-0.000050	-0.0250	-0.0001				
SD:	0.000001	0.000742	0.0000				

Return to Contents

%RSD:	2.97	2.97	12.89

Sequence No.: 5
Sample ID: 13-11-0681-2
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 28
Date Collected: 11/11/2013 4:32:50 PM
Data Type: Reprocessed on 1/17/2014 10:13:11 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0681-2

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000048	-0.0240	-0.0001	-0.0001	0.0001	16:33:56	No
2	-0.000055	-0.0276	-0.0001	-0.0011	0.0001	16:34:40	No
Mean:	-0.000052	-0.0258	-0.0001				
SD:	0.000005	0.00255	0.0000				
%RSD:	9.89	9.89	39.13				

Sequence No.: 6
Sample ID: 13-11-0681-3
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 29
Date Collected: 11/11/2013 4:35:06 PM
Data Type: Reprocessed on 1/17/2014 10:13:11 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0681-3

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000053	-0.0263	-0.0001	-0.0010	0.0001	16:36:12	No
2	-0.000052	-0.0262	-0.0001	-0.0005	0.0001	16:36:56	No
Mean:	-0.000053	-0.0263	-0.0001				
SD:	0.000000	0.000051	0.0000				
%RSD:	0.193	0.193	0.72				

Sequence No.: 7
Sample ID: 13-11-0681-4
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 30
Date Collected: 11/11/2013 4:37:23 PM
Data Type: Reprocessed on 1/17/2014 10:13:12 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0681-4

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000050	-0.0252	-0.0001	-0.0002	0.0001	16:38:29	No
2	-0.000053	-0.0267	-0.0001	-0.0010	0.0001	16:39:13	No
Mean:	-0.000052	-0.0260	-0.0001				
SD:	0.000002	0.00106	0.0000				
%RSD:	4.07	4.07	15.77				

Sequence No.: 8
Sample ID: 13-11-0681-5
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 31
Date Collected: 11/11/2013 4:39:40 PM
Data Type: Reprocessed on 1/17/2014 10:13:12 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0681-5

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000049	-0.0245	-0.0001	-0.0001	0.0001	16:40:47	No
2	-0.000050	-0.0248	-0.0001	-0.0003	0.0001	16:41:31	No
Mean:	-0.000049	-0.0246	-0.0001				
SD:	0.000000	0.000194	0.0000				
%RSD:	0.789	0.789	3.61				

Return to Contents

Sequence No.: 9
Sample ID: 13-11-0681-6
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 32
Date Collected: 11/11/2013 4:41:58 PM
Data Type: Reprocessed on 1/17/2014 10:13:13 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0681-6

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000048	-0.0238	-0.0001	0.0001	0.0001	16:43:01	No
2	-0.000045	-0.0225	-0.0000	0.0001	0.0001	16:43:47	No
Mean:	-0.000046	-0.0231	-0.0000				
SD:	0.000002	0.000979	0.0000				
%RSD:	4.23	4.23	25.15				

Sequence No.: 10
Sample ID: 13-11-0681-7
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 33
Date Collected: 11/11/2013 4:44:10 PM
Data Type: Reprocessed on 1/17/2014 10:13:13 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0681-7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000065	-0.0325	-0.0002	-0.0014	0.0000	16:45:13	No
2	-0.000051	-0.0254	-0.0001	-0.0004	0.0001	16:45:57	No
Mean:	-0.000058	-0.0290	-0.0001				
SD:	0.000010	0.00502	0.0001				
%RSD:	17.3	17.3	51.50				

Sequence No.: 11
Sample ID: 13-11-0681-8
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 34
Date Collected: 11/11/2013 4:46:21 PM
Data Type: Reprocessed on 1/17/2014 10:13:13 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0681-8

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000057	-0.0285	-0.0001	-0.0005	0.0001	16:47:24	No
2	-0.000051	-0.0254	-0.0001	-0.0000	0.0001	16:48:09	No
Mean:	-0.000054	-0.0269	-0.0001				
SD:	0.000004	0.00218	0.0000				
%RSD:	8.10	8.10	28.42				

Sequence No.: 12
Sample ID: 131111-b-06
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 35
Date Collected: 11/11/2013 4:48:32 PM
Data Type: Reprocessed on 1/17/2014 10:13:14 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 131111-b-06

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000065	-0.0325	-0.0001	-0.0005	0.0000	16:49:35	No
2	-0.000066	-0.0332	-0.0002	-0.0004	0.0000	16:50:20	No
Mean:	-0.000066	-0.0328	-0.0002				
SD:	0.000001	0.000496	0.0000				
%RSD:	1.51	1.51	3.66				

Sequence No.: 13
Sample ID: CCV 0.2x10ppb
Analyst:

Autosampler Location: 4
Date Collected: 11/11/2013 4:50:43 PM
Data Type: Reprocessed on 1/17/2014 10:13:14 AM

Return to Contents

Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: CCV 0.2x10ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00195	1.95	0.0223	0.1121	0.0224	16:51:49	No
2	0.00195	1.95	0.0223	0.1116	0.0224	16:52:33	No
Mean:	0.00195	1.95	0.0223				
SD:	0.000001	0.000995	0.0000				
%RSD:	0.0511	0.0511	0.05				

QC value within limits for Hg 253.7 Recovery = 97.37%
All analyte(s) passed QC.

==========

Sequence No.: 14 Autosampler Location: 7
Sample ID: CCB Date Collected: 11/11/2013 4:52:58 PM
Analyst: Data Type: Reprocessed on 1/17/2014 10:13:16 AM
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: CCB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000017	-0.0166	0.0000	0.0002	0.0002	16:54:04	No
2	-0.000015	-0.0146	0.0001	0.0004	0.0002	16:54:48	No
Mean:	-0.000016	-0.0156	0.0000				
SD:	0.000001	0.00144	0.0000				
%RSD:	9.20	9.20	39.29				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 15 Autosampler Location: 36
Sample ID: 131111-1-06 Date Collected: 11/11/2013 4:55:15 PM
Analyst: Data Type: Reprocessed on 1/17/2014 10:13:16 AM
Initial Sample Wt: Initial Sample Vol:
Dilution: 2X Sample Prep Vol:

Replicate Data: 131111-1-06

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00957	4.79	0.0544	0.2757	0.0546	16:56:19	No
2	0.00958	4.79	0.0545	0.2745	0.0546	16:57:03	No
Mean:	0.00957	4.79	0.0544				
SD:	0.000005	0.00240	0.0000				
%RSD:	0.0501	0.0501	0.05				

==========

Sequence No.: 16 Autosampler Location: 37
Sample ID: 13-11-0498-1 Date Collected: 11/11/2013 4:57:27 PM
Analyst: Data Type: Reprocessed on 1/17/2014 10:13:16 AM
Initial Sample Wt: Initial Sample Vol:
Dilution: 2X Sample Prep Vol:

Replicate Data: 13-11-0498-1

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000028	-0.0140	0.0001	0.0012	0.0002	16:58:31	No
2	-0.000033	-0.0163	0.0000	0.0004	0.0002	16:59:15	No
Mean:	-0.000030	-0.0151	0.0000				
SD:	0.000003	0.00164	0.0000				
%RSD:	10.8	10.8	39.46				

==========

Sequence No.: 17 Autosampler Location: 38
Sample ID: 13-11-0498-2 Date Collected: 11/11/2013 4:59:39 PM

Return to Contents

Analyst:
Initial Sample Wt:
Dilution: 2X

Data Type: Reprocessed on 1/17/2014 10:13:17 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0498-2

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000045	-0.0225	-0.0000	0.0002	0.0001	17:00:44	No
2	-0.000039	-0.0197	-0.0000	0.0005	0.0002	17:01:28	No
Mean:	-0.000042	-0.0211	-0.0000				
SD:	0.000004	0.00203	0.0000				
%RSD:	9.62	9.62	109.39				

==========

Sequence No.: 18
Sample ID: 13-11-0498-3
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 39
Date Collected: 11/11/2013 5:01:53 PM
Data Type: Reprocessed on 1/17/2014 10:13:17 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0498-3

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000038	-0.0192	0.0000	0.0006	0.0002	17:02:58	No
2	-0.000038	-0.0192	0.0000	0.0004	0.0002	17:03:42	No
Mean:	-0.000038	-0.0192	0.0000				
SD:	0.000000	0.000029	0.0000				
%RSD:	0.151	0.151	66.13				

==========

Sequence No.: 19
Sample ID: 13-11-0498-3 ms
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 40
Date Collected: 11/11/2013 5:04:07 PM
Data Type: Reprocessed on 1/17/2014 10:13:18 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0498-3 ms

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00947	4.73	0.0538	0.2742	0.0540	17:05:12	No
2	0.00943	4.72	0.0536	0.2730	0.0538	17:05:56	No
Mean:	0.00945	4.73	0.0537				
SD:	0.000025	0.0123	0.0001				
%RSD:	0.261	0.261	0.26				

==========

Sequence No.: 20
Sample ID: 13-11-0498-3 msd
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 41
Date Collected: 11/11/2013 5:06:21 PM
Data Type: Reprocessed on 1/17/2014 10:13:19 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0498-3 msd

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00937	4.68	0.0533	0.2720	0.0534	17:07:27	No
2	0.00938	4.69	0.0534	0.2719	0.0535	17:08:10	No
Mean:	0.00937	4.69	0.0533				
SD:	0.000011	0.00560	0.0001				
%RSD:	0.119	0.119	0.12				

==========

Sequence No.: 21
Sample ID: 13-11-0498-4
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 42
Date Collected: 11/11/2013 5:08:36 PM
Data Type: Reprocessed on 1/17/2014 10:13:19 AM
Initial Sample Vol:
Sample Prep Vol:

Return to Contents

Replicate Data: 13-11-0498-4

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000033	-0.0165	0.0000	0.0010	0.0002	17:09:41	No
2	-0.000039	-0.0197	-0.0000	0.0004	0.0002	17:10:26	No
Mean:	-0.000036	-0.0181	0.0000				
SD:	0.000004	0.00224	0.0000				
%RSD:	12.4	12.4	190.84				

Sequence No.: 22
Sample ID: 13-11-0498-5
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 43
Date Collected: 11/11/2013 5:10:52 PM
Data Type: Reprocessed on 1/17/2014 10:13:20 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0498-5

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000049	-0.0245	-0.0001	-0.0004	0.0001	17:11:57	No
2	-0.000035	-0.0177	0.0000	0.0011	0.0002	17:12:42	No
Mean:	-0.000042	-0.0211	-0.0000				
SD:	0.000010	0.00482	0.0001				
%RSD:	22.9	22.9	265.30				

Sequence No.: 23
Sample ID: 13-11-0498-6
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 44
Date Collected: 11/11/2013 5:13:07 PM
Data Type: Reprocessed on 1/17/2014 10:13:20 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0498-6

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000050	-0.0249	-0.0001	-0.0002	0.0001	17:14:13	No
2	-0.000044	-0.0219	-0.0000	0.0004	0.0001	17:14:57	No
Mean:	-0.000047	-0.0234	-0.0000				
SD:	0.000004	0.00213	0.0000				
%RSD:	9.10	9.10	51.02				

Sequence No.: 24
Sample ID: 13-11-0498-7
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 45
Date Collected: 11/11/2013 5:15:23 PM
Data Type: Reprocessed on 1/17/2014 10:13:20 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0498-7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000008	-0.00383	0.0002	0.0016	0.0003	17:16:29	No
2	-0.000008	-0.00405	0.0002	0.0013	0.0003	17:17:12	No
Mean:	-0.000008	-0.00394	0.0002				
SD:	0.000000	0.000161	0.0000				
%RSD:	4.08	4.08	1.05				

Sequence No.: 25
Sample ID: CCV 0.2x10ppb
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 11/11/2013 5:17:39 PM
Data Type: Reprocessed on 1/17/2014 10:13:22 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV 0.2x10ppb

Return to Contents

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00194	1.94	0.0222	0.1114	0.0224	17:18:43	No
2	0.00195	1.95	0.0223	0.1123	0.0225	17:19:28	No
Mean:	0.00194	1.94	0.0222				
SD:	0.000006	0.00627	0.0001				
%RSD:	0.322	0.322	0.32				

QC value within limits for Hg 253.7 Recovery = 97.25%
All analyte(s) passed QC.

==========

Sequence No.: 26 **Autosampler Location: 7**
Sample ID: CCB **Date Collected: 11/11/2013 5:19:54 PM**
Analyst: **Data Type: Reprocessed on 1/17/2014 10:13:23 AM**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000017	-0.0169	0.0000	0.0001	0.0002	17:21:01	No
2	-0.000014	-0.0139	0.0001	0.0010	0.0002	17:21:45	No
Mean:	-0.000015	-0.0154	0.0000				
SD:	0.000002	0.00213	0.0000				
%RSD:	13.8	13.8	54.97				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Return to Contents

Reprocessing Begun
Logged In Analyst: Andy Chan Technique: AA FIMS-MHS

Results Data Set (original): 131112D1
Results Library (original): W:\data-AA\xue-wen xu\Results\Results.mdb
Results Data Set (reprocessed):
Results Library (reprocessed):

Sequence No.: 1 Autosampler Location: 7
Sample ID: Calib blank Date Collected: 11/12/2013 11:13:20 AM
Analyst: Data Type: Reprocessed on 1/17/2014 10:16:13 AM
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: Calib blank

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	-0.0000	0.0001	0.0001	11:14:30	No
2		[0.00]	-0.0000	0.0007	0.0001	11:15:14	No
Mean:		[0.00]	-0.0000				
SD:		0.00	0.0000				
%RSD:		0.00	15.10				

Auto-zero performed.

Sequence No.: 2 Autosampler Location: 1
Sample ID: 0.025ppb 0.005x5ppb Date Collected: 11/12/2013 11:15:41 AM
Analyst: Data Type: Reprocessed on 1/17/2014 10:16:13 AM
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: 0.025ppb 0.005x5ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.025]	0.0003	0.0014	0.0004	11:16:45	No
2		[0.025]	0.0003	0.0020	0.0004	11:17:28	No
Mean:		[0.025]	0.0003				
SD:		0.000	0.0000				
%RSD:		0.000	6.17				

Standard number 1 applied. [0.025]
Correlation Coef.: 0.999937 Slope: 0.01133 Intercept: 0.00023

Sequence No.: 3 Autosampler Location: 2
Sample ID: 0.10ppb M102513AX0.0001 Date Collected: 11/12/2013 11:17:52 AM
Analyst: Data Type: Reprocessed on 1/17/2014 10:16:13 AM
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: 0.10ppb M102513AX0.0001

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.100]	0.0010	0.0043	0.0011	11:18:56	No
2		[0.100]	0.0010	0.0046	0.0011	11:19:41	No
Mean:		[0.100]	0.0010				
SD:		0.000	0.0000				
%RSD:		0.000	0.29				

Standard number 2 applied. [0.100]
Correlation Coef.: 0.999938 Slope: 0.01132 Intercept: 0.00023

Sequence No.: 4 Autosampler Location: 3
Sample ID: 1.00ppb M102513AX0.001 Date Collected: 11/12/2013 11:20:06 AM
Analyst: Data Type: Reprocessed on 1/17/2014 10:16:13 AM
Initial Sample Wt: Initial Sample Vol:

Return to Contents

Dilution: Sample Prep Vol:

Replicate Data: 1.00ppb M102513AX0.001

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[1.000]	0.0114	0.0562	0.0116	11:21:10	No
2		[1.000]	0.0114	0.0550	0.0115	11:21:54	No
Mean:		[1.000]	0.0114				
SD:		0.000	0.0000				
%RSD:		0.000	0.37				

Standard number 3 applied. [1.000]
Correlation Coef.: 0.999938 Slope: 0.01133 Intercept: 0.00018

==========

Sequence No.: 5 Autosampler Location: 4
Sample ID: 2.00ppb M102513AX0.002 Date Collected: 11/12/2013 11:22:19 AM
Analyst: Data Type: Reprocessed on 1/17/2014 10:16:15 AM
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: 2.00ppb M102513AX0.002

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.000]	0.0228	0.1124	0.0229	11:23:24	No
2		[2.000]	0.0228	0.1117	0.0230	11:24:08	No
Mean:		[2.000]	0.0228				
SD:		0.000	0.0000				
%RSD:		0.000	0.21				

Standard number 4 applied. [2.000]
Correlation Coef.: 0.999946 Slope: 0.01133 Intercept: 0.00011

==========

Sequence No.: 6 Autosampler Location: 5
Sample ID: 5.00ppb M102513AX0.005 Date Collected: 11/12/2013 11:24:33 AM
Analyst: Data Type: Reprocessed on 1/17/2014 10:16:15 AM
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: 5.00ppb M102513AX0.005

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.000]	0.0558	0.2770	0.0559	11:25:39	No
2		[5.000]	0.0561	0.2779	0.0562	11:26:23	No
Mean:		[5.000]	0.0559				
SD:		0.000	0.0002				
%RSD:		0.000	0.39				

Standard number 5 applied. [5.000]
Correlation Coef.: 0.999984 Slope: 0.01128 Intercept: -0.00000

==========

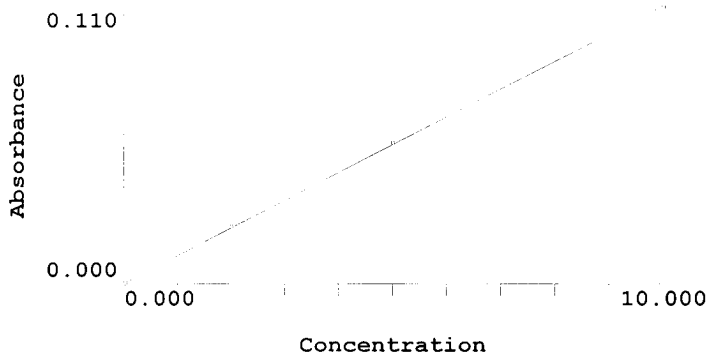
Sequence No.: 7 Autosampler Location: 6
Sample ID: 10.0ppb M102513AX0.01 Date Collected: 11/12/2013 11:26:49 AM
Analyst: Data Type: Reprocessed on 1/17/2014 10:16:15 AM
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: 10.0ppb M102513AX0.01

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.00]	0.1100	0.5476	0.1101	11:27:54	No
2		[10.00]	0.1101	0.5490	0.1102	11:28:38	No
Mean:		[10.00]	0.1100				
SD:		0.00	0.0001				
%RSD:		0.00	0.09				

Standard number 6 applied. [10.00]
Correlation Coef.: 0.999947 Slope: 0.01102 Intercept: 0.00026

Return to Contents



Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib blank	0.0000	0	-0.023201	0.00	15.1
0.025ppb 0.005x5ppb	0.0003	0.025	0.003120	0.00	6.2
0.10ppb M102513AX0.0001	0.0010	0.100	0.068595	0.00	0.3
1.00ppb M102513AX0.001	0.0114	1.000	1.012322	0.00	0.4
2.00ppb M102513AX0.002	0.0228	2.000	2.047411	0.00	0.2
5.00ppb M102513AX0.005	0.0559	5.000	5.054197	0.00	0.4
10.0ppb M102513AX0.01	0.1100	10.00	9.962556	0.00	0.1

Correlation Coef.: 0.999947 Slope: 0.01102 Intercept: 0.00026

Sequence No.: 8 **Autosampler Location: 8**
Sample ID: ICV M102513B **Date Collected: 11/12/2013 11:31:18 AM**
Analyst: **Data Type: Reprocessed on 1/17/2014 10:16:18 AM**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICV M102513B

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00472	4.72	0.0523	0.2594	0.0524	11:32:25	No
2	0.00474	4.74	0.0525	0.2595	0.0526	11:33:09	No
Mean:	0.00473	4.73	0.0524				
SD:	0.000016	0.0158	0.0002				
%RSD:	0.334	0.334	0.33				

QC value within limits for Hg 253.7 Recovery = 94.61%
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 7**
Sample ID: ICB **Date Collected: 11/12/2013 11:33:36 AM**
Analyst: **Data Type: Reprocessed on 1/17/2014 10:16:18 AM**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000029	-0.0292	-0.0001	-0.0010	0.0001	11:34:42	No
2	-0.000029	-0.0291	-0.0001	-0.0013	0.0001	11:35:26	No
Mean:	-0.000029	-0.0291	-0.0001				
SD:	0.000000	0.000077	0.0000				
%RSD:	0.264	0.264	1.30				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 9**
Sample ID: CRQL 0.25ppb **Date Collected: 11/12/2013 11:35:53 AM**
Analyst: **Data Type: Reprocessed on 1/17/2014 10:16:18 AM**

Return to Contents

Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: CRQL 0.25ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000218	0.218	0.0027	0.0124	0.0028	11:36:57	No
2	0.000208	0.208	0.0026	0.0122	0.0027	11:37:41	No
Mean:	0.000213	0.213	0.0026				
SD:	0.000007	0.00687	0.0001				
%RSD:	3.22	3.22	2.91				

Return to Contents

Sequence No.: 1
Sample ID: CCV 0.2x10ppb
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 4
Date Collected: 11/12/2013 11:58:13 AM
Data Type: Reprocessed on 1/17/2014 10:16:41 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV 0.2x10ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00196	1.96	0.0218	0.1109	0.0220	11:59:18	No
2	0.00195	1.95	0.0218	0.1086	0.0219	12:00:02	No
Mean:	0.00196	1.96	0.0218				
SD:	0.000002	0.00245	0.0000				
%RSD:	0.125	0.125	0.12				

QC value within limits for Hg 253.7 Recovery = 97.82%
All analyte(s) passed QC.

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 11/12/2013 12:00:27 PM
Data Type: Reprocessed on 1/17/2014 10:16:41 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000025	-0.0249	-0.0000	0.0002	0.0001	12:01:33	No
2	-0.000020	-0.0201	0.0000	0.0014	0.0002	12:02:17	No
Mean:	-0.000022	-0.0225	0.0000				
SD:	0.000003	0.00342	0.0000				
%RSD:	15.2	15.2	467.01				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 3
Sample ID: 13-11-0762-5 msd
Analyst:
Initial Sample Wt:
Dilution: 2X
Autosampler Location: 22
Date Collected: 11/12/2013 12:02:44 PM
Data Type: Reprocessed on 1/17/2014 10:16:41 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0762-5 msd

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00928	4.64	0.0514	0.2586	0.0515	12:03:50	No
2	0.00942	4.71	0.0522	0.2605	0.0523	12:04:33	No
Mean:	0.00935	4.68	0.0518				
SD:	0.000102	0.0512	0.0006				
%RSD:	1.10	1.10	1.09				

Sequence No.: 4
Sample ID: 13-11-0762-6
Analyst:
Initial Sample Wt:
Dilution: 2X
Autosampler Location: 23
Date Collected: 11/12/2013 12:04:58 PM
Data Type: Reprocessed on 1/17/2014 10:16:42 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0762-6

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000052	-0.0261	-0.0000	-0.0000	0.0001	12:06:06	No
2	-0.000050	-0.0252	-0.0000	-0.0003	0.0001	12:06:50	No
Mean:	-0.000051	-0.0257	-0.0000				
SD:	0.000001	0.000595	0.0000				

Return to Contents

%RSD: 2.32 2.32 24.27

Sequence No.: 5
Sample ID: 13-11-0762-7
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 24
Date Collected: 11/12/2013 12:07:15 PM
Data Type: Reprocessed on 1/17/2014 10:16:43 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0762-7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000050	-0.0252	-0.0000	-0.0005	0.0001	12:08:20	No
2	-0.000051	-0.0257	-0.0000	-0.0001	0.0001	12:09:04	No
Mean:	-0.000051	-0.0254	-0.0000				
SD:	0.000001	0.000354	0.0000				
%RSD:	1.39	1.39	15.74				

Sequence No.: 6
Sample ID: 13-11-0779-2
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 25
Date Collected: 11/12/2013 12:09:29 PM
Data Type: Reprocessed on 1/17/2014 10:16:43 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0779-2

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000033	-0.0164	0.0001	-0.0000	0.0002	12:10:34	No
2	-0.000029	-0.0146	0.0001	0.0006	0.0002	12:11:19	No
Mean:	-0.000031	-0.0155	0.0001				
SD:	0.000002	0.00125	0.0000				
%RSD:	8.05	8.05	16.18				

Sequence No.: 7
Sample ID: 13-11-0779-3
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 26
Date Collected: 11/12/2013 12:11:44 PM
Data Type: Reprocessed on 1/17/2014 10:16:44 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0779-3

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000035	-0.0173	0.0001	0.0006	0.0002	12:12:50	No
2	-0.000029	-0.0146	0.0001	0.0007	0.0002	12:13:34	No
Mean:	-0.000032	-0.0160	0.0001				
SD:	0.000004	0.00189	0.0000				
%RSD:	11.9	11.9	26.17				

Sequence No.: 8
Sample ID: 13-11-0779-4
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 27
Date Collected: 11/12/2013 12:13:59 PM
Data Type: Reprocessed on 1/17/2014 10:16:44 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0779-4

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000043	-0.0217	0.0000	-0.0000	0.0001	12:15:05	No
2	-0.000038	-0.0190	0.0000	0.0005	0.0002	12:15:49	No
Mean:	-0.000041	-0.0204	0.0000				
SD:	0.000004	0.00195	0.0000				
%RSD:	9.58	9.58	68.41				

Return to Contents

Sequence No.: 9
Sample ID: 13-11-0697-13
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 28
Date Collected: 11/12/2013 12:16:15 PM
Data Type: Reprocessed on 1/17/2014 10:16:45 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0697-13

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000061	-0.0307	-0.0001	-0.0010	0.0000	12:17:21	No
2	-0.000044	-0.0222	0.0000	0.0005	0.0001	12:18:05	No
Mean:	-0.000053	-0.0264	-0.0000				
SD:	0.000012	0.00602	0.0001				
%RSD:	22.8	22.8	186.43				

Sequence No.: 10
Sample ID: 13-11-0708-1
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 29
Date Collected: 11/12/2013 12:18:34 PM
Data Type: Reprocessed on 1/17/2014 10:16:45 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0708-1

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000007	-0.00328	0.0002	0.0021	0.0004	12:19:40	No
2	-0.000012	-0.00579	0.0002	0.0013	0.0003	12:20:24	No
Mean:	-0.000009	-0.00453	0.0002				
SD:	0.000004	0.00177	0.0000				
%RSD:	39.2	39.2	9.50				

Sequence No.: 11
Sample ID: 13-11-0693-1
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 30
Date Collected: 11/12/2013 12:20:55 PM
Data Type: Reprocessed on 1/17/2014 10:16:46 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0693-1

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000040	-0.0200	0.0000	0.0008	0.0002	12:22:02	No
2	-0.000049	-0.0243	-0.0000	-0.0000	0.0001	12:22:46	No
Mean:	-0.000044	-0.0221	0.0000				
SD:	0.000006	0.00300	0.0000				
%RSD:	13.6	13.6	283.84				

Sequence No.: 12
Sample ID: 13-11-0693-2
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 31
Date Collected: 11/12/2013 12:23:12 PM
Data Type: Reprocessed on 1/17/2014 10:16:46 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 13-11-0693-2

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000040	-0.0198	0.0000	0.0010	0.0002	12:24:19	No
2	-0.000045	-0.0223	0.0000	0.0007	0.0001	12:25:03	No
Mean:	-0.000042	-0.0211	0.0000				
SD:	0.000004	0.00178	0.0000				
%RSD:	8.46	8.46	84.13				

Sequence No.: 13
Sample ID: CCV 0.2x10ppb
Analyst:

Autosampler Location: 4
Date Collected: 11/12/2013 12:25:30 PM
Data Type: Reprocessed on 1/17/2014 10:16:46 AM

Return to Contents

Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: CCV 0.2x10ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00192	1.92	0.0214	0.1082	0.0216	12:26:36	No
2	0.00193	1.93	0.0215	0.1078	0.0217	12:27:21	No
Mean:	0.00193	1.93	0.0215				
SD:	0.000005	0.00504	0.0001				
%RSD:	0.261	0.261	0.26				

QC value within limits for Hg 253.7 Recovery = 96.33%
All analyte(s) passed QC.

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Sequence No.: 14 Autosampler Location: 7
Sample ID: CCB Date Collected: 11/12/2013 12:27:46 PM
Analyst: Data Type: Reprocessed on 1/17/2014 10:16:48 AM
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: CCB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000023	-0.0233	-0.0000	0.0001	0.0001	12:28:52	No
2	-0.000021	-0.0209	0.0000	0.0004	0.0002	12:29:36	No
Mean:	-0.000022	-0.0221	0.0000				
SD:	0.000002	0.00164	0.0000				
%RSD:	7.44	7.44	150.38				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Return to Contents

EPA METHOD 7470 A

RUN LOG

Return to Contents

131111D1

Sample ID	Analyst Nai	Analyte Na	Date	Time	Conc (Calib	Units (Calit	Conc (Sam	Units (Sam	Corr Coef
Calib blank	769 HG-4	Hg 253.7	11/11/2013	11:19:38 AM		ug/L		mg/L	
0.025ppb 0.005x5ppb	769 HG-4	Hg 253.7	11/11/2013	11:21:51 AM		ug/L		mg/L	
0.10ppb M102513AX0.0001	769 HG-4	Hg 253.7	11/11/2013	11:24:03 AM		ug/L		mg/L	
1.00ppb M102513AX0.001	769 HG-4	Hg 253.7	11/11/2013	11:26:17 AM		ug/L		mg/L	
2.00ppb M102513AX0.002	769 HG-4	Hg 253.7	11/11/2013	11:28:32 AM		ug/L		mg/L	
5.00ppb M102513AX0.005	769 HG-4	Hg 253.7	11/11/2013	11:30:47 AM		ug/L		mg/L	
10.0ppb M102513AX0.01	769 HG-4	Hg 253.7	11/11/2013	11:33:02 AM		ug/L		mg/L	
ICV M102513B	769 HG-4	Hg 253.7	11/11/2013	11:36:45 AM	4.999107	ug/L	0.004999	mg/L	
ICB	769 HG-4	Hg 253.7	11/11/2013	11:39:03 AM	-0.02294	ug/L	-2.29E-05	mg/L	
CRQL 0.25ppb	769 HG-4	Hg 253.7	11/11/2013	11:41:17 AM	0.211323	ug/L	0.000211	mg/L	0.999936
CCV 0.2x10ppb	769 HG-4	Hg 253.7	11/11/2013	11:43:30 AM	1.977932	ug/L	0.001978	mg/L	
CCB	769 HG-4	Hg 253.7	11/11/2013	11:45:46 AM	-0.01899	ug/L	-1.90E-05	mg/L	
13-11-0665-2	769 HG-4	Hg 253.7	11/11/2013	12:02:14 PM	-0.01775	ug/L	-3.55E-05	mg/L	0.999936
13-11-0665-3	769 HG-4	Hg 253.7	11/11/2013	12:04:27 PM	-0.02153	ug/L	-4.31E-05	mg/L	0.999936
13-11-0665-4	769 HG-4	Hg 253.7	11/11/2013	12:06:41 PM	-0.02552	ug/L	-5.10E-05	mg/L	0.999936
13-11-0675-f-1	769 HG-4	Hg 253.7	11/11/2013	12:08:56 PM	-0.02113	ug/L	-4.23E-05	mg/L	0.999936
13-11-0675-1	769 HG-4	Hg 253.7	11/11/2013	12:11:12 PM	-0.02002	ug/L	-4.00E-05	mg/L	0.999936
13-11-0692-1	769 HG-4	Hg 253.7	11/11/2013	12:13:29 PM	-0.0197	ug/L	-3.94E-05	mg/L	0.999936
131111-b-03	769 HG-4	Hg 253.7	11/11/2013	12:15:43 PM	-0.0317	ug/L	-0.00032	mg/L	0.999936
131111-l-03	769 HG-4	Hg 253.7	11/11/2013	12:17:55 PM	4.765001	ug/L	0.04765	mg/L	0.999936
13-09-1596-st-1	769 HG-4	Hg 253.7	11/11/2013	12:20:09 PM	0.087735	ug/L	0.000877	mg/L	0.999936
13-09-1596-st-1 ms	769 HG-4	Hg 253.7	11/11/2013	12:22:22 PM	3.149965	ug/L	0.0315	mg/L	0.999936
CCV 0.2x10ppb	769 HG-4	Hg 253.7	11/11/2013	12:24:36 PM	1.948547	ug/L	0.001949	mg/L	
CCB	769 HG-4	Hg 253.7	11/11/2013	12:26:52 PM	-0.01575	ug/L	-1.57E-05	mg/L	
13-09-1596-st-1 msd	769 HG-4	Hg 253.7	11/11/2013	12:29:07 PM	3.006468	ug/L	0.030065	mg/L	0.999936
CCV 0.2x10ppb	769 HG-4	Hg 253.7	11/11/2013	12:31:21 PM	1.928752	ug/L	0.001929	mg/L	
CCB	769 HG-4	Hg 253.7	11/11/2013	12:33:37 PM	-0.01582	ug/L	-1.58E-05	mg/L	
CCV 0.2x10ppb +	769 HG-4	Hg 253.7	11/11/2013	3:58:52 PM	2.159046	ug/L	0.002159	mg/L	x time gap
CCB	769 HG-4	Hg 253.7	11/11/2013	4:01:07 PM	-0.00986	ug/L	-9.86E-06	mg/L	

0 11-12-13
309
Hg-4
Leg 98

Return to Contents

131111-b-01	769 HG-4	Hg 253.7	11/11/2013	4:03:24 PM	-0.03011 ug/L	-6.02E-05 mg/L	0.999936
131111-l-01	769 HG-4	Hg 253.7	11/11/2013	4:05:39 PM	5.113589 ug/L	0.010227 mg/L	0.999936
13-11-0698-1	769 HG-4	Hg 253.7	11/11/2013	4:07:50 PM	0.162579 ug/L	0.000325 mg/L	0.999936
13-11-0698-2	769 HG-4	Hg 253.7	11/11/2013	4:10:01 PM	0.024199 ug/L	4.84E-05 mg/L	0.999936
13-11-0698-3	769 HG-4	Hg 253.7	11/11/2013	4:12:13 PM	0.08972 ug/L	0.000179 mg/L	0.999936
13-11-0698-3 ms	769 HG-4	Hg 253.7	11/11/2013	4:14:27 PM	2.880593 ug/L	0.005761 mg/L	0.999936
13-11-0698-3 msd	769 HG-4	Hg 253.7	11/11/2013	4:16:39 PM	2.853333 ug/L	0.005707 mg/L	0.999936
13-11-0698-5	769 HG-4	Hg 253.7	11/11/2013	4:18:53 PM	0.360516 ug/L	0.000721 mg/L	0.999936
13-11-0698-6	769 HG-4	Hg 253.7	11/11/2013	4:21:07 PM	-0.00948 ug/L	-1.90E-05 mg/L	0.999936
13-11-0698-7	769 HG-4	Hg 253.7	11/11/2013	4:23:22 PM	0.091096 ug/L	0.000182 mg/L	0.999936
CCV 0.2x10ppb	769 HG-4	Hg 253.7	11/11/2013	4:25:36 PM	2.011146 ug/L	0.002011 mg/L	
CCB	769 HG-4	Hg 253.7	11/11/2013	4:27:52 PM	-0.01466 ug/L	-1.47E-05 mg/L	
13-11-0698-8	769 HG-4	Hg 253.7	11/11/2013	4:30:08 PM	-0.00899 ug/L	-1.80E-05 mg/L	0.999936
13-11-0681-1	769 HG-4	Hg 253.7	11/11/2013	4:32:23 PM	-0.02501 ug/L	-5.00E-05 mg/L	0.999936
13-11-0681-2	769 HG-4	Hg 253.7	11/11/2013	4:34:40 PM	-0.02576 ug/L	-5.15E-05 mg/L	0.999936
13-11-0681-3	769 HG-4	Hg 253.7	11/11/2013	4:36:56 PM	-0.02626 ug/L	-5.25E-05 mg/L	0.999936
13-11-0681-4	769 HG-4	Hg 253.7	11/11/2013	4:39:13 PM	-0.02595 ug/L	-5.19E-05 mg/L	0.999936
13-11-0681-5	769 HG-4	Hg 253.7	11/11/2013	4:41:31 PM	-0.02464 ug/L	-4.93E-05 mg/L	0.999936
13-11-0681-6	769 HG-4	Hg 253.7	11/11/2013	4:43:47 PM	-0.02315 ug/L	-4.63E-05 mg/L	0.999936
13-11-0681-7	769 HG-4	Hg 253.7	11/11/2013	4:45:57 PM	-0.02899 ug/L	-5.80E-05 mg/L	0.999936
13-11-0681-8	769 HG-4	Hg 253.7	11/11/2013	4:48:09 PM	-0.02693 ug/L	-5.39E-05 mg/L	0.999936
131111-b-06	769 HG-4	Hg 253.7	11/11/2013	4:50:20 PM	-0.03281 ug/L	-6.56E-05 mg/L	0.999936
CCV 0.2x10ppb	769 HG-4	Hg 253.7	11/11/2013	4:52:33 PM	1.947307 ug/L	0.001947 mg/L	
CCB	769 HG-4	Hg 253.7	11/11/2013	4:54:48 PM	-0.0156 ug/L	-1.56E-05 mg/L	
131111-l-06	769 HG-4	Hg 253.7	11/11/2013	4:57:03 PM	4.787148 ug/L	0.009574 mg/L	0.999936
13-11-0498-1	769 HG-4	Hg 253.7	11/11/2013	4:59:15 PM	-0.01511 ug/L	-3.02E-05 mg/L	0.999936
13-11-0498-2	769 HG-4	Hg 253.7	11/11/2013	5:01:28 PM	-0.02111 ug/L	-4.22E-05 mg/L	0.999936
13-11-0498-3	769 HG-4	Hg 253.7	11/11/2013	5:03:42 PM	-0.01921 ug/L	-3.84E-05 mg/L	0.999936
13-11-0498-3 ms	769 HG-4	Hg 253.7	11/11/2013	5:05:56 PM	4.725731 ug/L	0.009451 mg/L	0.999936
13-11-0498-3 msd	769 HG-4	Hg 253.7	11/11/2013	5:08:10 PM	4.68714 ug/L	0.009374 mg/L	0.999936
13-11-0498-4	769 HG-4	Hg 253.7	11/11/2013	5:10:26 PM	-0.01808 ug/L	-3.62E-05 mg/L	0.999936
13-11-0498-5	769 HG-4	Hg 253.7	11/11/2013	5:12:42 PM	-0.02107 ug/L	-4.21E-05 mg/L	0.999936
13-11-0498-6	769 HG-4	Hg 253.7	11/11/2013	5:14:57 PM	-0.02344 ug/L	-4.69E-05 mg/L	0.999936
13-11-0498-7	769 HG-4	Hg 253.7	11/11/2013	5:17:12 PM	-0.00394 ug/L	-7.88E-06 mg/L	0.999936

Hg 99

11-12-13
309
Hg-4

Return to Contents

CCV 0.2x10ppb	769 HG-4	Hg 253.7	11/11/2013	5:19:28 PM	1.944937 ug/L	0.001945 mg/L	
CCB	769 HG-4	Hg 253.7	11/11/2013	5:21:45 PM	-0.01539 ug/L	-1.54E-05 mg/L	
13-11-0498-8	769 HG-4	Hg 253.7	11/11/2013	5:24:24 PM	-0.01855 ug/L	-3.71E-05 mg/L	0.999936
13-11-0498-12	769 HG-4	Hg 253.7	11/11/2013	5:26:42 PM	-0.02182 ug/L	-4.36E-05 mg/L	0.999936
13-11-0498-13	769 HG-4	Hg 253.7	11/11/2013	5:28:55 PM	-0.0201 ug/L	-4.02E-05 mg/L	0.999936
13-11-0498-14	769 HG-4	Hg 253.7	11/11/2013	5:31:06 PM	-0.01641 ug/L	-3.28E-05 mg/L	0.999936
13-11-0498-15	769 HG-4	Hg 253.7	11/11/2013	5:33:17 PM	-0.01589 ug/L	-3.18E-05 mg/L	0.999936
13-11-0498-16	769 HG-4	Hg 253.7	11/11/2013	5:35:27 PM	-0.01807 ug/L	-3.61E-05 mg/L	0.999936
13-11-0498-17	769 HG-4	Hg 253.7	11/11/2013	5:37:38 PM	-0.0161 ug/L	-3.22E-05 mg/L	0.999936
13-11-0498-18	769 HG-4	Hg 253.7	11/11/2013	5:39:50 PM	-0.02475 ug/L	-4.95E-05 mg/L	0.999936
13-11-0498-19	769 HG-4	Hg 253.7	11/11/2013	5:42:03 PM	-0.01844 ug/L	-3.69E-05 mg/L	0.999936
131111-b-07	769 HG-4	Hg 253.7	11/11/2013	5:44:16 PM	-0.03214 ug/L	-6.43E-05 mg/L	0.999936
CCV 0.2x10ppb	769 HG-4	Hg 253.7	11/11/2013	5:46:31 PM	1.982387 ug/L	0.001982 mg/L	
CCB	769 HG-4	Hg 253.7	11/11/2013	5:48:49 PM	-0.02835 ug/L	-2.83E-05 mg/L	
131111-l-07	769 HG-4	Hg 253.7	11/11/2013	5:51:05 PM	4.820414 ug/L	0.009641 mg/L	0.999936
13-11-0498-f-1	769 HG-4	Hg 253.7	11/11/2013	5:53:18 PM	-0.02205 ug/L	-4.41E-05 mg/L	0.999936
13-11-0498-f-2	769 HG-4	Hg 253.7	11/11/2013	5:55:33 PM	-0.02109 ug/L	-4.22E-05 mg/L	0.999936
13-11-0498-f-3	769 HG-4	Hg 253.7	11/11/2013	5:57:48 PM	-0.01867 ug/L	-3.73E-05 mg/L	0.999936
13-11-0498-f-3 ms	769 HG-4	Hg 253.7	11/11/2013	6:00:03 PM	4.548809 ug/L	0.009098 mg/L	0.999936
13-11-0498-f-3 msd	769 HG-4	Hg 253.7	11/11/2013	6:02:19 PM	4.483668 ug/L	0.008967 mg/L	0.999936
13-11-0498-f-4	769 HG-4	Hg 253.7	11/11/2013	6:04:36 PM	-0.02169 ug/L	-4.34E-05 mg/L	0.999936
13-11-0498-f-5	769 HG-4	Hg 253.7	11/11/2013	6:06:48 PM	-0.01989 ug/L	-3.98E-05 mg/L	0.999936
13-11-0498-f-6	769 HG-4	Hg 253.7	11/11/2013	6:08:58 PM	-0.01899 ug/L	-3.80E-05 mg/L	0.999936
13-11-0498-f-7	769 HG-4	Hg 253.7	11/11/2013	6:11:08 PM	-0.0181 ug/L	-3.62E-05 mg/L	0.999936
CCV 0.2x10ppb	769 HG-4	Hg 253.7	11/11/2013	6:13:21 PM	2.010695 ug/L	0.002011 mg/L	
CCB	769 HG-4	Hg 253.7	11/11/2013	6:15:38 PM	-0.02314 ug/L	-2.31E-05 mg/L	
13-11-0498-f-8	769 HG-4	Hg 253.7	11/11/2013	6:17:52 PM	-0.01769 ug/L	-3.54E-05 mg/L	0.999936
13-11-0498-f-12	769 HG-4	Hg 253.7	11/11/2013	6:20:04 PM	-0.02108 ug/L	-4.22E-05 mg/L	0.999936
13-11-0498-f-13	769 HG-4	Hg 253.7	11/11/2013	6:22:15 PM	-0.01952 ug/L	-3.90E-05 mg/L	0.999936
13-11-0498-f-14	769 HG-4	Hg 253.7	11/11/2013	6:24:27 PM	-0.02083 ug/L	-4.17E-05 mg/L	0.999936
13-11-0498-f-15	769 HG-4	Hg 253.7	11/11/2013	6:26:41 PM	-0.02239 ug/L	-4.48E-05 mg/L	0.999936
13-11-0498-f-16	769 HG-4	Hg 253.7	11/11/2013	6:28:54 PM	-0.01896 ug/L	-3.79E-05 mg/L	0.999936
13-11-0498-f-17	769 HG-4	Hg 253.7	11/11/2013	6:31:08 PM	-0.0209 ug/L	-4.18E-05 mg/L	0.999936
131111-b-05	769 HG-4	Hg 253.7	11/11/2013	6:33:25 PM	-0.02733 ug/L	-0.00027 mg/L	0.999936

11-12-13
309
Hg-4
Hg 100

Return to Contents

131112D1

Sample ID	Analyst Na	Analyte Na	Date	Time	Conc (Calib	Units (Calib	Conc (Sam	Units (Sam	Corr Coef
Calib blank	769 HG-4	Hg 253.7	11/12/2013	11:15:14 AM		ug/L		mg/L	
0.025ppb 0.005x5ppb	769 HG-4	Hg 253.7	11/12/2013	11:17:28 AM		ug/L		mg/L	
0.10ppb M102513AX0.0001	769 HG-4	Hg 253.7	11/12/2013	11:19:41 AM		ug/L		mg/L	
1.00ppb M102513AX0.001	769 HG-4	Hg 253.7	11/12/2013	11:21:54 AM		ug/L		mg/L	
2.00ppb M102513AX0.002	769 HG-4	Hg 253.7	11/12/2013	11:24:08 AM		ug/L		mg/L	
5.00ppb M102513AX0.005	769 HG-4	Hg 253.7	11/12/2013	11:26:23 AM		ug/L		mg/L	
10.0ppb M102513AX0.01	769 HG-4	Hg 253.7	11/12/2013	11:28:38 AM		ug/L		mg/L	
ICV M102513B	769 HG-4	Hg 253.7	11/12/2013	11:33:09 AM	4.73069	ug/L	0.004731	mg/L	
ICB	769 HG-4	Hg 253.7	11/12/2013	11:35:26 AM	-0.02912	ug/L	-2.91E-05	mg/L	
CRQL 0.25ppb	769 HG-4	Hg 253.7	11/12/2013	11:37:41 AM	0.21314	ug/L	0.000213	mg/L	0.999947
13-11-0583-tc-1 ms	769 HG-4	Hg 253.7	11/12/2013	11:39:55 AM	4.164666	ug/L	0.041647	mg/L	0.999947
131111-b-09	769 HG-4	Hg 253.7	11/12/2013	11:42:12 AM	-0.03424	ug/L	-6.85E-05	mg/L	0.999947
131111-l-09	769 HG-4	Hg 253.7	11/12/2013	11:44:29 AM	4.637852	ug/L	0.009276	mg/L	0.999947
13-11-0762-3	769 HG-4	Hg 253.7	11/12/2013	11:46:46 AM	-0.02545	ug/L	-5.09E-05	mg/L	0.999947
13-11-0762-3 ms	769 HG-4	Hg 253.7	11/12/2013	11:49:01 AM	4.531346	ug/L	0.009063	mg/L	0.999947
13-11-0762-3 msd	769 HG-4	Hg 253.7	11/12/2013	11:51:12 AM	4.621758	ug/L	0.009244	mg/L	0.999947
13-11-0762-4	769 HG-4	Hg 253.7	11/12/2013	11:53:24 AM	-0.02545	ug/L	-5.09E-05	mg/L	0.999947
13-11-0762-5	769 HG-4	Hg 253.7	11/12/2013	11:55:36 AM	-0.02013	ug/L	-4.03E-05	mg/L	0.999947
13-11-0762-5 ms	769 HG-4	Hg 253.7	11/12/2013	11:57:48 AM	4.843676	ug/L	0.009687	mg/L	0.999947
CCV 0.2x10ppb	769 HG-4	Hg 253.7	11/12/2013	12:00:02 PM	1.956406	ug/L	0.001956	mg/L	
CCB	769 HG-4	Hg 253.7	11/12/2013	12:02:17 PM	-0.02247	ug/L	-2.25E-05	mg/L	
13-11-0762-5 msd	769 HG-4	Hg 253.7	11/12/2013	12:04:33 PM	4.675975	ug/L	0.009352	mg/L	0.999947
13-11-0762-6	769 HG-4	Hg 253.7	11/12/2013	12:06:50 PM	-0.02565	ug/L	-5.13E-05	mg/L	0.999947
13-11-0762-7	769 HG-4	Hg 253.7	11/12/2013	12:09:04 PM	-0.02545	ug/L	-5.09E-05	mg/L	0.999947
13-11-0779-2	769 HG-4	Hg 253.7	11/12/2013	12:11:19 PM	-0.01549	ug/L	-3.10E-05	mg/L	0.999947
13-11-0779-3	769 HG-4	Hg 253.7	11/12/2013	12:13:34 PM	-0.01596	ug/L	-3.19E-05	mg/L	0.999947
13-11-0779-4	769 HG-4	Hg 253.7	11/12/2013	12:15:49 PM	-0.02035	ug/L	-4.07E-05	mg/L	0.999947
13-11-0697-13	769 HG-4	Hg 253.7	11/12/2013	12:18:05 PM	-0.02643	ug/L	-5.29E-05	mg/L	0.999947
13-11-0708-1	769 HG-4	Hg 253.7	11/12/2013	12:20:24 PM	-0.00453	ug/L	-9.06E-06	mg/L	0.999947
13-11-0693-1	769 HG-4	Hg 253.7	11/12/2013	12:22:46 PM	-0.02214	ug/L	-4.43E-05	mg/L	0.999947

Return to Contents

11-13-13
309
Hg-4
Hg
1

13-11-0693-2	769 HG-4	Hg 253.7	11/12/2013	12:25:03 PM	-0.02108 ug/L	-4.22E-05 mg/L	0.999947
CCV 0.2x10ppb	769 HG-4	Hg 253.7	11/12/2013	12:27:21 PM	1.926537 ug/L	0.001927 mg/L	
CCB	769 HG-4	Hg 253.7	11/12/2013	12:29:36 PM	-0.02211 ug/L	-2.21E-05 mg/L	
13-11-0693-3	769 HG-4	Hg 253.7	11/12/2013	12:31:51 PM	-0.01904 ug/L	-3.81E-05 mg/L	0.999947
13-11-0693-4	769 HG-4	Hg 253.7	11/12/2013	12:34:01 PM	-0.02175 ug/L	-4.35E-05 mg/L	0.999947
13-11-0498-f-22	769 HG-4	Hg 253.7	11/12/2013	12:36:13 PM	-0.02527 ug/L	-5.05E-05 mg/L	0.999947
13-11-0498-22	769 HG-4	Hg 253.7	11/12/2013	12:38:25 PM	-0.02188 ug/L	-4.38E-05 mg/L	0.999947
13-11-0688-2	769 HG-4	Hg 253.7	11/12/2013	12:40:36 PM	-0.02323 ug/L	-4.65E-05 mg/L	0.999947
131112-b-02	769 HG-4	Hg 253.7	11/12/2013	12:42:49 PM	-0.03411 ug/L	-6.82E-05 mg/L	0.999947
131112-l-02	769 HG-4	Hg 253.7	11/12/2013	12:45:02 PM	4.548798 ug/L	0.009098 mg/L	0.999947
13-11-0815-2	769 HG-4	Hg 253.7	11/12/2013	12:47:16 PM	-0.02122 ug/L	-4.24E-05 mg/L	0.999947
13-11-0815-2 ms	769 HG-4	Hg 253.7	11/12/2013	12:49:30 PM	3.785444 ug/L	0.007571 mg/L	0.999947
13-11-0815-2 msd	769 HG-4	Hg 253.7	11/12/2013	12:51:44 PM	3.890772 ug/L	0.007782 mg/L	0.999947
CCV 0.2x10ppb	769 HG-4	Hg 253.7	11/12/2013	12:54:00 PM	1.920672 ug/L	0.001921 mg/L	
CCB	769 HG-4	Hg 253.7	11/12/2013	12:56:16 PM	-0.02062 ug/L	-2.06E-05 mg/L	
13-11-0815-3	769 HG-4	Hg 253.7	11/12/2013	12:58:32 PM	-0.02353 ug/L	-4.71E-05 mg/L	0.999947
13-11-0815-4	769 HG-4	Hg 253.7	11/12/2013	1:00:47 PM	-0.01753 ug/L	-3.51E-05 mg/L	0.999947
13-11-0815-5	769 HG-4	Hg 253.7	11/12/2013	1:03:04 PM	-0.01935 ug/L	-3.87E-05 mg/L	0.999947
13-11-0815-6	769 HG-4	Hg 253.7	11/12/2013	1:05:20 PM	-0.01914 ug/L	-3.83E-05 mg/L	0.999947
13-11-0815-7	769 HG-4	Hg 253.7	11/12/2013	1:07:36 PM	-0.02341 ug/L	-4.68E-05 mg/L	0.999947
13-11-0815-8	769 HG-4	Hg 253.7	11/12/2013	1:09:53 PM	-0.02644 ug/L	-5.29E-05 mg/L	0.999947
13-11-0815-9	769 HG-4	Hg 253.7	11/12/2013	1:12:07 PM	-0.02501 ug/L	-5.00E-05 mg/L	0.999947
13-11-0769-1	769 HG-4	Hg 253.7	11/12/2013	1:14:17 PM	-0.01982 ug/L	-3.96E-05 mg/L	0.999947
13-11-0769-2	769 HG-4	Hg 253.7	11/12/2013	1:16:27 PM	-0.01935 ug/L	-3.87E-05 mg/L	0.999947
13-11-0769-3	769 HG-4	Hg 253.7	11/12/2013	1:18:38 PM	-0.02027 ug/L	-4.05E-05 mg/L	0.999947
CCV 0.2x10ppb	769 HG-4	Hg 253.7	11/12/2013	1:20:51 PM	1.917822 ug/L	0.001918 mg/L	
CCB	769 HG-4	Hg 253.7	11/12/2013	1:23:11 PM	-0.01988 ug/L	-1.99E-05 mg/L	
13-11-0769-4	769 HG-4	Hg 253.7	11/12/2013	1:25:25 PM	-0.02098 ug/L	-4.20E-05 mg/L	0.999947
13-11-0769-5	769 HG-4	Hg 253.7	11/12/2013	1:27:38 PM	-0.01769 ug/L	-3.54E-05 mg/L	0.999947
13-11-0745-1	769 HG-4	Hg 253.7	11/12/2013	1:29:50 PM	-0.01903 ug/L	-3.81E-05 mg/L	0.999947
13-11-0745-1 ms	769 HG-4	Hg 253.7	11/12/2013	1:32:03 PM	4.532674 ug/L	0.009065 mg/L	0.999947
13-11-0745-1 msd	769 HG-4	Hg 253.7	11/12/2013	1:34:16 PM	4.442231 ug/L	0.008884 mg/L	0.999947
13-11-0745-2	769 HG-4	Hg 253.7	11/12/2013	1:36:32 PM	-0.01926 ug/L	-3.85E-05 mg/L	0.999947
13-11-0745-3	769 HG-4	Hg 253.7	11/12/2013	1:38:46 PM	-0.01857 ug/L	-3.71E-05 mg/L	0.999947

11-13-13
309
Hg-4

Hg 2

Return to Contents

EPA METHOD 7470A

PREPARATION LOG

Return to Contents

Mercury Sample Preparation Logbook

METHOD: ~~☐~~ 7470 ☐ 7471 ☐ 245.1 MATRIX: ☐ SOLID ~~☐~~ AQUEOUS ☐ OTHER (SPECIFY) _____ MS/MSD BATCH NUMBER: 131111-506

REAGENT ID(S): 1) H_2SO_4 M006-13-10 2) HNO_3 M006-12-13 3) HCl:HNO_3 (3:1)

4) $KMnO_4$ 210251301 5) $K_2S_2O_8$ 210231301 6) $NH_2OH{\cdot}HCl$ 21601130

LOT #: 1) Teflon Chip / Glass Bead 2) Digestion Tube 131006 3) Filter 68812

ID #: 1) Block Digester 5 2) Thermometer 181-7847 (CF 0.0) 3) Balance

DATE	START TIME	ANALYST (STARTED BY)	FINISH TIME	ANALYST (FINISHED BY)	pH	TEMP (°C)	CEL ID #	SAMPLE INITIAL (g - S/O) (mL - A)	SAMPLE FINAL (mL)	SPIKE STANDARD (LCS/LCSD/MS/MSD) STANDARD ID	SPIKE STANDARD C (ppm)	SPIKE STANDARD V (mL)
11/11/13	1200	JDB	1400	JDB	<2	95	MS 13-11-0498-3G	50	100	M102513A	1.0	0.5
					<2		MSD 1					
							LCS 131111-106					
							LCSD —					
							MB 131111-1306					
					<2		13-11-0498-1G					
					<2		-2					
					<2		-3					
					<2		-4					
					<2		-5					
					<2		-6					
					<2		-7					
					<2		-8					
					<2		-12					
					<2		-13					
					<2		-14					
					<2		-15					
					<2		-16					
					<2		-17					
					<2		-18					
					<2		-19					
	1600		1800		~~>2~~		13-11-0715-6 J			lab Fil		
					<2		13-11-0697-13D					
					<2		~~13-11-0708-1C~~ AC 11/14/13					
					<2		13-11-0498-22G					
					<2		-22H			FF		
							AC 11/11/13					

COMMENTS: _____

Return to Contents

METALS

STANDARDS PREPARATION LOGS

Return to Contents

STANDARDS PREPARATION LOGBOOK #5

DATE	NEW STD. ID	FOR METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STD. ID	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT LOT#	PREP. BY	EXPIR. DATE
9/9/10	M080910A	1640	Cal STD 1ppm	M090910A	40ml	1ppm	40ml	1ppb	1% HNO3	M005-02-01	[illegible]	9/9/10
9/18/10	M081810A	6020E	1000ppm Zn STD-4	M004-58-25	10ml	10,000	100ml	1000ppm	5% HCl 6% HNO3	M005-02-00 M005-02-01	[illegible]	5/31/15
9/20/10	M082010A	6010/200.7	Calb. STD-3 - #1	M005-06-16	15ml	See SOP	1000ml	See SOP				11/23/10
			7	M004-93-13	↓	App. C		App. C				
			8	M005-02-10	60ml							
			10	M005-07-10	7.5ml							
			11	M005-07-09	6.0ml							
			Na	M004-80-07	↓							
			K	M004-80-10	3.0ml							
			Zn	M005-02-14	0.35ml							
			P	M005-02-13	1.2ml							
8-27-10	M082710A	Hg (CCV)	High Purity (Mercury Std)	M004-93-08	0.2 ml	1000ppm	100 ml	2.0 ppm	5% HNO3	M005-07-24	[illegible]	9-27-10
↓	↓ B	↓ (ICV)	Accur Trace ↓	M005-05-07	1.0 ↓	100 ↓	↓	1.0 ↓	↓	↓	↓	↓
9/3/10	M090310A	ICP/MS	10ppm SPIKE #1	M052910A	5mL	100ppm	50mL	10ppm	5% HNO3 8% HCl	M005-05-13 M005-02-05	FC	12/31/10
			#2	M020310A	5mL	100ppm						
	M090310B		ICV + 4900ppb Fe - SPIKE #1	M052910A	0.1mL	100ppm	100mL	100ppb	1% HNO3	M005-05-13		
			- SPIKE #2	M020310A	0.1mL	100ppm						
			- Fe	M004-81-22	0.049mL	10,000ppm		5ppm				
9/9/10	M090910A	Org. Pb	Pb Cl2 ICV	M004-90-24	0.1342g	Need	100ml	1000ppm	10% 336/MIBK	R10270901	AL	~~9/9/11~~ 3/9/11
9/9/10	M090910B	ICP	5000ppm Pb	M005-05-24	100ml	10,000	200ml	5000ppm	DI H2O	NA	[illegible]	8/31/16
9/10/10	M091010A	Dep/Cond	Spike Sol #4 - Ba	M004-59-03	18ml	10,000	200ml	900ppm	10% HNO3	M005-05-13		~~01/31/15~~ 09/11/2
			- Cu	M005-05-22								
			- Zn	M005-08-10								
			- Pb	M090910B	36ml	5000						

Reviewed by: [illegible] on 9/16/10

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
4/18/13	M041813A	6010/200.7	Zn	M006-07-20	0.350 ml	see SOP App-C	1000 ml	see SOP App-C	6% HNO3 5% HCl	M006-09-11 M006-08-13	10/25/13	469	
↓	↓	↓	Na	M006-03-14	6.0 ml	↓	↓	↓	↓	↓	↓	↓	
↓	↓	↓	K	M005-10-10	3.0 ml	↓	↓	↓	↓	↓	↓	↓	
4/22/13	~~M042213A~~	~~1640~~	~~Internal STD BT~~	M011813E 4/22/13	200 µL	100-400 ppm	2 L	10-40 ppb	2 L 2 mL HNO3 2 L H2O	M006-08-23	10/22/13	850	Daily 07/18/13
|	M042213B	|	STD-Cal 1 ppb	~~M011513A~~	~~200 µL~~	~~1 ppm~~	~~200 mL~~	~~1 ppb~~	~~1% HNO3~~	~~M006-08-23~~	~~5/31/13~~	|	Daily Source 5/31/13
|	M042213C	|	ICU 0.5 ppb	M011513B	100 µL	1 ppm	200 mL	0.5 ppb	~~1% HNO3~~	~~M006-08-23~~	~~5/31/13~~	|	Daily Source 5/31/13
4/22/13	M042213D	ICP/MS	LOD/LOQ 1-50 ppm										
↓	↓	↓	STD 2	M006-04-05	1 mL	100	100 mL	1 ppm	1% HNO3	M006-08-13	10/22/13	838	08/30/2013
↓	↓	↓	STD 3	M006-08-19	4.9 mL	1000	↓	49 ppm	↓	↓	↓	↓	03/30/2014
↓	↓	↓	Zinc	M005-06-10	0.04 mL	10,000	↓	4 ppm	↓	↓	↓	↓	11/30/16
↓	↓	↓	Al	M006-03-13	0.49 mL	10,000	↓	49 ppm	↓	↓	↓	↓	4/30/16
↓	↓	↓	B	M005-12-15	4.9 mL	1000	↓	49 ppm	↓	↓	↓	↓	1/2016
↓	↓	↓	U	M005-20-14	0.1 mL	1000 ppm	↓	49 ppm	↓	↓	↓	↓	3/21/18
4/23/13	M042313A	200.7/6010	ICS-AB-Interference STD-1	M006-05-19	0.5 ml	see SOP App-C	500 ml	see SOP App-C	6% HNO3 5% HNO3	M006-09-11 M006-09-12	04/2014	469	Exp. 5/14
↓	↓	↓	↓ -2	M006-05-20	↓	↓	↓	↓	↓	↓	↓	↓	Exp 7/14
↓	↓	↓	Antimony-STD	M005-05-15	0.05 ml	↓	↓	↓	↓	↓	↓	↓	
↓	↓	↓	Interference-STD-4	M006-05-21	10 ml	↓	↓	↓	↓	↓	↓	↓	Exp. 4/14
↓	M042313B	↓	ICS-A INT Check #4	M006-05-21	10 ml	↓	↓	↓	↓	↓	↓	↓	
4/30/13	M043013A	Hg	ICP-MS Calibration Hg	M006-3-09	10 ml	10 ppm	100 ml	1.0 ppm	5% HNO3	M006-08-14	5/30/13	769	
|	M043013B	|	Acetone - Trace	M005-05-07	1 ml	100 ~~1000~~ ppm	100 ml	1.0 ppm	|	|	|	|	

Book Number: 7

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
5-14-13	M051413A	1631	10ppm STD	M006-06-10	1mL	1000ppm	100mL	10ppm	2% HCl	R04111301	BT 5/14/13 ~~6-9~~ 6-14-13	850	
	B		100ppb STD	M051413A	1mL	10ppm	100mL	100ppb			6-14-13		
	C		100ppb ICV	M006-03-09	1mL	10ppm	100mL	100ppb					
	D		100 PPT STD	M051413B	0.1mL	100ppb	100mL	100PPT					
	E		100 PPT ICV	M051413C	0.1mL	100ppb	100mL	100PPT					
5/17/13	M051713A	6020/200.8	Internal STD (conc.)										
			Sc	M006-10-05	100mL	1000ppm	500mL	200ppm	1% HNO3	M006-09-21	10/2013	59	10/2017
			Li 6	M006-10-04	50mL			100ppm					11/06/14
			Ga	M006-10-06	50mL			100ppm					10/2016
			In	M005-05-06 ~~M005-23-04~~ FL 5/17/13	10mL			20ppm					04/2014 ~~09/05/2013~~ FL 5/17/13
			Ho	M006-10-07	10mL			20ppm					03/2018
			Tb	M005-05-04	10mL			20ppm					12/2013
			Bi	M005-05-03	10mL			20ppm					10/2013
	M051713B		Internal stb	M051713A	5mL	20-100ppm	1L	0.1-1ppm					
5/21/13	M052113A	6020/200.8	Zr 1ppm	M040611A	1mL	100ppm	100mL	1ppm			9/2014		09/2014
~~5/24/13~~	XX 5/29/13												
5/29/13	M052913A	Hg	1000ppm Hg	M006-06-10	10mL	1000ppm	100mL	100ppm	5% HNO3	M006-08-16	5/29/14	43	Trace Cert 07/2016
	M052913B		Mercury Standard	M052913A	1ml	100ppm		1.0ppm			6/29/13	769	
	M052913C		Acerner Trace	M005-05-07	1ml	100ppm		1.0ppm					
				5/23/13									

Book Number: 7

05/23/12 Revision

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
6/06/13	M0606 13B	1640.	Cr, 1000 ppm	M005-24-01	0.36	1000	40	9 ppm	1% HNO_3	M005-08 23	08/27/13	110	
			Fe, 10,000 ppm	M005-20-02	0.036	10,000							
			Be 10,600 ppm Mn 10,000	M005-19-21 M005-20-05	0.036 0.036	10,000 10,000							
	M0606 13C		STD-Cal 1ppb	M0606 13A	0.2 mL	1 ppm	200 mL	1 ppb					
	M0606 13D		ICV	M0606 13B	0.18	1 ppm	200 mL	0.9 ppb					
6/6/13	M0606 13E	200.7/6010	Internal STD - A	mod 2nd in 16 1 on 1 Fz 6/6/13	1.0 mL	1,000 ppm 2L	2L	5 ppm	6% HNO_3 5% HCl		6/6/14	SY	
			-B										
			Fz 6/6/13 -Ho										
6/6/13	M0606 13F	200.7/6010	Internal STD - Y	M005-10-16	1.0 mL 1000 ppm 469 6/6	10,000 ppm	2L	5 ppm	6% HNO_3 5% HCl	mod-10-14 M005-10-16	6/6/14	SY	
			-Tb	M005-06-12									
			-Ho	M004-80-16									
6/18/13	M0618 13A	6010/200.7	Internal STD	M0517 13R	250 mL	0.1-1 ppm	500 mL	0.05-0.5 ppm	1% HNO_3	M006-10-16 M006 Rc	10/R 2013 Fz 6/18/13	SY	
08/20/13	M062013A	6010/200.7	1.0 ppm ICV (Li, Bi Sulfur)	M006-11-17 M005-17-14 M006-05-20 M006-H-16	0.1 ml 0.1 ml 0.1 ml	1000 ppm	100,000 ml	1.0 ppm	5% HNO_3 5% HCl	6/14/17 M006-10-14 M006-10-02	03/30/14	469	
8/25/13	M062513A	Hg	Mercury Standard	M0628 13A	1 ml	100 ppm	100 ml	1.0 ppm	5% HNO_3	M006-05-14	7/25/13	769	
	M062513B		Acarner Trace	M005-05-07	1 ml	100 ppm		1.0 ppm					
06/28/13	M062813A	1631	10 ppm STD	M006-06-10	1 mL	1000 ppm	100 mL	10 ppm	2% HCl	R062813 01	07/28/13	776	
	M062813B		100 ppb STD	M062813A	1 mL	10 ppm	100 mL	100 ppb					
	M062813C		100 ppt STD	M062813B	0.1 mL	100 ppb	100 mL	100 ppt					
	M062813D		10 ppm ICV	M006-10-15	1 mL	1000 ppm	100 mL	10 ppm					
	M062813E		100 ppb ICV	M062813D	1 mL	10 ppm	100 mL	100 ppb					

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
08/27/13	M082713A	6010/200.7	SPiked Sol. #1 – Sb	M005-19-19	10 ml	10,000 ppm	1000 ml	100 ppm	1% HNO3	M006-12-~~27~~ 07	8/27/14 ~~9/30/16~~ 4698/27	469	7/30/16
			– As	-20									
			– Be	-21									
			– Cd	-22									
			– Co	-23									
			– Ca	M005-10-08									
			– Cr	M005-05-21									
			– Cu	M005-20-01									
			– Fe	M005-20-02									
			– Pb	M0909108	20 ml	5,000 ppm							
			– Mg	M006-03-11	10 ml	10,000							
			– Mn	M005-06-01									
			– Mo	M005-20-06									
			– Ni	M005-06-03									
			– P	M005-20-08									
			– Se	M005-20-09									
			– Sr	-10									
			– Tl	-11									
			– Sn	4698/27 -13 ~~-12~~									
			– Ti	-12 ~~-13~~									

309 07/27/13

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
8/27/13	M082713A	6010/200.7	Spiked Sol #1 - V	M005-20-14	10 ml	10,000	1000 ml	100 ppm	10% HNO_3	M006-12-~~27~~ 07 309 08/27/13	8/27/14	469	
			- Zn	-15									
8/27/13	M082713B		Spiked Sol. #2 - Al	M005-10-15	10 ml	10,000 ppm	1000 ml	100 ppm					
			- B	M004-80-12									
			- Ba	M004-80-14									
			- Ag	M005-10-09	5 ml			50 ppm					
			- Na	M006-03-14	100 ml			1000 ppm					
			- K	M005-10-10									
			- Si	M004-80-13	10 ml			100 ppm					
8/27/13	M082713C		ICV - Mix-STD - # I	M006-09-02	2.0 ml	See SOP App. C		See SOP App. C					
			II	M006-09-03									
			III	M005-22-18									2/28/14
			IV	M006-09-05	4.00 ml								
			V	M005-~~22-21~~ 07-07	2.0 ml								4/30/14
			Interference-STD-#1	M005-22-~~21~~ 469 8/27	1.0 ml								
			P	M006-05-22									
			Na	-23									
			Sn	M005-06-09A	1.050 ml								
8/27/13	M082713D	Hg	MERCURY STANDARD	M052913A	1 ml	100 ppm	100 ml	1.0 ppm	5% HNO_3	M006-12-07	9/27/13	769	
	M082713E		ACERNER TRICE	M005-05-07	1 ml	100 ppm		1.0 ppm					

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL		FINAL		SOLVENT		EXPIR. DATE	PREP BY	COMMENTS
					AMOUNT	CONC.	VOLUME	CONC.	NAME	ID #			
8/27/13	M082713F	6010/200.7	LLCV-STD – Sb	M082713A	0.015	100ppm	100ml	0.015ppm	6% HNO3 5% HCl	M006-12-07 M006-12-06	08/27/14	469	
			– As		0.010ml			0.010ppm					
			– Be										
			– Cd										
			– Co										
			– Cq		0.100ml			0.100ppm					
			– Cr		0.010ml			0.010ppm					
			– Cu										
			– Fe		0.10ml			0.100ppm					
			– Mg										
			– Mn		0.005ml			0.005ppm					
			– Mo		0.010			0.010ppm					
			– Ni										
			– P		0.10ml			0.10ppm					
			– Se		0.015ml			0.015ppm					
			– Sr		0.030ml			0.030ppm					
			– Tl		0.015ml			0.015ppm					
			– Sn		0.050ml			0.050ppm					
			– Ti		0.030ml			0.030ppm					
			– Pb		0.010ml			0.010ppm					

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
8/27/13	M082713F	6010/200.7	LLCV-STD – V	M082712A	0.010 ml	100 ppm	100 ml	0.010 ppm	6% HNO3 5% HCl	M006-12-07 M006-12-06	8/27/14	469	
			– Zn	↓	↓	↓	↓	↓	↓	↓	↓	↓	
			– Al	M082713B	0.05 ml			0.05 ppm					
			– Ba		0.010 ml			0.010 ppm					
			– B		0.020 ml	↓		↓					
			– Na		0.05 ml ~~0.5 ml~~ M082712F	1000 ppm		0.5 ppm					
			– K		↓	↓		↓					
			– Si		0.050 ml	100 ppm		0.050 ppm					
			– Ag		0.005 ml	50 ppm		0.005 ppm					
08/28/13	M082813A ~~M082713A~~ Re 9/4/13	6020/200.8	Ca/STD #2	M006-01-14	0.5 mL	100 ppm Re 9/4/13	200 mL	200 µg/L	1% HNO3	M006-12-07	2/28/14	53	
			Ca/STD #3	M006-11-20	2.5 mL	1000 ppm Re 9/4/13		10 ppm					
			BORON	M082013C	1.25 mL	100 ppm		500 µg/L					
	M082813B		ICV + 49000 µg/L Fe – SP1	M012713A	0.1 mL	100 ppm	100 mL	100 µg/L			8/27/14		
			– SP2	M012713B	0 mL								
			– Fe	M006-10-13	0.0049 mL	10,000 ppm		5 ppm					
	M012813C		Interferents A	M006-08-20	5.0 mL	2- 20,000	500 mL	0.1- 100 µg/L			2/28/14		
			Analytes B	M006-08-04	0.5 mL	5-100		5-100 µg/L					
	M012813D		Interferents A	M006-08-20	5.0 mL	20- 10,000		0.1- 200 µg/L					
	M012813E		TUNE	M006-08-17	0.5 mL	10 ppm	500 mL	10 µg/L					
	~~M012813F~~	Re 8/29/13	10 ppm SP1 & SP2										

Book Number: 7

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
9/16/13	M091613B	6020/200.7	Dual Detector										
			Inst. Cal. STD #2	M006-07-14	0.2 mL	100 ppm	100 mL	0.2 ppm	1% HCl / 1% HNO3	M006-11-06 M006-12-07	9/30/14	SJ	
			#3	M006-11-20	0.05 mL	1000 ppm		0.5 ppm re 9/16/13					
			BORON	M091613C	1.0 mL	100 ppm		1.0 ppm					
			INTERNAL STD MIX	M071713A	0.3 mL	1000 ppm		0.06-0.6					
9/16/13	M091613C		5 ppm A1	M006-11-09	0.5 mL	1000 ppm	100 mL	5 ppm	1% HNO3	M006-12-07	3/16/14	SJ	
			5 ppm B	M005-12-15	0.5 mL	1000 ppm	100 mL re 9/16/13	5 ppm			re 9/16/13		
09/27/13	M092713A M09 469 9/27	6020/200.7	calib. STD - # - 1	469 9/27 10 M006-09-09	15 ml	See App. C	re 9/16/13 1000 ml	see Metal SOP	6% HNO3 5% HCl	M006-12-07 M006-12-06	05/06/14	469	
			- 7	469 9/27 10 M006-09-10		Metal		App. C					
			- 8	469 9/27 10 M006-09-11	60 ml								
			- 10	469 9/27 10 M006-09-12	7.5 ml								
			- 11	469 9/27 10 M006-09-13	6.0 ml								
			Na	M006-03-14									
			K	M006-03-15	3.0 ml								
			P	M006-07-19	1.2 ml								
			Zn	M006-07-20	0.250 ml								
9/30/13	M092713B	Hg	MERCURY STANDARD	M052713A	1 ml	100 ppm	100 ml	1.0 ppm	5% HNO3	M006-12-13	10/27/13 re 9/27/13	469	
	M092713C		ACERWER TRACE	M005-05-07	1 ml	100 ppm		1.0 ppm					
09/30/13	M093013A	164.0	Internal STD - Li	M006-10-04	16 mL	1000 ppm	40 mL	400 ppm	1% HNO3	M006-11-01	03/30/14	SJ	
			- Ga	M005-10-01	8 mL	1000 ppm		200 ppm				SJ	

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
09/30/13	MCS30134	1640	Interf. / ITO Tb	MCS-05-06	8 mL	1000 ppm	40 mL	100 ppm	1% HNO3	MCS06-11-05	03/30/14	SSG	
			In	MCS-10-15	4 mL	1000 ppm							
	MCS30138		Interf. / SDD	MCS30134	200 µL	100-400 ppm	2 L	10-40 ppb	2 mL HNO3 2L H2O	MCS06-11-09			
10/03/13	M100313A	ORG-Pb	Calib. STD Pb(Cl2)	M06-01-03	0.2654 g	Neat	200 ml	1000 ppm	10% 336/MIBK	R10031303	12/03/13 469/113	469	
	-B		ICV - Pb (Cl2)	M06-07-54	0.1342 g		100 ml	1000 ppm					
	-C		Pb Spiked Sol.	M04-33-05	0.1 ml		100 ml	1059 ppm	Xylene	M05-25-10	12/03/13		
10/10/13	M101013A	1631	1000 ppm STD (10 ppm)	M006-06-10	1 ml	1000 ppm	100 ml	10 ppm	2% HCl	M06C-10-01	4/10/14	ilo	
	B		1000 ppm STD ICV (10)	M06C-10-15	1 ml	1000 ppm	100 ml	10 ppm					
	C		10 ppm (100 ppb STD)	M101013A	1 ml	10 ppm	100 ml	100 ppb			11/10/13		
	D		10 ppm (100 ppb ICV)	M101013B	1 ml	10 ppm	100 ml	100 ppb					
	E		100 ppb (100 ppt STD)	M101013C	0.1 ml	100 ppb	100 ml	100 ppt					
	F		100 ppb (100 ppt ICV)	M101013D	0.1 ml	100 ppb	100 ml	100 ppt					
10/25/13	M102513A	Hg	Mercury Standard	M052513A	1 ml	100 ppm	100 ml	1.0 ppm	5% HNO3	M06-12-13	11/25/13	769	
	M102513B		Acetone Trace	M05-05-07	1 ml	100 ppm		1.0 ppm					
10/26/13	M102613A	6010/200.7	Spike Sol. #3 Bi, Li, S	M06-11-17 M05-17-17 M06-11-16	10 ml	1000 ppm	100 ml	1000 ppm	5% HCl 6% HNO3	M06-12-06 M06-12-07	10/26/14	469	used for Spiked Sol
11/01/13	M110113A	6020/200.8	External STD conc.										
			Sc	M006-10-24	100 mL	1000 ppm	500 µL	200 ppm	1% HNO3	M06-11-05	11/06/14	FS	
			Li 6	M006-10-04	50 mL			100 ppm					
			Ga	M006-10-05	50 mL			60 ppm					
			In	M006-13-14	60 mL			20 ppm					

Reagent Preparation Logbook

PREP DATE	NEW REAGENT ID #	TEST METHOD	REAGENT DESCRIPTION	SOURCE CHEMICAL(S) NAME	SOURCE CHEMICAL(S) ID #	SOURCE CHEMICAL(S) INITIAL AMOUNT	SOLVENT NAME	SOLVENT ID #	FINAL VOLUME	EXPIR. DATE	PREP BY	COMMENTS
4-5-13	R0405 1301	6010/6020	1:2 HCl	HCl	M006-08-24	0.833L	DI H_2O	D040513 01	2.5L X3	4-5-14	850	
4-9-13	R0409 1301	ORG. Pb	Reagent Blank	Xylene MIBK	M005-25-10 M005-19-14	40 ml 60 ml	Xylene MIBK	M005-25-10 M005-19-14	100 ml	10-9-13	469	
4/09/13	R0409 1302	TCLP	1. N NaOH	NaOH	M006-03-02	160 gram	DI-water	D040913 01	4L X 7	04/08/14	805	Source: 08/01/15
4-9-13	R0409 1303	6010/6020	1:2 HCl	HCl	M006-08-24	0.833L	DI H_2O	D0409 1302	2.5L X12	4-9-14	850	
04/10/13	R0410 1301 ~~R0409 1304 Sec 04/10/13~~	STLC	4.N. NaOH	NaOH	M006-03-02	640 gram	DI-water	D041013 01	4L X2	04/09/14	805	Source: 08/01/15
4/10/13	R0410 1302	Hg	5% $K_2S_2O_8$	$K_2S_2O_8$	M006-04-21	500 g	DI water	D041013 01	10L	4/10/14	709	
4/11/13	R0411 1301	1631	2% HCl	HCl	M006-08-07	40 mL	DI H_2O	D041113 01	2L X2	10/11/13	850	Source 11/05/15 Daily
4/18/13	R0418 1301	Hg	5% KMnO4	KMnO4	M006-04-14	1000 g	DI H_2O	~~D0~~ D041813 01	20L	4/18/13	709	
4/19/13	R0419 1301	1640	4M HCl	HCl	M006-08-07	200 mL	DI H_2O	D041913 01	500 mL X3	10/19/13	850	02/07/13 Daily
04/19/13	R0419 1302	TCLP	1.N NaOH	NaOH	M006-03-02	160 gram	DI-water	D041913 02	4L X1	04/18/14	805	Source: 08/01/15
4/22/13	R0422 1301	1640	1% HNO_3	HNO_3	M006-08-23	10 mL	DI H_2O	D042213 01	1L X 2	10/22/13	850	Source 08/20/15
|	R0422 1302	|	2% HNO_3	HNO_3	M006-08-23	80 mL	DI H_2O	D042213 02	4L X 1	10/22/13	|	Source 08/20/15
|	R0422 1303	|	H_2O_2 Hydride	H_2O_2 HNO_3	M005-17-08 M006-08-23	4 mL 80 mL	DI H_2O	D042213 03	1L X 1	10/22/13	|	|
4/23/13	R0423 1301	6010/200.7	Calib-Blank	6% HNO_3 5% HCl	M006-09-11 M006-09-12	60 ml HNO_3 50 ml HCl	DI H_2O	D042313	1L X 1	4/23/14	469	These solution
|	02	|	Reagent Blank	↓	|	↓	|	|	↓	|	|	are made Daily
|	03	|	Wash solution	10% HNO_3 10% HCl	|	100 ml HNO_3 100 ml HCl	|	|	1L X 4	|	|	or as needed
↓	04	↓	Carrier Solution	↓	↓	↓	↓	↓	2L X 2	↓	↓	↓
4/23/13	R0423 1305	6010/6020	1:1 HNO_3	HNO_3	M006-09-14	1.25L	DI H_2O	D042313 05	2.5 X 2	4/23/14	850	
4/29/13	R0429 1301	6010/6020	1:2 HCl	HCl	M006-09-17	0.833 X6	DI H_2O	D042913 01	9.5 X 6	4/29/14	850	
4/30/13	R0430 1301	6010/6020	1:1 HNO_3	HNO_3	M006-09-19	1.25L	DI H_2O	D043013 01	2.5 X 2	~~4/30/15~~ 4/30/14	850	

BT 4/30/13

Book Number: 4 4x 4/24/13

Return to Contents

Reagent Preparation Logbook

PREP DATE	NEW REAGENT ID #	TEST METHOD	REAGENT DESCRIPTION	SOURCE CHEMICAL(S) NAME	SOURCE CHEMICAL(S) ID #	SOURCE CHEMICAL(S) INITIAL AMOUNT	SOLVENT NAME	SOLVENT ID #	FINAL VOLUME	EXPIR. DATE	PREP BY	COMMENTS
08/28/13	R08281302	Acid cut	10% HNO_3	HNO_3	M006-12-07	100	DI WATER	D0828 13	2 x 1L	8/28/14	HH	
08/30/13	R08301301	Metal	1:2 HCl	HCl	M006-12-14	0.8333L	DI-water	D08301301	25L x 12	08/29/14	879	
08/30/13	R08301302	TCLP	1.N NaOH	NaOH	M006-09-18	160 gram	DI-water	D08301302	4L x 1	08/29/14	805	04/28/16
09/04/13	R09041301	200.7	1:4 HCl	HCl	M006-12-06	200 ml	DI water	D09041301	250 ml	09/4/14	HH	
09/11/13	R09111301	Metal	1:2 HCl	HCl	M006-12-14	0.8333 L	DI H_2O	D09111301	2.5 x 9 L	9/11/14	879	
9/12/13	R09111302	↓	1:1 HNO_3	HNO_3	M006-12-13	1.25 L x 8	↓	↓	2.5 x 8 L	↓	↓	
9/12/13	R09121301	Hg	5% $KMnO_4$	$KMnO_4$	M006-12-05	1000g	DI H_2O	D09121301	20L	9/12/14	705	
9/16/13	R09161301	Metal	1:1 HCl	HCl	M006-12-15	1.25 x 4 L	↓	D09161301	2.5 x 4 L	9/16/14	781	
9/16/13	R09161302	Hg	1:1 Aqua Regia	HCl HNO_3	M006-12-14 M006-12-13	150 ml 50 ml	DI H_2O	D09161302	400 ml EXPIRING 13	9/16/14	768	Daily fresh
9/17/13	R09171301	Metal	1:1 HNO_3	HNO_3	M006-12-17	1.25 x	DI-water	D09171301	2.5 x	09/16/14		
9/18/13	R09181302	Metal	1:2 HCl	HCl	M006-12-15	0.8333 L	DI H_2O	D09181301	2.5 L x 9	9/18/14	769	
1	~~R09131301~~ ~~R09181302~~ As 9/18/13	1	1:1 HNO_3	HNO_3	M006-12-18	1.25 L	1	~~D09181302~~ D09181302 As 9/18/13	2.5 L x 10	1	1	
09/23/13	R09231301	TCLP	1.N NaOH	NaOH	M006-09-18	160 gram	DI-water	D09231301	4L x 3	09/23/14	805	04/28/16
09/23/13	R09231302	ST2C	4.N NaOH	NaOH	M006-09-18	640 gram	DI-water	D09231302	4L x 2	09/23/14	805	04/28/16
9/25/13	R09251301	Metal	1:1 HNO_3	HNO_3	M006-12-20	1.25 L x 10	↓	D09251301	2.5 L x 10	9/25/14	781	
	R09251302	↓	1:2 HCl	HCl	M006-12-21	0.8333 L x 9	↓	↓	2.5 L x 9	↓	↓	
09/25/13	R09251303	TCLP	1.N NaOH	NaOH	M006-09-18	160 gram	DI-water	D09251303	4L x 2	09/24/14	805	04/28/16
09/26/13	R09261301	ST2C	4.N NaOH	NaOH	M006-09-18	640 gram	DI-water	D09261301	4L x 2	09/25/14	805	04/28/16
9/26/13	R09261302	(Soil) 200.7	1:4 HCl	HCl	M006-12-06	2.5 ml x 100 x 2	↓	↓	500 ml x 2	9/26/14	781	
09/26/13	R09261303	TCLP	1.N NaOH	NaOH	M006-09-18	160 gram	DI-water	D09261303	4L x 1	09/25/14	805	04/28/16

Reagent Preparation Logbook

PREP DATE	NEW REAGENT ID #	TEST METHOD	REAGENT DESCRIPTION	SOURCE CHEMICAL(S) NAME	SOURCE CHEMICAL(S) ID #	SOURCE CHEMICAL(S) INITIAL AMOUNT	SOLVENT NAME	SOLVENT ID #	FINAL VOLUME	EXPIR. DATE	PREP BY	COMMENTS
09/30/13	R09301301	1640	BUFFER	HAc NH4OH	M006-01-19 M006-02-10	140mL 160mL	DI-WATER	D09301301	1L x 2	03/30/~~13~~ 14	55L	
|	R09301302	|	Hydride H2O2	HNO3 H2O2	M006-11-09 M005-17-08	4mL 20mL	|	|	1L	03/30/14		
|	R09301303	|	Hydride	NaOH NaBH4	M006-01-01 M006-09-16	0.4g 4g	|	|	200mL x 2	03/30/14		
10/1/13	R10011301	Hg	12% NH2OH-HCl/NaCl	NH2OH-HCl NaCl	M006-13-01 M006-12-12	2400g 2400g	DI H2O	D10011301	20L	10/1/14	769	
10/03/13	R10031301	TCLP	1.N NaOH	NaOH	M006-09-18	160 gram	DI-water	D10031301	4L x 1	10/02/14	805	04/28/16
10/03/13	R10031302 ~~R04031302~~	ORG. Pb	3% I2	I2	G003-54-21 M006-09-09	6g	Benzene	M006-09-09	200ml	06/03/14	469	
469 10/13	R10031303 ~~R04031~~	↓	10% 336/MIBK	336/MIBK	M006-05-01 M005-19-14	450ml + 50ml	MIBK	M005-19-14	500ml	↓	↓	
↓	R10031304	↓	1% 336/MIBK	↓	R10031303 M005-19-14	20ml	10% 336/MIBK	M005-19-14	200ml	↓	↓	
↓	R10031305	↓	Calib Blank 40% Xylene + 60 MIBK	Xylene MIBK	M005-25-10 M005-19-14	400ml 600ml	Xylene MIBK	M005-25-10 M005-19-14	1000ml	11/15/14	↓	Daily prepared
10/07/13	R10071301	METALS	0.4% HCl	HCl	M006-12-22	100mL	DI WATER	D10071301	250mL x 2	10/07/14	53	
10/08/13	R10081301	TCLP	1.N NaOH	NaOH	M006-09-18	160 gram	DI-water	D10081301	4L x 1	10/07/14	805	04/28/16
↓	R10081302	STLC	4.N NaOH	NaOH	M006-09-18	640 gram	DI-water	D10081302	4L x 1	10/07/14	805	04/28/16
10/8/13	R10081303	Metal	1:1 HNO3	HNO3	M006-13-08	1.25L	DI H2O	D10081303	2.5L x ~~8~~ 10 VK	10-8-13 10/8/14	769	
|	R10081304	|	1:2 HCL	HCL	M006-13-09	0.8332L	|	D10081304	2.5L x 12	|	|	
10/11/13	R10111301	Hg	5% KMnO4	KMnO4	M006-12-05	1000g	DI H2O	D10111301	20L	10/11/14	769	
10/11/13	R10111302	Metal	0.5 N. HNO3	HNO3	M006-12-20	8ml	DI-water	D10111302	250ml x 1	10/10/14	805	
10/18/13	R10181301	Metals	1:1 HNO3	HNO3	M006-13-11	2.5L	DI-water	D10181301	2.5L x 16	10/18/14	879	
10/23/13	R10231301	Hg	5% K2S2O8	K2S2O8	M006-04-21	500g	DI H2O	D10231301	10L	10/23/14	769	
10/23/13	R10231302	TCLP	1.N NaOH	NaOH	M006-09-18	160 gram	DI-water	D10231302	4L x 3	10/22/14	805	04/28/16
10/23/13	R10231303	STLC	4.N NaOH	NaOH	M006-09-18	640 gram	DI-water	D10231303	4L x 1	10/22/14	805	04/28/16

Book Number: 4   11/11/13

Return to Contents

Reagent Preparation Logbook

PREP DATE	NEW REAGENT ID #	TEST METHOD	REAGENT DESCRIPTION	SOURCE CHEMICAL(S) NAME	SOURCE CHEMICAL(S) ID #	SOURCE CHEMICAL(S) INITIAL AMOUNT	SOLVENT NAME	SOLVENT ID #	FINAL VOLUME	EXPIR. DATE	PREP BY	COMMENTS
10/25/13	R10251301	Hg	5% KMnO4	KMnO4	M006-12-05	1000g	DI H2O	D10251301	2L	10/27/14	769	
10/29/13	R10291301	TCLP	1.N NAOH	NaOH	M006-9-18	160gram	DI-water	D10291301	4LX2	10/28/14	805	04/28/16
10/29/13	R10291302	STLC	4.N NaOH	NaOH	M006-9-18	640gram	DI-water	D10291302	4LX2	10/28/14	805	04/28/16
11/1/13	R11011301	Metals	~~1:1 HNO3~~ 1:2 HCL VK 11-1-13	~~HNO3~~ HCL	M006-13-17	~~8.5L~~ 0-8333L	DI-water	D11011301	2.5L X15	11/1/14	879	
11/05/13	R11051301	TCLP	1.N NaOH	NaOH	M006-9-18	160gram	DI-water	D11051301	4LX1	11/04/14	805	04/28/16.
11/05/13	R11051302	Metals	1:1 HNO3	HNO3	M006-13-20	~~2.5L~~	DI-WATER	D11051302	2.5L X18	11/05/14	879	
11/12/13	R11121301	Hg	12% NH2OH-HCl/NaCl	NH2OH.HCL NaCL	M006-13-01 M006-12-12	2400g 2400g	DI H2O	D11121301	20L	11/12/14	769	
11/12/13	R11121302	1	5% KMnO4	KMnO4	M006-12-05	1000g	DI H2O	D11121302	20L	11/12/14	769	
11/25/13	R11251301	Metals	1:1 HNO3	HNO3	M006-13-23	~~2.5L~~ 1.25L	DI-WATER	D11251301	2.5L X4	11/25/14	879	
11/27/13	R11271301	metals	1:1 HNO3	HNO3	M006-13-23	~~2.5L~~ 1.25L	DI WATER	D11271301	2.5L X2	11/27/14	879	
11/29/13	R11291301	Metals	1:1 HNO3	HNO3	M006-~~14-01~~ 13-23	~~2.5L~~ 1.25L	DI-WATER	D11291301	2.5L X4	11/27/14	879	
12/0-/13	R12021301	Hg	1:1 Aqua Regia	HCL HNO3	M006-13-24 M006-13-23	150.ml 50.ml	DI H2O	D12021301	400ml	12/2/14	769	Daily Fresh.
12/02/13	R12021302	Metals	1:2 HCL	HCL	M006-13-24	~~2.5L~~ 0.8333L	DI WATER	D12021301	2.5L X3	12/2/14	879	VK 12-4-13 3 bottles
12/03/13	R12031301	TCLP	1.N NaOH	NaOH	M006-9-18	160gram	DI-water	D12031301	4LX3	12/02/14	805	04/28/16
12/03/13	R12031302	STLC	4N NaOH	NaOH	M006-9-18	640gram	DI-water	D12031302	4LX1	12/02/14	805	04/28/16
12/4/13	R12041301	Hg	5% KMnO4	KMnO4	M006-12-05	1000g	DI H2O	D12041301	20L	12/4/14	769	
12/04/13	R12041302	TCLP	1.N HCL	HCL	M006-13-24	33.32ml	DI-water	D12041302	400ml X1	12/04/14	805	11/13/16
12/4/13	R12041303	Metals	1:1 HNO3	HNO3	M006-~~14-03~~ 13-23	~~2.5L~~ 1.25L	DI-WATER	D12041303	2.5LX7	12/4/14	879	
12/5/13	R12051301	Metals	1:2 HCL	HCL	M006-14-04	~~2.5L~~ 0.8333L	DI-WATER	D12051301	2.5LX 15	12/5/14	879	Lot # Verified
~~12/12/13 12/05/13~~	R12121301	1640	1% HNO3	HNO3	M006-11-09	10mL	DI-water	D12121301	1LX2	12/12/14	776	03/22/16

776 12/12/13
Book Number: _____

CHEMICAL RECEIVING LOGBOOK # 4

LINE NO.	CHEMICAL	SOURCE	CATALOG NO.	LOT NO.	EXP. DATE	AMOUNT RECEIVED	TYPE CONT.	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO
1	Hydrochloric Acid	EMD	HX0607/4	47333	05-12-12	2.5	G	05-13-09	HT	05-13-09	HT
2											
3											
4											
5											
6											
7	Sodium	Ultrascience	ICP-111-5	J00751	9/30/15	500ml	P	3-14-09			
8	↓		↓	↓	↓	↓	↓	↓			
9	Potassium		ICP-119-5	~~J01~~ J01077	12/31/15						
10	↓		↓	↓	↓	↓	↓		↓		
11	Aluminum		ICP-113	H00903	12/31/10	125ml					
12	Boron		ICP-105	H00012A	12/31/16						
13	Silicon		ICP-114	J00332	5/31/15						
14	Barium		ICP-156	H01038	1/31/15						
15	Yttrium		ICP-139	H00780	11/30/10						
16	Holmium	↓	ICP-167	G00097A	5/31/15	↓	↓	↓	↓	↓	
17	Xylenes	Fisher	CAS1330-20-7	086766	3-23-12	4 L	G	3-24-09	JC	3-24-09	JC
18											
19											
20											
21	Hydrochloric Acid	EMD	HX0607/4	47333	04-06-12	2.5	G	04-07-09	JC	04-07-09	JC
22											
23											
24											
25											

Reviewed by: _____ on 3/16/09

Return to Contents

Chemical and Supply Receiving Logbook #5

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Scandium	AccuTrace	ICP-MS-50N-0.1X-1	B8065146	06/2013	100mL	P	05/12/10	FC	05/12/10	FC	
2	Gallium		ICP-MS-20N-0.1X-1	B9025085	02/2014							
3	Bismath		ICP-MS-06N-0.1X-1	B8105119	10/2013							
4	Terbium		ICP-MS-59N-0.1X-1	B8125114	12/2013							
5	Holmium		ICP-MS-24N-0.1X-1	B8055135	05/2013							
6	Indium		ICP-MS-25N-0.1X-1	B7025125-1A	04/2014							
7	Hg		ICP-MS-34N-0.1X-1	B7045054A	06/2014							
8	Hydrochloric Acid	EMD	HX0607/4	49328	5/24/13	2.5LX5	G	5/24/10	AC	5/24/10	AC	
9	Hydro Fluoric Acid	BDH ARISTAR	BDH3010-500MP	201004213	5/25/13	500ml	P	5/25/10		5/25/10		
10	Hydrogen Peroxide	EMD	HX0635/2	50095018	4/30/2012	1.0LX8	P	5/25/10	AC	5/25/10	AC	
11	$CH_3CHOHCH_3$	BDH	BDH1133-	011110B	5/25/13	4.0LX4	G	5/25/10	MW	5/25/10	MW	
12	Nitric Acid	EMD	NX0407/1	49225	5/25/13	500mLX7	G	5/25/10	FC	5/25/10	FC	
13	〃	〃	〃	49351	〃	500mLX11	〃	〃	〃	〃	〃	
14	Li 6	HIGH PURITY	100029-CI	1003306	11/07/11	100mL	P	5/27/10	FC	5/27/10	FC	
15	STANDARD – Sb	Ultra	ICP-151	K00854	09/30/16	~~100ml~~ 125ml/5/24	P	5/29/10		5/29/10		
16	– As	Scientific	-133	J01221	1/31/16							
17	– Be		-104	J01222	1/31/16							
18	– Cd		-148	K00287	5/31/16							
19	– Co		-127	K00636	8/31/16							
20	– Ca		-120	K00189	3/31/16							
21	– Cr		-124	K00358	6/30/16							
22	– Cu		-129	K00443	6/30/16							
23	– Fe		-126	K00342	5/31/16							
24	– Pb		-182	K00720	8/31/16							
25	– Mg	↓	↓ -112	L00073	2/28/17	↓	↓	↓	↓			

COMMENTS:

in 6/7/10

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	STANDARD – Mn	Ultra	ICP-125	J00797	10/31/15	125 mg ~~100 ml~~ 5/29	P	5/29/10	[illegible]	5/29/10	[illegible]	
2	– Mo	Scientific	-142	K00889	9/30/16							
3	– Ni		-128	J00161	3/31/15							
4	– P		-115	H00514A	8/31/16							
5	– Se		-134	K00725 5/29	8/31/16							
6	– Sr		-138	K00147	3/31/16							
7	– Tl		-181	D00628B	2/28/15							
8	– Ti		-122	K00126	2/28/16							
9	A – Sn B – V		-150 -123	K00799 J01266	9/30/16 1/31/16							
10	– Zn		8/27 HX0607/4 -130	K01082	11/30/16							
11	HCL	EMD	UN1789	49328	6-2-13	2.5x6	G	6-2-10	[illegible]	6-2-10	[illegible]	2.5x6
12	Terbium Standard	Ultra	ICP-165	H00138A	6/30/16	125ml	P	6/3/10	[illegible]	6-3-10	[illegible]	
13	BERYLLIUM	AccuTrace	ICP-MS-05N-0.1X-1	21005117	05/2015	100mL	P	6/4/10	FC	6/4/10	FC	
14	NITRIC ACID	EMD	NX0407/4	49225	6/8/13	2.5Lx6	G	6/8/10	AC	6/8/10	AC	HX0607/4
15	HCL	EMD	~~CAS7647-0~~ 8/28	49328	6/11/13	2.5Lx6	G	6/11/10	[illegible]	6/11/10	[illegible]	2.5x6 8/27
16	ICP-Multiclement Calibration Standard 1	HIGH-PURITY STANDARDS	ICP-MCS-1	1004616	5/7/2011	250mL	P	6/11/10	FC	6/11/10	FC	
17	Ammonium Hydroxide	BDH	87003-214	7210010	01/26/13	500ml	P	6/16/10	EN	6/16/10	EN	
18	"											
19	"											
20	NITRIC ACID	EMD	NX0407/4	49225	6/21/13	2.5Lx8	G	6/21/10	AC	6/21/10	AC	2.5Lx8
21	Acetic Acid	EMD	AX0078/7	49273	6/23/11	250ml	P	6/23/10	EN	6/23/10	EN	250g x4
22	HCL	EMD	HX0607/4	49254	6/23/13	2.5Lx7	G	6/23/10	AC	6/23/10	AC	2.5Lx7
23	NITRIC ACID	EMD	NX0407/4	49225	6/23/13	2.5Lx4	G	6/23/10	AC	6/21/10	AC	2.5Lx4
24	Tin (II) Chloride ($SnCl_2$)	Fisher	T143-500 ~~UN3260~~	096665	6-24-13	500g x6	P	6-24-10	[illegible]	6-24-10	[illegible]	T142-500
25	Potassium Persulfate ($K_2S_2O_8$)	J.T.Baker	3239-05 ~~UN1492~~	H02H06	↓	2.5 Kg	↓	↓	↓	↓	↓	

[illegible] 6-24-10

COMMENTS:

[illegible] 6/28/10

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	HCL	EMD	HX607/4	49328	6/30/13	2.5x3	G	6/30/10	Ac	6/30/10	Ac	
2	Nitric Acid	EMD	NX0407/4	49225	7/1/13	2.5Lx5	G	7/1/10	Ac	7/1/10	Ac	
3	6010A Mixed Standard Sol. I	Ultra scien.	ICM-601	K00177	3/31/13	125ml	P	6/30/10	Jm	7/1/10	Jm	
4	II		-602	K00727	8/31/13							
5	III		-603	K00121	2/28/13							
6	IV		-604	G00358A	7/31/12							
7	V		-605	L00218	4/30/14							
8	ICP Multielement Calib. STD - # 8	High Purity	ICP-MCS-8	1004622	5/7/11	500x2	P	7/1/10				
9	-10		ICP-MCS-10	1007535		125ml						
10	-11		ICP-AM-11	101270.5								
11	Hydrogen Peroxide	EMD	HX0635-2	50095018	4/30/2012	1.0Lx6	P	7/7/10	Ac	7/7/10	Ac	
12	Wide-Mouth Unitary wash Bottle	Thermo Scientific		1020359	~~7/8L~~	1.Lx12	P	7/8/10	Jm	7/8/10	Jm	
13	NITRIC ACID	EMD	NX0407/4	49225	~~2.5Lx3~~ 7/8/13	2.5Lx3	G	7/8/10	Ac	7/8/10	Ac	
14				49308	~~2.5L~~ Ac	2.5L						
15				50123	~~2.5L~~ 7/8	2.5L						
16	Hydrochloric Acid	EMD	HX0607/4	49328	7/8/13	2.5Lx5	G					
17	Stannous Chloride Dihydrate SnCl_2 2H2O	EMD	SX0885-1	B0477939-007	7-8-13	500g x 8	G	7-8-10	X	7-8-10	X	
18	NITRIC ACID	EMD	NX0407/4	50123	7/15/13	2.5Lx6	G	7/15/10	Ac	7/15/10	Ac	
19	Hydrochloric Acid	EMD	HX0607/4	49254	7/15/13	2.5Lx6	G	7/15/10	Ac	7/15/10	Ac	
20	BUFFER SOLUTION PH 7.0	EMD	BX1635-1 ~~0172~~ 7-28-10	0172	30-Jun12	500ml	P	7-28-10	MW	7-28-10	MW	
21	Citric Acid, Anhydrous	EMD	CX1723-3	49218935	7-28-15	2.5Kgx4	P	7-28-10	MW			
22	NITRIC ACID	EMD	~~NO~~ NX0407/2	49225	7/28/13	2.5Lx10	G	7/28/10	Ac	7/28/10	Ac	
23	Hydrochloric Acid	EMD	HX0607/4	49254	7/28/13	2.5Lx13	G	7/28/10	Ac	7/28/10	Ac	
24	HNO_3	EMD	NX0407/4	45003	8/10/13	KCN 7/28/10 2.5Lx8	G	8/10/10	KCN	8/10/10	KCN	
25			NX0407/2	49225	8/10/13	2.5Lx5	G	8/10/10	Ac	8/10/10	Ac	

COMMENTS:

L 7/28/10

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Icp Cu/15 STD - 8	HIGH PURITY	Icp-mcs-8	1016604	11/14/11	500mL x2	P	11/23/10	FC	11/23/10	FC	
2	Icp ~~MIXTURE~~ Cu/16 STD - 10		Icp-mcs-10	1007535		100mL	P					
3	Icp - MIXTURE - 11 FC 11/23		ICP-AM-11	1012705		100mL						
4	Xylenes	EMD	XX0055-5	50207	11/23/13	4LX4	G	11/23/10	AC	11/23/10	AC	
5	Nitric Acid	EMD	NX0407/4	50243	11/23/13	2.5LX5	G	11/23/10	mw	11/23/10	mw	
6	Nitric Acid	EMD	NX0407/4	50243	12/2/13	2.5LX10	G	12/2/10	AC	12/2/10	AC	
7	HCL	EMD	HX0607/4	50196	12/2/13	2.5LX8	G	12/2/10	AC	12/2/10	AC	
8	Calcium	ULTRA SCIENTIFIC	ICP-120	K00564	10/31/16	125mL	P	12/07/10	FC	12/07/10	FC	
9	Silver		ICP-147	L00607	7/31/17	125.0	P	12/07/10	[illegible]	12/07/10	[illegible]	
10	Potassium		ICP-119-L	L0056	2/28/17	125.0						
11	Sodium		↓ -111-L	~~L~~ K00911	10/31/16							
12	Barium		ICP-156	K01087	11/30/16							
13	Zinc		ICP-130	K01082	↓							
14	Boron		ICP-105	J01243	1/31/16							
15	Aluminum		ICP-113	~~L~~ K00931 12/7	10/31/16							
16	Yttrium		ICP-139	L00467	5/31/17							
17	Multielement Interference check #1	Accutrace	INT-01-1	210115105	12/12	100		12/8/10		12/8/10		
18	-2	Standard	-02-1	B1045120-4D	11/12							
19	-3		-03-1	B4025047-4D	11/12							
20	-4		-04-1	B7095026-2B	11/12							
21	Nitric Acid	EMD	NX0407/4	50198	12/13/13	2.5LX5	G	12/13/10	AC	12/13/10	AC	
22	HCL	EMD	HX0607/4	50196	12/13/13							
23	Hydrogen Peroxide	EMD	HX0635-2	50095018	4/30/12	1LX4	P	12/14/10	AC	12/14/10	AC	
24				50207032	7/31/12	1LX6						
25	Sodium Acetate (NaOAc)	BDH	BDH0278	81820	12/20/15	2.5X2	P	12/20/10	MN	12/20/10	MN	

COMMENTS:

[illegible] 12/23/10

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Sodium borohydride	ACROS	20005-1000	B01311244	10/19/16	100g	P	10/19/11	[illegible]	10/19/11	[illegible]	2x100g
2	Stannous Chloride	EMD	SX0885-1	B0710039	10-19-16	500g	G	10-19-11	587	10-19-11	587	
3	Sodium Hydroxide	ALFA	41281	D24T001	10/20/16	25g	P	10/20/11	[illegible]	10/20/11	[illegible]	2x25g
4	HCL	EMD	HX0607/4	51035	10/21/14	2.5L x 5	G	10/21/11	769	10/21/11	769	
5	HNO_3	EMD	NX0407/2	51024	10/31/14	2.5L x 4	G	10/31/11	781	10/31/11	787	
6	HCL	↓	NX0607/4	51035	↓	2.5L x 6	↓	↓	↓	↓	↓	
7	HCL	VWR	87003-216	4211040	6/14/14	500ml x 2	P	11/1/11	769	11/1/11	769	
8	Stannous Chloride	Fisher	T163-500	112261	11/1/14	500g x 4	P	11/1/11	769	11/1/11	769	
9	Acetic Acid	EMD	AX0078/6	51151	11/1/14	1L x 1	P	11/1/11	769	11/1/11	769	
10	Nitric Acid	EMD	NX0407/2	51024	11/1/14	2.5L x 4	G	11/1/11	710	11/1/11	710	
11	Nitric Acid	EMD	NX0407/2	51024	11/8/14	2.5L x 4	G	11/8/11	710	11/8/11	710	
12	HCl	EMD	HX0607/4	51122	↓	↓ x 2 11/10/11	↓	↓	↓	↓	↓	
13	Xylenes	EMD	XX0055-5	51026.	11/15/14	2.5x4	G	11/15/11	710	11/15/11	710.	
14	MIBK	EMD	MX1300-3	50085103	↓	2.5x2	G	↓	↓	↓	↓	
15	Nitric Acid	EMD	NX0407/2	51153	11/17/14	2.5L x 4	G	11/17/11	769	11/17/11	769	
16	Nitric Acid	|	NX0407/4	51024	|	2.5L x 5	|	|	|	|	|	
17	HCL	EMD	HX0607/4	51122	11/17/14	2.5L x 7	G	11/17/11	769	11/17/11	769	
18	HNO_3 KCN 11/17/11	↓	NX0407/2									
19	Single Element Standard - Sb	Ultra-	ICP-151	K00854	9/30/16	125	P	11/23/11	469	11/23/11	469	
20	- As	Scientific	-133	L00700	7/31/17	125	P	↓	↓	↓	↓	
21	- Be		-104	M00347	5/31/18	125						
22	- Cd		-127 148	L00406	5/31/17							
23	- Co		-127 120	M00842	9/30/18							
24	- Ca		-120 124	L01337	12/31/17							
25	- Cr	↓	-124 129	K00358	6/30/16	↓	↓	↓	↓	↓	↓	

[illegible] 11/23/11

COMMENTS:

[illegible] 11/15/11 [illegible] 12/15/11

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Single Element Standard – Cu	Ultra Scientific	ICP – ~~126~~ 129 in 11/23	L01250	11/30/17	125ml	P	11/23/11	469	11/23/11	469	
2	– Fe		–126	L00452	5/31/17							
3	– Pb		–182	L00395	5/31/17							
4	– Mg		–112	M00166	3/31/18							
5	– Mn		–125	K00953	10/31/16							
6	– Mo		–142	M00374	5/31/18							
7	– Ni		–128	K00825	9/30/16							
8	– P		–115	L01132	10/31/17							
9	– Se		–134	L00860	8/31/17							
10	– Sr		–138	K00147	3/31/16							
11	– Tl		–181	L00430	5/31/17							
12	– Ti		~~–182~~ 122 in 11/23/11	M00277	4/30/18							
13	– Sn		–150	L01287	12/31/17							
14	– V		–123	L01087	10/31/17							
15	– Zn		–130	L01346	12/31/17							
16	Acetic Acid	FISHER	UN2789	611067	June 2014	500mL x2	P	11/23/11	538	11/23/11	538	
17	Hydrochloric Acid		UN1789	411106 0	06/2014	500mLx2	P					
18	Buffer Solution pH=7.0	~~EMD~~	BX1635-1	1089	~~03/30/13~~ ~~11/23/11~~	500x2	P	11/23/11	710	11/23/11	710	
19					~~Sol 06/26/17~~ ~~SX 06/26/17~~ ~~SX 06/26/17~~ 03/30/13	500x4	P	11/28/11	710	11/28/11		UTF: #2 pH=7.0
20	Sulfuric Acid H_2SO_4	EMD	SX1247-4	50348	11-29-14	2.5Lx4	G	11-29-11	587	11-29-11	587	
21	HCl	EMD	HX0607/4	51122	11/29/14	2.5Lx2	G	11/29/11	769	11/29/11	769	
22	~~Add~~ ~~Add~~ HNO_3		~~NX0407/4~~ NX0607/4 in 11/29/11	51153		2.5Lx2						
23	Hydrochloric Acid	UWR	87003-46	421104 0	06/14/14	500mL x2	T	11/30/11	538	11/30/11	538	
24	Sodium borohydride	ACROS	~~200205-1000~~ 10940 in 12/1/11	B0125743A	12/1/16	100g x2	P	12/1/11	769	12/1/11	769	
25	Hydroxylamine Hydrochloride	ALDRICH	431362-250G	MRBF7164V	12/1/16	250g	P	12/1/11	769	12/1/11	769	

COMMENTS:

L 12/15/11

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	NexION Duel Detector Calibration	PE	N8145059	12-123GS	10/30/12	100mL	P	01/09/12	598	01/09/12	598	
2	KED Mode Detection Limit STD Sol.	PE	N8145058	11-207GS	10/30/12	100mL						
3	KED mode Detection Limit Blank Sol.	PE	N8145057	12-60GS	10/30/12	100mL						
4	STD/DRC mode Detection Limit STD Sol.	PE	N8145056	12-50GS	10/30/12	100mL						
5	STD/DRC mode Detection Limit Blank Sol	PE	N8145055	12-104GS	10/30/12	100mL						
6	Cell stability Solution	PE	N8145054	12-94GS	10/30/12	500mL						
7	KED mode Setup Solution	PE	N8145052	12-3GS	10/30/12	250mL						
8	Setup Solution	PE	N8145051	12-124GS	10/30/12	500mL						
9	Rinse Solution	PE	N8145050	12-93GS	10/30/12	250mL						
10	HNO_3	EMP	NX0407/4	51153	1/10/15	2.5L x3	G	1/10/12	781	1/10/12	781	
11	HCL		HX0607/4	51122	01/10/15	2.5L x3						
12	Sodium Acetate, Trihydrate	BDH	BDH0278	123378	01/10/15	2.5kg x4	P	1-16-12	710	1/16/12	710	CTF: #M00421-12
13	Nitric Acid	EMP	NX0407/4	51153	1/19/14	2.5L x5	G	1-19-12	S.G.L	1-19-12	S.G.L	
14	Uranium standard	ULTRA	ICP-092	M00149	3/31/18	125mL	P	1-25-12	598	1-25-12	598	
15	HCl	BDH	7003-216	421140	6/14/14	Reflux x2 2500mL	T					
16	Mixd Standard - I	Ultra	ICM-601	K00177	3/31/13	125mL	P	1/25/12	469	1/25/12	469	
17	- II		-602	L00556	6/30/14							
18	- III		-603	L00066	2/28/14							
19	- IV		-604	G00358Z	7/31/15							
20	- V		-605	M00138	3/31/15							
21	Interference Check STD - 1		ICM-221	M00532	6/30/15							
22	Lithium		ICP ICM-003	L00937	9/30/17							
23	Sulfur		1/25 469 -016	L01251	11/30/17							
24	Silicon		-114	L00333	4/30/18							
25	Bismuth		-083	M00246								

COMMENTS:

XX 3/15/12

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Hydrochloric Acid 1.0N	EMD	HX0603D-8	#HC084476	01/30/13	500mx1	P	08/02/12	805	08/02/12	805	
2	Sodium Hydroxide. (NaOH)	BDH	BDH0292	137301	08/01/15	2.5kg x4	P	08/02/12	805	08/02/12	805	CTF#3 P4-7
3	Sodium Borohydride	ACROS	16940-66-2	B0132929	01/2016	100g x2	P	08/08/12	776	08/08/12	776	
4	HNO3	EMD	NX0407/4	51332	08/08/15	2.5L x~~3~~ 1 SLC 08/09/12	G	08/09/12	805	08/09/12	805	
5	↓	↓	NX0607/4	52088	↓	2.5x1	↓	↓	↓	↓	↓	
6	↓	↓	↓	52012	↓	2.5x1	↓	↓	↓	↓	↓	
7	HCL	EMD	HX0607/4	51122	08/08/15	2.5L x2	G	08/09/12	805	08/09/12	805	
8	↓	↓	↓	51181	↓	2.5L x1	↓	↓	↓	↓	↓	
9	ICP-MS Calib. Standard #5 Hg	Ultra Scientific	IMS-121	M01103	11/30/14	125ml x1	P	8/14/12	469	8/14/12	469	
10	Phosphorus Standard	↓	ICP-115	L01132	10/31/17	125ml x1	P	8/14/12	↓	↓	↓	
11	Magnesium standard	↓	ICP-112	L00073	2/28/17	↓	↓	↓	↓	↓	↓	
12	Calcium Standard	↓	ICP-120	M01149	12/31/18	↓	↓	↓	↓	↓	↓	
13	Aluminum standard	↓	ICP-113	M00266A	4/30/16	↓	↓	↓	↓	↓	↓	
14	Sodium Standard	↓	ICP-111	M00189B	3/31/17	1.0L x2	↓	↓	↓	↓	↓	
15	Potassium Standard	↓	ICP-119	M00572	7/31/18	1.0L x1	↓	↓	↓	↓	↓	
16	HNO3	EMD	NX0407/4	52012	8/14/15	2.5L x5	G	8/14/12	769	8/14/12	769	CTF#3 P6-07
17	HCL	EMD	HX0607/4	51181	8/15/15	2.5L x5	G	8/15/12	769	8/14/12	769	CTF#3 P4-16
18	HNO3	EMD.	NX ~~0407~~ 0607/4 SLC 08/21/12	52088	08/20/15	2.5x3	G	08/21/12	805	08/21/12	805	
19	↓	↓	NX0407/4	52012	↓	2.5x5	↓	↓	↓	↓	↓	
20	HCL	EMD	HX0607/4	51258	↓	2.5L x~~3~~ 4 SLC 08/21/12	↓	↓	↓	↓	↓	CTF#3 P6-07
21	Ammonium Hydroxide	Fisher	A512-P500	7111,080	08/2014	500mL x7	P	08/23/12	776	08/23/12	776	
22	Ammonium Hydroxide	↓	↓	7111060	07/2014	500mL x2	↓	↓	↓	↓	↓	
23	Ammonium Hydroxide	↓	↓	7112050	05/17/15	500mL x1	↓	↓	↓	↓	↓	
24	Nitric Acid	↓	A467-2	1212020	02/23/15	2L x1	↓	↓	↓	↓	↓	
25	Nitric Acid	EMD	NX0407/4	52012	8/31/15	2.5L x2	G	8/31/12	469	8/31/12	469	

COMMENTS:

Book Number: 86 LS 5/22/12 02 9/19/12

05/22/12 Revision

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Nitric Acid	EMD	NX0407/4	52088	8/31/15	2.5LX2	G	8/31/12	469	8/31/12	469	
2	Hydrochloric Acid	EMD	HX0607/4	51122	8/31/15	2.5LX2	G	8/31/12	469	8/31/12	469	
3	↓	EMD	HX0607/4	51258	↓	2.5LX2	G	8/31/12	↓	↓	↓	
4	Instrument Calibration STD #3	SPEX	CL-6AC-3	CL43-8443	08/30/13	125mLX2	P	09/06/12	SSr	09/06/12	SSr	
5	Instrument Calibration STD #2	SPEX	CL-CAL-2	CL5-1184P	08/30/13	1LTmL	P	09/06/12	SSr	09/06/12	SSr	
6	HCL Acid	EMD	HX0607/4	51258	09/07/15	2.5LX7	G	09/07/12	805	09/07/12	805	
7	↓	↓	HX0607/4	51122	↓	2.5LX3	G	↓	↓	↓	↓	
8	↓	↓	HX0607/4	51181	↓	2.5LX1	G	↓	↓	↓	↓	
9	Nitric Acid	EMD	NX0407/4	52012	09/06/15	2.5LX10	G	09/07/12	805	09/07/12	805	
10	↓	↓	↓	52088	↓	2.5LX1	G	↓	↓	↓	↓	
11	HCL Acid	EMD	HX0607/4	51258	09/13/15	2.5LX8	G	09/14/12	805	09/14/12	805	
12	Nitric Acid	EMD	NX0407/4	52012	09/13/15	2.5LX8	G	09/14/12	805	09/14/12	↓	
13	Stannous Chloride	VWR	BDH0304-500g	131863	NA	500gX5	P	9/17/12	769	9/17/12	769	
14	Potassium Permanganate	Fisher	P279-212	116168	9/18/17	2.5kgX4	G	9/18/12	769	9/18/12	769	
15	Acetic Acid, Glacial	Amresco		2372C462	02/30/13	2.5LX4	G	09/18/12	805	09/18/12	805	
16	Hydrogen Peroxide	EMD	HX0635-2	51283217	10/31/13	1LX6	P	9/26/12	769	9/26/12	769	
17	Nitric Acid	EMD	NX0407/1	52012	9/27/15	500mL	G	9/27/12	SSr	9/27/12	SSr	
18	↓	↓	↓	51331	↓	500mLX8	↓	↓	↓	↓	↓	
19	Nitric Acid	Fisher	A467-2	121020	2/23/15	2LX2	T	10/3/12	776	10/3/12	776	
20	Acetic Acid	Fisher	A507-P212	611007	6/2014	2.5LX2	P	10/3/12	776	10/3/12	776	
21	Potassium Persulfate	Fisher	P281-500	120909	10/5/15	500gX12	P	10/5/12	769	10/5/12	769	
22	Hydroxylamine Hydrochloride	ACROS	41205000	A0315671	10/5/15	500gX6	↓	↓	↓	↓	↓	
23	Nitric Acid	EMD	NX0407/4	52012	10/08/15	2.5X5	G	10/08/12	805	10/08/12	805	
24	Hydroxylamine Hydro	ALDRICH	431362-50G	MKBL3754V	10/8/17	50g	P	10/8/12	776	10/8/12	776	
25	Stannous Chloride Dihydrate	Fisher	T163-500	122973	10/9/17	500gX6	P	10/9/12	776	10/9/12	776	

COMMENTS:

Book Number: 6 9/19/12

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Aliquat® 336	ACROS	194972500	A0294434	10/9/15	250ml	G	10/9/12	769	10/9/12	769	
2	HCL Acid	EMD	HX0607/4	51258	10/08/15	2.5L X3	G	10/9/12	805	10/09/12	805	
3	Nitric Acid	EMD	NX0407/4	52088	10/16/15	2.5X6	G	10/16/12	469	10/16/12	469	
4	Hydrochloric Acid	EMD	HX0607/4	51258	↓	↓	↓	↓	↓	↓	↓	
5	HNO_3	EMD	HX0407/4	51196	10/23/15	2.5x1	G	10/23/12	781	10/23/12	781	
6	↓	EMD	NX0407/4	52088	↓	2.5x3	↓	↓	↓	↓	↓	
7	Citric Acid	EMD	CX1723-3	201103420	10/22/15	2.5kgx4	P	10/23/12	805	10/23/12	805	CTF #3 P7-12
8	HCL Acid	EMD	HX0607/4	51258	10/23/15	2.5L X3	G	10/23/12	805	10/23/12	805	
9	ICP-Multielement. Cal. STD-1	High purity	ICP-MCS-1	1227704	10/25/13	250 ~~125~~ x1	P	11/01/12	469	11/01/12	469	
10	↓ -7	↓	↓ -7	1210221	↓	469 10/1/12 ↓	↓	↓	↓	↓	↓	
11	-8	↓	↓ -8	1219802	↓	500 X2	↓	↓	↓	↓	↓	
12	-10	↓	↓ -10	1132031	↓	100 X1	↓	↓	↓	↓	↓	
13	↓ -11	↓	ICP-AM-11	1116712	↓	↓	↓	↓	↓	↓	↓	
14	Nitric Acid	EMD	NX0407/4	52088	11/01/15	3X2.5L	G	11/01/12	469	11/01/12	469	
15	Hydrochloric Acid	↓	HX0607/4	51258	11/01/15	4X2.5L	↓	↓	↓	↓	↓	
16	Nitric Acid	EMD	NX0407/4	52174	11/~~08~~ 07/15 SCL 11/08/12	2.5L X2	G	11/08/12	805	11/08/12	805	CTF #3 P7-26
17	HCL Acid	EMD	HX0607/4	51258	11/~~08~~ 07/15 SCL 11/08/12	2.5L X5	G	11/08/12	805	11/08/12	805	
18	HCl Acid	EMD	HX0607-1	52250	11/13/15	500mL x12	G	11/13/12	776	11/13/12	776	CTF #3 P7-27
19	Multi. Method Interference Check-STD #1	Accutrace-STD	INT-01-1	210115105-01	5/2014	100 X1	P	11/13/12	469	11/13/12	469	
20	↓ STD-#2	↓	INT-02-1	212075023	7/2014	↓	↓	↓	↓	↓	↓	
21	↓ STD-#4	↓	INT-04-1	211015072-01	4/2014	↓	↓	↓	↓	↓	↓	
22	Phosphorous STD	↓	ICP-41W-1	211055063	5/2016	↓	↓	↓	↓	↓	↓	
23	Sodium STD	↓	ICP-54N-10X-1	211085029-01	4/2016	↓	↓	↓	↓	↓	↓	
24	HNO_3	Fisher	UN 2031	1112080	9/06/2014	2.5L x4	P	11/15/12	781	11/15/12	781	
25	Hydrogen Peroxide	EMD	HX0635.2	51283217	10/31/13	~~4x16x4~~ 1L	P	11/21/12	769	11/21/12	769	

COMMENTS:

Book Number: 6 10/17/12 XX 11/19/12

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Hydrogen Peroxide	EMD	HX0635-2	52007229	1/31/14	1L x 4	P	11/21/12	769	11/21/12	769	
2	Sulfuric Acid	Fisher	A510-P212	3111071	12/06/14	2.5L x 2	P	11/21/12	769	11/21/12	769	
3	Nitric Acid	Fisher	A509-P212	1112090	10/16/14	2.5L x 12	P	11/26/12	805	11/26/12	805	
4	HCL Acid	EMD	HX0607/4	51181	11/26/15	2.5L x 5	G	11/27/12	805	11/27/12	805	
5	Nitric Acid	EMD	NX0407/4	52174	11/26/15	2.5L x 3	G	11/27/12	805	11/27/12	805	
6	Buffer. pH 7.0 Standard (phosphate)	J.T. Baker	5608-01	L05505	2/27/14	500ml x 5	P	11/30/12	805	11/30/12	805	CTF: #3 p.8-15
7	Buffer. pH 4.0, Solution Tampon	BDH	BDH5024	1206246	05/31/14	500ml x 5	P	↓	↓	↓	↓	CTF: #3 p.8-13
8	Buffer. pH 7.0 Solution Tampon.	BDH	BDH5046	1208177	06/30/14	500ml x 5	P	↓	↓	↓	↓	CTF: #3 p.8-14
9	Acetic Acid	AMRESCO	0714-25L	0752C016	09/30/16	2.5L x 4	G	12/04/12	805	12/04/12	805	CTF: #3 p.8-17
10	Mercury Standard 1000ppm	Sigma Aldrich	28941	BCBJ2161V	Jul/16	100ml	G	12/5/12	110	12/5/12	110	
11	HCL	EMD	HX0607/4	51258	12/09/15	2.5L x 2	G	12/10/12	805	12/10/12	805	
12	HCl	Fisher	A508-P212	4112070	09/06/15	2.5L	P	12/11/12	776	12/11/12	776	
13	Sodium Hydroxide	Fisher	SS254-4	123686	06/2014	4L	P	12/12/12	776	12/12/12	776	
14	Nitric Acid	EMD	NX0407/4	52174	12/12/12	2.5 x 7	G	12/12/12	469	12/12/12	469	
15	HCl	↓	HX0607/4	51258	12/12/12	2.5-4	↓	12 ↓	↓	↓	↓	
16	Sodium Hydroxide	SIGMA-ALDRICH	306576-25G	MKBJ8595V	12/12/17	25g	P	12/12/12	776	12/12/12	776	
17	NITRIC Acid	EMD	NX0407/4	52174	12/18/15	2.5L x 4	G	12/19/12	805	12/19/12	805	
18	HCL Acid	EMD	HX0607/4	51258	12/18/15	2.5L x 4	G	12/19/12	805	12/19/12	805	
19	Isopropyl Alcohol	BDH	BDH1133-4LG	11211E	12/25/15	4.0L x 1	G	12/26/12	805	12/26/12	805	
20	Isopropanol	Fisher	A451-4	120989	12/25/15	4.0L x 4	G	12/26/12	805	12/26/12	805	CTF: #3 p.8-22
21	HCl	Fisher	A508-P212	4112070	09/06/15	2.5L	P	12/27/12	776	12/27/12	776	
22	NITRIC ACID.	EMD	NX0407/4	52174	12/30/15	2.5L x 5	G	12/31/12	805	12/31/12	805	
23	HCL Acid	EMD	HX0607/4	51181	12/30/15	2.5L x 4	G	12/31/12	805	12/31/12	805	
24	HCL Acid	EMD	HX0607/4	51258	12/30/15	2.5L x 1	G	12/31/12	805	12/31/12	805	
25	NITRIC Acid	EMD	NX0407/4	52174	01/~~03/13~~ 02/15	2.5L x 4	G	01/03/12	805	01/03/12	805	

S.C.L. 01/03/13

COMMENTS:

Book Number: 6 12/31/12

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	HCl	EMD	HX0607/4	52310	01/08/16	2.5L x 3	G	01/09/13	805	01/09/13	805	
2	HCL	EMD	HX0607/2	52250	01/08/16	2.5L x 5	G	01/09/13	805	01/09/13	805	
3	HNO_3	EMD	NX0407/2	52250	01/08/16	2.5L x 5	G	01/09/13	805	01/09/13	805	
4	Lead (II) Chloride	Aldrich	203572-10G	MKBL2386V	01/14/18	10g x 1	P	1/14/13	469	1/14/13	469	
5	HCL	EMD	HX0607-2	52250	01/16/16	2.5L x 4	G	01/16/13	805	01/16/13	805	
6	NITRIC Acid	EMD	NX0407/2	52250	01/15/16	2.5L x 3	G	01/16/13	805	01/16/13	805	
7	Nitric Acid	Fisher	A467-2	1212010	01/2015	2L x 1	T	01/16/13	776	01/16/13	776	
8	Sulfric Acid	EMD	SX1297/2	52116	1/17/16	2.5L x 6	G	1/17/13	769	1/17/13	769	
9	$SnCl_2 \cdot 2H_2O$	Fisher	T142-500	125755	1/17/16	500g x 2	P	1/17/13	|	1/17/13	|	
10	NITRIC Acid	EMD	NX0407/2	52250	01/23/16	2.5L x 8	G	01/29/13	805	01/29/13	805	
11	HCL	EMD	HX0607/2	52250	01/28/16	2.5L x 4	G	01/29/13	805	01/29/13	805	
12	Boiling stones.	Saint-Gobain	D1069103	G228-2J042	01/30/18	450g x	P	01/30/13	805	01/30/13	805	Batch # G228-2J042 ETF: #3-p 2
13	Boiling Stones	Saint-Gobain	D1069103	G228-2L037	01/30/18	450g x	P	01/30/13	805	01/30/13	805	Batch # G228-2L037 ETF: #3-p 2
14	ICP. Multielement standar - # 1	High Purity	ICP-MCS-1	1227704	1/24/14	100 ml	P	01/31/13	469	1/31/13	469	
15	- 7	Standard	-7	1210221								
16	- 8		-8	1219802		500 ml						
17	- 10		-10	1132031		100 ml						
18	- 11		ICP-AM-11	1233244								
19	- P		10M39-1	1222009								
20	- Zn		10M68-1	1211815								
21	Buffer solution ph. 7.00 (ICV)	Fisher	SB108-500	125125	08/20/14	500 ml x 6	P	02/01/13	805	02/01/13	805	
22	Nitric Acid	EMD	NX0407/2	52250	2/1/16	2.5L x 4	G	2/1/13	769	2/1/13	769	
23	|	|	|	52174	|	2.5L x 4	|	|	|	|	|	
24	|	|	|	52012	|	2.5L	|	|	|	|	|	
25	HCL	|	HX0607/4	52250	|	2.5L x 16	|	|	|	|	|	

COMMENTS:

Book Number: 6   2/15/13

05/22/12 Revision

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Citric Acid	Fisher	A940-1	126552	01/31/16	1kg x2	P	02/01/13	805	02/01/13	805	CTF: ICP/MS #3 Plot-7 Hg #3 Plot-5
2	Hydrogen peroxide (H_2O_2)	Fisher	H325-500	126233	02/03/16	500ml x8	P	02/04/13	805	02/04/13	805	CTF: ICP/MS #3 Plot-6
3	Hydroxylamine Hydrochloride	Acros	41205000	A0315671	2/5/16	500g x1	P	2/5/13	769	2/5/13	769	
4	Sodium Hydroxide (NaOH)	Fisher	S392-212	127300	02/04/16	25kg x1	P	02/05/13	805	02/05/13	805	CTF: ICP/MS #3 Plot-9 Hg #3 Plot-10
5	Isopropyl Alcohol	Fisher	A451-4	127577	02/05/16	4L x4	G	02/06/13	805	02/06/13	805	CTF: ICP/MS #3 Plot-8
6	Nitric Acid	Fisher	A467-2	1212070	08/20/15	2L x1	T	02/07/13	776	02/07/13	776	
7	Hydrochloric Acid	Fisher	A508-P212	411200	11/05/15	2.5L x1	P	02/07/13	776	02/07/13	776	
8	Citric Acid	Fisher	A940-500	124807	02/11/16	500g x4	P	02/12/13	805	02/12/13	805	CTF: ICP/MS #3 Plot-11 Hg #3 Plot-12
9	HNO_3	Fisher		52250	2/13/16	2.5L x8	G	2/13/13	781	2/13/13	781	
10	Stannous Chloride	Fisher	T124-500	125755	2/15/16	500g x6	P	2/15/13	769	2/15/13	769	
11	Xylenes	Fisher	X5-4	130072	2/21/16	4L x4	G	2/21/13	769	2/21/13	769	
12	Methyl Isobutyl-Ketone	Fisher	UN1245	126529	02/26/16	4x8L	G	2/26/13	469	2/26/13	469	
13	HCl	EMD	HX0603-75	52198	3/4/16	2.5L x6	G	3/5/13	769	3/5/13	769	
14	Nitric Acid	EMD	NX0407/2	52250	03/04/16	2.5L x10	G	03/05/13	805	03/05/13	805	
15	Acetic Acid	Fisher	A38C-212	124423	03/06/16	2.5L x6	G	03/07/13	805	03/07/13	805	CTF: ICP/MS #3 Plot-13 Hg #3 Plot-13
16	HNO_3	EMD	NX0407/1	52174	03/07/16	500mL x2	G	03/07/13	538	03/07/13	538	
17	Tuning Solution 1	SPEX	CL-TUNE-1	CL6-74XPE	03/31/14	125mL	P	03/12/13	538	03/12/13	538	
18	Inst. Calibration STD 2		CL-CAL-2	CL9-56XPE								
19	Calibration STD 3		CL-CAL-3	CL9-13XPE								
20	Interferents 1		CL-INT-A1	CL5-65XPE								
21	Analytes 8		CL-INT-81	CL9-123XPE								
22	Hydrochloric Acid	Fisher	A508-P212	411200	11/05/15	2.5L x1	P	03/14/13	776	03/14/13	776	
23	Nitric Acid	Fisher	A467-2	1212070	08/20/15	2L x2	T	03/14/13	776	03/14/13	776	
24	Hydrochloric Acid	EMD	HX0607-2	52250	03/18/16	2.5L x9	G	03/18/13	850	03/18/13	850	
25	Nitric Acid	EMD	NX0407/2	52250	03/18/16	2.5L x4	G	03/18/13	850	03/18/13	850	

COMMENTS:

Book Number: 6 3/25/13

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Stannous Chloride	Fisher	T142-500	125758	3/25/16	500g x 12	P	3/25/13	769	3/25/13	769	
2	Mix Standard Sol: # I	Ultra Scientific	ICM-601	M00558	6/30/15	125ml x 1		3/27/13	469	3/27/13	469	
3	II		-602	P00101	3/31/16							
4	III		-603	L00066	2/28/14							
5	IV		-604	L01134	10/31/14							
6	V		-605	M00138	3/31/15							
7	Interference Check STD # 1		ICM-221	M00532	6/30/15	125 x 1	P	3/27/13	469	3/27/13	469	
8	HNO_3	EMD	NX0407/4	52223	4/2/16	2.5L x 10	G	4/2/13	769	4/2/13	469	
9	Benzen	EMD	BX0220-5	49257001	04/03/16	4L x 1	G	4/3/13	469	4/3/13	469	
10	Hydro Fluoric Acid	Fisher	UN1790	5112070	8/24/15	500ml x 1	P	4/8/13	469	4/8/13	469	
11	HNO_3	EMD	NX0407/4	52223	4/15/16	2.5L x 6	G	4/15/13	769	4/15/13	769	
12	HCL		HX0607-2	52250		2.5L x 3						
13	Citric Acid	Fisher	A940-1	126552	04/17/16	1kg x 6	P	04/18/13	805	04/18/13	805	CTF: ICP/MS #3 P11 Hg #3 P16
14	HNO_3	EMD	NX040714	52223	4/23/16	2.5L x 6	G	4/23/13	850	4/23/13	850	
15	H_2O_2	Fisher	H325-500	126786	4/26/16	500ml x 4	P	4/26/13	[illegible]	4/26/13	[illegible]	
16	Sodium Borohydride	ACROS	16940-66-2	B0135911	4/26/18	100g	P	4/26/13	850	4/26/13	850	
17	Hydrochloric acid	EMD	HX0607-2	52250	4/29/16	2.5L x 2	G	4/29/13	850	4/29/13	850	
18	Sodium Hydroxide (NaOH)	Fisher	S392-212	127300		25kg x 2 ~~04/29/13~~	P	04/29/13	805	04/29/13	805	CTF: ICP/MS #3 P12-1 Hg #3 P12-
19	HNO_3	EMD	NX040714	52223	4/30/16	2.5L x 8	G	4/30/13	850	4/30/13	850	
20	HCL	EMD	HX0607-2	52310 BT ~~52130~~ 5/5/13	4/30/16	2.5L x 20	G	4/30/13	769	4/30/13	769	CTF: #3 P12-21
21	HNO_3	EMD	HX040714	52223	5/1/16	2.5L x 8	G	5/1/13	850	5/1/13	850	
22	Sodium hydroxide monohydrate	Alfa Aesar	12179-02-1	1724T011	5/1/18	5g	P	5/1/13	850	5/1/13	850	
23	H_2O_2	Fisher	H325-500	127735	5/03/16	500ml x 6	P	5/03/13	781	5/03/13	781	
24	Citric Acid	Fisher	A940-1	130187	05/05/16	1kg x 8	P	05/06/13	805	05/06/13	805	CTF: ICP/MS #3 P12 Hg #3 P12-
25	Boiling stones	Saint-Gobain	D1069103	G228-22037	05/06/18	450g x 7	P	05/07/13	805	05/07/13	805	

COMMENTS:

Book Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Hydrochloric Acid	Fisher	A508-P212	4112120	01/10/2016	2.5L	P	5-9-13	850	5-9-13	850	
2	HCL	EMD	HX0607-2	52310	05/12/16	2.5LX10	G	05/13/13	805	05/13/13	805	
3	HNO3	EMD	NX0407-4	52223	05/2116	2.5LX2	G	05/13/13	805	05/13/13	805	
4	^{6}Li	High-Purity	100029-6I	1231246	11/06/14	100mL	P	5/14/13	532	5/14/13	532	
5	Sc	Accustandard	ICP-MS-50N 0.1X-1	212105024	10/17	100mL	↓	↓	↓	↓	↓	
6	Ga		ICP-MS-20N 0.1X-1	211095102	10/16	100mL						
7	Ho	↓	ICP-MS-24N 0.1X-1	213035051	03/18	100mL						
8	ICP-MS Quality Control Sample 2		ICP-MS-QC2-1	211125062	11/14	100mL						
9	ICP Multielement Calib. STD - 1	High Purity	ICP-MCS-1	122704	5/06/14	250ml	P	5/14/13	469	5/14/13	469	
10	-7		-7	13122219	5/08/14	↓						
11	-8		-8	1219802		500ml HF X2						
12	-10		-10	13127141		125ml						
13	-11	↓	ICP-AM-11	1233244	5/06/14	↓	↓	↓	↓	↓	↓	
14	HNO3	EMD	HX040714	52223	5/16/16	2.5LX8	G	5/16/13	850	5/16/13	850	
15	Hg	Accu Standard	ICP-MS-34N 0.1X-1	212075024	07/2017	100mL	P	5/21/13	532	5/21/13	532	
16	HNO3	EMD	HX0407/4	52223	5/23/17	2.5LX2	G	5/23/13	769	5/23/13	769	
17	Manganese	Accu Standard	ICP-MS-33N-0.01X-1	212075087	07/2017	100mL	P	5/24/13	850	5/24/13	850	
18	HNO3	EMD	NX0407-2	53099	05/2016	2.5LX10	G	5/24/13	781	5/24/13	781	
19	Buffer Solution pH 4.00	FISHER	SB101-500	132162	02/29/15	500mX7	P	05/31/13	805	05/31/13	805	CTF: #3 P13-2
20	Buffer Solution pH 7.00	FISHER	SB107-500	132163	03/29/15	500mX7	P	05/31/13	805	05/31/13	805	CTF: #3 P13-5
21	HCL	EMD	HX0607-2	53010	6/7/16	2.5LX12	G	6/7/13	769	6/7/13	769	CTF: #3 P13-8
22	~~HCl~~	~~EMD~~	~~HX0607-2~~	53010	6/7/16	2.5X10	G	6/10/13	532	6/11/13	532	
23	Iron	Accu Standard	ICP-27N-10X-5	212085078	Sep 2017	500mL	P	06/13/13	532	6/13/13	532	
24	Scandium		ICP-MS-50N 0.1X-1	213055044	May 2017	100mL						
25	Terbium		ICP-MS-59N 0.1X-1	212045085	04/2017	100mL						

COMMENTS:

Book Number: 6 to 6/3/13

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Bismuth	AccuStandard	ICP-MS-06N 0.1X-1	212095023	09/2017	100mL	P	6/13/13	MY	6/13/13	MY	
2	Aluminum		ICP-MS-01N 0.1X-1	212085053	05/2017	100	P	"	"	"	"	
3	HNO_3	EMD	NX0407-2 HX	53099	06/2017	2.5L x10	G	6/14/13	781	6/14/13	781	
4	Potassium Permanganate	Fisher	P279-212 KCN 6/18	126895	6/18/18	2.5kg	G	6/18/13	769	6/18/13	769	
5	Sodium Chloride	Fisher	S271-500	130586	6/18/18	500gx6	P	6/18/13	769	6/18/13	769	
6	H_2O_2	Fisher	H325-500	130076	6/18/16	500mlx6	P	6/18/13	769	6/18/13	769	
7	"	"	"	131932	"	500mlx6	"	"	"	"	"	
8	ICS-4	AccuStandard	ICP-MS ENTA-1	213035001	03/2015	100mL	P	6/24/13	MY	6/24/13	MY	
9	Nitric Acid	Fisher	A467-	121210	01/31/16	2L x2	T	6/26/13	MY	6/26/13	MY	
10	HNO_3	EMD	NX0407-2	53099	6/27/18	2.5L x4	G	6/27/13	781 (769)	6/27/13	781	5/24/13
11	HCl	EMD	HX0607-2	52310	6/27/18	2.5L x4	↓	↓	↓	↓	↓	5/28/13
12	Interference check STD #1	AccuTrace	INT-01-1	210015705-02	~~06/08/15~~ 07/08/15	100ml	P	~~6~~ 7/8/13	469	7/9/13	469	
13	- #2		-02-1	212075023-1	469 7/18 ↓			469 7/18				
14	- Sb		-03-1	B402504?-SE	11/08/14							
15	- #4		-04-1	211015072-02	~~06/08/15~~ 07 469 7/18	6/15						EXP. 6/15
16	Sulfur		ICP-56W-1	212115053	6/15 11/17							
17	Bismuth		ICP-06N-1	212045109	8/17	↓	↓	↓	↓	↓	↓	
18	sea water Blank	BROOKS RAND LABS	NA	05-044	8/2015	100mL	P	7/2/13	MY	7/2/13	MY	
19	HNO_3	EMD	NX0407-2	53099	7/9/18	2.5L x18	G	7/9/13	781	7/9/13	781	
20	Calibration standard 8	SPEX	CL-CAL-3	CLS-138PP4	7/30/14	125mL/PK	P	7/15/13	MY	7/15/13	MY	
21	Zirconium	"	PCZR2-2Y	19-032AP	"	125mL	P	"	"	"	"	
22	HCl	EMD	HX0607-2	52310	6/27/~~18~~ 16	2.5L x6 11	G	6/27/13	469	~~6/2~~ 7/16/13	469	
23	Acetic Acid	Fisher	A38C-212	131096	469 7/16 07/19/16	2.5L x6	G	07/20/13	805	07/20/13	805	CTF: ICP/MS Hg
24	Buffer solution pH 10.00 (Fisher)	Fisher	SB115-500	132388	03/31/15	500mlx1	P	07/20/13	805	07/20/13	805	CTF:
25	Ammonium Hydroxide	Fisher	A512-P500	711330	03/21/16	500mlx 5	P	7/22/13	110	7/22/13	110	

COMMENTS: _____

Book Number: 6 in 7/9/13

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Sodium borohydride	ACROS	20005-1000	B0135911A	7/18	100g X 2	P	7/23/13	110	7/23/13	110	
2	HCl	EMD	HX0607-2	52310	7/25/16	2.5L x 6	G	7/25/13	769	7/25/13	769	
3	Nitric Acid	EMD	NX0407/4	52174	7/27/16	2.5 x 5	G	7/27/13	469	7/27/13	469	
4	Hydrogen peroxide (H_2O_2)	EMD	HX0635-2	52223308	07/26/16	1.02L x 8	P	07/30/13	805	07/30/13	805	CTF: 1 cp/MS:13 pg 14 no Hg.
5	$KMnO_4$	AMRESCO	0277-2.5KG	1122C230	7/31/18	2.5KG	P	7/31/13	769	7/31/13	769	
6	HCl	EMD	HX0607-2	52310	7/31/16	2.5L x 10	G	7/31/13	781	7/31/13	781	
7	Nitric Acid	EMD	NX0407-2	53099	07/30/16	2.5L x 12	G	07/31/13	805	07/31/13 5.2.CoP/13	805	
8	HCl	EMD	HX0607-2	53812	08/05/16	2.5L x 3	G	08/05/13	781	08/05/13	781	CTF: 3 pg 8
9	HCl	↓	↓	52250	↓	2.5L x 7	↓	↓	↓	↓	↓	CTF: 3 pg 8
10	HNO_3	EMD	NX0407-2	52250	08/07/16	2.5L x 8	G	08/07/13	↓	8/07/13	↓	p. 9 #6 CIP 9/13
11	Ultra Pure Sodium chloride	ESI	Sea3kg-L-0500	1308A	08/20/18	500mL	P	08/20/13	SY	08/20/13	SY	
12	NaCl	Fisher	S271-10	130583	8/20/18	10kg	P	8/20/13	769	8/20/13	769	
13	HNO_3	EMD	NX0407-2	53099	8/28/16	2.5L x 18	G	8/28/13	781	8/28/13	781	
14	HCl	EMD	HX0607-2	53010	8/30/16	2.5 x 10	G	9/13/13 8/30/13	879	8/30/13	879	
15	HCl	EMD	↓	↓	9/12/16	2.5L x 10	G	9/12/13	781	9/12/13	781	
16	~~H_2O_2~~ Sulfuric Acid	EMD	SX1247/2	52116	9/12/16	2.5L	G	9/12/13	769	9/12/13	769	
17	Nitric Acid	EMD	~~NX~~0407-2	53099	9/17/16	2.5 x 10	G	9/16/13	879	9/17/13	879	
18	HNO_3	EMD	NX0407-2	53099	9/18/16	2.5L x 7	G	9/18/13	769	9/18/13	769	
19	H_2O_2	Fisher	H325-500	133502	9/25/16	0.5 x 18	P	9/25/13	781	9/25/13	781	
20	HNO_3	EMD	NX0402.1	53099	7/25/16	2.5L x 8	G	9/25/13	787	9/25/13	787	
21	HCl	↓	NX0607-2	53010	9/25/16	↓	↓	↓	↓	↓	↓	
22	Nitric Acid (optima)	Fisher	A467-2	1213040	5/21/16	2 L	P	9/25/13	110	9/25/13	110	
23	Acetic Acid	↓	A507-P212	611106 0	8/14	2.5L	P	9/25/13	110	9/25/13	110	
~~24~~	~~Nitric Acid~~	~~EMD~~	~~NX0407-2~~	~~53099~~	~~9/30/16~~	~~2.5L x 6~~	G	9/30/13	879	9/30/13	879	VK 9/30/13
~~25~~	HCl	~~EMD~~	~~HX0607-2~~	~~53010~~	~~9/30/16~~	~~2.5L x 8~~	G	9/30/13	879	9/30/13	879	VK 9/30/13

COMMENTS:

Book Number: 6 in 8/5/13

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Hydroxylamine	Aeros	5478-11-1	A0332752	10/1/16	500g x20	P	10/1/13	769	10/1/13	769	
2	Multielement Calib. STD - # 1	High-Purity	ICP-MCS-1	1227704 1312925	09/26/14	250ml	P	10/03/13	469	10/03/13	469	
3	- 7		-7	469 1019 13122 19								
4	- 8		-8	1312925		500ml x2						
5	- 10		-10	1319312		125ml						
6	- 11		ICP-AM-11	1307750								
7	Tungsten Standard		100063-3	1309114	3/26/15							
8	Nitric Acid	EMD	NX-0407-2	53099	10/7/16	2.5L x8	G	10/10/13	879	10/8/13	879	
9	HCL	EMD	HX0607-2	53010	10/7/16	2.5L x8	G	10/10/13	879	10/8/13	879	
10	Sulfuric Acid	EMD	SX1247-2	53128	10/15/16	2.5L x5	G	10/15/13	769	10/15/13	769	
11	Nitric Acid	EMD	NX0407-2	53099	10/15/16	2.5L x8	G	10/15/13	879	10/16/13	879	
12	Nitric Acid	EMD	NX0407-2	53055	10/24/16	2.5L x10	G	10/24/13	TL	10/24/13	TL	
13	HCL	EMD	HX0607-2	53010	10/29/16	2.5L x8	G	10/29/13	879	10/29/13	879	
14	Indium	Accustandard	ICP-MS-2TM4 0.1X-1	213025045	03/2018	100mL	P	11/01/13	TL	11/01/13	TL	
15	Scandium		ICP-MS-50N 0.1X-1	213055044	05/2017							
16	Boron		ICP-07W-1	212050017	10/2017							
17	Tungsten		ICP-6TW-1	211105145	11/2016							
18	Lithium											
19	Acetic Acid	Fisher	A38C-212	133363		2.5L x6	G	11/05/13	805	11/05/13	805	CTF: ICP #3 p15-15 Hg #2 p15-16
20	HNO_3	EMD	NX-0407-2	53099	11/05/16	2.5L x10	G	11/05/13	781	11/05/13	781	
21			NX0407/4	52174		2.5L x02						
22	Lithium 6	HIGH-PURITY	100025-6I	1231246	05/01/15	100mL	P	11/07/13	TL	11/07/13	TL	
23	HNO_3	EMD	NX0407-2	53099	11/13/16	2.5L x10	G	11/13/13	781	11/13/13	781	
24	HCL	EMD	HX0607-2	53010	11/13/16	2.5L x15	G	11/14/13	805	11/14/13	805	
25	Hydrogen Peroxide H_2O_2	EMD	HX0635-2	53115331	5/31/2015	1L x8	P	11/25/13	879	11/26/13	879	

COMMENTS:

Book Number: 6 of 11/13/13

Return to Contents

EPA METHOD 7471 A

RAW DATA

Return to Contents

EPA METHOD 7471 A

INITIAL CALIBRATION
ICV/ICB
CCV/CCB

SAMPLE DATA

QUALITY CONTROL
Method Blank
LCS/LCSD
MS/MSD

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 7471A
Initial Calibration Verification

Work Order No.: 13-11-0697

Instrument ID: HG 5 (E)

Concentration Unit: µg/L

Test Method: EPA 7471A

Analyte	Initial Calibration Verification			
	True	ICV-1 Observed	ICV-1 %D	Control Limit
Mercury	5.000000	4.567399	9	0 – 10

01/17/2014 14:59

ICV-1 File: ICV M102513B 11/11/2013 10:51:48 AM

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Calscience Environmental Laboratories, Inc.

EPA Method 7471A
Initial and Continuing Calibration Blanks

Work Order No.: 13-11-0697
Instrument ID: HG 5 (E)
Concentration Unit: µg/L
Test Method: EPA 7471A

Analyte	Initial and Continuing Calibration Blanks				
	ICB-1	CCB-1	CCB-2	CCB-3	RL (No PF)
Mercury	-0.017392	-0.011973	-0.027790	-0.021083	0.500000

01/17/2014 14:59

ICB-1 File: ICB 11/11/2013 10:54:06 AM
CCB-1 File: CCB 11/11/2013 05:19:41 PM
CCB-2 File: CCB 11/11/2013 05:46:25 PM
CCB-3 File: CCB 11/11/2013 06:13:17 PM
Note: Preparation factor (PF) = 167 L/kg

Return to Contents

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Calscience Environmental Laboratories, Inc.

EPA Method 7471A
Continuing Calibration Verification

Work Order No.: 13-11-0697
Instrument ID: HG 5 (E)
Concentration Unit: µg/L

Test Method: EPA 7471A

Analyte	Continuing Calibration Verification							
	True	CCV-1		CCV-2		CCV-3		Control Limit
		Observed	%D	Observed	%D	Observed	%D	
Mercury	2.000000	2.143223	7	2.123544	6	2.092956	5	0 – 20

01/17/2014 14:59

CCV-1 File: CCV 0.2x10 ppb 11/11/2013 05:17:25 PM
CCV-2 File: CCV 0.2x10 ppb 11/11/2013 05:44:09 PM
CCV-3 File: CCV 0.2x10 ppb 11/11/2013 06:11:01 PM

Return to Contents

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RAW DATA SHEET FOR METHOD: EPA 7471A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: Mercury
D/T ANALYZED: 11/11/2013 17:26
ANALYST: 769
DATA FILE: W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-3.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 7471A Total
D/T EXTRACTED: 11/11/2013 00:00

3 **CLIENT SAMPLE NUMBER: 8-SS-5-6**

LCS/MB BATCH: 131111L08
MS/MSD BATCH: 131111S08
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Mercury	-0.00000772	1	ND	0.0835	167	mg/kg	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 7471A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: Mercury
D/T ANALYZED: 11/11/2013 17:28
ANALYST: 769
DATA FILE: W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-4.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 7471A Total
D/T EXTRACTED: 11/11/2013 00:00

 # 4 **CLIENT SAMPLE NUMBER: 8-SS-9.5-10.5**

LCS/MB BATCH: 131111L08
MS/MSD BATCH: 131111S08
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Mercury	-0.0000127	1	ND	0.0835	167	mg/kg	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 7471A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: Mercury
D/T ANALYZED: 11/11/2013 17:30
ANALYST: 769
DATA FILE: W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-5.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 7471A Total
D/T EXTRACTED: 11/11/2013 00:00

5 **CLIENT SAMPLE NUMBER: 8-SS-14.25-15.25**

LCS/MB BATCH: 131111L08
MS/MSD BATCH: 131111S08
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Mercury	-0.000000290	1	ND	0.0835	167	mg/kg	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 7471A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: Mercury
D/T ANALYZED: 11/11/2013 17:33
ANALYST: 769
DATA FILE: W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-6.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 7471A Total
D/T EXTRACTED: 11/11/2013 00:00

6 **CLIENT SAMPLE NUMBER: 12-SS-5-6**

LCS/MB BATCH: 131111L08
MS/MSD BATCH: 131111S08
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Mercury	0.00000288	1	ND	0.0835	167	mg/kg	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 7471A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: Mercury
D/T ANALYZED: 11/11/2013 17:35
ANALYST: 769
DATA FILE: W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-7.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 7471A Total
D/T EXTRACTED: 11/11/2013 00:00

7 **CLIENT SAMPLE NUMBER: 12-SS-9.5-10.5**

LCS/MB BATCH: 131111L08
MS/MSD BATCH: 131111S08
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Mercury	-0.0000104	1	ND	0.0835	167	mg/kg	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 7471A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: Mercury
D/T ANALYZED: 11/11/2013 17:37
ANALYST: 769
DATA FILE: W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-8.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 7471A Total
D/T EXTRACTED: 11/11/2013 00:00

8 **CLIENT SAMPLE NUMBER: 12-SS-13.25-15.25**

LCS/MB BATCH: 131111L08
MS/MSD BATCH: 131111S08
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Mercury	-0.00000372	1	ND	0.0835	167	mg/kg	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 7471A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: Mercury
D/T ANALYZED: 11/11/2013 17:48
ANALYST: 769
DATA FILE: W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-9.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 7471A Total
D/T EXTRACTED: 11/11/2013 00:00

9 **CLIENT SAMPLE NUMBER: 6-SS-5-6**

LCS/MB BATCH: 131111L08
MS/MSD BATCH: 131111S08
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Mercury	-0.0000123	1	ND	0.0835	167	mg/kg	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 7471A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: Mercury
D/T ANALYZED: 11/11/2013 17:50
ANALYST: 769
DATA FILE: W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-10.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 7471A Total
D/T EXTRACTED: 11/11/2013 00:00

10 **CLIENT SAMPLE NUMBER: 6-SS-9-11**

LCS/MB BATCH: 131111L08
MS/MSD BATCH: 131111S08
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Mercury	-0.00000520	1	ND	0.0835	167	mg/kg	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 7471A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: Mercury
D/T ANALYZED: 11/11/2013 17:53
ANALYST: 769
DATA FILE: W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-11.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 7471A Total
D/T EXTRACTED: 11/11/2013 00:00

11 **CLIENT SAMPLE NUMBER: 60-SS-9-11**

LCS/MB BATCH: 131111L08
MS/MSD BATCH: 131111S08
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Mercury	-0.00000744	1	ND	0.0835	167	mg/kg	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 7471A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: Mercury
D/T ANALYZED: 11/11/2013 17:55
ANALYST: 769
DATA FILE: W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-12.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 7471A Total
D/T EXTRACTED: 11/11/2013 00:00

12 **CLIENT SAMPLE NUMBER: 6-SS-13.75-14.75**

LCS/MB BATCH: 131111L08
MS/MSD BATCH: 131111S08
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Mercury	-0.0000225	1	ND	0.0835	167	mg/kg	

Return to Contents

METHOD BLANK ASSOCIATION SUMMARY FOR METHOD: EPA 7471A

MB Sample ID: 099-04-007-9815
MB Batch ID: 131111L08
Instrument: Mercury
Matrix: Soil
Analyst: 769
D/T Analyzed: 11/11/2013 17:21
Data File: W:\MERCURY_DATA\FINAL\131111E1\131111-b-08.icp

Reviewed By: 0
D/T Reviewed:
Extraction: EPA 7471A Total
D/T Extracted: 11/11/2013 00:00

Work Order #: 13-11-0697

Sample#	Client Sample ID	D/T Analyzed	Data File
3	8-SS-5-6	11/11/2013 17:26	W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-3.icp
4	8-SS-9.5-10.5	11/11/2013 17:28	W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-4.icp
5	8-SS-14.25-15.25	11/11/2013 17:30	W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-5.icp
6	12-SS-5-6	11/11/2013 17:33	W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-6.icp
7	12-SS-9.5-10.5	11/11/2013 17:35	W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-7.icp
8	12-SS-13.25-15.25	11/11/2013 17:37	W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-8.icp
9	6-SS-5-6	11/11/2013 17:48	W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-9.icp
10	6-SS-9-11	11/11/2013 17:50	W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-10.icp
11	60-SS-9-11	11/11/2013 17:53	W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-11.icp
12	6-SS-13.75-14.75	11/11/2013 17:55	W:\MERCURY_DATA\FINAL\131111E1\13-11-0697-12.icp

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 7471A

WORK ORDER NUMBER: 099-04-007
INSTRUMENT NAME: Mercury
D/T ANALYZED: 11/11/2013 17:21
ANALYST: 769
DATA FILE: W:\MERCURY_DATA\FINAL\131111E1\131111-b-08.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 7471A Total
D/T EXTRACTED: 11/11/2013 00:00

MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 131111L08
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Mercury	-0.0000303	1	ND	0.0835	167	mg/kg	

Return to Contents

LCS QUALITY CONTROL SHEET FOR METHOD : EPA 7471A

WORK ORDER : **13-11-0697**
INSTRUMENT NAME: Mercury
D/T ANALYZED: 11/11/2013 17:24
ANALYST: 769
LCS/MB BATCH: **131111L08**
DATA FILE: W:\MERCURY_DATA\FINAL\131111E1\131111-l-08.icp

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 7471A Total
D/T EXTRACTED: 11/11/2013 00:00

COMPOUND NAME	CONC ADDED	CONC REC	%RECOVERY	%REC CONTROL LIMIT	STATUS	QUALIFIERS
Mercury	0.8350	0.8462	101	85-121	PASS	

Compounds listed in bold are required to be reported

Return to Contents

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 7471A

WORK ORDER:	**13-11-0697**	SAMPLE D/T EXTRACTED:	11/11/2013	EXTRACTION:	EPA 7471A Total
MS/MSD BATCH:	131111S08	MS D/T EXTRACTED:	11/11/2013	ANALYST:	769
SPIKED SAMPLE ID:	**13-11-0697-8**	MSD D/T EXTRACTED:	11/11/2013	SAMPLE INSTRUMENT NAME:	Mercury
REVIEWED BY:	0	SAMPLE D/T ANALYZED:	11/11/2013 17:37	MS INSTRUMENT NAME:	Mercury
DATE REVIEWED:		MS D/T ANALYZED:	11/11/2013 17:39	MSD INSTRUMENT NAME:	Mercury
		MSD D/T ANALYZED:	11/11/2013 17:41		

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL ADDED	FINAL ADDED	MS CONC	% REC	MSD CONC	% REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Mercury	ND	0.005000	0.8350	0.6857	82	0.6782	81	71-137	1	0-14	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	13-11-0697-8 ms.icp	W:\MERCURY_DATA\FINAL\131111E1\
MSD	13-11-0697-8 msd.icp	W:\MERCURY_DATA\FINAL\131111E1\

Return to Contents

==========

Reprocessing Begun
Logged In Analyst: Andy Chan Technique: AA FIMS-MHS

Results Data Set (original): 140116E1
Results Library (original): W:\data-AA\xue-wen xu\Results\results.mdb
Results Data Set (reprocessed):
Results Library (reprocessed):

==========

Method Loaded
Method Name: EPA 7471A-Hg-5 Method Last Saved: 12/26/2013 10:34:59 AM
Method Description: Hg-5

Analyte	Calibration Equation	Wavelength
Hg 253.7	Lin, Calc Int	253.7

==========

Sequence No.: 1 Autosampler Location: 7
Sample ID: Calib blank Date Collected: 11/11/2013 10:31:28 AM
Analyst: Data Type: Reprocessed on 1/17/2014 10:20:13 AM
Logged In Analyst (Original) :
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: Calib blank

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0002	0.0005	0.0002	10:32:34	No
2		[0.00]	0.0002	0.0010	0.0002	10:33:18	No
Mean:		[0.00]	0.0002				
SD:		0.00	0.0000				
%RSD:		0.00	21.35				

Auto-zero performed.

==========

Sequence No.: 2 Autosampler Location: 1
Sample ID: 0.025ppb 0.005X5PPB Date Collected: 11/11/2013 10:33:45 AM
Analyst: Data Type: Reprocessed on 1/17/2014 10:20:13 AM
Logged In Analyst (Original) :
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: 0.025ppb 0.005X5PPB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.025]	0.0002	0.0015	0.0003	10:34:48	No
2		[0.025]	0.0002	0.0009	0.0003	10:35:32	No
Mean:		[0.025]	0.0002				
SD:		0.000	0.0000				
%RSD:		0.000	1.19				

Standard number 1 applied. [0.025]
Correlation Coef.: 1.000000 Slope: 0.00635 Intercept: 0.00000

==========

Sequence No.: 3 Autosampler Location: 2
Sample ID: 0.10ppb M102513AX0.0001 Date Collected: 11/11/2013 10:35:56 AM
Analyst: Data Type: Reprocessed on 1/17/2014 10:20:13 AM
Logged In Analyst (Original) :
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: 0.10ppb M102513AX0.0001

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.100]	0.0008	0.0042	0.0010	10:37:00	No
2		[0.100]	0.0008	0.0041	0.0010	10:37:44	No
Mean:		[0.100]	0.0008				

Return to Contents

SD: 0.000 0.0000
%RSD: 0.000 1.74
Standard number 2 applied. [0.100]
Correlation Coef.: 0.998194 Slope: 0.00839 Intercept: -0.00002

==========

Sequence No.: 4 **Autosampler Location: 3**
Sample ID: 1.00ppb M102513AX0.001 **Date Collected: 11/11/2013 10:38:08 AM**
Analyst: **Data Type: Reprocessed on 1/17/2014 10:20:14 AM**
Logged In Analyst (Original) :
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1.00ppb M102513AX0.001

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[1.000]	0.0088	0.0366	0.0090	10:39:13	No
2		[1.000]	0.0088	0.0368	0.0090	10:39:57	No
Mean:		[1.000]	0.0088				
SD:		0.000	0.0000				
%RSD:		0.000	0.08				

Standard number 3 applied. [1.000]
Correlation Coef.: 0.999978 Slope: 0.00882 Intercept: -0.00004

==========

Sequence No.: 5 **Autosampler Location: 4**
Sample ID: 2.00ppb M102513AX0.002 **Date Collected: 11/11/2013 10:40:22 AM**
Analyst: **Data Type: Reprocessed on 1/17/2014 10:20:14 AM**
Logged In Analyst (Original) :
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 2.00ppb M102513AX0.002

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.000]	0.0172	0.0718	0.0174	10:41:27	No
2		[2.000]	0.0173	0.0722	0.0175	10:42:11	No
Mean:		[2.000]	0.0173				
SD:		0.000	0.0000				
%RSD:		0.000	0.13				

Standard number 4 applied. [2.000]
Correlation Coef.: 0.999946 Slope: 0.00867 Intercept: -0.00001

==========

Sequence No.: 6 **Autosampler Location: 5**
Sample ID: 5.00ppb M102513AX0.005 **Date Collected: 11/11/2013 10:42:36 AM**
Analyst: **Data Type: Reprocessed on 1/17/2014 10:20:14 AM**
Logged In Analyst (Original) :
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 5.00ppb M102513AX0.005

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.000]	0.0438	0.1804	0.0440	10:43:42	No
2		[5.000]	0.0436	0.1808	0.0438	10:44:26	No
Mean:		[5.000]	0.0437				
SD:		0.000	0.0002				
%RSD:		0.000	0.35				

Standard number 5 applied. [5.000]
Correlation Coef.: 0.999984 Slope: 0.00875 Intercept: -0.00005

==========

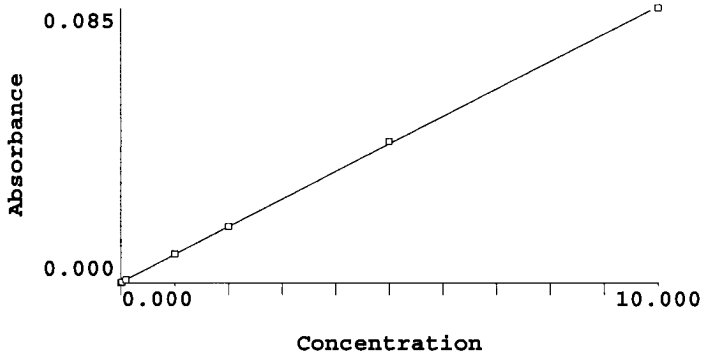
Sequence No.: 7 **Autosampler Location: 6**
Sample ID: 10.0ppb M102513AX0.01 **Date Collected: 11/11/2013 10:44:51 AM**
Analyst: **Data Type: Reprocessed on 1/17/2014 10:20:14 AM**
Logged In Analyst (Original) :
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Return to Contents

Replicate Data: 10.0ppb M102513AX0.01

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.00]	0.0857	0.3567	0.0859	10:45:57	No
2		[10.00]	0.0851	0.3554	0.0853	10:46:42	No
Mean:		[10.00]	0.0854				
SD:		0.00	0.0005				
%RSD:		0.00	0.53				

Standard number 6 applied. [10.00]
Correlation Coef.: 0.999931 Slope: 0.00857 Intercept: 0.00013



Calibration data for Hg 253.7 Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib blank	0.0000	0	-0.014989	0.00	21.3
0.025ppb 0.005X5PPB	0.0002	0.025	0.003532	0.00	1.2
0.10ppb M102513AX0.0001	0.0008	0.100	0.081207	0.00	1.7
1.00ppb M102513AX0.001	0.0088	1.000	1.010851	0.00	0.1
2.00ppb M102513AX0.002	0.0173	2.000	1.999912	0.00	0.1
5.00ppb M102513AX0.005	0.0437	5.000	5.090624	0.00	0.4
10.0ppb M102513AX0.01	0.0854	10.00	9.953862	0.00	0.5

Correlation Coef.: 0.999931 Slope: 0.00857 Intercept: 0.00013

==========

Sequence No.: 8 Autosampler Location: 8
Sample ID: ICV M102513B Date Collected: 11/11/2013 10:47:31 AM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:15 AM
Logged In Analyst (Original) :
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: ICV M102513B

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00449	4.49	0.0386	0.1606	0.0388	10:48:37	No
2	0.00447	4.47	0.0384	0.1575	0.0386	10:49:21	No
Mean:	0.00448	4.48	0.0385				
SD:	0.000014	0.0139	0.0001				
%RSD:	0.311	0.311	0.31				

QC value less than the lower limit for Hg 253.7 Recovery = 89.64%
QC Failed. Continue with analysis.

==========

Sequence No.: 9 Autosampler Location: 8
Sample ID: ICV M102513B Date Collected: 11/11/2013 10:49:58 AM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:15 AM
Logged In Analyst (Original) :
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: ICV M102513B

Return to Contents

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00459	4.59	0.0395	0.1630	0.0397	10:51:05	No
2	0.00454	4.54	0.0390	0.1612	0.0392	10:51:48	No
Mean:	0.00457	4.57	0.0393				
SD:	0.000038	0.0380	0.0003				
%RSD:	0.831	0.831	0.83				

QC value within limits for Hg 253.7 Recovery = 91.35%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: ICB **Date Collected: 11/11/2013 10:52:16 AM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:15 AM**
Logged In Analyst (Original) :
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000015	-0.0151	-0.0000	-0.0003	0.0002	10:53:22	No
2	-0.000020	-0.0197	-0.0000	-0.0005	0.0001	10:54:06	No
Mean:	-0.000017	-0.0174	-0.0000				
SD:	0.000003	0.00329	0.0000				
%RSD:	18.9	18.9	136.94				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 11 **Autosampler Location: 9**
Sample ID: CRQL 0.25PPB **Date Collected: 11/11/2013 10:54:32 AM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:15 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: CRQL 0.25PPB

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0351	0.211	0.0019	0.0088	0.0021	10:55:35	No
2	0.0331	0.198	0.0018	0.0076	0.0020	10:56:19	No
Mean:	0.0341	0.204	0.0019				
SD:	0.00144	0.00866	0.0001				
%RSD:	4.23	4.23	3.95				

==========

Sequence No.: 12 **Autosampler Location: 4**
Sample ID: CCV 0.2x10 ppb **Date Collected: 11/11/2013 10:56:43 AM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:15 AM**
Logged In Analyst (Original) :
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV 0.2x10 ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00193	1.93	0.0167	0.0701	0.0169	10:57:48	No
2	0.00191	1.91	0.0165	0.0685	0.0167	10:58:33	No
Mean:	0.00192	1.92	0.0166				
SD:	0.000017	0.0170	0.0001				
%RSD:	0.884	0.884	0.88				

QC value within limits for Hg 253.7 Recovery = 95.99%
All analyte(s) passed QC.

==========

Sequence No.: 13 **Autosampler Location: 7**
Sample ID: CCB **Date Collected: 11/11/2013 10:58:58 AM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:15 AM**

Return to Contents

Logged In Analyst (Original) :
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: CCB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000020	-0.0197	-0.0000	-0.0000	0.0001	11:00:04	No
2	-0.000024	-0.0236	-0.0001	-0.0005	0.0001	11:00:48	No
Mean:	-0.000022	-0.0216	-0.0001				
SD:	0.000003	0.00280	0.0000				
%RSD:	12.9	12.9	42.15				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 14 Autosampler Location: 70
Sample ID: 131111-b-02 Date Collected: 11/11/2013 11:12:02 AM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:16 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 131111-b-02

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00537	-0.0322	-0.0001	0.0001	0.0000	11:13:06	No
2	-0.00505	-0.0303	-0.0001	0.0001	0.0001	11:13:50	No
Mean:	-0.00521	-0.0313	-0.0001				
SD:	0.000224	0.00134	0.0000				
%RSD:	4.30	4.30	8.25				

==========

Sequence No.: 15 Autosampler Location: 71
Sample ID: 131111-l-02 Date Collected: 11/11/2013 11:14:15 AM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:16 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 131111-l-02

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.801	4.81	0.0413	0.1717	0.0415	11:15:19	No
2	0.796	4.77	0.0410	0.1712	0.0412	11:16:03	No
Mean:	0.799	4.79	0.0412				
SD:	0.00389	0.0233	0.0002				
%RSD:	0.487	0.487	0.49				

==========

Sequence No.: 16 Autosampler Location: 72
Sample ID: 13-11-0488-1 Date Collected: 11/11/2013 11:16:28 AM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:16 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0488-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0403	0.242	0.0022	0.0110	0.0024	11:17:32	No
2	0.0393	0.236	0.0021	0.0090	0.0023	11:18:17	No
Mean:	0.0398	0.239	0.0022				
SD:	0.000771	0.00462	0.0000				
%RSD:	1.94	1.94	1.82				

==========

Sequence No.: 17 Autosampler Location: 73

Return to Contents

Sample ID: 13-11-0488-2 Date Collected: 11/11/2013 11:18:42 AM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:17 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0488-2

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0289	0.174	0.0016	0.0075	0.0018	11:19:47	No
2	0.0285	0.171	0.0016	0.0078	0.0018	11:20:31	No
Mean:	0.0287	0.172	0.0016				
SD:	0.000344	0.00206	0.0000				
%RSD:	1.20	1.20	1.10				

Sequence No.: 18 Autosampler Location: 74
Sample ID: 13-11-0488-4 Date Collected: 11/11/2013 11:20:56 AM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:17 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0488-4

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.287	1.72	0.0149	0.0615	0.0151	11:22:01	No
2	0.286	1.72	0.0148	0.0620	0.0150	11:22:45	No
Mean:	0.287	1.72	0.0149				
SD:	0.000783	0.00470	0.0000				
%RSD:	0.273	0.273	0.27				

Sequence No.: 19 Autosampler Location: 75
Sample ID: 13-11-0488-5 Date Collected: 11/11/2013 11:23:10 AM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:17 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0488-5

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0509	0.305	0.0027	0.0138	0.0029	11:24:16	No
2	0.0489	0.293	0.0026	0.0122	0.0028	11:25:00	No
Mean:	0.0499	0.299	0.0027				
SD:	0.00142	0.00851	0.0001				
%RSD:	2.85	2.85	2.71				

Sequence No.: 20 Autosampler Location: 76
Sample ID: 13-11-0488-7 Date Collected: 11/11/2013 11:25:26 AM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:17 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0488-7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0441	0.265	0.0024	0.0105	0.0026	11:26:31	No
2	0.0448	0.269	0.0024	0.0109	0.0026	11:27:15	No
Mean:	0.0445	0.267	0.0024				
SD:	0.000503	0.00302	0.0000				
%RSD:	1.13	1.13	1.07				

Sequence No.: 21 Autosampler Location: 77

Return to Contents

Sample ID: 13-11-0488-8 Date Collected: 11/11/2013 11:27:41 AM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:17 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0488-8

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.25	13.5	0.1156	0.4857	0.1157	11:28:47	No
	Sample concentration is greater than that of the highest standard.						
2	2.22	13.3	0.1141	0.4804	0.1142	11:29:32	No
	Sample concentration is greater than that of the highest standard.						
Mean:	2.23	13.4	0.1148				
SD:	0.0206	0.124	0.0011				
%RSD:	0.925	0.925	0.92				
	Sample concentration is greater than that of the highest standard.						

Sequence No.: 22 Autosampler Location: 78
Sample ID: 13-11-0488-8 ms Date Collected: 11/11/2013 11:29:58 AM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:17 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0488-8 ms

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.709	4.26	0.0366	0.1538	0.0368	11:31:00	No
2	0.714	4.28	0.0368	0.1549	0.0370	11:31:44	No
Mean:	0.712	4.27	0.0367				
SD:	0.00324	0.0194	0.0002				
%RSD:	0.455	0.455	0.45				

Sequence No.: 23 Autosampler Location: 79
Sample ID: 13-11-0488-8 msd Date Collected: 11/11/2013 11:32:07 AM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:18 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0488-8 msd

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.698	4.19	0.0360	0.1500	0.0362	11:33:10	No
2	0.693	4.16	0.0357	0.1485	0.0359	11:33:54	No
Mean:	0.695	4.17	0.0359				
SD:	0.00353	0.0212	0.0002				
%RSD:	0.508	0.508	0.51				

Sequence No.: 24 Autosampler Location: 4
Sample ID: CCV 0.2x10 ppb Date Collected: 11/11/2013 11:34:17 AM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:18 AM
Logged In Analyst (Original) :
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: CCV 0.2x10 ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00187	1.87	0.0162	0.0677	0.0164	11:35:22	No
2	0.00191	1.91	0.0165	0.0695	0.0167	11:36:06	No
Mean:	0.00189	1.89	0.0163				
SD:	0.000023	0.0233	0.0002				
%RSD:	1.23	1.23	1.22				

Return to Contents

QC value within limits for Hg 253.7 Recovery = 94.54%
All analyte(s) passed QC.

Sequence No.: 25 **Autosampler Location: 7**
Sample ID: CCB **Date Collected: 11/11/2013 11:36:31 AM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:18 AM**
Logged In Analyst (Original) :
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000014	-0.0142	0.0000	0.0001	0.0002	11:37:38	No
2	-0.000001	-0.00106	0.0001	-0.0003	0.0003	11:38:22	No
Mean:	-0.000008	-0.00765	0.0001				
SD:	0.000009	0.00932	0.0001				
%RSD:	122	122	126.91				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 26 **Autosampler Location: 80**
Sample ID: 13-11-0488-10 **Date Collected: 11/11/2013 11:38:48 AM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:18 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0488-10

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0247	0.148	0.0014	0.0067	0.0016	11:39:51	No
2	0.0253	0.152	0.0014	0.0071	0.0016	11:40:35	No
Mean:	0.0250	0.150	0.0014				
SD:	0.000412	0.00247	0.0000				
%RSD:	1.65	1.65	1.50				

Sequence No.: 27 **Autosampler Location: 81**
Sample ID: 13-11-0488-11 **Date Collected: 11/11/2013 11:40:59 AM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:18 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0488-11

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0318	0.191	0.0018	0.0082	0.0020	11:42:02	No
2	0.0332	0.199	0.0018	0.0086	0.0020	11:42:46	No
Mean:	0.0325	0.195	0.0018				
SD:	0.000958	0.00575	0.0000				
%RSD:	2.95	2.95	2.74				

Sequence No.: 28 **Autosampler Location: 82**
Sample ID: 13-11-0488-13 **Date Collected: 11/11/2013 11:43:10 AM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:19 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0488-13

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0367	0.220	0.0020	0.0087	0.0022	11:44:13	No

Return to Contents

2	0.0373	0.224	0.0020	0.0094	0.0022	11:44:57	No
Mean:	0.0370	0.222	0.0020				
SD:	0.000484	0.00291	0.0000				
%RSD:	1.31	1.31	1.23				

Sequence No.: 29 **Autosampler Location: 83**
Sample ID: 13-11-0488-14 **Date Collected: 11/11/2013 11:45:21 AM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:19 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0488-14

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0229	0.137	0.0013	0.0054	0.0015	11:46:25	No
2	0.0248	0.149	0.0014	0.0064	0.0016	11:47:09	No
Mean:	0.0238	0.143	0.0014				
SD:	0.00135	0.00808	0.0001				
%RSD:	5.65	5.65	5.11				

Sequence No.: 30 **Autosampler Location: 84**
Sample ID: 13-11-0488-16 **Date Collected: 11/11/2013 11:47:33 AM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:19 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0488-16

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0806	0.483	0.0043	0.0183	0.0045	11:48:37	No
2	0.0820	0.492	0.0043	0.0187	0.0045	11:49:21	No
Mean:	0.0813	0.488	0.0043				
SD:	0.00101	0.00606	0.0001				
%RSD:	1.24	1.24	1.20				

Sequence No.: 31 **Autosampler Location: 85**
Sample ID: 13-11-0488-17 **Date Collected: 11/11/2013 11:49:45 AM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:19 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0488-17

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0267	0.160	0.0015	0.0066	0.0017	11:50:49	No
2	0.0270	0.162	0.0015	0.0072	0.0017	11:51:33	No
Mean:	0.0268	0.161	0.0015				
SD:	0.000202	0.00121	0.0000				
%RSD:	0.753	0.753	0.69				

Sequence No.: 32 **Autosampler Location: 86**
Sample ID: 13-11-0625-3 **Date Collected: 11/11/2013 11:51:58 AM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:19 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0625-3

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0372	0.223	0.0020	0.0089	0.0022	11:53:02	No

Return to Contents

2	0.0377	0.226	0.0021	0.0094	0.0023	11:53:46	No
Mean:	0.0374	0.225	0.0021				
SD:	0.000320	0.00192	0.0000				
%RSD:	0.855	0.855	0.80				

Sequence No.: 33 **Autosampler Location: 87**
Sample ID: 13-11-0673-1 **Date Collected: 11/11/2013 11:54:10 AM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:20 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0673-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0107	0.0642	0.0007	0.0036	0.0009	11:55:15	No
2	0.0120	0.0719	0.0007	0.0044	0.0009	11:55:59	No
Mean:	0.0113	0.0681	0.0007				
SD:	0.000906	0.00544	0.0000				
%RSD:	7.99	7.99	6.55				

Sequence No.: 34 **Autosampler Location: 88**
Sample ID: 13-11-0673-2 **Date Collected: 11/11/2013 11:56:24 AM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:20 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0673-2

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00630	0.0378	0.0005	0.0022	0.0006	11:57:29	No
2	0.00712	0.0427	0.0005	0.0026	0.0007	11:58:13	No
Mean:	0.00671	0.0403	0.0005				
SD:	0.000578	0.00347	0.0000				
%RSD:	8.61	8.61	6.28				

Sequence No.: 35 **Autosampler Location: 89**
Sample ID: 13-11-0673-3 **Date Collected: 11/11/2013 11:58:38 AM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:20 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0673-3

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.226	1.36	0.0117	0.0492	0.0119	11:59:43	No
2	0.226	1.36	0.0118	0.0489	0.0120	12:00:27	No
Mean:	0.226	1.36	0.0118				
SD:	0.000371	0.00222	0.0000				
%RSD:	0.164	0.164	0.16				

Sequence No.: 36 **Autosampler Location: 4**
Sample ID: CCV 0.2x10 ppb **Date Collected: 11/11/2013 12:00:53 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:20 AM**
Logged In Analyst (Original) :
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV 0.2x10 ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00186	1.86	0.0161	0.0677	0.0163	12:01:58	No

Return to Contents

2	0.00183	1.83	0.0158	0.0657	0.0160	12:02:42	No
Mean:	0.00184	1.84	0.0159				
SD:	0.000023	0.0232	0.0002				
%RSD:	1.26	1.26	1.25				

QC value within limits for Hg 253.7 Recovery = 92.20%
All analyte(s) passed QC.

Sequence No.: 37 **Autosampler Location: 7**
Sample ID: CCB **Date Collected: 11/11/2013 12:03:07 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:21 AM**
Logged In Analyst (Original) :
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000019	-0.0191	-0.0000	-0.0001	0.0002	12:04:13	No
2	-0.000008	-0.00782	0.0001	0.0014	0.0003	12:04:58	No
Mean:	-0.000013	-0.0135	0.0000				
SD:	0.000008	0.00798	0.0001				
%RSD:	59.3	59.3	524.79				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 38 **Autosampler Location: 90**
Sample ID: 13-11-0673-4 **Date Collected: 11/11/2013 12:05:24 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:21 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0673-4

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.369	2.21	0.0191	0.0791	0.0193	12:06:30	No
2	0.370	2.22	0.0191	0.0798	0.0193	12:07:14	No
Mean:	0.369	2.22	0.0191				
SD:	0.000912	0.00547	0.0000				
%RSD:	0.247	0.247	0.25				

Sequence No.: 39 **Autosampler Location: 4**
Sample ID: CCV 0.2x10 ppb **Date Collected: 11/11/2013 12:07:39 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:21 AM**
Logged In Analyst (Original) :
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV 0.2x10 ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00183	1.83	0.0158	0.0659	0.0160	12:08:44	No
2	0.00181	1.81	0.0157	0.0652	0.0159	12:09:28	No
Mean:	0.00182	1.82	0.0157				
SD:	0.000012	0.0117	0.0001				
%RSD:	0.643	0.643	0.64				

QC value within limits for Hg 253.7 Recovery = 91.16%
All analyte(s) passed QC.

Sequence No.: 40 **Autosampler Location: 7**
Sample ID: CCB **Date Collected: 11/11/2013 12:09:53 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:21 AM**
Logged In Analyst (Original) :
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Return to Contents

Replicate Data: CCB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000014	-0.0145	0.0000	0.0013	0.0002	12:11:00	No
2	-0.000011	-0.0106	0.0000	0.0006	0.0002	12:11:44	No
Mean:	-0.000013	-0.0125	0.0000				
SD:	0.000003	0.00276	0.0000				
%RSD:	22.0	22.0	113.03				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

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Sequence No.: 41 **Autosampler Location: 91**
Sample ID: 13-11-0545-1 **Date Collected: 11/11/2013 12:41:08 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:21 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0545-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0761	0.457	0.0040	0.0182	0.0042	12:42:14	No
2	0.0751	0.451	0.0040	0.0174	0.0042	12:42:58	No
Mean:	0.0756	0.454	0.0040				
SD:	0.000728	0.00437	0.0000				
%RSD:	0.963	0.963	0.93				

==========

Sequence No.: 42 **Autosampler Location: 92**
Sample ID: 13-11-0545-2 **Date Collected: 11/11/2013 12:43:24 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:22 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0545-2

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0607	0.364	0.0032	0.0140	0.0034	12:44:26	No
2	0.0603	0.362	0.0032	0.0142	0.0034	12:45:10	No
Mean:	0.0605	0.363	0.0032				
SD:	0.000260	0.00156	0.0000				
%RSD:	0.430	0.430	0.41				

==========

Sequence No.: 43 **Autosampler Location: 93**
Sample ID: 13-11-0383-1 **Date Collected: 11/11/2013 12:45:33 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:22 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0383-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000407	0.00244	0.0001	0.0038	0.0003	12:46:36	No
2	-0.00282	-0.0169	-0.0000	0.0007	0.0002	12:47:20	No
Mean:	-0.00121	-0.00724	0.0001				
SD:	0.00228	0.0137	0.0001				
%RSD:	189	189	176.55				

==========

Sequence No.: 44 **Autosampler Location: 94**
Sample ID: 13-11-0383-2 **Date Collected: 11/11/2013 12:47:43 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:22 AM**
Logged In Analyst (Original) :

Return to Contents

Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0383-2

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00223	-0.0134	0.0000	0.0013	0.0002	12:48:46	No
2	-0.00319	-0.0192	-0.0000	0.0009	0.0002	12:49:30	No
Mean:	-0.00271	-0.0163	-0.0000				
SD:	0.000681	0.00409	0.0000				
%RSD:	25.1	25.1	319.48				

Sequence No.: 45 Autosampler Location: 95
Sample ID: 13-11-0389-1 Date Collected: 11/11/2013 12:49:52 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:22 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0389-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00208	0.0125	0.0002	0.0025	0.0004	12:50:56	No
2	0.00334	0.0201	0.0003	0.0031	0.0005	12:51:40	No
Mean:	0.00271	0.0163	0.0003				
SD:	0.000894	0.00537	0.0000				
%RSD:	33.0	33.0	17.16				

Sequence No.: 46 Autosampler Location: 96
Sample ID: 13-11-0363-1 Date Collected: 11/11/2013 12:52:03 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:22 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0363-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.57	9.41	0.0808	0.3488	0.0810	12:53:06	No
2	1.56	9.37	0.0804	0.3460	0.0806	12:53:51	No
Mean:	1.57	9.39	0.0806				
SD:	0.00529	0.0317	0.0003				
%RSD:	0.338	0.338	0.34				

Sequence No.: 47 Autosampler Location: 97
Sample ID: 13-11-0419-1 Date Collected: 11/11/2013 12:54:14 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:22 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0419-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00124	-0.00746	0.0001	0.0013	0.0003	12:55:18	No
2	0.00267	0.0160	0.0003	0.0042	0.0005	12:56:02	No
Mean:	0.000716	0.00430	0.0002				
SD:	0.00277	0.0166	0.0001				
%RSD:	387	387	86.18				

Sequence No.: 48 Autosampler Location: 98
Sample ID: 13-11-0528-5 Date Collected: 11/11/2013 12:56:26 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:23 AM
Logged In Analyst (Original) :

Return to Contents

Initial Sample Wt: 0.6 g
Dilution:
Initial Sample Vol:
Sample Prep Vol: 100 mL

Replicate Data: 13-11-0528-5

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0256	0.154	0.0014	0.0068	0.0016	12:57:30	No
2	0.0255	0.153	0.0014	0.0069	0.0016	12:58:14	No
Mean:	0.0256	0.153	0.0014				
SD:	0.000047	0.000284	0.0000				
%RSD:	0.185	0.185	0.17				

==========

Sequence No.: 49
Sample ID: 13-11-0549-1
Analyst: 769 HG-5
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g
Dilution:
Autosampler Location: 99
Date Collected: 11/11/2013 12:58:37 PM
Data Type: Reprocessed on 1/17/2014 10:20:23 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Replicate Data: 13-11-0549-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.601	3.60	0.0310	0.1310	0.0312	12:59:42	No
2	0.595	3.57	0.0307	0.1292	0.0309	13:00:26	No
Mean:	0.598	3.59	0.0308				
SD:	0.00431	0.0259	0.0002				
%RSD:	0.721	0.721	0.72				

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Sequence No.: 50
Sample ID: 13-11-0550-1
Analyst: 769 HG-5
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g
Dilution:
Autosampler Location: 100
Date Collected: 11/11/2013 1:00:50 PM
Data Type: Reprocessed on 1/17/2014 10:20:23 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Replicate Data: 13-11-0550-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00401	0.0241	0.0003	0.0028	0.0005	13:01:54	No
2	0.00579	0.0347	0.0004	0.0033	0.0006	13:02:38	No
Mean:	0.00490	0.0294	0.0004				
SD:	0.00126	0.00753	0.0001				
%RSD:	25.6	25.6	16.97				

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Sequence No.: 51
Sample ID: CCV 0.2x10 ppb
Analyst: 769 HG-5
Logged In Analyst (Original) :
Initial Sample Wt:
Dilution:
Autosampler Location: 4
Date Collected: 11/11/2013 1:03:03 PM
Data Type: Reprocessed on 1/17/2014 10:20:23 AM
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV 0.2x10 ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00206	2.06	0.0178	0.0741	0.0179	13:04:07	No
2	0.00205	2.05	0.0177	0.0730	0.0179	13:04:51	No
Mean:	0.00206	2.06	0.0177				
SD:	0.000003	0.00289	0.0000				
%RSD:	0.141	0.141	0.14				

QC value within limits for Hg 253.7 Recovery = 102.77%
All analyte(s) passed QC.

==========

Sequence No.: 52
Sample ID: CCB
Autosampler Location: 7
Date Collected: 11/11/2013 1:05:17 PM

Return to Contents

Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:24 AM
Logged In Analyst (Original) :
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: CCB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000018	-0.0175	-0.0000	0.0007	0.0002	13:06:23	No
2	-0.000019	-0.0186	-0.0000	0.0008	0.0002	13:07:07	No
Mean:	-0.000018	-0.0181	-0.0000				
SD:	0.000001	0.000784	0.0000				
%RSD:	4.33	4.33	25.29				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 53 Autosampler Location: 101
Sample ID: 13-11-0552-1 Date Collected: 11/11/2013 1:07:34 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:24 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0552-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.313	1.88	0.0162	0.0680	0.0164	13:08:39	No
2	0.314	1.88	0.0163	0.0674	0.0165	13:09:23	No
Mean:	0.313	1.88	0.0162				
SD:	0.000986	0.00592	0.0001				
%RSD:	0.315	0.315	0.31				

==========

Sequence No.: 54 Autosampler Location: 102
Sample ID: 13-11-0595-1 Date Collected: 11/11/2013 1:09:47 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:24 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0595-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.201	1.21	0.0105	0.0435	0.0107	13:10:52	No
2	0.203	1.22	0.0105	0.0444	0.0107	13:11:36	No
Mean:	0.202	1.21	0.0105				
SD:	0.000823	0.00494	0.0000				
%RSD:	0.407	0.407	0.40				

==========

Sequence No.: 55 Autosampler Location: 103
Sample ID: 13-11-0585-1 Date Collected: 11/11/2013 1:12:01 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:24 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0585-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.149	0.894	0.0078	0.0329	0.0080	13:13:06	No
2	0.153	0.916	0.0080	0.0336	0.0082	13:13:50	No
Mean:	0.151	0.905	0.0079				
SD:	0.00267	0.0160	0.0001				
%RSD:	1.77	1.77	1.74				

==========

Return to Contents

Sequence No.: 56 Autosampler Location: 104
Sample ID: 13-11-0474-1 Date Collected: 11/11/2013 1:14:15 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:24 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0474-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00304	0.0183	0.0003	0.0020	0.0005	13:15:21	No
2	0.00286	0.0171	0.0003	0.0020	0.0005	13:16:05	No
Mean:	0.00295	0.0177	0.0003				
SD:	0.000132	0.000793	0.0000				
%RSD:	4.48	4.48	2.43				

Sequence No.: 57 Autosampler Location: 105
Sample ID: 13-11-0495-1 Date Collected: 11/11/2013 1:16:30 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:25 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0495-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.497	2.98	0.0257	0.1081	0.0259	13:17:36	No
2	0.503	3.02	0.0260	0.1079	0.0262	13:18:20	No
Mean:	0.500	3.00	0.0258				
SD:	0.00421	0.0253	0.0002				
%RSD:	0.842	0.842	0.84				

Sequence No.: 58 Autosampler Location: 106
Sample ID: 13-11-0712-5 Date Collected: 11/11/2013 1:18:45 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:25 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0712-5

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.379	2.27	0.0196	0.0822	0.0198	13:19:51	No
2	0.377	2.26	0.0195	0.0830	0.0197	13:20:35	No
Mean:	0.378	2.27	0.0196				
SD:	0.00125	0.00750	0.0001				
%RSD:	0.331	0.331	0.33				

Sequence No.: 59 Autosampler Location: 10
Sample ID: 131111-b-04 Date Collected: 11/11/2013 1:21:01 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:25 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 131111-b-04

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00321	-0.0192	-0.0000	0.0003	0.0002	13:22:05	No
2	-0.00528	-0.0317	-0.0001	0.0003	0.0000	13:22:49	No
Mean:	-0.00424	-0.0255	-0.0001				
SD:	0.00147	0.00881	0.0001				
%RSD:	34.6	34.6	84.12				

Return to Contents

Sequence No.: 60 Autosampler Location: 11
Sample ID: 131111-1-04 Date Collected: 11/11/2013 1:23:13 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:25 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 131111-1-04

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.799	4.79	0.0412	0.1700	0.0414	13:24:18	No
2	0.793	4.76	0.0409	0.1697	0.0411	13:25:02	No
Mean:	0.796	4.78	0.0410				
SD:	0.00393	0.0236	0.0002				
%RSD:	0.494	0.494	0.49				

Sequence No.: 61 Autosampler Location: 12
Sample ID: 13-11-0551-1 Date Collected: 11/11/2013 1:25:26 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:25 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0551-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0232	0.139	0.0013	0.0063	0.0015	13:26:31	No
2	0.0242	0.145	0.0014	0.0069	0.0016	13:27:16	No
Mean:	0.0237	0.142	0.0013				
SD:	0.000756	0.00453	0.0000				
%RSD:	3.19	3.19	2.88				

Sequence No.: 62 Autosampler Location: 13
Sample ID: 13-11-0551-1 ms Date Collected: 11/11/2013 1:27:41 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:25 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0551-1 ms

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.800	4.80	0.0413	0.1734	0.0415	13:28:46	No
2	0.817	4.90	0.0421	0.1749	0.0423	13:29:30	No
Mean:	0.809	4.85	0.0417				
SD:	0.0115	0.0691	0.0006				
%RSD:	1.42	1.42	1.42				

Sequence No.: 63 Autosampler Location: 4
Sample ID: CCV 0.2x10 ppb Date Collected: 11/11/2013 1:29:59 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:26 AM
Logged In Analyst (Original) :
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: CCV 0.2x10 ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00208	2.08	0.0180	0.0753	0.0182	13:31:04	No
2	0.00207	2.07	0.0178	0.0744	0.0180	13:31:49	No
Mean:	0.00207	2.07	0.0179				
SD:	0.000012	0.0125	0.0001				
%RSD:	0.603	0.603	0.60				

QC value within limits for Hg 253.7 Recovery = 103.72%
All analyte(s) passed QC.

Return to Contents

Sequence No.: 64 Autosampler Location: 7
Sample ID: CCB Date Collected: 11/11/2013 1:32:14 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:26 AM
Logged In Analyst (Original) :
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: CCB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000023	-0.0234	-0.0001	-0.0005	0.0001	13:33:20	No
2	-0.000011	-0.0107	0.0000	0.0015	0.0002	13:34:04	No
Mean:	-0.000017	-0.0170	-0.0000				
SD:	0.000009	0.00901	0.0001				
%RSD:	52.9	52.9	441.29				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 65 Autosampler Location: 14
Sample ID: 13-11-0551-1 msd Date Collected: 11/11/2013 1:34:31 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:26 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0551-1 msd

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.805	4.83	0.0415	0.1728	0.0417	13:35:37	No
2	0.807	4.84	0.0416	0.1732	0.0418	13:36:21	No
Mean:	0.806	4.84	0.0416				
SD:	0.000898	0.00539	0.0000				
%RSD:	0.111	0.111	0.11				

Sequence No.: 66 Autosampler Location: 15
Sample ID: 13-11-0548-1 Date Collected: 11/11/2013 1:36:47 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:26 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0548-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.141	0.846	0.0074	0.0314	0.0076	13:37:53	No
2	0.143	0.860	0.0075	0.0323	0.0077	13:38:38	No
Mean:	0.142	0.853	0.0074				
SD:	0.00164	0.00984	0.0001				
%RSD:	1.15	1.15	1.13				

Sequence No.: 67 Autosampler Location: 77
Sample ID: 13-11-0488-8 Date Collected: 11/11/2013 1:39:04 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:26 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0488-8

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0121	0.0729	0.0008	0.0034	0.0009	13:40:10	No
2	0.0131	0.0787	0.0008	0.0041	0.0010	13:40:54	No
Mean:	0.0126	0.0758	0.0008				

Return to Contents

SD:	0.000681	0.00409	0.0000
%RSD:	5.39	5.39	4.50

Sequence No.: 68 — **Autosampler Location: 78**
Sample ID: 13-11-0488-8 ms — **Date Collected: 11/11/2013 1:41:21 PM**
Analyst: 769 HG-5 — **Data Type: Reprocessed on 1/17/2014 10:20:27 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g — **Initial Sample Vol:**
Dilution: — **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0488-8 ms

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.718	4.31	0.0370	0.1545	0.0372	13:42:23	No
2	0.719	4.31	0.0371	0.1575	0.0373	13:43:07	No
Mean:	0.719	4.31	0.0371				
SD:	0.000449	0.00270	0.0000				
%RSD:	0.0625	0.0625	0.06				

Sequence No.: 69 — **Autosampler Location: 79**
Sample ID: 13-11-0488-8 msd — **Date Collected: 11/11/2013 1:43:30 PM**
Analyst: 769 HG-5 — **Data Type: Reprocessed on 1/17/2014 10:20:27 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g — **Initial Sample Vol:**
Dilution: — **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0488-8 msd

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.740	4.44	0.0382	0.1568	0.0384	13:44:32	No
2	0.730	4.38	0.0377	0.1569	0.0378	13:45:17	No
Mean:	0.735	4.41	0.0379				
SD:	0.00712	0.0427	0.0004				
%RSD:	0.969	0.969	0.97				

Sequence No.: 70 — **Autosampler Location: 4**
Sample ID: CCV 0.2x10 ppb — **Date Collected: 11/11/2013 1:45:40 PM**
Analyst: 769 HG-5 — **Data Type: Reprocessed on 1/17/2014 10:20:27 AM**
Logged In Analyst (Original) :
Initial Sample Wt: — **Initial Sample Vol:**
Dilution: — **Sample Prep Vol:**

Replicate Data: CCV 0.2x10 ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00202	2.02	0.0174	0.0723	0.0176	13:46:45	No
2	0.00206	2.06	0.0178	0.0736	0.0180	13:47:29	No
Mean:	0.00204	2.04	0.0176				
SD:	0.000028	0.0282	0.0002				
%RSD:	1.38	1.38	1.37				

QC value within limits for Hg 253.7 Recovery = 102.07%
All analyte(s) passed QC.

Sequence No.: 71 — **Autosampler Location: 7**
Sample ID: CCB — **Date Collected: 11/11/2013 1:47:54 PM**
Analyst: 769 HG-5 — **Data Type: Reprocessed on 1/17/2014 10:20:27 AM**
Logged In Analyst (Original) :
Initial Sample Wt: — **Initial Sample Vol:**
Dilution: — **Sample Prep Vol:**

Replicate Data: CCB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000025	-0.0250	-0.0001	-0.0001	0.0001	13:49:01	No

Return to Contents

2	-0.000018	-0.0183	-0.0000	0.0002	0.0002	13:49:45	No
Mean:	-0.000022	-0.0216	-0.0001				
SD:	0.000005	0.00473	0.0000				
%RSD:	21.9	21.9	71.33				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

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Sequence No.: 72 **Autosampler Location: 4**
Sample ID: CCV 0.2x10 ppb **Date Collected: 11/11/2013 5:15:36 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:28 AM**
Logged In Analyst (Original) :
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV 0.2x10 ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00214	2.14	0.0185	0.0769	0.0187	17:16:41	No
2	0.00214	2.14	0.0185	0.0775	0.0187	17:17:25	No
Mean:	0.00214	2.14	0.0185				
SD:	0.000001	0.000666	0.0000				
%RSD:	0.0311	0.0311	0.03				

QC value within limits for Hg 253.7 Recovery = 107.16%
All analyte(s) passed QC.

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Sequence No.: 73 **Autosampler Location: 7**
Sample ID: CCB **Date Collected: 11/11/2013 5:17:50 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:28 AM**
Logged In Analyst (Original) :
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000010	-0.0103	0.0000	0.0010	0.0002	17:18:56	No
2	-0.000014	-0.0137	0.0000	0.0004	0.0002	17:19:41	No
Mean:	-0.000012	-0.0120	0.0000				
SD:	0.000002	0.00243	0.0000				
%RSD:	20.3	20.3	80.45				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

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Sequence No.: 74 **Autosampler Location: 16**
Sample ID: 131111-b-08 **Date Collected: 11/11/2013 5:20:07 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:28 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 131111-b-08

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00449	-0.0269	-0.0001	0.0010	0.0001	17:21:14	No
2	-0.00561	-0.0337	-0.0002	-0.0005	0.0000	17:21:58	No
Mean:	-0.00505	-0.0303	-0.0001				
SD:	0.000793	0.00476	0.0000				
%RSD:	15.7	15.7	31.11				

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Sequence No.: 75 **Autosampler Location: 17**
Sample ID: 131111-l-08 **Date Collected: 11/11/2013 5:22:25 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:28 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Return to Contents

Replicate Data: 131111-1-08

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.847	5.08	0.0437	0.1830	0.0438	17:23:29	No
2	0.842	5.05	0.0434	0.1807	0.0436	17:24:13	No
Mean:	0.845	5.07	0.0435				
SD:	0.00321	0.0192	0.0002				
%RSD:	0.380	0.380	0.38				

Sequence No.: 76 Autosampler Location: 18
Sample ID: 13-11-0697-3 Date Collected: 11/11/2013 5:24:36 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:28 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0697-3

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000850	-0.00510	0.0001	0.0012	0.0003	17:25:40	No
2	-0.00172	-0.0103	0.0000	-0.0001	0.0002	17:26:24	No
Mean:	-0.00129	-0.00772	0.0001				
SD:	0.000617	0.00370	0.0000				
%RSD:	47.9	47.9	50.91				

Sequence No.: 77 Autosampler Location: 19
Sample ID: 13-11-0697-4 Date Collected: 11/11/2013 5:26:47 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:29 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0697-4

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00156	-0.00937	0.0000	0.0013	0.0002	17:27:51	No
2	-0.00268	-0.0161	-0.0000	0.0001	0.0002	17:28:35	No
Mean:	-0.00212	-0.0127	0.0000				
SD:	0.000791	0.00475	0.0000				
%RSD:	37.3	37.3	209.92				

Sequence No.: 78 Autosampler Location: 20
Sample ID: 13-11-0697-5 Date Collected: 11/11/2013 5:28:59 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:29 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0697-5

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000269	-0.00161	0.0001	0.0015	0.0003	17:30:03	No
2	0.000172	0.00103	0.0001	0.0008	0.0003	17:30:47	No
Mean:	-0.000048	-0.000290	0.0001				
SD:	0.000311	0.00187	0.0000				
%RSD:	644	644	12.71				

Sequence No.: 79 Autosampler Location: 21
Sample ID: 13-11-0697-6 Date Collected: 11/11/2013 5:31:11 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:29 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Return to Contents

Replicate Data: 13-11-0697-6

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00136	0.00817	0.0002	0.0022	0.0004	17:32:15	No
2	-0.000402	-0.00241	0.0001	0.0003	0.0003	17:33:00	No
Mean:	0.000480	0.00288	0.0002				
SD:	0.00125	0.00748	0.0001				
%RSD:	260	260	41.88				

Sequence No.: 80 Autosampler Location: 22
Sample ID: 13-11-0697-7 Date Collected: 11/11/2013 5:33:24 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:29 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0697-7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00200	-0.0120	0.0000	0.0003	0.0002	17:34:29	No
2	-0.00145	-0.00873	0.0001	0.0010	0.0002	17:35:13	No
Mean:	-0.00173	-0.0104	0.0000				
SD:	0.000386	0.00232	0.0000				
%RSD:	22.4	22.4	50.17				

Sequence No.: 81 Autosampler Location: 23
Sample ID: 13-11-0697-8 Date Collected: 11/11/2013 5:35:37 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:29 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0697-8

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000954	-0.00572	0.0001	0.0008	0.0003	17:36:42	No
2	-0.000285	-0.00171	0.0001	0.0008	0.0003	17:37:26	No
Mean:	-0.000619	-0.00372	0.0001				
SD:	0.000473	0.00284	0.0000				
%RSD:	76.3	76.3	25.16				

Sequence No.: 82 Autosampler Location: 24
Sample ID: 13-11-0697-8 ms Date Collected: 11/11/2013 5:37:51 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:30 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0697-8 ms

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.684	4.10	0.0353	0.1454	0.0355	17:38:56	No
2	0.685	4.11	0.0353	0.1470	0.0355	17:39:40	No
Mean:	0.684	4.11	0.0353				
SD:	0.00113	0.00677	0.0001				
%RSD:	0.165	0.165	0.16				

Sequence No.: 83 Autosampler Location: 25
Sample ID: 13-11-0697-8 msd Date Collected: 11/11/2013 5:40:05 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:30 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Return to Contents

Replicate Data: 13-11-0697-8 msd

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.678	4.07	0.0350	0.1451	0.0351	17:41:10	No
2	0.676	4.06	0.0349	0.1452	0.0351	17:41:54	No
Mean:	0.677	4.06	0.0349				
SD:	0.00110	0.00662	0.0001				
%RSD:	0.163	0.163	0.16				

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Sequence No.: 84 **Autosampler Location: 4**
Sample ID: CCV 0.2x10 ppb **Date Collected: 11/11/2013 5:42:20 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:30 AM**
Logged In Analyst (Original) :
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV 0.2x10 ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00212	2.12	0.0183	0.0745	0.0185	17:43:25	No
2	0.00212	2.12	0.0183	0.0755	0.0185	17:44:09	No
Mean:	0.00212	2.12	0.0183				
SD:	0.000001	0.00100	0.0000				
%RSD:	0.0471	0.0471	0.05				

QC value within limits for Hg 253.7 Recovery = 106.18%
All analyte(s) passed QC.

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Sequence No.: 85 **Autosampler Location: 7**
Sample ID: CCB **Date Collected: 11/11/2013 5:44:34 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:30 AM**
Logged In Analyst (Original) :
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000027	-0.0268	-0.0001	0.0001	0.0001	17:45:41	No
2	-0.000029	-0.0288	-0.0001	-0.0001	0.0001	17:46:25	No
Mean:	-0.000028	-0.0278	-0.0001				
SD:	0.000001	0.00147	0.0000				
%RSD:	5.29	5.29	11.49				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 86 **Autosampler Location: 26**
Sample ID: 13-11-0697-9 **Date Collected: 11/11/2013 5:46:51 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:30 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0697-9

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00197	-0.0118	0.0000	0.0004	0.0002	17:47:57	No
2	-0.00213	-0.0128	0.0000	0.0002	0.0002	17:48:41	No
Mean:	-0.00205	-0.0123	0.0000				
SD:	0.000107	0.000645	0.0000				
%RSD:	5.24	5.24	23.98				

==========

Sequence No.: 87 **Autosampler Location: 27**
Sample ID: 13-11-0697-10 **Date Collected: 11/11/2013 5:49:06 PM**

Return to Contents

Analyst: 769 HG-5
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g
Dilution:

Data Type: Reprocessed on 1/17/2014 10:20:31 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Replicate Data: 13-11-0697-10

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00128	-0.00770	0.0001	0.0004	0.0003	17:50:12	No
2	-0.000449	-0.00269	0.0001	0.0009	0.0003	17:50:56	No
Mean:	-0.000866	-0.00520	0.0001				
SD:	0.000590	0.00354	0.0000				
%RSD:	68.2	68.2	36.18				

Sequence No.: 88
Sample ID: 13-11-0697-11
Analyst: 769 HG-5
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g
Dilution:

Autosampler Location: 28
Date Collected: 11/11/2013 5:51:22 PM
Data Type: Reprocessed on 1/17/2014 10:20:31 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Replicate Data: 13-11-0697-11

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00162	-0.00971	0.0000	-0.0006	0.0002	17:52:28	No
2	-0.000862	-0.00517	0.0001	0.0003	0.0003	17:53:12	No
Mean:	-0.00124	-0.00744	0.0001				
SD:	0.000535	0.00321	0.0000				
%RSD:	43.1	43.1	42.49				

Sequence No.: 89
Sample ID: 13-11-0697-12
Analyst: 769 HG-5
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g
Dilution:

Autosampler Location: 29
Date Collected: 11/11/2013 5:53:38 PM
Data Type: Reprocessed on 1/17/2014 10:20:31 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Replicate Data: 13-11-0697-12

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00298	-0.0179	-0.0000	-0.0006	0.0002	17:54:44	No
2	-0.00453	-0.0272	-0.0001	-0.0003	0.0001	17:55:28	No
Mean:	-0.00376	-0.0225	-0.0001				
SD:	0.00110	0.00658	0.0001				
%RSD:	29.2	29.2	87.08				

Sequence No.: 90
Sample ID: 13-11-0661-1
Analyst: 769 HG-5
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g
Dilution:

Autosampler Location: 30
Date Collected: 11/11/2013 5:55:54 PM
Data Type: Reprocessed on 1/17/2014 10:20:31 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Replicate Data: 13-11-0661-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00392	-0.0235	-0.0001	-0.0015	0.0001	17:57:00	No
2	-0.00307	-0.0184	-0.0000	-0.0002	0.0002	17:57:44	No
Mean:	-0.00349	-0.0210	-0.0001				
SD:	0.000598	0.00359	0.0000				
%RSD:	17.1	17.1	60.06				

Sequence No.: 91
Sample ID: 13-11-0607-1

Autosampler Location: 31
Date Collected: 11/11/2013 5:58:11 PM

Return to Contents

Analyst: 769 HG-5
Data Type: Reprocessed on 1/17/2014 10:20:32 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g
Initial Sample Vol:
Dilution:
Sample Prep Vol: 100 mL

Replicate Data: 13-11-0607-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.199	1.19	0.0103	0.0425	0.0105	17:59:17	No
2	0.198	1.19	0.0103	0.0425	0.0105	18:00:02	No
Mean:	0.198	1.19	0.0103				
SD:	0.000465	0.00279	0.0000				
%RSD:	0.235	0.235	0.23				

Sequence No.: 92
Autosampler Location: 32
Sample ID: 13-11-0688-1
Date Collected: 11/11/2013 6:00:28 PM
Analyst: 769 HG-5
Data Type: Reprocessed on 1/17/2014 10:20:32 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g
Initial Sample Vol:
Dilution:
Sample Prep Vol: 100 mL

Replicate Data: 13-11-0688-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.45	26.7	0.2289	0.9772	0.2291	18:01:31	No
	Sample concentration is greater than that of the highest standard.						
2	4.43	26.6	0.2279	0.9725	0.2281	18:02:16	No
	Sample concentration is greater than that of the highest standard.						
Mean:	4.44	26.6	0.2284				
SD:	0.0131	0.0784	0.0007				
%RSD:	0.294	0.294	0.29				
	Sample concentration is greater than that of the highest standard.						

Sequence No.: 93
Autosampler Location: 33
Sample ID: 13-11-0710-9
Date Collected: 11/11/2013 6:02:39 PM
Analyst: 769 HG-5
Data Type: Reprocessed on 1/17/2014 10:20:32 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g
Initial Sample Vol:
Dilution:
Sample Prep Vol: 100 mL

Replicate Data: 13-11-0710-9

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0117	0.0702	0.0007	0.0027	0.0009	18:03:42	No
2	0.0118	0.0710	0.0007	0.0031	0.0009	18:04:26	No
Mean:	0.0118	0.0706	0.0007				
SD:	0.000091	0.000547	0.0000				
%RSD:	0.775	0.775	0.64				

Sequence No.: 94
Autosampler Location: 34
Sample ID: 13-11-0608-1
Date Collected: 11/11/2013 6:04:49 PM
Analyst: 769 HG-5
Data Type: Reprocessed on 1/17/2014 10:20:32 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g
Initial Sample Vol:
Dilution:
Sample Prep Vol: 100 mL

Replicate Data: 13-11-0608-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.265	1.59	0.0137	0.0554	0.0139	18:05:52	No
2	0.264	1.58	0.0137	0.0563	0.0139	18:06:37	No
Mean:	0.264	1.59	0.0137				
SD:	0.000923	0.00554	0.0000				
%RSD:	0.349	0.349	0.35				

Return to Contents

Sequence No.: 95 Autosampler Location: 35
Sample ID: 13-11-0723-1 Date Collected: 11/11/2013 6:07:00 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:32 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0723-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.337	2.02	0.0174	0.0717	0.0176	18:08:04	No
2	0.333	2.00	0.0172	0.0709	0.0174	18:08:48	No
Mean:	0.335	2.01	0.0173				
SD:	0.00254	0.0153	0.0001				
%RSD:	0.759	0.759	0.75				

Sequence No.: 96 Autosampler Location: 4
Sample ID: CCV 0.2x10 ppb Date Collected: 11/11/2013 6:09:12 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:32 AM
Logged In Analyst (Original) :
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: CCV 0.2x10 ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00209	2.09	0.0180	0.0733	0.0182	18:10:17	No
2	0.00210	2.10	0.0181	0.0736	0.0183	18:11:01	No
Mean:	0.00209	2.09	0.0181				
SD:	0.000003	0.00296	0.0000				
%RSD:	0.141	0.141	0.14				

QC value within limits for Hg 253.7 Recovery = 104.65%
All analyte(s) passed QC.

Sequence No.: 97 Autosampler Location: 7
Sample ID: CCB Date Collected: 11/11/2013 6:11:26 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:33 AM
Logged In Analyst (Original) :
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: CCB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000019	-0.0195	-0.0000	0.0013	0.0002	18:12:33	No
2	-0.000023	-0.0227	-0.0001	0.0008	0.0001	18:13:17	No
Mean:	-0.000021	-0.0211	-0.0001				
SD:	0.000002	0.00230	0.0000				
%RSD:	10.9	10.9	37.70				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 98 Autosampler Location: 36
Sample ID: 13-11-0723-2 Date Collected: 11/11/2013 6:13:43 PM
Analyst: 769 HG-5 Data Type: Reprocessed on 1/17/2014 10:20:33 AM
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Replicate Data: 13-11-0723-2

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.326	1.96	0.0169	0.0695	0.0171	18:14:47	No
2	0.330	1.98	0.0171	0.0706	0.0173	18:15:31	No

Return to Contents

Mean:	0.328	1.97	0.0170
SD:	0.00302	0.0181	0.0002
%RSD:	0.921	0.921	0.91

Sequence No.: 99 — **Autosampler Location: 37**
Sample ID: 13-11-0611-1 — **Date Collected: 11/11/2013 6:15:55 PM**
Analyst: 769 HG-5 — **Data Type: Reprocessed on 1/17/2014 10:20:33 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g — **Initial Sample Vol:**
Dilution: — **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0611-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0582	0.349	0.0031	0.0128	0.0033	18:16:59	No
2	0.0573	0.344	0.0031	0.0132	0.0033	18:17:43	No
Mean:	0.0577	0.346	0.0031				
SD:	0.000590	0.00354	0.0000				
%RSD:	1.02	1.02	0.98				

Sequence No.: 100 — **Autosampler Location: 38**
Sample ID: 13-11-0611-2 — **Date Collected: 11/11/2013 6:18:07 PM**
Analyst: 769 HG-5 — **Data Type: Reprocessed on 1/17/2014 10:20:33 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g — **Initial Sample Vol:**
Dilution: — **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0611-2

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.151	0.907	0.0079	0.0330	0.0081	18:19:12	No
2	0.148	0.886	0.0077	0.0330	0.0079	18:19:56	No
Mean:	0.149	0.897	0.0078				
SD:	0.00254	0.0153	0.0001				
%RSD:	1.70	1.70	1.67				

Sequence No.: 101 — **Autosampler Location: 39**
Sample ID: 13-11-0611-3 — **Date Collected: 11/11/2013 6:20:20 PM**
Analyst: 769 HG-5 — **Data Type: Reprocessed on 1/17/2014 10:20:33 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g — **Initial Sample Vol:**
Dilution: — **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0611-3

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00851	0.0511	0.0006	0.0009	0.0008	18:21:25	No
2	0.00949	0.0569	0.0006	0.0019	0.0008	18:22:09	No
Mean:	0.00900	0.0540	0.0006				
SD:	0.000691	0.00415	0.0000				
%RSD:	7.67	7.67	6.01				

Sequence No.: 102 — **Autosampler Location: 40**
Sample ID: 13-11-0760-5 — **Date Collected: 11/11/2013 6:22:33 PM**
Analyst: 769 HG-5 — **Data Type: Reprocessed on 1/17/2014 10:20:34 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g — **Initial Sample Vol:**
Dilution: — **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0760-5

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000449	-0.00269	0.0001	-0.0005	0.0003	18:23:38	No
2	-0.000697	-0.00418	0.0001	0.0003	0.0003	18:24:22	No

Return to Contents

Mean:	-0.000573	-0.00344	0.0001
SD:	0.000175	0.00105	0.0000
%RSD:	30.6	30.6	9.10

Sequence No.: 103 **Autosampler Location: 41**
Sample ID: 13-11-0771-3 **Date Collected: 11/11/2013 6:24:47 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:34 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0771-3

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000025	-0.000149	0.0001	0.0008	0.0003	18:25:52	No
2	0.000097	0.000583	0.0001	0.0007	0.0003	18:26:36	No
Mean:	0.000036	0.000217	0.0001				
SD:	0.000086	0.000517	0.0000				
%RSD:	238	238	3.40				

Sequence No.: 104 **Autosampler Location: 42**
Sample ID: 13-11-0720-1 **Date Collected: 11/11/2013 6:27:02 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:34 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0720-1

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.230	1.38	0.0120	0.0524	0.0121	18:28:07	No
2	0.232	1.39	0.0121	0.0503	0.0123	18:28:51	No
Mean:	0.231	1.39	0.0120				
SD:	0.00143	0.00856	0.0001				
%RSD:	0.617	0.617	0.61				

Sequence No.: 105 **Autosampler Location: 43**
Sample ID: 13-11-0770-3 **Date Collected: 11/11/2013 6:29:17 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:34 AM**
Logged In Analyst (Original) :
Initial Sample Wt: 0.6 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Replicate Data: 13-11-0770-3

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0946	0.568	0.0050	0.0219	0.0052	18:30:22	No
2	0.0927	0.556	0.0049	0.0203	0.0051	18:31:06	No
Mean:	0.0937	0.562	0.0049				
SD:	0.00136	0.00816	0.0001				
%RSD:	1.45	1.45	1.41				

Sequence No.: 106 **Autosampler Location: 4**
Sample ID: CCV 0.2x10 ppb **Date Collected: 11/11/2013 6:31:32 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:34 AM**
Logged In Analyst (Original) :
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV 0.2x10 ppb

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00205	2.05	0.0177	0.0737	0.0179	18:32:37	No
2	0.00201	2.01	0.0174	0.0725	0.0176	18:33:21	No

Return to Contents

Mean:	0.00203	2.03	0.0175
SD:	0.000023	0.0233	0.0002
%RSD:	1.15	1.15	1.14

QC value within limits for Hg 253.7 Recovery = 101.57%
All analyte(s) passed QC.

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Sequence No.: 107 **Autosampler Location: 7**
Sample ID: CCB **Date Collected: 11/11/2013 6:33:46 PM**
Analyst: 769 HG-5 **Data Type: Reprocessed on 1/17/2014 10:20:35 AM**
Logged In Analyst (Original) :
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000021	-0.0205	-0.0000	0.0009	0.0001	18:34:53	No
2	-0.000026	-0.0260	-0.0001	0.0004	0.0001	18:35:37	No
Mean:	-0.000023	-0.0233	-0.0001				
SD:	0.000004	0.00389	0.0000				
%RSD:	16.7	16.7	46.86				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Return to Contents

EPA METHOD 7471 A

RUN LOG

Return to Contents

131111E1

Sample ID	Analyst Na	Analyte Na	Date	Time	Conc (Calib	Units (Calib	Conc (Sam	Units (Sam	Corr Coef
Calib blank	769 HG-5	Hg 253.7	11/11/2013	10:33:18 AM		ug/L		mg/L	
0.025ppb 0.005X5PPB	769 HG-5	Hg 253.7	11/11/2013	10:35:32 AM		ug/L		mg/L	
0.10ppb M102513AX0.0001	769 HG-5	Hg 253.7	11/11/2013	10:37:44 AM		ug/L		mg/L	
1.00ppb M102513AX0.001	769 HG-5	Hg 253.7	11/11/2013	10:39:57 AM		ug/L		mg/L	
2.00ppb M102513AX0.002	769 HG-5	Hg 253.7	11/11/2013	10:42:11 AM		ug/L		mg/L	
5.00ppb M102513AX0.005	769 HG-5	Hg 253.7	11/11/2013	10:44:26 AM		ug/L		mg/L	
10.0ppb M102513AX0.01	769 HG-5	Hg 253.7	11/11/2013	10:46:42 AM		ug/L		mg/L	
ICV M102513B	769 HG-5	Hg 253.7	11/11/2013	10:49:21 AM	4.482099	ug/L	0.004482	mg/L	
ICV M102513B	769 HG-5	Hg 253.7	11/11/2013	10:51:48 AM	4.567399	ug/L	0.004567	mg/L	
ICB	769 HG-5	Hg 253.7	11/11/2013	10:54:06 AM	-0.01739	ug/L	-1.74E-05	mg/L	
CRQL 0.25PPB	769 HG-5	Hg 253.7	11/11/2013	10:56:19 AM	0.204489	ug/L	0.034082	mg/kg	0.999931
CCV 0.2x10 ppb	769 HG-5	Hg 253.7	11/11/2013	10:58:33 AM	1.91984	ug/L	0.00192	mg/L	
CCB	769 HG-5	Hg 253.7	11/11/2013	11:00:48 AM	-0.02164	ug/L	-2.16E-05	mg/L	
131111-b-02	769 HG-5	Hg 253.7	11/11/2013	11:13:50 AM	-0.03127	ug/L	-0.00521	mg/kg	0.999931
131111-l-02	769 HG-5	Hg 253.7	11/11/2013	11:16:03 AM	4.791485	ug/L	0.798581	mg/kg	0.999931
13-11-0488-1	769 HG-5	Hg 253.7	11/11/2013	11:18:17 AM	0.238784	ug/L	0.039797	mg/kg	0.999931
13-11-0488-2	769 HG-5	Hg 253.7	11/11/2013	11:20:31 AM	0.172236	ug/L	0.028706	mg/kg	0.999931
13-11-0488-4	769 HG-5	Hg 253.7	11/11/2013	11:22:45 AM	1.720972	ug/L	0.286829	mg/kg	0.999931
13-11-0488-5	769 HG-5	Hg 253.7	11/11/2013	11:25:00 AM	0.299193	ug/L	0.049866	mg/kg	0.999931
13-11-0488-7	769 HG-5	Hg 253.7	11/11/2013	11:27:15 AM	0.266911	ug/L	0.044485	mg/kg	0.999931
13-11-0488-8	769 HG-5	Hg 253.7	11/11/2013	11:29:32 AM	13.38752	ug/L	2.231253	mg/kg	0.999931
13-11-0488-8 ms	769 HG-5	Hg 253.7	11/11/2013	11:31:44 AM	4.269143	ug/L	0.711524	mg/kg	0.999931
13-11-0488-8 msd	769 HG-5	Hg 253.7	11/11/2013	11:33:54 AM	4.171088	ug/L	0.695181	mg/kg	0.999931
CCV 0.2x10 ppb	769 HG-5	Hg 253.7	11/11/2013	11:36:06 AM	1.890721	ug/L	0.001891	mg/L	
CCB	769 HG-5	Hg 253.7	11/11/2013	11:38:22 AM	-0.00765	ug/L	-7.65E-06	mg/L	
13-11-0488-10	769 HG-5	Hg 253.7	11/11/2013	11:40:35 AM	0.149889	ug/L	0.024981	mg/kg	0.999931
13-11-0488-11	769 HG-5	Hg 253.7	11/11/2013	11:42:46 AM	0.194977	ug/L	0.032496	mg/kg	0.999931
13-11-0488-13	769 HG-5	Hg 253.7	11/11/2013	11:44:57 AM	0.222028	ug/L	0.037005	mg/kg	0.999931
13-11-0488-14	769 HG-5	Hg 253.7	11/11/2013	11:47:09 AM	0.142949	ug/L	0.023825	mg/kg	0.999931
13-11-0488-16	769 HG-5	Hg 253.7	11/11/2013	11:49:21 AM	0.487729	ug/L	0.081288	mg/kg	0.999931

Return to Contents

11-12-13
309
Hg 5

Hg 21

13-11-0488-17	769 HG-5	Hg 253.7	11/11/2013	11:51:33 AM	0.160942 ug/L	0.026824 mg/kg	0.999931
13-11-0625-3	769 HG-5	Hg 253.7	11/11/2013	11:53:46 AM	0.22456 ug/L	0.037427 mg/kg	0.999931
13-11-0673-1	769 HG-5	Hg 253.7	11/11/2013	11:55:59 AM	0.068057 ug/L	0.011343 mg/kg	0.999931
13-11-0673-2	769 HG-5	Hg 253.7	11/11/2013	11:58:13 AM	0.040282 ug/L	0.006714 mg/kg	0.999931
13-11-0673-3	769 HG-5	Hg 253.7	11/11/2013	12:00:27 PM	1.356911 ug/L	0.226152 mg/kg	0.999931
CCV 0.2x10 ppb	769 HG-5	Hg 253.7	11/11/2013	12:02:42 PM	1.844037 ug/L	0.001844 mg/L	
CCB	769 HG-5	Hg 253.7	11/11/2013	12:04:58 PM	-0.01347 ug/L	-1.35E-05 mg/L	
13-11-0673-4	769 HG-5	Hg 253.7	11/11/2013	12:07:14 PM	2.215642 ug/L	0.369274 mg/kg	0.999931
CCV 0.2x10 ppb	769 HG-5	Hg 253.7	11/11/2013	12:09:28 PM	1.823209 ug/L	0.001823 mg/L	
CCB	769 HG-5	Hg 253.7	11/11/2013	12:11:44 PM	-0.01255 ug/L	-1.25E-05 mg/L	
13-11-0545-1	769 HG-5	Hg 253.7	11/11/2013	12:42:58 PM	0.453698 ug/L	0.075616 mg/kg	0.999931
13-11-0545-2	769 HG-5	Hg 253.7	11/11/2013	12:45:10 PM	0.363089 ug/L	0.060515 mg/kg	0.999931
13-11-0383-1	769 HG-5	Hg 253.7	11/11/2013	12:47:20 PM	-0.00724 ug/L	-0.00121 mg/kg	0.999931
13-11-0383-2	769 HG-5	Hg 253.7	11/11/2013	12:49:30 PM	-0.01627 ug/L	-0.00271 mg/kg	0.999931
13-11-0389-1	769 HG-5	Hg 253.7	11/11/2013	12:51:40 PM	0.01627 ug/L	0.002712 mg/kg	0.999931
13-11-0363-1	769 HG-5	Hg 253.7	11/11/2013	12:53:51 PM	9.392059 ug/L	1.565343 mg/kg	0.999931
13-11-0419-1	769 HG-5	Hg 253.7	11/11/2013	12:56:02 PM	0.004297 ug/L	0.000716 mg/kg	0.999931
13-11-0528-5	769 HG-5	Hg 253.7	11/11/2013	12:58:14 PM	0.153443 ug/L	0.025574 mg/kg	0.999931
13-11-0549-1	769 HG-5	Hg 253.7	11/11/2013	1:00:26 PM	3.585542 ug/L	0.59759 mg/kg	0.999931
13-11-0550-1	769 HG-5	Hg 253.7	11/11/2013	1:02:38 PM	0.029407 ug/L	0.004901 mg/kg	0.999931
CCV 0.2x10 ppb	769 HG-5	Hg 253.7	11/11/2013	1:04:51 PM	2.055409 ug/L	0.002055 mg/L	
CCB	769 HG-5	Hg 253.7	11/11/2013	1:07:07 PM	-0.01809 ug/L	-1.81E-05 mg/L	
13-11-0552-1	769 HG-5	Hg 253.7	11/11/2013	1:09:23 PM	1.879378 ug/L	0.31323 mg/kg	0.999931
13-11-0595-1	769 HG-5	Hg 253.7	11/11/2013	1:11:36 PM	1.21235 ug/L	0.202058 mg/kg	0.999931
13-11-0585-1	769 HG-5	Hg 253.7	11/11/2013	1:13:50 PM	0.904822 ug/L	0.150804 mg/kg	0.999931
13-11-0474-1	769 HG-5	Hg 253.7	11/11/2013	1:16:05 PM	0.017704 ug/L	0.002951 mg/kg	0.999931
13-11-0495-1	769 HG-5	Hg 253.7	11/11/2013	1:18:20 PM	3.001207 ug/L	0.500201 mg/kg	0.999931
13-11-0712-5	769 HG-5	Hg 253.7	11/11/2013	1:20:35 PM	2.267815 ug/L	0.377969 mg/kg	0.999931
131111-b-04	769 HG-5	Hg 253.7	11/11/2013	1:22:49 PM	-0.02547 ug/L	-0.00424 mg/kg	0.999931
131111-l-04	769 HG-5	Hg 253.7	11/11/2013	1:25:02 PM	4.775899 ug/L	0.795983 mg/kg	0.999931
13-11-0551-1	769 HG-5	Hg 253.7	11/11/2013	1:27:16 PM	0.14228 ug/L	0.023713 mg/kg	0.999931
13-11-0551-1 ms	769 HG-5	Hg 253.7	11/11/2013	1:29:30 PM	4.851592 ug/L	0.808599 mg/kg	0.999931
CCV 0.2x10 ppb	769 HG-5	Hg 253.7	11/11/2013	1:31:49 PM	2.074389 ug/L	0.002074 mg/L	
CCB	769 HG-5	Hg 253.7	11/11/2013	1:34:04 PM	-0.01703 ug/L	-1.70E-05 mg/L	

11-12-13
309
Hg-5

Hg 82

Return to Contents

13-11-0551-1 msd	769 HG-5	Hg 253.7	11/11/2013	1:36:21 PM	4.836659 ug/L	0.80611 mg/kg	0.999931
13-11-0548-1	769 HG-5	Hg 253.7	11/11/2013	1:38:38 PM	0.852551 ug/L	0.142092 mg/kg	0.999931
13-11-0488-8	769 HG-5	Hg 253.7	11/11/2013	1:40:54 PM	0.075779 ug/L	0.01263 mg/kg	0.999931
13-11-0488-8 ms	769 HG-5	Hg 253.7	11/11/2013	1:43:07 PM	4.311184 ug/L	0.718531 mg/kg	0.999931
13-11-0488-8 msd	769 HG-5	Hg 253.7	11/11/2013	1:45:17 PM	4.410954 ug/L	0.735159 mg/kg	0.999931
CCV 0.2x10 ppb	769 HG-5	Hg 253.7	11/11/2013	1:47:29 PM	2.041392 ug/L	0.002041 mg/L	
CCB	769 HG-5	Hg 253.7	11/11/2013	1:49:45 PM	-0.02162 ug/L	-2.16E-05 mg/L	
CCV 0.2x10 ppb *	769 HG-5	Hg 253.7	11/11/2013	5:17:25 PM	2.143223 ug/L	0.002143 mg/L	* time gap
CCB	769 HG-5	Hg 253.7	11/11/2013	5:19:41 PM	-0.01197 ug/L	-1.20E-05 mg/L	
131111-b-08	769 HG-5	Hg 253.7	11/11/2013	5:21:58 PM	-0.03029 ug/L	-0.00505 mg/kg	0.999931
131111-l-08	769 HG-5	Hg 253.7	11/11/2013	5:24:13 PM	5.067023 ug/L	0.844504 mg/kg	0.999931
13-11-0697-3	769 HG-5	Hg 253.7	11/11/2013	5:26:24 PM	-0.00772 ug/L	-0.00129 mg/kg	0.999931
13-11-0697-4	769 HG-5	Hg 253.7	11/11/2013	5:28:35 PM	-0.01273 ug/L	-0.00212 mg/kg	0.999931
13-11-0697-5	769 HG-5	Hg 253.7	11/11/2013	5:30:47 PM	-0.00029 ug/L	-4.84E-05 mg/kg	0.999931
13-11-0697-6	769 HG-5	Hg 253.7	11/11/2013	5:33:00 PM	0.002878 ug/L	0.00048 mg/kg	0.999931
13-11-0697-7	769 HG-5	Hg 253.7	11/11/2013	5:35:13 PM	-0.01037 ug/L	-0.00173 mg/kg	0.999931
13-11-0697-8	769 HG-5	Hg 253.7	11/11/2013	5:37:26 PM	-0.00372 ug/L	-0.00062 mg/kg	0.999931
13-11-0697-8 ms	769 HG-5	Hg 253.7	11/11/2013	5:39:40 PM	4.106221 ug/L	0.68437 mg/kg	0.999931
13-11-0697-8 msd	769 HG-5	Hg 253.7	11/11/2013	5:41:54 PM	4.060801 ug/L	0.6768 mg/kg	0.999931
CCV 0.2x10 ppb	769 HG-5	Hg 253.7	11/11/2013	5:44:09 PM	2.123544 ug/L	0.002124 mg/L	
CCB	769 HG-5	Hg 253.7	11/11/2013	5:46:25 PM	-0.02779 ug/L	-2.78E-05 mg/L	
13-11-0697-9	769 HG-5	Hg 253.7	11/11/2013	5:48:41 PM	-0.0123 ug/L	-0.00205 mg/kg	0.999931
13-11-0697-10	769 HG-5	Hg 253.7	11/11/2013	5:50:56 PM	-0.0052 ug/L	-0.00087 mg/kg	0.999931
13-11-0697-11	769 HG-5	Hg 253.7	11/11/2013	5:53:12 PM	-0.00744 ug/L	-0.00124 mg/kg	0.999931
13-11-0697-12	769 HG-5	Hg 253.7	11/11/2013	5:55:28 PM	-0.02255 ug/L	-0.00376 mg/kg	0.999931
13-11-0661-1	769 HG-5	Hg 253.7	11/11/2013	5:57:44 PM	-0.02096 ug/L	-0.00349 mg/kg	0.999931
13-11-0607-1	769 HG-5	Hg 253.7	11/11/2013	6:00:02 PM	1.189245 ug/L	0.198207 mg/kg	0.999931
13-11-0688-1	769 HG-5	Hg 253.7	11/11/2013	6:02:16 PM	26.64752 ug/L	4.441254 mg/kg	0.999931
13-11-0710-9	769 HG-5	Hg 253.7	11/11/2013	6:04:26 PM	0.070622 ug/L	0.01177 mg/kg	0.999931
13-11-0608-1	769 HG-5	Hg 253.7	11/11/2013	6:06:37 PM	1.585297 ug/L	0.264216 mg/kg	0.999931
13-11-0723-1	769 HG-5	Hg 253.7	11/11/2013	6:08:48 PM	2.008962 ug/L	0.334827 mg/kg	0.999931
CCV 0.2x10 ppb	769 HG-5	Hg 253.7	11/11/2013	6:11:01 PM	2.092956 ug/L	0.002093 mg/L	
CCB	769 HG-5	Hg 253.7	11/11/2013	6:13:17 PM	-0.02108 ug/L	-2.11E-05 mg/L	
13-11-0723-2	769 HG-5	Hg 253.7	11/11/2013	6:15:31 PM	1.968615 ug/L	0.328103 mg/kg	0.999931

11-12-13
309
Hg-5

Hg 83

Return to Contents

EPA METHOD 7471 A

PREPARATION LOG

Return to Contents

Mercury Sample Preparation Logbook

METHOD: ☐ 7470 ☒ 7471 ☐ 245.1 MATRIX: ☒ SOLID ☐ AQUEOUS ☐ OTHER (SPECIFY) _____ MS/MSD BATCH NUMBER: 131111-508

REAGENT ID(S): 1) H_2SO_4 2) HNO_3 3) HCl:HNO_3 (3:1) A0916.302

4) $KMnO_4$ R102513O1 5) $K_2S_2O_8$ 6) NH_2OH-HCl R100113O1

LOT #: 1) Teflon Chip / Glass Bead M006-08-25 2) Digestion Tube 131006 3) Filter

ID #: 1) Block Digester 3 2) Thermometer 71114845 (CF0 <) 3) Balance 54

DATE	START TIME	ANALYST (STARTED BY)	FINISH TIME	ANALYST (FINISHED BY)	pH	TEMP (°C)	CEL ID #	SAMPLE INITIAL (g - S/O) (mL - A)	SAMPLE FINAL (mL)	SPIKE STANDARD (LCS/LCSD/MS/MSD) STANDARD ID	SPIKE STANDARD C (ppm)	SPIKE STANDARD V (mL)
11/11/13	1300	TSP	1345	TSP	NA	35	MS 13-11-0697-9A	0.60	100	M102513A	1.0	0.5
							MSD "	0.60				
							LCS 131111-1088	0.60				
							LCSD —	—				
							MB 131111-1308	0.60				
							13-11-0697-3A	0.60				
							-4	0.60				
							-5	0.61				
							-6	0.55				
							-7	0.60				
							-8	0.60				
							-9	0.60				
							-10	0.60				
							-11	0.60				
							-12	0.60				
							13-11-0661-1A	0.60				
							13-11-0607-1A	0.60				
							13-11-0688-1A	0.60				
							13-11-0710-9A	0.61				
							13-11-0608-1A	0.55				
	1600		1645				13-11-0760-5A	0.60				
							13-11-0771-3A	0.60				
							13-11-0720-1A	0.60				
							13-11-0770-3A	0.59				
							Az 11/11/13					

COMMENTS: _____

Return to Contents

METALS

STANDARDS PREPARATION LOGS

Return to Contents

STANDARDS PREPARATION LOGBOOK #5

DATE	NEW STD. ID	FOR METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STD. ID	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT LOT#	PREP. BY	EXPIR. DATE
8/9/10	M080910A	1640	Cal STD 1ppm	M090910A	40ml	1ppm	40ml	1ppb	1% HNO3	M005-02-01	[illegible]	9/9/10
8/18/10	M081810A	6020E	1000ppm Zn STD-4	M004-58-25	10ml	10,000	100ml	1000ppm	5% HCl 6% HNO3	M005-02-00 M005-02-01	[illegible]	5/31/15
8/20/10	M082010A	6010/200.7	Calb. STD-3 - #1	M005-06-16	15ml	See SOP	1000ml	See SOP				11/23/10
			7	M004-93-13	↓	App. C		App. C				
			8	M005-02-10	60ml							
			10	M005-07-10	7.5ml							
			11	M005-07-09	6.0ml							
			Na	M004-80-07	↓							
			K	M004-80-10	3.0ml							
			Zn	M005-02-14	0.35ml							
			P	M005-02-13	1.2ml							
8-27-10	M082710A	Hg (CCV)	High Purity (Mercury Std)	M004-93-08	0.2 ml	1000ppm	100 ml	2.0 ppm	5% HNO3	M005-07-24	[illegible]	9-27-10
↓	↓ B	↓ (ICV)	Accur Trace ↓	M005-05-07	1.0 ↓	100 ↓	↓	1.0 ↓	↓	↓	↓	↓
9/3/10	M090310A	ICP/MS	10ppm SPIKE #1	M052910A	5mL	100ppm	50mL	10ppm	5% HNO3 5% HCl	M005-05-13 M005-05-05	FC	12/31/10
			#2	M020310A	5mL	100ppm						
	M090310B		ICV + 4900ppb Fe - SPIKE #1	M052910A	0.1mL	100ppm	100mL	100ppb	1% HNO3	M005-05-13		
			- SPIKE #2	M020310A	0.1mL	100ppm						
			- Fe	M004-81-22	0.049mL	10,000ppm		5ppm				
9/9/10	M090910A	Org. Pb	Pb Cl2 ICV	M004-90-24	0.1342g	Need	100ml	1000ppm	10% 336/MIBK	R1027-0701	AC	~~9/9/11~~ 3/9/11
9/9/10	M090910B	ICP	5000ppm Pb	M005-05-24	100ml	10,000	200ml	5000ppm	DI H2O	NA	[illegible]	8/31/16
9/10/10	M091010A	Dep 1020	Spike Sol #4 - Ba	M004-59-03	18ml	10,000	200ml	900ppm	10% HNO3	M005-05-13		~~01/31/15~~ 09/11/2
			- Cu	M005-05-22								
			- Zn	M005-08-10								
			- Pb	M090910B	36ml	5000						

Reviewed by: [illegible] on 9/10/10

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
4/18/13	M041813A	6020/200.7	Zn	M006-07-20	0.350ml	see SOP App-C	100ml	see SOP App-C	6% HNO_3 5% HCl	M006-09-11 M006-04-13	10/25/13	469	
↓	↓	↓	Na	M006-03-14	6.0ml	↓	↓	↓	↓	↓	↓	↓	
↓	↓	↓	K	M005-10-10	3.0ml	↓	↓	↓	↓	↓	↓	↓	
~~4/22/13~~	~~M042213A~~	1640	Informal STD BT	M011813E 4/22/13	200µL	100–400ppb	2L	10–40ppb	2L HNO_3 2L H_2O	M006-08-23	10/22/13	850	Daily 07/18/13
↓	M042213B	↓	STD-Cal 1ppb	~~M011513A~~	~~200µL~~	~~1ppm~~	200mL	1ppb	1% HNO_3	M006-08-23	5/31/13	↓	Daily since 5/31/13
↓	M042213C	↓	ICV 0.5ppb	M011513B	100µL	1ppm	200mL	0.5ppb	1% HNO_3	~~M006-08-23~~	~~5/31/13~~	↓	~~Daily since 5/31/13~~
4/22/13	M042213D	ICP/MS	LOD/LOQ 1-50ppb										
↓	↓	↓	STD 2	M006-04-07	1mL	100	100mL	1ppm	1% HNO_3	M006-04-13	10/22/13	532	03/30/2014
↓	↓	↓	STD 3	M006-08-19	4.9mL	1000	↓	49ppm	↓	↓	↓	↓	03/30/2014
↓	↓	↓	Zinc	M005-06-10	0.04mL	10,000	↓	4ppm	↓	↓	↓	↓	11/30/16
↓	↓	↓	Al	M006-01-13	0.49mL	10,000	↓	49ppm	↓	↓	↓	↓	4/30/16
↓	↓	↓	B	M005-12-15	4.9mL	1000	↓	49ppm	↓	↓	↓	↓	1/W16
↓	↓	↓	U	M005-12-14	0.1mL	1000ppb	↓	49ppb	↓	↓	↓	↓	3/W16
4/23/13	M042313A	200.7/6010	ICS-AB-Interferent STD-1	M006-05-19	0.5ml	see SOP App-C	500ml	see SOP App-C	6% HNO_3 5% HNO_3	M006-09-11 M006-09-12	04/2014	469	EXP. 5/14
↓	↓	↓	↓ -2	M006-05-20	↓	↓	↓	↓	↓	↓	↓	↓	EXP 7/14
↓	↓	↓	Antimony-STD	M005-05-15	0.05ml	↓	↓	↓	↓	↓	↓	↓	
↓	↓	↓	Interference STD – 4	M006-05-21	10ml	↓	↓	↓	↓	↓	↓	↓	EXP. 4/14
↓	M042313B	↓	ICS-A INT Check #4	M006-05-21	10ml	↓	↓	↓	↓	↓	↓	↓	
4/30/13	M043013A	Hg	ICP-MS Calibration Hg	M006-03-09	10ml	10 ppm	100ml	1.0ppm	5% HNO_3	M006-08-14	5/30/13	709	
↓	M043013B	↓	Acetone + Triton	M005-05-01	1ml	~~100~~ 10 ppm	100ml	10ppm	↓	↓	↓	↓	

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
5-14-13	M051413A	1631	10ppm STD	M006-06-10	1mL	1000ppm	100mL	10ppm	2% HCl	R04111301	BT 5/14/13 ~~6-9~~ 6-14-13	850	
	B		100ppb STD	M051413A	1mL	10ppm	100mL	100ppb			6-14-13		
	C		100ppb ICV	M006-03-09	1mL	10ppm	100mL	100ppb					
	D		100 PPT STD	M051413B	0.1mL	100ppb	100mL	100PPT					
	E		100 PPT ICV	M051413C	0.1mL	100ppb	100mL	100PPT					
5/17/13	M051713A	6020/200.8	Internal STD (conc.)										
			Sc	M006-10-05	100mL	1000ppm	500mL	200ppm	1% HNO3	M006-09-21	10/2013	59	10/2017
			Li 6	M006-10-04	50mL			100ppm					11/06/14
			Ga	M006-10-06	50mL			100ppm					10/2016
			In	M005-05-06 ~~M005-23-04~~ FL 5/17/13	10mL			20ppm					04/2014 ~~09/05/2013~~ FL 5/17/13
			Ho	M006-10-07	10mL			20ppm					03/2018
			Tb	M005-05-04	10mL			20ppm					12/2013
			Bi	M005-05-03	10mL			20ppm					10/2013
	M051713B		Internal stb	M051713A	5mL	10-100ppm	1L	0.1-1ppm					
5/21/13	M052113A	6020/200.8	Zr 1ppm	M040611A	1mL	100ppm	100mL	1ppm			9/2014		09/2014
~~5/24/13~~	XX 5/29/13												
5/29/13	M052913A	Hg	1000ppm Hg	M006-06-10	10ml	1000ppm	100ml	100ppm	5% HNO3	M006-08-16	5/29/14	43	Trace Cert 07/2016
	M052913B		Mercury Standard	M052913A	1ml	100ppm		1.0ppm			6/29/13	769	
	M052913C		Acerner Trice	M005-05-07	1ml	100ppm		1.0ppm					
				5/23/13									

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
6/06/13	M060613B	1640.	Cr, 1000 ppm	M005-24-01	0.36	1000	40	9 ppm	1% HNO3	M006-08 23	08/27/13	110	
			Fe, 10,000 ppm	M005-20-02	0.036	10,000							
			Be 10,000 ppm	M005-19-21	0.036	10,000							
			Mn 10,000	M005-20-05	0.036	10,000							
	M060613C		STD-Cal 1 ppb	M060613A	0.2 ml	1 ppm	200 ml	1 ppb					
	M060613D		ICV	M060613B	0.1 ml	1 ppm	200 ml	0.5 ppb					
6/6/13	M060613E	200.7/6010	Internal STD - Y	M005-10-16	1.0 mL	10,000	2 L	5 ppm	6% HNO3 5% HCl		6/6/14	57	
			-Tb	Fe 6/6/13	1.0 mL	10,000 ppm	2 L	5 ppm					
			Fe 6/6/13 -Ho										
6/6/13	M060613E	200.7/6010	Internal STD - Y	M005-10-16	1.0 mL	10,000 ppm	2 L	5 ppm	6% HNO3 5% HCl	M006-10-14 M006-10-02	6/6/14	57	
			-Tb	M005-06-12	469 6/6								
			-Ho	M004-80-16									
6/18/13	M061813A	6010/200.7	Internal STD	M051713B	250 mL	0.1 ml	500 mL	0.05-0.5 ppm	1% HNO3	M006-10-16 ~~M006~~ RC	10/8/2013 6/18/13	57	
06/~~18~~ 20/13	M062013A	6010/200.7	1.0 ppm ICV (Li, Bi Sulfur)	M006-11-17 M006-17-17 ~~M006-08-20~~	0.1 ml 0.1 ml 0.1 ml	1000 ppm	100,000 ml	1.0 ppm	6% HNO3 5% HCl	6/18/13 M006-10-14 M006-10-02	03/30/14	469	
6/25/13	M062513A	Hg	Mercury Standard	M006-11-16 M052913A	1 ml	100 ppm	100 ml	1.0 ppm	5% HNO3	M006-08-14	7/25/13	768	
	M062513B		Acerner Trice	M005-05-07	1 ml	100 ppm		1.0 ppm					
06/28/13	M062813A	1631	10 ppm STD	M006-06-10	1 mL	1000 ppm	100 mL	10 ppm	2% HCl	R06281301	07/28/13	776	
	M062813B		100 ppb STD	M062813A	1 mL	10 ppm	100 mL	100 ppb					
	M062813C		100 ppt STD	M062813B	0.1 mL	100 ppb	100 mL	100 ppt					
	M062813D		10 ppm ICV	M006-10-15	1 mL	1000 ppm	100 mL	10 ppm					
	M062813E		100 ppb ICV	M062813D	1 mL	10 ppm	100 mL	100 ppb					

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
08/27/13	MOS2713A	6010/200.7	SPiked Sol. #1 – Sb	M005-19-19	10 ml	10,000 ppm	1000 ml	100 ppm	1% HNO3	M006-12-07	8/27/14	469	7/30/16
			– As	-20									
			– Be	-21									
			– Cd	-22									
			– Co	-23									
			– Cq	M005-10-08									
			– Cr	M005-05-21									
			– Cu	M005-20-01									
			– Fe	M005-20-02									
			– Pb	M09 09 10 B	20 ml	5,000 ppm							
			– Mg	M006-03-11	10 ml	10,000							
			– Mn	M005-06-01									
			– Mo	M005-20-06									
			– Ni	M005-06-03									
			– P	M005-20-04									
			– Se	M005-20-09									
			– Sr	-10									
			– Tl	-11									
			– Sn	469 8/27 -13 -12									
			– Ti	-12 -13									

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
8/27/13	M082713A	6010/200.7	Spiked Sol #1 - V	M005-20-14	10 ml	10,000	1000 ml	100 ppm	10% HNO3	M006-12-27 07 (30d 8/27/13)	8/27/14	469	
			-Zn	-15								1	
8/27/13	M082713B		Spiked Sol. #2 - Al	M005-10-15	10 ml	10,000ppm	1000 ml	100 ppm					
			-B	M004-80-12									
			-Ba	M004-80-14									
			-Ag	M005-10-09	5 ml			50 ppm					
			-Na	M006-03-14	100 ml			1000 ppm					
			-K	M005-10-10									
			-Si	M004-80-13	10 ml			100 ppm					
8/27/13	M082713C		ICV - Mix-STD - # I	M006-09-02	2.0 ml	See SOP App. C		See SOP App. C					
			II	M006-09-07									
			III	M005-22-18									2/28/14
			IV	M006-09-05	4.00 ml								
			V	07-07 M005-22-21	2.0 ml								4/30/14
			Interference-STD-#1	469 8/27 M005-22-21	1.0 ml								
			P	M006-05-22									
			Na	-23									
			Sn	M005-06-09A	1.050 ml								
8/27/13	M082713D	Hg	MERCURY STANDARD	M052913A	1 ml	100 ppm	100 ml	1.0 ppm	5% HNO3	M006-12-07	9/27/13	709	
1	M082713E	1	ACERNER TRICE	M005-05-07	1 ml	100 ppm	1	1.0 ppm	1	1	1	1	

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL		FINAL		SOLVENT		EXPIR. DATE	PREP BY	COMMENTS
					AMOUNT	CONC.	VOLUME	CONC.	NAME	ID #			
8/27/13	M082713F	6010/200.7	LLCV-SID – Sb	M082713A	0.015	100ppm	100ml	0.015ppm	6% HNO3 5% HCl	M06-12-07 M006-12-06	08/27/14	469	
			– As		0.010ml			0.010ppm					
			– Be		↓			↓					
			– Cd										
			– Co		↓			↓					
			– Ca		0.100ml			0.100ppm					
			– Cr		0.010ml			0.010ppm					
			– Cu		↓			↓					
			– Fe		0.10ml			0.100ppm					
			– Mg		↓			↓					
			– Mn		0.005ml			0.005ppm					
			– Mo		0.010			0.010ppm					
			– Ni		↓			↓					
			– P		0.10ml			0.10ppm					
			– Se		0.015ml			0.015ppm					
			– Sr		0.030ml			0.030ppm					
			– Tl		0.015ml			0.015ppm					
			– Sn		0.050ml			0.050ppm					
			– Ti		0.030ml			0.030ppm					
			– Pb		0.010ml			0.010ppm					

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
8/27/13	M082713F	6010/200.7	LLCV-STD – V	M082712A	0.010 mL	100 ppm	100 mL	0.010 ppm	6% HNO3 5% HCl	M006-12-07 M006-12-06	8/27/14	489	
			– Zn	↓	↓	↓	↓	↓	↓	↓	↓	↓	
			– Al	M082713B	0.05 mL			0.05 ppm					
			– Ba		0.010 mL			0.010 ppm					
			– B		0.020 mL	↓		↓					
			– Na		0.05 mL ~~0.5 mL~~ 489 8/27	1000 ppm		0.5 ppm					
			– K		↓	↓		↓					
			– Si		0.050 mL	100 ppm		0.050 ppm					
			– Ag	↓	0.005 mL	50 ppm	↓	0.005 ppm	↓	↓	↓	↓	
08/28/13	M082713A M082713B Re 8/27/13	6020/200.8	Ca/STD #2	M006-05-14	0.5 mL	100 ppm Fe 8/27/13	250 mL	200 µg/L	1% HNO3	M006-12-07	2/28/14	SB	
			Ca/STD #3	M006-11-20	2.5 mL	1000 ppm Re 8/27/13		10 ppm					
			BORON	M082013C	1.25 mL	1000 ppm		500 µg/L					
	M082813B		ICV + 45000 µg/L Fe – SP1	M082713A	0.1 mL	100 ppm	100 mL	100 µg/L			8/27/14		
			– SP2	M082713B	0.1 mL	↓	↓	↓			↓		
			– Fe	M006-10-13	0.0045 mL	10,000 ppm	↓	5 ppm			↓		
	M082713C		Interferents A	M006-08-20	5.0 mL	20 – 10,000	500 mL	0.1 – 100 µg/L			2/28/14		
	↓		Analytes B	M006-08-04	0.5 mL	5-100	↓	5-100 µg/L			↓		
	M082713D		Interferents A	M006-08-20	5.0 mL	20 – 10,000	↓	0.1 – 100 µg/L			↓		
	M082713E		TUNE	M006-08-17	0.5 mL	10 ppm	500 mL	10 µg/L			↓		
	~~M082713F~~	Re 8/27/13	10 ppm SP1 & SP2										

Book Number: 7

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
9/16/13	M09163B	6020/200.7	Dual Detector										
			Inst. Cal. STD #2	M006-07-17	0.2 mL	100 ppm	100 mL	0.2 ppm	1% HF/1% HNO3	M006-11-06 M006-12-07	9/30/14	SJ	
			#3	M006-11-20	0.05 mL	1000 ppm		0.5 ppm Re 9/16/13					
			BORON	M08013C	1.0 mL	100 ppm		1.0 ppm					
			INTERNAL STD MIX	M07713A	0.3 mL	[illegible]		0.06-1.0					
9/16/13	M09163C		5 ppm A1	M006-11-06	0.5 mL	1000 ppm	100 mL	5 ppm	1% HNO3	M006-12-07	3/16/14	SJ	
			5 ppm B	M005-12-15	0.5 mL	1000 ppm	100 mL Re 9/16/13	5 ppm		Re 9/16/13			
09/27/13	M092713A M09 469 9/27	6010B/200.7	Calib. STD - #1	469 9/27 10 M006-09-09	15 ml	See Prep App. C	See Prep App. C	See Metal STD	6% HNO3 5% HCl	M006-12-07 M006-12-06	05/06/14	469	
			-7	469 9/27 10 M006-09-10		Metal		App. C					
			-8	469 9/27 10 M006-09-11	60 ml								
			-10	469 9/27 10 M006-09-12	7.5 ml								
			-11	469 9/27 10 M006-09-13	6.0 ml								
			Na	M006-03-14									
			K	M006-03-15	3.0 ml								
			P	M006-07-19	1.2 ml								
			Zn	M006-07-20	0.250 ml								
9/30/13	M092713B	Hg	MERCURY STANDARD	M052913A	1 ml	100 ppm	100 ml	1.0 ppm	5% HNO3	M006-12-13	10/27/13	769	
	M092713C		ACERNER TRICE	M005-05-07	1 ml	100 ppm		1.0 ppm					
09/30/13	M053013A	1640	Internal STD - Li	M006-10-04	16 mL	1000 ppm	40 mL	400 ppm	1% HNO3	M006-11-01	03/30/14	SJ	
			-Ga	M005-11-01	8 mL	1000 ppm		200 ppm				SJ	

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
09/30/13	M093013A	1640	Internal STD Tb	M005-05-06	8 mL	1000 ppm	40 mL	100 ppm	1% HNO3	M006-11-09	03/30/14	534	
			In	M006-10-25	4 mL	1000 ppm							
	M093013B		Internal STD	M093013A	200 µL	100-400 ppm	2 L	10-40 ppb	2 L mL HNO3 2 L H2O	M006-11-09			
10/03/13	M100313A	ORG-Pb	Calib. STD Pb(Cl2)	M006-01-03	0.2684 g	Neat	200 ml	1000 ppm	10% 336/MIBK	R10031303	12/06/03/14 469 10/3	469	
	-B		ICV - Pb(Cl2)	M006-07-04	0.1342 g		100 ml	1000 ppm					
	-C		Pb Spiked Sol.	M004-33-05	0.1 ml		100 ml	1059 ppm	Xylene	M005-25-10	12/03/13		
10/10/13	M101013A	1631	1000 ppm STD (10 ppm)	M006-06-10	1 ml	1000 ppm	100 ml	10 ppm	2% HCl	M006-10-01	4/10/14	110	
	B		1000 ppm STD ICV (10)	M006-10-15	1 ml	1000 ppm	100 ml	10 ppm					
	C		10 ppm (100 ppb STD)	M101013A	1 ml	10 ppm	100 ml	100 ppb			11/10/13		
	D		10 ppm (100 ppb ICV)	M101013B	1 ml	10 ppm	100 ml	100 ppb					
	E		100 ppb (100 ppt STD)	M101013C	0.1 ml	100 ppb	100 ml	100 ppt					
	F		100 ppb (100 ppt ICV)	M101013D	0.1 ml	100 ppb	100 ml	100 ppt					
10/25/13	M102513A	Hg	Mercury Standard	M052913A	1 ml	100 ppm	100 ml	1.0 ppm	5% HNO3	M006-12-13	11/25/13	769	
	M102513B		Acemes Trice	M005-05-07	1 ml	100 ppm		1.0 ppm					
10/26/13	M102613A	6010/200.7	Spike Sol. #3 Bi, Li, S	M006-11-17 M005-17-17 M006-11-13	10 ml	1000 ppm	100 ml	100 ppm	5% HCl 6% HNO3	M006-1206 M006-12-07	10/26/14	469	used for Spiked Sol
11/01/13	M110113A	6020/200.7	Internal STD Conc.										
			Sc	M006-10-24	100 mL	1000 ppm	500 mL	200 ppm	1% HNO3	M006-11-09	11/06/14	[illegible]	
			Li6	M006-10-04	50 mL			100 ppm					
			Ga	M006-10-06	50 mL			100 ppm					
			In	M006-13-14	10 mL			20 ppm					

Reagent Preparation Logbook

PREP DATE	NEW REAGENT ID #	TEST METHOD	REAGENT DESCRIPTION	SOURCE CHEMICAL(S) NAME	SOURCE CHEMICAL(S) ID #	SOURCE CHEMICAL(S) INITIAL AMOUNT	SOLVENT NAME	SOLVENT ID #	FINAL VOLUME	EXPIR. DATE	PREP BY	COMMENTS
4-5-13	R04051301	6010/6020	1:2 HCl	HCl	M006-08-24	08.33L	DI H_2O	D04051301	2.5L X3	4-5-14	850	
4-9-13	R04091301	ORG. Pb	Reaget Blank	Xylene MIBK	M005-25-10 M005-19-14	40ml 60ml	Xylene MIBK	M005-25-10 M005-19-14	100ml	10-9-13	469	
04/09/13	R04091302	TCLP	1.N NaOH	NaOH	M006-03-02	160gram	DI-water	D04091301	4L X 7	04/08/14	805	Source: 08/01/15
4-9-13	R04091303	6010/6020	1:2 HCl	HCl	M006-08-24	08.33L	DI H_2O	D04091302	2.5L X 12	4-9-14	850	
04/10/13	R04101301 ~~R04091304~~ ~~S.C. 04/10/13~~	STLC	4.N. NaOH	NaOH	M006-03-02	640gram	DI-water	D04101301	4L X 2	04/09/14	805	Source: 08/01/15
04/10/13	R04101302	Hg	5% $K_2S_2O_8$	$K_2S_2O_8$	M006-04-21	500g	DI-water	D04101301	10L	4/10/14	769	
4/11/13	R04111301	1631	2% HCl	HCl	M006-08-07	40mL	DI H_2O	D04111301	2L X 2	10/11/13	850	Source 11/05/15 Daily
4/18/13	R04181301	Hg	5% $KMnO_4$	$KMnO_4$	M006-04-14	1000g	DI H_2O	D04181301 ~~R~~	20L	4/18/13	769	
4/19/13	R04191301	1640	4M HCl	HCl	M006-08-07	200mL	DI H_2O	D04191301	500mL X3	10/19/13	850	02/07/13 Daily
04/19/13	R04191302	TCLP	1.N NaOH	NaOH	M006-03-02	160gram	DI-water	D04191302	4L X 1	04/18/14	805	Source: 08/01/15
4/22/13	R04221301	1640	1% HNO_3	HNO_3	M006-08-23	10mL	DI H_2O	D04221301	1L X 2	10/22/13	850	Source 08/20/15
↓	R04221302	↓	2% HNO_3	HNO_3	M006-08-23	80mL	DI H_2O	D04221302	4L X 1	10/22/13	↓	Source 08/20/15
↓	R04221303	↓	H_2O_2 Hydride	H_2O_2 HNO_3	M005-17-08 M006-08-23	4mL 20mL	DI H_2O	D04221303	1L X 1	10/22/13	↓	↓
4/23/13	R04231301	6010/2007	Calib-Blank	6% HNO_3 5% HCl	M006-09-11 M006-09-12	60ml HNO_3 50ml HCl	DI H_2O	D042313	1L X 1	4/23/14	469	These Solution
↓	02	↓	Reagent Blank	↓	↓	↓	↓	↓	↓	↓	↓	are made Daily
↓	03	↓	Wash solution	10% HNO_3 10% HCl	↓	100 ml HNO_3 100m HCl	↓	↓	1L X 4	↓	↓	or as needed
↓	04	↓	Carrier Solution	↓	↓	↓	↓	↓	2L X 2	↓	↓	↓
4/23/13	R04231305	6010/6020	1:1 HNO_3	HNO_3	M006-09-14	1.25L	DI H_2O	D04231305	2.5X12	4/23/14	850	
4/29/13	R04291301	6010/6020	1:2 HCl	HCl	M006-09-17	0.833X6	DI H_2O	D04291301	2.5X6	4/29/14	850	
4/30/13	R04301301	6010/6020	1:1 HNO_3	HNO_3	M006-09-19	1.25L	DI H_2O	D04301301	2.5X12	4/30/14 ~~4/30/15~~	850	

BT 4/30/13

Book Number: 4 XX 4/24/13

Return to Contents

Reagent Preparation Logbook

PREP DATE	NEW REAGENT ID #	TEST METHOD	REAGENT DESCRIPTION	SOURCE CHEMICAL(S) NAME	SOURCE CHEMICAL(S) ID #	SOURCE CHEMICAL(S) INITIAL AMOUNT	SOLVENT NAME	SOLVENT ID #	FINAL VOLUME	EXPIR. DATE	PREP BY	COMMENTS
08/28/13	R08281302	sand out	10% HNO_3	HNO_3	M006-12-07	100	DI WATER	D082813	2X 1L	8/28/14	771	
08/30/13	R08301301	Metal	1:2 HCL	HCL	M006-12-14	0.8333L	DI-water	D08301301	2.5L X 12	08/29/14	879	
08/30/13	R08301302	TCLP	1.N NaOH	NaOH	M006-09-18	160gram	DI-water	D08301302	4L X 1	08/29/14	805	04/28/16
09/04/13	R09041301	200.7	1:4 HCl	HCl	M006-12-06	200ml	DI water	D09041301	250ml	09/4/14	771	
09/11/13	R09111301	Metal	1:2 HCl	HCl	M006-12-14	0.8333 L	DI H_2O	D09111301	2.5 L x 9	9/11/14	879	
9/12/13	R09111302	↓	1:1 HNO_3	HNO_3	M006-12-13	1.25 L x 8	↓	↓	2.5 L x 8	↓	↓	
9/12/13	R09121301	Hg	5% $KMnO_4$	$KMnO_4$	M006-12-05	1000g	DI H_2O	D09121301	20L	9/12/14	769	
9/16/13	R09161301	Metal	1:1 HCl	HCl	M006-12-15	1.25 L x 4	↓	D09161301	2.5 L x ~~2~~ 4	9/16/14	781	
9/16/13	R09161302	Hg	1:1 Aqua Regia	HCL HNO3	M006-12-14 M006-12-13	150ml 50ml	DI H_2O	D09161302	400ml KCW 9/16/13	9/16/14	769	Daily fresh
9/17/13	R09171301	Metal	1:1 HNO3.	HNO3.	M006-12-17	1.25L x	DI-water	D09171301	2.5X	09/16/14		
9/18/13	R09181302	Metal	1:2 HCL	HCL	M006-12-15	0.8333L	DI H_2O	D09181301	2.5L x 9	9/18/14	769	
|	R09181301 ~~R09181302~~ AC 9/18/13	|	1:1 HNO3	HNO3	M006-12-18	1.25L	|	D09181302 ~~D08~~ AC 9/18/13	2.5L x 10	|	|	
09/23/13	R09231301	TCLP	1.N NaOH	NaOH	M006-09-18	160gram	DI-water	D09231301	4L x 3	09/22/14	805	04/28/16.
09/23/13	R09231302	ST2C	4.N NaOH	NaOH	M006-09-18	640gram	DI-water	D09231302	4L x 2	09/22/14	805	04/28/16
9/25/13	R09251301	Metal	1:1 HNO_3	HNO_3	M006-12-20	1.25 L x 10	↓	D09251301	2.5 L x ~~9~~ 10 KCW 9/25	9/25/14	781	
	R09251302	|	1:2 HCl	HCl	M006-12-21	0.8333 L x 9	↓	↓	2.5 L x 9	↓	↓	
09/25/13	R09251303	TCLP	1.N NaOH	NaOH	M006-09-18	160gram	DI-water	D09251303	4L x 2	09/24/14	805	04/28/16.
09/26/13	R09261301	ST2C	4.N NaOH	NaOH	M006-09-18	640gram	DI-water	D09261301	4L x 2	09/25/14	805	04/28/16
9/26/13	R09261302	(Soil) 200.7	1:4 HCl	HCl	M006-12-06	2.5 L ml x 1 100 x 2	↓	↓	500 ml x 2	9/26/14	781	
09/26/13	R09261303	TCLP	1.N NaOH	NaOH	M006-09-18	160gram	DI-water	D09261303	4L x 1	09/25/14	805	04/28/16.

Book Number: 4 in 9/30/13

Return to Contents

Reagent Preparation Logbook

PREP DATE	NEW REAGENT ID #	TEST METHOD	REAGENT DESCRIPTION	SOURCE CHEMICAL(S) NAME	SOURCE CHEMICAL(S) ID #	SOURCE CHEMICAL(S) INITIAL AMOUNT	SOLVENT NAME	SOLVENT ID #	FINAL VOLUME	EXPIR. DATE	PREP BY	COMMENTS
09/30/13	R093013O1	1640	BUFFER	HAc NH4OH	M006-01-19 M006-02-10	140mL 160mL	DI-WATER	D093013O1	1L X2	03/30/14	SH	
↓	R093013O2	↓	Hydride HCl	HNO3 H2O2	M006-11-09 M005-17-08	4mL 20mL	↓	↓	1L	03/30/14		
↓	R093013O3	↓	Hydride	NaOH NaBH4	M006-01-21 M006-09-16	0.4 g 4 g	↓	↓	200mL X2	03/30/14		
10/1/13	R10013O1	Hg	12% NH2OH-HCl/NaCl	NH2OH-HCl NaCl	M006-13-01 M006-12-12	2400g 2400g	DI H2O	D10013O1	20L	10/1/14	769	
10/03/13	R10031301	TCLP	1.N NaOH	NaOH	M006-09-18	160 gram	DI-water	D10031301	4LX1	10/03/14	805	04/28/16
10/03/13	R10031302 ~~R09031302~~	ORG. Pb	3% I_2	I_2	G003-54-21 M006-09-09	6g	Benzene	M006-09-09	200ml	06/03/14	469	
469 10/9	R10031303 ~~R09031~~	↓	10% 336/MIBK	336/MIBK	M006-05-01 M005-19-14	450 ml +50 ml	MIBK	M005-19-14	500ml	↓	↓	
↓	R10031304	↓	1% 336/MIBK	↓	R10031303 M005-19-14	20 ml	10% 336/MIBK	M005-19-14	200 ml	↓	↓	
↓	R10031305	↓	Calib Blank 40% Xylene + 60 MIBK	Xylene MIBK	M005-25-10 M005-19-14	400ml 600 ml	Xylene MIBK	M005-25-10 M005-19-14	1000 ml	11/15/14	↓	Daily prepared
10/07/13	R10073O1	METALS	0.4% HCl	HCl	M006-12-22	10mL	DI WATER	D10073O1	250mL X4	10/07/14	SH	
10/08/13	R10081301	TCLP	1.N NaOH	NaOH	M006-09-18	160 gram	DI-water	D10081301	4LX1	10/07/14	805	04/28/16
↓	R10081302	STLC	4.N NaOH	NaOH	M006-09-18	640 gram	DI-water	D10081302	4LX1	10/09/14	805	04/28/16
10/8/13	R10081303	Metal	1:1 HNO3	HNO3	M006-13-08	1.25L	DI H2O	D10081303	2.5LX8	10/8/14	769	
↓	R10081304	↓	1:2 HCL	HCL	M006-13-09	0.833L	↓	D10081304	2.5LX12	↓	↓	
10/11/13	R10111301	Hg	5% KMnO4	KMnO4	M006-12-05	1000g	DI H20	D10111301	20L	10/11/14	769	
10/11/13	R10111302	Metal	0.5 N. HNO3	HNO3	M006-12-20	8ml	DI-water	D10111302	250mX1	10/10/14	805	
10/18/13	R10181301	Metals	1:1 HNO3	HNO3	M006-13-11	2.5L	DI-water	D10181301	2.5LX16	10/10/14	879	
10/23/13	R10231301	Hg	5% $K_2S_2O_8$	$K_2S_2O_8$	M006-04-21	500g	DI H20	D10231301	10L	10/23/14	769	
10/23/13	R10231302	TCLP	1.N NaOH	NaOH	M006-09-18	160 gram	DI-water	D10231302	4LX3	10/22/14	805	04/28/16
10/23/13	R10231303	STLC	4.N NaOH	NaOH	M006-09-18	640 gram	DI-water	D10231303	4LX1	10/22/14	805	04/28/16

Reagent Preparation Logbook

PREP DATE	NEW REAGENT ID #	TEST METHOD	REAGENT DESCRIPTION	SOURCE CHEMICAL(S) NAME	SOURCE CHEMICAL(S) ID #	SOURCE CHEMICAL(S) INITIAL AMOUNT	SOLVENT NAME	SOLVENT ID #	FINAL VOLUME	EXPIR. DATE	PREP BY	COMMENTS
10/25/13	R1025B01	Hg	5% KMnO4	KMnO4	M006-12-05	1000g	DI H2O	D1025B01	2L	10/25/14	769	
10/29/13	R1029B01	TCLP	1.N NAOH	NaOH	M006-09-18	160 gram	DI-water	D1029B01	4L X2	10/28/14	805	04/28/16
10/29/13	R1029B02	STLC	4.N NaOH 1:2 HCL	NaOH	M006-09-18	640 gram	DI-water	D1029B02	4L X2	10/28/14	805	04/28/16
11/1/13	R1101B01	Metals	~~1:1 HNO3~~ ~~HCL~~ VK 11-1-13	~~HNO3~~ HCL	M006-13-13	~~8.5L~~ 0-8333L	DI-water	D1101B01	2.5L X15	11/1/14	879	
11/05/13	R1105B01	TCLP	1.N NaOH	NaOH	M006-09-18	160 gram	DI-water	D1105B01	4L X1	11/04/14	805	04/28/16
11/05/13	R1105B02	Metals	1:1 HNO_3	HNO_3	M006-13-20	~~2.5L~~ 1.25L	DI-WATER	D1105B02	2.5L X18	11/05/14	879	
11/12/13	R1112B01	Hg	12% NH2OH-HCl/NaCl	NH2OH.HCl NaCl	M006-13-01 M006-12-12	2400g 2400g	DI H2O	D1112B01	20L	11/12/14	769	
11/12/13	R1112B02	1	5% KMnO4	KMnO4	M006-12-05	1000g	DI H2O	D1112B02	20L	11/12/14	769	
11/25/13	R1125B01	Metals	1:1 HNO_3	HNO_3	M006-13-23	~~2.5L~~ 1.25L	DI-WATER	D1125B01	2.5L X4	11/25/14	879	
11/27/13	R1127B01	Metals	1:1 HNO_3	HNO_3	M006-13-23	~~2.5L~~ 1.25L	DI WATER	D1127B01	2.5L X2	11/27/14	879	
11/29/13	R1129B01	Metals	1:1 HNO_3	HNO_3	M006-~~14-01~~ 13-23	~~2.5L~~ 1.25L VK 11/27/13	DI-WATER	D1129B01	2.5L X4	11/27/14	879	
12/0-/13	R1202B01	Hg	1:1 Aqua Regia	HCl HNO_3	M006-13-24 M006-13-23	150 ml 50 ml	DI H2O	D1202B01	400 ml	12/2/14	769	Daily Fresh.
12/02/13	R1202B02	Metals	1:2 HCL	HCL	M006-13-24	~~2.5L~~ 0.8333L	DI WATER	D1202B01	2.5L X3	12/2/14	879	VK 12-4-13 3 bottles
12/03/13	R1203B01	TCLP	1.N NaOH	NaOH	M006-09-18	160 gram	DI-water	D1203B01	4L X3	12/02/14	805	04/28/16
12/03/13	R1203B02	STLC	4.N NaOH	NaOH	M006-09-18	640 gram	DI-water	D1203B02	4L X1	12/02/14	805	04/28/16
12/4/13	R1204B01	Hg	5% KMnO4	KMnO4	M006-12-05	1000g	DI H2O	D1204B01	20L	12/4/14	769	
12/04/13	R1204B02	TCLP	1.N HCL	HCL	M006-13-24	33.32 ml	DI-water	D1204B02	400 ml X1	12/04/14	805	11/13/16
12/4/13	R1204B03	Metals	1:1 HNO_3	HNO_3	M006-~~14-03~~ 13-23	~~2.5L~~ 1.25L VK 12/4/13	DI-WATER	D1204B03	2.5L X7	12/04/14	879	
12/5/13	R1205B01	Metals	1:2 HCL	HCL	M006-14-04	~~2.5L~~ 0.8333L	DI-WATER	D1205B-1	2.5L X 15	12/5/14	879	Lot # Verified
~~12/12/13~~ 12-05-13	R1212B01	TGO	1% HNO_3	HNO_3	M006-11-09	10 mL	DI-water	D1212B01	1L X2	12/12/14	776	03/22/16

776 12/12/13
Book Number: _____

CHEMICAL RECEIVING LOGBOOK # 4

LINE NO.	CHEMICAL	SOURCE	CATALOG NO.	LOT NO.	EXP. DATE	AMOUNT RECEIVED	TYPE CONT.	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO
1	Hydrochloric Acid	EMD	HX0607/4	47333	03-12-12	2.5	G	03-13-09	MC	03-13-09	MC
2											
3											
4											
5											
6											
7	Sodium	Ultrascience	ICP-111-5	J00751	9/30/15	500ml	P	3-14-09			
8	↓		↓	↓	↓	↓	↓	↓			
9	Potassium		ICP-119-5	~~J01~~ J01077	12/31/15						
10	↓		↓	↓	↓	↓	↓		↓		
11	Aluminum		ICP-113	H00903	12/31/10	125ml					
12	Boron		ICP-105	H00012A	12/31/16						
13	Silicon		ICP-114	J00332	5/31/15						
14	Barium		ICP-156	H01038	1/31/15						
15	Yttrium		ICP-139	H00780	11/30/10						
16	Holmium	↓	ICP-167	G00097A	5/31/15	↓	↓	↓	↓	↓	
17	Xylenes	Fisher	CAS1330-20-7	086766	3-23-12	4 L	G	3-24-09	JC	3-24-09	JC
18											
19											
20											
21	Hydrochloric Acid	EMD	HX0607/4	47333	04-06-12	2.5	G	04-07-09	MC	04-07-09	MC
22											
23											
24											
25											

Reviewed by: _____ on 3/18/09

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Nitric Acid	EMD	NX0407/4	52088	8/31/15	2.5LX2	G	8/31/12	469	8/31/12	469	
2	Hydrochloric Acid	EMD	HX0607/4	51122	8/31/15	2.5LX2	G	8/31/12	469	8/31/12	469	
3	↓	EMD	HX0607/4	51258	↓	2.5LX2	G	8/31/12	↓	↓	↓	
4	Instrument Calibration STD #3	SPEX	CL-6AC-3	CL43-8443	08/30/13	125mLX2	P	09/06/12	SSF	09/06/12	SSF	
5	Instrument Calibration STD #2	SPEX	CL-CAL-2	CL5-1184P	08/30/13	1LTmL	P	09/06/12	SSF	09/06/12	SSF	
6	Hydrochloric Acid	EMD	HX0607/4	51258	09/07/15	2.5LX7	G	09/07/12	805	09/07/12	805	
7	↓	↓	HX0607/4	51122	↓	2.5LX3	G	↓	↓	↓	↓	
8	↓	↓	HX0607/4	51181	↓	2.5LX1	G	↓	↓	↓	↓	
9	Nitric Acid	EMD	NX0407/4	52012	09/06/15	2.5LX10	G	09/07/12	805	09/07/12	805	
10	↓	↓	↓	52088	↓	2.5LX1	G	↓	↓	↓	↓	
11	HCL Acid	EMD	HX0607/4	51258	09/13/15	2.5LX8	G	09/14/12	805	09/14/12	805	
12	Nitric Acid	EMD	NX0407/4	52012	09/13/15	2.5LX8	G	09/14/12	805	09/14/12	↓	
13	Stannous Chloride	VWR	BDH0304-500G	131963	NA	500gX5	P	9/17/12	769	9/17/12	769	
14	Potassium Permanganate	Fisher	P279-212	116168	9/18/17	2.5kgX4	G	9/18/12	769	9/18/12	769	
15	Acetic Acid, Glacial	Amresco		2372C462	02/30/13	2.5LX4	G	09/18/12	805	09/18/12	805	
16	Hydrogen Peroxide	EMD	HX0635-2	51283217	10/31/13	1LX6	P	9/26/12	769	9/26/12	769	
17	Nitric Acid	EMD	NX0407/1	52012	9/27/15	500mL	G	9/27/12	SSF	9/27/12	SSF	
18	↓	↓	↓	51331	↓	500mLX8	↓	↓	↓	↓	↓	
19	Nitric Acid	Fisher	A467-2	121020	2/23/15	2LX2	T	10/3/12	776	10/3/12	776	
20	Acetic Acid	Fisher	A507-P212	611071	6/2014	2.5LX2	P	10/3/12	776	10/3/12	776	
21	Potassium Persulfate	Fisher	P281-500	120909	10/5/15	500gX12	P	10/5/12	769	10/5/12	769	
22	Hydroxylamine Hydrochloride	ACROS	41205000	A0315671	10/5/17	500gX6	↓	↓	↓	↓	↓	
23	Nitric Acid	EMD	NX0407/4	52012	10/08/15	25X5	G	10/08/12	805	10/08/12	805	
24	Hydroxylamine Hydro	ALDRICH	431362-50G	MKBL3754V	10/8/17	50g	P	10/8/12	776	10/8/12	776	
25	Stannous Chloride Dihydrate	Fisher	T163-500	122943	10/9/17	500gX6	P	10/9/12	776	10/9/12	776	

COMMENTS:

Book Number: 6 — 9/19/12

Chemical and Supply Receiving Logbook #5

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Scandium	AccuTrace	ICP-MS-50N-0.1X-1	B8065146	06/2013	100mL	P	05/12/10	FC	05/12/10	FC	
2	Gallium		ICP-MS-20N-0.1X-1	B9025085	02/2014							
3	Bismuth		ICP-MS-10N-0.1X-1	B8105119	10/2013							
4	Terbium		ICP-MS-5PPB-0.1X-1	B8125114	12/2013							
5	Holmium		ICP-MS-2PPB-0.1X-1	B8055135	05/2013							
6	Indium		ICP-MS-2.5PPB-0.1X-1	B7025R5-1A	04/2014							
7	Hg		ICP-MS-3PPB-0.1X-1	B7045054A	06/2014							
8	Hydrochloric Acid	EMD	HX0607/4	49328	5/24/13	2.5LX5	G	5/24/10	AC	5/24/10	AC	
9	Hydro Fluoric Acid	BDH ARISTAR	BDH3010-500MP	201004213	5/25/13	500ml	P	5/25/10		5/25/10		
10	Hydrogen Peroxide	EMD	HX0635/2	50095018	4/30/2012	1.0LX8	P	5/25/10	AC	5/25/10	AC	
11	$CH_3CHOHCH_3$	BDH	BDH1133-	011110B	5/25/13	4.0LX4	G	5/25/10	MW	5/25/10	MW	
12	Nitric Acid	EMD	NX0407/1	49225	5/25/13	500mLX7	G	5/25/10	FC	5/25/10	FC	
13	"	"	"	49351	"	500mLX11	"	"	"	"	"	
14	Li 6	High Purity	100029-CI	1003306	11/07/11	100mL	P	5/27/10	FC	5/27/10	FC	
15	STANDARD – Sb	Ultra	ICP-151	K00854	09/30/16	125ml~~1000ml~~	P	5/29/10		5/29/10		
16	– As	Scientific	-133	J01221	1/31/16							
17	– Be		-104	J01222	1/31/16							
18	– Cd		-148	K00287	5/31/16							
19	– Co		-127	K00636	8/31/16							
20	– Ca		-120	K00189	3/31/16							
21	– Cr		-124	K00358	6/30/16							
22	– Cu		-129	K00443	6/30/16							
23	– Fe		-126	K00342	5/31/16							
24	– Pb		-182	K00720	8/31/16							
25	– Mg		-112	L00073	2/28/17							

COMMENTS:

in 6/7/10

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	STANDARD – Mn	Ultra	ICP-125	J00797	10/31/15	125 mL	P	5/29/10	[illegible]	5/29/10	[illegible]	
2	– Mo	Scientific	-142	K00889	9/30/16							
3	– Ni		-128	J00161	3/31/15							
4	– P		-115	H00514A	8/31/16							
5	– Se		-134	K00725	8/31/16							
6	– Cr		-138	K00147	8/31/16							
7	– Tl		-181	D00628B	2/28/15							
8	– Ti		-122	K00126	2/28/16							
9	A – Sn B – V		-150 -133	K00799 J01266	9/30/16 1/31/16							
10	– Zn		-130	K01082	11/30/16							
11	HCl	EMD	UN1789	49328	6-2-13	2.5x6	G	6-2-10	[illegible]	6-2-10	[illegible]	2.5x6
12	Terbium Standard	Ultra	ICP-165	H00138A	6/30/16	125mL	P	6/3/10	[illegible]	6-3-10	[illegible]	
13	BERYLLIUM	AccuTrace	ICP-MS-05MA0.0	2100511 7 X-1	05/2015	100mL	P	6/4/10	FL	6/4/10	FL	
14	NITRIC ACID	EMD	NX0407/4	49225	6/8/13	2.5Lx6	G	6/8/10	ML	6/8/10	ML	HX0607/4
15	HCl	EMD	~~CAS 7647-01-0~~	49328	6/11/13	2.5Lx6	G	6/11/10	[illegible]	6/11/10	[illegible]	2.5x6 8/27
16	ICP-Multielement calibration standard 1	HIGH-PURITY STANDARDS	ICP-MCS-1	1004616	5/7/2011	250mL	P	6/11/10	FL	6/11/10	FL	
17	Ammonium Hydroxide	BDH	87003-214	7240010	01/26/13	500mL	P	6/16/10	EM	6/16/10	EM	
18	"	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
19	"	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
20	NITRIC ACID	EMD	NX0407/4	49225	6/21/13	2.5Lx8	G	6/21/10	AC	6/21/10	AC	2.5Lx8
21	Acetic Acid	EMD	AX0078/7	49273	6/23/13	250mL	P	6/23/10	EM	6/23/10	EM	250mL x4
22	HCl	EMD	HX0607/4	49254	6/23/13	2.5Lx7	G	6/23/10	AC	6/23/10	AC	2.5Lx7
23	NITRIC ACID	EMD	NX0407/4	49225	6/23/13	2.5Lx4	G	6/23/10	AC	6/21/10	AC	2.5Lx4
24	Tin (II) chloride ($SnCl_2$)	Fisher	~~T143-500~~	096665	6-24-13	500g x6	P	6-24-10	K	6-24-10	K	T143-500
25	Potassium Persulfate ($K_2S_2O_8$)	J.T.Baker	~~3239-05~~	H02H06	↓	2.5 kg	↓	↓	↓	↓	↓	

K 6-24-10

COMMENTS:

K 6/14/10

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	HCL	EMD	HX0607/4	49328	6/30/13	2.5x3	G	6/30/10	AC	6/30/10	AC	
2	Nitric Acid	EMD	NX0407/4	49225	7/1/13	2.5Lx5	G	7/1/10	AC	7/1/10	AC	
3	6010A Mixed Standard Sol. I	Ultra scien.	ICM-601	K00177	3/31/13	125ml	P	6/30/10	[illegible]	7/1/10	[illegible]	
4	II		-602	K00727	8/31/13							
5	III		-603	K00121	2/28/13							
6	IV		-604	G00358A	7/31/12							
7	V		-605	L00218	4/30/14							
8	ICP Multielement Calib. STD - # 8	High Purity	ICP-MCS-8	1004622	5/7/11	500x2	P	7/1/10				
9	-10		ICP-MCS-10	1007535		125ml						
10	-11		ICP-AM-11	1012705								
11	Hydrogen Peroxide	EMD	HX0635-2	50095018	4/30/2012	1.0Lx6	P	7/7/10	AC	7/7/10	AC	
12	Wide-Mouth Unitary Wash Bottle	Thermo Scientific		1020359	~~7/8L~~	1Lx12	P	7/8/10	[illegible]	7/8/10	[illegible]	
13	NITRIC ACID	EMD	NX0407/4	49225	~~2.5Lx3~~ 7/8/13	2.5Lx3	G	7/8/10	AC	7/8/10	AC	
14				49308	~~2.5L~~ AC	2.5L						
15				50123	~~2.5L~~ 7/8	2.5L						
16	Hydrochloric Acid	EMD	HX0607/4	49328	7/8/13	2.5Lx5	G					
17	Stannous Chloride Dihydrate $SnCl_2 \cdot 2H_2O$	EMD	SX0885-1	B0477939-007	7-8-13	500g x 8	G	7-8-10	[illegible]	7-8-10	[illegible]	
18	NITRIC ACID	EMD	NX0407/4	50123	7/15/13	2.5Lx6	G	7/15/10	AC	7/15/10	AC	
19	Hydrochloric Acid	EMD	HX0607/4	49254	7/15/13	2.5Lx6	G	7/15/10	AC	7/15/10	AC	
20	BUFFER SOLUTION PH 7.0	EMD	BX1635-1 ~~0172~~ 7-28-10	0172	30-Jun-12	500ml	P	7-28-10	MW	7-28-10	MW	
21	Citric Acid, Anhydrous	EMD	CX1723-3	49218935	7-28-15	2.5kgx4	P	7-28-10	MW	↓	↓	
22	NITRIC ACID	EMD	~~NO~~ NX0407/2	49225	7/28/13	2.5Lx10	G	7/28/10	AC	7/28/10	AC	
23	Hydrochloric Acid	EMD	HX0607/4	49254	7/28/13	2.5Lx13	G	7/28/10	AC	7/28/10	AC	
24	HNO_3	EMD	NX0407/4	45003	8/10/13	KCN 7/23/10 2.5Lx8	G	8/10/10	KCN	8/10/10	KCN	
25			NX0407/2	49225	8/10/13	2.5Lx5	G	8/10/10	AC	8/10/10	AC	

COMMENTS:

L 7/28/10

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Icp Ca/15 STD - 8	HIGH PURITY	Icp-mcs-8	1016604	11/19/11	500mL x2	P	11/23/10	FL	11/24/10	FL	
2	Icp ~~MIXTURE~~ Ca/16 STD - 10 FL 11/15		Icp-mcs-10	1007535		1000mL	P					
3	Icp - MIXTURE - 11		ICP-AM-11	1012705		1000mL	P					
4	Xylenes	EMD	XX0055-5	50207	11/23/13	4LX4	G	11/23/10	AL	11/23/10	AL	
5	Nitric Acid	EMD	NX0407/4	50243	11/23/13	2.5LX5	G	11/23/10	mw	11/23/10	mw	
6	Nitric Acid	EMD	NX0407/4	50243	12/2/13	2.5LX10	G	12/2/10	AL	12/2/10	AL	
7	HCL	EMD	HX0607/4	50196	12/2/13	2.5LX8	G	12/2/10	AL	12/2/10	AL	
8	Calcium	ULTRA SCIENTIFIC	ICP-120	K00564	10/31/16	125mL	P	12/07/10	FL	12/07/10	FL	
9	Silver		ICP-147	L00607	7/31/17	125.0	P	12/07/10		12/07/10		
10	Potassium		ICP-119-L	L0056	2/28/17	125.0						
11	Sodium		↓ -111-L	~~L~~ K00911	10/31/16							
12	Barium		ICP-156	K01087	11/30/16							
13	Zinc		ICP-130	K01082	↓							
14	Boron		ICP-105	J012643	1/31/16							
15	Aluminum		ICP-113	~~K~~ lot K 12/17 K00931	10/31/16							
16	Yttrium		ICP-139	L00467	5/31/17							
17	Multielement Interference check* 1	Accutrace	INT-01-1	210115105	12/12	100		12/8/10		12/8/10		
18	-2	Standard	-02-1	B1045120-4D	11/12							
19	-3		-03-1	B4025047-4D	11/12							
20	-4		-04-1	B7095026-2B	11/12							
21	Nitric Acid	EMD	NX0407/4	50198	12/13/13	2.5LX5	G	12/13/10	AL	12/13/10	AL	
22	HCL	EMD	HX0607/4	50196	12/13/13							
23	Hydrogen Peroxide	EMD	HX0635-2	50095018	4/30/12	1LX4	P	12/14/10	AL	12/14/10	AL	
24				50207032	7/31/12	1LX6						
25	Sodium Acetate ($NaC_2H_3O_2$)	BDH	BDH0278	81820	12/20/15	2.5x2	P	12/30/10	MN	12/30/10	MN	

COMMENTS:

12/23/10

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Sodium borohydride	ACROS	20005-1000	B01311244	10/19/16	100g	P	10/19/11	[illegible]	10/19/11	[illegible]	2x100g
2	Stannous Chloride	EMD	SX0885-1	B0710039	10-19-16	500g	G	10-19-11	587	10-19-11	587	
3	Sodium Hydroxide	ALFA	41281	D24T001	10/20/16	25g	P	10/20/11	[illegible]	10/20/11	[illegible]	2x25g
4	HCL	EMD	HX0607/4	51035	10/21/14	2.5L x5	G	10/21/11	769	10/21/11	769	
5	HNO_3	EMD	NX0407/2	51024	10/31/14	2.5L x4	G	10/31/11	781	10/31/11	787	
6	HCL	↓	NX0607/4	51035	↓	2.5L x6	↓	↓	↓	↓	↓	
7	HCL	VWR	87003-216	4211040	6/14/14	500ml x2	P	11/1/11	769	11/1/11	769	
8	Stannous Chloride	Fisher	T163-500	112261	11/1/14	500g x4	P	11/1/11	769	11/1/11	769	
9	Acetic Acid	EMD	AX0078/6	51151	11/1/14	1L x1	P	11/1/11	769	11/1/11	769	
10	Nitric Acid	EMD	NX0407/2	51024	11/1/14	2.5L x4	G	11/1/11	710	11/1/11	710	
11	Nitric Acid	EMD	NX0407/2	51024	11/8/14	2.5L x4	G	11/8/11	710	11/8/11	710	
12	HCl	EMD	HX0607/4	51122	↓	↓ x2 11/10/11	↓	↓	↓	↓	↓	
13	Xylenes	EMD	XX0055-5	51026.	11/15/14	2.5x4	G	11/15/11	710	11/15/11	710.	
14	MIBK	EMD	MX1300-3	50085103	↓	2.5x2	G	↓	↓	↓	↓	
15	Nitric Acid	EMD	NX0407/2	51153	11/17/14	2.5L x4	G	11/17/11	769	11/17/11	769	
16	Nitric Acid	|	NX0407/4	51024	|	2.5L x5	|	|	|	|	|	
17	HCL	EMD	HX0607/4	51122	11/17/14	2.5L x7	G	11/17/11	769	11/17/11	769	
18	HNO_3 KCN 11/17/11	↓	NX0407/2									
19	Single Element Standard - Sb	Ultra-	ICP-151	K00854	9/30/16	125	P	11/23/11	469	11/23/11	469	
20	- As	Scientific	-133	L00700	7/31/17	125	P	↓	↓	↓	↓	
21	- Be		-104	M00347	5/31/18	125						
22	- Cd		-127 148	L00406	5/31/17							
23	- Co		-127 120	M00842	9/30/18							
24	- Ca		-120 124	L01337	12/31/17							
25	- Cr		-124 129	K00358	6/30/16							

Tm 11/23/11

COMMENTS:

dx 11/15/11 w 12/15/11

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Single Element Standard – Cu	Ultra	ICP – ~~126~~ 129	L01250	11/30/17	125ml	P	11/23/11	469	11/23/11	469	
2	– Fe	Scientific	– 126	L00452	5/31/17							
3	– Pb		– 182	L00395	5/31/17							
4	– Mg		– 112	M00166	3/31/18							
5	– Mn		– 125	K00953	10/31/16							
6	– Mo		– 142	M00374	5/31/18							
7	– Ni		– 128	K00825	9/30/16							
8	– P		– 115	L01132	10/31/17							
9	– Se		– 134	L00860	8/31/17							
10	– Sr		– 138	K00147	3/31/16							
11	– Tl		– 181	L00430	5/31/17							
12	– Ti		– ~~182~~ 122	M00277	4/30/18							
13	– Sn		– 150	L01287	12/31/17							
14	– V		– 123	L01087	10/31/17							
15	– Zn		– 130	L01346	12/31/17							
16	Acetic Acid	FISHER	UN2789	6110071	June 2014	500mL x2	P	11/23/11	538	11/23/11	538	
17	Hydrochloric Acid	|	UN1789	4111060	06/2014	500mL x2	P	|	|	|	|	
18	Buffer Solution pH=7.0	EMD	BX1635-1	1089	03/30/13 ~~11/23/14~~	500x2	P	11/23/11	710	11/23/11	710	
19	↓	↓	↓	↓	SCL 06/26/12 SCL 06/26/12 ~~11/28/14~~ 03/30/13	500x4	P	11/28/11	710	11/28/11	↓	LTF: #2 P21-25
20	Sulfuric Acid H_2SO_4	EMD	SX1247-4	50348	11-29-14	2.5L x4	G	11-29-11	587	11-29-11	587	
21	HCL	EMD	HX0607/4	51122	11/29/14	2.5L x2	G	11/29/11	769	11/29/11	769	
22	~~NH~~ HNO3	|	NX0407/4 ~~NX0407/4~~	51153	|	2.5L x2	|	|	|	|	|	
23	Hydrochloric Acid	VWR	87003-46	4211040	06/14/14	500mL x2	T	11/30/11	538	11/30/11	538	
24	Sodium borohydride	ACROS	20005-1000 ~~16940~~	B0125743A	12/1/16	100g x2	P	12/1/11	769	12/1/11	769	
25	Hydroxylamine Hydrochloride	ALDRICH	431362-250G	MRBF7164V	12/1/16	250g	P	12/1/11	769	12/1/11	769	

COMMENTS:

L 12/15/11

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	NexION Dual Detector Calibration	PE	N8145059	12-1236GS	10/30/12	100mL	P	01/09/12	SH	01/09/12	SH	
2	KED Mode Detection Limit STD Sol.	PE	N8145058	11-2076GS	10/30/12	60mL						
3	KED Mode Detection Limit Blank Sol.	PE	N8145057	12-606GS	10/30/12	100mL						
4	STD/DRC mode Detection Limit STD Sol.	PE	N8145056	12-506GS	10/30/12	100mL						
5	STD/DRC mode Detection Limit Blank Sol.	PE	N8145055	12-604GS	10/30/12	100mL						
6	Cell Stability Solution	PE	N8145054	12-94GS	10/30/12	500mL						
7	KED mode Setup Solution	PE	N8145052	12-3GS	10/30/12	250mL						
8	Setup Solution	PE	N8145051	12-1149GS	10/30/12	500mL						
9	Rinse Solution	PE	N8145050	12-93GS	10/30/12	250mL						
10	HNO_3	EMP	NX0407/4	51153	1/10/15	2.5L x3	Cr	1/10/12	781	1/10/12	781	
11	HCl	|	HX0607/4	51122	01/10/15	2.5L x3	|	|	|	|	|	
12	Sodium Acetate, Trihydrate	BDH	BDH0278	123378	01/16/15	2.5kg x4	P	1-16-12	710	1/16/12	710	CTF: #40-4p21-12
13	Nitric Acid	EMD	NX0407/4	51153	1/19/14	2.5L x5 (4L, 2.5L, 2.5L, 2.5L, 2.5L)	G	1-19-12	SCL	1-19-12	SCL	
14	Uranium Standard	ULTRA	ICP-092	M00149	3/31/18	125mL	P	1-25-12	SH	1-25-12	SH	
15	HCl	BDH	7003-26	421140	6/14/14	Received 1L x2 / 500mL	T	|	|	|	|	
16	Mixed Standard - I	Ultra	ICM-601	K00177	3/31/13	125mL	P	1/25/12	469	1/25/12	469	
17	- II	|	-602	L00556	6/30/14	|	|	|	|	|	|	
18	- III	|	-603	L00066	2/28/14	|	|	|	|	|	|	
19	- IV	|	-604	G003582	7/31/15	|	|	|	|	|	|	
20	- V	|	-605	M00138	3/31/15	|	|	|	|	|	|	
21	Interference Check Std - 1	|	ICM-221	M00532	6/30/15	|	|	|	|	|	|	
22	Lithium	|	ICP ICM-003	L00937	9/30/17	|	|	|	|	|	|	
23	Sulfur	|	1125 469 -016	L01251	11/30/17	|	|	|	|	|	|	
24	Silicon	|	-114	L00333	4/30/18	|	|	|	|	|	|	
25	Bismuth	↓	-083	M00246	↓	↓	↓	↓	↓	↓	↓	↓

COMMENTS:

XX 3/15/12

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Hydrochloric Acid 1.0N	EMD	HX06030-8	#HC084476	01/30/13	500mx1	P	08/02/12	805	08/02/12	805	
2	Sodium Hydroxide (NaOH)	BDH	BDH0292	137301	08/01/15	2.5kg x4	P	08/02/12	805	08/02/12	805	CTF#3 P4-7
3	Sodium Borohydride	ACROS	16940-66-2	B0132929	01/2016	100g x2	P	08/08/12	776	08/08/12	776	
4	HNO3	EMD	NX0407/4	51332	08/09/15	2.5L x ~~3~~ 1 SLC 08/09/12	G	08/09/12	805	08/09/12	805	
5	↓	↓	NX0607/4	52088	↓	2.5x1	↓	↓	↓	↓	↓	
6	↓	↓	↓	52012	↓	2.5x1	↓	↓	↓	↓	↓	
7	HCL	EMD	HX0607/4	51122	08/09/15	2.5L x2	G	08/09/12	805	08/09/12	805	
8	↓	↓	↓	51181	↓	2.5L x1	↓	↓	↓	↓	↓	
9	ICP-MS Calib. Standard #5 Hg	Ultra Scientific	IMS-121	M01103	11/30/14	125ml x1	P	8/14/12	469	8/14/12	469	
10	Phosphorus Standard	↓	ICP-115	L01132	10/31/17	125ml x1	P	8/14/12	↓	↓	↓	
11	Magnesium Standard	↓	ICP-112	L00073	2/28/17	↓	↓	↓	↓	↓	↓	
12	Calcium Standard	↓	ICP-120	M01149	12/31/18	↓	↓	↓	↓	↓	↓	
13	Aluminum Standard	↓	ICP-113	M00266A	4/30/16	↓	↓	↓	↓	↓	↓	
14	Sodium Standard	↓	ICP-111	M00189B	3/31/17	1.0L x2	↓	↓	↓	↓	↓	
15	Potassium Standard	↓	ICP-119	M00572	7/31/18	1.0L x1	↓	↓	↓	↓	↓	
16	HNO3	EMD	NX0407/4	52012	8/14/15	2.5L x5	G	8/14/12	769	8/14/12	769	CTF#3 P6-07
17	HCL	EMD	HX0607/4	51181	8/15/15	2.5L x5	G	8/15/12	769	8/14/12	769	CTF#3 P4-16
18	HNO3	EMD	NX ~~0407~~ 0607/4 SLC 08/21/12	52088	08/20/15	2.5x3	G	08/21/12	805	08/21/12	805	
19	↓	↓	NX0407/4	52012	↓	2.5L x5	↓	↓	↓	↓	↓	
20	HCL	EMD	HX0607/4	51258	↓	2.5L x ~~3~~ 4 SLC 08/21/12	↓	↓	↓	↓	↓	CTF#3 P6-07
21	Ammonium Hydroxide	Fisher	A512-P500	7111080	08/2014	500mL x7	P	08/23/12	776	08/23/12	776	
22	Ammonium Hydroxide	↓	↓	7111060	07/2014	500mL x2	↓	↓	↓	↓	↓	
23	Ammonium Hydroxide	↓	↓	7112050	05/17/15	500mL x1	↓	↓	↓	↓	↓	
24	Nitric Acid	↓	A467-2	1212020	02/23/15	2L x1	↓	↓	↓	↓	↓	
25	Nitric Acid	EMD	NX0407/4	52012	8/31/15	2.5L x ~~4~~ 2	G	8/31/12	469	8/31/12	469	

COMMENTS:

Book Number: 86 4 5/22/12 02 9/19/12

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Aliquat® 336	ACROS	194972500	A0294434	10/9/15	250ml	G	10/9/12	769	10/9/12	769	
2	HCL Acid	EMD	HX0607/4	51258	10/08/15	2.5L X3	G	10/9/12	805	10/09/12	805	
3	Nitric Acid	EMD	NX0407/4	52088	10/16/15	2.5X6	G	10/16/12	469	10/16/12	469	
4	Hydrochloric Acid	EMD	HX0607/4	51258	↓	↓	↓	↓	↓	↓	↓	
5	HNO_3	EMD	HX0407/4	51196	10/23/15	2.5x1	G	10/23/12	781	10/23/12	781	
6	↓	EMD	NX0407/4	52088	↓	2.5x3	↓	↓	↓	↓	↓	
7	Citric Acid	EMD	CX1723-3	2011030420	10/22/15	2.5kgx4	P	10/23/12	805	10/23/12	805	CTF #3 P7-12
8	HCL Acid	EMD.	HX0607/4	51258	10/23/15	2.5L X3	G	10/23/12	805	10/23/12	805	
9	ICP-Multielement. Cal. STD-1	High purity	ICP-MCS-1	1227704	10/25/13	~~125~~ 250 X1	P	11/01/12	469	11/01/12	469	
10	-7	↓	-7	1210221	↓	469 10/1/12 ↓	↓	↓	↓	↓	↓	
11	-8	↓	-8	1219802	↓	500 X2	↓	↓	↓	↓	↓	
12	-10	↓	-10	1132031	↓	100 X1	↓	↓	↓	↓	↓	
13	-11	↓	ICP-AM-11	1116712	↓	↓	↓	↓	↓	↓	↓	
14	Nitric Acid	EMD	NX0407/4	52088	11/01/15	3X2.5L	G	11/01/12	469	11/01/12	469	
15	Hydrochloric Acid	↓	HX0607/4	51258	11/01/15	4X2.5L	↓	↓	↓	↓	↓	
16	Nitric Acid	EMD.	NX0407/4	52174	11/~~08~~ 07/15 SCC 11/08/12	2.5L X2	G	11/08/12	805	11/08/12	805	CTF #3 P7-26
17	HCL Acid	EMD	HX0607/4	51258	11/~~08~~ 07/15 SCC 11/08/12	2.5L X5	G	11/08/12	805	11/08/12	805	
18	HCl Acid	EMD	HX0607-1	52250	11/13/15	500mL x12	G	11/13/12	776	11/13/12	776	CTF #3 P7-27
19	Multi. Method Interference check-STD #1	Accutrace-STD	INT-01-1	210115105-01	5/2014	100 X1	P	11/13/12	469	11/13/12	469	
20	STD-#2	↓	INT-02-1	212075023	7/2014	↓	↓	↓	↓	↓	↓	
21	STD-#4	↓	INT-04-1	211015072-01	4/2014	↓	↓	↓	↓	↓	↓	
22	Phosphorous STD	↓	ICP-41W-1	211055063	5/2016	↓	↓	↓	↓	↓	↓	
23	Sodium STD	↓	ICP-54N-10X-1	211085029-01	4/2016	↓	↓	↓	↓	↓	↓	
24	HNO_3	Fisher	UN 2031	1112080	9/06/2014	2.5L x4	P	11/15/12	781	11/15/12	781	
25	Hydrogen Peroxide	EMD	HX0635.2	51283217	10/31/13	~~4x16x4~~ 11/16/12 1L	P	11/21/12	769	11/21/12	769	

COMMENTS:

Book Number: 6 ✓ 10/17/12 XX 11/19/12

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Hydrogen Peroxide	EMD	HX0635-2	52007229	1/31/14	1L x 4	P	11/21/12	769	11/21/12	769	
2	Sulfuric Acid	Fisher	A510-P212	3111071	12/06/14	2.5L x 2	P	11/21/12	769	11/21/12	769	
3	Nitric Acid	Fisher	A509-P212	1112090	10/16/14	2.5L x 12	P	11/26/12	805	11/26/12	805	
4	HCL Acid	EMD	HX0607/4	51181	11/26/15	2.5L x 5	G	11/27/12	805	11/27/12	805	
5	Nitric Acid	EMD	NX0407/4	52174	11/26/15	2.5L x 3	G	11/27/12	805	11/27/12	805	
6	Buffer. pH 7.0 Standard (phosphate)	J.T. Baker	5608-01	L05505	2/27/14	500ml x 5	P	11/30/12	805	11/30/12	805	CTF: #3 p.8-15
7	Buffer. pH 4.0, Solution Tampon	BDH	BDH5024	1206246	05/31/14	500ml x 5	P	↓	↓	↓	↓	CTF: #3 p.8-13
8	Buffer. pH 7.0 Solution Tampon.	BDH	BDH5046	1208177	06/30/14	500ml x 5	P	↓	↓	↓	↓	CTF: #3 p.8-14
9	Acetic Acid	AMRESCO	0714-2.5L	0752C016	09/30/16	2.5L x 4	G	12/04/12	805	12/04/12	805	CTF: #3 p.8-17
10	Mercury Standard 1000ppm	Sigma Aldrich	28941	BCBJ2161V	Jul/16	100ml	G	12/5/12	110	12/5/12	110	
11	HCL	EMD	HX0607/4	51258	12/09/15	2.5L x 2	G	12/10/12	805	12/10/12	805	
12	HCl	Fisher	A508-P212	4112070	09/06/15	2.5L	P	12/11/12	776	12/11/12	776	
13	Sodium Hydroxide	Fisher	SS254-4	123686	06/2014	4L	P	12/12/12	776	12/12/12	776	
14	Nitric Acid	EMD	NX0407/4	52174	12/12/12	2.5 x 7	G	12/12/12	469	12/12/12	469	
15	HCl	↓	HX0607/4	51258	12/12/12	2.5-4	↓	12 ↓	↓	↓	↓	
16	Sodium Hydroxide	SIGMA-ALDRICH	306576-25G	MKBJ8595V	12/12/17	25g	P	12/12/12	776	12/12/12	776	
17	NITRIC Acid	EMD	NX0407/4	52174	12/18/15	2.5L x 4	G	12/19/12	805	12/19/12	805	
18	HCL Acid	EMD	HX0607/4	51258	12/18/15	2.5L x 4	G	12/19/12	805	12/19/12	805	
19	Isopropyl Alcohol	BDH	BDH1133-4LG	11211E	12/25/15	4.0L x 1	G	12/26/12	805	12/26/12	805	
20	Isopropanol	Fisher	A451-4	120989	12/25/15	4.0L x 4	G	12/26/12	805	12/26/12	805	CTF: #3 p.8-22
21	HCl	Fisher	A508-P212	4112070	09/06/15	2.5L	P	12/27/12	776	12/27/12	776	
22	NITRIC ACID.	EMD	NX0407/4	52174	12/30/15	2.5L x 5	G	12/31/12	805	12/31/12	805	
23	HCL Acid	EMD	HX0607/4	51181	12/30/15	2.5L x 4	G	12/31/12	805	12/31/12	805	
24	HCL Acid	EMD	HX0607/4	51258	12/30/15	2.5L x 1	G	12/31/12	805	12/31/12	805	
25	NITRIC ACID	EMD	NX0407/4	52174	01/~~03/15~~ 02/15	2.5L x 4	G	01/03/12	805	01/03/12	805	

S.L.C. 01/03/13

COMMENTS:

Book Number: 6 12/31/12

05/22/12 Revision

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	HCl	EMD	HX0607/4	52310	01/08/16	2.5L x 3	G	01/09/13	805	01/09/13	805	
2	HCl	EMD	HX0607/2	52250	01/08/16	2.5L x 5	G	01/09/13	805	01/09/13	805	
3	HNO_3	EMD	NX0407/2	52250	01/08/16	2.5L x 5	G	01/09/13	805	01/09/13	805	
4	Lead (II) Chloride	Aldrich	203572-10G	MKBL2386V	01/14/18	10g x 1	P	1/14/13	469	1/14/13	469	
5	HCL	EMD	HX0607-2	52250	01/16/16	2.5L x 4	G	01/16/13	805	01/16/13	805	
6	NITRIC Acid	EMD	NX0407/2	52250	01/16/16	2.5L x 3	G	01/16/13	805	01/16/13	805	
7	Nitric Acid	Fisher	A467-2	1212010	01/2015	2L x 1	T	01/16/13	776	01/16/13	776	
8	Sulfuric Acid	EMD	SX1287/2	52116	1/17/16	2.5L x 6	G	1/17/13	769	1/17/13	769	
9	$SnCl_2 \cdot 2H_2O$	Fisher	T142-500	125755	1/17/16	500g x 2	P	1/17/13	|	1/17/13	|	
10	NITRIC Acid	EMD	NX0407/2	52250	01/23/16	2.5L x 8	G	01/29/13	805	01/29/13	805	
11	HCL	EMD	HX0607/2	52250	01/28/16	2.5L x 4	G	01/29/13	805	01/29/13	805	
12	Boiling stones	Saint-Gobain	D1069103	G228-2J042	01/30/18	450g x	P	01/30/13	805	01/30/13	805	Batch # G228-2J042 LOT #: #3-P 2.5
13	Boiling Stones	Saint-Gobain	D1069103	G228-2L037	01/30/18	450g x	P	01/30/13	805	01/30/13	805	Batch # G228-2L037 LOT #: #3-P 2.5
14	ICP. Multielement standar-#1	High Purity	ICP-MCS-1	12277 04	1/24/14	100 ml	P	01/31/13	469	1/31/13	469	
15	-7	Standard	-7	1210221								
16	-8		-8	1219802		500 ml						
17	-10		-10	1132031		100 ml						
18	-11		ICP-AM-11	12332244								
19	-P		10M39-1	1222009								
20	-Zn		10M68-1	1211815								
21	Buffer solution ph. 7.00 (ICV)	Fisher	SI3108-500	125-125	08/20/14	500ml x 6	P	02/01/13	805	02/01/13	805	
22	Nitric Acid	EMD	NX0407/2	52250	2/1/16	2.5L x 4	G	2/1/13	769	2/1/13	769	
23	|	|	|	52174	|	2.5L x 4	|	|	|	|	|	
24	|	|	|	52012	|	2.5L	|	|	|	|	|	
25	HCL	|	HX0607/4	52250	|	2.5L x 16	|	|	|	|	|	

COMMENTS:

Book Number: 6

2/15/13

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Citric Acid	Fisher	A940-1	126552	01/31/16	1kg x2	P	02/01/13	805	02/01/13	805	CTF: ICP/MS #3 plot-7 Hg #3 plot-5
2	Hydrogen peroxide (H_2O_2)	Fisher	H325-500	126233	02/03/16	500ml x8	P	02/04/13	805	02/04/13	805	CTF: ICP/MS #3 plot-6
3	Hydroxylamine Hydrochloride	Acros	41205000	A0315671	2/5/16	500g x1	P	2/5/13	769	2/5/13	769	
4	Sodium Hydroxide (NaOH)	Fisher	S392-212	127300	02/04/16	2.5kg x1	P	02/05/13	805	02/05/13	805	CTF: ICP/MS #3 plot-9 Hg #3 plot-10
5	Isopropyl Alcohol	Fisher	A451-4	127577	02/05/16	4L x4	G	02/06/13	805	02/06/13	805	CTF: ICP/MS #3 plot-8
6	Nitric Acid	Fisher	A467-2	1212070	08/20/15	2L x1	T	02/07/13	776	02/07/13	776	
7	Hydrochloric Acid	Fisher	A508-P212	411200	11/05/15	2.5L x1	P	02/07/13	776	02/07/13	776	
8	Citric Acid	Fisher	A940-500	124807	03/11/16	500g x4	P	02/12/13	805	02/12/13	805	CTF: ICP/MS #3 plot-11 Hg #3 plot-12
9	HNO_3	Fisher		52250	2/13/16	2.5L x8	G	2/13/13	781	2/13/13	781	
10	Stannous Chloride	Fisher	T124-500	125755	2/15/16	500g x6	P	2/15/13	769	2/15/13	769	
11	Xylenes	Fisher	X5-4	130072	2/21/16	4L x4	G	2/21/13	769	2/21/13	769	
12	Methyl Isobutyl-Ketone	Fisher	UN1245	126529	02/26/16	4L x8	G	2/26/13	469	2/26/13	469	
13	HCl	EMD	HX0603-75	52198	3/4/16	2.5L x6	G	3/5/13	769	3/5/13	769	
14	Nitric Acid	EMD	NX0407/2	52250	03/04/16	2.5L x10	G	03/05/13	805	03/05/13	805	
15	Acetic Acid	Fisher	A38C-212	124423	03/06/16	2.5L x6	G	03/07/13	805	03/07/13	805	CTF: ICP/MS #3 plot-2 Hg #3 plot-3
16	HNO_3	EMD	NX0407/1	52174	03/07/16	500mL x2	G	03/07/13	776	03/07/13	776	
17	Tuning Solution 1	SPEX	CL-TUNE-1	CLG-774PP	03/31/14	125mL	P	03/12/13	776	03/12/13	776	
18	Inst. Calibration STD 2		CL-CAL-2	CLG-356PP								
19	Calibration STD 3		CL-CAL-3	CLG-138PP								
20	Interferents 1		CL-INT-A1	CLS-658PP								
21	Analytes B		CL-INT-B1	CLG-123PP								
22	Hydrochloric Acid	Fisher	A508-P212	411200	11/05/15	2.5L x1	P	03/14/13	776	03/14/13	776	
23	Nitric Acid	Fisher	A467-2	1212070	08/20/15	2L x2	T	03/14/13	776	03/14/13	776	
24	Hydrochloric Acid	EMD	HX0607-2	52250	03/18/16	2.5L x9	G	03/18/13	850	03/18/13	850	
25	Nitric Acid	EMD	NX0407/2	52250	03/18/16	2.5L x4	G	03/18/13	850	03/18/13	850	

COMMENTS:

Book Number: 6 3/25/13

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Stannous Chloride	Fisher	T142-500	125758	3/25/16	500g x 12	P	3/25/13	769	3/25/13	769	
2	Mix Standard Sol: # I	Ultra Scientific	ICM-601	M00558	6/30/15	125ml x 1		3/27/13	469	3/27/13	469	
3	II		-602	P00101	3/31/16							
4	III		-603	L00066	2/28/14							
5	IV		-604	L01134	10/31/14							
6	V		-605	M00138	3/31/15							
7	Interference Check STD # 1		ICM-221	M00532	6/30/15	125 x 1	P	3/27/13	469	3/27/13	469	
8	HNO_3	EMD	NX0407/4	52223	4/2/16	2.5L x 10	G	4/2/13	769	4/2/13	469	
9	Benzene	EMD	BX0220-5	49257001	04/03/16	4L x 1	G	4/3/13	469	4/3/13	469	
10	Hydrofluoric Acid	Fisher	UN1790	5112070	8/24/15	500ml x 1	P	4/8/13	469	4/8/13	469	
11	HNO_3	EMD	NX0407/4	52223	4/15/16	2.5L x 6	G	4/15/13	769	4/15/13	769	
12	HCL		HX0607-2	52250		2.5L x 3						
13	Citric Acid	Fisher	A940-1	126552	04/17/16	1kg x 6	P	04/18/13	805	04/18/13	805	CTF: ICP/MS #3 P11 Hg #3 P11
14	HNO_3	EMD	NX040714	52223	4/23/16	2.5L x 6	G	4/23/13	850	4/23/13	850	
15	H_2O_2	Fisher	H325-500	126786	4/26/16	500ml x 4	P	4/26/13	[illegible]	4/26/13	[illegible]	
16	Sodium Borohydride	ACROS	16940-66-2	B0135911	4/26/18	100g	P	4/26/13	850	4/26/13	850	
17	Hydrochloric acid	EMD	HX0607-2	52250	4/29/16	2.5L x 2	G	4/29/13	850	4/29/13	850	
18	Sodium Hydroxide (NaOH)	Fisher	S392-212	127300		25kg x 2 ~~04/29/13~~	P	04/29/13	805	04/29/13	805	CTF: ICP/MS #3 P12-1 Hg #3 P12-
19	HNO_3	EMD	NX040714	52223	4/30/16	2.5L x 8	G	4/30/13	850	4/30/13	850	
20	HCL	EMD	HX0607-2	52310 BT ~~52130~~ 5/3/13	4/30/16	2.5L x 20	G	4/30/13	769	4/30/13	769	CTF: #3 P12-21
21	HNO_3	EMD	HX040714	52223	5/1/16	2.5L x 8	G	5/1/13	850	5/1/13	850	
22	Sodium hydroxide monohydrate	Alfa Aesar	12179-02-1	1724T011	5/1/18	5g	P	5/1/13	850	5/1/13	850	
23	H_2O_2	Fisher	H325-500	127735	5/03/16	500ml x 6	P	5/03/13	781	5/03/13	781	
24	Citric Acid	Fisher	A940-1	130187	05/05/16	1kg x 8	P	05/06/13	805	05/06/13	805	CTF: ICP/MS #3 P12 Hg #3 P12-
25	Boiling stones	Saint-Gobain	D1069103	G228-22037	05/06/18	450g x 7	P	05/07/13	805	05/07/13	805	

COMMENTS:

Book Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Hydrochloric Acid	Fisher	A508-P212	4112120	01/10/2016	2.5L	P	5-9-13	850	5-9-13	850	
2	HCL	EMD	HX0607-2	52310	05/12/16	2.5LX10	G	05/13/13	805	05/13/13	805	
3	HNO3	EMD	NX0407-4	52223	05/2116	2.5LX2	G	05/13/13	805	05/13/13	pel	
4	^{6}Li	High-Purity	100029-6I	1231246	11/06/14	100mL	P	5/14/13	[illegible]	5/14/13	[illegible]	
5	Sc	Accustandard	ICP-MS-50N 0.1X-1	212105029	10/17	100mL						
6	Ga		ICP-MS-20N 0.1X-1	211095101	10/16	100mL						
7	Ho		ICP-MS-24N 0.1X-1	213035051	03/18	100mL						
8	ICP-MS Quality Control Sample 2		ICP-MS-QC2-1	211125062	11/14	100mL						
9	ICP Multi Element Calib. STD - 1	High Purity	ICP-MCS-1	122704	5/06/14	250mL	P	5/14/13	469	5/14/13	469	
10	-7		-7	13122219	5/08/14	500 mL HF X2						
11	-8		-8	1219802								
12	-10		-10	13127714		125mL						
13	-11		ICP-AM-11	12332444	5/06/14							
14	HNO3	EMD	HX0407/4	52223	5/16/16	2.5LX8	G	5/16/13	850	5/16/13	850	
15	Hg	Accustandard	ICP-MS-34N 0.1X-1	212075024	07/2017	100mL	P	5/21/13	[illegible]	5/[illegible]/13	[illegible]	
16	HNO3	EMD	HX0407/4	52223	5/23/14	2.5LX2	G	5/23/13	769	5/23/13	769	
17	Manganese	Accustandard	ICP-MS-33N-0.01X-1	212075087	07/2017	100mL	P	5/24/13	850	5/24/13	850	
18	HNO3	EMD	NX0407-2	53099	05/2016	2.5LX10	G	5/24/13	781	5/24/13	781	
19	Buffer Solution pH 4.00	FISHER	SB101-500	132162	02/29/15	500mLX7	P	05/31/13	805	05/31/13	805	CTF: #3 PB-4
20	Buffer Solution pH 7.00	FISHER	SB107-500	132163	03/29/15	500mLX7	P	05/31/13	805	05/31/13	805	CTF: #3 PB-5
21	HCL	EMD	HX0607-2	53010	6/7/16	2.5LX12	G	6/7/13	769	6/7/13	769	CTF: #3 PB-8
22	HCl	EMD	HX0607-2	53010	6/7/16	2.5LX10	G	6/10/13	[illegible]	[illegible]	[illegible]	
23	Iron	Accustandard	ICP-27N-10X-5	212085078	Sep 2017	500mL	P	06/13/13	[illegible]	[illegible]	[illegible]	
24	Scandium		ICP-MS-50N 0.1X-1	213055044	May 2017	100mL						
25	Terbium		ICP-MS-59N 0.1X-1	212045088	04/2017	100mL						

COMMENTS:

Book Number: 6 in 6/3/13

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Bismuth	AccuStandard	ICP-MS-06N 0.1X-1	212095053	09/2017	100mL	P	6/13/13	[illegible]	6/13/13	[illegible]	
2	Aluminum		ICP-MS-01N 0.1X-1	212085053	05/2017	100	P	"	"	"	"	
3	HNO_3	EMD	NX0407-2 HX	53099	06/2017	2.5L x10	G	6/14/13	781	6/14/13	781	
4	Potassium Permanganate	Fisher	ICCN 6516 P279-212	126895	6/18/18	2.5kg	G	6/18/13	769	6/18/13	769	
5	Sodium Chloride	Fisher	S271-500	130586	6/18/18	500gx6	P	6/18/13	769	6/18/13	769	
6	H_2O_2	Fisher	H325-500	130076	6/18/16	500mlx6	P	6/18/13	769	6/18/13	769	
7	"	"	"	131932	"	500mlx6	"	"	"	"	"	
8	ICS-4	AccuStandard	ICP-MS ENTA-1	213035002	03/2015	100mL	P	6/24/13	[illegible]	6/24/13	[illegible]	
9	Nitric Acid	Fisher	A467-	121210	01/31/16	2L x2	T	6/26/13	[illegible]	6/26/13	[illegible]	
10	HNO_3	EMD	NX0407-2	53099	6/27/18	2.5L x4	G	6/27/13	781 786	6/27/13	781	5/24/13
11	HCl	EMD	HX0607-2	52310	6/27/18	2.5L x4	↓	↓	↓	↓	↓	5/28/13
12	Interference check STD #1	AccuTrace	INT-01-1	2100115105-02	~~06/08/15~~ 07 06/15	100ml	P	~~7/8/13~~ 7/8/13	469	7/9/13	469	
13	" #2	"	-02-1	212075023-1	469 7/18 ↓	"	"	469 7/18	"	"	"	
14	" Sb	"	-03-1	B402504756	11/08/14	"	"	"	"	"	"	
15	" #4	"	-04-1	211015072-02	~~06/08/15~~ 07 469 7/18 06/15	6/15	"	"	"	"	"	EXP. 6/15
16	Sulfur		ICP-56W-1	212115053	6/15 11/17		"	"	"	"	"	
17	Bismuth		ICP-06N-1	212045109	8/17	↓	↓	↓	↓	↓	↓	
18	sea water BL-6	BROOKS RAND LABS	NA	05-044	8/2017	100mL	P	7/5/13	[illegible]	7/5/13	[illegible]	
19	HNO_3	EMD	NX0407-2	53099	7/9/18	2.5L x18	G	7/9/13	781	7/9/13	781	
20	Calibration standard 8	SPEX	CL-CAL-3	CLS-138PP4	7/30/14	125mL/pk	P	7/15/13	[illegible]	7/15/13	[illegible]	
21	Zirconium		PCZR2-2Y	19-032AY		125mL	P	"	"	"	"	
22	HCl	EMD	HX0607-2	52310	6/27/16 ~~18~~	2.5X6 11	G	6/27/13	469	7/16/13 ~~6/28~~	469	
23	Acetic Acid	Fisher	A38C-212	131096	469 7/16 09/19/16	1CCN7/16/13 2.5LX6	G	09/20/13	805	09/20/13 7/16	805	CTF: ICP/MS 3 PB Hg
24	Buffer solution pH 10.00 (Fisher)	Fisher	SB115-500	132388	03/31/15	500mlx1	P	09/20/13	805	09/20/13	805	CTF:
25	Ammonium hydroxide	Fisher	A512-P500	711303O	03/21/16	500mlx 5	P	7/22/13	110	7/22/13	110	

COMMENTS: _____

Book Number: 6 in 7/9/13

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Sodium borohydride	ACROS	20005-1000	B0135911A	7/18	100g X 2	P	7/23/13	110	7/23/13	110	
2	HCl	EMD	HX0607-2	52310	7/25/16	2.5L X 6	G	7/25/13	769	7/25/13	769	
3	Nitric Acid	EMD	NX0407/4	52174	7/27/16	2.5 X 5	G	7/27/13	469	7/27/13	469	
4	Hydrogen peroxide (H_2O_2)	EMD	HX0635-2	52223308	07/29/16	1.0L X 8	P	07/30/13	805	07/30/13	805	CTF: 14, 15, 13 p14→ Hg.
5	$KMnO_4$	AMRESCO	0277-2.5KG	1122C230	7/31/18	2.5KG	P	7/31/13	769	7/31/13	769	
6	HCl	EMD	HX0607-2	52310	7/31/16	2.5L X 10	G	7/31/13	781	7/31/13	781	
7	Nitric Acid	EMD	NX0407-2	53099	07/30/16	2.5L X 12	G	07/31/13	805	08/21/13 S.C. 08/23/13	805	p.8/14
8	HCl	EMD	HX0607-2	53810	08/05/16	2.5L X 3	G	08/05/13	781	08/05/13	781	CTF: p.13 → p.8
9	HCl	↓	↓	52250	↓	2.5L X 7	↓	↓	↓	↓	↓	CTF: p.3. p.9→p.8
10	HNO_3	EMD	NX0407-2	52250	08/07/16	2.5L X 8	G	08/07/13	↓	8/07/13	↓	p. 9 #6 8/09/13
11	Ultra Pure Sodium chloride	ES I	SeaSalt-L-0500	1308A	08/20/18	500mL	P	08/20/13	SY	08/20/13	SY	
12	NaCl	Fisher	S271-10	130583	8/20/18	10kg	P	8/20/13	769	8/20/13	769	
13	HNO_3	EMD	NX0407-2	53099	8/28/16	2.5L X 18	G	8/28/13	781	8/28/13	781	
14	HCl	EMD	HX0607-2	53010	8/30/16	2.5 X 10	G	8/30/13	879	8/30/13	879	
15	HCl	EMD	↓	↓	9/12/16	2.5L X 10	G	9/12/13	781	9/12/13	781	
16	~~H_2SO_4~~ Sulfuric Acid	EMD	SX1247/2	52116	9/12/16	2.5L	G	9/12/13	769	9/12/13	769	
17	Nitric Acid	EMD	~~NX0407-2~~	53099	9/17/16	2.5L X 10	G	9/16/13	879	9/17/13	879	
18	HNO_3	EMD	NX0407-2	53099	9/18/16	2.5L X 7	G	9/18/13	769	9/18/13	769	
19	H_2O_2	Fisher	H325-500	133502	9/25/16	0.5 X 18	P	9/25/13	781	9/25/13	781	
20	HNO_3	EMD	NX0407-1	53099	9/25/16	2.5L X 8	G	9/25/13	787	9/25/13	787	
21	HCl	↓	NX0607-2	53010	9/25/16	↓	↓	↓	↓	↓	↓	
22	Nitric Acid (optima)	Fisher	A467-2	1213040	5/21/16	2L	P	9/25/13	110	9/25/13	110	
23	Acetic Acid		A507-P212	6111060	8/14	2.5L	P	9/25/13	110	9/25/13	110	
~~24~~	~~Nitric Acid~~	~~EMD~~	~~NX0407-2~~	~~53099~~	~~9/30/16~~	~~2.5L X 6~~	G	9/30/13	879	9/30/13	879	NK 9/30/13
~~25~~	HCl	~~EMD~~	~~HX0607-2~~	~~53010~~	~~9/30/16~~	~~2.5L X 8~~	G	9/30/13	879	9/30/13	879	NK 9/30/13

COMMENTS:

Book Number: 6 in 8/5/13

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Hydroxylamine	Acros	5470-11-1	A0332752	10/1/16	500g x 20	P	10/1/13	769	10/1/13	769	
2	Multielement Calib. STD - # 1	High-Purity	ICP-MCS-1	1227704 ~~1312925~~	09/26/14	250ml	P	10/03/13	469	10/03/13	469	
3	- 7		-7	469 1013 1312219								
4	- 8		-8	1312925		500ml x 2						
5	- 10		-10	1319312		125ml						
6	- 11		ICP-AM-11	1307750								
7	Tungsten Standard		100063-3	1309114	3/26/15							
8	Nitric Acid	EMD	NX-0407-2	53099	10/7/16	2.5L x 8	G	10/6/13	879	10/8/13	879	
9	HCL	EMD	HX0607-2	53010	10/7/16	2.5L x 8	G	10/6/13	879	10/8/13	879	
10	Sulfuric Acid	EMD	SX1247-2	53128	10/15/16	2.5L x 5	G	10/15/13	769	10/15/13	769	
11	Nitric Acid	EMD	NX0407-2	53099	10/15/16	2.5L x 8	G	10/15/13	879	10/16/13	879	
12	Nitric Acid	EMD	NX0407-2	53099	10/24/16	2.5L x 10	G	10/24/13	TE	10/24/13	TE	
13	HCL	EMD	HX0607-2	53010	10/29/16	2.5L x 8	G	10/29/13	879	10/29/13	879	
14	Indium	Accustandard	ICP-MS-2TN 0.1X-1	213025049	03/2018	100mL	P	11/01/13	TE	11/01/13	TE	
15	Scandium		ICP-MS-50N 0.1X-1	213055044	05/2018							
16	Boron		ICP-07W-1	212055017	10/2017							
17	Tungsten		ICP-65W-1	211105145	11/2016							
18	Lithium											
19	Acetic Acid	Fisher	A38C-212	133363		2.5L x 6	G	11/05/13	805	11/05/13	805	CTF: ICP #3 P15-15 Hg #3 P15-16
20	HNO_3	EMD	NX-0407-2	53099	11/05/16	2.5L x 10	G	11/05/13	787	11/05/13	781	
21			NX0407/4	52174		2.5L x 02						
22	Lithium 6	HIGH-PURITY	100025-6I	1231246	05/01/15	100mL	P	11/07/13	TE	11/07/13	TE	
23	HNO_3	EMD	NX0407-2	53099	11/13/16	2.5L x 10	G	11/13/13	781	11/13/13	781	
24	HCL	EMD	HX0607-2	53010	11/13/16	2.5L x 15	G	11/14/13	805	11/14/13	805	
25	Hydrogen Peroxide H_2O_2	EMD	HX0635-2	53115331	5/31/2015	1L x 8	P	11/25/13	879	11/26/13	879	

COMMENTS:

Book Number: 6 d 11/12/13

Return to Contents

EPA METHOD 8081A
Organochlorine Pesticides

RAW DATA

Return to Contents

EPA METHOD 8081A
Organochlorine Pesticides

Initial Calibration

Return to Contents

GC-51, Calculation of Initial Calibration, Pest, Front Column

Date of run 11/05/2013

500

11/5

Front column

	Area					Conc. (ppb)												ICV			
Analytes	Lv 1	Lv 2	Lv 3	Lv 4	Lv 5	Lv 1	Lv 2	Lv 3	Lv 4	Lv 5	RF1	RF2	RF3	RF4	RF5	Avg RF	SD	%RSD (<20%)	AREA	Conc. (ppb)	RF	%D (<15%)
TCMX (Sur.)	8317.1	16489.1	35466.7	54137.3	72008.8	20	40	80	120	160	416	412	443	451	450	435	19	4.4	36494.2	80.0	456	5.0
Hexachlorobenzene	5613.1	11200	23811.7	35332.1	49232	10	20	40	60	80	561	560	595	589	615	584	24	4.0	24348.5	40.0	609	4.2
alpha-BHC	7167.5	14574.9	31124.7	47303.2	67256	10	20	40	60	80	717	729	778	788	841	771	50	6.5	31818.3	40.0	795	3.2
gamma-BHC	6450.8	13089.1	27695.9	42369.1	60336.5	10	20	40	60	80	645	654	692	706	754	690	44	6.3	28296.7	40.0	707	2.5
beta-BHC	3011.2	5885.2	12220.8	18937.9	25817.6	10	20	40	60	80	301	294	306	316	323	308	11	3.7	11358.6	40.0	284	7.8
delta-BHC	6658.4	13372.3	29515.8	45165.1	62226.5	10	20	40	60	80	666	669	738	753	778	721	51	7.0	29461.6	40.0	737	2.2
Heptachlor	6697.5	13346.1	27543.4	42751.2	59756	10	20	40	60	80	670	667	689	713	747	697	33	4.8	27242.1	40.0	681	2.3
Aldrin	6772.4	13615.8	27608.8	43099.8	59702.1	10	20	40	60	80	677	681	690	718	746	703	29	4.2	26459.4	40.0	661	5.8
Heptachlor Epoxide	6281.2	12297.3	25364.7	38793.6	53632.2	10	20	40	60	80	628	615	634	647	670	639	21	3.3	24203.2	40.0	605	5.3
gamma-Chlodane	6296.6	12487.2	25778	39659.1	55296.9	10	20	40	60	80	630	624	644	661	691	650	27	4.2	24526.5	40.0	613	5.7
Alpha Chlordane	5896.9	11490.6	24204.6	37444.7	50138.4	10	20	40	60	80	590	575	605	624	627	604	22	3.7	23299.7	40.0	582	3.6
4,4'-DDE	4961.7	9685.2	23168	33637.7	47156.4	10	20	40	60	80	496	484	579	561	589	542	49	9.0	22146.6	40.0	554	2.2
Endosulfan I	6515.8	12857.7	24569.2	38881.7	51836	10	20	40	60	80	652	643	614	648	648	641	15	2.4	23475.2	40.0	587	8.4
Dieldrin	6143.4	12032.8	25502.7	39452.4	52798	10	20	40	60	80	614	602	638	658	660	634	26	4.1	24675.4	40.0	617	2.7
Endrin	5373.2	10759.7	23100.9	34819.7	48806.8	10	20	40	60	80	537	538	578	580	610	569	31	5.5	22096.1	40.0	552	2.9
4,4'-DDD	4435.7	8763.9	20190.8	29760.6	41967.3	10	20	40	60	80	444	438	505	496	525	481	38	8.0	19123.4	40.0	478	0.7
Endosulfan II	5239.9	10265.3	22257.6	33115	43919.8	10	20	40	60	80	524	513	556	552	549	539	19	3.5	21621.4	40.0	541	0.3
4,4'-DDT	4722.4	9438.5	21195.7	32117.2	45261.2	10	20	40	60	80	472	472	530	535	566	515	42	8.1	20948.5	40.0	524	1.7
Endrin Aldehyde	4445.9	8736.4	17855.6	27106.4	38666.9	10	20	40	60	80	445	437	446	452	483	453	18	4.0	17147.6	40.0	429	5.3
Methoxychlor	2540.3	4811.1	10197	15426.3	21177.2	10	20	40	60	80	254	241	255	257	265	254	9	3.4	9903.9	40.0	248	2.6
Endosulfan Sulfate	5207.7	10134.4	20853.1	32003.1	44400.9	10	20	40	60	80	521	507	521	533	555	527	18	3.4	20308	40.0	508	3.7
Endrin Ketone	6239.6	12124.9	25076.4	38195.8	52475.9	10	20	40	60	80	624	606	627	637	656	630	18	2.9	23964.4	40.0	599	4.9
DCB (Sur.)	10503.4	20520.4	42089.2	63325.3	87315	20	40	80	120	160	525	513	526	528	546	528	12	2.2	40305.3	80.0	504	4.5

CALCULATION FORMULAS:

RF = Area / LEVEL
%RSD = SD /Avg RF * 100
%D = Absolute(RF-Ave RF) / Ave RF * 100

Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110502.D
Operator : 500
Instrument : GC 51
Sample Name : P ICAL1 S080713E 10PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 05 Nov 13 00:08 pm
Report Created on: 05 Nov 13 01:25 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 2
Injection Number : 1
Sequence Line : 3
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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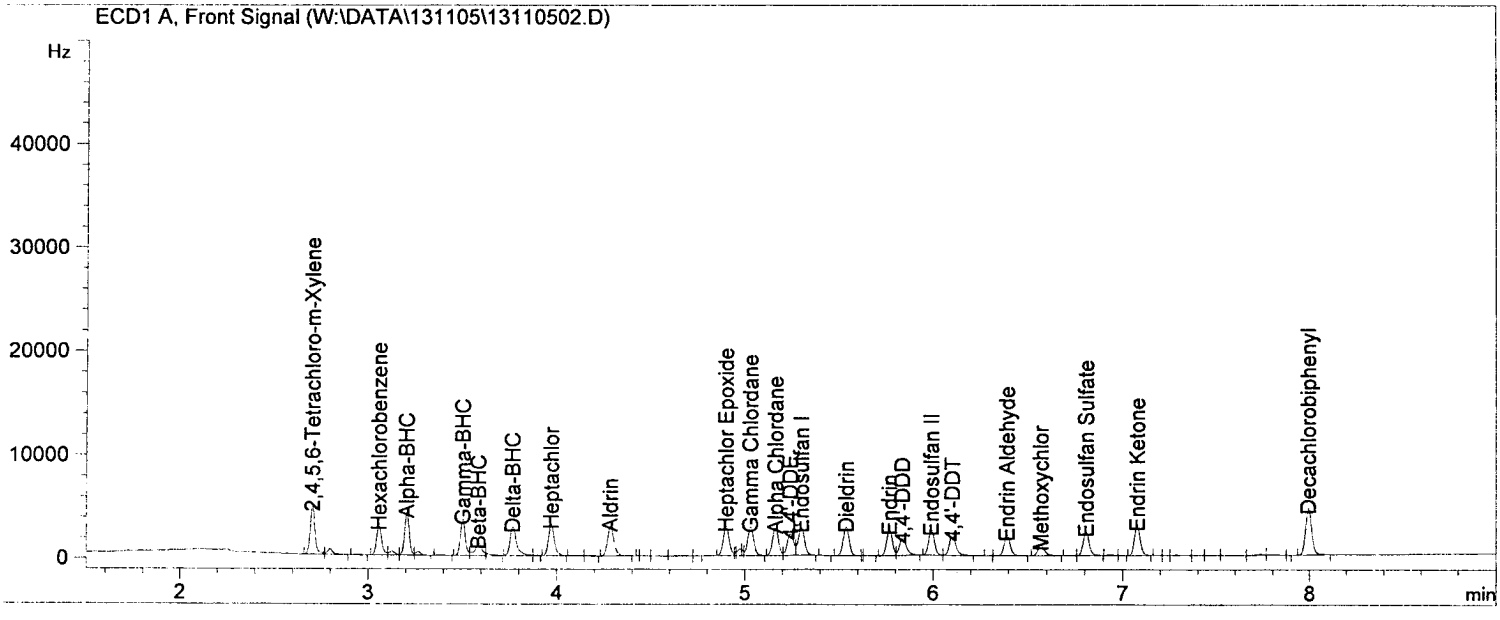
Sig. ECD1 A, W:\DATA\131105\13110502.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.707	8317.1	BV	0.027		19.141	2,4,5,6-Tetrachloro-m-Xylene
3.058	5613.1	BV	0.029		9.609	Hexachlorobenzene
3.205	7167.5	VV	0.027		9.302	Alpha-BHC
3.503	6450.8	BV	0.028		9.343	Gamma-BHC
3.588	3011.2	VB	0.043		9.781	Beta-BHC
3.769	6658.4	BF	0.036		9.240	Delta-BHC
3.972	6697.5	BB	0.034		9.609	Heptachlor
4.284	6772.4	BB	0.036		9.639	Aldrin
4.901	6281.2	BV	0.035		9.833	Heptachlor Epoxide
5.031	6296.6	VB	0.038		9.685	Gamma Chlordane
5.163	5896.9	BV	0.034		9.763	Alpha Chlordane
5.242	4961.7	VV	0.037		9.155	4,4'-DDE
5.301	6515.8	VB	0.040		10.166	Endosulfan I
5.539	6143.4	BF	0.034		9.687	Dieldrin
5.770	5373.2	BV	0.033		9.449	Endrin
5.839	4435.7	VB	0.039		9.214	4,4'-DDD
5.993	5239.9	BV	0.034		9.723	Endosulfan II
6.105	4722.4	VB	0.037		9.169	4,4'-DDT
6.393	4445.9	VB	0.035		9.823	Endrin Aldehyde
6.571	2540.3	BB	0.037		9.991	Methoxychlor
6.808	5207.7	VB	0.034		9.874	Endosulfan Sulfate
7.079	6239.6	BB	0.034		9.905	Endrin Ketone
7.996	10503.4	BB	0.036		19.910	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110503.D
Operator : 500
Instrument : GC 51
Sample Name : P ICAL2 S080713F 20PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 05 Nov 13 00:22 pm
Report Created on: 05 Nov 13 01:25 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 3
Injection Number : 1
Sequence Line : 4
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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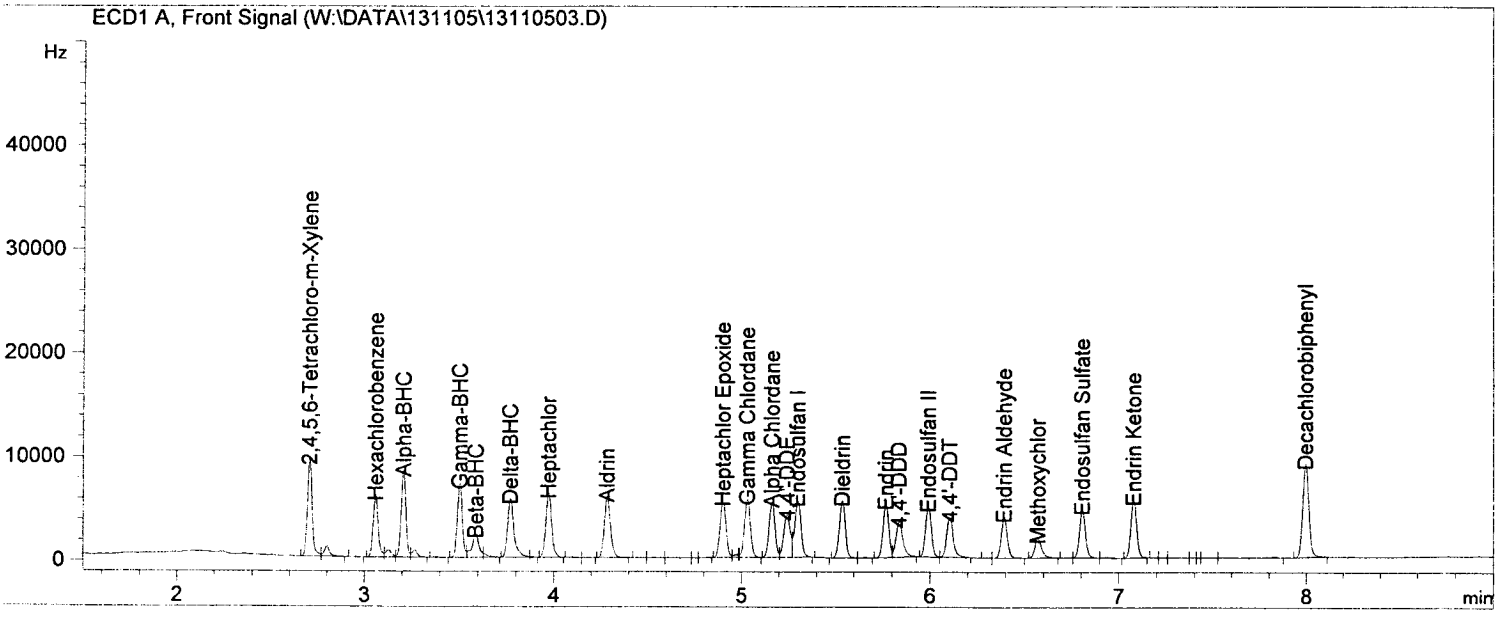
Sig. ECD1 A, W:\DATA\131105\13110503.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.707	16489.1	BV	0.028		37.948	2,4,5,6-Tetrachloro-m-Xylene
3.058	11200.0	BV	0.029		19.172	Hexachlorobenzene
3.206	14574.9	VV	0.028		18.915	Alpha-BHC
3.504	13089.1	BV	0.029		18.957	Gamma-BHC
3.588	5885.2	VB	0.041		19.117	Beta-BHC
3.769	13372.3	BB	0.035		18.557	Delta-BHC
3.973	13346.1	BB	0.034		19.147	Heptachlor
4.285	13615.8	BB	0.035		19.380	Aldrin
4.901	12297.3	BB	0.036		19.250	Heptachlor Epoxide
5.031	12487.2	VB	0.035		19.207	Gamma Chlordane
5.163	11490.6	BV	0.034		19.023	Alpha Chlordane
5.242	9685.2	VV	0.040		17.871	4,4'-DDE
5.299	12857.7	VB	0.040		20.061	Endosulfan I
5.538	12032.8	BB	0.033		18.973	Dieldrin
5.770	10759.7	BV	0.033		18.922	Endrin
5.838	8763.9	VB	0.043		18.204	4,4'-DDD
5.992	10265.3	BV	0.033		19.048	Endosulfan II
6.104	9438.5	VB	0.037		18.326	4,4'-DDT
6.394	8736.4	VB	0.034		19.303	Endrin Aldehyde
6.571	4811.1	BB	0.038		18.922	Methoxychlor
6.807	10134.4	VB	0.034		19.214	Endosulfan Sulfate
7.079	12124.9	BB	0.034		19.248	Endrin Ketone
7.997	20520.4	BB	0.036		38.898	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110504.D
Operator : 500
Instrument : GC 51
Sample Name : P ICAL3 S080713G 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 05 Nov 13 00:36 pm
Report Created on: 05 Nov 13 01:25 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 4
Injection Number : 1
Sequence Line : 5
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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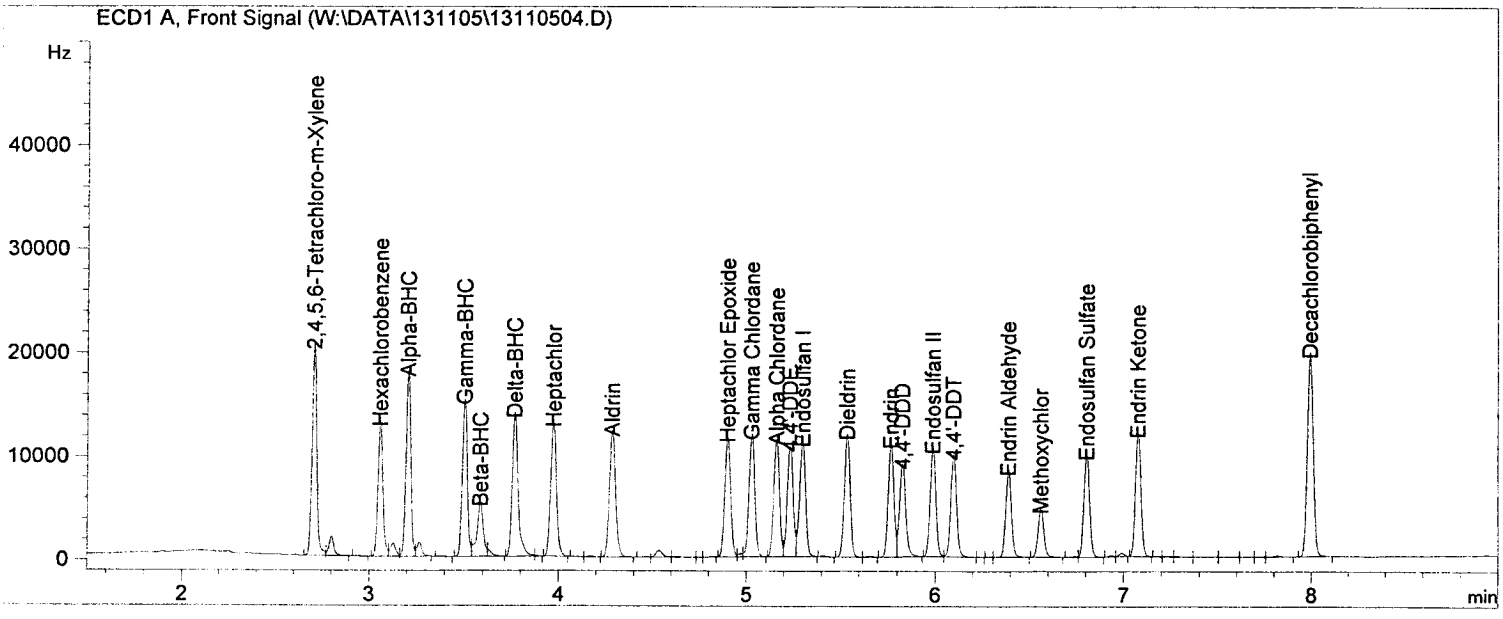
Sig. ECD1 A, W:\DATA\131105\13110504.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.708	35466.7	BV	0.027		81.622	2,4,5,6-Tetrachloro-m-Xylene
3.059	23811.7	BV	0.028		40.761	Hexachlorobenzene
3.207	31124.7	VV	0.027		40.393	Alpha-BHC
3.505	27695.9	BV	0.028		40.112	Gamma-BHC
3.588	12220.8	VB	0.038		39.697	Beta-BHC
3.768	29515.8	BB	0.032		40.961	Delta-BHC
3.973	27543.4	BB	0.033		39.516	Heptachlor
4.285	27608.8	BB	0.035		39.297	Aldrin
4.900	25364.7	BB	0.035		39.706	Heptachlor Epoxide
5.029	25778.0	VB	0.034		39.650	Gamma Chlordane
5.162	24204.6	BV	0.033		40.072	Alpha Chlordane
5.234	23168.0	VV	0.036		42.750	4,4'-DDE
5.300	24569.2	VB	0.037		38.333	Endosulfan I
5.538	25502.7	BB	0.034		40.212	Dieldrin
5.768	23100.9	BV	0.033		40.624	Endrin
5.828	20190.8	VB	0.037		41.939	4,4'-DDD
5.989	22257.6	BV	0.033		41.300	Endosulfan II
6.098	21195.7	VB	0.033		41.155	4,4'-DDT
6.390	17855.6	VB	0.033		39.453	Endrin Aldehyde
6.562	10197.0	BB	0.034		40.104	Methoxychlor
6.804	20853.1	VB	0.033		39.536	Endosulfan Sulfate
7.076	25076.4	BB	0.033		39.808	Endrin Ketone
7.995	42089.2	BB	0.033		79.783	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110505.D
Operator : 500
Instrument : GC 51
Sample Name : P ICAL4 S080713H 60PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 05 Nov 13 00:50 pm
Report Created on: 05 Nov 13 01:25 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 5
Injection Number : 1
Sequence Line : 6
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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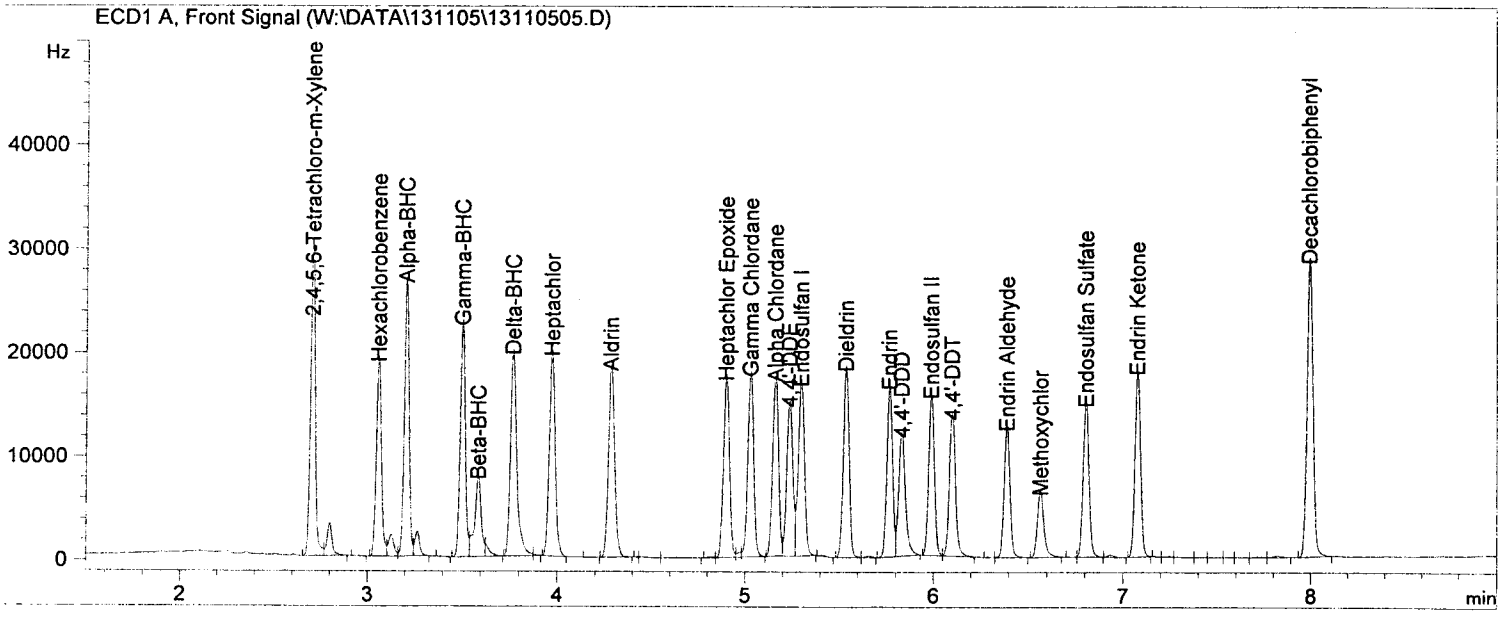
Sig. ECD1 A, W:\DATA\131105\13110505.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.708	54137.3	BV	0.028		124.590	2,4,5,6-Tetrachloro-m-Xylene
3.059	35332.1	BV	0.028		60.482	Hexachlorobenzene
3.207	47303.2	VV	0.029		61.390	Alpha-BHC
3.504	42369.1	BV	0.029		61.364	Gamma-BHC
3.587	18937.9	VB	0.040		61.516	Beta-BHC
3.769	45165.1	BB	0.034		62.678	Delta-BHC
3.973	42751.2	BB	0.034		61.334	Heptachlor
4.285	43099.8	BB	0.036		61.346	Aldrin
4.900	38793.6	VV	0.037		60.728	Heptachlor Epoxide
5.031	39659.1	VV	0.037		61.002	Gamma Chlordane
5.162	37444.7	BV	0.034		61.991	Alpha Chlordane
5.237	33637.7	VV	0.038		62.069	4,4'-DDE
5.299	38881.7	VB	0.038		60.664	Endosulfan I
5.537	39452.4	BB	0.034		62.207	Dieldrin
5.769	34819.7	BV	0.033		61.232	Endrin
5.833	29760.6	VB	0.041		61.817	4,4'-DDD
5.991	33115.0	BV	0.033		61.447	Endosulfan II
6.101	32117.2	VB	0.036		62.361	4,4'-DDT
6.391	27106.4	VB	0.033		59.893	Endrin Aldehyde
6.567	15426.3	BB	0.036		60.670	Methoxychlor
6.806	32003.1	VB	0.033		60.676	Endosulfan Sulfate
7.078	38195.8	BB	0.033		60.635	Endrin Ketone
7.997	63325.3	BB	0.035		120.038	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110506.D
Operator : 500
Instrument : GC 51
Sample Name : P ICAL5 S080713I 80PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 05 Nov 13 01:05 pm
Report Created on: 05 Nov 13 01:25 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 6
Injection Number : 1
Sequence Line : 7
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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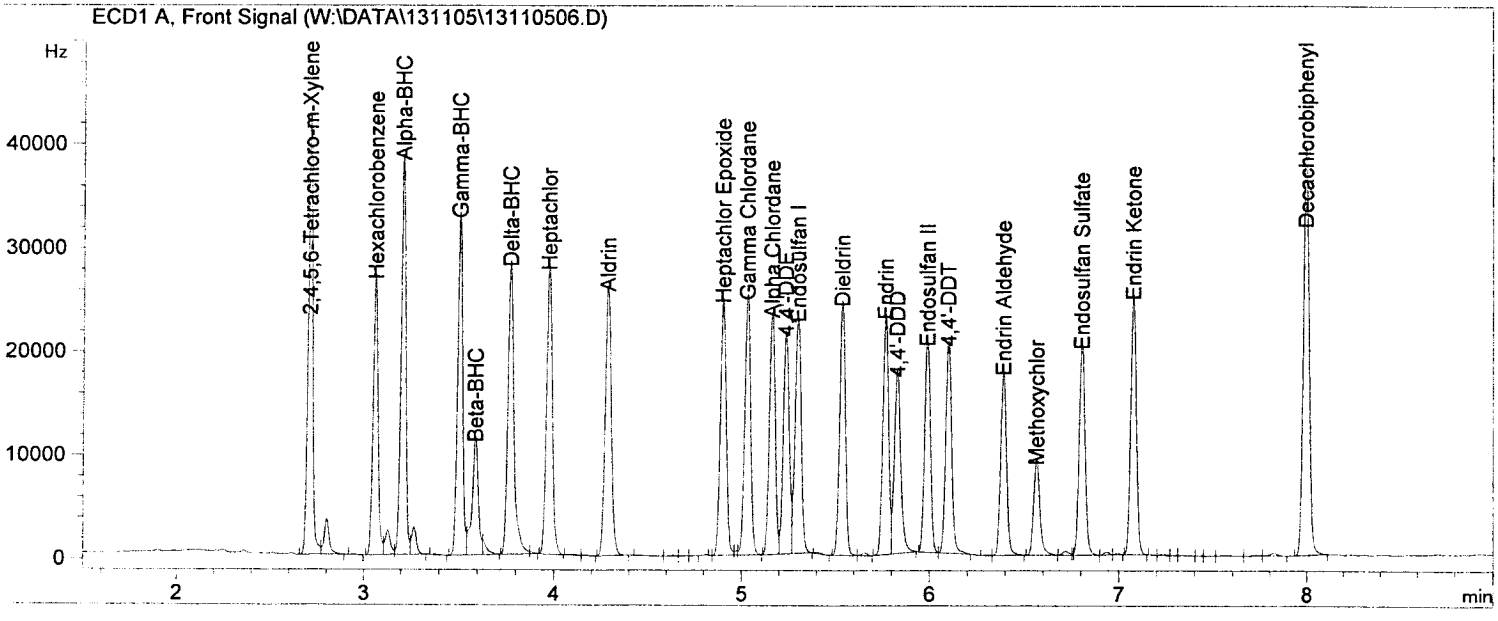
Sig. ECD1 A, W:\DATA\131105\13110506.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.709	72008.8	BV	0.026		165.719	2,4,5,6-Tetrachloro-m-Xylene
3.059	49232.0	BV	0.028		84.276	Hexachlorobenzene
3.208	67256.0	VV	0.029		87.284	Alpha-BHC
3.505	60336.5	BV	0.028		87.386	Gamma-BHC
3.588	25817.6	VB	0.038		83.864	Beta-BHC
3.769	62226.5	BB	0.033		86.356	Delta-BHC
3.974	59756.0	BB	0.033		85.730	Heptachlor
4.286	59702.1	BB	0.035		84.977	Aldrin
4.901	53632.2	VV	0.036		83.956	Heptachlor Epoxide
5.031	55296.9	VV	0.037		85.055	Gamma Chlordane
5.162	50138.4	BV	0.033		83.007	Alpha Chlordane
5.236	47156.4	VV	0.036		87.014	4,4'-DDE
5.300	51836.0	VB	0.038		80.876	Endosulfan I
5.538	52798.0	BB	0.034		83.250	Dieldrin
5.769	48806.8	BV	0.033		85.830	Endrin
5.831	41967.3	VB	0.040		87.173	4,4'-DDD
5.990	43919.8	BV	0.034		81.496	Endosulfan II
6.100	45261.2	VB	0.034		87.882	4,4'-DDT
6.391	38666.9	VB	0.034		85.436	Endrin Aldehyde
6.566	21177.2	BB	0.035		83.288	Methoxychlor
6.805	44400.9	VB	0.034		84.181	Endosulfan Sulfate
7.077	52475.9	BB	0.033		83.304	Endrin Ketone
7.996	87315.0	BB	0.035		165.512	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110507.D
Operator : 500
Instrument : GC 51
Sample Name : P ICV S080713K 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 05 Nov 13 01:48 pm
Report Created on: 05 Nov 13 02:01 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 7
Injection Number : 1
Sequence Line : 8
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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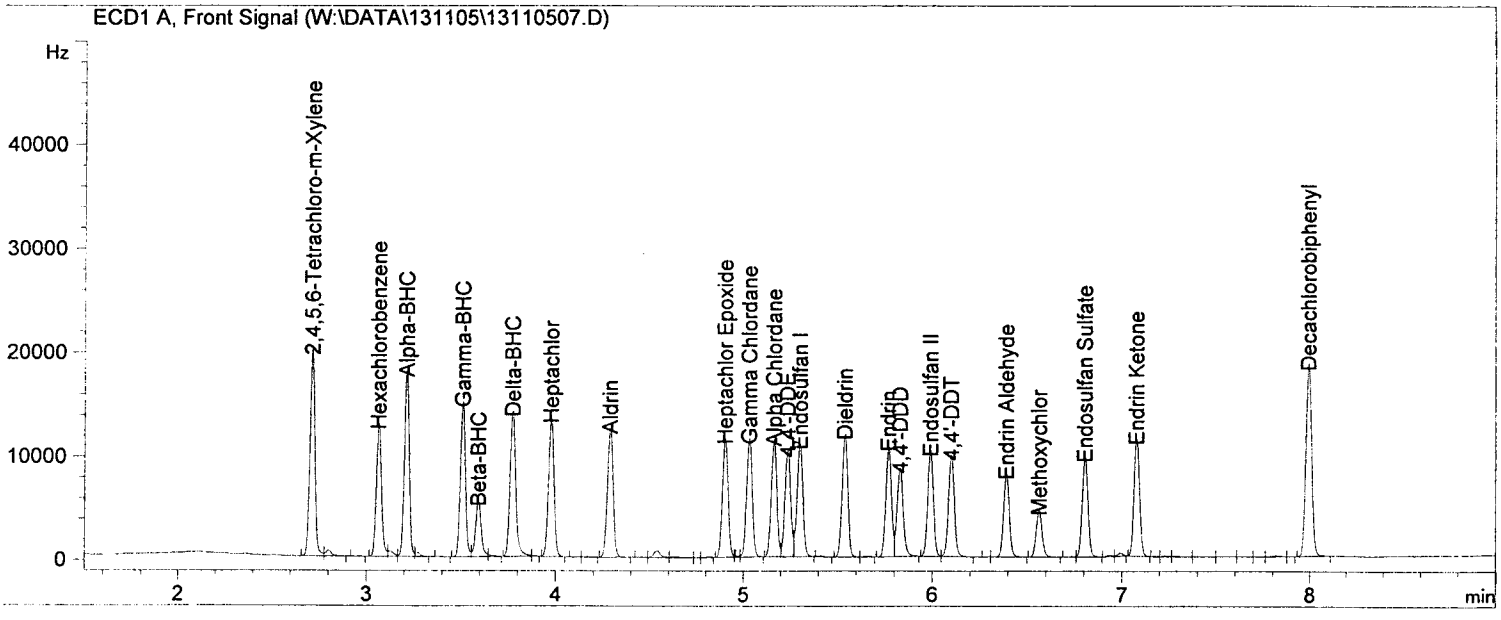
Sig. ECD1 A, W:\DATA\131105\13110507.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.714	36494.2	BV	0.028		83.987	2,4,5,6-Tetrachloro-m-Xylene
3.064	24348.5	BV	0.029		41.680	Hexachlorobenzene
3.212	31818.3	VV	0.028		41.293	Alpha-BHC
3.509	28296.7	BV	0.030		40.983	Gamma-BHC
3.593	11358.6	VB	0.035		36.896	Beta-BHC
3.773	29461.6	BB	0.032		40.886	Delta-BHC
3.977	27242.1	BB	0.032		39.084	Heptachlor
4.290	26459.4	BB	0.033		37.661	Aldrin
4.903	24203.2	BB	0.034		37.888	Heptachlor Epoxide
5.032	24526.5	VB	0.033		37.725	Gamma Chlordane
5.164	23299.7	BV	0.033		38.574	Alpha Chlordane
5.237	22146.6	VV	0.036		40.865	4,4'-DDE
5.302	23475.2	VB	0.036		36.627	Endosulfan I
5.540	24675.4	BB	0.033		38.907	Dieldrin
5.771	22096.1	BV	0.032		38.857	Endrin
5.831	19123.4	VB	0.037		39.722	4,4'-DDD
5.991	21621.4	BV	0.034		40.120	Endosulfan II
6.101	20948.5	VB	0.034		40.675	4,4'-DDT
6.393	17147.6	VB	0.033		37.888	Endrin Aldehyde
6.565	9903.9	BB	0.034		38.951	Methoxychlor
6.806	20308.0	VB	0.033		38.503	Endosulfan Sulfate
7.078	23964.4	BB	0.033		38.043	Endrin Ketone
7.996	40305.3	BB	0.034		76.402	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

GC-51, Calculation of Initial Calibration, Pest, Rear Column

Date of run 11/05/2013

500

11/5

Rear column

	Area					Conc. (ppb)												ICV			
Analytes	Lv 1	Lv 2	Lv 3	Lv 4	Lv 5	Lv 1	Lv 2	Lv 3	Lv 4	Lv 5	RF1	RF2	RF3	RF4	RF5	Avg RF	SD	%RSD (<20%)	AREA	Conc. (ppb)	RF	%D (<15%)
TCMX (Sur.)	11915.7	24573.6	55061.9	82435	118942.7	20	40	80	120	160	596	614	688	687	743	666	60	9.1	56626.3	80.0	708	6.3
Hexachlorobenzene	8495	17387	37692.9	55984.9	79833.2	10	20	40	60	80	850	869	942	933	998	918	60	6.5	39566.1	40.0	989	7.7
Alpha-BHC	10765.5	21936.2	47405.7	74000.8	102370.3	10	20	40	60	80	1077	1097	1185	1233	1280	1174	87	7.4	48516.2	40.0	1213	3.3
Gamma-BHC	9567.5	19899.5	43752	67765.2	96021.6	10	20	40	60	80	957	995	1094	1129	1200	1075	99	9.2	42955.7	40.0	1074	0.1
Beta-BHC	4006.2	8163.2	17952.8	27468.7	38547.8	10	20	40	60	80	401	408	449	458	482	439	34	7.8	17317.8	40.0	433	1.5
Delta-BHC	8265.5	17500.4	42166.7	63101.8	90464.4	10	20	40	60	80	827	875	1054	1052	1131	988	130	13.2	42862.9	40.0	1072	8.5
Heptachlor	11495	23348.3	47677.5	75882.4	105021.6	10	20	40	60	80	1150	1167	1192	1265	1313	1217	69	5.7	45983.5	40.0	1150	5.6
Aldrin	9632.2	20403.4	44500.6	67146.1	93494.4	10	20	40	60	80	963	1020	1113	1119	1169	1077	83	7.7	41573	40.0	1039	3.5
Heptachlor Epoxide	8647.9	18062.6	38494.6	60337.5	82848.6	10	20	40	60	80	865	903	962	1006	1036	954	71	7.4	37073.3	40.0	927	2.9
Gamma Chlordane	9053.9	18667	40254.1	62323.5	87258.2	10	20	40	60	80	905	933	1006	1039	1091	995	76	7.6	38472.6	40.0	962	3.3
Alpha Chlordane	8723.1	17664.3	37797.2	58823.1	81271.1	10	20	40	60	80	872	883	945	980	1016	939	62	6.6	36253	40.0	906	3.5
Endosulfan I	8402	16996.7	36498.5	55996.5	77408.4	10	20	40	60	80	840	850	912	933	968	901	55	6.1	34791.1	40.0	870	3.4
4,4'-DDE	7277.6	14551.3	35499.5	52698.3	73178.3	10	20	40	60	80	728	728	887	878	915	827	92	11.1	34258.9	40.0	856	3.5
Dieldrin	9190.3	18945.6	40776	63612.7	89708.8	10	20	40	60	80	919	947	1019	1060	1121	1013	82	8.1	38844.3	40.0	971	4.2
Endrin	7716.4	15926.4	35824.7	54878	76908.9	10	20	40	60	80	772	796	896	915	961	868	81	9.3	34248.3	40.0	856	1.3
4,4'-DDD	6071.8	12150.5	30799.4	44056.9	62647.8	10	20	40	60	80	607	608	770	734	783	700	87	12.4	29221.8	40.0	731	4.3
Endosulfan II	8661.7	17450.4	36189	55895.1	77336.6	10	20	40	60	80	866	873	905	932	967	908	42	4.6	34580.5	40.0	865	4.8
4,4'-DDT	6349.4	13575.2	31106	47482.1	71458.2	10	20	40	60	80	635	679	778	791	893	755	101	13.4	30855.7	40.0	771	2.1
Endrin Aldehyde	6417	12947.2	26278.9	42650.8	60769.9	10	20	40	60	80	642	647	657	711	760	683	51	7.4	25369.1	40.0	634	7.2
Endosulfan Sulfate	7151.8	14515.5	31630.6	48948.9	69260.9	10	20	40	60	80	715	726	791	816	866	783	63	8.0	30830.2	40.0	771	1.5
Methoxychlor	3466.7	6773	15234.3	23640.2	34814.2	10	20	40	60	80	347	339	381	394	435	379	39	10.3	14864.9	40.0	372	2.0
Endrin Ketone	8979.5	18063.8	40600.5	60268.3	83881.1	10	20	40	60	80	898	903	1015	1004	1049	974	69	7.1	38847.9	40.0	971	0.3
DCB (Sur.)	16250.6	32262	67076.5	103487.5	145008	20	40	80	120	160	813	807	838	862	906	845	41	4.8	63932.7	80.0	799	5.5

CALCULATION FORMULAS:

RF = Area / LEVEL
%RSD = SD /Avg RF * 100
%D = Absolute(RF-Ave RF) / Ave RF * 100

Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110502.D
Operator : 500
Instrument : GC 51
Sample Name : P ICAL1 S080713E 10PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 05 Nov 13 00:08 pm
Report Created on: 05 Nov 13 01:34 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 2
Injection Number : 1
Sequence Line : 3
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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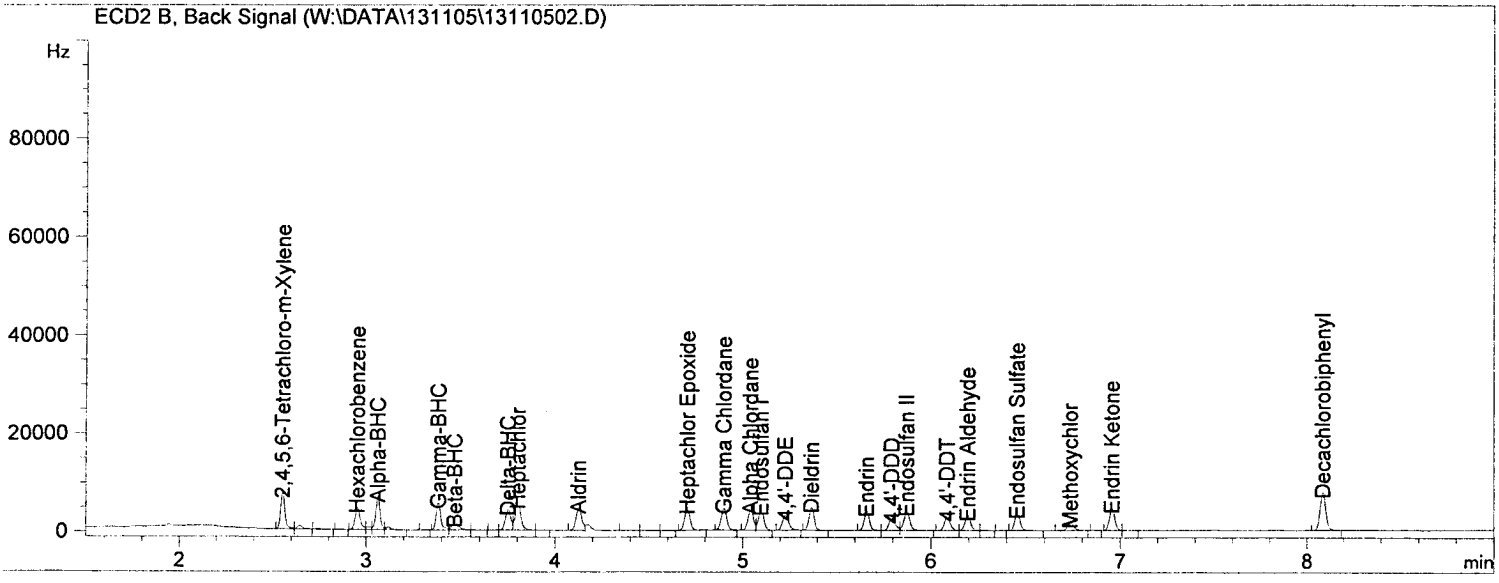
Sig. ECD2 B, W:\DATA\131105\13110502.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.553	11915.7	BV	0.025		17.898	2,4,5,6-Tetrachloro-m-Xylene
2.953	8495.0	BV	0.029		9.249	Hexachlorobenzene
3.062	10765.5	VV	0.026		9.168	Alpha-BHC
3.382	9567.5	BV	0.027		8.900	Gamma-BHC
3.468	4006.2	VB	0.037		9.116	Beta-BHC
3.749	8265.5	VV	0.031		8.369	Delta-BHC
3.802	11495.0	VB	0.035		9.443	Heptachlor
4.126	9632.2	BV	0.032		8.946	Aldrin
4.704	8647.9	BB	0.031		9.062	Heptachlor Epoxide
4.899	9053.9	BB	0.032		9.100	Gamma Chlordane
5.041	8723.1	BV	0.031		9.286	Alpha Chlordane
5.098	8402.0	VB	0.035		9.329	Endosulfan I
5.226	7277.6	BB	0.036		8.798	4,4'-DDE
5.368	9190.3	BB	0.030		9.068	Dieldrin
5.663	7716.4	BV	0.031		8.891	Endrin
5.796	6071.8	VV	0.036		8.669	4,4'-DDD
5.875	8661.7	VB	0.036		9.536	Endosulfan II
6.087	6349.4	BV	0.031		8.408	4,4'-DDT
6.194	6417.0	VB	0.032		9.391	Endrin Aldehyde
6.457	7151.8	BV	0.031		9.138	Endosulfan Sulfate
6.737	3466.7	BB	0.034		9.145	Methoxychlor
6.957	8979.5	BB	0.030		9.221	Endrin Ketone
8.086	16250.6	BB	0.033		19.226	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110503.D
Operator : 500
Instrument : GC 51
Sample Name : P ICAL2 S080713F 20PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 05 Nov 13 00:22 pm
Report Created on: 05 Nov 13 01:35 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 3
Injection Number : 1
Sequence Line : 4
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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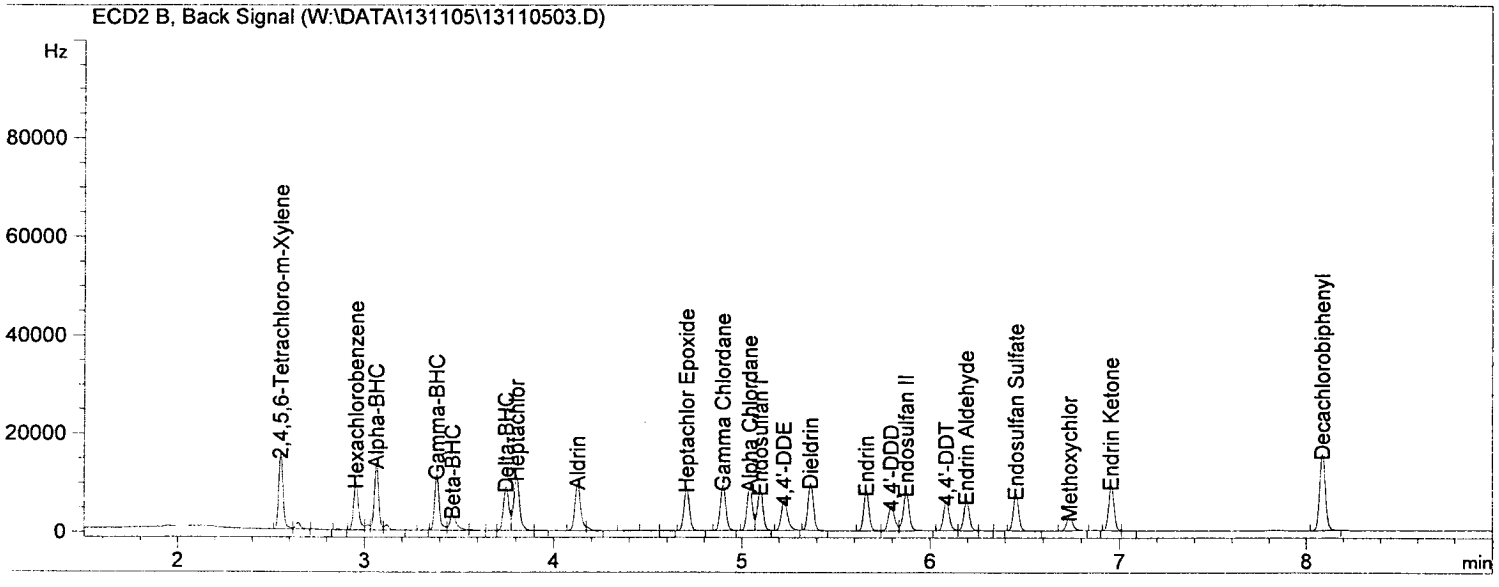
Sig. ECD2 B, W:\DATA\131105\13110503.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.553	24573.6	BV	0.025		36.911	2,4,5,6-Tetrachloro-m-Xylene
2.954	17387.0	BV	0.028		18.931	Hexachlorobenzene
3.062	21936.2	VV	0.027		18.680	Alpha-BHC
3.383	19899.5	BV	0.027		18.510	Gamma-BHC
3.467	8163.2	VB	0.040		18.576	Beta-BHC
3.748	17500.4	VV	0.031		17.719	Delta-BHC
3.803	23348.3	VB	0.035		19.181	Heptachlor
4.127	20403.4	BB	0.033		18.949	Aldrin
4.704	18062.6	BB	0.032		18.928	Heptachlor Epoxide
4.900	18667.0	BB	0.031		18.762	Gamma Chlordane
5.042	17664.3	BV	0.031		18.805	Alpha Chlordane
5.098	16996.7	VB	0.035		18.871	Endosulfan I
5.226	14551.3	BB	0.037		17.592	4,4'-DDE
5.367	18945.6	BB	0.031		18.694	Dieldrin
5.663	15926.4	BV	0.030		18.350	Endrin
5.795	12150.5	VV	0.035		17.348	4,4'-DDD
5.875	17450.4	VB	0.036		19.211	Endosulfan II
6.087	13575.2	BV	0.033		17.976	4,4'-DDT
6.194	12947.2	VB	0.032		18.948	Endrin Aldehyde
6.458	14515.5	BV	0.031		18.546	Endosulfan Sulfate
6.738	6773.0	VB	0.034		17.867	Methoxychlor
6.957	18063.8	BB	0.030		18.549	Endrin Ketone
8.087	32262.0	BB	0.032		38.169	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110504.D
Operator : 500
Instrument : GC 51
Sample Name : P ICAL3 S080713G 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 05 Nov 13 00:36 pm
Report Created on: 05 Nov 13 01:35 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 4
Injection Number : 1
Sequence Line : 5
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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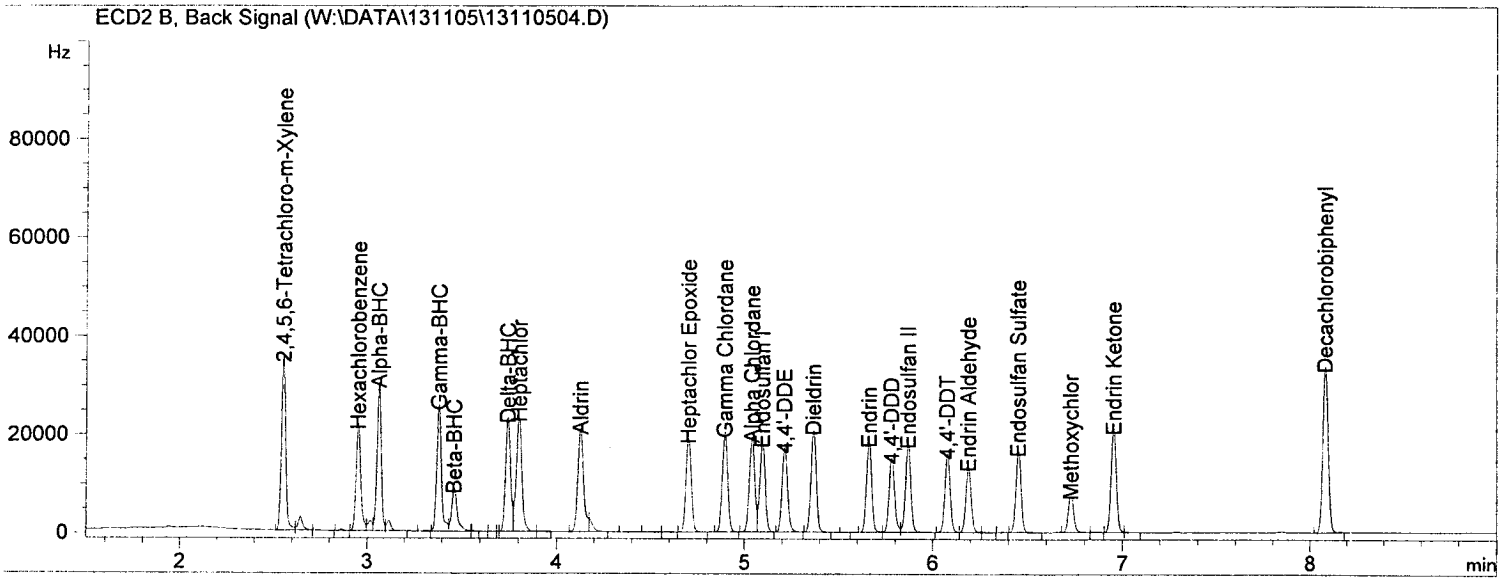
Sig. ECD2 B, W:\DATA\131105\13110504.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.554	55061.9	BV	0.024		82.707	2,4,5,6-Tetrachloro-m-Xylene
2.953	37692.9	BV	0.027		41.040	Hexachlorobenzene
3.063	47405.7	VV	0.026		40.370	Alpha-BHC
3.382	43752.0	BV	0.026		40.698	Gamma-BHC
3.464	17952.8	VB	0.034		40.853	Beta-BHC
3.744	42166.7	VV	0.028		42.694	Delta-BHC
3.803	47677.5	VB	0.034		39.168	Heptachlor
4.127	44500.6	BB	0.032		41.329	Aldrin
4.703	38494.6	BB	0.032		40.338	Heptachlor Epoxide
4.896	40254.1	BB	0.031		40.460	Gamma Chlordane
5.040	37797.2	BV	0.031		40.238	Alpha Chlordane
5.096	36498.5	VB	0.033		40.523	Endosulfan I
5.212	35499.5	BB	0.033		42.917	4,4'-DDE
5.366	40776.0	BB	0.031		40.235	Dieldrin
5.662	35824.7	BV	0.031		41.277	Endrin
5.782	30799.4	VV	0.032		43.973	4,4'-DDD
5.870	36189.0	VB	0.033		39.841	Endosulfan II
6.079	31106.0	BV	0.030		41.190	4,4'-DDT
6.190	26278.9	VB	0.030		38.459	Endrin Aldehyde
6.454	31630.6	BV	0.030		40.414	Endosulfan Sulfate
6.729	15234.3	VB	0.031		40.189	Methoxychlor
6.954	40600.5	BB	0.030		41.692	Endrin Ketone
8.084	67076.5	BB	0.031		79.357	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110505.D
Operator : 500
Instrument : GC 51
Sample Name : P ICAL4 S080713H 60PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 05 Nov 13 00:50 pm
Report Created on: 05 Nov 13 01:35 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 5
Injection Number : 1
Sequence Line : 6
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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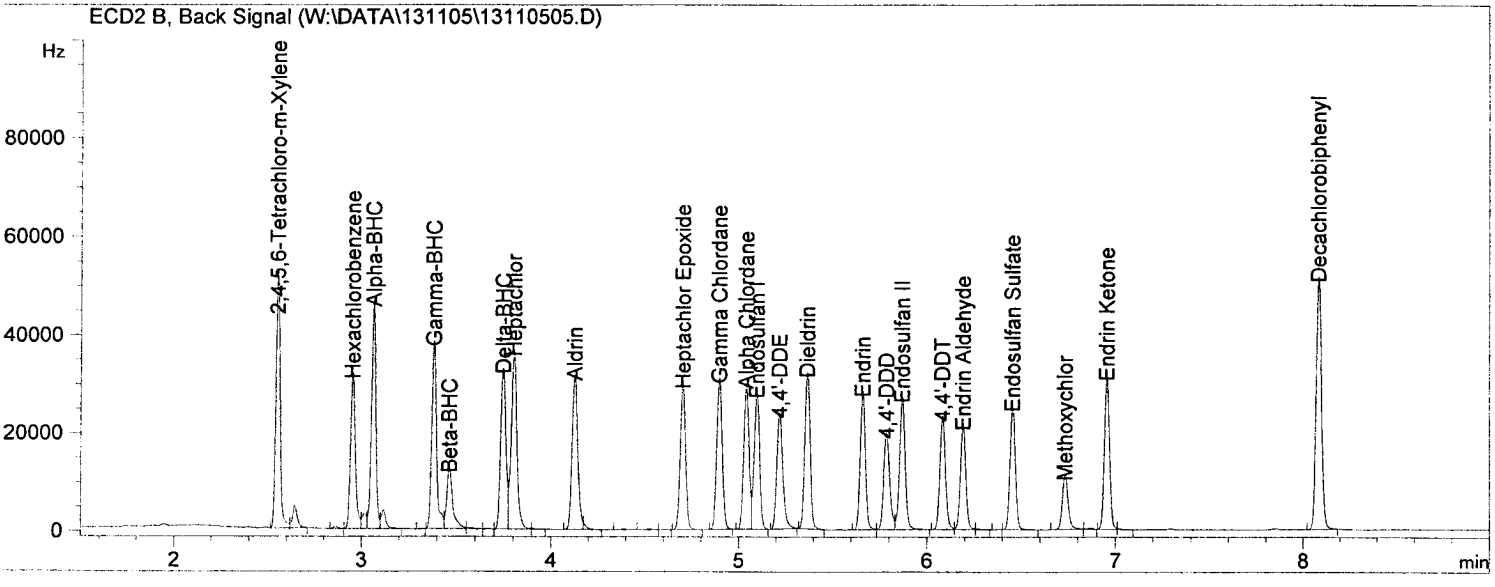
Sig. ECD2 B, W:\DATA\131105\13110505.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.554	82435.0	BV	0.024		123.823	2,4,5,6-Tetrachloro-m-Xylene
2.953	55984.9	BV	0.027		60.957	Hexachlorobenzene
3.063	74000.8	VV	0.027		63.017	Alpha-BHC
3.383	67765.2	BV	0.027		63.035	Gamma-BHC
3.465	27468.7	VB	0.036		62.507	Beta-BHC
3.746	63101.8	VV	0.030		63.891	Delta-BHC
3.803	75882.4	VB	0.035		62.338	Heptachlor
4.127	67146.1	BB	0.033		62.361	Aldrin
4.704	60337.5	BB	0.031		63.227	Heptachlor Epoxide
4.898	62323.5	BB	0.031		62.642	Gamma Chlordane
5.041	58823.1	BV	0.031		62.621	Alpha Chlordane
5.097	55996.5	VB	0.033		62.172	Endosulfan I
5.218	52698.3	BB	0.034		63.709	4,4'-DDE
5.367	63612.7	BB	0.031		62.768	Dieldrin
5.663	54878.0	BV	0.030		63.230	Endrin
5.788	44056.9	VV	0.035		62.901	4,4'-DDD
5.872	55895.1	VB	0.034		61.535	Endosulfan II
6.083	47482.1	BV	0.031		62.874	4,4'-DDT
6.191	42650.8	VB	0.033		62.419	Endrin Aldehyde
6.456	48948.9	BV	0.030		62.542	Endosulfan Sulfate
6.733	23640.2	BB	0.032		62.363	Methoxychlor
6.955	60268.3	BB	0.030		61.888	Endrin Ketone
8.086	103487.5	BB	0.031		122.435	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110506.D
Operator : 500
Instrument : GC 51
Sample Name : P ICAL5 S080713I 80PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 05 Nov 13 01:05 pm
Report Created on: 05 Nov 13 01:35 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 6
Injection Number : 1
Sequence Line : 7
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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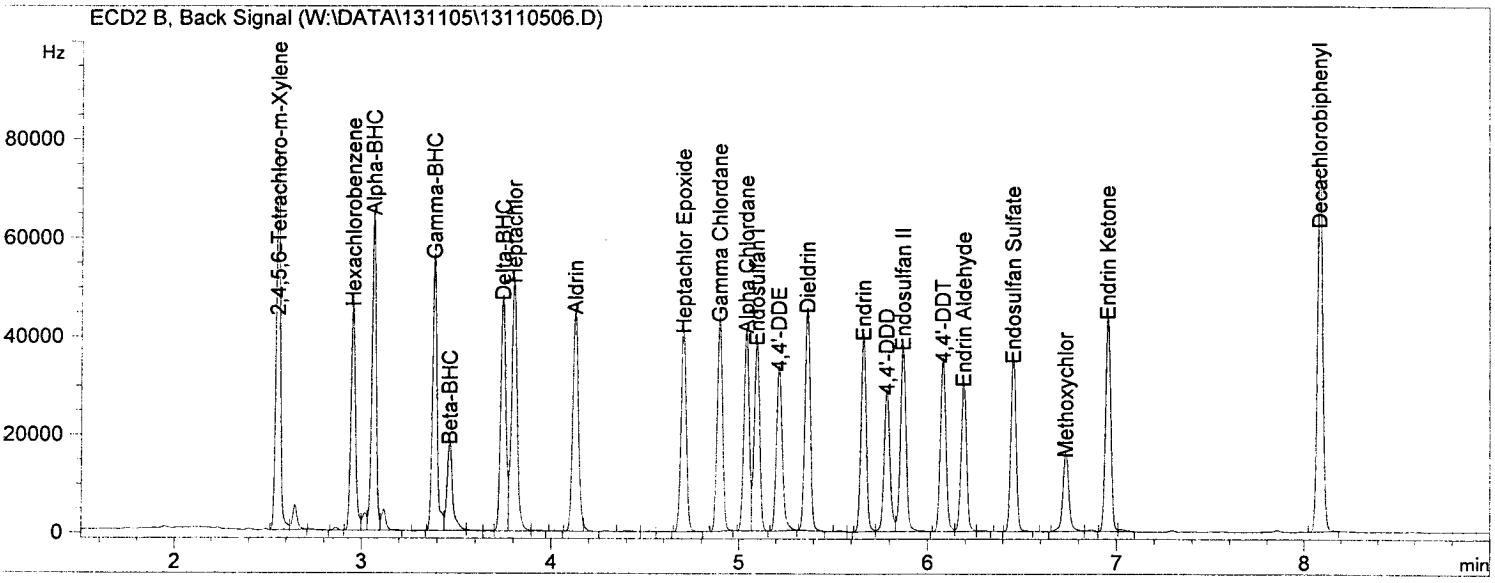
Sig. ECD2 B, W:\DATA\131105\13110506.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.554	118942.7	BV	0.024		178.660	2,4,5,6-Tetrachloro-m-Xylene
2.953	79833.2	BV	0.026		86.923	Hexachlorobenzene
3.064	102370.3	VV	0.026		87.176	Alpha-BHC
3.383	96021.6	BV	0.026		89.319	Gamma-BHC
3.464	38547.8	VB	0.034		87.718	Beta-BHC
3.745	90464.4	VV	0.029		91.596	Delta-BHC
3.803	105021.6	VB	0.034		86.277	Heptachlor
4.128	93494.4	BB	0.032		86.831	Aldrin
4.704	82848.6	BB	0.031		86.816	Heptachlor Epoxide
4.898	87258.2	BB	0.032		87.705	Gamma Chlordane
5.041	81271.1	BV	0.030		86.519	Alpha Chlordane
5.097	77408.4	VB	0.033		85.945	Endosulfan I
5.216	73178.3	BB	0.034		88.468	4,4'-DDE
5.366	89708.8	BB	0.031		88.518	Dieldrin
5.663	76908.9	BV	0.030		88.613	Endrin
5.786	62647.8	VV	0.036		89.444	4,4'-DDD
5.871	77336.6	VB	0.034		85.141	Endosulfan II
6.083	71458.2	BV	0.031		94.623	4,4'-DDT
6.191	60769.9	VB	0.033		88.936	Endrin Aldehyde
6.455	69260.9	BV	0.031		88.494	Endosulfan Sulfate
6.732	34814.2	BB	0.033		91.841	Methoxychlor
6.955	83881.1	BB	0.029		86.135	Endrin Ketone
8.086	145008.0	BB	0.030		171.557	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110507.D
Operator : 500
Instrument : GC 51
Sample Name : P ICV S080713K 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 05 Nov 13 01:48 pm
Report Created on: 05 Nov 13 02:00 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 7
Injection Number : 1
Sequence Line : 8
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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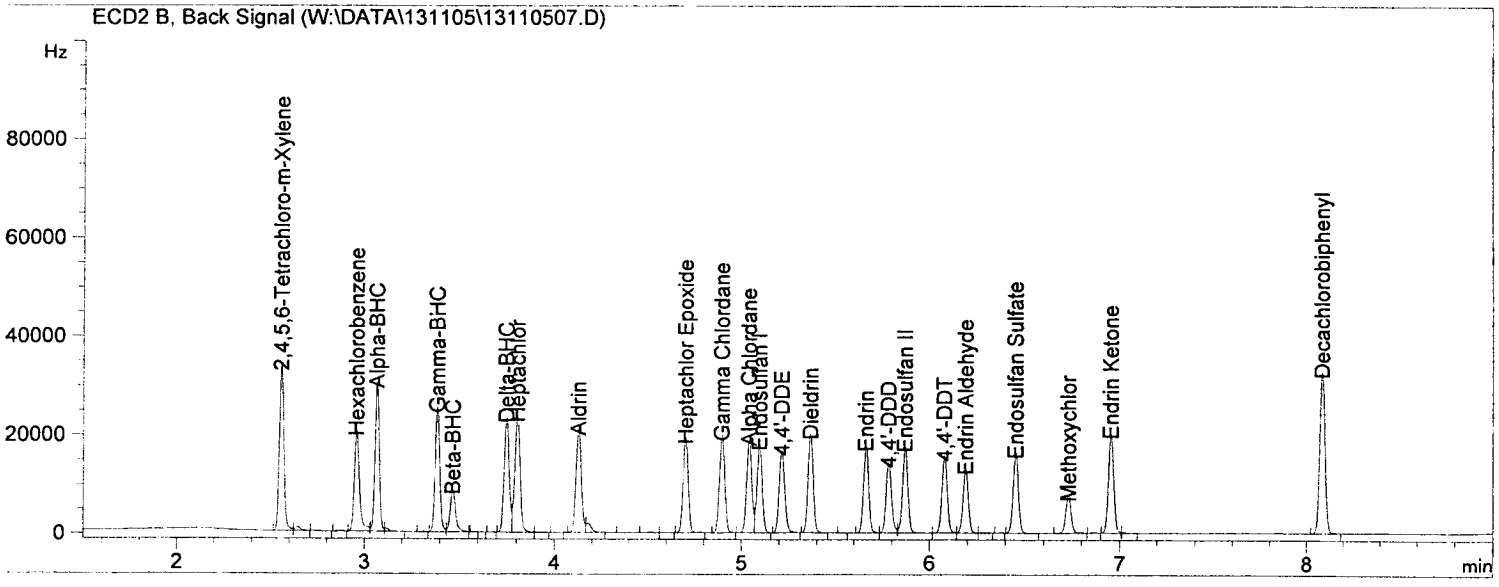
Sig. ECD2 B, W:\DATA\131105\13110507.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.559	56626.3	BV	0.026		85.056	2,4,5,6-Tetrachloro-m-Xylene
2.958	39566.1	BV	0.029		43.080	Hexachlorobenzene
3.067	48516.2	VV	0.027		41.315	Alpha-BHC
3.386	42955.7	BV	0.026		39.957	Gamma-BHC
3.468	17317.8	VB	0.033		39.408	Beta-BHC
3.748	42862.9	VV	0.028		43.399	Delta-BHC
3.806	45983.5	VB	0.033		37.776	Heptachlor
4.130	41573.0	BB	0.031		38.610	Aldrin
4.704	37073.3	BB	0.030		38.848	Heptachlor Epoxide
4.898	38472.6	BB	0.030		38.669	Gamma Chlordane
5.041	36253.0	BV	0.030		38.594	Alpha Chlordane
5.098	34791.1	VB	0.032		38.628	Endosulfan I
5.215	34258.9	BB	0.032		41.417	4,4'-DDE
5.367	38844.3	BB	0.031		38.329	Dieldrin
5.663	34248.3	BV	0.030		39.460	Endrin
5.783	29221.8	VV	0.031		41.721	4,4'-DDD
5.872	34580.5	VB	0.033		38.070	Endosulfan II
6.081	30855.7	BV	0.030		40.858	4,4'-DDT
6.191	25369.1	VB	0.029		37.127	Endrin Aldehyde
6.455	30830.2	BV	0.030		39.392	Endosulfan Sulfate
6.731	14864.9	BB	0.030		39.214	Methoxychlor
6.955	38847.9	BB	0.030		39.892	Endrin Ketone
8.085	63932.7	BB	0.031		75.638	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

Calculation for Chlordane Initial Calibration, GC 51, Front column

500

11/5

LEVEL	Area					Conc. (ppb)													ICV			
Analytes	Lv 1	Lv 2	Lv 3	Lv 4	Lv 5	Lv 1	Lv 2	Lv 3	Lv 4	Lv 5	RF1	RF2	RF3	RF4	RF5	Avg RF	SD	%RSD (<20%)	AREA	Conc. (ppb)	RF	%D (<15%)
Chlordane-F	28414.5	76764.5	135313.7	217941.0	598085.7	100	250	500	750	2000	284	307	271	291	299	290	14	**4.8**	139172.8	500	278.3	4.1

Run Date: 11/5/2013

Calculation formulas:

RF = Area / Levels(ppb)

% RSD = STDEV of RFs / Ave RF * 100

Return to Contents

External Standard Report

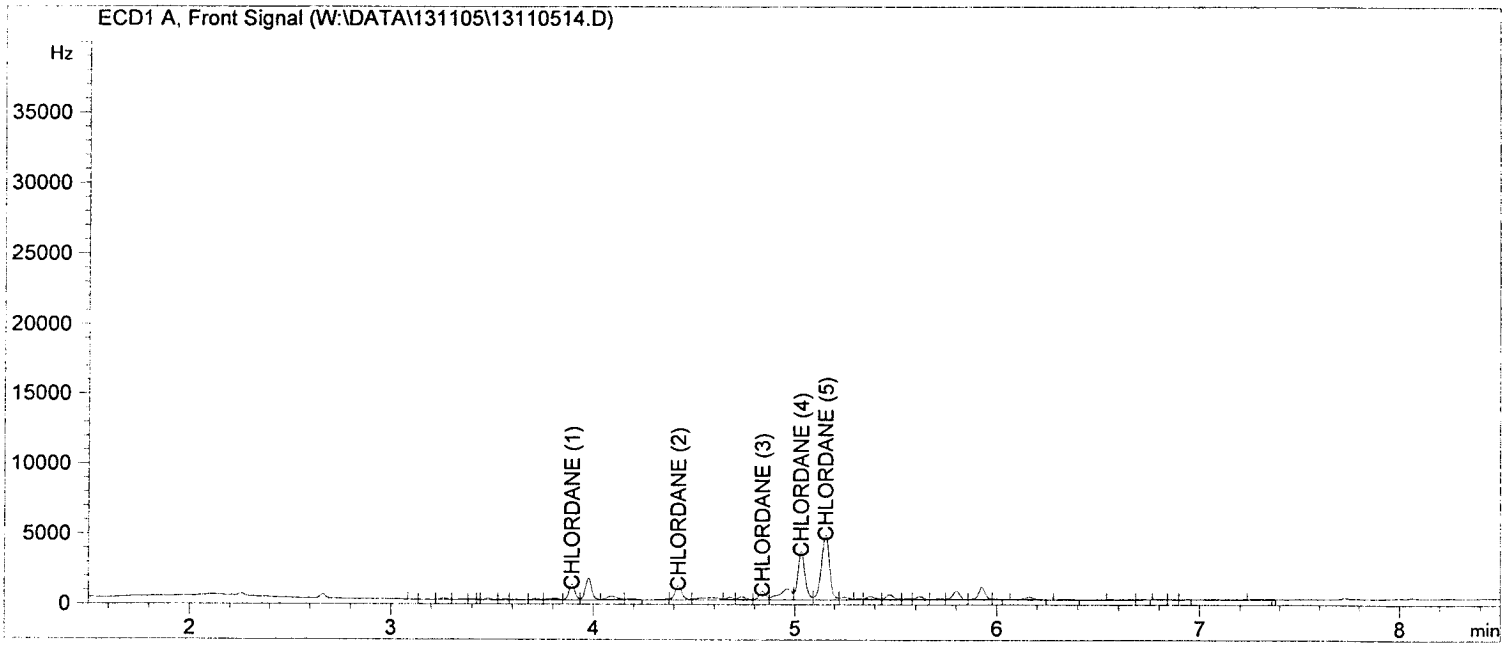
Data File Name : W:\DATA\131105\13110514.D
Operator : 500 Vial Number : Vial 14
Instrument : GC 51 Sequence Line : 21
Sample Name : C ICAL1 S082313B 100PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-F
Acquired on : 05 Nov 13 04:54 pm Method : EPA 8081A
Report Created on: 06 Nov 13 08:54 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105F.M

Sig. ECD1 A, W:\DATA\131105\13110514.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.894	2324.25	VV	0.032		8.01	CHLORDANE (1)
4.422	2607.16	VV	0.038		8.98	CHLORDANE (2)
4.839	1473.60	VV	0.036		5.08	CHLORDANE (3)
5.033	8615.21	VV	0.041		29.68	CHLORDANE (4)
5.155	13394.24	VV	0.044		46.14	CHLORDANE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.892	28414.45	VV	0.00344	97.88	Chlordane
5.154		VV	0.00344		
5.031		VV	0.00344		
4.838		VV	0.00344		
4.420		VV	0.00344		



Return to Contents

External Standard Report

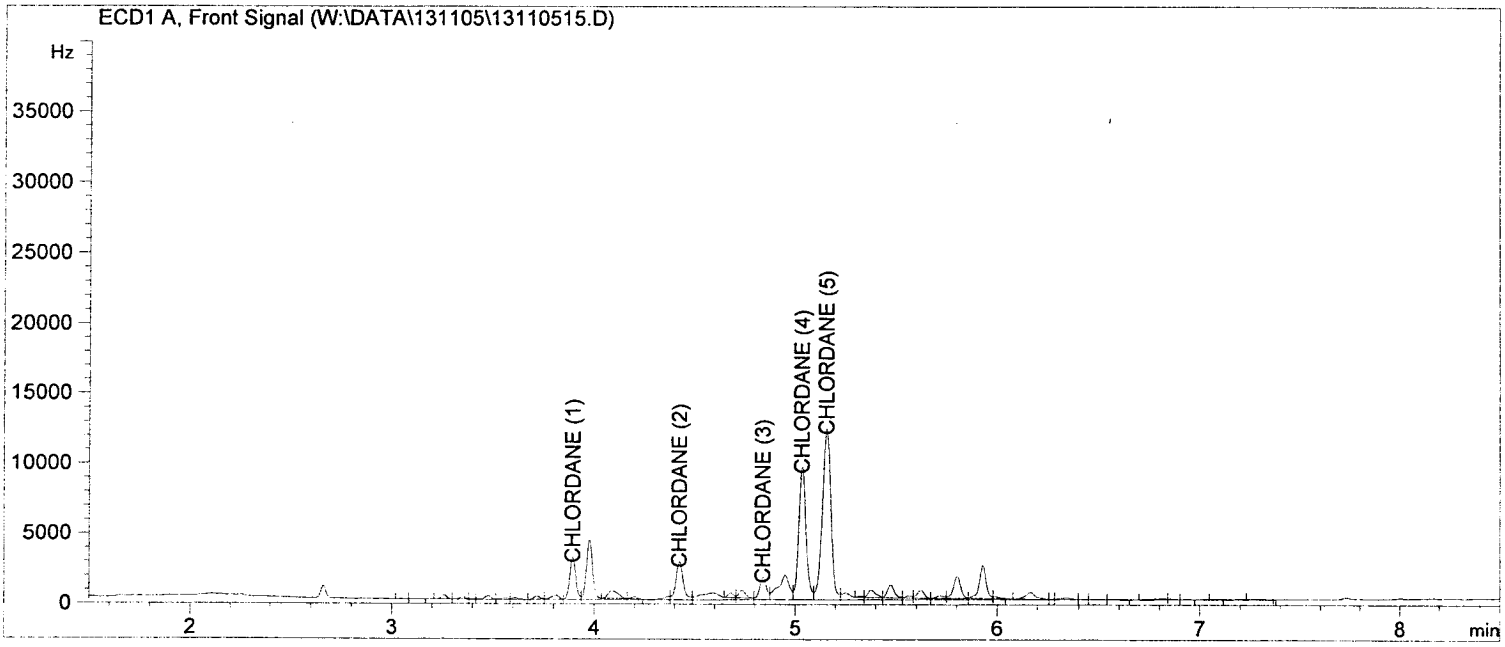
Data File Name : W:\DATA\131105\13110515.D
Operator : 500 Vial Number : Vial 15
Instrument : GC 51 Sequence Line : 22
Sample Name : C ICAL2 S082313C 250PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-F
Acquired on : 05 Nov 13 05:09 pm Method : EPA 8081A
Report Created on: 06 Nov 13 08:54 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105F.M

Sig. ECD1 A, W:\DATA\131105\13110515.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.895	6331.34	VV	0.033		21.81	CHLORDANE (1)
4.424	6816.90	VV	0.038		23.48	CHLORDANE (2)
4.840	3825.76	VV	0.036		13.18	CHLORDANE (3)
5.035	23694.19	VV	0.042		81.62	CHLORDANE (4)
5.155	36096.34	VV	0.049		124.34	CHLORDANE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.892	76764.52	VV	0.00344	264.44	Chlordane
5.154		VV	0.00344		
5.031		VV	0.00344		
4.838		VV	0.00344		
4.420		VV	0.00344		



Return to Contents

External Standard Report

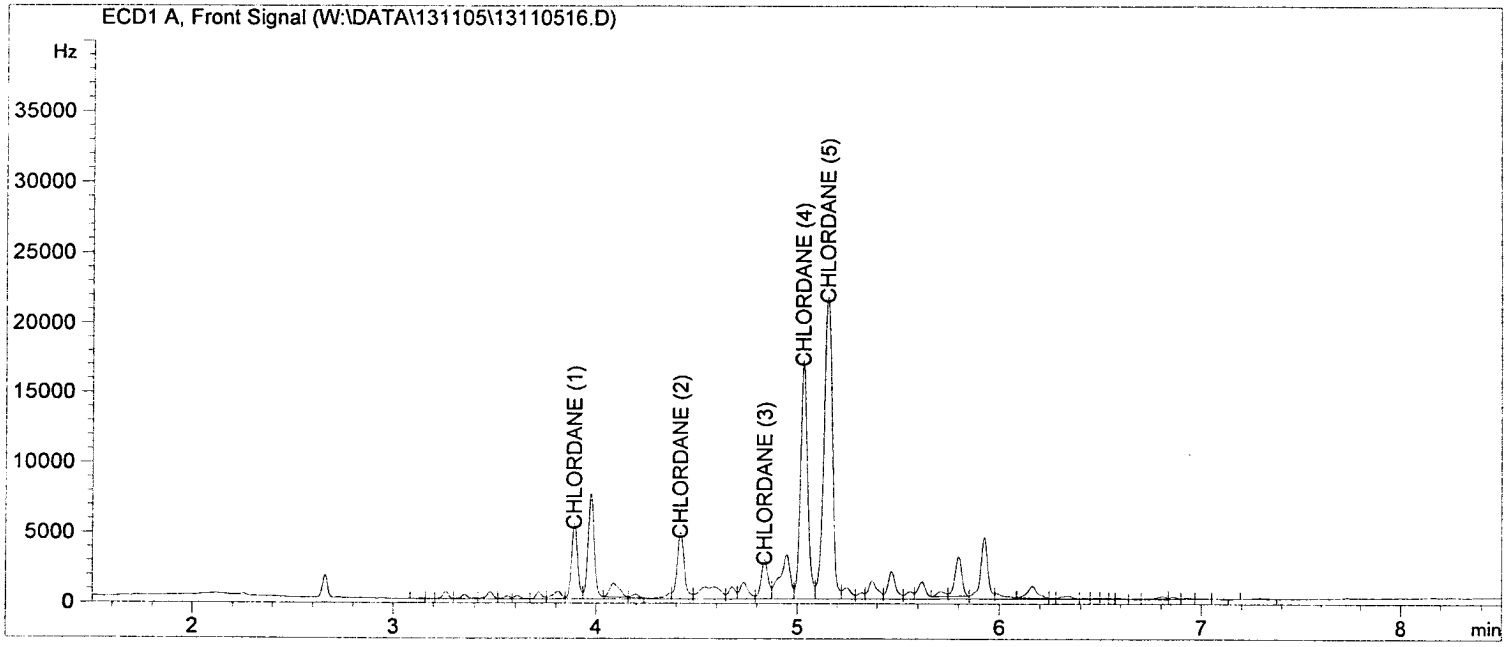
Data File Name : W:\DATA\131105\13110516.D
Operator : 500 Vial Number : Vial 16
Instrument : GC 51 Sequence Line : 23
Sample Name : C ICAL3 S082313D 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-F
Acquired on : 05 Nov 13 05:23 pm Method : EPA 8081A
Report Created on: 06 Nov 13 08:55 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105F.M

Sig. ECD1 A, W:\DATA\131105\13110516.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.892	11261.75	VV	0.033		38.79	CHLORDANE (1)
4.420	11752.66	VV	0.037		40.49	CHLORDANE (2)
4.838	6722.98	VV	0.036		23.16	CHLORDANE (3)
5.031	41988.12	VV	0.041		144.64	CHLORDANE (4)
5.154	63588.24	VV	0.049		219.05	CHLORDANE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.892	135313.74	VV	0.00344	466.13	Chlordane
5.154		VV	0.00344		
5.031		VV	0.00344		
4.838		VV	0.00344		
4.420		VV	0.00344		



Return to Contents

External Standard Report

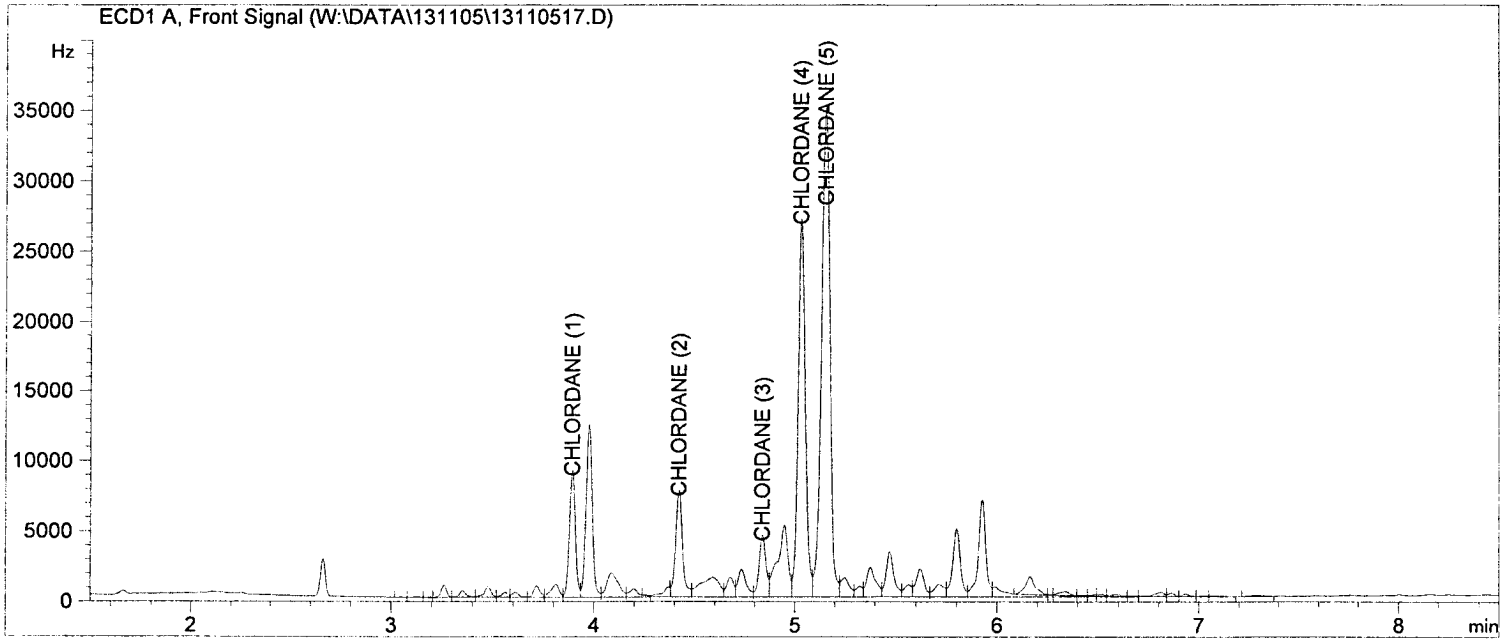
Data File Name : W:\DATA\131105\13110517.D
Operator : 500 Vial Number : Vial 17
Instrument : GC 51 Sequence Line : 24
Sample Name : C ICAL4 S082313E 750PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-F
Acquired on : 05 Nov 13 05:37 pm Method : EPA 8081A
Report Created on: 06 Nov 13 08:55 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105F.M

Sig. ECD1 A, W:\DATA\131105\13110517.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.894	18602.11	VV	0.032		64.08	CHLORDANE (1)
4.422	18759.26	VV	0.037		64.62	CHLORDANE (2)
4.839	10494.15	VV	0.040		36.15	CHLORDANE (3)
5.033	67692.24	VV	0.042		233.19	CHLORDANE (4)
5.156	102393.27	VV	0.049		352.72	CHLORDANE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.892	217941.04	VV	0.00344	750.76	Chlordane
5.154		VV	0.00344		
5.031		VV	0.00344		
4.838		VV	0.00344		
4.420		VV	0.00344		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110518.D
Operator : 500
Vial Number : Vial 18
Instrument : GC 51
Sequence Line : 25
Sample Name : C ICAL5 S082313F 2000PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-F
Acquired on : 05 Nov 13 05:51 pm
Method : EPA 8081A
Report Created on: 06 Nov 13 08:55 am
Software Version : Rev. B.03.02 [341]
Comment :
Copyright © Agilent ->

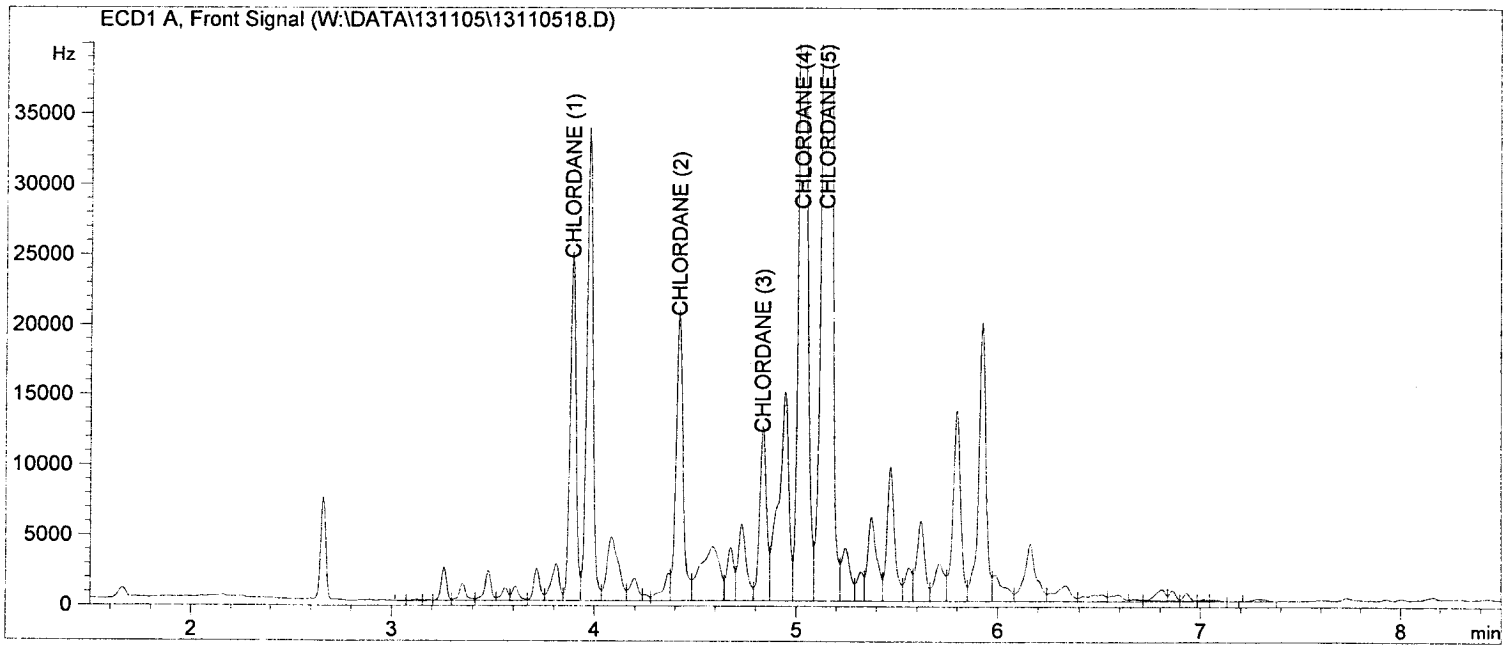
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105F.M

Sig. ECD1 A, W:\DATA\131105\13110518.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.892	50969.50	VV	0.032		175.58	CHLORDANE (1)
4.420	50432.11	VV	0.041		173.73	CHLORDANE (2)
4.836	29490.30	VV	0.040		101.59	CHLORDANE (3)
5.031	184224.86	VV	0.041		634.62	CHLORDANE (4)
5.152	282968.91	VV	0.049		974.77	CHLORDANE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.892	598085.67	VV	0.00344	2060.29	Chlordane
5.154		VV	0.00344		
5.031		VV	0.00344		
4.838		VV	0.00344		
4.420		VV	0.00344		



Return to Contents

External Standard Report

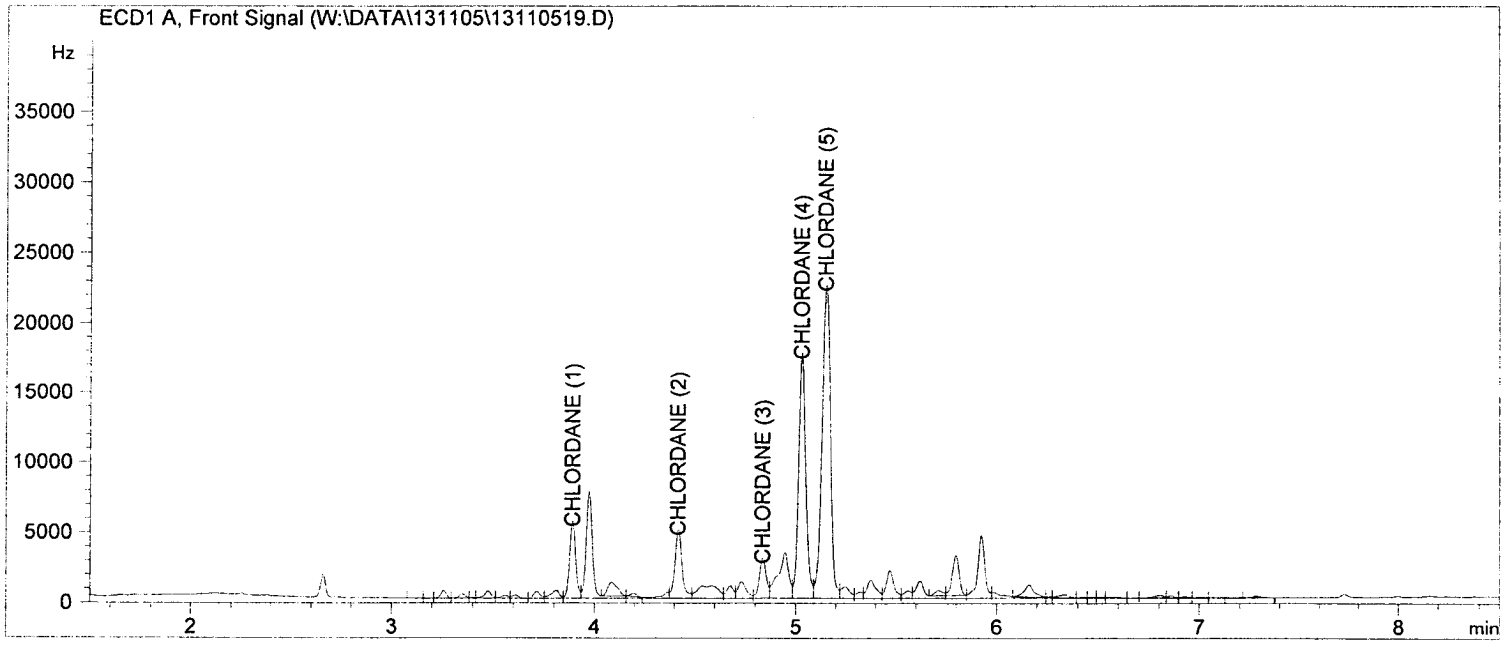
Data File Name : W:\DATA\131105\13110519.D
Operator : 500 Vial Number : Vial 19
Instrument : GC 51 Sequence Line : 26
Sample Name : C ICV S082313H 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-F
Acquired on : 05 Nov 13 06:05 pm Method : EPA 8081A
Report Created on: 06 Nov 13 08:55 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105F.M

Sig. ECD1 A, W:\DATA\131105\13110519.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.892	11505.80	VV	0.032		39.64	CHLORDANE (1)
4.420	12153.75	VV	0.038		41.87	CHLORDANE (2)
4.837	6867.34	VV	0.037		23.66	CHLORDANE (3)
5.032	43006.38	VV	0.041		148.15	CHLORDANE (4)
5.153	65639.53	VV	0.049		226.12	CHLORDANE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.892	139172.80	VV	0.00344	479.42	Chlordane
5.154		VV	0.00344		
5.031		VV	0.00344		
4.838		VV	0.00344		
4.420		VV	0.00344		



Return to Contents

Calculation for Chlordane Initial Calibration, GC 51, Rear column

500

11/5

LEVEL	Area					Conc. (ppb)												ICV			
Analytes	Lv 1	Lv 2	Lv 3	Lv 4	Lv 5	Lv 1	Lv 2	Lv 3	Lv 4	Lv 5	RF1	RF2	RF3	RF4	RF5	Avg RF	SD	%RSD (<20%)	AREA	Conc. (ppb)	RF	%D (<15%)
Chlordane-R	38857.8	108291.0	195630.8	319050.6	914102.1	100	250	500	750	2000	389	433	391	425	457	419	29	6.9	201657.6	500.0	403.3	3.8

Run Date: 11/5/2013

Calculation formulas:

RF = Area / Levels(ppb)

% RSD = STDEV of RFs / Ave RF * 100

Return to Contents

External Standard Report

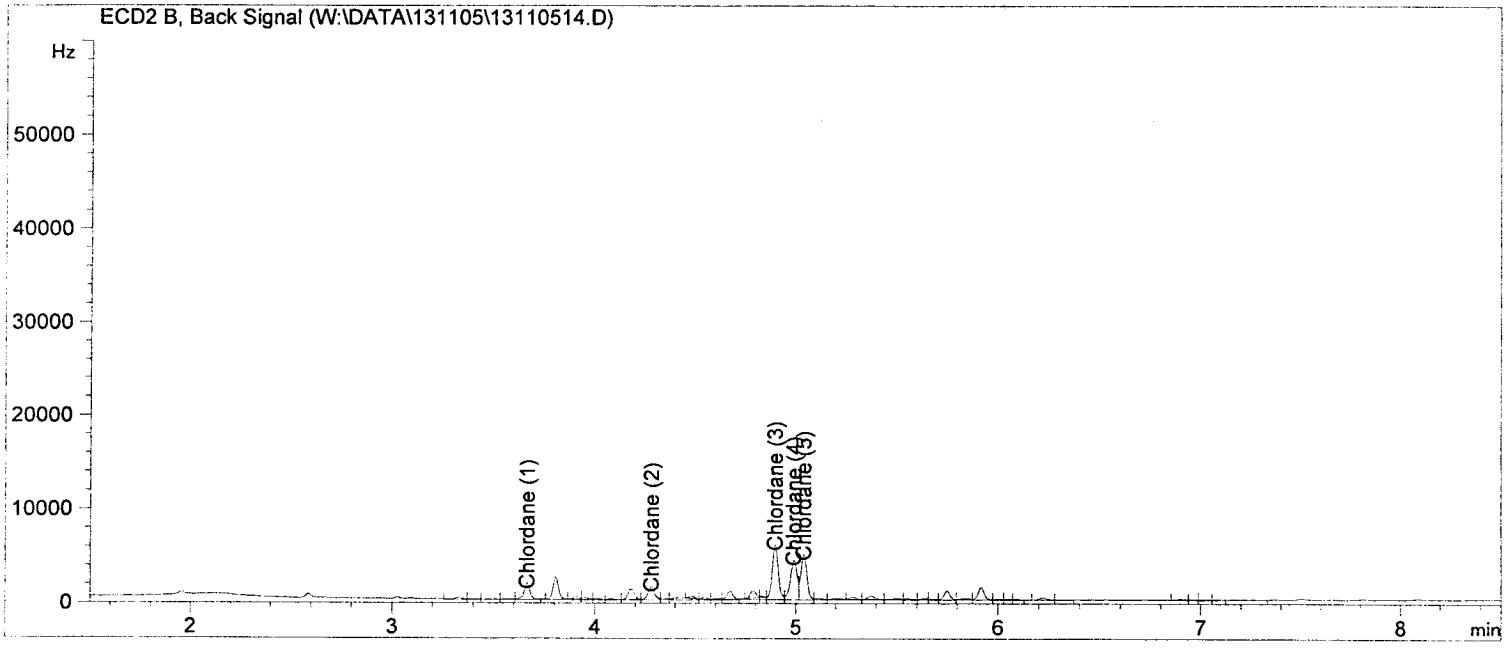
Data File Name : W:\DATA\131105\13110514.D
Operator : 500 Vial Number : Vial 14
Instrument : GC 51 Sequence Line : 21
Sample Name : C ICAL1 S082313B 100PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-R
Acquired on : 05 Nov 13 04:54 pm Method : EPA 8081A
Report Created on: 06 Nov 13 08:58 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105R.M

Sig. ECD2 B, W:\DATA\131105\13110514.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.665	3596.28	VB	0.031		8.79	Chlordane (1)
4.280	3191.69	VV	0.034		7.80	Chlordane (2)
4.898	12299.86	VV	0.032		30.07	Chlordane (3)
4.992	9714.86	VV	0.038		23.75	Chlordane (4)
5.041	10055.11	VB	0.035		24.58	Chlordane (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.663	38857.80	VB	0.00244	95.00	Chlordane
4.279		VV	0.00244		
4.898		VV	0.00244		
5.041		VB	0.00244		
4.992		VV	0.00244		



Return to Contents

External Standard Report

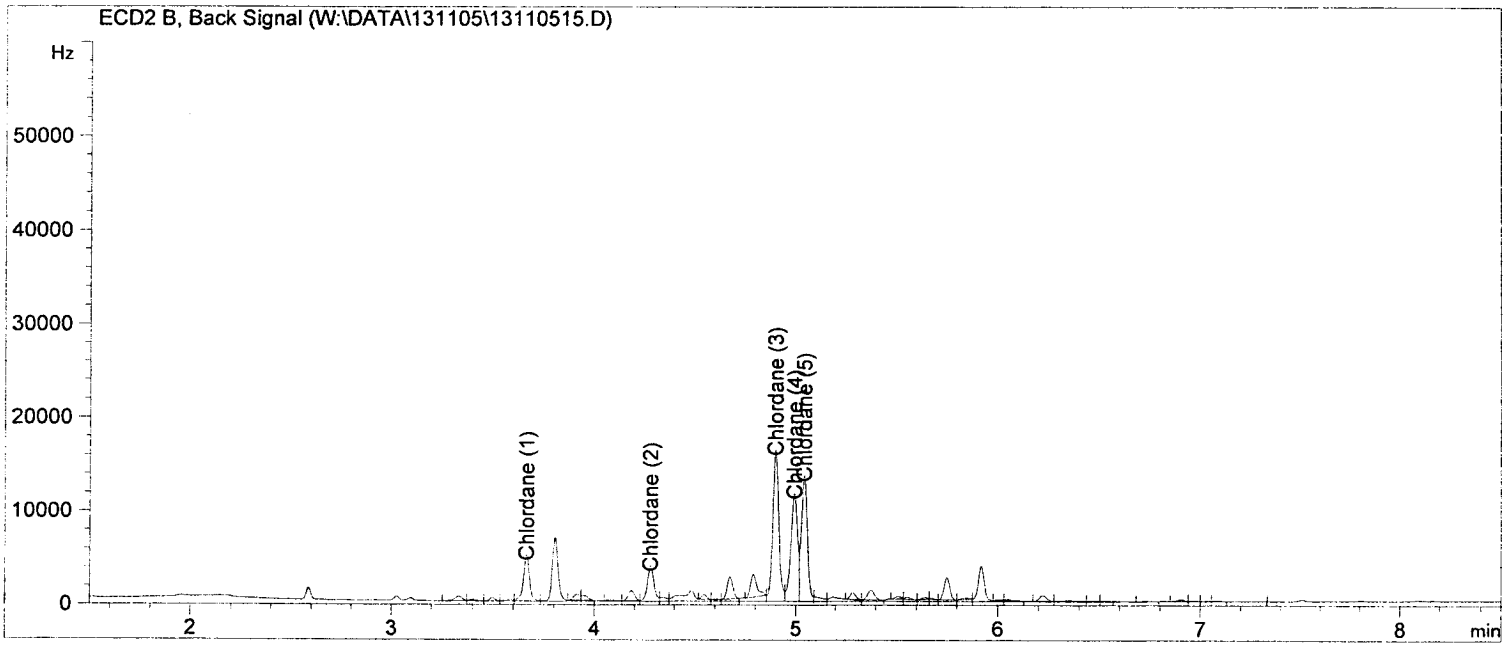
Data File Name : W:\DATA\131105\13110515.D
Operator : 500 Vial Number : Vial 15
Instrument : GC 51 Sequence Line : 22
Sample Name : C ICAL2 S082313C 250PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-R
Acquired on : 05 Nov 13 05:09 pm Method : EPA 8081A
Report Created on: 06 Nov 13 08:58 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105R.M

Sig. ECD2 B, W:\DATA\131105\13110515.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.665	10272.12	VB	0.031		25.11	Chlordane (1)
4.281	8660.34	VV	0.034		21.17	Chlordane (2)
4.900	34237.07	VV	0.033		83.70	Chlordane (3)
4.994	26927.39	VV	0.039		65.83	Chlordane (4)
5.043	28194.05	VB	0.035		68.93	Chlordane (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.663	108290.97	VB	0.00244	264.75	Chlordane
4.279		VV	0.00244		
4.898		VV	0.00244		
5.041		VB	0.00244		
4.992		VV	0.00244		



Return to Contents

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================================================================================
                          External Standard Report
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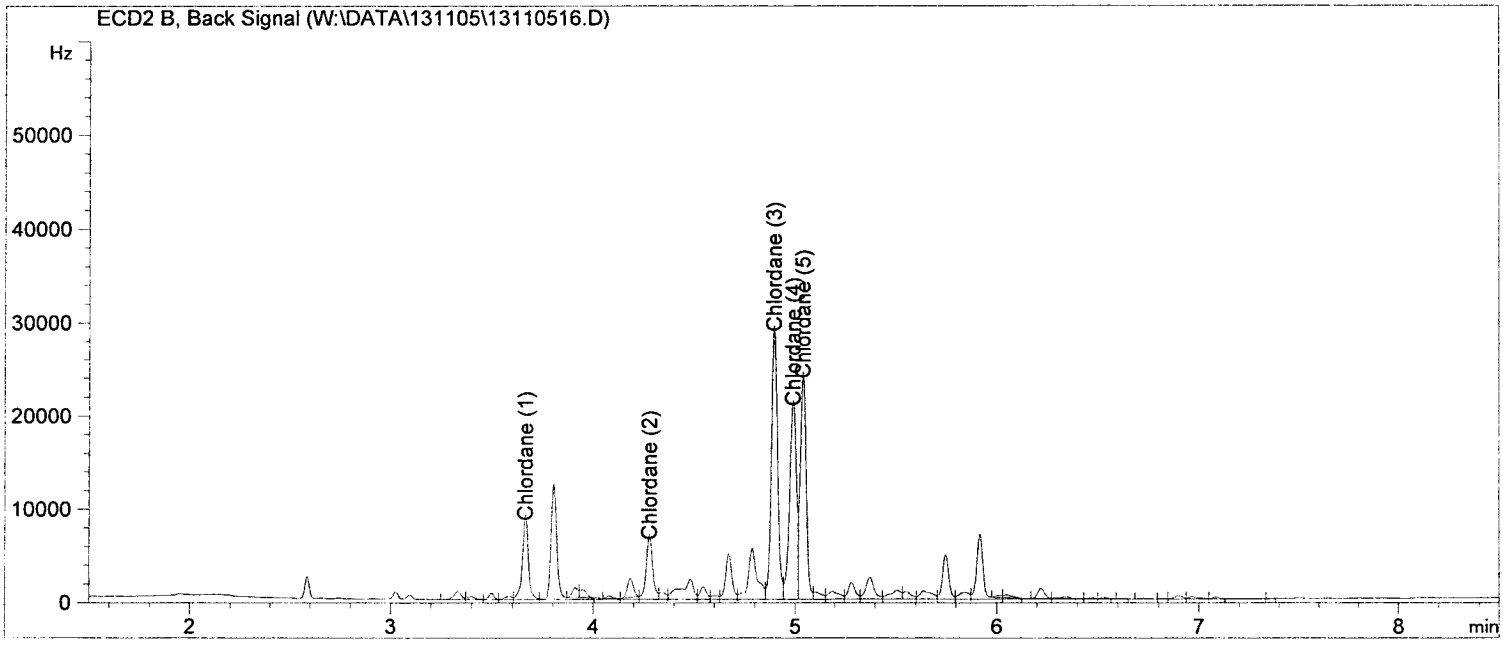
Data File Name    : W:\DATA\131105\13110516.D
Operator          : 500                          Vial Number       : Vial 16
Instrument        : GC 51                        Sequence Line     : 23
Sample Name       : C ICAL3 S082313D 500PPB
Running Method    : C:\CHEM32\1\METHODS\8081D-N->Report Style      : CHLD-R
Acquired on       : 05 Nov 13  05:23 pm          Method            : EPA 8081A
Report Created on: 06 Nov 13  08:58 am           Software Version  : Rev. B.03.02 [341]
Comment           :                                                  Copyright © Agilent     ->
Analysis Method   : C:\CHEM32\1\METHODS\CHLD131105R.M

Sig. ECD2 B,   W:\DATA\131105\13110516.D
Ret Time     Area     Type Width  Ref #    ppb                Name
|-------|------------|----|-----|------|--------|----------------------------|

   3.663     18614.22VB    0.030       45.51    Chlordane (1)
   4.279     15741.29VV    0.034       38.48    Chlordane (2)
   4.898     61783.10VV    0.035       151.04   Chlordane (3)
   4.992     49164.91VV    0.039       120.20   Chlordane (4)
   5.041     50327.28VB    0.035       123.04   Chlordane (5)
--------------------------------------------------------------------------------


Group summary
Ret Time     Area      TypeRef  1/AvgRF  Amount            Group Name

   3.663    195630.81 VB       0.00244  478.27   Chlordane
   4.279              VV       0.00244
   4.898              VV       0.00244
   5.041              VB       0.00244
   4.992              VV       0.00244
--------------------------------------------------------------------------------
```



Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110517.D
Operator : 500
Vial Number : Vial 17
Instrument : GC 51
Sequence Line : 24
Sample Name : C ICAL4 S082313E 750PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-R
Acquired on : 05 Nov 13 05:37 pm
Method : EPA 8081A
Report Created on: 06 Nov 13 08:58 am
Software Version : Rev. B.03.02 [341]
Comment :
Copyright © Agilent ->

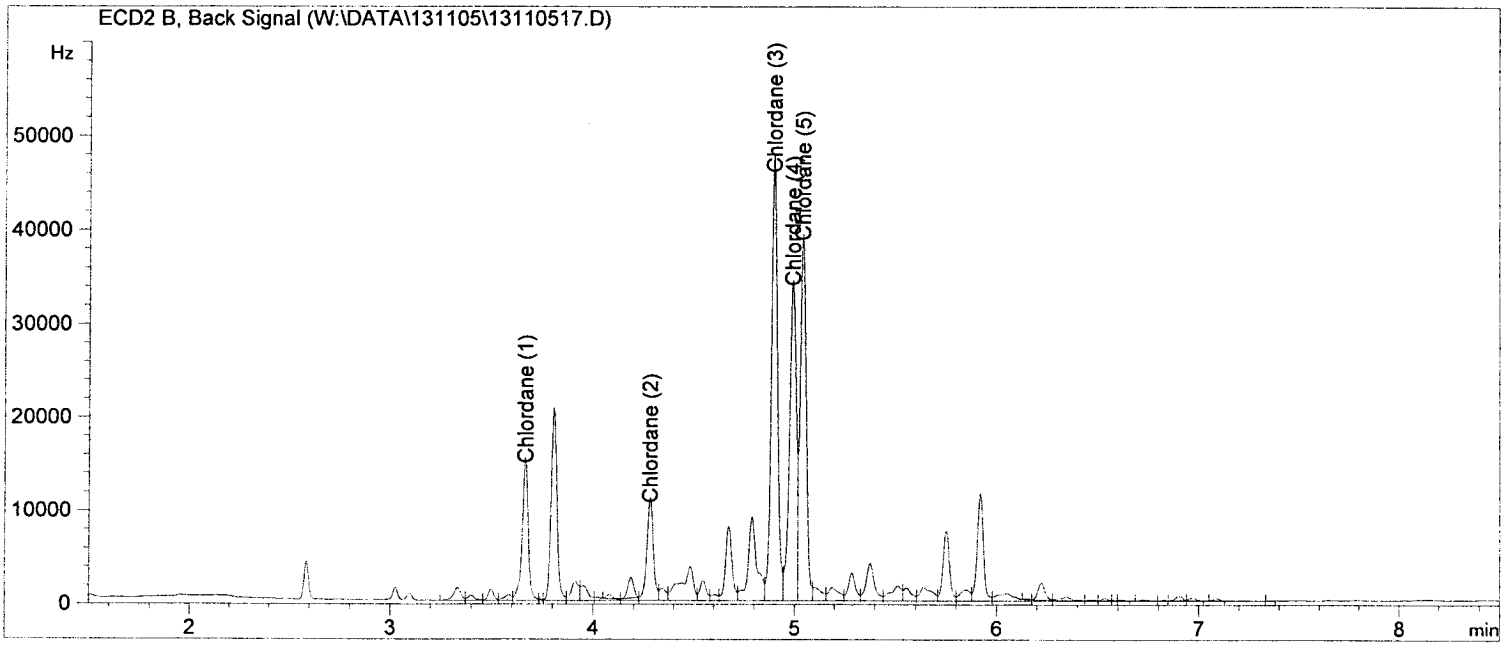
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105R.M

Sig. ECD2 B, W:\DATA\131105\13110517.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.665	31031.88	VB	0.030		75.87	Chlordane (1)
4.281	25037.58	VV	0.035		61.21	Chlordane (2)
4.900	100889.87	VV	0.035		246.65	Chlordane (3)
4.993	79608.06	VV	0.039		194.62	Chlordane (4)
5.043	82483.25	VB	0.035		201.65	Chlordane (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.663	319050.64	VB	0.00244	780.00	Chlordane
4.279		VV	0.00244		
4.898		VV	0.00244		
5.041		VB	0.00244		
4.992		VV	0.00244		



Return to Contents

External Standard Report

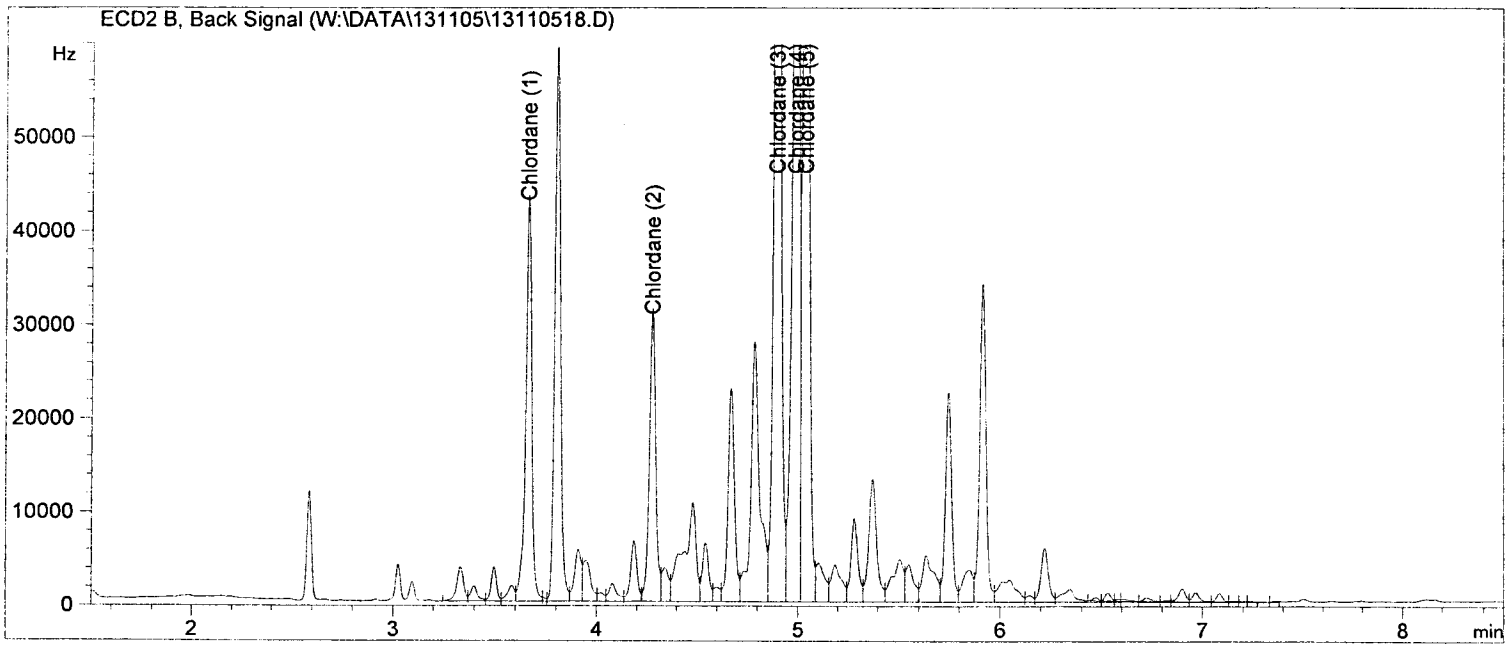
Data File Name : W:\DATA\131105\13110518.D
Operator : 500 Vial Number : Vial 18
Instrument : GC 51 Sequence Line : 25
Sample Name : C ICAL5 S082313F 2000PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-R
Acquired on : 05 Nov 13 05:51 pm Method : EPA 8081A
Report Created on: 06 Nov 13 08:58 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105R.M

Sig. ECD2 B, W:\DATA\131105\13110518.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.664	88417.50	VB	0.034		216.16	Chlordane (1)
4.278	69201.84	VV	0.037		169.18	Chlordane (2)
4.898	291144.50	VV	0.035		711.78	Chlordane (3)
4.992	230341.87	VV	0.038		563.13	Chlordane (4)
5.041	234996.34	VV	0.034		574.51	Chlordane (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.663	914102.06	VB	0.00244	2234.76	Chlordane
4.279		VV	0.00244		
4.898		VV	0.00244		
5.041		VV	0.00244		
4.992		VV	0.00244		



Return to Contents

External Standard Report

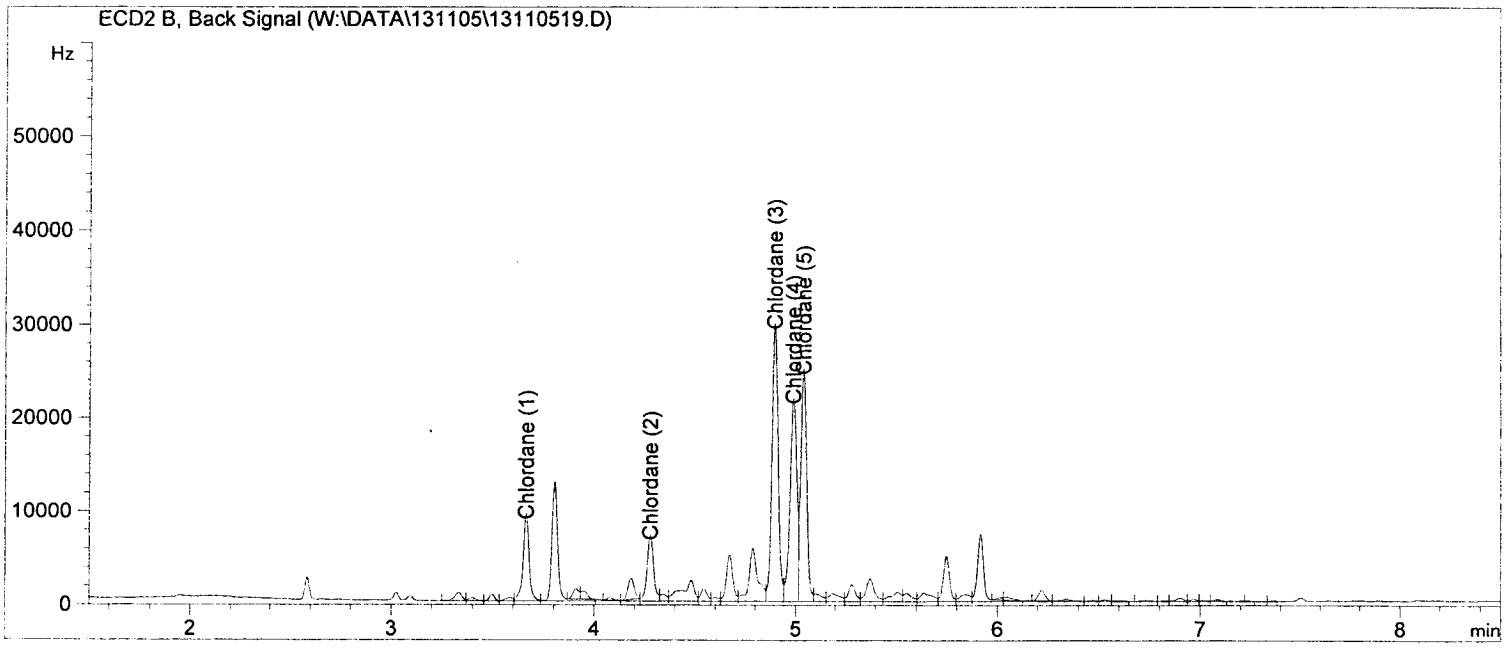
Data File Name : W:\DATA\131105\13110519.D
Operator : 500 Vial Number : Vial 19
Instrument : GC 51 Sequence Line : 26
Sample Name : C ICV S082313H 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-R
Acquired on : 05 Nov 13 06:05 pm Method : EPA 8081A
Report Created on: 06 Nov 13 08:58 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105R.M

Sig. ECD2 B, W:\DATA\131105\13110519.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.663	19216.57	VB	0.031		46.98	Chlordane (1)
4.279	16049.68	VV	0.034		39.24	Chlordane (2)
4.898	63792.04	VV	0.036		155.96	Chlordane (3)
4.991	50658.13	VV	0.039		123.85	Chlordane (4)
5.042	51941.14	VB	0.035		126.98	Chlordane (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.663	201657.55	VB	0.00244	493.00	Chlordane
4.279		VV	0.00244		
4.898		VV	0.00244		
5.041		VB	0.00244		
4.992		VV	0.00244		



Return to Contents

Calculation for Toxaphene Initial Calibration, GC 51, Front column

500

11/5

LEVEL	Area					Conc. (ppb)												ICV			
Analytes	Lv 1	Lv 2	Lv 3	Lv 4	Lv 5	Lv 1	Lv 2	Lv 3	Lv 4	Lv 5	**RF1**	**RF2**	**RF3**	**RF4**	**RF5**	**Avg RF**	**SD**	**%RSD (<20%)**	**AREA**	**(ppb)**	**RF**	**%D (<15%)**
Toxaphene-F	20829.8	56703.6	114976.4	182175.5	510974.7	200	500	1000	1500	4000	104	113	115	121	128	116	9	**7.6**	110365.6	1000.0	110.4	5.1

Run Date: 11/5/2013

Calculation formulas:

RF = Area / Levels(ppb)

% RSD = STDEV of RFs / Ave RF * 100

Return to Contents

External Standard Report

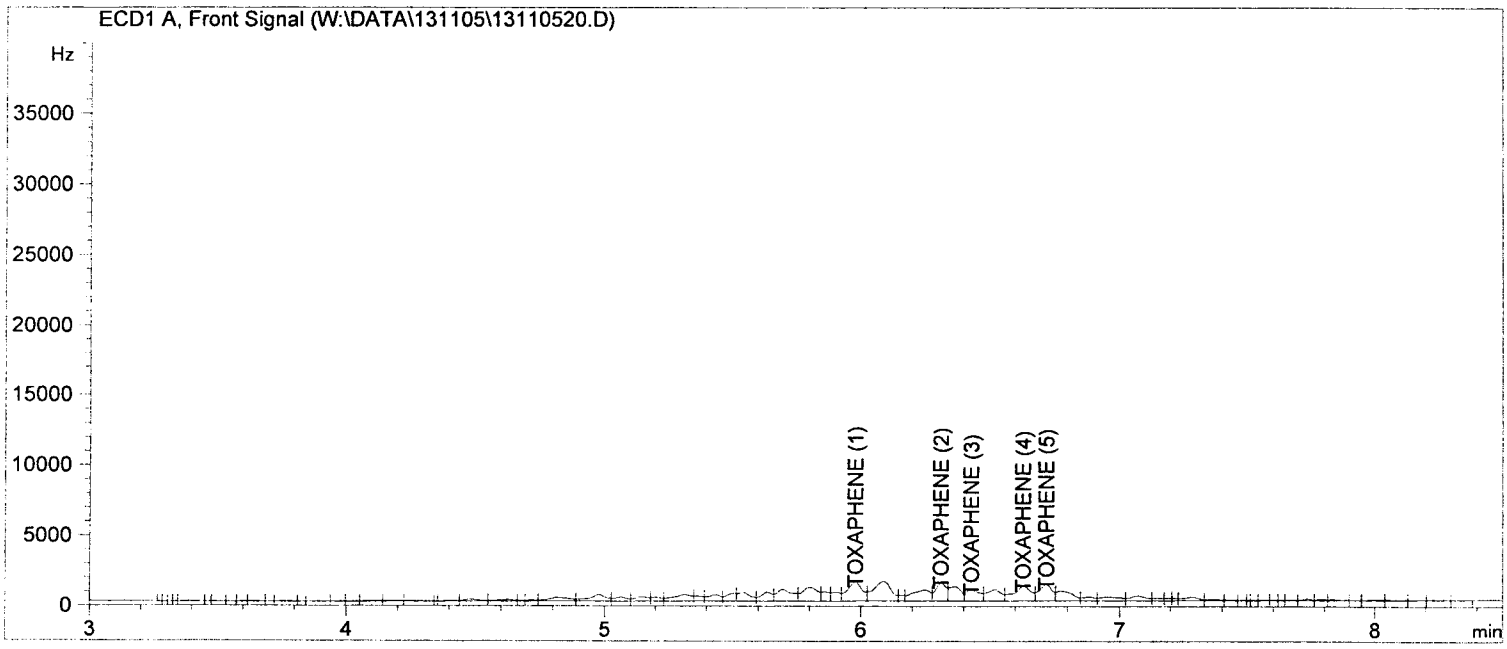
Data File Name : W:\DATA\131105\13110520.D
Operator : 500 Vial Number : Vial 20
Instrument : GC 51 Sequence Line : 27
Sample Name : T ICAL1 S082313J 200PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-F
Acquired on : 05 Nov 13 06:20 pm Method : EPA 8081A
Report Created on: 06 Nov 13 09:05 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105F.M

Sig. ECD1 A, W:\DATA\131105\13110520.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.979	5476.49	VV	0.052		47.07	TOXAPHENE (1)
6.312	3621.71	VV	0.039		31.13	TOXAPHENE (2)
6.430	2947.19	VV	0.049		25.33	TOXAPHENE (3)
6.631	4818.43	VV	0.058		41.41	TOXAPHENE (4)
6.720	3965.99	VV	0.045		34.09	TOXAPHENE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.974	20829.82	VV	0.00860	179.03	Toxaphene
6.716		VV	0.00860		
6.626		VV	0.00860		
6.429		VV	0.00860		
6.309		VV	0.00860		



Return to Contents

External Standard Report

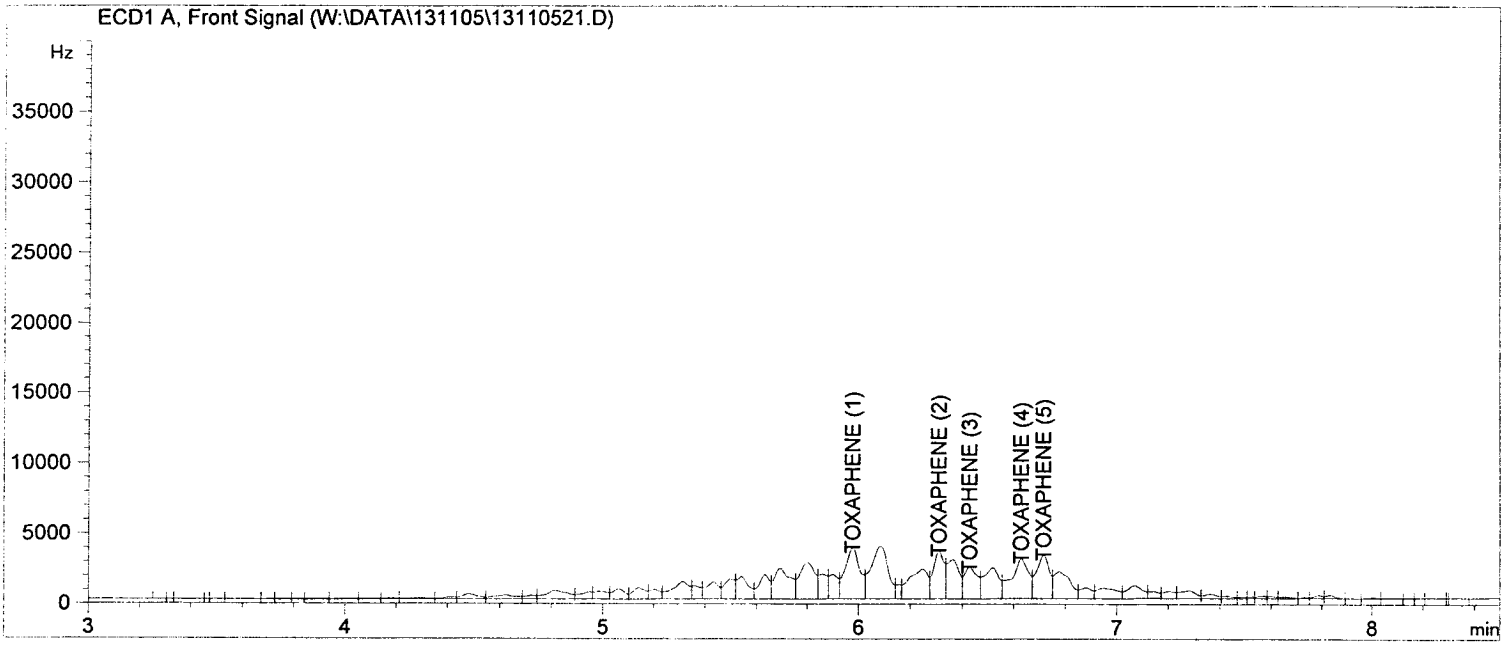
Data File Name : W:\DATA\131105\13110521.D
Operator : 500 Vial Number : Vial 21
Instrument : GC 51 Sequence Line : 28
Sample Name : T ICAL2 S082313K 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-F
Acquired on : 05 Nov 13 06:34 pm Method : EPA 8081A
Report Created on: 06 Nov 13 09:05 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105F.M

Sig. ECD1 A, W:\DATA\131105\13110521.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.977	14875.44	VV	0.054		127.86	TOXAPHENE (1)
6.311	9973.02	VV	0.039		85.72	TOXAPHENE (2)
6.430	7956.20	VV	0.047		68.38	TOXAPHENE (3)
6.630	13205.60	VV	0.059		113.50	TOXAPHENE (4)
6.716	10693.35	VV	0.046		91.91	TOXAPHENE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.974	56703.61	VV	0.00860	487.37	Toxaphene
6.716		VV	0.00860		
6.626		VV	0.00860		
6.429		VV	0.00860		
6.309		VV	0.00860		



Return to Contents

External Standard Report

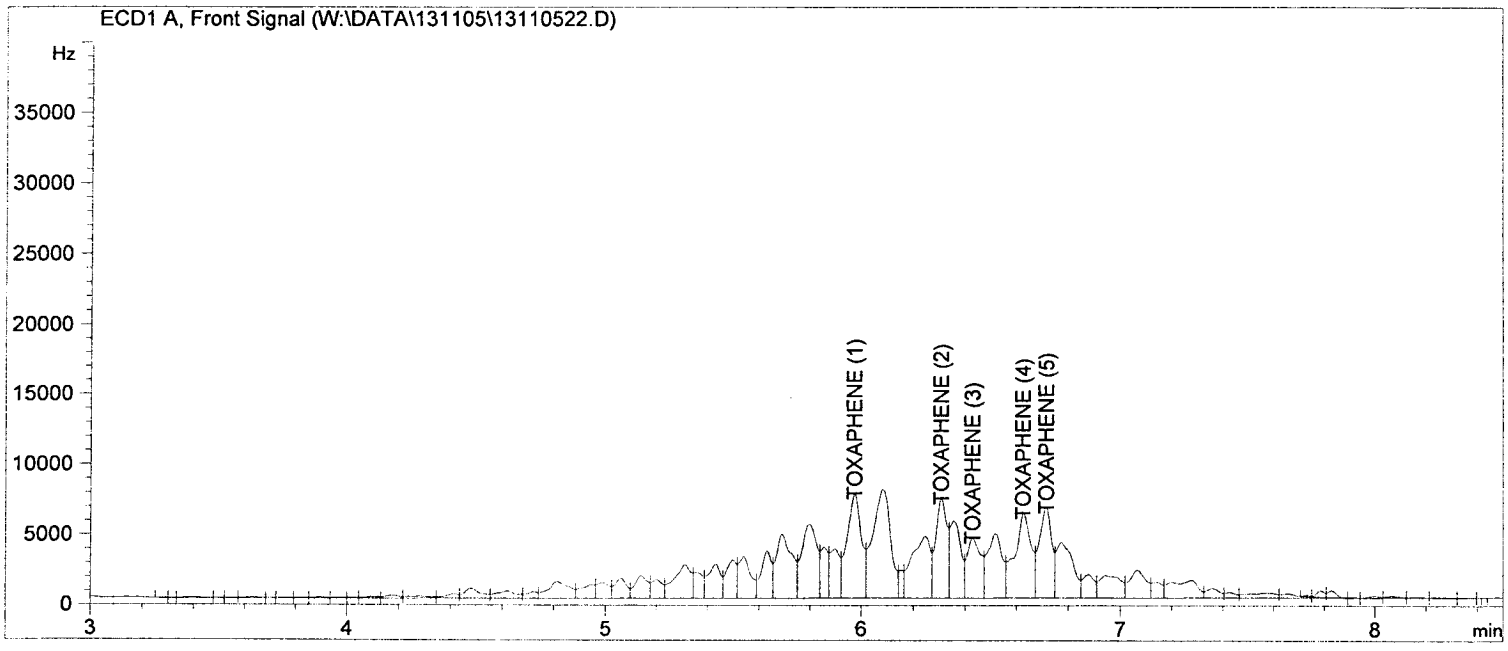
Data File Name : W:\DATA\131105\13110522.D
Operator : 500 Vial Number : Vial 22
Instrument : GC 51 Sequence Line : 29
Sample Name : T ICAL3 S082313L 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-F
Acquired on : 05 Nov 13 06:48 pm Method : EPA 8081A
Report Created on: 06 Nov 13 09:05 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105F.M

Sig. ECD1 A, W:\DATA\131105\13110522.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.974	28953.47	VV	0.055		248.86	TOXAPHENE (1)
6.309	21584.24	VV	0.043		185.52	TOXAPHENE (2)
6.429	15656.80	VV	0.061		134.57	TOXAPHENE (3)
6.626	26898.41	VV	0.074		231.19	TOXAPHENE (4)
6.716	21883.42	VV	0.057		188.09	TOXAPHENE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.974	114976.35	VV	0.00860	988.23	Toxaphene
6.716		VV	0.00860		
6.626		VV	0.00860		
6.429		VV	0.00860		
6.309		VV	0.00860		



Return to Contents

External Standard Report

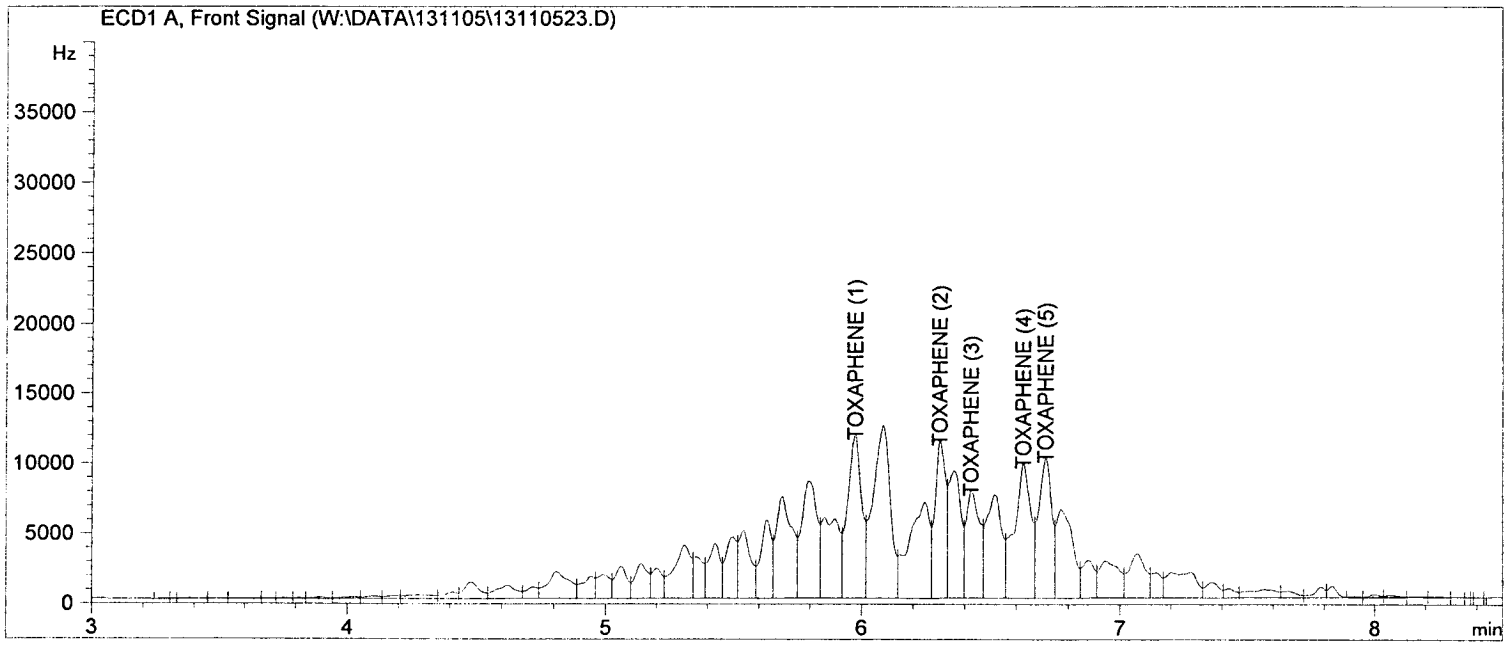
Data File Name : W:\DATA\131105\13110523.D
Operator : 500 Vial Number : Vial 23
Instrument : GC 51 Sequence Line : 30
Sample Name : T ICAL4 S082313M 1500PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-F
Acquired on : 05 Nov 13 07:03 pm Method : EPA 8081A
Report Created on: 06 Nov 13 09:05 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105F.M

Sig. ECD1 A, W:\DATA\131105\13110523.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.976	44979.68	VV	0.064		386.60	TOXAPHENE (1)
6.306	32254.22	VV	0.048		277.23	TOXAPHENE (2)
6.425	28048.34	VV	0.061		241.08	TOXAPHENE (3)
6.627	42709.15	VV	0.074		367.09	TOXAPHENE (4)
6.713	34184.08	VV	0.057		293.82	TOXAPHENE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.974	182175.46	VV	0.00860	1565.82	Toxaphene
6.716		VV	0.00860		
6.626		VV	0.00860		
6.429		VV	0.00860		
6.309		VV	0.00860		



Return to Contents

External Standard Report

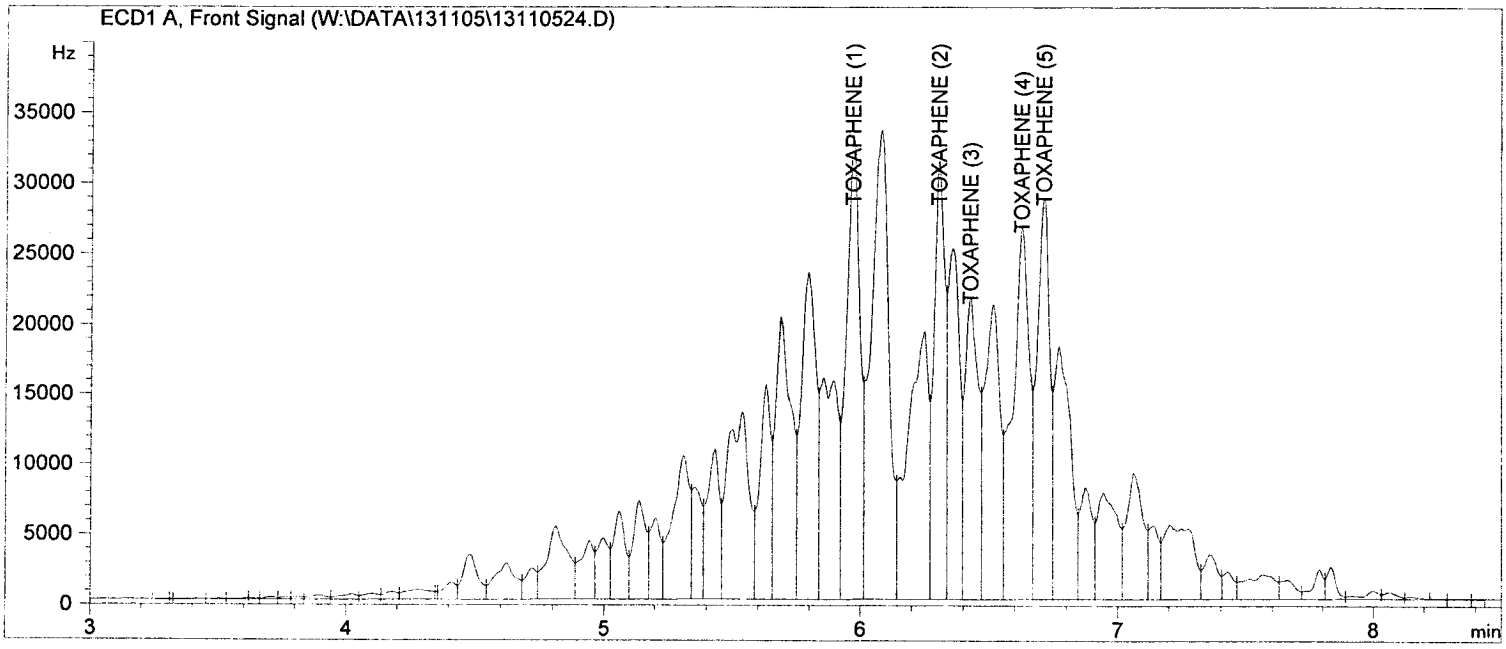
Data File Name : W:\DATA\131105\13110524.D
Operator : 500 Vial Number : Vial 24
Instrument : GC 51 Sequence Line : 31
Sample Name : T ICAL5 S082313N 4000PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-F
Acquired on : 05 Nov 13 07:17 pm Method : EPA 8081A
Report Created on: 06 Nov 13 09:05 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105F.M

Sig. ECD1 A, W:\DATA\131105\13110524.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.972	122545.47	VV	0.062		1053.29	TOXAPHENE (1)
6.307	92190.81	VV	0.049		792.39	TOXAPHENE (2)
6.428	76871.73	VV	0.060		660.72	TOXAPHENE (3)
6.627	120448.64	VV	0.076		1035.27	TOXAPHENE (4)
6.714	98918.01	VV	0.058		850.21	TOXAPHENE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.974	510974.66	VV	0.00860	4391.88	Toxaphene
6.716		VV	0.00860		
6.626		VV	0.00860		
6.429		VV	0.00860		
6.309		VV	0.00860		



Return to Contents

External Standard Report

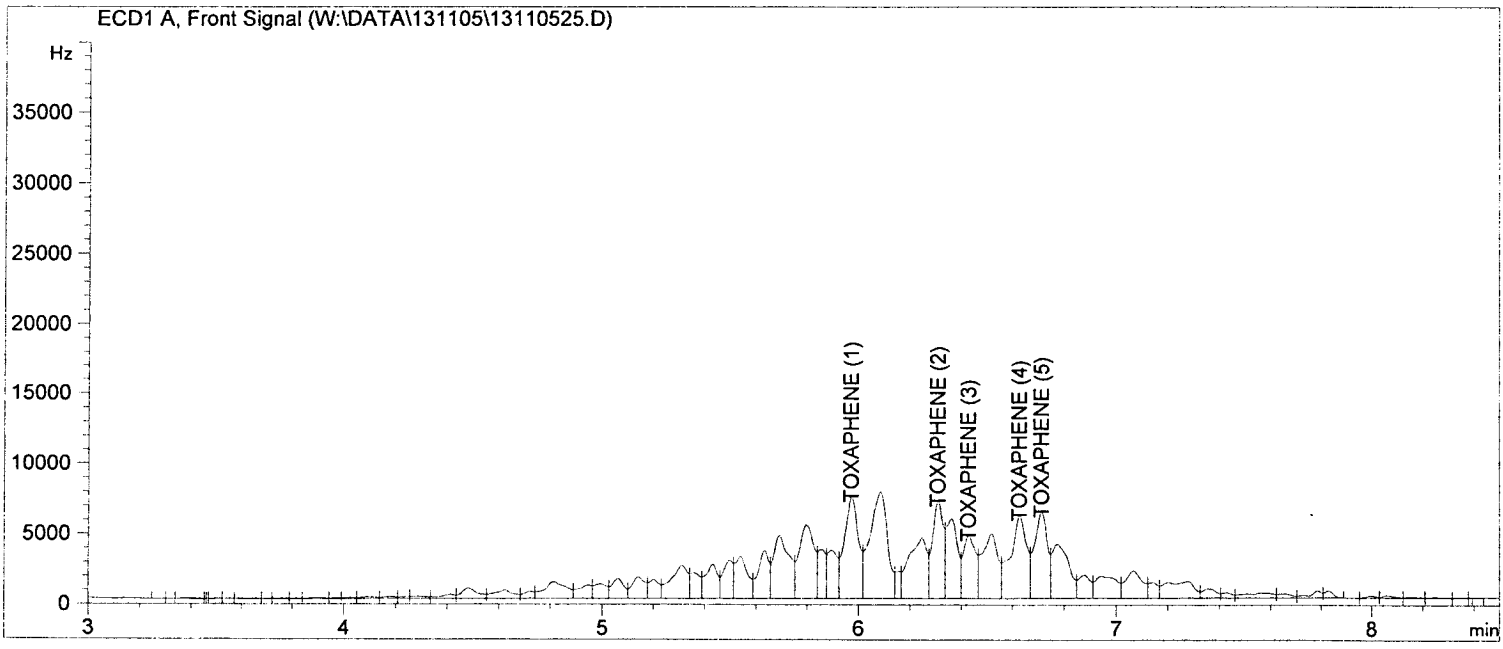
Data File Name : W:\DATA\131105\13110525.D
Operator : 500 Vial Number : Vial 25
Instrument : GC 51 Sequence Line : 32
Sample Name : T ICV S082313P 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-F
Acquired on : 05 Nov 13 07:31 pm Method : EPA 8081A
Report Created on: 06 Nov 13 09:05 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105F.M

Sig. ECD1 A, W:\DATA\131105\13110525.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.972	27716.45	VV	0.049		238.23	TOXAPHENE (1)
6.310	20019.51	VV	0.041		172.07	TOXAPHENE (2)
6.428	14798.38	VV	0.055		127.19	TOXAPHENE (3)
6.627	26291.29	VV	0.074		225.98	TOXAPHENE (4)
6.714	21539.99	VV	0.058		185.14	TOXAPHENE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.974	110365.62	VV	0.00860	948.60	Toxaphene
6.716		VV	0.00860		
6.626		VV	0.00860		
6.429		VV	0.00860		
6.309		VV	0.00860		



Return to Contents

Calculation for Toxaphene Initial Calibration, GC 51, Rear column

500

11/5

LEVEL	Area					Conc. (ppb)												ICV			
Analytes	Lv 1	Lv 2	Lv 3	Lv 4	Lv 5	Lv 1	Lv 2	Lv 3	Lv 4	Lv 5	**RF1**	**RF2**	**RF3**	**RF4**	**RF5**	**Avg RF**	**SD**	**%RSD (<20%)**	**AREA**	**(ppb)**	**RF**	**%D (<15%)**
Toxaphene-R	30049.8	82877.9	176441.0	281071.1	806366.7	200	500	1000	1500	4000	150	166	176	187	202	176	20	**11.2**	172438.2	1000.0	172.4	2.2

Run Date: 11/5/2013

Calculation formulas:

RF = Area / Levels(ppb)

% RSD = STDEV of RFs / Ave RF * 100

Return to Contents

External Standard Report

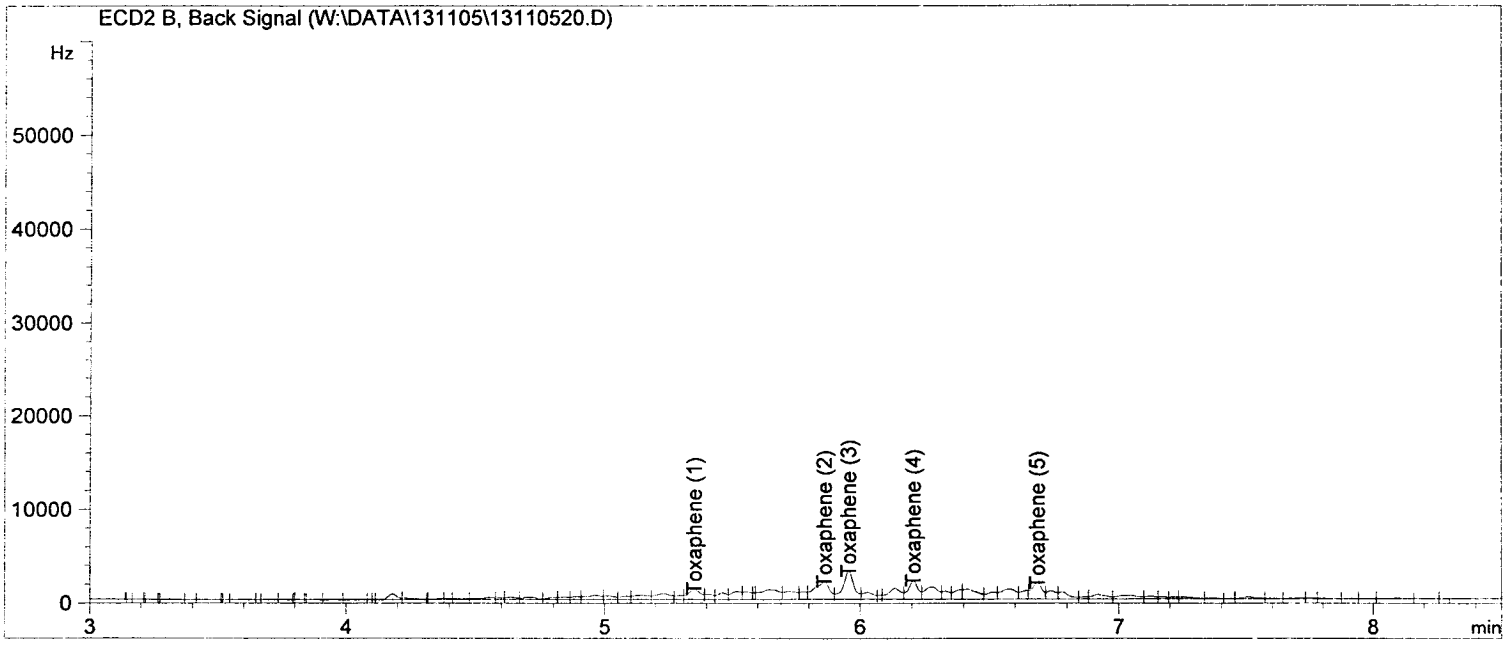
Data File Name : W:\DATA\131105\13110520.D
Operator : 500 Vial Number : Vial 20
Instrument : GC 51 Sequence Line : 27
Sample Name : T ICAL1 S082313J 200PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-R
Acquired on : 05 Nov 13 06:20 pm Method : EPA 8081A
Report Created on: 06 Nov 13 09:13 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105R.M

Sig. ECD2 B, W:\DATA\131105\13110520.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.353	3539.76	VV	0.048		20.08	Toxaphene (1)
5.861	7820.87	VV	0.055		44.37	Toxaphene (2)
5.956	8641.75	VV	0.040		49.02	Toxaphene (3)
6.206	5246.59	VV	0.039		29.76	Toxaphene (4)
6.686	4800.87	VV	0.041		27.23	Toxaphene (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.348	30049.84	VV	0.00567	170.46	Toxaphene
6.681		VV	0.00567		
6.203		VV	0.00567		
5.952		VV	0.00567		
5.857		VV	0.00567		



Return to Contents

External Standard Report

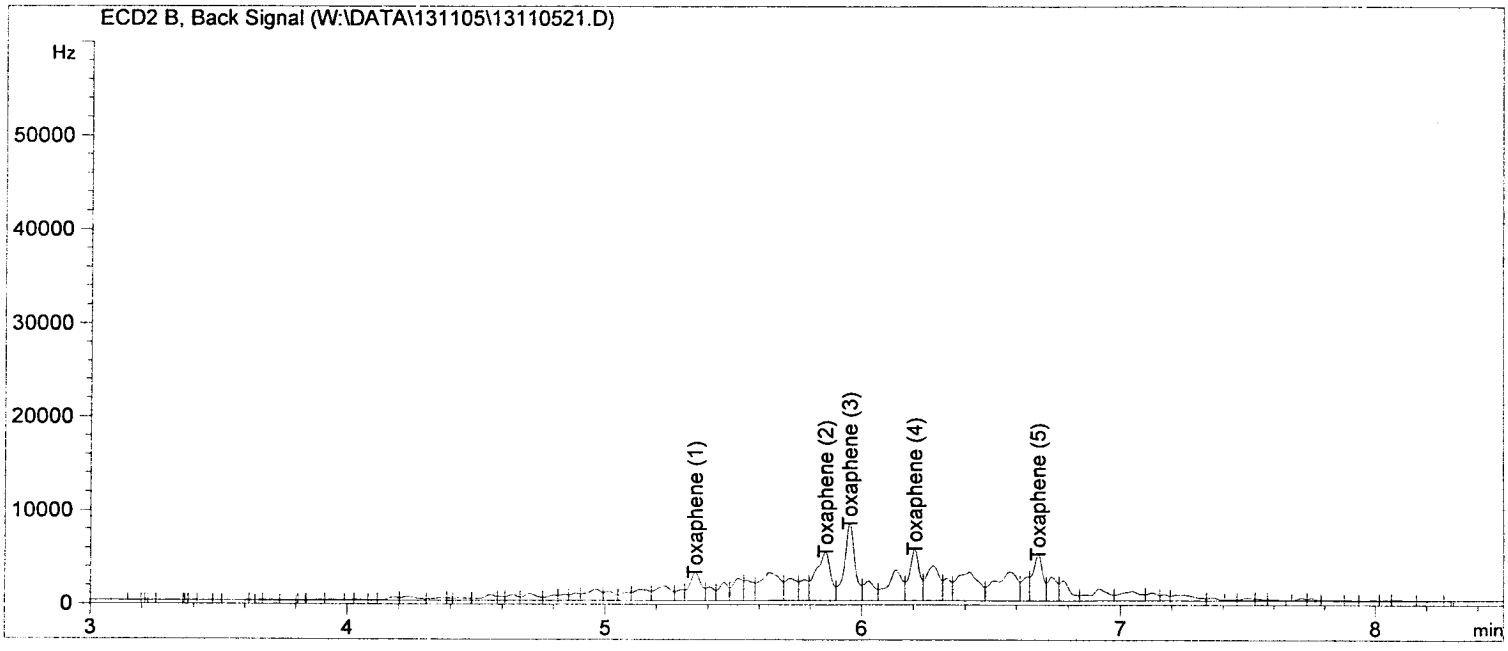
Data File Name : W:\DATA\131105\13110521.D
Operator : 500 Vial Number : Vial 21
Instrument : GC 51 Sequence Line : 28
Sample Name : T ICAL2 S082313K 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-R
Acquired on : 05 Nov 13 06:34 pm Method : EPA 8081A
Report Created on: 06 Nov 13 09:13 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105R.M

Sig. ECD2 B, W:\DATA\131105\13110521.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.350	9593.94	VV	0.046		54.42	Toxaphene (1)
5.859	21208.35	VV	0.056		120.31	Toxaphene (2)
5.954	23745.74	VV	0.042		134.70	Toxaphene (3)
6.205	14832.67	VV	0.045		84.14	Toxaphene (4)
6.683	13497.21	VV	0.046		76.57	Toxaphene (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.348	82877.92	VV	0.00567	470.14	Toxaphene
6.681		VV	0.00567		
6.203		VV	0.00567		
5.952		VV	0.00567		
5.857		VV	0.00567		



Return to Contents

External Standard Report

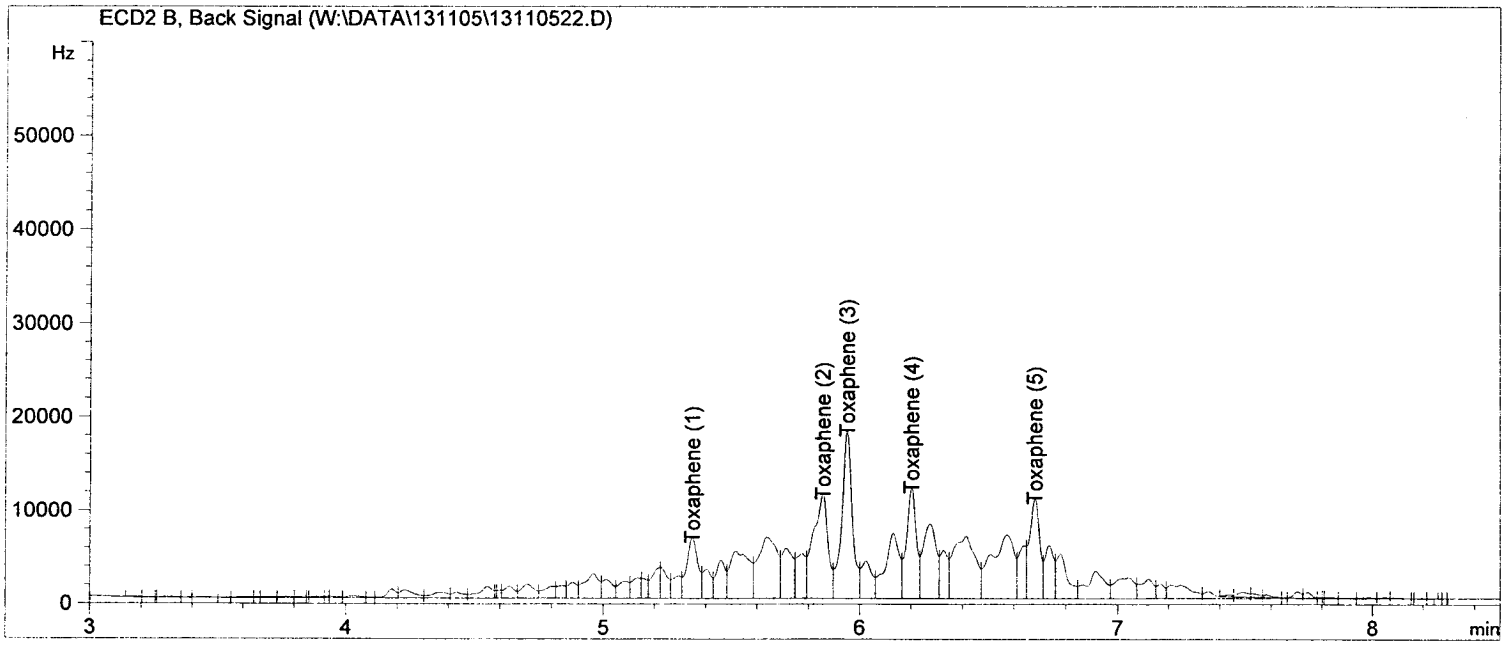
Data File Name : W:\DATA\131105\13110522.D
Operator : 500 Vial Number : Vial 22
Instrument : GC 51 Sequence Line : 29
Sample Name : T ICAL3 S082313L 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-R
Acquired on : 05 Nov 13 06:48 pm Method : EPA 8081A
Report Created on: 06 Nov 13 09:13 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105R.M

Sig. ECD2 B, W:\DATA\131105\13110522.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.348	19597.68	VV	0.043		111.17	Toxaphene (1)
5.857	44561.35	VV	0.066		252.78	Toxaphene (2)
5.952	51581.93	VV	0.048		292.61	Toxaphene (3)
6.203	31642.81	VV	0.044		179.50	Toxaphene (4)
6.681	29057.22	VV	0.045		164.83	Toxaphene (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.348	176440.99	VV	0.00567	1000.89	Toxaphene
6.681		VV	0.00567		
6.203		VV	0.00567		
5.952		VV	0.00567		
5.857		VV	0.00567		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110523.D
Operator : 500
Vial Number : Vial 23
Instrument : GC 51
Sequence Line : 30
Sample Name : T ICAL4 S082313M 1500PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-R
Acquired on : 05 Nov 13 07:03 pm
Method : EPA 8081A
Report Created on: 06 Nov 13 09:13 am
Software Version : Rev. B.03.02 [341]
Comment :
Copyright © Agilent ->

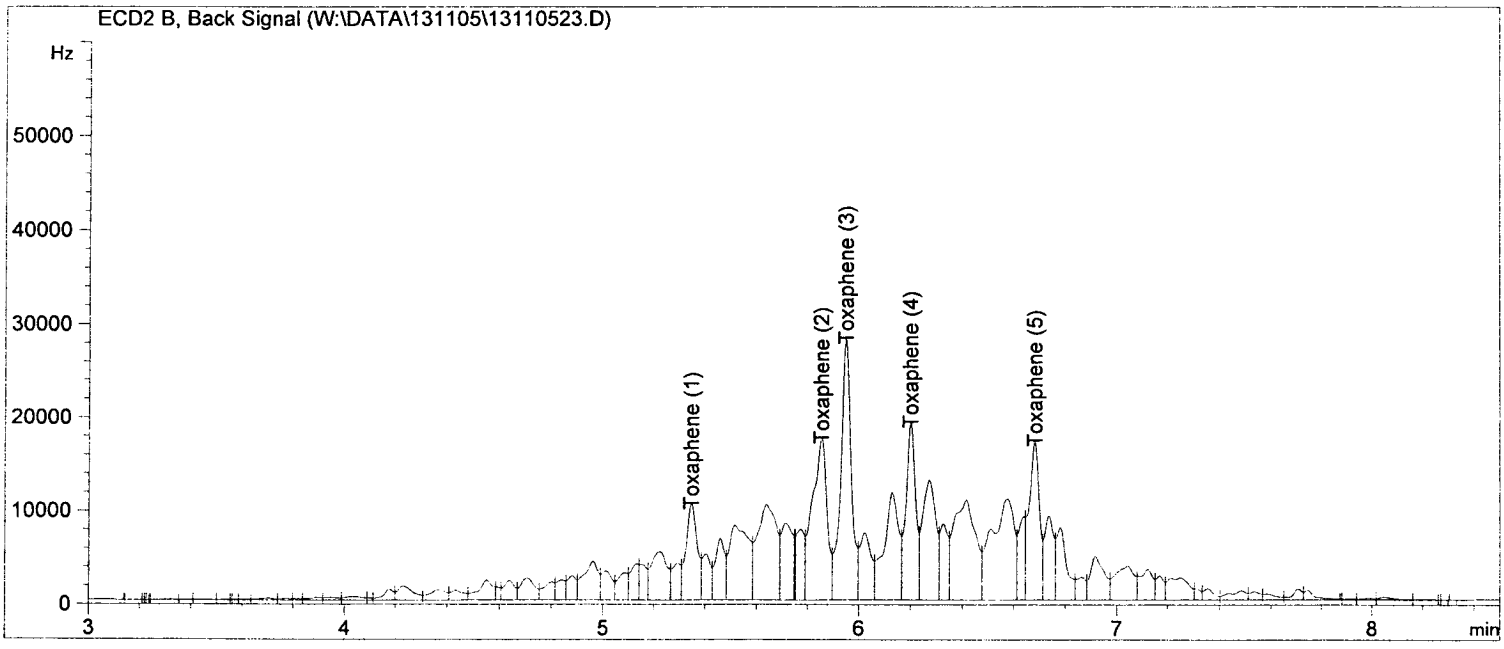
Analysis Method : C:\CHEM32\1\METHODS\TOX131105R.M

Sig. ECD2 B, W:\DATA\131105\13110523.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.348	31592.38	VV	0.045		179.21	Toxaphene (1)
5.856	70148.80	VV	0.068		397.93	Toxaphene (2)
5.952	80397.67	VV	0.048		456.07	Toxaphene (3)
6.202	50638.59	VV	0.044		287.26	Toxaphene (4)
6.682	48293.70	VV	0.047		273.95	Toxaphene (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.348	281071.14	VV	0.00567	1594.43	Toxaphene
6.681		VV	0.00567		
6.203		VV	0.00567		
5.952		VV	0.00567		
5.857		VV	0.00567		



Return to Contents

External Standard Report

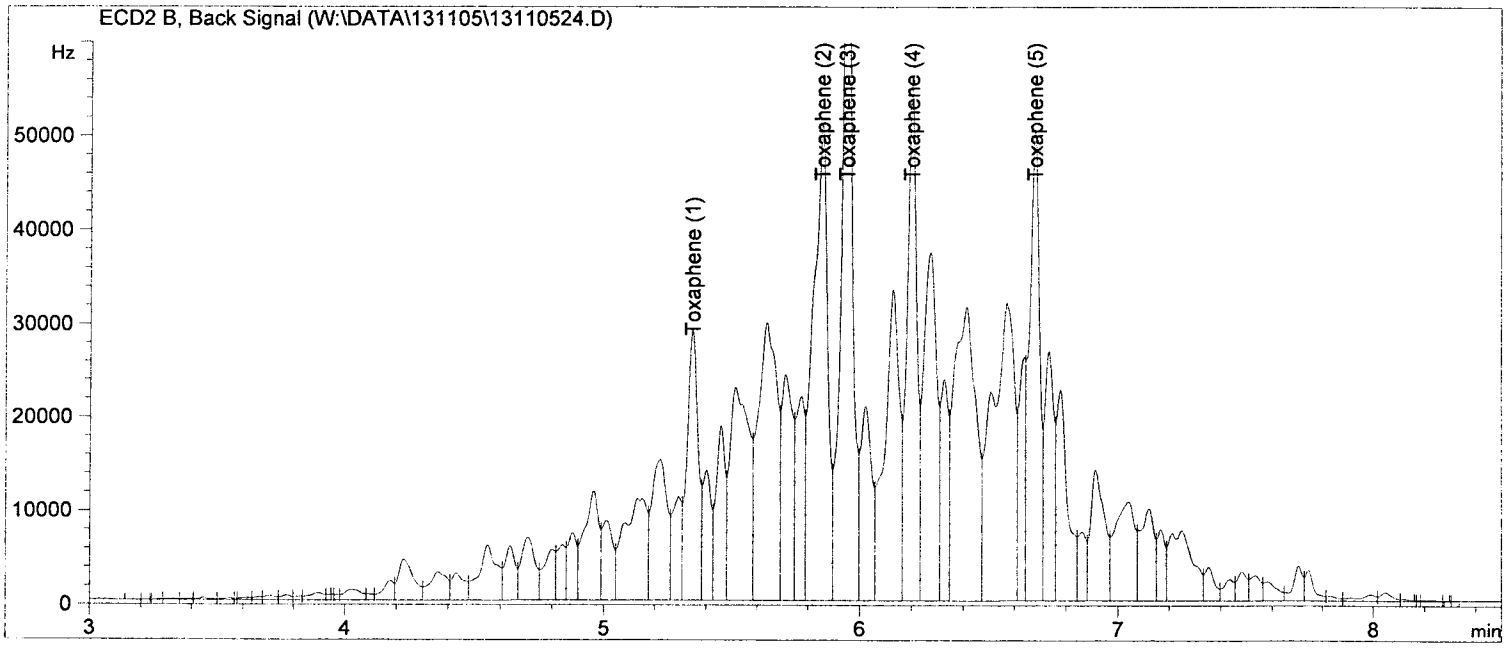
Data File Name : W:\DATA\131105\13110524.D
Operator : 500 Vial Number : Vial 24
Instrument : GC 51 Sequence Line : 31
Sample Name : T ICAL5 S082313N 4000PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-R
Acquired on : 05 Nov 13 07:17 pm Method : EPA 8081A
Report Created on: 06 Nov 13 09:13 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105R.M

Sig. ECD2 B, W:\DATA\131105\13110524.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.347	87279.15	VV	0.050		495.11	Toxaphene (1)
5.855	203238.84	VV	0.067		1152.91	Toxaphene (2)
5.951	232395.83	VV	0.048		1318.31	Toxaphene (3)
6.202	145753.70	VV	0.044		826.81	Toxaphene (4)
6.680	137699.16	VV	0.046		781.12	Toxaphene (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.348	806366.68	VV	0.00567	4574.26	Toxaphene
6.681		VV	0.00567		
6.203		VV	0.00567		
5.952		VV	0.00567		
5.857		VV	0.00567		



Return to Contents

External Standard Report

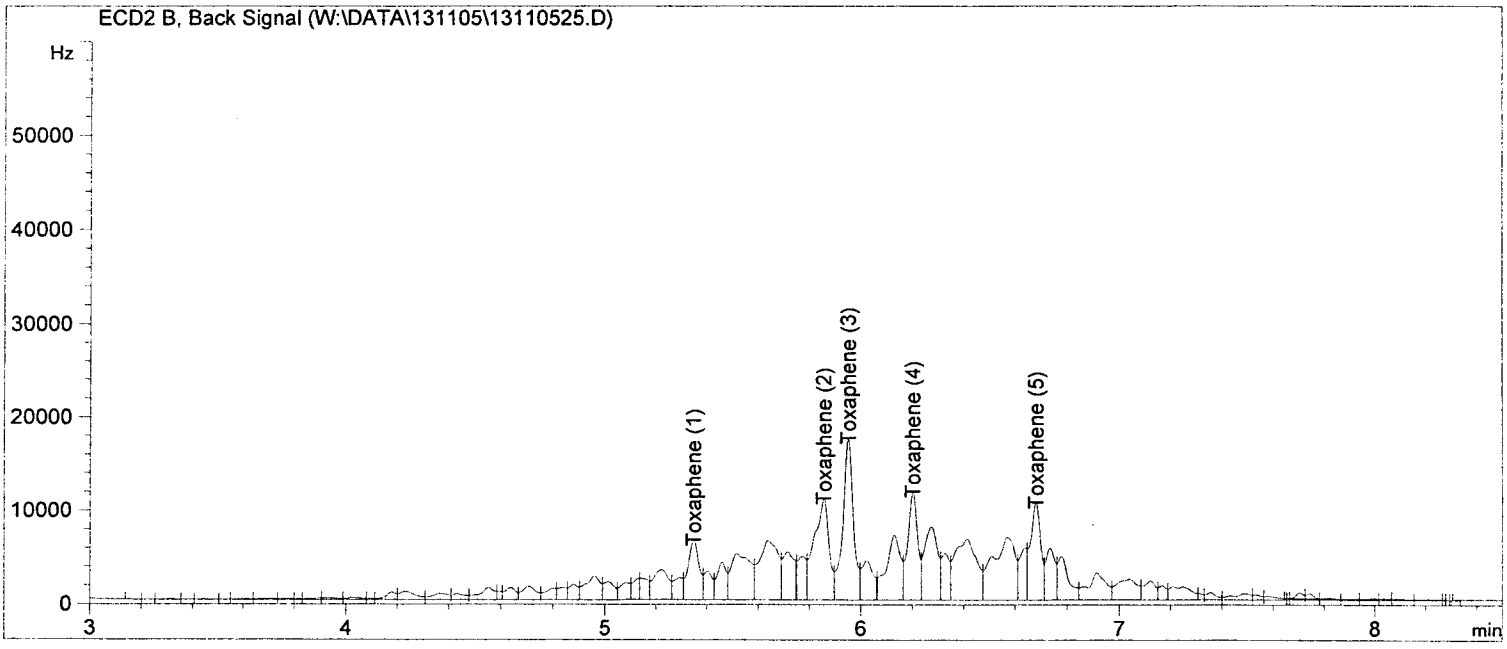
Data File Name : W:\DATA\131105\13110525.D
Operator : 500 Vial Number : Vial 25
Instrument : GC 51 Sequence Line : 32
Sample Name : T ICV S082313P 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-R
Acquired on : 05 Nov 13 07:31 pm Method : EPA 8081A
Report Created on: 06 Nov 13 09:14 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105R.M

Sig. ECD2 B, W:\DATA\131105\13110525.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.349	19439.42	VV	0.045		110.27	Toxaphene (1)
5.857	43596.61	VV	0.067		247.31	Toxaphene (2)
5.952	49476.38	VV	0.048		280.66	Toxaphene (3)
6.202	31313.87	VV	0.045		177.63	Toxaphene (4)
6.681	28611.92	VV	0.046		162.31	Toxaphene (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.348	172438.19	VV	0.00567	978.19	Toxaphene
6.681		VV	0.00567		
6.203		VV	0.00567		
5.952		VV	0.00567		
5.857		VV	0.00567		



Return to Contents

EPA METHOD 8081A
Organochlorine Pesticides

DDT/Endrin Breakdown

Return to Contents

GC-51

FRONT COLUMN

Err:510 Err:510 Err:510 Err:510 Err:510 Err:510

Exter nal Standaiort

Err:510 Err:510 Err:510 Err:510 Err:510 Err:510

Data Fil e Name : \DATA \13110 5\13110501.D
Operator : 50 0 Vial Number : Vial 1
Instrume nt : GC 51 Injection Number : 1
Sample N ame : E'AL S0 80713B 50PPB Sequence Line : 2
Running Method : C\CHEM 32\1\M ETHODS\8 Report Style : PEST-F
Acquired on : 05 Nov 13 11 :53 am Method : EPA 8081A
Report C reated on: (Nov 13 01 :39 pm Software Version : Rev. B.03.[41]
Comment :
Analysis Method : C\CHEM 32\1\M ETHODS\P5F.M

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Sig. W:\DAT\1311 05\131 10501.D

Ret Time	Area	Type	Width	Ref #	ppl	Name
2.726	64.2	VB	0.032		0.148	2,4,5,6-Tetrachloro-m-Xylene
0	0		0		0	Hexachlorobenzene
0	0		0		0	Alpha-BHC
3.503	6.8	BV	0.021		0.01	Gamma-BHC
0	0		0		0	Beta-BHC
3.765	41.3	BV	0.048		0.057	Delta-BHC
3.968	14.8	BB	0.034		0.021	Heptachlor
0	0		0		0	Aldrin
4.907	363.9	BV	0.044		0.57	Heptachlor Epoxide
0	0		0		0	Gamma Chlordane
5.172	57	BV	0.032		0.094	Alpha Chlordane
5.236	890.8	VB	0.04		1.644	4,4'-DDE
0	0		0		0	Endosulfan I
5.525	98.9	BV	0.054		0.156	Dieldrin
5.768	26531.2	BV	0.033		46.657	Endrin
5.833	629	VB	0.038		1.307	4,4'-DDD
0	0		0		0	Endosulfan II
6.098	23362.1	VB	0.034		45.362	4,4'-DDT
6.393	427.6	VV	0.038		0.945	Endrin Aldehyde
6.567	21.1	BV	0.033		0.083	Methoxychlor
6.812	23.9	BV	0.033		0.045	Endosulfan Sulfate
7.079	1340.9	BB	0.033		2.129	Endrin Ketone
7.997	77.4	BV	0.038		0.147	Decachlorobiphenyl
0	0		0		0	Chlordane
0	0		0		0	Toxaphene

Evaluation	
Components	**Area**
Endrin	26531.2
Endrin Aldehyde	427.6
Endrin Ketone	1340.9
%Breakdown (<15%)	**6.2**
Components	**Area**
4,4-DDT	23362.1
4,4-DDE	890.8
4,4-DDD	629
%Breakdown (<15%)	**6.1**

Data file name and location: svoa28\MY DOCUMENT\GC 44 ICAL.xls
Calculation Formulas:

% Breakdown: ((Endrin Aldehyde+Endrin Ketone)/(Endrin+Endrin Aldehyde+Endrin Ketone))*100
((4,4-DDE+4,4-DDD)/(4,4-DDT+4,4-DDE+4,4-DDD))*100

Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110501.D
Operator : 500
Instrument : GC 51
Sample Name : EVAL S080713B 50PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 05 Nov 13 11:53 am
Report Created on: 05 Nov 13 01:39 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 1
Injection Number : 1
Sequence Line : 2
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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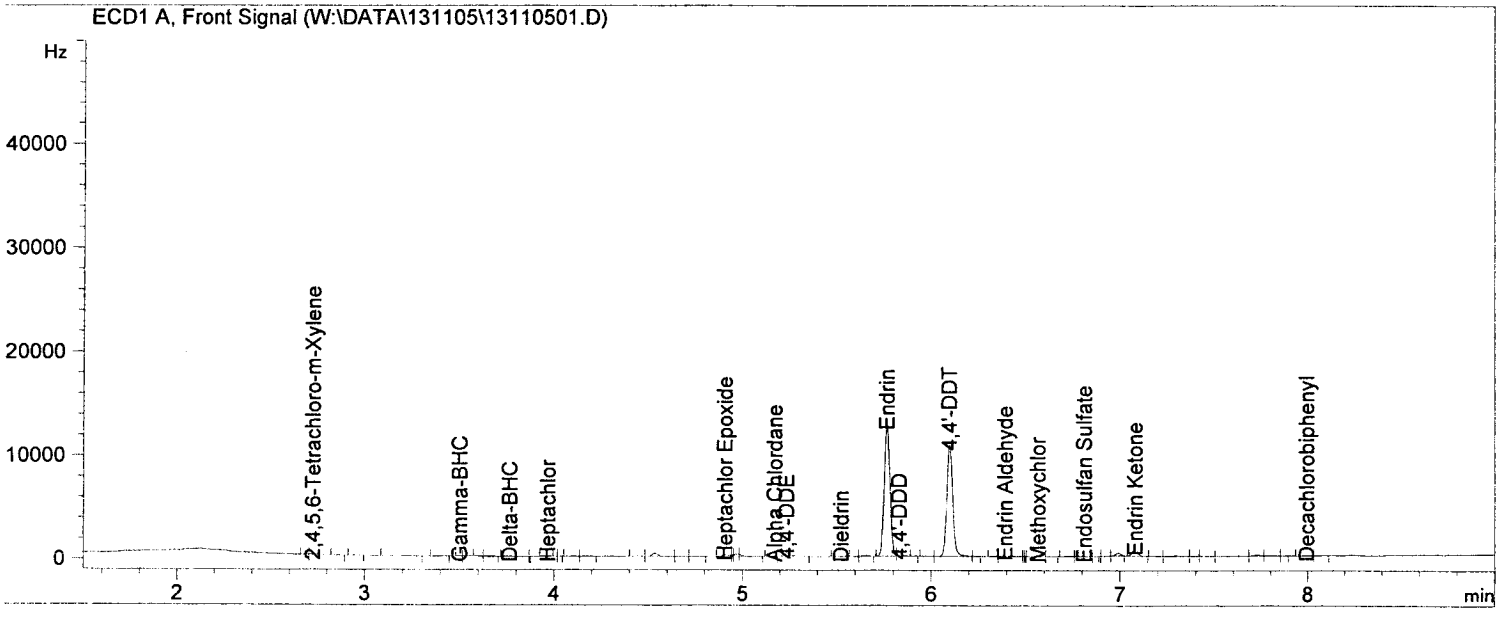
Sig. ECD1 A, W:\DATA\131105\13110501.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.726	64.2	VB	0.032		0.148	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
3.503	6.8	BV	0.021		0.010	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
3.765	41.3	BV	0.048		0.057	Delta-BHC
3.968	14.8	BB	0.034		0.021	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
4.907	363.9	BV	0.044		0.570	Heptachlor Epoxide
0.000	0.0		0.000		0.000	Gamma Chlordane
5.172	57.0	BV	0.032		0.094	Alpha Chlordane
5.236	890.8	VB	0.040		1.644	4,4'-DDE
0.000	0.0		0.000		0.000	Endosulfan I
5.525	98.9	BV	0.054		0.156	Dieldrin
5.768	26531.2	BV	0.033		46.657	Endrin
5.833	629.0	VB	0.038		1.307	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
6.098	23362.1	VB	0.034		45.362	4,4'-DDT
6.393	427.6	VV	0.038		0.945	Endrin Aldehyde
6.567	21.1	BV	0.033		0.083	Methoxychlor
6.812	23.9	BV	0.033		0.045	Endosulfan Sulfate
7.079	1340.9	BB	0.033		2.129	Endrin Ketone
7.997	77.4	BV	0.038		0.147	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110500.D
Operator : 500
Instrument : GC 51
Sample Name : IB E08-45-11
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 05 Nov 13 11:39 am
Report Created on: 05 Nov 13 01:38 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 100
Injection Number : 1
Sequence Line : 1
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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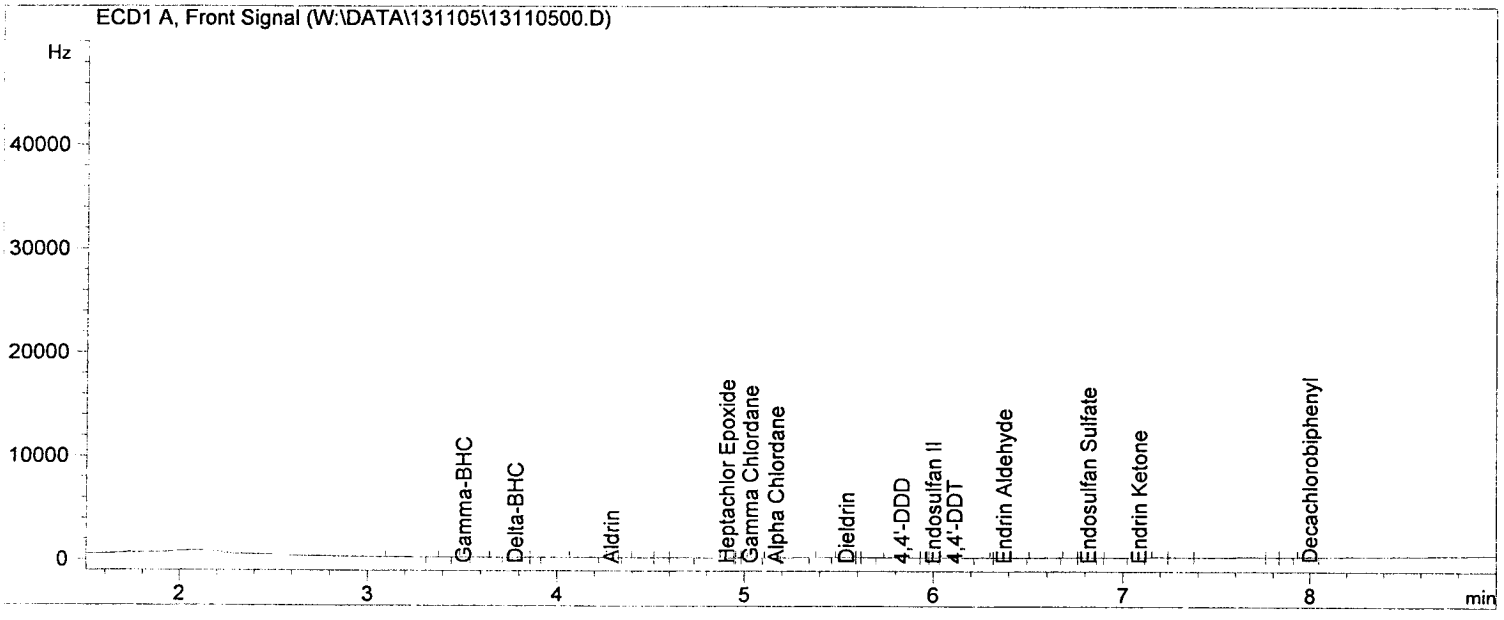
Sig. ECD1 A, W:\DATA\131105\13110500.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.0		0.000		0.000	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
3.511	3.0	BV	0.022		0.004	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
3.783	10.7	BF	0.033		0.015	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
4.291	3.4	BV	0.029		0.005	Aldrin
4.907	16.7	BV	0.030		0.026	Heptachlor Epoxide
5.032	6.9	BB	0.031		0.011	Gamma Chlordane
5.169	23.4	BV	0.037		0.039	Alpha Chlordane
0.000	0.0		0.000		0.000	4,4'-DDE
0.000	0.0		0.000		0.000	Endosulfan I
5.543	22.7	BV	0.039		0.036	Dieldrin
0.000	0.0		0.000		0.000	Endrin
5.835	16.6	BB	0.032		0.034	4,4'-DDD
6.002	3.5	VV	0.024		0.006	Endosulfan II
6.114	66.2	VB	0.056		0.128	4,4'-DDT
6.377	74.1	VB	0.059		0.164	Endrin Aldehyde
0.000	0.0		0.000		0.000	Methoxychlor
6.819	14.1	BV	0.036		0.027	Endosulfan Sulfate
7.088	9.5	BV	0.034		0.015	Endrin Ketone
8.001	59.4	BV	0.038		0.113	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

GC 51

REAR COLUMN

Err:510 Err:510 Err:510 Err:510 Err:510 Err:510

Exter nal Standaıort

Err:510 Err:510 Err:510 Err:510 Err:510 Err:510

Data Fil e Name : \DATA \13110 5\13110501.D
Operator : 50 0 Vial Number : Vial 1
Instrume nt : GC 51 Injection Number : 1
Sample N ame : E'AL S0 80713B 50PPB Sequence Line : 2
Running Method : (\CHEM 32\1\M ETHODS\8Report Style : PEST-R
Acquired on : 05 Nov 13 11 :53 am Method : EPA 8081A
Report C reated on: (Nov 13 01 :39 pm Software Version : Rev. B.03.(41]
Comment :
Analysis Method : (\CHEM 32\1\M ETHODS\F5R.M

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Sig. W:\DA~\131105\131 10501.D

Ret Time	Area	Type	Width	Ref #	pp	Name
0	0		0	0		2,4,5,6-Tetrachloro-m-Xylene
0	0		0	0		Hexachlorobenzene
0	0		0	0		Alpha-BHC
0	0		0	0		Gamma-BHC
0	0		0	0		Beta-BHC
0	0		0	0		Delta-BHC
0	0		0	0		Heptachlor
0	0		0	0		Aldrin
0	0		0	0		Heptachlor Epoxide
4.888	86.2	BV	0.029	0.087		Gamma Chlordane
0	0		0	0		Alpha Chlordane
5.086	41.4	VV	0.033	0.046		Endosulfan I
5.218	1184.3	BB	0.036	1.432		4,4'-DDE
5.358	35.7	BV	0.027	0.035		Dieldrin
5.663	41199.5	BV	0.034	7.469		Endrin
5.791	178.7	VV	0.043	1.683		4,4'-DDD
5.878	370.8	VB	0.055	0.408		Endosulfan II
6.081	34327.9	BV	0.031	45.456		4,4'-DDT
6.194	855.3	VB	0.04	1.252		Endrin Aldehyde
0	0		0	0		Endosulfan Sulfate
0	0		0	0		Methoxychlor
6.956	2599.9	BF	0.033	2.67		Endrin Ketone
8.087	170.4	BV	0.037	0.202		Decachlorobiphenyl
0	0		0	0		Chlordane
0	0		0	0		Toxaphene

Evaluation	
Components	**Area**
Endrin	41199.5
Endrin Aldehyde	855.3
Endrin Ketone	2599.9
%Breakdown (<15%)	**7.7**
Components	**Area**
4,4-DDT	34327.9
4,4-DDE	1184.3
4,4-DDD	1178.7
%Breakdown (<15%)	**6.4**

Data file name and location: svoa28\MY DOCUMENT\GC 44 ICAL.xls
Calculation Formulas:

% Breakdown: ((Endrin Aldehyde+Endrin Ketone)/(Endrin+Endrin Aldehyde+Endrin Ketone))*100
((4,4-DDE+4,4-DDD)/(4,4-DDT+4,4-DDE+4,4-DDD))*100

Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110501.D
Operator : 500
Instrument : GC 51
Sample Name : EVAL S080713B 50PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 05 Nov 13 11:53 am
Report Created on: 05 Nov 13 01:39 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 1
Injection Number : 1
Sequence Line : 2
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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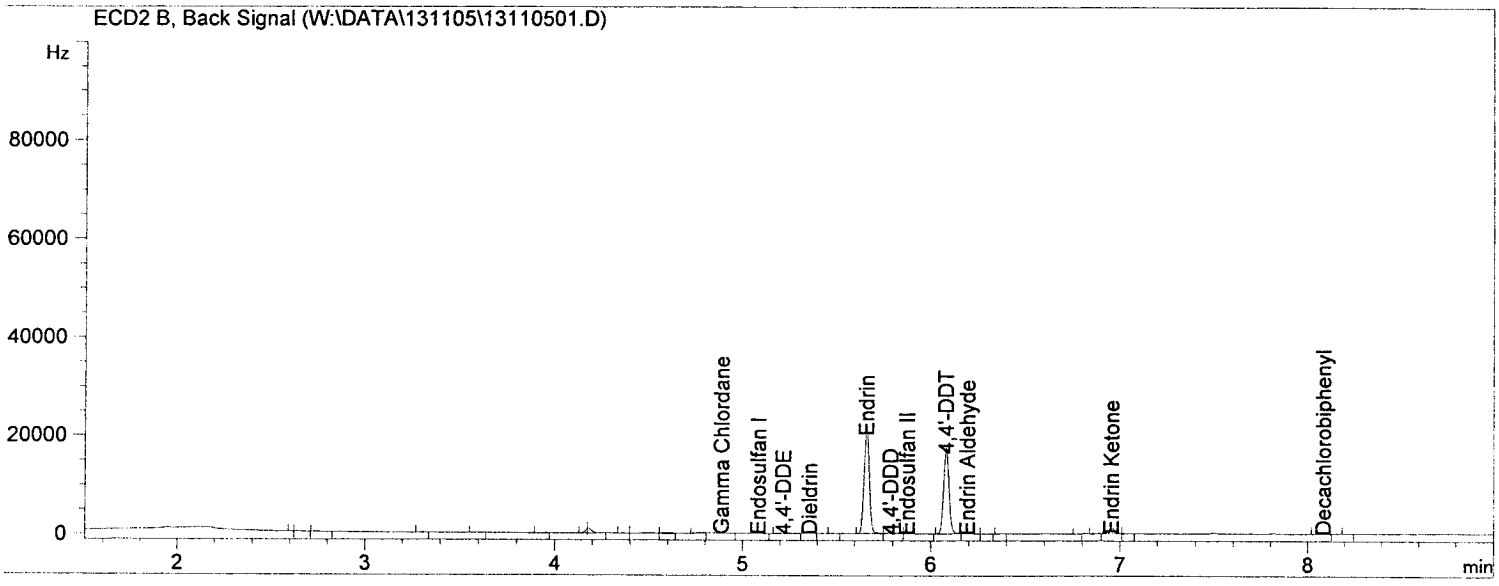
Sig. ECD2 B, W:\DATA\131105\13110501.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.0		0.000		0.000	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
0.000	0.0		0.000		0.000	Heptachlor Epoxide
4.888	86.2	BV	0.029		0.087	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
5.086	41.4	VV	0.033		0.046	Endosulfan I
5.218	1184.3	BB	0.036		1.432	4,4'-DDE
5.358	35.7	BV	0.027		0.035	Dieldrin
5.663	41199.5	BV	0.030		47.469	Endrin
5.790	1178.7	VV	0.043		1.683	4,4'-DDD
5.878	370.8	VB	0.055		0.408	Endosulfan II
6.081	34327.9	BV	0.031		45.456	4,4'-DDT
6.194	855.3	VB	0.040		1.252	Endrin Aldehyde
0.000	0.0		0.000		0.000	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Methoxychlor
6.956	2599.9	BF	0.033		2.670	Endrin Ketone
8.087	170.4	BV	0.037		0.202	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131105\13110500.D
Operator : 500
Instrument : GC 51
Sample Name : IB E08-45-11
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 05 Nov 13 11:39 am
Report Created on: 05 Nov 13 01:38 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 100
Injection Number : 1
Sequence Line : 1
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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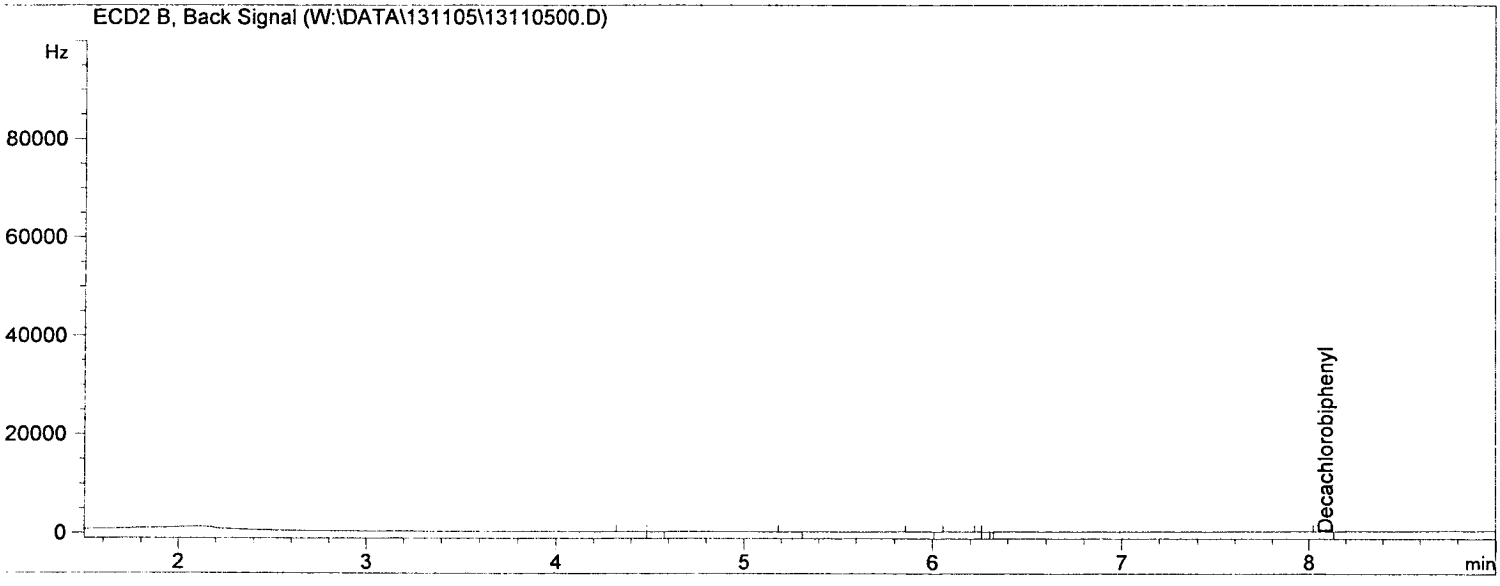
Sig. ECD2 B, W:\DATA\131105\13110500.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.0		0.000		0.000	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
0.000	0.0		0.000		0.000	Heptachlor Epoxide
0.000	0.0		0.000		0.000	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
0.000	0.0		0.000		0.000	Endosulfan I
0.000	0.0		0.000		0.000	4,4'-DDE
0.000	0.0		0.000		0.000	Dieldrin
0.000	0.0		0.000		0.000	Endrin
0.000	0.0		0.000		0.000	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
0.000	0.0		0.000		0.000	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
0.000	0.0		0.000		0.000	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Methoxychlor
0.000	0.0		0.000		0.000	Endrin Ketone
8.091	93.4	BV	0.035		0.110	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

GC-51

FRONT COLUMN

Err:510 Err:510 Err:510 Err:510 Err:510 Err:510

Exter nal Standardort

Err:510 Err:510 Err:510 Err:510 Err:510 Err:510

Data Fil e Name : "\DATA \13111 3\13111301.D
Operator : 50 0 Vial Number : Vial 1
Instrume nt : GC 51 Injection Number : 1
Sample N ame : E'AL S0 80713B 50PPB Sequence Line : 2
Running Method : (\CHEM 32\1\M ETHODS\8 Report Style : PEST-F
Acquired on : 13 Nov 13 10 :21 am Method : EPA 8081A
Report C reated on: ' Nov 13 10 :35 am Software Version : Rev. B.03.[41]
Comment :
Analysis Method : (\CHEM 32\1\M ETHODS\P5F.M

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Sig. W:\DAT\1311 13\131 11301.D

Ret Time	Area	Type	Width	Ref #	ppl	Name
2.726	129.6	VV	0.042		0.298	2,4,5,6-Tetrachloro-m-Xylene
3.042	22	BV	0.031		0.038	Hexachlorobenzene
0	0		0		0	Alpha-BHC
3.5	10.7	BV	0.033		0.015	Gamma-BHC
3.592	37.7	VB	0.065		0.122	Beta-BHC
3.762	56.8	BV	0.044		0.079	Delta-BHC
3.963	11.7	BB	0		0.017	Heptachlor
4.286	8.5	BV	0.039		0.012	Aldrin
4.906	17.7	BV	0.026		0.028	Heptachlor Epoxide
5.029	64.8	VB	0.036		0.1	Gamma Chlordane
5.147	124.7	BV	0.055		0.206	Alpha Chlordane
5.233	809.7	VV	0.039		1.494	4,4'-DDE
0	0		0		0	Endosulfan I
5.523	123.1	BV	0.043		0.194	Dieldrin
5.765	27593.2	VV	0.035		48.524	Endrin
5.836	205.8	VV	0.042		0.428	4,4'-DDD
0	0		0		0	Endosulfan II
6.095	25318.6	VB	0.034		49.16	4,4'-DDT
6.39	486.5	VB	0.037		1.075	Endrin Aldehyde
0	0		0		0	Methoxychlor
0	0		0		0	Endosulfan Sulfate
7.074	673	BB	0.031		1.068	Endrin Ketone
7.999	71.9	BV	0.04		0.136	Decachlorobiphenyl
0	0		0		0	Chlordane
0	0		0		0	Toxaphene

Evaluation	
Components	**Area**
Endrin	27593.2
Endrin Aldehyde	486.5
Endrin Ketone	673
%Breakdown (<15%)	**4.0**
Components	**Area**
4,4-DDT	25318.6
4,4-DDE	809.7
4,4-DDD	205.8
%Breakdown (<15%)	**3.9**

Data file name and location: svoa28\MY DOCUMENT\GC 44 ICAL.xls
Calculation Formulas:

% Breakdown: ((Endrin Aldehyde+Endrin Ketone)/(Endrin+Endrin Aldehyde+Endrin Ketone))*100
((4,4-DDE+4,4-DDD)/(4,4-DDT+4,4-DDE+4,4-DDD))*100

Return to Contents

External Standard Report

Data File Name : W:\DATA\131113\13111301.D
Operator : 500
Instrument : GC 51
Sample Name : EVAL S080713B 50PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 13 Nov 13 10:21 am
Report Created on: 13 Nov 13 10:35 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 1
Injection Number : 1
Sequence Line : 2
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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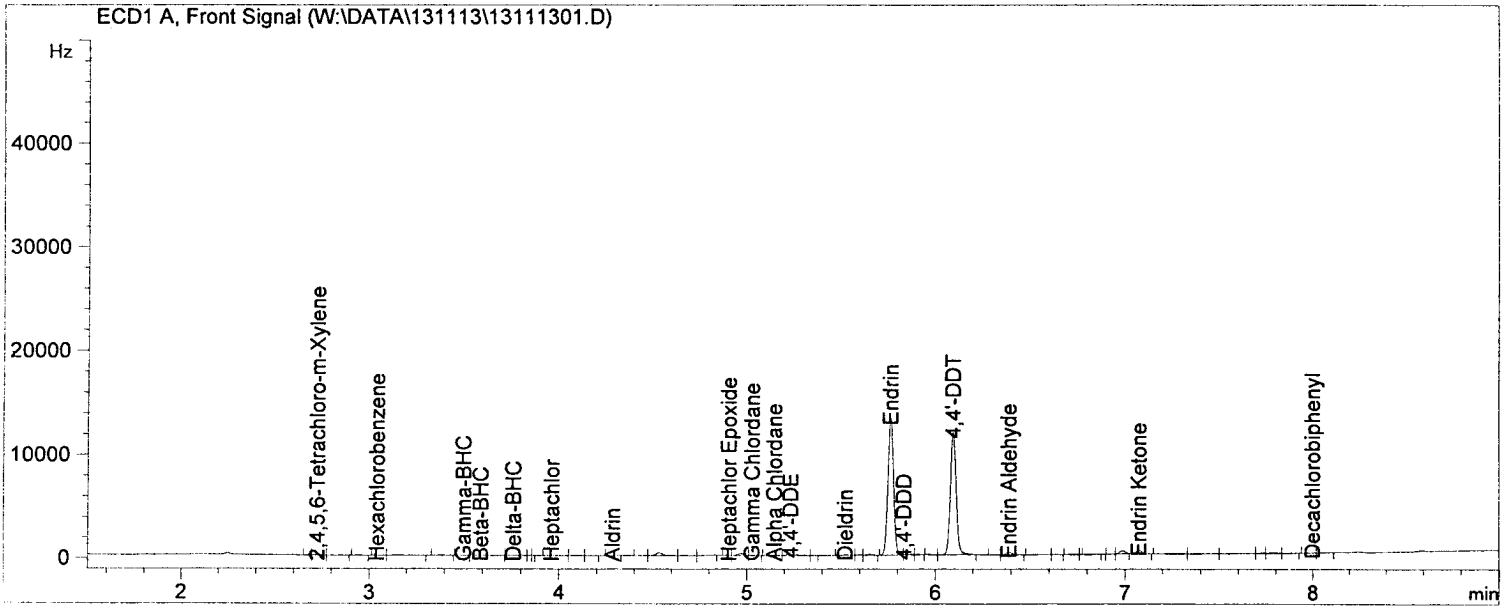
Sig. ECD1 A, W:\DATA\131113\13111301.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.726	129.6	VV	0.042		0.298	2,4,5,6-Tetrachloro-m-Xylene
3.042	22.0	BV	0.031		0.038	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
3.500	10.7	BV	0.033		0.015	Gamma-BHC
3.592	37.7	VB	0.065		0.122	Beta-BHC
3.762	56.8	BV	0.044		0.079	Delta-BHC
3.963	11.7	BB	0.000		0.017	Heptachlor
4.286	8.5	BV	0.039		0.012	Aldrin
4.906	17.7	BV	0.026		0.028	Heptachlor Epoxide
5.029	64.8	VB	0.036		0.100	Gamma Chlordane
5.147	124.7	BV	0.055		0.206	Alpha Chlordane
5.233	809.7	VV	0.039		1.494	4,4'-DDE
0.000	0.0		0.000		0.000	Endosulfan I
5.523	123.1	BV	0.043		0.194	Dieldrin
5.765	27593.2	VV	0.035		48.524	Endrin
5.836	205.8	VV	0.042		0.428	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
6.095	25318.6	VB	0.034		49.160	4,4'-DDT
6.390	486.5	VB	0.037		1.075	Endrin Aldehyde
0.000	0.0		0.000		0.000	Methoxychlor
0.000	0.0		0.000		0.000	Endosulfan Sulfate
7.074	673.0	BB	0.031		1.068	Endrin Ketone
7.999	71.9	BV	0.040		0.136	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131113\13111300.D
Operator : 500
Instrument : GC 51
Sample Name : IB E08-45-11
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 13 Nov 13 10:07 am
Report Created on: 13 Nov 13 10:33 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 100
Injection Number : 1
Sequence Line : 1
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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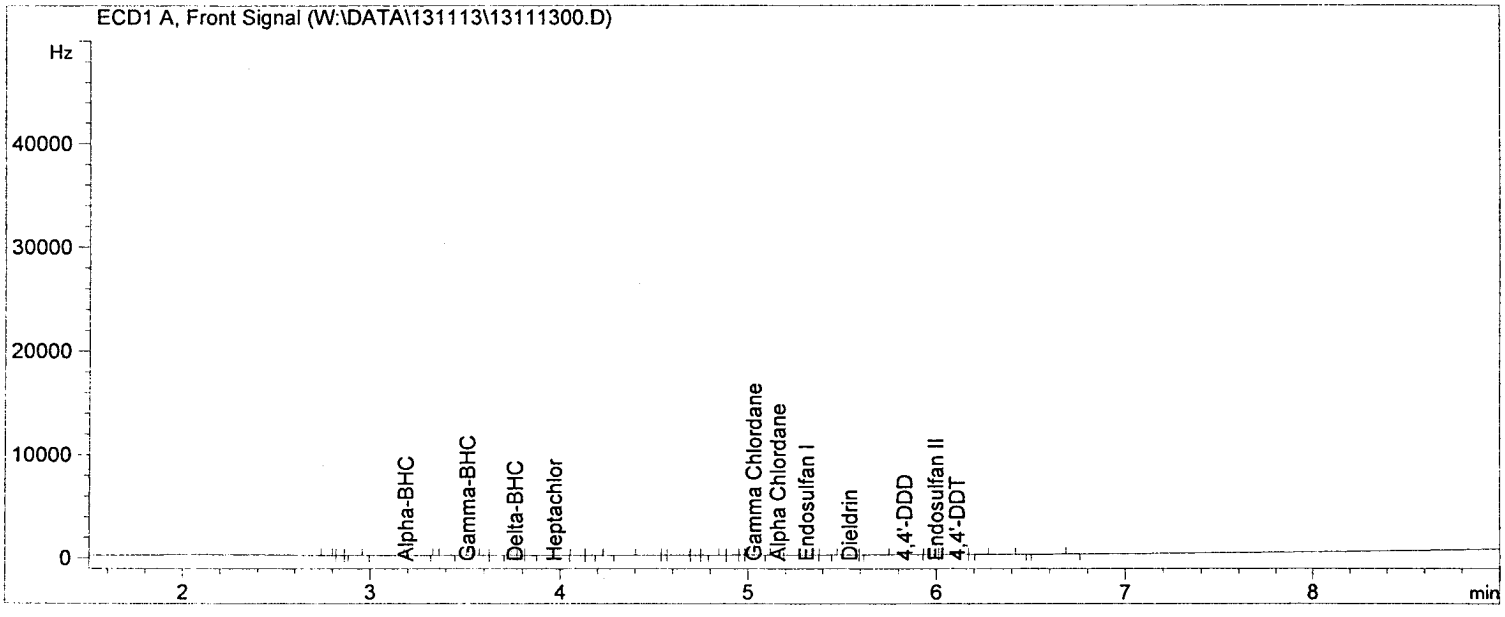
Sig. ECD1 A, W:\DATA\131113\13111300.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.0		0.000		0.000	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
3.190	1.3	BB	0.015		0.002	Alpha-BHC
3.513	0.7	BV	0.013		0.001	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
3.762	0.7	BV	0.019		0.001	Delta-BHC
3.970	2.3	BB	0.000		0.003	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
0.000	0.0		0.000		0.000	Heptachlor Epoxide
5.033	2.0	BB	0.024		0.003	Gamma Chlordane
5.160	6.4	BV	0.031		0.011	Alpha Chlordane
0.000	0.0		0.000		0.000	4,4'-DDE
5.313	4.0	VB	0.000		0.006	Endosulfan I
5.544	12.2	BV	0.034		0.019	Dieldrin
0.000	0.0		0.000		0.000	Endrin
5.834	11.3	BB	0.030		0.023	4,4'-DDD
5.999	1.0	VV	0.018		0.002	Endosulfan II
6.111	43.6	VV	0.042		0.085	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
0.000	0.0		0.000		0.000	Methoxychlor
0.000	0.0		0.000		0.000	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Endrin Ketone
0.000	0.0		0.000		0.000	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

GC 51

REAR COLUMN

Err:510 Err:510 Err:510 Err:510 Err:510 Err:510

Exter nal Standaiort

Err:510 Err:510 Err:510 Err:510 Err:510 Err:510

Data Fil e Name : \DATA \13111 3\13111301.D
Operator : 50 0 Vial Number : Vial 1
Instrume nt : GC 51 Injection Number : 1
Sample N ame : E'AL S0 80713B 50PPB Sequence Line : 2
Running Method : (\CHEM 32\1\M ETHODS\8Report Style : PEST-R
Acquired on : 13 Nov 13 10 :21 am Method : EPA 8081A
Report C reated on: ' Nov 13 10 :35 am Software Version : Rev. B.03.[41]
Comment : Copyright © Agi lent
Analysis Method : (\CHEM 32\1\M ETHODS\F5R.M Technologies

Sig. W:\DA˜\131113\131 11301.D

Ret Time	Area	Type	Width	Ref #	pp	Name
0	0		0		0	2,4,5,6-Tetrachloro-m-Xylene
2.952	21.3	VV	0.026	0.023		Hexachlorobenzene
3.06	35.3	VB	0.051		0.03	Alpha-BHC
0	0		0		0	Gamma-BHC
0	0		0		0	Beta-BHC
3.744	17.5	BB	0.021	0.018		Delta-BHC
0	0		0		0	Heptachlor
0	0		0		0	Aldrin
0	0		0		0	Heptachlor Epoxide
4.889	82.3	BV	0.031	0.083		Gamma Chlordane
5.031	51.7	VV	0.028	0.055		Alpha Chlordane
0	0		0		0	Endosulfan I
5.211	181.7	BV	0.035	1.429		4,4'-DDE
5.354	45.4	BV	0.031	0.045		Dieldrin
5.654	42908.3	BV	0.034	9.438		Endrin
0	0		0		0	4,4'-DDD
0	0		0		0	Endosulfan II
6.073	38034.2	BV	0.031	50.364		4,4'-DDT
6.186	838	VB	0.035	1.226		Endrin Aldehyde
6.454	88.3	BB	0.035	0.113		Endosulfan Sulfate
0	0		0		0	Methoxychlor
6.945	1717.3	BF	0.036	1.763		Endrin Ketone
0	0		0		0	Decachlorobiphenyl
0	0		0		0	Chlordane
0	0		0		0	Toxaphene

Evaluation	
Components	**Area**
Endrin	42908.3
Endrin Aldehyde	838
Endrin Ketone	1717.3
%Breakdown (<15%)	**5.6**
Components	**Area**
4,4-DDT	38034.2
4,4-DDE	1181.7
4,4-DDD	0
%Breakdown (<15%)	**3.0**

Data file name and location: svoa28\MY DOCUMENT\GC 44 ICAL.xls
Calculation Formulas:

% Breakdown: ((Endrin Aldehyde+Endrin Ketone)/(Endrin+Endrin Aldehyde+Endrin Ketone))*100
((4,4-DDE+4,4-DDD)/(4,4-DDT+4,4-DDE+4,4-DDD))*100

Return to Contents

External Standard Report

Data File Name : W:\DATA\131113\13111301.D
Operator : 500
Instrument : GC 51
Sample Name : EVAL S080713B 50PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 13 Nov 13 10:21 am
Report Created on: 13 Nov 13 10:35 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 1
Injection Number : 1
Sequence Line : 2
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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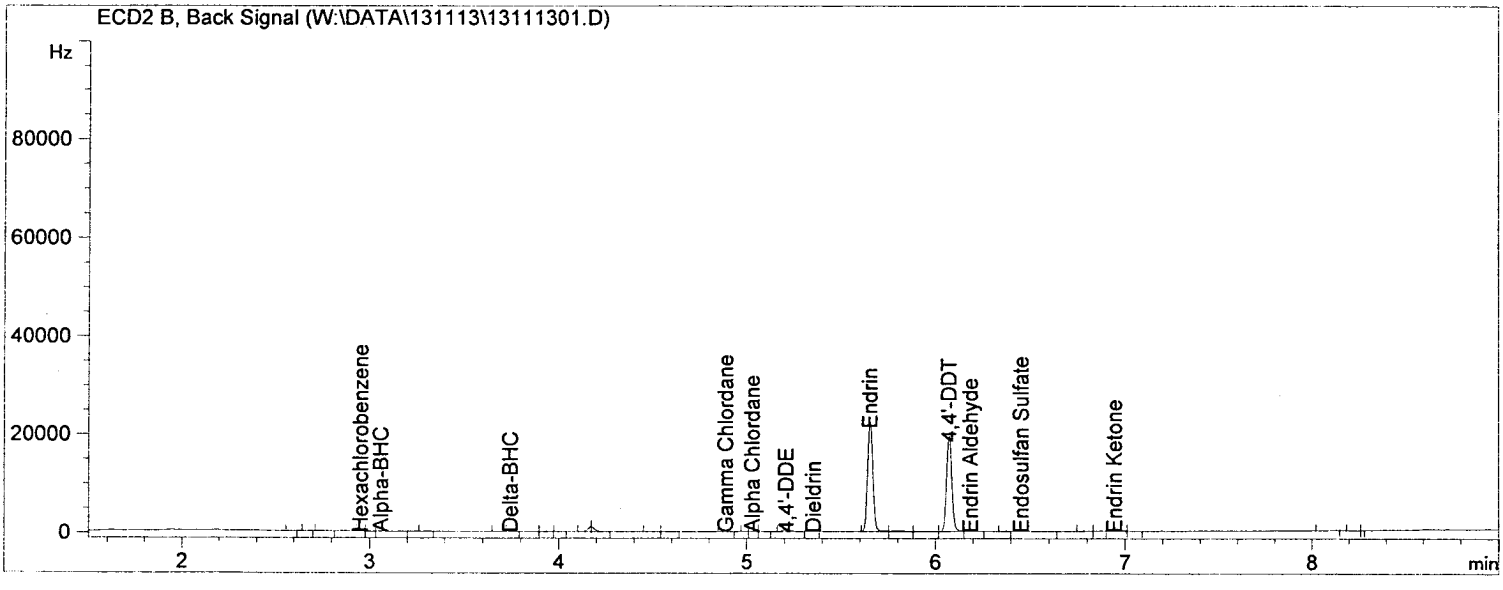
Sig. ECD2 B, W:\DATA\131113\13111301.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.0		0.000		0.000	2,4,5,6-Tetrachloro-m-Xylene
2.952	21.3	VV	0.026		0.023	Hexachlorobenzene
3.060	35.3	VB	0.051		0.030	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
3.744	17.5	BB	0.021		0.018	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
0.000	0.0		0.000		0.000	Heptachlor Epoxide
4.889	82.3	BV	0.031		0.083	Gamma Chlordane
5.031	51.7	VV	0.028		0.055	Alpha Chlordane
0.000	0.0		0.000		0.000	Endosulfan I
5.210	1181.7	BV	0.035		1.429	4,4'-DDE
5.354	45.4	BV	0.031		0.045	Dieldrin
5.654	42908.3	BV	0.030		49.438	Endrin
0.000	0.0		0.000		0.000	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
6.073	38034.2	BV	0.031		50.364	4,4'-DDT
6.186	838.0	VB	0.035		1.226	Endrin Aldehyde
6.454	88.3	BB	0.035		0.113	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Methoxychlor
6.945	1717.3	BF	0.036		1.763	Endrin Ketone
0.000	0.0		0.000		0.000	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131113\13111300.D
Operator : 500
Instrument : GC 51
Sample Name : IB E08-45-11
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 13 Nov 13 10:07 am
Report Created on: 13 Nov 13 10:33 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 100
Injection Number : 1
Sequence Line : 1
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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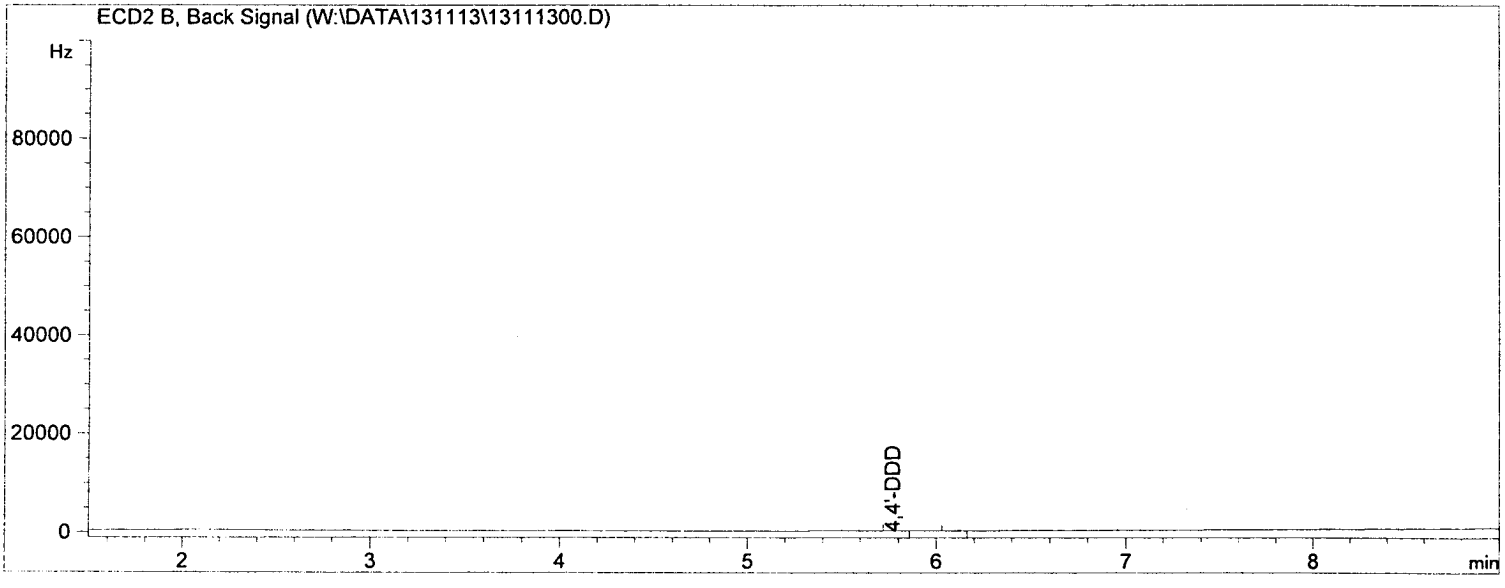
Sig. ECD2 B, W:\DATA\131113\13111300.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.0		0.000		0.000	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
0.000	0.0		0.000		0.000	Heptachlor Epoxide
0.000	0.0		0.000		0.000	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
0.000	0.0		0.000		0.000	Endosulfan I
0.000	0.0		0.000		0.000	4,4'-DDE
0.000	0.0		0.000		0.000	Dieldrin
0.000	0.0		0.000		0.000	Endrin
5.770	26.4	VV	0.032		0.038	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
0.000	0.0		0.000		0.000	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
0.000	0.0		0.000		0.000	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Methoxychlor
0.000	0.0		0.000		0.000	Endrin Ketone
0.000	0.0		0.000		0.000	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

GC-51

FRONT COLUMN

Err:510 Err:510 Err:510 Err:510 Err:510 Err:510
Exter nal Standarort
Err:510 Err:510 Err:510 Err:510 Err:510 Err:510

Data Fil e Name : '\DATA \13111 4\13111401.D
Operator : 50 0 Vial Number : Vial 1
Instrume nt : GC 51 Injection Number : 1
Sample N ame : E'AL S0 80713B 50PPB Sequence Line : 2
Running Method : (\CHEM 32\1\M ETHODS\8 Report Style : PEST-F
Acquired on : 14 Nov 13 09 :40 am Method : EPA 8081A
Report C reated on: ' Nov 13 10 :00 am Software Version : Rev. B.03.[41]
Comment :
Analysis Method : (\CHEM 32\1\M ETHODS\P5F.M

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Sig. W:\DA7\1311 14\131 11401.D

Ret Time	Area	Type	Width	Ref #	ppl	Name
0	0		0		0	2,4,5,6-Tetrachloro-m-Xylene
3.042	14.4	BV	0.031		0.025	Hexachlorobenzene
0	0		0		0	Alpha-BHC
3.5	12	BV	0.029		0.017	Gamma-BHC
3.595	39.1	VB	0.056		0.127	Beta-BHC
3.768	54.2	BV	0.043		0.075	Delta-BHC
3.96	3.9	BV	0.029		0.006	Heptachlor
4.28	15.1	BV	0.04		0.021	Aldrin
4.911	81.9	BV	0.036		0.128	Heptachlor Epoxide
5.032	17.6	BV	0.029		0.027	Gamma Chlordane
5.153	44.7	BV	0.04		0.074	Alpha Chlordane
5.235	871.5	VB	0.039		1.608	4,4'-DDE
0	0		0		0	Endosulfan I
5.524	128.1	BV	0.045		0.202	Dieldrin
5.766	29167.9	BB	0.033		51.293	Endrin
5.831	172.6	VV	0.026		0.358	4,4'-DDD
0	0		0		0	Endosulfan II
6.098	27052.1	VB	0.033		52.526	4,4'-DDT
6.391	668.1	VV	0.038		1.476	Endrin Aldehyde
6.56	35.9	VV	0.03		0.141	Methoxychlor
6.815	55.3	VV	0.038		0.105	Endosulfan Sulfate
7.075	889.2	BV	0.032		1.412	Endrin Ketone
0	0		0		0	Decachlorobiphenyl
0	0		0		0	Chlordane
0	0		0		0	Toxaphene

Evaluation	
Components	**Area**
Endrin	29167.9
Endrin Aldehyde	668.1
Endrin Ketone	889.2
%Breakdown (<15%)	**5.1**
Components	**Area**
4,4-DDT	27052.1
4,4-DDE	871.5
4,4-DDD	172.6
%Breakdown (<15%)	**3.7**

Data file name and location: svoa28\MY DOCUMENT\GC 44 ICAL.xls
Calculation Formulas:

% Breakdown: ((Endrin Aldehyde+Endrin Ketone)/(Endrin+Endrin Aldehyde+Endrin Ketone))*100
((4,4-DDE+4,4-DDD)/(4,4-DDT+4,4-DDE+4,4-DDD))*100

Return to Contents

External Standard Report

Data File Name : W:\DATA\131114\13111401.D
Operator : 500
Instrument : GC 51
Sample Name : EVAL S080713B 50PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 14 Nov 13 09:40 am
Report Created on: 14 Nov 13 10:00 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 1
Injection Number : 1
Sequence Line : 2
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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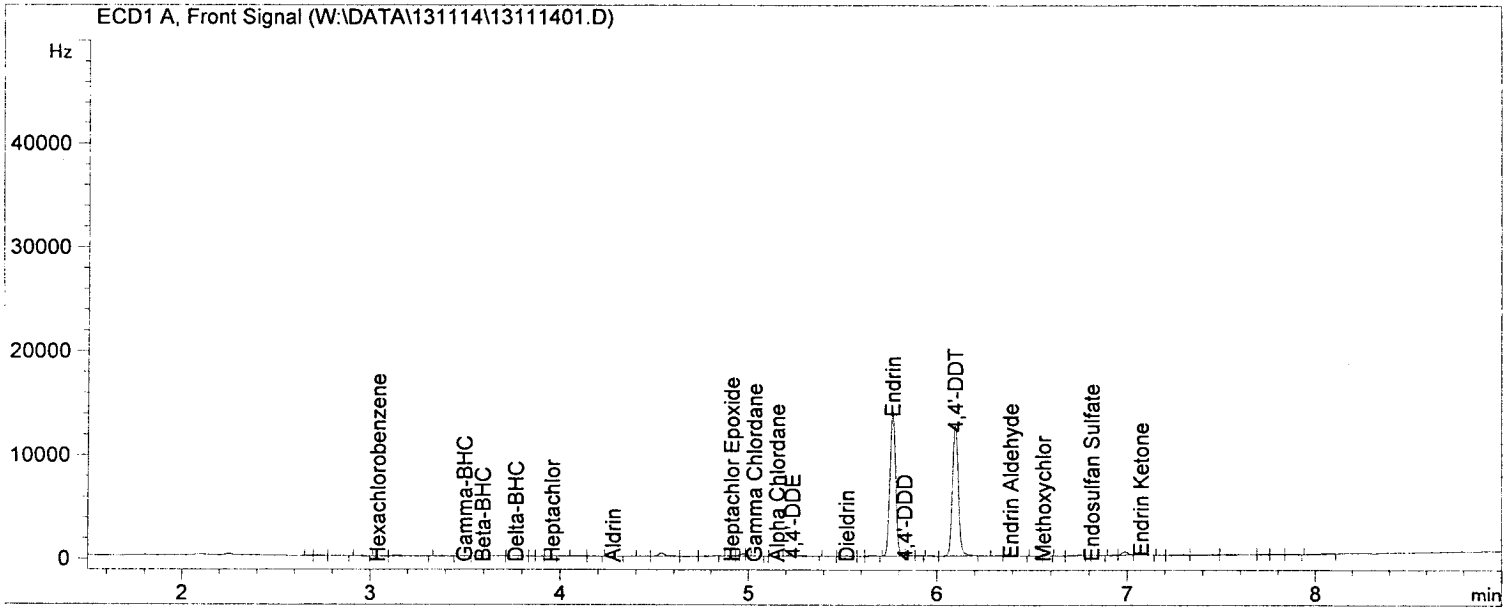
Sig. ECD1 A, W:\DATA\131114\13111401.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.0		0.000		0.000	2,4,5,6-Tetrachloro-m-Xylene
3.042	14.4	BV	0.031		0.025	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
3.500	12.0	BV	0.029		0.017	Gamma-BHC
3.595	39.1	VB	0.056		0.127	Beta-BHC
3.768	54.2	BV	0.043		0.075	Delta-BHC
3.960	3.9	BV	0.029		0.006	Heptachlor
4.280	15.1	BV	0.040		0.021	Aldrin
4.911	81.9	BV	0.036		0.128	Heptachlor Epoxide
5.032	17.6	BV	0.029		0.027	Gamma Chlordane
5.153	44.7	BV	0.040		0.074	Alpha Chlordane
5.235	871.5	VB	0.039		1.608	4,4'-DDE
0.000	0.0		0.000		0.000	Endosulfan I
5.524	128.1	BV	0.045		0.202	Dieldrin
5.766	29167.9	BB	0.033		51.293	Endrin
5.831	172.6	VV	0.026		0.358	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
6.098	27052.1	VB	0.033		52.526	4,4'-DDT
6.391	668.1	VV	0.038		1.476	Endrin Aldehyde
6.560	35.9	VV	0.030		0.141	Methoxychlor
6.815	55.3	VV	0.038		0.105	Endosulfan Sulfate
7.075	889.2	BV	0.032		1.412	Endrin Ketone
0.000	0.0		0.000		0.000	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131114\13111400.D
Operator : 500
Instrument : GC 51
Sample Name : IB E08-45-11
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 14 Nov 13 09:25 am
Report Created on: 14 Nov 13 09:59 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 100
Injection Number : 1
Sequence Line : 1
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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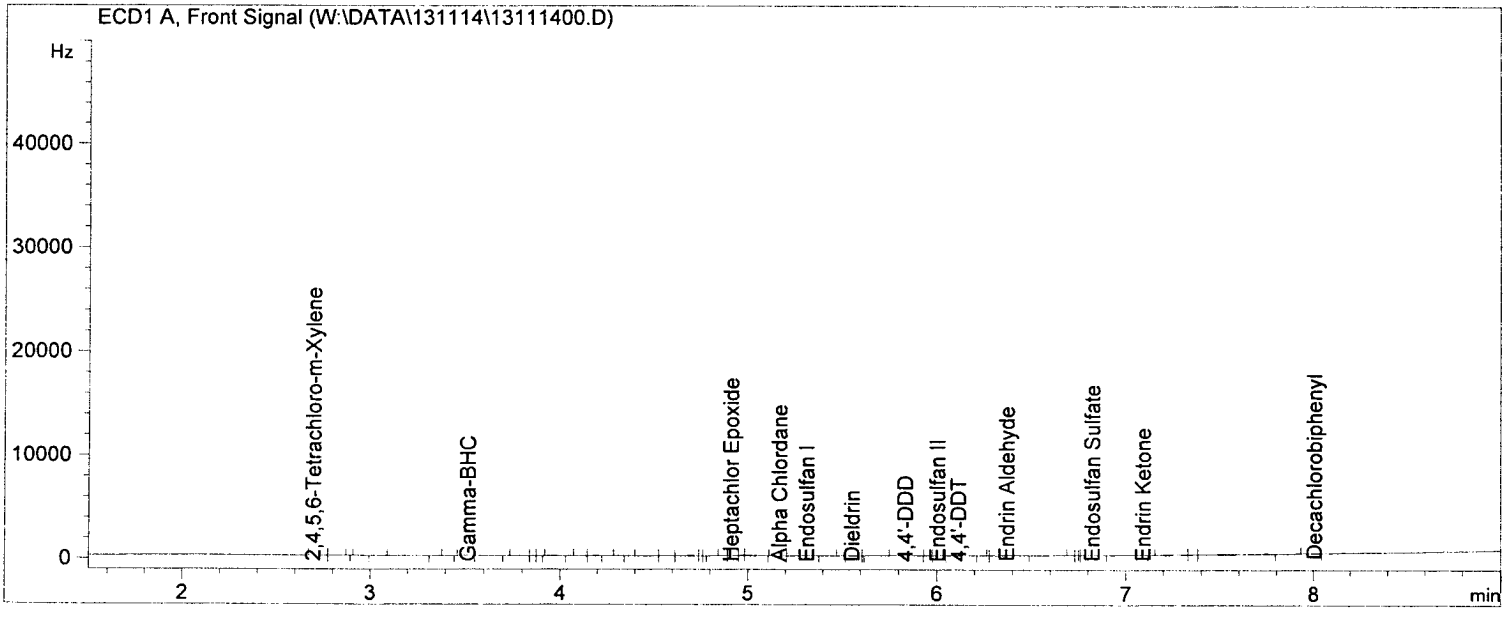
Sig. ECD1 A, W:\DATA\131114\13111400.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.699	4.6	BV	0.035		0.011	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
3.518	9.2	BV	0.035		0.013	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
4.913	4.0	VV	0.070		0.006	Heptachlor Epoxide
0.000	0.0		0.000		0.000	Gamma Chlordane
5.170	11.8	BV	0.034		0.019	Alpha Chlordane
0.000	0.0		0.000		0.000	4,4'-DDE
5.314	15.4	VB	0.047		0.024	Endosulfan I
5.555	16.5	VV	0.040		0.026	Dieldrin
0.000	0.0		0.000		0.000	Endrin
5.836	5.5	BB	0.000		0.011	4,4'-DDD
6.006	6.9	VV	0.023		0.013	Endosulfan II
6.117	85.7	VB	0.048		0.166	4,4'-DDT
6.372	249.7	VB	0.051		0.552	Endrin Aldehyde
0.000	0.0		0.000		0.000	Methoxychlor
6.824	16.9	VB	0.026		0.032	Endosulfan Sulfate
7.094	15.6	BV	0.025		0.025	Endrin Ketone
8.007	39.2	BV	0.030		0.074	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

GC 51

REAR COLUMN

Err:510 Err:510 Err:510 Err:510 Err:510 Err:510
Exter nal Standaıort
Err:510 Err:510 Err:510 Err:510 Err:510 Err:510

Data Fil e Name : \DATA \13111 4\13111401.D
Operator : 50 0 Vial Number : Vial 1
Instrume nt : GC 51 Injection Number : 1
Sample N ame : E'AL S0 80713B 50PPB Sequence Line : 2
Running Method : ı\CHEM 32\1\M ETHODS\8Report Style : PEST-R
Acquired on : 14 Nov 13 09 :40 am Method : EPA 8081A
Report C reated on: · Nov 13 10 :00 am Software Version : Rev. B.03.C41]
Comment :
Analysis Method : ı\CHEM 32\1\M ETHODS\F5R.M

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Sig. W:\DA˜\131114\131 11401.D

Ret Time	Area	Type	Width	Ref #	pp	Name
0	0		0	0		2,4,5,6-Tetrachloro-m-Xylene
0	0		0	0		Hexachlorobenzene
0	0		0	0		Alpha-BHC
0	0		0	0		Gamma-BHC
3.463	44.7	VV	0.049	0.102		Beta-BHC
3.744	75.1	VV	0.044	0.076		Delta-BHC
0	0		0	0		Heptachlor
0	0		0	0		Aldrin
0	0		0	0		Heptachlor Epoxide
4.886	55	BV	0.029	0.055		Gamma Chlordane
5.031	32	VV	0.028	0.034		Alpha Chlordane
5.076	29.1	VV	0.027	0.032		Endosulfan I
5.211	284.3	BB	0.036	1.553		4,4'-DDE
5.353	33.8	BV	0.027	0.033		Dieldrin
5.654	45356.1	BV	0.035	2.259		Endrin
0	0		0	0		4,4'-DDD
5.861	304.4	VB	0.046	0.335		Endosulfan II
6.073	40622.5	BV	0.031	53.791		4,4'-DDT
6.186	1179.4	VV	0.037	1.726		Endrin Aldehyde
6.45	53	BV	0.036	0.068		Endosulfan Sulfate
0	0		0	0		Methoxychlor
6.945	2075.2	BF	0.035	2.131		Endrin Ketone
0	0		0	0		Decachlorobiphenyl
0	0		0	0		Chlordane
0	0		0	0		Toxaphene

Evaluation	
Components	**Area**
Endrin	45356.1
Endrin Aldehyde	1179.4
Endrin Ketone	2075.2
%Breakdown (<15%)	**6.7**
Components	**Area**
4,4-DDT	40622.5
4,4-DDE	1284.3
4,4-DDD	0
%Breakdown (<15%)	**3.1**

Data file name and location: svoa28\MY DOCUMENT\GC 44 ICAL.xls
Calculation Formulas:

% Breakdown: ((Endrin Aldehyde+Endrin Ketone)/(Endrin+Endrin Aldehyde+Endrin Ketone))*100
((4,4-DDE+4,4-DDD)/(4,4-DDT+4,4-DDE+4,4-DDD))*100

Return to Contents

External Standard Report

Data File Name : W:\DATA\131114\13111401.D
Operator : 500
Instrument : GC 51
Sample Name : EVAL S080713B 50PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 14 Nov 13 09:40 am
Report Created on: 14 Nov 13 10:00 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 1
Injection Number : 1
Sequence Line : 2
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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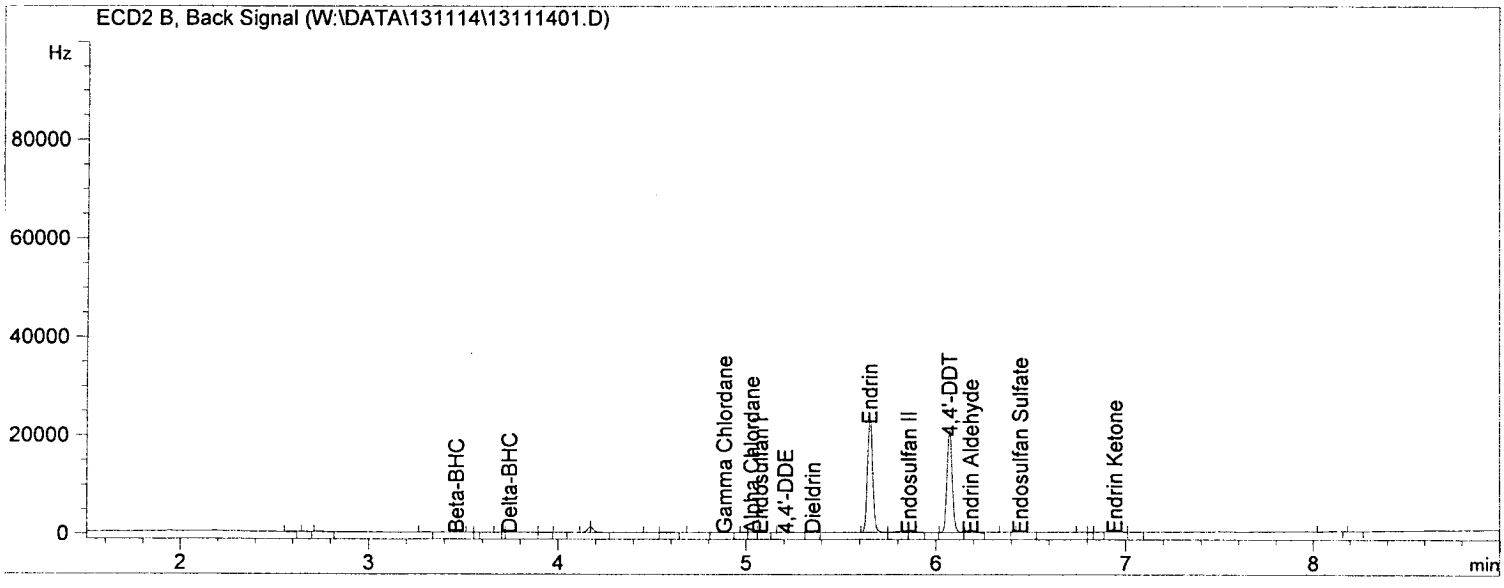
Sig. ECD2 B, W:\DATA\131114\13111401.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.0		0.000		0.000	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
3.463	44.7	VV	0.049		0.102	Beta-BHC
3.744	75.1	VV	0.044		0.076	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
0.000	0.0		0.000		0.000	Heptachlor Epoxide
4.886	55.0	BV	0.029		0.055	Gamma Chlordane
5.031	32.0	VV	0.028		0.034	Alpha Chlordane
5.076	29.1	VV	0.027		0.032	Endosulfan I
5.210	1284.3	BB	0.036		1.553	4,4'-DDE
5.353	33.8	BV	0.027		0.033	Dieldrin
5.654	45356.1	BV	0.030		52.259	Endrin
0.000	0.0		0.000		0.000	4,4'-DDD
5.861	304.4	VB	0.046		0.335	Endosulfan II
6.073	40622.5	BV	0.031		53.791	4,4'-DDT
6.186	1179.4	VV	0.037		1.726	Endrin Aldehyde
6.450	53.0	BV	0.036		0.068	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Methoxychlor
6.945	2075.2	BF	0.035		2.131	Endrin Ketone
0.000	0.0		0.000		0.000	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131114\13111400.D
Operator : 500
Instrument : GC 51
Sample Name : IB E08-45-11
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 14 Nov 13 09:25 am
Report Created on: 14 Nov 13 09:59 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 100
Injection Number : 1
Sequence Line : 1
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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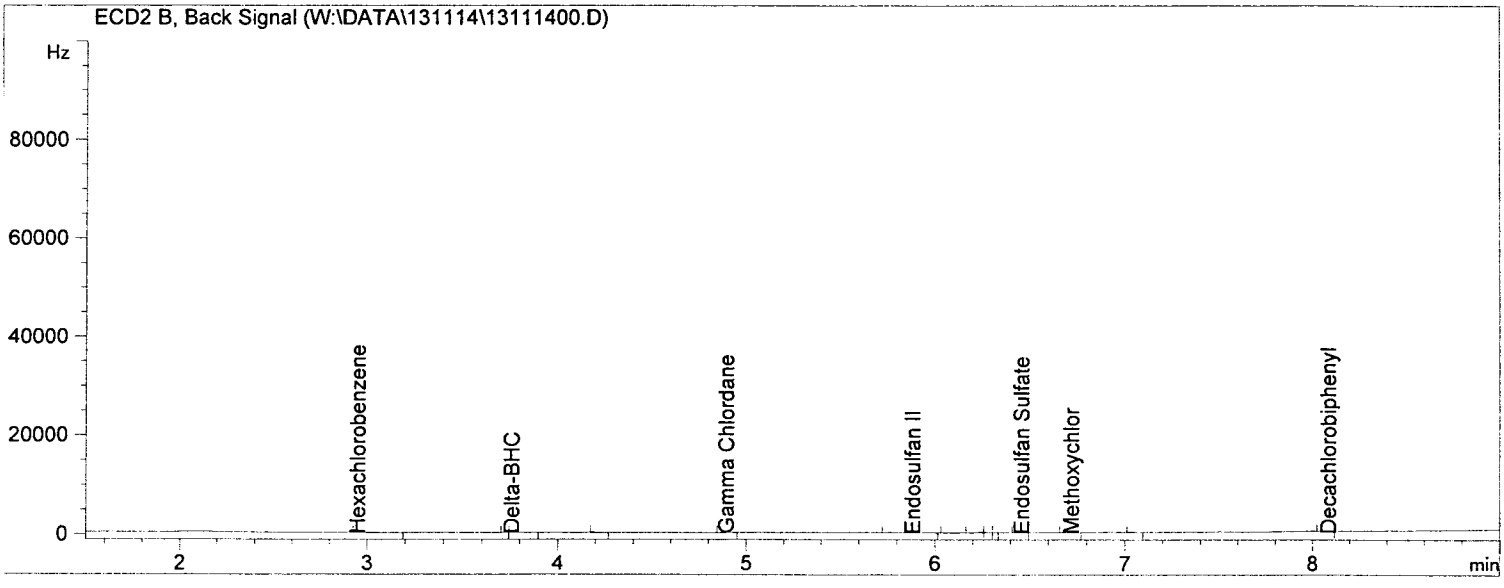
Sig. ECD2 B, W:\DATA\131114\13111400.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.0		0.000		0.000	2,4,5,6-Tetrachloro-m-Xylene
2.951	24.9	BV	0.068		0.027	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
3.758	39.4	VV	0.036		0.040	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
0.000	0.0		0.000		0.000	Heptachlor Epoxide
4.896	72.0	BV	0.034		0.072	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
0.000	0.0		0.000		0.000	Endosulfan I
0.000	0.0		0.000		0.000	4,4'-DDE
0.000	0.0		0.000		0.000	Dieldrin
0.000	0.0		0.000		0.000	Endrin
0.000	0.0		0.000		0.000	4,4'-DDD
5.884	71.6	VB	0.085		0.079	Endosulfan II
0.000	0.0		0.000		0.000	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
6.460	33.8	BV	0.028		0.043	Endosulfan Sulfate
6.721	68.7	BV	0.034		0.181	Methoxychlor
0.000	0.0		0.000		0.000	Endrin Ketone
8.088	69.0	BV	0.031		0.082	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

EPA METHOD 8081A
Organochlorine Pesticides

Sample Data

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8081A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 51
D/T ANALYZED: 11/14/2013 13:43
ANALYST: 500
DATA FILE: W:\DATA\131114\1311141713111417

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

3 **CLIENT SAMPLE NUMBER: 8-SS-5-6**

LCS/MB BATCH: 131112L26
MS/MSD BATCH: 131112S26
COMMENT:

COMPOUND NAME	ON COL CON	CONC	DF	RL	PF	UNITS	QUAL	TYPE	CONF_CON
4,4'-DDD	0.450	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDE	0.340	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDT	0.240	ND	1	5.0	0.500	ug/kg		2	ND
Aldrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Alpha-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Beta-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Chlordane	0.000	ND	1	50	0.500	ug/kg		2	ND
Delta-BHC	0.120	ND	1	5.0	0.500	ug/kg		2	ND
Dieldrin	0.110	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan I	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan II	0.021	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan Sulfate	0.150	ND	1	5.0	0.500	ug/kg		2	ND
Endrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Aldehyde	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Ketone	0.390	ND	1	5.0	0.500	ug/kg		2	ND
Gamma-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor	0.036	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor Epoxide	0.210	ND	1	5.0	0.500	ug/kg		2	ND
Methoxychlor	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Toxaphene	0.000	ND	1	100	0.500	ug/kg		2	ND

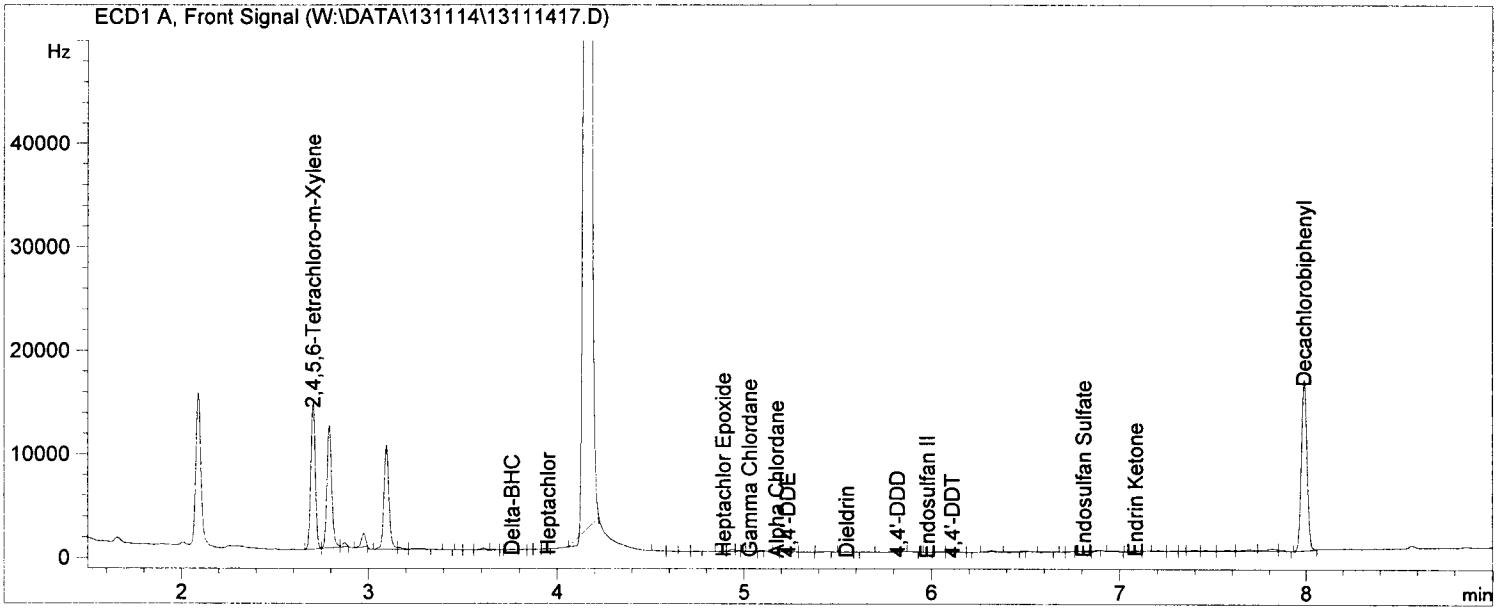
Return to Contents

External Standard Report

Data File Name	: W:\DATA\131114\13111417.D		
Operator	: 500	Vial Number	: Vial 17
Instrument	: GC 51	Injection Number	: 1
Sample Name	: 13-11-0697-3	Sequence Line	: 18
Running Method	: C:\CHEM32\1\METHODS\8081D-N->	Report Style	: PEST-F
Acquired on	: 14 Nov 13 01:43 pm	Method	: EPA 8081A
Report Created on	: 14 Nov 13 01:55 pm	Software Version	: Rev. B.03.02 [341]
Comment	:		Copyright © Agilent
Analysis Method	: C:\CHEM32\1\METHODS\PEST131105F.M		Technologies

Sig. ECD1 A, W:\DATA\131114\13111417.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.706	23567.2	BV	0.026		54.237	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
3.761	87.1	BV	0.032		0.121	Delta-BHC
3.953	24.9	BV	0.023		0.036	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
4.890	132.7	BV	0.027		0.208	Heptachlor Epoxide
5.031	56.2	BV	0.027		0.086	Gamma Chlordane
5.175	21.6	BV	0.022		0.036	Alpha Chlordane
5.235	184.0	VV	0.041		0.340	4,4'-DDE
0.000	0.0		0.000		0.000	Endosulfan I
5.550	68.0	BV	0.035		0.107	Dieldrin
0.000	0.0		0.000		0.000	Endrin
5.821	217.0	BB	0.062		0.451	4,4'-DDD
5.980	11.4	BV	0.025		0.021	Endosulfan II
6.111	124.0	VV	0.049		0.241	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
0.000	0.0		0.000		0.000	Methoxychlor
6.810	77.9	BV	0.029		0.148	Endosulfan Sulfate
7.084	244.4	BV	0.036		0.388	Endrin Ketone
7.991	34660.0	BV	0.033		65.701	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



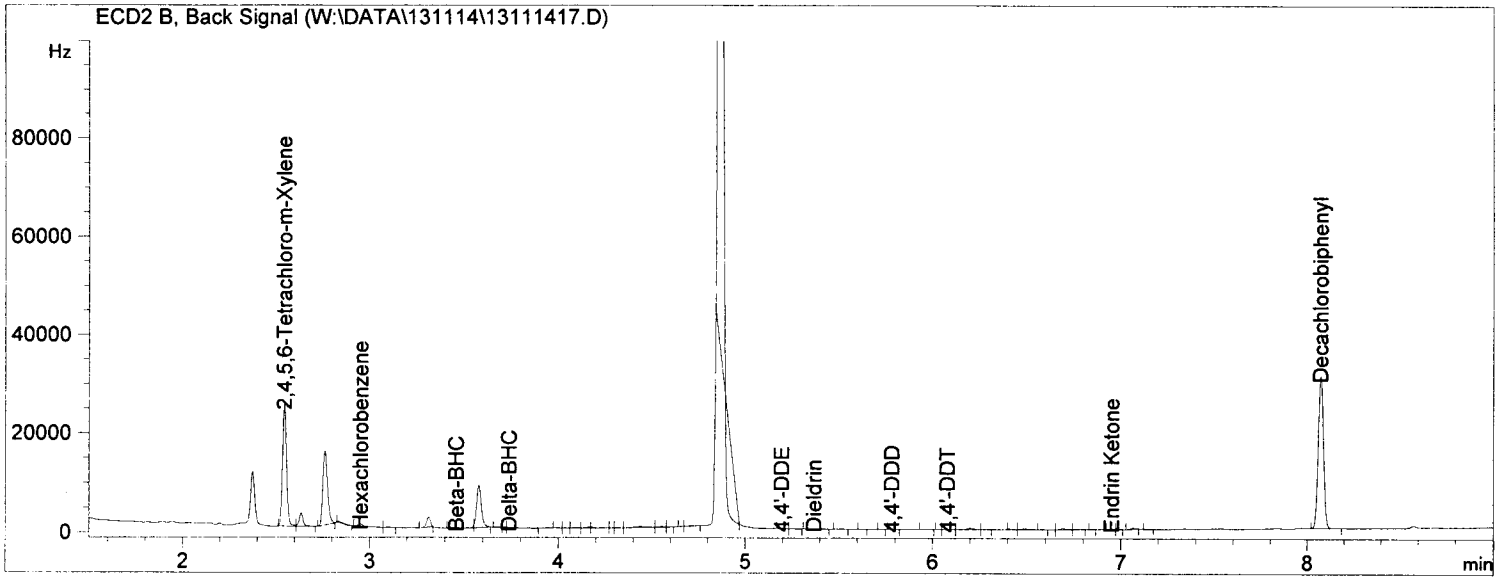
Return to Contents

External Standard Report

Data File Name	: W:\DATA\131114\13111417.D		
Operator	: 500	Vial Number	: Vial 17
Instrument	: GC 51	Injection Number	: 1
Sample Name	: 13-11-0697-3	Sequence Line	: 18
Running Method	: C:\CHEM32\1\METHODS\8081D-N->	Report Style	: PEST-R
Acquired on	: 14 Nov 13 01:43 pm	Method	: EPA 8081A
Report Created on	: 14 Nov 13 02:55 pm	Software Version	: Rev. B.03.02 [341]
Comment	:		Copyright © Agilent
Analysis Method	: C:\CHEM32\1\METHODS\PEST131105R.M		Technologies

Sig. ECD2 B, W:\DATA\131114\13111417.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.547	37285.9	BV	0.023		56.006	2,4,5,6-Tetrachloro-m-Xylene
2.952	751.9	BV	0.023		0.819	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
3.461	688.5	BV	0.099		1.567	Beta-BHC
3.739	327.3	VV	0.044		0.331	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
0.000	0.0		0.000		0.000	Heptachlor Epoxide
0.000	0.0		0.000		0.000	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
0.000	0.0		0.000		0.000	Endosulfan I
5.196	106.9	BV	0.022		0.129	4,4'-DDE
5.368	268.8	BV	0.043		0.265	Dieldrin
0.000	0.0		0.000		0.000	Endrin
5.786	24.7	BV	0.021		0.035	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
6.080	76.3	VV	0.028		0.101	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
0.000	0.0		0.000		0.000	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Methoxychlor
6.951	98.7	VV	0.025		0.101	Endrin Ketone
8.074	59816.1	BB	0.030		70.768	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8081A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 51
D/T ANALYZED: 11/14/2013 13:58
ANALYST: 500
DATA FILE: W:\DATA\131114\1311141813111418

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

 # 4 **CLIENT SAMPLE NUMBER: 8-SS-9.5-10.5**

LCS/MB BATCH: 131112L26
MS/MSD BATCH: 131112S26
COMMENT:

COMPOUND NAME	ON COL CON	CONC	DF	RL	PF	UNITS	QUAL	TYPE	CONF_CON
4,4'-DDD	0.000	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDE	0.000	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDT	0.200	ND	1	5.0	0.500	ug/kg		2	ND
Aldrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Alpha-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Beta-BHC	0.170	ND	1	5.0	0.500	ug/kg		2	ND
Chlordane	0.000	ND	1	50	0.500	ug/kg		2	ND
Delta-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Dieldrin	0.130	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan I	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan II	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan Sulfate	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Aldehyde	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Ketone	0.350	ND	1	5.0	0.500	ug/kg		2	ND
Gamma-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor	0.032	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor Epoxide	0.190	ND	1	5.0	0.500	ug/kg		2	ND
Methoxychlor	0.120	ND	1	5.0	0.500	ug/kg		2	ND
Toxaphene	0.000	ND	1	100	0.500	ug/kg		2	ND

Return to Contents

External Standard Report

Data File Name : W:\DATA\131114\13111418.D
Operator : 500
Instrument : GC 51
Sample Name : 13-11-0697-4
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 14 Nov 13 01:58 pm
Report Created on: 14 Nov 13 02:19 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 18
Injection Number : 1
Sequence Line : 19
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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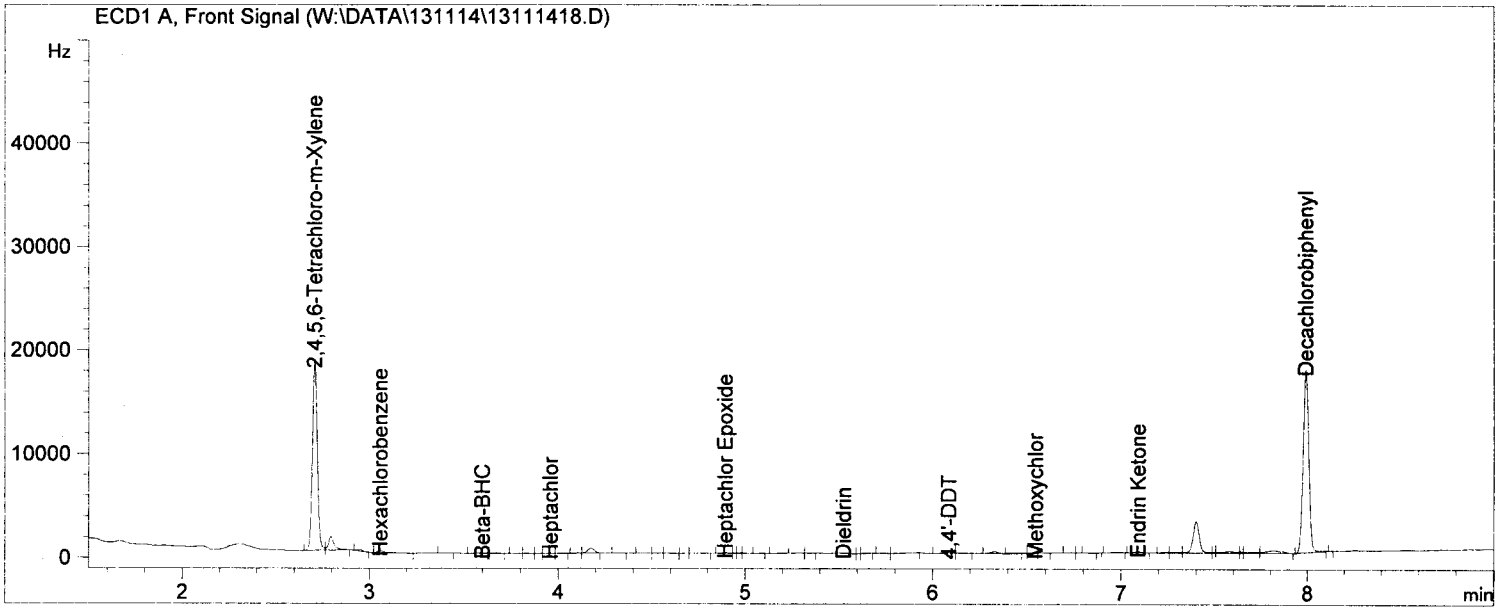
Sig. ECD1 A, W:\DATA\131114\13111418.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.710	33047.1BV		0.028		76.054	2,4,5,6-Tetrachloro-m-Xylene
3.057	447.5BV		0.036		0.766	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
3.600	53.3BF		0.035		0.173	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
3.960	22.1BV		0.032		0.032	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
4.894	122.8BV		0.037		0.192	Heptachlor Epoxide
0.000	0.0		0.000		0.000	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
0.000	0.0		0.000		0.000	4,4'-DDE
0.000	0.0		0.000		0.000	Endosulfan I
5.527	83.6BV		0.057		0.132	Dieldrin
0.000	0.0		0.000		0.000	Endrin
0.000	0.0		0.000		0.000	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
6.087	102.3BV		0.056		0.199	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
6.547	31.7BV		0.033		0.125	Methoxychlor
0.000	0.0		0.000		0.000	Endosulfan Sulfate
7.092	222.1BB		0.039		0.353	Endrin Ketone
7.992	37281.6BV		0.033		70.670	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131114\13111418.D
Operator : 500
Instrument : GC 51
Sample Name : 13-11-0697-4
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 14 Nov 13 01:58 pm
Report Created on: 14 Nov 13 02:55 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 18
Injection Number : 1
Sequence Line : 19
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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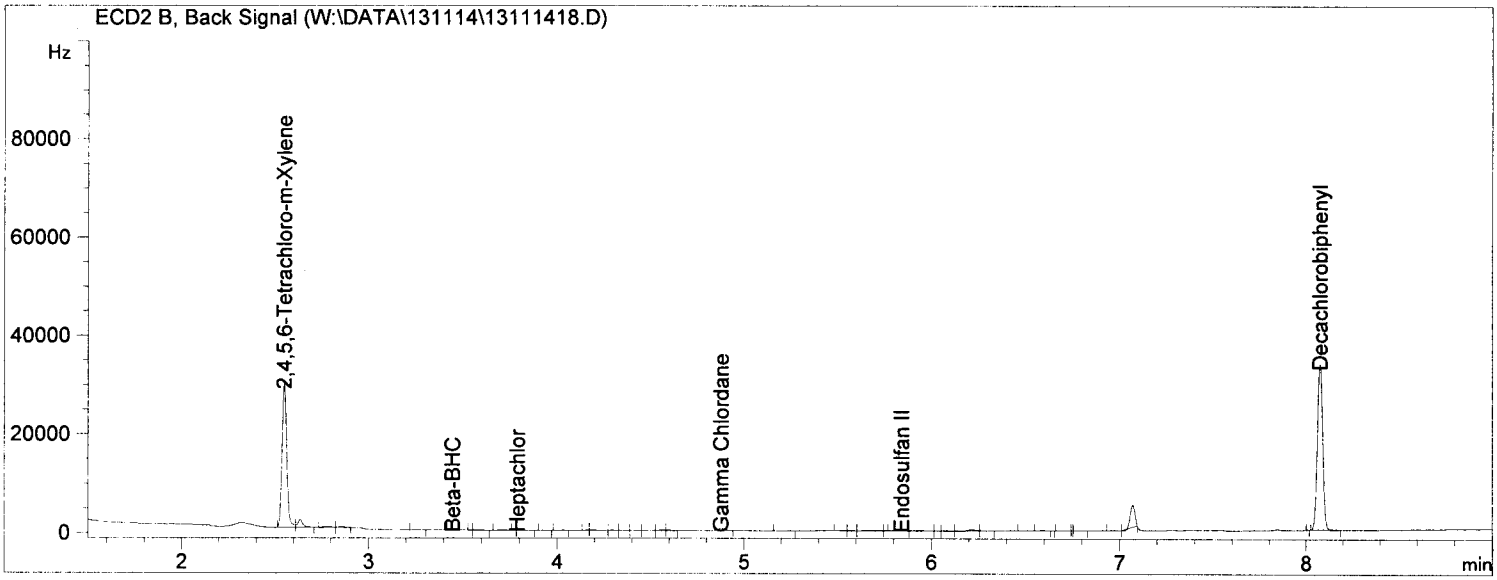
Sig. ECD2 B, W:\DATA\131114\13111418.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.551	51113.5BV		0.027		76.776	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
3.448	148.9VB		0.086		0.339	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
3.789	37.3VV		0.040		0.031	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
0.000	0.0		0.000		0.000	Heptachlor Epoxide
4.878	938.3BV		0.032		0.943	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
0.000	0.0		0.000		0.000	Endosulfan I
0.000	0.0		0.000		0.000	4,4'-DDE
0.000	0.0		0.000		0.000	Dieldrin
0.000	0.0		0.000		0.000	Endrin
0.000	0.0		0.000		0.000	4,4'-DDD
5.843	89.6BV		0.037		0.099	Endosulfan II
0.000	0.0		0.000		0.000	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
0.000	0.0		0.000		0.000	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Methoxychlor
0.000	0.0		0.000		0.000	Endrin Ketone
8.076	66502.4BB		0.031		78.678	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8081A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 51
D/T ANALYZED: 11/14/2013 14:12
ANALYST: 500
DATA FILE: W:\DATA\131114\1311141913111419

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

 # 5 **CLIENT SAMPLE NUMBER: 8-SS-14.25-15.25**

LCS/MB BATCH: 131112L26
MS/MSD BATCH: 131112S26
COMMENT:

COMPOUND NAME	ON COL CON	CONC	DF	RL	PF	UNITS	QUAL	TYPE	CONF_CON
4,4'-DDD	0.000	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDE	0.006	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDT	0.170	ND	1	5.0	0.500	ug/kg		2	ND
Aldrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Alpha-BHC	0.011	ND	1	5.0	0.500	ug/kg		2	ND
Beta-BHC	0.120	ND	1	5.0	0.500	ug/kg		2	ND
Chlordane	0.000	ND	1	50	0.500	ug/kg		2	ND
Delta-BHC	0.068	ND	1	5.0	0.500	ug/kg		2	ND
Dieldrin	0.090	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan I	0.071	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan II	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan Sulfate	0.065	ND	1	5.0	0.500	ug/kg		2	ND
Endrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Aldehyde	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Ketone	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Gamma-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor	0.031	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor Epoxide	0.078	ND	1	5.0	0.500	ug/kg		2	ND
Methoxychlor	0.035	ND	1	5.0	0.500	ug/kg		2	ND
Toxaphene	0.000	ND	1	100	0.500	ug/kg		2	ND

Return to Contents

External Standard Report

Data File Name : W:\DATA\131114\13111419.D
Operator : 500
Instrument : GC 51
Sample Name : 13-11-0697-5
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 14 Nov 13 02:12 pm
Report Created on: 14 Nov 13 02:25 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 19
Injection Number : 1
Sequence Line : 20
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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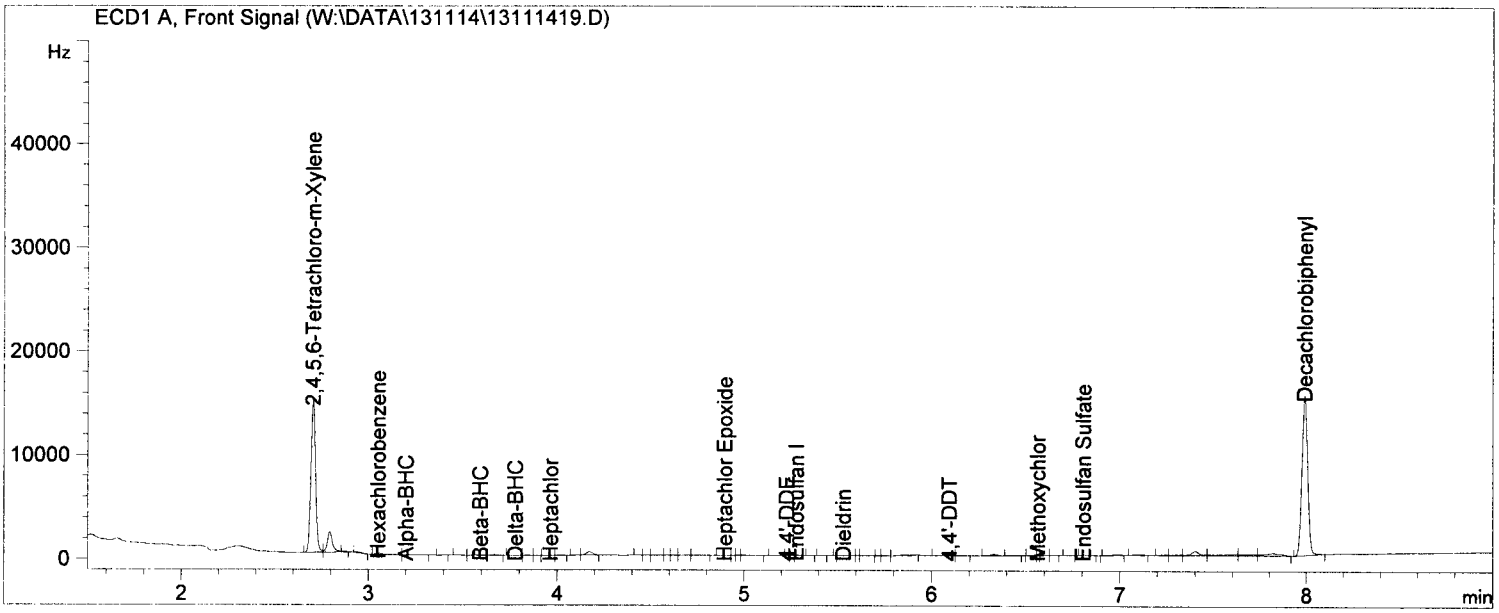
Sig. ECD1 A, W:\DATA\131114\13111419.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.707	25216.2BV		0.027		58.032	2,4,5,6-Tetrachloro-m-Xylene
3.053	365.6BV		0.036		0.626	Hexachlorobenzene
3.201	8.7PB		0.041		0.011	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
3.595	36.2BF		0.029		0.118	Beta-BHC
3.779	49.0BV		0.043		0.068	Delta-BHC
3.967	21.8BV		0.028		0.031	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
4.897	49.7BV		0.036		0.078	Heptachlor Epoxide
0.000	0.0		0.000		0.000	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
5.229	3.1BV		0.013		0.006	4,4'-DDE
5.281	45.2VB		0.039		0.071	Endosulfan I
5.532	57.2VV		0.044		0.090	Dieldrin
0.000	0.0		0.000		0.000	Endrin
0.000	0.0		0.000		0.000	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
6.096	87.4BV		0.045		0.170	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
6.566	8.9VV		0.014		0.035	Methoxychlor
6.807	34.4BV		0.046		0.065	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Endrin Ketone
7.992	32801.6BV		0.033		62.178	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131114\13111419.D
Operator : 500
Instrument : GC 51
Sample Name : 13-11-0697-5
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 14 Nov 13 02:12 pm
Report Created on: 14 Nov 13 02:56 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 19
Injection Number : 1
Sequence Line : 20
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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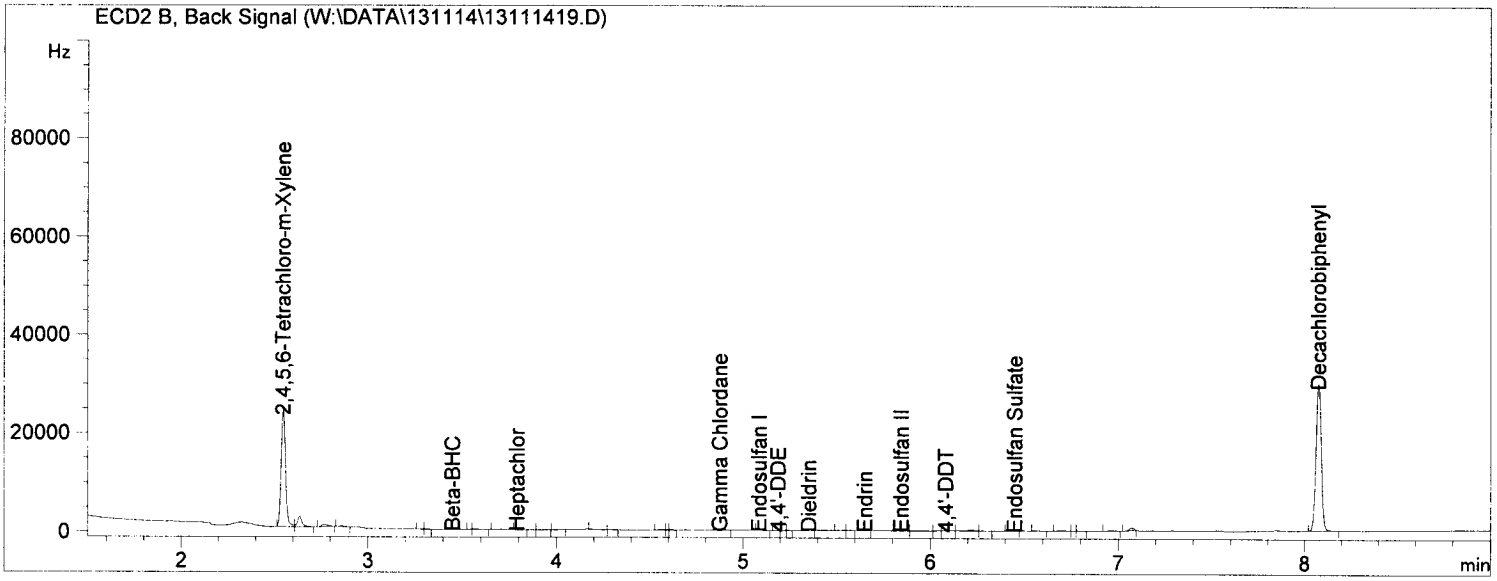
Sig. ECD2 B, W:\DATA\131114\13111419.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.548	38602.8	BV	0.025		57.984	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
3.451	125.5	VB	0.072		0.286	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
3.790	28.4	BB	0.029		0.023	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
0.000	0.0		0.000		0.000	Heptachlor Epoxide
4.878	653.0	BV	0.032		0.656	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
5.087	38.5	BV	0.034		0.043	Endosulfan I
5.190	23.3	BV	0.023		0.028	4,4'-DDE
5.354	33.8	BV	0.030		0.033	Dieldrin
5.654	42.0	BV	0.035		0.048	Endrin
0.000	0.0		0.000		0.000	4,4'-DDD
5.847	65.2	VV	0.028		0.072	Endosulfan II
6.085	155.8	VV	0.040		0.206	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
6.451	32.0	BV	0.038		0.041	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Methoxychlor
0.000	0.0		0.000		0.000	Endrin Ketone
8.077	58915.0	BB	0.031		69.701	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8081A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 51
D/T ANALYZED: 11/14/2013 14:26
ANALYST: 500
DATA FILE: W:\DATA\131114\1311142013111420

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

 # 6 **CLIENT SAMPLE NUMBER: 12-SS-5-6**

LCS/MB BATCH: 131112L26
MS/MSD BATCH: 131112S26
COMMENT:

COMPOUND NAME	ON COL CON	CONC	DF	RL	PF	UNITS	QUAL	TYPE	CONF_CON
4,4'-DDD	0.260	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDE	0.010	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDT	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Aldrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Alpha-BHC	0.140	ND	1	5.0	0.500	ug/kg		2	ND
Beta-BHC	0.980	ND	1	5.0	0.500	ug/kg		2	ND
Chlordane	0.000	ND	1	50	0.500	ug/kg		2	ND
Delta-BHC	0.150	ND	1	5.0	0.500	ug/kg		2	ND
Dieldrin	0.140	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan I	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan II	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan Sulfate	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin	0.046	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Aldehyde	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Ketone	0.550	ND	1	5.0	0.500	ug/kg		2	ND
Gamma-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor	0.039	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor Epoxide	0.400	ND	1	5.0	0.500	ug/kg		2	ND
Methoxychlor	0.210	ND	1	5.0	0.500	ug/kg		2	ND
Toxaphene	0.000	ND	1	100	0.500	ug/kg		2	ND

Return to Contents

External Standard Report

Data File Name : W:\DATA\131114\13111420.D
Operator : 500
Instrument : GC 51
Sample Name : 13-11-0697-6
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 14 Nov 13 02:26 pm
Report Created on: 14 Nov 13 02:39 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 20
Injection Number : 1
Sequence Line : 21
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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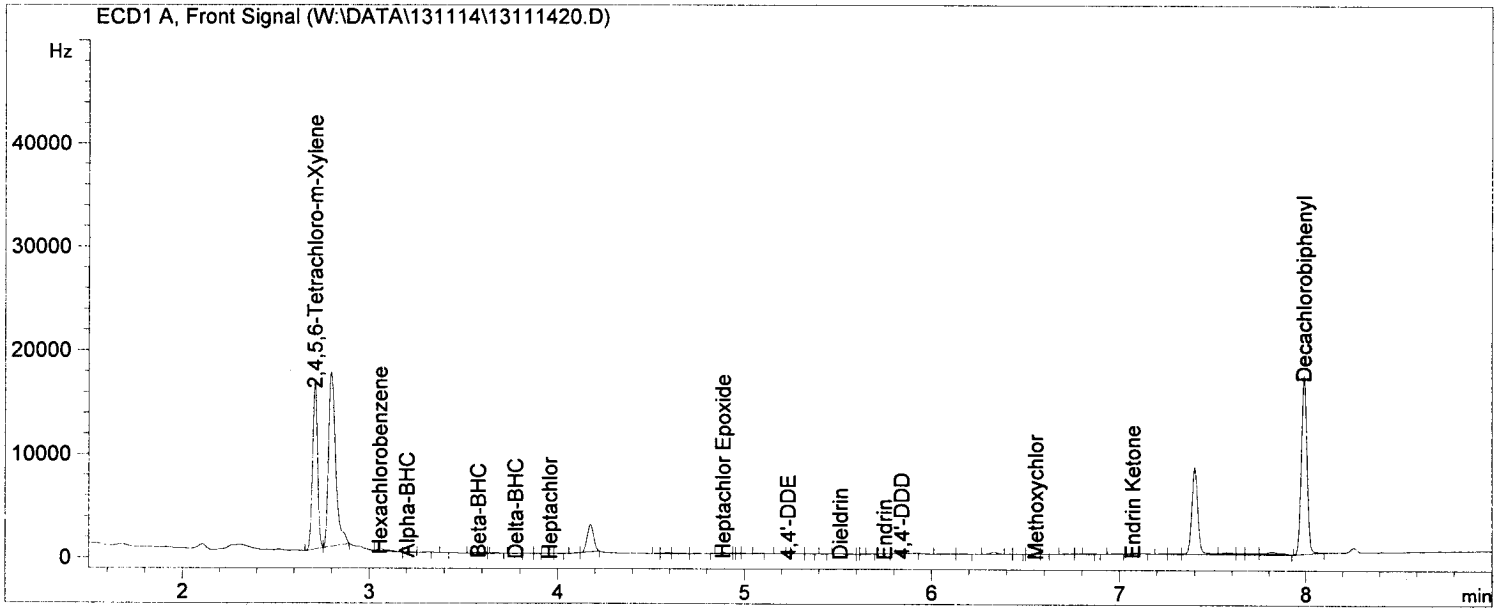
Sig. ECD1 A, W:\DATA\131114\13111420.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.712	29663.0	BV	0.029		68.266	2,4,5,6-Tetrachloro-m-Xylene
3.059	712.1	BV	0.044		1.219	Hexachlorobenzene
3.204	110.0	PV	0.029		0.143	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
3.581	302.4	BB	0.046		0.982	Beta-BHC
3.777	109.0	BV	0.035		0.151	Delta-BHC
3.959	26.9	BV	0.033		0.039	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
4.887	252.0	BV	0.043		0.395	Heptachlor Epoxide
0.000	0.0		0.000		0.000	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
5.236	5.2	BV	0.014		0.010	4,4'-DDE
0.000	0.0		0.000		0.000	Endosulfan I
5.515	86.1	BV	0.058		0.136	Dieldrin
5.752	26.2	BV	0.031		0.046	Endrin
5.844	126.0	VB	0.031		0.262	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
0.000	0.0		0.000		0.000	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
6.556	53.0	BV	0.042		0.208	Methoxychlor
0.000	0.0		0.000		0.000	Endosulfan Sulfate
7.072	346.5	BB	0.049		0.550	Endrin Ketone
7.992	36470.5	BV	0.034		69.132	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131114\13111420.D
Operator : 500
Instrument : GC 51
Sample Name : 13-11-0697-6
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 14 Nov 13 02:26 pm
Report Created on: 14 Nov 13 02:56 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 20
Injection Number : 1
Sequence Line : 21
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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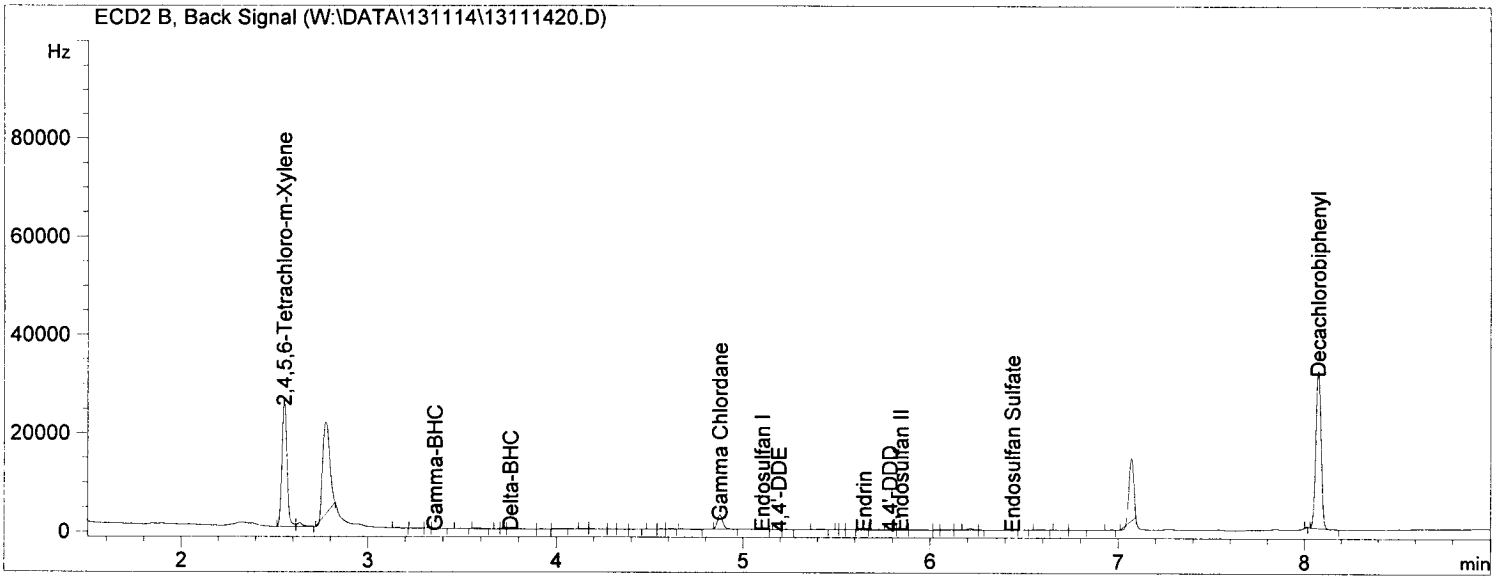
Sig. ECD2 B, W:\DATA\131114\13111420.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.553	47395.1BV		0.029		71.190	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
3.358	80.1BV		0.025		0.075	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
3.756	260.8VV		0.048		0.264	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
0.000	0.0		0.000		0.000	Heptachlor Epoxide
4.877	5721.2BB		0.031		5.750	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
5.104	46.3VV		0.030		0.051	Endosulfan I
5.192	47.2BV		0.029		0.057	4,4'-DDE
0.000	0.0		0.000		0.000	Dieldrin
5.648	61.9BV		0.028		0.071	Endrin
5.787	65.0BV		0.031		0.093	4,4'-DDD
5.845	51.6VV		0.025		0.057	Endosulfan II
0.000	0.0		0.000		0.000	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
6.439	32.8BV		0.027		0.042	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Methoxychlor
0.000	0.0		0.000		0.000	Endrin Ketone
8.076	62375.8BB		0.030		73.796	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8081A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 51
D/T ANALYZED: 11/14/2013 14:41
ANALYST: 500
DATA FILE: W:\DATA\131114\1311142113111421

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

 # 7 **CLIENT SAMPLE NUMBER: 12-SS-9.5-10.5**

LCS/MB BATCH: 131112L26
MS/MSD BATCH: 131112S26
COMMENT:

COMPOUND NAME	ON COL CON	CONC	DF	RL	PF	UNITS	QUAL	TYPE	CONF_CON
4,4'-DDD	4.100	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDE	0.025	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDT	0.120	ND	1	5.0	0.500	ug/kg		2	ND
Aldrin	0.610	ND	1	5.0	0.500	ug/kg		2	ND
Alpha-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Beta-BHC	11.000	ND	1	5.0	0.500	ug/kg	#	2	ND
Chlordane	0.000	ND	1	50	0.500	ug/kg		2	ND
Delta-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Dieldrin	0.140	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan I	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan II	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan Sulfate	0.075	ND	1	5.0	0.500	ug/kg		2	ND
Endrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Aldehyde	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Ketone	0.390	ND	1	5.0	0.500	ug/kg		2	ND
Gamma-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor	0.040	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor Epoxide	0.038	ND	1	5.0	0.500	ug/kg		2	ND
Methoxychlor	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Toxaphene	0.000	ND	1	100	0.500	ug/kg		2	ND

Return to Contents

External Standard Report

Data File Name : W:\DATA\131114\13111421.D
Operator : 500
Instrument : GC 51
Sample Name : 13-11-0697-7
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : PEST-F
Acquired on : 14 Nov 13 02:41 pm
Report Created on: 14 Nov 13 02:54 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 21
Injection Number : 1
Sequence Line : 22
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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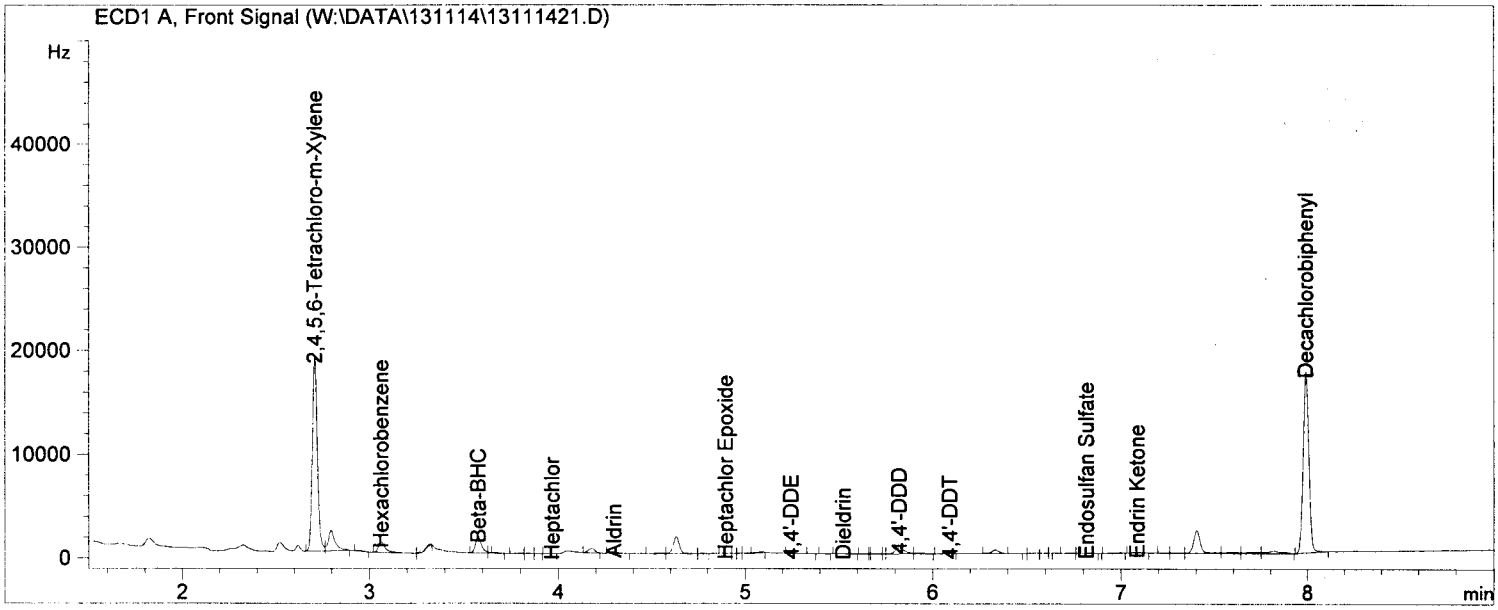
Sig. ECD1 A, W:\DATA\131114\13111421.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.710	34855.9BV		0.029		80.217	2,4,5,6-Tetrachloro-m-Xylene
3.064	2658.4BV		0.039		4.551	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
3.577	3435.7BB		0.034		~~11.160~~	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
3.969	28.2BV		0.032		0.040	Heptachlor
4.298	426.6BV		0.039		0.607	Aldrin
4.896	24.1BV		0.025		0.038	Heptachlor Epoxide
0.000	0.0		0.000		0.000	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
5.246	13.5BB		0.036		0.025	4,4'-DDE
0.000	0.0		0.000		0.000	Endosulfan I
5.525	90.4BV		0.057		0.143	Dieldrin
0.000	0.0		0.000		0.000	Endrin
5.823	1975.3VV		0.059		4.103	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
6.093	59.4BB		0.039		0.115	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
0.000	0.0		0.000		0.000	Methoxychlor
6.816	39.5BV		0.041		0.075	Endosulfan Sulfate
7.086	247.0BB		0.051		0.392	Endrin Ketone
7.992	37145.2BB		0.033		70.411	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131114\13111421.D
Operator : 500
Instrument : GC 51
Sample Name : 13-11-0697-7
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 14 Nov 13 02:41 pm
Report Created on: 14 Nov 13 02:56 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 21
Injection Number : 1
Sequence Line : 22
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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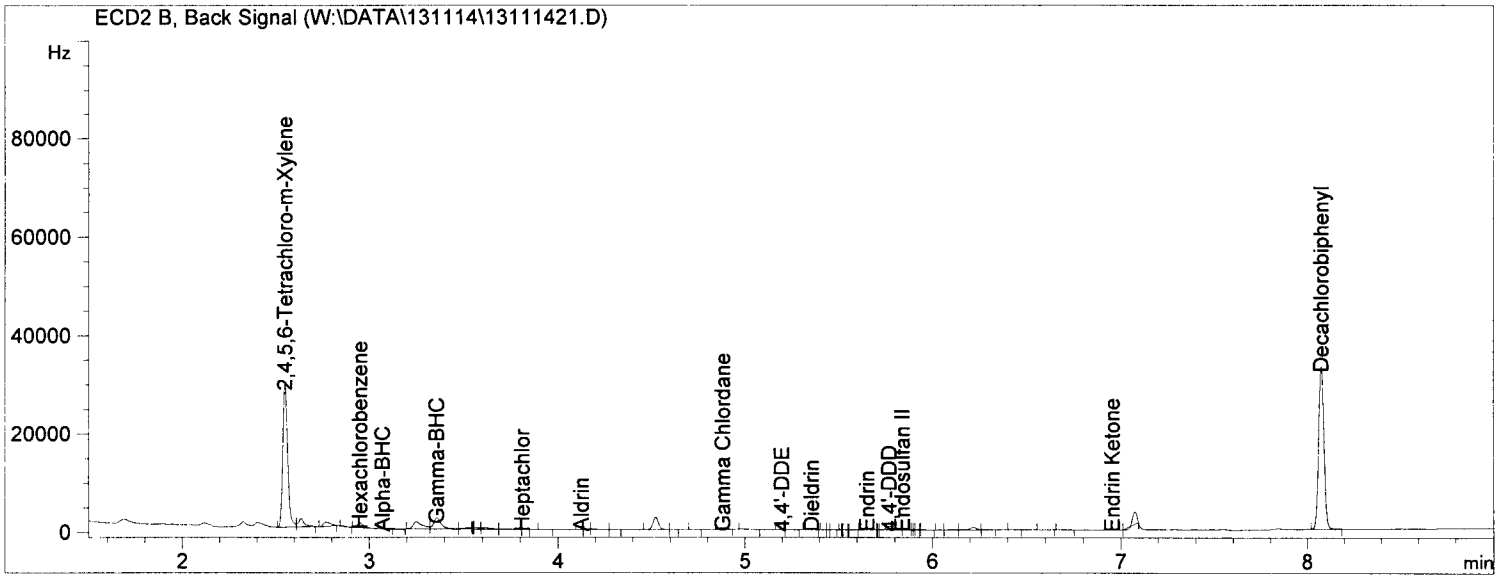
Sig. ECD2 B, W:\DATA\131114\13111421.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.552	52525.2	BV	0.028		78.896	2,4,5,6-Tetrachloro-m-Xylene
2.950	2942.6	BV	0.044		3.204	Hexachlorobenzene
3.072	58.1	BB	0.028		0.050	Alpha-BHC
3.359	6389.7	VV	0.047		5.944	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
3.809	39.5	VM	0.030		0.032	Heptachlor
4.126	14.4	BV	0.017		0.013	Aldrin
0.000	0.0		0.000		0.000	Heptachlor Epoxide
4.881	966.5	BV	0.033		0.971	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
0.000	0.0		0.000		0.000	Endosulfan I
5.198	33.3	BV	0.024		0.040	4,4'-DDE
5.356	62.1	BV	0.028		0.061	Dieldrin
5.653	772.9	VV	0.040		0.891	Endrin
5.772	2165.1	VV	0.048		3.091	4,4'-DDD
5.842	285.1	VV	0.039		0.314	Endosulfan II
0.000	0.0		0.000		0.000	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
0.000	0.0		0.000		0.000	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Methoxychlor
6.956	122.8	BF	0.036		0.126	Endrin Ketone
8.077	65398.3	BB	0.030		77.372	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8081A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 51
D/T ANALYZED: 11/13/2013 17:03
ANALYST: 500
DATA FILE: W:\DATA\131113\1311132613111326

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

 # 8 **CLIENT SAMPLE NUMBER: 12-SS-13.25-15.25**

LCS/MB BATCH: 131112L26
MS/MSD BATCH: 131112S26
COMMENT:

COMPOUND NAME	ON COL CON	CONC	DF	RL	PF	UNITS	QUAL	TYPE	CONF_CON
4,4'-DDD	0.630	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDE	0.160	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDT	0.210	ND	1	5.0	0.500	ug/kg		2	ND
Aldrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Alpha-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Beta-BHC	0.280	ND	1	5.0	0.500	ug/kg		2	ND
Chlordane	0.000	ND	1	50	0.500	ug/kg		2	ND
Delta-BHC	0.510	ND	1	5.0	0.500	ug/kg		2	ND
Dieldrin	0.120	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan I	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan II	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan Sulfate	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Aldehyde	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Ketone	0.340	ND	1	5.0	0.500	ug/kg		2	ND
Gamma-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor	0.074	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor Epoxide	0.048	ND	1	5.0	0.500	ug/kg		2	ND
Methoxychlor	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Toxaphene	0.000	ND	1	100	0.500	ug/kg		2	ND

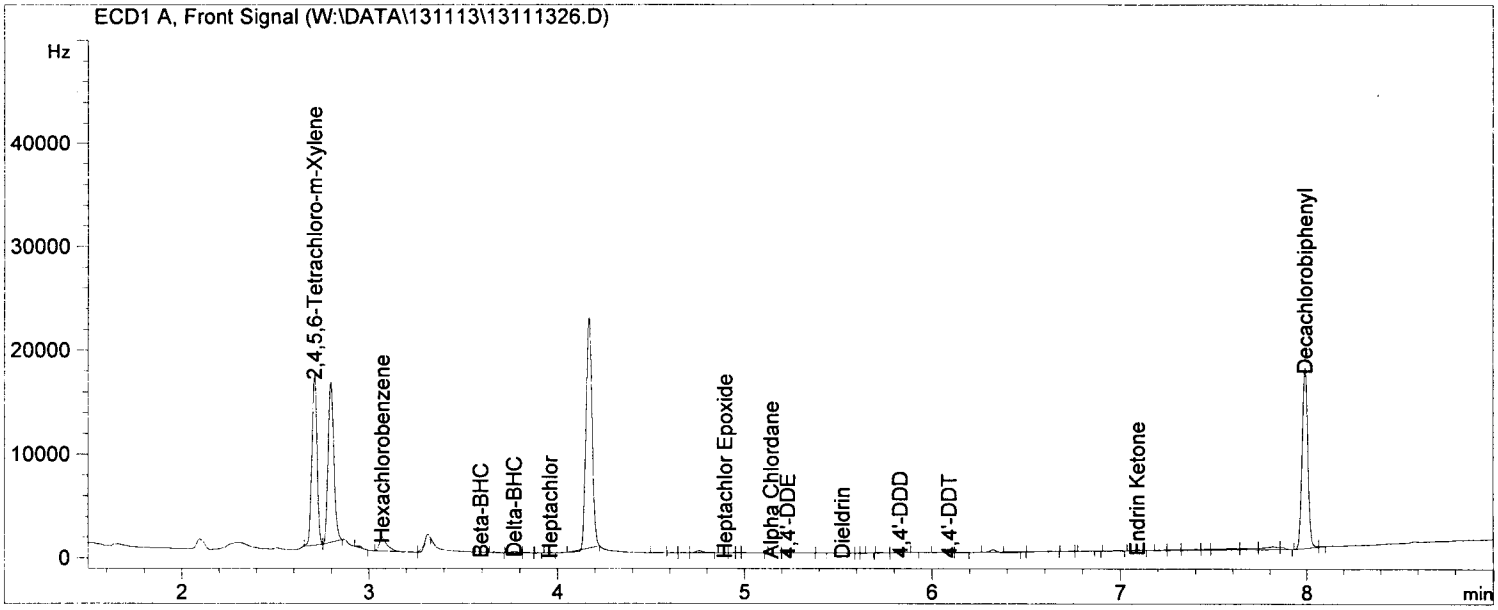
Return to Contents

External Standard Report

Data File Name	: W:\DATA\131113\13111326.D		
Operator	: 500	Vial Number	: Vial 26
Instrument	: GC 51	Injection Number	: 1
Sample Name	: 13-11-0697-8	Sequence Line	: 25
Running Method	: C:\CHEM32\1\METHODS\8081D-N->	Report Style	: PEST-F
Acquired on	: 13 Nov 13 05:03 pm	Method	: EPA 8081A
Report Created on	: 13 Nov 13 05:24 pm	Software Version	: Rev. B.03.02 [341]
Comment	:		Copyright © Agilent
Analysis Method	: C:\CHEM32\1\METHODS\PEST131105F.M		Technologies

Sig. ECD1 A, W:\DATA\131113\13111326.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.711	31407.5BV		0.030		72.280	2,4,5,6-Tetrachloro-m-Xylene
3.073	3680.0BV		0.039		6.300	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
3.595	84.6BB		0.048		0.275	Beta-BHC
3.770	367.0BV		0.040		0.509	Delta-BHC
3.962	51.9BV		0.030		0.074	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
4.896	30.4BV		0.028		0.048	Heptachlor Epoxide
0.000	0.0		0.000		0.000	Gamma Chlordane
5.143	8.1BV		0.024		0.013	Alpha Chlordane
5.232	86.6VB		0.082		0.160	4,4'-DDE
0.000	0.0		0.000		0.000	Endosulfan I
5.524	73.0BV		0.049		0.115	Dieldrin
0.000	0.0		0.000		0.000	Endrin
5.833	302.9VB		0.044		0.629	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
6.092	106.6BV		0.046		0.207	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
0.000	0.0		0.000		0.000	Methoxychlor
0.000	0.0		0.000		0.000	Endosulfan Sulfate
7.092	211.9BV		0.034		0.336	Endrin Ketone
7.992	37179.2BV		0.033		70.476	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131113\13111326.D
Operator : 500
Instrument : GC 51
Sample Name : 13-11-0697-8
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 13 Nov 13 05:03 pm
Report Created on: 13 Nov 13 05:32 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 26
Injection Number : 1
Sequence Line : 25
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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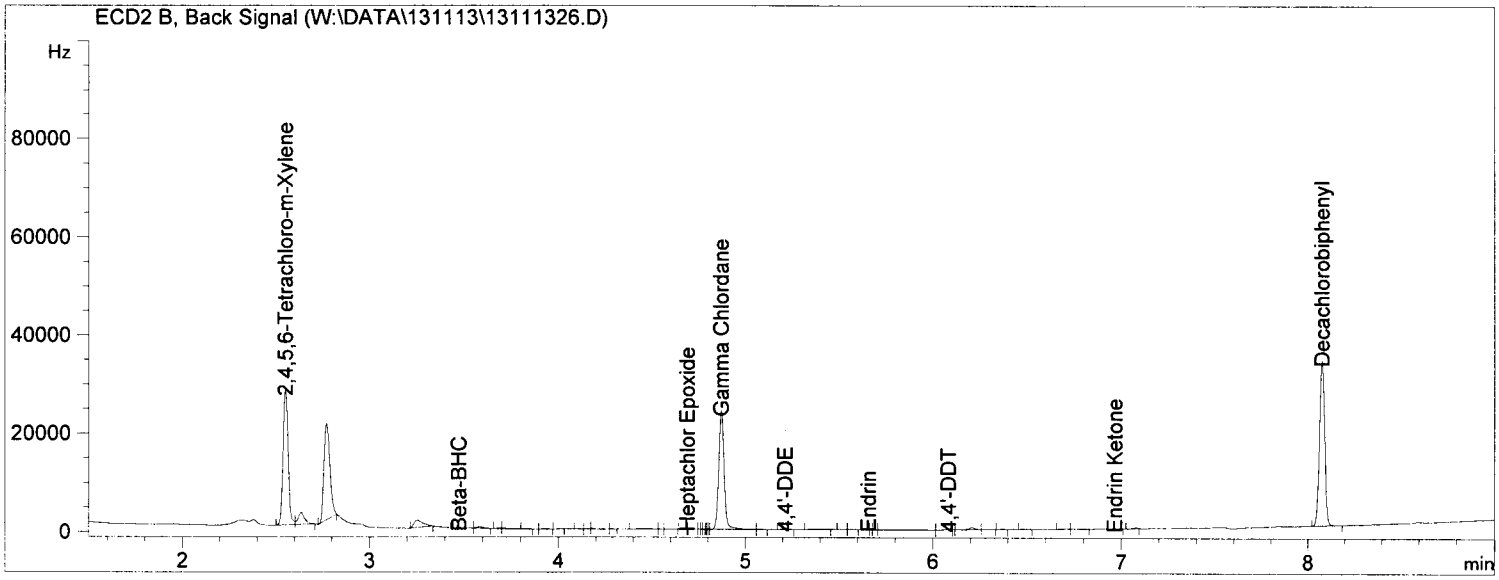
Sig. ECD2 B, W:\DATA\131113\13111326.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.552	51606.2BV		0.030		77.516	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
3.475	238.4BV		0.044		0.542	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
4.691	9.2VV		0.004		0.010	Heptachlor Epoxide
4.872	48190.0VV		0.033		48.437	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
0.000	0.0		0.000		0.000	Endosulfan I
5.212	128.1VV		0.037		0.155	4,4'-DDE
0.000	0.0		0.000		0.000	Dieldrin
5.659	15.4VV		0.019		0.018	Endrin
0.000	0.0		0.000		0.000	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
6.084	221.2BV		0.038		0.293	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
0.000	0.0		0.000		0.000	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Methoxychlor
6.965	111.8BF		0.030		0.115	Endrin Ketone
8.076	64917.8BB		0.030		76.803	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8081A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 51
D/T ANALYZED: 11/14/2013 12:45
ANALYST: 500
DATA FILE: W:\DATA\131114\1311141313111413

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

9 **CLIENT SAMPLE NUMBER: 6-SS-5-6**

LCS/MB BATCH: 131112L26
MS/MSD BATCH: 131112S26
COMMENT:

COMPOUND NAME	ON COL CON	CONC	DF	RL	PF	UNITS	QUAL	TYPE	CONF_CON
4,4'-DDD	1.100	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDE	0.140	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDT	0.160	ND	1	5.0	0.500	ug/kg		2	ND
Aldrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Alpha-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Beta-BHC	0.560	ND	1	5.0	0.500	ug/kg		2	ND
Chlordane	0.000	ND	1	50	0.500	ug/kg		2	ND
Delta-BHC	0.220	ND	1	5.0	0.500	ug/kg		2	ND
Dieldrin	0.150	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan I	0.090	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan II	0.034	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan Sulfate	0.410	ND	1	5.0	0.500	ug/kg		2	ND
Endrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Aldehyde	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Ketone	0.270	ND	1	5.0	0.500	ug/kg		2	ND
Gamma-BHC	0.009	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor	0.066	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor Epoxide	0.110	ND	1	5.0	0.500	ug/kg		2	ND
Methoxychlor	0.220	ND	1	5.0	0.500	ug/kg		2	ND
Toxaphene	0.000	ND	1	100	0.500	ug/kg		2	ND

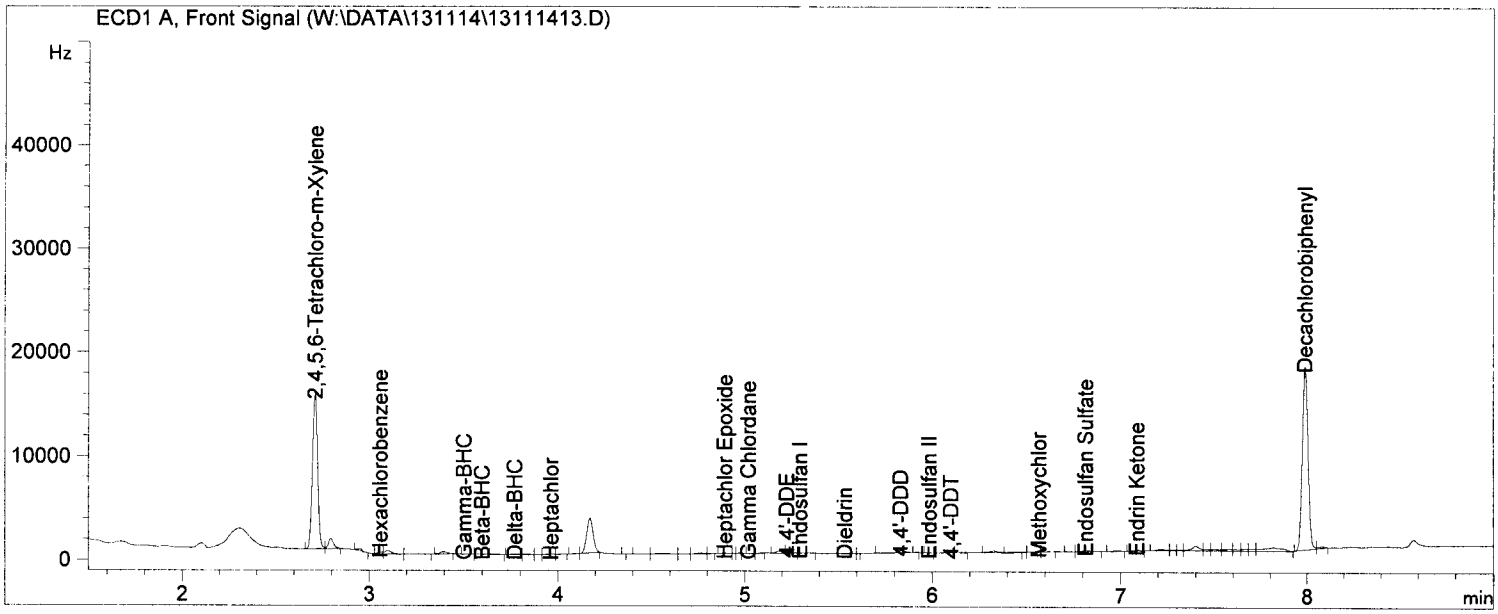
Return to Contents

External Standard Report

Data File Name	: W:\DATA\131114\13111413.D		
Operator	: 500	Vial Number	: Vial 13
Instrument	: GC 51	Injection Number	: 1
Sample Name	: 13-11-0697-9	Sequence Line	: 14
Running Method	: C:\CHEM32\1\METHODS\8081D-N->	Report Style	: PEST-F
Acquired on	: 14 Nov 13 00:45 pm	Method	: EPA 8081A
Report Created on	: 14 Nov 13 01:10 pm	Software Version	: Rev. B.03.02 [341]
Comment	:		Copyright © Agilent
Analysis Method	: C:\CHEM32\1\METHODS\PEST131105F.M		Technologies

Sig. ECD1 A, W:\DATA\131114\13111413.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.713	28830.4	BV	0.030		66.350	2,4,5,6-Tetrachloro-m-Xylene
3.060	305.8	BV	0.026		0.523	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
3.503	6.1	BV	0.011		0.009	Gamma-BHC
3.600	172.6	VB	0.069		0.561	Beta-BHC
3.773	156.9	BV	0.037		0.218	Delta-BHC
3.965	45.9	BV	0.033		0.066	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
4.894	71.9	BV	0.033		0.113	Heptachlor Epoxide
5.020	12.1	BV	0.027		0.019	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
5.226	73.8	BV	0.033		0.136	4,4'-DDE
5.295	57.5	VB	0.025		0.090	Endosulfan I
5.536	94.9	BV	0.043		0.150	Dieldrin
0.000	0.0		0.000		0.000	Endrin
5.833	520.6	BB	0.037		1.081	4,4'-DDD
5.985	18.2	BV	0.019		0.034	Endosulfan II
6.101	79.6	VV	0.045		0.155	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
6.567	56.4	BV	0.060		0.222	Methoxychlor
6.815	214.9	VB	0.030		0.407	Endosulfan Sulfate
7.089	170.4	BV	0.029		0.270	Endrin Ketone
7.991	37594.8	BV	0.033		71.264	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



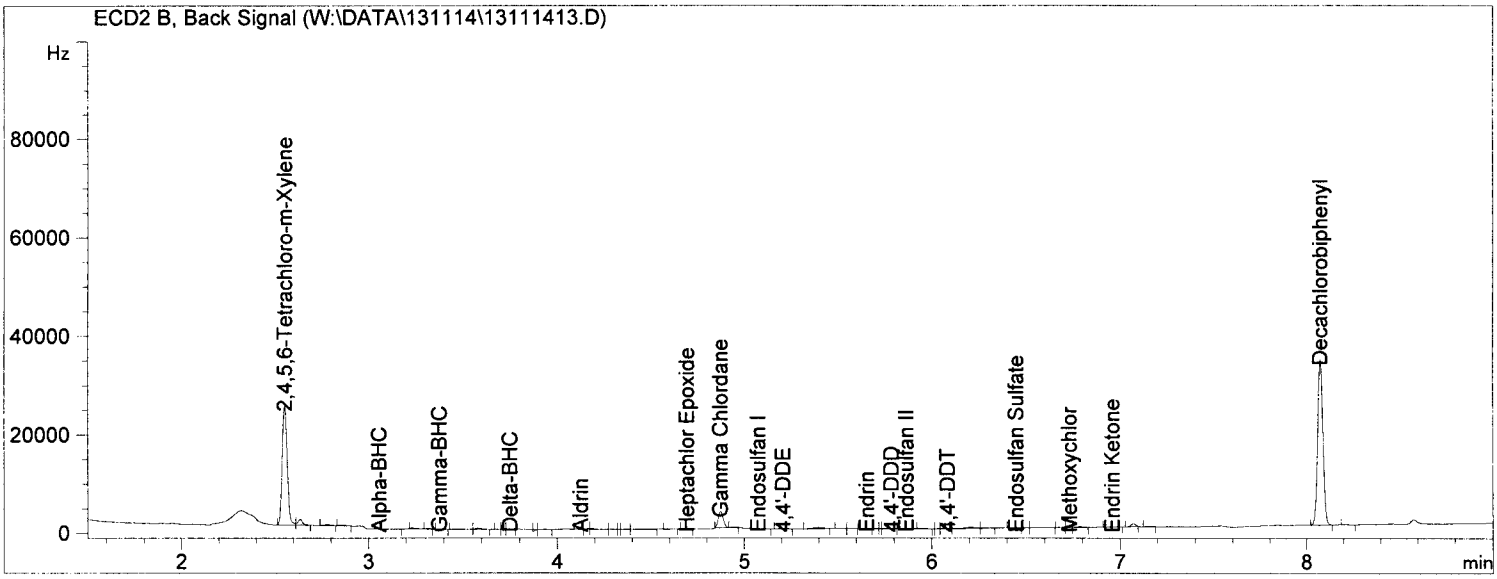
Return to Contents

External Standard Report

Data File Name	: W:\DATA\131114\13111413.D		
Operator	: 500	Vial Number	: Vial 13
Instrument	: GC 51	Injection Number	: 1
Sample Name	: 13-11-0697-9	Sequence Line	: 14
Running Method	: C:\CHEM32\1\METHODS\8081D-N->	Report Style	: PEST-R
Acquired on	: 14 Nov 13 00:45 pm	Method	: EPA 8081A
Report Created on	: 14 Nov 13 01:17 pm	Software Version	: Rev. B.03.02 [341]
Comment	:		Copyright © Agilent
Analysis Method	: C:\CHEM32\1\METHODS\PEST131105R.M		Technologies

Sig. ECD2 B, W:\DATA\131114\13111413.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.554	45150.8	BV	0.029		67.819	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
3.058	21.5	VV	0.037		0.018	Alpha-BHC
3.377	55.3	BV	0.026		0.051	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
3.750	269.3	VV	0.035		0.273	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
4.125	54.9	BV	0.022		0.051	Aldrin
4.694	31.1	BV	0.024		0.033	Heptachlor Epoxide
4.874	6213.9	BB	0.029		6.246	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
5.075	27.8	BV	0.033		0.031	Endosulfan I
5.208	287.2	BV	0.037		0.347	4,4'-DDE
0.000	0.0		0.000		0.000	Dieldrin
5.655	111.7	BV	0.031		0.129	Endrin
5.786	270.9	VV	0.050		0.387	4,4'-DDD
5.866	594.9	VB	0.080		0.655	Endosulfan II
6.085	229.6	VV	0.035		0.304	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
6.449	116.0	BV	0.035		0.148	Endosulfan Sulfate
6.732	73.3	VV	0.024		0.193	Methoxychlor
6.959	162.2	BF	0.033		0.167	Endrin Ketone
8.076	65385.9	BB	0.030		77.357	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8081A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 51
D/T ANALYZED: 11/14/2013 13:00
ANALYST: 500
DATA FILE: W:\DATA\131114\1311141413111414

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

10 **CLIENT SAMPLE NUMBER: 6-SS-9-11**

LCS/MB BATCH: 131112L26
MS/MSD BATCH: 131112S26
COMMENT:

COMPOUND NAME	ON COL CON	CONC	DF	RL	PF	UNITS	QUAL	TYPE	CONF_CON
4,4'-DDD	0.000	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDE	0.470	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDT	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Aldrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Alpha-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Beta-BHC	0.065	ND	1	5.0	0.500	ug/kg		2	ND
Chlordane	0.000	ND	1	50	0.500	ug/kg		2	ND
Delta-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Dieldrin	0.087	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan I	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan II	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan Sulfate	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin	0.002	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Aldehyde	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Ketone	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Gamma-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor	0.028	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor Epoxide	0.041	ND	1	5.0	0.500	ug/kg		2	ND
Methoxychlor	0.180	ND	1	5.0	0.500	ug/kg		2	ND
Toxaphene	0.000	ND	1	100	0.500	ug/kg		2	ND

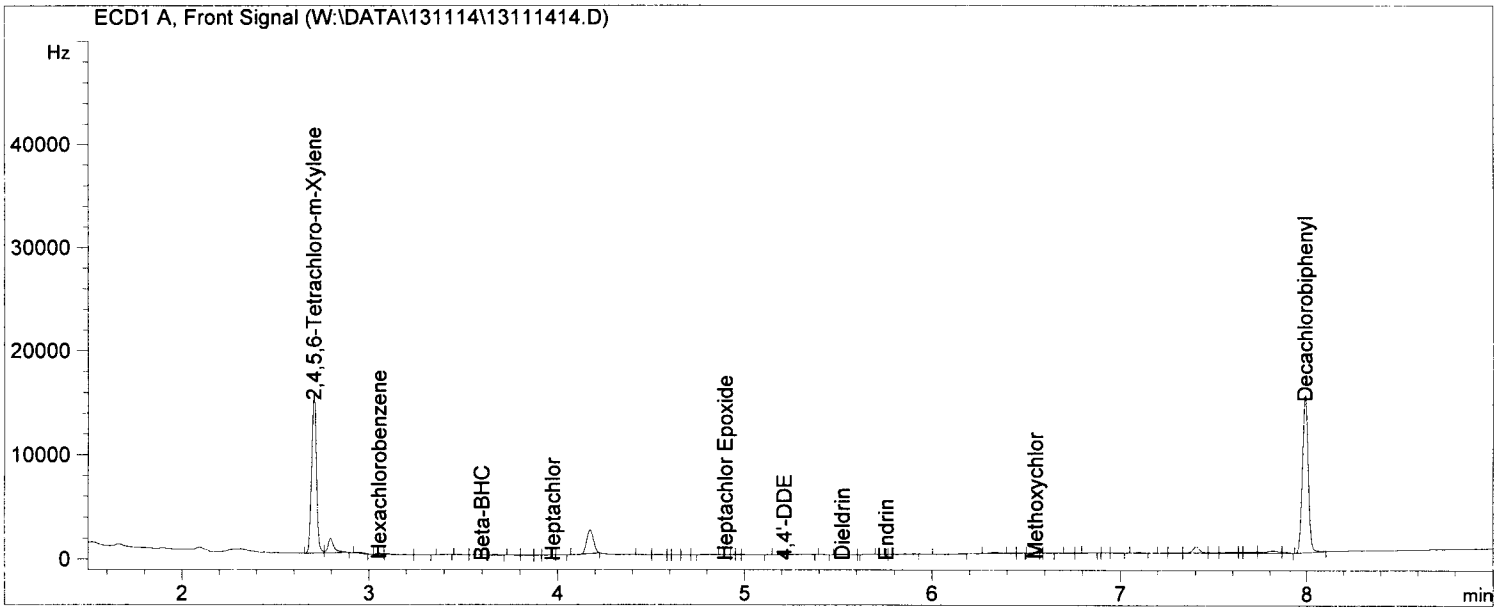
Return to Contents

External Standard Report

Data File Name	: W:\DATA\131114\13111414.D		
Operator	: 500	Vial Number	: Vial 14
Instrument	: GC 51	Injection Number	: 1
Sample Name	: 13-11-0697-10	Sequence Line	: 15
Running Method	: C:\CHEM32\1\METHODS\8081D-N->	Report Style	: PEST-F
Acquired on	: 14 Nov 13 01:00 pm	Method	: EPA 8081A
Report Created on	: 14 Nov 13 01:17 pm	Software Version	: Rev. B.03.02 [341]
Comment	:		Copyright © Agilent
Analysis Method	: C:\CHEM32\1\METHODS\PEST131105F.M		Technologies

Sig. ECD1 A, W:\DATA\131114\13111414.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.708	27333.7	BV	0.028		62.905	2,4,5,6-Tetrachloro-m-Xylene
3.054	235.6	BV	0.028		0.403	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
3.599	19.9	BF	0.031		0.065	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
3.976	19.3	BV	0.031		0.028	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
4.897	26.0	BV	0.030		0.041	Heptachlor Epoxide
0.000	0.0		0.000		0.000	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
5.213	255.3	BB	0.106		0.471	4,4'-DDE
0.000	0.0		0.000		0.000	Endosulfan I
5.525	55.4	BV	0.048		0.087	Dieldrin
5.758	1.4	BV	0.012		0.002	Endrin
0.000	0.0		0.000		0.000	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
0.000	0.0		0.000		0.000	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
6.550	47.2	BV	0.040		0.185	Methoxychlor
0.000	0.0		0.000		0.000	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Endrin Ketone
7.992	32511.5	BV	0.034		61.628	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131114\13111414.D
Operator : 500
Instrument : GC 51
Sample Name : 13-11-0697-10
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 14 Nov 13 01:00 pm
Report Created on: 14 Nov 13 01:17 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 14
Injection Number : 1
Sequence Line : 15
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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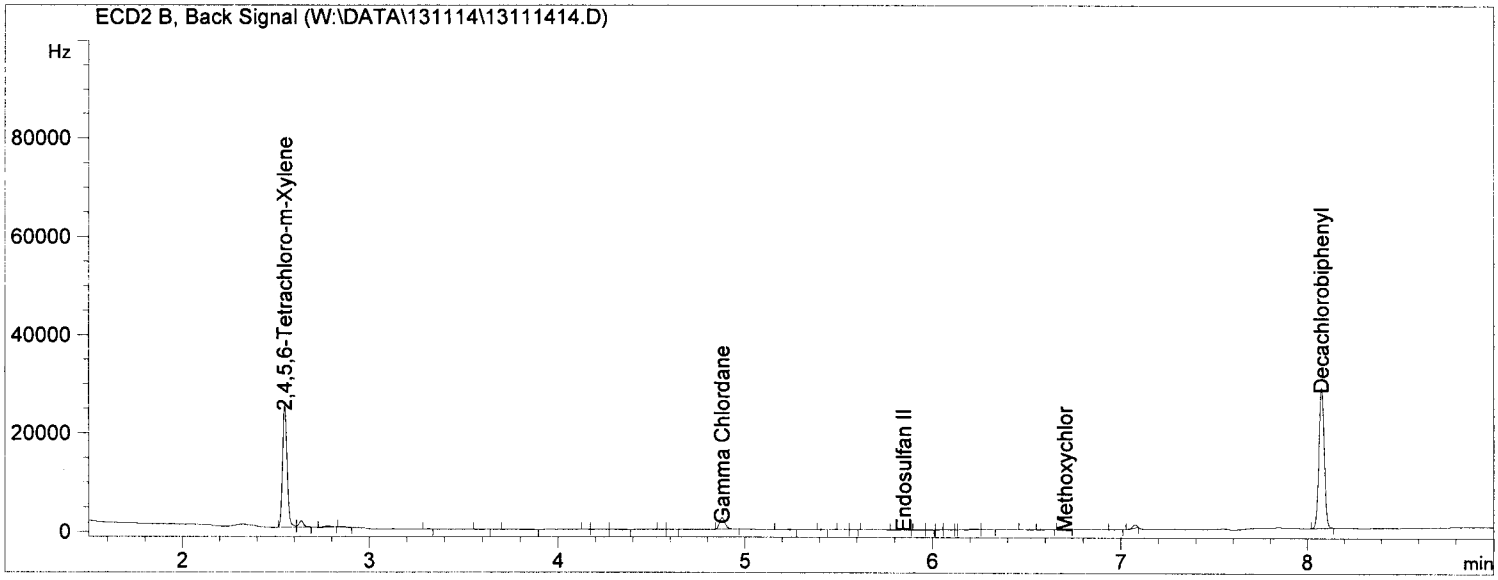
Sig. ECD2 B, W:\DATA\131114\13111414.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.549	41941.6	BV	0.026		62.999	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
0.000	0.0		0.000		0.000	Heptachlor Epoxide
4.878	4842.8	BB	0.032		4.868	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
0.000	0.0		0.000		0.000	Endosulfan I
0.000	0.0		0.000		0.000	4,4'-DDE
0.000	0.0		0.000		0.000	Dieldrin
0.000	0.0		0.000		0.000	Endrin
0.000	0.0		0.000		0.000	4,4'-DDD
5.848	86.4	BV	0.038		0.095	Endosulfan II
0.000	0.0		0.000		0.000	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
0.000	0.0		0.000		0.000	Endosulfan Sulfate
6.704	43.0	BV	0.027		0.114	Methoxychlor
0.000	0.0		0.000		0.000	Endrin Ketone
8.077	56537.2	BB	0.031		66.888	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8081A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 51
D/T ANALYZED: 11/14/2013 13:14
ANALYST: 500
DATA FILE: W:\DATA\131114\1311141513111415

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

11 **CLIENT SAMPLE NUMBER:** **60-SS-9-11**

LCS/MB BATCH: 131112L26
MS/MSD BATCH: 131112S26
COMMENT:

COMPOUND NAME	ON COL CON	CONC	DF	RL	PF	UNITS	QUAL	TYPE	CONF_CON
4,4'-DDD	0.000	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDE	0.000	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDT	0.210	ND	1	5.0	0.500	ug/kg		2	ND
Aldrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Alpha-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Beta-BHC	0.240	ND	1	5.0	0.500	ug/kg		2	ND
Chlordane	0.000	ND	1	50	0.500	ug/kg		2	ND
Delta-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Dieldrin	0.180	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan I	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan II	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan Sulfate	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Aldehyde	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Ketone	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Gamma-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor Epoxide	0.051	ND	1	5.0	0.500	ug/kg		2	ND
Methoxychlor	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Toxaphene	0.000	ND	1	100	0.500	ug/kg		2	ND

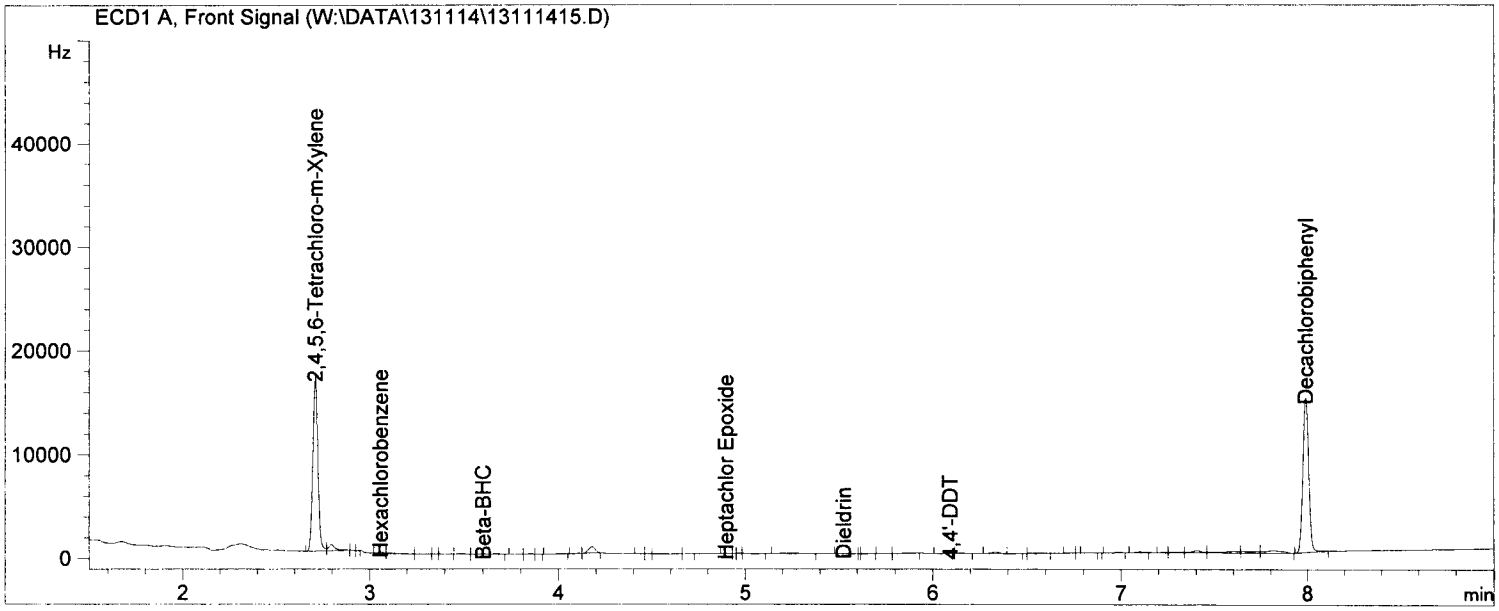
Return to Contents

External Standard Report

Data File Name	: W:\DATA\131114\13111415.D		
Operator	: 500	Vial Number	: Vial 15
Instrument	: GC 51	Injection Number	: 1
Sample Name	: 13-11-0697-11	Sequence Line	: 16
Running Method	: C:\CHEM32\1\METHODS\8081D-N->	Report Style	: PEST-F
Acquired on	: 14 Nov 13 01:14 pm	Method	: EPA 8081A
Report Created on	: 14 Nov 13 01:39 pm	Software Version	: Rev. B.03.02 [341]
Comment	:		Copyright © Agilent
Analysis Method	: C:\CHEM32\1\METHODS\PEST131105F.M		Technologies

Sig. ECD1 A, W:\DATA\131114\13111415.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.712	31391.0	BV	0.029		72.242	2,4,5,6-Tetrachloro-m-Xylene
3.057	299.9	BV	0.030		0.513	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
3.603	72.8	VB	0.057		0.237	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
4.898	32.9	BV	0.028		0.051	Heptachlor Epoxide
0.000	0.0		0.000		0.000	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
0.000	0.0		0.000		0.000	4,4'-DDE
0.000	0.0		0.000		0.000	Endosulfan I
5.527	115.6	BV	0.052		0.182	Dieldrin
0.000	0.0		0.000		0.000	Endrin
0.000	0.0		0.000		0.000	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
6.094	106.9	BV	0.054		0.208	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
0.000	0.0		0.000		0.000	Methoxychlor
0.000	0.0		0.000		0.000	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Endrin Ketone
7.992	32438.9	BB	0.034		61.490	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131114\13111415.D
Operator : 500
Instrument : GC 51
Sample Name : 13-11-0697-11
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 14 Nov 13 01:14 pm
Report Created on: 14 Nov 13 01:41 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 15
Injection Number : 1
Sequence Line : 16
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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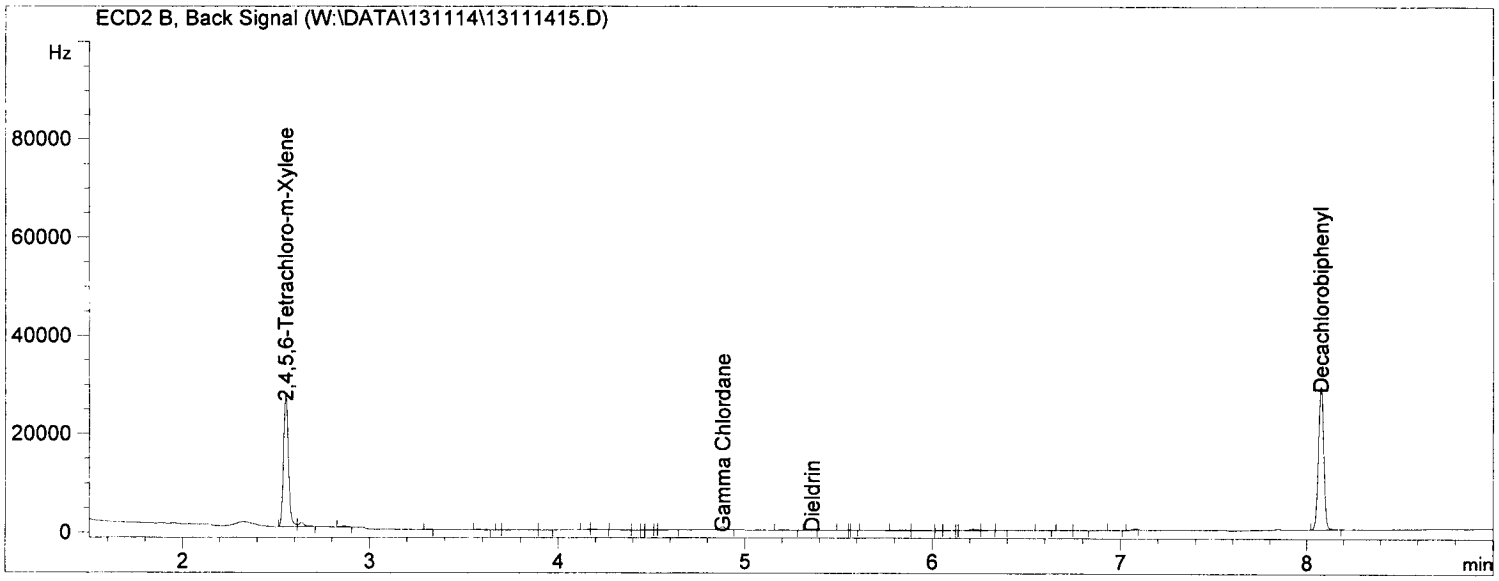
Sig. ECD2 B, W:\DATA\131114\13111415.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.553	48594.5	BV	0.028		72.992	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
0.000	0.0		0.000		0.000	Heptachlor Epoxide
4.882	1385.8	BV	0.034		1.393	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
0.000	0.0		0.000		0.000	Endosulfan I
0.000	0.0		0.000		0.000	4,4'-DDE
5.359	18.2	BV	0.022		0.018	Dieldrin
0.000	0.0		0.000		0.000	Endrin
0.000	0.0		0.000		0.000	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
0.000	0.0		0.000		0.000	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
0.000	0.0		0.000		0.000	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Methoxychlor
0.000	0.0		0.000		0.000	Endrin Ketone
8.077	57637.9	BB	0.031		68.191	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8081A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 51
D/T ANALYZED: 11/14/2013 13:29
ANALYST: 500
DATA FILE: W:\DATA\131114\1311141613111416

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

12 **CLIENT SAMPLE NUMBER: 6-SS-13.75-14.75**

LCS/MB BATCH: 131112L26
MS/MSD BATCH: 131112S26
COMMENT:

COMPOUND NAME	ON COL CON	CONC	DF	RL	PF	UNITS	QUAL	TYPE	CONF_CON
4,4'-DDD	0.000	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDE	0.170	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDT	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Aldrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Alpha-BHC	0.067	ND	1	5.0	0.500	ug/kg		2	ND
Beta-BHC	0.450	ND	1	5.0	0.500	ug/kg		2	ND
Chlordane	0.000	ND	1	50	0.500	ug/kg		2	ND
Delta-BHC	0.180	ND	1	5.0	0.500	ug/kg		2	ND
Dieldrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan I	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan II	0.031	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan Sulfate	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Aldehyde	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Ketone	0.500	ND	1	5.0	0.500	ug/kg		2	ND
Gamma-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor	0.014	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor Epoxide	0.230	ND	1	5.0	0.500	ug/kg		2	ND
Methoxychlor	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Toxaphene	0.000	ND	1	100	0.500	ug/kg		2	ND

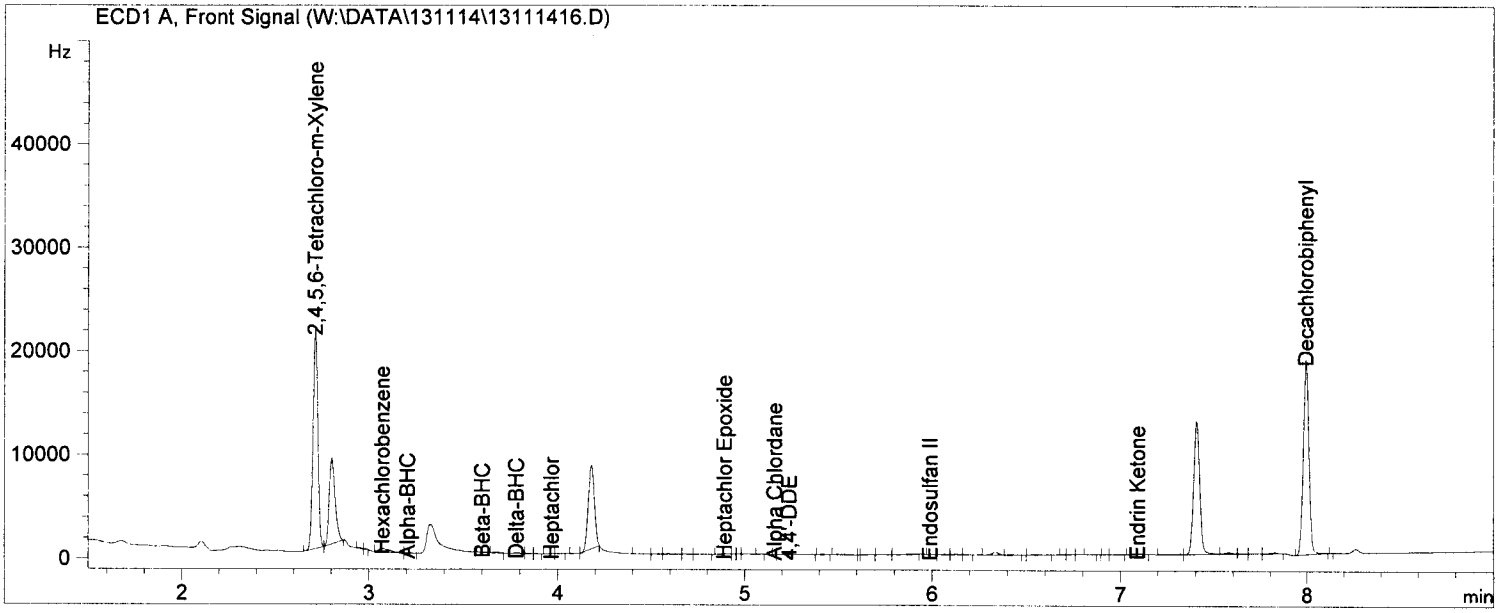
Return to Contents

External Standard Report

Data File Name	: W:\DATA\131114\13111416.D		
Operator	: 500	Vial Number	: Vial 16
Instrument	: GC 51	Injection Number	: 1
Sample Name	: 13-11-0697-12	Sequence Line	: 17
Running Method	: C:\CHEM32\1\METHODS\8081D-N->	Report Style	: PEST-F
Acquired on	: 14 Nov 13 01:29 pm	Method	: EPA 8081A
Report Created on	: 14 Nov 13 01:40 pm	Software Version	: Rev. B.03.02 [341]
Comment	:		Copyright © Agilent
Analysis Method	: C:\CHEM32\1\METHODS\PEST131105F.M		Technologies

Sig. ECD1 A, W:\DATA\131114\13111416.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.716	37876.1	BV	0.028		87.167	2,4,5,6-Tetrachloro-m-Xylene
3.072	1268.5	BV	0.053		2.171	Hexachlorobenzene
3.207	51.7	PV	0.026		0.067	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
3.602	138.3	BB	0.045		0.449	Beta-BHC
3.780	130.1	BV	0.042		0.181	Delta-BHC
3.969	9.6	BV	0.023		0.014	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
4.893	147.7	BV	0.038		0.231	Heptachlor Epoxide
0.000	0.0		0.000		0.000	Gamma Chlordane
5.160	1.3	BV	0.011		0.002	Alpha Chlordane
5.240	93.5	VB	0.093		0.173	4,4'-DDE
0.000	0.0		0.000		0.000	Endosulfan I
0.000	0.0		0.000		0.000	Dieldrin
0.000	0.0		0.000		0.000	Endrin
0.000	0.0		0.000		0.000	4,4'-DDD
5.990	16.8	BV	0.025		0.031	Endosulfan II
0.000	0.0		0.000		0.000	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
0.000	0.0		0.000		0.000	Methoxychlor
0.000	0.0		0.000		0.000	Endosulfan Sulfate
7.091	314.8	BB	0.053		0.500	Endrin Ketone
7.995	39207.3	BB	0.033		74.320	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131114\13111416.D
Operator : 500
Instrument : GC 51
Sample Name : 13-11-0697-12
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : PEST-R
Acquired on : 14 Nov 13 01:29 pm
Report Created on: 14 Nov 13 01:41 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 16
Injection Number : 1
Sequence Line : 17
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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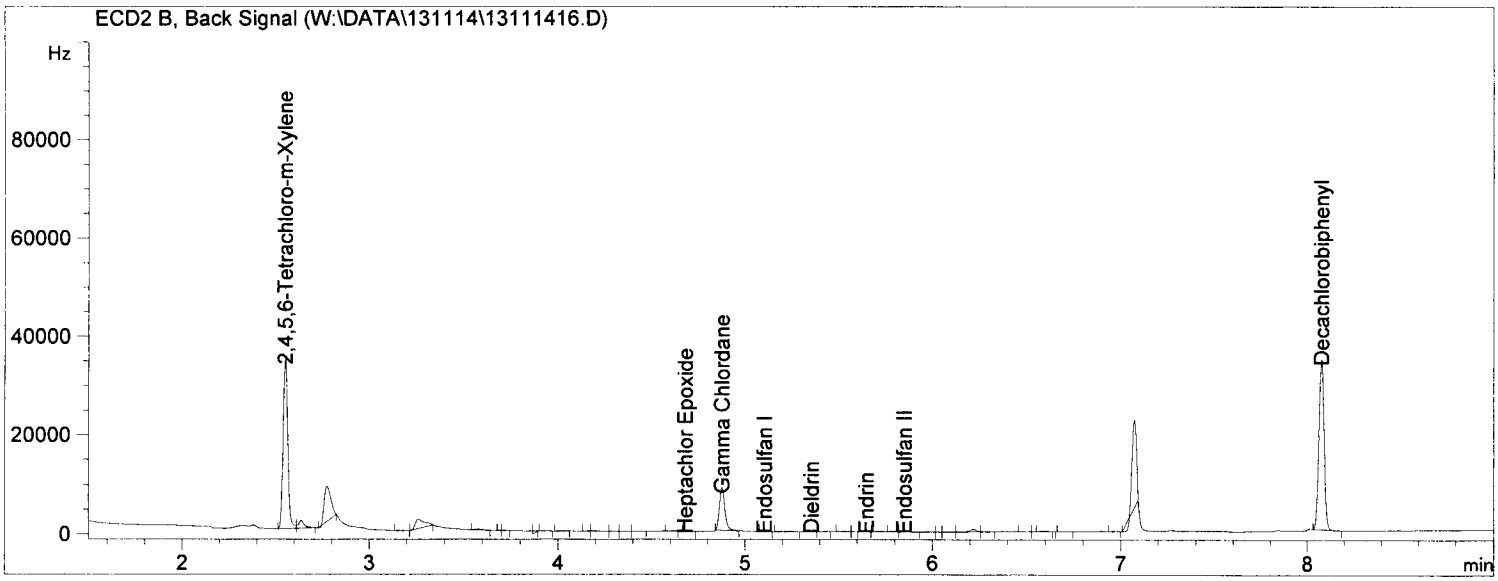
Sig. ECD2 B, W:\DATA\131114\13111416.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.553	59325.9	BV	0.027		89.111	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
4.682	14.4	BV	0.015		0.015	Heptachlor Epoxide
4.878	17388.9	BB	0.032		17.478	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
5.106	77.5	BV	0.025		0.086	Endosulfan I
0.000	0.0		0.000		0.000	4,4'-DDE
5.357	25.9	BV	0.022		0.026	Dieldrin
5.651	70.1	BV	0.032		0.081	Endrin
0.000	0.0		0.000		0.000	4,4'-DDD
5.852	203.1	VB	0.039		0.224	Endosulfan II
0.000	0.0		0.000		0.000	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
0.000	0.0		0.000		0.000	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Methoxychlor
0.000	0.0		0.000		0.000	Endrin Ketone
8.078	66749.6	BB	0.030		78.971	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

EPA METHOD 8081A
Organochlorine Pesticides

Quality Control

Method Blank
LCS/LCSD
MS/MSD

Return to Contents

METHOD BLANK ASSOCIATION SUMMARY FOR METHOD: EPA 8081A

MB Sample ID: 099-12-537-1532
MB Batch ID: 131112L26
Instrument: GC 51
Matrix: Soil
Analyst: 500
D/T Analyzed: 11/13/2013 16:48
Data File: W:\DATA\131113\1311132513111325

Reviewed By: 27
D/T Reviewed: 11/14/2013 10:41
Extraction: EPA 3545
D/T Extracted: 11/12/2013 00:00

Work Order #: 13-11-0697

Sample#	Client Sample ID	D/T Analyzed	Data File
3	8-SS-5-6	11/14/2013 13:43	W:\DATA\131114\1311141713111417
4	8-SS-9.5-10.5	11/14/2013 13:58	W:\DATA\131114\1311141813111418
5	8-SS-14.25-15.25	11/14/2013 14:12	W:\DATA\131114\1311141913111419
6	12-SS-5-6	11/14/2013 14:26	W:\DATA\131114\1311142013111420
7	12-SS-9.5-10.5	11/14/2013 14:41	W:\DATA\131114\1311142113111421
8	12-SS-13.25-15.25	11/13/2013 17:03	W:\DATA\131113\1311132613111326
9	6-SS-5-6	11/14/2013 12:45	W:\DATA\131114\1311141313111413
10	6-SS-9-11	11/14/2013 13:00	W:\DATA\131114\1311141413111414
11	60-SS-9-11	11/14/2013 13:14	W:\DATA\131114\1311141513111415
12	6-SS-13.75-14.75	11/14/2013 13:29	W:\DATA\131114\1311141613111416

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8081A

WORK ORDER NUMBER: 099-12-537
INSTRUMENT NAME: GC 51
D/T ANALYZED: 11/13/2013 16:48
ANALYST: 500
DATA FILE: W:\DATA\131113\1311132513111325

REVIEWED BY: 27
DATE REVIEWED: 11/14/2013 10:41
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

MB **CLIENT SAMPLE NUMBER:** **Method Blank**

LCS/MB BATCH: 131112L26
MS/MSD BATCH:
COMMENT:

COMPOUND NAME	ON COL CON	CONC	DF	RL	PF	UNITS	QUAL	TYPE	CONF_CON
4,4'-DDD	0.130	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDE	0.000	ND	1	5.0	0.500	ug/kg		2	ND
4,4'-DDT	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Aldrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Alpha-BHC	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Beta-BHC	0.036	ND	1	5.0	0.500	ug/kg		2	ND
Chlordane	0.000	ND	1	50	0.500	ug/kg		2	ND
Delta-BHC	0.007	ND	1	5.0	0.500	ug/kg		2	ND
Dieldrin	0.039	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan I	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan II	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endosulfan Sulfate	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Aldehyde	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Endrin Ketone	0.043	ND	1	5.0	0.500	ug/kg		2	ND
Gamma-BHC	0.005	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor	0.000	ND	1	5.0	0.500	ug/kg		2	ND
Heptachlor Epoxide	0.013	ND	1	5.0	0.500	ug/kg		2	ND
Methoxychlor	0.160	ND	1	5.0	0.500	ug/kg		2	ND
Toxaphene	0.000	ND	1	100	0.500	ug/kg		2	ND

Return to Contents

LCS QUALITY CONTROL SHEET FOR METHOD: EPA 8081A

Work Order #: 13-11-0697
LCS/MB Batch ID: 131112L26
Instrument: GC 51
Analyst: 500
D/T Analyzed: 11/13/2013 17:18
Data File: W:\DATA\131113\1311132713111327

Reviewed By: 27
D/T Reviewed: 11/14/2013 10:41
Extraction: EPA 3545
D/T Extracted: 11/12/2013 00:00

Analyte	Conc. Added	Conc. Recovered	%Recovered	%Recovered Control Limit	ME Control Limit	Status	Qualifiers
4,4'-DDD	25.00	23.02	92	50-135	36-149	PASS	
4,4'-DDE	25.00	24.19	97	50-135	36-149	PASS	
4,4'-DDT	25.00	21.57	86	50-135	36-149	PASS	
Aldrin	25.00	20.92	84	50-135	36-149	PASS	
Alpha Chlordane	25.00	21.50	86	50-135	36-149	PASS	
Alpha-BHC	25.00	19.94	80	50-135	36-149	PASS	
Beta-BHC	25.00	21.71	87	50-135	36-149	PASS	
Delta-BHC	25.00	21.28	85	50-135	36-149	PASS	
Dieldrin	25.00	22.11	88	50-135	36-149	PASS	
Endosulfan I	25.00	20.50	82	50-135	36-149	PASS	
Endosulfan II	25.00	22.07	88	50-135	36-149	PASS	
Endosulfan Sulfate	25.00	20.59	82	50-135	36-149	PASS	
Endrin	25.00	17.28	69	50-135	36-149	PASS	
Endrin Aldehyde	25.00	23.40	94	50-135	36-149	PASS	
Gamma Chlordane	25.00	20.62	82	50-135	36-149	PASS	
Gamma-BHC	25.00	20.37	81	50-135	36-149	PASS	
Heptachlor	25.00	21.69	87	50-135	36-149	PASS	
Heptachlor Epoxide	25.00	20.71	83	50-135	36-149	PASS	
Methoxychlor	25.00	22.15	89	50-135	36-149	PASS	

Total number of LCS compounds: 19
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Compounds listed in bold are required to be reported.

Return to Contents

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8081A

WORK ORDER:	**13-11-0697**	SAMPLE D/T EXTRACTED:	11/12/2013	EXTRACTION:	EPA 3545
MS/MSD BATCH:	131112S26	MS D/T EXTRACTED:	11/12/2013	ANALYST:	500
SPIKED SAMPLE ID:	**13-11-0697-8**	MSD D/T EXTRACTED:	11/12/2013	SAMPLE INSTRUMENT NAME:	GC 51
REVIEWED BY:	27	SAMPLE D/T ANALYZED:	11/13/2013 17:03	MS INSTRUMENT NAME:	GC 51
DATE REVIEWED:	11/14/2013 10:41	MS D/T ANALYZED:	11/13/2013 17:32	MSD INSTRUMENT NAME:	GC 51
		MSD D/T ANALYZED:	11/13/2013 17:47		

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL ADDED	FINAL ADDED	MS CONC	% REC	MSD CONC	% REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
4,4'-DDD	ND	50.00	25.00	17.63	71	18.58	74	50-135	5	0-25	PASS	
4,4'-DDE	ND	50.00	25.00	18.61	74	18.65	75	50-135	0	0-25	PASS	
4,4'-DDT	ND	50.00	25.00	17.13	69	17.32	69	50-135	1	0-25	PASS	
Aldrin	ND	50.00	25.00	16.43	66	16.50	66	50-135	0	0-25	PASS	
Alpha Chlordane	ND	50.00	25.00	17.29	69	17.80	71	50-135	3	0-25	PASS	
Alpha-BHC	ND	50.00	25.00	17.19	69	18.74	75	50-135	9	0-25	PASS	
Beta-BHC	ND	50.00	25.00	18.14	73	20.17	81	50-135	11	0-25	PASS	
Delta-BHC	ND	50.00	25.00	18.30	73	19.25	77	50-135	5	0-25	PASS	
Dieldrin	ND	50.00	25.00	17.66	71	18.60	74	50-135	5	0-25	PASS	
Endosulfan I	ND	50.00	25.00	17.36	69	18.22	73	50-135	5	0-25	PASS	
Endosulfan II	ND	50.00	25.00	17.90	72	19.41	78	50-135	8	0-25	PASS	
Endosulfan Sulfate	ND	50.00	25.00	16.92	68	18.08	72	50-135	7	0-25	PASS	
Endrin	ND	50.00	25.00	15.53	62	15.99	64	50-135	3	0-25	PASS	
Endrin Aldehyde	ND	50.00	25.00	16.94	68	17.43	70	50-135	3	0-25	PASS	
Gamma Chlordane	ND	50.00	25.00	16.58	66	17.17	69	50-135	4	0-25	PASS	
Gamma-BHC	ND	50.00	25.00	17.76	71	18.96	76	50-135	7	0-25	PASS	
Heptachlor	ND	50.00	25.00	17.52	70	17.57	70	50-135	0	0-25	PASS	
Heptachlor Epoxide	ND	50.00	25.00	16.43	66	17.67	71	50-135	7	0-25	PASS	
Methoxychlor	ND	50.00	25.00	17.81	71	18.66	75	50-135	5	0-25	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	13111328	W:\DATA\131113\13111328
MSD	13111329	W:\DATA\131113\13111329

Return to Contents

SURROGATE RECOVERIES FOR METHOD: EPA 8081A

WORK ORDER NUMBER: 13-11-0697 REVIEWED BY: 0

LCS/MB BATCH : 131112L26 DATE REVIEWED:

MS BATCH : 131112S26 EXTRACTION : EPA 3545

 # 3 CLIENT SAMPLE NUMBER : 8-SS-5-6

DATA FILE: W:\DATA\131114\1311141713111417

D/T EXTRACTED: 11/12/2013 0000
D/T ANALYZED: 11/14/2013 1343 ANALYST: 500 INSTRUMENT NAME: GC 51
COMMENT:

COMPOUND_NAME	% RECOVERY	% REC_CONTROL_LIMIT	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	54	50-135	PASS	
Decachlorobiphenyl	66	50-135	PASS	

 # 4 CLIENT SAMPLE NUMBER : 8-SS-9.5-10.5

DATA FILE: W:\DATA\131114\1311141813111418

D/T EXTRACTED: 11/12/2013 0000
D/T ANALYZED: 11/14/2013 1358 ANALYST: 500 INSTRUMENT NAME: GC 51
COMMENT:

COMPOUND_NAME	% RECOVERY	% REC_CONTROL_LIMIT	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	76	50-135	PASS	
Decachlorobiphenyl	71	50-135	PASS	

 # 5 CLIENT SAMPLE NUMBER : 8-SS-14.25-15.25

DATA FILE: W:\DATA\131114\1311141913111419

D/T EXTRACTED: 11/12/2013 0000
D/T ANALYZED: 11/14/2013 1412 ANALYST: 500 INSTRUMENT NAME: GC 51
COMMENT:

COMPOUND_NAME	% RECOVERY	% REC_CONTROL_LIMIT	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	58	50-135	PASS	
Decachlorobiphenyl	62	50-135	PASS	

 # 6 CLIENT SAMPLE NUMBER : 12-SS-5-6

DATA FILE: W:\DATA\131114\1311142013111420

D/T EXTRACTED: 11/12/2013 0000
D/T ANALYZED: 11/14/2013 1426 ANALYST: 500 INSTRUMENT NAME: GC 51
COMMENT:

COMPOUND_NAME	% RECOVERY	% REC_CONTROL_LIMIT	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	68	50-135	PASS	
Decachlorobiphenyl	69	50-135	PASS	

Return to Contents

SURROGATE RECOVERIES FOR METHOD: EPA 8081A

WORK ORDER NUMBER: 13-11-0697 REVIEWED BY: 0 MS

LCS/MB BATCH : 131112L26 DATE REVIEWED:

MS BATCH : 131112S26 EXTRACTION : EPA 3545

 # 7 CLIENT SAMPLE NUMBER : 12-SS-9.5-10.5

DATA FILE: W:\DATA\131114\1311142113111421

D/T EXTRACTED: 11/12/2013 0000
D/T ANALYZED: 11/14/2013 1441 ANALYST: 500 INSTRUMENT NAME: GC 51
COMMENT:

COMPOUND_NAME	% RECOVERY	% REC_CONTROL_LIMIT	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	80	50-135	PASS	
Decachlorobiphenyl	70	50-135	PASS	

 # 8 CLIENT SAMPLE NUMBER : 12-SS-13.25-15.25

DATA FILE: W:\DATA\131113\1311132613111326

D/T EXTRACTED: 11/12/2013 0000
D/T ANALYZED: 11/13/2013 1703 ANALYST: 500 INSTRUMENT NAME: GC 51
COMMENT:

COMPOUND_NAME	% RECOVERY	% REC_CONTROL_LIMIT	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	72	50-135	PASS	
Decachlorobiphenyl	70	50-135	PASS	

 # 9 CLIENT SAMPLE NUMBER : 6-SS-5-6

DATA FILE: W:\DATA\131114\1311141313111413

D/T EXTRACTED: 11/12/2013 0000
D/T ANALYZED: 11/14/2013 1245 ANALYST: 500 INSTRUMENT NAME: GC 51
COMMENT:

COMPOUND_NAME	% RECOVERY	% REC_CONTROL_LIMIT	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	66	50-135	PASS	
Decachlorobiphenyl	71	50-135	PASS	

 # 10 CLIENT SAMPLE NUMBER : 6-SS-9-11

DATA FILE: W:\DATA\131114\1311141413111414

D/T EXTRACTED: 11/12/2013 0000
D/T ANALYZED: 11/14/2013 1300 ANALYST: 500 INSTRUMENT NAME: GC 51
COMMENT:

COMPOUND_NAME	% RECOVERY	% REC_CONTROL_LIMIT	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	63	50-135	PASS	
Decachlorobiphenyl	62	50-135	PASS	

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8081A

WORK ORDER: 13-11-0697
BATCH ID:
LCS/MB: 131112L26
MS: 131112S26
EXTRACTION : EPA 3545

REVIEWED BY: 27
D/T REVIEWED: 11/15/2013 17:19

11 CLIENT SAMPLE NUMBER : 60-SS-9-11

INSTRUMENT: GC 51
D/T EXTRACTED: 11/12/2013 00:00
DATA FILE: W:\DATA\131114\1311141513111415

ANALYZED BY: 500
D/T ANALYZED 11/14/2013 13:14

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	72	50-135	PASS	
Decachlorobiphenyl	61	50-135	PASS	

12 CLIENT SAMPLE NUMBER : 6-SS-13.75-14.75

INSTRUMENT: GC 51
D/T EXTRACTED: 11/12/2013 00:00
DATA FILE: W:\DATA\131114\1311141613111416

ANALYZED BY: 500
D/T ANALYZED 11/14/2013 13:29

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	87	50-135	PASS	
Decachlorobiphenyl	74	50-135	PASS	

MB CLIENT SAMPLE NUMBER : Method Blank

INSTRUMENT: GC 51
D/T EXTRACTED: 11/12/2013 00:00
DATA FILE: W:\DATA\131113\1311132513111325

ANALYZED BY: 500
D/T ANALYZED 11/13/2013 16:48

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	96	50-135	PASS	
Decachlorobiphenyl	85	50-135	PASS	

LCS CLIENT SAMPLE NUMBER : Lab Control Sample

INSTRUMENT: GC 51
D/T EXTRACTED: 11/12/2013 00:00
DATA FILE: W:\DATA\131113\1311132713111327

ANALYZED BY: 500
D/T ANALYZED 11/13/2013 17:18

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	85	50-135	PASS	
Decachlorobiphenyl	80	50-135	PASS	

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8081A

WORK ORDER: 13-11-0697
BATCH ID:
LCS/MB:
MS: **131112S26**
EXTRACTION : EPA 3545

REVIEWED BY: 27
D/T REVIEWED: 11/14/2013 10:41

 # MS **CLIENT SAMPLE NUMBER : Matrix Spike**

INSTRUMENT: GC 51
D/T EXTRACTED: 11/12/2013 00:00
DATA FILE: W:\DATA\131113\1311132813111328

ANALYZED BY: 500
D/T ANALYZED 11/13/2013 17:32

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	68	50-135	PASS	
Decachlorobiphenyl	63	50-135	PASS	

 # MSD **CLIENT SAMPLE NUMBER : Matrix Spike Duplicate**

INSTRUMENT: GC 51
D/T EXTRACTED: 11/12/2013 00:00
DATA FILE: W:\DATA\131113\1311132913111329

ANALYZED BY: 500
D/T ANALYZED 11/13/2013 17:47

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2,4,5,6-Tetrachloro-m-Xylene	68	50-135	PASS	
Decachlorobiphenyl	64	50-135	PASS	

Return to Contents

External Standard Report

Data File Name : W:\DATA\131113\13111325.D
Operator : 500
Instrument : GC 51
Sample Name : MB 131112L26
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 13 Nov 13 04:48 pm
Report Created on: 13 Nov 13 05:00 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 25
Injection Number : 1
Sequence Line : 24
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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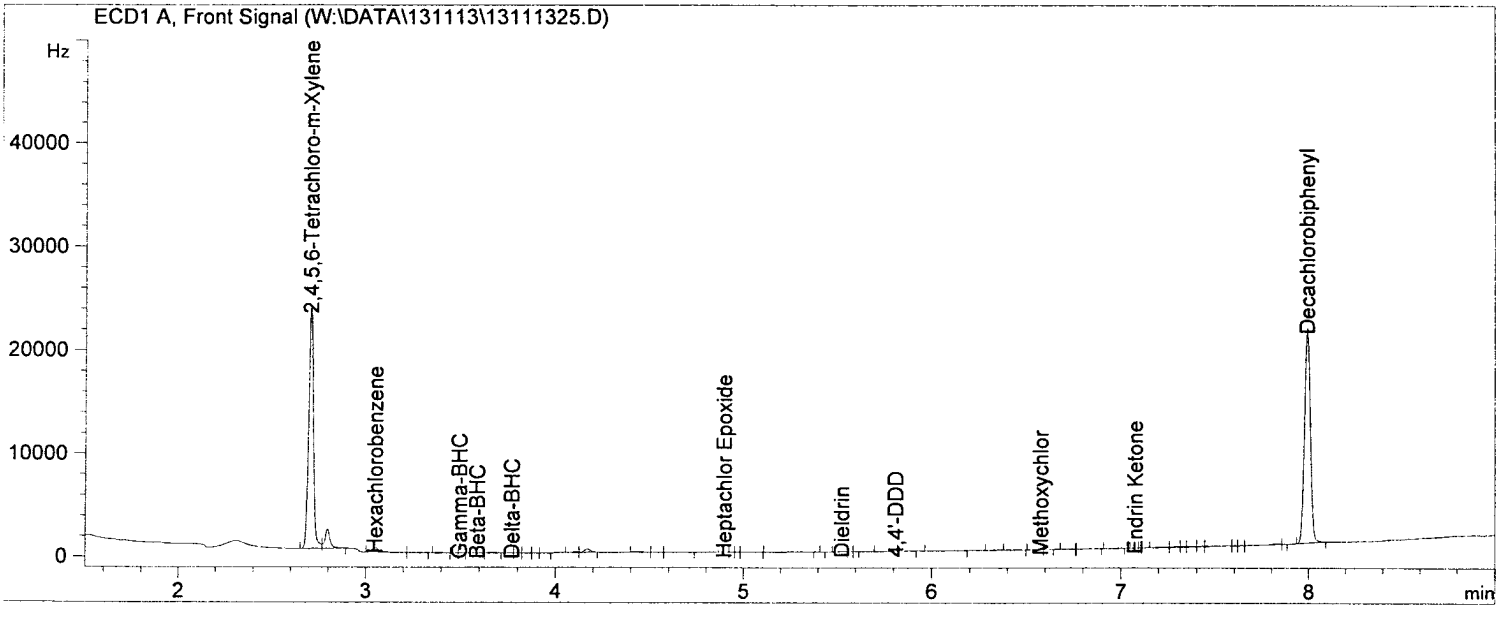
Sig. ECD1 A, W:\DATA\131113\13111325.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.706	41528.3BV		0.028		95.572	2,4,5,6-Tetrachloro-m-Xylene
3.049	1188.3BV		0.038		2.034	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
3.495	3.5VV		0.018		0.005	Gamma-BHC
3.590	11.0VB		0.000		0.036	Beta-BHC
3.770	5.2BV		0.019		0.007	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
4.898	8.1BV		0.021		0.013	Heptachlor Epoxide
0.000	0.0		0.000		0.000	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
0.000	0.0		0.000		0.000	4,4'-DDE
0.000	0.0		0.000		0.000	Endosulfan I
5.528	24.9BV		0.033		0.039	Dieldrin
0.000	0.0		0.000		0.000	Endrin
5.813	60.5BB		0.112		0.126	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
0.000	0.0		0.000		0.000	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
6.575	39.9BV		0.053		0.157	Methoxychlor
0.000	0.0		0.000		0.000	Endosulfan Sulfate
7.076	27.3BV		0.025		0.043	Endrin Ketone
7.993	44749.1BB		0.033		84.825	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131113\13111325.D
Operator : 500
Instrument : GC 51
Sample Name : MB 131112L26
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 13 Nov 13 04:48 pm
Report Created on: 13 Nov 13 05:32 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 25
Injection Number : 1
Sequence Line : 24
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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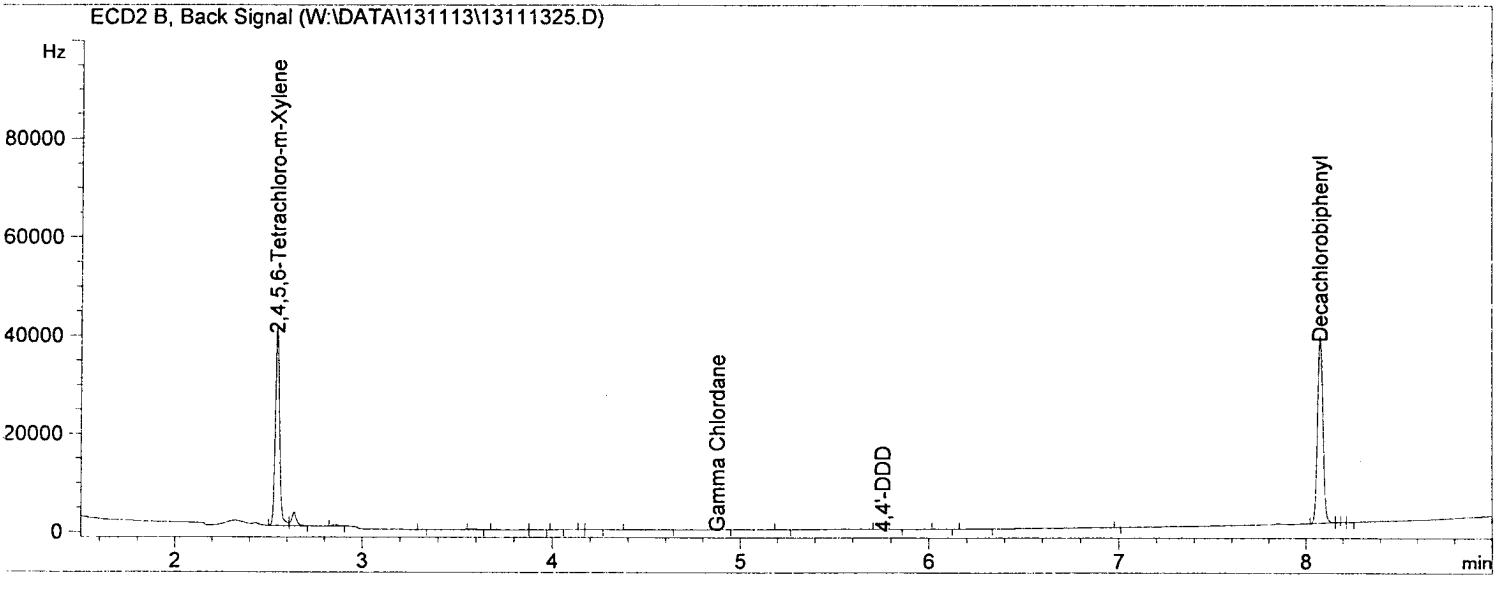
Sig. ECD2 B, W:\DATA\131113\13111325.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.547	64366.1	BV	0.024		96.682	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
0.000	0.0		0.000		0.000	Heptachlor Epoxide
4.877	549.3	BV	0.033		0.552	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
0.000	0.0		0.000		0.000	Endosulfan I
0.000	0.0		0.000		0.000	4,4'-DDE
0.000	0.0		0.000		0.000	Dieldrin
0.000	0.0		0.000		0.000	Endrin
5.759	31.2	VV	0.037		0.044	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
0.000	0.0		0.000		0.000	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
0.000	0.0		0.000		0.000	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Methoxychlor
0.000	0.0		0.000		0.000	Endrin Ketone
8.078	76376.7	BV	0.031		90.360	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131113\13111327.D
Operator : 500
Instrument : GC 51
Sample Name : LCS 131112L26
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 13 Nov 13 05:18 pm
Report Created on: 13 Nov 13 05:31 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 27
Injection Number : 1
Sequence Line : 26
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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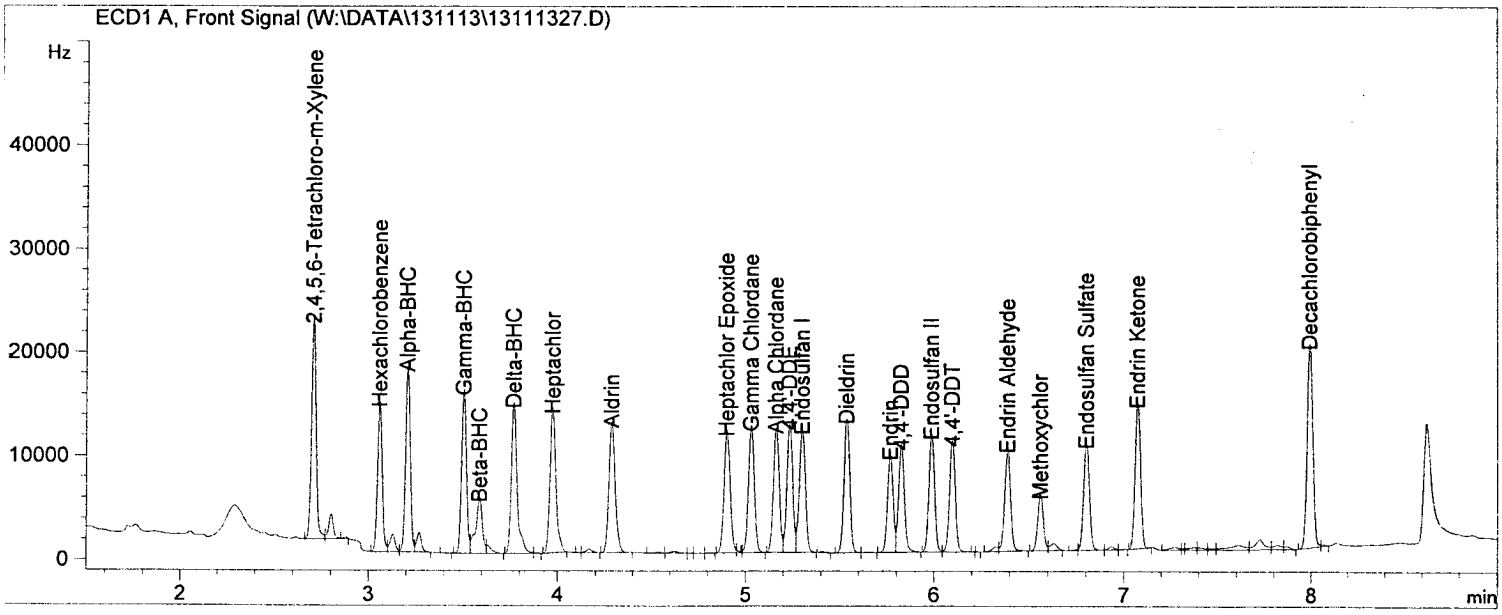
Sig. ECD1 A, W:\DATA\131113\13111327.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.710	36751.3	BV	0.027		84.578	2,4,5,6-Tetrachloro-m-Xylene
3.060	25479.6	BV	0.027		43.616	Hexachlorobenzene
3.209	30734.5	VV	0.027		39.887	Alpha-BHC
3.506	28135.2	BV	0.028		40.749	Gamma-BHC
3.588	13365.6	VB	0.041		43.416	Beta-BHC
3.769	30675.3	BB	0.032		42.570	Delta-BHC
3.975	30238.7	BB	0.033		43.383	Heptachlor
4.287	29388.4	BB	0.036		41.830	Aldrin
4.901	26455.4	BB	0.036		41.413	Heptachlor Epoxide
5.031	26817.5	VB	0.035		41.249	Gamma Chlordane
5.162	25968.6	BV	0.034		42.992	Alpha Chlordane
5.234	26221.1	VV	0.035		48.384	4,4'-DDE
5.301	26277.0	VB	0.037		40.998	Endosulfan I
5.538	28039.4	BB	0.034		44.211	Dieldrin
5.768	19646.9	BV	0.033		34.550	Endrin
5.827	22165.8	VB	0.036		46.042	4,4'-DDD
5.989	23788.7	BV	0.033		44.141	Endosulfan II
6.098	22219.2	VB	0.032		43.142	4,4'-DDT
6.390	21185.3	VB	0.033		46.810	Endrin Aldehyde
6.561	11266.0	BV	0.033		44.308	Methoxychlor
6.804	21724.4	VB	0.033		41.188	Endosulfan Sulfate
7.075	28517.9	BB	0.032		45.271	Endrin Ketone
7.995	42158.3	BV	0.033		79.914	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



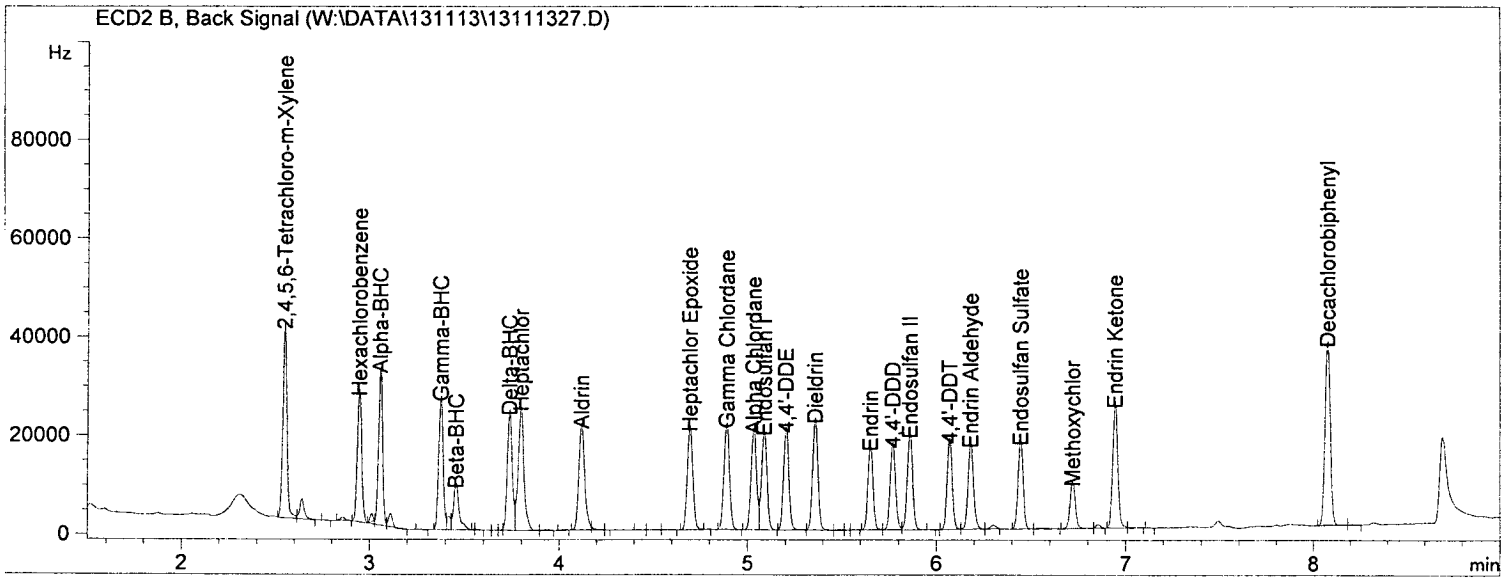
Return to Contents

External Standard Report

Data File Name	: W:\DATA\131113\13111327.D		
Operator	: 500	Vial Number	: Vial 27
Instrument	: GC 51	Injection Number	: 1
Sample Name	: LCS 131112L26	Sequence Line	: 26
Running Method	: C:\CHEM32\1\METHODS\8081D-N->	Report Style	: PEST-R
Acquired on	: 13 Nov 13 05:18 pm	Method	: EPA 8081A
Report Created on	: 13 Nov 13 05:33 pm	Software Version	: Rev. B.03.02 [341]
Comment	:		Copyright © Agilent
Analysis Method	: C:\CHEM32\1\METHODS\PEST131105R.M		Technologies

Sig. ECD2 B, W:\DATA\131113\13111327.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.548	60045.7	BV	0.024		90.193	2,4,5,6-Tetrachloro-m-Xylene
2.946	43448.5	BV	0.025		47.307	Hexachlorobenzene
3.057	47376.2	VV	0.023		40.344	Alpha-BHC
3.376	43822.3	BV	0.025		40.763	Gamma-BHC
3.456	18956.1	VB	0.033		43.136	Beta-BHC
3.736	43705.6	VV	0.027		44.252	Delta-BHC
3.796	52893.3	VV	0.035		43.453	Heptachlor
4.120	46526.1	BB	0.032		43.210	Aldrin
4.696	42964.3	BB	0.031		45.022	Heptachlor Epoxide
4.890	43673.0	BB	0.031		43.896	Gamma Chlordane
5.033	40909.9	BV	0.031		43.552	Alpha Chlordane
5.089	40864.6	VB	0.034		45.371	Endosulfan I
5.204	40537.3	BB	0.030		49.007	4,4'-DDE
5.359	44737.7	BB	0.031		44.144	Dieldrin
5.654	32610.2	BV	0.030		37.573	Endrin
5.772	34549.8	VV	0.030		49.328	4,4'-DDD
5.862	38536.0	VB	0.033		42.425	Endosulfan II
6.070	35054.0	BV	0.030		46.417	4,4'-DDT
6.182	35462.8	VB	0.031		51.899	Endrin Aldehyde
6.445	34332.4	BV	0.030		43.866	Endosulfan Sulfate
6.721	18250.3	BB	0.030		48.145	Methoxychlor
6.946	47640.9	BB	0.029		48.921	Endrin Ketone
8.078	73378.7	BB	0.031		86.813	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131113\13111328.D
Operator : 500
Instrument : GC 51
Sample Name : MS 13-11-0697-8 131112S26
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 13 Nov 13 05:32 pm
Report Created on: 14 Nov 13 08:46 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 28
Injection Number : 1
Sequence Line : 27
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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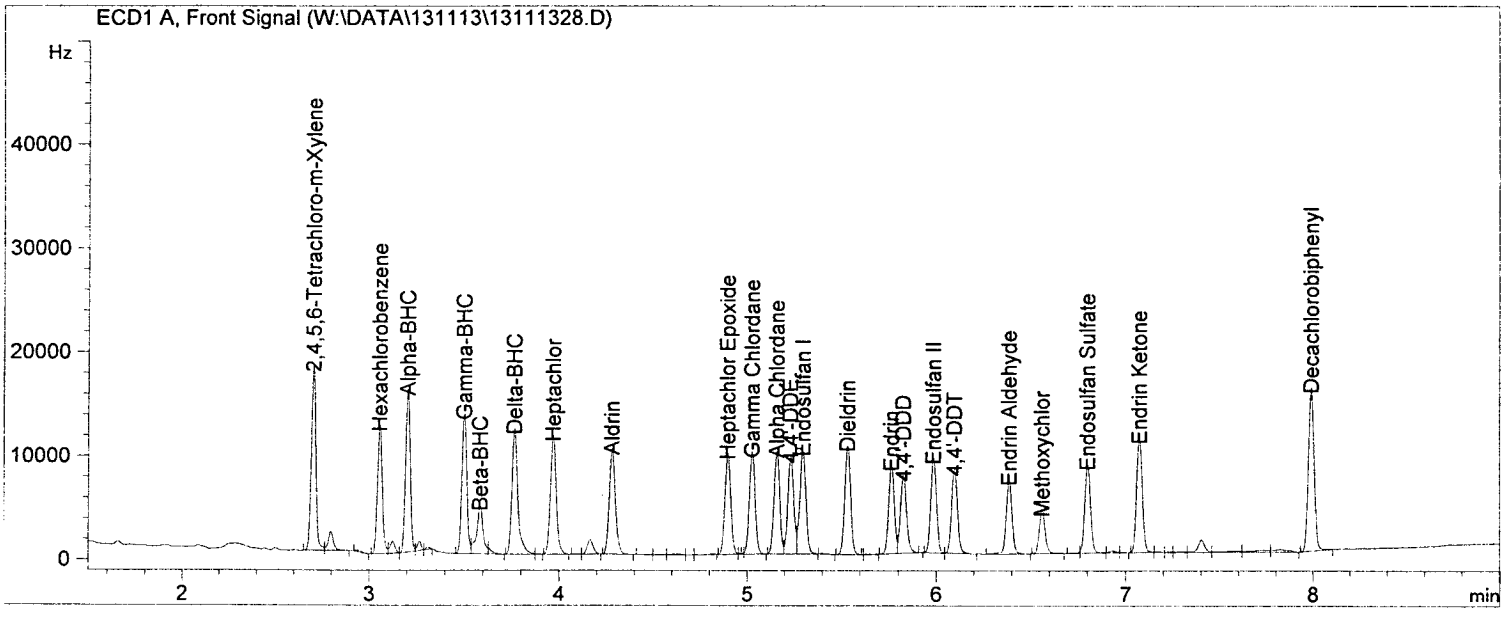
Sig. ECD1 A, W:\DATA\131113\13111328.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.705	29757.7	BV	0.026		68.484	2,4,5,6-Tetrachloro-m-Xylene
3.054	22000.6	BV	0.027		37.661	Hexachlorobenzene
3.203	26488.7	VV	0.027		34.377	Alpha-BHC
3.501	24530.8	BV	0.029		35.528	Gamma-BHC
3.584	11170.2	VB	0.039		36.285	Beta-BHC
3.765	26368.1	BB	0.033		36.593	Delta-BHC
3.970	24430.0	BB	0.033		35.049	Heptachlor
4.282	23092.7	BB	0.035		32.869	Aldrin
4.898	20987.9	BB	0.034		32.855	Heptachlor Epoxide
5.027	21551.7	VB	0.035		33.150	Gamma Chlordane
5.159	20886.9	BV	0.033		34.579	Alpha Chlordane
5.233	20173.7	VV	0.036		37.225	4,4'-DDE
5.296	22255.4	VB	0.037		34.723	Endosulfan I
5.534	22405.1	BV	0.033		35.327	Dieldrin
5.765	17665.5	BV	0.033		31.066	Endrin
5.828	16971.3	VB	0.038		35.252	4,4'-DDD
5.988	19297.6	BV	0.034		35.808	Endosulfan II
6.097	17648.4	VB	0.034		34.267	4,4'-DDT
6.388	15335.5	BB	0.033		33.884	Endrin Aldehyde
6.561	9058.7	BB	0.034		35.627	Methoxychlor
6.802	17851.9	VB	0.033		33.846	Endosulfan Sulfate
7.074	23018.5	BB	0.033		36.541	Endrin Ketone
7.993	33382.9	BV	0.033		63.280	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131113\13111328.D
Operator : 500
Instrument : GC 51
Sample Name : MS 13-11-0697-8 131112S26
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 13 Nov 13 05:32 pm
Report Created on: 14 Nov 13 09:38 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 28
Injection Number : 1
Sequence Line : 27
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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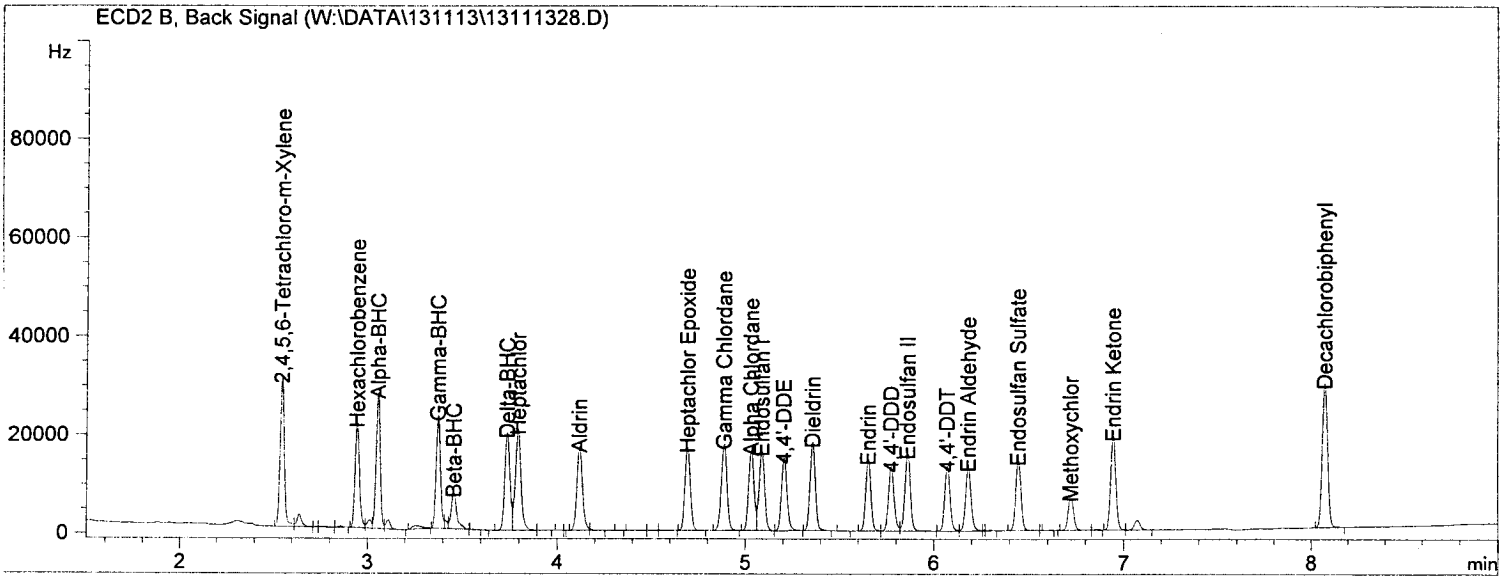
Sig. ECD2 B, W:\DATA\131113\13111328.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.546	47082.3	BV	0.024		70.721	2,4,5,6-Tetrachloro-m-Xylene
2.945	35731.6	BV	0.026		38.905	Hexachlorobenzene
3.056	42436.6	VV	0.026		36.138	Alpha-BHC
3.375	37038.1	BV	0.025		34.453	Gamma-BHC
3.457	15486.3	VB	0.034		35.240	Beta-BHC
3.737	36947.8	VV	0.029		37.410	Delta-BHC
3.795	42109.7	VB	0.034		34.594	Heptachlor
4.119	35556.9	BB	0.032		33.023	Aldrin
4.695	34366.1	BB	0.031		36.012	Heptachlor Epoxide
4.889	37401.4	BB	0.032		37.593	Gamma Chlordane
5.033	32438.7	BV	0.031		34.533	Alpha Chlordane
5.089	32791.9	VB	0.034		36.408	Endosulfan I
5.205	30666.0	BB	0.031		37.073	4,4'-DDE
5.358	35718.3	BB	0.031		35.244	Dieldrin
5.654	27769.4	BV	0.030		31.995	Endrin
5.776	27076.0	VV	0.031		38.657	4,4'-DDD
5.864	32140.5	VB	0.034		35.384	Endosulfan II
6.073	26130.1	BV	0.030		34.601	4,4'-DDT
6.183	26371.9	VB	0.031		38.595	Endrin Aldehyde
6.447	27539.3	BV	0.030		35.187	Endosulfan Sulfate
6.723	13654.2	BB	0.030		36.020	Methoxychlor
6.946	36432.1	BB	0.030		37.411	Endrin Ketone
8.076	57882.7	BB	0.031		68.480	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131113\13111329.D
Operator : 500
Instrument : GC 51
Sample Name : MSD 13-11-0697-8 131112S26
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 13 Nov 13 05:47 pm
Report Created on: 14 Nov 13 08:46 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 29
Injection Number : 1
Sequence Line : 28
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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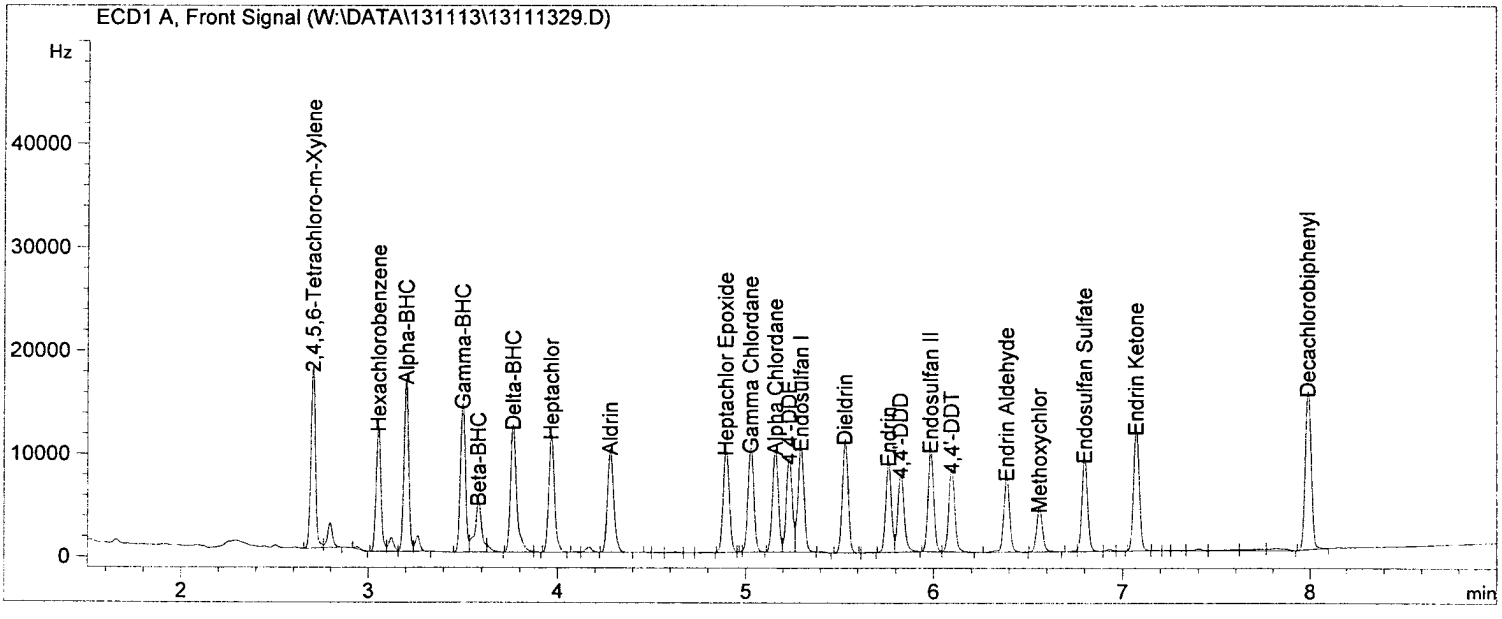
Sig. ECD1 A, W:\DATA\131113\13111329.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.704	29667.3	BV	0.026		68.275	2,4,5,6-Tetrachloro-m-Xylene
3.054	21686.6	BV	0.028		37.123	Hexachlorobenzene
3.203	28882.8	VV	0.027		37.484	Alpha-BHC
3.500	26179.3	BV	0.029		37.916	Gamma-BHC
3.583	12416.4	VB	0.041		40.333	Beta-BHC
3.764	27741.1	BB	0.034		38.498	Delta-BHC
3.968	24497.4	BB	0.033		35.146	Heptachlor
4.280	23183.8	BB	0.036		32.999	Aldrin
4.896	22576.8	BB	0.036		35.342	Heptachlor Epoxide
5.027	22328.3	VB	0.035		34.344	Gamma Chlordane
5.158	21504.2	BV	0.034		35.601	Alpha Chlordane
5.233	20213.3	VV	0.037		37.298	4,4'-DDE
5.297	23361.7	VB	0.038		36.449	Endosulfan I
5.533	23599.2	BV	0.034		37.210	Dieldrin
5.764	18188.7	BV	0.032		31.986	Endrin
5.829	17886.6	VB	0.039		37.153	4,4'-DDD
5.987	20919.8	BV	0.032		38.818	Endosulfan II
6.097	17844.8	VB	0.034		34.649	4,4'-DDT
6.388	15776.4	BB	0.033		34.859	Endrin Aldehyde
6.561	9489.6	BB	0.033		37.322	Methoxychlor
6.801	19075.7	VB	0.032		36.166	Endosulfan Sulfate
7.074	24733.8	BB	0.033		39.264	Endrin Ketone
7.992	33541.7	BV	0.034		63.581	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131113\13111329.D
Operator : 500
Instrument : GC 51
Sample Name : MSD 13-11-0697-8 131112S26
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 13 Nov 13 05:47 pm
Report Created on: 14 Nov 13 09:09 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 29
Injection Number : 1
Sequence Line : 28
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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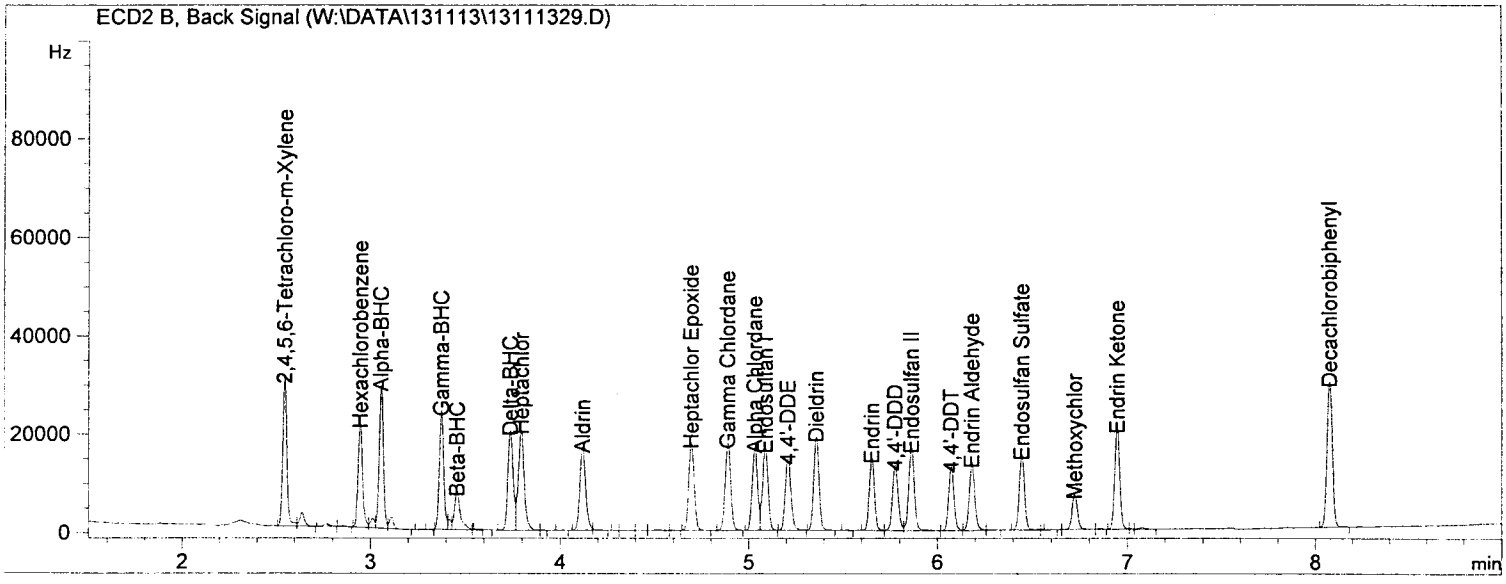
Sig. ECD2 B, W:\DATA\131113\13111329.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.546	46475.7	BV	0.023		69.809	2,4,5,6-Tetrachloro-m-Xylene
2.945	35010.2	BV	0.026		38.119	Hexachlorobenzene
3.056	44650.9	VV	0.026		38.024	Alpha-BHC
3.375	39211.0	BV	0.025		36.474	Gamma-BHC
3.457	16996.7	VB	0.036		38.677	Beta-BHC
3.738	38687.0	VV	0.029		39.171	Delta-BHC
3.794	43108.2	VB	0.035		35.414	Heptachlor
4.118	35764.8	BB	0.032		33.216	Aldrin
4.695	36275.8	BB	0.032		38.013	Heptachlor Epoxide
4.889	36465.1	BB	0.032		36.652	Gamma Chlordane
5.033	33409.5	BV	0.031		35.567	Alpha Chlordane
5.088	34218.5	VB	0.034		37.992	Endosulfan I
5.208	30728.9	BB	0.032		37.149	4,4'-DDE
5.358	37328.3	BB	0.031		36.833	Dieldrin
5.654	28419.8	BV	0.031		32.745	Endrin
5.777	27889.6	VV	0.032		39.819	4,4'-DDD
5.864	34553.0	VB	0.034		38.040	Endosulfan II
6.074	25619.6	BV	0.031		33.925	4,4'-DDT
6.184	27957.8	VB	0.032		40.916	Endrin Aldehyde
6.447	29468.4	BV	0.030		37.652	Endosulfan Sulfate
6.723	14174.3	BB	0.031		37.392	Methoxychlor
6.946	39165.0	BB	0.029		40.218	Endrin Ketone
8.077	58807.1	BB	0.032		69.574	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

EPA METHOD 8081A
Organochlorine Pesticides

Continuing Calibration

Return to Contents

CCV ASSOCIATION SUMMARY
FOR METHOD: EPA 8081A

BATCH ID: **131113A** ANALYZED BY: 500
INSTRUMENT: GC 51

WORK ORDER: **099-12-528** REVIEWED BY: 27
MATRIX: Water D/T REVIEWED: 11/14/2013 10:34

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
3405	Daily Calibration	11/13/2013 16:20	W:\DATA\131113\1311132113111321

WORK ORDER: **13-11-0697** REVIEWED BY: 27
MATRIX: Soil D/T REVIEWED: 11/15/2013 17:19

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
8	12-SS-13.25-15.25	11/13/2013 17:03	W:\DATA\131113\1311132613111326

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8081A

CCV WORK ORDER: 099-12-528-3405-5152
BATCH ID:
INITIAL: 131105
CCV: 131113A
INSTRUMENT: GC 51

DATA FILE: W:\DATA\131113\1311132113111321

ANALYZED BY: 500
D/T ANALYZED:
INITIAL: 11/05/2013 18:20
CCV: 11/13/2013 16:20
REVIEWED BY: 27
D/T REVIEWED: 11/14/2013 10:34

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Alpha-BHC	Avg Resp	0.00	770.540	746.703			3	0-15	PASS
Gamma-BHC	Avg Resp	0.00	690.458	669.645			3	0-15	PASS
Beta-BHC	Avg Resp	0.00	307.850	300.390			2	0-15	PASS
Heptachlor	Avg Resp	0.00	697.022	665.895			4	0-15	PASS
Delta-BHC	Avg Resp	0.00	720.587	741.308			-3	0-15	PASS
Aldrin	Avg Resp	0.00	702.571	654.758			7	0-15	PASS
Heptachlor Epoxide	Avg Resp	0.00	638.813	597.630			6	0-15	PASS
Endosulfan I	Avg Resp	0.00	640.935	572.218			11	0-15	PASS
Dieldrin	Avg Resp	0.00	634.213	608.263			4	0-15	PASS
4,4'-DDE	Avg Resp	0.00	541.943	545.835			-1	0-15	PASS
Endrin	Avg Resp	0.00	568.648	501.920			12	0-15	PASS
Endrin Aldehyde	Avg Resp	0.00	452.582	425.303			6	0-15	PASS
4,4'-DDD	Avg Resp	0.00	481.427	467.133			3	0-15	PASS
Endosulfan II	Avg Resp	0.00	538.922	527.353			2	0-15	PASS
4,4'-DDT	Avg Resp	0.00	515.022	498.625			3	0-15	PASS
Endosulfan Sulfate	Avg Resp	0.00	527.443	477.440			9	0-15	PASS
Methoxychlor	Avg Resp	0.00	254.266	237.508			7	0-15	PASS
Chlordane	Avg Resp	0.00	290.292	262.892			9	0-15	PASS
Toxaphene	Avg Resp	0.00	116.345	103.635			11	0-15	PASS
Endrin Ketone	Avg Resp	0.00	629.932	569.255			10	0-15	PASS

MIN RF: Method Specified Minimum Response Factor

Return to Contents

External Standard Report

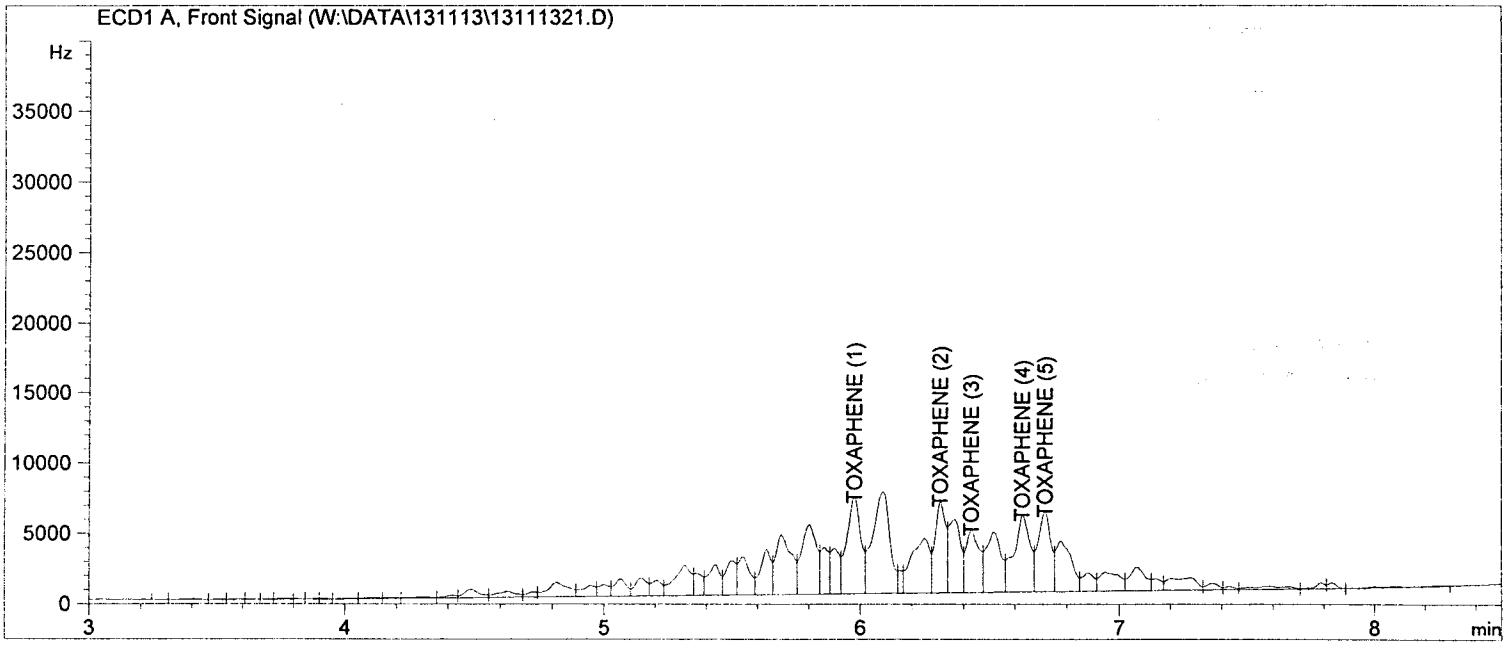
Data File Name : W:\DATA\131113\13111321.D
Operator : 500 Vial Number : Vial 4
Instrument : GC 51 Sequence Line : 22
Sample Name : TOX S082313R 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-F
Acquired on : 13 Nov 13 04:20 pm Method : EPA 8081A
Report Created on: 13 Nov 13 04:31 pm Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105F.M

Sig. ECD1 A, W:\DATA\131113\13111321.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.978	26007.51	VV	0.053		223.54	TOXAPHENE (1)
6.312	18636.11	VV	0.039		160.18	TOXAPHENE (2)
6.432	15838.96	VV	0.059		136.14	TOXAPHENE (3)
6.630	23696.55	VV	0.073		203.67	TOXAPHENE (4)
6.717	19455.58	VV	0.057		167.22	TOXAPHENE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.974	103634.72	VV	0.00860	890.75	Toxaphene
6.716		VV	0.00860		
6.626		VV	0.00860		
6.429		VV	0.00860		
6.309		VV	0.00860		



Return to Contents

External Standard Report

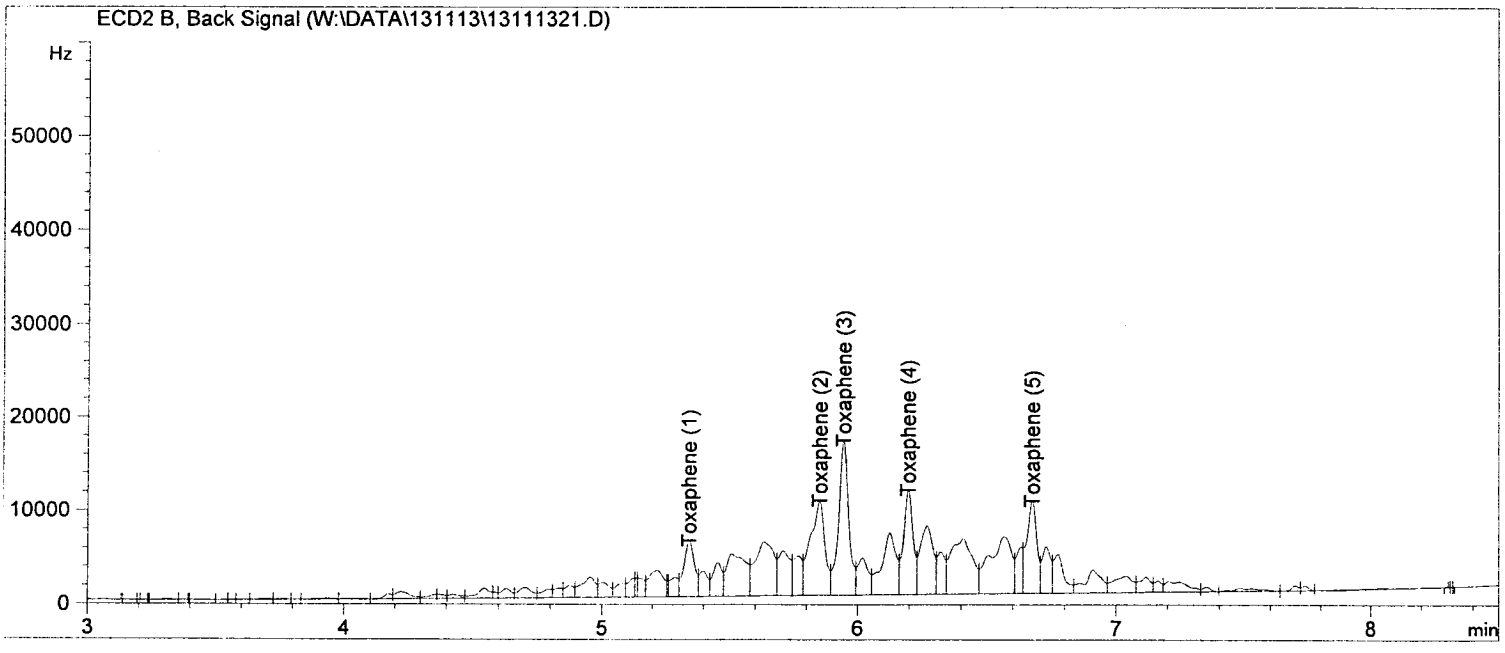
Data File Name : W:\DATA\131113\13111321.D
Operator : 500 Vial Number : Vial 4
Instrument : GC 51 Sequence Line : 22
Sample Name : TOX S082313R 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-R
Acquired on : 13 Nov 13 04:20 pm Method : EPA 8081A
Report Created on: 13 Nov 13 04:32 pm Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105R.M

Sig. ECD2 B, W:\DATA\131113\13111321.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.343	17619.92	VV	0.042		99.95	Toxaphene (1)
5.852	39990.05	VV	0.066		226.85	Toxaphene (2)
5.946	46177.27	VV	0.047		261.95	Toxaphene (3)
6.197	28846.95	VV	0.043		163.64	Toxaphene (4)
6.677	26698.15	VV	0.045		151.45	Toxaphene (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.348	159332.33	VV	0.00567	903.84	Toxaphene
6.681		VV	0.00567		
6.203		VV	0.00567		
5.952		VV	0.00567		
5.857		VV	0.00567		



Return to Contents

External Standard Report

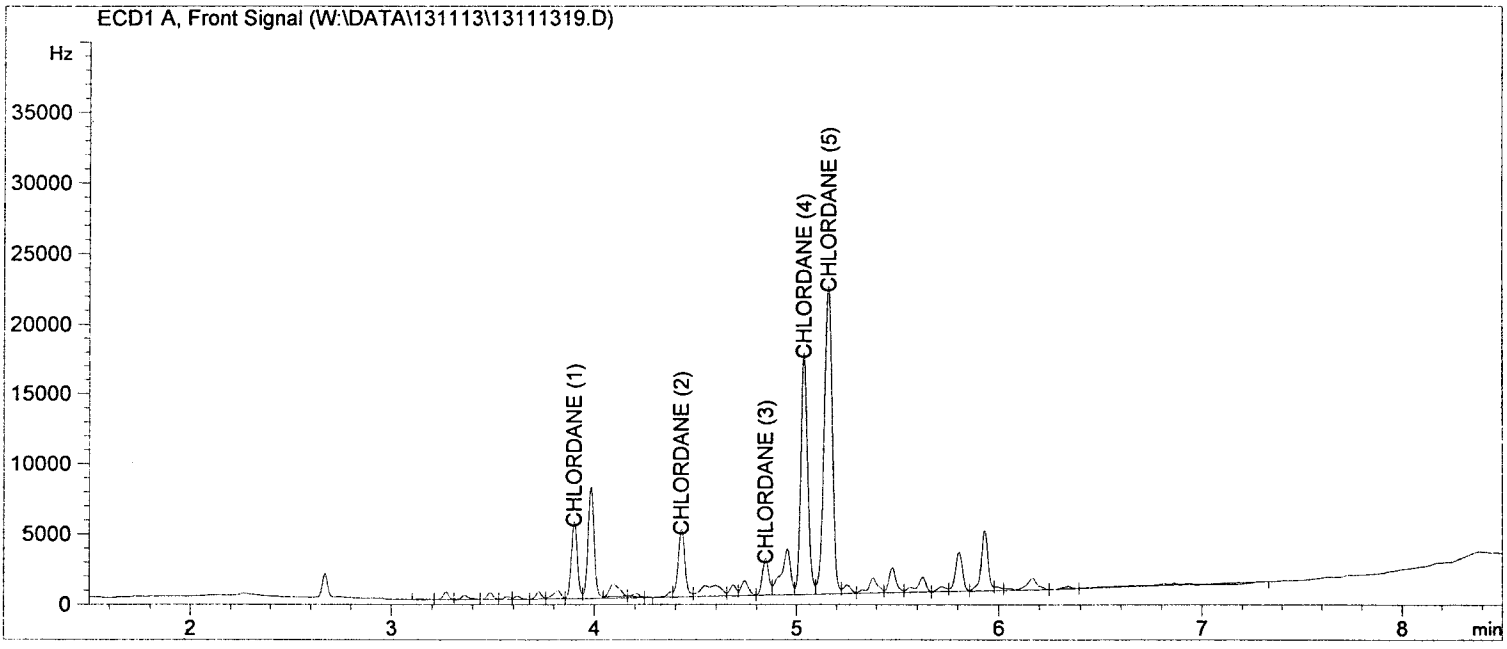
Data File Name : W:\DATA\131113\13111319.D
Operator : 500 Vial Number : Vial 3
Instrument : GC 51 Sequence Line : 20
Sample Name : CH S082313Q 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-F
Acquired on : 13 Nov 13 02:56 pm Method : EPA 8081A
Report Created on: 13 Nov 13 03:08 pm Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105F.M

Sig. ECD1 A, W:\DATA\131113\13111319.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.901	11293.60	VV	0.032		38.90	CHLORDANE (1)
4.429	11318.88	VV	0.036		38.99	CHLORDANE (2)
4.846	6026.41	VV	0.038		20.76	CHLORDANE (3)
5.038	40760.28	VV	0.039		140.41	CHLORDANE (4)
5.161	62046.80	VV	0.047		213.74	CHLORDANE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.892	131445.96	VV	0.00344	452.81	Chlordane
5.154		VV	0.00344		
5.031		VV	0.00344		
4.838		VV	0.00344		
4.420		VV	0.00344		



Return to Contents

External Standard Report

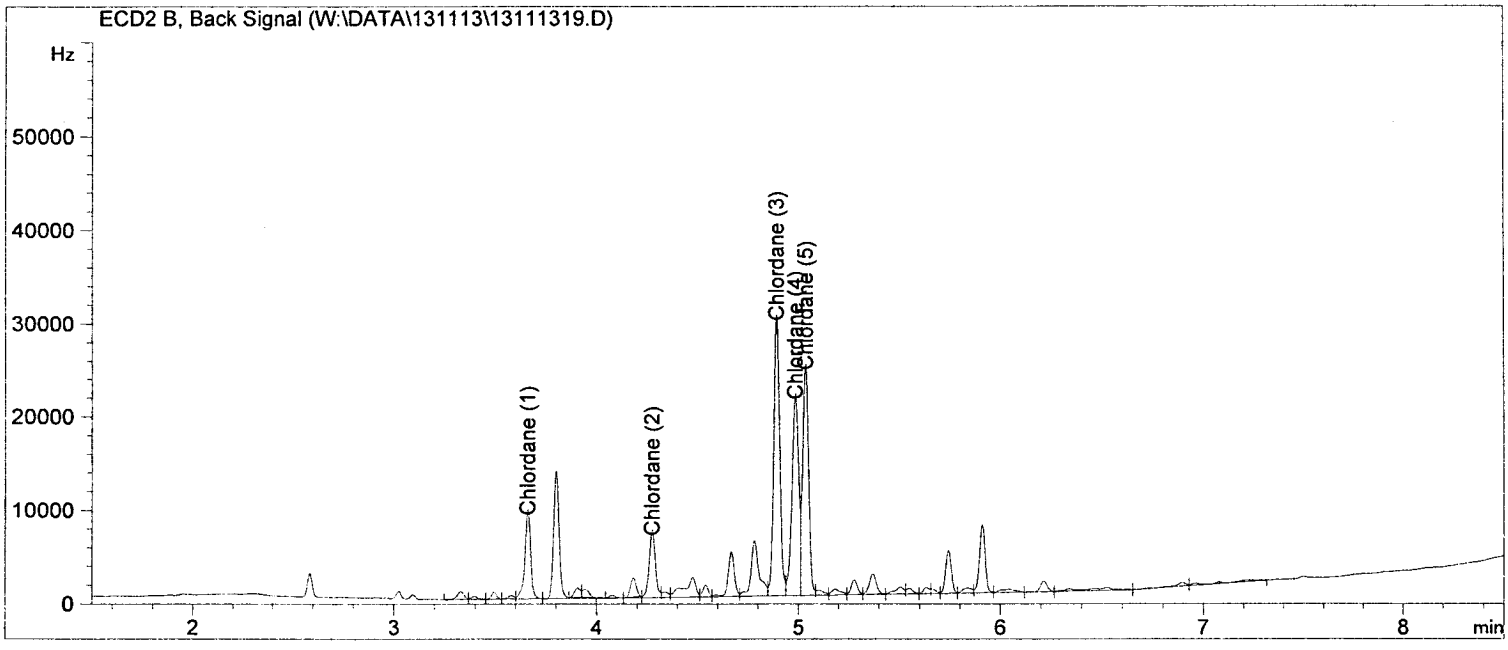
Data File Name : W:\DATA\131113\13111319.D
Operator : 500 Vial Number : Vial 3
Instrument : GC 51 Sequence Line : 20
Sample Name : CH S082313Q 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-R
Acquired on : 13 Nov 13 02:56 pm Method : EPA 8081A
Report Created on: 13 Nov 13 03:08 pm Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105R.M

Sig. ECD2 B, W:\DATA\131113\13111319.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.661	18996.47	VB	0.030		46.44	Chlordane (1)
4.274	15558.96	VV	0.034		38.04	Chlordane (2)
4.894	62025.94	VV	0.034		151.64	Chlordane (3)
4.987	49562.84	VV	0.038		121.17	Chlordane (4)
5.037	50209.08	VV	0.034		122.75	Chlordane (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.663	196353.29	VB	0.00244	480.04	Chlordane
4.279		VV	0.00244		
4.898		VV	0.00244		
5.041		VV	0.00244		
4.992		VV	0.00244		



Return to Contents

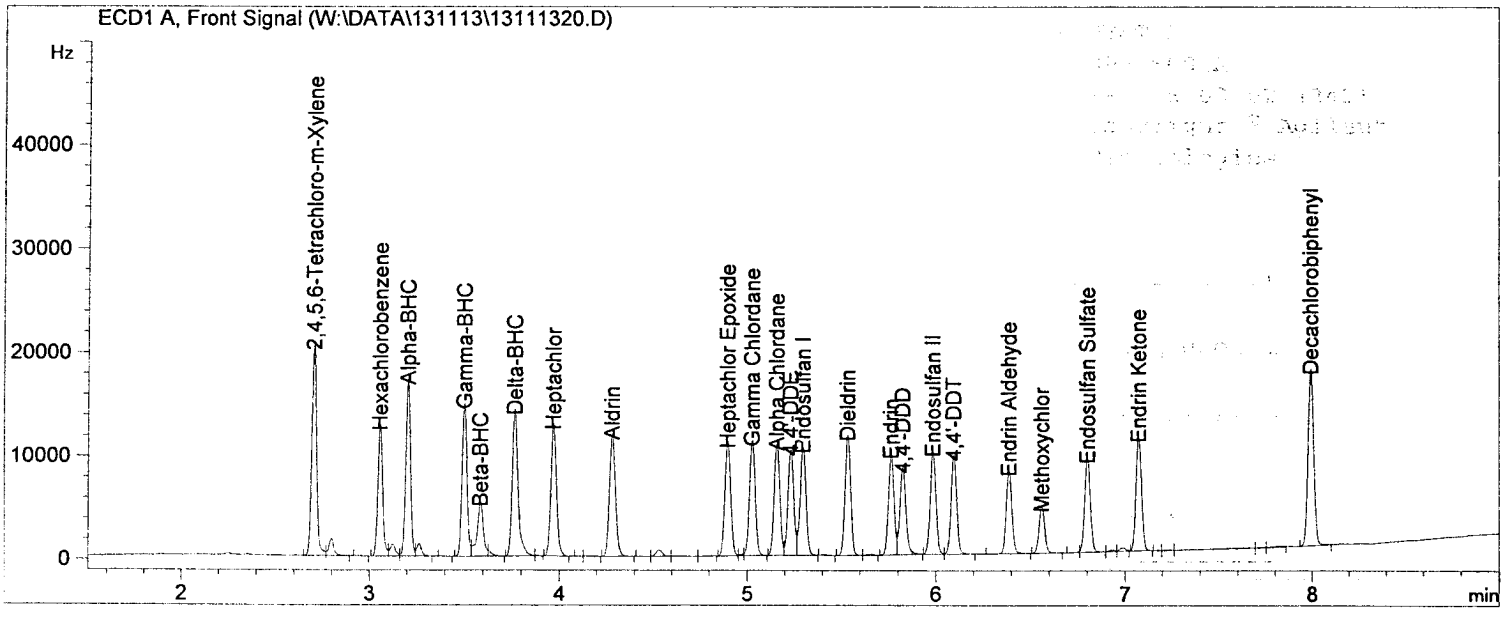
External Standard Report

Data File Name : W:\DATA\131113\13111320.D
Operator : 500
Instrument : GC 51
Sample Name : P S080713L 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 13 Nov 13 03:50 pm
Report Created on: 13 Nov 13 04:16 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 2
Injection Number : 1
Sequence Line : 21
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
Copyright © Agilent Technologies

Sig. ECD1 A, W:\DATA\131113\13111320.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.707	35569.4	BV	0.027		81.859	2,4,5,6-Tetrachloro-m-Xylene
3.057	22904.4	BV	0.027		39.208	Hexachlorobenzene
3.205	29868.1	VV	0.027		38.763	Alpha-BHC
3.503	26785.8	BV	0.028		38.794	Gamma-BHC
3.587	12015.6	VB	0.037		39.031	Beta-BHC
3.766	29652.3	BB	0.032		41.150	Delta-BHC
3.971	26635.8	BB	0.032		38.214	Heptachlor
4.283	26190.3	BB	0.035		37.278	Aldrin
4.898	23905.2	BB	0.034		37.421	Heptachlor Epoxide
5.028	24014.6	VB	0.034		36.938	Gamma Chlordane
5.159	22889.9	BV	0.034		37.895	Alpha Chlordane
5.232	21833.4	VV	0.036		40.287	4,4'-DDE
5.297	22888.7	VB	0.037		35.711	Endosulfan I
5.535	24330.5	BB	0.033		38.363	Dieldrin
5.765	20076.8	BV	0.032		35.306	Endrin
5.826	18685.3	VB	0.037		38.812	4,4'-DDD
5.986	21094.1	BV	0.033		39.141	Endosulfan II
6.097	19945.0	VB	0.032		38.727	4,4'-DDT
6.388	17012.1	BB	0.033		37.589	Endrin Aldehyde
6.561	9500.3	BB	0.033		37.364	Methoxychlor
6.802	19097.6	VB	0.032		36.208	Endosulfan Sulfate
7.074	22770.2	BB	0.033		36.147	Endrin Ketone
7.994	36590.3	BV	0.033		69.360	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131113\13111320.D
Operator : 500
Instrument : GC 51
Sample Name : P S080713L 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 13 Nov 13 03:50 pm
Report Created on: 13 Nov 13 04:16 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 2
Injection Number : 1
Sequence Line : 21
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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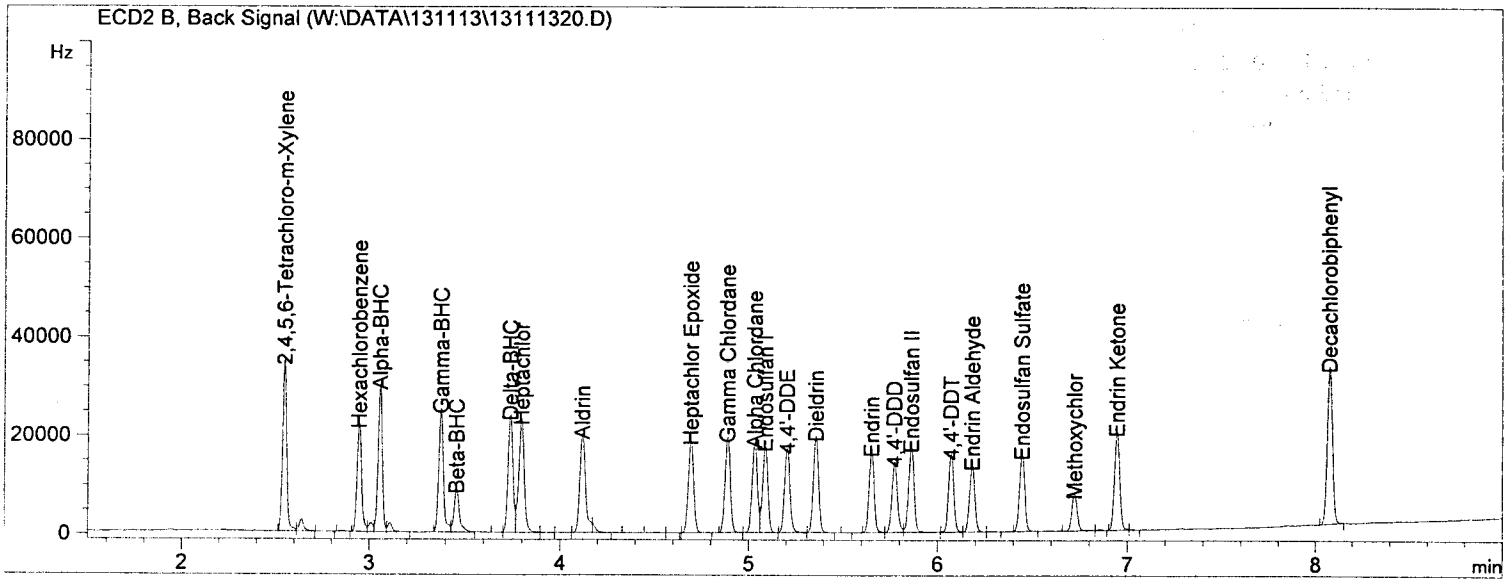
Sig. ECD2 B, W:\DATA\131113\13111320.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.547	54027.9	BV	0.024		81.153	2,4,5,6-Tetrachloro-m-Xylene
2.946	36972.4	BV	0.026		40.256	Hexachlorobenzene
3.056	46122.7	VV	0.026		39.277	Alpha-BHC
3.376	42282.9	BV	0.026		39.331	Gamma-BHC
3.457	17438.2	VV	0.032		39.682	Beta-BHC
3.737	42795.5	VV	0.027		43.331	Delta-BHC
3.795	45898.3	VB	0.033		37.706	Heptachlor
4.119	43250.2	BB	0.033		40.168	Aldrin
4.694	37109.2	BB	0.030		38.886	Heptachlor Epoxide
4.889	38075.2	BB	0.031		38.270	Gamma Chlordane
5.032	35996.5	BV	0.030		38.321	Alpha Chlordane
5.088	34589.7	VB	0.033		38.404	Endosulfan I
5.204	34542.3	BB	0.031		41.760	4,4'-DDE
5.358	38283.8	BB	0.031		37.776	Dieldrin
5.653	31565.9	BV	0.030		36.370	Endrin
5.774	28930.1	VV	0.031		41.304	4,4'-DDD
5.862	33890.8	VB	0.033		37.311	Endosulfan II
6.072	30322.0	BV	0.030		40.151	4,4'-DDT
6.182	26111.6	VV	0.030		38.214	Endrin Aldehyde
6.446	30235.4	BV	0.030		38.632	Endosulfan Sulfate
6.722	14643.0	BB	0.030		38.628	Methoxychlor
6.946	38356.1	BB	0.030		39.387	Endrin Ketone
8.078	62117.0	BB	0.030		73.490	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

CONTINUING CALIBRATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8081A

BATCH ID:
INITIAL: **131105**
CCV: 131113B
INSTRUMENT: GC 51

D/T ANALYZED:
INITIAL: 11/05/2013 18:20
CCV: 11/13/2013 19:55
REVIEWED BY: 27
D/T REVIEWED: 11/07/2013 15:20

DATA FILE: W:\DATA\131113\1311133613111336

COMPOUND NAME	INITIAL RF	INITIAL RSD	RSD ALLOWED	CCV RF	% DIFF	% DIFF ALLOWED	STATUS
Alpha-BHC	7.705E+002	6	0-20	7.101E+002	8	0-15	PASS
Gamma-BHC	6.905E+002	6	0-20	6.394E+002	7	0-15	PASS
Beta-BHC	3.079E+002	4	0-20	2.933E+002	5	0-15	PASS
Heptachlor	6.970E+002	5	0-20	6.360E+002	9	0-15	PASS
Delta-BHC	7.206E+002	7	0-20	7.124E+002	1	0-15	PASS
Aldrin	7.026E+002	4	0-20	6.473E+002	8	0-15	PASS
Heptachlor Epoxide	6.388E+002	3	0-20	5.934E+002	7	0-15	PASS
Endosulfan I	6.409E+002	2	0-20	5.643E+002	12	0-15	PASS
Dieldrin	6.342E+002	4	0-20	5.981E+002	6	0-15	PASS
4,4'-DDE	5.419E+002	9	0-20	5.554E+002	2	0-15	PASS
Endrin	5.686E+002	5	0-20	5.238E+002	8	0-15	PASS
Endrin Aldehyde	4.526E+002	4	0-20	4.305E+002	5	0-15	PASS
4,4'-DDD	4.814E+002	8	0-20	4.770E+002	1	0-15	PASS
Endosulfan II	5.389E+002	4	0-20	5.243E+002	3	0-15	PASS
4,4'-DDT	5.150E+002	8	0-20	5.132E+002	0	0-15	PASS
Endosulfan Sulfate	5.274E+002	3	0-20	4.893E+002	7	0-15	PASS
Methoxychlor	2.543E+002	3	0-20	2.502E+002	2	0-15	PASS
Chlordane	2.903E+002	5	0-20	2.621E+002	10	0-15	PASS
Toxaphene	1.163E+002	8	0-20	9.980E+001	14	0-15	PASS
Endrin Ketone	6.299E+002	3	0-25	5.845E+002	7	0-15	PASS
Alpha Chlordane	6.040E+002	4	0-25	5.681E+002	6	0-15	PASS
Gamma Chlordane	6.501E+002	4	0-25	5.912E+002	9	0-15	PASS

Return to Contents

External Standard Report

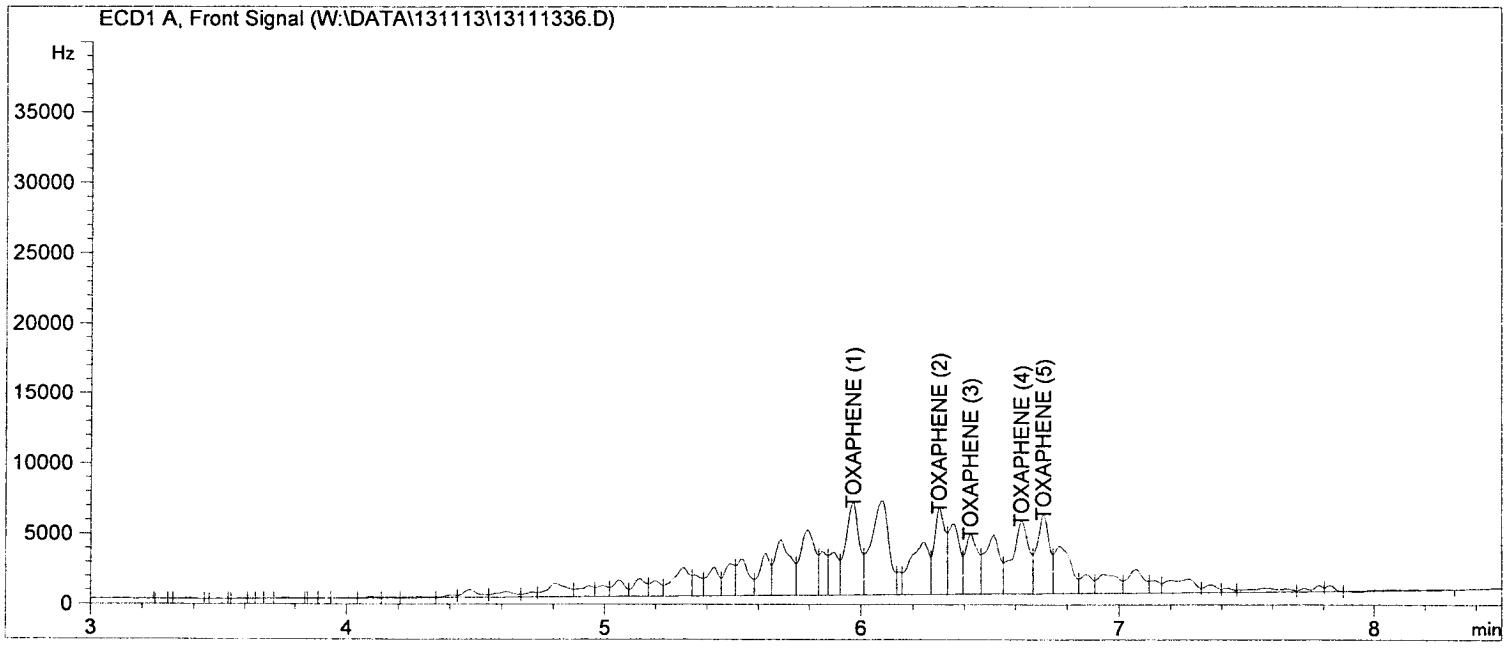
Data File Name : W:\DATA\131113\13111336.D
Operator : 500 Vial Number : Vial 4
Instrument : GC 51 Sequence Line : 37
Sample Name : TOX S082313R 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-F
Acquired on : 13 Nov 13 07:55 pm Method : EPA 8081A
Report Created on: 14 Nov 13 08:44 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105F.M

Sig. ECD1 A, W:\DATA\131113\13111336.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.971	24625.99	VV	0.053		211.66	TOXAPHENE (1)
6.303	18222.64	VV	0.040		156.63	TOXAPHENE (2)
6.425	14493.22	VV	0.057		124.57	TOXAPHENE (3)
6.623	23608.71	VV	0.076		202.92	TOXAPHENE (4)
6.708	18854.21	VV	0.056		162.05	TOXAPHENE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.974	99804.77	VV	0.00860	857.83	Toxaphene
6.716		VV	0.00860		
6.626		VV	0.00860		
6.429		VV	0.00860		
6.309		VV	0.00860		



Return to Contents

External Standard Report

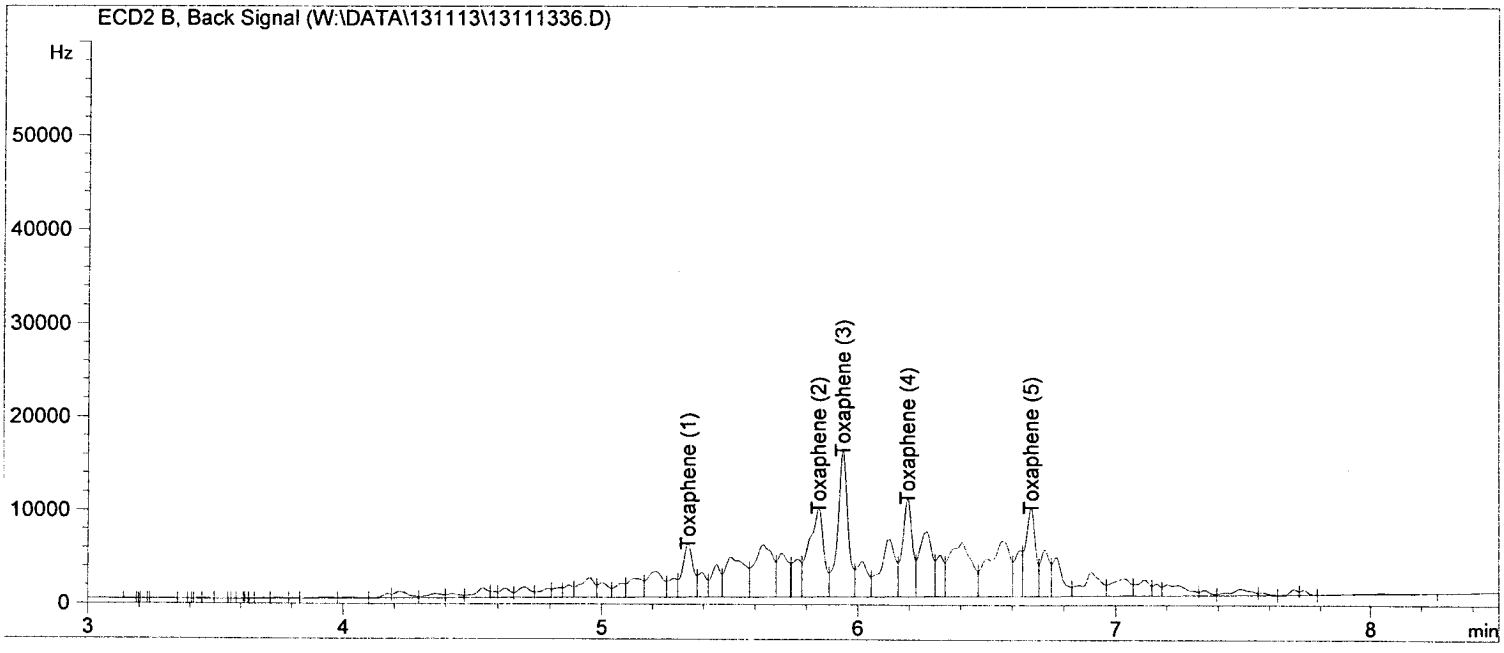
Data File Name : W:\DATA\131113\13111336.D
Operator : 500 Vial Number : Vial 4
Instrument : GC 51 Sequence Line : 37
Sample Name : TOX S082313R 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-R
Acquired on : 13 Nov 13 07:55 pm Method : EPA 8081A
Report Created on: 14 Nov 13 08:45 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105R.M

Sig. ECD2 B, W:\DATA\131113\13111336.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.340	16728.96	VV	0.044		94.90	Toxaphene (1)
5.848	38059.52	VV	0.067		215.90	Toxaphene (2)
5.943	43947.57	VV	0.047		249.30	Toxaphene (3)
6.194	27909.81	VV	0.044		158.32	Toxaphene (4)
6.674	24878.91	VV	0.044		141.13	Toxaphene (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.348	151524.78	VV	0.00567	859.55	Toxaphene
6.681		VV	0.00567		
6.203		VV	0.00567		
5.952		VV	0.00567		
5.857		VV	0.00567		



Return to Contents

External Standard Report

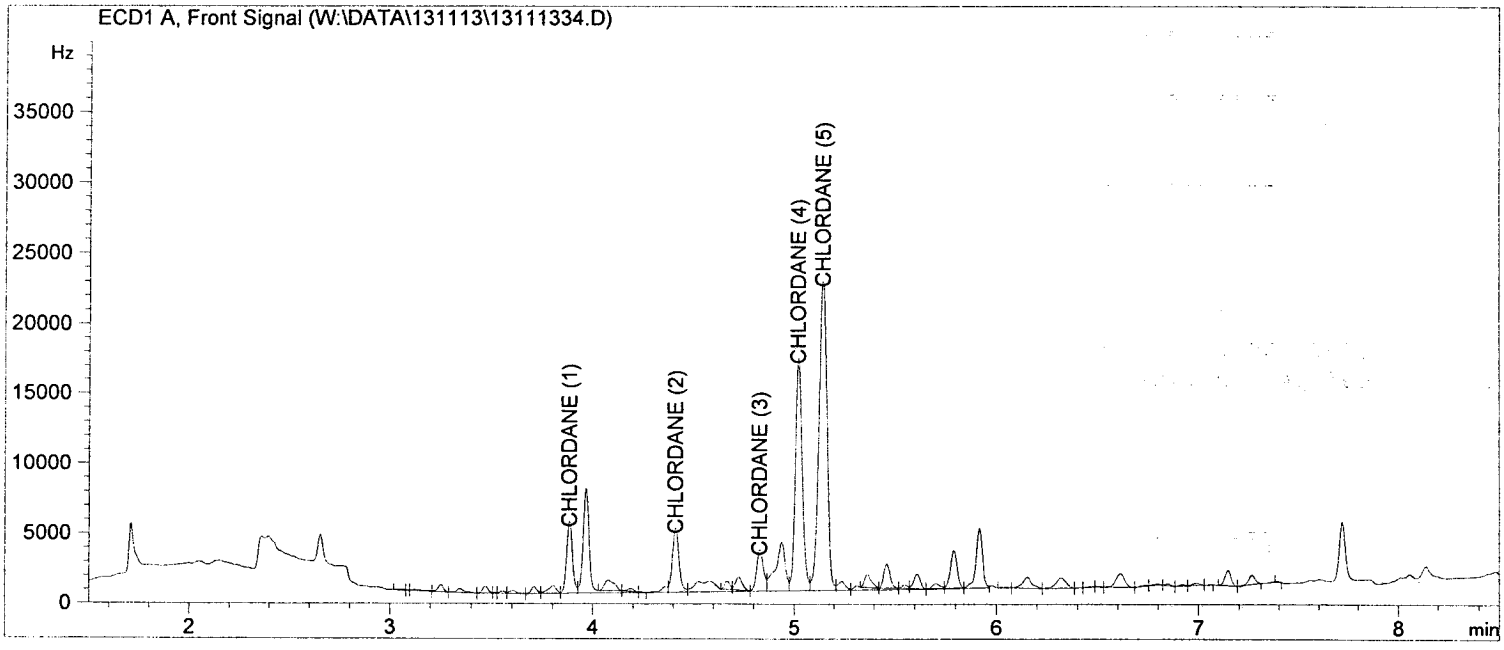
Data File Name : W:\DATA\131113\13111334.D
Operator : 500 Vial Number : Vial 3
Instrument : GC 51 Sequence Line : 35
Sample Name : CH S082313Q 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-F
Acquired on : 13 Nov 13 07:27 pm Method : EPA 8081A
Report Created on: 14 Nov 13 08:44 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105F.M

Sig. ECD1 A, W:\DATA\131113\13111334.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.885	10441.27	VV	0.031		35.97	CHLORDANE (1)
4.412	10591.41	VV	0.035		36.49	CHLORDANE (2)
4.831	7091.64	VV	0.035		24.43	CHLORDANE (3)
5.024	40140.63	VV	0.040		138.28	CHLORDANE (4)
5.145	62769.86	VV	0.047		216.23	CHLORDANE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.892	131034.81	VV	0.00344	451.39	Chlordane
5.154		VV	0.00344		
5.031		VV	0.00344		
4.838		VV	0.00344		
4.420		VV	0.00344		



Return to Contents

External Standard Report

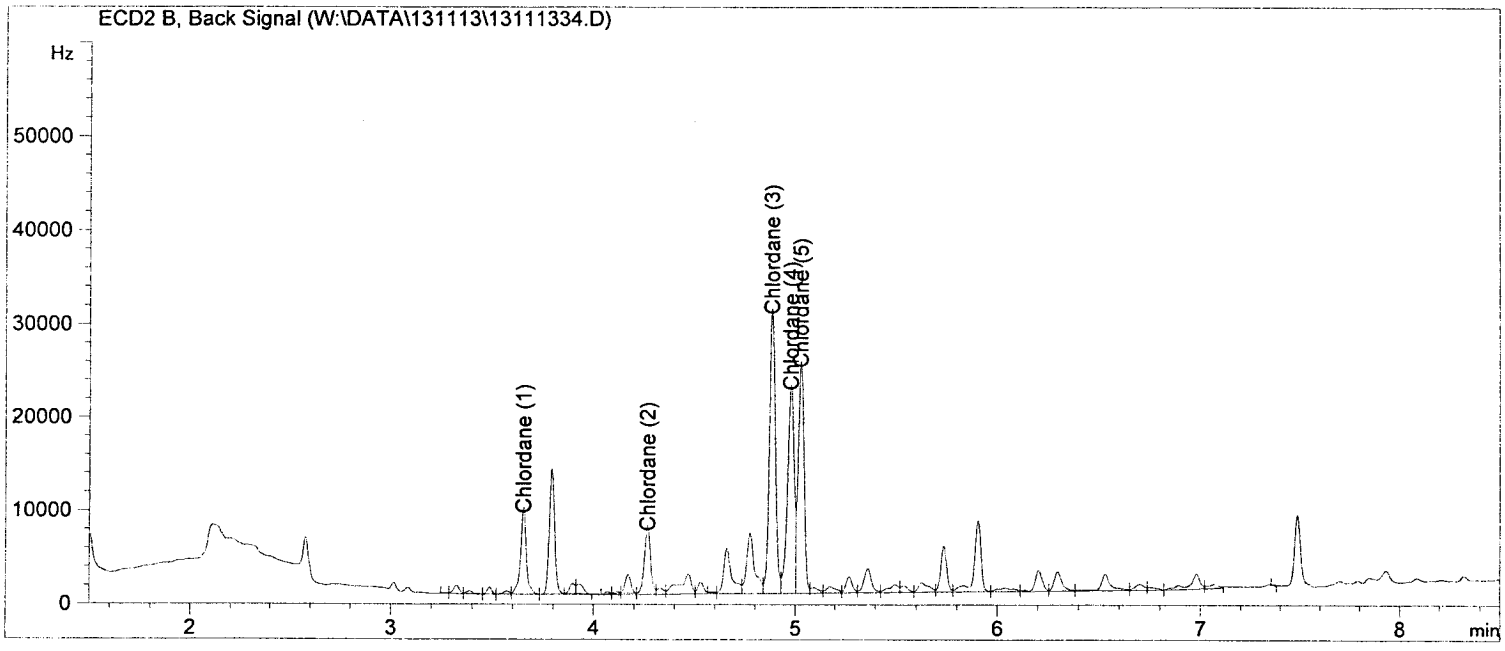
Data File Name : W:\DATA\131113\13111334.D
Operator : 500 Vial Number : Vial 3
Instrument : GC 51 Sequence Line : 35
Sample Name : CH S082313Q 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-R
Acquired on : 13 Nov 13 07:27 pm Method : EPA 8081A
Report Created on: 14 Nov 13 08:44 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105R.M

Sig. ECD2 B, W:\DATA\131113\13111334.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.653	18486.16	VB	0.030		45.19	Chlordane (1)
4.266	15737.72	VV	0.033		38.47	Chlordane (2)
4.886	64036.46	VV	0.035		156.55	Chlordane (3)
4.980	51091.62	VV	0.038		124.91	Chlordane (4)
5.030	50641.90	VV	0.034		123.81	Chlordane (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.663	199993.87	VB	0.00244	488.94	Chlordane
4.279		VV	0.00244		
4.898		VV	0.00244		
5.041		VV	0.00244		
4.992		VV	0.00244		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131113\13111335.D
Operator : 500
Instrument : GC 51
Sample Name : P S080713L 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 13 Nov 13 07:41 pm
Report Created on: 14 Nov 13 08:43 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 2
Injection Number : 1
Sequence Line : 36
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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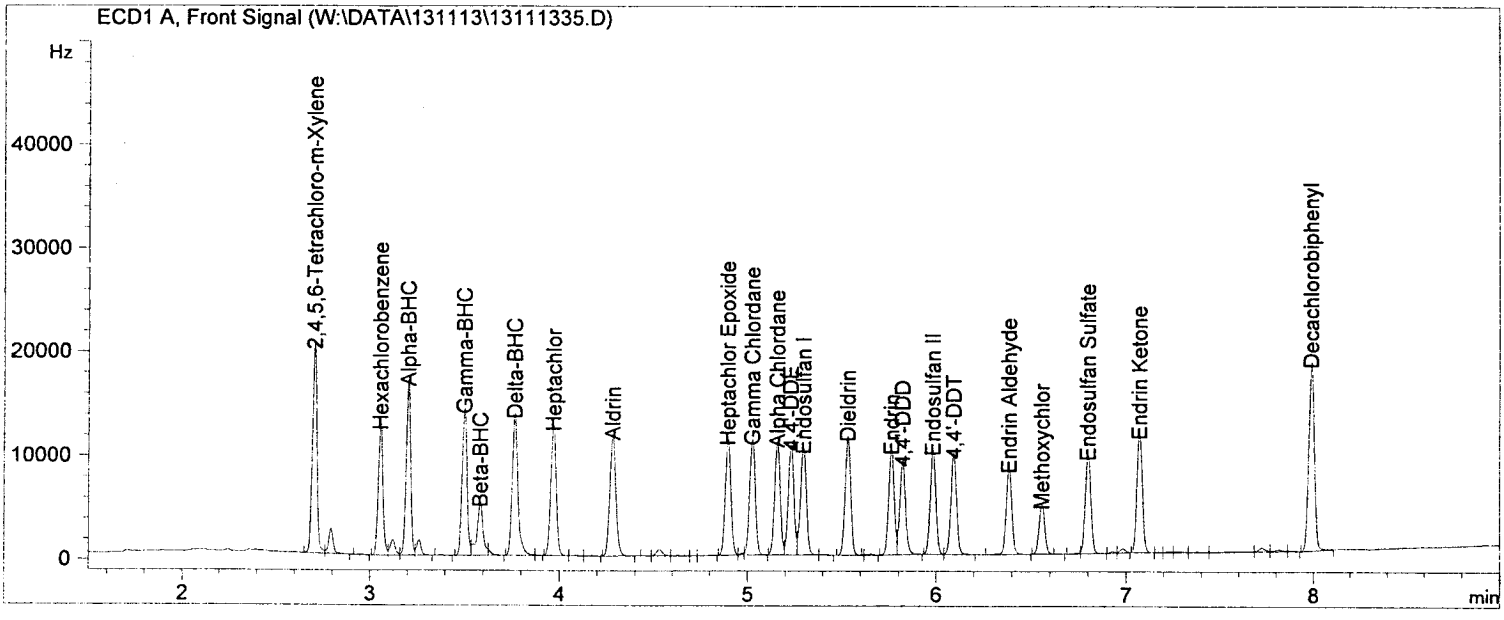
Sig. ECD1 A, W:\DATA\131113\13111335.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.705	33464.8	BV	0.026		77.015	2,4,5,6-Tetrachloro-m-Xylene
3.055	21893.7	BV	0.027		37.478	Hexachlorobenzene
3.204	28403.6	VV	0.027		36.862	Alpha-BHC
3.501	25576.5	BV	0.028		37.043	Gamma-BHC
3.585	11732.5	VB	0.037		38.111	Beta-BHC
3.765	28494.9	BB	0.032		39.544	Delta-BHC
3.970	25439.1	BB	0.032		36.497	Heptachlor
4.282	25892.9	BB	0.034		36.854	Aldrin
4.896	23735.4	BB	0.033		37.155	Heptachlor Epoxide
5.026	23647.4	VB	0.034		36.373	Gamma Chlordane
5.157	22722.9	BV	0.033		37.619	Alpha Chlordane
5.229	22217.6	VV	0.035		40.996	4,4'-DDE
5.295	22571.0	VB	0.037		35.216	Endosulfan I
5.533	23922.4	BV	0.032		37.720	Dieldrin
5.764	20951.2	BV	0.032		36.844	Endrin
5.824	19081.6	VB	0.035		39.635	4,4'-DDD
5.984	20973.5	BV	0.033		38.917	Endosulfan II
6.094	20526.2	VB	0.033		39.855	4,4'-DDT
6.386	17220.2	BB	0.032		38.049	Endrin Aldehyde
6.558	10007.1	BB	0.032		39.357	Methoxychlor
6.800	19572.2	VB	0.032		37.108	Endosulfan Sulfate
7.071	23382.0	BB	0.032		37.118	Endrin Ketone
7.990	38067.1	BB	0.033		72.159	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131113\13111335.D
Operator : 500
Instrument : GC 51
Sample Name : P S080713L 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 13 Nov 13 07:41 pm
Report Created on: 14 Nov 13 08:44 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 2
Injection Number : 1
Sequence Line : 36
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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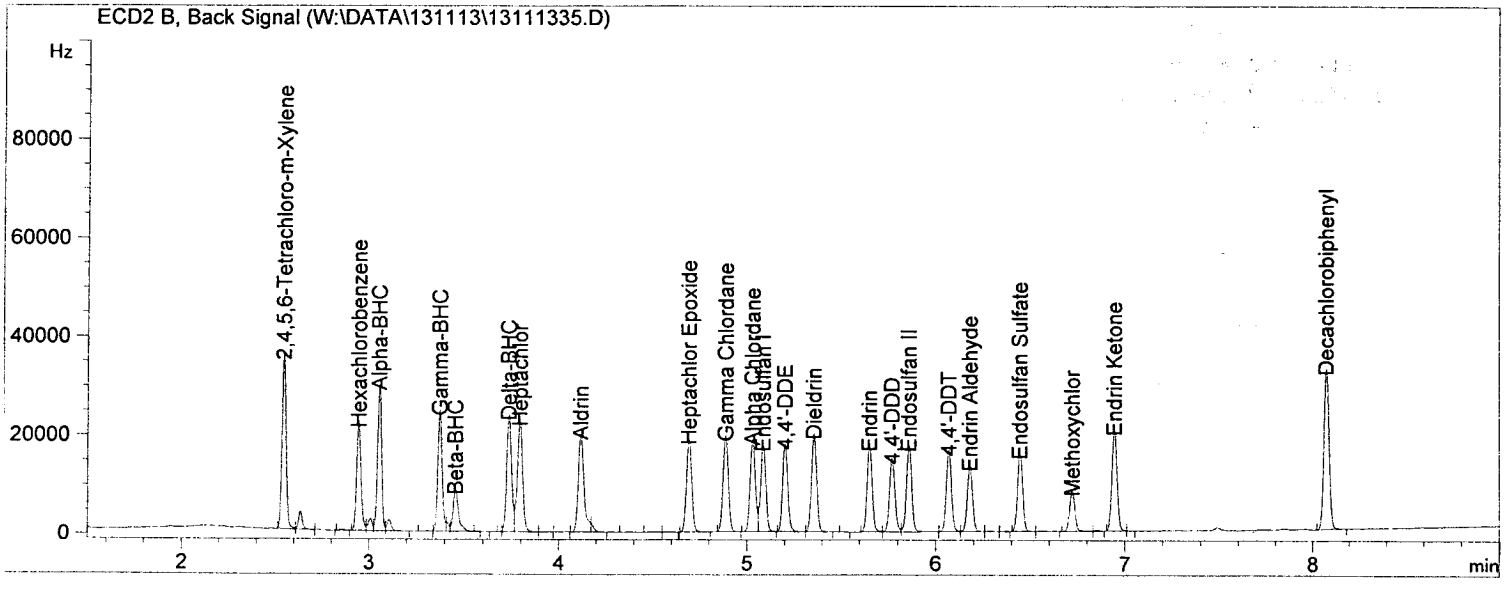
Sig. ECD2 B, W:\DATA\131113\13111335.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.547	52847.7	BV	0.023		79.381	2,4,5,6-Tetrachloro-m-Xylene
2.945	35776.5	BV	0.025		38.954	Hexachlorobenzene
3.055	44347.9	VV	0.025		37.766	Alpha-BHC
3.375	39434.5	BV	0.025		36.682	Gamma-BHC
3.457	16981.8	VB	0.033		38.643	Beta-BHC
3.736	42126.9	VV	0.027		42.654	Delta-BHC
3.795	43790.2	VV	0.032		35.974	Heptachlor
4.118	43047.0	BB	0.032		39.979	Aldrin
4.695	36802.8	BB	0.031		38.565	Heptachlor Epoxide
4.888	38054.4	BB	0.031		38.249	Gamma Chlordane
5.031	35877.0	BV	0.030		38.194	Alpha Chlordane
5.087	34504.2	VB	0.033		38.309	Endosulfan I
5.202	34337.7	BB	0.030		41.512	4,4'-DDE
5.357	38488.4	BB	0.030		37.977	Dieldrin
5.652	33076.8	BV	0.029		38.111	Endrin
5.771	29852.9	VV	0.031		42.622	4,4'-DDD
5.861	33828.6	VB	0.032		37.242	Endosulfan II
6.070	31390.0	BV	0.030		41.566	4,4'-DDT
6.181	26157.8	VV	0.030		38.282	Endrin Aldehyde
6.445	30432.8	BV	0.030		38.884	Endosulfan Sulfate
6.720	15729.5	BB	0.030		41.495	Methoxychlor
6.945	39036.3	BB	0.030		40.085	Endrin Ketone
8.076	63499.9	BB	0.031		75.126	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

CCV ASSOCIATION SUMMARY
FOR METHOD: EPA 8081A

BATCH ID: **131114** ANALYZED BY: 500
INSTRUMENT: GC 51

WORK ORDER: **099-12-528** REVIEWED BY: 27
MATRIX: Water D/T REVIEWED: 11/14/2013 15:05

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
3406	Daily Calibration	11/14/2013 10:37	W:\DATA\131114\1311140413111404

WORK ORDER: **13-11-0697** REVIEWED BY: 27
MATRIX: Soil D/T REVIEWED: 11/15/2013 17:19

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
3	8-SS-5-6	11/14/2013 13:43	W:\DATA\131114\1311141713111417
4	8-SS-9.5-10.5	11/14/2013 13:58	W:\DATA\131114\1311141813111418
5	8-SS-14.25-15.25	11/14/2013 14:12	W:\DATA\131114\1311141913111419
6	12-SS-5-6	11/14/2013 14:26	W:\DATA\131114\1311142013111420
7	12-SS-9.5-10.5	11/14/2013 14:41	W:\DATA\131114\1311142113111421
9	6-SS-5-6	11/14/2013 12:45	W:\DATA\131114\1311141313111413
10	6-SS-9-11	11/14/2013 13:00	W:\DATA\131114\1311141413111414
11	60-SS-9-11	11/14/2013 13:14	W:\DATA\131114\1311141513111415
12	6-SS-13.75-14.75	11/14/2013 13:29	W:\DATA\131114\1311141613111416

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8081A

CCV WORK ORDER: 099-12-528-3406-5152
BATCH ID:
INITIAL: 131105
CCV: 131114
INSTRUMENT: GC 51

DATA FILE: W:\DATA\131114\1311140413111404

ANALYZED BY: 500
D/T ANALYZED:
INITIAL: 11/05/2013 18:20
CCV: 11/14/2013 10:37
REVIEWED BY: 27
D/T REVIEWED: 11/14/2013 15:05

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Alpha-BHC	Avg Resp	0.00	770.540	799.638			-4	0-15	PASS
Gamma-BHC	Avg Resp	0.00	690.458	714.620			-4	0-15	PASS
Beta-BHC	Avg Resp	0.00	307.850	275.740			10	0-15	PASS
Heptachlor	Avg Resp	0.00	697.022	692.405			1	0-15	PASS
Delta-BHC	Avg Resp	0.00	720.587	738.653			-3	0-15	PASS
Aldrin	Avg Resp	0.00	702.571	673.450			4	0-15	PASS
Heptachlor Epoxide	Avg Resp	0.00	638.813	614.443			4	0-15	PASS
Endosulfan I	Avg Resp	0.00	640.935	595.760			7	0-15	PASS
Dieldrin	Avg Resp	0.00	634.213	621.550			2	0-15	PASS
4,4'-DDE	Avg Resp	0.00	541.943	560.605			-3	0-15	PASS
Endrin	Avg Resp	0.00	568.648	566.230			0	0-15	PASS
Endrin Aldehyde	Avg Resp	0.00	452.582	438.283			3	0-15	PASS
4,4'-DDD	Avg Resp	0.00	481.427	479.960			0	0-15	PASS
Endosulfan II	Avg Resp	0.00	538.922	548.775			-2	0-15	PASS
4,4'-DDT	Avg Resp	0.00	515.022	551.810			-7	0-15	PASS
Endosulfan Sulfate	Avg Resp	0.00	527.443	510.150			3	0-15	PASS
Methoxychlor	Avg Resp	0.00	254.266	263.118			-3	0-15	PASS
Chlordane	Avg Resp	0.00	290.292	263.811			9	0-15	PASS
Toxaphene	Avg Resp	0.00	116.345	111.715			4	0-15	PASS
Endrin Ketone	Avg Resp	0.00	629.932	600.038			5	0-15	PASS

MIN RF: Method Specified Minimum Response Factor

Return to Contents

External Standard Report

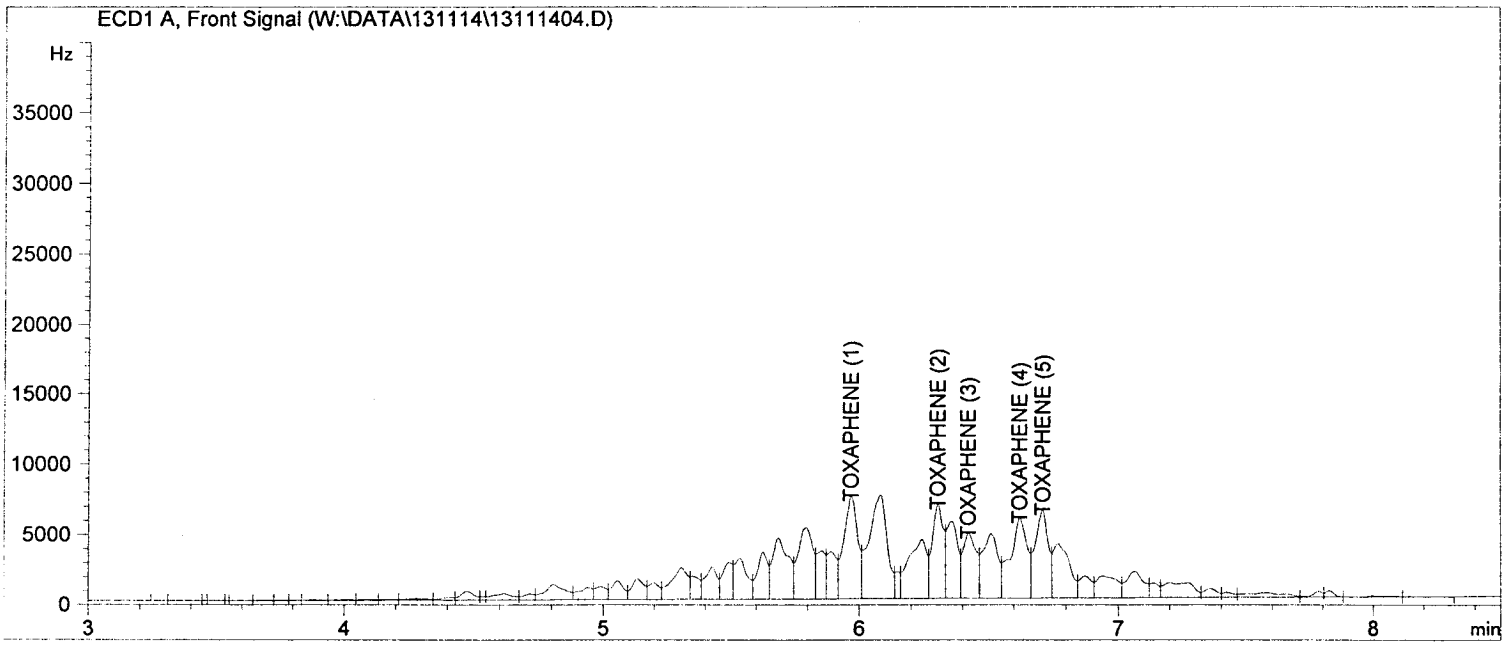
Data File Name : W:\DATA\131114\13111404.D
Operator : 500 Vial Number : Vial 4
Instrument : GC 51 Sequence Line : 5
Sample Name : TOX S082313R 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-F
Acquired on : 14 Nov 13 10:37 am Method : EPA 8081A
Report Created on: 14 Nov 13 10:50 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105F.M

Sig. ECD1 A, W:\DATA\131114\13111404.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.969	27213.74	VV	0.051		233.90	TOXAPHENE (1)
6.305	20197.06	VV	0.043		173.60	TOXAPHENE (2)
6.424	16681.61	VV	0.060		143.38	TOXAPHENE (3)
6.624	25887.56	VV	0.075		222.51	TOXAPHENE (4)
6.712	21734.82	VV	0.058		186.81	TOXAPHENE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.974	111714.79	VV	0.00860	960.20	Toxaphene
6.716		VV	0.00860		
6.626		VV	0.00860		
6.429		VV	0.00860		
6.309		VV	0.00860		



Return to Contents

External Standard Report

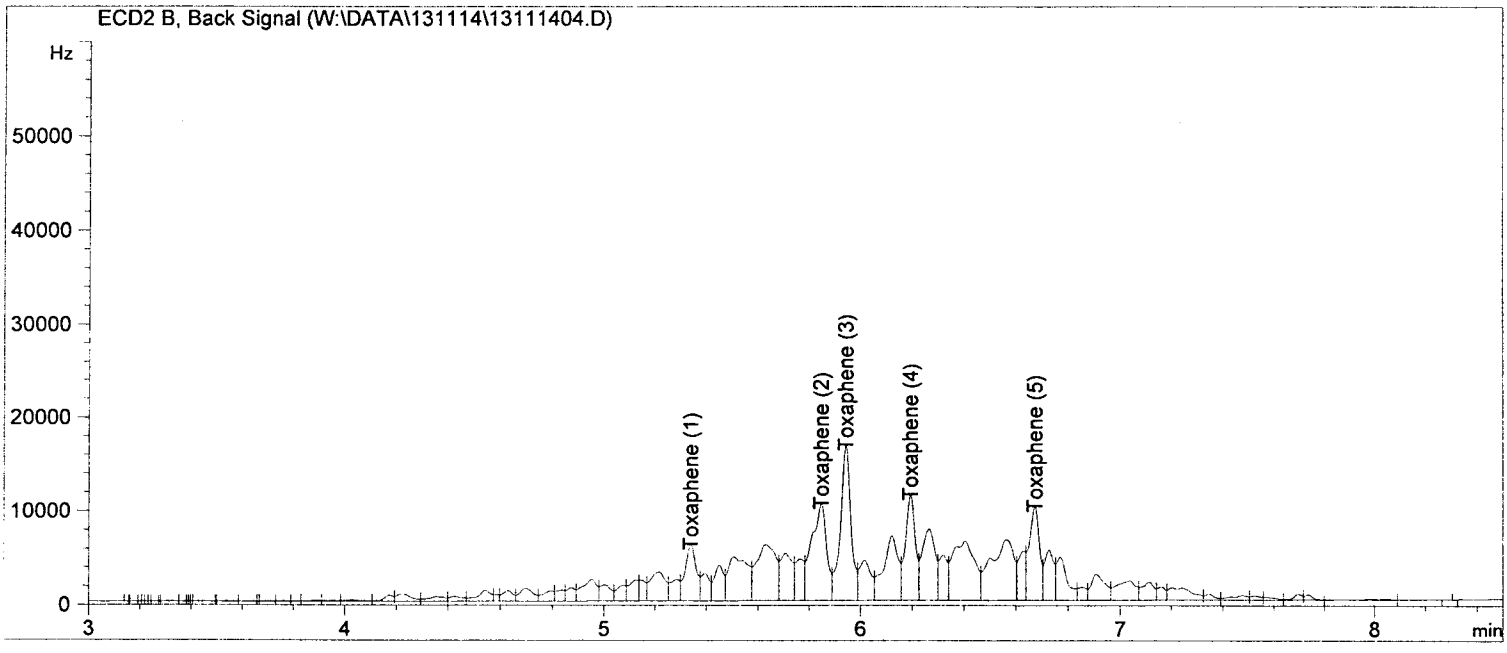
Data File Name : W:\DATA\131114\13111404.D
Operator : 500 Vial Number : Vial 4
Instrument : GC 51 Sequence Line : 5
Sample Name : TOX S082313R 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-R
Acquired on : 14 Nov 13 10:37 am Method : EPA 8081A
Report Created on: 14 Nov 13 10:51 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105R.M

Sig. ECD2 B, W:\DATA\131114\13111404.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.340	18248.36	VV	0.044		103.52	Toxaphene (1)
5.847	41849.45	VV	0.067		237.40	Toxaphene (2)
5.944	47590.07	VV	0.048		269.96	Toxaphene (3)
6.194	30312.99	VV	0.045		171.96	Toxaphene (4)
6.674	27465.60	VV	0.046		155.80	Toxaphene (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.348	165466.46	VV	0.00567	938.64	Toxaphene
6.681		VV	0.00567		
6.203		VV	0.00567		
5.952		VV	0.00567		
5.857		VV	0.00567		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131114\13111402.D
Operator : 500
Instrument : GC 51
Sample Name : P S080713L 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 14 Nov 13 09:54 am
Report Created on: 14 Nov 13 10:09 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 2
Injection Number : 1
Sequence Line : 3
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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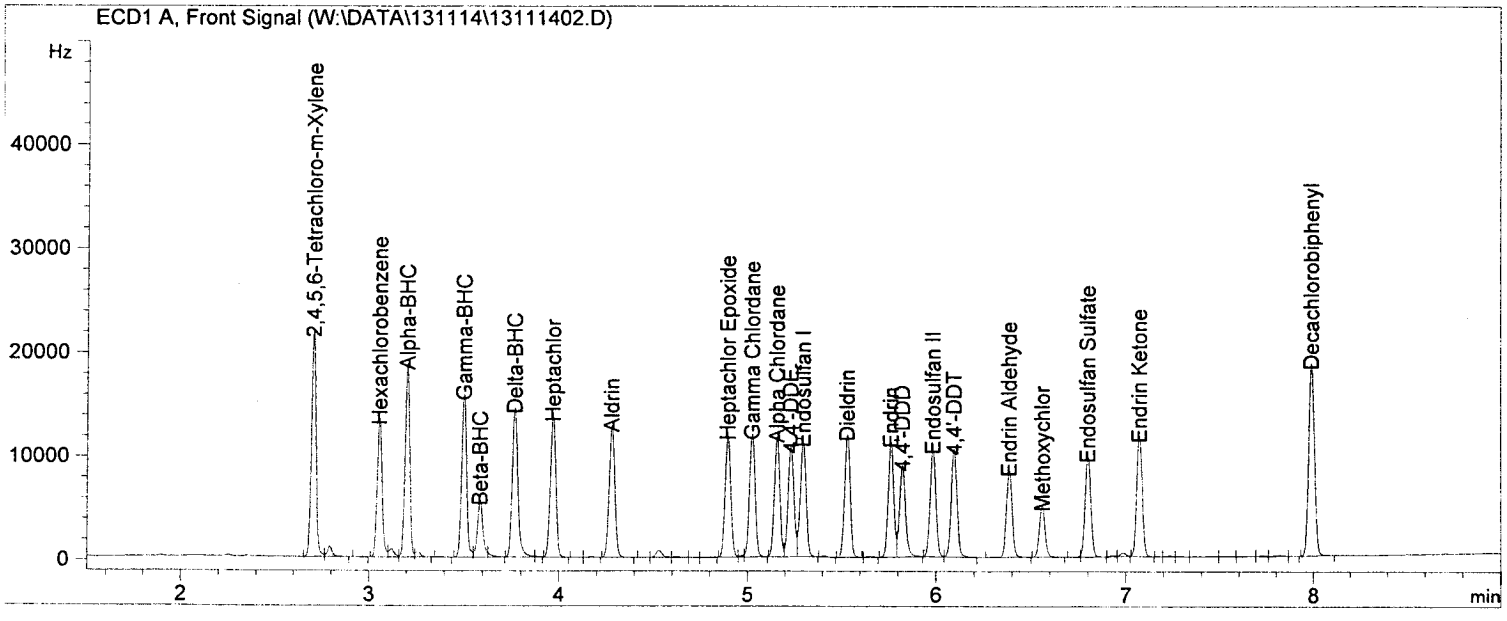
Sig. ECD1 A, W:\DATA\131114\13111402.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.706	36927.8	BV	0.026		84.985	2,4,5,6-Tetrachloro-m-Xylene
3.056	24032.4	BV	0.029		41.139	Hexachlorobenzene
3.204	31985.5	VV	0.027		41.511	Alpha-BHC
3.502	28584.8	BV	0.029		41.400	Gamma-BHC
3.586	11029.6	VB	0.033		35.828	Beta-BHC
3.767	29546.1	BB	0.031		41.003	Delta-BHC
3.970	27696.2	BB	0.032		39.735	Heptachlor
4.282	26938.0	BB	0.033		38.342	Aldrin
4.896	24577.7	BB	0.033		38.474	Heptachlor Epoxide
5.026	24774.6	VB	0.032		38.107	Gamma Chlordane
5.158	23617.4	BV	0.032		39.100	Alpha Chlordane
5.230	22424.2	VV	0.035		41.377	4,4'-DDE
5.295	23830.4	VB	0.036		37.181	Endosulfan I
5.533	24862.0	BV	0.033		39.201	Dieldrin
5.765	22649.2	BV	0.031		39.830	Endrin
5.825	19198.4	VB	0.036		39.878	4,4'-DDD
5.986	21951.0	BV	0.033		40.731	Endosulfan II
6.095	22072.4	VB	0.033		42.857	4,4'-DDT
6.386	17531.3	BB	0.033		38.736	Endrin Aldehyde
6.560	10524.7	BB	0.033		41.393	Methoxychlor
6.800	20406.0	VB	0.033		38.689	Endosulfan Sulfate
7.073	24001.5	BB	0.033		38.102	Endrin Ketone
7.991	40081.6	BB	0.034		75.978	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131114\13111402.D
Operator : 500
Instrument : GC 51
Sample Name : P S080713L 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 14 Nov 13 09:54 am
Report Created on: 14 Nov 13 10:09 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105R.M

Vial Number : Vial 2
Injection Number : 1
Sequence Line : 3
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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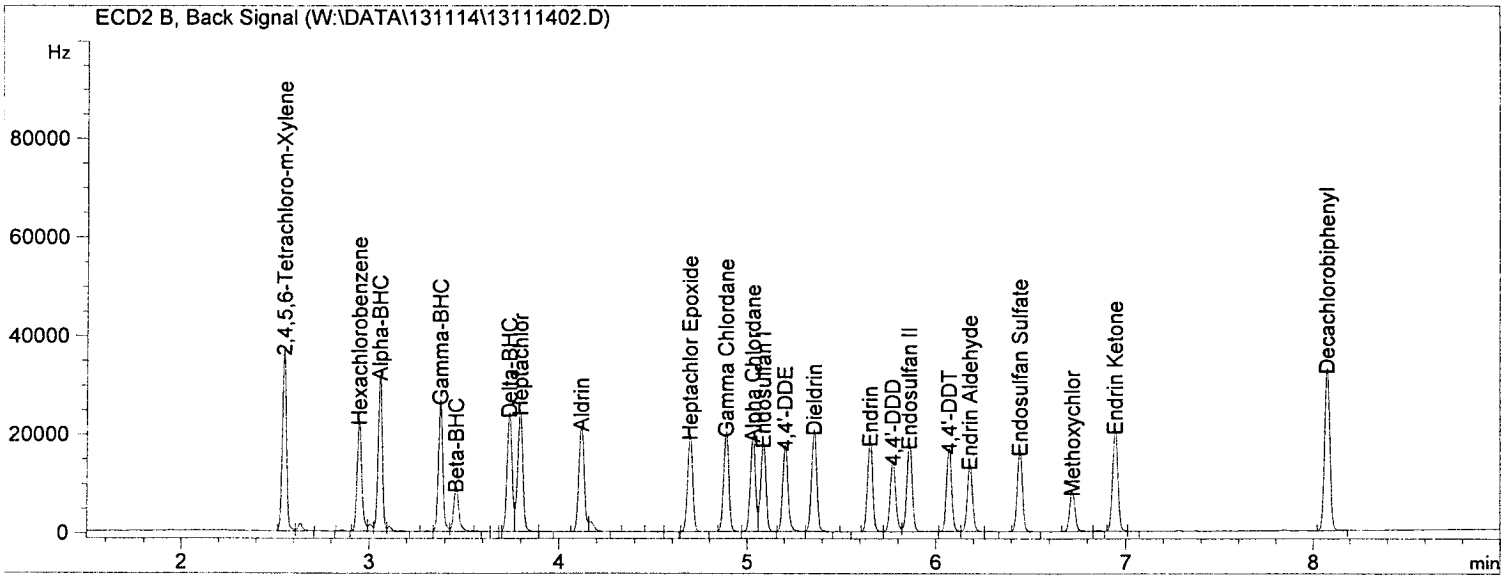
Sig. ECD2 B, W:\DATA\131114\13111402.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.549	56352.7	BV	0.024		84.645	2,4,5,6-Tetrachloro-m-Xylene
2.948	38665.3	BV	0.026		42.099	Hexachlorobenzene
3.057	49212.5	VV	0.026		41.908	Alpha-BHC
3.377	43636.5	BV	0.025		40.590	Gamma-BHC
3.459	17443.8	VB	0.032		39.694	Beta-BHC
3.739	43323.9	VV	0.027		43.866	Delta-BHC
3.795	46908.8	VB	0.032		38.536	Heptachlor
4.119	42622.7	BV	0.031		39.585	Aldrin
4.695	37949.9	BB	0.030		39.767	Heptachlor Epoxide
4.888	39142.8	BB	0.030		39.343	Gamma Chlordane
5.031	37118.8	BV	0.030		39.516	Alpha Chlordane
5.087	35525.2	VB	0.033		39.443	Endosulfan I
5.204	34812.1	BB	0.032		42.086	4,4'-DDE
5.356	39534.9	BB	0.030		39.010	Dieldrin
5.653	35271.7	BV	0.030		40.640	Endrin
5.774	29583.4	VV	0.031		42.237	4,4'-DDD
5.861	35074.7	VB	0.033		38.614	Endosulfan II
6.072	32672.1	BV	0.030		43.263	4,4'-DDT
6.181	26373.1	VV	0.031		38.597	Endrin Aldehyde
6.446	31211.5	BV	0.029		39.879	Endosulfan Sulfate
6.721	15888.1	BB	0.029		41.913	Methoxychlor
6.945	39211.0	BB	0.030		40.265	Endrin Ketone
8.076	64753.9	BB	0.030		76.609	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

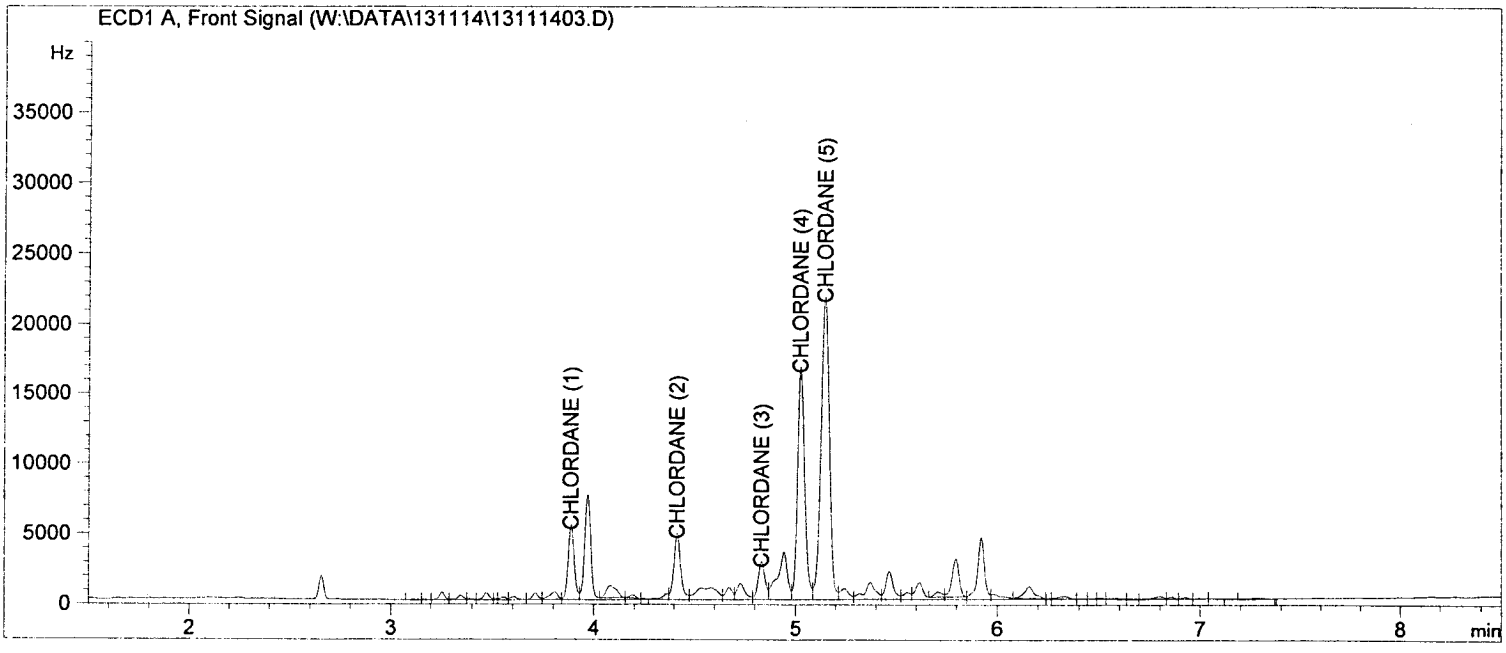
Data File Name : W:\DATA\131114\13111403.D
Operator : 500 Vial Number : Vial 3
Instrument : GC 51 Sequence Line : 4
Sample Name : CH S082313Q 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-F
Acquired on : 14 Nov 13 10:22 am Method : EPA 8081A
Report Created on: 14 Nov 13 10:34 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105F.M

Sig. ECD1 A, W:\DATA\131114\13111403.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.887	11002.06	VV	0.031		37.90	CHLORDANE (1)
4.416	11395.59	VV	0.037		39.26	CHLORDANE (2)
4.834	6485.56	VV	0.037		22.34	CHLORDANE (3)
5.027	40795.80	VV	0.041		140.53	CHLORDANE (4)
5.150	62226.51	VV	0.048		214.36	CHLORDANE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.892	131905.52	VV	0.00344	454.39	Chlordane
5.154		VV	0.00344		
5.031		VV	0.00344		
4.838		VV	0.00344		
4.420		VV	0.00344		



Return to Contents

External Standard Report

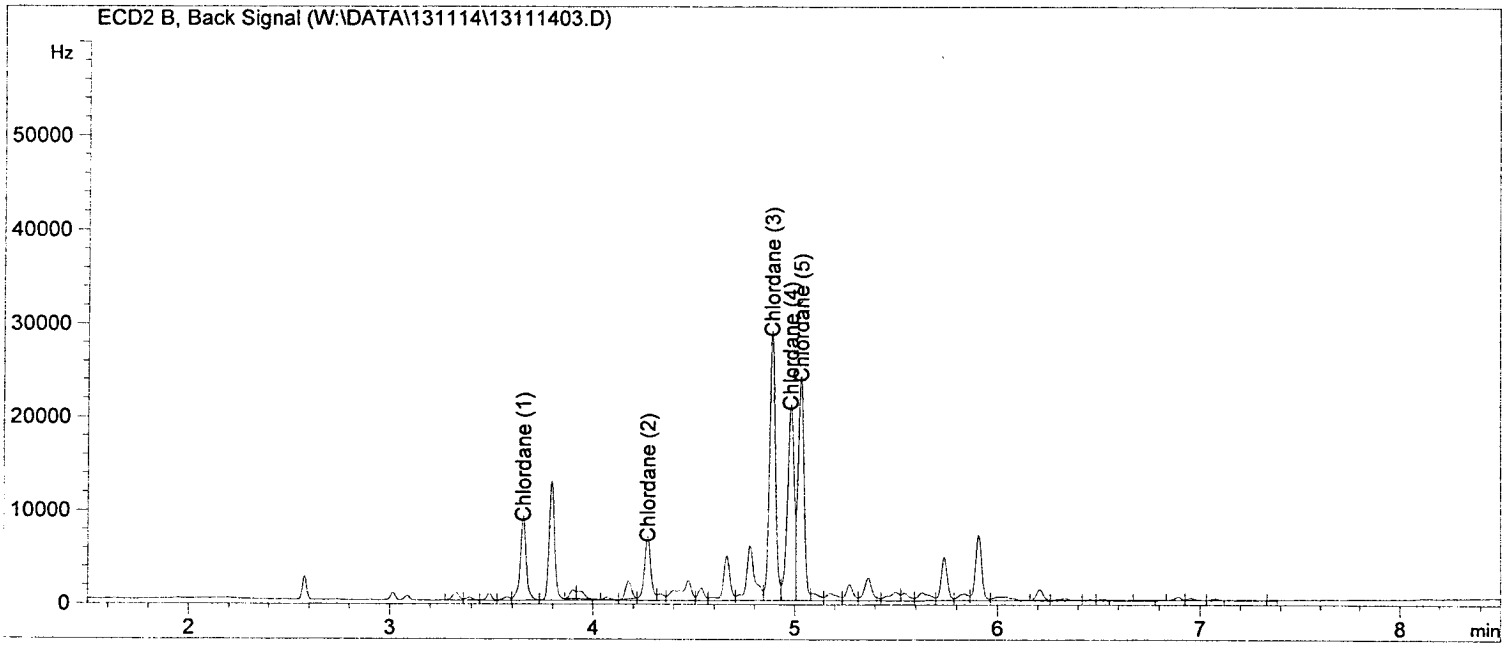
Data File Name : W:\DATA\131114\13111403.D
Operator : 500 Vial Number : Vial 3
Instrument : GC 51 Sequence Line : 4
Sample Name : CH S082313Q 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-R
Acquired on : 14 Nov 13 10:22 am Method : EPA 8081A
Report Created on: 14 Nov 13 10:34 am Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105R.M

Sig. ECD2 B, W:\DATA\131114\13111403.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.654	18488.48	VB	0.031		45.20	Chlordane (1)
4.270	15403.11	VV	0.034		37.66	Chlordane (2)
4.889	60369.53	VV	0.035		147.59	Chlordane (3)
4.982	48325.37	VV	0.038		118.14	Chlordane (4)
5.032	49333.37	VV	0.034		120.61	Chlordane (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.663	191919.86	VB	0.00244	469.20	Chlordane
4.279		VV	0.00244		
4.898		VV	0.00244		
5.041		VV	0.00244		
4.992		VV	0.00244		



Return to Contents

External Standard Report

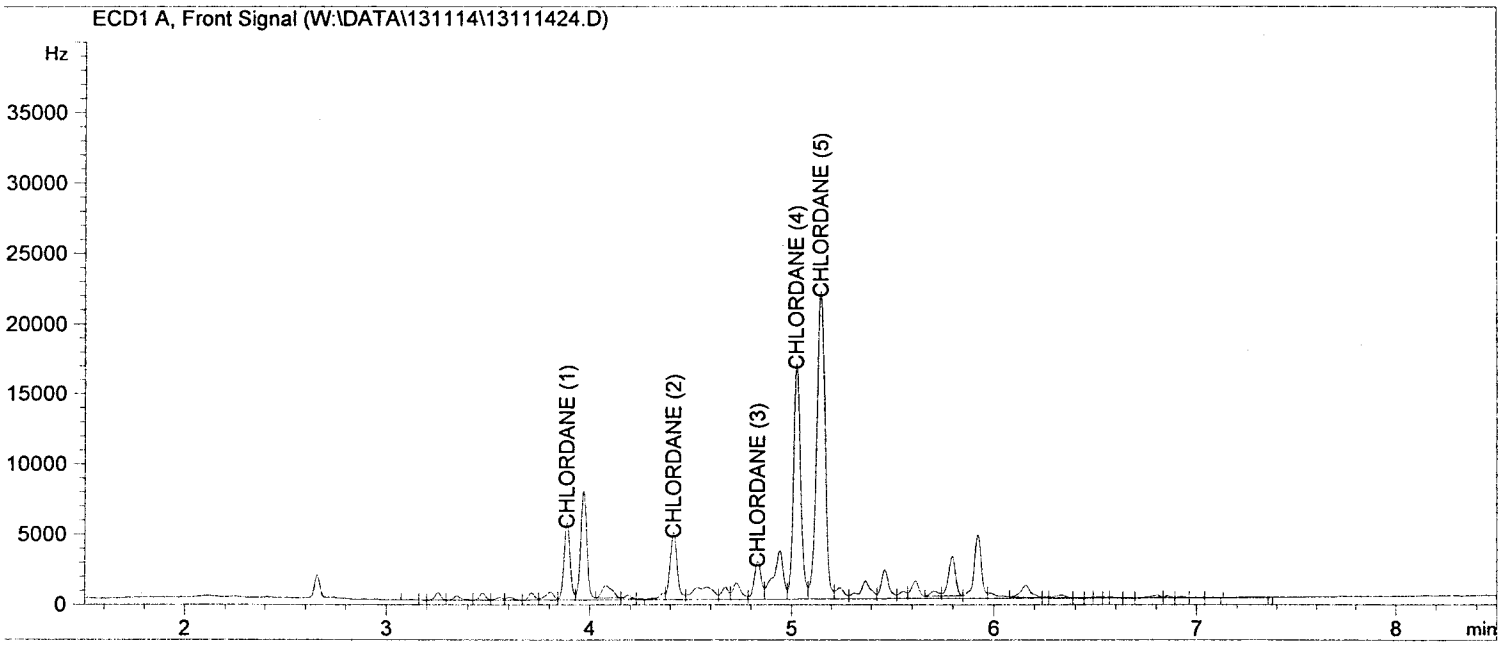
Data File Name : W:\DATA\131114\13111424.D
Operator : 500 Vial Number : Vial 3
Instrument : GC 51 Sequence Line : 25
Sample Name : CH S082313Q 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-F
Acquired on : 14 Nov 13 03:24 pm Method : EPA 8081A
Report Created on: 14 Nov 13 04:16 pm Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105F.M

Sig. ECD1 A, W:\DATA\131114\13111424.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.887	11341.86	VV	0.032		39.07	CHLORDANE (1)
4.415	11599.46	VV	0.036		39.96	CHLORDANE (2)
4.832	6647.79	VV	0.037		22.90	CHLORDANE (3)
5.027	41943.60	VV	0.042		144.49	CHLORDANE (4)
5.148	63769.08	VV	0.048		219.67	CHLORDANE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.892	135301.78	VV	0.00344	466.09	Chlordane
5.154		VV	0.00344		
5.031		VV	0.00344		
4.838		VV	0.00344		
4.420		VV	0.00344		



Return to Contents

External Standard Report

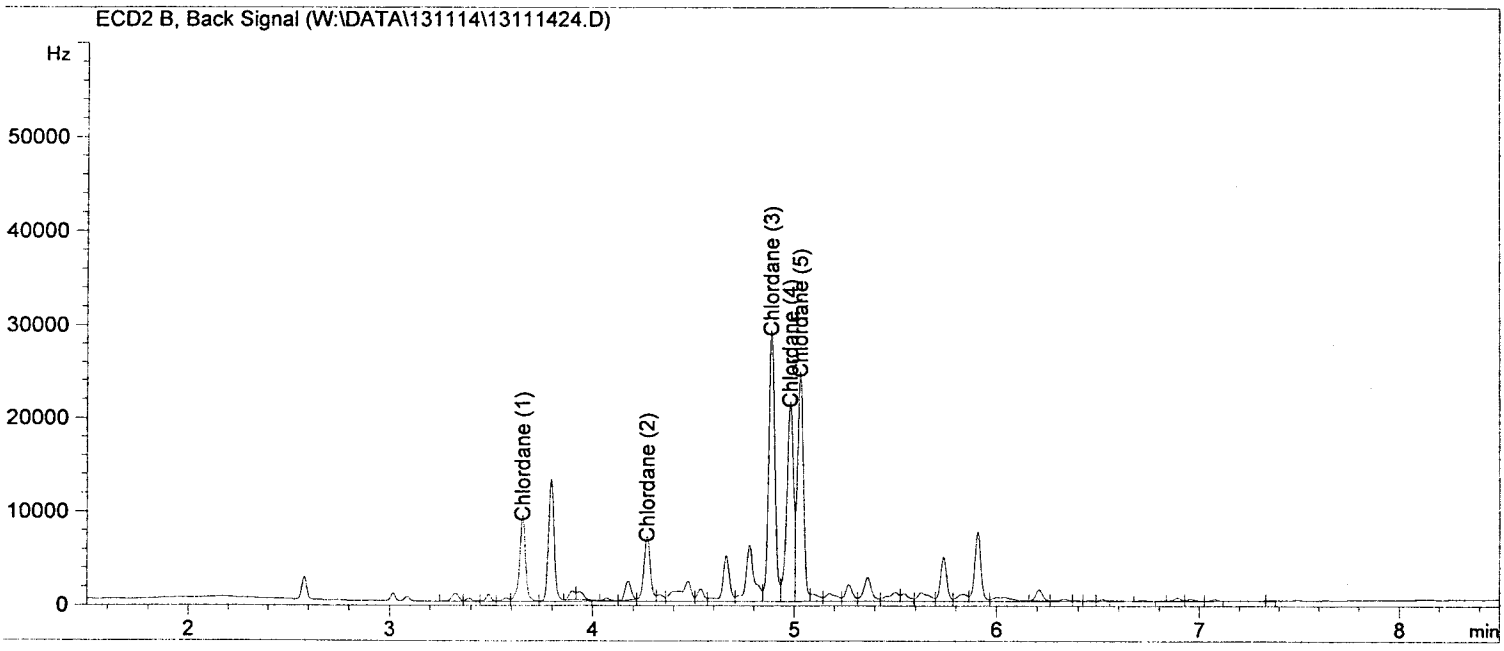
Data File Name : W:\DATA\131114\13111424.D
Operator : 500 Vial Number : Vial 3
Instrument : GC 51 Sequence Line : 25
Sample Name : CH S082313Q 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : CHLD-R
Acquired on : 14 Nov 13 03:24 pm Method : EPA 8081A
Report Created on: 14 Nov 13 04:16 pm Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131105R.M

Sig. ECD2 B, W:\DATA\131114\13111424.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.655	18891.63	VB	0.031		46.19	Chlordane (1)
4.268	15793.97	VV	0.035		38.61	Chlordane (2)
4.888	62156.84	VV	0.036		151.96	Chlordane (3)
4.982	49520.82	VV	0.039		121.07	Chlordane (4)
5.031	51003.67	VV	0.035		124.69	Chlordane (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.663	197366.94	VB	0.00244	482.52	Chlordane
4.279		VV	0.00244		
4.898		VV	0.00244		
5.041		VV	0.00244		
4.992		VV	0.00244		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131114\13111425.D
Operator : 500
Instrument : GC 51
Sample Name : P S080713L 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->
Acquired on : 14 Nov 13 03:39 pm
Report Created on: 14 Nov 13 04:16 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131105F.M

Vial Number : Vial 2
Injection Number : 1
Sequence Line : 26
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.02 [341]
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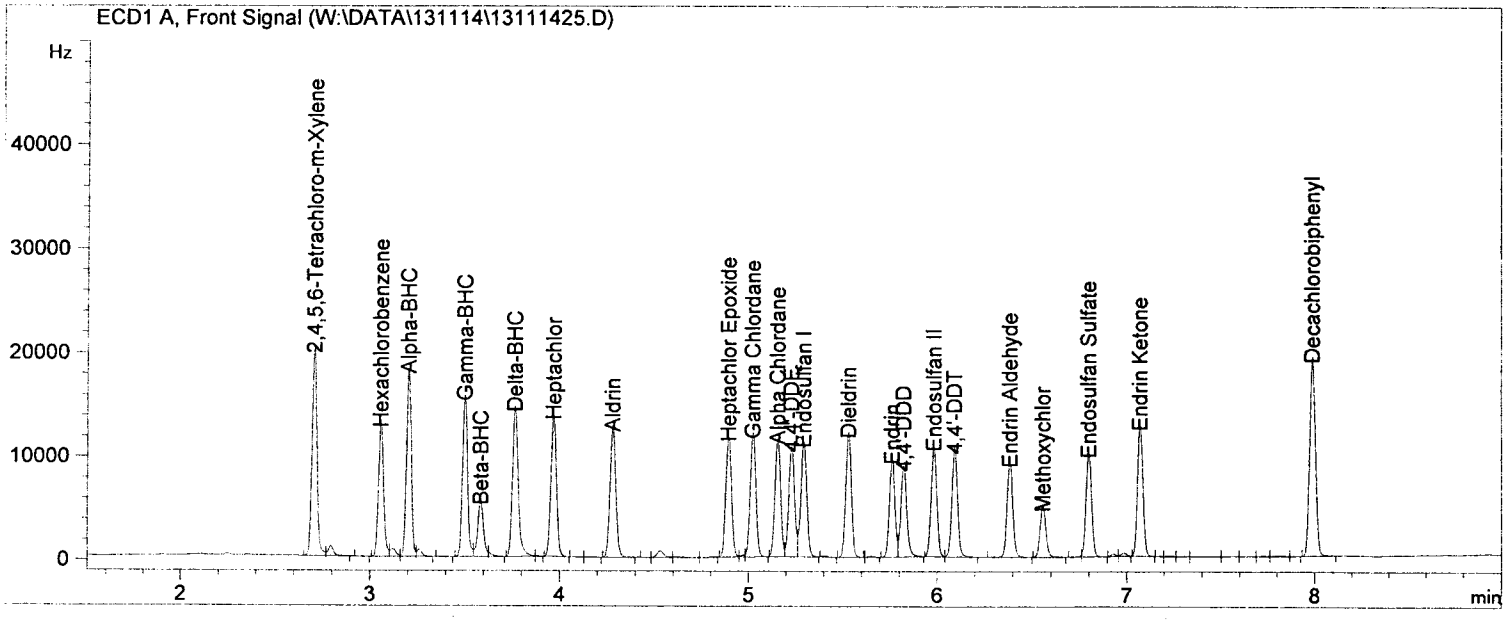
Sig. ECD1 A, W:\DATA\131114\13111425.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.708	36681.9	BV	0.028		84.419	2,4,5,6-Tetrachloro-m-Xylene
3.057	24488.0	BV	0.029		41.919	Hexachlorobenzene
3.205	32338.8	VV	0.028		41.969	Alpha-BHC
3.501	29133.0	BV	0.029		42.194	Gamma-BHC
3.585	11652.9	VB	0.035		37.853	Beta-BHC
3.766	30783.5	BB	0.033		42.720	Delta-BHC
3.969	28333.8	BB	0.032		40.650	Heptachlor
4.281	27439.6	BB	0.034		39.056	Aldrin
4.895	25071.7	BB	0.034		39.247	Heptachlor Epoxide
5.024	25276.6	VB	0.033		38.879	Gamma Chlordane
5.157	24000.0	BV	0.033		39.733	Alpha Chlordane
5.230	22887.4	VV	0.036		42.232	4,4'-DDE
5.294	24278.1	VB	0.036		37.879	Endosulfan I
5.532	25244.3	BV	0.033		39.804	Dieldrin
5.763	19682.8	BV	0.033		34.613	Endrin
5.825	19756.8	VB	0.037		41.038	4,4'-DDD
5.985	22336.0	BV	0.032		41.446	Endosulfan II
6.094	22161.1	VB	0.033		43.030	4,4'-DDT
6.386	19408.6	BB	0.033		42.884	Endrin Aldehyde
6.559	10462.7	BB	0.033		41.149	Methoxychlor
6.800	21007.1	VB	0.033		39.828	Endosulfan Sulfate
7.072	25953.3	BB	0.032		41.200	Endrin Ketone
7.991	41009.4	BB	0.032		77.736	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



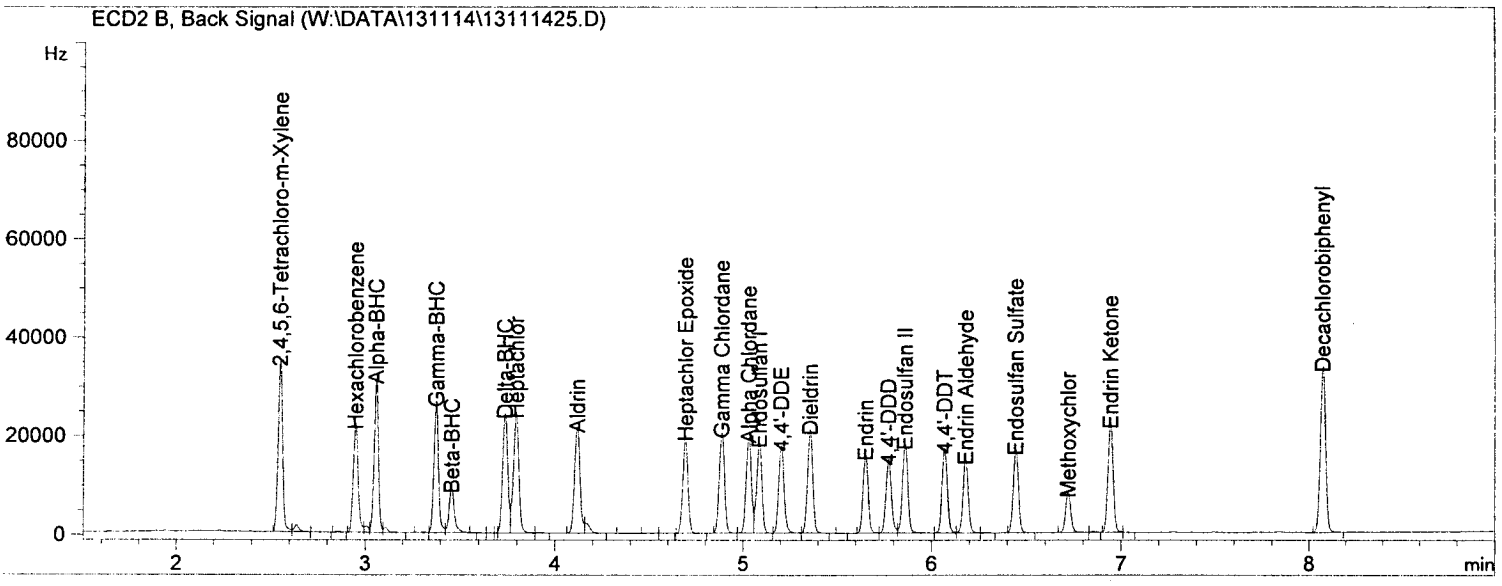
Return to Contents

External Standard Report

Data File Name	: W:\DATA\131114\13111425.D		
Operator	: 500	Vial Number	: Vial 2
Instrument	: GC 51	Injection Number	: 1
Sample Name	: P S080713L 40PPB	Sequence Line	: 26
Running Method	: C:\CHEM32\1\METHODS\8081D-N->	Report Style	: PEST-R
Acquired on	: 14 Nov 13 03:39 pm	Method	: EPA 8081A
Report Created on	: 14 Nov 13 04:16 pm	Software Version	: Rev. B.03.02 [341]
Comment	:		Copyright © Agilent
Analysis Method	: C:\CHEM32\1\METHODS\PEST131105R.M		Technologies

Sig. ECD2 B, W:\DATA\131114\13111425.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.550	57288.5	BV	0.026		86.051	2,4,5,6-Tetrachloro-m-Xylene
2.948	39500.3	BV	0.028		43.008	Hexachlorobenzene
3.057	49702.8	VV	0.027		42.326	Alpha-BHC
3.375	44437.3	BV	0.026		41.335	Gamma-BHC
3.458	17942.3	VB	0.033		40.829	Beta-BHC
3.737	44557.0	VV	0.028		45.114	Delta-BHC
3.795	48048.4	VB	0.033		39.472	Heptachlor
4.118	43262.1	BV	0.031		40.179	Aldrin
4.693	38358.8	BB	0.030		40.196	Heptachlor Epoxide
4.887	39757.9	BB	0.031		39.961	Gamma Chlordane
5.031	37620.9	BV	0.030		40.050	Alpha Chlordane
5.086	36135.7	VB	0.033		40.121	Endosulfan I
5.204	35372.0	BB	0.031		42.763	4,4'-DDE
5.357	40167.1	BB	0.030		39.634	Dieldrin
5.652	30391.1	BV	0.030		35.016	Endrin
5.773	30285.8	VV	0.031		43.240	4,4'-DDD
5.861	35612.2	VB	0.033		39.206	Endosulfan II
6.070	33099.9	BV	0.030		43.830	4,4'-DDT
6.181	29157.0	VV	0.030		42.671	Endrin Aldehyde
6.445	31995.1	BV	0.030		40.880	Endosulfan Sulfate
6.721	15829.6	BB	0.030		41.759	Methoxychlor
6.945	41980.2	BB	0.030		43.108	Endrin Ketone
8.076	66131.3	BB	0.031		78.239	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

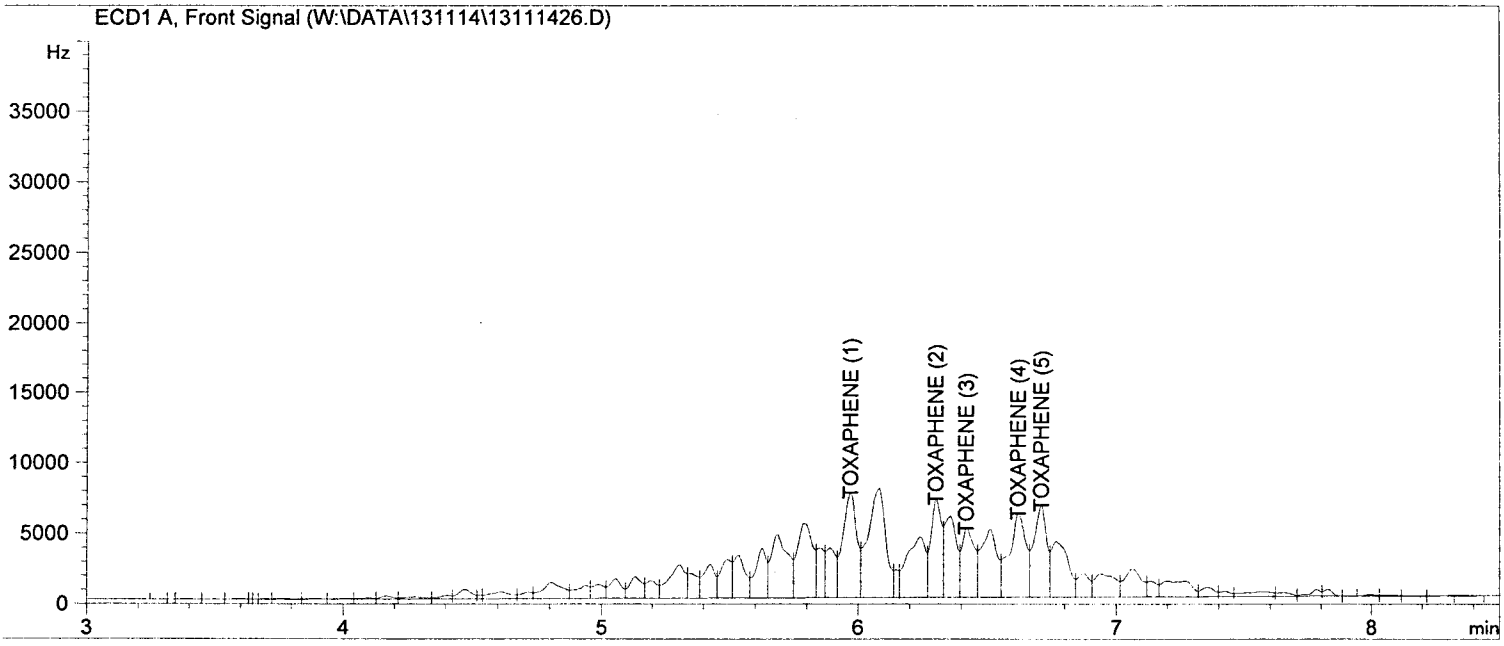
Data File Name : W:\DATA\131114\13111426.D
Operator : 500 Vial Number : Vial 4
Instrument : GC 51 Sequence Line : 27
Sample Name : TOX S082313R 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-F
Acquired on : 14 Nov 13 03:53 pm Method : EPA 8081A
Report Created on: 14 Nov 13 04:16 pm Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105F.M

Sig. ECD1 A, W:\DATA\131114\13111426.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.971	28273.52	VV	0.053		243.01	TOXAPHENE (1)
6.303	20111.58	VV	0.042		172.86	TOXAPHENE (2)
6.421	16803.94	VV	0.058		144.43	TOXAPHENE (3)
6.622	26757.25	VV	0.075		229.98	TOXAPHENE (4)
6.711	22093.25	VV	0.057		189.89	TOXAPHENE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.974	114039.54	VV	0.00860	980.18	Toxaphene
6.716		VV	0.00860		
6.626		VV	0.00860		
6.429		VV	0.00860		
6.309		VV	0.00860		



Return to Contents

External Standard Report

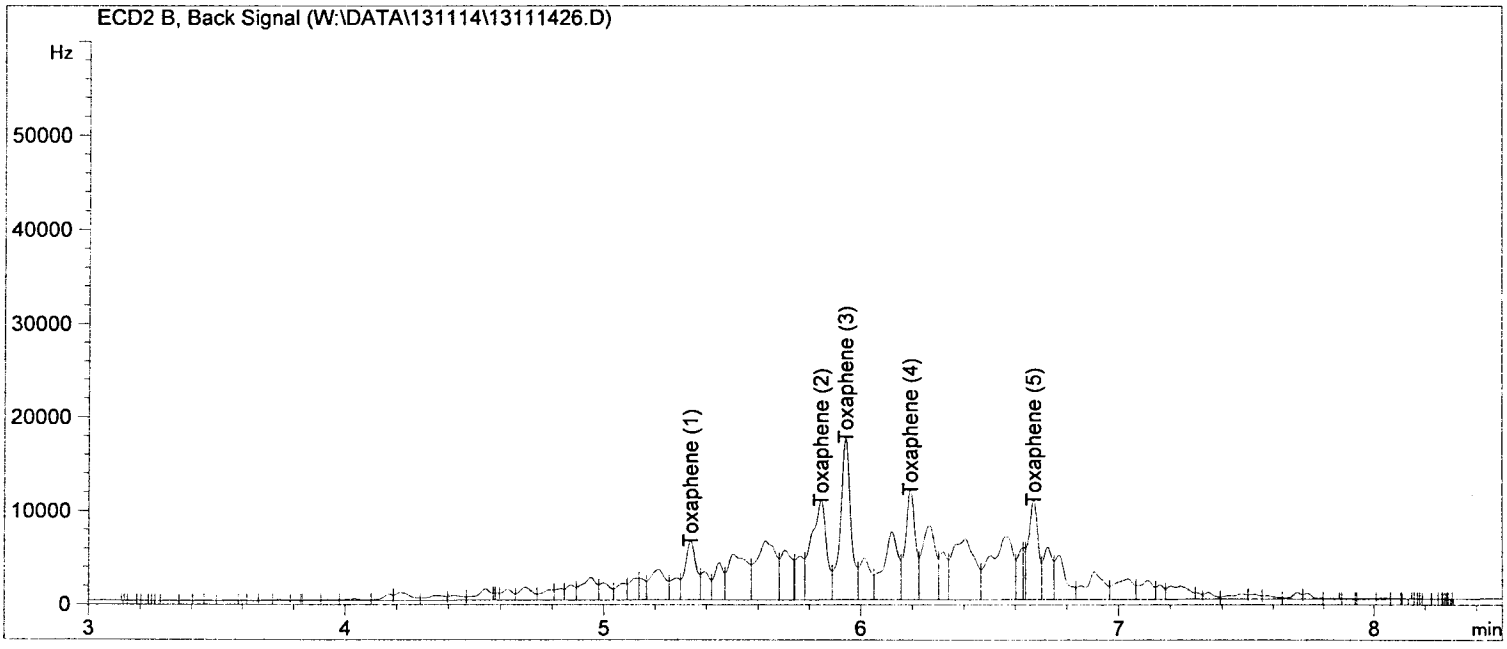
Data File Name : W:\DATA\131114\13111426.D
Operator : 500 Vial Number : Vial 4
Instrument : GC 51 Sequence Line : 27
Sample Name : TOX S082313R 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D-N->Report Style : TOX-R
Acquired on : 14 Nov 13 03:53 pm Method : EPA 8081A
Report Created on: 14 Nov 13 04:17 pm Software Version : Rev. B.03.02 [341]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX131105R.M

Sig. ECD2 B, W:\DATA\131114\13111426.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.338	19071.04	VV	0.042		108.18	Toxaphene (1)
5.846	43719.76	VV	0.069		248.01	Toxaphene (2)
5.942	50020.38	VV	0.048		283.75	Toxaphene (3)
6.193	31773.94	VV	0.045		180.24	Toxaphene (4)
6.672	28345.07	VV	0.044		160.79	Toxaphene (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.348	172930.18	VV	0.00567	980.98	Toxaphene
6.681		VV	0.00567		
6.203		VV	0.00567		
5.952		VV	0.00567		
5.857		VV	0.00567		



Return to Contents

EPA METHOD 8081A
Organochlorine Pesticides

Run Logs

Return to Contents

Sequence: C:\CHEM32\1\SEQUENCE\131105.S

Sequence Table (Front Injector):

Method and Injection Info Part:

Line	Location	SampleName DataFile LimsID	Method	Inj	SampleType	InjVolume
1	Vial 100	IB E08-45-11 13110500	8081D-N2	1	Sample	
2	Vial 1	EVAL S080713B 50PPB 13110501	8081D-N2	1	Sample	
3	Vial 2	P ICAL1 S080713E 10PPB 13110502	8081D-N2	1	Sample	
4	Vial 3	P ICAL2 S080713F 20PPB 13110503	8081D-N2	1	Sample	
5	Vial 4	P ICAL3 S080713G 40PPB 13110504	8081D-N2	1	Sample	
6	Vial 5	P ICAL4 S080713H 60PPB 13110505	8081D-N2	1	Sample	
7	Vial 6	P ICAL5 S080713I 80PPB 13110506	8081D-N2	1	Sample	
8	Vial 7	P ICV S080713K 40PPB 13110507	8081D-N2	1	Sample	
9	Vial 26	P MT ICAL1 S070813C 10PPB 13110526	8081D-N2	1	Sample	
10	Vial 27	P MT ICAL2 S070813D 20PPB 13110527	8081D-N2	1	Sample	
11	Vial 28	P MT ICAL3 S070813E 40PPB 13110528	8081D-N2	1	Sample	
12	Vial 29	P MT ICAL4 S070813F 60PPB 13110529	8081D-N2	1	Sample	
13	Vial 30	P MT ICAL5 S070813G 80PPB 13110530	8081D-N2	1	Sample	
14	Vial 31	P MT ICV S070813I 40PPB 13110531	8081D-N2	1	Sample	
15	Vial 8	D/M/O/DC ICAL1 S051513C 10/50PPB 13110508	8081D-N2	1	Sample	
16	Vial 9	D/M/O/DC ICAL2 S051513D 20/100PPB 13110509	8081D-N2	1	Sample	
17	Vial 10	D/M/O/DC ICAL3 S051513E 40/200PPB 13110510	8081D-N2	1	Sample	
18	Vial 11	D/M/O/DC ICAL4 S051513F 60/300PPB 13110511	8081D-N2	1	Sample	
19	Vial 12	D/M/O/DC ICAL5 S051513G 80/400PPB 13110512	8081D-N2	1	Sample	
20	Vial 13	D/M/O/DC ICV S051513I 40/200PPB 13110513	8081D-N2	1	Sample	
21	Vial 14	C ICAL1 S082313B 100PPB 13110514	8081D-N2	1	Sample	
22	Vial 15	C ICAL2 S082313C 250PPB 13110515	8081D-N2	1	Sample	
23	Vial 16	C ICAL3 S082313D 500PPB 13110516	8081D-N2	1	Sample	
24	Vial 17	C ICAL4 S082313E 750PPB 13110517	8081D-N2	1	Sample	
25	Vial 18	C ICAL5 S082313F 2000PPB 13110518	8081D-N2	1	Sample	

Return to Contents

Sequence: C:\CHEM32\1\SEQUENCE\131105.S

Line	Location	SampleName DataFile	Method LimsID	Inj	SampleType	InjVolume
26	Vial 19	C ICV S082313H 500PPB 13110519	8081D-N2	1	Sample	
27	Vial 20	T ICAL1 S082313J 200PPB 13110520	8081D-N2	1	Sample	
28	Vial 21	T ICAL2 S082313K 500PPB 13110521	8081D-N2	1	Sample	
29	Vial 22	T ICAL3 S082313L 1000PPB 13110522	8081D-N2	1	Sample	
30	Vial 23	T ICAL4 S082313M 1500PPB 13110523	8081D-N2	1	Sample	
31	Vial 24	T ICAL5 S082313N 4000PPB 13110524	8081D-N2	1	Sample	
32	Vial 25	T ICV S082313P 1000PPB 13110525	8081D-N2	1	Sample	

Sequence Table (Back Injector):

No entries - empty table!

Return to Contents

Sequence: C:\CHEM32\1\SEQUENCE\131113.S

Sequence Table (Front Injector):

Method and Injection Info Part:

Line	Location	SampleName DataFile	Method	Inj	SampleType	InjVolume
1	Vial 100	IB E08-45-11 13111300	8081D-N2	1	Sample	
2	Vial 1	EVAL S080713B 50PPB 13111301	8081D-N2	1	Sample	
3	Vial 2	P S080713L 40PPB 13111302	8081D-N2	1	Sample	
4	Vial 3	CH S082313Q 500PPB 13111303	8081D-N2	1	Sample	
5	Vial 4	TOX S082313R 1000PPB 13111304	8081D-N2	1	Sample	
6	Vial 5	MS 13-11-0723-2 131111S03 13111305	8081D-N2	1	Sample	
7	Vial 6	MSD 13-11-0723-2 131111S03 13111306	8081D-N2	1	Sample	
8	Vial 7	13-11-0723-1 10X 13111307	8081D-N2	1	Sample	
9	Vial 8	13-11-0723-2 13111308	8081D-N2	1	Sample	
10	Vial 9	13-11-0723-1 100X 13111309	8081D-N2	1	Sample	
11	Vial 10	13-11-0723-2 5X 13111310	8081D-N2	1	Sample	
12	Vial 11	13-11-0723-1 200X 13111311	8081D-N2	1	Sample	
13	Vial 12	MB 131112L15 13111312	8081D-N2	1	Sample	
14	Vial 13	13-10-1768-3 13111313	8081D-N2	1	Sample	
15	Vial 14	13-10-1768-10 13111314	8081D-N2	1	Sample	
16	Vial 15	13-10-1768-13 13111315	8081D-N2	1	Sample	
17	Vial 16	13-10-1768-15 13111316	8081D-N2	1	Sample	
18	Vial 17	13-10-1768-16 13111317	8081D-N2	1	Sample	
19	Vial 18	LCS 131112L15 13111318	8081D-N2	1	Sample	
20	Vial 3	CH S082313Q 500PPB 13111319	8081D-N2	1	Sample	
21	Vial 2	P S080713L 40PPB 13111320	8081D-N2	1	Sample	
22	Vial 4	TOX S082313R 1000PPB 13111321	8081D-N2	1	Sample	
23	Vial 22	13-11-0860-6 13111322	8081D-N2	1	Sample	
24	Vial 25	MB 131112L26 13111325	8081D-N2	1	Sample	
25	Vial 26	13-11-0697-8 13111326	8081D-N2	1	Sample	

A

Return to Contents

Sequence: C:\CHEM32\1\SEQUENCE\131113.S

Line	Location	SampleName DataFile	Method	Inj	SampleType	InjVolume LimsID
26	Vial 27	LCS 131112L26 13111327	8081D-N2	1	Sample	
27	Vial 28	MS 13-11-0697-8 131112S26 13111328	8081D-N2	1	Sample	
28	Vial 29	MSD 13-11-0697-8 131112S26 13111329	8081D-N2	1	Sample	
29	Vial 23	MS 13-11-0860-6 131112S15 13111323	8081D-N2	1	Sample	
30	Vial 24	MSD 13-11-0860-6 131112S15 13111324	8081D-N2	1	Sample	
31	Vial 30	13-11-0333-42 13111330	8081D-N2	1	Sample	
32	Vial 31	13-11-0327-11 13111331	8081D-N2	1	Sample	
33	Vial 32	13-11-0327-15 13111332	8081D-N2	1	Sample	
34	Vial 33	13-10-1768-15 2X 13111333	8081D-N2	1	Sample	
35	Vial 3	CH S082313Q 500PPB 13111334	8081D-N2	1	Sample	
36	Vial 2	P S080713L 40PPB 13111335	8081D-N2	1	Sample	
37	Vial 4	TOX S082313R 1000PPB 13111336	8081D-N2	1	Sample	

B

Sequence Table (Back Injector):

No entries - empty table!

Return to Contents

Sequence: C:\CHEM32\1\SEQUENCE\131114.S

Sequence Table (Front Injector):

Method and Injection Info Part:

Line	Location	SampleName DataFile	LimsID	Method	Inj	SampleType	InjVolume
1	Vial 100	IB E08-45-11	13111400	8081D-N2	1	Sample	
2	Vial 1	EVAL S080713B 50PPB	13111401	8081D-N2	1	Sample	
3	Vial 2	P S080713L 40PPB	13111402	8081D-N2	1	Sample	
4	Vial 3	CH S082313Q 500PPB	13111403	8081D-N2	1	Sample	
5	Vial 4	TOX S082313R 1000PPB	13111404	8081D-N2	1	Sample	
6	Vial 5	MB 131113L14; 608	13111405	8081D-N2	1	Sample	
7	Vial 6	LCS 131113L14	13111406	8081D-N2	1	Sample	
8	Vial 7	LCSD 131113L14	13111407	8081D-N2	1	Sample	
9	Vial 8	13-11-1023-2; 608	13111408	8081D-N2	1	Sample	
10	Vial 9	13-11-1023-3; 608	13111409	8081D-N2	1	Sample	
11	Vial 10	13-11-0327-8 5X	13111410	8081D-N2	1	Sample	
12	Vial 11	13-11-0327-11 5X	13111411	8081D-N2	1	Sample	
13	Vial 12	13-11-0934-3; 608	13111412	8081D-N2	1	Sample	
14	Vial 13	13-11-0697-9	13111413	8081D-N2	1	Sample	
15	Vial 14	13-11-0697-10	13111414	8081D-N2	1	Sample	
16	Vial 15	13-11-0697-11	13111415	8081D-N2	1	Sample	
17	Vial 16	13-11-0697-12	13111416	8081D-N2	1	Sample	
18	Vial 17	13-11-0697-3	13111417	8081D-N2	1	Sample	
19	Vial 18	13-11-0697-4	13111418	8081D-N2	1	Sample	
20	Vial 19	13-11-0697-5	13111419	8081D-N2	1	Sample	
21	Vial 20	13-11-0697-6	13111420	8081D-N2	1	Sample	
22	Vial 21	13-11-0697-7	13111421	8081D-N2	1	Sample	
23	Vial 22	13-11-0600-1	13111422	8081D-N2	1	Sample	
24	Vial 23	13-11-0600-2	13111423	8081D-N2	1	Sample	
25	Vial 3	CH S082313Q 500PPB	13111424	8081D-N2	1	Sample	

Return to Contents

Sequence: C:\CHEM32\1\SEQUENCE\131114.S

Line	Location	SampleName DataFile	Method	Inj	SampleType	InjVolume LimsID
26	Vial 2	P S080713L 40PPB 13111425	8081D-N2	1	Sample	
27	Vial 4	TOX S082313R 1000PPB 13111426	8081D-N2	1	Sample	

Sequence Table (Back Injector):

No entries - empty table!

Return to Contents

EPA METHOD 8081A
Organochlorine Pesticides

Preparation Logs

Return to Contents

EPA Method 608/8081/8082 Extraction Logbook

START D = DATE T = TIME	END D = DATE T = TIME	SAMPLE pH	MATRIX S = SOIL A = AQUEOUS O = OIL W = WIPE F = FILTER	EXTRACTION 1 = 3510 SEP 2 = 3520 C-LL 4 = 3545 PFE 5 = 3550 SON 8 = 3580 DIL	TEST METHOD	MB/LCS/MS BATCH # 131112 L26 / CEL ID #	SAMPLE W (g) / V (mL) a) INITIAL b) FINAL	AQUEOUS SAMPLE MEASURED BY BALANCE MEASURED a) INITIAL (g) b) FINAL (g)	AQUEOUS SAMPLE MEASURED BY BALANCE CALCULATED c) NET (g) d) V (mL)	BALANCE ID #	PREP TECHNICIAN(S)	COMMENTS
D) 11-12-13 T) 19:30	D) 11-12-13 T) MB		S A O W F	1 2 4 5 8	8081	MB	a) 20.0 b) 10	a) b)	c) d)	53	786/783	
D) T)	D) T)		S A O W F	1 2 4 5 8		LCS 786 11/12/13	a) 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		LCSD 13-11-0697-8 A MS	a) 20.1 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		13-11-0697-8 A MSD	a) 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		13-11-0697-3 A	a) 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		4A, 5A	a) 20.0, 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		6A, 7A	a) 20.1, 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		8A 9A	a) 20.0, 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		10A, 11A	a) 20.0, 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		12A	a) 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		13-11-0333-42A	a) 20.1 b)	a) b)	c) d)			RE-EXTRACTION
D) T)	D) T)		S A O W F	1 2 4 5 8		13-11-0324-11 A	a) 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		15 A	a) 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			

EPA Method 608/8081/8082 Extraction Logbook

WATER BATH TEMP RANGE (°C)	THERMOMETER ID # & CF	SAND ID #	DRYING AGENT	ASE ID #
~60 °C - 80 °C	C24747 (CF 0.0°C)	608-3410	☒ Na_2SO_4 ☒ Diatomaceous Earth	9, 10

CEL ID #	SURROGATE STANDARD: STANDARD ID #	SURROGATE STANDARD: a) C (ppm) b) V (mL)	SPIKE STANDARD (LCS/LCSD/MS/MSD): STANDARD ID #	SPIKE STANDARD (LCS/LCSD/MS/MSD): a) C (ppm) b) V (mL)	EXTRACTION SOLVENT: 1 = CH_2Cl_2 2 = 1:1 CH_2Cl_2-C_3H_6O	EXTRACTION SOLVENT: a) ID # b) V (mL)	REAGENT / SUPPLY ID #: a) DRYING AGENT b) FILTER	EXCHANGE SOLVENT: a) C_6H_{14} ID # b) V (mL)	COMMENTS
MB	1104 13 A	a) 2 b) 0.5		a) b)	1 2	a) 608-71-06 b) ~45	a) 608-68-9 (8015) b) 608-45-8	a) 608-68-13 b) 10	
LCS 11/12/13		a) b)	608 1313 A	a) 1 b) 0.5	2	a) b)	a) 608-64-1 b)	a) b)	
LCSD 13-11-0697-8 MS		a) b)		a) b)	2	a) b)	a) b)	a) b)	
13-11-0697-8 MSD		a) b)		a) b)	2	a) b)	a) b)	a) b)	
13-11-0697-3 Tr		a) b)		a) b)	2	a) b)	a) b)	a) b)	
12		a) b)		a) b)	2	a) b)	a) b)	a) b)	
13-11-0333-42		a) b)		a) b)	2	a) b)	a) b)	a) b)	
13-11-0327-11.5		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	

EPA Method 608/8081/8082 Extraction Logbook

START D = DATE T = TIME	END D = DATE T = TIME	CLEANUP 1 = 3620 FLORISIL 2 = 3630 SGC 3 = 3660 SULFUR 4 = 3665 ACID	CEL ID #	CLEANUP REAGENT(S) NAME	ID #	NAME	ID #	FLORISIL CARTRIDGE CONDITIONING COLUMN PRE-ELUTION 1) CARTRIDGE ID # 2) HEXANE ID #	PREP TECHNICIAN(S)	COMMENTS
D) 11-12-13 T) 19:30	D) 11-12-13 T) N/D	1 2 3 4	MB	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)	786 783	
D) T)	D) T)	1 2 3 4	LCS 786 11/12/13	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	LCSD 13-11-0697-8 mls	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	13-11-0697-8 mls	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	13-11-0697-3	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	4, 5	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	6, 7	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	8, 9	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	10, 11	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	12	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	13-11-0333-42	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	13-11-0327-11	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	15	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		

EPA METHOD 8081A
Organochlorine Pesticides

Standards Preparation Logs

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
8-05-13	S080513J	8330	ICal-1 8330	S080313A	1 ul	20 ppm	1 ml	20 ppb	Ben:H2O 1:1	S101812-1	8/6/13	684	
	K		ICal-2		50 ul			1 ppm					
	L		ICal-3		100 ul			2 ppm					
	M		ICal-4		250 ul			5 ppm					
	N		ICal-5		500 ul			10 ppm					
	S080513O		ICV	S080313G	100 ul	20 ppm	1 ml	2 ppm					
8-7-13	S080713A	8081	PDT/Endrin mix	S5-39-24	10 µL	500 ppm	10 mL	500 ppb	Hexane	E0845-09	01-31-14	500	
	B		Eval	S080713A	4 mL	500 ppb	40 mL	50 ppb					
	C		CLP Organochlorine Pest.	S6-04-06	8 µL	2000 ppm	4 mL	4 ppm					
			Pesticide Surr. mix	S6-13-16	160 µL	200 ppm		8 ppm					
			Hexachlorobenzene	S06-03-11	160 µL	100 ppm		4 ppm					
	D		Pest Ical	S080713C	2 µL	4/8 ppm	4 mL	2/4 ppb					
	E				10 µL			10/20					
	F				20 µL			20/40					
	G				40 µL			40/80					
	H				60 µL			60/120					
	I			S00 8/7/13	80 µL			80/160					
	J		Organochlorine Pest mix AB#	~~S07-18-5~~ E07-18-6	80 µL	200 ppm	4 mL	4 ppm					
			Pest. Surr. mix	S05-42-23	160 µL			8					
			Hexachlorobenzene	S06-04-12	160 µL	100 ppm		4					

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
8/7/13	S080713K	8081	Pest. Mix ICV	S080713J	40 µL	4/8 ppm	4mL	40/80ppb	Hexane	E08-45-9	01-31-14	500	
↓	↓ L	↓	Pest. Mix	↓ C	400 µL	↓	40mL	↓	↓	↓	↓	↓	
8-7-13	S080713M	8141 7A	Custom Standard	S06-11-20	400 µL	200ppm	2mL	40ppm	Hexane	E08-19-14	10-7-13	842	
↓	↓	↓	Tributylphosphate	E8-10-8	80 µL	1000ppm	↓	↓	↓	↓	↓	↓	
↓	S080713N	↓	Ical 1 8141 7A	S080713M	25 µL	40ppm	2mL	0.5 ppm	↓	↓	↓	↓	
↓	↓ O	↓	Ical 2	↓	100 µL	↓	↓	2	↓	↓	↓	↓	
↓	↓ P	↓	Ical 3	↓	200 µL	↓	↓	4	↓	↓	↓	↓	
↓	↓ Q	↓	Ical 4	↓	300 µL	↓	↓	6	↓	↓	↓	↓	
↓	↓ R	↓	Ical 5	↓	400 µL	↓	↓	8	↓	↓	↓	↓	
↓	↓ S	↓	8141 Additional Mix	S5-43-23	100 µL	200 ppm	1mL	20ppm	↓	↓	↓	↓	
↓	↓ T	↓	ICV 8141-7A (842 8/7/13)	~~S081~~ S080713S	200 µL	20ppm	1mL	4ppm	↓	↓	↓	↓	
↓	↓	↓	Tributylphosphate	E08-10-8	4 µL	1000ppm	↓	↓	↓	↓	↓	↓	
8/8/13	8 (4 of 8) S080813A	8080 surr.	TCMx & DCB mix	S6-02-08	200 µl	200ppm	40 mL	1ppm	Hexane	E08-19-14	2/8/14	421	
8/9/13	S080913A	548.1	548 IS	S6-11-9	80 µl	500ppm	4 ml	10ppm	DCM	E7-15-5	2/9/14	262	
↓	S080913B	↓	Endothall	S5-41-8	0.2 ml	50 ppm	1 ml	10 ppm	↓	↓	12/31/13	↓	Methylate before use
↓	↓	↓	548 IS	S080913A	0.25	10 ppm	↓	2.5	↓	↓	↓	↓	
↓	S080913C	↓	↓	↓	0.1	↓	↓	5	↓	↓	↓	↓	
↓	↓	↓	↓	↓	0.25	↓	↓	2.5	↓	↓	↓	↓	
↓	S080913D	↓	↓	↓	0.05	↓	↓	2.5	↓	↓	↓	↓	
↓	↓	↓	↓	↓	0.25	↓	↓	2.5	↓	↓	↓	↓	

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
8/21/13	S082113E	8141	Naled	S6-14-1	8 µL	1000ppm	2 mL	4 ppm	Hexane	E08-4509	10/21/13	842	
			Stirophos	S5-38-19	4µL			2ppm					
	S082113F		O.P pest mix Ical 5	S082113A	400 µL	40 ppm	2mL	8 ppm					
			Naled	S6-14-1	8 µL	1000 ppm		4					
			Stirophos	S5-38-19	4µL			2					
	S082113G	8141	O.P mix std ICV	E08-51-9	200 µL	200 ppm	1 mL	40 ppm					
			Malathion	S06-12-22	400 µL	100 ppm							
	S082113H		8141 ICV O.P mix	S082113G	100 µL	40 ppm	1mL	4 ppm					
			Naled	S6-12-20	40 µL	100 ppm		4 ppm					
			Tetrachlovinphos (stirophos)	S06-4-02	20 µL	100 ppm		2 ppm					
			Tributylphosphate	E08-10-8	4 µL	1000 ppm		4 ppm					
8/23/13	S082313A	8081	CHLD Ical	S5-30-01	2.0 µL	100 ppm	4mL	5 ppb	E. Hexane (8/23/13)	E08-45-09	8/23/14	500	
	B				4			100					
	C				10			250					
	D				20			500					
	E				30			750					
	F				80			2000					
	G		CHLD ICV	S05-43-05	400	1000ppm	4mL	100 ppm					
	H			S082313G	20	100ppm		500 ppb					
	I		Tox Ical	S6-02-20	1 µL	100ppm	4mL	25 ppb					

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
8/23/13	S082313J	8081	Tox Ical	S6-02-20	8 µL	100 ppm	4mL	200 ppb	Hexane	E08-45-9	2/23/14	SDO	
	K				20			500					
	L				40			1000					
	M				60			1500					
	N				160			4000					
	O		Tox ICV	S5-46-9	400	1000 ppm	4mL	100 ppm					
	P			S082130	40	100		1000 ppb					
	Q		CHLD	S5-20-1	200	100	40 mL	500 ppb					
	R		Tox (500 8/23/13)	S6-2-~~19~~ QD	400	100		1000 ppb					
8/26/13	S082613A	8270 SIM SUPER. ICV.	8270 spike FQC	E080613A	200 ml	200ppm	4mL	10ppm	MeCl2	E7-15-5	01/31/14	421	
			8270 SURR.	~~E051113A~~ E073113A (8x 8/26/13)	100 ml	400 ppm		10ppm					
			SV - I.S	E8-47-3	10 ml	2000ppm		5ppm					
8/28/13	S082813A	508	Eval (Endrin / DDT)	~~S6-04-~~ S5-39-24 (8x 8/28/13)	10 ml	500ppm	5mL	1ppm	MTBE	S6-11-08	10/28/13	421	
	S082813B		O.C Pesticides mix	S6-04-06	8 ml	2000ppm	4mL	4ppm					
	↓		Pesticides surrogate	S6-13-16	400 ml	200ppm		20 ppm					
	S082813C		508 ~~pesticat~~ Pesticides ICAL 1 (8x 8/28/13)	S082813B	1 ml	4/20ppm	2mL	2/10 ppb					
	D		2		5 ml			10/60					
	E		3		10 ml			20/100					
	F		4		20 ml			40/200					
	G		5		40 ml			80/400					

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	1- Butanol	Accu Std.	M-8015B/5031-06	211101203	10/17/21	1 ml	G	12/21/11	684			
2	Isopropanol	↓	M-8015B/5031-16	211101240	10/20/21	↓	↓	↓ 661	↓			
3	↓	↓	↓	↓	↓	↓	↓	↓	↓			
4	2,4-Dichlorophenylacetic Acid 8157 Surr	Restek	32050	A071047	12/27/16 08/2016	1ml	G	12/27/11 08/2016	669	2/27/12	669	Verified
5	↓	↓	↓	↓	↓ 669 12/17	↓	↓	↓	↓	8/2/12	262	
6										1/21/13	262	
7										3/5/13	669	
8												
9	Dibrom Solution	CHEM	F2067JS	479-109c	06/30/13	1 ml	G	12/28/11	684	3/2/12	684	verified
10	↓	↓	↓	↓	↓	↓				5/31/12	684	
11	Malathion Solution		F2118S	477-41B	04/30/13	5 ml				3/2/12	684	verified
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/3/12	684	↓
13	8015 Custom standard	ULTRA	CUS-11538	CH-4163	1/31/14	1 ml	G	1/5/12	684	01/6/12	684	verified
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/8/12	684	
15										7/10/12	684	
16										3/4/13	684	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/10/13	684	
18	525.2 Organonitrogen Pest Mix #1	Restek	33012	A085846	12/2013	1ml	G	1/5/12	142	1/28/13	262	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	7/27/13	142	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓			
21	DDT/Endrin MIX	Supelco	4-8282	LB86671	8/2014	1mL	G	1/11/12	42	6-13-12	27	
22	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/6/12	500	
23										2/6/13	842	
24	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/7/13	500	
25	Pesticides Surrogate mix	↓	4-8460	LB81291	1/2014	1mL	G	1/11/12	↓	2/6/12	500	

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Acetonitrile	Fish	A998-4	127999	5-3-16	4L x 6	G	5-3-13	785	5-3-13	785	
2	~~Sodium chloride~~ 5/6/13 785	~~EMD~~	~~SX0420-5~~	~~TK19CZEMS~~	~~5-6-18~~	~~12kg x 2~~	~~P~~	~~5-6-13~~	~~785~~	~~5-6-13~~	~~785~~	5/6/13 785
3	Sodium sulfate Anhydrous	Fish	S421-10	126473	5-6-18	10kg x 6	P	5-6-13	785	5-6-13	785	
4	Sodium chloride	EMD	SX0420-5	TL20BZEMS	5-6-18	12kg x 2	P	5-6-13	785	5-6-13	785	
5	25mm syringe Filter/0.45um PTFE	VWR	2815-497	21744510	NA	each 100 x 2	P	5-7-13	785	5-7-13	785	
6	BD syringe 10ml	BD	REF 305462	2264064	NA	each 100 x 3	P	5-7-13	785	5-7-13	785	
7	Dichloromethane	EMD	DX0831-1	53102	5-7-16	4L x 60	G	5-7-13	785	5-7-13	785	
8	Celite 566 Diatomatceous Earth	UCT	EC56630K	315030-AV	5-7-18	30 kg	P	5-7-13	785	5-7-13	785	
9	Hexanes	EMD	HX0298-1	53032	5-10-16	4L x 24	G	5-10-13	785	5-10-13	785	
10	Sodium Hydroxide	Fish	S318-10	126910	5-10-18	10kg x 2	P	5-10-13	785	5-10-13	785	
11	Hexanes	EMD	HX0298-1	53102	5-14-18	4L x 48	G	5-14-13	785	5-14-13	785	
12	Dichloro methane	EMD	DX0831-1	52321	5-20-~~18~~ 16	4L x 60	G	5-20-13	785	5-20-13	785	
13	Boiling stones	Saint Gobain	0919120	G384-3C019	5-20-18	5/20/13 785 450g x 5	P	5-20-13	785	5-20-13	785	G384-3C019
14	Mercury	ALFA AESAR	00522-P5	E22Y027	NA	5lb x 2	P	5-20-13	785	5-20-13	785	
15	Sodium chloride	EMD	SX0420-5	TL20BZEMS	5-22-18	12kg x 3	P	5-22-13	785	5-22-13	785	
16	~~Sodium chloride~~	~~EMD~~	~~SX0~~ 5/22/13 785									
17	Acetonitrile	Fish	A998-4	127999	5-22-16	4L x 8	G	5-22-13	785	5-22-13	785	
18	Dichloromethane	EMD	DX0831-1	53102	5-23-16	4L x 60	G	5-23-13	785	5-23-13	785	
19	Sodium chloride	Fish	S271-10	130583	5-24-18	10kg x 3	P	5-24-~~18~~ 13	785	5-24-13	785	
20	Dichloro methane	EMD	DX0831-1	53109	5-28-16	4L x 60	G	5/28/13 785 5-28-13	785	5-28-13	785	
21	Filter paper 41	Whatman	1441090	5366526	~~NA~~ NA 5/20/13 785	5 pK	P	5-31-13	785	5-31-13	785	
22												
23												
24												
25												

COMMENTS:

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Dibrom Solution	CHEM	F2067JS	479-109C	6/30/13	1ml	G	7/23/12	684			
2	Tetrachlorvinphos solution	↓	F2069JS	482-17C	02/28/14	↓	↓	↓	↓	1/15/13	684	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓			
4	608 Organochlorine Pesticide Mix	Supelco	47426-U	LB90217	1/2015	1mL	G	7/23/12	421	1-22-13	27	* Marine
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/6/13	421	
6										8/7/13	842	
7												
8	↓	↓	↓	↓	↓	↓	↓	↓	↓			
9	Hexachlorobenzene	Ultra	CH-151	CE[illegible]83A	8/31/15	1ml	G	7/24/12	424	8/6/12	500	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	11-20-12	27	in Marine Dept
11										2/6/13	842	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/7/13	842	
13	Aroclor 1221	↓	PP-291	CB17912	12/31/14	1ml	G	7/24/12	669	6/12/13	669	
14	↓	↓	↓	↓	↓	↓	↓	↓	↓			
15												
16	↓	↓	↓	↓	↓	↓	↓	↓	↓			
17	525.2 NP Mix	Accu STD	M-525.2-NPI-ASL-PAK	209111015-06	7/16/13	1 ml	G	7/27/12	262	7/27/12	262	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	1/8/13	262	
19												
20	↓	↓	↓	↓	↓	↓	↓	↓	↓			
21	PCB 103	Accustandard	C-1055-TP	210111246	11/17/2020	1ml	G	7/30/12	142	7/30/12	142	
22	PCB 198	↓	C-1985-TP	B2100047-1A	9/6/2022	↓	↓	↓	↓	↓	↓	
23	PCB 208	↓	C-2085-TP	B3010335	1/31/2013	↓	↓	↓	↓	↓	↓	
24	PCB 200	Accustd	C-2005-TP-R1	210101006	10/1/2020	1mL	G	8/4/12	421	10/2/12	773	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓			

COMMENTS: _____

Book Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	8270 Cali – Kit	supelco	48118	LB96472	FEB 14	7x1mL	G	02/15/13	573	05/01/13	573	
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/19/13	573	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓			
4	2,2,4-Trimethylpentane (Isooctane)	Sigma-Aldrich	360597	SHBC4278V	2/18/16	500 ml	G	02/15/13	684	2/18/13	773	verified
5	2,3-Dichlorobiphenyl (B2#5)	Ultra	RPC-012 ON#	NT 00011	01/31/2017	25 mg	G	2/15/13	684	↓	773	verified
6	4,4'-Dichlorobiphenyl (B2#15)	↓	RPC-011	RM00605	01/31/2017	10 mg	↓	↓	↓	↓	↓	verified
7	521 Surrogate	Restek	33910	A088147	04/15	1 ml	G	2/19/13	262	2/19/13	262	
8	↓		33910	↓	04/15							
9	521 IS		33911	A088435	05/15					2/19/13	262	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓			
11	Aroclor 1260	ULTRA	PP-361	CG-3829	12/2014	1ml		2/20/13	669	3/7/13	684	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/21/13	669	(For 508)
13	521 Cartridge	UCT	EU5211216	09962-EM	2/11/18	30	Bag	2/21/13	262	2/21/13	262	
14	BDE-49	Accustd	BDE-049S	211031138	6/10/19	1ml	G	2/28/13	421	2/28/13	421	
15	Methylene Chloride	Fisher	D154-4	126306	3/5/16	4 L	G	3/5/13	262	3/5/13	262	
16	Pesticides Sur.	Supelco	48460	LB81291	01/2014	1L	G	3/22/13	669	8/7/12	842	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓			
18	↓	↓	↓	↓	↓	↓	↓	↓	↓			
19	↓	↓	↓	↓	↓	↓	↓	↓	↓			
20	↓	↓	↓	↓	↓	↓	↓	↓	↓			
21	Diethanolamine	Accustandard	ALR-109N	05712D1	2/24/21	100 mg	G	3/28/13	684	4/2/13	262	
22	Monoethanolamine	↓	ALR-136N	13768	9/29/14	↓	↓	↓	↓	4/2/13	262	
23	8270 Tuning Solution	SUPELCO	47598-U	LB91071	03/15	1 mL	↓	03/28/13	573	6/27/13	449	
24	↓	↓	↓	↓	03/15	↓	↓	↓	↓			
25	Aqua Comparator Kit	orbeco	L147010	NA	2/2016	Each	Box	3/25/13	262	3/27/12	262	

COMMENTS:

Book Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Hexachlorocyclopentadiene	Accu std	App9-114-10X	211101035-01	4/18/13	1mL	G	6/21/12	421			
2	↓	↓	↓	↓	↓	↓	↓	↓	↓			
3	↓	↓	↓	↓	↓	↓	↓	↓	↓			
4	↓	↓	↓	↓	↓	↓	↓	↓	↓			
5	2.4.5.6-Tetrachloro-M-Xylene	Supelco	4-8317	LB83516	3/2014	1mL	G	7/7/12	421	7/6/12	421	verified
6	↓	↓	↓	↓	↓	↓	↓	↓	↓			
7	Dibutyl Chlorendate	Supelco	4-8129	LB89193	12/2014	1mL	G	7/7/12	421	~~7/6/12~~ 7/6/12	~~421~~	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓			
9	Hexachlorobenzene	Accu. STD	APP-9-112	211041442	4/21/21	1ml	G	7/20/12	669	8/6/12	500	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/6/13	842	
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/7/13	842	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓			
13	↓	↓	↓	↓	↓	↓	↓	↓	↓			
14	PCB Calibration check Sol.	Accu. STD	C-CCSEC	B4080123	8/17/14	↓	↓	↓	↓			No use log in at Extraction Book
15	↓	↓	↓	↓	↓	↓	↓	↓	↓			
16	↓	↓	↓	↓	↓	↓	↓	↓	↓			
17	↓	↓	↓	↓	↓	↓	↓	↓	↓			
18	↓	↓	↓	↓	↓	↓	↓	↓	↓			
19	Tributylphosphate	↓	M-8141A-SS-01	210091147-01	4/12/14	↓	↓	↓	↓	9/20/12	684	verified
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	5/13/13	773	
21	Naled	↓	M-8140-15	211071139	07/13/13	↓	↓	↓	↓	7/1/13	773	
22	~~Stirophos~~ 7/20/12 684 stirophos	↓	M-8140-18	211061107	6/8/14	↓	↓	↓	↓			
23	organo Phosphorous Pesticides mix X	↓	M-8140M-5X	212031361	3/30/14	↓	↓	↓	↓	12/6/12	684	verified
24	Dibrom Solution 7/20/12 684	CHEM	F02067JS	479-109C	6/30/13	1ml	G	7/23/12	684	1/15/13	684	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓			

COMMENTS:

Book Number: 6

05/22/12 Revision

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	TETRAETHYL LEAD	Accustandard	78-00-2	211121072	Dec 9, 2021	1 mL	G	6/8/12	710			
2	↓	↓	↓	↓	↓	↓	↓	↓	↓			
3	↓	↓	↓	↓	↓	↓	↓	↓	↓			
4	Tetraethyl lead	Accustandard	S-1263	212061140	6/12/22	1mL	G	6/13/12	142	11/21/12	773	verified 4/24
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/29/12	142	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	4/10/13	421	
7	Dibutylchlorendate & TCMX	↓	CLP-034	B0050209	12/10/19	1ml	↓	↓	↓	6/13/12	142	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/8/13	421	
9	↓	↓	↓	↓	↓	↓	↓	↓	↓			
10	↓	↓	↓	↓	↓	↓	↓	↓	↓			
11	↓	↓	↓	↓	↓	↓	↓	↓	↓			
12	Dual layer carb/PSA 500/500 mg	Supelco	54067-U	342550	NA	10 PKS (20/PK)	SPE cartridge	6/18/12	142			
13	Aroclor 1248	~~Supelco~~ Ultra 6/6/13	PP-341	CH-3256	11/30/19	1mL	G	6/19/12	421	7/5/12	669	verified
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/7/12	V	
15	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/12/13	V	
16	↓	↓	↓	↓	↓	↓	↓	↓	↓			
17	Toxaphene	Ultra	PP-271	CH-2783	9/30/15	1mL	G	6/19/12	421	8/22/12	500	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/5/12	RM	Marma lab
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/12-2/13	500	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/22/13	500	
21												
22	Decachlorobiphenyl & TCMX	Accu std.	CLP-032-H-5X	212011241	1/20/22	1mL	G	6/19/12	421	6/20/12	421	
23	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/21/12	142	
24	↓	↓	↓	↓	↓	↓	↓	↓	↓			
25	Hexachlorocyclopentadiene	Accu std	App-9-114-10X	211101035-01	4/18/13	1mL	G	6/21/12	421			

COMMENTS: _____

Book Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Organochlorine peseicide Mix AB #1	Restek	32291	A082995	07-31-2015	1ml	G	04/3/12	7	04-05-12	7	
2										4-25-12	142	
3										8-3-12	7	
4										8-6-12	500	
5										2-6-13	842	
6										8-7-13	842	
7										8-15-12	262	
8										1-22-13	27	→ Marine
9										11-20-12	27	to marine Dept.
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	02-4-13	7	
11	Custom Method 615 Chlorinated Herbicides Mix		57667	A079087	01-31-2013			04/6/12		6-11-12	785	
12										6-11-12	↓	
13										6-14-12	785	
14										6-14-12	↓	
15										6-27-12	785	
16										5-31-12	196	
17										5-31-12	↓	
18										6-27-12	785	
19		↓										
20	↓		↓	↓	↓	↓	↓	↓	↓			
21												
22												
23												
24												
25												

COMMENTS: _____

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Tetrachlorvinphos (stirophos)	CHM	F2069	481-2A	1/31/15	250mg	G	1/30/12	684			
2	Hexafluoro-2-propanol	CHM	F2554	462-22A	3/31/14	1g	G			9-7-12	684	verified
3												
4	Hexafluoro-2-propanol	ALDrich	105228-5G	SHBB4054V	2/7/15	5g	G	2/2/12	684	2/7/12	684	verified
5	Total chlorine test tablets	orbeco	434-IT	L06-018-34	2/6/17	50/pk	foil pk	2/6/12	142	2/6/12	142	
6	Organic Acids custom std.	Ultra	CUS-10577	CJ-0356	3/31/13	1ml	G	2/6/12	684	2/29/12	684	verified
7										8/24/12	684	
8										12/28/12	684	
9										1/24/13	684	
10												
11	81417A ~~C~~custom std (2/6/12 AC)		CUS ~~CJ~~-11539	CJ-0324	2/28/13					3/26/12	684	verified
12			1/6/12 AC CUS-11539							8/9/12	684	
13										1/10/13	684	
14												
15												
16	OTIN-STD	Accu std	OMT-001	209091161-01	07/11/13	1ml	G	02/09/12	513	02/09/12	513	
17										08/20/12		
18	OTIN-SURR		OMT-004	210111316	11/23/12					02/09/12	513	
19										08/20/12		
20	OTIN-IS		OMT-005	212011344	01/27/15					02/09/12	513	
21										08/20/12		
22	2,3,7,8-TCDD		D-404N	970401R-AC	07/28/15	1mg	G			03/20/12	513	
23	Pesticide Surrogate Mix	Restek	32000	A084532	4/19	1ml	G	2/15/12	500	8/7/13	842	
24												
25												

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Chlordane Solution	Ultra	PP-151	CH-0599	3/31/15	1ml	G	9/21/11	TW	2/22/13	500	
2	Toxaphene Solution	Ultra	PP-271	CH-2783	9/30/15	1ml	G	9/21/11		10/17/11	MC	
3										1/23/12	421	verified 5-B2-P15
4										2/22/12	500	
5										6/11/12	500	Marine C-
6	8270A Base-Neutrals Mix	Supelco	4-8479	LB87223	9/2014	↓	↓	9/21/11	NCH	6/5/12	421	
7	Custom Organic Acids standard	Restek	562978	A084144	9/2013	1ml	G	9/23/11	684	9/23/11	684	verified
8										2/29/12	684	
9										9/27/12	684	
10										2/18/13	773	
11										10/24/12	684	
12	525 Tuning STD	AccuSTD	M-525.2-TS	21105326	6/1/12	1 ml	G	9/23/11	262			
13	525 IS/SS		M-525.2-IS/SS-PAK	B7110043-1A	5/10/13	1 ml	G					
14												
15												
16												
17												
18	515 Performance Check	AccuSTD	M-515-2C-PAK	21105233	5/24/13	1 ml	G	9/23/11	262	10/4/11	LL	verified
19				21105233						12/5/11	421	
20										12/14/11	421	
21										1/19/12	262	
22										8/2/12	262	
23	Diquat and Paraquat	Acc STD	M-549.1	21104106G	4/8/13	1 ml	G	9/23/11	262			
24												
25												

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Pesticide Surrogate Mix	Restek	32000	A08H532	H/19	1ml	G	2/15/12	500			
2	Technical Chlordane Mix (500 2/15)		32021 (500 2/15)	A083987 (500 2/15)	6/18 (500 2/15)					2/22/12	500	
3										6/11/12	500	Marine Lab
4										8/22/12	↓	
5										2/22/13	500	
6	625 CUSTOM STD	Accu STD	S-23539	212021135	02/15/13	1 mL	G	02/17/12	573	03/20/12	573	
7												} No std found.
8												
9												
10												
11	Dibrom Solution (Naled)	CHEM	F2067JS	479-109C	06/30/13	1ml	G	02/22/12	684	8/7/12	684	
12	Tetrachlorvinphos (Stirophos)	↓	F2069JS	482-17C	02/28/14	↓	↓	↓	↓	8/6/12	684	verified
13	Aroclor 1254	Supelco	9-0128R	LB 85515	02/2021	1mL	G	2/24/12	421	2/24/12	421	508 Std.
14	Aroclor 1268		4-4807	LB 88969	01/2015							
15	Aroclor 1232		9-0125R	LB 88331	03/2021							
16	Aroclor 1242		9-0126R	LB 89466	02/2021							
17	Aroclor 1221		9-0124R	LB 73472	11/2018							
18	625 EXTRA W/O TCDD		21493182	LB 90675		1 mL	G	03/01/12	573	09/19/12		
19										5/6/13	449	
20										03/20/12	573	
21												
22	8141 Additional Mix Std. 7A	Supelco	21493186	LB90676		1 ml	G	3/01/12	684	5/31/12	684	
23										2/14/13	773	
24												
25												

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	PAH Mix	Supelco	47543-U	LB78043	8/2013	1ml	G	5/18/12	449	4/29/13	449	
2	↓	↓	↓	↓	↓	↓	↓	↓	↓			
3	Isomer & comp. IC	Ultra	CUS-13983	CJ-1791	Jun/2014	1ml	G	5/22/12	669	6-15-12	27	→ marine
4										7-26-12	669	
5										1-22-13	27	→ marine
6										5/15/13	442	
7												
8	Toxaphene	Restek	32005	A083442	11/2015					6/11/12	500	Marine Lab
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/22/13	500	
10	Silica gel SPE	Restek	24038	016190-QJ-09	NA	1g/6ml	PE ~~G~~ 142	5/22/12	142	5/22/12	142	
11	Alumina SPE	Supelco	57083-U	2769901	NA	~~2g~~/6ml	PE	↓ 6	↓	↓	↓	
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												

out of use → go to the book #

COMMENTS:

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR DATE	PREP BY	COMMENTS
11-04-13	E110413A	8080 sur.	pesticide Surrogate Mix	E08-56-19, 20	10 ml	200ppm	1000ml	2ppm	Acetone	E08-62-3	05-04-14	7	
~~11-07-13~~	~~E110713A~~	~~508 A~~	~~Aroclor 1260 soln.~~	~~E08-70-12~~	~~0.04ml~~								11/9/13
11-8-13	E110813A	8270 sur.	Acid Surrogate Mix	E08-55-8, E08-65-11, 12, 13.	8ml	10,000ppm	1000ml	8000ppm	Acetone	E08-62-3	05-08-14 (C) 11/8/13	7	
			B/N	E08-65-19, 20, E08-66-1	80ml	5000ppm							
	E110813B (C) 11/8/13	8081 spike	O.P. Mix AB #1	E08-13-6	1ml	200ppm	200ml	1ppm					
			Hexachlorobenzene (C)	E06, E08-36-12 11/8/13	0.2ml	1000ppm							
	E110813C	8081 spike	O.P. Mix AB #1	E08-13-7	1ml	200ppm			Hexane	E08-62-10	05-08-14	7	For 3540c
			Hexachlorobenzene	E06-36-12	0.2ml	1000ppm							
11-15-13	E111513A	8270 FBC spike	8270 Calibration Mix #1	E08-74-14, 15, 16, 17.	5ml	2000ppm	50ml	200ppm	Acetone	E08-62-3	5-15-14	7	
			#2	E08-75-1, 2, 3, 4.									
			#3	E08-75-11, 12, 13, 14.									
			#4	E08-75-21, 22, 23, 24									
			#5	E08-76-6, 7, 8, 9.									
			Custom 1,3,5-Trinitrobenzene	E08-76-16, 17, 18, 19.									
11-15-13	E1115-13B	organotins spike	Butyltin chlorides calibration Mixture	E07-07-11	0.15ml	2000ppm	300ml	1ppm	Hexanes	E08-68-13	5-15-14	785	
11-19-13	E111913A	8310 sur.	DeCafluorobiphenyl mix	E08-63-12, 13, 14, 15	5ml	2000ppm	50ml	200ppm	CH_3CN	E08-45-17	05-19-14	7	
11-19-13	E111913B	1,4 Dioxane spike	1,4 Dioxane spike 1000ppm	E06-113B	0.02ml	1000ppm	2.0ml	10ppm	Acetone	E08-62-3	12-21-13	785	
11-19-13	E111913C	NDMA spike	NDMA spike 1ppm	E07-25-13B	0.02ml	1ppm	2ml	10ppb	Acetone	E08-62-3	1-25-14	785	
11-19-13	E111913D	504.1 spike	504.1 spike 0.2 ppm	E100813A	0.1ml	0.2ppm	2ml	10ppb	MeoH	E08-54-17	4-8-14	785	
11-26-13	E112613A	8270 Sim PAH Surrogate	B/N Surrogate Mix	E08-74-1	0.8ml	5000ppm	1000ml	4ppm	Acetone	E08-62-3	~~12-26-13~~ 05/26/14	887	

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	Acid Matrix Spike Mix	Restek	31071	A094155	04-30-20	5 ml	G	07-08-13	7	10-30-13	385	
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
4	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
7	13/N Matrix Spike Mix		31084	A094853	04-30-16					10-30-13	385	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
13	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
15	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
16	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
19	pesticide Surrogate Mix		32457	A095091	07-31-19					11-02-13	7	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
21	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/27/13	669	
22	↓	↓	↓	↓	↓	↓	↓	↓	↓	12-9-13	887	
23	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
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25												

COMMENTS: _____

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Sodium sulfate Anhydrous	Fisher	S421-10	130199	8-2-18	10kgx6	P	8-2-13	785	8-2-13	785	
2	Methylene chloride	Fisher	D151-4	130086	8-2-16	4Lx96	G	8-2-13	785	8-2-13	785	
3	Acetone	Fisher	A929-4	132413	8-2-16	4Lx8	G	8-2-13	785	8-2-13	785	
4	Dichloromethane	EMD	DX0831-1	53151	8-6-16	4Lx60	G	8-6-13	785	8-6-13	785	
5	Methylene Chloride	Fisher	D151-4	134369	8-6-16	4Lx4	G	8-6-13	785	8-6-13	785	
6	Pentylmagnesium bromide	ALDRICH	29098 8-100ml	39196BKV	8-9-16	100ml x6	G	8-9-13	785	8-9-13	785	
7	Florisil SPE Cartridges	RESTEK	24034	930973	4-1-15	30pkx42	P	8-9-13	785	8-9-13	785	
8	Diazald	ALDRICH	D2800-25G	SHBD0389V	8-9-18	25gx10	P	8-9-13	785	8-9-13	785	
9	LC-Alumina-A SPE Cartridge	Supelco	57083-U	3661401	N/A	6ml x300	P	8-9-13	863	8-9-13	863	
10	Methylene Chloride	Fisher	D151-4	133287	8-13-16	4Lx64	G	8-13-13	785	8-13-13	785	
11	Sodium Sulfate Anhydrous	Fisher	S421-10	121758	8-13-18	10kgx2	P	8-13-13	785	8-13-13	785	
12	CarboPrep TM 90	RESprep	26091	P3196	08-13-18	100gs	P	08-13-13	787	08-13-13	787	
13	Dichloromethane	EMD	DX0831-1	53151	8-14-16	4Lx60	G	8-14-13	785	8-14-13	785	
14	Sulfuric Acid	EMD	SX1-47/2	52116	8-15-16	2.5Lx4	G	8-15-13	785	8-15-13	785	1:1 H_2SO_4
15	Hydrochloric Acid	EMD	HX0607-2	52310	8-15-16	2.5Lx3	G	8-15-13	785	8-15-13	785	
16	Dichloromethane	EMD	DX0831-1	53151	8-27-16	4Lx60	G	8-27-13	785	8-27-13	785	
17	Acetonitrile	Fisher	A998-4	134625	8-28-16	4Lx6	G	8-28-13	785	8-28-13	785	
18	Acetone	Fish	A929-4	132413	8-28-16	4Lx12	G	8-28-13	785	8-28-13	785	
19	Dichloromethane	EMD	DX0831-1	53195	8-28-16	4Lx36	G	8-28-13	785	8-28-13	785	
20	Florisil (60-100mesh)	EMD	FX0284-5	TE04B2EMS	08-31-18	10kg	P	08-31-13	787	08-31-13	787	
21	Sodium sulfate Anhydrous	Fish	S421-10	130199	9-4-18	10kgx6	P	9-4-13	785	9-4-13	785	
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COMMENTS:

Book Number: 8

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Sulfuric Acid	EMD	SX1244-5	51312	12-11-15	2.5L x3	G	12-11-12	785	12-11-12	785	for 1:1 H_2SO_4
2	Dichloromethane	EMD	DX831-1	52293	12-13-15	4L x12	L	12-13-12	7	12-13-12	7	
3	~~S.U.I.S.~~	~~RESTEK~~	~~—~~	@ 12/13/12								
4	Hexanes	EMD	HX0298-1	52228	12-18-15	5 x4L	G	12-18-12	785	12-18-12	785	for organotins
5	Ethyl Ether Anhydrous	EMD	EX0180-4	52142	5/31/14	4L x 8	G	12-18-12	785	12-18-12	785	
6	Hexanes	EMD	HX0298-1	52228	12-26-15	4L x 2	G	12-26-12	785	12-26-12	785	
7	Hexanes	EMD	HX0290-1	51265	12-26-15	4L x 2	G	12-26-12	785	12-26-12	785	
8	Hexanes	EMD	HX0290-1	52061	12-26-15	4 L x 4	G	12-26-12	785	12-26-12	785	
9	Diatomaceous Earth	J.T Baker	1939-05	T26H10	12-27-17	25kg x3	P	12-27-12	787	12-27-12	787	
10	Cotton wipe 2"x 2"	Fisher	22028559	NW1208A06	NA	200 ea x20	P	12-28-12	785	12-28-12	785	
11	Dichloromethane	EMD	DX831-1	52321	12-28-15	4L x32	G	L	L	L	L	
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COMMENTS: _____

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Acetonitrile	Fisher	A998-4	135092	11/1/16	4L	G	11/01/13	887	11/01/13	887	
2	Hexanes	EMD	HX0298-1	53164	11-5-16	4Lx18	G	11-5-13	585	11-5-13	585	for organotins
3	Silicic Acid	Fisher	A288-500	135574	11-8-18	500gx2	P	11-8-13	785	11-8-13	785	
4	Celite 566 Diatomaceous Earth	UCT	EC56630K	310170-AW	11-8-18	30kg	P	11-8-13	785	11-8-13	785	
5	Phase Separator ips - 185 mm	whatman	2200-185	9454683	NA	10 pks	P	11-08-13	787	11-08-13	787	
6	Dichloromethane	EMD	DX0831-1	53195	11-11-16	4Lx60	G	11-11-13	7	11-11-13	7	
7	Hexane	"	HX0298-1	53164	"	4Lx8	"	"	"	"	"	
8	Sodium Sulfate Anhydrous	Fisher	S421-10	132812	11-12-18	10kgx2	P	11-12-13	785	11-12-13	785	
9	Sodium Sulfate Anhydrous	Fisher	S421-10	134830A	11-14-18	10kgx4	P	11-14-13	785	11-14-13	785	
10	Sodium Hydroxide	Fisher	S318-10	130801	11-14-18	10kgx2	P	11-14-13	585	11-14-13	585	
11	Methylene	"	D151-4	133287	11-14-16	4Lx40	G	11-14-13	7	"	7	
12	Dichloromethane	EMD	DX0831-1	53195	11-18-16	4Lx60	G	11-18-13	2WM	11-18-13	2WM	
13	Mercury	Sigma-Aldrich	21545)-2KG	SLBB8666V	N/A	2kg	P	11-19-13	7	11-19-13 @ 11/18/13	7	
14	Methylene	Fisher	D151-4	136743	11-22-16	4Lx40	G	11-22-13	785	11-22-13	785	
15	Boiling Stone	Saint-Gobain	0919120	J114-3H037	11-22-18	450gx6	P	11-22-13	785	11-22-13	785	
16	Dichloromethane	EMD	DX0831-1	53195	11-25-16	4Lx60	G	11-25-13	7	11-25-13	7	
17	Hexane	EMD	DX0298-1 DX0831-1 (887) 11/30/13	53164	11-25-16	4Lx8	G	11-25-13	785	11-25-13	785	
18	Dichloromethane	"	DX0831-1	53195	11-2)-16	4Lx80	"	11-2)-13	7	11-2)-13	7	
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25												

COMMENTS:

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Glass Microfiber Filters TCLP	GE	1810-090	9481956	NA	1 x 8K	P	10-2-13	585	10-2-13	585	
2	Dichloromethan	EMD	DX0831-1	53102	10-07-16	4L x ~~40~~ 120	G	10-07-13	787	10-07-13	787	
3	"	"	"	53195	10-4-16	4L x 60 @ 14	"	10-9-13	7	10-9-13	7	
4	Ethyl Ether Anhydrous	EMD	EX0184-4	53028	01-31-15	4L x 10	G	10-10-13	585	10-10-13	585	
5	Dichloromethane	EMD	DX0831-1	53195	10-14-16	4L x 60	G	10-14-13	7	10-14-13	7	
6	"	"	"	53118	"	4L x 32	"	"	"	"	"	
7	Sodium Sulfate Anhydrous	Fish	S421-10	132812	10-16-18	10kg x 6	P	10-16-13	585	10-16-13	585	
8	Hexanes	EMD	HX-0298-1	53164	10-16-18	4L x 8	G	10-16-13	787	10-16-13	787	
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25												

COMMENTS: _____

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Acetonitrile	Fish	A998-4	127999	5-3-16	4L×6	G	5-3-13	385	5-3-13	385	
2	~~Sodium chloride~~ 5/6/13 385	~~EMD~~	~~SX0420-5~~	~~TK19CZEMS~~	~~5-6-18~~	~~12kg×2~~	~~P~~	~~5-6-13~~	~~385~~	~~5-6-13~~	~~385~~	5/6/13 385
3	Sodium Sulfate Anhydrous	Fish	S421-10	126473	5-6-18	10Kg×6	P	5-6-13	385	5-6-13	385	
4	Sodium chloride	EMD	SX0420-5	TL20B2EMS	5-6-18	12kg×2	P	5-6-13	385	5-6-13	385	
5	25mm syringe Filter/acetum PTFE	VWR	2815-497	21744510	NA	100 each ×2	P	5-7-13	385	5-7-13	385	
6	BD syringe 10ml	BD	REF 305462	2204064	NA	100 each ×3	P	5-7-13	385	5-7-13	385	
7	Dichloromethane	EMD	DX0831-1	53102	5-7-16	4L×60	G	5-7-13	385	5-7-13	385	
8	Celite 566 Diatomatceous Earth	UCT	EC56630K	315030-AV	5-7-18	30 kg	P	5-7-13	385	5-7-13	385	
9	Hexanes	EMD	HX0298-1	53032	5-10-16	4L×24	G	5-10-13	385	5-10-13	385	
10	Sodium Hydroxide	Fish	S318-10	126910	5-10-18	10Kg×2	P	5-10-13	385	5-10-13	385	
11	Hexanes	EMD	HX0298-1	53102	5-14-18	4L×48	G	5-14-13	385	5-14-13	385	
12	Dichloro methane	EMD	DX0831-1	52321	5-20-~~18~~ 16	4L×60	G	5-20-13	385	5-20-13	385	
13	Boiling stones	Saint Gobain	0919120	G3843C019	5-20-18	5/20/13 385 450g×5	P	5-20-13	385	5-20-13	385	G384-3C019
14	Mercury	~~ALFA AESAR~~	00522-P5	E22Y027	NA	57bx2	P	5-20-13	385	5-20-13	385	
15	Sodium chloride	EMD	SX0420-5	TL20BZEMS	5-22-18	12kg×3	P	5-22-13	385	5-22-13	385	
16	~~Sodium chloride~~	~~EMD~~	~~SX0~~ 5/13/13 385									
17	Acetonitrile	Fish	A998-4	127999	5-22-16	4L×8	G	5-22-13	385	5-22-13	385	
18	Dichloromethane	EMD	DX0831-1	53102	5-23-16	4L×60	G	5-23-13	385	5-23-13	385	
19	Sodium chloride	Fish	S271-10	130583	5-24-18	10Kg×3	P	5-24-~~18~~ 13	385	5-24-13	385	
20	Dichloro methane	EMD	DX0831-1	53109	5-28-16	4L×60	G	5/28/13 385 5-28-13	385	5-28-13	385	
21	Filter paper 41	whatman	1441090	5366526	~~NA~~ NA 5/30/13 385	5pk	P	5-31-13	385	5-31-13	385	
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25												

COMMENTS:

Book number: 8

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Cellulose Filter for ASE 300	Restek	26168	0162685	NA	200 PK	P	09/3/13	7	09/3/13	7	
2	Dichloromethane	EMD	DX0831-1	53195	09-5-16	4L x 60	G	09/5/13	7	09/5/13	7	
3	~~8140/8141 O.P.P. Calibration Mix A~~	~~Restek~~	32277	A095110	04-30-14			@	9/16/13			
4	Dichloromethane	EMD	DX0831-1	53195	09-17-16	4L x 60	G	09-17-13	7	09-17-13		
5	Carbital (2-(2-Ethoxyethoxy) ethanol	J.T. Baker	L216-01	000004288 3	9-18-16	500ml x 2	G	9-18-13	985	9-18-13	985	
6	Dichloromethane	EMD	DX0831-1	53158	9-20-16	4L x 16	G	9-20-13	985	9-20-13	985	
7	Dichloromethane	EMD	DX0831-1	53195	9-24-16	4L x 60	G	9-24-13	985	9-24-13	985	
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22												
23												
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25												

COMMENTS: _____

Book Number: 8

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
8-6-13	E080613A	8310 spike Fac	8310 Calibration Mix # 1	E08-52-3,4,5	5 ml	2000 ppm	50 ml	200 ppm	Acetone	E08-42-6	2-6-14	785	
↓	↓	↓	#2	E08-52-9,10,11	8/6/13	↓	8/6/13	↓	↓	↓	↓	↓	
			#3	E08-52-14,15,16									
			#4	E08-52-18,19,20									
↓	↓	↓	#5	E08-52-1, 23, 24, 25	↓	↓	↓	↓	↓	↓	↓	↓	
08-13-13	E081313A	8081 spike	O.P. Mix AB # 1	E08-13-1,2	1 ml	2000 ppm	200 ml	1 ppm	↓	↓	02-13-14	7	
↓	↓	↓	Hexachlorobenzene	E08-36-12	0.2 ml	1000 ppm	↓	↓	↓	↓	↓	↓	
8-15-13	E081513A	508A	PCB 1260	55-31-6	0.04 ml	5000 ppm	4 ml	50 ppm	MeOH	E08-54-17	10-31-13 ~~2-15-13~~	782 8/15/13	Exp. 10-31-13
8-23-13	E082313A	508 sur.	Pesticide surrogate Mix	E08-46-7	2 ml	2000 ppm	200 ml	2 ppm	MTBE	56-11-8	10-23-13	785	
8-23-13	E082313B	508 pest	O.P. Mix AB#1	E08-13-1,2 8/23/13	0.5 ml	200 ppm	100 ml	1 ppm	MTBE	56-11-8	10-23-13	785	
↓	↓	↓	Hexachlorobenzene Std.	E08-36-12	0.1 ml	1000 ppm	100 ml	1 ppm	MTBE	56-11-8	10-23-13	785	
↓	E082313C	508 PCB	Aroclor 1016/1260 Mix	E06-73-5	1 ml	1000 ppm	100 ml	10 ppm	MTBE	56-11-8	10-23-13	785	
8-30-13	E083013A	8310 spike	5V Calibration Mix #5	E05-27-4	0.5 ml	2000 ppm	50 ml	20 ppm	CH_3CN	E08-45-17	2-28-14	7	

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	O.P. Mix AB #1	Restek	32291	A082995	07-31-15	1 mL	G	08-16-12	7	5-1-13	7	
2										08-13-13	7	
3										1-7-14	842	
4												
5												
6										11-08-13	7	
7										L	L	
8												
9										1/10/14	887	
10												
11	Hexachlorobenzene Std		32231	A086386	02-28-17					1/10/14	887	
12												
13												
14												
15	504.1 Calibration Mix		30239	A087025	03-31-17					10-30-12	585	
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23												
24												
25												

COMMENTS: _____

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Custom 2A-Dichlorophenyl Acetic Acid Mix	Restek	57668	A092601	12-31-14	1 mL	G	01-09-13	7	05-16-13	787	
2	"	"	"	"	"	"	"	"	"	"	"	
3	"	"	"	"	"	"	"	"	"	07-19-13	787	
4	"	"	"	"	"	"	"	"	"	07-(787)-13	787	07-23-13
5	"	"	"	"	"	"	"	"	"	"	"	
6	"	"	"	"	"	"	"	"	"	07-29-13	787	
7	"	"	"	"	"	"	"	"	"	"	"	
8	"	"	"	"	"	"	"	"	"	09-16-13	787	
9	"	"	"	"	"	"	"	"	"	09-18-13	787	
10	"	"	"	"	"	"	"	"	"	"	"	
11	B/N Surrogate Mix		33028	A092591	11-30-18	10 mL				3-18-13	7	
12	"	"	"	"	"	"	"	"	"	"	"	
13	"	"	"	"	"	"	"	"	"	"	"	
14	"	"	"	"	"	"	"	"	"	"	"	
15	"	"	"	"	"	"	"	"	"	"	"	
16	"	"	"	"	"	"	"	"	"	05-01-13		
17	"	"	"	"	"	"	"	"	"	"	"	
18	"	"	"	"	"	"	"	"	"	"	"	
19	"	"	"	"	"	"	"	"	"	"	"	
20	"	"	"	"	"	"	"	"	"	"	"	
21	Tetraethyl Lead	AccuStd	S-1263	212061140	F-10-22	1 mL	G	1-10-13	421	1-10-13	785	
22	"	"	"	"	"	"	"	"	"	1-11-13	421	
23	"	"	"	"	"	"	"	"	"	3-6-13	785	
24	"	"	"	"	"	"	"	"	"	"	"	
25												

COMMENTS: _____

Book Number: 8

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Sodium Sulfate Anhydrous	Fish	S421-10	121758	4-2-18	10kg x 6	P	4-2-13	785	4-2-13	785	
2	Sulfuric Acid	EMD	SX1247/2	52116	4-8-16	2.5L x 3	G	4-8-13	785	4-8-13	785	
3	Hydrochloric Acid	EMD	HX0607-2	52250	4-8-16	2.5L x 3	G	4-8-13	785	4-8-13	785	
4	Hexanes	EMD	HX 0298-1	53032	04-09-16	4L x 18	G	04-09-13	787	04-09-13	787	
5	Dichloromethane	EMD	DX0831-1	53044	4-11-16	4L x 40	G	4-11-13	785	4-11-13	785	
6	Acetone	Fish	A929-4	127684	4-12-16	4L x 8	G	4-12-13	785	4-11-13	785	
7	Ethyl Ether Anhydrous	EMD	EX0190-4	52331	11-30-14	4L x 4	G	04-12-13	787	4-12-13	787	
8	Sodium Sulfate Anhydrous	Fish	S421-10	121758	4-15-18	10kg x 6	P	4-15-13	785	4-15-13	785	
9	Dichloromethane	EMD	DX0831-1	53066	4-19-16	4L x 72	G	4-19-13	785	4-19-13	785	
10	Hexanes	EMD	DX 0298-1	53063	04-23-16	4L x 24	G	04-23-13	787	04-23-13	787	
11	Dichloromethane	EMD	DX0831-1	52321	4-24-16	4L x 24	G	4-24-13	785	4-~~23~~ 24-13 @ 4/24/13	785	
12	↓	↓	↓	53162	4-30-16	4L x 108	↓	4-30-13	7	4-30-13	7	
13	copper Granules 99.5%	REsprep	26136	212201-AW	04-30-18	1kg.	P	04-30-13	787	04-30-13	787	
14	Alumina SPE Cartridge	Supelco	57083-U	3661401	N/A	6ml x 60	P	04-30-13	7	04-30-13	7	
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												

COMMENTS:

Book Number: 8

05/22/12 Revision

Return to Contents

EPA METHOD 8081A
Organochlorine Pesticides

RAW DATA

Return to Contents

EPA METHOD 8081A
Organochlorine Pesticides

Initial Calibration

Return to Contents

GC-44, Calculation of Initial Calibraton, Pest, Front Column
Run date: 11/04/13

Front column

LEVEL	AREA					CONC. (PPB)												(<20%)				(<15%)
Analytes	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	RF1	RF2	RF3	RF4	RF5	Avg RF	SD	%RSD	ICV	CONC. (PPB)	RF	%D
TCMX (Sur.)	26686	53933.7	108601	157954.6	242042.4	20	40	80	120	160	1334	1348	1358	1316	1513	1374	79	5.8	123419	80	1543	12.3
Hexachlorobenzene	19230.4	35882.5	73723	105246.4	153559.4	10	20	40	60	80	1923	1794	1843	1754	1919	1847	75	4.1	79992	40	2000	8.3
alpha-BHC	21682.3	40690.4	85736.2	126246.4	187601.7	10	20	40	60	80	2168	2035	2143	2104	2345	2159	116	5.4	94242.5	40	2356	9.1
gamma-BHC	20201.6	37462.5	78603.3	114142.9	167927.5	10	20	40	60	80	2020	1873	1965	1902	2099	1972	91	4.6	84919.2	40	2123	7.7
beta-BHC	9054.9	16355.1	33863.7	51682.9	69424	10	20	40	60	80	905	818	847	861	868	860	32	3.7	36290.4	40	907	5.5
delta-BHC	20194.2	37467.6	79187.1	120585.7	170246.7	10	20	40	60	80	2019	1873	1980	2010	2128	2002	91	4.6	85616.6	40	2140	6.9
Heptachlor	20783.1	37754.6	77765.5	118020	161858.1	10	20	40	60	80	2078	1888	1944	1967	2023	1980	73	3.7	83529.8	40	2088	5.5
Aldrin	18919.1	34972.1	73893	114216	155435	10	20	40	60	80	1892	1749	1847	1904	1943	1867	74	4.0	79078.4	40	1977	5.9
Heptachlor Epoxide	17712.7	32036.6	67522.6	103453.6	138649.3	10	20	40	60	80	1771	1602	1688	1724	1733	1704	64	3.8	72057.8	40	1801	5.7
gamma-Chlodane	17269.9	31847.1	67751.3	104696.9	141249.5	10	20	40	60	80	1727	1592	1694	1745	1766	1705	68	4.0	72990.5	40	1825	7.0
Alpha Chlordane	21222.7	35077	69513.5	104527.3	139413.5	10	20	40	60	80	2122	1754	1738	1742	1743	1820	169	9.3	73159.5	40	1829	0.5
4,4'-DDE	18629.2	32838.6	68006.2	103999.1	140137.4	10	20	40	60	80	1863	1642	1700	1733	1752	1738	81	4.7	72125.8	40	1803	3.7
Endosulfan I	17117.3	30052.9	62865	94798.1	125543.6	10	20	40	60	80	1712	1503	1572	1580	1569	1587	76	4.8	66736.3	40	1668	5.1
Dieldrin	17113.6	31726.7	67720	105029.5	143320.7	10	20	40	60	80	1711	1586	1693	1750	1792	1707	77	4.5	73013.4	40	1825	7.0
Endrin	15037.3	27872.2	61382.1	91682.1	124916.3	10	20	40	60	80	1504	1394	1535	1528	1561	1504	65	4.3	64857	40	1621	7.8
4,4'-DDD	14117.9	26151.3	56014.7	87567.6	119469	10	20	40	60	80	1412	1308	1400	1459	1493	1415	71	5.0	59870.6	40	1497	5.8
Endosulfan II	14417.2	26835.1	58655.2	88135.1	118682.7	10	20	40	60	80	1442	1342	1466	1469	1484	1440	57	4.0	62871.2	40	1572	9.1
4,4'-DDT	15460.8	28603.8	62952	93578.9	130485.3	10	20	40	60	80	1546	1430	1574	1560	1631	1548	73	4.7	66340.7	40	1659	7.1
Endrin Aldehyde	12373.4	22336	44001.3	73524.8	98644.7	10	20	40	60	80	1237	1117	1100	1225	1233	1183	68	5.8	50682.5	40	1267	7.1
Methoxychlor	8137	14705.5	31079.8	47212.4	62998.1	10	20	40	60	80	814	735	777	787	787	780	28	3.7	32570	40	814	4.4
Endosulfan Sulfate	13822.4	24953.1	53118.4	81686.8	110343.9	10	20	40	60	80	1382	1248	1328	1361	1379	1340	56	4.2	56260	40	1407	5.0
Endrin Ketone	16644.1	30158.5	64790.9	99983.8	133951.7	10	20	40	60	80	1664	1508	1620	1666	1674	1627	70	4.3	68852.4	40	1721	5.8
DCB (Sur.)	28820.9	53039.5	112129	172784.3	233407.6	20	40	80	120	160	1441	1326	1402	1440	1459	1413	53	3.8	119268.7	80	1491	5.5

CALCULATION FORMULAS:

RF = Area / LEVEL
%RSD = SD /Avg RF * 100

Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110403.D
Operator : 842
Instrument : GC 44
Sample Name : P ICAL2 S080713E 10PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 04:27 pm
Report Created on: 05 Nov 13 10:38 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104F.M

Vial Number : Vial 3
Sequence Line : 4
Report Style : PEST-FL
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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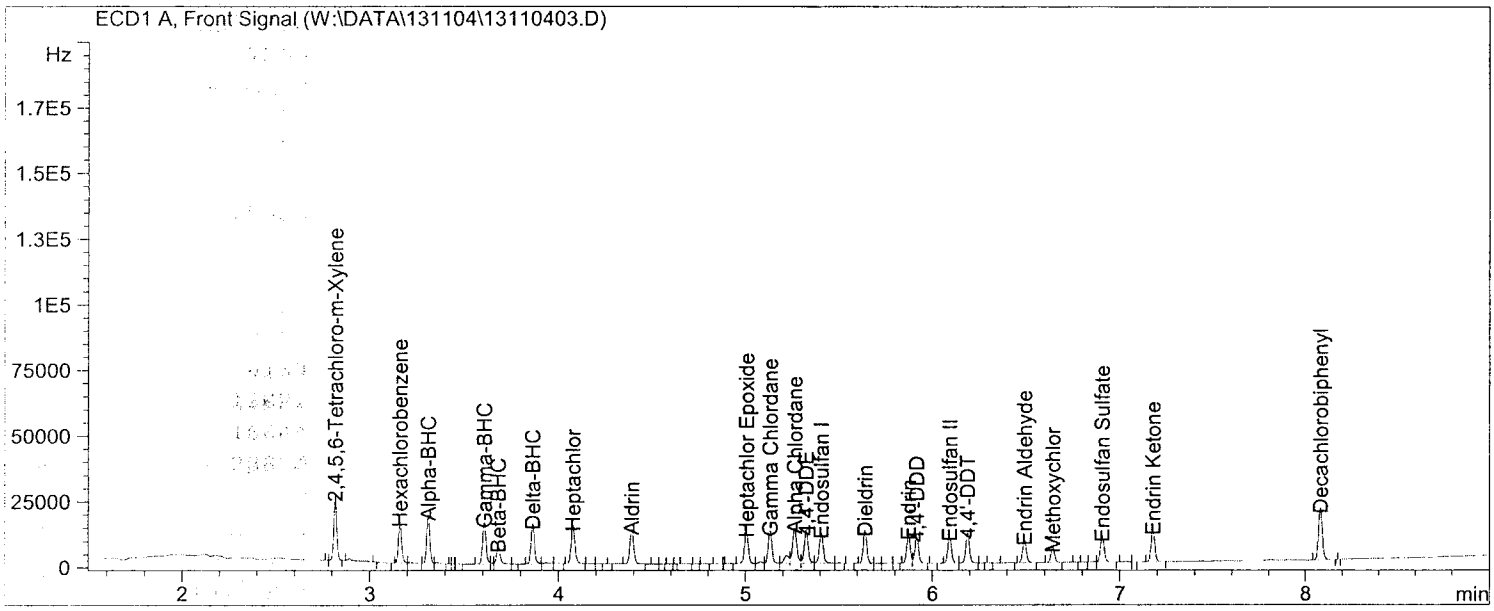
Sig. ECD1 A, W:\DATA\131104\13110403.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.818	26686.0	VB	0.017		17.672	2,4,5,6-Tetrachloro-m-Xylene
3.161	19230.4	VV	0.019		10.413	Hexachlorobenzene
3.310	21682.3	BV	0.018		10.043	Alpha-BHC
3.606	20201.6	BV	0.020		10.244	Gamma-BHC
3.681	9054.9	VB	0.023		10.531	Beta-BHC
3.862	20194.2	BB	0.021		10.087	Delta-BHC
4.077	20783.1	BB	0.022		10.496	Heptachlor
4.390	18919.1	BB	0.022		10.134	Aldrin
5.005	17712.7	BB	0.022		10.397	Heptachlor Epoxide
5.131	17269.9	VB	0.022		10.131	Gamma Chlordane
5.263	21222.7	VV	0.027		11.662	Alpha Chlordane
5.324	18629.2	VV	0.025		10.719	4,4'-DDE
5.405	17117.3	VB	0.025		10.786	Endosulfan I
5.640	17113.6	BB	0.021		10.028	Dieldrin
5.873	15037.3	BV	0.021		9.996	Endrin
5.917	14117.9	VB	0.023		9.981	4,4'-DDD
6.092	14417.2	VV	0.022		10.009	Endosulfan II
6.189	15460.8	VB	0.021		9.987	4,4'-DDT
6.492	12373.4	BB	0.022		10.464	Endrin Aldehyde
6.643	8137.0	VB	0.021		10.431	Methoxychlor
6.906	13822.4	VB	0.021		10.317	Endosulfan Sulfate
7.177	16644.1	VB	0.021		10.233	Endrin Ketone
8.081	28820.9	BB	0.022		20.390	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110404.D
Operator : 842
Instrument : GC 44
Sample Name : P ICAL3 S080713F 20PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 04:41 pm
Report Created on: 05 Nov 13 10:38 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104F.M

Vial Number : Vial 4
Sequence Line : 5
Report Style : PEST-FL
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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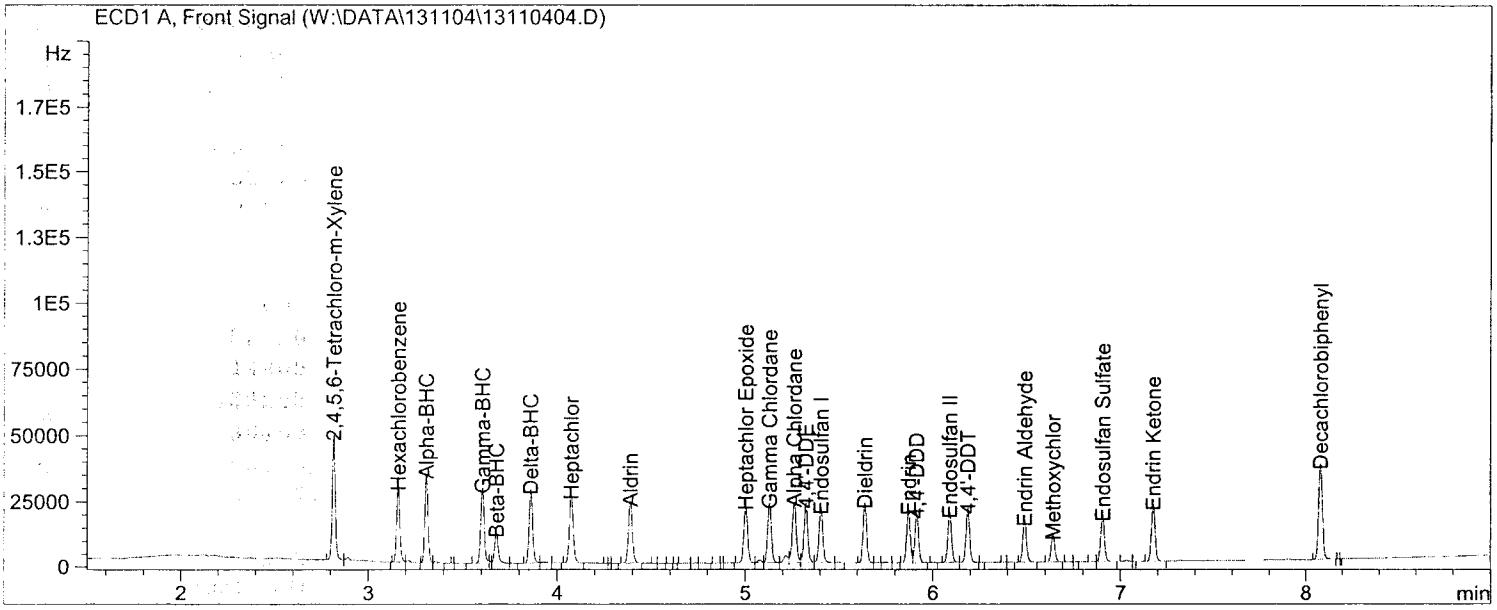
Sig. ECD1 A, W:\DATA\131104\13110404.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.817	53933.7	VB	0.017		35.716	2,4,5,6-Tetrachloro-m-Xylene
3.160	35882.5	BV	0.019		19.430	Hexachlorobenzene
3.310	40690.4	BV	0.018		18.846	Alpha-BHC
3.606	37462.5	BB	0.020		18.997	Gamma-BHC
3.680	16355.1	VB	0.022		19.022	Beta-BHC
3.861	37467.6	BB	0.021		18.714	Delta-BHC
4.076	37754.6	BB	0.022		19.067	Heptachlor
4.390	34972.1	BB	0.023		18.733	Aldrin
5.003	32036.6	BB	0.022		18.804	Heptachlor Epoxide
5.130	31847.1	VB	0.022		18.682	Gamma Chlordane
5.262	35077.0	VV	0.025		19.276	Alpha Chlordane
5.324	32838.6	VV	0.024		18.894	4,4'-DDE
5.404	30052.9	VB	0.024		18.936	Endosulfan I
5.639	31726.7	BB	0.022		18.591	Dieldrin
5.872	27872.2	BV	0.021		18.529	Endrin
5.916	26151.3	VB	0.023		18.488	4,4'-DDD
6.091	26835.1	BV	0.022		18.630	Endosulfan II
6.188	28603.8	VB	0.022		18.476	4,4'-DDT
6.491	22336.0	BB	0.021		18.888	Endrin Aldehyde
6.642	14705.5	BB	0.021		18.852	Methoxychlor
6.905	24953.1	VB	0.022		18.626	Endosulfan Sulfate
7.176	30158.5	BB	0.021		18.541	Endrin Ketone
8.080	53039.5	BB	0.023		37.525	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110405.D
Operator : 842
Instrument : GC 44
Sample Name : P ICAL4 S080713G 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 04:56 pm
Report Created on: 05 Nov 13 10:38 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104F.M

Vial Number : Vial 5
Sequence Line : 6
Report Style : PEST-FL
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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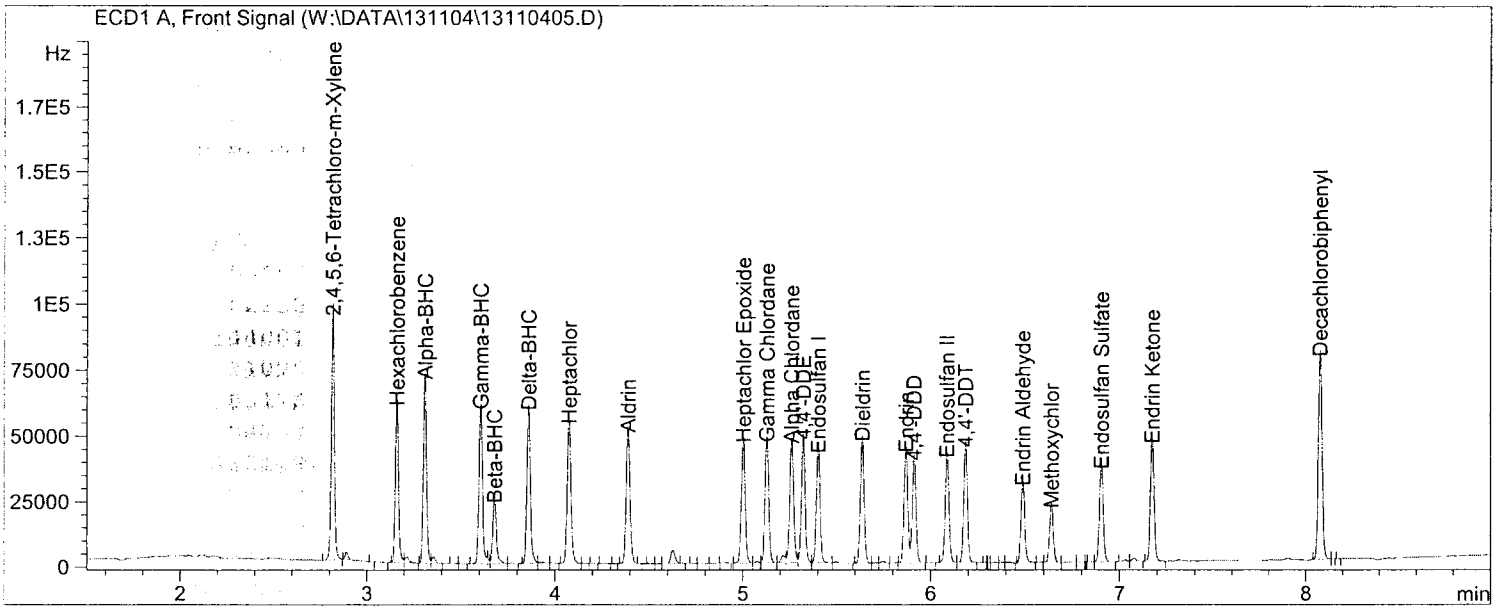
Sig. ECD1 A, W:\DATA\131104\13110405.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.818	108601.1	BB	0.017		71.917	2,4,5,6-Tetrachloro-m-Xylene
3.161	73723.0	BV	0.018		39.920	Hexachlorobenzene
3.310	85736.2	BV	0.018		39.710	Alpha-BHC
3.606	78603.3	BB	0.020		39.860	Gamma-BHC
3.680	33863.7	VB	0.022		39.385	Beta-BHC
3.861	79187.1	BB	0.020		39.553	Delta-BHC
4.076	77765.5	BB	0.022		39.274	Heptachlor
4.390	73893.0	BB	0.022		39.581	Aldrin
5.002	67522.6	BB	0.022		39.633	Heptachlor Epoxide
5.128	67751.3	VB	0.022		39.743	Gamma Chlordane
5.260	69513.5	VV	0.024		38.199	Alpha Chlordane
5.322	68006.2	VV	0.023		39.129	4,4'-DDE
5.403	62865.0	VB	0.024		39.611	Endosulfan I
5.638	67720.0	BB	0.022		39.683	Dieldrin
5.870	61382.1	BV	0.022		40.805	Endrin
5.914	56014.7	VB	0.023		39.600	4,4'-DDD
6.088	58655.2	BV	0.022		40.720	Endosulfan II
6.186	62952.0	VB	0.021		40.663	4,4'-DDT
6.490	44001.3	BV	0.021		37.210	Endrin Aldehyde
6.640	31079.8	BB	0.021		39.843	Methoxychlor
6.903	53118.4	VB	0.022		39.649	Endosulfan Sulfate
7.174	64790.9	BB	0.021		39.833	Endrin Ketone
8.079	112128.9	BV	0.022		79.329	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110406.D
Operator : 842
Instrument : GC 44
Sample Name : P ICAL5 S080713H 60PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 05:10 pm
Report Created on: 05 Nov 13 10:38 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104F.M

Vial Number : Vial 6
Sequence Line : 7
Report Style : PEST-FL
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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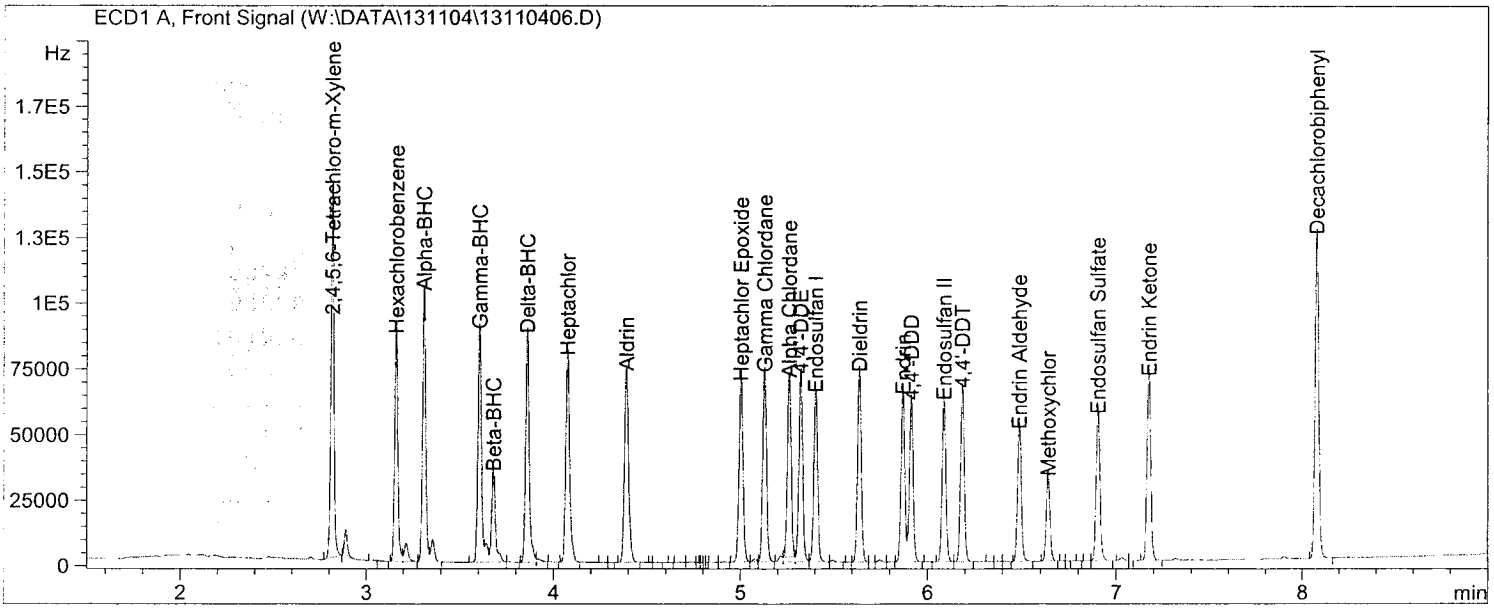
Sig. ECD1 A, W:\DATA\131104\13110406.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.817	157954.6	VB	0.017		104.600	2,4,5,6-Tetrachloro-m-Xylene
3.160	105246.4	BV	0.018		56.990	Hexachlorobenzene
3.310	126246.4	BV	0.018		58.473	Alpha-BHC
3.606	114142.9	BV	0.019		57.883	Gamma-BHC
3.680	51682.9	VB	0.023		60.110	Beta-BHC
3.861	120585.7	BB	0.020		60.231	Delta-BHC
4.076	118020.0	BB	0.022		59.604	Heptachlor
4.390	114216.0	BB	0.023		61.180	Aldrin
5.003	103453.6	BB	0.022		60.723	Heptachlor Epoxide
5.129	104696.9	VB	0.022		61.415	Gamma Chlordane
5.261	104527.3	VV	0.022		57.441	Alpha Chlordane
5.323	103999.1	VV	0.023		59.838	4,4'-DDE
5.403	94798.1	VB	0.024		59.732	Endosulfan I
5.638	105029.5	BB	0.021		61.545	Dieldrin
5.870	91682.1	BV	0.022		60.948	Endrin
5.915	87567.6	VB	0.023		61.907	4,4'-DDD
6.089	88135.1	BV	0.021		61.185	Endosulfan II
6.187	93578.9	VB	0.021		60.445	4,4'-DDT
6.490	73524.8	BB	0.021		62.176	Endrin Aldehyde
6.641	47212.4	BB	0.021		60.524	Methoxychlor
6.904	81686.8	VB	0.022		60.973	Endosulfan Sulfate
7.175	99983.8	BB	0.021		61.469	Endrin Ketone
8.080	172784.3	BB	0.021		122.242	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110407.D
Operator : 842
Instrument : GC 44
Sample Name : P ICAL6 S080713I 80PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 05:25 pm
Report Created on: 05 Nov 13 10:38 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104F.M

Vial Number : Vial 7
Sequence Line : 8
Report Style : PEST-FL
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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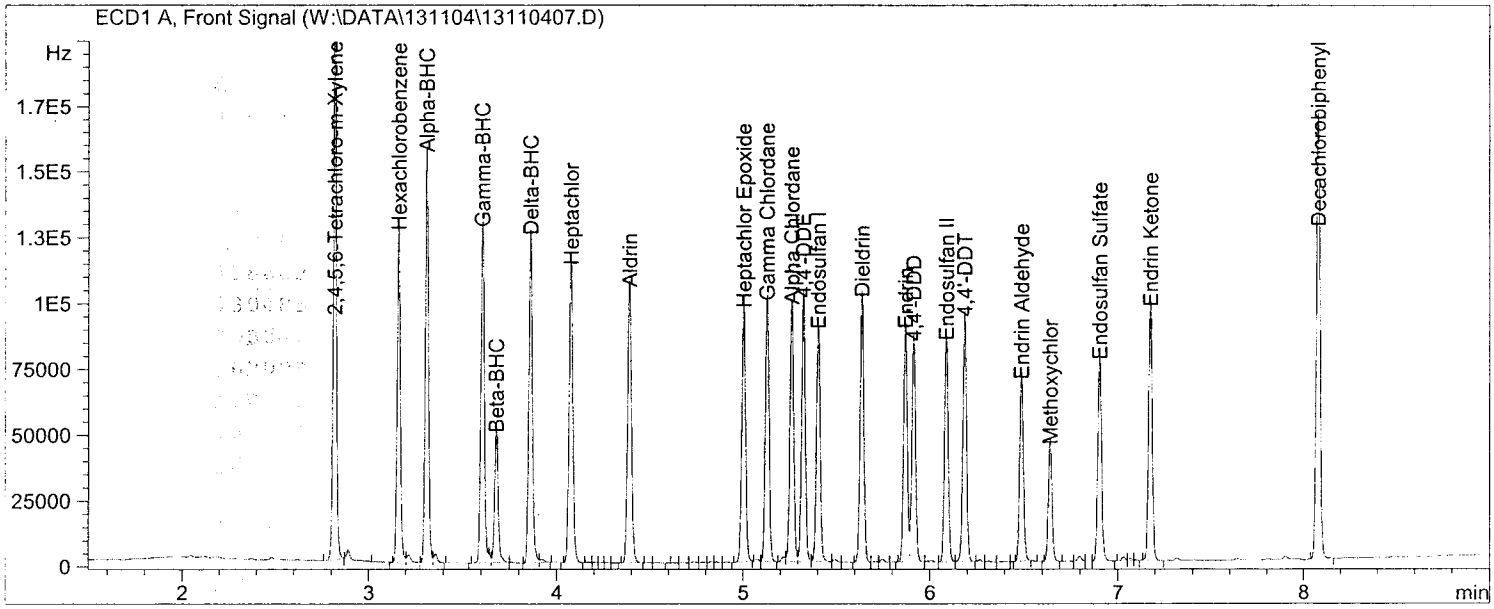
Sig. ECD1 A, W:\DATA\131104\13110407.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.820	242042.4	BB	0.017		160.284	2,4,5,6-Tetrachloro-m-Xylene
3.162	153559.4	BV	0.018		83.150	Hexachlorobenzene
3.311	187601.7	BV	0.018		86.891	Alpha-BHC
3.607	167927.5	BB	0.020		85.157	Gamma-BHC
3.680	69424.0	VB	0.022		80.744	Beta-BHC
3.862	170246.7	BB	0.021		85.036	Delta-BHC
4.077	161858.1	BB	0.021		81.743	Heptachlor
4.390	155435.0	VB	0.022		83.259	Aldrin
5.003	138649.3	BB	0.022		81.381	Heptachlor Epoxide
5.129	141249.5	VB	0.022		82.857	Gamma Chlordane
5.261	139413.5	VV	0.022		76.611	Alpha Chlordane
5.323	140137.4	VV	0.023		80.631	4,4'-DDE
5.403	125543.6	VB	0.023		79.105	Endosulfan I
5.638	143320.7	BB	0.021		83.983	Dieldrin
5.871	124916.3	BV	0.022		83.041	Endrin
5.915	119469.0	VB	0.023		84.460	4,4'-DDD
6.089	118682.7	BV	0.021		82.392	Endosulfan II
6.187	130485.3	VV	0.021		84.284	4,4'-DDT
6.489	98644.7	BB	0.021		83.418	Endrin Aldehyde
6.641	62998.1	BB	0.021		80.760	Methoxychlor
6.903	110343.9	VB	0.022		82.363	Endosulfan Sulfate
7.175	133951.7	BB	0.021		82.352	Endrin Ketone
8.080	233407.6	BB	0.021		165.132	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110408.D
Operator : 842
Instrument : GC 44
Sample Name : P ICV S080713K 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 05:39 pm
Report Created on: 05 Nov 13 10:41 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104F.M

Vial Number : Vial 8
Sequence Line : 9
Report Style : PEST-FL
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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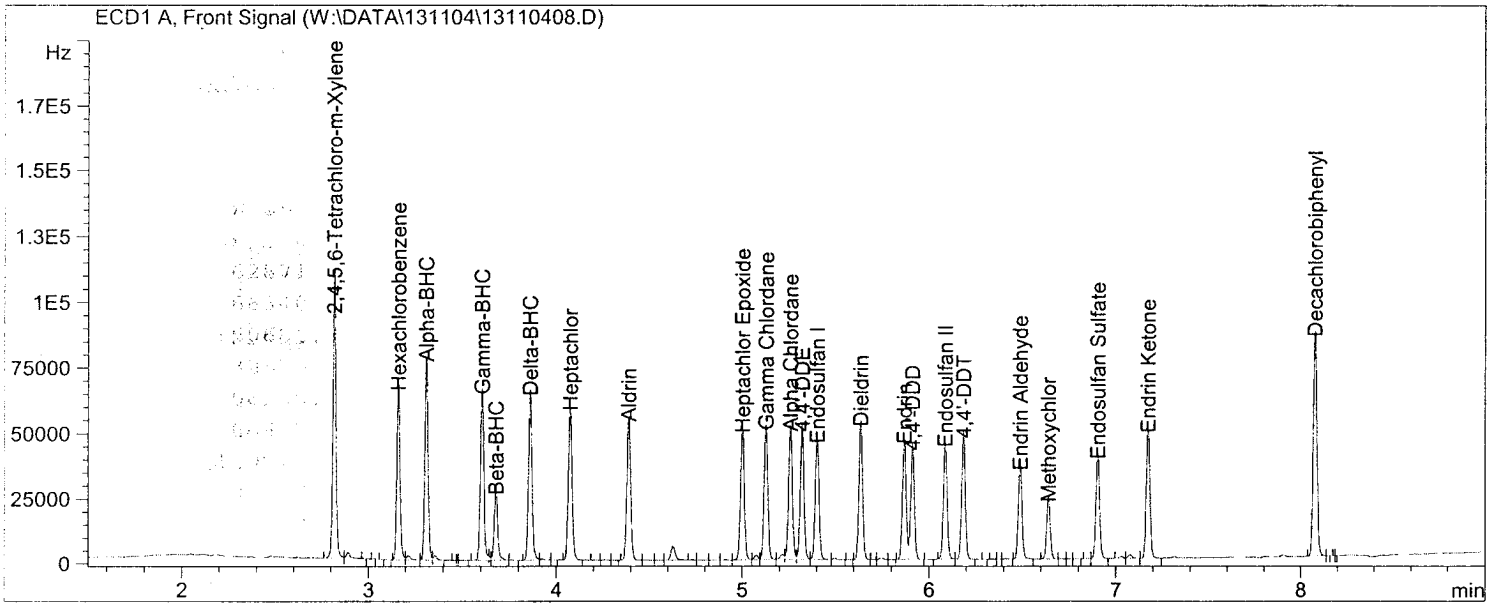
Sig. ECD1 A, W:\DATA\131104\13110408.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.818	123419.0	BB	0.017		81.730	2,4,5,6-Tetrachloro-m-Xylene
3.161	79992.0	BV	0.018		43.315	Hexachlorobenzene
3.310	94242.5	BV	0.019		43.650	Alpha-BHC
3.606	84919.2	BB	0.020		43.063	Gamma-BHC
3.680	36290.4	VB	0.022		42.208	Beta-BHC
3.861	85616.6	BB	0.020		42.764	Delta-BHC
4.076	83529.8	BB	0.022		42.185	Heptachlor
4.389	79078.4	BB	0.022		42.359	Aldrin
5.002	72057.8	BB	0.022		42.295	Heptachlor Epoxide
5.127	72990.5	VB	0.022		42.816	Gamma Chlordane
5.259	73159.5	VV	0.022		40.203	Alpha Chlordane
5.322	72125.8	VV	0.023		41.499	4,4'-DDE
5.402	66736.3	VB	0.024		42.050	Endosulfan I
5.637	73013.4	BB	0.021		42.784	Dieldrin
5.870	64857.0	BV	0.021		43.115	Endrin
5.914	59870.6	VB	0.023		42.326	4,4'-DDD
6.088	62871.2	BV	0.022		43.647	Endosulfan II
6.186	66340.7	VB	0.021		42.851	4,4'-DDT
6.489	50682.5	BB	0.022		42.859	Endrin Aldehyde
6.640	32570.0	BB	0.021		41.753	Methoxychlor
6.903	56260.0	VB	0.021		41.994	Endosulfan Sulfate
7.174	68852.4	BB	0.021		42.330	Endrin Ketone
8.079	119268.7	BV	0.021		84.381	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

GC-44, Calculation of Initial Calibraton, Pest, Rear column
Run date: 11/04/13

Rear column

LEVEL	AREA					CONC. (PPB)												(<20%)				(<15%)
Analyte	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	RF1	RF2	RF3	RF4	RF5	Avg RF	SD	%RSD	ICV	CONC. (PPB)	RF	%D
TCMX (Sur.)	9069.9	16972.8	35123.2	49309.5	70929.7	20	40	80	120	160	453	424	439	411	443	434	17	3.9	37612.6	80	470	8.3
Hexachlorobenzene	5223.6	9822.6	20015.7	28540.1	41024.8	10	20	40	60	80	522	491	500	476	513	500	18	3.6	21662.7	40	542	8.2
Alpha-BHC	6672.2	12578.5	26480.8	38340.6	55866.3	10	20	40	60	80	667	629	662	639	698	659	27	4.1	28714.2	40	718	8.9
Gamma-BHC	6184.1	11459.9	23859.5	34790.9	50137.4	10	20	40	60	80	618	573	596	580	627	599	23	3.9	25779.4	40	644	7.6
Beta-BHC	2748.2	4976	10123.2	14834.3	20875.7	10	20	40	60	80	275	249	253	247	261	257	11	4.4	10942.9	40	274	6.5
Delta-BHC	6321.3	11711.9	24412.2	37156.1	51245.1	10	20	40	60	80	632	586	610	619	641	618	21	3.5	26487.6	40	662	7.2
Heptachlor	6028.7	11072.4	22861.6	34640.5	46798.3	10	20	40	60	80	603	554	572	577	585	578	18	3.1	24444.5	40	611	5.7
Aldrin	5538.7	10333.9	20758.1	33098	44452.4	10	20	40	60	80	554	517	519	552	556	539	20	3.7	23071.2	40	577	6.9
Heptachlor Epoxide	6063.6	10270	20457.5	30788	40874.5	10	20	40	60	80	606	514	511	513	511	531	42	7.9	21473.2	40	537	1.1
Gamma Chlordane	5267.8	9707.8	20292.9	31223.5	42071.2	10	20	40	60	80	527	485	507	520	526	513	17	3.4	21630.9	40	541	5.4
Alpha Chlordane	5053.8	9300	19298	29650.1	39620.4	10	20	40	60	80	505	465	482	494	495	488	15	3.2	20445.7	40	511	4.6
Endosulfan I	4662.3	8572	17273.3	27315.4	36398.7	10	20	40	60	80	466	429	432	455	455	447	16	3.7	19109.2	40	478	6.8
4,4'-DDE	4598.4	8976.9	18492.5	28616.1	38686.4	10	20	40	60	80	460	449	462	477	484	466	14	3.0	20338.8	40	508	9.0
Dieldrin	5147.1	9545.9	20149.1	31048.9	41594.2	10	20	40	60	80	515	477	504	517	520	507	18	3.5	21439.2	40	536	5.8
Endrin	4493	8363.4	18067.8	26872.8	35873.9	10	20	40	60	80	449	418	452	448	448	443	14	3.2	19054.2	40	476	7.5
4,4'-DDD	4042.1	7510.6	16095.1	24626.2	32497.6	10	20	40	60	80	404	376	402	410	406	400	14	3.5	17116.4	40	428	7.0
Endosulfan II	4350.9	7969.2	17166.2	25630.4	34561.5	10	20	40	60	80	435	398	429	427	432	424	15	3.5	18271.2	40	457	7.6
4,4'-DDT	4413.5	8206.8	17282	26208	36272.4	10	20	40	60	80	441	410	432	437	453	435	16	3.6	18362.4	40	459	5.6
Endrin Aldehyde	3673.6	6646.6	12859	21400.3	28228.9	10	20	40	60	80	367	332	321	357	353	346	19	5.4	13804.4	40	345	0.3
Endosulfan Sulfate	4113.4	7463.4	15916.8	24054.3	32283.9	10	20	40	60	80	411	373	398	401	404	397	14	3.6	16911	40	423	6.4
Methoxychlor	2288	4109.8	8512.7	12883.3	16840.2	10	20	40	60	80	229	205	213	215	211	214	9	4.1	8934.7	40	223	4.2
Endrin Ketone	4871.5	8813.5	19497.1	28580.7	38080.1	10	20	40	60	80	487	441	487	476	476	474	19	4.1	20753.1	40	519	9.6
DCB (Sur.)	7613.6	14064.1	29510.2	44582.3	59821	20	40	80	120	160	381	352	369	372	374	369	11	2.9	31386.1	80	392	6.2

Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110403.D
Operator : 842
Instrument : GC 44
Sample Name : P ICAL2 S080713E 10PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 04:27 pm
Report Created on: 05 Nov 13 10:56 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104R.M

Vial Number : Vial 3
Sequence Line : 4
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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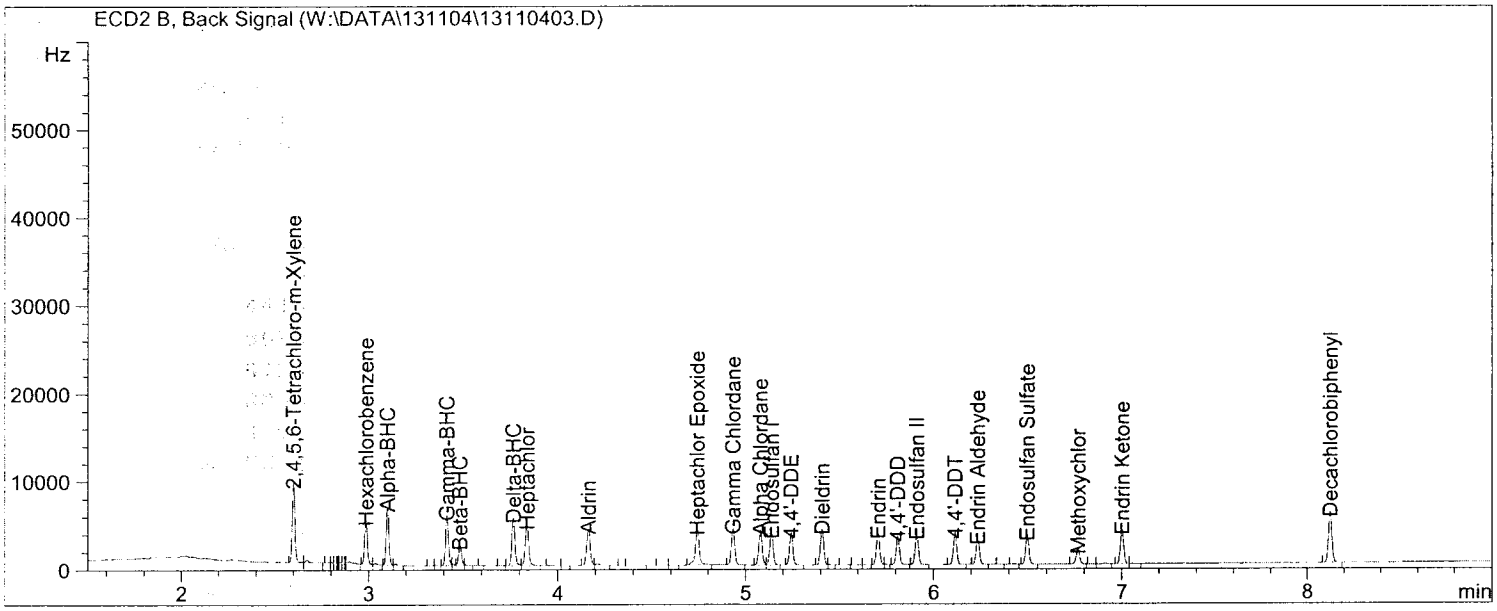
Sig. ECD2 B, W:\DATA\131104\13110403.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.601	9069.9	BV	0.016		20.888	2,4,5,6-Tetrachloro-m-Xylene
2.986	5223.6	BV	0.016		10.437	Hexachlorobenzene
3.101	6672.2	BV	0.016		10.123	Alpha-BHC
3.417	6184.1	BV	0.017		10.326	Gamma-BHC
3.486	2748.2	VB	0.017		10.694	Beta-BHC
3.766	6321.3	BV	0.018		10.236	Delta-BHC
3.838	6028.7	VB	0.020		10.429	Heptachlor
4.163	5538.7	BB	0.020		10.269	Aldrin
4.742	6063.6	BB	0.022		11.418	Heptachlor Epoxide
4.934	5267.8	VB	0.020		10.266	Gamma Chlordane
5.079	5053.8	BV	0.020		10.347	Alpha Chlordane
5.138	4662.3	VB	0.020		10.421	Endosulfan I
5.243	4598.4	BB	0.020		9.861	4,4'-DDE
5.408	5147.1	BB	0.019		10.160	Dieldrin
5.707	4493.0	BV	0.019		10.140	Endrin
5.812	4042.1	BB	0.020		10.112	4,4'-DDD
5.912	4350.9	BB	0.020		10.252	Endosulfan II
6.115	4413.5	BB	0.019		10.151	4,4'-DDT
6.235	3673.6	BB	0.020		10.613	Endrin Aldehyde
6.498	4113.4	BB	0.019		10.351	Endosulfan Sulfate
6.767	2288.0	BB	0.020		10.668	Methoxychlor
7.001	4871.5	VB	0.019		10.288	Endrin Ketone
8.124	7613.6	BB	0.020		20.616	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110404.D
Operator : 842
Instrument : GC 44
Sample Name : P ICAL3 S080713F 20PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 04:41 pm
Report Created on: 05 Nov 13 10:56 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104R.M

Vial Number : Vial 4
Sequence Line : 5
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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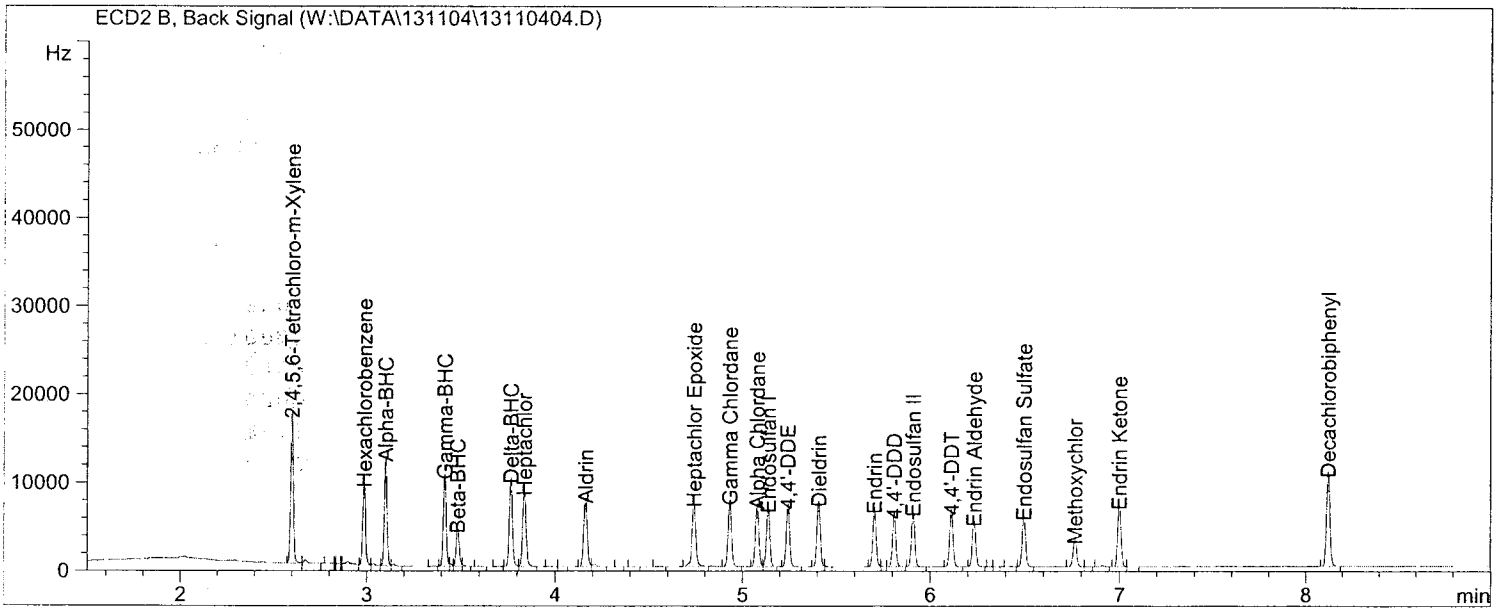
Sig. ECD2 B, W:\DATA\131104\13110404.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.601	16972.8	BV	0.015		39.088	2,4,5,6-Tetrachloro-m-Xylene
2.986	9822.6	BV	0.016		19.627	Hexachlorobenzene
3.101	12578.5	BV	0.016		19.084	Alpha-BHC
3.417	11459.9	BV	0.017		19.135	Gamma-BHC
3.486	4976.0	VB	0.017		19.363	Beta-BHC
3.766	11711.9	VV	0.018		18.964	Delta-BHC
3.837	11072.4	VB	0.020		19.154	Heptachlor
4.163	10333.9	BB	0.021		19.160	Aldrin
4.742	10270.0	BB	0.021		19.338	Heptachlor Epoxide
4.933	9707.8	BB	0.020		18.918	Gamma Chlordane
5.079	9300.0	BV	0.020		19.040	Alpha Chlordane
5.137	8572.0	VB	0.020		19.160	Endosulfan I
5.243	8976.9	BB	0.020		19.251	4,4'-DDE
5.407	9545.9	BB	0.020		18.842	Dieldrin
5.705	8363.4	BV	0.020		18.875	Endrin
5.811	7510.6	BB	0.019		18.788	4,4'-DDD
5.912	7969.2	BB	0.020		18.778	Endosulfan II
6.114	8206.8	BB	0.020		18.875	4,4'-DDT
6.234	6646.6	BB	0.020		19.202	Endrin Aldehyde
6.497	7463.4	BB	0.020		18.782	Endosulfan Sulfate
6.766	4109.8	BB	0.019		19.163	Methoxychlor
7.000	8813.5	VB	0.019		18.613	Endrin Ketone
8.123	14064.1	BB	0.020		38.082	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110405.D
Operator : 842
Instrument : GC 44
Sample Name : P ICAL4 S080713G 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 04:56 pm
Report Created on: 05 Nov 13 10:56 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104R.M

Vial Number : Vial 5
Sequence Line : 6
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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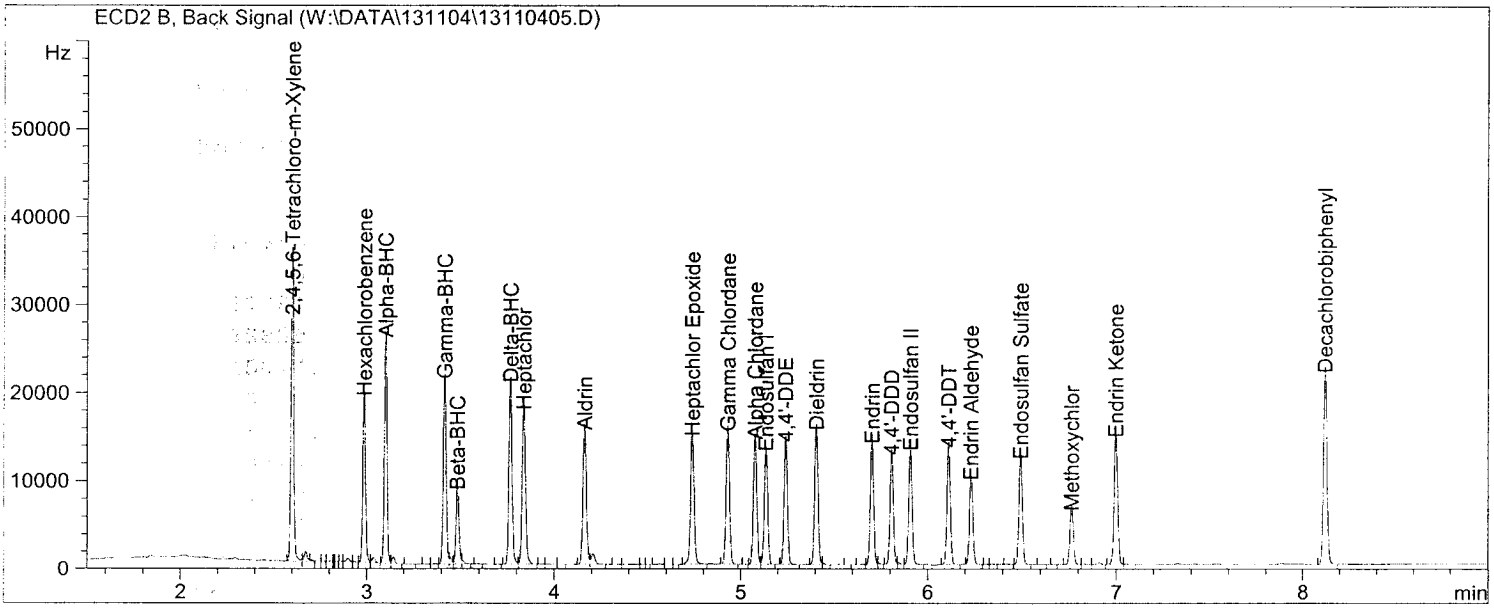
Sig. ECD2 B, W:\DATA\131104\13110405.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.601	35123.2BV		0.015		80.889	2,4,5,6-Tetrachloro-m-Xylene
2.986	20015.7BV		0.016		39.994	Hexachlorobenzene
3.101	26480.8BV		0.015		40.177	Alpha-BHC
3.417	23859.5BV		0.017		39.840	Gamma-BHC
3.485	10123.2VB		0.017		39.394	Beta-BHC
3.766	24412.2BV		0.018		39.529	Delta-BHC
3.838	22861.6VB		0.020		39.548	Heptachlor
4.163	20758.1BB		0.020		38.486	Aldrin
4.740	20457.5BB		0.021		38.521	Heptachlor Epoxide
4.931	20292.9BB		0.020		39.545	Gamma Chlordane
5.077	19298.0BV		0.020		39.509	Alpha Chlordane
5.135	17273.3VB		0.020		38.610	Endosulfan I
5.241	18492.5BB		0.019		39.658	4,4'-DDE
5.406	20149.1BB		0.020		39.771	Dieldrin
5.705	18067.8BV		0.019		40.776	Endrin
5.810	16095.1BV		0.019		40.262	4,4'-DDD
5.909	17166.2BB		0.019		40.450	Endosulfan II
6.113	17282.0BB		0.019		39.748	4,4'-DDT
6.232	12859.0BB		0.019		37.150	Endrin Aldehyde
6.495	15916.8BB		0.020		40.055	Endosulfan Sulfate
6.765	8512.7BB		0.019		39.693	Methoxychlor
6.998	19497.1BB		0.020		41.175	Endrin Ketone
8.122	29510.2BB		0.020		79.906	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110406.D
Operator : 842
Instrument : GC 44
Sample Name : P ICAL5 S080713H 60PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 05:10 pm
Report Created on: 05 Nov 13 10:56 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104R.M

Vial Number : Vial 6
Sequence Line : 7
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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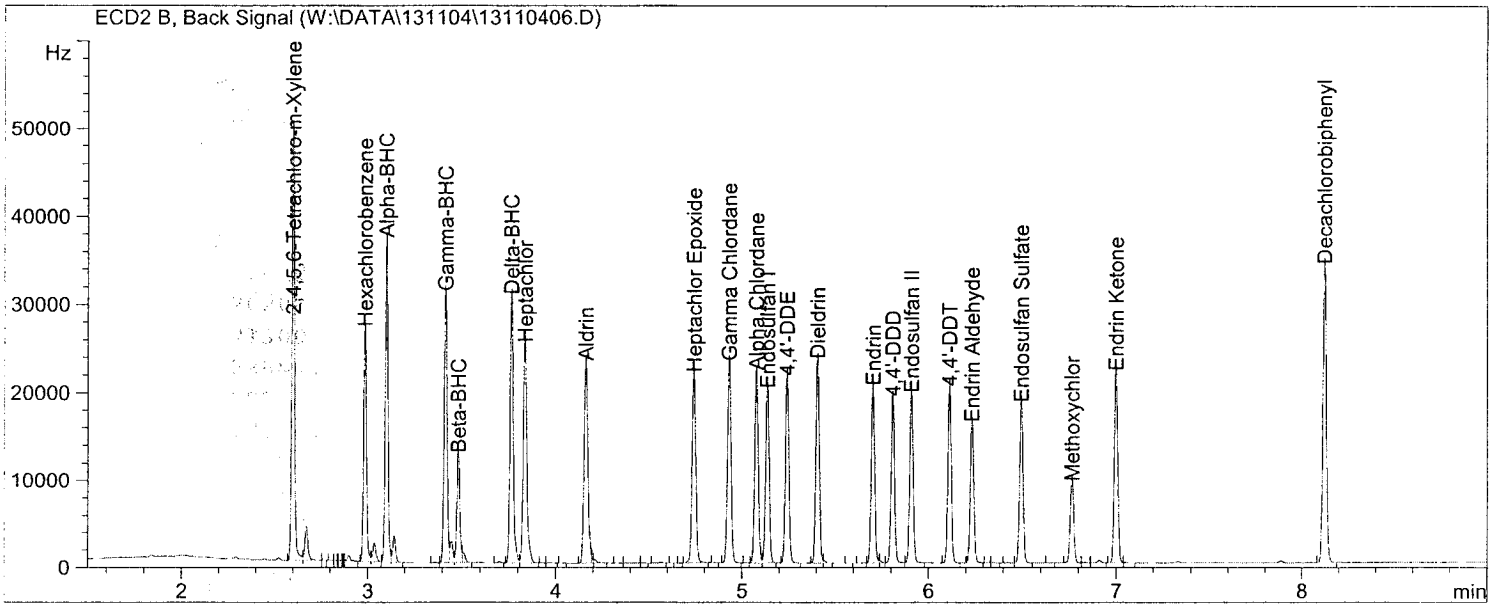
Sig. ECD2 B, W:\DATA\131104\13110406.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.600	49309.5	BV	0.015		113.560	2,4,5,6-Tetrachloro-m-Xylene
2.986	28540.1	BV	0.016		57.026	Hexachlorobenzene
3.101	38340.6	BV	0.016		58.171	Alpha-BHC
3.416	34790.9	BV	0.017		58.092	Gamma-BHC
3.485	14834.3	VB	0.019		57.726	Beta-BHC
3.766	37156.1	BV	0.018		60.165	Delta-BHC
3.837	34640.5	VB	0.022		59.924	Heptachlor
4.162	33098.0	BB	0.021		61.365	Aldrin
4.741	30788.0	BB	0.021		57.973	Heptachlor Epoxide
4.932	31223.5	BB	0.021		60.846	Gamma Chlordane
5.077	29650.1	BV	0.020		60.702	Alpha Chlordane
5.136	27315.4	VB	0.022		61.056	Endosulfan I
5.242	28616.1	BB	0.020		61.368	4,4'-DDE
5.406	31048.9	BB	0.020		61.285	Dieldrin
5.704	26872.8	BB	0.020		60.648	Endrin
5.811	24626.2	BB	0.019		61.603	4,4'-DDD
5.910	25630.4	BB	0.020		60.395	Endosulfan II
6.114	26208.0	BB	0.019		60.278	4,4'-DDT
6.233	21400.3	BB	0.020		61.825	Endrin Aldehyde
6.496	24054.3	BB	0.020		60.533	Endosulfan Sulfate
6.766	12883.3	BB	0.020		60.072	Methoxychlor
7.000	28580.7	BB	0.019		60.358	Endrin Ketone
8.123	44582.3	BB	0.020		120.717	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110407.D
Operator : 842
Instrument : GC 44
Sample Name : P ICAL6 S080713I 80PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 05:25 pm
Report Created on: 05 Nov 13 10:56 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104R.M

Vial Number : Vial 7
Sequence Line : 8
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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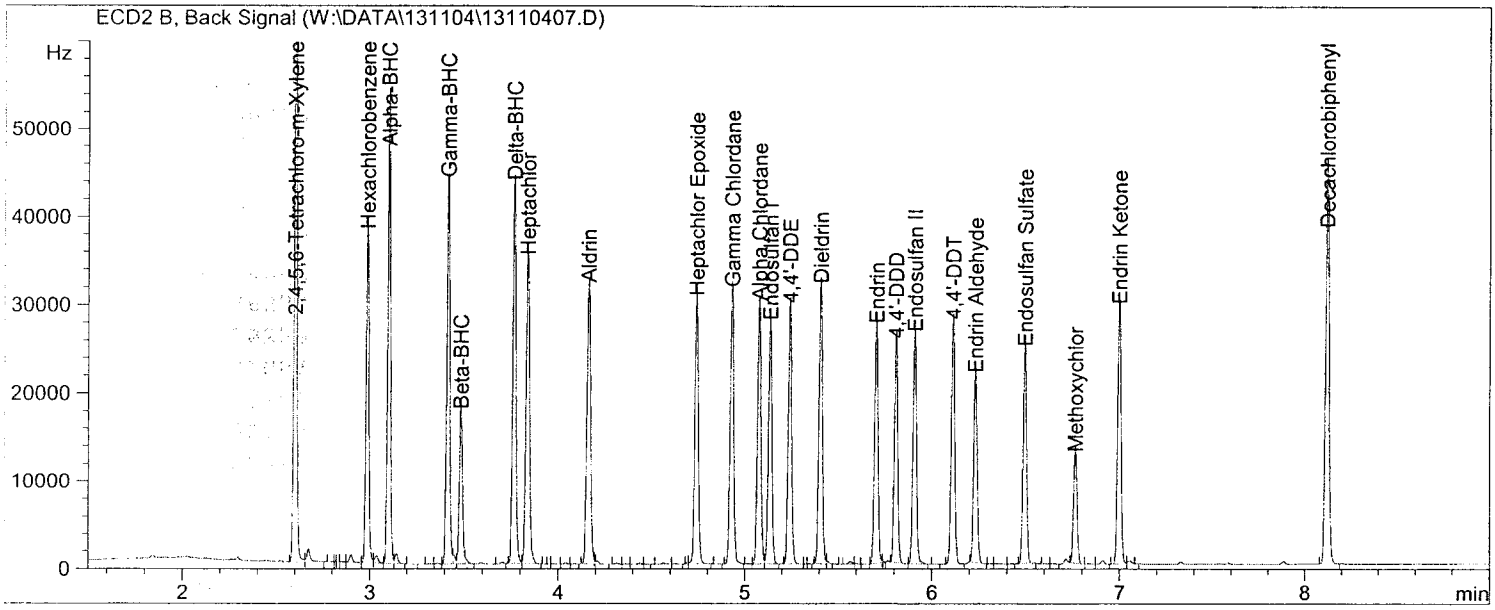
Sig. ECD2 B, W:\DATA\131104\13110407.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.601	70929.7BV		0.015		163.351	2,4,5,6-Tetrachloro-m-Xylene
2.986	41024.8BV		0.016		81.972	Hexachlorobenzene
3.102	55866.3BV		0.016		84.761	Alpha-BHC
3.417	50137.4BV		0.018		83.717	Gamma-BHC
3.485	20875.7VB		0.019		81.236	Beta-BHC
3.766	51245.1VV		0.018		82.978	Delta-BHC
3.837	46798.3VB		0.020		80.956	Heptachlor
4.162	44452.4BB		0.021		82.417	Aldrin
4.741	40874.5VB		0.021		76.966	Heptachlor Epoxide
4.931	42071.2BB		0.021		81.985	Gamma Chlordane
5.077	39620.4BV		0.020		81.114	Alpha Chlordane
5.136	36398.7VB		0.021		81.360	Endosulfan I
5.242	38686.4BB		0.020		82.964	4,4'-DDE
5.406	41594.2BB		0.020		82.100	Dieldrin
5.704	35873.9BB		0.020		80.962	Endrin
5.810	32497.6BB		0.019		81.294	4,4'-DDD
5.909	34561.5BB		0.020		81.440	Endosulfan II
6.113	36272.4BB		0.020		83.425	4,4'-DDT
6.232	28228.9BB		0.019		81.553	Endrin Aldehyde
6.496	32283.9BB		0.020		81.243	Endosulfan Sulfate
6.765	16840.2BB		0.020		78.522	Methoxychlor
6.998	38080.1BV		0.020		80.419	Endrin Ketone
8.122	59821.0BB		0.020		161.980	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110408.D
Operator : 842
Instrument : GC 44
Sample Name : P ICV S080713K 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 05:39 pm
Report Created on: 05 Nov 13 11:16 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104R.M

Vial Number : Vial 8
Sequence Line : 9
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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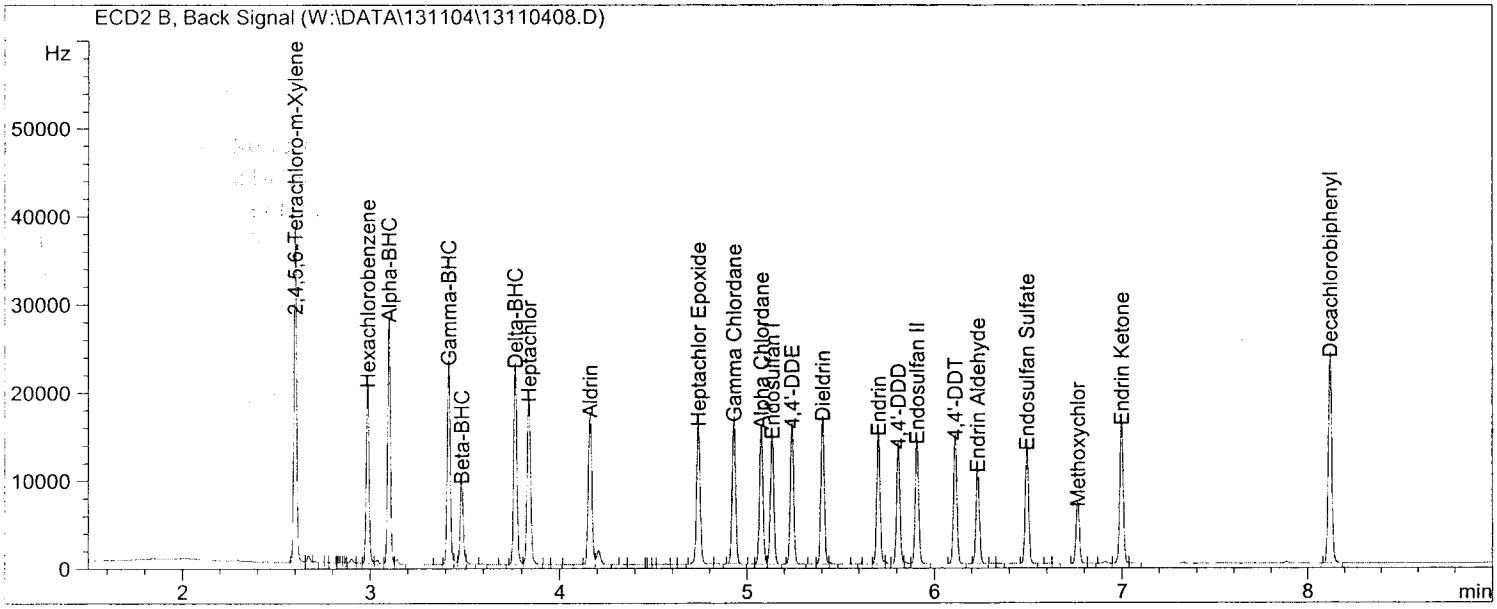
Sig. ECD2 B, W:\DATA\131104\13110408.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.601	37612.6	BV	0.015		86.622	2,4,5,6-Tetrachloro-m-Xylene
2.986	21662.7	BV	0.016		43.284	Hexachlorobenzene
3.101	28714.2	BV	0.016		43.566	Alpha-BHC
3.417	25779.4	BV	0.017		43.045	Gamma-BHC
3.485	10942.9	VB	0.017		42.583	Beta-BHC
3.766	26487.6	BV	0.018		42.890	Delta-BHC
3.837	24444.5	VB	0.020		42.286	Heptachlor
4.162	23071.2	BB	0.021		42.775	Aldrin
4.740	21473.2	BB	0.020		40.434	Heptachlor Epoxide
4.930	21630.9	BB	0.020		42.153	Gamma Chlordane
5.076	20445.7	BV	0.020		41.858	Alpha Chlordane
5.135	19109.2	VB	0.020		42.713	Endosulfan I
5.241	20338.8	BB	0.020		43.617	4,4'-DDE
5.405	21439.2	BB	0.020		42.317	Dieldrin
5.704	19054.2	BV	0.020		43.003	Endrin
5.809	17116.4	BV	0.020		42.817	4,4'-DDD
5.909	18271.2	BB	0.020		43.054	Endosulfan II
6.112	18362.4	BB	0.020		42.233	4,4'-DDT
6.231	13804.4	BB	0.020		39.881	Endrin Aldehyde
6.495	16911.0	BB	0.019		42.557	Endosulfan Sulfate
6.764	8934.7	VB	0.020		41.661	Methoxychlor
6.998	20753.1	BB	0.020		43.827	Endrin Ketone
8.122	31386.1	BB	0.020		84.985	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

GC-44, Calculation of Initial Calibraton, Chlordane, Front Column
Run date: 11/04/13

Front column

LEVEL	AREA					CONC. (PPB)													(<20%)			(<15%)	
Analytes	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	RF1	RF2	RF3	RF4	RF5	Avg RF	**1/Avg RF**	SD	%RSD	**ICV**	**CONC. (PPB)**	**RF**	**%D**
Chlordane-F	76324.75	224529.56	366949.59	586653.57	1679783.24	100	250	500	750	2000	763	898	734	782	840	803	**0.00124**	66	**8.2**	365711.35	500	731	9.0

Calculation formulas:

RF = Area / Levels(ppb)

% RSD = STDEV of RFs / Ave RF * 100

RF = Area / Spike conc.(ppb)

%D = Absolute(RF-Ave RF) / Ave RF * 100

GC-44, Calculation of Initial Calibraton, Chlordane,Rear Column
Run date: 11/04/13

Front column

LEVEL	AREA					CONC. (PPB)													(<20%)			(<15%)	
Analytes	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	RF1	RF2	RF3	RF4	RF5	Avg RF	**1/Avg RF**	SD	%RSD	**ICV**	**CONC. (PPB)**	**RF**	**%D**
Chlordane-R	20412.01	62167.39	101754.97	161232.74	413141.65	100	250	500	750	2000	204	249	204	215	207	216	**0.00464**	19	**8.8**	101460.31	500	203	5.9

Calculation formulas:

RF = Area / Levels(ppb)

% RSD = STDEV of RFs / Ave RF * 100

RF = Area / Spike conc.(ppb)

%D = Absolute(RF-Ave RF) / Ave RF * 100

Return to Contents

External Standard Report

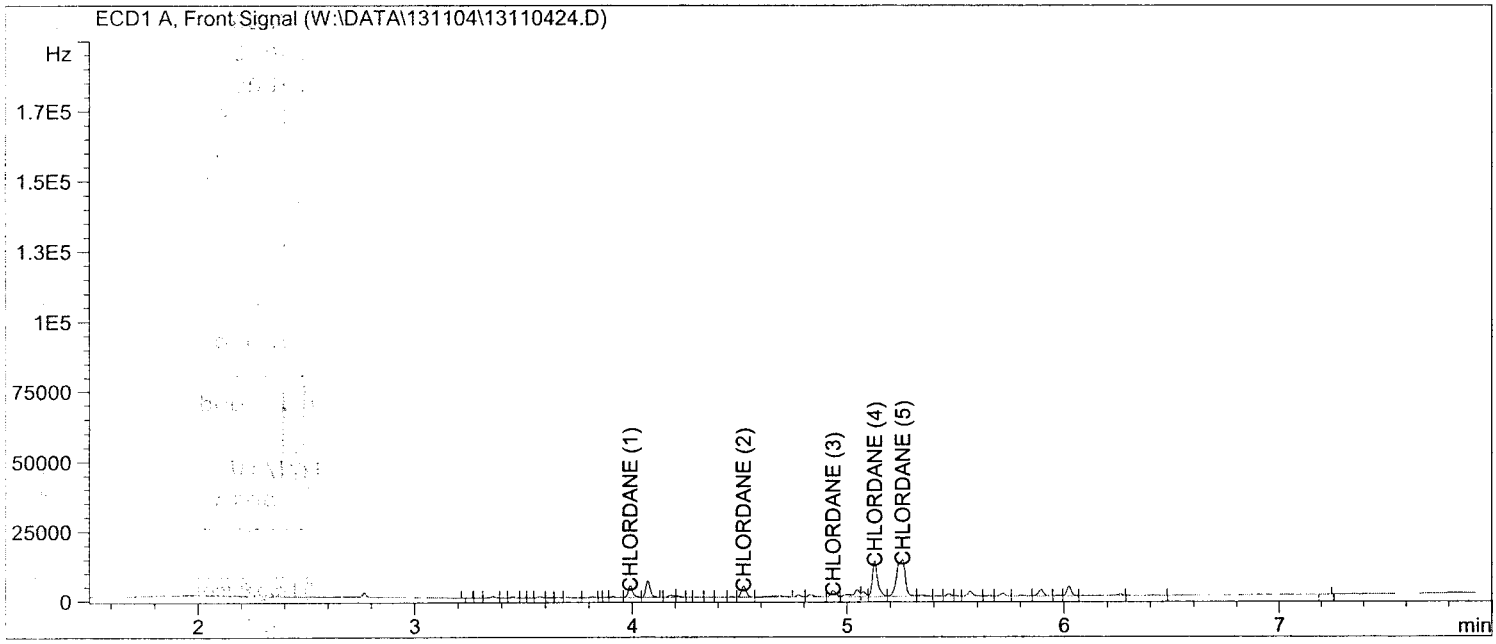
Data File Name : W:\DATA\131104\13110424.D
Operator : 842 Vial Number : Vial 24
Instrument : GC 44 Sequence Line : 25
Sample Name : C ICAL2 S082313B 100PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M Report Style : CHLD-F
Acquired on : 04 Nov 13 09:29 pm Method : EPA 8081A
Report Created on: 05 Nov 13 07:31 pm Software Version : Rev. B.03.01 [317]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131104F.M

Sig. ECD1 A, W:\DATA\131104\13110424.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.992	6837.28	VV	0.024		8.51	CHLORDANE (1)
4.519	6798.99	VV	0.026		8.46	CHLORDANE (2)
4.935	3569.86	VV	0.023		4.44	CHLORDANE (3)
5.128	22192.54	VV	0.029		27.62	CHLORDANE (4)
5.256	36926.09	VV	0.046		45.96	CHLORDANE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.992	76324.75	VV	0.00124	94.99	Chlordane
5.257		VV	0.00124		
5.129		VV	0.00124		
4.934		VV	0.00124		
4.519		VV	0.00124		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110425.D
Operator : 842
Instrument : GC 44
Sample Name : C ICAL3 S082313C 250PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 09:44 pm
Report Created on: 05 Nov 13 07:31 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\CHLD131104F.M

Vial Number : Vial 25
Sequence Line : 26
Report Style : CHLD-F
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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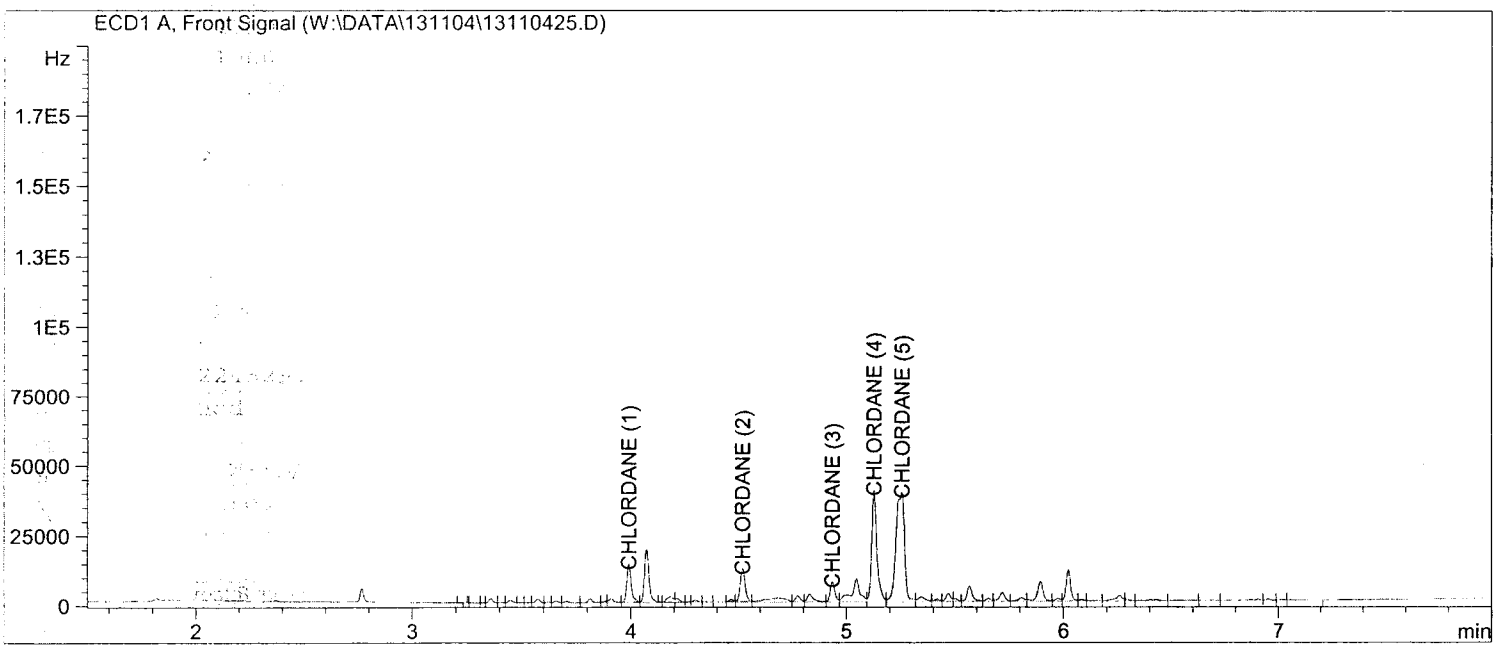
Ret Time	Area	Type	Width	Ref #	ppb	Name
3.992	19994.72	VV	0.022		24.89	CHLORDANE (1)
4.518	19601.79	VV	0.025		24.40	CHLORDANE (2)
4.935	11044.38	VV	0.025		13.75	CHLORDANE (3)
5.128	67332.33	VV	0.028		83.80	CHLORDANE (4)
5.256	106556.34	VV	0.046		132.62	CHLORDANE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.992	224529.56	VV	0.00124	279.45	Chlordane
5.257		VV	0.00124		
5.129		VV	0.00124		
4.934		VV	0.00124		
4.519		VV	0.00124		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110426.D
Operator : 842
Instrument : GC 44
Sample Name : C ICAL4 S082313D 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 09:58 pm
Report Created on: 05 Nov 13 07:31 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\CHLD131104F.M

Vial Number : Vial 26
Sequence Line : 27
Report Style : CHLD-F
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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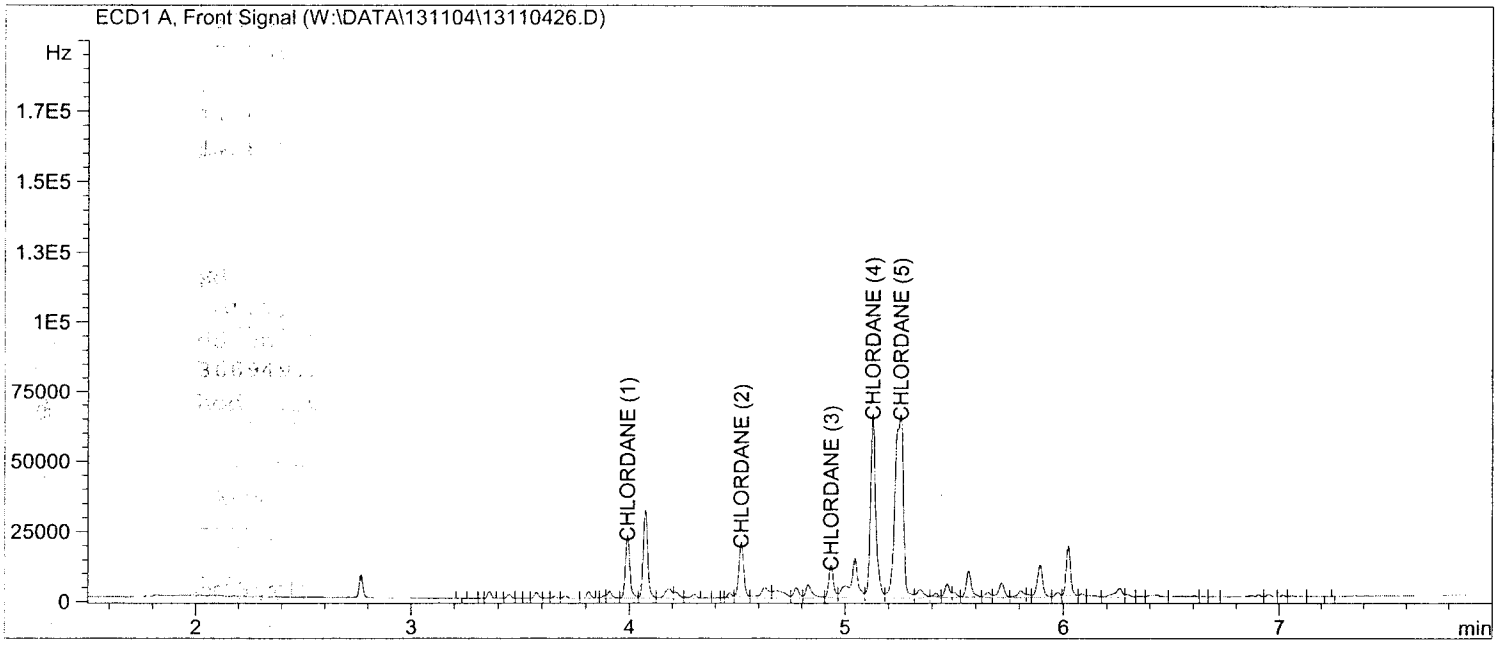
Sig. ECD1 A, W:\DATA\131104\13110426.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.992	32485.23	VV	0.022		40.43	CHLORDANE (1)
4.519	31534.86	VV	0.024		39.25	CHLORDANE (2)
4.935	18071.61	VV	0.025		22.49	CHLORDANE (3)
5.128	111000.57	VV	0.028		138.15	CHLORDANE (4)
5.257	173857.31	VV	0.044		216.38	CHLORDANE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.992	366949.59	VV	0.00124	456.70	Chlordane
5.257		VV	0.00124		
5.129		VV	0.00124		
4.934		VV	0.00124		
4.519		VV	0.00124		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110427.D
Operator : 842
Instrument : GC 44
Sample Name : C ICAL5 S082313E 750PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 10:13 pm
Report Created on: 05 Nov 13 07:31 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\CHLD131104F.M

Vial Number : Vial 27
Sequence Line : 28
Report Style : CHLD-F
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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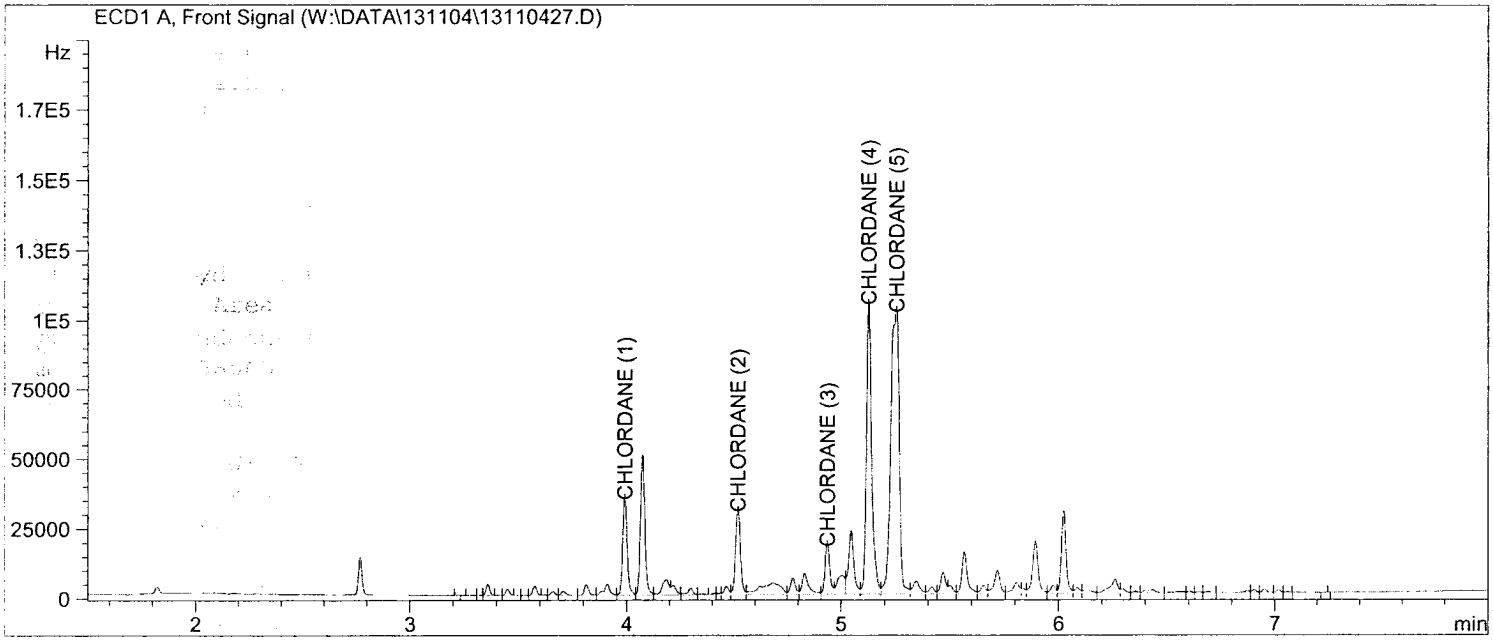
Ret Time	Area	Type	Width	Ref #	ppb	Name
3.993	51706.10	VV	0.022		64.35	CHLORDANE (1)
4.519	49612.40	VV	0.026		61.75	CHLORDANE (2)
4.935	29255.74	VV	0.025		36.41	CHLORDANE (3)
5.128	178039.89	VV	0.028		221.59	CHLORDANE (4)
5.256	278039.44	VV	0.045		346.05	CHLORDANE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.992	586653.57	VV	0.00124	730.15	Chlordane
5.257		VV	0.00124		
5.129		VV	0.00124		
4.934		VV	0.00124		
4.519		VV	0.00124		



Return to Contents

External Standard Report

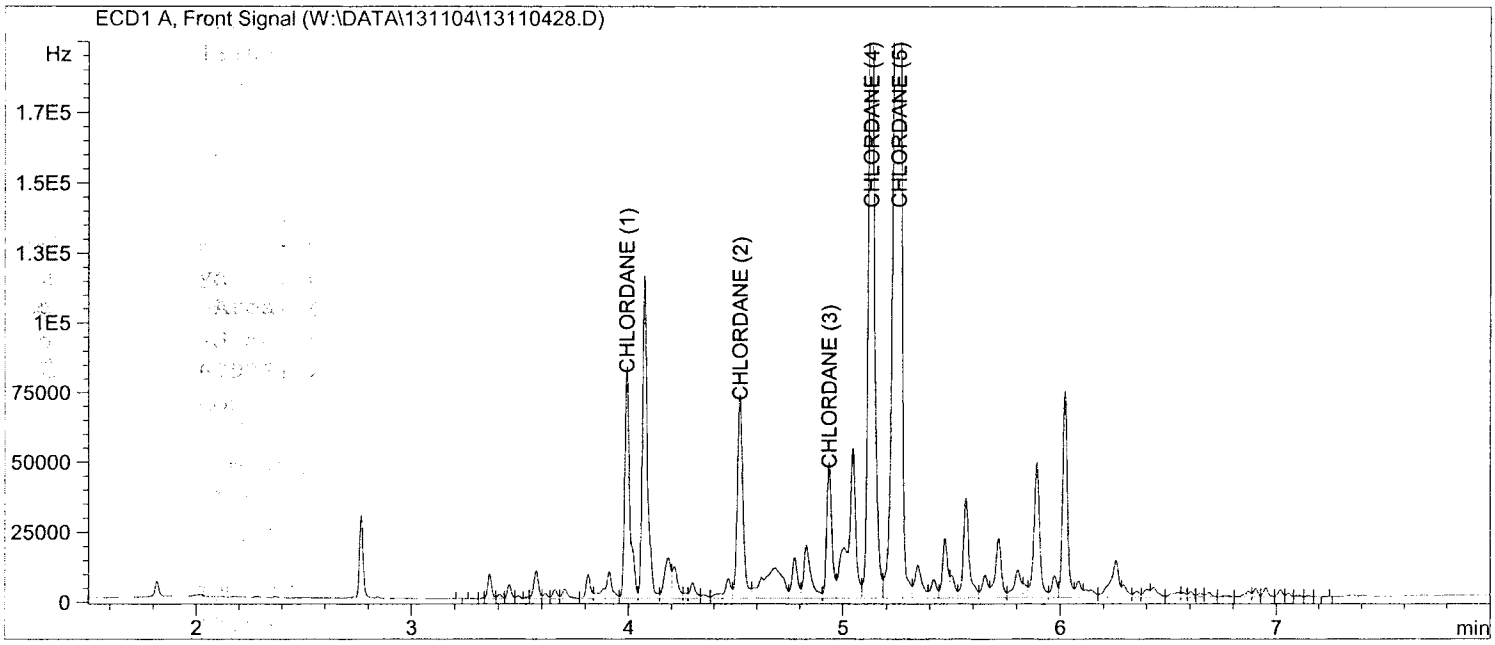
Data File Name : W:\DATA\131104\13110428.D
Operator : 842 Vial Number : Vial 28
Instrument : GC 44 Sequence Line : 29
Sample Name : C ICAL6 S082313F 2000PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M Report Style : CHLD-F
Acquired on : 04 Nov 13 10:27 pm Method : EPA 8081A
Report Created on: 05 Nov 13 07:31 pm Software Version : Rev. B.03.01 [317]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131104F.M

Sig. ECD1 A, W:\DATA\131104\13110428.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.992	135903.62	VV	0.027		169.15	CHLORDANE (1)
4.519	131653.00	VV	0.030		163.86	CHLORDANE (2)
4.934	80608.15	VV	0.028		100.32	CHLORDANE (3)
5.129	507989.59	VV	0.028		632.24	CHLORDANE (4)
5.257	823628.88	VV	0.042		1025.09	CHLORDANE (5)

Group summary:

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.992	1679783.24	VV	0.00124	2090.65	Chlordane
5.257		VV	0.00124		
5.129		VV	0.00124		
4.934		VV	0.00124		
4.519		VV	0.00124		



Return to Contents

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                          External Standard Report
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Data File Name    : W:\DATA\131104\13110429.D
Operator          : 842                          Vial Number       : Vial 29
Instrument        : GC 44                        Sequence Line     : 30
Sample Name       : C ICV S082313H 500PPB
Running Method    : C:\CHEM32\1\METHODS\8081D.M  Report Style      : CHLD-F
Acquired on       : 04 Nov 13  10:41 pm          Method            : EPA 8081A
Report Created on: 05 Nov 13  07:32 pm           Software Version  : Rev. B.03.01 [317]
Comment           :                                                  Copyright © Agilent      ->
Analysis Method   : C:\CHEM32\1\METHODS\CHLD131104F.M

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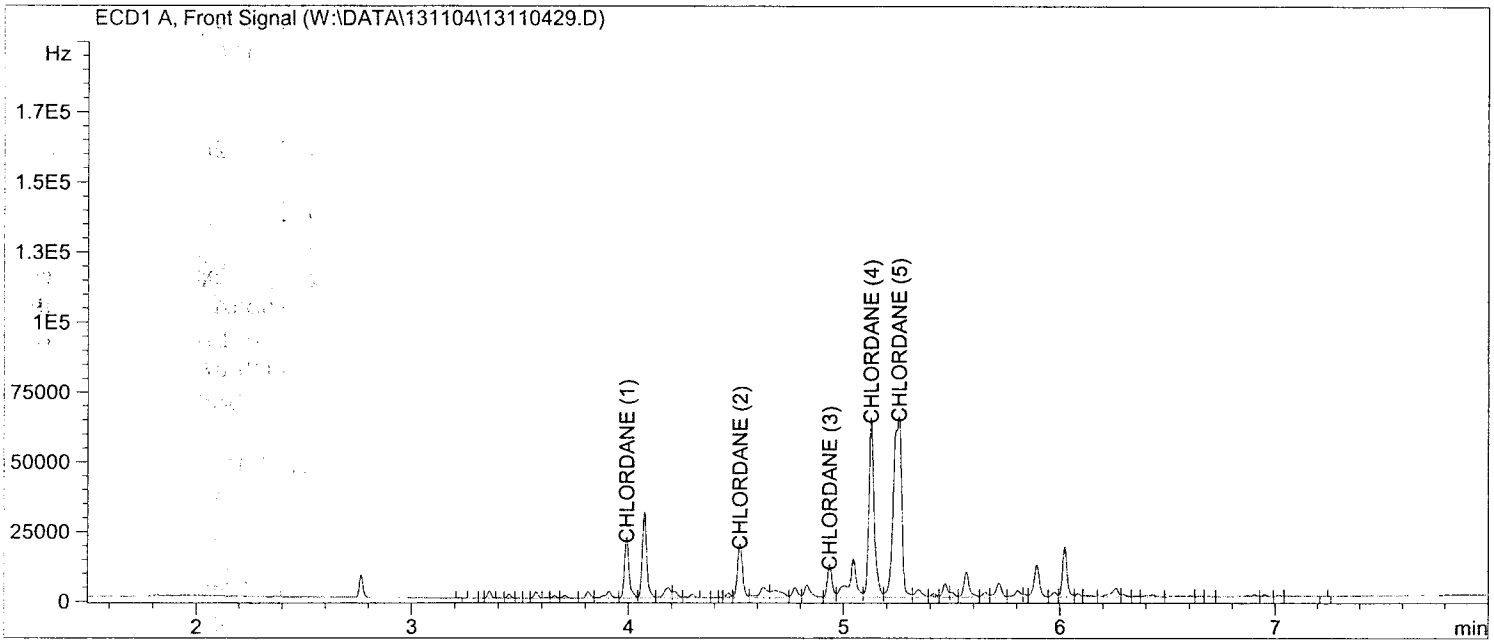
Ret Time	Area	Type	Width	Ref #	ppb	Name
3.992	32455.71	VV	0.022		40.39	CHLORDANE (1)
4.519	31617.78	VV	0.025		39.35	CHLORDANE (2)
4.935	18331.50	VV	0.026		22.82	CHLORDANE (3)
5.127	110474.13	VV	0.029		137.50	CHLORDANE (4)
5.256	172832.23	VV	0.044		215.11	CHLORDANE (5)

Group summary:

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.992	365711.35	VV	0.00124	455.16	Chlordane
5.257		VV	0.00124		
5.129		VV	0.00124		
4.934		VV	0.00124		
4.519		VV	0.00124		



Return to Contents

External Standard Report

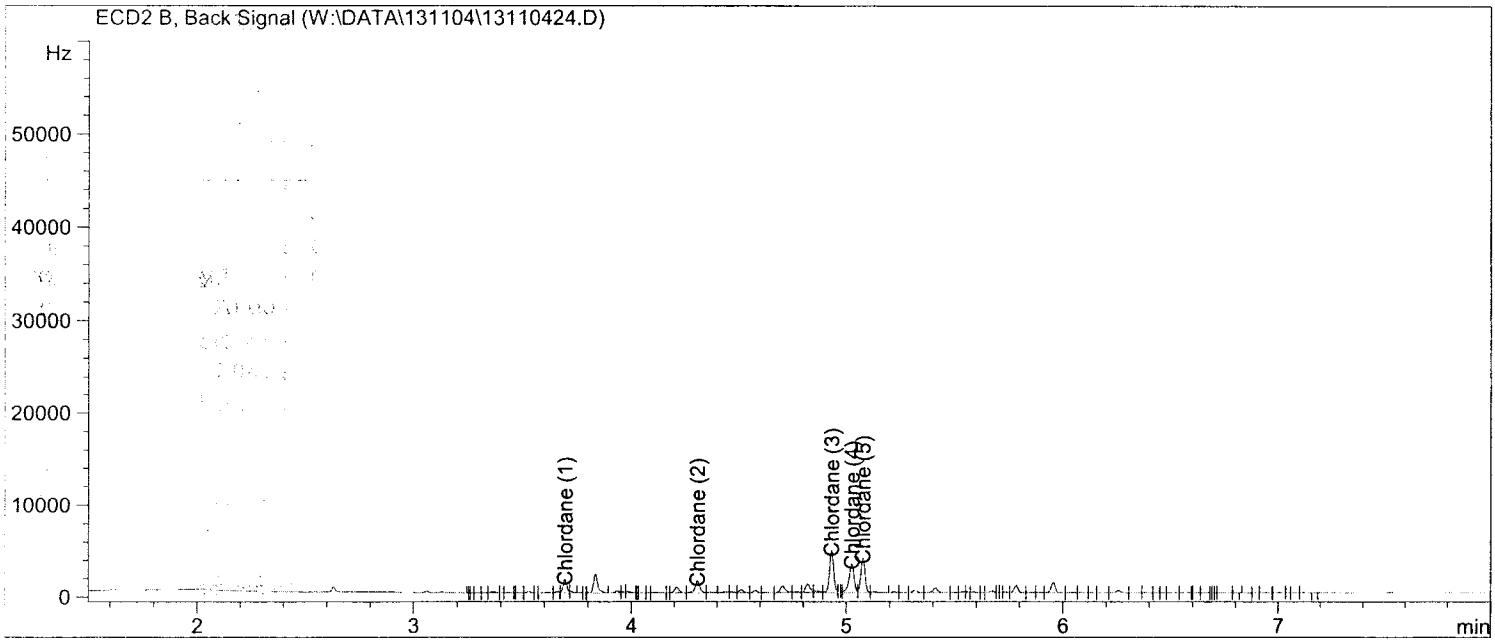
Data File Name : W:\DATA\131104\13110424.D
Operator : 842 Vial Number : Vial 24
Instrument : GC 44 Sequence Line : 25
Sample Name : C ICAL2 S082313B 100PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M Report Style : CHLD-R
Acquired on : 04 Nov 13 09:29 pm Method : EPA 8081A
Report Created on: 05 Nov 13 07:55 pm Software Version : Rev. B.03.01 [317]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131104R.M

Sig. ECD2 B, W:\DATA\131104\13110424.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.694	1768.14	VB	0.018		8.20	Chlordane (1)
4.308	2003.23	VV	0.023		9.29	Chlordane (2)
4.931	6258.47	VB	0.021		29.03	Chlordane (3)
5.025	5248.75	VV	0.024		24.35	Chlordane (4)
5.077	5133.42	VB	0.021		23.81	Chlordane (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.694	20412.01	VB	0.00464	94.69	Chlordane
5.077		VB	0.00464		
5.025		VV	0.00464		
4.931		VB	0.00464		
4.308		VV	0.00464		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110425.D
Operator : 842
Instrument : GC 44
Sample Name : C ICAL3 S082313C 250PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 09:44 pm
Report Created on: 05 Nov 13 07:55 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\CHLD131104R.M

Vial Number : Vial 25
Sequence Line : 26
Report Style : CHLD-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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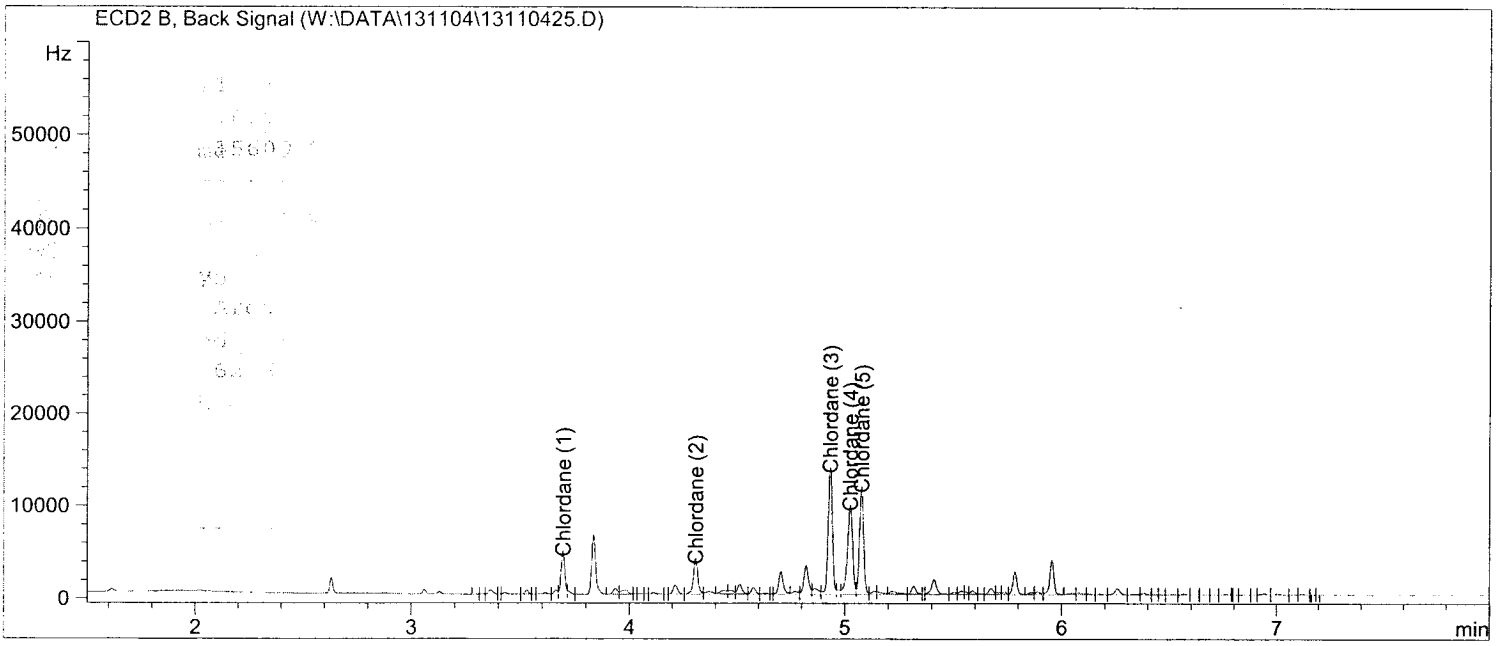
Ret Time	Area	Type	Width	Ref #	ppb	Name
3.695	5639.59	VB	0.018		26.16	Chlordane (1)
4.308	5810.67	VV	0.022		26.95	Chlordane (2)
4.931	19017.35	VB	0.023		88.22	Chlordane (3)
5.025	16090.40	VV	0.028		74.64	Chlordane (4)
5.077	15609.38	VB	0.022		72.41	Chlordane (5)

Group summary:

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.694	62167.39	VB	0.00464	288.39	Chlordane
5.077		VB	0.00464		
5.025		VV	0.00464		
4.931		VB	0.00464		
4.308		VV	0.00464		



Return to Contents

External Standard Report

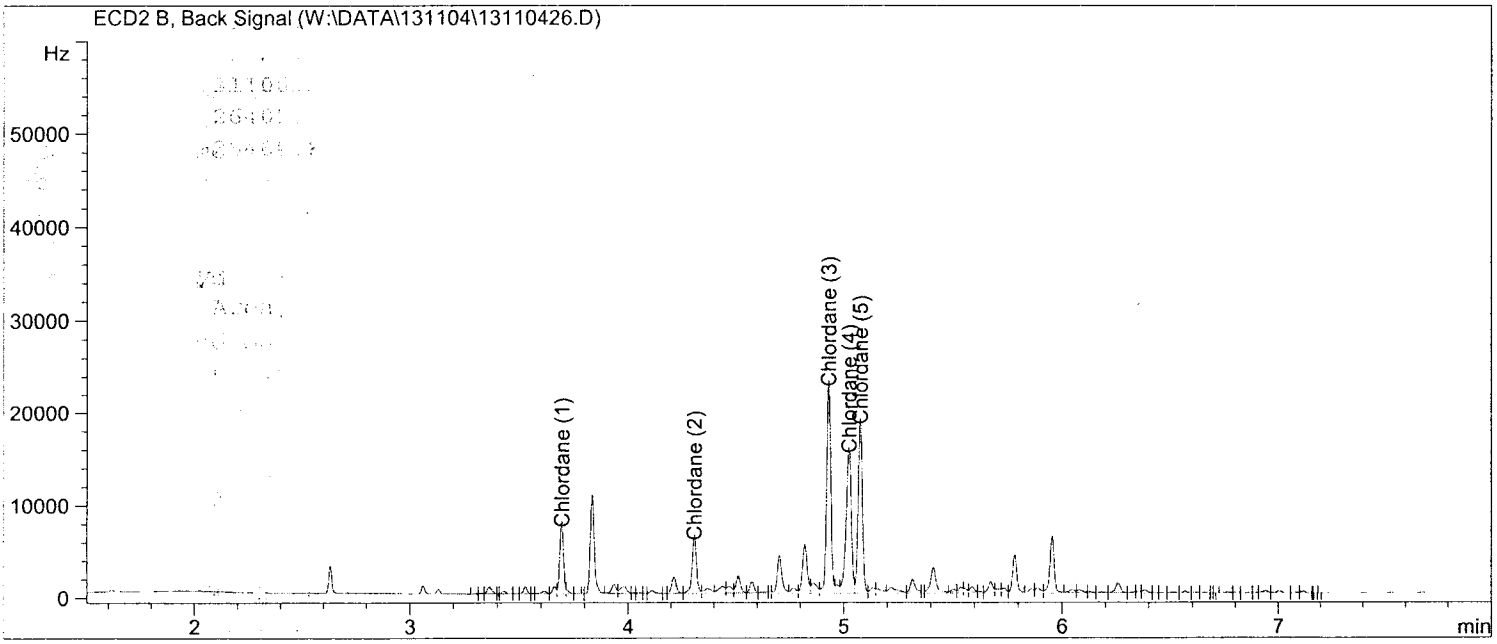
Data File Name : W:\DATA\131104\13110426.D
Operator : 842 Vial Number : Vial 26
Instrument : GC 44 Sequence Line : 27
Sample Name : C ICAL4 S082313D 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M Report Style : CHLD-R
Acquired on : 04 Nov 13 09:58 pm Method : EPA 8081A
Report Created on: 05 Nov 13 07:55 pm Software Version : Rev. B.03.01 [317]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131104R.M

Sig. ECD2 B, W:\DATA\131104\13110426.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.695	9451.62	VB	0.019		43.84	Chlordane (1)
4.309	9322.49	VV	0.023		43.25	Chlordane (2)
4.930	31106.96	VB	0.022		144.30	Chlordane (3)
5.025	26405.01	VV	0.028		122.49	Chlordane (4)
5.076	25468.88	VB	0.022		118.15	Chlordane (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.694	101754.97	VB	0.00464	472.03	Chlordane
5.077		VB	0.00464		
5.025		VV	0.00464		
4.931		VB	0.00464		
4.308		VV	0.00464		



Return to Contents

External Standard Report

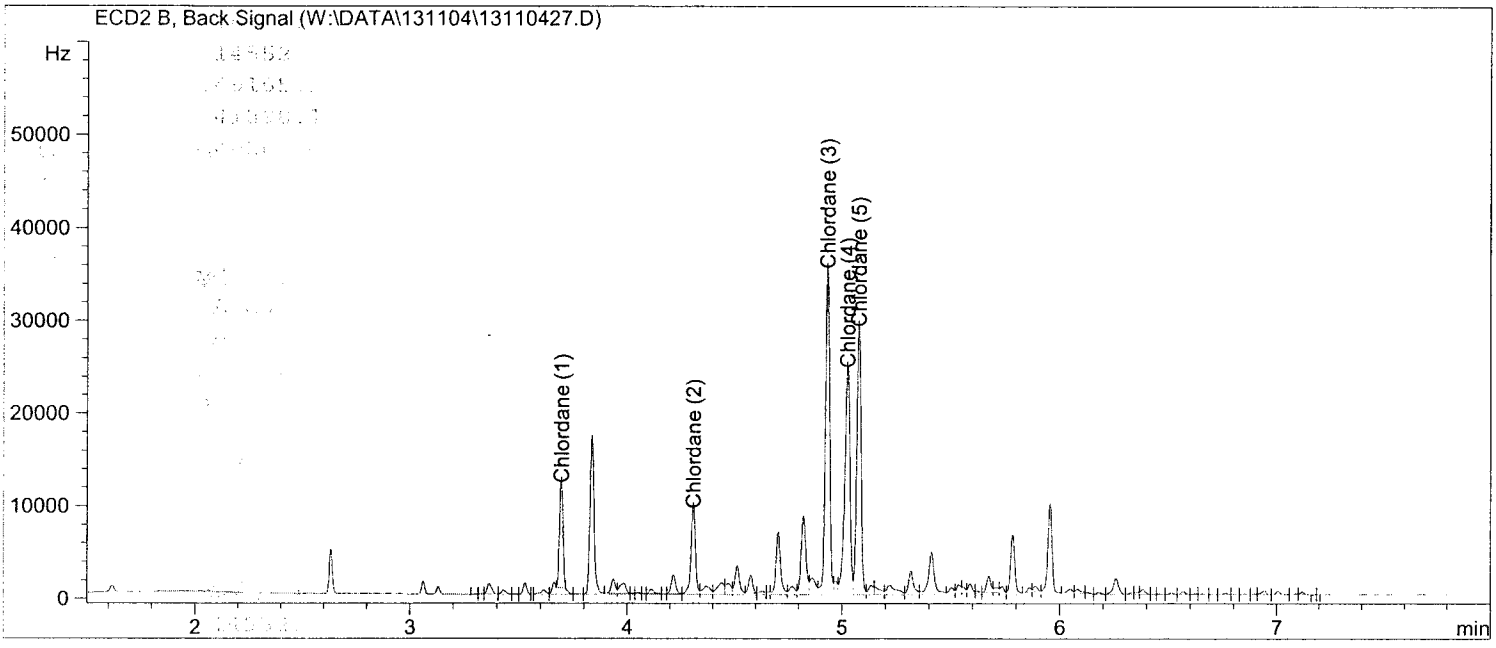
Data File Name : W:\DATA\131104\13110427.D
Operator : 842 Vial Number : Vial 27
Instrument : GC 44 Sequence Line : 28
Sample Name : C ICAL5 S082313E 750PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M Report Style : CHLD-R
Acquired on : 04 Nov 13 10:13 pm Method : EPA 8081A
Report Created on: 05 Nov 13 07:55 pm Software Version : Rev. B.03.01 [317]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131104R.M

Sig. ECD2 B, W:\DATA\131104\13110427.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.696	15347.64	VB	0.019		71.20	Chlordane (1)
4.309	14552.01	VV	0.022		67.50	Chlordane (2)
4.931	49165.93	VB	0.023		228.07	Chlordane (3)
5.025	41898.13	VV	0.028		194.36	Chlordane (4)
5.077	40269.04	VB	0.023		186.80	Chlordane (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.694	161232.74	VB	0.00464	747.94	Chlordane
5.077		VB	0.00464		
5.025		VV	0.00464		
4.931		VB	0.00464		
4.308		VV	0.00464		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110428.D
Operator : 842
Instrument : GC 44
Sample Name : C ICAL6 S082313F 2000PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 10:27 pm
Report Created on: 05 Nov 13 07:55 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\CHLD131104R.M

Vial Number : Vial 28
Sequence Line : 29
Report Style : CHLD-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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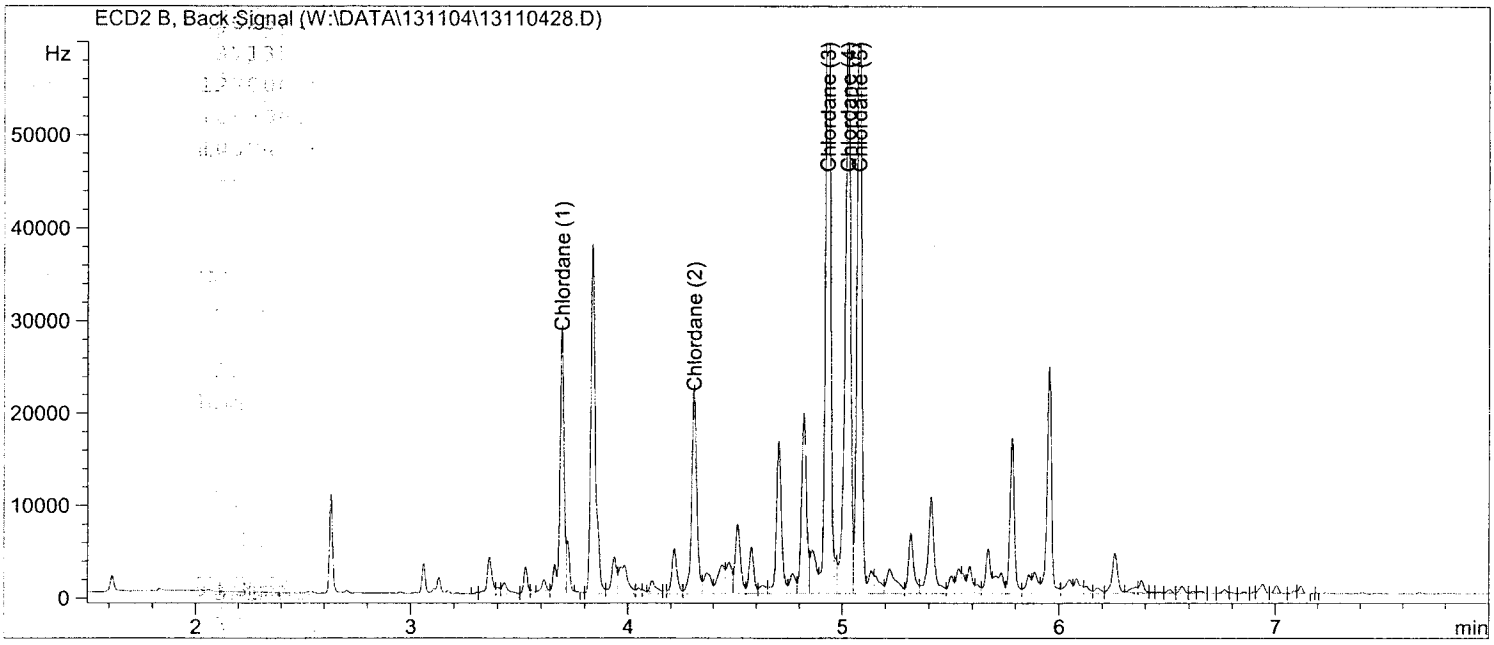
Sig. ECD2 B, W:\DATA\131104\13110428.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.694	36256.48	VB	0.021		168.19	Chlordane (1)
4.308	37135.38	VV	0.027		172.27	Chlordane (2)
4.931	127006.97	VB	0.025		589.17	Chlordane (3)
5.025	108796.34	VV	0.029		504.69	Chlordane (4)
5.077	103946.48	VB	0.024		482.19	Chlordane (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.694	413141.65	VB	0.00464	1916.51	Chlordane
5.077		VB	0.00464		
5.025		VV	0.00464		
4.931		VB	0.00464		
4.308		VV	0.00464		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110429.D
Operator : 842
Instrument : GC 44
Sample Name : C ICV S082313H 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 10:41 pm
Report Created on: 05 Nov 13 07:55 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\CHLD131104R.M

Vial Number : Vial 29
Sequence Line : 30
Report Style : CHLD-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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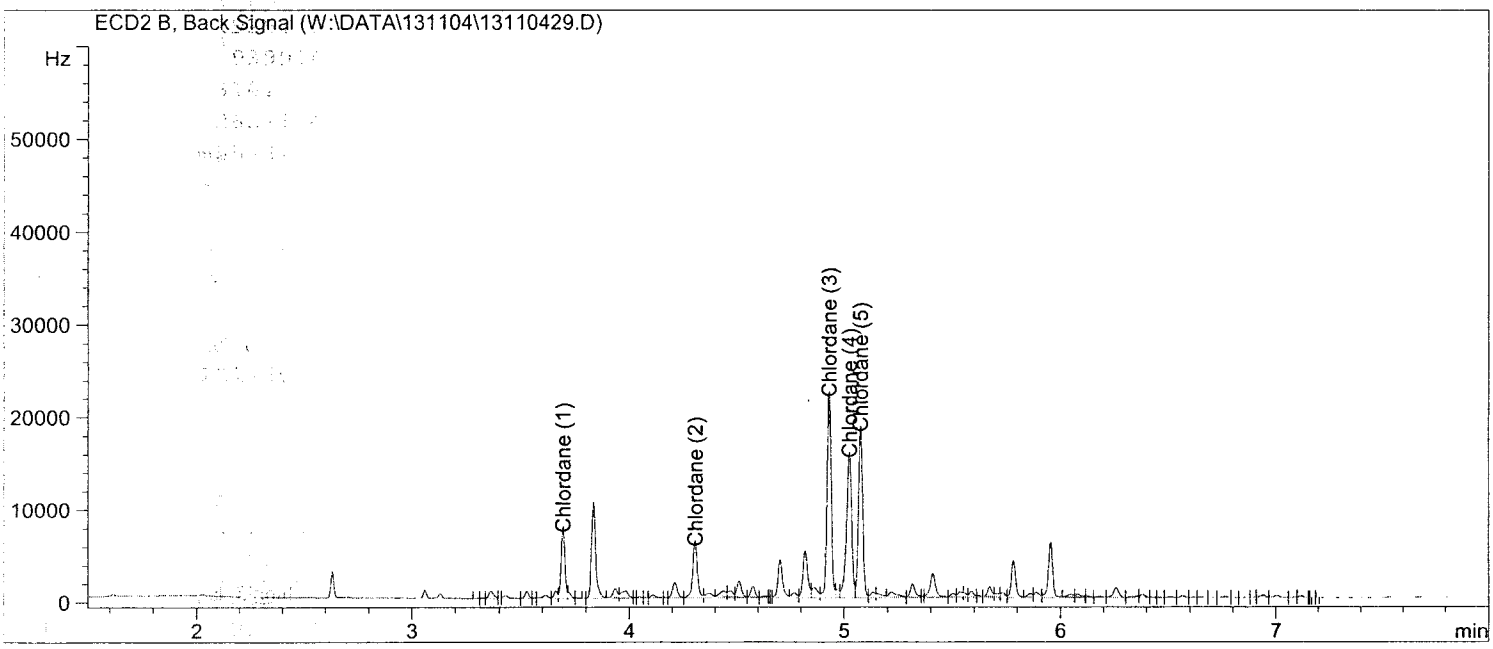
Sig. ECD2 B, W:\DATA\131104\13110429.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.694	9291.46	VB	0.019		43.10	Chlordane (1)
4.308	9399.44	VV	0.023		43.60	Chlordane (2)
4.930	31015.29	VB	0.023		143.88	Chlordane (3)
5.024	26271.49	VV	0.028		121.87	Chlordane (4)
5.076	25482.63	VB	0.023		118.21	Chlordane (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.694	101460.31	VB	0.00464	470.66	Chlordane
5.077		VB	0.00464		
5.025		VV	0.00464		
4.931		VB	0.00464		
4.308		VV	0.00464		



Return to Contents

GC-44, Calculation of Initial Calibraton, Toxaphene, Front Column
Run date:11/04/13

Front column

LEVEL	AREA					CONC. (PPB)													(<20%)			(<15%)	
Analytes	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	RF1	RF2	RF3	RF4	RF5	Avg RF	1/Avg RF	SD	%RSD	ICV	CONC. (PPB)	RF	%D
Toxaphene-F	58972.12	134954.01	288176.34	446540.12	1236689.73	200	500	1000	1500	4000	295	270	288	298	309	292	0.00343	14	5.0	304428.19	1000	304	4.3

Calculation formulas:

RF = Area / Levels(ppb)

% RSD = STDEV of RFs / Ave RF * 100

RF = Area / Spike conc.(ppb)

%D = Absolute(RF-Ave RF) / Ave RF * 100

GC-44, Calculation of Initial Calibraton, Toxaphene, Rear Column
Run date:11/04/13

Front column

LEVEL	AREA					CONC. (PPB)													(<20%)			(<15%)	
Analytes	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	RF1	RF2	RF3	RF4	RF5	Avg RF	1/Avg RF	SD	%RSD	ICV	CONC. (PPB)	RF	%D
Toxaphene-R	16943.43	39446.43	81053.63	124799.54	329044.49	200	500	1000	1500	4000	85	79	81	83	82	82	0.01219	2	2.7	85819.21	1000	86	4.6

Calculation formulas:

RF = Area / Levels(ppb)

% RSD = STDEV of RFs / Ave RF * 100

RF = Area / Spike conc.(ppb)

%D = Absolute(RF-Ave RF) / Ave RF * 100

Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110431.D
Operator : 842
Instrument : GC 44
Sample Name : T ICAL2 S082313J 200PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 11:10 pm
Report Created on: 05 Nov 13 07:04 pm
Comment
Analysis Method : C:\CHEM32\1\METHODS\TOX 131104F.M

Vial Number : Vial 31
Sequence Line : 32
Report Style : TOX-F
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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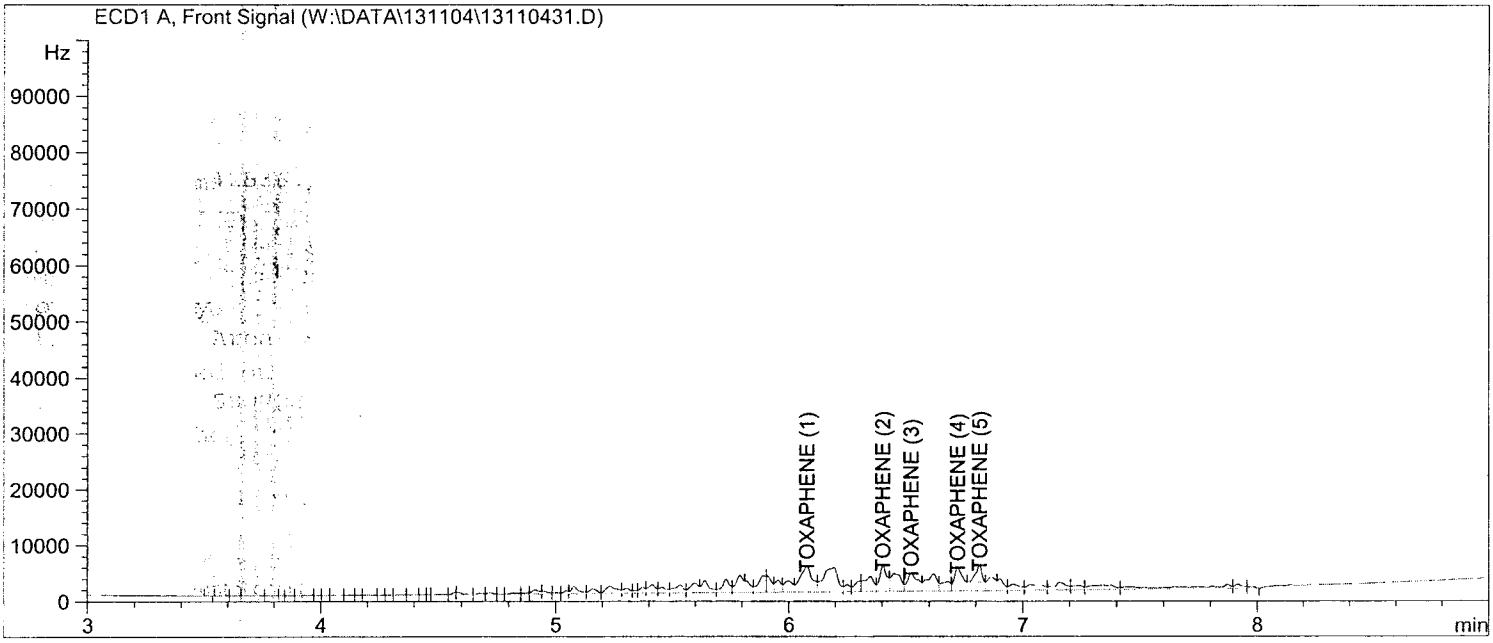
Sig. ECD1 A, W:\DATA\131104\13110431.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
6.079	16333.36	VV	0.048		55.94	TOXAPHENE (1)
6.404	9834.46	VV	0.030		33.68	TOXAPHENE (2)
6.524	9692.33	VV	0.052		33.20	TOXAPHENE (3)
6.723	10575.08	VV	0.043		36.22	TOXAPHENE (4)
6.816	12536.90	VV	0.046		42.94	TOXAPHENE (5)

Group summary:

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
6.074	58972.12	VV	0.00343	201.99	Toxaphene
6.811		VV	0.00343		
6.719		VV	0.00343		
6.520		VV	0.00343		
6.400		VV	0.00343		



Return to Contents

External Standard Report

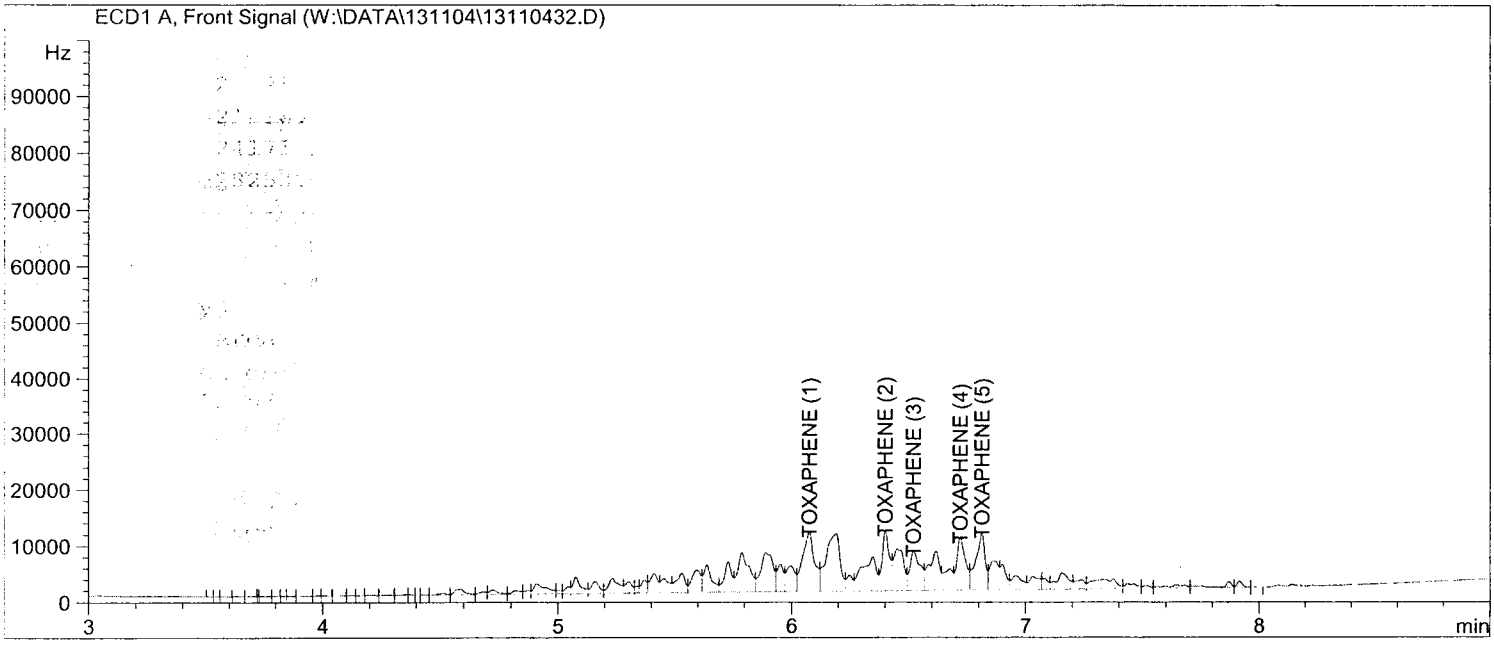
Data File Name : W:\DATA\131104\13110432.D
Operator : 842 Vial Number : Vial 32
Instrument : GC 44 Sequence Line : 33
Sample Name : T ICAL3 S082313K 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M Report Style : TOX-F
Acquired on : 04 Nov 13 11:24 pm Method : EPA 8081A
Report Created on: 05 Nov 13 07:04 pm Software Version : Rev. B.03.01 [317]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX 131104F.M

Sig. ECD1 A, W:\DATA\131104\13110432.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
6.077	37487.96	VV	0.059		128.40	TOXAPHENE (1)
6.402	23125.06	VV	0.036		79.21	TOXAPHENE (2)
6.522	21916.47	VV	0.052		75.07	TOXAPHENE (3)
6.721	24171.20	VV	0.043		82.79	TOXAPHENE (4)
6.813	28253.31	VV	0.046		96.77	TOXAPHENE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
6.074	134954.01	VV	0.00343	462.23	Toxaphene
6.811		VV	0.00343		
6.719		VV	0.00343		
6.520		VV	0.00343		
6.400		VV	0.00343		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110433.D
Operator : 842
Instrument : GC 44
Sample Name : T ICAL4 S082313L 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 11:39 pm
Report Created on: 05 Nov 13 07:04 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\TOX 131104F.M

Vial Number : Vial 33
Sequence Line : 34
Report Style : TOX-F
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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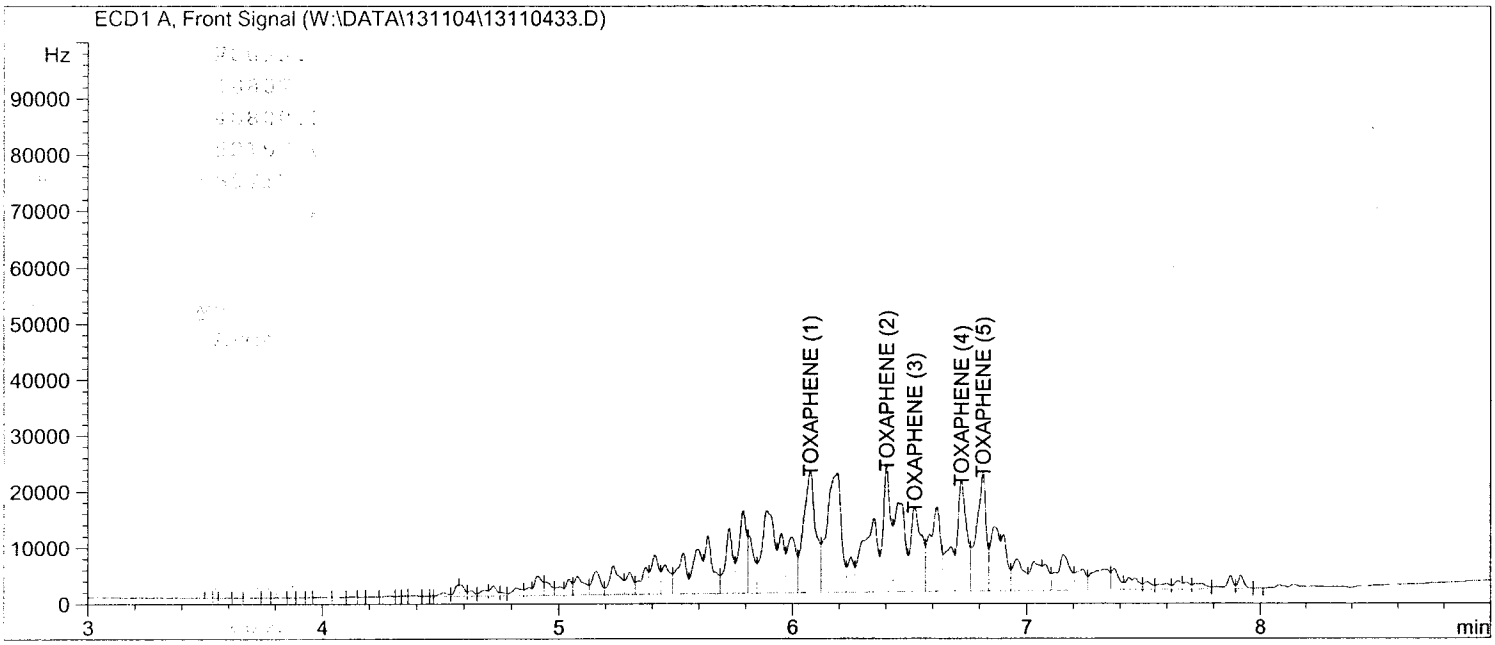
Sig. ECD1 A, W:\DATA\131104\13110433.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
6.077	78693.94	VV	0.060		269.53	TOXAPHENE (1)
6.403	48807.82	VV	0.036		167.17	TOXAPHENE (2)
6.522	48800.25	VV	0.054		167.15	TOXAPHENE (3)
6.722	52157.00	VV	0.044		178.64	TOXAPHENE (4)
6.814	59717.33	VV	0.047		204.54	TOXAPHENE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
6.074	288176.34	VV	0.00343	987.03	Toxaphene
6.811		VV	0.00343		
6.719		VV	0.00343		
6.520		VV	0.00343		
6.400		VV	0.00343		



Return to Contents

External Standard Report

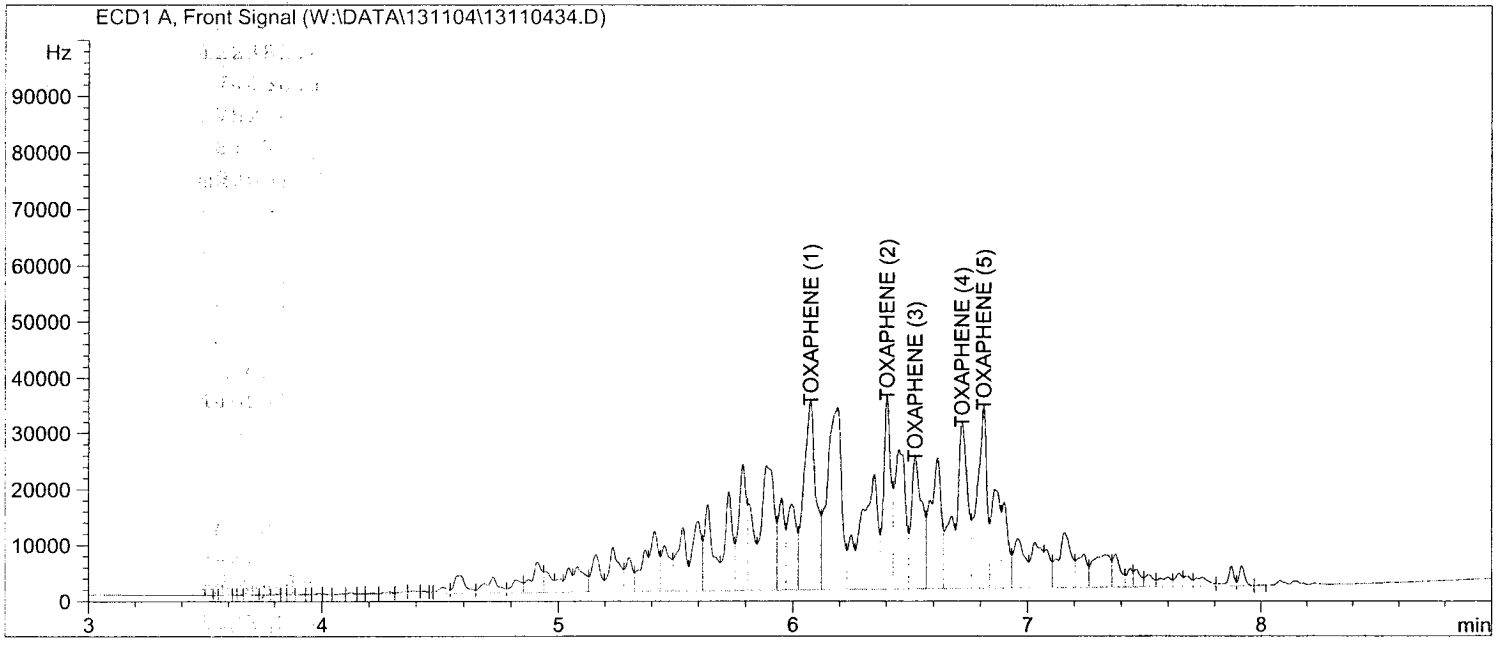
Data File Name : W:\DATA\131104\13110434.D
Operator : 842 Vial Number : Vial 34
Instrument : GC 44 Sequence Line : 35
Sample Name : T ICAL5 S082313M 1500PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M Report Style : TOX-F
Acquired on : 04 Nov 13 11:53 pm Method : EPA 8081A
Report Created on: 05 Nov 13 07:04 pm Software Version : Rev. B.03.01 [317]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX 131104F.M

Sig. ECD1 A, W:\DATA\131104\13110434.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
6.077	122382.45	VV	0.060		419.17	TOXAPHENE (1)
6.402	74456.14	VV	0.036		255.02	TOXAPHENE (2)
6.522	75276.34	VV	0.053		257.83	TOXAPHENE (3)
6.721	81370.80	VV	0.046		278.70	TOXAPHENE (4)
6.814	93054.38	VV	0.047		318.72	TOXAPHENE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
6.074	446540.12	VV	0.00343	1529.45	Toxaphene
6.811		VV	0.00343		
6.719		VV	0.00343		
6.520		VV	0.00343		
6.400		VV	0.00343		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110435.D
Operator : 842
Instrument : GC 44
Sample Name : T ICAL6 S082313N 4000PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 05 Nov 13 00:08 am
Report Created on: 05 Nov 13 07:05 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\TOX 131104F.M

Vial Number : Vial 35
Sequence Line : 36
Report Style : TOX-F
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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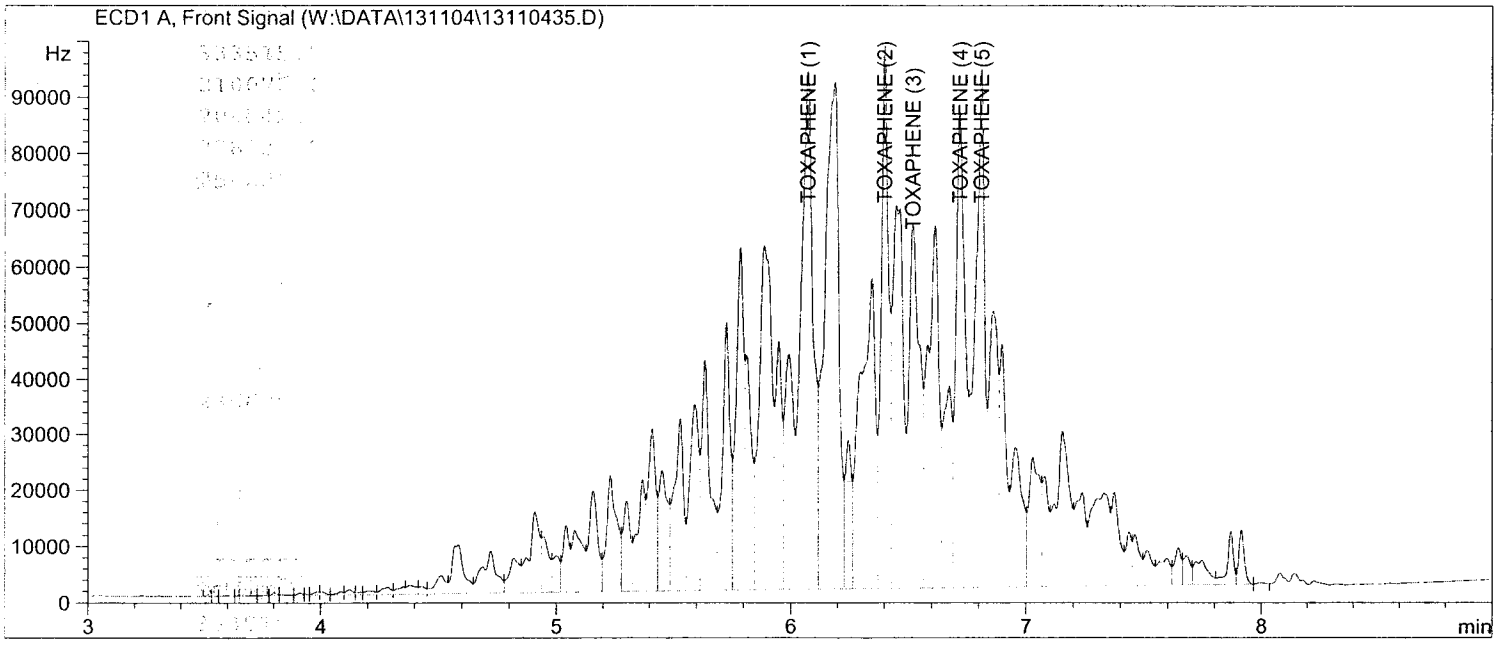
Sig. ECD1 A, W:\DATA\131104\13110435.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
6.074	333515.75	VV	0.060		1142.33	TOXAPHENE (1)
6.400	210072.66	VV	0.036		719.52	TOXAPHENE (2)
6.520	206542.69	VV	0.053		707.43	TOXAPHENE (3)
6.719	228330.23	VV	0.045		782.05	TOXAPHENE (4)
6.811	258228.41	VV	0.047		884.46	TOXAPHENE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
6.074	1236689.73	VV	0.00343	4235.79	Toxaphene
6.811		VV	0.00343		
6.719		VV	0.00343		
6.520		VV	0.00343		
6.400		VV	0.00343		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110436.D
Operator : 842
Instrument : GC 44
Sample Name : T ICV S082313P 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 05 Nov 13 00:22 am
Report Created on: 05 Nov 13 07:05 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\TOX 131104F.M

Vial Number : Vial 36
Sequence Line : 37
Report Style : TOX-F
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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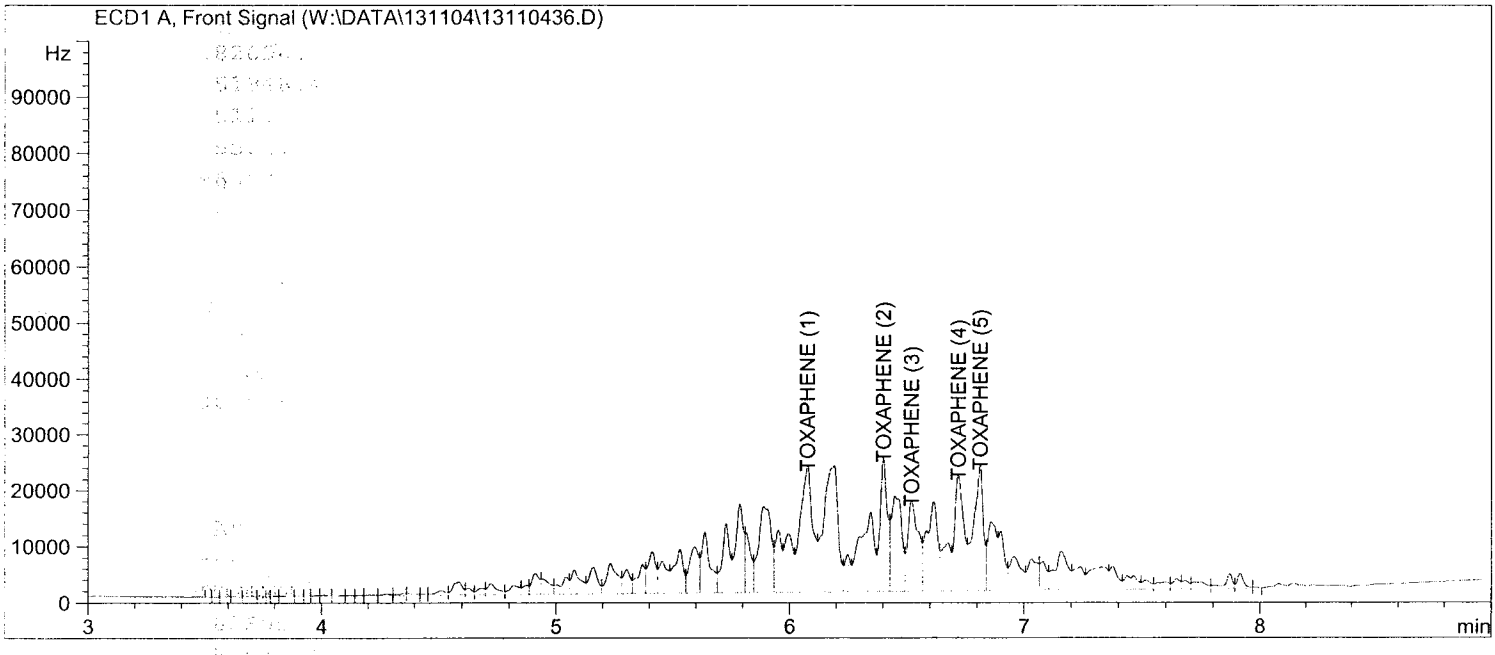
Sig. ECD1 A, W:\DATA\131104\13110436.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
6.077	82696.77	VV	0.061		283.24	TOXAPHENE (1)
6.402	51948.48	VV	0.036		177.93	TOXAPHENE (2)
6.522	51117.48	VV	0.053		175.08	TOXAPHENE (3)
6.720	55027.43	VV	0.044		188.47	TOXAPHENE (4)
6.814	63638.02	VV	0.047		217.97	TOXAPHENE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
6.074	304428.19	VV	0.00343	1042.70	Toxaphene
6.811		VV	0.00343		
6.719		VV	0.00343		
6.520		VV	0.00343		
6.400		VV	0.00343		



Return to Contents

External Standard Report

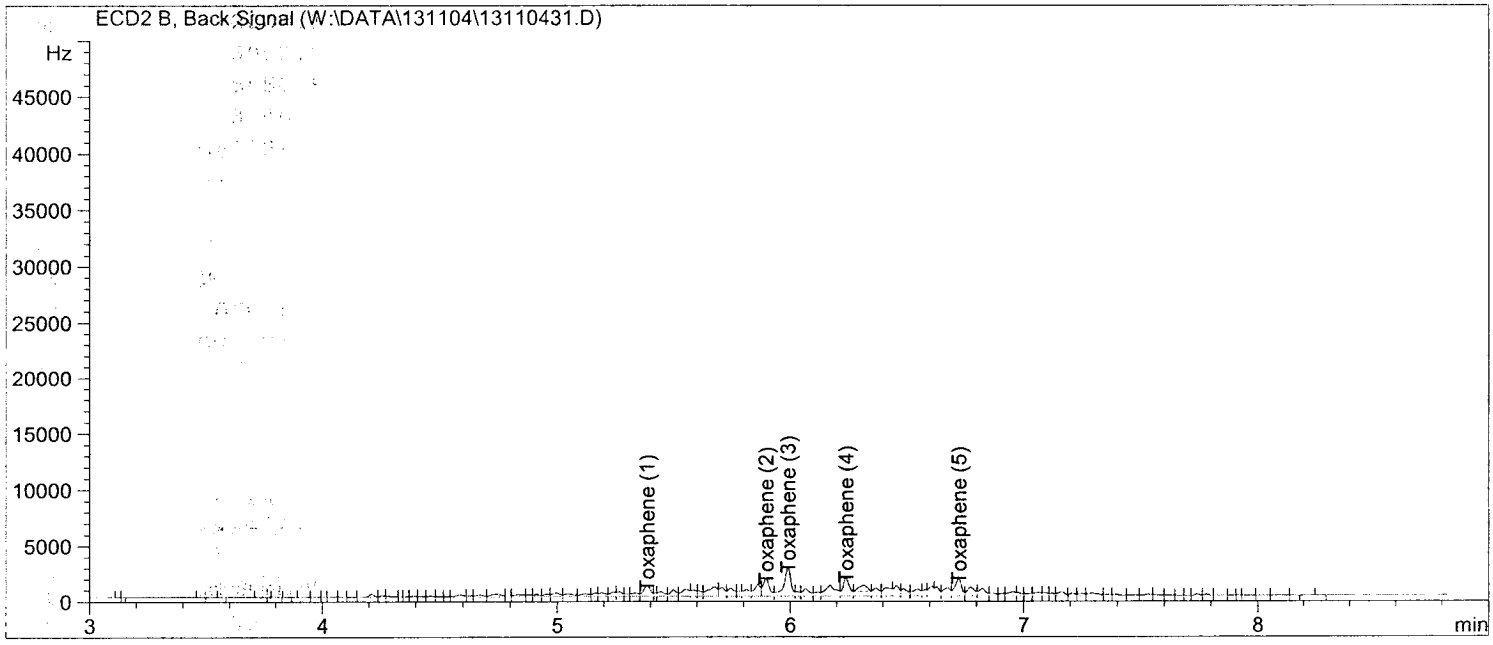
Data File Name : W:\DATA\131104\13110431.D
Operator : 842 Vial Number : Vial 31
Instrument : GC 44 Sequence Line : 32
Sample Name : T ICAL2 S082313J 200PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M Report Style : TOX-R
Acquired on : 04 Nov 13 11:10 pm Method : EPA 8081A
Report Created on: 05 Nov 13 07:07 pm Software Version : Rev. B.03.01 [317]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX 131104R.M

Sig. ECD2 B, W:\DATA\131104\13110431.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.385	2060.17VV		0.034		25.12	Toxaphene (1)
5.897	3052.93VV		0.028		37.22	Toxaphene (2)
5.991	5459.90VV		0.031		66.56	Toxaphene (3)
6.241	3246.59VV		0.028		39.58	Toxaphene (4)
6.724	3123.85VV		0.028		38.08	Toxaphene (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.383	16943.43	VV	0.01219	206.56	Toxaphene
6.721		VV	0.01219		
6.238		VV	0.01219		
5.987		VV	0.01219		
5.893		VV	0.01219		



Return to Contents

External Standard Report

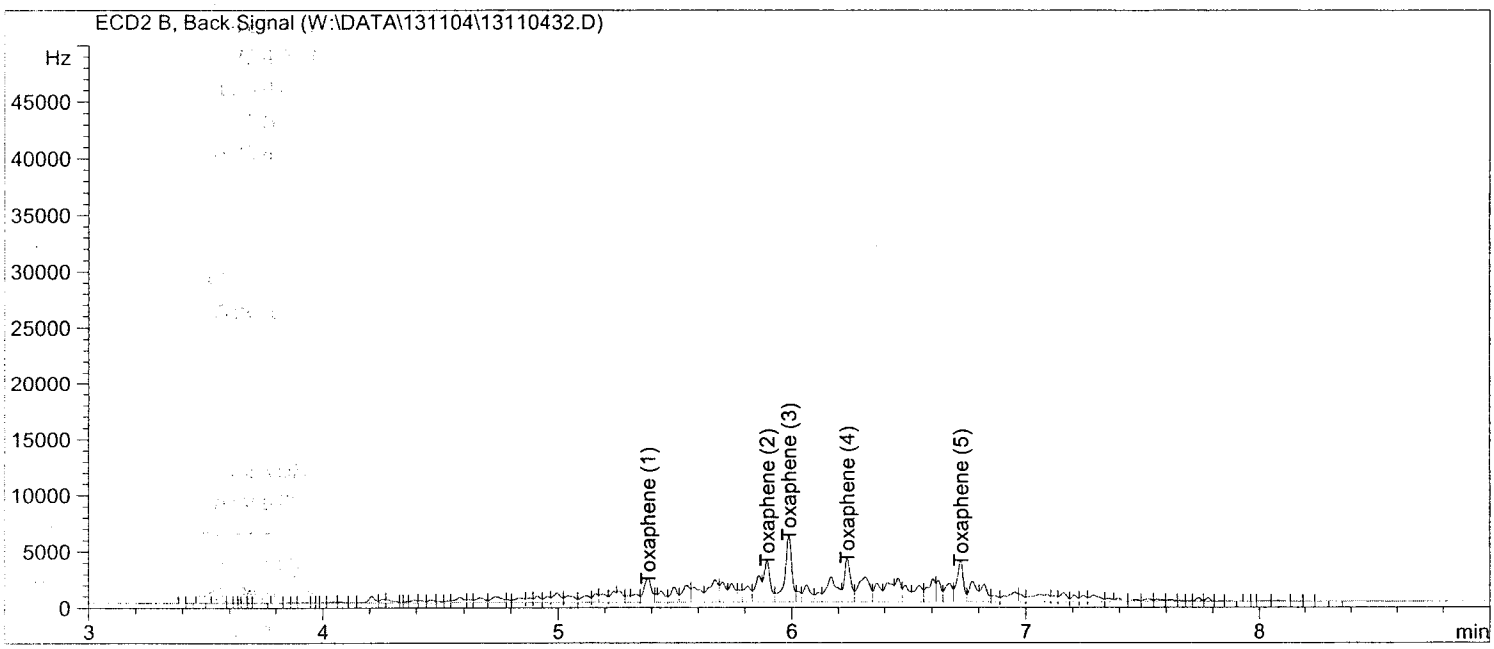
Data File Name : W:\DATA\131104\13110432.D
Operator : 842 Vial Number : Vial 32
Instrument : GC 44 Sequence Line : 33
Sample Name : T ICAL3 S082313K 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M Report Style : TOX-R
Acquired on : 04 Nov 13 11:24 pm Method : EPA 8081A
Report Created on: 05 Nov 13 07:07 pm Software Version : Rev. B.03.01 [317]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX 131104R.M

Sig. ECD2 B, W:\DATA\131104\13110432.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.384	4871.99	VV	0.035		59.40	Toxaphene (1)
5.895	7140.08	VV	0.028		87.05	Toxaphene (2)
5.988	12731.20	VV	0.031		155.21	Toxaphene (3)
6.239	7553.29	VV	0.032		92.09	Toxaphene (4)
6.723	7149.88	VV	0.032		87.17	Toxaphene (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.383	39446.43	VV	0.01219	480.91	Toxaphene
6.721		VV	0.01219		
6.238		VV	0.01219		
5.987		VV	0.01219		
5.893		VV	0.01219		



Return to Contents

External Standard Report

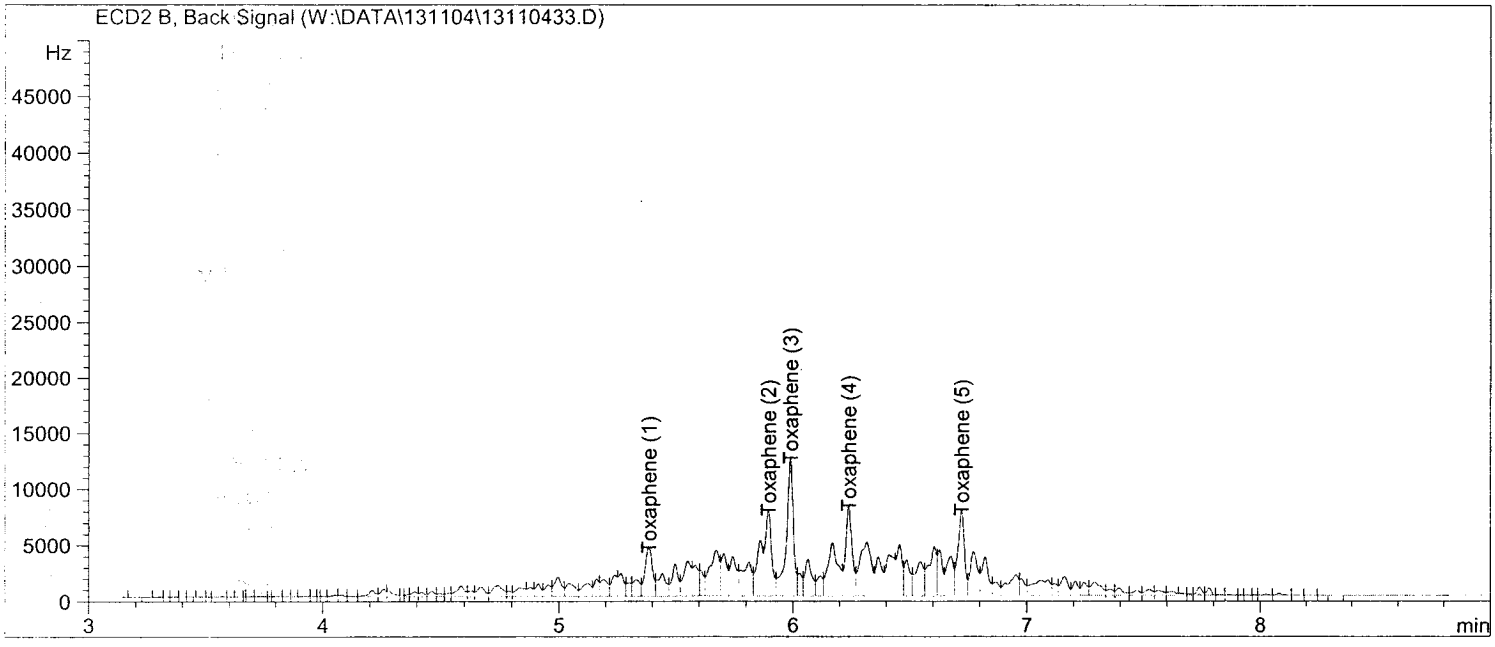
Data File Name : W:\DATA\131104\13110433.D
Operator : 842 Vial Number : Vial 33
Instrument : GC 44 Sequence Line : 34
Sample Name : T ICAL4 S082313L 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M Report Style : TOX-R
Acquired on : 04 Nov 13 11:39 pm Method : EPA 8081A
Report Created on: 05 Nov 13 07:07 pm Software Version : Rev. B.03.01 [317]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX 131104R.M

Sig. ECD2 B, W:\DATA\131104\13110433.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.385	9704.42	VV	0.034		118.31	Toxaphene (1)
5.895	14733.03	VV	0.032		179.62	Toxaphene (2)
5.990	26118.48	VV	0.035		318.42	Toxaphene (3)
6.239	15552.48	VV	0.032		189.61	Toxaphene (4)
6.723	14945.22	VV	0.032		182.20	Toxaphene (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.383	81053.63	VV	0.01219	988.16	Toxaphene
6.721		VV	0.01219		
6.238		VV	0.01219		
5.987		VV	0.01219		
5.893		VV	0.01219		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110434.D
Operator : 842
Instrument : GC 44
Sample Name : T ICAL5 S082313M 1500PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 11:53 pm
Report Created on: 05 Nov 13 07:07 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\TOX 131104R.M

Vial Number : Vial 34
Sequence Line : 35
Report Style : TOX-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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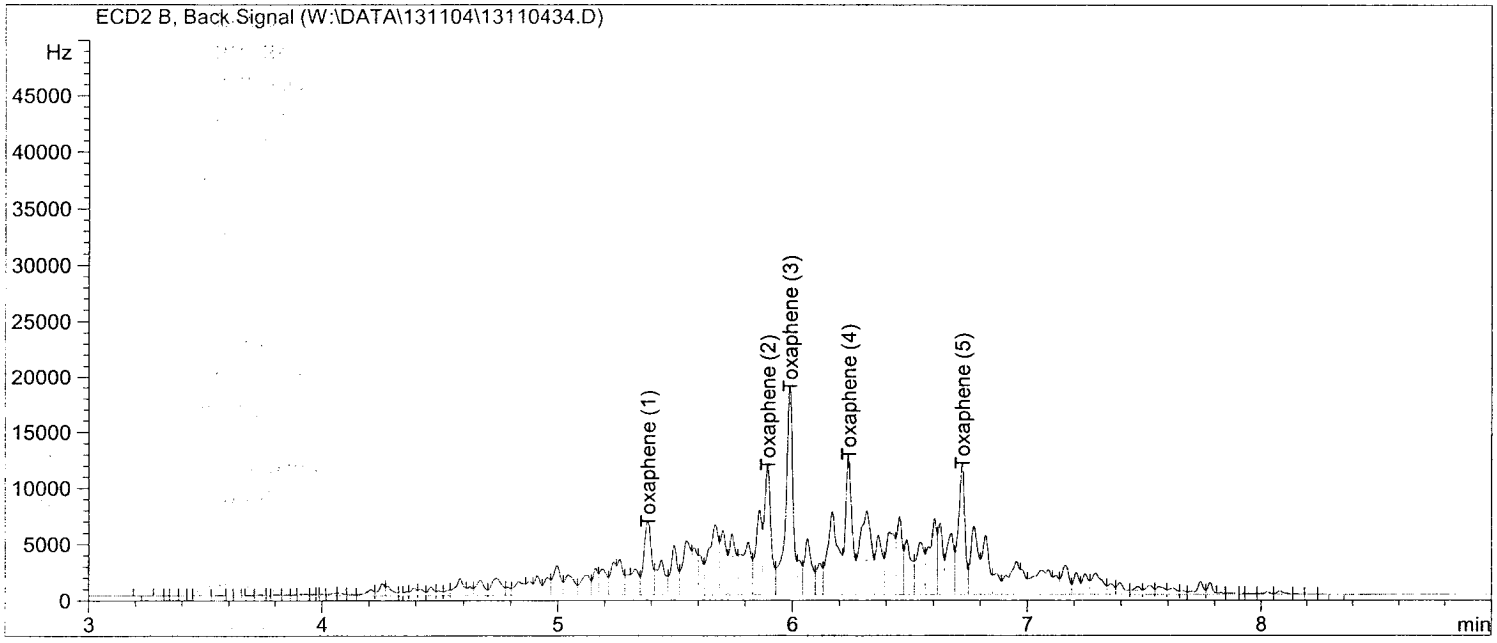
Sig. ECD2 B, W:\DATA\131104\13110434.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.385	14956.92	VV	0.035		182.35	Toxaphene (1)
5.895	22724.35	VV	0.033		277.04	Toxaphene (2)
5.989	39899.07	VV	0.036		486.43	Toxaphene (3)
6.239	24248.67	VV	0.032		295.63	Toxaphene (4)
6.723	22970.53	VV	0.033		280.04	Toxaphene (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.383	124799.54	VV	0.01219	1521.48	Toxaphene
6.721		VV	0.01219		
6.238		VV	0.01219		
5.987		VV	0.01219		
5.893		VV	0.01219		



Return to Contents

External Standard Report

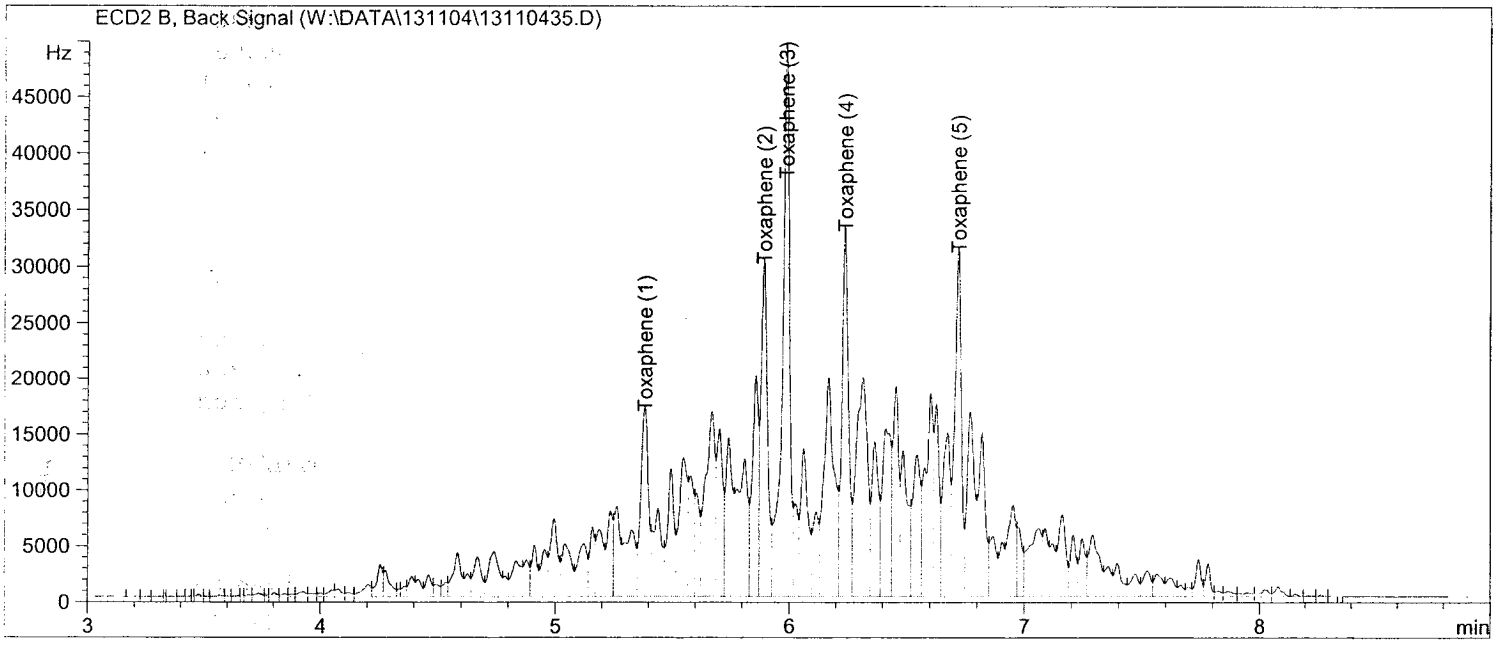
Data File Name : W:\DATA\131104\13110435.D
Operator : 842 Vial Number : Vial 35
Instrument : GC 44 Sequence Line : 36
Sample Name : T ICAL6 S082313N 4000PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M Report Style : TOX-R
Acquired on : 05 Nov 13 00:08 am Method : EPA 8081A
Report Created on: 05 Nov 13 07:07 pm Software Version : Rev. B.03.01 [317]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX 131104R.M

Sig. ECD2 B, W:\DATA\131104\13110435.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.383	38579.48	VV	0.038		470.34	Toxaphene (1)
5.893	59006.46	VV	0.033		719.37	Toxaphene (2)
5.987	106043.06	VV	0.036		1292.82	Toxaphene (3)
6.238	64020.25	VV	0.032		780.50	Toxaphene (4)
6.721	61395.24	VV	0.033		748.50	Toxaphene (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.383	329044.49	VV	0.01219	4011.52	Toxaphene
6.721		VV	0.01219		
6.238		VV	0.01219		
5.987		VV	0.01219		
5.893		VV	0.01219		



Return to Contents

External Standard Report

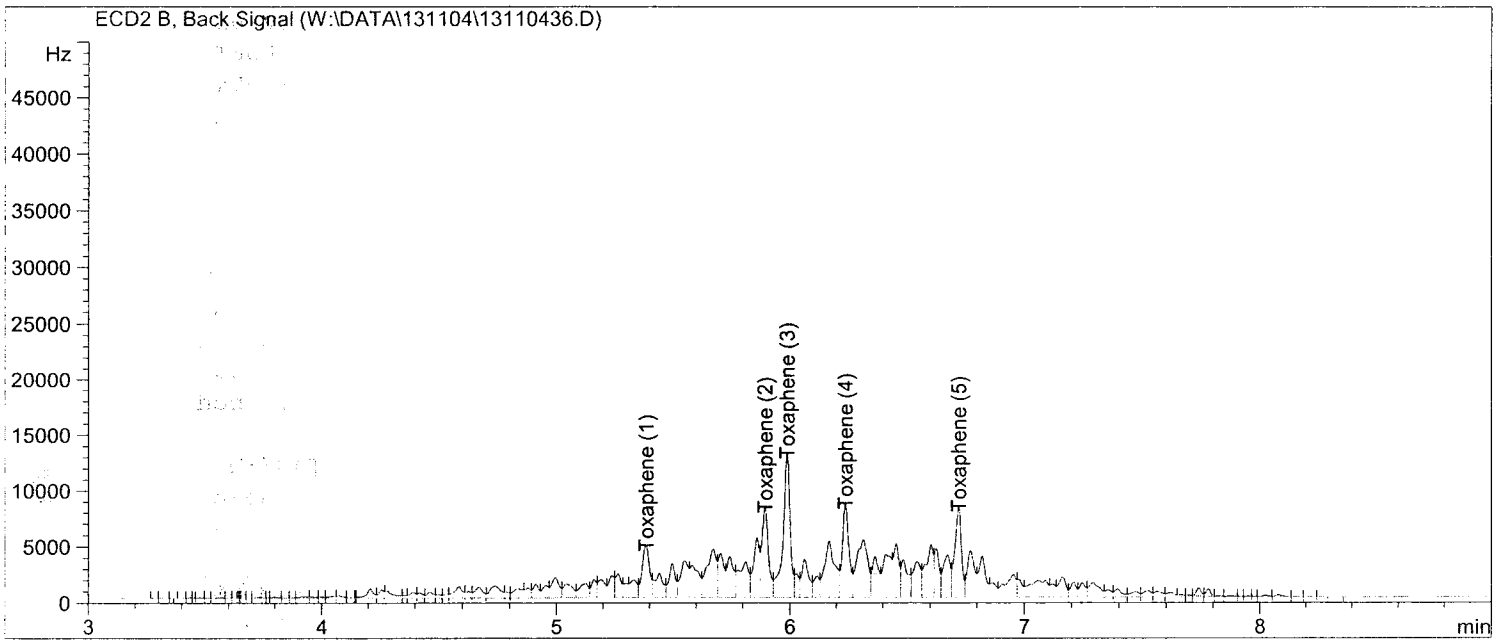
Data File Name : W:\DATA\131104\13110436.D
Operator : 842 Vial Number : Vial 36
Instrument : GC 44 Sequence Line : 37
Sample Name : T ICV S082313P 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M Report Style : TOX-R
Acquired on : 05 Nov 13 00:22 am Method : EPA 8081A
Report Created on: 05 Nov 13 07:07 pm Software Version : Rev. B.03.01 [317]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX 131104R.M

Sig. ECD2 B, W:\DATA\131104\13110436.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.384	10398.00	VV	0.034		126.77	Toxaphene (1)
5.894	15664.76	VV	0.032		190.98	Toxaphene (2)
5.989	27513.97	VV	0.036		335.43	Toxaphene (3)
6.239	16402.06	VV	0.033		199.96	Toxaphene (4)
6.723	15840.43	VV	0.032		193.12	Toxaphene (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.383	85819.21	VV	0.01219	1046.26	Toxaphene
6.721		VV	0.01219		
6.238		VV	0.01219		
5.987		VV	0.01219		
5.893		VV	0.01219		



Return to Contents

EPA METHOD 8081A
Organochlorine Pesticides

DDT/Endrin Breakdown

Return to Contents

GC-44

FRONT COLUMN

Err:510 Err:510 Err:510 Err:510 Err:510 Err:510 Err:510

External Standard R eport

Err:510 Err:510 Err:510 Err:510 Err:510 Err:510 Err:510

Data File Na me : W: \DA TA\131104\1 3110401.D
Operator : 84 2 Vial Number : Vial 1
Instrument : GC 44 Sequence Line : 2
Sample Name : EV AL S080713B 50 PPB
Running Meth od : C: \CH EM32\1\METH ODS\8081D.M Report Style : PEST-FL
Acquired on : 04 No v 13 03:44 pm Method : EPA 8081A
Report Creat ed on: 05 No v 13 11:04 am Software Version : Rev. B.03.01 [317]
Comment :
Analysis Met hod : C: \CH EM32\1\METH ODS\PEST131 104F.M

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Sig. W:\DATA \13 1104\131104 01.D

Ret Time	Area	Typ	e Width	Re	f #	ppb	Name
0	0		0		0	0	2,4,5,6-Tetrachloro -m-Xylene
0	0		0		0	0	Hexachlorobenzene
0	0		0		0	0	Alpha-BHC
3.603	20.2	VV	0.012			0.01	Gamma-BHC
3.684	19.3	BV	0.013			0.022	Beta-BHC
3.857	12.3	VV	0.011			0.006	Delta-BHC
4.059	484.6	BV	0.028			0.245	Heptachlor
4.372	207	VV	0.032			0.111	Aldrin
0	0		0		0	0	Heptachlor Epoxide
5.136	43.1	BV	0.013			0.025	Gamma Chlordane
5.253	4906.4	VV	0.039			2.696	Alpha Chlordane
5.322	4254.8	VV	0.032			2.448	4,4'-DDE
0	0		0		0	0	Endosulfan I
5.637	176.7	BV	0.027			0.104	Dieldrin
5.871	75491.8	BV	0.022			50.185	Endrin
0	0		0		0	0	4,4'-DDD
6.093	21.9	VV	0.011			0.015	Endosulfan II
6.187	74140.8	VB	0.021			47.89	4,4'-DDT
6.491	1139.5	VV	0.023			0.964	Endrin Aldehyde
6.638	213.2	VV	0.029			0.273	Methoxychlor
6.897	11.6	VV	0.006			0.009	Endosulfan Sulfate
7.175	2091.3	BV	0.021			1.286	Endrin Ketone
8.08	288.6	BV	0.023			0.204	Decachlorobiphenyl
0	0		0		0	0	Chlordane
0	0		0		0	0	Toxaphene

Evaluation	
Components	**Area**
Endrin	75491.8
Endrin Aldehyde	1139.5
Endrin Ketone	2091.3
%Breakdown (<15%)	**4.1**
Components	**Area**
4,4-DDT	74140.8
4,4-DDE	4254.8
4,4-DDD	0
%Breakdown (<15%)	**5.4**

Data file name and location: svoa28\MY DOCUMENT\GC 44 ICAL.xls
Calculation Formulas:

% Breakdown: ((Endrin Aldehyde+Endrin Ketone)/(Endrin+Endrin Aldehyde+Endrin Ketone))*100
((4,4-DDE+4,4-DDD)/(4,4-DDT+4,4-DDE+4,4-DDD))*100

Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110401.D
Operator : 842
Instrument : GC 44
Sample Name : EVAL S080713B 50PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 03:44 pm
Report Created on: 05 Nov 13 11:04 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104F.M

Vial Number : Vial 1
Sequence Line : 2
Report Style : PEST-FL
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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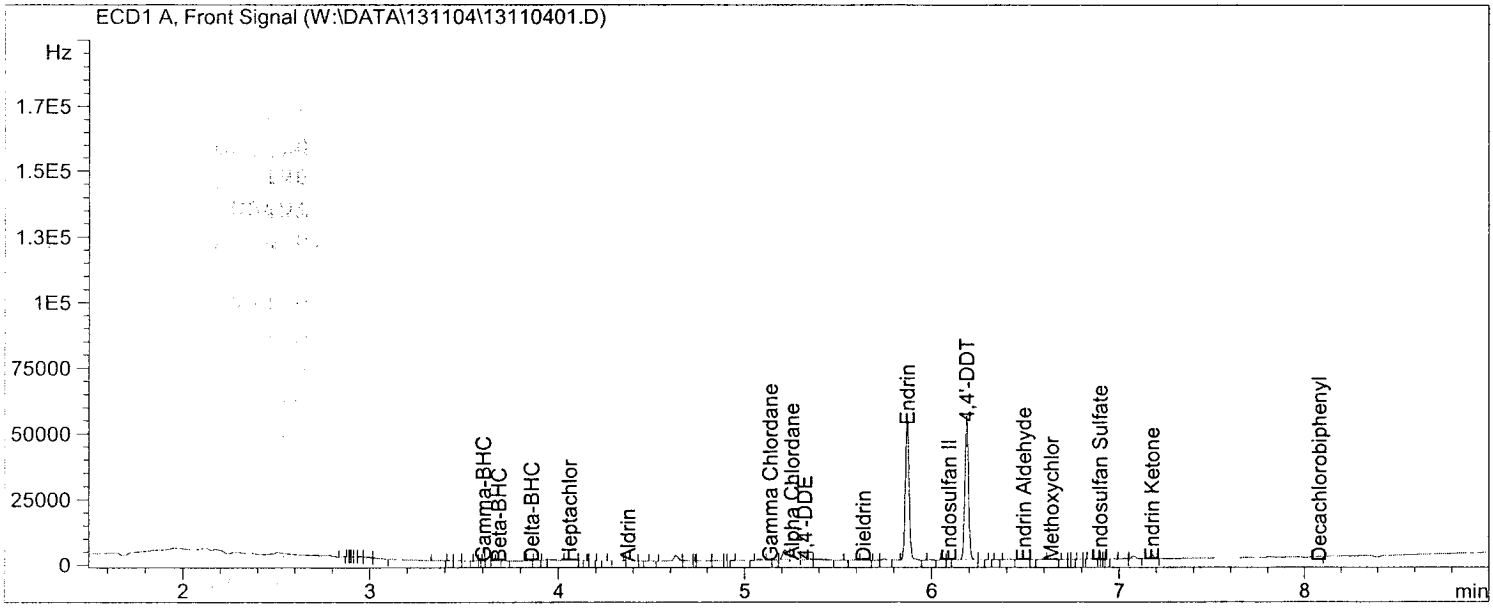
Sig. ECD1 A, W:\DATA\131104\13110401.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.0		0.000		0.000	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
3.603	20.2	VV	0.012		0.010	Gamma-BHC
3.684	19.3	BV	0.013		0.022	Beta-BHC
3.857	12.3	VV	0.011		0.006	Delta-BHC
4.059	484.6	BV	0.028		0.245	Heptachlor
4.372	207.0	VV	0.032		0.111	Aldrin
0.000	0.0		0.000		0.000	Heptachlor Epoxide
5.136	43.1	BV	0.013		0.025	Gamma Chlordane
5.253	4906.4	VV	0.039		2.696	Alpha Chlordane
5.322	4254.8	VV	0.032		2.448	4,4'-DDE
0.000	0.0		0.000		0.000	Endosulfan I
5.637	176.7	BV	0.027		0.104	Dieldrin
5.871	75491.8	BV	0.022		50.185	Endrin
0.000	0.0		0.000		0.000	4,4'-DDD
6.093	21.9	VV	0.011		0.015	Endosulfan II
6.187	74140.8	VB	0.021		47.890	4,4'-DDT
6.491	1139.5	VV	0.023		0.964	Endrin Aldehyde
6.638	213.2	VV	0.029		0.273	Methoxychlor
6.897	11.6	VV	0.006		0.009	Endosulfan Sulfate
7.175	2091.3	BV	0.021		1.286	Endrin Ketone
8.080	288.6	BV	0.023		0.204	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110400.D
Operator : 842
Instrument : GC 44
Sample Name : IB E08-45-11
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 03:29 pm
Report Created on: 05 Nov 13 11:04 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104F.M

Vial Number : Vial 100
Sequence Line : 1
Report Style : PEST-FL
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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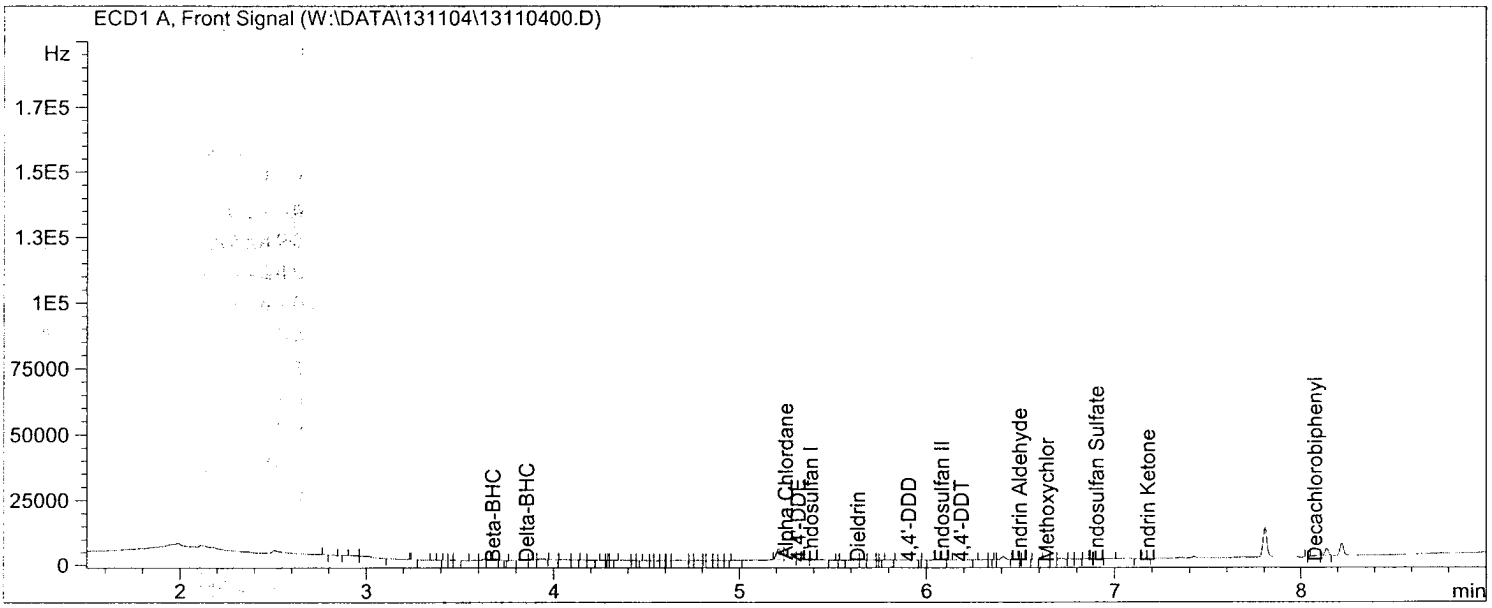
Sig. ECD1 A, W:\DATA\131104\13110400.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.0		0.000	0.000		2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000	0.000		Hexachlorobenzene
0.000	0.0		0.000	0.000		Alpha-BHC
0.000	0.0		0.000	0.000		Gamma-BHC
3.676	89.1	BV	0.016	0.104		Beta-BHC
3.857	39.6	BV	0.015	0.020		Delta-BHC
0.000	0.0		0.000	0.000		Heptachlor
0.000	0.0		0.000	0.000		Aldrin
0.000	0.0		0.000	0.000		Heptachlor Epoxide
0.000	0.0		0.000	0.000		Gamma Chlordane
5.248	4976.4	VV	0.039	2.735		Alpha Chlordane
5.316	1686.9	VV	0.047	0.971		4,4'-DDE
5.383	1065.1	VB	0.044	0.671		Endosulfan I
5.634	113.3	BV	0.018	0.066		Dieldrin
0.000	0.0		0.000	0.000		Endrin
5.907	428.5	BB	0.037	0.303		4,4'-DDD
6.080	145.3	BV	0.020	0.101		Endosulfan II
6.184	410.7	VB	0.031	0.265		4,4'-DDT
6.494	56.9	BV	0.015	0.048		Endrin Aldehyde
6.637	49.6	VV	0.016	0.064		Methoxychlor
6.902	99.1	VV	0.021	0.074		Endosulfan Sulfate
7.175	72.3	VV	0.017	0.044		Endrin Ketone
8.076	393.9	BV	0.019	0.279		Decachlorobiphenyl
0.000	0.0		0.000	0.000		Chlordane
0.000	0.0		0.000	0.000		Toxaphene



Return to Contents

GC 44

REAR COLUMN

Err:510 Err:510 Err:510 Err:510 Err:510 Err:510 Err:510

External Standard Report

Err:510 Err:510 Err:510 Err:510 Err:510 Err:510 Err:510

Data File Name : W: \DATA\131104\3110401.D
Operator : 84 2 Vial Number : Vial 1
Instrument : GC 44 Sequence Line : 2
Sample Name : EV AL S080713B PPB
Running Method : C: \CHEM32\1\METHODS\8081D Report Style : PEST-R
Acquired on : 04 No v 13 03:44 pm Method : EPA 8081A
Report Created on: 05 No v 13 11:04 am Software Version : Rev. B.03.01 [317]
Comment : Copyright © Agilent
Analysis Method : C: \CHEM32\1\METHODS\PEST104R.M Technologies

Sig. W:\DATA\131104\131101.D

Ret Time	Area	Type	Width	Ref #	ppb	Name	
2.6	48	BV	0.016		0.11	2,4,5,6-Tetrachloro	-m-Xylene
0	0		0		0	Hexachlorobenzene	
0	0		0		0	Alpha-BHC	
3.425	50	VV	0.016		0.084	Gamma-BHC	
0	0		0		0	Beta-BHC	
3.77	46	BV	0.024		0.074	Delta-BHC	
0	0		0		0	Heptachlor	
4.173	18.8	VV	0.15		0.035	Aldrin	
4.759	426.1	VV	0.028		0.802	Heptachlor Epoxide	
4.932	12.4	VV	0.016		0.024	Gamma Chlordane	
5.078	15.6	VV	0.013		0.032	Alpha Chlordane	
0	0		0		0	Endosulfan I	
5.242	641.2	BV	0.02		1.375	4,4'-DDE	
5.403	15.6	BV	0.014		0.031	Dieldrin	
5.705	21934.5	BB	0.019		49.503	Endrin	
5.812	117.7	VV	0.017		0.295	4,4'-DDD	
5.911	16.2	VV	0.017		0.038	Endosulfan II	
6.113	20647.2	BB	0.019		47.488	4,4'-DDT	
6.235	317.6	VV	0.022		0.918	Endrin Aldehyde	
0	0		0		0	Endosulfan Sulfate	
0	0		0		0	Methoxychlor	
6.999	1064.9	BF	0.027		2.249	Endrin Ketone	
8.123	94	BV	0.021		0.255	Decachlorobiphenyl	
0	0		0		0	Chlordane	
0	0		0		0	Toxaphene	

Evaluation	
Components	**Area**
Endrin	21934.5
Endrin Aldehyde	317.6
Endrin Ketone	1064.9
%Breakdown (<15%)	**5.9**
Components	**Area**
4,4-DDT	20647.2
4,4-DDE	641.2
4,4-DDD	117.7
%Breakdown (<15%)	**3.5**

Data file name and location: svoa28\MY DOCUMENT\GC 44 ICAL.xls
Calculation Formulas:

% Breakdo ((Endrin Aldehyde+Endrin Ketone)/(Endrin+Endrin Aldehyde+Endrin Ketone))*100
((4,4-DDE+4,4-DDD)/(4,4-DDT+4,4-DDE+4,4-DDD))*100

Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110401.D
Operator : 842
Instrument : GC 44
Sample Name : EVAL S080713B 50PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 03:44 pm
Report Created on: 05 Nov 13 11:04 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104R.M

Vial Number : Vial 1
Sequence Line : 2
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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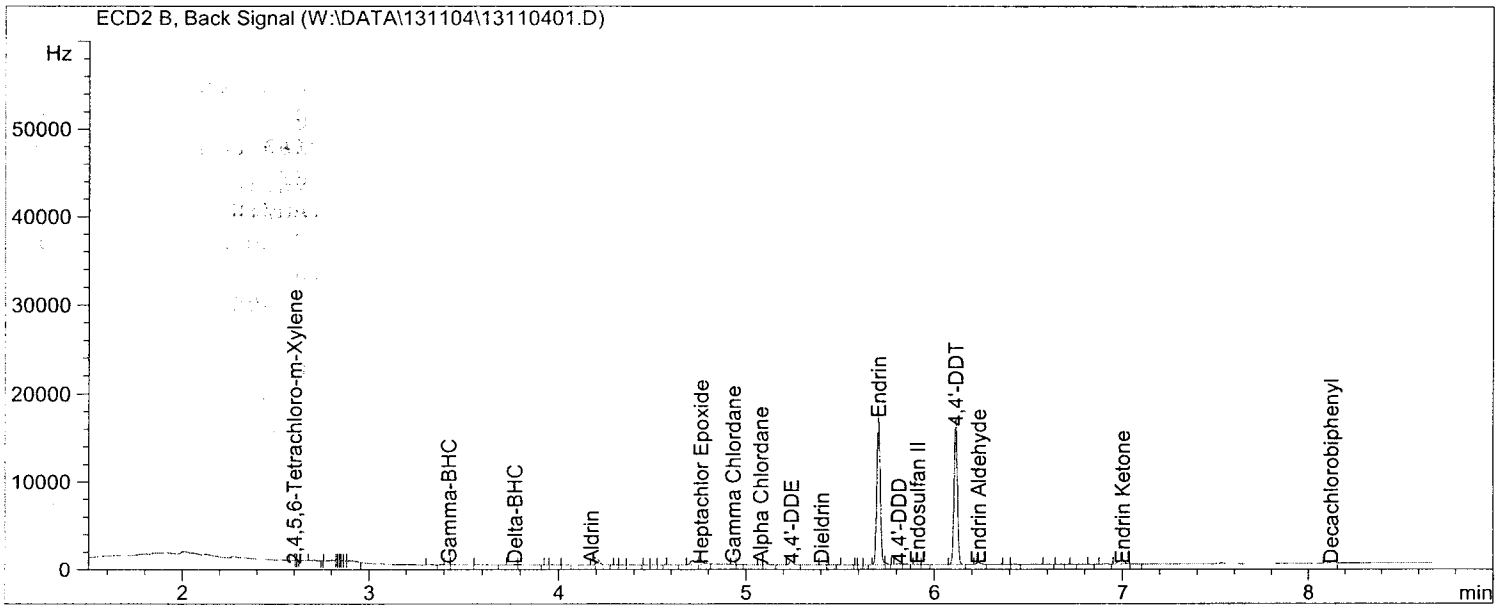
Sig. ECD2 B, W:\DATA\131104\13110401.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.600	48.0	BV	0.016		0.110	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
3.425	50.0	VV	0.016		0.084	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
3.770	46.0	BV	0.024		0.074	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
4.173	18.8	VV	0.150		0.035	Aldrin
4.759	426.1	VV	0.028		0.802	Heptachlor Epoxide
4.932	12.4	VV	0.016		0.024	Gamma Chlordane
5.078	15.6	VV	0.013		0.032	Alpha Chlordane
0.000	0.0		0.000		0.000	Endosulfan I
5.242	641.2	BV	0.020		1.375	4,4'-DDE
5.403	15.6	BV	0.014		0.031	Dieldrin
5.705	21934.5	BB	0.019		49.503	Endrin
5.812	117.7	VV	0.017		0.295	4,4'-DDD
5.911	16.2	VV	0.017		0.038	Endosulfan II
6.113	20647.2	BB	0.019		47.488	4,4'-DDT
6.235	317.6	VV	0.022		0.918	Endrin Aldehyde
0.000	0.0		0.000		0.000	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Methoxychlor
6.999	1064.9	BF	0.027		2.249	Endrin Ketone
8.123	94.0	BV	0.021		0.255	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131104\13110400.D
Operator : 842
Instrument : GC 44
Sample Name : IB E08-45-11
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 04 Nov 13 03:29 pm
Report Created on: 05 Nov 13 11:05 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104R.M

Vial Number : Vial 100
Sequence Line : 1
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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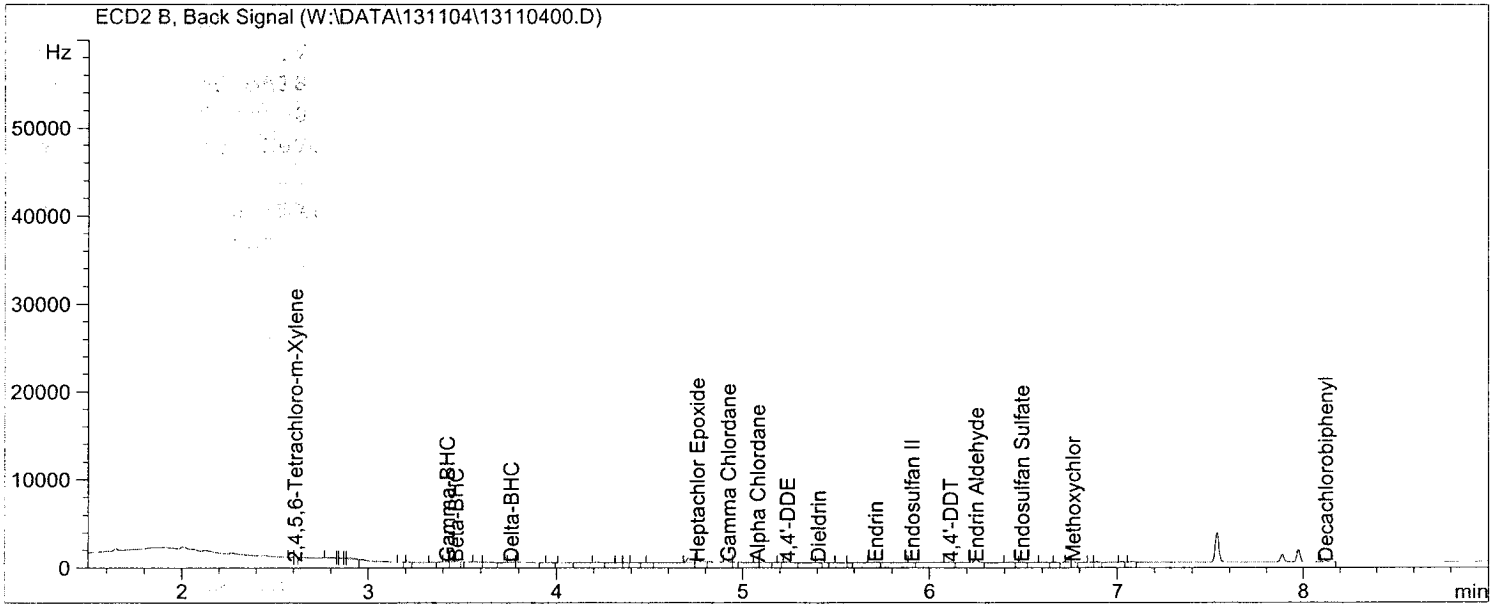
Sig. ECD2 B, W:\DATA\131104\13110400.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.609	18.1	VV	0.012		0.042	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
3.423	70.3	VV	0.017		0.117	Gamma-BHC
3.468	14.8	BB	0.015		0.058	Beta-BHC
3.760	54.0	VV	0.023		0.087	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
4.756	427.1	VV	0.026		0.804	Heptachlor Epoxide
4.923	47.0	BV	0.019		0.092	Gamma Chlordane
5.081	18.3	BV	0.013		0.037	Alpha Chlordane
0.000	0.0		0.000		0.000	Endosulfan I
5.241	107.5	BV	0.020		0.231	4,4'-DDE
5.406	11.2	VV	0.014		0.022	Dieldrin
5.714	47.2	BF	0.029		0.107	Endrin
0.000	0.0		0.000		0.000	4,4'-DDD
5.908	18.3	VV	0.015		0.043	Endosulfan II
6.113	50.3	VV	0.018		0.116	4,4'-DDT
6.250	471.9	VB	0.021		1.363	Endrin Aldehyde
6.492	15.8	VV	0.015		0.040	Endosulfan Sulfate
6.764	20.5	VV	0.013		0.095	Methoxychlor
0.000	0.0		0.000		0.000	Endrin Ketone
8.121	146.1	BV	0.022		0.396	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

GC-44

FRONT COLUMN

Err:510 Err:510 Err:510 Err:510 Err:510 Err:510 Err:510

External Standard R eport

Err:510 Err:510 Err:510 Err:510 Err:510 Err:510 Err:510

Data File Na me : W: \DA TA\131115\1 3111501.D
Operator : 84 2 Vial Number : Vial 1
Instrument : GC 44 Sequence Line : 2
Sample Name : EV AL S080713B 50 PPB
Running Meth od : C: \CH EM32\1\METH ODS\8081D.M Report Style : PEST-F
Acquired on : 15 No v 13 00:49 pm Method : EPA 8081A
Report Creat ed on: 15 No v 13 03:44 pm Software Version : Rev. B.03.01 [317]
Comment :
Analysis Met hod : C: \CH EM32\1\METH ODS\PEST131 104F.M

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Sig. W:\DATA \13 1115\131115 01.D

Ret Time	Area	Typ	e Width	Re	f #	ppb	Name
0	0		0	0		0	2,4,5,6-Tetrachloro -m-Xylene
0	0		0	0		0	Hexachlorobenzene
0	0		0	0		0	Alpha-BHC
0	0		0	0		0	Gamma-BHC
3.675	69.3	VB	0.02	0.081			Beta-BHC
3.849	54.5	BV	0.019	0.027			Delta-BHC
0	0		0	0		0	Heptachlor
0	0		0	0		0	Aldrin
0	0		0	0		0	Heptachlor Epoxide
0	0		0	0		0	Gamma Chlordane
0	0		0	0		0	Alpha Chlordane
5.311	2670	BB	0.025	1.536			4,4'-DDE
0	0		0	0		0	Endosulfan I
5.652	156.9	BV	0.022	0.092			Dieldrin
5.858	67445.5	BV	0.022	44.836			Endrin
5.905	1340.1	VB	0.022	0.947			4,4'-DDD
6.08	37.4	BV	0.013	0.026			Endosulfan II
6.175	69524.6	VB	0.021	44.908			4,4'-DDT
6.479	2502.3	BV	0.022	2.116			Endrin Aldehyde
6.624	117.3	BV	0.032	0.15			Methoxychlor
6.89	97.9	BV	0.026	0.073			Endosulfan Sulfate
7.162	3928	BB	0.021	2.415			Endrin Ketone
8.073	43.2	BV	0.016	0.031			Decachlorobiphenyl
0	0		0	0		0	Chlordane
0	0		0	0		0	Toxaphene

Evaluation	
Components	**Area**
Endrin	67445.5
Endrin Aldehyde	2502.3
Endrin Ketone	3928
%Breakdown (<15%)	**8.7**
Components	**Area**
4,4-DDT	69524.6
4,4-DDE	2670
4,4-DDD	1340.1
%Breakdown (<15%)	**5.5**

Data file name and location: svoa28\MY DOCUMENT\GC 44 ICAL.xls

Calculation Formulas:

% Breakdown: ((Endrin Aldehyde+Endrin Ketone)/(Endrin+Endrin Aldehyde+Endrin Ketone))*100

((4,4-DDE+4,4-DDD)/(4,4-DDT+4,4-DDE+4,4-DDD))*100

Return to Contents

External Standard Report

Data File Name : W:\DATA\131115\13111501.D
Operator : 842
Instrument : GC 44
Sample Name : EVAL S080713B 50PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 15 Nov 13 00:49 pm
Report Created on: 15 Nov 13 03:44 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104F.M

Vial Number : Vial 1
Sequence Line : 2
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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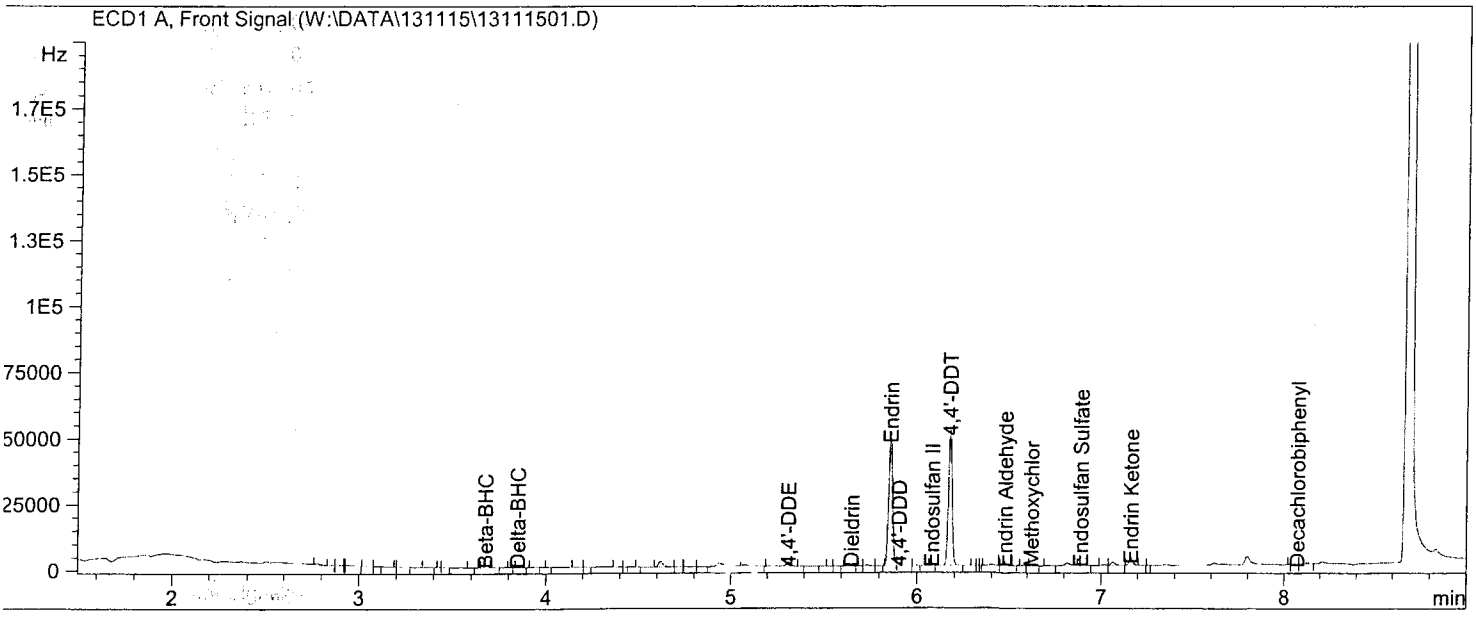
Sig. ECD1 A, W:\DATA\131115\13111501.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.0		0.000		0.000	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
3.675	69.3	VB	0.020		0.081	Beta-BHC
3.849	54.5	BV	0.019		0.027	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
0.000	0.0		0.000		0.000	Heptachlor Epoxide
0.000	0.0		0.000		0.000	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
5.311	2670.0	BB	0.025		1.536	4,4'-DDE
0.000	0.0		0.000		0.000	Endosulfan I
5.652	156.9	BV	0.022		0.092	Dieldrin
5.858	67445.5	BV	0.022		44.836	Endrin
5.905	1340.1	VB	0.022		0.947	4,4'-DDD
6.080	37.4	BV	0.013		0.026	Endosulfan II
6.175	69524.6	VB	0.021		44.908	4,4'-DDT
6.479	2502.3	BV	0.022		2.116	Endrin Aldehyde
6.624	117.3	BV	0.032		0.150	Methoxychlor
6.890	97.9	BV	0.026		0.073	Endosulfan Sulfate
7.162	3928.0	BB	0.021		2.415	Endrin Ketone
8.073	43.2	BV	0.016		0.031	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

GC 44

REAR COLUMN

Err:510 Err:510 Err:510 Err:510 Err:510 Err:510 Err:510

External Standard Report

Err:510 Err:510 Err:510 Err:510 Err:510 Err:510 Err:510

Data File Name : W:\DATA\131115\3111501.D
Operator : 84 2 Vial Number : Vial 1
Instrument : GC 44 Sequence Line : 2
Sample Na : EV AL S080713B PPB
Running Mod : C: \CH EM32\1\MEODS\8081I Report Style : PEST-R
Acquired on : 15 No v 13 00:49 pm Method : EPA 8081A
Report Created on: 15 No v 13 03:45 pm Software Version : Rev. B.03.01 [317]
Comment :
Analysis Method : C: \CH EM32\1\MEODS\PEST104R.M

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Sig. W:\DATA\13 1115\1311101.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
0	0		0	0	0	2,4,5,6-Tetrachloro-m-Xylene
0	0		0	0	0	Hexachlorobenzene
0	0		0	0	0	Alpha-BHC
0	0		0	0	0	Gamma-BHC
3.476	15.9	VV	0.039	0.062		Beta-BHC
3.777	24.1	VB	0.013	0.039		Delta-BHC
0	0		0	0	0	Heptachlor
4.162	165.1	BV	4.323	0.306		Aldrin
4.755	151.5	BV	0.034	0.285		Heptachlor Epoxide
4.942	222.9	BB	0.026	0.434		Gamma Chlordane
5.069	11.1	BV	0.012	0.023		Alpha Chlordane
0	0		0	0	0	Endosulfan I
5.231	578.8	BV	0.02	1.241		4,4'-DDE
0	0		0	0	0	Dieldrin
5.693	19165.3	BB	0.019	43.253		Endrin
5.802	449.2	BB	0.023	1.124		4,4'-DDD
5.9	40.5	BV	0.017	0.096		Endosulfan II
6.102	18506.6	BB	0.02	42.565		4,4'-DDT
6.222	728.1	BV	0.023	2.103		Endrin Aldehyde
6.484	23.3	BV	0.02	0.059		Endosulfan Sulfate
0	0		0	0	0	Methoxychlor
6.987	1524.8	BF	0.023	3.22		Endrin Ketone
8.114	17.6	VV	0.019	0.048		Decachlorobiphenyl
0	0		0	0	0	Chlordane
0	0		0	0	0	Toxaphene

Evaluation	
Components	**Area**
Endrin	19165.3
Endrin Aldehyde	728.1
Endrin Ketone	1524.8
%Breakdown (<15%)	**10.5**
Components	**Area**
4,4-DDT	18506.6
4,4-DDE	578.8
4,4-DDD	449.2
%Breakdown (<15%)	**5.3**

Data file name and location: svoa28\MY DOCUMENT\GC 44 ICAL.xls

Calculation Formulas:

% Breakdown ((Endrin Aldehyde+Endrin Ketone)/(Endrin+Endrin Aldehyde+Endrin Ketone))*100

((4,4-DDE+4,4-DDD)/(4,4-DDT+4,4-DDE+4,4-DDD))*100

Return to Contents

External Standard Report

Data File Name : W:\DATA\131115\13111501.D
Operator : 842
Instrument : GC 44
Sample Name : EVAL S080713B 50PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 15 Nov 13 00:49 pm
Report Created on: 15 Nov 13 03:45 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104R.M

Vial Number : Vial 1
Sequence Line : 2
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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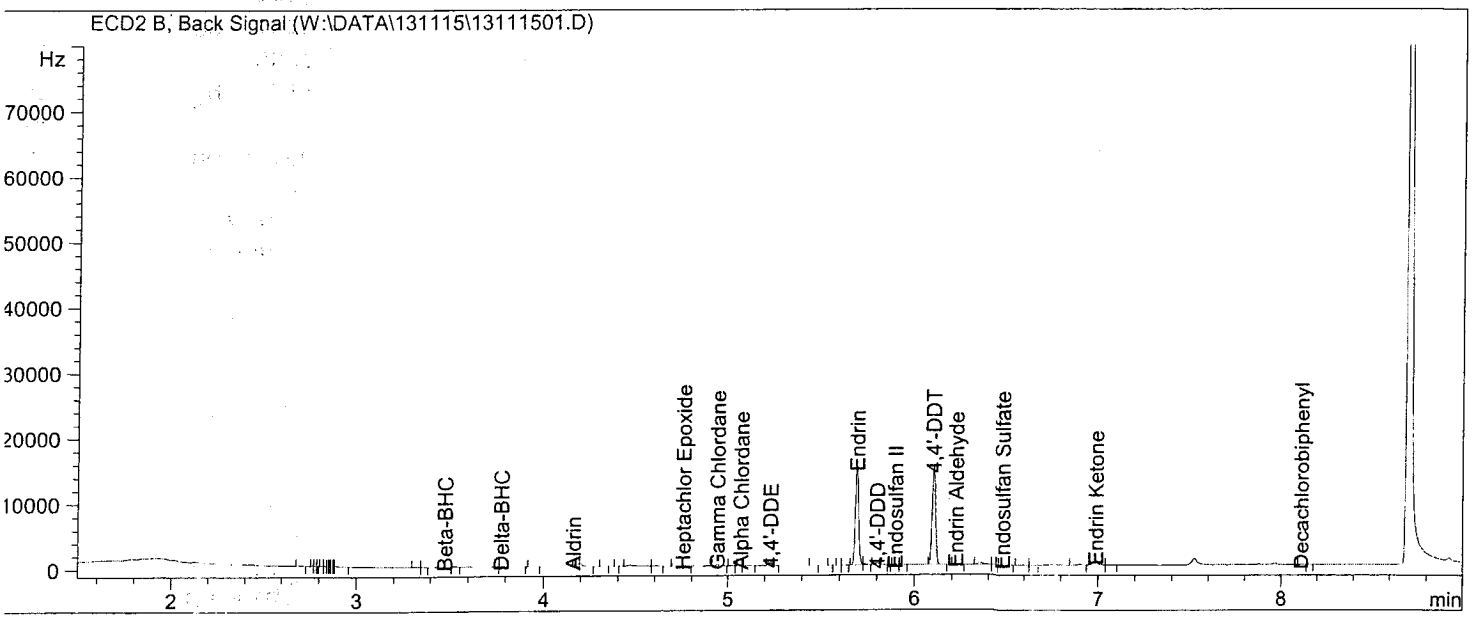
Sig. ECD2 B, W:\DATA\131115\13111501.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.0		0.000		0.000	2,4,5,6-Tetrachloro-m-Xylene
0.000	0.0		0.000		0.000	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
0.000	0.0		0.000		0.000	Gamma-BHC
3.476	15.9	VV	0.039		0.062	Beta-BHC
3.777	24.1	VB	0.013		0.039	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
4.162	165.1	BV	4.323		0.306	Aldrin
4.755	151.5	BV	0.034		0.285	Heptachlor Epoxide
4.942	222.9	BB	0.026		0.434	Gamma Chlordane
5.069	111.1	BV	0.012		0.023	Alpha Chlordane
0.000	0.0		0.000		0.000	Endosulfan I
5.231	578.8	BV	0.020		1.241	4,4'-DDE
0.000	0.0		0.000		0.000	Dieldrin
5.693	19165.3	BB	0.019		43.253	Endrin
5.802	449.2	BB	0.023		1.124	4,4'-DDD
5.900	40.5	BV	0.017		0.096	Endosulfan II
6.102	18506.6	BB	0.020		42.565	4,4'-DDT
6.222	728.1	BV	0.023		2.103	Endrin Aldehyde
6.484	23.3	BV	0.020		0.059	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Methoxychlor
6.987	1524.8	BF	0.023		3.220	Endrin Ketone
8.114	17.6	VV	0.019		0.048	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

EPA METHOD 8081A
Organochlorine Pesticides

Sample Data

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8081A

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 44
D/T ANALYZED: 11/15/2013 17:23
ANALYST: 842
DATA FILE: W:\DATA\131115\1311151913111519

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3510C
D/T EXTRACTED: 11/11/2013 00:00

13 **CLIENT SAMPLE NUMBER:** **QCEB-11082013**

LCS/MB BATCH: 131111L07
MS/MSD BATCH:
COMMENT:

COMPOUND NAME	ON COL CON	CONC	DF	RL	PF	UNITS	QUAL	TYPE	CONF_CON
Alpha-BHC	0.015	ND	1	0.10	0.010	ug/L		2	ND
Gamma-BHC	0.010	ND	1	0.10	0.010	ug/L		2	ND
Beta-BHC	0.000	ND	1	0.10	0.010	ug/L		2	ND
Heptachlor	0.000	ND	1	0.10	0.010	ug/L		2	ND
Delta-BHC	0.000	ND	1	0.10	0.010	ug/L		2	ND
Aldrin	0.015	ND	1	0.10	0.010	ug/L		2	ND
Heptachlor Epoxide	0.041	ND	1	0.10	0.010	ug/L		2	ND
Endosulfan I	0.060	ND	1	0.10	0.010	ug/L		2	ND
Dieldrin	0.093	ND	1	0.10	0.010	ug/L		2	ND
4,4'-DDE	0.097	ND	1	0.10	0.010	ug/L		2	ND
Endrin	0.007	ND	1	0.10	0.010	ug/L		2	ND
Endrin Aldehyde	0.000	ND	1	0.10	0.010	ug/L		2	ND
4,4'-DDD	0.160	ND	1	0.10	0.010	ug/L		2	ND
Endosulfan II	0.008	ND	1	0.10	0.010	ug/L		2	ND
4,4'-DDT	0.029	ND	1	0.10	0.010	ug/L		2	ND
Endosulfan Sulfate	0.190	ND	1	0.10	0.010	ug/L		2	ND
Methoxychlor	0.017	ND	1	0.10	0.010	ug/L		2	ND
Chlordane	0.000	ND	1	1.0	0.010	ug/L		2	ND
Toxaphene	0.000	ND	1	2.0	0.010	ug/L		2	ND
Endrin Ketone	0.045	ND	1	0.10	0.010	ug/L		2	ND

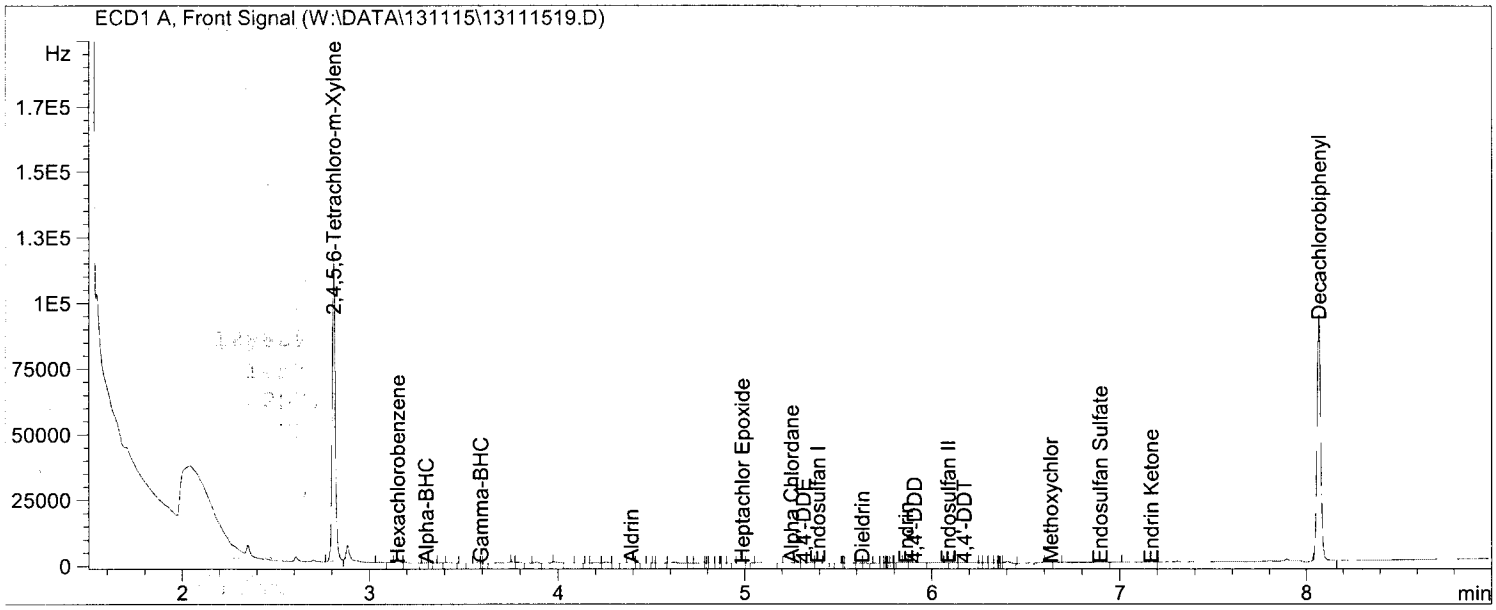
Return to Contents

External Standard Report

Data File Name : W:\DATA\131115\13111519.D
Operator : 842 Vial Number : Vial 19
Instrument : GC 44 Sequence Line : 20
Sample Name : 13-11-0697-13
Running Method : C:\CHEM32\1\METHODS\8081D.M Report Style : PEST-F
Acquired on : 15 Nov 13 05:23 pm Method : EPA 8081A
Report Created on: 15 Nov 13 05:41 pm Software Version : Rev. B.03.01 [317]
Comment : Copyright © Agilent Technologies
Analysis Method : C:\CHEM32\1\METHODS\PEST131104F.M

Sig. ECD1 A, W:\DATA\131115\13111519.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.811	128823.3	BV	0.018		85.309	2,4,5,6-Tetrachloro-m-Xylene
3.150	1455.1	BV	0.019		0.788	Hexachlorobenzene
3.302	31.4	BV	0.016		0.015	Alpha-BHC
3.591	19.6	VV	0.009		0.010	Gamma-BHC
0.000	0.0		0.000		0.000	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
4.389	27.2	VV	0.018		0.015	Aldrin
4.985	69.2	BV	0.025		0.041	Heptachlor Epoxide
0.000	0.0		0.000		0.000	Gamma Chlordane
5.249	195.1	BV	0.046		0.107	Alpha Chlordane
5.314	168.2	VV	0.042		0.097	4,4'-DDE
5.390	95.9	VB	0.029		0.060	Endosulfan I
5.628	158.7	BV	0.014		0.093	Dieldrin
5.862	10.5	VV	0.013		0.007	Endrin
5.909	219.4	VB	0.019		0.155	4,4'-DDD
6.087	12.1	VV	0.010		0.008	Endosulfan II
6.173	44.4	VB	0.021		0.029	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
6.633	13.4	BV	0.017		0.017	Methoxychlor
6.896	257,5	VV	0.028		0.192	Endosulfan Sulfate
7.167	73.9	BV	0.021		0.045	Endrin Ketone
8.069	129297.8	BB	0.021		91.476	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131115\13111519.D
Operator : 842
Instrument : GC 44
Sample Name : 13-11-0697-13
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 15 Nov 13 05:23 pm
Report Created on: 15 Nov 13 05:51 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104R.M

Vial Number : Vial 19
Sequence Line : 20
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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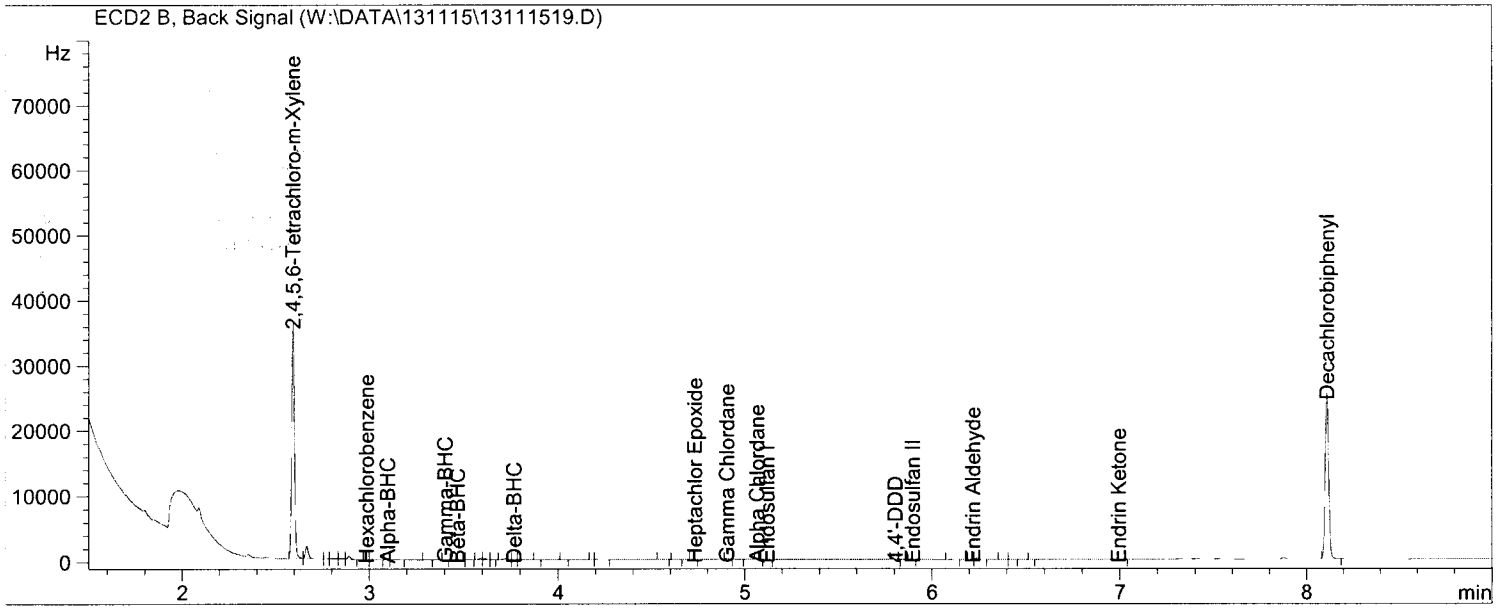
Sig. ECD2 B, W:\DATA\131115\13111519.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.594	35935.5	BV	0.015		82.760	2,4,5,6-Tetrachloro-m-Xylene
2.985	30.9	BV	0.015		0.062	Hexachlorobenzene
3.098	18.1	BV	0.014		0.027	Alpha-BHC
3.402	10.0	BV	0.013		0.017	Gamma-BHC
3.468	138.4	VV	0.019		0.538	Beta-BHC
3.766	35.3	VV	0.019		0.057	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
4.731	16.8	BV	0.017		0.032	Heptachlor Epoxide
4.904	127.3	BV	0.017		0.248	Gamma Chlordane
5.064	20.7	BV	0.030		0.042	Alpha Chlordane
5.120	30.0	VV	0.017		0.067	Endosulfan I
0.000	0.0		0.000		0.000	4,4'-DDE
0.000	0.0		0.000		0.000	Dieldrin
0.000	0.0		0.000		0.000	Endrin
5.806	34.8	VV	0.021		0.087	4,4'-DDD
5.899	10.2	VV	0.017		0.024	Endosulfan II
0.000	0.0		0.000		0.000	4,4'-DDT
6.218	68.3	BV	0.015		0.197	Endrin Aldehyde
0.000	0.0		0.000		0.000	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Methoxychlor
6.993	89.3	VF	0.027		0.189	Endrin Ketone
8.112	32787.1	BB	0.020		88.779	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

EPA METHOD 8081A
Organochlorine Pesticides

Quality Control

Method Blank
LCS/LCSD
MS/MSD

Return to Contents

METHOD BLANK ASSOCIATION SUMMARY FOR METHOD: EPA 8081A

MB Sample ID: 099-12-529-661
MB Batch ID: 131111L07
Instrument: GC 44
Matrix: Water
Analyst: 842
D/T Analyzed: 11/15/2013 16:40
Data File: W:\DATA\131115\1311151613111516

Reviewed By: 0
D/T Reviewed:
Extraction: EPA 3510C
D/T Extracted: 11/11/2013 00:00

Work Order #: 13-11-0697

Sample#	Client Sample ID	D/T Analyzed	Data File
13	QCEB-11082013	11/15/2013 17:23	W:\DATA\131115\1311151913111519

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8081A

WORK ORDER NUMBER: 099-12-529
INSTRUMENT NAME: GC 44
D/T ANALYZED: 11/15/2013 16:40
ANALYST: 842
DATA FILE: W:\DATA\131115\1311151613111516

REVIEWED BY: 0 M
DATE REVIEWED:
EXTRACTION : EPA 3510C
D/T EXTRACTED: 11/11/2013 00:00

MB **CLIENT SAMPLE NUMBER:** **Method Blank**

LCS/MB BATCH: 131111L07
MS/MSD BATCH:
COMMENT:

COMPOUND NAME	ON COL CON	CONC	DF	RL	PF	UNITS	QUAL	TYPE	CONF_CON
Alpha-BHC	0.000	ND	1	0.10	0.010	ug/L		2	ND
Gamma-BHC	0.007	ND	1	0.10	0.010	ug/L		2	ND
Beta-BHC	1.400	ND	1	0.10	0.010	ug/L		2	ND
Heptachlor	0.000	ND	1	0.10	0.010	ug/L		2	ND
Delta-BHC	0.000	ND	1	0.10	0.010	ug/L		2	ND
Aldrin	0.011	ND	1	0.10	0.010	ug/L		2	ND
Heptachlor Epoxide	0.009	ND	1	0.10	0.010	ug/L		2	ND
Endosulfan I	0.012	ND	1	0.10	0.010	ug/L		2	ND
Dieldrin	0.160	ND	1	0.10	0.010	ug/L		2	ND
4,4'-DDE	0.072	ND	1	0.10	0.010	ug/L		2	ND
Endrin	0.000	ND	1	0.10	0.010	ug/L		2	ND
Endrin Aldehyde	0.000	ND	1	0.10	0.010	ug/L		2	ND
4,4'-DDD	0.190	ND	1	0.10	0.010	ug/L		2	ND
Endosulfan II	0.025	ND	1	0.10	0.010	ug/L		2	ND
4,4'-DDT	0.000	ND	1	0.10	0.010	ug/L		2	ND
Endosulfan Sulfate	0.061	ND	1	0.10	0.010	ug/L		2	ND
Methoxychlor	0.000	ND	1	0.10	0.010	ug/L		2	ND
Chlordane	0.000	ND	1	1.0	0.010	ug/L		2	ND
Toxaphene	0.000	ND	1	2.0	0.010	ug/L		2	ND
Endrin Ketone	0.008	ND	1	0.10	0.010	ug/L		2	ND

Return to Contents

LCS / LCSD QUALITY CONTROL SHEET
METHOD: EPA 8081A

WORK ORDER:	**13-11-0697**	D/T REVIEWED:	11/18	LCS D/T ANALYZED:	11/15/2013 16:55
LCS/LCSD BATCH:	131111L07	EXTRACTION:	EPA 3510C	LCSD D/T ANALYZED:	11/15/2013 17:09
LCS/LCSD SAMPLE ID:	**099-12-529-661**	LCS EXTRACTED:	11/11/2013	LCS INSTRUMENT NAME:	GC 44
ANALYST:	842	LCSD EXTRACTED:	11/11/2013 12:00:00AM	LCSD INSTRUMENT NAME:	GC 44
REVIEWED BY:	0				

COMMENT:

COMPOUND	ADDED	LCS CONC	% REC	LCSD CONC	% REC	% REC CL	ME CL	RPD	RPD CL	STATUS	QUALIFIER
Alpha-BHC	0.5000	0.4668	93	0.5460	109	50-135	36-149	16	0-25	PASS	
Gamma-BHC	0.5000	0.4652	93	0.5410	108	50-135	36-149	15	0-25	PASS	
Beta-BHC	0.5000	0.4950	99	0.5703	114	50-135	36-149	14	0-25	PASS	
Heptachlor	0.5000	0.4676	94	0.5418	108	50-135	36-149	15	0-25	PASS	
Delta-BHC	0.5000	0.4735	95	0.5468	109	50-135	36-149	14	0-25	PASS	
Aldrin	0.5000	0.4700	94	0.5502	110	50-135	36-149	16	0-25	PASS	
Heptachlor Epoxide	0.5000	0.4694	94	0.5445	109	50-135	36-149	15	0-25	PASS	
Endosulfan I	0.5000	0.4674	93	0.5425	108	50-135	36-149	15	0-25	PASS	
Dieldrin	0.5000	0.4696	94	0.5467	109	50-135	36-149	15	0-25	PASS	
4,4'-DDE	0.5000	0.4570	91	0.5310	106	50-135	36-149	15	0-25	PASS	
Endrin	0.5000	0.4380	88	0.5077	102	50-135	36-149	15	0-25	PASS	
Endrin Aldehyde	0.5000	0.4341	87	0.4988	100	50-135	36-149	14	0-25	PASS	
4,4'-DDD	0.5000	0.4697	94	0.5459	109	50-135	36-149	15	0-25	PASS	
Endosulfan II	0.5000	0.4797	96	0.5576	112	50-135	36-149	15	0-25	PASS	
4,4'-DDT	0.5000	0.4506	90	0.5261	105	50-135	36-149	15	0-25	PASS	
Endosulfan Sulfate	0.5000	0.4654	93	0.5383	108	50-135	36-149	15	0-25	PASS	
Methoxychlor	0.5000	0.4592	92	0.5296	106	50-135	36-149	14	0-25	PASS	
Alpha Chlordane	0.5000	0.4346	87	0.5054	101	50-135	36-149	15	0-25	PASS	
Gamma Chlordane	0.5000	0.4807	96	0.5603	112	50-135	36-149	15	0-25	PASS	

Total number of LCS compounds: 19
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Data Files:

TYPE	DATA FILE	DATA FILE PATH
LCS	13111517	W:\DATA\131115\13111517
LCSD	13111518	W:\DATA\131115\13111518

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8081A

WORK ORDER: 13-11-0697
BATCH ID:
LCS/MB: 131111L07
MS:
EXTRACTION : EPA 3510C

REVIEWED BY: 27
D/T REVIEWED: 11/18/2013 09:54

 # 13 CLIENT SAMPLE NUMBER : QCEB-11082013

INSTRUMENT: GC 44
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\DATA\131115\1311151913111519

ANALYZED BY: 842
D/T ANALYZED 11/15/2013 17:23

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	91	50-135	PASS	
2,4,5,6-Tetrachloro-m-Xylene	85	50-135	PASS	

 # MB CLIENT SAMPLE NUMBER : Method Blank

INSTRUMENT: GC 44
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\DATA\131115\1311151613111516

ANALYZED BY: 842
D/T ANALYZED 11/15/2013 16:40

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	96	50-135	PASS	
2,4,5,6-Tetrachloro-m-Xylene	94	50-135	PASS	

 # LCS CLIENT SAMPLE NUMBER : Lab Control Sample

INSTRUMENT: GC 44
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\DATA\131115\1311151713111517

ANALYZED BY: 842
D/T ANALYZED 11/15/2013 16:55

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	85	50-135	PASS	
2,4,5,6-Tetrachloro-m-Xylene	73	50-135	PASS	

 # LCD CLIENT SAMPLE NUMBER : Lab Control Sample Duplicate

INSTRUMENT: GC 44
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\DATA\131115\1311151813111518

ANALYZED BY: 842
D/T ANALYZED 11/15/2013 17:09

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	98	50-135	PASS	
2,4,5,6-Tetrachloro-m-Xylene	87	50-135	PASS	

Return to Contents

External Standard Report

Data File Name : W:\DATA\131115\13111516.D
Operator : 842
Instrument : GC 44
Sample Name : MB 131111L07
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 15 Nov 13 04:40 pm
Report Created on: 15 Nov 13 05:03 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104F.M

Vial Number : Vial 16
Sequence Line : 17
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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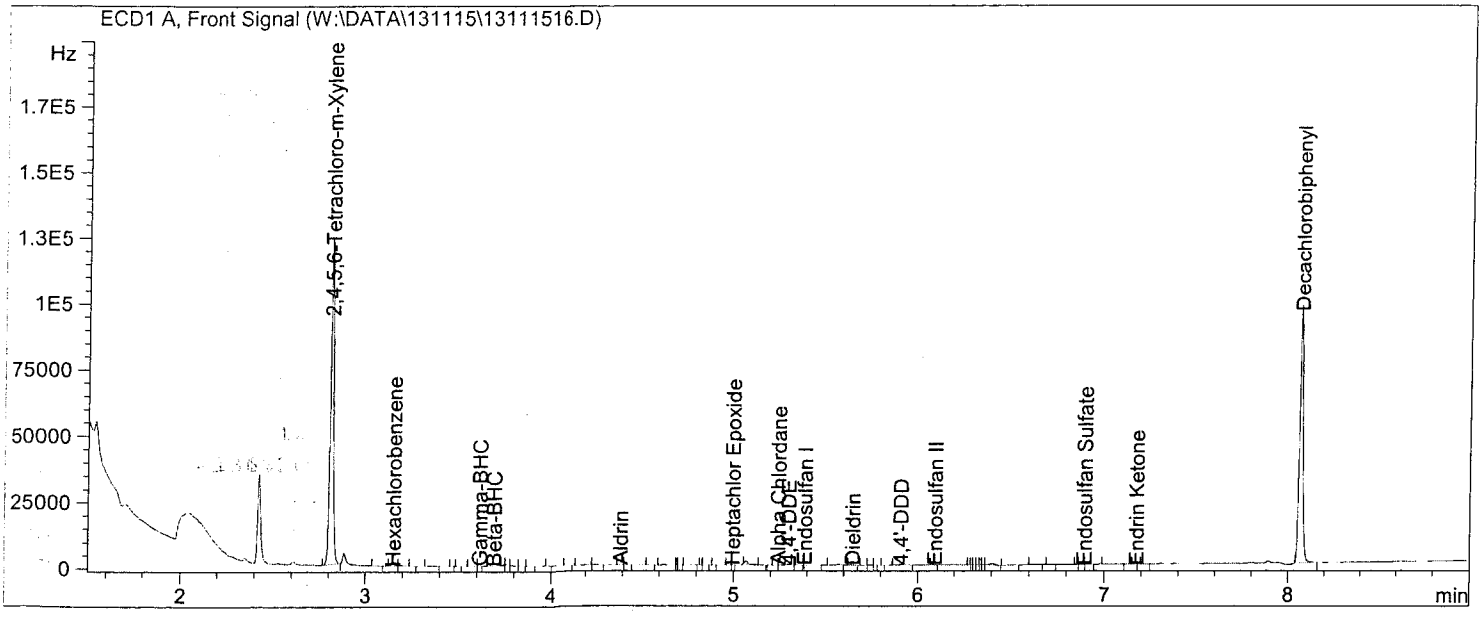
Sig. ECD1 A, W:\DATA\131115\13111516.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.812	141217.8	BV	0.018		93.517	2,4,5,6-Tetrachloro-m-Xylene
3.150	1514.9	VV	0.018		0.820	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
3.613	13.0	VV	0.012		0.007	Gamma-BHC
3.690	1161.4	VB	0.023		1.351	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
4.389	21.3	VV	0.016		0.011	Aldrin
4.992	15.7	VV	0.010		0.009	Heptachlor Epoxide
0.000	0.0		0.000		0.000	Gamma Chlordane
5.239	27.8	BV	0.012		0.015	Alpha Chlordane
5.297	126.0	BV	0.017		0.072	4,4'-DDE
5.384	19.7	VB	0.017		0.012	Endosulfan I
5.645	279.8	VV	0.023		0.164	Dieldrin
0.000	0.0		0.000		0.000	Endrin
5.909	271.9	VB	0.021		0.192	4,4'-DDD
6.093	36.2	BV	0.019		0.025	Endosulfan II
0.000	0.0		0.000		0.000	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
0.000	0.0		0.000		0.000	Methoxychlor
6.894	82.1	VV	0.018		0.061	Endosulfan Sulfate
7.173	12.4	VV	0.015		0.008	Endrin Ketone
8.069	136320.7	BB	0.022		96.445	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131115\13111516.D
Operator : 842
Instrument : GC 44
Sample Name : MB 131111L07
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 15 Nov 13 04:40 pm
Report Created on: 15 Nov 13 05:51 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104R.M

Vial Number : Vial 16
Sequence Line : 17
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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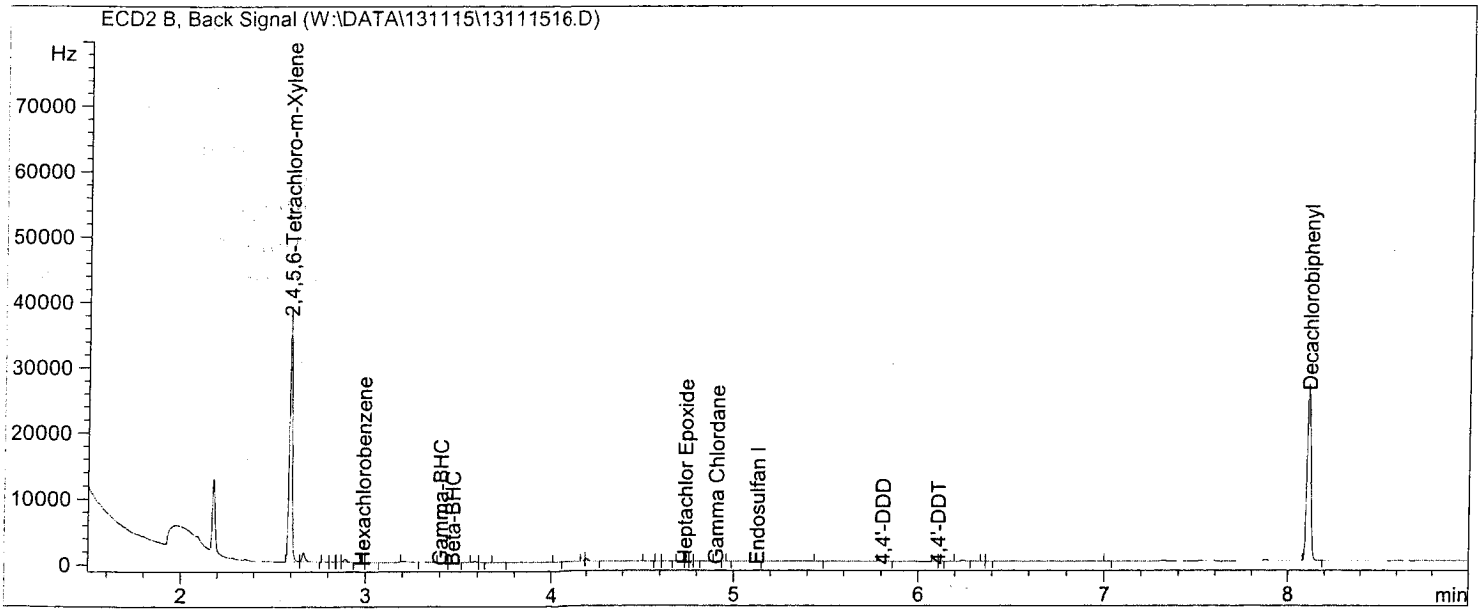
Sig. ECD2 B, W:\DATA\131115\13111516.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.595	38997.8	BV	0.015		89.812	2,4,5,6-Tetrachloro-m-Xylene
2.985	14.5	BV	0.012		0.029	Hexachlorobenzene
0.000	0.0		0.000		0.000	Alpha-BHC
3.401	35.9	BV	0.021		0.060	Gamma-BHC
3.467	54.8	VV	0.018		0.213	Beta-BHC
0.000	0.0		0.000		0.000	Delta-BHC
0.000	0.0		0.000		0.000	Heptachlor
0.000	0.0		0.000		0.000	Aldrin
4.734	21.7	VV	0.017		0.041	Heptachlor Epoxide
4.904	51.1	BV	0.016		0.100	Gamma Chlordane
0.000	0.0		0.000		0.000	Alpha Chlordane
5.125	25.2	VV	0.018		0.056	Endosulfan I
0.000	0.0		0.000		0.000	4,4'-DDE
0.000	0.0		0.000		0.000	Dieldrin
0.000	0.0		0.000		0.000	Endrin
5.808	40.9	BB	0.021		0.102	4,4'-DDD
0.000	0.0		0.000		0.000	Endosulfan II
6.108	22.8	BV	0.020		0.052	4,4'-DDT
0.000	0.0		0.000		0.000	Endrin Aldehyde
0.000	0.0		0.000		0.000	Endosulfan Sulfate
0.000	0.0		0.000		0.000	Methoxychlor
0.000	0.0		0.000		0.000	Endrin Ketone
8.112	35005.4	BB	0.020		94.785	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



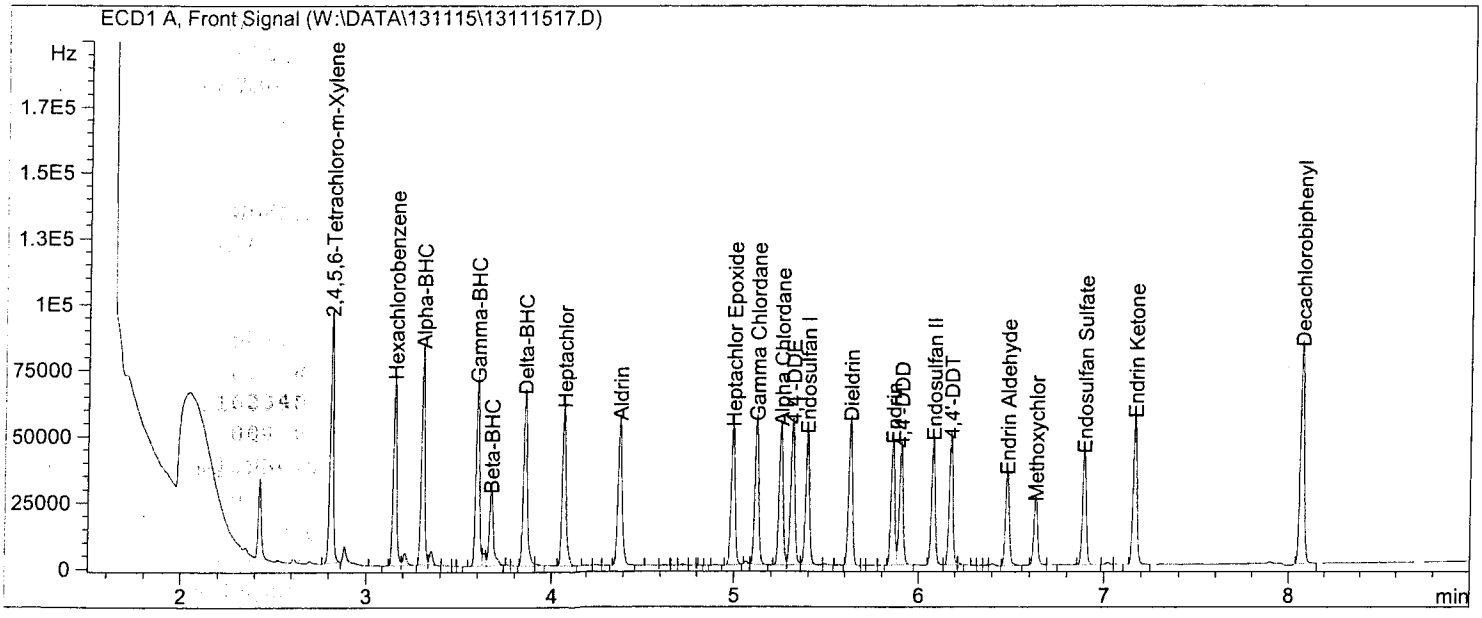
Return to Contents

External Standard Report

Data File Name	: W:\DATA\131115\13111517.D		
Operator	: 842	Vial Number	: Vial 17
Instrument	: GC 44	Sequence Line	: 18
Sample Name	: LCS 131111L07		
Running Method	: C:\CHEM32\1\METHODS\8081D.M	Report Style	: PEST-F
Acquired on	: 15 Nov 13 04:55 pm	Method	: EPA 8081A
Report Created on	: 15 Nov 13 05:07 pm	Software Version	: Rev. B.03.01 [317]
Comment	:		Copyright © Agilent
Analysis Method	: C:\CHEM32\1\METHODS\PEST131104F.M		Technologies

Sig. ECD1 A, W:\DATA\131115\13111517.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.812	110134.3	BV	0.017		72.933	2,4,5,6-Tetrachloro-m-Xylene
3.154	88398.7	BV	0.019		47.867	Hexachlorobenzene
3.302	100790.6	BV	0.019		46.683	Alpha-BHC
3.597	91728.0	BV	0.020		46.516	Gamma-BHC
3.671	42562.8	VV	0.024		49.503	Beta-BHC
3.852	94796.3	BB	0.022		47.349	Delta-BHC
4.066	92593.4	BB	0.023		46.762	Heptachlor
4.379	87745.7	BB	0.023		47.001	Aldrin
4.992	79974.6	BV	0.023		46.942	Heptachlor Epoxide
5.119	81941.8	VB	0.022		48.067	Gamma Chlordane
5.250	79077.4	BV	0.022		43.455	Alpha Chlordane
5.313	79422.9	VV	0.024		45.698	4,4'-DDE
5.393	74182.1	VB	0.024		46.742	Endosulfan I
5.627	80146.7	BB	0.022		46.964	Dieldrin
5.859	65882.5	BV	0.021		43.797	Endrin
5.905	66439.0	VB	0.024		46.970	4,4'-DDD
6.079	69094.3	BV	0.022		47.967	Endosulfan II
6.177	69752.6	VV	0.022		45.055	4,4'-DDT
6.479	51337.9	BB	0.022		43.414	Endrin Aldehyde
6.631	35824.6	BB	0.021		45.925	Methoxychlor
6.892	62349.4	BB	0.022		46.539	Endosulfan Sulfate
7.163	80410.9	BB	0.022		49.436	Endrin Ketone
8.070	119809.9	BB	0.022		84.763	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131115\13111517.D
Operator : 842
Instrument : GC 44
Sample Name : LCS 131111L07
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 15 Nov 13 04:55 pm
Report Created on: 15 Nov 13 05:51 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104R.M

Vial Number : Vial 17
Sequence Line : 18
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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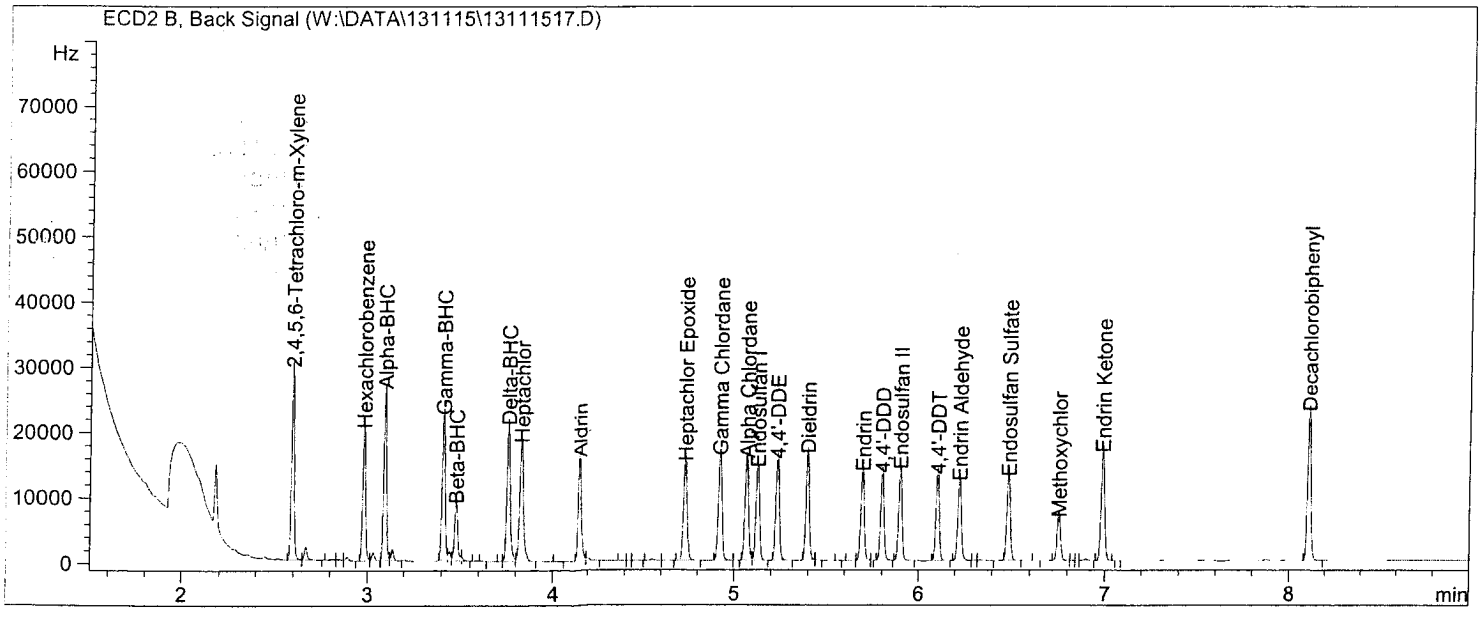
Sig. ECD2 B, W:\DATA\131115\13111517.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.595	30569.4	BV	0.016		70.401	2,4,5,6-Tetrachloro-m-Xylene
2.980	21928.1	BV	0.016		43.815	Hexachlorobenzene
3.094	27978.5	BV	0.016		42.449	Alpha-BHC
3.408	25340.5	BV	0.017		42.312	Gamma-BHC
3.478	11134.1	VB	0.019		43.327	Beta-BHC
3.758	26650.5	VV	0.019		43.154	Delta-BHC
3.828	25380.8	VB	0.020		43.906	Heptachlor
4.152	23535.3	BB	0.021		43.635	Aldrin
4.731	22047.8	BB	0.021		41.516	Heptachlor Epoxide
4.922	22548.5	BB	0.021		43.941	Gamma Chlordane
5.068	21496.8	BV	0.020		44.010	Alpha Chlordane
5.126	19814.8	VB	0.020		44.291	Endosulfan I
5.233	21013.5	BB	0.020		45.064	4,4'-DDE
5.396	22059.4	BB	0.020		43.542	Dieldrin
5.694	18494.1	BB	0.020		41.739	Endrin
5.801	18077.2	BB	0.020		45.221	4,4'-DDD
5.900	18938.3	BB	0.020		44.626	Endosulfan II
6.104	17667.2	BB	0.019		40.634	4,4'-DDT
6.223	16656.0	BB	0.020		48.119	Endrin Aldehyde
6.486	17044.3	BB	0.020		42.892	Endosulfan Sulfate
6.755	9280.2	BB	0.019		43.272	Methoxychlor
6.988	22004.2	BB	0.020		46.469	Endrin Ketone
8.112	30827.3	BB	0.020		83.472	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



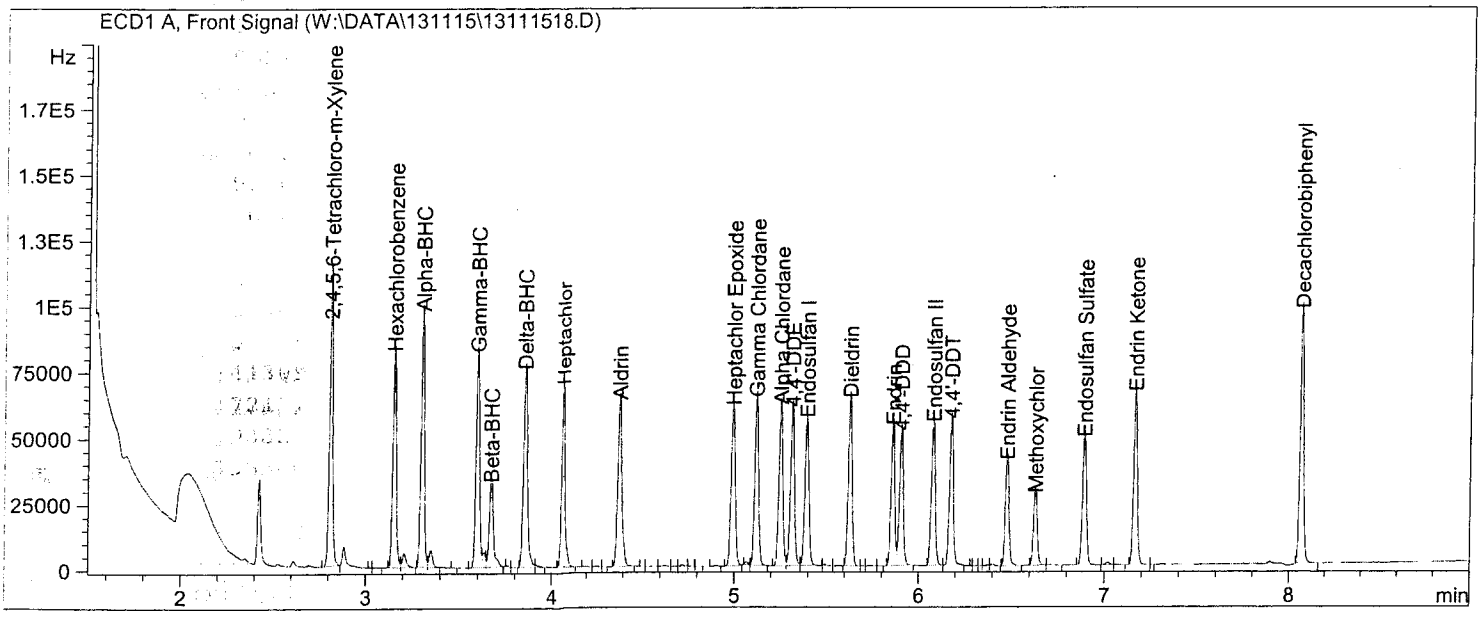
Return to Contents

External Standard Report

Data File Name	: W:\DATA\131115\13111518.D		
Operator	: 842	Vial Number	: Vial 18
Instrument	: GC 44	Sequence Line	: 19
Sample Name	: LCSD 131111L07		
Running Method	: C:\CHEM32\1\METHODS\8081D.M	Report Style	: PEST-F
Acquired on	: 15 Nov 13 05:09 pm	Method	: EPA 8081A
Report Created on	: 15 Nov 13 05:30 pm	Software Version	: Rev. B.03.01 [317]
Comment	:		Copyright © Agilent
Analysis Method	: C:\CHEM32\1\METHODS\PEST131104F.M		Technologies

Sig. ECD1 A, W:\DATA\131115\13111518.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.811	131054.8	BV	0.017		86.787	2,4,5,6-Tetrachloro-m-Xylene
3.153	102442.8	BV	0.018		55.471	Hexachlorobenzene
3.302	117881.6	BV	0.018		54.599	Alpha-BHC
3.596	106679.1	BV	0.020		54.098	Gamma-BHC
3.670	49035.4	VV	0.024		57.031	Beta-BHC
3.851	109465.4	BB	0.022		54.676	Delta-BHC
4.065	107284.2	BB	0.023		54.182	Heptachlor
4.379	102715.1	BB	0.024		55.020	Aldrin
4.992	92759.3	BV	0.022		54.446	Heptachlor Epoxide
5.118	95511.4	VB	0.022		56.027	Gamma Chlordane
5.250	91962.7	BV	0.023		50.536	Alpha Chlordane
5.313	92283.7	VV	0.025		53.097	4,4'-DDE
5.392	86092.4	VB	0.025		54.247	Endosulfan I
5.627	93302.6	BB	0.022		54.674	Dieldrin
5.859	76366.7	BV	0.021		50.766	Endrin
5.905	77211.8	VB	0.024		54.586	4,4'-DDD
6.078	80326.5	BV	0.022		55.764	Endosulfan II
6.177	81446.2	VB	0.022		52.608	4,4'-DDT
6.479	58988.1	BB	0.022		49.883	Endrin Aldehyde
6.631	41309.9	BB	0.022		52.957	Methoxychlor
6.892	72111.5	BB	0.022		53.826	Endosulfan Sulfate
7.163	93328.7	BB	0.021		57.377	Endrin Ketone
8.069	138346.1	BB	0.022		97.878	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131115\13111518.D
Operator : 842
Instrument : GC 44
Sample Name : LCSD 131111L07
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 15 Nov 13 05:09 pm
Report Created on: 15 Nov 13 05:51 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104R.M

Vial Number : Vial 18
Sequence Line : 19
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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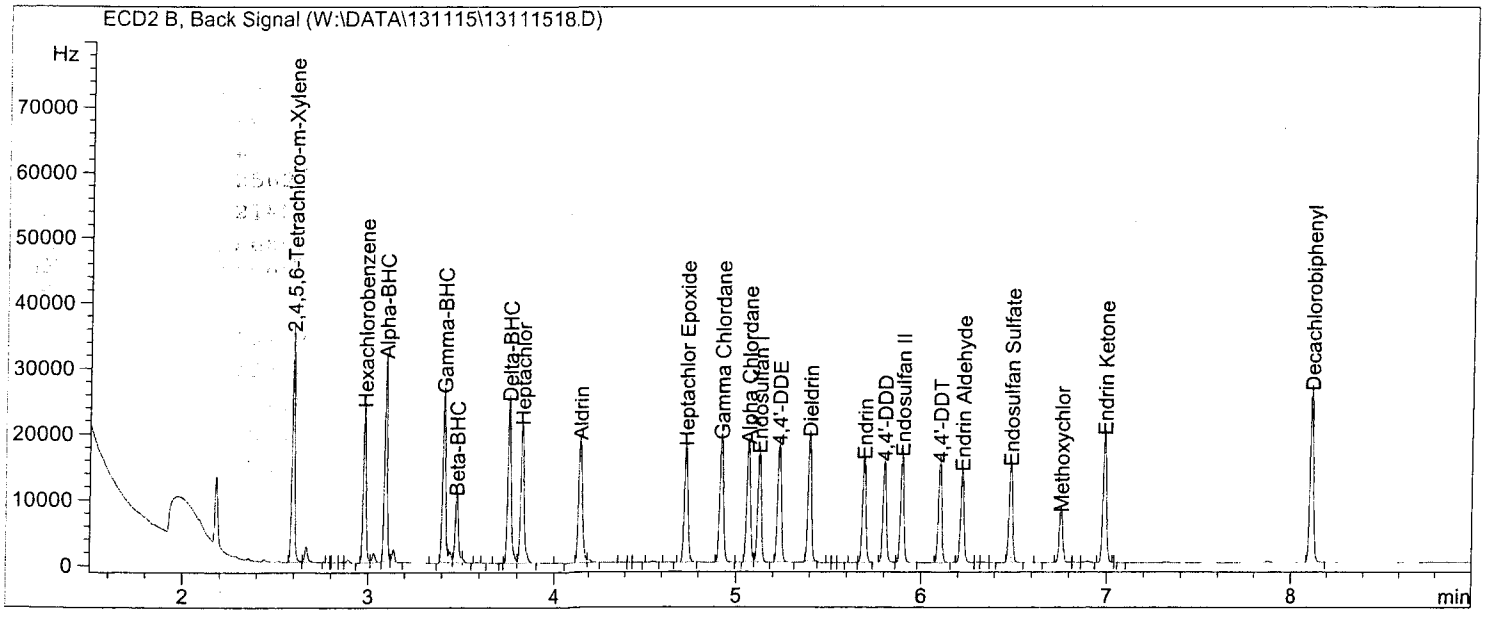
Sig. ECD2 B, W:\DATA\131115\13111518.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.595	36127.8	BV	0.015		83.203	2,4,5,6-Tetrachloro-m-Xylene
2.979	25364.4	BV	0.016		50.681	Hexachlorobenzene
3.093	32496.0	BV	0.016		49.303	Alpha-BHC
3.408	29382.4	BV	0.017		49.061	Gamma-BHC
3.477	12975.7	VB	0.020		50.494	Beta-BHC
3.757	30897.8	VV	0.019		50.031	Delta-BHC
3.827	29525.3	VB	0.022		51.076	Heptachlor
4.152	27613.8	BB	0.021		51.197	Aldrin
4.731	25436.5	BB	0.021		47.896	Heptachlor Epoxide
4.922	26174.0	BB	0.021		51.006	Gamma Chlordane
5.067	24889.9	BV	0.021		50.957	Alpha Chlordane
5.125	23044.6	VB	0.021		51.510	Endosulfan I
5.233	24443.1	BB	0.021		52.419	4,4'-DDE
5.396	25627.1	BB	0.020		50.584	Dieldrin
5.693	21414.8	BB	0.020		48.330	Endrin
5.801	20862.1	BB	0.020		52.187	4,4'-DDD
5.900	22037.6	BB	0.020		51.929	Endosulfan II
6.104	20297.1	BB	0.020		46.683	4,4'-DDT
6.222	19156.2	BB	0.020		55.342	Endrin Aldehyde
6.485	19648.0	BB	0.020		49.444	Endosulfan Sulfate
6.755	10699.3	BB	0.019		49.888	Methoxychlor
6.988	25573.9	BB	0.019		54.008	Endrin Ketone
8.112	35354.3	BB	0.020		95.730	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

EPA METHOD 8081A
Organochlorine Pesticides

Continuing Calibration

Return to Contents

CCV ASSOCIATION SUMMARY
FOR METHOD: EPA 8081A

BATCH ID: **131115** ANALYZED BY: 842
INSTRUMENT: GC 44

WORK ORDER: **099-12-528** REVIEWED BY: 27
MATRIX: Water D/T REVIEWED: 11/18/2013 09:54

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
3408	Daily Calibration	11/15/2013 15:28	W:\DATA\131115\1311141113111411

WORK ORDER: **13-11-0697** REVIEWED BY: 27
MATRIX: Water D/T REVIEWED: 11/18/2013 09:54

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
13	QCEB-11082013	11/15/2013 17:23	W:\DATA\131115\1311151913111519

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8081A

CCV WORK ORDER: **099-12-528-3408-5152**
BATCH ID:
INITIAL: 131104
CCV: 131115
INSTRUMENT: GC 44

DATA FILE: W:\DATA\131115\1311141113111411

ANALYZED BY: 842
D/T ANALYZED:
INITIAL: 11/04/2013 23:10
CCV: 11/15/2013 15:28
REVIEWED BY: 27
D/T REVIEWED: 11/18/2013 09:54

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Alpha-BHC	Avg Resp	0.00	2159.057	2189.093			-1	0-15	PASS
Gamma-BHC	Avg Resp	0.00	1971.969	1973.703			0	0-15	PASS
Beta-BHC	Avg Resp	0.00	859.804	874.423			-2	0-15	PASS
Heptachlor	Avg Resp	0.00	1980.081	1942.965			2	0-15	PASS
Delta-BHC	Avg Resp	0.00	2002.065	2028.758			-1	0-15	PASS
Aldrin	Avg Resp	0.00	1866.876	1903.163			-2	0-15	PASS
Heptachlor Epoxide	Avg Resp	0.00	1703.702	1718.783			-1	0-15	PASS
Endosulfan I	Avg Resp	0.00	1587.053	1562.045			2	0-15	PASS
Dieldrin	Avg Resp	0.00	1706.539	1742.195			-2	0-15	PASS
4,4'-DDE	Avg Resp	0.00	1738.008	1682.130			3	0-15	PASS
Endrin	Avg Resp	0.00	1504.276	1460.098			3	0-15	PASS
Endrin Aldehyde	Avg Resp	0.00	1182.529	1255.980			-6	0-15	PASS
4,4'-DDD	Avg Resp	0.00	1414.509	1454.958			-3	0-15	PASS
Endosulfan II	Avg Resp	0.00	1440.461	1488.028			-3	0-15	PASS
4,4'-DDT	Avg Resp	0.00	1548.157	1603.135			-4	0-15	PASS
Endosulfan Sulfate	Avg Resp	0.00	1339.720	1389.383			-4	0-15	PASS
Methoxychlor	Avg Resp	0.00	780.064	779.218			0	0-15	PASS
Chlordane	Avg Resp	0.00	803.472	725.474			10	0-15	PASS
Toxaphene	Avg Resp	0.00	291.962	295.999			-1	0-15	PASS
Endrin Ketone	Avg Resp	0.00	1626.580	1687.638			-4	0-15	PASS

MIN RF: Method Specified Minimum Response Factor

Return to Contents

External Standard Report

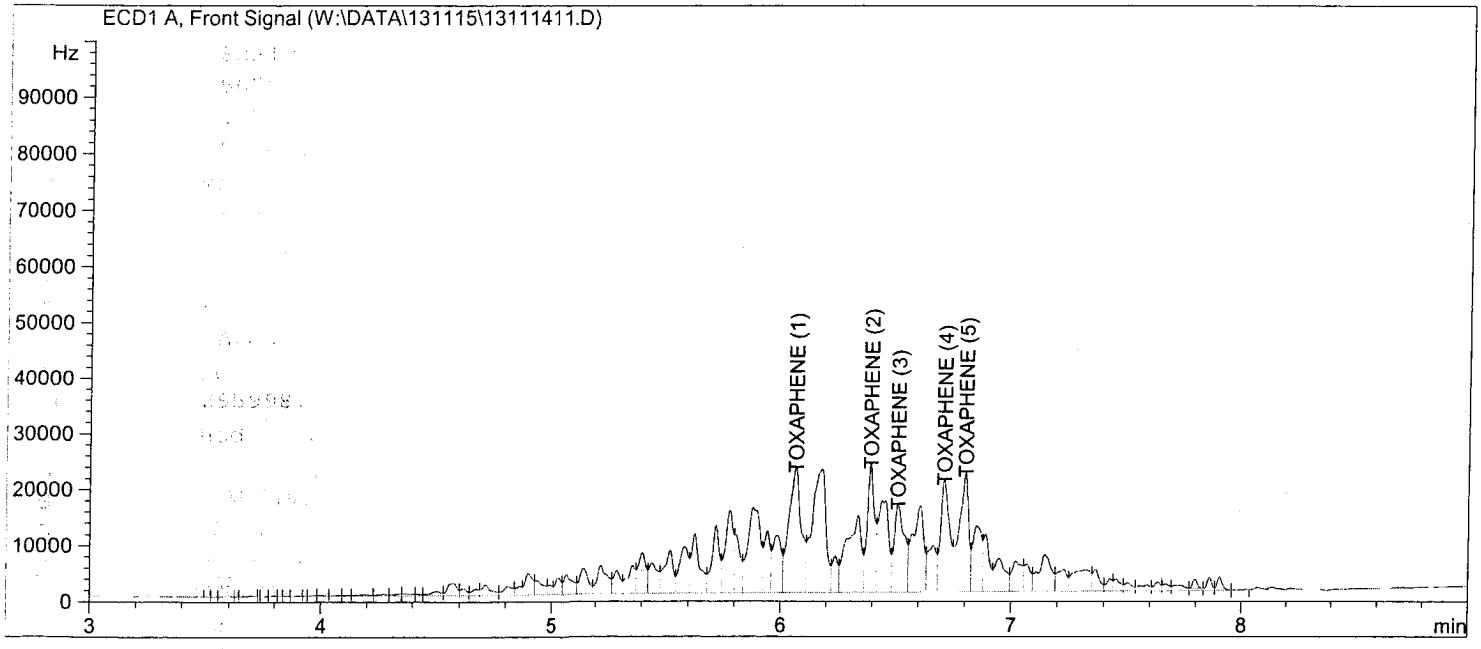
Data File Name : W:\DATA\131115\13111411.D
Operator : 842 Vial Number : Vial 11
Instrument : GC 44 Sequence Line : 12
Sample Name : TOX S082313R 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M Report Style : TOX-F
Acquired on : 15 Nov 13 03:28 pm Method : EPA 8081A
Report Created on: 15 Nov 13 03:41 pm Software Version : Rev. B.03.01 [317]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\TOX 131104F.M

Sig. ECD1 A, W:\DATA\131115\13111411.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
6.065	82319.25VV		0.061		281.95	TOXAPHENE (1)
6.391	50501.71VV		0.037		172.97	TOXAPHENE (2)
6.510	48772.64VV		0.052		167.05	TOXAPHENE (3)
6.710	53842.84VV		0.045		184.42	TOXAPHENE (4)
6.802	60562.26VV		0.047		207.43	TOXAPHENE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
6.074	295998.70	VV	0.00343	1013.83	Toxaphene
6.811		VV	0.00343		
6.719		VV	0.00343		
6.520		VV	0.00343		
6.400		VV	0.00343		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131115\13111411.D
Operator : 842
Instrument : GC 44
Sample Name : TOX S082313R 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 15 Nov 13 03:28 pm
Report Created on: 15 Nov 13 03:41 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\TOX 131104R.M

Vial Number : Vial 11
Sequence Line : 12
Report Style : TOX-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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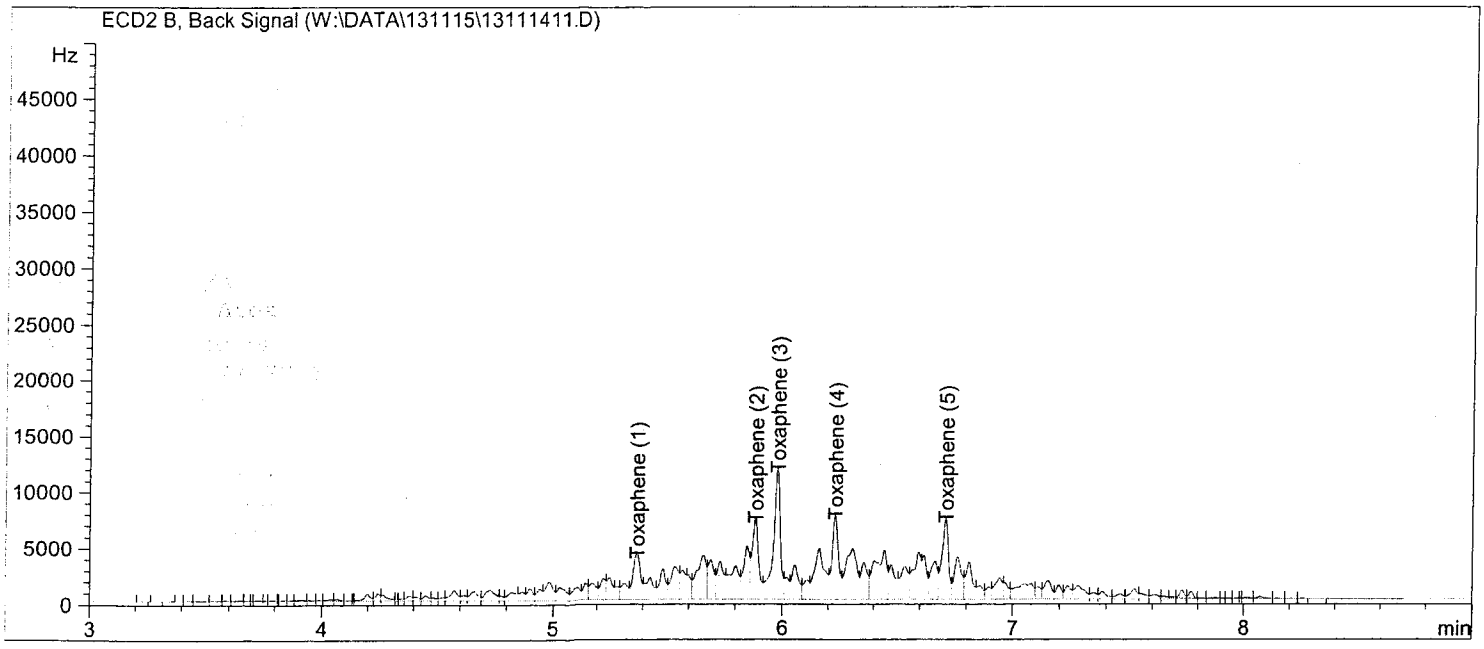
Sig. ECD2 B, W:\DATA\131115\13111411.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.374	9329.07	VV	0.035		113.73	Toxaphene (1)
5.884	14113.48	VV	0.032		172.06	Toxaphene (2)
5.979	24855.82	VV	0.035		303.03	Toxaphene (3)
6.229	14930.17	VV	0.033		182.02	Toxaphene (4)
6.712	14248.96	VV	0.033		173.72	Toxaphene (5)

Group summary:

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.383	77477.51	VV	0.01219	944.56	Toxaphene
6.721		VV	0.01219		
6.238		VV	0.01219		
5.987		VV	0.01219		
5.893		VV	0.01219		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131115\13111509.D
Operator : 842
Instrument : GC 44
Sample Name : P S080713B 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 15 Nov 13 02:59 pm
Report Created on: 15 Nov 13 03:19 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104F.M

Vial Number : Vial 9
Sequence Line : 10
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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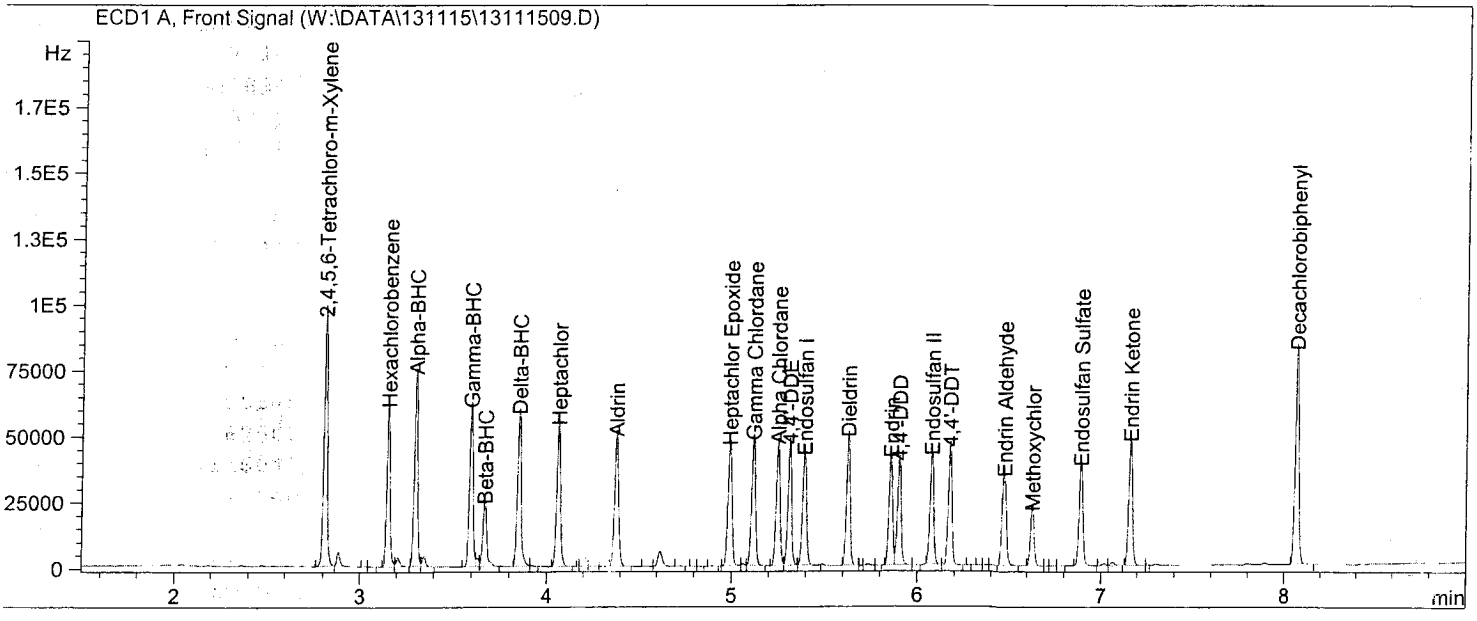
Sig. ECD1 A, W:\DATA\131115\13111509.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.810	111392.3	BV	0.017		73.766	2,4,5,6-Tetrachloro-m-Xylene
3.152	74741.5	BV	0.018		40.471	Hexachlorobenzene
3.300	87563.7	BV	0.018		40.556	Alpha-BHC
3.595	78948.1	BV	0.020		40.035	Gamma-BHC
3.669	34976.9	VB	0.023		40.680	Beta-BHC
3.850	81150.3	BB	0.021		40.533	Delta-BHC
4.064	77718.6	BB	0.021		39.250	Heptachlor
4.377	76126.5	BB	0.022		40.777	Aldrin
4.990	68751.3	BB	0.022		40.354	Heptachlor Epoxide
5.116	71146.9	VB	0.022		41.735	Gamma Chlordane
5.248	68144.0	BV	0.022		37.447	Alpha Chlordane
5.311	67285.2	VV	0.023		38.714	4,4'-DDE
5.390	62481.8	VB	0.024		39.370	Endosulfan I
5.626	69687.8	BB	0.021		40.836	Dieldrin
5.857	58403.9	BV	0.021		38.825	Endrin
5.903	58198.3	VB	0.023		41.144	4,4'-DDD
6.076	59521.1	BV	0.021		41.321	Endosulfan II
6.175	64125.4	PB	0.021		41.420	4,4'-DDT
6.477	50239.2	BB	0.022		42.485	Endrin Aldehyde
6.629	31168.7	BB	0.021		39.957	Methoxychlor
6.890	55575.3	BB	0.021		41.483	Endosulfan Sulfate
7.161	67505.5	BB	0.021		41.501	Endrin Ketone
8.067	116041.1	BB	0.022		82.097	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131115\13111509.D
Operator : 842
Instrument : GC 44
Sample Name : P S080713B 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 15 Nov 13 02:59 pm
Report Created on: 15 Nov 13 03:23 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104R.M

Vial Number : Vial 9
Sequence Line : 10
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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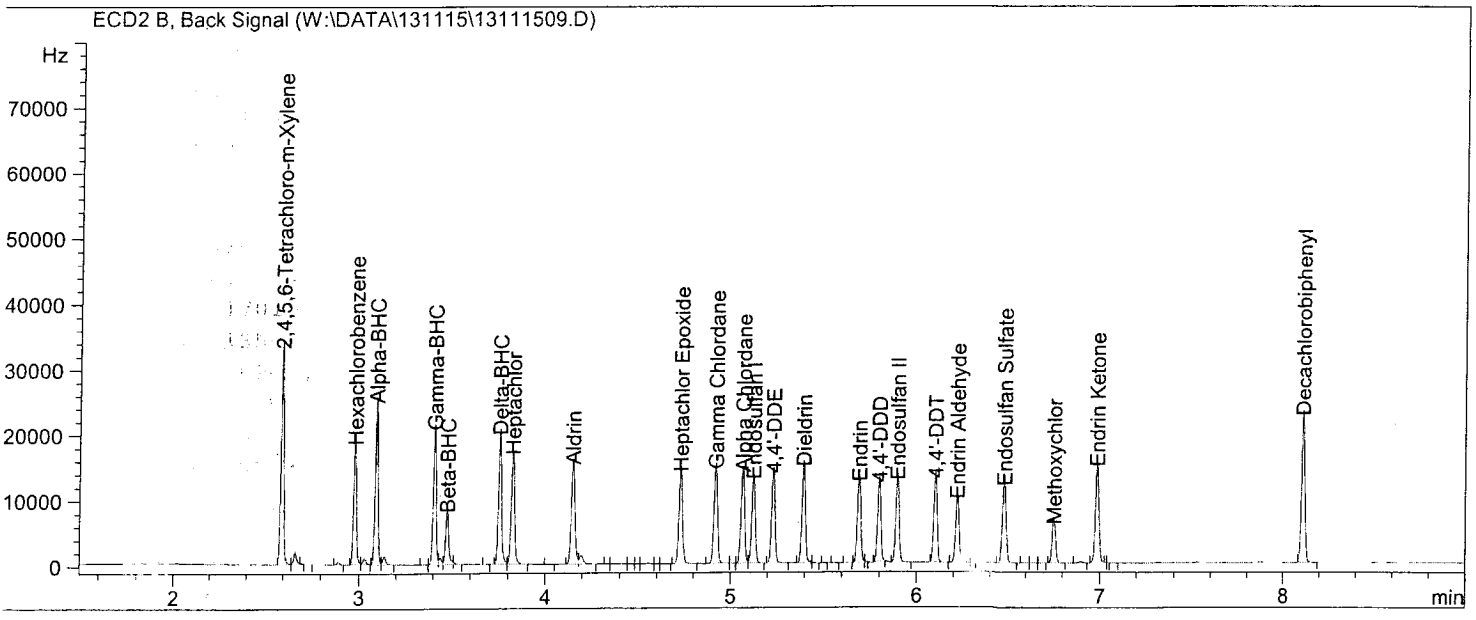
Sig. ECD2 B, W:\DATA\131115\13111509.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.593	33743.4	BV	0.015		77.711	2,4,5,6-Tetrachloro-m-Xylene
2.977	19672.9	BV	0.016		39.309	Hexachlorobenzene
3.092	26077.1	BV	0.016		39.565	Alpha-BHC
3.406	23443.2	BV	0.017		39.144	Gamma-BHC
3.476	10373.7	VB	0.019		40.368	Beta-BHC
3.755	24337.4	BV	0.018		39.408	Delta-BHC
3.825	22454.6	VB	0.020		38.844	Heptachlor
4.150	21739.5	BV	0.021		40.306	Aldrin
4.728	19725.1	BB	0.020		37.142	Heptachlor Epoxide
4.919	20555.3	BB	0.021		40.057	Gamma Chlordane
5.064	19454.8	BV	0.021		39.830	Alpha Chlordane
5.123	18084.5	VB	0.021		40.423	Endosulfan I
5.230	18845.1	BB	0.020		40.414	4,4'-DDE
5.393	20298.3	BB	0.020		40.065	Dieldrin
5.691	16836.1	BV	0.019		37.997	Endrin
5.798	16048.3	BB	0.019		40.145	4,4'-DDD
5.897	17337.2	BB	0.020		40.853	Endosulfan II
6.101	17019.1	BB	0.020		39.143	4,4'-DDT
6.219	13508.0	BB	0.020		39.025	Endrin Aldehyde
6.483	15946.8	BB	0.020		40.130	Endosulfan Sulfate
6.753	8504.8	BB	0.020		39.656	Methoxychlor
6.986	20159.8	BB	0.020		42.574	Endrin Ketone
8.110	29543.9	BB	0.020		79.997	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

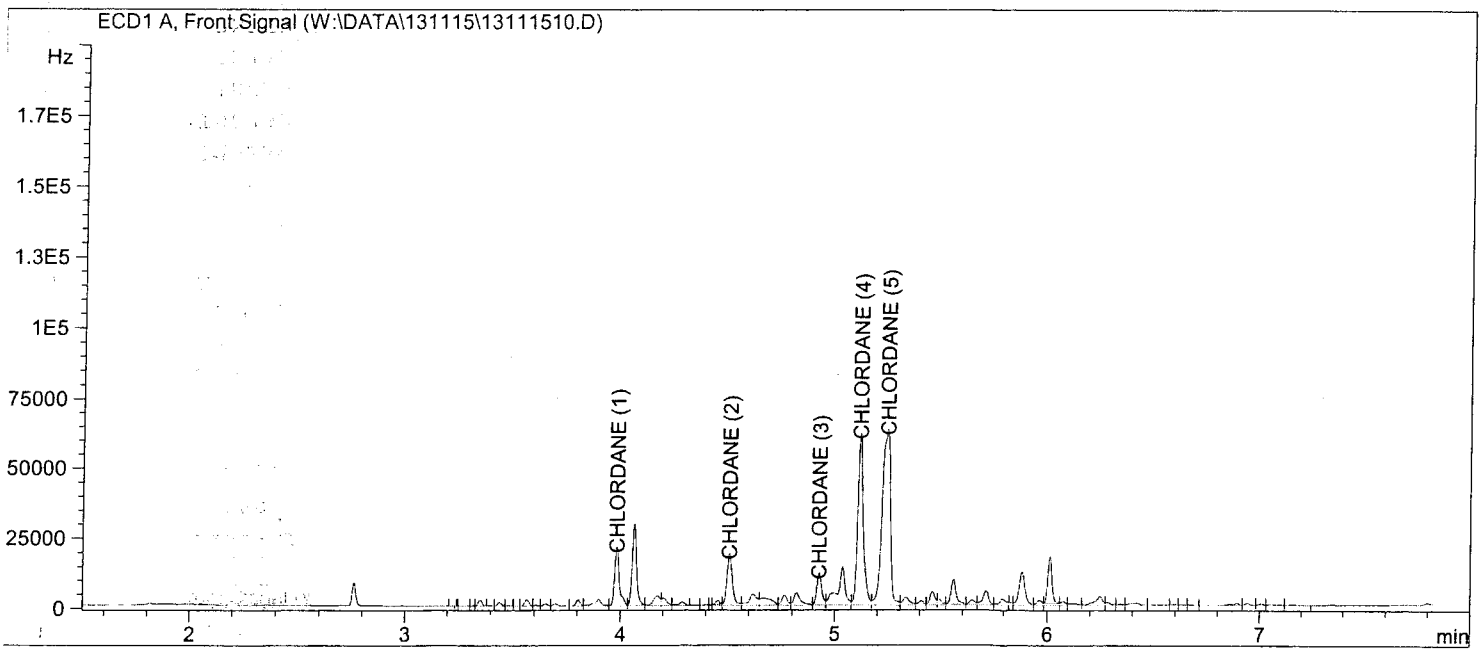
Data File Name : W:\DATA\131115\13111510.D
Operator : 842 Vial Number : Vial 10
Instrument : GC 44 Sequence Line : 11
Sample Name : CH S082313Q 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M Report Style : CHLD-F
Acquired on : 15 Nov 13 03:14 pm Method : EPA 8081A
Report Created on: 15 Nov 13 03:31 pm Software Version : Rev. B.03.01 [317]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131104F.M

Sig. ECD1 A, W:\DATA\131115\13111510.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.982	32515.95	VV	0.023		40.47	CHLORDANE (1)
4.509	32472.31	VV	0.026		40.41	CHLORDANE (2)
4.924	18579.34	VV	0.027		23.12	CHLORDANE (3)
5.117	109395.48	VV	0.030		136.15	CHLORDANE (4)
5.246	169774.05	VV	0.045		211.30	CHLORDANE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.992	362737.12	VV	0.00124	451.46	Chlordane
5.257		VV	0.00124		
5.129		VV	0.00124		
4.934		VV	0.00124		
4.519		VV	0.00124		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131115\13111510.D
Operator : 842
Instrument : GC 44
Sample Name : CH S082313Q 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 15 Nov 13 03:14 pm
Report Created on: 15 Nov 13 03:31 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\CHLD131104R.M

Vial Number : Vial 10
Sequence Line : 11
Report Style : CHLD-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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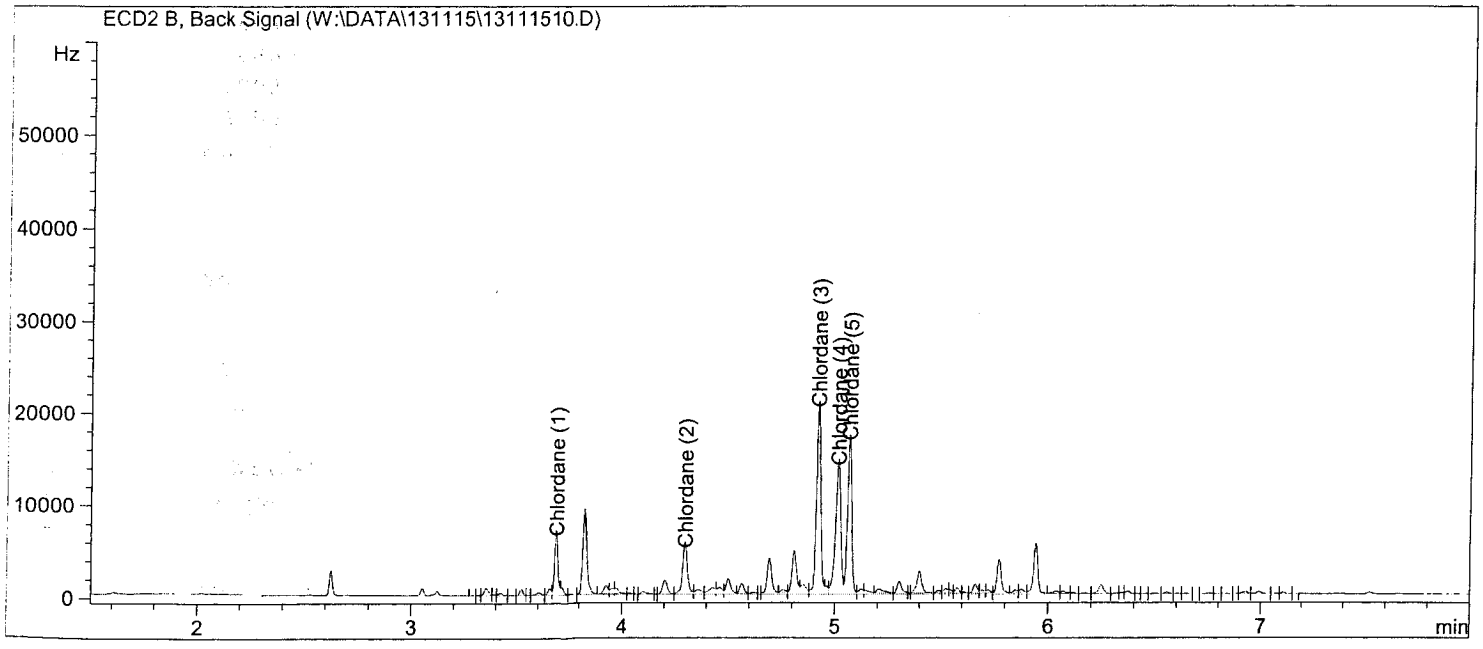
Sig. ECD2 B, W:\DATA\131115\13111510.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.685	8444.32	VV	0.019		39.17	Chlordane (1)
4.297	8860.62	VV	0.024		41.10	Chlordane (2)
4.920	29025.14	VV	0.023		134.64	Chlordane (3)
5.014	24550.64	VV	0.028		113.89	Chlordane (4)
5.066	23883.41	VV	0.023		110.79	Chlordane (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.694	94764.13	VV	0.00464	439.60	Chlordane
5.077		VV	0.00464		
5.025		VV	0.00464		
4.931		VV	0.00464		
4.308		VV	0.00464		



Return to Contents

External Standard Report

Data File Name : W:\DATA\131115\13111520.D
Operator : 842
Instrument : GC 44
Sample Name : CH S082313Q 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 15 Nov 13 05:38 pm
Report Created on: 15 Nov 13 05:57 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\CHLD131104F.M

Vial Number : Vial 20
Sequence Line : 21
Report Style : CHLD-F
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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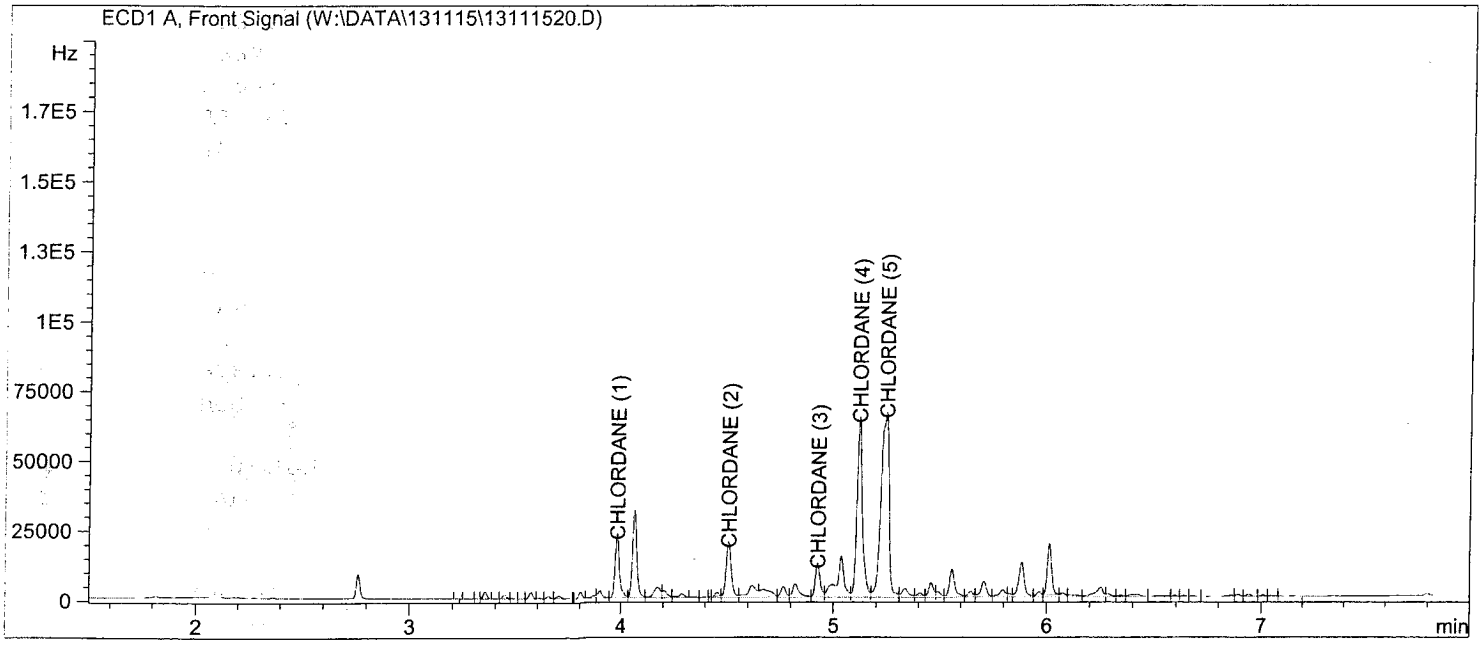
Sig. ECD1 A, W:\DATA\131115\13111520.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.983	33464.77	VV	0.022		41.65	CHLORDANE (1)
4.509	33256.49	VV	0.026		41.39	CHLORDANE (2)
4.925	19336.88	VV	0.026		24.07	CHLORDANE (3)
5.118	114361.92	VV	0.030		142.33	CHLORDANE (4)
5.247	177691.30	VV	0.045		221.15	CHLORDANE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.992	378111.36	VV	0.00124	470.60	Chlordane
5.257		VV	0.00124		
5.129		VV	0.00124		
4.934		VV	0.00124		
4.519		VV	0.00124		



Return to Contents

External Standard Report

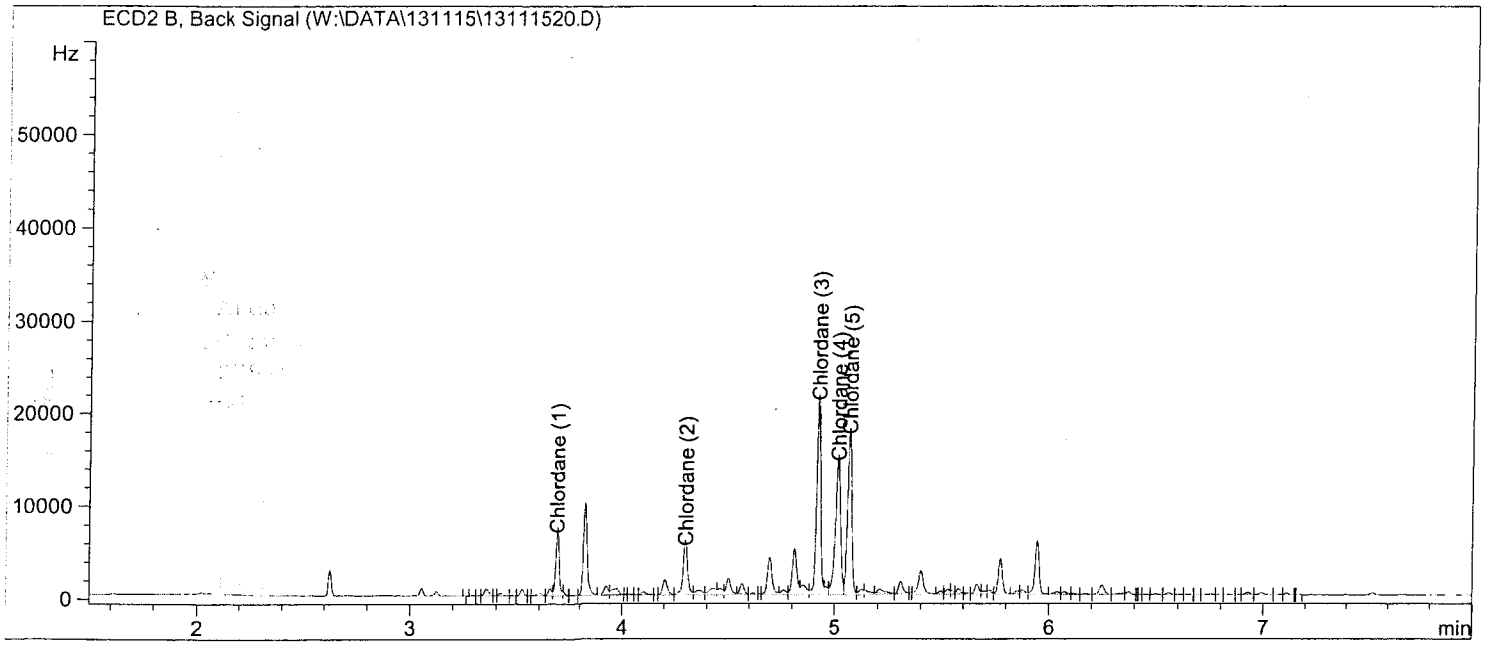
Data File Name : W:\DATA\131115\13111520.D
Operator : 842 Vial Number : Vial 20
Instrument : GC 44 Sequence Line : 21
Sample Name : CH S082313Q 500PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M Report Style : CHLD-R
Acquired on : 15 Nov 13 05:38 pm Method : EPA 8081A
Report Created on: 15 Nov 13 05:57 pm Software Version : Rev. B.03.01 [317]
Comment : Copyright © Agilent ->
Analysis Method : C:\CHEM32\1\METHODS\CHLD131104R.M

Sig. ECD2 B, W:\DATA\131115\13111520.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
3.686	9196.19	VB	0.019		42.66	Chlordane (1)
4.298	8970.83	VV	0.023		41.61	Chlordane (2)
4.920	29808.42	VV	0.023		138.28	Chlordane (3)
5.015	25338.55	VV	0.028		117.54	Chlordane (4)
5.067	24535.99	VV	0.023		113.82	Chlordane (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
3.694	97849.97	VB	0.00464	453.91	Chlordane
5.077		VV	0.00464		
5.025		VV	0.00464		
4.931		VV	0.00464		
4.308		VV	0.00464		



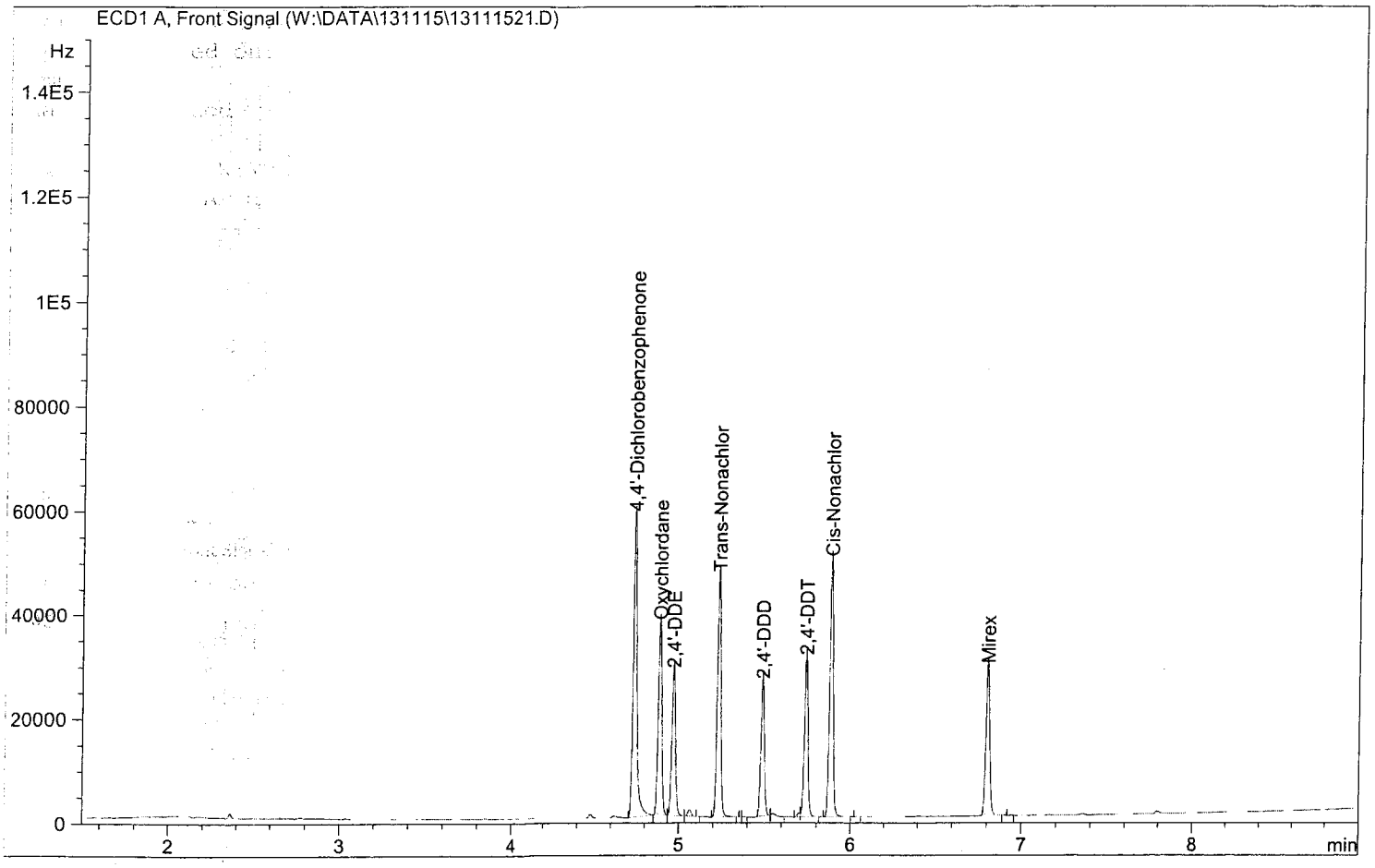
Return to Contents

External Standard Report

Data File Name	: W:\DATA\131115\13111521.D		
Operator	: 842	Vial Number	: Vial 21
Instrument	: GC 44	Sequence Line	: 22
Sample Name	: D/M/O/DC S051513J 40/200PPB		
Running Method	: C:\CHEM32\1\METHODS\8081D.M	Report Style	: D-M-O-DCBPO-F
Acquired on	: 15 Nov 13 05:52 pm	Method	: EPA 8081A
Report Created on	: 15 Nov 13 06:35 pm	Software Version	: Rev. B.03.01 [317]
Comment	:		Copyright © Agilent
Analysis Method	: C:\CHEM32\1\METHODS\DD-MIR-OXYCH-DCBPO 131104F.M		Technologies

Sig. ECD1 A, W:\DATA\131115\13111521.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.740	91545.4	BV	0.023		193.536	4,4'-Dichlorobenzophenone
4.889	54658.4	BV	0.022		40.268	Oxychlordane
4.969	42549.5	PV	0.022		39.637	2,4'-DDE
5.231	70821.2	BB	0.023		38.022	Trans-Nonachlor
5.488	38110.3	BB	0.022		40.607	2,4'-DDD
5.740	45256.7	VB	0.022		42.160	2,4'-DDT
5.885	73413.2	BB	0.022		42.198	Cis-Nonachlor
6.805	44022.9	BB	0.023		39.810	Mirex



Return to Contents

External Standard Report

Data File Name : W:\DATA\131115\13111521.D
Operator : 842
Instrument : GC 44
Sample Name : D/M/O/DC S051513J 40/200PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 15 Nov 13 05:52 pm
Report Created on: 15 Nov 13 06:35 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\DD-MIR-OXYCH-DCBPO 131104R.M

Vial Number : Vial 21
Sequence Line : 22
Report Style : D-M-O-DCBPO-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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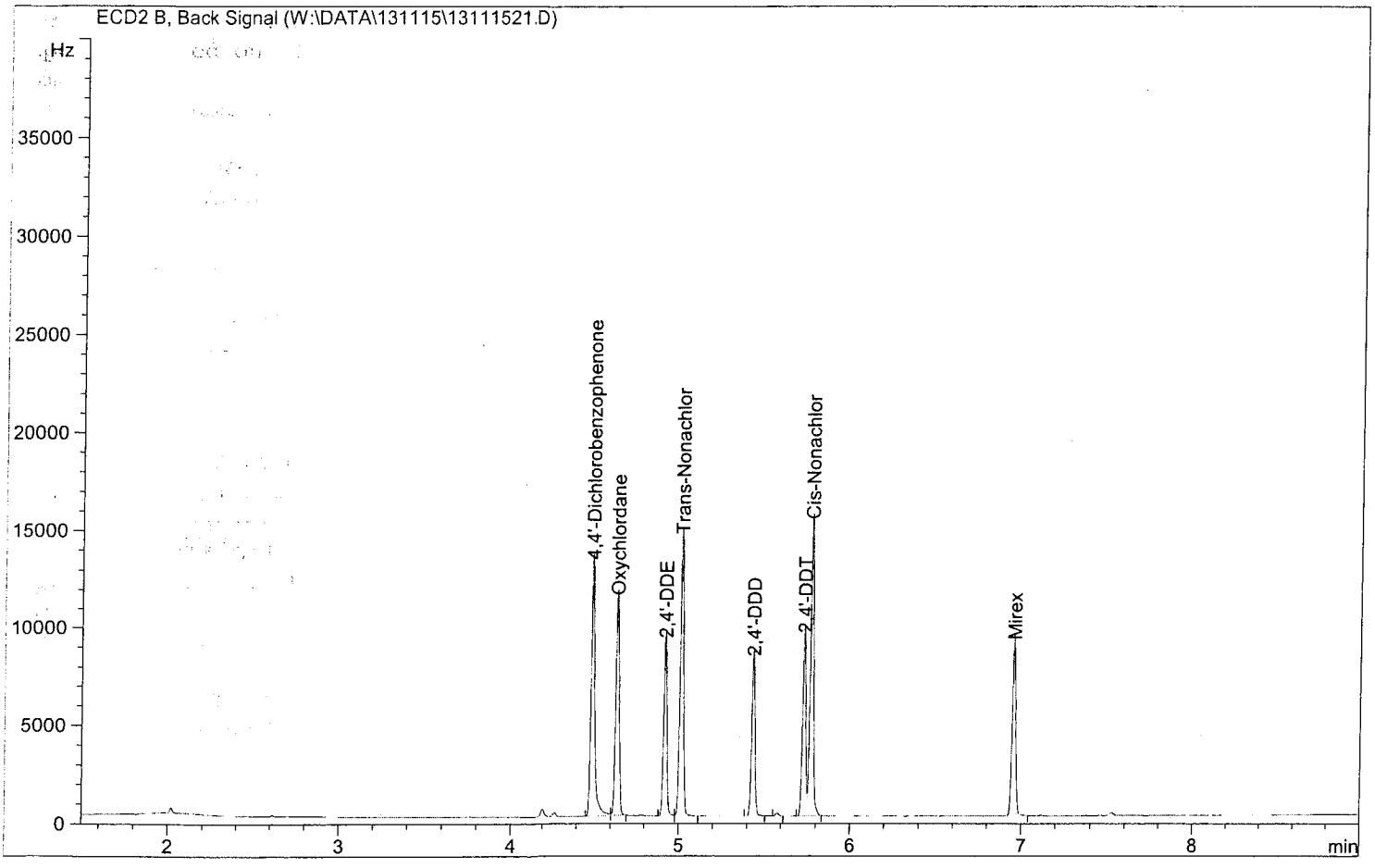
Sig. ECD2 B, W:\DATA\131115\13111521.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.491	19837.6	BV	0.022		190.977	4,4'-Dichlorobenzophenone
4.638	15940.3	VB	0.022		39.086	Oxychlordane
4.920	12399.6	BV	0.021		38.968	2,4'-DDE
5.014	19966.8	VB	0.021		39.640	Trans-Nonachlor
5.432	11207.7	BB	0.021		38.909	2,4'-DDD
5.732	12249.5	VV	0.020		39.795	2,4'-DDT
5.774	20828.5	VB	0.022		39.263	Cis-Nonachlor
6.954	12223.6	BB	0.020		37.594	Mirex



Return to Contents

External Standard Report

Data File Name : W:\DATA\131115\13111522.D
Operator : 842
Instrument : GC 44
Sample Name : P S080713B 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 15 Nov 13 06:07 pm
Report Created on: 15 Nov 13 06:36 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104F.M

Vial Number : Vial 22
Sequence Line : 23
Report Style : PEST-F
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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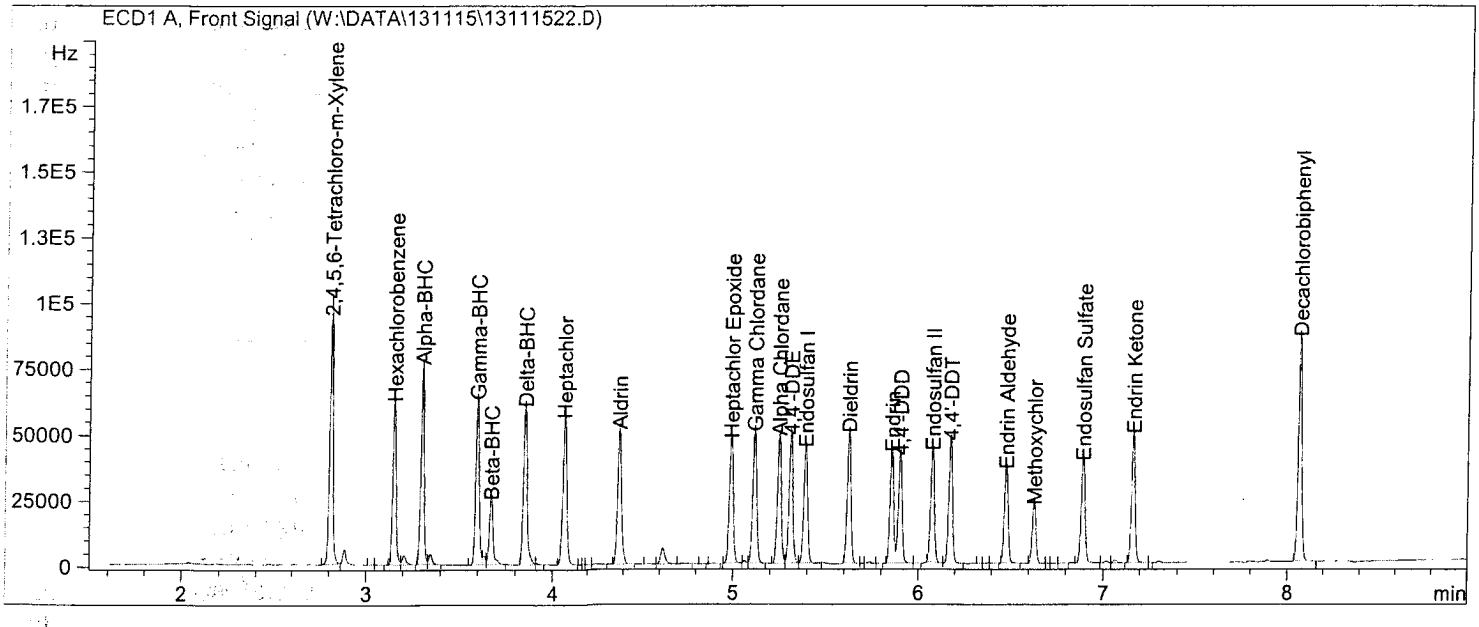
Sig. ECD1 A, W:\DATA\131115\13111522.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.810	114925.4	BV	0.017		76.106	2,4,5,6-Tetrachloro-m-Xylene
3.151	77800.7	BV	0.019		42.128	Hexachlorobenzene
3.300	91616.6	BV	0.018		42.434	Alpha-BHC
3.595	82401.4	BV	0.020		41.786	Gamma-BHC
3.669	36580.8	VB	0.023		42.546	Beta-BHC
3.850	84636.0	BB	0.021		42.274	Delta-BHC
4.064	80939.7	BB	0.022		40.877	Heptachlor
4.377	79379.4	BB	0.023		42.520	Aldrin
4.990	71286.9	BB	0.022		41.842	Heptachlor Epoxide
5.116	74365.5	VB	0.022		43.623	Gamma Chlordane
5.248	71107.4	BV	0.022		39.075	Alpha Chlordane
5.311	70137.6	VV	0.023		40.355	4,4'-DDE
5.390	65111.0	VB	0.024		41.026	Endosulfan I
5.625	72427.2	BB	0.022		42.441	Dieldrin
5.857	61620.1	BV	0.022		40.963	Endrin
5.903	59806.5	VB	0.023		42.281	4,4'-DDD
6.076	62103.6	BV	0.021		43.114	Endosulfan II
6.175	67147.9	PB	0.021		43.373	4,4'-DDT
6.477	52258.5	BB	0.021		44.192	Endrin Aldehyde
6.630	32581.5	BB	0.020		41.768	Methoxychlor
6.891	58152.9	BB	0.022		43.407	Endosulfan Sulfate
7.161	70232.1	BB	0.021		43.178	Endrin Ketone
8.067	122152.9	BB	0.022		86.421	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131115\13111522.D
Operator : 842
Instrument : GC 44
Sample Name : P S080713B 40PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 15 Nov 13 06:07 pm
Report Created on: 15 Nov 13 06:38 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\PEST131104R.M

Vial Number : Vial 22
Sequence Line : 23
Report Style : PEST-R
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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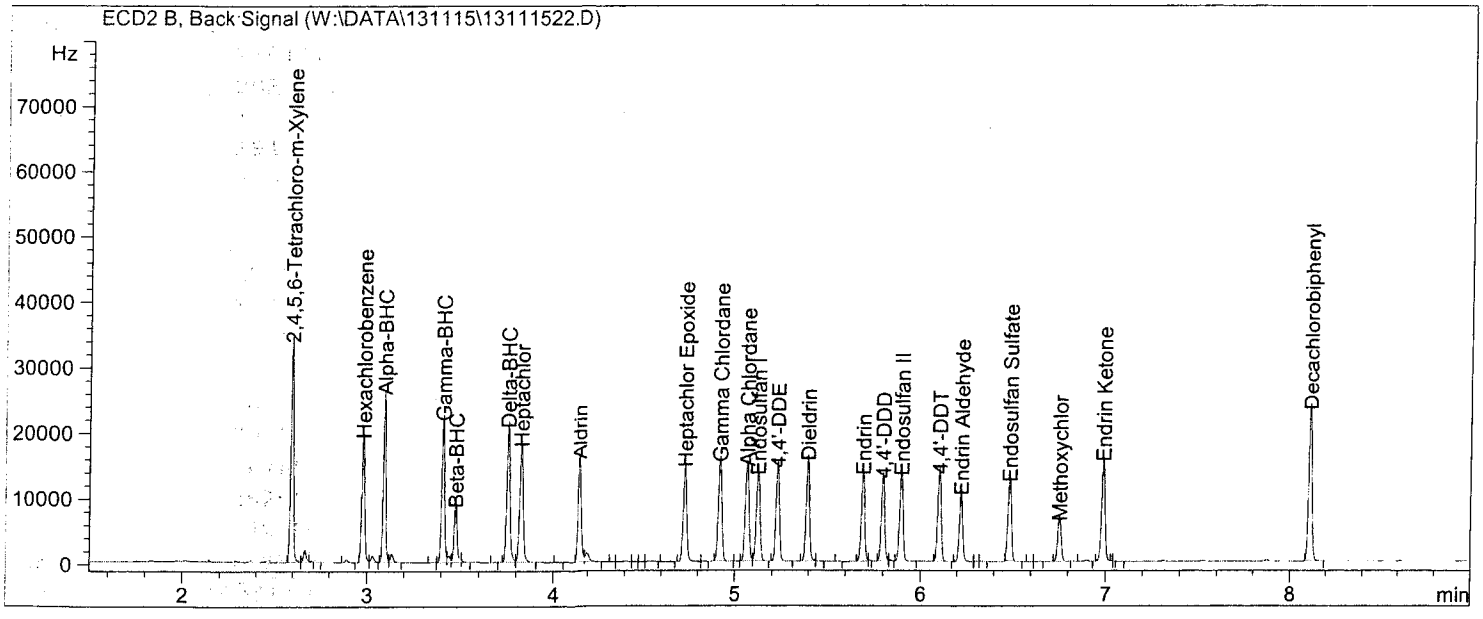
Sig. ECD2 B, W:\DATA\131115\13111522.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
2.594	34773.8	BV	0.016		80.084	2,4,5,6-Tetrachloro-m-Xylene
2.978	20228.7	BV	0.016		40.419	Hexachlorobenzene
3.092	26987.8	BV	0.016		40.946	Alpha-BHC
3.407	24297.0	BV	0.017		40.570	Gamma-BHC
3.476	10726.7	VB	0.019		41.742	Beta-BHC
3.756	25266.5	BV	0.018		40.913	Delta-BHC
3.826	23215.0	VB	0.020		40.159	Heptachlor
4.150	22274.7	BV	0.021		41.298	Aldrin
4.729	20383.3	BB	0.020		38.381	Heptachlor Epoxide
4.919	21011.9	BB	0.021		40.946	Gamma Chlordane
5.065	20147.7	BV	0.021		41.248	Alpha Chlordane
5.123	18687.1	VB	0.021		41.770	Endosulfan I
5.230	19446.2	BB	0.020		41.703	4,4'-DDE
5.394	20977.0	BB	0.020		41.405	Dieldrin
5.692	17572.7	BV	0.020		39.659	Endrin
5.799	16846.3	BV	0.019		42.142	4,4'-DDD
5.898	17952.7	BB	0.020		42.303	Endosulfan II
6.102	17784.6	BB	0.020		40.904	4,4'-DDT
6.220	13867.6	BB	0.019		40.064	Endrin Aldehyde
6.484	16047.3	BB	0.020		40.383	Endosulfan Sulfate
6.754	8840.3	BB	0.020		41.220	Methoxychlor
6.986	20801.8	BB	0.020		43.930	Endrin Ketone
8.110	30780.6	BB	0.020		83.346	Decachlorobiphenyl
0.000	0.0		0.000		0.000	Chlordane
0.000	0.0		0.000		0.000	Toxaphene



Return to Contents

External Standard Report

Data File Name : W:\DATA\131115\13111423.D
Operator : 842
Instrument : GC 44
Sample Name : TOX S082313R 1000PPB
Running Method : C:\CHEM32\1\METHODS\8081D.M
Acquired on : 15 Nov 13 06:21 pm
Report Created on: 15 Nov 13 06:38 pm
Comment :
Analysis Method : C:\CHEM32\1\METHODS\TOX 131104F.M

Vial Number : Vial 23
Sequence Line : 24
Report Style : TOX-F
Method : EPA 8081A
Software Version : Rev. B.03.01 [317]
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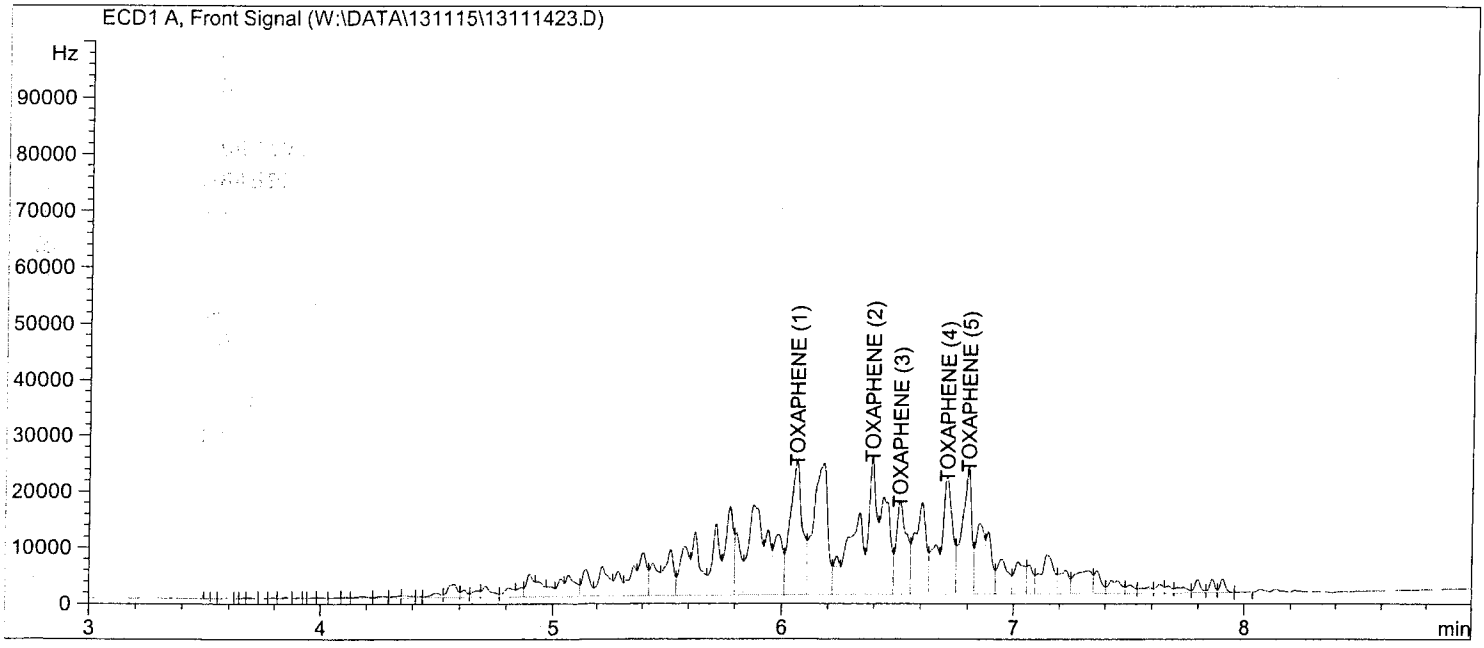
Sig. ECD1 A, W:\DATA\131115\13111423.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
6.064	86870.20	VV	0.060		297.54	TOXAPHENE (1)
6.390	54372.06	VV	0.037		186.23	TOXAPHENE (2)
6.509	51511.00	VV	0.052		176.43	TOXAPHENE (3)
6.709	56747.32	VV	0.045		194.37	TOXAPHENE (4)
6.802	64593.76	VV	0.047		221.24	TOXAPHENE (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
6.074	314094.34	VV	0.00343	1075.80	Toxaphene
6.811		VV	0.00343		
6.719		VV	0.00343		
6.520		VV	0.00343		
6.400		VV	0.00343		



Return to Contents

External Standard Report

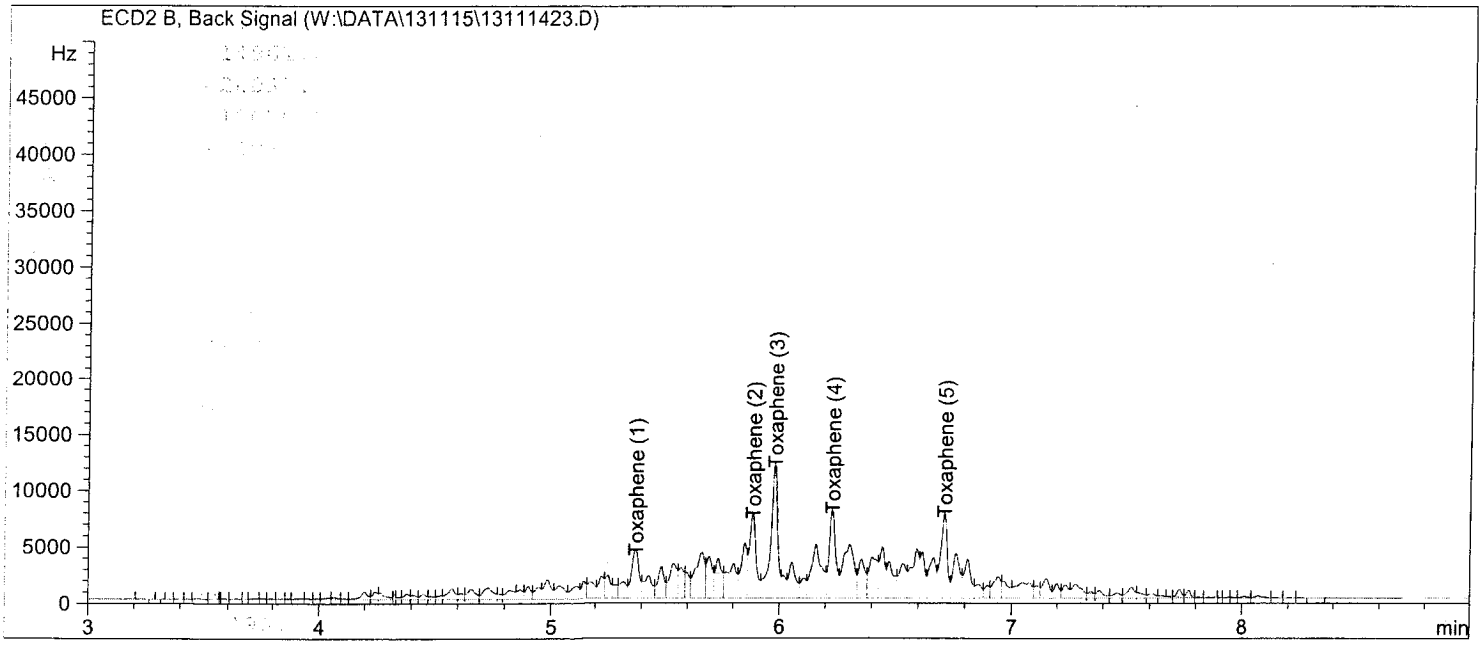
Data File Name	: W:\DATA\131115\13111423.D		
Operator	: 842	Vial Number	: Vial 23
Instrument	: GC 44	Sequence Line	: 24
Sample Name	: TOX S082313R 1000PPB		
Running Method	: C:\CHEM32\1\METHODS\8081D.M	Report Style	: TOX-R
Acquired on	: 15 Nov 13 06:21 pm	Method	: EPA 8081A
Report Created on	: 15 Nov 13 06:38 pm	Software Version	: Rev. B.03.01 [317]
Comment	:		Copyright © Agilent ->
Analysis Method	: C:\CHEM32\1\METHODS\TOX 131104R.M		

Sig. ECD2 B, W:\DATA\131115\13111423.D

Ret Time	Area	Type	Width	Ref #	ppb	Name
5.374	9790.86	VV	0.035		119.36	Toxaphene (1)
5.884	14961.89	VV	0.033		182.41	Toxaphene (2)
5.979	26033.09	VV	0.036		317.38	Toxaphene (3)
6.228	15650.72	VV	0.033		190.80	Toxaphene (4)
6.712	14971.98	VV	0.032		182.53	Toxaphene (5)

Group summary

Ret Time	Area	TypeRef	1/AvgRF	Amount	Group Name
5.383	81408.53	VV	0.01219	992.49	Toxaphene
6.721		VV	0.01219		
6.238		VV	0.01219		
5.987		VV	0.01219		
5.893		VV	0.01219		



Return to Contents

EPA METHOD 8081A
Organochlorine Pesticides

Run Logs

Return to Contents

Sequence Table (Front Injector):

Method and Injection Info Part:

Line	Location	SampleName DataFile	Method	Inj	SampleType	InjVolume
1	Vial 100	IB E08-45-11 13110400	8081D	1	Sample	
2	Vial 1	EVAL S080713B 50PPB 13110401	8081D	2	Sample	
3	Vial 2	P ICAL1 S080713D 2PPB 13110402	8081D	1	Sample	
4	Vial 3	P ICAL2 S080713E 10PPB 13110403	8081D	1	Sample	
5	Vial 4	P ICAL3 S080713F 20PPB 13110404	8081D	1	Sample	
6	Vial 5	P ICAL4 S080713G 40PPB 13110405	8081D	1	Sample	
7	Vial 6	P ICAL5 S080713H 60PPB 13110406	8081D	1	Sample	
8	Vial 7	P ICAL6 S080713I 80PPB 13110407	8081D	1	Sample	
9	Vial 8	P ICV S080713K 40PPB 13110408	8081D	1	Sample	
10	Vial 9	D/M/O/DC ICAL1 S051513B 2/10PPB 13110409	8081D	1	Sample	
11	Vial 10	D/M/O/DC ICAL2 S051513C 10/50PPB 13110410	8081D	1	Sample	
12	Vial 11	D/M/O/DC ICAL3 S051513D 20/100PPB 13110411	8081D	1	Sample	
13	Vial 12	D/M/O/DC ICAL4 S051513E 40/200PPB 13110412	8081D	1	Sample	
14	Vial 13	D/M/O/DC ICAL5 S051513F 60/300PPB 13110413	8081D	1	Sample	
15	Vial 14	D/M/O/DC ICAL6 S051513G 80/400PPB 13110414	8081D	1	Sample	
16	Vial 15	D/M/O/DC ICV S051513I 40/200PPB 13110415	8081D	1	Sample	
17	Vial 16	DDMU ICAL1 S101413B 2PPB 13110416	8081D	1	Sample	
18	Vial 17	DDMU ICAL2 S101413C 10PPB 13110417	8081D	1	Sample	
19	Vial 18	DDMU ICAL3 S101413D 20PPB 13110418	8081D	1	Sample	
20	Vial 19	DDMU ICAL4 S101413E 40PPB 13110419	8081D	1	Sample	
21	Vial 20	DDMU ICAL5 S101413F 60PPB 13110420	8081D	1	Sample	
22	Vial 21	DDMU ICAL6 S101413G 80PPB 13110421	8081D	1	Sample	
23	Vial 22	DDMU ICV S101413B 40PPB 13110422	8081D	1	Sample	
24	Vial 23	C ICAL1 S082313A 5PPB 13110423	8081D	1	Sample	
25	Vial 24	C ICAL2 S082313B 100PPB 13110424	8081D	1	Sample	

Return to Contents

Sequence: C:\CHEM32\1\SEQUENCE\131104.S

Line	Location	SampleName DataFile	Method LimsID	Inj	SampleType	InjVolume
26	Vial 25	C ICAL3 S082313C 250PPB 13110425	8081D	1	Sample	
27	Vial 26	C ICAL4 S082313D 500PPB 13110426	8081D	1	Sample	
28	Vial 27	C ICAL5 S082313E 750PPB 13110427	8081D	1	Sample	
29	Vial 28	C ICAL6 S082313F 2000PPB 13110428	8081D	1	Sample	
30	Vial 29	C ICV S082313H 500PPB 13110429	8081D	1	Sample	
31	Vial 30	T ICAL1 S082313I 25PPB 13110430	8081D	1	Sample	
32	Vial 31	T ICAL2 S082313J 200PPB 13110431	8081D	1	Sample	
33	Vial 32	T ICAL3 S082313K 500PPB 13110432	8081D	1	Sample	
34	Vial 33	T ICAL4 S082313L 1000PPB 13110433	8081D	1	Sample	
35	Vial 34	T ICAL5 S082313M 1500PPB 13110434	8081D	1	Sample	
36	Vial 35	T ICAL6 S082313N 4000PPB 13110435	8081D	1	Sample	
37	Vial 36	T ICV S082313P 1000PPB 13110436	8081D	1	Sample	

Sequence Table (Back Injector):

No entries - empty table!

Return to Contents

Sequence Table (Front Injector):

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume
		DataFile	LimsID			
1	Vial 100	IB E08-45-11	8081D	1	Sample	
		13111500				
2	Vial 1	EVAL S080713B 50PPB	8081D	1	Sample	
		13111501				
3	Vial 2	KEPONE ICAL1 S101113B 10PPB	8081D	1	Sample	
		13111502				
4	Vial 3	KEPONE ICAL2 S101113D 20PPB	8081D	1	Sample	
		13111503				
5	Vial 4	KEPONE ICAL3 S101113C 40PPB	8081D	1	Sample	
		13111504				
6	Vial 5	KEPONE ICAL4 S101113E 60PPB	8081D	1	Sample	
		13111505				
7	Vial 6	KEPONE ICAL5 S101113F 80PPB	8081D	1	Sample	
		13111506				
8	Vial 8	KEPONE ICAL1 S101113B 10PPB	8081D	1	Sample	
		13111508				
9	Vial 7	KEPONE ICV S101113H 40PPB	8081D	1	Sample	
		13111507				
10	Vial 9	P S080713B 40PPB	8081D	1	Sample	
		13111509				
11	Vial 10	CH S082313Q 500PPB	8081D	1	Sample	
		13111510				
12	Vial 11	TOX S082313R 1000PPB	8081D	1	Sample	
		13111411				
13	Vial 12	MB 131112L01	8081D	1	Sample	
		13111512				
14	Vial 13	LCS 131112L01	8081D	1	Sample	
		13111513				
15	Vial 14	LCSD 131112L01	8081D	1	Sample	
		13111514				
16	Vial 15	13-11-0824-1	8081D	1	Sample	
		13111515				
17	Vial 16	MB 131111L07	8081D	1	Sample	
		13111516				
18	Vial 17	LCS 131111L07	8081D	1	Sample	
		13111517				
19	Vial 18	LCSD 131111L07	8081D	1	Sample	
		13111518				
20	Vial 19	13-11-0697-13	8081D	1	Sample	
		13111519				
21	Vial 20	CH S082313Q 500PPB	8081D	1	Sample	
		13111520				
22	Vial 21	D/M/O/DC S051513J 40/200PPB	8081D	1	Sample	
		13111521				
23	Vial 22	P S080713B 40PPB	8081D	1	Sample	
		13111522				
24	Vial 23	TOX S082313R 1000PPB	8081D	1	Sample	
		13111423				
25	Vial 24	KEPONE S101113C 40PPB	8081D	1	Sample	
		13111524				

Return to Contents

Sequence: C:\CHEM32\1\SEQUENCE\131115.S

Line	Location	SampleName DataFile	Method LimsID	Inj	SampleType	InjVolume
26	Vial 25	MB 131113L12 13111525	8081D	1	Sample	
27	Vial 26	13-11-0496-1 Hg 13111526	8081D	1	Sample	
28	Vial 27	13-11-0797-1 Hg 13111527	8081D	1	Sample	
29	Vial 28	13-11-0797-1 Hg MS 131113S12 13111528	8081D	1	Sample	
30	Vial 29	13-11-0797-1 Hg MSD 131113S12 13111529	8081D	1	Sample	
31	Vial 30	LCS 131113L12 13111530	8081D	1	Sample	
32	Vial 31	CH S082313Q 500PPB 13111531	8081D	1	Sample	
33	Vial 32	TOX S082313R 1000PPB 13111432	8081D	1	Sample	
34	Vial 33	D/M/O/DC S051513J 40/200PPB 13111533	8081D	1	Sample	
35	Vial 34	P S080713B 40PPB 13111534	8081D	1	Sample	
36	Vial 35	KEPONE S101113C 40PPB 13111535	8081D – Fail	1	Sample	

Sequence Table (Back Injector):

No entries - empty table!

Return to Contents

EPA METHOD 8081A
Organochlorine Pesticides

Preparation Logs

Return to Contents

EPA Method 608/8081/8082 Extraction Logbook

START D = DATE T = TIME	END D = DATE T = TIME	SAMPLE pH	MATRIX S = SOIL A = AQUEOUS O = OIL W = WIPE F = FILTER	EXTRACTION 1 = 3510 SEP 2 = 3520 C-LL 4 = 3545 PFE 5 = 3550 SON 8 = 3580 DIL	TEST METHOD	MB/LCS/MS BATCH # CEL ID #	SAMPLE W (g) / V (mL) a) INITIAL b) FINAL	AQUEOUS SAMPLE MEASURED BY BALANCE MEASURED a) INITIAL (g) b) FINAL (g)	CALCULATED c) NET (g) d) V (mL)	BALANCE ID #	PREP TECHNICIAN(S)	COMMENTS
D) 11-11-13 T) 17:06	D) 11-11-13 T) MA	~6	S A O W F	1 2 4 5 8	8081A	MB	a) 1006 b) 10	a) b)	c) d)		7/852/783	
D)	D)	~6	S A O W F	1 2 4 5 8		LCS	a) 1000 b)	a) b)	c) d)			
D)	D)	~6	S A O W F	1 2 4 5 8		LCSD	a) 1000 b)	a) b)	c) d)			
D)	D)	~6	S A O W F	1 2 4 5 8		13-11-0697-135	a) 1040 b)	a) b)	c) d)			
D)	D)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D)	D)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D)	D)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D)	D)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D)	D)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D)	D)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D)	D)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D)	D)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D)	D)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D)	D)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D)	D)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D)	D)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D)	D)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D)	D)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D)	D)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D)	D)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D)	D)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D)	D)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			

EPA Method 608/8081/8082 Extraction Logbook

WATER BATH TEMP RANGE (°C)	THERMOMETER ID # & CF	SAND ID #	DRYING AGENT	ASE ID #
60 ~ 80	HBI-2549 (CF +0.0°C)		☒ Na_2SO_4 ☐ Diatomaceous Earth	

CEL ID #	SURROGATE STANDARD: STANDARD ID #	SURROGATE STANDARD: a) C (ppm) b) V (mL)	SPIKE STANDARD (LCS/LCSD/MS/MSD): STANDARD ID #	SPIKE STANDARD: a) C (ppm) b) V (mL)	EXTRACTION SOLVENT: 1 = CH_2Cl_2 2 = 1:1 CH_2Cl_2-C_3H_6O	EXTRACTION SOLVENT: a) ID # b) V (mL)	REAGENT / SUPPLY ID #: a) DRYING AGENT b) FILTER	EXCHANGE SOLVENT: a) C_6H_{14} ID # b) V (mL)	COMMENTS
MB	E110413A	a) 2 b) 0.5		a) b)	1 2	a) E08-68-15 b) 180	a) E08-68-7 b)	a) E08-42-10 b) 10	
LCS		a) b)	E081313A	a) 1 b) 0.5	1 2	a) b)	a) b)	a) b)	
LCSD		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
13-11-0697-13		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	

EPA Method 608/8081/8082 Extraction Logbook

START D = DATE T = TIME	END D = DATE T = TIME	CLEANUP 1 = 3620 FLORISIL 2 = 3630 SGC 3 = 3660 SULFUR 4 = 3665 ACID	CEL ID #	CLEANUP REAGENT(S)				FLORISIL CARTRIDGE CONDITIONING COLUMN PRE-ELUTION 1) CARTRIDGE ID # 2) HEXANE ID #	PREP TECHNICIAN(S)	COMMENTS
				NAME	ID #	NAME	ID #			
D) 11-11-13 T) 1:00	D) 11-11-13 T) NA	1 2 3 4	MB	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)	7/852/763	
D) T)	D) T)	1 2 3 4	LCS	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	LCSD	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	13-11-0697-13	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		

EPA METHOD 8081A
Organochlorine Pesticides

Standards Preparation Logs

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
8-05-13	S080513J	8330	ICal-1 8330	S080313A	1 ul	20 ppm	1 ml	20 ppb	Ben:Hex 1:1	S101812-1	8/6/13	684	
	K		ICal-2		50 ul			1 ppm					
	L		ICal-3		100 ul			2 ppm					
	M		ICal-4		250 ul			5 ppm					
	N		ICal-5		500 ul			10 ppm					
	S080513O		ICV	S080313G	100 ul	20 ppm	1 ml	2 ppm					
8-7-13	S080713A	8081	PDT/Endrin mix	S5-39-24	10 µL	500 ppm	10 mL	500 ppb	Hexane	E0845-09	01-31-14	500	
	B		Eval	S080713A	4 mL	500 ppb	40 mL	50 ppb					
	C		CLP Organochlorine Pest.	S6-04-06	8 µL	2000 ppm	4 mL	4 ppm					
			Pesticide Snr. mix	S6-13-16	160 µL	200 ppm		8 ppm					
			Hexachlorobenzene	S06-03-11	160 µL	100 ppm		4 ppm					
	D		Pest Ical	S080713C	2 µL	4/8 ppm	4 mL	2/4 ppb					
	E				10 µL			10/20					
	F				20 µL			20/40					
	G				40 µL			40/80					
	H				60 µL			60/120					
	I			(500 8/7/13)	80 µL			80/160					
	J		Organochlorine Pest mix AB#	~~S07-18-5~~ E07-18-6	80 µL	200 ppm	4 mL	4 ppm					
			Pest. Snr. mix	S05-42-23	160 µL			8					
			Hexachlorobenzene	S06-04-12	160 µL	100 ppm		4					

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
8/7/13	S080713K	8081	Pest. Mix ICV	S080713J	40 µL	4/8 ppm	4mL	40/80ppb	Hexane	E08-45-9	01-31-14	JDO	
↓	↓ L	↓	Pest. Mix	↓ C	400 µL	↓	40mL	↓	↓	↓	↓	↓	
8-7-13	S080713 M	8141 7A	Custom Standard	S06-11-20	400µL	200ppm	2mL	40ppm	Hexane	E08-19-14	10-7-13	842	
	↓		Tributylphosphate	E8-10-8	80 µL	1000ppm	↓	↓					
	S080713 N		Ical 1 8141 7A	S080713 M	25µL	40ppm	2mL	0.5 ppm					
	O		Ical 2		100µL			2					
	P		Ical 3		200 µL			4					
	Q		Ical 4		300µL			6					
	R		Ical 5		400µL			8					
	S		8141 Additional Mix	S5-43-23	100µL	200 ppm	1mL	20ppm					
	T		ICV 8141-7A (842 8/7/13)	~~S080713S~~ S080713S	200µL	20ppm	1mL	4ppm					
			Tributyl phosphate	E08-10-8	4 µL	1000ppm	↓	↓					
8/8/13	~~8~~ (842) S080813A	8000 SUM.	TCMX & DCB Mix	S6-02-08	200ul	200ppm	40 mL	1ppm	Hexane	E-8-19-14	2/8/14	421	
8/9/13	S080913A	548.1	548 IS	S6-11-9	80 µl	500ppm	4 ml	10ppm	DCM	EJ-15-5	2/9/14	262	
	S080913B		Endothall	S5-41-8	0.2 ml	50 ppm	1 ml	10 ppm			12/31/13		Methylate before use
	↓		548 IS	S080913A	0.25	10 ppm		2.5					
	S080913C				0.1			5					
	↓				0.25			2.5					
	S080913D				0.05			2.5					
↓	↓	↓	↓	↓	0.25	↓	↓	2.5	↓	↓	↓	↓	

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
8/21/13	S082113E	8141	Naled	S6-14-1	8 µL	1000 ppm	2 mL	4 ppm	Hexane	E08-45-09	10/21/13	842	
			Stirophos	S5-38-19	4 µL			2 ppm					
	S082113F		O.P pest mix Ical 5	S082113A	400 µL	40 ppm	2 mL	8 ppm					
			Naled	S6-14-1	8 µL	1000 ppm		4					
			Stirophos	S5-38-19	4 µL			2					
	S082113G	8141	O.P mix std ICV	E08-51-9	200 µL	200 ppm	1 mL	40 ppm					
			Malathion	S06-12-22	400 µL	100 ppm							
	S082113H		8141 ICV O.P mix	S082113G	100 µL	40 ppm	1 mL	4 ppm					
			Naled	S6-12-20	40 µL	100 ppm		4 ppm					
			Tetrachlovinphos (Stirophos)	S06-4-02	20 µL	100 ppm		2 ppm					
			Tributylphosphate	E08-10-8	4 µL	1000 ppm		4 ppm					
8/23/13	S082313A	8081	CHLD Ical	S5-30-01	2.0 µL	100 ppm	4 mL	5 ppb	E. Hexane	E08-45-09	8/23/14	500	
	B				4			100					
	C				10			250					
	D				20			500					
	E				30			750					
	F				80			2000					
	G		CHLD ICV	S05-43-05	400	1000 ppm	4 mL	100 ppm					
	H			S082313G	20	100 ppm		500 ppb					
	I		Tox Ical	S6-02-20	1 µL	100 ppm	4 mL	25 ppb					

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
8/23/13	S082313J	8081	Tox Ical	S6-02-20	8 µL	100 ppm	4mL	200ppb	Hexane	E08-45-9	2/23/14	SDC	
	K				20			500					
	L				40			1000					
	M				60			1500					
	N				160			4000					
	O		Tox ICV	S5-46-9	400	1000 ppm	4mL	100 ppm					
	P			S0823130	40	100		1000 ppb					
	Q		CHLD	S5-30-1	200	100	40 mL	500 ppb					
	R		TOX (500 8/23/13)	S6-2-~~19~~ 20	400	100		1000ppb					
8/26/13	S082613A	8270 SIM SUPER. ICV.	8270 spike FQC	E080613A	200 ml	200ppm	4mL	10ppm	MeCl2	E7-15-5	01/31/14	421	
			8270 SURR.	E073113A ~~E051113A~~ 8/26/13	100 ml	400 ppm		10ppm					
			SV - I.S	E8-47-3	10 ml	2000ppm		5ppm					
8/28/13	S082813A	508	Eval (Endrin/DDT)	S5-39-24 ~~S6-01~~ 8/28/13	10 ml	500ppm	5mL	1ppm	MTBE	S6-11-08	10/28/13	421	
	S082813B		O.C Pesticides mix	S6-04-06	8 ml	2000ppm	4mL	4ppm					
			Pesticides surrogate	S6-13-16	400 ml	200ppm		20ppm					
	S082813C		508 ~~Pestical~~ Pesticides ICAL 1 (8/28/13)	S082813B	1 ml	4/20ppm	2mL	2/10 ppb					
	D		2		5 ml			10/50					
	E		3		10 ml			20/100					
	F		4		20 ml			40/200					
	G		5		40 ml			80/400					

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	1- Butanol	Accu std.	M-8015B/5031-06	211101203	10/17/21	1ml	G	12/21/11	684			
2	isopropanol	↓	M-8015B/5031-16	211101240	10/20/21	↓	↓	↓	↓			
3	↓	↓	↓	↓	↓	↓	↓	↓ 669	↓			
4	2,4-Dichlorophenyl Acetic Acid 8157 Sur	Reskek	32050	A071047	~~12/27/11~~ 08/2016 669 12/27	1ml	G	12/27/11 ~~08/2016~~ 12/27	669	2/27/12	669	Verified
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/2/12	262	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	1/21/13	262	
7	↓	↓	↓	↓	↓	↓	↓	↓	↓	3/5/13	669	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓			
9	Dibrom Solution	CHEM	F2067JS	479-109C	06/30/13	1ml	G	12/28/11	684	3/2/12	684	verified
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	5/31/12	684	
11	Malathion solution	↓	F2118S	477-41B	04/30/13	5ml	↓	↓	↓	3/2/12	684	verified
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/3/12	684	↓
13	8015 Custom standard	ULTRA	CUS-11538	CH-4163	1/31/14	1ml	G	1/5/12	684	01/6/12	684	verified
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/8/12	684	
15	↓	↓	↓	↓	↓	↓	↓	↓	↓	7/10/12	684	
16	↓	↓	↓	↓	↓	↓	↓	↓	↓	3/4/13	684	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/10/13	684	
18	525.2 Organonitrogen Pest #1	Restek	33012	A085646	12/2013	1ml	G	1/5/12	142	1/8/13	262	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	7/27/13	142	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓			
21	DDT/Endrin MIX	Supelco	4-8282	LB86671	8/2014	1mL	G	1/11/12	421	6-13-12	27	
22	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/6/12	500	
23	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/6/13	842	
24	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/7/13	500	
25	Pesticides Surrogate mix	↓	4-8460	LB81291	1/2014	1mL	G	1/11/12	↓	2/6/12	500	

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Acetonitrile	Fish	A998-4	127999	5-3-16	4L×6	G	5-3-13	285	5-3-13	285	
2	~~Sodium chloride~~ 5/6/13 285	~~EMD~~	~~SX0420-5~~	~~TK19CZEMS~~	~~5-6-18~~	~~12kg×2~~	~~P~~	~~5-6-13~~	~~285~~	~~5-6-13~~	~~285~~	5/6/13 285
3	Sodium sulfate Anhydrous	Fish	S421-10	126473	5-6-18	10Kg×6	P	5-6-13	285	5-6-13	285	
4	Sodium chloride	EMD	SX0420-5	TL20B2EMS	5-6-18	12kg×2	P	5-6-13	285	5-6-13	285	
5	25mm syringe Filter/acetum PTFE	VWR	2815-497	21744510	NA	100 each ×2	P	5-7-13	285	5-7-13	285	
6	BD syringe 10ml	BD	REF 305462	2204064	NA	100 each ×3	P	5-7-13	285	5-7-13	285	
7	Dichloromethane	EMD	DX0831-1	53102	5-7-16	4L×60	G	5-7-13	285	5-7-13	285	
8	Celite 566 Diatomaceous Earth	UCT	EC6630K	315030-AV	5-7-18	30 kg	P	5-7-13	285	5-7-13	285	
9	Hexanes	EMD	HX0298-1	53032	5-10-16	4L×24	G	5-10-13	285	5-10-13	285	
10	Sodium Hydroxide	Fish	S318-10	126910	5-10-18	10Kg×2	P	5-10-13	285	5-10-13	285	
11	Hexanes	EMD	HX0298-1	53102	5-14-18	4L×48	G	5-14-13	285	5-14-13	285	
12	Dichloro methane	EMD	DX0831-1	53221	5-20-18 16	4L×60	G	5-20-13	285	5-20-13	285	
13	Boiling Stones	Saint Gobain	0919120	G384-3C019	5-20-18 5/20/13	450g×5 285	P	5-20-13	285	5-20-13	285	G384-3C01
14	Mercury	ALFA AESAR	00522-P5	E22Y027	NA	57bx2	P	5-20-13	285	5-20-13	285	
15	Sodium chloride	EMD	SX0420-5	TL20B2EMS	5-22-18	12kg×3	P	5-22-13	285	5-22-13	285	
16	~~Sodium chloride~~	~~EMD~~	~~SX0~~ 5/22/13 285									
17	Acetonitrile	Fish	A998-4	127999	5-22-16	4L×8	G	5-22-13	285	5-22-13	285	
18	Dichloromethane	EMD	DX0831-1	53102	5-23-16	4L×60	G	5-23-13	285	5-23-13	285	
19	Sodium chloride	Fish	S271-10	130583	5-24-18	10Kg×3	P	5-24-13	285	5-24-13	285	
20	Dichloro methane	EMD	DX0831-1	53109	5-28-16	4L×60	G	5/28/13 285 5-28-13	285	5-28-13	285	
21	Filter paper 41	whatman	1441 090	5366526	~~NA~~ NA 285	5pk	P	5-31-13	285	5-31-13	285	
22												
23												
24												
25												

COMMENTS:

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Dibrom Solution	CHEM	F2067JS	479-109C	6/30/13	1ml	G	7/23/12	684			
2	Tetrachlorvinphos solution	↓	F2069JS	482-17C	02/28/14	↓	↓	↓	↓	1/15/13	684	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓			
4	ClPOrganochlorine Pesticide mix	supelco	47426-U	LBP0217	1/2015	1mL	G	7/23/12	421	1-22-13	27	to Marine
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/5/13	421	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/7/13	842	
7	↓	↓	↓	↓	↓	↓	↓	↓	↓			
8	↓	↓	↓	↓	↓	↓	↓	↓	↓			
9	Hexachlorobenzene	Ultra	CH-151	CE[illegible]3A	8/31/15	1ml	G	7/24/12	429	8/6/12	500	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	11-20-12	27	to Marine Dept
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/6/13	842	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/7/13	842	
13	Aroclor 1221		PP-291	CB17112	12/31/14	1ml	G	7/24/12	669	6/12/13	669	
14	↓	↓	↓	↓	↓	↓	↓	↓	↓			
15	↓	↓	↓	↓	↓	↓	↓	↓	↓			
16	↓	↓	↓	↓	↓	↓	↓	↓	↓			
17	525.2 NP Mix	Accu STD	M-525.2-NPI-ASL-PAK	209111015-06	7/26/13	1 x 1 ml ampules	G	7/27/12	262	7/27/12	262	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	1/8/13	262	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓			
20	↓	↓	↓	↓	↓	↓	↓	↓	↓			
21	PCB 103	Accustandard	C-1035-TP	210111246	11/17/2020	1ml	G	7/30/12	142	7/30/12	142	
22	PCB 198	↓	C-198S-TP	B2100047-1A	9/6/2022	↓	↓	↓	↓	↓	↓	
23	PCB 208	↓	C-208S-TP	B3010335	1/31/2013	↓	↓	↓	↓	↓	↓	
24	PCB 200	Accustd	C-200S-TP-R1	210101006	10/1/2020	1mL	G	8/4/12	421	10/2/12	773	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓			

COMMENTS: _____

Book Number: 6

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	8270 Cali – Kit	supelco	48118	LB96472	FEB 14	7x1mL	G	02/15/13	573	05/01/13	573	
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/19/13	573	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓			
4	2,2,4-Trimethylpentane (Isooctane)	Sigma-Aldrich	360597	SHBC4278V	2/18/16	500 mL	G	02/15/13	684	2/18/13	773	verified
5	2,3-Dichlorobiphenyl (BZ#5)	Ultra	RPC-012 (ON#)	NT00011	01/31/2017	25 mg	G	2/15/13	684	↓	773	verified
6	4,4'-Dichlorobiphenyl (BZ#15)	↓	RPC-011	RM00605	01/31/2017	10 mg	↓	↓	↓	↓	↓	verified
7	521 Surrogate	Restek	33910	A088147	04/15	1 ml	G	2/19/13	262	2/19/13	262	
8	↓		33910	↓	04/15							
9	521 IS		33911	A088435	05/15					2/19/13	262	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓			
11	Aroclor 1260	ULTRA	PP-361	CG-3829	12/2014	1ml	↓	2/20/13	669	3/7/13	684	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/21/13	669	(For 508)
13	521 Cartridge	UCT	EU5211M6	09962-EM	2/11/18	30	Bag	2/21/13	262	2/21/13	262	
14	BDE-49	Accustd	BDE-049S	211031138	6/10/19	1ml	G	2/28/13	421	2/28/13	421	
15	Methylene Chloride	Fisher	D154-4	126306	3/5/16	4 L	G	3/5/13	262	3/5/13	262	
16	Pesticides Sur.	Supelco	48460	LB81291	01/2014	1L	G	3/22/13	669	8/7/12	842	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓			
18	↓	↓	↓	↓	↓	↓	↓	↓	↓			
19	↓	↓	↓	↓	↓	↓	↓	↓	↓			
20	↓	↓	↓	↓	↓	↓	↓	↓	↓			
21	Diethanolamine	Accustandard	ALR-109N	05712D1	2/24/21	100 mg	G	3/28/13	684	4/2/13	262	
22	Monoethanolamine	↓	ALR-136N	13768	9/29/14	↓	↓	↓	↓	4/2/13	262	
23	8270 Tuning Solution	SUPELCO	47548-U	LB91071	03/15	1 mL	↓	03/28/13	573	6/27/13	449	
24	↓	↓	↓	↓	3/15	↓	↓	↓	↓			
25	Aqua Comparator Kit	orbeco	L147010	NA	2/2016	Each	Box	3/25/13	262	3/27/12	262	

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Hexachlorocyclopentadiene	Accu std.	App 9-114-10X	21110135-01	4/18/13	1mL	G	6/21/12	421			
2	↓	↓	↓	↓	↓	↓	↓	↓	↓			
3												
4												
5	2.4.5.6-Tetrachloro-M-Xylene	Supelco	4-8317	LB83516	3/2014	1mL	G	7/7/12	421	7/6/12	421	verified
6	↓	↓	↓	↓	↓	↓	↓	↓	↓			
7	Dibutyl Chlorendate	Supelco	4-8129	LB89193	12/2014	1mL	G	7/7/12	421	~~7/6/12~~ (2nd) 7/6/12 (1st)	~~421~~	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓			
9	Hexachlorobenzene	Accu. STD	APP-9-112	21104142	4/21/21	1ml	G	7/20/12	669	8/6/12	500	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/6/13	842	
11										8/7/13	842	
12												
13	↓	↓	↓	↓	↓	↓	↓	↓	↓			
14	PCB Calibration check Sol.	Accu. STD	C-CCSEC	B40801231	8/17/14							NO use Log in at Extract Book
15	↓	↓	↓	↓	↓							
16												
17												
18	↓	↓	↓	↓	↓	↓	↓	↓	↓			
19	Tributylphosphate	↓	M-8141A-SS-01	21009114701	4/12/14	↓	↓	↓	↓	9/20/12	684	verified
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	5/13/13	723	
21	Naled	↓	M-8140-15	21107139	01/13/13	↓	↓	↓	↓	7/1/13	723	
22	~~Stirophos~~ 7/20/12 684 stirophos	↓	M-8140 18	21106 1107	6/8/14	↓	↓	↓	↓			
23	organo Phosphorous Pesticide mix X	↓	M-8140M-5X	21203 1361	3/30/14	↓	↓	↓	↓	12/6/12	684	verified
24	Dibrom Solution 7/20/12 684	CHEM	F-20675	479-109c	6/30/13	1ml	G	7/23/12	684	1/15/13	684	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓			

COMMENTS: _____

Book Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	TETRAETHYL LEAD	Accustandard	78-00-2	211212072	Dec 4, 2021	1 mL	G	6/8/12	710			
2	↓	↓	↓	↓	↓	↓	↓	↓	↓			
3	↓	↓	↓	↓	↓	↓	↓	↓	↓			
4	Tetraethyl lead	Accustandard	S-1263	212061140	6/12/22	1mL	G	6/13/12	142	11/21/12	773	verified by
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/21/12	142	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	4/10/13	421	
7	Dibutylchlorendate & TCMX		CLP-034	B0050209	12/10/19	1ml	↓	↓	↓	6/13/12	142	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/8/13	421	
9	↓	↓	↓	↓	↓	↓	↓	↓	↓			
10	↓	↓	↓	↓	↓	↓	↓	↓	↓			
11	↓	↓	↓	↓	↓	↓	↓	↓	↓			
12	Dual layer carb/PSA 500/500 mg	Supelco	54067-U	3425301	NA	10 pks (30/pk)	SPE cartridge	6/18/12	142			
13	Aroclor 1248	~~Supelco~~ Ultra	PP-341	CH-3256	11/30/19	1mL	G	6/19/12	421	7/5/12	669	verified
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/7/12	V	
15	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/12/13	V	
16	↓	↓	↓	↓	↓	↓	↓	↓	↓			
17	Toxaphene	ultra	PP-271	CH-2783	9/30/15	1mL	G	6/19/12	421	8/22/12	500	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/?/12	RM	Norma lab
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/22/13	500	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/22/13	500	
21												
22	Decachlorobiphenyl & TCMX	Accu std.	CLP-032-H-5X	21201124	1/20/22	1mL	G	6/19/12	421	6/20/12	421	
23	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/2/12	142	
24	↓	↓	↓	↓	↓	↓	↓	↓	↓			
25	Hexachlorocyclopentadiene	Accu std	App-9-114-10X	21110103501	4/18/13	1mL	G	6/21/12	421			

COMMENTS: _____

Book Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Organochlorine peseicide Mix AB #1	Restek	32291	A0829 95	07-31-2015	1ml	G	04/3/12	7	04-05-12	7	
2										4-25-12	142	
3										8-3-12	7	
4										8-6-12	500	
5										2-6-13	842	
6										8-7-13	842	
7										8-15-12	262	
8										1-22-13	27	→ Marine
9										11-20-12	27	to marine Dept
10										02-4-13	7	
11	Custom Method 615 Chlorinated Herbicides Mix		57667	A079087	01-31-2013			04/6/12		6-11-12	785	
12										6-11-12	↓	
13										6-14-12	785	
14										6-14-12	↓	
15										6-27-12	785	
16										5-31-12	996	
17										5-31-12	↓	
18										6-27-12	785	
19												
20												
21												
22												
23												
24												
25												

COMMENTS: _____

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Tetrachlorvinphos (stirophos)	CHM	F2069	481-2A	1/31/15	250mg	G	1/30/12	684			
2	Hexafluoro-2-propanol	CHM	F2554	462-22A	3/31/14	1g	G			9-7-12	684	verified
3	↓	↓	↓	↓	↓	↓	↓	↓	↓			
4	Hexafluoro-2-propanol	ALDrich	105228-5G	SHBB4054V	2/7/15	5g	G	2/2/12	684	2/7/12	684	verified
5	Total chlorine test tablets	orbeco	434-IT	L06-018-34	2/6/17	50/pk	foil pk	2/6/12	142	2/6/12	142	
6	Organic Acids custom std.	Ultra	CUS-10577	CJ-0356	3/31/13	1ml	G	2/6/12	684	2/29/12	684	verified
7										8/24/12	684	
8										12/28/12	684	
9										1/24/13	684	
10												
11	8141 7A ~~C~~ custom std		CUS ~~CJ~~-11539	CJ-0324	2/28/13					3/26/12	684	verified
12			1/6/12XL CUS-11539							8/9/12	684	
13										1/10/13	684	
14												
15												
16	OTIN-STD	Accu std	OMT-001	209091161-01	07/11/13	1ml	G	02/09/12	513	02/09/12	513	
17	↓		↓	↓	↓					08/20/12	↓	
18	OTIN-SURR		OMT-004	210111316	11/23/12					02/09/12	513	
19	↓		↓	↓	↓					08/20/12	↓	
20	OTIN-IS		OMT-005	212011344	01/27/15					02/09/12	513	
21	↓		↓	↓	↓					08/20/12	↓	
22	2,3,7,8-TCDD	↓	D-404N	970401R-AC	07/28/15	1mg	G	↓	↓	03/20/12	513	
23	Pesticide Surrogate Mix	Restek	32000	A084532	4/19	1ml	G	2/15/12	500	8/7/13	842	
24												
25												

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Chlordane Solution	Ultra	PP-151	CH-0599	3/31/15	1ml	G	9/21/11	TW	2/22/13	500	
2	Toxaphene Solution	Ultra	PP-271	CH-2783	9/30/15	1ml	G	9/21/11		10/17/11	MC	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	1/23/12	421	verified B2-P1
4										2/22/12	500	
5										6/11/12	500	Marine
6	8270A Base-Neutrals Mix	Supelco	4-8470	LB87223	9/2014	↓	↓	9/21/11	NCH	6/15/12	421	
7	Custom Organic Acids standard	Restek	562978	A084144	9/2013	1ml	G	9/23/11	684	9/23/11	684	verified
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/29/12	684	
9										9/27/12	684	
10										2/18/13	773	
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/22/12	684	↓
12	525 Tuning STD	AccuSTD	M-525.2-TS	21105326	6/1/12	1 ml	G	9/23/11	262			
13	525 IS/SS	↓	M-525.2-IS/SS-PAK	B7110043-1A	5/10/13	1 ml	G	↓	↓			
14	↓	↓	↓	↓	↓	↓	↓	↓	↓			
15												
16												
17	↓	↓	↓	↓	↓	↓	↓	↓	↓			
18	515 Performance Check	AccuSTD	M-515-QC-PAK	21105 1233	5/24/13	1 mL	G	9/23/11	262	10/4/11	LL	Verified
19	↓	↓	↓	21105 1233	↓	↓	↓	↓	↓	12/5/11	421	↓
20				↓						12/14/11	421	
21										1/19/12	262	
22	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/2/12	262	↓
23	DIQUAT and PARAQUAT	Acc STD	M-549.1	21104106 9	4/8/13	1 ml	G	9/23/11	262			
24	↓	↓	↓	↓	↓	↓	↓	↓	↓			
25												

COMMENTS:

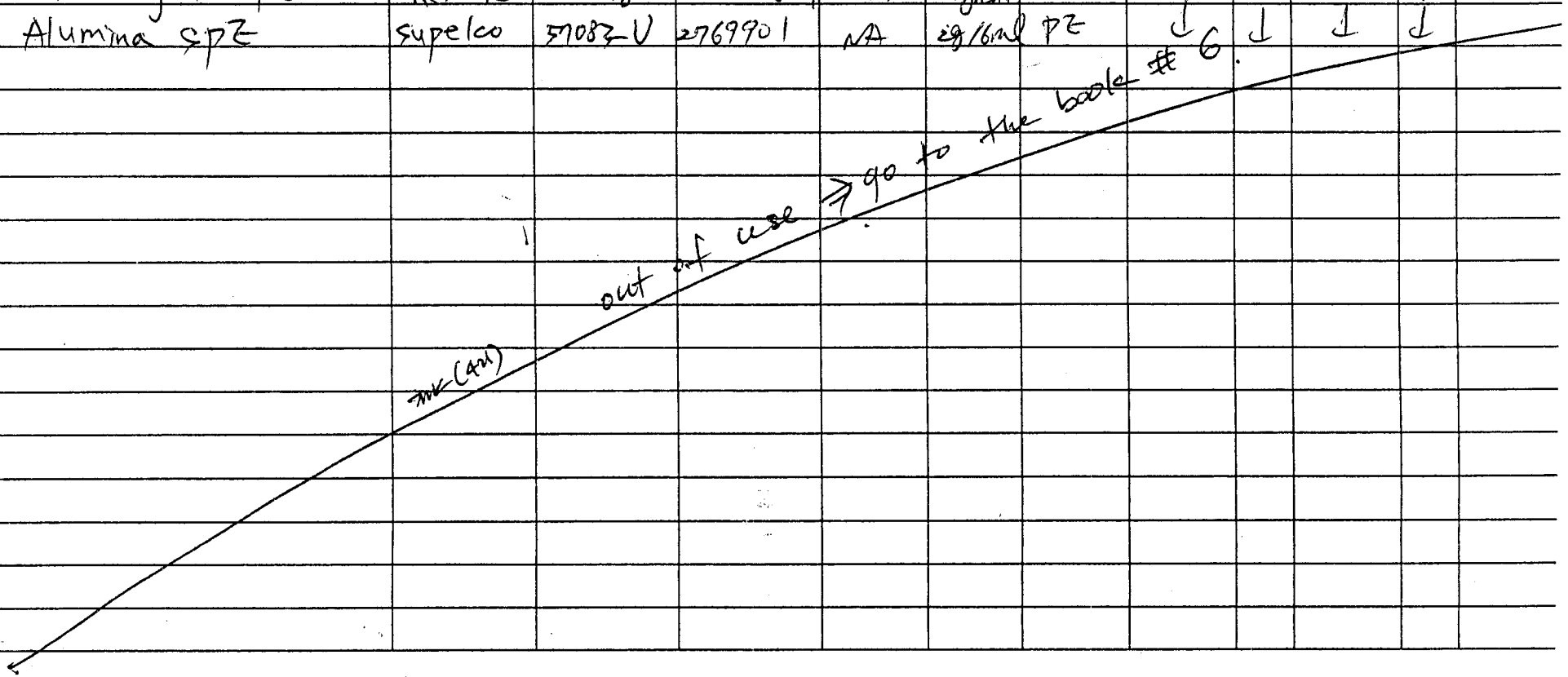
Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Pesticide Surrogate Mix	Restek	32000	A084532	4/19	1ml	G	2/15/12	500			
2	Technical Chlordane Mix (500 2/15)		32021 (500 2/15)	A083987 (500 2/15)	6/18 (500 2/15)					2/22/12	500	
3										6/11/12	500	Marine lab
4										8/22/12		
5										2/22/13	500	
6	625 CUSTOM STD	Accu STD	S-23539	212021135	02/15/13	1ml	G	02/17/12	513	03/20/12	513	
7												No
8												std
9												find.
10												
11	Dibrom Solution (Naled)	CHEM	F2067JS	479-109C	06/30/13	1ml	G	02/22/12	684	8/7/12	684	
12	Tetrachlorvinphos (stirophos)		F2069JS	482-17C	02/28/14					8/6/12	684	verified
13	Aroclor 1254	Supelco	9-0128R	LB 85515	02/2021	1mL	G	2/24/12	421	2/24/12	421	508 Std.
14	Aroclor 1248		4-4807	LB 88969	01/2015							
15	Aroclor 1232		9-0125R	LB 88331	03/2021							
16	Aroclor 1242		9-0126R	LB 89410	02/2021							
17	Aroclor 1221		9-0124R	LB 73472	11/2018							
18	625 EXTRA W/O TCDD		21493182	LB90675		1mL	G	03/01/12	513	09/19/12		
19										5/6/13	449	
20										03/20/12	513	
21												
22	8141 Additional Mix Std. 7A	Supelco	21493186	LB90676		1ml	G	3/01/12	684	5/31/12	684	
23										2/14/13	713	
24												
25												

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	PAH Mix	Supelco	47543-U	LB78043	8/2013	1ml	G	5/18/12	449	4/29/13	449	
2	↓	↓	↓	↓	↓	↓	↓	↓	↓			
3	Isomer 8 comp. ICV	Ultra	CUS-13983	CJ-1791	Jun/2014	1ml	G	5/22/12	669	6-15-12	27	→ Marine
4	↓	↓	↓	↓	↓	↓	↓	↓		7-26-12	669	
5										1-22-13	27	→ Marine
6										5/15/13	842	
7	↓	↓	↓	↓	↓	↓	↓	↓	↓			
8	Toxaphene	Restek	32005	A083442	11/2015	↓	↓	↓	↓	6/11/12	500	Marine Lab
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/22/13	500	
10	Silica gel SPE	Restek	24038	016190-QT-09	NA	1g/6ml	PE ~~G~~ 142	5/22/12	142	5/22/12	142	
11	Alumina SPE	Supelco	57087-U	2769901	NA	2g/6ml	PE	↓ 6	↓	↓	↓	
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												



COMMENTS:

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR DATE	PREP BY	COMMENTS
11-04-13	E110413A	8080 sur.	pesticide Surrogate Mix	E08-56-19,20	10 ml	200ppm	1000ml	2ppm	Acetone	E08-62-3	05-04-14	7	
~~11-07-13~~	~~E110713A~~	~~508 A~~	~~Aroclor 1260 surr.~~	~~E08-70-12~~	~~0.04ml~~								11/7/13
11-8-13	E110813A	8270 sur.	Acid Surrogate Mix	E08-55-8, E08-65-11,12,18.	40ml	10,000ppm	1000ml	400ppm	Acetone	E08-62-3	05-08-14 @ 11/8/13	7	
			B/N	E08-65-19,25, E08-66-1	80ml	5000ppm							
	E110813B (GS 11/8/13)	8081 spike	O.P. Mix AB #1	E08-13-6	1ml	200ppm	200ml	1ppm					
			Hexachlorobenzene @ 11/8/13	E06, E08-36-12	0.2ml	1000ppm							
	E110813C	8081 spike	O.P. Mix AB #1	E08-13-7	1ml	200ppm			Hexane	E08-42-10	05-08-14	7	For 3540c
			Hexachlorobenzene	E06-36-12	0.2ml	1000ppm							
11-15-13	E111513A	8270 FBC spike	8270 Calibration Mix #1	E08-74-15,16,17.	5ml	2000ppm	50ml	200ppm	Acetone	E08-62-3	5-15-14	7	
			#2	E08-75-1,2,3,4.									
			#3	E08-75-11,12,13,14.									
			#4	E08-75-21,22,23,24									
			#5	E08-76-6,7,8,9.									
			Custom 1,3,5-Trinitrobenzene	E08-76-16,17,18,19.									
11-18-13	E111513B	organotins spike	Butyltin chlorides calibration Mixture	E07-07-11	0.15ml	2000ppm	300ml	1ppm	Hexanes	E08-68-13	5-15-14	785	
11-19-13	E111913A	8310 sur.	Decafluorobiphenyl mix	E08-62-12,13,14	5ml	2000ppm	50ml	200ppm	CH_3CN	E08-45-17	05-19-14	7	
11-19-13	E111913B	1,4 Dioxane spike	1,4 Dioxane spike 1000ppm	E06-113B	0.02ml	1000ppm	2.0ml	10 ppm	Acetone	E08-62-3	12-21-13	785	
11-19-13	E111913C	NDMA spike	NDMA spike 1 ppm	E07-25-13B	0.02ml	1 ppm	2ml	10 ppb	Acetone	E08-62-3	1-25-14	785	
11-19-13	E111913D	504.1 spike	504.1 Spike 0.2 ppm	E100813A	0.1ml	0.2ppm	2ml	10 ppb	MeOH	E08-54-17	4-8-14	785	
11-26-13	E112613A	8270 Sim PAH Surrogate	B/N Surrogate Mix	E08-74-1	0.8ml	5000ppm	1000ml	4ppm	Acetone	E08-62-3	~~5-26-14~~ 05/26/14	887	

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Acid Matrix Spike Mix	Restek	31071	A094155	04-30-20	5 mL	G	07-08-13	7	10-30-13	385	
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
4	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
7	B/N Matrix Spike Mix		31084	A094853	04-30-16					10-30-13	385	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
13	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
15	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
16	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
19	pesticide Surrogate Mix		32457	A095091	07-31-19					11-02-13	7	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
21	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/27/13	669	
22	↓	↓	↓	↓	↓	↓	↓	↓	↓	12-9-13	887	
23	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
24												
25												

COMMENTS: _____

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Sodium Sulfate Anhydrous	Fisher	S421-10	130199	8-2-18	10kg x6	P	8-2-13	785	8-2-13	785	
2	Methylene Chloride	Fisher	D151-4	130086	8-2-16	4L x 96	G	8-2-13	785	8-2-13	785	
3	Acetone	Fisher	A 929-4	132413	8-2-16	4L x 8	G	8-2-13	785	8-2-13	785	
4	Dichloromethane	EMD	DX0831-1	53151	8-6-16	4L x 60	G	8-6-13	785	8-6-13	785	
5	Methylene Chloride	Fisher	D151-4	134369	8-6-16	4L x 4	G	8-6-13	785	8-6-13	785	
6	Pentylmagnesium bromide	ALDRICH	29098 8-100ml	39186BKV	8-9-16	100ml x6	G	8-9-13	785	8-9-13	785	
7	Florisil SPE Cartridges	RESTEK	24034	930993	4-1-15	30pk x42	P	8-9-13	785	8-9-13	785	
8	Diazald	ALDRICH	D28000-25G	SHBD0389V	8-9-18	25g x10	P	8-9-13	785	8-9-13	785	
9	LC-Alumina-A SPE Cartridge	Supelco	57083-U	3661401	N/A	6ml x 240	P	8-9-13	863	8-9-13	863	
10	Methylene Chloride	Fisher	D151-4	133287	8-13-16	4L x 64	G	8-13-13	785	8-13-13	785	
11	Sodium Sulfate Anhydrous	Fisher	S421-10	121758	8-13-18	10kg x2	P	8-13-13	785	8-13-13	785	
12	CarboPrep™ 90	RES prep	26091	P3196	08-13-18	100gs	P	08-13-13	787	08-13-13	787	
13	Dichloromethane	EMD	DX0831-1	53151	8-14-16	4L x 60	G	8-14-13	785	8-14-13	785	
14	Sulfuric Acid	EMD	SX1247½	52116	8-15-16	2.5L x 4	G	8-15-13	785	8-15-13	785	1:1 H_2SO_4
15	Hydrochloric Acid	EMD	HX0607-2	52310	8-15-16	2.5L x 3	G	8-15-13	785	8-15-13	785	
16	Dichloromethane	EMD	DX 0831-1	53151	8-27-16	4L x 60	G	8-27-13	785	8-27-13	785	
17	Acetonitrile	Fisher	A998-4	134625	8-28-16	4L x 6	G	8-28-13	785	8-28-13	785	
18	Acetone	Fish	A929-4	132413	8-28-16	4L x 12	G	8-28-13	785	8-28-13	785	
19	Dichloromethane	EMD	DX0831-1	53195	8-28-16	4L x 36	G	8-28-13	785	8-28-13	785	
20	Florisil (60-100 mesh)	EMD	FX0284-5	TE04B2EMS	08-31-18	10kg	P	08-31-13	787	08-31-13	787	
21	Sodium Sulfate Anhydrous	Fish	S421-10	130199	9-4-18	10kg x6	P	9-4-13	785	9-4-13	785	
22	D											
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COMMENTS:

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Sulfuric Acid	EMD	SX1244-5	51312	12-11-15	2.5L x3	G	12-11-12	785	12-11-12	785	for 1:1 H_2SO_4
2	Dichloromethane	EMD	DX831-1	52293	12-13-15	4L x12	L	12-13-12	7	12-13-12	7	
3	~~S.U.I.S.~~	~~Restek~~		@ 12/13/12								
4	Hexanes	EMD	HX0298-1	52228	12-18-15	5 x4L	G	12-18-12	785	12-18-12	785	for organotins
5	Ethyl Ether Anhydrous	EMD	EX0190-4	52142	5/31/14	4L x 8	G	12-18-12	785	12-18-12	785	
6	Hexanes	EMD	HX0298-1	52228	12-26-15	4L x 2	G	12-26-12	785	12-26-12	785	
7	Hexanes	EMD	HX0290-1	51265	12-26-15	4L x 2	G	12-26-12	785	12-26-12	785	
8	Hexanes	EMD	HX0290-1	52061	12-26-15	4 L x 4	G	12-26-12	785	12-26-12	785	
9	Diatomaceous Earth	J.T Baker	1939-05	T26H10	12-27-17	25kg x3	P	12-27-12	787	12-27-12	787	
10	Cotton wipe 2"x 2"	Fisher	22028559	NW1208A06	NA	200 ea x20	P	12-28-12	785	12-28-12	785	
11	Dichloromethane	EMD	DX831-1	52321	12-28-15	4L x32	G	L	L	L	L	
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COMMENTS: _____

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Acetonitrile	Fisher	A998-4	135092	11/1/16	4L	G	11/01/13	887	11/01/13	887	
2	Hexanes	EMD	HX0298-1	53164	11-5-16	4Lx18	G	11-5-13	785	11-5-13	785	for organotin
3	Silicic Acid	Fisher	A288-500	135574	11-8-18	500gx2	P	11-8-13	785	11-8-13	785	
4	Celite 566 Diatomaceous Earth	UCT	EC566301K	310170-AW	11-8-18	30kg	P	11-8-13	785	11-8-13	785	
5	Phase Separator ips - 185 mm	Whatman	2200-185	9454685	NA	10 pks	P	11-08-13	787	11-08-13	787	
6	Dichloromethane	EMD	DX0831-1	53195	11-11-16	4Lx60	G	11-11-13	7	11-11-13	7	
7	Hexane	"	HX0298-1	53164	"	4Lx8	"	"	"	"	"	
8	Sodium Sulfate Anhydrous	Fisher	S421-10	132812	11-12-18	10kgx2	P	11-12-13	785	11-12-13	785	
9	Sodium Sulfate Anhydrous	Fisher	S421-10	134830A	11-14-18	10kgx4	P	11-14-13	785	11-14-13	785	
10	Sodium Hydroxide	Fisher	S318-10	130801	11-14-18	10kgx2	P	11-14-13	785	11-14-13	785	
11	Methylene	"	D151-4	133287	11-14-16	4Lx40	G	11-14-13	7	"	7	
12	Dichloromethane	EMD	DX0831-1	53195	11-18-16	4Lx60	G	11-18-13	2wm	11-18-~~16~~ 13	2wm	
13	Mercury	Sigma-Aldrich	215457-2KG	SLBB8666V	N/A	2kg	P	11-19-13	7	11-19-13 (c) 11/18/13	7	
14	Methylene	Fisher	D151-4	136743	11-22-16	4Lx40	G	11-22-13	785	11-22-13	785	
15	Boiling Stone	Saint-Gobain	0919120	J114-3H037	11-22-18	450gx6	P	11-22-13	785	11-22-13	785	
16	Dichloromethane	EMD	DX0831-1	53195	11-25-16	4Lx60	G	11-25-13	7	11-25-13	7	
17	Hexane	EMD	~~DX0298-1~~ DX0831-1 (785) 11/20/13	53164	11-5-16	4Lx8	G	11-25-13	785	11-5-13	785	
18	Dichloromethane	"	DX0831-1	53195	11-2)-16	4Lx80	"	11-2)-13	7	11-2)-13	7	
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COMMENTS:

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Glass Microfiber Filters TCLP	GE	1810-090	9481356	NA	1 x pk	P	10-2-13	985	10-2-13	985	
2	Dichloromethan	EMD	DX0831-1	53102	10-07-16	4L x 120	G	10-07-13	787	10-07-13	787	
3	"	"	"	53195	10-9-16	4L x 60 @ 1447/13	"	10-9-13	7	10-9-13	7	
4	Ethyl Ether Anhydrous	EMD	EX0184-4	53028	01-31-15	4L x 10	G	10-10-13	985	10-10-13	985	
5	Dichloromethane	EMD	DX0831-1	53195	10-14-16	4L x 60	G	10-14-13	7	10-14-13	7	
6	"	"	"	53158	"	4L x 32	"	"	"	"	"	
7	Sodium Sulfate Anhydrous	Fish	S421-10	132812	10-16-18	10kg x 6	P	10-16-13	985	10-16-13	985	
8	Hexanes	EMD	HX-0298-1	53164	10-16-18	4L x 8	G	10-16-13	787	10-16-13	787	
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COMMENTS: _____

Book Number: 8

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Acetonitrile	Fish	A998-4	127999	5-3-16	4L×6	G	5-3-13	285	5-3-13	285	
2	~~Sodium Chloride~~ 5/6/13 285	~~EMD~~	~~SX0420-5~~	~~DK19CZEMS~~	~~5-6-18~~	~~12kg×2~~	~~P~~	~~5-6-13~~	~~285~~	~~5-6-13~~	~~285~~	5/6/13 285
3	Sodium Sulfate Anhydrous	Fish	S421-10	126473	5-6-18	10Kg×6	P	5-6-13	285	5-6-13	285	
4	Sodium chloride	EMD	SX0620-5	TL20B2EMS	5-6-18	12Kg×2	P	5-6-13	285	5-6-13	285	
5	25mm syringe Filter/acetum PTFE	VWR	2815-499	21744510	NA	100 each ×2	P	5-7-13	285	5-7-13	285	
6	BD syringe 10ml	BD	REF 305462	2204064	NA	100 each ×3	P	5-7-13	285	5-7-13	285	
7	Dichloromethane	EMD	DX0831-1	53102	5-7-16	4L×60	G	5-7-13	285	5-7-13	285	
8	Celite 566 Diatomatceous Earth	UCT	EC56630K	315030-AV	5-7-18	30 kg	P	5-7-13	285	5-7-13	285	
9	Hexanes	EMD	HX0298-1	53032	5-10-16	4L×24	G	5-10-13	285	5-10-13	285	
10	Sodium Hydroxide	Fish	S318-10	126910	5-10-18	10Kg×2	P	5-10-13	285	5-10-13	285	
11	Hexanes	EMD	HX0298-1	53102	5-14-18	4L×48	G	5-14-13	285	5-14-13	285	
12	Dichloro methane	EMD	DX0831-1	53221	5-20-18 16	4L×60	G	5-20-13	285	5-20-13	285	
13	Boiling Stones	Saint Gobain	0919120	G384-3C019	5-20-18	450g×5	P	5-20-13	285	5-20-13	285	G384-3C0
14	Mercury	ALFA AESAR	00522-P5	E22Y027	NA	57b×2	P	5-20-13	285	5-20-13	285	
15	Sodium Chloride	EMD	SX0420-5	TL20B2EMS	5-22-18	12kg×3	P	5-22-13	285	5-22-13	285	
16	~~Sodium Chloride~~	~~EMD~~	~~SX0~~ 5/22/13 285									
17	Acetonitrile	Fish	A998-4	127999	5-22-16	4L×8	G	5-22-13	285	5-22-13	285	
18	Dichloromethane	EMD	DX0831-1	53102	5-23-16	4L×60	G	5-23-13	285	5-23-13	285	
19	Sodium Chloride	Fish	S271-10	130583	5-24-18	10Kg×3	P	5-24-13	285	5-24-13	285	
20	Dichloro methane	EMD	DX0831-1	53109	5-28-16	4L×60	G	5/28/13 (285) 5-28-13	285	5-28-13	285	
21	Filter Paper 41	Whatman	1441090	5366526	~~NA~~ NA 285	5PK	P	5-31-13	285	5-31-13	285	
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COMMENTS: _____

Book Number: 8

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Cellulose Filter for ASE 300	Restek	26168	0162685	NA	200 PK	P	09/3/13	7	09/3/13	7	
2	Dichloromethane	EMD	DX0831-1	53195	09-5-16	4L x 6	G	09/5/13	7	09/5/13	7	
3	~~8140/8141 O.P.P. Calibration Mix A~~	~~Restek~~	32277	A095110	04-30-14			@	9/16/13			
4	Dichloromethane	EMD	DX0831-1	53195	09-17-16	4L x 60	G	09-17-13	7	09-17-13		
5	Carbital (2-(2-Ethoxyethoxy) ethanol	J.T. Baker	L216-07	000004288 3	9-18-16	500ml x 2	G	9-18-13	985	9-18-13	985	
6	Dichloromethane	EMD	DX0831-1	53158	9-20-16	4L x 16	G	9-20-13	985	9-20-13	985	
7	Dichloromethane	EMD	DX0831-1	53195	9-20-16	4L x 60	G	9-20-13	985	9-20-13	985	
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COMMENTS:

Book Number: 8

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
8-6-13	E080613A	8260 spike FAC	8260 Calibration Mix # 1	E08-52-3,4,5	5 ml	2000 ppm	50 ml	200 ppm	Acetone	E08-42-6	2-6-14	TBS	
↓	↓	↓	#2	E08-52-9,10,11	8/6/13	↓	8/6/13	↓	↓	↓	↓	↓	
↓	↓	↓	#3	E08-52-14,15,16	↓	↓	↓	↓	↓	↓	↓	↓	
↓	↓	↓	#4	E08-52-18,19,20	↓	↓	↓	↓	↓	↓	↓	↓	
↓	↓	↓	#5	E08-52-1, E08-52-23,24,25	↓	↓	↓	↓	↓	↓	↓	↓	
08-13-13	E081313A	8081 spike	O.P. Mix AB # 1	E08-13-1,2	1 ml	200 ppm	200 ml	1 ppm	↓	↓	02-13-14	↓	
↓	↓	↓	Hexachlorobenzene	E08-36-12	0.2 ml	1000 ppm	↓	↓	↓	↓	↓	↓	
8-15-13	E081513A	508A	PCB 1260	S5-31-6	0.04 ml	5000 ppm	4 ml	50 ppm	MeOH	E08-54-17	10-31-13 ~~2-15-13~~	TBS 8/15/13 782	Exp. 10-31-
8-23-13	E082313A	508 sur.	Pesticide surrogate Mix	E08-46-7	2 ml	200 ppm	200 ml	2 ppm	MTBE	S6-11-8	10-23-13	785	
8-23-13	E082313B	508 pest	O.P. Mix AB#1	E08-13-1/2	0.5 ml	200 ppm	100 ml	1 ppm	MTBE	S6-11-8	10-23-13	785	
↓	↓	↓	Hexachlorobenzene Std.	E08-36-12	0.1 ml	1000 ppm	100 ml	1 ppm	MTBE	S6-11-8	10-23-13	785	
↓	E082313C	508 PCB	Aroclor 1016/1260 Mix	E06-73-5	1 ml	1000 ppm	100 ml	10 ppm	MTBE	S6-11-8	10-23-13	785	
8-31-13	E083113A	8310 spike	5V Calibration Mix #5	E05-27-4	0.5 ml	2000 ppm	50 ml	20 ppm	CH_3CN	E08-45-17	2-28-14	↓	

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	O.P. Mix AB #1	Restek	32291	A082995	07-31-15	1 mL	G	08-16-12	7	5-1-13	7	
2										08-13-13	7	
3										1-7-14	842	
4												
5												
6										11-08-13	7	
7										L	L	
8												
9										1/10/14	887	
10												
11	Hexachlorobenzene Std		32231	A086386	02-28-17					1/10/14	887	
12												
13												
14												
15	504.1 Calibration Mix		30239	A087025	03-31-17					10-30-12	585	
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COMMENTS: _____

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Custom 2A-Dichlorophenyl Acetic Acid Mix	Restek	57668	A092601	12-31-14	1 mL	G	01-09-13	7	05-16-13	787	
2										〃	〃	
3										07-19-13	787	
4										07-~~25~~-13	787	07-27-13
5										〃	〃	
6										07-29-13	787	
7										〃	〃	
8										09-16-13	787	
9										09-18-13	787	
10		〃	〃	〃	〃	〃	〃	〃	〃	〃	〃	
11	B/N Surrogate Mix		33028	A092591	11-30-15	10 mL				3-18-13	7	
12												
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16										05-01-13		
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20		〃	〃	〃	〃	〃	〃	〃	〃	〃	〃	
21	Tetraethyl Lead	AccuSTD	S-1263	212061140	7-10-22	1 mL	G	1-10-13	421	1-10-13	785	
22		〃	〃	〃	〃	〃	〃	〃	〃	1-11-13	421	
23		〃	〃	〃	〃	〃	〃	〃	〃	3-6-13	785	
24		〃	〃	〃	〃	〃	〃	〃	〃	〃	〃	
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COMMENTS: _____

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Sodium Sulfate Anhydrous	Fish	S421-10	121758	4-2-18	10Kg x 6	P	4-2-13	385	4-2-13	385	
2	Sulfuric Acid	EMD	SX1244/2	52116	4-8-16	2.5L x 3	G	4-8-13	385	4-8-13	385	
3	Hydrochloric Acid	EMD	HX0607-2	52250	4-8-16	2.5L x 3	G	4-8-13	385	4-8-13	385	
4	Hexanes	EMD	HX 0298-1	53032	04-09-16	4L x 18	G	04-09-13	787	04-09-13	787	
5	Dichloromethane	EMD	DX0831-1	53044	4-11-16	4L x 40	G	4-11-13	385	4-11-13	385	
6	Acetone	Fish	A929-4	127684	4-12-16	4L x 8	G	4-12-13	385	4-11-13	285	
7	Ethyl Ether AN Hydrous	EMD	EX0190-4	52331	11-30-14	4L x 4	G	04-12-13	787	4-12-13	787	
8	Sodium Sulfate Anhydrous	Fish	S421-10	121758	4-15-18	10Kg x 6	P	4-15-13	385	4-15-13	385	
9	Dichloromethane	EMD	DX0831-1	53066	4-19-16	4L x 72	G	4-19-13	385	4-19-13	385	
10	Hexanes	EMD	DX 0298-1	53063	04-23-16	4L x 24	G	04-23-13	787	04-23-13	787	
11	Dichloromethane	EMD	DX0831-1	52321	4-24-16	4L x 24	G	4-24-13	385	4-23-13 (24) (@4/24/13)	385	
12	"	"	"	53102	4-30-16	4L x 148	"	4-30-13	7	4-30-13	7	
13	Copper Granules 99.5%	RESprep	26136	212201-AK	04-30-18	1 Kg.	P	04-30-13	787	04-30-13	787	
14	Alumina SPE Cartridge	Supelco	57083-U	3661401	N/A	6ml x 60	P	04-30-13	7	04-30-13	7	
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COMMENTS: _____

Book Number: 8

Return to Contents

EPA METHOD 8082
PCB Aroclors

RAW DATA

Return to Contents

EPA METHOD 8082
PCB Aroclors

Initial Calibration

Return to Contents

Calculation for PCB Initial Calibration, GC-58

Run Date:08/27/13

Data Path: ...../130827

REAR

PCB	AREA					CONCENTRATION (ppb)														ICV		
Levels (ppb)	LV1	LV2	LV3	LV4	LV5	LV1	LV2	LV3	LV4	LV5	RF	RF	RF	RF	RF	Ave RF	1/Avg. RF	SD	**%RSD (<20%)**	TOTAL AREA	RF	%D(<15%)
AROCLOR 1016 Total Area	6266.06	17979.11	33122.03	45126.20	120740.10	100	250	500	750	2000	63	72	66	60	60	**64.3**	**0.01556**	5	**7.7**	**33093.01**	66.2	3.0
AROCLOR 1260 Total Area	6354.08	19260.84	36326.20	50735.84	137068.45	100	250	500	750	2000	64	77	73	68	69	**69.9**	**0.01431**	5	**7.4**	36614.06	73.2	4.8
2,4,5,6-Tetrachloro-m-Xylene	6819.69	21770.37	41952.96	54646.23	155604.19	20	50	100	150	400	341	435	420	364	389	**390**	**0.00257**	39	**9.9**	42126.37	421	8.1
Decachlorobiphenyl	6415.58	20740.57	39587.05	51539.68	147390.84	20	50	100	150	400	321	415	396	344	368	**369**	**0.00271**	38	**10.3**	40587.05	406	10.1

Data File Name and location:
SVOA35\C:\Chem32\1\my doc\GC58 ICAL.xls

Calculation Formulas:
Conc.(ppb) = Total Area / Ave RF
Rec. % = Conc.(ppb) / Spike conc.(ppb)*100
RF = Total Area / LEVEL
%RSD= STDEV of RFs / Ave RF * 100

THE FORMULAS OF THIS SPREADSHEET IS LOCKED AND APPROVED BY

JHK 07/31/12

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082701.D
Operator : 669 Vial Number : Vial 1
Instrument : GC 58 Sequence Line : 2
Sample Name : ICAL 100PPB S030713B Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 05:48 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:44 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.785	6819.69	BB	0.035		17.49	2,4,5,6-Tetrachloro-m-Xylene
5.491	663.54	VB	0.034		10.32	Aroclor 1016 (1)
6.033	1294.33	BV	0.043		20.14	Aroclor 1016 (2)
6.615	2543.98	VV	0.051		39.58	Aroclor 1016 (3)
6.784	1028.21	VF	0.036		16.00	Aroclor 1016 (4)
6.910	736.00	VF	0.034		11.45	Aroclor 1016 (5)
9.077	1943.98	VV	0.035		27.82	Aroclor 1260 (1)
9.588	1470.72	VV	0.033		21.05	Aroclor 1260 (2)
9.923	1589.19	VV	0.034		22.74	Aroclor 1260 (3)
11.087	400.74	BB	0.034		5.73	Aroclor 1260 (4)
11.267	949.44	BB	0.036		13.59	Aroclor 1260 (5)
11.925	6415.58	VB	0.034		17.40	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

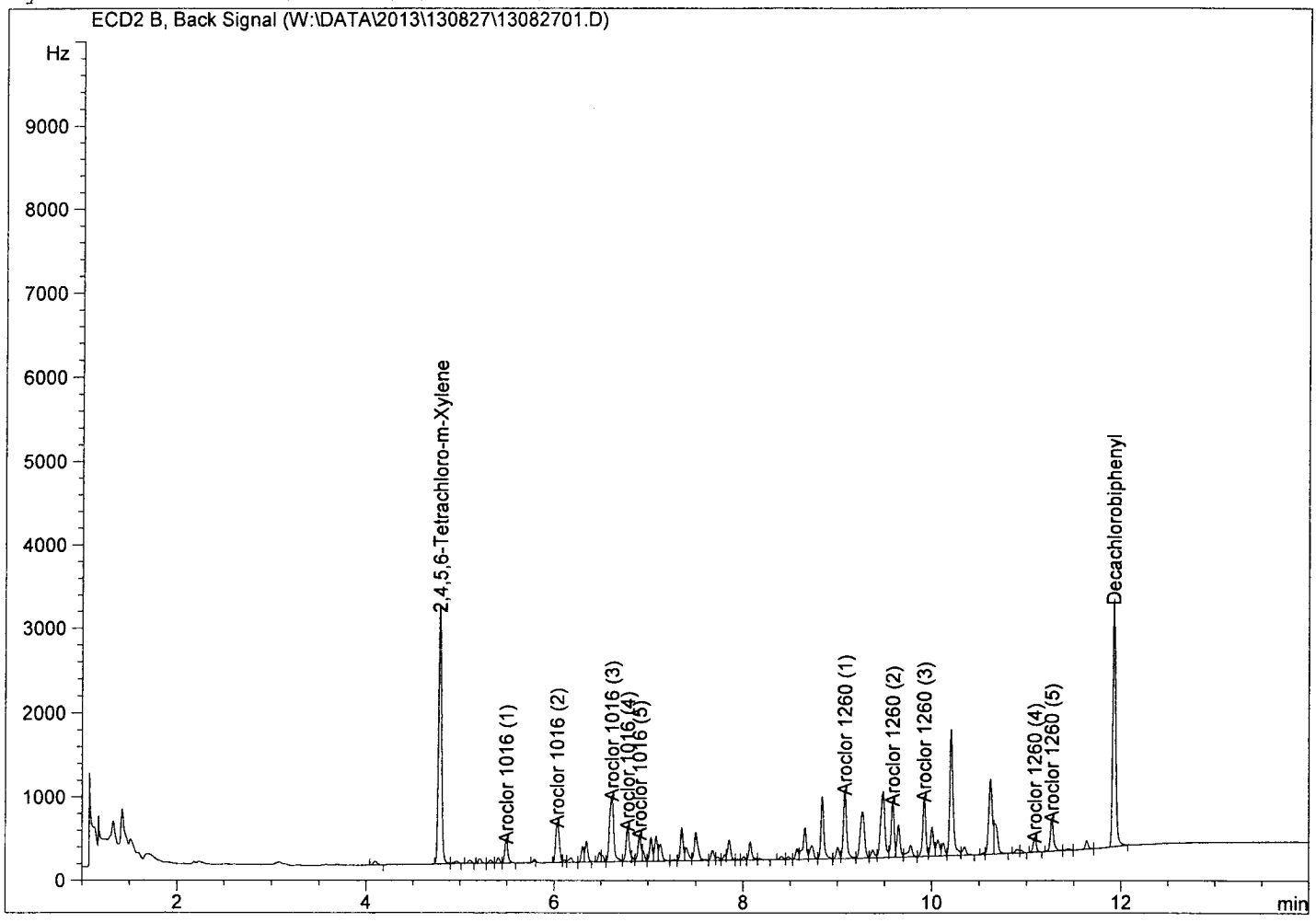
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	6266.06	VB	0.01556	97.49	Aroclor-1016
6.908		VF	0.01556		
6.782		VF	0.01556		
6.613		VV	0.01556		
6.032		BV	0.01556		
9.074	6354.08	VV	0.01431	90.92	Aroclor-1260
11.266		BB	0.01431		
11.086		BB	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082701.D
Operator : 669 Vial Number : Vial 1
Instrument : GC 58 Sequence Line : 2
Sample Name : ICAL 100PPB S030713B Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 05:48 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:44 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082702.D
Operator : 669 Vial Number : Vial 2
Instrument : GC 58 Sequence Line : 3
Sample Name : ICAL 250PPB S030713C Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 06:06 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:44 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.786	21770.37	BV	0.035		55.84	2,4,5,6-Tetrachloro-m-Xylene
5.491	1871.11	VB	0.034		29.11	Aroclor 1016 (1)
6.033	3478.83	BV	0.044		54.13	Aroclor 1016 (2)
6.615	7640.31	VV	0.049		118.87	Aroclor 1016 (3)
6.784	3022.26	VF	0.035		47.02	Aroclor 1016 (4)
6.910	1966.61	VF	0.032		30.60	Aroclor 1016 (5)
9.076	5579.97	VV	0.035		79.85	Aroclor 1260 (1)
9.587	4514.82	VV	0.033		64.60	Aroclor 1260 (2)
9.922	4971.48	VV	0.035		71.14	Aroclor 1260 (3)
11.088	1243.20	VB	0.035		17.79	Aroclor 1260 (4)
11.267	2951.38	BV	0.036		42.23	Aroclor 1260 (5)
11.925	20740.57	BB	0.034		56.25	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

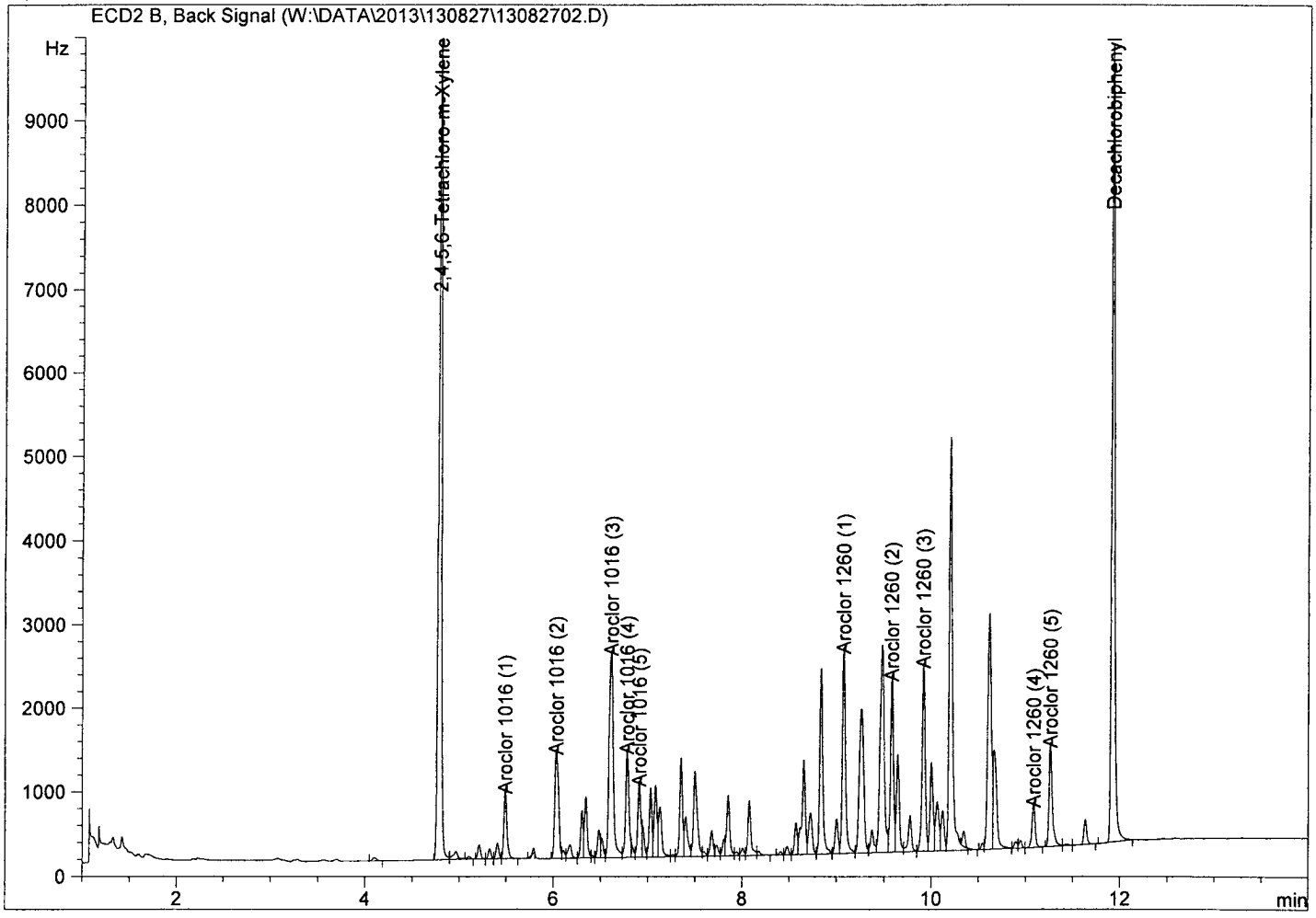
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	17979.11	VB	0.01556	279.74	Aroclor-1016
6.908		VF	0.01556		
6.782		VF	0.01556		
6.613		VV	0.01556		
6.032		BV	0.01556		
9.074	19260.84	VV	0.01431	275.61	Aroclor-1260
11.266		BV	0.01431		
11.086		VB	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082702.D
Operator : 669 Vial Number : Vial 2
Instrument : GC 58 Sequence Line : 3
Sample Name : ICAL 250PPB S030713C Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 06:06 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:44 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082703.D
Operator : 669 Vial Number : Vial 3
Instrument : GC 58 Sequence Line : 4
Sample Name : ICAL 500PPB S030713D Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 06:24 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:45 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.784	41952.96	BV	0.037		107.61	2,4,5,6-Tetrachloro-m-Xylene
5.490	3430.01	VB	0.034		53.37	Aroclor 1016 (1)
6.032	6317.78	BV	0.043		98.30	Aroclor 1016 (2)
6.613	14179.83	VV	0.049		220.62	Aroclor 1016 (3)
6.782	5567.35	VB	0.035		86.62	Aroclor 1016 (4)
6.909	3627.06	VB	0.032		56.43	Aroclor 1016 (5)
9.074	10299.47	VV	0.033		147.38	Aroclor 1260 (1)
9.585	8475.74	VV	0.035		121.28	Aroclor 1260 (2)
9.920	9424.29	VV	0.033		134.86	Aroclor 1260 (3)
11.085	2417.68	VV	0.036		34.60	Aroclor 1260 (4)
11.265	5709.02	VV	0.036		81.69	Aroclor 1260 (5)
11.924	39587.05	BB	0.033		107.37	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

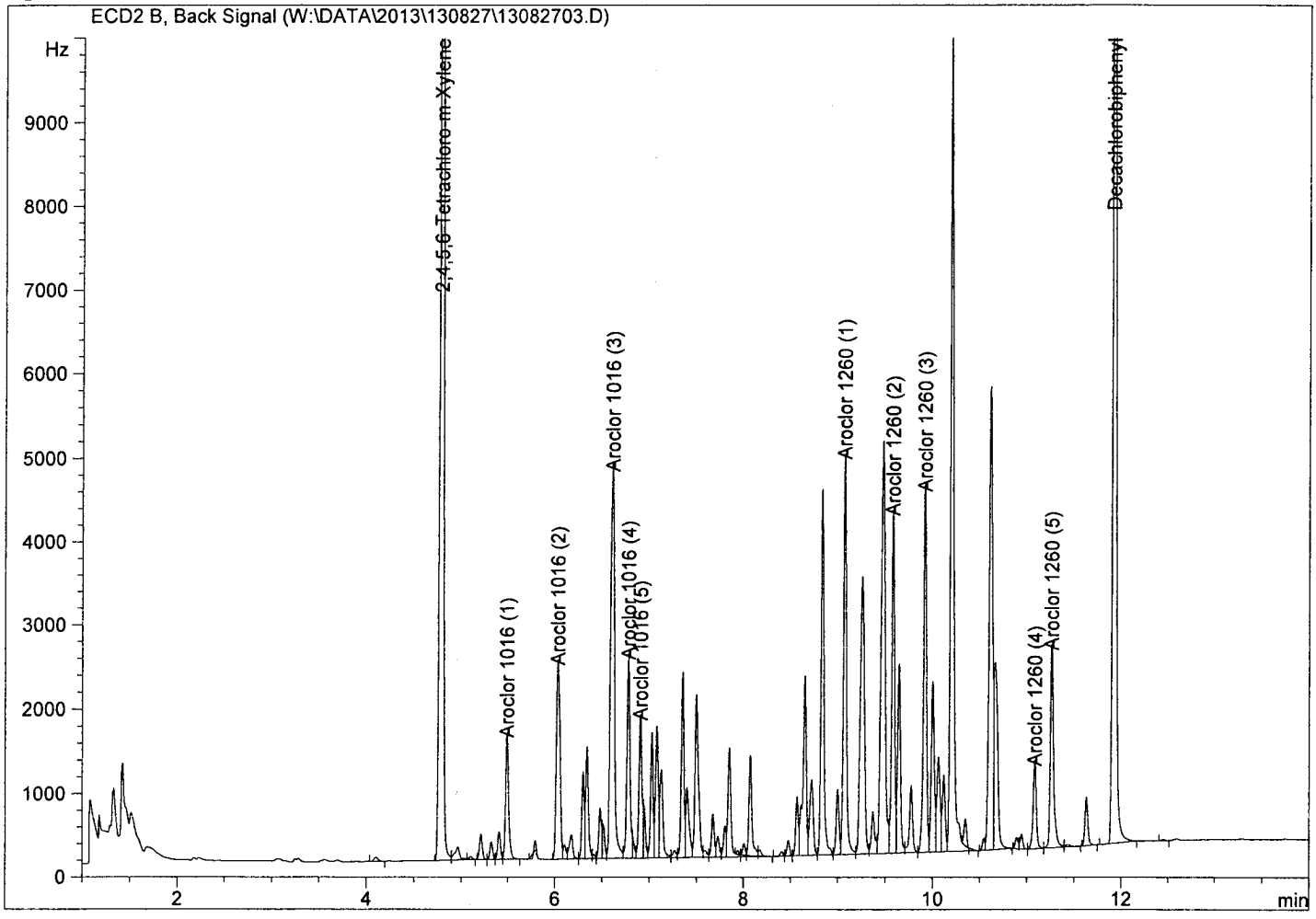
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	33122.03	VB	0.01556	515.34	Aroclor-1016
6.908		VB	0.01556		
6.782		VB	0.01556		
6.613		VV	0.01556		
6.032		BV	0.01556		
9.074	36326.20	VV	0.01431	519.81	Aroclor-1260
11.266		VV	0.01431		
11.086		VV	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082703.D
Operator : 669 Vial Number : Vial 3
Instrument : GC 58 Sequence Line : 4
Sample Name : ICAL 500PPB S030713D Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 06:24 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:45 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082704.D
Operator : 669 Vial Number : Vial 4
Instrument : GC 58 Sequence Line : 5
Sample Name : ICAL 750PPB S030713E Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 06:42 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:45 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.783	54646.23	VV	0.036		140.17	2,4,5,6-Tetrachloro-m-Xylene
5.489	4529.19	VB	0.033		70.47	Aroclor 1016 (1)
6.031	8461.32	BV	0.044		131.65	Aroclor 1016 (2)
6.613	19540.48	VV	0.050		304.03	Aroclor 1016 (3)
6.782	7628.31	VB	0.036		118.69	Aroclor 1016 (4)
6.909	4966.90	VB	0.032		77.28	Aroclor 1016 (5)
9.075	14443.42	VV	0.033		206.68	Aroclor 1260 (1)
9.585	11820.18	VV	0.036		169.14	Aroclor 1260 (2)
9.921	13133.85	VV	0.034		187.94	Aroclor 1260 (3)
11.087	3419.20	VB	0.036		48.93	Aroclor 1260 (4)
11.267	7919.20	BV	0.036		113.32	Aroclor 1260 (5)
11.925	51539.68	VB	0.033		139.78	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

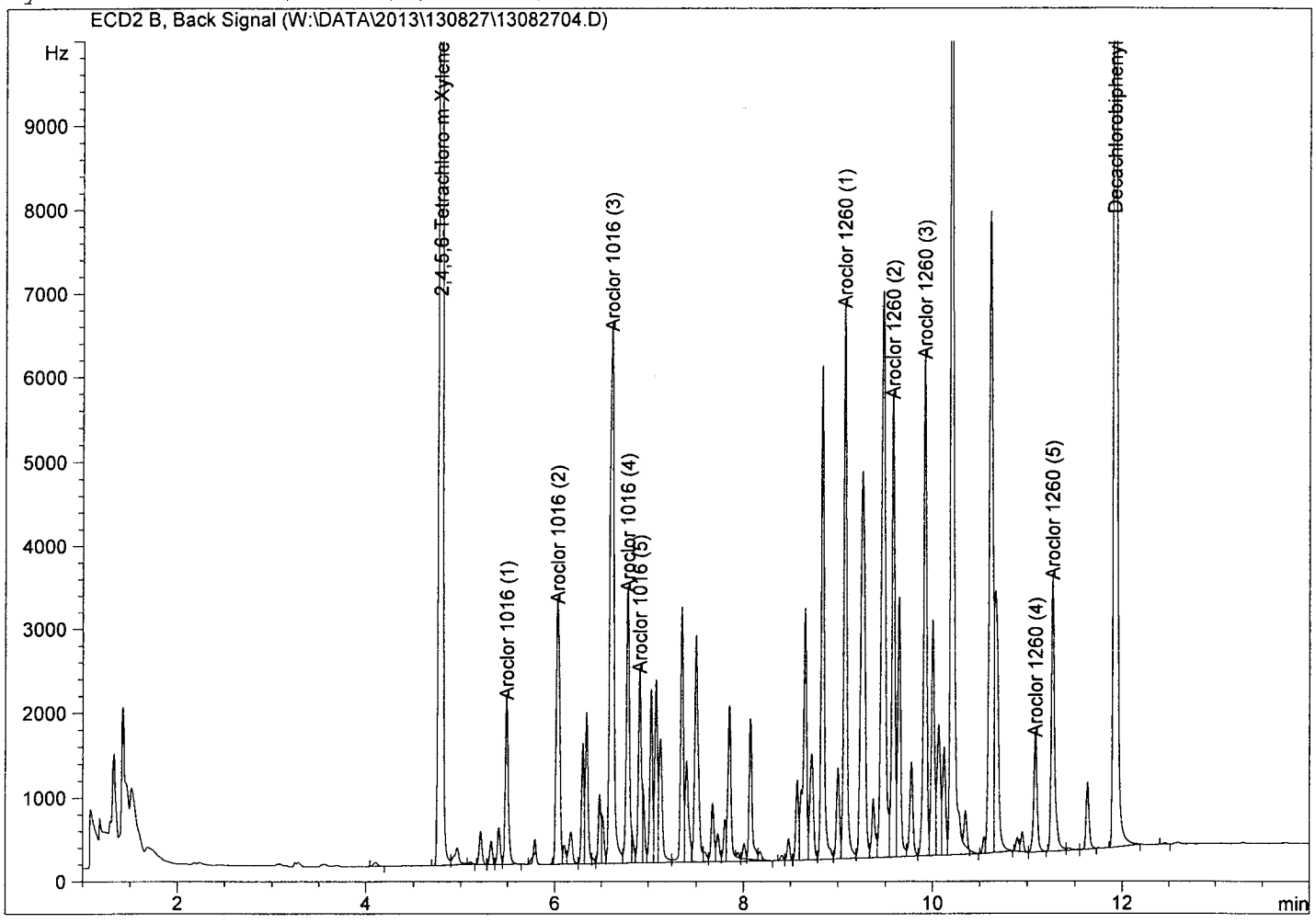
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	45126.20	VB	0.01556	702.11	Aroclor-1016
6.908		VB	0.01556		
6.782		VB	0.01556		
6.613		VV	0.01556		
6.032		BV	0.01556		
9.074	50735.84	VV	0.01431	726.00	Aroclor-1260
11.266		BV	0.01431		
11.086		VB	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082704.D
Operator : 669 Vial Number : Vial 4
Instrument : GC 58 Sequence Line : 5
Sample Name : ICAL 750PPB S030713E Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 06:42 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:45 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082705.D
Operator : 669 Vial Number : Vial 5
Instrument : GC 58 Sequence Line : 6
Sample Name : ICAL 2000PPB S030713F Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 07:00 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:45 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.783	155604.19	VV	0.037		399.14	2,4,5,6-Tetrachloro-m-Xylene
5.489	11802.71	VB	0.034		183.64	Aroclor 1016 (1)
6.032	22511.05	VV	0.043		350.25	Aroclor 1016 (2)
6.613	52780.86	VV	0.048		821.21	Aroclor 1016 (3)
6.782	20323.03	VB	0.035		316.20	Aroclor 1016 (4)
6.908	13322.46	VB	0.031		207.28	Aroclor 1016 (5)
9.074	38476.20	VV	0.035		550.57	Aroclor 1260 (1)
9.585	31470.67	VV	0.035		450.33	Aroclor 1260 (2)
9.921	35320.52	VV	0.032		505.42	Aroclor 1260 (3)
11.086	9329.68	VV	0.034		133.50	Aroclor 1260 (4)
11.266	22471.37	VV	0.036		321.55	Aroclor 1260 (5)
11.925	147390.84	VB	0.033		399.75	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

Group summary

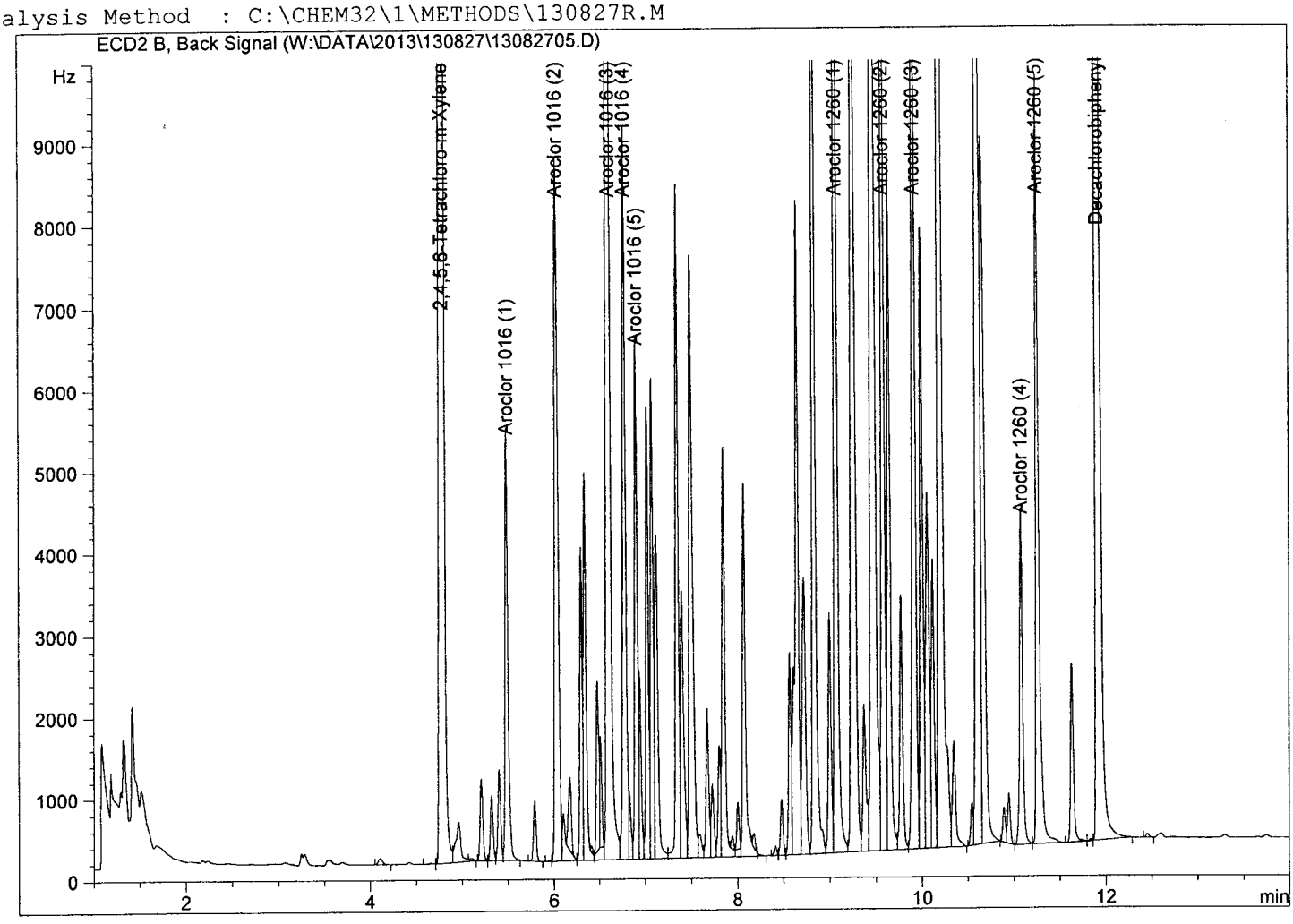
Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	120740.10	VBA	0.01556	1878.58	Aroclor-1016
6.908		VB	0.01556		
6.782		VB	0.01556		
6.613		VV	0.01556		
6.032		VV	0.01556		
9.074	137068.45	VV	0.01431	1961.38	Aroclor-1260
11.266		VV	0.01431		
11.086		VV	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082705.D
Operator : 669
Instrument : GC 58
Sample Name : ICAL 2000PPB S030713F
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 07:00 pm
Report Created on: 28 Aug 13 09:45 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Vial Number : Vial 5
Sequence Line : 6
Report Style : PCB-NR
Method : EPA 8082
Software Version : Rev. B.04.02 [98] ->



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082706.D
Operator : 669 Vial Number : Vial 6
Instrument : GC 58 Sequence Line : 7
Sample Name : ICV 500PPB S052013B Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 07:18 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:45 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.786	42126.37	BV	0.035		108.06	2,4,5,6-Tetrachloro-m-Xylene
5.491	3488.12	VB	0.034		54.27	Aroclor 1016 (1)
6.033	6300.26	VV	0.044		98.03	Aroclor 1016 (2)
6.614	14221.08	VV	0.048		221.26	Aroclor 1016 (3)
6.783	5545.84	VB	0.035		86.29	Aroclor 1016 (4)
6.910	3537.71	VB	0.031		55.04	Aroclor 1016 (5)
9.075	10218.05	VV	0.032		146.22	Aroclor 1260 (1)
9.587	8647.01	VV	0.035		123.73	Aroclor 1260 (2)
9.921	9448.35	VV	0.033		135.20	Aroclor 1260 (3)
11.087	2475.84	BV	0.035		35.43	Aroclor 1260 (4)
11.266	5824.80	VV	0.035		83.35	Aroclor 1260 (5)
11.926	40587.05	VB	0.033		110.08	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

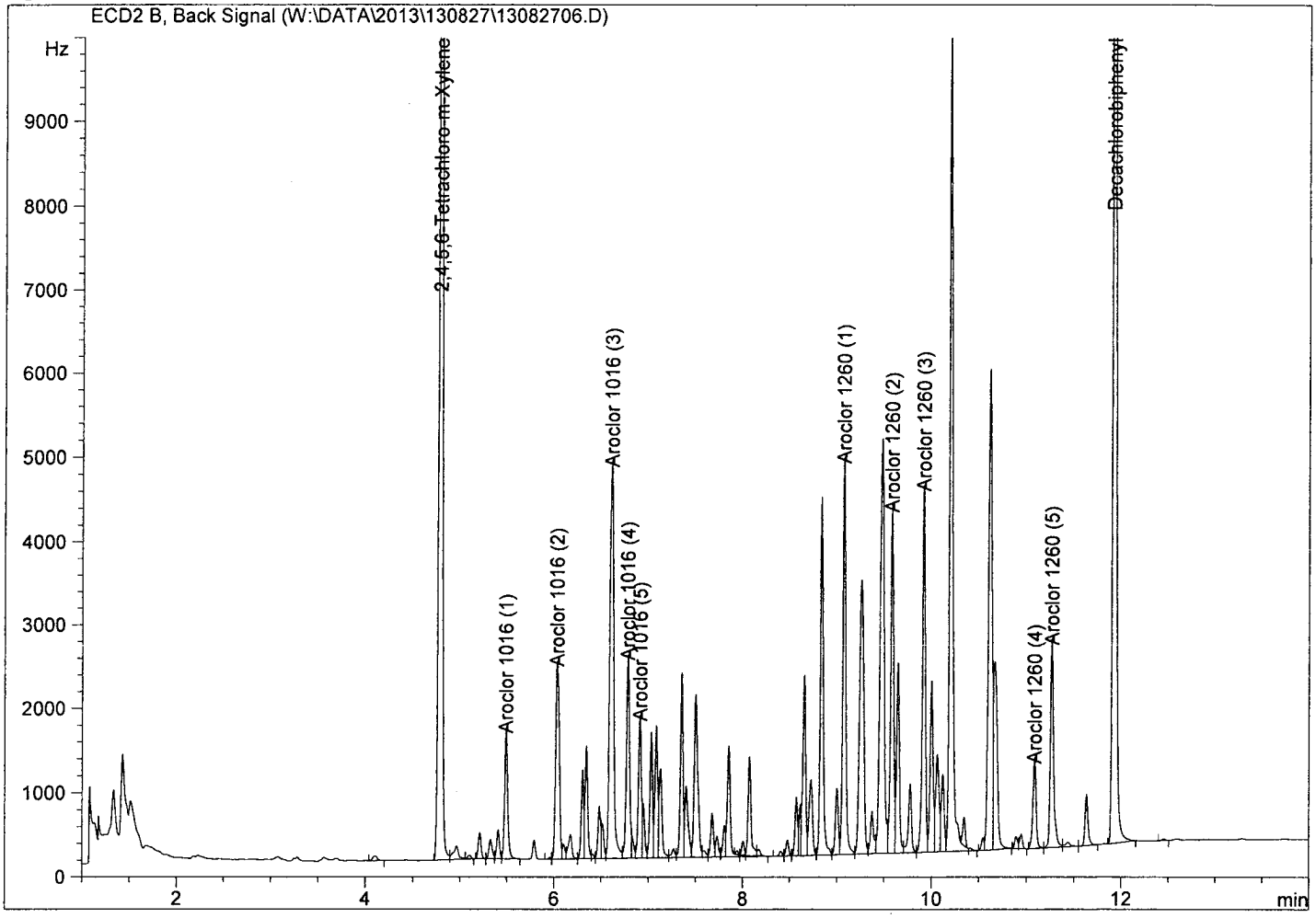
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	33093.01	VB	0.01556	514.89	Aroclor-1016
6.908		VB	0.01556		
6.782		VB	0.01556		
6.613		VV	0.01556		
6.032		VV	0.01556		
9.074	36614.06	VV	0.01431	523.93	Aroclor-1260
11.266		VV	0.01431		
11.086		BV	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082706.D
Operator : 669 Vial Number : Vial 6
Instrument : GC 58 Sequence Line : 7
Sample Name : ICV 500PPB S052013B Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 07:18 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:45 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082707.D
Operator : 669 Vial Number : Vial 7
Instrument : GC 58 Sequence Line : 8
Sample Name : 1221/54 S061213K Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 07:36 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:34 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\1221-1254\P2154-130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.118	1639.38	BV	0.053		83.87	Aroclor 1221 (1)
0.000	0.00		0.000		0.00	2,4,5,6-Tetrachloro-m-Xylene
5.213	1840.97	VV	0.033		94.18	Aroclor 1221 (2)
5.408	1230.28	VV	0.034		62.94	Aroclor 1221 (3)
5.491	4201.15	VB	0.035		214.93	Aroclor 1221 (4)
6.028	861.42	VV	0.053		44.07	Aroclor 1221 (5)
7.853	6726.48	VV	0.032		82.67	Aroclor 1254 (1)
8.148	3525.73	VB	0.035		43.33	Aroclor 1254 (2)
8.613	12418.75	VV	0.038		152.62	Aroclor 1254 (3)
8.874	8270.80	VV	0.038		101.65	Aroclor 1254 (4)
9.269	9742.23	VV	0.046		119.73	Aroclor 1254 (5)
11.924	586.71	BB	0.035		1.59	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1016
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1260
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

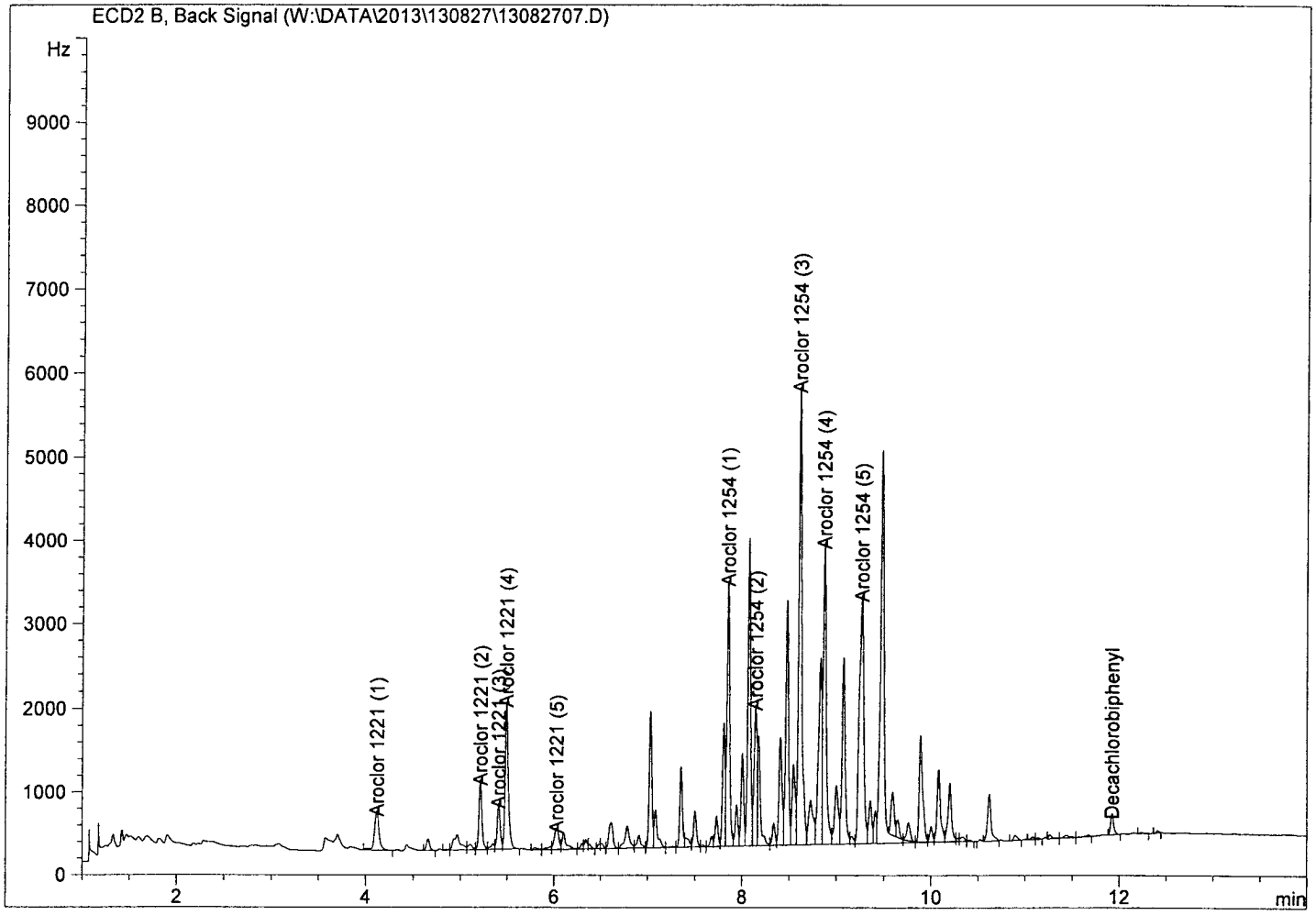
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
4.118	9773.20	BV	0.05116	500.00	Aroclor-1221
6.028		VV	0.05116		
5.491		VB	0.05116		
5.408		VV	0.05116		
5.213		VV	0.05116		
7.853	40683.99	VV	0.01229	500.00	Aroclor-1254
9.269		VV	0.01229		
8.874		VV	0.01229		
8.613		VV	0.01229		
8.148		VB	0.01229		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082707.D
Operator : 669 Vial Number : Vial 7
Instrument : GC 58 Sequence Line : 8
Sample Name : 1221/54 S061213K Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 07:36 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:34 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\1221-1254\P2154-130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082708.D
Operator : 669 Vial Number : Vial 8
Instrument : GC 58 Sequence Line : 9
Sample Name : 1232/62 S061213L Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 07:54 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:38 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\1232-1262\P3262-130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.00		0.000		0.00	2,4,5,6-Tetrachloro-m-Xylene
5.491	3243.60	VB	0.034		100.54	Aroclor 1232 (1)
6.032	2855.82	BV	0.045		88.52	Aroclor 1232 (2)
6.615	5906.91	VV	0.049		183.09	Aroclor 1232 (3)
6.784	2517.72	VV	0.038		78.04	Aroclor 1232 (4)
6.910	1607.29	VF	0.033		49.82	Aroclor 1232 (5)
9.076	7289.80	VV	0.034		93.77	Aroclor 1262 (1)
9.587	10870.67	VV	0.032		139.84	Aroclor 1262 (2)
9.923	9660.25	VV	0.032		124.27	Aroclor 1262 (3)
11.087	2996.06	VV	0.036		38.54	Aroclor 1262 (4)
11.268	8052.15	VV	0.036		103.58	Aroclor 1262 (5)
11.930	124.23	BB	0.043		0.34	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1016
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1260
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

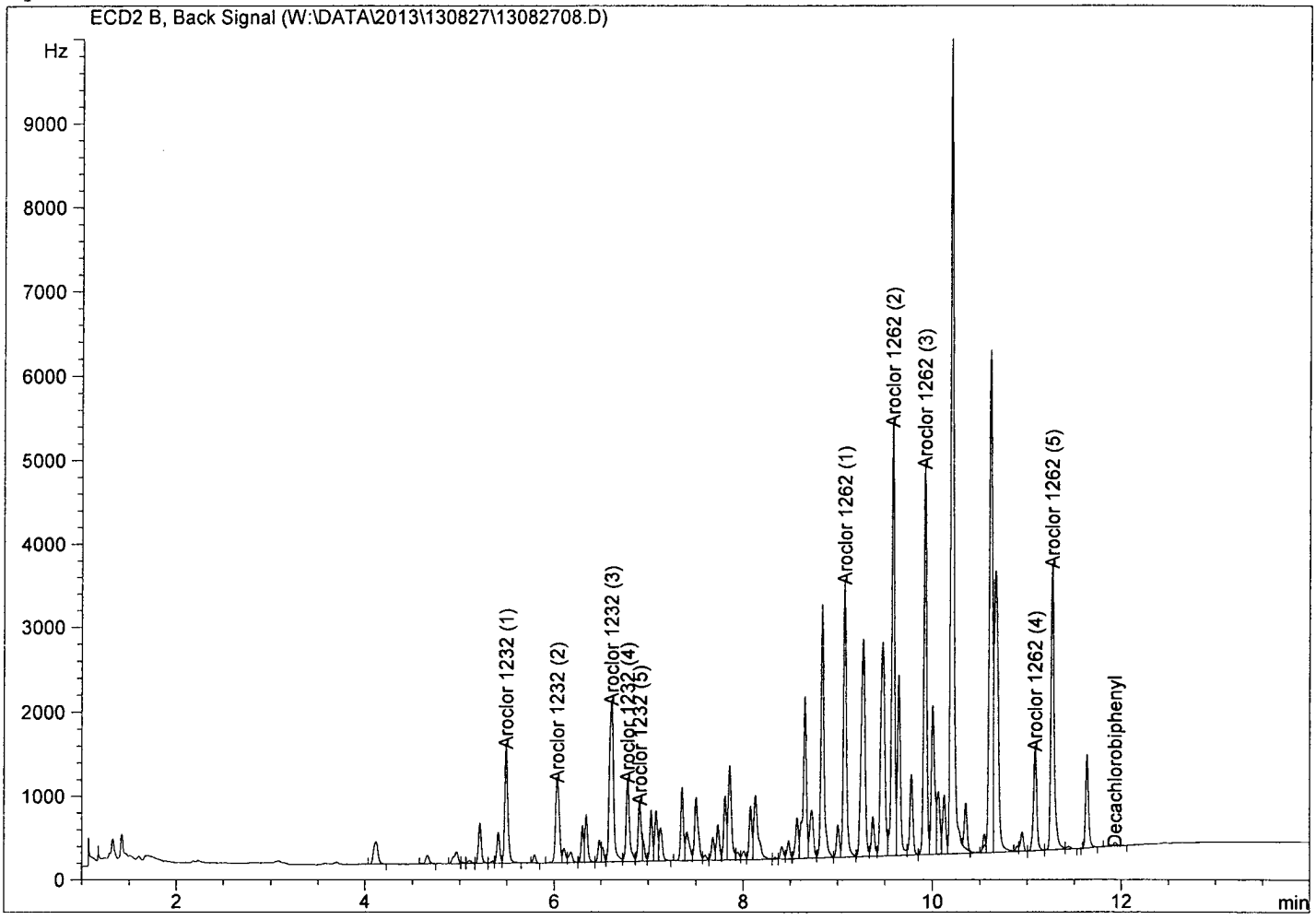
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.491	16131.34	VB	0.03100	500.00	Aroclor-1232
6.910		VF	0.03100		
6.784		VV	0.03100		
6.615		VV	0.03100		
6.032		BV	0.03100		
9.076	38868.93	VV	0.01286	500.00	Aroclor-1262
11.268		VV	0.01286		
11.087		VV	0.01286		
9.923		VV	0.01286		
9.587		VV	0.01286		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082708.D
Operator : 669 Vial Number : Vial 8
Instrument : GC 58 Sequence Line : 9
Sample Name : 1232/62 S061213L Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 07:54 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:38 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\1232-1262\P3262-130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082709.D
Operator : 669 Vial Number : Vial 9
Instrument : GC 58 Sequence Line : 10
Sample Name : 1248/68 S061213M Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 08:12 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:41 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\1248-1268\P4868-130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.00		0.000		0.00	2,4,5,6-Tetrachloro-m-Xylene
6.612	6936.96	VV	0.050		143.08	Aroclor 1248 (1)
7.083	3580.22	VV	0.031		73.84	Aroclor 1248 (2)
7.128	2533.99	VB	0.035		52.26	Aroclor 1248 (3)
7.354	5276.49	BV	0.030		108.83	Aroclor 1248 (4)
7.501	5914.36	VV	0.036		121.99	Aroclor 1248 (5)
10.609	24949.11	VV	0.031		78.11	Aroclor 1268 (1)
10.662	27345.79	VV	0.040		85.62	Aroclor 1268 (2)
10.948	21828.81	VV	0.033		68.34	Aroclor 1268 (3)
11.267	8907.48	VV	0.034		27.89	Aroclor 1268 (4)
11.635	76669.05	BV	0.034		240.04	Aroclor 1268 (5)
11.925	14092.29	VB	0.033		38.22	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1016
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1260
0.000	0.00		0.000		0.00	Aroclor-1262

Sig. ECD2 B,

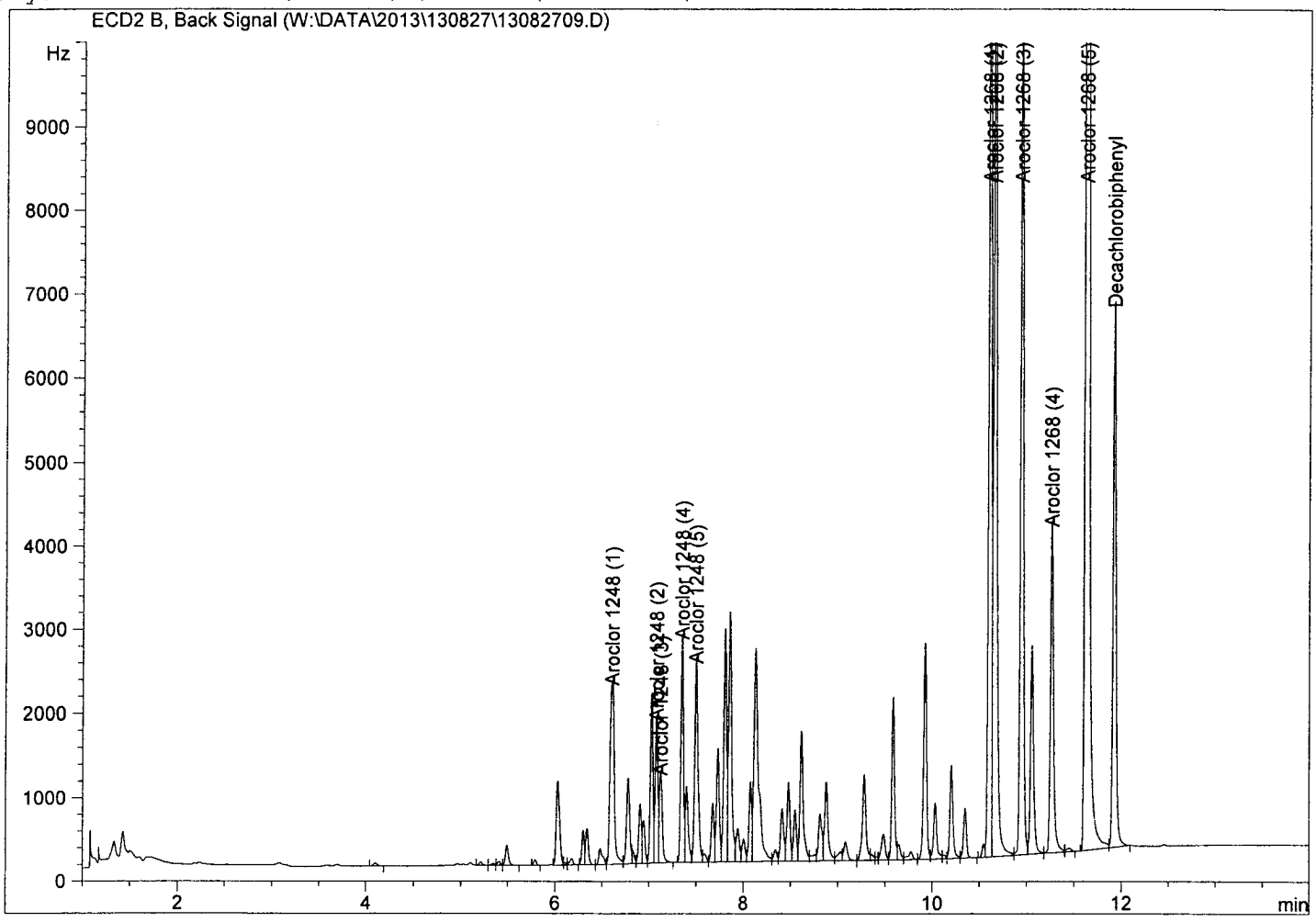
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
6.612	24242.02	VV	0.02063	500.00	Aroclor-1248
7.501		VV	0.02063		
7.354		BV	0.02063		
7.128		VB	0.02063		
7.083		VV	0.02063		
10.609	159700.24	VV	0.00313	500.00	Aroclor-1268
11.635		BV	0.00313		
11.267		VV	0.00313		
10.948		VV	0.00313		
10.662		VV	0.00313		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082709.D
Operator : 669 Vial Number : Vial 9
Instrument : GC 58 Sequence Line : 10
Sample Name : 1248/68 S061213M Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 08:12 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:41 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\1248-1268\P4868-130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082710.D
Operator : 669 Vial Number : Vial 10
Instrument : GC 58 Sequence Line : 11
Sample Name : 1242 S061213N Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 08:30 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:44 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\1242\1242-130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.00		0.000		0.00	2,4,5,6-Tetrachloro-m-Xylene
5.491	2366.30	VB	0.034		50.79	Aroclor 1242 (1)
6.033	4413.90	VV	0.044		94.74	Aroclor 1242 (2)
6.615	9846.62	VV	0.048		211.34	Aroclor 1242 (3)
6.784	4171.13	VV	0.037		89.53	Aroclor 1242 (4)
6.911	2497.31	VF	0.032		53.60	Aroclor 1242 (5)
11.926	207.13	BB	0.036		0.56	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1016
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1260
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

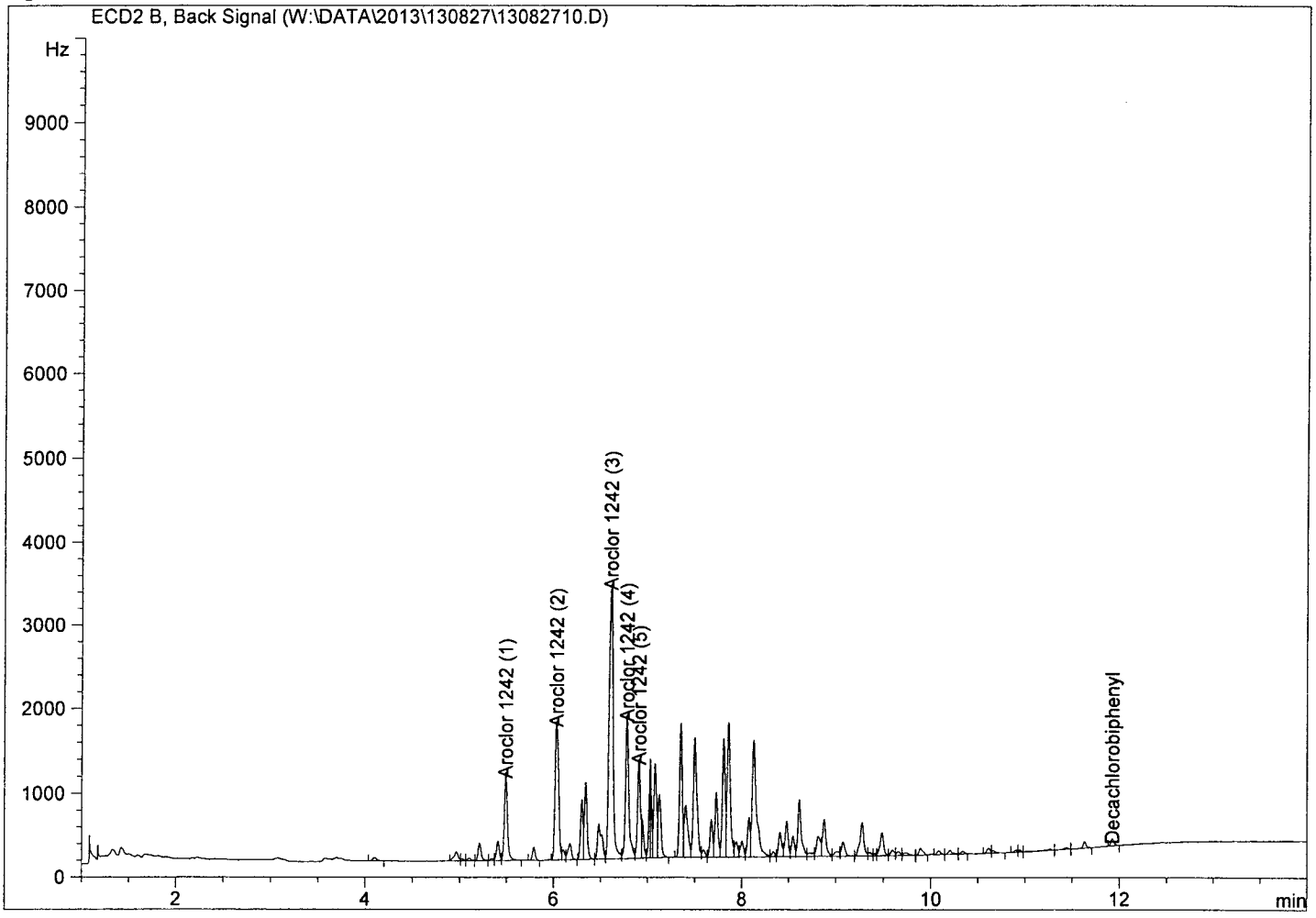
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.491	23295.26	VB	0.02146	500.00	Aroclor-1242
6.911		VF	0.02146		
6.784		VV	0.02146		
6.615		VV	0.02146		
6.033		VV	0.02146		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082710.D
Operator : 669 Vial Number : Vial 10
Instrument : GC 58 Sequence Line : 11
Sample Name : 1242 S061213N Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 08:30 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:44 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\1242\1242-130827R.M



Return to Contents

EPA METHOD 8082
PCB Aroclors

Sample Data

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8082

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 58
D/T ANALYZED: 11/14/2013 09:43
ANALYST: 669
DATA FILE: W:\DATA\2013\131113\1311137113111371

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

3 **CLIENT SAMPLE NUMBER: 8-SS-5-6**

LCS/MB BATCH: 131112L27
MS/MSD BATCH: 131112S27
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Aroclor-1016	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1221	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1232	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1242	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1248	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1254	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1260	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1262	0.00	1	ND	50	0.5	ug/kg	

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131113\13111371.D
Operator : 669 Vial Number : Vial 71
Instrument : GC 58 Sequence Line : 72
Sample Name : 13-11-0697-3 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 09:43 am Method : EPA 8082
Report Created on: 14 Nov 13 01:31 pm Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.777	22837.51	BB	0.034		58.58	2,4,5,6-Tetrachloro-m-Xylene
5.518	49.55	VB	0.030		0.77	Aroclor 1016 (1)
5.996	1387.11	VB	0.031		21.58	Aroclor 1016 (2)
0.000	0.00		0.000		0.00	Aroclor 1016 (3)
0.000	0.00		0.000		0.00	Aroclor 1016 (4)
0.000	0.00		0.000		0.00	Aroclor 1016 (5)
0.000	0.00		0.000		0.00	Aroclor 1260 (1)
9.649	49.73	VV	0.037		0.71	Aroclor 1260 (2)
0.000	0.00		0.000		0.00	Aroclor 1260 (3)
0.000	0.00		0.000		0.00	Aroclor 1260 (4)
11.296	40.79	BV	0.047		0.58	Aroclor 1260 (5)
11.915	30865.66	VB	0.032		83.71	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	1436.67	VB	0.01556	22.35	Aroclor-1016
6.908			0.00000		
6.782			0.00000		
6.613			0.00000		
6.032		VB	0.01556		
9.074	90.52		0.00000	1.30	Aroclor-1260
11.266		BV	0.01431		
11.086			0.00000		
9.921			0.00000		
9.585		VV	0.01431		

Return to Contents

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Internal Standard Report

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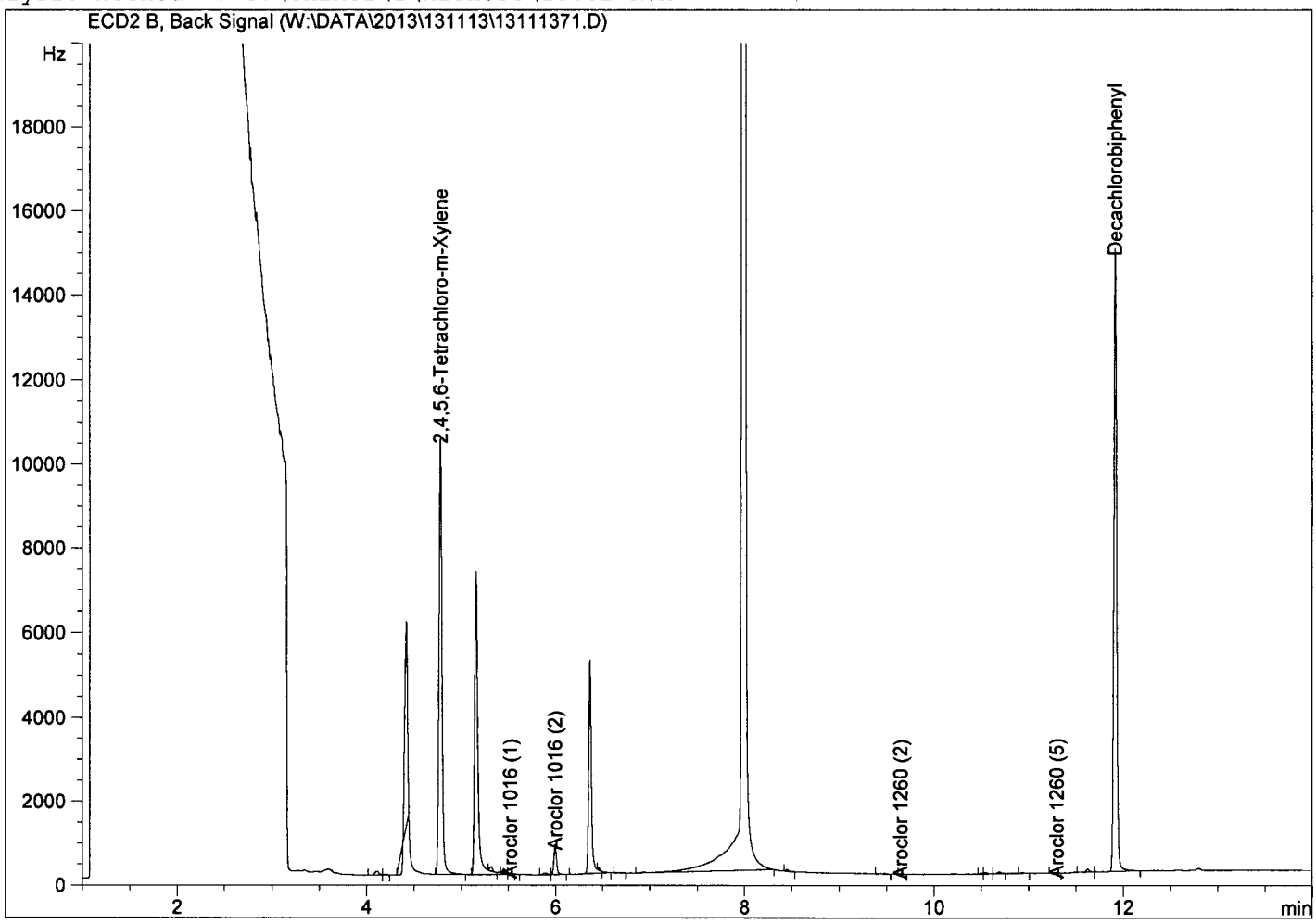
Data File Name : W:\DATA\2013\131113\13111371.D
Operator : 669 Vial Number : Vial 71
Instrument : GC 58 Sequence Line : 72
Sample Name : 13-11-0697-3 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 09:43 am Method : EPA 8082
Report Created on: 14 Nov 13 01:31 pm Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8082

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 58
D/T ANALYZED: 11/14/2013 16:56
ANALYST: 669
DATA FILE: W:\DATA\2013\131114\1311142113111421

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

 # 4 **CLIENT SAMPLE NUMBER: 8-SS-9.5-10.5**

LCS/MB BATCH: 131112L27
MS/MSD BATCH: 131112S27
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Aroclor-1016	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1221	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1232	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1242	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1248	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1254	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1260	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1262	0.00	1	ND	50	0.5	ug/kg	

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131114\13111421.D
Operator : 669 669 11/15
Instrument : GC 58 97 Sequence Line : 22
Sample Name : 13-11-0679-4 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 04:56 pm Method : EPA 8082
Report Created on: 15 Nov 13 00:02 pm Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.779	30324.07	BV	0.037		77.78	2,4,5,6-Tetrachloro-m-Xylene
5.519	69.98	PV	0.036		1.09	Aroclor 1016 (1)
0.000	0.00		0.000		0.00	Aroclor 1016 (2)
0.000	0.00		0.000		0.00	Aroclor 1016 (3)
0.000	0.00		0.000		0.00	Aroclor 1016 (4)
0.000	0.00		0.000		0.00	Aroclor 1016 (5)
0.000	0.00		0.000		0.00	Aroclor 1260 (1)
9.613	35.80	BB	0.059		0.51	Aroclor 1260 (2)
0.000	0.00		0.000		0.00	Aroclor 1260 (3)
0.000	0.00		0.000		0.00	Aroclor 1260 (4)
11.305	40.11	BV	0.054		0.57	Aroclor 1260 (5)
11.917	35502.23	VB	0.034		96.29	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

Group summary

Ret Time	Area	Type	Ref	1/Avg.RF	Amount	Group Name
5.489	69.98	PV		0.01556	1.09	Aroclor-1016
6.908				0.00000		
6.782				0.00000		
6.613				0.00000		
6.032				0.00000		
9.074	75.90			0.00000	1.09	Aroclor-1260
11.266		BV		0.01431		
11.086				0.00000		
9.921				0.00000		
9.585		BB		0.01431		

Return to Contents

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Internal Standard Report

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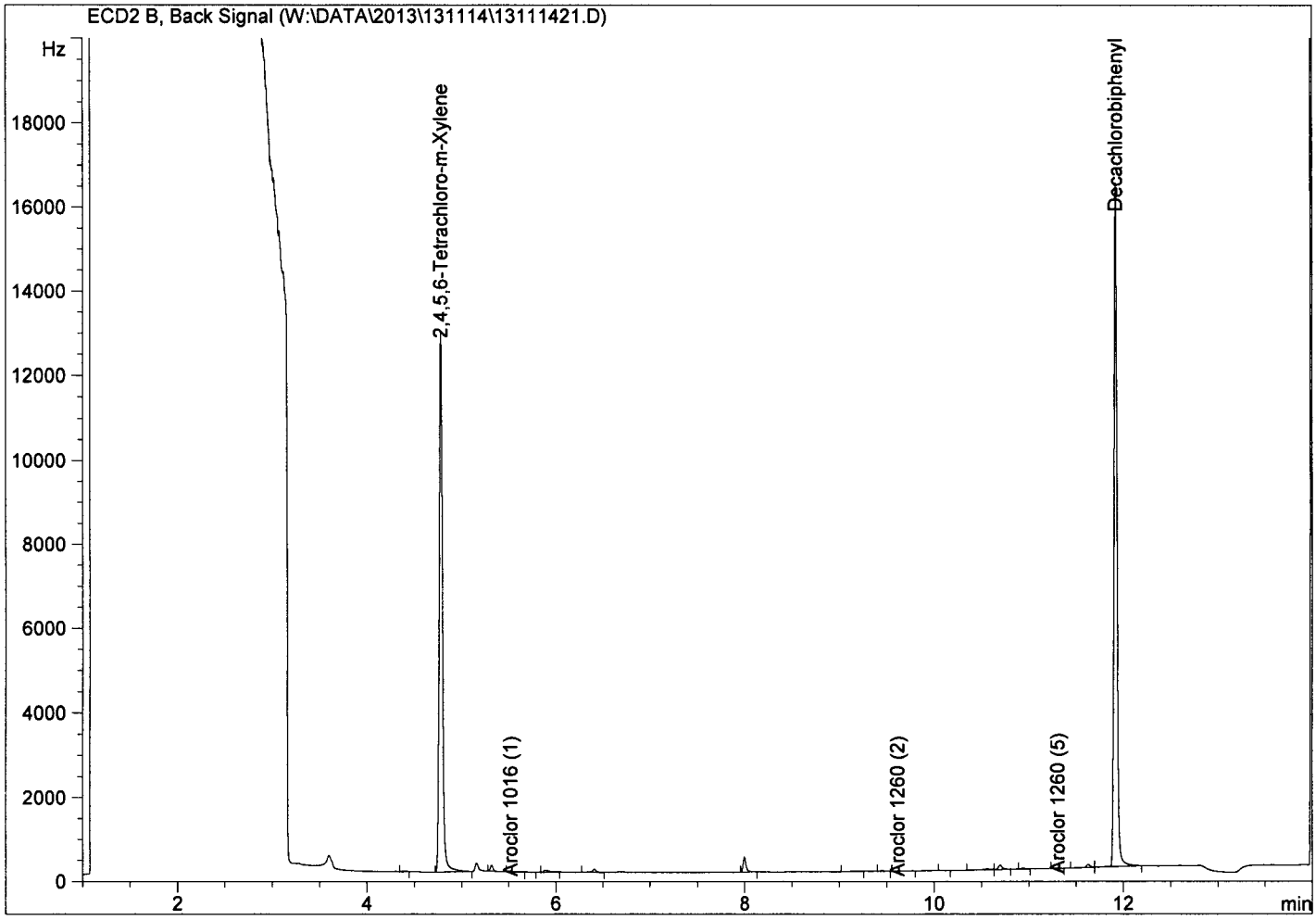
Data File Name : W:\DATA\2013\131114\13111421.D
Operator : 669 97 669 11/15 Vial Number : Vial 21
Instrument : GC 58 Sequence Line : 22
Sample Name : 13-11-0679-4 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 04:56 pm Method : EPA 8082
Report Created on: 15 Nov 13 00:02 pm Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8082

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 58
D/T ANALYZED: 11/14/2013 17:32
ANALYST: 669
DATA FILE: W:\DATA\2013\131114\1311142313111423

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

5 **CLIENT SAMPLE NUMBER: 8-SS-14.25-15.25**

LCS/MB BATCH: 131112L27
MS/MSD BATCH: 131112S27
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Aroclor-1016	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1221	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1232	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1242	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1248	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1254	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1260	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1262	0.00	1	ND	50	0.5	ug/kg	

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131114\13111423.D
Operator : 669 669 11/15 Vial Number : Vial 23
Instrument : GC 58 97 Sequence Line : 24
Sample Name : 13-11-0679-5 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 05:32 pm Method : EPA 8082
Report Created on: 15 Nov 13 11:24 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.784	23656.13	BB	0.037		60.68	2,4,5,6-Tetrachloro-m-Xylene
5.523	51.24	VB	0.033		0.80	Aroclor 1016 (1)
0.000	0.00		0.000		0.00	Aroclor 1016 (2)
6.675	76.49	VB	0.068		1.19	Aroclor 1016 (3)
0.000	0.00		0.000		0.00	Aroclor 1016 (4)
0.000	0.00		0.000		0.00	Aroclor 1016 (5)
0.000	0.00		0.000		0.00	Aroclor 1260 (1)
9.608	43.24	BB	0.067		0.62	Aroclor 1260 (2)
0.000	0.00		0.000		0.00	Aroclor 1260 (3)
0.000	0.00		0.000		0.00	Aroclor 1260 (4)
11.300	55.65	VV	0.052		0.80	Aroclor 1260 (5)
11.918	29330.49	VB	0.033		79.55	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	127.73	VB	0.01556	1.99	Aroclor-1016
6.908			0.00000		
6.782			0.00000		
6.613		VB	0.01556		
6.032			0.00000		
9.074	98.89		0.00000	1.42	Aroclor-1260
11.266		VV	0.01431		
11.086			0.00000		
9.921			0.00000		
9.585		BB	0.01431		

Return to Contents

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Internal Standard Report

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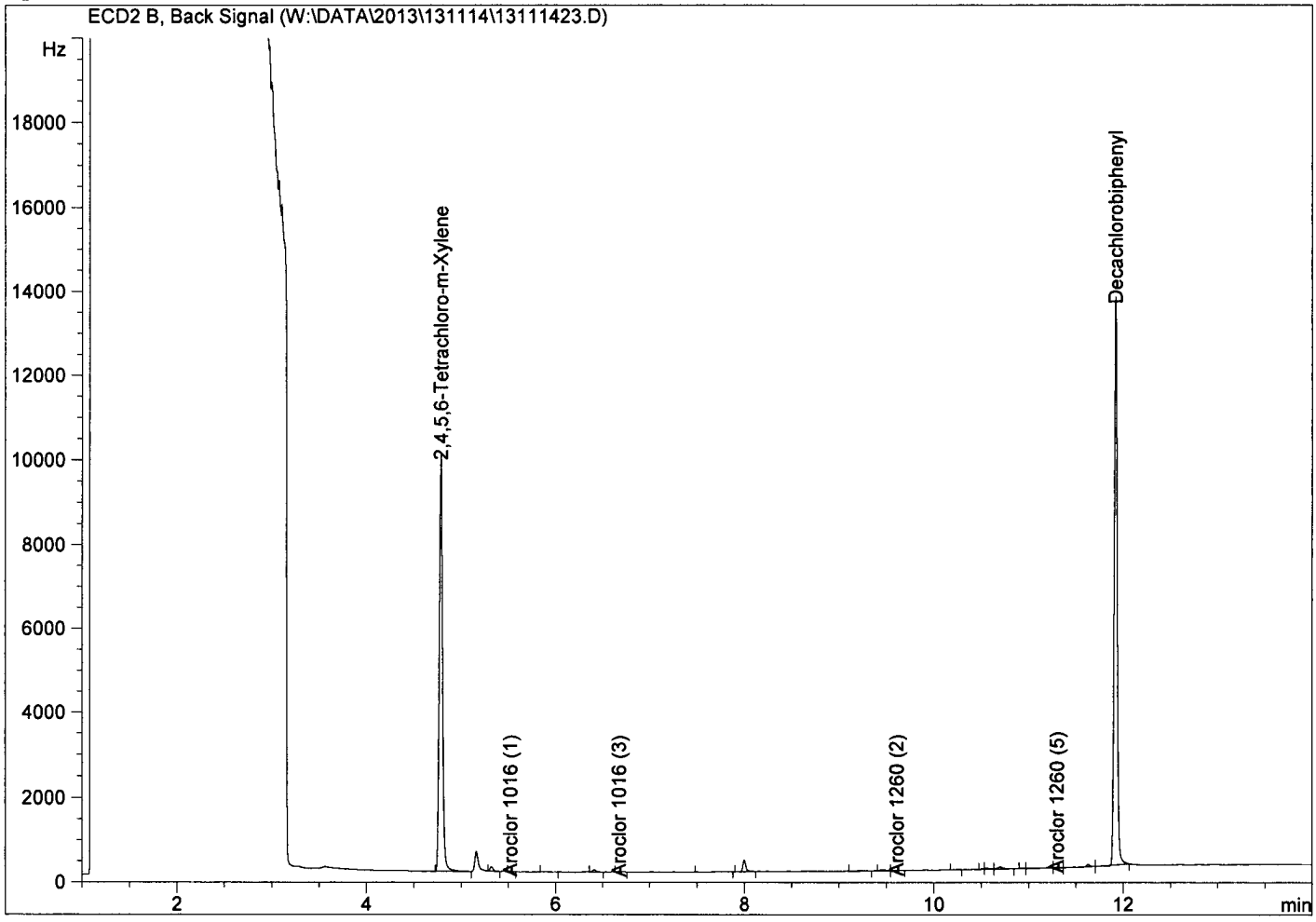
Data File Name : W:\DATA\2013\131114\13111423.D
Operator : 669 97 669 11/15 Vial Number : Vial 23
Instrument : GC 58 Sequence Line : 24
Sample Name : 13-11-0679-5 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 05:32 pm Method : EPA 8082
Report Created on: 15 Nov 13 11:24 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8082

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 58
D/T ANALYZED: 11/14/2013 17:50
ANALYST: 669
DATA FILE: W:\DATA\2013\131114\1311142413111424

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

 # 6 **CLIENT SAMPLE NUMBER: 12-SS-5-6**

LCS/MB BATCH: 131112L27
MS/MSD BATCH: 131112S27
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Aroclor-1016	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1221	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1232	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1242	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1248	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1254	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1260	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1262	0.00	1	ND	50	0.5	ug/kg	

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131114\13111424.D
Operator : 669 97 669 1115
Instrument : GC 58
Sample Name : 13-11-0679-6
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 05:50 pm
Report Created on: 15 Nov 13 11:24 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Vial Number : Vial 24
Sequence Line : 25
Report Style : PCBN-R
Method : EPA 8082
Software Version : Rev. B.04.02 [98] ->

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.781	26950.75	VB	0.037		69.13	2,4,5,6-Tetrachloro-m-Xylene
5.516	32.12	PV	0.030		0.50	Aroclor 1016 (1)
5.997	89.83	VV	0.050		1.40	Aroclor 1016 (2)
0.000	0.00		0.000		0.00	Aroclor 1016 (3)
0.000	0.00		0.000		0.00	Aroclor 1016 (4)
0.000	0.00		0.000		0.00	Aroclor 1016 (5)
9.084	97.48	VV	0.079		1.39	Aroclor 1260 (1)
9.655	48.25	VV	0.080		0.69	Aroclor 1260 (2)
9.914	31.59	VV	0.050		0.45	Aroclor 1260 (3)
0.000	0.00		0.000		0.00	Aroclor 1260 (4)
11.302	51.36	VV	0.062		0.73	Aroclor 1260 (5)
11.917	31399.50	VB	0.033		85.16	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	121.95	PV	0.01556	1.90	Aroclor-1016
6.908			0.00000		
6.782			0.00000		
6.613			0.00000		
6.032		VV	0.01556		
9.074	228.68	VV	0.01431	3.27	Aroclor-1260
11.266		VV	0.01431		
11.086			0.00000		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

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Internal Standard Report

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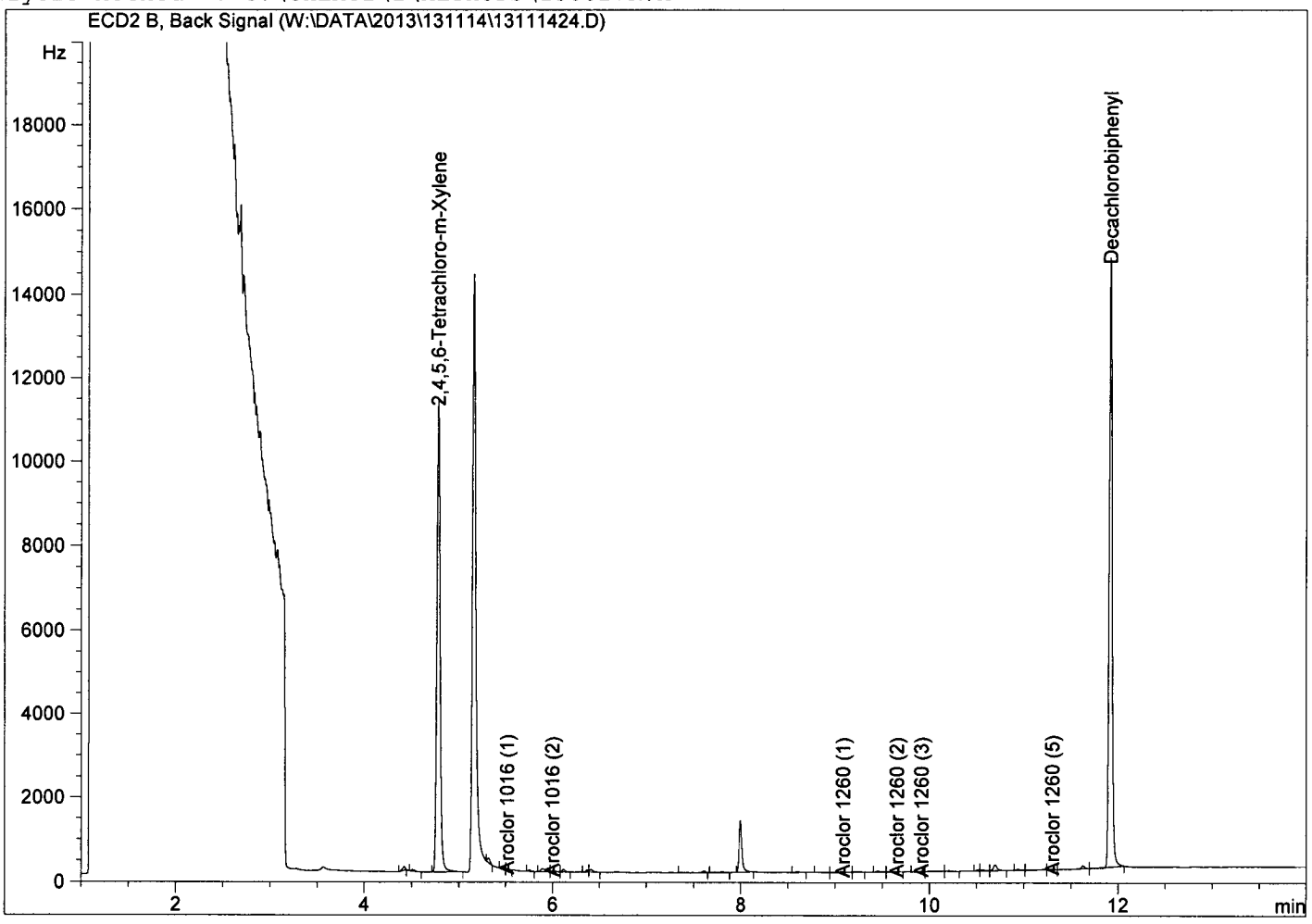
Data File Name : W:\DATA\2013\131114\13111424.D
Operator : 669 97 669 11/15 Vial Number : Vial 24
Instrument : GC 58 Sequence Line : 25
Sample Name : 13-11-0679-6 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 05:50 pm Method : EPA 8082
Report Created on: 15 Nov 13 11:24 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8082

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 58
D/T ANALYZED: 11/14/2013 18:08
ANALYST: 669
DATA FILE: W:\DATA\2013\131114\1311142513111425

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

 # 7 **CLIENT SAMPLE NUMBER: 12-SS-9.5-10.5**

LCS/MB BATCH: 131112L27
MS/MSD BATCH: 131112S27
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Aroclor-1016	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1221	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1232	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1242	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1248	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1254	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1260	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1262	0.00	1	ND	50	0.5	ug/kg	

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131114\13111425.D
Operator : 669 669 ulr
Instrument : GC 58 97
Sample Name : 13-11-0679-7
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 06:08 pm
Report Created on: 15 Nov 13 11:24 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Vial Number : Vial 25
Sequence Line : 26
Report Style : PCBN-R
Method : EPA 8082
Software Version : Rev. B.04.02 [98] ->

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.783	29348.16	VV	0.037		75.28	2,4,5,6-Tetrachloro-m-Xylene
5.464	1082.78	VB	0.037		16.85	Aroclor 1016 (1)
0.000	0.00		0.000		0.00	Aroclor 1016 (2)
0.000	0.00		0.000		0.00	Aroclor 1016 (3)
0.000	0.00		0.000		0.00	Aroclor 1016 (4)
0.000	0.00		0.000		0.00	Aroclor 1016 (5)
9.092	279.76	BV	0.045		4.00	Aroclor 1260 (1)
9.615	26.76	VB	0.035		0.38	Aroclor 1260 (2)
0.000	0.00		0.000		0.00	Aroclor 1260 (3)
0.000	0.00		0.000		0.00	Aroclor 1260 (4)
0.000	0.00		0.000		0.00	Aroclor 1260 (5)
11.918	32438.44	BB	0.034		87.98	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	1082.78	VB	0.01556	16.85	Aroclor-1016
6.908			0.00000		
6.782			0.00000		
6.613			0.00000		
6.032			0.00000		
9.074	306.52	BV	0.01431	4.39	Aroclor-1260
11.266			0.00000		
11.086			0.00000		
9.921			0.00000		
9.585		VB	0.01431		

Return to Contents

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Internal Standard Report

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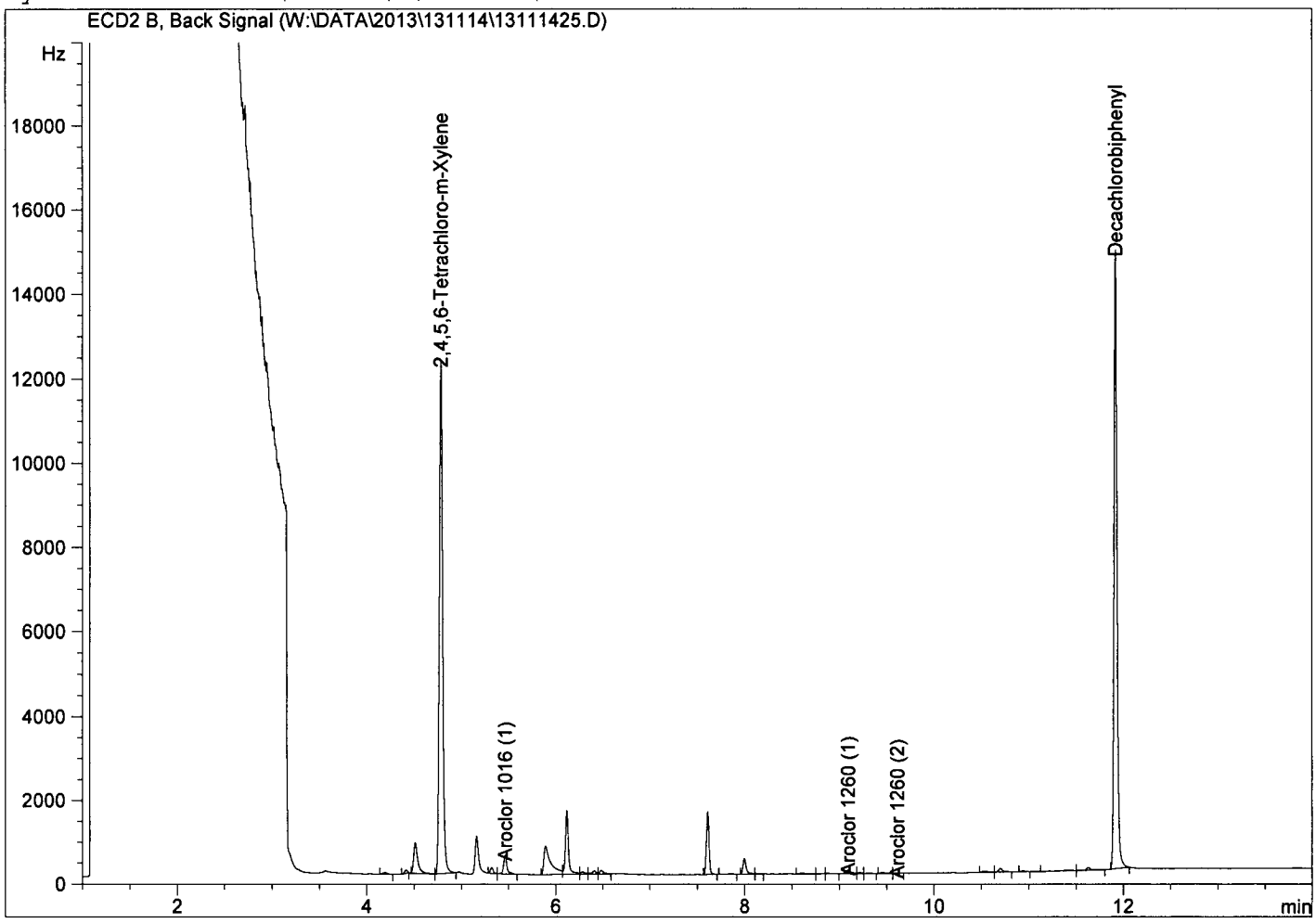
Data File Name : W:\DATA\2013\131114\13111425.D
Operator : 669 669 11/15 Vial Number : Vial 25
Instrument : GC 58 97 Sequence Line : 26
Sample Name : 13-11-06~~79~~-7 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 06:08 pm Method : EPA 8082
Report Created on: 15 Nov 13 11:24 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8082

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 58
D/T ANALYZED: 11/14/2013 18:26
ANALYST: 669
DATA FILE: W:\DATA\2013\131114\1311142613111426

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

8 **CLIENT SAMPLE NUMBER: 12-SS-13.25-15.25**

LCS/MB BATCH: 131112L27
MS/MSD BATCH: 131112S27
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Aroclor-1016	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1221	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1232	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1242	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1248	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1254	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1260	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1262	0.00	1	ND	50	0.5	ug/kg	

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131114\13111426.D
Operator : 669 669 4/15
Instrument : GC 58 97
Sample Name : 13-11-0679-8
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 06:26 pm
Report Created on: 15 Nov 13 11:25 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Vial Number : Vial 26
Sequence Line : 27
Report Style : PCBN-R
Method : EPA 8082
Software Version : Rev. B.04.02 [98] ->

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.780	28020.65	BV	0.036		71.88	2,4,5,6-Tetrachloro-m-Xylene
5.516	37.76	PV	0.029		0.59	Aroclor 1016 (1)
0.000	0.00		0.000		0.00	Aroclor 1016 (2)
6.610	272.23	VV	0.053		4.24	Aroclor 1016 (3)
6.777	220.15	VB	0.068		3.43	Aroclor 1016 (4)
6.908	90.05	BV	0.048		1.40	Aroclor 1016 (5)
9.121	82.67	VV	0.059		1.18	Aroclor 1260 (1)
9.605	41.24	VB	0.060		0.59	Aroclor 1260 (2)
0.000	0.00		0.000		0.00	Aroclor 1260 (3)
11.003	28.30	VB	0.045		0.40	Aroclor 1260 (4)
0.000	0.00		0.000		0.00	Aroclor 1260 (5)
11.916	33130.11	BB	0.033		89.85	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	620.19	PV	0.01556	9.65	Aroclor-1016
6.908		BV	0.01556		
6.782		VB	0.01556		
6.613		VV	0.01556		
6.032			0.00000		
9.074	152.20	VV	0.01431	2.18	Aroclor-1260
11.266			0.00000		
11.086		VB	0.01431		
9.921			0.00000		
9.585		VB	0.01431		

Return to Contents

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Internal Standard Report

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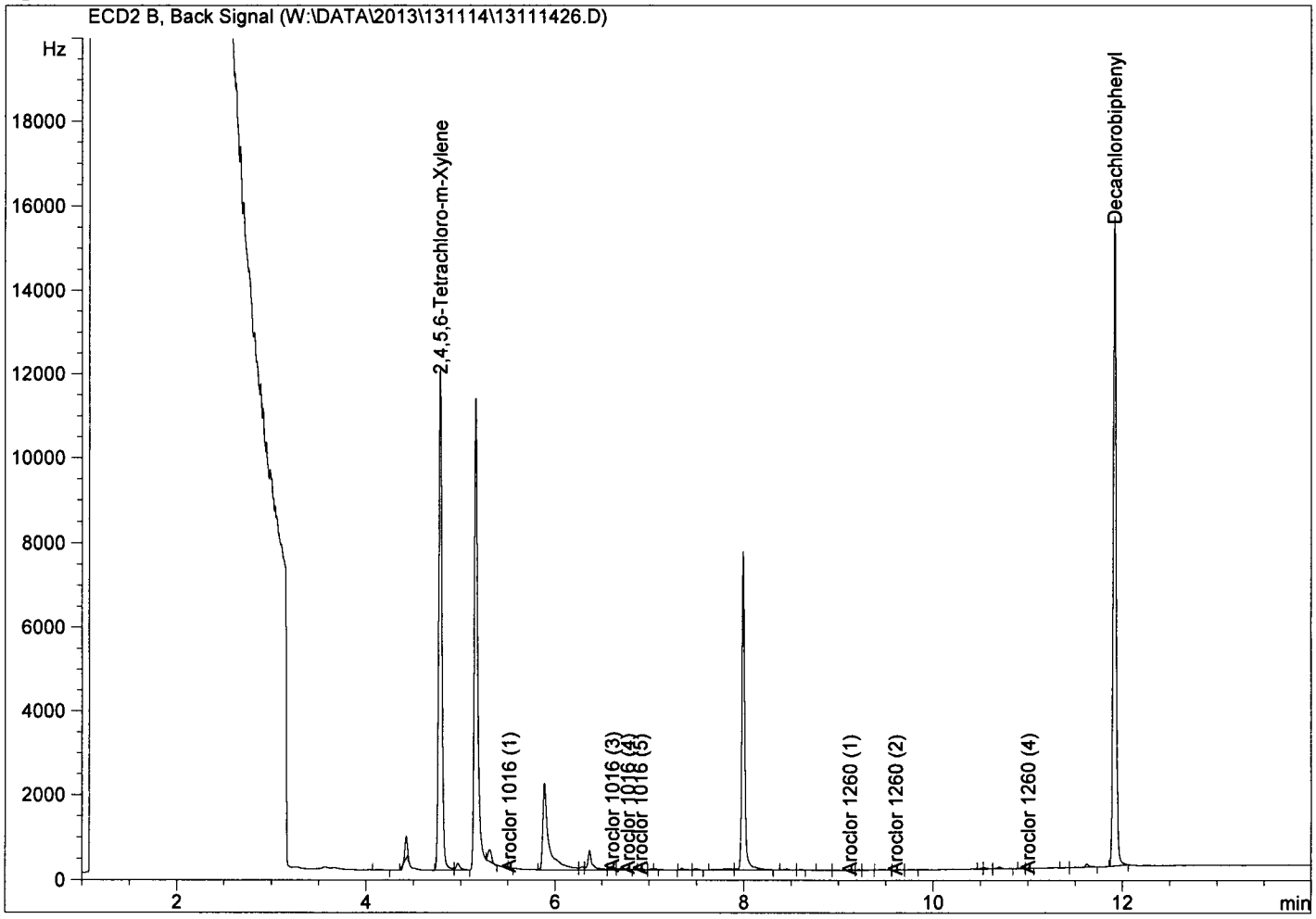
Data File Name : W:\DATA\2013\131114\13111426.D
Operator : 669 669 11/15
Instrument : GC 58 97
Sample Name : 13-11-0679-8
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 06:26 pm
Report Created on: 15 Nov 13 11:25 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Vial Number : Vial 26
Sequence Line : 27
Report Style : PCBN-R
Method : EPA 8082
Software Version : Rev. B.04.02 [98] ->



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8082

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 58
D/T ANALYZED: 11/14/2013 18:44
ANALYST: 669
DATA FILE: W:\DATA\2013\131114\1311142713111427

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

9 **CLIENT SAMPLE NUMBER: 6-SS-5-6**

LCS/MB BATCH: 131112L27
MS/MSD BATCH: 131112S27
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Aroclor-1016	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1221	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1232	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1242	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1248	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1254	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1260	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1262	0.00	1	ND	50	0.5	ug/kg	

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131114\13111427.D
Operator : 669 97 669 115
Instrument : GC 58
Sample Name : 13-11-0679-9
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 06:44 pm
Report Created on: 15 Nov 13 11:25 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Vial Number : Vial 27
Sequence Line : 28
Report Style : PCBN-R
Method : EPA 8082
Software Version : Rev. B.04.02 [98] ->

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.783	26740.81	BB	0.037		68.59	2,4,5,6-Tetrachloro-m-Xylene
5.462	48.09	BV	0.036		0.75	Aroclor 1016 (1)
6.001	110.61	VB	0.043		1.72	Aroclor 1016 (2)
6.672	128.40	BB	0.074		2.00	Aroclor 1016 (3)
0.000	0.00		0.000		0.00	Aroclor 1016 (4)
0.000	0.00		0.000		0.00	Aroclor 1016 (5)
9.129	30.81	BV	0.042		0.44	Aroclor 1260 (1)
9.606	33.01	BV	0.032		0.47	Aroclor 1260 (2)
9.919	54.31	BB	0.048		0.78	Aroclor 1260 (3)
0.000	0.00		0.000		0.00	Aroclor 1260 (4)
0.000	0.00		0.000		0.00	Aroclor 1260 (5)
11.917	32085.27	VB	0.033		87.02	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	287.09	BV	0.01556	4.47	Aroclor-1016
6.908			0.00000		
6.782			0.00000		
6.613		BB	0.01556		
6.032		VB	0.01556		
9.074	118.13	BV	0.01431	1.69	Aroclor-1260
11.266			0.00000		
11.086			0.00000		
9.921		BB	0.01431		
9.585		BV	0.01431		

Return to Contents

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Internal Standard Report

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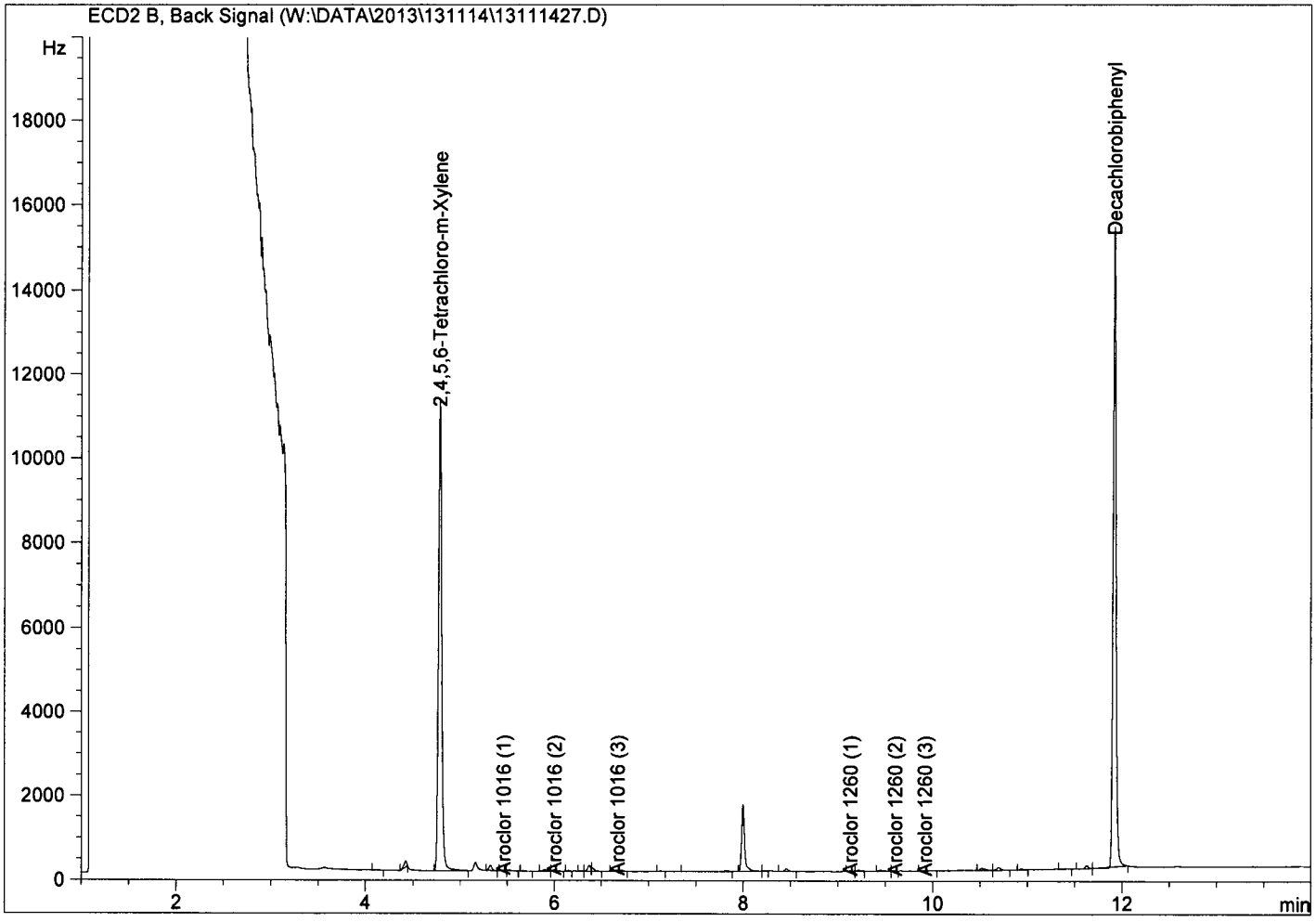
Data File Name : W:\DATA\2013\131114\13111427.D
Operator : 669 669
Instrument : GC 58 97 1115
Sample Name : 13-11-0679-9
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 06:44 pm
Report Created on: 15 Nov 13 11:25 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Vial Number : Vial 27
Sequence Line : 28
Report Style : PCBN-R
Method : EPA 8082
Software Version : Rev. B.04.02 [98] ->



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8082

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 58
D/T ANALYZED: 11/14/2013 19:02
ANALYST: 669
DATA FILE: W:\DATA\2013\131114\1311142813111428

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

10 **CLIENT SAMPLE NUMBER: 6-SS-9-11**

LCS/MB BATCH: 131112L27
MS/MSD BATCH: 131112S27
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Aroclor-1016	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1221	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1232	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1242	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1248	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1254	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1260	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1262	0.00	1	ND	50	0.5	ug/kg	

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131114\13111428.D
Operator : 669 669 11/15 Vial Number : Vial 28
Instrument : GC 58 97 Sequence Line : 29
Sample Name : 13-11-0679-10 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 07:02 pm Method : EPA 8082
Report Created on: 15 Nov 13 11:25 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.783	25673.73	BB	0.038		65.86	2,4,5,6-Tetrachloro-m-Xylene
5.524	38.77	BB	0.030		0.60	Aroclor 1016 (1)
6.000	59.25	VB	0.044		0.92	Aroclor 1016 (2)
0.000	0.00		0.000		0.00	Aroclor 1016 (3)
0.000	0.00		0.000		0.00	Aroclor 1016 (4)
0.000	0.00		0.000		0.00	Aroclor 1016 (5)
0.000	0.00		0.000		0.00	Aroclor 1260 (1)
0.000	0.00		0.000		0.00	Aroclor 1260 (2)
0.000	0.00		0.000		0.00	Aroclor 1260 (3)
0.000	0.00		0.000		0.00	Aroclor 1260 (4)
0.000	0.00		0.000		0.00	Aroclor 1260 (5)
11.919	28911.86	BB	0.034		78.41	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	98.02	BB	0.01556	1.53	Aroclor-1016
6.908			0.00000		
6.782			0.00000		
6.613			0.00000		
6.032		VB	0.01556		
9.074	0.00		0.00000	0.00	Aroclor-1260
11.266			0.00000		
11.086			0.00000		
9.921			0.00000		
9.585			0.00000		

Return to Contents

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Internal Standard Report

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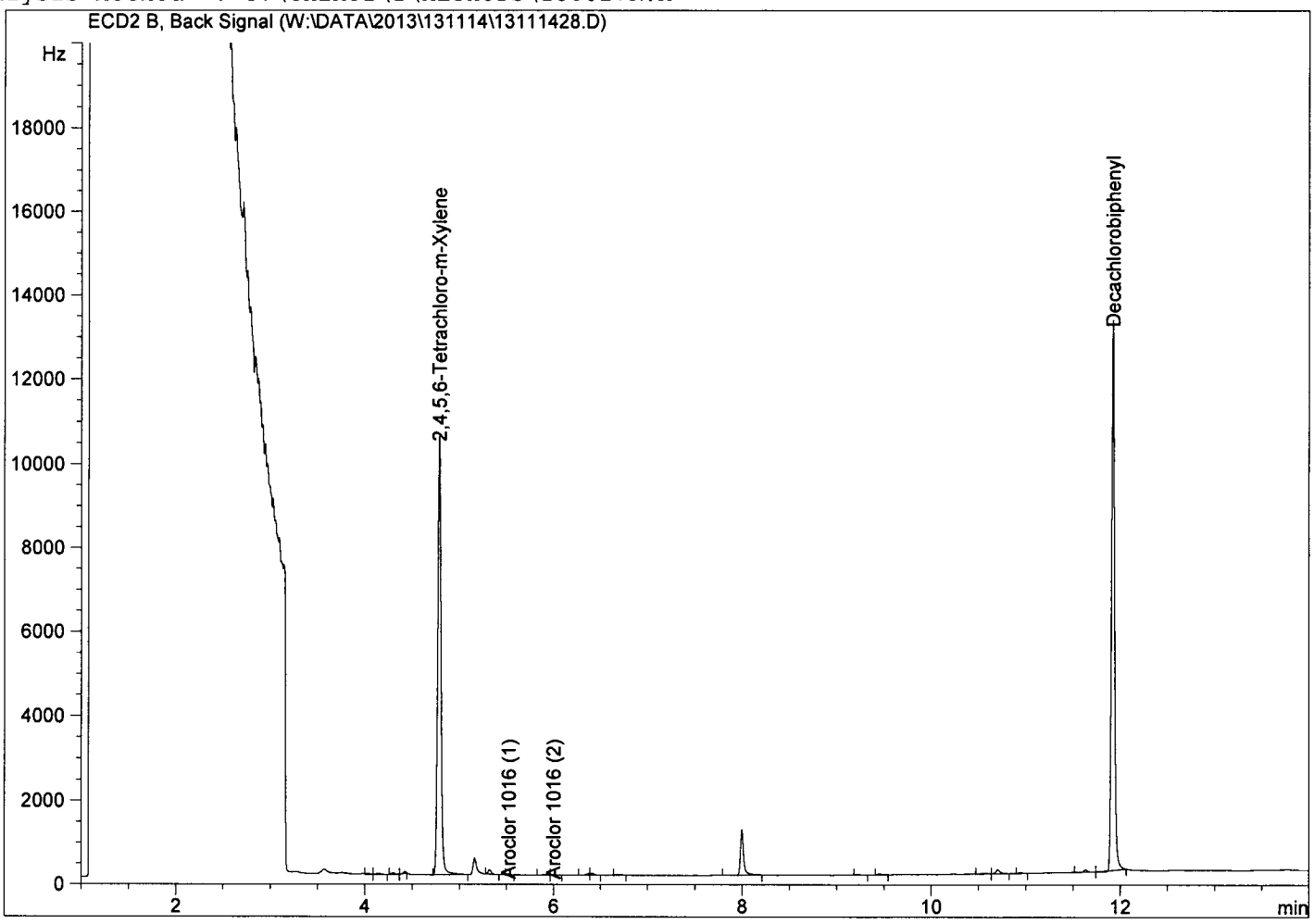
Data File Name : W:\DATA\2013\131114\13111428.D
Operator : 669 669 11/15
Instrument : GC 58 97
Sample Name : 13-11-06~~79~~-10
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 07:02 pm
Report Created on: 15 Nov 13 11:25 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Vial Number : Vial 28
Sequence Line : 29
Report Style : PCBN-R
Method : EPA 8082
Software Version : Rev. B.04.02 [98] ->



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8082

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 58
D/T ANALYZED: 11/14/2013 19:20
ANALYST: 669
DATA FILE: W:\DATA\2013\131114\1311142913111429

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

11 **CLIENT SAMPLE NUMBER: 60-SS-9-11**

LCS/MB BATCH: 131112L27
MS/MSD BATCH: 131112S27
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Aroclor-1016	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1221	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1232	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1242	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1248	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1254	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1260	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1262	0.00	1	ND	50	0.5	ug/kg	

Return to Contents

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Internal Standard Report

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Data File Name : W:\DATA\2013\131114\13111429.D
Operator : 669 Vial Number : Vial 29
Instrument : GC 58 97 669 11/15 Sequence Line : 30
Sample Name : 13-11-06~~79~~-11 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 07:20 pm Method : EPA 8082
Report Created on: 15 Nov 13 11:25 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.783	28561.09	VB	0.037		73.26	2,4,5,6-Tetrachloro-m-Xylene
5.522	51.28	PB	0.033		0.80	Aroclor 1016 (1)
6.003	34.85	VB	0.049		0.54	Aroclor 1016 (2)
0.000	0.00		0.000		0.00	Aroclor 1016 (3)
0.000	0.00		0.000		0.00	Aroclor 1016 (4)
0.000	0.00		0.000		0.00	Aroclor 1016 (5)
0.000	0.00		0.000		0.00	Aroclor 1260 (1)
9.611	29.16	BB	0.050		0.42	Aroclor 1260 (2)
0.000	0.00		0.000		0.00	Aroclor 1260 (3)
0.000	0.00		0.000		0.00	Aroclor 1260 (4)
0.000	0.00		0.000		0.00	Aroclor 1260 (5)
11.918	29250.48	BB	0.035		79.33	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

Group summary

Ret Time	Area	Type	Ref	1/Avg.RF	Amount	Group Name
5.489	86.12	PB		0.01556	1.34	Aroclor-1016
6.908				0.00000		
6.782				0.00000		
6.613				0.00000		
6.032		VB		0.01556		
9.074	29.16			0.00000	0.42	Aroclor-1260
11.266				0.00000		
11.086				0.00000		
9.921				0.00000		
9.585		BB		0.01431		

Return to Contents

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================================================================================
                          Internal Standard Report
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Data File Name    : W:\DATA\2013\131114\13111429.D
Operator          : 669                          Vial Number       : Vial 29
Instrument        : GC 58                        Sequence Line     : 30
Sample Name       : 13-11-0679-11                Report Style      : PCBN-R
Running Method    : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on       : 14 Nov 13    07:20 pm        Method            : EPA 8082
Report Created on: 15 Nov 13    11:25 am        Software Version  : Rev. B.04.02 [98]       ->
Comment           :
Analysis Method   : C:\CHEM32\1\METHODS\130827R.M
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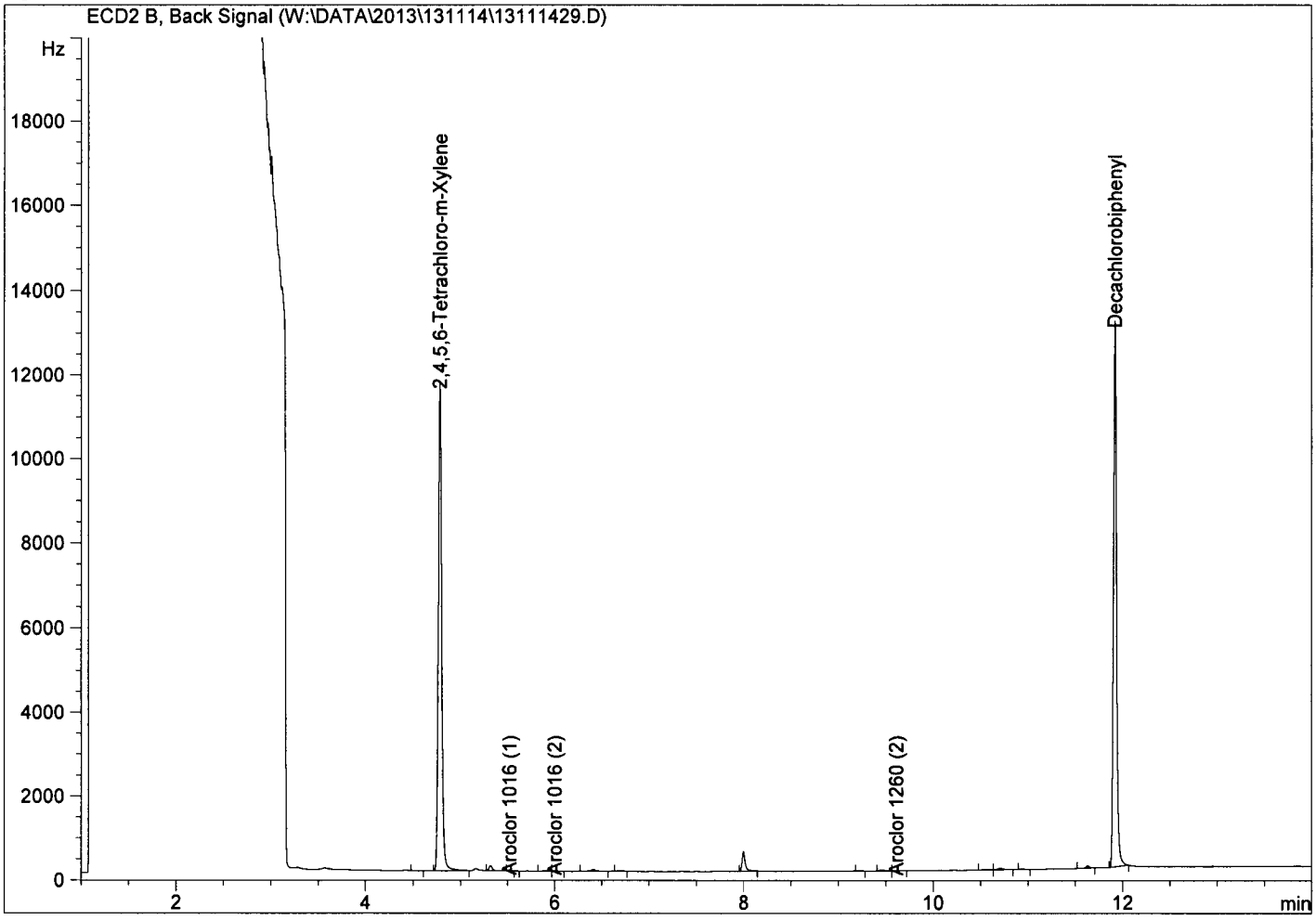

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8082

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 58
D/T ANALYZED: 11/14/2013 19:38
ANALYST: 669
DATA FILE: W:\DATA\2013\131114\1311143013111430

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

12 **CLIENT SAMPLE NUMBER: 6-SS-13.75-14.75**

LCS/MB BATCH: 131112L27
MS/MSD BATCH: 131112S27
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Aroclor-1016	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1221	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1232	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1242	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1248	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1254	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1260	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1262	0.00	1	ND	50	0.5	ug/kg	

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131114\13111430.D
Operator : 669 669 11/15
Instrument : GC 58 97
Sample Name : 13-11-0679-12
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 07:38 pm
Report Created on: 15 Nov 13 11:26 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Vial Number : Vial 30
Sequence Line : 31
Report Style : PCBN-R
Method : EPA 8082
Software Version : Rev. B.04.02 [98] ->

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.782	34736.82	VV	0.038		89.10	2,4,5,6-Tetrachloro-m-Xylene
5.520	50.50	BB	0.031		0.79	Aroclor 1016 (1)
0.000	0.00		0.000		0.00	Aroclor 1016 (2)
6.610	35.33	VV	0.038		0.55	Aroclor 1016 (3)
0.000	0.00		0.000		0.00	Aroclor 1016 (4)
0.000	0.00		0.000		0.00	Aroclor 1016 (5)
9.062	28.02	BV	0.043		0.40	Aroclor 1260 (1)
0.000	0.00		0.000		0.00	Aroclor 1260 (2)
0.000	0.00		0.000		0.00	Aroclor 1260 (3)
0.000	0.00		0.000		0.00	Aroclor 1260 (4)
11.305	36.34	BV	0.065		0.52	Aroclor 1260 (5)
11.918	34568.73	VB	0.034		93.76	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

Group summary

Ret Time	Area	Type	Ref	1/Avg.RF	Amount	Group Name
5.489	85.83	BB		0.01556	1.34	Aroclor-1016
6.908				0.00000		
6.782				0.00000		
6.613		VV		0.01556		
6.032				0.00000		
9.074	64.37	BV		0.01431	0.92	Aroclor-1260
11.266		BV		0.01431		
11.086				0.00000		
9.921				0.00000		
9.585				0.00000		

Return to Contents

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Internal Standard Report

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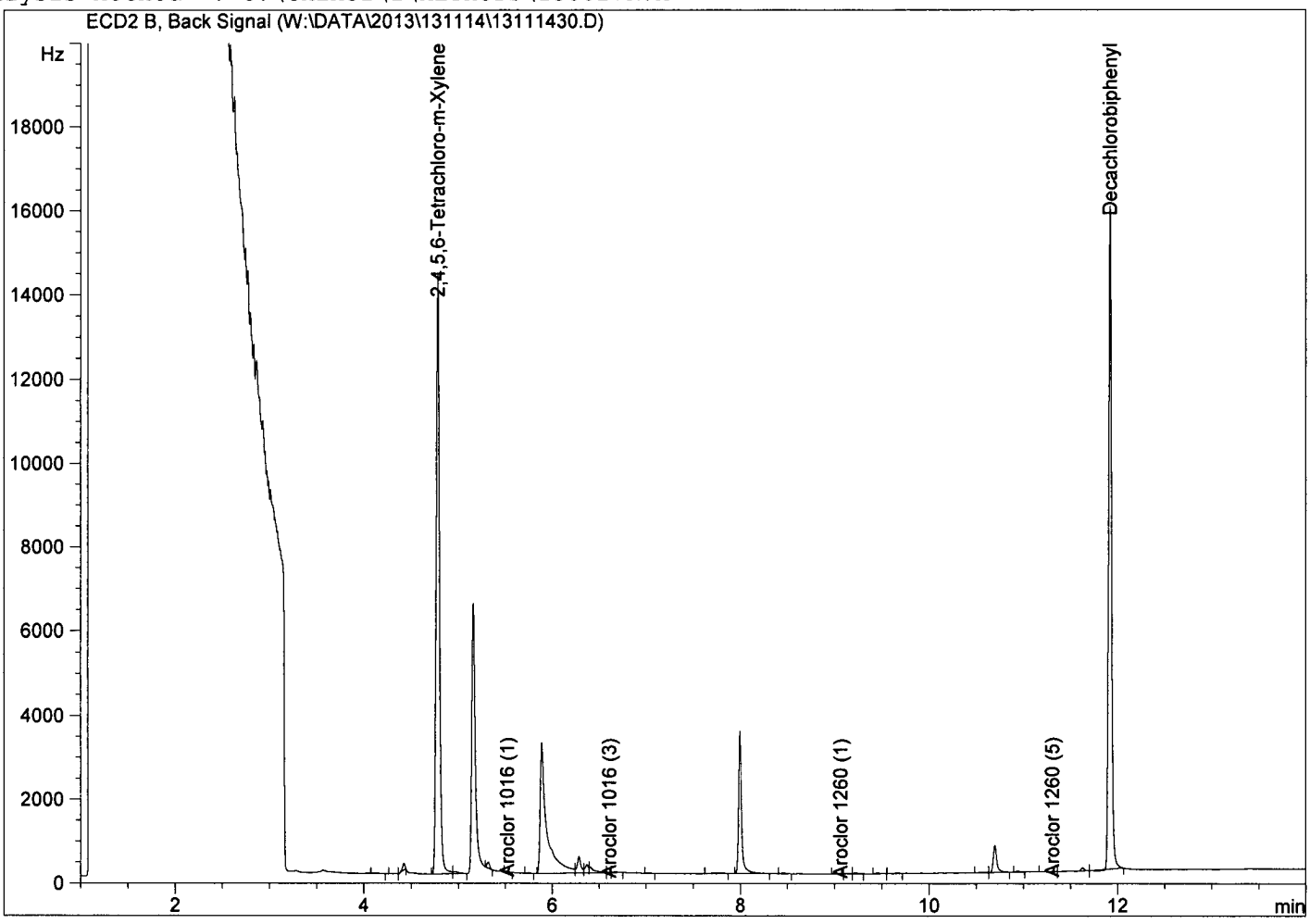
Data File Name : W:\DATA\2013\131114\13111430.D
Operator : 669 669 ulls
Instrument : GC 58 97
Sample Name : 13-11-0679-12
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 07:38 pm
Report Created on: 15 Nov 13 11:26 am
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Vial Number : Vial 30
Sequence Line : 31
Report Style : PCBN-R
Method : EPA 8082
Software Version : Rev. B.04.02 [98] ->



Return to Contents

EPA METHOD 8082
PCB Aroclors

Quality Control

Method Blank
LCS/LCSD
MS/MSD

Return to Contents

METHOD BLANK ASSOCIATION SUMMARY FOR METHOD: EPA 8082

MB Sample ID: 099-12-535-2367
MB Batch ID: 131112L27
Instrument: GC 58
Matrix: Soil
Analyst: 669
D/T Analyzed: 11/14/2013 08:49
Data File: W:\DATA\2013\131113\1311136813111368

Reviewed By: 0
D/T Reviewed:
Extraction: EPA 3545
D/T Extracted: 11/12/2013 00:00

Work Order #: 13-11-0697

Sample#	Client Sample ID	D/T Analyzed	Data File
3	8-SS-5-6	11/14/2013 09:43	W:\DATA\2013\131113\1311137113111371
4	8-SS-9.5-10.5	11/14/2013 16:56	W:\DATA\2013\131114\1311142113111421
5	8-SS-14.25-15.25	11/14/2013 17:32	W:\DATA\2013\131114\1311142313111423
6	12-SS-5-6	11/14/2013 17:50	W:\DATA\2013\131114\1311142413111424
7	12-SS-9.5-10.5	11/14/2013 18:08	W:\DATA\2013\131114\1311142513111425
8	12-SS-13.25-15.25	11/14/2013 18:26	W:\DATA\2013\131114\1311142613111426
9	6-SS-5-6	11/14/2013 18:44	W:\DATA\2013\131114\1311142713111427
10	6-SS-9-11	11/14/2013 19:02	W:\DATA\2013\131114\1311142813111428
11	60-SS-9-11	11/14/2013 19:20	W:\DATA\2013\131114\1311142913111429
12	6-SS-13.75-14.75	11/14/2013 19:38	W:\DATA\2013\131114\1311143013111430

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8082

WORK ORDER NUMBER: 099-12-535
INSTRUMENT NAME: GC 58
D/T ANALYZED: 11/14/2013 08:49
ANALYST: 669
DATA FILE: W:\DATA\2013\131113\1311136813111368

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 131112L27
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Aroclor-1016	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1221	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1232	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1242	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1248	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1254	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1260	0.00	1	ND	50	0.5	ug/kg	
Aroclor-1262	0.00	1	ND	50	0.5	ug/kg	

Return to Contents

LCS QUALITY CONTROL SHEET FOR METHOD : EPA 8082

WORK ORDER : **13-11-0697**
INSTRUMENT NAME: GC 58
D/T ANALYZED: 11/14/2013 08:31
ANALYST: 669
LCS/MB BATCH: **131112L27**
DATA FILE: W:\DATA\2013\131113\1311136713111367

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/12/2013 00:00

COMPOUND NAME	CONC ADDED	CONC REC	%RECOVERY	%REC CONTROL LIMIT	STATUS	QUALIFIERS
Aroclor-1016	100.0	108.3	108	50-135	PASS	
Aroclor-1260	100.0	96.96	97	50-135	PASS	

Compounds listed in bold are required to be reported

Return to Contents

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8082

WORK ORDER:	**13-11-0697**	SAMPLE D/T EXTRACTED:	11/12/2013	EXTRACTION:	EPA 3545
MS/MSD BATCH:	131112S27	MS D/T EXTRACTED:	11/12/2013	ANALYST:	669
SPIKED SAMPLE ID:	**13-11-0697-8**	MSD D/T EXTRACTED:	11/12/2013	SAMPLE INSTRUMENT NAME:	GC 58
REVIEWED BY:	0	SAMPLE D/T ANALYZED:	11/14/2013 18:26	MS INSTRUMENT NAME:	GC 58
DATE REVIEWED:		MS D/T ANALYZED:	11/14/2013 9:07	MSD INSTRUMENT NAME:	GC 58
		MSD D/T ANALYZED:	11/14/2013 9:25		

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL ADDED	FINAL ADDED	MS CONC	% REC	MSD CONC	% REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Aroclor-1016	ND	200.0	100.0	93.64	94	93.92	94	50-135	0	0-20	PASS	
Aroclor-1260	ND	200.0	100.0	76.70	77	73.62	74	50-135	4	0-25	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	13111369	W:\DATA\2013\131113\13111369
MSD	13111370	W:\DATA\2013\131113\13111370

Return to Contents

SURROGATE RECOVERIES FOR METHOD: EPA 8082

WORK ORDER NUMBER: 13-11-0697 REVIEWED BY: 0

LCS/MB BATCH : 131112L27 DATE REVIEWED:

MS BATCH : 131112S27 EXTRACTION : EPA 3545

 # 3 CLIENT SAMPLE NUMBER : 8-SS-5-6

DATA FILE: W:\DATA\2013\131113\1311137113111371

D/T EXTRACTED: 11/12/2013 0000
D/T ANALYZED: 11/14/2013 0943 ANALYST: 669 INSTRUMENT NAME: GC 58
COMMENT:

COMPOUND_NAME	% RECOVERY	% REC_CONTROL_LIMIT	STATUS	QUALIFIERS
Decachlorobiphenyl	84	50-130	PASS	
2,4,5,6-Tetrachloro-m-Xylene	59	50-130	PASS	

 # 4 CLIENT SAMPLE NUMBER : 8-SS-9.5-10.5

DATA FILE: W:\DATA\2013\131114\1311142113111421

D/T EXTRACTED: 11/12/2013 0000
D/T ANALYZED: 11/14/2013 1656 ANALYST: 669 INSTRUMENT NAME: GC 58
COMMENT:

COMPOUND_NAME	% RECOVERY	% REC_CONTROL_LIMIT	STATUS	QUALIFIERS
Decachlorobiphenyl	96	50-130	PASS	
2,4,5,6-Tetrachloro-m-Xylene	78	50-130	PASS	

 # 5 CLIENT SAMPLE NUMBER : 8-SS-14.25-15.25

DATA FILE: W:\DATA\2013\131114\1311142313111423

D/T EXTRACTED: 11/12/2013 0000
D/T ANALYZED: 11/14/2013 1732 ANALYST: 669 INSTRUMENT NAME: GC 58
COMMENT:

COMPOUND_NAME	% RECOVERY	% REC_CONTROL_LIMIT	STATUS	QUALIFIERS
Decachlorobiphenyl	80	50-130	PASS	
2,4,5,6-Tetrachloro-m-Xylene	61	50-130	PASS	

 # 6 CLIENT SAMPLE NUMBER : 12-SS-5-6

DATA FILE: W:\DATA\2013\131114\1311142413111424

D/T EXTRACTED: 11/12/2013 0000
D/T ANALYZED: 11/14/2013 1750 ANALYST: 669 INSTRUMENT NAME: GC 58
COMMENT:

COMPOUND_NAME	% RECOVERY	% REC_CONTROL_LIMIT	STATUS	QUALIFIERS
Decachlorobiphenyl	85	50-130	PASS	
2,4,5,6-Tetrachloro-m-Xylene	69	50-130	PASS	

Return to Contents

SURROGATE RECOVERIES FOR METHOD: EPA 8082

WORK ORDER NUMBER: 13-11-0697 REVIEWED BY: 0

LCS/MB BATCH : 131112L27 DATE REVIEWED:

MS BATCH : 131112S27 EXTRACTION : EPA 3545

 # 7 CLIENT SAMPLE NUMBER : 12-SS-9.5-10.5

DATA FILE: W:\DATA\2013\131114\1311142513111425

D/T EXTRACTED: 11/12/2013 0000
D/T ANALYZED: 11/14/2013 1808 ANALYST: 669 INSTRUMENT NAME: GC 58
COMMENT:

COMPOUND_NAME	% RECOVERY	% REC_CONTROL_LIMIT	STATUS	QUALIFIERS
Decachlorobiphenyl	**88**	**50-130**	**PASS**	
2,4,5,6-Tetrachloro-m-Xylene	**75**	**50-130**	**PASS**	

 # 8 CLIENT SAMPLE NUMBER : 12-SS-13.25-15.25

DATA FILE: W:\DATA\2013\131114\1311142613111426

D/T EXTRACTED: 11/12/2013 0000
D/T ANALYZED: 11/14/2013 1826 ANALYST: 669 INSTRUMENT NAME: GC 58
COMMENT:

COMPOUND_NAME	% RECOVERY	% REC_CONTROL_LIMIT	STATUS	QUALIFIERS
Decachlorobiphenyl	**90**	**50-130**	**PASS**	
2,4,5,6-Tetrachloro-m-Xylene	**72**	**50-130**	**PASS**	

 # 9 CLIENT SAMPLE NUMBER : 6-SS-5-6

DATA FILE: W:\DATA\2013\131114\1311142713111427

D/T EXTRACTED: 11/12/2013 0000
D/T ANALYZED: 11/14/2013 1844 ANALYST: 669 INSTRUMENT NAME: GC 58
COMMENT:

COMPOUND_NAME	% RECOVERY	% REC_CONTROL_LIMIT	STATUS	QUALIFIERS
Decachlorobiphenyl	**87**	**50-130**	**PASS**	
2,4,5,6-Tetrachloro-m-Xylene	**69**	**50-130**	**PASS**	

 # 10 CLIENT SAMPLE NUMBER : 6-SS-9-11

DATA FILE: W:\DATA\2013\131114\1311142813111428

D/T EXTRACTED: 11/12/2013 0000
D/T ANALYZED: 11/14/2013 1902 ANALYST: 669 INSTRUMENT NAME: GC 58
COMMENT:

COMPOUND_NAME	% RECOVERY	% REC_CONTROL_LIMIT	STATUS	QUALIFIERS
Decachlorobiphenyl	**78**	**50-130**	**PASS**	
2,4,5,6-Tetrachloro-m-Xylene	**66**	**50-130**	**PASS**	

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8082

WORK ORDER: 13-11-0697
BATCH ID:
LCS/MB: 131112L27
MS: 131112S27
EXTRACTION : EPA 3545

REVIEWED BY: 27
D/T REVIEWED: 11/15/2013 16:15

11 CLIENT SAMPLE NUMBER : 60-SS-9-11

INSTRUMENT: GC 58
D/T EXTRACTED: 11/12/2013 00:00
DATA FILE: W:\DATA\2013\131114\1311142913111429

ANALYZED BY: 669
D/T ANALYZED 11/14/2013 19:20

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	79	50-130	PASS	
2,4,5,6-Tetrachloro-m-Xylene	73	50-130	PASS	

12 CLIENT SAMPLE NUMBER : 6-SS-13.75-14.75

INSTRUMENT: GC 58
D/T EXTRACTED: 11/12/2013 00:00
DATA FILE: W:\DATA\2013\131114\1311143013111430

ANALYZED BY: 669
D/T ANALYZED 11/14/2013 19:38

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	94	50-130	PASS	
2,4,5,6-Tetrachloro-m-Xylene	89	50-130	PASS	

MB CLIENT SAMPLE NUMBER : Method Blank

INSTRUMENT: GC 58
D/T EXTRACTED: 11/12/2013 00:00
DATA FILE: W:\DATA\2013\131113\1311136813111368

ANALYZED BY: 669
D/T ANALYZED 11/14/2013 08:49

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	109	50-130	PASS	
2,4,5,6-Tetrachloro-m-Xylene	97	50-130	PASS	

LCS CLIENT SAMPLE NUMBER : Lab Control Sample

INSTRUMENT: GC 58
D/T EXTRACTED: 11/12/2013 00:00
DATA FILE: W:\DATA\2013\131113\1311136713111367

ANALYZED BY: 669
D/T ANALYZED 11/14/2013 08:31

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	111	50-130	PASS	
2,4,5,6-Tetrachloro-m-Xylene	101	50-130	PASS	

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8082

WORK ORDER: 13-11-0697
BATCH ID:
LCS/MB:
MS: **131112S27**
EXTRACTION : EPA 3545

REVIEWED BY: 27
D/T REVIEWED: 11/15/2013 16:15

 # MS **CLIENT SAMPLE NUMBER : Matrix Spike**

INSTRUMENT: GC 58
D/T EXTRACTED: 11/12/2013 00:00
DATA FILE: W:\DATA\2013\131113\1311136913111369

ANALYZED BY: 669
D/T ANALYZED 11/14/2013 09:07

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	88	50-130	PASS	
2,4,5,6-Tetrachloro-m-Xylene	78	50-130	PASS	

 # MSD **CLIENT SAMPLE NUMBER : Matrix Spike Duplicate**

INSTRUMENT: GC 58
D/T EXTRACTED: 11/12/2013 00:00
DATA FILE: W:\DATA\2013\131113\1311137013111370

ANALYZED BY: 669
D/T ANALYZED 11/14/2013 09:25

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	86	50-130	PASS	
2,4,5,6-Tetrachloro-m-Xylene	73	50-130	PASS	

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131113\13111368.D
Operator : 669 Vial Number : Vial 68
Instrument : GC 58 Sequence Line : 69
Sample Name : MB 131112L27 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 08:49 am Method : EPA 8082
Report Created on: 14 Nov 13 01:30 pm Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.781	38003.96	VV	0.035		97.48	2,4,5,6-Tetrachloro-m-Xylene
5.522	84.81	PB	0.037		1.32	Aroclor 1016 (1)
0.000	0.00		0.000		0.00	Aroclor 1016 (2)
6.675	45.75	BB	0.039		0.71	Aroclor 1016 (3)
0.000	0.00		0.000		0.00	Aroclor 1016 (4)
0.000	0.00		0.000		0.00	Aroclor 1016 (5)
0.000	0.00		0.000		0.00	Aroclor 1260 (1)
9.660	450.73	BB	0.084		6.45	Aroclor 1260 (2)
9.891	52.82	BB	0.081		0.76	Aroclor 1260 (3)
0.000	0.00		0.000		0.00	Aroclor 1260 (4)
0.000	0.00		0.000		0.00	Aroclor 1260 (5)
11.919	40222.89	VB	0.035		109.09	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

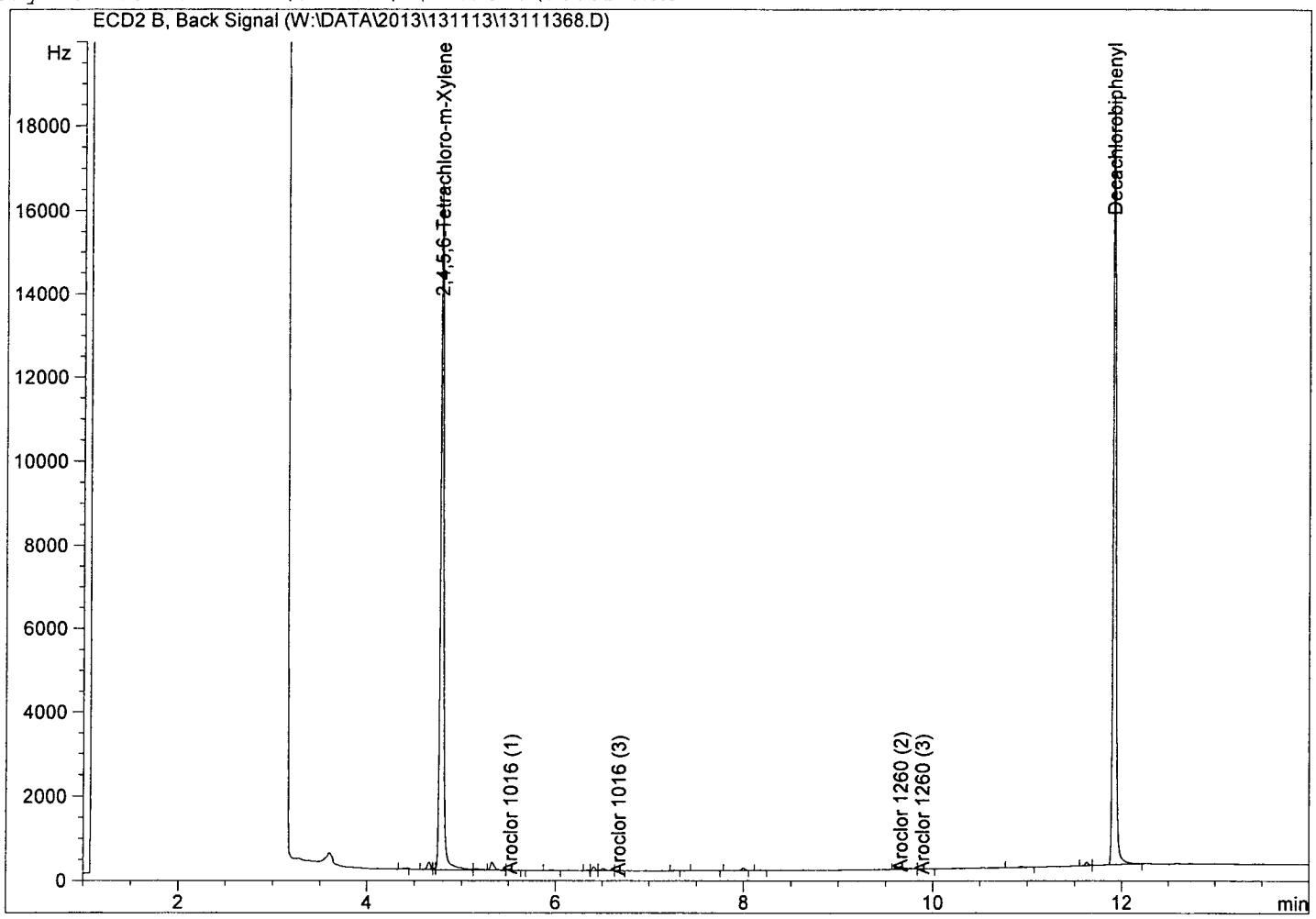
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	130.57	PB	0.01556	2.03 MD	Aroclor-1016
6.908			0.00000		
6.782			0.00000		
6.613		BB	0.01556	MD	
6.032			0.00000		
9.074	503.56		0.00000	7.21	Aroclor-1260
11.266			0.00000		
11.086			0.00000		
9.921		BB	0.01431		
9.585		BB	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131113\13111368.D
Operator : 669 Vial Number : Vial 68
Instrument : GC 58 Sequence Line : 69
Sample Name : MB 131112L27 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 08:49 am Method : EPA 8082
Report Created on: 14 Nov 13 01:30 pm Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131113\13111367.D
Operator : 669 Vial Number : Vial 67
Instrument : GC 58 Sequence Line : 68
Sample Name : LCS 131112L27 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 08:31 am Method : EPA 8082
Report Created on: 14 Nov 13 01:30 pm Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.778	39252.39	VV	0.038		100.69	2,4,5,6-Tetrachloro-m-Xylene
5.482	1471.80	VV	0.037		22.90	Aroclor 1016 (1)
6.022	2678.33	BV	0.044		41.67	Aroclor 1016 (2)
6.606	5750.99	VV	0.051		89.48	Aroclor 1016 (3)
6.775	2424.31	VV	0.039		37.72	Aroclor 1016 (4)
6.902	1598.48	VB	0.035		24.87	Aroclor 1016 (5)
9.069	4388.20	VV	0.036		62.79	Aroclor 1260 (1)
9.578	2956.28	VV	0.035		42.30	Aroclor 1260 (2)
9.913	3383.65	VV	0.036		48.42	Aroclor 1260 (3)
11.079	829.71	VV	0.037		11.87	Aroclor 1260 (4)
11.259	1993.48	VB	0.038		28.53	Aroclor 1260 (5)
11.916	41052.36	BB	0.033		111.34	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

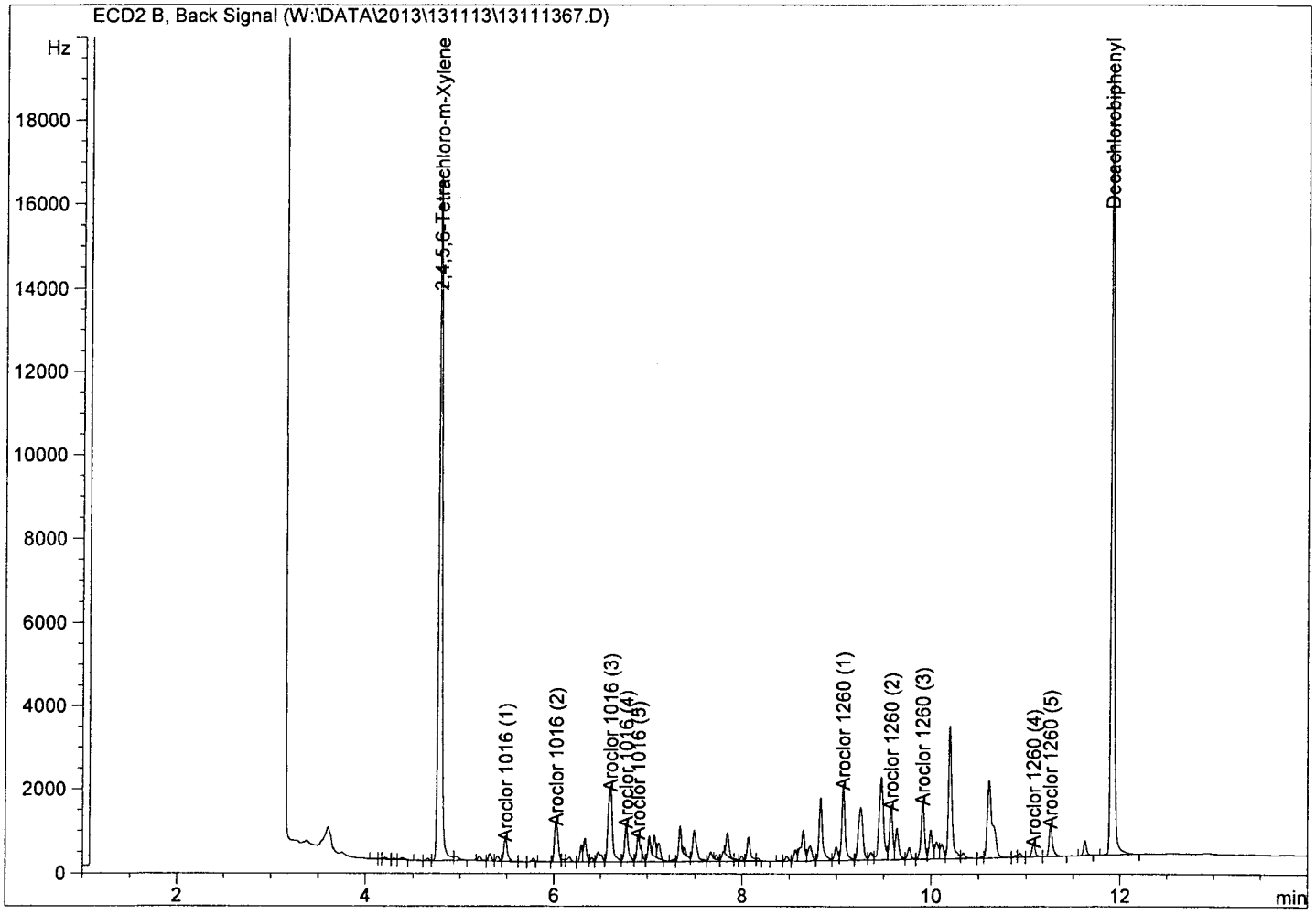
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	13923.91	VV	0.01556	216.64	Aroclor-1016
6.908		VB	0.01556		
6.782		VV	0.01556		
6.613		VV	0.01556		
6.032		BV	0.01556		
9.074	13551.32	VV	0.01431	193.91	Aroclor-1260
11.266		VB	0.01431		
11.086		VV	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131113\13111367.D
Operator : 669 Vial Number : Vial 67
Instrument : GC 58 Sequence Line : 68
Sample Name : LCS 131112L27 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 08:31 am Method : EPA 8082
Report Created on: 14 Nov 13 01:30 pm Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131113\13111369.D
Operator : 669 Vial Number : Vial 69
Instrument : GC 58 Sequence Line : 70
Sample Name : MS 13-11-0697-8 131112L27 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 09:07 am Method : EPA 8082
Report Created on: 14 Nov 13 01:30 pm Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.776	30487.48	BV	0.035		78.20	2,4,5,6-Tetrachloro-m-Xylene
5.482	1198.27	VV	0.036		18.64	Aroclor 1016 (1)
6.019	3083.90	VV	0.053		47.98	Aroclor 1016 (2)
6.608	4611.88	VV	0.053		71.76	Aroclor 1016 (3)
6.775	1904.30	VV	0.039		29.63	Aroclor 1016 (4)
6.902	1238.13	VB	0.035		19.26	Aroclor 1016 (5)
9.069	3456.85	VV	0.036		49.47	Aroclor 1260 (1)
9.579	2339.80	VV	0.036		33.48	Aroclor 1260 (2)
9.913	2685.47	VV	0.036		38.43	Aroclor 1260 (3)
11.079	638.30	VV	0.037		9.13	Aroclor 1260 (4)
11.259	1599.74	VB	0.038		22.89	Aroclor 1260 (5)
11.915	32402.02	VB	0.034		87.88	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

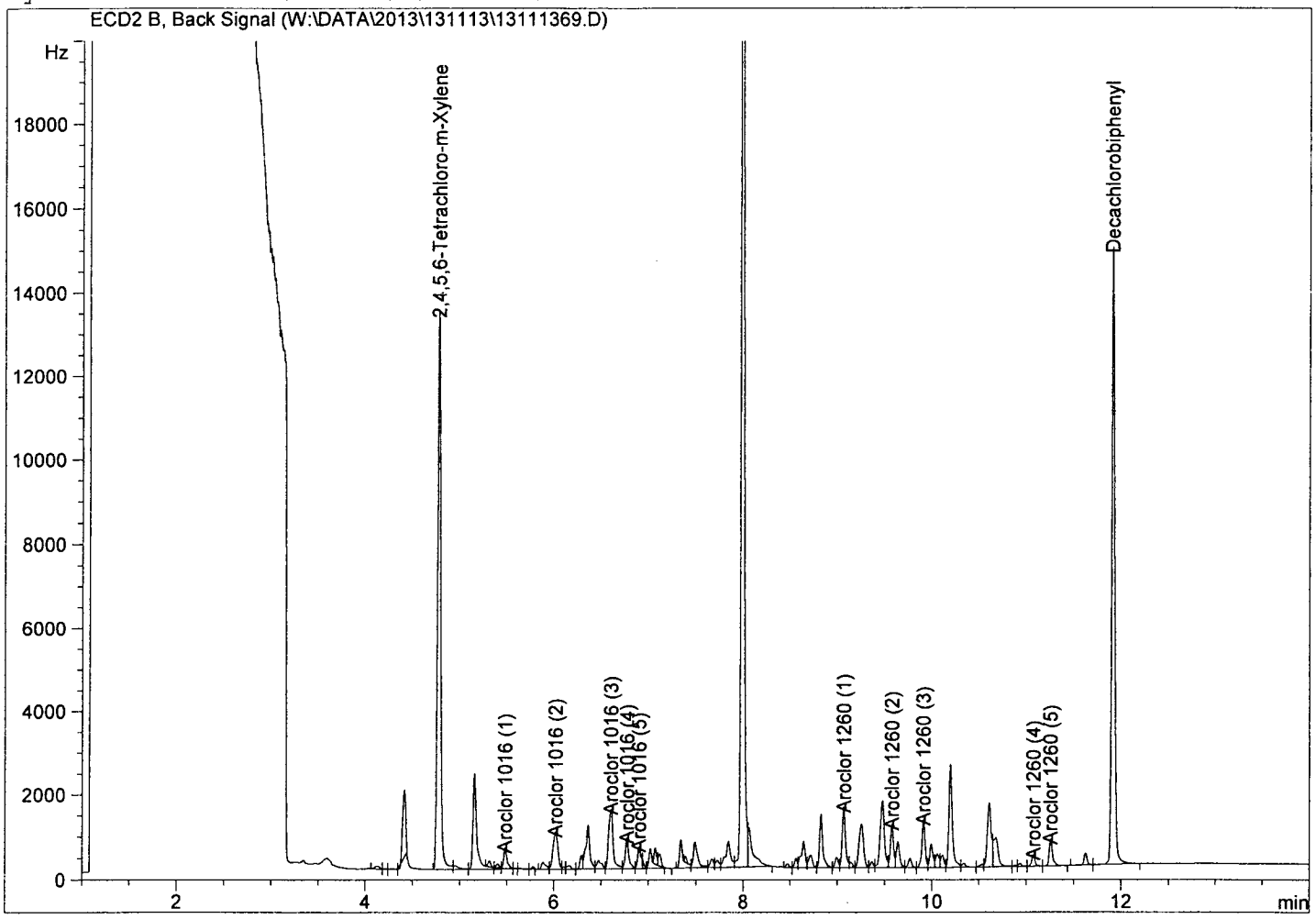
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	12036.47	VV	0.01556	187.27	Aroclor-1016
6.908		VB	0.01556		
6.782		VV	0.01556		
6.613		VV	0.01556		
6.032		VV	0.01556		
9.074	10720.16	VV	0.01431	153.40	Aroclor-1260
11.266		VB	0.01431		
11.086		VV	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131113\13111369.D
Operator : 669 Vial Number : Vial 69
Instrument : GC 58 Sequence Line : 70
Sample Name : MS 13-11-0697-8 131112L27 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 09:07 am Method : EPA 8082
Report Created on: 14 Nov 13 01:30 pm Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131113\13111370.D
Operator : 669 Vial Number : Vial 70
Instrument : GC 58 Sequence Line : 71
Sample Name : MSD 13-11-0697-8 131112L27 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 09:25 am Method : EPA 8082
Report Created on: 14 Nov 13 01:30 pm Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.777	28383.78	BV	0.034		72.81	2,4,5,6-Tetrachloro-m-Xylene
5.482	1190.97	VV	0.036		18.53	Aroclor 1016 (1)
6.016	3385.25	VV	0.064		52.67	Aroclor 1016 (2)
6.608	4428.15	VV	0.052		68.90	Aroclor 1016 (3)
6.776	1856.93	VV	0.040		28.89	Aroclor 1016 (4)
6.903	1212.38	VB	0.035		18.86	Aroclor 1016 (5)
9.071	3293.08	VV	0.038		47.12	Aroclor 1260 (1)
9.579	2261.45	VV	0.036		32.36	Aroclor 1260 (2)
9.915	2557.48	VV	0.038		36.60	Aroclor 1260 (3)
11.080	616.43	VV	0.037		8.82	Aroclor 1260 (4)
11.260	1560.92	VB	0.038		22.34	Aroclor 1260 (5)
11.916	31745.07	BB	0.033		86.10	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

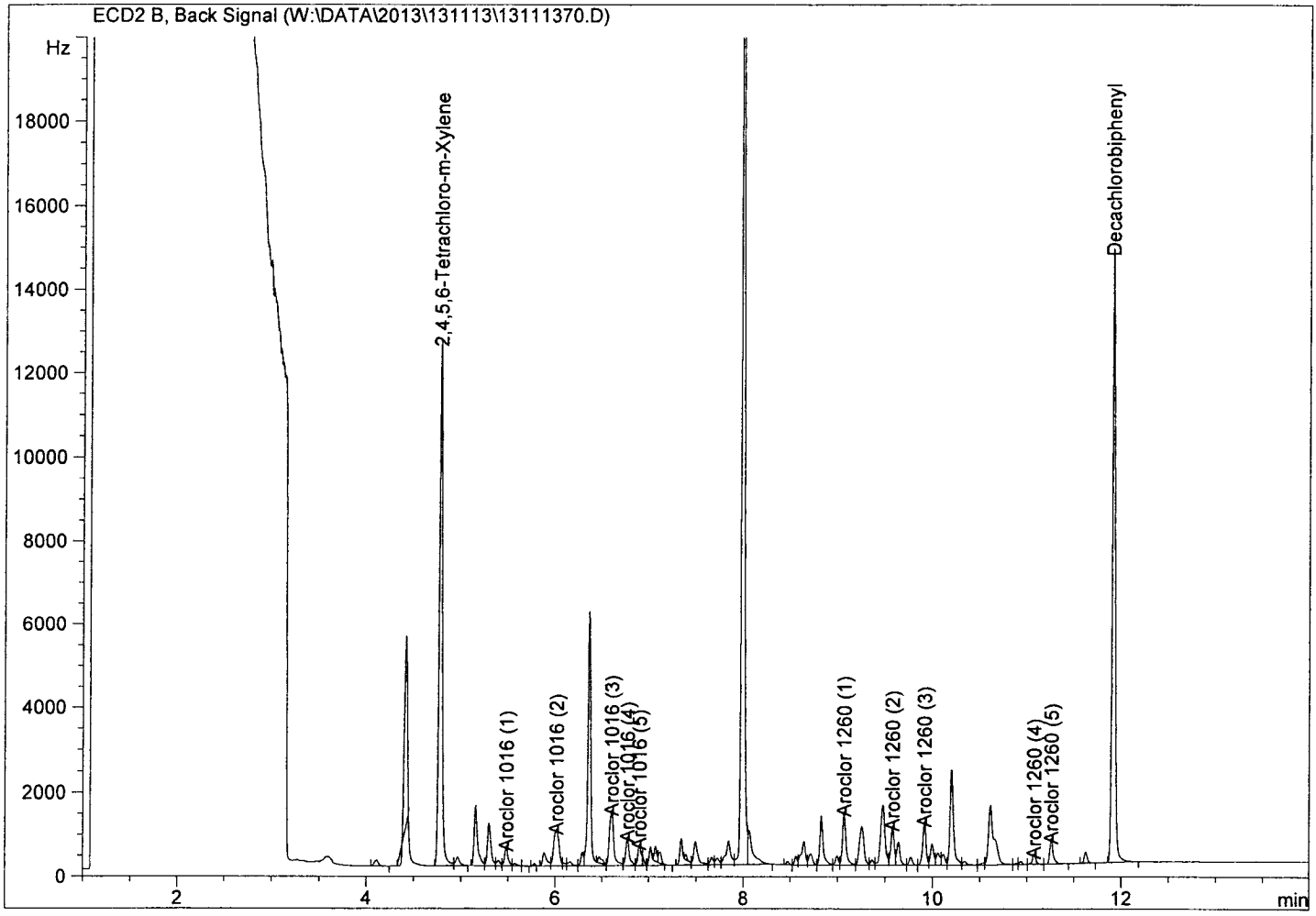
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	12073.69	VV	0.01556	187.85	Aroclor-1016
6.908		VB	0.01556		
6.782		VV	0.01556		
6.613		VV	0.01556		
6.032		VV	0.01556		
9.074	10289.35	VV	0.01431	147.24	Aroclor-1260
11.266		VB	0.01431		
11.086		VV	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131113\13111370.D
Operator : 669 Vial Number : Vial 70
Instrument : GC 58 Sequence Line : 71
Sample Name : MSD 13-11-0697-8 131112L27 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 09:25 am Method : EPA 8082
Report Created on: 14 Nov 13 01:30 pm Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

EPA METHOD 8082
PCB Aroclors

Continuing Calibration

Return to Contents

CCV ASSOCIATION SUMMARY
FOR METHOD: EPA 8082

BATCH ID: **131113C** ANALYZED BY: 669
INSTRUMENT: GC 58

WORK ORDER: **099-12-532** REVIEWED BY: 27
MATRIX: Water D/T REVIEWED: 11/14/2013 15:29

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
5275	Daily Calibration	11/14/2013 07:37	W:\DATA\2013\131113\1311136413111364

WORK ORDER: **13-11-0697** REVIEWED BY: 27
MATRIX: Soil D/T REVIEWED: 11/15/2013 16:15

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
3	8-SS-5-6	11/14/2013 09:43	W:\DATA\2013\131113\1311137113111371
8	12-SS-13.25-15.25	11/14/2013 09:07	W:\DATA\2013\131113\1311136913111369
8	12-SS-13.25-15.25	11/14/2013 09:25	W:\DATA\2013\131113\1311137013111370

Return to Contents

CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD : EPA 8082

INSTRUMENT NAME: GC 58
INITIAL BATCH: 130827
INITIAL DATE ANALYZED: 08/27/2013 17:48

REVIEWED BY: 27
DATE REVIEWED: 09/05/2013 11:37
CCV BATCH: 131113C
CCV DATE ANALYZED: 11/14/2013 07:37

DATA FILE: W:\DATA\2013\131113\1311136413111364

COMPOUND_NAME	INITIAL_RF	INITIAL_RSD	RSD ALLOWED	CCV_RF	% DIFF	% DIFF_ALLOWED	STATUS
Aroclor-1016	6.427E+001	8	0-20	6.816E+001	6	0-15	PASS
Aroclor-1221	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1232	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1242	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1248	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1254	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1260	6.988E+001	7	0-20	7.310E+001	5	0-15	PASS
Aroclor-1262	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131113\13111364.D
Operator : 669 Vial Number : Vial 64
Instrument : GC 58 Sequence Line : 65
Sample Name : PCB CCV500PPB S091113H Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 07:37 am Method : EPA 8082
Report Created on: 14 Nov 13 00:39 pm Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.774	41916.14	BV	0.035		107.52	2,4,5,6-Tetrachloro-m-Xylene
5.481	3376.14	VV	0.035		52.53	Aroclor 1016 (1)
6.022	6520.07	BV	0.043		101.45	Aroclor 1016 (2)
6.606	14380.76	VV	0.051		223.75	Aroclor 1016 (3)
6.774	5765.98	VB	0.038		89.71	Aroclor 1016 (4)
6.901	4036.41	VB	0.036		62.80	Aroclor 1016 (5)
9.068	10704.63	VV	0.035		153.18	Aroclor 1260 (1)
9.578	8384.74	VV	0.036		119.98	Aroclor 1260 (2)
9.913	9171.16	VV	0.034		131.23	Aroclor 1260 (3)
11.078	2414.19	VB	0.035		34.55	Aroclor 1260 (4)
11.259	5875.27	BB	0.035		84.07	Aroclor 1260 (5)
11.916	41635.37	VB	0.033		112.92	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

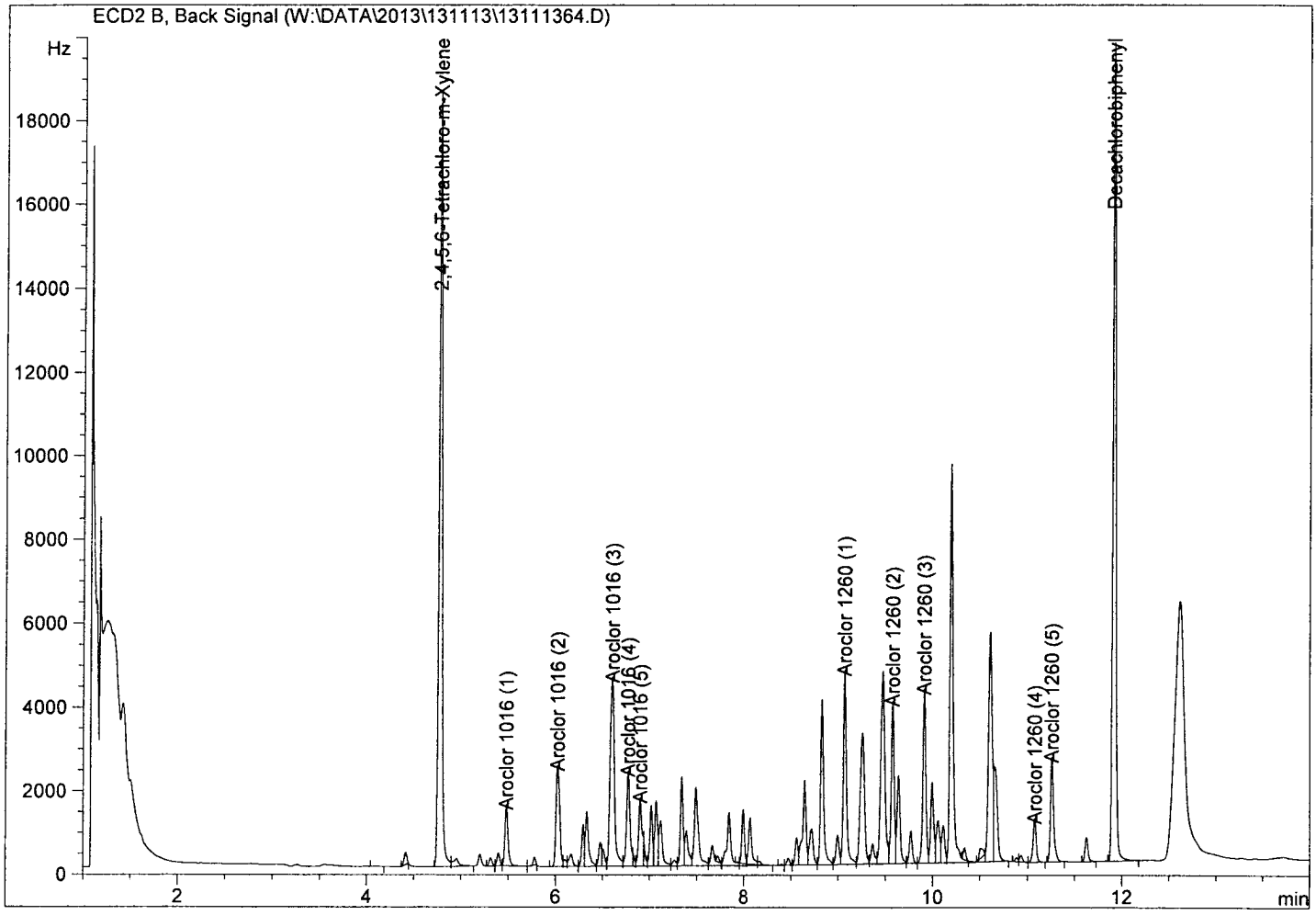
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	34079.35	VV	0.01556	530.24	Aroclor-1016
6.908		VB	0.01556		
6.782		VB	0.01556		
6.613		VV	0.01556		
6.032		BV	0.01556		
9.074	36550.00	VV	0.01431	523.01	Aroclor-1260
11.266		BB	0.01431		
11.086		VB	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131113\13111364.D
Operator : 669 Vial Number : Vial 64
Instrument : GC 58 Sequence Line : 65
Sample Name : PCB CCV500PPB S091113H Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 07:37 am Method : EPA 8082
Report Created on: 14 Nov 13 00:39 pm Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

CONTINUING CALIBRATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8082

BATCH ID:
INITIAL: **130827**
CCV: 131113END
INSTRUMENT: GC 58

D/T ANALYZED:
INITIAL: 08/27/2013 17:48
CCV: 11/14/2013 10:13
REVIEWED BY: 27
D/T REVIEWED: 09/05/2013 11:37

DATA FILE: W:\DATA\2013\131113\1311137213111372

COMPOUND NAME	INITIAL RF	INITIAL RSD	RSD ALLOWED	CCV RF	% DIFF	% DIFF ALLOWED	STATUS
Aroclor-1016	6.427E+001	8	0-20	6.500E+001	1	0-15	PASS
Aroclor-1221	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1232	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1242	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1248	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1254	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1260	6.988E+001	7	0-20	6.910E+001	1	0-15	PASS
Aroclor-1262	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131113\13111372.D
Operator : 669 Vial Number : Vial 72
Instrument : GC 58 Sequence Line : 73
Sample Name : PCB CCV500PPB S091113H Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 10:13 am Method : EPA 8082
Report Created on: 14 Nov 13 01:31 pm Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.770	39789.52	VV	0.035		102.06	2,4,5,6-Tetrachloro-m-Xylene
5.476	3297.27	VV	0.036		51.30	Aroclor 1016 (1)
6.018	6158.98	VV	0.044		95.83	Aroclor 1016 (2)
6.603	13460.86	VV	0.051		209.44	Aroclor 1016 (3)
6.772	5749.40	VV	0.041		89.45	Aroclor 1016 (4)
6.899	3832.46	VB	0.036		59.63	Aroclor 1016 (5)
9.068	10090.47	VV	0.040		144.39	Aroclor 1260 (1)
9.577	7902.43	VV	0.037		113.08	Aroclor 1260 (2)
9.913	8700.18	VV	0.037		124.50	Aroclor 1260 (3)
11.080	2279.85	VV	0.035		32.62	Aroclor 1260 (4)
11.260	5578.57	VB	0.035		79.83	Aroclor 1260 (5)
11.917	39860.76	VB	0.033		108.11	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

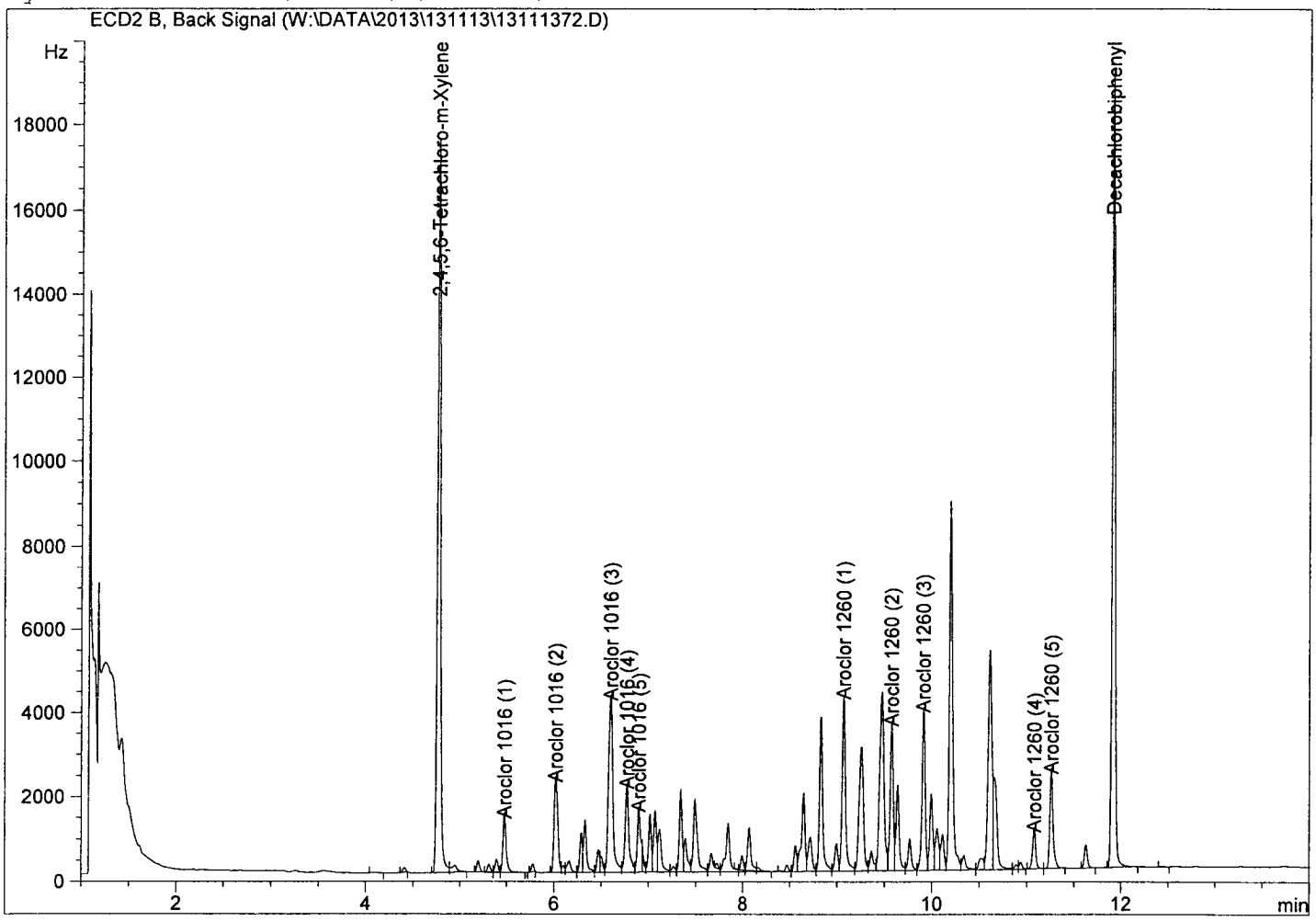
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	32498.98	VV	0.01556	505.65	Aroclor-1016
6.908		VB	0.01556		
6.782		VV	0.01556		
6.613		VV	0.01556		
6.032		VV	0.01556		
9.074	34551.50	VV	0.01431	494.41	Aroclor-1260
11.266		VB	0.01431		
11.086		VV	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131113\13111372.D
Operator : 669 Vial Number : Vial 72
Instrument : GC 58 Sequence Line : 73
Sample Name : PCB CCV500PPB S091113H Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 10:13 am Method : EPA 8082
Report Created on: 14 Nov 13 01:31 pm Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

CCV ASSOCIATION SUMMARY
FOR METHOD: EPA 8082

BATCH ID: **131114** ANALYZED BY: 669
INSTRUMENT: GC 58

WORK ORDER: **099-12-532** REVIEWED BY: 27
MATRIX: Water D/T REVIEWED: 11/14/2013 14:36

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
5272	Daily Calibration	11/14/2013 10:57	W:\DATA\2013\131114\1311140113111401

WORK ORDER: **13-11-0697** REVIEWED BY: 27
MATRIX: Soil D/T REVIEWED: 11/15/2013 16:15

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
4	8-SS-9.5-10.5	11/14/2013 16:56	W:\DATA\2013\131114\1311142113111421

Return to Contents

CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD : EPA 8082

INSTRUMENT NAME: GC 58
INITIAL BATCH: 130827
INITIAL DATE ANALYZED: 08/27/2013 17:48

REVIEWED BY: 27
DATE REVIEWED: 09/05/2013 11:37
CCV BATCH: 131114
CCV DATE ANALYZED: 11/14/2013 10:57

DATA FILE: W:\DATA\2013\131114\1311140113111401

COMPOUND NAME	INITIAL RF	INITIAL RSD	RSD ALLOWED	CCV RF	% DIFF	% DIFF ALLOWED	STATUS
Aroclor-1016	6.427E+001	8	0-20	6.513E+001	1	0-15	PASS
Aroclor-1221	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1232	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1242	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1248	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1254	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1260	6.988E+001	7	0-20	7.120E+001	2	0-15	PASS
Aroclor-1262	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131114\13111401.D
Operator : 669 Vial Number : Vial 1
Instrument : GC 58 Sequence Line : 2
Sample Name : PCB CCV500PPB S091113H Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 10:57 am Method : EPA 8082
Report Created on: 14 Nov 13 11:46 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.777	40187.69	BV	0.035		103.09	2,4,5,6-Tetrachloro-m-Xylene
5.483	3222.55	VV	0.035		50.14	Aroclor 1016 (1)
6.024	6285.09	BV	0.045		97.79	Aroclor 1016 (2)
6.608	13796.24	VV	0.050		214.65	Aroclor 1016 (3)
6.776	5485.49	VB	0.037		85.35	Aroclor 1016 (4)
6.903	3774.68	VB	0.035		58.73	Aroclor 1016 (5)
9.069	10399.87	VV	0.035		148.82	Aroclor 1260 (1)
9.578	8145.19	VV	0.036		116.55	Aroclor 1260 (2)
9.914	8989.66	VV	0.034		128.64	Aroclor 1260 (3)
11.079	2329.35	VV	0.034		33.33	Aroclor 1260 (4)
11.259	5735.64	VV	0.037		82.07	Aroclor 1260 (5)
11.916	39961.36	VB	0.033		108.38	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

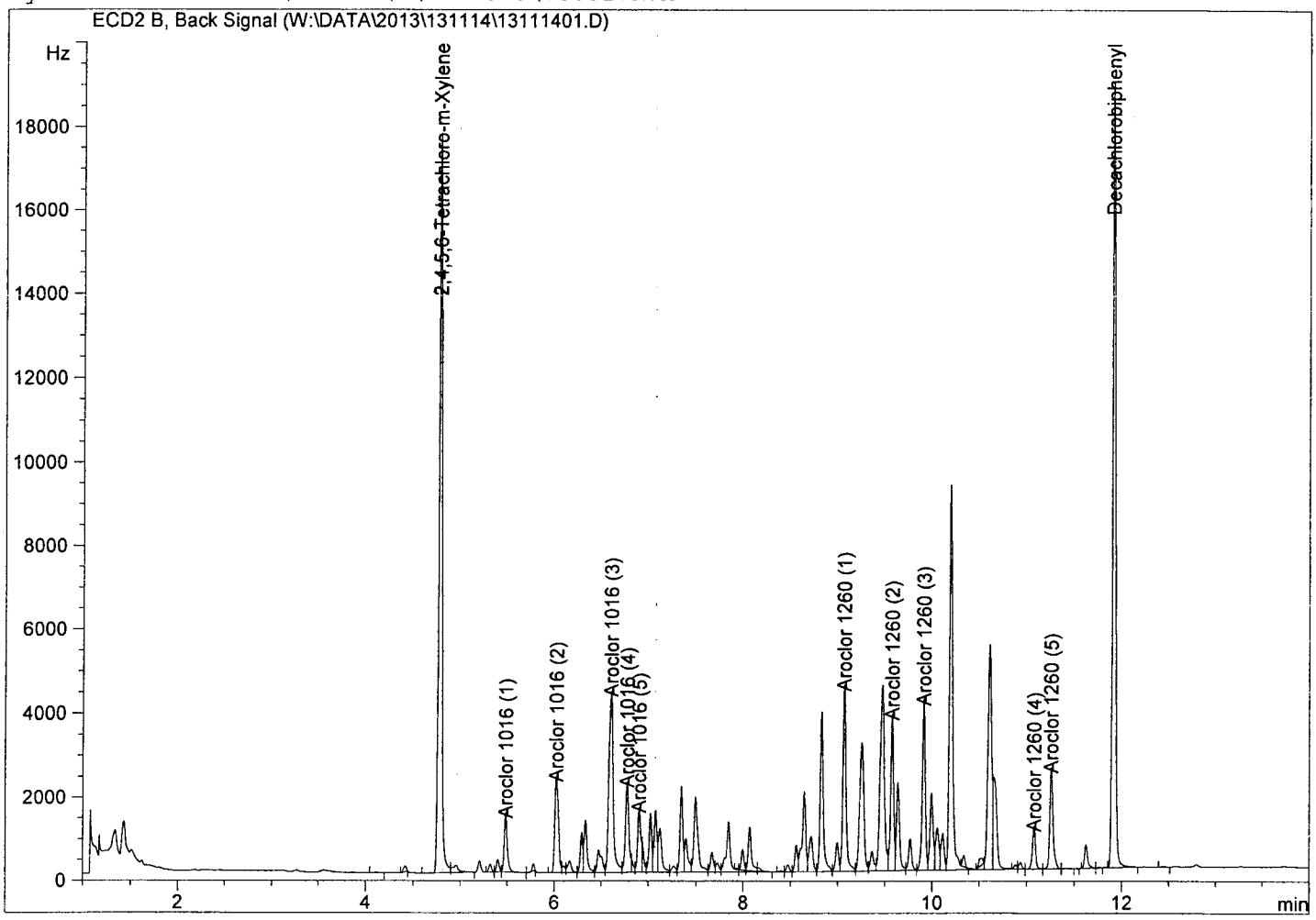
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	32564.05	VV	0.01556	506.66	Aroclor-1016
6.908		VB	0.01556		
6.782		VB	0.01556		
6.613		VV	0.01556		
6.032		BV	0.01556		
9.074	35599.71	VV	0.01431	509.41	Aroclor-1260
11.266		VV	0.01431		
11.086		VV	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131114\13111401.D
Operator : 669 Vial Number : Vial 1
Instrument : GC 58 Sequence Line : 2
Sample Name : PCB CCV500PPB S091113H Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 10:57 am Method : EPA 8082
Report Created on: 14 Nov 13 11:46 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

CCV ASSOCIATION SUMMARY
FOR METHOD: EPA 8082

BATCH ID: **131114A** ANALYZED BY: 669
INSTRUMENT: GC 58

WORK ORDER: **099-12-532** REVIEWED BY: 27
MATRIX: Water D/T REVIEWED: 11/15/2013 15:54

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
5277	Daily Calibration	11/14/2013 17:14	W:\DATA\2013\131114\1311142213111422

WORK ORDER: **13-11-0697** REVIEWED BY: 27
MATRIX: Soil D/T REVIEWED: 11/15/2013 16:15

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
5	8-SS-14.25-15.25	11/14/2013 17:32	W:\DATA\2013\131114\1311142313111423
6	12-SS-5-6	11/14/2013 17:50	W:\DATA\2013\131114\1311142413111424
7	12-SS-9.5-10.5	11/14/2013 18:08	W:\DATA\2013\131114\1311142513111425
8	12-SS-13.25-15.25	11/14/2013 18:26	W:\DATA\2013\131114\1311142613111426
9	6-SS-5-6	11/14/2013 18:44	W:\DATA\2013\131114\1311142713111427
10	6-SS-9-11	11/14/2013 19:02	W:\DATA\2013\131114\1311142813111428
11	60-SS-9-11	11/14/2013 19:20	W:\DATA\2013\131114\1311142913111429
12	6-SS-13.75-14.75	11/14/2013 19:38	W:\DATA\2013\131114\1311143013111430

Return to Contents

CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD : EPA 8082

INSTRUMENT NAME: GC 58
INITIAL BATCH: 130827
INITIAL DATE ANALYZED: 08/27/2013 17:48

REVIEWED BY: 27
DATE REVIEWED: 09/05/2013 11:37
CCV BATCH: 131114A
CCV DATE ANALYZED: 11/14/2013 17:14

DATA FILE: W:\DATA\2013\131114\1311142213111422

COMPOUND_NAME	INITIAL_RF	INITIAL_RSD	RSD ALLOWED	CCV_RF	% DIFF	% DIFF_ALLOWED	STATUS
Aroclor-1016	6.427E+001	8	0-20	6.322E+001	2	0-15	PASS
Aroclor-1221	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1232	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1242	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1248	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1254	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1260	6.988E+001	7	0-20	7.040E+001	1	0-15	PASS
Aroclor-1262	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131114\13111422.D
Operator : 669 Vial Number : Vial 22
Instrument : GC 58 Sequence Line : 23
Sample Name : PCB CCV500PPB S091113H Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 05:14 pm Method : EPA 8082
Report Created on: 15 Nov 13 11:24 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.781	39763.09	VV	0.035		102.00	2,4,5,6-Tetrachloro-m-Xylene
5.484	3220.05	VB	0.035		50.10	Aroclor 1016 (1)
6.025	6169.30	BV	0.043		95.99	Aroclor 1016 (2)
6.608	13445.72	VV	0.049		209.20	Aroclor 1016 (3)
6.777	5204.75	VB	0.036		80.98	Aroclor 1016 (4)
6.903	3569.43	VB	0.034		55.54	Aroclor 1016 (5)
9.069	10203.67	VV	0.033		146.01	Aroclor 1260 (1)
9.579	7989.59	VV	0.036		114.33	Aroclor 1260 (2)
9.914	8716.98	VV	0.033		124.74	Aroclor 1260 (3)
11.079	2396.62	VV	0.035		34.29	Aroclor 1260 (4)
11.260	5893.40	VV	0.036		84.33	Aroclor 1260 (5)
11.917	39020.14	VB	0.032		105.83	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

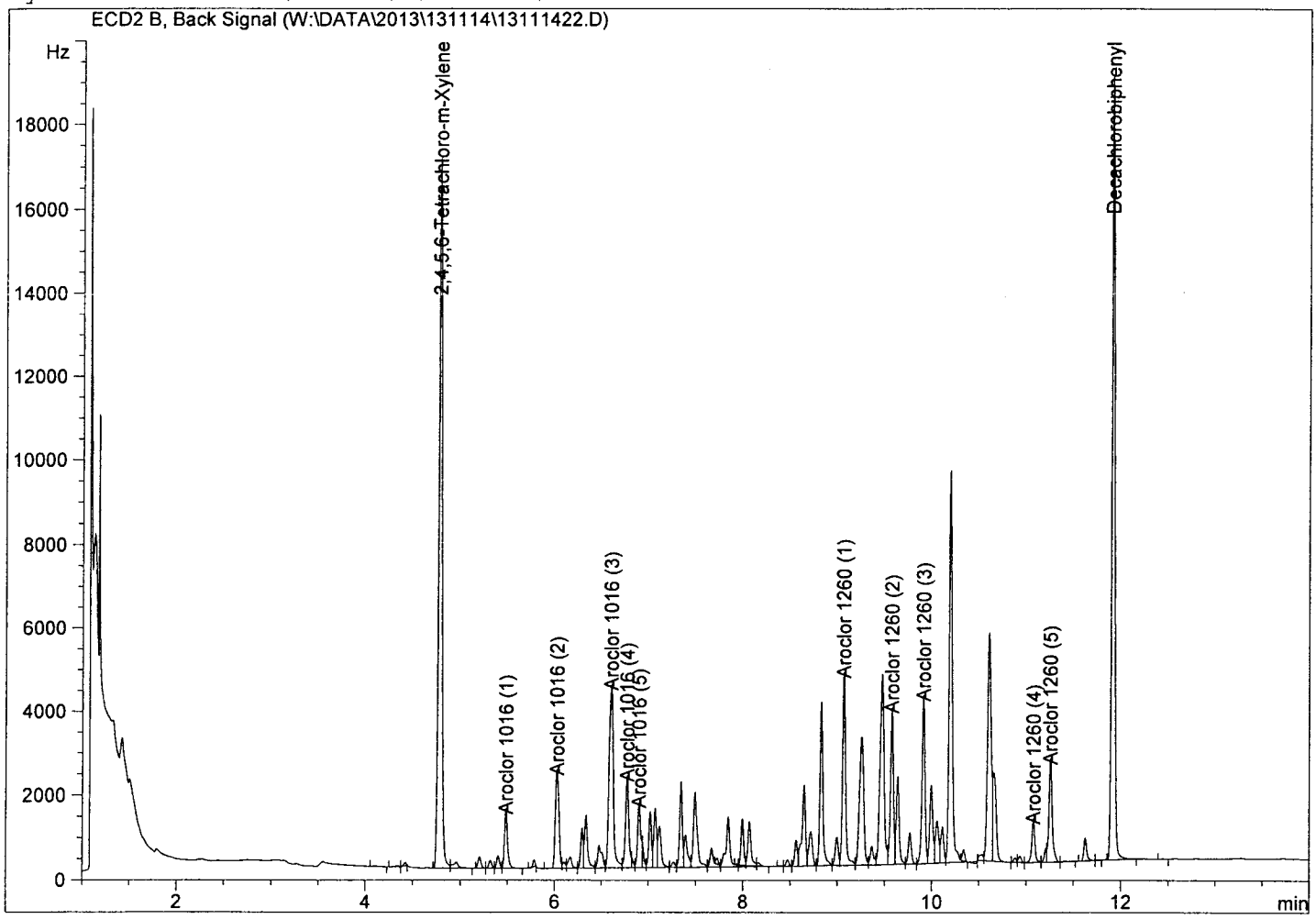
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	31609.26	VB	0.01556	491.81	Aroclor-1016
6.908		VB	0.01556		
6.782		VB	0.01556		
6.613		VV	0.01556		
6.032		BV	0.01556		
9.074	35200.27	VV	0.01431	503.70	Aroclor-1260
11.266		VV	0.01431		
11.086		VV	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131114\13111422.D
Operator : 669 Vial Number : Vial 22
Instrument : GC 58 Sequence Line : 23
Sample Name : PCB CCV500PPB S091113H Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 05:14 pm Method : EPA 8082
Report Created on: 15 Nov 13 11:24 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

CONTINUING CALIBRATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8082

BATCH ID:
INITIAL: **130827**
CCV: 131114B
INSTRUMENT: GC 58

D/T ANALYZED:
INITIAL: 08/27/2013 17:48
CCV: 11/14/2013 23:32
REVIEWED BY: 27
D/T REVIEWED: 09/05/2013 11:37

DATA FILE: W:\DATA\2013\131114\1311144313111443

COMPOUND NAME	INITIAL RF	INITIAL RSD	RSD ALLOWED	CCV RF	% DIFF	% DIFF ALLOWED	STATUS
Aroclor-1016	6.427E+001	8	0-20	6.438E+001	0	0-15	PASS
Aroclor-1221	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1232	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1242	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1248	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1254	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1260	6.988E+001	7	0-20	6.502E+001	7	0-15	PASS
Aroclor-1262	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131114\13111443.D
Operator : 669 Vial Number : Vial 43
Instrument : GC 58 Sequence Line : 44
Sample Name : PCB CCV500PPB S091113H Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 11:32 pm Method : EPA 8082
Report Created on: 15 Nov 13 11:37 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.779	39876.76	VV	0.035		102.29	2,4,5,6-Tetrachloro-m-Xylene
5.483	3319.94	VB	0.034		51.65	Aroclor 1016 (1)
6.024	6200.42	VV	0.043		96.47	Aroclor 1016 (2)
6.607	13597.74	VV	0.050		211.57	Aroclor 1016 (3)
6.776	5357.68	VB	0.037		83.36	Aroclor 1016 (4)
6.903	3716.40	VB	0.035		57.82	Aroclor 1016 (5)
9.067	9666.91	VV	0.038		138.33	Aroclor 1260 (1)
9.577	7406.07	VV	0.035		105.98	Aroclor 1260 (2)
9.913	8167.27	VV	0.037		116.87	Aroclor 1260 (3)
11.079	2137.30	VV	0.035		30.58	Aroclor 1260 (4)
11.258	5132.38	VB	0.036		73.44	Aroclor 1260 (5)
11.915	36710.70	VV	0.034		99.57	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

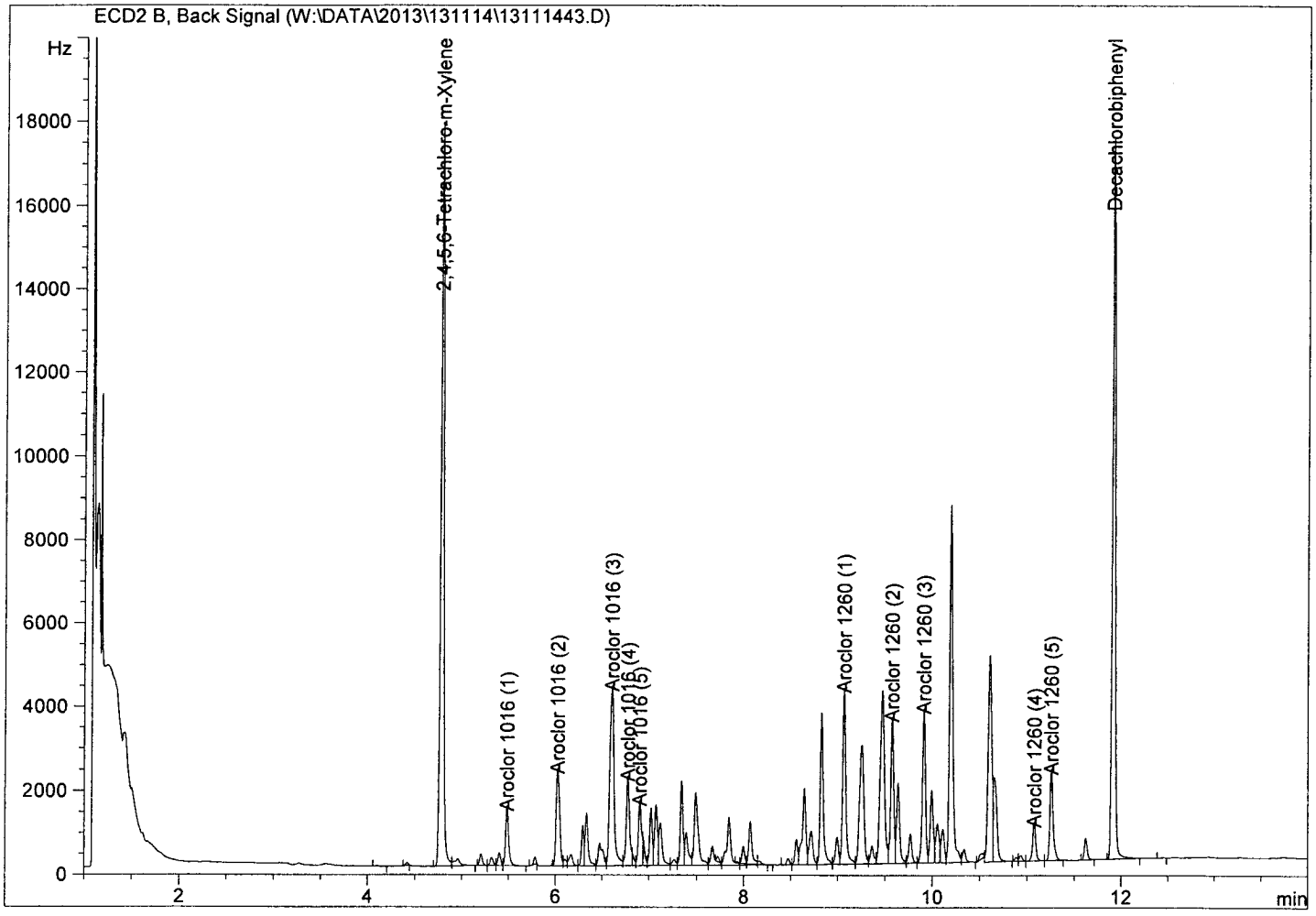
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	32192.18	VB	0.01556	500.87	Aroclor-1016
6.908		VB	0.01556		
6.782		VB	0.01556		
6.613		VV	0.01556		
6.032		VV	0.01556		
9.074	32509.93	VV	0.01431	465.20	Aroclor-1260
11.266		VB	0.01431		
11.086		VV	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131114\13111443.D
Operator : 669 Vial Number : Vial 43
Instrument : GC 58 Sequence Line : 44
Sample Name : PCB CCV500PPB S091113H Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 14 Nov 13 11:32 pm Method : EPA 8082
Report Created on: 15 Nov 13 11:37 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

EPA METHOD 8082
PCB Aroclors

Run Logs

Return to Contents

Sequence Table (Front Injector):

Line	Location	SampleName	Method Name	Data File
1	Vial 100	IB E08-42-4	8082-N2	13082700
2	Vial 1	ICAL 100PPB S030713B	8082-N2	13082701
3	Vial 2	ICAL 250PPB S030713C	8082-N2	13082702
4	Vial 3	ICAL 500PPB S030713D	8082-N2	13082703
5	Vial 4	ICAL 750PPB S030713E	8082-N2	13082704
6	Vial 5	ICAL 2000PPB S030713F	8082-N2	13082705
7	Vial 6	ICV 500PPB S052013B	8082-N2	13082706
8	Vial 7	1221/54 S061213K	8082-N2	13082707
9	Vial 8	1232/62 S061213L	8082-N2	13082708
10	Vial 9	1248/68 S061213M	8082-N2	13082709
11	Vial 10	1242 S061213N	8082-N2	13082710
12	Vial 11	PCB CCV500PPB S031513A	8082-N2	13082711
13	Vial 12	LCS 130823L02	8082-N2	13082712
14	Vial 13	MB 130823L02	8082-N2	13082713
15	Vial 14	MS 13-08-1532-1 130823S02	8082-N2	13082714
16	Vial 15	MSD 13-08-1532-1 130823S02	8082-N2	13082715
17	Vial 16	13-08-1532-1	8082-N2	13082716
18	Vial 17	LCS 130824L06	8082-N2	13082717
19	Vial 18	MB 130824L06	8082-N2	13082718
20	Vial 19	MS 13-08-1639-3 130824S06	8082-N2	13082719
21	Vial 20	MSD 13-08-1639-3 130824S06	8082-N2	13082720
22	Vial 21	13-08-1639-1	8082-N2	13082721
23	Vial 22	13-08-1639-2	8082-N2	13082722
24	Vial 23	13-08-1639-3	8082-N2	13082723
25	Vial 24	13-08-1640-1	8082-N2	13082724
26	Vial 25	13-08-1640-2	8082-N2	13082725
27	Vial 26	PCB CCV500PPB S031513A	8082-N2	13082726

Return to Contents

Sequence Table (Front Injector):

Line	Location	SampleName	Method Name	Data File
1	Vial 100	IB E08-42-10	8082-N2	13111300
2	Vial 1	PCB CCV500PPB S091113H	8082-N2	13111301
3	Vial 2	13-11-0877-1 2X	8082-N2	13111302
4	Vial 3	13-11-0877-1 2X	8082-N2	13111303
5	Vial 4	LCS 131106L16	8082-N2	13111304
6	Vial 5	LCSD 131106L16	8082-N2	13111305
7	Vial 6	MB 131106L16	8082-N2	13111306
8	Vial 7	13-11-0362-1	8082-N2	13111307
9	Vial 14	13-11-0350-2	8082-N2	13111314
10	Vial 15	13-11-0350-14	8082-N2	13111315
11	Vial 16	13-11-0350-15	8082-N2	13111316
12	Vial 8	13-11-0631-1 MS 5X) Conc.	8082-N2	13111308
13	Vial 9	13-11-0631-1 MSD 5X)	8082-N2	13111309
14	Vial 10	13-11-0631-1 5X	8082-N2	13111310
15	Vial 11	13-11-0636-1 ~~5X~~ 10X 669	8082-N2	13111311
16	Vial 12	13-11-0638-1 ~~5X~~ 10X ↓	8082-N2	13111312
17	Vial 13	13-11-0699-1 5X 4/13	8082-N2	13111313
18	Vial 17	MB 131113L01	8082-N2	13111317
19	Vial 18	13-11-0958-1	8082-N2	13111318
20	Vial 19	13-11-0958-2	8082-N2	13111319
21	Vial 20	MS 13-11-0958-2 131113S01	8082-N2	13111320
22	Vial 21	MSD 13-11-0958-2 131113S01	8082-N2	13111321
23	Vial 22	PCB CCV500PPB S091113H A	8082-N2	13111322
24	Vial 23	LCS 131113L01	8082-N2	13111323
25	Vial 24	13-10-2406-6 Hg 5X	8082-N2	13111324
26	Vial 25	13-10-2406-7 Hg 10X	8082-N2	13111325
27	Vial 26	13-10-2406-9 5X	8082-N2	13111326
28	Vial 27	13-10-2406-10 Hg 100X	8082-N2	13111327
29	Vial 28	13-10-2406-18 Hg 100X	8082-N2	13111328
30	Vial 29	13-10-2406-6 Hg	8082-N2	13111329
31	Vial 30	13-10-2406-10 Hg 10X	8082-N2	13111330
32	Vial 31	13-10-2406-18 Hg 10X	8082-N2	13111331
33	Vial 32	13-11-0611-1	8082-N2	13111332
34	Vial 33	13-11-0611-2	8082-N2	13111333
35	Vial 34	13-11-0611-3	8082-N2	13111334
36	Vial 35	LCS 131108L15	8082-N2	13111335
37	Vial 36	LCSD 131108L15	8082-N2	13111336
38	Vial 37	MB 131108L15	8082-N2	13111337
39	Vial 38	13-11-0574-1 669	8082-N2	13111338
40	Vial 39	13-11-0973-1 ↓	8082-N2	13111339
41	Vial 40	13-11-0973-2	8082-N2	13111340
42	Vial 41	13-11-0973-3	8082-N2	13111341
43	Vial 42	13-11-0973-4 4/13	8082-N2	13111342
44	Vial 43	PCB CCV500PPB S091113H B	8082-N2	13111343
45	Vial 44	LCS 131108L12) Surr + spike x2	8082-N2	13111344
46	Vial 45	LCSD 131108L12)	8082-N2	13111345
47	Vial 46	MB 131108L12	8082-N2	13111346
48	Vial 47	13-11-0490-1	8082-N2	13111347
49	Vial 48	13-11-0489-1	8082-N2	13111348
50	Vial 49	13-11-0489-2	8082-N2	13111349
51	Vial 50	13-11-0536-1	8082-N2	13111350
52	Vial 51	LCS 131112L16	8082-N2	13111351
53	Vial 52	MB 131112L16	8082-N2	13111352
54	Vial 53	MS 13-11-0860-6 131112S16	8082-N2	13111353
55	Vial 54	MSD 13-11-0860-6 131112S16	8082-N2	13111354

Return to Contents

56	Vial 55	13-11-0860-6	8082-N2	13111355
57	Vial 56	LCS 131112L07	8082-N2	13111356
58	Vial 57	LCSD 131112L07	8082-N2	13111357
59	Vial 58	MB 131112L07	8082-N2	13111358
60	Vial 59	13-11-0609-1	8082-N2	13111359
61	Vial 60	13-11-0609-2	8082-N2	13111360
62	Vial 61	LCS 131112L19	8082-N2	13111361
63	Vial 62	LCSD 131112L19	8082-N2	13111362
64	Vial 63	MB 131112L19	8082-N2	13111363
65	Vial 64	PCB CCV500PPB S091113H	8082-N2	13111364
66	Vial 65	13-11-0679-1	8082-N2	13111365
67	Vial 66	13-11-0679-2	8082-N2	13111366
68	Vial 67	LCS 131112L27	8082-N2	13111367
69	Vial 68	MB 131112L27	8082-N2	13111368
70	Vial 69	MS 13-11-0697-8 131112L27	8082-N2	13111369
71	Vial 70	MSD 13-11-0697-8 131112L27	8082-N2	13111370
72	Vial 71	13-11-0697-3	8082-N2	13111371
73	Vial 72	PCB CCV500PPB S091113H	8082-N2	13111372

Return to Contents

Sequence Table (Front Injector):

Line	Location	SampleName	Method Name	Data File
1	Vial 100	IB E08-42-10	8082-N2	13111400
2	Vial 1	PCB CCV500PPB S091113H	8082-N2	13111401
3	Vial 2	13-11-0958-2 5X	8082-N2	13111402
4	Vial 3	LCS 131113L14; 608	8082-N2	13111403
5	Vial 4	LCSD 131113L14; 608	8082-N2	13111404
6	Vial 5	MB 131113L14; 608	8082-N2	13111405
7	Vial 6	13-11-0934-3; 608	8082-N2	13111406
8	Vial 7	LCS 131113L07	8082-N2	13111407
9	Vial 8	MB 131113L07	8082-N2	13111408
10	Vial 9	MS 13-11-0613-1 131113S07	8082-N2	13111409
11	Vial 10	MSD 13-11-0613-1 131113S07	8082-N2	13111410
12	Vial 11	13-11-0613-1 ⇒ integ. @ rear column	8082-N2	13111411
13	Vial 12	MB 131112L18	8082-N2	13111412
14	Vial 13	MS 13-11-0678-5 131112S18	8082-N2	13111413
15	Vial 14	MSD 13-11-0678-5 131112S18	8082-N2	13111414
16	Vial 15	13-11-0678-1	8082-N2	13111415
17	Vial 16	13-11-0678-2	8082-N2	13111416
18	Vial 17	13-11-0678-3	8082-N2	13111417
19	Vial 18	13-11-0678-4	8082-N2	13111418
20	Vial 19	13-11-0678-5	8082-N2	13111419
21	Vial 20	LCS 131112L18	8082-N2	13111420
22	Vial 21	13-11-0679-4	8082-N2	13111421
23	Vial 22	PCB CCV500PPB S091113H A	8082-N2	13111422
24	Vial 23	13-11-0679-5	8082-N2	13111423
25	Vial 24	13-11-0679-6	8082-N2	13111424
26	Vial 25	13-11-0679-7	8082-N2	13111425
27	Vial 26	13-11-0679-8	8082-N2	13111426
28	Vial 27	13-11-0679-9	8082-N2	13111427
29	Vial 28	13-11-0679-10	8082-N2	13111428
30	Vial 29	13-11-0679-11	8082-N2	13111429
31	Vial 30	13-11-0679-12	8082-N2	13111430
32	Vial 31	13-11-0716-17	8082-N2	13111431
33	Vial 32	13-11-0716-20	8082-N2	13111432
34	Vial 33	13-11-0717-33	8082-N2	13111433
35	Vial 34	13-11-0717-36	8082-N2	13111434
36	Vial 35	13-11-0717-39	8082-N2	13111435
37	Vial 36	13-11-0802-1	8082-N2	13111436
38	Vial 37	LCS 131112L28	8082-N2	13111437
39	Vial 38	MB 131112L28	8082-N2	13111438
40	Vial 39	MS 13-11-0814-7 131112S28	8082-N2	13111439
41	Vial 40	MSD 13-11-0814-7 131112S28	8082-N2	13111440
42	Vial 41	13-11-0814-1	8082-N2	13111441
43	Vial 42	13-11-0814-2	8082-N2	13111442
44	Vial 43	PCB CCV500PPB S091113H B	8082-N2	13111443
45	Vial 44	13-11-0814-3	8082-N2	13111444
46	Vial 45	13-11-0814-4	8082-N2	13111445
47	Vial 46	13-11-0814-5	8082-N2	13111446
48	Vial 47	13-11-0814-6	8082-N2	13111447
49	Vial 48	13-11-0814-7	8082-N2	13111448
50	Vial 49	13-11-0814-8	8082-N2	13111449
51	Vial 50	13-11-0814-9	8082-N2	13111450
52	Vial 51	13-11-0814-10	8082-N2	13111451
53	Vial 52	13-11-0814-11	8082-N2	13111452
54	Vial 53	13-11-0814-12	8082-N2	13111453
55	Vial 54	LCS 131113L03	8082-N2	13111454

Return to Contents

56	Vial 55	MB 131113L03	8082-N2	13111455
57	Vial 56	MS 13-11-0787-9 131113S03	8082-N2	13111456
58	Vial 57	MSD 13-11-0787-9 131113S03	8082-N2	13111457
59	Vial 58	13-11-0787-1	8082-N2	13111458
60	Vial 59	13-11-0787-2	8082-N2	13111459
61	Vial 60	13-11-0787-3	8082-N2	13111460
62	Vial 61	13-11-0787-4	8082-N2	13111461
63	Vial 62	13-11-0787-5	8082-N2	13111462
64	Vial 63	13-11-0787-6	8082-N2	13111463
65	Vial 64	PCB CCV500PPB S091113H C	8082-N2	13111464
66	Vial 65	13-11-0787-7	8082-N2	13111465
67	Vial 66	13-11-0787-8	8082-N2	13111466
68	Vial 67	13-11-0787-9	8082-N2	13111467
69	Vial 68	13-11-0787-10	8082-N2	13111468
70	Vial 69	13-11-0787-11	8082-N2	13111469
71	Vial 70	13-11-0787-12	8082-N2	13111470
72	Vial 71	13-11-0787-13	8082-N2	13111471
73	Vial 72	13-11-0787-14	8082-N2	13111472
74	Vial 73	13-11-0787-15	8082-N2	13111473
75	Vial 74	13-11-0787-16	8082-N2	13111474
76	Vial 75	13-11-0718-33	8082-N2	13111475
77	Vial 76	13-11-0718-36	8082-N2	13111476
78	Vial 77	13-11-0718-39	8082-N2	13111477
79	Vial 78	13-11-0981-17	8082-N2	13111478
80	Vial 79	13-11-0981-18	8082-N2	13111479
81	Vial 80	13-11-0981-19	8082-N2	13111480
82	Vial 81	13-11-0981-20	8082-N2	13111481
83	Vial 82	13-11-0613-1 CONF	8082-N2	13111482
84	Vial 85	PCB CCV500PPB S091113H D	8082-N2	13111485

Return to Contents

EPA METHOD 8082
PCB Aroclors

Preparation Logs

Return to Contents

EPA Method 608/8081/8082 Extraction Logbook

START D = DATE T = TIME	END D = DATE T = TIME	SAMPLE pH	MATRIX S = SOIL A = AQUEOUS O = OIL W = WIPE F = FILTER	EXTRACTION 1 = 3510 SEP 2 = 3520 C-LL 4 = 3545 PFE 5 = 3550 SON 8 = 3580 DIL	TEST METHOD	MB/LCS/MS BATCH # 131112L27 CEL ID #	SAMPLE W (g) / V (mL) a) INITIAL b) FINAL	AQUEOUS SAMPLE MEASURED BY BALANCE MEASURED a) INITIAL (g) b) FINAL (g)	CALCULATED c) NET (g) d) V (mL)	BALANCE ID #	PREP TECHNICIAN(S)	COMMENTS
D) 11-12-13 T) 19:30	D) 11-12-13 T) MB		S A O W F	1 2 4 5 8	8082	MB	a) 20.0 b) 10	a) b)	c) d)	53	786 / 783	
D) T)	D) T)		S A O W F	1 2 4 5 8		LCS 786 11/12/13	a) 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		LCSD 13-11-0697-8 A MS	a) 20.1 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		13-11-0697-8 A MSD	a) 20.1 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		13-11-0697-3 A	a) 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		4A, 5A	a) 20.0, 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		6A, 7A	a) 20.1, 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		8A, 9A	a) 20.0, 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		10A 11A	a) 20.0, 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		12A	a) 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		13-11-0716-17 A	a) 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		20A	a) 20.1 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		13-11-0717-33A	a) 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		36A, 39A	a) 20.0, 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8		13-11-0802-1 A	a) 20.0 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			

EPA Method 608/8081/8082 Extraction Logbook

WATER BATH TEMP RANGE (°C)	THERMOMETER ID # & CF	SAND ID #	DRYING AGENT	ASE ID #
~60 °C - 80 °C	C24747 (CF 0.0 °C	608-74-10	☒ Na_2SO_4 ☐ Diatomaceous Earth	7, 8

CEL ID #	SURROGATE STANDARD: STANDARD ID #	SURROGATE STANDARD: a) C (ppm) b) V (mL)	SPIKE STANDARD (LCS/LCSD/MS/MSD): STANDARD ID #	SPIKE STANDARD (LCS/LCSD/MS/MSD): a) C (ppm) b) V (mL)	EXTRACTION SOLVENT: 1 = CH_2Cl_2 2 = 1:1 CH_2Cl_2-C_3H_6O	EXTRACTION SOLVENT: a) ID # b) V (mL)	REAGENT / SUPPLY ID #: a) DRYING AGENT b) FILTER	EXCHANGE SOLVENT: a) C_6H_{14} ID # b) V (mL)	COMMENTS
MB	E110413A	a) 2 b) 0.5		a) b)	1 2	a) 608-71-06 b) ~45	a) 608-68-17 (ASE) 608-45-8 b) 608-64-1	a) 608-68-13 b) 10	
LCS (786) 11/12/13		a) b)	E090413D	a) 10 b) 0.2	2	a) b)	a) b)	a) b)	
LCSD 13-11-0697-8 MS		a) b)		a) b)	2	a) b)	a) b)	a) b)	
13-11-0697-8 MSD		a) b)		a) b)	2	a) b)	a) b)	a) b)	
13-11-0697-3 Tr		a) b)		a) b)	2	a) b)	a) b)	a) b)	
12		a) b)		a) b)	2	a) b)	a) b)	a) b)	
13-11-0716 - 17, 20		a) b)		a) b)	2	a) b)	a) b)	a) b)	
13-11-0717-33		a) b)		a) b)	2	a) b)	a) b)	a) b)	
36, 39		a) b)		a) b)	2	a) b)	a) b)	a) b)	
13-11-0802-1		a) b)		a) b)	2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	

Book Number: 159

11/08/12 Revision

Return to Contents

EPA Method 608/8081/8082 Extraction Logbook

START D = DATE T = TIME	END D = DATE T = TIME	CLEANUP 1 = 3620 FLORISIL 2 = 3630 SGC 3 = 3660 SULFUR 4 = 3665 ACID	CEL ID #	CLEANUP REAGENT(S) NAME	ID #	NAME	ID #	FLORISIL CARTRIDGE CONDITIONING COLUMN PRE-ELUTION 1) CARTRIDGE ID # 2) HEXANE ID #	PREP TECHNICIAN(S)	COMMENTS
D) 11-12-13 T) 19:30	D) 11-12-13 T) N/A	1 2 3 4	MB	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4) 038-70-10	1) 2)	786 783	
D) T)	D) T)	1 2 3 4	LCS 786 11/12/13	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	LCSD 13-11-0697-8 MS	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	13-11-0697-8 MSD	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	13-11-0697-3	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	4, 5	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	6, 7	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	8, 9	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	10, 11	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	12	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	13-11-0716-17	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	20	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	13-11-0717-33	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	36, 39	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4	13-11-0802-1	1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		
D) T)	D) T)	1 2 3 4		1) Florisil 2) Silica Gel	1) 2)	3) Hg 4) H_2SO_4	3) 4)	1) 2)		

EPA METHOD 8082
PCB Aroclors

Standards Preparation Logs

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
3/6/13	S030613D	PBDE	BDE 13 comps mix	S030613A	100 uL	3/10 ppm	(2mL	100/500ppb	Isooctane	S6-13-04	9/6/13	421	
	↓	(	I.S.	(4ml) E8-22-21	5 uL	2000 ppm	↓	5ppm					
	E	(	BDE 13 Comps mix	S030613A	500 uL	3/10 ppm	(2mL	500/2500ppb					
	↓	(	I.S	E8-22-21	5 uL	2000 ppm	↓	5ppm					
	F	(	BDE 13 Comps mix	S030613A	1000 uL	3/10 ppm	(2mL	1000/5000ppb					
	↓	(	I.S	E8-22-21	5 uL	2000 ppm	↓	5ppm					
	G	(	BDE 13 Comps mix	S030613A	50 uL	3/10 ppm	(2mL	50/250 ppb					
	↓	(	I.S	E8-22-21	5 uL	2000 ppm	↓	5ppm					
3/6/13	S030613H	8270	I.S	E8-30-16	500 uL	2000 ppm	25mL	40ppm	MeCl2	E8-30-16	9-6-13	773	
	S030613I	PBDE	BDE 13 mix	S030613A	200 uL	3/10 ppm	(2mL	200/1000ppb	Isooctane	S6-13-04	9/6/13	429	
	↓	(	I.S	E08-22-4	5 uL	2000 ppm (4ml)	↓	5ppb (4ml)	↓	↓	↓	↓	
3/7/13	S030713A	8082	Aroclor 1016	55-34-16	800 uL	100 ppm	4 mL	20ppm	Hexane	E08-29-8	9/7/13	684	
			Aroclor 1260	56-13-11	800 uL	100 ppm		20 ppm					
			Pesticides surrogate	55-45-12	80 uL	200 ppm		4 ppm					
	S030713B		PCB ICal-1	S030713A	20 uL	20/4 ppm	4 mL	100/20 ppb					
	C		-2		50 uL		4 mL	250/50 ppb					
	D		-3		1 mL		40 mL	500/100 ppb					
	E		-4		150 uL		4 mL	750/150 ppb					
	F		-5		400 uL		4 mL	2000/400 ppb					
3/7/13	S030713G	8141	organo phosphorous pesticide	S06-03-23	100 uL	200ppm	1mL	20ppm	Hexane	E08-29-8	5/7/13	773	

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
3/13/13	S031313M	SIMPAH	PAH Stock	S031313K	2ml	400ppb	2ml	400ppb	MeCl2	E8-28-16	~~5/9/13~~	449	
			< SV-IS <	L	10µl	20ppm	2ml	100ppb			~~4/27/13~~	(449)	
	N			S031313K	1ml			200			5/9/13		
			<	L	10µl			100					
	O		<		0.5ml			100					
			<		10µl			100					
	P		<		250µl			50					
			<		10µl			100					
	Q		<		20µl			4					
			<	E7-2418 (449)	10µl			100					
	R	ICV	SIMPAH spike	~~E8-1044~~	1µl	500ppm	5ml	100			4/27/13		
			B/N Surr.	E120412C	125µl	4ppm		100					
			SV-IS	S031313L	25µl	20ppm		100					
3/13/13	S031335	SIMPAH	PAH Stock	S031313K	15µl	~~400~~ ppb	2ml	3 ppb	MeCl2	E8-28-16	5/9/13	282	
"	"	"	SV-IS	S031313L	10µl	20 ppm	"	100	"	"	"	"	
3/15/13	S031513A	8082	20ppm/4ppm PCB ~~S030713A~~ (842)	S030713A	1mL	20 ppm/4ppm	40mL	500 ppb	Hexane	E08-29-8	9/04/07/13 ~~3/15/13~~	842	
3/20/13	S032013A	8330	8330 standard mix	505-27-02	40µl	1000 ppm	2ml	20ppm	Ace:MeO (2:1)	E101812-1	4/20/13 ~~3/20/13~~	684	
	"		1,2-Dinitrobenzene	505-44-11	40µl	1000 ppm	"	"			~~3/20/13~~ 3/21/13		
	S032013B		8330 surr-1	S032013A	1µl	20 ppm	1ml	20 ppb					
	" c		surr-2	"	50µl	"	1ml	1 ppm					

10

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
5/20/13	S052013A	8082	1016/1260 mix (ICV)	E06-73-4	80µL	100 ppm	4mL	20ppm	Hexanes	E08-38-25	11/20/13	669	
↓	↓	↓	Pest. Surrogate (ICV)	E-08-14.3	80µL	200ppm	↓	4 ppm	↓	↓	↓	↓	
↓	S052013B	↓	PCB-ICV 500 ppb	S052013A	100µL	20/4 ppm	4mL	500/100 ppb	↓	↓	↓	↓	
5/20/13	S052013C	8270 SIM PAH	5 ppm ~~0.005 ppm~~ 5/20/13 PCB 42	S040213C	2mL	5ppm	2mL	0.005 ppm	Hexane	E08-38-25	10/2/13	773	
↓	↓	↓	8270 IS	E08-40-14	5µL	2000ppm	↓	5ppm	↓	↓	↓	↓	
↓	S052013D	↓	5ppm EPA PCB	S040213K	2mL	5 ppm	2mL	0.005ppm	↓	↓	↓	↓	
↓	↓	↓	8270 IS	E08-40-14	5µL	2000ppm	↓	5ppm	↓	↓	↓	↓	
5/20/13	S052013E	8330	8330 combined stock	S05-27-2	80 µL	1000 ppm	4 ml	20ppm	ACN:H2O 1:1	S101812-1	6/20/13	684	
↓	↓	↓	1,2-Dinitrobenzene	S05-44-11	80 µL	1000 ppm	↓	↓	↓	↓	↓	↓	
↓	S052013F	↓	CCV 8330	S052013E	100 µL	20ppm	1 ml	2 ppm	↓	↓	5/21/13	↓	
5/21/13	S052113A	8330	CCV 8330	S052013E	100 µL	20 ppm	1 ml	2ppm	ACN:H2O 1:1	S051713-1	5/22/13	684	
5/22/13	S052213A	8330	CCV 8330	S052013E	100 µL	20ppm	1 ml	2ppm	ACN:H2O 1:1	S051713-1	5/23/13	684	
	S052213B		ICal-1 8330	S052013E	1 µL	20 ppm	1 ml	20 ppb	ACN:H2O 1:1	S051713-1	5/23/13		
	C		ICal-2		50 µL		1 ml	1 ppm					
	D		ICal-3		100 µL		1 ml	2 ppm					
	E		ICal-4		250 µL		1 ml	5 ppm					
	F		ICal-5		500 µL		1 ml	10 ppm					
↓	G		ICV	S050613G	100 µL	20ppm	1 ml	2 ppm	↓	↓	↓	↓	
↓	H	625	625	S5-43-19	400µL	200ppm	↓	80ppm	MeCl	E7-15-5	11/22/13	449	
↓	↓	↓	SV-IS	E08-46-21	20µL	2000ppm	↓	40ppm	↓	↓	↓	↓	

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
6/12/13	S061213A	organic Acids	2,3 Dibromopropionic acid	55-23-07	0.03 g	Neat	30mL	1000 ppm	NANO H2O	NA	12/12/13	773	
	S061213B		Custom Organic Acids	~~S6-11-3~~ S6-12-7	1 mL	2000 ppm	30mL	100 ppm					
			2,3 Dibromopropionic	6/12/13 773 S061213A		1000 ppm		50 ppm					
	S061213C		O.A MIX STD Ical - 1	S061213B	400 uL	100/50 ppm	10mL	4/2 ppm					
	D		-2		1 mL		10mL	10/5					
	E		-3		4 mL		20mL	20/10					
	F		-4		3 mL		10mL	30/15					
	G		-5		4mL		10mL	40/20					
	S061213H		2,3 Dibromopropionic Acid (surrogate)	S4-88-1	0.03 g	Neat	30mL	1000					
	S061213I		Custom OA STD	~~S6-12-7~~ S6-11-3	50 uL	2000 ppm	1 mL	100					
			2,3 Dibromopropionic	6/12/13 773 S061213H	50 uL	1000 ppm		50					
	S061213J		ICV O.A.	S061213I	400 uL	100/50 ppm	2mL	20/10					
	S061213K	8082	1221 PCB	S06-04-13	20 µL	100 ppm	4ml	500 ppb	Hexanes	E68-41-11	12/12/13	669	
			1254 PCB	S05-54-23									
	L		1232 PCB	S06-06-07									
			1262 PCB	S05-35-11									
	M		1248 PCB	S06-02-15									
			1268 PCB	S05-36-18									
	N		1242 PCB	S05-36-15									
	O		1016/1260 10 ppb	S030713B	~~0.2~~ 0.4 ml	100/20 ppb	4mL	10/2 ppb			09/07/13		

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Ethylenediaminetetraacetic Acid (EDTA)	Sigma	E4884-100G	060M0050V	10/31/16	100g	P	10/31/11	LL	10/31/11	LL	verified
2	8270 Tuning compound STD.	Restek	31001	A0830K	8/20/2014	1ml	Glass	11/7/11	DT	11/7/11	DT	
3	2,3,7,8-Tetrachlorodibenzo-p-dioxin	Accustd.	D-4045	B4010226	1/22/14	1ml	G	11/22/11	JTHC	03/20/12	573	ICV.
4	8270 Tuning	SUPELCO	47548-U	LB79573	10/13	↓	↓	↓	573	1/11/12	449	verified.
5	↓	↓	↓	↓	10/13	↓	↓	↓	↓	4/23/12	773	↓
6	1254 Aroclor	Supelco	48707	LB68517	07/2014	1ml	G	11/22/11	669	~~07/05/12~~ ~~5/2/12~~	684	verified
7	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/30/13	669	
8	1,2-Diphenylhydrazine	Ultra	RCC-174	NT01953	1/31/15	Neat (g)	G	11/28/11	421			
9	Aroclor 1016	Ultra	PP-281	CF-0785	3/31/17	1ml	G			11/29/11	773	verified
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	5/2/12	684	verified pcbs
11										6-11-12	27	
12										7-30-12	421	
13										8/30/12	142	
14										9/26/12	421	
15										10/18/12	421	
16	↓	↓	↓	↓	↓	↓	↓	↓	↓	3/7/13	684	↓
17	Aroclor 1254	Ultra	PP-351	CF-1469	5/31/17	1ml	G	11/28/11	421	11/28/11	421	Marine Lab
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/29/11	773	
19										12/14/11	669	Marine Lab
20										01/23/12	669	verified
21										~~05/05/12~~ 684 9/15	684	↓
22										12/7/12	669	
23										6/12/13	↓	
24	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/17/13	↓	
25	Aroclor 1260	Ultra	PP-361	CG-3829	12/31/14	1mL	G	11/28/11	421	6-11-12	27	

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Aroclor 1260	Ultra	PP-361	CG-3829	12/31/14	1mL	G	11/28/11	421	7-30-12	421	verified.
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/30/12	142	↓
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/28/12	421	
4	Aroclor 1248	ultra	PP-341	CH-3256	12/30/19	1mL	G	11/28/11	421	11/28/11	773	
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/29/11	669	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	01/23/12	669	
7	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-11-12	27	
8	Aroclor 1262	ultra	PP-371	CH-1776	7/31/15	1mL	G	11/28/11	421	11/28/11	773	
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/05/12	669	verified
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/7/12	↓	
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/12/13	↓	
12	N-Nitrosodiethylamine	Sigma	N0258-1G	MKBH4828V	~~EXP~~ NOT	1G	G	11/28/11	421			
13	1,2-Diphenylhydrazine	Chem-S	F37	467-6B	~~Neat~~ (523)	Neat	↓	12/2/11	513			
14	Method 525.2, Organonitrogen Pesticides MIX#1	Restek	33012	A080237	03/2013	1mL	G	12/2/11	773	12/2/11	773	
15	508.1 Calibration Mix #1		32094	A064256	11/2012	1mL	G	12/2/11	773			
16	508.1 Calibration Mix #2		32095	A079806	12/2014							
17	508.1 Calibration Mix #3		32096	A080219	12/2014							
18	Organochlorine Pesticide Mix A&B # 3		32415	A082645	06/2015							
19	↓		↓	↓	↓							
20	515.4 Calibration Mix		32443	A081138	04/2013					12/5/11	421	
21	525.2 Semivolatiles Mix		31899	A080233	03/2014					7/27/13	142	
22	Method 508-Chlorinated Pesticides by GC/ECD	Accustandard	M-508P-A	211061004	06/07/12							
23	Quality Control Sample Methyl Derivatives	↓	M-515.4-QCS	B2060455-6	05/24/12					12/5/11	421	verified.
24	Transformer oil (PCB-free)	Supelco	46956	LB82220V	2/2014	(5mL) Neat	G	12/5/11	421	12/6/11	421	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/06/11	669	

COMMENTS: _____

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Trasformer oil (PCB free)	Supelco	46956	LB82220V	2/2014	5mL Neat	G	12/5/11	421			
2	525.2 Semi-volatile mix	Accustandard	M525.2-SV-ASL-PAK	2110413320	11/18/12	1ml	G	12/5/11		12/12/11	773	
3												
4												
5												
6												
7	525.2 Nitrogen/phosphorous Pest	Accustandard	M-525.2-NPI-ASL	20911101503	7/12/12	1ml	G			12/12/11	773	
8												
9												
10												
11												
12	Aroclor 1242	Ultra	PP-311 ~~CH-2711~~	CH2711	9/30/19	1mL	G	12/7/11	421	7/5/12	669	verified
13										12/7/12		
14												
15										6/12/13	669	
16	Aroclor 1268		PP-381	CE-3671	11/30/16	1mL	G			7/5/12	669	verified
17										12/7/12		
18										6/12/13		
19										12/12/13		
20	Aroclor 1221		PP-291	CB-17912	12/31/14	1mL	G					Marine lab
21										8/22/12	669	verified
22												Marine lab
23										7/5/12	669	
24	525.2 organonitrogen mix#1 Pest	Restek	33012	A082239	3/2013	1ml	G	12/7/11		12/14/11	773	
25										7/25/12	262	

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Custom Pesticide standard	AccuStandard	S-19743	209111107-03	4/24/13	1mL	G	4/26/12	773			
2	EPA 8270 GC/MS Tuning Solution II	Supelco	47548-U	LB77513	10/2013	1mL	G	4/30/12	773	9/10/12	421	→ missing std.
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/12/12	773	verified.
4	↓	↓	↓	↓	↓	↓	↓	↓	↓	03/13/13	573	
5	PSA 500mg / Carbon 500mg SPE	Restek	26194	01902I-EV 115210-BW	NA	30	SPE tube	5/9/12	142	5/9/12	142	
6	CLP Organochlorine Pesticide	Supelco	47426-U	LB90217	01/2015	1mL	G	5/15/12	421	6-11-12	27 PM	
7	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/6/12	500	
8	Decafluorobiphenyl (8310 Surr)	↓	48-792	LB87420	11/2014	1mL	G	5/16/12	669	6/1/12	669	verified
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/5/12	↓	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	4/5/13	↓	
11	Pesticides Gen. Spike mix	↓	4-8460	LB81219	01/2014	↓	↓	↓	↓	2/6/13	842	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	3/7/13	684	
13	Hexachlorocyclopentadiene	Accustd.	App-9-114-10X	211101035-01	4/18/13	1mL	G	5/16/12	421	5/22/12	421	
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	06/18/12	787	(Marine)
15	Kepone	Accustd.	AS-E0573	209111187	11/18/12	1mL	G	5/16/12	421	11/27/12	421	> expired
16	↓	↓	↓	↓	↓	↓	↓	↓	↓			re-certified.
17	Mirex	Ultra	PST-720M100A	01 CH-3560	11/30/12	1mL	G	5/17/12	421	5/22/12	421	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/30/12 11/28/12	842 447	
19	Hexachlorocyclopentadiene	Ultra	CH-170	CJ-1312	5/31/13	1mL	G	↓	↓	5/21/12	421	verified.
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	Expired	—	
21	Custom Pesticides std (8 comps)	Accustd.	S22740-R-1	212051167	5/14/13	1mL	G	5/18/12	421	5/18/12	421	verified.
22	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-11-12	27	→ Mirex
23	↓	↓	↓	↓	↓	↓	↓	↓	↓			
24	↓	↓	↓	↓	↓	↓	↓	↓	↓			
25	↓	↓	↓	↓	↓	↓	↓	↓	↓			

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	TETRAETHYL LEAD	Accustandard	78-00-2	211210720	Dec 9, 2021	1 mL	G	6/8/12	710			
2	↓	↓	↓	↓	↓	↓	↓	↓	↓			
3	↓	↓	↓	↓	↓	↓	↓	↓	↓			
4	Tetraethyl lead	Accustandard	S-1263	212061140	6/12/22	1mL	G	6/13/12	142	11/21/12	773	verified 11/21/12
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/21/12	142	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	4/10/13	421	
7	Dibutylchlorendate & TCMX	↓	CLP-034	B0050209	12/10/19	1mL	↓	↓	↓	6/13/12	142	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/8/13	421	
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/11/13	421	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	1/7/14	842	
11	↓	↓	↓	↓	↓	↓	↓	↓	↓			
12	Dual layer carb/PSA 500/500 mg	Supelco	54067-U	342530	NA	10 PKS (30/PK)	SPE cartridge	6/18/12	142			
13	Aroclor 1248	~~Supelco~~ Ultra	PP-341	CH-32766	11/30/19	1mL	G	6/19/12	421	7/5/12	669	verified
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/7/12	V	
15	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/12/13	V	
16	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/12/13	V	
17	Toxaphene	Ultra	PP-271	CH-27883	9/30/15	1mL	G	6/19/12	421	8/22/12	500	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/5/12	RM	Marina 66
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/22/13	500	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/22/13	500	
21												
22	Decachlorobiphenyl & TCMX	Accustd.	CLP-032-H-5X	21201124	1/20/22	1mL	G	6/19/12	421	6/20/12	421	
23	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/2/12	142	
24	↓	↓	↓	↓	↓	↓	↓	↓	↓			
25	Hexachlorocyclopentadiene	Accustd	App-9-114-10X	211101035-01	4/18/13	1mL	G	6/21/12	421			

COMMENTS:

Book Number: 6

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Dibrom Solution	CHEM	F2067JS	479-109C	6/30/13	1ml	G	7/23/12	684	1		
2	Tetrachlorvinphos solution	↓	F2069JS	482-17C	02/28/14	↓	↓	↓	↓	1/15/13	684	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	1/13/14		
4	CLP Organochlorine Pesticide mix	supelco	47426-U	LB90217	1/2015	1mL	G	7/23/12	421	1-22-13	27	to Marine
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/5/13	421	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/7/13	842	
7	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/25/13	262	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	1/7/14	842	
9	Hexachlorobenzene	Ultra	CH-151	CE[illegible]83A	8/31/15	1ml	G	7/24/12	424	8/6/12	500	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	11-20-12	27	to Marine DOBT
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/6/13	842	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/7/13	842	
13	Aroclor 1221	↓	PP-291	CB17912	12/31/14	1ml	G	7/24/12	669	6/12/13	669	
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/12/13	↓	
15	↓	↓	↓	↓	↓	↓	↓	↓	↓			
16	↓	↓	↓	↓	↓	↓	↓	↓	↓			
17	525.2 NP Mix	Accu STD	M-525.2-NPI-ACL-PAK	209111015-06	7/26/13	~~1~~ 4 ml	G	7/27/12	262	7/27/12	262	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	1/8/13	262	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓			
20	↓	↓	↓	↓	↓	↓	↓	↓	↓			
21	PCB 103	Accustandard	C-1035-TP	210111246	11/17/2020	1ml	G	7/30/12	142	7/30/12	142	
22	PCB 198	↓	C-1985-TP	B2100047-1A	4/6/2022	↓	↓	↓	↓	↓	↓	
23	PCB 208	↓	C-2085-TP	B3010335	1/31/2013	↓	↓	↓	↓	↓	↓	
24	PCB 200	Accustd	C-2005-TP-R1	210101006	10/1/2020	1mL	G	8/14/12	421	10/2/12	773	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓			

COMMENTS:

Book Number: 6

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Aroclor 1232	Supelco	9-0125R	LB88331	03/2021	1mL	G	9/5/12	421			
2	Aroclor 1242	↓	9-0126R	LB94105	06/2022	↓	↓	↓	↓			
3	Aroclor 1248	↓	4-4807	LB88969	01/2015	↓	↓	↓	↓	7/29/13	669	
4	Aroclor 1262	↓	4-4816	LB65030	02/2014	↓	↓	↓	↓	10/4/13	669	
5	Aroclor 1262	Ultra	PP-371	CH-1776	7/31/15	1mL	G	9/5/12	421	8/12/13	669	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓			
7	Aroclor 1232	↓	PP-301	CG-3213	10/31/14	↓	↓	9/5/12	421	4/12/13	669	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/12/13	↓	
9	Simazine	↓	PST-530A	CH-2866	9/30/14	1mL	G	9/18/12	142	9/19/12	142	
10	Thiobencarb	↓	PST-1725M	100A01 CH-0339A	5/31/14	↓	↓	↓	↓	↓	↓	
11	PCB 208	↓	RPC-085S	S-1411X	4/30/14	↓	↓	↓	↓	10/2/12	773	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓			
13	↓	↓	↓	↓	↓	↓	↓	↓	↓			
14	Simazine	Accustandard	P-085S	212091149	9/13/17	1mL	G	9/19/12	142	9/19/12	142	
15	Thiobencarb	↓	P-180S	212061040	6/4/22	↓	↓	↓	↓	↓	↓	
16	Simazine	↓	P-085S	212091149	9/13/17	↓	↓	↓	↓	1/8/13	262	
17	Thiobencarb	↓	P-180S	212061040	6/4/22	↓	↓	↓	↓	↓	↓	
18	TCMX	Accustandard	877209-8	B704025	4/21/2013	1mL	G	10/2/12	773	10/2/12	773	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓			
20	↓	↓	↓	↓	↓	↓	↓	↓	↓			
21	↓	↓	↓	↓	↓	↓	↓	↓	↓			
22	↓	↓	↓	↓	↓	↓	↓	↓	↓			
23	Decachlorodiphenyl ether	Accustandard	CDE-209S	210091157	9/16/2020	6mL	G	10/2/12	773	10/19/12	142	T
24	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/23/12	421	verified.
25	↓	↓	↓	↓	↓	↓	↓	↓	↓	4/11/13	7	↓

COMMENTS:

Book Number: 6

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	8270 Cali – Kit	Supelco	48118	CB96472	FEB 14	7x1mL	G	02/15/13	573	05/01/13	573	
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/19/13	573	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/30/13	449	
4	2,2,4-Trimethylpentane (Isooctane)	Sigma-Aldrich	360597	SHBC4278V	2/18/16	500 mL	G	02/15/13	684	2/18/13	773	verified
5	2,3-Dichlorobiphenyl (B2 #5)	Ultra	RPC-012 (CN#)	NT00011	01/31/2017	25 mg	G	2/15/13	684	↓	773	verified
6	4,4'-Dichlorobiphenyl (B2 #15)	↓	RPC-011	RM00605	01/31/2017	10 mg	↓	↓	↓	↓	↓	verified
7	521 Surrogate	Restek	33910	A088147	04/15	1 ml	G	2/19/13	262	2/19/13	262	
8	↓	↓	33910	↓	04/15	↓	↓	↓	↓	↓	↓	
9	521 IS	↓	33911	A088435	05/15	↓	↓	↓	↓	2/19/13	262	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
11	Aroclor 1260	ULTRA	PP-361	CG-3829	12/2014	1ml	↓	2/20/13	669	3/7/13	684	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/21/13	669	(For 508)
13	521 Cartridge	UCT	EU5211216	99962-EM	2/11/18	30	Bag	2/21/13	262	2/21/13	262	
14	BDE-49	Accustd	BDE-049S	211031138	6/10/19	1ml	G	2/28/13	421	2/28/13	421	
15	Methylene Chloride	Fisher	D154-4	126306	3/5/16	4 L	G	3/5/13	262	3/5/13	262	
16	Pesticides Sur.	Supelco	48460	LB81291	01/2014	1L	G	3/22/13	669	8/7/12	842	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/11/13	500	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/12/13	669	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
21	Diethanolamine	Accustandard	ALR-109N	05712D1	2/24/21	100mg	G	3/28/13	684	4/2/13	262	
22	Monoethanolamine	↓	ALR-136N	13768	9/29/14	↓	↓	↓	↓	4/2/13	262	
23	8270 Tuning Solution	SUPELCO	47548-U	LB91071	03/15	1 mL	↓	03/28/13	573	6/27/13	449	
24	↓	↓	↓	↓	03/15	↓	↓	↓	↓	9/4/13	889	
25	Aqua Comparator Kit	orbeco	L147010	NA	2/2016	Each	130x	3/25/13	262	3/27/12	262	

COMMENTS:

Book Number: 6

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	pesticide Surrogate MiX	Restek	32457	A089216	12-31-14	5ml	G	08-16-12	7	09-24-12	7	
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/21/12	669	
4	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/4/12	7	
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
6	↓	↓	↓	A089749	01-31-20	↓	↓	↓	↓	12-26-12	585	
7	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	02-01-13	7	
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	3/18/13	7	
11	8140/8141 O.P. pesticide Calib.MIXA		32207	A088558	02-28-13	1 ml				10-08-12	684	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	7	
13	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	10-24-12	787	
15	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
16	↓	↓	↓	↓	↓	↓	↓	↓	↓	11-12-12	787	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	11-21-12	785	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	2-1-13	784	
21	↓	↓	↓	↓	↓	↓	↓	↓	↓	2-1-13	↓	
22	↓	↓	↓	↓	↓	↓	↓	↓	↓	2-7-13	784	
23												
24												
25												

COMMENTS:

Book Number: 8

CHEMICAL RECEIVING LOGBOOK

LINE NO.	CHEMICAL	SOURCE	CATALOG NO.	LOT NO.	EXP. DATE	AMOUNT RECEIVED	TYPE CONT.	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO
1	Aroclor 1016/1260 Mix	Restek	32039	A025805	06-30-2017	1 mL	G	02-04-11	CL	12/2/11	421 JMK verified
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/14/12	7
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
4	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/21/12	669
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	02-1-13	7
6											
7											
8											
9											
10											
11											
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Reviewed by: _____ on 3 / 2 / 11

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE @ 11/4/13	PREP BY	COMMENTS
11-04-13	E110413A	8080 sur.	pesticide Surrogate Mix	E08-56-19 20	10 ml	200 ppm	1000 ml	2 ppm	Acetone	E08-62-3	05-04-14	7	
~~11-07-13~~	~~E110713A~~	~~508 A~~	~~Aroclor 1260 sol'n.~~	~~E08-70-12~~	~~0.04 ml~~								787 11/7/13
11-8-13	E110813A	8270 sur.	Acid Surrogate Mix	E08-55-8 E08-65-11.12.13.	40 ml	10,000 ppm	1000 ml	400 ppm	Acetone	E08-62-3	05-08-14 @ 11/8/13	7	
↓	↓	↓	B/N ↓	E08-65-19 25 E08-66-1	80 ml	5000 ppm	↓	↓	↓	↓	↓	↓	
	E110813B @ 11/8/13	8081 spike	O.P. Mix AB #1	E08-13-6	1 ml	200 ppm	200 ml	1 ppm					
↓	↓	↓	Hexachlorobezene @ 11/8/13	E06 E08-36-12	0.2 ml	1000 ppm	↓	↓	↓	↓	↓	↓	
	E110813C	8081 spike	O.P. Mix AB #1	E08-13-7	1 ml	200 ppm			Hexane	E08-42-10	05-08-14	7	For 3540C
↓	↓	↓	Hexachlorobezene	E06-36-12	0.2 ml	1000 ppm	↓	↓	↓	↓	↓	↓	↓
11-15-13	E111513A	8270 FOC spike	8270 Calibration Mix #1	E08-74-14.15 16.17.	5 ml	2000 ppm	50 ml	200 ppm	Acetone	E08-62-3	5-15-14	7	
↓	↓	↓	#2	E08-75-1.2. 3.4.	↓	↓	↓	↓	↓	↓	↓	↓	
↓	↓	↓	#3	E08-75-11.12. 13.14.	↓	↓	↓	↓	↓	↓	↓	↓	
↓	↓	↓	#4	E08-75-21.22. 23.24	↓	↓	↓	↓	↓	↓	↓	↓	
↓	↓	↓	#5	E08-76-6.7. 8.9.	↓	↓	↓	↓	↓	↓	↓	↓	
↓	↓	↓	Custom 1.3.5-Trinitrobenzene	E08-76-16.17. 18.19.	↓	↓	↓	↓	↓	↓	↓	↓	
11-15-13	E111513B	organotins spike	Butyltin chlorides calibration Mixture	E07-07-11	0.15 ml	2000 ppm	300 ml	1 ppm	Hexanes	E08-68-13	5-15-14	785	
11-19-13	E111913A	8310 sur.	DeCafluorobiphenyl mix	E08-63-12.13. 14.15	5 ml	2000 ppm	50 ml	200 ppm	CH_3CN	E08-45-17	05-19-14	7	
11-19-13	E111913B	1,4 Dioxane spike	1,4 Dioxane spike 1000 ppm	E062113B	0.02 ml	1000 ppm	2.0 ml	10 ppm	Acetone	E08-62-3	12-21-13	785	
11-19-13	E111913C	NDMA spike	NDMA spike 1 ppm	E072513B	0.02 ml	1 ppm	2 ml	10 ppb	Acetone	E08-62-3	1-25-14	785	
11-19-13	E111913D	504.1 spike	504.1 spike 0.2 ppm	E100813A	0.1 ml	0.2 ppm	2 ml	10 ppb	MeOH	E08-54-17	4-8-14	785	
11-26-13	E112613A	8270 Sim PAH Surrogate	B/N Surrogate Mix	E08-74-1	0.8 ml	5000 ppm	1000 ml	4 ppm	Acetone	E08-62-3	~~8-2-16~~ 05/26/14	887	

Book Number: 6

05/23/12 Revision

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
09-4-13	E090413A	8270 sur.	Acid Surrogate Mix	E08-43-20 E08-55-2.3.-4.6.	40ml @ 9/4/13	10,000ppm	1000ml	400ppm	Acetone	E08-62-3	03-4-~~13~~ 14 @ 9/14/13	7	
			B/N	E08-55-12 2 19	80ml	5,000ppm							
	E090413B	8270 spike	Acid Matrix Spike Mix	E08-43-1.2. 3.4.	20ml	10,000ppm	200ml	1000ppm					
			B/N	E08-24-12 E08-43-5.11	40ml	5,000ppm							
			Custom 625 LCS Mix	E08-44-18.19. 20.21	20ml	10,000ppm							
	E090413C	8080 sur.	pesticide Surrogate Mix	E08-46-8. 9	10ml	200ppm	1000ml	2ppm					
	E090413D	8082 spike	Aroclor 1016/1260	E07-14-8. 9.	2ml	1000ppm	200ml	10ppm					
	E090413E	8270 SIM PAH sur.	B/N Surrogate Mix	E08-55-19.	0.8ml	5000ppm	1000ml	4ppm					
09-10-13	E091013A	8310 surr.	Decafluorobiphenyl Mix	E08-63-11 E08-15-18.19. 20.	5ml	2000ppm	50ml	200ppm	CH_3CN	E08-45-17	03-10-14	7	
	E091013B	8082 spike	Aroclor 1016/1260	E07-14-10. 11.	2ml	1000ppm	200ml	10ppm	Hexane	E08-45-11			
09-16-13	E091613A	8151	Custom 2,4 Dichlorophenyl Acetic Acid Mix	E08-36-8/9 (RT) 9/16/13	2ml	1000ppm	20ml	100ppm	MEOH	E08-54-17	03-16-14 ~~09-16-13~~ @ 9/16/13	787	
09-17-13	E091713A	8270 sur. Acid	Acid Surrogate	E08-55-4	2ml	10000ppm	20ml	1000ppm	CH_2Cl_2	E08-62-19	03-17-14 @ 9/17/13	7	
09-18-13	E091813A	8151/515.	Custom 2,4 Dichlorophenyl Acetic Acid Mix	E08-36-9/10	2ml	1000ppm	20ml	100ppm	MEOH	E08-54-17	03-18-14	787	

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Glass Microfiber Filters TCLP	GE	1810-090	9481256	NA	12 PK	P	10-2-13	985	10-2-13	985	
2	Dichloromethane	EMD	DX0831-1	53102	10-07-16	4L x 120	G	10-07-13	787	10-07-13	787	
3	"	"	"	53195	10-4-16	4L x 60 @ 10/7/13	"	10-9-13	7	10-9-13	7	
4	Ethyl Ether Anhydrous	EMD	EX0184-4	53028	01-31-15	4L x 10	G	10-10-13	985	10-10-13	985	
5	Dichloromethane	EMD	DX0831-1	53195	10-14-16	4L x 60	G	10-14-13	7	10-14-13	7	
6	"	"	"	53158	"	4L x 32	"	"	"	"	"	
7	Sodium Sulfate Anhydrous	Fish	S421-10	132812	10-16-18	10 kg x 6	P	10-16-13	985	10-16-13	985	
8	Hexanes	EMD	HX-0298-1	53164	10-16-18	4L x 8	G	10-16-13	787	10-16-13	787	
9	Dichloromethane	"	DX0831-1	53195	10-21-16	4L x 60	G	10-21-13	7	10-21-13	7	
10	"	"	"	53158	"	4L x 36	"	"	"	"	"	
11	Methylene Chloride	Fish	D151-4	133287	10-25-16	4L x 40	G	10-25-13	985	10-25-13	985	
12	Ethyl Ether Anhydrous	EMD	EX0184-4	53028	01-31-15	4L x 10	G	10-25-13	985	10-25-13	985	
13	Hexanes	EMD	HX0298-1	52116	10-25-16	4L x 4	G	10-25-13	985	10-25-13	985	
14	Acetonitrile	Fisher	A998-4	135590	10-25-16	4L x 4	G	10-25-13	985	10-25-13	985	
15	Dichloromethane	EMD	DX0831-1	53195	10-28-16	4L x 60	G	10-25-13	787	10-28-13	787	
16	Dichloromethane	EMD	DX0831-1	53195	11-04-16	4L x 60	G	11-04-13	787	11-04-13	787	
17												
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COMMENTS:

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	33 mm x 94 mm Thimbles	whatman	2800-339	131155	~~10-17-13~~ NA	25x1	P	10-17-13	710	10-17-13	710	
2				13182 2	NA	25x5						
3				13015 12		25x3						
4				122455 04		25x2						
5				13182 39		25x3						
6				13114 5		25x5						
7				130804		25x7						
8				12252 3		25x5						
9	33mmx94mm Thimblas	Whatman	2800339	131822	NA	25x16	P	10-29-13	585	10-29-13	785	
10	Sulfaric Acid	EMD	SX1247-2	53128	10-29-16	2.5Lx3	G	10-29-13	285	10-29-13	785	
11	Hydrochloric Acid	EMD	HX0607-2	53010	10-29-16	2.5x2	G	10-29-13	585	10-29-13	785	
12	Aroclor 1260 Solution	Ultra Scientific	PP-361	CG-3829	12-31-14	1ml x4	G	11-7-~~14~~ 13 (782)	11/7/13 782	11-7-13	782	Verification B3 p.34
13												
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COMMENTS: _____

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Sodium Sulfate Anhydrous	Fish	S421-10	121758	4-2-18	10kg x6	P	4-2-13	785	4-2-13	785	
2	Sulfuric Acid	EMD	SX1249/2	52116	4-8-16	2.5L x3	G	4-8-13	785	4-8-13	785	
3	Hydrochloric Acid	EMD	HX0609-2	52250	4-8-16	2.5L x3	G	4-8-13	785	4-8-13	785	
4	Hexanes	EMD	HX 0298-1	53032	04-09-16	4L x18	G	04-09-13	787	04-09-13	787	
5	Dichloromethane	EMD	DX0831-1	53044	4-11-16	4L x40	G	4-11-13	785	4-11-13	785	
6	Acetone	Fish	A929-4	127684	4-12-16	4L x 8	G	4-12-13	785	4-11-13	285	
7	Ethyl Ether ANHydrous	EMD	EX0190-4	52331	11-30-14	4L x4	G	04-12-13	787	4-12-13	787	
8	Sodium Sulfate Anhydrous	Fish	S421-10	121758	4-15-18	10kg x6	P	4-15-13	285	4-15-13	385	
9	Dichloromethane	EMD	DX0831-1	53066	4-19-16	4L x72	G	4-18-13	385	4-18-13	785	
10	Hexanes	EMD	DX 0298-1	53063	04-23-16	4L x24	G	04-23-13	787	04-23-13	787	
11	Dichloromethane	EMD	DX0831-1	52321	4-24-16	4L x24	G	4-24-13	785	4-23-13 2nd @4/24/13	585	
12	〃	〃	〃	53162	4-30-16	4L x16	〃	4-30-13	7	4-30-13	7	
13	Copper Granules 99.5%	RESprep	26136	212201-AW	04-30-18	1 kg.	P	04-30-13	787	04-30-13	787	
14	Alumina SPE Cartridge	Supelco	57083-U	3661401	N/A	6ml x60	P	04-30-13	7	04-30-13	7	
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COMMENTS:

Book Number: 8

Return to Contents

EPA METHOD 8082
PCB Aroclors

RAW DATA

Return to Contents

EPA METHOD 8082
PCB Aroclors

Initial Calibration

Return to Contents

Calculation for PCB Initial Calibration, GC-58

Run Date:08/27/13

Data Path: ...../130827

REAR

PCB	AREA					CONCENTRATION (ppb)														ICV		
Levels (ppb)	LV1	LV2	LV3	LV4	LV5	LV1	LV2	LV3	LV4	LV5	RF	RF	RF	RF	RF	Ave RF	1/Avg. RF	SD	**%RSD (<20%)**	TOTAL AREA	RF	%D(<15%)
AROCLOR 1016 Total Area	6266.06	17979.11	33122.03	45126.20	120740.10	100	250	500	750	2000	63	72	66	60	60	**64.3**	**0.01556**	5	**7.7**	**33093.01**	66.2	3.0
AROCLOR 1260 Total Area	6354.08	19260.84	36326.20	50735.84	137068.45	100	250	500	750	2000	64	77	73	68	69	**69.9**	**0.01431**	5	**7.4**	36614.06	73.2	4.8
2,4,5,6-Tetrachloro-m-Xylene	6819.69	21770.37	41952.96	54646.23	155604.19	20	50	100	150	400	341	435	420	364	389	**390**	**0.00257**	39	**9.9**	42126.37	421	8.1
Decachlorobiphenyl	6415.58	20740.57	39587.05	51539.68	147390.84	20	50	100	150	400	321	415	396	344	368	**369**	**0.00271**	38	**10.3**	40587.05	406	10.1

Data File Name and location:
SVOA35\C:\Chem32\1\my doc\GC58 ICAL.xls

Calculation Formulas:
Conc.(ppb) = Total Area / Ave RF
Rec. % = Conc.(ppb) / Spike conc.(ppb)*100
RF = Total Area / LEVEL
%RSD= STDEV of RFs / Ave RF * 100

THE FORMULAS OF THIS SPREADSHEET IS LOCKED AND APPROVED BY

JHK 07/31/12

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082701.D
Operator : 669 Vial Number : Vial 1
Instrument : GC 58 Sequence Line : 2
Sample Name : ICAL 100PPB S030713B Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 05:48 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:44 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.785	6819.69	BB	0.035		17.49	2,4,5,6-Tetrachloro-m-Xylene
5.491	663.54	VB	0.034		10.32	Aroclor 1016 (1)
6.033	1294.33	BV	0.043		20.14	Aroclor 1016 (2)
6.615	2543.98	VV	0.051		39.58	Aroclor 1016 (3)
6.784	1028.21	VF	0.036		16.00	Aroclor 1016 (4)
6.910	736.00	VF	0.034		11.45	Aroclor 1016 (5)
9.077	1943.98	VV	0.035		27.82	Aroclor 1260 (1)
9.588	1470.72	VV	0.033		21.05	Aroclor 1260 (2)
9.923	1589.19	VV	0.034		22.74	Aroclor 1260 (3)
11.087	400.74	BB	0.034		5.73	Aroclor 1260 (4)
11.267	949.44	BB	0.036		13.59	Aroclor 1260 (5)
11.925	6415.58	VB	0.034		17.40	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

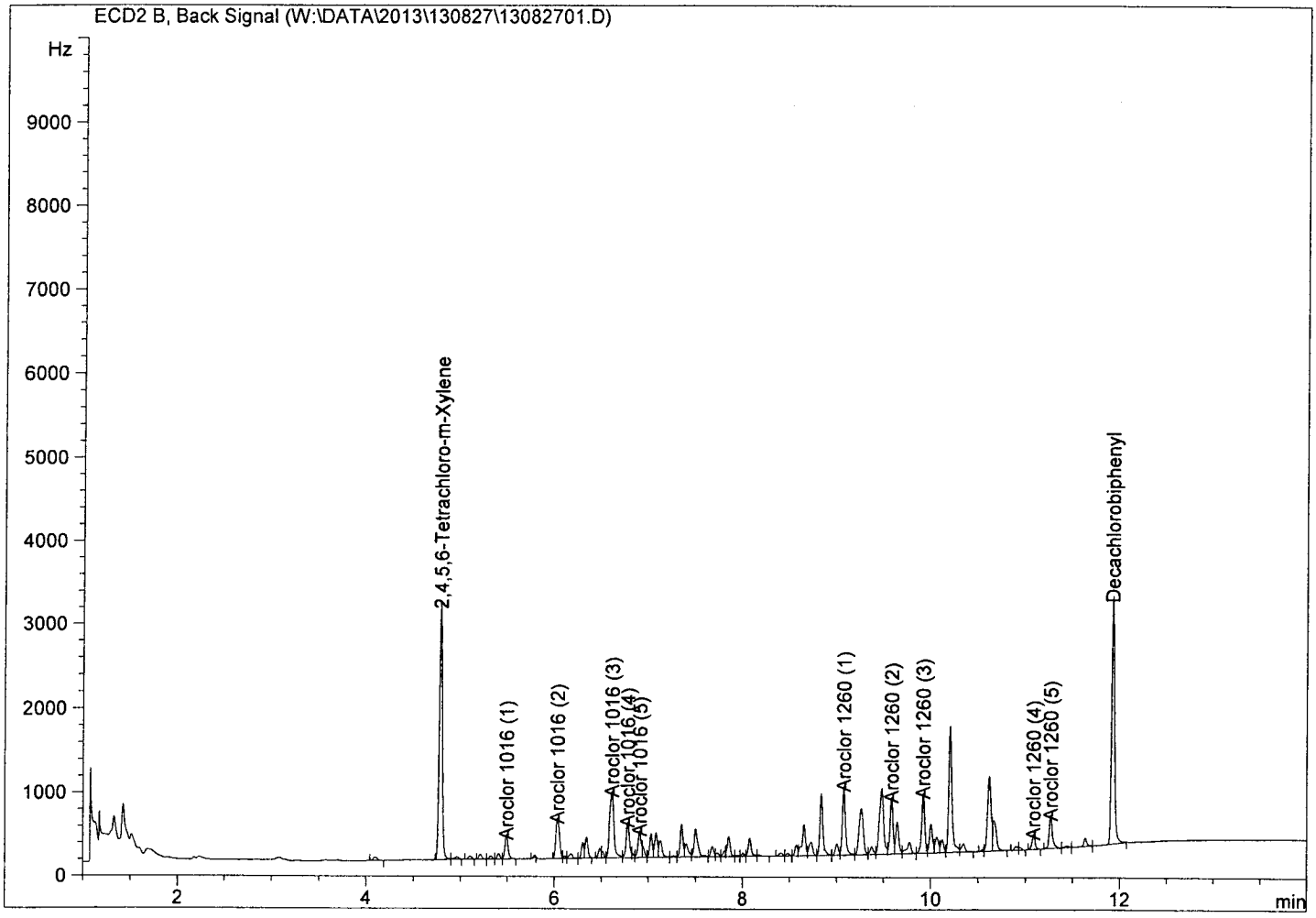
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	6266.06	VB	0.01556	97.49	Aroclor-1016
6.908		VF	0.01556		
6.782		VF	0.01556		
6.613		VV	0.01556		
6.032		BV	0.01556		
9.074	6354.08	VV	0.01431	90.92	Aroclor-1260
11.266		BB	0.01431		
11.086		BB	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082701.D
Operator : 669 Vial Number : Vial 1
Instrument : GC 58 Sequence Line : 2
Sample Name : ICAL 100PPB S030713B Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 05:48 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:44 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082702.D
Operator : 669 Vial Number : Vial 2
Instrument : GC 58 Sequence Line : 3
Sample Name : ICAL 250PPB S030713C Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 06:06 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:44 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.786	21770.37	BV	0.035		55.84	2,4,5,6-Tetrachloro-m-Xylene
5.491	1871.11	VB	0.034		29.11	Aroclor 1016 (1)
6.033	3478.83	BV	0.044		54.13	Aroclor 1016 (2)
6.615	7640.31	VV	0.049		118.87	Aroclor 1016 (3)
6.784	3022.26	VF	0.035		47.02	Aroclor 1016 (4)
6.910	1966.61	VF	0.032		30.60	Aroclor 1016 (5)
9.076	5579.97	VV	0.035		79.85	Aroclor 1260 (1)
9.587	4514.82	VV	0.033		64.60	Aroclor 1260 (2)
9.922	4971.48	VV	0.035		71.14	Aroclor 1260 (3)
11.088	1243.20	VB	0.035		17.79	Aroclor 1260 (4)
11.267	2951.38	BV	0.036		42.23	Aroclor 1260 (5)
11.925	20740.57	BB	0.034		56.25	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

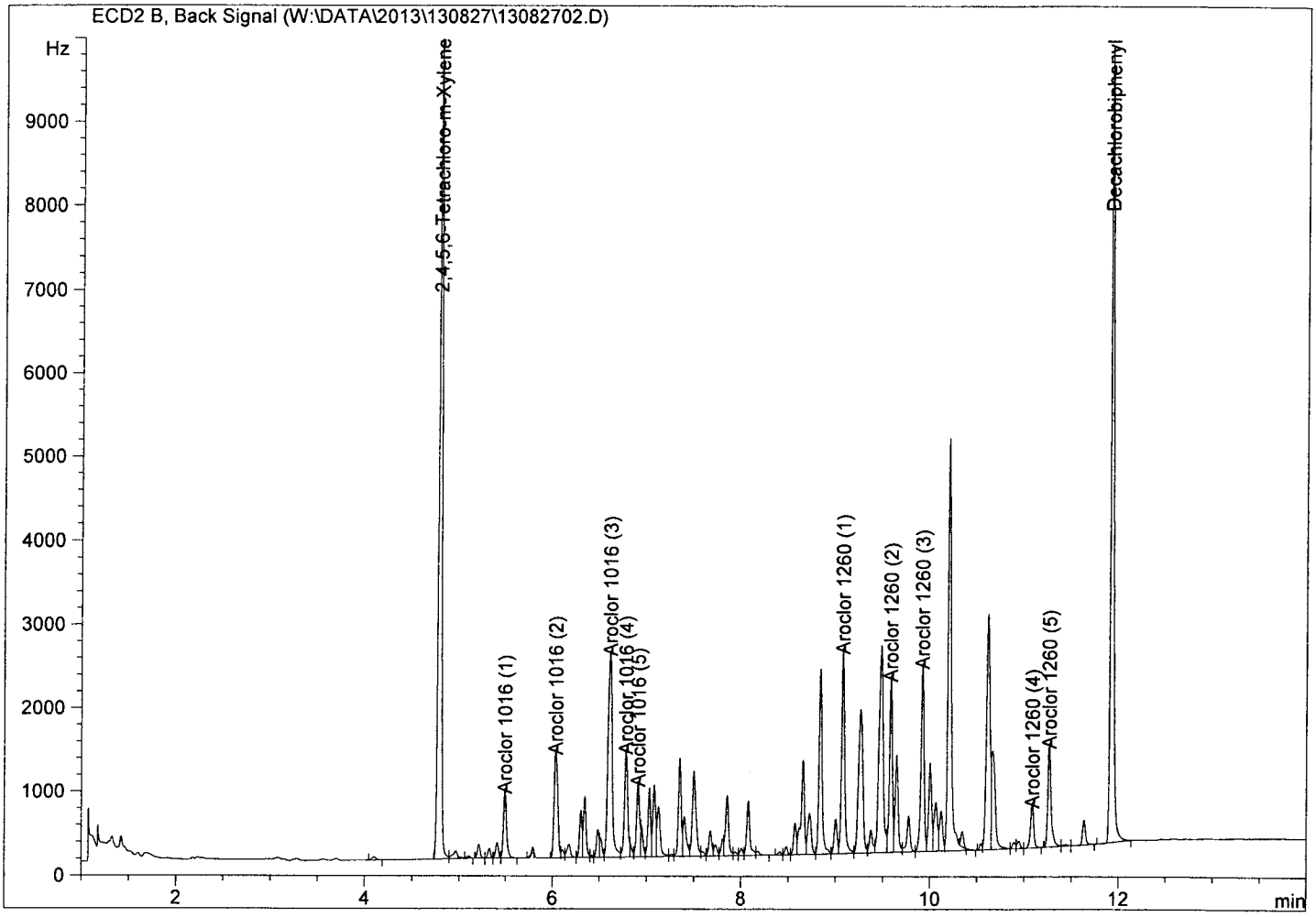
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	17979.11	VB	0.01556	279.74	Aroclor-1016
6.908		VF	0.01556		
6.782		VF	0.01556		
6.613		VV	0.01556		
6.032		BV	0.01556		
9.074	19260.84	VV	0.01431	275.61	Aroclor-1260
11.266		BV	0.01431		
11.086		VB	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082702.D
Operator : 669 Vial Number : Vial 2
Instrument : GC 58 Sequence Line : 3
Sample Name : ICAL 250PPB S030713C Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 06:06 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:44 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082703.D
Operator : 669 Vial Number : Vial 3
Instrument : GC 58 Sequence Line : 4
Sample Name : ICAL 500PPB S030713D Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 06:24 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:45 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.784	41952.96	BV	0.037		107.61	2,4,5,6-Tetrachloro-m-Xylene
5.490	3430.01	VB	0.034		53.37	Aroclor 1016 (1)
6.032	6317.78	BV	0.043		98.30	Aroclor 1016 (2)
6.613	14179.83	VV	0.049		220.62	Aroclor 1016 (3)
6.782	5567.35	VB	0.035		86.62	Aroclor 1016 (4)
6.909	3627.06	VB	0.032		56.43	Aroclor 1016 (5)
9.074	10299.47	VV	0.033		147.38	Aroclor 1260 (1)
9.585	8475.74	VV	0.035		121.28	Aroclor 1260 (2)
9.920	9424.29	VV	0.033		134.86	Aroclor 1260 (3)
11.085	2417.68	VV	0.036		34.60	Aroclor 1260 (4)
11.265	5709.02	VV	0.036		81.69	Aroclor 1260 (5)
11.924	39587.05	BB	0.033		107.37	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

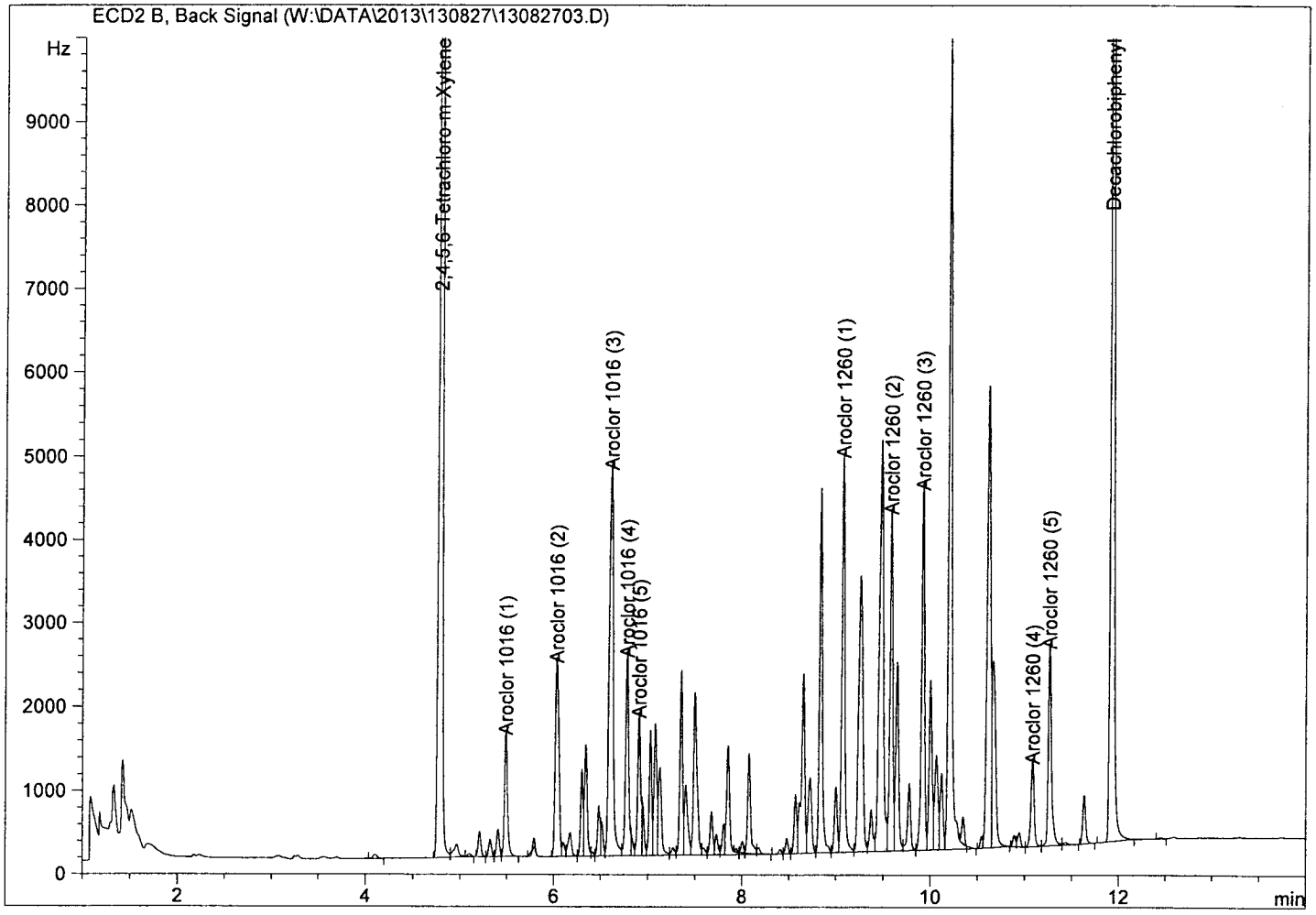
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	33122.03	VB	0.01556	515.34	Aroclor-1016
6.908		VB	0.01556		
6.782		VB	0.01556		
6.613		VV	0.01556		
6.032		BV	0.01556		
9.074	36326.20	VV	0.01431	519.81	Aroclor-1260
11.266		VV	0.01431		
11.086		VV	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082703.D
Operator : 669 Vial Number : Vial 3
Instrument : GC 58 Sequence Line : 4
Sample Name : ICAL 500PPB S030713D Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 06:24 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:45 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082704.D
Operator : 669 Vial Number : Vial 4
Instrument : GC 58 Sequence Line : 5
Sample Name : ICAL 750PPB S030713E Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 06:42 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:45 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.783	54646.23	VV	0.036		140.17	2,4,5,6-Tetrachloro-m-Xylene
5.489	4529.19	VB	0.033		70.47	Aroclor 1016 (1)
6.031	8461.32	BV	0.044		131.65	Aroclor 1016 (2)
6.613	19540.48	VV	0.050		304.03	Aroclor 1016 (3)
6.782	7628.31	VB	0.036		118.69	Aroclor 1016 (4)
6.909	4966.90	VB	0.032		77.28	Aroclor 1016 (5)
9.075	14443.42	VV	0.033		206.68	Aroclor 1260 (1)
9.585	11820.18	VV	0.036		169.14	Aroclor 1260 (2)
9.921	13133.85	VV	0.034		187.94	Aroclor 1260 (3)
11.087	3419.20	VB	0.036		48.93	Aroclor 1260 (4)
11.267	7919.20	BV	0.036		113.32	Aroclor 1260 (5)
11.925	51539.68	VB	0.033		139.78	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

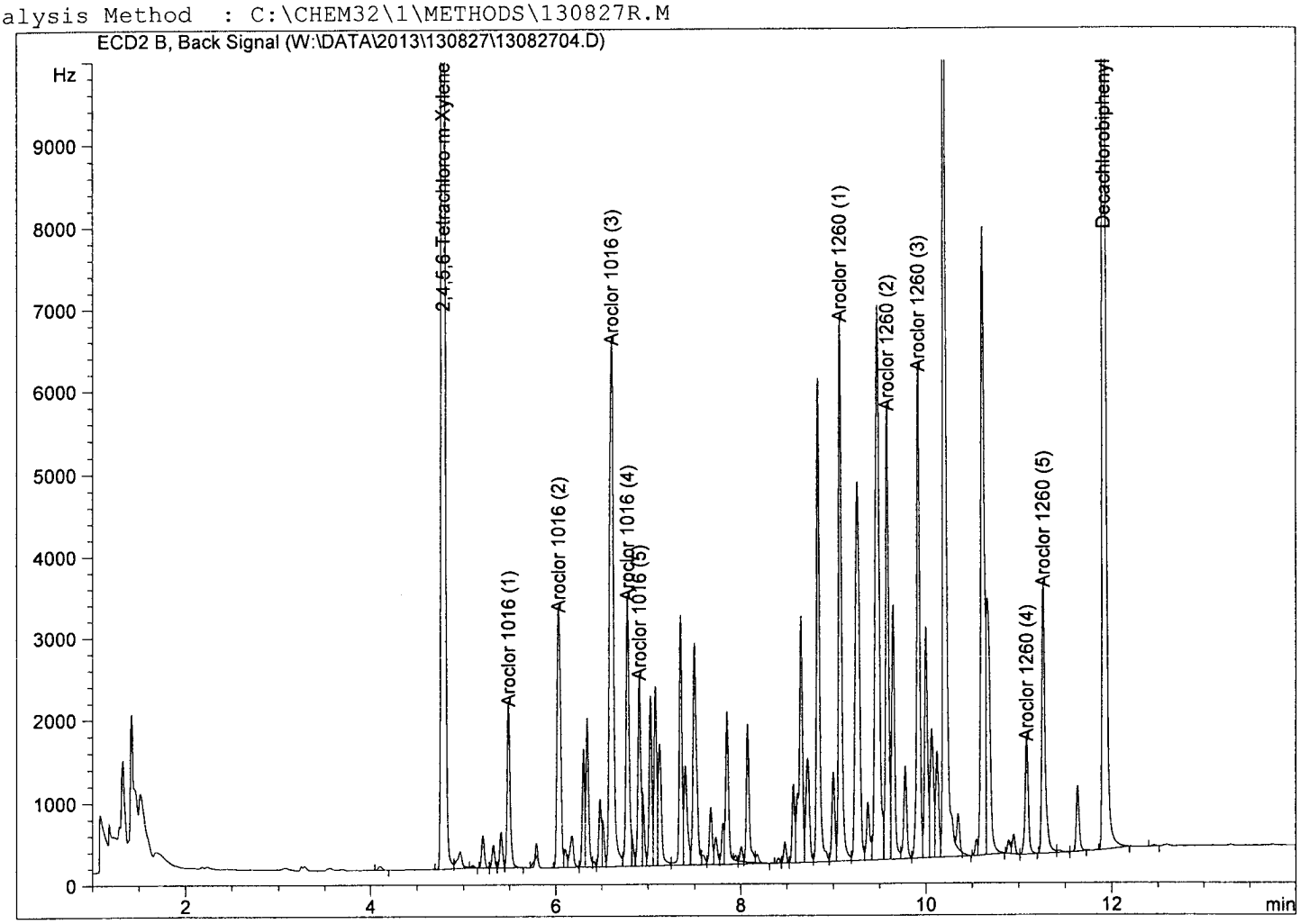
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	45126.20	VB	0.01556	702.11	Aroclor-1016
6.908		VB	0.01556		
6.782		VB	0.01556		
6.613		VV	0.01556		
6.032		BV	0.01556		
9.074	50735.84	VV	0.01431	726.00	Aroclor-1260
11.266		BV	0.01431		
11.086		VB	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082704.D
Operator : 669 Vial Number : Vial 4
Instrument : GC 58 Sequence Line : 5
Sample Name : ICAL 750PPB S030713E Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 06:42 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:45 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082705.D
Operator : 669 Vial Number : Vial 5
Instrument : GC 58 Sequence Line : 6
Sample Name : ICAL 2000PPB S030713F Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 07:00 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:45 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.783	155604.19	VV	0.037		399.14	2,4,5,6-Tetrachloro-m-Xylene
5.489	11802.71	VB	0.034		183.64	Aroclor 1016 (1)
6.032	22511.05	VV	0.043		350.25	Aroclor 1016 (2)
6.613	52780.86	VV	0.048		821.21	Aroclor 1016 (3)
6.782	20323.03	VB	0.035		316.20	Aroclor 1016 (4)
6.908	13322.46	VB	0.031		207.28	Aroclor 1016 (5)
9.074	38476.20	VV	0.035		550.57	Aroclor 1260 (1)
9.585	31470.67	VV	0.035		450.33	Aroclor 1260 (2)
9.921	35320.52	VV	0.032		505.42	Aroclor 1260 (3)
11.086	9329.68	VV	0.034		133.50	Aroclor 1260 (4)
11.266	22471.37	VV	0.036		321.55	Aroclor 1260 (5)
11.925	147390.84	VB	0.033		399.75	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

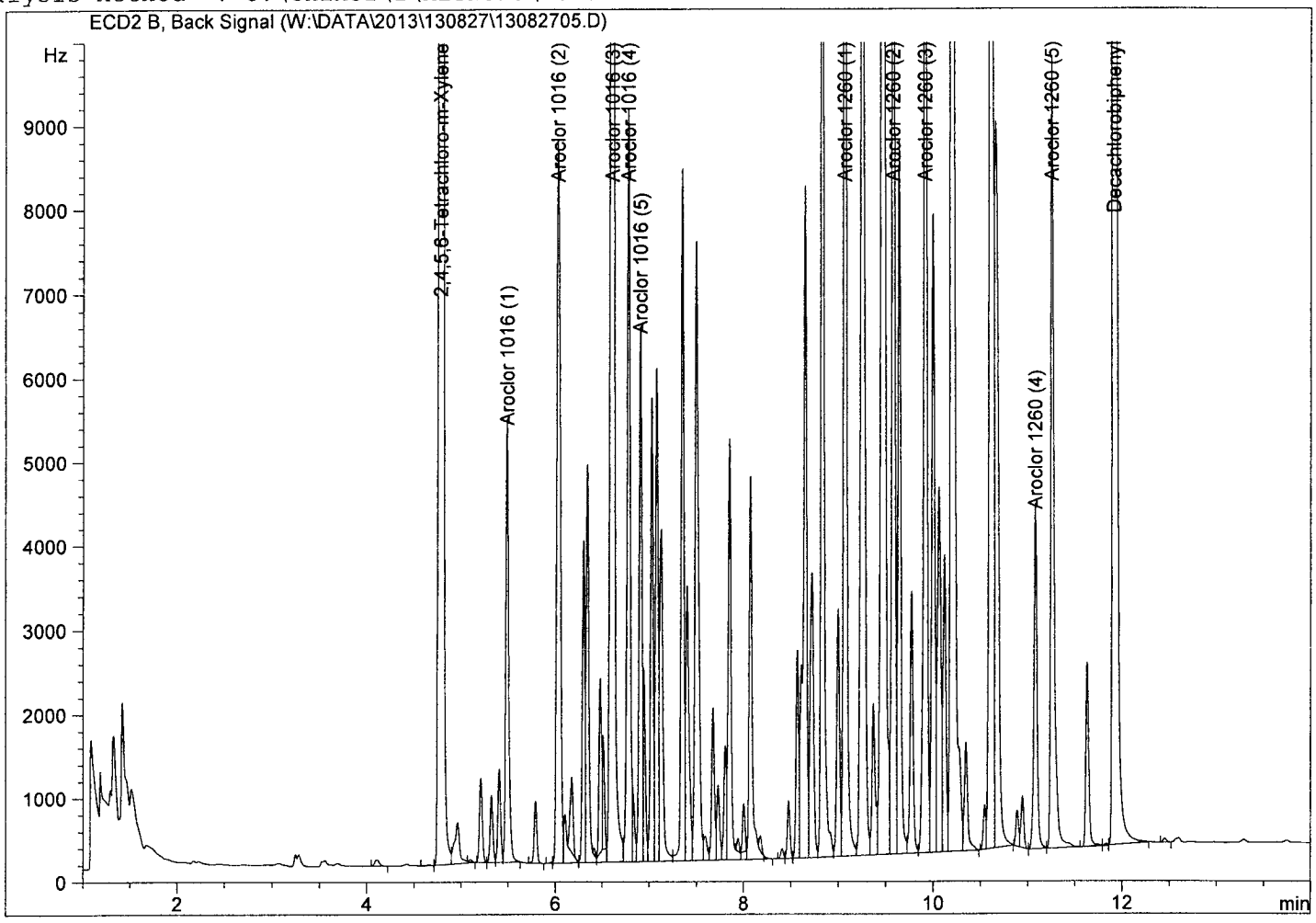
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	120740.10	VBA	0.01556	1878.58	Aroclor-1016
6.908		VB	0.01556		
6.782		VB	0.01556		
6.613		VV	0.01556		
6.032		VV	0.01556		
9.074	137068.45	VV	0.01431	1961.38	Aroclor-1260
11.266		VV	0.01431		
11.086		VV	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082705.D
Operator : 669 Vial Number : Vial 5
Instrument : GC 58 Sequence Line : 6
Sample Name : ICAL 2000PPB S030713F Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 07:00 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:45 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082706.D
Operator : 669 Vial Number : Vial 6
Instrument : GC 58 Sequence Line : 7
Sample Name : ICV 500PPB S052013B Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 07:18 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:45 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.786	42126.37	BV	0.035		108.06	2,4,5,6-Tetrachloro-m-Xylene
5.491	3488.12	VB	0.034		54.27	Aroclor 1016 (1)
6.033	6300.26	VV	0.044		98.03	Aroclor 1016 (2)
6.614	14221.08	VV	0.048		221.26	Aroclor 1016 (3)
6.783	5545.84	VB	0.035		86.29	Aroclor 1016 (4)
6.910	3537.71	VB	0.031		55.04	Aroclor 1016 (5)
9.075	10218.05	VV	0.032		146.22	Aroclor 1260 (1)
9.587	8647.01	VV	0.035		123.73	Aroclor 1260 (2)
9.921	9448.35	VV	0.033		135.20	Aroclor 1260 (3)
11.087	2475.84	BV	0.035		35.43	Aroclor 1260 (4)
11.266	5824.80	VV	0.035		83.35	Aroclor 1260 (5)
11.926	40587.05	VB	0.033		110.08	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

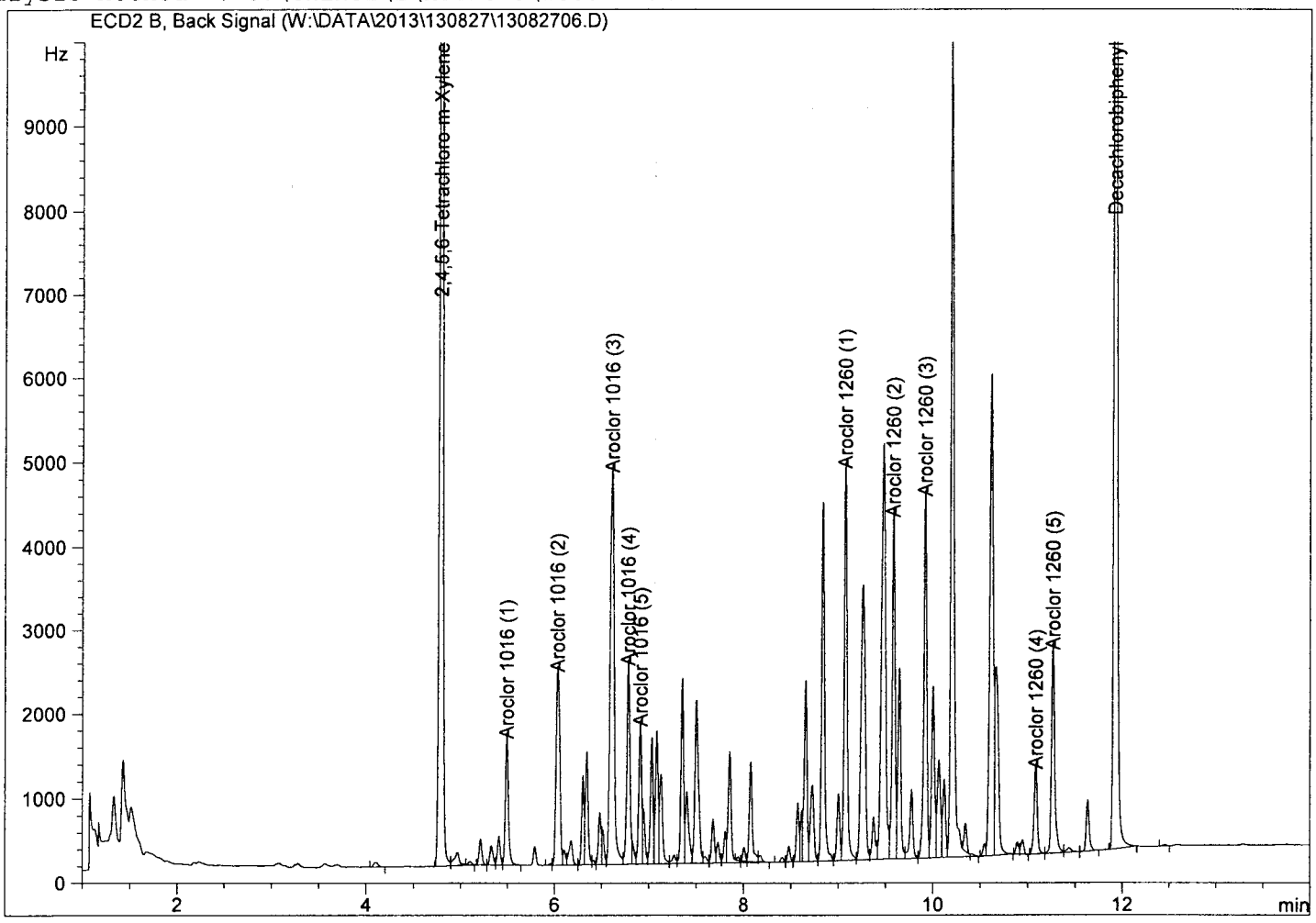
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	33093.01	VB	0.01556	514.89	Aroclor-1016
6.908		VB	0.01556		
6.782		VB	0.01556		
6.613		VV	0.01556		
6.032		VV	0.01556		
9.074	36614.06	VV	0.01431	523.93	Aroclor-1260
11.266		VV	0.01431		
11.086		BV	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082706.D
Operator : 669 Vial Number : Vial 6
Instrument : GC 58 Sequence Line : 7
Sample Name : ICV 500PPB S052013B Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 07:18 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:45 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082707.D
Operator : 669 Vial Number : Vial 7
Instrument : GC 58 Sequence Line : 8
Sample Name : 1221/54 S061213K Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 07:36 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:34 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\1221-1254\P2154-130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.118	1639.38	BV	0.053		83.87	Aroclor 1221 (1)
0.000	0.00		0.000		0.00	2,4,5,6-Tetrachloro-m-Xylene
5.213	1840.97	VV	0.033		94.18	Aroclor 1221 (2)
5.408	1230.28	VV	0.034		62.94	Aroclor 1221 (3)
5.491	4201.15	VB	0.035		214.93	Aroclor 1221 (4)
6.028	861.42	VV	0.053		44.07	Aroclor 1221 (5)
7.853	6726.48	VV	0.032		82.67	Aroclor 1254 (1)
8.148	3525.73	VB	0.035		43.33	Aroclor 1254 (2)
8.613	12418.75	VV	0.038		152.62	Aroclor 1254 (3)
8.874	8270.80	VV	0.038		101.65	Aroclor 1254 (4)
9.269	9742.23	VV	0.046		119.73	Aroclor 1254 (5)
11.924	586.71	BB	0.035		1.59	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1016
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1260
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

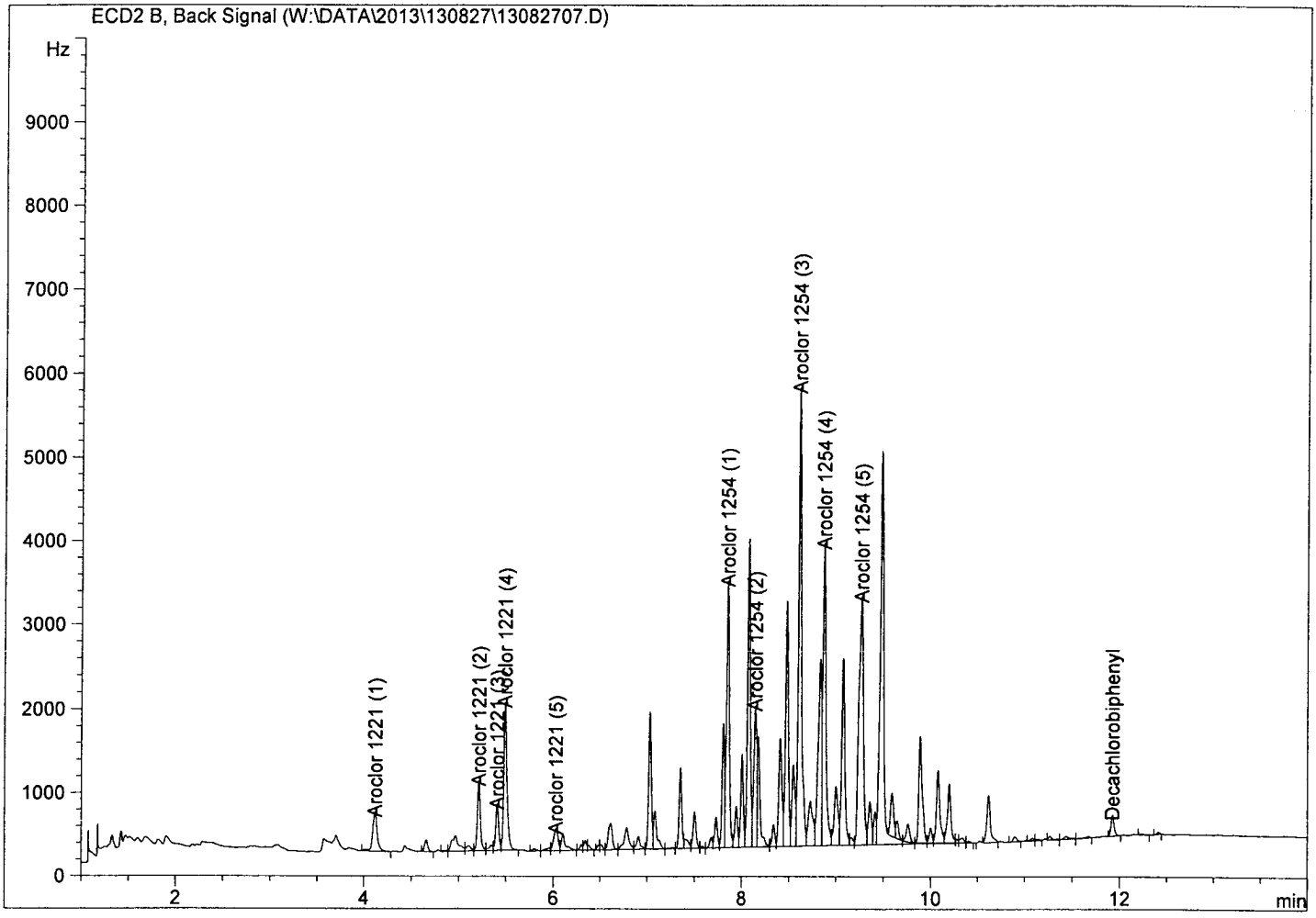
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
4.118	9773.20	BV	0.05116	500.00	Aroclor-1221
6.028		VV	0.05116		
5.491		VB	0.05116		
5.408		VV	0.05116		
5.213		VV	0.05116		
7.853	40683.99	VV	0.01229	500.00	Aroclor-1254
9.269		VV	0.01229		
8.874		VV	0.01229		
8.613		VV	0.01229		
8.148		VB	0.01229		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082707.D
Operator : 669 Vial Number : Vial 7
Instrument : GC 58 Sequence Line : 8
Sample Name : 1221/54 S061213K Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 07:36 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:34 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\1221-1254\P2154-130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082708.D
Operator : 669 Vial Number : Vial 8
Instrument : GC 58 Sequence Line : 9
Sample Name : 1232/62 S061213L Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 07:54 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:38 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\1232-1262\P3262-130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.00		0.000		0.00	2,4,5,6-Tetrachloro-m-Xylene
5.491	3243.60	VB	0.034		100.54	Aroclor 1232 (1)
6.032	2855.82	BV	0.045		88.52	Aroclor 1232 (2)
6.615	5906.91	VV	0.049		183.09	Aroclor 1232 (3)
6.784	2517.72	VV	0.038		78.04	Aroclor 1232 (4)
6.910	1607.29	VF	0.033		49.82	Aroclor 1232 (5)
9.076	7289.80	VV	0.034		93.77	Aroclor 1262 (1)
9.587	10870.67	VV	0.032		139.84	Aroclor 1262 (2)
9.923	9660.25	VV	0.032		124.27	Aroclor 1262 (3)
11.087	2996.06	VV	0.036		38.54	Aroclor 1262 (4)
11.268	8052.15	VV	0.036		103.58	Aroclor 1262 (5)
11.930	124.23	BB	0.043		0.34	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1016
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1260
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

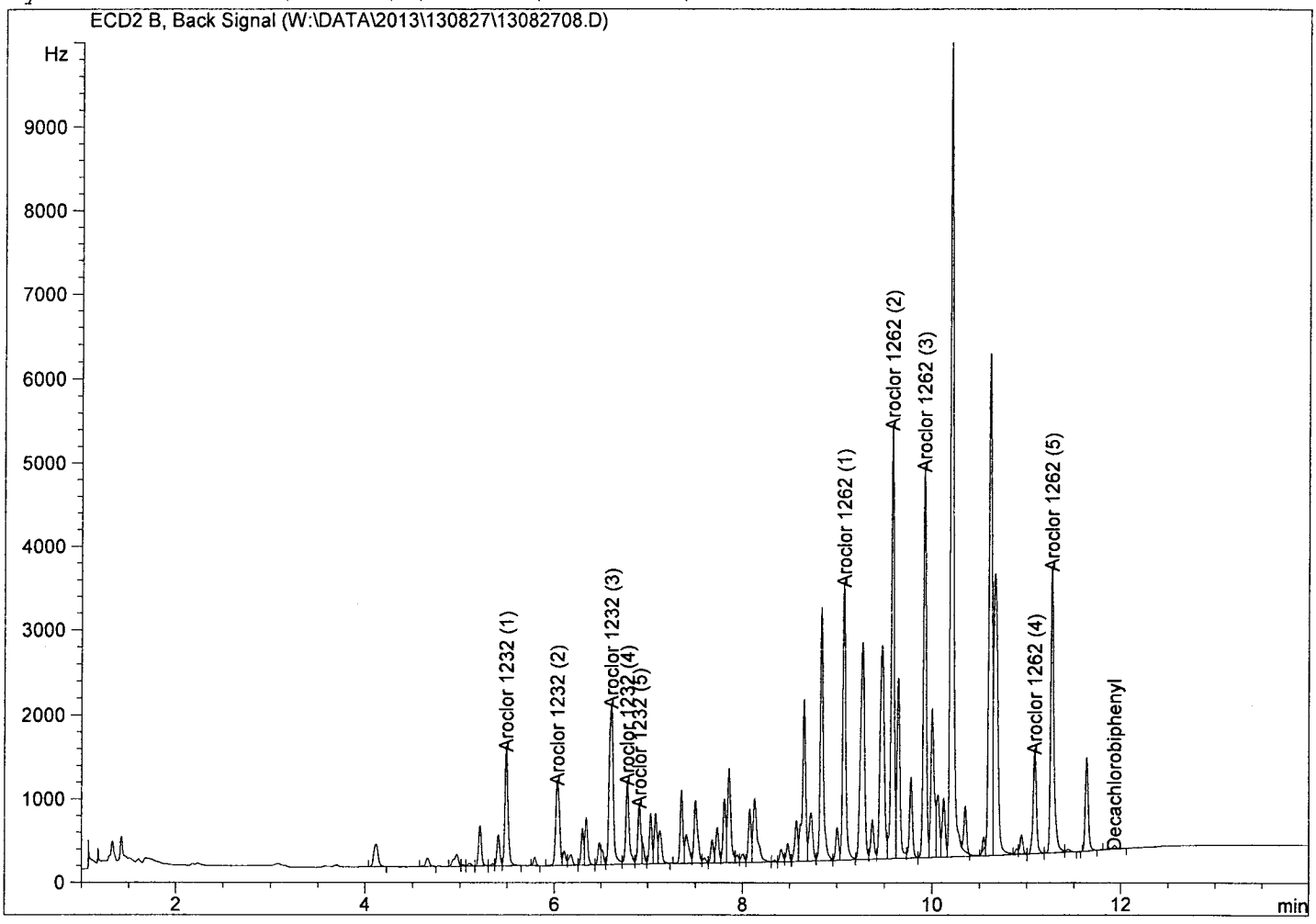
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.491	16131.34	VB	0.03100	500.00	Aroclor-1232
6.910		VF	0.03100		
6.784		VV	0.03100		
6.615		VV	0.03100		
6.032		BV	0.03100		
9.076	38868.93	VV	0.01286	500.00	Aroclor-1262
11.268		VV	0.01286		
11.087		VV	0.01286		
9.923		VV	0.01286		
9.587		VV	0.01286		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082708.D
Operator : 669 Vial Number : Vial 8
Instrument : GC 58 Sequence Line : 9
Sample Name : 1232/62 S061213L Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 07:54 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:38 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\1232-1262\P3262-130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082709.D
Operator : 669 Vial Number : Vial 9
Instrument : GC 58 Sequence Line : 10
Sample Name : 1248/68 S061213M Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 08:12 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:41 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\1248-1268\P4868-130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.00		0.000		0.00	2,4,5,6-Tetrachloro-m-Xylene
6.612	6936.96	VV	0.050		143.08	Aroclor 1248 (1)
7.083	3580.22	VV	0.031		73.84	Aroclor 1248 (2)
7.128	2533.99	VB	0.035		52.26	Aroclor 1248 (3)
7.354	5276.49	BV	0.030		108.83	Aroclor 1248 (4)
7.501	5914.36	VV	0.036		121.99	Aroclor 1248 (5)
10.609	24949.11	VV	0.031		78.11	Aroclor 1268 (1)
10.662	27345.79	VV	0.040		85.62	Aroclor 1268 (2)
10.948	21828.81	VV	0.033		68.34	Aroclor 1268 (3)
11.267	8907.48	VV	0.034		27.89	Aroclor 1268 (4)
11.635	76669.05	BV	0.034		240.04	Aroclor 1268 (5)
11.925	14092.29	VB	0.033		38.22	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1016
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1260
0.000	0.00		0.000		0.00	Aroclor-1262

Sig. ECD2 B,

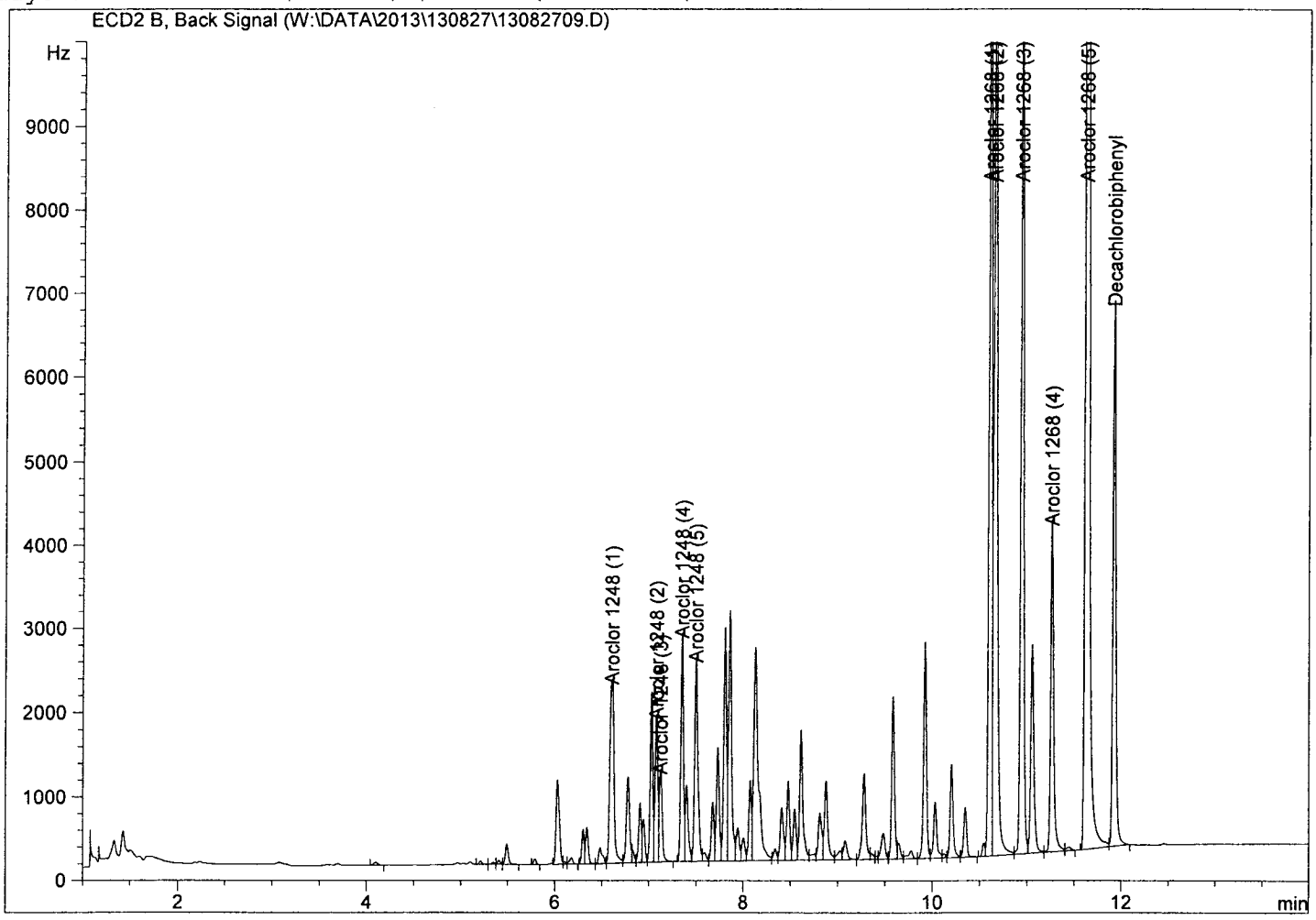
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
6.612	24242.02	VV	0.02063	500.00	Aroclor-1248
7.501		VV	0.02063		
7.354		BV	0.02063		
7.128		VB	0.02063		
7.083		VV	0.02063		
10.609	159700.24	VV	0.00313	500.00	Aroclor-1268
11.635		BV	0.00313		
11.267		VV	0.00313		
10.948		VV	0.00313		
10.662		VV	0.00313		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082709.D
Operator : 669 Vial Number : Vial 9
Instrument : GC 58 Sequence Line : 10
Sample Name : 1248/68 S061213M Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 08:12 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:41 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\1248-1268\P4868-130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082710.D
Operator : 669 Vial Number : Vial 10
Instrument : GC 58 Sequence Line : 11
Sample Name : 1242 S061213N Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 08:30 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:44 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\1242\1242-130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
0.000	0.00		0.000		0.00	2,4,5,6-Tetrachloro-m-Xylene
5.491	2366.30	VB	0.034		50.79	Aroclor 1242 (1)
6.033	4413.90	VV	0.044		94.74	Aroclor 1242 (2)
6.615	9846.62	VV	0.048		211.34	Aroclor 1242 (3)
6.784	4171.13	VV	0.037		89.53	Aroclor 1242 (4)
6.911	2497.31	VF	0.032		53.60	Aroclor 1242 (5)
11.926	207.13	BB	0.036		0.56	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1016
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1260
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

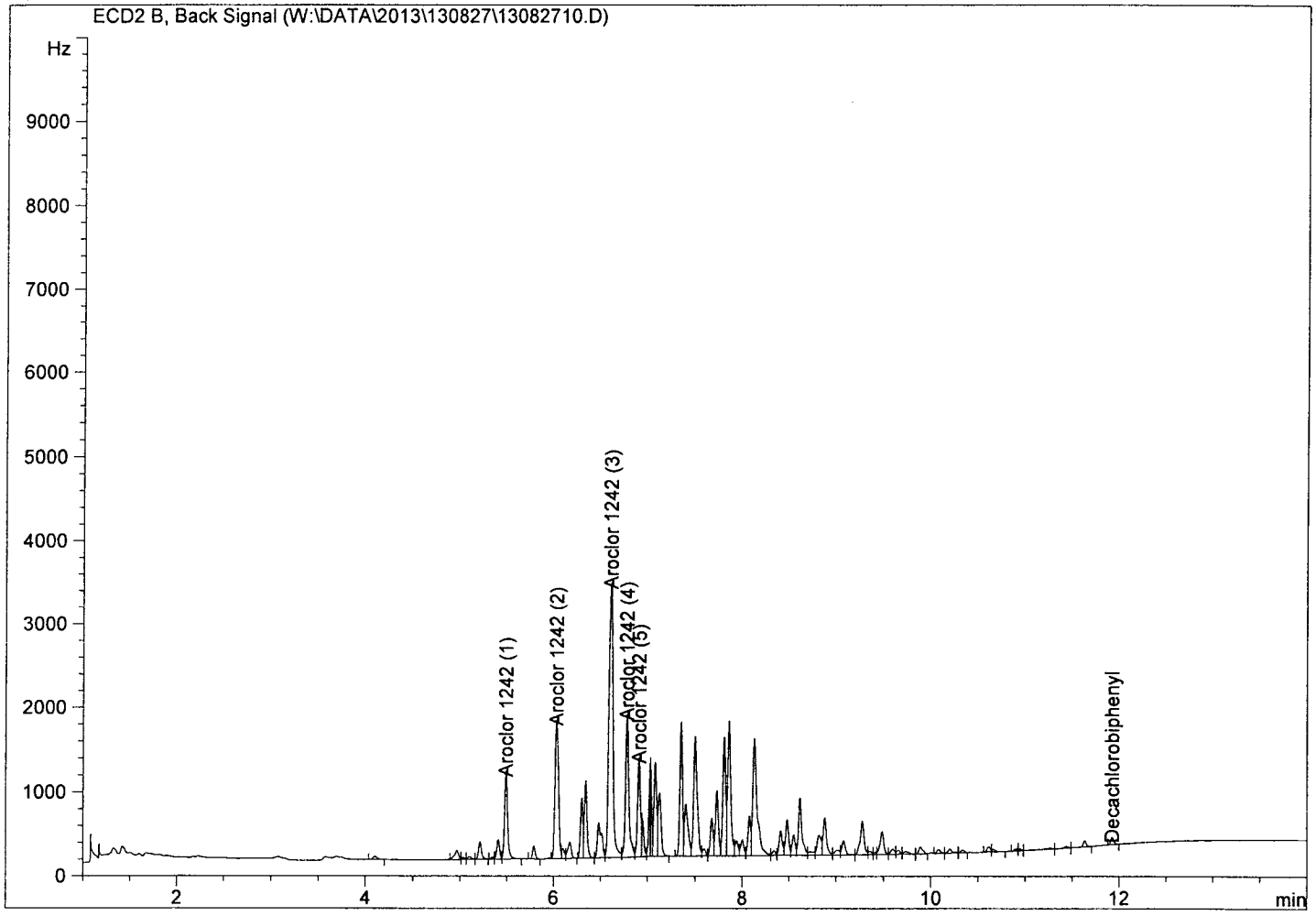
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.491	23295.26	VB	0.02146	500.00	Aroclor-1242
6.911		VF	0.02146		
6.784		VV	0.02146		
6.615		VV	0.02146		
6.033		VV	0.02146		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\130827\13082710.D
Operator : 669 Vial Number : Vial 10
Instrument : GC 58 Sequence Line : 11
Sample Name : 1242 S061213N Report Style : PCB-NR
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 27 Aug 13 08:30 pm Method : EPA 8082
Report Created on: 28 Aug 13 09:44 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\1242\1242-130827R.M



Return to Contents

EPA METHOD 8082
PCB Aroclors

Sample Data

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8082

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC 58
D/T ANALYZED: 11/15/2013 16:41
ANALYST: 669
DATA FILE: W:\DATA\2013\131115\1311151313111513

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3510C
D/T EXTRACTED: 11/11/2013 00:00

13 **CLIENT SAMPLE NUMBER: QCEB-11082013**

LCS/MB BATCH: 131111L08
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Aroclor-1016	0.00	1	ND	1.0	0.01	ug/L	
Aroclor-1221	0.00	1	ND	1.0	0.01	ug/L	
Aroclor-1232	0.00	1	ND	1.0	0.01	ug/L	
Aroclor-1242	0.00	1	ND	1.0	0.01	ug/L	
Aroclor-1248	0.00	1	ND	1.0	0.01	ug/L	
Aroclor-1254	0.00	1	ND	1.0	0.01	ug/L	
Aroclor-1260	0.00	1	ND	1.0	0.01	ug/L	
Aroclor-1262	0.00	1	ND	1.0	0.01	ug/L	

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131115\13111513.D
Operator : 669 Vial Number : Vial 13
Instrument : GC 58 Sequence Line : 14
Sample Name : 13-11-0697-13 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 15 Nov 13 04:41 pm Method : EPA 8082
Report Created on: 18 Nov 13 09:22 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.776	35013.47	BB	0.037		89.81	2,4,5,6-Tetrachloro-m-Xylene
5.518	66.37	BB	0.032		1.03	Aroclor 1016 (1)
0.000	0.00		0.000		0.00	Aroclor 1016 (2)
6.599	143.58	BV	0.032		2.23	Aroclor 1016 (3)
0.000	0.00		0.000		0.00	Aroclor 1016 (4)
0.000	0.00		0.000		0.00	Aroclor 1016 (5)
0.000	0.00		0.000		0.00	Aroclor 1260 (1)
0.000	0.00		0.000		0.00	Aroclor 1260 (2)
0.000	0.00		0.000		0.00	Aroclor 1260 (3)
0.000	0.00		0.000		0.00	Aroclor 1260 (4)
0.000	0.00		0.000		0.00	Aroclor 1260 (5)
11.916	34478.27	BB	0.036		93.51	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

Group summary

Ret Time	Area	Type	Ref	1/Avg.RF	Amount	Group Name
5.489	209.95	BB		0.01556	3.27	Aroclor-1016
6.908				0.00000		
6.782				0.00000		
6.613		BV		0.01556		
6.032				0.00000		
9.074	0.00			0.00000	0.00	Aroclor-1260
11.266				0.00000		
11.086				0.00000		
9.921				0.00000		
9.585				0.00000		

Return to Contents

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Internal Standard Report

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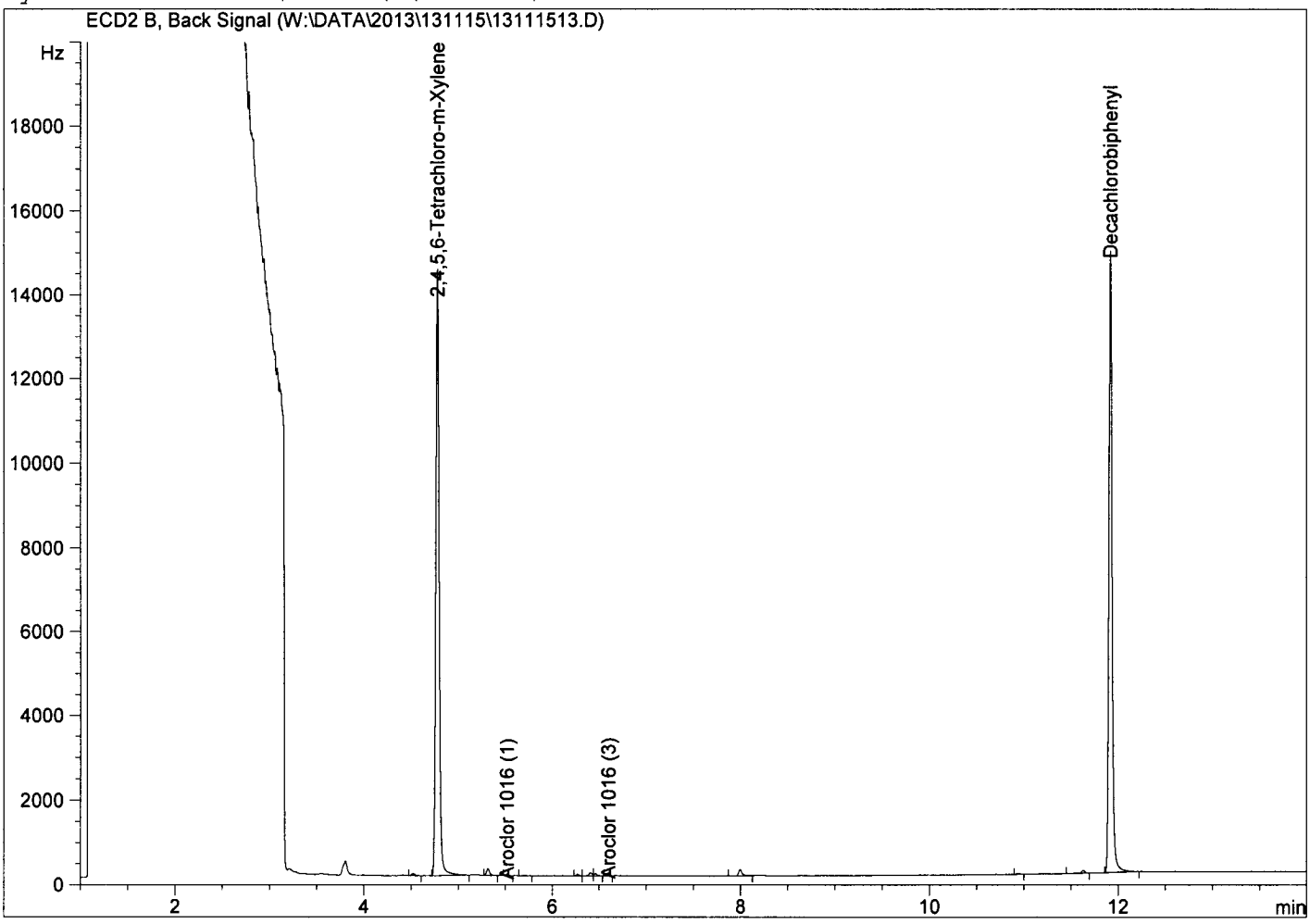
Data File Name : W:\DATA\2013\131115\13111513.D
Operator : 669 Vial Number : Vial 13
Instrument : GC 58 Sequence Line : 14
Sample Name : 13-11-0697-13 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 15 Nov 13 04:41 pm Method : EPA 8082
Report Created on: 18 Nov 13 09:22 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

EPA METHOD 8082
PCB Aroclors

Quality Control

Method Blank
LCS/LCSD
MS/MSD

Return to Contents

METHOD BLANK ASSOCIATION SUMMARY FOR METHOD: EPA 8082

MB Sample ID: 099-12-533-859
MB Batch ID: 131111L08
Instrument: GC 58
Matrix: Water
Analyst: 669
D/T Analyzed: 11/15/2013 16:23
Data File: W:\DATA\2013\131115\1311151213111512

Reviewed By: 0
D/T Reviewed:
Extraction: EPA 3510C
D/T Extracted: 11/11/2013 00:00

Work Order #: 13-11-0697

Sample#	Client Sample ID	D/T Analyzed	Data File
13	QCEB-11082013	11/15/2013 16:41	W:\DATA\2013\131115\1311151313111513

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8082

WORK ORDER NUMBER: 099-12-533
INSTRUMENT NAME: GC 58
D/T ANALYZED: 11/15/2013 16:23
ANALYST: 669
DATA FILE: W:\DATA\2013\131115\1311151213111512

REVIEWED BY: 0 JS
DATE REVIEWED: 11/18
EXTRACTION : EPA 3510C
D/T EXTRACTED: 11/11/2013 00:00

MB **CLIENT SAMPLE NUMBER:** **Method Blank**

LCS/MB BATCH: 131111L08
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Aroclor-1016	0.00	1	ND	1.0	0.01	ug/L	
Aroclor-1221	0.00	1	ND	1.0	0.01	ug/L	
Aroclor-1232	0.00	1	ND	1.0	0.01	ug/L	
Aroclor-1242	0.00	1	ND	1.0	0.01	ug/L	
Aroclor-1248	0.00	1	ND	1.0	0.01	ug/L	
Aroclor-1254	0.00	1	ND	1.0	0.01	ug/L	
Aroclor-1260	0.00	1	ND	1.0	0.01	ug/L	
Aroclor-1262	0.00	1	ND	1.0	0.01	ug/L	

Return to Contents

LCS / LCSD QUALITY CONTROL SHEET
METHOD: EPA 8082

WORK ORDER:	**13-11-0697**	D/T REVIEWED:	11/15/13	LCS D/T ANALYZED:	11/15/2013 15:47
LCS/LCSD BATCH:	131111L08	EXTRACTION:	EPA 3510C	LCSD D/T ANALYZED:	11/15/2013 16:05
LCS/LCSD SAMPLE ID:	**099-12-533-859**	LCS EXTRACTED:	11/11/2013	LCS INSTRUMENT NAME:	GC 58
ANALYST:	669	LCSD EXTRACTED:	11/11/2013 12:00:00	LCSD INSTRUMENT NAME:	GC 58
REVIEWED BY:	0				

COMMENT:

COMPOUND	ADDED	LCS CONC	% REC	LCSD CONC	% REC	% REC CL	ME CL	RPD	RPD CL	STATUS	QUALIFIER
Aroclor-1016	2.000	2.071	104	2.059	103	50-135	36-149	1	0-25	PASS	
Aroclor-1260	2.000	2.008	100	1.932	97	50-135	36-149	4	0-25	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
LCS	13111510	W:\DATA\2013\131115\13111510
LCSD	13111511	W:\DATA\2013\131115\13111511

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8082

WORK ORDER: 13-11-0697
BATCH ID:
LCS/MB: 131111L08
MS:
EXTRACTION : EPA 3510C

REVIEWED BY: 27
D/T REVIEWED: 11/18/2013 17:10

13 CLIENT SAMPLE NUMBER : QCEB-11082013

INSTRUMENT: GC 58
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\DATA\2013\131115\1311151313111513

ANALYZED BY: 669
D/T ANALYZED 11/15/2013 16:41

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	94	50-135	PASS	
2,4,5,6-Tetrachloro-m-Xylene	90	50-135	PASS	

MB CLIENT SAMPLE NUMBER : Method Blank

INSTRUMENT: GC 58
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\DATA\2013\131115\1311151213111512

ANALYZED BY: 669
D/T ANALYZED 11/15/2013 16:23

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	95	50-135	PASS	
2,4,5,6-Tetrachloro-m-Xylene	91	50-135	PASS	

LCS CLIENT SAMPLE NUMBER : Lab Control Sample

INSTRUMENT: GC 58
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\DATA\2013\131115\1311151013111510

ANALYZED BY: 669
D/T ANALYZED 11/15/2013 15:47

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	97	50-135	PASS	
2,4,5,6-Tetrachloro-m-Xylene	81	50-135	PASS	

LCD CLIENT SAMPLE NUMBER : Lab Control Sample Duplicate

INSTRUMENT: GC 58
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\DATA\2013\131115\1311151113111511

ANALYZED BY: 669
D/T ANALYZED 11/15/2013 16:05

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	93	50-135	PASS	
2,4,5,6-Tetrachloro-m-Xylene	77	50-135	PASS	

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131115\13111512.D
Operator : 669 Vial Number : Vial 12
Instrument : GC 58 Sequence Line : 13
Sample Name : MB 131111L08 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 15 Nov 13 04:23 pm Method : EPA 8082
Report Created on: 18 Nov 13 09:22 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.777	35429.13	VV	0.037		90.88	2,4,5,6-Tetrachloro-m-Xylene
5.518	87.65	PB	0.033		1.36	Aroclor 1016 (1)
6.014	273.81	BV	0.170		4.26	Aroclor 1016 (2)
6.600	36.67	BV	0.034		0.57	Aroclor 1016 (3)
0.000	0.00		0.000		0.00	Aroclor 1016 (4)
0.000	0.00		0.000		0.00	Aroclor 1016 (5)
0.000	0.00		0.000		0.00	Aroclor 1260 (1)
9.663	397.13	BB	0.079		5.68	Aroclor 1260 (2)
0.000	0.00		0.000		0.00	Aroclor 1260 (3)
11.049	96.11	BV	0.057		1.38	Aroclor 1260 (4)
11.264	406.91	VV	0.147		5.82	Aroclor 1260 (5)
11.914	35052.70	BB	0.036		95.07	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

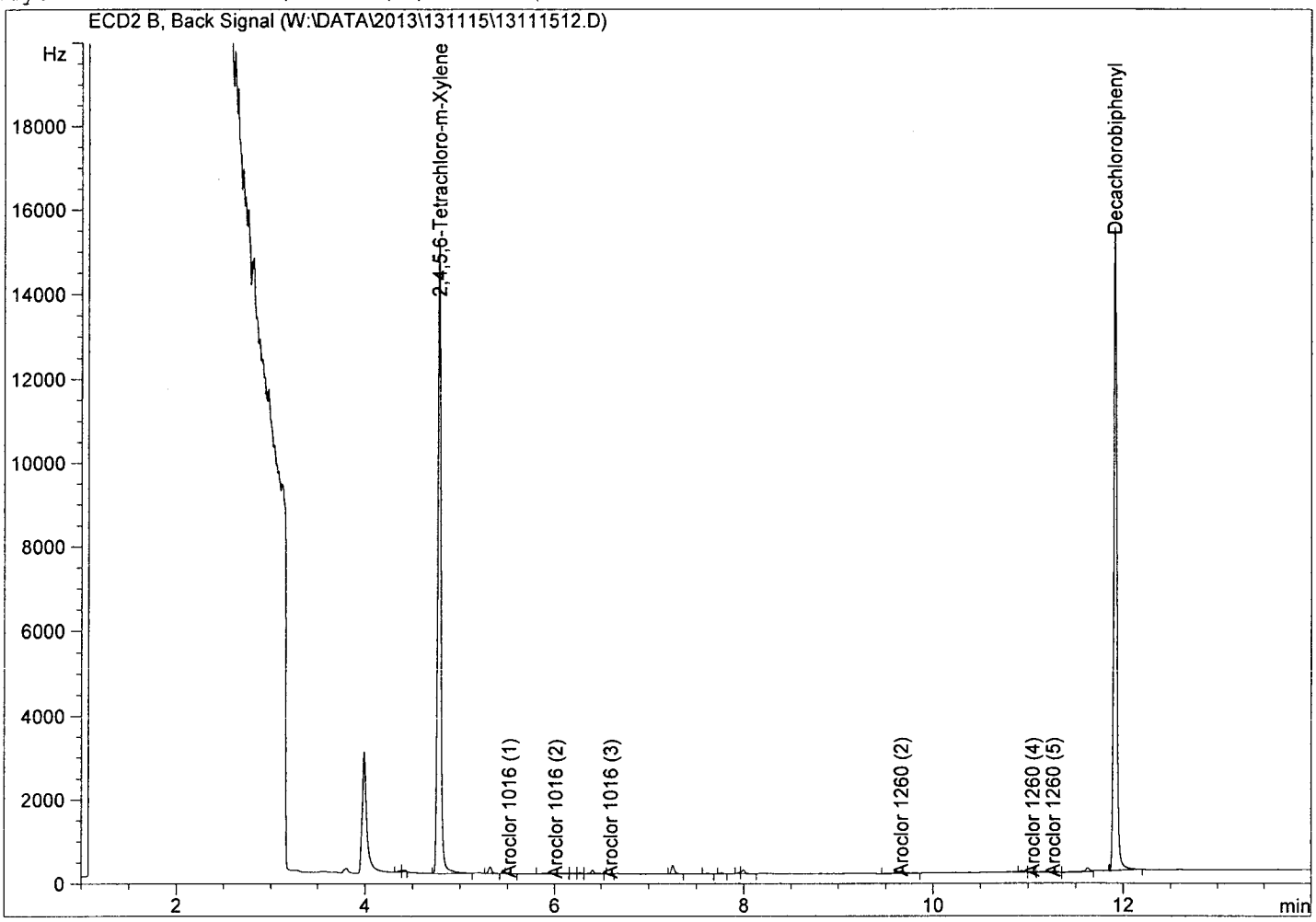
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	398.14	PB	0.01556	6.19	Aroclor-1016
6.908			0.00000		
6.782			0.00000		
6.613		BV	0.01556		
6.032		BV	0.01556		
9.074	900.15		0.00000	12.88	Aroclor-1260
11.266		VV	0.01431		
11.086		BV	0.01431		
9.921			0.00000		
9.585		BB	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131115\13111512.D
Operator : 669 Vial Number : Vial 12
Instrument : GC 58 Sequence Line : 13
Sample Name : MB 131111L08 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 15 Nov 13 04:23 pm Method : EPA 8082
Report Created on: 18 Nov 13 09:22 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131115\13111510.D
Operator : 669 Vial Number : Vial 10
Instrument : GC 58 Sequence Line : 11
Sample Name : LCS 131111L08 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 15 Nov 13 03:47 pm Method : EPA 8082
Report Created on: 18 Nov 13 09:22 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.778	31424.28	VV	0.039		80.61	2,4,5,6-Tetrachloro-m-Xylene
5.484	1341.34	PB	0.037		20.87	Aroclor 1016 (1)
6.024	2516.20	VV	0.044		39.15	Aroclor 1016 (2)
6.608	5764.45	VV	0.051		89.69	Aroclor 1016 (3)
6.778	2219.07	VB	0.040		34.53	Aroclor 1016 (4)
6.905	1467.07	VB	0.038		22.83	Aroclor 1016 (5)
9.074	4575.16	VV	0.040		65.47	Aroclor 1260 (1)
9.582	2920.82	VV	0.037		41.80	Aroclor 1260 (2)
9.917	3426.69	VV	0.037		49.03	Aroclor 1260 (3)
11.081	1049.32	VV	0.045		15.02	Aroclor 1260 (4)
11.262	2062.71	VV	0.039		29.52	Aroclor 1260 (5)
11.918	35789.69	VB	0.035		97.07	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

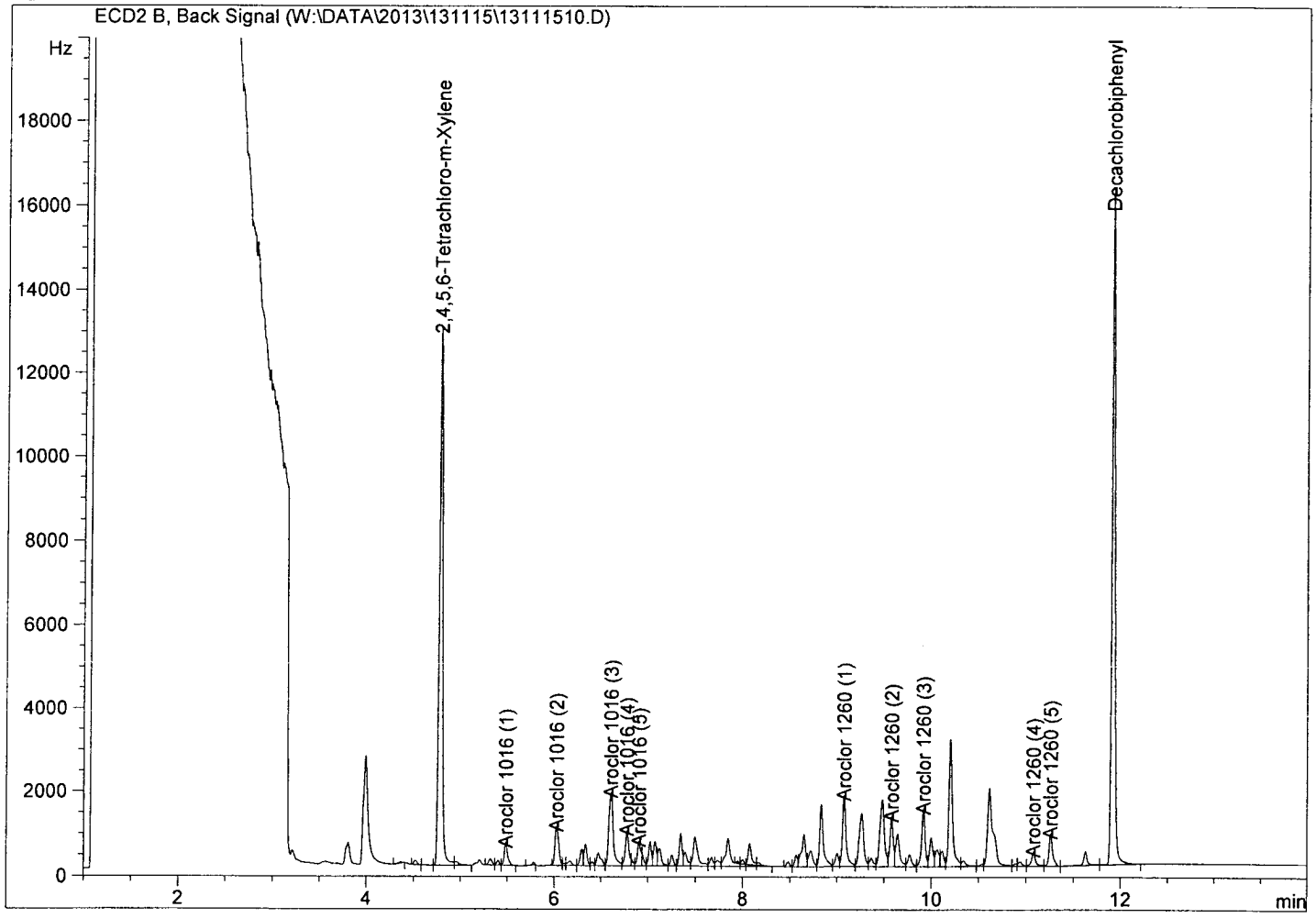
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	13308.14	PB	0.01556	207.06	Aroclor-1016
6.908		VB	0.01556		
6.782		VB	0.01556		
6.613		VV	0.01556		
6.032		VV	0.01556		
9.074	14034.70	VV	0.01431	200.83	Aroclor-1260
11.266		VV	0.01431		
11.086		VV	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131115\13111510.D
Operator : 669 Vial Number : Vial 10
Instrument : GC 58 Sequence Line : 11
Sample Name : LCS 131111L08 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 15 Nov 13 03:47 pm Method : EPA 8082
Report Created on: 18 Nov 13 09:22 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131115\13111511.D
Operator : 669 Vial Number : Vial 11
Instrument : GC 58 Sequence Line : 12
Sample Name : LCSD 131111L08 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 15 Nov 13 04:05 pm Method : EPA 8082
Report Created on: 18 Nov 13 09:22 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.779	29951.05	VV	0.036		76.83	2,4,5,6-Tetrachloro-m-Xylene
5.484	1439.40	VB	0.039		22.40	Aroclor 1016 (1)
6.024	2496.06	VV	0.045		38.84	Aroclor 1016 (2)
6.609	5286.84	VV	0.053		82.26	Aroclor 1016 (3)
6.777	2562.71	VB	0.045		39.87	Aroclor 1016 (4)
6.904	1448.94	VB	0.037		22.54	Aroclor 1016 (5)
9.072	4381.41	VV	0.040		62.70	Aroclor 1260 (1)
9.581	2728.47	VV	0.037		39.04	Aroclor 1260 (2)
9.915	3280.22	VV	0.038		46.94	Aroclor 1260 (3)
11.080	1072.74	VV	0.046		15.35	Aroclor 1260 (4)
11.260	2038.49	VV	0.040		29.17	Aroclor 1260 (5)
11.916	34179.01	VB	0.034		92.70	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

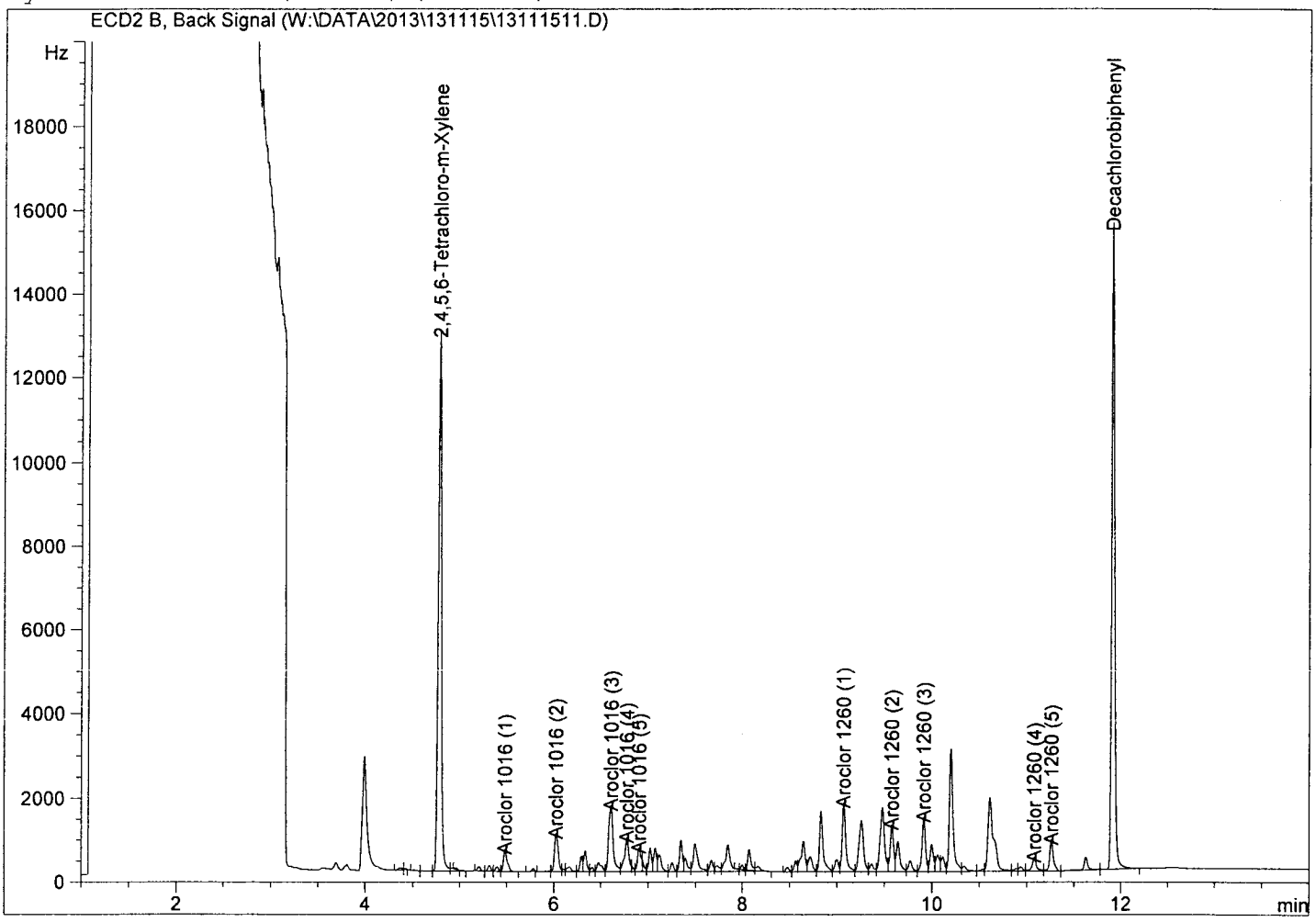
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	13233.95	VB	0.01556	205.91	Aroclor-1016
6.908		VB	0.01556		
6.782		VB	0.01556		
6.613		VV	0.01556		
6.032		VV	0.01556		
9.074	13501.32	VV	0.01431	193.20	Aroclor-1260
11.266		VV	0.01431		
11.086		VV	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131115\13111511.D
Operator : 669 Vial Number : Vial 11
Instrument : GC 58 Sequence Line : 12
Sample Name : LCSD 131111L08 Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 15 Nov 13 04:05 pm Method : EPA 8082
Report Created on: 18 Nov 13 09:22 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

EPA METHOD 8082
PCB Aroclors

Continuing Calibration

Return to Contents

CCV ASSOCIATION SUMMARY
FOR METHOD: EPA 8082

BATCH ID: **131115** ANALYZED BY: 669
INSTRUMENT: GC 58

WORK ORDER: **099-12-532** REVIEWED BY: 27
MATRIX: Water D/T REVIEWED: 11/18/2013 17:02

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
5281	Daily Calibration	11/15/2013 13:05	W:\DATA\2013\131115\1311150113111501

WORK ORDER: **13-11-0697** REVIEWED BY: 27
MATRIX: Water D/T REVIEWED: 11/18/2013 17:10

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
13	QCEB-11082013	11/15/2013 16:41	W:\DATA\2013\131115\1311151313111513

Return to Contents

CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD : EPA 8082

INSTRUMENT NAME: GC 58
INITIAL BATCH: 130827
INITIAL DATE ANALYZED: 08/27/2013 17:48

REVIEWED BY: 27
DATE REVIEWED: 09/05/2013 11:37
CCV BATCH: 131115
CCV DATE ANALYZED: 11/15/2013 13:05

DATA FILE: W:\DATA\2013\131115\1311150113111501

COMPOUND_NAME	INITIAL_RF	INITIAL_RSD	RSD ALLOWED	CCV_RF	% DIFF	% DIFF_ALLOWED	STATUS
Aroclor-1016	6.427E+001	8	0-20	6.340E+001	1	0-15	PASS
Aroclor-1221	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1232	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1242	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1248	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1254	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1260	6.988E+001	7	0-20	6.800E+001	3	0-15	PASS
Aroclor-1262	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131115\13111501.D
Operator : 669 Vial Number : Vial 1
Instrument : GC 58 Sequence Line : 2
Sample Name : PCB CCV500PPB S091113H Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 15 Nov 13 01:05 pm Method : EPA 8082
Report Created on: 18 Nov 13 09:20 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.778	38856.40	BV	0.036		99.67	2,4,5,6-Tetrachloro-m-Xylene
5.484	3095.07	VV	0.034		48.16	Aroclor 1016 (1)
6.026	6087.28	BV	0.044		94.71	Aroclor 1016 (2)
6.609	13488.82	VV	0.052		209.87	Aroclor 1016 (3)
6.777	5364.52	VB	0.038		83.47	Aroclor 1016 (4)
6.904	3665.96	VB	0.035		57.04	Aroclor 1016 (5)
9.071	10111.27	VV	0.036		144.69	Aroclor 1260 (1)
9.580	7872.67	VV	0.037		112.65	Aroclor 1260 (2)
9.916	8613.49	VV	0.034		123.25	Aroclor 1260 (3)
11.080	2191.02	BB	0.035		31.35	Aroclor 1260 (4)
11.261	5210.62	BB	0.036		74.56	Aroclor 1260 (5)
11.918	35998.42	BB	0.033		97.63	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

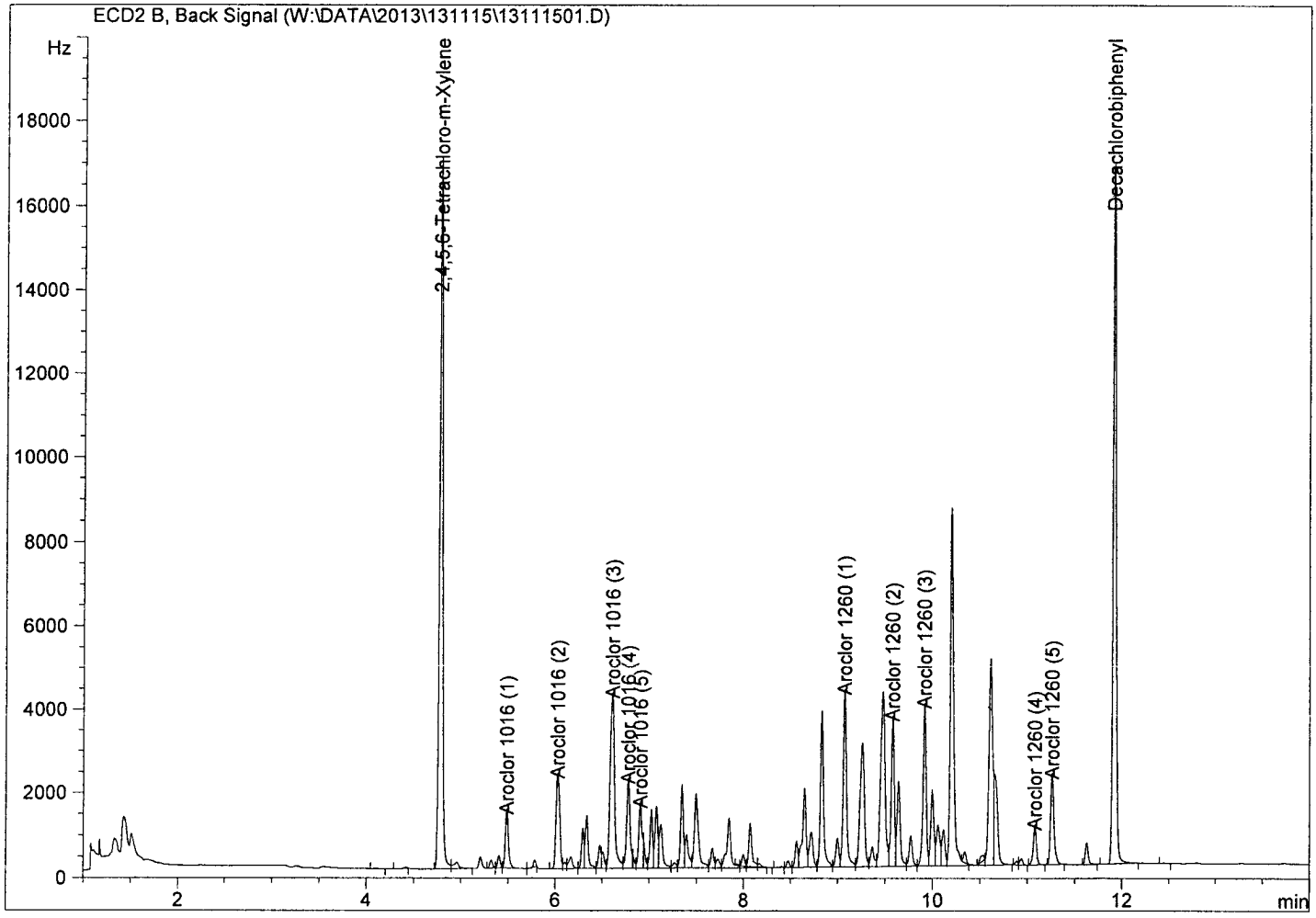
Group summary

Ret Time	Area	TypeRef	1/Avg.RF	Amount	Group Name
5.489	31701.64	VV	0.01556	493.24	Aroclor-1016
6.908		VB	0.01556		
6.782		VB	0.01556		
6.613		VV	0.01556		
6.032		BV	0.01556		
9.074	33999.08	VV	0.01431	486.51	Aroclor-1260
11.266		BB	0.01431		
11.086		BB	0.01431		
9.921		VV	0.01431		
9.585		VV	0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131115\13111501.D
Operator : 669 Vial Number : Vial 1
Instrument : GC 58 Sequence Line : 2
Sample Name : PCB CCV500PPB S091113H Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 15 Nov 13 01:05 pm Method : EPA 8082
Report Created on: 18 Nov 13 09:20 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

CONTINUING CALIBRATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8082

BATCH ID:
INITIAL: **130827**
CCV: 131115END
INSTRUMENT: GC 58

D/T ANALYZED:
INITIAL: 08/27/2013 17:48
CCV: 11/15/2013 19:23
REVIEWED BY: 27
D/T REVIEWED: 09/05/2013 11:37

DATA FILE: W:\DATA\2013\131115\1311152213111522

COMPOUND NAME	INITIAL RF	INITIAL RSD	RSD ALLOWED	CCV RF	% DIFF	% DIFF ALLOWED	STATUS
Aroclor-1016	6.427E+001	8	0-20	6.276E+001	2	0-15	PASS
Aroclor-1221	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1232	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1242	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1248	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1254	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS
Aroclor-1260	6.988E+001	7	0-20	6.637E+001	5	0-15	PASS
Aroclor-1262	0.000E+000	0	0-20	0.000E+000	0	0-15	PASS

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131115\13111522.D
Operator : 669 Vial Number : Vial 22
Instrument : GC 58 Sequence Line : 23
Sample Name : PCB CCV500PPB S091113H Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 15 Nov 13 07:23 pm Method : EPA 8082
Report Created on: 18 Nov 13 09:24 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M

Ret Time	Area	Type	Width	Ref #	ppb	Name
4.775	38977.40	BV	0.036		99.98	2,4,5,6-Tetrachloro-m-Xylene
5.482	3143.39	VV	0.035		48.91	Aroclor 1016 (1)
6.023	6055.16	BV	0.044		94.21	Aroclor 1016 (2)
6.608	13238.70	VV	0.052		205.98	Aroclor 1016 (3)
6.776	5291.81	VB	0.038		82.33	Aroclor 1016 (4)
6.903	3649.26	VB	0.036		56.78	Aroclor 1016 (5)
9.069	9793.23	VV	0.040		140.14	Aroclor 1260 (1)
9.578	7547.24	VV	0.037		108.00	Aroclor 1260 (2)
9.913	8363.17	VV	0.037		119.67	Aroclor 1260 (3)
11.078	2191.12	VV	0.036		31.35	Aroclor 1260 (4)
11.258	5291.30	VB	0.036		75.72	Aroclor 1260 (5)
11.915	37358.66	VB	0.034		101.32	Decachlorobiphenyl
0.000	0.00		0.000		0.00	Aroclor-1221
0.000	0.00		0.000		0.00	Aroclor-1232
0.000	0.00		0.000		0.00	Aroclor-1242
0.000	0.00		0.000		0.00	Aroclor-1248
0.000	0.00		0.000		0.00	Aroclor-1254
0.000	0.00		0.000		0.00	Aroclor-1262
0.000	0.00		0.000		0.00	Aroclor-1268

Sig. ECD2 B,

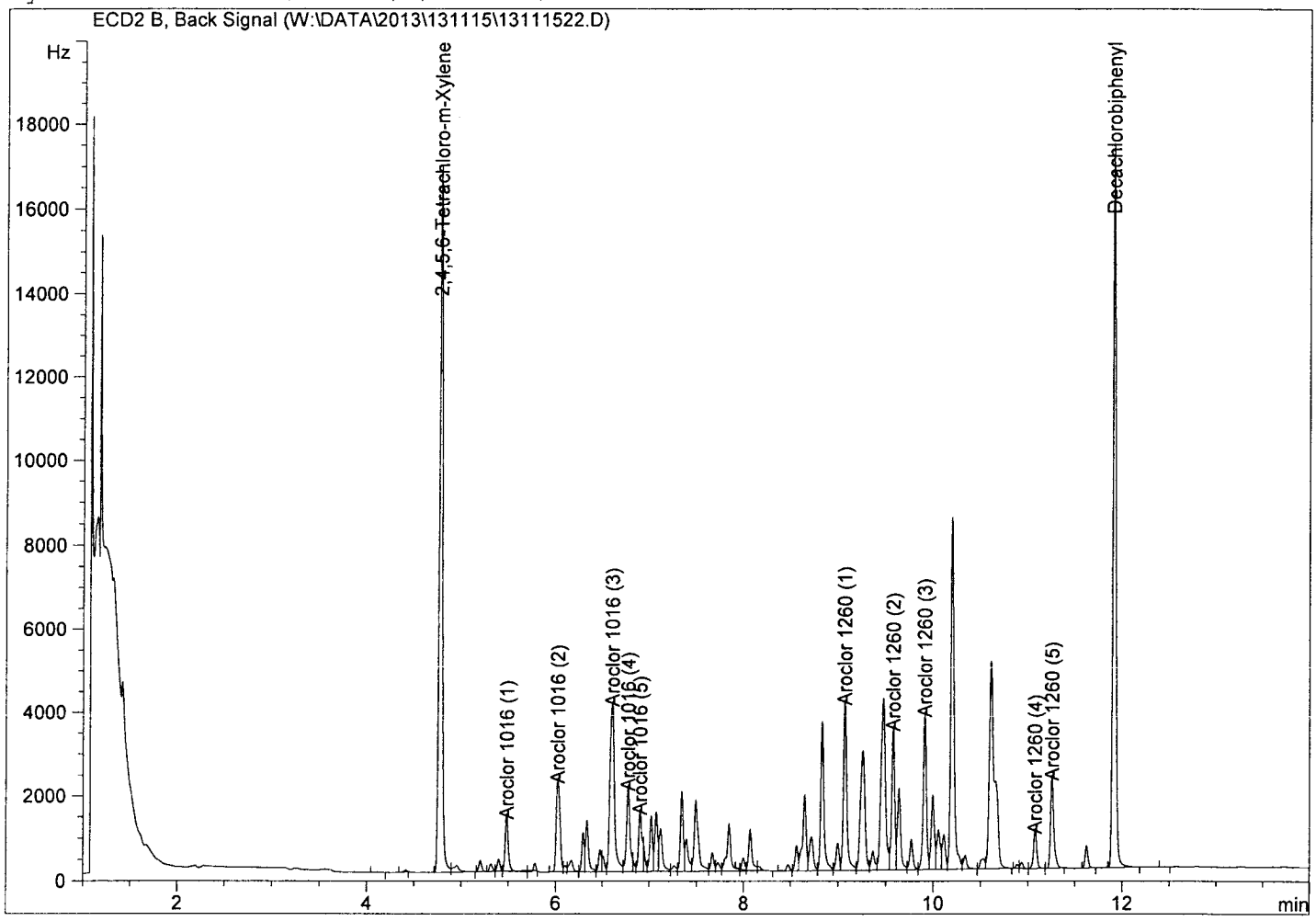
Group summary

Ret Time	Area	Type	Ref	1/Avg.RF	Amount	Group Name
5.489	31378.31	VV		0.01556	488.21	Aroclor-1016
6.908		VB		0.01556		
6.782		VB		0.01556		
6.613		VV		0.01556		
6.032		BV		0.01556		
9.074	33186.07	VV		0.01431	474.88	Aroclor-1260
11.266		VB		0.01431		
11.086		VV		0.01431		
9.921		VV		0.01431		
9.585		VV		0.01431		

Return to Contents

Internal Standard Report

Data File Name : W:\DATA\2013\131115\13111522.D
Operator : 669 Vial Number : Vial 22
Instrument : GC 58 Sequence Line : 23
Sample Name : PCB CCV500PPB S091113H Report Style : PCBN-R
Running Method : C:\CHEM32\1\METHODS\8082-N2.M
Acquired on : 15 Nov 13 07:23 pm Method : EPA 8082
Report Created on: 18 Nov 13 09:24 am Software Version : Rev. B.04.02 [98] ->
Comment :
Analysis Method : C:\CHEM32\1\METHODS\130827R.M



Return to Contents

EPA METHOD 8082
PCB Aroclors

Run Logs

Return to Contents

Sequence Table (Front Injector):

Line	Location	SampleName	Method Name	Data File
1	Vial 100	IB E08-42-4	8082-N2	13082700
2	Vial 1	ICAL 100PPB S030713B	8082-N2	13082701
3	Vial 2	ICAL 250PPB S030713C	8082-N2	13082702
4	Vial 3	ICAL 500PPB S030713D	8082-N2	13082703
5	Vial 4	ICAL 750PPB S030713E	8082-N2	13082704
6	Vial 5	ICAL 2000PPB S030713F	8082-N2	13082705
7	Vial 6	ICV 500PPB S052013B	8082-N2	13082706
8	Vial 7	1221/54 S061213K	8082-N2	13082707
9	Vial 8	1232/62 S061213L	8082-N2	13082708
10	Vial 9	1248/68 S061213M	8082-N2	13082709
11	Vial 10	1242 S061213N	8082-N2	13082710
12	Vial 11	PCB CCV500PPB S031513A	8082-N2	13082711
13	Vial 12	LCS 130823L02	8082-N2	13082712
14	Vial 13	MB 130823L02	8082-N2	13082713
15	Vial 14	MS 13-08-1532-1 130823S02	8082-N2	13082714
16	Vial 15	MSD 13-08-1532-1 130823S02	8082-N2	13082715
17	Vial 16	13-08-1532-1	8082-N2	13082716
18	Vial 17	LCS 130824L06	8082-N2	13082717
19	Vial 18	MB 130824L06	8082-N2	13082718
20	Vial 19	MS 13-08-1639-3 130824S06	8082-N2	13082719
21	Vial 20	MSD 13-08-1639-3 130824S06	8082-N2	13082720
22	Vial 21	13-08-1639-1	8082-N2	13082721
23	Vial 22	13-08-1639-2	8082-N2	13082722
24	Vial 23	13-08-1639-3	8082-N2	13082723
25	Vial 24	13-08-1640-1	8082-N2	13082724
26	Vial 25	13-08-1640-2	8082-N2	13082725
27	Vial 26	PCB CCV500PPB S031513A	8082-N2	13082726

Return to Contents

Sequence Table (Front Injector):

Line	Location	SampleName	Method Name	Data File
1	Vial 100	IB E08-42-10	8082-N2	13111500
2	Vial 1	PCB CCV500PPB S091113H	8082-N2	13111501
3	Vial 2	LCS 131112L01; 608	8082-N2	13111502
4	Vial 3	LCSD 131112L01; 608	8082-N2	13111503
5	Vial 4	MB 131112L01; 608	8082-N2	13111504
6	Vial 5	13-11-0824-1; 608	8082-N2	13111505
7	Vial 6	LCS 131112L03	8082-N2	13111506
8	Vial 7	LCSD 131112L03	8082-N2	13111507
9	Vial 8	MB 131112L03	8082-N2	13111508
10	Vial 9	13-11-0814-13	8082-N2	13111509
11	Vial 10	LCS 131111L08	8082-N2	13111510
12	Vial 11	LCSD 131111L08	8082-N2	13111511
13	Vial 12	MB 131111L08	8082-N2	13111512
14	Vial 13	13-11-0697-13	8082-N2	13111513
15	Vial 14	13-11-0738-1 ← need Hg	8082-N2	13111514
16	Vial 15	13-11-0498-1	8082-N2	13111515
17	Vial 16	13-11-0498-2 ← 2nd surr. low	8082-N2 ← RB to rerun.	13111516
18	Vial 17	13-11-0498-3	8082-N2	13111517
19	Vial 18	13-11-0498-4	8082-N2	13111518
20	Vial 18	13-11-0498-5	8082-N2	13111519
21	Vial 20	13-11-0498-6	8082-N2	13111520
22	Vial 21	13-11-0498-7	8082-N2	13111521
23	Vial 22	PCB CCV500PPB S091113H Δ	8082-N2	13111522
24	Vial 23	13-11-0498-8	8082-N2	13111523
25	Vial 24	13-11-0498-12	8082-N2	13111524
26	Vial 25	13-11-0498-13	8082-N2	13111525
27	Vial 26	13-11-0498-14 — need Hg	8082-N2	13111526
28	Vial 27	13-11-0498-15	8082-N2	13111527
29	Vial 28	13-11-0498-16 ← need Hg	8082-N2	13111528
30	Vial 29	13-11-0498-17	8082-N2	13111529
31	Vial 30	13-11-0498-18	8082-N2	13111530
32	Vial 31	13-11-0498-19	8082-N2	13111531
33	Vial 32	13-11-0498-22	8082-N2	13111532
34	Vial 33	LCS 131113L10	8082-N2	13111533
35	Vial 34	MB 131113L10	8082-N2	13111534
36	Vial 35	MS 13-11-0786-3 131113S10	8082-N2	13111535
37	Vial 36	MSD 13-11-0786-3 131113S10	8082-N2	13111536
38	Vial 37	13-11-0786-1	8082-N2	13111537
39	Vial 38	13-11-0786-2	8082-N2	13111538
40	Vial 39	13-11-0786-3	8082-N2	13111539
41	Vial 40	13-11-0786-4	8082-N2	13111540
42	Vial 41	13-11-0786-5	8082-N2	13111541
43	Vial 42	13-11-0786-6	8082-N2	13111542
44	Vial 43	PCB CCV500PPB S091113H B	8082-N2	13111543
45	Vial 44	13-11-0786-7	8082-N2	13111544
46	Vial 45	13-11-0786-8	8082-N2	13111545
47	Vial 46	13-11-0786-9	8082-N2	13111546
48	Vial 47	13-11-0786-10	8082-N2	13111547
49	Vial 48	13-11-0786-11	8082-N2	13111548
50	Vial 49	13-11-0786-12	8082-N2	13111549
51	Vial 50	13-11-0786-13 ← low 1st surr.	8082-N2	13111550
52	Vial 51	13-11-0786-14 ← R.E	8082-N2	13111551
53	Vial 52	13-11-0786-15	8082-N2	13111552
54	Vial 53	13-11-0786-16	8082-N2	13111553
55	Vial 54	13-11-0797-1	8082-N2	13111554

Return to Contents

56	Vial 55	13-11-0496-1	8082-N2		13111555
57	Vial 56	LCS 131114L05 ← sur & spike x2	8082-N2		13111556
58	Vial 57	MB 131114L05	8082-N2		13111557
59	Vial 58	MS 13-11-0894-13 131114S05	8082-N2		13111558
60	Vial 59	MSD 13-11-0894-13 131114S05	8082-N2		13111559
61	Vial 60	13-11-0894-1	8082-N2		13111560
62	Vial 61	13-11-0894-2	8082-N2		13111561
63	Vial 62	13-11-0894-3	8082-N2		13111562
64	Vial 63	13-11-0894-4	8082-N2		13111563
65	Vial 64	PCB CCV500PPB S091113H C	8082-N2		13111564
66	Vial 65	13-11-0894-5 ← RB & RR confirm surr	8082-N2		13111565
67	Vial 66	13-11-0894-6	8082-N2		13111566
68	Vial 67	13-11-0894-7	8082-N2		13111567
69	Vial 68	13-11-0894-8	8082-N2		13111568
70	Vial 69	13-11-0894-9	8082-N2		13111569
71	Vial 70	13-11-0894-10	8082-N2		13111570
72	Vial 71	13-11-0894-11	8082-N2		13111571
73	Vial 72	13-11-0894-12	8082-N2		13111572
74	Vial 73	13-11-0894-13	8082-N2		13111573
75	Vial 74	13-11-0894-14	8082-N2		13111574
76	Vial 75	13-11-0894-15	8082-N2		13111575
77	Vial 76	13-11-0894-16	8082-N2		13111576
78	Vial 77	LCS 131114L06	8082-N2		13111577
79	Vial 78	MB 131114L06	8082-N2		13111578
80	Vial 79	MS 13-11-0953-10 131114S06	8082-N2		13111579
81	Vial 80	MSD 13-11-0953-10 131114S06	8082-N2		13111580
82	Vial 81	13-11-0953-1	8082-N2		13111581
83	Vial 82	13-11-0953-2	8082-N2		13111582
84	Vial 83	13-11-0953-3	8082-N2		13111583
85	Vial 84	13-11-0953-4	8082-N2		13111584
86	Vial 85	PCB CCV500PPB S091113H15 D	8082-N2		13111585
87	Vial 86	13-11-0953-5 ← interference	8082-N2	high 2nd surr.	13111586
88	Vial 87	13-11-0953-6 carryover?	8082-N2	RB & RR to confirm	13111587
89	Vial 88	13-11-0953-7	8082-N2		13111588
90	Vial 89	13-11-0953-8	8082-N2		13111589
91	Vial 90	13-11-0953-9	8082-N2		13111590
92	Vial 91	13-11-0953-10	8082-N2		13111591
93	Vial 92	13-11-0953-11 ← 10X	8082-N2		13111592
94	Vial 93	13-11-0953-12	8082-N2		13111593
95	Vial 94	13-11-0953-13	8082-N2		13111594
96	Vial 95	13-11-0953-14	8082-N2		13111595
97	Vial 96	13-11-0953-15	8082-N2		13111596
98	Vial 97	13-11-0953-16	8082-N2		13111597
99	Vial 98	13-11-0953-17	8082-N2		13111598
100	Vial 99	LCS 131115L07	8082-N2		13111599
101	Vial 1	LCSD 131115L07	8082-N2		131115101
102	Vial 2	MB 131115L07	8082-N2		131115102
103	Vial 3	13-11-1265-1 ← SURR x 2	8082-N2		131115103
104	Vial 4	MB 131114L09 (608)	8082-N2		131115104
105	Vial 5	LCS 131114L09 (608)	8082-N2		131115105
106	Vial 6	LCSD 131114L09 (608)	8082-N2		131115106
107	Vial 7	PCB CCV500PPB S091113H15 E	8082-N2		131115107
108	Vial 8	13-11-1043-1(608)	8082-N2		131115108
109	Vial 9	13-11-1044-1 (608)	8082-N2		131115109
110	Vial 7	PCB CCV500PPB S091113H15	8082-N2		131115110

Return to Contents

EPA METHOD 8082
PCB Aroclors

Preparation Logs

Return to Contents

EPA Method 608/8081/8082 Extraction Logbook

START D = DATE T = TIME	END D = DATE T = TIME	SAMPLE pH	MATRIX S = SOIL A = AQUEOUS O = OIL W = WIPE F = FILTER	EXTRACTION 1 = 3510 SEP 2 = 3520 C-LL 4 = 3545 PFE 5 = 3550 SON 8 = 3580 DIL	TEST METHOD	MB/LCS/MS BATCH # 131111L08 / CEL ID #	SAMPLE W (g) V (mL) a) INITIAL b) FINAL	AQUEOUS SAMPLE MEASURED BY BALANCE MEASURED a) INITIAL (g) b) FINAL (g)	CALCULATED c) NET (g) d) V (mL)	BALANCE ID #	PREP TECHNICIAN(S)	COMMENTS
D) 11-11-13 T) 11:00	D) 11-11-13 T) MB	-4	S (A) O W F	1 2 4 5 8	8082	MB	a) 1000 b) 10	a) b)	c) d)		7/882/783	
D) T)	D) T)	-4	S A O W F	1 2 4 5 8		LCS	a) 1000 b)	a) b)	c) d)			
D) T)	D) T)	-6	S A O W F	1 2 4 5 8		LCSD	a) 1000 b)	a) b)	c) d)			
D) T)	D) T)	-8 -8	S A O W F	1 2 4 5 8		13-11-0498-1L 2K	a) 1046. 980 b)	a) b)	c) d)			
D) T)	D) T)	-8 -8	S A O W F	1 2 4 5 8		-3L 4L	a) 1010. 1050 b)	a) b)	c) d)			
D) T)	D) T)	-8 -8	S A O W F	1 2 4 5 8		-5L 6K	a) 1020. 1030 b)	a) b)	c) d)			
D) T)	D) T)	-8	S A O W F	1 2 4 5 8		-7L	a) 1090 b)	a) b)	c) d)			
D) T)	D) T)	-8	S A O W F	1 2 4 5 8		-8K	a) 1020 b)	a) b)	c) d)			
D) T)	D) T)	-8	S A O W F	1 2 4 5 8		-12K	a) 1040 b)	a) b)	c) d)			
D) T)	D) T)	-8	S A O W F	1 2 4 5 8		-13L	a) 940 b)	a) b)	c) d)			
D) T)	D) T)	-8	S A O W F	1 2 4 5 8		-14K	a) 1000 b)	a) b)	c) d)			
D) T)	D) T)	-8	S A O W F	1 2 4 5 8		-15L	a) 980 b)	a) b)	c) d)			
D) T)	D) T)	-8	S A O W F	1 2 4 5 8		-16L	a) 1040 b)	a) b)	c) d)			
D) T)	D) T)	-8	S A O W F	1 2 4 5 8		-17D	a) 1090 b)	a) b)	c) d)			
D) T)	D) T)	-6	S A O W F	1 2 4 5 8		-18D	a) 990 b)	a) b)	c) d)			
D) T)	D) T)	-8	S A O W F	1 2 4 5 8		-22L	a) 980 b)	a) b)	c) d)			
D) T)	D) T)	-8	S A O W F	1 2 4 5 8		-19K	a) 1040 b)	a) b)	c) d)			
D) T)	D) T)	-6	S A O W F	1 2 4 5 8		13-11-0697-13G	a) 1090 b)	a) b)	c) d)			
D) T)	D) T)	-4	S A O W F	1 2 4 5 8		13-11-0738-1K	a) 1020 b)	a) b)	c) d)			
D) T)	D) T)		S A O W F	1 2 4 5 8			a) b)	a) b)	c) d)			

EPA Method 608/8081/8082 Extraction Logbook

WATER BATH TEMP RANGE (°C)	THERMOMETER ID # & CF	SAND ID #	DRYING AGENT	ASE ID #
60 ~80	C24747 (CF+1.0°C)		☒ Na_2SO_4 ☐ Diatomaceous Earth	

CEL ID #	SURROGATE STANDARD: STANDARD ID #	SURROGATE STANDARD: a) C (ppm) b) V (mL)	SPIKE STANDARD (LCS/LCSD/MS/MSD): STANDARD ID #	SPIKE STANDARD (LCS/LCSD/MS/MSD): a) C (ppm) b) V (mL)	EXTRACTION SOLVENT: 1 = CH_2Cl_2 2 = 1:1 CH_2Cl_2-C_3H_6O	EXTRACTION SOLVENT: a) ID # b) V (mL)	REAGENT / SUPPLY ID #: a) DRYING AGENT b) FILTER	EXCHANGE SOLVENT: a) C_6H_{14} ID # b) V (mL)	COMMENTS
MB	E110413A	a) 2 b) 0.5		a) b)	1 2	a) E08-GB-15 b) ~~360~~ 180	a) E08-GB-7 b)	a) E08-42-10 b) 10	
LCS		a) b)	E09044128	a) 10 b) 0.2	1 2	a) b)	a) b)	a) b)	
LCSD		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
13-11-0498-1,2		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
-3,4		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
-5,6		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
-7,8		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
-12		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
-13		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
-14		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
-15		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
-16		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
-17		a) b)		a) b)	2	a) b)	a) b)	a) b)	
-18		a) b)		a) b)	2	a) b)	a) b)	a) b)	
-19		a) b)		a) b)	2	a) b)	a) b)	a) b)	
-22		a) b)		a) b)	2	a) b)	a) b)	a) b)	
13-11-0697-13		a) b)		a) b)	2	a) b)	a) b)	a) b)	
13-11-0738-1		a) b)		a) b)	2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	
		a) b)		a) b)	1 2	a) b)	a) b)	a) b)	

EPA Method 608/8081/8082 Extraction Logbook

START (D = DATE, T = TIME)	END (D = DATE, T = TIME)	CLEANUP (1 = 3620 FLORISIL, 2 = 3630 SGC, 3 = 3660 SULFUR, 4 = 3665 ACID)	CEL ID #	CLEANUP REAGENT(S) NAME	ID #	NAME	ID #	FLORISIL CARTRIDGE CONDITIONING COLUMN PRE-ELUTION (1) CARTRIDGE ID #, 2) HEXANE ID #)	PREP TECHNICIAN(S)	COMMENTS
D) 11-11-13	D) 11-11-13	1 2	MB	1) Florisil	1)	3) Hg	3)	1)	7/852/383	
T) 11:00	T) MD	3 4		2) Silica Gel	2)	4) H_2SO_4	4) E08-7040	2)		
D)	D)	1 2	LCS	1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		
D)	D)	1 2	LCSD	1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		
D)	D)	1 2	13-11-0498-1, 2	1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		
D)	D)	1 2	-3, 4	1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		
D)	D)	1 2	-11, 6	1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		
D)	D)	1 2	-7, 8	1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		
D)	D)	1 2	-12	1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		
D)	D)	1 2	-13	1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		
D)	D)	1 2	-14	1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		
D)	D)	1 2	-15	1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		
D)	D)	1 2	-16	1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		
D)	D)	1 2	-17	1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		
D)	D)	1 2	-18	1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		
D)	D)	1 2	-22	1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		
D)	D)	1 2	-19	1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		
D)	D)	1 2	13-11-0697-13	1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		
D)	D)	1 2	13-11-0738-1	1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		
D)	D)	1 2		1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		
D)	D)	1 2		1) Florisil	1)	3) Hg	3)	1)		
T)	T)	3 4		2) Silica Gel	2)	4) H_2SO_4	4)	2)		

EPA METHOD 8082
PCB Aroclors

Standards Preparation Logs

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
5/20/13	S052013A	8082	1016/1260 mix ICV	E06-73-4	80 µl	100 ppm	4 ml	20 ppm	Hexanes	E08-38-25	11/20/13	669	
↓	↓	↓	Pest. Surrogate	E08-14-3	80 µl	200 ppm	↓	4 ppm	↓	↓	↓	↓	
↓	S052013B	↓	PCB-ICV 500 ppb	S052013A	100 µl	20/4 ppm	4 ml	500/100 ppb	↓	↓	↓	↓	
5/20/13	S052013C	8270 Sim PCB	5 ppm ~~0.005 ppm~~ 5/20/13 773 PCB 42	S040213C	2 µL	5 ppm	2 mL	0.005 ppm	Hexane	E08-38-25	10/2/13	773	
↓	↓	↓	8270 IS	E08-40-14	5 µL	2000 ppm	↓	5 ppm	↓	↓	↓	↓	
↓	S052013D	↓	5 ppm E19 PCB	S040213K	2 µL	5 ppm	2 mL	0.005 ppm	↓	↓	↓	↓	
↓	↓	↓	8270 IS	E08-40-14	5 µL	2000 ppm	↓	5 ppm	↓	↓	↓	↓	
5/20/13	S052013E	8330	8330 combined stock	S05-27-2	80 µl	1000 ppm	4 ml	20 ppm	ACN = H2O 1:1	S101812-1	6/20/13	684	
↓		↓	1,2-Dinitrobenzene	S05-44-11	80 µl	1000 ppm	↓	↓	↓	↓	↓	↓	
↓	S052013F	↓	CCV 8330	S052013E	100 µl	20 ppm	1 ml	2 ppm	↓	↓	5/21/13	↓	
5/21/13	S052113A	8330	CCV 8330	S052013E	100 µl	20 ppm	1 ml	2 ppm	ACN = H2O 1:1	S051713-1	5/22/13	684	
5/22/13	S052213A	8330	CCV 8330	S052013E	100 µl	20 ppm	1 ml	2 ppm	ACN = H2O 1:1	S051713-1	5/23/13	684	
↓	S052213B	↓	Ical-1 8330	S052013E	1 µl	20 ppm	1 ml	20 ppb	ACN = H2O 1:1	S051713-1	5/23/13	↓	
↓	C	↓	Ical-2	↓	50 µl	↓	1 ml	1 ppm	↓	↓	↓	↓	
↓	D	↓	Ical-3	↓	100 µl	↓	1 ml	2 ppm	↓	↓	↓	↓	
↓	E	↓	Ical-4	↓	250 µl	↓	1 ml	5 ppm	↓	↓	↓	↓	
↓	F	↓	Ical-5	↓	500 µl	↓	1 ml	10 ppm	↓	↓	↓	↓	
↓	G	↓	ICV	S050613G	100 µl	20 ppm	1 ml	2 ppm	↓	↓	↓	↓	
↓	H	625	625	S5-43-19	400 µl	200 ppm	↓	80 ppm	MeCl2	E7-15-5	11/22/13	449	
↓	↓	↓	SV-IS	E08-46-21	20 µl	2000 ppm	↓	40 ppm	↓	↓	↓	↓	

Book Number: 11

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
3/6/13	S030613D	PBDE	BDE 13 comps mix	S030613A	100 ul	2/10 ppm	2 mL	100/500 ppB	Isooctane	S6-13-04	9/6/13	421	
			I.S	E8-22-21	5 ul	2000 ppm		5 ppm					
	E		BDE 13 comps mix	S030613A	500 ul	2/10 ppm	2 mL	500/2500 ppB					
			I.S	E8-22-21	5 ul	2000 ppm		5 ppm					
	F		BDE 13 comps mix	S030613A	1000 ul	2/10 ppm	2 mL	1000/5000 ppB					
			I.S	E8-22-21	5 ul	2000 ppm		5 ppm					
	G		BDE 13 comps mix	S030613A	50 ul	2/10 ppm	2 mL	50/250 ppB					
			I.S	E8-22-21	5 ul	2000 ppm		5 ppm					
3/6/13	S030613H	8270	I.S	E8-30-16	500 uL	2000 ppm	25 mL	40 ppm	MeCl2	E8-28-16	9-6-13	773	
	S030613I	PBDE	BDE 13 mix	S030613A	200 ul	2/10 ppm	2 mL	200/1000 ppB	Isooctane	S6-13-04	9/6/13	421	
			I.S	E08-22-21	5 ul	2000 ppm		5 ppm					
3/7/13	S030713A	8082	Aroclor 1016	S5-34-16	800 ul	100 ppm	4 ml	20 ppm	Hexane	E08-29-8	9/7/13	684	
			Aroclor 1260	S6-13-11	800 ul	100 ppm		20 ppm					
			Pesticides surrogate	S5-45-12	80 ul	200 ppm		4 ppm					
	S030713B		PCB Ical-1	S030713A	20 ul	20/4 ppm	4 ml	100/20 ppb					
	C		-2		50 ul		4 ml	250/50 ppb					
	D		-3		1 ml		40 ml	500/100 ppb					
	E		-4		150 ul		4 ml	750/150 ppb					
	F		-5		400 ul		4 ml	2000/400 ppb					
3/7/13	S030713G	8141	organophosphorous pesticide	S06-03-23	100 uL	200 ppm	1 mL	20 ppm	Hexane	E08-29-8	5/7/13	773	

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
6/12/13	S061213A	organic Acids	2,3 Dibromopropionic acid	S5-23-07	0.03 g	Neat	30mL	1000 ppm	NaNO H2O	NA	12/12/13	773	
	S061213B		Custom Organic Acids	S6-11-3 ~~S6-12-7~~	1 mL	2000 ppm	20mL	100 ppm					
			2,3 Dibromopropionic	6/12/13 773 S061213A		1000 ppm		50 ppm					
	S061213C		O.A Mix Std Ical - 1	S061213B	400 uL	100/50 ppm	10mL	4/2 ppm					
	D		- 2		1 mL		10mL	10/5					
	E		- 3		4 mL		20mL	20/10					
	F		- 4		3 mL		10mL	30/15					
	G		- 5		4mL		10mL	40/20					
	S061213H		2,3 Dibromopropionic Acid (surrogate)	S4-88-1	0.03 g	Neat	30mL	1000					
	S061213I		Custom OA Std	S6-12-7 ~~S6-11-2~~	50 uL	2000 ppm	1 mL	100					
			2,3 Dibromopropionic	6/12/13 773 S061213H	50 uL	1000 ppm		50					
	S061213J		ICV O.A.	S061213I	400 uL	100/50 ppm	2mL	20/10					
	S061213K	8082	1221 PCB	S06-04-13	20 µl	100 ppm	4ml	500 ppb	Hexanes	E08-41-11	12/12/13	669	
			1254 PCB	S05-34-23									
	L		1232 PCB	S06-06-07									
			1262 PCB	S05-35-11									
	M		1248 PCB	S06-02-15									
			1268 PCB	S05-36-18									
	N		1242 PCB	S05-36-15									
	O		1016/1260 10 ppb	S030713B	~~0.2 ml~~ 0.4 ml 669 6/12	100/20 ppb	4ml	10/2 ppb			09/07/13		

Book Number: 11

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
3/13/13	S031313M	SIMPAH	PAH stock	S031313K	2ml	400ppb	2ml	400ppb	MeCl2	E8-28-16	~~5/9/13~~	449	
			SV-IS	L	10µl	20ppm	2ml	100ppb			~~4/20/13~~	(449)	
	N			S031313K	1ml			200			5/9/13		
				L	10µl			100					
	O				0.5ml			100					
					10µl			100					
	P				250µl			50					
					10µl			100					
	Q				20µl			4					
				E7-2418	10µl			100					
	R	ICV	SIMPAH spike	~~E8-1044~~	1µl	500ppm	5ml	100			4/27/13		
			B/N Surr.	E120412C	125µl	4ppm		100					
			SV-IS	S031313L	25µl	20ppm		100					
3/13/13	S031313S	SIMPAH	PAH Stock	S031313K	15µl	~~400 ppb~~	2ml	3 ppb	MeCl2	E8-28-16	5/9/13	282	
L	L	L	SV-IS	S031313L	10µl	20 ppm	L	100 L	L	L	L	L	
3/15/13	S031513A	8082	~~20ppm/4ppm PCB S030713A~~ (842)	S030713A	1mL	20 ppm/4ppm	40mL	500 ppb	Hexane	E08-29-8	~~9/04/07/13~~ ~~3/15/13~~	842	
3/20/13	S032013A	8330	8330 standard mix	505-27-02	40µl	1000 ppm	2ml	20ppm	Acet=MeCl2 1:1	E101812-1	4/20/13	684	
	L		1,2-Dinitrobenzene	505-44-11	40µl	1000 ppm	L	L			~~3/20/13~~		
	S032013B		8330 cal-1	S032013A	1 µl	20 ppm	1 ml	20 ppb			3/21/13		
	L C		cal-2	L	50 µl	L	1 ml	1 ppm					

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Ethylenediaminetetraacetic Acid (EDTA)	Sigma	E4884-100G	060M00502V	10/31/16	100g	P	10/31/11	LL	10/31/11	LL	verified
2	EV Tuning compound CTD.	Restek	31001	A083404	8/20/2014	1ml	Glass	11/7/11	DT	11/7/11	DT	
3	2.3.7.8-Tetrachlorodibenzo-p-dioxin	Accustd.	D-404S	B4010226	1/22/14	1 ml	G	11/22/11	JHC	03/20/12	573	ICV.
4	8270 Tuning	SUPELCO	47548-U	LB 79573	10/13	↓	↓	↓	573	1/11/12	449	verified.
5	↓	↓	↓	↓	10/13	↓	↓	↓	↓	4/23/12	773	↓
6	1254 Aroclor	Supelco	48707	LB68517	07/2014	1ml	G	11/22/11	669	~~07/05/12~~ ~~5/23/12~~	684	verified
7	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/30/13	669	
8	1,2-Diphenylhydrazine	Ultra	RCC-174	NTO1453	1/31/15	1g Neat	G	11/28/11	421			
9	Aroclor 1016	Ultra	PP-281	CF-0785	3/31/17	1ml	G			11/9/11	773	verified
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	5/2/12	684	verified pcb
11										6-11-12	27	
12										7-30-12	421	
13										8/30/12	142	
14										9/26/12	421	
15										10/18/12	421	
16	↓	↓	↓	↓	↓	↓	↓	↓	↓	3/7/13	684	↓
17	Aroclor 1254	Ultra	PP-351	CF-1469	5/31/17	1mL	G	~~11/28/11~~ 12/14/11	421	11/28/14	421	Marine Lab
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/9/11	773	
19										12/14/11	669	Marine Lab
20										01/23/12	669	verified
21										~~05/05/12~~ 05/07/12	684	
22										684 9/15 12/7/12	669	
23										6/12/13	↓	
24	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/17/13	↓	
25	Aroclor 1260	ultra	PP-361	CG-3829	12/31/14	1mL	G	11/28/11	421	6-11-12	27	

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Aroclor 1260	Ultra	PP-361	CG-3829	12/31/14	1mL	G	11/28/11	421	7-3-12	421	verified.
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/30/12	142	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/28/12	421	↓
4	Aroclor 1248	ultra	PP-341	CH-3256	11/30/19	1mL	G	11/28/11	421	11/29/11	773	
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/29/11	669	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	01/23/12	669	
7	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-11-12	27	
8	Aroclor 1262	ultra	PP-371	CH-1776	7/31/15	1mL	G	11/28/11	421	11/28/11	773	
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	01/05/12	669	verified
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/7/12	↓	
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/12/13	↓	
12	N-Nitrosodiethylamine	Sigma	N0258-1G	MKBH4828V	~~EA~~ NOT	1G	G	11/28/11	421			
13	1,2-Diphenylhydrazine	Chem-S	F37	467-6B	~~Neat~~ (523)	Neat	↓	12/2/11	513			
14	Method 525.2, Organonitrogen Pesticides MIX#1	Restek	33012	A080237	03/2013	1mL	G	12/2/11	773	12/2/11	773	
15	508.1 Calibration MIX #1		32094	A064256	11/2012	1mL	G	12/2/11	773			
16	508.1 Calibration MIX #2		32095	A079806	12/2014							
17	508.1 Calibration MIX #3		32096	A080219	12/2014							
18	Organochlorine Pesticide MIX AB # 3		32415	A082645	06/2015							
19	↓		↓	↓	↓							
20	515.4 Calibration MIX		32443	A081138	04/2013					12/5/11	421	
21	525.2 Semivolatiles MIX		31899	A080233	03/2014					7/27/13	142	
22	Method 508-Chlorinated Pesticides by GC/ECD	AccuStandard	M-508P-A	21106004	06/07/12							
23	Quality Control Sample Methyl Derivatives	↓	M-515.4-QCS	B2060455-6	05/24/12					12/5/11	421	verified.
24	Transformer oil (PCB-free)	Supelco	46956	LB82220V	2/2014	5mL Neat	G	12/5/11	421	12/6/11	421	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/06/11	669	

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Trasformer oil (PCB free)	Supelco	46956	LB22220V	2/2014	5mL Neat	G	12/5/11	421			
2	525.2 Semi-volatile mix	Accustandard	M525.2-SV-ASL-PAK	2110413320	11/18/12	1ml	G	12/5/11		12/12/11	773	
3												
4												
5												
6												
7	525.2 Nitrogen/phosphorous Pest	Accustandard	M-525.2-NPI-ASL	209111015-03	7/12/12	1ml	G			12/12/11	773	
8												
9												
10												
11												
12	Aroclor 1242	Ultra	PP-311 ~~CH-2711~~	CH2711	9/30/19	1mL	G	12/7/11	421	7/5/12	669	verified
13										12/7/12		
14												
15										8/12/13	669	
16	Aroclor 1268		PP-381	CE-3671	11/30/16	1mL	G			7/5/12	669	verified
17										12/7/12		
18										8/12/13		
19										12/12/13		
20	Aroclor 1221		PP-291	CB-17912	12/31/14	1mL	G					Marine lab
21										8/22/12	669	verified
22												Marine lab
23										7/5/12	669	
24	525.2 organonitrogen mix#1 Pest	Restek	33012	A082239	3/2013	1ml	G	12/7/11		12/14/11	773	
25										7/25/12	262	

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Custom pesticide standard	Accustandard	S-19793	209111107-03	4/24/13	1mL	G	4/26/12	773			
2	EPA 8270 GC/MS Tuning Solution 11	Supelco	47548-U	LB79513	10/2013	1mL	G	4/30/12	773	9/12/12	421	→ missing std.
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/12/12	773	verified.
4	↓	↓	↓	↓	↓	↓	↓	↓	↓	03/13/13	573	
5	PSA 500mg / Carbon 500mg SPE	Restek	26194	017021-EV 115210-BW	NA	30	SPE tube	5/9/12	142	5/9/12	142	
6	CLP Organochlorine Pesticide	Supelco	47426-U	LB90217	01/2015	1mL	G	5/15/12	421	6-11-12	27 RM	
7	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/6/12	500	
8	Decafluorobiphenyl (8310 Sur)	↓	48792	LB87420	11/2014	1mL	G	5/16/12	669	6/1/12	669	verified
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/5/12	↓	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	4/5/13	↓	
11	Pesticides Fur. Spike mix	↓	4-8460	LB81219	01/2014	↓	↓	↓	↓	2/6/13	842	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	3/7/13	684	
13	Hexachlorocyclopentadiene	Accustd.	App-9-114-10X	211101035-01	4/18/13	1mL	G	5/16/12	421	~~4~~ 5/22/12	421	
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	06/18/12	787	(marine)
15	Kepone	Accustd.	AS-E0573	209111187	11/18/12	1mL	G	5/16/12	421	11/27/12	421	expired
16	↓	↓	↓	↓	↓	↓	↓	↓	↓			re-certified.
17	Mirex	Ultra	PST-720M100A01	CH-3540	11/30/12	1mL	G	5/17/12	421	5/22/12	421	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	~~9/30/12~~ 11/28/12	842 ~~421~~	
19	Hexachlorocyclopentadiene	Ultra	CH-170	CJ-1312	5/31/13	1mL	G	↓	↓	~~421~~ 5/21/12	421	verified.
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	Expired —		
21	Custom Pesticides std (8 comps)	Accustd.	S22740-R-1	212051167	5/14/13	1mL	G	5/18/12	421	5/18/12	421	verified.
22	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-11-12	27	→ marine
23	↓	↓	↓	↓	↓	↓	↓	↓	↓			
24	↓	↓	↓	↓	↓	↓	↓	↓	↓			
25	↓	↓	↓	↓	↓	↓	↓	↓	↓			

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	TETRAETHYL LEAD	Accustandard	78-00-2	21112072	Dec 9, 2021	1 mL	G	6/8/12	710			
2	↓	↓	↓	↓	↓	↓	↓	↓	↓			
3	↓	↓	↓	↓	↓	↓	↓	↓	↓			
4	Tetraethyl lead	Accustandard	S-1263	21206140	6/12/22	1mL	G	6/13/12	142	11/21/12	773	verified 11/21/12
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/21/12	142	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	4/10/13	421	
7	Dibutylchlorendate & TCMX		CLP-034	B0050209	12/10/19	1mL	↓	↓	↓	6/13/12	142	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/8/13	421	
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/11/13	421	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	1/7/14	842	
11	↓	↓	↓	↓	↓	↓	↓	↓	↓			
12	Dual layer carb/PSA 500/500 mg	Supelco	54067-U	342530	NA	10 PKS (30/PK)	SPE cartridge	6/18/12	142			
13	Aroclor 1248	~~Supelco~~ Ultra	PP-341	CH-32676	11/30/19	1mL	G	6/19/12	421	7/5/12	669	verified
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/7/12	L	
15	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/12/13	L	
16	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/12/13	L	
17	Toxaphene	Ultra	PP-271	CH-2783	9/30/15	1mL	G	6/19/12	421	8/22/12	500	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/5/12	RM	Narrow bb
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/22/13	500	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/22/13	500	
21												
22	Decachlorobiphenyl & TCMX	Accustd.	CLP-032-H-5X	21201124	1/20/22	1mL	G	6/19/12	421	6/20/12	421	
23	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/21/12	142	
24	↓	↓	↓	↓	↓	↓	↓	↓	↓			
25	Hexachlorocyclopentadiene	Accustd	App-9-114-10X	21101035-01	4/18/13	1mL	G	6/21/12	421			

COMMENTS: _____

Book Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Dibrom Solution	CHEM	F2067JS	479-109C	6/30/13	1ml	G	7/23/12	684	1		
2	Tetrachlorvinphos solution	↓	F2069JS	482-17C	02/28/14	↓	↓	↓	↓	1/15/13	684	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	1/13/14		
4	CLP Organochlorine Pesticide mix	Supelco	47426-U	LB90217	1/2015	1mL	G	7/23/12	421	1-22-13	27	+ Marine
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/6/13	421	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/7/13	842	
7	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/25/13	262	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	1/7/14	842	
9	Hexachlorobenzene	Ultra	CH-151	CE44883A	8/31/15	1ml	G	7/24/12	424	8/6/12	500	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	11-20-12	27	to Marine Dept
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/6/13	842	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/7/13	842	
13	Aroclor 1221		PP-291	CB17A12	12/31/14	1ml	G	7/24/12	669	6/12/13	669	
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/12/13	↓	
15	↓	↓	↓	↓	↓	↓	↓	↓	↓			
16	↓	↓	↓	↓	↓	↓	↓	↓	↓			
17	525.2 NP Mix	AccuSTD	M-525.2-NPI-ASL-PAK	209111015-06	7/26/13	~~1~~ 4 ml	G	7/27/12	262	7/27/12	262	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	1/8/13	262	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓			
20	↓	↓	↓	↓	↓	↓	↓	↓	↓			
21	PCB 103	Accustandard	C-103S-TP	210111246	11/17/2020	1ml	G	7/30/12	142	7/30/12	142	
22	PCB 198	↓	C-198S-TP	B2100047-1A	9/16/2022	↓	↓	↓	↓	↓	↓	
23	PCB 208	↓	C-208S-TP	B3010335	1/31/2013	↓	↓	↓	↓	↓	↓	
24	PCB 200	Accustd	C-200S-TP-R1	210101006	10/1/2020	1mL	G	8/14/12	421	10/2/12	773	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓			

COMMENTS: _____

Book Number: 6

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Aroclor 1232	Supelco	9-0125R	LB88331	03/2021	1mL	G	9/5/12	421			
2	Aroclor 1242	↓	9-0126R	LB94105	06/2022	↓	↓	↓	↓			
3	Aroclor 1248	↓	~~4-4807~~ 4-4807	LB88969	01/2015	↓	↓	↓	↓	7/29/13	669	
4	Aroclor 1262	↓	4-4816	LB65030	02/2014	↓	↓	↓	↓	10/4/13	669	
5	Aroclor 1262	Ultra	PP-371	CH-1776	7/31/15	1mL	G	9/5/12	421	~~4/12/13~~ 8/12/12/13	669	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓			
7	Aroclor 1232	Ultra	PP-301	CG-3213	10/31/14	1mL	G	9/5/12	421	4/12/13	669	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/12/13	↓	
9	Simazine	Ultra	PP-530A	CH-2866	9/30/14	1mL	G	9/18/12	142	9/19/12	142	
10	Thiobencarb	↓	PST-1925M	CH-0339A 100A01	5/31/14	↓	↓	↓	↓	↓	↓	
11	PCB 208	Ultra	RPC-081S	S-141/X	4/30/14	↓	↓	↓	↓	10/2/12	773	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓			
13	↓	↓	↓	↓	↓	↓	↓	↓	↓			
14	Simazine	Accustandard	P-085S	212091149	9/13/17	1mL	G	9/19/12	142	9/19/12	142	
15	Thiobencarb	↓	P-180S	212061040	6/4/22	↓	↓	↓	↓	↓	↓	
16	Simazine	↓	P-085S	212091149	9/13/17	↓	↓	↓	↓	1/8/13	262	
17	Thiobencarb	↓	P-180S	212061040	6/4/22	↓	↓	↓	↓	↓	↓	
18	TCMX	Accustandard	877209-8	B304025-2	4/21/2013	1mL	G	10/2/12	773	10/2/12	773	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓			
20	↓	↓	↓	↓	↓	↓	↓	↓	↓			
21	↓	↓	↓	↓	↓	↓	↓	↓	↓			
22	↓	↓	↓	↓	↓	↓	↓	↓	↓			
23	Decachlorodiphenyl ether	Accustandard	CDE-209S	210091157	9/16/2020	1mL	G	10/2/12	773	10/19/12	142	†
24	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/23/12	421	verified.
25	↓	↓	↓	↓	↓	↓	↓	↓	↓	4/11/13	7	↓

COMMENTS:

Book Number: 6

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	8270 Cali – kit	Supelco	48118	LB96472	FEB 14	7 x 1 mL	G	02/15/13	573	05/01/13	573	
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/19/13	573	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/30/13	449	
4	2,2,4-Trimethylpentane (Isooctane)	Sigma-Aldrich	360597	SHBC4278V	2/18/16	500 mL	G	02/15/13	684	2/18/13	773	verified
5	2,3-Dichlorobiphenyl (B2 #5)	Ultra	RPC-012 ON#	NT 00011	01/31/2017	25 mg	G	2/15/13	684	↓	773	verified
6	4,4'-Dichlorobiphenyl (B2 #15)	↓	RPC-011	RM 00605	01/31/2017	10 mg	↓	↓	↓	↓	↓	verified
7	521 Surrogate	Restek	33910	A088147	04/15	1 ml	G	2/19/13	262	2/19/13	262	
8	↓	↓	33910	↓	04/15	↓	↓	↓	↓	↓	↓	
9	521 IS	↓	33911	A088435	05/15	↓	↓	↓	↓	2/19/13	262	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
11	Aroclor 1260	ULTRA	PP-361	CG-3829	12/2014	1 mL	↓	2/20/13	669	3/7/13	684	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/21/13	669	(For 508)
13	521 Cartridge	UCT	EU5212MB	99962-EM	2/11/18	30	Bag	2/21/13	262	2/21/13	262	
14	BDE-49	Accustd	BDE-049S	211031138	6/10/19	1 mL	G	2/28/13	421	2/28/13	421	
15	Methylene Chloride	Fisher	D154-4	126306	3/5/16	4 L	G	3/5/13	262	3/5/13	262	
16	Pesticides Sur.	Supelco	48460	LB81291	01/2014	1 L	G	3/22/13	669	8/7/12	842	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/11/13	500	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/12/13	669	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
21	Diethanolamine	Accustandard	ALR-109N	05712DI	2/24/21	100 mg	G	3/28/13	684	4/2/13	262	
22	Monoethanolamine	↓	ALR-136N	13768	9/29/14	↓	↓	↓	↓	4/2/13	262	
23	8270 Tuning Solution	SUPELCO	47548-U	LB91071	03/15	1 mL	↓	03/28/13	573	6/27/13	449	
24	↓	↓	↓	↓	03/15	↓	↓	↓	↓	9/4/13	889	
25	Aqua Comparator Kit	orbeco	L147010	NA	2/2016	Each	130x	3/25/13	262	3/27/12	262	

COMMENTS:

Book Number: 6

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	pesticide surrogate MIX	Restek	32457	A089216	12-31-14	5ml	G	08-16-12	7	09-24-12	7	
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/21/12	669	
4	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/4/12	7	
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
6	↓	↓	↓	A089749	01-31-20	↓	↓	↓	↓	12-26-12	985	
7	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	02-01-13	7	
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	3/18/13	7	
11	8140/8141 O.P. Pesticide Calib. Mix A	↓	32207	A086558	02-28-13	1 ml	↓	↓	↓	10-08-12	684	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	7	
13	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	10-24-12	787	
15	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
16	↓	↓	↓	↓	↓	↓	↓	↓	↓	11-12-12	787	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	11-21-12	985	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	2-1-13	784	
21	↓	↓	↓	↓	↓	↓	↓	↓	↓	2-1-13	↓	
22	↓	↓	↓	↓	↓	↓	↓	↓	↓	2-7-13	784	
23												
24												
25												

COMMENTS: _____

Book Number: 8

Return to Contents

CHEMICAL RECEIVING LOGBOOK

LINE NO.	CHEMICAL	SOURCE	CATALOG NO.	LOT NO.	EXP. DATE	AMOUNT RECEIVED	TYPE CONT.	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO
1	Aroclor 1016/1260 Mix	Restek	32039	A025005	06-30-2017	1 mL	G	02-04-11	CL	12/2/11	421 JMC verified
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/14/12	7
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
4	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/21/12	669
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	02-1-13	7
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											

Reviewed by: _____ on 3 / 2 / 11

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR DATE	PREP BY	COMMENTS
11-04-13	E110413A	8080 Sur.	pesticide Surrogate Mix	E08-56-19,20	10 ml	200ppm	1000ml	2ppm	Acetone	E08-62-3	05-04-14	7	
~~11-07-13~~	~~E110713A~~	~~508 A~~	~~Aroclor 1260 soln.~~	~~E08-70-12~~	~~0.04ml~~								11/7/13
11-8-13	E110813A	8270 Sur.	Acid Surrogate Mix	E08-55-8, E08-65-12,13,18.	40ml	10,000ppm	1000ml	400ppm	Acetone	E08-62-3	05-08-14 @ 11/8/13	7	
			B/N	E08-65-19,20,25, E08-66-1	80ml	5000ppm							
	E110813B @ 11/8/13	8081 spike	O.P. Mix AB #1	E08-13-6	1ml	200ppm	200ml	1ppm					
			Hexachlorobenzene @	E08-36-12 @ 11/8/13	0.2ml	1000ppm							
	E110813C	8081 spike	O.P. Mix AB #1	E08-13-7	1ml	200ppm			Hexane	E08-42-10	05-08-14	7	For 3540c
			Hexachlorobenzene	E06-36-12	0.2ml	1000ppm							
11-15-13	E111513A	8270 FBC spike	8270 Calibration Mix #1	E08-74-14,15,16,17.	5ml	2000ppm	50ml	200ppm	Acetone	E08-62-3	5-15-14	7	
			#2	E08-75-1,2,3,4.									
			#3	E08-75-11,12,13,14.									
			#4	E08-75-21,22,23,24.									
			#5	E08-76-6,7,8,9.									
			Custom 1,3,5-Trinitrobenzene	E08-76-16,17,18,19.									
11-18-13	E111513B	organotins spike	Butyltin chlorides calibration Mixture	E07-07-11	0.15ml	2000ppm	300ml	1ppm	Hexanes	E08-68-13	5-15-14	785	
11-19-13	E111913A	8310 Sur.	Decafluorobiphenyl	E08-63-12,13,14,15	5ml	2000ppm	50ml	200ppm	CH_3CN	E08-45-17	05-19-14	7	
11-19-13	E111913B	1,4 Dioxane spike	1,4 Dioxane spike 1000ppm matrix	E06-113B	0.02ml	1000ppm	2.0ml	10 ppm	Acetone	E08-62-3	12-21-13	785	
11-19-13	E111913C	NDMA spike	NDMA spike 1 ppm	E07-25-13B	0.02ml	1 ppm	2ml	10 ppb	Acetone	E08-62-3	1-25-14	785	
11-19-13	E111913D	504.1 spike	504.1 spike 0.2 ppm	E100813A	0.1ml	0.2ppm	2ml	10 ppb	MeOH	E08-54-87	4-8-14	785	
11-26-13	E112613A	8270 Sim PAH Surrogate	B/N Surrogate Mix	E08-74-1	0.8ml	5000ppm	1000ml	4ppm	Acetone	E08-62-3	~~5-2-14~~ 05/26/14	887	

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
09-4-13	E090413A	8270 sur.	Acid Surrogate Mix	E08-43-20 E08-55-2.3.-4.6.	40ml @ 9/4/13	10,000ppm	1000ml	400ppm	Acetone	E08-62-3	03-4-~~13~~ 14 @ 9/14/13	7	
			B/N	E08-55-12 2 19	80ml	5,000ppm							
	E090413B	8270 spike	Acid Matrix Spike Mix	E08-43-1.2. 3.4.	20ml	10,000ppm	200ml	1000ppm					
			B/N	E08-24-12 E08-43-5.11	40ml	5,000ppm							
			Custom 625 LCS Mix	E08-44-18.19. 20.21	20ml	10,000ppm							
	E090413C	8080 sur.	pesticide Surrogate Mix	E08-46-8.9	10ml	200ppm	1000ml	2ppm					
	E090413D	8082 spike	Aroclor 1016/1260	E07-14-8.9.	2ml	1000ppm	200ml	10ppm					
	E090413E	8270 SIM PAH sur.	B/N Surrogate Mix	E08-55-19.	0.8ml	5000ppm	1000ml	4ppm					
09-10-13	E091013A	8310 sur.	Decafluorobiphenyl Mix	E08-63-11 E08-15-18.19. 20.	5ml	2000ppm	50ml	200ppm	CH_3CN	E08-45-17	03-10-14	7	
	E091013B	8082 spike	Aroclor 1016/1260	E07-14-10. 11.	2ml	1000ppm	200ml	10ppm	Hexane	E08-45-11			
09-16-13	E091613A	8151	Custom 2,4 Dichlorophenyl Acetic Acid Mix	E08-36-8/9 (RT) 9/16/13	2ml	1000ppm	20ml	100ppm	MEOH	E08-54-17	03-16-14 ~~09-16-13~~ @ 9/16/13	787	
09-17-13	E091713A	8270 sur. Acid	Acid Surrogate	E08-55-4	2ml	1000ppm	20ml	1000ppm	CH_2Cl_2	E08-62-19	03-17-14 @ 9/17/13	7	
09-18-13	E091813A	8151/515.	Custom 2,4 Dichlorophenyl Acetic Acid Mix	E08-36-9/10	2ml	1000ppm	20ml	100ppm	MEOH	E08-54-17	03-18-14	787	

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Glass Microfiber Filters TCLP	GE	1810-090	9481256	NA	12 PK	P	10-2-13	985	10-2-13	985	
2	Dichloromethane	EMD	DX0831-1	53102	10-07-16	4L x ~~40~~ 120	G	10-07-13	787	10-07-13	787	
3	"	"	"	53195	10-4-16	4L x 60 @ 147/13	"	10-9-13	7	10-9-13	7	
4	Ethyl Ether Anhydrous	EMD	EX0184-4	53028	01-31-15	4L x 10	G	10-10-13	985	10-10-13	985	
5	Dichloromethane	EMD	DX0831-1	53195	10-14-16	4L x 60	G	10-14-13	7	10-14-13	7	
6	"	"	"	53158	"	4L x 32	"	"	"	"	"	
7	Sodium Sulfate Anhydrous	Fish	S421-10	132812	10-16-18	10kg x 6	P	10-16-13	985	10-16-13	985	
8	Hexanes	EMD	HX-0298-1	53164	10-16-18	4L x 8	G	10-16-13	787	10-16-13	787	
9	Dichloromethane	"	DX0831-1	53195	10-21-16	4L x 60	G	10-21-13	7	10-21-13	7	
10	"	"	"	53158	"	4L x 36	"	"	"	"	"	
11	Methylene Chloride	Fish	D151-4	133287	10-25-16	4L x 40	G	10-25-13	985	10-25-13	985	
12	Ethyl Ether Anhydrous	EMD	EX0184-4	53028	01-31-15	4L x 10	G	10-25-13	985	10-25-13	985	
13	Hexanes	EMD	HX0298-1	52116	10-25-16	4L x 4	G	10-25-13	985	10-25-13	985	
14	Acetonitrile	Fisher	A998-4	135590	10-25-16	4L x 4	G	10-25-13	985	10-25-13	985	
15	Dichloromethane	EMD	DX0831-1	53195	10-28-16	4L x 60	G	10-25-13	787	10-28-13	787	
16	Dichloromethane	EMD	DX0831-1	53195	11-04-16	4L x 60	G	11-04-13	787	11-04-13	787	
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COMMENTS:

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	33mm x 94mm Thimbles	whatman	2800-339	13115 5	~~10-17-13~~ NA	25x1	P	10-17-13	710	10-17-13	710	
2				13182 2	NA	25x5						
3				13015 12		25x3						
4				12245 04		25x2						
5				13182 39		25x3						
6				13114 5		25x5						
7				13018 04		25x7						
8				12252 3		25x5						
9	33mmx94mm Thimblas	Whatman	2800339	131822	NA	25x16	P	10-29-13	385	10-29-13	385	
10	Sulfaric Acid	EMD	SX1247-2	53128	10-29-16	2.5Lx3	G	10-29-13	285	10-29-13	785	
11	Hydrochloric Acid	EMD	HX0607-2	53010	10-29-16	2.5x2	G	10-29-13	385	10-29-13	385	
12	Aroclor 1260 Solution	Ultra Scientific	PP-361	CG-3829	12-31-14	1ml x4	G	11-7-~~14~~ 13 (782)	11-7-13 782	11-7-13	782	Verification B3 p. 34
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COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Acetonitrile	Fisher	A998-4	135092	11/1/16	4L	G	11/01/13	887	11/01/13	887	
2	Hexanes	EMD	HX0298-1	53164	11-5-16	4L x 18	G	11-5-13	585	11-5-13	585	for organizers X 12
3	Silicic Acid	Fisher	A288-500	135574	11-8-18	500g x 2	P	11-8-13	785	11-8-13	585	
4	Celite 566 Diatomaceous Earth	UCT	EC5630K	310170-AW	11-8-18	30kg	P	11-8-13	585	11-8-13	585	
5	Phase separator ps - 185 mm	whatman	2200-185	9454685	NA	10 pks	P	11-08-13	787	11-08-13	787	
6	Dichloromethane	EMD	DX0831-1	53195	11-11-16	4L x 60	G	11-11-13	7	11-1-13	7	
7	Hexane	"	HX0298-1	53164	"	4L x 8	"	"	"	"	"	
8	Sodium Sulfate Anhydrous	Fisher	S421-10	132812	11-12-18	10kg x 2	P	11-12-13	585	11-12-13	585	
9	Sodium Sulfate Anhydrous	Fisher	S421-10	134830A	11-14-18	10kg x 4	P	11-14-13	785	11-14-13	585	
10	Sodium Hydroxide	Fisher	S318-10	130801	11-14-18	10kg x 2	P	11-14-13	585	11-14-13	585	
11	Methylene	"	D151-4	133287	11-14-16	4L x 40	G	11-14-13	7	"	7	
12	Dichloromethane	EMD	DX0831-1	53195	11-18-16	4L x 60	G	11-18-13	2wm	11-18-13	2wm	
13	Mercury	Sigma-Aldrich	21545)-2KG	SLBB8666V	NA	2kg	P	11-19-13	7	11-19-13 @ 11/18/13	7	
14	Methylene	Fisher	D151-4	136343	11-22-16	4L x 40	G	11-22-13	785	11-22-13	785	
15	Boiling Stone	Saint-Gobain	0919120	J114-3H037	11-22-18	450g x 6	P	11-22-13	785	11-22-13	785	
16	Dichloromethane	EMD	DX0831-1	53195	11-25-16	4L x 60	G	11-25-13	7	11-25-13	7	
17	Hexane	EMD	DX0298-1 DX0831-1	53164	11-25-16	4L x 8	G	11-25-13	785	11-25-13	785	
18	Dichloromethane	"	DX0831-1	53195	11-27-16	4L x 80	"	11-27-13	7	11-27-13	7	
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COMMENTS:

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Cellulose Filter for ASE 300	Restek	26168	0162685	NA	200 pk	P	09/3/13	7	09/3/13	7	
2	Dichloromethane	EMD	DX0831-1	53195	09-5-16	4L x 6	G	09/5/13	7	09/5/13	7	
3	~~8141/8141 O.P.P. Calibration Mix A~~	~~Restek~~	32277	A095110	04-30-14			@	9/16/13			
4	Dichloromethane	EMD	DX0831-1	53195	09-1)-16	4L x 60	G	09-17-13	7	09-1)-13	7	
5	Carbital (2-(2-Ethoxyethoxy) ethanol	J.T. Baker	L216-07	0000042883	9-18-16	500ml x 2	G	9-18-13	385	9-18-13	385	
6	Dichloromethane	EMD	DX0831-1	53158	9-20-16	4L x 16	G	9-20-13	385	9-20-13	385	
7	Dichloromethane	EMD	DX0831-1	53195	9-20-16	4L x 60	G	9-20-13	385	9-20-13	385	
8	Hexanes	EMD	HX0298-1	53063	9-27-16	4L x 8	G	9-27-13	385	9-27-13	385	for organotins
9	Ethyl Ether Anhydrous	EMD	EX0180-4	53028	~~9-27-16~~ 1-31-15 (USP) 9-27-13	4L x 8	G	9-27-13	385	9-27-13	385	
10	Sodium Sulfate Anhydrous	Fish	S421-10	121758	9-27-18	10Kg x 1	P	9-27-13	385	9-27-13	385	
11	Sodium Sulfate Anhydrous	Fish	S421-10	130197	9-27-18	10Kg x 2	P	9-27-13	385	9-27-13	385	
12	Sodium Sulfate Anhydrous	Fish	S421-10	132812	9-27-18	10Kg x 3	P	9-27-13	385	9-27-13	385	
13	Dichloromethane	EMD	DX0831-1	53102	9-30-16	4L x 40	G	9-30-13	7	9-30-13	7	
14	Extraction Thimbles 25mm	Whatman	2800-258	12191	NA	136 boxes	Box	09-30-13	787	9-30-13	787	
15	" " 33mm	"	2800-339	12193	NA	55 boxes	Box	"	"	"	"	
16	Dichloromethane	EMD	DX0831-1	53195	10-2-16	4L x 60	G	10-2-13	385	10-2-13	385	
17	2,4-Dinitrophenylhydrazine	Sigma-Aldrich	42210-25G-F	BCBJ5972V	NA	25g	G	10-2-13	887	10-2-13	887	
18	Acetonitrile	Fisher	A998-4	135390	10-2-16	4L x 4	G	10-2-13	385	10-2-13	385	
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COMMENTS:

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Acetonitrile	Fish	A998-4	127999	5-3-16	4L×6	G	5-3-13	385	5-3-13	385	
2	~~Sodium Chloride~~ 5/6/13 385	~~EMD~~	~~SX0420-5~~	~~TK19CZEMS~~	~~5-6-18~~	~~12kg×2~~	~~P~~	~~5-6-13~~	~~385~~	~~5-6-13~~	~~385~~	5/6/13 385
3	Sodium Sulfate Anhydrous	Fisher	S421-10	126473	5-6-18	10Kg×6	P	5-6-13	385	5-6-13	385	
4	Sodium chloride	EMD	SX0620-5	TL20B2EMS	5-6-18	2Kg×2	P	5-6-13	385	5-6-13	385	
5	25mm syringe Filter/vacuum PTFE	VWR	2815-499	21744510	NA	100 each ×2	P	5-7-13	385	5-7-13	385	
6	BD syringe 10ml	BD	REF 305462	2204064	NA	100 each ×3	P	5-7-13	385	5-7-13	385	
7	Dichloromethane	EMD	DX0831-1	53102	5-7-16	4L×60	G	5-7-13	385	5-7-13	385	
8	Celite 566 Diatomatceous Earth	UCT	EC5-6630K	315030-AV	5-7-18	30 kg	P	5-7-13	385	5-7-13	385	
9	Hexanes	EMD	HX0298-1	53032	5-10-16	4L×24	G	5-10-13	385	5-10-13	385	
10	Sodium Hydroxide	Fisher	S318-10	126910	5-10-18	10Kg×2	P	5-10-13	385	5-10-13	385	
11	Hexanes	EMD	HX0298-1	53102	5-14-18	4L×48	G	5-14-13	385	5-14-13	385	
12	Dichloro methane	EMD	DX0831-1	52321	5-20-18/16	4L×60	G	5-20-13	385	5-20-13	385	
13	Boiling Stones	Saint Gobain	0919120	G384-3C019	5-20-18	450g×5	P	5-20-13	385	5-20-13	385	G384-3C019
14	Mercury	ALFA AESAR	00522-P5	E22Y027	NA	5lb×2	P	5-20-13	385	5-20-13	385	
15	Sodium Chloride	EMD	SX0420-5	TL20B2EMS	5-22-18	12kg×3	P	5-22-13	385	5-22-13	385	
16	~~Sodium Chloride~~	~~EMD~~	~~SX0~~ 5/22/13 (385)									
17	Acetonitrile	Fish	A998-4	127999	5-22-16	4L×8	G	5-22-13	385	5-22-13	385	
18	Dichloromethane	EMD	DX0831-1	53102	5-23-16	4L×60	G	5-23-13	385	5-23-13	385	
19	Sodium Chloride	Fisher	S271-10	130583	5-24-18	10Kg×3	P	5-24-18/13	385	5-24-13	385	
20	Dichloro methane	EMD	DX0831-1	53109	5-28-16	4L×60	G	5/28/13 (385) 5-28-13	385	5-28-13	385	
21	Filter paper 41	whatman	1441 090	5366526	~~NA~~ NA (385)	5pk	P	5-31-13	385	5-31-13	385	
22												
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COMMENTS:

Book Number: 8

EPA METHOD 8270C
SVOCs

RAW DATA

Return to Contents

EPA METHOD 8270C
SVOCs

Initial Calibration

Return to Contents

INITIAL CALIBRATION QUALITY CONTROL SUMMARY
FOR METHOD: EPA 8270C

WORK ORDER: **13-11-0697**
ICAL BATCH ID: 130911
INSTRUMENT: GC/MS SS

ANALYZED BY: 449
ICAL D/T ANALYZED: 09/11/2013 18:06
REVIEWED BY: 421
D/T REVIEWED: 10/24/2013 09:13

COMPOUND	CALIB. MODEL	1	2	3	4	5	6	7	8	9	AVG. RF	MIN. RF	%RSD	%R SD CL	R or R^2	R or R^2 CL	STATUS
N-Nitrosodimethylamine	Avg Resp		1.220	1.207	1.258	1.249	1.224	1.194	1.204		1.222	0.00	2	0-15			PASS
Aniline	Avg Resp		2.708	2.743	2.610	2.669	2.488	2.253	2.785		2.608	0.00	7	0-15			PASS
Phenol	Avg Resp		2.505	2.545	2.547	2.412	2.288	2.208	2.224		2.390	0.00	6	0-30			PASS
Bis(2-Chloroethyl) Ether	QR - Equal		1.830	1.860	1.883	1.778	1.727	1.500	1.139		2.384				0.997	r^2>=0.9	PASS
2-Chlorophenol	Avg Resp		1.697	1.725	1.742	1.698	1.673	1.667	1.662		1.695	0.00	2	0-15			PASS
1,3-Dichlorobenzene	Avg Resp		1.866	1.873	1.865	1.816	1.777	1.731	1.711		1.806	0.00	4	0-15			PASS
1,4-Dichlorobenzene	Avg Resp		1.811	1.824	1.814	1.749	1.677	1.630	1.575		1.726	0.00	6	0-30			PASS
Benzyl Alcohol	Avg Resp		1.480	1.549	1.582	1.594	1.563	1.441	1.508		1.531	0.00	4	0-15			PASS
1,2-Dichlorobenzene	Avg Resp		1.759	1.775	1.766	1.695	1.615	1.458	1.464		1.647	0.00	8	0-15			PASS
2-Methylphenol	Avg Resp		1.512	1.578	1.586	1.536	1.508	1.435	1.380		1.505	0.00	5	0-15			PASS
Bis(2-Chloroisopropyl) Ether	Avg Resp		2.193	2.205	2.195	2.067	1.966	1.847	1.759		2.033	0.00	9	0-15			PASS
3/4-Methylphenol	Avg Resp	1.712	1.706	1.718	1.720	1.718	1.694	1.637	1.591		1.687	0.00	3	0-15			PASS
N-Nitroso-di-n-propylamine	Avg Resp		1.346	1.345	1.373	1.295	1.124	1.096	1.172		1.250	0.05	9	0-15			PASS
Hexachloroethane	Avg Resp		0.674	0.685	0.703	0.665	0.597	0.578	0.567		0.639	0.00	9	0-15			PASS
Nitrobenzene	Avg Resp		0.463	0.473	0.461	0.438	0.419	0.403	0.390		0.435	0.00	7	0-15			PASS
Isophorone	Avg Resp		0.865	0.872	0.867	0.845	0.841	0.782	0.731		0.829	0.00	6	0-15			PASS
2-Nitrophenol	Avg Resp		0.203	0.213	0.206	0.205	0.198	0.201	0.196		0.203	0.00	3	0-30			PASS
2,4-Dimethylphenol	Avg Resp		0.411	0.403	0.420	0.401	0.396	0.382	0.386		0.400	0.00	3	0-15			PASS
Benzoic Acid	LR - Equal			0.131	0.186	0.249	0.276	0.287	0.291		0.304				1.000	r>=0.990	PASS
Bis(2-Chloroethoxy) Methane	Avg Resp		0.526	0.505	0.508	0.473	0.465	0.447	0.430		0.479	0.00	7	0-15			PASS
2,4-Dichlorophenol	Avg Resp		0.307	0.312	0.316	0.304	0.297	0.289	0.284		0.301	0.00	4	0-30			PASS
Naphthalene	Avg Resp		1.129	1.128	1.123	1.061	1.016	0.969	0.931		1.051	0.00	8	0-15			PASS
4-Chloroaniline	Avg Resp		0.406	0.392	0.335	0.383	0.375	0.346	0.327		0.366	0.00	8	0-15			PASS
Hexachloro-1,3-Butadiene	Avg Resp		0.194	0.191	0.192	0.181	0.175	0.166	0.159		0.180	0.00	8	0-30			PASS
4-Chloro-3-Methylphenol	Avg Resp		0.333	0.356	0.365	0.350	0.348	0.333	0.325		0.344	0.00	4	0-30			PASS
2-Methylnaphthalene	Avg Resp		0.758	0.754	0.739	0.691	0.660	0.627	0.603		0.690	0.00	9	0-15			PASS
Hexachlorocyclopentadiene	LR - Equal			0.108	0.156	0.211	0.224	0.230	0.224		0.236				1.000	r>=0.990	PASS
2,4,6-Trichlorophenol	Avg Resp		0.354	0.367	0.378	0.380	0.383	0.373	0.373		0.373	0.00	3	0-30			PASS
2,4,5-Trichlorophenol	Avg Resp		0.337	0.346	0.380	0.390	0.392	0.373	0.349		0.367	0.00	6	0-15			PASS

Return to Contents

INITIAL CALIBRATION QUALITY CONTROL SUMMARY
FOR METHOD: EPA 8270C

WORK ORDER: 13-11-0697
ICAL BATCH ID: 130911
INSTRUMENT: GC/MS SS

ANALYZED BY: 449
ICAL D/T ANALYZED: 09/11/2013 18:06
REVIEWED BY: 421
D/T REVIEWED: 10/24/2013 09:13

COMPOUND	CALIB. MODEL	1	2	3	4	5	6	7	8	9	AVG. RF	MIN. RF	%RSD	%R SD CL	R or R^2	R or R^2 CL	STATUS
2-Chloronaphthalene	Avg Resp		1.266	1.248	1.215	1.178	1.150	1.090	1.038		1.169	0.00	7	0-15			PASS
2-Nitroaniline	Avg Resp		0.375	0.393	0.405	0.406	0.400	0.390	0.380		0.393	0.00	3	0-15			PASS
Dimethyl Phthalate	Avg Resp		1.457	1.477	1.433	1.405	1.383	1.340	1.307		1.400	0.00	4	0-15			PASS
Acenaphthylene	Avg Resp		1.994	1.968	1.893	1.791	1.724	1.609	1.548		1.790	0.00	10	0-15			PASS
3-Nitroaniline	QR - Equal		0.272	0.278	0.187	0.209	0.269	0.276	0.288		0.221				0.997	r^2>=0.9	PASS
Acenaphthene	Avg Resp		1.266	1.244	1.229	1.183	1.146	1.081	1.024		1.168	0.00	8	0-30			PASS
2,4-Dinitrophenol	QR - Equal			0.032	0.060	0.102	0.116	0.139	0.159		0.088				1.000	r^2>=0.9	PASS
4-Nitrophenol	LR - Equal		0.114	0.160	0.195	0.228	0.224	0.201	0.199		0.203				0.997	r>=0.990	PASS
Dibenzofuran	Avg Resp		1.709	1.709	1.661	1.597	1.525	1.390	1.322		1.559	0.00	10	0-15			PASS
2,4-Dinitrotoluene	Avg Resp		0.389	0.405	0.416	0.430	0.439	0.430	0.429		0.420	0.00	4	0-15			PASS
2,6-Dinitrotoluene	Avg Resp		0.703	0.721	0.736	0.719	0.714	0.709	0.729		0.719	0.00	2	0-15			PASS
Diethyl Phthalate	Avg Resp		1.421	1.407	1.377	1.351	1.305	1.219	1.141		1.317	0.00	8	0-15			PASS
4-Chlorophenyl-Phenyl Ether	QR - Equal		0.719	0.697	0.683	0.624	0.579	0.511	0.461		0.683				1.000	r^2>=0.9	PASS
Fluorene	Avg Resp		1.424	1.404	1.344	1.223	1.151	1.034	0.957		1.219	0.00	15	0-15			PASS
4-Nitroaniline	Avg Resp		0.258	0.245	0.237	0.239	0.257	0.249	0.249		0.248	0.00	3	0-15			PASS
Azobenzene	Avg Resp		0.953	0.929	0.899	0.918	0.851	0.765	0.685		0.857	0.00	11	0-15			PASS
4,6-Dinitro-2-Methylphenol	LR - Equal			0.065	0.085	0.104	0.100	0.096	0.093		0.095				0.998	r>=0.990	PASS
N-Nitrosodiphenylamine	Avg Resp		0.577	0.557	0.544	0.496	0.473	0.433	0.397		0.497	0.05	13	0-30			PASS
4-Bromophenyl-Phenyl Ether	Avg Resp		0.224	0.222	0.219	0.213	0.208	0.204	0.197		0.212	0.00	5	0-15			PASS
Hexachlorobenzene	Avg Resp		0.093	0.090	0.087	0.081	0.076	0.072	0.067		0.081	0.00	12	0-15			PASS
Pentachlorophenol	Avg Resp			0.077	0.094	0.118	0.127	0.130	0.134		0.113	0.00	20	0-30			PASS
Phenanthrene	Avg Resp		1.154	1.136	1.110	1.057	1.006	0.959	0.948		1.053	0.00	8	0-15			PASS
Anthracene	Avg Resp		1.179	1.166	1.138	1.072	1.021	0.960	0.913		1.064	0.00	10	0-15			PASS
Di-n-Butyl Phthalate	Avg Resp		1.412	1.395	1.367	1.266	1.189	1.108	1.055		1.256	0.00	11	0-15			PASS
Fluoranthene	Avg Resp		1.290	1.274	1.238	1.166	1.120	1.072	1.035		1.171	0.00	9	0-30			PASS
Benzidine	QR - Equal			0.135	0.134	0.146	0.185	0.196	0.205		0.165				0.998	r^2>=0.9	PASS
Pyrene	Avg Resp		1.429	1.398	1.366	1.283	1.235	1.198	1.178		1.298	0.00	8	0-15			PASS
Pyridine	Avg Resp		1.033	1.072	1.126	1.152	1.151	1.130	1.110		1.110	0.00	4	0-15			PASS
Butyl Benzyl Phthalate	Avg Resp		0.638	0.646	0.641	0.606	0.593	0.560	0.553		0.605	0.00	6	0-15			PASS

Return to Contents

INITIAL CALIBRATION QUALITY CONTROL SUMMARY
FOR METHOD: EPA 8270C

WORK ORDER: **13-11-0697**
ICAL BATCH ID: 130911
INSTRUMENT: GC/MS SS

ANALYZED BY: 449
ICAL D/T ANALYZED: 09/11/2013 18:06
REVIEWED BY: 421
D/T REVIEWED: 10/24/2013 09:13

COMPOUND	CALIB. MODEL	1	2	3	4	5	6	7	8	9	AVG. RF	MIN. RF	%RSD	%R SD CL	R or R^2	R or R^2 CL	STATUS
3,3'-Dichlorobenzidine	QR - Equal			0.186	0.154	0.169	0.204	0.218	0.251		0.134				0.999	r^2>=0.9	PASS
Benzo (a) Anthracene	Avg Resp		1.149	1.143	1.142	1.116	1.096	1.049	1.046		1.106	0.00	4	0-15			PASS
Bis(2-Ethylhexyl) Phthalate	Avg Resp		0.845	0.846	0.844	0.814	0.780	0.716	0.671		0.788	0.00	9	0-15			PASS
Chrysene	Avg Resp		1.050	1.055	1.055	1.032	1.022	0.999	0.970		1.026	0.00	3	0-15			PASS
Di-n-Octyl Phthalate	Avg Resp		1.268	1.300	1.327	1.316	1.271	1.192	1.201		1.268	0.00	4	0-30			PASS
Benzo (k) Fluoranthene	QR - Equal		0.792	0.806	0.857	0.722	0.633	0.554	0.475		0.795				0.999	r^2>=0.9	PASS
Benzo (b) Fluoranthene	QR - Equal		0.794	0.832	0.837	0.936	1.090	1.126	1.215		0.917				0.999	r^2>=0.9	PASS
Benzo (a) Pyrene	Avg Resp		0.644	0.670	0.701	0.728	0.728	0.703	0.700		0.696	0.00	4	0-30			PASS
Benzo (g,h,i) Perylene	Avg Resp		0.540	0.562	0.581	0.599	0.563	0.505	0.455		0.544	0.00	9	0-15			PASS
Indeno (1,2,3-c,d) Pyrene	Avg Resp		0.680	0.699	0.741	0.767	0.736	0.675	0.620		0.703	0.00	7	0-15			PASS
Dibenz (a,h) Anthracene	Avg Resp		0.564	0.583	0.626	0.657	0.637	0.586	0.543		0.599	0.00	7	0-15			PASS
1-Methylnaphthalene	Avg Resp		0.699	0.704	0.699	0.659	0.627	0.587	0.560		0.648	0.00	9	0-15			PASS
2,6-Dichlorophenol	Avg Resp		0.298	0.300	0.303	0.287	0.272	0.259	0.252		0.281	0.00	7	0-15			PASS
1,2,4-Trichlorobenzene	Avg Resp		0.361	0.360	0.353	0.340	0.334	0.316	0.305		0.338	0.00	6	0-15			PASS

Data Files:

LEVEL #	D/T ANALYZED	DATA FILE
1	09/11/2013 18:06	W:\GCMS_SS_DATA\2013\130911\11SEP016.D\11SEP016.rr
2	09/11/2013 18:32	W:\GCMS_SS_DATA\2013\130911\11SEP017.D\11SEP017.rr
3	09/11/2013 18:58	W:\GCMS_SS_DATA\2013\130911\11SEP018.D\11SEP018.rr
4	09/11/2013 19:24	W:\GCMS_SS_DATA\2013\130911\11SEP019.D\11SEP019.rr
5	09/11/2013 19:51	W:\GCMS_SS_DATA\2013\130911\11SEP020.D\11SEP020.rr
6	09/11/2013 20:17	W:\GCMS_SS_DATA\2013\130911\11SEP021.D\11SEP021.rr
7	09/11/2013 20:43	W:\GCMS_SS_DATA\2013\130911\11SEP022.D\11SEP022.rr
8	09/11/2013 21:09	W:\GCMS_SS_DATA\2013\130911\11SEP023.D\11SEP023.rr

Return to Contents

INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C

ICV WORK ORDER: **095-01-001-11153-596**
INITIAL BATCH ID: 130911
INSTRUMENT: GC/MS SS

DATA FILE: W:\GCMS_SS_DATA\2013\130911\11SEP024.D\11SEP024.rr

ANALYZED BY: 449
D/T ANALYZED:
INITIAL: 09/11/2013 18:06
ICV: 09/11/2013 21:35
REVIEWED BY: 421
D/T REVIEWED: 10/24/2013 09:13

COMPOUND	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV	ICV %D	ICV %D CL	STATUS
N-Nitrosodimethylamine	Avg Resp	0.00	1.222	1.199			2	0-20	PASS
Aniline	Avg Resp	0.00	2.608	2.539			3	0-20	PASS
Phenol	Avg Resp	0.00	2.390	2.308			3	0-20	PASS
Bis(2-Chloroethyl) Ether	QR - Equal				80.00	79.079	1	0-20	PASS
2-Chlorophenol	Avg Resp	0.00	1.695	1.687			0	0-20	PASS
1,3-Dichlorobenzene	Avg Resp	0.00	1.806	1.793			1	0-20	PASS
1,4-Dichlorobenzene	Avg Resp	0.00	1.726	1.717			1	0-20	PASS
Benzyl Alcohol	Avg Resp	0.00	1.531	1.572			-3	0-20	PASS
1,2-Dichlorobenzene	Avg Resp	0.00	1.647	1.633			1	0-20	PASS
2-Methylphenol	Avg Resp	0.00	1.505	1.518			-1	0-20	PASS
Bis(2-Chloroisopropyl) Ether	Avg Resp	0.00	2.033	1.936			4	0-20	PASS
3/4-Methylphenol	Avg Resp	0.00	1.687	1.693			0	0-20	PASS
N-Nitroso-di-n-propylamine	Avg Resp	0.05	1.250	1.131			10	0-20	PASS
Hexachloroethane	Avg Resp	0.00	0.639	0.613			4	0-20	PASS
Nitrobenzene	Avg Resp	0.00	0.435	0.420			3	0-20	PASS
Isophorone	Avg Resp	0.00	0.829	0.832			0	0-20	PASS
2-Nitrophenol	Avg Resp	0.00	0.203	0.204			0	0-20	PASS
2,4-Dimethylphenol	Avg Resp	0.00	0.400	0.391			2	0-20	PASS
Benzoic Acid	LR - Equal				80.00	80.548	-1	0-20	PASS
Bis(2-Chloroethoxy) Methane	Avg Resp	0.00	0.479	0.461			4	0-20	PASS
2,4-Dichlorophenol	Avg Resp	0.00	0.301	0.298			1	0-20	PASS
Naphthalene	Avg Resp	0.00	1.051	1.030			2	0-20	PASS
4-Chloroaniline	Avg Resp	0.00	0.366	0.377			-3	0-20	PASS
Hexachloro-1,3-Butadiene	Avg Resp	0.00	0.180	0.177			2	0-20	PASS
4-Chloro-3-Methylphenol	Avg Resp	0.00	0.344	0.347			-1	0-20	PASS
2-Methylnaphthalene	Avg Resp	0.00	0.690	0.668			3	0-20	PASS
Hexachlorocyclopentadiene	LR - Equal				80.00	74.254	7	0-20	PASS
2,4,6-Trichlorophenol	Avg Resp	0.00	0.373	0.379			-2	0-20	PASS
2,4,5-Trichlorophenol	Avg Resp	0.00	0.367	0.388			-6	0-20	PASS
2-Chloronaphthalene	Avg Resp	0.00	1.169	1.148			2	0-20	PASS

Return to Contents

INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C

ICV WORK ORDER: **095-01-001-11153-596**
INITIAL BATCH ID: 130911
INSTRUMENT: GC/MS SS

DATA FILE: W:\GCMS_SS_DATA\2013\130911\11SEP024.D\11SEP024.rr

ANALYZED BY: 449
D/T ANALYZED:
INITIAL: 09/11/2013 18:06
ICV: 09/11/2013 21:35
REVIEWED BY: 421
D/T REVIEWED: 10/24/2013 09:13

COMPOUND	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV	ICV %D	ICV %D CL	STATUS
2-Nitroaniline	Avg Resp	0.00	0.393	0.393			0	0-20	PASS
Dimethyl Phthalate	Avg Resp	0.00	1.400	1.383			1	0-20	PASS
Acenaphthylene	Avg Resp	0.00	1.790	1.712			4	0-20	PASS
3-Nitroaniline	QR - Equal				80.00	82.953	-4	0-20	PASS
Acenaphthene	Avg Resp	0.00	1.168	1.139			3	0-20	PASS
2,4-Dinitrophenol	QR - Equal				80.00	87.122	-9	0-20	PASS
4-Nitrophenol	LR - Equal				80.00	85.648	-7	0-20	PASS
Dibenzofuran	Avg Resp	0.00	1.559	1.527			2	0-20	PASS
2,4-Dinitrotoluene	Avg Resp	0.00	0.420	0.435			-4	0-20	PASS
2,6-Dinitrotoluene	Avg Resp	0.00	0.719	0.719			0	0-20	PASS
Diethyl Phthalate	Avg Resp	0.00	1.317	1.302			2	0-20	PASS
4-Chlorophenyl-Phenyl Ether	QR - Equal				80.00	81.791	-2	0-20	PASS
Fluorene	Avg Resp	0.00	1.219	1.161			5	0-20	PASS
4-Nitroaniline	Avg Resp	0.00	0.248	0.242			2	0-20	PASS
Azobenzene	Avg Resp	0.00	0.857	0.865			-1	0-20	PASS
4,6-Dinitro-2-Methylphenol	**LR - Equal**				**80.00**	97.236	**-22**	0-20	**FAIL**
N-Nitrosodiphenylamine	Avg Resp	0.05	0.497	0.478			4	0-20	PASS
4-Bromophenyl-Phenyl Ether	Avg Resp	0.00	0.212	0.210			1	0-20	PASS
Hexachlorobenzene	Avg Resp	0.00	0.081	0.077			5	0-20	PASS
Pentachlorophenol	Avg Resp	0.00	0.113	0.125			-11	0-20	PASS
Phenanthrene	Avg Resp	0.00	1.053	1.013			4	0-20	PASS
Anthracene	Avg Resp	0.00	1.064	1.025			4	0-20	PASS
Di-n-Butyl Phthalate	Avg Resp	0.00	1.256	1.219			3	0-20	PASS
Fluoranthene	Avg Resp	0.00	1.171	1.129			3	0-20	PASS
Benzidine	QR - Equal				80.00	84.977	-6	0-20	PASS
Pyrene	Avg Resp	0.00	1.298	1.252			4	0-20	PASS
Pyridine	Avg Resp	0.00	1.110	1.125			-2	0-20	PASS
Butyl Benzyl Phthalate	Avg Resp	0.00	0.605	0.598			1	0-20	PASS
3,3'-Dichlorobenzidine	QR - Equal				80.00	82.612	-3	0-20	PASS
Benzo (a) Anthracene	Avg Resp	0.00	1.106	1.091			2	0-20	PASS

Return to Contents

INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C

ICV WORK ORDER: 095-01-001-11153-596
INITIAL BATCH ID: 130911
INSTRUMENT: GC/MS SS

DATA FILE: W:\GCMS_SS_DATA\2013\130911\11SEP024.D\11SEP024.rr

ANALYZED BY: 449
D/T ANALYZED:
INITIAL: 09/11/2013 18:06
ICV: 09/11/2013 21:35
REVIEWED BY: 421
D/T REVIEWED: 10/24/2013 09:13

COMPOUND	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV	ICV %D	ICV %D CL	STATUS
Bis(2-Ethylhexyl) Phthalate	Avg Resp	0.00	0.788	0.789			0	0-20	PASS
Chrysene	Avg Resp	0.00	1.026	1.028			0	0-20	PASS
Di-n-Octyl Phthalate	Avg Resp	0.00	1.268	1.294			-2	0-20	PASS
Benzo (k) Fluoranthene	QR - Equal				80.00	68.986	14	0-20	PASS
Benzo (b) Fluoranthene	QR - Equal				80.00	79.257	1	0-20	PASS
Benzo (a) Pyrene	Avg Resp	0.00	0.696	0.713			-2	0-20	PASS
Benzo (g,h,i) Perylene	Avg Resp	0.00	0.544	0.558			-3	0-20	PASS
Indeno (1,2,3-c,d) Pyrene	Avg Resp	0.00	0.703	0.735			-5	0-20	PASS
Dibenz (a,h) Anthracene	Avg Resp	0.00	0.599	0.638			-7	0-20	PASS
1-Methylnaphthalene	Avg Resp	0.00	0.648	0.624			4	0-20	PASS
1,2,4-Trichlorobenzene	Avg Resp	0.00	0.338	0.335			1	0-20	PASS
2,6-Dichlorophenol	Avg Resp	0.00	0.281	0.274			2	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

Return to Contents

Response Factor Report GCMS_SS

Method Path : C:\MSDCHEM\1\METHODS\
Method File : BNA130911.M
Title : BNA 8270/625 CALIBRATION
Last Update : Thu Sep 12 10:01:39 2013
Response Via : Initial Calibration

Calibration Files
2.5 =11SEP016.D 5 =11SEP017.D 10 =11SEP018.D 20 =11SEP019.D 50 =11SEP020.D 80 =11SEP021.D 120 =11SEP022.D
160 =11SEP023.D

		Compound	2.5	5	10	20	50	80	120	160	Avg	%RSD	
1)	I	1,4-Dichlorobenzen...					ISTD						
2)	T	Pyridine		1.033	1.072	1.126	1.152	1.151	1.130	1.110	1.110	4	
3)	T	N-Nitrosodimethylamine		1.220	1.207	1.258	1.249	1.224	1.194	1.204	1.222	2	
4)	S	2-Fluorophenol		1.770	1.841	1.868	1.859	1.823	1.780	1.771	1.816	2	
5)	T	Aniline		2.708	2.743	2.610	2.669	2.488	2.253	2.785	2.608	7	
6)	S	Phenol-d6		2.297	2.349	2.382	2.286	2.174	2.064	2.016	2.224	6	
7)	C	Phenol		2.505	2.545	2.547	2.412	2.288	2.208	2.224	2.390	6	
8)	T	Bis(2-Chloroethyl) Ether		1.830	1.860	1.883	1.778	1.727	1.500	1.139	1.674	16	Q
9)	T	2-Chlorophenol		1.697	1.725	1.742	1.698	1.673	1.667	1.662	1.695	2	
10)	T	1,3-Dichlorobenzene		1.866	1.873	1.865	1.816	1.777	1.731	1.711	1.806	4	
11)	C	1,4-Dichlorobenzene		1.811	1.824	1.814	1.749	1.677	1.630	1.575	1.726	6	
12)	T	Benzyl Alcohol		1.480	1.549	1.582	1.594	1.563	1.441	1.508	1.531	4	
13)	T	1,2-Dichlorobenzene		1.759	1.775	1.766	1.695	1.615	1.458	1.464	1.647	8	
14)	T	2-Methylphenol		1.512	1.578	1.586	1.536	1.508	1.435	1.380	1.505	5	
15)	T	Bis(2-Chloroisopropyl) Ether		2.193	2.205	2.195	2.067	1.966	1.847	1.759	2.033	9	
16)	T	3/4-Methylphenol	1.712	1.706	1.718	1.720	1.718	1.694	1.637	1.591	1.687	3	
17)	P	N-Nitroso-di-n-propylamine		1.346	1.345	1.373	1.295	1.124	1.096	1.172	1.250	9	
18)	T	Hexachloroethane		0.674	0.685	0.703	0.665	0.597	0.578	0.567	0.639	9	
19)	I	Naphthalene-d8					ISTD						
20)	S	Nitrobenzene-d5		0.473	0.487	0.483	0.459	0.448	0.431	0.418	0.457	6	
21)	T	Nitrobenzene		0.463	0.473	0.461	0.438	0.419	0.403	0.390	0.435	7	
22)	T	Isophorone		0.865	0.872	0.867	0.845	0.841	0.782	0.731	0.829	6	
23)	C	2-Nitrophenol		0.203	0.213	0.206	0.205	0.198	0.201	0.196	0.203	3	
24)	T	2,4-Dimethylphenol		0.411	0.403	0.420	0.401	0.396	0.382	0.386	0.400	3	
25)	T	Benzoic Acid			0.131	0.186	0.249	0.276	0.287	0.291	0.237	27	L
26)	T	Bis(2-Chloroethoxy) Methane		0.526	0.505	0.508	0.473	0.465	0.447	0.430	0.479	7	
27)	C	2,4-Dichlorophenol		0.307	0.312	0.316	0.304	0.297	0.289	0.284	0.301	4	
28)	T	1,2,4-Trichlorobenzene		0.361	0.360	0.353	0.340	0.334	0.316	0.305	0.338	6	
29)	T	Naphthalene		1.129	1.128	1.123	1.061	1.016	0.969	0.931	1.051	8	
30)	T	2,6-Dichlorophenol		0.298	0.300	0.303	0.287	0.272	0.259	0.252	0.281	7	
31)	T	4-Chloroaniline		0.406	0.392	0.335	0.383	0.375	0.346	0.327	0.366	8	
32)	C	Hexachloro-1,3-Butadiene		0.194	0.191	0.192	0.181	0.175	0.166	0.159	0.180	8	
33)	C	4-Chloro-3-Methylphenol		0.333	0.356	0.365	0.350	0.348	0.333	0.325	0.344	4	
34)	T	2-Methylnaphthalene		0.758	0.754	0.739	0.691	0.660	0.627	0.603	0.690	9	
35)	T	1-Methylnaphthalene		0.699	0.704	0.699	0.659	0.627	0.587	0.560	0.648	9	
36)	I	Acenaphthene-d10					ISTD						
37)	P	Hexachlorocyclopentadiene			0.108	0.156	0.211	0.224	0.230	0.224	0.192	26	L
38)	C	2,4,6-Trichlorophenol		0.354	0.367	0.378	0.380	0.383	0.373	0.373	0.373	3	
39)	T	2,4,5-Trichlorophenol		0.337	0.346	0.380	0.390	0.392	0.373	0.349	0.367	6	
40)	T	2-Chloronaphthalene		1.266	1.248	1.215	1.178	1.150	1.090	1.038	1.169	7	
41)	S	2-Fluorobiphenyl		1.498	1.478	1.434	1.356	1.322	1.222	1.133	1.349	10	

Return to Contents

Response Factor Report GCMS_SS

Method Path : C:\MSDCHEM\1\METHODS\
Method File : BNA130911.M
Title : BNA 8270/625 CALIBRATION

42)	T	2-Nitroaniline	0.375	0.393	0.405	0.406	0.400	0.390	0.380	0.393	3	
43)	T	Dimethyl Phthalate	1.457	1.477	1.433	1.405	1.383	1.340	1.307	1.400	4	
44)	T	Acenaphthylene	1.994	1.968	1.893	1.791	1.724	1.609	1.548	1.790	10	
45)	T	3-Nitroaniline	0.272	0.278	0.187	0.209	0.269	0.276	0.288	0.254	16	Q
46)	C	Acenaphthene	1.266	1.244	1.229	1.183	1.146	1.081	1.024	1.168	8	
47)	P	2,4-Dinitrophenol		0.032	0.060	0.102	0.116	0.139	0.159	0.101	47	Q
48)	P	4-Nitrophenol	0.114	0.160	0.195	0.228	0.224	0.201	0.199	0.189	21	L
49)	T	Dibenzofuran	1.709	1.709	1.661	1.597	1.525	1.390	1.322	1.559	10	
50)	T	2,4-Dinitrotoluene	0.389	0.405	0.416	0.430	0.439	0.430	0.429	0.420	4	
51)	T	2,6-Dinitrotoluene	0.307	0.310	0.306	0.296	0.292	0.284	0.280	0.296	4	
52)	T	Diethyl Phthalate	1.421	1.407	1.377	1.351	1.305	1.219	1.141	1.317	8	
53)	T	4-Chlorophenyl-Phenyl Ether	0.719	0.697	0.683	0.624	0.579	0.511	0.461	0.610	16	Q
54)	T	Fluorene	1.424	1.404	1.344	1.223	1.151	1.034	0.957	1.219	15	
55)	T	4-Nitroaniline	0.258	0.245	0.237	0.239	0.257	0.249	0.249	0.248	3	
56)	I	Phenanthrene-d10		ISTD								
57)	T	Azobenzene	0.953	0.929	0.899	0.918	0.851	0.765	0.685	0.857	11	
58)	T	4,6-Dinitro-2-Methylphenol		0.065	0.085	0.104	0.100	0.096	0.093	0.091	15	L
59)	C	N-Nitrosodiphenylamine	0.577	0.557	0.544	0.496	0.473	0.433	0.397	0.497	13	
60)	S	2,4,6-Tribromophenol	0.078	0.082	0.087	0.091	0.092	0.091	0.090	0.087	6	
61)	T	4-Bromophenyl-Phenyl Ether	0.224	0.222	0.219	0.213	0.208	0.204	0.197	0.212	5	
62)	T	Hexachlorobenzene	0.093	0.090	0.087	0.081	0.076	0.072	0.067	0.081	12	
63)	C	Pentachlorophenol		0.077	0.094	0.118	0.127	0.130	0.134	0.113	20	
64)	T	Phenanthrene	1.154	1.136	1.110	1.057	1.006	0.959	0.948	1.053	8	
65)	T	Anthracene	1.179	1.166	1.138	1.072	1.021	0.960	0.913	1.064	10	
66)	T	Di-n-Butyl Phthalate	1.412	1.395	1.367	1.266	1.189	1.108	1.055	1.256	11	
67)	C	Fluoranthene	1.290	1.274	1.238	1.166	1.120	1.072	1.035	1.171	9	
68)	T	Benzidine		0.135	0.134	0.146	0.185	0.196	0.205	0.167	19	Q
69)	I	Chrysene-d12		ISTD								
70)	T	Pyrene	1.429	1.398	1.366	1.283	1.235	1.198	1.178	1.298	8	
71)	S	p-Terphenyl-d14	0.998	0.975	0.970	0.938	0.913	0.877	0.874	0.935	5	
72)	T	Butyl Benzyl Phthalate	0.638	0.646	0.641	0.606	0.593	0.560	0.553	0.605	6	
73)	T	3,3'-Dichlorobenzidine		0.186	0.154	0.169	0.204	0.218	0.251	0.197	18	Q
74)	T	Benzo (a) Anthracene	1.149	1.143	1.142	1.116	1.096	1.049	1.046	1.106	4	
75)	T	Bis(2-Ethylhexyl) Phthalate	0.845	0.846	0.844	0.814	0.780	0.716	0.671	0.788	9	
76)	T	Chrysene	1.050	1.055	1.055	1.032	1.022	0.999	0.970	1.026	3	
77)	C	Di-n-Octyl Phthalate	1.268	1.300	1.327	1.316	1.271	1.192	1.201	1.268	4	
78)	T	Benzo (b) Fluoranthene	0.794	0.832	0.837	0.936	1.090	1.126	1.215	0.976	17	Q
79)	T	Benzo (k) Fluoranthene	0.792	0.806	0.857	0.722	0.633	0.554	0.475	0.691	20	Q
80)	C	Benzo (a) Pyrene	0.644	0.670	0.701	0.728	0.728	0.703	0.700	0.696	4	
81)	I	Perylene-d12		ISTD								
82)	T	Indeno (1,2,3-c,d) Pyrene	0.680	0.699	0.741	0.767	0.736	0.675	0.620	0.703	7	
83)	T	Dibenz (a,h) Anthracene	0.564	0.583	0.626	0.657	0.637	0.586	0.543	0.599	7	
84)	T	Benzo (g,h,i) Perylene	0.540	0.562	0.581	0.599	0.563	0.505	0.455	0.544	9	

(#) = Out of Range

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP024.D
Acq On : 11 Sep 2013 9:35 pm
Operator : 449
Sample : ICV S071913W 80PPM BNA
InstName : GCMS SS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 12 11:57:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 10:01:39 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0	89	0.00
2	T	Pyridine	1.110	1.125	-1	87	0.00
3	T	N-Nitrosodimethylamine	1.222	1.199	2	88	0.00
4	S	2-Fluorophenol	1.816	1.834	-1	90	0.00
5	T	Aniline	2.608	2.539	3	91	0.00
6	S	Phenol-d6	2.224	2.198	1	90	0.00
7	C	Phenol	2.390	2.308	3	90	0.00
8	T	Bis(2-Chloroethyl) Ether	1.674	1.706	-2	88	0.00
9	T	2-Chlorophenol	1.695	1.687	0	90	0.00
10	T	1,3-Dichlorobenzene	1.806	1.793	1	90	0.00
11	C	1,4-Dichlorobenzene	1.726	1.717	1	92	0.00
12	T	Benzyl Alcohol	1.531	1.572	-3	90	0.00
13	T	1,2-Dichlorobenzene	1.647	1.633	1	90	0.00
14	T	2-Methylphenol	1.505	1.518	-1	90	0.00
15	T	Bis(2-Chloroisopropyl) Ethe	2.033	1.936	5	88	0.00
16	T	3/4-Methylphenol	1.687	1.693	0	89	0.00
17	P	N-Nitroso-di-n-propylamine	1.250	1.131	10	90	0.00
18	T	Hexachloroethane	0.639	0.613	4	92	0.00
19	I	Naphthalene-d8	1.000	1.000	0	89	0.00
20	S	Nitrobenzene-d5	0.457	0.444	3	88	0.00
21	T	Nitrobenzene	0.435	0.420	3	90	0.00
22	T	Isophorone	0.829	0.832	0	88	0.00
23	C	2-Nitrophenol	0.203	0.204	0	92	0.00
24	T	2,4-Dimethylphenol	0.400	0.391	2	88	0.00
25	T	Benzoic Acid	0.237	0.278	-17	90	0.00
26	T	Bis(2-Chloroethoxy) Methane	0.479	0.461	4	89	0.00
27	C	2,4-Dichlorophenol	0.301	0.298	1	90	0.00
28	T	1,2,4-Trichlorobenzene	0.338	0.335	1	90	0.00
29	T	Naphthalene	1.051	1.030	2	90	0.00
30	T	2,6-Dichlorophenol	0.281	0.274	2	90	0.00
31	T	4-Chloroaniline	0.366	0.377	-3	90	0.00
32	C	Hexachloro-1,3-Butadiene	0.180	0.177	2	90	0.00
33	C	4-Chloro-3-Methylphenol	0.344	0.347	-1	89	0.00
34	T	2-Methylnaphthalene	0.690	0.668	3	90	0.00
35	T	1-Methylnaphthalene	0.648	0.624	4	89	0.00
36	I	Acenaphthene-d10	1.000	1.000	0	91	0.00
37	P	Hexachlorocyclopentadiene	0.192	0.203	-6	82	0.00
38	C	2,4,6-Trichlorophenol	0.373	0.379	-2	90	0.00
39	T	2,4,5-Trichlorophenol	0.367	0.388	-6	90	0.00
40	T	2-Chloronaphthalene	1.169	1.148	2	90	0.00
41	S	2-Fluorobiphenyl	1.349	1.310	3	90	0.00
42	T	2-Nitroaniline	0.393	0.393	0	89	0.00
43	T	Dimethyl Phthalate	1.400	1.383	1	91	0.00
44	T	Acenaphthylene	1.790	1.712	4	90	0.00
45	T	3-Nitroaniline	0.254	0.265	-4	89	0.00
46	C	Acenaphthene	1.168	1.139	2	90	0.00
47	P	2,4-Dinitrophenol	0.101	0.132	-31#	103	0.00
48	P	4-Nitrophenol	0.189	0.219	-16	89	0.00
49	T	Dibenzofuran	1.559	1.527	2	91	0.00
50	T	2,4-Dinitrotoluene	0.420	0.435	-4	90	0.00
51	T	2,6-Dinitrotoluene	0.296	0.290	2	90	0.00

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP024.D
Acq On : 11 Sep 2013 9:35 pm
Operator : 449
Sample : ICV S071913W 80PPM BNA
InstName : GCMS SS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 12 11:57:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 10:01:39 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

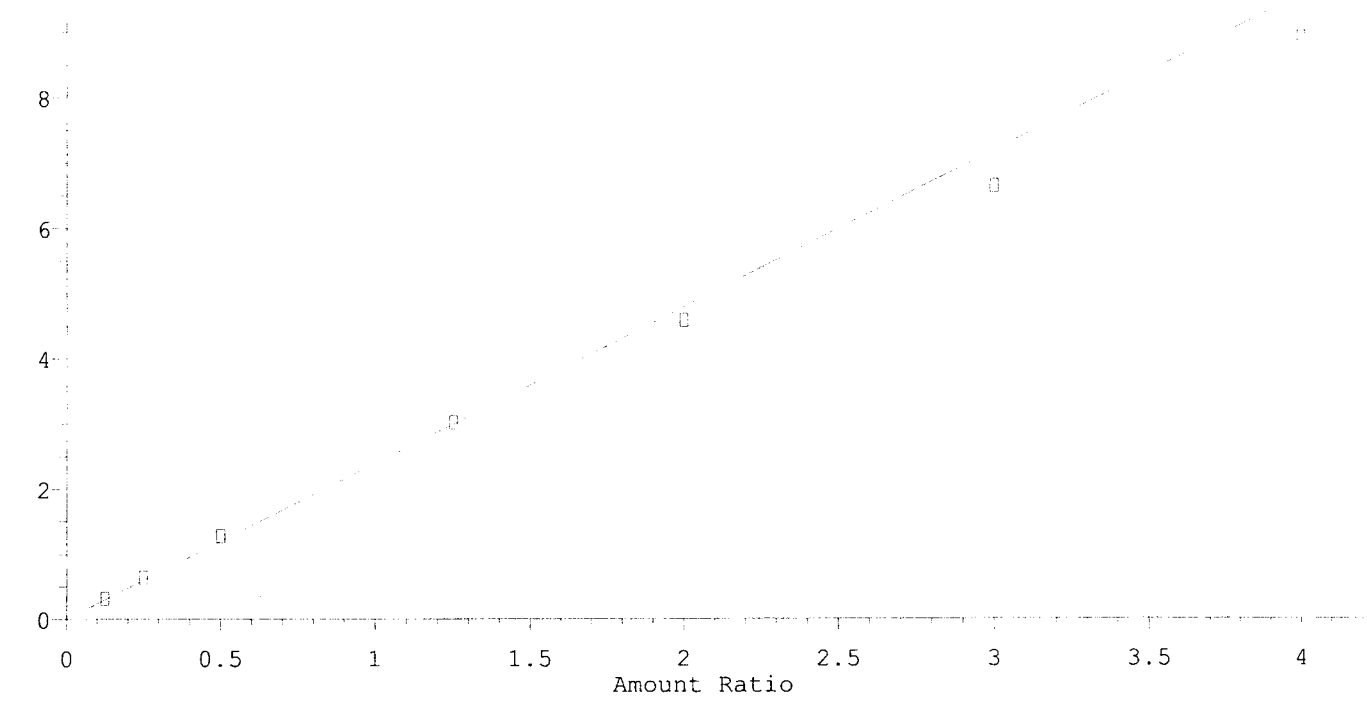
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	T	Diethyl Phthalate	1.317	1.302	1	90	0.00
53	T	4-Chlorophenyl-Phenyl Ether	0.610	0.585	4	92	0.00
54	T	Fluorene	1.219	1.161	5	91	0.00
55	T	4-Nitroaniline	0.248	0.242	2	85	0.00
56	I	Phenanthrene-d10	1.000	1.000	0	89	0.00
57	T	Azobenzene	0.857	0.865	-1	91	0.00
58	T	4,6-Dinitro-2-Methylphenol	0.091	0.116	-27#	104	0.00
59	C	N-Nitrosodiphenylamine	0.497	0.478	4	90	0.00
60	S	2,4,6-Tribromophenol	0.087	0.091	-5	88	0.00
61	T	4-Bromophenyl-Phenyl Ether	0.212	0.210	1	90	0.00
62	T	Hexachlorobenzene	0.081	0.077	5	90	0.00
63	C	Pentachlorophenol	0.113	0.125	-11	88	0.00
64	T	Phenanthrene	1.053	1.013	4	90	0.00
65	T	Anthracene	1.064	1.025	4	89	0.00
66	T	Di-n-Butyl Phthalate	1.256	1.219	3	91	0.00
67	C	Fluoranthene	1.171	1.129	4	90	0.00
68	T	Benzidine	0.167	0.192	-15	92	0.00
69	I	Chrysene-d12	1.000	1.000	0	89	0.00
70	T	Pyrene	1.298	1.252	4	90	0.00
71	S	p-Terphenyl-d14	0.935	0.927	1	90	0.00
72	T	Butyl Benzyl Phthalate	0.605	0.598	1	90	0.00
73	T	3,3'-Dichlorobenzidine	0.197	0.203	-3	89	0.00
74	T	Benzo (a) Anthracene	1.106	1.091	1	88	0.00
75	T	Bis(2-Ethylhexyl) Phthalate	0.788	0.789	0	90	0.00
76	T	Chrysene	1.026	1.028	0	89	0.00
77	C	Di-n-Octyl Phthalate	1.268	1.294	-2	90	0.00
78	T	Benzo (b) Fluoranthene	0.976	1.041	-7	85	0.00
79	T	Benzo (k) Fluoranthene	0.691	0.574	17	81	0.00
80	C	Benzo (a) Pyrene	0.696	0.713	-2	87	0.00
81	I	Perylene-d12	1.000	1.000	0	86	0.00
82	T	Indeno (1,2,3-c,d) Pyrene	0.703	0.735	-5	86	0.00
83	T	Dibenz (a,h) Anthracene	0.599	0.638	-7	86	0.00
84	T	Benzo (g,h,i) Perylene	0.544	0.558	-3	85	0.00

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

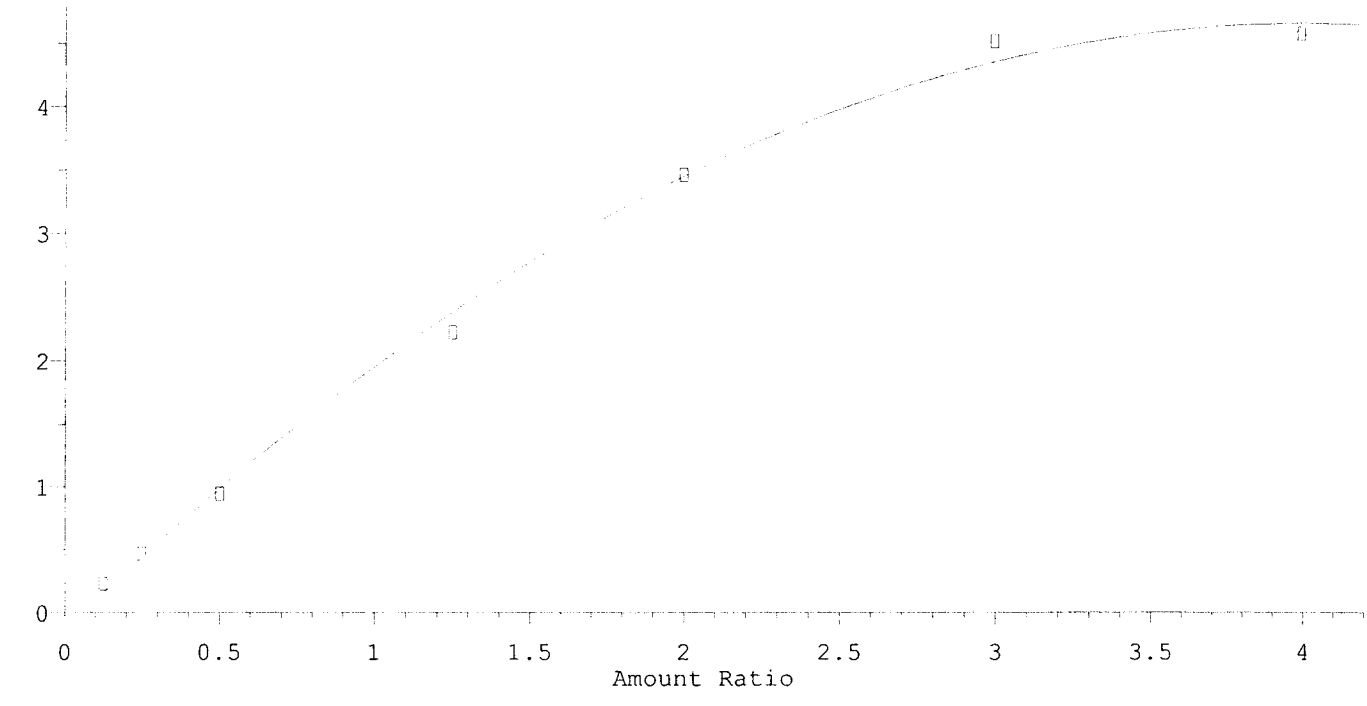
Return to Contents

Phenol



Resp Ratio = 2.39e+000 * Amt
RF Rel Std Dev = 6.2% Curve Fit: Avg RF

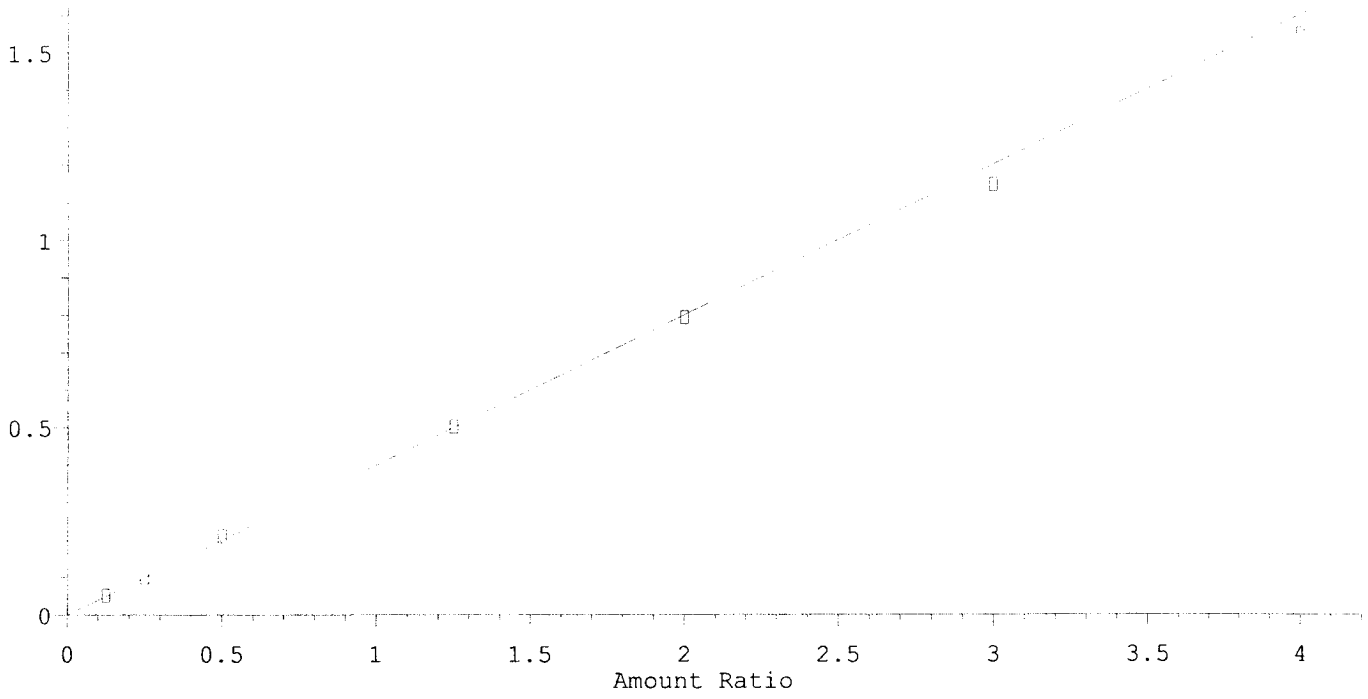
Bis(2-Chloroethyl) Ether



R = -2.98e-001 A*A + 2.38e+000 A - 1.37e-001
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic

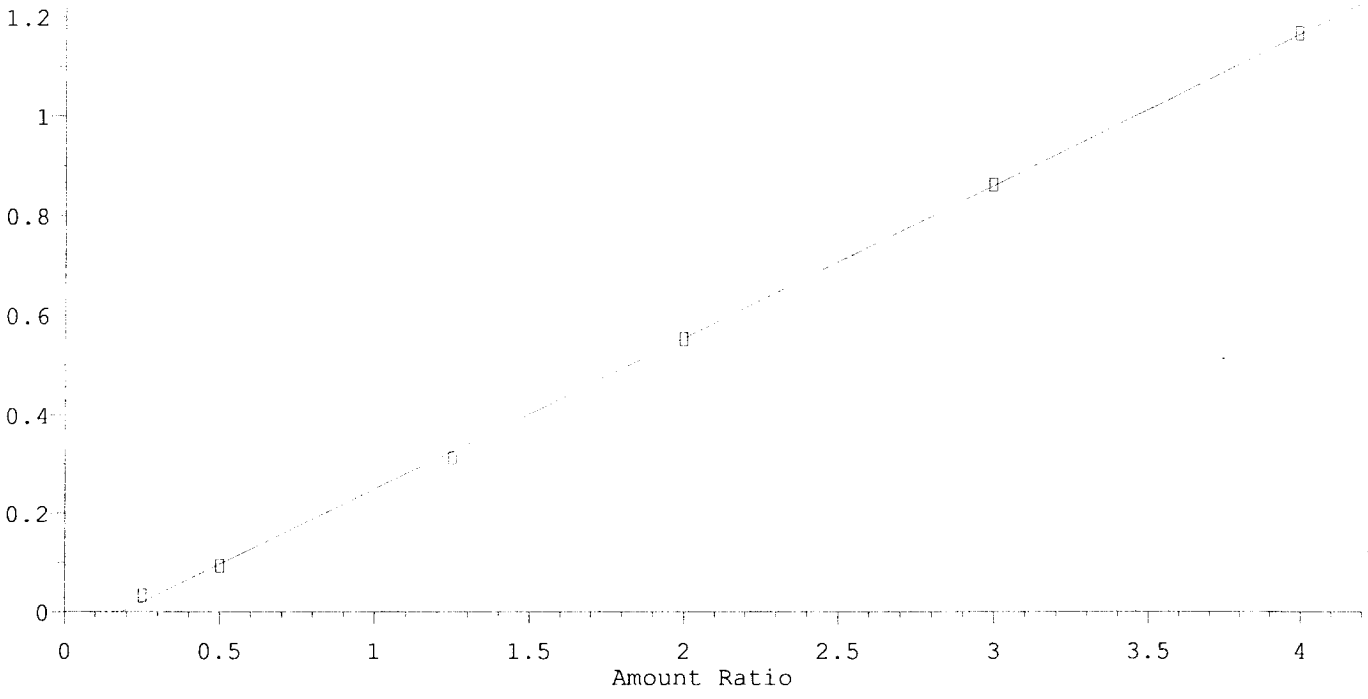
Return to Contents

2,4-Dimethylphenol



Resp Ratio = 4.00e-001 * Amt
RF Rel Std Dev = 3.4% Curve Fit: Avg RF

Benzoic Acid

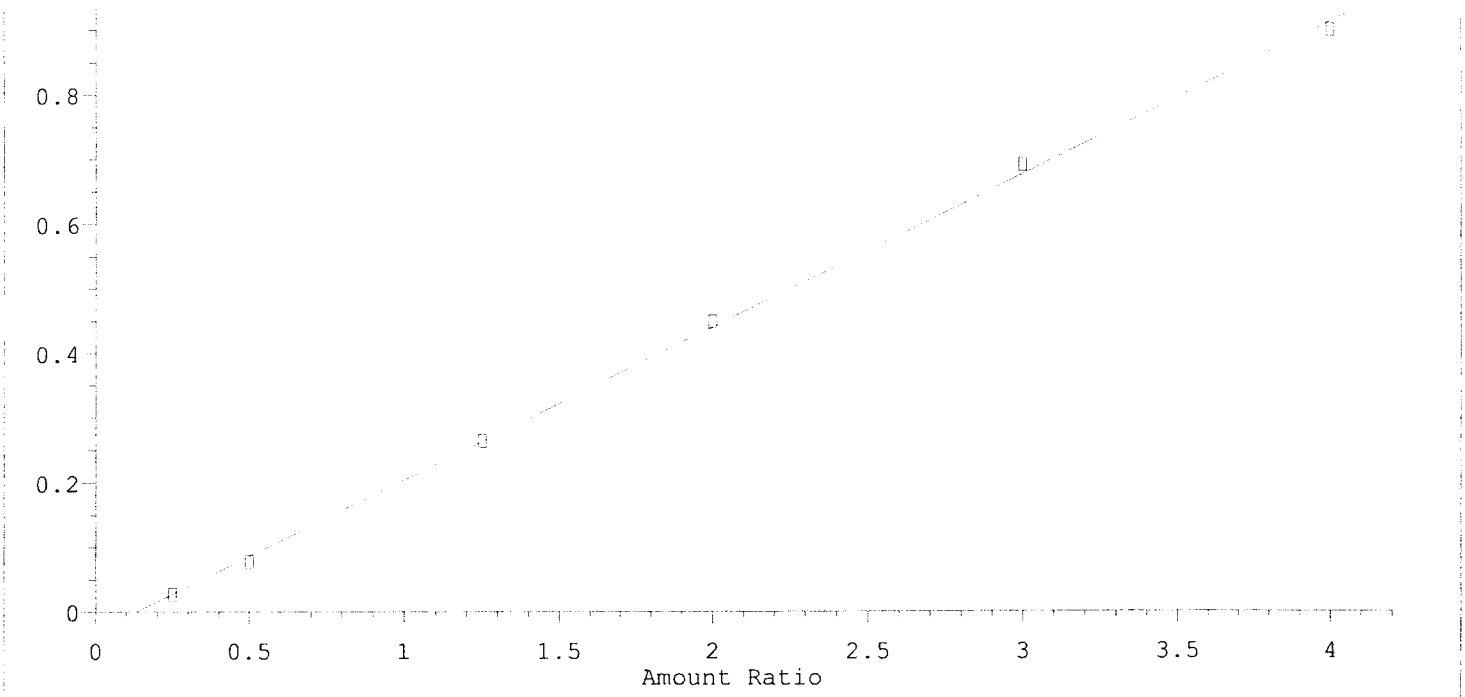


Resp Ratio = 3.04e-001 * Amt - 5.60e-002
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Return to Contents

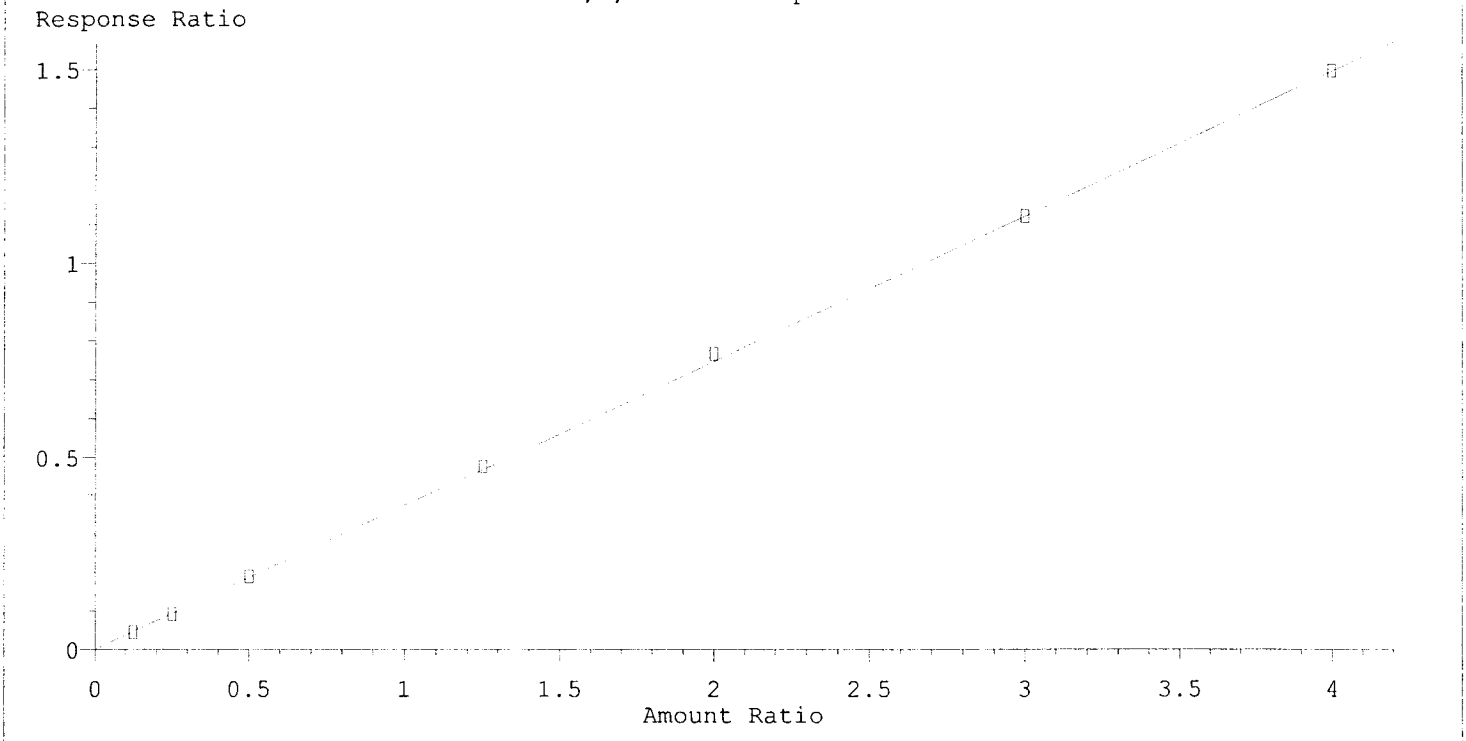
Calibration Plot Report

Hexachlorocyclopentadiene



Resp Ratio = 2.36e-001 * Amt - 3.14e-002
Coef of Det (r^2) = 0.999 Curve Fit: Linear

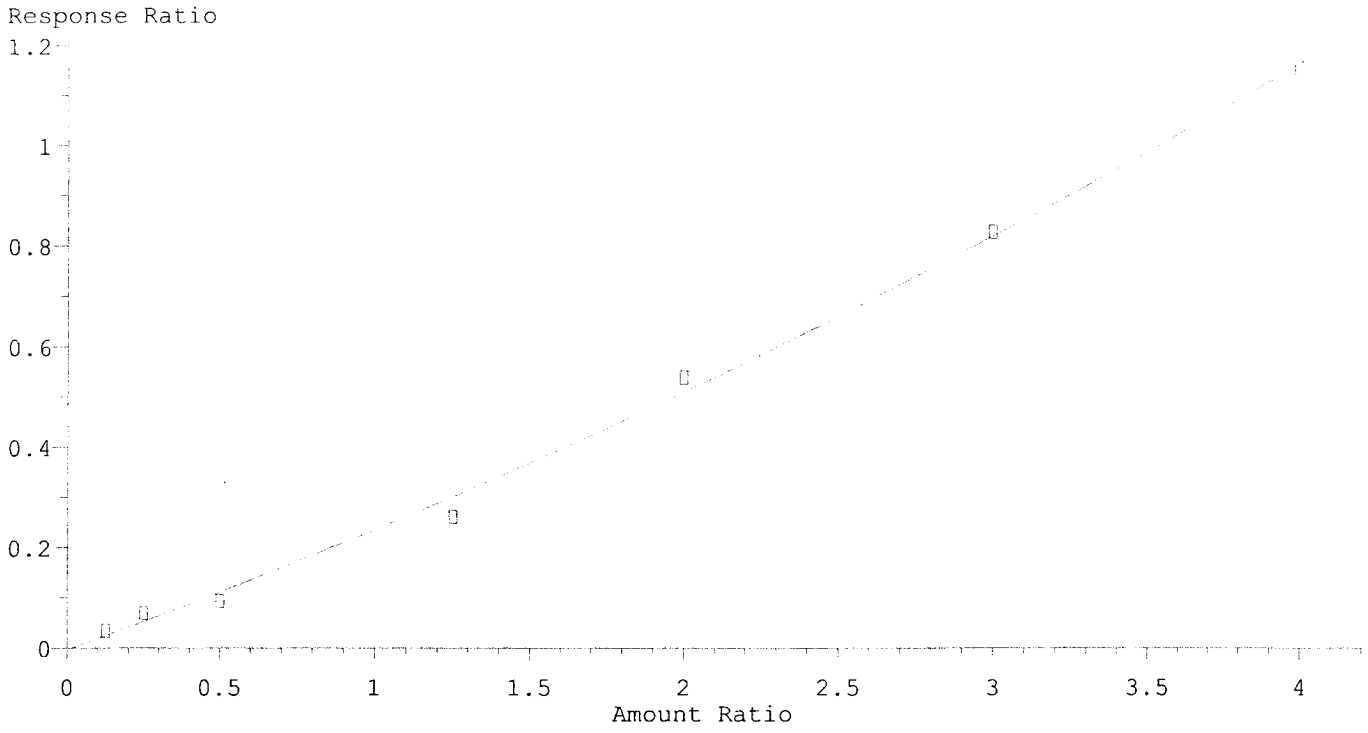
2,4,6-Trichlorophenol



Resp Ratio = 3.73e-001 * Amt
RF Rel Std Dev = 2.6% Curve Fit: Avg RF

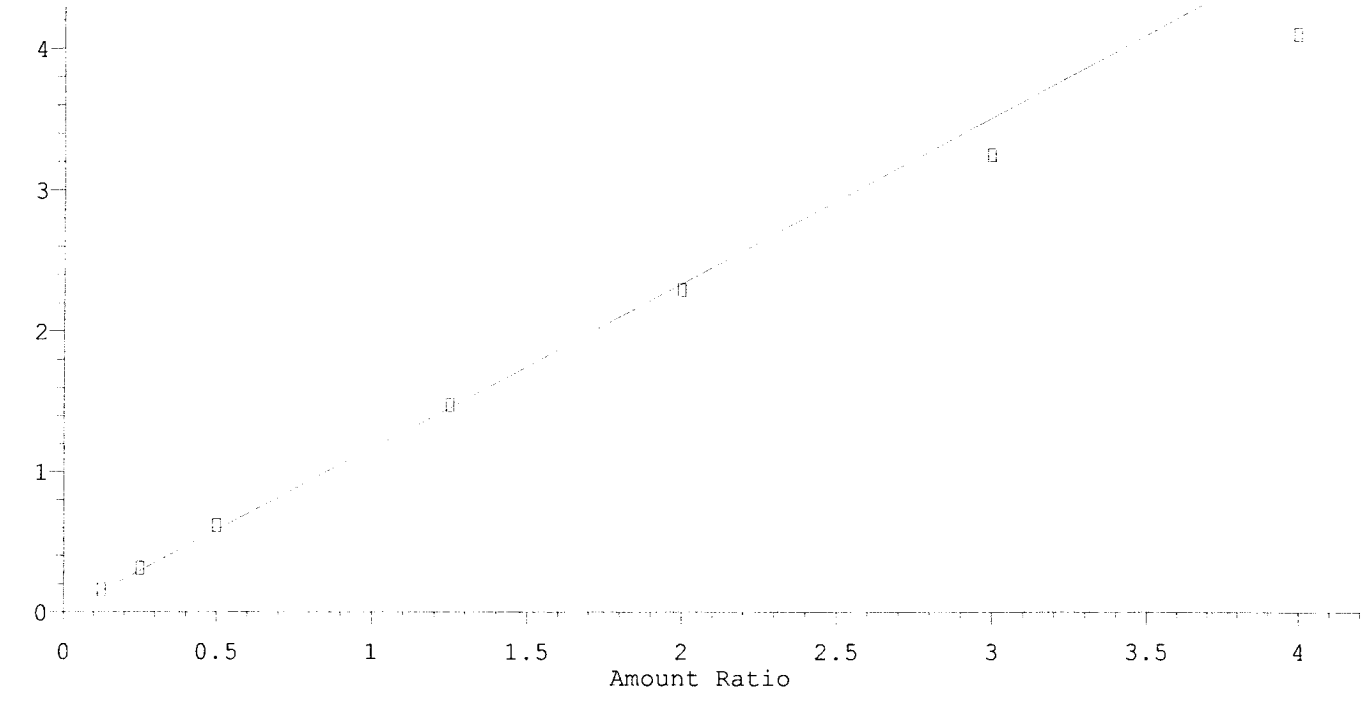
Return to Contents

3-Nitroaniline



R = 1.75e-002 A*A + 2.21e-001 A - 3.83e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic

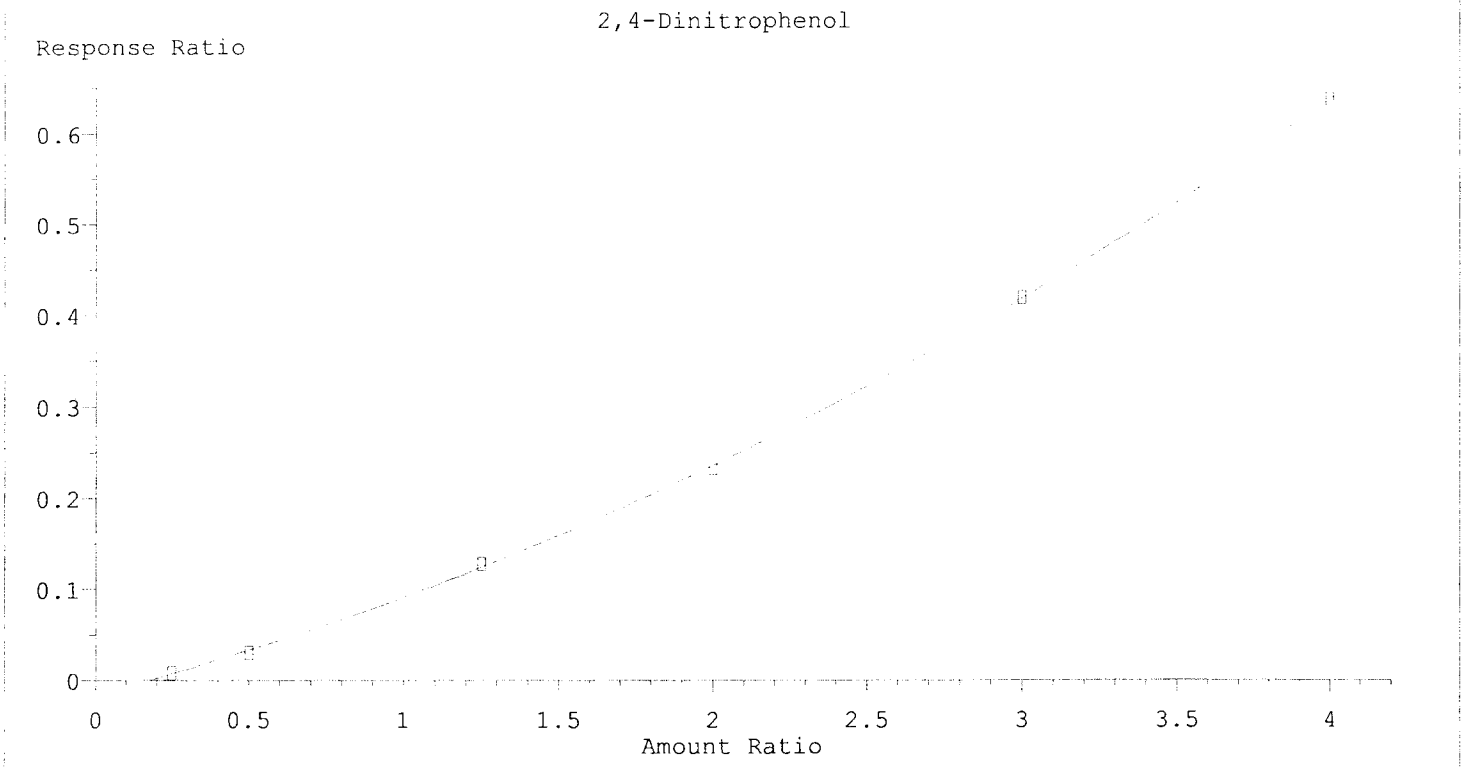
Acenaphthene



Resp Ratio = 1.17e+000 * Amt
RF Rel Std Dev = 7.7% Curve Fit: Avg RF

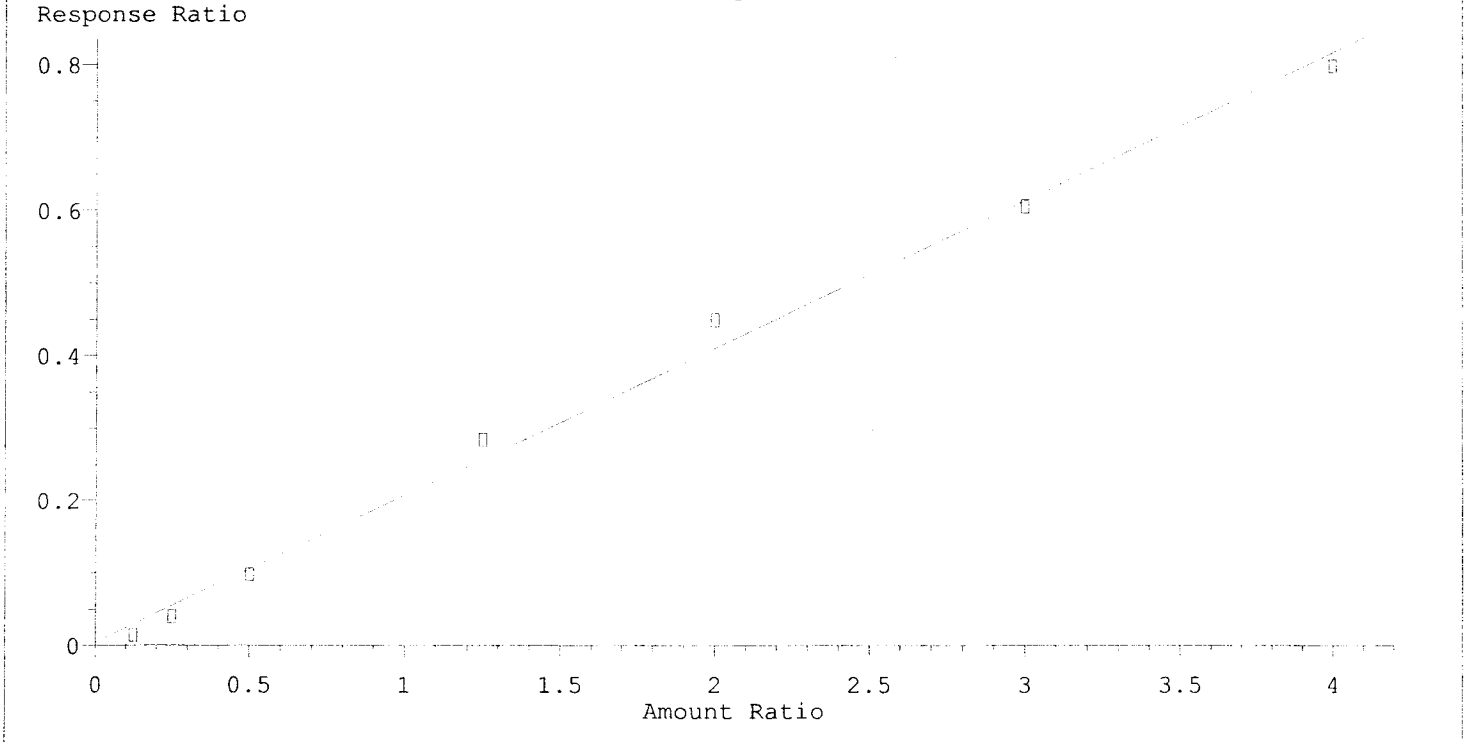
Return to Contents

2,4-Dinitrophenol



R = 1.88e-002 A*A + 8.82e-002 A - 1.62e-002
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic

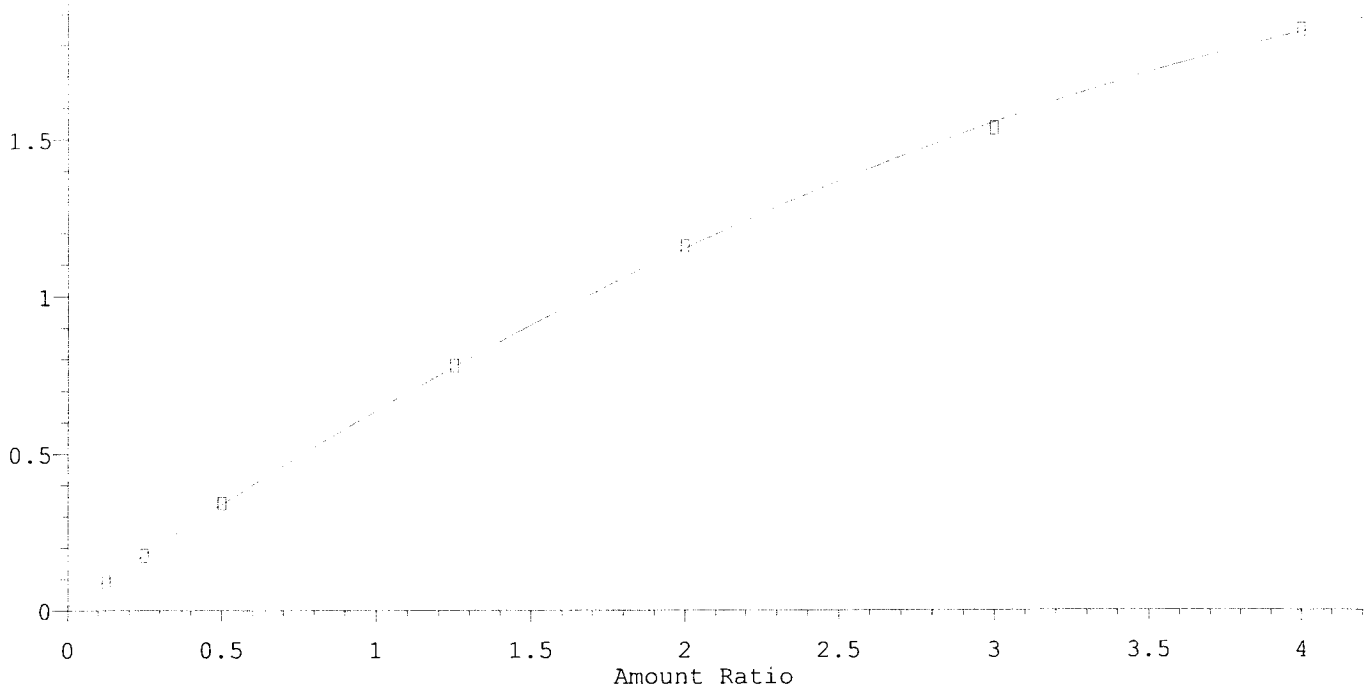
4-Nitrophenol



Resp Ratio = 2.03e-001 * Amt + 4.25e-003
Coef of Det (r^2) = 0.994 Curve Fit: Linear

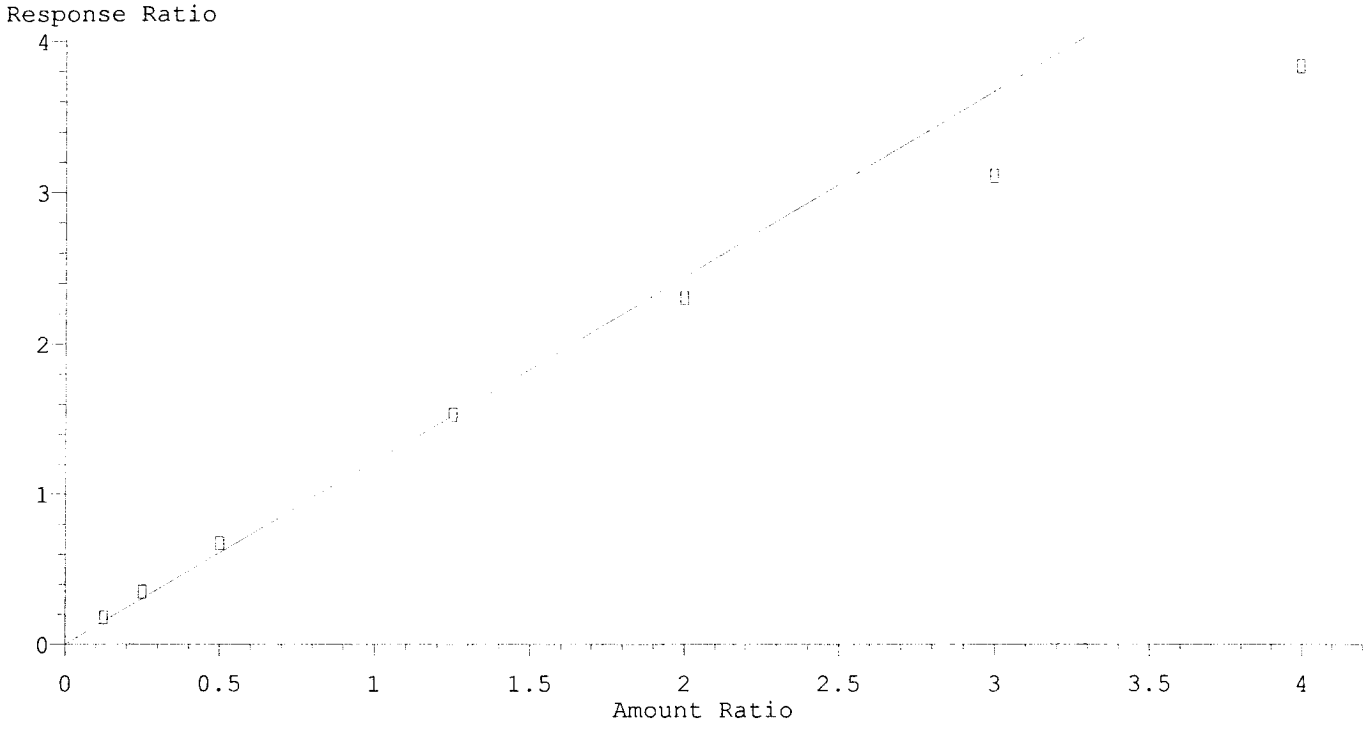
Return to Contents

4-Chlorophenyl-Phenyl Ether



R = -5.67e-002 A*A + 6.83e-001 A + 9.59e-003
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic

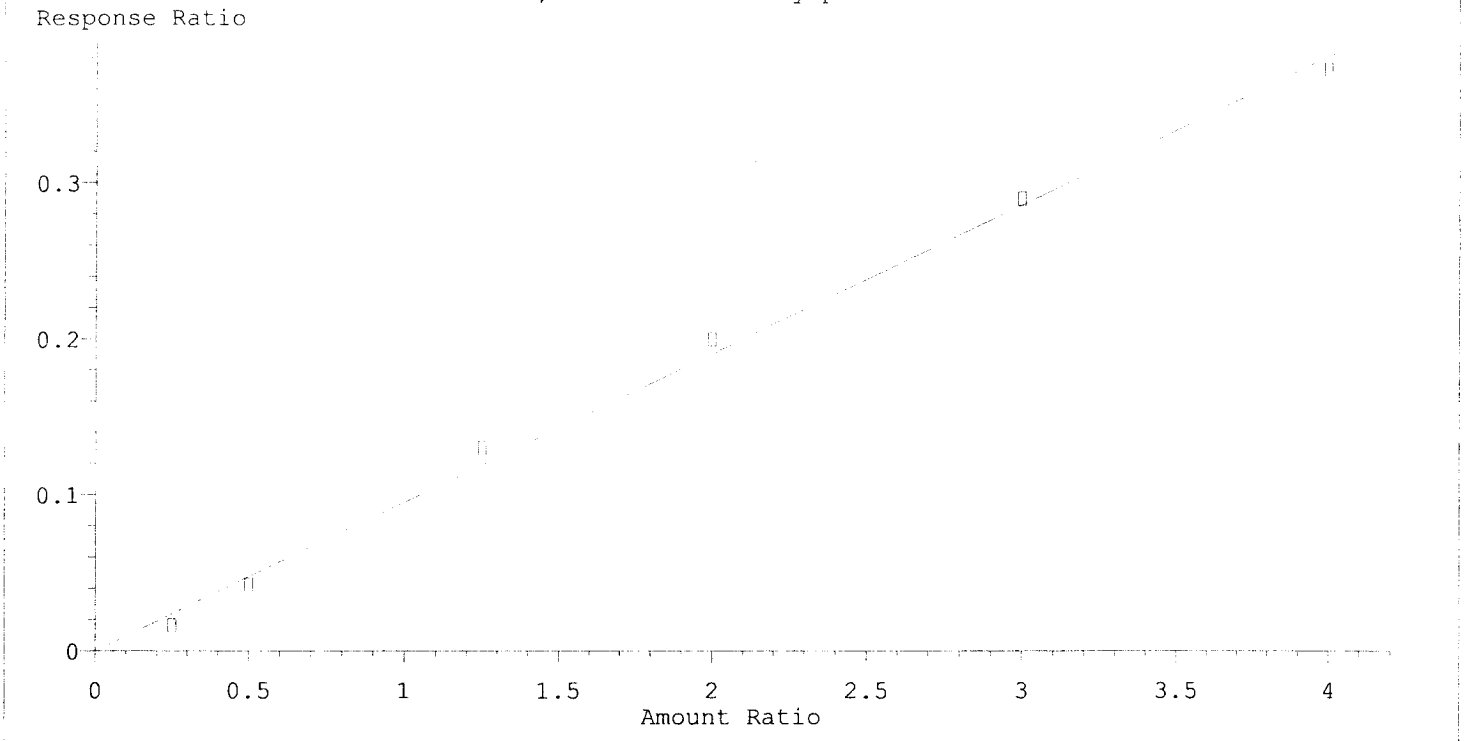
Fluorene



Resp Ratio = 1.22e+000 * Amt
RF Rel Std Dev = 15.0% Curve Fit: Avg RF

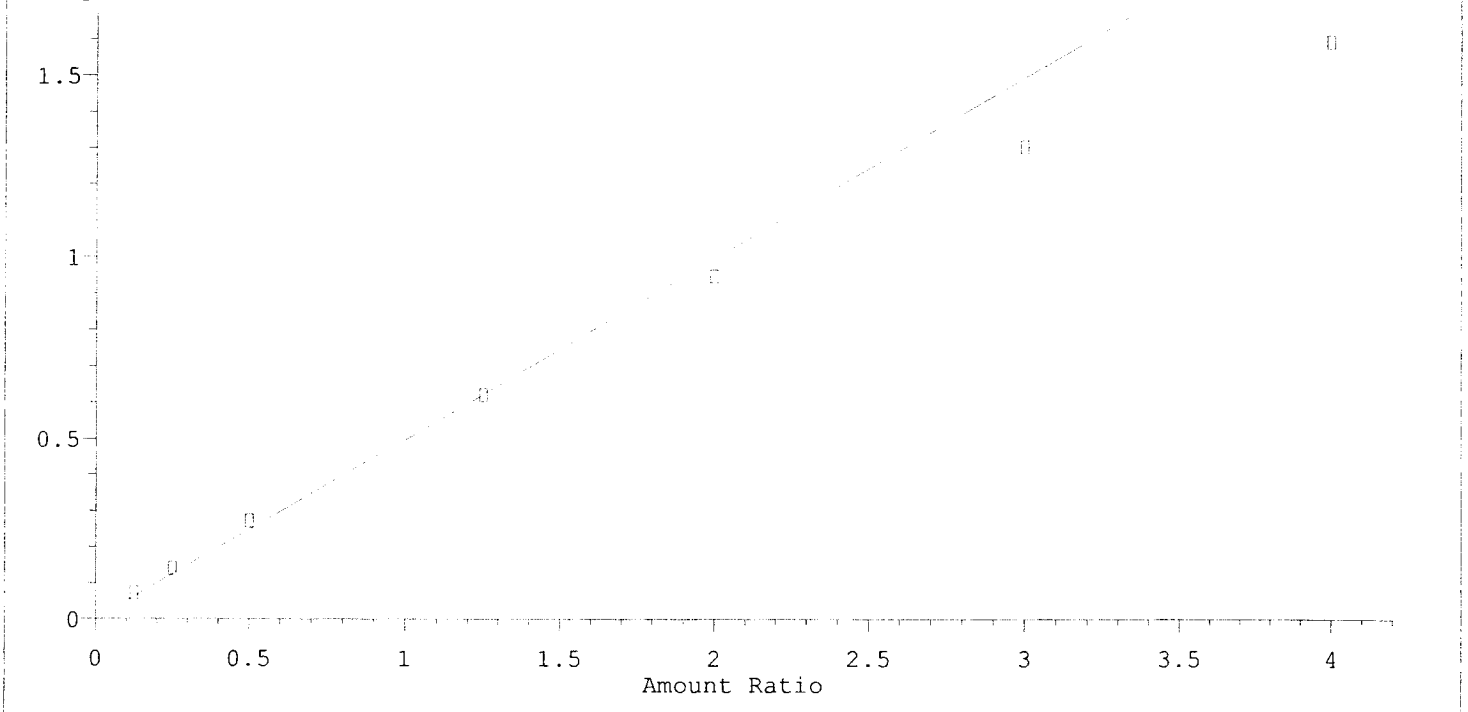
Return to Contents

4,6-Dinitro-2-Methylphenol



Resp Ratio = 9.52e-002 * Amt + 4.67e-004
Coef of Det (r^2) = 0.996 Curve Fit: Linear

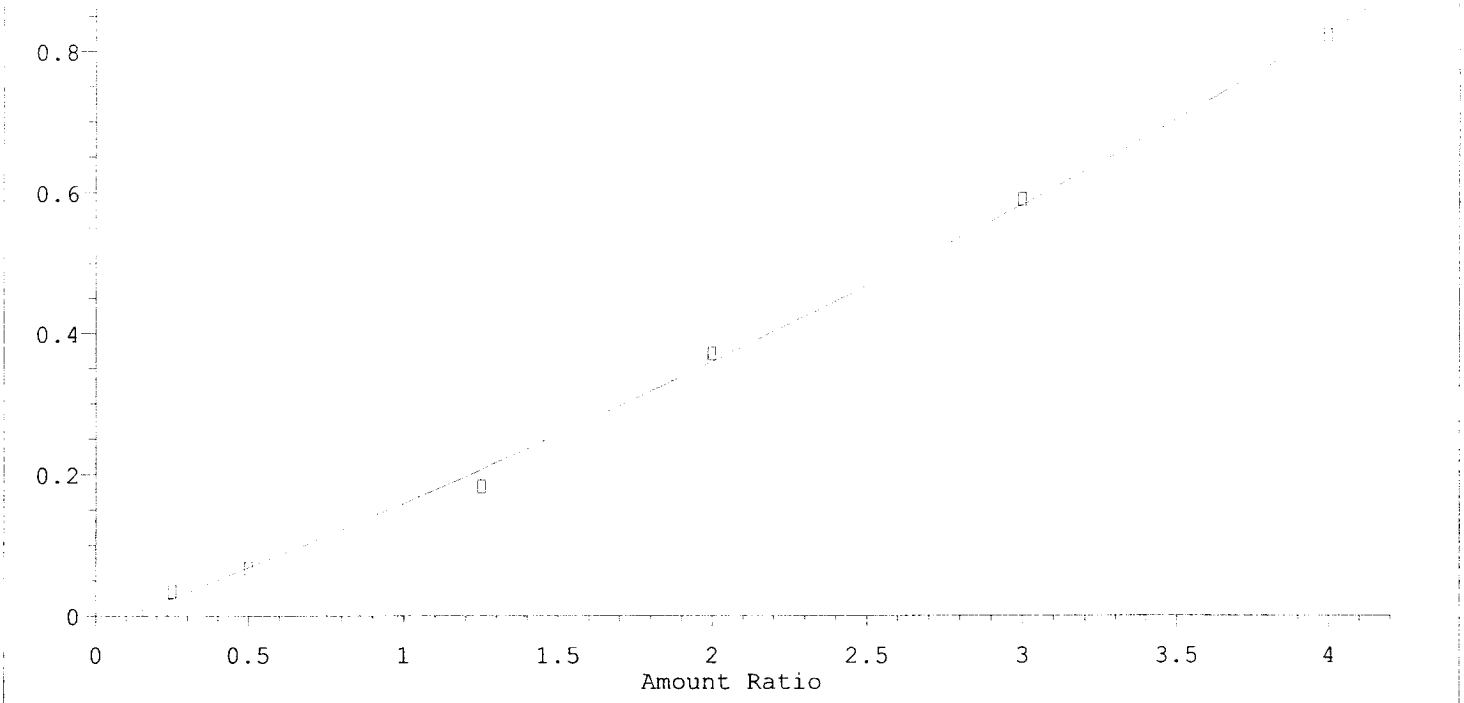
N-Nitrosodiphenylamine



Resp Ratio = 4.97e-001 * Amt
RF Rel Std Dev = 13.4% Curve Fit: Avg RF

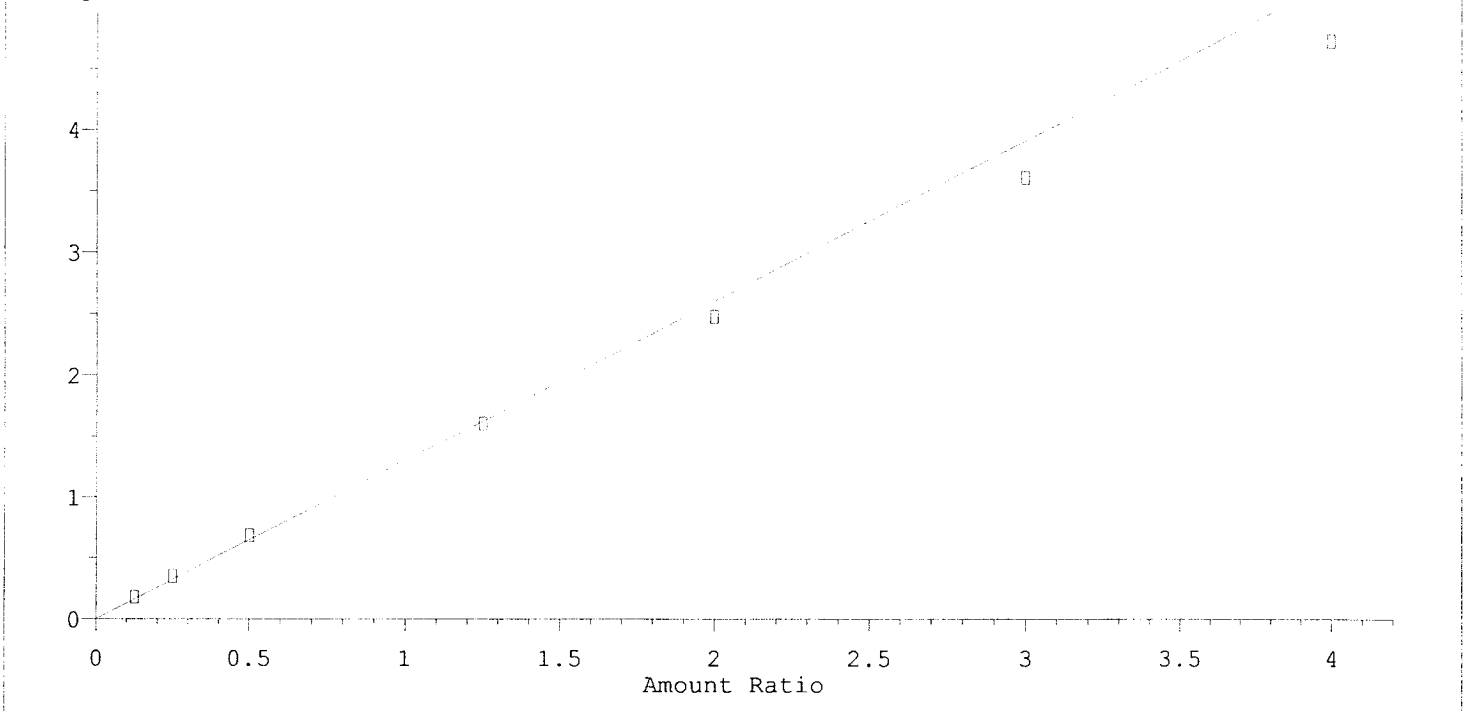
Return to Contents

Benzidine



R = 1.15e-002 A*A + 1.65e-001 A - 1.78e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic

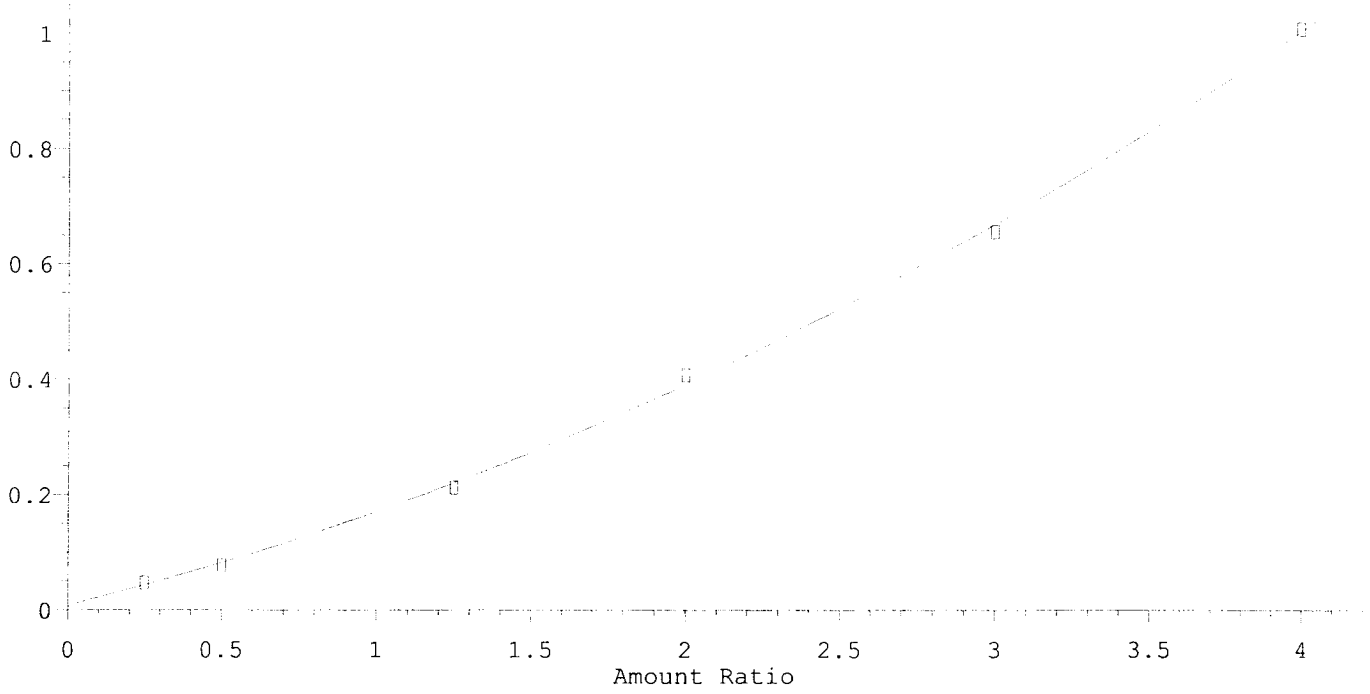
Pyrene



Resp Ratio = 1.30e+000 * Amt
RF Rel Std Dev = 7.7% Curve Fit: Avg RF

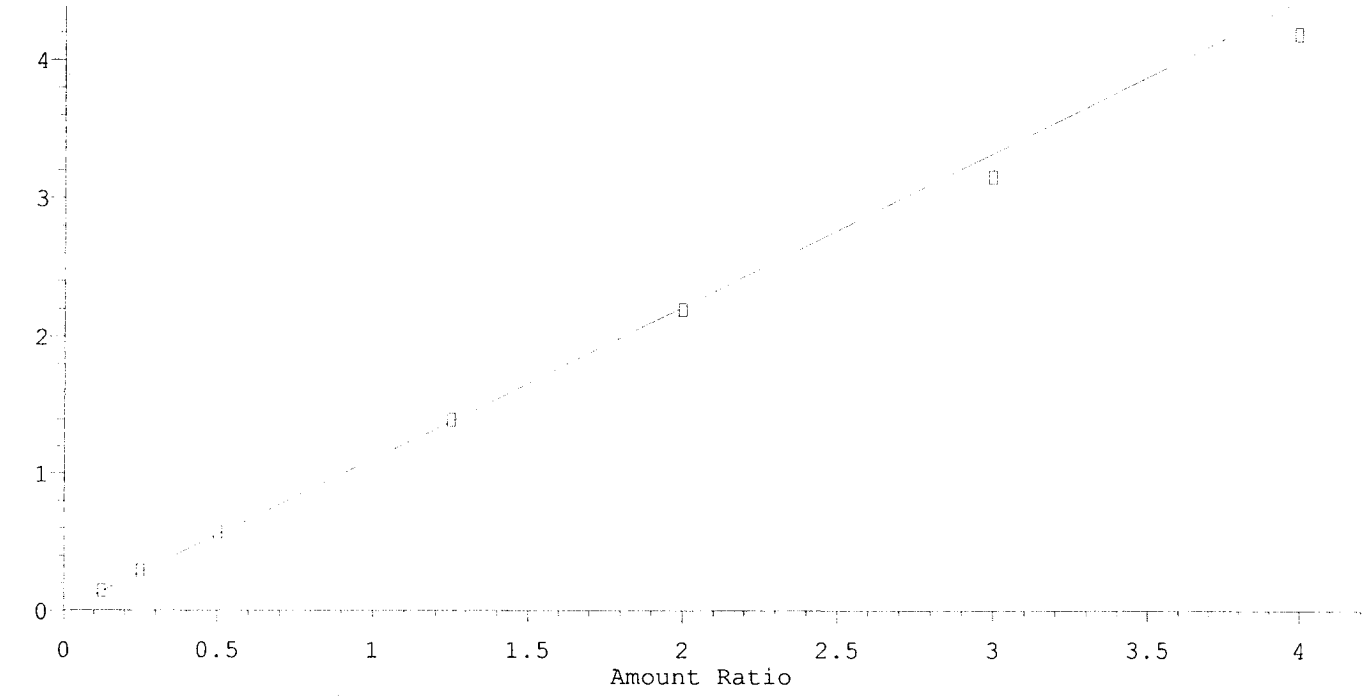
Return to Contents

3,3'-Dichlorobenzidine



R = 2.87e-002 A*A + 1.34e-001 A + 7.19e-003
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic

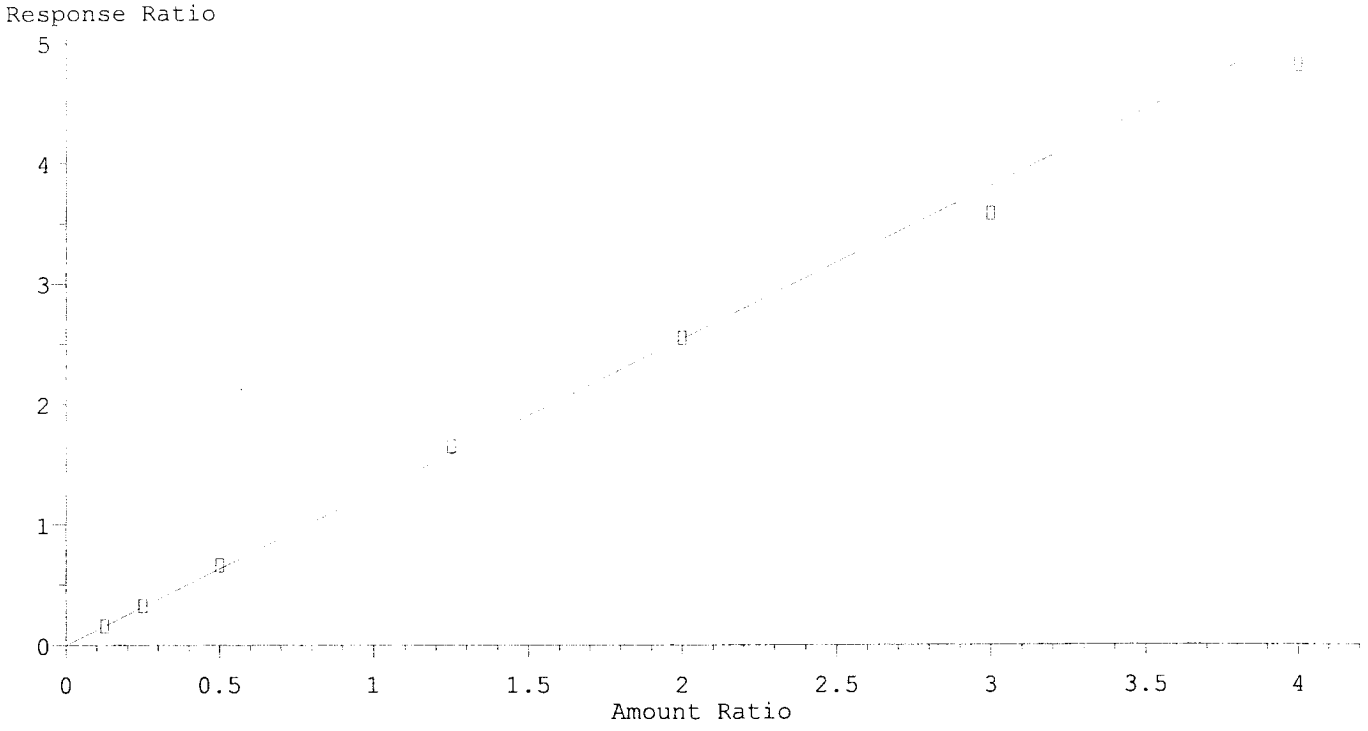
Benzo (a) Anthracene



Resp Ratio = 1.11e+000 * Amt
RF Rel Std Dev = 4.0% Curve Fit: Avg RF

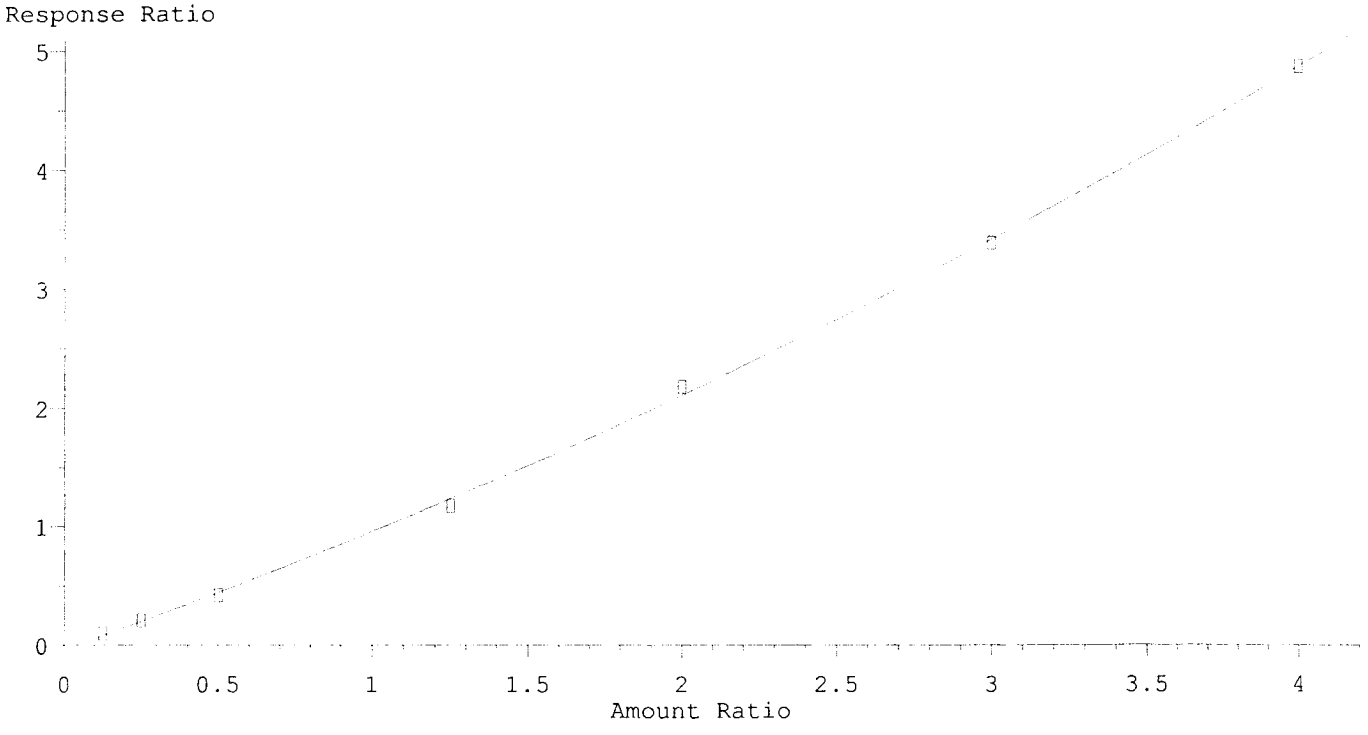
Return to Contents

Di-n-Octyl Phthalate



Resp Ratio = 1.27e+000 * Amt
RF Rel Std Dev = 4.2% Curve Fit: Avg RF

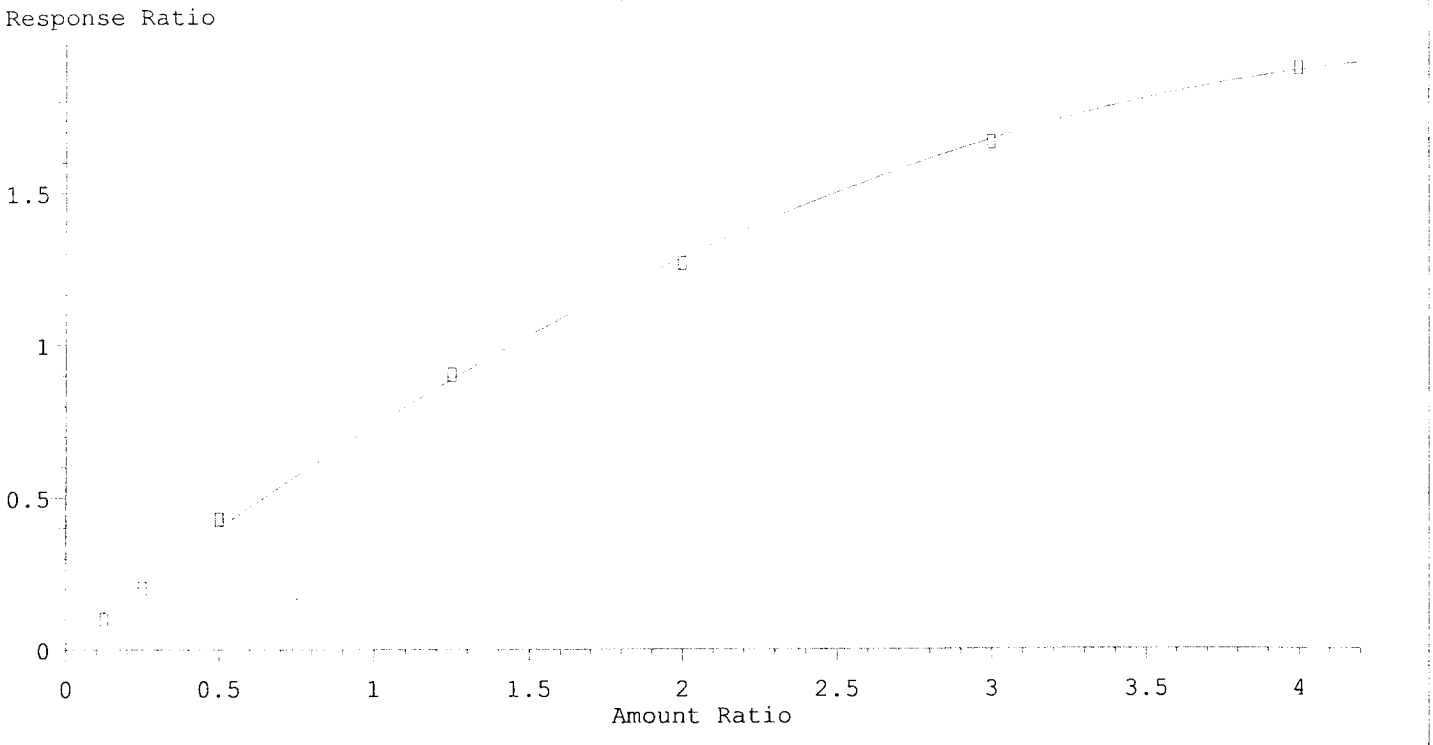
Benzo (b) Fluoranthene



R = 7.67e-002 A*A + 9.17e-001 A - 3.68e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic

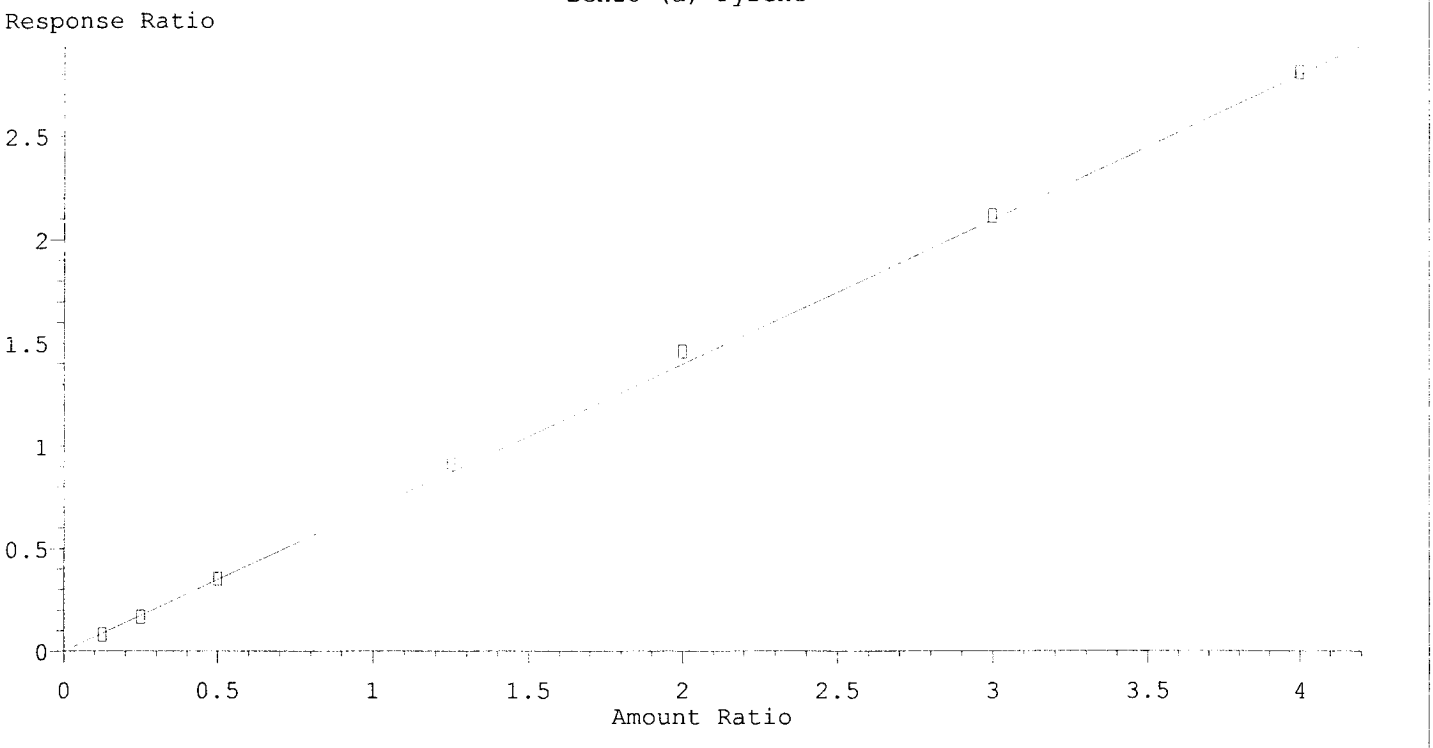
Return to Contents

Benzo (k) Fluoranthene



R = -8.16e-002 A*A + 7.95e-001 A + 1.93e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic

Benzo (a) Pyrene



Resp Ratio = 6.96e-001 * Amt
RF Rel Std Dev = 4.4% Curve Fit: Avg RF

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP016.D
Acq On : 11 Sep 2013 6:06 pm
Operator : 449
Sample : ICAL2 S071913U 2.5PPM BNA
InstName : GCMS SS
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 12 09:38:41 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:37:45 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	5.676	152	387295	40.00	mg/l	#	-0.01
19) Naphthalene-d8	7.024	136	1582474	40.00	mg/l		-0.02
36) Acenaphthene-d10	8.970	164	888358	40.00	mg/l		0.00
56) Phenanthrene-d10	10.602	188	1528440	40.00	mg/l		-0.01
69) Chrysene-d12	13.709	240	1382847	40.00	mg/l		-0.03
81) Perylene-d12	16.143	264	897269	40.00	mg/l		-0.03
System Monitoring Compounds							
4) 2-Fluorophenol	4.483	112	43135	2.45	mg/l		0.00
Spiked Amount 100.000			Recovery = 2.45%				
6) Phenol-d6	5.360	99	53817	2.50	mg/l		-0.03
Spiked Amount 100.000			Recovery = 2.50%				
20) Nitrobenzene-d5	6.280	82	46620	2.58	mg/l		-0.03
Spiked Amount 100.000			Recovery = 2.58%				
41) 2-Fluorobiphenyl	8.216	172	84694	2.83	mg/l		-0.02
Spiked Amount 100.000			Recovery = 2.83%				
60) 2,4,6-Tribromophenol	9.848	330	6877	2.06	mg/l		-0.03
Spiked Amount 100.000			Recovery = 2.06%				
71) p-Terphenyl-d14	12.383	244	85658	2.65	mg/l		-0.02
Spiked Amount 100.000			Recovery = 2.65%				
Target Compounds							Qvalue
2) Pyridine	3.328	52	21744	2.02	mg/l		98
3) N-Nitrosodimethylamine	3.322	74	29001	2.45	mg/l		85
5) Aniline	5.392	93	65360	2.72	mg/l		83
7) Phenol	5.371	94	59789	2.58	mg/l	#	28
8) Bis(2-Chloroethyl) Ether	5.451	93	43571	2.69	mg/l		92
9) 2-Chlorophenol	5.505	128	40826	2.49	mg/l		98
10) 1,3-Dichlorobenzene	5.644	146	45823	2.62	mg/l		97
11) 1,4-Dichlorobenzene	5.692	146	44999	2.69	mg/l		92
12) Benzyl Alcohol	5.842	79	36684	2.47	mg/l		98
13) 1,2-Dichlorobenzene	5.890	146	43417	2.72	mg/l		99
14) 2-Methylphenol	5.970	108	37968	2.60	mg/l		97
15) Bis(2-Chloroisopropyl)...	5.997	45	53764	2.73	mg/l		94
16) 3/4-Methylphenol	6.120	107	82899	5.07	mg/l		98
17) N-Nitroso-di-n-propyla...	6.141	70	32656	2.70	mg/l		96
18) Hexachloroethane	6.200	117	16516	2.67	mg/l		96
21) Nitrobenzene	6.302	77	46362	2.69	mg/l		97
22) Isophorone	6.542	82	85439	2.63	mg/l		100
23) 2-Nitrophenol	6.638	139	18234	2.26	mg/l		97
24) 2,4-Dimethylphenol	6.676	107	40971	2.59	mg/l		99
25) Benzoic Acid	6.938	105	132	N.D.			
26) Bis(2-Chloroethoxy) Me...	6.783	93	51699	2.73	mg/l		98
27) 2,4-Dichlorophenol	6.890	162	30193	2.53	mg/l		97
28) 1,2,4-Trichlorobenzene	6.981	180	36500	2.73	mg/l		99
29) Naphthalene	7.045	128	114321	2.75	mg/l		99
30) 2,6-Dichlorophenol	7.136	162	29336	2.63	mg/l		99
31) 4-Chloroaniline	7.125	127	41661	2.86	mg/l		94
32) Hexachloro-1,3-Butadiene	7.238	225	18711	2.63	mg/l		97
33) 4-Chloro-3-Methylphenol	7.655	107	32069	2.35	mg/l		98
34) 2-Methylnaphthalene	7.794	142	75018	2.75	mg/l		98
35) 1-Methylnaphthalene	7.911	142	68905	2.69	mg/l		98
37) Hexachlorocyclopentadiene	8.045	237	1564	N.D.			
38) 2,4,6-Trichlorophenol	8.136	196	18727	2.26	mg/l		98
39) 2,4,5-Trichlorophenol	8.190	196	17247	2.12	mg/l		93
40) 2-Chloronaphthalene	8.329	162	70458	2.71	mg/l		100

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP016.D
Acq On : 11 Sep 2013 6:06 pm
Operator : 449
Sample : ICAL2 S071913U 2.5PPM BNA
InstName : GCMS SS
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 12 09:38:41 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:37:45 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

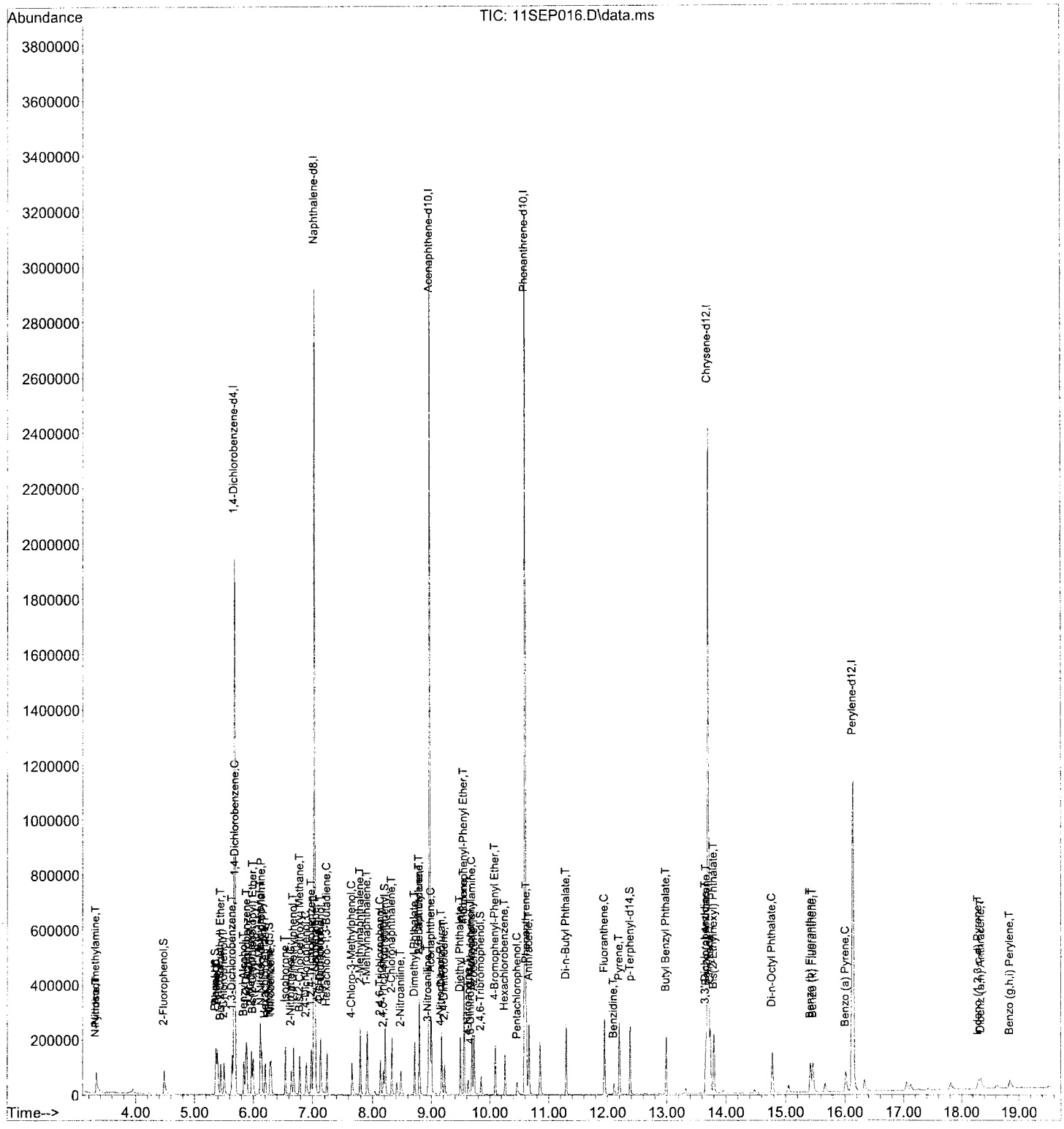
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.478	65	19787	2.27	mg/l		95
43) Dimethyl Phthalate	8.714	163	82841	2.66	mg/l		99
44) Acenaphthylene	8.794	152	111300	2.81	mg/l		99
45) 3-Nitroaniline	8.944	138	13731	2.48	mg/l	#	42
46) Acenaphthene	8.997	153	71433	2.76	mg/l		98
47) 2,4-Dinitrophenol	9.104	184	40	N.D.			
48) 4-Nitrophenol	9.163	65	4180	0.98	mg/l	#	1
49) Dibenzofuran	9.174	168	96846	2.80	mg/l		97
50) 2,4-Dinitrotoluene	9.222	165	19985	2.14	mg/l		98
51) 2,6-Dinitrotoluene	8.794	165	16261	2.47	mg/l		99
52) Diethyl Phthalate	9.489	149	79677	2.72	mg/l		97
53) 4-Chlorophenyl-Phenyl ...	9.553	204	40949	3.02	mg/l		96
54) Fluorene	9.553	166	80301	2.97	mg/l		100
55) 4-Nitroaniline	9.628	138	12236	2.23	mg/l		83
57) Azobenzene	9.730	77	90949	2.78	mg/l		97
58) 4,6-Dinitro-2-Methylph...	9.677	198	2586	0.75	mg/l	#	1
59) N-Nitrosodiphenylamine	9.693	169	54386	2.86	mg/l		97
61) 4-Bromophenyl-Phenyl E...	10.094	248	22083	2.72	mg/l		98
62) Hexachlorobenzene	10.254	142	9050	2.93	mg/l		94
63) Pentachlorophenol	10.468	266	3031	0.70	mg/l		95
64) Phenanthrene	10.623	178	112642	2.80	mg/l		99
65) Anthracene	10.671	178	115585	2.85	mg/l		100
66) Di-n-Butyl Phthalate	11.297	149	133249	2.78	mg/l		99
67) Fluoranthene	11.950	202	124503	2.78	mg/l		99
68) Benzidine	12.105	184	21630	3.39	mg/l		96
70) Pyrene	12.201	202	126100	2.81	mg/l		99
72) Butyl Benzyl Phthalate	12.993	149	54265	2.59	mg/l		98
73) 3,3'-Dichlorobenzidine	13.661	252	26094	3.83	mg/l		100
74) Benzo (a) Anthracene	13.677	228	100900	2.64	mg/l		97
75) Bis(2-Ethylhexyl) Phth...	13.800	149	71859	2.64	mg/l		98
76) Chrysene	13.741	228	93805	2.65	mg/l		98
77) Di-n-Octyl Phthalate	14.779	149	104879	2.39	mg/l		99
78) Benzo (b) Fluoranthene	15.421	252	68367	2.02	mg/l		98
79) Benzo (k) Fluoranthene	15.464	252	64288	2.66	mg/l		98
80) Benzo (a) Pyrene	16.015	252	54217	2.25	mg/l		96
82) Indeno (1,2,3-c,d) Pyrene	18.293	276	36055	2.29	mg/l		86
83) Dibenz (a,h) Anthracene	18.341	278	30014	2.23	mg/l		96
84) Benzo (g,h,i) Perylene	18.844	276	30295	2.49	mg/l		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP016.D
Acq On : 11 Sep 2013 6:06 pm
Operator : 449
Sample : ICAL2 S071913U 2.5PPM BNA
InstName : GCMS SS
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 12 09:38:41 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:37:45 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP017.D
Acq On : 11 Sep 2013 6:32 pm
Operator : 449
Sample : ICAL3 S071913T 5PPM BNA
InstName : GCMS SS
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 12 09:37:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:37:45 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.676	152	391216	40.00	mg/l	-0.01
19) Naphthalene-d8	7.024	136	1606468	40.00	mg/l	-0.02
36) Acenaphthene-d10	8.970	164	895396	40.00	mg/l	0.00
56) Phenanthrene-d10	10.602	188	1557139	40.00	mg/l	-0.01
69) Chrysene-d12	13.715	240	1413307	40.00	mg/l	-0.02
81) Perylene-d12	16.143	264	933054	40.00	mg/l	-0.03
System Monitoring Compounds						
4) 2-Fluorophenol	4.478	112	86569	4.88	mg/l	0.00
Spiked Amount 100.000			Recovery =	4.88%		
6) Phenol-d6	5.360	99	112347	5.17	mg/l	-0.03
Spiked Amount 100.000			Recovery =	5.17%		
20) Nitrobenzene-d5	6.280	82	94981	5.17	mg/l	-0.03
Spiked Amount 100.000			Recovery =	5.17%		
41) 2-Fluorobiphenyl	8.216	172	167665	5.55	mg/l	-0.02
Spiked Amount 100.000			Recovery =	5.55%		
60) 2,4,6-Tribromophenol	9.848	330	15146	4.46	mg/l	-0.03
Spiked Amount 100.000			Recovery =	4.46%		
71) p-Terphenyl-d14	12.383	244	176252	5.34	mg/l	-0.02
Spiked Amount 100.000			Recovery =	5.34%		
Target Compounds						Qvalue
2) Pyridine	3.317	52	50530	4.65	mg/l	98
3) N-Nitrosodimethylamine	3.317	74	59653	4.99	mg/l	90
5) Aniline	5.392	93	132438	5.45	mg/l	82
7) Phenol	5.371	94	122510	5.24	mg/l	87
8) Bis(2-Chloroethyl) Ether	5.446	93	89497	5.47	mg/l	96
9) 2-Chlorophenol	5.505	128	82979	5.00	mg/l	98
10) 1,3-Dichlorobenzene	5.644	146	91250	5.17	mg/l	99
11) 1,4-Dichlorobenzene	5.692	146	88560	5.25	mg/l	96
12) Benzyl Alcohol	5.836	79	72374	4.82	mg/l	99
13) 1,2-Dichlorobenzene	5.890	146	86018	5.34	mg/l	99
14) 2-Methylphenol	5.970	108	73943	5.02	mg/l	96
15) Bis(2-Chloroisopropyl)...	5.997	45	107230	5.39	mg/l	93
16) 3/4-Methylphenol	6.120	107	166880	10.11	mg/l	99
17) N-Nitroso-di-n-propyla...	6.146	70	65803	5.38	mg/l	96
18) Hexachloroethane	6.200	117	32974	5.28	mg/l	96
21) Nitrobenzene	6.302	77	92964	5.32	mg/l	98
22) Isophorone	6.542	82	173614	5.26	mg/l	99
23) 2-Nitrophenol	6.638	139	40692	4.98	mg/l	92
24) 2,4-Dimethylphenol	6.676	107	82619	5.14	mg/l	99
25) Benzoic Acid	6.778	105	15094	1.59	mg/l	92
26) Bis(2-Chloroethoxy) Me...	6.778	93	105690	5.50	mg/l	99
27) 2,4-Dichlorophenol	6.890	162	61614	5.08	mg/l	99
28) 1,2,4-Trichlorobenzene	6.981	180	72394	5.33	mg/l	99
29) Naphthalene	7.045	128	226670	5.37	mg/l	99
30) 2,6-Dichlorophenol	7.136	162	59818	5.29	mg/l	97
31) 4-Chloroaniline	7.125	127	81621	5.52	mg/l	95
32) Hexachloro-1,3-Butadiene	7.238	225	38904	5.39	mg/l	98
33) 4-Chloro-3-Methylphenol	7.655	107	66788	4.82	mg/l	99
34) 2-Methylnaphthalene	7.794	142	152278	5.49	mg/l	98
35) 1-Methylnaphthalene	7.911	142	140327	5.39	mg/l	100
37) Hexachlorocyclopentadiene	8.045	237	6833	1.59	mg/l	97
38) 2,4,6-Trichlorophenol	8.136	196	39617	4.75	mg/l	97
39) 2,4,5-Trichlorophenol	8.184	196	37774	4.61	mg/l	98
40) 2-Chloronaphthalene	8.329	162	141715	5.41	mg/l	99

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP017.D
Acq On : 11 Sep 2013 6:32 pm
Operator : 449
Sample : ICAL3 S071913T 5PPM BNA
InstName : GCMS SS
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 12 09:37:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:37:45 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.478	65	41994	4.78	mg/l		96
43) Dimethyl Phthalate	8.714	163	163121	5.20	mg/l		100
44) Acenaphthylene	8.794	152	223176	5.60	mg/l		99
45) 3-Nitroaniline	8.944	138	30415	5.45	mg/l	#	68
46) Acenaphthene	9.003	153	141703	5.42	mg/l		98
47) 2,4-Dinitrophenol	9.077	184	1202	0.53	mg/l		91
48) 4-Nitrophenol	9.152	65	12778	2.96	mg/l	#	1
49) Dibenzofuran	9.174	168	191307	5.48	mg/l		94
50) 2,4-Dinitrotoluene	9.222	165	43544	4.63	mg/l		99
51) 2,6-Dinitrotoluene	8.794	165	34381	5.18	mg/l		98
52) Diethyl Phthalate	9.495	149	159017	5.39	mg/l		99
53) 4-Chlorophenyl-Phenyl ...	9.553	204	80453	5.89	mg/l		95
54) Fluorene	9.553	166	159374	5.84	mg/l		99
55) 4-Nitroaniline	9.628	138	28924	5.22	mg/l		88
57) Azobenzene	9.730	77	185551	5.56	mg/l		98
58) 4,6-Dinitro-2-Methylph...	9.671	198	8922	2.53	mg/l	#	1
59) N-Nitrosodiphenylamine	9.693	169	112214	5.80	mg/l		98
61) 4-Bromophenyl-Phenyl E...	10.094	248	43550	5.27	mg/l		98
62) Hexachlorobenzene	10.254	142	18098	5.75	mg/l		94
63) Pentachlorophenol	10.463	266	10697	2.42	mg/l		93
64) Phenanthrene	10.623	178	224634	5.48	mg/l		99
65) Anthracene	10.671	178	229536	5.55	mg/l		100
66) Di-n-Butyl Phthalate	11.297	149	274913	5.62	mg/l		100
67) Fluoranthene	11.950	202	251114	5.51	mg/l		100
68) Benzidine	12.099	184	39746	6.12	mg/l		94
70) Pyrene	12.196	202	252475	5.50	mg/l		99
72) Butyl Benzyl Phthalate	12.993	149	112691	5.27	mg/l		98
73) 3,3'-Dichlorobenzidine	13.661	252	44457	6.38	mg/l		99
74) Benzo (a) Anthracene	13.672	228	202988	5.20	mg/l		98
75) Bis(2-Ethylhexyl) Phth...	13.800	149	149217	5.36	mg/l		96
76) Chrysene	13.741	228	185536	5.13	mg/l		99
77) Di-n-Octyl Phthalate	14.779	149	224025	5.00	mg/l		100
78) Benzo (b) Fluoranthene	15.421	252	140310	4.05	mg/l		98
79) Benzo (k) Fluoranthene	15.464	252	139862	5.67	mg/l		97
80) Benzo (a) Pyrene	16.015	252	113744	4.62	mg/l		99
82) Indeno (1,2,3-c,d) Pyrene	18.299	276	79359	4.84	mg/l		77
83) Dibenz (a,h) Anthracene	18.341	278	65730	4.70	mg/l		96
84) Benzo (g,h,i) Perylene	18.844	276	62981	4.98	mg/l		98

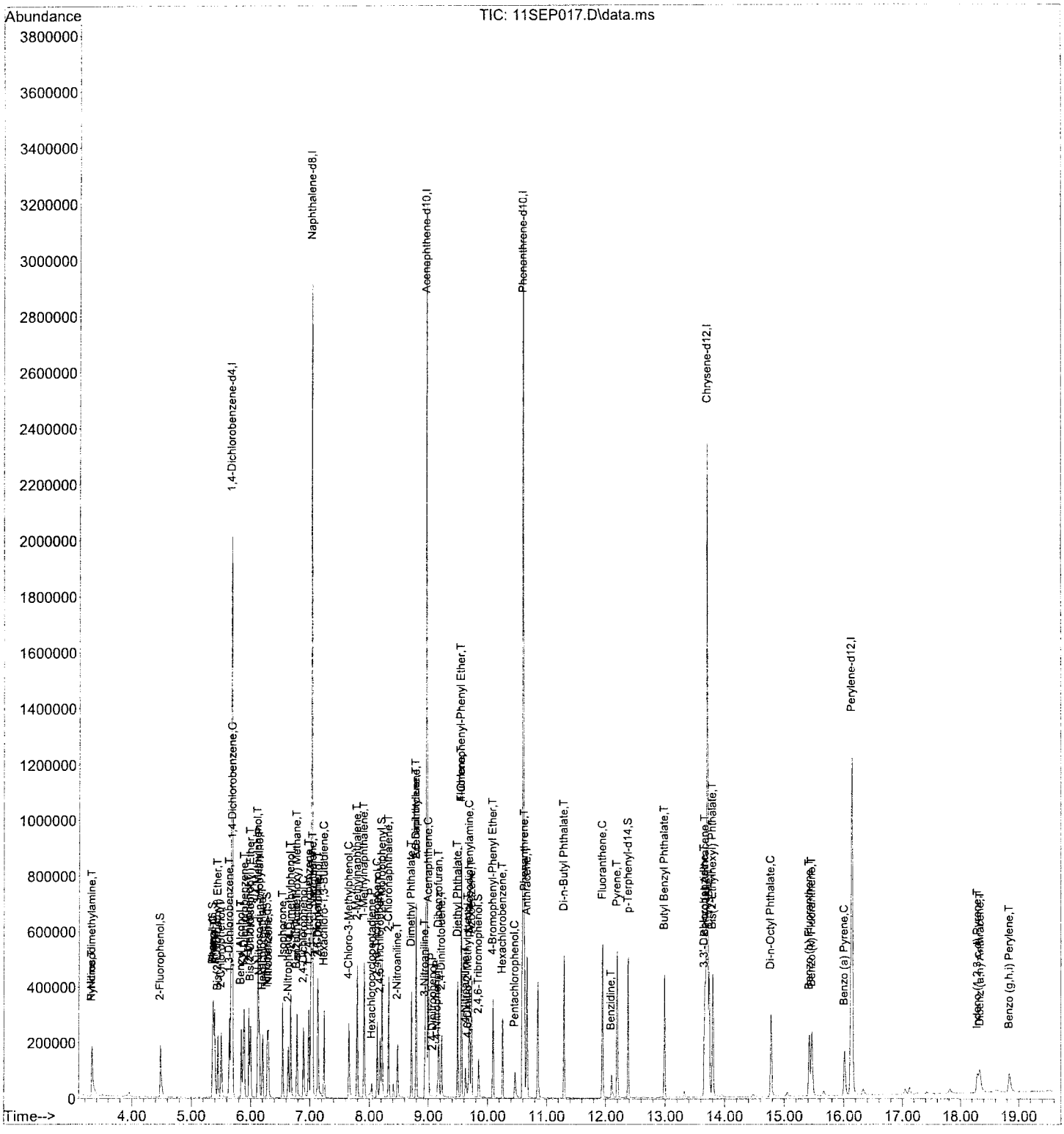
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP017.D
Acq On : 11 Sep 2013 6:32 pm
Operator : 449
Sample : ICAL3 S071913T 5PPM BNA
InstName : GCMS SS
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 12 09:37:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:37:45 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP018.D
Acq On : 11 Sep 2013 6:58 pm
Operator : 449
Sample : ICAL4 S071913S 10PPM BNA
InstName : GCMS SS
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 12 09:36:05 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:36:01 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.681	152	393604	40.00	mg/l	0.00
19) Naphthalene-d8	7.029	136	1627544	40.00	mg/l	-0.01
36) Acenaphthene-d10	8.970	164	913860	40.00	mg/l	0.00
56) Phenanthrene-d10	10.602	188	1610835	40.00	mg/l	-0.01
69) Chrysene-d12	13.715	240	1458922	40.00	mg/l	-0.02
81) Perylene-d12	16.143	264	969447	40.00	mg/l	-0.03
System Monitoring Compounds						
4) 2-Fluorophenol	4.477	112	181165	10.14	mg/l	0.00
Spiked Amount 100.000			Recovery = 10.14%			
6) Phenol-d6	5.360	99	231155	10.57	mg/l	-0.03
Spiked Amount 100.000			Recovery = 10.57%			
20) Nitrobenzene-d5	6.285	82	198113	10.65	mg/l	-0.02
Spiked Amount 100.000			Recovery = 10.65%			
41) 2-Fluorobiphenyl	8.222	172	337603	10.95	mg/l	-0.02
Spiked Amount 100.000			Recovery = 10.95%			
60) 2,4,6-Tribromophenol	9.848	330	33097	9.42	mg/l	-0.03
Spiked Amount 100.000			Recovery = 9.42%			
71) p-Terphenyl-d14	12.383	244	355715	10.43	mg/l	-0.02
Spiked Amount 100.000			Recovery = 10.43%			
Target Compounds						Qvalue
2) Pyridine	3.306	52	105445	9.65	mg/l	92
3) N-Nitrosodimethylamine	3.317	74	118818	9.88	mg/l	84
5) Aniline	5.392	93	269925	11.04	mg/l	83
7) Phenol	5.371	94	250468	10.65	mg/l	85
8) Bis(2-Chloroethyl) Ether	5.451	93	182992	11.11	mg/l	96
9) 2-Chlorophenol	5.504	128	169730	10.17	mg/l	99
10) 1,3-Dichlorobenzene	5.643	146	184323	10.38	mg/l	98
11) 1,4-Dichlorobenzene	5.697	146	179465	10.57	mg/l	98
12) Benzyl Alcohol	5.841	79	152426	10.08	mg/l	97
13) 1,2-Dichlorobenzene	5.890	146	174671	10.78	mg/l	99
14) 2-Methylphenol	5.970	108	155305	10.48	mg/l	97
15) Bis(2-Chloroisopropyl)...	6.002	45	216932	10.84	mg/l	93
16) 3/4-Methylphenol	6.125	107	338192	20.36	mg/l	98
17) N-Nitroso-di-n-propyla...	6.152	70	132387	10.76	mg/l	96
18) Hexachloroethane	6.200	117	67407	10.73	mg/l	96
21) Nitrobenzene	6.301	77	192334	10.86	mg/l	98
22) Isophorone	6.542	82	354772	10.60	mg/l	99
23) 2-Nitrophenol	6.638	139	86870	10.48	mg/l	94
24) 2,4-Dimethylphenol	6.676	107	163978	10.07	mg/l	95
25) Benzoic Acid	6.793	105	53339	5.54	mg/l	97
26) Bis(2-Chloroethoxy) Me...	6.783	93	205488	10.56	mg/l	99
27) 2,4-Dichlorophenol	6.890	162	127112	10.35	mg/l	99
28) 1,2,4-Trichlorobenzene	6.981	180	146367	10.63	mg/l	99
29) Naphthalene	7.045	128	458893	10.72	mg/l	99
30) 2,6-Dichlorophenol	7.136	162	122026	10.65	mg/l	99
31) 4-Chloroaniline	7.130	127	159347	10.64	mg/l	96
32) Hexachloro-1,3-Butadiene	7.237	225	77737	10.64	mg/l	100
33) 4-Chloro-3-Methylphenol	7.655	107	144761	10.32	mg/l	100
34) 2-Methylnaphthalene	7.794	142	306765	10.92	mg/l	98
35) 1-Methylnaphthalene	7.917	142	286349	10.86	mg/l	99
37) Hexachlorocyclopentadiene	8.045	237	24723	5.63	mg/l	99
38) 2,4,6-Trichlorophenol	8.136	196	83801	9.85	mg/l	98
39) 2,4,5-Trichlorophenol	8.184	196	79054	9.45	mg/l	97
40) 2-Chloronaphthalene	8.329	162	285104	10.67	mg/l	100

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP018.D
Acq On : 11 Sep 2013 6:58 pm
Operator : 449
Sample : ICAL4 S071913S 10PPM BNA
InstName : GCMS SS
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 12 09:36:05 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:36:01 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

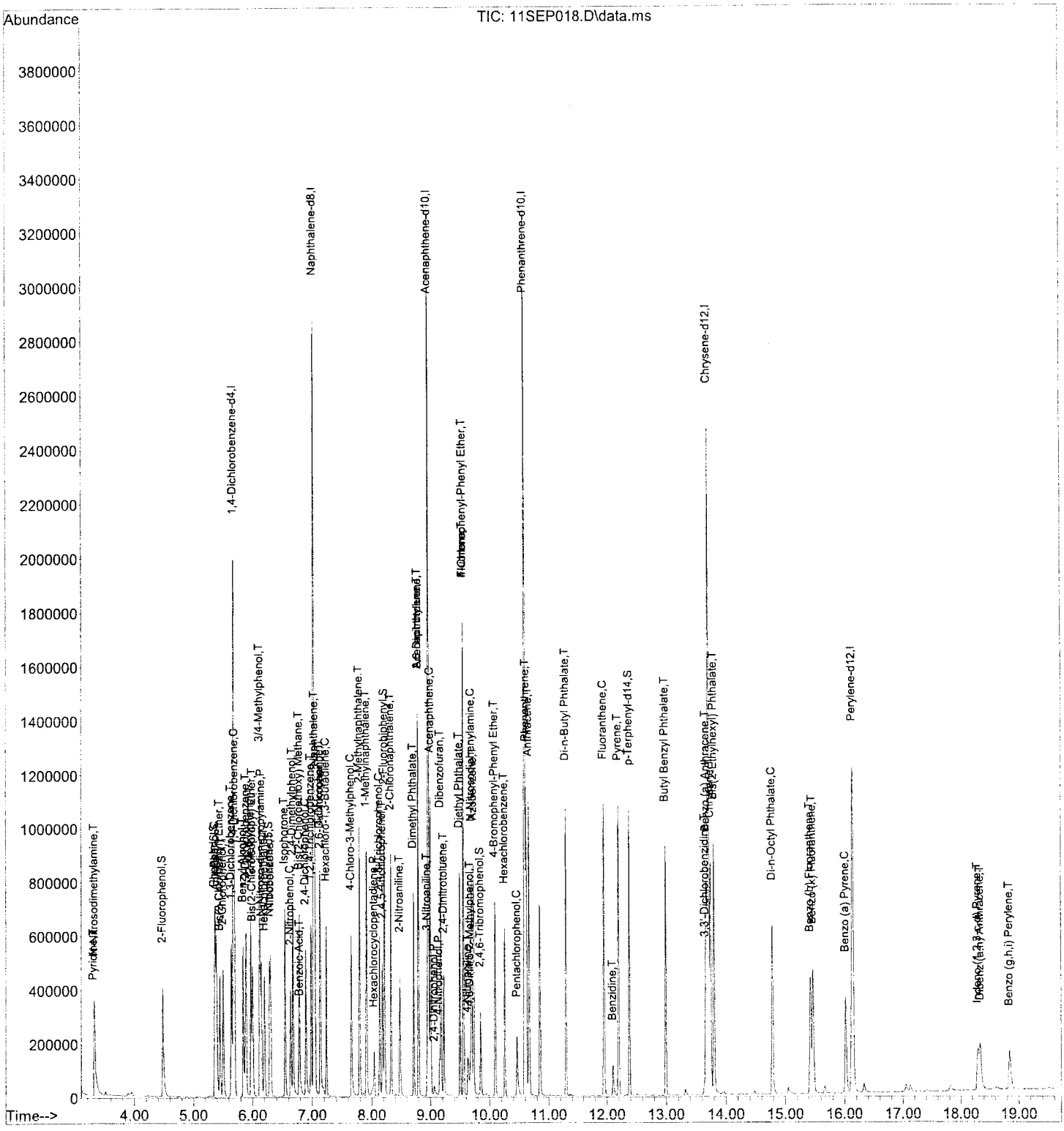
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	2-Nitroaniline	8.484	65	89812	10.01	mg/l		97
43)	Dimethyl Phthalate	8.714	163	337351	10.55	mg/l		100
44)	Acenaphthylene	8.794	152	449646	11.04	mg/l		99
45)	3-Nitroaniline	8.949	138	63538	11.16	mg/l		86
46)	Acenaphthene	9.002	153	284100	10.65	mg/l		99
47)	2,4-Dinitrophenol	9.067	184	7251	3.13	mg/l		95
48)	4-Nitrophenol	9.147	65	36559	8.29	mg/l	#	1
49)	Dibenzofuran	9.174	168	390498	10.96	mg/l		91
50)	2,4-Dinitrotoluene	9.227	165	92450	9.64	mg/l		98
51)	2,6-Dinitrotoluene	8.794	165	70927	10.47	mg/l		98
52)	Diethyl Phthalate	9.495	149	321359	10.68	mg/l		98
53)	4-Chlorophenyl-Phenyl ...	9.559	204	159131	11.41	mg/l		95
54)	Fluorene	9.559	166	320732	11.51	mg/l		100
55)	4-Nitroaniline	9.634	138	56042	9.92	mg/l		89
57)	Azobenzene	9.730	77	373971	10.84	mg/l		98
58)	4,6-Dinitro-2-Methylph...	9.676	198	26348	7.23	mg/l	#	6
59)	N-Nitrosodiphenylamine	9.698	169	224446	11.22	mg/l		98
61)	4-Bromophenyl-Phenyl E...	10.094	248	89306	10.45	mg/l		99
62)	Hexachlorobenzene	10.259	142	36192	11.12	mg/l		94
63)	Pentachlorophenol	10.468	266	31063	6.80	mg/l		92
64)	Phenanthrene	10.623	178	457619	10.79	mg/l		100
65)	Anthracene	10.671	178	469538	10.97	mg/l		100
66)	Di-n-Butyl Phthalate	11.302	149	561892	11.11	mg/l		99
67)	Fluoranthene	11.950	202	513203	10.89	mg/l		100
68)	Benzidine	12.105	184	54182	8.07	mg/l		94
70)	Pyrene	12.201	202	509892	10.77	mg/l		100
72)	Butyl Benzyl Phthalate	12.993	149	235644	10.67	mg/l		98
73)	3,3'-Dichlorobenzidine	13.661	252	67962	9.46	mg/l		98
74)	Benzo (a) Anthracene	13.677	228	417036	10.35	mg/l		99
75)	Bis(2-Ethylhexyl) Phth...	13.806	149	308738	10.74	mg/l		97
76)	Chrysene	13.747	228	384931	10.31	mg/l		99
77)	Di-n-Octyl Phthalate	14.784	149	474002	10.25	mg/l		99
78)	Benzo (b) Fluoranthene	15.426	252	303452	8.49	mg/l		99
79)	Benzo (k) Fluoranthene	15.469	252	293831	11.53	mg/l		98
80)	Benzo (a) Pyrene	16.020	252	244374	9.62	mg/l		99
82)	Indeno (1,2,3-c,d) Pyrene	18.298	276	169509	9.95	mg/l		89
83)	Dibenz (a,h) Anthracene	18.341	278	141199	9.72	mg/l		98
84)	Benzo (g,h,i) Perylene	18.839	276	136112	10.37	mg/l		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP018.D
Acq On : 11 Sep 2013 6:58 pm
Operator : 449
Sample : ICAL4 S071913S 10PPM BNA
InstName : GCMS SS
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 12 09:36:05 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:36:01 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP019.D
Acq On : 11 Sep 2013 7:24 pm
Operator : 449
Sample : ICAL5 S071913R 20PPM BNA
InstName : GCMS SS
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 12 09:32:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:32:34 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.681	152	380093	40.00	mg/l	0.00
19) Naphthalene-d8	7.029	136	1590138	40.00	mg/l	-0.01
36) Acenaphthene-d10	8.970	164	912639	40.00	mg/l	0.00
56) Phenanthrene-d10	10.602	188	1623695	40.00	mg/l	-0.01
69) Chrysene-d12	13.715	240	1466655	40.00	mg/l	-0.02
81) Perylene-d12	16.148	264	1005714	40.00	mg/l	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol	4.478	112	355065	20.58	mg/l	0.00
Spiked Amount 100.000			Recovery = 20.58%			
6) Phenol-d6	5.365	99	452726	21.43	mg/l	-0.02
Spiked Amount 100.000			Recovery = 21.43%			
20) Nitrobenzene-d5	6.285	82	383883	21.13	mg/l	-0.02
Spiked Amount 100.000			Recovery = 21.13%			
41) 2-Fluorobiphenyl	8.222	172	654489	21.26	mg/l	-0.02
Spiked Amount 100.000			Recovery = 21.26%			
60) 2,4,6-Tribromophenol	9.853	330	71009	20.04	mg/l	-0.02
Spiked Amount 100.000			Recovery = 20.04%			
71) p-Terphenyl-d14	12.388	244	711166	20.74	mg/l	-0.02
Spiked Amount 100.000			Recovery = 20.74%			
Target Compounds						Qvalue
2) Pyridine	3.301	52	214003	20.29	mg/l	99
3) N-Nitrosodimethylamine	3.317	74	239171	20.60	mg/l	84
5) Aniline	5.398	93	496065	21.01	mg/l	88
7) Phenol	5.376	94	484106	21.33	mg/l	97
8) Bis(2-Chloroethyl) Ether	5.451	93	357928	22.50	mg/l	97
9) 2-Chlorophenol	5.505	128	330979	20.55	mg/l	100
10) 1,3-Dichlorobenzene	5.644	146	354495	20.67	mg/l	98
11) 1,4-Dichlorobenzene	5.697	146	344738	21.02	mg/l	99
12) Benzyl Alcohol	5.841	79	300581	20.59	mg/l	98
13) 1,2-Dichlorobenzene	5.890	146	335540	21.44	mg/l	99
14) 2-Methylphenol	5.975	108	301435	21.06	mg/l	98
15) Bis(2-Chloroisopropyl)...	6.002	45	417214	21.59	mg/l	92
16) 3/4-Methylphenol	6.130	107	653806	40.77	mg/l	99
17) N-Nitroso-di-n-propyla...	6.162	70	260941	21.96	mg/l	97
18) Hexachloroethane	6.200	117	133540	22.01	mg/l	96
21) Nitrobenzene	6.307	77	366837	21.20	mg/l	98
22) Isophorone	6.548	82	689132	21.08	mg/l	99
23) 2-Nitrophenol	6.638	139	164169	20.28	mg/l	98
24) 2,4-Dimethylphenol	6.681	107	334077	21.00	mg/l	97
25) Benzoic Acid	6.826	105	147601	15.69	mg/l	98
26) Bis(2-Chloroethoxy) Me...	6.788	93	404159	21.25	mg/l	99
27) 2,4-Dichlorophenol	6.895	162	251615	20.98	mg/l	98
28) 1,2,4-Trichlorobenzene	6.981	180	280678	20.87	mg/l	100
29) Naphthalene	7.050	128	892524	21.35	mg/l	99
30) 2,6-Dichlorophenol	7.136	162	240902	21.52	mg/l	98
31) 4-Chloroaniline	7.130	127	266333	18.20	mg/l	97
32) Hexachloro-1,3-Butadiene	7.237	225	152769	21.40	mg/l	99
33) 4-Chloro-3-Methylphenol	7.655	107	290127	21.16	mg/l	100
34) 2-Methylnaphthalene	7.799	142	587612	21.40	mg/l	99
35) 1-Methylnaphthalene	7.917	142	555958	21.58	mg/l	99
37) Hexachlorocyclopentadiene	8.045	237	71161	16.22	mg/l	100
38) 2,4,6-Trichlorophenol	8.136	196	172446	20.29	mg/l	99
39) 2,4,5-Trichlorophenol	8.184	196	173362	20.76	mg/l	99
40) 2-Chloronaphthalene	8.334	162	554533	20.78	mg/l	99

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP019.D
Acq On : 11 Sep 2013 7:24 pm
Operator : 449
Sample : ICAL5 S071913R 20PPM BNA
InstName : GCMS SS
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 12 09:32:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:32:34 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.489	65	184771	20.62	mg/l		98
43) Dimethyl Phthalate	8.719	163	653852	20.47	mg/l		99
44) Acenaphthylene	8.799	152	863941	21.25	mg/l		99
45) 3-Nitroaniline	8.954	138	85337	15.01	mg/l		88
46) Acenaphthene	9.003	153	561005	21.06	mg/l		99
47) 2,4-Dinitrophenol	9.061	184	27446	11.87	mg/l		97
48) 4-Nitrophenol	9.152	65	89006	20.21	mg/l	#	1
49) Dibenzofuran	9.179	168	757977	21.31	mg/l		87
50) 2,4-Dinitrotoluene	9.227	165	189726	19.81	mg/l		100
51) 2,6-Dinitrotoluene	8.799	165	139815	20.67	mg/l		98
52) Diethyl Phthalate	9.500	149	628208	20.91	mg/l		98
53) 4-Chlorophenyl-Phenyl ...	9.559	204	311468	22.37	mg/l		96
54) Fluorene	9.559	166	613305	22.04	mg/l		100
55) 4-Nitroaniline	9.639	138	108358	19.20	mg/l		94
57) Azobenzene	9.735	77	729496	20.97	mg/l		99
58) 4,6-Dinitro-2-Methylph...	9.676	198	68777	18.74	mg/l	#	37
59) N-Nitrosodiphenylamine	9.703	169	441367	21.88	mg/l		98
61) 4-Bromophenyl-Phenyl E...	10.099	248	177418	20.60	mg/l		98
62) Hexachlorobenzene	10.259	142	70732	21.56	mg/l		96
63) Pentachlorophenol	10.468	266	76672	16.65	mg/l		96
64) Phenanthrene	10.629	178	901412	21.08	mg/l		100
65) Anthracene	10.677	178	924206	21.43	mg/l		100
66) Di-n-Butyl Phthalate	11.302	149	1109879	21.77	mg/l		100
67) Fluoranthene	11.955	202	1004739	21.14	mg/l		100
68) Benzidine	12.105	184	108384	16.01	mg/l		97
70) Pyrene	12.201	202	1001834	21.05	mg/l		100
72) Butyl Benzyl Phthalate	12.998	149	469977	21.17	mg/l		98
73) 3,3'-Dichlorobenzidine	13.672	252	112937	15.63	mg/l		95
74) Benzo (a) Anthracene	13.683	228	837377	20.67	mg/l		100
75) Bis(2-Ethylhexyl) Phth...	13.806	149	618838	21.42	mg/l		97
76) Chrysene	13.752	228	773562	20.61	mg/l		99
77) Di-n-Octyl Phthalate	14.784	149	972759	20.92	mg/l		99
78) Benzo (b) Fluoranthene	15.432	252	613498	17.08	mg/l		100
79) Benzo (k) Fluoranthene	15.480	252	628189	24.53	mg/l		99
80) Benzo (a) Pyrene	16.025	252	514209	20.13	mg/l		98
82) Indeno (1,2,3-c,d) Pyrene	18.304	276	372387	21.08	mg/l		94
83) Dibenz (a,h) Anthracene	18.341	278	314570	20.88	mg/l		97
84) Benzo (g,h,i) Perylene	18.855	276	292158	21.45	mg/l		100

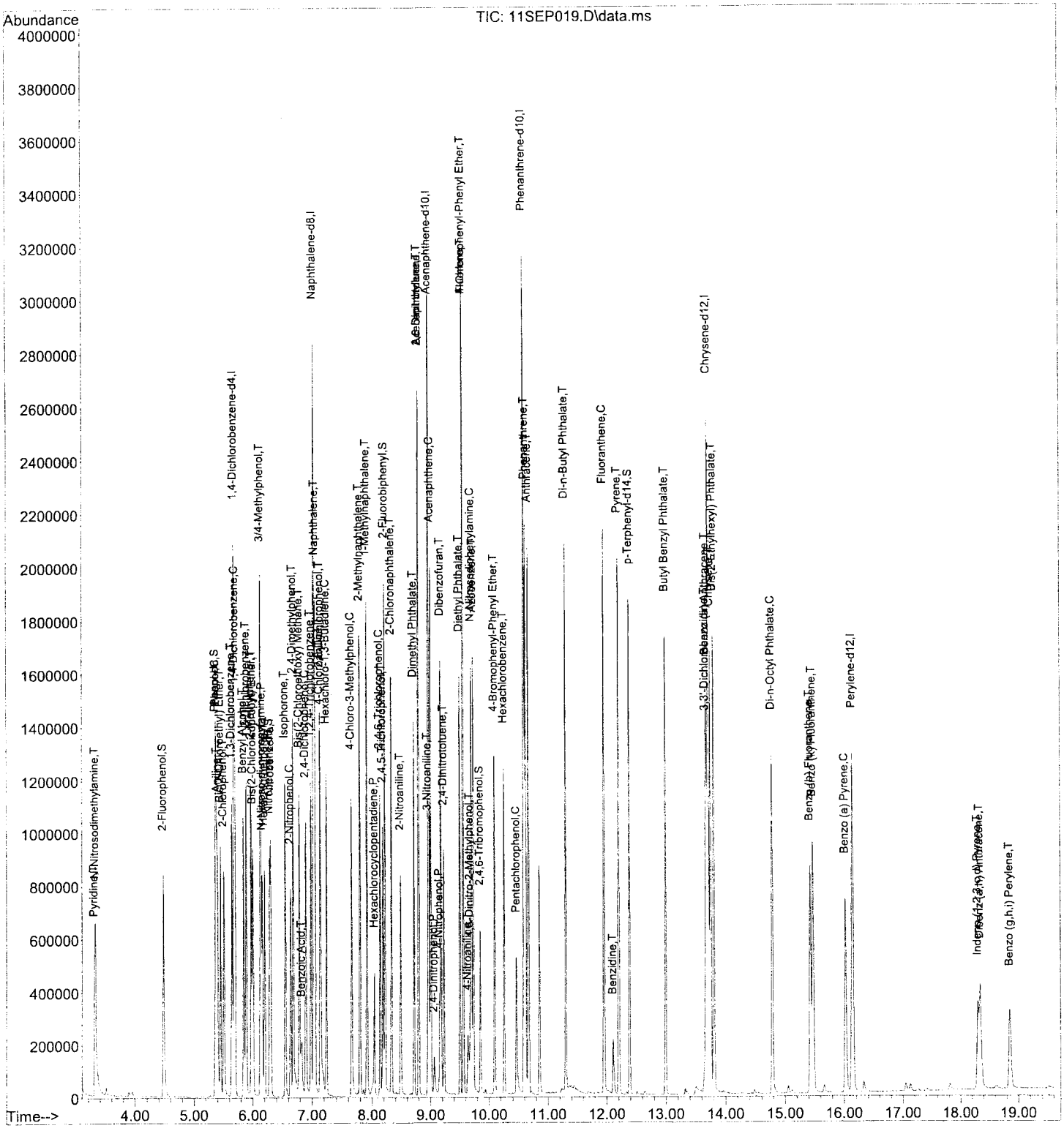
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP019.D
Acq On : 11 Sep 2013 7:24 pm
Operator : 449
Sample : ICAL5 S071913R 20PPM BNA
InstName : GCMS SS
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 12 09:32:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:32:34 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP020.D
Acq On : 11 Sep 2013 7:51 pm
Operator : 449
Sample : ICAL6 S071913Q 50PPM BNA
InstName : GCMS SS
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 12 09:34:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:34:12 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.681	152	373670	40.00	mg/l	0.00
19) Naphthalene-d8	7.034	136	1616838	40.00	mg/l	0.00
36) Acenaphthene-d10	8.976	164	909633	40.00	mg/l	0.00
56) Phenanthrene-d10	10.607	188	1662234	40.00	mg/l	0.00
69) Chrysene-d12	13.725	240	1510778	40.00	mg/l	-0.01
81) Perylene-d12	16.159	264	1065673	40.00	mg/l	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol	4.477	112	868348	51.20	mg/l	0.00
Spiked Amount 100.000			Recovery = 51.20%			
6) Phenol-d6	5.376	99	1067979	51.42	mg/l	-0.01
Spiked Amount 100.000			Recovery = 51.42%			
20) Nitrobenzene-d5	6.296	82	927388	50.20	mg/l	-0.01
Spiked Amount 100.000			Recovery = 50.20%			
41) 2-Fluorobiphenyl	8.232	172	1542086	50.26	mg/l	0.00
Spiked Amount 100.000			Recovery = 50.26%			
60) 2,4,6-Tribromophenol	9.863	330	188393	51.94	mg/l	-0.01
Spiked Amount 100.000			Recovery = 51.94%			
71) p-Terphenyl-d14	12.393	244	1770827	50.15	mg/l	-0.01
Spiked Amount 100.000			Recovery = 50.15%			
Target Compounds						Qvalue
2) Pyridine	3.295	52	538017	51.89	mg/l	98
3) N-Nitrosodimethylamine	3.317	74	583258	51.09	mg/l	87
5) Aniline	5.408	93	1246871	53.72	mg/l	92
7) Phenol	5.392	94	1126484	50.48	mg/l	99
8) Bis(2-Chloroethyl) Ether	5.462	93	830569	53.12	mg/l	98
9) 2-Chlorophenol	5.510	128	793002	50.07	mg/l	100
10) 1,3-Dichlorobenzene	5.649	146	848296	50.31	mg/l	98
11) 1,4-Dichlorobenzene	5.702	146	817024	50.68	mg/l	99
12) Benzyl Alcohol	5.857	79	744351	51.87	mg/l	98
13) 1,2-Dichlorobenzene	5.889	146	791513	51.46	mg/l	100
14) 2-Methylphenol	5.980	108	717659	50.99	mg/l	98
15) Bis(2-Chloroisopropyl)...	6.007	45	965633	50.84	mg/l	82
16) 3/4-Methylphenol	6.152	107	1604792	101.79	mg/l	99
17) N-Nitroso-di-n-propyla...	6.189	70	604903	51.78	mg/l	97
18) Hexachloroethane	6.205	117	310682	52.10	mg/l	98
21) Nitrobenzene	6.317	77	885004	50.30	mg/l	98
22) Isophorone	6.569	82	1707486	51.36	mg/l	99
23) 2-Nitrophenol	6.649	139	413981	50.29	mg/l	97
24) 2,4-Dimethylphenol	6.697	107	809582	50.06	mg/l	97
25) Benzoic Acid	6.890	105	503597	52.66	mg/l	99
26) Bis(2-Chloroethoxy) Me...	6.799	93	956578	49.47	mg/l	99
27) 2,4-Dichlorophenol	6.906	162	614696	50.40	mg/l	99
28) 1,2,4-Trichlorobenzene	6.986	180	687459	50.28	mg/l	100
29) Naphthalene	7.055	128	2144742	50.45	mg/l	99
30) 2,6-Dichlorophenol	7.146	162	579102	50.88	mg/l	99
31) 4-Chloroaniline	7.141	127	774106	52.01	mg/l	98
32) Hexachloro-1,3-Butadiene	7.243	225	364914	50.27	mg/l	100
33) 4-Chloro-3-Methylphenol	7.665	107	706803	50.71	mg/l	99
34) 2-Methylnaphthalene	7.804	142	1396851	50.03	mg/l	99
35) 1-Methylnaphthalene	7.922	142	1331352	50.83	mg/l	99
37) Hexachlorocyclopentadiene	8.045	237	239894	54.86	mg/l	99
38) 2,4,6-Trichlorophenol	8.147	196	431866	50.98	mg/l	100
39) 2,4,5-Trichlorophenol	8.195	196	443566	53.30	mg/l	99
40) 2-Chloronaphthalene	8.339	162	1339264	50.35	mg/l	100

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP020.D
Acq On : 11 Sep 2013 7:51 pm
Operator : 449
Sample : ICAL6 S071913Q 50PPM BNA
InstName : GCMS SS
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 12 09:34:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:34:12 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.500	65	461872	51.71	mg/l		99
43) Dimethyl Phthalate	8.730	163	1597790	50.19	mg/l		100
44) Acenaphthylene	8.804	152	2036800	50.26	mg/l		99
45) 3-Nitroaniline	8.970	138	237382	41.88	mg/l		96
46) Acenaphthene	9.013	153	1344816	50.66	mg/l		99
47) 2,4-Dinitrophenol	9.072	184	115677	50.18	mg/l		99
48) 4-Nitrophenol	9.168	65	258927	59.00	mg/l	#	1
49) Dibenzofuran	9.190	168	1815827	51.22	mg/l		84
50) 2,4-Dinitrotoluene	9.243	165	489216	51.25	mg/l		99
51) 2,6-Dinitrotoluene	8.815	165	336063	49.85	mg/l		98
52) Diethyl Phthalate	9.516	149	1536475	51.30	mg/l		98
53) 4-Chlorophenyl-Phenyl ...	9.569	204	709762	51.13	mg/l		98
54) Fluorene	9.569	166	1390905	50.16	mg/l		100
55) 4-Nitroaniline	9.655	138	272090	48.38	mg/l		93
57) Azobenzene	9.746	77	1906573	53.54	mg/l		96
58) 4,6-Dinitro-2-Methylph...	9.698	198	216045	57.49	mg/l	#	56
59) N-Nitrosodiphenylamine	9.719	169	1029840	49.88	mg/l		97
61) 4-Bromophenyl-Phenyl E...	10.104	248	441531	50.08	mg/l		100
62) Hexachlorobenzene	10.270	142	168061	50.03	mg/l		99
63) Pentachlorophenol	10.473	266	246036	52.19	mg/l		96
64) Phenanthrene	10.639	178	2196360	50.17	mg/l		100
65) Anthracene	10.687	178	2226874	50.43	mg/l		100
66) Di-n-Butyl Phthalate	11.313	149	2630482	50.39	mg/l		100
67) Fluoranthene	11.965	202	2421887	49.78	mg/l		99
68) Benzidine	12.115	184	304016	43.87	mg/l		96
70) Pyrene	12.217	202	2422591	49.41	mg/l		100
72) Butyl Benzyl Phthalate	13.003	149	1145338	50.09	mg/l		99
73) 3,3'-Dichlorobenzidine	13.682	252	319326	42.90	mg/l		98
74) Benzo (a) Anthracene	13.693	228	2107340	50.50	mg/l		100
75) Bis(2-Ethylhexyl) Phth...	13.816	149	1537084	51.66	mg/l		97
76) Chrysene	13.768	228	1948691	50.40	mg/l		99
77) Di-n-Octyl Phthalate	14.806	149	2484941	51.88	mg/l		100
78) Benzo (b) Fluoranthene	15.458	252	1767345	47.76	mg/l		100
79) Benzo (k) Fluoranthene	15.506	252	1363031	51.67	mg/l		99
80) Benzo (a) Pyrene	16.052	252	1374505	52.23	mg/l		99
82) Indeno (1,2,3-c,d) Pyrene	18.330	276	1022342	54.60	mg/l		96
83) Dibenz (a,h) Anthracene	18.373	278	874550	54.77	mg/l		98
84) Benzo (g,h,i) Perylene	18.881	276	798554	55.34	mg/l		99

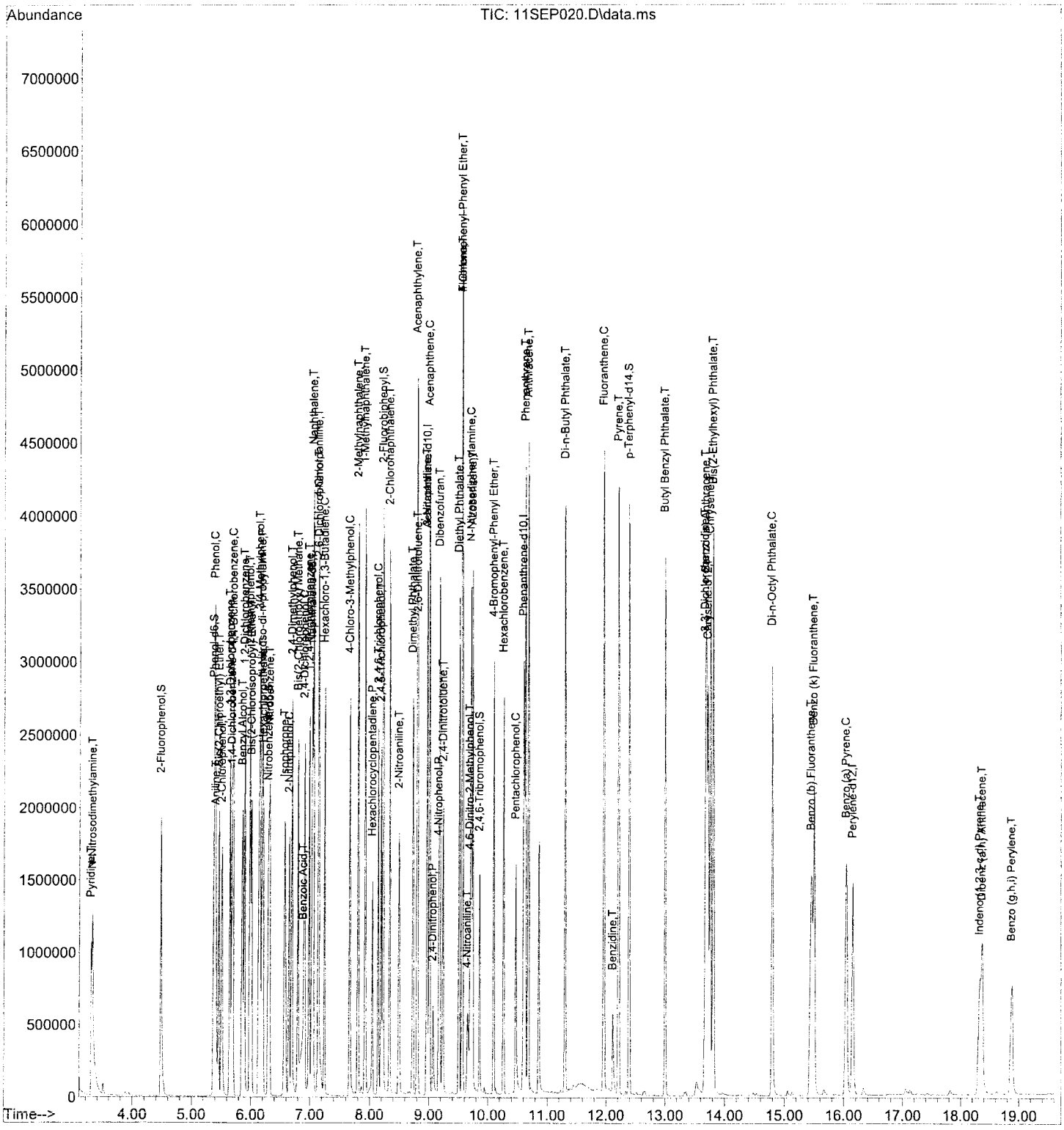
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP020.D
Acq On : 11 Sep 2013 7:51 pm
Operator : 449
Sample : ICAL6 S071913Q 50PPM BNA
InstName : GCMS SS
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 12 09:34:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:34:12 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP021.D
Acq On : 11 Sep 2013 8:17 pm
Operator : 449
Sample : ICAL7 S071913P 80PPM BNA
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 12 10:01:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	5.686	152	376590	40.00	mg/l		0.00
19) Naphthalene-d8	7.040	136	1645379	40.00	mg/l		0.00
36) Acenaphthene-d10	8.976	164	921921	40.00	mg/l		0.00
56) Phenanthrene-d10	10.612	188	1722117	40.00	mg/l		0.00
69) Chrysene-d12	13.736	240	1549221	40.00	mg/l		0.00
81) Perylene-d12	16.170	264	1089184	40.00	mg/l		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	4.483	112	1373251	80.35	mg/l		0.00
Spiked Amount 100.000			Recovery =	80.35%			
6) Phenol-d6	5.387	99	1637659	78.24	mg/l		0.00
Spiked Amount 100.000			Recovery =	78.24%			
20) Nitrobenzene-d5	6.307	82	1475811	78.50	mg/l		0.00
Spiked Amount 100.000			Recovery =	78.50%			
41) 2-Fluorobiphenyl	8.238	172	2437127	78.38	mg/l		0.00
Spiked Amount 100.000			Recovery =	78.38%			
60) 2,4,6-Tribromophenol	9.874	330	315196	83.89	mg/l		0.00
Spiked Amount 100.000			Recovery =	83.89%			
71) p-Terphenyl-d14	12.404	244	2829446	78.14	mg/l		0.00
Spiked Amount 100.000			Recovery =	78.14%			
Target Compounds							Qvalue
2) Pyridine	3.295	52	866733	82.94	mg/l		97
3) N-Nitrosodimethylamine	3.322	74	921836	80.12	mg/l		88
5) Aniline	5.414	93	1873910	80.11	mg/l		92
7) Phenol	5.403	94	1722988	76.61	mg/l		99
8) Bis(2-Chloroethyl) Ether	5.472	93	1300797	82.55	mg/l		99
9) 2-Chlorophenol	5.515	128	1260139	78.95	mg/l		100
10) 1,3-Dichlorobenzene	5.649	146	1338029	78.74	mg/l		99
11) 1,4-Dichlorobenzene	5.702	146	1262779	77.72	mg/l		100
12) Benzyl Alcohol	5.879	79	1177438	81.41	mg/l		97
13) 1,2-Dichlorobenzene	5.895	146	1216208	78.45	mg/l		100
14) 2-Methylphenol	5.991	108	1135952	80.08	mg/l		91
15) Bis(2-Chloroisopropyl)...	6.013	45	1480418	77.33	mg/l	#	70
16) 3/4-Methylphenol	6.146	107	2552126	160.62	mg/l		99
17) N-Nitroso-di-n-propyla...	6.205	70	846844	71.93	mg/l		99
18) Hexachloroethane	6.205	117	450002	74.88	mg/l		99
21) Nitrobenzene	6.328	77	1377960	76.96	mg/l		99
22) Isophorone	6.590	82	2767664	81.80	mg/l		99
23) 2-Nitrophenol	6.654	139	653169	77.97	mg/l		96
24) 2,4-Dimethylphenol	6.708	107	1302410	79.13	mg/l		96
25) Benzoic Acid	6.938	105	907138m	93.22	mg/l		
26) Bis(2-Chloroethoxy) Me...	6.810	93	1528778	77.69	mg/l		100
27) 2,4-Dichlorophenol	6.917	162	977151	78.73	mg/l		99
28) 1,2,4-Trichlorobenzene	6.991	180	1098147	78.92	mg/l		100
29) Naphthalene	7.061	128	3344845	77.32	mg/l		100
30) 2,6-Dichlorophenol	7.152	162	894419	77.22	mg/l		100
31) 4-Chloroaniline	7.152	127	1235215	81.56	mg/l		98
32) Hexachloro-1,3-Butadiene	7.248	225	575431	77.90	mg/l		100
33) 4-Chloro-3-Methylphenol	7.671	107	1146013	80.79	mg/l		99
34) 2-Methylnaphthalene	7.810	142	2171007	76.41	mg/l		99
35) 1-Methylnaphthalene	7.927	142	2064552	77.46	mg/l		99
37) Hexachlorocyclopentadiene	8.050	237	413245	93.25	mg/l		99
38) 2,4,6-Trichlorophenol	8.152	196	705929	82.23	mg/l		100
39) 2,4,5-Trichlorophenol	8.200	196	722722	85.68	mg/l		99
40) 2-Chloronaphthalene	8.350	162	2120376	78.66	mg/l		99

449 SEP 12 2013

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP021.D
Acq On : 11 Sep 2013 8:17 pm
Operator : 449
Sample : ICAL7 S071913P 80PPM BNA
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 12 10:01:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.505	65	736707	81.37	mg/l		97
43) Dimethyl Phthalate	8.740	163	2550083	79.03	mg/l		100
44) Acenaphthylene	8.810	152	3179559	77.42	mg/l		100
45) 3-Nitroaniline	8.976	138	496623	86.45	mg/l		100
46) Acenaphthene	9.024	153	2112542	78.51	mg/l		99
47) 2,4-Dinitrophenol	9.083	184	214054	91.61	mg/l		99
48) 4-Nitrophenol	9.179	65	413476	92.95	mg/l	#	1
49) Dibenzofuran	9.195	168	2812301	78.27	mg/l		83
50) 2,4-Dinitrotoluene	9.259	165	809651	83.69	mg/l		97
51) 2,6-Dinitrotoluene	8.826	165	537897	78.72	mg/l		100
52) Diethyl Phthalate	9.532	149	2406430	79.28	mg/l		98
53) 4-Chlorophenyl-Phenyl ...	9.575	204	1067267	75.86	mg/l		99
54) Fluorene	9.580	166	2121656	75.49	mg/l		100
55) 4-Nitroaniline	9.676	138	473786	83.11	mg/l		92
57) Azobenzene	9.757	77	2930164	79.42	mg/l		97
58) 4,6-Dinitro-2-Methylph...	9.719	198	343275	88.17	mg/l	#	58
59) N-Nitrosodiphenylamine	9.730	169	1629172	76.16	mg/l		97
61) 4-Bromophenyl-Phenyl E...	10.110	248	717769	78.58	mg/l		98
62) Hexachlorobenzene	10.275	142	263288	75.66	mg/l		96
63) Pentachlorophenol	10.484	266	436972	89.47	mg/l		99
64) Phenanthrene	10.645	178	3466210	76.43	mg/l		100
65) Anthracene	10.698	178	3516373	76.86	mg/l		99
66) Di-n-Butyl Phthalate	11.318	149	4095843	75.73	mg/l		100
67) Fluoranthene	11.976	202	3857513	76.54	mg/l		99
68) Benzidine	12.121	184	638150	88.88	mg/l		97
70) Pyrene	12.222	202	3826605	76.11	mg/l		100
72) Butyl Benzyl Phthalate	13.014	149	1838239	78.40	mg/l		99
73) 3,3'-Dichlorobenzidine	13.693	252	630667	82.63	mg/l		98
74) Benzo (a) Anthracene	13.709	228	3394950	79.33	mg/l		100
75) Bis(2-Ethylhexyl) Phth...	13.822	149	2417195	79.22	mg/l		97
76) Chrysene	13.784	228	3166010	79.85	mg/l		99
77) Di-n-Octyl Phthalate	14.816	149	3938934	80.20	mg/l		99
78) Benzo (b) Fluoranthene	15.490	252	3378797m	89.04	mg/l		
79) Benzo (k) Fluoranthene	15.528	252	1962086m	72.53	mg/l		
80) Benzo (a) Pyrene	16.073	252	2254767	83.56	mg/l		99
82) Indeno (1,2,3-c,d) Pyrene	18.347	276	1604334	83.84	mg/l		96
83) Dibenz (a,h) Anthracene	18.395	278	1387932	85.05	mg/l		99
84) Benzo (g,h,i) Perylene	18.903	276	1227252	83.21	mg/l		99

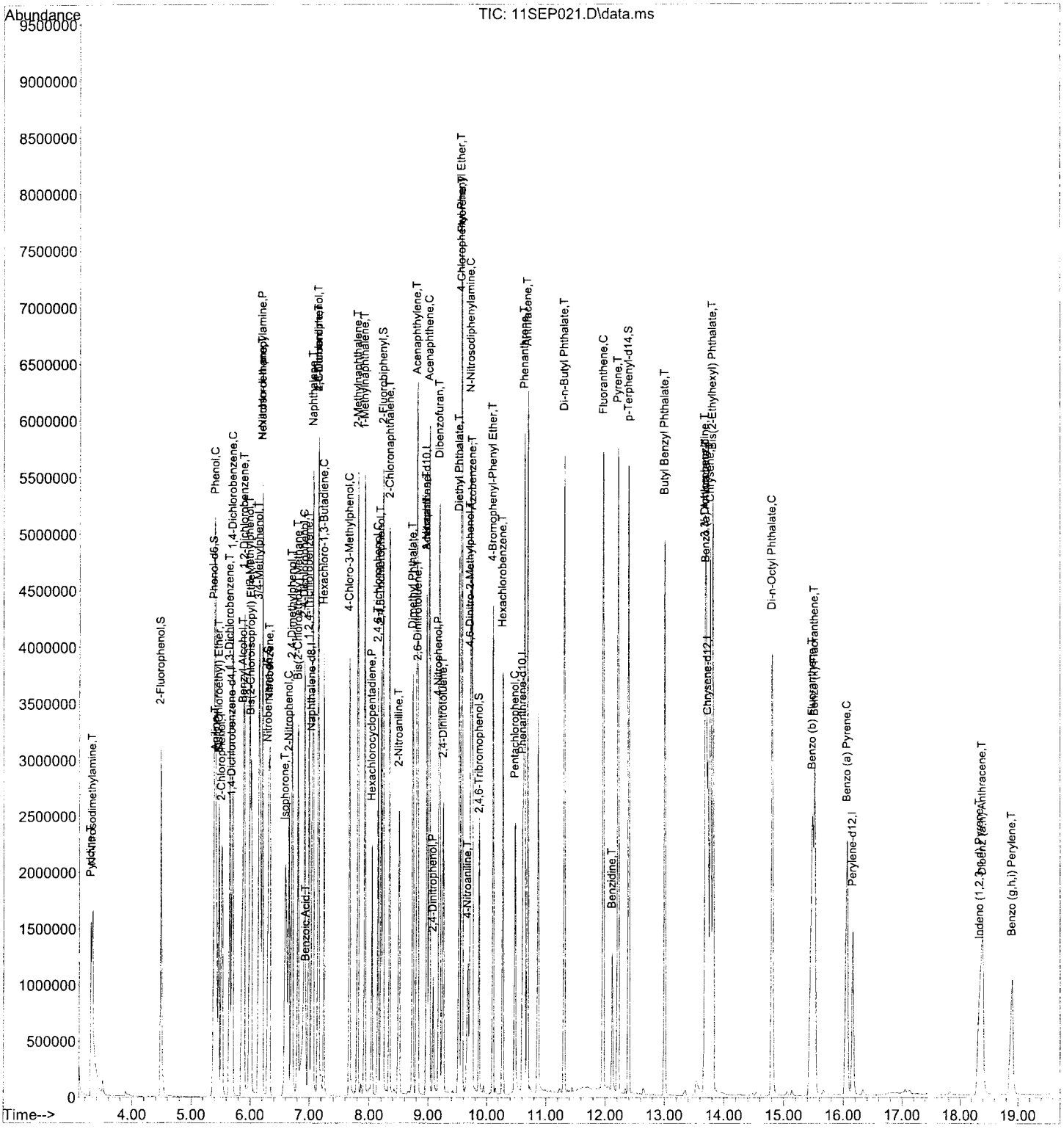
SEP 12 2013 449

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP021.D
Acq On : 11 Sep 2013 8:17 pm
Operator : 449
Sample : ICAL7 S071913P 80PPM BNA
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 12 10:01:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

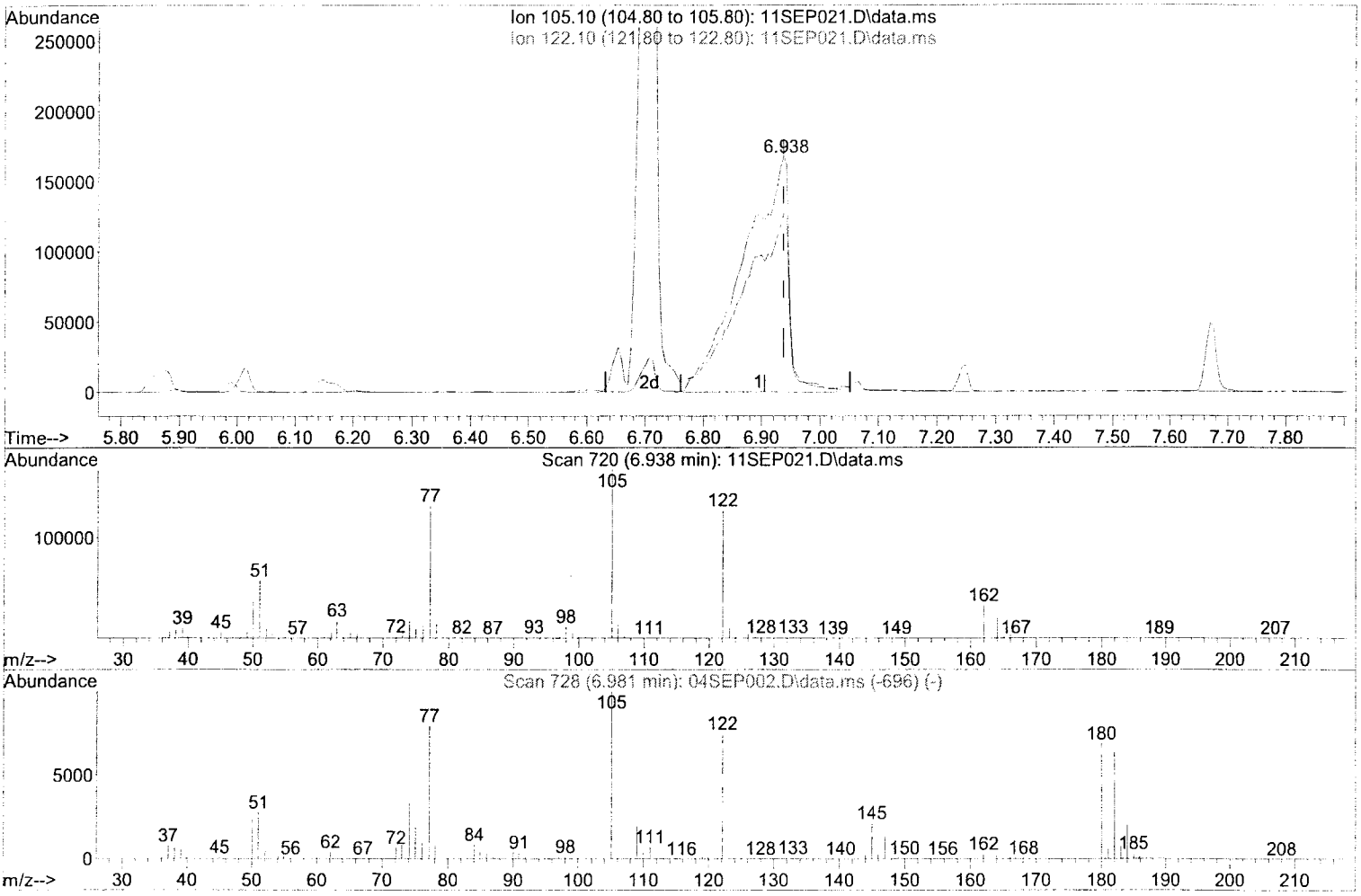


Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP021.D
Acq On : 11 Sep 2013 8:17 pm
Operator : 449
Sample : ICAL7 S071913P 80PPM BNA
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 12 09:44:51 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



TIC: 11SEP021.D\data.ms

(25) Benzoic Acid (T)

6.938min (0.000) 93.22 mg/l m

response 907138

Ion	Exp%	Act%
105.10	100	100
122.10	70.30	38.44#
0.00	0.00	0.00
0.00	0.00	0.00

SEP 12 2013

449

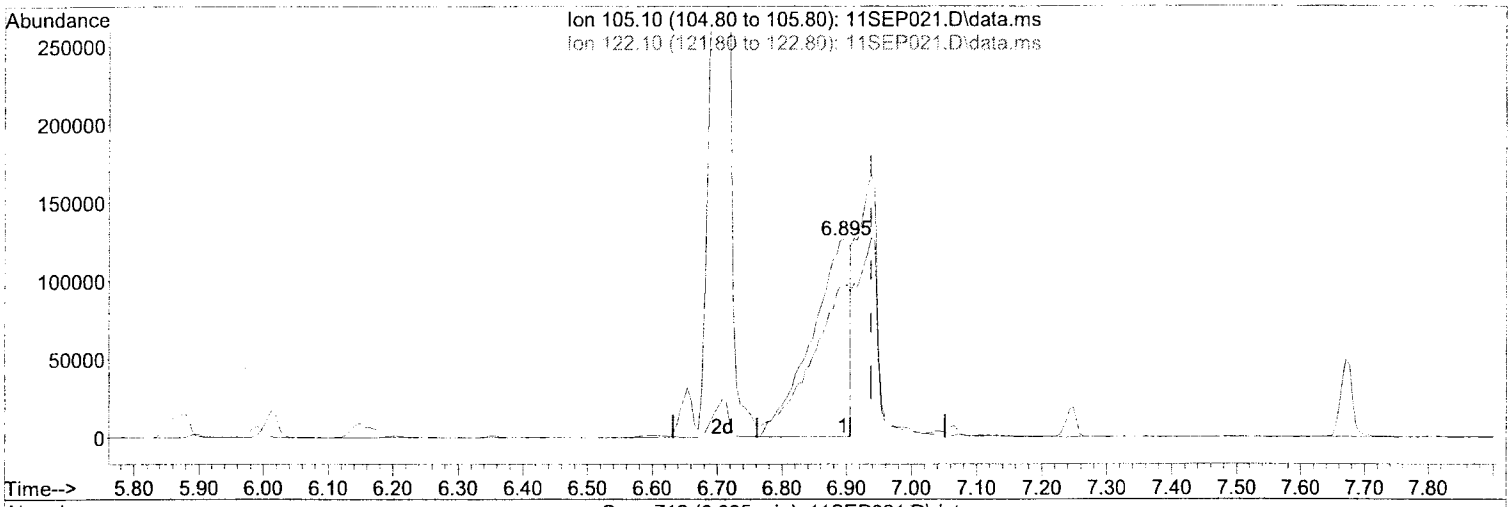
421

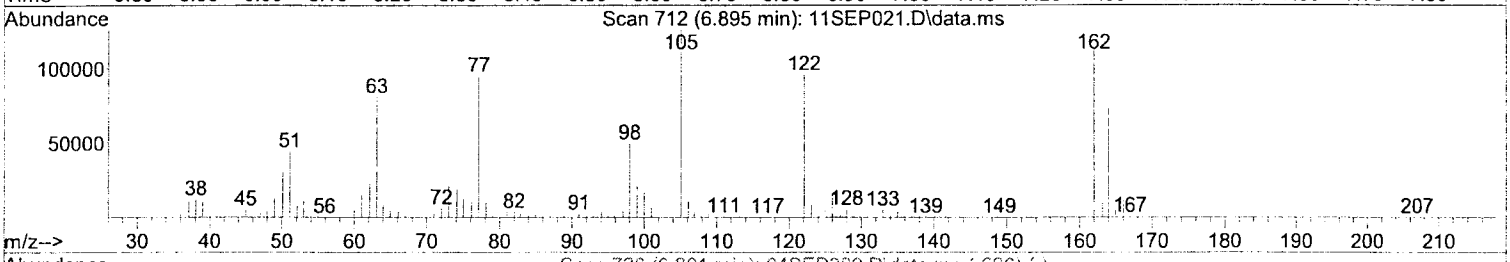
Return to Contents

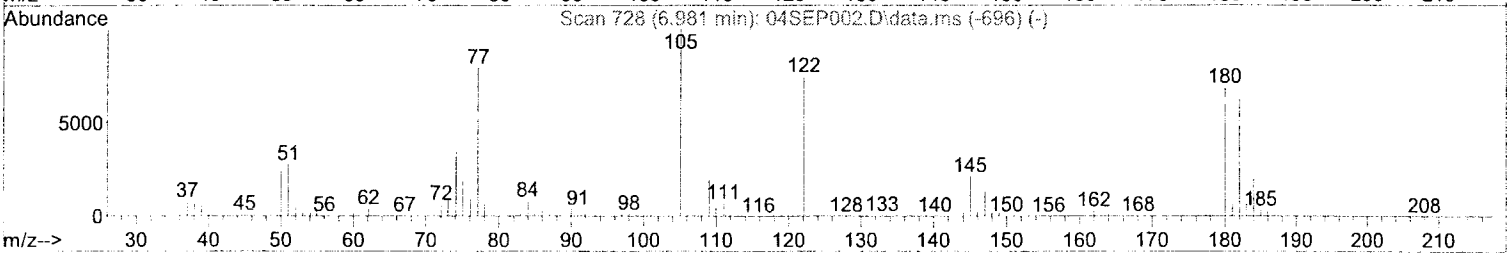
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP021.D
Acq On : 11 Sep 2013 8:17 pm
Operator : 449
Sample : ICAL7 S071913P 80PPM BNA
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 12 09:44:51 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP021.D\data.ms

(25) Benzoic Acid (T)

6.895min (-0.043) 53.78 mg/l

response 523393

Ion	Exp%	Act%
105.10	100	100
122.10	70.30	66.63
0.00	0.00	0.00
0.00	0.00	0.00

SEP 12 2013

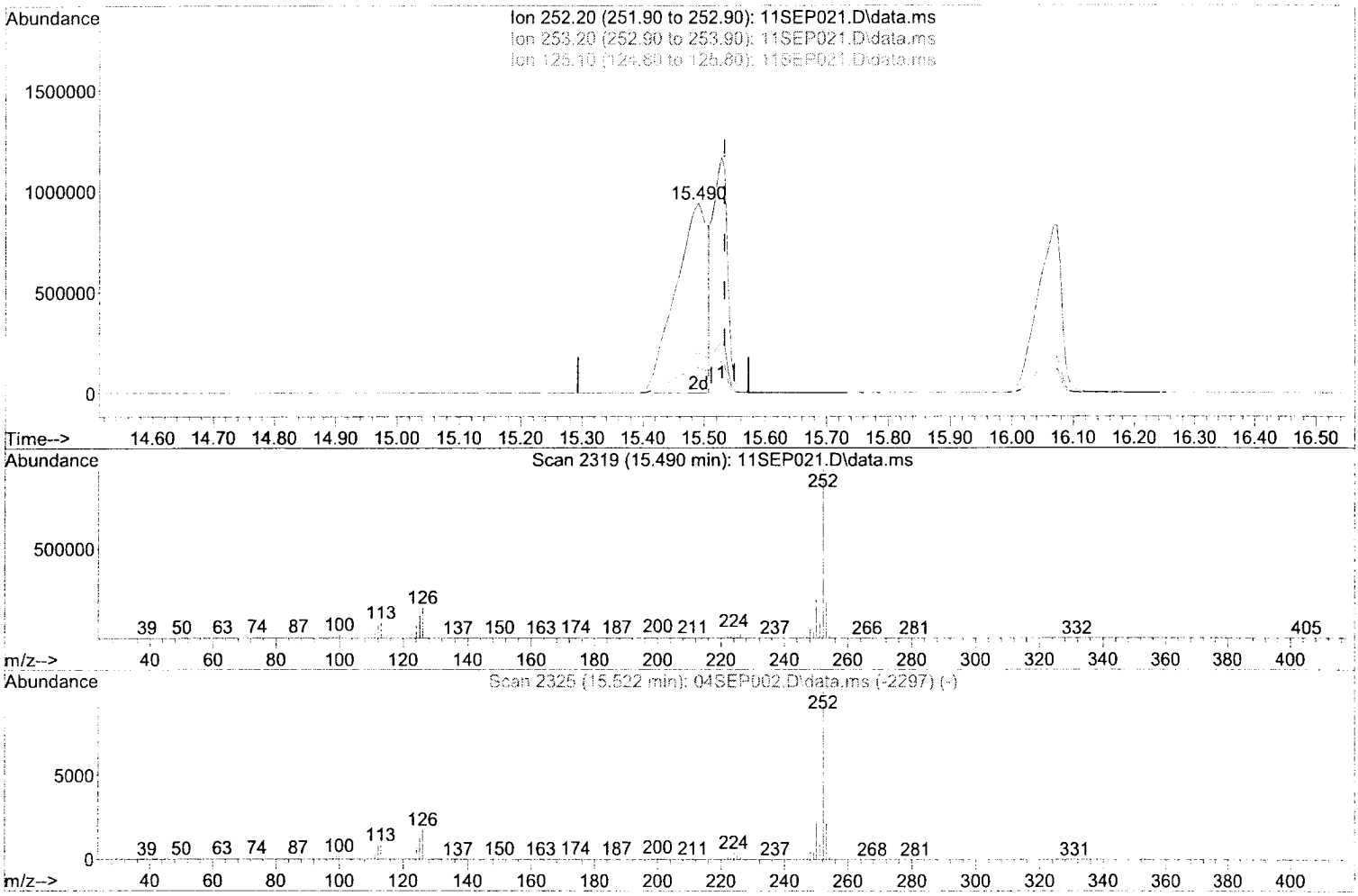
449

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP021.D
Acq On : 11 Sep 2013 8:17 pm
Operator : 449
Sample : ICAL7 S071913P 80PPM BNA
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 12 09:44:51 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



TIC: 11SEP021.D\data.ms

(78) Benzo (b) Fluoranthene (T)

15.490min (-0.043) 89.04 mg/l m

response 3378797

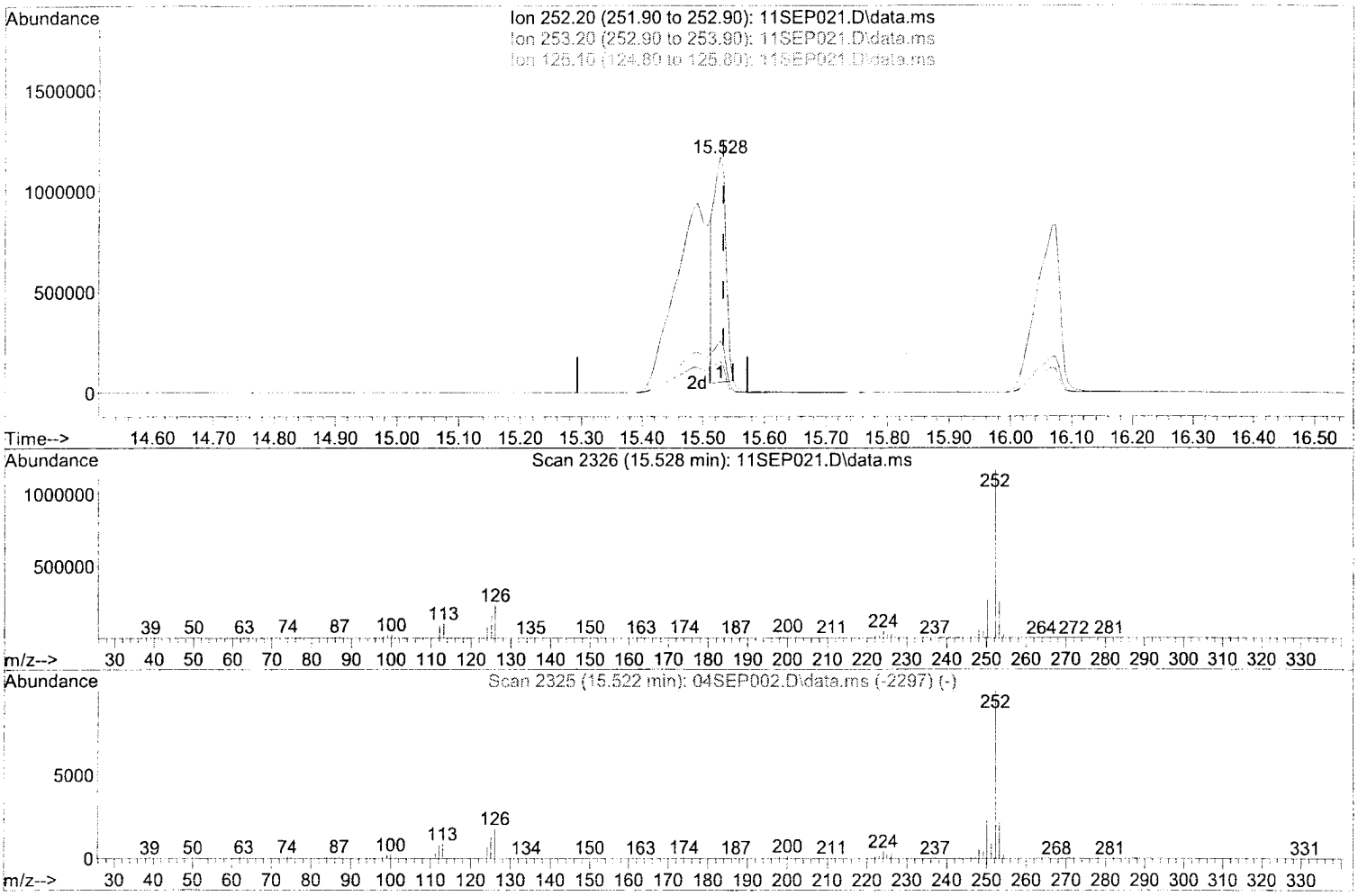
Ion	Exp%	Act%
252.20	100	100
253.20	21.90	9.72
125.10	13.00	5.85
0.00	0.00	0.00

449 SEP 12 2013 421

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP021.D
Acq On : 11 Sep 2013 8:17 pm
Operator : 449
Sample : ICAL7 S071913P 80PPM BNA
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 12 09:44:51 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



TIC: 11SEP021.D\data.ms

(78) Benzo (b) Fluoranthene (T)

15.528min (-0.005) 40.23 mg/l

response 1526741

Ion	Exp%	Act%
252.20	100	100
253.20	21.90	21.51
125.10	13.00	12.95
0.00	0.00	0.00

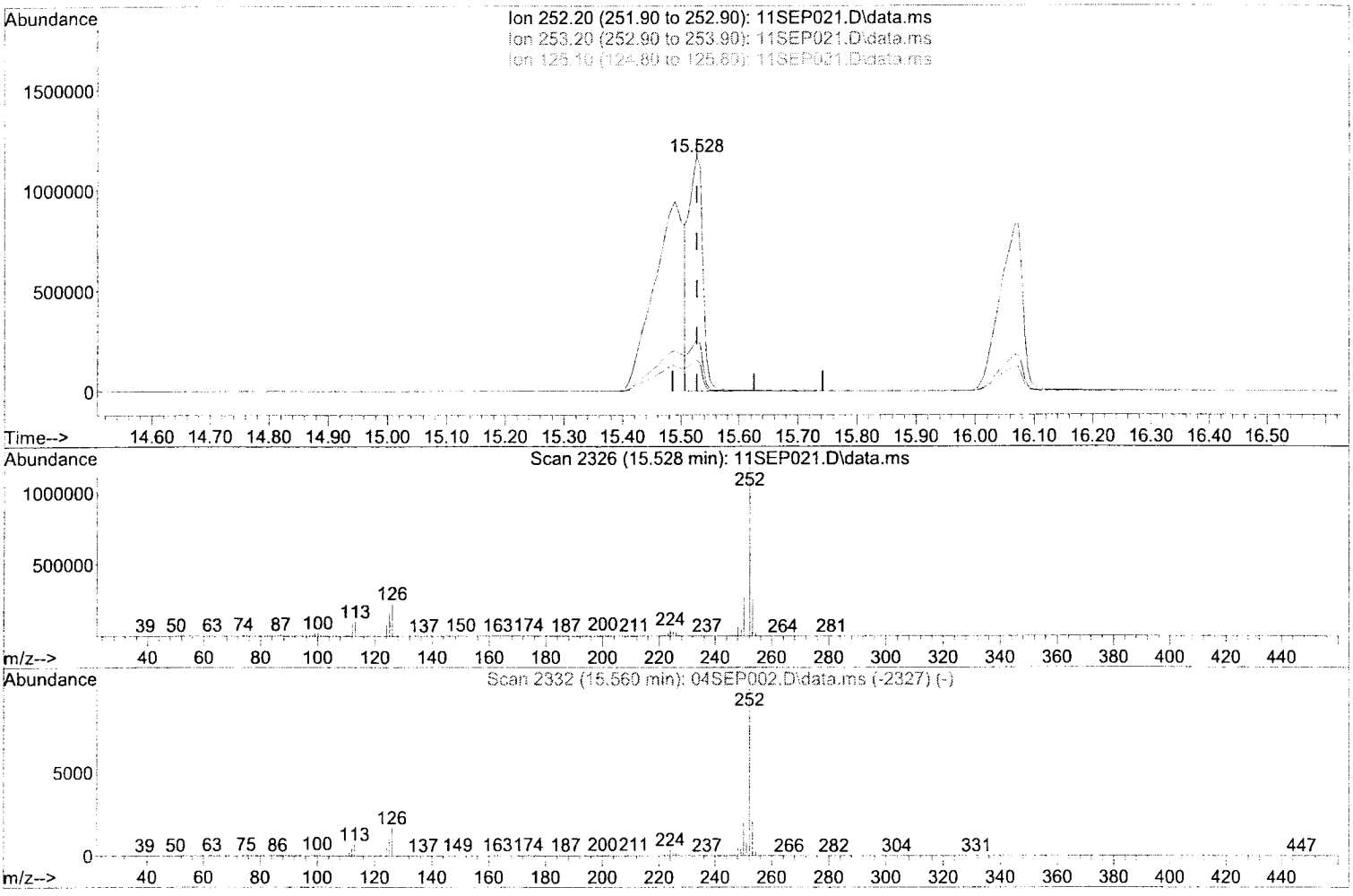
SEP 12 2013
449
421

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP021.D
Acq On : 11 Sep 2013 8:17 pm
Operator : 449
Sample : ICAL7 S071913P 80PPM BNA
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 12 09:45:40 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



TIC: 11SEP021.D\data.ms

(79) Benzo (k) Fluoranthene (T)

15.528min (0.000) 72.53 mg/l m

response 1962086

Ion	Exp%	Act%
252.20	100	100
253.20	21.90	18.32
125.10	13.40	11.05
0.00	0.00	0.00

SEP 12 2013

449

Manual Integration - After

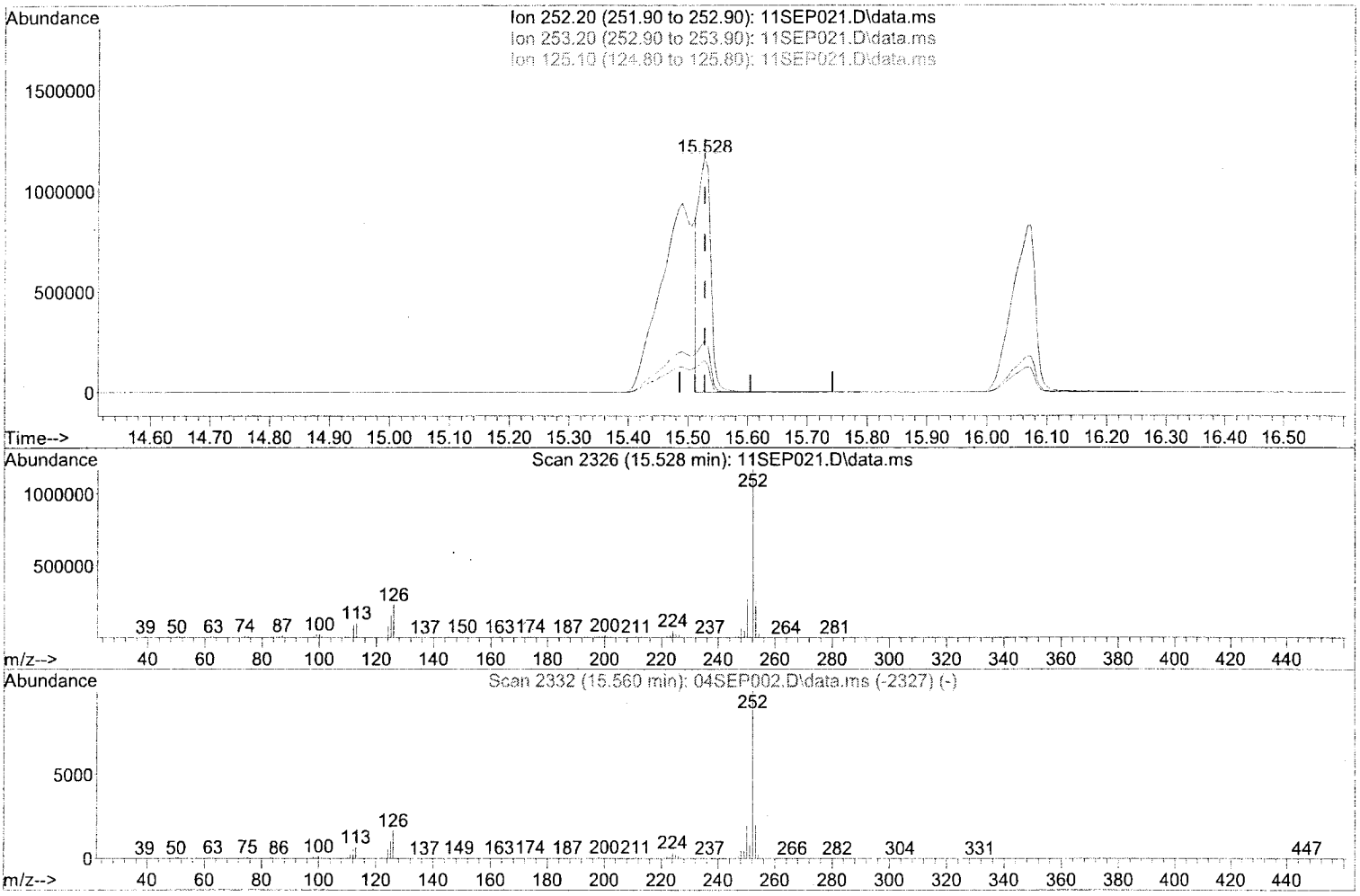
Manual Integration Reason: Baseline or Peak ID Correction

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP021.D
Acq On : 11 Sep 2013 8:17 pm
Operator : 449
Sample : ICAL7 S071913P 80PPM BNA
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 12 10:01:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



TIC: 11SEP021.D\data.ms

(79) Benzo (k) Fluoranthene (T)

15.528min (0.000) 62.16 mg/l m

response 1681474

Ion	Exp%	Act%
252.20	100	100
253.20	21.90	21.37
125.10	13.40	12.90
0.00	0.00	0.00

MANUAL INTEGRATION
BEFORE / AFTER
Date SEP 12 2013
Chemist 449 QC 421
Reason BASELINE CORR PEAK ID CORR
Other
you must sign in red ink on original copy

Manual Integration - After

Manual Integration Reason: Baseline or Peak ID Correction

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP022.D
Acq On : 11 Sep 2013 8:43 pm
Operator : 449
Sample : ICAL8 S0719130 120PPM BNA
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 12 09:41:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:40:25 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.692	152	368752	40.00	mg/l	0.00
19) Naphthalene-d8	7.045	136	1639679	40.00	mg/l	0.00
36) Acenaphthene-d10	8.981	164	921501	40.00	mg/l	0.00
56) Phenanthrene-d10	10.623	188	1695584	40.00	mg/l	0.01
69) Chrysene-d12	13.747	240	1517829	40.00	mg/l	0.01
81) Perylene-d12	16.175	264	1055291	40.00	mg/l	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	4.488	112	1969141	117.66	mg/l	0.00
Spiked Amount 100.000			Recovery = 117.66%			
6) Phenol-d6	5.408	99	2283340	111.40	mg/l	0.02
Spiked Amount 100.000			Recovery = 111.40%			
20) Nitrobenzene-d5	6.318	82	2119527	113.14	mg/l	0.01
Spiked Amount 100.000			Recovery = 113.14%			
41) 2-Fluorobiphenyl	8.248	172	3379443	108.74	mg/l	0.01
Spiked Amount 100.000			Recovery = 108.74%			
60) 2,4,6-Tribromophenol	9.880	330	462778	125.09	mg/l	0.00
Spiked Amount 100.000			Recovery = 125.09%			
71) p-Terphenyl-d14	12.410	244	3992937	112.55	mg/l	0.00
Spiked Amount 100.000			Recovery = 112.55%			
Target Compounds						Qvalue
2) Pyridine	3.301	52	1249896	122.15	mg/l	98
3) N-Nitrosodimethylamine	3.333	74	1320964	117.25	mg/l	88
5) Aniline	5.451	93	2492497m	108.82	mg/l	
7) Phenol	5.419	94	2442931	110.92	mg/l	96
8) Bis(2-Chloroethyl) Ether	5.483	93	1658877	107.51	mg/l	90
9) 2-Chlorophenol	5.531	128	1844186	118.00	mg/l	99
10) 1,3-Dichlorobenzene	5.654	146	1914856	115.09	mg/l	99
11) 1,4-Dichlorobenzene	5.708	146	1802914	113.33	mg/l	99
12) Benzyl Alcohol	5.906	79	1594221	112.58	mg/l	97
13) 1,2-Dichlorobenzene	5.900	146	1612713	106.24	mg/l	100
14) 2-Methylphenol	6.002	108	1587020	114.26	mg/l	92
15) Bis(2-Chloroisopropyl)...	6.018	45	2043477	109.01	mg/l #	71
16) 3/4-Methylphenol	6.162	107	3621885	232.79	mg/l	98
17) N-Nitroso-di-n-propyla...	6.227	70	1212429	105.16	mg/l	98
18) Hexachloroethane	6.211	117	639937	108.74	mg/l	99
21) Nitrobenzene	6.339	77	1983204	111.15	mg/l	99
22) Isophorone	6.617	82	3847136	114.10	mg/l	99
23) 2-Nitrophenol	6.660	139	990949	118.70	mg/l	98
24) 2,4-Dimethylphenol	6.724	107	1877544	114.47	mg/l	96
25) Benzoic Acid	6.943	105	1410146m	145.41	mg/l	
26) Bis(2-Chloroethoxy) Me...	6.820	93	2200277	112.21	mg/l	100
27) 2,4-Dichlorophenol	6.927	162	1419214	114.74	mg/l	100
28) 1,2,4-Trichlorobenzene	6.997	180	1553418	112.03	mg/l	100
29) Naphthalene	7.072	128	4768107	110.60	mg/l	100
30) 2,6-Dichlorophenol	7.157	162	1274570	110.42	mg/l	100
31) 4-Chloroaniline	7.163	127	1703540	112.87	mg/l	98
32) Hexachloro-1,3-Butadiene	7.254	225	816135	110.87	mg/l	100
33) 4-Chloro-3-Methylphenol	7.681	107	1637533	115.85	mg/l	98
34) 2-Methylnaphthalene	7.815	142	3082719	108.88	mg/l	99
35) 1-Methylnaphthalene	7.938	142	2889608	108.79	mg/l	99
37) Hexachlorocyclopentadiene	8.050	237	635776	143.53	mg/l	100
38) 2,4,6-Trichlorophenol	8.163	196	1031906	120.25	mg/l	100
39) 2,4,5-Trichlorophenol	8.211	196	1030962	122.28	mg/l	99
40) 2-Chloronaphthalene	8.355	162	3012669	111.81	mg/l	99

SEP 12 2013

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP022.D
Acq On : 11 Sep 2013 8:43 pm
Operator : 449
Sample : ICAL8 S071913O 120PPM BNA
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 12 09:41:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:40:25 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.521	65	1078647	119.20	mg/l		96
43) Dimethyl Phthalate	8.751	163	3704834	114.87	mg/l		100
44) Acenaphthylene	8.821	152	4449407	108.39	mg/l		100
45) 3-Nitroaniline	8.992	138	761827	132.67	mg/l		99
46) Acenaphthene	9.029	153	2989269	111.15	mg/l		99
47) 2,4-Dinitrophenol	9.099	184	385291	164.98	mg/l		98
48) 4-Nitrophenol	9.200	65	556718	125.21	mg/l	#	1
49) Dibenzofuran	9.206	168	3843219	107.01	mg/l		82
50) 2,4-Dinitrotoluene	9.275	165	1189190	122.97	mg/l		96
51) 2,6-Dinitrotoluene	8.837	165	783899	114.78	mg/l		100
52) Diethyl Phthalate	9.548	149	3368718	111.03	mg/l		98
53) 4-Chlorophenyl-Phenyl ...	9.586	204	1412233	100.43	mg/l		99
54) Fluorene	9.591	166	2858229	101.74	mg/l		100
55) 4-Nitroaniline	9.709	138	688853	120.90	mg/l		85
57) Azobenzene	9.767	77	3890568	107.10	mg/l		95
58) 4,6-Dinitro-2-Methylph...	9.741	198	490769	128.02	mg/l	#	1
59) N-Nitrosodiphenylamine	9.746	169	2204523	104.68	mg/l		96
61) 4-Bromophenyl-Phenyl E...	10.120	248	1035186	115.10	mg/l		97
62) Hexachlorobenzene	10.286	142	363799	106.18	mg/l		91
63) Pentachlorophenol	10.489	266	661761	137.61	mg/l		97
64) Phenanthrene	10.655	178	4878485	109.25	mg/l		100
65) Anthracene	10.709	178	4885748	108.47	mg/l		99
66) Di-n-Butyl Phthalate	11.324	149	5635379	105.83	mg/l		100
67) Fluoranthene	11.982	202	5455312	109.94	mg/l		99
68) Benzidine	12.126	184	998823	141.29	mg/l		97
70) Pyrene	12.233	202	5456289	110.77	mg/l		100
72) Butyl Benzyl Phthalate	13.019	149	2547686	110.91	mg/l		99
73) 3,3'-Dichlorobenzidine	13.715	252	993421	132.84	mg/l		99
74) Benzo (a) Anthracene	13.725	228	4776371	113.92	mg/l		100
75) Bis(2-Ethylhexyl) Phth...	13.832	149	3260282	109.06	mg/l		97
76) Chrysene	13.795	228	4549731	117.12	mg/l		99
77) Di-n-Octyl Phthalate	14.822	149	5428510	112.81	mg/l		99
78) Benzo (b) Fluoranthene	15.512	252	5129425	137.97	mg/l		99
79) Benzo (k) Fluoranthene	15.549	252	2521881m	95.15	mg/l		
80) Benzo (a) Pyrene	16.089	252	3200878	121.07	mg/l		99
82) Indeno (1,2,3-c,d) Pyrene	18.368	276	2136476	115.23	mg/l		95
83) Dibenz (a,h) Anthracene	18.416	278	1854182	117.27	mg/l		99
84) Benzo (g,h,i) Perylene	18.924	276	1597501	111.79	mg/l		100

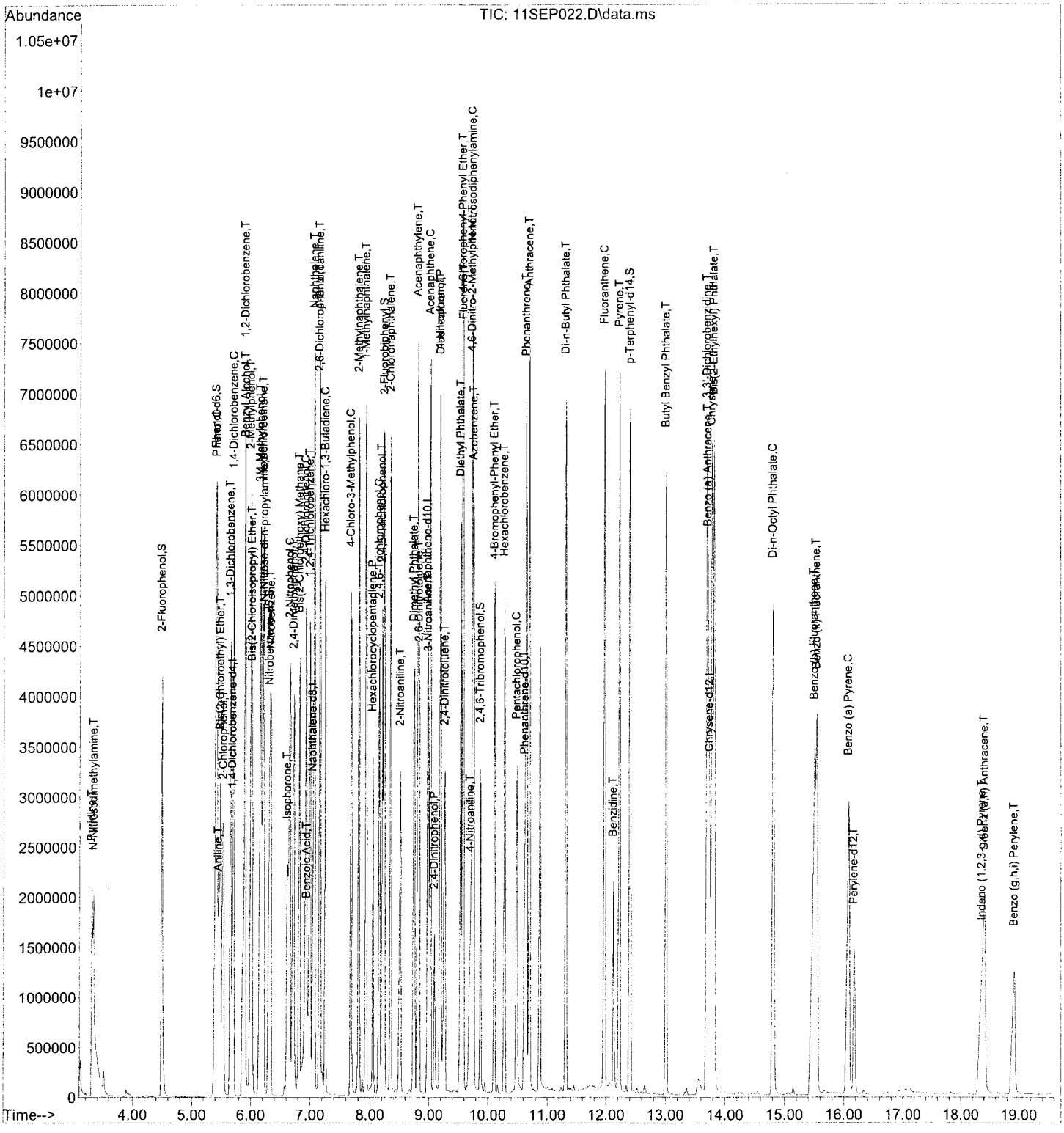
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SEP 12 2013

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP022.D
Acq On : 11 Sep 2013 8:43 pm
Operator : 449
Sample : ICAL8 S0719130 120PPM BNA
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

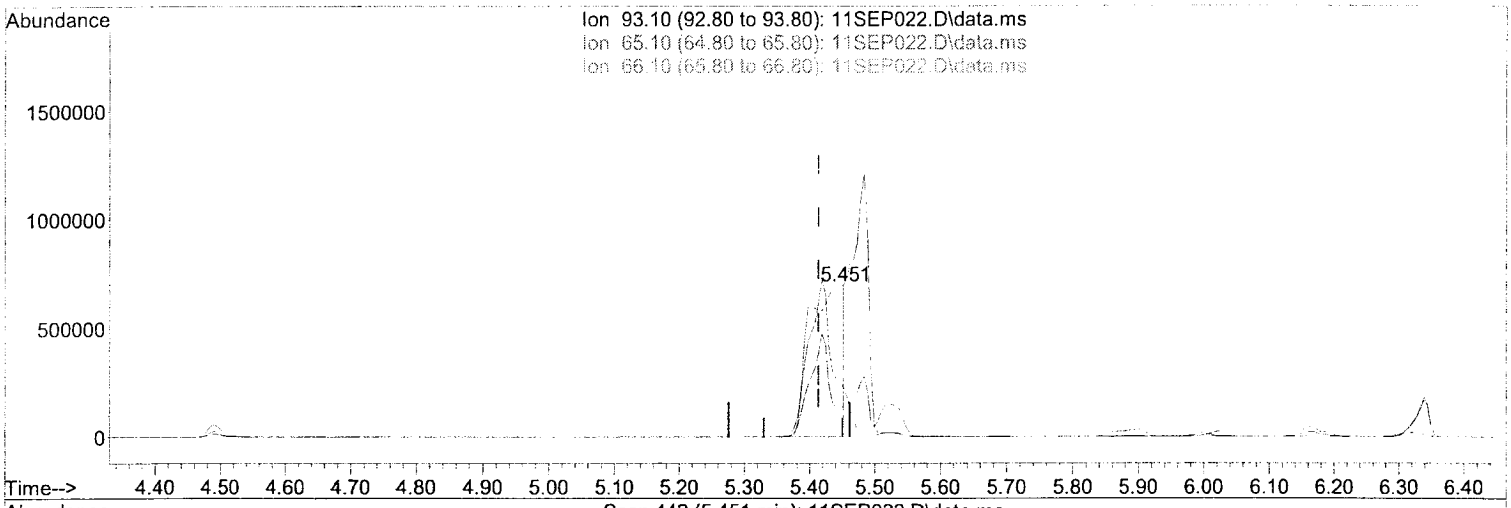
Quant Time: Sep 12 09:41:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:40:25 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

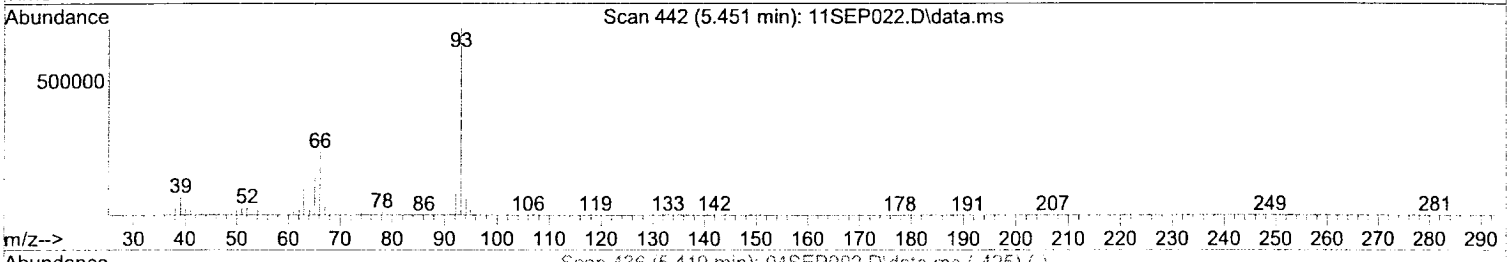


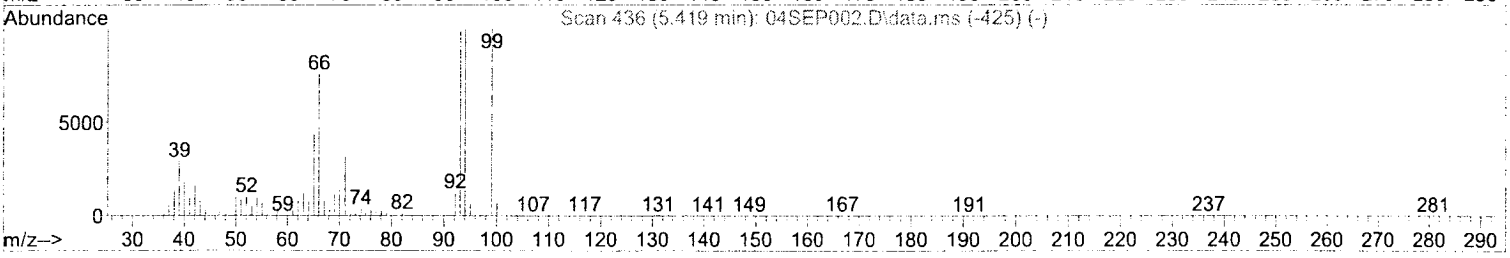
Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP022.D
Acq On : 11 Sep 2013 8:43 pm
Operator : 449
Sample : ICAL8 S0719130 120PPM BNA
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 12 09:40:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:40:25 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP022.D\data.ms

(5) Aniline (T)

5.451min (+0.037) 108.82 mg/l m

response 2492497

Ion	Exp%	Act%
93.10	100	100
65.10	38.50	39.44
66.10	64.60	66.49
0.00	0.00	0.00

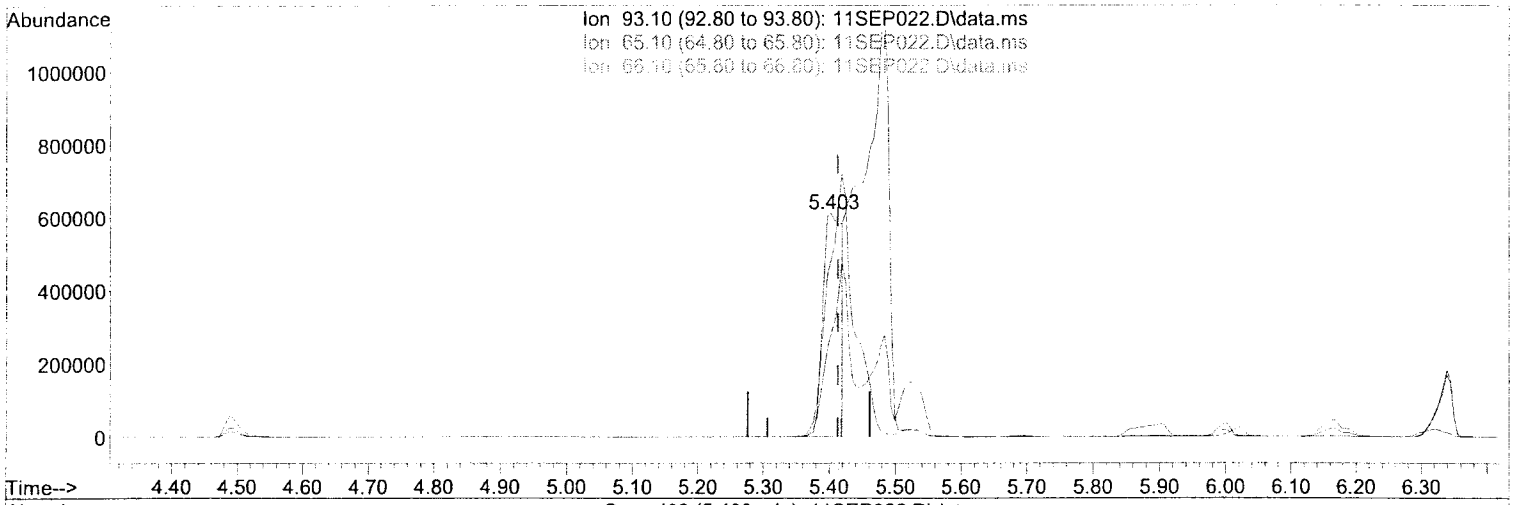
449 SEP 12 2013 421

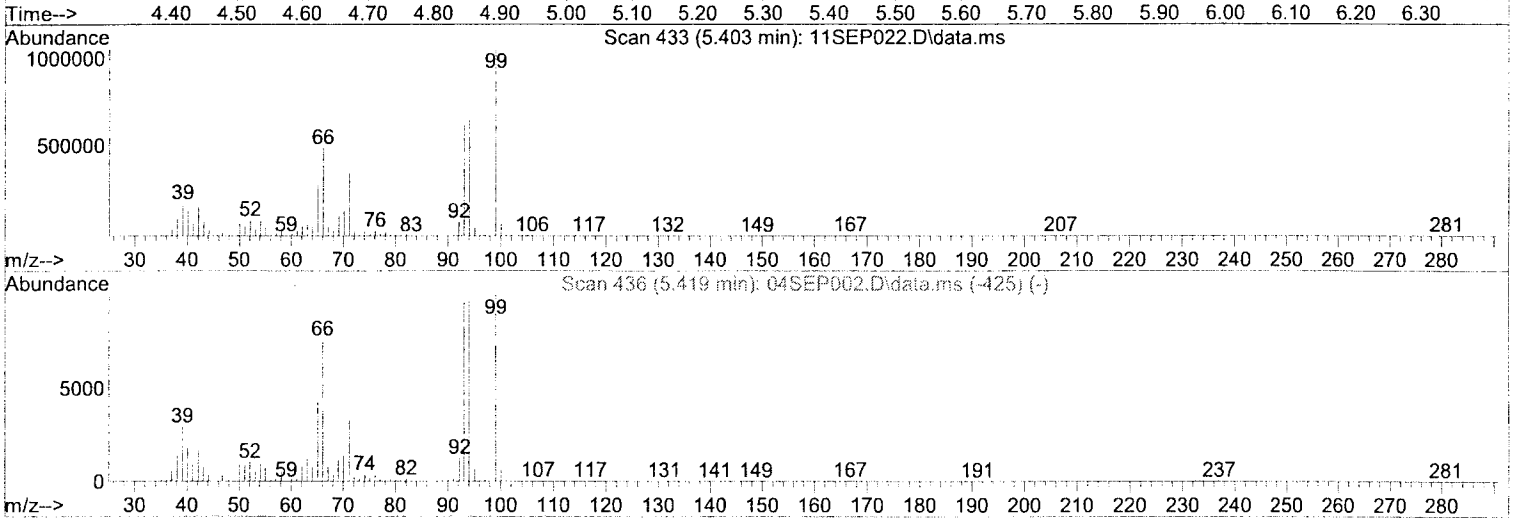
Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP022.D
Acq On : 11 Sep 2013 8:43 pm
Operator : 449
Sample : ICAL8 S0719130 120PPM BNA
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 12 09:40:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:40:25 2013
Response via : Initial Calibration
DataAcq Meth:8270.M





TIC: 11SEP022.D\data.ms

(5) Aniline (T)

5.403min (-0.011) 52.55 mg/l

response 1203593

Ion	Exp%	Act%
93.10	100	100
65.10	38.50	81.67#
66.10	64.60	137.69#
0.00	0.00	0.00

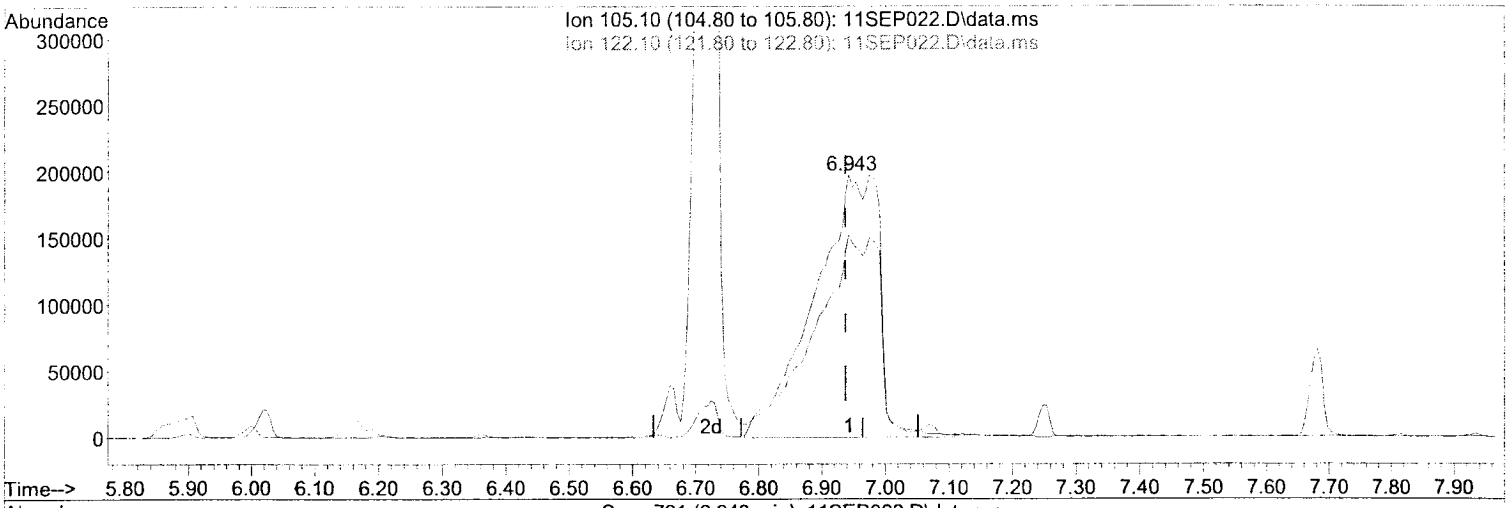
449 SEP 12 2013 421

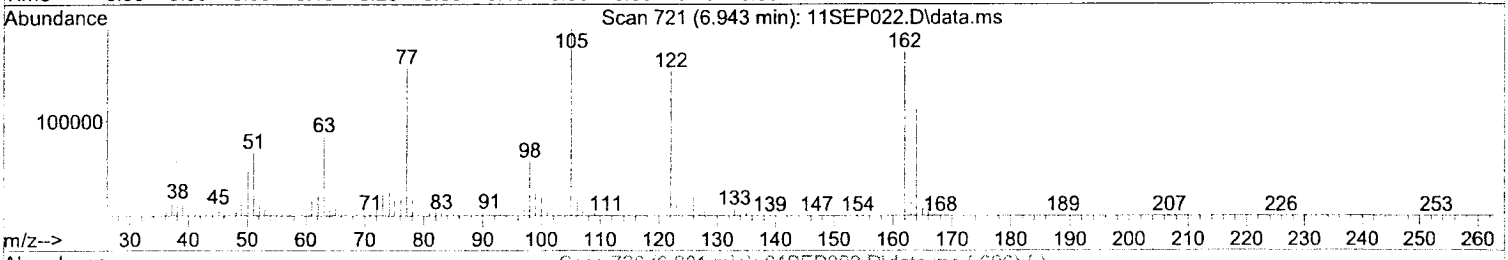
Return to Contents

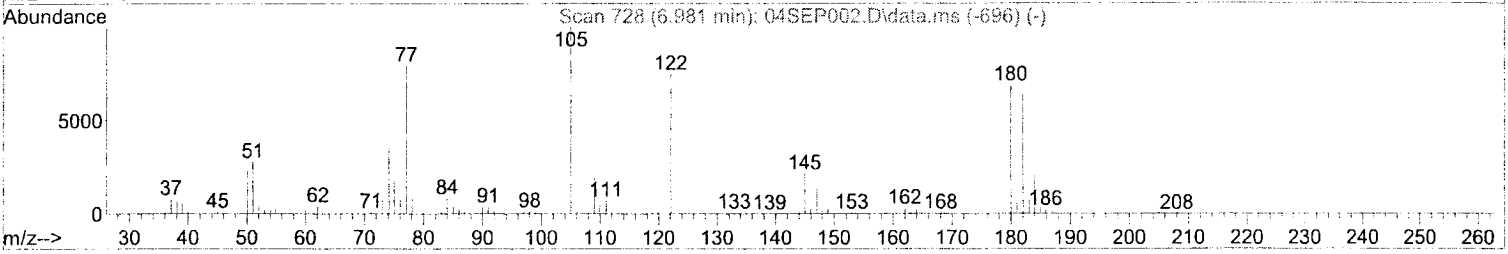
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP022.D
Acq On : 11 Sep 2013 8:43 pm
Operator : 449
Sample : ICAL8 S0719130 120PPM BNA
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 12 09:40:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:40:25 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP022.D\data.ms

(25) Benzoic Acid (T)

6.943min (+0.005) 145.41 mg/l m

response 1410146

Ion	Exp%	Act%
105.10	100	100
122.10	70.30	49.00
0.00	0.00	0.00
0.00	0.00	0.00

449

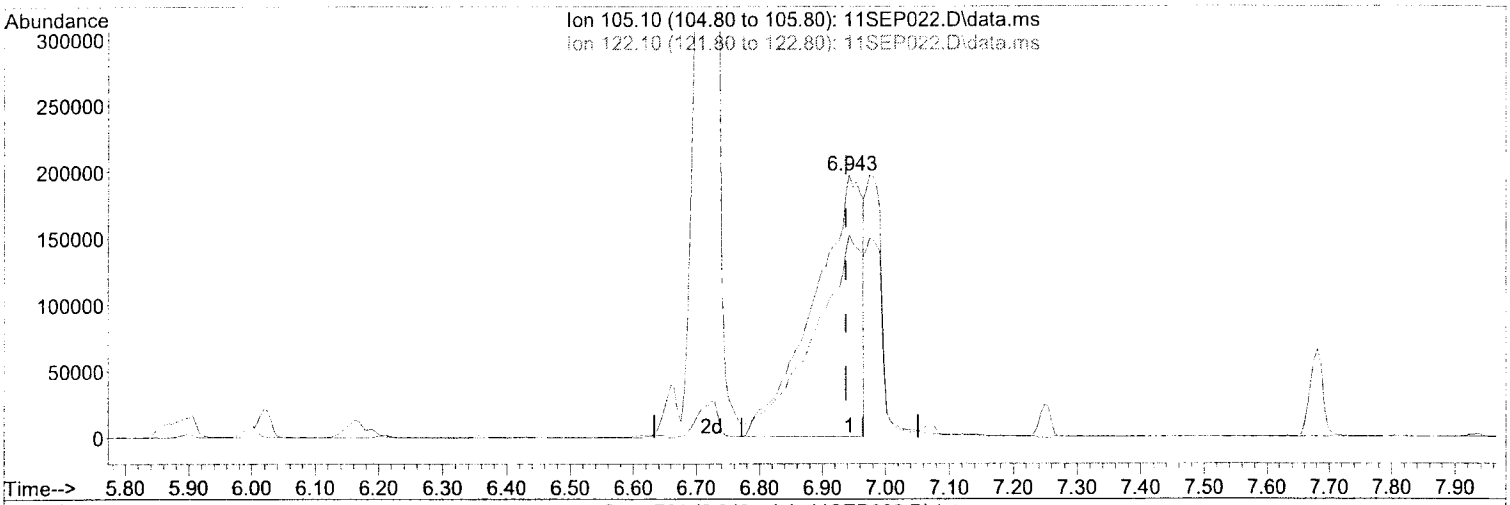
SEP 12 2013 421

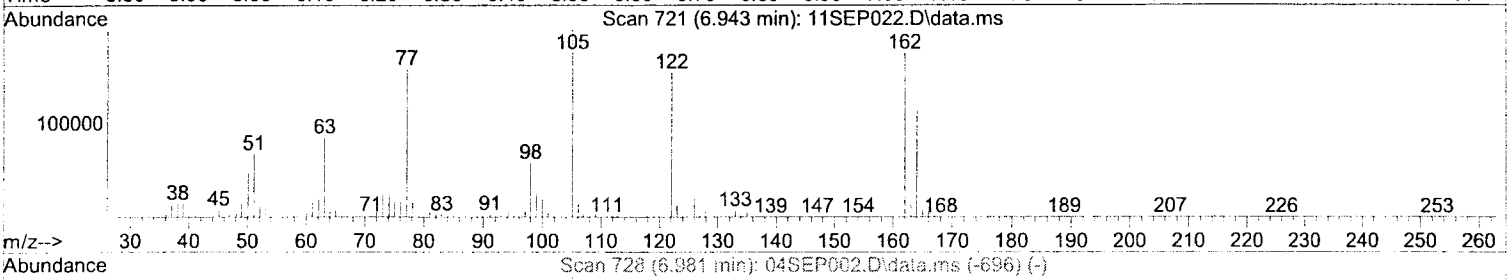
Return to Contents

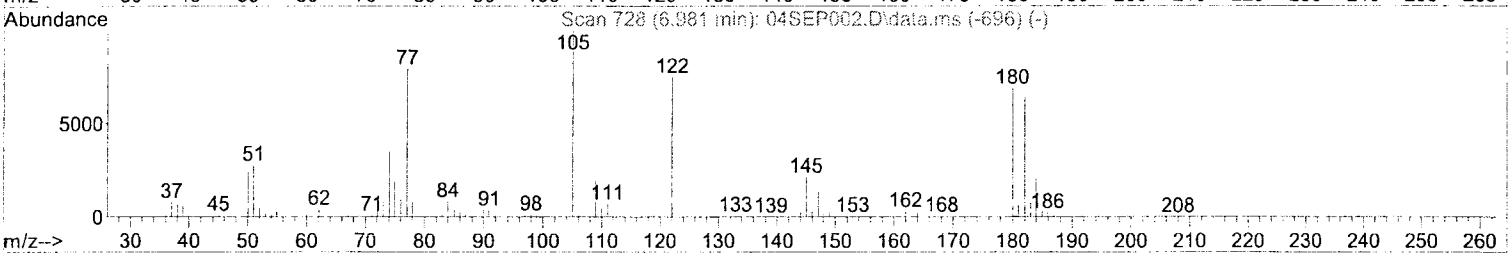
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP022.D
Acq On : 11 Sep 2013 8:43 pm
Operator : 449
Sample : ICAL8 S0719130 120PPM BNA
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 12 09:40:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:40:25 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP022.D\data.ms

(25) Benzoic Acid (T)

6.943min (+0.005) 107.50 mg/l

response 1042451

Ion	Exp%	Act%
105.10	100	100
122.10	70.30	66.29
0.00	0.00	0.00
0.00	0.00	0.00

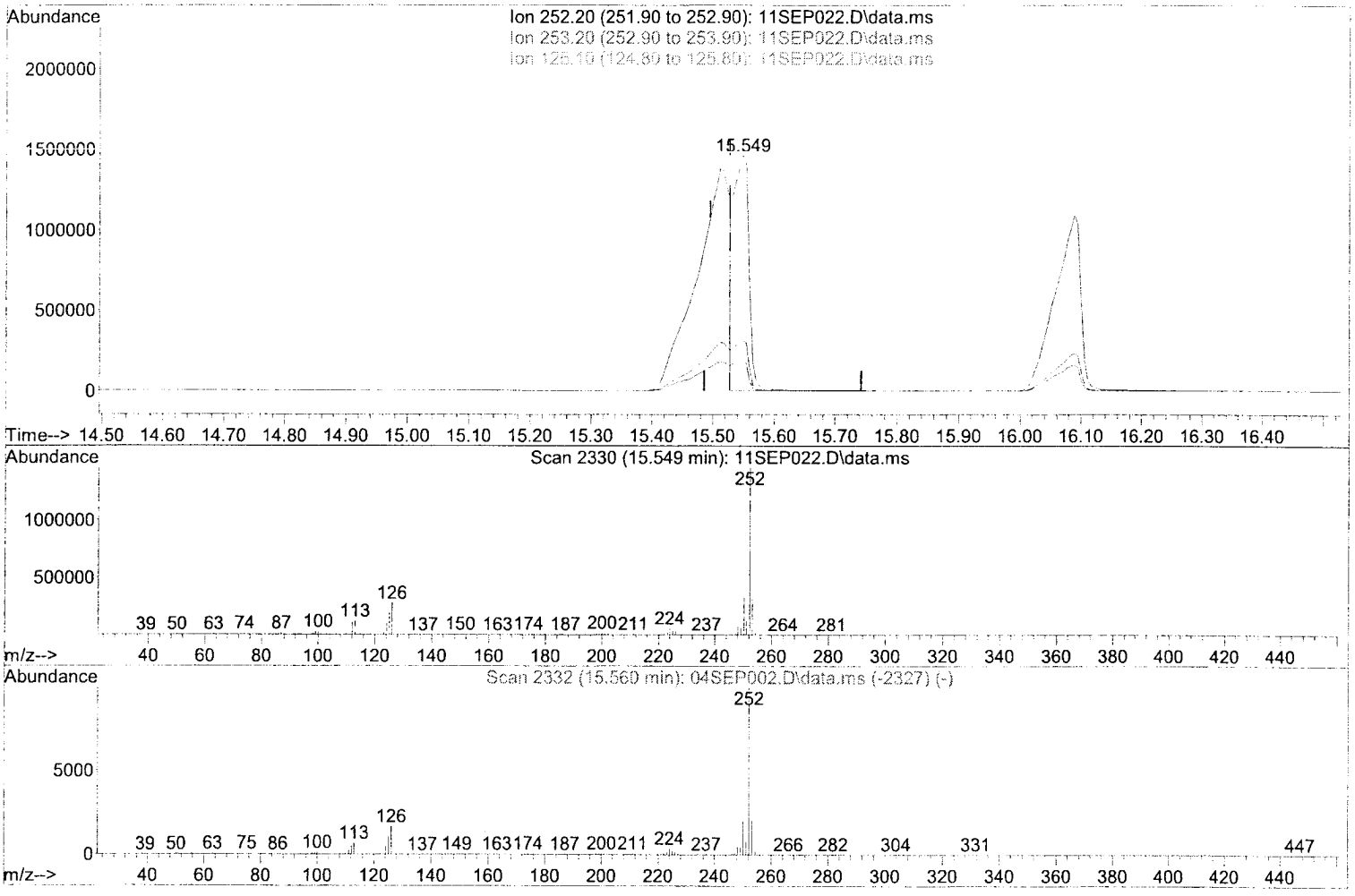
449 SEP 12 2013 421

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP022.D
Acq On : 11 Sep 2013 8:43 pm
Operator : 449
Sample : ICAL8 S0719130 120PPM BNA
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 12 09:40:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:40:25 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



TIC: 11SEP022.D\data.ms

(79) Benzo (k) Fluoranthene (T)

15.549min (+0.021) 95.15 mg/l m

response 2521881

Ion	Exp%	Act%
252.20	100	100
253.20	21.90	3.24
125.10	13.40	1.72
0.00	0.00	0.00

SEP 2 2013

449

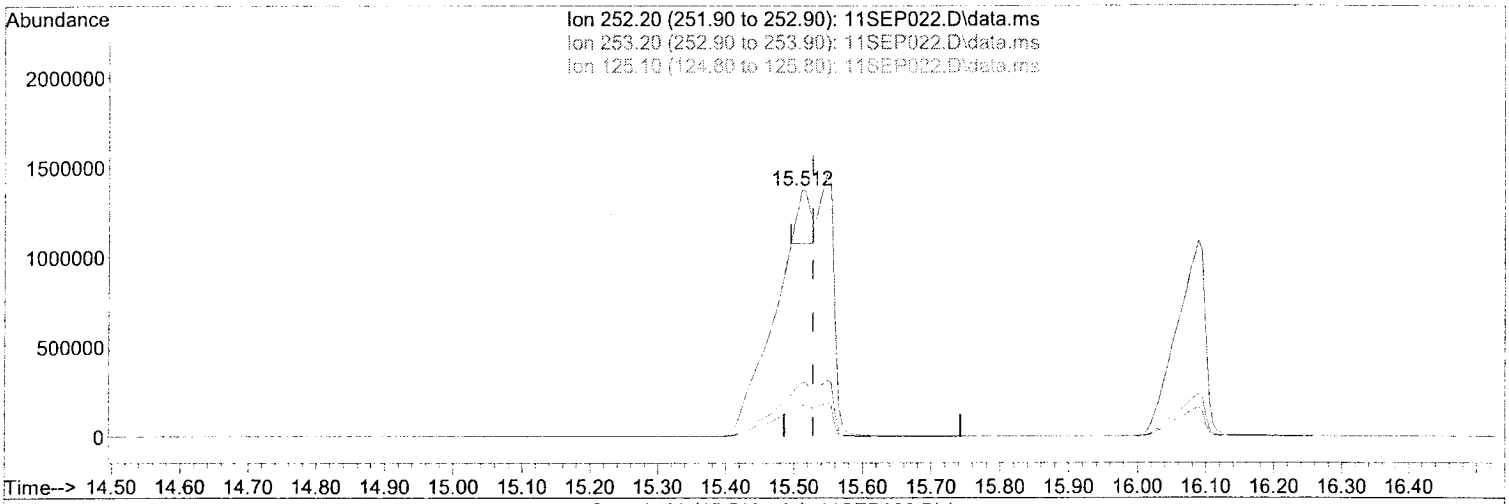
421

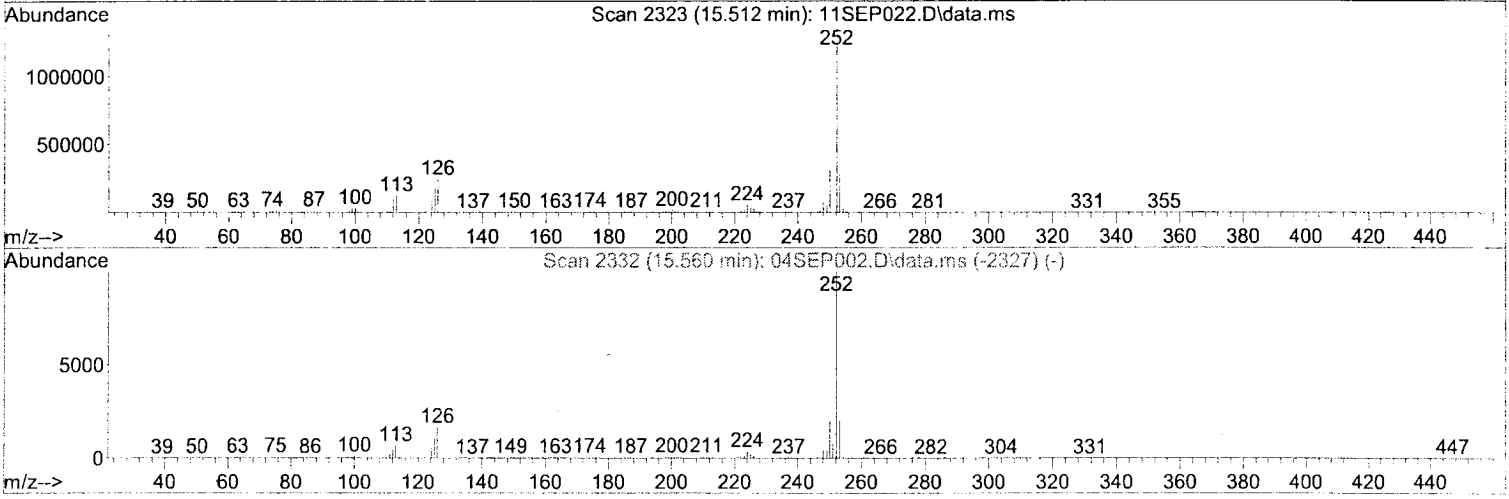
Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP022.D
Acq On : 11 Sep 2013 8:43 pm
Operator : 449
Sample : ICAL8 S0719130 120PPM BNA
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 12 09:40:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:40:25 2013
Response via : Initial Calibration
DataAcq Meth:8270.M





TIC: 11SEP022.D\data.ms

(79) Benzo (k) Fluoranthene (T)

15.512min (-0.016) 14.78 mg/l

response 391776

Ion	Exp%	Act%
252.20	100	100
253.20	21.90	20.89
125.10	13.40	11.06
0.00	0.00	0.00

449 SEP 12 2013 424

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
Sample : ICAL9 S071913N 160PPM BNA
InstName : GCMS SS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 10:00:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.692	152	348182	40.00	mg/l	# 0.00
19) Naphthalene-d8	7.050	136	1579932	40.00	mg/l	0.01
36) Acenaphthene-d10	8.987	164	904480	40.00	mg/l	0.01
56) Phenanthrene-d10	10.629	188	1664717	40.00	mg/l	0.02
69) Chrysene-d12	13.758	240	1461941	40.00	mg/l	0.02
81) Perylene-d12	16.186	264	1014112	40.00	mg/l	0.02
System Monitoring Compounds						
4) 2-Fluorophenol	4.494	112	2466368	156.08	mg/l	0.01
Spiked Amount 100.000			Recovery = 156.08%			
6) Phenol-d6	5.419	99	2807885	145.09	mg/l	0.03
Spiked Amount 100.000			Recovery = 145.09%			
20) Nitrobenzene-d5	6.328	82	2642923	146.41	mg/l	0.02
Spiked Amount 100.000			Recovery = 146.41%			
41) 2-Fluorobiphenyl	8.254	172	4099055	134.37	mg/l	0.02
Spiked Amount 100.000			Recovery = 134.37%			
60) 2,4,6-Tribromophenol	9.890	330	601305	165.55	mg/l	0.02
Spiked Amount 100.000			Recovery = 165.55%			
71) p-Terphenyl-d14	12.415	244	5109964	149.54	mg/l	0.01
Spiked Amount 100.000			Recovery = 149.54%			
Target Compounds			SEP 12 2013			Qvalue
2) Pyridine	3.296	52	1545282	159.94	mg/l	99
3) N-Nitrosodimethylamine	3.338	74	1676460	157.60	mg/l	86
5) Aniline	5.472	93	3878318m	179.33	mg/l	
7) Phenol	5.435	94	3097383	148.95	mg/l	93
8) Bis(2-Chloroethyl) Ether	5.494	93	1586382m	108.89	mg/l	
9) 2-Chlorophenol	5.537	128	2315406	156.91	mg/l	98
10) 1,3-Dichlorobenzene	5.660	146	2382669	151.66	mg/l	99
11) 1,4-Dichlorobenzene	5.713	146	2193267	146.01	mg/l	99
12) Benzyl Alcohol	5.922	79	2099978m	157.05	mg/l	
13) 1,2-Dichlorobenzene	5.906	146	2038889	142.25	mg/l	99
14) 2-Methylphenol	6.007	108	1921799	146.54	mg/l	93
15) Bis(2-Chloroisopropyl)...	6.029	45	2450173	138.43	mg/l	73
16) 3/4-Methylphenol	6.178	107	4433032	301.76	mg/l	99
17) N-Nitroso-di-n-propyla...	6.243	70	1631722	149.90	mg/l	98
18) Hexachloroethane	6.211	117	790063	142.18	mg/l	98
21) Nitrobenzene	6.350	77	2464977	143.37	mg/l	99
22) Isophorone	6.633	82	4620332	142.22	mg/l	86
23) 2-Nitrophenol	6.671	139	1238894	154.01	mg/l	96
24) 2,4-Dimethylphenol	6.740	107	2441868	154.51	mg/l	98
25) Benzoic Acid	7.029	105	1838687m	196.77	mg/l	
26) Bis(2-Chloroethoxy) Me...	6.831	93	2717646	143.83	mg/l	100
27) 2,4-Dichlorophenol	6.938	162	1793314	150.47	mg/l	100
28) 1,2,4-Trichlorobenzene	7.002	180	1926748	144.20	mg/l	100
29) Naphthalene	7.077	128	5885723	141.69	mg/l	99
30) 2,6-Dichlorophenol	7.163	162	1591267	143.07	mg/l	99
31) 4-Chloroaniline	7.173	127	2063567	141.89	mg/l	98
32) Hexachloro-1,3-Butadiene	7.254	225	1003297	141.44	mg/l	100
33) 4-Chloro-3-Methylphenol	7.687	107	2052372	150.69	mg/l	98
34) 2-Methylnaphthalene	7.821	142	3813942	139.80	mg/l	99
35) 1-Methylnaphthalene	7.944	142	3541541	138.38	mg/l	100
37) Hexachlorocyclopentadiene	8.056	237	812158	186.80	mg/l	100
38) 2,4,6-Trichlorophenol	8.168	196	1349598	160.23	mg/l	99
39) 2,4,5-Trichlorophenol	8.222	196	1263712	152.70	mg/l	99
40) 2-Chloronaphthalene	8.361	162	3755817	142.02	mg/l	99

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
Sample : ICAL9 S071913N 160PPM BNA
InstName : GCMS SS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 10:00:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.532	65	1376191	154.94	mg/l		95
43) Dimethyl Phthalate	8.757	163	4727921	149.35	mg/l		100
44) Acenaphthylene	8.826	152	5600529	139.00	mg/l		100
45) 3-Nitroaniline	9.003	138	1043438	185.14	mg/l		98
46) Acenaphthene	9.040	153	3704010	140.32	mg/l		99
47) 2,4-Dinitrophenol	9.110	184	575932	251.25	mg/l		95
48) 4-Nitrophenol	9.222	65	719889	164.96	mg/l	#	1
49) Dibenzofuran	9.211	168	4783128	135.68	mg/l		82
50) 2,4-Dinitrotoluene	9.291	165	1551901	163.50	mg/l		96
51) 2,6-Dinitrotoluene	8.853	165	1014796	151.38	mg/l		98
52) Diethyl Phthalate	9.559	149	4127909	138.61	mg/l		98
53) 4-Chlorophenyl-Phenyl ...	9.591	204	1667423	120.81	mg/l		98
54) Fluorene	9.602	166	3460782	125.51	mg/l		100
55) 4-Nitroaniline	9.735	138	899359	160.81	mg/l		87
57) Azobenzene	9.778	77	4562314	127.92	mg/l		96
58) 4,6-Dinitro-2-Methylph...	9.762	198	619554	164.61	mg/l	#	1
59) N-Nitrosodiphenylamine	9.751	169	2646826	128.01	mg/l		96
61) 4-Bromophenyl-Phenyl E...	10.126	248	1309333	148.29	mg/l		97
62) Hexachlorobenzene	10.292	142	446082	132.60	mg/l		87
63) Pentachlorophenol	10.495	266	890501	188.61	mg/l		98
64) Phenanthrene	10.666	178	6315084	144.04	mg/l		100
65) Anthracene	10.719	178	6081104	137.51	mg/l		99
66) Di-n-Butyl Phthalate	11.329	149	7026781	134.41	mg/l		100
67) Fluoranthene	11.992	202	6893994	141.50	mg/l		98
68) Benzidine	12.132	184	1366267	196.85	mg/l		97
70) Pyrene	12.244	202	6888148	145.19	mg/l		100
72) Butyl Benzyl Phthalate	13.025	149	3235338	146.22	mg/l		98
73) 3,3'-Dichlorobenzidine	13.731	252	1469553	204.03	mg/l		98
74) Benzo (a) Anthracene	13.720	228	6117929	151.50	mg/l		100
75) Bis(2-Ethylhexyl) Phth...	13.838	149	3923755	136.27	mg/l		97
76) Chrysene	13.811	228	5673030	151.61	mg/l		99
77) Di-n-Octyl Phthalate	14.827	149	7025363	151.58	mg/l		99
78) Benzo (b) Fluoranthene	15.533	252	7107793	198.49	mg/l		99
79) Benzo (k) Fluoranthene	15.571	252	2779496m	108.88	mg/l		
80) Benzo (a) Pyrene	16.111	252	4091637	160.68	mg/l		99
82) Indeno (1,2,3-c,d) Pyrene	18.389	276	2515719	141.20	mg/l		96
83) Dibenz (a,h) Anthracene	18.432	278	2203237	145.01	mg/l		99
84) Benzo (g,h,i) Perylene	18.940	276	1846962	134.50	mg/l		99

SEP 12 2013

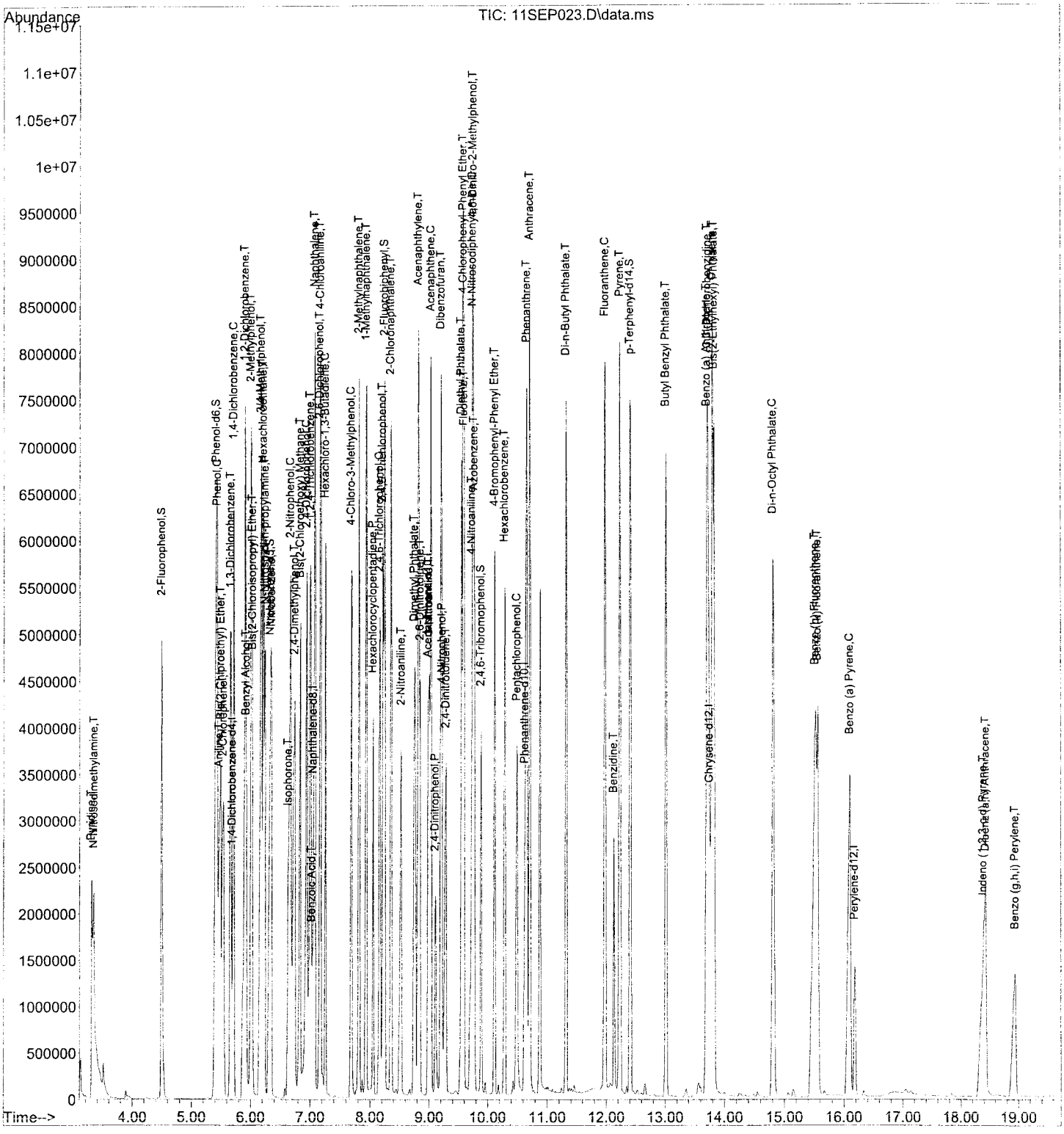
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
Sample : ICAL9 S071913N 160PPM BNA
InstName : GCMS SS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 10:00:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
Sample : ICAL9 S071913N 160PPM BNA
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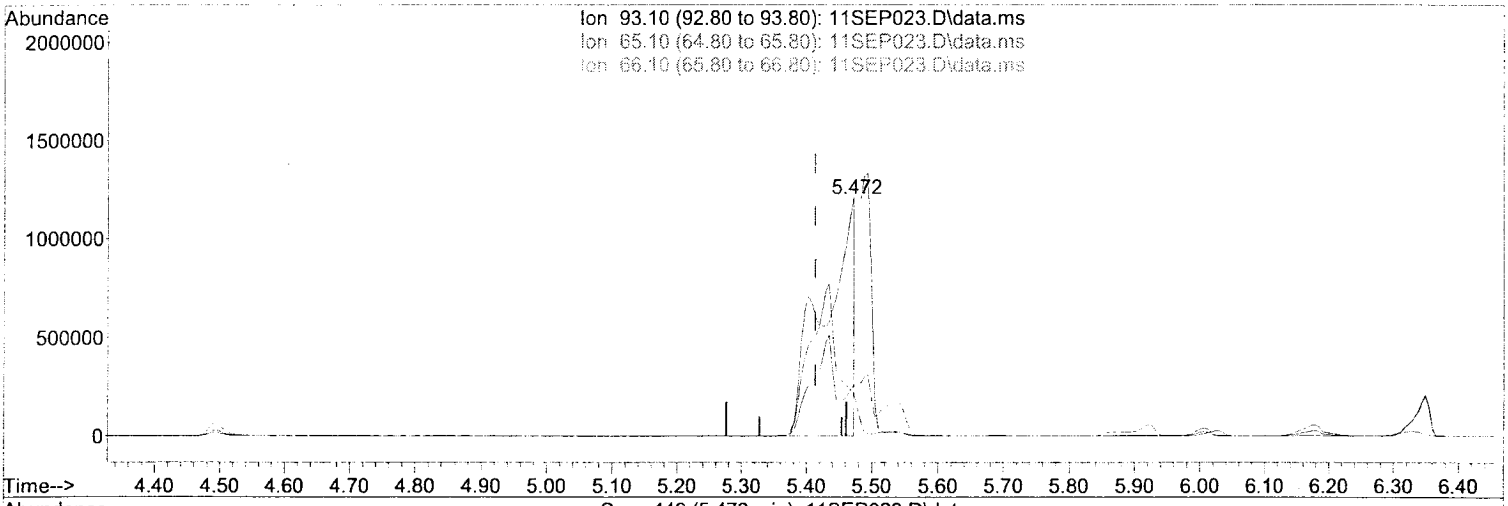
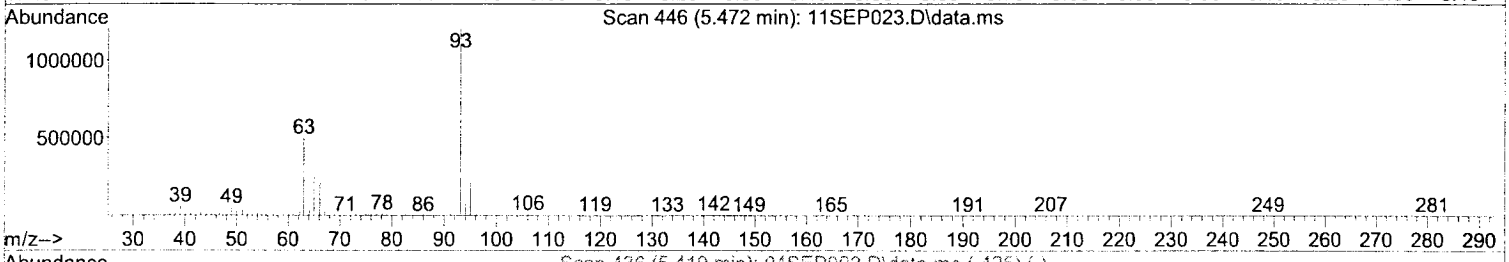
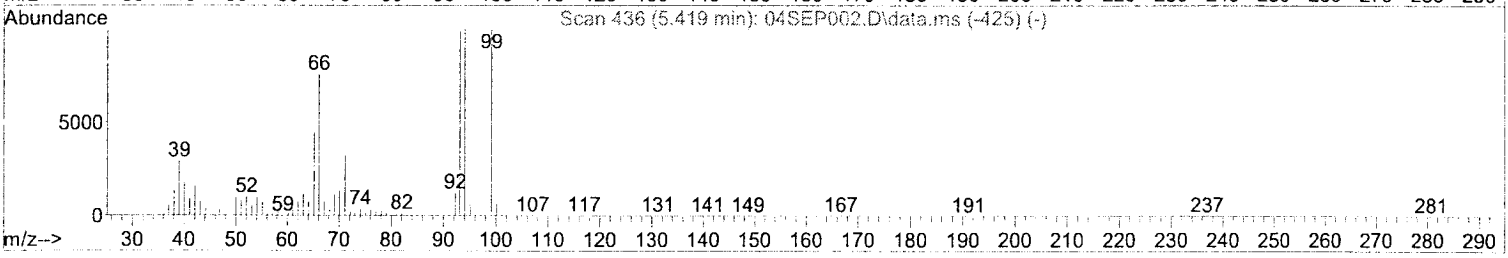
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 09:43:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP023.D\data.ms

(5) Aniline (T)

5.472min (+0.059) 179.33 mg/l m

response 3878318

Ion	Exp%	Act%
93.10	100	100
65.10	38.50	28.11
66.10	64.60	47.14
0.00	0.00	0.00

449 SEP 12 2013 421

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
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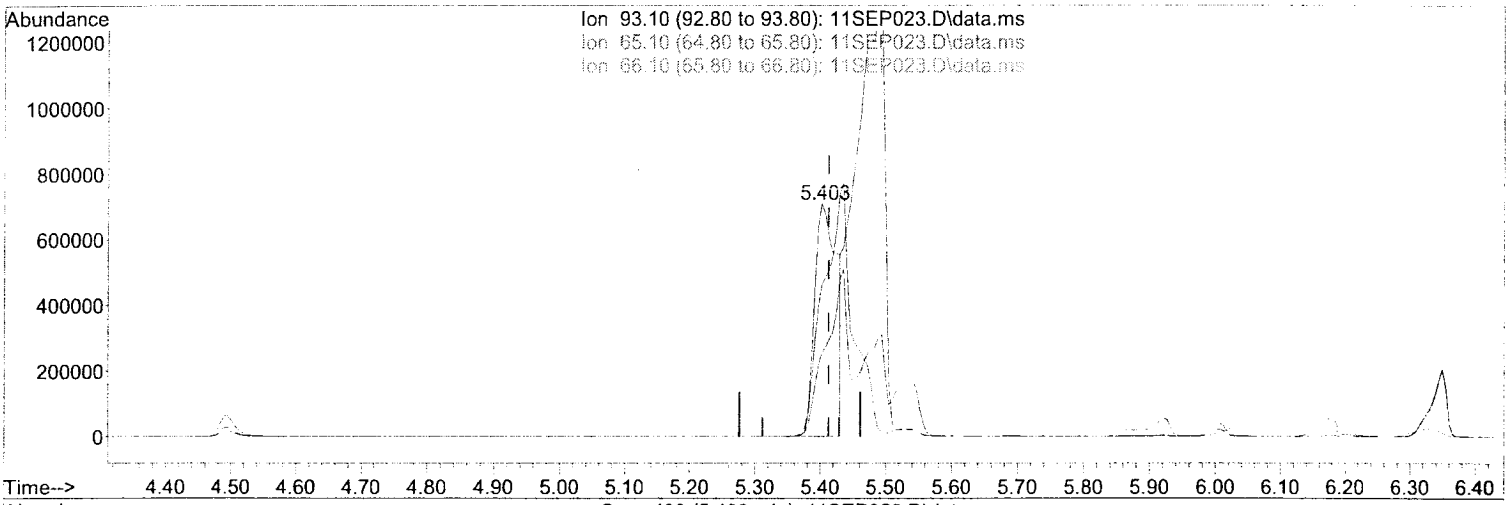
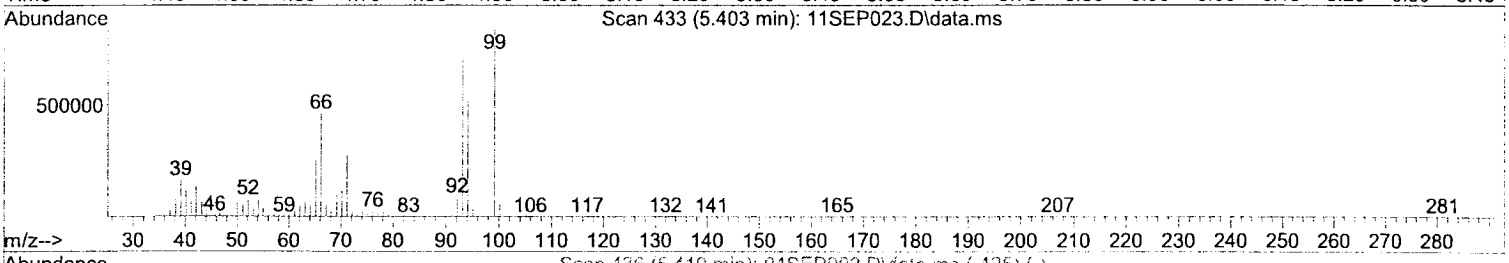
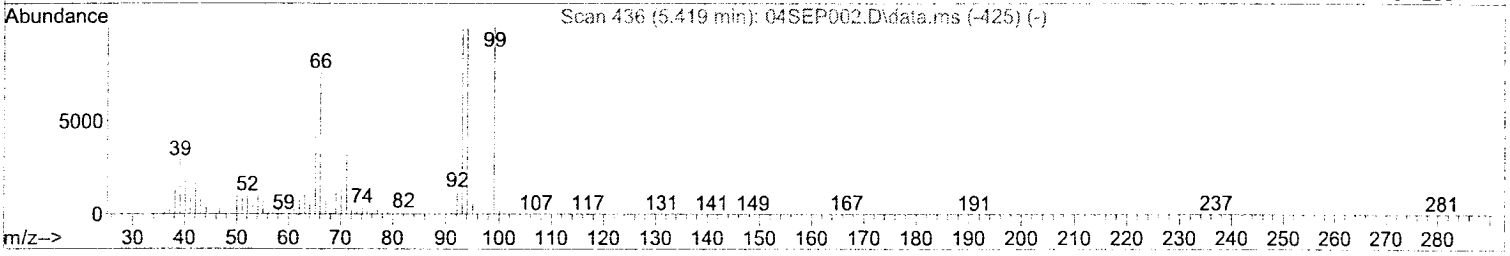
InstName : GCMS SS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 09:43:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP023.D\data.ms

(5) Aniline (T)

5.403min (-0.011) 76.81 mg/l

response 1661045

Ion	Exp%	Act%
93.10	100	100
65.10	38.50	65.63
66.10	64.60	110.07#
0.00	0.00	0.00

SEP 12 2013

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
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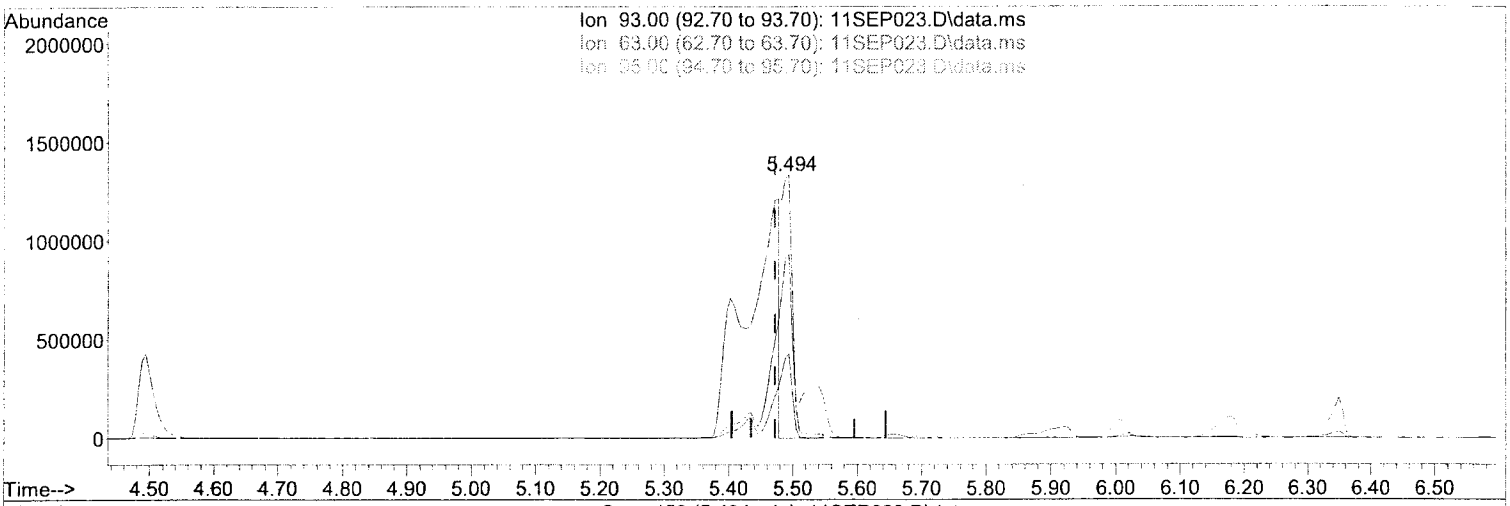

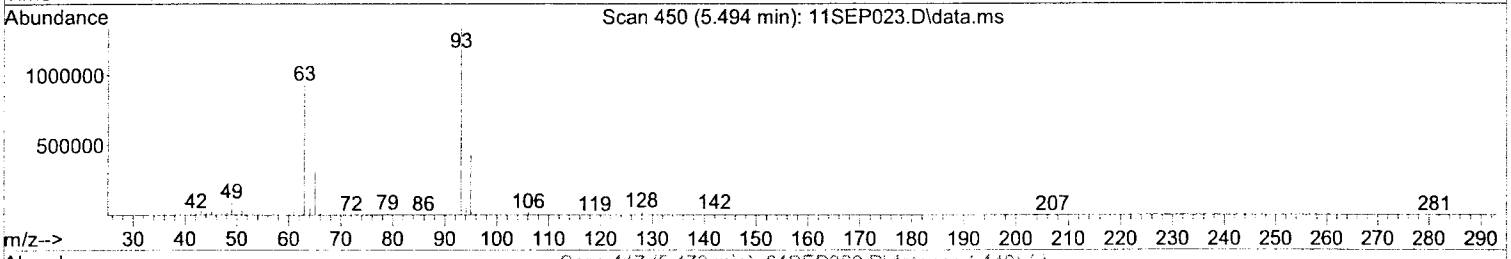

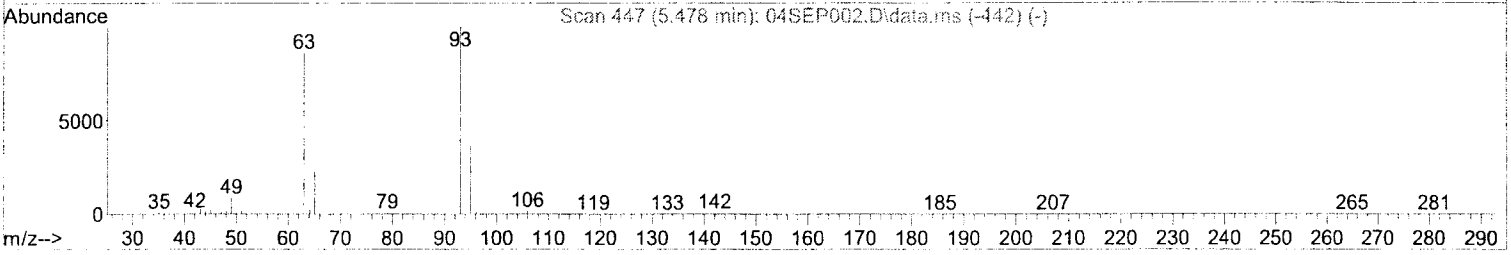

TIC: 11SEP023.D\data.ms

(8) Bis(2-Chloroethyl) Ether (T)

5.494min (+0.021) 108.89 mg/l m

response 1586382

Ion	Exp%	Act%
93.00	100	100
63.00	68.30	101.25#
95.00	31.60	46.79
0.00	0.00	0.00

SEP 12 2013

Return to Contents

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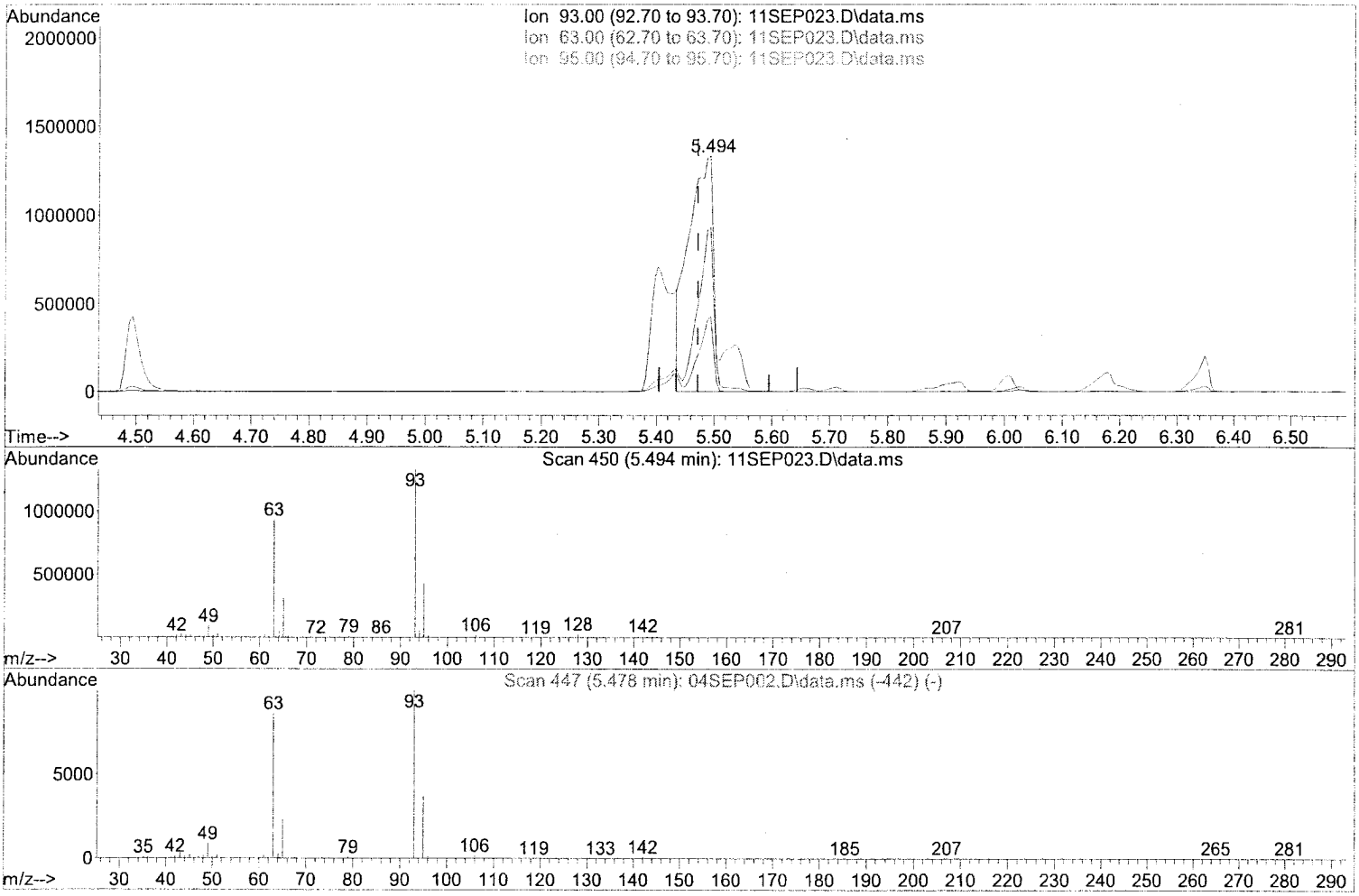

TIC: 11SEP023.D\data.ms

(8) Bis(2-Chloroethyl) Ether (T)

5.494min (+0.021) 274.84 mg/l

response 4004165

Ion	Exp%	Act%
93.00	100	100
63.00	68.30	40.12
95.00	31.60	18.54
0.00	0.00	0.00

SEP 12 2013
449
421

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
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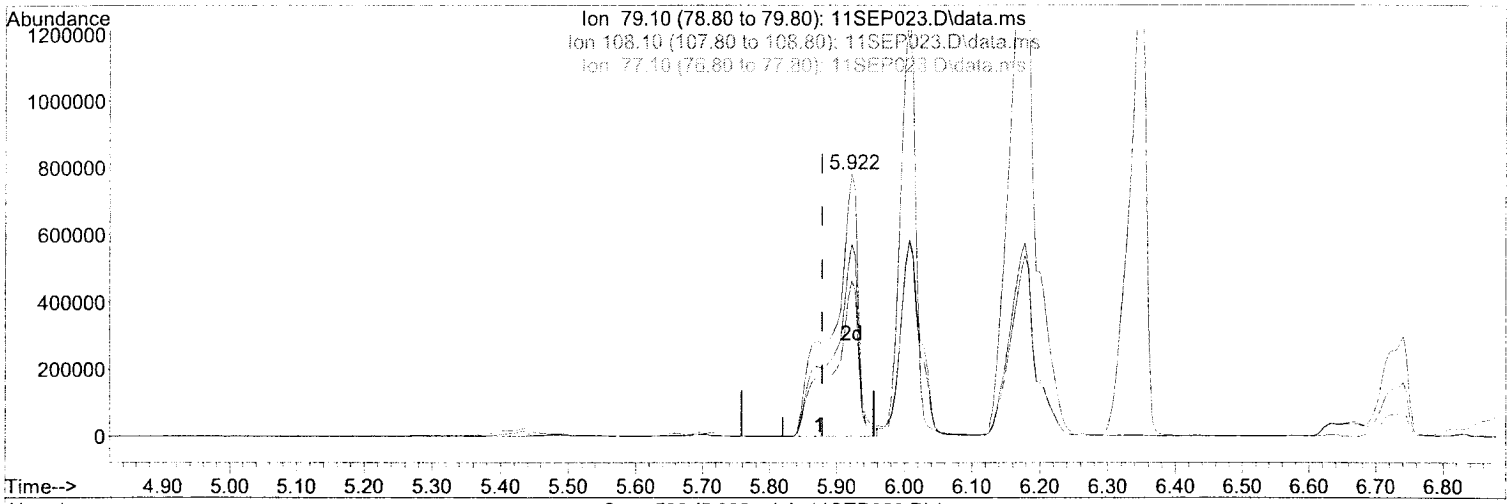
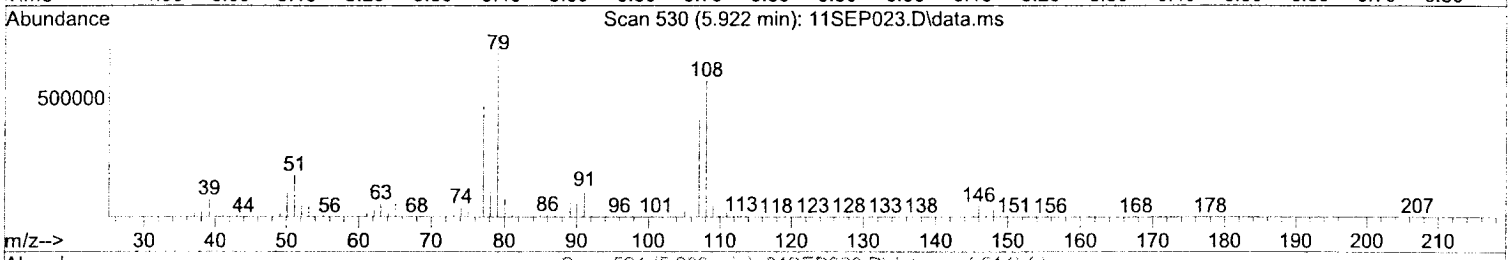
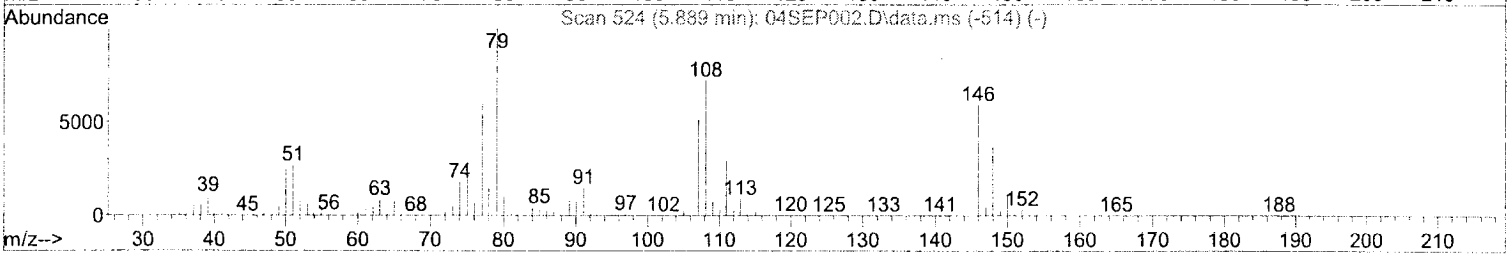






TIC: 11SEP023.D\data.ms

(12) Benzyl Alcohol (T)

5.922min (+0.043) 157.05 mg/l m

response 2099978

Ion	Exp%	Act%
79.10	100	100
108.10	71.10	0.00#
77.10	61.50	14.52#
0.00	0.00	0.00

SEP 12 2013

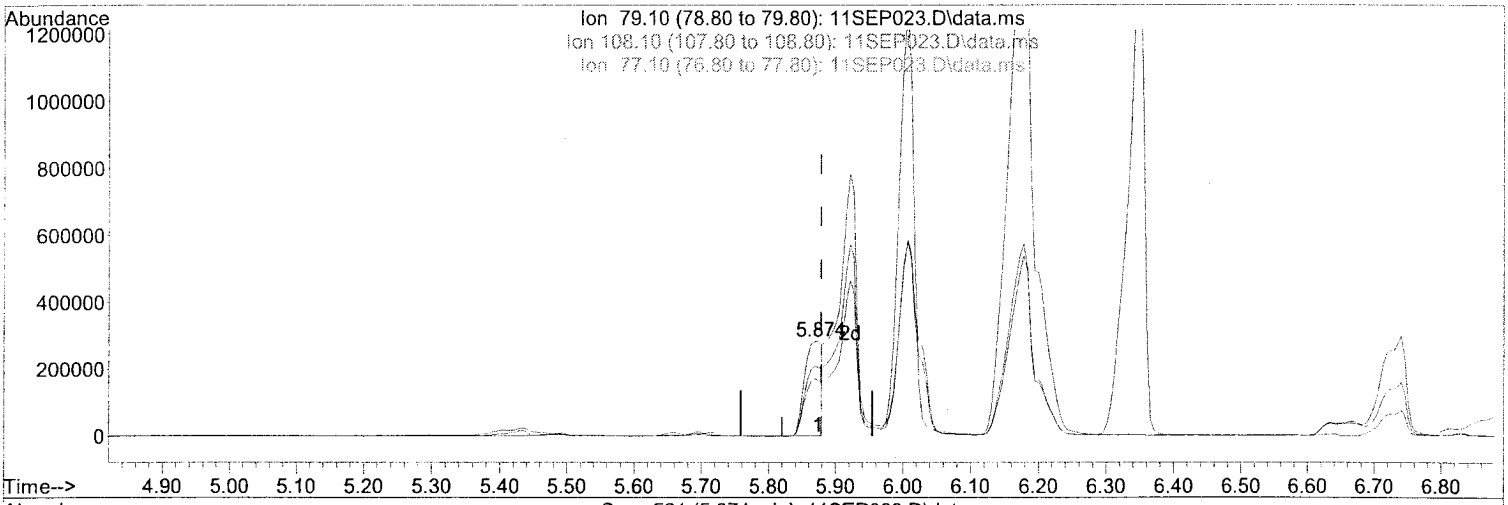
449

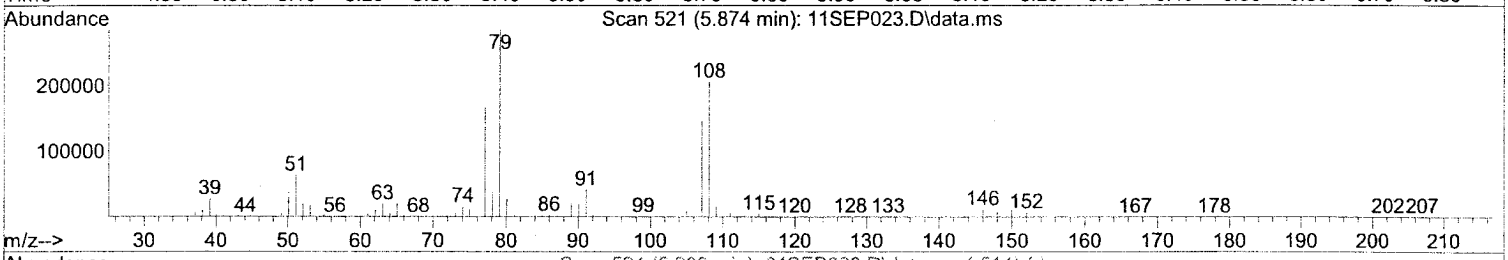
Return to Contents

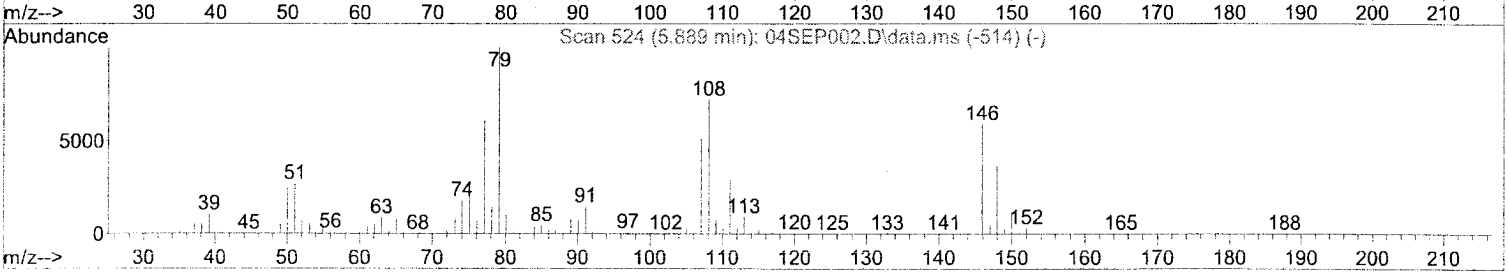
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
Sample : ICAL9 S071913N 160PPM BNA
InstName : GCMS SS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 09:43:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP023.D\data.ms

(12) Benzyl Alcohol (T)

5.874min (-0.005) 38.43 mg/l

response 513854

Ion	Exp%	Act%
79.10	100	100
108.10	71.10	0.00#
77.10	61.50	59.34
0.00	0.00	0.00

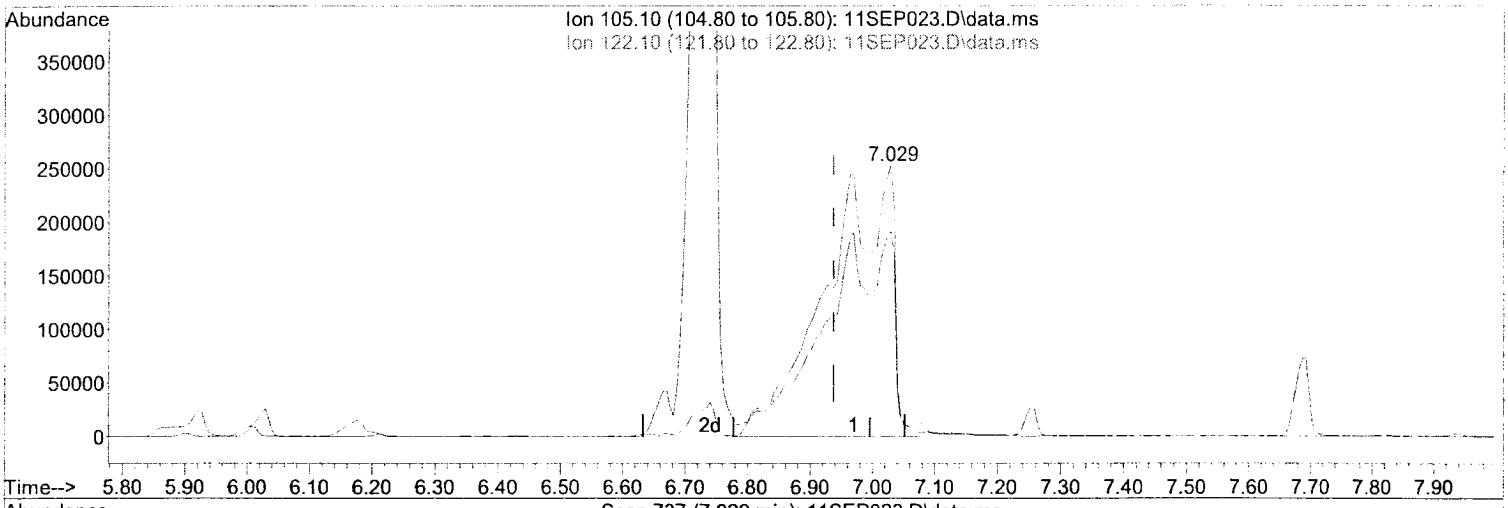
SEP 12 2013

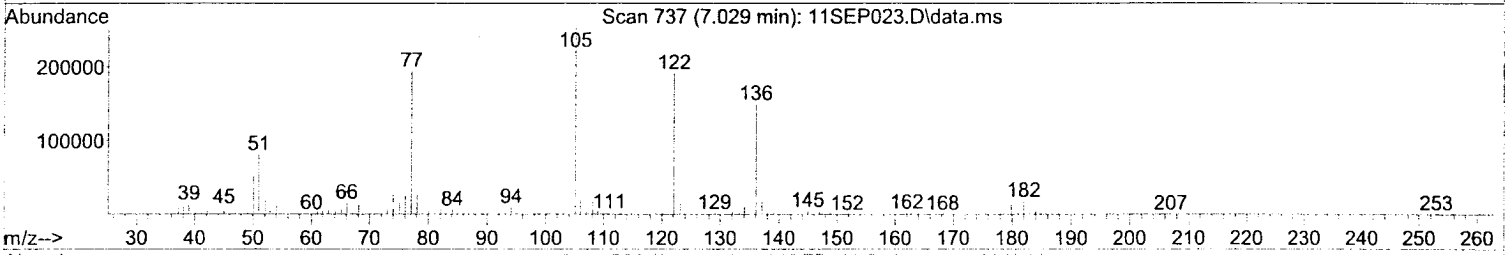
Return to Contents

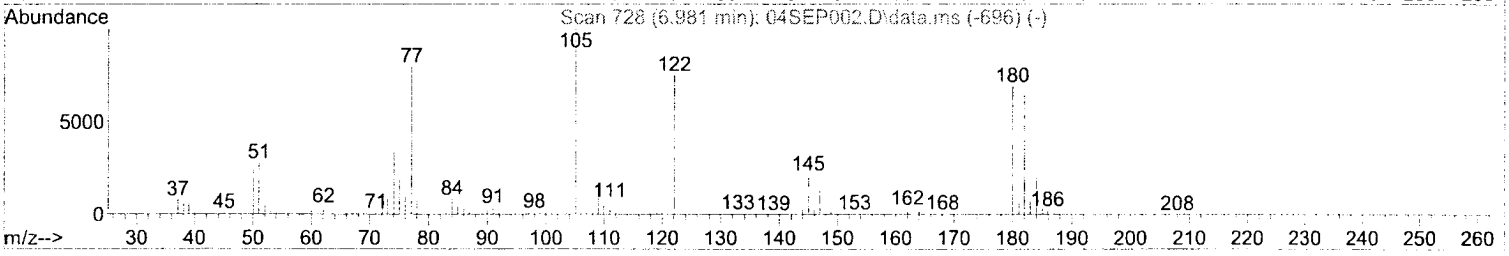
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
Sample : ICAL9 S071913N 160PPM BNA
InstName : GCMS SS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 09:43:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP023.D\data.ms

(25) Benzoic Acid (T)

7.029min (+0.091) 196.77 mg/l m

response 1838687

Ion	Exp%	Act%
105.10	100	100
122.10	70.30	45.79
0.00	0.00	0.00
0.00	0.00	0.00

SEP 12 2013

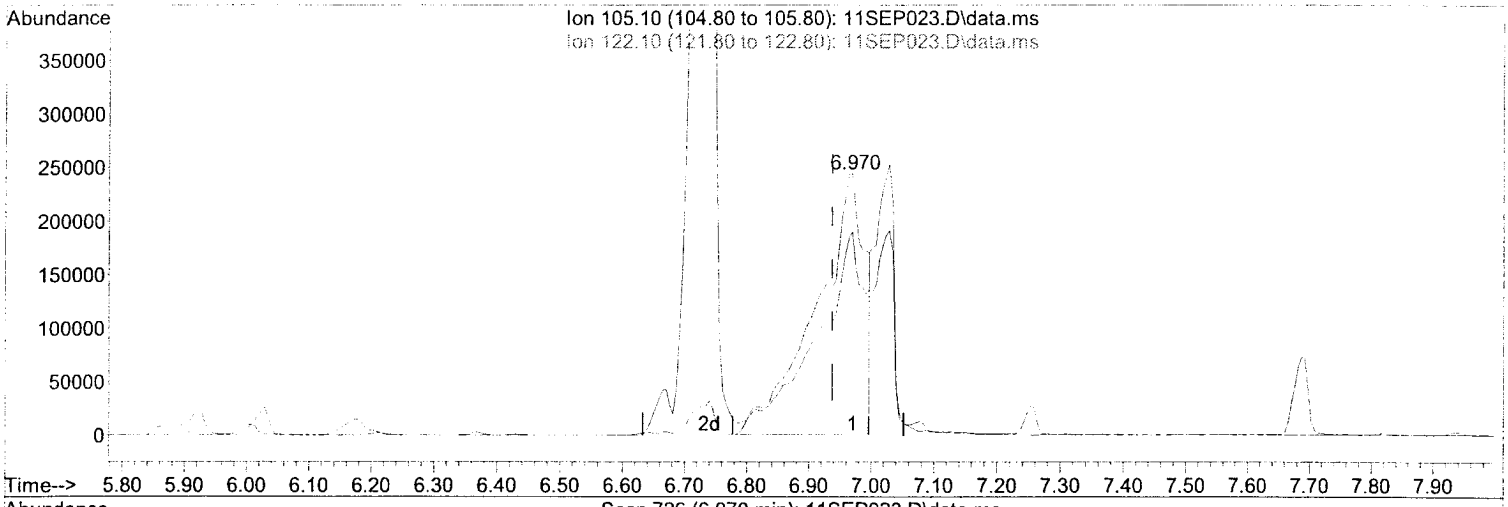
449 421

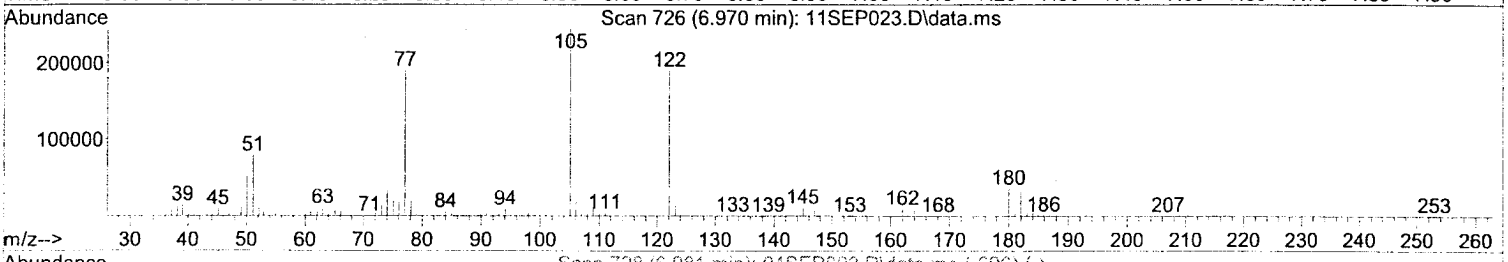
Return to Contents

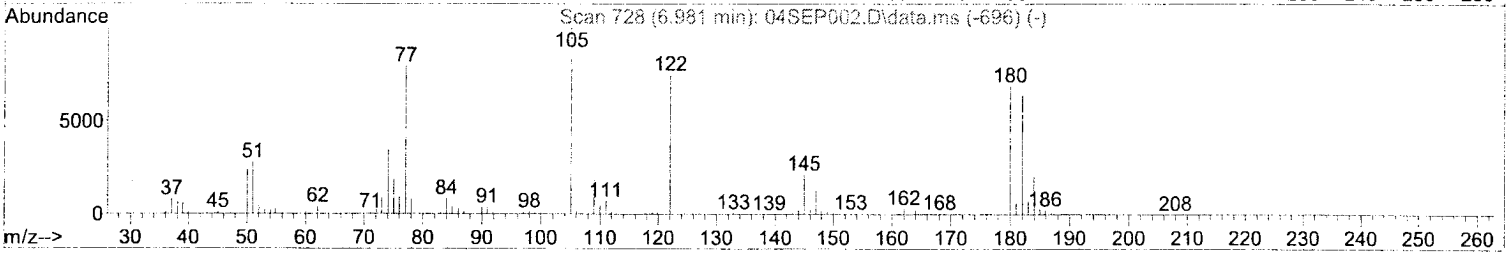
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
Sample : ICAL9 S071913N 160PPM BNA
InstName : GCMS SS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 09:43:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP023.D\data.ms

(25) Benzoic Acid (T)

6.970min (+0.032) 140.02 mg/l

response 1308386

Ion	Exp%	Act%
105.10	100	100
122.10	70.30	64.34
0.00	0.00	0.00
0.00	0.00	0.00

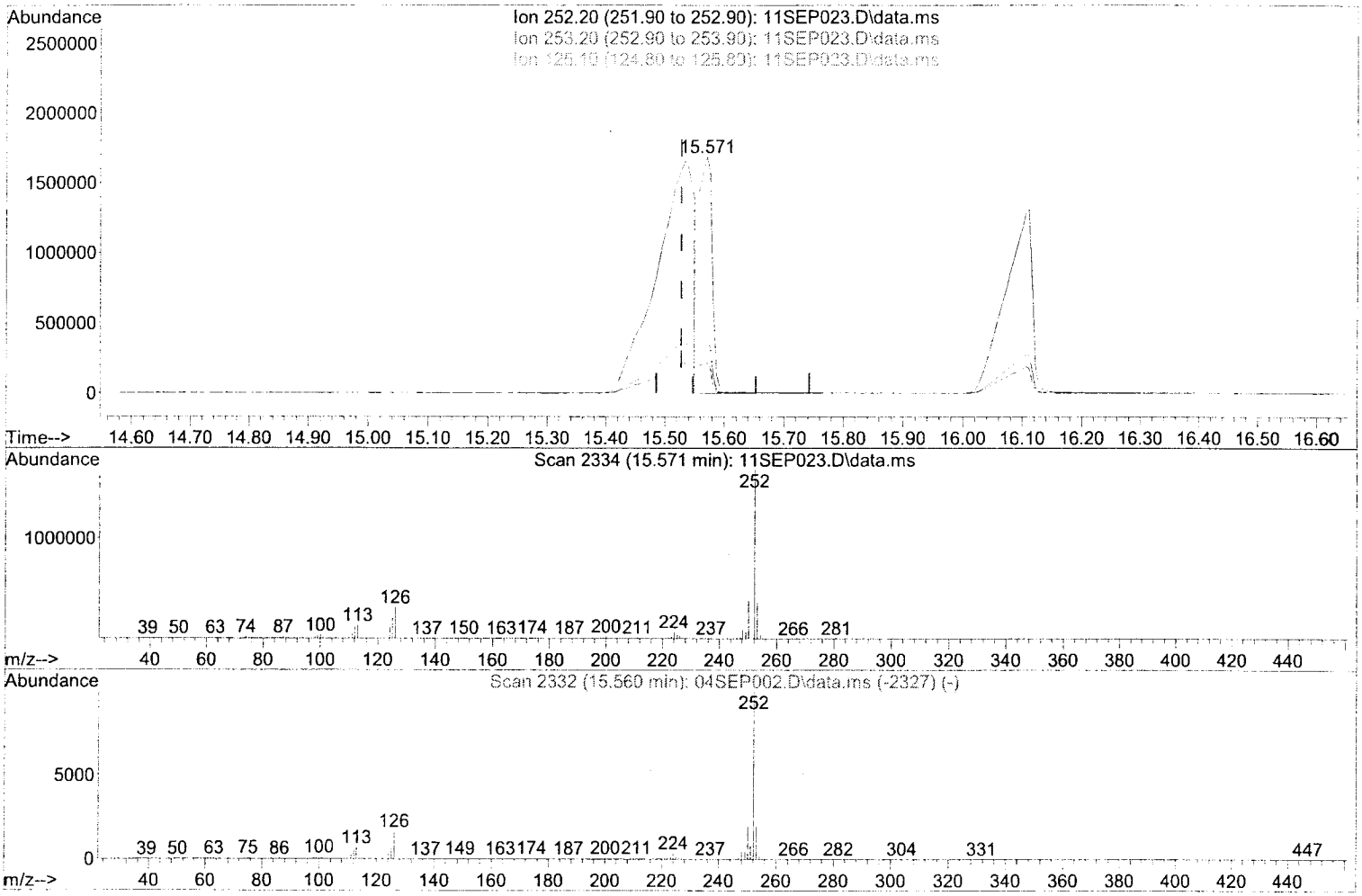
449 SEP 12 2013

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
Sample : ICAL9 S071913N 160PPM BNA
InstName : GCMS SS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 09:44:25 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



TIC: 11SEP023.D\data.ms

(79) Benzo (k) Fluoranthene (T)

15.571min (+0.043) 108.88 mg/l m

response 2779496

Ion	Exp%	Act%
252.20	100	100
253.20	21.90	10.16
125.10	13.40	0.00
0.00	0.00	0.00

SEP 12 2013

449

421

Manual Integration - After

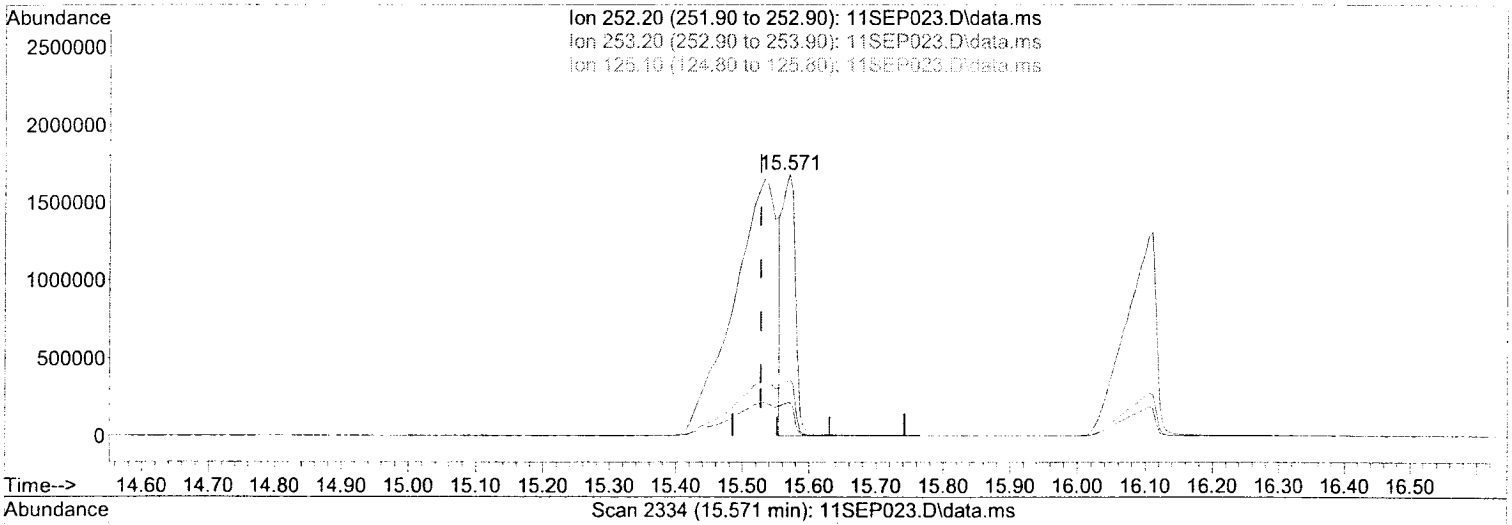
Manual Integration Reason: Baseline or Peak ID Correction

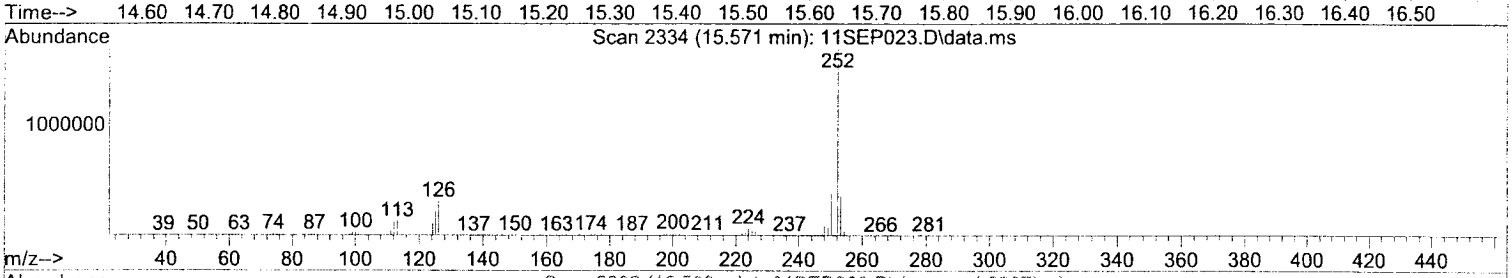
Return to Contents

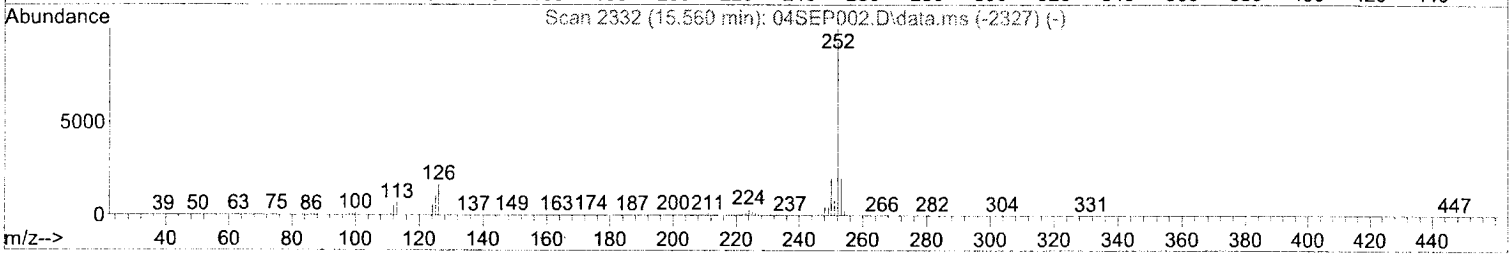
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
Sample : ICAL9 S071913N 160PPM BNA
InstName : GCMS SS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 09:44:25 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP023.D\data.ms

(79) Benzo (k) Fluoranthene (T)

15.571min (+0.043) 90.86 mg/l m

response 2319387

Ion	Exp%	Act%
252.20	100	100
253.20	21.90	12.17
125.10	13.40	0.00
0.00	0.00	0.00

SEP 12 2013

449

421

Manual Integration - After

Manual Integration Reason: Baseline or Peak ID Correction

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP024.D
Acq On : 11 Sep 2013 9:35 pm
Operator : 449
Sample : ICV S071913W 80PPM BNA
InstName : GCMS SS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 12 11:57:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 10:01:39 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	5.686	152	336558	40.00	mg/l		0.00
19) Naphthalene-d8	7.039	136	1469440	40.00	mg/l		0.00
36) Acenaphthene-d10	8.976	164	834862	40.00	mg/l		0.00
56) Phenanthrene-d10	10.612	188	1533324	40.00	mg/l		0.00
69) Chrysene-d12	13.736	240	1376483	40.00	mg/l		0.00
81) Perylene-d12	16.164	264	936029	40.00	mg/l		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	4.483	112	1234307	80.78	mg/l		0.00
Spiked Amount 100.000			Recovery =	80.78%			
6) Phenol-d6	5.387	99	1479384	79.05	mg/l		0.00
Spiked Amount 100.000			Recovery =	79.05%			
20) Nitrobenzene-d5	6.307	82	1304478	77.70	mg/l		0.00
Spiked Amount 100.000			Recovery =	77.70%			
41) 2-Fluorobiphenyl	8.237	172	2187849	77.70	mg/l		0.00
Spiked Amount 100.000			Recovery =	77.70%			
60) 2,4,6-Tribromophenol	9.869	330	277909	83.07	mg/l		0.00
Spiked Amount 100.000			Recovery =	83.07%			
71) p-Terphenyl-d14	12.399	244	2550654	79.28	mg/l		0.00
Spiked Amount 100.000			Recovery =	79.28%			
Target Compounds							Qvalue
2) Pyridine	3.295	52	757558	81.08	mg/l		99
3) N-Nitrosodimethylamine	3.322	74	806906	78.46	mg/l		86
5) Aniline	5.413	93	1709082	77.88	mg/l		94
7) Phenol	5.403	94	1553560	77.26	mg/l		98
8) Bis(2-Chloroethyl) Ether	5.472	93	1148585	79.08	mg/l		99
9) 2-Chlorophenol	5.515	128	1135837	79.65	mg/l		99
10) 1,3-Dichlorobenzene	5.649	146	1207019	79.45	mg/l		99
11) 1,4-Dichlorobenzene	5.702	146	1155628	79.59	mg/l		99
12) Benzyl Alcohol	5.873	79	1058405	82.17	mg/l		97
13) 1,2-Dichlorobenzene	5.895	146	1098863	79.28	mg/l		100
14) 2-Methylphenol	5.986	108	1022023	80.70	mg/l		93
15) Bis(2-Chloroisopropyl)...	6.012	45	1303381	76.19	mg/l	#	70
16) 3/4-Methylphenol	6.146	107	2278517	160.50	mg/l		98
17) N-Nitroso-di-n-propyla...	6.205	70	760968	72.34	mg/l		99
18) Hexachloroethane	6.205	117	412328	76.74	mg/l		98
21) Nitrobenzene	6.328	77	1234053	77.18	mg/l		99
22) Isophorone	6.585	82	2446320	80.34	mg/l		99
23) 2-Nitrophenol	6.654	139	598608	80.13	mg/l		95
24) 2,4-Dimethylphenol	6.708	107	1149762	78.27	mg/l		96
25) Benzoic Acid	6.932	105	818372	80.55	mg/l		99
26) Bis(2-Chloroethoxy) Me...	6.804	93	1355330	76.98	mg/l		100
27) 2,4-Dichlorophenol	6.916	162	875680	79.12	mg/l		100
28) 1,2,4-Trichlorobenzene	6.991	180	983763	79.17	mg/l		100
29) Naphthalene	7.061	128	3026233	78.38	mg/l		100
30) 2,6-Dichlorophenol	7.152	162	805490	77.91	mg/l		99
31) 4-Chloroaniline	7.152	127	1106903	82.25	mg/l		97
32) Hexachloro-1,3-Butadiene	7.248	225	520034	78.83	mg/l		100
33) 4-Chloro-3-Methylphenol	7.671	107	1019079	80.61	mg/l		98
34) 2-Methylnaphthalene	7.810	142	1963369	77.42	mg/l		99
35) 1-Methylnaphthalene	7.927	142	1834271	77.06	mg/l		100
37) Hexachlorocyclopentadiene	8.050	237	339152	74.25	mg/l		99
38) 2,4,6-Trichlorophenol	8.152	196	633199	81.44	mg/l		99
39) 2,4,5-Trichlorophenol	8.200	196	647246	84.54	mg/l		99
40) 2-Chloronaphthalene	8.344	162	1916577	78.53	mg/l		99

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP024.D
Acq On : 11 Sep 2013 9:35 pm
Operator : 449
Sample : ICV S071913W 80PPM BNA
InstName : GCMS SS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 12 11:57:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 10:01:39 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.505	65	656534	80.08	mg/l		96
43) Dimethyl Phthalate	8.740	163	2309056	79.01	mg/l		100
44) Acenaphthylene	8.810	152	2857872	76.50	mg/l		100
45) 3-Nitroaniline	8.976	138	442949	82.95	mg/l		100
46) Acenaphthene	9.018	153	1901113	78.02	mg/l		99
47) 2,4-Dinitrophenol	9.083	184	221150	87.12	mg/l		97
48) 4-Nitrophenol	9.179	65	365931	85.65	mg/l	#	1
49) Dibenzofuran	9.195	168	2549938	78.36	mg/l		83
50) 2,4-Dinitrotoluene	9.254	165	726511	82.94	mg/l		96
51) 2,6-Dinitrotoluene	8.826	165	484294	78.26	mg/l		99
52) Diethyl Phthalate	9.526	149	2174603	79.10	mg/l		98
53) 4-Chlorophenyl-Phenyl ...	9.575	204	976814	81.79	mg/l		99
54) Fluorene	9.580	166	1938864	76.18	mg/l		100
55) 4-Nitroaniline	9.671	138	403709	78.03	mg/l		94
57) Azobenzene	9.756	77	2652826	80.75	mg/l		97
58) 4,6-Dinitro-2-Methylph...	9.719	198	355435	97.24	mg/l	#	58
59) N-Nitrosodiphenylamine	9.730	169	1466209	77.00	mg/l		97
61) 4-Bromophenyl-Phenyl E...	10.109	248	644008	79.19	mg/l		99
62) Hexachlorobenzene	10.275	142	235659	76.06	mg/l		96
63) Pentachlorophenol	10.479	266	383601	88.21	mg/l		97
64) Phenanthrene	10.644	178	3105262	76.92	mg/l		100
65) Anthracene	10.698	178	3142027	77.02	mg/l		100
66) Di-n-Butyl Phthalate	11.318	149	3738096	77.63	mg/l		100
67) Fluoranthene	11.971	202	3460923	77.12	mg/l		99
68) Benzidine	12.115	184	589923	84.98	mg/l		97
70) Pyrene	12.222	202	3447648	77.17	mg/l		100
72) Butyl Benzyl Phthalate	13.008	149	1645709	79.00	mg/l		100
73) 3,3'-Dichlorobenzidine	13.693	252	559045	82.61	mg/l		98
74) Benzo (a) Anthracene	13.704	228	3003984	78.94	mg/l		100
75) Bis(2-Ethylhexyl) Phth...	13.821	149	2171993	80.10	mg/l		97
76) Chrysene	13.779	228	2831030	80.17	mg/l		99
77) Di-n-Octyl Phthalate	14.811	149	3562456	81.65	mg/l		99
78) Benzo (b) Fluoranthene	15.485	252	2865926	79.26	mg/l		99
79) Benzo (k) Fluoranthene	15.522	252	1580024	68.99	mg/l		99
80) Benzo (a) Pyrene	16.068	252	1962327	81.91	mg/l		99
82) Indeno (1,2,3-c,d) Pyrene	18.341	276	1375146	83.62	mg/l		94
83) Dibenz (a,h) Anthracene	18.389	278	1195071	85.23	mg/l		99
84) Benzo (g,h,i) Perylene	18.897	276	1045185	82.16	mg/l		100

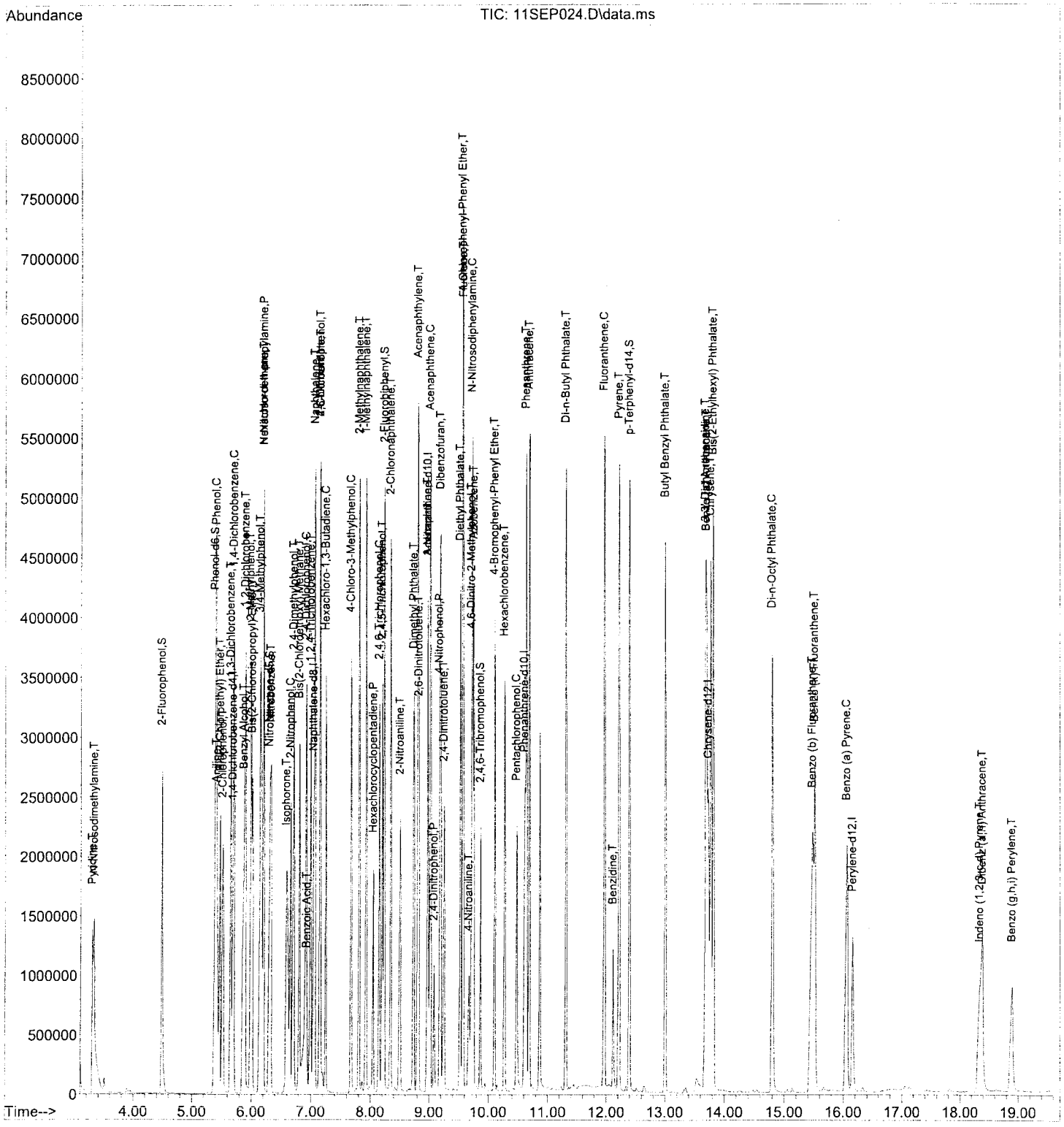
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP024.D
Acq On : 11 Sep 2013 9:35 pm
Operator : 449
Sample : ICV S071913W 80PPM BNA
InstName : GCMS SS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 12 11:57:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 10:01:39 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

EPA METHOD 8270C
SVOCs

Sample Data

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS SS
D/T ANALYZED: 11/14/2013 15:50
ANALYST: 449
DATA FILE: W:\GCMS_SS_DATA\2013\131114\14NOV014.D\14NOV014.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3510C
D/T EXTRACTED: 11/12/2013 00:00

 # 13 **CLIENT SAMPLE NUMBER: QCEB-11082013**

LCS/MB BATCH: 131112L05
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
N-Nitrosodimethylamine	0.00	1	ND	10	2	ug/L	
Aniline	0.00	1	ND	10	2	ug/L	
Phenol	0.00	1	ND	10	2	ug/L	
Bis(2-Chloroethyl) Ether	0.00	1	ND	25	2	ug/L	[
2-Chlorophenol	0.00	1	ND	10	2	ug/L	
1,3-Dichlorobenzene	0.00	1	ND	10	2	ug/L	
1,4-Dichlorobenzene	0.00	1	ND	10	2	ug/L	
Benzyl Alcohol	0.00	1	ND	10	2	ug/L	
1,2-Dichlorobenzene	0.00	1	ND	10	2	ug/L	
2-Methylphenol	0.00	1	ND	10	2	ug/L	
Bis(2-Chloroisopropyl) Ether	0.00	1	ND	10	2	ug/L	
3/4-Methylphenol	0.00	1	ND	10	2	ug/L	
N-Nitroso-di-n-propylamine	0.00	1	ND	10	2	ug/L	
Hexachloroethane	0.00	1	ND	10	2	ug/L	
Nitrobenzene	0.00	1	ND	25	2	ug/L	
Isophorone	0.00	1	ND	10	2	ug/L	
2-Nitrophenol	0.00	1	ND	10	2	ug/L	
2,4-Dimethylphenol	0.00	1	ND	10	2	ug/L	
Benzoic Acid	0.00	1	ND	50	2	ug/L	
Bis(2-Chloroethoxy) Methane	0.00	1	ND	10	2	ug/L	
2,4-Dichlorophenol	0.00	1	ND	10	2	ug/L	
Naphthalene	0.00	1	ND	10	2	ug/L	
4-Chloroaniline	0.00	1	ND	10	2	ug/L	
Hexachloro-1,3-Butadiene	0.00	1	ND	10	2	ug/L	
4-Chloro-3-Methylphenol	0.00	1	ND	10	2	ug/L	
2-Methylnaphthalene	0.00	1	ND	10	2	ug/L	
Hexachlorocyclopentadiene	0.00	1	ND	25	2	ug/L	]
2,4,6-Trichlorophenol	0.00	1	ND	10	2	ug/L	
2,4,5-Trichlorophenol	0.00	1	ND	10	2	ug/L	
2-Chloronaphthalene	0.00	1	ND	10	2	ug/L	
2-Nitroaniline	0.00	1	ND	10	2	ug/L	
Dimethyl Phthalate	0.00	1	ND	10	2	ug/L	
Acenaphthylene	0.00	1	ND	10	2	ug/L	
3-Nitroaniline	0.00	1	ND	10	2	ug/L	[
Acenaphthene	0.00	1	ND	10	2	ug/L	
2,4-Dinitrophenol	0.00	1	ND	50	2	ug/L	
4-Nitrophenol	0.00	1	ND	10	2	ug/L	[
Dibenzofuran	0.00	1	ND	10	2	ug/L	
2,4-Dinitrotoluene	0.00	1	ND	10	2	ug/L	
2,6-Dinitrotoluene	0.00	1	ND	10	2	ug/L	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS SS
D/T ANALYZED: 11/14/2013 15:50
ANALYST: 449
DATA FILE: W:\GCMS_SS_DATA\2013\131114\14NOV014.D\14NOV014.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3510C
D/T EXTRACTED: 11/12/2013 00:00

 # 13 **CLIENT SAMPLE NUMBER: QCEB-11082013**

LCS/MB BATCH: 131112L05
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Diethyl Phthalate	0.00	1	ND	10	2	ug/L	
4-Chlorophenyl-Phenyl Ether	0.00	1	ND	10	2	ug/L	
Fluorene	0.00	1	ND	10	2	ug/L	
4-Nitroaniline	0.00	1	ND	10	2	ug/L	
Azobenzene	0.00	1	ND	10	2	ug/L	
4,6-Dinitro-2-Methylphenol	0.00	1	ND	50	2	ug/L	[I
N-Nitrosodiphenylamine	0.00	1	ND	10	2	ug/L	
4-Bromophenyl-Phenyl Ether	0.00	1	ND	10	2	ug/L	
Hexachlorobenzene	0.00	1	ND	10	2	ug/L	
Pentachlorophenol	0.00	1	ND	10	2	ug/L	
Phenanthrene	0.00	1	ND	10	2	ug/L	
Anthracene	0.00	1	ND	10	2	ug/L	
Di-n-Butyl Phthalate	0.00	1	ND	10	2	ug/L	
Fluoranthene	0.00	1	ND	10	2	ug/L	
Benzidine	0.00	1	ND	50	2	ug/L	
Pyrene	0.00	1	ND	10	2	ug/L	
Pyridine	0.00	1	ND	10	2	ug/L	[
Butyl Benzyl Phthalate	0.00	1	ND	10	2	ug/L	
3,3'-Dichlorobenzidine	0.00	1	ND	25	2	ug/L	
Benzo (a) Anthracene	0.00	1	ND	10	2	ug/L	
Bis(2-Ethylhexyl) Phthalate	0.00	1	ND	10	2	ug/L	
Chrysene	0.00	1	ND	10	2	ug/L	
Di-n-Octyl Phthalate	0.00	1	ND	10	2	ug/L	
Benzo (k) Fluoranthene	0.00	1	ND	10	2	ug/L	
Benzo (b) Fluoranthene	0.00	1	ND	10	2	ug/L	
Benzo (a) Pyrene	0.00	1	ND	10	2	ug/L	
Benzo (g,h,i) Perylene	0.00	1	ND	10	2	ug/L	[
Indeno (1,2,3-c,d) Pyrene	0.00	1	ND	10	2	ug/L	[
Dibenz (a,h) Anthracene	0.00	1	ND	10	2	ug/L	[
1-Methylnaphthalene	0.00	1	ND	10	2	ug/L	
1,2,4-Trichlorobenzene	0.00	1	ND	10	2	ug/L	

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV014.D
Acq On : 14 Nov 2013 3:50 pm
Operator : 449
Sample : 11-0697-13F
InstName : GCMS SS
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 14 16:59:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 10:53:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.542	152	417688	40.00	mg/l	-0.02
19) Naphthalene-d8	6.884	136	1819728	40.00	mg/l	-0.02
36) Acenaphthene-d10	8.826	164	1039209	40.00	mg/l	-0.04
56) Phenanthrene-d10	10.457	188	1736103	40.00	mg/l	-0.04
69) Chrysene-d12	13.543	240	1571006	40.00	mg/l	-0.04
81) Perylene-d12	15.923	264	1286561	40.00	mg/l	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	4.370	112	975747	51.45	mg/l	-0.02
Spiked Amount 100.000			Recovery =	51.45%		
6) Phenol-d6	5.258	99	862708	37.14	mg/l	-0.04
Spiked Amount 100.000			Recovery =	37.14%		
20) Nitrobenzene-d5	6.162	82	1738776	83.63	mg/l	-0.03
Spiked Amount 100.000			Recovery =	83.63%		
41) 2-Fluorobiphenyl	8.088	172	2377807	67.84	mg/l	0.01
Spiked Amount 100.000			Recovery =	67.84%		
60) 2,4,6-Tribromophenol	9.719	330	290030	76.57	mg/l	-0.04
Spiked Amount 100.000			Recovery =	76.57%		
71) p-Terphenyl-d14	12.260	244	3167411	86.26	mg/l	-0.02
Spiked Amount 100.000			Recovery =	86.26%		
Target Compounds						Qvalue
2) Pyridine	3.477	52	120	N.D.		
3) N-Nitrosodimethylamine	3.194	74	70	N.D.		
5) Aniline	5.306	93	24	N.D.		
7) Phenol	5.312	94	172	N.D.		
8) Bis(2-Chloroethyl) Ether	0.000		0	N.D.	d	
9) 2-Chlorophenol	5.435	128	571	N.D.		
10) 1,3-Dichlorobenzene	5.531	146	342	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl Alcohol	5.793	79	95	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	5.863	108	60	N.D.		
15) Bis(2-Chloroisopropyl)...	5.900	45	306	N.D.		
16) 3/4-Methylphenol	6.018	107	21	N.D.		
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.	d	
18) Hexachloroethane	6.130	117	43	N.D.		
21) Nitrobenzene	6.162	77	5564	N.D.		
22) Isophorone	6.537	82	699	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	6.553	107	60	N.D.		
25) Benzoic Acid	0.000		0	N.D.	d	
26) Bis(2-Chloroethoxy) Me...	6.734	93	44	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	6.970	128	89	N.D.		
30) 2,6-Dichlorophenol	0.000		0	N.D.		
31) 4-Chloroaniline	7.023	127	19	N.D.		
32) Hexachloro-1,3-Butadiene	0.000		0	N.D.		
33) 4-Chloro-3-Methylphenol	7.585	107	599	N.D.		
34) 2-Methylnaphthalene	7.681	142	41	N.D.		
35) 1-Methylnaphthalene	7.794	142	17	N.D.		
37) Hexachlorocyclopentadiene	0.000		0	N.D.		
38) 2,4,6-Trichlorophenol	0.000		0	N.D.		
39) 2,4,5-Trichlorophenol	0.000		0	N.D.		
40) 2-Chloronaphthalene	0.000		0	N.D.		

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV014.D
Acq On : 14 Nov 2013 3:50 pm
Operator : 449
Sample : 11-0697-13F
InstName : GCMS SS
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 14 16:59:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 10:53:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 2-Nitroaniline	8.377	65	128	N.D.	
43) Dimethyl Phthalate	8.617	163	51	N.D.	
44) Acenaphthylene	8.703	152	55	N.D.	
45) 3-Nitroaniline	0.000		0	N.D. d	
46) Acenaphthene	8.842	153	64	N.D.	
47) 2,4-Dinitrophenol	0.000		0	N.D.	
48) 4-Nitrophenol	9.083	65	20	Below Cal #	11
49) Dibenzofuran	9.088	168	23	N.D.	
50) 2,4-Dinitrotoluene	9.050	165	40	N.D.	
51) 2,6-Dinitrotoluene	0.000		0	N.D.	
52) Diethyl Phthalate	9.366	149	458	N.D.	
53) 4-Chlorophenyl-Phenyl ...	0.000		0	N.D.	
54) Fluorene	9.446	166	127	N.D.	
55) 4-Nitroaniline	9.687	138	16	N.D.	
57) Azobenzene	9.644	77	277	N.D.	
58) 4,6-Dinitro-2-Methylph...	9.719	198	891	N.D.	
59) N-Nitrosodiphenylamine	9.714	169	10541	N.D.	
61) 4-Bromophenyl-Phenyl E...	9.928	248	23	N.D.	
62) Hexachlorobenzene	0.000		0	N.D.	
63) Pentachlorophenol	10.425	266	36	N.D.	
64) Phenanthrene	10.457	178	672	N.D.	
65) Anthracene	10.553	178	16	N.D.	
66) Di-n-Butyl Phthalate	11.163	149	888	N.D.	
67) Fluoranthene	11.912	202	19	N.D.	
68) Benzidine	0.000		0	N.D. d	
70) Pyrene	12.088	202	628	N.D.	
72) Butyl Benzyl Phthalate	12.901	149	188	N.D.	
73) 3,3'-Dichlorobenzidine	13.650	252	84	Below Cal #	80
74) Benzo (a) Anthracene	13.543	228	3479	N.D.	
75) Bis(2-Ethylhexyl) Phth...	13.618	149	1464	N.D.	
76) Chrysene	0.000		0	N.D.	
77) Di-n-Octyl Phthalate	14.650	149	204	N.D.	
78) Benzo (b) Fluoranthene	0.000		0	N.D. d	
79) Benzo (k) Fluoranthene	15.319	252	253	Below Cal #	1
80) Benzo (a) Pyrene	15.923	252	4109	N.D.	
82) Indeno (1,2,3-c,d) Pyrene	0.000		0	N.D.	
83) Dibenz (a,h) Anthracene	0.000		0	N.D.	
84) Benzo (g,h,i) Perylene	0.000		0	N.D.	

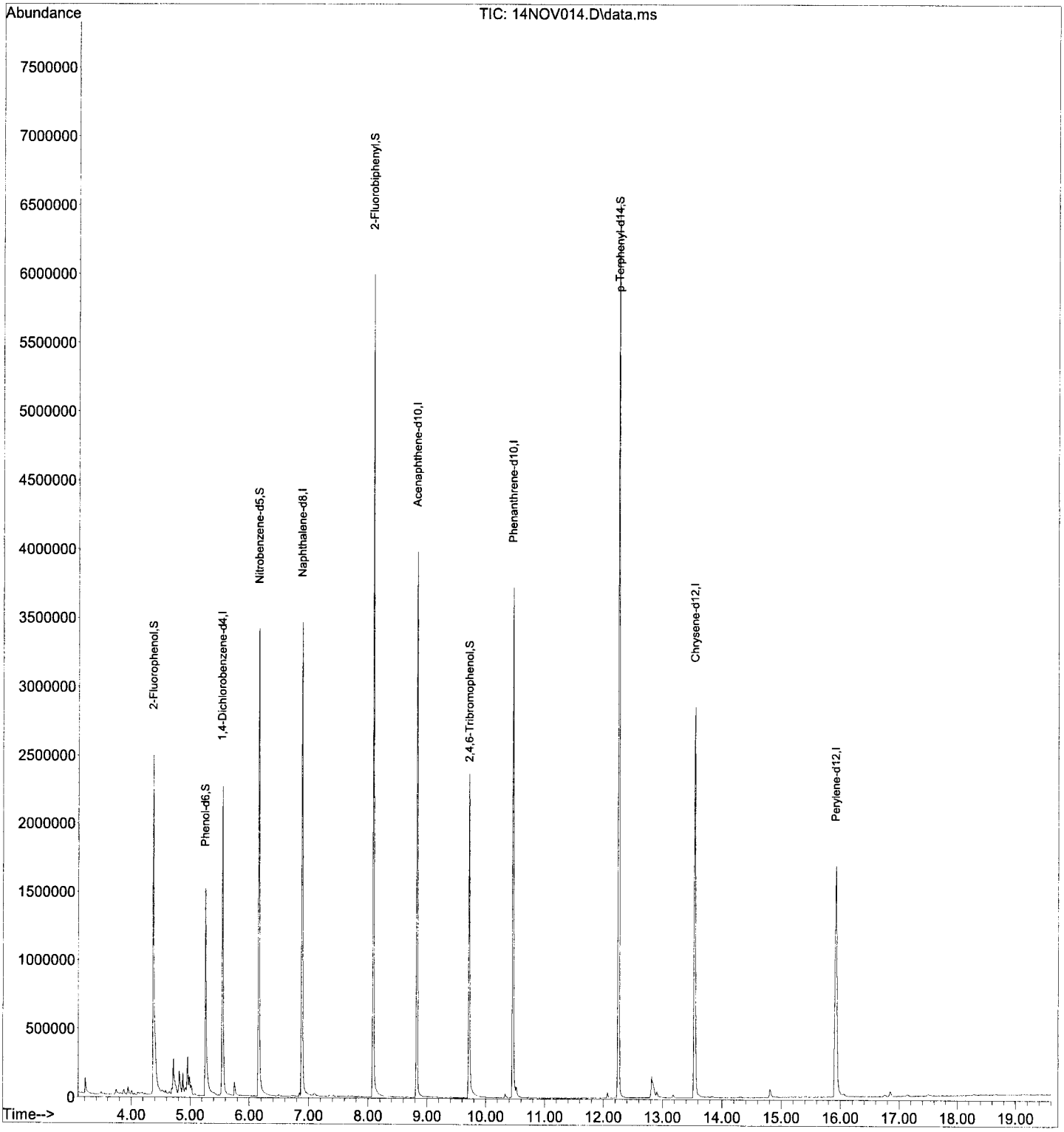
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV014.D
Acq On : 14 Nov 2013 3:50 pm
Operator : 449
Sample : 11-0697-13F
InstName : GCMS SS
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 14 16:59:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 10:53:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

EPA METHOD 8270C
SVOCs

Quality Control

Method Blank
LCS/LCSD
MS/MSD

Return to Contents

METHOD BLANK ASSOCIATION SUMMARY FOR METHOD: EPA 8270C

MB Sample ID: 095-01-003-3729
MB Batch ID: 131112L05
Instrument: GC/MS SS
Matrix: Water
Analyst: 449
D/T Analyzed: 11/13/2013 12:14
Data File: W:\GCMS_SS_DATA\2013\131113\13NOV005.D\13NOV005.rr

Reviewed By: 421
D/T Reviewed: 11/13/2013 15:32
Extraction: EPA 3510C
D/T Extracted: 11/12/2013 00:00

Work Order #: 13-11-0697

Sample#	Client Sample ID	D/T Analyzed	Data File
13	QCEB-11082013	11/14/2013 15:50	W:\GCMS_SS_DATA\2013\131114\14NOV014.D\14NOV014.rr

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 095-01-003
INSTRUMENT NAME: GC/MS SS
D/T ANALYZED: 11/13/2013 12:14
ANALYST: 449
DATA FILE: W:\GCMS_SS_DATA\2013\131113\13NOV005.D\13NOV005.rr

REVIEWED BY: 421
DATE REVIEWED: 11/13/2013 15:32
EXTRACTION : EPA 3510C
D/T EXTRACTED: 11/12/2013 00:00

MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 131112L05
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
N-Nitrosodimethylamine	0.00	1	ND	10	2	ug/L	
Aniline	0.00	1	ND	10	2	ug/L	
Phenol	0.00	1	ND	10	2	ug/L	
Bis(2-Chloroethyl) Ether	0.00	1	ND	25	2	ug/L	
2-Chlorophenol	0.00	1	ND	10	2	ug/L	
1,3-Dichlorobenzene	0.00	1	ND	10	2	ug/L	
1,4-Dichlorobenzene	0.00	1	ND	10	2	ug/L	
Benzyl Alcohol	0.00	1	ND	10	2	ug/L	
1,2-Dichlorobenzene	0.00	1	ND	10	2	ug/L	
2-Methylphenol	0.00	1	ND	10	2	ug/L	
Bis(2-Chloroisopropyl) Ether	0.00	1	ND	10	2	ug/L	
3/4-Methylphenol	0.00	1	ND	10	2	ug/L	
N-Nitroso-di-n-propylamine	0.00	1	ND	10	2	ug/L	
Hexachloroethane	0.00	1	ND	10	2	ug/L	
Nitrobenzene	0.00	1	ND	25	2	ug/L	
Isophorone	0.00	1	ND	10	2	ug/L	
2-Nitrophenol	0.00	1	ND	10	2	ug/L	
2,4-Dimethylphenol	0.00	1	ND	10	2	ug/L	
Benzoic Acid	0.00	1	ND	50	2	ug/L	
Bis(2-Chloroethoxy) Methane	0.00	1	ND	10	2	ug/L	
2,4-Dichlorophenol	0.00	1	ND	10	2	ug/L	
Naphthalene	0.00	1	ND	10	2	ug/L	
4-Chloroaniline	0.00	1	ND	10	2	ug/L	
Hexachloro-1,3-Butadiene	0.00	1	ND	10	2	ug/L	
4-Chloro-3-Methylphenol	0.00	1	ND	10	2	ug/L	
2-Methylnaphthalene	0.00	1	ND	10	2	ug/L	
Hexachlorocyclopentadiene	0.00	1	ND	25	2	ug/L	
2,4,6-Trichlorophenol	0.00	1	ND	10	2	ug/L	
2,4,5-Trichlorophenol	0.00	1	ND	10	2	ug/L	
2-Chloronaphthalene	0.00	1	ND	10	2	ug/L	
2-Nitroaniline	0.00	1	ND	10	2	ug/L	
Dimethyl Phthalate	0.00	1	ND	10	2	ug/L	
Acenaphthylene	0.00	1	ND	10	2	ug/L	
3-Nitroaniline	0.00	1	ND	10	2	ug/L	
Acenaphthene	0.00	1	ND	10	2	ug/L	
2,4-Dinitrophenol	0.00	1	ND	50	2	ug/L	
4-Nitrophenol	0.00	1	ND	10	2	ug/L	
Dibenzofuran	0.00	1	ND	10	2	ug/L	
2,4-Dinitrotoluene	0.00	1	ND	10	2	ug/L	
2,6-Dinitrotoluene	0.00	1	ND	10	2	ug/L	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 095-01-003
INSTRUMENT NAME: GC/MS SS
D/T ANALYZED: 11/13/2013 12:14
ANALYST: 449
DATA FILE: W:\GCMS_SS_DATA\2013\131113\13NOV005.D\13NOV005.rr

REVIEWED BY: 421
DATE REVIEWED: 11/13/2013 15:32
EXTRACTION : EPA 3510C
D/T EXTRACTED: 11/12/2013 00:00

MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 131112L05
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Diethyl Phthalate	0.00	1	ND	10	2	ug/L	
4-Chlorophenyl-Phenyl Ether	0.00	1	ND	10	2	ug/L	
Fluorene	0.00	1	ND	10	2	ug/L	
4-Nitroaniline	0.00	1	ND	10	2	ug/L	
Azobenzene	0.00	1	ND	10	2	ug/L	
4,6-Dinitro-2-Methylphenol	0.00	1	ND	50	2	ug/L	
N-Nitrosodiphenylamine	0.00	1	ND	10	2	ug/L	
4-Bromophenyl-Phenyl Ether	0.00	1	ND	10	2	ug/L	
Hexachlorobenzene	0.00	1	ND	10	2	ug/L	
Pentachlorophenol	0.00	1	ND	10	2	ug/L	
Phenanthrene	0.00	1	ND	10	2	ug/L	
Anthracene	0.00	1	ND	10	2	ug/L	
Di-n-Butyl Phthalate	0.00	1	ND	10	2	ug/L	
Fluoranthene	0.00	1	ND	10	2	ug/L	
Benzidine	0.00	1	ND	50	2	ug/L	
Pyrene	0.00	1	ND	10	2	ug/L	
Pyridine	0.00	1	ND	10	2	ug/L	
Butyl Benzyl Phthalate	0.00	1	ND	10	2	ug/L	
3,3'-Dichlorobenzidine	0.00	1	ND	25	2	ug/L	
Benzo (a) Anthracene	0.00	1	ND	10	2	ug/L	
Bis(2-Ethylhexyl) Phthalate	0.00	1	ND	10	2	ug/L	
Chrysene	0.00	1	ND	10	2	ug/L	
Di-n-Octyl Phthalate	0.00	1	ND	10	2	ug/L	
Benzo (k) Fluoranthene	0.00	1	ND	10	2	ug/L	
Benzo (b) Fluoranthene	0.00	1	ND	10	2	ug/L	
Benzo (a) Pyrene	0.00	1	ND	10	2	ug/L	
Benzo (g,h,i) Perylene	0.00	1	ND	10	2	ug/L	
Indeno (1,2,3-c,d) Pyrene	0.00	1	ND	10	2	ug/L	
Dibenz (a,h) Anthracene	0.00	1	ND	10	2	ug/L	
1-Methylnaphthalene	0.00	1	ND	10	2	ug/L	
1,2,4-Trichlorobenzene	0.00	1	ND	10	2	ug/L	

Return to Contents

LCS / LCSD QUALITY CONTROL SHEET
METHOD: EPA 8270C

WORK ORDER:	**13-11-0697**	D/T REVIEWED:	11/13/2013 15:32	LCS D/T ANALYZED:	11/13/2013 12:40
LCS/LCSD BATCH:	131112L05	EXTRACTION:	EPA 3510C	LCSD D/T ANALYZED:	11/13/2013 13:06
LCS/LCSD SAMPLE ID:	**095-01-003-3729**	LCS EXTRACTED:	11/12/2013	LCS INSTRUMENT NAME:	GC/MS SS
ANALYST:	449	LCSD EXTRACTED:	11/12/2013 12:00:00AM	LCSD INSTRUMENT NAME:	GC/MS SS
REVIEWED BY:	421				

COMMENT:

COMPOUND	ADDED	LCS CONC	% REC	LCSD CONC	% REC	% REC CL	ME CL	RPD	RPD CL	STATUS	QUALIFIER
Phenol	200.0	89.44	45	88.68	44	4-142	0-165	1	0-24	PASS	
2-Chlorophenol	200.0	152.8	76	150.7	75	53-113	43-123	1	0-17	PASS	
1,4-Dichlorobenzene	**200.0**	**81.89**	**41**	**81.77**	**41**	**50-122**	**38-134**	**0**	**0-19**	**ME**	**M$**
N-Nitroso-di-n-propylamine	200.0	208.6	104	206.6	103	56-146	41-161	1	0-22	PASS	
Naphthalene	200.0	127.6	64	127.6	64	21-133	2-152	0	0-20	PASS	
4-Chloro-3-Methylphenol	200.0	166.7	83	165.5	83	55-121	44-132	1	0-18	PASS	
Dimethyl Phthalate	200.0	151.5	76	151.2	76	0-112	0-131	0	0-20	PASS	
Acenaphthylene	200.0	159.7	80	159.1	80	33-145	14-164	0	0-20	PASS	
Acenaphthene	200.0	160.4	80	159.8	80	55-139	41-153	0	0-17	PASS	
4-Nitrophenol	200.0	104.6	52	105.1	53	1-145	0-169	0	0-29	PASS	
2,4-Dinitrotoluene	200.0	167.8	84	169.4	85	41-161	21-181	1	0-22	PASS	
Fluorene	200.0	176.1	88	176.3	88	59-121	49-131	0	0-20	PASS	
Pentachlorophenol	200.0	165.4	83	168.2	84	34-130	18-146	2	0-23	PASS	
Pyrene	200.0	175.2	88	173.0	87	38-170	16-192	1	0-27	PASS	
Butyl Benzyl Phthalate	200.0	166.7	83	164.9	82	0-152	0-177	1	0-20	PASS	
1,2,4-Trichlorobenzene	200.0	101.1	51	101.2	51	49-121	37-133	0	0-19	PASS	

Total number of LCS compounds: 16
Total number of ME compounds: 1
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Data Files:

TYPE	DATA FILE	DATA FILE PATH
LCS	13NOV006.rr	W:\GCMS_SS_DATA\2013\131113\13NOV006.D\
LCSD	13NOV007.rr	W:\GCMS_SS_DATA\2013\131113\13NOV007.D\

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8270C

WORK ORDER: 13-11-0697
BATCH ID:
LCS/MB: 131112L05
MS:
EXTRACTION : EPA 3510C

REVIEWED BY: 27
D/T REVIEWED: 11/14/2013 17:26

 # 13 CLIENT SAMPLE NUMBER : QCEB-11082013

INSTRUMENT: GC/MS SS
D/T EXTRACTED: 11/12/2013 00:00
DATA FILE: W:\GCMS_SS_DATA\2013\131114\14NOV014.D\14NOV014.rr

ANALYZED BY: 449
D/T ANALYZED 11/14/2013 15:50

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorophenol	51	17-120	PASS	
Phenol-d6	37	2-120	PASS	
Nitrobenzene-d5	84	34-124	PASS	
2-Fluorobiphenyl	68	31-120	PASS	
2,4,6-Tribromophenol	77	24-168	PASS	
p-Terphenyl-d14	86	38-140	PASS	

 # MB CLIENT SAMPLE NUMBER : Method Blank

INSTRUMENT: GC/MS SS
D/T EXTRACTED: 11/12/2013 00:00
DATA FILE: W:\GCMS_SS_DATA\2013\131113\13NOV005.D\13NOV005.rr

ANALYZED BY: 449
D/T ANALYZED 11/13/2013 12:14

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorophenol	63	17-120	PASS	
Phenol-d6	47	2-120	PASS	
Nitrobenzene-d5	92	34-124	PASS	
2-Fluorobiphenyl	71	31-120	PASS	
2,4,6-Tribromophenol	86	24-168	PASS	
p-Terphenyl-d14	90	38-140	PASS	

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8270C

WORK ORDER: 13-11-0697
BATCH ID:
LCS/MB: 131112L05
MS:
EXTRACTION : EPA 3510C

REVIEWED BY: 421
D/T REVIEWED: 11/13/2013 15:32

 # LCS **CLIENT SAMPLE NUMBER : Lab Control Sample**

INSTRUMENT: GC/MS SS
D/T EXTRACTED: 11/12/2013 00:00
DATA FILE: W:\GCMS_SS_DATA\2013\131113\13NOV006.D\13NOV006.rr

ANALYZED BY: 449
D/T ANALYZED 11/13/2013 12:40

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorophenol	65	17-120	PASS	
Phenol-d6	49	2-120	PASS	
Nitrobenzene-d5	96	34-124	PASS	
2-Fluorobiphenyl	74	31-120	PASS	
2,4,6-Tribromophenol	90	24-168	PASS	
p-Terphenyl-d14	91	38-140	PASS	

 # LCD **CLIENT SAMPLE NUMBER : Lab Control Sample Duplicate**

INSTRUMENT: GC/MS SS
D/T EXTRACTED: 11/12/2013 00:00
DATA FILE: W:\GCMS_SS_DATA\2013\131113\13NOV007.D\13NOV007.rr

ANALYZED BY: 449
D/T ANALYZED 11/13/2013 13:06

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorophenol	64	17-120	PASS	
Phenol-d6	48	2-120	PASS	
Nitrobenzene-d5	96	34-124	PASS	
2-Fluorobiphenyl	73	31-120	PASS	
2,4,6-Tribromophenol	91	24-168	PASS	
p-Terphenyl-d14	90	38-140	PASS	

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV005.D
Acq On : 13 Nov 2013 12:14 pm
Operator : 449
Sample : MB 131112-L05
InstName : GCMS SS
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 13 12:40:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Tue Nov 12 11:46:47 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.542	152	440399	40.00	mg/l	-0.02
19) Naphthalene-d8	6.884	136	1948700	40.00	mg/l	-0.02
36) Acenaphthene-d10	8.826	164	1119966	40.00	mg/l	-0.04
56) Phenanthrene-d10	10.463	188	1896146	40.00	mg/l	-0.03
69) Chrysene-d12	13.549	240	1725852	40.00	mg/l	-0.04
81) Perylene-d12	15.929	264	1397873	40.00	mg/l	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	4.370	112	1258359	62.93	mg/l	-0.02
Spiked Amount 100.000			Recovery = 62.93%			
6) Phenol-d6	5.258	99	1144455	46.73	mg/l	-0.04
Spiked Amount 100.000			Recovery = 46.73%			
20) Nitrobenzene-d5	6.162	82	2044935	91.85	mg/l	-0.03
Spiked Amount 100.000			Recovery = 91.85%			
41) 2-Fluorobiphenyl	8.088	172	2683286	71.04	mg/l	0.01
Spiked Amount 100.000			Recovery = 71.04%			
60) 2,4,6-Tribromophenol	9.719	330	355267	85.87	mg/l	-0.04
Spiked Amount 100.000			Recovery = 85.87%			
71) p-Terphenyl-d14	12.265	244	3643064	90.31	mg/l	-0.02
Spiked Amount 100.000			Recovery = 90.31%			
Target Compounds						Qvalue
2) Pyridine	3.183	52	148	N.D.		
3) N-Nitrosodimethylamine	3.258	74	23	N.D.		
5) Aniline	5.290	93	165	N.D.		
7) Phenol	5.333	94	128	N.D.		
8) Bis(2-Chloroethyl) Ether	0.000		0	N.D.		d
9) 2-Chlorophenol	5.430	128	668	N.D.		
10) 1,3-Dichlorobenzene	5.531	146	208	N.D.		
11) 1,4-Dichlorobenzene	5.553	146	278	N.D.		
12) Benzyl Alcohol	5.745	79	1074	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	5.932	108	38	N.D.		
15) Bis(2-Chloroisopropyl)...	5.900	45	141	N.D.		
16) 3/4-Methylphenol	6.050	107	17	N.D.		
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.		d
18) Hexachloroethane	6.077	117	35	N.D.		
21) Nitrobenzene	6.162	77	5911	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	6.515	139	16	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Benzoic Acid	0.000		0	N.D.		d
26) Bis(2-Chloroethoxy) Me...	6.703	93	21	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	6.858	180	79	N.D.		
29) Naphthalene	6.965	128	51	N.D.		
30) 2,6-Dichlorophenol	0.000		0	N.D.		
31) 4-Chloroaniline	7.088	127	144	N.D.		
32) Hexachloro-1,3-Butadiene	0.000		0	N.D.		
33) 4-Chloro-3-Methylphenol	7.596	107	210	N.D.		
34) 2-Methylnaphthalene	7.692	142	210	N.D.		
35) 1-Methylnaphthalene	7.794	142	70	N.D.		
37) Hexachlorocyclopentadiene	0.000		0	N.D.		
38) 2,4,6-Trichlorophenol	0.000		0	N.D.		
39) 2,4,5-Trichlorophenol	0.000		0	N.D.		
40) 2-Chloronaphthalene	0.000		0	N.D.		

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV005.D
Acq On : 13 Nov 2013 12:14 pm
Operator : 449
Sample : MB 131112-L05
InstName : GCMS SS
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 13 12:40:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Tue Nov 12 11:46:47 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

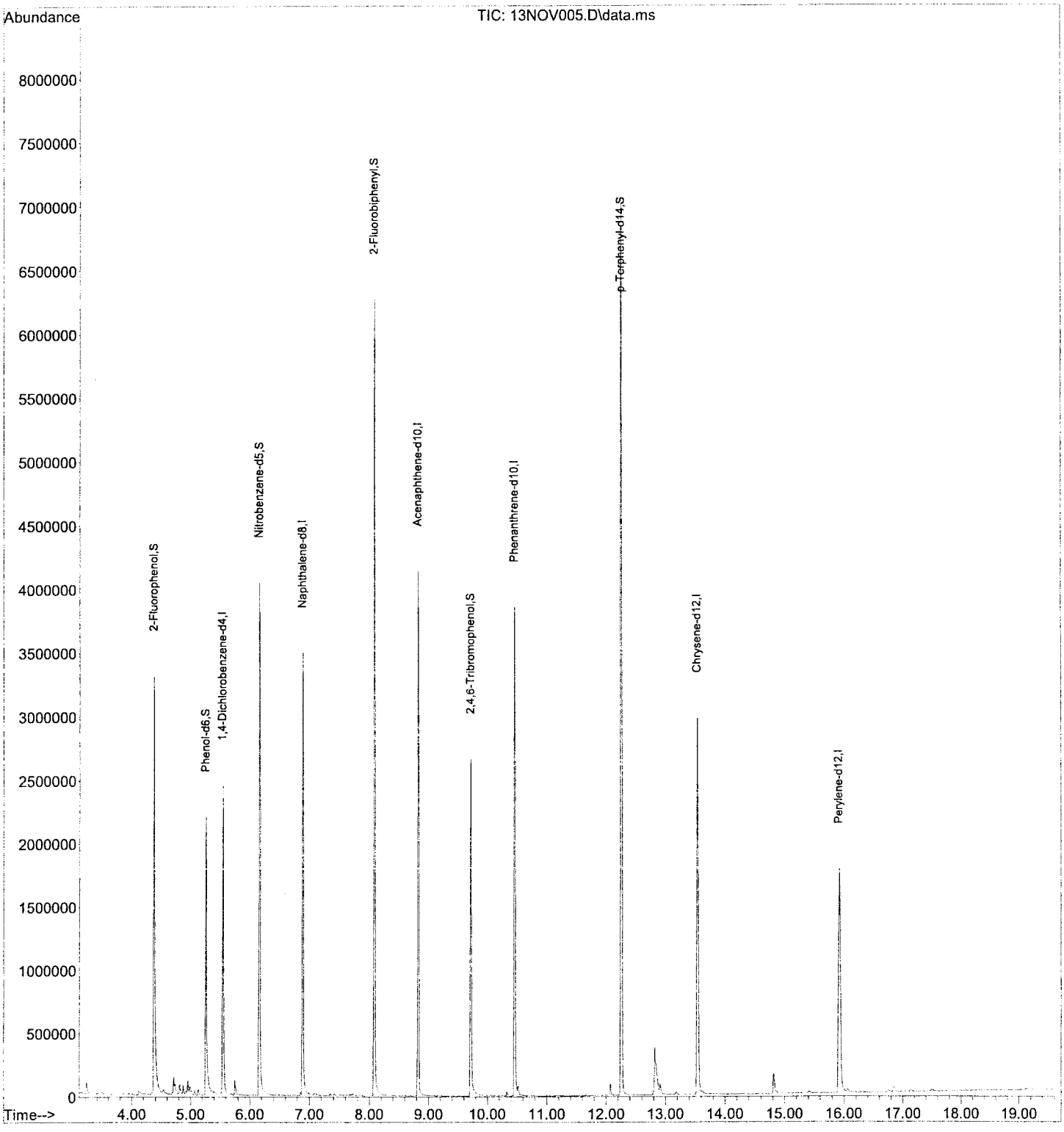
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 2-Nitroaniline	8.409	65	99	N.D.	
43) Dimethyl Phthalate	8.607	163	70	N.D.	
44) Acenaphthylene	8.676	152	247	N.D.	
45) 3-Nitroaniline	0.000		0	N.D. d	
46) Acenaphthene	8.912	153	44	N.D.	
47) 2,4-Dinitrophenol	0.000		0	N.D.	
48) 4-Nitrophenol	9.072	65	61	Below Cal #	10
49) Dibenzofuran	9.083	168	17	N.D.	
50) 2,4-Dinitrotoluene	9.152	165	175	N.D.	
51) 2,6-Dinitrotoluene	0.000		0	N.D.	
52) Diethyl Phthalate	9.371	149	437	N.D.	
53) 4-Chlorophenyl-Phenyl ...	0.000		0	N.D.	
54) Fluorene	9.441	166	160	N.D.	
55) 4-Nitroaniline	9.698	138	28	N.D.	
57) Azobenzene	9.623	77	127	N.D.	
58) 4,6-Dinitro-2-Methylph...	9.714	198	1139	N.D.	
59) N-Nitrosodiphenylamine	0.000		0	N.D. d	
61) 4-Bromophenyl-Phenyl E...	10.029	248	17	N.D.	
62) Hexachlorobenzene	10.131	142	21	N.D.	
63) Pentachlorophenol	10.356	266	16	N.D.	
64) Phenanthrene	10.516	178	30	N.D.	
65) Anthracene	10.559	178	83	N.D.	
66) Di-n-Butyl Phthalate	11.163	149	1453	N.D.	
67) Fluoranthene	11.843	202	127	N.D.	
68) Benzidine	0.000		0	N.D. d	
70) Pyrene	12.083	202	684	N.D.	
72) Butyl Benzyl Phthalate	12.923	149	96	N.D.	
73) 3,3'-Dichlorobenzidine	13.581	252	110	Below Cal #	75
74) Benzo (a) Anthracene	13.549	228	3557	N.D.	
75) Bis(2-Ethylhexyl) Phth...	13.624	149	4859	N.D.	
76) Chrysene	0.000		0	N.D.	
77) Di-n-Octyl Phthalate	14.613	149	498	N.D.	
78) Benzo (b) Fluoranthene	0.000		0	N.D.	
79) Benzo (k) Fluoranthene	15.308	252	61	Below Cal #	1
80) Benzo (a) Pyrene	15.929	252	4596	N.D.	
82) Indeno (1,2,3-c,d) Pyrene	0.000		0	N.D.	
83) Dibenz (a,h) Anthracene	18.272	278	23	N.D.	
84) Benzo (g,h,i) Perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV005.D
Acq On : 13 Nov 2013 12:14 pm
Operator : 449
Sample : MB 131112-L05
InstName : GCMS SS
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 13 12:40:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Tue Nov 12 11:46:47 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV006.D
Acq On : 13 Nov 2013 12:40 pm
Operator : 449
Sample : LCS 131112-L05
InstName : GCMS SS
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 13 12:57:55 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Tue Nov 12 11:46:47 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.547	152	466772	40.00	mg/l	-0.01
19) Naphthalene-d8	6.895	136	2165291	40.00	mg/l	-0.01
36) Acenaphthene-d10	8.837	164	1278398	40.00	mg/l	-0.03
56) Phenanthrene-d10	10.468	188	2152702	40.00	mg/l	-0.03
69) Chrysene-d12	13.554	240	1897155	40.00	mg/l	-0.03
81) Perylene-d12	15.929	264	1507512	40.00	mg/l	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	4.376	112	1383482	65.28	mg/l	-0.01
Spiked Amount 100.000			Recovery = 65.28%			
6) Phenol-d6	5.264	99	1262765	48.65	mg/l	-0.03
Spiked Amount 100.000			Recovery = 48.65%			
20) Nitrobenzene-d5	6.168	82	2366908	95.67	mg/l	-0.03
Spiked Amount 100.000			Recovery = 95.67%			
41) 2-Fluorobiphenyl	8.093	172	3173741	73.61	mg/l	0.02
Spiked Amount 100.000			Recovery = 73.61%			
60) 2,4,6-Tribromophenol	9.725	330	424195	90.31	mg/l	-0.03
Spiked Amount 100.000			Recovery = 90.31%			
71) p-Terphenyl-d14	12.265	244	4016625	90.58	mg/l	-0.02
Spiked Amount 100.000			Recovery = 90.58%			
Target Compounds						Qvalue
2) Pyridine	3.162	52	64	N.D.		
3) N-Nitrosodimethylamine	3.215	74	80	N.D.		
5) Aniline	5.328	93	391	N.D.		
7) Phenol	5.280	94	1247207	44.72	mg/l	78
8) Bis(2-Chloroethyl) Ether	0.000		0	N.D.		
9) 2-Chlorophenol	5.381	128	1510758	76.39	mg/l	94
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	5.563	146	824460	40.94	mg/l	98
12) Benzyl Alcohol	5.751	79	883	N.D.		
13) 1,2-Dichlorobenzene	5.772	146	1068	N.D.		
14) 2-Methylphenol	5.906	108	71	N.D.		
15) Bis(2-Chloroisopropyl)...	5.900	45	191	N.D.		
16) 3/4-Methylphenol	6.055	107	63	N.D.		
17) N-Nitroso-di-n-propyla...	6.039	70	1521914	104.32	mg/l	92
18) Hexachloroethane	6.109	117	44	N.D.		
21) Nitrobenzene	6.205	77	214	N.D.		
22) Isophorone	6.478	82	273	N.D.		
23) 2-Nitrophenol	6.596	139	42	N.D.		
24) 2,4-Dimethylphenol	6.585	107	16	N.D.		
25) Benzoic Acid	0.000		0	N.D.	d	
26) Bis(2-Chloroethoxy) Me...	6.692	93	107	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	6.847	180	925861	50.56	mg/l	99
29) Naphthalene	6.917	128	3630536	63.81	mg/l	99
30) 2,6-Dichlorophenol	0.000		0	N.D.		
31) 4-Chloroaniline	7.088	127	726	N.D.		
32) Hexachloro-1,3-Butadiene	0.000		0	N.D.		
33) 4-Chloro-3-Methylphenol	7.548	107	1552296	83.33	mg/l	98
34) 2-Methylnaphthalene	0.000		0	N.D.		
35) 1-Methylnaphthalene	7.842	142	257	N.D.		
37) Hexachlorocyclopentadiene	0.000		0	N.D.		
38) 2,4,6-Trichlorophenol	0.000		0	N.D.		
39) 2,4,5-Trichlorophenol	0.000		0	N.D.		
40) 2-Chloronaphthalene	0.000		0	N.D.		

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV006.D
Acq On : 13 Nov 2013 12:40 pm
Operator : 449
Sample : LCS 131112-L05
InstName : GCMS SS
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 13 12:57:55 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Tue Nov 12 11:46:47 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 2-Nitroaniline	8.398	65	297	N.D.	
43) Dimethyl Phthalate	8.607	163	3389853	75.74 mg/l	100
44) Acenaphthylene	8.671	152	4567673	79.85 mg/l	99
45) 3-Nitroaniline	0.000		0	N.D. d	
46) Acenaphthene	8.874	153	2991902	80.18 mg/l	99
47) 2,4-Dinitrophenol	0.000		0	N.D.	
48) 4-Nitrophenol	9.067	65	344351	52.31 mg/l	91
49) Dibenzofuran	9.093	168	1039	N.D.	
50) 2,4-Dinitrotoluene	9.126	165	1125474	83.90 mg/l	91
51) 2,6-Dinitrotoluene	0.000		0	N.D.	
52) Diethyl Phthalate	9.430	149	1770	N.D.	
53) 4-Chlorophenyl-Phenyl ...	9.484	204	19	Below Cal #	1
54) Fluorene	9.436	166	3431685	88.05 mg/l	100
55) 4-Nitroaniline	0.000		0	N.D.	
57) Azobenzene	9.623	77	372	N.D.	
58) 4,6-Dinitro-2-Methylph...	9.725	198	1390	N.D.	
59) N-Nitrosodiphenylamine	9.569	169	3328	N.D.	
61) 4-Bromophenyl-Phenyl E...	9.981	248	17	N.D.	
62) Hexachlorobenzene	10.179	142	61	N.D.	
63) Pentachlorophenol	10.340	266	504971	82.71 mg/l	99
64) Phenanthrene	10.500	178	451	N.D.	
65) Anthracene	10.559	178	647	N.D.	
66) Di-n-Butyl Phthalate	11.163	149	10946	N.D.	
67) Fluoranthene	11.864	202	320	N.D.	
68) Benzidine	0.000		0	N.D. d	
70) Pyrene	12.083	202	5392903	87.59 mg/l	99
72) Butyl Benzyl Phthalate	12.864	149	2392345	83.33 mg/l	93
73) 3,3'-Dichlorobenzidine	13.538	252	17	Below Cal #	1
74) Benzo (a) Anthracene	13.554	228	4583	N.D.	
75) Bis(2-Ethylhexyl) Phth...	13.624	149	4751	N.D.	
76) Chrysene	0.000		0	N.D.	
77) Di-n-Octyl Phthalate	14.608	149	544	N.D.	
78) Benzo (b) Fluoranthene	0.000		0	N.D. d	
79) Benzo (k) Fluoranthene	15.335	252	88	Below Cal #	1
80) Benzo (a) Pyrene	15.934	252	4555	N.D.	
82) Indeno (1,2,3-c,d) Pyrene	0.000		0	N.D.	
83) Dibenz (a,h) Anthracene	0.000		0	N.D.	
84) Benzo (g,h,i) Perylene	0.000		0	N.D.	

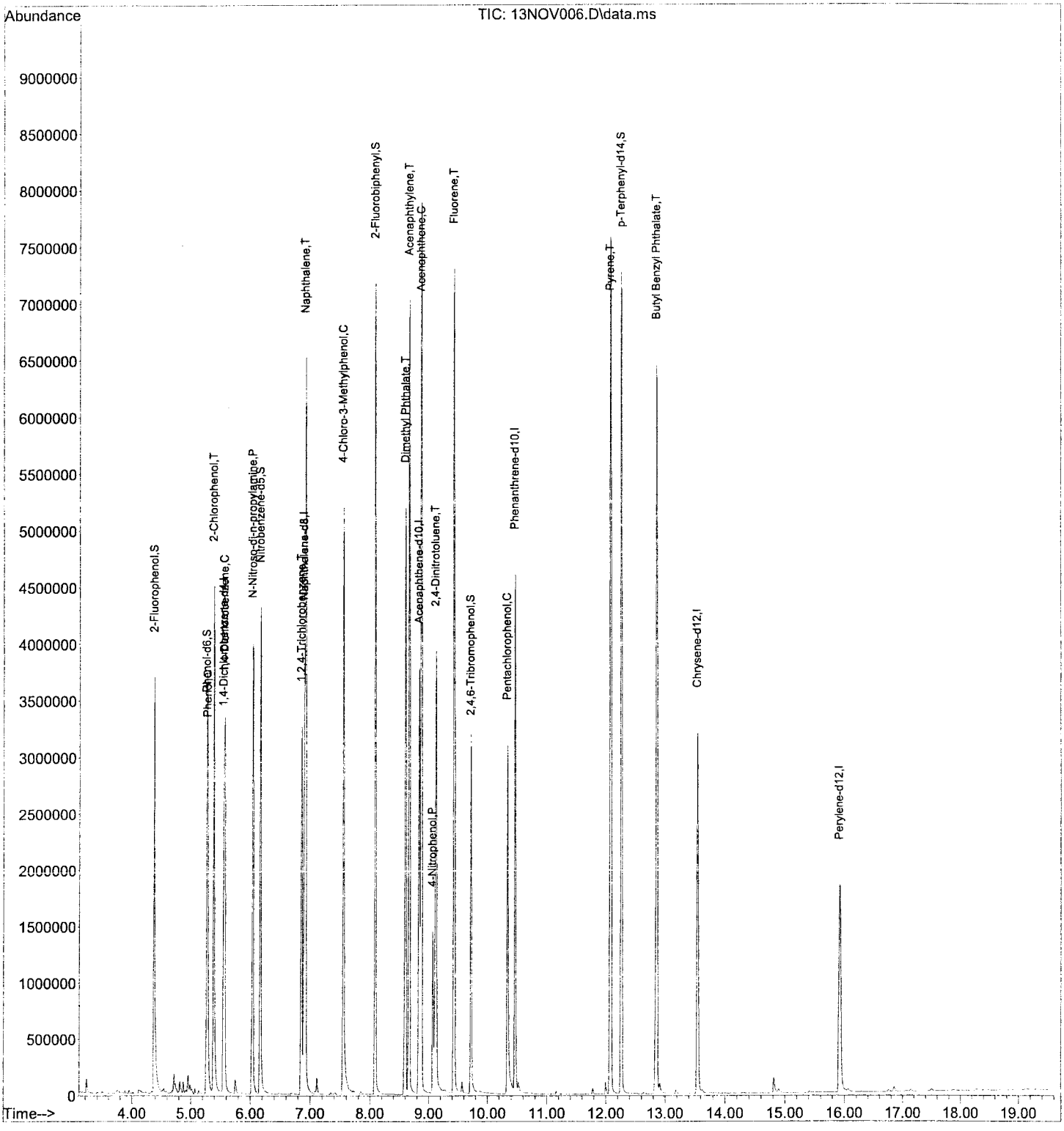
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV006.D
Acq On : 13 Nov 2013 12:40 pm
Operator : 449
Sample : LCS 131112-L05
InstName : GCMS SS
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 13 12:57:55 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Tue Nov 12 11:46:47 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV007.D
Acq On : 13 Nov 2013 1:06 pm
Operator : 449
Sample : LCSD 131112-L05
InstName : GCMS SS
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 13 13:23:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Tue Nov 12 11:46:47 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.547	152	473753	40.00	mg/l	-0.01
19) Naphthalene-d8	6.895	136	2166792	40.00	mg/l	-0.01
36) Acenaphthene-d10	8.837	164	1283837	40.00	mg/l	-0.03
56) Phenanthrene-d10	10.468	188	2171793	40.00	mg/l	-0.03
69) Chrysene-d12	13.554	240	1901245	40.00	mg/l	-0.03
81) Perylene-d12	15.929	264	1489185	40.00	mg/l	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	4.376	112	1383106	64.30	mg/l	-0.01
Spiked Amount 100.000			Recovery =	64.30%		
6) Phenol-d6	5.264	99	1276863	48.47	mg/l	-0.03
Spiked Amount 100.000			Recovery =	48.47%		
20) Nitrobenzene-d5	6.168	82	2373751	95.88	mg/l	-0.03
Spiked Amount 100.000			Recovery =	95.88%		
41) 2-Fluorobiphenyl	8.093	172	3155978	72.89	mg/l	0.02
Spiked Amount 100.000			Recovery =	72.89%		
60) 2,4,6-Tribromophenol	9.724	330	429571	90.65	mg/l	-0.03
Spiked Amount 100.000			Recovery =	90.65%		
71) p-Terphenyl-d14	12.265	244	4021558	90.50	mg/l	-0.02
Spiked Amount 100.000			Recovery =	90.50%		
Target Compounds						Qvalue
2) Pyridine	3.306	52	100	N.D.		
3) N-Nitrosodimethylamine	3.231	74	40	N.D.		
5) Aniline	5.312	93	445	N.D.		
7) Phenol	5.280	94	1255071	44.34	mg/l	78
8) Bis(2-Chloroethyl) Ether	0.000		0	N.D.		
9) 2-Chlorophenol	5.381	128	1512467	75.35	mg/l	94
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	5.563	146	835574	40.88	mg/l	99
12) Benzyl Alcohol	5.745	79	1297	N.D.		
13) 1,2-Dichlorobenzene	5.766	146	1098	N.D.		
14) 2-Methylphenol	5.857	108	17	N.D.		
15) Bis(2-Chloroisopropyl)...	5.911	45	267	N.D.		
16) 3/4-Methylphenol	6.061	107	147	N.D.		
17) N-Nitroso-di-n-propyla...	6.039	70	1529206	103.28	mg/l	93
18) Hexachloroethane	6.045	117	20	N.D.		
21) Nitrobenzene	6.168	77	7315	N.D.		
22) Isophorone	6.489	82	1210	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	6.558	107	45	N.D.		
25) Benzoic Acid	0.000		0	N.D. d		
26) Bis(2-Chloroethoxy) Me...	6.697	93	82	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	6.847	180	927223	50.60	mg/l	99
29) Naphthalene	6.916	128	3631498	63.78	mg/l	99
30) 2,6-Dichlorophenol	0.000		0	N.D.		
31) 4-Chloroaniline	7.077	127	372	N.D.		
32) Hexachloro-1,3-Butadiene	0.000		0	N.D.		
33) 4-Chloro-3-Methylphenol	7.548	107	1542193	82.73	mg/l	99
34) 2-Methylnaphthalene	0.000		0	N.D.		
35) 1-Methylnaphthalene	7.847	142	263	N.D.		
37) Hexachlorocyclopentadiene	0.000		0	N.D.		
38) 2,4,6-Trichlorophenol	0.000		0	N.D.		
39) 2,4,5-Trichlorophenol	0.000		0	N.D.		
40) 2-Chloronaphthalene	0.000		0	N.D.		

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV007.D
Acq On : 13 Nov 2013 1:06 pm
Operator : 449
Sample : LCSD 131112-L05
InstName : GCMS SS
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 13 13:23:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Tue Nov 12 11:46:47 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

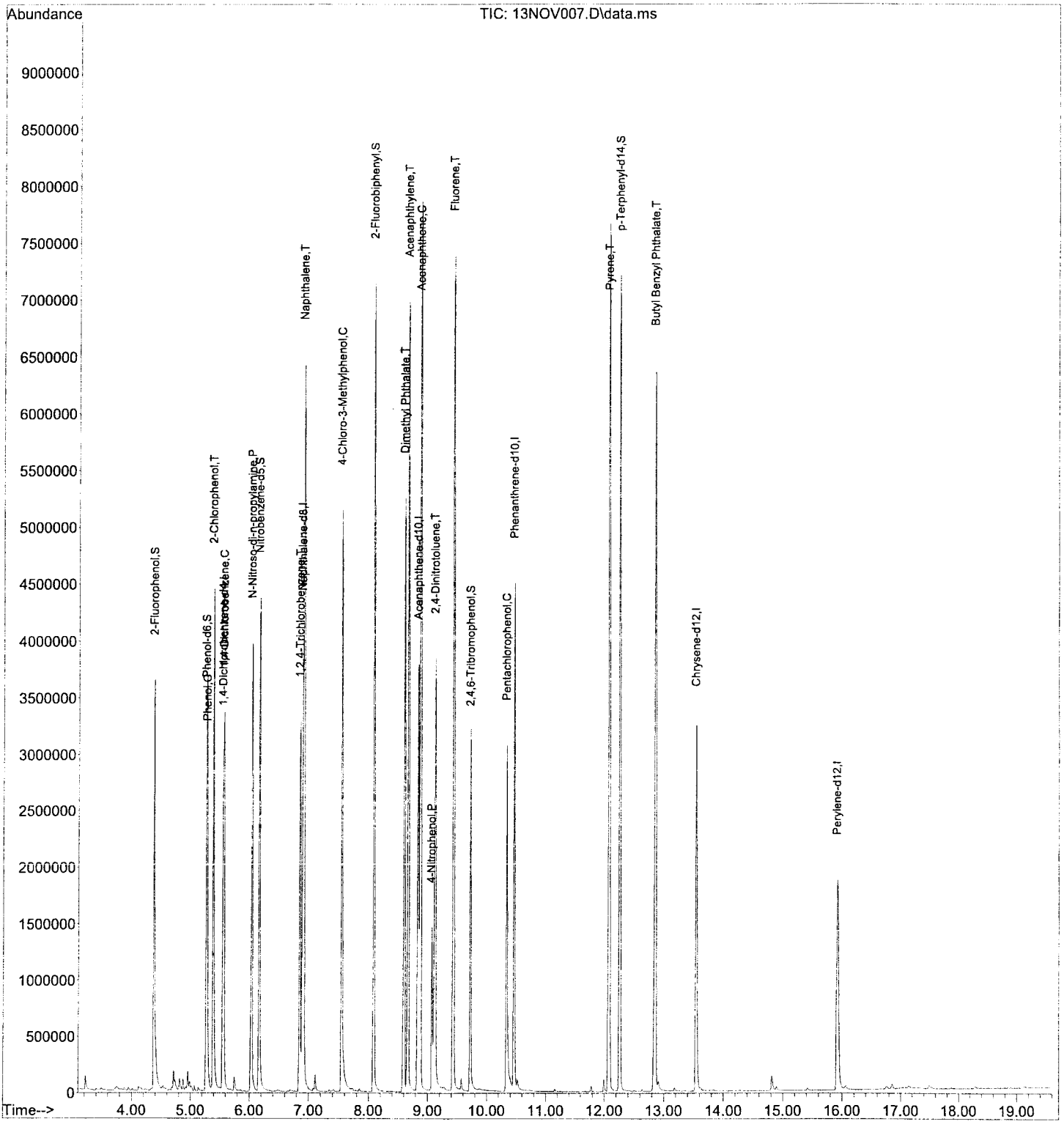
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 2-Nitroaniline	8.403	65	169	N.D.	
43) Dimethyl Phthalate	8.607	163	3396666	75.58 mg/l	99
44) Acenaphthylene	8.671	152	4569872	79.55 mg/l	100
45) 3-Nitroaniline	0.000		0	N.D. d	
46) Acenaphthene	8.874	153	2993761	79.89 mg/l	99
47) 2,4-Dinitrophenol	0.000		0	N.D.	
48) 4-Nitrophenol	9.067	65	347453	52.56 mg/l	90
49) Dibenzofuran	9.056	168	5984	N.D.	
50) 2,4-Dinitrotoluene	9.125	165	1141195	84.72 mg/l	93
51) 2,6-Dinitrotoluene	0.000		0	N.D.	
52) Diethyl Phthalate	9.371	149	691	N.D.	
53) 4-Chlorophenyl-Phenyl ...	0.000		0	N.D.	
54) Fluorene	9.436	166	3451131	88.17 mg/l	99
55) 4-Nitroaniline	0.000		0	N.D.	
57) Azobenzene	9.537	77	989	N.D.	
58) 4,6-Dinitro-2-Methylph...	9.687	198	40	Below Cal #	1
59) N-Nitrosodiphenylamine	9.569	169	3408	N.D.	
61) 4-Bromophenyl-Phenyl E...	9.992	248	19	N.D.	
62) Hexachlorobenzene	10.158	142	120	N.D.	
63) Pentachlorophenol	10.340	266	518155	84.12 mg/l	99
64) Phenanthrene	10.468	178	1162	N.D.	
65) Anthracene	10.548	178	516	N.D.	
66) Di-n-Butyl Phthalate	11.163	149	10366	N.D.	
67) Fluoranthene	11.832	202	1413	N.D.	
68) Benzidine	0.000		0	N.D. d	
70) Pyrene	12.083	202	5337646	86.50 mg/l	99
72) Butyl Benzyl Phthalate	12.864	149	2371803	82.43 mg/l	93
73) 3,3'-Dichlorobenzidine	13.517	252	126	Below Cal #	48
74) Benzo (a) Anthracene	13.554	228	4328	N.D.	
75) Bis(2-Ethylhexyl) Phth...	13.624	149	5003	N.D.	
76) Chrysene	13.554	228	2737	N.D.	
77) Di-n-Octyl Phthalate	14.645	149	137	N.D.	
78) Benzo (b) Fluoranthene	0.000		0	N.D. d	
79) Benzo (k) Fluoranthene	15.319	252	102	Below Cal #	1
80) Benzo (a) Pyrene	15.924	252	4749	N.D.	
82) Indeno (1,2,3-c,d) Pyrene	0.000		0	N.D.	
83) Dibenz (a,h) Anthracene	0.000		0	N.D.	
84) Benzo (g,h,i) Perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV007.D
Acq On : 13 Nov 2013 1:06 pm
Operator : 449
Sample : LCSD 131112-L05
InstName : GCMS SS
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 13 13:23:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Tue Nov 12 11:46:47 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

EPA METHOD 8270C
SVOCs

Continuing Calibration

Return to Contents

CCV ASSOCIATION SUMMARY
FOR METHOD: EPA 8270C

BATCH ID: **131114** ANALYZED BY: 449
INSTRUMENT: GC/MS SS

WORK ORDER: **095-01-001** REVIEWED BY:
MATRIX: Water D/T REVIEWED:

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
11290	Daily Calibration	11/14/2013 10:34	W:\GCMS_SS_DATA\2013\131114\14NOV002.D\14NOV002.rr

WORK ORDER: **13-11-0697** REVIEWED BY: 27
MATRIX: Water D/T REVIEWED: 11/14/2013 17:26

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
13	QCEB-11082013	11/14/2013 15:50	W:\GCMS_SS_DATA\2013\131114\14NOV014.D\14NOV014.rr

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C

CCV WORK ORDER: **095-01-001-11290-596**
INSTRUMENT: GC/MS SS
BATCH ID:
INITIAL: 130911
CCV: 131114

ANALYZED BY: 449
D/T ANALYZED:
INITIAL: 09/11/2013 18:06
CCV: 11/14/2013 10:34
REVIEWED BY:
D/T REVIEWED:

Data File: W:\GCMS_SS_DATA\2013\131114\14NOV002.D\14NOV002.rr

COMPOUND	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
N-Nitrosodimethylamine	Avg Resp	0.00	1.222	1.430			-17	0-20	PASS
Aniline	Avg Resp	0.00	2.608	2.449			6	0-20	PASS
Phenol	Avg Resp	0.00	2.390	2.653			-11	0-20	PASS
Bis(2-Chloroethyl) Ether	**QR - Equal**				80.00	99.579	**-24**	0-20	**FAIL**
2-Chlorophenol	Avg Resp	0.00	1.695	1.737			-3	0-20	PASS
1,3-Dichlorobenzene	Avg Resp	0.00	1.806	1.794			1	0-20	PASS
1,4-Dichlorobenzene	Avg Resp	0.00	1.726	1.771			-2	0-20	PASS
Benzyl Alcohol	Avg Resp	0.00	1.531	1.653			-8	0-20	PASS
1,2-Dichlorobenzene	Avg Resp	0.00	1.647	1.690			-2	0-20	PASS
2-Methylphenol	Avg Resp	0.00	1.505	1.657			-10	0-20	PASS
Bis(2-Chloroisopropyl) Ether	**Avg Resp**	**0.00**	**2.033**	**2.661**			**-31**	0-20	**FAIL**
3/4-Methylphenol	Avg Resp	0.00	1.687	1.815			-7	0-20	PASS
N-Nitroso-di-n-propylamine	Avg Resp	0.05	1.250	1.501			-20	0-20	PASS
Hexachloroethane	Avg Resp	0.00	0.639	0.679			-6	0-20	PASS
Nitrobenzene	Avg Resp	0.00	0.435	0.482			-11	0-20	PASS
Isophorone	Avg Resp	0.00	0.829	0.888			-7	0-20	PASS
2-Nitrophenol	Avg Resp	0.00	0.203	0.187			8	0-20	PASS
2,4-Dimethylphenol	Avg Resp	0.00	0.400	0.393			2	0-20	PASS
Benzoic Acid	LR - Equal				80.00	80.973	-1	0-20	PASS
Bis(2-Chloroethoxy) Methane	Avg Resp	0.00	0.479	0.511			-7	0-20	PASS
2,4-Dichlorophenol	Avg Resp	0.00	0.301	0.291			3	0-20	PASS
Naphthalene	Avg Resp	0.00	1.051	1.067			-2	0-20	PASS
4-Chloroaniline	Avg Resp	0.00	0.366	0.358			2	0-20	PASS
Hexachloro-1,3-Butadiene	Avg Resp	0.00	0.180	0.164			9	0-20	PASS
4-Chloro-3-Methylphenol	Avg Resp	0.00	0.344	0.355			-3	0-20	PASS
2-Methylnaphthalene	Avg Resp	0.00	0.690	0.666			3	0-20	PASS
Hexachlorocyclopentadiene	**LR - Equal**				80.00	38.843	**51**	0-20	**FAIL**
2,4,6-Trichlorophenol	Avg Resp	0.00	0.373	0.342			8	0-20	PASS

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C

CCV WORK ORDER: **095-01-001-11290-596**
INSTRUMENT: GC/MS SS
BATCH ID:
INITIAL: 130911
CCV: 131114

ANALYZED BY: 449
D/T ANALYZED:
INITIAL: 09/11/2013 18:06
CCV: 11/14/2013 10:34
REVIEWED BY:
D/T REVIEWED:

Data File: W:\GCMS_SS_DATA\2013\131114\14NOV002.D\14NOV002.rr

COMPOUND	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
2,4,5-Trichlorophenol	Avg Resp	0.00	0.367	0.364			1	0-20	PASS
2-Chloronaphthalene	Avg Resp	0.00	1.169	1.127			3	0-20	PASS
2-Nitroaniline	Avg Resp	0.00	0.393	0.464			-18	0-20	PASS
Dimethyl Phthalate	Avg Resp	0.00	1.400	1.309			6	0-20	PASS
Acenaphthylene	Avg Resp	0.00	1.790	1.711			4	0-20	PASS
3-Nitroaniline	QR - Equal				80.00	92.093	-15	0-20	PASS
Acenaphthene	Avg Resp	0.00	1.168	1.143			3	0-20	PASS
2,4-Dinitrophenol	QR - Equal				80.00	75.481	6	0-20	PASS
4-Nitrophenol	LR - Equal				80.00	64.297	20	0-20	PASS
Dibenzofuran	Avg Resp	0.00	1.559	1.579			-1	0-20	PASS
2,4-Dinitrotoluene	Avg Resp	0.00	0.420	0.408			3	0-20	PASS
2,6-Dinitrotoluene	Avg Resp	0.00	0.719	0.790			-10	0-20	PASS
Diethyl Phthalate	Avg Resp	0.00	1.317	1.276			3	0-20	PASS
4-Chlorophenyl-Phenyl Ether	QR - Equal				80.00	87.106	-9	0-20	PASS
Fluorene	Avg Resp	0.00	1.219	1.216			0	0-20	PASS
4-Nitroaniline	Avg Resp	0.00	0.248	0.252			-2	0-20	PASS
Azobenzene	**Avg Resp**	**0.00**	**0.857**	**1.096**			**-28**	0-20	**FAIL**
4,6-Dinitro-2-Methylphenol	LR - Equal				80.00	94.424	-18	0-20	PASS
N-Nitrosodiphenylamine	Avg Resp	0.05	0.497	0.459			8	0-20	PASS
4-Bromophenyl-Phenyl Ether	Avg Resp	0.00	0.212	0.206			3	0-20	PASS
Hexachlorobenzene	Avg Resp	0.00	0.081	0.083			-2	0-20	PASS
Pentachlorophenol	Avg Resp	0.00	0.113	0.098			13	0-20	PASS
Phenanthrene	Avg Resp	0.00	1.053	1.072			-2	0-20	PASS
Anthracene	Avg Resp	0.00	1.064	1.061			0	0-20	PASS
Di-n-Butyl Phthalate	Avg Resp	0.00	1.256	1.226			2	0-20	PASS
Fluoranthene	Avg Resp	0.00	1.171	1.059			9	0-20	PASS
Benzidine	QR - Equal				80.00	66.060	17	0-20	PASS
Pyrene	Avg Resp	0.00	1.298	1.177			9	0-20	PASS

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C

CCV WORK ORDER: **095-01-001-11290-596**
INSTRUMENT: GC/MS SS
BATCH ID:
INITIAL: 130911
CCV: 131114

ANALYZED BY: 449
D/T ANALYZED:
INITIAL: 09/11/2013 18:06
CCV: 11/14/2013 10:34
REVIEWED BY:
D/T REVIEWED:

Data File: W:\GCMS_SS_DATA\2013\131114\14NOV002.D\14NOV002.rr

COMPOUND	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Pyridine	**Avg Resp**	**0.00**	**1.110**	**1.435**			**-30**	0-20	**FAIL**
Butyl Benzyl Phthalate	Avg Resp	0.00	0.605	0.545			10	0-20	PASS
3,3'-Dichlorobenzidine	QR - Equal				80.00	77.776	3	0-20	PASS
Benzo (a) Anthracene	Avg Resp	0.00	1.106	0.985			11	0-20	PASS
Bis(2-Ethylhexyl) Phthalate	Avg Resp	0.00	0.788	0.842			-7	0-20	PASS
Chrysene	Avg Resp	0.00	1.026	0.983			5	0-20	PASS
Di-n-Octyl Phthalate	Avg Resp	0.00	1.268	1.359			-7	0-20	PASS
Benzo (k) Fluoranthene	**QR - Equal**				80.00	106.650	**-33**	0-20	**FAIL**
Benzo (b) Fluoranthene	QR - Equal				80.00	71.568	10	0-20	PASS
Benzo (a) Pyrene	Avg Resp	0.00	0.696	0.724			-4	0-20	PASS
Benzo (g,h,i) Perylene	**Avg Resp**	**0.00**	**0.544**	**1.039**			**-91**	0-20	**FAIL**
Indeno (1,2,3-c,d) Pyrene	**Avg Resp**	**0.00**	**0.703**	**1.175**			**-68**	0-20	**FAIL**
Dibenz (a,h) Anthracene	**Avg Resp**	**0.00**	**0.599**	**1.070**			**-79**	0-20	**FAIL**
1-Methylnaphthalene	Avg Resp	0.00	0.648	0.634			2	0-20	PASS
1,2,4-Trichlorobenzene	Avg Resp	0.00	0.338	0.314			7	0-20	PASS
2,6-Dichlorophenol	Avg Resp	0.00	0.281	0.277			1	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV002.D
Acq On : 14 Nov 2013 10:34 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 10:53:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 10:53:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0	68	0.00
2	T	Pyridine	1.110	1.435	-29#	85	0.01
3	T	N-Nitrosodimethylamine	1.222	1.430	-17	80	-0.02
4	S	2-Fluorophenol	1.816	1.826	-1	68	-0.02
5	T	Aniline	2.608	2.449	6	67	-0.02
6	S	Phenol-d6	2.224	2.331	-5	73	-0.03
7	C	Phenol	2.390	2.653	-11	79	-0.03
8	T	Bis(2-Chloroethyl) Ether	1.674	1.977	-18	78	0.00
9	T	2-Chlorophenol	1.695	1.737	-2	71	-0.03
10	T	1,3-Dichlorobenzene	1.806	1.794	1	69	-0.02
11	C	1,4-Dichlorobenzene	1.726	1.771	-3	72	0.00
12	T	Benzyl Alcohol	1.531	1.653	-8	72	-0.03
13	T	1,2-Dichlorobenzene	1.647	1.690	-3	71	-0.03
14	T	2-Methylphenol	1.505	1.657	-10	75	-0.03
15	T	Bis(2-Chloroisopropyl) Ethe	2.033	2.661	-31#	92	-0.03
16	T	3/4-Methylphenol	1.687	1.815	-8	73	-0.03
17	P	N-Nitroso-di-n-propylamine	1.250	1.501	-20	91	-0.03
18	T	Hexachloroethane	0.639	0.679	-6	78	-0.03
19	I	Naphthalene-d8	1.000	1.000	0	74	-0.01
20	S	Nitrobenzene-d5	0.457	0.492	-8	81	-0.03
21	T	Nitrobenzene	0.435	0.482	-11	85	-0.03
22	T	Isophorone	0.829	0.888	-7	78	-0.03
23	C	2-Nitrophenol	0.203	0.187	8	69	-0.03
24	T	2,4-Dimethylphenol	0.400	0.393	2	73	-0.03
25	T	Benzoic Acid	0.237	0.280	-18	75	-0.03
26	T	Bis(2-Chloroethoxy) Methane	0.479	0.511	-7	81	-0.03
27	C	2,4-Dichlorophenol	0.301	0.291	3	72	-0.03
28	T	1,2,4-Trichlorobenzene	0.338	0.314	7	69	-0.03
29	T	Naphthalene	1.051	1.067	-2	77	-0.03
30	T	2,6-Dichlorophenol	0.281	0.277	1	75	-0.03
31	T	4-Chloroaniline	0.366	0.358	2	70	-0.03
32	C	Hexachloro-1,3-Butadiene	0.180	0.164	9	69	-0.03
33	C	4-Chloro-3-Methylphenol	0.344	0.355	-3	75	-0.03
34	T	2-Methylnaphthalene	0.690	0.666	3	74	-0.03
35	T	1-Methylnaphthalene	0.648	0.634	2	74	-0.03
36	I	Acenaphthene-d10	1.000	1.000	0	74	-0.03
37	P	Hexachlorocyclopentadiene	0.192	0.099	48#	33#	-0.03
38	C	2,4,6-Trichlorophenol	0.373	0.342	8	67	-0.02
39	T	2,4,5-Trichlorophenol	0.367	0.364	1	69	-0.03
40	T	2-Chloronaphthalene	1.169	1.127	4	73	-0.03
41	S	2-Fluorobiphenyl	1.349	1.288	5	73	0.02
42	T	2-Nitroaniline	0.393	0.464	-18	87	-0.03
43	T	Dimethyl Phthalate	1.400	1.309	6	70	-0.03
44	T	Acenaphthylene	1.790	1.711	4	74	-0.03
45	T	3-Nitroaniline	0.254	0.299	-18	83	-0.03
46	C	Acenaphthene	1.168	1.143	2	74	-0.03
47	P	2,4-Dinitrophenol	0.101	0.109	-8	70	-0.02
48	P	4-Nitrophenol	0.189	0.165	13	55	0.00
49	T	Dibenzofuran	1.559	1.579	-1	77	-0.03
50	T	2,4-Dinitrotoluene	0.420	0.408	3	69	-0.03
51	T	2,6-Dinitrotoluene	0.296	0.295	0	75	-0.03

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV002.D
Acq On : 14 Nov 2013 10:34 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 10:53:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 10:53:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	T	Diethyl Phthalate	1.317	1.276	3	73	-0.03
53	T	4-Chlorophenyl-Phenyl Ether	0.610	0.615	-1	79	-0.03
54	T	Fluorene	1.219	1.216	0	79	-0.03
55	T	4-Nitroaniline	0.248	0.252	-2	73	-0.02
56	I	Phenanthrene-d10	1.000	1.000	0	69	-0.03
57	T	Azobenzene	0.857	1.096	-28#	88	-0.03
58	T	4,6-Dinitro-2-Methylphenol	0.091	0.113	-24	77	-0.03
59	C	N-Nitrosodiphenylamine	0.497	0.459	8	66	-0.03
60	S	2,4,6-Tribromophenol	0.087	0.088	-1	66	-0.03
61	T	4-Bromophenyl-Phenyl Ether	0.212	0.206	3	68	-0.03
62	T	Hexachlorobenzene	0.081	0.083	-2	74	-0.03
63	C	Pentachlorophenol	0.113	0.098	13	53	-0.03
64	T	Phenanthrene	1.053	1.072	-2	73	-0.02
65	T	Anthracene	1.064	1.061	0	71	-0.03
66	T	Di-n-Butyl Phthalate	1.256	1.226	2	71	-0.03
67	C	Fluoranthene	1.171	1.059	10	65	-0.03
68	T	Benzidine	0.167	0.143	14	53	-0.02
69	I	Chrysene-d12	1.000	1.000	0	70	-0.03
70	T	Pyrene	1.298	1.177	9	66	-0.03
71	S	p-Terphenyl-d14	0.935	0.831	11	64	-0.03
72	T	Butyl Benzyl Phthalate	0.605	0.545	10	64	-0.03
73	T	3,3'-Dichlorobenzidine	0.197	0.188	5	64	-0.03
74	T	Benzo (a) Anthracene	1.106	0.985	11	63	-0.02
75	T	Bis(2-Ethylhexyl) Phthalate	0.788	0.842	-7	75	-0.03
76	T	Chrysene	1.026	0.983	4	67	0.00
77	C	Di-n-Octyl Phthalate	1.268	1.359	-7	75	-0.04
78	T	Benzo (b) Fluoranthene	0.976	0.925	5	59	0.00
79	T	Benzo (k) Fluoranthene	0.691	0.780	-13	86	0.00
80	C	Benzo (a) Pyrene	0.696	0.724	-4	69	-0.04
81	I	Perylene-d12	1.000	1.000	0	70	-0.04
82	T	Indeno (1,2,3-c,d) Pyrene	0.703	1.175	-67#	112	-0.05
83	T	Dibenz (a,h) Anthracene	0.599	1.070	-79#	118	-0.05
84	T	Benzo (g,h,i) Perylene	0.544	1.039	-91#	129	-0.05

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

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV002.D
Acq On : 14 Nov 2013 10:34 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 10:53:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 10:53:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.553	152	256924	40.00	mg/l	# 0.00
19) Naphthalene-d8	6.895	136	1210785	40.00	mg/l	-0.01
36) Acenaphthene-d10	8.831	164	686748	40.00	mg/l	-0.03
56) Phenanthrene-d10	10.468	188	1180827	40.00	mg/l	-0.03
69) Chrysene-d12	13.554	240	1080750	40.00	mg/l	-0.03
81) Perylene-d12	15.929	264	764324	40.00	mg/l	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	4.371	112	938120	80.42	mg/l	-0.02
Spiked Amount 100.000			Recovery = 80.42%			
6) Phenol-d6	5.269	99	1197974	83.85	mg/l	-0.03
Spiked Amount 100.000			Recovery = 83.85%			
20) Nitrobenzene-d5	6.168	82	1192380	86.19	mg/l	-0.03
Spiked Amount 100.000			Recovery = 86.19%			
41) 2-Fluorobiphenyl	8.093	172	1769490	76.40	mg/l	0.02
Spiked Amount 100.000			Recovery = 76.40%			
60) 2,4,6-Tribromophenol	9.725	330	207191	80.42	mg/l	-0.03
Spiked Amount 100.000			Recovery = 80.42%			
71) p-Terphenyl-d14	12.254	244	1796961	71.14	mg/l	-0.03
Spiked Amount 100.000			Recovery = 71.14%			
Target Compounds						Qvalue
2) Pyridine	3.205	52	737560m	103.41	mg/l	
3) N-Nitrosodimethylamine	3.205	74	734601	93.57	mg/l	91
5) Aniline	5.280	93	1258624	75.13	mg/l	93
7) Phenol	5.280	94	1363355	88.81	mg/l	85
8) Bis(2-Chloroethyl) Ether	5.333	93	1015632	99.58	mg/l	100
9) 2-Chlorophenol	5.387	128	892598	82.00	mg/l	92
10) 1,3-Dichlorobenzene	5.510	146	921980	79.50	mg/l	99
11) 1,4-Dichlorobenzene	5.563	146	909806	82.09	mg/l	99
12) Benzyl Alcohol	5.745	79	849311	86.37	mg/l	82
13) 1,2-Dichlorobenzene	5.756	146	868463	82.08	mg/l	99
14) 2-Methylphenol	5.863	108	851482	88.08	mg/l	91
15) Bis(2-Chloroisopropyl)...	5.874	45	1367193	104.69	mg/l	86
16) 3/4-Methylphenol	6.034	107	1865094	172.10	mg/l	96
17) N-Nitroso-di-n-propyla...	6.066	70	771418	96.07	mg/l	93
18) Hexachloroethane	6.061	117	348941	85.07	mg/l	91
21) Nitrobenzene	6.189	77	1166919	88.57	mg/l	94
22) Isophorone	6.441	82	2150873	85.72	mg/l	97
23) 2-Nitrophenol	6.515	139	451876	73.41	mg/l	91
24) 2,4-Dimethylphenol	6.574	107	952327	78.68	mg/l	96
25) Benzoic Acid	6.804	105	678236	80.97	mg/l	95
26) Bis(2-Chloroethoxy) Me...	6.665	93	1237807	85.32	mg/l	99
27) 2,4-Dichlorophenol	6.777	162	704084	77.20	mg/l	97
28) 1,2,4-Trichlorobenzene	6.847	180	760471	74.27	mg/l	99
29) Naphthalene	6.917	128	2584355	81.23	mg/l	99
30) 2,6-Dichlorophenol	7.013	162	670942	78.76	mg/l	98
31) 4-Chloroaniline	7.013	127	867734	78.25	mg/l	93
32) Hexachloro-1,3-Butadiene	7.098	225	397144	73.06	mg/l	99
33) 4-Chloro-3-Methylphenol	7.548	107	859061	82.47	mg/l	97
34) 2-Methylnaphthalene	7.665	142	1612296	77.16	mg/l	99
35) 1-Methylnaphthalene	7.783	142	1534443	78.23	mg/l	100
37) Hexachlorocyclopentadiene	7.901	237	135654	38.84	mg/l	99
38) 2,4,6-Trichlorophenol	8.013	196	469959	73.48	mg/l	98
39) 2,4,5-Trichlorophenol	8.066	196	499965	79.39	mg/l	99
40) 2-Chloronaphthalene	8.200	162	1547992	77.11	mg/l	100

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV002.D
Acq On : 14 Nov 2013 10:34 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 10:53:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 10:53:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

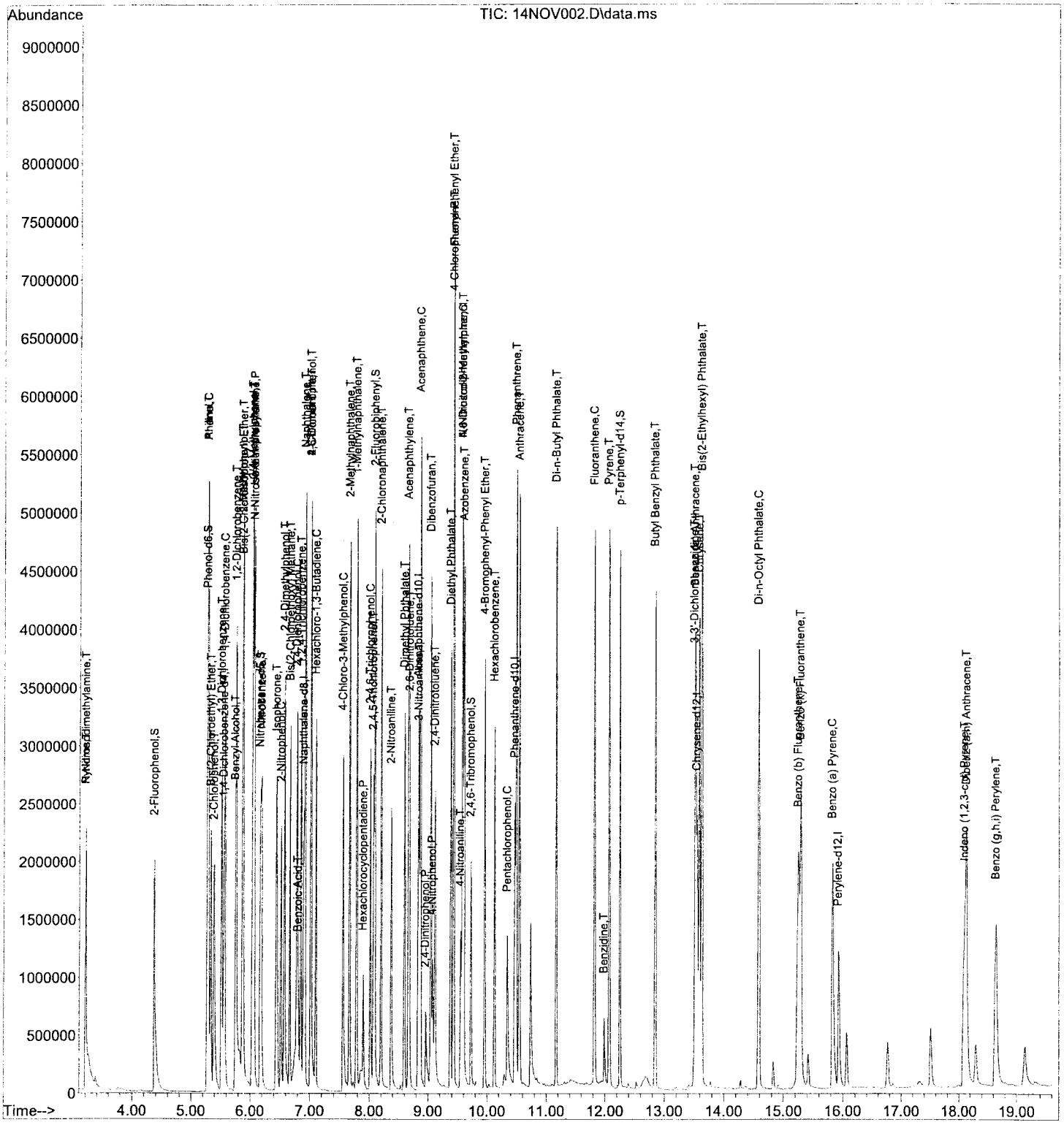
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.371	65	637351	94.51	mg/l		89
43) Dimethyl Phthalate	8.596	163	1797635	74.77	mg/l		100
44) Acenaphthylene	8.666	152	2349841	76.47	mg/l		99
45) 3-Nitroaniline	8.842	138	411131	92.09	mg/l		86
46) Acenaphthene	8.869	153	1570133	78.33	mg/l		99
47) 2,4-Dinitrophenol	8.960	184	149044	75.48	mg/l		87
48) 4-Nitrophenol	9.072	65	226700	64.30	mg/l		79
49) Dibenzofuran	9.045	168	2168364	81.00	mg/l		98
50) 2,4-Dinitrotoluene	9.115	165	560462	77.78	mg/l		91
51) 2,6-Dinitrotoluene	8.682	165	405844	79.73	mg/l		91
52) Diethyl Phthalate	9.382	149	1752931	77.52	mg/l		98
53) 4-Chlorophenyl-Phenyl ...	9.425	204	844043	87.11	mg/l		99
54) Fluorene	9.430	166	1669897	79.76	mg/l		99
55) 4-Nitroaniline	9.548	138	345745	81.24	mg/l		83
57) Azobenzene	9.607	77	2587895	102.29	mg/l		91
58) 4,6-Dinitro-2-Methylph...	9.580	198	265823	94.42	mg/l	#	1
59) N-Nitrosodiphenylamine	9.580	169	1083285	73.88	mg/l		96
61) 4-Bromophenyl-Phenyl E...	9.960	248	486461	77.67	mg/l		96
62) Hexachlorobenzene	10.126	142	195312	81.85	mg/l		90
63) Pentachlorophenol	10.345	266	231171	69.03	mg/l		99
64) Phenanthrene	10.495	178	2532220	81.45	mg/l		100
65) Anthracene	10.548	178	2504601	79.72	mg/l		99
66) Di-n-Butyl Phthalate	11.174	149	2895670	78.09	mg/l		100
67) Fluoranthene	11.827	202	2499980	72.33	mg/l		97
68) Benzidine	11.987	184	337916	66.06	mg/l		95
70) Pyrene	12.073	202	2544635	72.55	mg/l		100
72) Butyl Benzyl Phthalate	12.854	149	1177910	72.02	mg/l		90
73) 3,3'-Dichlorobenzidine	13.517	252	406422	77.78	mg/l		97
74) Benzo (a) Anthracene	13.527	228	2129650	71.28	mg/l		100
75) Bis(2-Ethylhexyl) Phth...	13.640	149	1820763	85.52	mg/l		98
76) Chrysene	13.597	228	2125824	76.67	mg/l		99
77) Di-n-Octyl Phthalate	14.597	149	2936513	85.72	mg/l		99
78) Benzo (b) Fluoranthene	15.260	252	1999505	71.57	mg/l		98
79) Benzo (k) Fluoranthene	15.298	252	1685099	106.65	mg/l		99
80) Benzo (a) Pyrene	15.833	252	1564462	83.17	mg/l		98
82) Indeno (1,2,3-c,d) Pyrene	18.106	276	1796821	133.81	mg/l		85
83) Dibenz (a,h) Anthracene	18.138	278	1635096	142.81	mg/l		98
84) Benzo (g,h,i) Perylene	18.646	276	1587848	152.86	mg/l		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV002.D
Acq On : 14 Nov 2013 10:34 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 10:53:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 10:53:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C

CCV WORK ORDER: **095-01-001-11286-596**
INSTRUMENT: GC/MS SS
BATCH ID:
INITIAL: 130911
CCV: 131113

ANALYZED BY: 449
D/T ANALYZED:
INITIAL: 09/11/2013 18:06
CCV: 11/13/2013 10:55
REVIEWED BY:
D/T REVIEWED:

Data File: W:\GCMS_SS_DATA\2013\131113\13NOV002.D\13NOV002.rr

COMPOUND	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
N-Nitrosodimethylamine	Avg Resp	0.00	1.222	1.451			-19	0-20	PASS
Aniline	Avg Resp	0.00	2.608	2.427			7	0-20	PASS
Phenol	Avg Resp	0.00	2.390	2.522			-5	0-20	PASS
Bis(2-Chloroethyl) Ether	**QR - Equal**				80.00	101.294	**-27**	0-20	**FAIL**
2-Chlorophenol	Avg Resp	0.00	1.695	1.726			-2	0-20	PASS
1,3-Dichlorobenzene	Avg Resp	0.00	1.806	1.771			2	0-20	PASS
1,4-Dichlorobenzene	Avg Resp	0.00	1.726	1.733			0	0-20	PASS
Benzyl Alcohol	Avg Resp	0.00	1.531	1.696			-11	0-20	PASS
1,2-Dichlorobenzene	Avg Resp	0.00	1.647	1.626			1	0-20	PASS
2-Methylphenol	Avg Resp	0.00	1.505	1.600			-6	0-20	PASS
Bis(2-Chloroisopropyl) Ether	Avg Resp	0.00	2.033	2.413			-19	0-20	PASS
3/4-Methylphenol	Avg Resp	0.00	1.687	1.790			-6	0-20	PASS
N-Nitroso-di-n-propylamine	Avg Resp	0.05	1.250	1.490			-19	0-20	PASS
Hexachloroethane	Avg Resp	0.00	0.639	0.630			1	0-20	PASS
Nitrobenzene	Avg Resp	0.00	0.435	0.472			-9	0-20	PASS
Isophorone	Avg Resp	0.00	0.829	0.916			-10	0-20	PASS
2-Nitrophenol	Avg Resp	0.00	0.203	0.201			1	0-20	PASS
2,4-Dimethylphenol	Avg Resp	0.00	0.400	0.400			0	0-20	PASS
Benzoic Acid	LR - Equal				80.00	90.351	-13	0-20	PASS
Bis(2-Chloroethoxy) Methane	Avg Resp	0.00	0.479	0.506			-6	0-20	PASS
2,4-Dichlorophenol	Avg Resp	0.00	0.301	0.289			4	0-20	PASS
Naphthalene	Avg Resp	0.00	1.051	1.044			1	0-20	PASS
4-Chloroaniline	Avg Resp	0.00	0.366	0.372			-2	0-20	PASS
Hexachloro-1,3-Butadiene	Avg Resp	0.00	0.180	0.164			9	0-20	PASS
4-Chloro-3-Methylphenol	Avg Resp	0.00	0.344	0.355			-3	0-20	PASS
2-Methylnaphthalene	Avg Resp	0.00	0.690	0.664			4	0-20	PASS
Hexachlorocyclopentadiene	**LR - Equal**				80.00	62.262	**22**	0-20	**FAIL**
2,4,6-Trichlorophenol	Avg Resp	0.00	0.373	0.349			6	0-20	PASS

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C

CCV WORK ORDER: **095-01-001-11286-596**
INSTRUMENT: GC/MS SS
BATCH ID:
INITIAL: 130911
CCV: 131113

ANALYZED BY: 449
D/T ANALYZED:
INITIAL: 09/11/2013 18:06
CCV: 11/13/2013 10:55
REVIEWED BY:
D/T REVIEWED:

Data File: W:\GCMS_SS_DATA\2013\131113\13NOV002.D\13NOV002.rr

COMPOUND	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
2,4,5-Trichlorophenol	Avg Resp	0.00	0.367	0.360			2	0-20	PASS
2-Chloronaphthalene	Avg Resp	0.00	1.169	1.114			5	0-20	PASS
2-Nitroaniline	Avg Resp	0.00	0.393	0.461			-17	0-20	PASS
Dimethyl Phthalate	Avg Resp	0.00	1.400	1.307			6	0-20	PASS
Acenaphthylene	Avg Resp	0.00	1.790	1.679			6	0-20	PASS
3-Nitroaniline	**QR - Equal**				80.00	100.403	**-26**	0-20	**FAIL**
Acenaphthene	Avg Resp	0.00	1.168	1.087			7	0-20	PASS
2,4-Dinitrophenol	QR - Equal				80.00	94.565	-18	0-20	PASS
4-Nitrophenol	**LR - Equal**				80.00	102.891	**-29**	0-20	**FAIL**
Dibenzofuran	Avg Resp	0.00	1.559	1.538			1	0-20	PASS
2,4-Dinitrotoluene	Avg Resp	0.00	0.420	0.422			0	0-20	PASS
2,6-Dinitrotoluene	Avg Resp	0.00	0.719	0.810			-13	0-20	PASS
Diethyl Phthalate	Avg Resp	0.00	1.317	1.248			5	0-20	PASS
4-Chlorophenyl-Phenyl Ether	QR - Equal				80.00	78.429	2	0-20	PASS
Fluorene	Avg Resp	0.00	1.219	1.116			8	0-20	PASS
4-Nitroaniline	Avg Resp	0.00	0.248	0.253			-2	0-20	PASS
Azobenzene	Avg Resp	0.00	0.857	0.979			-14	0-20	PASS
4,6-Dinitro-2-Methylphenol	**LR - Equal**				80.00	106.540	**-33**	0-20	**FAIL**
N-Nitrosodiphenylamine	Avg Resp	0.05	0.497	0.402			19	0-20	PASS
4-Bromophenyl-Phenyl Ether	Avg Resp	0.00	0.212	0.206			3	0-20	PASS
Hexachlorobenzene	Avg Resp	0.00	0.081	0.077			5	0-20	PASS
Pentachlorophenol	Avg Resp	0.00	0.113	0.108			4	0-20	PASS
Phenanthrene	Avg Resp	0.00	1.053	1.043			1	0-20	PASS
Anthracene	Avg Resp	0.00	1.064	1.036			2	0-20	PASS
Di-n-Butyl Phthalate	Avg Resp	0.00	1.256	1.165			8	0-20	PASS
Fluoranthene	Avg Resp	0.00	1.171	1.054			10	0-20	PASS
Benzidine	QR - Equal				80.00	78.328	2	0-20	PASS
Pyrene	Avg Resp	0.00	1.298	1.144			12	0-20	PASS

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C

CCV WORK ORDER:	**095-01-001-11286-596**	ANALYZED BY:	449
INSTRUMENT:	GC/MS SS	D/T ANALYZED:	
BATCH ID:		INITIAL:	09/11/2013 18:06
INITIAL:	130911	CCV:	11/13/2013 10:55
CCV:	131113	REVIEWED BY:	
		D/T REVIEWED:	

Data File: W:\GCMS_SS_DATA\2013\131113\13NOV002.D\13NOV002.rr

COMPOUND	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Pyridine	**Avg Resp**	**0.00**	**1.110**	**1.388**			**-25**	0-20	**FAIL**
Butyl Benzyl Phthalate	Avg Resp	0.00	0.605	0.522			14	0-20	PASS
3,3'-Dichlorobenzidine	QR - Equal				80.00	81.772	-2	0-20	PASS
Benzo (a) Anthracene	Avg Resp	0.00	1.106	0.982			12	0-20	PASS
Bis(2-Ethylhexyl) Phthalate	Avg Resp	0.00	0.788	0.773			2	0-20	PASS
Chrysene	Avg Resp	0.00	1.026	0.967			6	0-20	PASS
Di-n-Octyl Phthalate	Avg Resp	0.00	1.268	1.287			-2	0-20	PASS
Benzo (k) Fluoranthene	QR - Equal				80.00	67.895	15	0-20	PASS
Benzo (b) Fluoranthene	QR - Equal				80.00	85.093	-6	0-20	PASS
Benzo (a) Pyrene	Avg Resp	0.00	0.696	0.731			-5	0-20	PASS
Benzo (g,h,i) Perylene	**Avg Resp**	**0.00**	**0.544**	**0.986**			**-81**	0-20	**FAIL**
Indeno (1,2,3-c,d) Pyrene	**Avg Resp**	**0.00**	**0.703**	**1.126**			**-61**	0-20	**FAIL**
Dibenz (a,h) Anthracene	**Avg Resp**	**0.00**	**0.599**	**1.014**			**-69**	0-20	**FAIL**
1-Methylnaphthalene	Avg Resp	0.00	0.648	0.642			1	0-20	PASS
1,2,4-Trichlorobenzene	Avg Resp	0.00	0.338	0.313			7	0-20	PASS
2,6-Dichlorophenol	Avg Resp	0.00	0.281	0.275			2	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV002.D
Acq On : 13 Nov 2013 10:55 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 13 11:12:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Tue Nov 12 11:46:47 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0	109	0.00
2	T	Pyridine	1.110	1.388	-25	132	0.00
3	T	N-Nitrosodimethylamine	1.222	1.451	-19	130	-0.01
4	S	2-Fluorophenol	1.816	1.840	-1	110	-0.02
5	T	Aniline	2.608	2.427	7	107	-0.02
6	S	Phenol-d6	2.224	2.197	1	110	-0.02
7	C	Phenol	2.390	2.522	-6	121	-0.02
8	T	Bis(2-Chloroethyl) Ether	1.674	1.996	-19	126	0.00
9	T	2-Chlorophenol	1.695	1.726	-2	113	-0.03
10	T	1,3-Dichlorobenzene	1.806	1.771	2	109	-0.02
11	C	1,4-Dichlorobenzene	1.726	1.733	0	113	0.00
12	T	Benzyl Alcohol	1.531	1.696	-11	119	-0.01
13	T	1,2-Dichlorobenzene	1.647	1.626	1	110	-0.03
14	T	2-Methylphenol	1.505	1.600	-6	116	-0.02
15	T	Bis(2-Chloroisopropyl) Ethe	2.033	2.413	-19	134	-0.02
16	T	3/4-Methylphenol	1.687	1.790	-6	116	-0.02
17	P	N-Nitroso-di-n-propylamine	1.250	1.490	-19	145	-0.02
18	T	Hexachloroethane	0.639	0.630	1	115	-0.03
19	I	Naphthalene-d8	1.000	1.000	0	118	0.00
20	S	Nitrobenzene-d5	0.457	0.485	-6	127	-0.02
21	T	Nitrobenzene	0.435	0.472	-9	133	-0.02
22	T	Isophorone	0.829	0.916	-10	128	-0.02
23	C	2-Nitrophenol	0.203	0.201	1	119	-0.03
24	T	2,4-Dimethylphenol	0.400	0.400	0	119	-0.02
25	T	Benzoic Acid	0.237	0.316	-33#	135	0.01
26	T	Bis(2-Chloroethoxy) Methane	0.479	0.506	-6	128	-0.02
27	C	2,4-Dichlorophenol	0.301	0.289	4	115	-0.02
28	T	1,2,4-Trichlorobenzene	0.338	0.313	7	110	-0.03
29	T	Naphthalene	1.051	1.044	1	121	-0.03
30	T	2,6-Dichlorophenol	0.281	0.275	2	119	-0.03
31	T	4-Chloroaniline	0.366	0.372	-2	117	-0.02
32	C	Hexachloro-1,3-Butadiene	0.180	0.164	9	110	-0.03
33	C	4-Chloro-3-Methylphenol	0.344	0.355	-3	120	-0.02
34	T	2-Methylnaphthalene	0.690	0.664	4	119	-0.02
35	T	1-Methylnaphthalene	0.648	0.642	1	120	-0.03
36	I	Acenaphthene-d10	1.000	1.000	0	123	-0.03
37	P	Hexachlorocyclopentadiene	0.192	0.168	12	92	-0.03
38	C	2,4,6-Trichlorophenol	0.373	0.349	6	112	-0.01
39	T	2,4,5-Trichlorophenol	0.367	0.360	2	113	-0.02
40	T	2-Chloronaphthalene	1.169	1.114	5	119	-0.03
41	S	2-Fluorobiphenyl	1.349	1.230	9	114	0.02
42	T	2-Nitroaniline	0.393	0.461	-17	142	-0.02
43	T	Dimethyl Phthalate	1.400	1.307	7	116	-0.02
44	T	Acenaphthylene	1.790	1.679	6	120	-0.02
45	T	3-Nitroaniline	0.254	0.331	-30#	151#	-0.02
46	C	Acenaphthene	1.168	1.087	7	116	-0.02
47	P	2,4-Dinitrophenol	0.101	0.149	-48#	157#	-0.01
48	P	4-Nitrophenol	0.189	0.263	-39#	144	0.00
49	T	Dibenzofuran	1.559	1.538	1	124	-0.02
50	T	2,4-Dinitrotoluene	0.420	0.422	0	118	-0.02
51	T	2,6-Dinitrotoluene	0.296	0.295	0	124	-0.02

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV002.D
Acq On : 13 Nov 2013 10:55 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 13 11:12:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Tue Nov 12 11:46:47 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	T	Diethyl Phthalate	1.317	1.248	5	117	-0.02
53	T	4-Chlorophenyl-Phenyl Ether	0.610	0.566	7	120	-0.03
54	T	Fluorene	1.219	1.116	8	119	-0.02
55	T	4-Nitroaniline	0.248	0.253	-2	121	0.00
56	I	Phenanthrene-d10	1.000	1.000	0	114	-0.02
57	T	Azobenzene	0.857	0.979	-14	131	-0.02
58	T	4,6-Dinitro-2-Methylphenol	0.091	0.127	-40#	145	-0.01
59	C	N-Nitrosodiphenylamine	0.497	0.402	19	97	-0.02
60	S	2,4,6-Tribromophenol	0.087	0.087	0	108	-0.02
61	T	4-Bromophenyl-Phenyl Ether	0.212	0.206	3	112	-0.03
62	T	Hexachlorobenzene	0.081	0.077	5	115	-0.03
63	C	Pentachlorophenol	0.113	0.108	4	97	-0.02
64	T	Phenanthrene	1.053	1.043	1	118	0.00
65	T	Anthracene	1.064	1.036	3	116	-0.02
66	T	Di-n-Butyl Phthalate	1.256	1.165	7	112	-0.02
67	C	Fluoranthene	1.171	1.054	10	107	-0.02
68	T	Benzidine	0.167	0.175	-5	108	-0.02
69	I	Chrysene-d12	1.000	1.000	0	119	-0.02
70	T	Pyrene	1.298	1.144	12	110	-0.02
71	S	p-Terphenyl-d14	0.935	0.821	12	107	-0.02
72	T	Butyl Benzyl Phthalate	0.605	0.522	14	105	-0.02
73	T	3,3'-Dichlorobenzidine	0.197	0.200	-2	117	-0.02
74	T	Benzo (a) Anthracene	1.106	0.982	11	107	-0.01
75	T	Bis(2-Ethylhexyl) Phthalate	0.788	0.773	2	118	-0.03
76	T	Chrysene	1.026	0.967	6	113	0.02
77	C	Di-n-Octyl Phthalate	1.268	1.287	-1	121	-0.03
78	T	Benzo (b) Fluoranthene	0.976	1.131	-16	124	0.00
79	T	Benzo (k) Fluoranthene	0.691	0.567	18	107	0.00
80	C	Benzo (a) Pyrene	0.696	0.731	-5	120	-0.02
81	I	Perylene-d12	1.000	1.000	0	127	-0.02
82	T	Indeno (1,2,3-c,d) Pyrene	0.703	1.126	-60#	194#	0.00
83	T	Dibenz (a,h) Anthracene	0.599	1.014	-69#	201#	-0.02
84	T	Benzo (g,h,i) Perylene	0.544	0.986	-81#	222#	-0.02

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

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV002.D
Acq On : 13 Nov 2013 10:55 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 13 11:12:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Tue Nov 12 11:46:47 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.552	152	411747	40.00	mg/l	# 0.00
19) Naphthalene-d8	6.900	136	1937789	40.00	mg/l	0.00
36) Acenaphthene-d10	8.837	164	1131224	40.00	mg/l	-0.03
56) Phenanthrene-d10	10.473	188	1964299	40.00	mg/l	-0.02
69) Chrysene-d12	13.565	240	1845853	40.00	mg/l	-0.02
81) Perylene-d12	15.950	264	1379113	40.00	mg/l	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol	4.370	112	1515630	81.07	mg/l	-0.02
Spiked Amount 100.000			Recovery = 81.07%			
6) Phenol-d6	5.280	99	1809092	79.02	mg/l	-0.02
Spiked Amount 100.000			Recovery = 79.02%			
20) Nitrobenzene-d5	6.178	82	1879767	84.90	mg/l	-0.02
Spiked Amount 100.000			Recovery = 84.90%			
41) 2-Fluorobiphenyl	8.098	172	2781770	72.91	mg/l	0.02
Spiked Amount 100.000			Recovery = 72.91%			
60) 2,4,6-Tribromophenol	9.735	330	341239	79.62	mg/l	-0.02
Spiked Amount 100.000			Recovery = 79.62%			
71) p-Terphenyl-d14	12.260	244	3029144	70.21	mg/l	-0.02
Spiked Amount 100.000			Recovery = 70.21%			
Target Compounds						Qvalue
2) Pyridine	3.188	52	1143252m	100.02	mg/l	
3) N-Nitrosodimethylamine	3.210	74	1195032	94.98	mg/l	90
5) Aniline	5.285	93	1998981	74.46	mg/l	90
7) Phenol	5.290	94	2077004	84.43	mg/l	84
8) Bis(2-Chloroethyl) Ether	5.339	93	1643352	101.29	mg/l	94
9) 2-Chlorophenol	5.387	128	1421430	81.48	mg/l	94
10) 1,3-Dichlorobenzene	5.510	146	1458006	78.45	mg/l	99
11) 1,4-Dichlorobenzene	5.569	146	1426910	80.33	mg/l	99
12) Benzyl Alcohol	5.761	79	1397029	88.65	mg/l	96
13) 1,2-Dichlorobenzene	5.756	146	1338948	78.96	mg/l	99
14) 2-Methylphenol	5.868	108	1317669	85.05	mg/l	93
15) Bis(2-Chloroisopropyl)...	5.879	45	1987434	94.96	mg/l	87
16) 3/4-Methylphenol	6.050	107	2948384	169.76	mg/l	96
17) N-Nitroso-di-n-propyla...	6.082	70	1226609	95.32	mg/l	93
18) Hexachloroethane	6.061	117	518924	78.94	mg/l	95
21) Nitrobenzene	6.194	77	1827889	86.69	mg/l	95
22) Isophorone	6.456	82	3551405	88.44	mg/l	97
23) 2-Nitrophenol	6.521	139	778114	78.99	mg/l	93
24) 2,4-Dimethylphenol	6.585	107	1551070	80.07	mg/l	97
25) Benzoic Acid	6.847	105	1223764	90.35	mg/l	99
26) Bis(2-Chloroethoxy) Me...	6.676	93	1962652	84.53	mg/l	99
27) 2,4-Dichlorophenol	6.788	162	1119232	76.68	mg/l	98
28) 1,2,4-Trichlorobenzene	6.852	180	1212485	73.99	mg/l	100
29) Naphthalene	6.922	128	4047086	79.48	mg/l	99
30) 2,6-Dichlorophenol	7.018	162	1067150	78.27	mg/l	99
31) 4-Chloroaniline	7.023	127	1441948	81.25	mg/l	95
32) Hexachloro-1,3-Butadiene	7.104	225	634584	72.95	mg/l	100
33) 4-Chloro-3-Methylphenol	7.553	107	1376687	82.58	mg/l	99
34) 2-Methylnaphthalene	7.671	142	2572664	76.93	mg/l	98
35) 1-Methylnaphthalene	7.788	142	2486774	79.22	mg/l	98
37) Hexachlorocyclopentadiene	7.906	237	379594	62.26	mg/l	99
38) 2,4,6-Trichlorophenol	8.024	196	790448	75.03	mg/l	97
39) 2,4,5-Trichlorophenol	8.072	196	814228	78.49	mg/l	100
40) 2-Chloronaphthalene	8.205	162	2520574	76.22	mg/l	99

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV002.D
Acq On : 13 Nov 2013 10:55 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 13 11:12:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Tue Nov 12 11:46:47 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.382	65	1043762	93.96	mg/l		91
43) Dimethyl Phthalate	8.612	163	2956761	74.66	mg/l		100
44) Acenaphthylene	8.671	152	3799708	75.07	mg/l		99
45) 3-Nitroaniline	8.853	138	749071	100.40	mg/l		93
46) Acenaphthene	8.879	153	2458892	74.47	mg/l		99
47) 2,4-Dinitrophenol	8.970	184	336162	94.56	mg/l		92
48) 4-Nitrophenol	9.083	65	594686	102.89	mg/l		91
49) Dibenzofuran	9.056	168	3479705	78.92	mg/l		97
50) 2,4-Dinitrotoluene	9.131	165	955117	80.47	mg/l		95
51) 2,6-Dinitrotoluene	8.692	165	666685	79.51	mg/l		92
52) Diethyl Phthalate	9.393	149	2822603	75.78	mg/l		98
53) 4-Chlorophenyl-Phenyl ...	9.430	204	1280178	78.43	mg/l		98
54) Fluorene	9.441	166	2523909	73.18	mg/l		100
55) 4-Nitroaniline	9.569	138	572703	81.69	mg/l		82
57) Azobenzene	9.617	77	3845357	91.37	mg/l		92
58) 4,6-Dinitro-2-Methylph...	9.596	198	498816	106.54	mg/l	#	1
59) N-Nitrosodiphenylamine	9.591	169	1580684	64.80	mg/l		95
61) 4-Bromophenyl-Phenyl E...	9.965	248	807435	77.50	mg/l		99
62) Hexachlorobenzene	10.131	142	301524	75.96	mg/l		97
63) Pentachlorophenol	10.350	266	425177	76.32	mg/l		98
64) Phenanthrene	10.505	178	4098842	79.26	mg/l		99
65) Anthracene	10.553	178	4069713	77.87	mg/l		99
66) Di-n-Butyl Phthalate	11.179	149	4576088	74.18	mg/l		100
67) Fluoranthene	11.832	202	4141729	72.04	mg/l		98
68) Benzidine	11.992	184	686532	78.33	mg/l		97
70) Pyrene	12.083	202	4222345	70.48	mg/l		100
72) Butyl Benzyl Phthalate	12.859	149	1927995	69.02	mg/l		93
73) 3,3'-Dichlorobenzidine	13.527	252	739926	81.77	mg/l		98
74) Benzo (a) Anthracene	13.538	228	3623538	71.01	mg/l		100
75) Bis(2-Ethylhexyl) Phth...	13.645	149	2852787	78.45	mg/l		98
76) Chrysene	13.613	228	3570700	75.40	mg/l		99
77) Di-n-Octyl Phthalate	14.602	149	4752761	81.24	mg/l		100
78) Benzo (b) Fluoranthene	15.287	252	4175107	85.09	mg/l		96
79) Benzo (k) Fluoranthene	15.319	252	2092828	67.89	mg/l		99
80) Benzo (a) Pyrene	15.854	252	2699044	84.01	mg/l		98
82) Indeno (1,2,3-c,d) Pyrene	18.165	276	3105335	128.16	mg/l		86
83) Dibenz (a,h) Anthracene	18.170	278	2795804	135.34	mg/l		97
84) Benzo (g,h,i) Perylene	18.678	276	2720049	145.12	mg/l		97

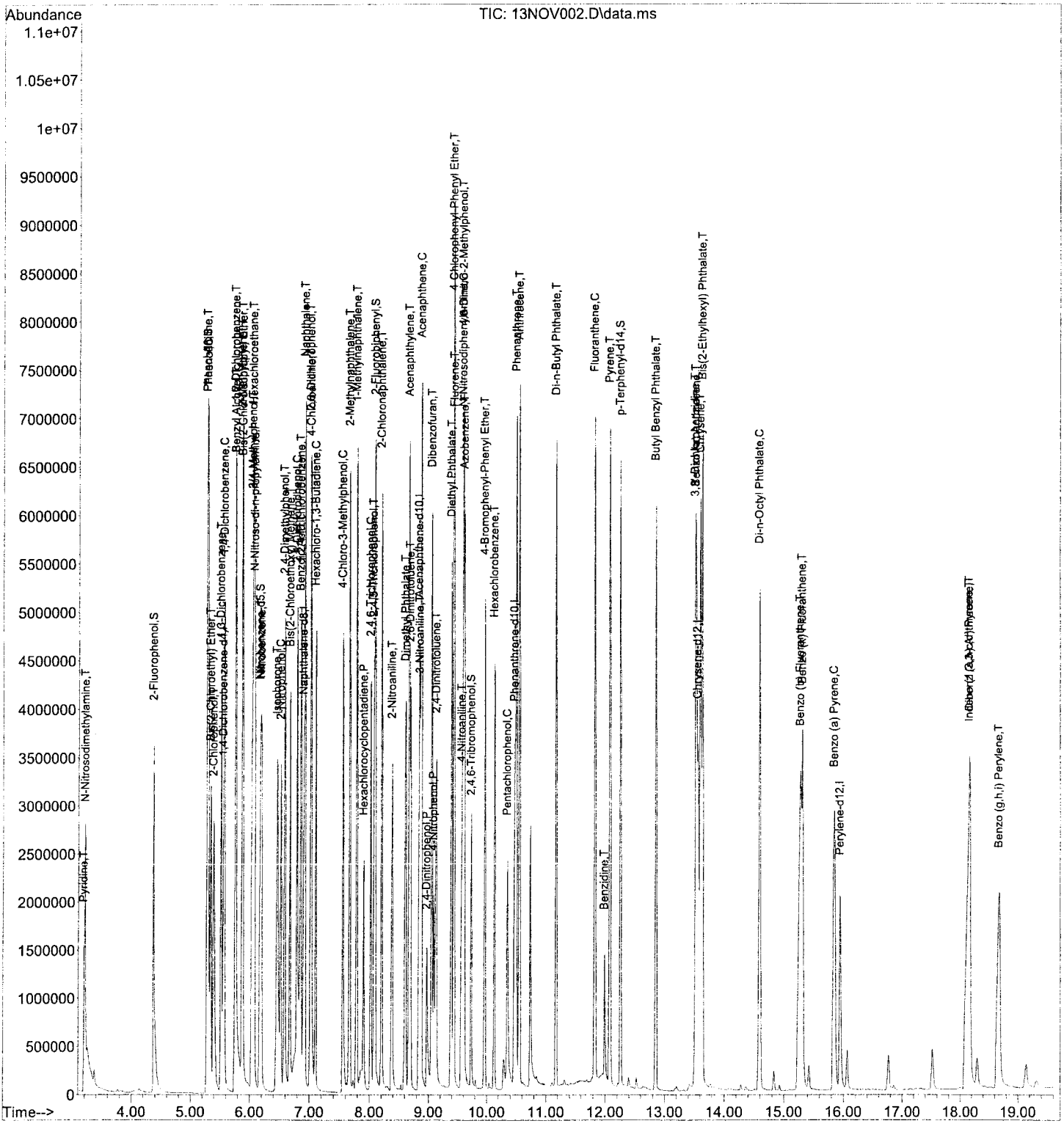
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV002.D
Acq On : 13 Nov 2013 10:55 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 13 11:12:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Tue Nov 12 11:46:47 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

EPA METHOD 8270C
SVOCs

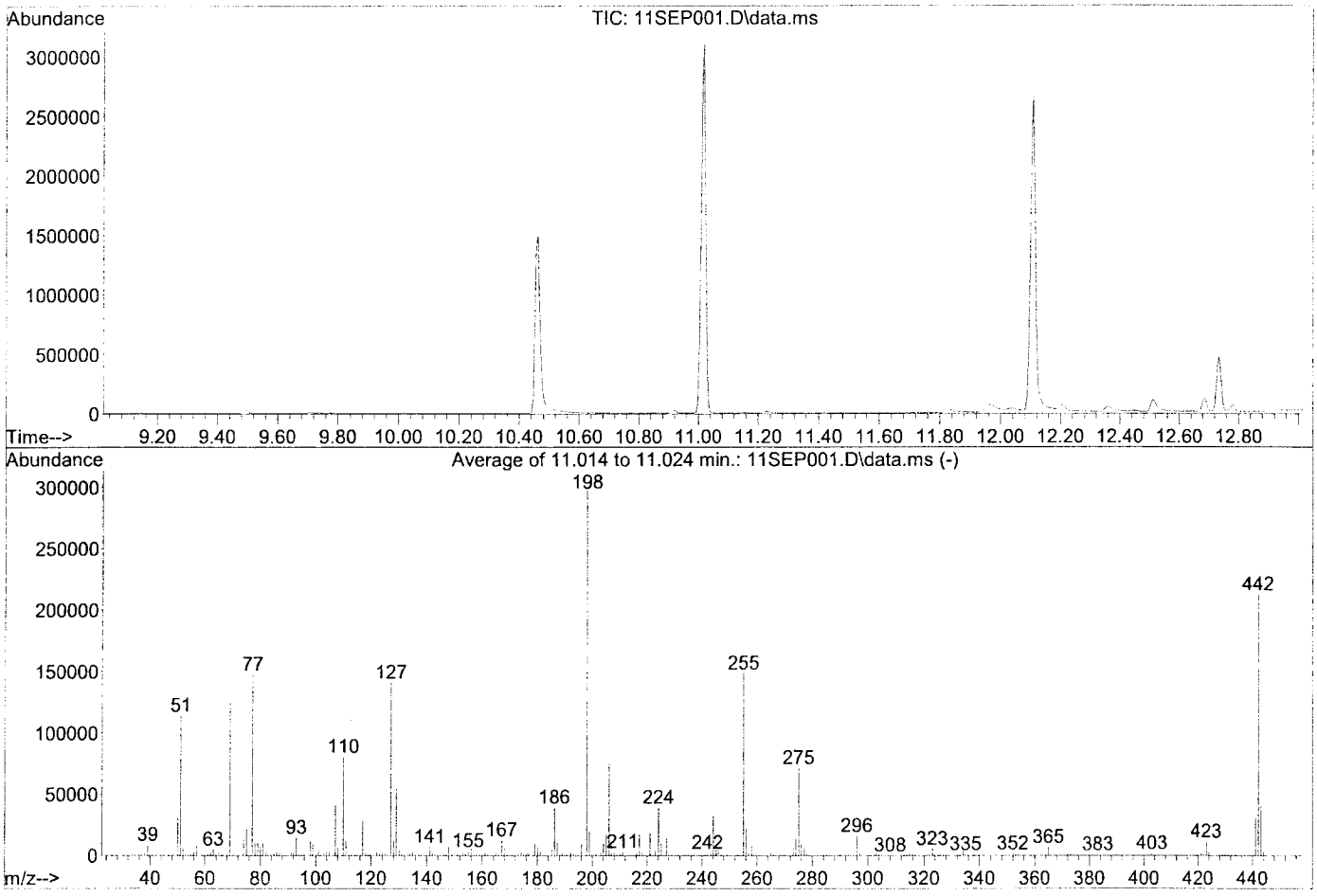
Tuning Reports

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP001.D
Acq On : 11 Sep 2013 10:50 am
Operator : 449
Sample : TUNE S090413A DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Title : bbbbb
Last Update : Tue Sep 03 11:46:03 2013



AutoFind: Scans 1482, 1483, 1484; Background Corrected with Scan 1475

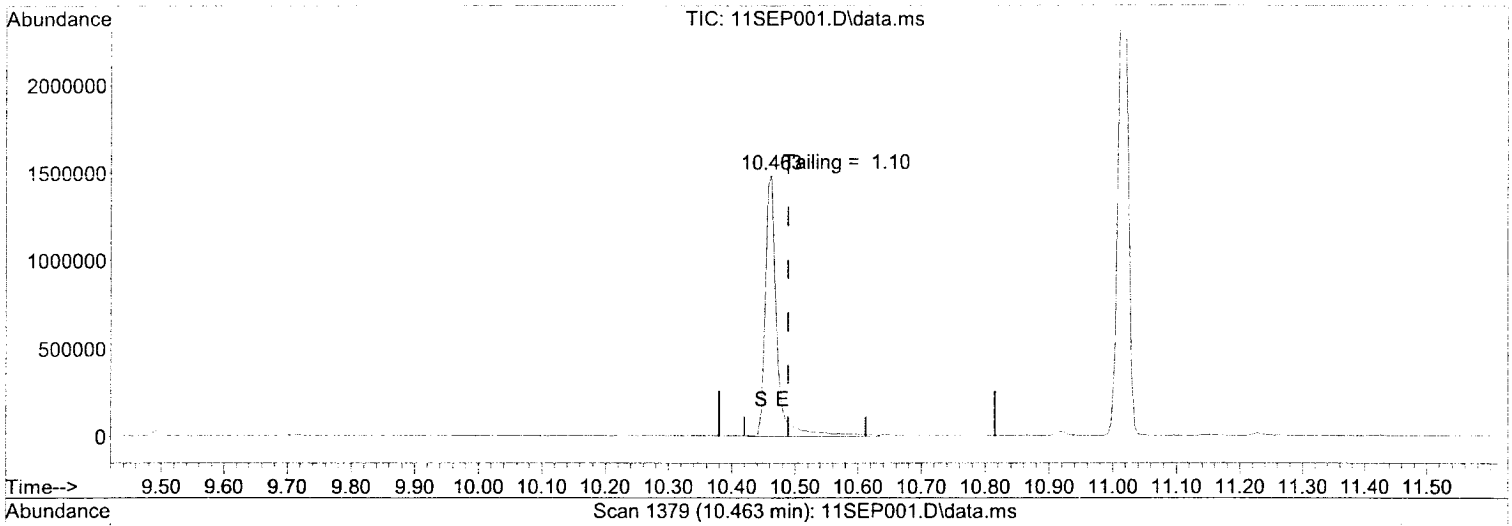
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	38.1	113935	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	45.4	135763	PASS
70	69	0.00	2	0.5	635	PASS
127	198	40	60	47.1	140859	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	298944	PASS
199	198	5	9	6.6	19589	PASS
275	198	10	30	23.9	71325	PASS
365	198	1	100	2.3	6924	PASS
441	443	0.01	100	74.9	30152	PASS
442	198	40	200	71.1	212587	PASS
443	442	17	23	18.9	40277	PASS

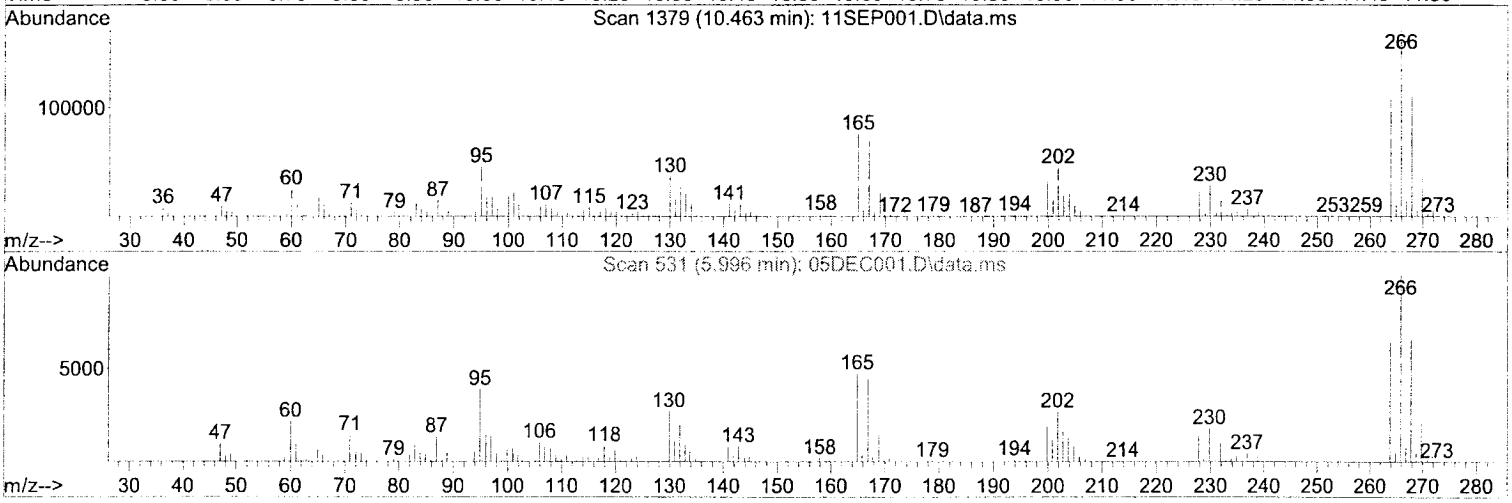
Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP001.D
Acq On : 11 Sep 2013 10:50 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 11:08:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Tue Sep 03 11:46:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M





TIC: 11SEP001.D\data.ms

(1) Pentachlorophenol

10.463min (-0.027) 64.57

response 1856948

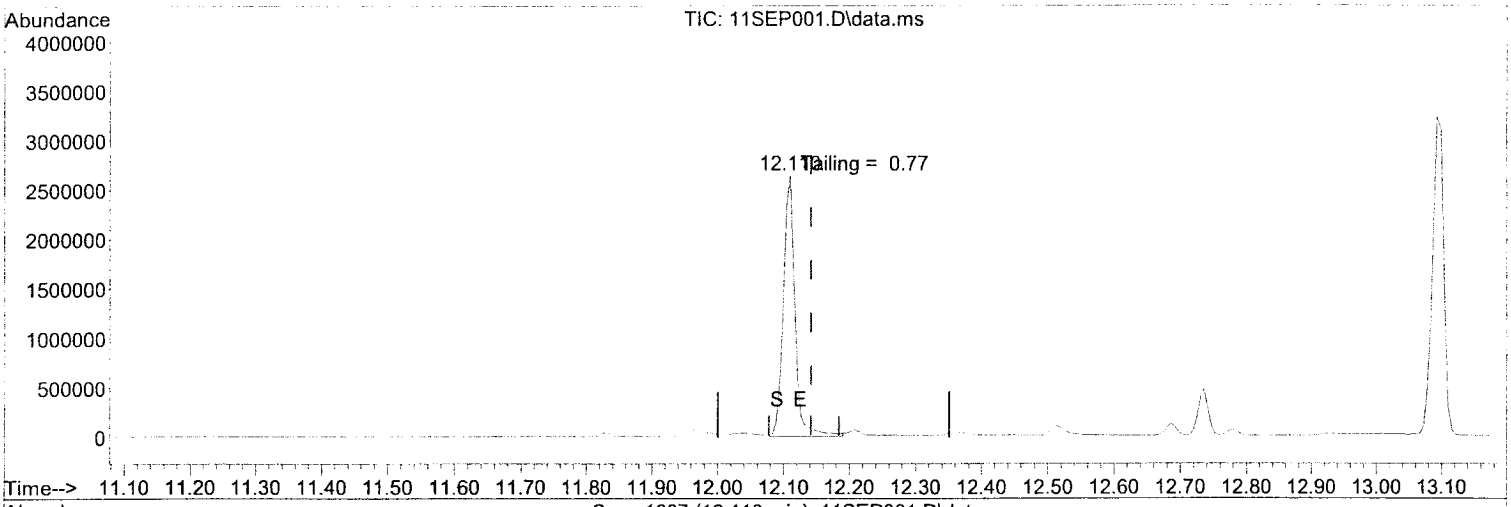
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

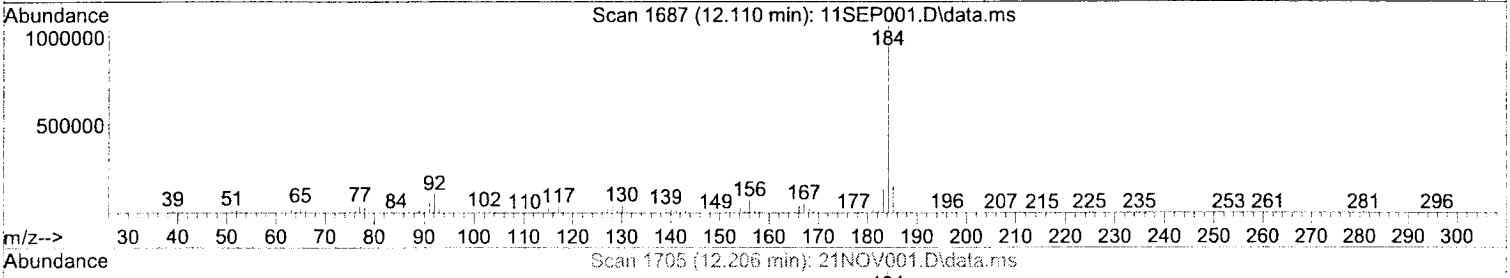
Return to Contents

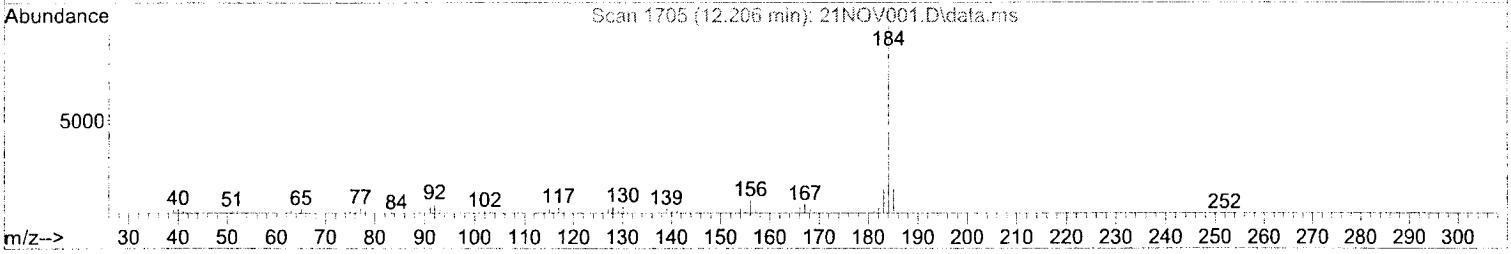
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP001.D
Acq On : 11 Sep 2013 10:50 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 11:08:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Tue Sep 03 11:46:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP001.D\data.ms

(3) Benzidine

12.110min (-0.032) 52.40

response 3167025

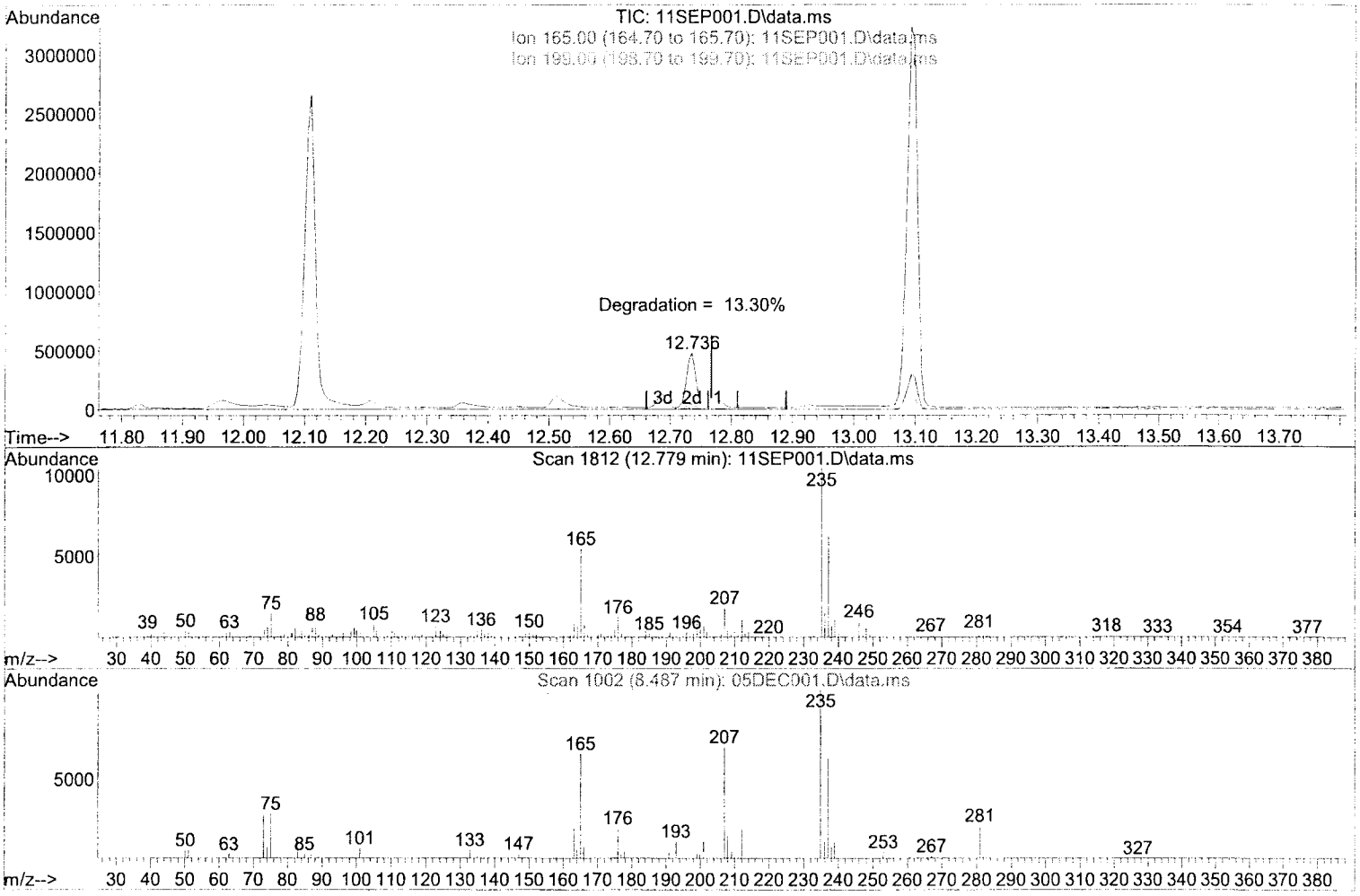
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP001.D
Acq On : 11 Sep 2013 10:50 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 11:08:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Tue Sep 03 11:46:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



TIC: 11SEP001.D\data.ms

(5) DDD

12.779min (+0.011) 0.00

response 63225

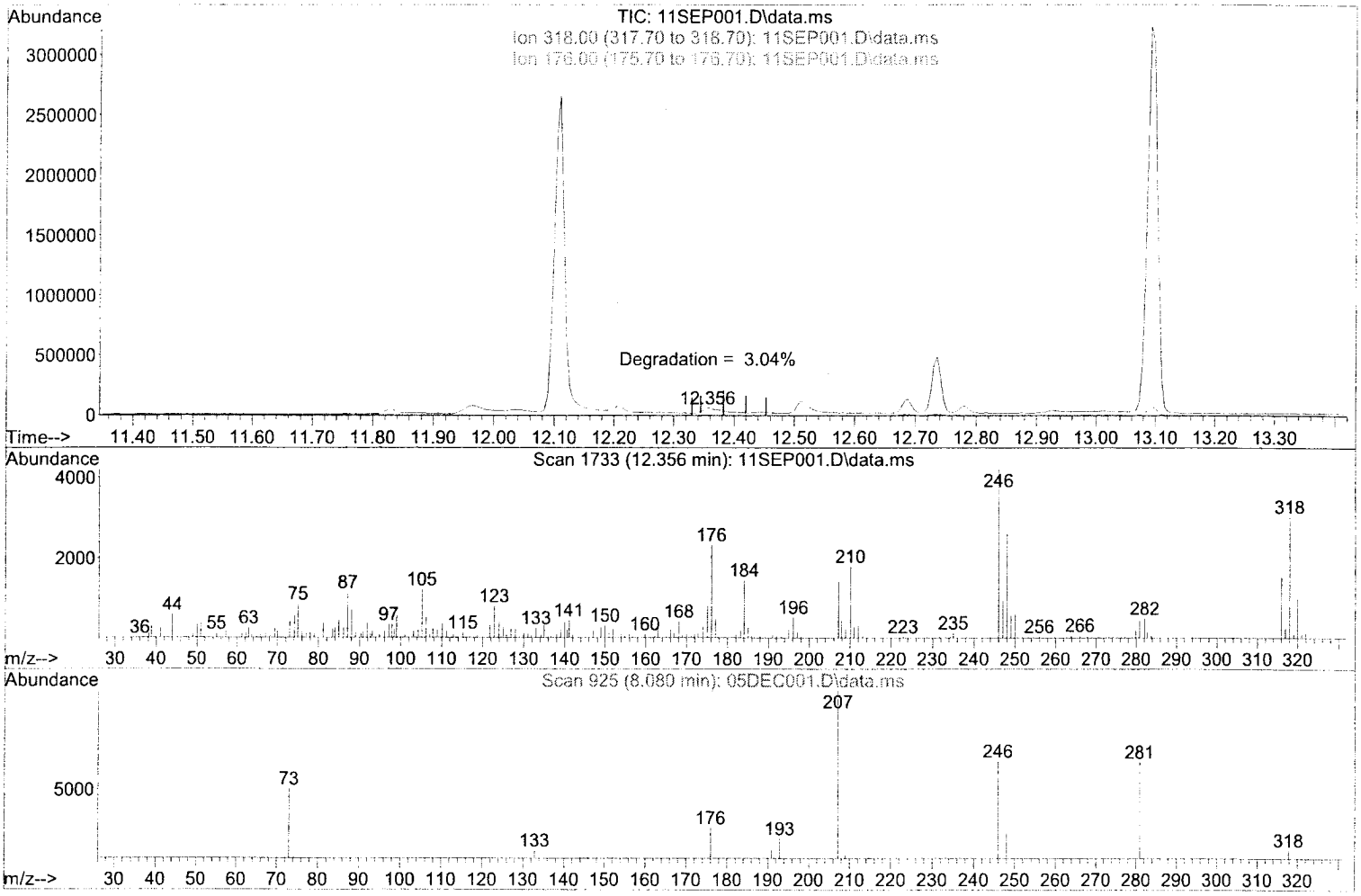
Signal	Exp%	Act%
TIC	100	100
165.00	894.70	8.21#
199.00	257.90	3.19#
0.00	0.00	0.00

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP001.D
Acq On : 11 Sep 2013 10:50 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 11:08:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Tue Sep 03 11:46:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



TIC: 11SEP001.D\data.ms

(6) DDE

12.356min (-0.027) 0.00

response 68815

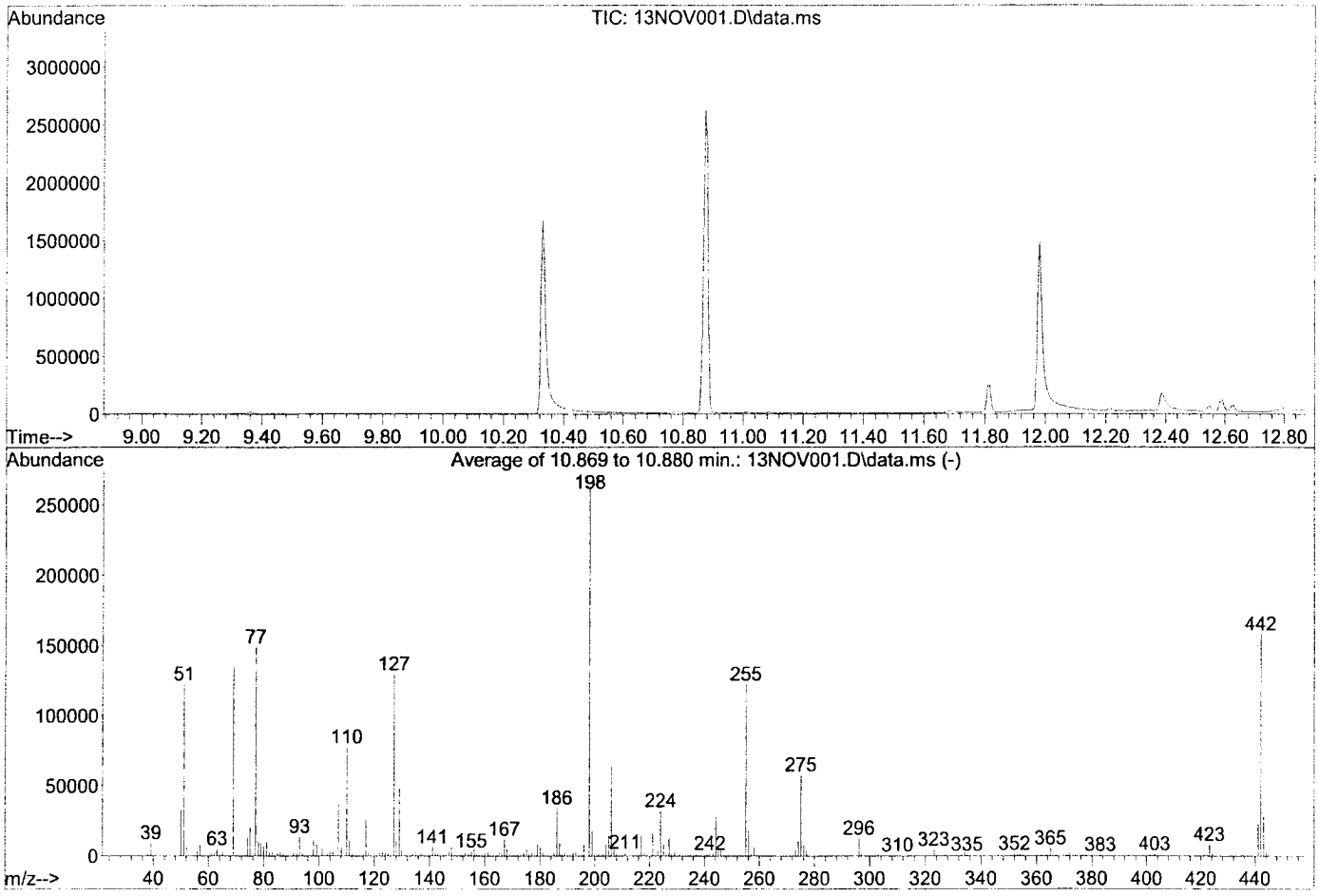
Signal	Exp%	Act%
TIC	100	100
318.00	286.70	3.24#
176.00	484.00	3.12#
0.00	0.00	0.00

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV001.D
Acq On : 13 Nov 2013 10:29 am
Operator : 449
Sample : TUNE S090413A DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Title : bbbbb
Last Update : Thu Nov 07 10:51:17 2013



AutoFind: Scans 1455, 1456, 1457; Background Corrected with Scan 1448

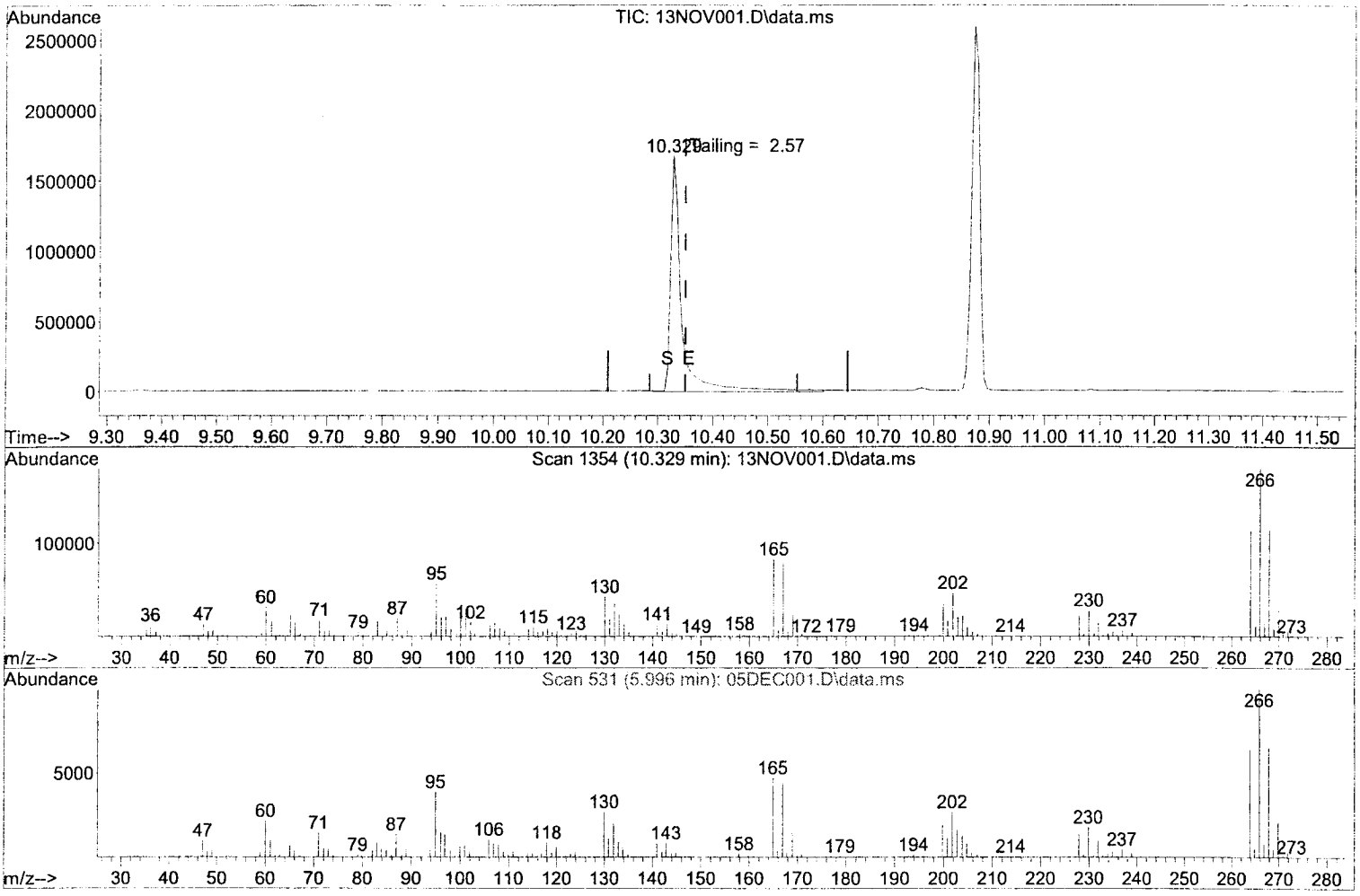
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	46.7	122195	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	51.7	135115	PASS
70	69	0.00	2	0.6	760	PASS
127	198	40	60	49.5	129411	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	261547	PASS
199	198	5	9	6.7	17566	PASS
275	198	10	30	22.0	57501	PASS
365	198	1	100	2.0	5270	PASS
441	443	0.01	100	79.5	22569	PASS
442	198	40	200	60.5	158117	PASS
443	442	17	23	18.0	28389	PASS

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV001.D
Acq On : 13 Nov 2013 10:29 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 13 10:46:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Thu Nov 07 10:51:17 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



TIC: 13NOV001.D\data.ms

(1) Pentachlorophenol

10.329min (-0.021) 78.13

response 2246841

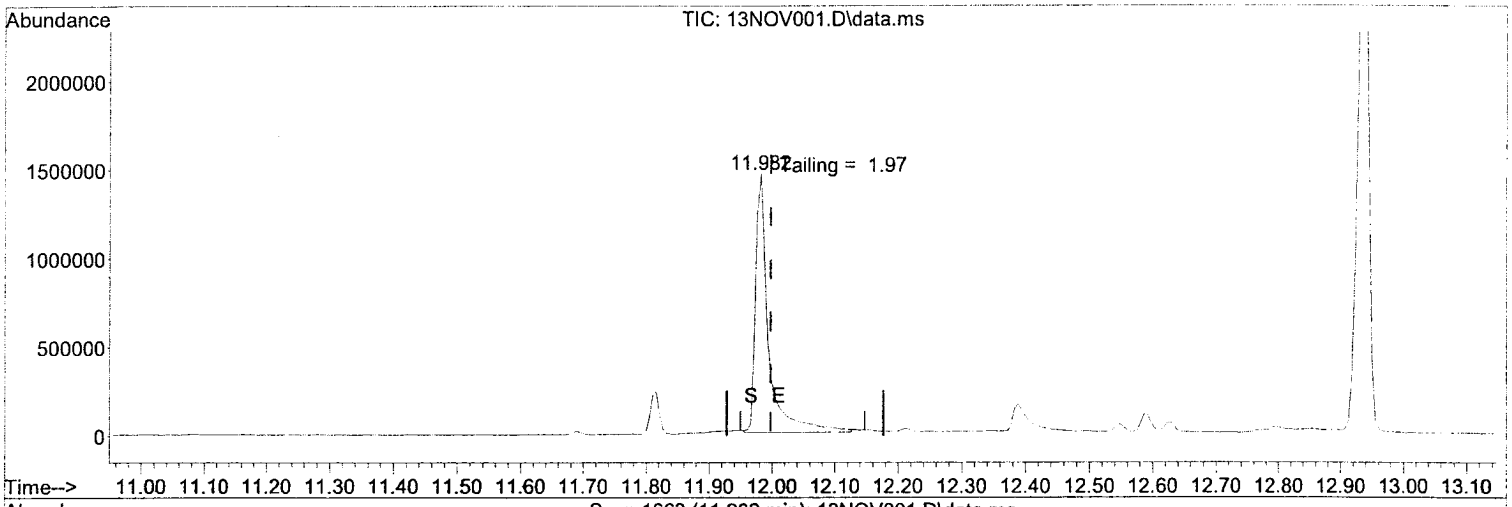
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

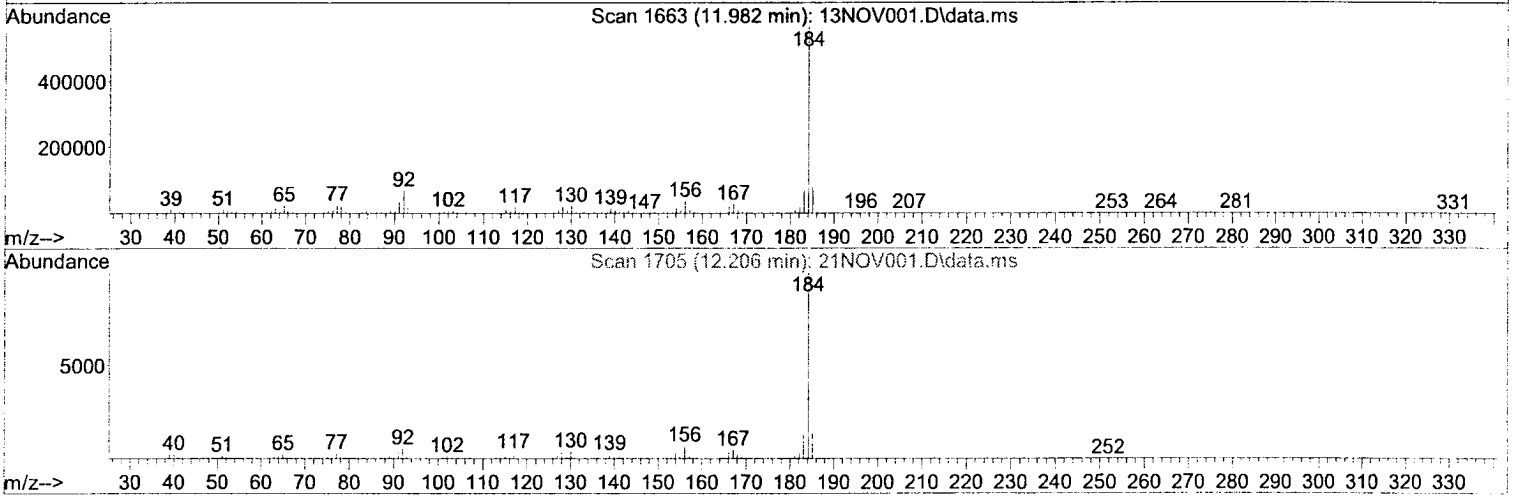
Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV001.D
Acq On : 13 Nov 2013 10:29 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 13 10:46:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Thu Nov 07 10:51:17 2013
Response via : Initial Calibration
DataAcq Meth:8270.M





TIC: 13NOV001.D\data.ms

(3) Benzidine

11.982min (-0.016) 32.61

response 1970924

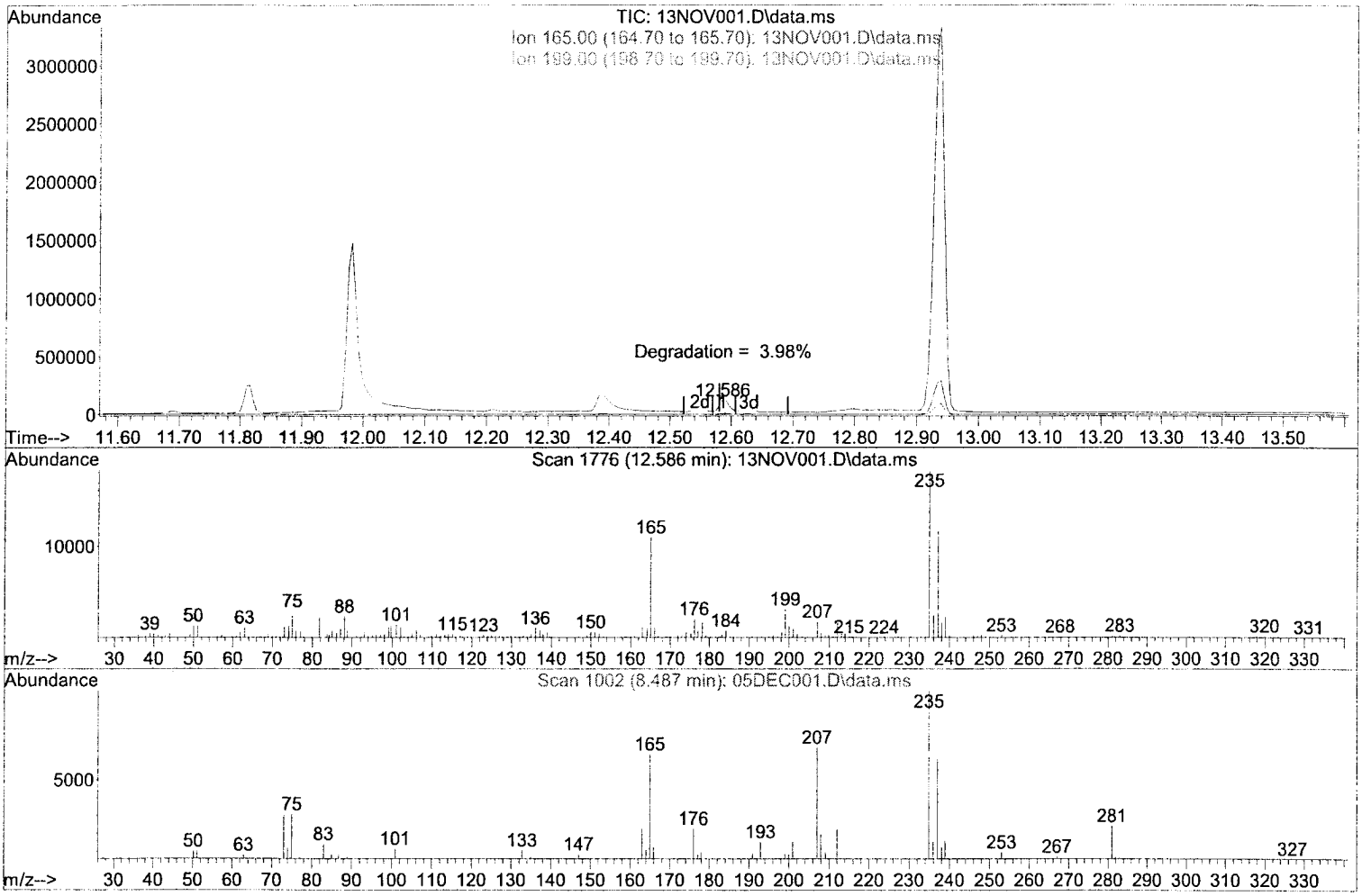
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV001.D
Acq On : 13 Nov 2013 10:29 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 13 10:46:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Thu Nov 07 10:51:17 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



TIC: 13NOV001.D\data.ms

(5) DDD

12.586min (+0.006) 0.00

response 111153

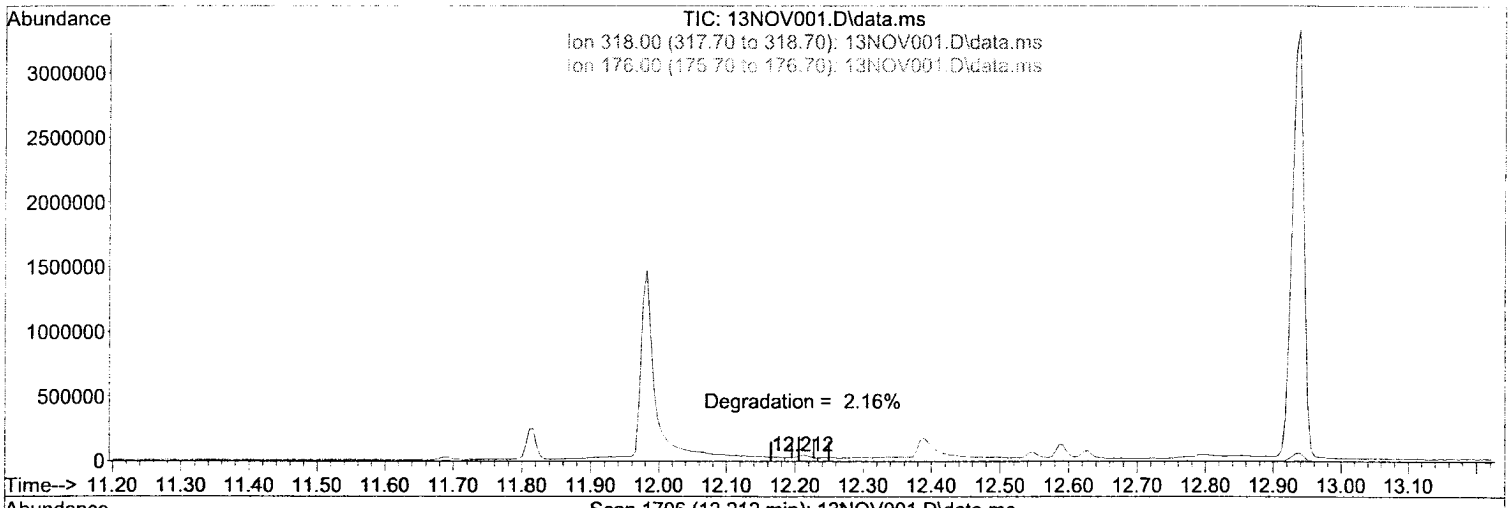
Signal	Exp%	Act%
TIC	100	100
165.00	0.10	10.12#
199.00	0.00	3.00#
0.00	0.00	0.00

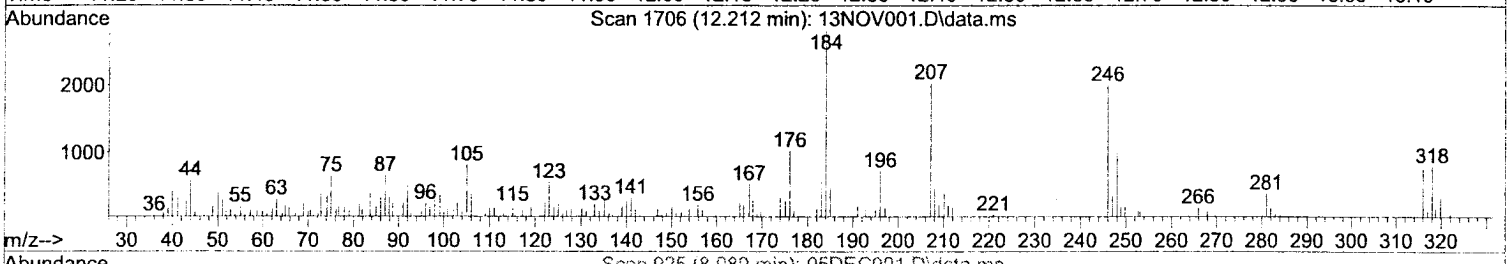
Return to Contents

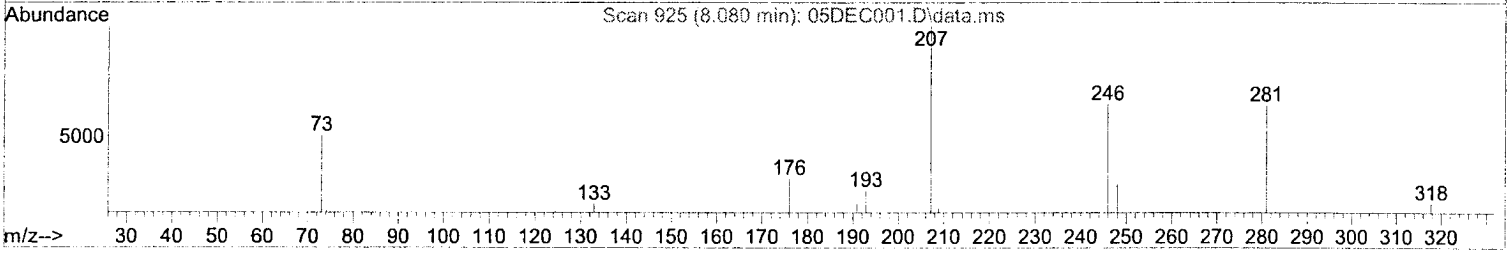
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\131113\
Data File : 13NOV001.D
Acq On : 13 Nov 2013 10:29 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 13 10:46:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Thu Nov 07 10:51:17 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 13NOV001.D\data.ms

(6) DDE

12.212min (+0.005) 0.00

response 18557

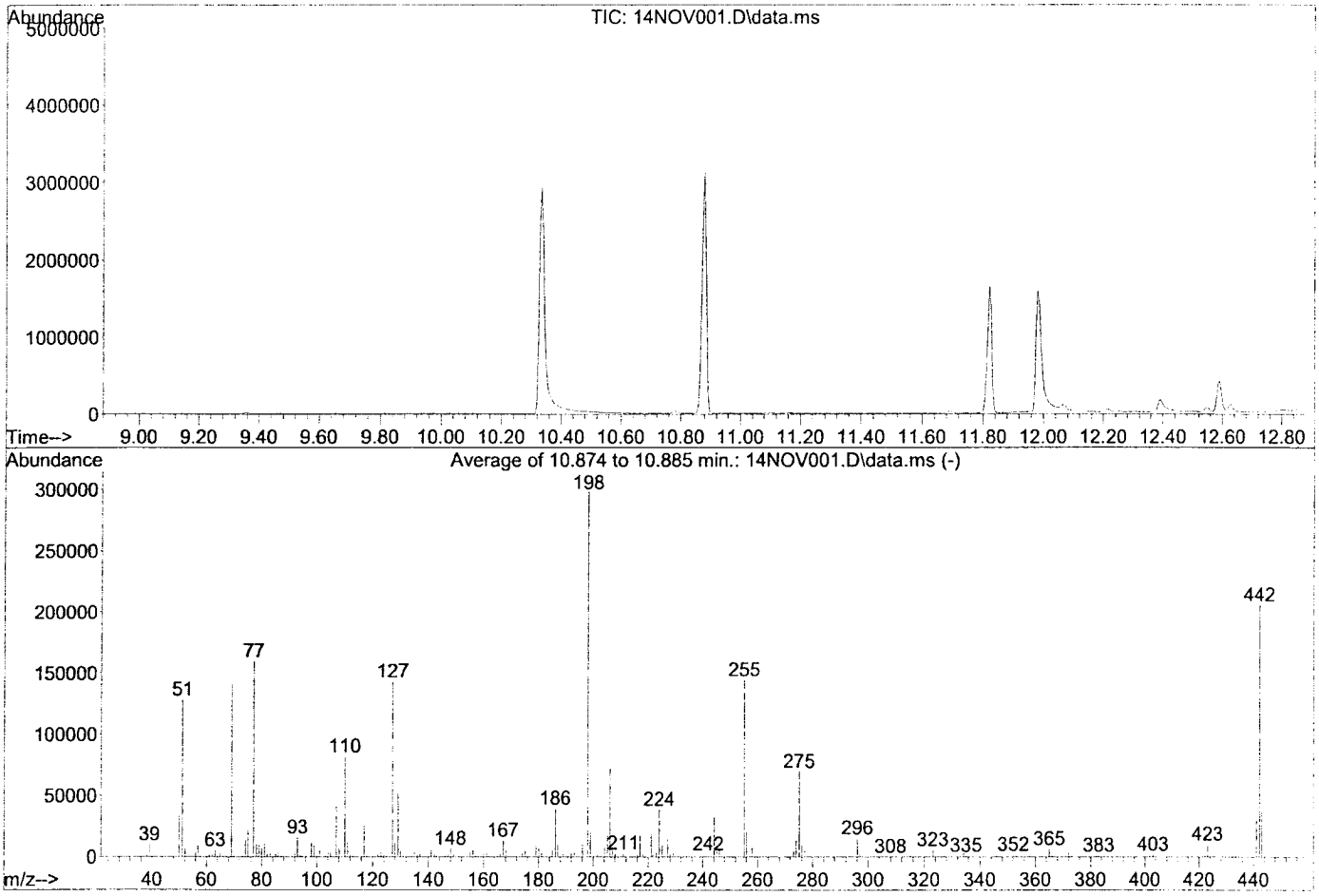
Signal	Exp%	Act%
TIC	100	100
318.00	248.40	4.56#
176.00	267.80	5.49#
0.00	0.00	0.00

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV001.D
Acq On : 14 Nov 2013 10:08 am
Operator : 449
Sample : TUNE S090413A DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Title : bbbbb
Last Update : Thu Nov 07 10:51:17 2013



AutoFind: Scans 1456, 1457, 1458; Background Corrected with Scan 1449

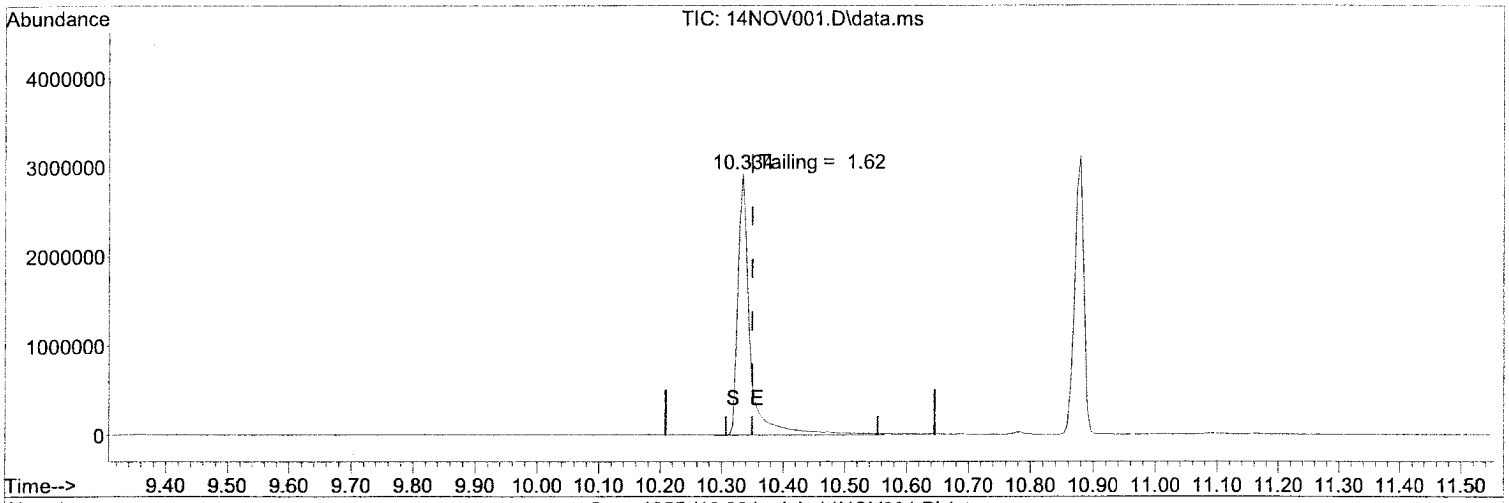
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	42.7	128074	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	46.8	140642	PASS
70	69	0.00	2	0.5	739	PASS
127	198	40	60	47.6	142987	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	300267	PASS
199	198	5	9	6.6	19897	PASS
275	198	10	30	23.0	69184	PASS
365	198	1	100	2.1	6233	PASS
441	443	0.01	100	80.0	29752	PASS
442	198	40	200	68.5	205589	PASS
443	442	17	23	18.1	37213	PASS

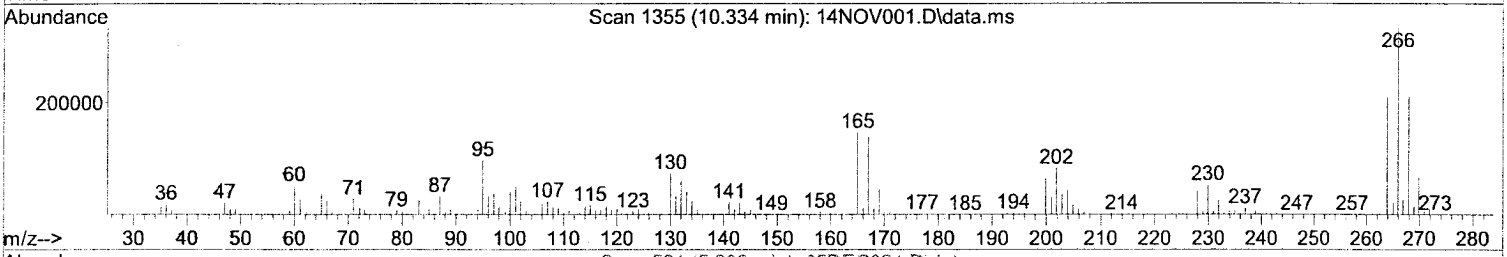
Return to Contents

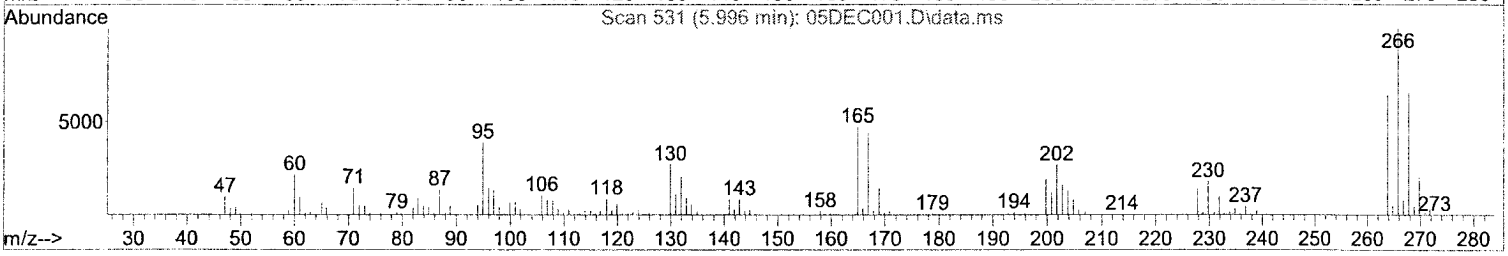
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV001.D
Acq On : 14 Nov 2013 10:08 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 14 10:27:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Thu Nov 07 10:51:17 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 14NOV001.D\data.ms

(1) Pentachlorophenol

10.334min (-0.016) 141.38

response 4065673

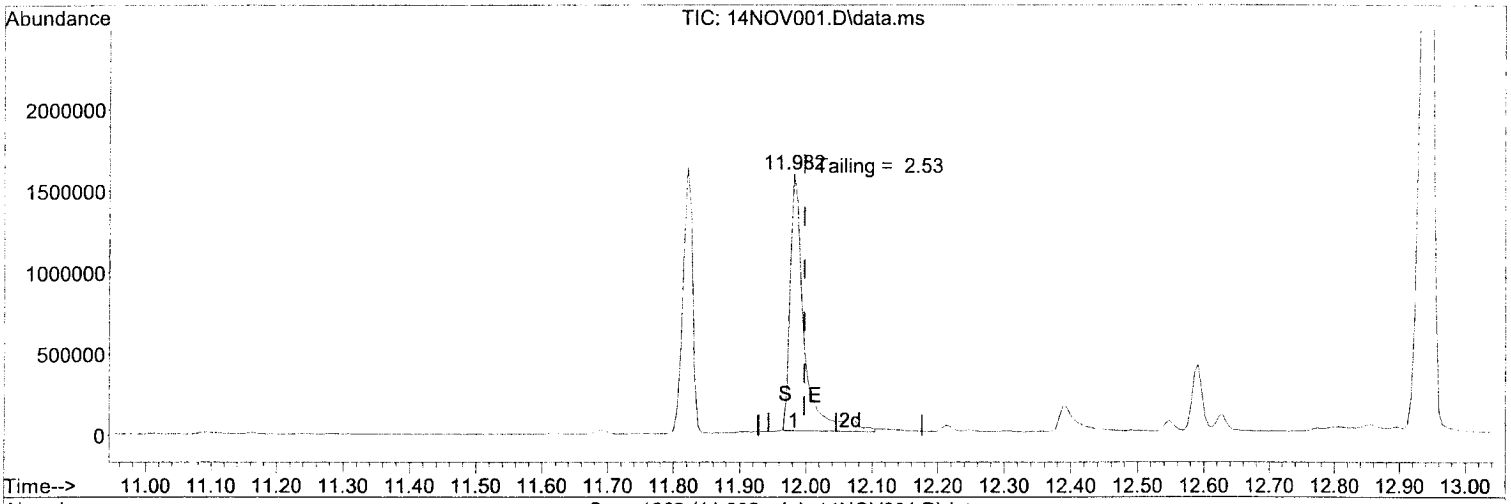
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

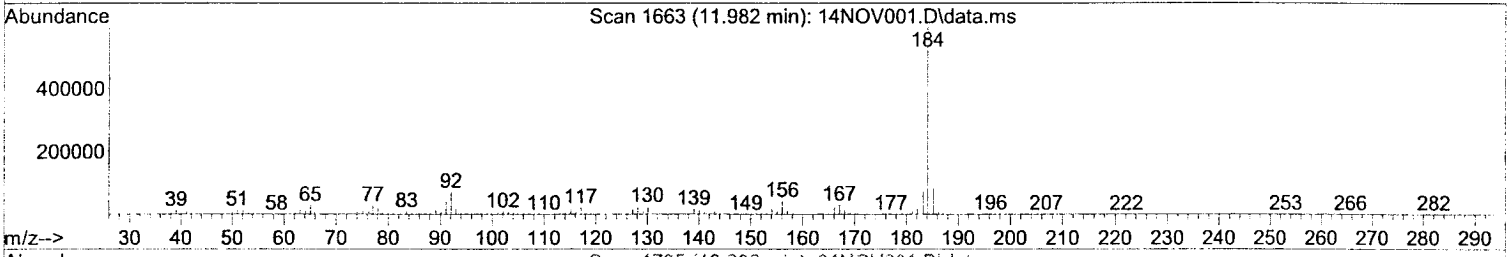
Return to Contents

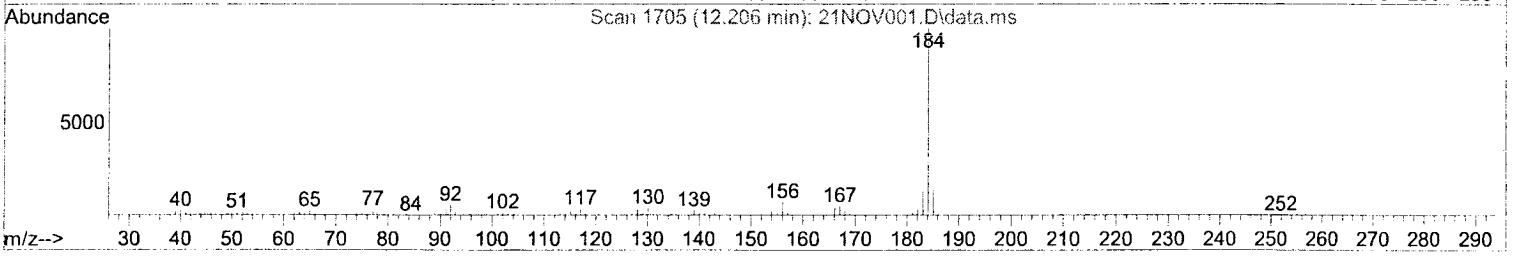
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV001.D
Acq On : 14 Nov 2013 10:08 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 14 10:27:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Thu Nov 07 10:51:17 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 14NOV001.D\data.ms

(3) Benzidine

11.982min (-0.016) 36.35

response 2197347

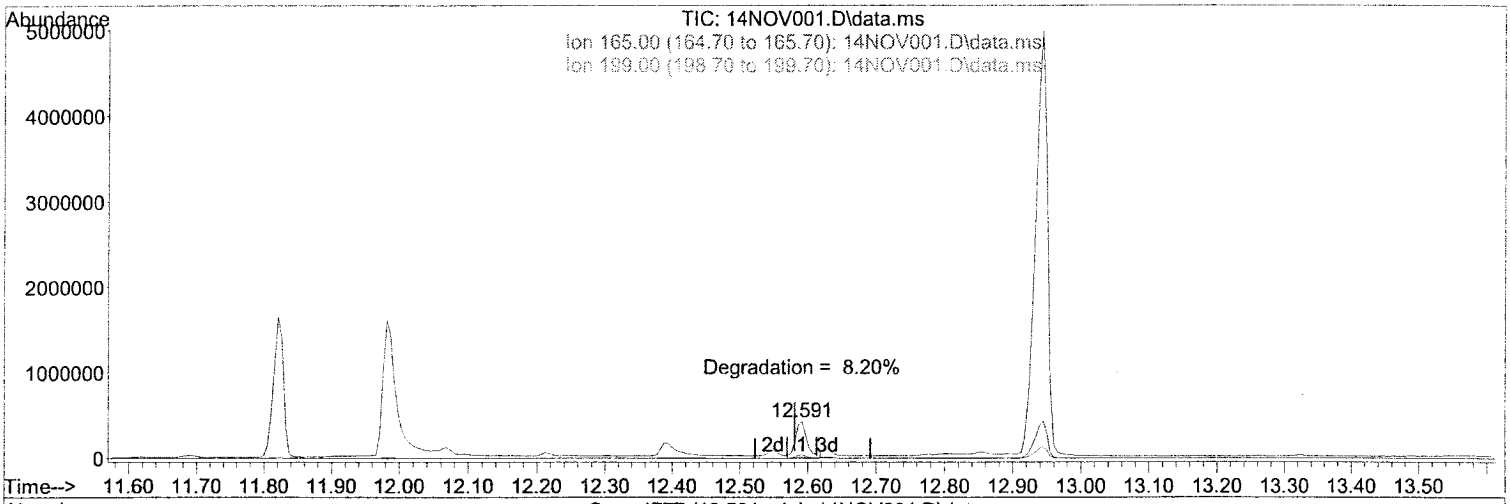
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

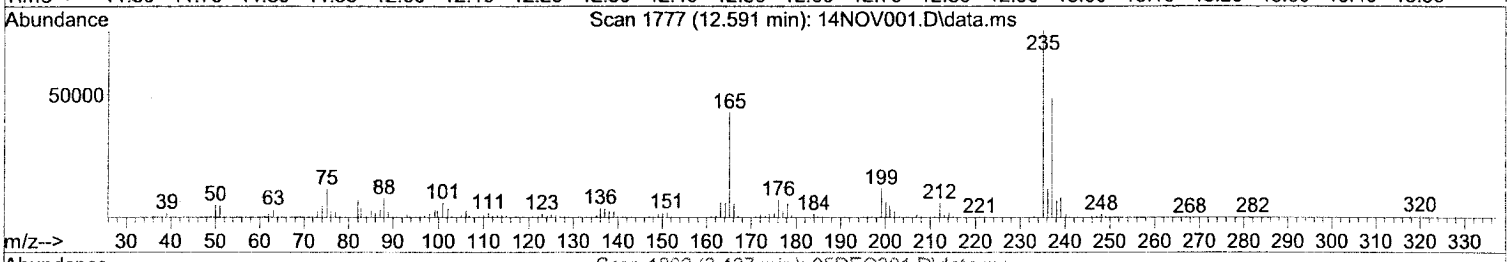
Return to Contents

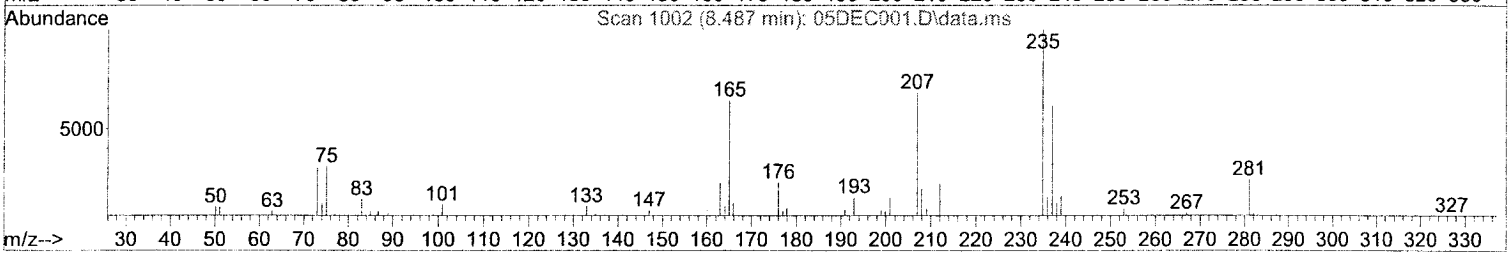
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV001.D
Acq On : 14 Nov 2013 10:08 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 14 10:27:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Thu Nov 07 10:51:17 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 14NOV001.D\data.ms

(5) DDD

12.591min (+0.011) 0.00

response 424820

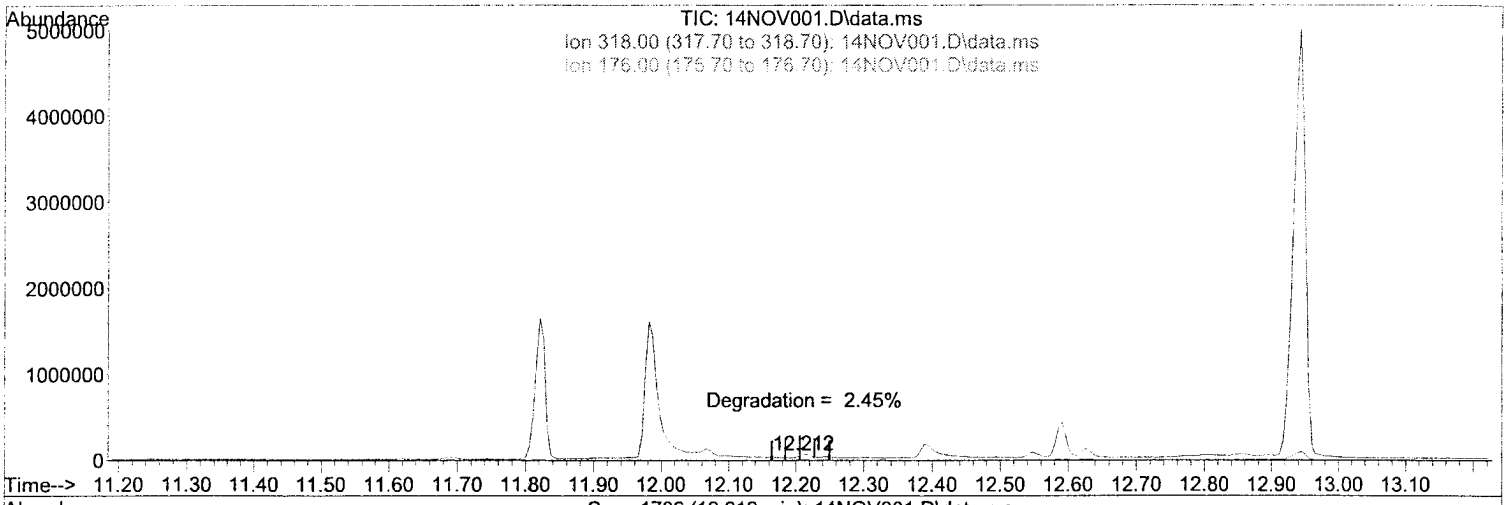
Signal	Exp%	Act%
TIC	100	100
165.00	0.10	10.66#
199.00	0.00	2.98#
0.00	0.00	0.00

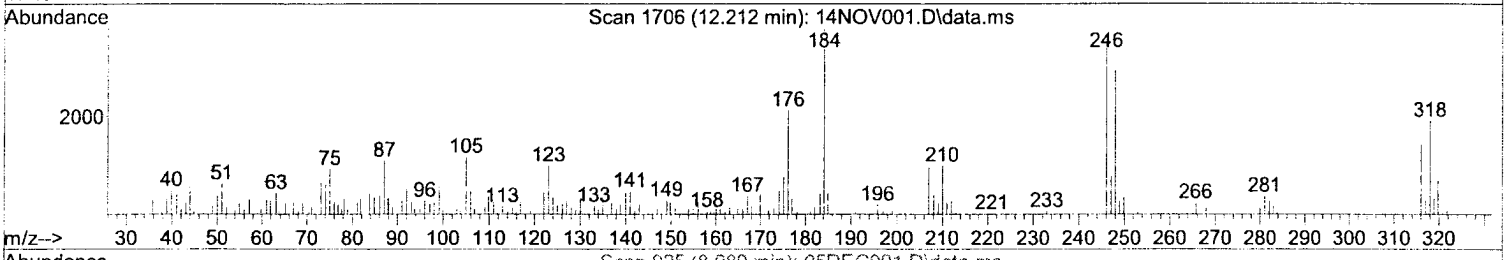
Return to Contents

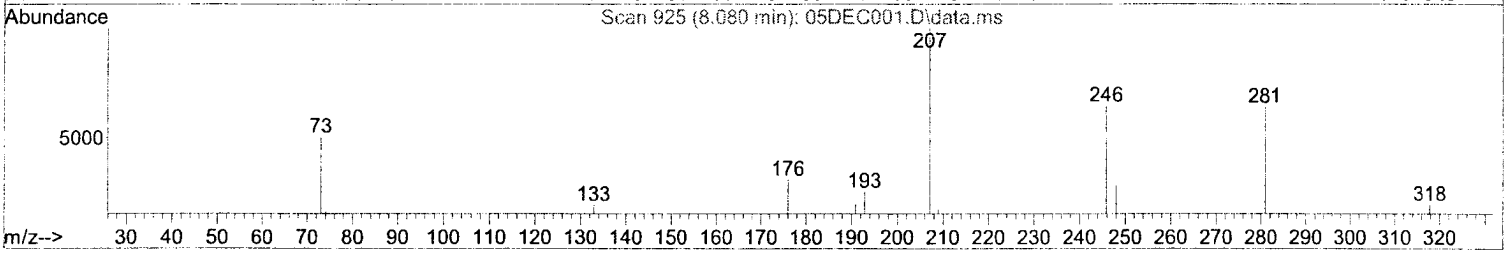
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV001.D
Acq On : 14 Nov 2013 10:08 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 14 10:27:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Thu Nov 07 10:51:17 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 14NOV001.D\data.ms

(6) DDE

12.212min (+0.005) 0.00

response 39888

Signal	Exp%	Act%
TIC	100	100
318.00	248.40	4.75#
176.00	267.80	5.41#
0.00	0.00	0.00

Return to Contents

EPA METHOD 8270C
SVOCs

Run Logs

Return to Contents

Injection Log

Directory: W:\GCMS_SS_DATA\2013\130911

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11sep001.d	1.	TUNE S090413A DFTPP		11 Sep 2013 10:50
2	2	11sep002.d	1.	ICAL1 S090513i 0.25PPM BNA		11 Sep 2013 11:17
3	3	11sep003.d	1.	ICAL2 S090513H 2.5PPM BNA		11 Sep 2013 11:43
4	4	11sep004.d	1.	ICAL3 S090513G 5PPM BNA		11 Sep 2013 12:09
5	5	11sep005.d	1.	ICAL4 S090513F 10PPM BNA		11 Sep 2013 12:35
6	6	11sep006.d	1.	ICAL5 S090513E 20PPM BNA		11 Sep 2013 13:01
7	7	11sep007.d	1.	ICAL6 S090513D 50PPM BNA		11 Sep 2013 13:27
8	8	11sep008.d	1.	ICAL7 S090513C 80PPM BNA		11 Sep 2013 13:54
9	9	11sep009.d	1.	ICAL8 S090513B 120PPM BNA		11 Sep 2013 14:20
10	10	11sep010.d	1.	ICAL9 S090513A 160PPM BNA		11 Sep 2013 14:46
11	11	11sep011.d	1.	ICAL8 S090513B 120PPM BNA		11 Sep 2013 15:54
12	12	11sep012.d	1.	MB		11 Sep 2013 16:21
13	12	11sep013.d	1.	MB		11 Sep 2013 16:47
14	12	11sep014.d	1.	MB		11 Sep 2013 17:14
15	15	11sep015.d	1.	ICAL1 S071913V 0.25PPM BNA		11 Sep 2013 17:40
16	16	11sep016.d	1.	ICAL2 S071913U 2.5PPM BNA		11 Sep 2013 18:06
17	17	11sep017.d	1.	ICAL3 S071913T 5PPM BNA		11 Sep 2013 18:32
18	18	11sep018.d	1.	ICAL4 S071913S 10PPM BNA		11 Sep 2013 18:58
19	19	11sep019.d	1.	ICAL5 S071913R 20PPM BNA		11 Sep 2013 19:24
20	20	11sep020.d	1.	ICAL6 S071913Q 50PPM BNA		11 Sep 2013 19:51
21	21	11sep021.d	1.	ICAL7 S071913P 80PPM BNA		11 Sep 2013 20:17
22	22	11sep022.d	1.	ICAL8 S071913O 120PPM BNA		11 Sep 2013 20:43
23	23	11sep023.d	1.	ICAL9 S071913N 160PPM BNA		11 Sep 2013 21:09
24	24	11sep024.d	1.	ICV S071913W 80PPM BNA		11 Sep 2013 21:35

Return to Contents

Injection Log

Directory: W:\GCMS_SS_DATA\2013\131113

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	13nov001.d	1.	TUNE S090413A DFTPP		13 Nov 2013 10:29
2	2	13nov002.d	1.	CCV S090513C 80PPM BNA		13 Nov 2013 10:55
3	3	13nov003.d	1.	LCS 131108-L05		13 Nov 2013 11:21
4	4	13nov004.d	1.	LCSD 131108-L05		13 Nov 2013 11:48
5	5	13nov005.d	1.	MB 131112-L05		13 Nov 2013 12:14
6	6	13nov006.d	1.	LCS 131112-L05		13 Nov 2013 12:40
7	7	13nov007.d	1.	LCSD 131112-L05		13 Nov 2013 13:06
8	8	13nov008.d	1.	11-0818-1J		13 Nov 2013 13:33
9	9	13nov009.d	1.	LCS 131109-L02		13 Nov 2013 13:59
10	10	13nov010.d	1.	LCSD 131109-L02		13 Nov 2013 14:25
11	11	13nov011.d	1.	11-0574-1O REF		13 Nov 2013 14:51
12	12	13nov012.d	1.	11-0738-1J 25X		13 Nov 2013 15:37
13	13	13nov013.d	1.	11-0688-1A		13 Nov 2013 17:23

Return to Contents

Injection Log

Directory: W:\GCMS_SS_DATA\2013\131114

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	14nov001.d	1.	TUNE S090413A DFTPP		14 Nov 2013 10:08
2	2	14nov002.d	1.	CCV S090513C 80PPM BNA		14 Nov 2013 10:34
3	3	14nov003.d	1.	MB		14 Nov 2013 11:00
4	4	14nov004.d	1.	11-0716-17A		14 Nov 2013 11:26
5	5	14nov005.d	1.	11-0716-20A		14 Nov 2013 11:52
6	6	14nov006.d	1.	11-0717-33A		14 Nov 2013 12:18
7	7	14nov007.d	1.	11-0717-36A		14 Nov 2013 12:44
8	8	14nov008.d	1.	11-0717-39A		14 Nov 2013 13:10
9	9	14nov009.d	1.	MB 131113-L20		14 Nov 2013 13:36
10	10	14nov010.d	1.	LCS 131113-L20		14 Nov 2013 14:04
11	11	14nov011.d	1.	11-0771-3A		14 Nov 2013 14:31
12	12	14nov012.d	1.	11-0771-3A MS		14 Nov 2013 14:57
13	13	14nov013.d	1.	11-0771-3A MSD		14 Nov 2013 15:23
14	14	14nov014.d	1.	11-0697-13F		14 Nov 2013 15:50
15	15	14nov015.d	1.	11-0611-2A		14 Nov 2013 16:16
16	16	14nov016.d	1.	11-0697-7A		14 Nov 2013 16:42
17	17	14nov017.d	1.	11-0697-9A 5X → 2X I.S. high		14 Nov 2013 17:08
18	18	14nov018.d	1.	11-0611-1A 5X → 2X I.S. high		14 Nov 2013 17:34
19	19	14nov019.d	1.	11-0708-1K		14 Nov 2013 18:00
20	20	14nov020.d	1.	11-0697-4A		14 Nov 2013 18:26
21	21	14nov021.d	1.	11-0697-10A		14 Nov 2013 18:52
22	22	14nov022.d	1.	11-0697-11A		14 Nov 2013 19:18
23	23	14nov023.d	1.	11-0718-33A		14 Nov 2013 19:44
24	24	14nov024.d	1.	11-0718-36A		14 Nov 2013 20:11
25	25	14nov025.d	1.	11-0718-39A		14 Nov 2013 20:37
26	26	14nov026.d	1.	11-0697-6A 5X → I.S. high		14 Nov 2013 21:03
27	27	14nov027.d	1.	11-0697-9A 2X		14 Nov 2013 21:29
28	28	14nov028.d	1.	11-0611-1A 2X → I.S. high		14 Nov 2013 21:55
29	29	14nov029.d	1.	11-0965-1 50X REF		14 Nov 2013 22:22
30	30	14nov030.d	1.	11-0608-1 50X REF		14 Nov 2013 22:48

Return to Contents

EPA METHOD 8270C
SVOCs

Preparation Logs

Return to Contents

EPA Method 625/8270 Extraction Logbook

START	pH ADJUSTMENT (1:1 H_2SO_4 / 10-N NaOH) FIRST (pH < 2)			SECOND (pH > 11)			END	MATRIX	EXTRACTION	TEST	MB/LCS/MS BATCH #	PREP TECHNICIAN(S)
								S = SOIL A = AQUEOUS O = OIL W = WIPE F = FILTER	1 = 3510 SEP 2 = 3520 C-LL 4 = 3545 PFE 5 = 3550 SON 8 = 3580 DIL	METHOD	131112L05	
D = DATE T = TIME	D = DATE T = TIME	a) INITIAL pH b) FINAL pH	c) 1:1 H_2SO_4 ID # d) AMOUNT	D = DATE T = TIME	e) INITIAL pH f) FINAL pH	g) 10-N NaOH ID # h) AMOUNT	D = DATE T = TIME				CEL ID #	
D) 11-12-13 T) 11:30	D) 11-12-13 T) NA	a) ~6 b) <2	c) E081513-1 d) 3	D) 11-12-13 T) NA	e) <2 f) ~12	g) E081413-1 h) 7	D) 11-12-13 T) NA	S W O W F	1 2 4 5 8	8270	MB	784/783
D) ↓ T)	D) ↓ T)	a) ~6 b) <2	c) ↓ d) 3	D) ↓ T)	e) <2 f) ~12	g) ↓ h) 7	D) ↓ T)	S A O W F	1 2 4 5 8	↓	LCS	↓
D) T)	D) T)	a) ~6 b) <2	c) d) 3	D) T)	e) <2 f) ~12	g) h) 7	D) T)	S A O W F	1 2 4 5 8		LCSD	
D) T) ✓	D) T) ✓	a) ~9 b) <2	c) 3,784 1/10/13 d) ~~6~~	D) T) ✓	e) <2 f) ~12	g) h) 10	D) T) ✓	S A O W F	1 2 4 5 8	✓	13-11-0818-1J	
D) ↓ T)	D) ↓ T)	a) ~6 b) <2	c) d) 3	D) ↓ T)	e) <2 f) ~12	g) ↓ h) 7	D) ↓ T)	S A O W F	1 2 4 5 8	↓	13-11-0697-13F	
D) T)	D) T)	a) ~12 b) <2	c) d) 3,784 1/12/13	D) T)	e) ~12 f) ~12	g) E081413-1 h)	D) T)	S A O W F	1 2 4 5 8		13-11-0708-1K	
D) T) ✓	D) T) ✓	a) ~9 b) <2	c) d) ~~3~~ ✓ 1/12/13	D) T) ✓	e) <2 f) ~12	g) E081413-1 h) 784 ~~8~~ 9 1/12/13	D) T) ✓	S A O W O F	1 2 4 5 8	✓	13-11-0738-1J	
D) T)	D) T)	a) b)	c) d)	D) T)	e) f)	g) h)	D) T)	S A O W F	1 2 4 5 8			
D) T)	D) T)	a) b)	c) d)	D) T)	e) f)	g) h)	D) T)	S A O W F	1 2 4 5 8			
D) T)	D) T)	a) b)	c) d)	D) T)	e) f)	g) h)	D) T)	S A O W F	1 2 4 5 8			
D) T)	D) T)	a) b)	c) d)	D) T)	e) f)	g) h)	D) T)	S A O W F	1 2 4 5 8			
D) T)	D) T)	a) b)	c) d)	D) T)	e) f)	g) h)	D) T)	S A O W F	1 2 4 5 8			
D) T)	D) T)	a) b)	c) d)	D) T)	e) f)	g) h)	D) T)	S A O W F	1 2 4 5 8			
D) T)	D) T)	a) b)	c) d)	D) T)	e) f)	g) h)	D) T)	S A O W F	1 2 4 5 8			
D) T)	D) T)	a) b)	c) d)	D) T)	e) f)	g) h)	D) T)	S A O W F	1 2 4 5 8			
D) T)	D) T)	a) b)	c) d)	D) T)	e) f)	g) h)	D) T)	S A O W F	1 2 4 5 8			
D) T)	D) T)	a) b)	c) d)	D) T)	e) f)	g) h)	D) T)	S A O W F	1 2 4 5 8			
D) T)	D) T)	a) b)	c) d)	D) T)	e) f)	g) h)	D) T)	S A O W F	1 2 4 5 8			
D) T)	D) T)	a) b)	c) d)	D) T)	e) f)	g) h)	D) T)	S A O W F	1 2 4 5 8			

EPA Method 625/8270 Extraction Logbook

SAND ID #		WATER BATH TEMP RANGE (°C)	THERMOMETER ID # & CF	ASE ID #	DRYING AGENT
✓		~60	C 24747 (CF 0.0°C)	✓	☑ Na_2SO_4 ☐ Diatomaceous Earth

CEL ID #	SAMPLE W (g) / V (mL) a) INITIAL b) FINAL	AQUEOUS SAMPLE MEASURED BY BALANCE a) INITIAL (g) b) FINAL (g)	AQUEOUS SAMPLE MEASURED BY BALANCE c) NET (g) d) V (mL)	BALANCE ID #	SURROGATE STANDARD STANDARD ID #	SURROGATE STANDARD a) C (ppm) b) V (mL)	SPIKE STANDARD (LCS/LCSD/MS/MSD) STANDARD ID #	SPIKE STANDARD (LCS/LCSD/MS/MSD) a) C (ppm) b) V (mL)	INTERNAL STANDARD a) ID # b) V (mL)	EXTRACTION SOLVENT 1 = CH_2Cl_2 2 = 1:1 CH_2Cl_2-C_3H_6O	EXTRACTION SOLVENT a) ID # b) V (mL)	REAGENT / SUPPLY ID # a) DRYING AGENT b) FILTER
MB	a) 1000 b) 2	a) ✓ b) ✓	c) ✓ d) ✓	✓	E101613A	a) 400 b) 0.5	✓	a) ✓ b) ✓	a) E08-59-1 b) 0.01	1 2	a) E08-71-6 b) 360	a) E08-68-7 b) ✓
LCS	a) 1000 b)	a) ✓ b) ✓	c) ✓ d) ✓	✓	✓	a) ✓ b) ✓	E103013A	a) 1000 b) 0.2	a) ✓ b) ✓	1 2	a) ✓ b) ✓	a) ✓ b) ✓
LCSD	a) 1000 b)	a) ✓ b) ✓	c) ✓ d) ✓	✓	✓	a) ✓ b) ✓	↓	a) ✓ b) ✓	a) ✓ b) ✓	1 2	a) ✓ b) ✓	a) ✓ b) ✓
13-11-0818-1	a) 1050 b)	a) ✓ b) ✓	c) ✓ d) ✓	✓	✓	a) ✓ b) ✓	✓	a) ✓ b) ✓	a) ✓ b) ✓	1 2	a) ✓ b) ✓	a) ✓ b) ✓
13-11-0697-13	a) 1040 b)	a) ✓ b) ✓	c) ✓ d) ✓	✓	✓	a) ✓ b) ✓	✓	a) ✓ b) ✓	a) ✓ b) ✓	1 2	a) ✓ b) ✓	a) ✓ b) ✓
13-11-0708-1	a) 1000 b)	a) ✓ b) ✓	c) ✓ d) ✓	✓	✓	a) ✓ b) ✓	✓	a) ✓ b) ✓	a) ✓ b) ✓	1 2	a) ✓ b) ✓	a) ✓ b) ✓
13-11-0738-1	a) 1040 b)	a) ✓ b) ✓	c) ✓ d) ✓	✓	✓	a) ✓ b) ✓	✓	a) ✓ b) ✓	a) ✓ b) ✓	1 2	a) ✓ b) ✓	a) ✓ b) ✓
	a) b)	a) b)	c) d)			a) b)		a) b)	a) b)	1 2	a) b)	a) b)
	a) b)	a) b)	c) d)			a) b)		a) b)	a) b)	1 2	a) b)	a) b)
	a) b)	a) b)	c) d)			a) b)		a) b)	a) b)	1 2	a) b)	a) b)
	a) b)	a) b)	c) d)			a) b)		a) b)	a) b)	1 2	a) b)	a) b)
	a) b)	a) b)	c) d)			a) b)		a) b)	a) b)	1 2	a) b)	a) b)
	a) b)	a) b)	c) d)			a) b)		a) b)	a) b)	1 2	a) b)	a) b)
	a) b)	a) b)	c) d)			a) b)		a) b)	a) b)	1 2	a) b)	a) b)
	a) b)	a) b)	c) d)			a) b)		a) b)	a) b)	1 2	a) b)	a) b)
	a) b)	a) b)	c) d)			a) b)		a) b)	a) b)	1 2	a) b)	a) b)
	a) b)	a) b)	c) d)			a) b)		a) b)	a) b)	1 2	a) b)	a) b)
	a) b)	a) b)	c) d)			a) b)		a) b)	a) b)	1 2	a) b)	a) b)
	a) b)	a) b)	c) d)			a) b)		a) b)	a) b)	1 2	a) b)	a) b)
	a) b)	a) b)	c) d)			a) b)		a) b)	a) b)	1 2	a) b)	a) b)

EPA METHOD 8270C
SVOCs

Standards Preparation Logs

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
07/12/13	S071913Q	8270	8270 STOCK	S071913M	0.5 mL	200 ppm	2 mL	50 ppm	MeCl2	E7-15-5	10/06/13	SB	
	↓		SV-2S	E8-50-24	40 ul	2000 ppm		40					
	S071913R				0.2 mL			20					
	↓				40 ul			40					
	S071913S				0.1 mL			10					
	↓				40 ul			40					
	S071913T				0.05 mL			5					
	↓				40 ul			40					
	S071913U				25 ul			2.5					
	↓				40 ul			40					
	S071913V				2.5 ul			0.25					
	↓				40 ul			40					
	S071913W	8270/CV	8270 ST FQC	E8031 3C	0.8 mL	200 ppm	2 mL	80			12/31/13		
			8270 SUR	E061713A	0.4 mL	400		80					
	↓	↓	SV-IS	E8-50-24	40 ul	2000	↓	40	↓	↓	↓	↓	
7/22/13	S072213A (7/22/13 BB)	8330	2,6-Diamino-4-nitrotoluene	S06-17-22	100 ul	100 ppm	1 ml	10 ppm	Acetone 1:1	S062813-1	8/22/13	684	
			2,4-Diamino-6-nitrotoluene	S06-17-24	100 ul	100						42	
			PETN	S06-15-07	10 ml	1000							
			Nitroglycerin	S06-15-06	10 ml	1000							
7/22/13	S072213B (7/22/13 BB)	8330	1,2-Dinitrobenzen	S06-15-06	10 ml	1000							

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
7/19/13	S071913I	NDMA	NDMA-spike	S071913E	200 µl	1ppm	4mL	50ppb	MeCl2	E715-5	1/14/14	421	
			SURR	S071913C	200 µl	1ppm		50ppb					
			I.S.	S071913A	80 µl	1ppm		20 ppb					
	S071913J		NDMA-spike	S071913E	400 µl	1ppm	4mL	100 ppb					
			SURR	C	400			100					
			I.S	A	80			20					
	S071913K	ICV	NDMA-ICV	S071913B	4µl	10000ppm	4mL	10ppm					
	S071913L		NDMA-ICV	S071913K	8µl	10ppm	4mL	20ppb					
			SURR	S071913C	80µl	1ppm		20 ppb					
			I.S.	S071913A	80µl	1ppm		20ppb					
07/19/13	S071913M	8270	SV-CAL KIT	56-13-2	7X1ML	2000ppm	10 ML	200 ppm	MeCl2	E7-15-5	10/06/13	513	
			8270 custom	56-11-13	1ML								
			BN SUR	E8-44-3	0.4ML	5000ppm							
			ACID SUR	E8-43-15	0.2ML	10000ppm							
	S071913N		8270 STOCK	S071913M	1.6ML	200ppm	2ML	160 ppm					
			SV-IS	E8-50-24	40 µl	2000ppm		40					
	S071913O				1.2ML			120					
					40 µl			40					
	S071913P				0.8ML			80					
					40µl			40					

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	8270 Cali – Kit	Supelco	48118	LB96472	FEB 14	7 x 1 mL	G	02/15/13	573	05/01/13	573	
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/19/13	573	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/30/13	449	
4	2,2,4-Trimethylpentane (Isooctane)	Sigma-Aldrich	360597	SHBC4278V	2/18/16	500 mL	G	02/15/13	684	2/18/13	773	verified
5	2,3-Dichlorobiphenyl (BZ #5)	Ultra	CW# RPC-012	NT 00011	01/31/2017	25 mg	G	2/15/13	684	↓	773	verified
6	4,4'-Dichlorobiphenyl (BZ #15)	↓	RPC-011	RM00605	01/31/2017	10 mg	↓	↓	↓	↓	↓	verified
7	521 Surrogate	Restek	33910	A088147	04/15	1 ml	G	2/19/13	262	2/19/13	262	
8	↓		33910	↓	04/15							
9	521 IS		33911	A088435	05/15					2/19/13	262	
10	↓		↓	↓	↓							
11	Aroclor 1260	ULTRA	PP-361	CG-3829	12/2014	1 ml		2/20/13	669	3/7/13	684	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/21/13	669	(For 508)
13	521 Cartridge	UCT	EU52112M6	03962-EM	2/11/18	30	Bag	2/21/13	262	2/21/13	262	
14	BDE-49	Accustd	BDE-049S	211031138	6/10/19	1 ml	G	2/28/13	421	2/28/13	421	
15	Methylene Chloride	Fisher	D154-4	126306	3/5/16	4 L	G	3/5/13	262	3/5/13	262	
16	Pesticides Sur.	Supelco	48460	LB81291	01/2014	1 L	G	3/22/13	669	8/7/12	842	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/11/13	500	
18										12/12/13	669	
19												
20	↓	↓	↓	↓	↓	↓	↓	↓	↓			
21	Diethanolamine	Accustandard	ALR-109N	05712DI	2/24/21	100 mg	G	3/28/13	684	4/2/13	262	
22	Monoethanolamine	↓	ALR-136N	13768	9/29/14	↓	↓	↓	↓	4/2/13	262	
23	8270 Tuning Solution	SUPELCO	47598-U	LB91071	03/15	1 mL	↓	03/25/13	573	6/27/13	449	
24	↓	↓	↓	↓	03/15	↓	↓	↓	↓	9/4/13	889	
25	Aqua Comparator Kit	orbeco	L147010	NA	12/2016	Each	Box	3/25/13	262	3/27/12	262	

COMMENTS:

Book Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	~~Simazine~~ 1/11/13 Thiobencarb	AccSTD	P-180S	212061040	6/4/22	1	G	1/11/13	262	7/27/13	142	
2	Simazine	↓	P-085S	212091149	9/13/17	1	G	↓	↓	7/27/13	142	
3	Custom standard - Organic Acids	Ultra	CUS-10577	CJ-4647	1/31/14	1 ml ~~5~~ 684 1/14/13	G	1/14/13	684	2/18/13	773	verified
4	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/16/13	684	
5												
6												
7												
8	MTBE	Sigma	650560-4L	MKBF6565V	1/21/16	4 L	G	1/21/13	262	1/21/13	262	verified SB B2 P15
9	Acenaphthene-d18	AccSTD	M-548.1-1S	21103.048	3/4/21	3 x 1 ml	G	1/22/13	262	8/9/13	262	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓			
11												
12	CUSTOM 8270 STD	AccSTD	S22976	211101046	10/06/13	1 mL	G	1/22/13	513	05/01/13	513	
13	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/19/13	513	
14												expired.
15												
16												
17	Tetrahydrofuran-d8	Restek	30112	A089996	7/2017	1	G	1/28/13	262	1/30/13	262	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓			
19										5/28/13	262	
20	Custom Standard - Quote*012512-865	Ultra	CUS-11539	CK-0169	2/28/14	1	G	1/29/13	684	2/14/13	773	verified
21	81017A	↓	↓	↓	↓	↓	↓	↓	↓	10/24/13	684	
22												
23										1/11/14	684	
24												
25	SPE Cartridge EPA 521	Restek	26032	C10126W02	NA	30		1/30/13	262	1/31/13	262	

COMMENTS:

Book Number: 6

05/22/12 Revision

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Dichloromathane	EMD	DY0831-1	051287	01-05-15	4L x 52	G	01-05-12	C2	01-05-12	C2	
2	Hexanes	EMD	HX0298-1	51222	1-9-15 ~~1-9-15~~ MHW 1/9/12	4L x 4	G	1-9-12 ~~1-9-12~~ MHW 1/9/12	MHW	1-9-12	MHW	for organotins
3	Hydrochloric Acid	EMD	HX060714	51122	1-13-15	2.5L x 2	G	1-13-12	MHW	1-13-12	MHW	
4	Ethyl Ether Anhydrous	EMD	EX0190-4	51252	9-30-13	4L x 6	G	1-13-12	MHW	1-13-12	MHW	
5	Dichloromathane	↓	DX0831-1	051287	01-16-15	4L x 104	G	1-16-12	7	3-9-12	773	
6	Sodium sulfate, Anhydrous	EMD	SX0760-5	0700C501	1-17-17	12Kg x 4	P	1-17-12	785	1-17-12	785	
7	Sodium chloride	↓	SX0420-5	TL20BZEMS	01-19-17	12Kg x 3	↓	1-19-12	7	1-19-12	7	Baked on 1/19/12
8	Hexanes	EMD	HX0290-1	51180	1-24-15	4L x 6	G	1-24-12	785	1-24-12	785	
9	Boiling Stones	Chemware	26397-103	E373-1K047	1-31-17	450 g x 2	P	1-31-12	7			
10	Ethyl Ether Anhydrous	EMD	EX0190-4	51252	9-30-13	4L x 6	G	2-1-12	785	2-1-12	785	
11	Acetone	EMD	AX0116-1	51168	2-1-15	4L x 4	G	2-1-12	785	2-1-12	785	
12	Ethyl Acetate	EMD	EX0241-1	50321	2/2/15	4L	G	2/2/12	262	2/2/12	262	
13	41 Filter paper - 9cm	Whatman	1441-090	36723	NA	10PK	P	↓	7	↓	7	
14	↓ - 125cm	↓	1441-125	J11495881 ~~1171~~ @ 2/2/12	↓	↓	↓	↓	↓	↓	↓	
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												

COMMENTS:

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
6-3-13	E060313A	organotins sur.	Tripentyltin chloride Mixture	E07-08-07	0.3 ml	2000 ppm	600 ml	1 ppm	Hexanes	E08-45-9	12-3-13	788	
6-3-13	E060313B	organotins spike	Butyltin chlorides calibration Mixture	E07-~~08-07~~ 07-11 (788) 6/3/13	0.15 ml	2000 ppm	300 ml	1 ppm	Hexanes	E08-45-9	12-3-13	785	
6-3-13	E060313C	8270 spike FQC	8270 calibration #1	E08-07-23 24 25	4 ml	2000 ppm	40 ml	200 ppm	Acetone	E08-42-6	12-3-13	785	
↓	↓	↓	↓ #2	E08-08-7 8 9	↓	↓	↓	↓	↓	↓	↓	↓	
↓	↓	↓	↓ #3	E08-08-16 17 18	↓	↓	↓	↓	↓	↓	↓	↓	
↓	↓	↓	↓ #4	E08-09-7 8 9	↓	↓	↓	↓	↓	↓	↓	↓	
↓	↓	↓	↓ #5	E08-09-18 19 20	↓	↓	↓	↓	↓	↓	↓	↓	
6-4-13	E060413A	8270 sim I.S	SV INTERNAL STANDARDS	E08-46-18, 20 22, 23 24, 25	6.25 ml	2000 ppm	50 ml	250 ppm	CH_2Cl_2	E08-45-18	12-4-13	782	
6-17-13	E061713A	8270 surr.	Acid Surrogate Mix	E08-31-9, 10 E08-43-13-15	40 ml	10,000 ppm	1000 ml	400 ppm	Acetone	E08-41-5	12-17-13	7	
↓	↓	↓	B/N Surrogate Mix	E08-43-23-25 E08-44-1-5	80 ml	5,000 ppm	↓	↓	↓	↓	↓	↓	
↓	E061713B	8080 sur.	pesticide Surrogate Mix	E08-46-1, 2	10 ml	200 ppm	1000 ml	2 ppm	↓	↓	↓	↓	
6-18-13	E061813A	508 sur.	8081 sur.	E061713B	10 ml	2 ppm	40 ml	0.5 ppm	MTBE	S6-11-8	8-18-13	785	
6-18-13	E061813B	508 pest	8081 Spike	E050113C	4 ml	1 ppm	40 ml	0.1 ppm	↓	↓	8-18-13	↓	
06-18-13	E061813C	TO13A sim PAH	TO13A. sur.	E08-44-3	1.6 ml	5000 ppm	200 ml	40 ppm	Hexanes	E08-45-9 (787)	12-18-13 6/18/13	787	
↓	E061813D	508 PCB	1016/1260 8082 spike	E050113D	0.8 ml	10 ppm	40 ml	0.2 ppm	MTBE	S06-11-8	8-18-13	7	
06-19-13	E061913A	508 PCB	↓	E07-14-6	0.4 ml	1000 ppm	40 ml	10 ppm	↓	↓	8-19-13	↓	
6-21-13	E062113A	1.4-Dioxane d8	1.4-Dioxane d8	E07-14-2	0.2 g	Neat	200 ml	1000 ppm	Acetone	E08-41-5	12-21-13	7	
↓	E062113B	1.4-Diox.	1.4-Dioxane 99.8%	E07-14-1	0.1 g	↓	100 ml	1000 ppm	↓	↓	↓	↓	
6-28-13	E062813A	8270 SIM PAH Spike	EPA Method 8310 PAH Mix	E08-02-17-20 E08-~~10~~ 10-20, 21, 22 @ 6-28-13	8 ml	500 ppm	200 ml	20 ppm	↓	↓	12-28-13	7	

Book Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Dichloromethane	EMD	DX831-1	52321	3-18-16	4L×16	G	3-18-13	710	3-18-13	710	
2	Hexanes	EMD	HX0298-1	53032	03-18-16	4L×16	G	03-18-13	787	03-18-13	787	
3	Sodium sulfate Anhydrous	Fish	S421-10	121758	3-18-18	10kg×6	P	3-18-13	785	3-18-13	785	
4	Dichloromethane	EMD	DX831-1	53032	3-19-16	4L×108	G	3-19-13	785	3-19-13	785	
5	Acetone	EMD	AX0116-1	52088	3-20-16	4L×4	G	3-20-13	785	3-20-13	785	
6	Acetone	Fisher	A929-4	126831	3-25-16	4L×4	G	3-25-13	785	3-25-13	785	
7	Dichloromethane	EMD	DX0831-1	52038	3-27-16	4L×12	G	3-27-13	785	3-27-13	785	
8	Dichloromethane	EMD	DX0831-1	52146	3-27-16	4L×12	G	3-27-13	785	3-27-13	785	
9	Dichloromethane.	EMD	DX0831-1	53044 3/28/13 ~~53044~~ (787)	03-28-16 03-~~28~~-16	4L×100	G	03-28-13	787	03-28-13	787	
10	MERCURY (Hg)	ALFA AESAR	STOCK # 00522	E22Y027	N/A	5lbs×2	P	3-28-13	782	3-28-13	782	
11	Hexanex	EMD	HX0298-1	53032	3-28-16	4L×6	G	3-28-13	785	3-28-13	785	
12	Ethyl Ether Anhydrous	EMD	EX0190-4	53028	1-31-15	4L×48	G	3-28-13	785	3-28-13	785	
13	Dichloromethane	EMD	DX0831-1	53044	04-04-16	4L×160	G	04-04-13	787	04-04-13	787	
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												

COMMENTS:

Book Number: 8

05/22/12 Revision

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Sodium Sulfate Anhydrous	Fish	S421-10	121758	4-2-18	10Kg x6	P	4-2-13	785	4-2-13	785	
2	Sulfuric Acid	EMD	SX1249/2	52116	4-8-16	2.5L x3	G	4-8-13	785	4-8-13	785	
3	Hydrochloric Acid	EMD	HX0609-2	52250	4-8-16	2.5L x3	G	4-8-13	785	4-8-13	785	
4	Hexanes	EMD	HX 0298-1	53032	04-09-16	4L x 18	G	04-09-13	787	04-09-13	787	
5	Dichloromethane	EMD	DX0831-1	53044	4-11-16	4L x 40	G	4-11-13	785	4-11-13	785	
6	Acetone	Fish	A929-4	127684	4-12-16	4L x 8	G	4-12-13	785	4-11-13	785	
7	Ethyl Ether Anhydrous	EMD	EX0190-4	52331	11-30-14	4L x4	G	04-12-13	787	4-12-13	787	
8	Sodium Sulfate Anhydrous	Fish	S421-10	121758	4-15-18	10kg x6	P	4-15-13	785	4-15-13	785	
9	Dichloromethane	EMD	DX0831-1	53066	4-19-16	4L x 72	G	4-19-13	785	4-19-13	785	
10	Hexanes	EMD	DX 0298-1	53063	04-23-16	4L x 24	G	04-23-13	787	04-23-13	787	
11	Dichloromethane	EMD	DX0831-1	52321	4-24-16	4L x 24	G	4-24-13	785	4-23-13 @4/24/13	785	
12	"	"	"	53162	4-30-16	4L x 18	"	4-30-13	7	4-30-13	7	
13	Copper Granules 99.5%	RESprep	26136	212201-AK	04-30-18	1 Kg.	P	04-30-13	787	04-30-13	787	
14	Alumina SPE Cartridge	Supelco	57083-U	3661401	N/A	6ml x60	P	04-30-13	7	04-30-13	7	
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												

COMMENTS: _____

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Acid Matrix Spike Mix	Restek	31071	A094155	04-30-20	5ml	G	04-4-13	7	9-4-13	7	
2												
3												
4												
5	B/N Matrix Spike Mix		31084	A096670	09-30-15	5ml				9-4-13		
6												
7												
8												
9												
10												
11												
12												
13	Acid Surrogate Mix		33629	A091777	11-30-20	10ml				06-17-13	7	
14												
15												
16										07-31-13	7	
17												
18				A092727	01-31-21							
19												
20										9/4/13	7	
21	B/N Surrogate Mix		33028	A09251	11-30-18					05-1-13	7	
22												
23										6-1-13	7	
24												
25												

COMMENTS: _____

Book Number: 8

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	B/N Surrogate Mix	Restek	33028	A092591	11-30-18	1 ml	G	4-4-13	7	06-17-13	7	
2												
✓3												
4												
5												
6										6-21-13	7	
7												
8												
9												
10												
11												
12	Tetraethyl lead	Accustd	S-1263	212061140	06-15-22	1 ml	G			4/22/13	786/782	
13										5/20/13	782	
14												
15												
16	Custom 625 LCS MiX	Restek	560726	A094625	04-30-18	5 ml	G	04-17-13	7			
17												
18										9-4-13	7	
19												
20												
21												
22												
23												
24												
25												

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Acid Surrogate MiX	Restek	33029	A091777	11-30-20	1ml	S	12-13-12	7	2-1-13	7	
2										↓	↓	
3				↓						3-18-13		
4				A072802	03-31-18					↓		
5				↓	↓					↓		
6										↓	↓	
7										05-01-13		
8										↓		
9												
10			↓	↓	↓					↓		
11	B/N Surrogate MiX		33028	A087681	03-31-18					2-1-13	7	
12			↓	↓	↓					↓	↓	
13												
14												
15												
16												
17				↓	↓					↓		
18										3-18-13	↓	
19										↓		
20		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
21												
22												
23												
24												
25												

COMMENTS: _____

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	5 V I.S. Mix	Restek	31206	A094182	02/28/14	1 ml	G	06-12-13	7	7/9/13	851	
2										7/12/13	851	
3										7-17-13	784	
4										↓	↓	
5										7-15-13	783	
6										8-6-13	783	
7										8-1-13	859	
8										8-6-13	783	
9										8-2-13	782	
10										8-6-13	783	
11										8-2-13	782	
12										8-6-13	785	
13										8-6-13	↓	
14										8-9-13	783	
15										8-9-13	783	
16										7-23-13	851	
17										8-13-13	859	
18										8-21-13	859	
19										7-22-13	782	
20										7-23-13	851	
21										7-24-13	784	
22										7-27-13	784	
23										7-28-13	783	
24										7/29/13	573	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓	7-29-13	782	

COMMENTS: _____

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	5V Internal Std Mix	Restek	31206	A087264	04-30-14	1ml	G	07-23-12	7	9-17-12	782	
2										9-6-12	782	
3										9-7-12	782	
4										9-19-12	783	
5										9-19-12	782	
6										9-19-12	783	
7										9-25-12	783	
8										9-25-12	783	
9										9/28/12	573	
10										10/01/12	782	
11										10/01/12	782	
12										10/04/12	783	
13										9-28-12	782	
14										10/8/12	783	
15										10/11/12	783	
16	8270 Calibration Mix #1		31618	A079473	04-30-14			07-24-12		07-25-12	7	
17												
18												
19										01-24-13 ~~01-24-13~~		
20										@ 1/24/13		
21												
22												
23										6-3-13	585	
24												
25												

COMMENTS: _____

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	8270 Calibration Mix #2	Restek	31619	A084478	10-31-13	1 mL	G	07-23-12	7	07-25-12	7	
2												
3												
4										01-02-13		
5												
6												
7										6-3-13	785	
8												
9												
10										10-31-13	785	
11	8270 Calibration Mix #3		31620	A076977	09-30-13					07-25-12	7	
12												
13										01-02-13		
14												
15												
16										6-3-13	785	
17												
18												
19										10-31-13	785	
20												
21	PCB Calibration Check Solution	Accustd.	C-CCSEC	B4080123	08-17-14			07-24-12		07-04-13	787	
22										5-13-13	7	
23										01-25-13	7	
24										01-18-13	7	
25										8-14-12	7	

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	8270 Calibration Mix #4	Restek	31621	A080622	05-31-14	1 mL	G	01-23-12	T	01-24-12	>	
2												
3												
4										01-2-13		
5												
6												
7										6-3-13	SBJ	
8												
9												
10										10-31-13	SBJ	
11	8270 Calibration Mix #5		31995	A089366	05-31-18					01-24-12	>	
12				A086679	01-31-18							
13												
14										01-2-13		
15												
16												
17												
18										6-3-13	SBJ	
19										6-3-13		
20												
21												
22												
23												
24												
25												

COMMENTS: _____

Book Number: 8

Return to Contents

Reagent Preparation Logbook

PREP DATE	NEW REAGENT ID #	TEST METHOD	REAGENT DESCRIPTION	SOURCE CHEMICAL(S) NAME	SOURCE CHEMICAL(S) ID #	SOURCE CHEMICAL(S) INITIAL AMOUNT	SOLVENT NAME	SOLVENT ID #	FINAL VOLUME	EXPIR. DATE	PREP BY	COMMENTS
8-9-13	E080913-4	548.1	10% H_2SO_4 in MeOH	H_2SO_4	E8-4-6	100 ml	MeOH	E8-54-17	1 L	8-9-14	202	
"	E080913-2	"	1 N NaOH (H_2O)	NaOH	E8-1-13	40 g	DI H_2O	NA	1 L	"	"	
"	" -3	"	10% Na_2SO_4 (V/V)	Na_2SO_4	E8-1-2	100 g	"	"	"	"	"	
8-13-13	E081313-1	8151	37% KOH	potassium Hydroxide	E08-1-14	370gx12	DIW	NA	12L	8-13-14	785	
8-14-13	E081413-1	8270, 8270 sim super 625, 1,4 Dioxane 1625 CM	10N NaOH	NaOH	E08-45-10	10 kg	DIW	NA	25L	8-14-14	785	
8-15-13	E081513-1	8270, 625 8270 sim super 8151	1:1 H_2SO_4	H_2SO_4	E08-62-14	8 L	DIW	NA	16L	8-15-14	785	
8-15-13	E081513-2	Organotins 8330	1:1 HCl	Hydrochloric Acid	E08-62-15	2.5L	DIW.	NA	5L	8-15-14	785	
8-15-13	E081513-3	8151	Acidified Na_2SO_4	Na_2SO_4 / H_2SO_4	E08-62-11 / E08-45-11	12Kg / 12 ml	Ether	E08-48-9	8L	8-15-16	785	
8-26-13	E082613-1	6N NaOH (515.1)	6N NaOH	NaOH	E08-45-10	216g	D.I. H_2O	NA	900ml	08-26-14	787	
08-26-13	E082613-2	12N H_2SO_4 (515.1)	12N H_2SO_4	H_2SO_4	E08-62-14	335ml	D.I H_2O	NA	1000ml	08-26-14	787	

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
10-8-13	E100813A	504.1 spike	504.1 Calibration Mix	E08-13-15	0.05ml	200 ppm	50ml	0.2 ppm	Methanol	E08-54-17	04-08-14	SBS	
↓	E100813B	504.1 ICV spike	Method 504.1 – Calibration stock soln	E08-03-02	0.05ml	200 ppm	50ml	0.2 ppm	Methanol	E08-54-17	04-08-14	SBS	
10-10-13	E101013A	8270 SIM super spike	PAH Mix	E08-26-9,10 E08-61-1,2,3	5ml	2000ppm	50ml	200 ppm	Acetone	E08-62-3	04-10-14	SBS	
↓	↓	↓	B/N – Mix 1	E08-61-11,12,13,14,15	5ml	2000 ppm	↓	↓	↓	↓	↓	↓	
↓	↓	↓	phenol Mix	E08-27-6,7,8,9,10	5ml	2000ppm	↓	↓	↓	↓	↓	↓	
10-14-13	E101413A	8270 SIM I.S.	SV INTERNAL STD. Mix	E08-58-15,16,17,18,19	6.25 ml	2000 ppm	50 ml	250 ppm	Chloride	E08-68-03	4-14-14	782	VERIF. BK 3 P. 33
10-16-13	E101613A	8270 Surr.	Acid Surrogate Mix	E08-55-9,25	40 ml	10,000 ppm	1000 ml	400 ppm	Acetone	E08-62-3	4-16-14	7	
↓	↓	↓	B/N ↓	E08-55-21,24 E08-65-15,16	80 ml	5000 ppm	↓	↓	↓	↓	↓	↓	
10-23-13	E102313A	organotins Surr.	Tripentyltin Chloride Mixture	E07-08-07	0.3ml	2000 ppm	600ml	1 ppm	Hexanes	E08-42-10	4-23-14	SBS	
10-23-13	E102313B	organotins I.S.	Tetra-n-propyltin	S5-33-12	0.25ml	2000ppm	100ml	5ppm	Hexanes	E08-42-10	4-23-14	SBS	
10-30-13	E103013A	8270 spike	Acid Matrix spike Mix	E08-56-1,2,3,4	20ml	10,000 ppm	200 ml	1000ppm	Acetone	E08-62-3	4-30-14	SBS	
↓	↓	↓	B/N Matrix spike Mix	E08-56-7~14	40ml	5,000 ppm	↓	↓	↓	↓	↓	↓	
↓	↓	↓	custom 625 LCS Mix	E08-59-16,17,18,19	20ml	10,000 ppm	↓	↓	↓	↓	↓	↓	
10-31-13	E103113A	8270 spike Fac	8270 Calibration Mix #1	E08-52-7,8	2.5ml	2000 ppm	25ml	200 ppm	Acetone	E08-62-3	4-31-14	SBS	
↓	↓	↓	#2	E08-52-13 E08-08-10	2.5ml	↓	↓	↓	↑	↓	↑	↓	
			#3	E08-08-19,20	2.5ml								
			#4	E08-9-10 E08-52-22	2.5ml								
↓	↓	↓	#5	E08-57-2,3	2.5ml	↓	↓	↓	↓	↓	↓	↓	
10-31-13	E103113B	1,4-Dioxane	1,4-Dioxane-d8	E7-14-2	0.1g	Neat	100 ml	1000 ppm	Acetone	~~4/30/14~~ E8-62-3	4/30/14	SBS	

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Acid Surrogate Mix	Restek	33029	A092727	01-31-21	10 ml	G	07-08-13	7	9-4-13	7	
2										9-4-13	7	
3												
4										8/29/13	449	
5										10-16-13	7	
6												
7												
8										11-8-13	7	
9	B/N Surrogate Mix		33028	A092591	11-30-18					07-31-13	7	
10												
11										8/15/13	262	
12										8/29/13	1	
13										9-4-13	7	
14												
15												
16												
17												
18												
19												
20												
21										10-16-13	7	
22												
23												
24												
25												

COMMENTS: _____

Book Number: 8

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Acid Matrix Spike Mix	Restek	31071	A094155	04-30-20	5 mL	G	07-08-13	7	10-30-13	385	
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
3												
4										↓	↓	
5												
6	↓		↓	↓	↓							
7	13/N Matrix Spike Mix		31084	A094853	04-30-16					10-30-13	385	
8	↓		↓	↓	↓					↓	↓	
9												
10												
11												
12												
13												
14										↓	↓	
15												
16												
17												
18	↓		↓	↓	↓							
19	pesticide Surrogate Mix		32457	A095091	07-31-19					11-02-13	7	
20	↓		↓	↓	↓					↓	↓	
21										11/27/13	669	
22										12-9-13	887	
23	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
24												
25												

COMMENTS: _____

Book Number: 8

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	5 V I.S. MiX	Restek	31206	A094182	02-28-19	1ml	G	07-18-13	7	10-21-13	782	
2										10-24-13	783	
3										10-24-13	783	
4										10-28-13	783	
5										10/23/13	573	
6										10-28-13	783	
7										10-28-13	783	
8										10-31-13	782	
9										11-04-13	782	
10										11-6-13	783	
11										11-6-13	783	
12										11-6-13	783	
13										11-13-13	782	
14										11-13-13	782	
15										11-15-13	783	
16	Custom 625 LCS MiX		560126	A096535	07-31-18	5ml		07-23-13	7	10-30-13	185	
17												
18												
19												
20												
21												
22												
23												
24												
25												

COMMENTS: _____

Book Number: 8

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Sodium sulfate Anhydrous	Fisher	S421-10	130197	8-2-18	10kgx6	P	8-2-13	785	8-2-13	785	
2	Methylene chloride	Fisher	D151-4	130086	8-2-16	4Lx96	G	8-2-13	785	8-2-13	785	
3	Acetone	Fisher	A929-4	132413	8-2-16	4Lx8	G	8-2-13	785	8-2-13	785	
4	Dichloromethane	EMD	DX0831-1	53151	8-6-16	4Lx60	G	8-6-13	785	8-6-13	785	
5	Methylene Chloride	Fisher	D151-4	134369	8-6-16	4Lx4	G	8-6-13	785	8-6-13	785	
6	Pentylmagnesium bromide	ALDRICH	29098 8-100ml	39196BKV	8-9-16	100ml x6	G	8-9-13	785	8-9-13	785	
7	Florisil SPE Cartridges	RESTEK	24034	930973	4-7-15	30pkx42	P	8-9-13	785	8-9-13	785	
8	Diazald	ALDRICH	D28000-5G	SHBD0389V	8-9-18	25gx10	P	8-9-13	785	8-9-13	785	
9	LC-Alumina-A SPE Cartridge	Supelco	57083-U	3661401	N/A	6mlx300	P	8-9-13	863	8-9-13	863	
10	Methylene Chloride	Fisher	D151-4	133287	8-13-16	4Lx64	G	8-13-13	785	8-13-13	785	
11	Sodium Sulfate Anhydrous	Fisher	S421-10	121758	8-13-18	10kgx2	P	8-13-13	785	8-13-13	785	
12	CarboPrep™ 90	Restek	26091	P3196	08-13-18	100gs	P	08-13-13	787	08-13-13	787	
13	Dichloromethane	EMD	DX0831-1	53151	8-14-16	4Lx60	G	8-14-13	785	8-14-13	785	
14	Sulfuric Acid	EMD	SX1247½	52116	8-15-16	2.5Lx4	G	8-15-13	785	8-15-13	785	1:1 H_2SO_4
15	Hydrochloric Acid	EMD	HX0607-2	52310	8-15-16	2.5Lx3	G	8-15-13	785	8-15-13	785	
16	Dichloromethane	EMD	DX0831-1	53151	8-27-16	4Lx60	G	8-27-13	785	8-27-13	785	
17	Acetonitrile	Fisher	A998-4	134625	8-28-16	4Lx6	G	8-28-13	785	8-28-13	785	
18	Acetone	Fish	A929-4	132413	8-28-16	4Lx12	G	8-28-13	785	8-28-13	785	
19	Dichloromethane	EMD	DX0831-1	53195	8-28-16	4Lx36	G	8-28-13	785	8-28-13	785	
20	Florisil (60-100mesh)	EMD	FX0284-5	TE04B2EMS	08-31-18	10kg	P	08-31-13	787	08-31-13	787	
21	Sodium sulfate Anhydrous	Fish	S421-10	130197	9-4-18	10kgx6	P	9-4-13	785	9-4-13	785	
22	D											
23												
24												
25												

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	8140/8141 O.P. Calibration Mix A	Restek	32277	A095110	04-30-14	1 ml	G	09-16-13	7	9/25/13	786	
2										↓	↓	
3										10-5-13	785	
4										↓	↓	
5										10-16-13	786	
6										↓	↓	
7										10-21-13	784	
8										↓	↓	
9										10-28-13	786	
10										↓	↓	
11	Acid Surrogate Mix		33029	A094809	04-30-21	10 ml				11-8-13	7	
12										↓	↓	
13										↓	↓	
14										11/30/13	4C9	
15	B/N Surrogate Mix		33028	A096425	06-30-14					10-16-13	7	
16										↓	↓	
17										↓	↓	
18										↓	↓	
19										11-8-13	7	
20										↓	↓	
21										↓	↓	
22										↓	↓	
23										↓	↓	
24										↓	↓	
25										↓	↓	

COMMENTS: _____

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Glass Microfiber Filters TCLP	GE	1810-090	9481956	NA	1 PK	P	10-2-13	785	10-2-13	785	
2	Dichloromethane	EMD	DX0831-1	53102	10-07-16	4L x 120	G	10-07-13	787	10-07-13	787	
3	"	"	"	53195	10-9-16	4L x 60 C 10/7/13	"	10-9-13	7	10-9-13	7	
4	Ethyl Ether Anhydrous	EMD	EX0184-4	53028	01-31-15	4L x 10	G	10-10-13	785	10-10-13	785	
5	Dichloromethane	EMD	DX0831-1	53195	10-14-16	4L x 60	G	10-14-13	7	10-14-13	7	
6	"	"	"	53158	"	4L x 32	"	"	"	"	"	
7	Sodium Sulfate Anhydrous	Fish	S421-10	132812	10-16-18	10Kg x 6	P	10-16-13	785	10-16-13	785	
8	Hexanes	EMD	HX-0298-1	53164	10-16-18	4L x 8	G	10-16-13	787	10-16-13	787	
9	Dichloromethane	"	DX0831-1	53195	10-21-16	4L x 60	G	10-21-13	7	10-21-13	7	
10	"	"	"	53158	"	4L x 36	"	"	"	"	"	
11	Methylene Chloride	Fish	D151-4	133287	10-25-16	4L x 40	G	10-25-13	785	10-25-13	785	
12	Ethyl Ether Anhydrous	EMD	EX0184-4	53028	01-31-15	4L x 10	G	10-25-13	785	10-25-13	785	
13	Hexanes	EMD	HX0298-1	52116	10-25-16	4L x 4	G	10-25-13	785	10-25-13	785	
14	Acetonitrile	Fisher	A998-4	135590	10-25-16	4L x 4	G	10-25-13	785	10-25-13	785	
15	Dichloromethane	EMD	DX0831-1	53195	10-28-16	4L x 60	G	10-25-13	787	10-25-13	787	
16	Dichloromethane	EMD	DX0831-1	53195	11-04-16	4L x 60	G	11-04-13	787	11-04-13	787	
17												
18												
19												
20												
21												
22												
23												
24												
25												

COMMENTS: _____

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Acetonitrile	Fisher	A99[redacted]	135092	11/1/16	4L	G	11/01/13	887	11/01/13	887	
2	Hexanes	EMD	HX0298-1	53164	11-5-16	4L x 18	G	11-5-13	585	11-5-13	585	for organizers x 18
3	Silicic Acid	Fisher	A288-500	135574	11-8-18	500g x 2	P	11-8-13	785	11-8-13	785	
4	Celite 566 Diatomaceous Earth	UCT	EC56630K	310170-AM	11-8-18	30kg	P	11-8-13	785	11-8-13	785	
5	Phase separators ps - 185 mm	Whatman	2200-185	9454685	NA	10 pks	P	11-08-13	787	11-08-13	787	
6	Dichloromethane	EMD	DX0831-1	53195	11-11-16	4L x 60	G	11-11-13	7	11-11-13	7	
7	Hexane	"	HX0298-1	53164	"	4L x 8	"	"	"	"	"	
8	Sodium Sulfate Anhydrous	Fisher	S421-10	132812	11-12-18	10kg x 2	P	11-12-13	585	11-12-13	785	
9	Sodium Sulfate Anhydrous	Fisher	S421-10	134830A	11-14-18	10kg x 4	P	11-14-13	785	11-14-13	585	
10	Sodium Hydroxide	Fisher	S318-10	130801	11-14-18	10kg x 2	P	11-14-13	585	11-14-13	585	
11	Methylene	"	D151-4	133287	11-14-16	4L x 40	G	11-14-13	7	"	7	
12	Dichloromethane	EMD	DX0831-1	53195	11-18-16	4L x 60	G	11-18-13	zum	11-18-13	zum	
13	Mercury	Sigma-Aldrich	215457-2KG	SLBB8666V	N/A	2kg	P	11-19-13	7	11-19-13 @ 11/18/13	7	
14	Methylene	Fisher	D151-4	136743	11-22-16	4L x 40	G	11-22-13	785	11-22-13	785	
15	Boiling Stone	Saint-Gobain	0919120	J114-3H037	11-22-18	450g x 6	P	11-22-13	785	11-22-13	785	
16	Dichloromethane	EMD	DX0831-1	53195	11-25-16	4L x 60	G	11-25-13	7	11-25-13	7	
17	Hexane	EMD	~~DX0298-1~~ DX0831-1 (787) 11/20/13	53164	11-25-16	4L x 8	G	11-25-13	785	11-25-13	785	
18	Dichloromethane	"	DX0831-1	53195	11-27-16	4L x 80	"	11-27-13	7	11-27-13	7	
19												
20												
21												
22												
23												
24												
25												

COMMENTS: _____

Book Number: 8

Return to Contents

EPA METHOD 8270C
SVOCs

RAW DATA

Return to Contents

EPA METHOD 8270C
SVOCs

Initial Calibration

Return to Contents

INITIAL CALIBRATION QUALITY CONTROL SUMMARY
FOR METHOD: EPA 8270C

WORK ORDER: **13-11-0697**
ICAL BATCH ID: 130911
INSTRUMENT: GC/MS SS

ANALYZED BY: 449
ICAL D/T ANALYZED: 09/11/2013 18:06
REVIEWED BY: 421
D/T REVIEWED: 10/24/2013 09:13

COMPOUND	CALIB. MODEL	1	2	3	4	5	6	7	8	9	AVG. RF	MIN. RF	%RSD	%R SD CL	R or R^2	R or R^2 CL	STATUS
N-Nitrosodimethylamine	Avg Resp		1.220	1.207	1.258	1.249	1.224	1.194	1.204		1.222	0.00	2	0-15			PASS
Aniline	Avg Resp		2.708	2.743	2.610	2.669	2.488	2.253	2.785		2.608	0.00	7	0-15			PASS
Phenol	Avg Resp		2.505	2.545	2.547	2.412	2.288	2.208	2.224		2.390	0.00	6	0-30			PASS
Bis(2-Chloroethyl) Ether	QR - Equal		1.830	1.860	1.883	1.778	1.727	1.500	1.139		2.384				0.997	r^2>=0.9	PASS
2-Chlorophenol	Avg Resp		1.697	1.725	1.742	1.698	1.673	1.667	1.662		1.695	0.00	2	0-15			PASS
1,3-Dichlorobenzene	Avg Resp		1.866	1.873	1.865	1.816	1.777	1.731	1.711		1.806	0.00	4	0-15			PASS
1,4-Dichlorobenzene	Avg Resp		1.811	1.824	1.814	1.749	1.677	1.630	1.575		1.726	0.00	6	0-30			PASS
Benzyl Alcohol	Avg Resp		1.480	1.549	1.582	1.594	1.563	1.441	1.508		1.531	0.00	4	0-15			PASS
1,2-Dichlorobenzene	Avg Resp		1.759	1.775	1.766	1.695	1.615	1.458	1.464		1.647	0.00	8	0-15			PASS
2-Methylphenol	Avg Resp		1.512	1.578	1.586	1.536	1.508	1.435	1.380		1.505	0.00	5	0-15			PASS
Bis(2-Chloroisopropyl) Ether	Avg Resp		2.193	2.205	2.195	2.067	1.966	1.847	1.759		2.033	0.00	9	0-15			PASS
3/4-Methylphenol	Avg Resp	1.712	1.706	1.718	1.720	1.718	1.694	1.637	1.591		1.687	0.00	3	0-15			PASS
N-Nitroso-di-n-propylamine	Avg Resp		1.346	1.345	1.373	1.295	1.124	1.096	1.172		1.250	0.05	9	0-15			PASS
Hexachloroethane	Avg Resp		0.674	0.685	0.703	0.665	0.597	0.578	0.567		0.639	0.00	9	0-15			PASS
Nitrobenzene	Avg Resp		0.463	0.473	0.461	0.438	0.419	0.403	0.390		0.435	0.00	7	0-15			PASS
Isophorone	Avg Resp		0.865	0.872	0.867	0.845	0.841	0.782	0.731		0.829	0.00	6	0-15			PASS
2-Nitrophenol	Avg Resp		0.203	0.213	0.206	0.205	0.198	0.201	0.196		0.203	0.00	3	0-30			PASS
2,4-Dimethylphenol	Avg Resp		0.411	0.403	0.420	0.401	0.396	0.382	0.386		0.400	0.00	3	0-15			PASS
Benzoic Acid	LR - Equal			0.131	0.186	0.249	0.276	0.287	0.291		0.304				1.000	r>=0.990	PASS
Bis(2-Chloroethoxy) Methane	Avg Resp		0.526	0.505	0.508	0.473	0.465	0.447	0.430		0.479	0.00	7	0-15			PASS
2,4-Dichlorophenol	Avg Resp		0.307	0.312	0.316	0.304	0.297	0.289	0.284		0.301	0.00	4	0-30			PASS
Naphthalene	Avg Resp		1.129	1.128	1.123	1.061	1.016	0.969	0.931		1.051	0.00	8	0-15			PASS
4-Chloroaniline	Avg Resp		0.406	0.392	0.335	0.383	0.375	0.346	0.327		0.366	0.00	8	0-15			PASS
Hexachloro-1,3-Butadiene	Avg Resp		0.194	0.191	0.192	0.181	0.175	0.166	0.159		0.180	0.00	8	0-30			PASS
4-Chloro-3-Methylphenol	Avg Resp		0.333	0.356	0.365	0.350	0.348	0.333	0.325		0.344	0.00	4	0-30			PASS
2-Methylnaphthalene	Avg Resp		0.758	0.754	0.739	0.691	0.660	0.627	0.603		0.690	0.00	9	0-15			PASS
Hexachlorocyclopentadiene	LR - Equal			0.108	0.156	0.211	0.224	0.230	0.224		0.236				1.000	r>=0.990	PASS
2,4,6-Trichlorophenol	Avg Resp		0.354	0.367	0.378	0.380	0.383	0.373	0.373		0.373	0.00	3	0-30			PASS
2,4,5-Trichlorophenol	Avg Resp		0.337	0.346	0.380	0.390	0.392	0.373	0.349		0.367	0.00	6	0-15			PASS

Return to Contents

INITIAL CALIBRATION QUALITY CONTROL SUMMARY
FOR METHOD: EPA 8270C

WORK ORDER: **13-11-0697**
ICAL BATCH ID: 130911
INSTRUMENT: GC/MS SS

ANALYZED BY: 449
ICAL D/T ANALYZED: 09/11/2013 18:06
REVIEWED BY: 421
D/T REVIEWED: 10/24/2013 09:13

COMPOUND	CALIB. MODEL	1	2	3	4	5	6	7	8	9	AVG. RF	MIN. RF	%RSD	%R SD CL	R or R^2	R or R^2 CL	STATUS
2-Chloronaphthalene	Avg Resp		1.266	1.248	1.215	1.178	1.150	1.090	1.038		1.169	0.00	7	0-15			PASS
2-Nitroaniline	Avg Resp		0.375	0.393	0.405	0.406	0.400	0.390	0.380		0.393	0.00	3	0-15			PASS
Dimethyl Phthalate	Avg Resp		1.457	1.477	1.433	1.405	1.383	1.340	1.307		1.400	0.00	4	0-15			PASS
Acenaphthylene	Avg Resp		1.994	1.968	1.893	1.791	1.724	1.609	1.548		1.790	0.00	10	0-15			PASS
3-Nitroaniline	QR - Equal		0.272	0.278	0.187	0.209	0.269	0.276	0.288		0.221				0.997	r^2>=0.9	PASS
Acenaphthene	Avg Resp		1.266	1.244	1.229	1.183	1.146	1.081	1.024		1.168	0.00	8	0-30			PASS
2,4-Dinitrophenol	QR - Equal			0.032	0.060	0.102	0.116	0.139	0.159		0.088				1.000	r^2>=0.9	PASS
4-Nitrophenol	LR - Equal		0.114	0.160	0.195	0.228	0.224	0.201	0.199		0.203				0.997	r>=0.990	PASS
Dibenzofuran	Avg Resp		1.709	1.709	1.661	1.597	1.525	1.390	1.322		1.559	0.00	10	0-15			PASS
2,4-Dinitrotoluene	Avg Resp		0.389	0.405	0.416	0.430	0.439	0.430	0.429		0.420	0.00	4	0-15			PASS
2,6-Dinitrotoluene	Avg Resp		0.703	0.721	0.736	0.719	0.714	0.709	0.729		0.719	0.00	2	0-15			PASS
Diethyl Phthalate	Avg Resp		1.421	1.407	1.377	1.351	1.305	1.219	1.141		1.317	0.00	8	0-15			PASS
4-Chlorophenyl-Phenyl Ether	QR - Equal		0.719	0.697	0.683	0.624	0.579	0.511	0.461		0.683				1.000	r^2>=0.9	PASS
Fluorene	Avg Resp		1.424	1.404	1.344	1.223	1.151	1.034	0.957		1.219	0.00	15	0-15			PASS
4-Nitroaniline	Avg Resp		0.258	0.245	0.237	0.239	0.257	0.249	0.249		0.248	0.00	3	0-15			PASS
Azobenzene	Avg Resp		0.953	0.929	0.899	0.918	0.851	0.765	0.685		0.857	0.00	11	0-15			PASS
4,6-Dinitro-2-Methylphenol	LR - Equal			0.065	0.085	0.104	0.100	0.096	0.093		0.095				0.998	r>=0.990	PASS
N-Nitrosodiphenylamine	Avg Resp		0.577	0.557	0.544	0.496	0.473	0.433	0.397		0.497	0.05	13	0-30			PASS
4-Bromophenyl-Phenyl Ether	Avg Resp		0.224	0.222	0.219	0.213	0.208	0.204	0.197		0.212	0.00	5	0-15			PASS
Hexachlorobenzene	Avg Resp		0.093	0.090	0.087	0.081	0.076	0.072	0.067		0.081	0.00	12	0-15			PASS
Pentachlorophenol	Avg Resp			0.077	0.094	0.118	0.127	0.130	0.134		0.113	0.00	20	0-30			PASS
Phenanthrene	Avg Resp		1.154	1.136	1.110	1.057	1.006	0.959	0.948		1.053	0.00	8	0-15			PASS
Anthracene	Avg Resp		1.179	1.166	1.138	1.072	1.021	0.960	0.913		1.064	0.00	10	0-15			PASS
Di-n-Butyl Phthalate	Avg Resp		1.412	1.395	1.367	1.266	1.189	1.108	1.055		1.256	0.00	11	0-15			PASS
Fluoranthene	Avg Resp		1.290	1.274	1.238	1.166	1.120	1.072	1.035		1.171	0.00	9	0-30			PASS
Benzidine	QR - Equal			0.135	0.134	0.146	0.185	0.196	0.205		0.165				0.998	r^2>=0.9	PASS
Pyrene	Avg Resp		1.429	1.398	1.366	1.283	1.235	1.198	1.178		1.298	0.00	8	0-15			PASS
Pyridine	Avg Resp		1.033	1.072	1.126	1.152	1.151	1.130	1.110		1.110	0.00	4	0-15			PASS
Butyl Benzyl Phthalate	Avg Resp		0.638	0.646	0.641	0.606	0.593	0.560	0.553		0.605	0.00	6	0-15			PASS

Return to Contents

INITIAL CALIBRATION QUALITY CONTROL SUMMARY
FOR METHOD: EPA 8270C

WORK ORDER: **13-11-0697**
ICAL BATCH ID: 130911
INSTRUMENT: GC/MS SS

ANALYZED BY: 449
ICAL D/T ANALYZED: 09/11/2013 18:06
REVIEWED BY: 421
D/T REVIEWED: 10/24/2013 09:13

COMPOUND	CALIB. MODEL	1	2	3	4	5	6	7	8	9	AVG. RF	MIN. RF	%RSD	%R SD CL	R or R^2	R or R^2 CL	STATUS
3,3'-Dichlorobenzidine	QR - Equal			0.186	0.154	0.169	0.204	0.218	0.251		0.134				0.999	r^2>=0.9	PASS
Benzo (a) Anthracene	Avg Resp		1.149	1.143	1.142	1.116	1.096	1.049	1.046		1.106	0.00	4	0-15			PASS
Bis(2-Ethylhexyl) Phthalate	Avg Resp		0.845	0.846	0.844	0.814	0.780	0.716	0.671		0.788	0.00	9	0-15			PASS
Chrysene	Avg Resp		1.050	1.055	1.055	1.032	1.022	0.999	0.970		1.026	0.00	3	0-15			PASS
Di-n-Octyl Phthalate	Avg Resp		1.268	1.300	1.327	1.316	1.271	1.192	1.201		1.268	0.00	4	0-30			PASS
Benzo (k) Fluoranthene	QR - Equal		0.792	0.806	0.857	0.722	0.633	0.554	0.475		0.795				0.999	r^2>=0.9	PASS
Benzo (b) Fluoranthene	QR - Equal		0.794	0.832	0.837	0.936	1.090	1.126	1.215		0.917				0.999	r^2>=0.9	PASS
Benzo (a) Pyrene	Avg Resp		0.644	0.670	0.701	0.728	0.728	0.703	0.700		0.696	0.00	4	0-30			PASS
Benzo (g,h,i) Perylene	Avg Resp		0.540	0.562	0.581	0.599	0.563	0.505	0.455		0.544	0.00	9	0-15			PASS
Indeno (1,2,3-c,d) Pyrene	Avg Resp		0.680	0.699	0.741	0.767	0.736	0.675	0.620		0.703	0.00	7	0-15			PASS
Dibenz (a,h) Anthracene	Avg Resp		0.564	0.583	0.626	0.657	0.637	0.586	0.543		0.599	0.00	7	0-15			PASS
1-Methylnaphthalene	Avg Resp		0.699	0.704	0.699	0.659	0.627	0.587	0.560		0.648	0.00	9	0-15			PASS
2,6-Dichlorophenol	Avg Resp		0.298	0.300	0.303	0.287	0.272	0.259	0.252		0.281	0.00	7	0-15			PASS
1,2,4-Trichlorobenzene	Avg Resp		0.361	0.360	0.353	0.340	0.334	0.316	0.305		0.338	0.00	6	0-15			PASS

Data Files:

LEVEL #	D/T ANALYZED	DATA FILE
1	09/11/2013 18:06	W:\GCMS_SS_DATA\2013\130911\11SEP016.D\11SEP016.rr
2	09/11/2013 18:32	W:\GCMS_SS_DATA\2013\130911\11SEP017.D\11SEP017.rr
3	09/11/2013 18:58	W:\GCMS_SS_DATA\2013\130911\11SEP018.D\11SEP018.rr
4	09/11/2013 19:24	W:\GCMS_SS_DATA\2013\130911\11SEP019.D\11SEP019.rr
5	09/11/2013 19:51	W:\GCMS_SS_DATA\2013\130911\11SEP020.D\11SEP020.rr
6	09/11/2013 20:17	W:\GCMS_SS_DATA\2013\130911\11SEP021.D\11SEP021.rr
7	09/11/2013 20:43	W:\GCMS_SS_DATA\2013\130911\11SEP022.D\11SEP022.rr
8	09/11/2013 21:09	W:\GCMS_SS_DATA\2013\130911\11SEP023.D\11SEP023.rr

Return to Contents

INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C

ICV WORK ORDER: **095-01-001-11153-596**
INITIAL BATCH ID: 130911
INSTRUMENT: GC/MS SS

DATA FILE: W:\GCMS_SS_DATA\2013\130911\11SEP024.D\11SEP024.rr

ANALYZED BY: 449
D/T ANALYZED:
INITIAL: 09/11/2013 18:06
ICV: 09/11/2013 21:35
REVIEWED BY: 421
D/T REVIEWED: 10/24/2013 09:13

COMPOUND	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV	ICV %D	ICV %D CL	STATUS
N-Nitrosodimethylamine	Avg Resp	0.00	1.222	1.199			2	0-20	PASS
Aniline	Avg Resp	0.00	2.608	2.539			3	0-20	PASS
Phenol	Avg Resp	0.00	2.390	2.308			3	0-20	PASS
Bis(2-Chloroethyl) Ether	QR - Equal				80.00	79.079	1	0-20	PASS
2-Chlorophenol	Avg Resp	0.00	1.695	1.687			0	0-20	PASS
1,3-Dichlorobenzene	Avg Resp	0.00	1.806	1.793			1	0-20	PASS
1,4-Dichlorobenzene	Avg Resp	0.00	1.726	1.717			1	0-20	PASS
Benzyl Alcohol	Avg Resp	0.00	1.531	1.572			-3	0-20	PASS
1,2-Dichlorobenzene	Avg Resp	0.00	1.647	1.633			1	0-20	PASS
2-Methylphenol	Avg Resp	0.00	1.505	1.518			-1	0-20	PASS
Bis(2-Chloroisopropyl) Ether	Avg Resp	0.00	2.033	1.936			4	0-20	PASS
3/4-Methylphenol	Avg Resp	0.00	1.687	1.693			0	0-20	PASS
N-Nitroso-di-n-propylamine	Avg Resp	0.05	1.250	1.131			10	0-20	PASS
Hexachloroethane	Avg Resp	0.00	0.639	0.613			4	0-20	PASS
Nitrobenzene	Avg Resp	0.00	0.435	0.420			3	0-20	PASS
Isophorone	Avg Resp	0.00	0.829	0.832			0	0-20	PASS
2-Nitrophenol	Avg Resp	0.00	0.203	0.204			0	0-20	PASS
2,4-Dimethylphenol	Avg Resp	0.00	0.400	0.391			2	0-20	PASS
Benzoic Acid	LR - Equal				80.00	80.548	-1	0-20	PASS
Bis(2-Chloroethoxy) Methane	Avg Resp	0.00	0.479	0.461			4	0-20	PASS
2,4-Dichlorophenol	Avg Resp	0.00	0.301	0.298			1	0-20	PASS
Naphthalene	Avg Resp	0.00	1.051	1.030			2	0-20	PASS
4-Chloroaniline	Avg Resp	0.00	0.366	0.377			-3	0-20	PASS
Hexachloro-1,3-Butadiene	Avg Resp	0.00	0.180	0.177			2	0-20	PASS
4-Chloro-3-Methylphenol	Avg Resp	0.00	0.344	0.347			-1	0-20	PASS
2-Methylnaphthalene	Avg Resp	0.00	0.690	0.668			3	0-20	PASS
Hexachlorocyclopentadiene	LR - Equal				80.00	74.254	7	0-20	PASS
2,4,6-Trichlorophenol	Avg Resp	0.00	0.373	0.379			-2	0-20	PASS
2,4,5-Trichlorophenol	Avg Resp	0.00	0.367	0.388			-6	0-20	PASS
2-Chloronaphthalene	Avg Resp	0.00	1.169	1.148			2	0-20	PASS

Return to Contents

INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C

ICV WORK ORDER: 095-01-001-11153-596
INITIAL BATCH ID: 130911
INSTRUMENT: GC/MS SS

DATA FILE: W:\GCMS_SS_DATA\2013\130911\11SEP024.D\11SEP024.rr

ANALYZED BY: 449
D/T ANALYZED:
INITIAL: 09/11/2013 18:06
ICV: 09/11/2013 21:35
REVIEWED BY: 421
D/T REVIEWED: 10/24/2013 09:13

COMPOUND	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV	ICV %D	ICV %D CL	STATUS
2-Nitroaniline	Avg Resp	0.00	0.393	0.393			0	0-20	PASS
Dimethyl Phthalate	Avg Resp	0.00	1.400	1.383			1	0-20	PASS
Acenaphthylene	Avg Resp	0.00	1.790	1.712			4	0-20	PASS
3-Nitroaniline	QR - Equal				80.00	82.953	-4	0-20	PASS
Acenaphthene	Avg Resp	0.00	1.168	1.139			3	0-20	PASS
2,4-Dinitrophenol	QR - Equal				80.00	87.122	-9	0-20	PASS
4-Nitrophenol	LR - Equal				80.00	85.648	-7	0-20	PASS
Dibenzofuran	Avg Resp	0.00	1.559	1.527			2	0-20	PASS
2,4-Dinitrotoluene	Avg Resp	0.00	0.420	0.435			-4	0-20	PASS
2,6-Dinitrotoluene	Avg Resp	0.00	0.719	0.719			0	0-20	PASS
Diethyl Phthalate	Avg Resp	0.00	1.317	1.302			2	0-20	PASS
4-Chlorophenyl-Phenyl Ether	QR - Equal				80.00	81.791	-2	0-20	PASS
Fluorene	Avg Resp	0.00	1.219	1.161			5	0-20	PASS
4-Nitroaniline	Avg Resp	0.00	0.248	0.242			2	0-20	PASS
Azobenzene	Avg Resp	0.00	0.857	0.865			-1	0-20	PASS
4,6-Dinitro-2-Methylphenol	**LR - Equal**				**80.00**	97.236	**-22**	0-20	**FAIL**
N-Nitrosodiphenylamine	Avg Resp	0.05	0.497	0.478			4	0-20	PASS
4-Bromophenyl-Phenyl Ether	Avg Resp	0.00	0.212	0.210			1	0-20	PASS
Hexachlorobenzene	Avg Resp	0.00	0.081	0.077			5	0-20	PASS
Pentachlorophenol	Avg Resp	0.00	0.113	0.125			-11	0-20	PASS
Phenanthrene	Avg Resp	0.00	1.053	1.013			4	0-20	PASS
Anthracene	Avg Resp	0.00	1.064	1.025			4	0-20	PASS
Di-n-Butyl Phthalate	Avg Resp	0.00	1.256	1.219			3	0-20	PASS
Fluoranthene	Avg Resp	0.00	1.171	1.129			3	0-20	PASS
Benzidine	QR - Equal				80.00	84.977	-6	0-20	PASS
Pyrene	Avg Resp	0.00	1.298	1.252			4	0-20	PASS
Pyridine	Avg Resp	0.00	1.110	1.125			-2	0-20	PASS
Butyl Benzyl Phthalate	Avg Resp	0.00	0.605	0.598			1	0-20	PASS
3,3'-Dichlorobenzidine	QR - Equal				80.00	82.612	-3	0-20	PASS
Benzo (a) Anthracene	Avg Resp	0.00	1.106	1.091			2	0-20	PASS

Return to Contents

INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C

ICV WORK ORDER: **095-01-001-11153-596**
INITIAL BATCH ID: 130911
INSTRUMENT: GC/MS SS

DATA FILE: W:\GCMS_SS_DATA\2013\130911\11SEP024.D\11SEP024.rr

ANALYZED BY: 449
D/T ANALYZED:
INITIAL: 09/11/2013 18:06
ICV: 09/11/2013 21:35
REVIEWED BY: 421
D/T REVIEWED: 10/24/2013 09:13

COMPOUND	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV	ICV %D	ICV %D CL	STATUS
Bis(2-Ethylhexyl) Phthalate	Avg Resp	0.00	0.788	0.789			0	0-20	PASS
Chrysene	Avg Resp	0.00	1.026	1.028			0	0-20	PASS
Di-n-Octyl Phthalate	Avg Resp	0.00	1.268	1.294			-2	0-20	PASS
Benzo (k) Fluoranthene	QR - Equal				80.00	68.986	14	0-20	PASS
Benzo (b) Fluoranthene	QR - Equal				80.00	79.257	1	0-20	PASS
Benzo (a) Pyrene	Avg Resp	0.00	0.696	0.713			-2	0-20	PASS
Benzo (g,h,i) Perylene	Avg Resp	0.00	0.544	0.558			-3	0-20	PASS
Indeno (1,2,3-c,d) Pyrene	Avg Resp	0.00	0.703	0.735			-5	0-20	PASS
Dibenz (a,h) Anthracene	Avg Resp	0.00	0.599	0.638			-7	0-20	PASS
1-Methylnaphthalene	Avg Resp	0.00	0.648	0.624			4	0-20	PASS
1,2,4-Trichlorobenzene	Avg Resp	0.00	0.338	0.335			1	0-20	PASS
2,6-Dichlorophenol	Avg Resp	0.00	0.281	0.274			2	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

Return to Contents

Response Factor Report GCMS_SS

Method Path : C:\MSDCHEM\1\METHODS\
Method File : BNA130911.M
Title : BNA 8270/625 CALIBRATION
Last Update : Thu Sep 12 10:01:39 2013
Response Via : Initial Calibration

Calibration Files
2.5 =11SEP016.D 5 =11SEP017.D 10 =11SEP018.D 20 =11SEP019.D 50 =11SEP020.D 80 =11SEP021.D 120 =11SEP022.D
160 =11SEP023.D

		Compound	2.5	5	10	20	50	80	120	160	Avg	%RSD	
1)	I	1,4-Dichlorobenzen...	ISTD										
2)	T	Pyridine		1.033	1.072	1.126	1.152	1.151	1.130	1.110	1.110	4	
3)	T	N-Nitrosodimethylamine		1.220	1.207	1.258	1.249	1.224	1.194	1.204	1.222	2	
4)	S	2-Fluorophenol		1.770	1.841	1.868	1.859	1.823	1.780	1.771	1.816	2	
5)	T	Aniline		2.708	2.743	2.610	2.669	2.488	2.253	2.785	2.608	7	
6)	S	Phenol-d6		2.297	2.349	2.382	2.286	2.174	2.064	2.016	2.224	6	
7)	C	Phenol		2.505	2.545	2.547	2.412	2.288	2.208	2.224	2.390	6	
8)	T	Bis(2-Chloroethyl) Ether		1.830	1.860	1.883	1.778	1.727	1.500	1.139	1.674	16	Q
9)	T	2-Chlorophenol		1.697	1.725	1.742	1.698	1.673	1.667	1.662	1.695	2	
10)	T	1,3-Dichlorobenzene		1.866	1.873	1.865	1.816	1.777	1.731	1.711	1.806	4	
11)	C	1,4-Dichlorobenzene		1.811	1.824	1.814	1.749	1.677	1.630	1.575	1.726	6	
12)	T	Benzyl Alcohol		1.480	1.549	1.582	1.594	1.563	1.441	1.508	1.531	4	
13)	T	1,2-Dichlorobenzene		1.759	1.775	1.766	1.695	1.615	1.458	1.464	1.647	8	
14)	T	2-Methylphenol		1.512	1.578	1.586	1.536	1.508	1.435	1.380	1.505	5	
15)	T	Bis(2-Chloroisopropyl) Ether		2.193	2.205	2.195	2.067	1.966	1.847	1.759	2.033	9	
16)	T	3/4-Methylphenol	1.712	1.706	1.718	1.720	1.718	1.694	1.637	1.591	1.687	3	
17)	P	N-Nitroso-di-n-propylamine		1.346	1.345	1.373	1.295	1.124	1.096	1.172	1.250	9	
18)	T	Hexachloroethane		0.674	0.685	0.703	0.665	0.597	0.578	0.567	0.639	9	
19)	I	Naphthalene-d8	ISTD										
20)	S	Nitrobenzene-d5		0.473	0.487	0.483	0.459	0.448	0.431	0.418	0.457	6	
21)	T	Nitrobenzene		0.463	0.473	0.461	0.438	0.419	0.403	0.390	0.435	7	
22)	T	Isophorone		0.865	0.872	0.867	0.845	0.841	0.782	0.731	0.829	6	
23)	C	2-Nitrophenol		0.203	0.213	0.206	0.205	0.198	0.201	0.196	0.203	3	
24)	T	2,4-Dimethylphenol		0.411	0.403	0.420	0.401	0.396	0.382	0.386	0.400	3	
25)	T	Benzoic Acid			0.131	0.186	0.249	0.276	0.287	0.291	0.237	27	L
26)	T	Bis(2-Chloroethoxy) Methane		0.526	0.505	0.508	0.473	0.465	0.447	0.430	0.479	7	
27)	C	2,4-Dichlorophenol		0.307	0.312	0.316	0.304	0.297	0.289	0.284	0.301	4	
28)	T	1,2,4-Trichlorobenzene		0.361	0.360	0.353	0.340	0.334	0.316	0.305	0.338	6	
29)	T	Naphthalene		1.129	1.128	1.123	1.061	1.016	0.969	0.931	1.051	8	
30)	T	2,6-Dichlorophenol		0.298	0.300	0.303	0.287	0.272	0.259	0.252	0.281	7	
31)	T	4-Chloroaniline		0.406	0.392	0.335	0.383	0.375	0.346	0.327	0.366	8	
32)	C	Hexachloro-1,3-Butadiene		0.194	0.191	0.192	0.181	0.175	0.166	0.159	0.180	8	
33)	C	4-Chloro-3-Methylphenol		0.333	0.356	0.365	0.350	0.348	0.333	0.325	0.344	4	
34)	T	2-Methylnaphthalene		0.758	0.754	0.739	0.691	0.660	0.627	0.603	0.690	9	
35)	T	1-Methylnaphthalene		0.699	0.704	0.699	0.659	0.627	0.587	0.560	0.648	9	
36)	I	Acenaphthene-d10	ISTD										
37)	P	Hexachlorocyclopentadiene			0.108	0.156	0.211	0.224	0.230	0.224	0.192	26	L
38)	C	2,4,6-Trichlorophenol		0.354	0.367	0.378	0.380	0.383	0.373	0.373	0.373	3	
39)	T	2,4,5-Trichlorophenol		0.337	0.346	0.380	0.390	0.392	0.373	0.349	0.367	6	
40)	T	2-Chloronaphthalene		1.266	1.248	1.215	1.178	1.150	1.090	1.038	1.169	7	
41)	S	2-Fluorobiphenyl		1.498	1.478	1.434	1.356	1.322	1.222	1.133	1.349	10	

Return to Contents

Method Path : C:\MSDCHEM\1\METHODS\
Method File : BNA130911.M
Title : BNA 8270/625 CALIBRATION

42)	T	2-Nitroaniline	0.375	0.393	0.405	0.406	0.400	0.390	0.380	0.393	3	
43)	T	Dimethyl Phthalate	1.457	1.477	1.433	1.405	1.383	1.340	1.307	1.400	4	
44)	T	Acenaphthylene	1.994	1.968	1.893	1.791	1.724	1.609	1.548	1.790	10	
45)	T	3-Nitroaniline	0.272	0.278	0.187	0.209	0.269	0.276	0.288	0.254	16	Q
46)	C	Acenaphthene	1.266	1.244	1.229	1.183	1.146	1.081	1.024	1.168	8	
47)	P	2,4-Dinitrophenol		0.032	0.060	0.102	0.116	0.139	0.159	0.101	47	Q
48)	P	4-Nitrophenol	0.114	0.160	0.195	0.228	0.224	0.201	0.199	0.189	21	L
49)	T	Dibenzofuran	1.709	1.709	1.661	1.597	1.525	1.390	1.322	1.559	10	
50)	T	2,4-Dinitrotoluene	0.389	0.405	0.416	0.430	0.439	0.430	0.429	0.420	4	
51)	T	2,6-Dinitrotoluene	0.307	0.310	0.306	0.296	0.292	0.284	0.280	0.296	4	
52)	T	Diethyl Phthalate	1.421	1.407	1.377	1.351	1.305	1.219	1.141	1.317	8	
53)	T	4-Chlorophenyl-Phenyl Ether	0.719	0.697	0.683	0.624	0.579	0.511	0.461	0.610	16	Q
54)	T	Fluorene	1.424	1.404	1.344	1.223	1.151	1.034	0.957	1.219	15	
55)	T	4-Nitroaniline	0.258	0.245	0.237	0.239	0.257	0.249	0.249	0.248	3	
56)	I	Phenanthrene-d10	ISTD									
57)	T	Azobenzene	0.953	0.929	0.899	0.918	0.851	0.765	0.685	0.857	11	
58)	T	4,6-Dinitro-2-Methylphenol		0.065	0.085	0.104	0.100	0.096	0.093	0.091	15	L
59)	C	N-Nitrosodiphenylamine	0.577	0.557	0.544	0.496	0.473	0.433	0.397	0.497	13	
60)	S	2,4,6-Tribromophenol	0.078	0.082	0.087	0.091	0.092	0.091	0.090	0.087	6	
61)	T	4-Bromophenyl-Phenyl Ether	0.224	0.222	0.219	0.213	0.208	0.204	0.197	0.212	5	
62)	T	Hexachlorobenzene	0.093	0.090	0.087	0.081	0.076	0.072	0.067	0.081	12	
63)	C	Pentachlorophenol		0.077	0.094	0.118	0.127	0.130	0.134	0.113	20	
64)	T	Phenanthrene	1.154	1.136	1.110	1.057	1.006	0.959	0.948	1.053	8	
65)	T	Anthracene	1.179	1.166	1.138	1.072	1.021	0.960	0.913	1.064	10	
66)	T	Di-n-Butyl Phthalate	1.412	1.395	1.367	1.266	1.189	1.108	1.055	1.256	11	
67)	C	Fluoranthene	1.290	1.274	1.238	1.166	1.120	1.072	1.035	1.171	9	
68)	T	Benzidine		0.135	0.134	0.146	0.185	0.196	0.205	0.167	19	Q
69)	I	Chrysene-d12	ISTD									
70)	T	Pyrene	1.429	1.398	1.366	1.283	1.235	1.198	1.178	1.298	8	
71)	S	p-Terphenyl-d14	0.998	0.975	0.970	0.938	0.913	0.877	0.874	0.935	5	
72)	T	Butyl Benzyl Phthalate	0.638	0.646	0.641	0.606	0.593	0.560	0.553	0.605	6	
73)	T	3,3'-Dichlorobenzidine		0.186	0.154	0.169	0.204	0.218	0.251	0.197	18	Q
74)	T	Benzo (a) Anthracene	1.149	1.143	1.142	1.116	1.096	1.049	1.046	1.106	4	
75)	T	Bis(2-Ethylhexyl) Phthalate	0.845	0.846	0.844	0.814	0.780	0.716	0.671	0.788	9	
76)	T	Chrysene	1.050	1.055	1.055	1.032	1.022	0.999	0.970	1.026	3	
77)	C	Di-n-Octyl Phthalate	1.268	1.300	1.327	1.316	1.271	1.192	1.201	1.268	4	
78)	T	Benzo (b) Fluoranthene	0.794	0.832	0.837	0.936	1.090	1.126	1.215	0.976	17	Q
79)	T	Benzo (k) Fluoranthene	0.792	0.806	0.857	0.722	0.633	0.554	0.475	0.691	20	Q
80)	C	Benzo (a) Pyrene	0.644	0.670	0.701	0.728	0.728	0.703	0.700	0.696	4	
81)	I	Perylene-d12	ISTD									
82)	T	Indeno (1,2,3-c,d) Pyrene	0.680	0.699	0.741	0.767	0.736	0.675	0.620	0.703	7	
83)	T	Dibenz (a,h) Anthracene	0.564	0.583	0.626	0.657	0.637	0.586	0.543	0.599	7	
84)	T	Benzo (g,h,i) Perylene	0.540	0.562	0.581	0.599	0.563	0.505	0.455	0.544	9	

(#) = Out of Range

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP024.D
Acq On : 11 Sep 2013 9:35 pm
Operator : 449
Sample : ICV S071913W 80PPM BNA
InstName : GCMS SS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 12 11:57:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 10:01:39 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0	89	0.00
2	T	Pyridine	1.110	1.125	-1	87	0.00
3	T	N-Nitrosodimethylamine	1.222	1.199	2	88	0.00
4	S	2-Fluorophenol	1.816	1.834	-1	90	0.00
5	T	Aniline	2.608	2.539	3	91	0.00
6	S	Phenol-d6	2.224	2.198	1	90	0.00
7	C	Phenol	2.390	2.308	3	90	0.00
8	T	Bis(2-Chloroethyl) Ether	1.674	1.706	-2	88	0.00
9	T	2-Chlorophenol	1.695	1.687	0	90	0.00
10	T	1,3-Dichlorobenzene	1.806	1.793	1	90	0.00
11	C	1,4-Dichlorobenzene	1.726	1.717	1	92	0.00
12	T	Benzyl Alcohol	1.531	1.572	-3	90	0.00
13	T	1,2-Dichlorobenzene	1.647	1.633	1	90	0.00
14	T	2-Methylphenol	1.505	1.518	-1	90	0.00
15	T	Bis(2-Chloroisopropyl) Ethe	2.033	1.936	5	88	0.00
16	T	3/4-Methylphenol	1.687	1.693	0	89	0.00
17	P	N-Nitroso-di-n-propylamine	1.250	1.131	10	90	0.00
18	T	Hexachloroethane	0.639	0.613	4	92	0.00
19	I	Naphthalene-d8	1.000	1.000	0	89	0.00
20	S	Nitrobenzene-d5	0.457	0.444	3	88	0.00
21	T	Nitrobenzene	0.435	0.420	3	90	0.00
22	T	Isophorone	0.829	0.832	0	88	0.00
23	C	2-Nitrophenol	0.203	0.204	0	92	0.00
24	T	2,4-Dimethylphenol	0.400	0.391	2	88	0.00
25	T	Benzoic Acid	0.237	0.278	-17	90	0.00
26	T	Bis(2-Chloroethoxy) Methane	0.479	0.461	4	89	0.00
27	C	2,4-Dichlorophenol	0.301	0.298	1	90	0.00
28	T	1,2,4-Trichlorobenzene	0.338	0.335	1	90	0.00
29	T	Naphthalene	1.051	1.030	2	90	0.00
30	T	2,6-Dichlorophenol	0.281	0.274	2	90	0.00
31	T	4-Chloroaniline	0.366	0.377	-3	90	0.00
32	C	Hexachloro-1,3-Butadiene	0.180	0.177	2	90	0.00
33	C	4-Chloro-3-Methylphenol	0.344	0.347	-1	89	0.00
34	T	2-Methylnaphthalene	0.690	0.668	3	90	0.00
35	T	1-Methylnaphthalene	0.648	0.624	4	89	0.00
36	I	Acenaphthene-d10	1.000	1.000	0	91	0.00
37	P	Hexachlorocyclopentadiene	0.192	0.203	-6	82	0.00
38	C	2,4,6-Trichlorophenol	0.373	0.379	-2	90	0.00
39	T	2,4,5-Trichlorophenol	0.367	0.388	-6	90	0.00
40	T	2-Chloronaphthalene	1.169	1.148	2	90	0.00
41	S	2-Fluorobiphenyl	1.349	1.310	3	90	0.00
42	T	2-Nitroaniline	0.393	0.393	0	89	0.00
43	T	Dimethyl Phthalate	1.400	1.383	1	91	0.00
44	T	Acenaphthylene	1.790	1.712	4	90	0.00
45	T	3-Nitroaniline	0.254	0.265	-4	89	0.00
46	C	Acenaphthene	1.168	1.139	2	90	0.00
47	P	2,4-Dinitrophenol	0.101	0.132	-31#	103	0.00
48	P	4-Nitrophenol	0.189	0.219	-16	89	0.00
49	T	Dibenzofuran	1.559	1.527	2	91	0.00
50	T	2,4-Dinitrotoluene	0.420	0.435	-4	90	0.00
51	T	2,6-Dinitrotoluene	0.296	0.290	2	90	0.00

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP024.D
Acq On : 11 Sep 2013 9:35 pm
Operator : 449
Sample : ICV S071913W 80PPM BNA
InstName : GCMS SS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 12 11:57:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 10:01:39 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

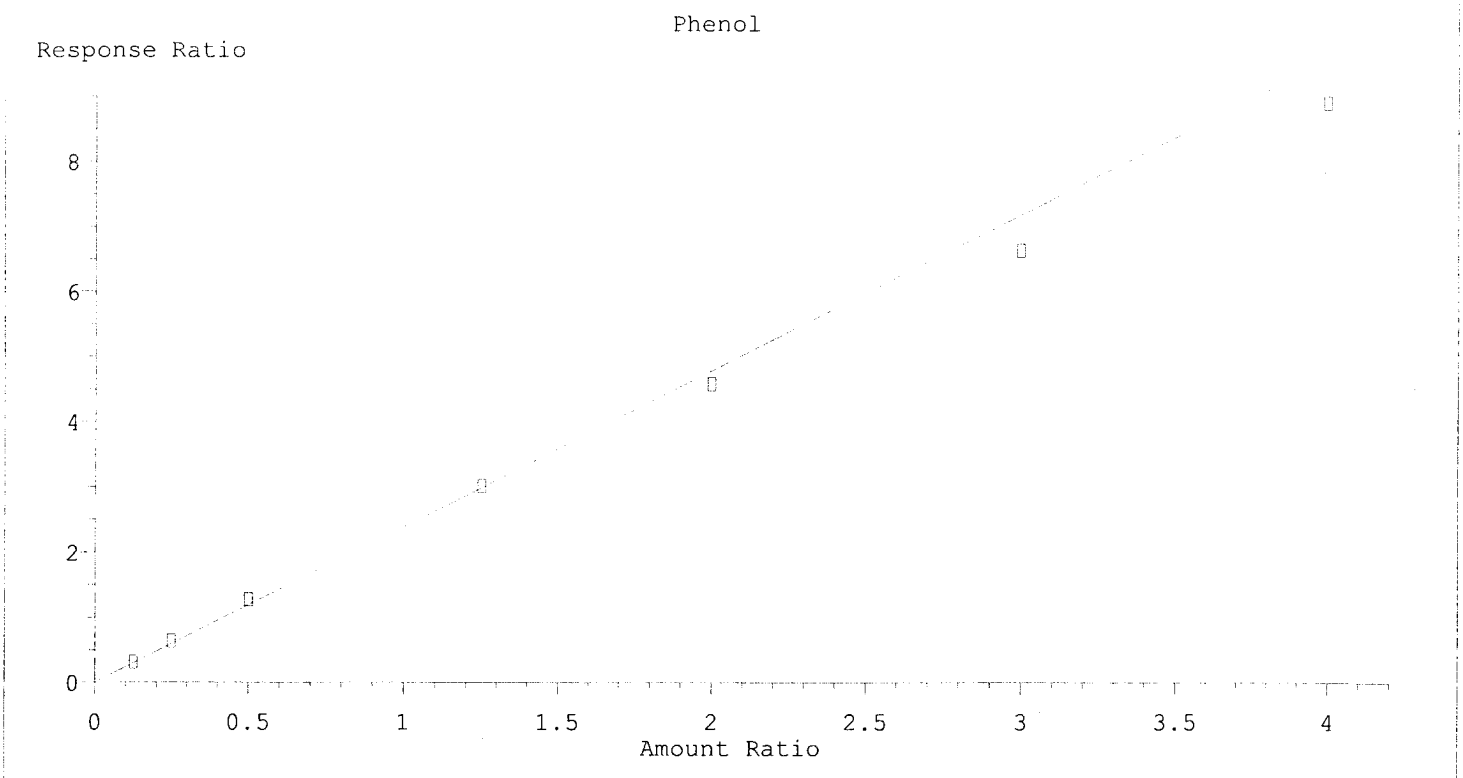
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	T	Diethyl Phthalate	1.317	1.302	1	90	0.00
53	T	4-Chlorophenyl-Phenyl Ether	0.610	0.585	4	92	0.00
54	T	Fluorene	1.219	1.161	5	91	0.00
55	T	4-Nitroaniline	0.248	0.242	2	85	0.00
56	I	Phenanthrene-d10	1.000	1.000	0	89	0.00
57	T	Azobenzene	0.857	0.865	-1	91	0.00
58	T	4,6-Dinitro-2-Methylphenol	0.091	0.116	-27#	104	0.00
59	C	N-Nitrosodiphenylamine	0.497	0.478	4	90	0.00
60	S	2,4,6-Tribromophenol	0.087	0.091	-5	88	0.00
61	T	4-Bromophenyl-Phenyl Ether	0.212	0.210	1	90	0.00
62	T	Hexachlorobenzene	0.081	0.077	5	90	0.00
63	C	Pentachlorophenol	0.113	0.125	-11	88	0.00
64	T	Phenanthrene	1.053	1.013	4	90	0.00
65	T	Anthracene	1.064	1.025	4	89	0.00
66	T	Di-n-Butyl Phthalate	1.256	1.219	3	91	0.00
67	C	Fluoranthene	1.171	1.129	4	90	0.00
68	T	Benzidine	0.167	0.192	-15	92	0.00
69	I	Chrysene-d12	1.000	1.000	0	89	0.00
70	T	Pyrene	1.298	1.252	4	90	0.00
71	S	p-Terphenyl-d14	0.935	0.927	1	90	0.00
72	T	Butyl Benzyl Phthalate	0.605	0.598	1	90	0.00
73	T	3,3'-Dichlorobenzidine	0.197	0.203	-3	89	0.00
74	T	Benzo (a) Anthracene	1.106	1.091	1	88	0.00
75	T	Bis(2-Ethylhexyl) Phthalate	0.788	0.789	0	90	0.00
76	T	Chrysene	1.026	1.028	0	89	0.00
77	C	Di-n-Octyl Phthalate	1.268	1.294	-2	90	0.00
78	T	Benzo (b) Fluoranthene	0.976	1.041	-7	85	0.00
79	T	Benzo (k) Fluoranthene	0.691	0.574	17	81	0.00
80	C	Benzo (a) Pyrene	0.696	0.713	-2	87	0.00
81	I	Perylene-d12	1.000	1.000	0	86	0.00
82	T	Indeno (1,2,3-c,d) Pyrene	0.703	0.735	-5	86	0.00
83	T	Dibenz (a,h) Anthracene	0.599	0.638	-7	86	0.00
84	T	Benzo (g,h,i) Perylene	0.544	0.558	-3	85	0.00

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

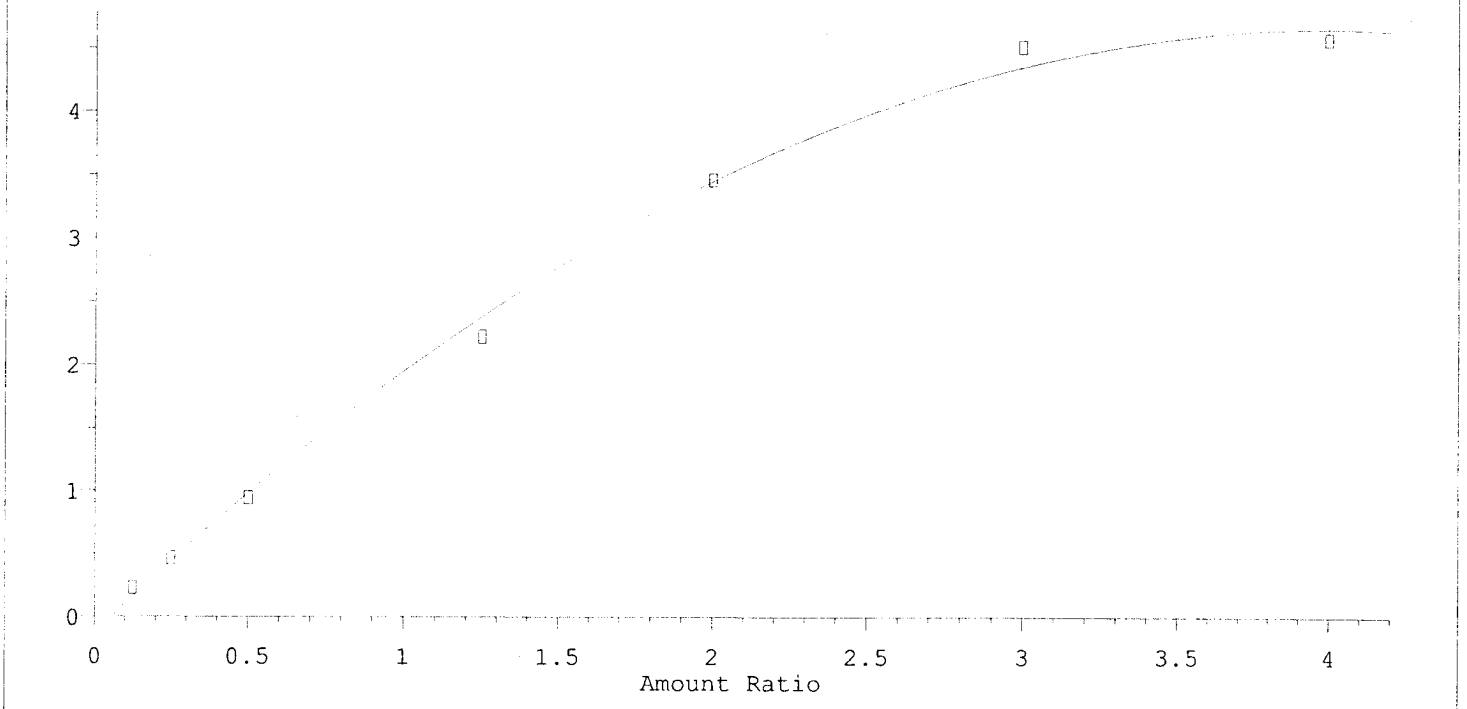
Return to Contents

Phenol



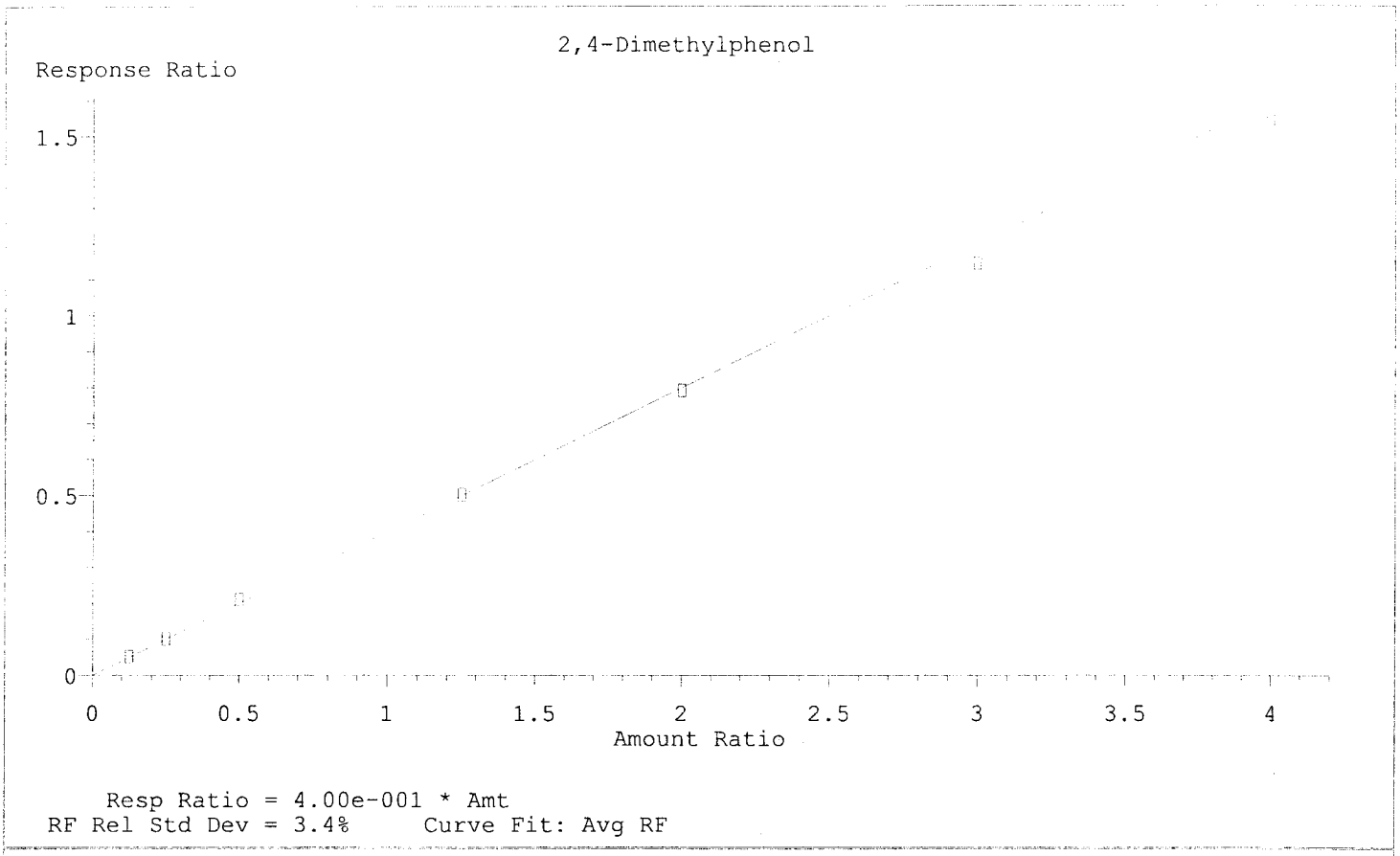
Resp Ratio = 2.39e+000 * Amt
RF Rel Std Dev = 6.2% Curve Fit: Avg RF

Bis(2-Chloroethyl) Ether

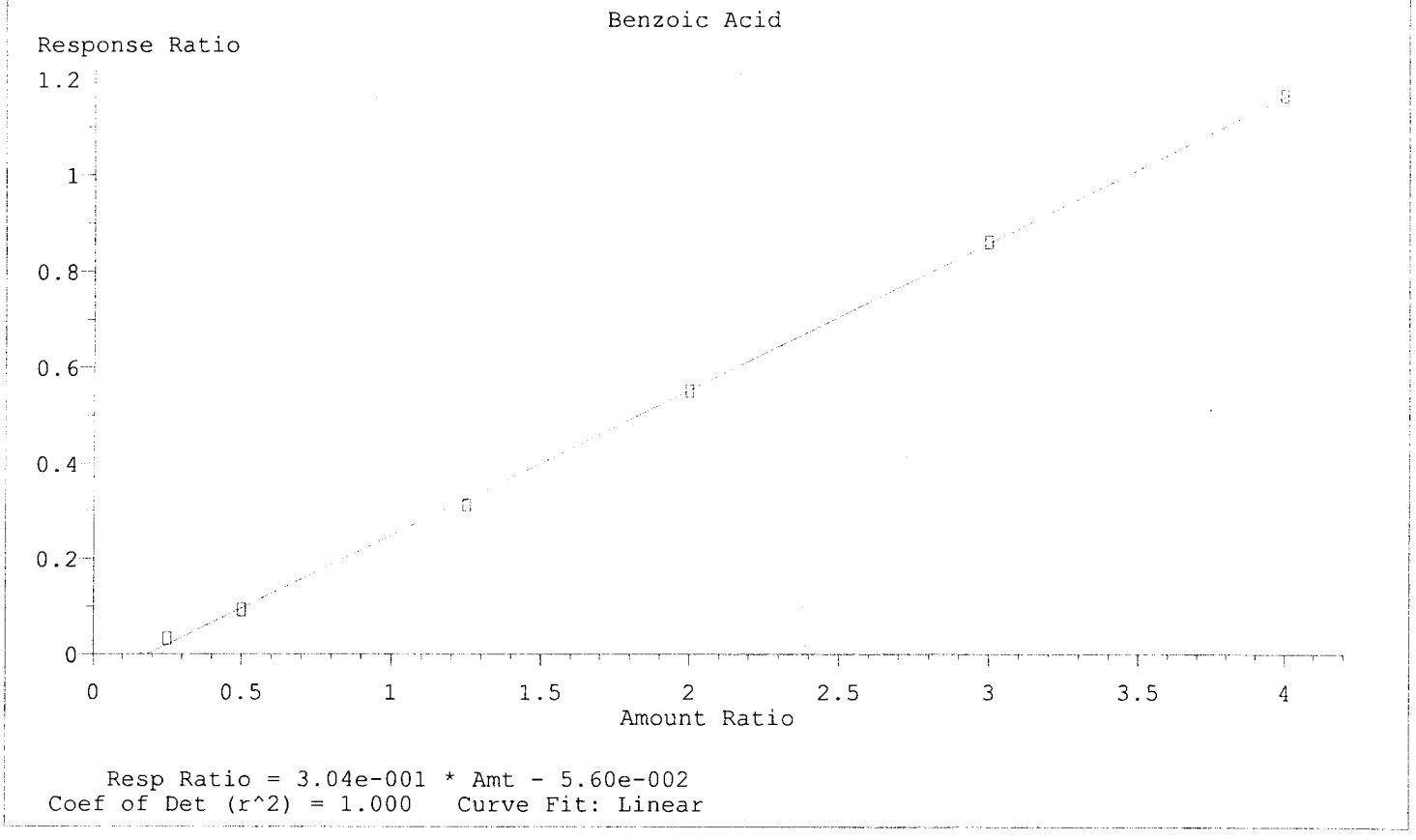


R = -2.98e-001 A*A + 2.38e+000 A - 1.37e-001
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic

Return to Contents



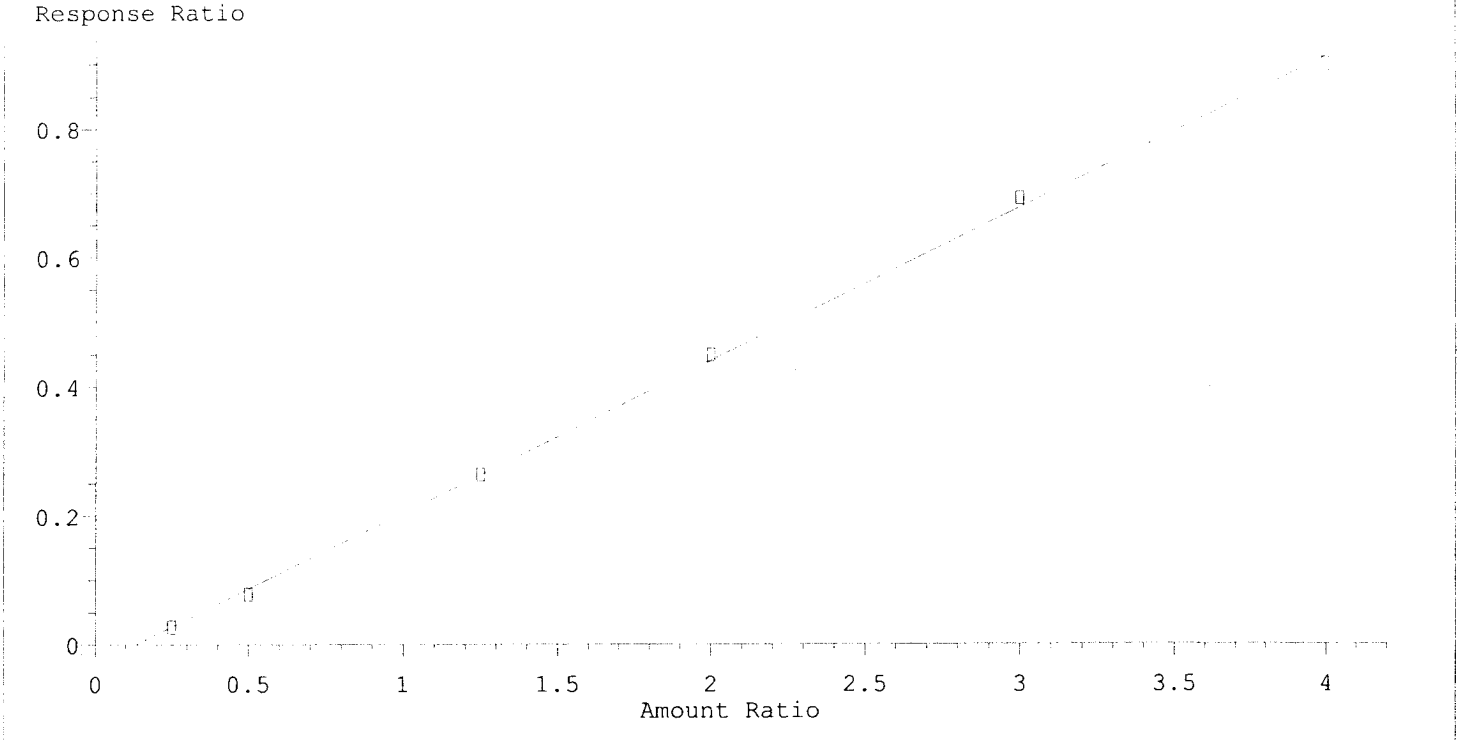
Resp Ratio = 4.00e-001 * Amt
RF Rel Std Dev = 3.4% Curve Fit: Avg RF



Resp Ratio = 3.04e-001 * Amt - 5.60e-002
Coef of Det (r^2) = 1.000 Curve Fit: Linear

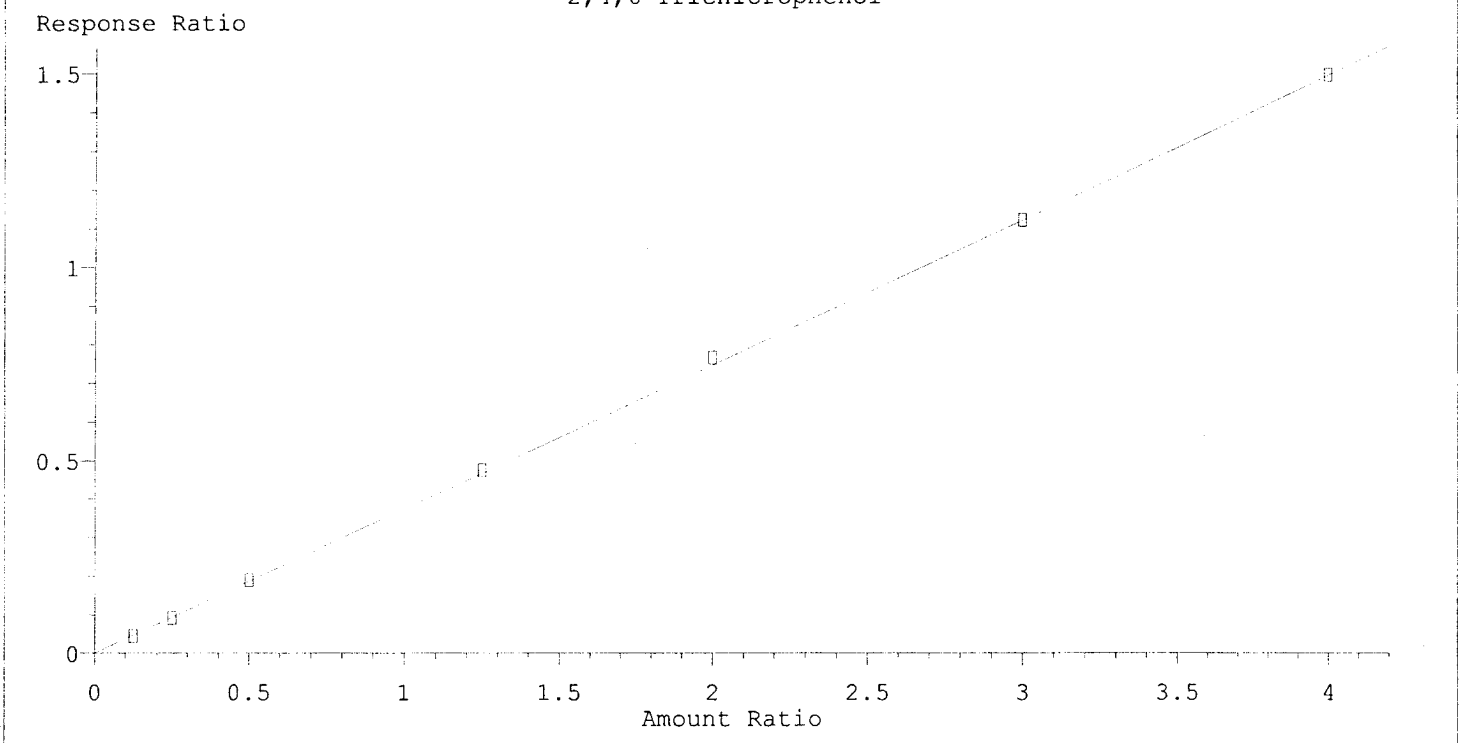
Return to Contents

Hexachlorocyclopentadiene



Resp Ratio = 2.36e-001 * Amt - 3.14e-002
Coef of Det (r^2) = 0.999 Curve Fit: Linear

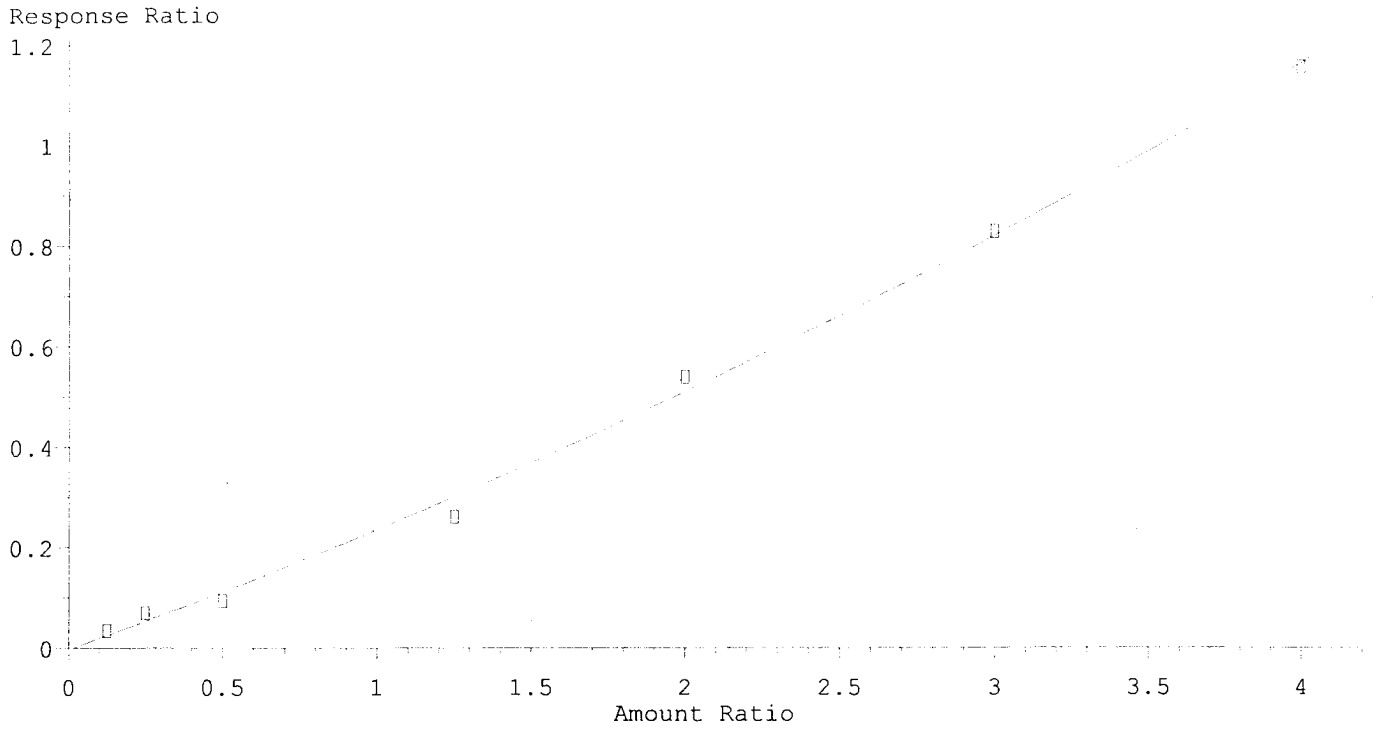
2,4,6-Trichlorophenol



Resp Ratio = 3.73e-001 * Amt
RF Rel Std Dev = 2.6% Curve Fit: Avg RF

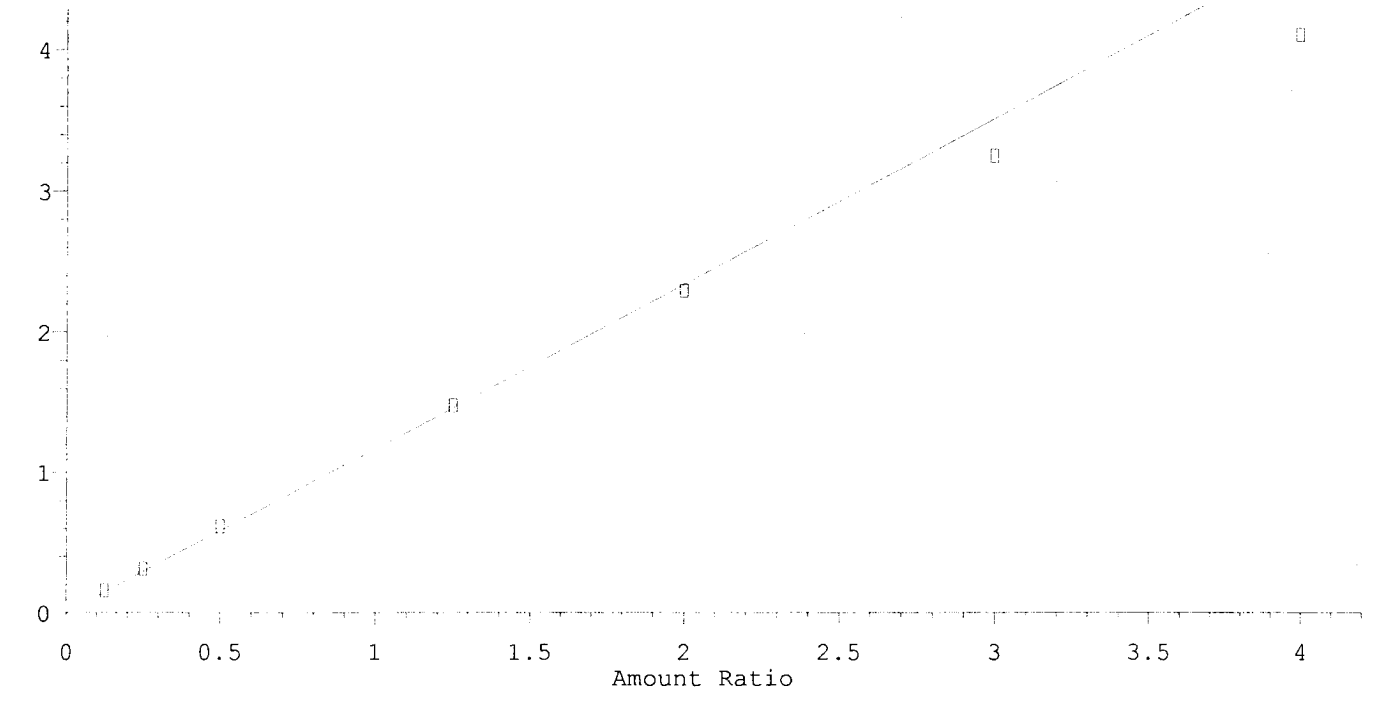
Return to Contents

3-Nitroaniline



R = 1.75e-002 A*A + 2.21e-001 A - 3.83e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic

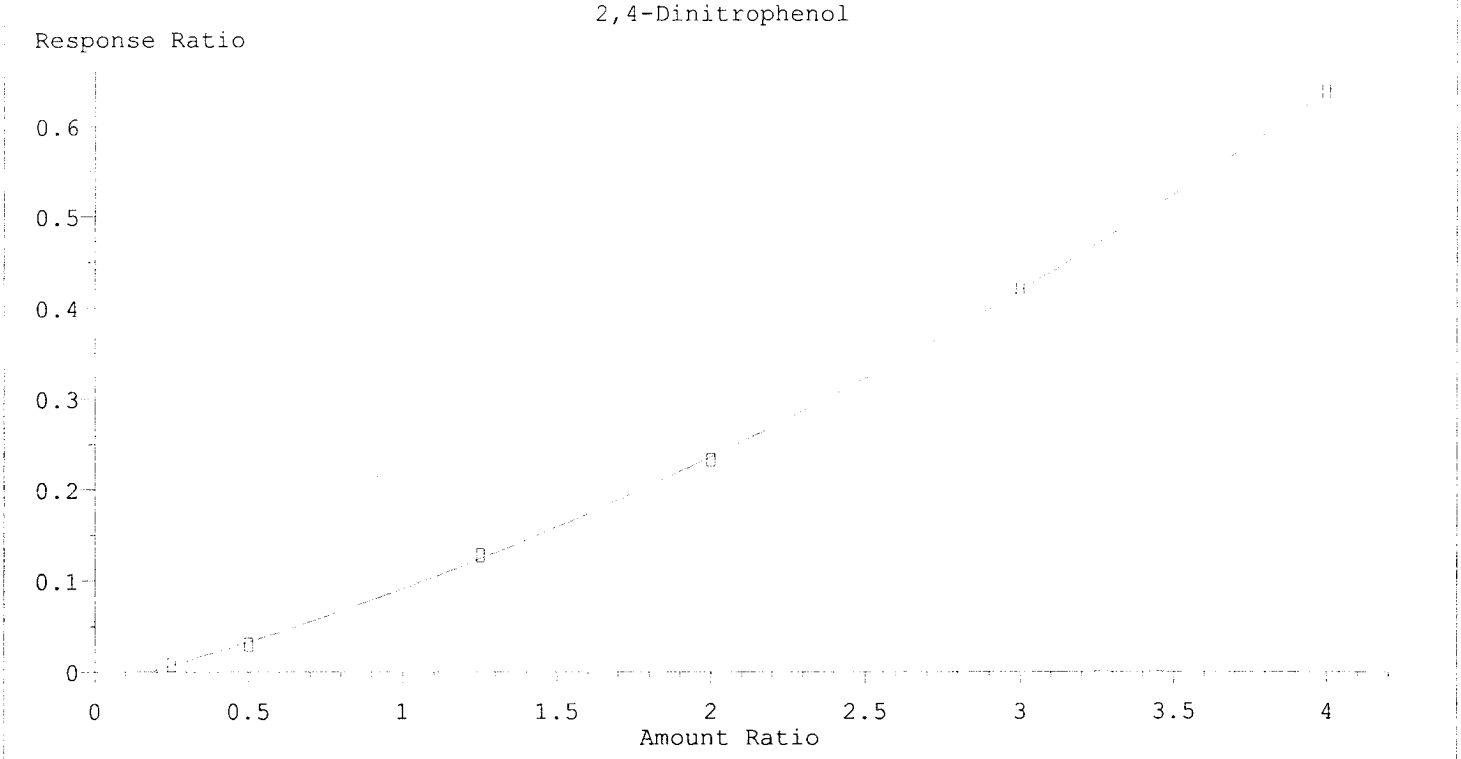
Acenaphthene



Resp Ratio = 1.17e+000 * Amt
RF Rel Std Dev = 7.7% Curve Fit: Avg RF

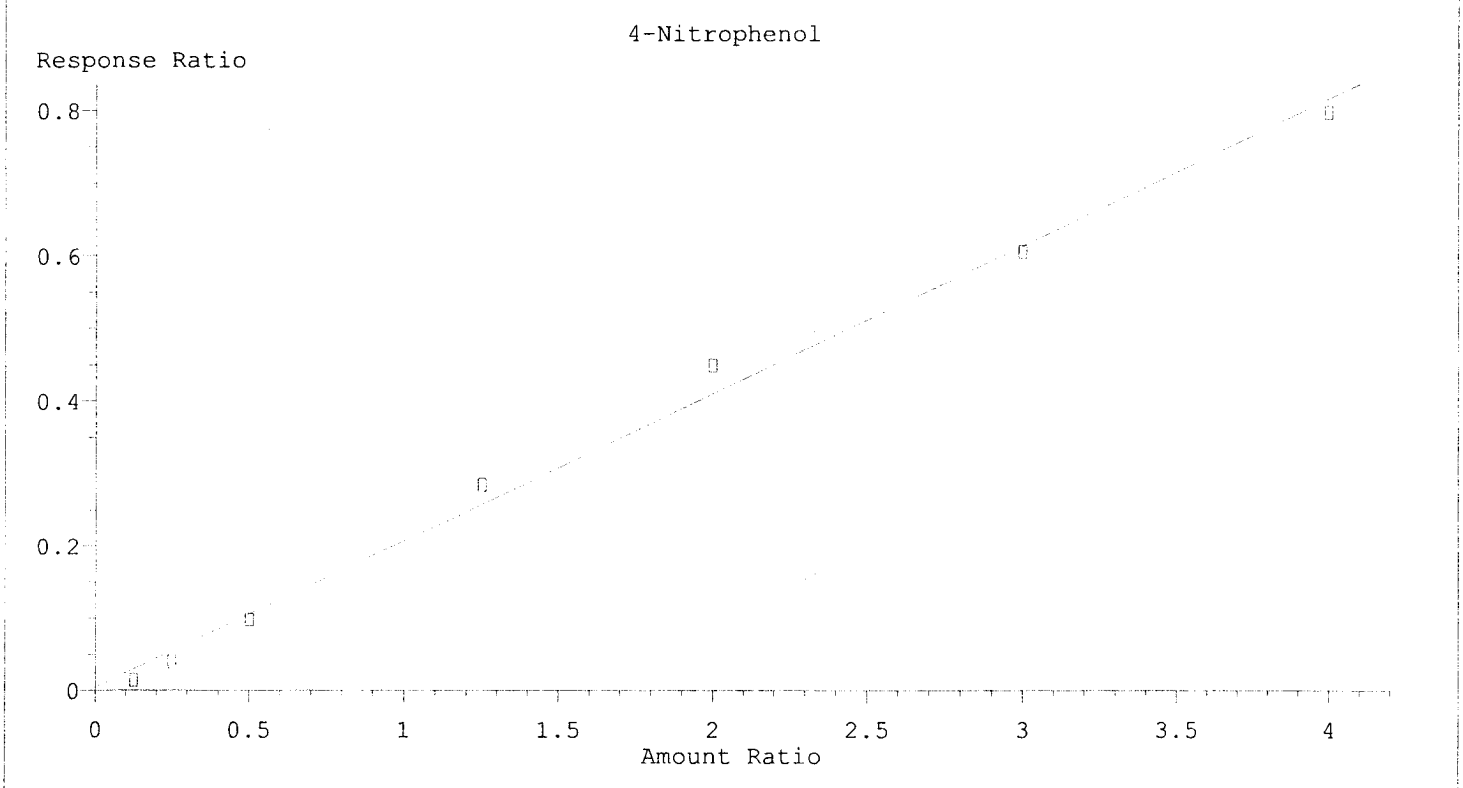
Return to Contents

2,4-Dinitrophenol



R = 1.88e-002 A*A + 8.82e-002 A - 1.62e-002
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic

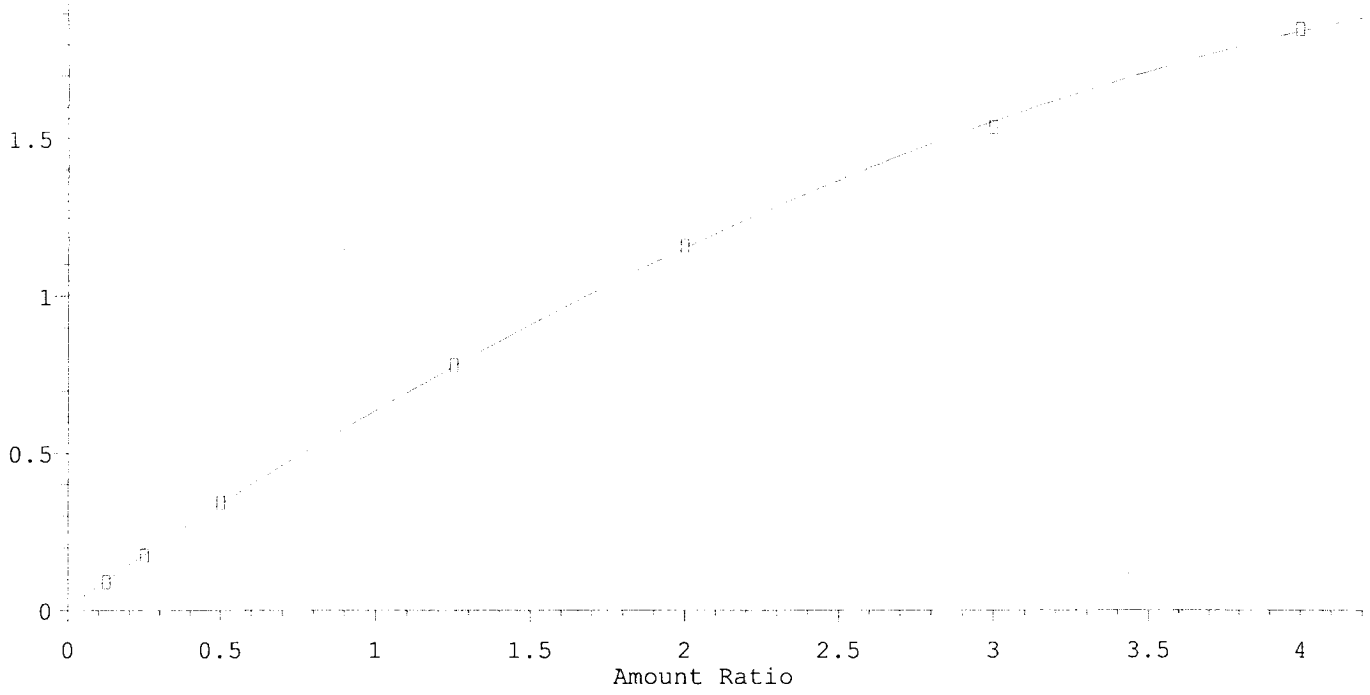
4-Nitrophenol



Resp Ratio = 2.03e-001 * Amt + 4.25e-003
Coef of Det (r^2) = 0.994 Curve Fit: Linear

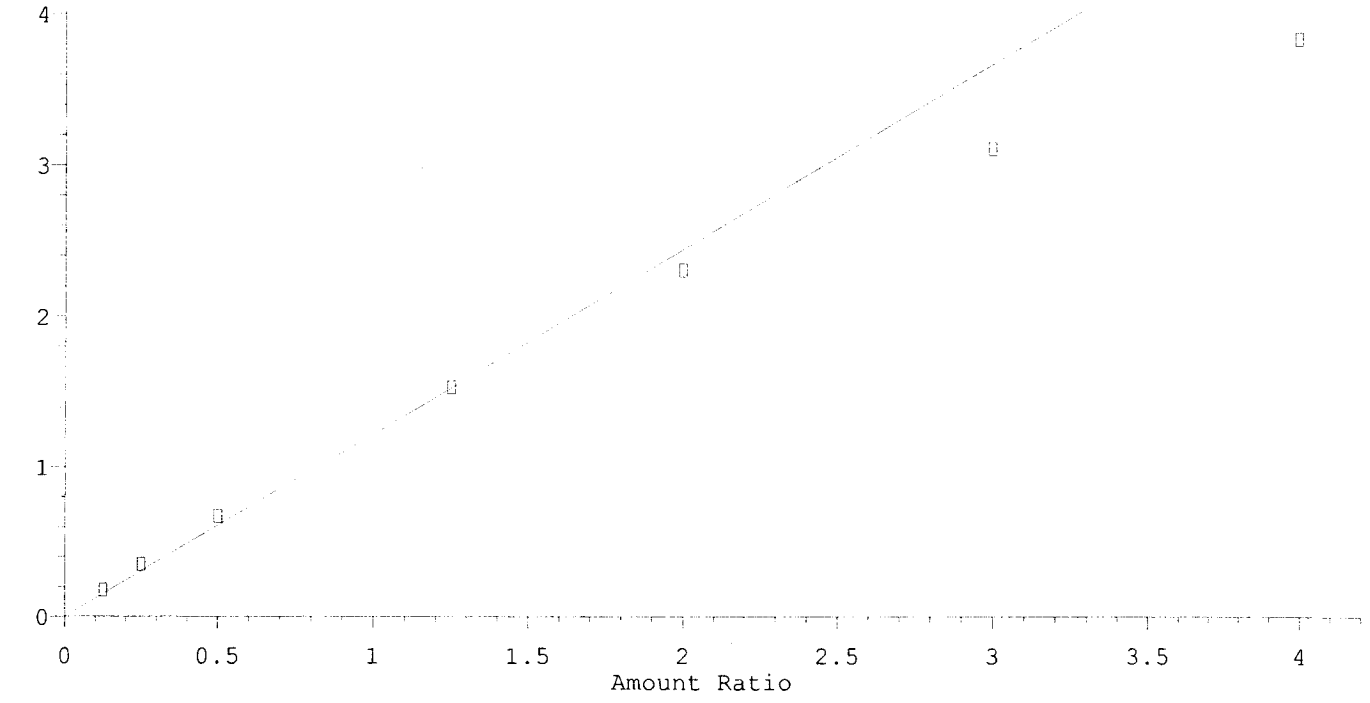
Return to Contents

4-Chlorophenyl-Phenyl Ether



R = -5.67e-002 A*A + 6.83e-001 A + 9.59e-003
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic

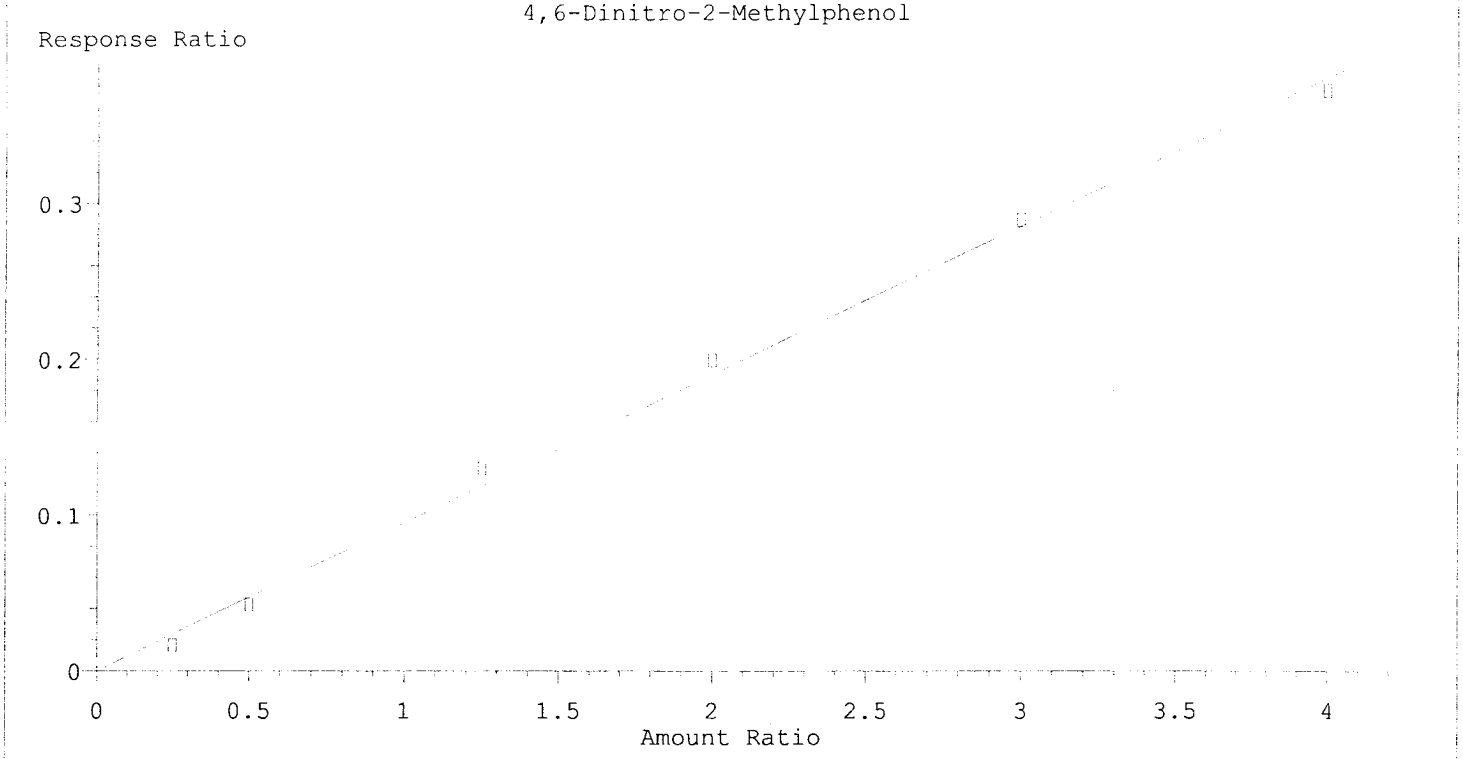
Fluorene



Resp Ratio = 1.22e+000 * Amt
RF Rel Std Dev = 15.0% Curve Fit: Avg RF

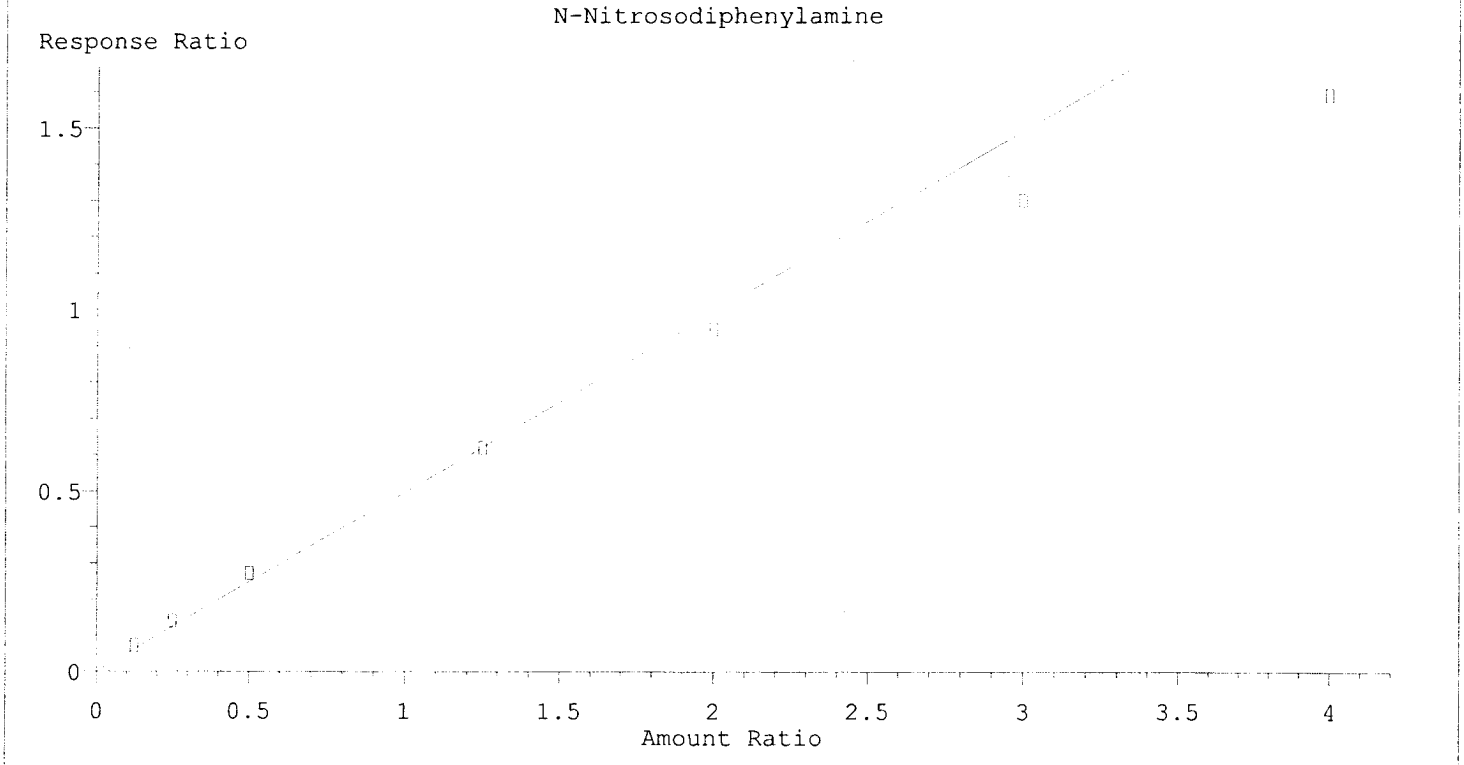
Return to Contents

4,6-Dinitro-2-Methylphenol



Resp Ratio = 9.52e-002 * Amt + 4.67e-004
Coef of Det (r^2) = 0.996 Curve Fit: Linear

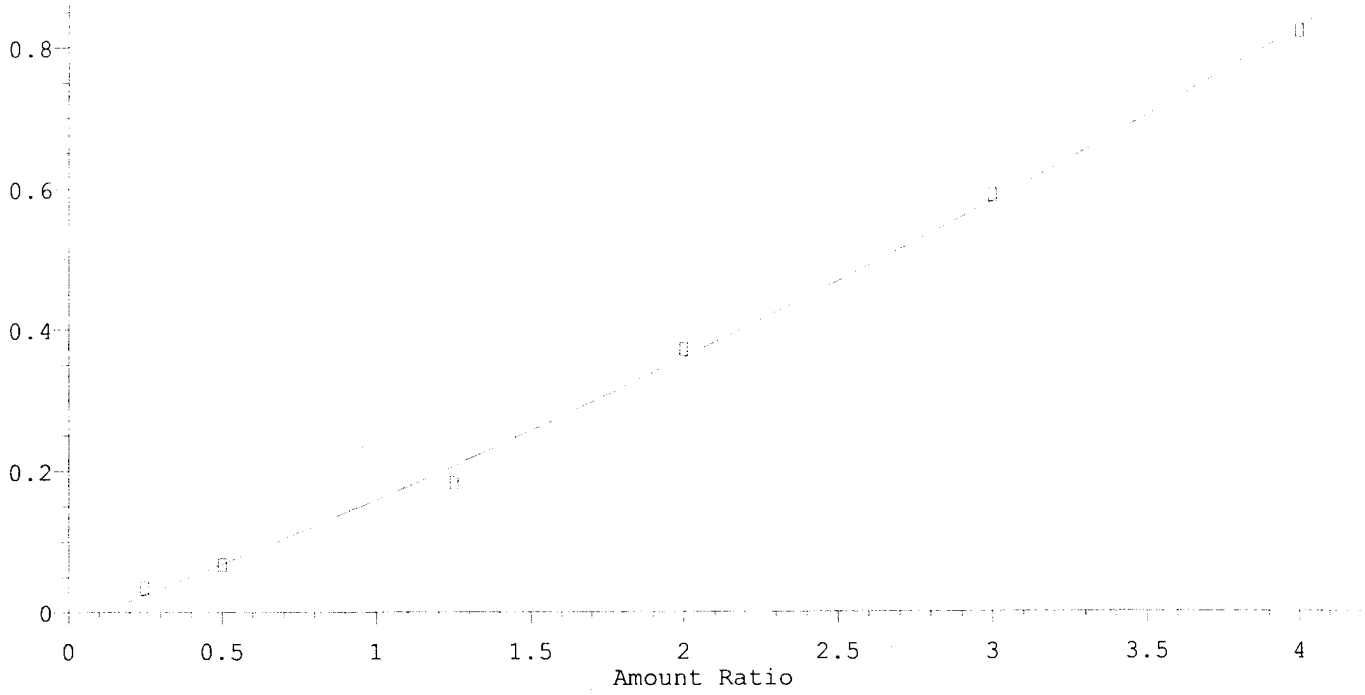
N-Nitrosodiphenylamine



Resp Ratio = 4.97e-001 * Amt
RF Rel Std Dev = 13.4% Curve Fit: Avg RF

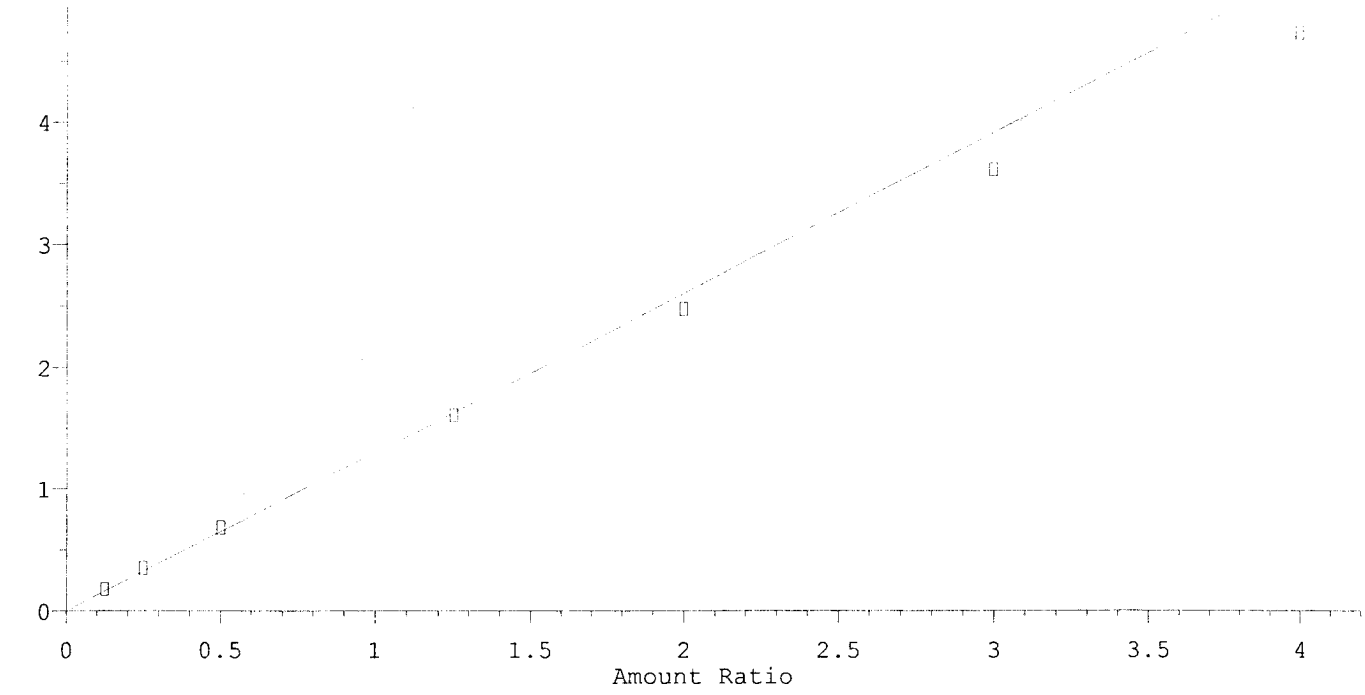
Return to Contents

Benzidine



R = 1.15e-002 A*A + 1.65e-001 A - 1.78e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic

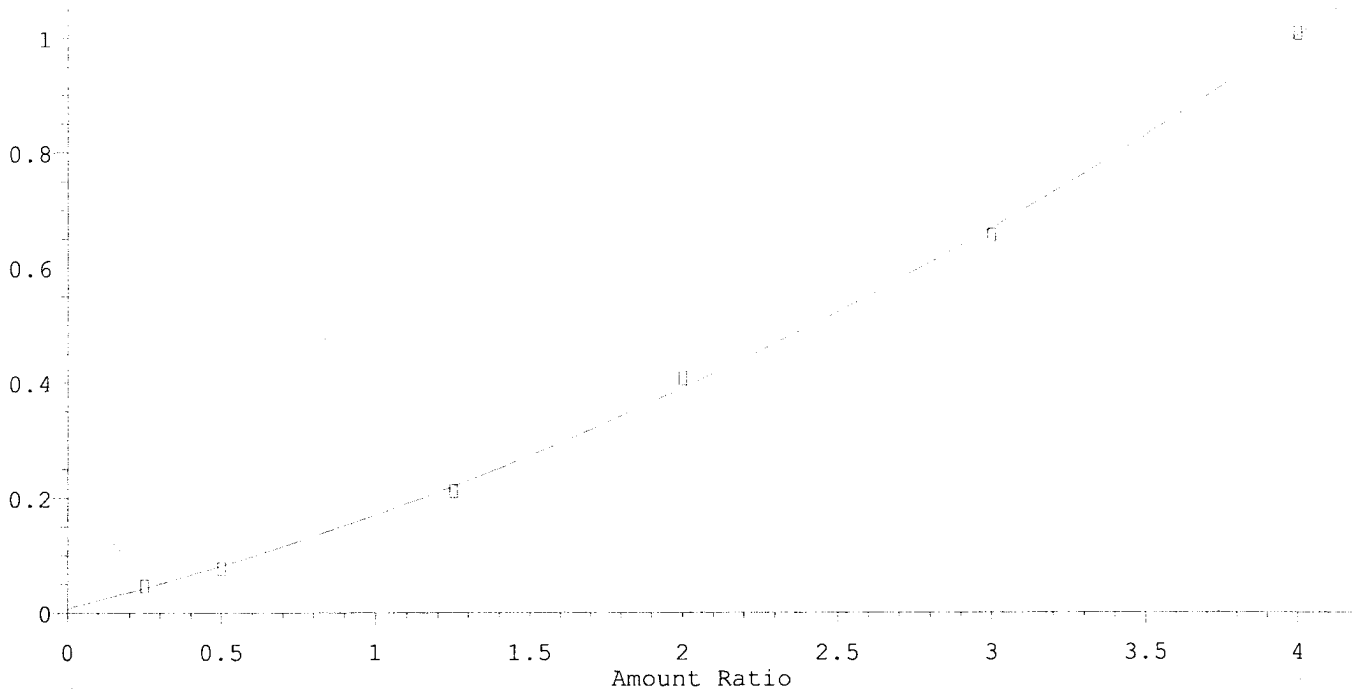
Pyrene



Resp Ratio = 1.30e+000 * Amt
RF Rel Std Dev = 7.7% Curve Fit: Avg RF

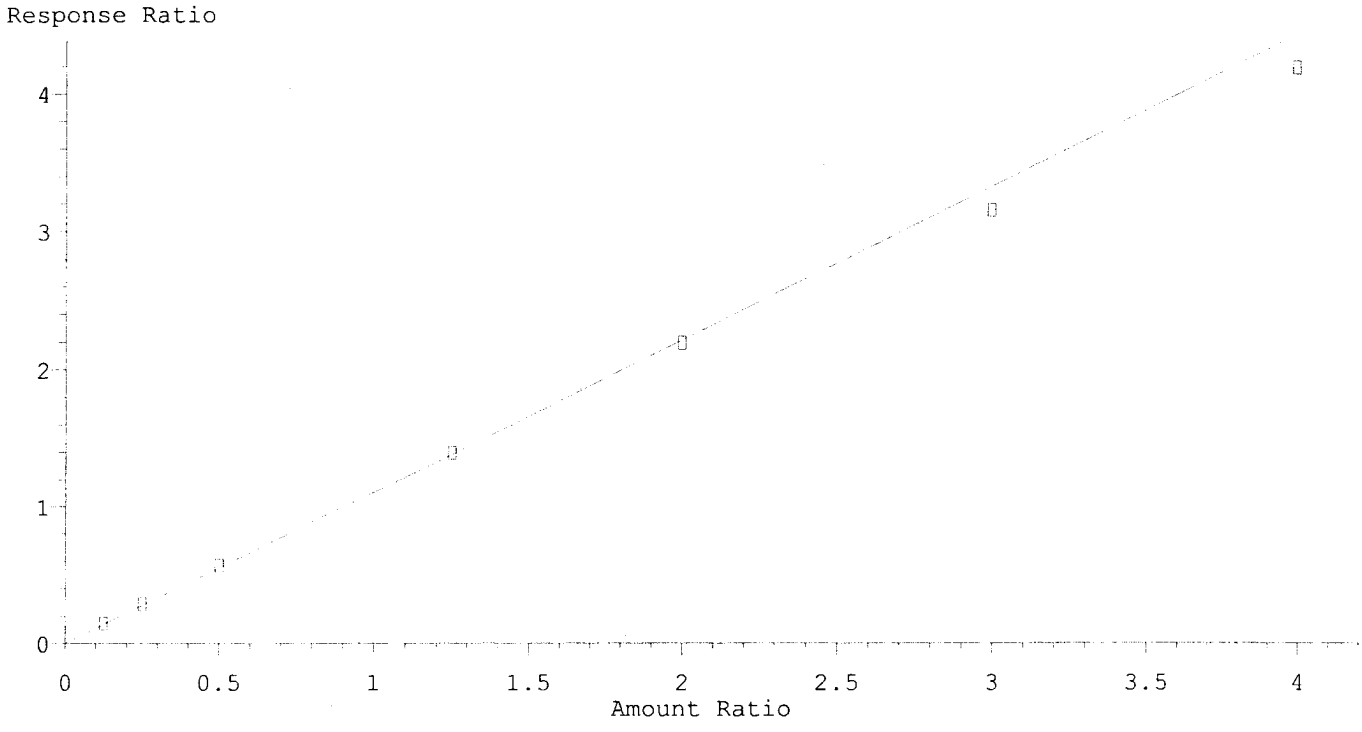
Return to Contents

3,3'-Dichlorobenzidine



R = 2.87e-002 A*A + 1.34e-001 A + 7.19e-003
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic

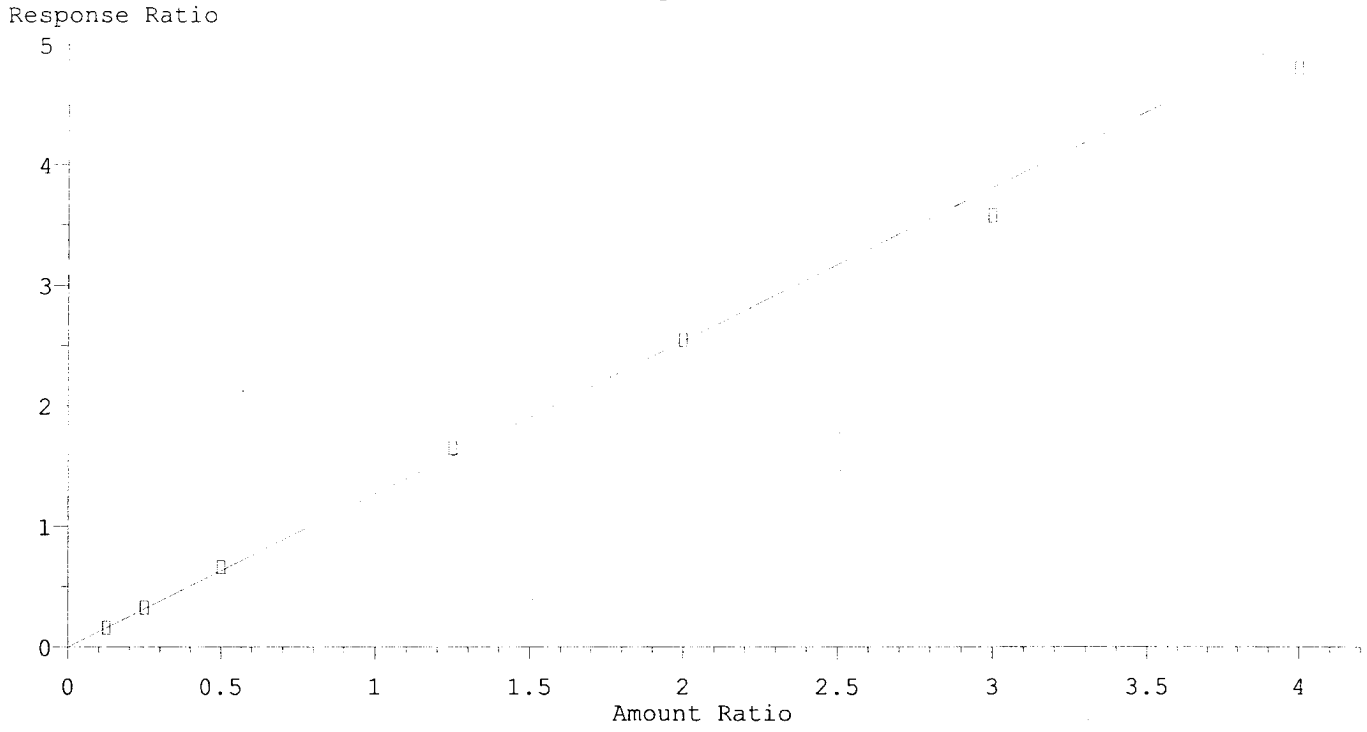
Benzo (a) Anthracene



Resp Ratio = 1.11e+000 * Amt
RF Rel Std Dev = 4.0% Curve Fit: Avg RF

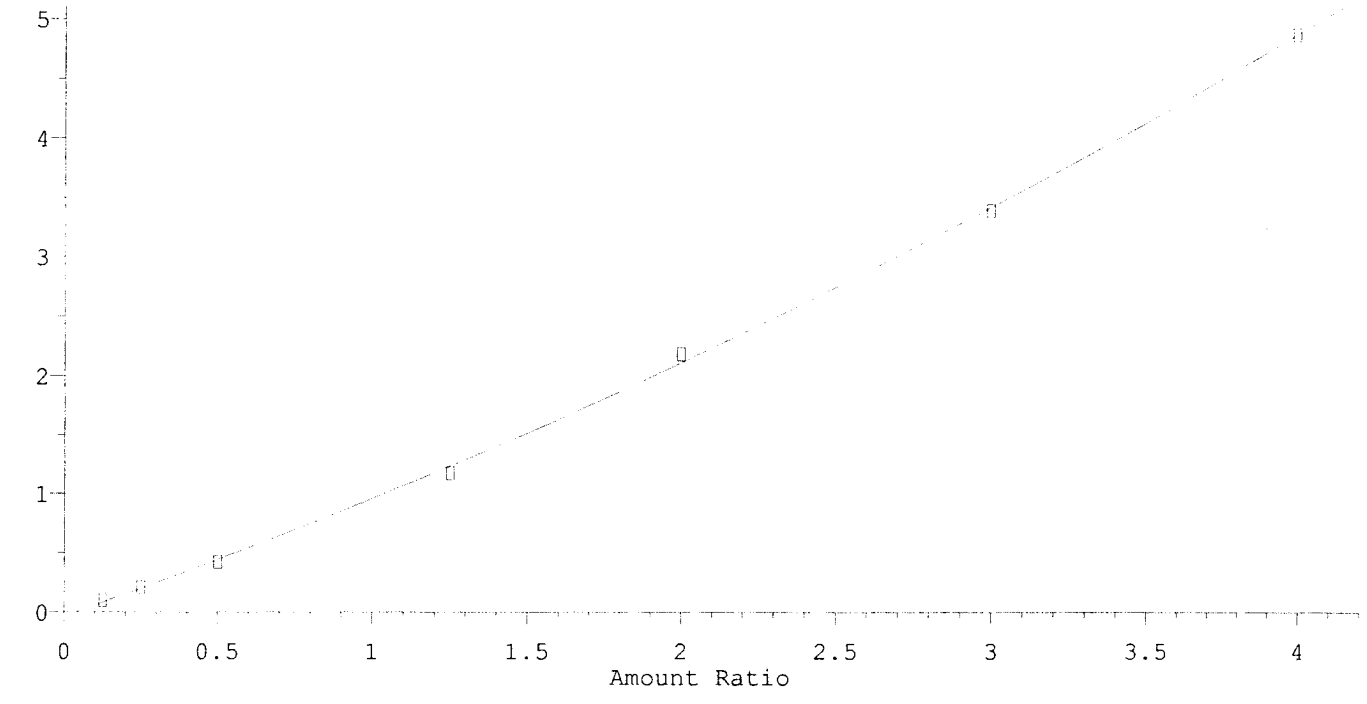
Return to Contents

Di-n-Octyl Phthalate



Resp Ratio = 1.27e+000 * Amt
RF Rel Std Dev = 4.2% Curve Fit: Avg RF

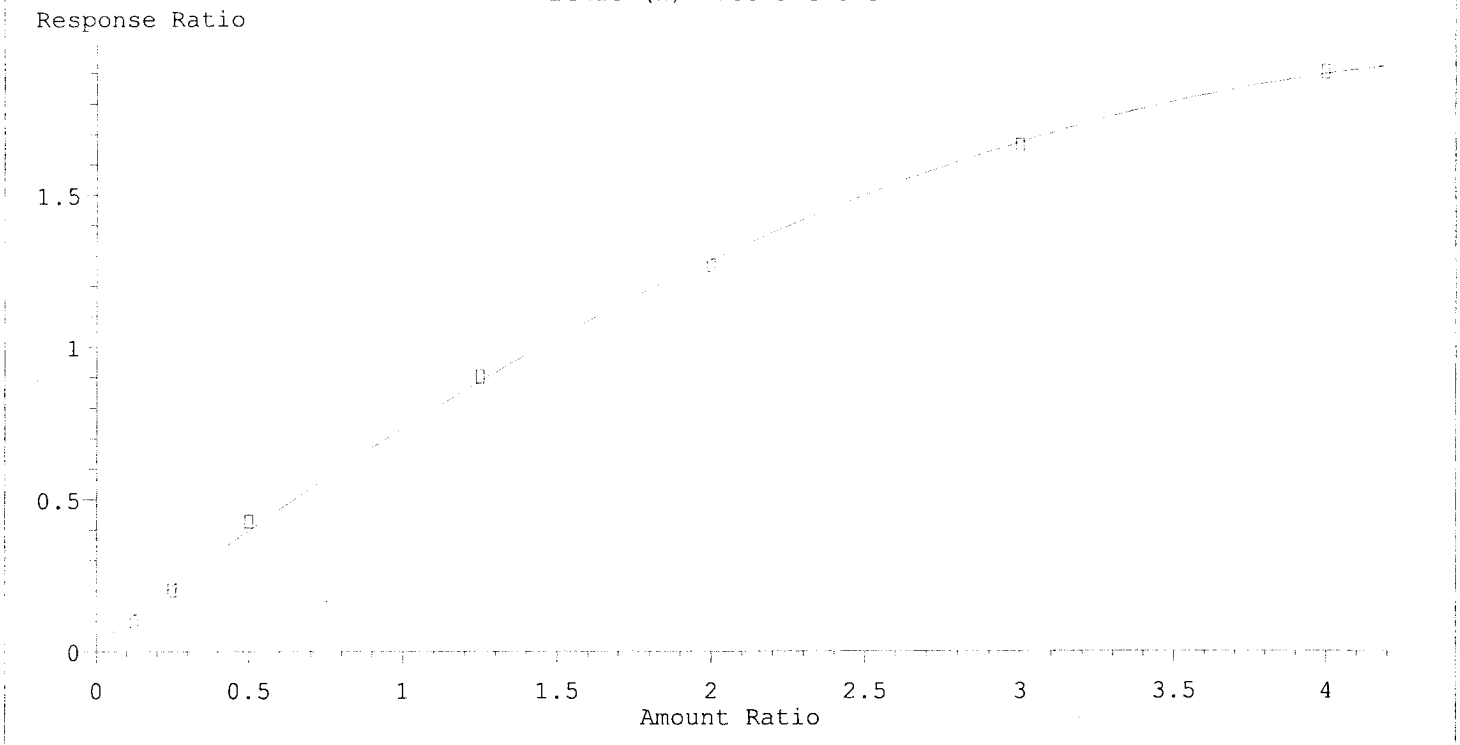
Benzo (b) Fluoranthene



R = 7.67e-002 A*A + 9.17e-001 A - 3.68e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic

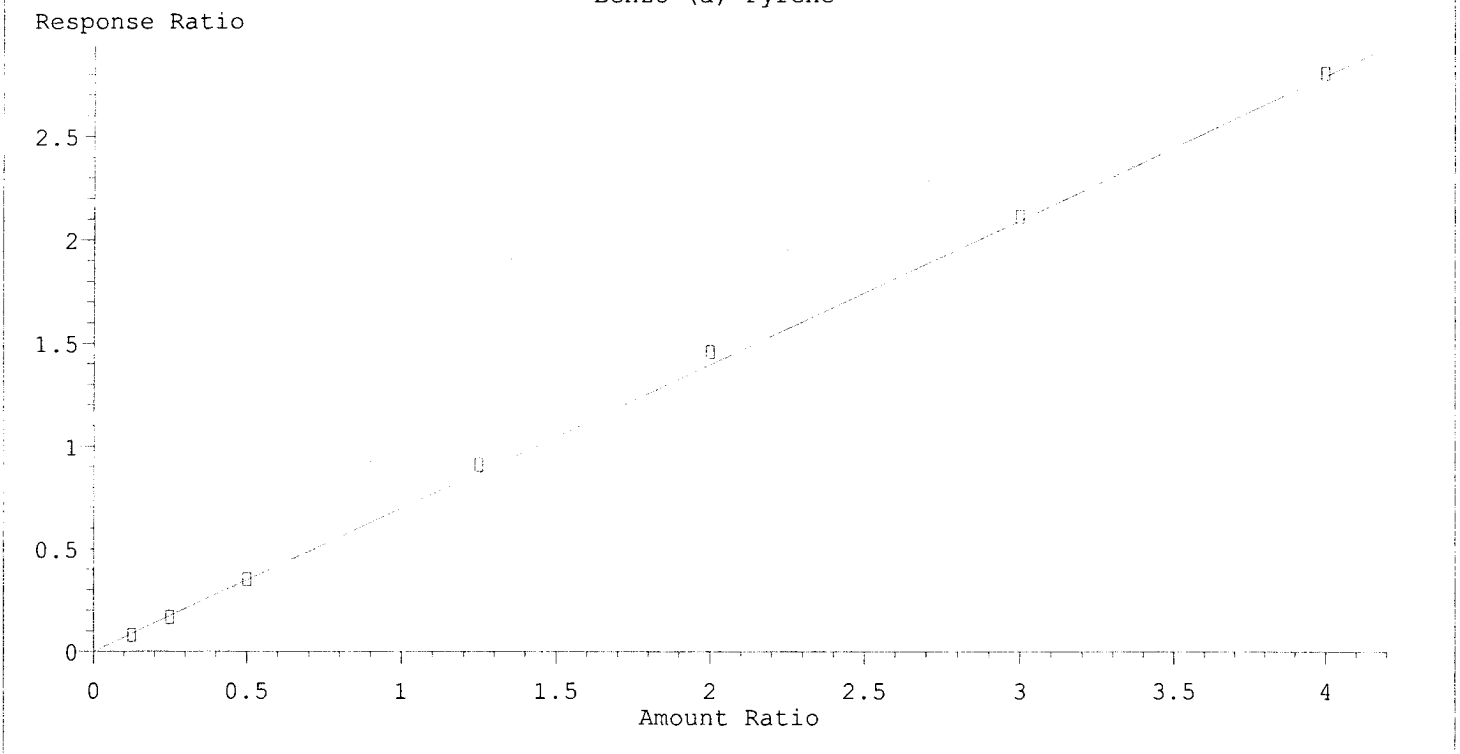
Return to Contents

Benzo (k) Fluoranthene



R = -8.16e-002 A*A + 7.95e-001 A + 1.93e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic

Benzo (a) Pyrene



Resp Ratio = 6.96e-001 * Amt
RF Rel Std Dev = 4.4% Curve Fit: Avg RF

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP016.D
Acq On : 11 Sep 2013 6:06 pm
Operator : 449
Sample : ICAL2 S071913U 2.5PPM BNA
InstName : GCMS SS
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 12 09:38:41 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:37:45 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	5.676	152	387295	40.00 mg/l	#-0.01
19) Naphthalene-d8	7.024	136	1582474	40.00 mg/l	-0.02
36) Acenaphthene-d10	8.970	164	888358	40.00 mg/l	0.00
56) Phenanthrene-d10	10.602	188	1528440	40.00 mg/l	-0.01
69) Chrysene-d12	13.709	240	1382847	40.00 mg/l	-0.03
81) Perylene-d12	16.143	264	897269	40.00 mg/l	-0.03
System Monitoring Compounds					
4) 2-Fluorophenol	4.483	112	43135	2.45 mg/l	0.00
Spiked Amount 100.000			Recovery =	2.45%	
6) Phenol-d6	5.360	99	53817	2.50 mg/l	-0.03
Spiked Amount 100.000			Recovery =	2.50%	
20) Nitrobenzene-d5	6.280	82	46620	2.58 mg/l	-0.03
Spiked Amount 100.000			Recovery =	2.58%	
41) 2-Fluorobiphenyl	8.216	172	84694	2.83 mg/l	-0.02
Spiked Amount 100.000			Recovery =	2.83%	
60) 2,4,6-Tribromophenol	9.848	330	6877	2.06 mg/l	-0.03
Spiked Amount 100.000			Recovery =	2.06%	
71) p-Terphenyl-d14	12.383	244	85658	2.65 mg/l	-0.02
Spiked Amount 100.000			Recovery =	2.65%	
Target Compounds					Qvalue
2) Pyridine	3.328	52	21744	2.02 mg/l	98
3) N-Nitrosodimethylamine	3.322	74	29001	2.45 mg/l	85
5) Aniline	5.392	93	65360	2.72 mg/l	83
7) Phenol	5.371	94	59789	2.58 mg/l #	28
8) Bis(2-Chloroethyl) Ether	5.451	93	43571	2.69 mg/l	92
9) 2-Chlorophenol	5.505	128	40826	2.49 mg/l	98
10) 1,3-Dichlorobenzene	5.644	146	45823	2.62 mg/l	97
11) 1,4-Dichlorobenzene	5.692	146	44999	2.69 mg/l	92
12) Benzyl Alcohol	5.842	79	36684	2.47 mg/l	98
13) 1,2-Dichlorobenzene	5.890	146	43417	2.72 mg/l	99
14) 2-Methylphenol	5.970	108	37968	2.60 mg/l	97
15) Bis(2-Chloroisopropyl)...	5.997	45	53764	2.73 mg/l	94
16) 3/4-Methylphenol	6.120	107	82899	5.07 mg/l	98
17) N-Nitroso-di-n-propyla...	6.141	70	32656	2.70 mg/l	96
18) Hexachloroethane	6.200	117	16516	2.67 mg/l	96
21) Nitrobenzene	6.302	77	46362	2.69 mg/l	97
22) Isophorone	6.542	82	85439	2.63 mg/l	100
23) 2-Nitrophenol	6.638	139	18234	2.26 mg/l	97
24) 2,4-Dimethylphenol	6.676	107	40971	2.59 mg/l	99
25) Benzoic Acid	6.938	105	132	N.D.	
26) Bis(2-Chloroethoxy) Me...	6.783	93	51699	2.73 mg/l	98
27) 2,4-Dichlorophenol	6.890	162	30193	2.53 mg/l	97
28) 1,2,4-Trichlorobenzene	6.981	180	36500	2.73 mg/l	99
29) Naphthalene	7.045	128	114321	2.75 mg/l	99
30) 2,6-Dichlorophenol	7.136	162	29336	2.63 mg/l	99
31) 4-Chloroaniline	7.125	127	41661	2.86 mg/l	94
32) Hexachloro-1,3-Butadiene	7.238	225	18711	2.63 mg/l	97
33) 4-Chloro-3-Methylphenol	7.655	107	32069	2.35 mg/l	98
34) 2-Methylnaphthalene	7.794	142	75018	2.75 mg/l	98
35) 1-Methylnaphthalene	7.911	142	68905	2.69 mg/l	98
37) Hexachlorocyclopentadiene	8.045	237	1564	N.D.	
38) 2,4,6-Trichlorophenol	8.136	196	18727	2.26 mg/l	98
39) 2,4,5-Trichlorophenol	8.190	196	17247	2.12 mg/l	93
40) 2-Chloronaphthalene	8.329	162	70458	2.71 mg/l	100

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP016.D
Acq On : 11 Sep 2013 6:06 pm
Operator : 449
Sample : ICAL2 S071913U 2.5PPM BNA
InstName : GCMS SS
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 12 09:38:41 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:37:45 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.478	65	19787	2.27	mg/l		95
43) Dimethyl Phthalate	8.714	163	82841	2.66	mg/l		99
44) Acenaphthylene	8.794	152	111300	2.81	mg/l		99
45) 3-Nitroaniline	8.944	138	13731	2.48	mg/l	#	42
46) Acenaphthene	8.997	153	71433	2.76	mg/l		98
47) 2,4-Dinitrophenol	9.104	184	40	N.D.			
48) 4-Nitrophenol	9.163	65	4180	0.98	mg/l	#	1
49) Dibenzofuran	9.174	168	96846	2.80	mg/l		97
50) 2,4-Dinitrotoluene	9.222	165	19985	2.14	mg/l		98
51) 2,6-Dinitrotoluene	8.794	165	16261	2.47	mg/l		99
52) Diethyl Phthalate	9.489	149	79677	2.72	mg/l		97
53) 4-Chlorophenyl-Phenyl ...	9.553	204	40949	3.02	mg/l		96
54) Fluorene	9.553	166	80301	2.97	mg/l		100
55) 4-Nitroaniline	9.628	138	12236	2.23	mg/l		83
57) Azobenzene	9.730	77	90949	2.78	mg/l		97
58) 4,6-Dinitro-2-Methylph...	9.677	198	2586	0.75	mg/l	#	1
59) N-Nitrosodiphenylamine	9.693	169	54386	2.86	mg/l		97
61) 4-Bromophenyl-Phenyl E...	10.094	248	22083	2.72	mg/l		98
62) Hexachlorobenzene	10.254	142	9050	2.93	mg/l		94
63) Pentachlorophenol	10.468	266	3031	0.70	mg/l		95
64) Phenanthrene	10.623	178	112642	2.80	mg/l		99
65) Anthracene	10.671	178	115585	2.85	mg/l		100
66) Di-n-Butyl Phthalate	11.297	149	133249	2.78	mg/l		99
67) Fluoranthene	11.950	202	124503	2.78	mg/l		99
68) Benzidine	12.105	184	21630	3.39	mg/l		96
70) Pyrene	12.201	202	126100	2.81	mg/l		99
72) Butyl Benzyl Phthalate	12.993	149	54265	2.59	mg/l		98
73) 3,3'-Dichlorobenzidine	13.661	252	26094	3.83	mg/l		100
74) Benzo (a) Anthracene	13.677	228	100900	2.64	mg/l		97
75) Bis(2-Ethylhexyl) Phth...	13.800	149	71859	2.64	mg/l		98
76) Chrysene	13.741	228	93805	2.65	mg/l		98
77) Di-n-Octyl Phthalate	14.779	149	104879	2.39	mg/l		99
78) Benzo (b) Fluoranthene	15.421	252	68367	2.02	mg/l		98
79) Benzo (k) Fluoranthene	15.464	252	64288	2.66	mg/l		98
80) Benzo (a) Pyrene	16.015	252	54217	2.25	mg/l		96
82) Indeno (1,2,3-c,d) Pyrene	18.293	276	36055	2.29	mg/l		86
83) Dibenz (a,h) Anthracene	18.341	278	30014	2.23	mg/l		96
84) Benzo (g,h,i) Perylene	18.844	276	30295	2.49	mg/l		97

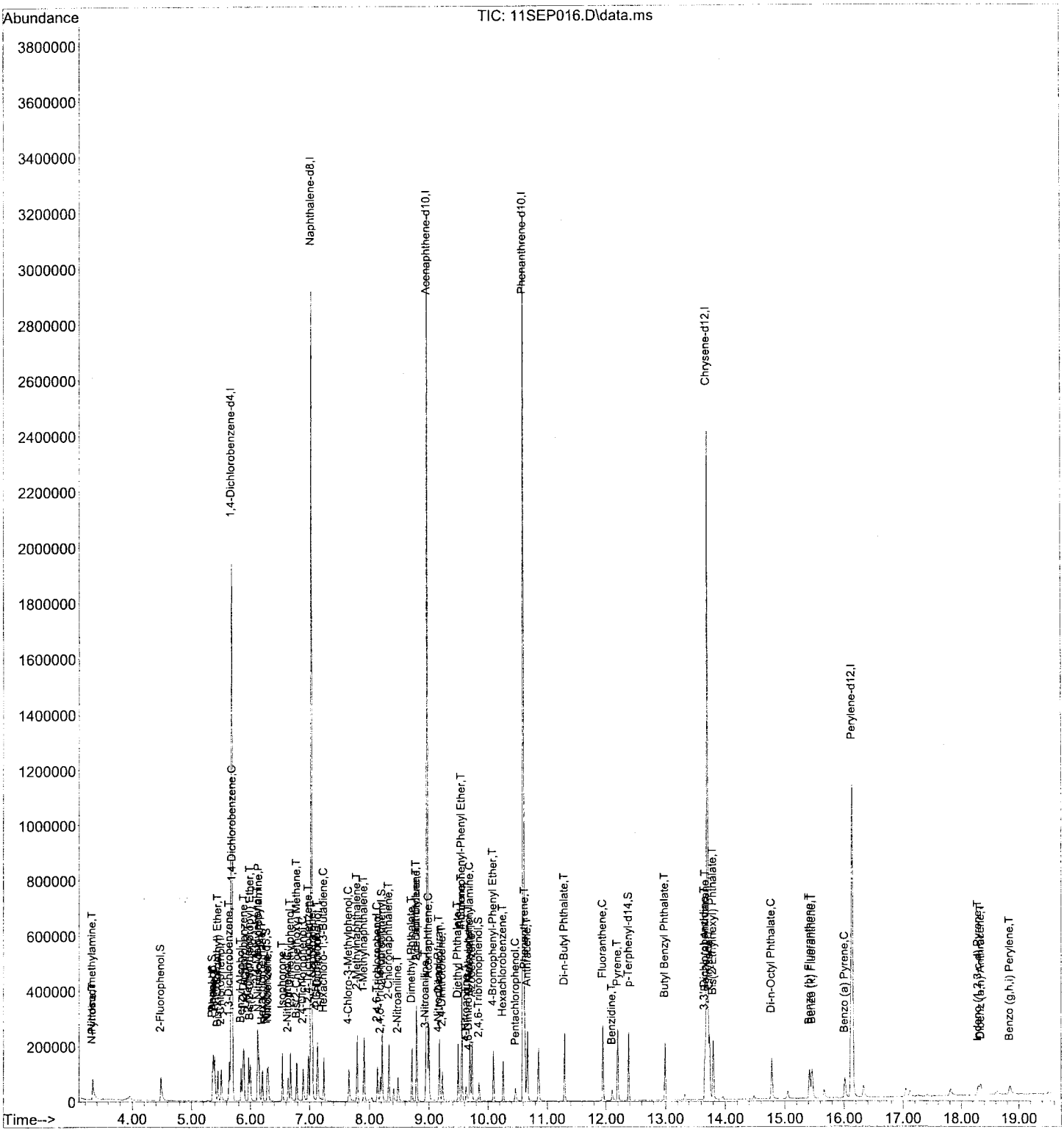
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP016.D
Acq On : 11 Sep 2013 6:06 pm
Operator : 449
Sample : ICAL2 S071913U 2.5PPM BNA
InstName : GCMS SS
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 12 09:38:41 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:37:45 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP017.D
Acq On : 11 Sep 2013 6:32 pm
Operator : 449
Sample : ICAL3 S071913T 5PPM BNA
InstName : GCMS SS
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 12 09:37:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:37:45 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.676	152	391216	40.00	mg/l	-0.01
19) Naphthalene-d8	7.024	136	1606468	40.00	mg/l	-0.02
36) Acenaphthene-d10	8.970	164	895396	40.00	mg/l	0.00
56) Phenanthrene-d10	10.602	188	1557139	40.00	mg/l	-0.01
69) Chrysene-d12	13.715	240	1413307	40.00	mg/l	-0.02
81) Perylene-d12	16.143	264	933054	40.00	mg/l	-0.03
System Monitoring Compounds						
4) 2-Fluorophenol	4.478	112	86569	4.88	mg/l	0.00
Spiked Amount 100.000			Recovery = 4.88%			
6) Phenol-d6	5.360	99	112347	5.17	mg/l	-0.03
Spiked Amount 100.000			Recovery = 5.17%			
20) Nitrobenzene-d5	6.280	82	94981	5.17	mg/l	-0.03
Spiked Amount 100.000			Recovery = 5.17%			
41) 2-Fluorobiphenyl	8.216	172	167665	5.55	mg/l	-0.02
Spiked Amount 100.000			Recovery = 5.55%			
60) 2,4,6-Tribromophenol	9.848	330	15146	4.46	mg/l	-0.03
Spiked Amount 100.000			Recovery = 4.46%			
71) p-Terphenyl-d14	12.383	244	176252	5.34	mg/l	-0.02
Spiked Amount 100.000			Recovery = 5.34%			
Target Compounds						Qvalue
2) Pyridine	3.317	52	50530	4.65	mg/l	98
3) N-Nitrosodimethylamine	3.317	74	59653	4.99	mg/l	90
5) Aniline	5.392	93	132438	5.45	mg/l	82
7) Phenol	5.371	94	122510	5.24	mg/l	87
8) Bis(2-Chloroethyl) Ether	5.446	93	89497	5.47	mg/l	96
9) 2-Chlorophenol	5.505	128	82979	5.00	mg/l	98
10) 1,3-Dichlorobenzene	5.644	146	91250	5.17	mg/l	99
11) 1,4-Dichlorobenzene	5.692	146	88560	5.25	mg/l	96
12) Benzyl Alcohol	5.836	79	72374	4.82	mg/l	99
13) 1,2-Dichlorobenzene	5.890	146	86018	5.34	mg/l	99
14) 2-Methylphenol	5.970	108	73943	5.02	mg/l	96
15) Bis(2-Chloroisopropyl)...	5.997	45	107230	5.39	mg/l	93
16) 3/4-Methylphenol	6.120	107	166880	10.11	mg/l	99
17) N-Nitroso-di-n-propyla...	6.146	70	65803	5.38	mg/l	96
18) Hexachloroethane	6.200	117	32974	5.28	mg/l	96
21) Nitrobenzene	6.302	77	92964	5.32	mg/l	98
22) Isophorone	6.542	82	173614	5.26	mg/l	99
23) 2-Nitrophenol	6.638	139	40692	4.98	mg/l	92
24) 2,4-Dimethylphenol	6.676	107	82619	5.14	mg/l	99
25) Benzoic Acid	6.778	105	15094	1.59	mg/l	92
26) Bis(2-Chloroethoxy) Me...	6.778	93	105690	5.50	mg/l	99
27) 2,4 Dichlorophenol	6.890	162	61614	5.08	mg/l	99
28) 1,2,4-Trichlorobenzene	6.981	180	72394	5.33	mg/l	99
29) Naphthalene	7.045	128	226670	5.37	mg/l	99
30) 2,6-Dichlorophenol	7.136	162	59818	5.29	mg/l	97
31) 4-Chloroaniline	7.125	127	81621	5.52	mg/l	95
32) Hexachloro-1,3-Butadiene	7.238	225	38904	5.39	mg/l	98
33) 4-Chloro-3-Methylphenol	7.655	107	66788	4.82	mg/l	99
34) 2-Methylnaphthalene	7.794	142	152278	5.49	mg/l	98
35) 1-Methylnaphthalene	7.911	142	140327	5.39	mg/l	100
37) Hexachlorocyclopentadiene	8.045	237	6833	1.59	mg/l	97
38) 2,4,6-Trichlorophenol	8.136	196	39617	4.75	mg/l	97
39) 2,4,5-Trichlorophenol	8.184	196	37774	4.61	mg/l	98
40) 2-Chloronaphthalene	8.329	162	141715	5.41	mg/l	99

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP017.D
Acq On : 11 Sep 2013 6:32 pm
Operator : 449
Sample : ICAL3 S071913T 5PPM BNA
InstName : GCMS SS
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 12 09:37:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:37:45 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

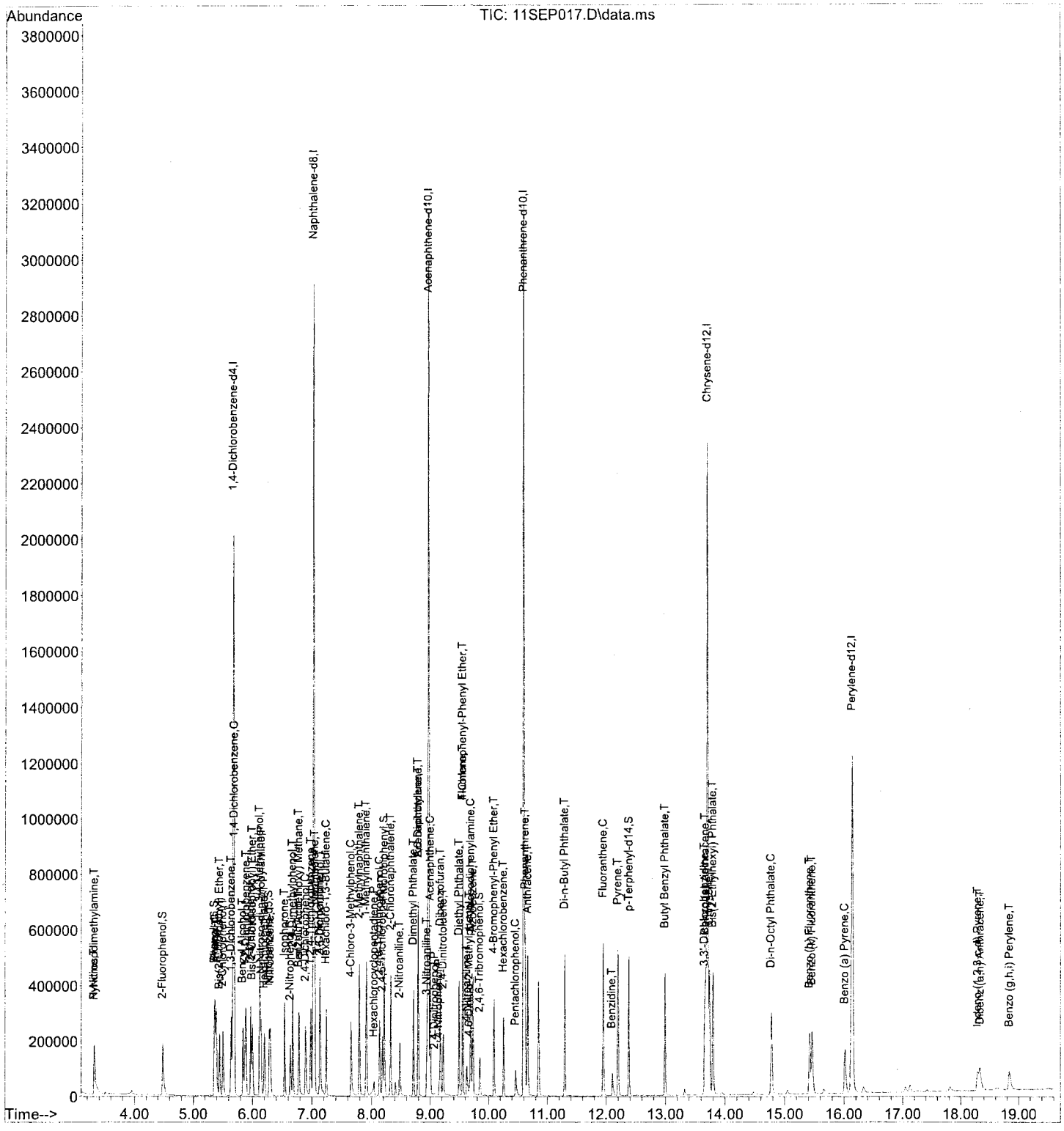
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.478	65	41994	4.78	mg/l		96
43) Dimethyl Phthalate	8.714	163	163121	5.20	mg/l		100
44) Acenaphthylene	8.794	152	223176	5.60	mg/l		99
45) 3-Nitroaniline	8.944	138	30415	5.45	mg/l	#	68
46) Acenaphthene	9.003	153	141703	5.42	mg/l		98
47) 2,4-Dinitrophenol	9.077	184	1202	0.53	mg/l		91
48) 4-Nitrophenol	9.152	65	12778	2.96	mg/l	#	1
49) Dibenzofuran	9.174	168	191307	5.48	mg/l		94
50) 2,4-Dinitrotoluene	9.222	165	43544	4.63	mg/l		99
51) 2,6-Dinitrotoluene	8.794	165	34381	5.18	mg/l		98
52) Diethyl Phthalate	9.495	149	159017	5.39	mg/l		99
53) 4-Chlorophenyl-Phenyl ...	9.553	204	80453	5.89	mg/l		95
54) Fluorene	9.553	166	159374	5.84	mg/l		99
55) 4-Nitroaniline	9.628	138	28924	5.22	mg/l		88
57) Azobenzene	9.730	77	185551	5.56	mg/l		98
58) 4,6-Dinitro-2-Methylph...	9.671	198	8922	2.53	mg/l	#	1
59) N-Nitrosodiphenylamine	9.693	169	112214	5.80	mg/l		98
61) 4-Bromophenyl-Phenyl E...	10.094	248	43550	5.27	mg/l		98
62) Hexachlorobenzene	10.254	142	18098	5.75	mg/l		94
63) Pentachlorophenol	10.463	266	10697	2.42	mg/l		93
64) Phenanthrene	10.623	178	224634	5.48	mg/l		99
65) Anthracene	10.671	178	229536	5.55	mg/l		100
66) Di-n-Butyl Phthalate	11.297	149	274913	5.62	mg/l		100
67) Fluoranthene	11.950	202	251114	5.51	mg/l		100
68) Benzidine	12.099	184	39746	6.12	mg/l		94
70) Pyrene	12.196	202	252475	5.50	mg/l		99
72) Butyl Benzyl Phthalate	12.993	149	112691	5.27	mg/l		98
73) 3,3'-Dichlorobenzidine	13.661	252	44457	6.38	mg/l		99
74) Benzo (a) Anthracene	13.672	228	202988	5.20	mg/l		98
75) Bis(2-Ethylhexyl) Phth...	13.800	149	149217	5.36	mg/l		96
76) Chrysene	13.741	228	185536	5.13	mg/l		99
77) Di-n-Octyl Phthalate	14.779	149	224025	5.00	mg/l		100
78) Benzo (b) Fluoranthene	15.421	252	140310	4.05	mg/l		98
79) Benzo (k) Fluoranthene	15.464	252	139862	5.67	mg/l		97
80) Benzo (a) Pyrene	16.015	252	113744	4.62	mg/l		99
82) Indeno (1,2,3-c,d) Pyrene	18.299	276	79359	4.84	mg/l		77
83) Dibenz (a,h) Anthracene	18.341	278	65730	4.70	mg/l		96
84) Benzo (g,h,i) Perylene	18.844	276	62981	4.98	mg/l		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP017.D
Acq On : 11 Sep 2013 6:32 pm
Operator : 449
Sample : ICAL3 S071913T 5PPM BNA
InstName : GCMS SS
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 12 09:37:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:37:45 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP018.D
Acq On : 11 Sep 2013 6:58 pm
Operator : 449
Sample : ICAL4 S071913S 10PPM BNA
InstName : GCMS SS
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 12 09:36:05 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:36:01 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.681	152	393604	40.00	mg/l	0.00
19) Naphthalene-d8	7.029	136	1627544	40.00	mg/l	-0.01
36) Acenaphthene-d10	8.970	164	913860	40.00	mg/l	0.00
56) Phenanthrene-d10	10.602	188	1610835	40.00	mg/l	-0.01
69) Chrysene-d12	13.715	240	1458922	40.00	mg/l	-0.02
81) Perylene-d12	16.143	264	969447	40.00	mg/l	-0.03
System Monitoring Compounds						
4) 2-Fluorophenol	4.477	112	181165	10.14	mg/l	0.00
Spiked Amount 100.000			Recovery =	10.14%		
6) Phenol-d6	5.360	99	231155	10.57	mg/l	-0.03
Spiked Amount 100.000			Recovery =	10.57%		
20) Nitrobenzene-d5	6.285	82	198113	10.65	mg/l	-0.02
Spiked Amount 100.000			Recovery =	10.65%		
41) 2-Fluorobiphenyl	8.222	172	337603	10.95	mg/l	-0.02
Spiked Amount 100.000			Recovery =	10.95%		
60) 2,4,6-Tribromophenol	9.848	330	33097	9.42	mg/l	-0.03
Spiked Amount 100.000			Recovery =	9.42%		
71) p-Terphenyl-d14	12.383	244	355715	10.43	mg/l	-0.02
Spiked Amount 100.000			Recovery =	10.43%		
Target Compounds						Qvalue
2) Pyridine	3.306	52	105445	9.65	mg/l	92
3) N-Nitrosodimethylamine	3.317	74	118818	9.88	mg/l	84
5) Aniline	5.392	93	269925	11.04	mg/l	83
7) Phenol	5.371	94	250468	10.65	mg/l	85
8) Bis(2-Chloroethyl) Ether	5.451	93	182992	11.11	mg/l	96
9) 2-Chlorophenol	5.504	128	169730	10.17	mg/l	99
10) 1,3-Dichlorobenzene	5.643	146	184323	10.38	mg/l	98
11) 1,4-Dichlorobenzene	5.697	146	179465	10.57	mg/l	98
12) Benzyl Alcohol	5.841	79	152426	10.08	mg/l	97
13) 1,2-Dichlorobenzene	5.890	146	174671	10.78	mg/l	99
14) 2-Methylphenol	5.970	108	155305	10.48	mg/l	97
15) Bis(2-Chloroisopropyl)...	6.002	45	216932	10.84	mg/l	93
16) 3/4-Methylphenol	6.125	107	338192	20.36	mg/l	98
17) N-Nitroso-di-n-propyla...	6.152	70	132387	10.76	mg/l	96
18) Hexachloroethane	6.200	117	67407	10.73	mg/l	96
21) Nitrobenzene	6.301	77	192334	10.86	mg/l	98
22) Isophorone	6.542	82	354772	10.60	mg/l	99
23) 2-Nitrophenol	6.638	139	86870	10.48	mg/l	94
24) 2,4-Dimethylphenol	6.676	107	163978	10.07	mg/l	95
25) Benzoic Acid	6.793	105	53339	5.54	mg/l	97
26) Bis(2-Chloroethoxy) Me...	6.783	93	205488	10.56	mg/l	99
27) 2,4-Dichlorophenol	6.890	162	127112	10.35	mg/l	99
28) 1,2,4-Trichlorobenzene	6.981	180	146367	10.63	mg/l	99
29) Naphthalene	7.045	128	458893	10.72	mg/l	99
30) 2,6-Dichlorophenol	7.136	162	122026	10.65	mg/l	99
31) 4-Chloroaniline	7.130	127	159347	10.64	mg/l	96
32) Hexachloro-1,3-Butadiene	7.237	225	77737	10.64	mg/l	100
33) 4-Chloro-3-Methylphenol	7.655	107	144761	10.32	mg/l	100
34) 2-Methylnaphthalene	7.794	142	306765	10.92	mg/l	98
35) 1-Methylnaphthalene	7.917	142	286349	10.86	mg/l	99
37) Hexachlorocyclopentadiene	8.045	237	24723	5.63	mg/l	99
38) 2,4,6-Trichlorophenol	8.136	196	83801	9.85	mg/l	98
39) 2,4,5-Trichlorophenol	8.184	196	79054	9.45	mg/l	97
40) 2-Chloronaphthalene	8.329	162	285104	10.67	mg/l	100

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP018.D
Acq On : 11 Sep 2013 6:58 pm
Operator : 449
Sample : ICAL4 S071913S 10PPM BNA
InstName : GCMS SS
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 12 09:36:05 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:36:01 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

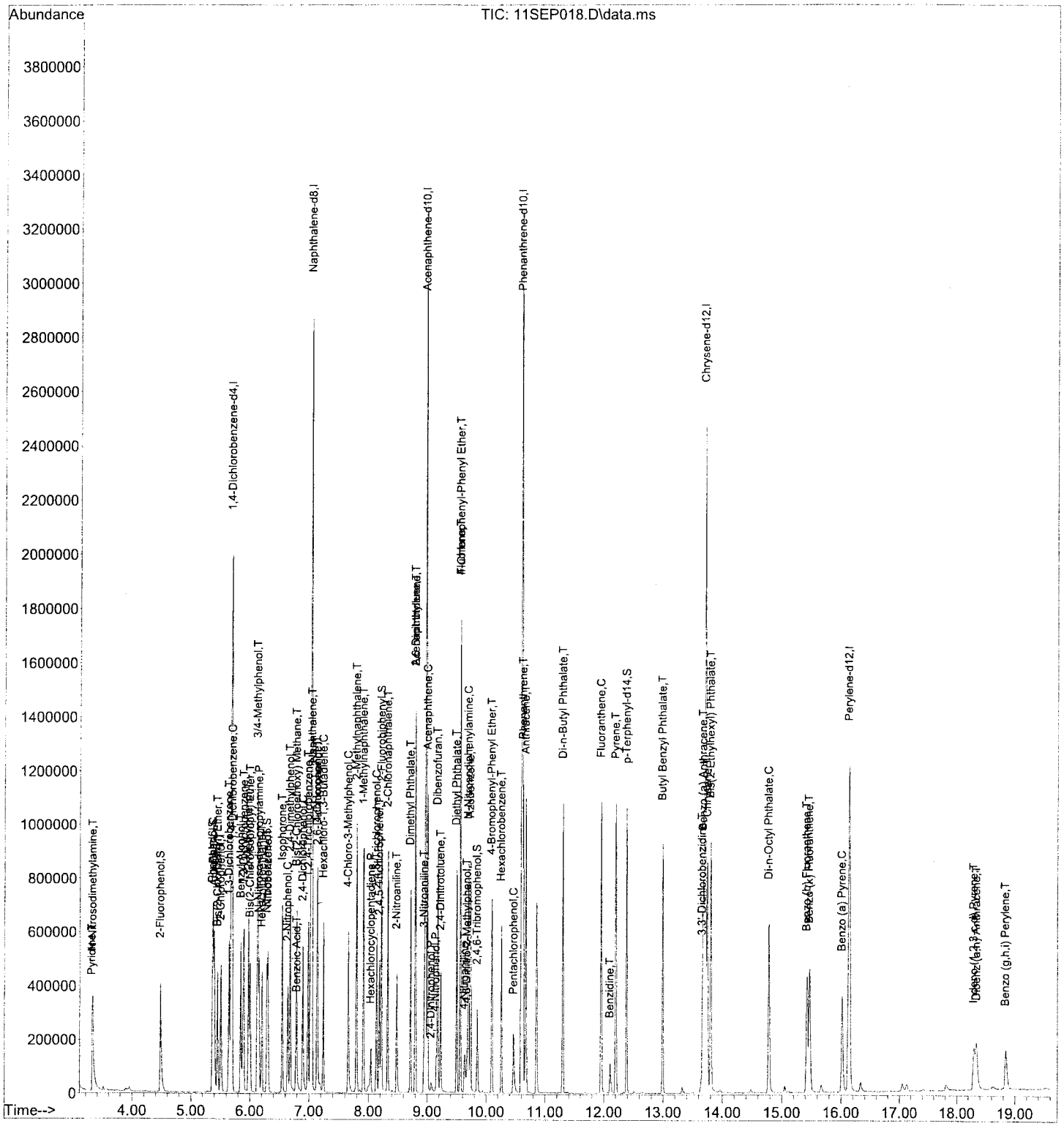
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.484	65	89812	10.01	mg/l		97
43) Dimethyl Phthalate	8.714	163	337351	10.55	mg/l		100
44) Acenaphthylene	8.794	152	449646	11.04	mg/l		99
45) 3-Nitroaniline	8.949	138	63538	11.16	mg/l		86
46) Acenaphthene	9.002	153	284100	10.65	mg/l		99
47) 2,4-Dinitrophenol	9.067	184	7251	3.13	mg/l		95
48) 4-Nitrophenol	9.147	65	36559	8.29	mg/l	#	1
49) Dibenzofuran	9.174	168	390498	10.96	mg/l		91
50) 2,4-Dinitrotoluene	9.227	165	92450	9.64	mg/l		98
51) 2,6-Dinitrotoluene	8.794	165	70927	10.47	mg/l		98
52) Diethyl Phthalate	9.495	149	321359	10.68	mg/l		98
53) 4-Chlorophenyl-Phenyl ...	9.559	204	159131	11.41	mg/l		95
54) Fluorene	9.559	166	320732	11.51	mg/l		100
55) 4-Nitroaniline	9.634	138	56042	9.92	mg/l		89
57) Azobenzene	9.730	77	373971	10.84	mg/l		98
58) 4,6-Dinitro-2-Methylph...	9.676	198	26348	7.23	mg/l	#	6
59) N-Nitrosodiphenylamine	9.698	169	224446	11.22	mg/l		98
61) 4-Bromophenyl-Phenyl E...	10.094	248	89306	10.45	mg/l		99
62) Hexachlorobenzene	10.259	142	36192	11.12	mg/l		94
63) Pentachlorophenol	10.468	266	31063	6.80	mg/l		92
64) Phenanthrene	10.623	178	457619	10.79	mg/l		100
65) Anthracene	10.671	178	469538	10.97	mg/l		100
66) Di-n-Butyl Phthalate	11.302	149	561892	11.11	mg/l		99
67) Fluoranthene	11.950	202	513203	10.89	mg/l		100
68) Benzidine	12.105	184	54182	8.07	mg/l		94
70) Pyrene	12.201	202	509892	10.77	mg/l		100
72) Butyl Benzyl Phthalate	12.993	149	235644	10.67	mg/l		98
73) 3,3'-Dichlorobenzidine	13.661	252	67962	9.46	mg/l		98
74) Benzo (a) Anthracene	13.677	228	417036	10.35	mg/l		99
75) Bis(2-Ethylhexyl) Phth...	13.806	149	308738	10.74	mg/l		97
76) Chrysene	13.747	228	384931	10.31	mg/l		99
77) Di-n-Octyl Phthalate	14.784	149	474002	10.25	mg/l		99
78) Benzo (b) Fluoranthene	15.426	252	303452	8.49	mg/l		99
79) Benzo (k) Fluoranthene	15.469	252	293831	11.53	mg/l		98
80) Benzo (a) Pyrene	16.020	252	244374	9.62	mg/l		99
82) Indeno (1,2,3-c,d) Pyrene	18.298	276	169509	9.95	mg/l		89
83) Dibenz (a,h) Anthracene	18.341	278	141199	9.72	mg/l		98
84) Benzo (g,h,i) Perylene	18.839	276	136112	10.37	mg/l		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP018.D
Acq On : 11 Sep 2013 6:58 pm
Operator : 449
Sample : ICAL4 S071913S 10PPM BNA
InstName : GCMS SS
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 12 09:36:05 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:36:01 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP019.D
Acq On : 11 Sep 2013 7:24 pm
Operator : 449
Sample : ICAL5 S071913R 20PPM BNA
InstName : GCMS SS
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 12 09:32:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:32:34 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.681	152	380093	40.00	mg/l	0.00
19) Naphthalene-d8	7.029	136	1590138	40.00	mg/l	-0.01
36) Acenaphthene-d10	8.970	164	912639	40.00	mg/l	0.00
56) Phenanthrene-d10	10.602	188	1623695	40.00	mg/l	-0.01
69) Chrysene-d12	13.715	240	1466655	40.00	mg/l	-0.02
81) Perylene-d12	16.148	264	1005714	40.00	mg/l	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol	4.478	112	355065	20.58	mg/l	0.00
Spiked Amount 100.000			Recovery = 20.58%			
6) Phenol-d6	5.365	99	452726	21.43	mg/l	-0.02
Spiked Amount 100.000			Recovery = 21.43%			
20) Nitrobenzene-d5	6.285	82	383883	21.13	mg/l	-0.02
Spiked Amount 100.000			Recovery = 21.13%			
41) 2-Fluorobiphenyl	8.222	172	654489	21.26	mg/l	-0.02
Spiked Amount 100.000			Recovery = 21.26%			
60) 2,4,6-Tribromophenol	9.853	330	71009	20.04	mg/l	-0.02
Spiked Amount 100.000			Recovery = 20.04%			
71) p-Terphenyl-d14	12.388	244	711166	20.74	mg/l	-0.02
Spiked Amount 100.000			Recovery = 20.74%			
Target Compounds						Qvalue
2) Pyridine	3.301	52	214003	20.29	mg/l	99
3) N-Nitrosodimethylamine	3.317	74	239171	20.60	mg/l	84
5) Aniline	5.398	93	496065	21.01	mg/l	88
7) Phenol	5.376	94	484106	21.33	mg/l	97
8) Bis(2-Chloroethyl) Ether	5.451	93	357928	22.50	mg/l	97
9) 2-Chlorophenol	5.505	128	330979	20.55	mg/l	100
10) 1,3-Dichlorobenzene	5.644	146	354495	20.67	mg/l	98
11) 1,4-Dichlorobenzene	5.697	146	344738	21.02	mg/l	99
12) Benzyl Alcohol	5.841	79	300581	20.59	mg/l	98
13) 1,2-Dichlorobenzene	5.890	146	335540	21.44	mg/l	99
14) 2-Methylphenol	5.975	108	301435	21.06	mg/l	98
15) Bis(2-Chloroisopropyl)...	6.002	45	417214	21.59	mg/l	92
16) 3/4-Methylphenol	6.130	107	653806	40.77	mg/l	99
17) N-Nitroso-di-n-propyla...	6.162	70	260941	21.96	mg/l	97
18) Hexachloroethane	6.200	117	133540	22.01	mg/l	96
21) Nitrobenzene	6.307	77	366837	21.20	mg/l	98
22) Isophorone	6.548	82	689132	21.08	mg/l	99
23) 2-Nitrophenol	6.638	139	164169	20.28	mg/l	98
24) 2,4-Dimethylphenol	6.681	107	334077	21.00	mg/l	97
25) Benzoic Acid	6.826	105	147601	15.69	mg/l	98
26) Bis(2-Chloroethoxy) Me...	6.788	93	404159	21.25	mg/l	99
27) 2,4-Dichlorophenol	6.895	162	251615	20.98	mg/l	98
28) 1,2,4-Trichlorobenzene	6.981	180	280678	20.87	mg/l	100
29) Naphthalene	7.050	128	892524	21.35	mg/l	99
30) 2,6-Dichlorophenol	7.136	162	240902	21.52	mg/l	98
31) 4-Chloroaniline	7.130	127	266333	18.20	mg/l	97
32) Hexachloro-1,3-Butadiene	7.237	225	152769	21.40	mg/l	99
33) 4-Chloro-3-Methylphenol	7.655	107	290127	21.16	mg/l	100
34) 2-Methylnaphthalene	7.799	142	587612	21.40	mg/l	99
35) 1-Methylnaphthalene	7.917	142	555958	21.58	mg/l	99
37) Hexachlorocyclopentadiene	8.045	237	71161	16.22	mg/l	100
38) 2,4,6-Trichlorophenol	8.136	196	172446	20.29	mg/l	99
39) 2,4,5-Trichlorophenol	8.184	196	173362	20.76	mg/l	99
40) 2-Chloronaphthalene	8.334	162	554533	20.78	mg/l	99

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP019.D
Acq On : 11 Sep 2013 7:24 pm
Operator : 449
Sample : ICAL5 S071913R 20PPM BNA
InstName : GCMS SS
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 12 09:32:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:32:34 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

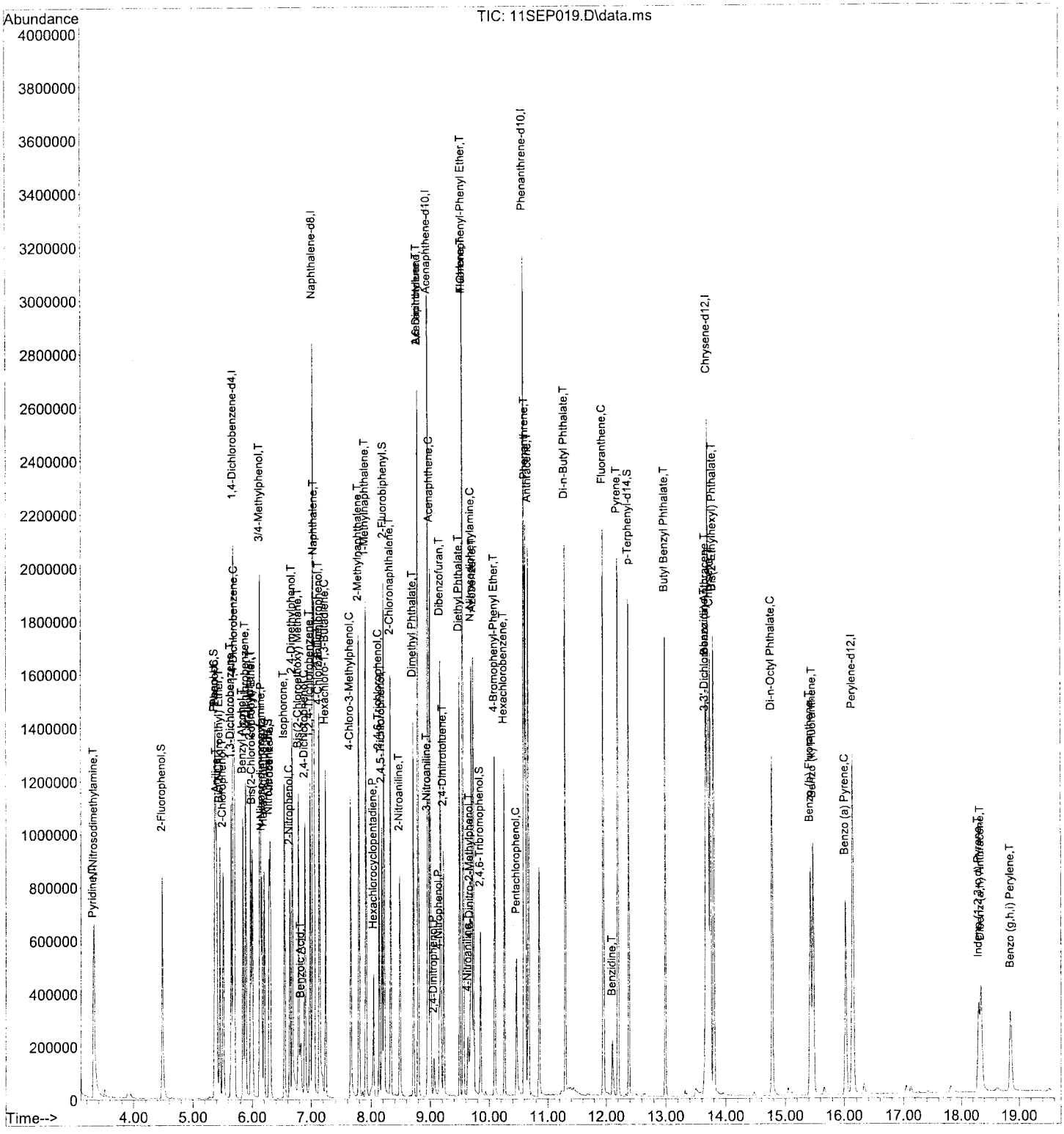
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.489	65	184771	20.62	mg/l		98
43) Dimethyl Phthalate	8.719	163	653852	20.47	mg/l		99
44) Acenaphthylene	8.799	152	863941	21.25	mg/l		99
45) 3-Nitroaniline	8.954	138	85337	15.01	mg/l		88
46) Acenaphthene	9.003	153	561005	21.06	mg/l		99
47) 2,4-Dinitrophenol	9.061	184	27446	11.87	mg/l		97
48) 4-Nitrophenol	9.152	65	89006	20.21	mg/l	#	1
49) Dibenzofuran	9.179	168	757977	21.31	mg/l		87
50) 2,4-Dinitrotoluene	9.227	165	189726	19.81	mg/l		100
51) 2,6-Dinitrotoluene	8.799	165	139815	20.67	mg/l		98
52) Diethyl Phthalate	9.500	149	628208	20.91	mg/l		98
53) 4-Chlorophenyl-Phenyl ...	9.559	204	311468	22.37	mg/l		96
54) Fluorene	9.559	166	613305	22.04	mg/l		100
55) 4-Nitroaniline	9.639	138	108358	19.20	mg/l		94
57) Azobenzene	9.735	77	729496	20.97	mg/l		99
58) 4,6-Dinitro-2-Methylph...	9.676	198	68777	18.74	mg/l	#	37
59) N-Nitrosodiphenylamine	9.703	169	441367	21.88	mg/l		98
61) 4-Bromophenyl-Phenyl E...	10.099	248	177418	20.60	mg/l		98
62) Hexachlorobenzene	10.259	142	70732	21.56	mg/l		96
63) Pentachlorophenol	10.468	266	76672	16.65	mg/l		96
64) Phenanthrene	10.629	178	901412	21.08	mg/l		100
65) Anthracene	10.677	178	924206	21.43	mg/l		100
66) Di-n-Butyl Phthalate	11.302	149	1109879	21.77	mg/l		100
67) Fluoranthene	11.955	202	1004739	21.14	mg/l		100
68) Benzidine	12.105	184	108384	16.01	mg/l		97
70) Pyrene	12.201	202	1001834	21.05	mg/l		100
72) Butyl Benzyl Phthalate	12.998	149	469977	21.17	mg/l		98
73) 3,3'-Dichlorobenzidine	13.672	252	112937	15.63	mg/l		95
74) Benzo (a) Anthracene	13.683	228	837377	20.67	mg/l		100
75) Bis(2-Ethylhexyl) Phth...	13.806	149	618838	21.42	mg/l		97
76) Chrysene	13.752	228	773562	20.61	mg/l		99
77) Di-n-Octyl Phthalate	14.784	149	972759	20.92	mg/l		99
78) Benzo (b) Fluoranthene	15.432	252	613498	17.08	mg/l		100
79) Benzo (k) Fluoranthene	15.480	252	628189	24.53	mg/l		99
80) Benzo (a) Pyrene	16.025	252	514209	20.13	mg/l		98
82) Indeno (1,2,3-c,d) Pyrene	18.304	276	372387	21.08	mg/l		94
83) Dibenz (a,h) Anthracene	18.341	278	314570	20.88	mg/l		97
84) Benzo (g,h,i) Perylene	18.855	276	292158	21.45	mg/l		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP019.D
Acq On : 11 Sep 2013 7:24 pm
Operator : 449
Sample : ICAL5 S071913R 20PPM BNA
InstName : GCMS SS
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 12 09:32:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:32:34 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP020.D
Acq On : 11 Sep 2013 7:51 pm
Operator : 449
Sample : ICAL6 S071913Q 50PPM BNA
InstName : GCMS SS
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 12 09:34:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:34:12 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.681	152	373670	40.00	mg/l	0.00
19) Naphthalene-d8	7.034	136	1616838	40.00	mg/l	0.00
36) Acenaphthene-d10	8.976	164	909633	40.00	mg/l	0.00
56) Phenanthrene-d10	10.607	188	1662234	40.00	mg/l	0.00
69) Chrysene-d12	13.725	240	1510778	40.00	mg/l	-0.01
81) Perylene-d12	16.159	264	1065673	40.00	mg/l	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol	4.477	112	868348	51.20	mg/l	0.00
Spiked Amount 100.000			Recovery = 51.20%			
6) Phenol-d6	5.376	99	1067979	51.42	mg/l	-0.01
Spiked Amount 100.000			Recovery = 51.42%			
20) Nitrobenzene-d5	6.296	82	927388	50.20	mg/l	-0.01
Spiked Amount 100.000			Recovery = 50.20%			
41) 2-Fluorobiphenyl	8.232	172	1542086	50.26	mg/l	0.00
Spiked Amount 100.000			Recovery = 50.26%			
60) 2,4,6-Tribromophenol	9.863	330	188393	51.94	mg/l	-0.01
Spiked Amount 100.000			Recovery = 51.94%			
71) p-Terphenyl-d14	12.393	244	1770827	50.15	mg/l	-0.01
Spiked Amount 100.000			Recovery = 50.15%			
Target Compounds						Qvalue
2) Pyridine	3.295	52	538017	51.89	mg/l	98
3) N-Nitrosodimethylamine	3.317	74	583258	51.09	mg/l	87
5) Aniline	5.408	93	1246871	53.72	mg/l	92
7) Phenol	5.392	94	1126484	50.48	mg/l	99
8) Bis(2-Chloroethyl) Ether	5.462	93	830569	53.12	mg/l	98
9) 2-Chlorophenol	5.510	128	793002	50.07	mg/l	100
10) 1,3-Dichlorobenzene	5.649	146	848296	50.31	mg/l	98
11) 1,4-Dichlorobenzene	5.702	146	817024	50.68	mg/l	99
12) Benzyl Alcohol	5.857	79	744351	51.87	mg/l	98
13) 1,2-Dichlorobenzene	5.889	146	791513	51.46	mg/l	100
14) 2-Methylphenol	5.980	108	717659	50.99	mg/l	98
15) Bis(2-Chloroisopropyl)...	6.007	45	965633	50.84	mg/l	82
16) 3/4-Methylphenol	6.152	107	1604792	101.79	mg/l	99
17) N-Nitroso-di-n-propyla...	6.189	70	604903	51.78	mg/l	97
18) Hexachloroethane	6.205	117	310682	52.10	mg/l	98
21) Nitrobenzene	6.317	77	885004	50.30	mg/l	98
22) Isophorone	6.569	82	1707486	51.36	mg/l	99
23) 2-Nitrophenol	6.649	139	413981	50.29	mg/l	97
24) 2,4-Dimethylphenol	6.697	107	809582	50.06	mg/l	97
25) Benzoic Acid	6.890	105	503597	52.66	mg/l	99
26) Bis(2-Chloroethoxy) Me...	6.799	93	956578	49.47	mg/l	99
27) 2,4-Dichlorophenol	6.906	162	614696	50.40	mg/l	99
28) 1,2,4-Trichlorobenzene	6.986	180	687459	50.28	mg/l	100
29) Naphthalene	7.055	128	2144742	50.45	mg/l	99
30) 2,6-Dichlorophenol	7.146	162	579102	50.88	mg/l	99
31) 4-Chloroaniline	7.141	127	774106	52.01	mg/l	98
32) Hexachloro-1,3-Butadiene	7.243	225	364914	50.27	mg/l	100
33) 4-Chloro-3-Methylphenol	7.665	107	706803	50.71	mg/l	99
34) 2-Methylnaphthalene	7.804	142	1396851	50.03	mg/l	99
35) 1-Methylnaphthalene	7.922	142	1331352	50.83	mg/l	99
37) Hexachlorocyclopentadiene	8.045	237	239894	54.86	mg/l	99
38) 2,4,6-Trichlorophenol	8.147	196	431866	50.98	mg/l	100
39) 2,4,5-Trichlorophenol	8.195	196	443566	53.30	mg/l	99
40) 2-Chloronaphthalene	8.339	162	1339264	50.35	mg/l	100

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP020.D
Acq On : 11 Sep 2013 7:51 pm
Operator : 449
Sample : ICAL6 S071913Q 50PPM BNA
InstName : GCMS SS
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 12 09:34:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:34:12 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

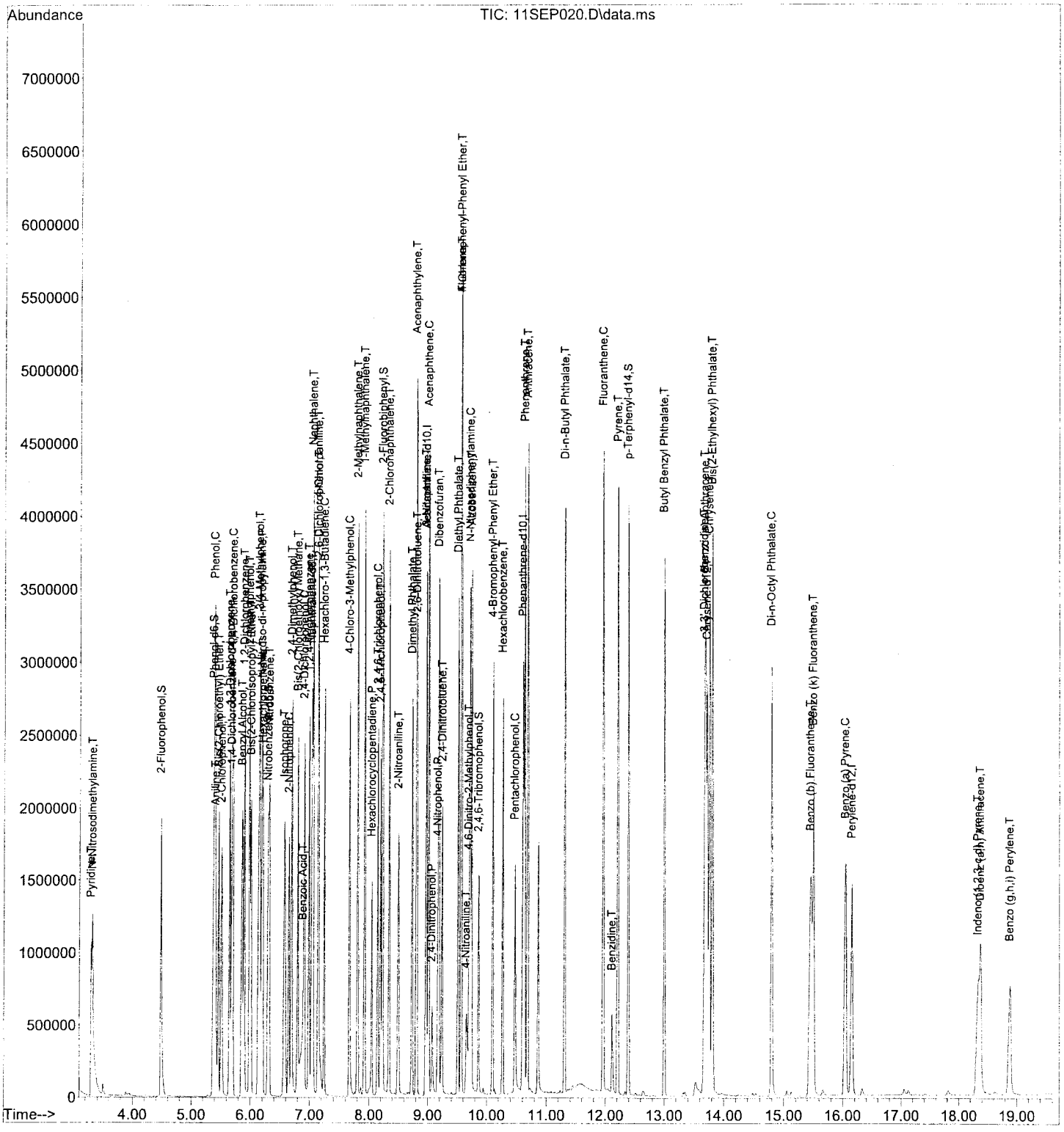
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	2-Nitroaniline	8.500	65	461872	51.71	mg/l		99
43)	Dimethyl Phthalate	8.730	163	1597790	50.19	mg/l		100
44)	Acenaphthylene	8.804	152	2036800	50.26	mg/l		99
45)	3-Nitroaniline	8.970	138	237382	41.88	mg/l		96
46)	Acenaphthene	9.013	153	1344816	50.66	mg/l		99
47)	2,4-Dinitrophenol	9.072	184	115677	50.18	mg/l		99
48)	4-Nitrophenol	9.168	65	258927	59.00	mg/l	#	1
49)	Dibenzofuran	9.190	168	1815827	51.22	mg/l		84
50)	2,4-Dinitrotoluene	9.243	165	489216	51.25	mg/l		99
51)	2,6-Dinitrotoluene	8.815	165	336063	49.85	mg/l		98
52)	Diethyl Phthalate	9.516	149	1536475	51.30	mg/l		98
53)	4-Chlorophenyl-Phenyl ...	9.569	204	709762	51.13	mg/l		98
54)	Fluorene	9.569	166	1390905	50.16	mg/l		100
55)	4-Nitroaniline	9.655	138	272090	48.38	mg/l		93
57)	Azobenzene	9.746	77	1906573	53.54	mg/l		96
58)	4,6-Dinitro-2-Methylph...	9.698	198	216045	57.49	mg/l	#	56
59)	N-Nitrosodiphenylamine	9.719	169	1029840	49.88	mg/l		97
61)	4-Bromophenyl-Phenyl E...	10.104	248	441531	50.08	mg/l		100
62)	Hexachlorobenzene	10.270	142	168061	50.03	mg/l		99
63)	Pentachlorophenol	10.473	266	246036	52.19	mg/l		96
64)	Phenanthrene	10.639	178	2196360	50.17	mg/l		100
65)	Anthracene	10.687	178	2226874	50.43	mg/l		100
66)	Di-n-Butyl Phthalate	11.313	149	2630482	50.39	mg/l		100
67)	Fluoranthene	11.965	202	2421887	49.78	mg/l		99
68)	Benzidine	12.115	184	304016	43.87	mg/l		96
70)	Pyrene	12.217	202	2422591	49.41	mg/l		100
72)	Butyl Benzyl Phthalate	13.003	149	1145338	50.09	mg/l		99
73)	3,3'-Dichlorobenzidine	13.682	252	319326	42.90	mg/l		98
74)	Benzo (a) Anthracene	13.693	228	2107340	50.50	mg/l		100
75)	Bis(2-Ethylhexyl) Phth...	13.816	149	1537084	51.66	mg/l		97
76)	Chrysene	13.768	228	1948691	50.40	mg/l		99
77)	Di-n-Octyl Phthalate	14.806	149	2484941	51.88	mg/l		100
78)	Benzo (b) Fluoranthene	15.458	252	1767345	47.76	mg/l		100
79)	Benzo (k) Fluoranthene	15.506	252	1363031	51.67	mg/l		99
80)	Benzo (a) Pyrene	16.052	252	1374505	52.23	mg/l		99
82)	Indeno (1,2,3-c,d) Pyrene	18.330	276	1022342	54.60	mg/l		96
83)	Dibenz (a,h) Anthracene	18.373	278	874550	54.77	mg/l		98
84)	Benzo (g,h,i) Perylene	18.881	276	798554	55.34	mg/l		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP020.D
Acq On : 11 Sep 2013 7:51 pm
Operator : 449
Sample : ICAL6 S071913Q 50PPM BNA
InstName : GCMS SS
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 12 09:34:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:34:12 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP021.D
Acq On : 11 Sep 2013 8:17 pm
Operator : 449
Sample : ICAL7 S071913P 80PPM BNA
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 12 10:01:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	5.686	152	376590	40.00	mg/l		0.00
19) Naphthalene-d8	7.040	136	1645379	40.00	mg/l		0.00
36) Acenaphthene-d10	8.976	164	921921	40.00	mg/l		0.00
56) Phenanthrene-d10	10.612	188	1722117	40.00	mg/l		0.00
69) Chrysene-d12	13.736	240	1549221	40.00	mg/l		0.00
81) Perylene-d12	16.170	264	1089184	40.00	mg/l		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	4.483	112	1373251	80.35	mg/l		0.00
Spiked Amount 100.000			Recovery =	80.35%			
6) Phenol-d6	5.387	99	1637659	78.24	mg/l		0.00
Spiked Amount 100.000			Recovery =	78.24%			
20) Nitrobenzene-d5	6.307	82	1475811	78.50	mg/l		0.00
Spiked Amount 100.000			Recovery =	78.50%			
41) 2-Fluorobiphenyl	8.238	172	2437127	78.38	mg/l		0.00
Spiked Amount 100.000			Recovery =	78.38%			
60) 2,4,6-Tribromophenol	9.874	330	315196	83.89	mg/l		0.00
Spiked Amount 100.000			Recovery =	83.89%			
71) p-Terphenyl-d14	12.404	244	2829446	78.14	mg/l		0.00
Spiked Amount 100.000			Recovery =	78.14%			
Target Compounds							Qvalue
2) Pyridine	3.295	52	866733	82.94	mg/l		97
3) N-Nitrosodimethylamine	3.322	74	921836	80.12	mg/l		88
5) Aniline	5.414	93	1873910	80.11	mg/l		92
7) Phenol	5.403	94	1722988	76.61	mg/l		99
8) Bis(2-Chloroethyl) Ether	5.472	93	1300797	82.55	mg/l		99
9) 2-Chlorophenol	5.515	128	1260139	78.95	mg/l		100
10) 1,3-Dichlorobenzene	5.649	146	1338029	78.74	mg/l		99
11) 1,4-Dichlorobenzene	5.702	146	1262779	77.72	mg/l		100
12) Benzyl Alcohol	5.879	79	1177438	81.41	mg/l		97
13) 1,2-Dichlorobenzene	5.895	146	1216208	78.45	mg/l		100
14) 2-Methylphenol	5.991	108	1135952	80.08	mg/l		91
15) Bis(2-Chloroisopropyl)...	6.013	45	1480418	77.33	mg/l	#	70
16) 3/4-Methylphenol	6.146	107	2552126	160.62	mg/l		99
17) N-Nitroso-di-n-propyla...	6.205	70	846844	71.93	mg/l		99
18) Hexachloroethane	6.205	117	450002	74.88	mg/l		99
21) Nitrobenzene	6.328	77	1377960	76.96	mg/l		99
22) Isophorone	6.590	82	2767664	81.80	mg/l		99
23) 2-Nitrophenol	6.654	139	653169	77.97	mg/l		96
24) 2,4-Dimethylphenol	6.708	107	1302410	79.13	mg/l		96
25) Benzoic Acid	6.938	105	907138m	93.22	mg/l		
26) Bis(2-Chloroethoxy) Me...	6.810	93	1528778	77.69	mg/l		100
27) 2,4-Dichlorophenol	6.917	162	977151	78.73	mg/l		99
28) 1,2,4-Trichlorobenzene	6.991	180	1098147	78.92	mg/l		100
29) Naphthalene	7.061	128	3344845	77.32	mg/l		100
30) 2,6-Dichlorophenol	7.152	162	894419	77.22	mg/l		100
31) 4-Chloroaniline	7.152	127	1235215	81.56	mg/l		98
32) Hexachloro-1,3-Butadiene	7.248	225	575431	77.90	mg/l		100
33) 4-Chloro-3-Methylphenol	7.671	107	1146013	80.79	mg/l		99
34) 2-Methylnaphthalene	7.810	142	2171007	76.41	mg/l		99
35) 1-Methylnaphthalene	7.927	142	2064552	77.46	mg/l		99
37) Hexachlorocyclopentadiene	8.050	237	413245	93.25	mg/l		99
38) 2,4,6-Trichlorophenol	8.152	196	705929	82.23	mg/l		100
39) 2,4,5-Trichlorophenol	8.200	196	722722	85.68	mg/l		99
40) 2-Chloronaphthalene	8.350	162	2120376	78.66	mg/l		99

SEP 12 2013

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP021.D
Acq On : 11 Sep 2013 8:17 pm
Operator : 449
Sample : ICAL7 S071913P 80PPM BNA
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 12 10:01:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.505	65	736707	81.37	mg/l		97
43) Dimethyl Phthalate	8.740	163	2550083	79.03	mg/l		100
44) Acenaphthylene	8.810	152	3179559	77.42	mg/l		100
45) 3-Nitroaniline	8.976	138	496623	86.45	mg/l		100
46) Acenaphthene	9.024	153	2112542	78.51	mg/l		99
47) 2,4-Dinitrophenol	9.083	184	214054	91.61	mg/l		99
48) 4-Nitrophenol	9.179	65	413476	92.95	mg/l	#	1
49) Dibenzofuran	9.195	168	2812301	78.27	mg/l		83
50) 2,4-Dinitrotoluene	9.259	165	809651	83.69	mg/l		97
51) 2,6-Dinitrotoluene	8.826	165	537897	78.72	mg/l		100
52) Diethyl Phthalate	9.532	149	2406430	79.28	mg/l		98
53) 4-Chlorophenyl-Phenyl ...	9.575	204	1067267	75.86	mg/l		99
54) Fluorene	9.580	166	2121656	75.49	mg/l		100
55) 4-Nitroaniline	9.676	138	473786	83.11	mg/l		92
57) Azobenzene	9.757	77	2930164	79.42	mg/l		97
58) 4,6-Dinitro-2-Methylph...	9.719	198	343275	88.17	mg/l	#	58
59) N-Nitrosodiphenylamine	9.730	169	1629172	76.16	mg/l		97
61) 4-Bromophenyl-Phenyl E...	10.110	248	717769	78.58	mg/l		98
62) Hexachlorobenzene	10.275	142	263288	75.66	mg/l		96
63) Pentachlorophenol	10.484	266	436972	89.47	mg/l		99
64) Phenanthrene	10.645	178	3466210	76.43	mg/l		100
65) Anthracene	10.698	178	3516373	76.86	mg/l		99
66) Di-n-Butyl Phthalate	11.318	149	4095843	75.73	mg/l		100
67) Fluoranthene	11.976	202	3857513	76.54	mg/l		99
68) Benzidine	12.121	184	638150	88.88	mg/l		97
70) Pyrene	12.222	202	3826605	76.11	mg/l		100
72) Butyl Benzyl Phthalate	13.014	149	1838239	78.40	mg/l		99
73) 3,3'-Dichlorobenzidine	13.693	252	630667	82.63	mg/l		98
74) Benzo (a) Anthracene	13.709	228	3394950	79.33	mg/l		100
75) Bis(2-Ethylhexyl) Phth...	13.822	149	2417195	79.22	mg/l		97
76) Chrysene	13.784	228	3166010	79.85	mg/l		99
77) Di-n-Octyl Phthalate	14.816	149	3938934	80.20	mg/l		99
78) Benzo (b) Fluoranthene	15.490	252	3378797m	89.04	mg/l		
79) Benzo (k) Fluoranthene	15.528	252	1962086m	72.53	mg/l		
80) Benzo (a) Pyrene	16.073	252	2254767	83.56	mg/l		99
82) Indeno (1,2,3-c,d) Pyrene	18.347	276	1604334	83.84	mg/l		96
83) Dibenz (a,h) Anthracene	18.395	278	1387932	85.05	mg/l		99
84) Benzo (g,h,i) Perylene	18.903	276	1227252	83.21	mg/l		99

SEP 12 2013

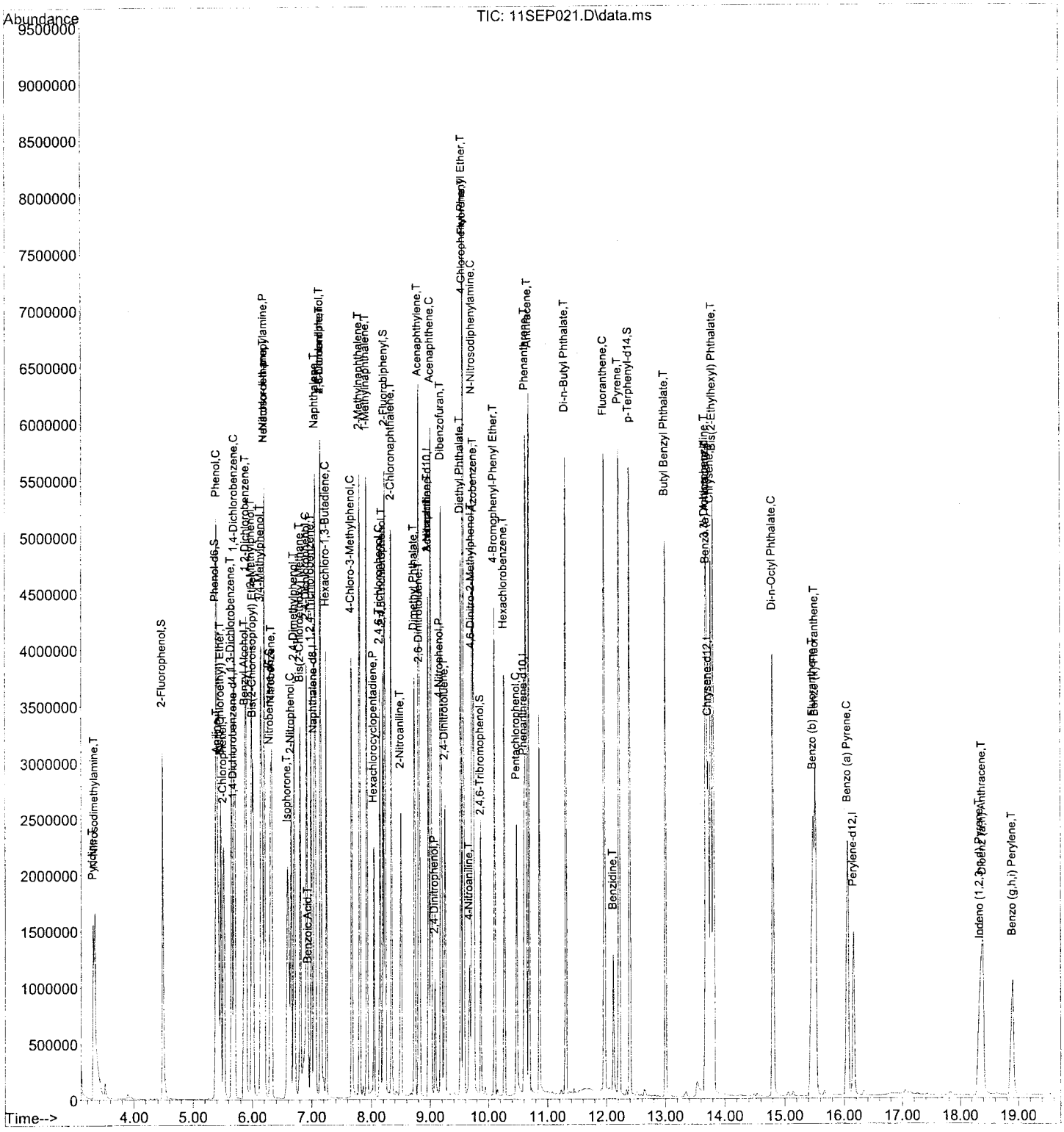
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP021.D
Acq On : 11 Sep 2013 8:17 pm
Operator : 449
Sample : ICAL7 S071913P 80PPM BNA
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 12 10:01:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

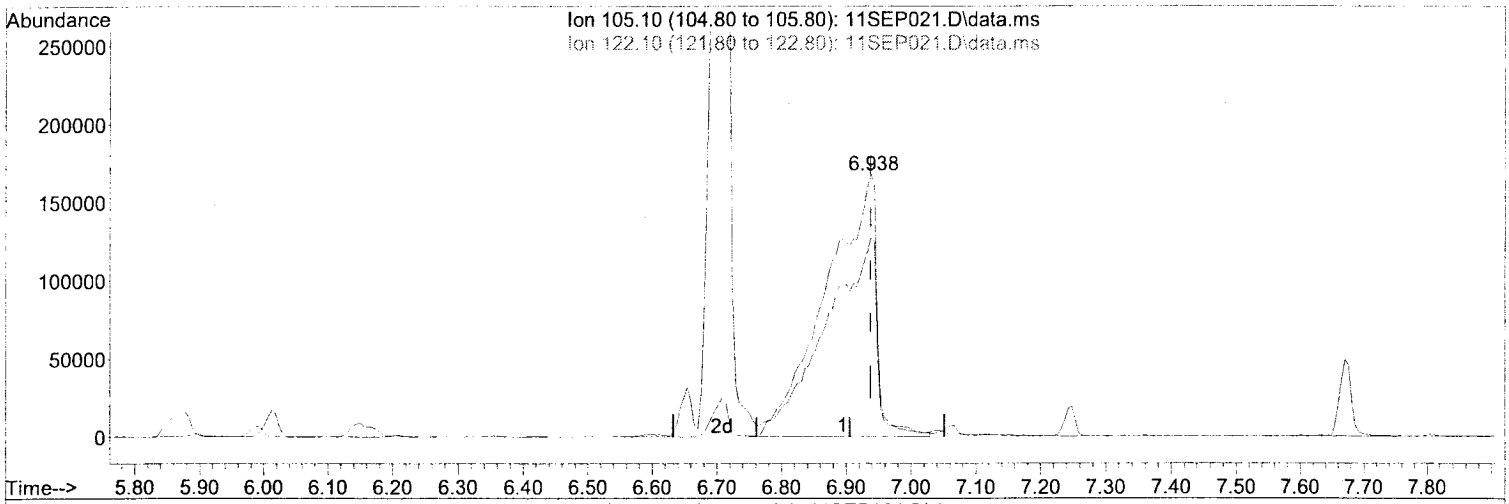


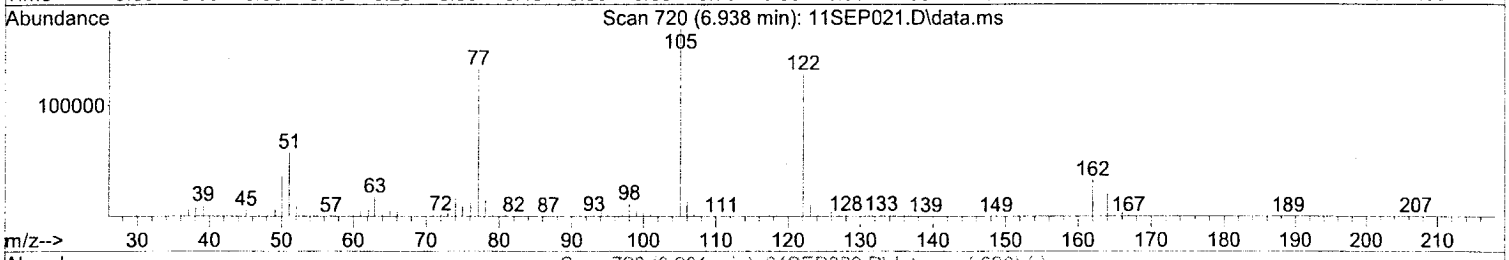
Return to Contents

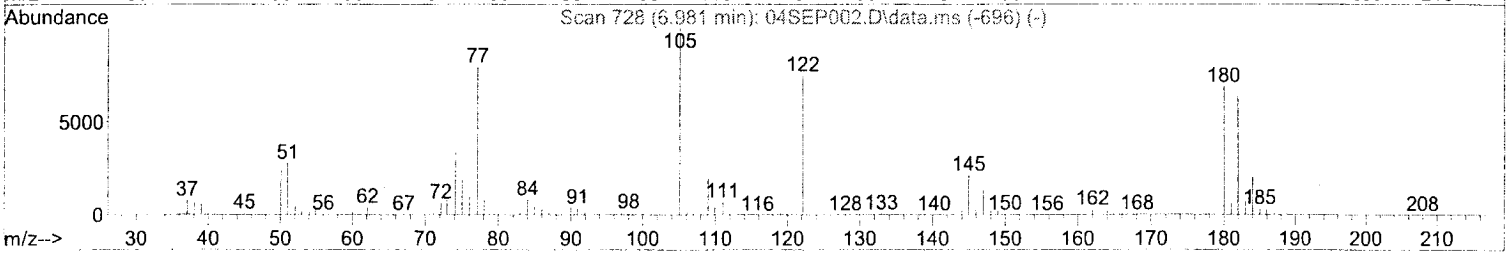
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP021.D
Acq On : 11 Sep 2013 8:17 pm
Operator : 449
Sample : ICAL7 S071913P 80PPM BNA
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 12 09:44:51 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP021.D\data.ms

(25) Benzoic Acid (T)

6.938min (0.000) 93.22 mg/l m

response 907138

Ion	Exp%	Act%
105.10	100	100
122.10	70.30	38.44#
0.00	0.00	0.00
0.00	0.00	0.00

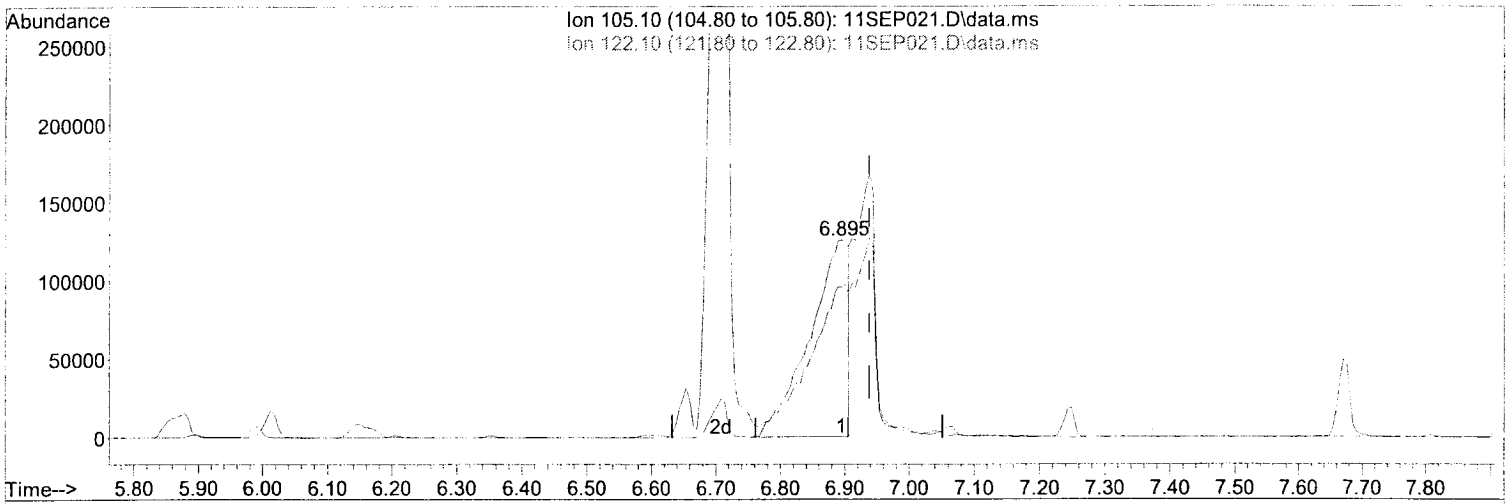
SEP 12 2013
449
421

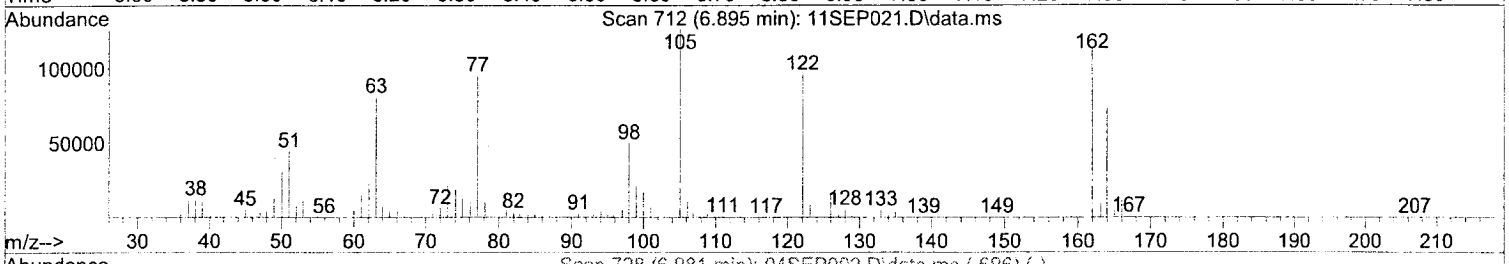
Return to Contents

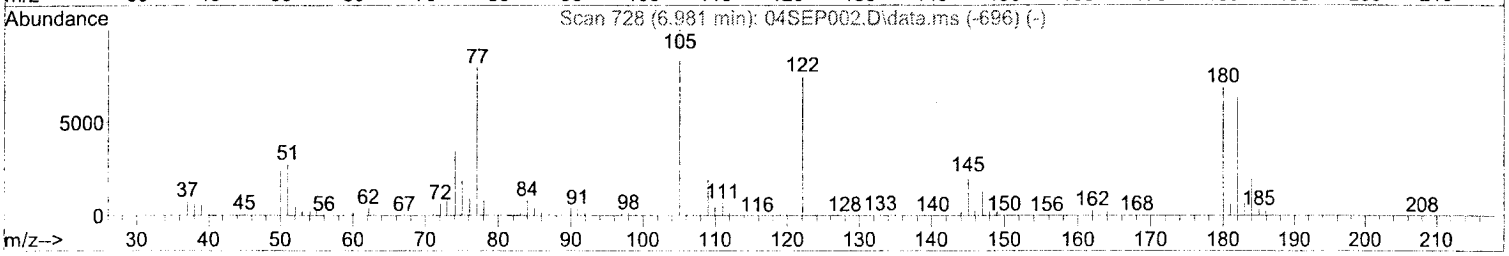
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP021.D
Acq On : 11 Sep 2013 8:17 pm
Operator : 449
Sample : ICAL7 S071913P 80PPM BNA
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 12 09:44:51 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







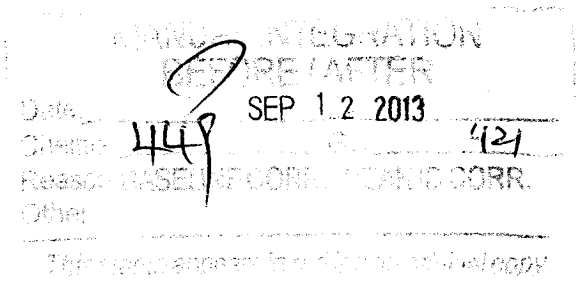
TIC: 11SEP021.D\data.ms

(25) Benzoic Acid (T)

6.895min (-0.043) 53.78 mg/l

response 523393

Ion	Exp%	Act%
105.10	100	100
122.10	70.30	66.63
0.00	0.00	0.00
0.00	0.00	0.00

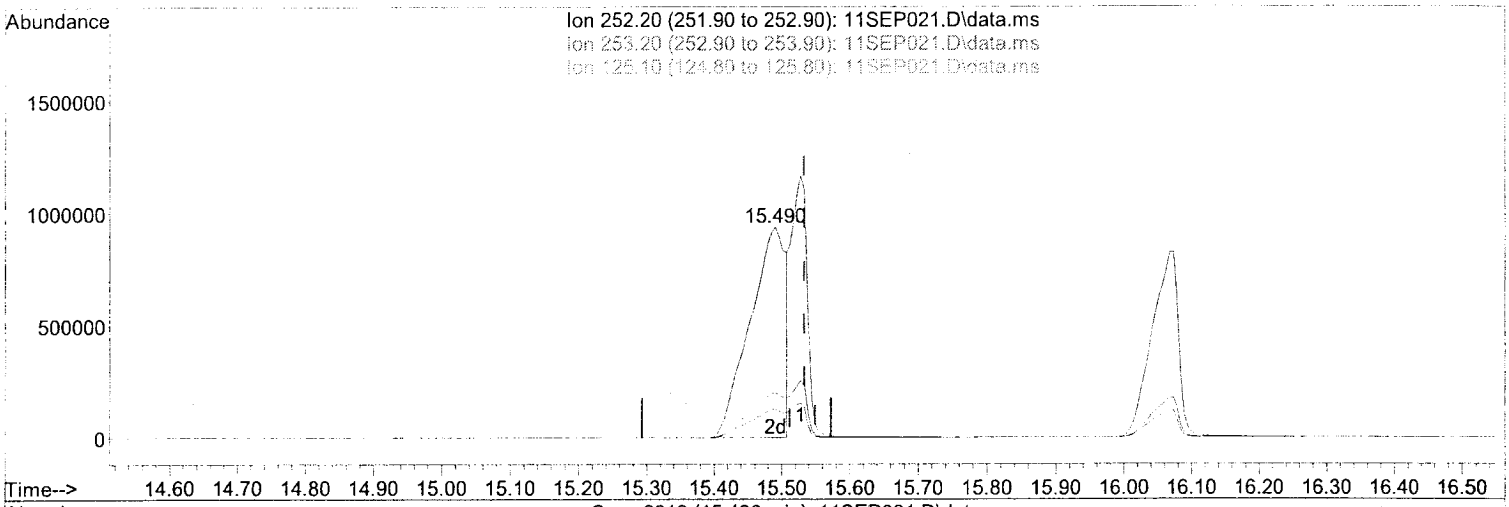


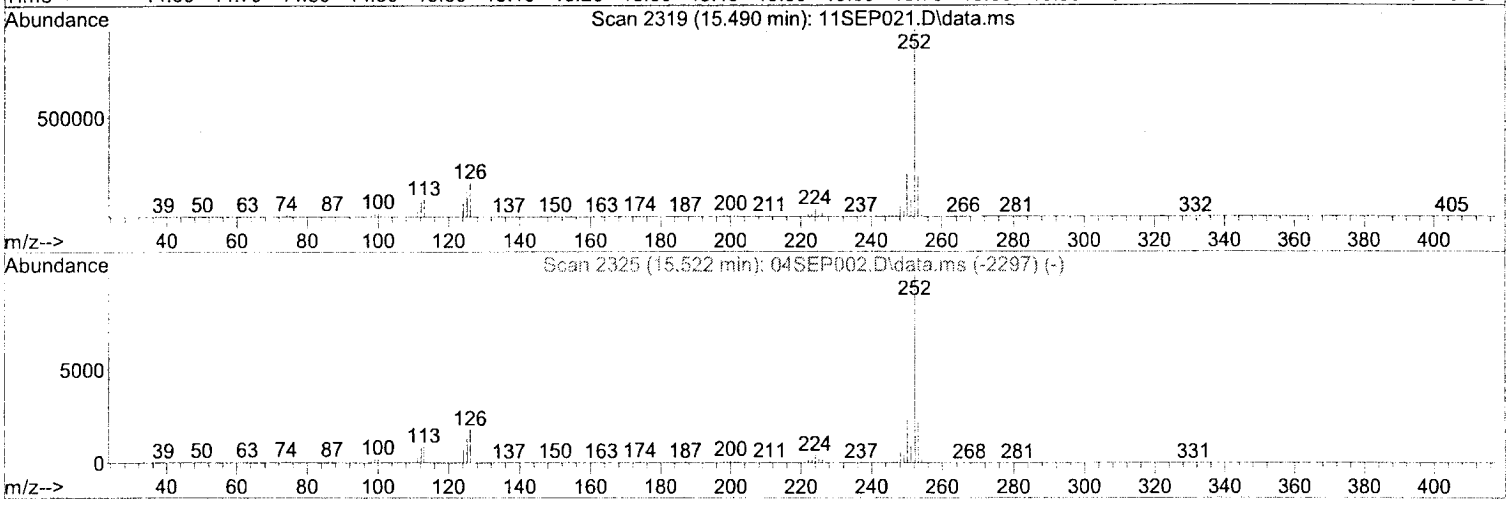
Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP021.D
Acq On : 11 Sep 2013 8:17 pm
Operator : 449
Sample : ICAL7 S071913P 80PPM BNA
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 12 09:44:51 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M





TIC: 11SEP021.D\data.ms

(78) Benzo (b) Fluoranthene (T)

15.490min (-0.043) 89.04 mg/l m

response 3378797

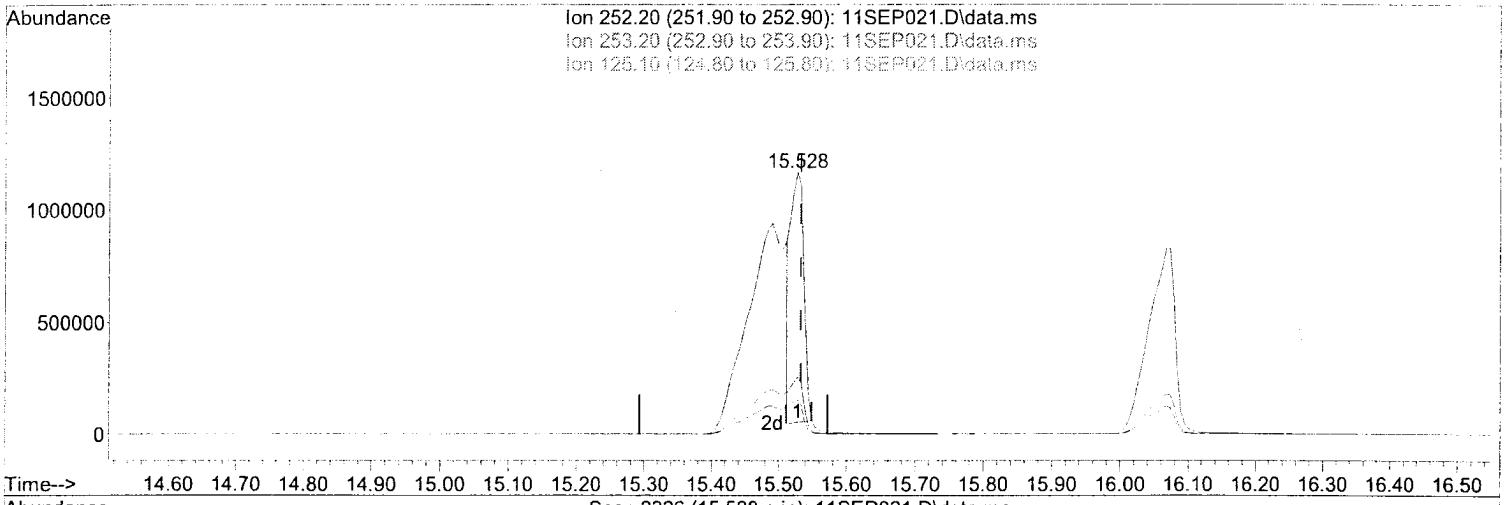
Ion	Exp%	Act%
252.20	100	100
253.20	21.90	9.72
125.10	13.00	5.85
0.00	0.00	0.00

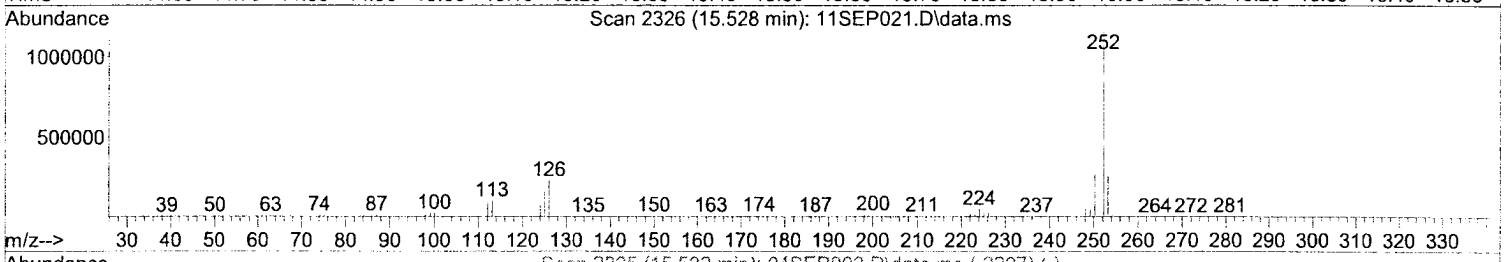
449 SEP 12 2013 421

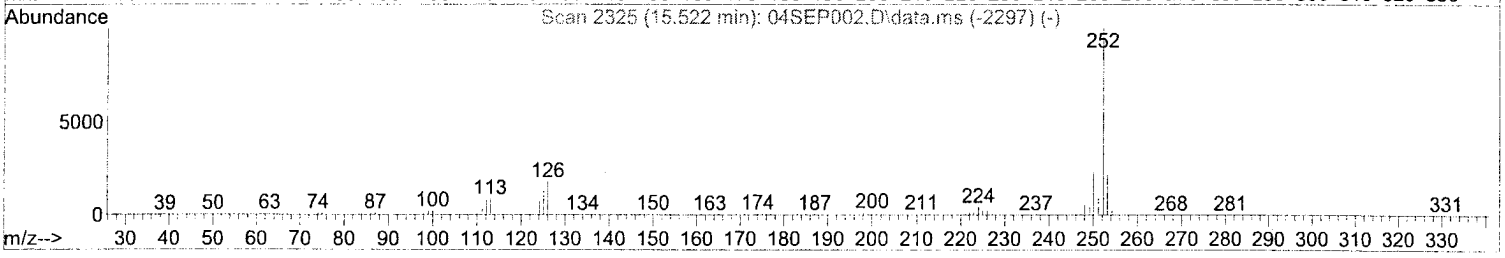
Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP021.D
Acq On : 11 Sep 2013 8:17 pm
Operator : 449
Sample : ICAL7 S071913P 80PPM BNA
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 12 09:44:51 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP021.D\data.ms

(78) Benzo (b) Fluoranthene (T)

15.528min (-0.005) 40.23 mg/l

response 1526741

Ion	Exp%	Act%
252.20	100	100
253.20	21.90	21.51
125.10	13.00	12.95
0.00	0.00	0.00

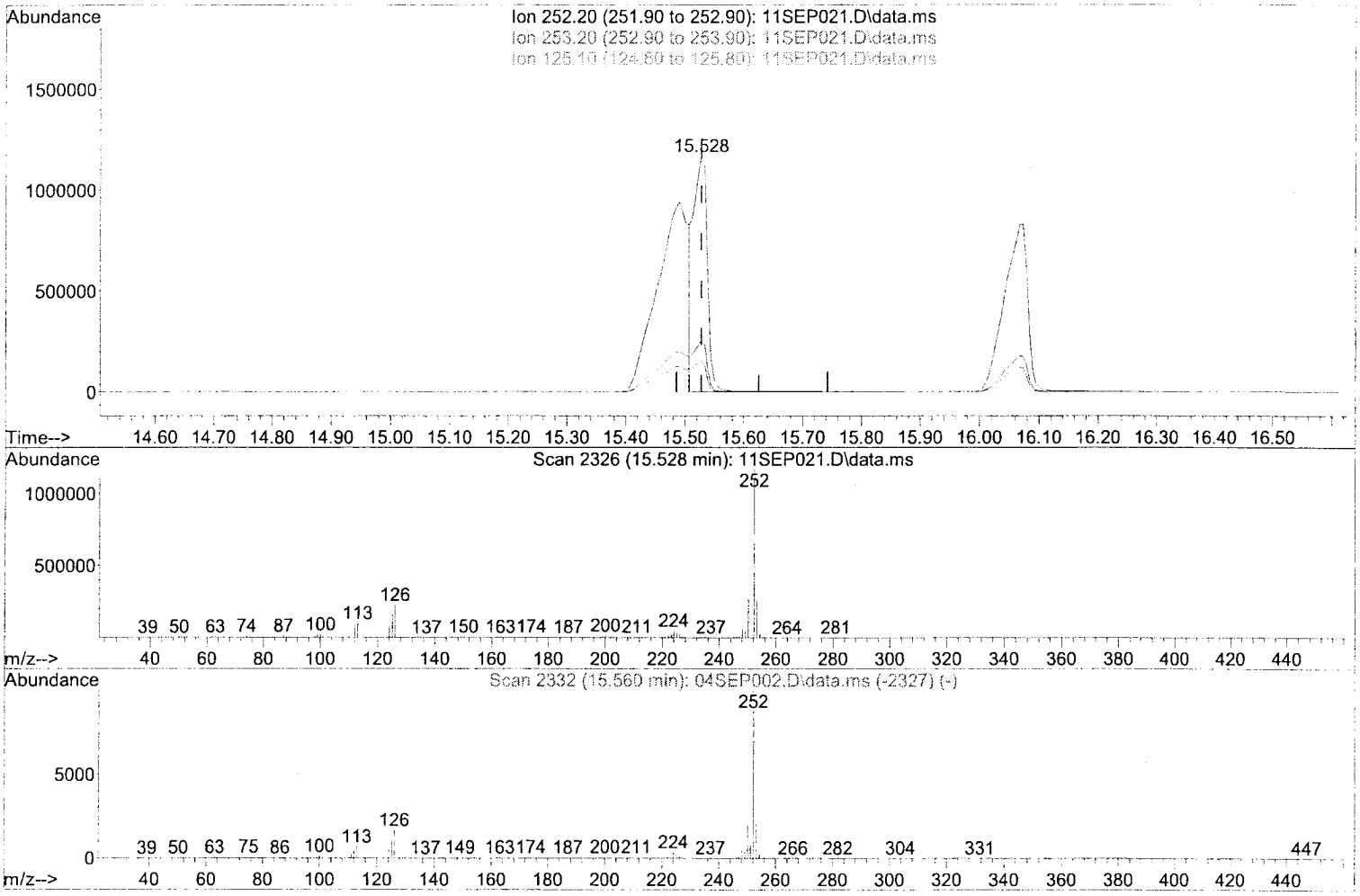
449 SEP 12 2013 421

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP021.D
Acq On : 11 Sep 2013 8:17 pm
Operator : 449
Sample : ICAL7 S071913P 80PPM BNA
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 12 09:45:40 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



TIC: 11SEP021.D\data.ms

(79) Benzo (k) Fluoranthene (T)

15.528min (0.000) 72.53 mg/l m

response 1962086

Ion	Exp%	Act%
252.20	100	100
253.20	21.90	18.32
125.10	13.40	11.05
0.00	0.00	0.00

SEP 12 2013

449

Manual Integration - After

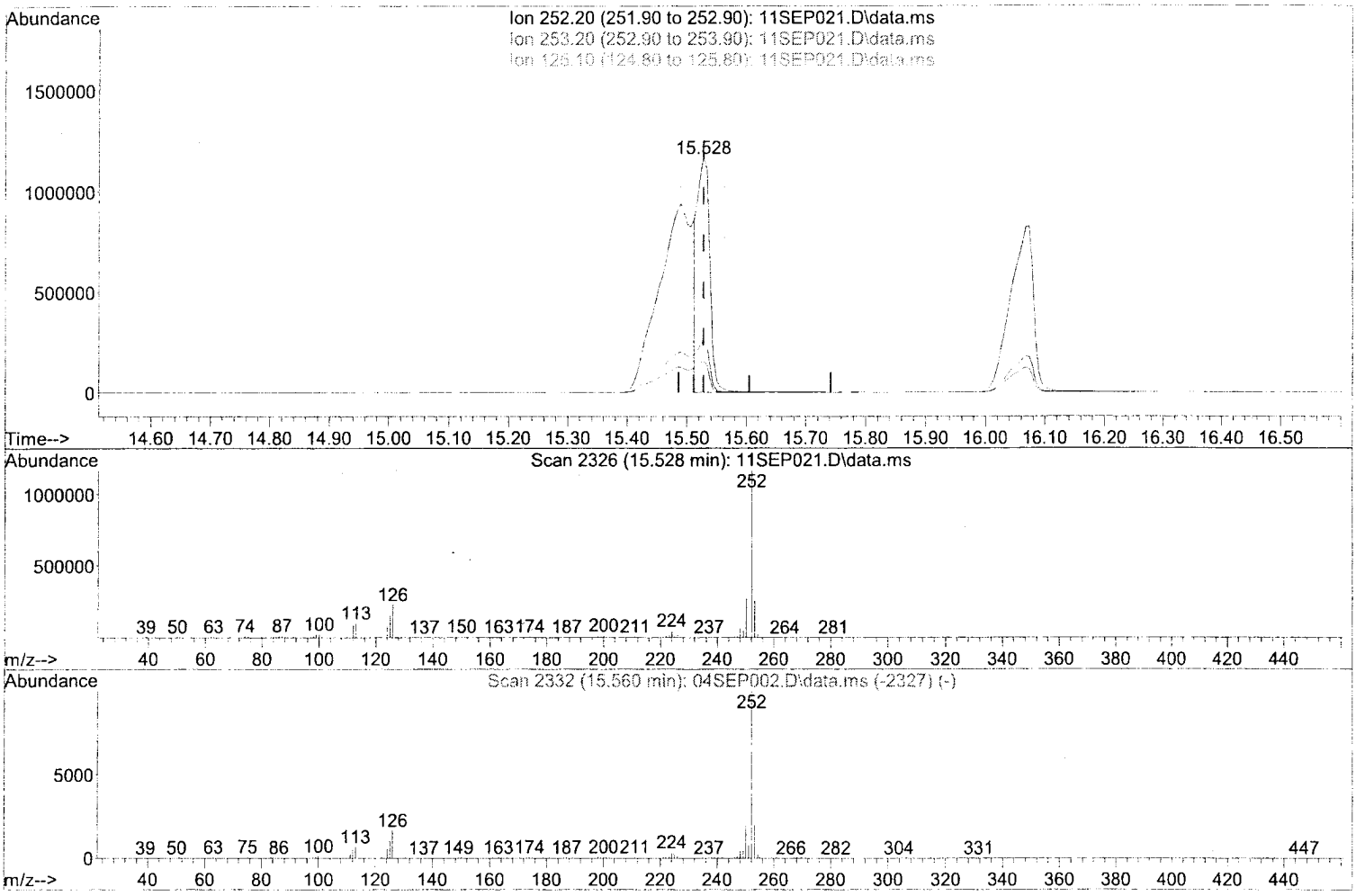
Manual Integration Reason: Baseline or Peak ID Correction

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP021.D
Acq On : 11 Sep 2013 8:17 pm
Operator : 449
Sample : ICAL7 S071913P 80PPM BNA
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 12 10:01:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



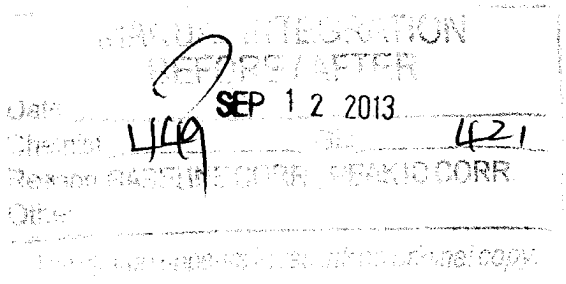
TIC: 11SEP021.D\data.ms

(79) Benzo (k) Fluoranthene (T)

15.528min (0.000) 62.16 mg/l m

response 1681474

Ion	Exp%	Act%
252.20	100	100
253.20	21.90	21.37
125.10	13.40	12.90
0.00	0.00	0.00



Manual Integration - After

Manual Integration Reason: Baseline or Peak ID Correction

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP022.D
Acq On : 11 Sep 2013 8:43 pm
Operator : 449
Sample : ICAL8 S0719130 120PPM BNA
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 12 09:41:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:40:25 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	5.692	152	368752	40.00	mg/l		0.00
19) Naphthalene-d8	7.045	136	1639679	40.00	mg/l		0.00
36) Acenaphthene-d10	8.981	164	921501	40.00	mg/l		0.00
56) Phenanthrene-d10	10.623	188	1695584	40.00	mg/l		0.01
69) Chrysene-d12	13.747	240	1517829	40.00	mg/l		0.01
81) Perylene-d12	16.175	264	1055291	40.00	mg/l		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	4.488	112	1969141	117.66	mg/l		0.00
Spiked Amount 100.000			Recovery = 117.66%				
6) Phenol-d6	5.408	99	2283340	111.40	mg/l		0.02
Spiked Amount 100.000			Recovery = 111.40%				
20) Nitrobenzene-d5	6.318	82	2119527	113.14	mg/l		0.01
Spiked Amount 100.000			Recovery = 113.14%				
41) 2-Fluorobiphenyl	8.248	172	3379443	108.74	mg/l		0.01
Spiked Amount 100.000			Recovery = 108.74%				
60) 2,4,6-Tribromophenol	9.880	330	462778	125.09	mg/l		0.00
Spiked Amount 100.000			Recovery = 125.09%				
71) p-Terphenyl-d14	12.410	244	3992937	112.55	mg/l		0.00
Spiked Amount 100.000			Recovery = 112.55%				
Target Compounds							Qvalue
2) Pyridine	3.301	52	1249896	122.15	mg/l		98
3) N-Nitrosodimethylamine	3.333	74	1320964	117.25	mg/l		88
5) Aniline	5.451	93	2492497m	108.82	mg/l		
7) Phenol	5.419	94	2442931	110.92	mg/l		96
8) Bis(2-Chloroethyl) Ether	5.483	93	1658877	107.51	mg/l		90
9) 2-Chlorophenol	5.531	128	1844186	118.00	mg/l		99
10) 1,3-Dichlorobenzene	5.654	146	1914856	115.09	mg/l		99
11) 1,4-Dichlorobenzene	5.708	146	1802914	113.33	mg/l		99
12) Benzyl Alcohol	5.906	79	1594221	112.58	mg/l		97
13) 1,2-Dichlorobenzene	5.900	146	1612713	106.24	mg/l		100
14) 2-Methylphenol	6.002	108	1587020	114.26	mg/l		92
15) Bis(2-Chloroisopropyl)...	6.018	45	2043477	109.01	mg/l	#	71
16) 3/4-Methylphenol	6.162	107	3621885	232.79	mg/l		98
17) N-Nitroso-di-n-propyla...	6.227	70	1212429	105.16	mg/l		98
18) Hexachloroethane	6.211	117	639937	108.74	mg/l		99
21) Nitrobenzene	6.339	77	1983204	111.15	mg/l		99
22) Isophorone	6.617	82	3847136	114.10	mg/l		99
23) 2-Nitrophenol	6.660	139	990949	118.70	mg/l		98
24) 2,4-Dimethylphenol	6.724	107	1877544	114.47	mg/l		96
25) Benzoic Acid	6.943	105	1410146m	145.41	mg/l		
26) Bis(2-Chloroethoxy) Me...	6.820	93	2200277	112.21	mg/l		100
27) 2,4-Dichlorophenol	6.927	162	1419214	114.74	mg/l		100
28) 1,2,4-Trichlorobenzene	6.997	180	1553418	112.03	mg/l		100
29) Naphthalene	7.072	128	4768107	110.60	mg/l		100
30) 2,6-Dichlorophenol	7.157	162	1274570	110.42	mg/l		100
31) 4-Chloroaniline	7.163	127	1703540	112.87	mg/l		98
32) Hexachloro-1,3-Butadiene	7.254	225	816135	110.87	mg/l		100
33) 4-Chloro-3-Methylphenol	7.681	107	1637533	115.85	mg/l		98
34) 2-Methylnaphthalene	7.815	142	3082719	108.88	mg/l		99
35) 1-Methylnaphthalene	7.938	142	2889608	108.79	mg/l		99
37) Hexachlorocyclopentadiene	8.050	237	635776	143.53	mg/l		100
38) 2,4,6-Trichlorophenol	8.163	196	1031906	120.25	mg/l		100
39) 2,4,5-Trichlorophenol	8.211	196	1030962	122.28	mg/l		99
40) 2-Chloronaphthalene	8.355	162	3012669	111.81	mg/l		99

SEP 2 2013

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP022.D
Acq On : 11 Sep 2013 8:43 pm
Operator : 449
Sample : ICAL8 S0719130 120PPM BNA
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 12 09:41:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:40:25 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.521	65	1078647	119.20	mg/l		96
43) Dimethyl Phthalate	8.751	163	3704834	114.87	mg/l		100
44) Acenaphthylene	8.821	152	4449407	108.39	mg/l		100
45) 3-Nitroaniline	8.992	138	761827	132.67	mg/l		99
46) Acenaphthene	9.029	153	2989269	111.15	mg/l		99
47) 2,4-Dinitrophenol	9.099	184	385291	164.98	mg/l		98
48) 4-Nitrophenol	9.200	65	556718	125.21	mg/l	#	1
49) Dibenzofuran	9.206	168	3843219	107.01	mg/l		82
50) 2,4-Dinitrotoluene	9.275	165	1189190	122.97	mg/l		96
51) 2,6-Dinitrotoluene	8.837	165	783899	114.78	mg/l		100
52) Diethyl Phthalate	9.548	149	3368718	111.03	mg/l		98
53) 4-Chlorophenyl-Phenyl ...	9.586	204	1412233	100.43	mg/l		99
54) Fluorene	9.591	166	2858229	101.74	mg/l		100
55) 4-Nitroaniline	9.709	138	688853	120.90	mg/l		85
57) Azobenzene	9.767	77	3890568	107.10	mg/l		95
58) 4,6-Dinitro-2-Methylph...	9.741	198	490769	128.02	mg/l	#	1
59) N-Nitrosodiphenylamine	9.746	169	2204523	104.68	mg/l		96
61) 4-Bromophenyl-Phenyl E...	10.120	248	1035186	115.10	mg/l		97
62) Hexachlorobenzene	10.286	142	363799	106.18	mg/l		91
63) Pentachlorophenol	10.489	266	661761	137.61	mg/l		97
64) Phenanthrene	10.655	178	4878485	109.25	mg/l		100
65) Anthracene	10.709	178	4885748	108.47	mg/l		99
66) Di-n-Butyl Phthalate	11.324	149	5635379	105.83	mg/l		100
67) Fluoranthene	11.982	202	5455312	109.94	mg/l		99
68) Benzidine	12.126	184	998823	141.29	mg/l		97
70) Pyrene	12.233	202	5456289	110.77	mg/l		100
72) Butyl Benzyl Phthalate	13.019	149	2547686	110.91	mg/l		99
73) 3,3'-Dichlorobenzidine	13.715	252	993421	132.84	mg/l		99
74) Benzo (a) Anthracene	13.725	228	4776371	113.92	mg/l		100
75) Bis(2-Ethylhexyl) Phth...	13.832	149	3260282	109.06	mg/l		97
76) Chrysene	13.795	228	4549731	117.12	mg/l		99
77) Di-n-Octyl Phthalate	14.822	149	5428510	112.81	mg/l		99
78) Benzo (b) Fluoranthene	15.512	252	5129425	137.97	mg/l		99
79) Benzo (k) Fluoranthene	15.549	252	2521881m	95.15	mg/l		
80) Benzo (a) Pyrene	16.089	252	3200878	121.07	mg/l		99
82) Indeno (1,2,3-c,d) Pyrene	18.368	276	2136476	115.23	mg/l		95
83) Dibenz (a,h) Anthracene	18.416	278	1854182	117.27	mg/l		99
84) Benzo (g,h,i) Perylene	18.924	276	1597501	111.79	mg/l		100

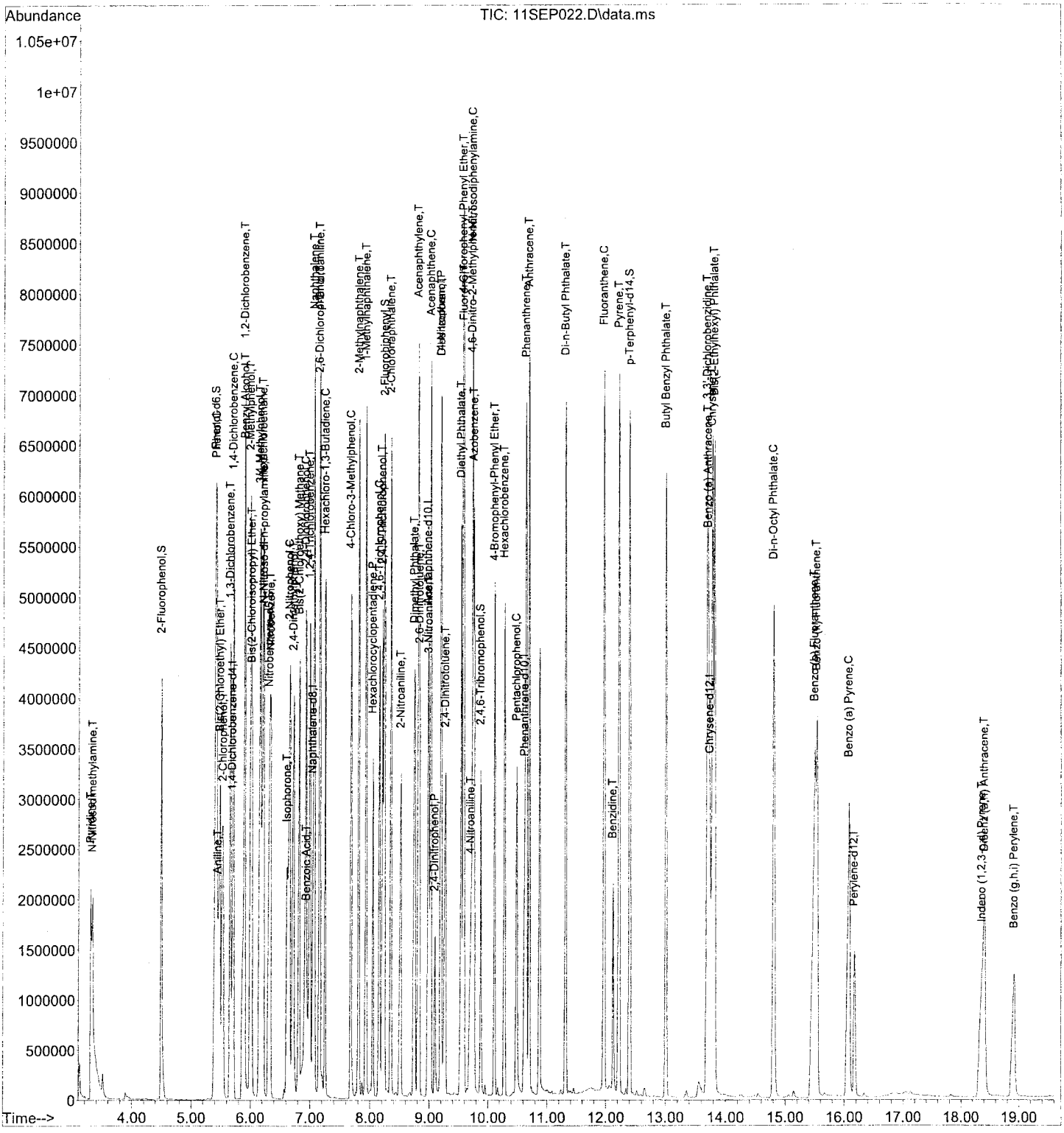
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SEP 12 2013

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP022.D
Acq On : 11 Sep 2013 8:43 pm
Operator : 449
Sample : ICAL8 S0719130 120PPM BNA
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

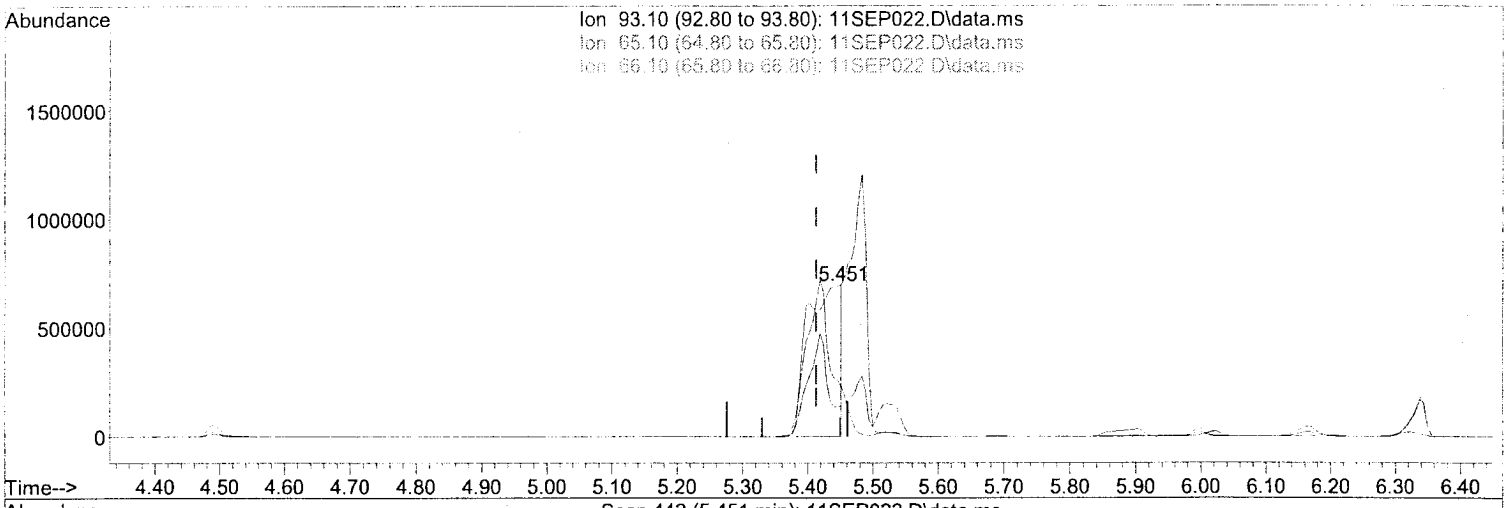
Quant Time: Sep 12 09:41:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:40:25 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

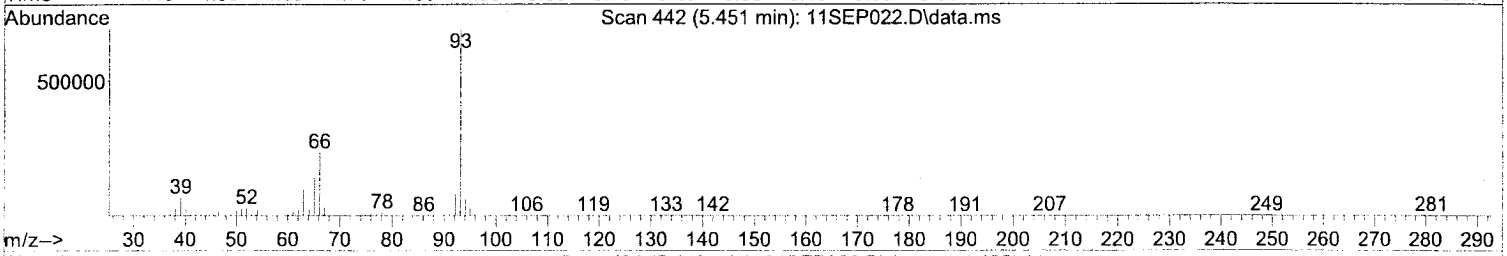


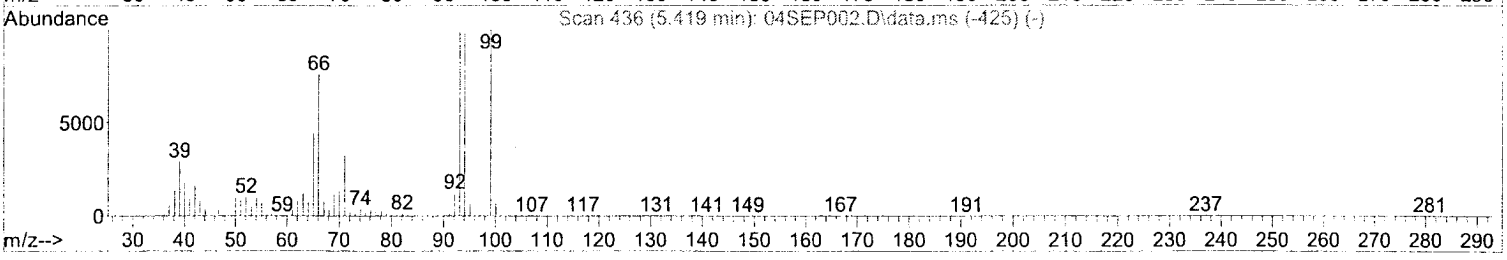
Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP022.D
Acq On : 11 Sep 2013 8:43 pm
Operator : 449
Sample : ICAL8 S0719130 120PPM BNA
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 12 09:40:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:40:25 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP022.D\data.ms

(5) Aniline (T)

5.451min (+0.037) 108.82 mg/l m

response 2492497

Ion	Exp%	Act%
93.10	100	100
65.10	38.50	39.44
66.10	64.60	66.49
0.00	0.00	0.00

SEP 12 2013

449

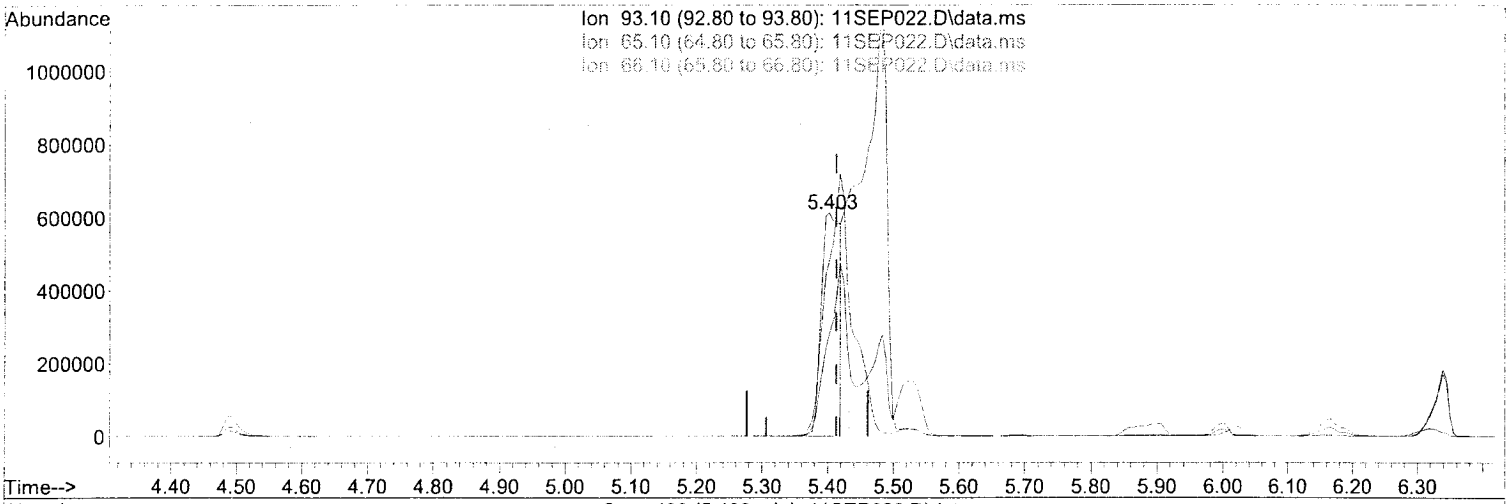
421

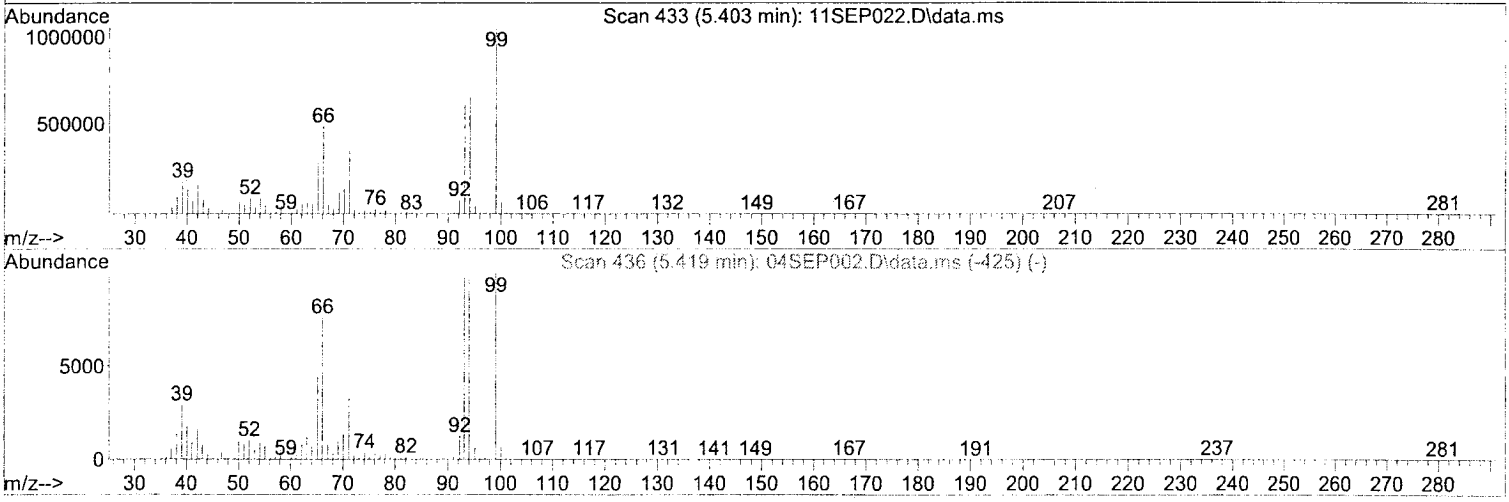
Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP022.D
Acq On : 11 Sep 2013 8:43 pm
Operator : 449
Sample : ICAL8 S0719130 120PPM BNA
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 12 09:40:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:40:25 2013
Response via : Initial Calibration
DataAcq Meth:8270.M





TIC: 11SEP022.D\data.ms

(5) Aniline (T)

5.403min (-0.011) 52.55 mg/l

response 1203593

Ion	Exp%	Act%
93.10	100	100
65.10	38.50	81.67#
66.10	64.60	137.69#
0.00	0.00	0.00

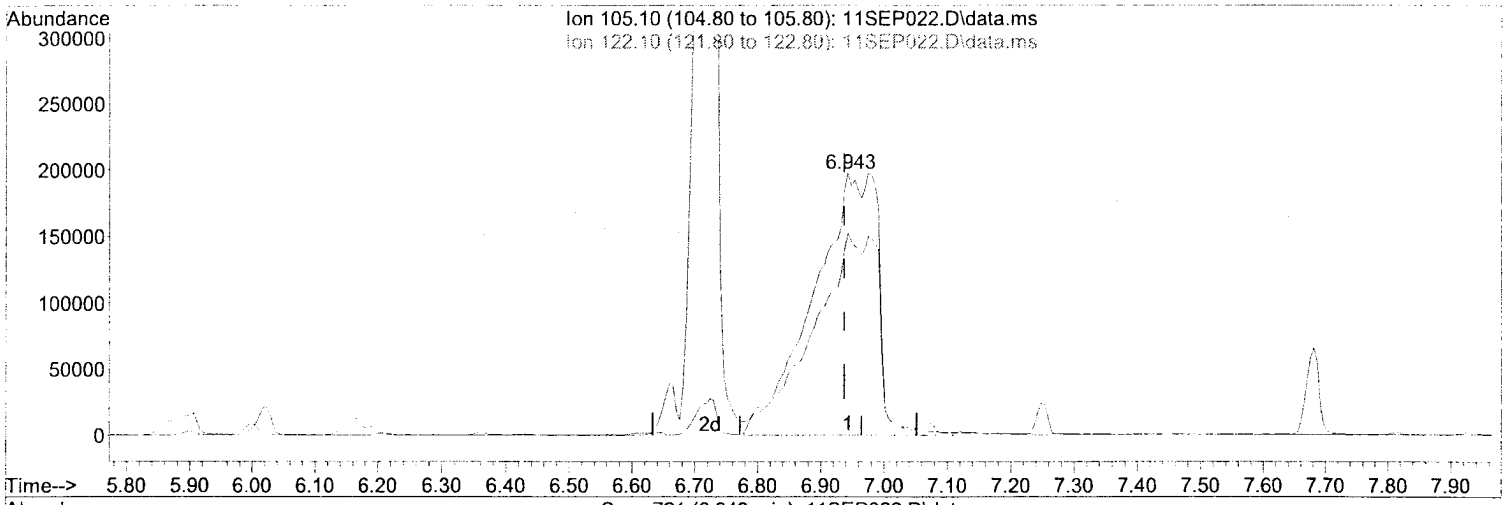
449 SEP 12 2013 421

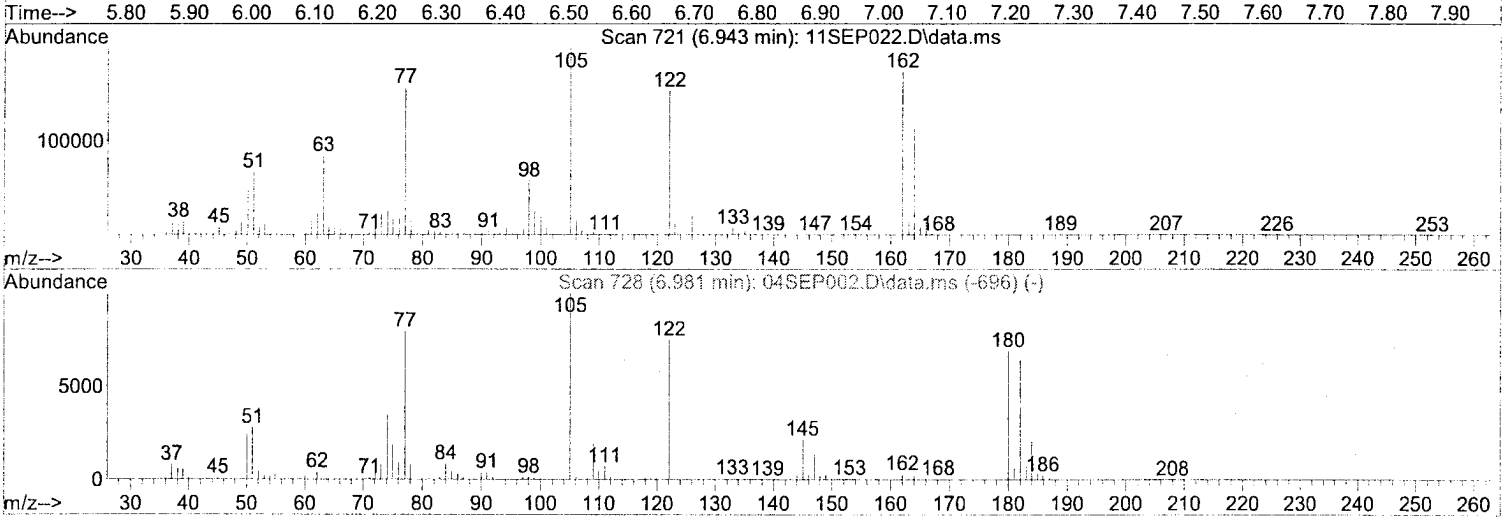
Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP022.D
Acq On : 11 Sep 2013 8:43 pm
Operator : 449
Sample : ICAL8 S0719130 120PPM BNA
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 12 09:40:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:40:25 2013
Response via : Initial Calibration
DataAcq Meth:8270.M





TIC: 11SEP022.D\data.ms

(25) Benzoic Acid (T)

6.943min (+0.005) 145.41 mg/l m

response 1410146

Ion	Exp%	Act%
105.10	100	100
122.10	70.30	49.00
0.00	0.00	0.00
0.00	0.00	0.00

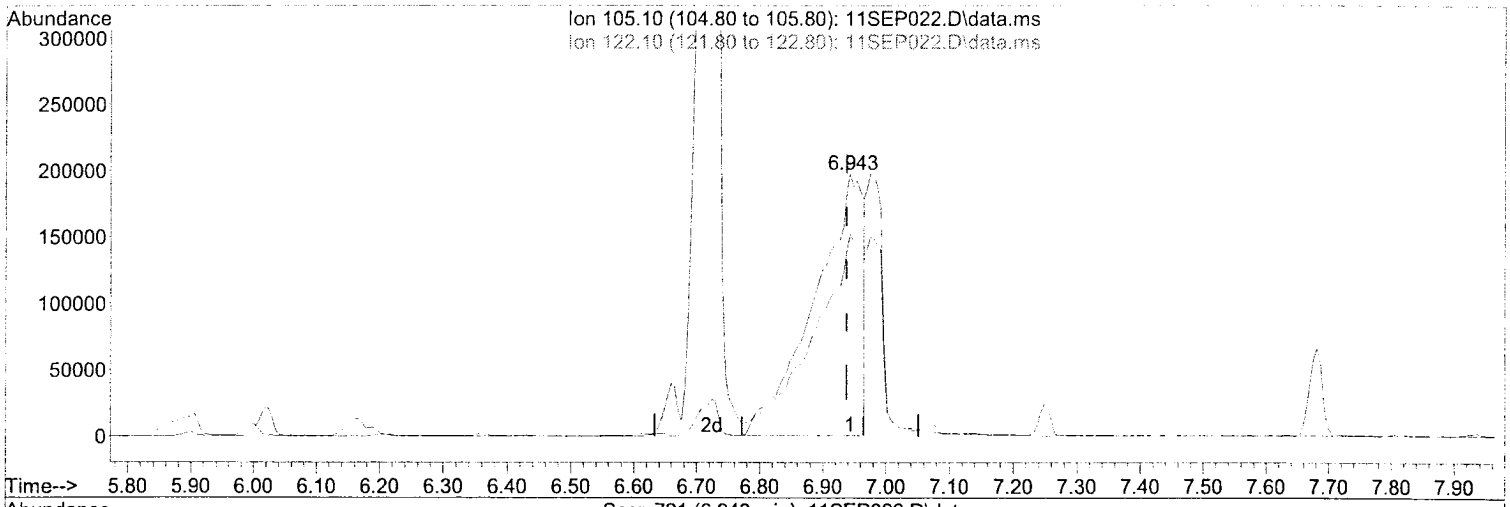
449

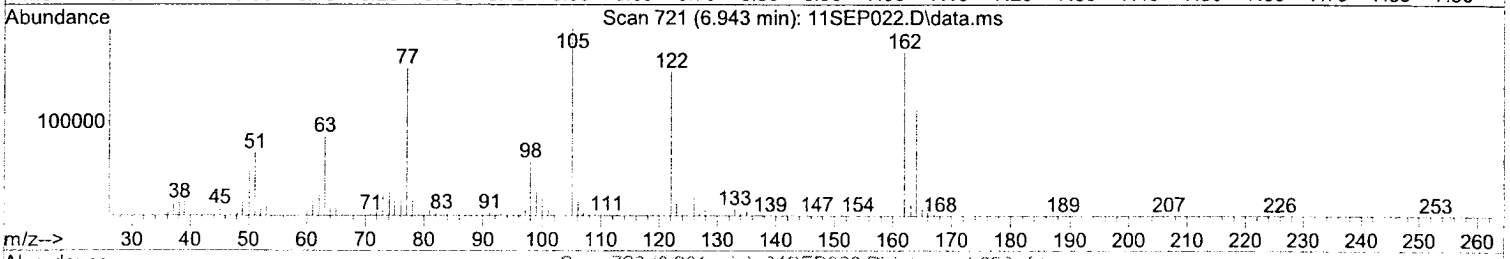
SEP 12 2013 421

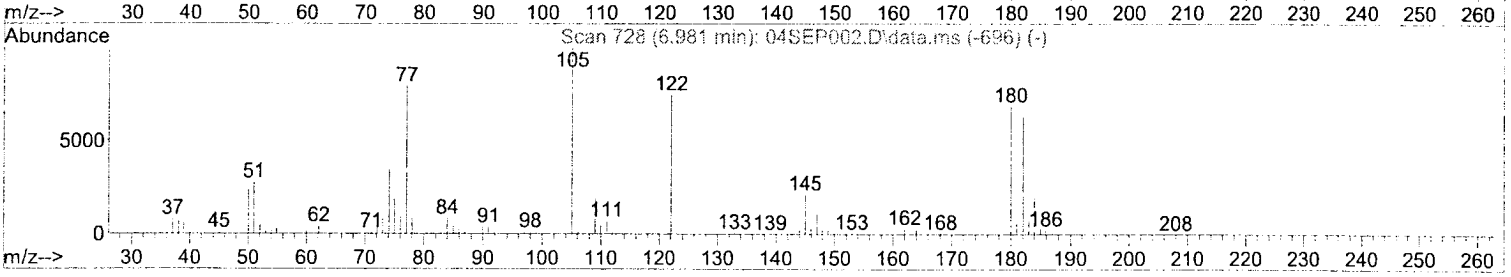
Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP022.D
Acq On : 11 Sep 2013 8:43 pm
Operator : 449
Sample : ICAL8 S0719130 120PPM BNA
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 12 09:40:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:40:25 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP022.D\data.ms

(25) Benzoic Acid (T)

6.943min (+0.005) 107.50 mg/l

response 1042451

Ion	Exp%	Act%
105.10	100	100
122.10	70.30	66.29
0.00	0.00	0.00
0.00	0.00	0.00

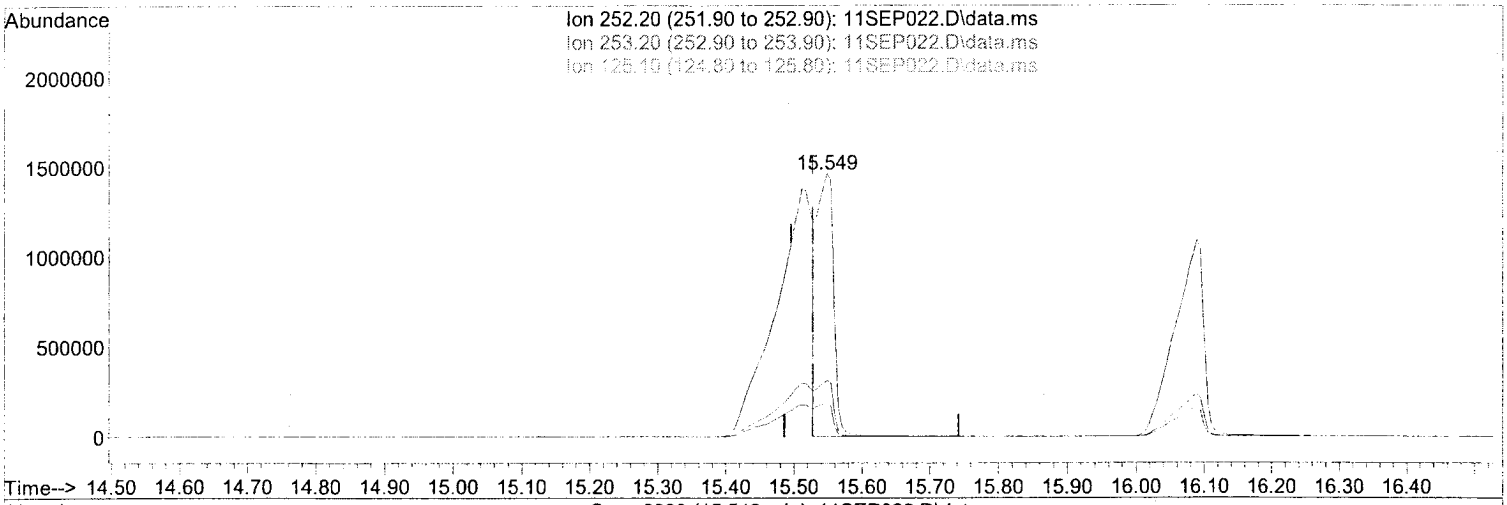
449 SEP 12 2013 421

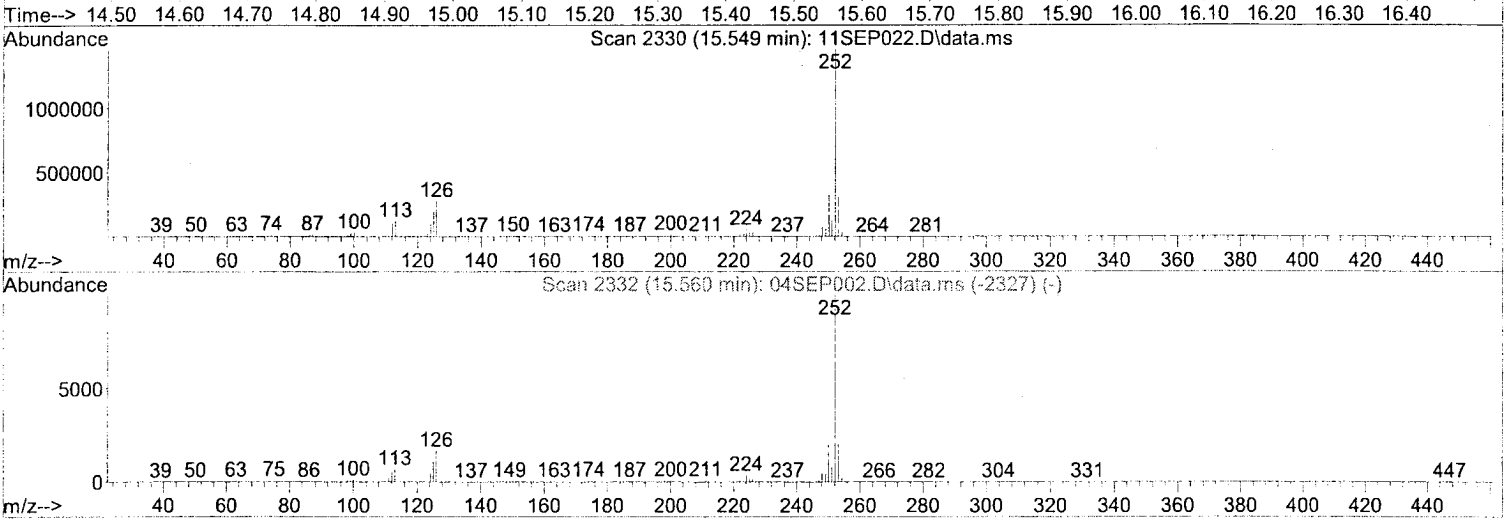
Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP022.D
Acq On : 11 Sep 2013 8:43 pm
Operator : 449
Sample : ICAL8 S0719130 120PPM BNA
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 12 09:40:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:40:25 2013
Response via : Initial Calibration
DataAcq Meth:8270.M





TIC: 11SEP022.D\data.ms

(79) Benzo (k) Fluoranthene (T)

15.549min (+0.021) 95.15 mg/l m

response 2521881

Ion	Exp%	Act%
252.20	100	100
253.20	21.90	3.24
125.10	13.40	1.72
0.00	0.00	0.00

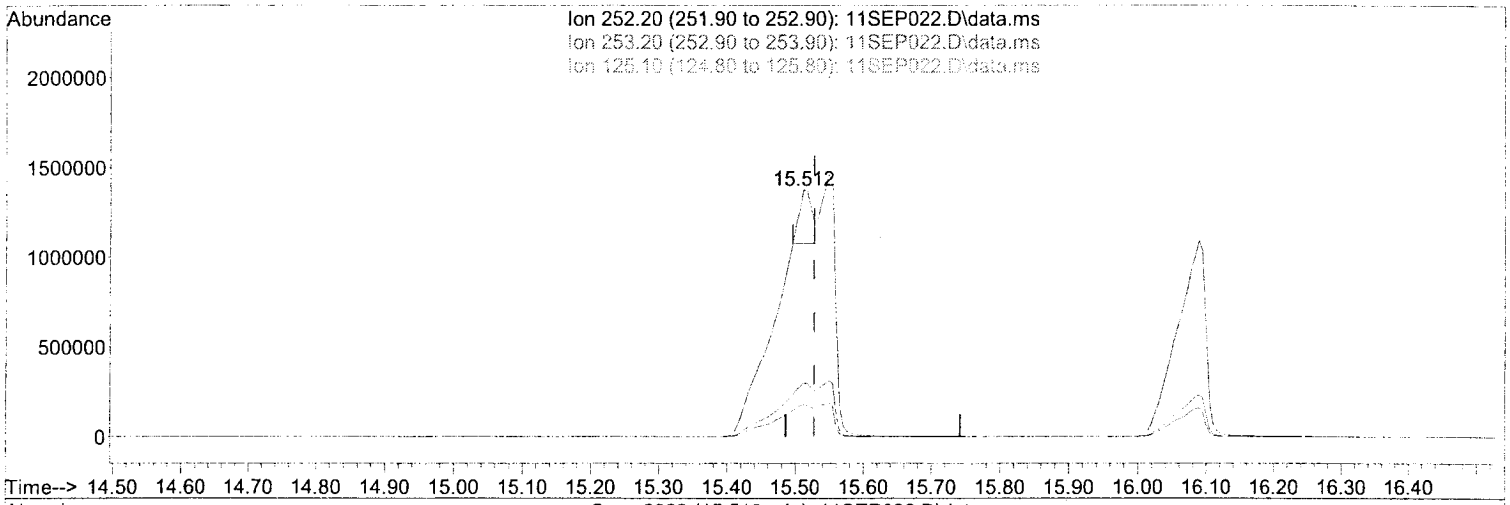
449 SEP 12 2013 421

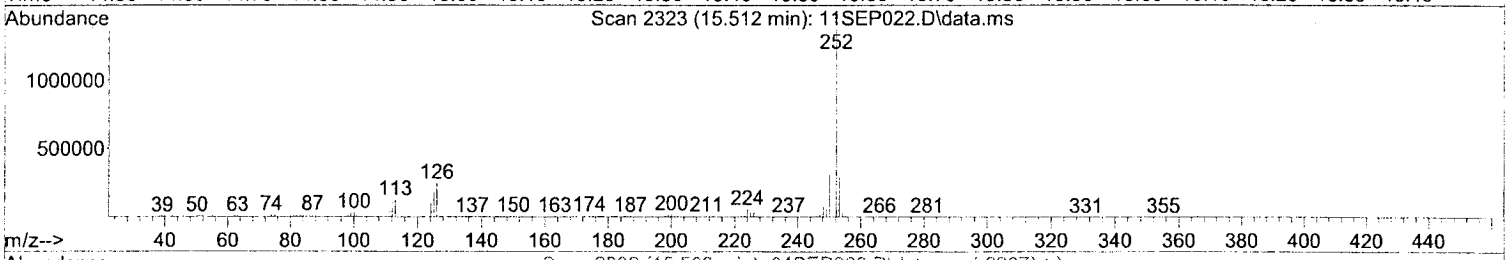
Return to Contents

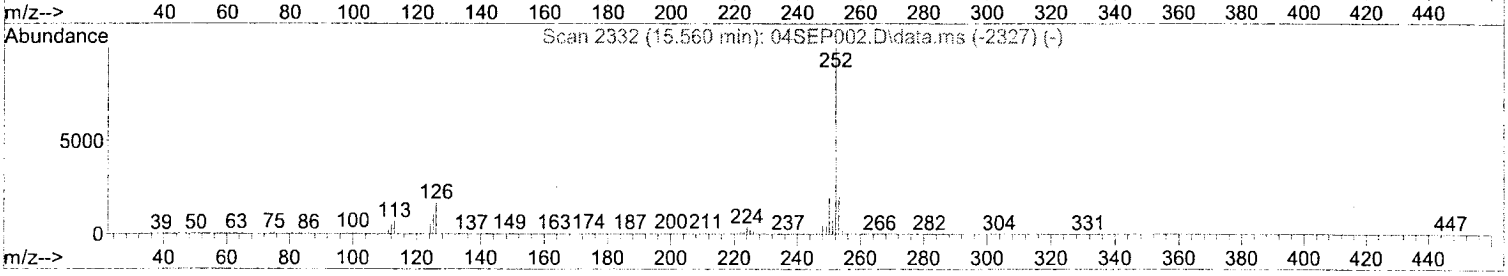
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP022.D
Acq On : 11 Sep 2013 8:43 pm
Operator : 449
Sample : ICAL8 S0719130 120PPM BNA
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 12 09:40:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:40:25 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP022.D\data.ms

(79) Benzo (k) Fluoranthene (T)

15.512min (-0.016) 14.78 mg/l

response 391776

Ion	Exp%	Act%
252.20	100	100
253.20	21.90	20.89
125.10	13.40	11.06
0.00	0.00	0.00

SEP 12 2013

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
Sample : ICAL9 S071913N 160PPM BNA
InstName : GCMS SS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 10:00:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.692	152	348182	40.00	mg/l	# 0.00
19) Naphthalene-d8	7.050	136	1579932	40.00	mg/l	0.01
36) Acenaphthene-d10	8.987	164	904480	40.00	mg/l	0.01
56) Phenanthrene-d10	10.629	188	1664717	40.00	mg/l	0.02
69) Chrysene-d12	13.758	240	1461941	40.00	mg/l	0.02
81) Perylene-d12	16.186	264	1014112	40.00	mg/l	0.02
System Monitoring Compounds						
4) 2-Fluorophenol	4.494	112	2466368	156.08	mg/l	0.01
Spiked Amount 100.000			Recovery = 156.08%			
6) Phenol-d6	5.419	99	2807885	145.09	mg/l	0.03
Spiked Amount 100.000			Recovery = 145.09%			
20) Nitrobenzene-d5	6.328	82	2642923	146.41	mg/l	0.02
Spiked Amount 100.000			Recovery = 146.41%			
41) 2-Fluorobiphenyl	8.254	172	4099055	134.37	mg/l	0.02
Spiked Amount 100.000			Recovery = 134.37%			
60) 2,4,6-Tribromophenol	9.890	330	601305	165.55	mg/l	0.02
Spiked Amount 100.000			Recovery = 165.55%			
71) p-Terphenyl-d14	12.415	244	5109964	149.54	mg/l	0.01
Spiked Amount 100.000			Recovery = 149.54%			
Target Compounds			SEP 12 2013			Qvalue
2) Pyridine	3.296	52	1545282	159.94	mg/l	99
3) N-Nitrosodimethylamine	3.338	74	1676460	157.60	mg/l	86
5) Aniline	5.472	93	3878318m	179.33	mg/l	
7) Phenol	5.435	94	3097383	148.95	mg/l	93
8) Bis(2-Chloroethyl) Ether	5.494	93	1586382m	108.89	mg/l	
9) 2-Chlorophenol	5.537	128	2315406	156.91	mg/l	98
10) 1,3-Dichlorobenzene	5.660	146	2382669	151.66	mg/l	99
11) 1,4-Dichlorobenzene	5.713	146	2193267	146.01	mg/l	99
12) Benzyl Alcohol	5.922	79	2099978m	157.05	mg/l	
13) 1,2-Dichlorobenzene	5.906	146	2038889	142.25	mg/l	99
14) 2-Methylphenol	6.007	108	1921799	146.54	mg/l	93
15) Bis(2-Chloroisopropyl)...	6.029	45	2450173	138.43	mg/l	73
16) 3/4-Methylphenol	6.178	107	4433032	301.76	mg/l	99
17) N-Nitroso-di-n-propyla...	6.243	70	1631722	149.90	mg/l	98
18) Hexachloroethane	6.211	117	790063	142.18	mg/l	98
21) Nitrobenzene	6.350	77	2464977	143.37	mg/l	99
22) Isophorone	6.633	82	4620332	142.22	mg/l	86
23) 2-Nitrophenol	6.671	139	1238894	154.01	mg/l	96
24) 2,4-Dimethylphenol	6.740	107	2441868	154.51	mg/l	98
25) Benzoic Acid	7.029	105	1838687m	196.77	mg/l	
26) Bis(2-Chloroethoxy) Me...	6.831	93	2717646	143.83	mg/l	100
27) 2,4-Dichlorophenol	6.938	162	1793314	150.47	mg/l	100
28) 1,2,4-Trichlorobenzene	7.002	180	1926748	144.20	mg/l	100
29) Naphthalene	7.077	128	5885723	141.69	mg/l	99
30) 2,6-Dichlorophenol	7.163	162	1591267	143.07	mg/l	99
31) 4-Chloroaniline	7.173	127	2063567	141.89	mg/l	98
32) Hexachloro-1,3-Butadiene	7.254	225	1003297	141.44	mg/l	100
33) 4-Chloro-3-Methylphenol	7.687	107	2052372	150.69	mg/l	98
34) 2-Methylnaphthalene	7.821	142	3813942	139.80	mg/l	99
35) 1-Methylnaphthalene	7.944	142	3541541	138.38	mg/l	100
37) Hexachlorocyclopentadiene	8.056	237	812158	186.80	mg/l	100
38) 2,4,6-Trichlorophenol	8.168	196	1349598	160.23	mg/l	99
39) 2,4,5-Trichlorophenol	8.222	196	1263712	152.70	mg/l	99
40) 2-Chloronaphthalene	8.361	162	3755817	142.02	mg/l	99

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
Sample : ICAL9 S071913N 160PPM BNA
InstName : GCMS SS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 10:00:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.532	65	1376191	154.94	mg/l		95
43) Dimethyl Phthalate	8.757	163	4727921	149.35	mg/l		100
44) Acenaphthylene	8.826	152	5600529	139.00	mg/l		100
45) 3-Nitroaniline	9.003	138	1043438	185.14	mg/l		98
46) Acenaphthene	9.040	153	3704010	140.32	mg/l		99
47) 2,4-Dinitrophenol	9.110	184	575932	251.25	mg/l		95
48) 4-Nitrophenol	9.222	65	719889	164.96	mg/l	#	1
49) Dibenzofuran	9.211	168	4783128	135.68	mg/l		82
50) 2,4-Dinitrotoluene	9.291	165	1551901	163.50	mg/l		96
51) 2,6-Dinitrotoluene	8.853	165	1014796	151.38	mg/l		98
52) Diethyl Phthalate	9.559	149	4127909	138.61	mg/l		98
53) 4-Chlorophenyl-Phenyl ...	9.591	204	1667423	120.81	mg/l		98
54) Fluorene	9.602	166	3460782	125.51	mg/l		100
55) 4-Nitroaniline	9.735	138	899359	160.81	mg/l		87
57) Azobenzene	9.778	77	4562314	127.92	mg/l		96
58) 4,6-Dinitro-2-Methylph...	9.762	198	619554	164.61	mg/l	#	1
59) N-Nitrosodiphenylamine	9.751	169	2646826	128.01	mg/l		96
61) 4-Bromophenyl-Phenyl E...	10.126	248	1309333	148.29	mg/l		97
62) Hexachlorobenzene	10.292	142	446082	132.60	mg/l		87
63) Pentachlorophenol	10.495	266	890501	188.61	mg/l		98
64) Phenanthrene	10.666	178	6315084	144.04	mg/l		100
65) Anthracene	10.719	178	6081104	137.51	mg/l		99
66) Di-n-Butyl Phthalate	11.329	149	7026781	134.41	mg/l		100
67) Fluoranthene	11.992	202	6893994	141.50	mg/l		98
68) Benzidine	12.132	184	1366267	196.85	mg/l		97
70) Pyrene	12.244	202	6888148	145.19	mg/l		100
72) Butyl Benzyl Phthalate	13.025	149	3235338	146.22	mg/l		98
73) 3,3'-Dichlorobenzidine	13.731	252	1469553	204.03	mg/l		98
74) Benzo (a) Anthracene	13.720	228	6117929	151.50	mg/l		100
75) Bis(2-Ethylhexyl) Phth...	13.838	149	3923755	136.27	mg/l		97
76) Chrysene	13.811	228	5673030	151.61	mg/l		99
77) Di-n-Octyl Phthalate	14.827	149	7025363	151.58	mg/l		99
78) Benzo (b) Fluoranthene	15.533	252	7107793	198.49	mg/l		99
79) Benzo (k) Fluoranthene	15.571	252	2779496m	108.88	mg/l		
80) Benzo (a) Pyrene	16.111	252	4091637	160.68	mg/l		99
82) Indeno (1,2,3-c,d) Pyrene	18.389	276	2515719	141.20	mg/l		96
83) Dibenz (a,h) Anthracene	18.432	278	2203237	145.01	mg/l		99
84) Benzo (g,h,i) Perylene	18.940	276	1846962	134.50	mg/l		99

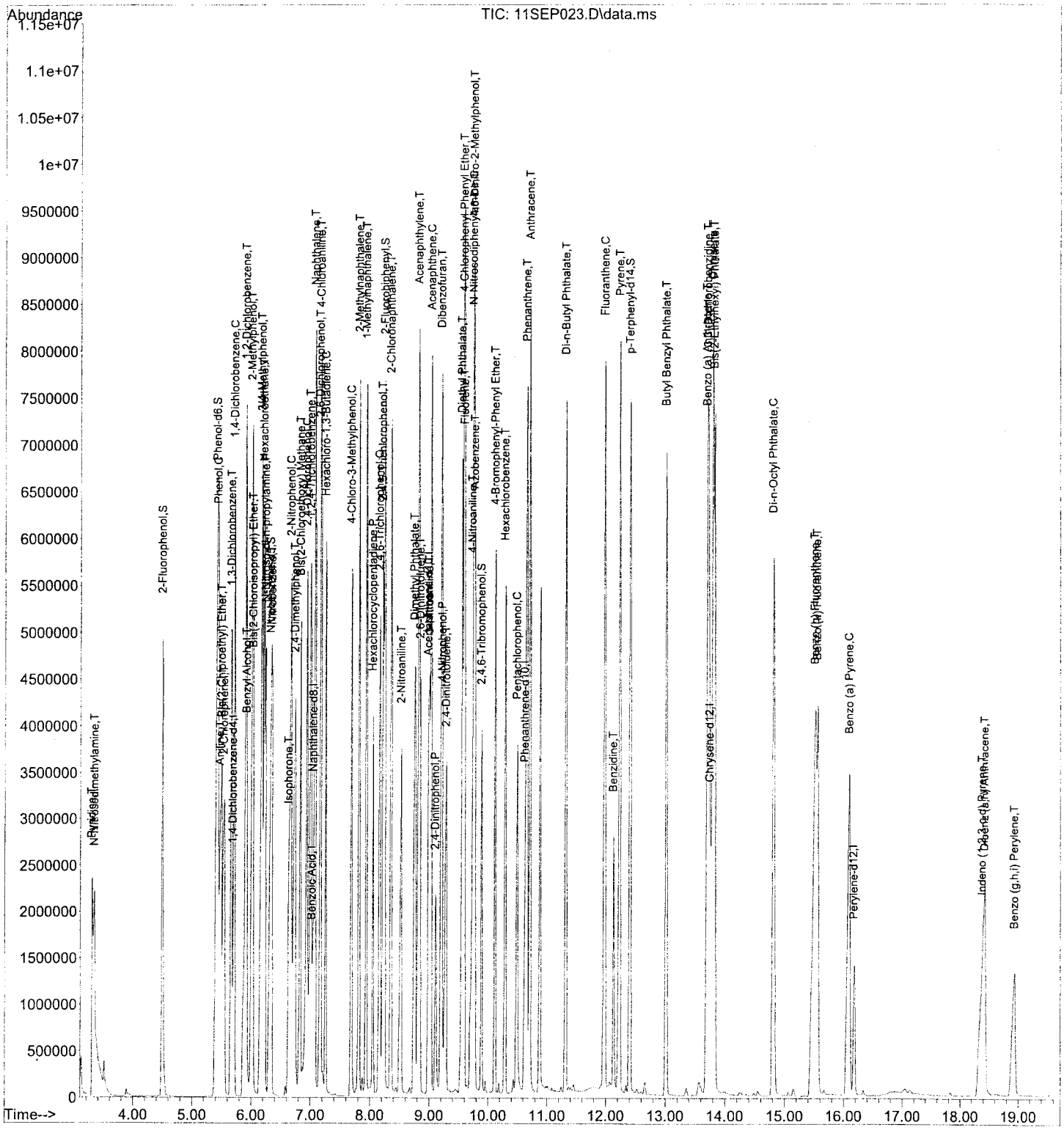
SEP 12 2013 449

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
Sample : ICAL9 S071913N 160PPM BNA
InstName : GCMS SS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 10:00:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

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Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
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Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
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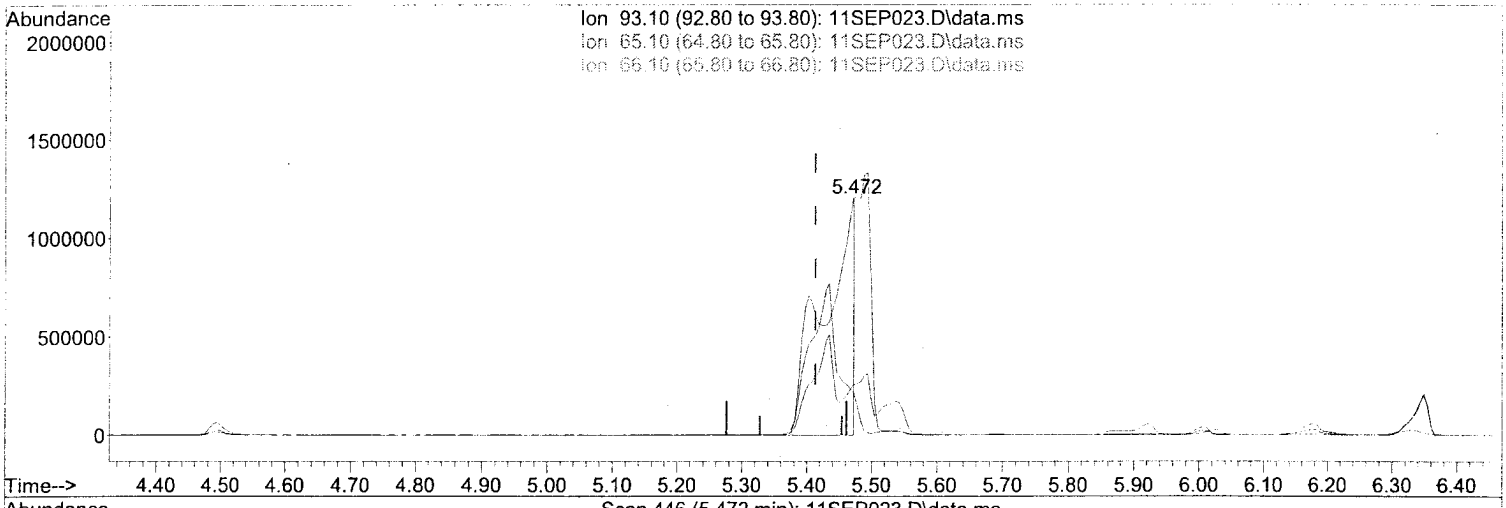
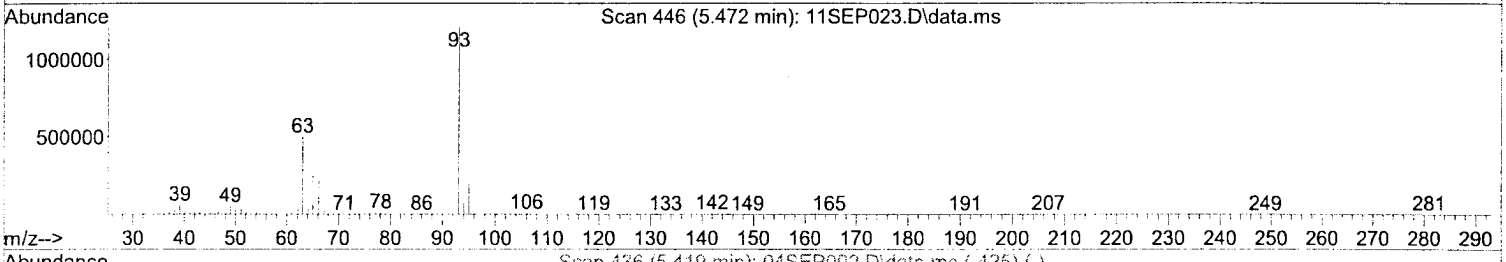
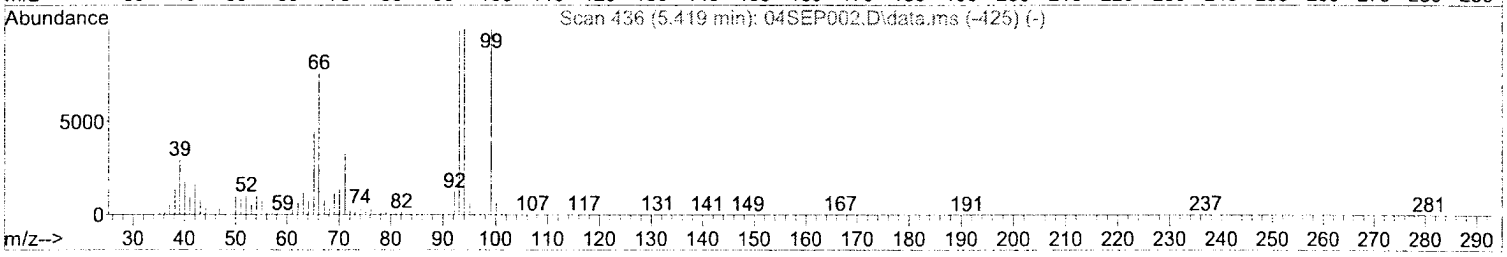






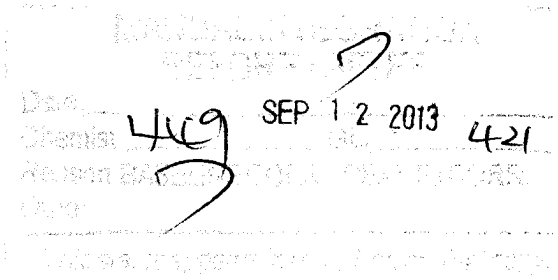
TIC: 11SEP023.D\data.ms

(5) Aniline (T)

5.472min (+0.059) 179.33 mg/l m

response 3878318

Ion	Exp%	Act%
93.10	100	100
65.10	38.50	28.11
66.10	64.60	47.14
0.00	0.00	0.00

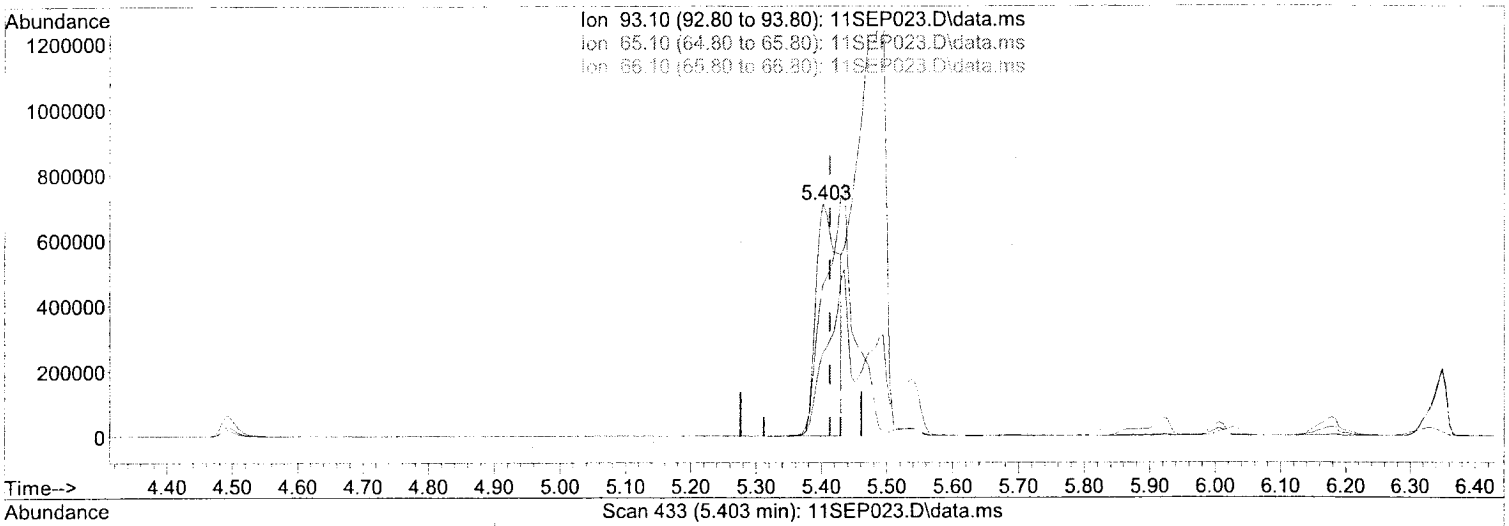


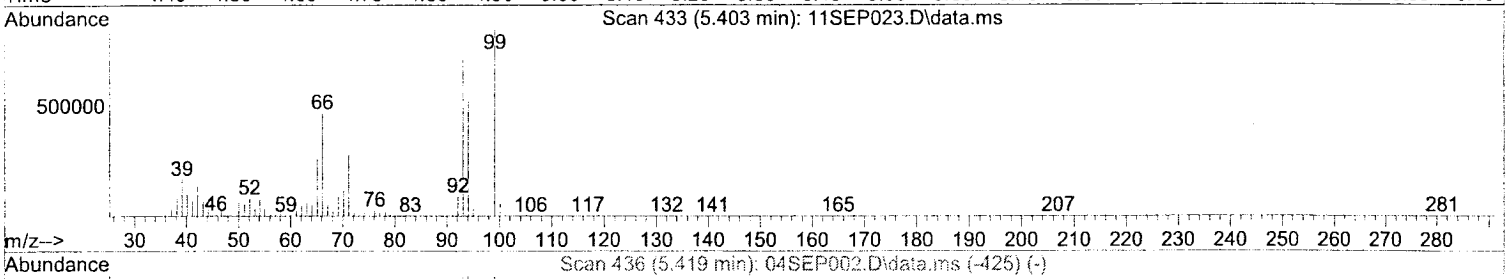
Return to Contents

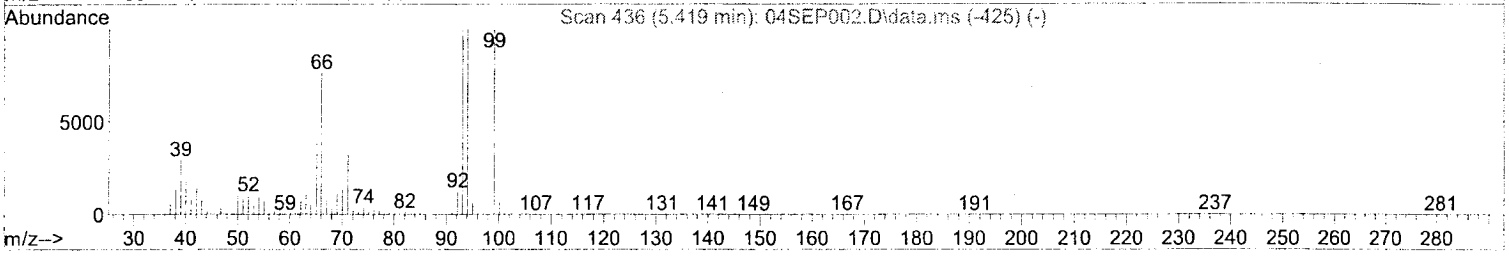
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
Sample : ICAL9 S071913N 160PPM BNA
InstName : GCMS SS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 09:43:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP023.D\data.ms

(5) Aniline (T)

5.403min (-0.011) 76.81 mg/l

response 1661045

Ion	Exp%	Act%
93.10	100	100
65.10	38.50	65.63
66.10	64.60	110.07#
0.00	0.00	0.00

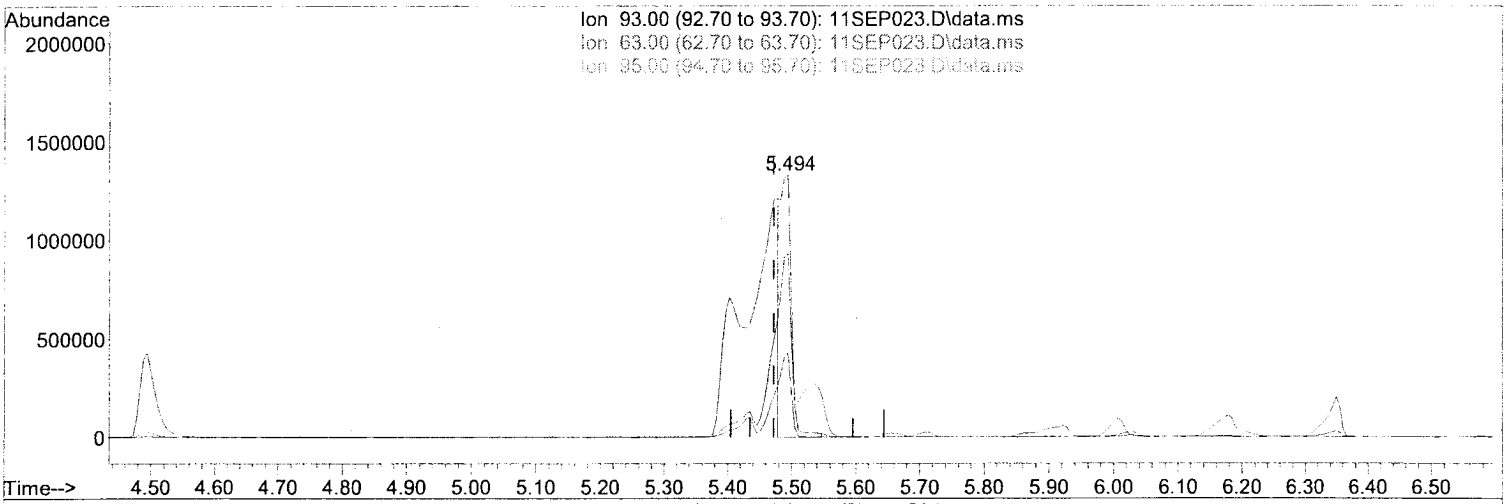
449 SEP 12 2013 421

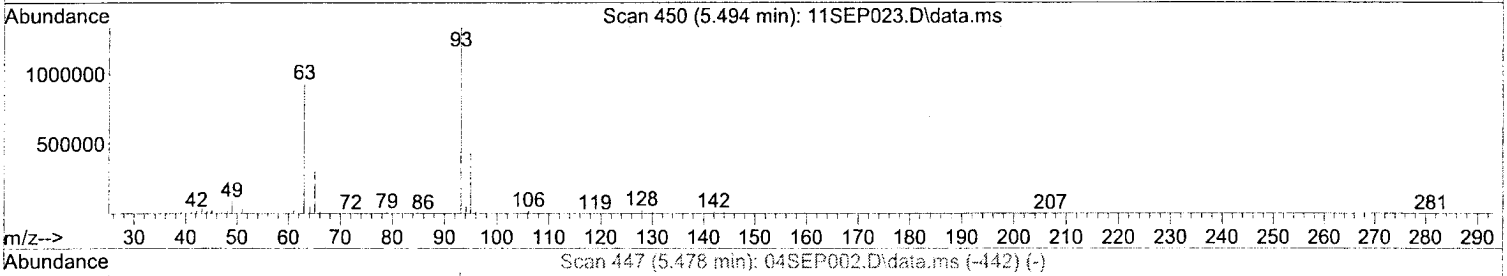
Return to Contents

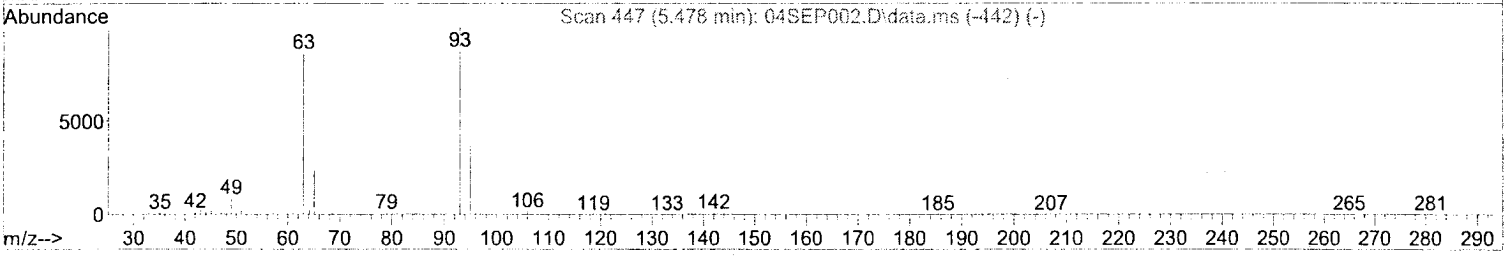
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
Sample : ICAL9 S071913N 160PPM BNA
InstName : GCMS SS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 09:43:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP023.D\data.ms

(8) Bis(2-Chloroethyl) Ether (T)

5.494min (+0.021) 108.89 mg/l m

response 1586382

Ion	Exp%	Act%
93.00	100	100
63.00	68.30	101.25#
95.00	31.60	46.79
0.00	0.00	0.00

449 SEP 12 2013 421

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
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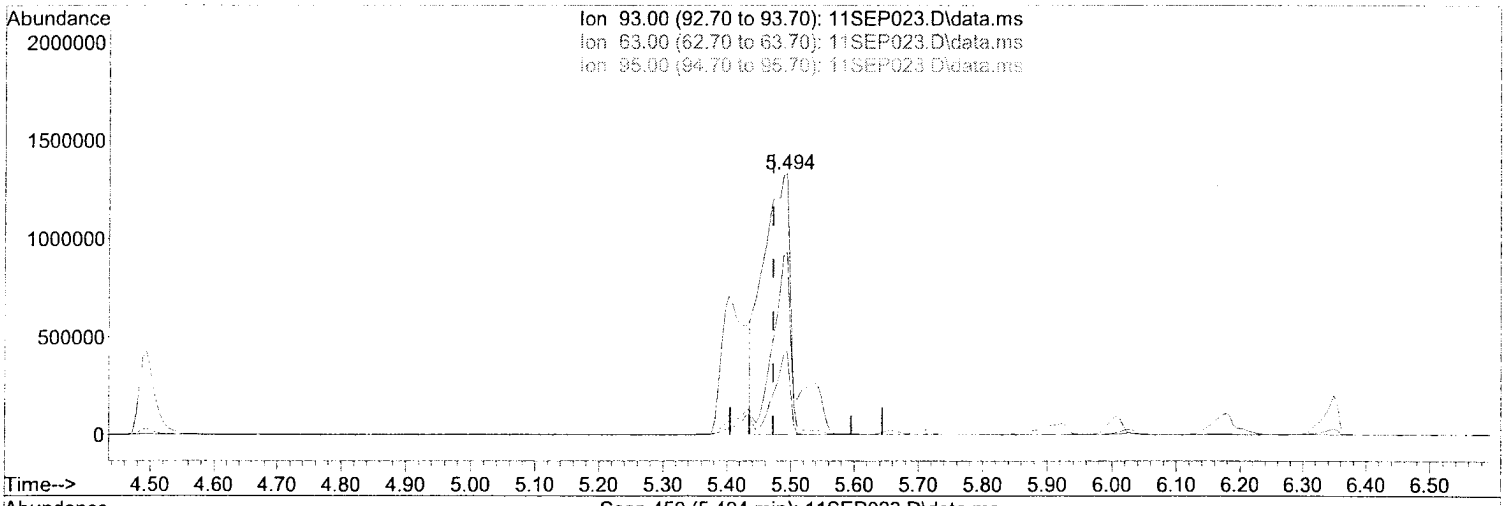

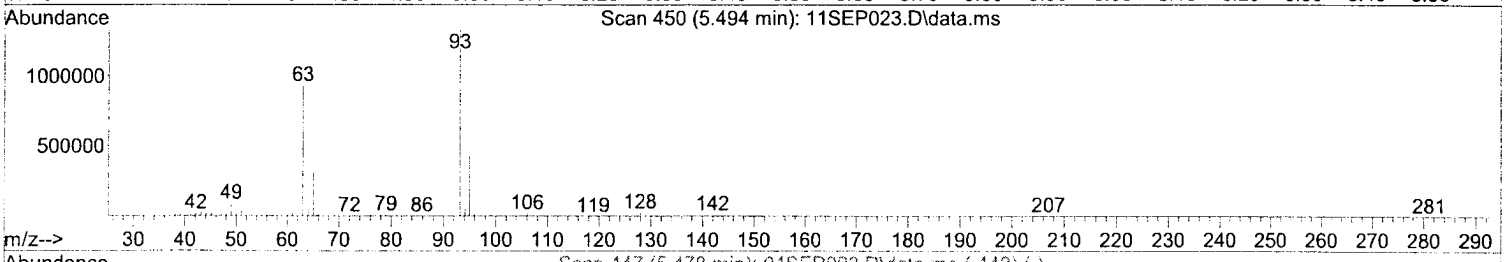

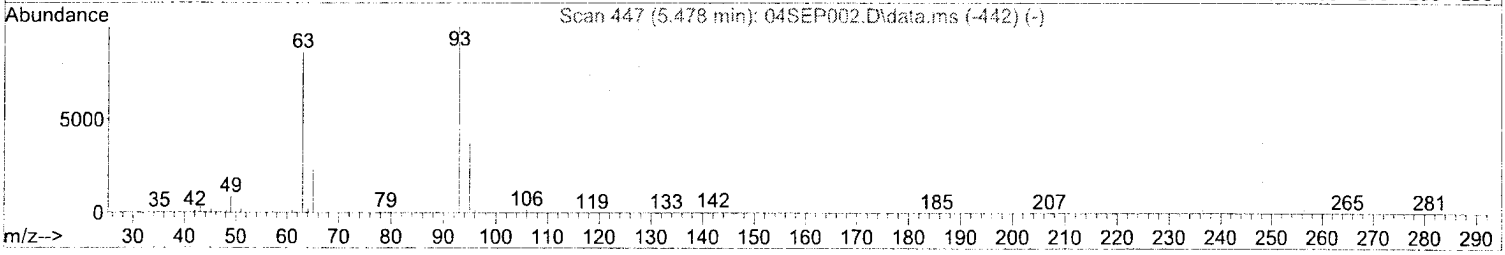

TIC: 11SEP023.D\data.ms

(8) Bis(2-Chloroethyl) Ether (T)

5.494min (+0.021) 274.84 mg/l

response 4004165

Ion	Exp%	Act%
93.00	100	100
63.00	68.30	40.12
95.00	31.60	18.54
0.00	0.00	0.00

SEP 12 2013

449

421

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
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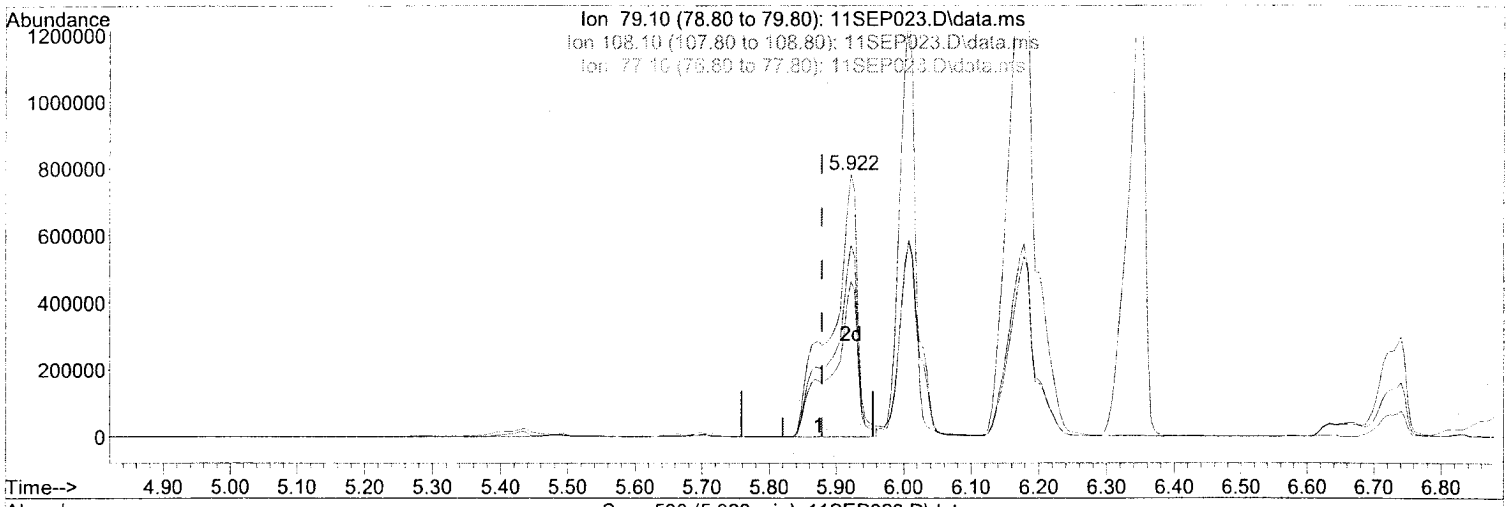

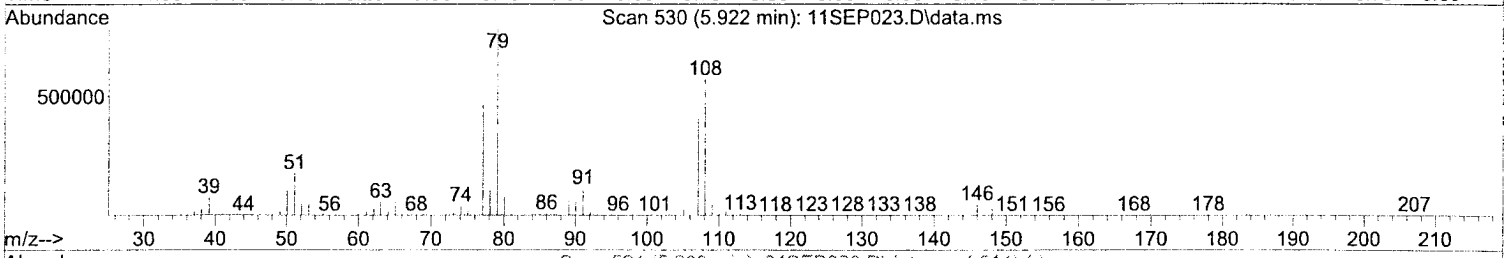

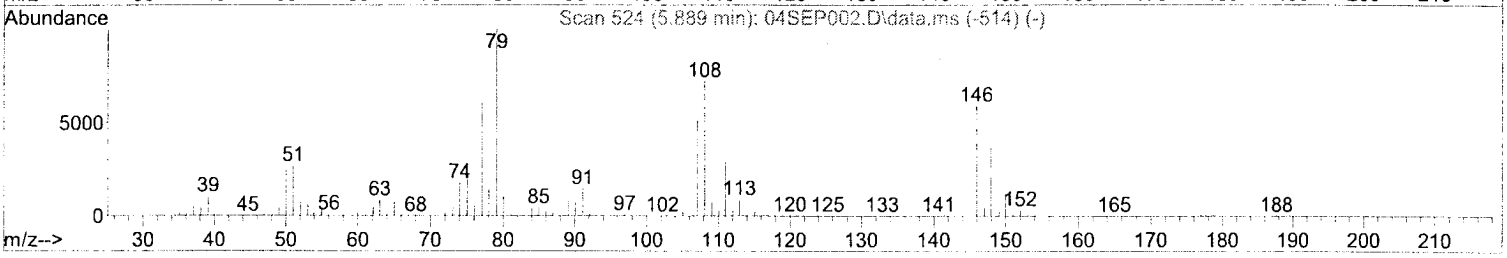

TIC: 11SEP023.D\data.ms

(12) Benzyl Alcohol (T)

5.922min (+0.043) 157.05 mg/l m

response 2099978

Ion	Exp%	Act%
79.10	100	100
108.10	71.10	0.00#
77.10	61.50	14.52#
0.00	0.00	0.00

SEP 12 2013

449

421

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
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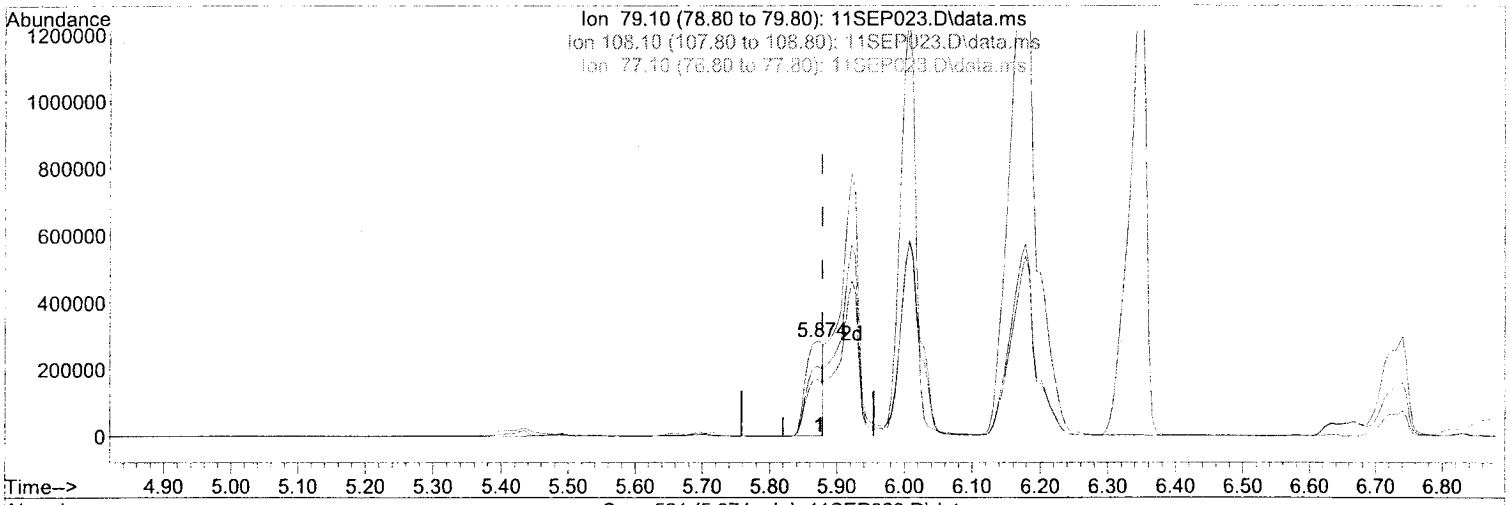
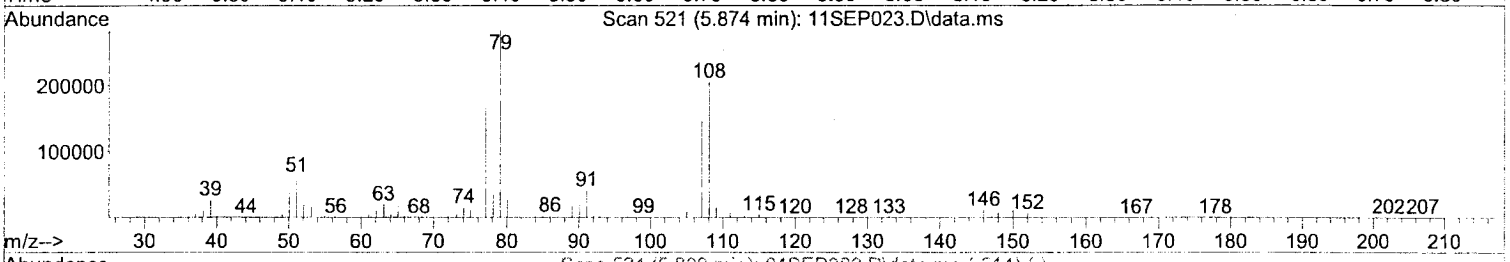
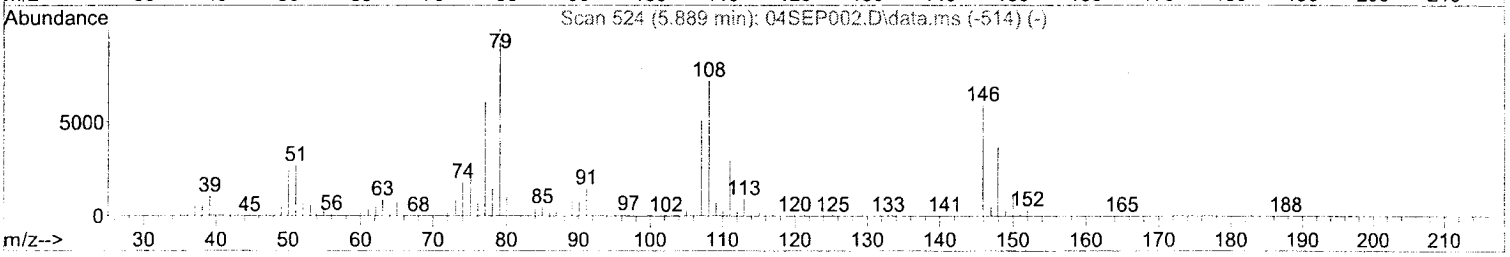






TIC: 11SEP023.D\data.ms

(12) Benzyl Alcohol (T)

5.874min (-0.005) 38.43 mg/l

response 513854

Ion	Exp%	Act%
79.10	100	100
108.10	71.10	0.00#
77.10	61.50	59.34
0.00	0.00	0.00

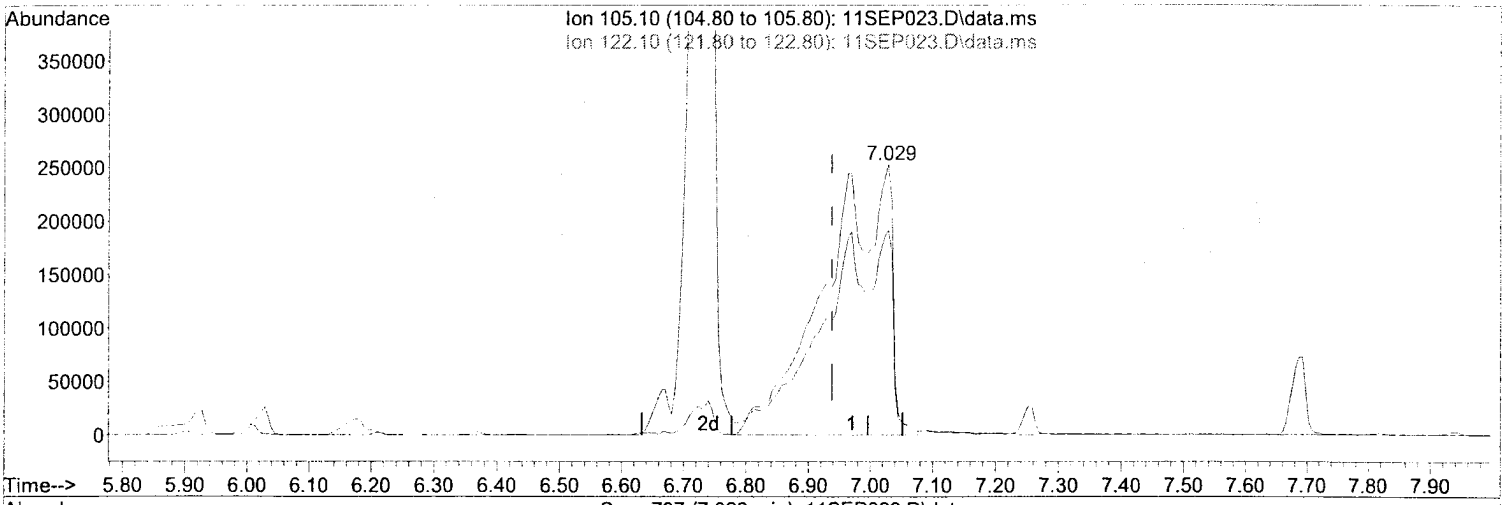
449 SEP 12 2013 421

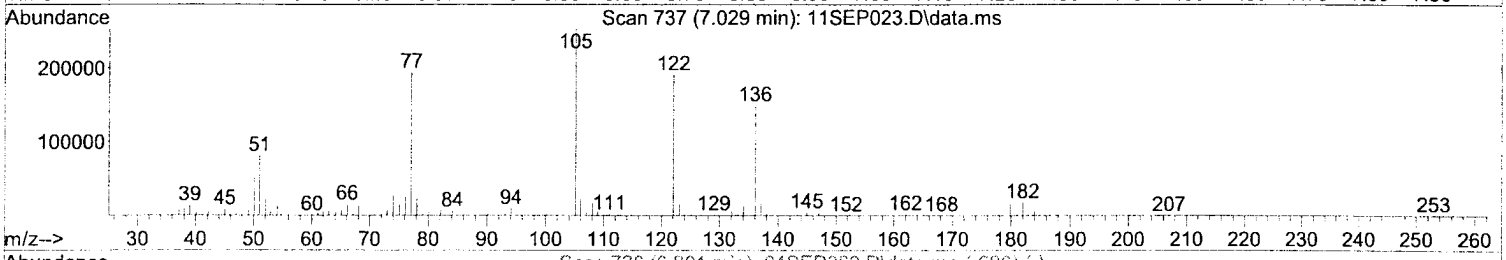
Return to Contents

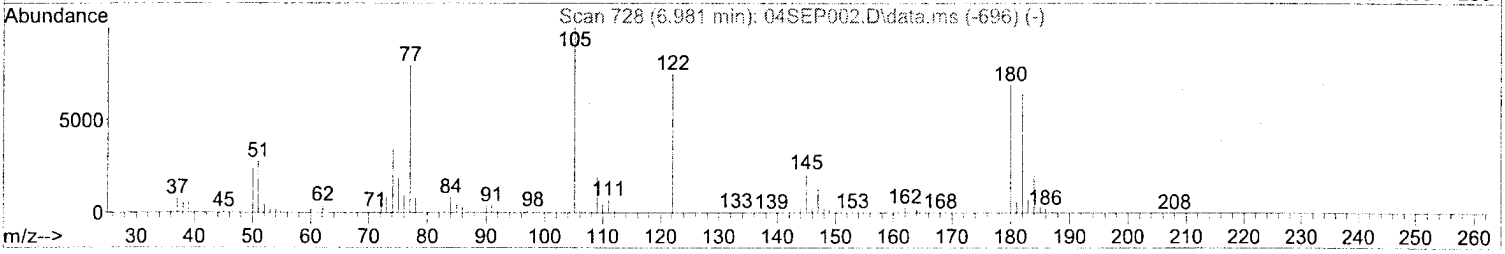
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
Sample : ICAL9 S071913N 160PPM BNA
InstName : GCMS SS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 09:43:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP023.D\data.ms

(25) Benzoic Acid (T)

7.029min (+0.091) 196.77 mg/l m

response 1838687

Ion	Exp%	Act%
105.10	100	100
122.10	70.30	45.79
0.00	0.00	0.00
0.00	0.00	0.00

SEP 12 2013

449

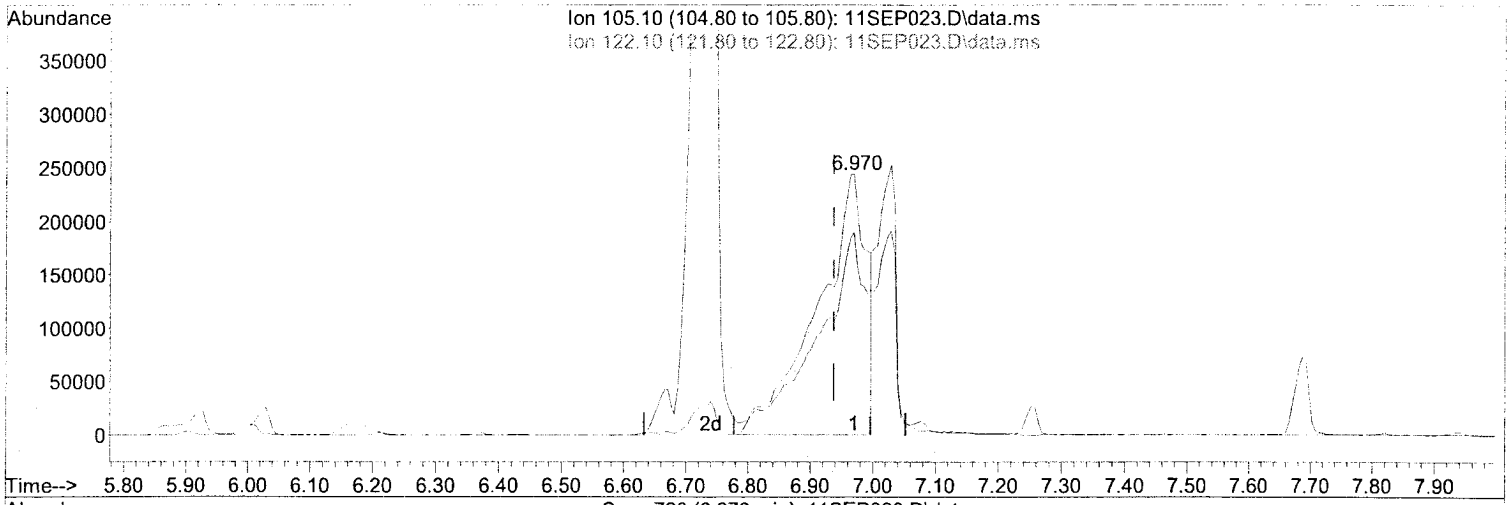
421

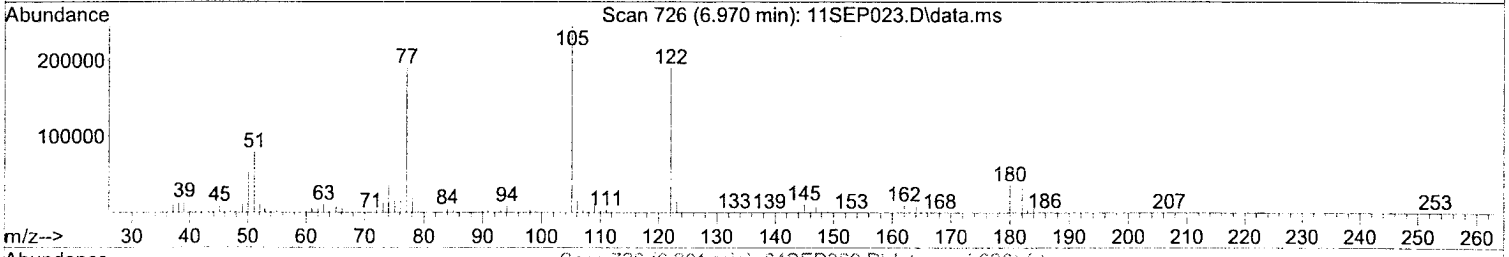
Return to Contents

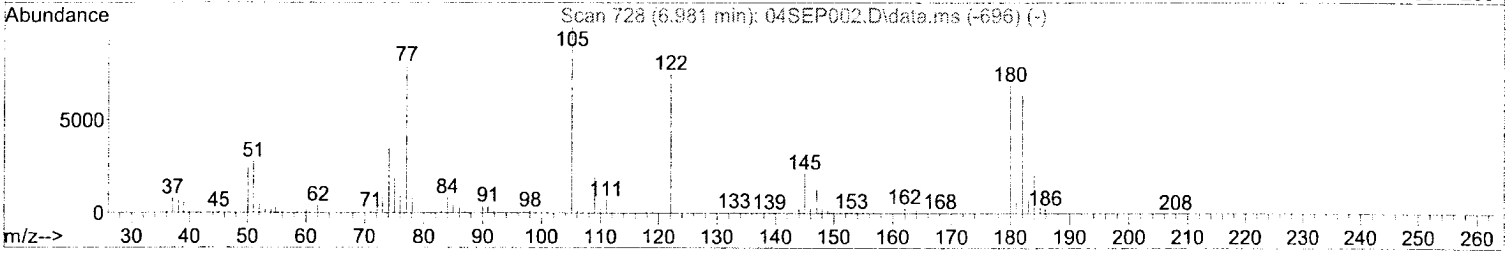
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
Sample : ICAL9 S071913N 160PPM BNA
InstName : GCMS SS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 09:43:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP023.D\data.ms

(25) Benzoic Acid (T)

6.970min (+0.032) 140.02 mg/l

response 1308386

Ion	Exp%	Act%
105.10	100	100
122.10	70.30	64.34
0.00	0.00	0.00
0.00	0.00	0.00

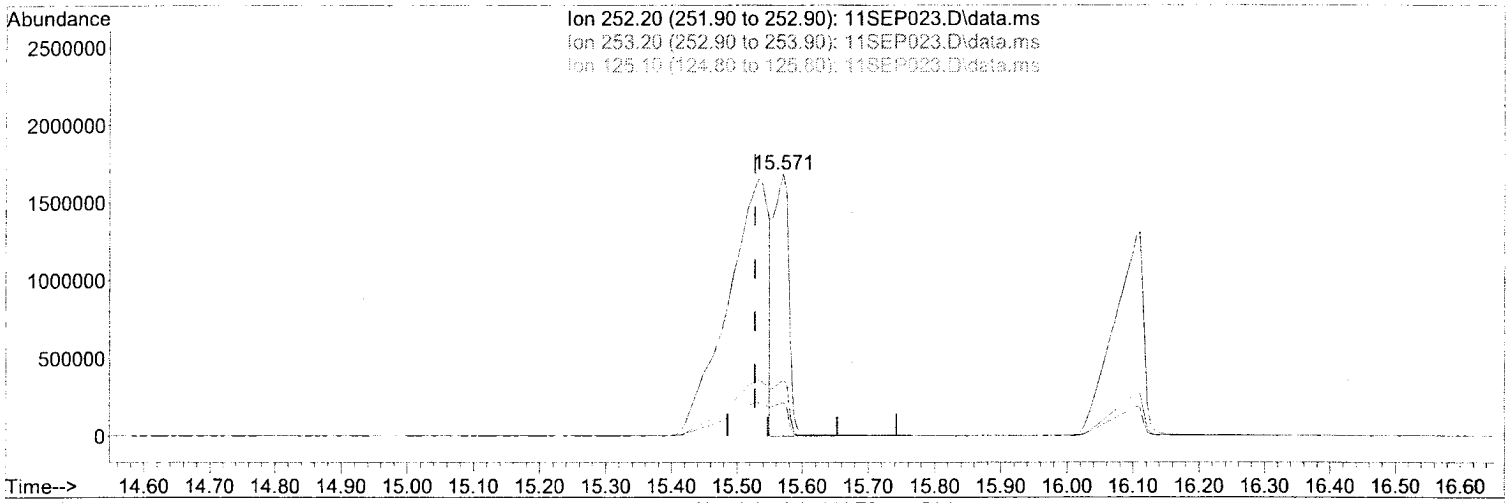
SEP 12 2013

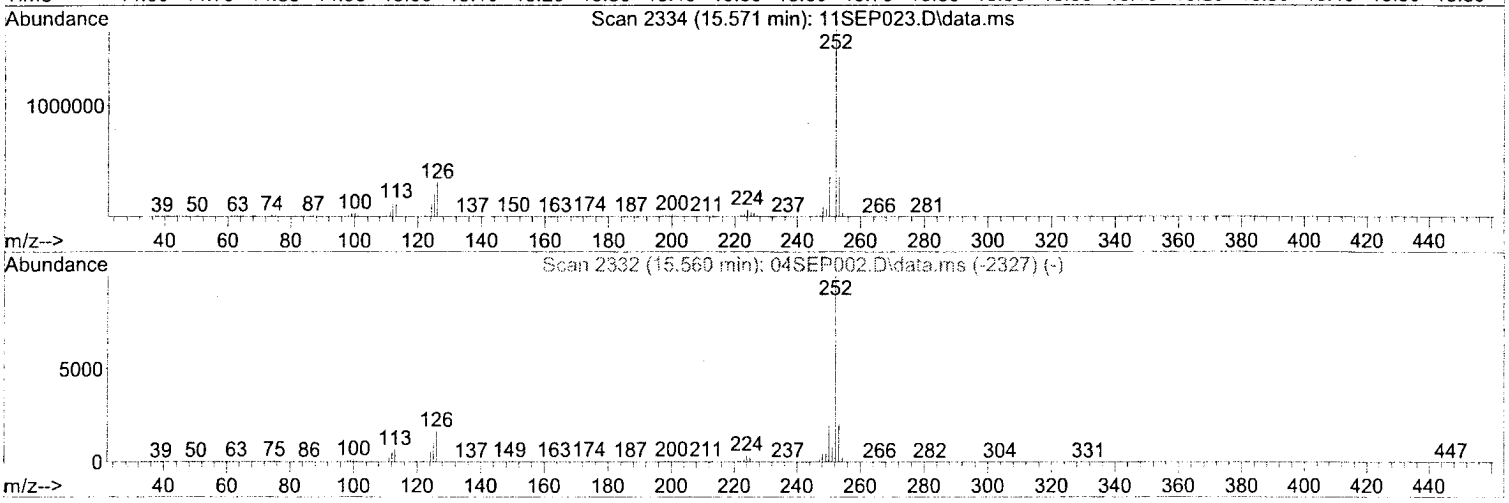
Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
Sample : ICAL9 S071913N 160PPM BNA
InstName : GCMS SS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 09:44:25 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M





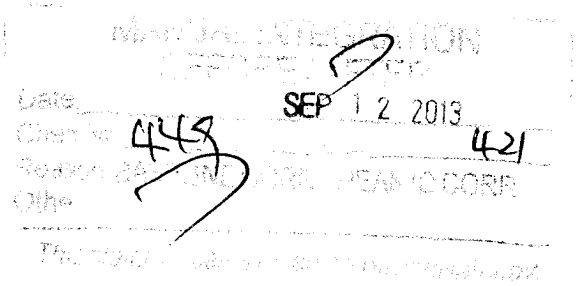
TIC: 11SEP023.D\data.ms

(79) Benzo (k) Fluoranthene (T)

15.571min (+0.043) 108.88 mg/l m

response 2779496

Ion	Exp%	Act%
252.20	100	100
253.20	21.90	10.16
125.10	13.40	0.00
0.00	0.00	0.00



Manual Integration - After

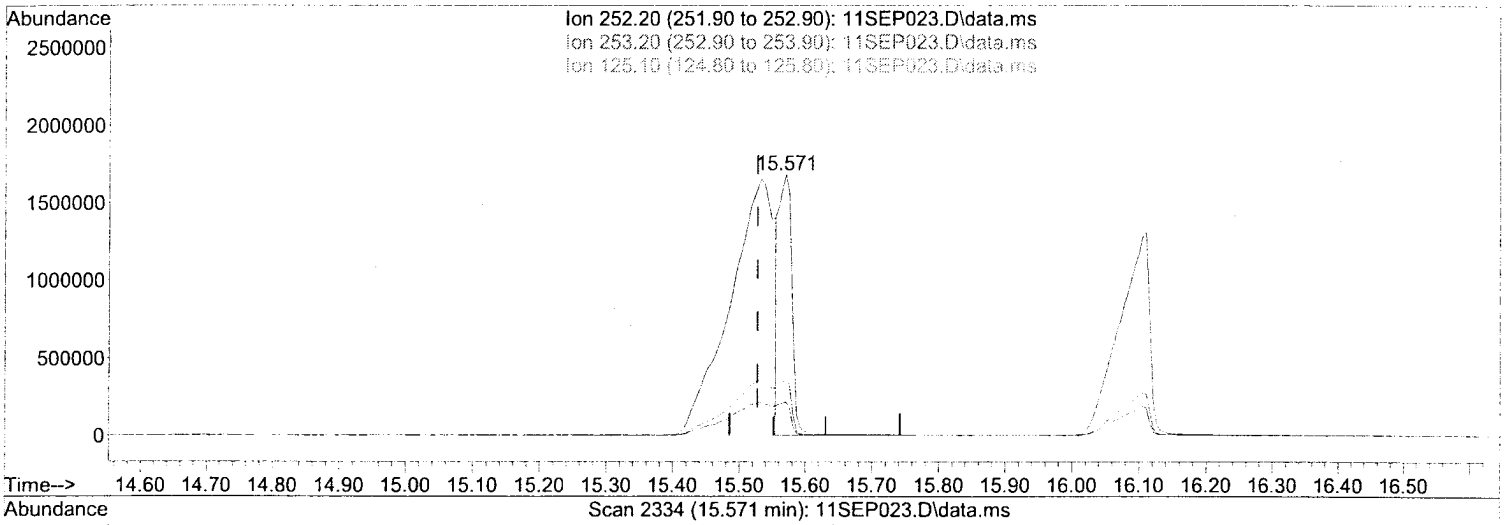
Manual Integration Reason: Baseline or Peak ID Correction

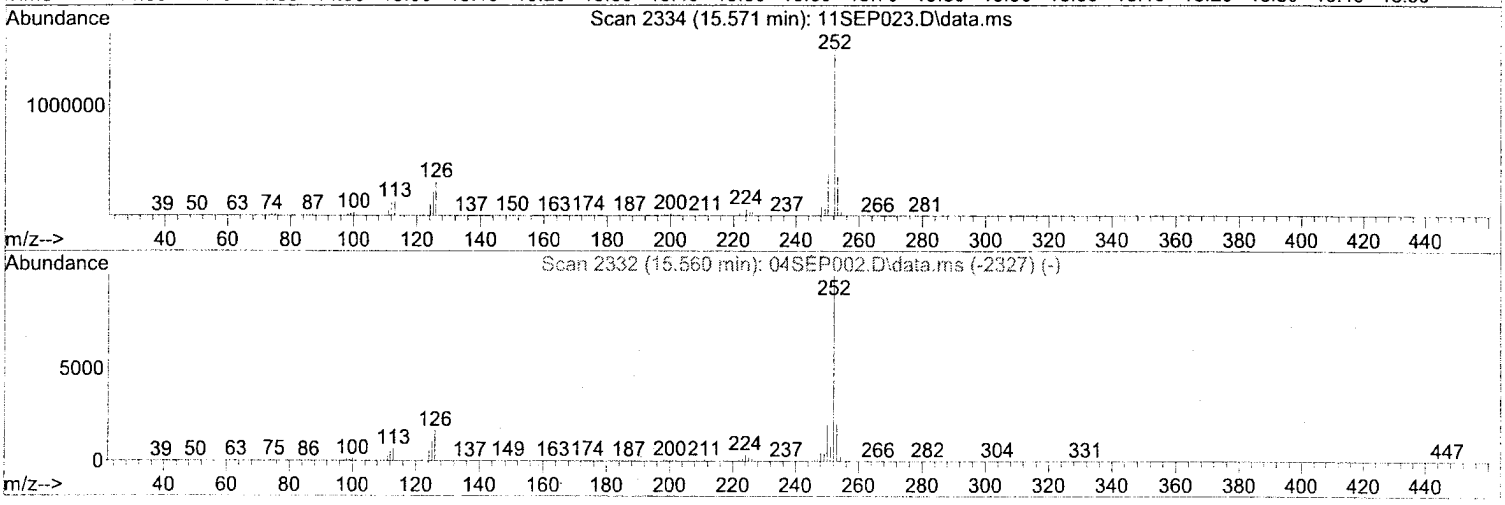
Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP023.D
Acq On : 11 Sep 2013 9:09 pm
Operator : 449
Sample : ICAL9 S071913N 160PPM BNA
InstName : GCMS SS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 12 09:44:25 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 09:43:08 2013
Response via : Initial Calibration
DataAcq Meth:8270.M





TIC: 11SEP023.D\data.ms

(79) Benzo (k) Fluoranthene (T)

15.571min (+0.043) 90.86 mg/l m

response 2319387

Ion	Exp%	Act%
252.20	100	100
253.20	21.90	12.17
125.10	13.40	0.00
0.00	0.00	0.00

SEP 12 2013

449

421

Manual Integration - After

Manual Integration Reason: Baseline or Peak ID Correction

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP024.D
Acq On : 11 Sep 2013 9:35 pm
Operator : 449
Sample : ICV S071913W 80PPM BNA
InstName : GCMS SS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 12 11:57:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 10:01:39 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	5.686	152	336558	40.00	mg/l		0.00
19) Naphthalene-d8	7.039	136	1469440	40.00	mg/l		0.00
36) Acenaphthene-d10	8.976	164	834862	40.00	mg/l		0.00
56) Phenanthrene-d10	10.612	188	1533324	40.00	mg/l		0.00
69) Chrysene-d12	13.736	240	1376483	40.00	mg/l		0.00
81) Perylene-d12	16.164	264	936029	40.00	mg/l		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	4.483	112	1234307	80.78	mg/l		0.00
Spiked Amount 100.000			Recovery =	80.78%			
6) Phenol-d6	5.387	99	1479384	79.05	mg/l		0.00
Spiked Amount 100.000			Recovery =	79.05%			
20) Nitrobenzene-d5	6.307	82	1304478	77.70	mg/l		0.00
Spiked Amount 100.000			Recovery =	77.70%			
41) 2-Fluorobiphenyl	8.237	172	2187849	77.70	mg/l		0.00
Spiked Amount 100.000			Recovery =	77.70%			
60) 2,4,6-Tribromophenol	9.869	330	277909	83.07	mg/l		0.00
Spiked Amount 100.000			Recovery =	83.07%			
71) p-Terphenyl-d14	12.399	244	2550654	79.28	mg/l		0.00
Spiked Amount 100.000			Recovery =	79.28%			
Target Compounds							Qvalue
2) Pyridine	3.295	52	757558	81.08	mg/l		99
3) N-Nitrosodimethylamine	3.322	74	806906	78.46	mg/l		86
5) Aniline	5.413	93	1709082	77.88	mg/l		94
7) Phenol	5.403	94	1553560	77.26	mg/l		98
8) Bis(2-Chloroethyl) Ether	5.472	93	1148585	79.08	mg/l		99
9) 2-Chlorophenol	5.515	128	1135837	79.65	mg/l		99
10) 1,3-Dichlorobenzene	5.649	146	1207019	79.45	mg/l		99
11) 1,4-Dichlorobenzene	5.702	146	1155628	79.59	mg/l		99
12) Benzyl Alcohol	5.873	79	1058405	82.17	mg/l		97
13) 1,2-Dichlorobenzene	5.895	146	1098863	79.28	mg/l		100
14) 2-Methylphenol	5.986	108	1022023	80.70	mg/l		93
15) Bis(2-Chloroisopropyl)...	6.012	45	1303381	76.19	mg/l	#	70
16) 3/4-Methylphenol	6.146	107	2278517	160.50	mg/l		98
17) N-Nitroso-di-n-propyla...	6.205	70	760968	72.34	mg/l		99
18) Hexachloroethane	6.205	117	412328	76.74	mg/l		98
21) Nitrobenzene	6.328	77	1234053	77.18	mg/l		99
22) Isophorone	6.585	82	2446320	80.34	mg/l		99
23) 2-Nitrophenol	6.654	139	598608	80.13	mg/l		95
24) 2,4-Dimethylphenol	6.708	107	1149762	78.27	mg/l		96
25) Benzoic Acid	6.932	105	818372	80.55	mg/l		99
26) Bis(2-Chloroethoxy) Me...	6.804	93	1355330	76.98	mg/l		100
27) 2,4-Dichlorophenol	6.916	162	875680	79.12	mg/l		100
28) 1,2,4-Trichlorobenzene	6.991	180	983763	79.17	mg/l		100
29) Naphthalene	7.061	128	3026233	78.38	mg/l		100
30) 2,6-Dichlorophenol	7.152	162	805490	77.91	mg/l		99
31) 4-Chloroaniline	7.152	127	1106903	82.25	mg/l		97
32) Hexachloro-1,3-Butadiene	7.248	225	520034	78.83	mg/l		100
33) 4-Chloro-3-Methylphenol	7.671	107	1019079	80.61	mg/l		98
34) 2-Methylnaphthalene	7.810	142	1963369	77.42	mg/l		99
35) 1-Methylnaphthalene	7.927	142	1834271	77.06	mg/l		100
37) Hexachlorocyclopentadiene	8.050	237	339152	74.25	mg/l		99
38) 2,4,6-Trichlorophenol	8.152	196	633199	81.44	mg/l		99
39) 2,4,5-Trichlorophenol	8.200	196	647246	84.54	mg/l		99
40) 2-Chloronaphthalene	8.344	162	1916577	78.53	mg/l		99

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP024.D
Acq On : 11 Sep 2013 9:35 pm
Operator : 449
Sample : ICV S071913W 80PPM BNA
InstName : GCMS SS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 12 11:57:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 10:01:39 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.505	65	656534	80.08	mg/l		96
43) Dimethyl Phthalate	8.740	163	2309056	79.01	mg/l		100
44) Acenaphthylene	8.810	152	2857872	76.50	mg/l		100
45) 3-Nitroaniline	8.976	138	442949	82.95	mg/l		100
46) Acenaphthene	9.018	153	1901113	78.02	mg/l		99
47) 2,4-Dinitrophenol	9.083	184	221150	87.12	mg/l		97
48) 4-Nitrophenol	9.179	65	365931	85.65	mg/l	#	1
49) Dibenzofuran	9.195	168	2549938	78.36	mg/l		83
50) 2,4-Dinitrotoluene	9.254	165	726511	82.94	mg/l		96
51) 2,6-Dinitrotoluene	8.826	165	484294	78.26	mg/l		99
52) Diethyl Phthalate	9.526	149	2174603	79.10	mg/l		98
53) 4-Chlorophenyl-Phenyl ...	9.575	204	976814	81.79	mg/l		99
54) Fluorene	9.580	166	1938864	76.18	mg/l		100
55) 4-Nitroaniline	9.671	138	403709	78.03	mg/l		94
57) Azobenzene	9.756	77	2652826	80.75	mg/l		97
58) 4,6-Dinitro-2-Methylph...	9.719	198	355435	97.24	mg/l	#	58
59) N-Nitrosodiphenylamine	9.730	169	1466209	77.00	mg/l		97
61) 4-Bromophenyl-Phenyl E...	10.109	248	644008	79.19	mg/l		99
62) Hexachlorobenzene	10.275	142	235659	76.06	mg/l		96
63) Pentachlorophenol	10.479	266	383601	88.21	mg/l		97
64) Phenanthrene	10.644	178	3105262	76.92	mg/l		100
65) Anthracene	10.698	178	3142027	77.02	mg/l		100
66) Di-n-Butyl Phthalate	11.318	149	3738096	77.63	mg/l		100
67) Fluoranthene	11.971	202	3460923	77.12	mg/l		99
68) Benzidine	12.115	184	589923	84.98	mg/l		97
70) Pyrene	12.222	202	3447648	77.17	mg/l		100
72) Butyl Benzyl Phthalate	13.008	149	1645709	79.00	mg/l		100
73) 3,3'-Dichlorobenzidine	13.693	252	559045	82.61	mg/l		98
74) Benzo (a) Anthracene	13.704	228	3003984	78.94	mg/l		100
75) Bis(2-Ethylhexyl) Phth...	13.821	149	2171993	80.10	mg/l		97
76) Chrysene	13.779	228	2831030	80.17	mg/l		99
77) Di-n-Octyl Phthalate	14.811	149	3562456	81.65	mg/l		99
78) Benzo (b) Fluoranthene	15.485	252	2865926	79.26	mg/l		99
79) Benzo (k) Fluoranthene	15.522	252	1580024	68.99	mg/l		99
80) Benzo (a) Pyrene	16.068	252	1962327	81.91	mg/l		99
82) Indeno (1,2,3-c,d) Pyrene	18.341	276	1375146	83.62	mg/l		94
83) Dibenz (a,h) Anthracene	18.389	278	1195071	85.23	mg/l		99
84) Benzo (g,h,i) Perylene	18.897	276	1045185	82.16	mg/l		100

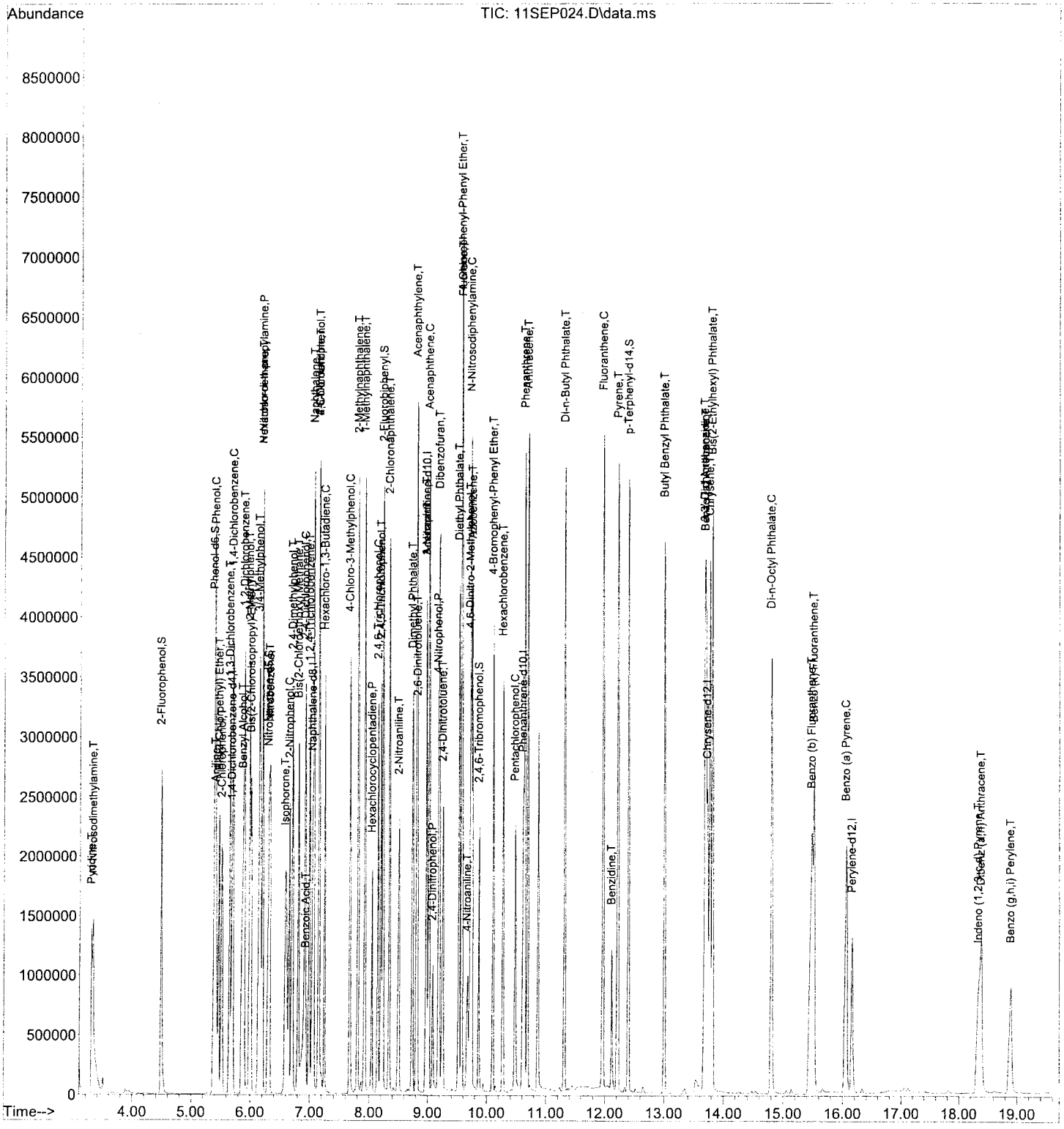
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP024.D
Acq On : 11 Sep 2013 9:35 pm
Operator : 449
Sample : ICV S071913W 80PPM BNA
InstName : GCMS SS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 12 11:57:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Sep 12 10:01:39 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

INITIAL CALIBRATION QUALITY CONTROL SUMMARY FOR METHOD: EPA 8270C

Work Order #: 13-10-2214
Instrument: GC/MS TT
ICAL Batch ID: 131106
ICAL D/T Analyzed: 11/06/2013 10:53

Reviewed By:
D/T Reviewed:
Analyst: 859

Analyte	Calib. Model	1	2	3	4	5	6	7	8	9	Avg. RF	Min. RF	%RSD	%RSD Control Limit	r or r^2	r or r^2 Control Limit	Status
N-Nitrosodimethylamine	Avg Resp		0.890	0.914	0.937	0.936	0.917	0.901	0.868		0.909	0.00	3	0-15			PASS
Aniline	Avg Resp		1.965	1.999	1.963	1.993	1.962	1.938	1.832		1.950	0.00	3	0-15			PASS
Phenol	Avg Resp		1.715	1.720	1.744	1.709	1.777	1.694	1.594		1.707	0.00	3	0-30			PASS
Bis(2-Chloroethyl) Ether	Avg Resp		1.399	1.386	1.386	1.349	1.344	1.309	1.242		1.345	0.00	4	0-15			PASS
2-Chlorophenol	Avg Resp		1.504	1.511	1.509	1.479	1.457	1.436	1.367		1.466	0.00	4	0-15			PASS
1,3-Dichlorobenzene	Avg Resp		1.792	1.770	1.763	1.741	1.707	1.668	1.600		1.720	0.00	4	0-15			PASS
1,4-Dichlorobenzene	Avg Resp		1.720	1.715	1.739	1.679	1.653	1.610	1.544		1.666	0.00	4	0-30			PASS
Benzyl Alcohol	Avg Resp		0.970	0.966	0.992	1.017	1.017	1.010	0.997		0.996	0.00	2	0-15			PASS
1,2-Dichlorobenzene	Avg Resp		1.653	1.674	1.680	1.621	1.582	1.534	1.471		1.602	0.00	5	0-15			PASS
2-Methylphenol	Avg Resp		1.153	1.171	1.182	1.164	1.146	1.120	1.077		1.145	0.00	3	0-15			PASS
Bis(2-Chloroisopropyl) Ether	Avg Resp		1.901	1.866	1.816	1.735	1.633	1.526	1.423		1.700	0.00	11	0-15			PASS
3/4-Methylphenol	Avg Resp	1.280	1.259	1.256	1.240	1.217	1.179	1.178	1.151		1.220	0.00	4	0-15			PASS
N-Nitroso-di-n-propylamine	Avg Resp		0.913	0.883	0.889	0.899	0.892	0.865	0.817		0.880	0.05	4	0-15			PASS
Hexachloroethane	Avg Resp		0.623	0.614	0.639	0.622	0.605	0.590	0.559		0.607	0.00	4	0-15			PASS
Nitrobenzene	Avg Resp		0.353	0.354	0.355	0.345	0.333	0.321	0.308		0.338	0.00	6	0-15			PASS
Isophorone	Avg Resp		0.618	0.625	0.618	0.617	0.600	0.581	0.574		0.605	0.00	3	0-15			PASS
2-Nitrophenol	Avg Resp		0.190	0.214	0.221	0.201	0.202	0.199	0.193		0.203	0.00	5	0-30			PASS
2,4-Dimethylphenol	Avg Resp		0.324	0.328	0.325	0.324	0.312	0.305	0.302		0.317	0.00	3	0-15			PASS
Benzoic Acid	QR - Equal			0.023	0.047	0.112	0.145	0.167	0.187		0.124				0.999	r^2>=0.990	PASS
Bis(2-Chloroethoxy) Methane	Avg Resp		0.408	0.402	0.405	0.395	0.377	0.362	0.352		0.386	0.00	6	0-15			PASS
2,4-Dichlorophenol	Avg Resp		0.265	0.276	0.277	0.282	0.275	0.269	0.260		0.272	0.00	3	0-30			PASS
Naphthalene	Avg Resp		1.074	1.071	1.054	1.020	0.973	0.936	0.896		1.003	0.00	7	0-15			PASS
4-Chloroaniline	Avg Resp		0.360	0.331	0.319	0.305	0.307	0.327	0.325		0.325	0.00	6	0-15			PASS
Hexachloro-1,3-Butadiene	Avg Resp		0.187	0.191	0.189	0.187	0.183	0.177	0.174		0.184	0.00	3	0-30			PASS
4-Chloro-3-Methylphenol	Avg Resp		0.235	0.240	0.244	0.256	0.253	0.249	0.243		0.246	0.00	3	0-30			PASS
2-Methylnaphthalene	Avg Resp		0.674	0.676	0.673	0.660	0.631	0.609	0.583		0.644	0.00	6	0-15			PASS
Hexachlorocyclopentadiene	Avg Resp			0.230	0.262	0.292	0.313	0.320	0.325		0.290	0.05	13	0-15			PASS
2,4,6-Trichlorophenol	Avg Resp		0.342	0.363	0.375	0.371	0.380	0.370	0.375		0.368	0.00	3	0-30			PASS
2,4,5-Trichlorophenol	Avg Resp		0.329	0.349	0.363	0.360	0.365	0.361	0.354		0.354	0.00	4	0-15			PASS
2-Chloronaphthalene	Avg Resp		1.245	1.246	1.244	1.189	1.157	1.107	1.084		1.182	0.00	6	0-15			PASS
2-Nitroaniline	Avg Resp		0.248	0.272	0.283	0.285	0.286	0.283	0.279		0.277	0.00	5	0-15			PASS
Dimethyl Phthalate	Avg Resp		1.274	1.287	1.284	1.258	1.244	1.209	1.198		1.251	0.00	3	0-15			PASS
Acenaphthylene	Avg Resp		2.017	2.011	2.005	1.874	1.818	1.705	1.636		1.867	0.00	8	0-15			PASS
3-Nitroaniline	Avg Resp		0.242	0.238	0.178	0.194	0.189	0.215	0.239		0.214	0.00	12	0-15			PASS
Acenaphthene	Avg Resp		1.210	1.230	1.202	1.153	1.137	1.086	1.050		1.153	0.00	6	0-30			PASS
2,4-Dinitrophenol	QR - Equal			0.025	0.047	0.093	0.115	0.134	0.147		0.100				1.000	r^2>=0.990	PASS
4-Nitrophenol	LR - Equal		0.089	0.107	0.129	0.150	0.161	0.166	0.165		0.169				1.000	r>=0.995	PASS
Dibenzofuran	Avg Resp		1.521	1.525	1.531	1.470	1.458	1.407	1.379		1.470	0.00	4	0-15			PASS
2,4-Dinitrotoluene	Avg Resp		0.272	0.304	0.316	0.333	0.340	0.342	0.343		0.321	0.00	8	0-15			PASS
2,6-Dinitrotoluene	Avg Resp		0.244	0.263	0.274	0.271	0.268	0.254	0.244		0.260	0.00	5	0-15			PASS
Diethyl Phthalate	Avg Resp		1.186	1.213	1.207	1.183	1.179	1.147	1.111		1.175	0.00	3	0-15			PASS
4-Chlorophenyl-Phenyl Ether	Avg Resp		0.617	0.612	0.608	0.570	0.553	0.526	0.514		0.571	0.00	7	0-15			PASS
Fluorene	Avg Resp		1.262	1.260	1.253	1.182	1.143	1.082	1.039		1.174	0.00	8	0-15			PASS
4-Nitroaniline	Avg Resp		0.191	0.190	0.186	0.175	0.178	0.182	0.141		0.178	0.00	10	0-15			PASS
Azobenzene	Avg Resp		0.786	0.803	0.771	0.738	0.697	0.666	0.703		0.738	0.00	7	0-15			PASS
4,6-Dinitro-2-Methylphenol	LR - Equal			0.061	0.083	0.113	0.123	0.128	0.131		0.136				1.000	r>=0.995	PASS

Return to Contents

INITIAL CALIBRATION QUALITY CONTROL SUMMARY FOR METHOD: EPA 8270C

Work Order #: 13-10-2214
Instrument: GC/MS TT
ICAL Batch ID: 131106
ICAL D/T Analyzed: 11/06/2013 10:53

Reviewed By:
D/T Reviewed:
Analyst: 859

Analyte	Calib. Model	1	2	3	4	5	6	7	8	9	Avg. RF	Min. RF	%RSD	%RSD Control Limit	r or r^2	r or r^2 Control Limit	Status
N-Nitrosodiphenylamine	Avg Resp		0.554	0.561	0.554	0.541	0.518	0.499	0.472		0.528	0.05	6	0-30			PASS
4-Bromophenyl-Phenyl Ether	Avg Resp		0.212	0.225	0.221	0.221	0.220	0.211	0.207		0.217	0.00	3	0-15			PASS
Hexachlorobenzene	Avg Resp		0.102	0.099	0.096	0.095	0.091	0.086	0.082		0.093	0.00	8	0-15			PASS
Pentachlorophenol	Avg Resp			0.077	0.091	0.117	0.128	0.131	0.131		0.113	0.00	20	0-30			PASS
Phenanthrene	Avg Resp		1.107	1.112	1.089	1.071	1.044	1.002	0.959		1.055	0.00	5	0-15			PASS
Anthracene	Avg Resp		1.072	1.078	1.067	1.059	1.026	0.992	0.942		1.034	0.00	5	0-15			PASS
Di-n-Butyl Phthalate	Avg Resp		1.184	1.232	1.235	1.254	1.219	1.170	1.101		1.199	0.00	4	0-15			PASS
Fluoranthene	Avg Resp		1.006	1.035	1.046	1.062	1.049	1.042	1.006		1.035	0.00	2	0-30			PASS
Benzidine	Avg Resp			0.276	0.265	0.257	0.228	0.261	0.243		0.255	0.00	7	0-15			PASS
Pyrene	Avg Resp		1.415	1.426	1.372	1.330	1.308	1.209	1.154		1.316	0.00	8	0-15			PASS
Pyridine	Avg Resp		0.917	0.936	0.957	0.955	0.931	0.913	0.876		0.927	0.00	3	0-15			PASS
Butyl Benzyl Phthalate	Avg Resp		0.469	0.510	0.534	0.567	0.581	0.548	0.543		0.536	0.00	7	0-15			PASS
3,3'-Dichlorobenzidine	Avg Resp			0.289	0.286	0.230	0.226	0.219	0.229		0.246	0.00	13	0-15			PASS
Benzo (a) Anthracene	Avg Resp		1.038	1.060	1.076	1.111	1.117	1.070	1.053		1.075	0.00	3	0-15			PASS
Bis(2-Ethylhexyl) Phthalate	Avg Resp		0.600	0.648	0.702	0.749	0.771	0.728	0.735		0.705	0.00	9	0-15			PASS
Chrysene	Avg Resp		1.040	1.038	1.032	1.045	1.077	1.025	1.036		1.042	0.00	2	0-15			PASS
Di-n-Octyl Phthalate	Avg Resp		0.722	0.845	0.968	1.149	1.214	1.197	1.246		1.049	0.00	20	0-30			PASS
Benzo (k) Fluoranthene	Avg Resp		0.809	0.857	0.958	0.992	1.025	1.016	0.963		0.946	0.00	9	0-15			PASS
Benzo (b) Fluoranthene	Avg Resp		0.727	0.788	0.803	0.963	0.993	0.999	1.049		0.903	0.00	14	0-15			PASS
Benzo (a) Pyrene	Avg Resp		0.606	0.666	0.720	0.836	0.904	0.906	0.891		0.790	0.00	16	0-30			PASS
Benzo (g,h,i) Perylene	Avg Resp		0.628	0.669	0.675	0.757	0.719	0.633	0.581		0.666	0.00	9	0-15			PASS
Indeno (1,2,3-c,d) Pyrene	Avg Resp		0.425	0.506	0.536	0.643	0.667	0.604	0.585		0.567	0.00	15	0-15			PASS
Dibenz (a,h) Anthracene	Avg Resp		0.561	0.630	0.648	0.758	0.740	0.698	0.659		0.671	0.00	10	0-15			PASS
1-Methylnaphthalene	Avg Resp		0.650	0.653	0.637	0.627	0.597	0.566	0.542		0.610	0.00	7	0-15			PASS
1,2,4-Trichlorobenzene	Avg Resp		0.354	0.358	0.352	0.345	0.329	0.317	0.308		0.338	0.00	6	0-15			PASS
2,6-Dichlorophenol	Avg Resp		0.266	0.271	0.266	0.269	0.255	0.248	0.239		0.259	0.00	5	0-15			PASS

Data Files:

Level #	D/T Analyzed	Data File
1	11/06/2013 10:53	W:\GCMS_TT_DATA\2013\131106\06NOV002.D\06NOV002.rr
2	11/06/2013 11:20	W:\GCMS_TT_DATA\2013\131106\06NOV003.D\06NOV003.rr
3	11/06/2013 11:45	W:\GCMS_TT_DATA\2013\131106\06NOV004.D\06NOV004.rr
4	11/06/2013 12:13	W:\GCMS_TT_DATA\2013\131106\06NOV005.D\06NOV005.rr
5	11/06/2013 12:40	W:\GCMS_TT_DATA\2013\131106\06NOV006.D\06NOV006.rr
6	11/06/2013 13:05	W:\GCMS_TT_DATA\2013\131106\06NOV007.D\06NOV007.rr
7	11/06/2013 13:31	W:\GCMS_TT_DATA\2013\131106\06NOV008.D\06NOV008.rr
8	11/06/2013 13:58	W:\GCMS_TT_DATA\2013\131106\06NOV009.D\06NOV009.rr

Return to Contents

INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8270C

ICV WORK ORDER: 095-01-001-11270-596
INSTRUMENT NAME: GC/MS TT
INITIAL BATCH: 131106
INITIAL DATE ANALYZED: 11/6/13 10:53

ANALYST: 859
REVIEWED BY:
DATE REVIEWED:
ICV DATE ANALYZED: 11/6/13 14:24

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV CONC	ICV %D	ICV %D CL	STATUS
N-Nitrosodimethylamine	Avg Resp	0.00	0.909	0.880			3	0-20	PASS
Aniline	Avg Resp	0.00	1.950	1.928			1	0-20	PASS
Phenol	Avg Resp	0.00	1.707	1.735			-2	0-20	PASS
Bis(2-Chloroethyl) Ether	Avg Resp	0.00	1.345	1.310			3	0-20	PASS
2-Chlorophenol	Avg Resp	0.00	1.466	1.453			1	0-20	PASS
1,3-Dichlorobenzene	Avg Resp	0.00	1.720	1.699			1	0-20	PASS
1,4-Dichlorobenzene	Avg Resp	0.00	1.666	1.649			1	0-20	PASS
Benzyl Alcohol	Avg Resp	0.00	0.996	1.006			-1	0-20	PASS
1,2-Dichlorobenzene	Avg Resp	0.00	1.602	1.565			2	0-20	PASS
2-Methylphenol	Avg Resp	0.00	1.145	1.133			1	0-20	PASS
Bis(2-Chloroisopropyl) Ether	Avg Resp	0.00	1.700	1.580			7	0-20	PASS
3/4-Methylphenol	Avg Resp	0.00	1.220	1.180			3	0-20	PASS
N-Nitroso-di-n-propylamine	Avg Resp	0.05	0.880	0.861			2	0-20	PASS
Hexachloroethane	Avg Resp	0.00	0.607	0.607			0	0-20	PASS
Nitrobenzene	Avg Resp	0.00	0.338	0.333			2	0-20	PASS
Isophorone	Avg Resp	0.00	0.605	0.597			1	0-20	PASS
2-Nitrophenol	Avg Resp	0.00	0.203	0.206			-1	0-20	PASS
2,4-Dimethylphenol	Avg Resp	0.00	0.317	0.310			2	0-20	PASS
Benzoic Acid	QR - Equal				80.00	82.234	-3	0-20	PASS
Bis(2-Chloroethoxy) Methane	Avg Resp	0.00	0.386	0.379			2	0-20	PASS
2,4-Dichlorophenol	Avg Resp	0.00	0.272	0.277			-2	0-20	PASS
Naphthalene	Avg Resp	0.00	1.003	0.980			2	0-20	PASS
4-Chloroaniline	Avg Resp	0.00	0.325	0.324			0	0-20	PASS
Hexachloro-1,3-Butadiene	Avg Resp	0.00	0.184	0.185			-1	0-20	PASS
4-Chloro-3-Methylphenol	Avg Resp	0.00	0.246	0.254			-3	0-20	PASS
2-Methylnaphthalene	Avg Resp	0.00	0.644	0.642			0	0-20	PASS
Hexachlorocyclopentadiene	Avg Resp	0.05	0.290	0.313			-8	0-20	PASS
2,4,6-Trichlorophenol	Avg Resp	0.00	0.368	0.382			-4	0-20	PASS
2,4,5-Trichlorophenol	Avg Resp	0.00	0.354	0.367			-4	0-20	PASS
2-Chloronaphthalene	Avg Resp	0.00	1.182	1.174			1	0-20	PASS
2-Nitroaniline	Avg Resp	0.00	0.277	0.287			-4	0-20	PASS
Dimethyl Phthalate	Avg Resp	0.00	1.251	1.250			0	0-20	PASS
Acenaphthylene	Avg Resp	0.00	1.867	1.810			3	0-20	PASS
3-Nitroaniline	Avg Resp	0.00	0.214	0.177			17	0-20	PASS
Acenaphthene	Avg Resp	0.00	1.153	1.142			1	0-20	PASS
2,4-Dinitrophenol	QR - Equal				80.00	84.202	-5	0-20	PASS
4-Nitrophenol	LR - Equal				80.00	78.886	1	0-20	PASS
Dibenzofuran	Avg Resp	0.00	1.470	1.470			0	0-20	PASS
2,4-Dinitrotoluene	Avg Resp	0.00	0.321	0.343			-7	0-20	PASS
2,6-Dinitrotoluene	Avg Resp	0.00	0.260	0.266			-2	0-20	PASS
Diethyl Phthalate	Avg Resp	0.00	1.175	1.175			0	0-20	PASS

Return to Contents

INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8270C

ICV WORK ORDER: 095-01-001-11270-596
INSTRUMENT NAME: GC/MS TT
INITIAL BATCH: 131106
INITIAL DATE ANALYZED: 11/6/13 10:53

ANALYST: 859
REVIEWED BY:
DATE REVIEWED:
ICV DATE ANALYZED: 11/6/13 14:24

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV CONC	ICV %D	ICV %D CL	STATUS
4-Chlorophenyl-Phenyl Ether	Avg Resp	0.00	0.571	0.558			2	0-20	PASS
Fluorene	Avg Resp	0.00	1.174	1.157			1	0-20	PASS
4-Nitroaniline	Avg Resp	0.00	0.178	0.160			10	0-20	PASS
Azobenzene	Avg Resp	0.00	0.738	0.700			5	0-20	PASS
4,6-Dinitro-2-Methylphenol	LR - Equal				80.00	81.002	-1	0-20	PASS
N-Nitrosodiphenylamine	Avg Resp	0.05	0.528	0.520			2	0-20	PASS
4-Bromophenyl-Phenyl Ether	Avg Resp	0.00	0.217	0.218			-1	0-20	PASS
Hexachlorobenzene	Avg Resp	0.00	0.093	0.091			2	0-20	PASS
Pentachlorophenol	Avg Resp	0.00	0.113	0.130			-16	0-20	PASS
Phenanthrene	Avg Resp	0.00	1.055	1.040			1	0-20	PASS
Anthracene	Avg Resp	0.00	1.034	1.027			1	0-20	PASS
Di-n-Butyl Phthalate	Avg Resp	0.00	1.199	1.199			0	0-20	PASS
Fluoranthene	Avg Resp	0.00	1.035	1.065			-3	0-20	PASS
Benzidine	Avg Resp	0.00	0.255	0.242			5	0-20	PASS
Pyrene	Avg Resp	0.00	1.316	1.291			2	0-20	PASS
Pyridine	Avg Resp	0.00	0.927	0.891			4	0-20	PASS
Butyl Benzyl Phthalate	Avg Resp	0.00	0.536	0.581			-8	0-20	PASS
3,3'-Dichlorobenzidine	Avg Resp	0.00	0.246	0.238			3	0-20	PASS
Benzo (a) Anthracene	Avg Resp	0.00	1.075	1.115			-4	0-20	PASS
Bis(2-Ethylhexyl) Phthalate	Avg Resp	0.00	0.705	0.766			-9	0-20	PASS
Chrysene	Avg Resp	0.00	1.042	1.082			-4	0-20	PASS
Di-n-Octyl Phthalate	Avg Resp	0.00	1.049	1.232			-17	0-20	PASS
Benzo (k) Fluoranthene	Avg Resp	0.00	0.946	1.031			-9	0-20	PASS
Benzo (b) Fluoranthene	Avg Resp	0.00	0.903	1.045			-16	0-20	PASS
Benzo (a) Pyrene	Avg Resp	0.00	0.790	0.900			-14	0-20	PASS
Benzo (g,h,i) Perylene	Avg Resp	0.00	0.666	0.691			-4	0-20	PASS
Indeno (1,2,3-c,d) Pyrene	Avg Resp	0.00	0.567	0.642			-13	0-20	PASS
Dibenz (a,h) Anthracene	Avg Resp	0.00	0.671	0.748			-12	0-20	PASS
1-Methylnaphthalene	Avg Resp	0.00	0.610	0.601			1	0-20	PASS
1,2,4-Trichlorobenzene	Avg Resp	0.00	0.338	0.333			1	0-20	PASS
2,6-Dichlorophenol	Avg Resp	0.00	0.259	0.258			0	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

Data File:

Data File Name:

W:\GCMS_TT_DATA\2013\131106\06NOV010.D\06NOV010.rr

Return to Contents

Response Factor Report GCMS_TT

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 131106 BNA.M
Title : BNA 8270C
Last Update : Wed Nov 06 17:07:39 2013
Response Via : Initial Calibration

Calibration Files
2.5 =06NOV002.D 5 =06NOV003.D 10 =06NOV004.D 20 =06NOV005.D 50 =06NOV006.D 80 =06NOV007.D 120 =06NOV008.D
160 =06NOV009.D

		Compound	2.5	5	10	20	50	80	120	160	Avg	%RSD
1)	I	1,4-Dichlorobenzen...					ISTD					
2)	T	Pyridine		0.917	0.936	0.957	0.955	0.931	0.913	0.876	0.927	3
3)	T	N-Nitrosodimethylamine		0.890	0.914	0.937	0.936	0.917	0.901	0.868	0.909	3
4)	S	2-Fluorophenol		1.520	1.556	1.609	1.587	1.548	1.495	1.412	1.533	4
5)	T	Aniline		1.965	1.999	1.963	1.993	1.962	1.938	1.832	1.950	3
6)	S	Phenol-d6		1.661	1.711	1.716	1.704	1.678	1.611	1.548	1.661	4
7)	C	Phenol		1.715	1.720	1.744	1.709	1.777	1.694	1.594	1.707	3
8)	T	Bis(2-Chloroethyl) Ether		1.399	1.386	1.386	1.349	1.344	1.309	1.242	1.345	4
9)	T	2-Chlorophenol		1.504	1.511	1.509	1.479	1.457	1.436	1.367	1.466	4
10)	T	1,3-Dichlorobenzene		1.792	1.770	1.763	1.741	1.707	1.668	1.600	1.720	4
11)	C	1,4-Dichlorobenzene		1.720	1.715	1.739	1.679	1.653	1.610	1.544	1.666	4
12)	T	Benzyl Alcohol		0.970	0.966	0.992	1.017	1.017	1.010	0.997	0.996	2
13)	T	1,2-Dichlorobenzene		1.653	1.674	1.680	1.621	1.582	1.534	1.471	1.602	5
14)	T	2-Methylphenol		1.153	1.171	1.182	1.164	1.146	1.120	1.077	1.145	3
15)	T	Bis(2-Chloroisopropyl) Ether		1.901	1.866	1.816	1.735	1.633	1.526	1.423	1.700	11
16)	T	3/4-Methylphenol	1.280	1.259	1.256	1.240	1.217	1.179	1.178	1.151	1.220	4
17)	P	N-Nitroso-di-n-propylamine		0.913	0.883	0.889	0.899	0.892	0.865	0.817	0.880	4
18)	T	Hexachloroethane		0.623	0.614	0.639	0.622	0.605	0.590	0.559	0.607	4
19)	I	Naphthalene-d8					ISTD					
20)	S	Nitrobenzene-d5		0.347	0.353	0.358	0.355	0.348	0.338	0.331	0.347	3
21)	T	Nitrobenzene		0.353	0.354	0.355	0.345	0.333	0.321	0.308	0.338	6
22)	T	Isophorone		0.618	0.625	0.618	0.617	0.600	0.581	0.574	0.605	3
23)	C	2-Nitrophenol		0.190	0.214	0.221	0.201	0.202	0.199	0.193	0.203	5
24)	T	2,4-Dimethylphenol		0.324	0.328	0.325	0.324	0.312	0.305	0.302	0.317	3
25)	T	Benzoic Acid			0.023	0.047	0.112	0.145	0.167	0.187	0.113	58
26)	T	Bis(2-Chloroethoxy) Methane		0.408	0.402	0.405	0.395	0.377	0.362	0.352	0.386	6
27)	C	2,4-Dichlorophenol		0.265	0.276	0.277	0.282	0.275	0.269	0.260	0.272	3
28)	T	1,2,4-Trichlorobenzene		0.354	0.358	0.352	0.345	0.329	0.317	0.308	0.338	6
29)	T	Naphthalene		1.074	1.071	1.054	1.020	0.973	0.936	0.896	1.003	7
30)	T	2,6-Dichlorophenol		0.266	0.271	0.266	0.269	0.255	0.248	0.239	0.259	5
31)	T	4-Chloroaniline		0.360	0.331	0.319	0.305	0.307	0.327	0.325	0.325	6
32)	C	Hexachloro-1,3-Butadiene		0.187	0.191	0.189	0.187	0.183	0.177	0.174	0.184	3
33)	C	4-Chloro-3-Methylphenol		0.235	0.240	0.244	0.256	0.253	0.249	0.243	0.246	3
34)	T	2-Methylnaphthalene		0.674	0.676	0.673	0.660	0.631	0.609	0.583	0.644	6
35)	T	1-Methylnaphthalene		0.650	0.653	0.637	0.627	0.597	0.566	0.542	0.610	7
36)	I	Acenaphthene-d10					ISTD					
37)	P	Hexachlorocyclopentadiene			0.230	0.262	0.292	0.313	0.320	0.325	0.290	13
38)	C	2,4,6-Trichlorophenol		0.342	0.363	0.375	0.371	0.380	0.370	0.375	0.368	3
39)	T	2,4,5-Trichlorophenol		0.329	0.349	0.363	0.360	0.365	0.361	0.354	0.354	4
40)	T	2-Chloronaphthalene		1.245	1.246	1.244	1.189	1.157	1.107	1.084	1.182	6
41)	S	2-Fluorobiphenyl		1.531	1.541	1.526	1.421	1.404	1.329	1.294	1.435	7

& 0.99

Return to Contents

Response Factor Report GCMS_TT

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 131106 BNA.M
Title : BNA 8270C

42)	T	2-Nitroaniline	0.248	0.272	0.283	0.285	0.286	0.283	0.279	0.277	5
43)	T	Dimethyl Phthalate	1.274	1.287	1.284	1.258	1.244	1.209	1.198	1.251	3
44)	T	Acenaphthylene	2.017	2.011	2.005	1.874	1.818	1.705	1.636	1.867	8
45)	T	3-Nitroaniline	0.242	0.238	0.178	0.194	0.189	0.215	0.239	0.214	12
46)	C	Acenaphthene	1.210	1.230	1.202	1.153	1.137	1.086	1.050	1.153	6
47)	P	2,4-Dinitrophenol		0.025	0.047	0.093	0.115	0.134	0.147	0.094	52
48)	P	4-Nitrophenol	0.089	0.107	0.129	0.150	0.161	0.166	0.165	0.138	22
49)	T	Dibenzofuran	1.521	1.525	1.531	1.470	1.458	1.407	1.379	1.470	4
50)	T	2,4-Dinitrotoluene	0.272	0.304	0.316	0.333	0.340	0.342	0.343	0.321	8
51)	T	2,6-Dinitrotoluene	0.244	0.263	0.274	0.271	0.268	0.254	0.244	0.260	5
52)	T	Diethyl Phthalate	1.186	1.213	1.207	1.183	1.179	1.147	1.111	1.175	3
53)	T	4-Chlorophenyl-Phenyl Ether	0.617	0.612	0.608	0.570	0.553	0.526	0.514	0.571	7
54)	T	Fluorene	1.262	1.260	1.253	1.182	1.143	1.082	1.039	1.174	8
55)	T	4-Nitroaniline	0.191	0.190	0.186	0.175	0.178	0.182	0.141	0.178	10
56)	I	Phenanthrene-d10	ISTD								
57)	T	Azobenzene	0.786	0.803	0.771	0.738	0.697	0.666	0.703	0.738	7
58)	T	4,6-Dinitro-2-Methylphenol		0.061	0.083	0.113	0.123	0.128	0.131	0.107	27
59)	C	N-Nitrosodiphenylamine	0.554	0.561	0.554	0.541	0.518	0.499	0.472	0.528	6
60)	S	2,4,6-Tribromophenol	0.082	0.089	0.093	0.098	0.101	0.100	0.101	0.095	7
61)	T	4-Bromophenyl-Phenyl Ether	0.212	0.225	0.221	0.221	0.220	0.211	0.207	0.217	3
62)	T	Hexachlorobenzene	0.102	0.099	0.096	0.095	0.091	0.086	0.082	0.093	8
63)	C	Pentachlorophenol		0.077	0.091	0.117	0.128	0.131	0.131	0.113	20
64)	T	Phenanthrene	1.107	1.112	1.089	1.071	1.044	1.002	0.959	1.055	5
65)	T	Anthracene	1.072	1.078	1.067	1.059	1.026	0.992	0.942	1.034	5
66)	T	Di-n-Butyl Phthalate	1.184	1.232	1.235	1.254	1.219	1.170	1.101	1.199	4
67)	C	Fluoranthene	1.006	1.035	1.046	1.062	1.049	1.042	1.006	1.035	2
68)	T	Benzidine		0.276	0.265	0.257	0.228	0.261	0.243	0.255	7
69)	I	Chrysene-d12	ISTD								
70)	T	Pyrene	1.415	1.426	1.372	1.330	1.308	1.209	1.154	1.316	8
71)	S	p-Terphenyl-d14	0.942	0.964	0.950	0.927	0.924	0.868	0.839	0.916	5
72)	T	Butyl Benzyl Phthalate	0.469	0.510	0.534	0.567	0.581	0.548	0.543	0.536	7
73)	T	3,3'-Dichlorobenzidine		0.289	0.286	0.230	0.226	0.219	0.229	0.246	13
74)	T	Benzo (a) Anthracene	1.038	1.060	1.076	1.111	1.117	1.070	1.053	1.075	3
75)	T	Bis(2-Ethylhexyl) Phthalate	0.600	0.648	0.702	0.749	0.771	0.728	0.735	0.705	9
76)	T	Chrysene	1.040	1.038	1.032	1.045	1.077	1.025	1.036	1.042	2
77)	C	Di-n-Octyl Phthalate	0.722	0.845	0.968	1.149	1.214	1.197	1.246	1.049	20
78)	T	Benzo (b) Fluoranthene	0.727	0.788	0.803	0.963	0.993	0.999	1.049	0.903	14
79)	T	Benzo (k) Fluoranthene	0.809	0.857	0.958	0.992	1.025	1.016	0.963	0.946	9
80)	C	Benzo (a) Pyrene	0.606	0.666	0.720	0.836	0.904	0.906	0.891	0.790	16
81)	I	Perylene-d12	ISTD								
82)	T	Indeno (1,2,3-c,d) Pyrene	0.425	0.506	0.536	0.643	0.667	0.604	0.585	0.567	15
83)	T	Dibenz (a,h) Anthracene	0.561	0.630	0.648	0.758	0.740	0.698	0.659	0.671	10
84)	T	Benzo (g,h,i) Perylene	0.628	0.669	0.675	0.757	0.719	0.633	0.581	0.666	9

(#) = Out of Range

Q 0.99
L 0.998
L 0.996

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV010.D
Acq On : 6 Nov 2013 2:24 pm
Operator : 513
Sample : ICV S071913W 80PPM
InstName : GCMS TT
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 06 15:20:03 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 15:19:57 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0	99	0.00
2	T	Pyridine	0.927	0.891	4	95	0.01
3	T	N-Nitrosodimethylamine	0.909	0.880	3	95	0.00
4	S	2-Fluorophenol	1.533	1.517	1	97	0.00
5	T	Aniline	1.950	1.928	1	98	0.00
6	S	Phenol-d6	1.661	1.650	1	98	-0.01
7	C	Phenol	1.707	1.735	-2	97	-0.01
8	T	Bis(2-Chloroethyl) Ether	1.345	1.310	3	97	0.00
9	T	2-Chlorophenol	1.466	1.453	1	99	0.00
10	T	1,3-Dichlorobenzene	1.720	1.699	1	99	0.00
11	C	1,4-Dichlorobenzene	1.666	1.649	1	99	0.00
12	T	Benzyl Alcohol	0.996	1.006	-1	98	-0.01
13	T	1,2-Dichlorobenzene	1.602	1.565	2	98	0.00
14	T	2-Methylphenol	1.145	1.133	1	98	0.00
15	T	Bis(2-Chloroisopropyl) Ethe	1.700	1.580	7	96	0.00
16	T	3/4-Methylphenol	1.220	1.180	3	100	-0.02
17	P	N-Nitroso-di-n-propylamine	0.880	0.861	2	96	-0.02
18	T	Hexachloroethane	0.607	0.607	0	100	0.00
19	I	Naphthalene-d8	1.000	1.000	0	97	0.00
20	S	Nitrobenzene-d5	0.347	0.352	-1	99	-0.01
21	T	Nitrobenzene	0.338	0.333	1	97	-0.01
22	T	Isophorone	0.605	0.597	1	97	-0.02
23	C	2-Nitrophenol	0.203	0.206	-1	99	0.00
24	T	2,4-Dimethylphenol	0.317	0.310	2	97	-0.01
25	T	Benzoic Acid	0.113	0.148	-31#	99	-0.05
26	T	Bis(2-Chloroethoxy) Methane	0.386	0.379	2	98	-0.01
27	C	2,4-Dichlorophenol	0.272	0.277	-2	98	-0.01
28	T	1,2,4-Trichlorobenzene	0.338	0.333	1	99	0.00
29	T	Naphthalene	1.003	0.980	2	98	0.00
30	T	2,6-Dichlorophenol	0.259	0.258	0	99	0.00
31	T	4-Chloroaniline	0.325	0.324	0	102	0.00
32	C	Hexachloro-1,3-Butadiene	0.184	0.185	-1	99	0.00
33	C	4-Chloro-3-Methylphenol	0.246	0.254	-3	97	0.00
34	T	2-Methylnaphthalene	0.644	0.642	0	99	0.00
35	T	1-Methylnaphthalene	0.610	0.601	1	98	0.00
36	I	Acenaphthene-d10	1.000	1.000	0	97	0.00
37	P	Hexachlorocyclopentadiene	0.290	0.313	-8	97	0.00
38	C	2,4,6-Trichlorophenol	0.368	0.382	-4	97	0.00
39	T	2,4,5-Trichlorophenol	0.354	0.367	-4	97	0.00
40	T	2-Chloronaphthalene	1.182	1.174	1	98	0.00
41	S	2-Fluorobiphenyl	1.435	1.415	1	97	0.00
42	T	2-Nitroaniline	0.277	0.287	-4	97	-0.01
43	T	Dimethyl Phthalate	1.251	1.250	0	97	0.00
44	T	Acenaphthylene	1.867	1.810	3	96	0.00
45	T	3-Nitroaniline	0.214	0.177	17	90	-0.01
46	C	Acenaphthene	1.153	1.142	1	97	0.00
47	P	2,4-Dinitrophenol	0.094	0.123	-31#	103	0.00
48	P	4-Nitrophenol	0.138	0.159	-15	95	-0.01
49	T	Dibenzofuran	1.470	1.470	0	97	0.00
50	T	2,4-Dinitrotoluene	0.321	0.343	-7	98	0.00
51	T	2,6-Dinitrotoluene	0.260	0.266	-2	96	-0.01

Return to Contents

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV010.D
Acq On : 6 Nov 2013 2:24 pm
Operator : 513
Sample : ICV S071913W 80PPM
InstName : GCMS TT
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 06 15:20:03 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 15:19:57 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	T	Diethyl Phthalate	1.175	1.175	0	96	0.00
53	T	4-Chlorophenyl-Phenyl Ether	0.571	0.558	2	98	0.00
54	T	Fluorene	1.174	1.157	1	98	0.00
55	T	4-Nitroaniline	0.178	0.160	10	87	-0.01
56	I	Phenanthrene-d10	1.000	1.000	0	98	0.00
57	T	Azobenzene	0.738	0.700	5	98	0.00
58	T	4,6-Dinitro-2-Methylphenol	0.107	0.126	-18	100	-0.01
59	C	N-Nitrosodiphenylamine	0.528	0.520	2	98	-0.01
60	S	2,4,6-Tribromophenol	0.095	0.101	-6	98	0.00
61	T	4-Bromophenyl-Phenyl Ether	0.217	0.218	0	97	0.00
62	T	Hexachlorobenzene	0.093	0.091	2	97	0.00
63	C	Pentachlorophenol	0.113	0.130	-15	99	0.00
64	T	Phenanthrene	1.055	1.040	1	97	0.00
65	T	Anthracene	1.034	1.027	1	98	-0.01
66	T	Di-n-Butyl Phthalate	1.199	1.199	0	96	0.00
67	C	Fluoranthene	1.035	1.065	-3	99	0.00
68	T	Benzidine	0.255	0.242	5	104	0.00
69	I	Chrysene-d12	1.000	1.000	0	101	-0.01
70	T	Pyrene	1.316	1.291	2	99	0.00
71	S	p-Terphenyl-d14	0.916	0.921	-1	100	0.00
72	T	Butyl Benzyl Phthalate	0.536	0.581	-8	101	0.00
73	T	3,3'-Dichlorobenzidine	0.246	0.238	3	106	-0.01
74	T	Benzo (a) Anthracene	1.075	1.115	-4	100	0.00
75	T	Bis(2-Ethylhexyl) Phthalate	0.705	0.766	-9	100	-0.01
76	T	Chrysene	1.042	1.082	-4	101	-0.01
77	C	Di-n-Octyl Phthalate	1.049	1.232	-17	102	-0.01
78	T	Benzo (b) Fluoranthene	0.903	1.045	-16	106	-0.02
79	T	Benzo (k) Fluoranthene	0.946	1.031	-9	101	-0.02
80	C	Benzo (a) Pyrene	0.790	0.900	-14	100	-0.02
81	I	Perylene-d12	1.000	1.000	0	102	-0.01
82	T	Indeno (1,2,3-c,d) Pyrene	0.567	0.642	-13	99	-0.02
83	T	Dibenz (a,h) Anthracene	0.671	0.748	-11	104	-0.02
84	T	Benzo (g,h,i) Perylene	0.666	0.691	-4	98	-0.02

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

Return to Contents

Calibration Plot Report

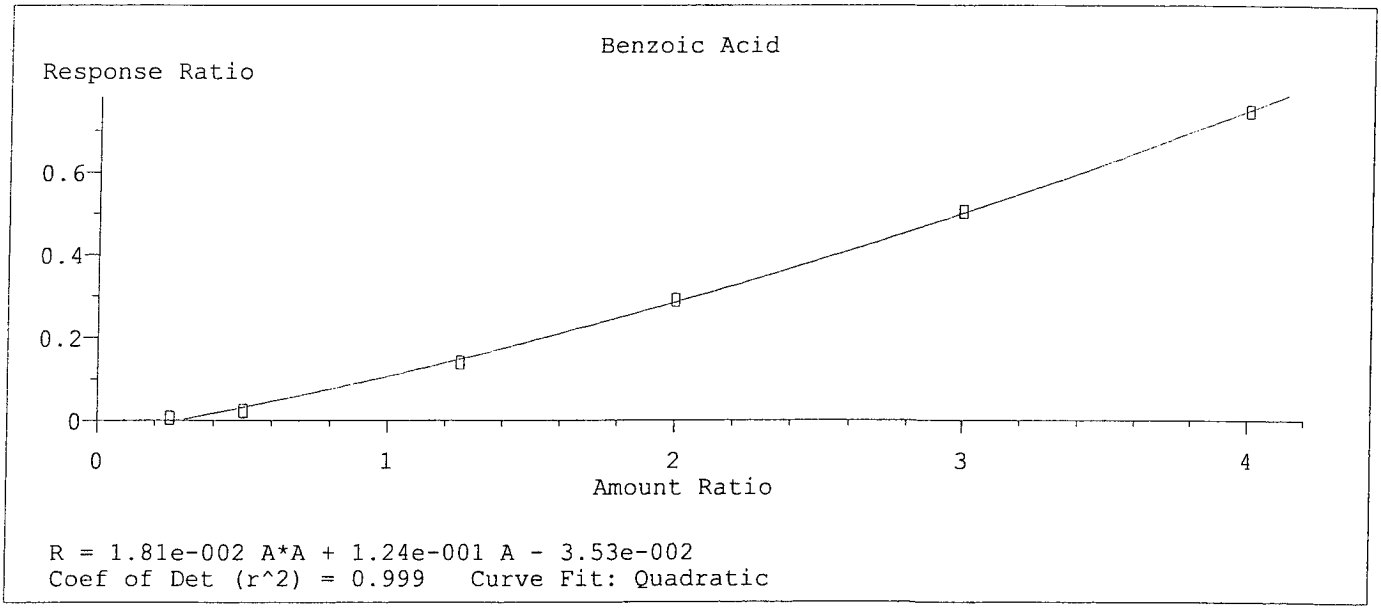
Method: C:\MSDCHEM\1\METHODS\131106_BNA.M
CalUpdate: Wed Nov 06 17:09:49 2013
Instrument: GCMS_TT
Date: Wed Nov 06 17:09:49 2013

Level	Aqc Time		Data File
2.5	6 Nov 2013	10:53 am	W:\GCMS TT DATA\2013\131106\06NOV002.D
5	6 Nov 2013	11:20 am	W:\GCMS TT DATA\2013\131106\06NOV003.D
10	6 Nov 2013	11:45 am	W:\GCMS TT DATA\2013\131106\06NOV004.D
20	6 Nov 2013	12:13 pm	W:\GCMS TT DATA\2013\131106\06NOV005.D
50	6 Nov 2013	12:40 pm	W:\GCMS TT DATA\2013\131106\06NOV006.D
80	6 Nov 2013	1:05 pm	W:\GCMS TT DATA\2013\131106\06NOV007.D
120	6 Nov 2013	1:31 pm	W:\GCMS TT DATA\2013\131106\06NOV008.D
160	6 Nov 2013	1:58 pm	W:\GCMS_TT_DATA\2013\131106\06NOV009.D

Definitions
TC = Target Compound
IS = Internal Standard

R = 0.018097 A*A + 0.123592 A + -0.035306, r^2 = 0.999422

Level	ResponseTC	ResponseIS	AmountTC	AmountIS	ResponseRatio	AmountRatio
2.5	107	1604548		40.000	0.00007	
5	874	1591960		40.000	0.00055	
10	9567	1633676	10.000	40.000	0.00586	0.25000
20	33394	1436048	20.000	40.000	0.02325	0.50000
50	195884	1400910	50.000	40.000	0.13983	1.25000
80	401340	1386326	80.000	40.000	0.28950	2.00000
120	623581	1242716	120.000	40.000	0.50179	3.00000
160	930330	1246756	160.000	40.000	0.74620	4.00000



Return to Contents

Calibration Plot Report

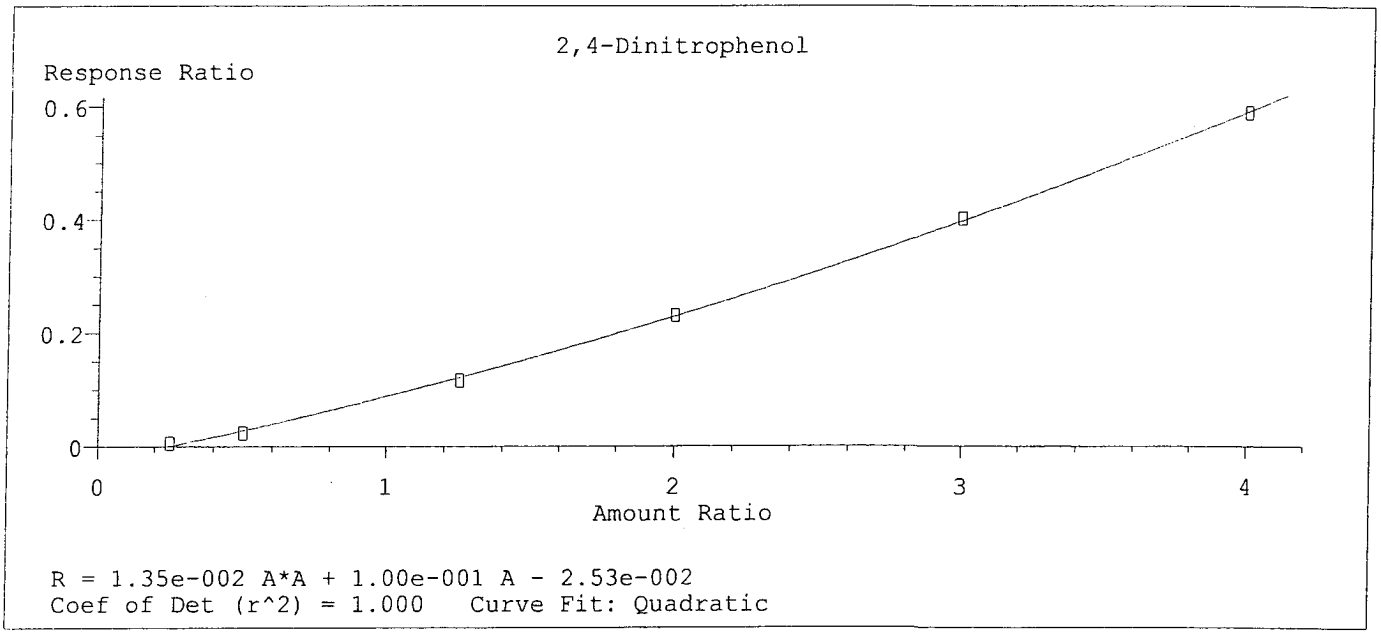
Method: C:\MSDCHEM\1\METHODS\131106_BNA.M
CalUpdate: Wed Nov 06 17:10:06 2013
Instrument: GCMS_TT
Date: Wed Nov 06 17:10:06 2013

Level	Aqc Time	Data File
2.5	6 Nov 2013 10:53 am	W:\GCMS TT DATA\2013\131106\06NOV002.D
5	6 Nov 2013 11:20 am	W:\GCMS TT DATA\2013\131106\06NOV003.D
10	6 Nov 2013 11:45 am	W:\GCMS TT DATA\2013\131106\06NOV004.D
20	6 Nov 2013 12:13 pm	W:\GCMS TT DATA\2013\131106\06NOV005.D
50	6 Nov 2013 12:40 pm	W:\GCMS TT DATA\2013\131106\06NOV006.D
80	6 Nov 2013 1:05 pm	W:\GCMS TT DATA\2013\131106\06NOV007.D
120	6 Nov 2013 1:31 pm	W:\GCMS TT DATA\2013\131106\06NOV008.D
160	6 Nov 2013 1:58 pm	W:\GCMS_TT_DATA\2013\131106\06NOV009.D

Definitions
TC = Target Compound
IS = Internal Standard

R = 0.013543 A*A + 0.100084 A + -0.025347, r^2 = 0.999603

Level	ResponseTC	ResponseIS	AmountTC	AmountIS	ResponseRatio	AmountRatio
5	226	763119		40.000	0.00030	
10	4917	778852	10.000	40.000	0.00631	0.25000
20	15907	673885	20.000	40.000	0.02360	0.50000
50	80662	695100	50.000	40.000	0.11604	1.25000
80	155957	676764	80.000	40.000	0.23045	2.00000
120	245677	612275	120.000	40.000	0.40125	3.00000
160	357796	607113	160.000	40.000	0.58934	4.00000



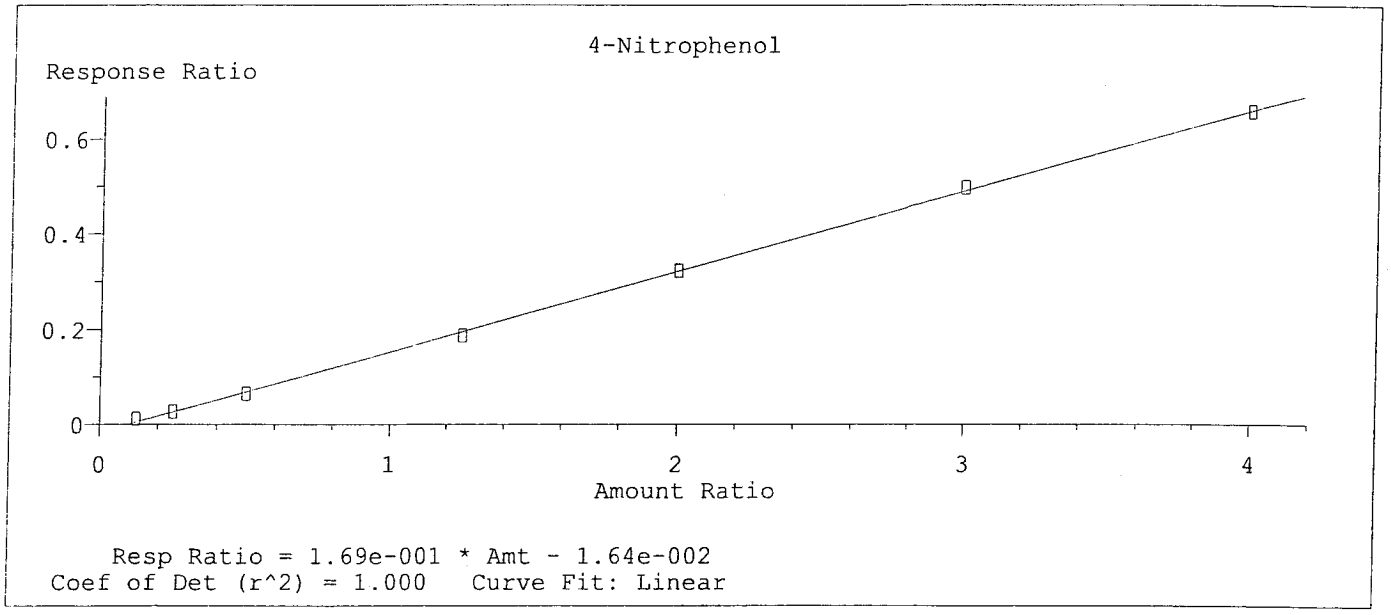
R = 1.35e-002 A*A + 1.00e-001 A - 2.53e-002
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic

Return to Contents

Calibration Plot Report

R = 0.000000 A*A + 0.169206 A + -0.016443, r^2 = 0.999556

Level	ResponseTC	ResponseIS	AmountTC	AmountIS	ResponseRatio	AmountRatio
2.5	3409	772710		40.000	0.00441	
5	8476	763119	5.000	40.000	0.01111	0.12500
10	20844	778852	10.000	40.000	0.02676	0.25000
20	43308	673885	20.000	40.000	0.06427	0.50000
50	130030	695100	50.000	40.000	0.18707	1.25000
80	218240	676764	80.000	40.000	0.32248	2.00000
120	304666	612275	120.000	40.000	0.49760	3.00000
160	399506	607113	160.000	40.000	0.65804	4.00000



Return to Contents

Calibration Plot Report

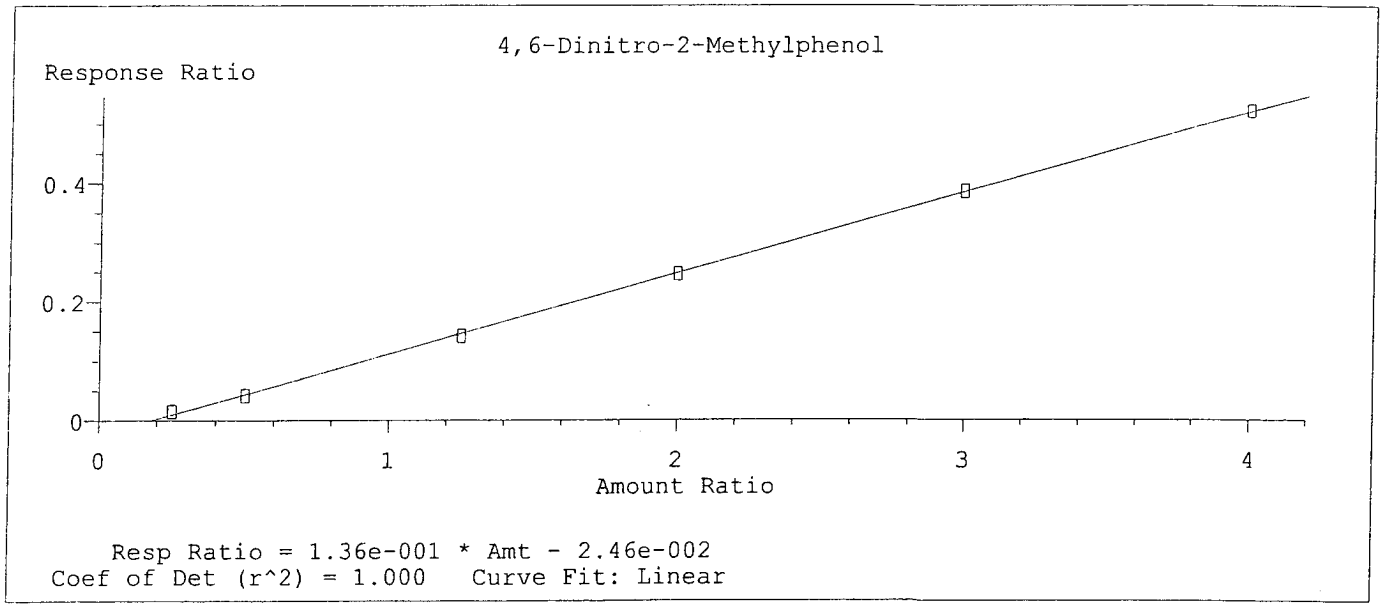
Method: C:\MSDCHEM\1\METHODS\131106_BNA.M
CalUpdate: Wed Nov 06 17:10:17 2013
Instrument: GCMS_TT
Date: Wed Nov 06 17:10:17 2013

Level	Aqc Time	Data File
2.5	6 Nov 2013 10:53 am	W:\GCMS TT DATA\2013\131106\06NOV002.D
5	6 Nov 2013 11:20 am	W:\GCMS TT DATA\2013\131106\06NOV003.D
10	6 Nov 2013 11:45 am	W:\GCMS TT DATA\2013\131106\06NOV004.D
20	6 Nov 2013 12:13 pm	W:\GCMS TT DATA\2013\131106\06NOV005.D
50	6 Nov 2013 12:40 pm	W:\GCMS TT DATA\2013\131106\06NOV006.D
80	6 Nov 2013 1:05 pm	W:\GCMS TT DATA\2013\131106\06NOV007.D
120	6 Nov 2013 1:31 pm	W:\GCMS TT DATA\2013\131106\06NOV008.D
160	6 Nov 2013 1:58 pm	W:\GCMS_TT_DATA\2013\131106\06NOV009.D

Definitions
TC = Target Compound
IS = Internal Standard

R = 0.000000 A*A + 0.136368 A + -0.024645, r^2 = 0.999691

Level	ResponseTC	ResponseIS	AmountTC	AmountIS	ResponseRatio	AmountRatio
2.5	1065	1062517		40.000	0.00100	
5	4487	1055414		40.000	0.00425	
10	16429	1083349	10.000	40.000	0.01517	0.25000
20	39527	950328	20.000	40.000	0.04159	0.50000
50	140506	993207	50.000	40.000	0.14147	1.25000
80	245193	995434	80.000	40.000	0.24632	2.00000
120	356290	924638	120.000	40.000	0.38533	3.00000
160	493353	944569	160.000	40.000	0.52230	4.00000



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV002.D
Acq On : 6 Nov 2013 10:53 am
Operator : 513
Sample : ICAL-1 S090513H 2.5PPM
InstName : GCMS TT
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 06 14:54:21 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 14:54:14 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	5.765	152	441011	40.00	mg/l		0.00
19) Naphthalene-d8	7.107	136	1604548	40.00	mg/l		0.00
36) Acenaphthene-d10	9.049	164	772710	40.00	mg/l		0.00
56) Phenanthrene-d10	10.669	188	1062517	40.00	mg/l		0.00
69) Chrysene-d12	13.777	240	760970	40.00	mg/l		0.00
81) Perylene-d12	16.205	264	571844	40.00	mg/l		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	4.545	112	40111	2.37	mg/l		0.00
Spiked Amount 100.000			Recovery =	2.37%			
6) Phenol-d6	5.428	99	45402	2.48	mg/l		0.00
Spiked Amount 100.000			Recovery =	2.48%			
20) Nitrobenzene-d5	6.369	82	33985	2.44	mg/l		0.00
Spiked Amount 100.000			Recovery =	2.44%			
41) 2-Fluorobiphenyl	8.305	172	75657	2.73	mg/l		0.00
Spiked Amount 100.000			Recovery =	2.73%			
60) 2,4,6-Tribromophenol	9.926	330	5020	1.99	mg/l		0.00
Spiked Amount 100.000			Recovery =	1.99%			
71) p-Terphenyl-d14	12.450	244	45020	2.58	mg/l		0.00
Spiked Amount 100.000			Recovery =	2.58%			
Target Compounds							Qvalue
2) Pyridine	3.352	52	24098	2.36	mg/l		99
3) N-Nitrosodimethylamine	3.347	74	23584	2.35	mg/l		98
5) Aniline	5.476	93	53944	2.50	mg/l		95
7) Phenol	5.438	94	46235	2.46	mg/l		98
8) Bis(2-Chloroethyl) Ether	5.535	93	37595	2.54	mg/l		97
9) 2-Chlorophenol	5.588	128	41366	2.56	mg/l		97
10) 1,3-Dichlorobenzene	5.732	146	49879	2.63	mg/l		99
11) 1,4-Dichlorobenzene	5.781	146	49010	2.67	mg/l		93
12) Benzyl Alcohol	5.920	79	24805	2.26	mg/l		96
13) 1,2-Dichlorobenzene	5.979	146	46749	2.65	mg/l		98
14) 2-Methylphenol	6.048	108	32195	2.55	mg/l		98
15) Bis(2-Chloroisopropyl)...	6.085	45	53865	2.87	mg/l		94
16) 3/4-Methylphenol	6.192	107	70577	5.25	mg/l		99
17) N-Nitroso-di-n-propyla...	6.230	70	25926	2.67	mg/l		97
18) Hexachloroethane	6.294	117	17223	2.57	mg/l		97
21) Nitrobenzene	6.385	77	35773	2.63	mg/l		96
22) Isophorone	6.626	82	63094	2.60	mg/l		99
23) 2-Nitrophenol	6.727	139	17626	2.16	mg/l		99
24) 2,4-Dimethylphenol	6.754	107	33336	2.62	mg/l		95
25) Benzoic Acid	6.824	105	107	10.99	mg/l	#	8
26) Bis(2-Chloroethoxy) Me...	6.866	93	40475	2.62	mg/l		97
27) 2,4-Dichlorophenol	6.968	162	26322	2.41	mg/l		100
28) 1,2,4-Trichlorobenzene	7.064	180	35512	2.62	mg/l		98
29) Naphthalene	7.128	128	109031	2.71	mg/l		99
30) 2,6-Dichlorophenol	7.214	162	26794	2.58	mg/l		99
31) 4-Chloroaniline	7.209	127	37637	2.89	mg/l		97
32) Hexachloro-1,3-Butadiene	7.326	225	19435	2.63	mg/l		98
33) 4-Chloro-3-Methylphenol	7.722	107	23396	2.37	mg/l		97
34) 2-Methylnaphthalene	7.877	142	67552	2.62	mg/l		100
35) 1-Methylnaphthalene	8.000	142	65075	2.66	mg/l		99
37) Hexachlorocyclopentadiene	8.129	237	7735	1.38	mg/l		98
38) 2,4,6-Trichlorophenol	8.214	196	16405	2.31	mg/l		98
39) 2,4,5-Trichlorophenol	8.257	196	16374	2.40	mg/l		96
40) 2-Chloronaphthalene	8.412	162	59495	2.61	mg/l		99

Return to Contents

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV002.D
Acq On : 6 Nov 2013 10:53 am
Operator : 513
Sample : ICAL-1 S090513H 2.5PPM
InstName : GCMS TT
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 06 14:54:21 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 14:54:14 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 2-Nitroaniline	8.557	65	11620	2.17 mg/l	89
43) Dimethyl Phthalate	8.792	163	61923	2.56 mg/l	100
44) Acenaphthylene	8.877	152	95796	2.66 mg/l	99
45) 3-Nitroaniline	9.017	138	10691	2.59 mg/l	98
46) Acenaphthene	9.081	153	58692	2.64 mg/l	98
47) 2,4-Dinitrophenol	0.000		0	N.D.	
48) 4-Nitrophenol	9.193	65	3409	4.90 mg/l	88
49) Dibenzofuran	9.252	168	73235	2.58 mg/l	99
50) 2,4-Dinitrotoluene	9.295	165	11786	1.90 mg/l	95
51) 2,6-Dinitrotoluene	8.867	165	10567	2.11 mg/l	93
52) Diethyl Phthalate	9.567	149	57339	2.53 mg/l	99
53) 4-Chlorophenyl-Phenyl ...	9.637	204	29520	2.67 mg/l	99
54) Fluorene	9.637	166	59944	2.64 mg/l	98
55) 4-Nitroaniline	9.696	138	8730	2.54 mg/l	91
57) Azobenzene	9.808	77	52847	2.70 mg/l	98
58) 4,6-Dinitro-2-Methylph...	9.744	198	1065	7.44 mg/l #	1
59) N-Nitrosodiphenylamine	9.771	169	36460	2.60 mg/l	97
61) 4-Bromophenyl-Phenyl E...	10.172	248	14497	2.52 mg/l	99
62) Hexachlorobenzene	10.332	142	6864	2.78 mg/l	88
63) Pentachlorophenol	10.536	266	2155	0.72 mg/l	95
64) Phenanthrene	10.696	178	74487	2.66 mg/l	99
65) Anthracene	10.744	178	72429	2.64 mg/l	99
66) Di-n-Butyl Phthalate	11.370	149	73798	2.32 mg/l	100
67) Fluoranthene	12.017	202	65061	2.37 mg/l	99
68) Benzidine	12.167	184	17215	2.54 mg/l	98
70) Pyrene	12.269	202	67022	2.68 mg/l	98
72) Butyl Benzyl Phthalate	13.065	149	21988	2.16 mg/l	96
73) 3,3'-Dichlorobenzidine	13.734	252	11904	2.54 mg/l	92
74) Benzo (a) Anthracene	13.755	228	48879	2.39 mg/l	99
75) Bis(2-Ethylhexyl) Phth...	13.889	149	26643	1.99 mg/l	98
76) Chrysene	13.814	228	50215	2.54 mg/l	98
77) Di-n-Octyl Phthalate	14.873	149	33459	1.68 mg/l	99
78) Benzo (b) Fluoranthene	15.499	252	32397	1.93 mg/l	97
79) Benzo (k) Fluoranthene	15.542	252	41391	2.38 mg/l	97
80) Benzo (a) Pyrene	16.093	252	29159	1.94 mg/l	98
82) Indeno (1,2,3-c,d) Pyrene	18.355	276	16244	1.88 mg/l	98
83) Dibenz (a,h) Anthracene	18.403	278	18306	1.91 mg/l	94
84) Benzo (g,h,i) Perylene	18.901	276	22092	2.32 mg/l	98

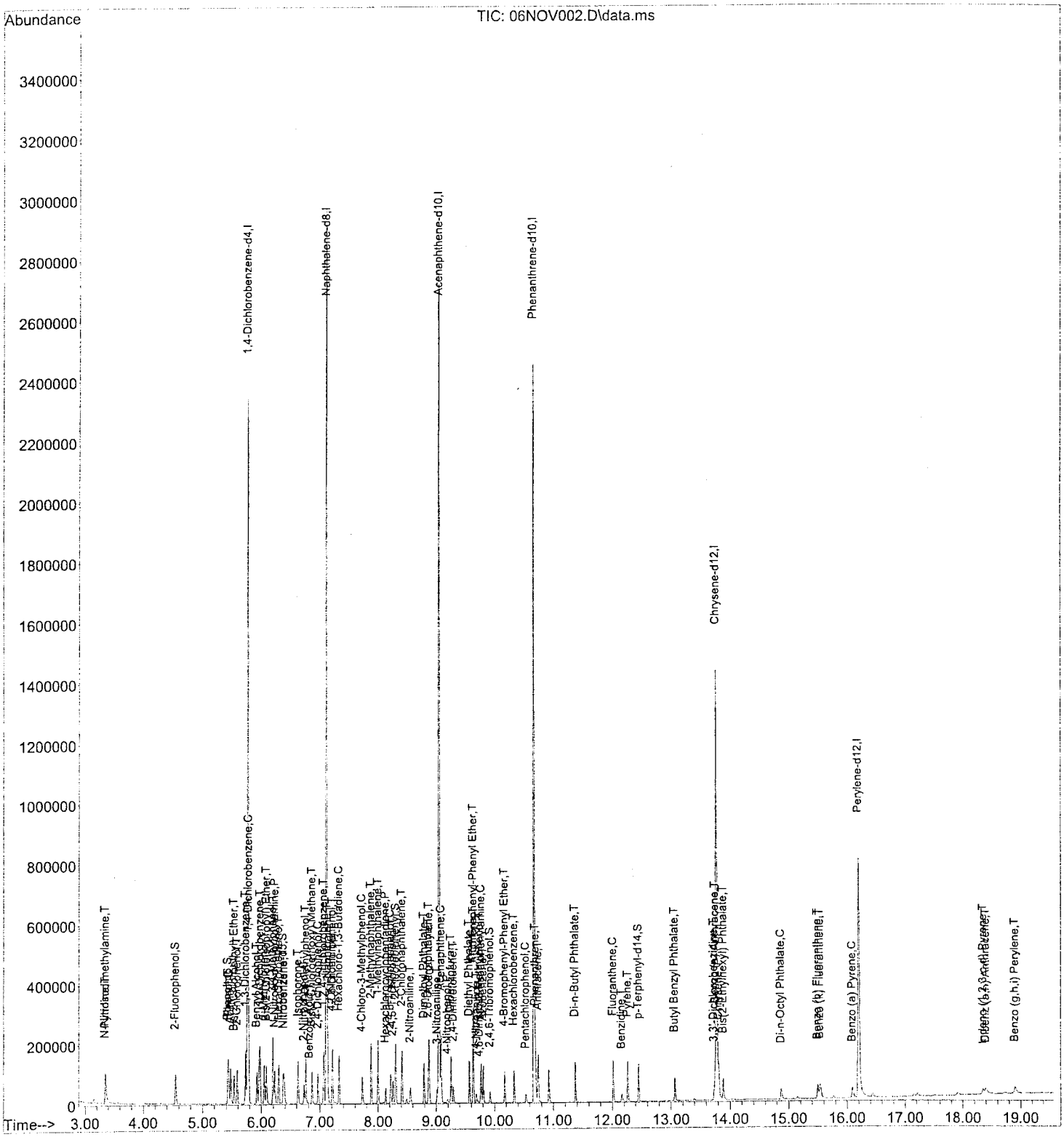
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV002.D
Acq On : 6 Nov 2013 10:53 am
Operator : 513
Sample : ICAL-1 S090513H 2.5PPM
InstName : GCMS TT
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 06 14:54:21 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 14:54:14 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV003.D
Acq On : 6 Nov 2013 11:20 am
Operator : 513
Sample : ICAL-2 S090513G 5PPM
InstName : GCMS TT
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 06 14:55:30 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 14:55:27 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.764	152	438943	40.00	mg/l	0.00
19) Naphthalene-d8	7.112	136	1591960	40.00	mg/l	0.00
36) Acenaphthene-d10	9.048	164	763119	40.00	mg/l	0.00
56) Phenanthrene-d10	10.669	188	1055414	40.00	mg/l	0.00
69) Chrysene-d12	13.776	240	764040	40.00	mg/l	0.00
81) Perylene-d12	16.205	264	574686	40.00	mg/l	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	4.545	112	83415	4.96	mg/l	0.00
Spiked Amount 100.000			Recovery =	4.96%		
6) Phenol-d6	5.427	99	91145	4.99	mg/l	0.00
Spiked Amount 100.000			Recovery =	4.99%		
20) Nitrobenzene-d5	6.369	82	68981	4.99	mg/l	0.00
Spiked Amount 100.000			Recovery =	4.99%		
41) 2-Fluorobiphenyl	8.305	172	146085	5.34	mg/l	0.00
Spiked Amount 100.000			Recovery =	5.34%		
60) 2,4,6-Tribromophenol	9.925	330	10873	4.34	mg/l	0.00
Spiked Amount 100.000			Recovery =	4.34%		
71) p-Terphenyl-d14	12.450	244	89997	5.14	mg/l	0.00
Spiked Amount 100.000			Recovery =	5.14%		
Target Compounds						Qvalue
2) Pyridine	3.347	52	50303	4.95	mg/l	96
3) N-Nitrosodimethylamine	3.341	74	48828	4.90	mg/l	95
5) Aniline	5.475	93	107813	5.02	mg/l	97
7) Phenol	5.438	94	94072	5.02	mg/l	98
8) Bis(2-Chloroethyl) Ether	5.534	93	76760	5.20	mg/l	98
9) 2-Chlorophenol	5.582	128	82500	5.13	mg/l	98
10) 1,3-Dichlorobenzene	5.732	146	98329	5.21	mg/l	99
11) 1,4-Dichlorobenzene	5.780	146	94374	5.16	mg/l	95
12) Benzyl Alcohol	5.919	79	53236	4.86	mg/l	97
13) 1,2-Dichlorobenzene	5.978	146	90677	5.16	mg/l	99
14) 2-Methylphenol	6.048	108	63241	5.03	mg/l	100
15) Bis(2-Chloroisopropyl)...	6.085	45	104297	5.59	mg/l	96
16) 3/4-Methylphenol	6.192	107	138165	10.32	mg/l	99
17) N-Nitroso-di-n-propyla...	6.230	70	50082	5.19	mg/l	96
18) Hexachloroethane	6.294	117	34165	5.13	mg/l	98
21) Nitrobenzene	6.385	77	70284	5.22	mg/l	97
22) Isophorone	6.625	82	122948	5.11	mg/l	99
23) 2-Nitrophenol	6.722	139	37718	4.67	mg/l	99
24) 2,4-Dimethylphenol	6.754	107	64432	5.10	mg/l	99
25) Benzoic Acid	6.818	105	874	11.13	mg/l #	8
26) Bis(2-Chlorocthoxy) Me...	6.866	93	81163	5.29	mg/l	98
27) 2,4-Dichlorophenol	6.968	162	52668	4.87	mg/l	99
28) 1,2,4-Trichlorobenzene	7.064	180	70463	5.24	mg/l	99
29) Naphthalene	7.128	128	213743	5.35	mg/l	99
30) 2,6-Dichlorophenol	7.214	162	53010	5.14	mg/l	99
31) 4-Chloroaniline	7.208	127	71581	5.54	mg/l	98
32) Hexachloro-1,3-Butadiene	7.326	225	37185	5.08	mg/l	99
33) 4-Chloro-3-Methylphenol	7.722	107	46771	4.78	mg/l	99
34) 2-Methylnaphthalene	7.877	142	134058	5.23	mg/l	100
35) 1-Methylnaphthalene	8.000	142	129304	5.32	mg/l	100
37) Hexachlorocyclopentadiene	8.128	237	17417	3.14	mg/l	99
38) 2,4,6-Trichlorophenol	8.214	196	32646	4.65	mg/l	99
39) 2,4,5-Trichlorophenol	8.257	196	31336	4.65	mg/l	98
40) 2-Chloronaphthalene	8.412	162	118760	5.27	mg/l	99

Return to Contents

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV003.D
Acq On : 6 Nov 2013 11:20 am
Operator : 513
Sample : ICAL-2 S090513G 5PPM
InstName : GCMS TT
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 06 14:55:30 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 14:55:27 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

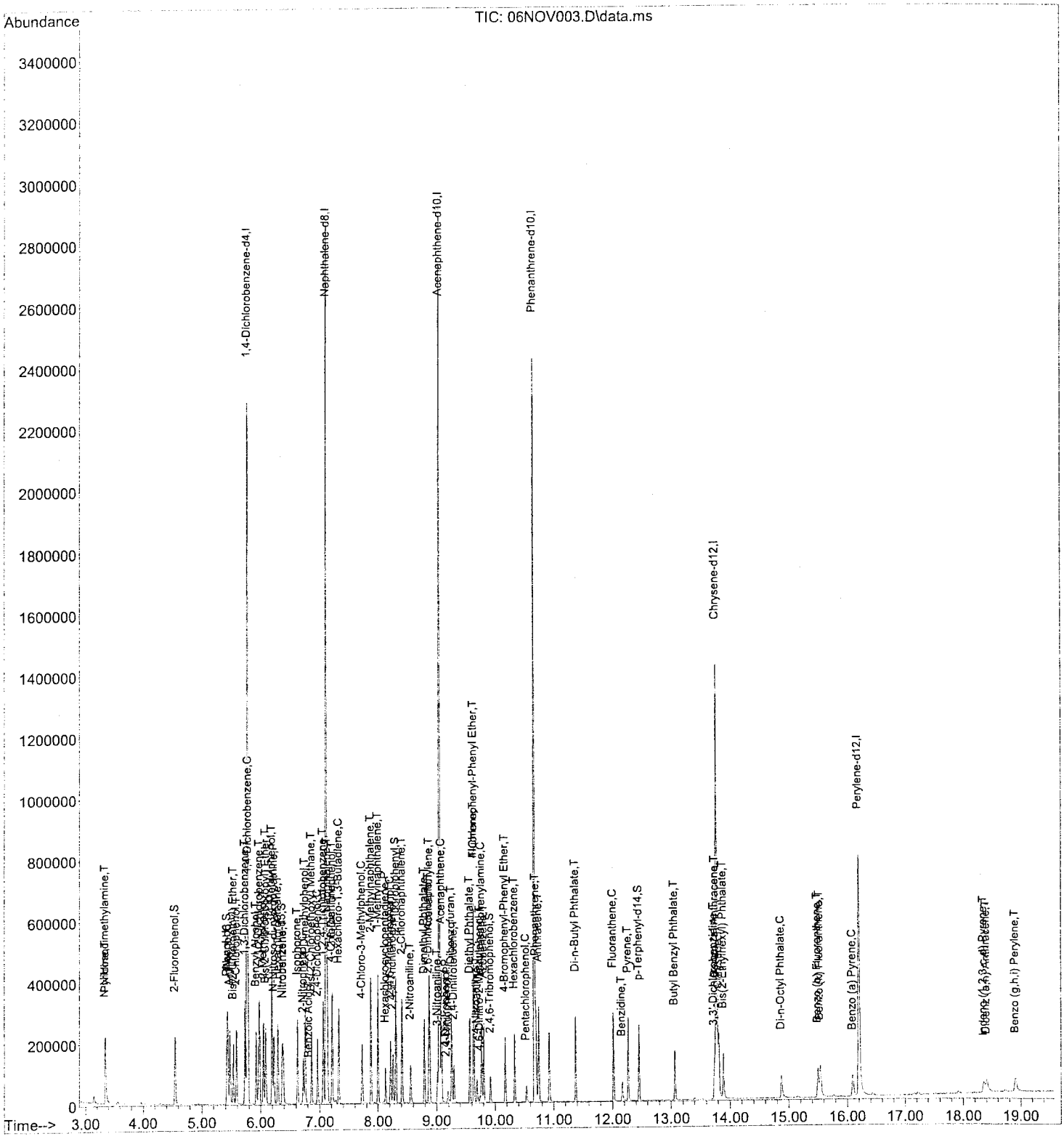
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	2-Nitroaniline	8.556	65	23698	4.49	mg/l		94
43)	Dimethyl Phthalate	8.792	163	121505	5.09	mg/l		99
44)	Acenaphthylene	8.877	152	192440	5.40	mg/l		99
45)	3-Nitroaniline	9.016	138	23113	5.66	mg/l		97
46)	Acenaphthene	9.080	153	115403	5.25	mg/l		99
47)	2,4-Dinitrophenol	9.161	184	226	9.95	mg/l	#	49
48)	4-Nitrophenol	9.187	65	8476	6.48	mg/l		89
49)	Dibenzofuran	9.252	168	145127	5.17	mg/l		99
50)	2,4-Dinitrotoluene	9.294	165	25944	4.23	mg/l		97
51)	2,6-Dinitrotoluene	8.866	165	23306	4.71	mg/l		98
52)	Diethyl Phthalate	9.572	149	113141	5.05	mg/l		99
53)	4-Chlorophenyl-Phenyl ...	9.637	204	58873	5.40	mg/l		99
54)	Fluorene	9.637	166	120386	5.37	mg/l		99
55)	4-Nitroaniline	9.690	138	18249	5.39	mg/l		85
57)	Azobenzene	9.808	77	103677	5.33	mg/l		99
58)	4,6-Dinitro-2-Methylph...	9.744	198	4487	8.39	mg/l	#	1
59)	N-Nitrosodiphenylamine	9.770	169	73114	5.24	mg/l		98
61)	4-Bromophenyl-Phenyl E...	10.171	248	27927	4.89	mg/l		97
62)	Hexachlorobenzene	10.332	142	13522	5.51	mg/l		91
63)	Pentachlorophenol	10.530	266	6634	2.23	mg/l		98
64)	Phenanthrene	10.696	178	146018	5.24	mg/l		99
65)	Anthracene	10.744	178	141371	5.18	mg/l		100
66)	Di-n-Butyl Phthalate	11.375	149	156252	4.94	mg/l		99
67)	Fluoranthene	12.017	202	132668	4.86	mg/l		100
68)	Benzidine	12.167	184	35861	5.33	mg/l		100
70)	Pyrene	12.268	202	135117	5.37	mg/l		99
72)	Butyl Benzyl Phthalate	13.065	149	44770	4.37	mg/l		97
73)	3,3'-Dichlorobenzidine	13.734	252	25642	5.45	mg/l		98
74)	Benzo (a) Anthracene	13.755	228	99136	4.83	mg/l		100
75)	Bis(2-Ethylhexyl) Phth...	13.889	149	57276	4.26	mg/l		99
76)	Chrysene	13.814	228	99300	4.99	mg/l		98
77)	Di-n-Octyl Phthalate	14.873	149	68996	3.44	mg/l		99
78)	Benzo (b) Fluoranthene	15.504	252	69385	4.13	mg/l		97
79)	Benzo (k) Fluoranthene	15.541	252	77255	4.43	mg/l		99
80)	Benzo (a) Pyrene	16.098	252	57874	3.84	mg/l		97
82)	Indeno (1,2,3-c,d) Pyrene	18.355	276	30526	3.52	mg/l		93
83)	Dibenz (a,h) Anthracene	18.403	278	40328	4.18	mg/l		96
84)	Benzo (g,h,i) Perylene	18.906	276	45083	4.71	mg/l		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV003.D
Acq On : 6 Nov 2013 11:20 am
Operator : 513
Sample : ICAL-2 S090513G 5PPM
InstName : GCMS TT
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 06 14:55:30 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 14:55:27 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV004.D
Acq On : 6 Nov 2013 11:45 am
Operator : 513
Sample : ICAL-3. S090513F 10PPM
InstName : GCMS TT
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 06 14:56:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 14:56:55 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.764	152	457783	40.00	mg/l	0.00
19) Naphthalene-d8	7.112	136	1633676	40.00	mg/l	0.00
36) Acenaphthene-d10	9.048	164	778852	40.00	mg/l	0.00
56) Phenanthrene-d10	10.669	188	1083349	40.00	mg/l	0.00
69) Chrysene-d12	13.777	240	788646	40.00	mg/l	0.00
81) Perylene-d12	16.205	264	601923	40.00	mg/l	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	4.545	112	178119	10.15	mg/l	0.00
Spiked Amount 100.000			Recovery =	10.15%		
6) Phenol-d6	5.427	99	195844	10.29	mg/l	0.00
Spiked Amount 100.000			Recovery =	10.29%		
20) Nitrobenzene-d5	6.369	82	144347	10.18	mg/l	0.00
Spiked Amount 100.000			Recovery =	10.18%		
41) 2-Fluorobiphenyl	8.305	172	300075	10.74	mg/l	0.00
Spiked Amount 100.000			Recovery =	10.74%		
60) 2,4,6-Tribromophenol	9.926	330	24192	9.42	mg/l	0.00
Spiked Amount 100.000			Recovery =	9.42%		
71) p-Terphenyl-d14	12.450	244	190146	10.52	mg/l	0.00
Spiked Amount 100.000			Recovery =	10.52%		
Target Compounds						Qvalue
2) Pyridine	3.341	52	107145	10.10	mg/l	95
3) N-Nitrosodimethylamine	3.341	74	104605	10.06	mg/l	98
5) Aniline	5.476	93	228723	10.21	mg/l	98
7) Phenol	5.438	94	196821	10.07	mg/l	98
8) Bis(2-Chloroethyl) Ether	5.529	93	158621	10.30	mg/l	97
9) 2-Chlorophenol	5.583	128	172961	10.31	mg/l	98
10) 1,3-Dichlorobenzene	5.732	146	202580	10.29	mg/l	100
11) 1,4-Dichlorobenzene	5.786	146	196244	10.30	mg/l	98
12) Benzyl Alcohol	5.920	79	110514	9.68	mg/l	99
13) 1,2-Dichlorobenzene	5.978	146	191569	10.45	mg/l	99
14) 2-Methylphenol	6.048	108	134069	10.23	mg/l	99
15) Bis(2-Chloroisopropyl)...	6.085	45	213574	10.98	mg/l	95
16) 3/4-Methylphenol	6.198	107	287460	20.59	mg/l	99
17) N-Nitroso-di-n-propyla...	6.230	70	101053	10.03	mg/l	97
18) Hexachloroethane	6.294	117	70288	10.11	mg/l	99
21) Nitrobenzene	6.385	77	144742	10.47	mg/l	98
22) Isophorone	6.626	82	255116	10.33	mg/l	99
23) 2-Nitrophenol	6.722	139	87267	10.52	mg/l	96
24) 2,4-Dimethylphenol	6.754	107	133904	10.33	mg/l	98
25) Benzoic Acid	6.829	105	9567	12.72	mg/l	99
26) Bis(2-Chloroethoxy) Me...	6.866	93	164108	10.42	mg/l	98
27) 2,4-Dichlorophenol	6.968	162	112761	10.16	mg/l	100
28) 1,2,4-Trichlorobenzene	7.064	180	146350	10.61	mg/l	99
29) Naphthalene	7.128	128	437570	10.68	mg/l	99
30) 2,6-Dichlorophenol	7.214	162	110660	10.45	mg/l	100
31) 4-Chloroaniline	7.209	127	135233	10.19	mg/l	98
32) Hexachloro-1,3-Butadiene	7.326	225	77863	10.36	mg/l	98
33) 4-Chloro-3-Methylphenol	7.722	107	98025	9.77	mg/l	99
34) 2-Methylnaphthalene	7.877	142	276072	10.50	mg/l	99
35) 1-Methylnaphthalene	8.000	142	266898	10.71	mg/l	99
37) Hexachlorocyclopentadiene	8.129	237	44872	7.94	mg/l	99
38) 2,4,6-Trichlorophenol	8.214	196	70654	9.86	mg/l	99
39) 2,4,5-Trichlorophenol	8.252	196	67874	9.86	mg/l	99
40) 2-Chloronaphthalene	8.412	162	242518	10.54	mg/l	99

Return to Contents

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV004.D
Acq On : 6 Nov 2013 11:45 am
Operator : 513
Sample : ICAL-3. S090513F 10PPM
InstName : GCMS TT
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 06 14:56:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 14:56:55 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) 2-Nitroaniline	8.556	65	52973	9.84	mg/l	96
43) Dimethyl Phthalate	8.792	163	250593	10.29	mg/l	99
44) Acenaphthylene	8.877	152	391567	10.77	mg/l	100
45) 3-Nitroaniline	9.016	138	46410	11.14	mg/l	90
46) Acenaphthene	9.081	153	239577	10.68	mg/l	100
47) 2,4-Dinitrophenol	9.134	184	4917	12.18	mg/l	89
48) 4-Nitrophenol	9.188	65	20844	10.19	mg/l	97
49) Dibenzofuran	9.257	168	296888	10.37	mg/l	100
50) 2,4-Dinitrotoluene	9.294	165	59102	9.45	mg/l	97
51) 2,6-Dinitrotoluene	8.867	165	51190	10.13	mg/l	98
52) Diethyl Phthalate	9.573	149	236162	10.32	mg/l	99
53) 4-Chlorophenyl-Phenyl ...	9.637	204	119251	10.72	mg/l	99
54) Fluorene	9.637	166	245304	10.73	mg/l	99
55) 4-Nitroaniline	9.690	138	36937	10.68	mg/l	94
57) Azobenzene	9.808	77	217416	10.88	mg/l	98
58) 4,6-Dinitro-2-Methylph...	9.744	198	16429	11.60	mg/l	96
59) N-Nitrosodiphenylamine	9.771	169	151930	10.62	mg/l	99
61) 4-Bromophenyl-Phenyl E...	10.172	248	60988	10.40	mg/l	99
62) Hexachlorobenzene	10.332	142	26699	10.60	mg/l	94
63) Pentachlorophenol	10.530	266	20949	6.87	mg/l	98
64) Phenanthrene	10.696	178	301121	10.53	mg/l	100
65) Anthracene	10.744	178	292037	10.42	mg/l	99
66) Di-n-Butyl Phthalate	11.370	149	333601	10.27	mg/l	99
67) Fluoranthene	12.017	202	280329	10.00	mg/l	99
68) Benzidine	12.167	184	74625	10.80	mg/l	100
70) Pyrene	12.268	202	281225	10.83	mg/l	100
72) Butyl Benzyl Phthalate	13.065	149	100495	9.51	mg/l	98
73) 3,3'-Dichlorobenzidine	13.734	252	56991	11.73	mg/l	98
74) Benzo (a) Anthracene	13.750	228	208950	9.86	mg/l	99
75) Bis(2-Ethylhexyl) Phth...	13.889	149	127837	9.20	mg/l	100
76) Chrysene	13.814	228	204723	9.98	mg/l	99
77) Di-n-Octyl Phthalate	14.873	149	166661	8.06	mg/l	99
78) Benzo (b) Fluoranthene	15.504	252	155300	8.95	mg/l	100
79) Benzo (k) Fluoranthene	15.547	252	169008	9.38	mg/l	96
80) Benzo (a) Pyrene	16.093	252	131265	8.43	mg/l	99
82) Indeno (1,2,3-c,d) Pyrene	18.355	276	76206	8.39	mg/l	98
83) Dibenz (a,h) Anthracene	18.403	278	94877	9.40	mg/l	98
84) Benzo (g,h,i) Perylene	18.906	276	100618	10.04	mg/l	97

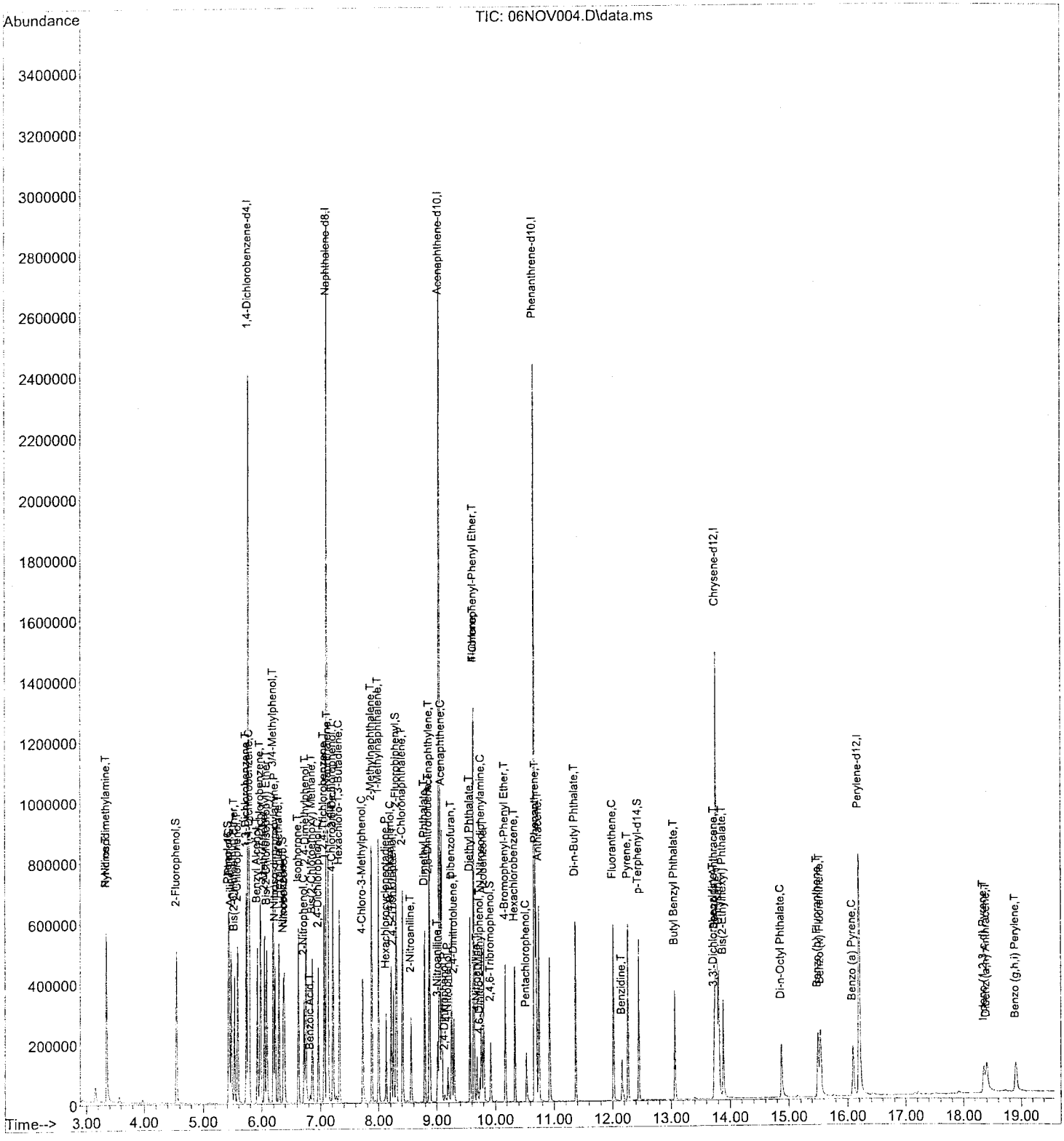
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV004.D
Acq On : 6 Nov 2013 11:45 am
Operator : 513
Sample : ICAL-3. S090513F 10PPM
InstName : GCMS TT
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 06 14:56:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 14:56:55 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV005.D
Acq On : 6 Nov 2013 12:13 pm
Operator : 513
Sample : ICAL-4 S090513E 20PPM
InstName : GCMS TT
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 06 14:57:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 14:57:48 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.770	152	398894	40.00	mg/l	0.00
19) Naphthalene-d8	7.112	136	1436048	40.00	mg/l	0.00
36) Acenaphthene-d10	9.049	164	673885	40.00	mg/l	0.00
56) Phenanthrene-d10	10.669	188	950328	40.00	mg/l	0.00
69) Chrysene-d12	13.782	240	723408	40.00	mg/l	0.00
81) Perylene-d12	16.210	264	566312	40.00	mg/l	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	4.545	112	320939	21.00	mg/l	0.00
Spiked Amount 100.000			Recovery =	21.00%		
6) Phenol-d6	5.428	99	342174	20.63	mg/l	0.00
Spiked Amount 100.000			Recovery =	20.63%		
20) Nitrobenzene-d5	6.369	82	256760	20.60	mg/l	0.00
Spiked Amount 100.000			Recovery =	20.60%		
41) 2-Fluorobiphenyl	8.305	172	514032	21.26	mg/l	0.00
Spiked Amount 100.000			Recovery =	21.26%		
60) 2,4,6-Tribromophenol	9.926	330	44300	19.66	mg/l	0.00
Spiked Amount 100.000			Recovery =	19.66%		
71) p-Terphenyl-d14	12.450	244	343764	20.74	mg/l	0.00
Spiked Amount 100.000			Recovery =	20.74%		
Target Compounds						Qvalue
2) Pyridine	3.336	52	190916	20.66	mg/l	98
3) N-Nitrosodimethylamine	3.342	74	186787	20.61	mg/l	100
5) Aniline	5.476	93	391516	20.06	mg/l	96
7) Phenol	5.444	94	347800	20.43	mg/l	98
8) Bis(2-Chloroethyl) Ether	5.535	93	276486	20.61	mg/l	98
9) 2-Chlorophenol	5.588	128	300947	20.58	mg/l	98
10) 1,3-Dichlorobenzene	5.732	146	351695	20.50	mg/l	99
11) 1,4-Dichlorobenzene	5.786	146	346780	20.88	mg/l	99
12) Benzyl Alcohol	5.920	79	197852	19.90	mg/l	99
13) 1,2-Dichlorobenzene	5.978	146	335104	20.98	mg/l	100
14) 2-Methylphenol	6.048	108	235827	20.65	mg/l	100
15) Bis(2-Chloroisopropyl)...	6.085	45	362242	21.36	mg/l	96
16) 3/4-Methylphenol	6.198	107	494647	40.66	mg/l	100
17) N-Nitroso-di-n-propyla...	6.235	70	177371	20.21	mg/l	98
18) Hexachloroethane	6.294	117	127396	21.03	mg/l	98
21) Nitrobenzene	6.385	77	254928	20.97	mg/l	98
22) Isophorone	6.626	82	443721	20.44	mg/l	99
23) 2-Nitrophenol	6.722	139	158617	21.76	mg/l	95
24) 2,4-Dimethylphenol	6.754	107	233018	20.46	mg/l	99
25) Benzoic Acid	6.845	105	33394	17.79	mg/l	92
26) Bis(2-Chloroethoxy) Me...	6.866	93	290951	21.01	mg/l	99
27) 2,4-Dichlorophenol	6.968	162	198826	20.37	mg/l	100
28) 1,2,4-Trichlorobenzene	7.064	180	252618	20.84	mg/l	100
29) Naphthalene	7.134	128	756768	21.01	mg/l	100
30) 2,6-Dichlorophenol	7.219	162	191221	20.55	mg/l	100
31) 4-Chloroaniline	7.214	127	228952	19.63	mg/l	97
32) Hexachloro-1,3-Butadiene	7.326	225	136026	20.58	mg/l	99
33) 4-Chloro-3-Methylphenol	7.727	107	174973	19.83	mg/l	100
34) 2-Methylnaphthalene	7.883	142	483032	20.90	mg/l	100
35) 1-Methylnaphthalene	8.000	142	457167	20.86	mg/l	100
37) Hexachlorocyclopentadiene	8.129	237	88376	18.07	mg/l	100
38) 2,4,6-Trichlorophenol	8.214	196	126521	20.41	mg/l	98
39) 2,4,5-Trichlorophenol	8.257	196	122378	20.54	mg/l	99
40) 2-Chloronaphthalene	8.412	162	419079	21.05	mg/l	100

Return to Contents

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV005.D
Acq On : 6 Nov 2013 12:13 pm
Operator : 513
Sample : ICAL-4 S090513E 20PPM
InstName : GCMS TT
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 06 14:57:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 14:57:48 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

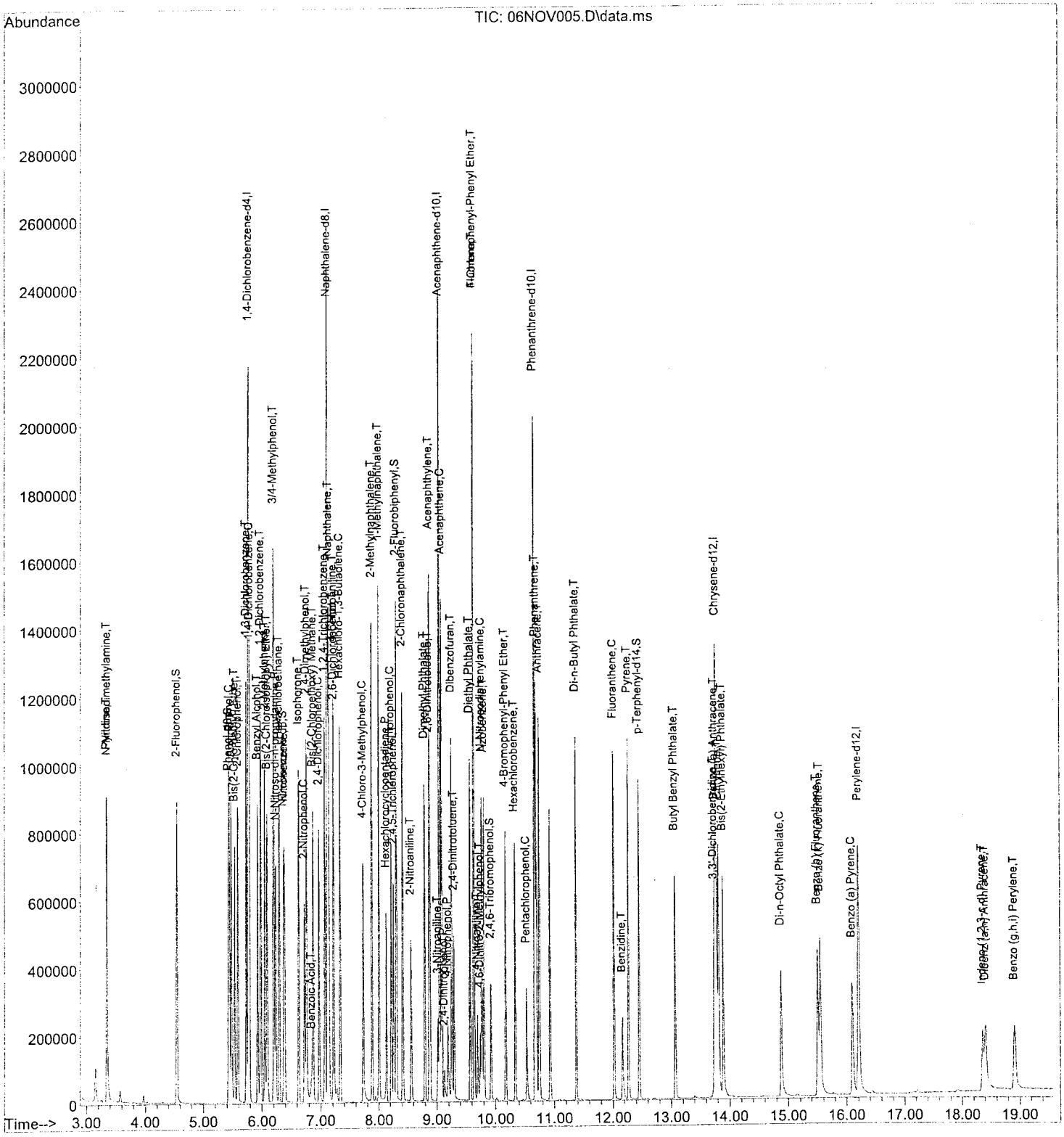
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42)	2-Nitroaniline	8.557	65	95327	20.46	mg/l	97
43)	Dimethyl Phthalate	8.792	163	432640	20.54	mg/l	100
44)	Acenaphthylene	8.877	152	675707	21.49	mg/l	100
45)	3-Nitroaniline	9.017	138	60134	16.69	mg/l	94
46)	Acenaphthene	9.081	153	404937	20.86	mg/l	98
47)	2,4-Dinitrophenol	9.129	184	15907	18.42	mg/l	92
48)	4-Nitrophenol	9.188	65	43308	19.06	mg/l	97
49)	Dibenzofuran	9.257	168	515852	20.83	mg/l	100
50)	2,4-Dinitrotoluene	9.295	165	106512	19.67	mg/l	97
51)	2,6-Dinitrotoluene	8.867	165	92257	21.09	mg/l	100
52)	Diethyl Phthalate	9.573	149	406694	20.55	mg/l	99
53)	4-Chlorophenyl-Phenyl ...	9.637	204	204707	21.27	mg/l	99
54)	Fluorene	9.637	166	422223	21.35	mg/l	100
55)	4-Nitroaniline	9.696	138	62651	20.94	mg/l	91
57)	Azobenzene	9.808	77	366560	20.92	mg/l	99
58)	4,6-Dinitro-2-Methylph...	9.744	198	39527	19.37	mg/l	97
59)	N-Nitrosodiphenylamine	9.771	169	263197	20.96	mg/l	99
61)	4-Bromophenyl-Phenyl E...	10.172	248	105054	20.41	mg/l	98
62)	Hexachlorobenzene	10.332	142	45549	20.62	mg/l	96
63)	Pentachlorophenol	10.530	266	43084	16.12	mg/l	96
64)	Phenanthrene	10.696	178	517371	20.63	mg/l	100
65)	Anthracene	10.744	178	506861	20.62	mg/l	99
66)	Di-n-Butyl Phthalate	11.375	149	586890	20.60	mg/l	99
67)	Fluoranthene	12.022	202	497002	20.21	mg/l	99
68)	Benzidine	12.167	184	125980	20.79	mg/l	99
70)	Pyrene	12.268	202	496298	20.84	mg/l	99
72)	Butyl Benzyl Phthalate	13.065	149	192983	19.91	mg/l	99
73)	3,3'-Dichlorobenzidine	13.739	252	103600	23.25	mg/l	99
74)	Benzo (a) Anthracene	13.755	228	389292	20.02	mg/l	99
75)	Bis(2-Ethylhexyl) Phth...	13.889	149	253774	19.92	mg/l	100
76)	Chrysene	13.814	228	373126	19.82	mg/l	100
77)	Di-n-Octyl Phthalate	14.879	149	350123	18.46	mg/l	99
78)	Benzo (b) Fluoranthene	15.504	252	290591	18.25	mg/l	99
79)	Benzo (k) Fluoranthene	15.547	252	346560	20.97	mg/l	98
80)	Benzo (a) Pyrene	16.098	252	260517	18.24	mg/l	99
82)	Indeno (1,2,3-c,d) Pyrene	18.355	276	151691	17.75	mg/l	98
83)	Dibenz (a,h) Anthracene	18.409	278	183530	19.33	mg/l	99
84)	Benzo (g,h,i) Perylene	18.906	276	191261	20.28	mg/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV005.D
Acq On : 6 Nov 2013 12:13 pm
Operator : 513
Sample : ICAL-4 S090513E 20PPM
InstName : GCMS TT
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 06 14:57:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 14:57:48 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV006.D
Acq On : 6 Nov 2013 12:40 pm
Operator : 513
Sample : ICAL-5 S090513D 50PPM
InstName : GCMS TT
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 06 14:59:03 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 14:59:00 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.770	152	386755	40.00	mg/l	0.00
19) Naphthalene-d8	7.112	136	1400910	40.00	mg/l	0.00
36) Acenaphthene-d10	9.048	164	695100	40.00	mg/l	0.00
56) Phenanthrene-d10	10.674	188	993207	40.00	mg/l	0.00
69) Chrysene-d12	13.782	240	786529	40.00	mg/l	0.00
81) Perylene-d12	16.210	264	655698	40.00	mg/l	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	4.540	112	767372	51.78	mg/l	0.00
Spiked Amount 100.000			Recovery =	51.78%		
6) Phenol-d6	5.433	99	823882	51.24	mg/l	0.00
Spiked Amount 100.000			Recovery =	51.24%		
20) Nitrobenzene-d5	6.369	82	621577	51.13	mg/l	0.00
Spiked Amount 100.000			Recovery =	51.13%		
41) 2-Fluorobiphenyl	8.305	172	1234564	49.51	mg/l	0.00
Spiked Amount 100.000			Recovery =	49.51%		
60) 2,4,6-Tribromophenol	9.926	330	121384	51.54	mg/l	0.00
Spiked Amount 100.000			Recovery =	51.54%		
71) p-Terphenyl-d14	12.456	244	911310	50.57	mg/l	0.00
Spiked Amount 100.000			Recovery =	50.57%		
Target Compounds						Qvalue
2) Pyridine	3.325	52	461695	51.53	mg/l	98
3) N-Nitrosodimethylamine	3.336	74	452329	51.47	mg/l	99
5) Aniline	5.481	93	963400	50.92	mg/l	96
7) Phenol	5.449	94	826094	50.04	mg/l	99
8) Bis(2-Chloroethyl) Ether	5.534	93	652235	50.15	mg/l	99
9) 2-Chlorophenol	5.588	128	715248	50.45	mg/l	99
10) 1,3-Dichlorobenzene	5.732	146	841603	50.60	mg/l	100
11) 1,4-Dichlorobenzene	5.786	146	811654	50.40	mg/l	99
12) Benzyl Alcohol	5.925	79	491860	51.01	mg/l	99
13) 1,2-Dichlorobenzene	5.978	146	783643	50.59	mg/l	100
14) 2-Methylphenol	6.048	108	562573	50.80	mg/l	100
15) Bis(2-Chloroisopropyl)...	6.091	45	838800	51.02	mg/l	98
16) 3/4-Methylphenol	6.208	107	1176758	99.76	mg/l	100
17) N-Nitroso-di-n-propyla...	6.246	70	434599	51.08	mg/l	97
18) Hexachloroethane	6.294	117	300781	51.22	mg/l	99
21) Nitrobenzene	6.390	77	604369	50.97	mg/l	99
22) Isophorone	6.636	82	1080639	51.03	mg/l	99
23) 2-Nitrophenol	6.727	139	352448	49.57	mg/l	100
24) 2,4-Dimethylphenol	6.759	107	566969	51.02	mg/l	99
25) Benzoic Acid	6.888	105	195884	48.20	mg/l	97
26) Bis(2-Chloroethoxy) Me...	6.872	93	691418	51.18	mg/l	100
27) 2,4-Dichlorophenol	6.973	162	493081	51.79	mg/l	100
28) 1,2,4-Trichlorobenzene	7.069	180	603893	51.08	mg/l	100
29) Naphthalene	7.134	128	1785633	50.81	mg/l	100
30) 2,6-Dichlorophenol	7.219	162	471102	51.90	mg/l	100
31) 4-Chloroaniline	7.214	127	534830	47.01	mg/l	99
32) Hexachloro-1,3-Butadiene	7.326	225	328177	50.90	mg/l	99
33) 4-Chloro-3-Methylphenol	7.727	107	448599	52.12	mg/l	100
34) 2-Methylnaphthalene	7.882	142	1155976	51.26	mg/l	99
35) 1-Methylnaphthalene	8.000	142	1097909	51.36	mg/l	100
37) Hexachlorocyclopentadiene	8.134	237	253725	50.29	mg/l	100
38) 2,4,6-Trichlorophenol	8.219	196	322204	50.38	mg/l	98
39) 2,4,5-Trichlorophenol	8.257	196	313167	50.97	mg/l	100
40) 2-Chloronaphthalene	8.417	162	1032885	50.31	mg/l	100

Return to Contents

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV006.D
Acq On : 6 Nov 2013 12:40 pm
Operator : 513
Sample : ICAL-5 S090513D 50PPM
InstName : GCMS TT
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 06 14:59:03 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 14:59:00 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) 2-Nitroaniline	8.562	65	247963	51.59	mg/l	99
43) Dimethyl Phthalate	8.797	163	1092645	50.29	mg/l	100
44) Acenaphthylene	8.877	152	1628245	50.20	mg/l	100
45) 3-Nitroaniline	9.022	138	168895	45.44	mg/l	98
46) Acenaphthene	9.086	153	1001780	50.03	mg/l	99
47) 2,4-Dinitrophenol	9.129	184	80662	48.50	mg/l	98
48) 4-Nitrophenol	9.193	65	130030	48.13	mg/l	99
49) Dibenzofuran	9.257	168	1277179	49.99	mg/l	100
50) 2,4-Dinitrotoluene	9.300	165	289500	51.84	mg/l	100
51) 2,6-Dinitrotoluene	8.872	165	235737	52.25	mg/l	100
52) Diethyl Phthalate	9.578	149	1027871	50.35	mg/l	100
53) 4-Chlorophenyl-Phenyl ...	9.637	204	495443	49.90	mg/l	100
54) Fluorene	9.642	166	1027022	50.34	mg/l	100
55) 4-Nitroaniline	9.706	138	152461	49.41	mg/l	94
57) Azobenzene	9.813	77	915990	50.01	mg/l	100
58) 4,6-Dinitro-2-Methylph...	9.749	198	140506	48.72	mg/l	98
59) N-Nitrosodiphenylamine	9.776	169	671565	51.18	mg/l	99
61) 4-Bromophenyl-Phenyl E...	10.177	248	273839	50.91	mg/l	99
62) Hexachlorobenzene	10.338	142	117892	51.05	mg/l	98
63) Pentachlorophenol	10.530	266	145588	52.11	mg/l	99
64) Phenanthrene	10.696	178	1330036	50.75	mg/l	100
65) Anthracene	10.749	178	1315147	51.20	mg/l	100
66) Di-n-Butyl Phthalate	11.375	149	1556409	52.27	mg/l	100
67) Fluoranthene	12.022	202	1319028	51.32	mg/l	100
68) Benzidine	12.167	184	318677	50.33	mg/l	100
70) Pyrene	12.268	202	1307602	50.50	mg/l	99
72) Butyl Benzyl Phthalate	13.071	149	557275	52.88	mg/l	99
73) 3,3'-Dichlorobenzidine	13.739	252	225735	46.59	mg/l	99
74) Benzo (a) Anthracene	13.755	228	1091839	51.65	mg/l	100
75) Bis(2-Ethylhexyl) Phth...	13.889	149	736763	53.18	mg/l	99
76) Chrysene	13.819	228	1026983	50.18	mg/l	100
77) Di-n-Octyl Phthalate	14.879	149	1129886	54.78	mg/l	99
78) Benzo (b) Fluoranthene	15.515	252	946381	54.67	mg/l	98
79) Benzo (k) Fluoranthene	15.558	252	975256	54.28	mg/l	98
80) Benzo (a) Pyrene	16.103	252	822026	52.93	mg/l	99
82) Indeno (1,2,3-c,d) Pyrene	18.366	276	527017	53.26	mg/l	99
83) Dibenz (a,h) Anthracene	18.419	278	621581	56.53	mg/l	100
84) Benzo (g,h,i) Perylene	18.922	276	620831	56.85	mg/l	99

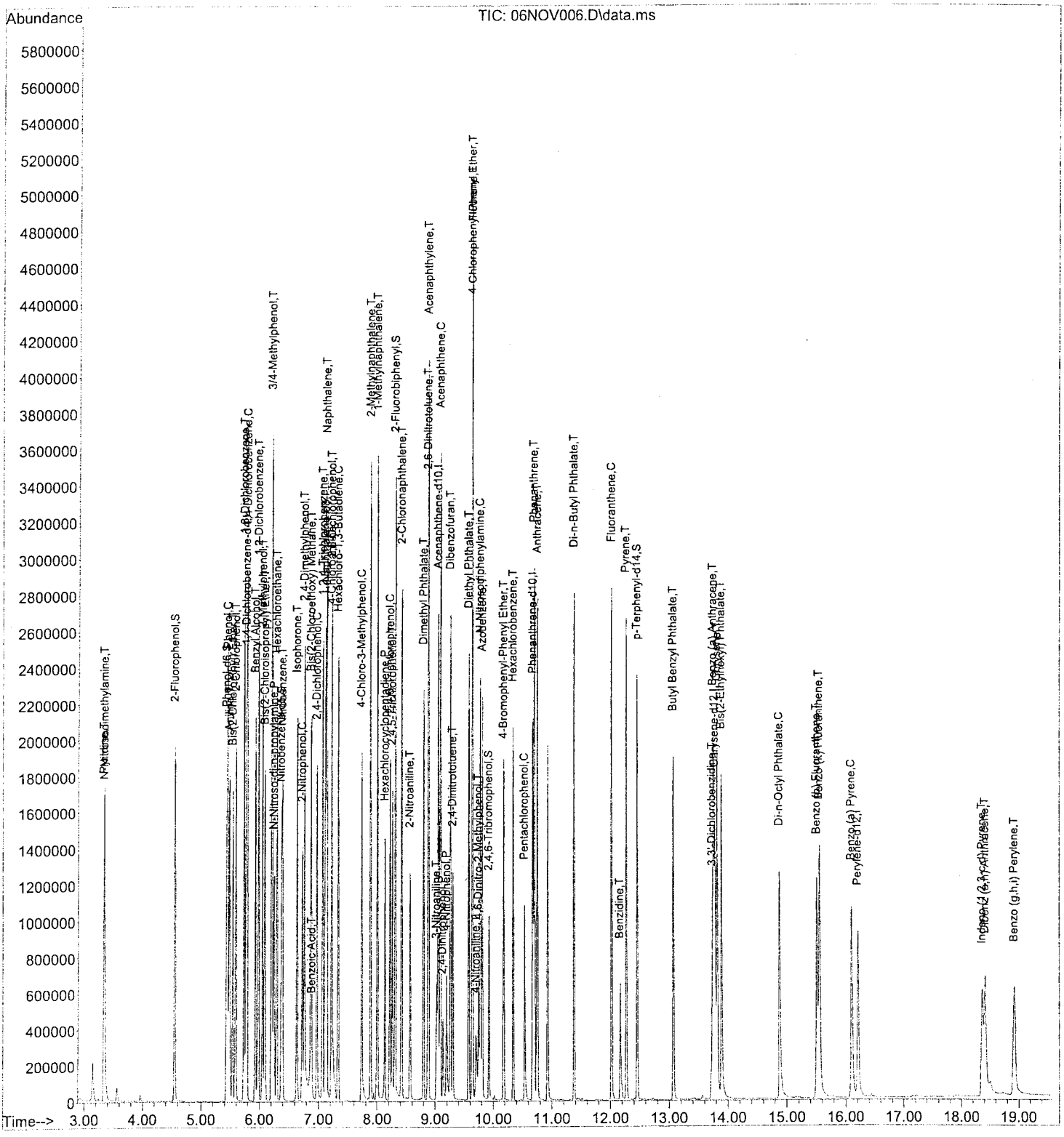
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV006.D
Acq On : 6 Nov 2013 12:40 pm
Operator : 513
Sample : ICAL-5 S090513D 50PPM
InstName : GCMS TT
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 06 14:59:03 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 14:59:00 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV007.D
Acq On : 6 Nov 2013 1:05 pm
Operator : 513
Sample : ICAL-6 S090513C 80PPM
InstName : GCMS TT
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 06 15:00:03 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 14:59:59 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.770	152	373583	40.00	mg/l	0.00
19) Naphthalene-d8	7.112	136	1386326	40.00	mg/l	0.00
36) Acenaphthene-d10	9.049	164	676764	40.00	mg/l	0.00
56) Phenanthrene-d10	10.675	188	995434	40.00	mg/l	0.00
69) Chrysene-d12	13.787	240	786633	40.00	mg/l	0.00
81) Perylene-d12	16.216	264	678554	40.00	mg/l	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	4.545	112	1156732	80.81	mg/l	0.00
Spiked Amount 100.000			Recovery =	80.81%		
6) Phenol-d6	5.444	99	1253716	80.73	mg/l	0.00
Spiked Amount 100.000			Recovery =	80.73%		
20) Nitrobenzene-d5	6.374	82	963773	80.11	mg/l	0.00
Spiked Amount 100.000			Recovery =	80.11%		
41) 2-Fluorobiphenyl	8.310	172	1899893	78.25	mg/l	0.00
Spiked Amount 100.000			Recovery =	78.25%		
60) 2,4,6-Tribromophenol	9.931	330	200928	85.12	mg/l	0.00
Spiked Amount 100.000			Recovery =	85.12%		
71) p-Terphenyl-d14	12.456	244	1453156	80.63	mg/l	0.00
Spiked Amount 100.000			Recovery =	80.63%		
Target Compounds						Qvalue
2) Pyridine	3.331	52	695945	80.42	mg/l	100
3) N-Nitrosodimethylamine	3.342	74	685088	80.71	mg/l	100
5) Aniline	5.481	93	1465991	80.22	mg/l	99
7) Phenol	5.454	94	1327582	83.25	mg/l	100
8) Bis(2-Chloroethyl) Ether	5.540	93	1004373	79.95	mg/l	100
9) 2-Chlorophenol	5.588	128	1088770	79.50	mg/l	100
10) 1,3-Dichlorobenzene	5.732	146	1275705	79.40	mg/l	100
11) 1,4-Dichlorobenzene	5.786	146	1235152	79.40	mg/l	100
12) Benzyl Alcohol	5.930	79	760168	81.62	mg/l	100
13) 1,2-Dichlorobenzene	5.978	146	1182263	79.01	mg/l	100
14) 2-Methylphenol	6.053	108	856580	80.08	mg/l	100
15) Bis(2-Chloroisopropyl)...	6.091	45	1220306	76.84	mg/l	100
16) 3/4-Methylphenol	6.214	107	1761625	154.61	mg/l	100
17) N-Nitroso-di-n-propyla...	6.262	70	666317	81.07	mg/l	100
18) Hexachloroethane	6.294	117	452407	79.75	mg/l	100
21) Nitrobenzene	6.396	77	922929	78.66	mg/l	100
22) Isophorone	6.642	82	1662992	79.35	mg/l	100
23) 2-Nitrophenol	6.727	139	560489	79.66	mg/l	100
24) 2,4-Dimethylphenol	6.765	107	866151	78.77	mg/l	100
25) Benzoic Acid	6.909	105	401340	81.08	mg/l	100
26) Bis(2-Chloroethoxy) Me...	6.872	93	1043988	78.08	mg/l	100
27) 2,4-Dichlorophenol	6.973	162	761813	80.86	mg/l	100
28) 1,2,4-Trichlorobenzene	7.070	180	913003	78.03	mg/l	100
29) Naphthalene	7.139	128	2696751	77.55	mg/l	100
30) 2,6-Dichlorophenol	7.219	162	706494	78.65	mg/l	100
31) 4-Chloroaniline	7.219	127	852532	75.73	mg/l	100
32) Hexachloro-1,3-Butadiene	7.332	225	507046	79.47	mg/l	100
33) 4-Chloro-3-Methylphenol	7.727	107	702237	82.45	mg/l	100
34) 2-Methylnaphthalene	7.883	142	1749117	78.38	mg/l	100
35) 1-Methylnaphthalene	8.006	142	1656240	78.30	mg/l	100
37) Hexachlorocyclopentadiene	8.134	237	423083	86.13	mg/l	100
38) 2,4,6-Trichlorophenol	8.220	196	514122	82.57	mg/l	100
39) 2,4,5-Trichlorophenol	8.257	196	494286	82.62	mg/l	100
40) 2-Chloronaphthalene	8.417	162	1565498	78.31	mg/l	100

Return to Contents

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV007.D
Acq On : 6 Nov 2013 1:05 pm
Operator : 513
Sample : ICAL-6 S090513C 80PPM
InstName : GCMS TT
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 06 15:00:03 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 14:59:59 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

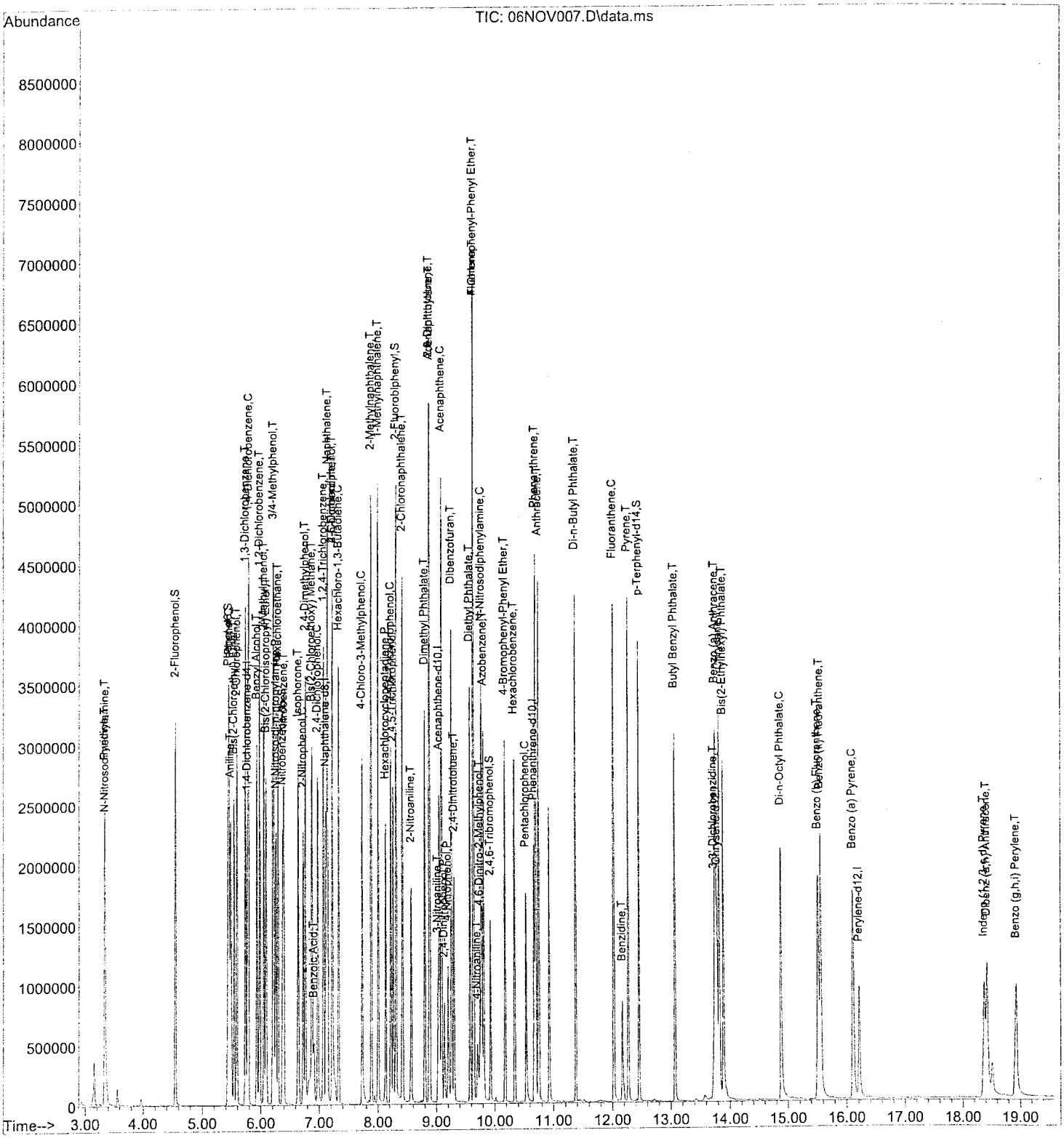
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 2-Nitroaniline	8.567	65	387153	82.73 mg/l	100
43) Dimethyl Phthalate	8.803	163	1684427	79.63 mg/l	100
44) Acenaphthylene	8.883	152	2460349	77.91 mg/l	100
45) 3-Nitroaniline	9.027	138	256100	70.77 mg/l	100
46) Acenaphthene	9.086	153	1539082	78.95 mg/l	100
47) 2,4-Dinitrophenol	9.134	184	155957	80.35 mg/l	100
48) 4-Nitrophenol	9.198	65	218240	80.18 mg/l	100
49) Dibenzofuran	9.263	168	1973054	79.32 mg/l	100
50) 2,4-Dinitrotoluene	9.305	165	460390	84.67 mg/l	100
51) 2,6-Dinitrotoluene	8.877	165	362673	82.56 mg/l	100
52) Diethyl Phthalate	9.583	149	1595458	80.27 mg/l	100
53) 4-Chlorophenyl-Phenyl ...	9.642	204	748685	77.45 mg/l	100
54) Fluorene	9.642	166	1546803	77.86 mg/l	100
55) 4-Nitroaniline	9.706	138	241101	80.25 mg/l	100
57) Azobenzene	9.813	77	1387825	75.60 mg/l	100
58) 4,6-Dinitro-2-Methylph...	9.755	198	245193	79.54 mg/l	100
59) N-Nitrosodiphenylamine	9.781	169	1032116	78.48 mg/l	100
61) 4-Bromophenyl-Phenyl E...	10.177	248	437971	81.24 mg/l	100
62) Hexachlorobenzene	10.338	142	181929	78.61 mg/l	100
63) Pentachlorophenol	10.536	266	254290	90.82 mg/l	100
64) Phenanthrene	10.701	178	2077578	79.09 mg/l	100
65) Anthracene	10.749	178	2042440	79.34 mg/l	100
66) Di-n-Butyl Phthalate	11.375	149	2426103	81.29 mg/l	100
67) Fluoranthene	12.022	202	2088926	81.09 mg/l	100
68) Benzidine	12.172	184	453764	71.50 mg/l	100
70) Pyrene	12.274	202	2058038	79.48 mg/l	100
72) Butyl Benzyl Phthalate	13.071	149	914794	86.79 mg/l	100
73) 3,3'-Dichlorobenzidine	13.739	252	355599	73.38 mg/l	100
74) Benzo (a) Anthracene	13.761	228	1757808	83.14 mg/l	100
75) Bis(2-Ethylhexyl) Phth...	13.894	149	1212645	87.52 mg/l	100
76) Chrysene	13.825	228	1694457	82.79 mg/l	100
77) Di-n-Octyl Phthalate	14.884	149	1910444	92.61 mg/l	100
78) Benzo (b) Fluoranthene	15.520	252	1562900	90.27 mg/l	100
79) Benzo (k) Fluoranthene	15.563	252	1612139	89.71 mg/l	100
80) Benzo (a) Pyrene	16.114	252	1422288	91.57 mg/l	100
82) Indeno (1,2,3-c,d) Pyrene	18.377	276	904820	88.37 mg/l	100
83) Dibenz (a,h) Anthracene	18.425	278	1004073	88.24 mg/l	100
84) Benzo (g,h,i) Perylene	18.933	276	976353	86.40 mg/l	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV007.D
Acq On : 6 Nov 2013 1:05 pm
Operator : 513
Sample : ICAL-6 S090513C 80PPM
InstName : GCMS TT
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 06 15:00:03 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 14:59:59 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV008.D
Acq On : 6 Nov 2013 1:31 pm
Operator : 513
Sample : ICAL-7 S090513B 120PPM
InstName : GCMS TT
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 06 15:00:55 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 15:00:52 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.770	152	329708	40.00	mg/l	0.00
19) Naphthalene-d8	7.118	136	1242716	40.00	mg/l	0.00
36) Acenaphthene-d10	9.049	164	612275	40.00	mg/l	0.00
56) Phenanthrene-d10	10.675	188	924638	40.00	mg/l	0.00
69) Chrysene-d12	13.787	240	789939	40.00	mg/l	0.00
81) Perylene-d12	16.216	264	693921	40.00	mg/l	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	4.545	112	1478731	117.05	mg/l	0.00
Spiked Amount 100.000			Recovery =	117.05%		
6) Phenol-d6	5.444	99	1593810	116.28	mg/l	0.00
Spiked Amount 100.000			Recovery =	116.28%		
20) Nitrobenzene-d5	6.380	82	1261379	116.96	mg/l	0.00
Spiked Amount 100.000			Recovery =	116.96%		
41) 2-Fluorobiphenyl	8.310	172	2440975	111.12	mg/l	0.00
Spiked Amount 100.000			Recovery =	111.12%		
60) 2,4,6-Tribromophenol	9.931	330	276129	125.94	mg/l	0.00
Spiked Amount 100.000			Recovery =	125.94%		
71) p-Terphenyl-d14	12.456	244	2056531	113.63	mg/l	0.00
Spiked Amount 100.000			Recovery =	113.63%		
Target Compounds						Qvalue
2) Pyridine	3.320	52	902919	118.22	mg/l	99
3) N-Nitrosodimethylamine	3.336	74	891436	118.99	mg/l	100
5) Aniline	5.486	93	1916838	118.85	mg/l	90
7) Phenol	5.460	94	1675850	119.07	mg/l	93
8) Bis(2-Chloroethyl) Ether	5.545	93	1294794	116.78	mg/l	99
9) 2-Chlorophenol	5.588	128	1420368	117.51	mg/l	100
10) 1,3-Dichlorobenzene	5.732	146	1649869	116.35	mg/l	100
11) 1,4-Dichlorobenzene	5.786	146	1592769	116.02	mg/l	100
12) Benzyl Alcohol	5.936	79	998701	121.50	mg/l	100
13) 1,2-Dichlorobenzene	5.978	146	1517028	114.88	mg/l	100
14) 2-Methylphenol	6.053	108	1108276	117.39	mg/l	99
15) Bis(2-Chloroisopropyl)...	6.091	45	1509745	107.72	mg/l	99
16) 3/4-Methylphenol	6.219	107	2331204	231.83	mg/l	99
17) N-Nitroso-di-n-propyla...	6.267	70	855293	117.92	mg/l	99
18) Hexachloroethane	6.294	117	583291	116.50	mg/l	99
21) Nitrobenzene	6.401	77	1197224	113.82	mg/l	100
22) Isophorone	6.647	82	2166813	115.34	mg/l	100
23) 2-Nitrophenol	6.733	139	743155	117.82	mg/l	99
24) 2,4-Dimethylphenol	6.770	107	1138225	115.47	mg/l	99
25) Benzoic Acid	6.936	105	623581	120.56	mg/l	96
26) Bis(2-Chloroethoxy) Me...	6.877	93	1349141	112.57	mg/l	100
27) 2,4-Dichlorophenol	6.979	162	1002102	118.66	mg/l	100
28) 1,2,4-Trichlorobenzene	7.070	180	1181595	112.66	mg/l	100
29) Naphthalene	7.139	128	3489908	111.95	mg/l	100
30) 2,6-Dichlorophenol	7.225	162	925369	114.93	mg/l	100
31) 4-Chloroaniline	7.219	127	1217441	120.64	mg/l	100
32) Hexachloro-1,3-Butadiene	7.332	225	659989	115.40	mg/l	99
33) 4-Chloro-3-Methylphenol	7.733	107	929357	121.73	mg/l	100
34) 2-Methylnaphthalene	7.888	142	2270277	113.50	mg/l	99
35) 1-Methylnaphthalene	8.006	142	2110059	111.28	mg/l	100
37) Hexachlorocyclopentadiene	8.134	237	588365	132.39	mg/l	100
38) 2,4,6-Trichlorophenol	8.220	196	679755	120.67	mg/l	100
39) 2,4,5-Trichlorophenol	8.262	196	662623	122.43	mg/l	99
40) 2-Chloronaphthalene	8.423	162	2033257	112.43	mg/l	99

Return to Contents

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV008.D
Acq On : 6 Nov 2013 1:31 pm
Operator : 513
Sample : ICAL-7 S090513B 120PPM
InstName : GCMS TT
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 06 15:00:55 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 15:00:52 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

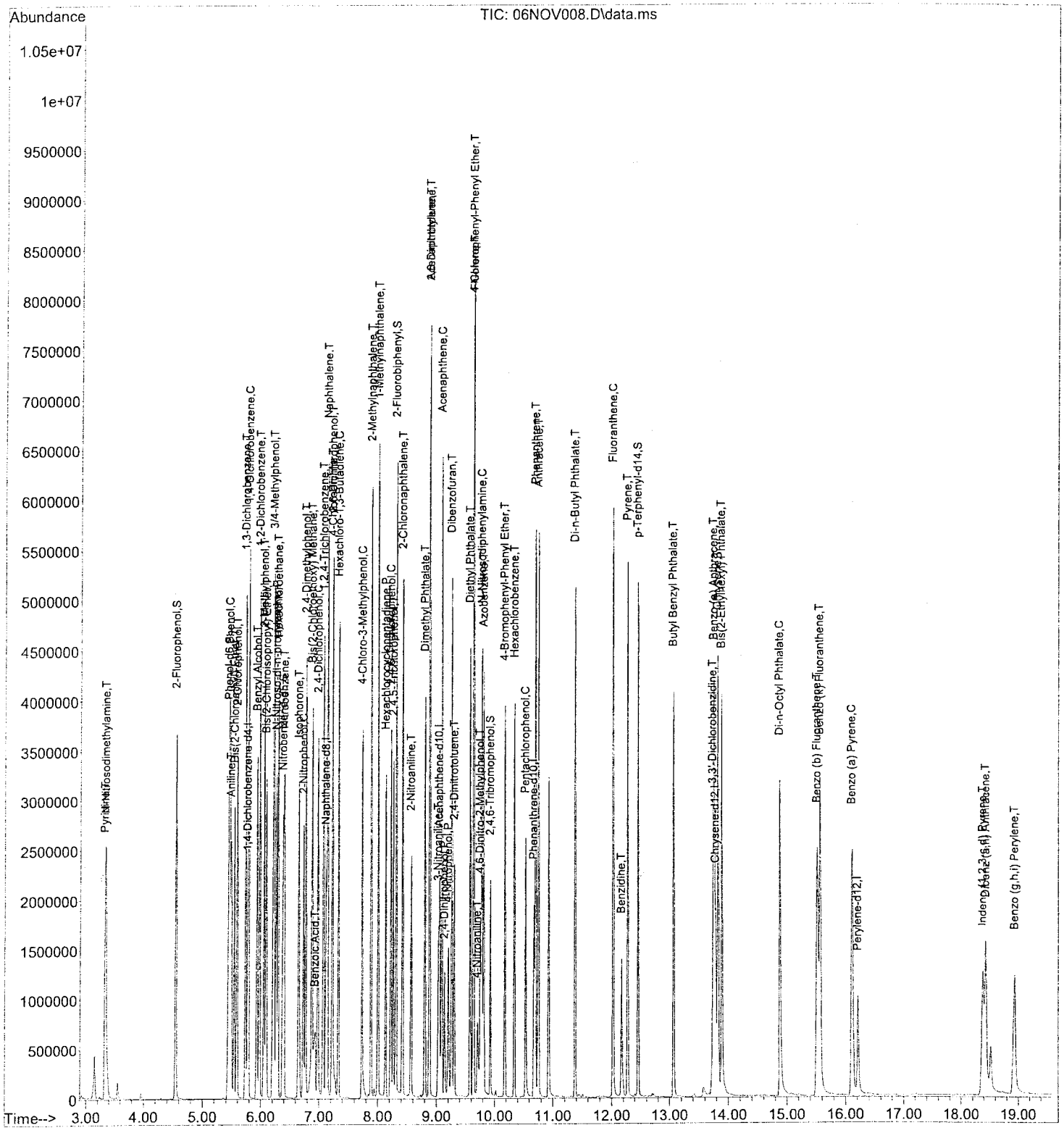
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) 2-Nitroaniline	8.567	65	519773	122.77	mg/l	100
43) Dimethyl Phthalate	8.803	163	2221172	116.06	mg/l	100
44) Acenaphthylene	8.883	152	3132386	109.64	mg/l	100
45) 3-Nitroaniline	9.033	138	395345	120.76	mg/l	99
46) Acenaphthene	9.091	153	1994144	113.06	mg/l	100
47) 2,4-Dinitrophenol	9.140	184	245677	121.04	mg/l	99
48) 4-Nitrophenol	9.204	65	304666	121.63	mg/l	99
49) Dibenzofuran	9.263	168	2584693	114.86	mg/l	100
50) 2,4-Dinitrotoluene	9.311	165	629031	127.88	mg/l	99
51) 2,6-Dinitrotoluene	8.883	165	466205	117.31	mg/l	100
52) Diethyl Phthalate	9.583	149	2107252	117.18	mg/l	100
53) 4-Chlorophenyl-Phenyl ...	9.642	204	966881	110.56	mg/l	99
54) Fluorene	9.648	166	1988161	110.62	mg/l	99
55) 4-Nitroaniline	9.712	138	333580	122.72	mg/l	97
57) Azobenzene	9.819	77	1848336	108.40	mg/l	99
58) 4,6-Dinitro-2-Methylph...	9.760	198	356290	120.40	mg/l	99
59) N-Nitrosodiphenylamine	9.787	169	1383830	113.29	mg/l	100
61) 4-Bromophenyl-Phenyl E...	10.177	248	584589	116.74	mg/l	99
62) Hexachlorobenzene	10.343	142	238108	110.76	mg/l	97
63) Pentachlorophenol	10.535	266	364300	140.07	mg/l	99
64) Phenanthrene	10.701	178	2779010	113.90	mg/l	100
65) Anthracene	10.755	178	2751790	115.08	mg/l	100
66) Di-n-Butyl Phthalate	11.381	149	3244379	117.04	mg/l	100
67) Fluoranthene	12.028	202	2890373	120.80	mg/l	100
68) Benzidine	12.172	184	725186	123.02	mg/l	99
70) Pyrene	12.279	202	2864761	110.17	mg/l	100
72) Butyl Benzyl Phthalate	13.071	149	1299368	122.76	mg/l	100
73) 3,3'-Dichlorobenzidine	13.745	252	518499	106.55	mg/l	99
74) Benzo (a) Anthracene	13.766	228	2536745	119.48	mg/l	100
75) Bis(2-Ethylhexyl) Phth...	13.894	149	1724110	123.91	mg/l	99
76) Chrysene	13.830	228	2428388	118.15	mg/l	99
77) Di-n-Octyl Phthalate	14.884	149	2836713	136.94	mg/l	100
78) Benzo (b) Fluoranthene	15.526	252	2367792	136.19	mg/l	99
79) Benzo (k) Fluoranthene	15.574	252	2407135	133.39	mg/l	99
80) Benzo (a) Pyrene	16.119	252	2146847	137.64	mg/l	99
82) Indeno (1,2,3-c,d) Pyrene	18.382	276	1256860	120.03	mg/l	99
83) Dibenz (a,h) Anthracene	18.435	278	1453241	124.89	mg/l	99
84) Benzo (g,h,i) Perylene	18.944	276	1317602	114.02	mg/l	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV008.D
Acq On : 6 Nov 2013 1:31 pm
Operator : 513
Sample : ICAL-7 S090513B 120PPM
InstName : GCMS TT
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 06 15:00:55 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 15:00:52 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV009.D
Acq On : 6 Nov 2013 1:58 pm
Operator : 513
Sample : ICAL-8 S090513A 160PPM
InstName : GCMS TT
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 06 15:01:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 15:01:45 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	5.770	152	331566	40.00	mg/l		0.00
19) Naphthalene-d8	7.118	136	1246756	40.00	mg/l		0.00
36) Acenaphthene-d10	9.054	164	607113	40.00	mg/l		0.00
56) Phenanthrene-d10	10.675	188	944569	40.00	mg/l		0.00
69) Chrysene-d12	13.793	240	809225	40.00	mg/l		0.00
81) Perylene-d12	16.221	264	701759	40.00	mg/l		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	4.545	112	1872879	147.42	mg/l		0.00
Spiked Amount 100.000			Recovery =	147.42%			
6) Phenol-d6	5.449	99	2053682	148.99	mg/l		0.00
Spiked Amount 100.000			Recovery =	148.99%			
20) Nitrobenzene-d5	6.385	82	1652241	152.71	mg/l		0.00
Spiked Amount 100.000			Recovery =	152.71%			
41) 2-Fluorobiphenyl	8.316	172	3141253	144.22	mg/l		0.00
Spiked Amount 100.000			Recovery =	144.22%			
60) 2,4,6-Tribromophenol	9.936	330	380203	169.75	mg/l		0.00
Spiked Amount 100.000			Recovery =	169.75%			
71) p-Terphenyl-d14	12.461	244	2717199	146.56	mg/l		0.00
Spiked Amount 100.000			Recovery =	146.56%			
Target Compounds							Qvalue
2) Pyridine	3.320	52	1161867	151.27	mg/l		98
3) N-Nitrosodimethylamine	3.342	74	1151021	152.78	mg/l		100
5) Aniline	5.481	93	2429736	149.80	mg/l	#	44
7) Phenol	5.465	94	2114272	149.38	mg/l	#	45
8) Bis(2-Chloroethyl) Ether	5.545	93	1647059	147.72	mg/l		99
9) 2-Chlorophenol	5.593	128	1813305	149.18	mg/l		99
10) 1,3-Dichlorobenzene	5.738	146	2122328	148.83	mg/l		100
11) 1,4-Dichlorobenzene	5.791	146	2047572	148.31	mg/l		100
12) Benzyl Alcohol	5.941	79	1321651	159.89	mg/l		100
13) 1,2-Dichlorobenzene	5.984	146	1950598	146.89	mg/l		100
14) 2-Methylphenol	6.059	108	1428350	150.45	mg/l		100
15) Bis(2-Chloroisopropyl)...	6.096	45	1887088	133.89	mg/l		96
16) 3/4-Methylphenol	6.230	107	3053474	301.95	mg/l		100
17) N-Nitroso-di-n-propyla...	6.278	70	1083615	148.56	mg/l		97
18) Hexachloroethane	6.294	117	740885	147.15	mg/l		98
21) Nitrobenzene	6.406	77	1533597	145.33	mg/l		99
22) Isophorone	6.658	82	2863548	151.93	mg/l		100
23) 2-Nitrophenol	6.733	139	961763	151.98	mg/l		100
24) 2,4-Dimethylphenol	6.775	107	1508367	152.53	mg/l		100
25) Benzoic Acid	6.957	105	930330	159.55	mg/l		100
26) Bis(2-Chloroethoxy) Me...	6.882	93	1755526	146.00	mg/l		100
27) 2,4-Dichlorophenol	6.984	162	1298481	153.25	mg/l		100
28) 1,2,4-Trichlorobenzene	7.075	180	1535100	145.89	mg/l		100
29) Naphthalene	7.144	128	4466027	142.80	mg/l		100
30) 2,6-Dichlorophenol	7.230	162	1189707	147.28	mg/l		100
31) 4-Chloroaniline	7.225	127	1618687	159.88	mg/l		100
32) Hexachloro-1,3-Butadiene	7.332	225	868751	151.41	mg/l		100
33) 4-Chloro-3-Methylphenol	7.733	107	1213707	158.46	mg/l		100
34) 2-Methylnaphthalene	7.888	142	2907064	144.86	mg/l		100
35) 1-Methylnaphthalene	8.011	142	2702437	142.06	mg/l		100
37) Hexachlorocyclopentadiene	8.134	237	789308	179.11	mg/l		100
38) 2,4,6-Trichlorophenol	8.225	196	911762	163.23	mg/l		100
39) 2,4,5-Trichlorophenol	8.262	196	859413	160.14	mg/l		99
40) 2-Chloronaphthalene	8.423	162	2632332	146.79	mg/l		99

Return to Contents

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV009.D
Acq On : 6 Nov 2013 1:58 pm
Operator : 513
Sample : ICAL-8 S090513A 160PPM
InstName : GCMS TT
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 06 15:01:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 15:01:45 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 2-Nitroaniline	8.573	65	677310	161.34 mg/l	98
43) Dimethyl Phthalate	8.808	163	2908673	153.28 mg/l	100
44) Acenaphthylene	8.888	152	3971780	140.20 mg/l	99
45) 3-Nitroaniline	9.038	138	580174	178.73 mg/l	97
46) Acenaphthene	9.091	153	2550223	145.82 mg/l	99
47) 2,4-Dinitrophenol	9.139	184	357796	159.73 mg/l	97
48) 4-Nitrophenol	9.209	65	399506	159.61 mg/l	99
49) Dibenzofuran	9.268	168	3349325	150.10 mg/l	99
50) 2,4-Dinitrotoluene	9.311	165	832190	170.61 mg/l	98
51) 2,6-Dinitrotoluene	8.888	165	592457	150.34 mg/l	99
52) Diethyl Phthalate	9.589	149	2697089	151.26 mg/l	99
53) 4-Chlorophenyl-Phenyl ...	9.648	204	1247143	143.81 mg/l	99
54) Fluorene	9.648	166	2523924	141.63 mg/l	100
55) 4-Nitroaniline	9.717	138	342862	127.21 mg/l	96
57) Azobenzene	9.819	77	2655518	152.45 mg/l	96
58) 4,6-Dinitro-2-Methylph...	9.765	198	493353	160.66 mg/l	100
59) N-Nitrosodiphenylamine	9.792	169	1782770	142.87 mg/l	100
61) 4-Bromophenyl-Phenyl E...	10.182	248	782480	152.97 mg/l	98
62) Hexachlorobenzene	10.343	142	309376	140.87 mg/l	95
63) Pentachlorophenol	10.535	266	493977	185.92 mg/l	99
64) Phenanthrene	10.707	178	3622072	145.32 mg/l	100
65) Anthracene	10.760	178	3557432	145.63 mg/l	100
66) Di-n-Butyl Phthalate	11.381	149	4160769	146.93 mg/l	100
67) Fluoranthene	12.028	202	3800182	155.47 mg/l	99
68) Benzidine	12.172	184	918613	152.55 mg/l	99
70) Pyrene	12.279	202	3735869	140.25 mg/l	100
72) Butyl Benzyl Phthalate	13.076	149	1758342	162.16 mg/l	99
73) 3,3'-Dichlorobenzidine	13.750	252	739960	148.43 mg/l	99
74) Benzo (a) Anthracene	13.766	228	3408639	156.72 mg/l	99
75) Bis(2-Ethylhexyl) Phth...	13.900	149	2378422	166.86 mg/l	98
76) Chrysene	13.836	228	3352130	159.20 mg/l	99
77) Di-n-Octyl Phthalate	14.889	149	4034755	190.13 mg/l	100
78) Benzo (b) Fluoranthene	15.536	252	3396411	190.69 mg/l	100
79) Benzo (k) Fluoranthene	15.585	252	3116140	168.56 mg/l	99
80) Benzo (a) Pyrene	16.130	252	2885666	180.60 mg/l	100
82) Indeno (1,2,3-c,d) Pyrene	18.393	276	1643147	155.16 mg/l	97
83) Dibenz (a,h) Anthracene	18.441	278	1849912	157.20 mg/l	99
84) Benzo (g,h,i) Perylene	18.949	276	1632158	139.66 mg/l	100

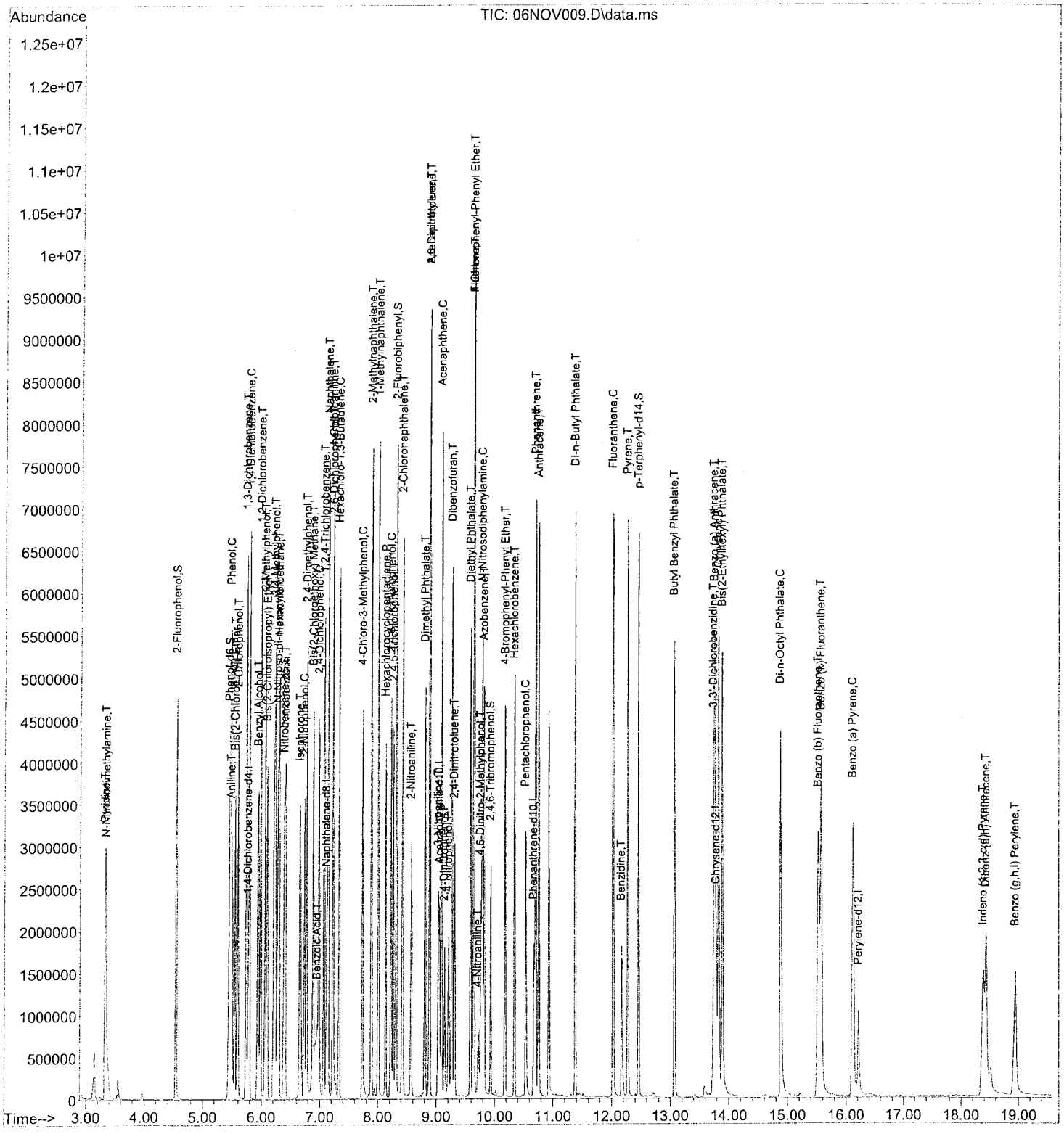
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV009.D
Acq On : 6 Nov 2013 1:58 pm
Operator : 513
Sample : ICAL-8 S090513A 160PPM
InstName : GCMS TT
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 06 15:01:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 15:01:45 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV010.D
Acq On : 6 Nov 2013 2:24 pm
Operator : 513
Sample : ICV S071913W 80PPM
InstName : GCMS TT
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 06 15:20:03 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 15:19:57 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.770	152	371694	40.00	mg/l	0.00
19) Naphthalene-d8	7.112	136	1348750	40.00	mg/l	0.00
36) Acenaphthene-d10	9.048	164	654357	40.00	mg/l	0.00
56) Phenanthrene-d10	10.674	188	971797	40.00	mg/l	0.00
69) Chrysene-d12	13.782	240	791839	40.00	mg/l	0.00
81) Perylene-d12	16.210	264	695006	40.00	mg/l	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	4.545	112	1127551	79.17	mg/l	0.00
Spiked Amount 100.000			Recovery =	79.17%		
6) Phenol-d6	5.438	99	1226304	79.36	mg/l	0.00
Spiked Amount 100.000			Recovery =	79.36%		
20) Nitrobenzene-d5	6.374	82	949982	81.16	mg/l	0.00
Spiked Amount 100.000			Recovery =	81.16%		
41) 2-Fluorobiphenyl	8.310	172	1851688	78.87	mg/l	0.00
Spiked Amount 100.000			Recovery =	78.87%		
60) 2,4,6-Tribromophenol	9.931	330	196365	85.21	mg/l	0.00
Spiked Amount 100.000			Recovery =	85.21%		
71) p-Terphenyl-d14	12.456	244	1459144	80.43	mg/l	0.00
Spiked Amount 100.000			Recovery =	80.43%		
Target Compounds						Qvalue
2) Pyridine	3.331	52	662317	76.92	mg/l	99
3) N-Nitrosodimethylamine	3.341	74	654103	77.45	mg/l	100
5) Aniline	5.481	93	1433275	78.83	mg/l	100
7) Phenol	5.454	94	1289790	81.29	mg/l	99
8) Bis(2-Chloroethyl) Ether	5.540	93	973932	77.92	mg/l	100
9) 2-Chlorophenol	5.588	128	1080279	79.28	mg/l	100
10) 1,3-Dichlorobenzene	5.732	146	1263272	79.03	mg/l	100
11) 1,4-Dichlorobenzene	5.786	146	1225552	79.18	mg/l	100
12) Benzyl Alcohol	5.930	79	747974	80.72	mg/l	100
13) 1,2-Dichlorobenzene	5.978	146	1163084	78.13	mg/l	100
14) 2-Methylphenol	6.053	108	842120	79.12	mg/l	100
15) Bis(2-Chloroisopropyl)...	6.091	45	1174405	74.33	mg/l	99
16) 3/4-Methylphenol	6.214	107	1754012	154.72	mg/l	100
17) N-Nitroso-di-n-propyla...	6.262	70	640240	78.30	mg/l	100
18) Hexachloroethane	6.294	117	450947	79.90	mg/l	100
21) Nitrobenzene	6.396	77	898209	78.68	mg/l	100
22) Isophorone	6.642	82	1610324	78.98	mg/l	100
23) 2-Nitrophenol	6.727	139	554594	81.01	mg/l	100
24) 2,4-Dimethylphenol	6.765	107	836966	78.23	mg/l	99
25) Benzoic Acid	6.909	105	398165	82.23	mg/l	97
26) Bis(2-Chloroethoxy) Me...	6.872	93	1022232	78.59	mg/l	100
27) 2,4-Dichlorophenol	6.973	162	747921	81.60	mg/l	100
28) 1,2,4-Trichlorobenzene	7.069	180	899498	79.02	mg/l	100
29) Naphthalene	7.139	128	2643417	78.13	mg/l	100
30) 2,6-Dichlorophenol	7.225	162	697042	79.76	mg/l	100
31) 4-Chloroaniline	7.219	127	873122	79.72	mg/l	99
32) Hexachloro-1,3-Butadiene	7.332	225	499750	80.51	mg/l	99
33) 4-Chloro-3-Methylphenol	7.727	107	684144	82.57	mg/l	100
34) 2-Methylnaphthalene	7.882	142	1732016	79.78	mg/l	100
35) 1-Methylnaphthalene	8.005	142	1622012	78.82	mg/l	100
37) Hexachlorocyclopentadiene	8.134	237	409947	86.31	mg/l	100
38) 2,4,6-Trichlorophenol	8.219	196	500265	83.10	mg/l	100
39) 2,4,5-Trichlorophenol	8.257	196	480135	83.01	mg/l	100
40) 2-Chloronaphthalene	8.417	162	1536753	79.51	mg/l	100

Return to Contents

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV010.D
Acq On : 6 Nov 2013 2:24 pm
Operator : 513
Sample : ICV S071913W 80PPM
InstName : GCMS TT
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 06 15:20:03 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 15:19:57 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

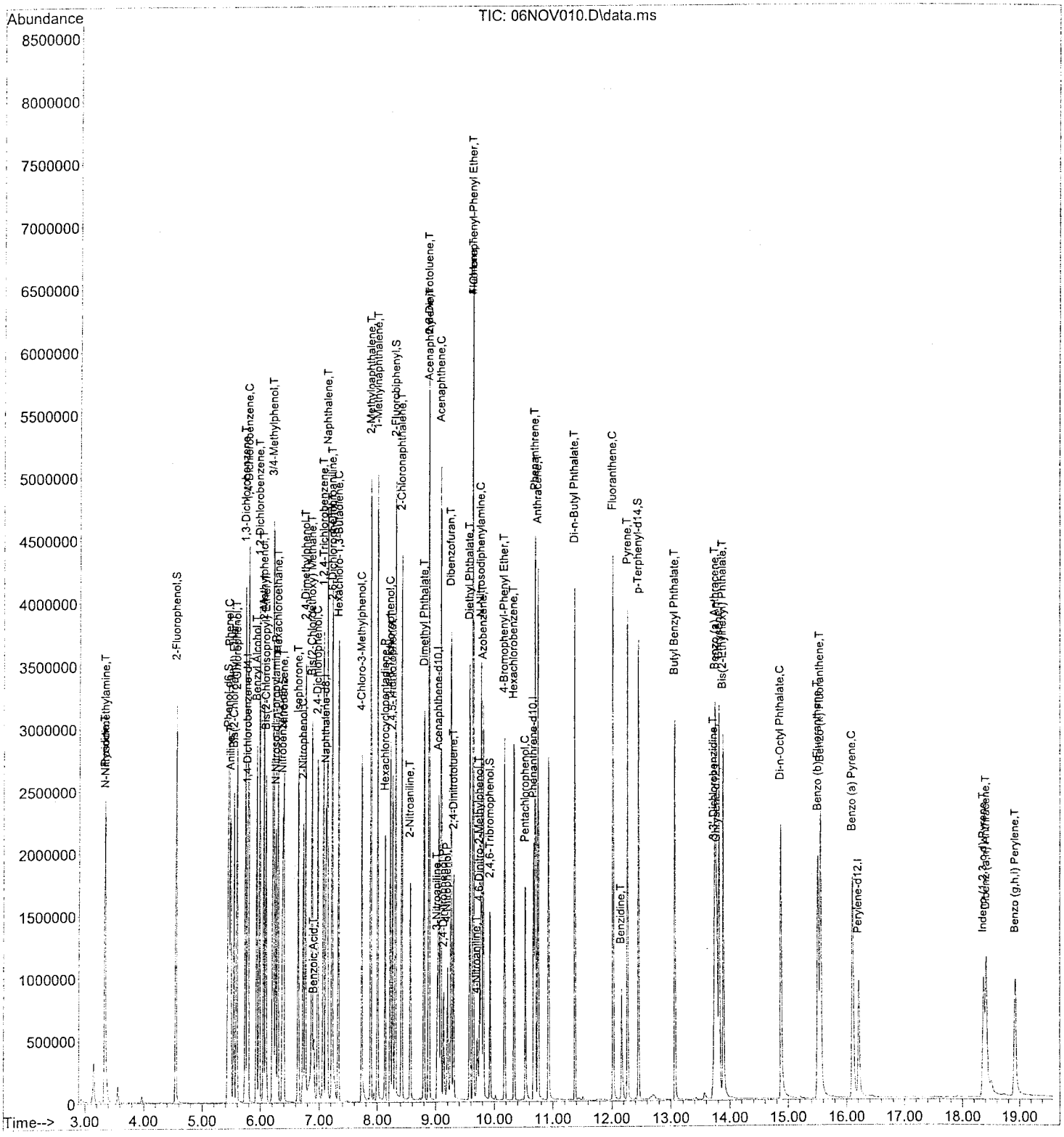
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) 2-Nitroaniline	8.562	65	375025	82.88	mg/l	99
43) Dimethyl Phthalate	8.802	163	1635991	79.99	mg/l	100
44) Acenaphthylene	8.883	152	2368184	77.56	mg/l	100
45) 3-Nitroaniline	9.027	138	231059	66.04	mg/l	98
46) Acenaphthene	9.086	153	1494775	79.30	mg/l	99
47) 2,4-Dinitrophenol	9.134	184	160591	84.20	mg/l	99
48) 4-Nitrophenol	9.198	65	207433	78.89	mg/l	98
49) Dibenzofuran	9.262	168	1923357	79.97	mg/l	100
50) 2,4-Dinitrotoluene	9.305	165	449382	85.48	mg/l	98
51) 2,6-Dinitrotoluene	8.877	165	347511	81.82	mg/l	100
52) Diethyl Phthalate	9.583	149	1538381	80.05	mg/l	100
53) 4-Chlorophenyl-Phenyl ...	9.642	204	730701	78.18	mg/l	100
54) Fluorene	9.642	166	1514601	78.85	mg/l	100
55) 4-Nitroaniline	9.706	138	209187	72.01	mg/l	92
57) Azobenzene	9.813	77	1360389	75.91	mg/l	99
58) 4,6-Dinitro-2-Methylph...	9.754	198	244199	81.00	mg/l	99
59) N-Nitrosodiphenylamine	9.781	169	1010392	78.70	mg/l	100
61) 4-Bromophenyl-Phenyl E...	10.177	248	424380	80.64	mg/l	100
62) Hexachlorobenzene	10.337	142	176370	78.06	mg/l	99
63) Pentachlorophenol	10.535	266	252608	92.41	mg/l	99
64) Phenanthrene	10.701	178	2022274	78.86	mg/l	100
65) Anthracene	10.749	178	1996452	79.44	mg/l	100
66) Di-n-Butyl Phthalate	11.375	149	2329542	79.96	mg/l	100
67) Fluoranthene	12.022	202	2069551	82.29	mg/l	100
68) Benzidine	12.167	184	470184	75.89	mg/l	99
70) Pyrene	12.274	202	2044402	78.43	mg/l	100
72) Butyl Benzyl Phthalate	13.071	149	919563	86.67	mg/l	100
73) 3,3'-Dichlorobenzidine	13.739	252	377607	77.41	mg/l	100
74) Benzo (a) Anthracene	13.761	228	1765133	82.94	mg/l	100
75) Bis(2-Ethylhexyl) Phth...	13.889	149	1212412	86.92	mg/l	99
76) Chrysene	13.825	228	1713921	83.19	mg/l	100
77) Di-n-Octyl Phthalate	14.878	149	1950868	93.95	mg/l	100
78) Benzo (b) Fluoranthene	15.520	252	1654688	94.94	mg/l	100
79) Benzo (k) Fluoranthene	15.563	252	1632011	90.22	mg/l	99
80) Benzo (a) Pyrene	16.109	252	1425207	91.16	mg/l	100
82) Indeno (1,2,3-c,d) Pyrene	18.371	276	893049	85.15	mg/l	99
83) Dibenz (a,h) Anthracene	18.419	278	1040214	89.25	mg/l	99
84) Benzo (g,h,i) Perylene	18.927	276	960998	83.03	mg/l	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV010.D
Acq On : 6 Nov 2013 2:24 pm
Operator : 513
Sample : ICV S071913W 80PPM
InstName : GCMS TT
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 06 15:20:03 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 06 15:19:57 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



Return to Contents

EPA METHOD 8270C
SVOCs

Sample Data

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS TT
D/T ANALYZED: 11/14/2013 04:17
ANALYST: 859
DATA FILE: W:\GCMS_TT_DATA\2013\131113\13NOV035.D\13NOV035.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/11/2013 00:00

 # 3 **CLIENT SAMPLE NUMBER: 8-SS-5-6**

LCS/MB BATCH: 131111L05
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
N-Nitrosodimethylamine	0.00	1	ND	0.50	0.1	mg/kg	
Aniline	0.00	1	ND	0.50	0.1	mg/kg	
Phenol	0.00	1	ND	0.50	0.1	mg/kg	
Bis(2-Chloroethyl) Ether	0.00	1	ND	2.5	0.1	mg/kg	
2-Chlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
1,3-Dichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
1,4-Dichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
Benzyl Alcohol	0.00	1	ND	0.50	0.1	mg/kg	
1,2-Dichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
2-Methylphenol	0.00	1	ND	0.50	0.1	mg/kg	
Bis(2-Chloroisopropyl) Ether	0.00	1	ND	0.50	0.1	mg/kg	
3/4-Methylphenol	0.00	1	ND	0.50	0.1	mg/kg	
N-Nitroso-di-n-propylamine	0.00	1	ND	0.50	0.1	mg/kg	
Hexachloroethane	0.00	1	ND	0.50	0.1	mg/kg	
Nitrobenzene	0.00	1	ND	2.5	0.1	mg/kg	
Isophorone	0.00	1	ND	0.50	0.1	mg/kg	
2-Nitrophenol	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dimethylphenol	0.00	1	ND	0.50	0.1	mg/kg	
Benzoic Acid	0.00	1	ND	2.5	0.1	mg/kg	
Bis(2-Chloroethoxy) Methane	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dichlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
1,2,4-Trichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
Naphthalene	0.00	1	ND	0.50	0.1	mg/kg	
4-Chloroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Hexachloro-1,3-Butadiene	0.00	1	ND	0.50	0.1	mg/kg	
4-Chloro-3-Methylphenol	0.00	1	ND	0.50	0.1	mg/kg	
2-Methylnaphthalene	0.00	1	ND	0.50	0.1	mg/kg	
1-Methylnaphthalene	0.00	1	ND	0.50	0.1	mg/kg	
Hexachlorocyclopentadiene	0.00	1	ND	2.5	0.1	mg/kg	
2,4,5-Trichlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
2-Chloronaphthalene	0.00	1	ND	0.50	0.1	mg/kg	
2-Nitroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Dimethyl Phthalate	0.60	1	ND	0.50	0.1	mg/kg	
Acenaphthylene	0.00	1	ND	0.50	0.1	mg/kg	
3-Nitroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Acenaphthene	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dinitrophenol	0.00	1	ND	2.5	0.1	mg/kg	
4-Nitrophenol	0.00	1	ND	0.50	0.1	mg/kg	
Dibenzofuran	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dinitrotoluene	0.00	1	ND	0.50	0.1	mg/kg	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS TT
D/T ANALYZED: 11/14/2013 04:17
ANALYST: 859
DATA FILE: W:\GCMS_TT_DATA\2013\131113\13NOV035.D\13NOV035.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/11/2013 00:00

 # 3 **CLIENT SAMPLE NUMBER: 8-SS-5-6**

LCS/MB BATCH: 131111L05
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
2,6-Dinitrotoluene	0.00	1	ND	0.50	0.1	mg/kg	
Diethyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
4-Chlorophenyl-Phenyl Ether	0.00	1	ND	0.50	0.1	mg/kg	
Fluorene	0.00	1	ND	0.50	0.1	mg/kg	
4-Nitroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Azobenzene	0.00	1	ND	0.50	0.1	mg/kg	
4,6-Dinitro-2-Methylphenol	0.00	1	ND	2.5	0.1	mg/kg	
N-Nitrosodiphenylamine	0.00	1	ND	0.50	0.1	mg/kg	
2,4,6-Trichlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
4-Bromophenyl-Phenyl Ether	0.00	1	ND	0.50	0.1	mg/kg	
Hexachlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
Pentachlorophenol	0.00	1	ND	2.5	0.1	mg/kg	
Phenanthrene	0.00	1	ND	0.50	0.1	mg/kg	
Anthracene	0.00	1	ND	0.50	0.1	mg/kg	
Di-n-Butyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Fluoranthene	0.82	1	ND	0.50	0.1	mg/kg	
Benzidine	0.00	1	ND	10	0.1	mg/kg	[
Pyrene	1.6	1	ND	0.50	0.1	mg/kg	
Pyridine	0.00	1	ND	0.50	0.1	mg/kg	
Butyl Benzyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
3,3'-Dichlorobenzidine	0.00	1	ND	10	0.1	mg/kg	]
Benzo (a) Anthracene	0.00	1	ND	0.50	0.1	mg/kg	
Bis(2-Ethylhexyl) Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Chrysene	0.00	1	ND	0.50	0.1	mg/kg	
Di-n-Octyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (k) Fluoranthene	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (b) Fluoranthene	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (a) Pyrene	0.00	1	ND	0.50	0.1	mg/kg	
Indeno (1,2,3-c,d) Pyrene	0.00	1	ND	0.50	0.1	mg/kg	
Dibenz (a,h) Anthracene	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (g,h,i) Perylene	0.00	1	ND	0.50	0.1	mg/kg	

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV035.D
Acq On : 14 Nov 2013 4:17 am
Operator : 513
Sample : 13-11-0697-3A
InstName : GCMS TT
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 14 11:33:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Thu Nov 14 10:13:50 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.748	152	317540	40.00	mg/l	0.00
19) Naphthalene-d8	7.091	136	1276097	40.00	mg/l	0.00
36) Acenaphthene-d10	9.027	164	664617	40.00	mg/l	0.00
56) Phenanthrene-d10	10.653	188	933373	40.00	mg/l	0.00
69) Chrysene-d12	13.755	240	550540	40.00	mg/l	0.00
81) Perylene-d12	16.173	264	292706	40.00	mg/l	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol	4.534	112	702393	57.73	mg/l	0.00
Spiked Amount 100.000			Recovery = 57.73%			
6) Phenol-d6	5.417	99	797756	60.49	mg/l	-0.01
Spiked Amount 100.000			Recovery = 60.49%			
20) Nitrobenzene-d5	6.353	82	651861	58.86	mg/l	0.00
Spiked Amount 100.000			Recovery = 58.86%			
41) 2-Fluorobiphenyl	8.289	172	1316631	55.22	mg/l	0.00
Spiked Amount 100.000			Recovery = 55.22%			
60) 2,4,6-Tribromophenol	9.904	330	139779	63.17	mg/l	-0.01
Spiked Amount 100.000			Recovery = 63.17%			
71) p-Terphenyl-d14	12.434	244	993232	78.75	mg/l	0.00
Spiked Amount 100.000			Recovery = 78.75%			
Target Compounds						Qvalue
2) Pyridine	0.000		0	N.D.		
3) N-Nitrosodimethylamine	0.000		0	N.D.		
5) Aniline	0.000		0	N.D.		
7) Phenol	5.428	94	1224	N.D.		
8) Bis(2-Chloroethyl) Ether	0.000		0	N.D.		
9) 2-Chlorophenol	5.583	128	458	N.D.		
10) 1,3-Dichlorobenzene	5.716	146	112	N.D.		
11) 1,4-Dichlorobenzene	5.770	146	181	N.D.		
12) Benzyl Alcohol	5.946	79	505	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) Bis(2-Chloroisopropyl)...	0.000		0	N.D.		
16) 3/4-Methylphenol	0.000		0	N.D.		
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
21) Nitrobenzene	6.353	77	1993	N.D.		
22) Isophorone	6.631	82	420	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Benzoic Acid	0.000		0	N.D.		
26) Bis(2-Chloroethoxy) Me...	0.000		0	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.112	128	2385	N.D.		
30) 2,6-Dichlorophenol	0.000		0	N.D.		
31) 4-Chloroaniline	0.000		0	N.D.		
32) Hexachloro-1,3-Butadiene	0.000		0	N.D.		
33) 4-Chloro-3-Methylphenol	7.781	107	51	N.D.		
34) 2-Methylnaphthalene	7.861	142	173	N.D.		
35) 1-Methylnaphthalene	7.990	142	131	N.D.		
37) Hexachlorocyclopentadiene	0.000		0	N.D.		
38) 2,4,6-Trichlorophenol	0.000		0	N.D.		
39) 2,4,5-Trichlorophenol	0.000		0	N.D.		
40) 2-Chloronaphthalene	0.000		0	N.D.		

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV035.D
Acq On : 14 Nov 2013 4:17 am
Operator : 513
Sample : 13-11-0697-3A
InstName : GCMS TT
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 14 11:33:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Thu Nov 14 10:13:50 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

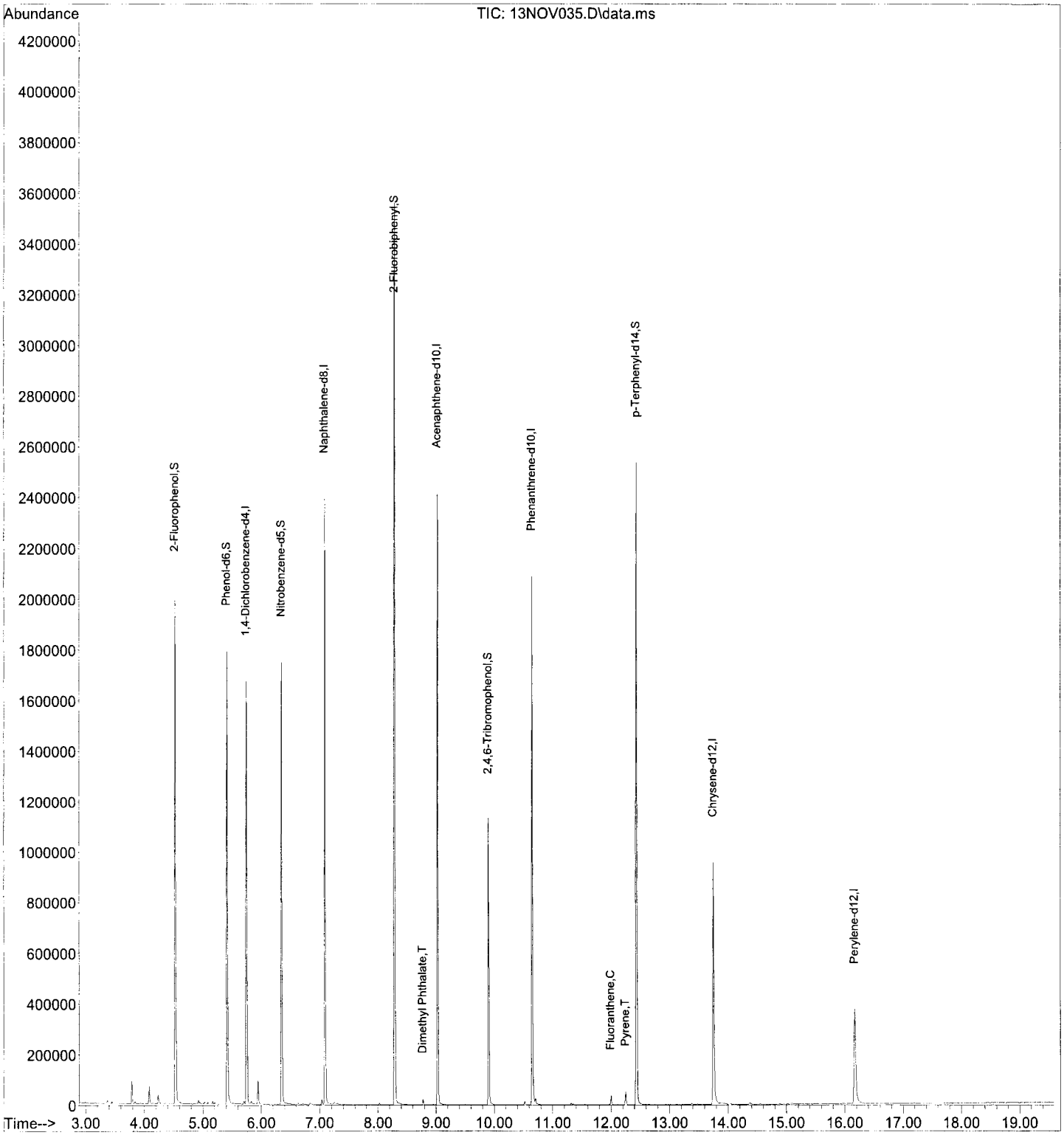
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 2-Nitroaniline	0.000		0	N.D.	
43) Dimethyl Phthalate	8.776	163	12454	0.60 mg/l	97
44) Acenaphthylene	8.861	152	770	N.D.	
45) 3-Nitroaniline	0.000		0	N.D.	
46) Acenaphthene	9.065	153	775	N.D.	
47) 2,4-Dinitrophenol	0.000		0	N.D.	
48) 4-Nitrophenol	0.000		0	N.D.	
49) Dibenzofuran	0.000		0	N.D.	
50) 2,4-Dinitrotoluene	0.000		0	N.D.	
51) 2,6-Dinitrotoluene	0.000		0	N.D.	
52) Diethyl Phthalate	9.551	149	132	N.D.	
53) 4-Chlorophenyl-Phenyl ...	0.000		0	N.D.	
54) Fluorene	9.626	166	433	N.D.	
55) 4-Nitroaniline	0.000		0	N.D.	
57) Azobenzene	0.000		0	N.D.	
58) 4,6-Dinitro-2-Methylph...	0.000		0	N.D.	
59) N-Nitrosodiphenylamine	0.000		0	N.D.	
61) 4-Bromophenyl-Phenyl E...	0.000		0	N.D.	
62) Hexachlorobenzene	0.000		0	N.D.	
63) Pentachlorophenol	0.000		0	N.D.	
64) Phenanthrene	10.680	178	12274	N.D.	
65) Anthracene	10.733	178	1386	N.D.	
66) Di-n-Butyl Phthalate	11.354	149	1423	N.D.	
67) Fluoranthene	12.001	202	19925	0.82 mg/l	99
68) Benzidine	0.000		0	N.D.	
70) Pyrene	12.252	202	28162	1.55 mg/l	98
72) Butyl Benzyl Phthalate	13.044	149	208	N.D.	
73) 3,3'-Dichlorobenzidine	0.000		0	N.D.	
74) Benzo (a) Anthracene	13.729	228	3435	N.D.	
75) Bis(2-Ethylhexyl) Phth...	13.873	149	239	N.D.	
76) Chrysene	13.787	228	3286	N.D.	
77) Di-n-Octyl Phthalate	0.000		0	N.D.	
78) Benzo (b) Fluoranthene	15.483	252	1390	N.D.	
79) Benzo (k) Fluoranthene	15.676	252	55	N.D.	
80) Benzo (a) Pyrene	16.077	252	2166	N.D.	
82) Indeno (1,2,3-c,d) Pyrene	18.345	276	343	N.D.	
83) Dibenz (a,h) Anthracene	0.000		0	N.D.	
84) Benzo (g,h,i) Perylene	18.879	276	755	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV035.D
Acq On : 14 Nov 2013 4:17 am
Operator : 513
Sample : 13-11-0697-3A
InstName : GCMS TT
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 14 11:33:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Thu Nov 14 10:13:50 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS SS
D/T ANALYZED: 11/14/2013 18:26
ANALYST: 449
DATA FILE: W:\GCMS_SS_DATA\2013\131114\14NOV020.D\14NOV020.rr

REVIEWED BY: 27
DATE REVIEWED: 11/15/2013 09:50
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/11/2013 00:00

 # 4 **CLIENT SAMPLE NUMBER: 8-SS-9.5-10.5**

LCS/MB BATCH: 131111L05
MS/MSD BATCH: 131111S05
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
N-Nitrosodimethylamine	0.00	1	ND	0.50	0.1	mg/kg	
Aniline	0.00	1	ND	0.50	0.1	mg/kg	
Phenol	0.00	1	ND	0.50	0.1	mg/kg	
Bis(2-Chloroethyl) Ether	0.00	1	ND	2.5	0.1	mg/kg	[
2-Chlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
1,3-Dichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
1,4-Dichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
Benzyl Alcohol	0.00	1	ND	0.50	0.1	mg/kg	
1,2-Dichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
2-Methylphenol	0.00	1	ND	0.50	0.1	mg/kg	
Bis(2-Chloroisopropyl) Ether	0.00	1	ND	0.50	0.1	mg/kg	
3/4-Methylphenol	0.00	1	ND	0.50	0.1	mg/kg	
N-Nitroso-di-n-propylamine	0.00	1	ND	0.50	0.1	mg/kg	
Hexachloroethane	0.00	1	ND	0.50	0.1	mg/kg	
Nitrobenzene	0.00	1	ND	2.5	0.1	mg/kg	
Isophorone	0.00	1	ND	0.50	0.1	mg/kg	
2-Nitrophenol	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dimethylphenol	0.00	1	ND	0.50	0.1	mg/kg	
Benzoic Acid	0.00	1	ND	2.5	0.1	mg/kg	
Bis(2-Chloroethoxy) Methane	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dichlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
1,2,4-Trichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
Naphthalene	0.00	1	ND	0.50	0.1	mg/kg	
4-Chloroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Hexachloro-1,3-Butadiene	0.00	1	ND	0.50	0.1	mg/kg	
4-Chloro-3-Methylphenol	0.00	1	ND	0.50	0.1	mg/kg	
2-Methylnaphthalene	0.00	1	ND	0.50	0.1	mg/kg	
1-Methylnaphthalene	0.00	1	ND	0.50	0.1	mg/kg	
Hexachlorocyclopentadiene	0.00	1	ND	2.5	0.1	mg/kg	]
2,4,5-Trichlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
2-Chloronaphthalene	0.00	1	ND	0.50	0.1	mg/kg	
2-Nitroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Dimethyl Phthalate	0.63	1	ND	0.50	0.1	mg/kg	
Acenaphthylene	0.00	1	ND	0.50	0.1	mg/kg	
3-Nitroaniline	0.00	1	ND	0.50	0.1	mg/kg	[
Acenaphthene	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dinitrophenol	0.00	1	ND	2.5	0.1	mg/kg	
4-Nitrophenol	0.00	1	ND	0.50	0.1	mg/kg	[
Dibenzofuran	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dinitrotoluene	0.00	1	ND	0.50	0.1	mg/kg	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS SS
D/T ANALYZED: 11/14/2013 18:26
ANALYST: 449
DATA FILE: W:\GCMS_SS_DATA\2013\131114\14NOV020.D\14NOV020.rr

REVIEWED BY: 27
DATE REVIEWED: 11/15/2013 09:50
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/11/2013 00:00

 # 4 **CLIENT SAMPLE NUMBER: 8-SS-9.5-10.5**

LCS/MB BATCH: 131111L05
MS/MSD BATCH: 131111S05
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
2,6-Dinitrotoluene	0.00	1	ND	0.50	0.1	mg/kg	
Diethyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
4-Chlorophenyl-Phenyl Ether	0.00	1	ND	0.50	0.1	mg/kg	
Fluorene	0.00	1	ND	0.50	0.1	mg/kg	
4-Nitroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Azobenzene	0.00	1	ND	0.50	0.1	mg/kg	
4,6-Dinitro-2-Methylphenol	0.00	1	ND	2.5	0.1	mg/kg	[I
N-Nitrosodiphenylamine	0.00	1	ND	0.50	0.1	mg/kg	
2,4,6-Trichlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
4-Bromophenyl-Phenyl Ether	0.00	1	ND	0.50	0.1	mg/kg	
Hexachlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
Pentachlorophenol	0.00	1	ND	2.5	0.1	mg/kg	
Phenanthrene	0.00	1	ND	0.50	0.1	mg/kg	
Anthracene	0.00	1	ND	0.50	0.1	mg/kg	
Di-n-Butyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Fluoranthene	0.00	1	ND	0.50	0.1	mg/kg	
Benzidine	0.00	1	ND	10	0.1	mg/kg	
Pyrene	0.00	1	ND	0.50	0.1	mg/kg	
Pyridine	0.00	1	ND	0.50	0.1	mg/kg	[
Butyl Benzyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
3,3'-Dichlorobenzidine	0.00	1	ND	10	0.1	mg/kg	
Benzo (a) Anthracene	0.00	1	ND	0.50	0.1	mg/kg	
Bis(2-Ethylhexyl) Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Chrysene	0.00	1	ND	0.50	0.1	mg/kg	
Di-n-Octyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (k) Fluoranthene	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (b) Fluoranthene	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (a) Pyrene	0.00	1	ND	0.50	0.1	mg/kg	
Indeno (1,2,3-c,d) Pyrene	0.00	1	ND	0.50	0.1	mg/kg	[
Dibenz (a,h) Anthracene	0.00	1	ND	0.50	0.1	mg/kg	[
Benzo (g,h,i) Perylene	0.00	1	ND	0.50	0.1	mg/kg	[

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV020.D
Acq On : 14 Nov 2013 6:26 pm
Operator : 449
Sample : 11-0697-4A
InstName : GCMS SS
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 15 09:09:44 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 18:59:42 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.542	152	436224	40.00	mg/l	-0.02
19) Naphthalene-d8	6.885	136	1882175	40.00	mg/l	-0.02
36) Acenaphthene-d10	8.826	164	1075504	40.00	mg/l	-0.04
56) Phenanthrene-d10	10.457	188	1774737	40.00	mg/l	-0.04
69) Chrysene-d12	13.544	240	1598176	40.00	mg/l	-0.04
81) Perylene-d12	15.924	264	1323034	40.00	mg/l	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	4.371	112	1365369	68.94	mg/l	-0.02
Spiked Amount 100.000			Recovery = 68.94%			
6) Phenol-d6	5.259	99	1852299	76.36	mg/l	-0.04
Spiked Amount 100.000			Recovery = 76.36%			
20) Nitrobenzene-d5	6.157	82	1673668	77.83	mg/l	-0.04
Spiked Amount 100.000			Recovery = 77.83%			
41) 2-Fluorobiphenyl	8.088	172	2394067	66.00	mg/l	0.01
Spiked Amount 100.000			Recovery = 66.00%			
60) 2,4,6-Tribromophenol	9.714	330	311408	80.42	mg/l	-0.04
Spiked Amount 100.000			Recovery = 80.42%			
71) p-Terphenyl-d14	12.260	244	3127392	83.72	mg/l	-0.02
Spiked Amount 100.000			Recovery = 83.72%			
Target Compounds						Qvalue
2) Pyridine	3.205	52	75	N.D.		
3) N-Nitrosodimethylamine	3.210	74	45	N.D.		
5) Aniline	5.285	93	260	N.D.		
7) Phenol	5.269	94	3555	N.D.		
8) Bis(2-Chloroethyl) Ether	0.000		0	N.D.		d
9) 2-Chlorophenol	5.419	128	2194	N.D.		
10) 1,3-Dichlorobenzene	5.531	146	209	N.D.		
11) 1,4-Dichlorobenzene	5.558	146	689	N.D.		
12) Benzyl Alcohol	5.751	79	1002	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	5.858	108	57	N.D.		
15) Bis(2-Chloroisopropyl)...	5.863	45	235	N.D.		
16) 3/4-Methylphenol	6.093	107	73	N.D.		
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.		d
18) Hexachloroethane	6.082	117	44	N.D.		
21) Nitrobenzene	6.162	77	4832	N.D.		
22) Isophorone	6.483	82	771	N.D.		
23) 2-Nitrophenol	6.617	139	17	N.D.		
24) 2,4-Dimethylphenol	6.644	107	99	N.D.		
25) Benzoic Acid	0.000		0	N.D.		d
26) Bis(2-Chloroethoxy) Me...	6.692	93	24	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	6.852	180	217	N.D.		
29) Naphthalene	6.911	128	2099	N.D.		
30) 2,6-Dichlorophenol	0.000		0	N.D.		
31) 4-Chloroaniline	7.029	127	31	N.D.		
32) Hexachloro-1,3-Butadiene	0.000		0	N.D.		
33) 4-Chloro-3-Methylphenol	7.591	107	220	N.D.		
34) 2-Methylnaphthalene	7.676	142	877	N.D.		
35) 1-Methylnaphthalene	7.788	142	463	N.D.		
37) Hexachlorocyclopentadiene	0.000		0	N.D.		
38) 2,4,6-Trichlorophenol	0.000		0	N.D.		
39) 2,4,5-Trichlorophenol	0.000		0	N.D.		
40) 2-Chloronaphthalene	0.000		0	N.D.		

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV020.D
Acq On : 14 Nov 2013 6:26 pm
Operator : 449
Sample : 11-0697-4A
InstName : GCMS SS
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 15 09:09:44 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 18:59:42 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42)	2-Nitroaniline	8.409	65	100	N.D.	
43)	Dimethyl Phthalate	8.585	163	23878	0.63 mg/l	99
44)	Acenaphthylene	8.676	152	823	N.D.	
45)	3-Nitroaniline	0.000		0	N.D. d	
46)	Acenaphthene	8.901	153	36	N.D.	
47)	2,4-Dinitrophenol	0.000		0	N.D.	
48)	4-Nitrophenol	9.099	65	90	Below Cal #	33
49)	Dibenzofuran	9.051	168	56	N.D.	
50)	2,4-Dinitrotoluene	9.206	165	110	N.D.	
51)	2,6-Dinitrotoluene	0.000		0	N.D.	
52)	Diethyl Phthalate	9.404	149	59	N.D.	
53)	4-Chlorophenyl-Phenyl ...	0.000		0	N.D.	
54)	Fluorene	9.452	166	115	N.D.	
55)	4-Nitroaniline	9.537	138	20	N.D.	
57)	Azobenzene	9.644	77	180	N.D.	
58)	4,6-Dinitro-2-Methylph...	9.714	198	1082	N.D.	
59)	N-Nitrosodiphenylamine	0.000		0	N.D. d	
61)	4-Bromophenyl-Phenyl E...	9.992	248	39	N.D.	
62)	Hexachlorobenzene	10.185	142	18	N.D.	
63)	Pentachlorophenol	10.377	266	423	N.D.	
64)	Phenanthrene	10.532	178	86	N.D.	
65)	Anthracene	10.607	178	17	N.D.	
66)	Di-n-Butyl Phthalate	11.158	149	4431	N.D.	
67)	Fluoranthene	11.832	202	254	N.D.	
68)	Benzidine	0.000		0	N.D. d	
70)	Pyrene	12.078	202	1019	N.D.	
72)	Butyl Benzyl Phthalate	12.838	149	3206	N.D.	
73)	3,3'-Dichlorobenzidine	13.490	252	63	Below Cal #	9
74)	Benzo (a) Anthracene	13.544	228	3691	N.D.	
75)	Bis(2-Ethylhexyl) Phth...	13.618	149	3613	N.D.	
76)	Chrysene	13.586	228	156	N.D.	
77)	Di-n-Octyl Phthalate	14.608	149	1148	N.D.	
78)	Benzo (b) Fluoranthene	0.000		0	N.D. d	
79)	Benzo (k) Fluoranthene	15.298	252	62	Below Cal #	1
80)	Benzo (a) Pyrene	15.924	252	4245	N.D.	
82)	Indeno (1,2,3-c,d) Pyrene	18.373	276	19	N.D.	
83)	Dibenz (a,h) Anthracene	18.074	278	37	N.D.	
84)	Benzo (g,h,i) Perylene	18.737	276	52	N.D.	

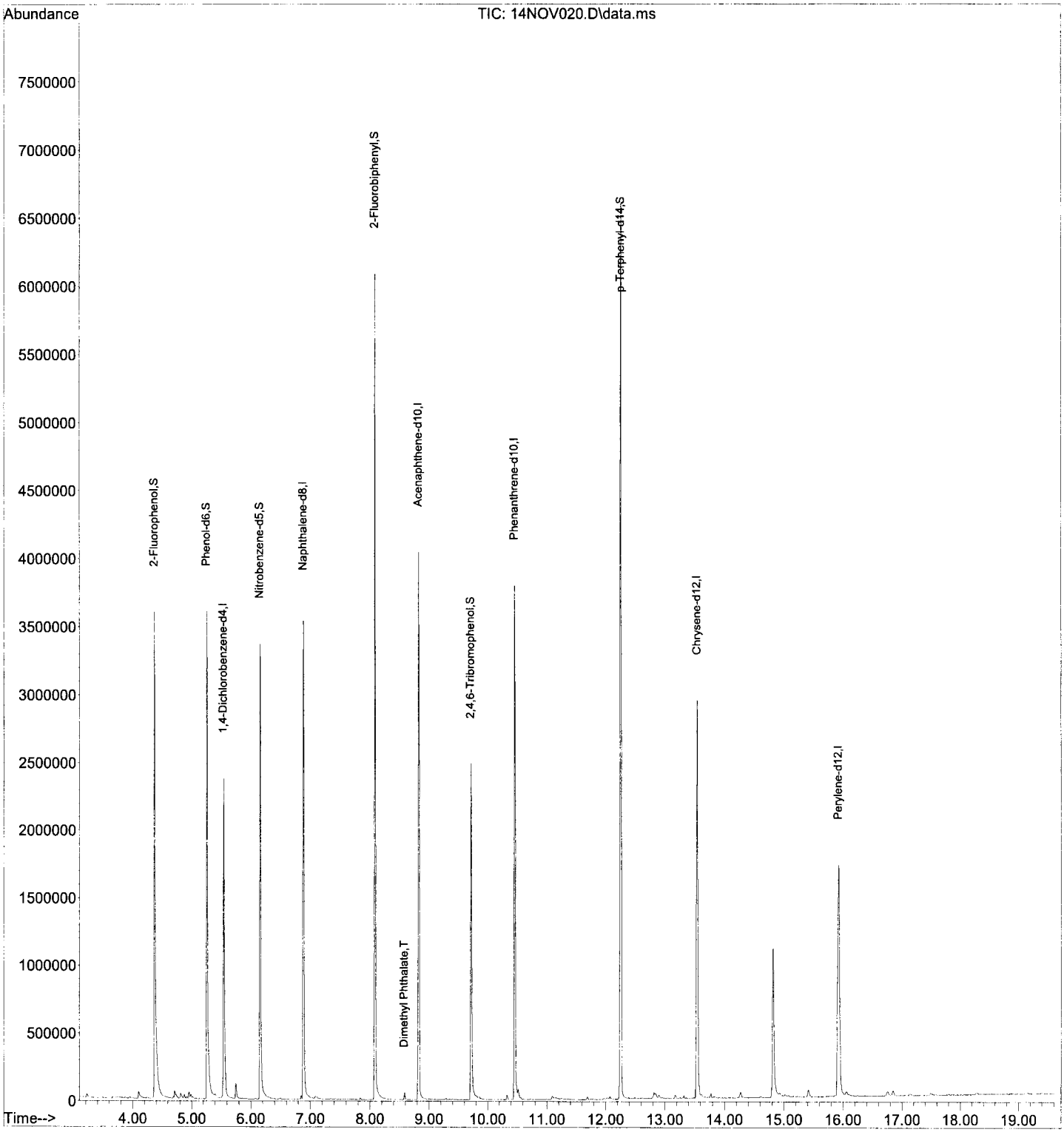
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV020.D
Acq On : 14 Nov 2013 6:26 pm
Operator : 449
Sample : 11-0697-4A
InstName : GCMS SS
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 15 09:09:44 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 18:59:42 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS SS
D/T ANALYZED: 11/15/2013 14:07
ANALYST: 449
DATA FILE: W:\GCMS_SS_DATA\2013\131115\15NOV009.D\15NOV009.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/11/2013 00:00

 # 6 **CLIENT SAMPLE NUMBER: 12-SS-5-6**

LCS/MB BATCH: 131111L05
MS/MSD BATCH: 131111S05
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
N-Nitrosodimethylamine	0.00	5	ND	2.5	0.1	mg/kg	D
Aniline	0.00	5	ND	2.5	0.1	mg/kg	D
Phenol	0.00	5	ND	2.5	0.1	mg/kg	D
Bis(2-Chloroethyl) Ether	0.00	5	ND	12	0.1	mg/kg	D [
2-Chlorophenol	0.00	5	ND	2.5	0.1	mg/kg	D
1,3-Dichlorobenzene	0.00	5	ND	2.5	0.1	mg/kg	D
1,4-Dichlorobenzene	0.00	5	ND	2.5	0.1	mg/kg	D
Benzyl Alcohol	0.00	5	ND	2.5	0.1	mg/kg	D
1,2-Dichlorobenzene	0.00	5	ND	2.5	0.1	mg/kg	D
2-Methylphenol	0.00	5	ND	2.5	0.1	mg/kg	D
Bis(2-Chloroisopropyl) Ether	0.00	5	ND	2.5	0.1	mg/kg	D [
3/4-Methylphenol	0.00	5	ND	2.5	0.1	mg/kg	D
N-Nitroso-di-n-propylamine	0.00	5	ND	2.5	0.1	mg/kg	D
Hexachloroethane	0.00	5	ND	2.5	0.1	mg/kg	D
Nitrobenzene	0.00	5	ND	12	0.1	mg/kg	D
Isophorone	0.00	5	ND	2.5	0.1	mg/kg	D
2-Nitrophenol	0.00	5	ND	2.5	0.1	mg/kg	D
2,4-Dimethylphenol	0.00	5	ND	2.5	0.1	mg/kg	D
Benzoic Acid	0.00	5	ND	12	0.1	mg/kg	D
Bis(2-Chloroethoxy) Methane	0.00	5	ND	2.5	0.1	mg/kg	D
2,4-Dichlorophenol	0.00	5	ND	2.5	0.1	mg/kg	D
1,2,4-Trichlorobenzene	0.00	5	ND	2.5	0.1	mg/kg	D
Naphthalene	0.00	5	ND	2.5	0.1	mg/kg	D
4-Chloroaniline	0.00	5	ND	2.5	0.1	mg/kg	D
Hexachloro-1,3-Butadiene	0.00	5	ND	2.5	0.1	mg/kg	D
4-Chloro-3-Methylphenol	0.00	5	ND	2.5	0.1	mg/kg	D
2-Methylnaphthalene	0.00	5	ND	2.5	0.1	mg/kg	D
1-Methylnaphthalene	0.00	5	ND	2.5	0.1	mg/kg	D
Hexachlorocyclopentadiene	0.00	5	ND	12	0.1	mg/kg	D]
2,4,5-Trichlorophenol	0.00	5	ND	2.5	0.1	mg/kg	D
2-Chloronaphthalene	0.00	5	ND	2.5	0.1	mg/kg	D
2-Nitroaniline	0.00	5	ND	2.5	0.1	mg/kg	D
Dimethyl Phthalate	0.00	5	ND	2.5	0.1	mg/kg	D
Acenaphthylene	0.00	5	ND	2.5	0.1	mg/kg	D
3-Nitroaniline	0.00	5	ND	2.5	0.1	mg/kg	D
Acenaphthene	0.00	5	ND	2.5	0.1	mg/kg	D
2,4-Dinitrophenol	0.00	5	ND	12	0.1	mg/kg	D [
4-Nitrophenol	0.00	5	ND	2.5	0.1	mg/kg	D [
Dibenzofuran	0.00	5	ND	2.5	0.1	mg/kg	D
2,4-Dinitrotoluene	0.00	5	ND	2.5	0.1	mg/kg	D

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS SS
D/T ANALYZED: 11/15/2013 14:07
ANALYST: 449
DATA FILE: W:\GCMS_SS_DATA\2013\131115\15NOV009.D\15NOV009.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/11/2013 00:00

6 **CLIENT SAMPLE NUMBER: 12-SS-5-6**

LCS/MB BATCH: 131111L05
MS/MSD BATCH: 131111S05
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
2,6-Dinitrotoluene	0.00	5	ND	2.5	0.1	mg/kg	D
Diethyl Phthalate	0.00	5	ND	2.5	0.1	mg/kg	D
4-Chlorophenyl-Phenyl Ether	0.00	5	ND	2.5	0.1	mg/kg	D
Fluorene	0.00	5	ND	2.5	0.1	mg/kg	D
4-Nitroaniline	0.00	5	ND	2.5	0.1	mg/kg	D
Azobenzene	0.00	5	ND	2.5	0.1	mg/kg	D
4,6-Dinitro-2-Methylphenol	0.00	5	ND	12	0.1	mg/kg	D [I
N-Nitrosodiphenylamine	0.00	5	ND	2.5	0.1	mg/kg	D
2,4,6-Trichlorophenol	0.00	5	ND	2.5	0.1	mg/kg	D
4-Bromophenyl-Phenyl Ether	0.00	5	ND	2.5	0.1	mg/kg	D
Hexachlorobenzene	0.00	5	ND	2.5	0.1	mg/kg	D
Pentachlorophenol	0.00	5	ND	12	0.1	mg/kg	D
Phenanthrene	0.00	5	ND	2.5	0.1	mg/kg	D
Anthracene	0.00	5	ND	2.5	0.1	mg/kg	D
Di-n-Butyl Phthalate	0.00	5	ND	2.5	0.1	mg/kg	D
Fluoranthene	0.00	5	ND	2.5	0.1	mg/kg	D
Benzidine	0.00	5	ND	50	0.1	mg/kg	D [
Pyrene	0.00	5	ND	2.5	0.1	mg/kg	D
Pyridine	0.00	5	ND	2.5	0.1	mg/kg	D]
Butyl Benzyl Phthalate	0.00	5	ND	2.5	0.1	mg/kg	D
3,3'-Dichlorobenzidine	0.00	5	ND	50	0.1	mg/kg	D [
Benzo (a) Anthracene	0.00	5	ND	2.5	0.1	mg/kg	D
Bis(2-Ethylhexyl) Phthalate	5.1	5	2.6	2.5	0.1	mg/kg	D
Chrysene	0.00	5	ND	2.5	0.1	mg/kg	D
Di-n-Octyl Phthalate	0.00	5	ND	2.5	0.1	mg/kg	D
Benzo (k) Fluoranthene	0.00	5	ND	2.5	0.1	mg/kg	D]
Benzo (b) Fluoranthene	0.00	5	ND	2.5	0.1	mg/kg	D
Benzo (a) Pyrene	0.00	5	ND	2.5	0.1	mg/kg	D
Indeno (1,2,3-c,d) Pyrene	0.00	5	ND	2.5	0.1	mg/kg	D [
Dibenz (a,h) Anthracene	0.00	5	ND	2.5	0.1	mg/kg	D [
Benzo (g,h,i) Perylene	0.00	5	ND	2.5	0.1	mg/kg	D [

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131115\
Data File : 15NOV009.D
Acq On : 15 Nov 2013 2:07 pm
Operator : 449
Sample : 11-0697-6A 5X
InstName : GCMS SS
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 14:24:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Fri Nov 15 11:24:24 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.536	152	493590	40.00	mg/l	-0.02
19) Naphthalene-d8	6.879	136	2192910	40.00	mg/l	-0.03
36) Acenaphthene-d10	8.826	164	1190742	40.00	mg/l	-0.04
56) Phenanthrene-d10	10.457	188	1904702	40.00	mg/l	-0.04
69) Chrysene-d12	13.543	240	1745340	40.00	mg/l	-0.04
81) Perylene-d12	15.929	264	1153722	40.00	mg/l	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	4.370	112	266260	11.88	mg/l	-0.02
Spiked Amount 100.000			Recovery =	11.88%		
6) Phenol-d6	5.258	99	356436	12.99	mg/l	-0.04
Spiked Amount 100.000			Recovery =	12.99%		
20) Nitrobenzene-d5	6.152	82	342438	13.67	mg/l	-0.04
Spiked Amount 100.000			Recovery =	13.67%		
41) 2-Fluorobiphenyl	8.077	172	539548	13.44	mg/l	0.00
Spiked Amount 100.000			Recovery =	13.44%		
60) 2,4,6-Tribromophenol	9.708	330	52147	12.55	mg/l	-0.05
Spiked Amount 100.000			Recovery =	12.55%		
71) p-Terphenyl-d14	12.244	244	506388	12.41	mg/l	-0.04
Spiked Amount 100.000			Recovery =	12.41%		
Target Compounds						Qvalue
2) Pyridine	3.178	52	216	N.D.		
3) N-Nitrosodimethylamine	3.199	74	60	N.D.		
5) Aniline	5.290	93	999	N.D.		
7) Phenol	5.301	94	890	N.D.		
8) Bis(2-Chloroethyl) Ether	0.000		0	N.D.		
9) 2-Chlorophenol	5.413	128	165	N.D.		
10) 1,3-Dichlorobenzene	5.536	146	142	N.D.		
11) 1,4-Dichlorobenzene	5.563	146	86	N.D.		
12) Benzyl Alcohol	5.740	79	731	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	5.857	108	125	N.D.		
15) Bis(2-Chloroisopropyl)...	5.889	45	116	N.D.		
16) 3/4-Methylphenol	6.087	107	432	N.D.		
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.	d	
18) Hexachloroethane	6.114	117	175	N.D.		
21) Nitrobenzene	6.237	77	115	N.D.		
22) Isophorone	6.451	82	256	N.D.		
23) 2-Nitrophenol	6.590	139	16	N.D.		
24) 2,4-Dimethylphenol	6.547	107	48	N.D.		
25) Benzoic Acid	0.000		0	N.D.	d	
26) Bis(2-Chloroethoxy) Me...	6.702	93	99	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	6.906	128	2505	N.D.		
30) 2,6-Dichlorophenol	0.000		0	N.D.		
31) 4-Chloroaniline	7.055	127	37	N.D.		
32) Hexachloro-1,3-Butadiene	0.000		0	N.D.		
33) 4-Chloro-3-Methylphenol	7.585	107	371	N.D.		
34) 2-Methylnaphthalene	7.671	142	396	N.D.		
35) 1-Methylnaphthalene	7.783	142	386	N.D.		
37) Hexachlorocyclopentadiene	0.000		0	N.D.		
38) 2,4,6-Trichlorophenol	7.981	196	17	N.D.		
39) 2,4,5-Trichlorophenol	0.000		0	N.D.		
40) 2-Chloronaphthalene	8.211	162	20	N.D.		

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131115\
Data File : 15NOV009.D
Acq On : 15 Nov 2013 2:07 pm
Operator : 449
Sample : 11-0697-6A 5X
InstName : GCMS SS
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 14:24:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Fri Nov 15 11:24:24 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 2-Nitroaniline	8.382	65	154	N.D.	
43) Dimethyl Phthalate	8.580	163	8604	N.D.	
44) Acenaphthylene	8.665	152	710	N.D.	
45) 3-Nitroaniline	0.000		0	N.D. d	
46) Acenaphthene	8.901	153	131	N.D.	
47) 2,4-Dinitrophenol	0.000		0	N.D. d	
48) 4-Nitrophenol	9.067	65	131	Below Cal #	1
49) Dibenzofuran	9.045	168	509	N.D.	
50) 2,4-Dinitrotoluene	9.141	165	185	N.D.	
51) 2,6-Dinitrotoluene	0.000		0	N.D.	
52) Diethyl Phthalate	9.350	149	1298	N.D.	
53) 4-Chlorophenyl-Phenyl ...	9.420	204	20	Below Cal #	1
54) Fluorene	9.420	166	645	N.D.	
55) 4-Nitroaniline	9.575	138	304	N.D.	
57) Azobenzene	9.639	77	1500	N.D.	
58) 4,6-Dinitro-2-Methylph...	9.580	198	28	Below Cal #	1
59) N-Nitrosodiphenylamine	9.569	169	744	N.D.	
61) 4-Bromophenyl-Phenyl E...	9.938	248	20	N.D.	
62) Hexachlorobenzene	10.158	142	180	N.D.	
63) Pentachlorophenol	0.000		0	N.D.	
64) Phenanthrene	10.489	178	5176	N.D.	
65) Anthracene	10.575	178	247	N.D.	
66) Di-n-Butyl Phthalate	11.158	149	4294	N.D.	
67) Fluoranthene	11.821	202	7718	N.D.	
68) Benzidine	0.000		0	N.D. d	
70) Pyrene	12.067	202	9111	N.D.	
72) Butyl Benzyl Phthalate	12.891	149	550	N.D.	
73) 3,3'-Dichlorobenzidine	13.533	252	189	Below Cal #	51
74) Benzo (a) Anthracene	13.559	228	3309	N.D.	
75) Bis(2-Ethylhexyl) Phth...	13.618	149	176736	5.14 mg/l	99
76) Chrysene	13.640	228	238	N.D.	
77) Di-n-Octyl Phthalate	14.570	149	15385	N.D.	
78) Benzo (b) Fluoranthene	0.000		0	N.D. d	
79) Benzo (k) Fluoranthene	15.373	252	1102	Below Cal #	1
80) Benzo (a) Pyrene	15.854	252	2575	N.D.	
82) Indeno (1,2,3-c,d) Pyrene	18.389	276	219	N.D.	
83) Dibenz (a,h) Anthracene	18.170	278	311	N.D.	
84) Benzo (g,h,i) Perylene	18.726	276	553	N.D.	

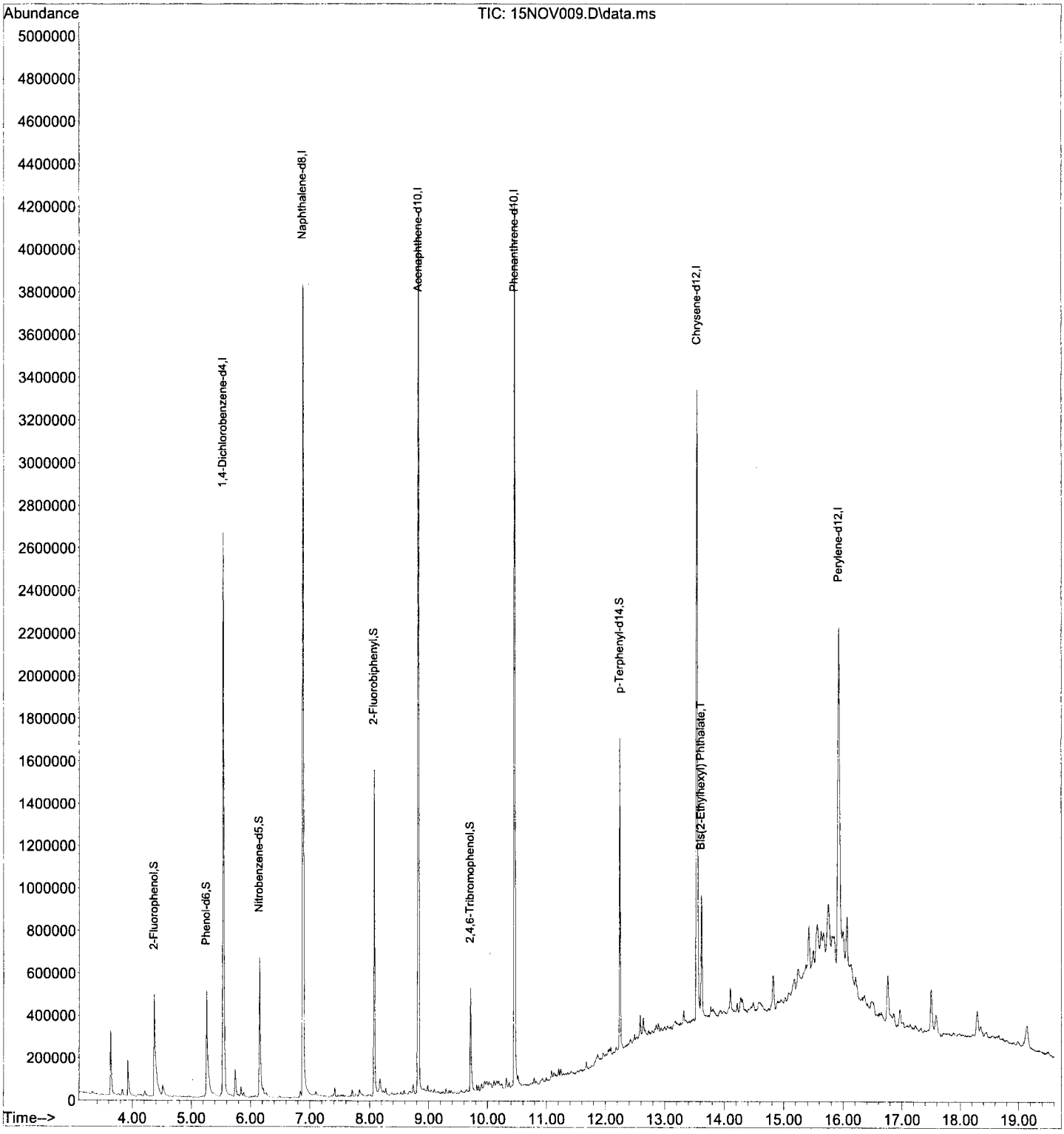
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131115\
Data File : 15NOV009.D
Acq On : 15 Nov 2013 2:07 pm
Operator : 449
Sample : 11-0697-6A 5X
InstName : GCMS SS
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 14:24:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Fri Nov 15 11:24:24 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

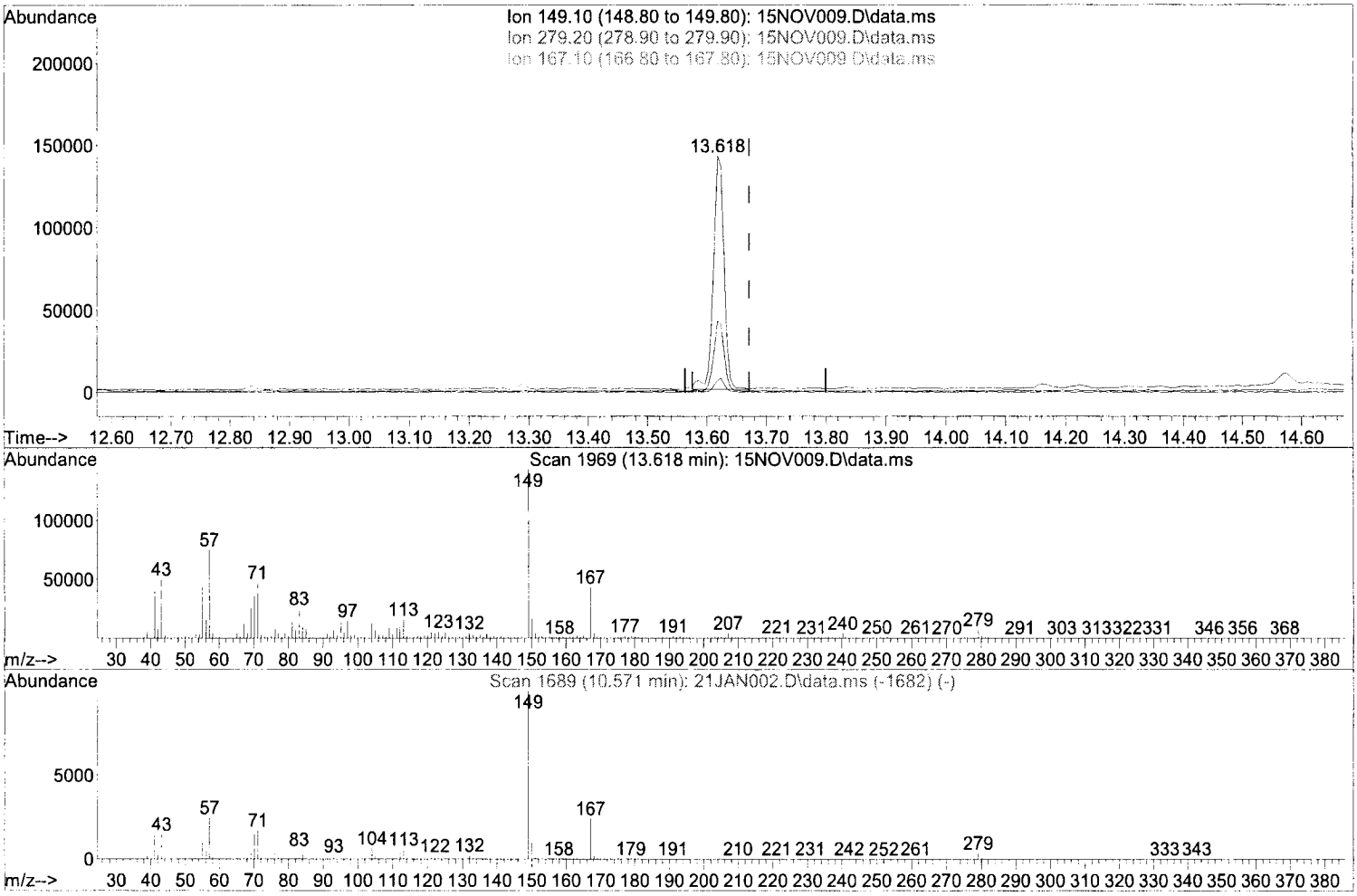


Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\131115\
Data File : 15NOV009.D
Acq On : 15 Nov 2013 2:07 pm
Operator : 449
Sample : 11-0697-6A 5X
InstName : GCMS SS
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 14:24:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Fri Nov 15 11:24:24 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



TIC: 15NOV009.D\data.ms

(75) Bis(2-Ethylhexyl) Phthalate (T)

13.618min (-0.054) 5.14 mg/l

response 176736

Ion	Exp%	Act%
149.10	100	100
279.20	6.40	5.47
167.10	29.40	29.31
0.00	0.00	0.00

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS SS
D/T ANALYZED: 11/14/2013 16:42
ANALYST: 449
DATA FILE: W:\GCMS_SS_DATA\2013\131114\14NOV016.D\14NOV016.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/11/2013 00:00

 # 7 **CLIENT SAMPLE NUMBER: 12-SS-9.5-10.5**

LCS/MB BATCH: 131111L05
MS/MSD BATCH: 131111S05
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
N-Nitrosodimethylamine	0.00	1	ND	0.50	0.1	mg/kg	
Aniline	0.00	1	ND	0.50	0.1	mg/kg	
Phenol	0.00	1	ND	0.50	0.1	mg/kg	
Bis(2-Chloroethyl) Ether	0.00	1	ND	2.5	0.1	mg/kg	
2-Chlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
1,3-Dichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
1,4-Dichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
Benzyl Alcohol	0.00	1	ND	0.50	0.1	mg/kg	
1,2-Dichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
2-Methylphenol	0.00	1	ND	0.50	0.1	mg/kg	
Bis(2-Chloroisopropyl) Ether	0.00	1	ND	0.50	0.1	mg/kg	
3/4-Methylphenol	0.00	1	ND	0.50	0.1	mg/kg	
N-Nitroso-di-n-propylamine	0.00	1	ND	0.50	0.1	mg/kg	
Hexachloroethane	0.00	1	ND	0.50	0.1	mg/kg	
Nitrobenzene	0.00	1	ND	2.5	0.1	mg/kg	
Isophorone	0.00	1	ND	0.50	0.1	mg/kg	
2-Nitrophenol	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dimethylphenol	0.00	1	ND	0.50	0.1	mg/kg	
Benzoic Acid	0.00	1	ND	2.5	0.1	mg/kg	
Bis(2-Chloroethoxy) Methane	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dichlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
1,2,4-Trichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
Naphthalene	0.00	1	ND	0.50	0.1	mg/kg	
4-Chloroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Hexachloro-1,3-Butadiene	0.00	1	ND	0.50	0.1	mg/kg	
4-Chloro-3-Methylphenol	0.00	1	ND	0.50	0.1	mg/kg	
2-Methylnaphthalene	0.00	1	ND	0.50	0.1	mg/kg	
1-Methylnaphthalene	0.00	1	ND	0.50	0.1	mg/kg	
Hexachlorocyclopentadiene	0.00	1	ND	2.5	0.1	mg/kg	
2,4,5-Trichlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
2-Chloronaphthalene	0.00	1	ND	0.50	0.1	mg/kg	
2-Nitroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Dimethyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Acenaphthylene	0.00	1	ND	0.50	0.1	mg/kg	
3-Nitroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Acenaphthene	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dinitrophenol	0.00	1	ND	2.5	0.1	mg/kg	
4-Nitrophenol	0.00	1	ND	0.50	0.1	mg/kg	
Dibenzofuran	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dinitrotoluene	0.00	1	ND	0.50	0.1	mg/kg	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS SS
D/T ANALYZED: 11/14/2013 16:42
ANALYST: 449
DATA FILE: W:\GCMS_SS_DATA\2013\131114\14NOV016.D\14NOV016.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/11/2013 00:00

 # 7 **CLIENT SAMPLE NUMBER: 12-SS-9.5-10.5**

LCS/MB BATCH: 131111L05
MS/MSD BATCH: 131111S05
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
2,6-Dinitrotoluene	0.00	1	ND	0.50	0.1	mg/kg	
Diethyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
4-Chlorophenyl-Phenyl Ether	0.00	1	ND	0.50	0.1	mg/kg	
Fluorene	0.00	1	ND	0.50	0.1	mg/kg	
4-Nitroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Azobenzene	0.00	1	ND	0.50	0.1	mg/kg	
4,6-Dinitro-2-Methylphenol	0.00	1	ND	2.5	0.1	mg/kg	
N-Nitrosodiphenylamine	0.00	1	ND	0.50	0.1	mg/kg	
2,4,6-Trichlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
4-Bromophenyl-Phenyl Ether	0.00	1	ND	0.50	0.1	mg/kg	
Hexachlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
Pentachlorophenol	0.00	1	ND	2.5	0.1	mg/kg	
Phenanthrene	0.00	1	ND	0.50	0.1	mg/kg	
Anthracene	0.00	1	ND	0.50	0.1	mg/kg	
Di-n-Butyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Fluoranthene	0.00	1	ND	0.50	0.1	mg/kg	
Benzidine	0.00	1	ND	10	0.1	mg/kg	
Pyrene	0.00	1	ND	0.50	0.1	mg/kg	
Pyridine	0.00	1	ND	0.50	0.1	mg/kg	
Butyl Benzyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
3,3'-Dichlorobenzidine	0.00	1	ND	10	0.1	mg/kg	
Benzo (a) Anthracene	0.00	1	ND	0.50	0.1	mg/kg	
Bis(2-Ethylhexyl) Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Chrysene	0.00	1	ND	0.50	0.1	mg/kg	
Di-n-Octyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (k) Fluoranthene	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (b) Fluoranthene	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (a) Pyrene	0.00	1	ND	0.50	0.1	mg/kg	
Indeno (1,2,3-c,d) Pyrene	0.00	1	ND	0.50	0.1	mg/kg	
Dibenz (a,h) Anthracene	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (g,h,i) Perylene	0.00	1	ND	0.50	0.1	mg/kg	

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV016.D
Acq On : 14 Nov 2013 4:42 pm
Operator : 449
Sample : 11-0697-7A
InstName : GCMS SS
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 14 17:00:34 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 10:53:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.542	152	395643	40.00	mg/l	-0.02
19) Naphthalene-d8	6.884	136	1791432	40.00	mg/l	-0.02
36) Acenaphthene-d10	8.826	164	1044041	40.00	mg/l	-0.04
56) Phenanthrene-d10	10.457	188	1660486	40.00	mg/l	-0.04
69) Chrysene-d12	13.544	240	1474863	40.00	mg/l	-0.04
81) Perylene-d12	15.924	264	1001049	40.00	mg/l	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	4.371	112	1387539	77.24	mg/l	-0.02
Spiked Amount 100.000			Recovery =	77.24%		
6) Phenol-d6	5.258	99	1972125	89.64	mg/l	-0.04
Spiked Amount 100.000			Recovery =	89.64%		
20) Nitrobenzene-d5	6.162	82	1784827	87.20	mg/l	-0.03
Spiked Amount 100.000			Recovery =	87.20%		
41) 2-Fluorobiphenyl	8.088	172	2917710	82.86	mg/l	0.01
Spiked Amount 100.000			Recovery =	82.86%		
60) 2,4,6-Tribromophenol	9.719	330	307276	84.81	mg/l	-0.04
Spiked Amount 100.000			Recovery =	84.81%		
71) p-Terphenyl-d14	12.260	244	3234063	93.82	mg/l	-0.02
Spiked Amount 100.000			Recovery =	93.82%		
Target Compounds						Qvalue
2) Pyridine	3.189	52	47	N.D.		
3) N-Nitrosodimethylamine	3.199	74	85	N.D.		
5) Aniline	5.301	93	111	N.D.		
7) Phenol	5.269	94	5487	N.D.		
8) Bis(2-Chloroethyl) Ether	0.000		0	N.D.	d	
9) 2-Chlorophenol	5.419	128	389	N.D.		
10) 1,3-Dichlorobenzene	5.531	146	152	N.D.		
11) 1,4-Dichlorobenzene	5.547	146	47	N.D.		
12) Benzyl Alcohol	5.756	79	1030	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	5.964	108	57	N.D.		
15) Bis(2-Chloroisopropyl)...	5.906	45	108	N.D.		
16) 3/4-Methylphenol	6.055	107	78	N.D.		
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.	d	
18) Hexachloroethane	6.114	117	39	N.D.		
21) Nitrobenzene	6.162	77	5304	N.D.		
22) Isophorone	6.547	82	331	N.D.		
23) 2-Nitrophenol	6.526	139	21	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Benzoic Acid	0.000		0	N.D.	d	
26) Bis(2-Chloroethoxy) Me...	6.676	93	86	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	6.858	180	100	N.D.		
29) Naphthalene	6.981	128	157	N.D.		
30) 2,6-Dichlorophenol	0.000		0	N.D.		
31) 4-Chloroaniline	7.050	127	57	N.D.		
32) Hexachloro-1,3-Butadiene	0.000		0	N.D.		
33) 4-Chloro-3-Methylphenol	7.590	107	333	N.D.		
34) 2-Methylnaphthalene	7.692	142	304	N.D.		
35) 1-Methylnaphthalene	7.815	142	50	N.D.		
37) Hexachlorocyclopentadiene	0.000		0	N.D.		
38) 2,4,6-Trichlorophenol	0.000		0	N.D.		
39) 2,4,5-Trichlorophenol	0.000		0	N.D.		
40) 2-Chloronaphthalene	0.000		0	N.D.		

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV016.D
Acq On : 14 Nov 2013 4:42 pm
Operator : 449
Sample : 11-0697-7A
InstName : GCMS SS
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 14 17:00:34 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 10:53:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

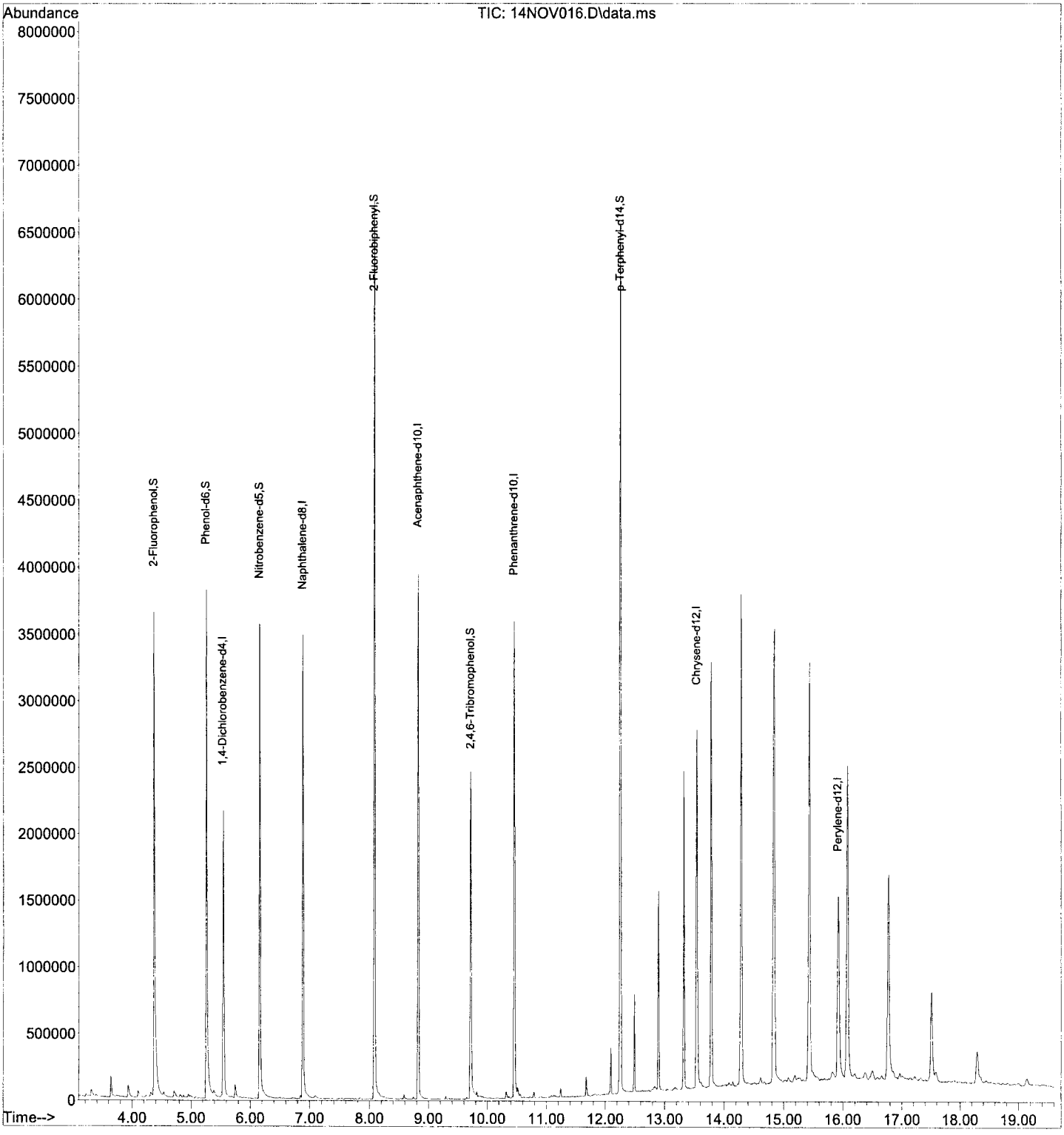
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42)	2-Nitroaniline	8.377	65	77	N.D.	
43)	Dimethyl Phthalate	8.585	163	15646	N.D.	
44)	Acenaphthylene	8.676	152	688	N.D.	
45)	3-Nitroaniline	0.000		0	N.D. d	
46)	Acenaphthene	8.901	153	21	N.D.	
47)	2,4-Dinitrophenol	0.000		0	N.D.	
48)	4-Nitrophenol	9.083	65	216	Below Cal #	35
49)	Dibenzofuran	9.061	168	162	N.D.	
50)	2,4-Dinitrotoluene	9.056	165	142	N.D.	
51)	2,6-Dinitrotoluene	0.000		0	N.D.	
52)	Diethyl Phthalate	9.366	149	563	N.D.	
53)	4-Chlorophenyl-Phenyl ...	0.000		0	N.D.	
54)	Fluorene	9.473	166	17	N.D.	
55)	4-Nitroaniline	9.580	138	48	N.D.	
57)	Azobenzene	9.650	77	866	N.D.	
58)	4,6-Dinitro-2-Methylph...	9.714	198	1008	N.D.	
59)	N-Nitrosodiphenylamine	0.000		0	N.D. d	
61)	4-Bromophenyl-Phenyl E...	9.928	248	21	N.D.	
62)	Hexachlorobenzene	10.163	142	125	N.D.	
63)	Pentachlorophenol	0.000		0	N.D.	
64)	Phenanthrene	10.489	178	1616	N.D.	
65)	Anthracene	10.596	178	58	N.D.	
66)	Di-n-Butyl Phthalate	11.158	149	3496	N.D.	
67)	Fluoranthene	11.827	202	3709	N.D.	
68)	Benzidine	0.000		0	N.D. d	
70)	Pyrene	12.073	202	4197	N.D.	
72)	Butyl Benzyl Phthalate	12.837	149	3491	N.D.	
73)	3,3'-Dichlorobenzidine	13.538	252	149	Below Cal #	1
74)	Benzo (a) Anthracene	13.453	228	268	N.D.	
75)	Bis(2-Ethylhexyl) Phth...	13.699	149	896	N.D.	
76)	Chrysene	13.704	228	579	N.D.	
77)	Di-n-Octyl Phthalate	14.747	149	422	N.D.	
78)	Benzo (b) Fluoranthene	0.000		0	N.D. d	
79)	Benzo (k) Fluoranthene	15.367	252	780	Below Cal #	1
80)	Benzo (a) Pyrene	15.876	252	2510	N.D.	
82)	Indeno (1,2,3-c,d) Pyrene	18.175	276	200	N.D.	
83)	Dibenz (a,h) Anthracene	18.165	278	114	N.D.	
84)	Benzo (g,h,i) Perylene	18.769	276	582	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV016.D
Acq On : 14 Nov 2013 4:42 pm
Operator : 449
Sample : 11-0697-7A
InstName : GCMS SS
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 14 17:00:34 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 10:53:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS SS
D/T ANALYZED: 11/14/2013 21:29
ANALYST: 449
DATA FILE: W:\GCMS_SS_DATA\2013\131114\14NOV027.D\14NOV027.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/11/2013 00:00

 # 9 **CLIENT SAMPLE NUMBER: 6-SS-5-6**

LCS/MB BATCH: 131111L05
MS/MSD BATCH: 131111S05
COMMENT: The reporting limit is elevated resulting from matrix interference.

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
N-Nitrosodimethylamine	0.00	2	ND	1.0	0.1	mg/kg	D
Aniline	0.00	2	ND	1.0	0.1	mg/kg	D
Phenol	3.1	2	ND	1.0	0.1	mg/kg	D
Bis(2-Chloroethyl) Ether	0.00	2	ND	5.0	0.1	mg/kg	D
2-Chlorophenol	0.00	2	ND	1.0	0.1	mg/kg	D
1,3-Dichlorobenzene	0.00	2	ND	1.0	0.1	mg/kg	D
1,4-Dichlorobenzene	0.00	2	ND	1.0	0.1	mg/kg	D
Benzyl Alcohol	0.00	2	ND	1.0	0.1	mg/kg	D
1,2-Dichlorobenzene	0.00	2	ND	1.0	0.1	mg/kg	D
2-Methylphenol	0.00	2	ND	1.0	0.1	mg/kg	D
Bis(2-Chloroisopropyl) Ether	0.00	2	ND	1.0	0.1	mg/kg	D
3/4-Methylphenol	0.00	2	ND	1.0	0.1	mg/kg	D
N-Nitroso-di-n-propylamine	0.00	2	ND	1.0	0.1	mg/kg	D
Hexachloroethane	0.00	2	ND	1.0	0.1	mg/kg	D
Nitrobenzene	0.00	2	ND	5.0	0.1	mg/kg	D
Isophorone	0.00	2	ND	1.0	0.1	mg/kg	D
2-Nitrophenol	0.00	2	ND	1.0	0.1	mg/kg	D
2,4-Dimethylphenol	0.00	2	ND	1.0	0.1	mg/kg	D
Benzoic Acid	0.00	2	ND	5.0	0.1	mg/kg	D
Bis(2-Chloroethoxy) Methane	0.00	2	ND	1.0	0.1	mg/kg	D
2,4-Dichlorophenol	0.00	2	ND	1.0	0.1	mg/kg	D
1,2,4-Trichlorobenzene	0.00	2	ND	1.0	0.1	mg/kg	D
Naphthalene	0.00	2	ND	1.0	0.1	mg/kg	D
4-Chloroaniline	0.00	2	ND	1.0	0.1	mg/kg	D
Hexachloro-1,3-Butadiene	0.00	2	ND	1.0	0.1	mg/kg	D
4-Chloro-3-Methylphenol	0.00	2	ND	1.0	0.1	mg/kg	D
2-Methylnaphthalene	0.00	2	ND	1.0	0.1	mg/kg	D
1-Methylnaphthalene	0.00	2	ND	1.0	0.1	mg/kg	D
Hexachlorocyclopentadiene	0.00	2	ND	5.0	0.1	mg/kg	D
2,4,5-Trichlorophenol	0.00	2	ND	1.0	0.1	mg/kg	D
2-Chloronaphthalene	0.00	2	ND	1.0	0.1	mg/kg	D
2-Nitroaniline	0.00	2	ND	1.0	0.1	mg/kg	D
Dimethyl Phthalate	0.00	2	ND	1.0	0.1	mg/kg	D
Acenaphthylene	0.00	2	ND	1.0	0.1	mg/kg	D
3-Nitroaniline	0.00	2	ND	1.0	0.1	mg/kg	D
Acenaphthene	0.00	2	ND	1.0	0.1	mg/kg	D
2,4-Dinitrophenol	0.00	2	ND	5.0	0.1	mg/kg	D
4-Nitrophenol	0.00	2	ND	1.0	0.1	mg/kg	D
Dibenzofuran	0.00	2	ND	1.0	0.1	mg/kg	D
2,4-Dinitrotoluene	0.00	2	ND	1.0	0.1	mg/kg	D

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS SS
D/T ANALYZED: 11/14/2013 21:29
ANALYST: 449
DATA FILE: W:\GCMS_SS_DATA\2013\131114\14NOV027.D\14NOV027.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/11/2013 00:00

9 **CLIENT SAMPLE NUMBER: 6-SS-5-6**

LCS/MB BATCH: 131111L05
MS/MSD BATCH: 131111S05
COMMENT: The reporting limit is elevated resulting from matrix interference.

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
2,6-Dinitrotoluene	0.00	2	ND	1.0	0.1	mg/kg	D
Diethyl Phthalate	0.00	2	ND	1.0	0.1	mg/kg	D
4-Chlorophenyl-Phenyl Ether	0.00	2	ND	1.0	0.1	mg/kg	D
Fluorene	0.00	2	ND	1.0	0.1	mg/kg	D
4-Nitroaniline	0.00	2	ND	1.0	0.1	mg/kg	D
Azobenzene	0.00	2	ND	1.0	0.1	mg/kg	D
4,6-Dinitro-2-Methylphenol	0.00	2	ND	5.0	0.1	mg/kg	D I
N-Nitrosodiphenylamine	0.00	2	ND	1.0	0.1	mg/kg	D
2,4,6-Trichlorophenol	0.00	2	ND	1.0	0.1	mg/kg	D
4-Bromophenyl-Phenyl Ether	0.00	2	ND	1.0	0.1	mg/kg	D
Hexachlorobenzene	0.00	2	ND	1.0	0.1	mg/kg	D
Pentachlorophenol	0.00	2	ND	5.0	0.1	mg/kg	D
Phenanthrene	0.00	2	ND	1.0	0.1	mg/kg	D
Anthracene	0.00	2	ND	1.0	0.1	mg/kg	D
Di-n-Butyl Phthalate	0.00	2	ND	1.0	0.1	mg/kg	D
Fluoranthene	0.00	2	ND	1.0	0.1	mg/kg	D
Benzidine	0.00	2	ND	20	0.1	mg/kg	D
Pyrene	0.00	2	ND	1.0	0.1	mg/kg	D
Pyridine	0.00	2	ND	1.0	0.1	mg/kg	D
Butyl Benzyl Phthalate	0.00	2	ND	1.0	0.1	mg/kg	D
3,3'-Dichlorobenzidine	0.00	2	ND	20	0.1	mg/kg	D
Benzo (a) Anthracene	0.00	2	ND	1.0	0.1	mg/kg	D
Bis(2-Ethylhexyl) Phthalate	0.00	2	ND	1.0	0.1	mg/kg	D
Chrysene	0.00	2	ND	1.0	0.1	mg/kg	D
Di-n-Octyl Phthalate	0.00	2	ND	1.0	0.1	mg/kg	D
Benzo (k) Fluoranthene	0.00	2	ND	1.0	0.1	mg/kg	D
Benzo (b) Fluoranthene	0.00	2	ND	1.0	0.1	mg/kg	D
Benzo (a) Pyrene	0.00	2	ND	1.0	0.1	mg/kg	D
Indeno (1,2,3-c,d) Pyrene	0.00	2	ND	1.0	0.1	mg/kg	D
Dibenz (a,h) Anthracene	0.00	2	ND	1.0	0.1	mg/kg	D
Benzo (g,h,i) Perylene	0.00	2	ND	1.0	0.1	mg/kg	D

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV027.D
Acq On : 14 Nov 2013 9:29 pm
Operator : 449
Sample : 11-0697-9A 2X
InstName : GCMS SS
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 15 09:12:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 18:59:42 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.542	152	499975	40.00	mg/l	-0.02
19) Naphthalene-d8	6.884	136	2155464	40.00	mg/l	-0.02
36) Acenaphthene-d10	8.826	164	1206339	40.00	mg/l	-0.04
56) Phenanthrene-d10	10.463	188	1977926	40.00	mg/l	-0.03
69) Chrysene-d12	13.544	240	1677980	40.00	mg/l	-0.04
81) Perylene-d12	15.924	264	844219	40.00	mg/l	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	4.371	112	872186	38.42	mg/l	-0.02
Spiked Amount 100.000			Recovery =	38.42%		
6) Phenol-d6	5.258	99	1168066	42.01	mg/l	-0.04
Spiked Amount 100.000			Recovery =	42.01%		
20) Nitrobenzene-d5	6.157	82	1146262	46.54	mg/l	-0.04
Spiked Amount 100.000			Recovery =	46.54%		
41) 2-Fluorobiphenyl	8.083	172	1734862	42.64	mg/l	0.00
Spiked Amount 100.000			Recovery =	42.64%		
60) 2,4,6-Tribromophenol	9.714	330	176736	40.95	mg/l	-0.04
Spiked Amount 100.000			Recovery =	40.95%		
71) p-Terphenyl-d14	12.255	244	1745369	44.50	mg/l	-0.03
Spiked Amount 100.000			Recovery =	44.50%		
Target Compounds						Qvalue
2) Pyridine	3.189	52	146	N.D.		
3) N-Nitrosodimethylamine	3.237	74	56	N.D.		
5) Aniline	5.301	93	196	N.D.		
7) Phenol	5.275	94	92071	3.08	mg/l #	71
8) Bis(2-Chloroethyl) Ether	0.000		0	N.D.	d	
9) 2-Chlorophenol	5.419	128	438	N.D.		
10) 1,3-Dichlorobenzene	5.542	146	392	N.D.		
11) 1,4-Dichlorobenzene	5.542	146	252	N.D.		
12) Benzyl Alcohol	5.745	79	1167	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	5.836	108	18	N.D.		
15) Bis(2-Chloroisopropyl)...	5.890	45	236	N.D.		
16) 3/4-Methylphenol	6.034	107	90	N.D.		
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.	d	
18) Hexachloroethane	6.088	117	16	N.D.		
21) Nitrobenzene	6.157	77	3907	N.D.		
22) Isophorone	6.473	82	844	N.D.		
23) 2-Nitrophenol	6.564	139	24	N.D.		
24) 2,4-Dimethylphenol	6.601	107	35	N.D.		
25) Benzoic Acid	0.000		0	N.D.	d	
26) Bis(2-Chloroethoxy) Me...	6.687	93	135	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	6.965	128	178	N.D.		
30) 2,6-Dichlorophenol	0.000		0	N.D.		
31) 4-Chloroaniline	7.029	127	60	N.D.		
32) Hexachloro-1,3-Butadiene	0.000		0	N.D.		
33) 4-Chloro-3-Methylphenol	7.569	107	40	N.D.		
34) 2-Methylnaphthalene	7.703	142	73	N.D.		
35) 1-Methylnaphthalene	7.794	142	132	N.D.		
37) Hexachlorocyclopentadiene	0.000		0	N.D.		
38) 2,4,6-Trichlorophenol	0.000		0	N.D.		
39) 2,4,5-Trichlorophenol	0.000		0	N.D.		
40) 2-Chloronaphthalene	0.000		0	N.D.		

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV027.D
Acq On : 14 Nov 2013 9:29 pm
Operator : 449
Sample : 11-0697-9A 2X
InstName : GCMS SS
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 15 09:12:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 18:59:42 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

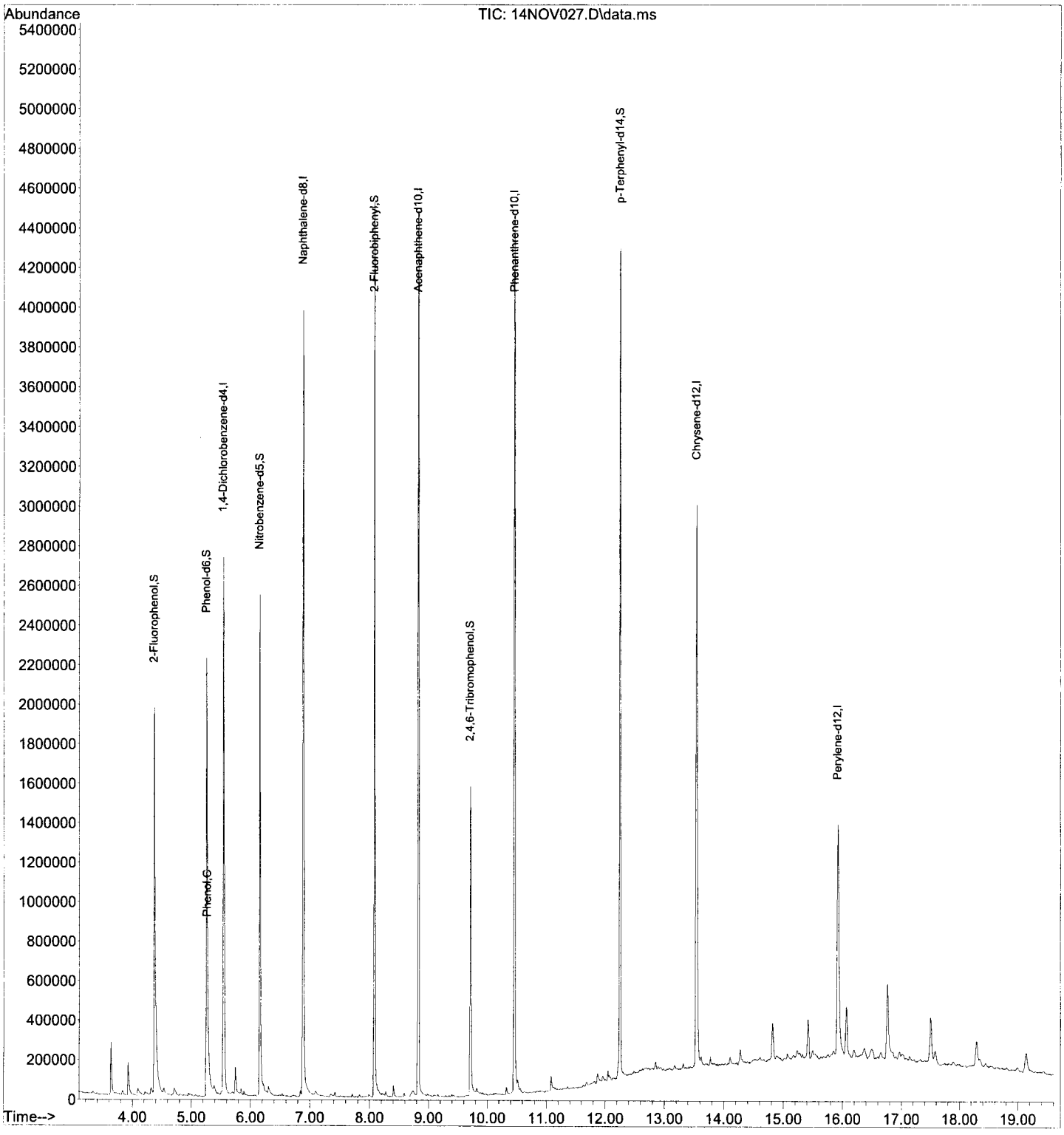
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 2-Nitroaniline	8.398	65	65	N.D.	
43) Dimethyl Phthalate	8.585	163	10118	N.D.	
44) Acenaphthylene	8.698	152	161	N.D.	
45) 3-Nitroaniline	0.000		0	N.D. d	
46) Acenaphthene	8.912	153	59	N.D.	
47) 2,4-Dinitrophenol	0.000		0	N.D.	
48) 4-Nitrophenol	9.077	65	191	Below Cal #	51
49) Dibenzofuran	9.056	168	191	N.D.	
50) 2,4-Dinitrotoluene	9.163	165	67	N.D.	
51) 2,6-Dinitrotoluene	0.000		0	N.D.	
52) Diethyl Phthalate	9.356	149	572	N.D.	
53) 4-Chlorophenyl-Phenyl ...	0.000		0	N.D.	
54) Fluorene	9.425	166	59	N.D.	
55) 4-Nitroaniline	9.569	138	105	N.D.	
57) Azobenzene	9.644	77	569	N.D.	
58) 4,6-Dinitro-2-Methylph...	9.709	198	729	Below Cal #	1
59) N-Nitrosodiphenylamine	9.714	169	6510	N.D.	
61) 4-Bromophenyl-Phenyl E...	0.000		0	N.D.	
62) Hexachlorobenzene	10.163	142	24	N.D.	
63) Pentachlorophenol	0.000		0	N.D.	
64) Phenanthrene	10.489	178	5099	N.D.	
65) Anthracene	10.543	178	1042	N.D.	
66) Di-n-Butyl Phthalate	11.158	149	3145	N.D.	
67) Fluoranthene	11.821	202	7913	N.D.	
68) Benzidine	0.000		0	N.D. d	
70) Pyrene	12.073	202	9247	N.D.	
72) Butyl Benzyl Phthalate	12.832	149	2674	N.D.	
73) 3,3'-Dichlorobenzidine	13.549	252	144	Below Cal #	1
74) Benzo (a) Anthracene	13.544	228	1515	N.D.	
75) Bis(2-Ethylhexyl) Phth...	13.693	149	5815	N.D.	
76) Chrysene	13.586	228	4075	N.D.	
77) Di-n-Octyl Phthalate	14.645	149	1543	N.D.	
78) Benzo (b) Fluoranthene	0.000		0	N.D. d	
79) Benzo (k) Fluoranthene	15.367	252	373	Below Cal #	1
80) Benzo (a) Pyrene	15.849	252	2461	N.D.	
82) Indeno (1,2,3-c,d) Pyrene	18.405	276	301	N.D.	
83) Dibenz (a,h) Anthracene	18.165	278	602	N.D.	
84) Benzo (g,h,i) Perylene	18.721	276	432	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV027.D
Acq On : 14 Nov 2013 9:29 pm
Operator : 449
Sample : 11-0697-9A 2X
InstName : GCMS SS
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 15 09:12:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 18:59:42 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS SS
D/T ANALYZED: 11/14/2013 18:52
ANALYST: 449
DATA FILE: W:\GCMS_SS_DATA\2013\131114\14NOV021.D\14NOV021.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/11/2013 00:00

 # 10 **CLIENT SAMPLE NUMBER: 6-SS-9-11**

LCS/MB BATCH: 131111L05
MS/MSD BATCH: 131111S05
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
N-Nitrosodimethylamine	0.00	1	ND	0.50	0.1	mg/kg	
Aniline	0.00	1	ND	0.50	0.1	mg/kg	
Phenol	0.00	1	ND	0.50	0.1	mg/kg	
Bis(2-Chloroethyl) Ether	0.00	1	ND	2.5	0.1	mg/kg	
2-Chlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
1,3-Dichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
1,4-Dichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
Benzyl Alcohol	0.00	1	ND	0.50	0.1	mg/kg	
1,2-Dichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
2-Methylphenol	0.00	1	ND	0.50	0.1	mg/kg	
Bis(2-Chloroisopropyl) Ether	0.00	1	ND	0.50	0.1	mg/kg	
3/4-Methylphenol	0.00	1	ND	0.50	0.1	mg/kg	
N-Nitroso-di-n-propylamine	0.00	1	ND	0.50	0.1	mg/kg	
Hexachloroethane	0.00	1	ND	0.50	0.1	mg/kg	
Nitrobenzene	0.00	1	ND	2.5	0.1	mg/kg	
Isophorone	0.00	1	ND	0.50	0.1	mg/kg	
2-Nitrophenol	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dimethylphenol	0.00	1	ND	0.50	0.1	mg/kg	
Benzoic Acid	0.00	1	ND	2.5	0.1	mg/kg	
Bis(2-Chloroethoxy) Methane	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dichlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
1,2,4-Trichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
Naphthalene	0.00	1	ND	0.50	0.1	mg/kg	
4-Chloroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Hexachloro-1,3-Butadiene	0.00	1	ND	0.50	0.1	mg/kg	
4-Chloro-3-Methylphenol	0.00	1	ND	0.50	0.1	mg/kg	
2-Methylnaphthalene	0.00	1	ND	0.50	0.1	mg/kg	
1-Methylnaphthalene	0.00	1	ND	0.50	0.1	mg/kg	
Hexachlorocyclopentadiene	0.00	1	ND	2.5	0.1	mg/kg	
2,4,5-Trichlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
2-Chloronaphthalene	0.00	1	ND	0.50	0.1	mg/kg	
2-Nitroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Dimethyl Phthalate	0.76	1	ND	0.50	0.1	mg/kg	
Acenaphthylene	0.00	1	ND	0.50	0.1	mg/kg	
3-Nitroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Acenaphthene	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dinitrophenol	0.00	1	ND	2.5	0.1	mg/kg	
4-Nitrophenol	0.00	1	ND	0.50	0.1	mg/kg	
Dibenzofuran	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dinitrotoluene	0.00	1	ND	0.50	0.1	mg/kg	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS SS
D/T ANALYZED: 11/14/2013 18:52
ANALYST: 449
DATA FILE: W:\GCMS_SS_DATA\2013\131114\14NOV021.D\14NOV021.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/11/2013 00:00

 # 10 **CLIENT SAMPLE NUMBER: 6-SS-9-11**

LCS/MB BATCH: 131111L05
MS/MSD BATCH: 131111S05
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
2,6-Dinitrotoluene	0.00	1	ND	0.50	0.1	mg/kg	
Diethyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
4-Chlorophenyl-Phenyl Ether	0.00	1	ND	0.50	0.1	mg/kg	
Fluorene	0.00	1	ND	0.50	0.1	mg/kg	
4-Nitroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Azobenzene	0.00	1	ND	0.50	0.1	mg/kg	
4,6-Dinitro-2-Methylphenol	0.00	1	ND	2.5	0.1	mg/kg	I
N-Nitrosodiphenylamine	0.00	1	ND	0.50	0.1	mg/kg	
2,4,6-Trichlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
4-Bromophenyl-Phenyl Ether	0.00	1	ND	0.50	0.1	mg/kg	
Hexachlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
Pentachlorophenol	0.00	1	ND	2.5	0.1	mg/kg	
Phenanthrene	0.00	1	ND	0.50	0.1	mg/kg	
Anthracene	0.00	1	ND	0.50	0.1	mg/kg	
Di-n-Butyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Fluoranthene	0.00	1	ND	0.50	0.1	mg/kg	
Benzidine	0.00	1	ND	10	0.1	mg/kg	
Pyrene	0.00	1	ND	0.50	0.1	mg/kg	
Pyridine	0.00	1	ND	0.50	0.1	mg/kg	
Butyl Benzyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
3,3'-Dichlorobenzidine	0.00	1	ND	10	0.1	mg/kg	
Benzo (a) Anthracene	0.00	1	ND	0.50	0.1	mg/kg	
Bis(2-Ethylhexyl) Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Chrysene	0.00	1	ND	0.50	0.1	mg/kg	
Di-n-Octyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (k) Fluoranthene	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (b) Fluoranthene	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (a) Pyrene	0.00	1	ND	0.50	0.1	mg/kg	
Indeno (1,2,3-c,d) Pyrene	0.00	1	ND	0.50	0.1	mg/kg	
Dibenz (a,h) Anthracene	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (g,h,i) Perylene	0.00	1	ND	0.50	0.1	mg/kg	

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV021.D
Acq On : 14 Nov 2013 6:52 pm
Operator : 449
Sample : 11-0697-10A
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 15 09:10:04 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 18:59:42 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.542	152	387910	40.00	mg/l	-0.02
19) Naphthalene-d8	6.884	136	1731041	40.00	mg/l	-0.02
36) Acenaphthene-d10	8.826	164	1018194	40.00	mg/l	-0.04
56) Phenanthrene-d10	10.457	188	1702349	40.00	mg/l	-0.04
69) Chrysene-d12	13.543	240	1549035	40.00	mg/l	-0.04
81) Perylene-d12	15.923	264	1277889	40.00	mg/l	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	4.370	112	1160191	65.87	mg/l	-0.02
Spiked Amount 100.000			Recovery =	65.87%		
6) Phenol-d6	5.258	99	1687645	78.24	mg/l	-0.04
Spiked Amount 100.000			Recovery =	78.24%		
20) Nitrobenzene-d5	6.157	82	1628816	82.35	mg/l	-0.04
Spiked Amount 100.000			Recovery =	82.35%		
41) 2-Fluorobiphenyl	8.088	172	2207739	64.29	mg/l	0.01
Spiked Amount 100.000			Recovery =	64.29%		
60) 2,4,6-Tribromophenol	9.714	330	258880	69.70	mg/l	-0.04
Spiked Amount 100.000			Recovery =	69.70%		
71) p-Terphenyl-d14	12.260	244	3085059	85.21	mg/l	-0.02
Spiked Amount 100.000			Recovery =	85.21%		
Target Compounds						Qvalue
2) Pyridine	3.504	52	115	N.D.		
3) N-Nitrosodimethylamine	3.199	74	46	N.D.		
5) Aniline	5.296	93	23	N.D.		
7) Phenol	5.269	94	1678	N.D.		
8) Bis(2-Chloroethyl) Ether	0.000		0	N.D.		d
9) 2-Chlorophenol	5.429	128	493	N.D.		
10) 1,3-Dichlorobenzene	5.531	146	198	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl Alcohol	5.745	79	982	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	5.938	108	17	N.D.		
15) Bis(2-Chloroisopropyl)...	5.905	45	152	N.D.		
16) 3/4-Methylphenol	6.087	107	54	N.D.		
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.		d
18) Hexachloroethane	6.077	117	55	N.D.		
21) Nitrobenzene	6.162	77	5039	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	6.622	107	36	N.D.		
25) Benzoic Acid	0.000		0	N.D.		d
26) Bis(2-Chloroethoxy) Me...	6.729	93	16	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	6.911	128	6364	N.D.		
30) 2,6-Dichlorophenol	0.000		0	N.D.		
31) 4-Chloroaniline	7.093	127	65	N.D.		
32) Hexachloro-1,3-Butadiene	0.000		0	N.D.		
33) 4-Chloro-3-Methylphenol	7.601	107	198	N.D.		
34) 2-Methylnaphthalene	7.681	142	104	N.D.		
35) 1-Methylnaphthalene	7.804	142	39	N.D.		
37) Hexachlorocyclopentadiene	0.000		0	N.D.		
38) 2,4,6-Trichlorophenol	0.000		0	N.D.		
39) 2,4,5-Trichlorophenol	0.000		0	N.D.		
40) 2-Chloronaphthalene	0.000		0	N.D.		

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV021.D
Acq On : 14 Nov 2013 6:52 pm
Operator : 449
Sample : 11-0697-10A
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 15 09:10:04 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 18:59:42 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	2-Nitroaniline	8.430	65	78	N.D.			
43)	Dimethyl Phthalate	8.585	163	27081	0.76	mg/l		100
44)	Acenaphthylene	8.708	152	178	N.D.			
45)	3-Nitroaniline	0.000		0	N.D.	d		
46)	Acenaphthene	8.895	153	19	N.D.			
47)	2,4-Dinitrophenol	0.000		0	N.D.			
48)	4-Nitrophenol	9.077	65	74	Below Cal		#	29
49)	Dibenzofuran	9.013	168	30	N.D.			
50)	2,4-Dinitrotoluene	9.136	165	203	N.D.			
51)	2,6-Dinitrotoluene	0.000		0	N.D.			
52)	Diethyl Phthalate	9.420	149	78	N.D.			
53)	4-Chlorophenyl-Phenyl ...	0.000		0	N.D.			
54)	Fluorene	9.430	166	51	N.D.			
55)	4-Nitroaniline	9.596	138	17	N.D.			
57)	Azobenzene	9.628	77	340	N.D.			
58)	4,6-Dinitro-2-Methylph...	9.714	198	696	Below Cal		#	1
59)	N-Nitrosodiphenylamine	9.714	169	9960	N.D.			
61)	4-Bromophenyl-Phenyl E...	0.000		0	N.D.			
62)	Hexachlorobenzene	10.158	142	17	N.D.			
63)	Pentachlorophenol	10.366	266	467	N.D.			
64)	Phenanthrene	10.489	178	549	N.D.			
65)	Anthracene	10.548	178	185	N.D.			
66)	Di-n-Butyl Phthalate	11.158	149	6017	N.D.			
67)	Fluoranthene	11.832	202	436	N.D.			
68)	Benzidine	0.000		0	N.D.	d		
70)	Pyrene	12.078	202	730	N.D.			
72)	Butyl Benzyl Phthalate	12.885	149	246	N.D.			
73)	3,3'-Dichlorobenzidine	13.586	252	114	Below Cal		#	59
74)	Benzo (a) Anthracene	13.543	228	3491	N.D.			
75)	Bis(2-Ethylhexyl) Phth...	13.618	149	2686	N.D.			
76)	Chrysene	0.000		0	N.D.			
77)	Di-n-Octyl Phthalate	14.640	149	467	N.D.			
78)	Benzo (b) Fluoranthene	0.000		0	N.D.	d		
79)	Benzo (k) Fluoranthene	15.314	252	170	Below Cal		#	39
80)	Benzo (a) Pyrene	15.923	252	3978	N.D.			
82)	Indeno (1,2,3-c,d) Pyrene	0.000		0	N.D.			
83)	Dibenz (a,h) Anthracene	17.999	278	17	N.D.			
84)	Benzo (g,h,i) Perylene	18.764	276	16	N.D.			

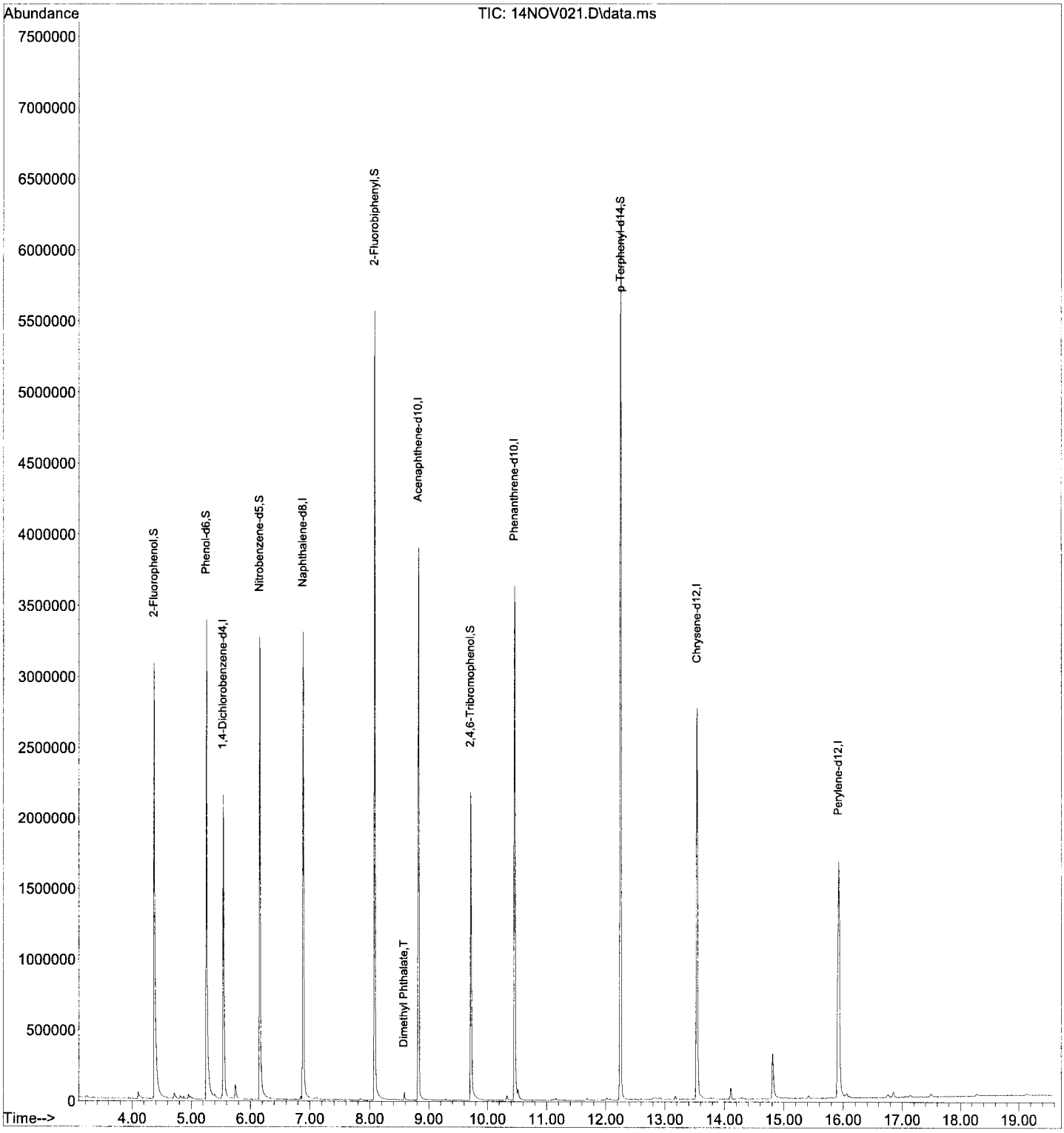
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV021.D
Acq On : 14 Nov 2013 6:52 pm
Operator : 449
Sample : 11-0697-10A
InstName : GCMS SS
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 15 09:10:04 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 18:59:42 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS SS
D/T ANALYZED: 11/14/2013 19:18
ANALYST: 449
DATA FILE: W:\GCMS_SS_DATA\2013\131114\14NOV022.D\14NOV022.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/11/2013 00:00

11 **CLIENT SAMPLE NUMBER: 60-SS-9-11**

LCS/MB BATCH: 131111L05
MS/MSD BATCH: 131111S05
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
N-Nitrosodimethylamine	0.00	1	ND	0.50	0.1	mg/kg	
Aniline	0.00	1	ND	0.50	0.1	mg/kg	
Phenol	0.00	1	ND	0.50	0.1	mg/kg	
Bis(2-Chloroethyl) Ether	0.00	1	ND	2.5	0.1	mg/kg	
2-Chlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
1,3-Dichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
1,4-Dichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
Benzyl Alcohol	0.00	1	ND	0.50	0.1	mg/kg	
1,2-Dichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
2-Methylphenol	0.00	1	ND	0.50	0.1	mg/kg	
Bis(2-Chloroisopropyl) Ether	0.00	1	ND	0.50	0.1	mg/kg	
3/4-Methylphenol	0.00	1	ND	0.50	0.1	mg/kg	
N-Nitroso-di-n-propylamine	0.00	1	ND	0.50	0.1	mg/kg	
Hexachloroethane	0.00	1	ND	0.50	0.1	mg/kg	
Nitrobenzene	0.00	1	ND	2.5	0.1	mg/kg	
Isophorone	0.00	1	ND	0.50	0.1	mg/kg	
2-Nitrophenol	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dimethylphenol	0.00	1	ND	0.50	0.1	mg/kg	
Benzoic Acid	0.00	1	ND	2.5	0.1	mg/kg	
Bis(2-Chloroethoxy) Methane	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dichlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
1,2,4-Trichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
Naphthalene	0.00	1	ND	0.50	0.1	mg/kg	
4-Chloroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Hexachloro-1,3-Butadiene	0.00	1	ND	0.50	0.1	mg/kg	
4-Chloro-3-Methylphenol	0.00	1	ND	0.50	0.1	mg/kg	
2-Methylnaphthalene	0.00	1	ND	0.50	0.1	mg/kg	
1-Methylnaphthalene	0.00	1	ND	0.50	0.1	mg/kg	
Hexachlorocyclopentadiene	0.00	1	ND	2.5	0.1	mg/kg	
2,4,5-Trichlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
2-Chloronaphthalene	0.00	1	ND	0.50	0.1	mg/kg	
2-Nitroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Dimethyl Phthalate	0.67	1	ND	0.50	0.1	mg/kg	
Acenaphthylene	0.00	1	ND	0.50	0.1	mg/kg	
3-Nitroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Acenaphthene	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dinitrophenol	0.00	1	ND	2.5	0.1	mg/kg	
4-Nitrophenol	0.00	1	ND	0.50	0.1	mg/kg	
Dibenzofuran	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dinitrotoluene	0.00	1	ND	0.50	0.1	mg/kg	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS SS
D/T ANALYZED: 11/14/2013 19:18
ANALYST: 449
DATA FILE: W:\GCMS_SS_DATA\2013\131114\14NOV022.D\14NOV022.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/11/2013 00:00

11 **CLIENT SAMPLE NUMBER: 60-SS-9-11**

LCS/MB BATCH: 131111L05
MS/MSD BATCH: 131111S05
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
2,6-Dinitrotoluene	0.00	1	ND	0.50	0.1	mg/kg	
Diethyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
4-Chlorophenyl-Phenyl Ether	0.00	1	ND	0.50	0.1	mg/kg	
Fluorene	0.00	1	ND	0.50	0.1	mg/kg	
4-Nitroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Azobenzene	0.00	1	ND	0.50	0.1	mg/kg	
4,6-Dinitro-2-Methylphenol	0.00	1	ND	2.5	0.1	mg/kg	I
N-Nitrosodiphenylamine	0.00	1	ND	0.50	0.1	mg/kg	
2,4,6-Trichlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
4-Bromophenyl-Phenyl Ether	0.00	1	ND	0.50	0.1	mg/kg	
Hexachlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
Pentachlorophenol	0.00	1	ND	2.5	0.1	mg/kg	
Phenanthrene	0.00	1	ND	0.50	0.1	mg/kg	
Anthracene	0.00	1	ND	0.50	0.1	mg/kg	
Di-n-Butyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Fluoranthene	0.00	1	ND	0.50	0.1	mg/kg	
Benzidine	0.00	1	ND	10	0.1	mg/kg	
Pyrene	0.00	1	ND	0.50	0.1	mg/kg	
Pyridine	0.00	1	ND	0.50	0.1	mg/kg	
Butyl Benzyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
3,3'-Dichlorobenzidine	0.00	1	ND	10	0.1	mg/kg	
Benzo (a) Anthracene	0.00	1	ND	0.50	0.1	mg/kg	
Bis(2-Ethylhexyl) Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Chrysene	0.00	1	ND	0.50	0.1	mg/kg	
Di-n-Octyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (k) Fluoranthene	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (b) Fluoranthene	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (a) Pyrene	0.00	1	ND	0.50	0.1	mg/kg	
Indeno (1,2,3-c,d) Pyrene	0.00	1	ND	0.50	0.1	mg/kg	
Dibenz (a,h) Anthracene	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (g,h,i) Perylene	0.00	1	ND	0.50	0.1	mg/kg	

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV022.D
Acq On : 14 Nov 2013 7:18 pm
Operator : 449
Sample : 11-0697-11A
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Nov 15 09:10:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 18:59:42 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.542	152	411840	40.00	mg/l	-0.02
19) Naphthalene-d8	6.884	136	1817243	40.00	mg/l	-0.02
36) Acenaphthene-d10	8.826	164	1039753	40.00	mg/l	-0.04
56) Phenanthrene-d10	10.457	188	1717161	40.00	mg/l	-0.04
69) Chrysene-d12	13.543	240	1564041	40.00	mg/l	-0.04
81) Perylene-d12	15.924	264	1298307	40.00	mg/l	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	4.370	112	1024724	54.80	mg/l	-0.02
Spiked Amount 100.000			Recovery = 54.80%			
6) Phenol-d6	5.258	99	1538364	67.18	mg/l	-0.04
Spiked Amount 100.000			Recovery = 67.18%			
20) Nitrobenzene-d5	6.157	82	1475174	71.05	mg/l	-0.04
Spiked Amount 100.000			Recovery = 71.05%			
41) 2-Fluorobiphenyl	8.088	172	2026226	57.78	mg/l	0.01
Spiked Amount 100.000			Recovery = 57.78%			
60) 2,4,6-Tribromophenol	9.714	330	239420	63.90	mg/l	-0.04
Spiked Amount 100.000			Recovery = 63.90%			
71) p-Terphenyl-d14	12.260	244	2866782	78.42	mg/l	-0.02
Spiked Amount 100.000			Recovery = 78.42%			
Target Compounds						Qvalue
2) Pyridine	3.450	52	54	N.D.		
3) N-Nitrosodimethylamine	3.349	74	25	N.D.		
5) Aniline	5.290	93	47	N.D.		
7) Phenol	5.269	94	1517	N.D.		
8) Bis(2-Chloroethyl) Ether	0.000		0	N.D.		
9) 2-Chlorophenol	5.419	128	186	N.D.		
10) 1,3-Dichlorobenzene	5.531	146	374	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl Alcohol	5.745	79	1160	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	5.879	108	39	N.D.		
15) Bis(2-Chloroisopropyl)...	5.863	45	343	N.D.		
16) 3/4-Methylphenol	6.119	107	33	N.D.		
17) N-Nitroso-di-n-propyla...	0.000		0	N.D.	d	
18) Hexachloroethane	6.125	117	24	N.D.		
21) Nitrobenzene	6.157	77	4742	N.D.		
22) Isophorone	6.515	82	769	N.D.		
23) 2-Nitrophenol	6.553	139	18	N.D.		
24) 2,4-Dimethylphenol	6.644	107	40	N.D.		
25) Benzoic Acid	0.000		0	N.D.	d	
26) Bis(2-Chloroethoxy) Me...	6.686	93	24	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	6.911	128	1355	N.D.		
30) 2,6-Dichlorophenol	0.000		0	N.D.		
31) 4-Chloroaniline	7.125	127	37	N.D.		
32) Hexachloro-1,3-Butadiene	0.000		0	N.D.		
33) 4-Chloro-3-Methylphenol	7.558	107	16	N.D.		
34) 2-Methylnaphthalene	7.697	142	44	N.D.		
35) 1-Methylnaphthalene	0.000		0	N.D.		
37) Hexachlorocyclopentadiene	0.000		0	N.D.		
38) 2,4,6-Trichlorophenol	0.000		0	N.D.		
39) 2,4,5-Trichlorophenol	0.000		0	N.D.		
40) 2-Chloronaphthalene	0.000		0	N.D.		

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV022.D
Acq On : 14 Nov 2013 7:18 pm
Operator : 449
Sample : 11-0697-11A
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Nov 15 09:10:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 18:59:42 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

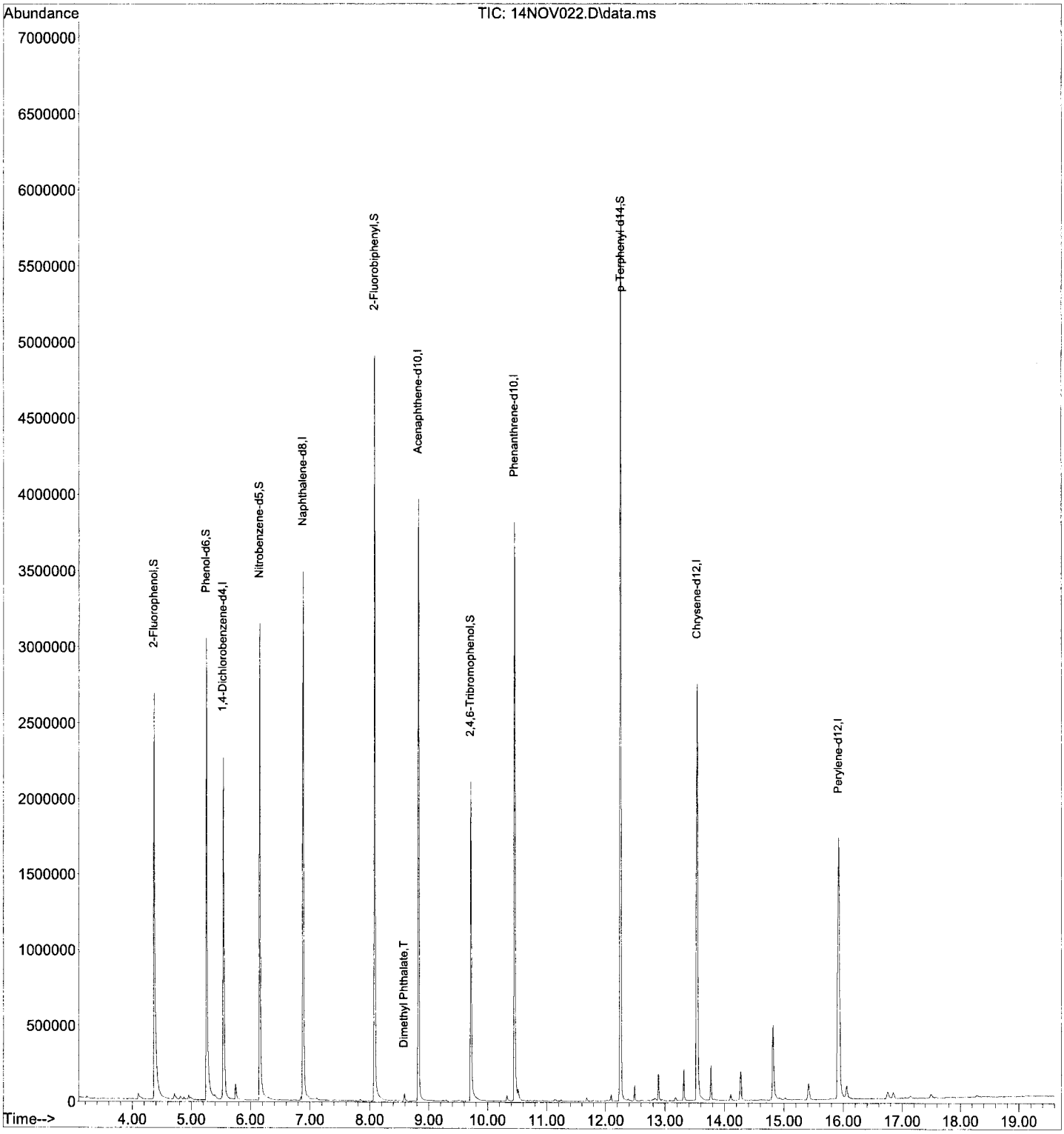
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42)	2-Nitroaniline	8.409	65	91	N.D.	
43)	Dimethyl Phthalate	8.585	163	24366	0.67 mg/l	100
44)	Acenaphthylene	8.692	152	62	N.D.	
45)	3-Nitroaniline	0.000		0	N.D. d	
46)	Acenaphthene	8.911	153	34	N.D.	
47)	2,4-Dinitrophenol	0.000		0	N.D.	
48)	4-Nitrophenol	9.099	65	63	Below Cal #	32
49)	Dibenzofuran	0.000		0	N.D.	
50)	2,4-Dinitrotoluene	9.152	165	176	N.D.	
51)	2,6-Dinitrotoluene	0.000		0	N.D.	
52)	Diethyl Phthalate	9.361	149	281	N.D.	
53)	4-Chlorophenyl-Phenyl ...	0.000		0	N.D.	
54)	Fluorene	9.393	166	25	N.D.	
55)	4-Nitroaniline	0.000		0	N.D.	
57)	Azobenzene	9.655	77	188	N.D.	
58)	4,6-Dinitro-2-Methylph...	9.714	198	879	N.D.	
59)	N-Nitrosodiphenylamine	9.714	169	9437	N.D.	
61)	4-Bromophenyl-Phenyl E...	0.000		0	N.D.	
62)	Hexachlorobenzene	10.152	142	39	N.D.	
63)	Pentachlorophenol	10.361	266	393	N.D.	
64)	Phenanthrene	10.495	178	282	N.D.	
65)	Anthracene	10.548	178	111	N.D.	
66)	Di-n-Butyl Phthalate	11.158	149	4524	N.D.	
67)	Fluoranthene	11.832	202	1110	N.D.	
68)	Benzidine	0.000		0	N.D. d	
70)	Pyrene	12.073	202	1863	N.D.	
72)	Butyl Benzyl Phthalate	12.832	149	1322	N.D.	
73)	3,3'-Dichlorobenzidine	13.533	252	23	Below Cal #	1
74)	Benzo (a) Anthracene	13.538	228	3900	N.D.	
75)	Bis(2-Ethylhexyl) Phth...	13.618	149	1669	N.D.	
76)	Chrysene	13.597	228	179	N.D.	
77)	Di-n-Octyl Phthalate	14.608	149	517	N.D.	
78)	Benzo (b) Fluoranthene	0.000		0	N.D. d	
79)	Benzo (k) Fluoranthene	15.282	252	148	Below Cal #	1
80)	Benzo (a) Pyrene	15.929	252	3763	N.D.	
82)	Indeno (1,2,3-c,d) Pyrene	18.127	276	17	N.D.	
83)	Dibenz (a,h) Anthracene	0.000		0	N.D.	
84)	Benzo (g,h,i) Perylene	18.753	276	71	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV022.D
Acq On : 14 Nov 2013 7:18 pm
Operator : 449
Sample : 11-0697-11A
InstName : GCMS SS
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Nov 15 09:10:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 18:59:42 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

EPA METHOD 8270C
SVOCs

Quality Control

Method Blank
LCS/LCSD
MS/MSD

Return to Contents

METHOD BLANK ASSOCIATION SUMMARY FOR METHOD: EPA 8270C

MB Sample ID: 099-12-549-2702
MB Batch ID: 131111L05
Instrument: GC/MS TT
Matrix: Soil
Analyst: 859
D/T Analyzed: 11/14/2013 01:36
Data File: W:\GCMS_TT_DATA\2013\131113\13NOV029.D\13NOV029.rr

Reviewed By: 27
D/T Reviewed: 11/15/2013 09:50
Extraction: EPA 3545
D/T Extracted: 11/11/2013 00:00

Work Order #: 13-11-0697

Sample#	Client Sample ID	D/T Analyzed	Data File
3	8-SS-5-6	11/14/2013 04:17	W:\GCMS_TT_DATA\2013\131113\13NOV035.D\13NOV035.rr
4	8-SS-9.5-10.5	11/14/2013 18:26	W:\GCMS_SS_DATA\2013\131114\14NOV020.D\14NOV020.rr
6	12-SS-5-6	11/15/2013 14:07	W:\GCMS_SS_DATA\2013\131115\15NOV009.D\15NOV009.rr
7	12-SS-9.5-10.5	11/14/2013 16:42	W:\GCMS_SS_DATA\2013\131114\14NOV016.D\14NOV016.rr
9	6-SS-5-6	11/14/2013 21:29	W:\GCMS_SS_DATA\2013\131114\14NOV027.D\14NOV027.rr
10	6-SS-9-11	11/14/2013 18:52	W:\GCMS_SS_DATA\2013\131114\14NOV021.D\14NOV021.rr
11	60-SS-9-11	11/14/2013 19:18	W:\GCMS_SS_DATA\2013\131114\14NOV022.D\14NOV022.rr

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 099-12-549
INSTRUMENT NAME: GC/MS TT
D/T ANALYZED: 11/14/2013 01:36
ANALYST: 859
DATA FILE: W:\GCMS_TT_DATA\2013\131113\13NOV029.D\13NOV029.rr

REVIEWED BY: 27
DATE REVIEWED: 11/15/2013 09:50
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/11/2013 00:00

MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 131111L05
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
N-Nitrosodimethylamine	0.00	1	ND	0.50	0.1	mg/kg	
Aniline	0.00	1	ND	0.50	0.1	mg/kg	
Phenol	0.00	1	ND	0.50	0.1	mg/kg	
Bis(2-Chloroethyl) Ether	0.00	1	ND	2.5	0.1	mg/kg	
2-Chlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
1,3-Dichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
1,4-Dichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
Benzyl Alcohol	0.00	1	ND	0.50	0.1	mg/kg	
1,2-Dichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
2-Methylphenol	0.00	1	ND	0.50	0.1	mg/kg	
Bis(2-Chloroisopropyl) Ether	0.00	1	ND	0.50	0.1	mg/kg	
3/4-Methylphenol	0.00	1	ND	0.50	0.1	mg/kg	
N-Nitroso-di-n-propylamine	0.00	1	ND	0.50	0.1	mg/kg	
Hexachloroethane	0.00	1	ND	0.50	0.1	mg/kg	
Nitrobenzene	0.00	1	ND	2.5	0.1	mg/kg	
Isophorone	0.00	1	ND	0.50	0.1	mg/kg	
2-Nitrophenol	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dimethylphenol	0.00	1	ND	0.50	0.1	mg/kg	
Benzoic Acid	0.00	1	ND	2.5	0.1	mg/kg	
Bis(2-Chloroethoxy) Methane	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dichlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
1,2,4-Trichlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
Naphthalene	0.00	1	ND	0.50	0.1	mg/kg	
4-Chloroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Hexachloro-1,3-Butadiene	0.00	1	ND	0.50	0.1	mg/kg	
4-Chloro-3-Methylphenol	0.00	1	ND	0.50	0.1	mg/kg	
2-Methylnaphthalene	0.00	1	ND	0.50	0.1	mg/kg	
1-Methylnaphthalene	0.00	1	ND	0.50	0.1	mg/kg	
Hexachlorocyclopentadiene	0.00	1	ND	2.5	0.1	mg/kg	
2,4,5-Trichlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
2-Chloronaphthalene	0.00	1	ND	0.50	0.1	mg/kg	
2-Nitroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Dimethyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Acenaphthylene	0.00	1	ND	0.50	0.1	mg/kg	
3-Nitroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Acenaphthene	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dinitrophenol	0.00	1	ND	2.5	0.1	mg/kg	
4-Nitrophenol	0.00	1	ND	0.50	0.1	mg/kg	
Dibenzofuran	0.00	1	ND	0.50	0.1	mg/kg	
2,4-Dinitrotoluene	0.00	1	ND	0.50	0.1	mg/kg	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8270C

WORK ORDER NUMBER: 099-12-549
INSTRUMENT NAME: GC/MS TT
D/T ANALYZED: 11/14/2013 01:36
ANALYST: 859
DATA FILE: W:\GCMS_TT_DATA\2013\131113\13NOV029.D\13NOV029.rr

REVIEWED BY: 27
DATE REVIEWED: 11/15/2013 09:50
EXTRACTION : EPA 3545
D/T EXTRACTED: 11/11/2013 00:00

MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 131111L05
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
2,6-Dinitrotoluene	0.00	1	ND	0.50	0.1	mg/kg	
Diethyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
4-Chlorophenyl-Phenyl Ether	0.00	1	ND	0.50	0.1	mg/kg	
Fluorene	0.00	1	ND	0.50	0.1	mg/kg	
4-Nitroaniline	0.00	1	ND	0.50	0.1	mg/kg	
Azobenzene	0.00	1	ND	0.50	0.1	mg/kg	
4,6-Dinitro-2-Methylphenol	0.00	1	ND	2.5	0.1	mg/kg	
N-Nitrosodiphenylamine	0.00	1	ND	0.50	0.1	mg/kg	
2,4,6-Trichlorophenol	0.00	1	ND	0.50	0.1	mg/kg	
4-Bromophenyl-Phenyl Ether	0.00	1	ND	0.50	0.1	mg/kg	
Hexachlorobenzene	0.00	1	ND	0.50	0.1	mg/kg	
Pentachlorophenol	0.00	1	ND	2.5	0.1	mg/kg	
Phenanthrene	0.00	1	ND	0.50	0.1	mg/kg	
Anthracene	0.00	1	ND	0.50	0.1	mg/kg	
Di-n-Butyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Fluoranthene	0.00	1	ND	0.50	0.1	mg/kg	
Benzidine	0.00	1	ND	10	0.1	mg/kg	
Pyrene	0.00	1	ND	0.50	0.1	mg/kg	
Pyridine	0.00	1	ND	0.50	0.1	mg/kg	
Butyl Benzyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
3,3'-Dichlorobenzidine	0.00	1	ND	10	0.1	mg/kg	
Benzo (a) Anthracene	0.00	1	ND	0.50	0.1	mg/kg	
Bis(2-Ethylhexyl) Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Chrysene	0.00	1	ND	0.50	0.1	mg/kg	
Di-n-Octyl Phthalate	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (k) Fluoranthene	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (b) Fluoranthene	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (a) Pyrene	0.00	1	ND	0.50	0.1	mg/kg	
Indeno (1,2,3-c,d) Pyrene	0.00	1	ND	0.50	0.1	mg/kg	
Dibenz (a,h) Anthracene	0.00	1	ND	0.50	0.1	mg/kg	
Benzo (g,h,i) Perylene	0.00	1	ND	0.50	0.1	mg/kg	

Return to Contents

LCS QUALITY CONTROL SHEET FOR METHOD: EPA 8270C

Work Order #: 13-11-0697
LCS/MB Batch ID: 131111L05
Instrument: GC/MS TT
Analyst: 859
D/T Analyzed: 11/14/2013 01:09
Data File: W:\GCMS_TT_DATA\2013\131113\13NOV028.D\13NOV028.rr

Reviewed By: 0
D/T Reviewed:
Extraction: EPA 3545
D/T Extracted: 11/11/2013 00:00

Analyte	Conc. Added	Conc. Recovered	%Recovered	%Recovered Control Limit	ME Control Limit	Status	Qualifiers
Phenol	10.00	7.645	76	59-125	48-136	PASS	
2-Chlorophenol	10.00	7.684	77	60-114	51-123	PASS	
1,4-Dichlorobenzene	10.00	7.075	71	61-121	51-131	PASS	
N-Nitroso-di-n-propylamine	10.00	9.373	94	64-136	52-148	PASS	
1,2,4-Trichlorobenzene	10.00	7.639	76	58-118	48-128	PASS	
Naphthalene	10.00	7.665	77	21-133	2-152	PASS	
4-Chloro-3-Methylphenol	10.00	9.260	93	61-121	51-131	PASS	
Dimethyl Phthalate	10.00	9.008	90	0-112	0-131	PASS	
Acenaphthylene	10.00	8.457	85	33-145	14-164	PASS	
Acenaphthene	10.00	8.411	84	59-125	48-136	PASS	
4-Nitrophenol	10.00	8.082	81	38-152	19-171	PASS	
2,4-Dinitrotoluene	10.00	10.09	101	51-141	36-156	PASS	
Fluorene	10.00	9.040	90	59-121	49-131	PASS	
Pentachlorophenol	10.00	9.106	91	38-116	25-129	PASS	
Pyrene	10.00	10.46	105	51-141	36-156	PASS	
Butyl Benzyl Phthalate	10.00	10.75	107	0-152	0-177	PASS	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Compounds listed in bold are required to be reported.

Return to Contents

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8270C

WORK ORDER:	**13-11-0697**	SAMPLE D/T EXTRACTED:	11/11/2013	EXTRACTION:	EPA 3545
MS/MSD BATCH:	131111S05	MS D/T EXTRACTED:	11/11/2013	ANALYST:	859
SPIKED SAMPLE ID:	**13-11-0697-4**	MSD D/T EXTRACTED:	11/11/2013	SAMPLE INSTRUMENT NAME:	GC/MS SS
REVIEWED BY:	0	SAMPLE D/T ANALYZED:	11/14/2013 18:26	MS INSTRUMENT NAME:	GC/MS TT
DATE REVIEWED:		MS D/T ANALYZED:	11/14/2013 2:29	MSD INSTRUMENT NAME:	GC/MS TT
		MSD D/T ANALYZED:	11/14/2013 2:57		

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL ADDED	FINAL ADDED	MS CONC	% REC	MSD CONC	% REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Phenol	ND	100.0	10.00	7.439	74	7.735	77	57-123	4	0-16	PASS	
2-Chlorophenol	ND	100.0	10.00	7.612	76	8.213	82	57-111	8	0-17	PASS	
1,4-Dichlorobenzene	ND	100.0	10.00	6.597	66	7.425	74	49-127	12	0-20	PASS	
N-Nitroso-di-n-propylamine	ND	100.0	10.00	8.858	89	8.873	89	54-144	0	0-17	PASS	
1,2,4-Trichlorobenzene	ND	100.0	10.00	7.351	74	8.001	80	42-132	8	0-20	PASS	
Naphthalene	ND	100.0	10.00	7.428	74	8.006	80	50-150	7	0-20	PASS	
4-Chloro-3-Methylphenol	ND	100.0	10.00	8.602	86	8.536	85	50-128	1	0-17	PASS	
Dimethyl Phthalate	ND	100.0	10.00	8.663	87	8.928	89	50-150	3	0-20	PASS	
Acenaphthylene	ND	100.0	10.00	8.144	81	8.519	85	50-150	4	0-20	PASS	
Acenaphthene	ND	100.0	10.00	8.227	82	8.467	85	49-133	3	0-18	PASS	
4-Nitrophenol	ND	100.0	10.00	7.531	75	7.682	77	30-144	2	0-21	PASS	
2,4-Dinitrotoluene	ND	100.0	10.00	9.485	95	9.523	95	50-128	0	0-18	PASS	
Fluorene	ND	100.0	10.00	8.945	89	9.060	91	50-150	1	0-20	PASS	
Pentachlorophenol	ND	100.0	10.00	8.730	87	9.478	95	29-113	8	0-22	PASS	
Pyrene	ND	100.0	10.00	8.654	87	9.145	91	47-149	6	0-20	PASS	
Butyl Benzyl Phthalate	ND	100.0	10.00	9.344	93	9.574	96	50-150	2	0-20	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	13NOV031.rr	W:\GCMS_TT_DATA\2013\131113\13NOV031.D\
MSD	13NOV032.rr	W:\GCMS_TT_DATA\2013\131113\13NOV032.D\

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8270C

WORK ORDER: 13-11-0697
BATCH ID:
LCS/MB: 131111L05
MS: 131111S05
EXTRACTION : EPA 3545

REVIEWED BY: 27
D/T REVIEWED: 11/15/2013 16:13

3 CLIENT SAMPLE NUMBER : 8-SS-5-6

INSTRUMENT: GC/MS TT
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\GCMS_TT_DATA\2013\131113\13NOV035.D\13NOV035.rr

ANALYZED BY: 859
D/T ANALYZED 11/14/2013 04:17

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorophenol	58	42-120	PASS	
Phenol-d6	60	46-118	PASS	
Nitrobenzene-d5	59	42-150	PASS	
2-Fluorobiphenyl	55	38-134	PASS	
2,4,6-Tribromophenol	63	36-132	PASS	
p-Terphenyl-d14	79	35-167	PASS	

4 CLIENT SAMPLE NUMBER : 8-SS-9.5-10.5

INSTRUMENT: GC/MS SS
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\GCMS_SS_DATA\2013\131114\14NOV020.D\14NOV020.rr

ANALYZED BY: 449
D/T ANALYZED 11/14/2013 18:26

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorophenol	69	42-120	PASS	
Phenol-d6	76	46-118	PASS	
Nitrobenzene-d5	78	42-150	PASS	
2-Fluorobiphenyl	66	38-134	PASS	
2,4,6-Tribromophenol	80	36-132	PASS	
p-Terphenyl-d14	84	35-167	PASS	

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8270C

WORK ORDER: 13-11-0697
BATCH ID:
LCS/MB: 131111L05
MS: 131111S05
EXTRACTION : EPA 3545

REVIEWED BY: 27
D/T REVIEWED: 11/15/2013 16:13

6 CLIENT SAMPLE NUMBER : 12-SS-5-6

INSTRUMENT: GC/MS SS
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\GCMS_SS_DATA\2013\131115\15NOV009.D\15NOV009.rr

ANALYZED BY: 449
D/T ANALYZED 11/15/2013 14:07

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorophenol	59	42-120	PASS	
Phenol-d6	65	46-118	PASS	
Nitrobenzene-d5	68	42-150	PASS	
2-Fluorobiphenyl	67	38-134	PASS	
2,4,6-Tribromophenol	63	36-132	PASS	
p-Terphenyl-d14	62	35-167	PASS	

7 CLIENT SAMPLE NUMBER : 12-SS-9.5-10.5

INSTRUMENT: GC/MS SS
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\GCMS_SS_DATA\2013\131114\14NOV016.D\14NOV016.rr

ANALYZED BY: 449
D/T ANALYZED 11/14/2013 16:42

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorophenol	77	42-120	PASS	
Phenol-d6	90	46-118	PASS	
Nitrobenzene-d5	87	42-150	PASS	
2-Fluorobiphenyl	83	38-134	PASS	
2,4,6-Tribromophenol	85	36-132	PASS	
p-Terphenyl-d14	94	35-167	PASS	

9 CLIENT SAMPLE NUMBER : 6-SS-5-6

INSTRUMENT: GC/MS SS
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\GCMS_SS_DATA\2013\131114\14NOV027.D\14NOV027.rr

ANALYZED BY: 449
D/T ANALYZED 11/14/2013 21:29

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorophenol	77	42-120	PASS	
Phenol-d6	84	46-118	PASS	
Nitrobenzene-d5	93	42-150	PASS	
2-Fluorobiphenyl	85	38-134	PASS	
2,4,6-Tribromophenol	82	36-132	PASS	
p-Terphenyl-d14	89	35-167	PASS	

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8270C

WORK ORDER: 13-11-0697
BATCH ID:
LCS/MB: 131111L05
MS: 131111S05
EXTRACTION : EPA 3545

REVIEWED BY: 27
D/T REVIEWED: 11/15/2013 16:13

10 CLIENT SAMPLE NUMBER : 6-SS-9-11

INSTRUMENT: GC/MS SS
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\GCMS_SS_DATA\2013\131114\14NOV021.D\14NOV021.rr

ANALYZED BY: 449
D/T ANALYZED 11/14/2013 18:52

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorophenol	66	42-120	PASS	
Phenol-d6	78	46-118	PASS	
Nitrobenzene-d5	82	42-150	PASS	
2-Fluorobiphenyl	64	38-134	PASS	
2,4,6-Tribromophenol	70	36-132	PASS	
p-Terphenyl-d14	85	35-167	PASS	

11 CLIENT SAMPLE NUMBER : 60-SS-9-11

INSTRUMENT: GC/MS SS
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\GCMS_SS_DATA\2013\131114\14NOV022.D\14NOV022.rr

ANALYZED BY: 449
D/T ANALYZED 11/14/2013 19:18

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorophenol	55	42-120	PASS	
Phenol-d6	67	46-118	PASS	
Nitrobenzene-d5	71	42-150	PASS	
2-Fluorobiphenyl	58	38-134	PASS	
2,4,6-Tribromophenol	64	36-132	PASS	
p-Terphenyl-d14	78	35-167	PASS	

MB CLIENT SAMPLE NUMBER : Method Blank

INSTRUMENT: GC/MS TT
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\GCMS_TT_DATA\2013\131113\13NOV029.D\13NOV029.rr

ANALYZED BY: 859
D/T ANALYZED 11/14/2013 01:36

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorophenol	76	42-120	PASS	
Phenol-d6	78	46-118	PASS	
Nitrobenzene-d5	80	42-150	PASS	
2-Fluorobiphenyl	77	38-134	PASS	
2,4,6-Tribromophenol	94	36-132	PASS	
p-Terphenyl-d14	93	35-167	PASS	

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8270C

WORK ORDER: 13-11-0697
BATCH ID:
LCS/MB: 131111L05
MS:
EXTRACTION : EPA 3545

REVIEWED BY: 27
D/T REVIEWED: 11/15/2013 09:50

 # LCS **CLIENT SAMPLE NUMBER : Lab Control Sample**

INSTRUMENT: GC/MS TT
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\GCMS_TT_DATA\2013\131113\13NOV028.D\13NOV028.rr

ANALYZED BY: 859
D/T ANALYZED 11/14/2013 01:09

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorophenol	71	42-120	PASS	
Phenol-d6	80	46-118	PASS	
Nitrobenzene-d5	79	42-150	PASS	
2-Fluorobiphenyl	81	38-134	PASS	
2,4,6-Tribromophenol	95	36-132	PASS	
p-Terphenyl-d14	105	35-167	PASS	

 # MS **CLIENT SAMPLE NUMBER : Matrix Spike**

INSTRUMENT: GC/MS TT
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\GCMS_TT_DATA\2013\131113\13NOV031.D\13NOV031.rr

ANALYZED BY: 859
D/T ANALYZED 11/14/2013 02:29

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorophenol	66	42-120	PASS	
Phenol-d6	73	46-118	PASS	
Nitrobenzene-d5	74	42-150	PASS	
2-Fluorobiphenyl	75	38-134	PASS	
2,4,6-Tribromophenol	83	36-132	PASS	
p-Terphenyl-d14	85	35-167	PASS	

 # MSD **CLIENT SAMPLE NUMBER : Matrix Spike Duplicate**

INSTRUMENT: GC/MS TT
D/T EXTRACTED: 11/11/2013 00:00
DATA FILE: W:\GCMS_TT_DATA\2013\131113\13NOV032.D\13NOV032.rr

ANALYZED BY: 859
D/T ANALYZED 11/14/2013 02:57

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorophenol	74	42-120	PASS	
Phenol-d6	79	46-118	PASS	
Nitrobenzene-d5	82	42-150	PASS	
2-Fluorobiphenyl	80	38-134	PASS	
2,4,6-Tribromophenol	88	36-132	PASS	
p-Terphenyl-d14	91	35-167	PASS	

Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV029.D
Acq On : 14 Nov 2013 1:36 am
Operator : 513
Sample : MB 131111-L05 PFE
InstName : GCMS TT
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Nov 14 11:18:35 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Thu Nov 14 10:13:50 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.754	152	338814	40.00	mg/l	0.00
19) Naphthalene-d8	7.091	136	1338621	40.00	mg/l	0.00
36) Acenaphthene-d10	9.032	164	691884	40.00	mg/l	0.00
56) Phenanthrene-d10	10.653	188	1043231	40.00	mg/l	0.00
69) Chrysene-d12	13.755	240	868490	40.00	mg/l	0.00
81) Perylene-d12	16.178	264	525582	40.00	mg/l	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	4.534	112	983647	75.77	mg/l	0.00
Spiked Amount 100.000			Recovery = 75.77%			
6) Phenol-d6	5.422	99	1104272	78.47	mg/l	0.00
Spiked Amount 100.000			Recovery = 78.47%			
20) Nitrobenzene-d5	6.353	82	925113	79.64	mg/l	0.00
Spiked Amount 100.000			Recovery = 79.64%			
41) 2-Fluorobiphenyl	8.289	172	1913567	77.09	mg/l	0.00
Spiked Amount 100.000			Recovery = 77.09%			
60) 2,4,6-Tribromophenol	9.909	330	232962	94.19	mg/l	0.00
Spiked Amount 100.000			Recovery = 94.19%			
71) p-Terphenyl-d14	12.439	244	1856941	93.32	mg/l	0.00
Spiked Amount 100.000			Recovery = 93.32%			
Target Compounds						Qvalue
2) Pyridine	0.000		0	N.D.		
3) N-Nitrosodimethylamine	0.000		0	N.D.		
5) Aniline	0.000		0	N.D.		
7) Phenol	5.433	94	551	N.D.		
8) Bis(2-Chloroethyl) Ether	0.000		0	N.D.		
9) 2-Chlorophenol	5.577	128	621	N.D.		
10) 1,3-Dichlorobenzene	5.722	146	50	N.D.		
11) 1,4-Dichlorobenzene	5.764	146	619	N.D.		
12) Benzyl Alcohol	5.946	79	447	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) Bis(2-Chloroisopropyl)...	0.000		0	N.D.		
16) 3/4-Methylphenol	0.000		0	N.D.		
17) N-Nitroso-di-n-propyla...	6.224	70	67	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
21) Nitrobenzene	6.353	77	2648	N.D.		
22) Isophorone	6.625	82	693	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Benzoic Acid	0.000		0	N.D.		
26) Bis(2-Chloroethoxy) Me...	0.000		0	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	7.048	180	383	N.D.		
29) Naphthalene	7.112	128	1068	N.D.		
30) 2,6-Dichlorophenol	0.000		0	N.D.		
31) 4-Chloroaniline	7.246	127	52	N.D.		
32) Hexachloro-1,3-Butadiene	0.000		0	N.D.		
33) 4-Chloro-3-Methylphenol	0.000		0	N.D.		
34) 2-Methylnaphthalene	7.872	142	52	N.D.		
35) 1-Methylnaphthalene	0.000		0	N.D.		
37) Hexachlorocyclopentadiene	0.000		0	N.D.		
38) 2,4,6-Trichlorophenol	0.000		0	N.D.		
39) 2,4,5-Trichlorophenol	0.000		0	N.D.		
40) 2-Chloronaphthalene	0.000		0	N.D.		

Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV029.D
Acq On : 14 Nov 2013 1:36 am
Operator : 513
Sample : MB 131111-L05 PFE
InstName : GCMS TT
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Nov 14 11:18:35 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Thu Nov 14 10:13:50 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) 2-Nitroaniline	0.000		0		N.D.	
43) Dimethyl Phthalate	0.000		0		N.D.	
44) Acenaphthylene	0.000		0		N.D.	
45) 3-Nitroaniline	0.000		0		N.D.	
46) Acenaphthene	0.000		0		N.D.	
47) 2,4-Dinitrophenol	0.000		0		N.D.	
48) 4-Nitrophenol	0.000		0		N.D.	
49) Dibenzofuran	0.000		0		N.D.	
50) 2,4-Dinitrotoluene	0.000		0		N.D.	
51) 2,6-Dinitrotoluene	0.000		0		N.D.	
52) Diethyl Phthalate	0.000		0		N.D.	
53) 4-Chlorophenyl-Phenyl ...	0.000		0		N.D.	
54) Fluorene	0.000		0		N.D.	
55) 4-Nitroaniline	0.000		0		N.D.	
57) Azobenzene	0.000		0		N.D.	
58) 4,6-Dinitro-2-Methylph...	0.000		0		N.D.	
59) N-Nitrosodiphenylamine	0.000		0		N.D.	
61) 4-Bromophenyl-Phenyl E...	0.000		0		N.D.	
62) Hexachlorobenzene	0.000		0		N.D.	
63) Pentachlorophenol	0.000		0		N.D.	
64) Phenanthrene	10.680	178	53		N.D.	
65) Anthracene	0.000		0		N.D.	
66) Di-n-Butyl Phthalate	11.359	149	58		N.D.	
67) Fluoranthene	0.000		0		N.D.	
68) Benzidine	0.000		0		N.D.	
70) Pyrene	12.247	202	194		N.D.	
72) Butyl Benzyl Phthalate	13.044	149	60		N.D.	
73) 3,3'-Dichlorobenzidine	0.000		0		N.D.	
74) Benzo (a) Anthracene	13.755	228	1771		N.D.	
75) Bis(2-Ethylhexyl) Phth...	13.868	149	61		N.D.	
76) Chrysene	13.755	228	1654		N.D.	
77) Di-n-Octyl Phthalate	0.000		0		N.D.	
78) Benzo (b) Fluoranthene	0.000		0		N.D.	
79) Benzo (k) Fluoranthene	15.558	252	66		N.D.	
80) Benzo (a) Pyrene	16.141	252	79		N.D.	
82) Indeno (1,2,3-c,d) Pyrene	0.000		0		N.D.	
83) Dibenz (a,h) Anthracene	0.000		0		N.D.	
84) Benzo (g,h,i) Perylene	0.000		0		N.D.	

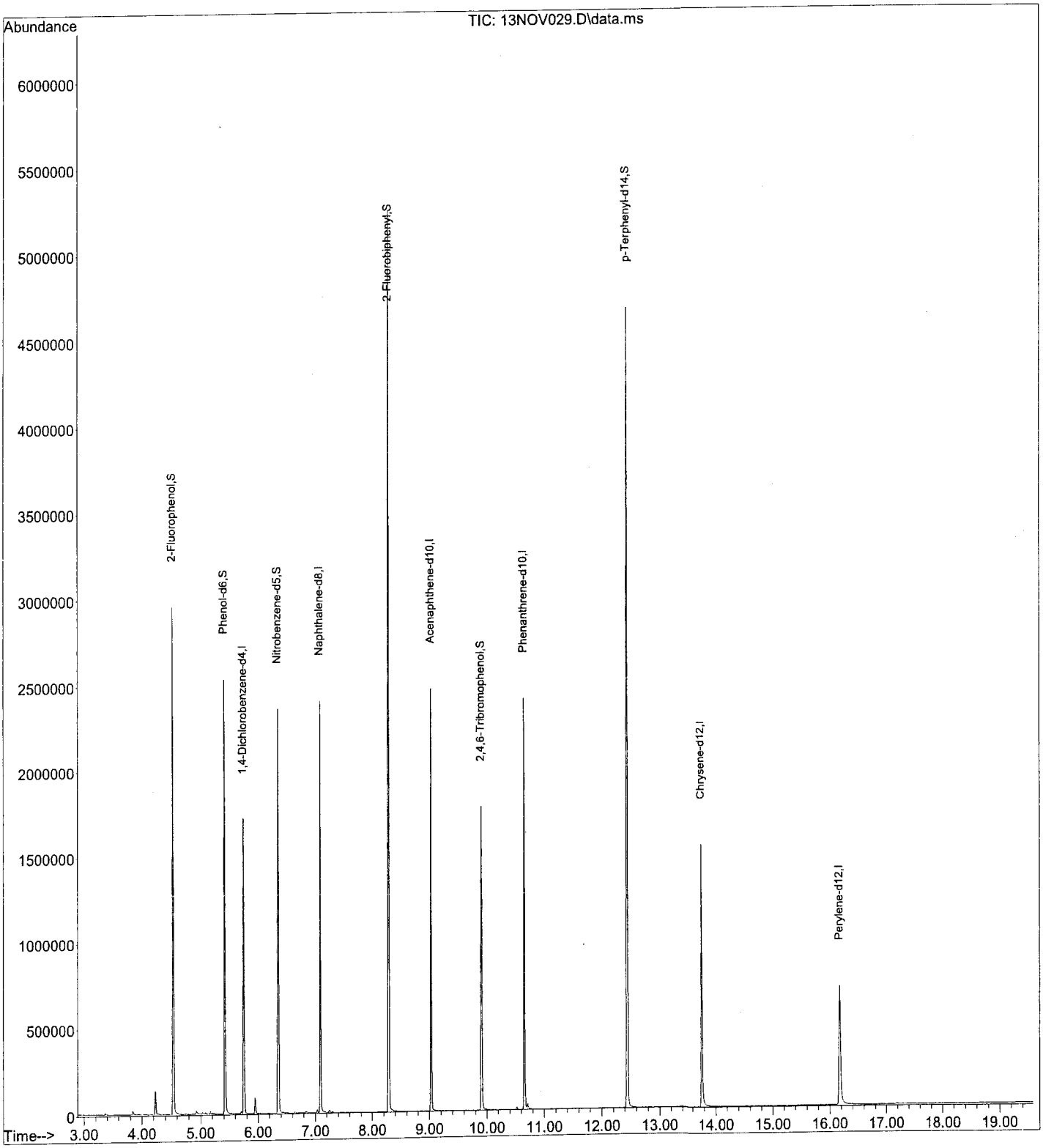
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV029.D
Acq On : 14 Nov 2013 1:36 am
Operator : 513
Sample : MB 131111-L05 PFE
InstName : GCMS TT
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Nov 14 11:18:35 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Thu Nov 14 10:13:50 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV028.D
Acq On : 14 Nov 2013 1:09 am
Operator : 513
Sample : LCS 131111-L05 PFE
InstName : GCMS TT
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 14 11:14:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Thu Nov 14 10:13:50 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.754	152	381256	40.00	mg/l	0.00
19) Naphthalene-d8	7.096	136	1546824	40.00	mg/l	0.00
36) Acenaphthene-d10	9.032	164	818320	40.00	mg/l	0.00
56) Phenanthrene-d10	10.658	188	1263748	40.00	mg/l	0.00
69) Chrysene-d12	13.755	240	794016	40.00	mg/l	0.00
81) Perylene-d12	16.173	264	408728	40.00	mg/l	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol	4.534	112	1033229	70.73	mg/l	0.00
Spiked Amount 100.000			Recovery = 70.73%			
6) Phenol-d6	5.427	99	1263439	79.78	mg/l	0.00
Spiked Amount 100.000			Recovery = 79.78%			
20) Nitrobenzene-d5	6.358	82	1055579	78.64	mg/l	0.00
Spiked Amount 100.000			Recovery = 78.64%			
41) 2-Fluorobiphenyl	8.289	172	2369972	80.73	mg/l	0.00
Spiked Amount 100.000			Recovery = 80.73%			
60) 2,4,6-Tribromophenol	9.909	330	286026	95.46	mg/l	0.00
Spiked Amount 100.000			Recovery = 95.46%			
71) p-Terphenyl-d14	12.439	244	1909646	104.98	mg/l	0.00
Spiked Amount 100.000			Recovery = 104.98%			
Target Compounds						Qvalue
2) Pyridine	0.000		0	N.D.		
3) N-Nitrosodimethylamine	0.000		0	N.D.		
5) Aniline	5.459	93	335	N.D.		
7) Phenol	5.443	94	1244123	76.45	mg/l	97
8) Bis(2-Chloroethyl) Ether	5.572	93	19443	1.52	mg/l #	1
9) 2-Chlorophenol	5.572	128	1073838	76.84	mg/l	99
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	5.770	146	1123241	70.75	mg/l	100
12) Benzyl Alcohol	5.946	79	541	N.D.		
13) 1,2-Dichlorobenzene	5.962	146	1751	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) Bis(2-Chloroisopropyl)...	0.000		0	N.D.		
16) 3/4-Methylphenol	0.000		0	N.D.		
17) N-Nitroso-di-n-propyla...	6.224	70	785832	93.73	mg/l	98
18) Hexachloroethane	0.000		0	N.D.		
21) Nitrobenzene	6.358	77	3293	N.D.		
22) Isophorone	6.625	82	962	N.D.		
23) 2-Nitrophenol	6.716	139	254	N.D.		
24) 2,4-Dimethylphenol	6.775	107	53	N.D.		
25) Benzoic Acid	0.000		0	N.D.		
26) Bis(2-Chloroethoxy) Me...	0.000		0	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	7.053	180	997299	76.39	mg/l	100
29) Naphthalene	7.123	128	2974161	76.65	mg/l	100
30) 2,6-Dichlorophenol	0.000		0	N.D.		
31) 4-Chloroaniline	0.000		0	N.D.		
32) Hexachloro-1,3-Butadiene	0.000		0	N.D.		
33) 4-Chloro-3-Methylphenol	7.717	107	880265	92.60	mg/l	100
34) 2-Methylnaphthalene	0.000		0	N.D.		
35) 1-Methylnaphthalene	7.984	142	1310	N.D.		
37) Hexachlorocyclopentadiene	0.000		0	N.D.		
38) 2,4,6-Trichlorophenol	0.000		0	N.D.		
39) 2,4,5-Trichlorophenol	0.000		0	N.D.		
40) 2-Chloronaphthalene	0.000		0	N.D.		

Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV028.D
Acq On : 14 Nov 2013 1:09 am
Operator : 513
Sample : LCS 131111-L05 PFE
InstName : GCMS TT
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 14 11:14:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Thu Nov 14 10:13:50 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 2-Nitroaniline	0.000		0	N.D.	
43) Dimethyl Phthalate	8.786	163	2304453	90.08 mg/l	100
44) Acenaphthylene	8.867	152	3229492	84.57 mg/l	100
45) 3-Nitroaniline	9.075	138	2067	N.D.	
46) Acenaphthene	9.075	153	1983245	84.11 mg/l	99
47) 2,4-Dinitrophenol	0.000		0	N.D.	
48) 4-Nitrophenol	9.187	65	266321	80.82 mg/l	98
49) Dibenzofuran	9.241	168	3934	N.D.	
50) 2,4-Dinitrotoluene	9.294	165	663486	100.89 mg/l	99
51) 2,6-Dinitrotoluene	0.000		0	N.D.	
52) Diethyl Phthalate	0.000		0	N.D.	
53) 4-Chlorophenyl-Phenyl ...	0.000		0	N.D.	
54) Fluorene	9.626	166	2172119	90.40 mg/l	99
55) 4-Nitroaniline	0.000		0	N.D.	
57) Azobenzene	9.765	77	550	N.D.	
58) 4,6-Dinitro-2-Methylph...	0.000		0	N.D.	
59) N-Nitrosodiphenylamine	9.770	169	2111	N.D.	
61) 4-Bromophenyl-Phenyl E...	0.000		0	N.D.	
62) Hexachlorobenzene	0.000		0	N.D.	
63) Pentachlorophenol	10.519	266	323708	91.06 mg/l	100
64) Phenanthrene	10.658	178	638	N.D.	
65) Anthracene	10.733	178	287	N.D.	
66) Di-n-Butyl Phthalate	11.354	149	5028	N.D.	
67) Fluoranthene	12.001	202	518	N.D.	
68) Benzidine	0.000		0	N.D.	
70) Pyrene	12.258	202	2734164	104.64 mg/l	100
72) Butyl Benzyl Phthalate	13.055	149	1143494	107.48 mg/l	99
73) 3,3'-Dichlorobenzidine	0.000		0	N.D.	
74) Benzo (a) Anthracene	13.755	228	1698	N.D.	
75) Bis(2-Ethylhexyl) Phth...	13.862	149	132	N.D.	
76) Chrysene	13.755	228	1584	N.D.	
77) Di-n-Octyl Phthalate	14.884	149	52	N.D.	
78) Benzo (b) Fluoranthene	0.000		0	N.D.	
79) Benzo (k) Fluoranthene	0.000		0	N.D.	
80) Benzo (a) Pyrene	16.173	252	1206	N.D.	
82) Indeno (1,2,3-c,d) Pyrene	0.000		0	N.D.	
83) Dibenz (a,h) Anthracene	0.000		0	N.D.	
84) Benzo (g,h,i) Perylene	0.000		0	N.D.	

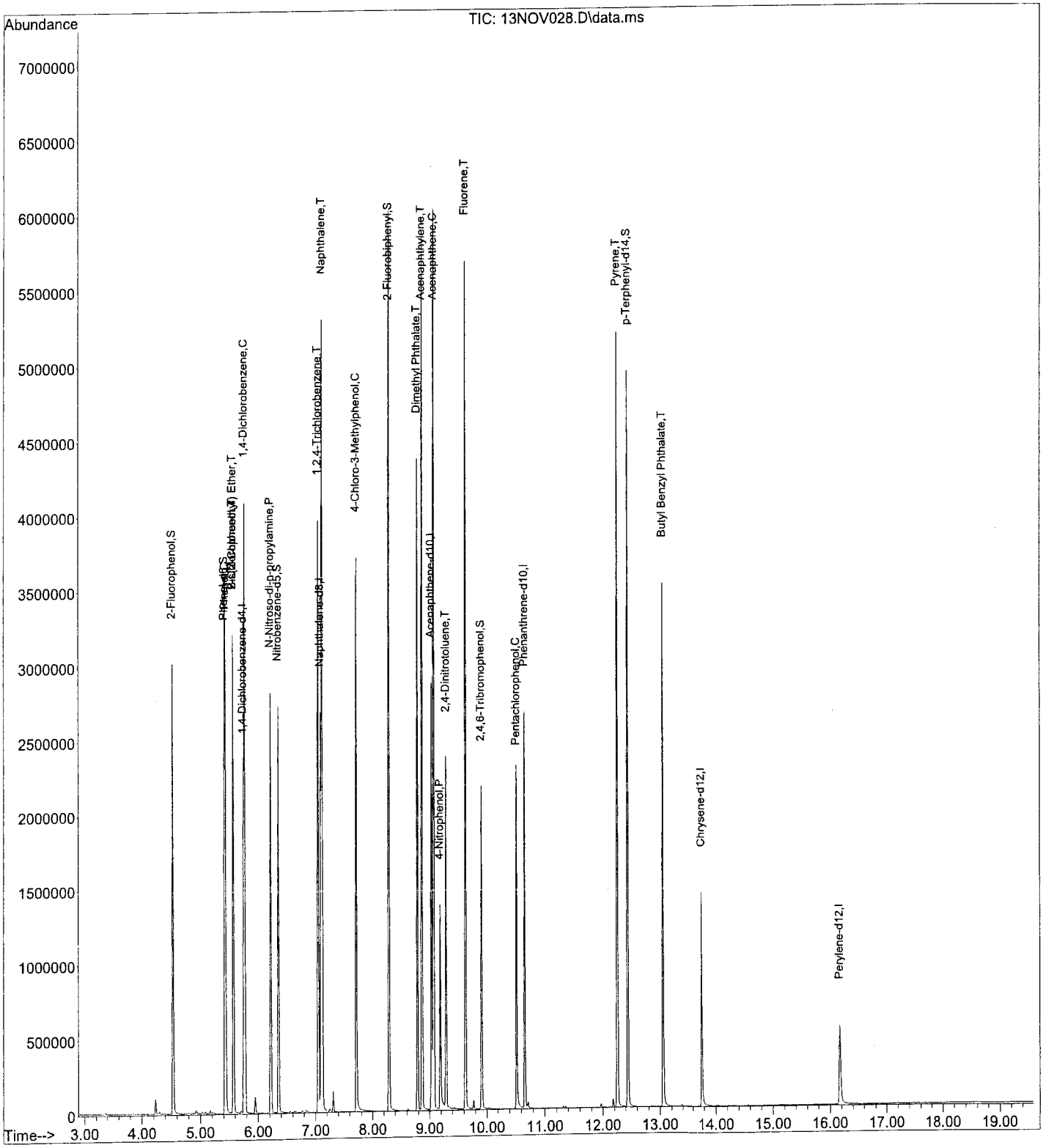
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV028.D
Acq On : 14 Nov 2013 1:09 am
Operator : 513
Sample : LCS 131111-L05 PFE
InstName : GCMS TT
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 14 11:14:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Thu Nov 14 10:13:50 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV031.D
Acq On : 14 Nov 2013 2:29 am
Operator : 513
Sample : 13-11-0697-4A MS
InstName : GCMS TT
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Nov 14 11:31:30 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Thu Nov 14 10:13:50 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	5.754	152	319327	40.00 mg/l	0.00
19) Naphthalene-d8	7.096	136	1285187	40.00 mg/l	0.00
36) Acenaphthene-d10	9.033	164	680522	40.00 mg/l	0.00
56) Phenanthrene-d10	10.653	188	1064684	40.00 mg/l	0.00
69) Chrysene-d12	13.755	240	860749	40.00 mg/l	0.00
81) Perylene-d12	16.173	264	524507	40.00 mg/l	-0.01
System Monitoring Compounds					
4) 2-Fluorophenol	4.534	112	803227	65.65 mg/l	0.00
Spiked Amount 100.000			Recovery =	65.65%	
6) Phenol-d6	5.428	99	966979	72.91 mg/l	0.00
Spiked Amount 100.000			Recovery =	72.91%	
20) Nitrobenzene-d5	6.358	82	823760	73.86 mg/l	0.00
Spiked Amount 100.000			Recovery =	73.86%	
41) 2-Fluorobiphenyl	8.289	172	1829190	74.92 mg/l	0.00
Spiked Amount 100.000			Recovery =	74.92%	
60) 2,4,6-Tribromophenol	9.910	330	210224	83.28 mg/l	0.00
Spiked Amount 100.000			Recovery =	83.28%	
71) p-Terphenyl-d14	12.440	244	1666908	84.53 mg/l	0.00
Spiked Amount 100.000			Recovery =	84.53%	
Target Compounds					Qvalue
2) Pyridine	0.000		0	N.D.	
3) N-Nitrosodimethylamine	0.000		0	N.D.	
5) Aniline	5.481	93	113	N.D.	
7) Phenol	5.438	94	1014000	74.39 mg/l	97
8) Bis(2-Chloroethyl) Ether	5.572	93	15807	1.47 mg/l #	1
9) 2-Chlorophenol	5.572	128	890956	76.12 mg/l	99
10) 1,3-Dichlorobenzene	0.000		0	N.D.	
11) 1,4-Dichlorobenzene	5.770	146	877161	65.97 mg/l	99
12) Benzyl Alcohol	5.946	79	403	N.D.	
13) 1,2-Dichlorobenzene	5.962	146	1306	N.D.	
14) 2-Methylphenol	0.000		0	N.D.	
15) Bis(2-Chloroisopropyl)...	0.000		0	N.D.	
16) 3/4-Methylphenol	0.000		0	N.D.	
17) N-Nitroso-di-n-propyla...	6.219	70	622050	88.58 mg/l	98
18) Hexachloroethane	0.000		0	N.D.	
21) Nitrobenzene	6.358	77	2559	N.D.	
22) Isophorone	6.631	82	837	N.D.	
23) 2-Nitrophenol	6.722	139	55	N.D.	
24) 2,4-Dimethylphenol	0.000		0	N.D.	
25) Benzoic Acid	0.000		0	N.D.	
26) Bis(2-Chloroethoxy) Me...	0.000		0	N.D.	
27) 2,4-Dichlorophenol	0.000		0	N.D.	
28) 1,2,4-Trichlorobenzene	7.054	180	797327	73.51 mg/l	100
29) Naphthalene	7.118	128	2394698	74.28 mg/l	100
30) 2,6-Dichlorophenol	0.000		0	N.D.	
31) 4-Chloroaniline	0.000		0	N.D.	
32) Hexachloro-1,3-Butadiene	0.000		0	N.D.	
33) 4-Chloro-3-Methylphenol	7.711	107	679424	86.02 mg/l	100
34) 2-Methylnaphthalene	7.936	142	164	N.D.	
35) 1-Methylnaphthalene	7.984	142	901	N.D.	
37) Hexachlorocyclopentadiene	0.000		0	N.D.	
38) 2,4,6-Trichlorophenol	0.000		0	N.D.	
39) 2,4,5-Trichlorophenol	0.000		0	N.D.	
40) 2-Chloronaphthalene	0.000		0	N.D.	

Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV031.D
Acq On : 14 Nov 2013 2:29 am
Operator : 513
Sample : 13-11-0697-4A MS
InstName : GCMS TT
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Nov 14 11:31:30 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Thu Nov 14 10:13:50 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 2-Nitroaniline	0.000		0	N.D.	
43) Dimethyl Phthalate	8.787	163	1843007	86.63 mg/l	100
44) Acenaphthylene	8.867	152	2586339	81.44 mg/l	100
45) 3-Nitroaniline	9.070	138	1553	N.D.	
46) Acenaphthene	9.070	153	1613098	82.27 mg/l	99
47) 2,4-Dinitrophenol	0.000		0	N.D.	
48) 4-Nitrophenol	9.188	65	205618	75.31 mg/l	98
49) Dibenzofuran	9.241	168	3130	N.D.	
50) 2,4-Dinitrotoluene	9.289	165	518685	94.85 mg/l	100
51) 2,6-Dinitrotoluene	0.000		0	N.D.	
52) Diethyl Phthalate	9.557	149	68	N.D.	
53) 4-Chlorophenyl-Phenyl ...	9.637	204	350	N.D.	
54) Fluorene	9.626	166	1787381	89.45 mg/l	99
55) 4-Nitroaniline	0.000		0	N.D.	
57) Azobenzene	9.824	77	249	N.D.	
58) 4,6-Dinitro-2-Methylph...	0.000		0	N.D.	
59) N-Nitrosodiphenylamine	9.765	169	1732	N.D.	
61) 4-Bromophenyl-Phenyl E...	0.000		0	N.D.	
62) Hexachlorobenzene	0.000		0	N.D.	
63) Pentachlorophenol	10.514	266	261448	87.30 mg/l	100
64) Phenanthrene	10.680	178	770	N.D.	
65) Anthracene	10.728	178	307	N.D.	
66) Di-n-Butyl Phthalate	11.354	149	7650	N.D.	
67) Fluoranthene	12.001	202	1226	N.D.	
68) Benzidine	12.161	184	50	N.D.	
70) Pyrene	12.258	202	2451218	86.54 mg/l	99
72) Butyl Benzyl Phthalate	13.049	149	1077692	93.44 mg/l	99
73) 3,3'-Dichlorobenzidine	0.000		0	N.D.	
74) Benzo (a) Anthracene	13.761	228	2436	N.D.	
75) Bis(2-Ethylhexyl) Phth...	13.868	149	1424	N.D.	
76) Chrysene	13.761	228	2601	N.D.	
77) Di-n-Octyl Phthalate	14.852	149	55	N.D.	
78) Benzo (b) Fluoranthene	0.000		0	N.D.	
79) Benzo (k) Fluoranthene	0.000		0	N.D.	
80) Benzo (a) Pyrene	16.178	252	1793	N.D.	
82) Indeno (1,2,3-c,d) Pyrene	0.000		0	N.D.	
83) Dibenz (a,h) Anthracene	0.000		0	N.D.	
84) Benzo (g,h,i) Perylene	0.000		0	N.D.	

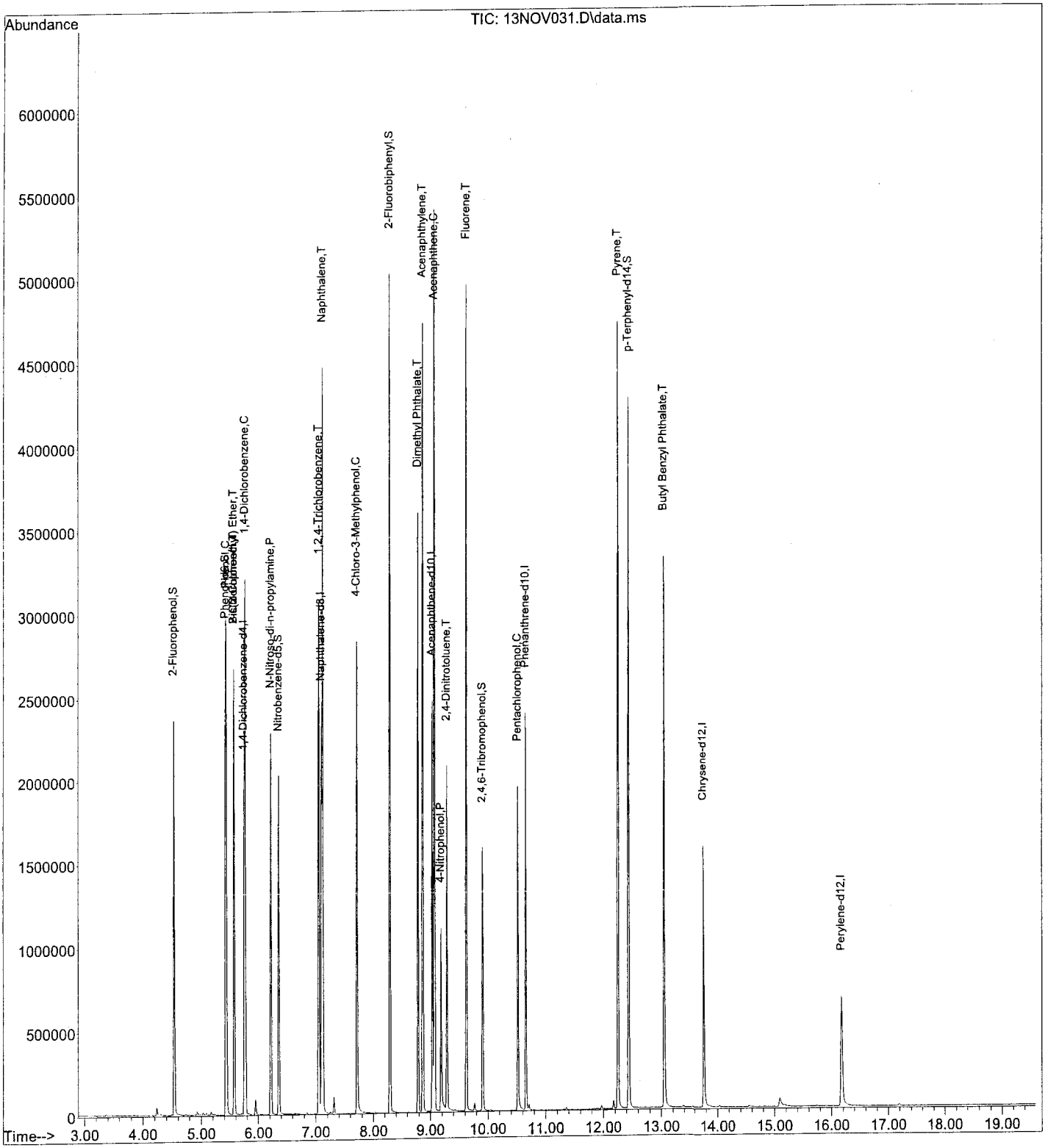
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV031.D
Acq On : 14 Nov 2013 2:29 am
Operator : 513
Sample : 13-11-0697-4A MS
InstName : GCMS TT
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Nov 14 11:31:30 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Thu Nov 14 10:13:50 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV032.D
Acq On : 14 Nov 2013 2:57 am
Operator : 513
Sample : 13-11-0697-4A MSD
InstName : GCMS TT
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Nov 14 11:31:43 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Thu Nov 14 10:13:50 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	5.754	152	330106	40.00 mg/l	0.00
19) Naphthalene-d8	7.096	136	1291987	40.00 mg/l	0.00
36) Acenaphthene-d10	9.032	164	662371	40.00 mg/l	0.00
56) Phenanthrene-d10	10.653	188	993808	40.00 mg/l	0.00
69) Chrysene-d12	13.755	240	774731	40.00 mg/l	0.00
81) Perylene-d12	16.178	264	471976	40.00 mg/l	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	4.534	112	929927	73.52 mg/l	0.00
Spiked Amount 100.000			Recovery =	73.52%	
6) Phenol-d6	5.427	99	1088167	79.36 mg/l	0.00
Spiked Amount 100.000			Recovery =	79.36%	
20) Nitrobenzene-d5	6.358	82	921354	82.18 mg/l	0.00
Spiked Amount 100.000			Recovery =	82.18%	
41) 2-Fluorobiphenyl	8.289	172	1903908	80.12 mg/l	0.00
Spiked Amount 100.000			Recovery =	80.12%	
60) 2,4,6-Tribromophenol	9.910	330	206809	87.77 mg/l	0.00
Spiked Amount 100.000			Recovery =	87.77%	
71) p-Terphenyl-d14	12.439	244	1608253	90.61 mg/l	0.00
Spiked Amount 100.000			Recovery =	90.61%	
Target Compounds					Qvalue
2) Pyridine	0.000		0	N.D.	
3) N-Nitrosodimethylamine	0.000		0	N.D.	
5) Aniline	5.465	93	317	N.D.	
7) Phenol	5.438	94	1089971	77.35 mg/l	97
8) Bis(2-Chloroethyl) Ether	5.572	93	18020	1.62 mg/l #	1
9) 2-Chlorophenol	5.572	128	993800	82.13 mg/l	99
10) 1,3-Dichlorobenzene	0.000		0	N.D.	
11) 1,4-Dichlorobenzene	5.770	146	1020691	74.25 mg/l	100
12) Benzyl Alcohol	5.952	79	459	N.D.	
13) 1,2-Dichlorobenzene	5.968	146	1713	N.D.	
14) 2-Methylphenol	0.000		0	N.D.	
15) Bis(2-Chloroisopropyl)...	0.000		0	N.D.	
16) 3/4-Methylphenol	0.000		0	N.D.	
17) N-Nitroso-di-n-propyla...	6.224	70	644122	88.73 mg/l	98
18) Hexachloroethane	0.000		0	N.D.	
21) Nitrobenzene	6.358	77	2897	N.D.	
22) Isophorone	6.636	82	883	N.D.	
23) 2-Nitrophenol	0.000		0	N.D.	
24) 2,4-Dimethylphenol	0.000		0	N.D.	
25) Benzoic Acid	0.000		0	N.D.	
26) Bis(2-Chloroethoxy) Me...	0.000		0	N.D.	
27) 2,4-Dichlorophenol	0.000		0	N.D.	
28) 1,2,4-Trichlorobenzene	7.053	180	872410	80.01 mg/l	100
29) Naphthalene	7.118	128	2594563	80.06 mg/l	100
30) 2,6-Dichlorophenol	0.000		0	N.D.	
31) 4-Chloroaniline	0.000		0	N.D.	
32) Hexachloro-1,3-Butadiene	0.000		0	N.D.	
33) 4-Chloro-3-Methylphenol	7.711	107	677797	85.36 mg/l	100
34) 2-Methylnaphthalene	0.000		0	N.D.	
35) 1-Methylnaphthalene	7.989	142	1094	N.D.	
37) Hexachlorocyclopentadiene	0.000		0	N.D.	
38) 2,4,6-Trichlorophenol	0.000		0	N.D.	
39) 2,4,5-Trichlorophenol	0.000		0	N.D.	
40) 2-Chloronaphthalene	0.000		0	N.D.	

Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV032.D
Acq On : 14 Nov 2013 2:57 am
Operator : 513
Sample : 13-11-0697-4A MSD
InstName : GCMS TT
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Nov 14 11:31:43 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Thu Nov 14 10:13:50 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 2-Nitroaniline	0.000		0	N.D.	
43) Dimethyl Phthalate	8.786	163	1848717	89.28 mg/l	100
44) Acenaphthylene	8.867	152	2633142	85.19 mg/l	100
45) 3-Nitroaniline	9.070	138	1721	N.D.	
46) Acenaphthene	9.070	153	1615944	84.67 mg/l	99
47) 2,4-Dinitrophenol	0.000		0	N.D.	
48) 4-Nitrophenol	9.187	65	204358	76.82 mg/l	98
49) Dibenzofuran	9.241	168	2937	N.D.	
50) 2,4-Dinitrotoluene	9.289	165	506921	95.23 mg/l	99
51) 2,6-Dinitrotoluene	0.000		0	N.D.	
52) Diethyl Phthalate	9.562	149	67	N.D.	
53) 4-Chlorophenyl-Phenyl ...	9.642	204	421	N.D.	
54) Fluorene	9.626	166	1762145	90.60 mg/l	99
55) 4-Nitroaniline	0.000		0	N.D.	
57) Azobenzene	9.770	77	518	N.D.	
58) 4,6-Dinitro-2-Methylph...	0.000		0	N.D.	
59) N-Nitrosodiphenylamine	9.770	169	1501	N.D.	
61) 4-Bromophenyl-Phenyl E...	0.000		0	N.D.	
62) Hexachlorobenzene	0.000		0	N.D.	
63) Pentachlorophenol	10.514	266	264966	94.78 mg/l	99
64) Phenanthrene	10.680	178	812	N.D.	
65) Anthracene	10.728	178	182	N.D.	
66) Di-n-Butyl Phthalate	11.354	149	7786	N.D.	
67) Fluoranthene	12.001	202	2693	N.D.	
68) Benzidine	0.000		0	N.D.	
70) Pyrene	12.258	202	2331633	91.45 mg/l	99
72) Butyl Benzyl Phthalate	13.055	149	993886	95.74 mg/l	99
73) 3,3'-Dichlorobenzidine	0.000		0	N.D.	
74) Benzo (a) Anthracene	13.755	228	2180	N.D.	
75) Bis(2-Ethylhexyl) Phth...	13.868	149	550	N.D.	
76) Chrysene	13.755	228	1020	N.D.	
77) Di-n-Octyl Phthalate	15.092	149	51	N.D.	
78) Benzo (b) Fluoranthene	15.510	252	120	N.D.	
79) Benzo (k) Fluoranthene	15.531	252	120	N.D.	
80) Benzo (a) Pyrene	16.093	252	52	N.D.	
82) Indeno (1,2,3-c,d) Pyrene	0.000		0	N.D.	
83) Dibenz (a,h) Anthracene	0.000		0	N.D.	
84) Benzo (g,h,i) Perylene	0.000		0	N.D.	

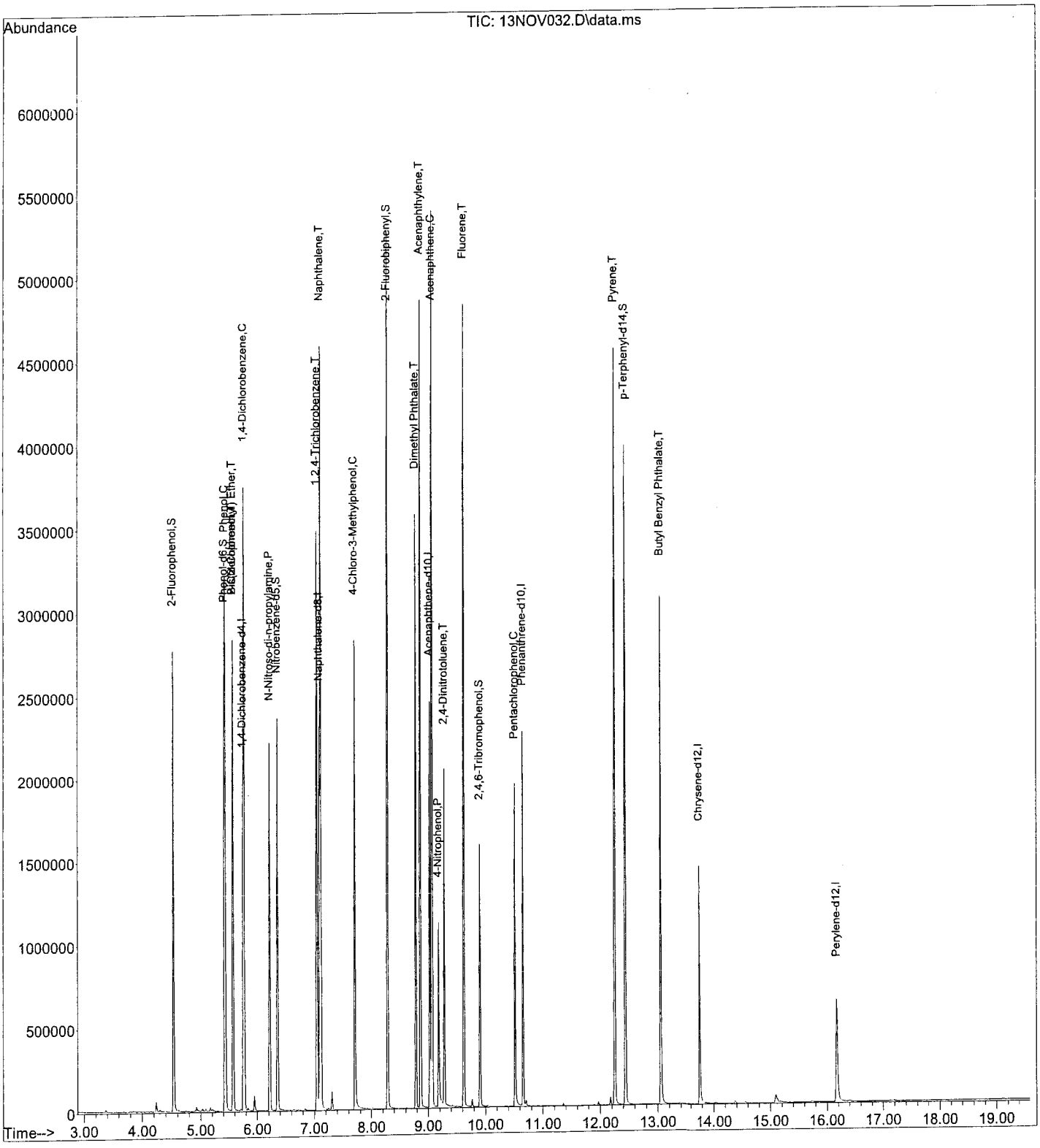
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV032.D
Acq On : 14 Nov 2013 2:57 am
Operator : 513
Sample : 13-11-0697-4A MSD
InstName : GCMS TT
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Nov 14 11:31:43 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Thu Nov 14 10:13:50 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



Return to Contents

EPA METHOD 8270C
SVOCs

Continuing Calibration

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C

CCV WORK ORDER: **095-01-001-11290-596**
INSTRUMENT: GC/MS SS
BATCH ID:
INITIAL: 130911
CCV: 131114

ANALYZED BY: 449
D/T ANALYZED:
INITIAL: 09/11/2013 18:06
CCV: 11/14/2013 10:34
REVIEWED BY: 27
D/T REVIEWED: 01/27/2014 10:11

Data File: W:\GCMS_SS_DATA\2013\131114\14NOV002.D\14NOV002.rr

COMPOUND	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
N-Nitrosodimethylamine	Avg Resp	0.00	1.222	1.430			-17	0-20	PASS
Aniline	Avg Resp	0.00	2.608	2.449			6	0-20	PASS
Phenol	Avg Resp	0.00	2.390	2.653			-11	0-20	PASS
Bis(2-Chloroethyl) Ether	**QR - Equal**				80.00	99.579	**-24**	0-20	**FAIL**
2-Chlorophenol	Avg Resp	0.00	1.695	1.737			-3	0-20	PASS
1,3-Dichlorobenzene	Avg Resp	0.00	1.806	1.794			1	0-20	PASS
1,4-Dichlorobenzene	Avg Resp	0.00	1.726	1.771			-2	0-20	PASS
Benzyl Alcohol	Avg Resp	0.00	1.531	1.653			-8	0-20	PASS
1,2-Dichlorobenzene	Avg Resp	0.00	1.647	1.690			-2	0-20	PASS
2-Methylphenol	Avg Resp	0.00	1.505	1.657			-10	0-20	PASS
Bis(2-Chloroisopropyl) Ether	**Avg Resp**	**0.00**	**2.033**	**2.661**			**-31**	0-20	**FAIL**
3/4-Methylphenol	Avg Resp	0.00	1.687	1.815			-7	0-20	PASS
N-Nitroso-di-n-propylamine	Avg Resp	0.05	1.250	1.501			-20	0-20	PASS
Hexachloroethane	Avg Resp	0.00	0.639	0.679			-6	0-20	PASS
Nitrobenzene	Avg Resp	0.00	0.435	0.482			-11	0-20	PASS
Isophorone	Avg Resp	0.00	0.829	0.888			-7	0-20	PASS
2-Nitrophenol	Avg Resp	0.00	0.203	0.187			8	0-20	PASS
2,4-Dimethylphenol	Avg Resp	0.00	0.400	0.393			2	0-20	PASS
Benzoic Acid	LR - Equal				80.00	80.973	-1	0-20	PASS
Bis(2-Chloroethoxy) Methane	Avg Resp	0.00	0.479	0.511			-7	0-20	PASS
2,4-Dichlorophenol	Avg Resp	0.00	0.301	0.291			3	0-20	PASS
Naphthalene	Avg Resp	0.00	1.051	1.067			-2	0-20	PASS
4-Chloroaniline	Avg Resp	0.00	0.366	0.358			2	0-20	PASS
Hexachloro-1,3-Butadiene	Avg Resp	0.00	0.180	0.164			9	0-20	PASS
4-Chloro-3-Methylphenol	Avg Resp	0.00	0.344	0.355			-3	0-20	PASS
2-Methylnaphthalene	Avg Resp	0.00	0.690	0.666			3	0-20	PASS
Hexachlorocyclopentadiene	**LR - Equal**				80.00	38.843	**51**	0-20	**FAIL**
2,4,6-Trichlorophenol	Avg Resp	0.00	0.373	0.342			8	0-20	PASS

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C

CCV WORK ORDER: **095-01-001-11290-596**
INSTRUMENT: GC/MS SS
BATCH ID:
INITIAL: 130911
CCV: 131114

ANALYZED BY: 449
D/T ANALYZED:
INITIAL: 09/11/2013 18:06
CCV: 11/14/2013 10:34
REVIEWED BY: 27
D/T REVIEWED: 01/27/2014 10:11

Data File: W:\GCMS_SS_DATA\2013\131114\14NOV002.D\14NOV002.rr

COMPOUND	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
2,4,5-Trichlorophenol	Avg Resp	0.00	0.367	0.364			1	0-20	PASS
2-Chloronaphthalene	Avg Resp	0.00	1.169	1.127			3	0-20	PASS
2-Nitroaniline	Avg Resp	0.00	0.393	0.464			-18	0-20	PASS
Dimethyl Phthalate	Avg Resp	0.00	1.400	1.309			6	0-20	PASS
Acenaphthylene	Avg Resp	0.00	1.790	1.711			4	0-20	PASS
3-Nitroaniline	QR - Equal				80.00	92.093	-15	0-20	PASS
Acenaphthene	Avg Resp	0.00	1.168	1.143			3	0-20	PASS
2,4-Dinitrophenol	QR - Equal				80.00	75.481	6	0-20	PASS
4-Nitrophenol	LR - Equal				80.00	64.297	20	0-20	PASS
Dibenzofuran	Avg Resp	0.00	1.559	1.579			-1	0-20	PASS
2,4-Dinitrotoluene	Avg Resp	0.00	0.420	0.408			3	0-20	PASS
2,6-Dinitrotoluene	Avg Resp	0.00	0.719	0.790			-10	0-20	PASS
Diethyl Phthalate	Avg Resp	0.00	1.317	1.276			3	0-20	PASS
4-Chlorophenyl-Phenyl Ether	QR - Equal				80.00	87.106	-9	0-20	PASS
Fluorene	Avg Resp	0.00	1.219	1.216			0	0-20	PASS
4-Nitroaniline	Avg Resp	0.00	0.248	0.252			-2	0-20	PASS
Azobenzene	**Avg Resp**	**0.00**	**0.857**	**1.096**			**-28**	0-20	**FAIL**
4,6-Dinitro-2-Methylphenol	LR - Equal				80.00	94.424	-18	0-20	PASS
N-Nitrosodiphenylamine	Avg Resp	0.05	0.497	0.459			8	0-20	PASS
4-Bromophenyl-Phenyl Ether	Avg Resp	0.00	0.212	0.206			3	0-20	PASS
Hexachlorobenzene	Avg Resp	0.00	0.081	0.083			-2	0-20	PASS
Pentachlorophenol	Avg Resp	0.00	0.113	0.098			13	0-20	PASS
Phenanthrene	Avg Resp	0.00	1.053	1.072			-2	0-20	PASS
Anthracene	Avg Resp	0.00	1.064	1.061			0	0-20	PASS
Di-n-Butyl Phthalate	Avg Resp	0.00	1.256	1.226			2	0-20	PASS
Fluoranthene	Avg Resp	0.00	1.171	1.059			9	0-20	PASS
Benzidine	QR - Equal				80.00	66.060	17	0-20	PASS
Pyrene	Avg Resp	0.00	1.298	1.177			9	0-20	PASS

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C

CCV WORK ORDER:	**095-01-001-11290-596**	ANALYZED BY:	449
INSTRUMENT:	GC/MS SS	D/T ANALYZED:	
BATCH ID:		INITIAL:	09/11/2013 18:06
INITIAL:	130911	CCV:	11/14/2013 10:34
CCV:	131114	REVIEWED BY:	27
		D/T REVIEWED:	01/27/2014 10:11

Data File: W:\GCMS_SS_DATA\2013\131114\14NOV002.D\14NOV002.rr

COMPOUND	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Pyridine	**Avg Resp**	**0.00**	**1.110**	**1.435**			**-30**	0-20	**FAIL**
Butyl Benzyl Phthalate	Avg Resp	0.00	0.605	0.545			10	0-20	PASS
3,3'-Dichlorobenzidine	QR - Equal				80.00	77.776	3	0-20	PASS
Benzo (a) Anthracene	Avg Resp	0.00	1.106	0.985			11	0-20	PASS
Bis(2-Ethylhexyl) Phthalate	Avg Resp	0.00	0.788	0.842			-7	0-20	PASS
Chrysene	Avg Resp	0.00	1.026	0.983			5	0-20	PASS
Di-n-Octyl Phthalate	Avg Resp	0.00	1.268	1.359			-7	0-20	PASS
Benzo (k) Fluoranthene	**QR - Equal**				80.00	106.650	**-33**	0-20	**FAIL**
Benzo (b) Fluoranthene	QR - Equal				80.00	71.568	10	0-20	PASS
Benzo (a) Pyrene	Avg Resp	0.00	0.696	0.724			-4	0-20	PASS
Benzo (g,h,i) Perylene	**Avg Resp**	**0.00**	**0.544**	**1.039**			**-91**	0-20	**FAIL**
Indeno (1,2,3-c,d) Pyrene	**Avg Resp**	**0.00**	**0.703**	**1.175**			**-68**	0-20	**FAIL**
Dibenz (a,h) Anthracene	**Avg Resp**	**0.00**	**0.599**	**1.070**			**-79**	0-20	**FAIL**
1-Methylnaphthalene	Avg Resp	0.00	0.648	0.634			2	0-20	PASS
1,2,4-Trichlorobenzene	Avg Resp	0.00	0.338	0.314			7	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV002.D
Acq On : 14 Nov 2013 10:34 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 10:53:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 10:53:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0	68	0.00
2	T	Pyridine	1.110	1.435	-29#	85	0.01
3	T	N-Nitrosodimethylamine	1.222	1.430	-17	80	-0.02
4	S	2-Fluorophenol	1.816	1.826	-1	68	-0.02
5	T	Aniline	2.608	2.449	6	67	-0.02
6	S	Phenol-d6	2.224	2.331	-5	73	-0.03
7	C	Phenol	2.390	2.653	-11	79	-0.03
8	T	Bis(2-Chloroethyl) Ether	1.674	1.977	-18	78	0.00
9	T	2-Chlorophenol	1.695	1.737	-2	71	-0.03
10	T	1,3-Dichlorobenzene	1.806	1.794	1	69	-0.02
11	C	1,4-Dichlorobenzene	1.726	1.771	-3	72	0.00
12	T	Benzyl Alcohol	1.531	1.653	-8	72	-0.03
13	T	1,2-Dichlorobenzene	1.647	1.690	-3	71	-0.03
14	T	2-Methylphenol	1.505	1.657	-10	75	-0.03
15	T	Bis(2-Chloroisopropyl) Ethe	2.033	2.661	-31#	92	-0.03
16	T	3/4-Methylphenol	1.687	1.815	-8	73	-0.03
17	P	N-Nitroso-di-n-propylamine	1.250	1.501	-20	91	-0.03
18	T	Hexachloroethane	0.639	0.679	-6	78	-0.03
19	I	Naphthalene-d8	1.000	1.000	0	74	-0.01
20	S	Nitrobenzene-d5	0.457	0.492	-8	81	-0.03
21	T	Nitrobenzene	0.435	0.482	-11	85	-0.03
22	T	Isophorone	0.829	0.888	-7	78	-0.03
23	C	2-Nitrophenol	0.203	0.187	8	69	-0.03
24	T	2,4-Dimethylphenol	0.400	0.393	2	73	-0.03
25	T	Benzoic Acid	0.237	0.280	-18	75	-0.03
26	T	Bis(2-Chloroethoxy) Methane	0.479	0.511	-7	81	-0.03
27	C	2,4-Dichlorophenol	0.301	0.291	3	72	-0.03
28	T	1,2,4-Trichlorobenzene	0.338	0.314	7	69	-0.03
29	T	Naphthalene	1.051	1.067	-2	77	-0.03
30	T	2,6-Dichlorophenol	0.281	0.277	1	75	-0.03
31	T	4-Chloroaniline	0.366	0.358	2	70	-0.03
32	C	Hexachloro-1,3-Butadiene	0.180	0.164	9	69	-0.03
33	C	4-Chloro-3-Methylphenol	0.344	0.355	-3	75	-0.03
34	T	2-Methylnaphthalene	0.690	0.666	3	74	-0.03
35	T	1-Methylnaphthalene	0.648	0.634	2	74	-0.03
36	I	Acenaphthene-d10	1.000	1.000	0	74	-0.03
37	P	Hexachlorocyclopentadiene	0.192	0.099	48#	33#	-0.03
38	C	2,4,6-Trichlorophenol	0.373	0.342	8	67	-0.02
39	T	2,4,5-Trichlorophenol	0.367	0.364	1	69	-0.03
40	T	2-Chloronaphthalene	1.169	1.127	4	73	-0.03
41	S	2-Fluorobiphenyl	1.349	1.288	5	73	0.02
42	T	2-Nitroaniline	0.393	0.464	-18	87	-0.03
43	T	Dimethyl Phthalate	1.400	1.309	6	70	-0.03
44	T	Acenaphthylene	1.790	1.711	4	74	-0.03
45	T	3-Nitroaniline	0.254	0.299	-18	83	-0.03
46	C	Acenaphthene	1.168	1.143	2	74	-0.03
47	P	2,4-Dinitrophenol	0.101	0.109	-8	70	-0.02
48	P	4-Nitrophenol	0.189	0.165	13	55	0.00
49	T	Dibenzofuran	1.559	1.579	-1	77	-0.03
50	T	2,4-Dinitrotoluene	0.420	0.408	3	69	-0.03
51	T	2,6-Dinitrotoluene	0.296	0.295	0	75	-0.03

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV002.D
Acq On : 14 Nov 2013 10:34 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 10:53:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 10:53:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	T	Diethyl Phthalate	1.317	1.276	3	73	-0.03
53	T	4-Chlorophenyl-Phenyl Ether	0.610	0.615	-1	79	-0.03
54	T	Fluorene	1.219	1.216	0	79	-0.03
55	T	4-Nitroaniline	0.248	0.252	-2	73	-0.02
56	I	Phenanthrene-d10	1.000	1.000	0	69	-0.03
57	T	Azobenzene	0.857	1.096	-28#	88	-0.03
58	T	4,6-Dinitro-2-Methylphenol	0.091	0.113	-24	77	-0.03
59	C	N-Nitrosodiphenylamine	0.497	0.459	8	66	-0.03
60	S	2,4,6-Tribromophenol	0.087	0.088	-1	66	-0.03
61	T	4-Bromophenyl-Phenyl Ether	0.212	0.206	3	68	-0.03
62	T	Hexachlorobenzene	0.081	0.083	-2	74	-0.03
63	C	Pentachlorophenol	0.113	0.098	13	53	-0.03
64	T	Phenanthrene	1.053	1.072	-2	73	-0.02
65	T	Anthracene	1.064	1.061	0	71	-0.03
66	T	Di-n-Butyl Phthalate	1.256	1.226	2	71	-0.03
67	C	Fluoranthene	1.171	1.059	10	65	-0.03
68	T	Benzidine	0.167	0.143	14	53	-0.02
69	I	Chrysene-d12	1.000	1.000	0	70	-0.03
70	T	Pyrene	1.298	1.177	9	66	-0.03
71	S	p-Terphenyl-d14	0.935	0.831	11	64	-0.03
72	T	Butyl Benzyl Phthalate	0.605	0.545	10	64	-0.03
73	T	3,3'-Dichlorobenzidine	0.197	0.188	5	64	-0.03
74	T	Benzo (a) Anthracene	1.106	0.985	11	63	-0.02
75	T	Bis(2-Ethylhexyl) Phthalate	0.788	0.842	-7	75	-0.03
76	T	Chrysene	1.026	0.983	4	67	0.00
77	C	Di-n-Octyl Phthalate	1.268	1.359	-7	75	-0.04
78	T	Benzo (b) Fluoranthene	0.976	0.925	5	59	0.00
79	T	Benzo (k) Fluoranthene	0.691	0.780	-13	86	0.00
80	C	Benzo (a) Pyrene	0.696	0.724	-4	69	-0.04
81	I	Perylene-d12	1.000	1.000	0	70	-0.04
82	T	Indeno (1,2,3-c,d) Pyrene	0.703	1.175	-67#	112	-0.05
83	T	Dibenz (a,h) Anthracene	0.599	1.070	-79#	118	-0.05
84	T	Benzo (g,h,i) Perylene	0.544	1.039	-91#	129	-0.05

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

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV002.D
Acq On : 14 Nov 2013 10:34 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 10:53:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 10:53:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.553	152	256924	40.00	mg/l	# 0.00
19) Naphthalene-d8	6.895	136	1210785	40.00	mg/l	-0.01
36) Acenaphthene-d10	8.831	164	686748	40.00	mg/l	-0.03
56) Phenanthrene-d10	10.468	188	1180827	40.00	mg/l	-0.03
69) Chrysene-d12	13.554	240	1080750	40.00	mg/l	-0.03
81) Perylene-d12	15.929	264	764324	40.00	mg/l	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	4.371	112	938120	80.42	mg/l	-0.02
Spiked Amount 100.000			Recovery = 80.42%			
6) Phenol-d6	5.269	99	1197974	83.85	mg/l	-0.03
Spiked Amount 100.000			Recovery = 83.85%			
20) Nitrobenzene-d5	6.168	82	1192380	86.19	mg/l	-0.03
Spiked Amount 100.000			Recovery = 86.19%			
41) 2-Fluorobiphenyl	8.093	172	1769490	76.40	mg/l	0.02
Spiked Amount 100.000			Recovery = 76.40%			
60) 2,4,6-Tribromophenol	9.725	330	207191	80.42	mg/l	-0.03
Spiked Amount 100.000			Recovery = 80.42%			
71) p-Terphenyl-d14	12.254	244	1796961	71.14	mg/l	-0.03
Spiked Amount 100.000			Recovery = 71.14%			
Target Compounds						Qvalue
2) Pyridine	3.205	52	737560m	103.41	mg/l	
3) N-Nitrosodimethylamine	3.205	74	734601	93.57	mg/l	91
5) Aniline	5.280	93	1258624	75.13	mg/l	93
7) Phenol	5.280	94	1363355	88.81	mg/l	85
8) Bis(2-Chloroethyl) Ether	5.333	93	1015632	99.58	mg/l	100
9) 2-Chlorophenol	5.387	128	892598	82.00	mg/l	92
10) 1,3-Dichlorobenzene	5.510	146	921980	79.50	mg/l	99
11) 1,4-Dichlorobenzene	5.563	146	909806	82.09	mg/l	99
12) Benzyl Alcohol	5.745	79	849311	86.37	mg/l	82
13) 1,2-Dichlorobenzene	5.756	146	868463	82.08	mg/l	99
14) 2-Methylphenol	5.863	108	851482	88.08	mg/l	91
15) Bis(2-Chloroisopropyl)...	5.874	45	1367193	104.69	mg/l	86
16) 3/4-Methylphenol	6.034	107	1865094	172.10	mg/l	96
17) N-Nitroso-di-n-propyla...	6.066	70	771418	96.07	mg/l	93
18) Hexachloroethane	6.061	117	348941	85.07	mg/l	91
21) Nitrobenzene	6.189	77	1166919	88.57	mg/l	94
22) Isophorone	6.441	82	2150873	85.72	mg/l	97
23) 2-Nitrophenol	6.515	139	451876	73.41	mg/l	91
24) 2,4-Dimethylphenol	6.574	107	952327	78.68	mg/l	96
25) Benzoic Acid	6.804	105	678236	80.97	mg/l	95
26) Bis(2-Chloroethoxy) Me...	6.665	93	1237807	85.32	mg/l	99
27) 2,4-Dichlorophenol	6.777	162	704084	77.20	mg/l	97
28) 1,2,4-Trichlorobenzene	6.847	180	760471	74.27	mg/l	99
29) Naphthalene	6.917	128	2584355	81.23	mg/l	99
30) 2,6-Dichlorophenol	7.013	162	670942	78.76	mg/l	98
31) 4-Chloroaniline	7.013	127	867734	78.25	mg/l	93
32) Hexachloro-1,3-Butadiene	7.098	225	397144	73.06	mg/l	99
33) 4-Chloro-3-Methylphenol	7.548	107	859061	82.47	mg/l	97
34) 2-Methylnaphthalene	7.665	142	1612296	77.16	mg/l	99
35) 1-Methylnaphthalene	7.783	142	1534443	78.23	mg/l	100
37) Hexachlorocyclopentadiene	7.901	237	135654	38.84	mg/l	99
38) 2,4,6-Trichlorophenol	8.013	196	469959	73.48	mg/l	98
39) 2,4,5-Trichlorophenol	8.066	196	499965	79.39	mg/l	99
40) 2-Chloronaphthalene	8.200	162	1547992	77.11	mg/l	100

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV002.D
Acq On : 14 Nov 2013 10:34 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 10:53:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 10:53:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2-Nitroaniline	8.371	65	637351	94.51	mg/l		89
43) Dimethyl Phthalate	8.596	163	1797635	74.77	mg/l		100
44) Acenaphthylene	8.666	152	2349841	76.47	mg/l		99
45) 3-Nitroaniline	8.842	138	411131	92.09	mg/l		86
46) Acenaphthene	8.869	153	1570133	78.33	mg/l		99
47) 2,4-Dinitrophenol	8.960	184	149044	75.48	mg/l		87
48) 4-Nitrophenol	9.072	65	226700	64.30	mg/l		79
49) Dibenzofuran	9.045	168	2168364	81.00	mg/l		98
50) 2,4-Dinitrotoluene	9.115	165	560462	77.78	mg/l		91
51) 2,6-Dinitrotoluene	8.682	165	405844	79.73	mg/l		91
52) Diethyl Phthalate	9.382	149	1752931	77.52	mg/l		98
53) 4-Chlorophenyl-Phenyl ...	9.425	204	844043	87.11	mg/l		99
54) Fluorene	9.430	166	1669897	79.76	mg/l		99
55) 4-Nitroaniline	9.548	138	345745	81.24	mg/l		83
57) Azobenzene	9.607	77	2587895	102.29	mg/l		91
58) 4,6-Dinitro-2-Methylph...	9.580	198	265823	94.42	mg/l	#	1
59) N-Nitrosodiphenylamine	9.580	169	1083285	73.88	mg/l		96
61) 4-Bromophenyl-Phenyl E...	9.960	248	486461	77.67	mg/l		96
62) Hexachlorobenzene	10.126	142	195312	81.85	mg/l		90
63) Pentachlorophenol	10.345	266	231171	69.03	mg/l		99
64) Phenanthrene	10.495	178	2532220	81.45	mg/l		100
65) Anthracene	10.548	178	2504601	79.72	mg/l		99
66) Di-n-Butyl Phthalate	11.174	149	2895670	78.09	mg/l		100
67) Fluoranthene	11.827	202	2499980	72.33	mg/l		97
68) Benzidine	11.987	184	337916	66.06	mg/l		95
70) Pyrene	12.073	202	2544635	72.55	mg/l		100
72) Butyl Benzyl Phthalate	12.854	149	1177910	72.02	mg/l		90
73) 3,3'-Dichlorobenzidine	13.517	252	406422	77.78	mg/l		97
74) Benzo (a) Anthracene	13.527	228	2129650	71.28	mg/l		100
75) Bis(2-Ethylhexyl) Phth...	13.640	149	1820763	85.52	mg/l		98
76) Chrysene	13.597	228	2125824	76.67	mg/l		99
77) Di-n-Octyl Phthalate	14.597	149	2936513	85.72	mg/l		99
78) Benzo (b) Fluoranthene	15.260	252	1999505	71.57	mg/l		98
79) Benzo (k) Fluoranthene	15.298	252	1685099	106.65	mg/l		99
80) Benzo (a) Pyrene	15.833	252	1564462	83.17	mg/l		98
82) Indeno (1,2,3-c,d) Pyrene	18.106	276	1796821	133.81	mg/l		85
83) Dibenz (a,h) Anthracene	18.138	278	1635096	142.81	mg/l		98
84) Benzo (g,h,i) Perylene	18.646	276	1587848	152.86	mg/l		97

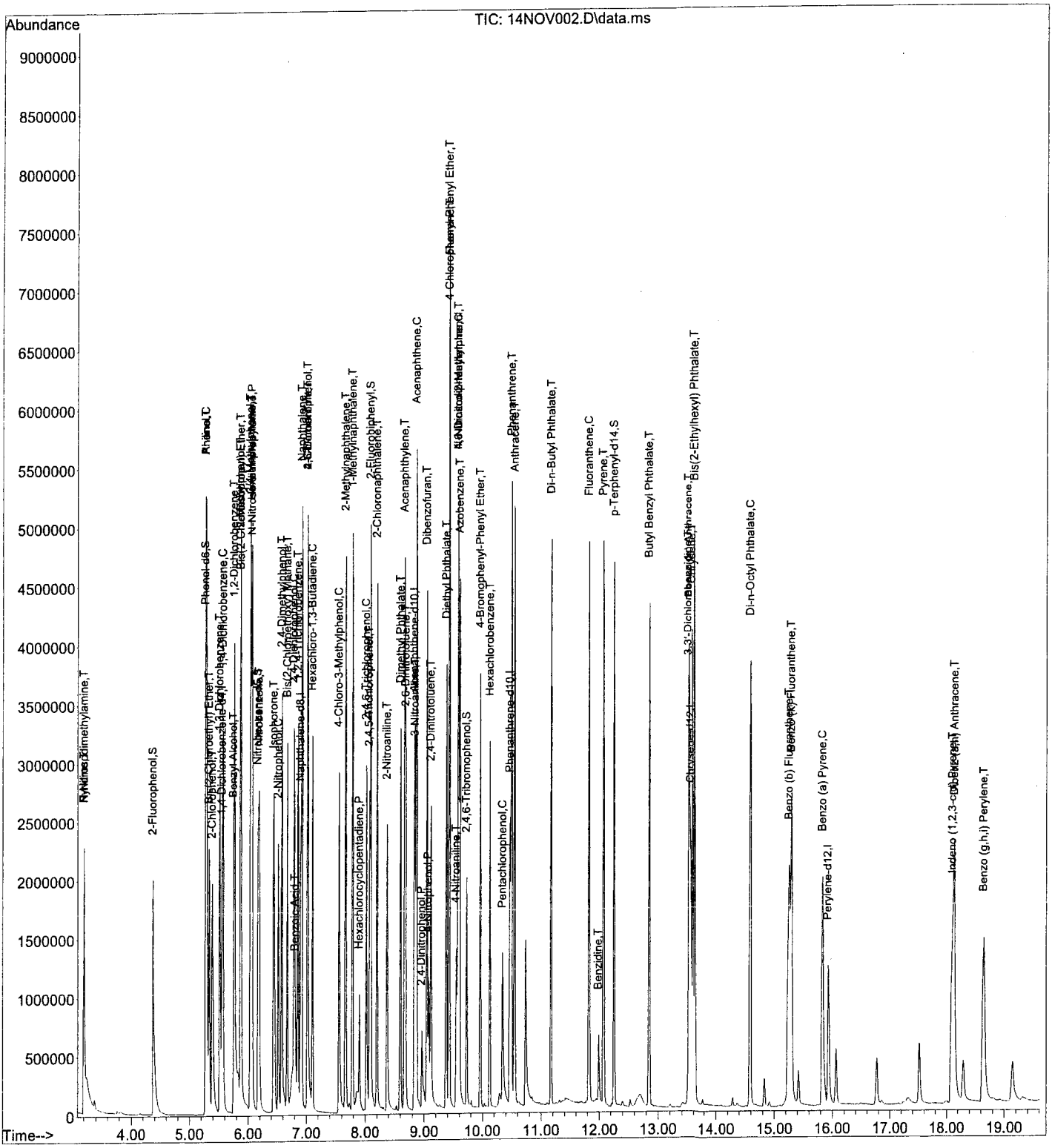
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV002.D
Acq On : 14 Nov 2013 10:34 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 10:53:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Thu Nov 14 10:53:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8270C

CCV WORK ORDER: 095-01-001-11292-596
INSTRUMENT NAME: GC/MS SS
INITIAL BATCH: 130911
INITIAL DATE ANALYZED: 9/11/13 18:06
ANALYST: 449

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 131115
CCV DATE ANALYZED: 11/15/13 11:05

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
N-Nitrosodimethylamine	Avg Resp	0.00	1.222	1.435			-17	0-20	PASS
Aniline	Avg Resp	0.00	2.608	2.909			-12	0-20	PASS
Phenol	Avg Resp	0.00	2.390	2.582			-8	0-20	PASS
Bis(2-Chloroethyl) Ether	**QR - Equal**				80.00	99.902	**-25**	0-20	**FAIL**
2-Chlorophenol	Avg Resp	0.00	1.695	1.786			-5	0-20	PASS
1,3-Dichlorobenzene	Avg Resp	0.00	1.806	1.793			1	0-20	PASS
1,4-Dichlorobenzene	Avg Resp	0.00	1.726	1.765			-2	0-20	PASS
Benzyl Alcohol	Avg Resp	0.00	1.531	1.558			-2	0-20	PASS
1,2-Dichlorobenzene	Avg Resp	0.00	1.647	1.656			-1	0-20	PASS
2-Methylphenol	Avg Resp	0.00	1.505	1.618			-7	0-20	PASS
Bis(2-Chloroisopropyl) Ether	**Avg Resp**	**0.00**	**2.033**	**2.499**			**-23**	0-20	**FAIL**
3/4-Methylphenol	Avg Resp	0.00	1.687	1.803			-7	0-20	PASS
N-Nitroso-di-n-propylamine	Avg Resp	0.05	1.250	1.376			-10	0-20	PASS
Hexachloroethane	Avg Resp	0.00	0.639	0.631			1	0-20	PASS
Nitrobenzene	Avg Resp	0.00	0.435	0.481			-11	0-20	PASS
Isophorone	Avg Resp	0.00	0.829	0.914			-10	0-20	PASS
2-Nitrophenol	Avg Resp	0.00	0.203	0.197			3	0-20	PASS
2,4-Dimethylphenol	Avg Resp	0.00	0.400	0.403			-1	0-20	PASS
Benzoic Acid	LR - Equal				80.00	91.065	-14	0-20	PASS
Bis(2-Chloroethoxy) Methane	Avg Resp	0.00	0.479	0.511			-7	0-20	PASS
2,4-Dichlorophenol	Avg Resp	0.00	0.301	0.294			2	0-20	PASS
Naphthalene	Avg Resp	0.00	1.051	1.045			1	0-20	PASS
4-Chloroaniline	Avg Resp	0.00	0.366	0.377			-3	0-20	PASS
Hexachloro-1,3-Butadiene	Avg Resp	0.00	0.180	0.163			9	0-20	PASS
4-Chloro-3-Methylphenol	Avg Resp	0.00	0.344	0.351			-2	0-20	PASS
2-Methylnaphthalene	Avg Resp	0.00	0.690	0.661			4	0-20	PASS
Hexachlorocyclopentadiene	**LR - Equal**				80.00	62.235	**22**	0-20	**FAIL**
2,4,6-Trichlorophenol	Avg Resp	0.00	0.373	0.352			5	0-20	PASS
2,4,5-Trichlorophenol	Avg Resp	0.00	0.367	0.366			0	0-20	PASS
2-Chloronaphthalene	Avg Resp	0.00	1.169	1.125			4	0-20	PASS
2-Nitroaniline	Avg Resp	0.00	0.393	0.467			-19	0-20	PASS
Dimethyl Phthalate	Avg Resp	0.00	1.400	1.314			6	0-20	PASS
Acenaphthylene	Avg Resp	0.00	1.790	1.695			5	0-20	PASS
3-Nitroaniline	QR - Equal				80.00	96.433	-20	0-20	PASS
Acenaphthene	Avg Resp	0.00	1.168	1.113			5	0-20	PASS
2,4-Dinitrophenol	**QR - Equal**				80.00	96.466	**-21**	0-20	**FAIL**
4-Nitrophenol	**LR - Equal**				80.00	101.555	**-27**	0-20	**FAIL**
Dibenzofuran	Avg Resp	0.00	1.559	1.547			1	0-20	PASS

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8270C

CCV WORK ORDER: 095-01-001-11292-596
INSTRUMENT NAME: GC/MS SS
INITIAL BATCH: 130911
INITIAL DATE ANALYZED: 9/11/13 18:06
ANALYST: 449

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 131115
CCV DATE ANALYZED: 11/15/13 11:05

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
2,4-Dinitrotoluene	Avg Resp	0.00	0.420	0.417			1	0-20	PASS
2,6-Dinitrotoluene	Avg Resp	0.00	0.719	0.802			-12	0-20	PASS
Diethyl Phthalate	Avg Resp	0.00	1.317	1.245			5	0-20	PASS
4-Chlorophenyl-Phenyl Ether	QR - Equal				80.00	79.737	0	0-20	PASS
Fluorene	Avg Resp	0.00	1.219	1.126			8	0-20	PASS
4-Nitroaniline	Avg Resp	0.00	0.248	0.247			0	0-20	PASS
Azobenzene	Avg Resp	0.00	0.857	1.018			-19	0-20	PASS
4,6-Dinitro-2-Methylphenol	**LR - Equal**				80.00	112.889	**-41**	0-20	**FAIL**
N-Nitrosodiphenylamine	Avg Resp	0.05	0.497	0.447			10	0-20	PASS
4-Bromophenyl-Phenyl Ether	Avg Resp	0.00	0.212	0.210			1	0-20	PASS
Hexachlorobenzene	Avg Resp	0.00	0.081	0.079			2	0-20	PASS
Pentachlorophenol	Avg Resp	0.00	0.113	0.110			3	0-20	PASS
Phenanthrene	Avg Resp	0.00	1.053	1.057			0	0-20	PASS
Anthracene	Avg Resp	0.00	1.064	1.035			3	0-20	PASS
Di-n-Butyl Phthalate	Avg Resp	0.00	1.256	1.174			7	0-20	PASS
Fluoranthene	Avg Resp	0.00	1.171	1.042			11	0-20	PASS
Benzidine	**QR - Equal**				80.00	140.851	**-76**	0-20	**FAIL**
Pyrene	Avg Resp	0.00	1.298	1.172			10	0-20	PASS
Pyridine	**Avg Resp**	**0.00**	**1.110**	**0.880**			**21**	0-20	**FAIL**
Butyl Benzyl Phthalate	Avg Resp	0.00	0.605	0.530			12	0-20	PASS
3,3'-Dichlorobenzidine	**QR - Equal**				80.00	104.129	**-30**	0-20	**FAIL**
Benzo (a) Anthracene	Avg Resp	0.00	1.106	0.980			11	0-20	PASS
Bis(2-Ethylhexyl) Phthalate	Avg Resp	0.00	0.788	0.796			-1	0-20	PASS
Chrysene	Avg Resp	0.00	1.026	0.964			6	0-20	PASS
Di-n-Octyl Phthalate	Avg Resp	0.00	1.268	1.322			-4	0-20	PASS
Benzo (k) Fluoranthene	**QR - Equal**				80.00	52.730	**34**	0-20	**FAIL**
Benzo (b) Fluoranthene	QR - Equal				80.00	75.493	6	0-20	PASS
Benzo (a) Pyrene	Avg Resp	0.00	0.696	0.706			-1	0-20	PASS
Benzo (g,h,i) Perylene	**Avg Resp**	**0.00**	**0.544**	**1.026**			**-89**	0-20	**FAIL**
Indeno (1,2,3-c,d) Pyrene	**Avg Resp**	**0.00**	**0.703**	**1.171**			**-67**	0-20	**FAIL**
Dibenz (a,h) Anthracene	**Avg Resp**	**0.00**	**0.599**	**1.057**			**-76**	0-20	**FAIL**
1-Methylnaphthalene	Avg Resp	0.00	0.648	0.634			2	0-20	PASS
1,2,4-Trichlorobenzene	Avg Resp	0.00	0.338	0.314			7	0-20	PASS
2,6-Dichlorophenol	Avg Resp	0.00	0.281	0.274			3	0-20	PASS

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8270C

CCV WORK ORDER: 095-01-001-11292-596
INSTRUMENT NAME: GC/MS SS
INITIAL BATCH: 130911
INITIAL DATE ANALYZED: 9/11/13 18:06
ANALYST: 449

REVIEWED BY: VG
DATE REVIEWED:
CCV BATCH: 131115
CCV DATE ANALYZED: 11/15/13 11:05

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS

MIN RF: Method Specified Minimum Response Factor

Data File:

Data File Name:

W:\GCMS_SS_DATA\2013\131115\15NOV002.D\15NOV002.rr

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS SS DATA\2013\131115\
Data File : 15NOV002.D
Acq On : 15 Nov 2013 11:05 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 15 11:25:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Fri Nov 15 11:24:24 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0	112	-0.01
2	T	Pyridine	1.110	1.415	-27#	137	-0.01
3	T	N-Nitrosodimethylamine	1.222	1.435	-17	131	-0.02
4	S	2-Fluorophenol	1.816	1.856	-2	114	-0.02
5	T	Aniline	2.608	2.909	-12	131	-0.03
6	S	Phenol-d6	2.224	2.202	1	113	-0.02
7	C	Phenol	2.390	2.582	-8	126	-0.02
8	T	Bis(2-Chloroethyl) Ether	1.674	1.980	-18	128	0.00
9	T	2-Chlorophenol	1.695	1.786	-5	119	-0.03
10	T	1,3-Dichlorobenzene	1.806	1.793	1	113	-0.02
11	C	1,4-Dichlorobenzene	1.726	1.765	-2	118	0.00
12	T	Benzyl Alcohol	1.531	1.558	-2	111	-0.02
13	T	1,2-Dichlorobenzene	1.647	1.656	-1	114	-0.03
14	T	2-Methylphenol	1.505	1.618	-8	120	-0.03
15	T	Bis(2-Chloroisopropyl) Ethe	2.033	2.499	-23	142	-0.03
16	T	3/4-Methylphenol	1.687	1.803	-7	119	-0.02
17	P	N-Nitroso-di-n-propylamine	1.250	1.376	-10	137	-0.02
18	T	Hexachloroethane	0.639	0.631	1	118	-0.04
19	I	Naphthalene-d8	1.000	1.000	0	121	-0.01
20	S	Nitrobenzene-d5	0.457	0.495	-8	133	-0.02
21	T	Nitrobenzene	0.435	0.481	-11	139	-0.03
22	T	Isophorone	0.829	0.914	-10	131	-0.02
23	C	2-Nitrophenol	0.203	0.197	3	120	-0.03
24	T	2,4-Dimethylphenol	0.400	0.403	-1	123	-0.02
25	T	Benzoic Acid	0.237	0.318	-34#	140	0.00
26	T	Bis(2-Chloroethoxy) Methane	0.479	0.511	-7	133	-0.03
27	C	2,4-Dichlorophenol	0.301	0.294	2	120	-0.03
28	T	1,2,4-Trichlorobenzene	0.338	0.314	7	114	-0.03
29	T	Naphthalene	1.051	1.045	1	124	-0.03
30	T	2,6-Dichlorophenol	0.281	0.274	2	122	-0.03
31	T	4-Chloroaniline	0.366	0.377	-3	121	-0.03
32	C	Hexachloro-1,3-Butadiene	0.180	0.163	9	113	-0.03
33	C	4-Chloro-3-Methylphenol	0.344	0.351	-2	122	-0.03
34	T	2-Methylnaphthalene	0.690	0.661	4	121	-0.03
35	T	1-Methylnaphthalene	0.648	0.634	2	122	-0.03
36	I	Acenaphthene-d10	1.000	1.000	0	123	-0.03
37	P	Hexachlorocyclopentadiene	0.192	0.168	12	92	-0.03
38	C	2,4,6-Trichlorophenol	0.373	0.352	6	113	-0.02
39	T	2,4,5-Trichlorophenol	0.367	0.366	0	115	-0.03
40	T	2-Chloronaphthalene	1.169	1.125	4	120	-0.03
41	S	2-Fluorobiphenyl	1.349	1.250	7	116	0.02
42	T	2-Nitroaniline	0.393	0.467	-19	143	-0.02
43	T	Dimethyl Phthalate	1.400	1.314	6	117	-0.03
44	T	Acenaphthylene	1.790	1.695	5	121	-0.03
45	T	3-Nitroaniline	0.254	0.316	-24	144	-0.02
46	C	Acenaphthene	1.168	1.113	5	119	-0.03
47	P	2,4-Dinitrophenol	0.101	0.153	-51#	162#	-0.02
48	P	4-Nitrophenol	0.189	0.259	-37#	142	0.00
49	T	Dibenzofuran	1.559	1.547	1	125	-0.03
50	T	2,4-Dinitrotoluene	0.420	0.417	1	117	-0.02
51	T	2,6-Dinitrotoluene	0.296	0.298	-1	125	-0.03

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS SS DATA\2013\131115\
Data File : 15NOV002.D
Acq On : 15 Nov 2013 11:05 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 15 11:25:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Fri Nov 15 11:24:24 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	T	Diethyl Phthalate	1.317	1.245	5	117	-0.03
53	T	4-Chlorophenyl-Phenyl Ether	0.610	0.573	6	122	-0.03
54	T	Fluorene	1.219	1.126	8	120	-0.03
55	T	4-Nitroaniline	0.248	0.247	0	118	-0.01
56	I	Phenanthrene-d10	1.000	1.000	0	112	-0.03
57	T	Azobenzene	0.857	1.018	-19	134	-0.02
58	T	4,6-Dinitro-2-Methylphenol	0.091	0.135	-48#	151#	-0.02
59	C	N-Nitrosodiphenylamine	0.497	0.447	10	106	-0.03
60	S	2,4,6-Tribromophenol	0.087	0.088	-1	108	-0.03
61	T	4-Bromophenyl-Phenyl Ether	0.212	0.210	1	113	-0.03
62	T	Hexachlorobenzene	0.081	0.079	2	116	-0.03
63	C	Pentachlorophenol	0.113	0.110	3	97	-0.03
64	T	Phenanthrene	1.053	1.057	0	118	-0.01
65	T	Anthracene	1.064	1.035	3	113	-0.03
66	T	Di-n-Butyl Phthalate	1.256	1.174	7	110	-0.03
67	C	Fluoranthene	1.171	1.042	11	104	-0.03
68	T	Benzidine	0.167	0.353	-111#	213#	-0.02
69	I	Chrysene-d12	1.000	1.000	0	113	-0.03
70	T	Pyrene	1.298	1.172	10	107	-0.03
71	S	p-Terphenyl-d14	0.935	0.843	10	104	-0.03
72	T	Butyl Benzyl Phthalate	0.605	0.530	12	101	-0.03
73	T	3,3'-Dichlorobenzidine	0.197	0.275	-40#	153#	-0.03
74	T	Benzo (a) Anthracene	1.106	0.980	11	101	-0.02
75	T	Bis(2-Ethylhexyl) Phthalate	0.788	0.796	-1	115	-0.04
76	T	Chrysene	1.026	0.964	6	106	0.01
77	C	Di-n-Octyl Phthalate	1.268	1.322	-4	117	-0.04
78	T	Benzo (b) Fluoranthene	0.976	0.984	-1	102	0.00
79	T	Benzo (k) Fluoranthene	0.691	0.564	18	100	0.00
80	C	Benzo (a) Pyrene	0.696	0.706	-1	110	-0.04
81	I	Perylene-d12	1.000	1.000	0	115	-0.03
82	T	Indeno (1,2,3-c,d) Pyrene	0.703	1.171	-67#	182#	-0.02
83	T	Dibenz (a,h) Anthracene	0.599	1.057	-76#	190#	-0.03
84	T	Benzo (g,h,i) Perylene	0.544	1.026	-89#	209#	-0.02

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

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131115\
Data File : 15NOV002.D
Acq On : 15 Nov 2013 11:05 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 15 11:25:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Fri Nov 15 11:24:24 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.547	152	420438	40.00	mg/l	#-0.01
19) Naphthalene-d8	6.895	136	1987933	40.00	mg/l	-0.01
36) Acenaphthene-d10	8.831	164	1132790	40.00	mg/l	-0.03
56) Phenanthrene-d10	10.468	188	1927217	40.00	mg/l	-0.03
69) Chrysene-d12	13.560	240	1748731	40.00	mg/l	-0.03
81) Perylene-d12	15.940	264	1248063	40.00	mg/l	-0.03
System Monitoring Compounds						
4) 2-Fluorophenol	4.365	112	1560842	81.77	mg/l	-0.02
Spiked Amount 100.000			Recovery = 81.77%			
6) Phenol-d6	5.274	99	1852013	79.22	mg/l	-0.02
Spiked Amount 100.000			Recovery = 79.22%			
20) Nitrobenzene-d5	6.173	82	1967131	86.61	mg/l	-0.02
Spiked Amount 100.000			Recovery = 86.61%			
41) 2-Fluorobiphenyl	8.093	172	2832113	74.13	mg/l	0.02
Spiked Amount 100.000			Recovery = 74.13%			
60) 2,4,6-Tribromophenol	9.730	330	339300	80.69	mg/l	-0.03
Spiked Amount 100.000			Recovery = 80.69%			
71) p-Terphenyl-d14	12.254	244	2947406	72.11	mg/l	-0.03
Spiked Amount 100.000			Recovery = 72.11%			
Target Compounds						Qvalue
2) Pyridine	3.183	52	1190063m	101.96	mg/l	
3) N-Nitrosodimethylamine	3.205	74	1206577	93.91	mg/l	92
5) Aniline	5.274	93	2446375	89.24	mg/l	83
7) Phenol	5.285	94	2170804	86.42	mg/l	78
8) Bis(2-Chloroethyl) Ether	5.333	93	1665061	99.90	mg/l	97
9) 2-Chlorophenol	5.381	128	1501693	84.30	mg/l	93
10) 1,3-Dichlorobenzene	5.504	146	1507312	79.42	mg/l	99
11) 1,4-Dichlorobenzene	5.563	146	1484523	81.85	mg/l	99
12) Benzyl Alcohol	5.756	79	1310197	81.42	mg/l	91
13) 1,2-Dichlorobenzene	5.751	146	1392214	80.41	mg/l	99
14) 2-Methylphenol	5.863	108	1360341	85.99	mg/l	94
15) Bis(2-Chloroisopropyl)...	5.874	45	2101547	98.34	mg/l	87
16) 3/4-Methylphenol	6.045	107	3032506	171.00	mg/l	96
17) N-Nitroso-di-n-propyla...	6.077	70	1156863	88.04	mg/l	93
18) Hexachloroethane	6.055	117	530193	78.99	mg/l	97
21) Nitrobenzene	6.189	77	1913441	88.45	mg/l	95
22) Isophorone	6.451	82	3633230	88.20	mg/l	97
23) 2-Nitrophenol	6.515	139	783242	77.50	mg/l	92
24) 2,4-Dimethylphenol	6.580	107	1600321	80.53	mg/l	96
25) Benzoic Acid	6.836	105	1266234	91.07	mg/l	99
26) Bis(2-Chloroethoxy) Me...	6.665	93	2033204	85.36	mg/l	99
27) 2,4-Dichlorophenol	6.783	162	1168008	78.00	mg/l	97
28) 1,2,4-Trichlorobenzene	6.847	180	1246628	74.16	mg/l	100
29) Naphthalene	6.917	128	4154320	79.53	mg/l	99
30) 2,6-Dichlorophenol	7.013	162	1088569	77.83	mg/l	99
31) 4-Chloroaniline	7.013	127	1499611	82.37	mg/l	95
32) Hexachloro-1,3-Butadiene	7.098	225	647592	72.56	mg/l	99
33) 4-Chloro-3-Methylphenol	7.548	107	1396833	81.67	mg/l	98
34) 2-Methylnaphthalene	7.665	142	2627118	76.57	mg/l	98
35) 1-Methylnaphthalene	7.783	142	2518808	78.22	mg/l	98
37) Hexachlorocyclopentadiene	7.901	237	379937	62.24	mg/l	100
38) 2,4,6-Trichlorophenol	8.018	196	797619	75.61	mg/l	97
39) 2,4,5-Trichlorophenol	8.066	196	828811	79.78	mg/l	99
40) 2-Chloronaphthalene	8.200	162	2549419	76.99	mg/l	99

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131115\
Data File : 15NOV002.D
Acq On : 15 Nov 2013 11:05 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 15 11:25:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Fri Nov 15 11:24:24 2013
Response via : Initial Calibration
DataAcq Meth:8270.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 2-Nitroaniline	8.377	65	1057125	95.03 mg/l	91
43) Dimethyl Phthalate	8.601	163	2976121	75.05 mg/l	100
44) Acenaphthylene	8.666	152	3839674	75.75 mg/l	99
45) 3-Nitroaniline	8.847	138	715524	96.43 mg/l	92
46) Acenaphthene	8.874	153	2521428	76.26 mg/l	99
47) 2,4-Dinitrophenol	8.965	184	346199	96.47 mg/l	91
48) 4-Nitrophenol	9.077	65	587839	101.55 mg/l	91
49) Dibenzofuran	9.051	168	3505467	79.39 mg/l	97
50) 2,4-Dinitrotoluene	9.126	165	944658	79.48 mg/l	94
51) 2,6-Dinitrotoluene	8.687	165	674208	80.30 mg/l	93
52) Diethyl Phthalate	9.388	149	2821733	75.65 mg/l	98
53) 4-Chlorophenyl-Phenyl ...	9.425	204	1298959	79.74 mg/l	97
54) Fluorene	9.436	166	2552092	73.90 mg/l	99
55) 4-Nitroaniline	9.559	138	560386	79.83 mg/l	82
57) Azobenzene	9.612	77	3924947	95.06 mg/l	91
58) 4,6-Dinitro-2-Methylph...	9.591	198	518512	112.89 mg/l #	1
59) N-Nitrosodiphenylamine	9.585	169	1722981	71.99 mg/l	96
61) 4-Bromophenyl-Phenyl E...	9.960	248	809407	79.19 mg/l	99
62) Hexachlorobenzene	10.126	142	304120	78.09 mg/l	95
63) Pentachlorophenol	10.345	266	422409	77.28 mg/l	98
64) Phenanthrene	10.500	178	4075730	80.33 mg/l	99
65) Anthracene	10.548	178	3988510	77.78 mg/l	99
66) Di-n-Butyl Phthalate	11.174	149	4525061	74.77 mg/l	100
67) Fluoranthene	11.827	202	4018037	71.23 mg/l	98
68) Benzidine	11.987	184	1360281	140.85 mg/l	98
70) Pyrene	12.078	202	4100056	72.24 mg/l	100
72) Butyl Benzyl Phthalate	12.854	149	1854441	70.07 mg/l	92
73) 3,3'-Dichlorobenzidine	13.522	252	962121	104.13 mg/l	99
74) Benzo (a) Anthracene	13.533	228	3427267	70.89 mg/l	100
75) Bis(2-Ethylhexyl) Phth...	13.634	149	2785401	80.85 mg/l	98
76) Chrysene	13.602	228	3370637	75.13 mg/l	99
77) Di-n-Octyl Phthalate	14.592	149	4625233	83.45 mg/l	99
78) Benzo (b) Fluoranthene	15.276	252	3441181	75.49 mg/l	99
79) Benzo (k) Fluoranthene	15.309	252	1971134m	67.38 mg/l	
80) Benzo (a) Pyrene	15.838	252	2469121	81.13 mg/l	98
82) Indeno (1,2,3-c,d) Pyrene	18.138	276	2924174	133.36 mg/l	85
83) Dibenz (a,h) Anthracene	18.159	278	2639573	141.19 mg/l	98
84) Benzo (g,h,i) Perylene	18.673	276	2561192	151.00 mg/l	97

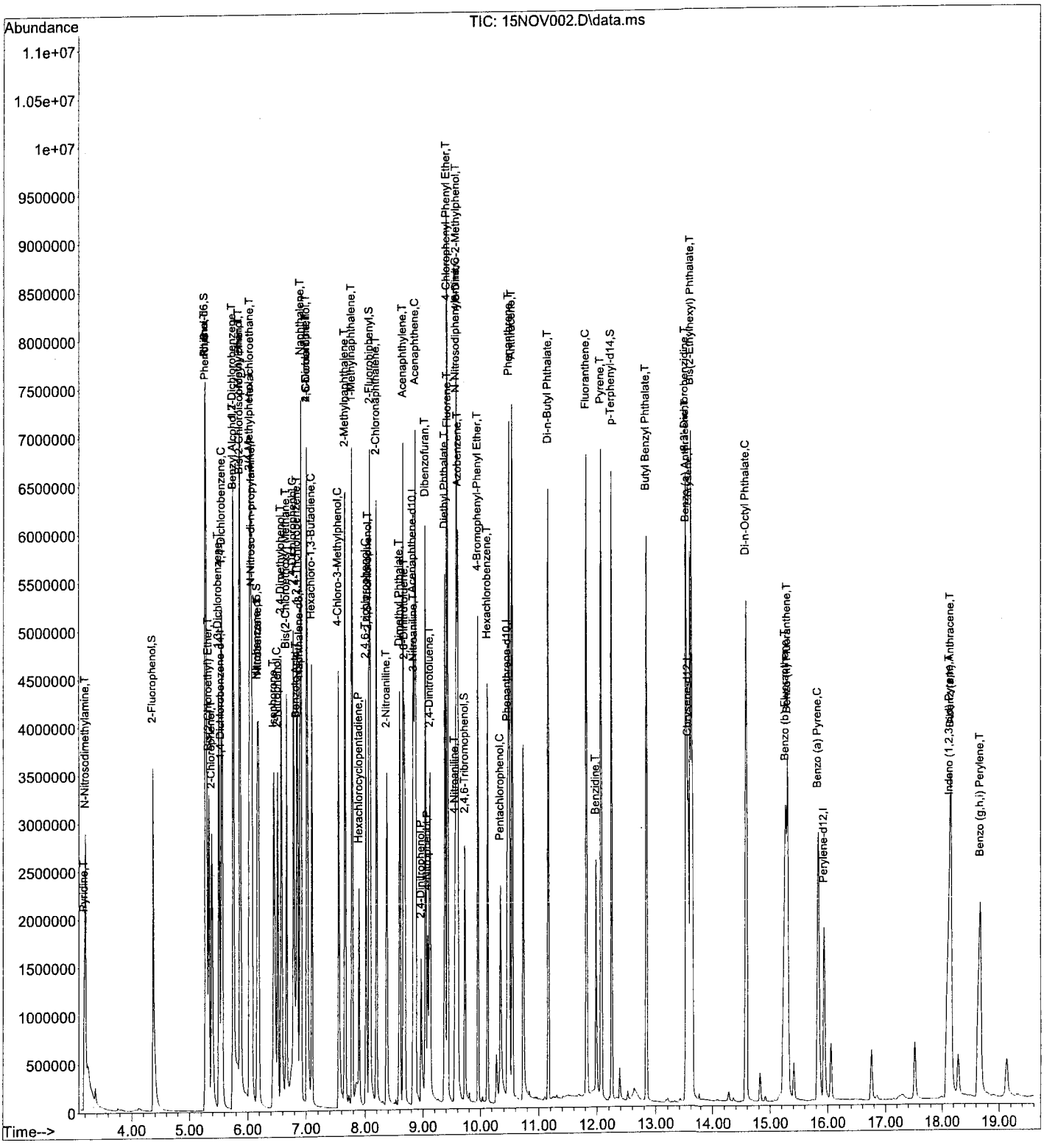
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS SS DATA\2013\131115\
Data File : 15NOV002.D
Acq On : 15 Nov 2013 11:05 am
Operator : 449
Sample : CCV S090513C 80PPM BNA
InstName : GCMS SS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 15 11:25:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\BNA130911.M
Quant Title : BNA 8270/625 CALIBRATION
QLast Update : Fri Nov 15 11:24:24 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



Return to Contents

CCV ASSOCIATION SUMMARY
FOR METHOD: EPA 8270C

BATCH ID: **131113A** ANALYZED BY: 859
INSTRUMENT: GC/MS TT

WORK ORDER: **095-01-001** REVIEWED BY: 27
MATRIX: Water D/T REVIEWED: 11/14/2013 16:05

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
11289	Daily Calibration	11/13/2013 16:53	W:\GCMS_TT_DATA\2013\131113\13NOV009.D\13NOV009.rr

WORK ORDER: **13-11-0697** REVIEWED BY: 27
MATRIX: Soil D/T REVIEWED: 11/15/2013 16:13

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
3	8-SS-5-6	11/14/2013 04:17	W:\GCMS_TT_DATA\2013\131113\13NOV035.D\13NOV035.rr
4	8-SS-9.5-10.5	11/14/2013 02:29	W:\GCMS_TT_DATA\2013\131113\13NOV031.D\13NOV031.rr
4	8-SS-9.5-10.5	11/14/2013 02:57	W:\GCMS_TT_DATA\2013\131113\13NOV032.D\13NOV032.rr

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8270C

CCV WORK ORDER: 095-01-001-11289-596
INSTRUMENT NAME: GC/MS TT
INITIAL BATCH: 131106
INITIAL DATE ANALYZED: 11/6/13 10:53
ANALYST: 859

REVIEWED BY: 27
DATE REVIEWED: 11/14/13 16:05
CCV BATCH: 131113A
CCV DATE ANALYZED: 11/13/13 16:53

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
N-Nitrosodimethylamine	Avg Resp	0.00	0.909	0.862			5	0-20	PASS
Aniline	Avg Resp	0.00	1.950	1.838			6	0-20	PASS
Phenol	Avg Resp	0.00	1.707	1.739			-2	0-20	PASS
Bis(2-Chloroethyl) Ether	Avg Resp	0.00	1.345	1.300			3	0-20	PASS
2-Chlorophenol	Avg Resp	0.00	1.466	1.441			2	0-20	PASS
1,3-Dichlorobenzene	Avg Resp	0.00	1.720	1.682			2	0-20	PASS
1,4-Dichlorobenzene	Avg Resp	0.00	1.666	1.634			2	0-20	PASS
Benzyl Alcohol	Avg Resp	0.00	0.996	0.916			8	0-20	PASS
1,2-Dichlorobenzene	Avg Resp	0.00	1.602	1.562			2	0-20	PASS
2-Methylphenol	Avg Resp	0.00	1.145	1.114			3	0-20	PASS
Bis(2-Chloroisopropyl) Ether	Avg Resp	0.00	1.700	1.499			12	0-20	PASS
3/4-Methylphenol	Avg Resp	0.00	1.220	1.190			2	0-20	PASS
N-Nitroso-di-n-propylamine	Avg Resp	0.05	0.880	0.880			0	0-20	PASS
Hexachloroethane	Avg Resp	0.00	0.607	0.603			1	0-20	PASS
Nitrobenzene	Avg Resp	0.00	0.338	0.323			5	0-20	PASS
Isophorone	Avg Resp	0.00	0.605	0.584			3	0-20	PASS
2-Nitrophenol	Avg Resp	0.00	0.203	0.199			2	0-20	PASS
2,4-Dimethylphenol	Avg Resp	0.00	0.317	0.314			1	0-20	PASS
Benzoic Acid	QR - Equal				80.00	81.675	-2	0-20	PASS
Bis(2-Chloroethoxy) Methane	Avg Resp	0.00	0.386	0.364			6	0-20	PASS
2,4-Dichlorophenol	Avg Resp	0.00	0.272	0.275			-1	0-20	PASS
Naphthalene	Avg Resp	0.00	1.003	0.972			3	0-20	PASS
4-Chloroaniline	Avg Resp	0.00	0.325	0.318			2	0-20	PASS
Hexachloro-1,3-Butadiene	Avg Resp	0.00	0.184	0.184			0	0-20	PASS
4-Chloro-3-Methylphenol	Avg Resp	0.00	0.246	0.258			-5	0-20	PASS
2-Methylnaphthalene	Avg Resp	0.00	0.644	0.639			1	0-20	PASS
Hexachlorocyclopentadiene	Avg Resp	0.05	0.290	0.323			-11	0-20	PASS
2,4,6-Trichlorophenol	Avg Resp	0.00	0.368	0.373			-1	0-20	PASS
2,4,5-Trichlorophenol	Avg Resp	0.00	0.354	0.357			-1	0-20	PASS
2-Chloronaphthalene	Avg Resp	0.00	1.182	1.154			2	0-20	PASS
2-Nitroaniline	Avg Resp	0.00	0.277	0.285			-3	0-20	PASS
Dimethyl Phthalate	Avg Resp	0.00	1.251	1.245			0	0-20	PASS
Acenaphthylene	Avg Resp	0.00	1.867	1.796			4	0-20	PASS
3-Nitroaniline	Avg Resp	0.00	0.214	0.190			11	0-20	PASS
Acenaphthene	Avg Resp	0.00	1.153	1.126			2	0-20	PASS
2,4-Dinitrophenol	QR - Equal				80.00	83.789	-5	0-20	PASS
4-Nitrophenol	LR - Equal				80.00	69.928	13	0-20	PASS
Dibenzofuran	Avg Resp	0.00	1.470	1.477			0	0-20	PASS

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8270C

CCV WORK ORDER: 095-01-001-11289-596
INSTRUMENT NAME: GC/MS TT
INITIAL BATCH: 131106
INITIAL DATE ANALYZED: 11/6/13 10:53
ANALYST: 859

REVIEWED BY: 27
DATE REVIEWED: 11/14/13 16:05
CCV BATCH: 131113A
CCV DATE ANALYZED: 11/13/13 16:53

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
2,4-Dinitrotoluene	Avg Resp	0.00	0.321	0.348			-8	0-20	PASS
2,6-Dinitrotoluene	Avg Resp	0.00	0.260	0.268			-3	0-20	PASS
Diethyl Phthalate	Avg Resp	0.00	1.175	1.188			-1	0-20	PASS
4-Chlorophenyl-Phenyl Ether	Avg Resp	0.00	0.571	0.568			1	0-20	PASS
Fluorene	Avg Resp	0.00	1.174	1.166			1	0-20	PASS
4-Nitroaniline	Avg Resp	0.00	0.178	0.203			-14	0-20	PASS
Azobenzene	Avg Resp	0.00	0.738	0.685			7	0-20	PASS
4,6-Dinitro-2-Methylphenol	LR - Equal				80.00	77.782	3	0-20	PASS
N-Nitrosodiphenylamine	Avg Resp	0.05	0.528	0.518			2	0-20	PASS
4-Bromophenyl-Phenyl Ether	Avg Resp	0.00	0.217	0.218			-1	0-20	PASS
Hexachlorobenzene	Avg Resp	0.00	0.093	0.089			5	0-20	PASS
Pentachlorophenol	Avg Resp	0.00	0.113	0.126			-12	0-20	PASS
Phenanthrene	Avg Resp	0.00	1.055	1.037			2	0-20	PASS
Anthracene	Avg Resp	0.00	1.034	1.014			2	0-20	PASS
Di-n-Butyl Phthalate	Avg Resp	0.00	1.199	1.175			2	0-20	PASS
Fluoranthene	Avg Resp	0.00	1.035	1.042			-1	0-20	PASS
Benzidine	**Avg Resp**	**0.00**	**0.255**	**0.312**			**-22**	0-20	**FAIL**
Pyrene	Avg Resp	0.00	1.316	1.139			14	0-20	PASS
Pyridine	Avg Resp	0.00	0.927	0.848			9	0-20	PASS
Butyl Benzyl Phthalate	Avg Resp	0.00	0.536	0.506			6	0-20	PASS
3,3'-Dichlorobenzidine	**Avg Resp**	**0.00**	**0.246**	**0.193**			**22**	0-20	**FAIL**
Benzo (a) Anthracene	Avg Resp	0.00	1.075	0.989			8	0-20	PASS
Bis(2-Ethylhexyl) Phthalate	Avg Resp	0.00	0.705	0.659			6	0-20	PASS
Chrysene	Avg Resp	0.00	1.042	0.939			10	0-20	PASS
Di-n-Octyl Phthalate	Avg Resp	0.00	1.049	1.056			-1	0-20	PASS
Benzo (k) Fluoranthene	Avg Resp	0.00	0.946	0.927			2	0-20	PASS
Benzo (b) Fluoranthene	Avg Resp	0.00	0.903	0.854			5	0-20	PASS
Benzo (a) Pyrene	Avg Resp	0.00	0.790	0.760			4	0-20	PASS
Benzo (g,h,i) Perylene	Avg Resp	0.00	0.666	0.687			-3	0-20	PASS
Indeno (1,2,3-c,d) Pyrene	Avg Resp	0.00	0.567	0.639			-13	0-20	PASS
Dibenz (a,h) Anthracene	Avg Resp	0.00	0.671	0.738			-10	0-20	PASS
1-Methylnaphthalene	Avg Resp	0.00	0.610	0.602			1	0-20	PASS
1,2,4-Trichlorobenzene	Avg Resp	0.00	0.338	0.327			3	0-20	PASS
2,6-Dichlorophenol	Avg Resp	0.00	0.259	0.251			3	0-20	PASS

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8270C

CCV WORK ORDER:	095-01-001-11289-596	REVIEWED BY:	27
INSTRUMENT NAME:	GC/MS TT	DATE REVIEWED:	11/14/13 16:05
INITIAL BATCH:	131106	CCV BATCH:	131113A
INITIAL DATE ANALYZED:	11/6/13 10:53	CCV DATE ANALYZED:	11/13/13 16:53
ANALYST:	859		

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS

MIN RF: Method Specified Minimum Response Factor

Data File:

Data File Name:

W:\GCMS_TT_DATA\2013\131113\13NOV009.D\13NOV009.rr

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV009.D
Acq On : 13 Nov 2013 4:53 pm
Operator : 513
Sample : CCV S090513C 80PPM
InstName : GCMS TT
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 13 17:13:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 13 17:13:05 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0	81	0.00
2	T	Pyridine	0.927	0.848	9	73	0.00
3	T	N-Nitrosodimethylamine	0.909	0.862	5	76	0.00
4	S	2-Fluorophenol	1.533	1.498	2	78	0.00
5	T	Aniline	1.950	1.838	6	76	0.00
6	S	Phenol-d6	1.661	1.627	2	78	0.00
7	C	Phenol	1.707	1.739	-2	79	0.00
8	T	Bis(2-Chloroethyl) Ether	1.345	1.300	3	78	0.00
9	T	2-Chlorophenol	1.466	1.441	2	80	0.00
10	T	1,3-Dichlorobenzene	1.720	1.682	2	80	0.00
11	C	1,4-Dichlorobenzene	1.666	1.634	2	80	0.00
12	T	Benzyl Alcohol	0.996	0.916	8	73	0.00
13	T	1,2-Dichlorobenzene	1.602	1.562	2	80	0.00
14	T	2-Methylphenol	1.145	1.114	3	78	0.00
15	T	Bis(2-Chloroisopropyl) Ethe	1.700	1.499	12	74	0.00
16	T	3/4-Methylphenol	1.220	1.190	2	82	0.00
17	P	N-Nitroso-di-n-propylamine	0.880	0.880	0	80	0.00
18	T	Hexachloroethane	0.607	0.603	1	80	0.00
19	I	Naphthalene-d8	1.000	1.000	0	83	0.00
20	S	Nitrobenzene-d5	0.347	0.338	3	80	0.00
21	T	Nitrobenzene	0.338	0.323	4	80	0.00
22	T	Isophorone	0.605	0.584	3	80	0.00
23	C	2-Nitrophenol	0.203	0.199	2	81	0.00
24	T	2,4-Dimethylphenol	0.317	0.314	1	83	0.00
25	T	Benzoic Acid	0.113	0.146	-29#	84	0.00
26	T	Bis(2-Chloroethoxy) Methane	0.386	0.364	6	80	0.00
27	C	2,4-Dichlorophenol	0.272	0.275	-1	83	0.00
28	T	1,2,4-Trichlorobenzene	0.338	0.327	3	82	0.00
29	T	Naphthalene	1.003	0.972	3	83	0.00
30	T	2,6-Dichlorophenol	0.259	0.251	3	81	0.00
31	T	4-Chloroaniline	0.325	0.318	2	85	0.00
32	C	Hexachloro-1,3-Butadiene	0.184	0.184	0	83	0.00
33	C	4-Chloro-3-Methylphenol	0.246	0.258	-5	84	0.00
34	T	2-Methylnaphthalene	0.644	0.639	1	84	0.00
35	T	1-Methylnaphthalene	0.610	0.602	1	83	0.00
36	I	Acenaphthene-d10	1.000	1.000	0	85	0.00
37	P	Hexachlorocyclopentadiene	0.290	0.323	-11	87	0.00
38	C	2,4,6-Trichlorophenol	0.368	0.373	-1	83	0.00
39	T	2,4,5-Trichlorophenol	0.354	0.357	-1	83	0.00
40	T	2-Chloronaphthalene	1.182	1.154	2	84	0.00
41	S	2-Fluorobiphenyl	1.435	1.388	3	84	0.00
42	T	2-Nitroaniline	0.277	0.285	-3	84	0.00
43	T	Dimethyl Phthalate	1.251	1.245	0	85	0.00
44	T	Acenaphthylene	1.867	1.796	4	84	0.00
45	T	3-Nitroaniline	0.214	0.190	11	85	0.00
46	C	Acenaphthene	1.153	1.126	2	84	0.00
47	P	2,4-Dinitrophenol	0.094	0.122	-30#	89	0.00
48	P	4-Nitrophenol	0.138	0.140	-1	73	0.00
49	T	Dibenzofuran	1.470	1.477	0	86	0.00
50	T	2,4-Dinitrotoluene	0.321	0.348	-8	86	0.00
51	T	2,6-Dinitrotoluene	0.260	0.268	-3	85	0.00

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV009.D
Acq On : 13 Nov 2013 4:53 pm
Operator : 513
Sample : CCV S090513C 80PPM
InstName : GCMS TT
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 13 17:13:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 13 17:13:05 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	T	Diethyl Phthalate	1.175	1.188	-1	85	0.00
53	T	4-Chlorophenyl-Phenyl Ether	0.571	0.568	1	87	0.00
54	T	Fluorene	1.174	1.166	1	86	0.00
55	T	4-Nitroaniline	0.178	0.203	-14	97	0.00
56	I	Phenanthrene-d10	1.000	1.000	0	87	0.00
57	T	Azobenzene	0.738	0.685	7	85	0.00
58	T	4,6-Dinitro-2-Methylphenol	0.107	0.120	-12	85	0.00
59	C	N-Nitrosodiphenylamine	0.528	0.518	2	87	0.00
60	S	2,4,6-Tribromophenol	0.095	0.101	-6	87	0.00
61	T	4-Bromophenyl-Phenyl Ether	0.217	0.218	0	86	0.00
62	T	Hexachlorobenzene	0.093	0.089	4	84	0.00
63	C	Pentachlorophenol	0.113	0.126	-12	85	0.00
64	T	Phenanthrene	1.055	1.037	2	86	0.00
65	T	Anthracene	1.034	1.014	2	86	0.00
66	T	Di-n-Butyl Phthalate	1.199	1.175	2	84	0.00
67	C	Fluoranthene	1.035	1.042	-1	86	0.00
68	T	Benzidine	0.255	0.312	-22	119	0.00
69	I	Chrysene-d12	1.000	1.000	0	98	0.00
70	T	Pyrene	1.316	1.139	13	86	0.00
71	S	p-Terphenyl-d14	0.916	0.820	10	87	0.00
72	T	Butyl Benzyl Phthalate	0.536	0.506	6	86	0.00
73	T	3,3'-Dichlorobenzidine	0.246	0.193	22	84	0.00
74	T	Benzo (a) Anthracene	1.075	0.989	8	87	0.00
75	T	Bis(2-Ethylhexyl) Phthalate	0.705	0.659	7	84	0.00
76	T	Chrysene	1.042	0.939	10	86	0.00
77	C	Di-n-Octyl Phthalate	1.049	1.056	-1	86	0.00
78	T	Benzo (b) Fluoranthene	0.903	0.854	5	85	0.00
79	T	Benzo (k) Fluoranthene	0.946	0.927	2	89	0.00
80	C	Benzo (a) Pyrene	0.790	0.760	4	83	0.00
81	I	Perylene-d12	1.000	1.000	0	87	0.00
82	T	Indeno (1,2,3-c,d) Pyrene	0.567	0.639	-13	84	0.00
83	T	Dibenz (a,h) Anthracene	0.671	0.738	-10	87	0.00
84	T	Benzo (g,h,i) Perylene	0.666	0.687	-3	84	0.00

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

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV009.D
Acq On : 13 Nov 2013 4:53 pm
Operator : 513
Sample : CCV S090513C 80PPM
InstName : GCMS TT
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 13 17:13:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 13 17:13:05 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	5.754	152	301610	40.00	mg/l		0.00
19) Naphthalene-d8	7.096	136	1145741	40.00	mg/l		0.00
36) Acenaphthene-d10	9.033	164	572502	40.00	mg/l		0.00
56) Phenanthrene-d10	10.658	188	864217	40.00	mg/l		0.00
69) Chrysene-d12	13.761	240	773626	40.00	mg/l		0.00
81) Perylene-d12	16.184	264	593524	40.00	mg/l		0.00
System Monitoring Compounds							
4) 2-Fluorophenol	4.529	112	903446	78.18	mg/l		0.00
Spiked Amount 100.000			Recovery =	78.18%			
6) Phenol-d6	5.428	99	981553	78.35	mg/l		0.00
Spiked Amount 100.000			Recovery =	78.35%			
20) Nitrobenzene-d5	6.358	82	775577	78.00	mg/l		0.00
Spiked Amount 100.000			Recovery =	78.00%			
41) 2-Fluorobiphenyl	8.289	172	1589457	77.39	mg/l		0.00
Spiked Amount 100.000			Recovery =	77.39%			
60) 2,4,6-Tribromophenol	9.915	330	174604	85.22	mg/l		0.00
Spiked Amount 100.000			Recovery =	85.22%			
71) p-Terphenyl-d14	12.434	244	1268433	71.56	mg/l		0.00
Spiked Amount 100.000			Recovery =	71.56%			
Target Compounds							Qvalue
2) Pyridine	3.315	52	511354	73.20	mg/l		96
3) N-Nitrosodimethylamine	3.325	74	519686	75.83	mg/l		97
5) Aniline	5.465	93	1108613	75.39	mg/l	#	85
7) Phenol	5.444	94	1048774	81.46	mg/l		96
8) Bis(2-Chloroethyl) Ether	5.524	93	784179	77.32	mg/l		99
9) 2-Chlorophenol	5.572	128	869383	78.64	mg/l		99
10) 1,3-Dichlorobenzene	5.716	146	1014681	78.22	mg/l		100
11) 1,4-Dichlorobenzene	5.770	146	985499	78.47	mg/l		99
12) Benzyl Alcohol	5.914	79	552742	73.63	mg/l		99
13) 1,2-Dichlorobenzene	5.962	146	942190	78.00	mg/l		100
14) 2-Methylphenol	6.037	108	671833	77.83	mg/l		100
15) Bis(2-Chloroisopropyl)...	6.075	45	904241	70.54	mg/l		97
16) 3/4-Methylphenol	6.203	107	1436026	156.09	mg/l		100
17) N-Nitroso-di-n-propyla...	6.246	70	530878	80.04	mg/l		99
18) Hexachloroethane	6.278	117	363961	79.47	mg/l		99
21) Nitrobenzene	6.380	77	739968	76.33	mg/l		99
22) Isophorone	6.626	82	1337719	77.23	mg/l		100
23) 2-Nitrophenol	6.711	139	456699	78.61	mg/l		99
24) 2,4-Dimethylphenol	6.749	107	720156	79.27	mg/l		99
25) Benzoic Acid	6.898	105	335134	81.67	mg/l		94
26) Bis(2-Chloroethoxy) Me...	6.856	93	833488	75.44	mg/l		99
27) 2,4-Dichlorophenol	6.963	162	629954	80.89	mg/l		100
28) 1,2,4-Trichlorobenzene	7.053	180	749385	77.50	mg/l		99
29) Naphthalene	7.123	128	2226444	77.47	mg/l		100
30) 2,6-Dichlorophenol	7.209	162	574264	77.35	mg/l		100
31) 4-Chloroaniline	7.203	127	728407	78.29	mg/l		100
32) Hexachloro-1,3-Butadiene	7.310	225	420849	79.82	mg/l		99
33) 4-Chloro-3-Methylphenol	7.717	107	590396	83.84	mg/l		99
34) 2-Methylnaphthalene	7.867	142	1465178	79.48	mg/l		100
35) 1-Methylnaphthalene	7.984	142	1378388	78.85	mg/l		100
37) Hexachlorocyclopentadiene	8.113	237	369427	88.87	mg/l		99
38) 2,4,6-Trichlorophenol	8.203	196	426714	80.99	mg/l		100
39) 2,4,5-Trichlorophenol	8.246	196	408258	80.50	mg/l		100
40) 2-Chloronaphthalene	8.401	162	1321250	78.13	mg/l		99

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV009.D
Acq On : 13 Nov 2013 4:53 pm
Operator : 513
Sample : CCV S090513C 80PPM
InstName : GCMS TT
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 13 17:13:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 13 17:13:05 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 2-Nitroaniline	8.551	65	326193	82.37 mg/l	100
43) Dimethyl Phthalate	8.786	163	1425978	79.67 mg/l	100
44) Acenaphthylene	8.867	152	2055964	76.96 mg/l	100
45) 3-Nitroaniline	9.011	138	217139	70.95 mg/l	99
46) Acenaphthene	9.070	153	1288934	78.14 mg/l	99
47) 2,4-Dinitrophenol	9.118	184	139535	83.79 mg/l	98
48) 4-Nitrophenol	9.188	65	159936	69.93 mg/l	96
49) Dibenzofuran	9.241	168	1690824	80.36 mg/l	97
50) 2,4-Dinitrotoluene	9.289	165	398015	86.51 mg/l	99
51) 2,6-Dinitrotoluene	8.861	165	306704	82.51 mg/l	99
52) Diethyl Phthalate	9.567	149	1360259	80.88 mg/l	100
53) 4-Chlorophenyl-Phenyl ...	9.621	204	650326	79.51 mg/l	99
54) Fluorene	9.626	166	1335001	79.42 mg/l	99
55) 4-Nitroaniline	9.696	138	232738	91.55 mg/l	97
57) Azobenzene	9.797	77	1184125	74.29 mg/l	99
58) 4,6-Dinitro-2-Methylph...	9.739	198	207868	77.78 mg/l	98
59) N-Nitrosodiphenylamine	9.765	169	895755	78.46 mg/l	100
61) 4-Bromophenyl-Phenyl E...	10.161	248	376910	80.53 mg/l	100
62) Hexachlorobenzene	10.322	142	153321	76.31 mg/l	99
63) Pentachlorophenol	10.519	266	217398	89.43 mg/l	100
64) Phenanthrene	10.685	178	1792155	78.65 mg/l	100
65) Anthracene	10.733	178	1753016	78.50 mg/l	100
66) Di-n-Butyl Phthalate	11.359	149	2031414	78.41 mg/l	100
67) Fluoranthene	12.006	202	1800778	80.52 mg/l	100
68) Benzidine	12.156	184	538985	97.84 mg/l	99
70) Pyrene	12.252	202	1761818	69.20 mg/l	100
72) Butyl Benzyl Phthalate	13.049	149	783253	75.56 mg/l	99
73) 3,3'-Dichlorobenzidine	13.723	252	297967	62.52 mg/l	100
74) Benzo (a) Anthracene	13.739	228	1530617	73.61 mg/l	100
75) Bis(2-Ethylhexyl) Phth...	13.868	149	1020270	74.87 mg/l	99
76) Chrysene	13.803	228	1452715	72.11 mg/l	99
77) Di-n-Octyl Phthalate	14.852	149	1634662	80.57 mg/l	100
78) Benzo (b) Fluoranthene	15.488	252	1321788	75.67 mg/l	99
79) Benzo (k) Fluoranthene	15.536	252	1434454	78.43 mg/l	99
80) Benzo (a) Pyrene	16.082	252	1176345	77.00 mg/l	100
82) Indeno (1,2,3-c,d) Pyrene	18.339	276	759007	90.29 mg/l	96
83) Dibenz (a,h) Anthracene	18.387	278	876510	88.07 mg/l	100
84) Benzo (g,h,i) Perylene	18.890	276	815803	82.54 mg/l	99

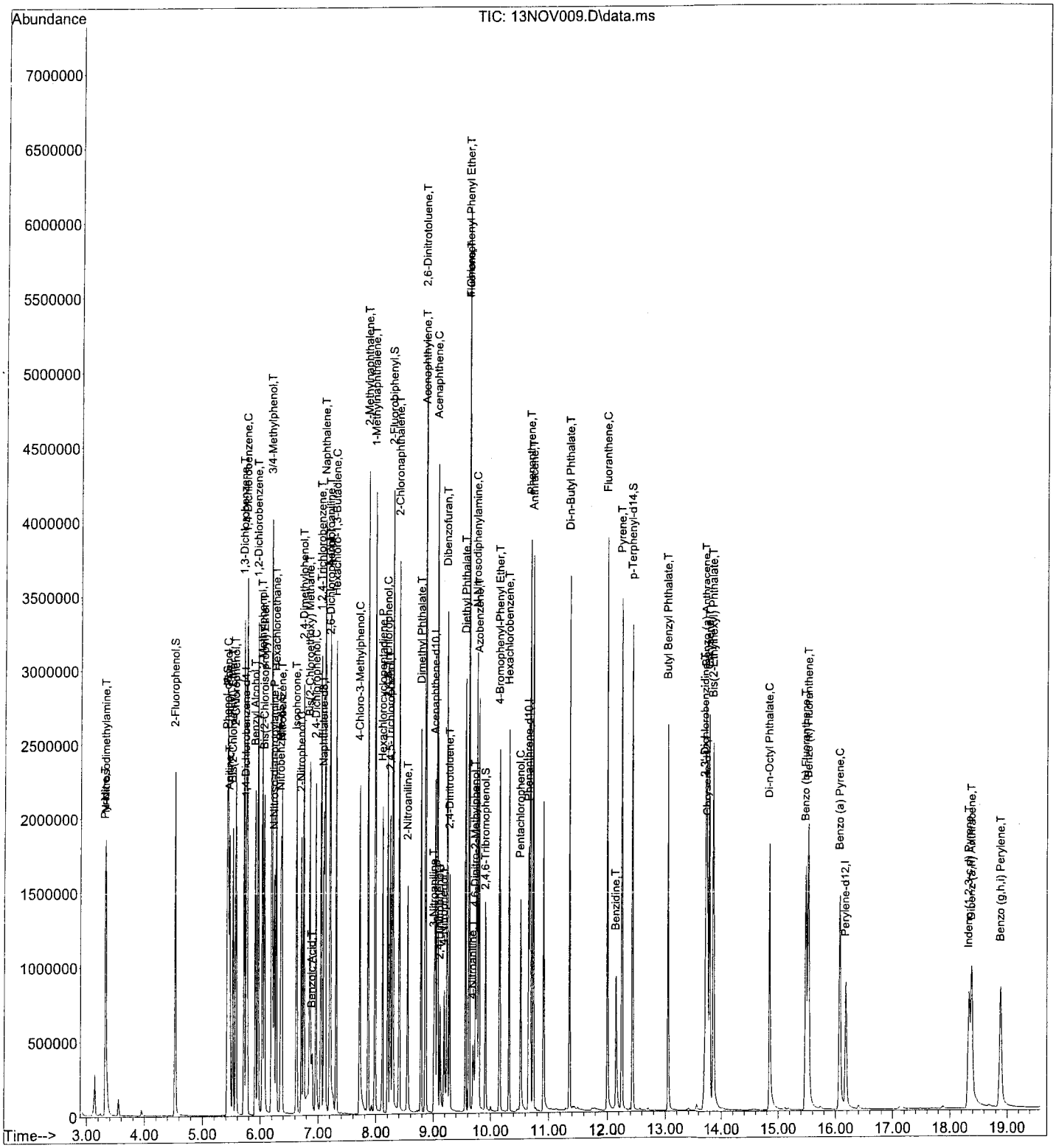
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV009.D
Acq On : 13 Nov 2013 4:53 pm
Operator : 513
Sample : CCV S090513C 80PPM
InstName : GCMS TT
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 13 17:13:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\131106_BNA.M
Quant Title : BNA 8270C
QLast Update : Wed Nov 13 17:13:05 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



Return to Contents

EPA METHOD 8270C
SVOCs

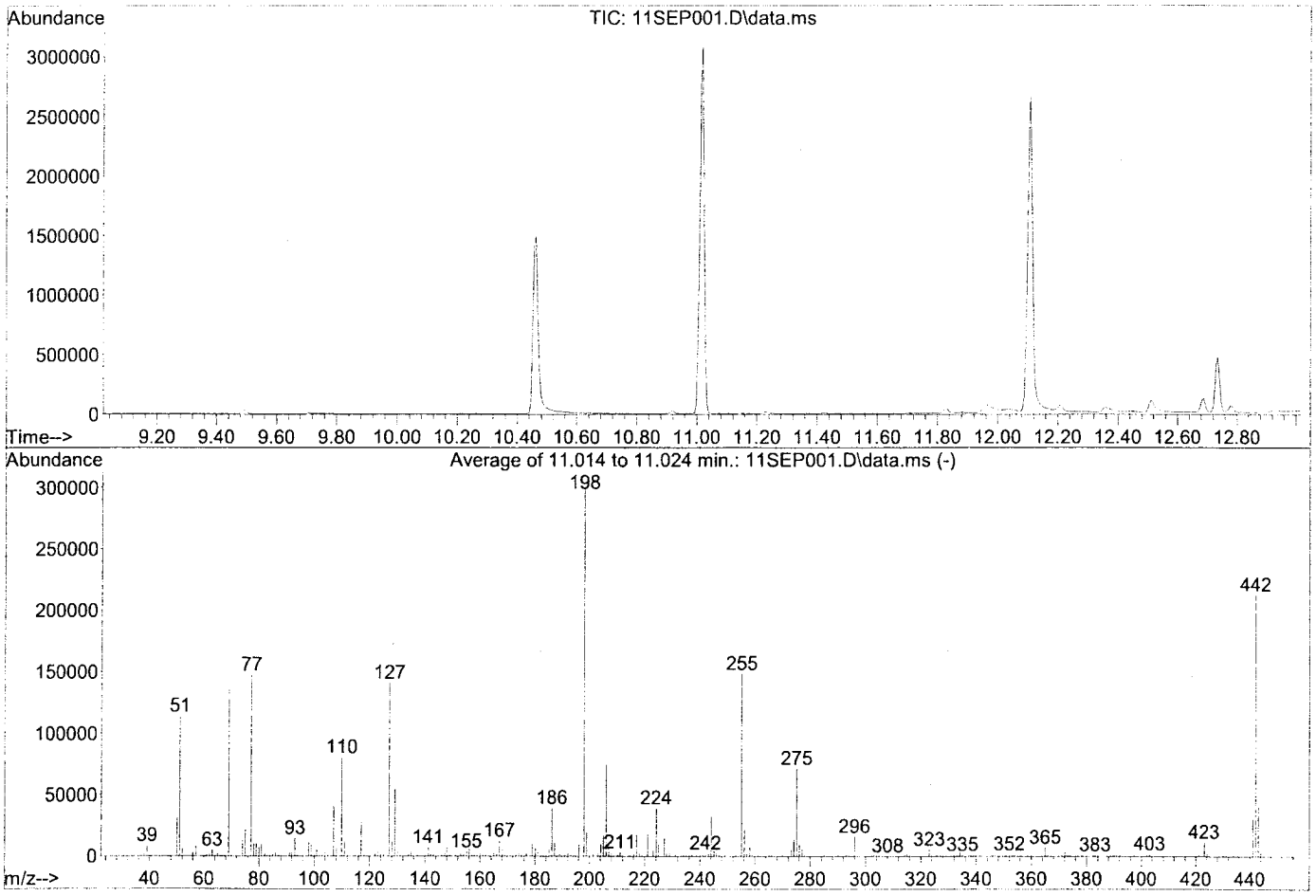
Tuning Reports

Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP001.D
Acq On : 11 Sep 2013 10:50 am
Operator : 449
Sample : TUNE S090413A DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Title : bbbbb
Last Update : Tue Sep 03 11:46:03 2013



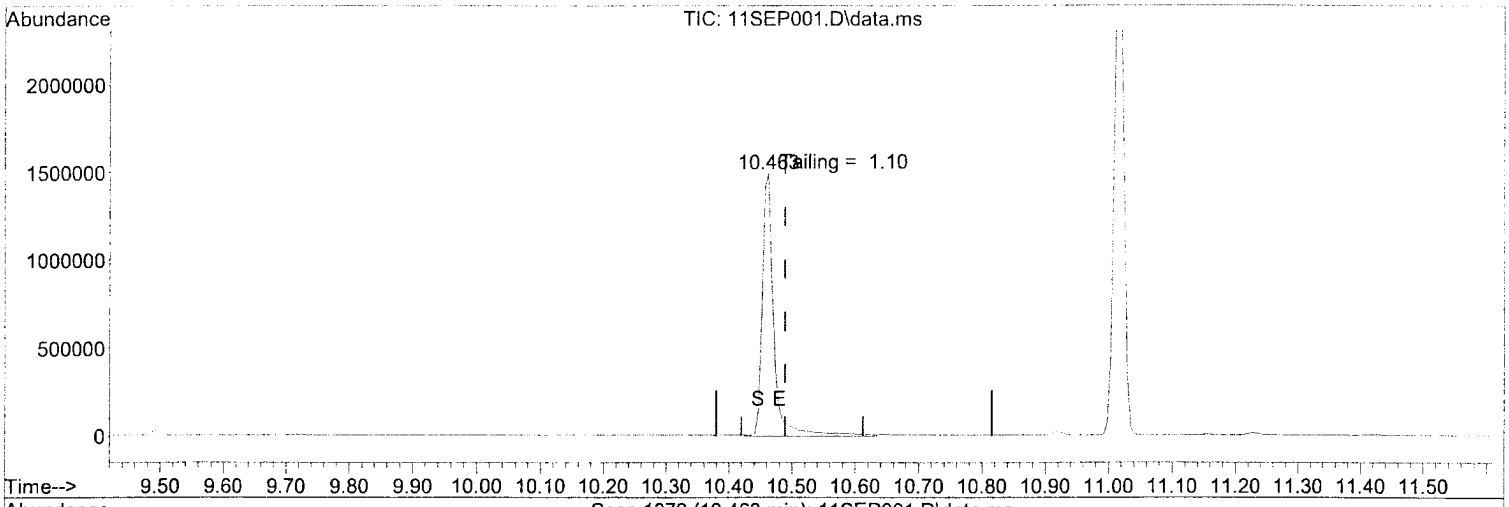
AutoFind: Scans 1482, 1483, 1484; Background Corrected with Scan 1475

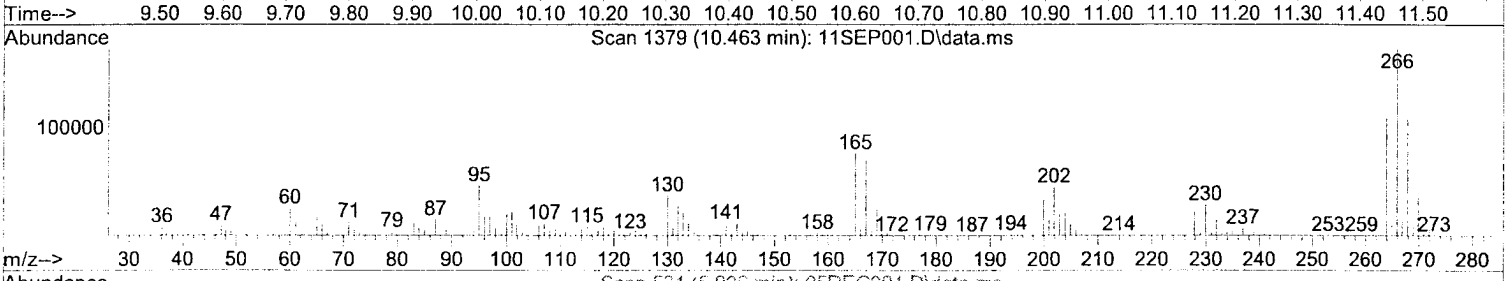
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	38.1	113935	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	45.4	135763	PASS
70	69	0.00	2	0.5	635	PASS
127	198	40	60	47.1	140859	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	298944	PASS
199	198	5	9	6.6	19589	PASS
275	198	10	30	23.9	71325	PASS
365	198	1	100	2.3	6924	PASS
441	443	0.01	100	74.9	30152	PASS
442	198	40	200	71.1	212587	PASS
443	442	17	23	18.9	40277	PASS

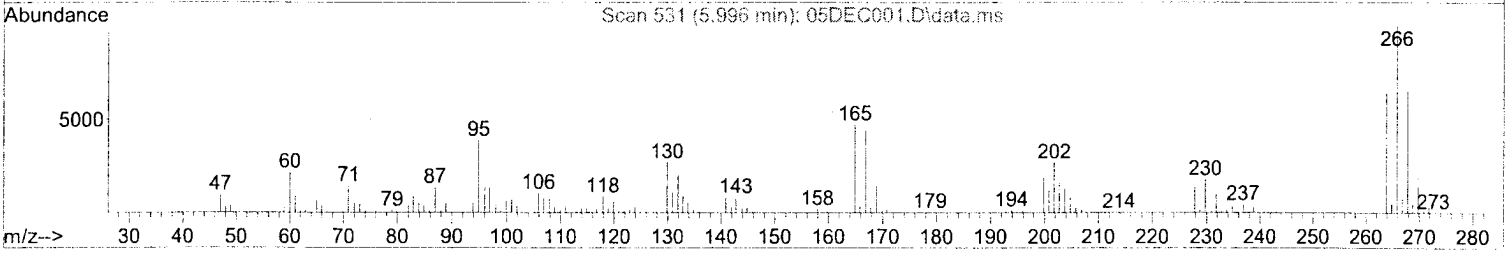
Return to Contents

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP001.D
Acq On : 11 Sep 2013 10:50 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 11:08:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Tue Sep 03 11:46:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 11SEP001.D\data.ms

(1) Pentachlorophenol

10.463min (-0.027) 64.57

response 1856948

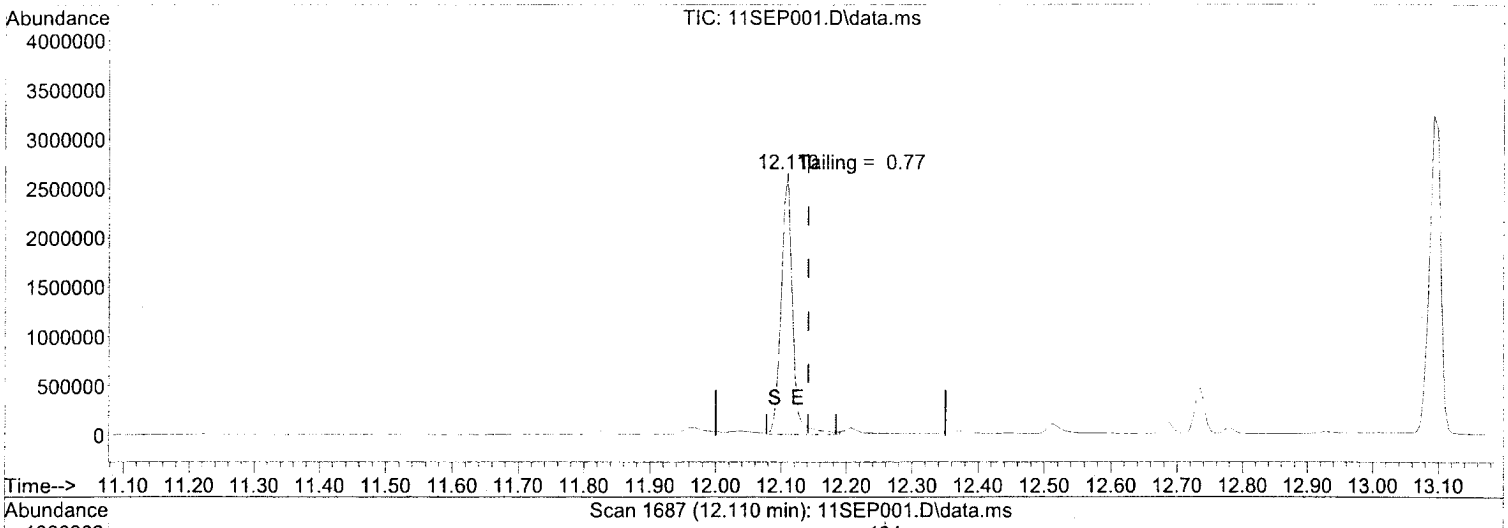
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

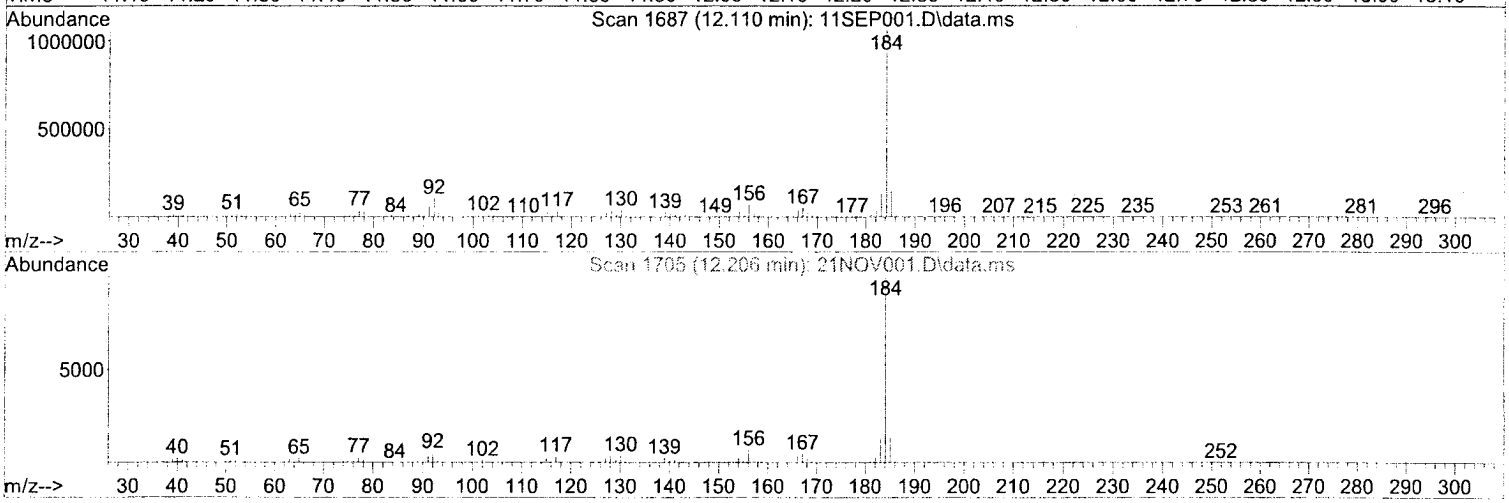
Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP001.D
Acq On : 11 Sep 2013 10:50 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 11:08:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Tue Sep 03 11:46:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M





TIC: 11SEP001.D\data.ms

(3) Benzidine

12.110min (-0.032) 52.40

response 3167025

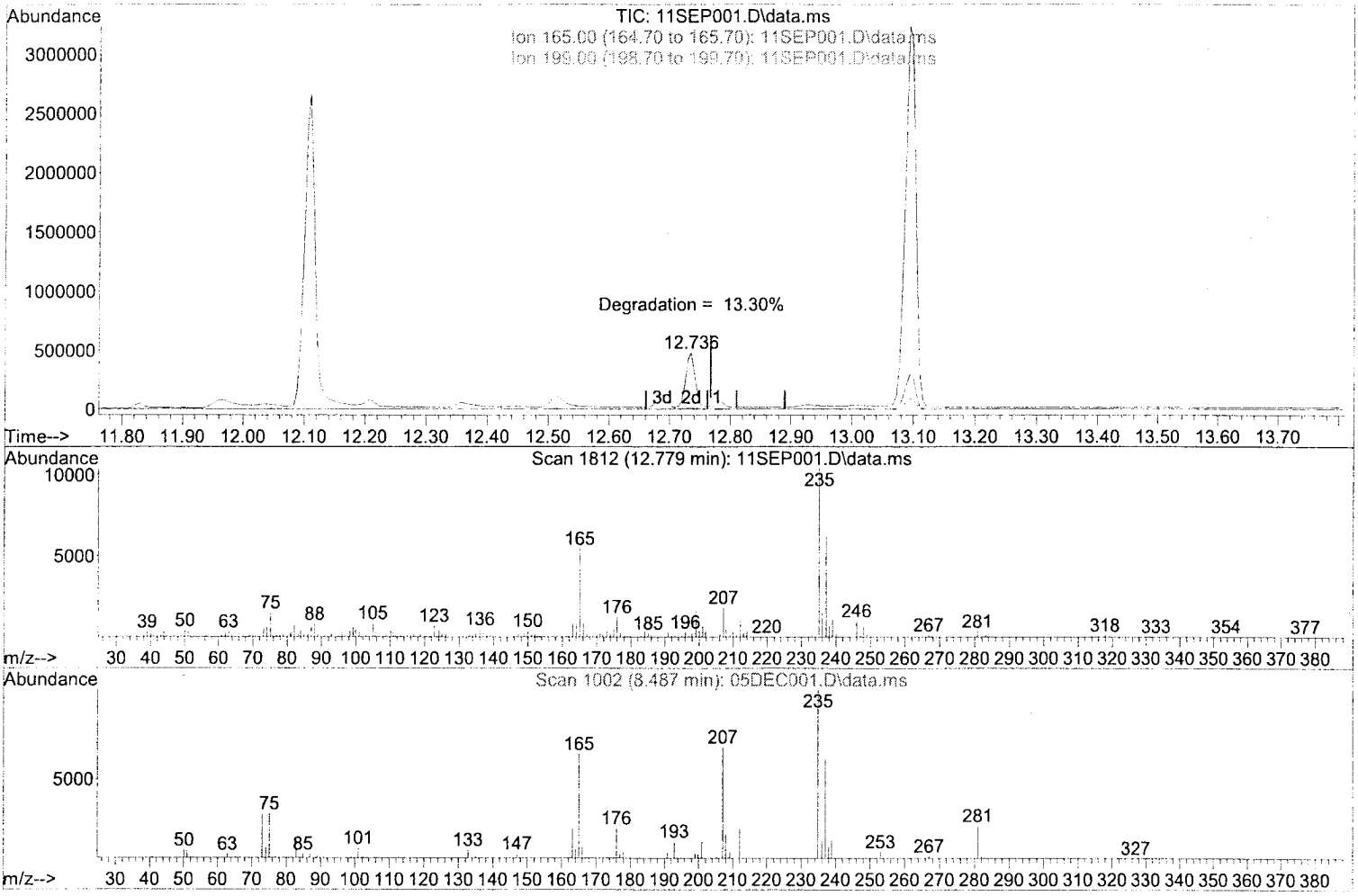
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP001.D
Acq On : 11 Sep 2013 10:50 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 11:08:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Tue Sep 03 11:46:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



TIC: 11SEP001.D\data.ms

(5) DDD

12.779min (+0.011) 0.00

response 63225

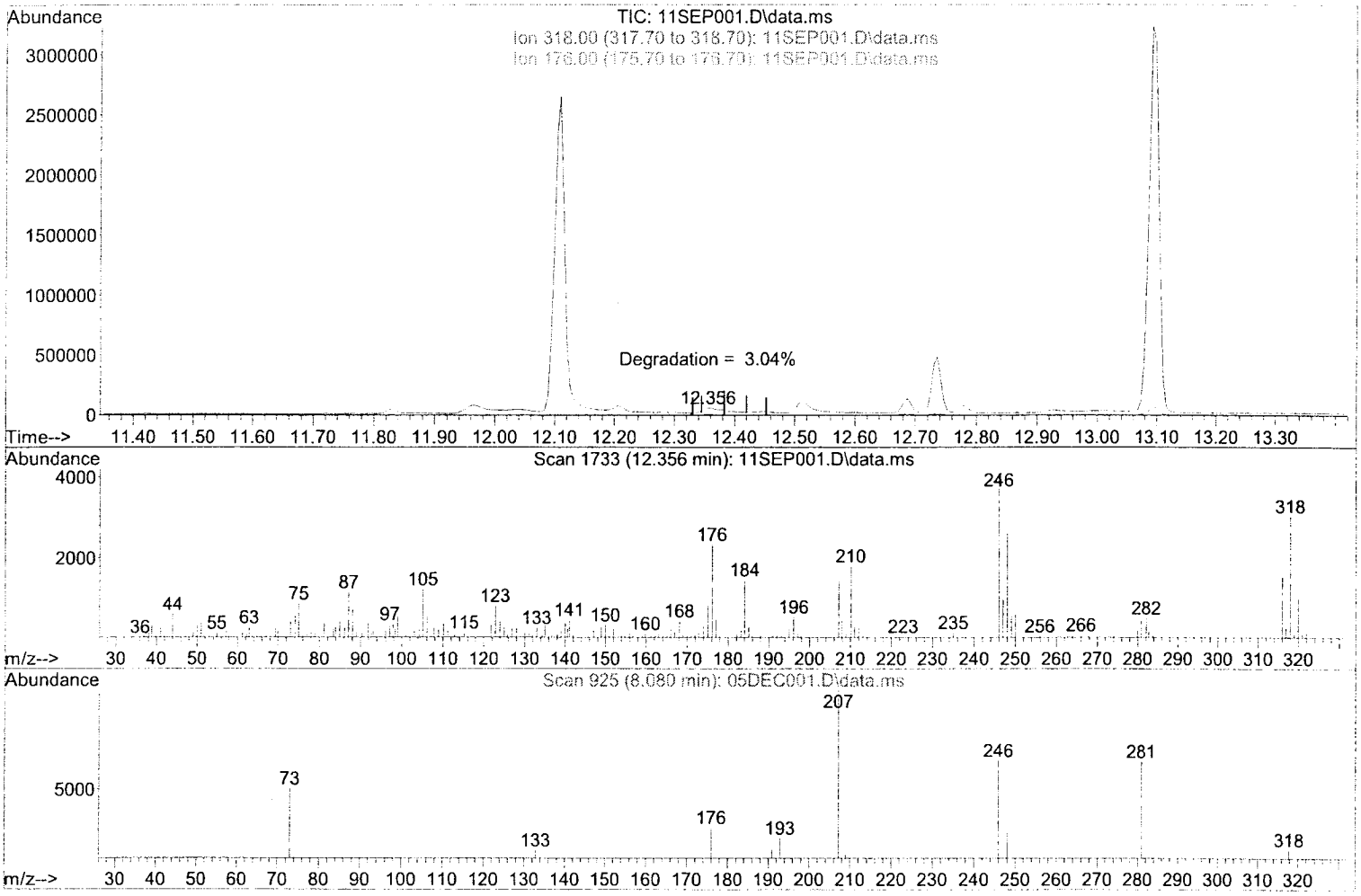
Signal	Exp%	Act%
TIC	100	100
165.00	894.70	8.21#
199.00	257.90	3.19#
0.00	0.00	0.00

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\130911\
Data File : 11SEP001.D
Acq On : 11 Sep 2013 10:50 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 11:08:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Tue Sep 03 11:46:03 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



TIC: 11SEP001.D\data.ms

(6) DDE

12.356min (-0.027) 0.00

response 68815

Signal	Exp%	Act%
TIC	100	100
318.00	286.70	3.24#
176.00	484.00	3.12#
0.00	0.00	0.00

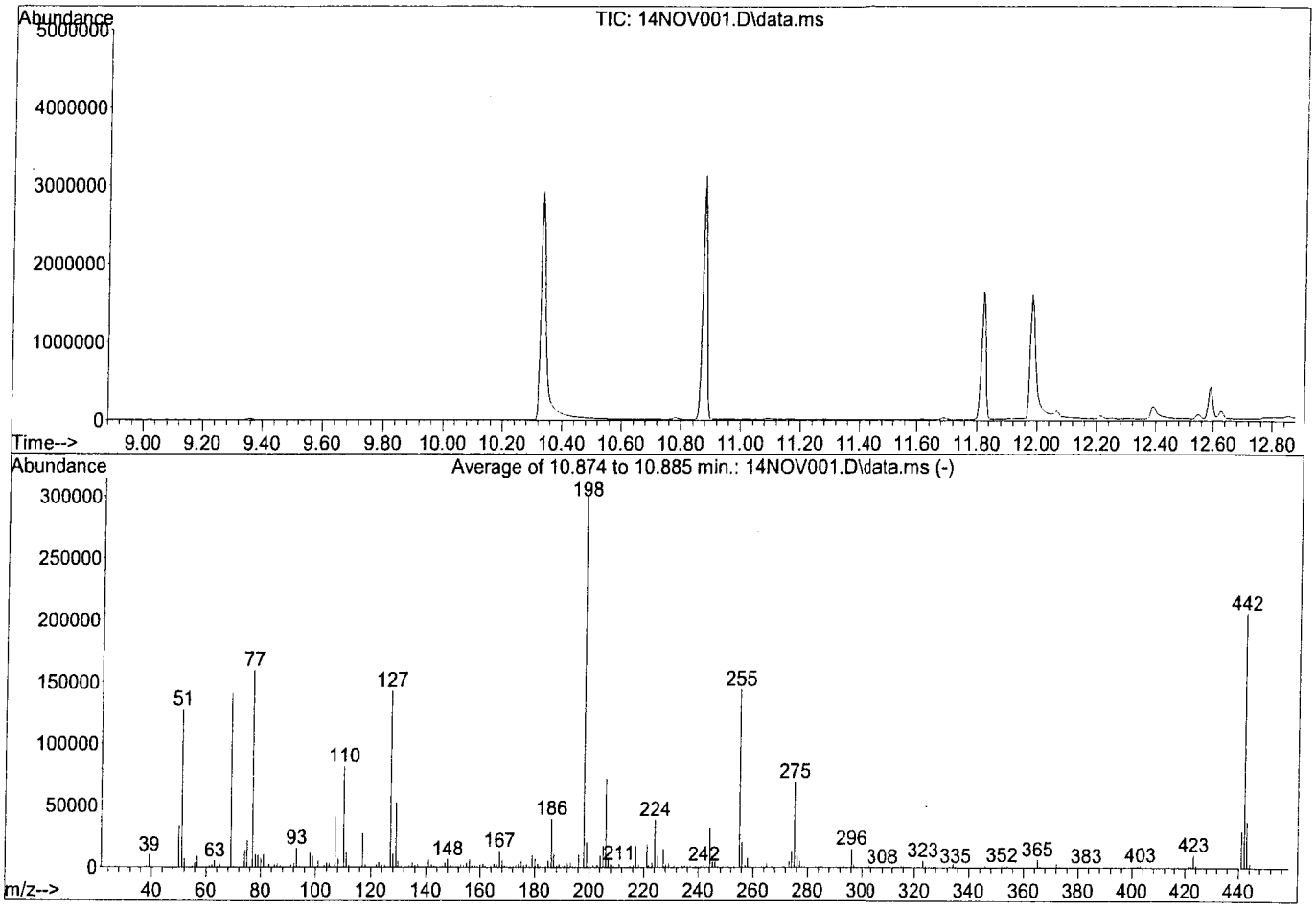
Return to Contents

DFTPP

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV001.D
Acq On : 14 Nov 2013 10:08 am
Operator : 449
Sample : TUNE S090413A DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Title : bbbbb
Last Update : Thu Nov 07 10:51:17 2013



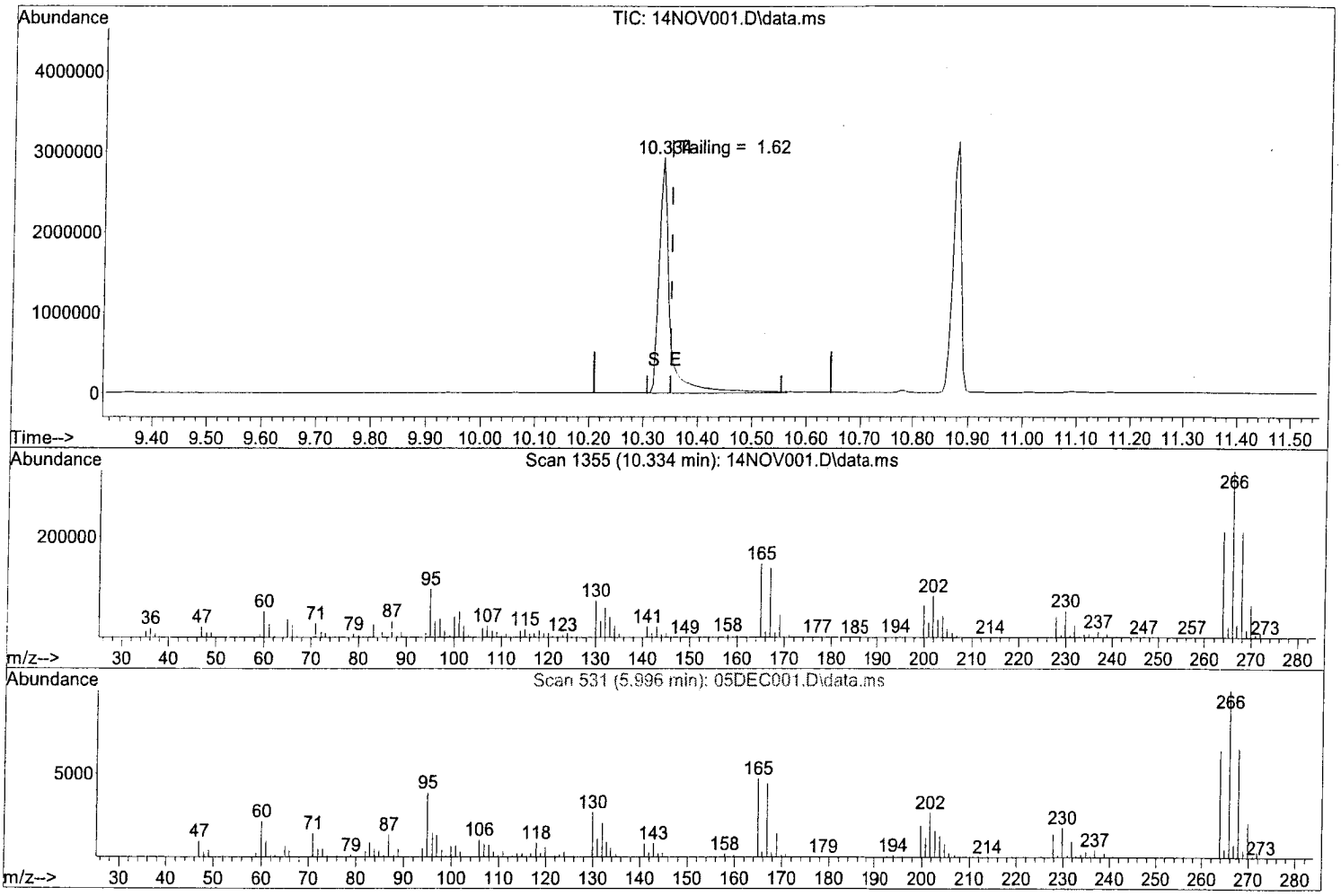
AutoFind: Scans 1456, 1457, 1458; Background Corrected with Scan 1449

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	42.7	128074	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	46.8	140642	PASS
70	69	0.00	2	0.5	739	PASS
127	198	40	60	47.6	142987	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	300267	PASS
199	198	5	9	6.6	19897	PASS
275	198	10	30	23.0	69184	PASS
365	198	1	100	2.1	6233	PASS
441	443	0.01	100	80.0	29752	PASS
442	198	40	200	68.5	205589	PASS
443	442	17	23	18.1	37213	PASS

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV001.D
Acq On : 14 Nov 2013 10:08 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 14 10:27:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Thu Nov 07 10:51:17 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



TIC: 14NOV001.D\data.ms

(1) Pentachlorophenol

10.334min (-0.016) 141.38

response 4065673

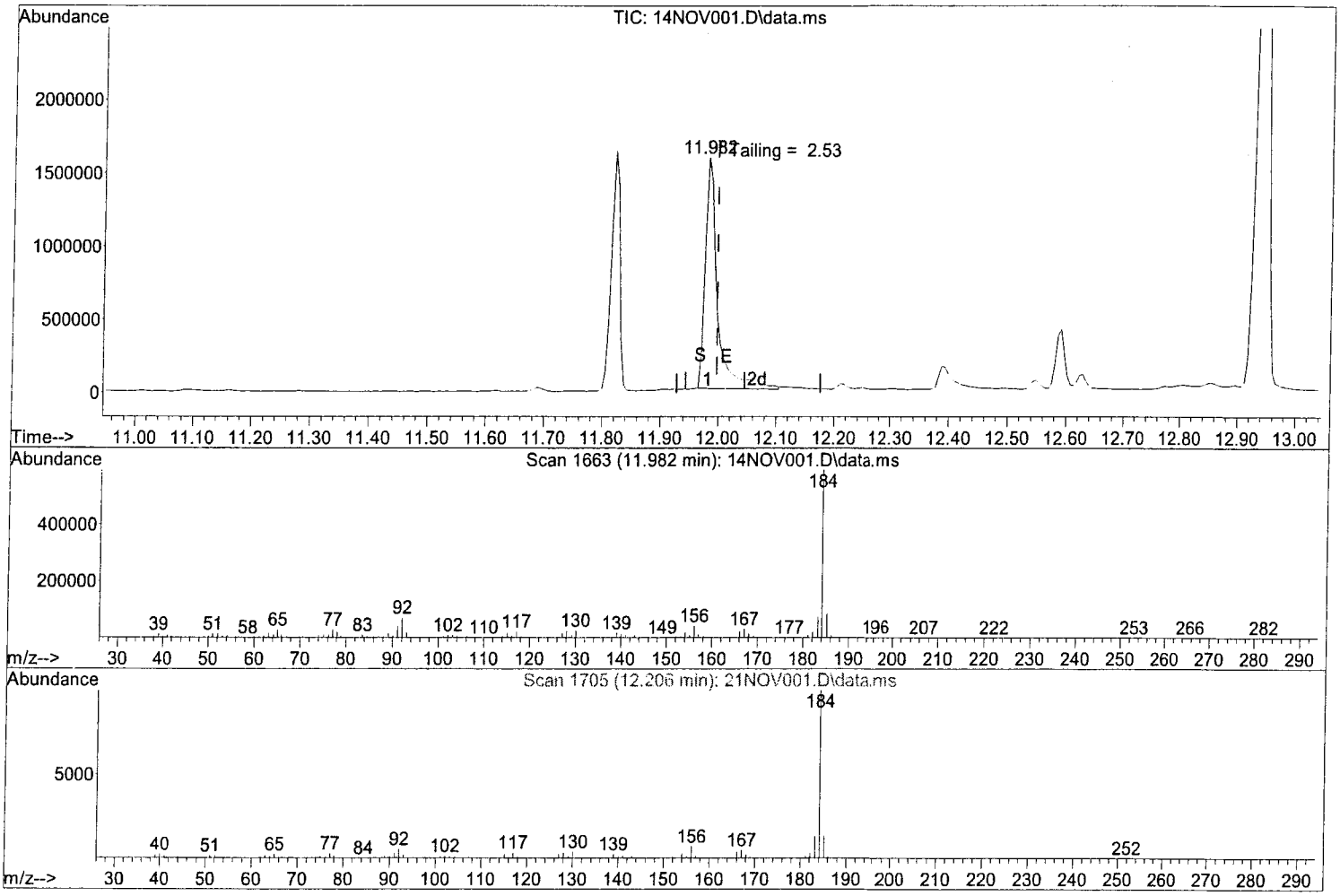
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV001.D
Acq On : 14 Nov 2013 10:08 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 14 10:27:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Thu Nov 07 10:51:17 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



TIC: 14NOV001.D\data.ms

(3) Benzidine

11.982min (-0.016) 36.35

response 2197347

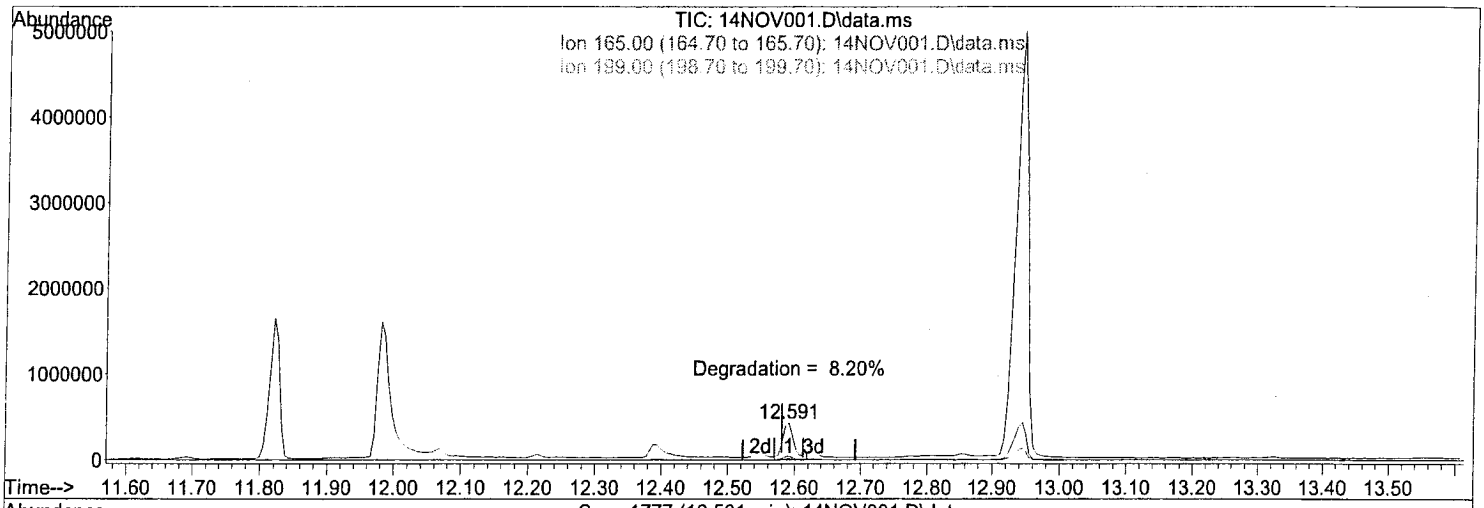
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

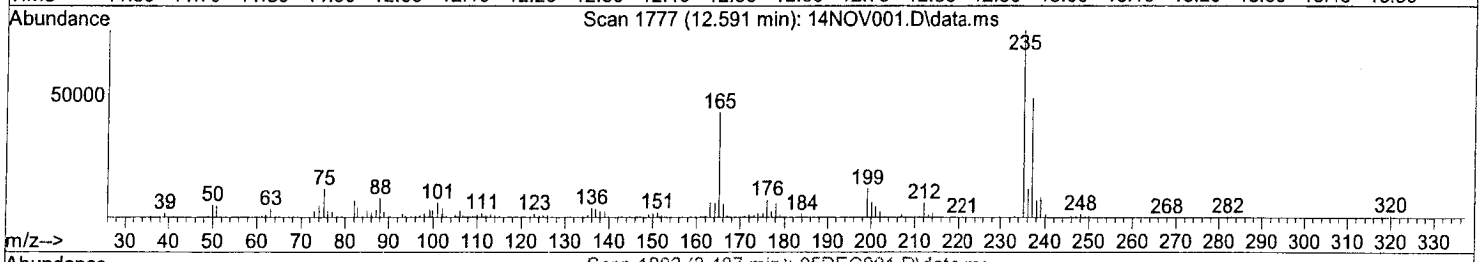
Return to Contents

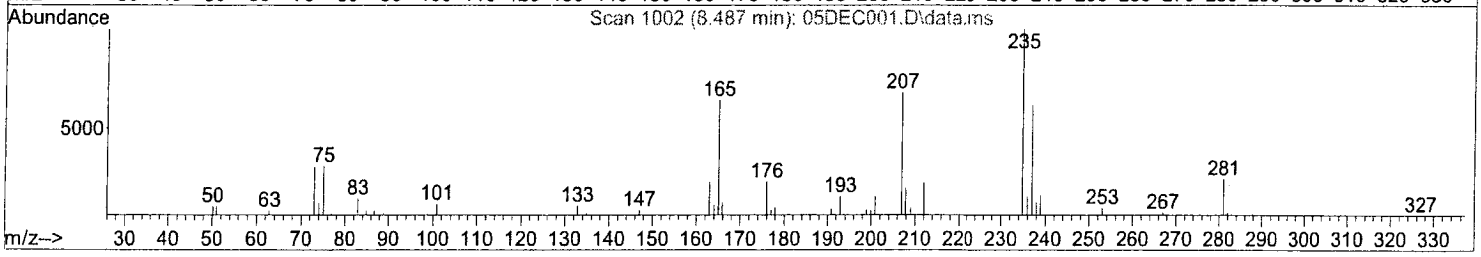
Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV001.D
Acq On : 14 Nov 2013 10:08 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 14 10:27:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Thu Nov 07 10:51:17 2013
Response via : Initial Calibration
DataAcq Meth:8270.M







TIC: 14NOV001.D\data.ms

(5) DDD

12.591min (+0.011) 0.00

response 424820

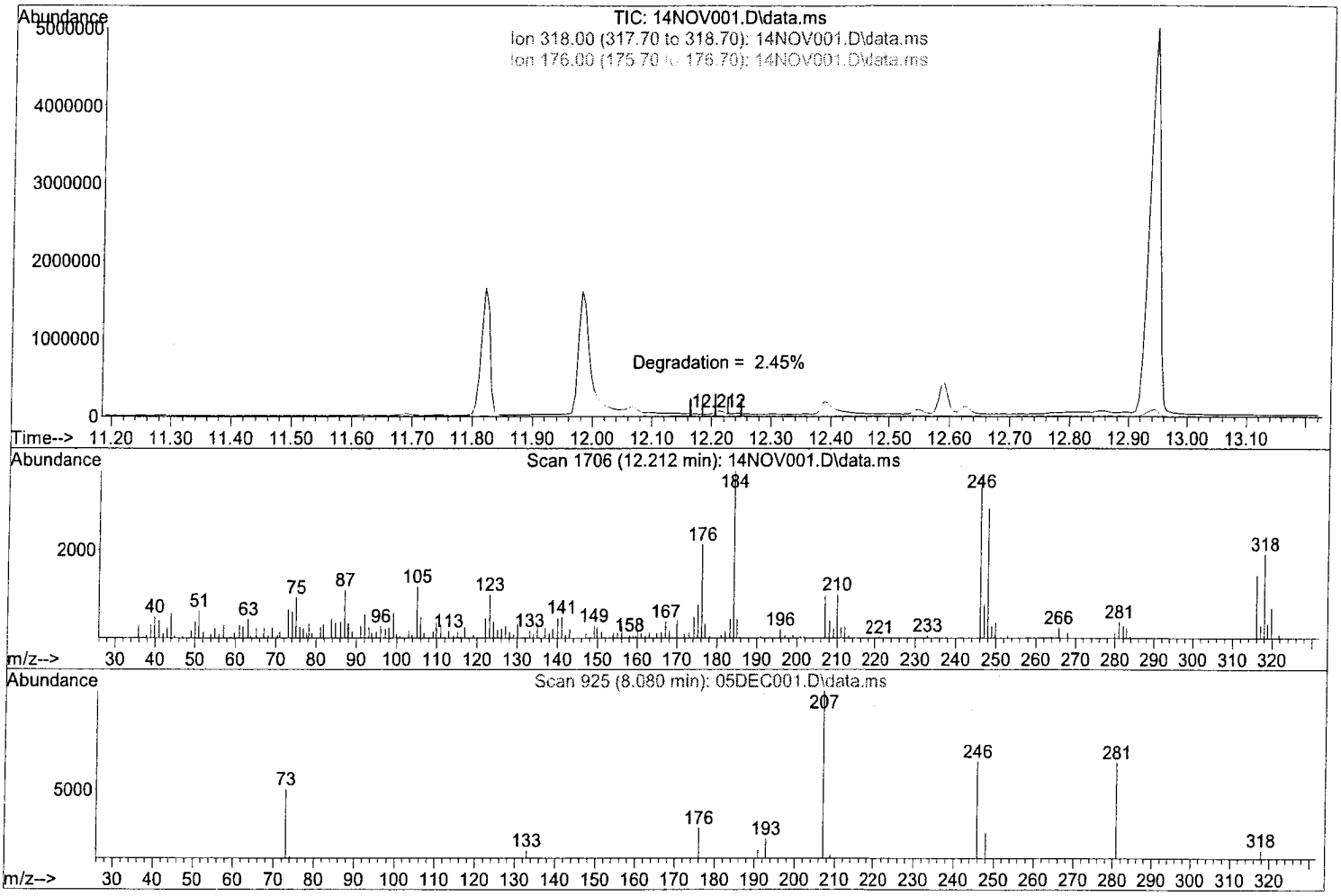
Signal	Exp%	Act%
TIC	100	100
165.00	0.10	10.66#
199.00	0.00	2.98#
0.00	0.00	0.00

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\131114\
Data File : 14NOV001.D
Acq On : 14 Nov 2013 10:08 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 14 10:27:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Thu Nov 07 10:51:17 2013
Response via : Initial Calibration
DataAcq Meth:8270.M



TIC: 14NOV001.D\data.ms

(6) DDE

12.212min (+0.005) 0.00

response 39888

Signal	Exp%	Act%
TIC	100	100
318.00	248.40	4.75#
176.00	267.80	5.41#
0.00	0.00	0.00

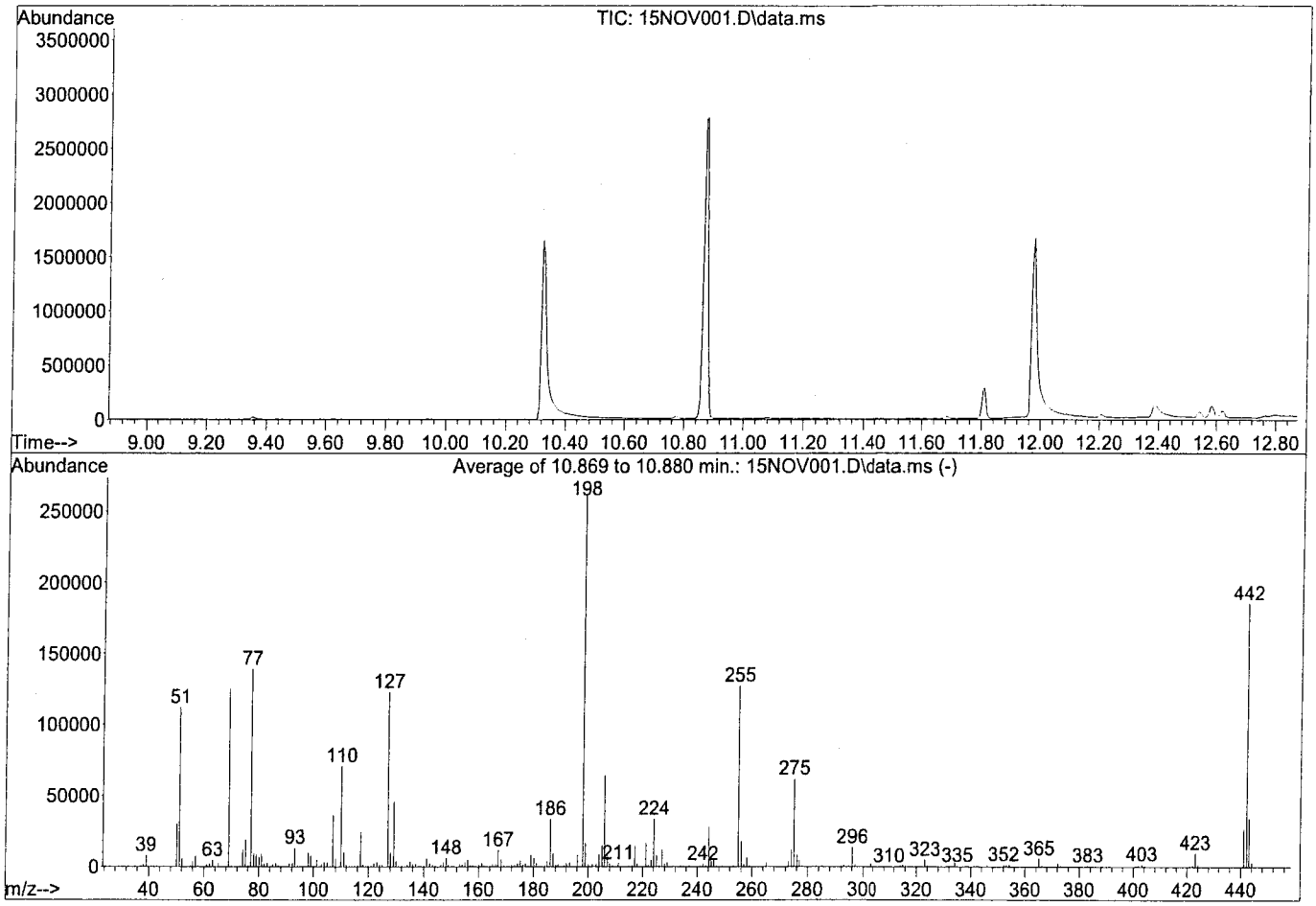
Return to Contents

DFTPP

Data Path : W:\GCMS SS DATA\2013\131115\
Data File : 15NOV001.D
Acq On : 15 Nov 2013 10:12 am
Operator : 449
Sample : TUNE S090413A DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Title : bbbbb
Last Update : Thu Nov 07 10:51:17 2013



AutoFind: Scans 1455, 1456, 1457; Background Corrected with Scan 1447

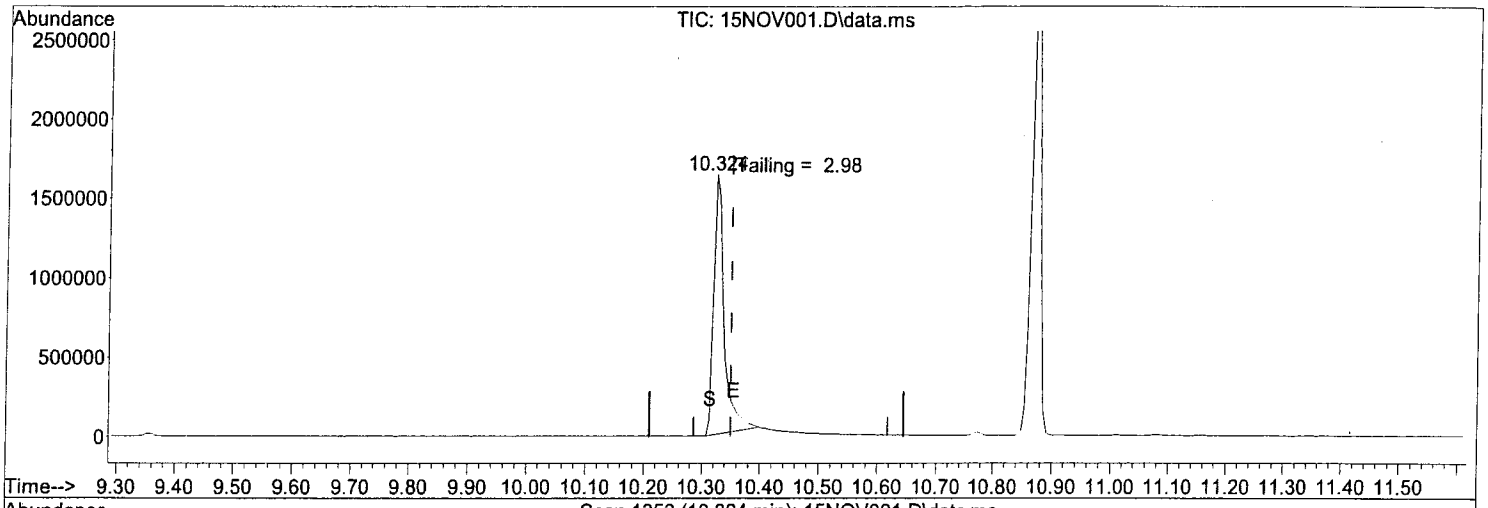
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	42.9	112117	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	48.2	125741	PASS
70	69	0.00	2	0.6	694	PASS
127	198	40	60	47.1	122973	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	261141	PASS
199	198	5	9	6.4	16821	PASS
275	198	10	30	23.6	61643	PASS
365	198	1	100	2.1	5613	PASS
441	443	0.01	100	77.5	26469	PASS
442	198	40	200	71.0	185323	PASS
443	442	17	23	18.4	34149	PASS

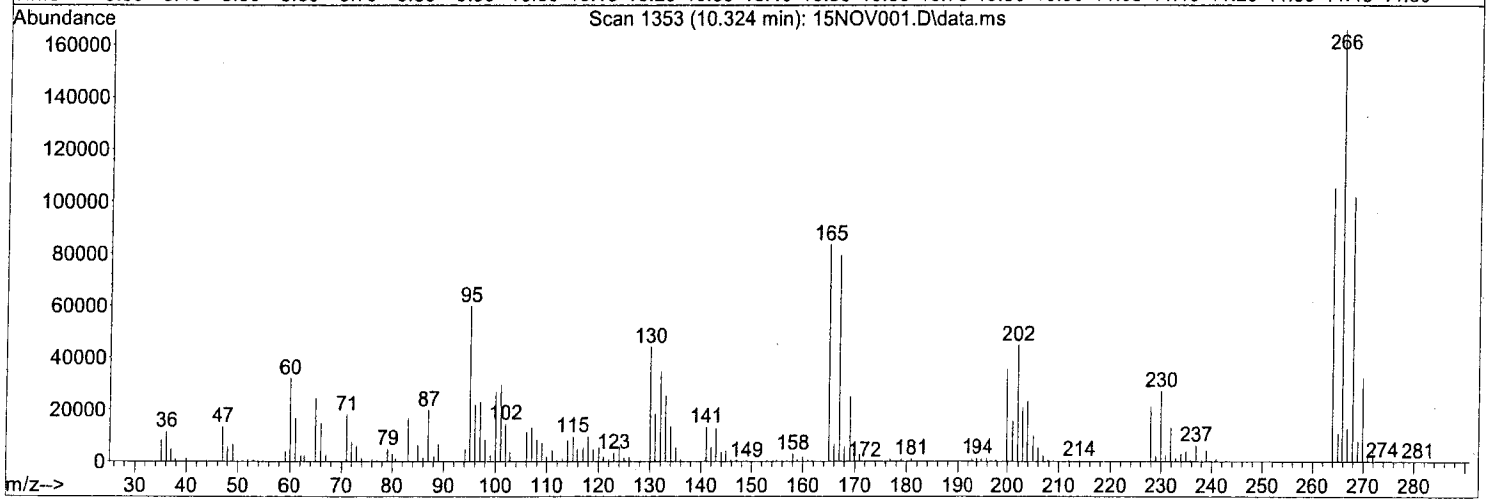
Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\131115\
Data File : 15NOV001.D
Acq On : 15 Nov 2013 10:12 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 15 10:37:25 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Thu Nov 07 10:51:17 2013
Response via : Initial Calibration
DataAcq Meth:8270.M





TIC: 15NOV001.D\data.ms

(1) Pentachlorophenol

10.324min (-0.027) 86.17

response 2478109

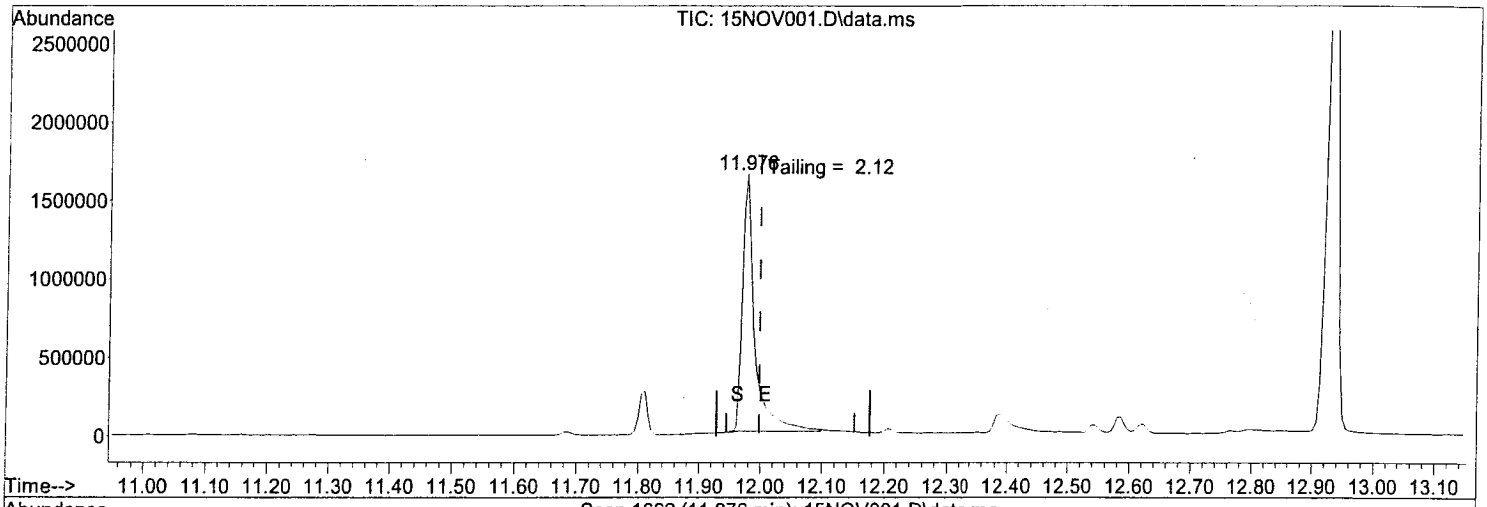
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

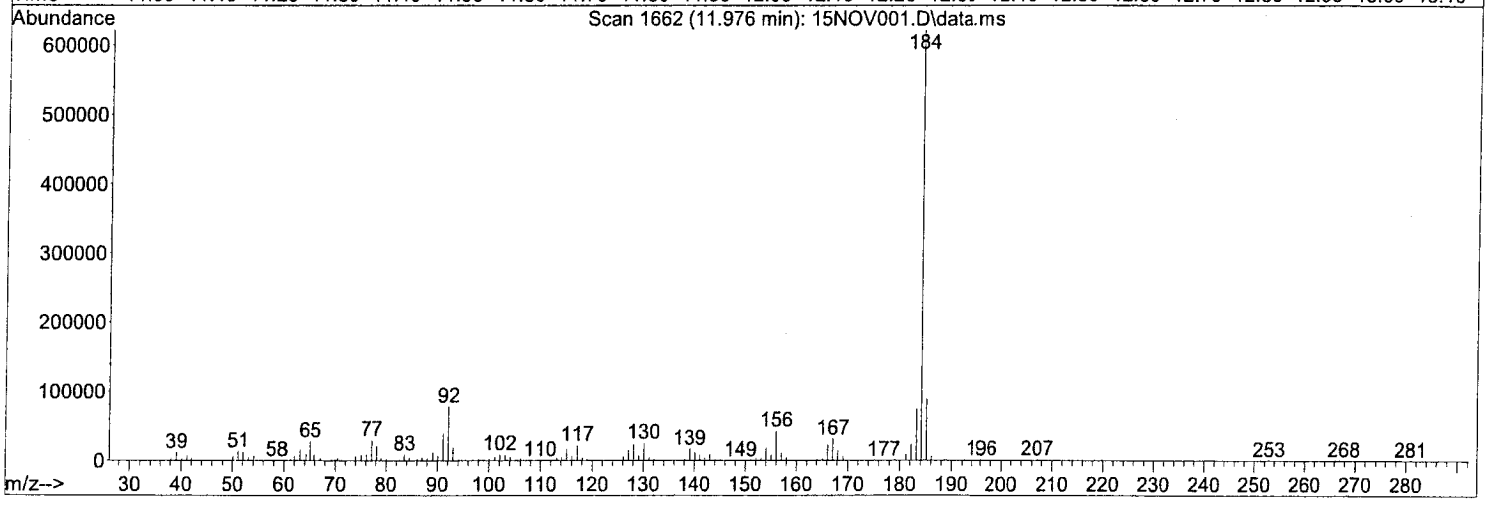
Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\131115\
Data File : 15NOV001.D
Acq On : 15 Nov 2013 10:12 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 15 10:30:47 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Thu Nov 07 10:51:17 2013
Response via : Initial Calibration
DataAcq Meth:8270.M





TIC: 15NOV001.D\data.ms

(3) Benzidine

11.976min (-0.021) 39.79

response 2405134

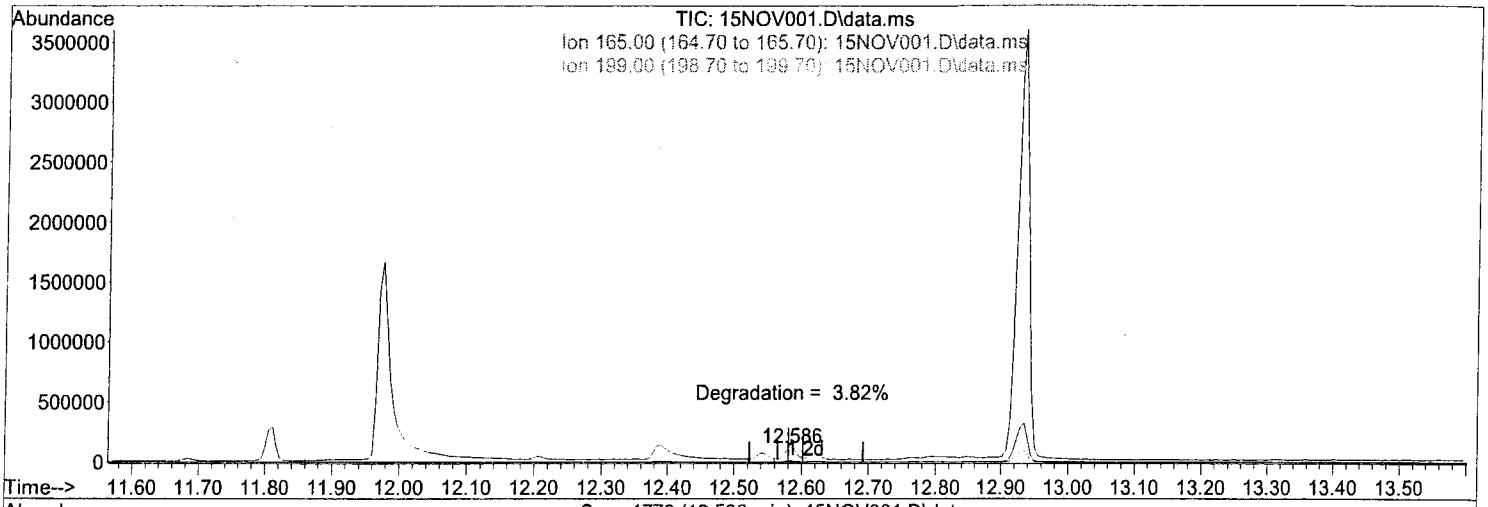
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

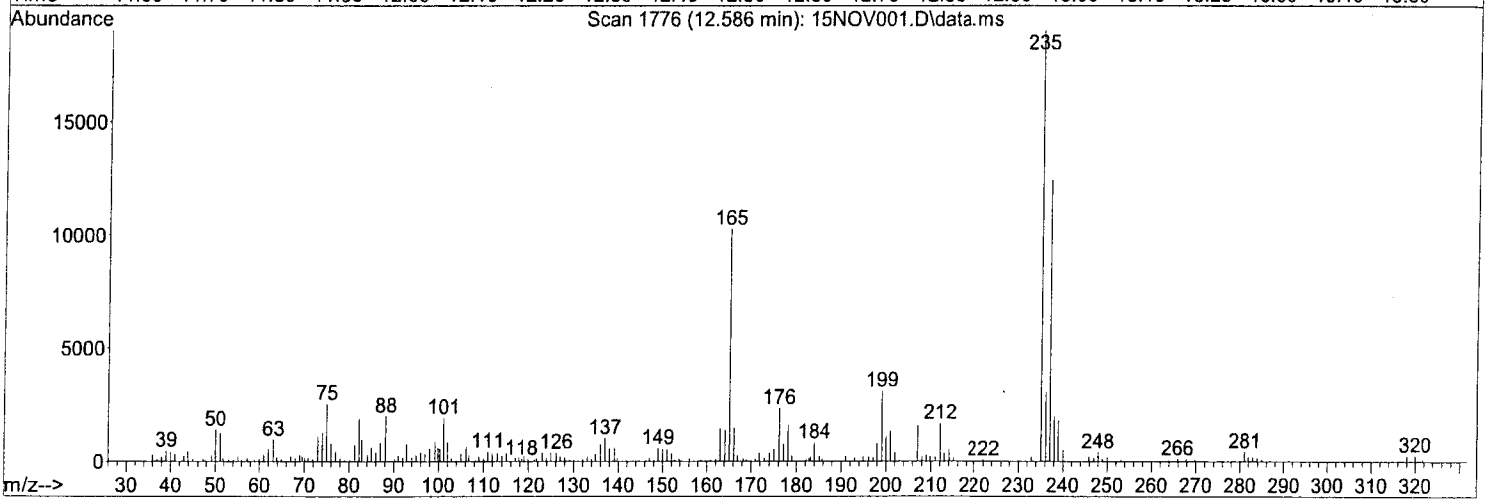
Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\131115\
Data File : 15NOV001.D
Acq On : 15 Nov 2013 10:12 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 15 10:30:47 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Thu Nov 07 10:51:17 2013
Response via : Initial Calibration
DataAcq Meth:8270.M





TIC: 15NOV001.D\data.ms

(5) DDD

12.586min (+0.005) 0.00

response 110398

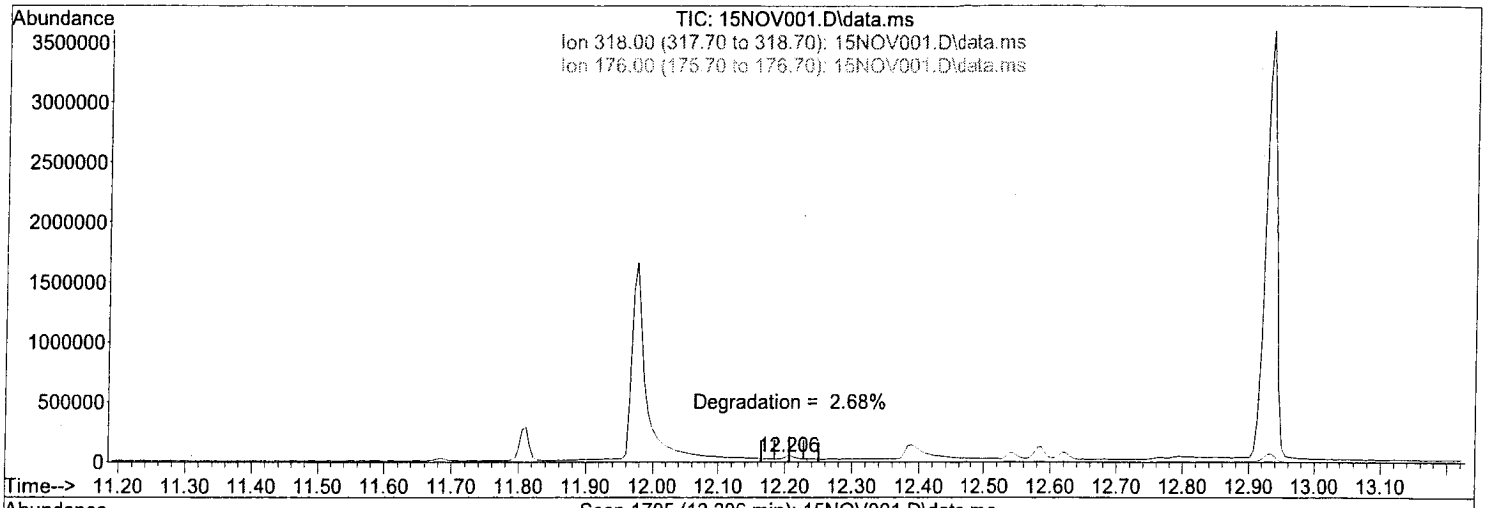
Signal	Exp%	Act%
TIC	100	100
165.00	0.10	10.54#
199.00	0.00	3.00#
0.00	0.00	0.00

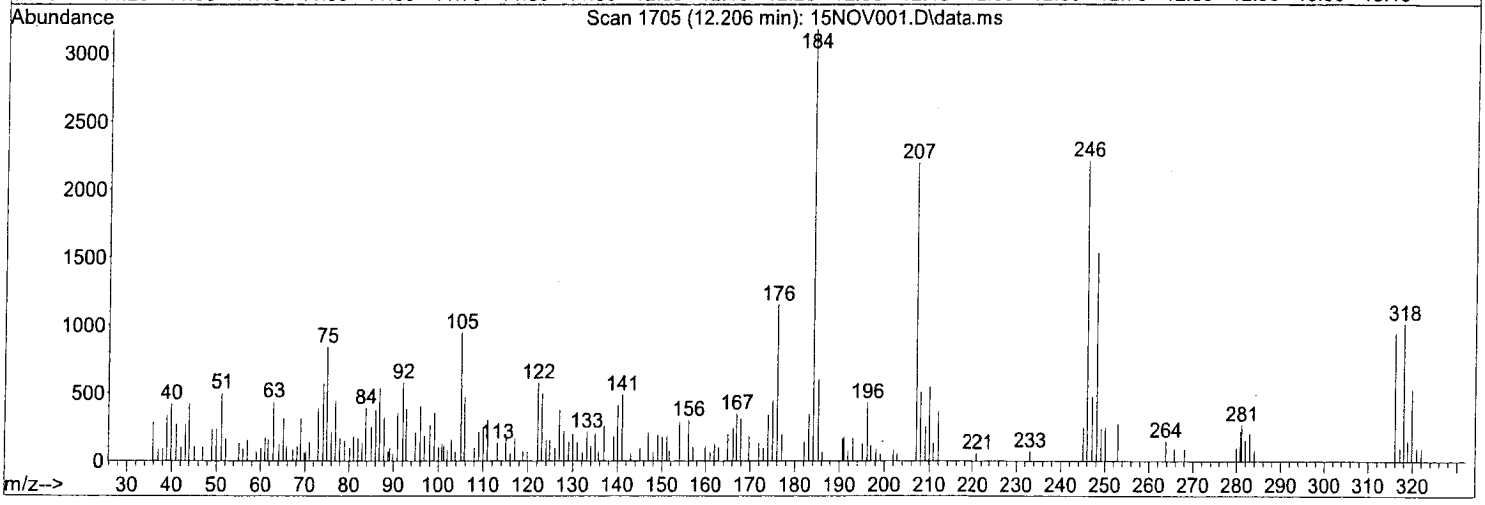
Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS SS DATA\2013\131115\
Data File : 15NOV001.D
Acq On : 15 Nov 2013 10:12 am
Operator : 449
Sample : TUNE S090413A DFTPP
InstName : GCMS SS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 15 10:30:47 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Thu Nov 07 10:51:17 2013
Response via : Initial Calibration
DataAcq Meth:8270.M





TIC: 15NOV001.D\data.ms

(6) DDE

12.206min (+0.000) 0.00

response 26705

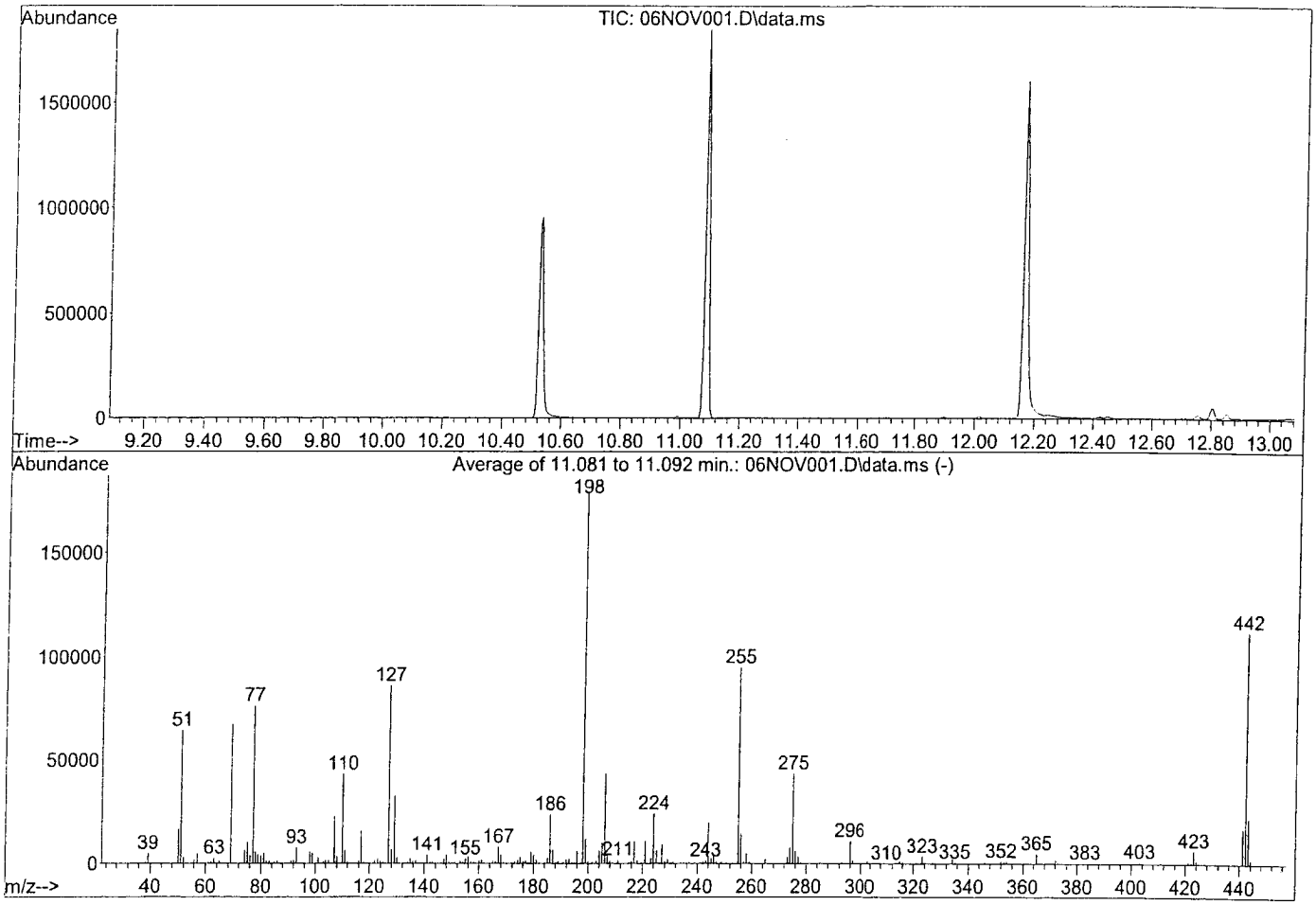
Signal	Exp%	Act%
TIC	100	100
318.00	248.40	3.94#
176.00	267.80	4.18#
0.00	0.00	0.00

Return to Contents

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV001.D
Acq On : 6 Nov 2013 10:27 am
Operator : 513
Sample : TUNE S090413A DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Title : bbbbb
Last Update : Fri Oct 25 11:51:54 2013



AutoFind: Scans 1532, 1533, 1534; Background Corrected with Scan 1526

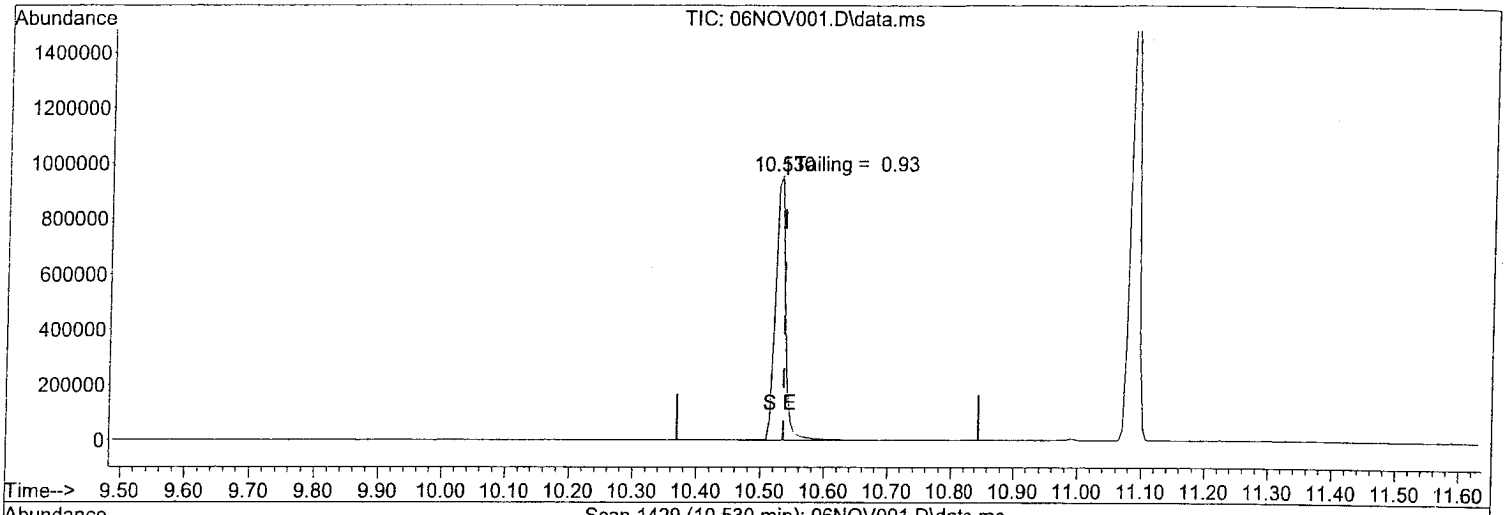
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	36.1	64443	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	37.8	67523	PASS
70	69	0.00	2	0.6	387	PASS
127	198	40	60	48.2	86168	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	178624	PASS
199	198	5	9	6.7	11956	PASS
275	198	10	30	24.4	43523	PASS
365	198	1	100	2.7	4813	PASS
441	443	0.01	100	77.0	16905	PASS
442	198	40	100	63.0	112528	PASS
443	442	17	23	19.5	21946	PASS

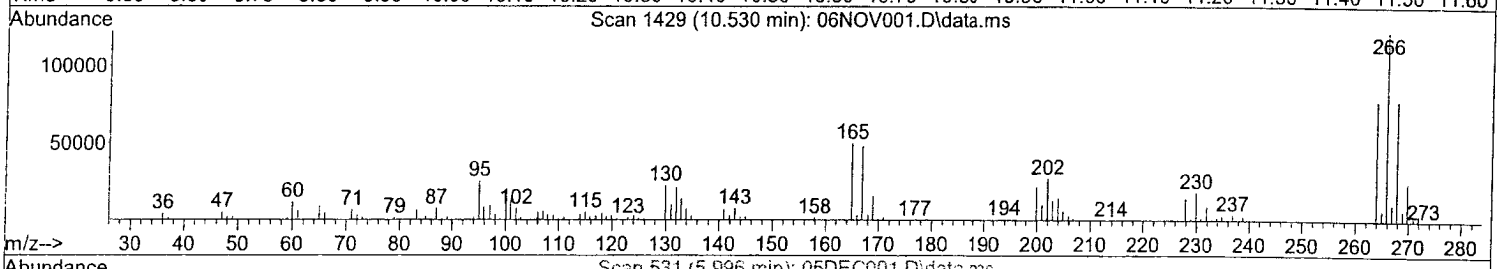
Return to Contents

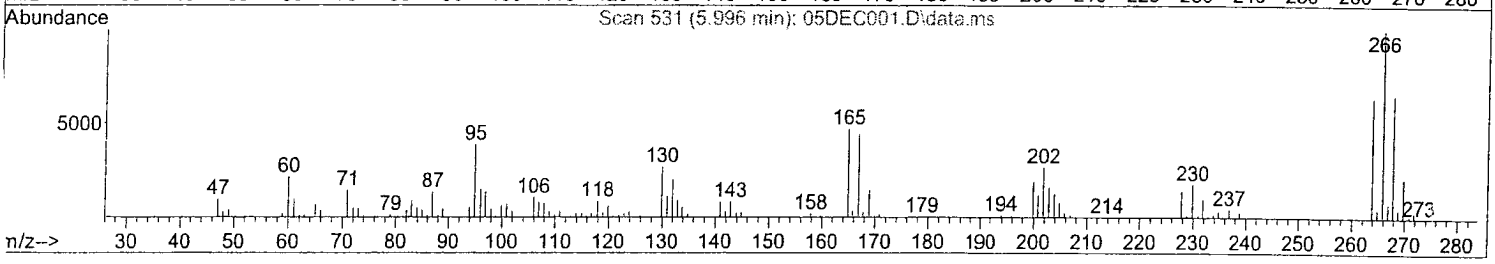
Quantitation Report (Qedit)

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV001.D
Acq On : 6 Nov 2013 10:27 am
Operator : 513
Sample : TUNE S090413A DFTPP
InstName : GCMS TT
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 06 10:49:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Fri Oct 25 11:51:54 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M







TIC: 06NOV001.D\data.ms

(1) Pentachlorophenol

10.530min (-0.005) 0.00

response 1047179

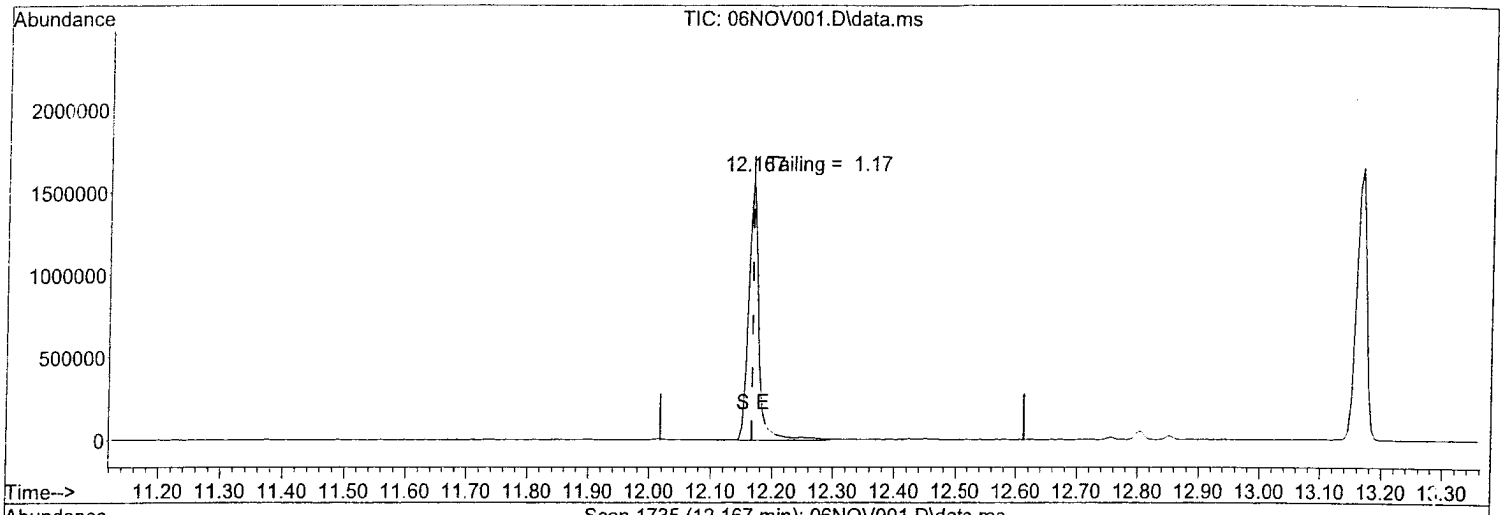
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

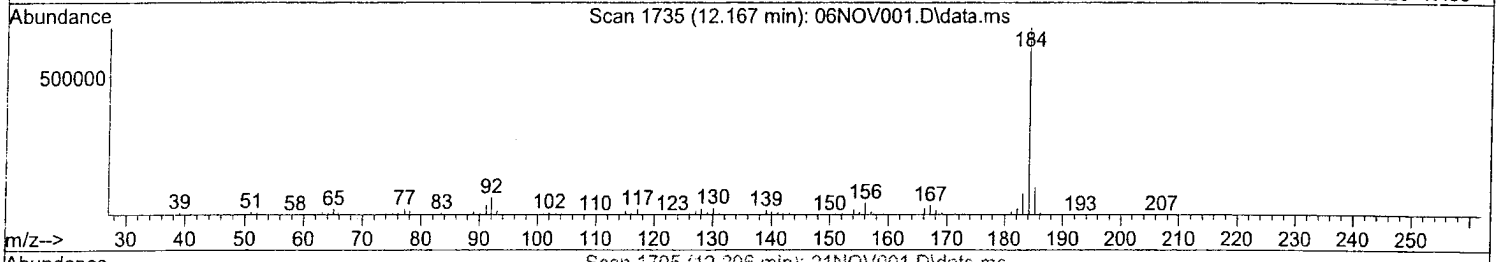
Return to Contents

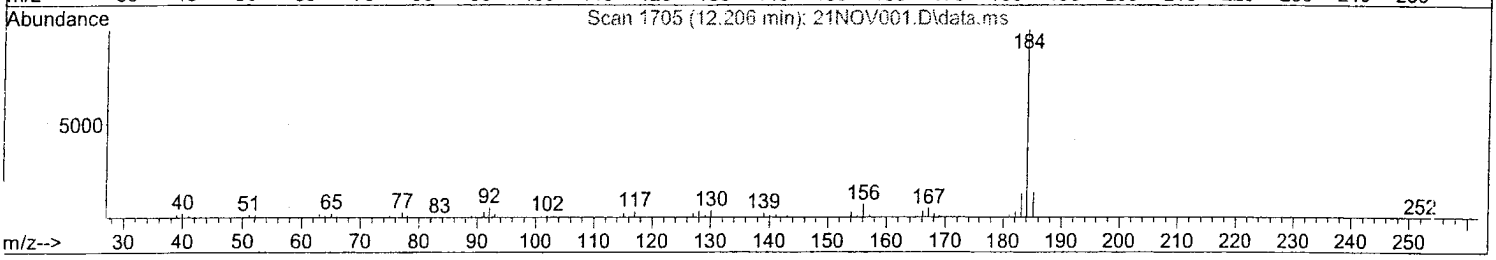
Quantitation Report (Qedit)

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV001.D
Acq On : 6 Nov 2013 10:27 am
Operator : 513
Sample : TUNE S090413A DFTPP
InstName : GCMS TT
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 06 10:49:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Fri Oct 25 11:51:54 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M







TIC: 06NOV001.D\data.ms

(3) Benzidine

12.167min (+0.000) 0.00

response 1736627

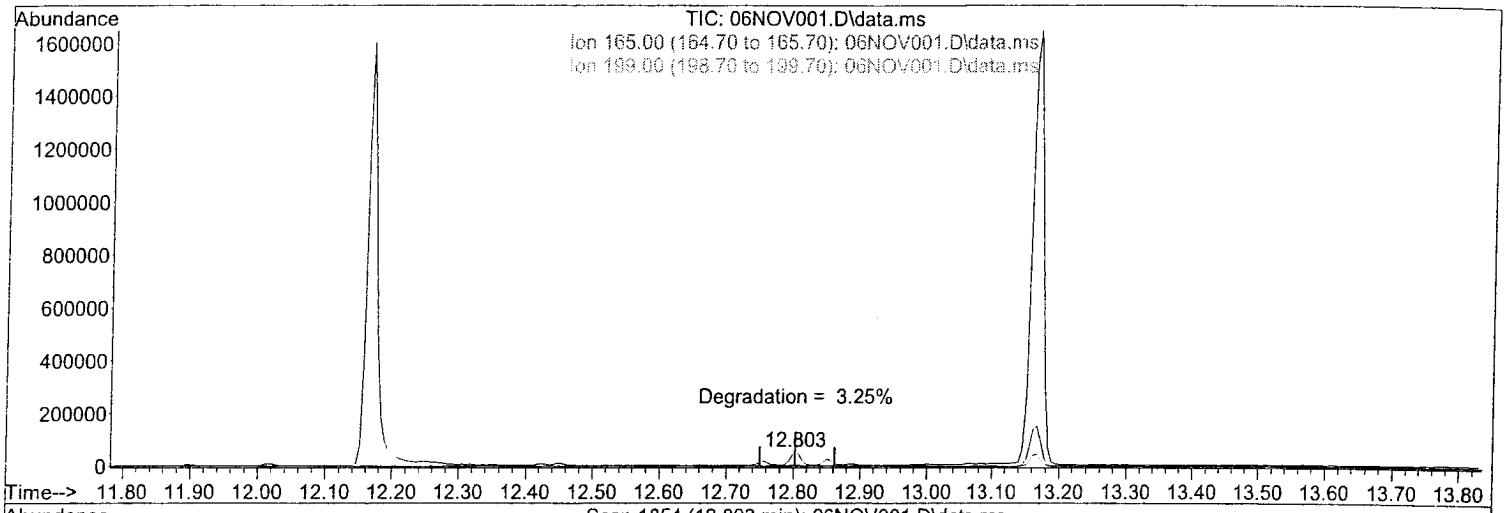
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

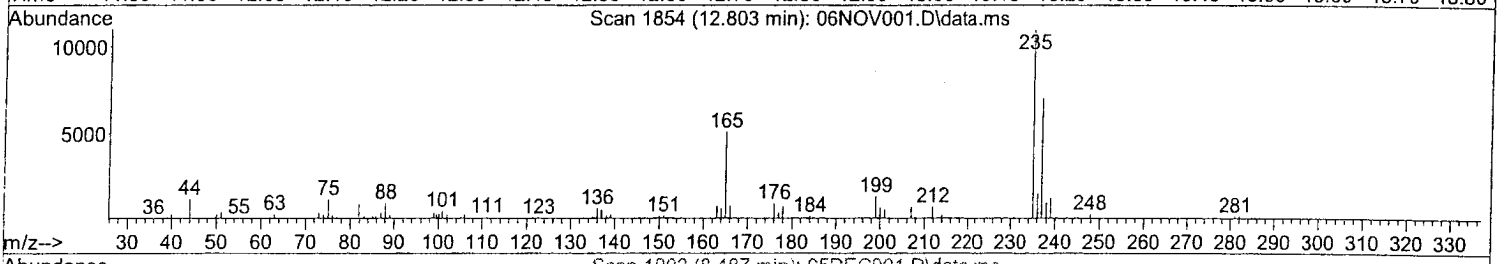
Return to Contents

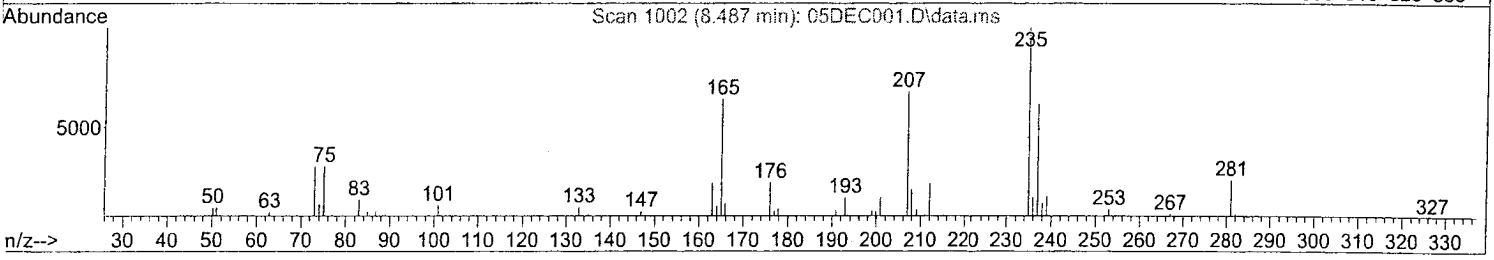
Quantitation Report (Qedit)

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV001.D
Acq On : 6 Nov 2013 10:27 am
Operator : 513
Sample : TUNE S090413A DFTPP
InstName : GCMS TT
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 06 10:49:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Fri Oct 25 11:51:54 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M







TIC: 06NOV001.D\data.ms

(5) DDD

12.803min (+0.000) 0.00

response 52999

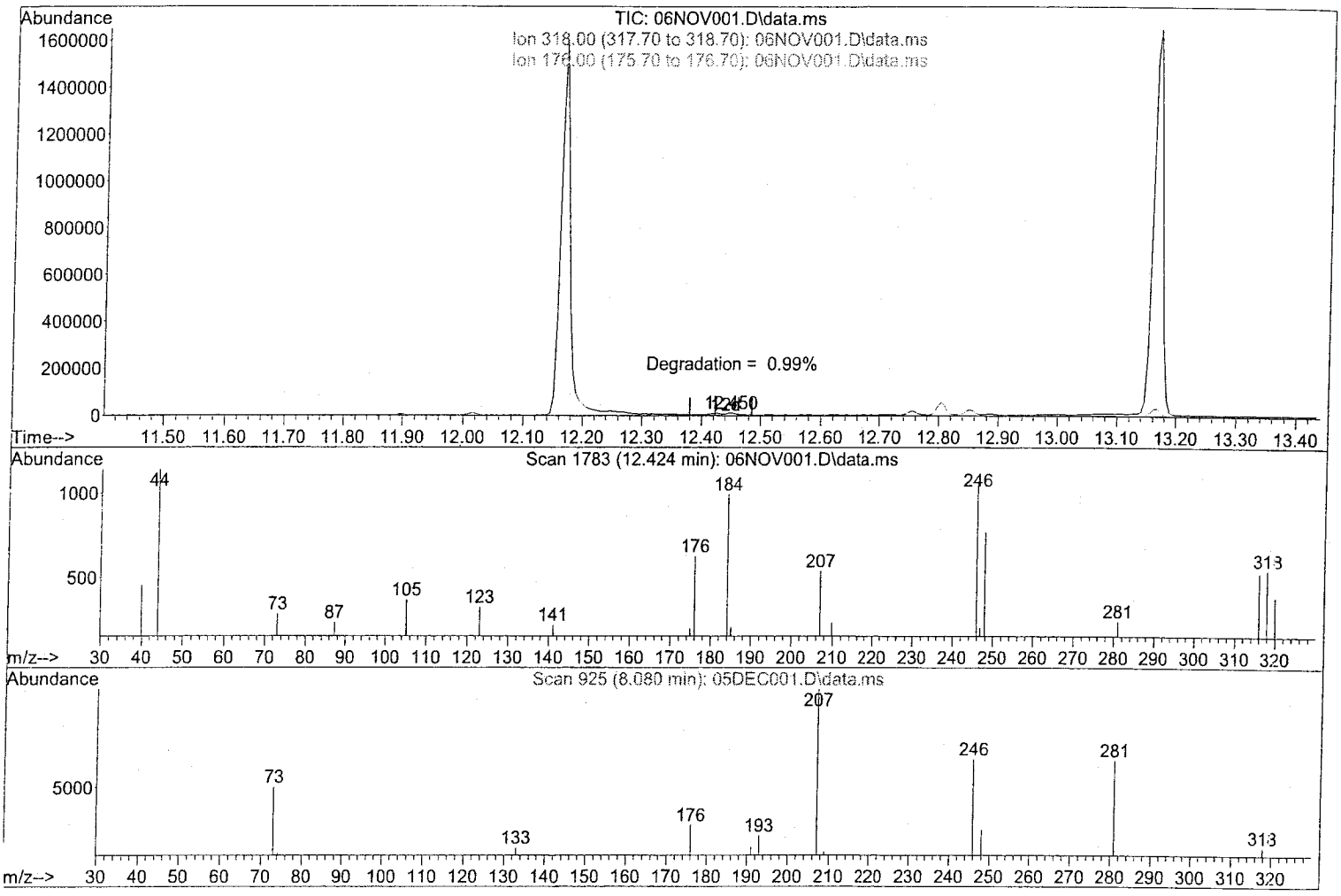
Signal	Exp%	Act%
TIC	100	100
165.00	962.00	10.66#
199.00	261.00	2.69#
0.00	0.00	0.00

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS TT DATA\2013\131106\
Data File : 06NOV001.D
Acq On : 6 Nov 2013 10:27 am
Operator : 513
Sample : TUNE S090413A DFTPP
InstName : GCMS TT
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 06 10:49:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Fri Oct 25 11:51:54 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



TIC: 06NOV001.D\data.ms

(6) DDE

12.424min (+0.000) 0.00

response 5857

Signal	Exp%	Act%
TIC	100	100
318.00	401.10	6.81#
176.00	522.60	8.78#
0.00	0.00	0.00

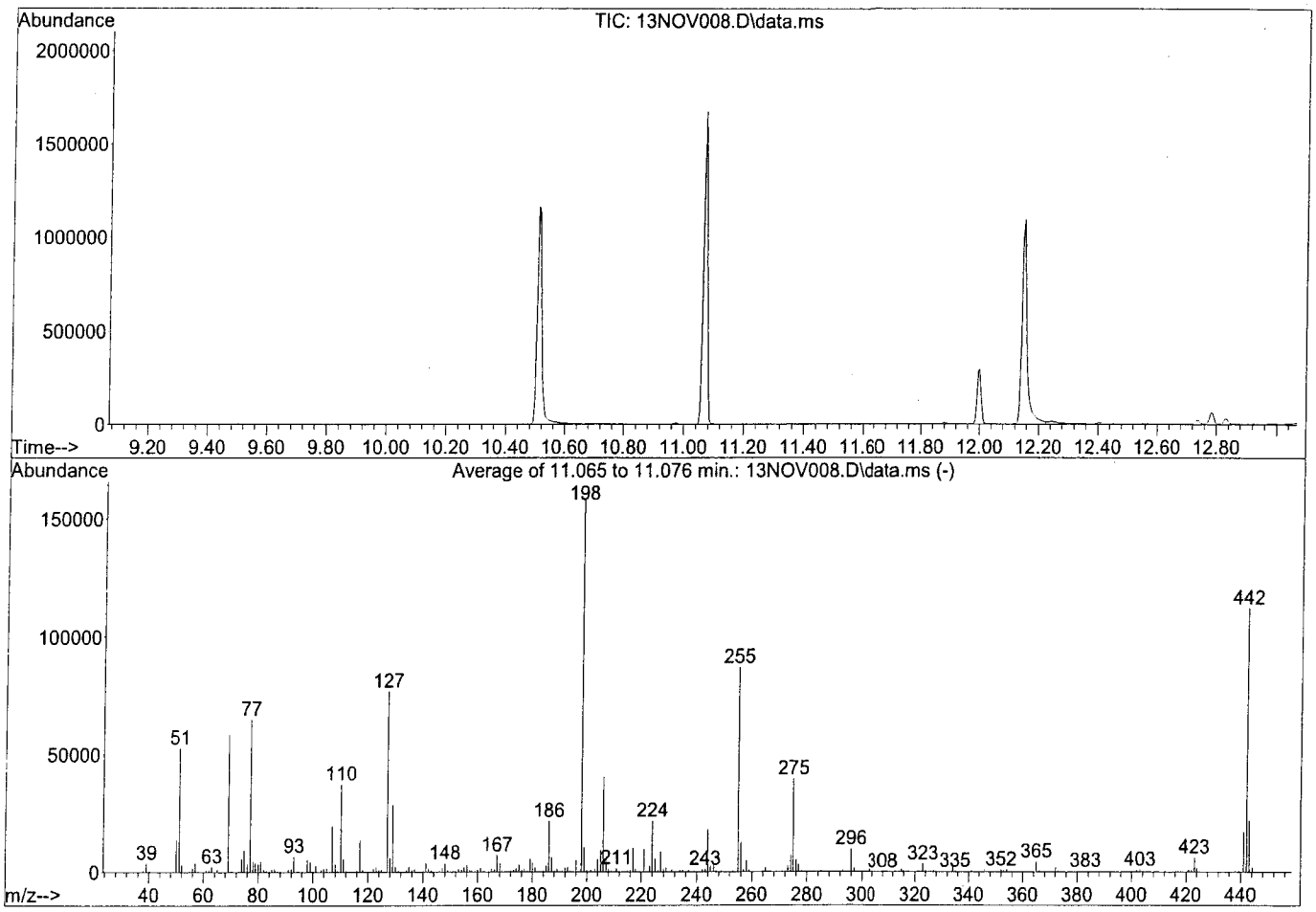
Return to Contents

DFTPP

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV008.D
Acq On : 13 Nov 2013 4:26 pm
Operator : 513
Sample : TUNE S090413A DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Title : bbbbb
Last Update : Fri Oct 25 11:51:54 2013



AutoFind: Scans 1529, 1530, 1531; Background Corrected with Scan 1523

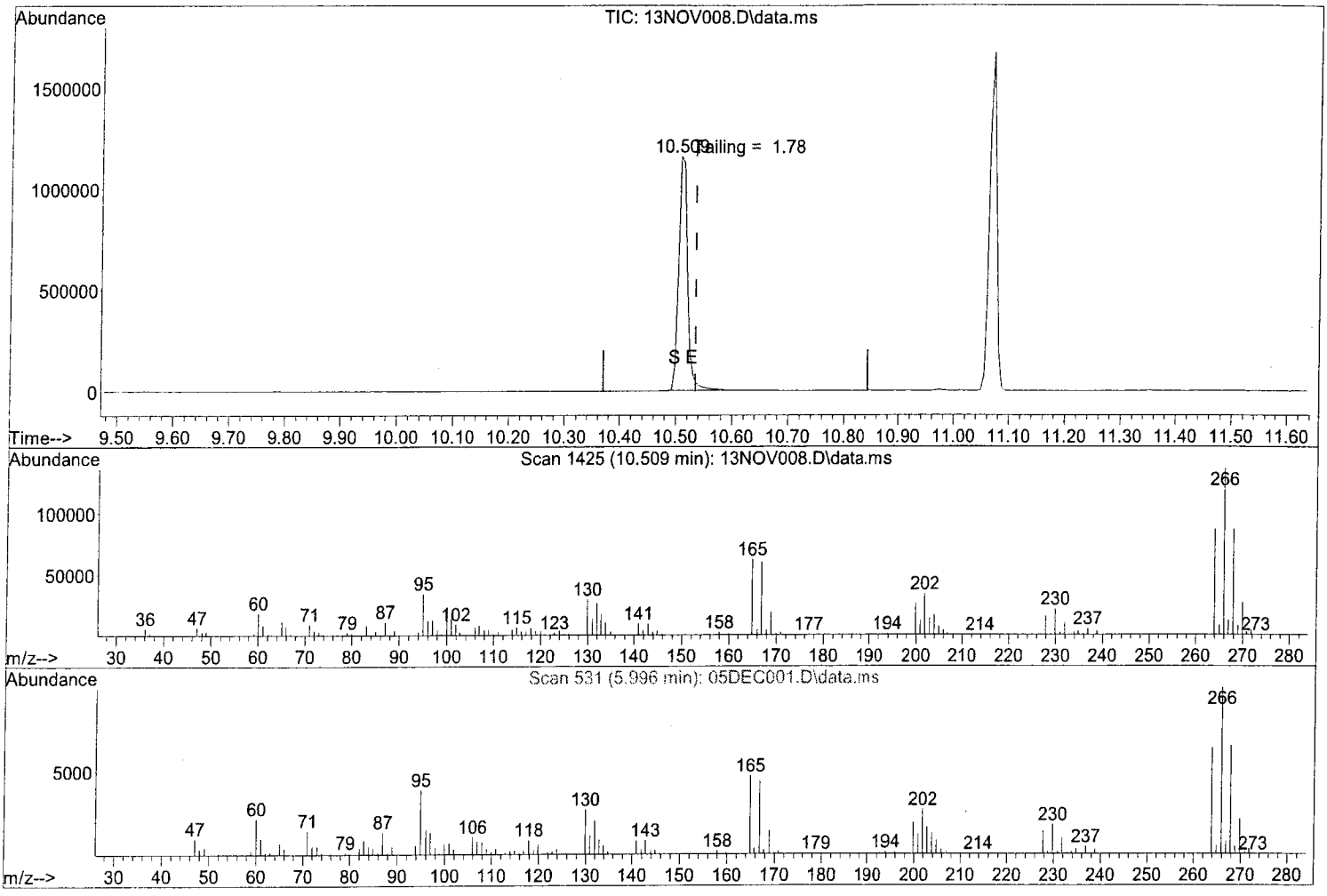
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.4	52752	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	37.0	58576	PASS
70	69	0.00	2	0.5	292	PASS
127	198	40	60	48.7	77048	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	158136	PASS
199	198	5	9	6.7	10624	PASS
275	198	10	30	25.1	39720	PASS
365	198	1	100	2.8	4394	PASS
441	443	0.01	100	78.0	17061	PASS
442	198	40	100	71.1	112389	PASS
443	442	17	23	19.5	21887	PASS

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV008.D
Acq On : 13 Nov 2013 4:26 pm
Operator : 513
Sample : TUNE S090413A DFTPP
InstName : GCMS TT
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 13 16:45:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Fri Oct 25 11:51:54 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



TIC: 13NOV008.D\data.ms

(1) Pentachlorophenol

10.509min (-0.027) 0.00

response 1301392

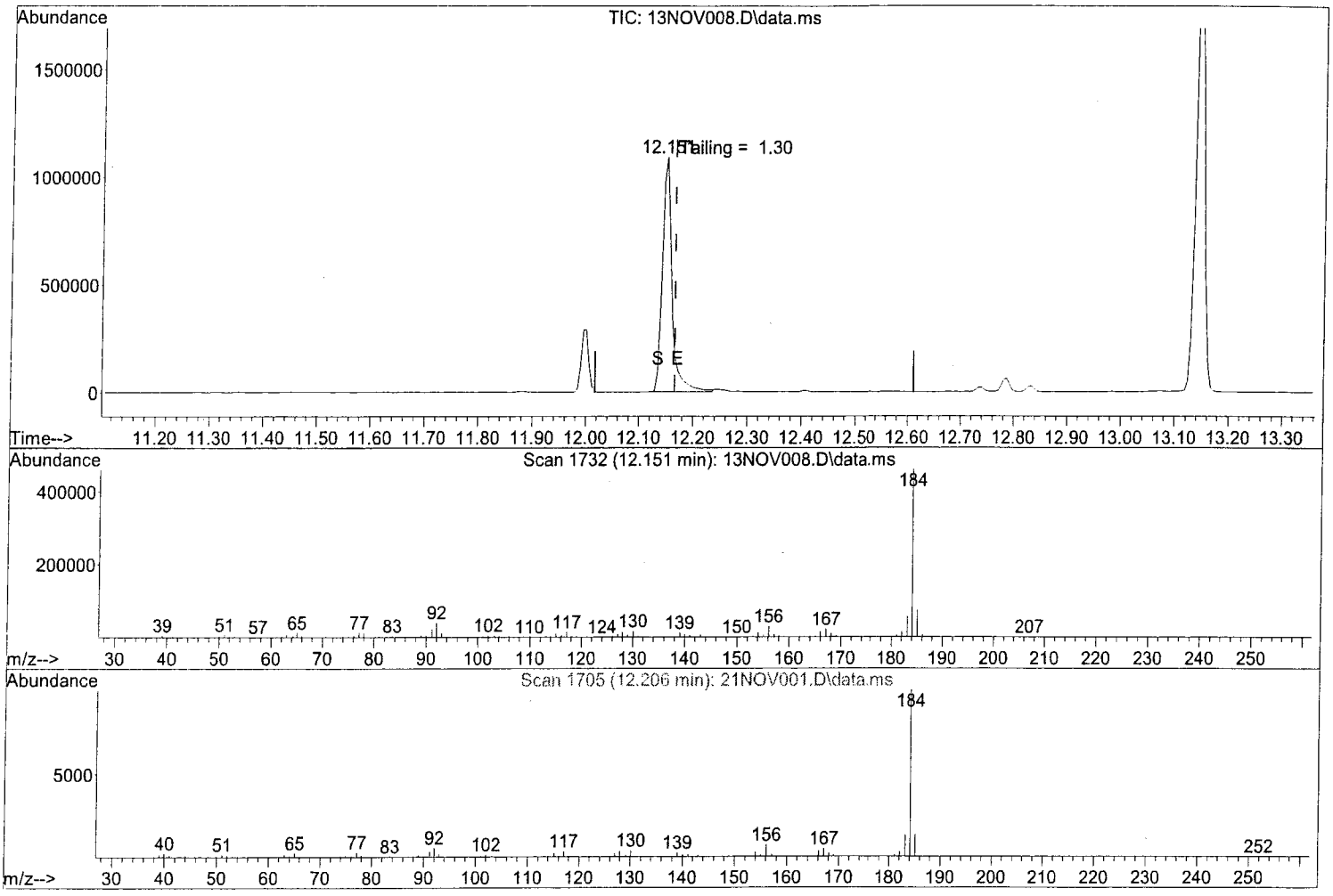
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV008.D
Acq On : 13 Nov 2013 4:26 pm
Operator : 513
Sample : TUNE S090413A DFTPP
InstName : GCMS TT
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 13 16:45:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Fri Oct 25 11:51:54 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



TIC: 13NOV008.D\data.ms

(3) Benzidine

12.151min (-0.016) 0.00

response 1343072

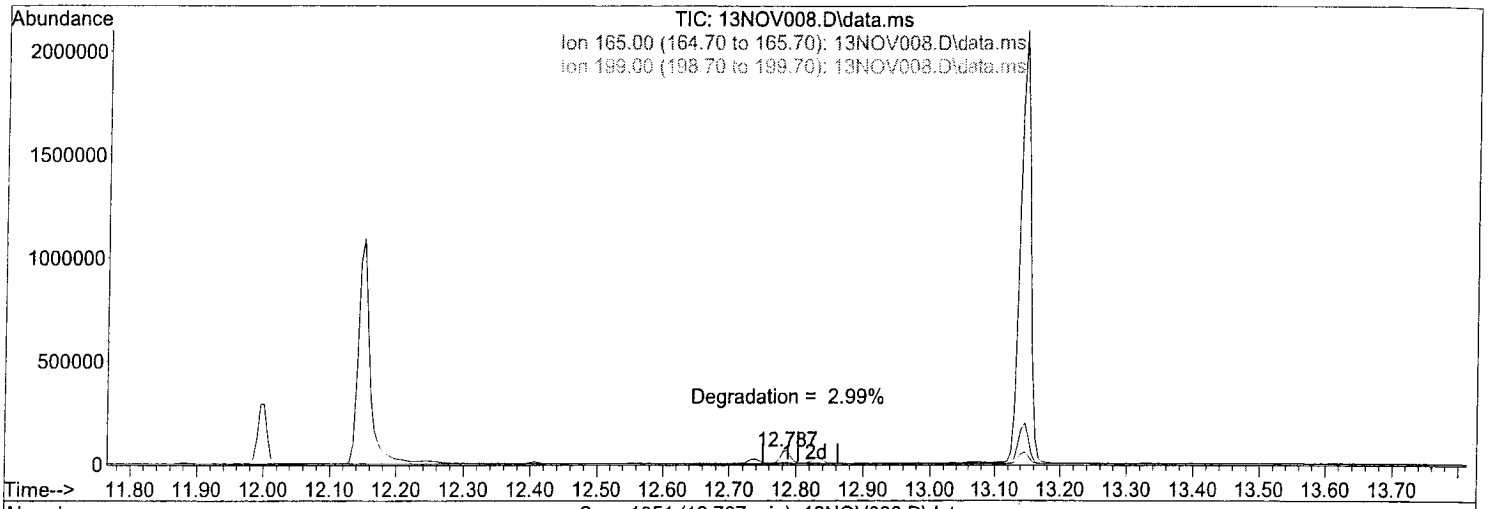
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

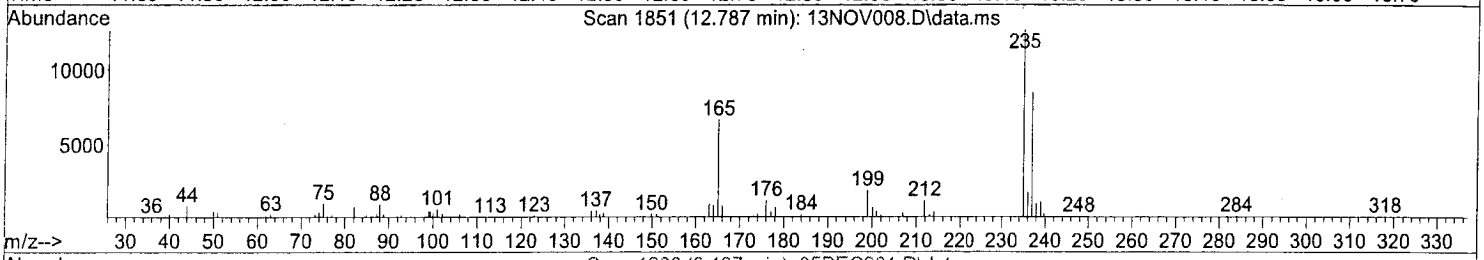
Return to Contents

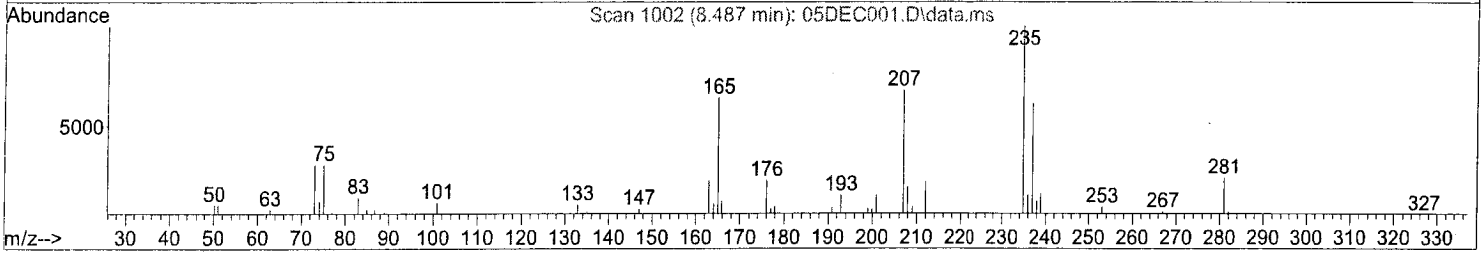
Quantitation Report (Qedit)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV008.D
Acq On : 13 Nov 2013 4:26 pm
Operator : 513
Sample : TUNE S090413A DFTPP
InstName : GCMS TT
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 13 16:45:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Fri Oct 25 11:51:54 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M







TIC: 13NOV008.D\data.ms

(5) DDD

12.787min (-0.016) 0.00

response 62354

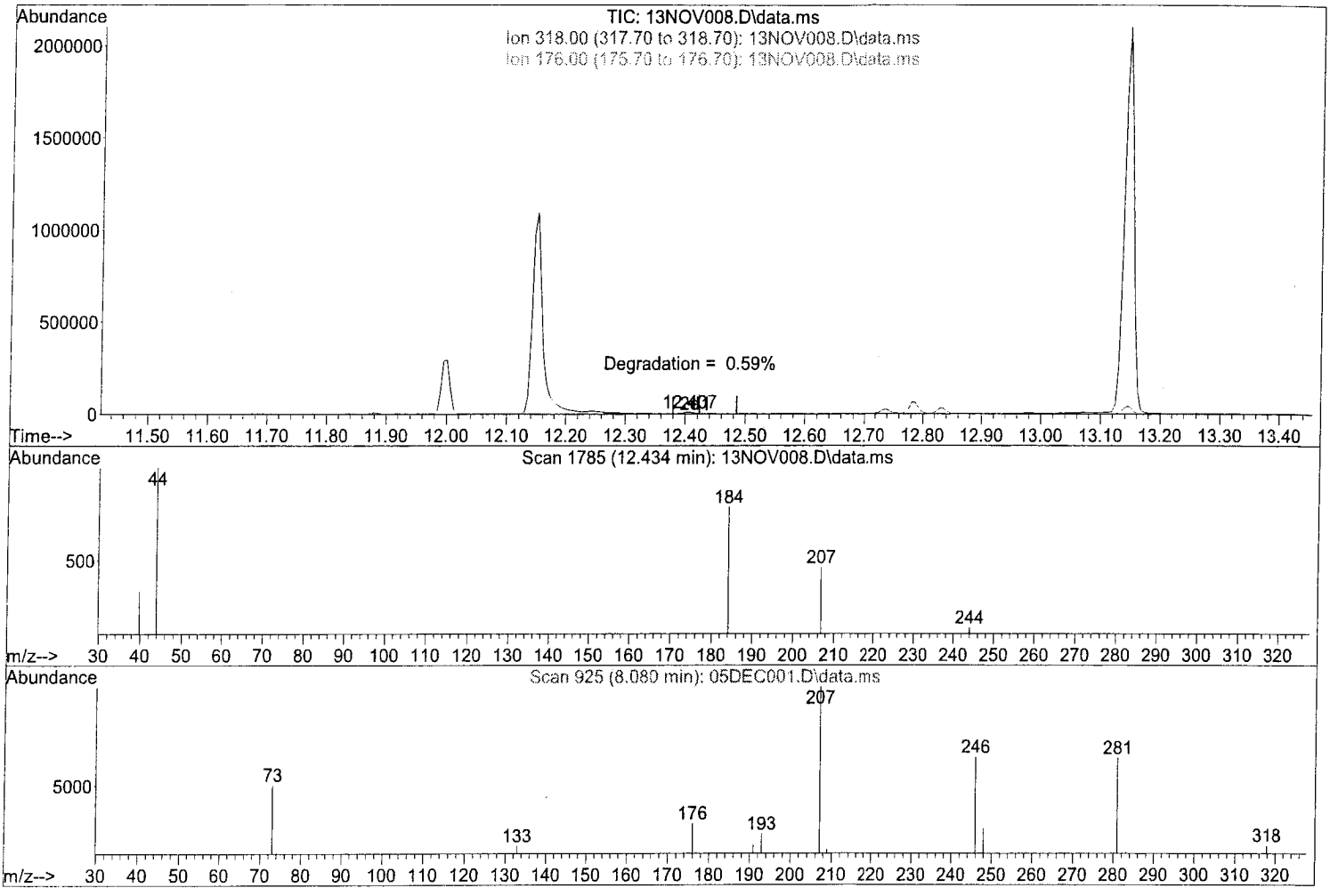
Signal	Exp%	Act%
TIC	100	100
165.00	962.00	10.81#
199.00	261.00	3.13#
0.00	0.00	0.00

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS TT DATA\2013\131113\
Data File : 13NOV008.D
Acq On : 13 Nov 2013 4:26 pm
Operator : 513
Sample : TUNE S090413A DFTPP
InstName : GCMS TT
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 13 16:45:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP.M
Quant Title : bbbbb
QLast Update : Fri Oct 25 11:51:54 2013
Response via : Initial Calibration
DataAcq Meth:SVOA.M



TIC: 13NOV008.D\data.ms

(6) DDE

12.434min (+0.011) 0.00

response 1055

Signal	Exp%	Act%
TIC	100	100
318.00	401.10	0.00#
176.00	522.60	0.00#
0.00	0.00	0.00

Return to Contents

EPA METHOD 8270C
SVOCs

Run Logs

Return to Contents

Injection Log

Directory: W:\GCMS_SS_DATA\2013\130911

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11sep001.d	1.	TUNE S090413A DFTPP		11 Sep 2013 10:50
2	2	11sep002.d	1.	ICAL1 S090513i 0.25PPM BNA		11 Sep 2013 11:17
3	3	11sep003.d	1.	ICAL2 S090513H 2.5PPM BNA		11 Sep 2013 11:43
4	4	11sep004.d	1.	ICAL3 S090513G 5PPM BNA		11 Sep 2013 12:09
5	5	11sep005.d	1.	ICAL4 S090513F 10PPM BNA		11 Sep 2013 12:35
6	6	11sep006.d	1.	ICAL5 S090513E 20PPM BNA		11 Sep 2013 13:01
7	7	11sep007.d	1.	ICAL6 S090513D 50PPM BNA		11 Sep 2013 13:27
8	8	11sep008.d	1.	ICAL7 S090513C 80PPM BNA		11 Sep 2013 13:54
9	9	11sep009.d	1.	ICAL8 S090513B 120PPM BNA		11 Sep 2013 14:20
10	10	11sep010.d	1.	ICAL9 S090513A 160PPM BNA		11 Sep 2013 14:46
11	11	11sep011.d	1.	ICAL8 S090513B 120PPM BNA		11 Sep 2013 15:54
12	12	11sep012.d	1.	MB		11 Sep 2013 16:21
13	12	11sep013.d	1.	MB		11 Sep 2013 16:47
14	12	11sep014.d	1.	MB		11 Sep 2013 17:14
15	15	11sep015.d	1.	ICAL1 S071913V 0.25PPM BNA		11 Sep 2013 17:40
16	16	11sep016.d	1.	ICAL2 S071913U 2.5PPM BNA		11 Sep 2013 18:06
17	17	11sep017.d	1.	ICAL3 S071913T 5PPM BNA		11 Sep 2013 18:32
18	18	11sep018.d	1.	ICAL4 S071913S 10PPM BNA		11 Sep 2013 18:58
19	19	11sep019.d	1.	ICAL5 S071913R 20PPM BNA		11 Sep 2013 19:24
20	20	11sep020.d	1.	ICAL6 S071913Q 50PPM BNA		11 Sep 2013 19:51
21	21	11sep021.d	1.	ICAL7 S071913P 80PPM BNA		11 Sep 2013 20:17
22	22	11sep022.d	1.	ICAL8 S071913O 120PPM BNA		11 Sep 2013 20:43
23	23	11sep023.d	1.	ICAL9 S071913N 160PPM BNA		11 Sep 2013 21:09
24	24	11sep024.d	1.	ICV S071913W 80PPM BNA		11 Sep 2013 21:35

Return to Contents

Injection Log

Directory: W:\GCMS_SS_DATA\2013\131114

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	14nov001.d	1.	TUNE S090413A DFTPP		14 Nov 2013 10:08
2	2	14nov002.d	1.	CCV S090513C 80PPM BNA		14 Nov 2013 10:34
3	3	14nov003.d	1.	MB		14 Nov 2013 11:00
4	4	14nov004.d	1.	11-0716-17A		14 Nov 2013 11:26
5	5	14nov005.d	1.	11-0716-20A		14 Nov 2013 11:52
6	6	14nov006.d	1.	11-0717-33A		14 Nov 2013 12:18
7	7	14nov007.d	1.	11-0717-36A		14 Nov 2013 12:44
8	8	14nov008.d	1.	11-0717-39A		14 Nov 2013 13:10
9	9	14nov009.d	1.	MB 131113-L20		14 Nov 2013 13:36
10	10	14nov010.d	1.	LCS 131113-L20		14 Nov 2013 14:04
11	11	14nov011.d	1.	11-0771-3A		14 Nov 2013 14:31
12	12	14nov012.d	1.	11-0771-3A MS		14 Nov 2013 14:57
13	13	14nov013.d	1.	11-0771-3A MSD		14 Nov 2013 15:23
14	14	14nov014.d	1.	11-0697-13F		14 Nov 2013 15:50
15	15	14nov015.d	1.	11-0611-2A		14 Nov 2013 16:16
16	16	14nov016.d	1.	11-0697-7A		14 Nov 2013 16:42
17	17	14nov017.d	1.	~~11-0697-9A 5X~~ → 2X I.S. high		14 Nov 2013 17:08
18	18	14nov018.d	1.	~~11-0611-1A 5X~~		14 Nov 2013 17:34
19	19	14nov019.d	1.	11-0708-1K		14 Nov 2013 18:00
20	20	14nov020.d	1.	11-0697-4A		14 Nov 2013 18:26
21	21	14nov021.d	1.	11-0697-10A		14 Nov 2013 18:52
22	22	14nov022.d	1.	11-0697-11A		14 Nov 2013 19:18
23	23	14nov023.d	1.	11-0718-33A		14 Nov 2013 19:44
24	24	14nov024.d	1.	11-0718-36A		14 Nov 2013 20:11
25	25	14nov025.d	1.	11-0718-39A		14 Nov 2013 20:37
26	26	14nov026.d	1.	~~11-0697-6A 5X~~ → I.S. high		14 Nov 2013 21:03
27	27	14nov027.d	1.	11-0697-9A 2X		14 Nov 2013 21:29
28	28	14nov028.d	1.	11-0611-1A 2X → I.S. high		14 Nov 2013 21:55
29	29	14nov029.d	1.	11-0965-1 50X REF		14 Nov 2013 22:22
30	30	14nov030.d	1.	11-0608-1 50X REF		14 Nov 2013 22:48

15 Nov 2013 09:27

Return to Contents

Injection Log

Directory: W:\GCMS_SS_DATA\2013\131115

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	15nov001.d	1.	TUNE S090413A DFTPP		15 Nov 2013 10:12
2	2	15nov002.d	1.	CCV S090513C 80PPM BNA		15 Nov 2013 11:05
3	3	15nov003.d	1.	MB 131113-L22		15 Nov 2013 11:31
4	4	15nov004.d	1.	LCS 131113-L22		15 Nov 2013 11:57
5	5	15nov005.d	1.	11-0965-1A 5X		15 Nov 2013 12:22
6	6	15nov006.d	1.	11-0965-1A 5X MS		15 Nov 2013 12:48
7	7	15nov007.d	1.	11-0965-1A 5X MSD		15 Nov 2013 13:14
8	8	15nov008.d	1.	11-0608-1A 5X		15 Nov 2013 13:41
9	9	15nov009.d	1.	11-0697-6A 5X		15 Nov 2013 14:07
10	10	15nov010.d	1.	11-1115-1F		15 Nov 2013 14:33
11	11	15nov011.d	1.	11-0981-18A		15 Nov 2013 14:59
12	12	15nov012.d	1.	11-0981-19A		15 Nov 2013 15:24
13	13	15nov013.d	1.	11-0981-20A		15 Nov 2013 15:51
14	14	15nov014.d	1.	11-0981-17A		15 Nov 2013 16:17
15	15	15nov015.d	1.	11-0840-1A		15 Nov 2013 16:42
16	16	15nov016.d	1.	11-0841-1A		15 Nov 2013 17:09
17	17	15nov017.d	1.	11-0842-1A		15 Nov 2013 17:35
18	18	15nov018.d	1.	11-0892-1A		15 Nov 2013 18:01
19	19	15nov019.d	1.	E111513A		15 Nov 2013 18:27

Return to Contents

Injection Log

Directory: W:\GCMS_TT_DATA\2013\131106

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	06nov001.d	1.	TUNE S090413A DFTPP		6 Nov 2013 10:27
2	2	06nov002.d	1.	ICAL-1 S090513H 2.5PPM		6 Nov 2013 10:53
3	3	06nov003.d	1.	ICAL-2 S090513G 5PPM		6 Nov 2013 11:20
4	4	06nov004.d	1.	ICAL-3. S090513F 10PPM		6 Nov 2013 11:45
5	5	06nov005.d	1.	ICAL-4 S090513E 20PPM		6 Nov 2013 12:13
6	6	06nov006.d	1.	ICAL-5 S090513D 50PPM		6 Nov 2013 12:40
7	7	06nov007.d	1.	ICAL-6 S090513C 80PPM		6 Nov 2013 13:05
8	8	06nov008.d	1.	ICAL-7 S090513B 120PPM		6 Nov 2013 13:31
9	9	06nov009.d	1.	ICAL-8 S090513A 160PPM		6 Nov 2013 13:58
10	10	06nov010.d	1.	ICV S071913W 80PPM		6 Nov 2013 14:24
11	1	06nov011.d	1.	TUNE S090413A DFTPP		6 Nov 2013 16:13
12	2	06nov012.d	1.	CCV S090513C 80PPM		6 Nov 2013 16:39
13	3	06nov013.d	1.	MB 131104-L03 DOD		6 Nov 2013 17:04
14	4	06nov014.d	1.	LCS 131104-L03 DOD		6 Nov 2013 17:30
15	5	06nov015.d	1.	LCSD 131104-L03 DOD		6 Nov 2013 17:55
16	20	06nov016.d	1.	MB 131104-L05 DOD		6 Nov 2013 18:21
17	21	06nov017.d	1.	LCS 131104-L05 DOD		6 Nov 2013 18:47
18	6	06nov018.d	1.	13-10-2214-1E		6 Nov 2013 19:12
19	7	06nov019.d	1.	13-10-2214-2E		6 Nov 2013 19:38
20	8	06nov020.d	1.	13-10-2214-3E		6 Nov 2013 20:04
21	9	06nov021.d	1.	13-10-2214-4E		6 Nov 2013 20:29
22	10	06nov022.d	1.	13-10-2214-7E		6 Nov 2013 20:55
23	11	06nov023.d	1.	13-10-2306-3E		6 Nov 2013 21:21
24	12	06nov024.d	1.	13-10-2306-4M		6 Nov 2013 21:46
25	13	06nov025.d	1.	13-10-2306-5E		6 Nov 2013 22:13
26	14	06nov026.d	1.	13-10-2306-6E		6 Nov 2013 22:40
27	15	06nov027.d	1.	13-11-0001-3A		6 Nov 2013 23:06
28	16	06nov028.d	1.	13-11-0001-4E		6 Nov 2013 23:32
29	17	06nov029.d	1.	13-11-0001-5E		6 Nov 2013 23:58
30	18	06nov030.d	1.	13-11-0001-6E		7 Nov 2013 00:24
31	19	06nov031.d	1.	13-11-0001-7E		7 Nov 2013 00:50
32	22	06nov032.d	1.	13-10-2404-1A	Re-ext SVR	7 Nov 2013 01:16
33	23	06nov033.d	1.	13-10-2404-2A		7 Nov 2013 01:42
34	24	06nov034.d	1.	13-10-2404-3A		7 Nov 2013 02:09
35	25	06nov035.d	1.	13-10-2404-4A		7 Nov 2013 02:36
36	26	06nov036.d	1.	13-10-2404-3A MS		7 Nov 2013 03:02
37	27	06nov037.d	1.	13-10-2404-3A MSD		7 Nov 2013 03:28

Return to Contents

Injection Log

Directory: W:\GCMS_TT_DATA\2013\131113

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	13nov001.d	1.	TUNE S090413A DFTPP		13 Nov 2013 11:20
2	2	13nov002.d	1.	CCV S090513C 80PPM		13 Nov 2013 12:38
3	3	13nov003.d	1.	LCS 131107-L19 SEP		13 Nov 2013 13:04
4	4	13nov004.d	1.	LCSD 131107-L19 SEP		13 Nov 2013 13:30
5	5	13nov005.d	1.	MB 131107-L19 SEP		13 Nov 2013 13:56
6	6	13nov006.d	1.	13-11-0463-2G RR		13 Nov 2013 14:22
7	7	13nov007.d	1.	13-11-0463-3G RR		13 Nov 2013 14:48
8	1	13nov008.d	1.	TUNE S090413A DFTPP		13 Nov 2013 16:26
9	2	13nov009.d	1.	CCV S090513C 80PPM		13 Nov 2013 16:53
10	3	13nov010.d	1.	LCS 131108-L04 W DOD		13 Nov 2013 17:19
11	4	13nov011.d	1.	LCSD 131108-L04 W DOD		13 Nov 2013 17:45
12	5	13nov012.d	1.	MB 131108-L04 W DOD		13 Nov 2013 18:10
13	6	13nov013.d	1.	LCS 131112-L06 W DOD		13 Nov 2013 18:36
14	7	13nov014.d	1.	LCSD 131112-L06 W DOD		13 Nov 2013 19:02
15	8	13nov015.d	1.	MB 131112-L06 W DOD		13 Nov 2013 19:28
16	9	13nov016.d	1.	LCS 131112-L25 S DOD		13 Nov 2013 19:54
17	10	13nov017.d	1.	MB 131112-L25 S DOD		13 Nov 2013 20:20
18	11	13nov018.d	1.	13-11-0489-1J		13 Nov 2013 20:46
19	12	13nov019.d	1.	13-11-0489-2J		13 Nov 2013 21:12
20	13	13nov020.d	1.	13-11-0490-1H		13 Nov 2013 21:37
21	14	13nov021.d	1.	13-11-0490-2D		13 Nov 2013 22:03
22	15	13nov022.d	1.	13-11-0609-1L		13 Nov 2013 22:30
23	16	13nov023.d	1.	13-11-0609-2L		13 Nov 2013 22:57
24	17	13nov024.d	1.	13-11-0860-6A		13 Nov 2013 23:23
25	18	13nov025.d	1.	13-11-0860-6A MS		13 Nov 2013 23:50
26	19	13nov026.d	1.	13-11-0860-6A MSD		14 Nov 2013 00:17
27	20	13nov027.d	1.	13-11-0860-6A 10X		14 Nov 2013 00:43
28	21	13nov028.d	1.	LCS 131111-L05 PFE		14 Nov 2013 01:09
29	22	13nov029.d	1.	MB 131111-L05 PFE		14 Nov 2013 01:36
30	23	13nov030.d	1.	13-11-0611-3A		14 Nov 2013 02:02
31	24	13nov031.d	1.	13-11-0697-4A MS		14 Nov 2013 02:29
32	25	13nov032.d	1.	13-11-0697-4A MSD		14 Nov 2013 02:57
33	26	13nov033.d	1.	13-11-0676-30A		14 Nov 2013 03:24
34	27	13nov034.d	1.	13-11-0676-34A		14 Nov 2013 03:51
35	28	13nov035.d	1.	13-11-0697-3A		14 Nov 2013 04:17

Return to Contents

EPA METHOD 8270C
SVOCs

Preparation Logs

Return to Contents

EPA Method 625/8270 Extraction Logbook

START	pH ADJUSTMENT (1:1 H_2SO_4 / 10-N NaOH) FIRST (pH < 2)			SECOND (pH > 11)			END	MATRIX	EXTRACTION	TEST METHOD	MB/LCS/MS BATCH #	PREP TECHNICIAN(S)
								S = SOIL A = AQUEOUS O = OIL W = WIPE F = FILTER	1 = 3510 SEP 2 = 3520 C-LL 4 = 3545 PFE 5 = 3550 SON 8 = 3580 DIL		131111L05	
D = DATE T = TIME	D = DATE T = TIME	a) INITIAL pH b) FINAL pH	c) 1:1 H_2SO_4 ID # d) AMOUNT	D = DATE T = TIME	e) INITIAL pH f) FINAL pH	g) 10-N NaOH ID # h) AMOUNT	D = DATE T = TIME				CEL ID #	
D) 11-1-13 T) 12:00	D)	a)	c)	D)	e)	g)	D) 11-7-13 T) AM	S A O W F	1 2 4 5 8	8270	MB	7/26/13
D)	D)	a)	c)	D)	e)	g)	D)	S A O	1 2 4		LCS	
T)	T)	b)	d)	T)	f)	h)	T)	W F	5 8		LCSD 11-11-13	
D)	D)	a)	c)	D)	e)	g)	D)	S A O	1 2 4		13-11-0697-4 A/MD	
T)	T)	b)	d)	T)	f)	h)	T)	W F	5 8		-3A	
D)	D)	a)	c)	D)	e)	g)	D)	S A O	1 2 4		-4A	
T)	T)	b)	d)	T)	f)	h)	T)	W F	5 8		-6A	
D)	D)	a)	c)	D)	e)	g)	D)	S A O	1 2 4		-7A	
T)	T)	b)	d)	T)	f)	h)	T)	W F	5 8		-9A	
D)	D)	a)	c)	D)	e)	g)	D)	S A O	1 2 4		-10A	
T)	T)	b)	d)	T)	f)	h)	T)	W F	5 8		-11A	
D)	D)	a)	c)	D)	e)	g)	D)	S A O	1 2 4		-0611-1A	
T)	T)	b)	d)	T)	f)	h)	T)	W F	5 8		-2A	
D)	D)	a)	c)	D)	e)	g)	D)	S A O	1 2 4		-3A	
T)	T)	b)	d)	T)	f)	h)	T)	W F	5 8		-0676-30A	
D)	D)	a)	c)	D)	e)	g)	D)	S A O	1 2 4		-34A	
T)	T)	b)	d)	T)	f)	h)	T)	W F	5 8		-0688-1A	
D)	D)	a)	c)	D)	e)	g)	D)	S A O	1 2 4			
T)	T)	b)	d)	T)	f)	h)	T)	W F	5 8			
D)	D)	a)	c)	D)	e)	g)	D)	S A O	1 2 4			
T)	T)	b)	d)	T)	f)	h)	T)	W F	5 8			
D)	D)	a)	c)	D)	e)	g)	D)	S A O	1 2 4			
T)	T)	b)	d)	T)	f)	h)	T)	W F	5 8			
D)	D)	a)	c)	D)	e)	g)	D)	S A O	1 2 4			
T)	T)	b)	d)	T)	f)	h)	T)	W F	5 8			

EPA Method 625/8270 Extraction Logbook

SAND ID #	SAMPLE	AQUEOUS SAMPLE MEASURED BY BALANCE		WATER BATH TEMP RANGE (°C)	THERMOMETER ID # & CF	ASE ID #	DRYING AGENT
E08-38-11	W (g) / V (mL)	MEASURED	CALCULATED	-100	C24747 (CF 0.0°C	9, 10	☒ Na_2SO_4 ☒ Diatomaceous Earth

CEL ID #	SAMPLE a) INITIAL b) FINAL	AQUEOUS SAMPLE MEASURED BY BALANCE a) INITIAL (g) b) FINAL (g)	AQUEOUS SAMPLE MEASURED BY BALANCE c) NET (g) d) V (mL)	BALANCE ID #	SURROGATE STANDARD STANDARD ID #	SURROGATE STANDARD a) C (ppm) b) V (mL)	SPIKE STANDARD (LCS/LCSD/MS/MSD) STANDARD ID #	SPIKE STANDARD (LCS/LCSD/MS/MSD) a) C (ppm) b) V (mL)	INTERNAL STANDARD a) ID # b) V (mL)	EXTRACTION SOLVENT 1 = CH_2Cl_2 2 = 1:1 CH_2Cl_2-C_3H_6O	EXTRACTION SOLVENT a) ID # b) V (mL)	REAGENT / SUPPLY ID # a) DRYING AGENT b) FILTER
MB	a) 20.0 b) 2	a) b)	c) d)	53	E101613A	a) 400 b) 0.5		a) b)	a) E08-59-70 b) 0.01	2	a) E08-68-15 b) -45	a) E08-68-7 E08-45 b) E08-64-1
LCS	a) 20.0 b) 2	a) b)	c) d)			a) b)	E103013A	a) 1000 b) 0.2	a) b)	2	a) b)	a) b)
~~LCSD~~ 11-11-13 13-11-0697-4MS	a) 20.1 b) 2	a) b)	c) d)			a) b)		a) b)	a) b)	2	a) b)	a) b)
-4MSD	a) 20.0 b) 2	a) b)	c) d)			a) b)		a) b)	a) b)	2	a) b)	a) b)
-3	a) 20.0 b) 2	a) b)	c) d)			a) b)		a) b)	a) b)	2	a) b)	a) b)
-4	a) 20.1 b) 2	a) b)	c) d)			a) b)		a) b)	a) b)	2	a) b)	a) b)
-6	a) 20.0 b) 2	a) b)	c) d)			a) b)		a) b)	a) b)	2	a) b)	a) b)
-7	a) 20.0 b) 2	a) b)	c) d)			a) b)		a) b)	a) b)	2	a) b)	a) b)
-9	a) 20.0 b) 2	a) b)	c) d)			a) b)		a) b)	a) b)	2	a) b)	a) b)
-10	a) 20.1 b) 2	a) b)	c) d)			a) b)		a) b)	a) b)	2	a) b)	a) b)
-11	a) 20.0 b) 2	a) b)	c) d)			a) b)		a) b)	a) b)	2	a) b)	a) b)
-0611-1	a) 20.0 b) 2	a) b)	c) d)			a) b)		a) b)	a) b)	2	a) b)	a) b)
-2	a) 20.0 b) 2	a) b)	c) d)			a) b)		a) b)	a) b)	2	a) b)	a) b)
-3	a) 20.1 b) 2	a) b)	c) d)			a) b)		a) b)	a) b)	2	a) b)	a) b)
-0676-30	a) 20.0 b) 2	a) b)	c) d)			a) b)		a) b)	a) b)	2	a) b)	a) b)
-34	a) 20.0 b) 2	a) b)	c) d)			a) b)		a) b)	a) b)	2	a) b)	a) b)
-0688-1	a) 20.1 b) 2	a) b)	c) d)			a) b)		a) b)	a) b)	2	a) b)	a) b)
	a) b)	a) b)	c) d)			a) b)		a) b)	a) b)	1 2	a) b)	a) b)
	a) b)	a) b)	c) d)			a) b)		a) b)	a) b)	1 2	a) b)	a) b)
	a) b)	a) b)	c) d)			a) b)		a) b)	a) b)	1 2	a) b)	a) b)

Book Number: 200

Return to Contents

11/08/12 Revision

EPA METHOD 8270C
SVOCs

Standards Preparation Logs

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
9/3/13	S090313K	508A	Pest Surr. Mix	S090313H	0.32ml	1000 ppb	4 ml	80 ppb	Hexane	E8-45-9	3/3/14	262	
↓	↓ L	↓	↓	↓	0.04 ml	↓	↓	10 ↓	↓	↓	↓	↓	
9/3/13	S090313M	8015	CCV 8015	505-39-17	80 ul	100ppm	4ml	2 ppm	DZH2O	NA	1/31/14	684	
↓	↓	↓	Surrogate 8015	S090313N ~~S051413E~~	24 ul	1000ppm	↓	6 ppm	↓	↓	↓		
9/3/13	S090313N	8015	Hexa-fluoro-propanol	505-42-2	12.6 ul	D=1.596 neat	2ml	10 Kppm	DZH2O	NA	3/3/14		
↓	S090313O	↓	Surrogat 8015	S090313N	0.4 ml	10 Kppm	4ml	1000 ppm	↓	↓	↓	↓	
9/3/13	S090313P	8015	CCV 8015	505-39-17	80 ul	100 ppm	4 ml	2 ppm	DZH2O	NA	1/31/14	684	
↓	↓	↓	Surrogate 8015	S090313N	24 ul	1000ppm	↓	6 ppm	↓	↓	↓	↓	
9/4/13	S090413A	8270	DFTPP	SG-13-24	1 mL	1000ppm	20mL	50ppm	MeCl2	E7-15-5	3/4/14	859	
9/5/13	S090513A	↓	8270 stock	S083013A	1.6mL	2000ppm	2mL	160ppm			2/28/14	859	
	↓		SV-IS	E8-57-10	40 uL	2000ppm		40					
	S090513B				1.2 mL			120					
	↓				40 uL			40					
	S090513C				0.8mL			80					
	↓				40 uL			40					
	S090513D				0.5 mL			50					
	↓				40 uL			40					
	S090513E				0.2 mL			20					
	↓				40 uL			40					
	S090513F	↓	↓	↓	0.1 mL	↓	↓	10 ↓	↓	↓	↓	↓	

Book Number: 11

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
9/5/13	↓	8270	SV-IS	E8-57-10	40 µL	2000PPM	2mL	40 PPM	$MeCl_2$	E7-15-5	2/28/13	859	
	S0905I36		8270 STOCK	S0830I3A	0.05mL	200PPM		5					
	↓		SV-IS	E8-57-10	40 µL	2000PPM		40					
	S0905I3H				25 µL			2.5					
	↓				40 µL			40					
	S0905I3I				2.5 µL			0.25					
	↓				40 µL			40					
09/09/13	S0909I3A	OTIN ICV	OTIN – SPIKE	E0603I3B	5mL	1 PPM	10 mL	500 PPB	Hexane	IE8-45-9	12/03/13	573	
	S0909I3B		OTIN – ICV	S0909I3A	0.4mL	50 ppb	2mL	100 PPB			11/24/13		
			IS – OTIN	S0529I3D	40 µl	5 ppm		100 PPB					
9/11/13	S0911I3A	8080	Tissue Surrogate	S6-02-09-08	2mL	200ppm	200 mL	2ppm	Hexane	E8-45-9	3/11/14	421	
	B	8082	AROclor 1016	S06-07-04	800 µL	100 ppm	4 ml	20 ppm			01/30/14	169	
			AROclor 1260	S06-07-09 08 9/4	800 µL								
			Pesticides Surr.	S5-45-12	80 µL	200 ppm		4 ppm					
	C		Ical 1	S0911I3B	20 µL	20/4 ppm	4 ml	100/20 ppb					
	D		Ical 2		50 µL			250/50 ppb					
	E		Ical 3		0.1 ml			500/100 ppb					
	F		Ical 4		150 µL			750/150 PPB					
	G		Ical 5		400 µL			2000/400 PPB					
	H		PCB-CCV 500 ppb		1 ml		40 ml	500/100 ppb					

Book Number: 11

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
8/30/13	S083013A	8270	Sv-Cali kit	56-13-3	7x1ml	2000ppm	~~Me~~10ml (449)	200ppm	$MeCl_2$	E7-15-5	2/28/14	449	
			8270 Custom	56-18-20	1ml	↓							
			B/N Surr.	E8-55-12	0.4ml	5000ppm							
		↓	Acid Surr.	E8-55-4	0.2ml	10000ppm	↓	↓					
	B	BNA Super	8270 Stock	S083013A	400µl	200ppm	4ml	20ppm					
		BNA-SIM	SV-IS	E8-57-10	10µl	2000ppm		5					
	C				300			15					
					10			5					
	D				200			10					
					10			5					
	E				160			8					
					10			5					
	F				100			5					
					10			5					
	G				50			2.5					
					10			5					
	H				10			0.5					
					10			5					
	I				2			0.1					
					10			5					

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	8270 Cali – kit	supelco	48118	LB96472	FEB 14	7x1mL	G	02/15/13	573	05/01/13	573	
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/19/13	573	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/30/13	449	
4	2,2,4-Trimethylpentane (Isooctane)	Sigma-Aldrich	360597	SHBC4278V	2/18/16	500 ml	G	02/15/13	684	2/18/13	773	verified
5	2,3-Dichlorobiphenyl (BZ#5)	Ultra	RPC-012 DN#	NT 00011	01/31/2017	25 mg	G	2/15/13	684	↓	773	verified
6	4,4'-Dichlorobiphenyl (BZ#15)	↓	RPC-011	RM 00605	01/31/2017	10 mg	↓	↓	↓	↓	↓	verified
7	521 Surrogate	Restek	33910	A088147	04/15	1 ml	G	2/19/13	262	2/19/13	262	
8	↓	↓	33910	↓	04/15	↓	↓	↓	↓	↓	↓	
9	521 IS	↓	33911	A088435	05/15	↓	↓	↓	↓	2/19/13	262	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
11	Aroclor 1260	ULTRA	PP-361	CG-3829	12/2014	1ml	↓	2/20/13	669	3/7/13	684	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/21/13	669	(For 508)
13	521 Cartridge	UCT	EU5211M6	09962-EM	2/11/18	30	Bag	2/21/13	262	2/21/13	262	
14	BDE-49	Accustd	BDE-049S	211031138	6/10/19	1ml	G	2/28/13	421	2/28/13	421	
15	Methylene Chloride	Fisher	D154-4	126306	3/5/16	4 L	G	3/5/13	262	3/5/13	262	
16	Pesticides Sur.	Supelco	48460	LB81291	01/2014	1L	G	3/22/13	669	8/7/12	842	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
21	Diethanolamine	Accustandard	ALR-109N	05712D1	2/24/21	100mg	G	3/28/13	684	4/2/13	262	
22	Monoethanolamine	↓	ALR-136N	13768	9/29/14	↓	↓	↓	↓	4/2/13	262	
23	8270 Tuning Solution	SUPELCO	47548-U	LB91071	03/15	1 mL	↓	03/28/13	573	6/27/13	449	
24	↓	↓	↓	↓	03/15	↓	↓	↓	↓	9/4/13	889	
25	Aqua Comparator Kit	orbeco	L147010	NA	2/2016	Each	130x	3/25/13	262	3/27/12	262	

COMMENTS:

Book Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Nitroglycerin	Accustandard	M-8330-ADD-1-10X	213031341	5/9/2015	1 ml	G	6/28/13	684	9/20/13 ~~9/20/13~~	684	
2	PETN	↓	M-8330-ADD-2-10X	212091258	10/1/2014	↓	↓	↓	↓	9/20/13 ~~9/20/13~~	↓	
3	Aqua Comparator Kit	Orbeco	L147010	NA	12/2016	Each	P	7/3/13	262	7/5/13	262	
4	Naled	Accustandard	M-8140-15	213021035	2/5/2015	1 ml	G	7/22/13	684			
5	↓	↓	↓	↓	↓	↓	↓	↓	↓			
6	Malathion	↓	M-622-14	213011414	1/28/2015	↓	↓	↓	↓			
7	Methanol	Fisher Chem.	A 452-4	130869	7/23/2016	4L	G	7/23/13	684	7/23/13	684	
8	Simazine	Ultra	PP-530A	CH-2866	9/30/14	1 ml	G	7/26/13	142	7/27/13	142	
9	↓	↓	↓	CK-0207	2/28/15	↓	↓	↓	↓			
10	Thiobencarb	↓	PST-1725M 100A01	CH-0339Z	7/31/15	↓	↓	↓	↓	7/27/13	142	
11	↓	↓	↓	↓	↓	↓	↓	↓	↓			
12	Technical Chlordane Mix	Restek	32021	A089209	9/18	1 ml	G	7/29/13	500			
13	↓	↓	↓	↓	↓	↓	↓	↓	↓			
14	↓	↓	↓	↓	↓	↓	↓	↓	↓			
15	↓	↓	↓	A092539	3/19	↓	↓	↓	↓			
16	Toxaphene Standard	Restek	32005	A092547	3/17	1 ml	G	7/29/13	500			
17	↓	↓	↓	↓	↓	↓	↓	↓	↓			
18	↓	↓	↓	↓	↓	↓	↓	↓	↓			
19	↓	↓	↓	↓	↓	↓	↓	↓	↓			
20	8270 CUSTOM STD	Accu STD	S-22976	211101046-01	7/23/15	1 ML	G	7/31/13	573	8/30/13	449	/
21	↓	↓	↓	↓	↓	↓	↓	↓	↓			
22	↓	↓	↓	↓	↓	↓	↓	↓	↓			
23	↓	↓	↓	↓	↓	↓	↓	↓	↓			
24	↓	↓	↓	↓	↓	↓	↓	↓	↓			
25	Hexachlorobenzene Solution	Ultra Sci.	CH-151	CE-4483A	8/31/15	1 ml	G	7/31/13	500			

COMMENTS:

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Dichloromathane	EMD	DX0831-1	051287	01-05-15	4LX 52	G	01-05-12	C2	01-05-12	C2	
2	Hexanes	EMD	HX0298-1	51222	1-9-15	4LX4	G	1-9-12	MHW	1-9-12	MHW	for organ
3	Hydrochloric Acid	EMD	HX0607/4	51122	1-13-15	2.5LX2	G	1-13-12	MHW	1-13-12	MHW	
4	Ethyl Ether Anhydrous	EMD	EX0190-4	51252	9-30-13	4LX6	G	1-13-12	MHW	1-13-12	MHW	
5	Dichloromathane	↓	DX0831-1	051287	01-16-15	4LX10	G	1-16-12	7	3-9-12	773	
6	Sodium sulfate, Anhydrous	EMD	SX0760-5	07000501	1-17-17	12KgX4	P	1-17-12	785	1-17-12	785	
7	Sodium chloride	↓	SX0420-5	TL20B2EM4	01-19-17	12KgX3	↓	1-19-12	7	1-19-12	7	Brabld
8	Hexanes	EMD	HX0298-1	51180	1-24-15	4LX6	G	1-24-12	785	1-24-12	785	
9	Boiling Stones	Chemware	2639-103	E313-1K047	1-31-17	450gX2	P	1-31-12	7			
10	Ethyl Ether Anhydrous	EMD	EX0190-4	51252	9-30-13	4LX6	G	2-1-12	785	2-1-12	785	
11	Acetone	EMD	AX0116-1	51168	2-1-15	4LX4	G	2-1-12	785	2-1-12	785	
12	Ethyl Acetate	EMD	EX0241-1	50321	2/2/15	4L	G	2/2/12	262	2/2/12	262	
13	41 Filter paper-9cm	Whatman	1441-090	36123	NA	10PK	P	↓	7	↓	7	
14	↓ -125cm	↓	1441-125	37149588 @ 2/2/12	↓	↓	↓	↓	↓	↓	↓	
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												

COMMENTS:

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Acid Surrogate Mix	Restek	33029	A092727	01-31-21	10 mL	G	07-08-13	7	9-4-13	7	
2										9-4-13	7	
3												
4										8/29/13	449	
5										10-16-13	7	
6												
7												
8												
9	B/N Surrogate Mix		33028	A092591	11-30-18					07-31-13	7	
10												
11										8/15/13	262	
12										8/29/13		
13										9-4-13	7	
14												
15												
16												
17												
18												
19												
20												
21										10-16-13	7	
22												
23												
24												
25												

COMMENTS:

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
07/19/13	S071913Q	8270	8270 STOCK	S071913M	0.5 ML	200 ppm	2 ML	50 ppm	Mell	E7-15-5	10/06/13	513	
			SV-IS	E8-50-24	40 ul	2000 ppm		40					
	S071913R				0.2 ML			20					
					40 ul			40					
	S071913S				0.1 ML			10					
					40 ul			40					
	S071913T				0.05 ML			5					
					40 ul			40					
	S071913U				25 ul			2.5					
					40 ul			40					
	S071913V				2.5 ul			0.25					
					40 ul			40					
	S071913W	8270/CV	8270 SP FQC	E60313C	0.8 ML	200 ppm	2 ML	80			12/3/13		
			8270 SVR	E061713A	0.4 ML	400		80					
			SV-IS	E8-50-24	40 ul	2000		40					
7/22/13	S072213A (7/22/13 (684))	8330	2,6-Diamino-4-nitrotoluene	S06-17-22	100 ul	100 ppm	1 ml	10 ppm	Acn:H2O 1:1	S062813-1	8/22/13	684/421	
			2,4-Dianino-6-nitrotoluene	S06-17-24	100 ul	100							
			PETN	S06-15-07	10 ul	1000							
			Nitroglycerin	S06-15-06	10 ul	1000							
7/22/13	S072213A (7/22/13 (684))	8330	1,2-Dinitrobenzen	S06-15-06	10 ul	1000							

Book Number: 11

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
6-3-13	E060313A	organotins sur.	Tripentyltin chloride Mixture	E07-08-07	0.3 ml	2000 ppm	600 ml	1 ppm	Hexanes	E08-45-9	12-3-13	788	
6-3-13	E060313B	organotins spike	Butyltin chlorides calibration Mixture	E07-~~08-07~~ 07-11 (788) 6/3/13	0.15 ml	2000 ppm	300 ml	1 ppm	Hexanes	E08-45-9	12-3-13	785	
-3-13	E060313C	8270 spike FQC	8270 calibration #1	E08-07-23 24 25	4 ml	2000 ppm	40 ml	200 ppm	Acetone	E08-42-6	12-3-13	785	
↓	↓	↓	↓ #2	E08-08-7 8 9	↓	↓	↓	↓	↓	↓	↓	↓	
↓	↓	↓	#3	E08-08-16 17 18	↓	↓	↓	↓	↓	↓	↓	↓	
↓	↓	↓	#4	E08-09-7 8 9	↓	↓	↓	↓	↓	↓	↓	↓	
↓	↓	↓	#5	E08-09-18 19 20	↓	↓	↓	↓	↓	↓	↓	↓	
-4-13	E060413A	8270 sim I.S	SV INTERNAL STANDARDS	E08-46-18, 20 24, 25 22, 23	6.25 ml	2000 ppm	50 ml	250 ppm	CH_2Cl_2	E08-45-18	12-4-13	782	
-17-13	E061713A	8270 sur.	Acid Surrogate Mix	E08-31-9, 10 E08-43-13-15	40 ml	10,000 ppm	1000 ml	400 ppm	Acetone	E08-41-5	12-17-13	7	
↓	↓	↓	B/N Surrogate Mix	E08-43-23-25 E08-44-1-5	80 ml	5,000 ppm	↓	↓	↓	↓	↓	↓	
↓	E061713B	8080 sur.	pesticide Surrogate Mix	E08-46-1, 2	10 ml	200 ppm	1000 ml	2 ppm	↓	↓	↓	↓	
-18-13	E061813A	508 sur.	8081 sur.	E061713B	10 ml	2 ppm	40 ml	0.5 ppm	MTBE	S6-11-8	8-18-13	785	
18-13	E061813B	508 pest	8081 Spike	E050113C	4 ml	1 ppm	40 ml	0.1 ppm	↓	↓	8-18-13	↓	
-18-13	E061813C	TO 13A sim PAH	TO 13A. sur.	E08-44-3	1.6 ml	5000 ppm	200 ml	40 ppm	Hexanes	E08-45-9 (787)	12-18-13 6/18/13	787	
↓	E061813D	508 PCB	1016/1260 8082 spike	E050113D	0.8 ml	10 ppm	40 ml	0.2 ppm	MTBE	S06-11-8	8-18-13	7	
-19-13	E061913A	508 PCB	↓	E07-14-6	0.4 ml	1000 ppm	40 ml	10 ppm	↓	↓	8-19-13	↓	
-21-13	E062113A	1.4-Dioxane d8	1.4-Dioxane d8	E07-14-2	0.2 g	Neat	200 ml	1000 ppm	Acetone	E08-41-5	12-21-13	7	
↓	E062113B	1.4-Diox.	1.4-Dioxane 99.8%	E07-14-1	0.1 g	↓	100 ml	1000 ppm	↓	↓	↓	↓	
-28-13	E062813A	8270 sim PAH spike	EPA Method 8310 PAH Mix	E08-02-17-20 E08-~~10~~ 10-20, 21, 22 6-28-13	8 ml	500 ppm	200 ml	20 ppm	↓	↓	12-28-13	7	

k Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

NE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	~~Simazine~~ 1/11/13 Thiobencarb	AccSTD	P-180S	212061040	6/4/22	1	G	1/11/13	262	7/27/13	142	
2	Simazine	↓	P-085S	212091149	9/13/17	1	G	↓	↓	7/27/13	142	
3	Custom Standard - Organic Acids	Ultra	CUS-10577	CJ-4647	1/31/14	1 ml ↓ 684 1/14/13	G	1/14/13	684	2/18/13	773	verified
4												
5												
6												
7												
8	MTBE	Sigma	650580-4L	MKBJF6565V	1/21/16	4 L	G	1/21/13	262	1/21/13	262	verified 5th B2 P15
9	Acenaphthene-d10	AccSTD	M-548.1-1S	21103.048	3/4/21	3 x 1ml	G	1/22/13	262	8/9/13	262	
10												
11												
12	CUSTOM 8270 STD	AccSTD	S22976	21110104L	11/06/13	1 mL	G	1/22/13	513	05/01/13	513	
13										07/19/13	573	
14												
15												
16												
17	Tetrahydrofuran-d8	Restek	30112	A089996	7/2017	1	G	1/28/13	262	1/30/13	262	
18												
19										5/28/13	262	
20	Custom Standard - Quote* 012512-865	Ultra	CUS-11539	CK-0169	2/28/14	1	G	1/29/13	684	2/14/13	773	verified
21												
22												
23												
24												
25	SPE Cartridge EPA 521	Restek	26032	C10126W02	NA	30		1/30/13	262	1/31/13	262	

MMENTS:

ok Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

INE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	SV Internal Std Mix	Restek	31206	A087264	04-30-19	1ml	G	07-23-12	7	9-17-12	782	
2										9-6-12	782	
3										9-7-12	782	
4										9-19-12	783	
5										9-19-12	142	
6										9-19-12	783	
7										9-25-12	783	
8										9-25-12	783	
9										9/28/12	573	
10										10/01/12	782	
11										10/01/12	782	
12										10/04/12	783	
13										9-28-12	782	
14										10/8/12	783	
15										10/11/12	783	
16	8270 Calibration Mix #1		31618	A079473	04-30-14			07-24-12		07-25-12	7	
17												
18												
19										01-2-13 ~~04-2-13~~		
20										1/2/13		
21												
22												
23										6-3-13	985	
24												
25												

OMMENTS:

ook Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	8270 Calibration Mix #2	Restek	31619	A084478	10-31-13	1 ml	G	07-23-12	7	07-25-12	7	
2												
3												
4										01-02-13		
5												
6												
7										6-3-13	785	
8												
9												
10												
11	8270 Calibration Mix #3		31620	A076977	09-30-13					07-25-12	7	
12												
13										01-02-13		
14												
15												
16										6-3-13	785	
17												
18												
19												
20												
21	PCB Calibration Check Solution	Accustd.	C-CCSEC	B4080123	08-17-14			07-24-12		07-04-13	787	
22										5-13-13	7	
23										01-25-13	7	
24										01-18-13	7	
25										8-14-12	7	

COMMENTS:

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	8270 Calibration Mix #4	Restek	31621	A080622	05-31-14	1 ml	G	01-23-12	T	01-24-12	>	
2												
3												
4										01-2-13		
5												
6												
7										6-3-13	~~SB~~	
8												
9												
10												
11	8270 Calibration Mix #5		31995	A089366	05-31-18					01-24-12	>	
12				A086679	01-31-18							
13												
14										01-2-13		
15												
16												
17												
18										6-3-13	~~SB~~	
19										6-3-13		
20												
21												
22												
23												
24												
25												

COMMENTS: _____

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

NE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Sodium Sulfate Anhydrous	Fish	S421-10	121758	4-2-18	10Kg x6	P	4-2-13	785	4-2-13	785	
2	Sulfuric Acid	EMD	SX1244/2	52116	4-8-16	2.5L x3	G	4-8-13	785	4-8-13	785	
3	Hydrochloric Acid	EMD	HX0607-2	52250	4-8-16	2.5L x3	G	4-8-13	785	4-8-13	785	
4	Hexanes	EMD	HX 0298-1	53032	04-09-16	4L x 18	G	04-09-13	787	04-09-13	787	
5	Dichloromethane	EMD	DX0831-1	53044	4-11-16	4L x 40	G	4-11-13	785	4-11-13	785	
6	Acetone	Fish	A929-4	129684	4-12-16	4L x 8	G	4-12-13	785	4-11-13	785	
7	Ethyl Ether ANHydrous	EMD	EX0190-4	52331	11-30-14	4L x4	G	04-12-13	787	4-12-13	787	
8	Sodium Sulfate Anhydrous	Fish	S421-10	121758	4-15-18	10Kg x6	P	4-15-13	785	4-15-13	785	
9	Dichloromethane	EMD	DX0831-1	53066	4-19-16	4L x72	G	4-18-13	785	4-18-13	785	
10	Hexanes	EMD	DX 0298-1	53063	04-23-16	4L x 24	G	04-23-13	787	04-23-13	787	
11	Dichloromethane	EMD	DX0831-1	52321	4-24-16	4L x 24	G	4-24-13	785	4-23-13 (24) @ 4/24/13	785	
12	"	"	"	53162	4-30-16	4L x 108	"	4-30-13	7	4-30-13	7	
13	Copper Granules 99.5%	RESprep	26136	212201-AV	04-30-18	1 Kg.	P	04-30-13	787	04-30-13	787	
14	Alumina SPE Cartridge	Supelco	57083-U	3661401	N/A	6ml x60	P	04-30-13	7	04-30-13	7	
15												
16												
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MMENTS:

ok Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Acid Surrogate Mix	Restek	33029	A091777	11-30-20	1 ml	S	12-13-12	7	2-1-13	7	
2										3-18-13		
3				A072802	03-31-18					05-01-13		
4	B/N Surrogate Mix		33028	A087681	03-31-18					2-1-13	7	
5										3-18-13		
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
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25												

COMMENTS:

Book Number: 8

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Dichloromethane	EMD	DX831-1	52321	3-18-16	4L×16	G	3-18-13	710	3-18-13	710	
2	Hexanes	EMD	HX0298-1	53032	03-18-16	4L×16	G	03-18-13	787	03-18-13	787	
3	Sodium sulfate Anhydrous	Fish	S421-10	121758	3-18-18	10kg×6	P	3-18-13	785	3-18-13	785	
4	Dichloromethane	EMD	DX831-1	53032	3-19-16	4L×108	G	3-19-13	785	3-19-13	785	
5	Acetone	EMD	AX0116-1	52088	3-20-16	4L×4	G	3-20-13	785	3-20-13	785	
6	Acetone	Fisher	A929-4	126831	3-25-16	4L×4	G	3-25-13	785	3-25-13	785	
7	Dichloromethane	EMD	DX0831-1	52038	3-27-16	4L×12	G	3-27-13	785	3-27-13	785	
8	Dichloromethane	EMD	DX0831-1	52146	3-27-16	4L×12	G	3-27-13	785	3-27-13	785	
9	Dichloromethane	EMD	DX0831-1	53044 3/28/13 ~~53011~~ 4/28/13	03-28-16 ~~03-28-16~~	4L×100	G	03-28-13	787	03-28-13	787	
10	MERCURY (Hg)	ALFA AESAR	STOCK # 00522	E22Y027	N/A	5lbs×2	P	3-28-13	782	3-28-13	782	
11	Hexanes	EMD	HX0298-1	53032	3-28-16	4L×6	G	3-28-13	785	3-28-13	785	
12	Ethyl Ether Anhydrous	EMD	EX0190-4	53028	1-31-15	4L×48	G	3-28-13	785	3-28-13	785	
13	Dichloromethane	EMD	DX0831-1	53044	04-04-16	4L×160	G	04-04-13	787	04-04-13	787	
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												

COMMENTS:

Book Number: 8

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Acid Matrix Spike Mix	Restek	31071	A094155	04-30-20	5ml	G	04-4-13	7	9-4-13	7	
2												
3												
4												
5	B/N Matrix Spike Mix		31084	A090670	09-30-15	5ml				9-4-13		
6												
7												
8												
9												
10												
11												
12												
13	Acid Surrogate Mix		33029	A091777	11-30-20	10ml				06-17-13	7	
14												
15												
16										07-31-13	7	
17												
18				A092727	01-31-21							
19												
20										9/4/13	7	
21	B/N Surrogate Mix		33028	A092511	11-30-18					05-1-13	7	
22												
23										6-1-13	7	
24												
25												

COMMENTS:

Book Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	B/N Surrogate Mix	Restek	33028	A09259	11-30-18	1 ml	G	4-4-13	7	06-17-13	7	
2												
3												
4												
5												
6										07-31-13	7	
7												
8												
9												
10												
11												
12	Tetraethyl lead	Accustd	S-1263	212061140	06-15-22	1 ml	G			4/22/13	786/782	
13										5/20/13	782	
14												
15												
16	Custom 625 LCS Mix	Restek	560726	A094625	04-30-18	5 ml	G	04-17-13	7			
17												
18										9-4-13	7	
19												
20												
21												
22												
23												
24												
25												

OMMENTS:

ook Number: 8

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	SV I-S. Mix	Restek	31206	A094182	02/28/14	1 mL	G	06-12-13	7	7/9/13	851	
2										7/12/13	851	
3										7-17-13	784	
4										↓	↓	
5										7-15-13	783	
6										8-6-13	783	
7										8-1-13	859	
8										8-6-13	783	
9										8-2-13	782	
10										8-6-13	783	
11										8-2-13	782	
12										8-6-13	785	
13										8-6-13	↓	
14										8-9-13	783	
15										8-9-13	783	
16										7-23-13	851	
17										8-13-13	859	
18										8-21-13	859	
19										7-22-13	782	
20										7-23-13	851	
21										7-24-13	784	
22										7-27-13	784	
23										7-28-13	785	
24										7/29/13	513	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓	7-29-13	782	

COMMENTS: _____

Book Number: 8

Return to Contents

EPA METHOD 8260B
Volatile Organics

RAW DATA

Return to Contents

EPA METHOD 8260B
Volatile Organics

Initial Calibration

Return to Contents

INITIAL CALIBRATION QUALITY CONTROL SUMMARY
FOR METHOD: EPA 8260B

WORK ORDER: 13-11-0697
ICAL BATCH ID: 131112IC
INSTRUMENT: GC/MS OO

ANALYZED BY: 486
ICAL D/T ANALYZED: 11/12/2013 19:25
REVIEWED BY:
D/T REVIEWED:

COMPOUND	CALIB. MODEL	1	2	3	4	5	6	7	8	9	AVG. RF	MIN. RF	%RSD	%R SD CL	R or R^2	R or R^2 CL	STATUS
Acetone	Avg Resp			0.039	0.045	0.048	0.054	0.046			0.046	0.00	12	0-15			PASS
Benzene	Avg Resp	1.888	1.607	1.460	1.420	1.498	1.629	1.343			1.549	0.00	12	0-15			PASS
Bromobenzene	Avg Resp		0.496	0.497	0.488	0.510	0.557	0.479			0.504	0.00	5	0-15			PASS
Bromochloromethane	Avg Resp		0.276	0.250	0.248	0.242	0.256	0.209			0.247	0.00	9	0-15			PASS
Bromodichloromethane	Avg Resp		0.468	0.431	0.426	0.449	0.505	0.418			0.450	0.00	7	0-15			PASS
Bromoform	Avg Resp		0.501	0.445	0.455	0.495	0.567	0.507			0.495	0.10	9	0-15			PASS
Bromomethane	**Avg Resp**			**0.416**	**0.460**	**0.302**	**0.413**	**0.467**			**0.412**	**0.00**	**16**	**0-15**			**FAIL**
2-Butanone	Avg Resp			0.166	0.170	0.179	0.194	0.180			0.178	0.00	6	0-15			PASS
n-Butylbenzene	Avg Resp		3.223	3.049	2.958	3.094	3.343	2.692			3.060	0.00	7	0-15			PASS
sec-Butylbenzene	Avg Resp		4.421	3.837	3.897	4.018	4.399	3.535			4.018	0.00	9	0-15			PASS
tert-Butylbenzene	Avg Resp		0.748	0.688	0.711	0.732	0.807	0.668			0.726	0.00	7	0-15			PASS
Diethyl Ether	Avg Resp		0.425	0.328	0.311	0.307	0.350	0.298			0.337	0.00	14	0-15			PASS
Carbon Disulfide	Avg Resp		1.720	1.611	1.609	1.757	1.934	1.572			1.700	0.00	8	0-15			PASS
Carbon Tetrachloride	Avg Resp	0.672	0.600	0.566	0.602	0.613	0.696	0.558			0.615	0.00	8	0-15			PASS
Chlorobenzene	Avg Resp		1.210	1.093	1.084	1.144	1.260	1.050			1.140	0.30	7	0-15			PASS
Chloroethane	Avg Resp		0.445	0.483	0.408	0.377	0.406	0.352			0.412	0.00	11	0-15			PASS
2-Chloroethyl Vinyl Ether	**Avg Resp**			**0.141**	**0.185**	**0.143**	**0.204**	**0.185**			**0.172**	**0.00**	**17**	**0-15**			**FAIL**
Chloroform	Avg Resp		0.829	0.809	0.817	0.861	0.956	0.783			0.843	0.00	7	0-30			PASS
Chloromethane	**Avg Resp**		1.202	0.852	0.756	0.833	1.089	1.162			0.982	**0.10**	**19**	**0-15**			**FAIL**
2-Chlorotoluene	Avg Resp		1.469	1.291	1.247	1.311	1.422	1.180			1.320	0.00	8	0-15			PASS
4-Chlorotoluene	Avg Resp		3.134	2.746	2.727	2.832	3.132	2.587			2.860	0.00	8	0-15			PASS
Dibromochloromethane	Avg Resp		0.382	0.349	0.365	0.388	0.438	0.376			0.383	0.00	8	0-15			PASS
1,2-Dibromo-3-Chloropropane	Avg Resp			0.146	0.145	0.144	0.167	0.150			0.151	0.00	6	0-15			PASS
1,2-Dibromoethane	Avg Resp		0.263	0.273	0.280	0.287	0.331	0.280			0.286	0.00	8	0-15			PASS
Dibromomethane	Avg Resp		0.183	0.156	0.167	0.169	0.186	0.150			0.169	0.00	8	0-15			PASS
1,2-Dichlorobenzene	Avg Resp		1.751	1.605	1.613	1.678	1.867	1.565			1.680	0.00	7	0-15			PASS
1,3-Dichlorobenzene	Avg Resp		1.980	1.718	1.706	1.778	1.973	1.630			1.798	0.00	8	0-15			PASS
1,4-Dichlorobenzene	Avg Resp		1.828	1.705	1.691	1.771	1.975	1.663			1.772	0.00	7	0-15			PASS
Dichlorodifluoromethane	Avg Resp		0.570	0.662	0.600	0.605	0.671	0.582			0.615	0.00	7	0-15			PASS

Return to Contents

INITIAL CALIBRATION QUALITY CONTROL SUMMARY
FOR METHOD: EPA 8260B

WORK ORDER: 13-11-0697
ICAL BATCH ID: 131112IC
INSTRUMENT: GC/MS OO

ANALYZED BY: 486
ICAL D/T ANALYZED: 11/12/2013 19:25
REVIEWED BY:
D/T REVIEWED:

COMPOUND	CALIB. MODEL	1	2	3	4	5	6	7	8	9	AVG. RF	MIN. RF	%RSD	%R SD CL	R or R^2	R or R^2 CL	STATUS
1,1-Dichloroethane	Avg Resp		0.966	0.881	0.892	0.943	1.049	0.855			0.931	0.10	8	0-15			PASS
1,2-Dichloroethane	Avg Resp	0.475	0.416	0.376	0.382	0.394	0.441	0.376			0.409	0.00	9	0-15			PASS
1,1-Dichloroethene	Avg Resp		0.760	0.716	0.699	0.766	0.829	0.668			0.740	0.00	8	0-30			PASS
c-1,2-Dichloroethene	Avg Resp		0.520	0.542	0.529	0.586	0.639	0.535			0.559	0.00	8	0-15			PASS
t-1,2-Dichloroethene	Avg Resp		0.487	0.486	0.497	0.533	0.592	0.486			0.514	0.00	8	0-15			PASS
Acetonitrile	Avg Resp			0.273	0.345	0.266	0.324	0.257			0.293	0.00	13	0-15			PASS
1,2-Dichloropropane	Avg Resp		0.373	0.368	0.359	0.376	0.424	0.351			0.375	0.00	7	0-30			PASS
Acrolein	Avg Resp			0.079	0.082	0.082	0.097	0.085			0.085	0.00	8	0-15			PASS
Acrylonitrile	LR - Equal			0.111	0.139	0.134	0.178	0.169			0.175				0.998	r>=0.990	PASS
1,3-Dichloropropane	Avg Resp		0.611	0.520	0.547	0.560	0.630	0.536			0.567	0.00	8	0-15			PASS
2,2-Dichloropropane	**Avg Resp**		0.656	0.430	0.684	0.301	0.662	0.569			0.550	**0.00**	**28**	**0-15**			**FAIL**
Allyl Chloride	Avg Resp		0.211	0.166	0.224	0.180	0.201	0.157			0.190	0.00	14	0-15			PASS
1,1-Dichloropropene	Avg Resp		0.723	0.670	0.659	0.700	0.782	0.627			0.694	0.00	8	0-15			PASS
c-1,3-Dichloropropene	Avg Resp	0.410	0.479	0.500	0.523	0.556	0.633	0.530			0.519	0.00	13	0-15			PASS
t-1,3-Dichloropropene	**Avg Resp**	0.436	0.389	0.467	0.511	0.545	0.630	0.540			0.503	**0.00**	**16**	**0-15**			**FAIL**
Ethylbenzene	Avg Resp		2.064	1.885	1.832	1.938	2.076	1.704			1.916	0.00	7	0-30			PASS
2-Hexanone	Avg Resp			0.115	0.128	0.129	0.149	0.136			0.131	0.00	9	0-15			PASS
Isopropylbenzene	Avg Resp		2.127	1.894	1.867	1.942	2.090	1.706			1.938	0.00	8	0-15			PASS
p-Isopropyltoluene	Avg Resp		3.620	3.377	3.304	3.467	3.757	3.069			3.432	0.00	7	0-15			PASS
Methylene Chloride	Avg Resp			0.531	0.506	0.533	0.590	0.499			0.532	0.00	7	0-15			PASS
4-Methyl-2-Pentanone	Avg Resp			0.102	0.121	0.123	0.138	0.122			0.121	0.00	11	0-15			PASS
Naphthalene	Avg Resp			2.786	2.736	2.856	3.215	2.686			2.856	0.00	7	0-15			PASS
n-Propylbenzene	Avg Resp		2.419	2.224	2.148	2.229	2.393	1.954			2.228	0.00	8	0-15			PASS
Styrene	Avg Resp		1.343	1.276	1.236	1.298	1.420	1.197			1.295	0.00	6	0-15			PASS
Chloroprene	Avg Resp			0.759	0.746	0.789	0.868	0.702			0.773	0.00	8	0-15			PASS
1,1,1,2-Tetrachloroethane	Avg Resp		0.391	0.379	0.379	0.396	0.438	0.372			0.392	0.00	6	0-15			PASS
1,1,2,2-Tetrachloroethane	Avg Resp		0.844	0.785	0.803	0.810	0.914	0.793			0.825	0.30	6	0-15			PASS
Tetrachloroethene	Avg Resp		0.450	0.476	0.469	0.492	0.537	0.446			0.478	0.00	7	0-15			PASS
Toluene	Avg Resp		1.785	1.550	1.516	1.587	1.727	1.415			1.597	0.00	9	0-30			PASS

Return to Contents

INITIAL CALIBRATION QUALITY CONTROL SUMMARY
FOR METHOD: EPA 8260B

WORK ORDER: 13-11-0697
ICAL BATCH ID: 131112IC
INSTRUMENT: GC/MS OO

ANALYZED BY: 486
ICAL D/T ANALYZED: 11/12/2013 19:25
REVIEWED BY:
D/T REVIEWED:

COMPOUND	CALIB. MODEL	1	2	3	4	5	6	7	8	9	AVG. RF	MIN. RF	%RSD	%R SD CL	R or R^2	R or R^2 CL	STATUS
1,2,3-Trichlorobenzene	Avg Resp		1.503	1.246	1.224	1.296	1.456	1.197			1.320	0.00	10	0-15			PASS
Ethyl Methacrylate	Avg Resp			0.497	0.508	0.514	0.580	0.502			0.520	0.00	7	0-15			PASS
1,2,4-Trichlorobenzene	Avg Resp		1.607	1.343	1.283	1.398	1.536	1.264			1.405	0.00	10	0-15			PASS
1,1,1-Trichloroethane	Avg Resp		0.739	0.698	0.699	0.742	0.823	0.670			0.729	0.00	7	0-15			PASS
Hexachloro-1,3-Butadiene	Avg Resp		0.950	0.809	0.851	0.871	0.964	0.777			0.870	0.00	9	0-15			PASS
1,1,2-Trichloro-1,2,2-Trifluoroethane	Avg Resp		0.496	0.495	0.490	0.525	0.574	0.463			0.507	0.00	8	0-15			PASS
1,1,2-Trichloroethane	Avg Resp		0.306	0.275	0.270	0.278	0.307	0.265			0.283	0.00	7	0-15			PASS
Iodomethane	**Avg Resp**			0.228	0.277	0.342	0.355	0.268			0.294	**0.00**	**18**	**0-15**			**FAIL**
Trichloroethene	Avg Resp		0.378	0.361	0.364	0.377	0.407	0.337			0.371	0.00	6	0-15			PASS
Trichlorofluoromethane	Avg Resp		0.808	0.821	0.849	0.778	0.880	0.795			0.822	0.00	5	0-15			PASS
Isobutyl Alcohol	Avg Resp			0.030	0.029	0.022	0.026	0.024			0.026	0.00	13	0-15			PASS
1,2,3-Trichloropropane	Avg Resp		0.118	0.113	0.114	0.109	0.124	0.112			0.115	0.00	5	0-15			PASS
1,2,4-Trimethylbenzene	Avg Resp		3.334	2.990	2.957	3.086	3.394	2.818			3.096	0.00	7	0-15			PASS
Methacrylonitrile	Avg Resp			0.247	0.232	0.244	0.281	0.247			0.250	0.00	7	0-15			PASS
Methyl Methacrylate	Avg Resp			0.225	0.234	0.237	0.271	0.237			0.241	0.00	7	0-15			PASS
1,3,5-Trimethylbenzene	Avg Resp		1.751	1.576	1.553	1.642	1.761	1.460			1.624	0.00	7	0-15			PASS
Vinyl Acetate	**Avg Resp**			0.045	0.066	0.068	0.092	0.081			0.070	**0.00**	**25**	**0-15**			**FAIL**
Vinyl Chloride	Avg Resp	0.862	0.747	0.791	0.724	0.742	0.823	0.741			0.776	0.00	7	0-30			PASS
p/m-Xylene	Avg Resp	2.016	1.678	1.459	1.439	1.500	1.592	1.301			1.569	0.00	15	0-15			PASS
o-Xylene	Avg Resp	1.937	1.725	1.541	1.516	1.563	1.674	1.378			1.619	0.00	11	0-15			PASS
Methyl-t-Butyl Ether (MTBE)	Avg Resp		1.458	1.376	1.381	1.365	1.577	1.329			1.415	0.00	6	0-15			PASS
t-1,4-Dichloro-2-Butene	LR - Equal		0.075	0.081	0.092	0.097	0.115	0.107			0.109				0.999	r>=0.990	PASS
Tetrahydrofuran	Avg Resp			0.161	0.149	0.143	0.169	0.140			0.152	0.00	8	0-15			PASS
Propionitrile	Avg Resp			0.048	0.056	0.061	0.069	0.064			0.060	0.00	13	0-15			PASS
Tert-Butyl Alcohol (TBA)	Avg Resp		1.256	1.065	1.181	1.069	1.386	1.226			1.197	0.00	10	0-15			PASS
Diisopropyl Ether (DIPE)	Avg Resp		1.630	1.502	1.533	1.612	1.777	1.474			1.588	0.00	7	0-15			PASS
Ethyl-t-Butyl Ether (ETBE)	Avg Resp		1.482	1.502	1.538	1.584	1.770	1.462			1.556	0.00	7	0-15			PASS
Tert-Amyl-Methyl Ether (TAME)	Avg Resp		0.968	0.931	0.936	0.961	1.095	0.939			0.972	0.00	6	0-15			PASS
Ethanol	**Avg Resp**			0.148	0.184	0.214	0.164	0.144			0.171	**0.00**	**17**	**0-15**			**FAIL**

Return to Contents

INITIAL CALIBRATION QUALITY CONTROL SUMMARY
FOR METHOD: EPA 8260B

WORK ORDER: 13-11-0697
ICAL BATCH ID: 131112IC
INSTRUMENT: GC/MS OO

ANALYZED BY: 486
ICAL D/T ANALYZED: 11/12/2013 19:25
REVIEWED BY:
D/T REVIEWED:

COMPOUND	CALIB. MODEL	1	2	3	4	5	6	7	8	9	AVG. RF	MIN. RF	%RSD	%R SD CL	R or R^2	R or R^2 CL	STATUS
Cyclohexane	Avg Resp			0.893	0.790	0.824	0.896	0.735			0.828	0.00	8	0-15			PASS
Thiophene	Avg Resp		0.776	0.738	0.743	0.784	0.873	0.737			0.775	0.00	7	0-15			PASS
1,4-Dioxane	Avg Resp			0.004	0.004	0.004	0.005	0.004			0.004	0.00	9	0-15			PASS
Hexane	Avg Resp		1.128	0.853	0.846	0.920	0.991	0.804			0.924	0.00	13	0-15			PASS
2,2,4-Trimethyl Pentane	Avg Resp		1.740	1.459	1.476	1.571	1.684	1.398			1.555	0.00	9	0-15			PASS
1,3-Butadiene	Avg Resp		0.756	0.585	0.564	0.602	0.653	0.531			0.615	0.00	13	0-15			PASS
Isopropanol	Avg Resp			0.034	0.037	0.036	0.041	0.036			0.037	0.00	7	0-15			PASS

Data Files:

LEVEL #	D/T ANALYZED	DATA FILE
1	11/12/2013 19:25	W:\GCMS_OO_DATA\2013\131112\12NOV022.D\12NOV022.rr
2	11/12/2013 19:50	W:\GCMS_OO_DATA\2013\131112\12NOV023.D\12NOV023.rr
3	11/12/2013 20:16	W:\GCMS_OO_DATA\2013\131112\12NOV024.D\12NOV024.rr
4	11/12/2013 20:42	W:\GCMS_OO_DATA\2013\131112\12NOV025.D\12NOV025.rr
5	11/12/2013 21:08	W:\GCMS_OO_DATA\2013\131112\12NOV026.D\12NOV026.rr
6	11/12/2013 21:34	W:\GCMS_OO_DATA\2013\131112\12NOV027.D\12NOV027.rr
7	11/12/2013 22:00	W:\GCMS_OO_DATA\2013\131112\12NOV028.D\12NOV028.rr

Return to Contents

INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

ICV WORK ORDER: 099-15-001-11433-4410
INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 131112IC
INITIAL DATE ANALYZED: 11/12/13 19:25

ANALYST: 486
REVIEWED BY:
DATE REVIEWED:
ICV DATE ANALYZED: 11/12/13 22:26

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV CONC	ICV %D	ICV %D CL	STATUS
Acetone	Avg Resp	0.00	0.046	0.048			-3	0-20	PASS
Benzene	Avg Resp	0.00	1.549	1.449			6	0-20	PASS
Bromobenzene	Avg Resp	0.00	0.504	0.499			1	0-20	PASS
Bromochloromethane	Avg Resp	0.00	0.247	0.216			13	0-20	PASS
Bromodichloromethane	Avg Resp	0.00	0.450	0.432			4	0-20	PASS
Bromoform	Avg Resp	0.10	0.495	0.515			-4	0-20	PASS
Bromomethane	**Avg Resp**	**0.00**	**0.412**	**0.313**			**24**	**0-20**	**FAIL**
2-Butanone	Avg Resp	0.00	0.178	0.180			-1	0-20	PASS
n-Butylbenzene	Avg Resp	0.00	3.060	3.034			1	0-20	PASS
sec-Butylbenzene	Avg Resp	0.00	4.018	3.764			6	0-20	PASS
tert-Butylbenzene	Avg Resp	0.00	0.726	0.693			4	0-20	PASS
Diethyl Ether	Avg Resp	0.00	0.337	0.300			11	0-20	PASS
Carbon Disulfide	Avg Resp	0.00	1.700	1.566			8	0-20	PASS
Carbon Tetrachloride	Avg Resp	0.00	0.615	0.615			0	0-20	PASS
Chlorobenzene	Avg Resp	0.30	1.140	1.077			6	0-20	PASS
Chloroethane	Avg Resp	0.00	0.412	0.339			18	0-20	PASS
2-Chloroethyl Vinyl Ether	Avg Resp	0.00	0.172	0.154			10	0-20	PASS
Chloroform	Avg Resp	0.00	0.843	0.851			-1	0-20	PASS
Chloromethane	**Avg Resp**	**0.10**	**0.982**	**0.770**			**22**	**0-20**	**FAIL**
2-Chlorotoluene	Avg Resp	0.00	1.320	1.233			7	0-20	PASS
4-Chlorotoluene	Avg Resp	0.00	2.860	2.600			9	0-20	PASS
Dibromochloromethane	Avg Resp	0.00	0.383	0.384			0	0-20	PASS
1,2-Dibromo-3-Chloropropane	Avg Resp	0.00	0.151	0.147			2	0-20	PASS
1,2-Dibromoethane	Avg Resp	0.00	0.286	0.278			3	0-20	PASS
Dibromomethane	Avg Resp	0.00	0.169	0.160			5	0-20	PASS
1,2-Dichlorobenzene	Avg Resp	0.00	1.680	1.595			5	0-20	PASS
1,3-Dichlorobenzene	Avg Resp	0.00	1.798	1.684			6	0-20	PASS
1,4-Dichlorobenzene	Avg Resp	0.00	1.772	1.795			-1	0-20	PASS
Dichlorodifluoromethane	Avg Resp	0.00	0.615	0.566			8	0-20	PASS
1,1-Dichloroethane	Avg Resp	0.10	0.931	0.908			2	0-20	PASS
1,2-Dichloroethane	Avg Resp	0.00	0.409	0.389			5	0-20	PASS
1,1-Dichloroethene	Avg Resp	0.00	0.740	0.686			7	0-20	PASS
c-1,2-Dichloroethene	Avg Resp	0.00	0.559	0.561			0	0-20	PASS
t-1,2-Dichloroethene	Avg Resp	0.00	0.514	0.526			-2	0-20	PASS
Acetonitrile	Avg Resp	0.00	0.293	0.266			9	0-20	PASS
1,2-Dichloropropane	Avg Resp	0.00	0.375	0.382			-2	0-20	PASS
Acrolein	**Avg Resp**	**0.00**	**0.085**	**0.112**			**-32**	**0-20**	**FAIL**
Acrylonitrile	LR - Equal				50.00	46.140	8	0-20	PASS
1,3-Dichloropropane	Avg Resp	0.00	0.567	0.553			3	0-20	PASS
2,2-Dichloropropane	Avg Resp	0.00	0.550	0.504			8	0-20	PASS
Allyl Chloride	Avg Resp	0.00	0.190	0.171			10	0-20	PASS

Return to Contents

INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

ICV WORK ORDER: 099-15-001-11433-4410
INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 131112IC
INITIAL DATE ANALYZED: 11/12/13 19:25

ANALYST: 486
REVIEWED BY:
DATE REVIEWED:
ICV DATE ANALYZED: 11/12/13 22:26

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV CONC	ICV %D	ICV %D CL	STATUS
1,1-Dichloropropene	Avg Resp	0.00	0.694	0.689			1	0-20	PASS
c-1,3-Dichloropropene	Avg Resp	0.00	0.519	0.563			-8	0-20	PASS
t-1,3-Dichloropropene	Avg Resp	0.00	0.503	0.494			2	0-20	PASS
Ethylbenzene	Avg Resp	0.00	1.916	1.904			1	0-20	PASS
2-Hexanone	Avg Resp	0.00	0.131	0.135			-3	0-20	PASS
Isopropylbenzene	Avg Resp	0.00	1.938	1.787			8	0-20	PASS
p-Isopropyltoluene	Avg Resp	0.00	3.432	3.174			8	0-20	PASS
Methylene Chloride	Avg Resp	0.00	0.532	0.508			4	0-20	PASS
4-Methyl-2-Pentanone	Avg Resp	0.00	0.121	0.125			-3	0-20	PASS
Naphthalene	Avg Resp	0.00	2.856	3.011			-5	0-20	PASS
n-Propylbenzene	Avg Resp	0.00	2.228	2.015			10	0-20	PASS
Styrene	Avg Resp	0.00	1.295	1.274			2	0-20	PASS
Chloroprene	Avg Resp	0.00	0.773	0.797			-3	0-20	PASS
1,1,1,2-Tetrachloroethane	Avg Resp	0.00	0.392	0.395			-1	0-20	PASS
1,1,2,2-Tetrachloroethane	Avg Resp	0.30	0.825	0.838			-2	0-20	PASS
Tetrachloroethene	Avg Resp	0.00	0.478	0.489			-2	0-20	PASS
Toluene	Avg Resp	0.00	1.597	1.540			4	0-20	PASS
1,2,3-Trichlorobenzene	Avg Resp	0.00	1.320	1.319			0	0-20	PASS
Ethyl Methacrylate	Avg Resp	0.00	0.520	0.454			13	0-20	PASS
1,2,4-Trichlorobenzene	Avg Resp	0.00	1.405	1.390			1	0-20	PASS
1,1,1-Trichloroethane	Avg Resp	0.00	0.729	0.730			0	0-20	PASS
Hexachloro-1,3-Butadiene	Avg Resp	0.00	0.870	0.882			-1	0-20	PASS
1,1,2-Trichloro-1,2,2-Trifluoroethane	Avg Resp	0.00	0.507	0.483			5	0-20	PASS
1,1,2-Trichloroethane	Avg Resp	0.00	0.283	0.278			2	0-20	PASS
Iodomethane	**Avg Resp**	0.00	0.294	0.452			-54	0-20	FAIL
Trichloroethene	Avg Resp	0.00	0.371	0.372			0	0-20	PASS
Trichlorofluoromethane	Avg Resp	0.00	0.822	0.741			10	0-20	PASS
Isobutyl Alcohol	Avg Resp	0.00	0.026	0.022			17	0-20	PASS
1,2,3-Trichloropropane	Avg Resp	0.00	0.115	0.111			3	0-20	PASS
1,2,4-Trimethylbenzene	Avg Resp	0.00	3.096	3.098			0	0-20	PASS
Methacrylonitrile	Avg Resp	0.00	0.250	0.240			4	0-20	PASS
Methyl Methacrylate	Avg Resp	0.00	0.241	0.254			-5	0-20	PASS
1,3,5-Trimethylbenzene	Avg Resp	0.00	1.624	1.663			-2	0-20	PASS
Vinyl Acetate	Avg Resp	0.00	0.070	0.082			-17	0-20	PASS
Vinyl Chloride	Avg Resp	0.00	0.776	0.710			9	0-20	PASS
p/m-Xylene	Avg Resp	0.00	1.569	1.421			9	0-20	PASS
o-Xylene	Avg Resp	0.00	1.619	1.441			11	0-20	PASS
Methyl-t-Butyl Ether (MTBE)	Avg Resp	0.00	1.415	1.403			1	0-20	PASS
t-1,4-Dichloro-2-Butene	**LR - Equal**				50.00	31.992	36	0-20	FAIL
Tetrahydrofuran	Avg Resp	0.00	0.152	0.129			15	0-20	PASS
Propionitrile	Avg Resp	0.00	0.060	0.062			-3	0-20	PASS

Return to Contents

INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

ICV WORK ORDER: 099-15-001-11433-4410
INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 131112IC
INITIAL DATE ANALYZED: 11/12/13 19:25

ANALYST: 486
REVIEWED BY:
DATE REVIEWED:
ICV DATE ANALYZED: 11/12/13 22:26

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV CONC	ICV %D	ICV %D CL	STATUS
Tert-Butyl Alcohol (TBA)	Avg Resp	0.00	1.197	1.211			-1	0-20	PASS
Diisopropyl Ether (DIPE)	Avg Resp	0.00	1.588	1.610			-1	0-20	PASS
Ethyl-t-Butyl Ether (ETBE)	Avg Resp	0.00	1.556	1.589			-2	0-20	PASS
Tert-Amyl-Methyl Ether (TAME)	Avg Resp	0.00	0.972	0.981			-1	0-20	PASS
Ethanol	Avg Resp	0.00	0.171	0.154			10	0-20	PASS
Cyclohexane	Avg Resp	0.00	0.828	0.811			2	0-20	PASS
Thiophene	Avg Resp	0.00	0.775	0.773			0	0-20	PASS
1,4-Dioxane	Avg Resp	0.00	0.004	0.004			1	0-20	PASS
Hexane	Avg Resp	0.00	0.924	0.860			7	0-20	PASS
2,2,4-Trimethyl Pentane	Avg Resp	0.00	1.555	1.515			3	0-20	PASS
1,3-Butadiene	**Avg Resp**	**0.00**	**0.615**	**0.418**			**32**	**0-20**	**FAIL**
Isopropanol	Avg Resp	0.00	0.037	0.035			5	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

Data File:

Data File Name:

W:\GCMS_OO_DATA\2013\131112\12NOV029.D\12NOV029.rr

Return to Contents

Untitled
Response Factor Report GCMS OO

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 131112.M
Title : EPA 8260B/8260C
Last Update : Wed Nov 13 10:34:57 2013
Response Via : Initial Calibration

Calibration Files
0.5 =12NOV022.D 1 =12NOV023.D 10 =12NOV024.D 20 =12NOV025.D 50 =12NOV026.D
100 =12NOV027.D 200 =12NOV028.D

		Compound	0.5	1	10	20	50	100	200	Avg	%RSD	
1)	I	Tert-Butyl Alcohol-d9	----------ISTD----------									
2)	T	Ethanol			0.148	0.184	0.214	0.164	0.144	0.171	16.84	x Fail
3)	T	Tert-Butyl Alc...		1.256	1.065	1.181	1.069	1.386	1.226	1.197	10.15	
4)	I	Pentafluorobenzene	----------ISTD----------									
5)	T	Dichlorodifluo...		0.570	0.662	0.600	0.605	0.671	0.582	0.615	6.83	
6)	P	Chloromethane		1.202	0.852	0.756	0.833	1.089	1.162	0.982	19.44	x Fail
7)	CCC	Vinyl Chloride	0.862	0.747	0.791	0.724	0.742	0.823	0.741	0.776	6.63	
8)	T	Bromomethane			0.416	0.460	0.302	0.413	0.467	0.412	16.03	x Fail
9)	T	Chloroethane		0.445	0.483	0.408	0.377	0.406	0.352	0.412	11.43	
10)	T	1,3-Butadiene		0.756	0.585	0.564	0.602	0.653	0.531	0.615	12.99	
11)	T	Trichlorofluor...		0.808	0.821	0.849	0.778	0.880	0.795	0.822	4.50	
12)	T	Diethyl Ether		0.425	0.328	0.311	0.307	0.350	0.298	0.337	14.04	
13)	T	Acetone			0.039	0.045	0.048	0.054	0.046	0.046#	11.82	
14)	T	Iodomethane			0.228	0.277	0.342	0.355	0.268	0.294	18.15	x Fail
15)	CCC	1,1-Dichloroet...		0.760	0.716	0.699	0.766	0.829	0.668	0.740	7.74	
16)	T	1,1,2-Trichlor...		0.496	0.495	0.490	0.525	0.574	0.463	0.507	7.57	
17)	T	Isopropanol			0.034	0.037	0.036	0.041	0.036	0.037#	7.21	
18)	T	Carbon Disulfide		1.720	1.611	1.609	1.757	1.934	1.572	1.700	7.93	
19)	T	Acetonitrile			0.273	0.345	0.266	0.324	0.257	0.293	13.31	L 0.996
20)	T	Acrylonitrile			0.111	0.139	0.134	0.178	0.169	0.146	18.64	
21)	T	Allyl Chloride		0.211	0.166	0.224	0.180	0.201	0.157	0.190	13.93	
22)	T	Acrolein			0.079	0.082	0.082	0.097	0.085	0.085#	8.16	
23)	T	Methylene Chlo...			0.531	0.506	0.533	0.590	0.499	0.532	6.74	
24)	T	t-1,2-Dichloro...		0.487	0.486	0.497	0.533	0.592	0.486	0.514	8.27	
25)	T	Isobutyl Alcohol			0.030	0.029	0.022	0.026	0.024	0.026#	12.85	
26)	T	Methyl-t-Butyl...		1.458	1.376	1.381	1.365	1.577	1.329	1.415	6.38	
27)	T	Hexane		1.128	0.853	0.846	0.920	0.991	0.804	0.924	12.98	
28)	P	1,1-Dichloroet...		0.966	0.881	0.892	0.943	1.049	0.855	0.931	7.61	
29)	T	Vinyl Acetate			0.045	0.066	0.068	0.092	0.081	0.070#	24.58	x Fail
30)	T	Diisopropyl Et...		1.630	1.502	1.533	1.612	1.777	1.474	1.588	6.98	
31)	T	Chloroprene			0.759	0.746	0.789	0.868	0.702	0.773	8.00	
32)	T	Ethyl-t-Butyl ...		1.482	1.502	1.538	1.584	1.770	1.462	1.556	7.29	
33)	T	c-1,2-Dichloro...		0.520	0.542	0.529	0.586	0.639	0.535	0.559	8.19	
34)	T	2,2-Dichloropr...		0.656	0.430	0.684	0.301	0.662	0.569	0.550	27.98	x Fail
35)	T	2-Butanone			0.166	0.170	0.179	0.194	0.180	0.178	6.02	
36)	T	Propionitrile			0.048	0.056	0.061	0.069	0.064	0.060#	13.02	
37)	T	Methacrylonitrile			0.247	0.232	0.244	0.281	0.247	0.250	7.29	
38)	T	Bromochloromet...		0.276	0.250	0.248	0.242	0.256	0.209	0.247	8.88	
39)	T	Tetrahydrofuran			0.161	0.149	0.143	0.169	0.140	0.152	7.92	
40)	CCC	Chloroform		0.829	0.809	0.817	0.861	0.956	0.783	0.843	7.25	
41)	S	Dibromofluorom...	0.372	0.394	0.389	0.389	0.400	0.391	0.383	0.388	2.31	
42)	T	1,1,1-Trichlor...		0.739	0.698	0.699	0.742	0.823	0.670	0.729	7.34	
43)	t	Cyclohexane			0.893	0.790	0.824	0.896	0.735	0.828	8.33	
44)	T	1,1-Dichloropr...		0.723	0.670	0.659	0.700	0.782	0.627	0.694	7.88	
45)	T	Carbon Tetrach...	0.672	0.600	0.566	0.602	0.613	0.696	0.558	0.615	8.36	
46)	S	1,2-Dichloroet...	0.397	0.408	0.409	0.419	0.396	0.404	0.396	0.404	2.11	
47)	I	1,4-Difluorobenzene	----------ISTD----------									
48)	T	Benzene	1.888	1.607	1.460	1.420	1.498	1.629	1.343	1.549	11.61	
49)	T	1,2-Dichloroet...	0.475	0.416	0.376	0.382	0.394	0.441	0.376	0.409	9.21	
50)	T	Tert-Amyl-Meth...		0.968	0.931	0.936	0.961	1.095	0.939	0.972	6.38	
51)	T	Thiophene		0.776	0.738	0.743	0.784	0.873	0.737	0.775	6.68	
52)	T	2,2,4-Trimethy...		1.740	1.459	1.476	1.571	1.684	1.398	1.555	8.69	
53)	T	Trichloroethene		0.378	0.361	0.364	0.377	0.407	0.337	0.371	6.23	

Return to Contents

Untitled

54)	CCC	1,2-Dichloropr...		0.373	0.368	0.359	0.376	0.424	0.351	0.375	6.86
55)	T	Dibromomethane		0.183	0.156	0.167	0.169	0.186	0.150	0.169	8.45
56)	T	Methyl Methacr...			0.225	0.234	0.237	0.271	0.237	0.241	7.33
57)	T	1,4-Dioxane			0.004	0.004	0.004	0.005	0.004	0.004#	8.76
58)	T	Bromodichlorom...		0.468	0.431	0.426	0.449	0.505	0.418	0.450	7.26
59)	T	2-Chloroethyl ...			0.141	0.185	0.143	0.204	0.185	0.172	16.51
60)	T	c-1,3-Dichloro...	0.410	0.479	0.500	0.523	0.556	0.633	0.530	0.519	13.24
61)	S	Toluene-d8	1.185	1.174	1.177	1.184	1.190	1.181	1.193	1.183	0.57
62)	CCC	Toluene		1.785	1.550	1.516	1.587	1.727	1.415	1.597	8.60
63)	T	4-Methyl-2-Pen...			0.102	0.121	0.123	0.138	0.122	0.121	10.53
64)	I	Chlorobenzene-d5		----------ISTD----------							
65)	T	t-1,3-Dichloro...	0.436	0.389	0.467	0.511	0.545	0.630	0.540	0.503	15.85
66)	T	Ethyl Methacry...			0.497	0.508	0.514	0.580	0.502	0.520	6.57
67)	T	1,1,2-Trichlor...		0.306	0.275	0.270	0.278	0.307	0.265	0.283	6.52
68)	T	Tetrachloroethene		0.450	0.476	0.469	0.492	0.537	0.446	0.478	6.93
69)	T	1,3-Dichloropr...		0.611	0.520	0.547	0.560	0.630	0.536	0.567	7.67
70)	T	2-Hexanone			0.115	0.128	0.129	0.149	0.136	0.131	9.43
71)	T	Dibromochlorom...		0.382	0.349	0.365	0.388	0.438	0.376	0.383	7.87
72)	T	1,2-Dibromoethane		0.263	0.273	0.280	0.287	0.331	0.280	0.286	8.28
73)	P	Chlorobenzene		1.210	1.093	1.084	1.144	1.260	1.050	1.140	7.11
74)	T	1,1,1,2-Tetrac...		0.391	0.379	0.379	0.396	0.438	0.372	0.392	6.12
75)	CCC	Ethylbenzene		2.064	1.885	1.832	1.938	2.076	1.704	1.916	7.42
76)	T	p/m-Xylene	2.016	1.678	1.459	1.439	1.500	1.592	1.301	1.569	14.65
77)	T	o-Xylene	1.937	1.725	1.541	1.516	1.563	1.674	1.378	1.619	11.07
78)	T	Styrene		1.343	1.276	1.236	1.298	1.420	1.197	1.295	6.12
79)	T	Isopropylbenzene		2.127	1.894	1.867	1.942	2.090	1.706	1.938	7.98
80)	S	1,4-Bromofluor...	0.483	0.474	0.475	0.471	0.487	0.472	0.478	0.477	1.27
81)	T	1,2,3-Trichlor...		0.118	0.113	0.114	0.109	0.124	0.112	0.115	4.52
82)	T	Bromobenzene		0.496	0.497	0.488	0.510	0.557	0.479	0.504	5.47
83)	T	n-Propylbenzene		2.419	2.224	2.148	2.229	2.393	1.954	2.228	7.64
84)	T	t-1,4-Dichloro...		0.075	0.081	0.092	0.097	0.115	0.107	0.095#	16.15
85)	T	2-Chlorotoluene		1.469	1.291	1.247	1.311	1.422	1.180	1.320	8.18
86)	T	1,3,5-Trimethy...		1.751	1.576	1.553	1.642	1.761	1.460	1.624	7.27
87)	I	1,4-Dichlorobenzen...		----------ISTD----------							
88)	P	Bromoform		0.501	0.445	0.455	0.495	0.567	0.507	0.495	8.82
89)	P	1,1,2,2-Tetrac...		0.844	0.785	0.803	0.810	0.914	0.793	0.825	5.87
90)	T	4-Chlorotoluene		3.134	2.746	2.727	2.832	3.132	2.587	2.860	7.90
91)	T	1,2,4-Trimethy...		3.334	2.990	2.957	3.086	3.394	2.818	3.096	7.27
92)	T	tert-Butylbenzene		0.748	0.688	0.711	0.732	0.807	0.668	0.726	6.79
93)	T	p-Isopropyltol...		3.620	3.377	3.304	3.467	3.757	3.069	3.432	7.06
94)	T	sec-Butylbenzene		4.421	3.837	3.897	4.018	4.399	3.535	4.018	8.54
95)	T	1,3-Dichlorobe...		1.980	1.718	1.706	1.778	1.973	1.630	1.798	8.15
96)	T	1,4-Dichlorobe...		1.828	1.705	1.691	1.771	1.975	1.663	1.772	6.54
97)	T	1,2-Dichlorobe...		1.751	1.605	1.613	1.678	1.867	1.565	1.680	6.69
98)	T	n-Butylbenzene		3.223	3.049	2.958	3.094	3.343	2.692	3.060	7.37
99)	T	1,2-Dibromo-3-...			0.146	0.145	0.144	0.167	0.150	0.151	6.41
100)	T	1,2,4-Trichlor...		1.607	1.343	1.283	1.398	1.536	1.264	1.405	9.90
101)	T	Hexachloro-1,3...		0.950	0.809	0.851	0.871	0.964	0.777	0.870	8.56
102)	T	Naphthalene			2.786	2.736	2.856	3.215	2.686	2.856	7.37
103)	T	1,2,3-Trichlor...		1.503	1.246	1.224	1.296	1.456	1.197	1.320	9.72

(#) = Out of Range

131112.M Wed Nov 13 10:38:50 2013

x Fail

x Fail

L 0.997

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV029.D
Acq On : 12 Nov 2013 10:26 pm
Operator : 486
Sample : ICV V101713B/V110813B
Misc : V092013C
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Nov 13 10:35:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 10:34:57 2013
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Tert-Butyl Alcohol-d9	1.000	1.000	0.0	148	0.00
2	T	Ethanol	0.171	0.154	9.9	106	0.00
3	T	Tert-Butyl Alcohol (TBA)	1.197	1.211	-1.2	168	0.00
4	I	Pentafluorobenzene	1.000	1.000	0.0	102	0.00
5	T	Dichlorodifluoromethane	0.615	0.566	8.0	95	0.00
6	P	Chloromethane	0.982	0.770	21.6#	94	0.00
7	CCC	Vinyl Chloride	0.776	0.710	8.5	97	0.00
8	T	Bromomethane	0.412	0.313	24.0#	105	0.00
9	T	Chloroethane	0.412	0.339	17.7	91	0.00
10	T	1,3-Butadiene	0.615	0.418	32.0#	71	0.00
11	T	Trichlorofluoromethane	0.822	0.741	9.9	97	0.00
12	T	Diethyl Ether	0.337	0.300	11.0	99	0.00
13	T	Acetone	0.046	0.048#	-4.3	101	0.00
14	T	Iodomethane	0.294	0.452	-53.7#	134	0.00
15	CCC	1,1-Dichloroethene	0.740	0.686	7.3	91	0.00
16	T	1,1,2-Trichloro-1,2,2-Trifl	0.507	0.483	4.7	94	0.00
17	T	Isopropanol	0.037	0.035#	5.4	100	0.00
18	T	Carbon Disulfide	1.700	1.566	7.9	91	0.00
19	T	Acetonitrile	0.293	0.266	9.2	101	0.00
20	T	Acrylonitrile	0.146	0.145	0.7	110	0.00
21	T	Allyl Chloride	0.190	0.171	10.0	96	0.00
22	T	Acrolein	0.085	0.112	-31.8#	138	-0.01
23	T	Methylene Chloride	0.532	0.508	4.5	97	0.00
24	T	t-1,2-Dichloroethene	0.514	0.526	-2.3	100	0.00
25	T	Isobutyl Alcohol	0.026	0.022#	15.4	101	0.00
26	T	Methyl-t-Butyl Ether (MTBE)	1.415	1.403	0.8	104	0.00
27	T	Hexane	0.924	0.860	6.9	95	0.00
28	P	1,1-Dichloroethane	0.931	0.908	2.5	98	0.00
29	T	Vinyl Acetate	0.070	0.082#	-17.1	123	0.00
30	T	Diisopropyl Ether (DIPE)	1.588	1.610	-1.4	101	0.00
31	T	Chloroprene	0.773	0.797	-3.1	103	0.00
32	T	Ethyl-t-Butyl Ether (ETBE)	1.556	1.589	-2.1	102	0.00
33	T	c-1,2-Dichloroethene	0.559	0.561	-0.4	97	0.00
34	T	2,2-Dichloropropane	0.550	0.504	8.4	170	0.00
35	T	2-Butanone	0.178	0.180	-1.1	102	0.00
36	T	Propionitrile	0.060	0.062#	-3.3	103	0.00
37	T	Methacrylonitrile	0.250	0.240	4.0	100	0.00
38	T	Bromochloromethane	0.247	0.216	12.6	91	0.00
39	T	Tetrahydrofuran	0.152	0.129	15.1	91	0.00
40	CCC	Chloroform	0.843	0.851	-0.9	100	0.00
41	S	Dibromofluoromethane	0.388	0.399	-2.8	101	0.00
42	T	1,1,1-Trichloroethane	0.729	0.730	-0.1	100	0.00
43	t	Cyclohexane	0.828	0.811	2.1	100	0.00
44	T	1,1-Dichloropropene	0.694	0.689	0.7	100	0.00
45	T	Carbon Tetrachloride	0.615	0.615	0.0	102	0.00
46	S	1,2-Dichloroethane-d4	0.404	0.394	2.5	101	0.00
47	I	1,4-Difluorobenzene	1.000	1.000	0.0	102	0.00
48	T	Benzene	1.549	1.449	6.5	98	0.00

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV029.D
Acq On : 12 Nov 2013 10:26 pm
Operator : 486
Sample : ICV V101713B/V110813B
Misc : V092013C
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Nov 13 10:35:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 10:34:57 2013
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	1,2-Dichloroethane	0.409	0.389	4.9	100	0.00
50	T	Tert-Amyl-Methyl Ether (TAM	0.972	0.981	-0.9	104	0.00
51	T	Thiophene	0.775	0.773	0.3	100	0.00
52	T	2,2,4-Trimethyl Pentane	1.555	1.515	2.6	98	0.00
53	T	Trichloroethene	0.371	0.372	-0.3	100	0.00
54	CCC	1,2-Dichloropropane	0.375	0.382	-1.9	103	0.00
55	T	Dibromomethane	0.169	0.160	5.3	96	0.00
56	T	Methyl Methacrylate	0.241	0.254	-5.4	109	0.00
57	T	1,4-Dioxane	0.004	0.004#	0.0	105	0.00
58	T	Bromodichloromethane	0.450	0.432	4.0	98	0.00
59	T	2-Chloroethyl Vinyl Ether	0.172	0.154	10.5	110	0.00
60	T	c-1,3-Dichloropropene	0.519	0.563	-8.5	103	0.00
61	S	Toluene-d8	1.183	1.170	1.1	100	0.00
62	CCC	Toluene	1.597	1.540	3.6	99	0.00
63	T	4-Methyl-2-Pentanone	0.121	0.125	-3.3	104	0.00
64	I	Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
65	T	t-1,3-Dichloropropene	0.503	0.494	1.8	91	0.00
66	T	Ethyl Methacrylate	0.520	0.454	12.7	89	0.00
67	T	1,1,2-Trichloroethane	0.283	0.278	1.8	100	0.00
68	T	Tetrachloroethene	0.478	0.489	-2.3	100	0.00
69	T	1,3-Dichloropropane	0.567	0.553	2.5	99	0.00
70	T	2-Hexanone	0.131	0.135	-3.1	105	0.00
71	T	Dibromochloromethane	0.383	0.384	-0.3	99	0.00
72	T	1,2-Dibromoethane	0.286	0.278	2.8	97	0.00
73	P	Chlorobenzene	1.140	1.077	5.5	94	0.00
74	T	1,1,1,2-Tetrachloroethane	0.392	0.395	-0.8	100	0.00
75	CCC	Ethylbenzene	1.916	1.904	0.6	98	0.00
76	T	p/m-Xylene	1.569	1.421	9.4	95	0.00
77	T	o-Xylene	1.619	1.441	11.0	92	0.00
78	T	Styrene	1.295	1.274	1.6	98	0.00
79	T	Isopropylbenzene	1.938	1.787	7.8	92	0.00
80	S	1,4-Bromofluorobenzene	0.477	0.472	1.0	97	0.00
81	T	1,2,3-Trichloropropane	0.115	0.111	3.5	103	0.00
82	T	Bromobenzene	0.504	0.499	1.0	98	0.00
83	T	n-Propylbenzene	2.228	2.015	9.6	91	0.00
84	T	t-1,4-Dichloro-2-Butene	0.095	0.066#	30.5#	68	0.00
85	T	2-Chlorotoluene	1.320	1.233	6.6	94	0.00
86	T	1,3,5-Trimethylbenzene	1.624	1.663	-2.4	102	0.00
87	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	100	0.00
88	P	Bromoform	0.495	0.515	-4.0	104	0.00
89	P	1,1,2,2-Tetrachloroethane	0.825	0.838	-1.6	104	0.00
90	T	4-Chlorotoluene	2.860	2.600	9.1	92	0.00
91	T	1,2,4-Trimethylbenzene	3.096	3.098	-0.1	100	0.00
92	T	tert-Butylbenzene	0.726	0.693	4.5	95	0.00
93	T	p-Isopropyltoluene	3.432	3.174	7.5	92	0.00
94	T	sec-Butylbenzene	4.018	3.764	6.3	94	0.00
95	T	1,3-Dichlorobenzene	1.798	1.684	6.3	95	0.00
96	T	1,4-Dichlorobenzene	1.772	1.795	-1.3	101	0.00

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV029.D
Acq On : 12 Nov 2013 10:26 pm
Operator : 486
Sample : ICV V101713B/V110813B
Misc : V092013C
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Nov 13 10:35:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 10:34:57 2013
Response via : Initial Calibration

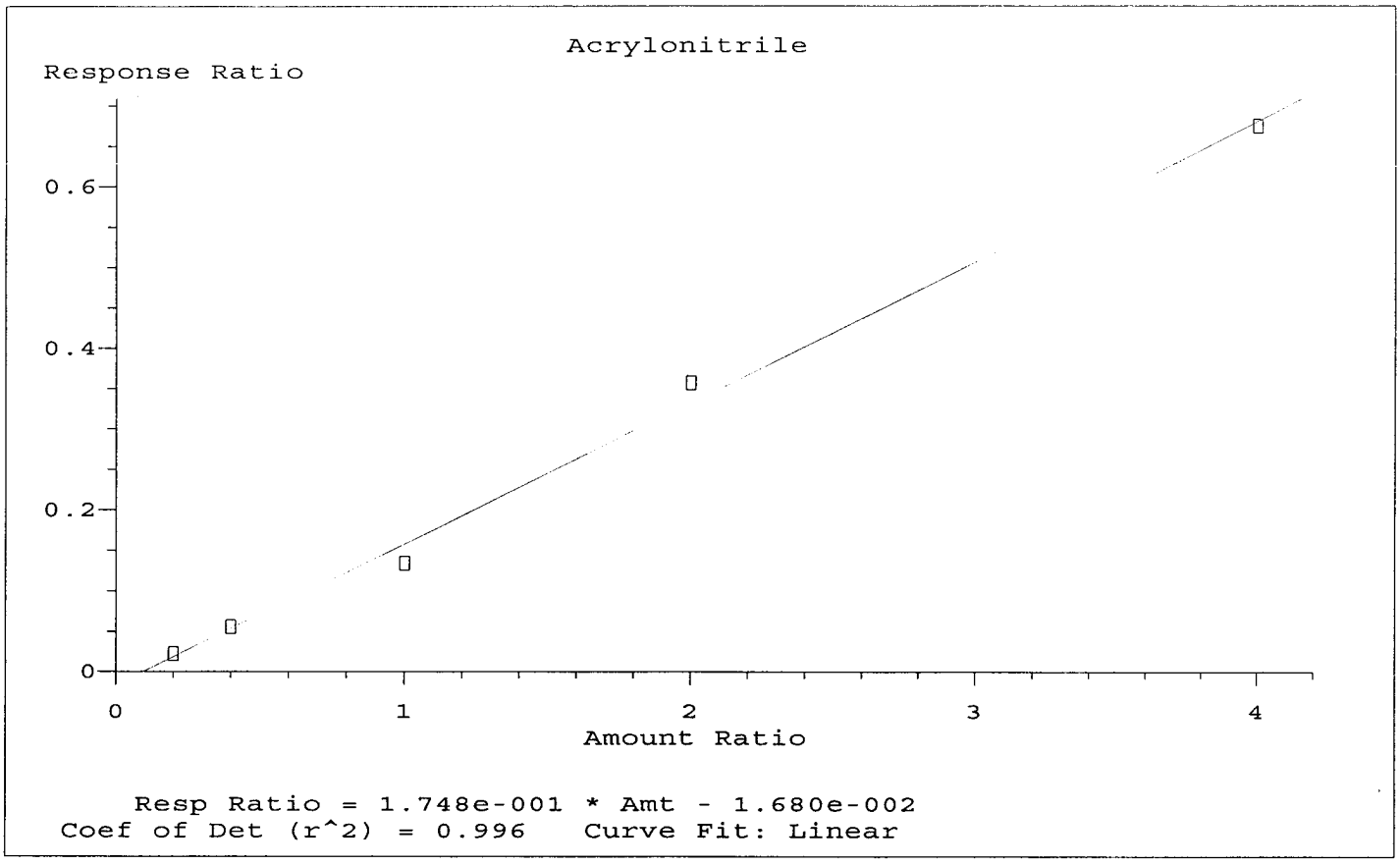
Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
97	T	1,2-Dichlorobenzene	1.680	1.595	5.1	95	0.00
98	T	n-Butylbenzene	3.060	3.034	0.8	98	0.00
99	T	1,2-Dibromo-3-Chloropropane	0.151	0.147	2.6	102	0.00
100	T	1,2,4-Trichlorobenzene	1.405	1.390	1.1	100	0.00
101	T	Hexachloro-1,3-Butadiene	0.870	0.882	-1.4	101	0.00
102	T	Naphthalene	2.856	3.011	-5.4	106	0.00
103	T	1,2,3-Trichlorobenzene	1.320	1.319	0.1	102	0.00

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

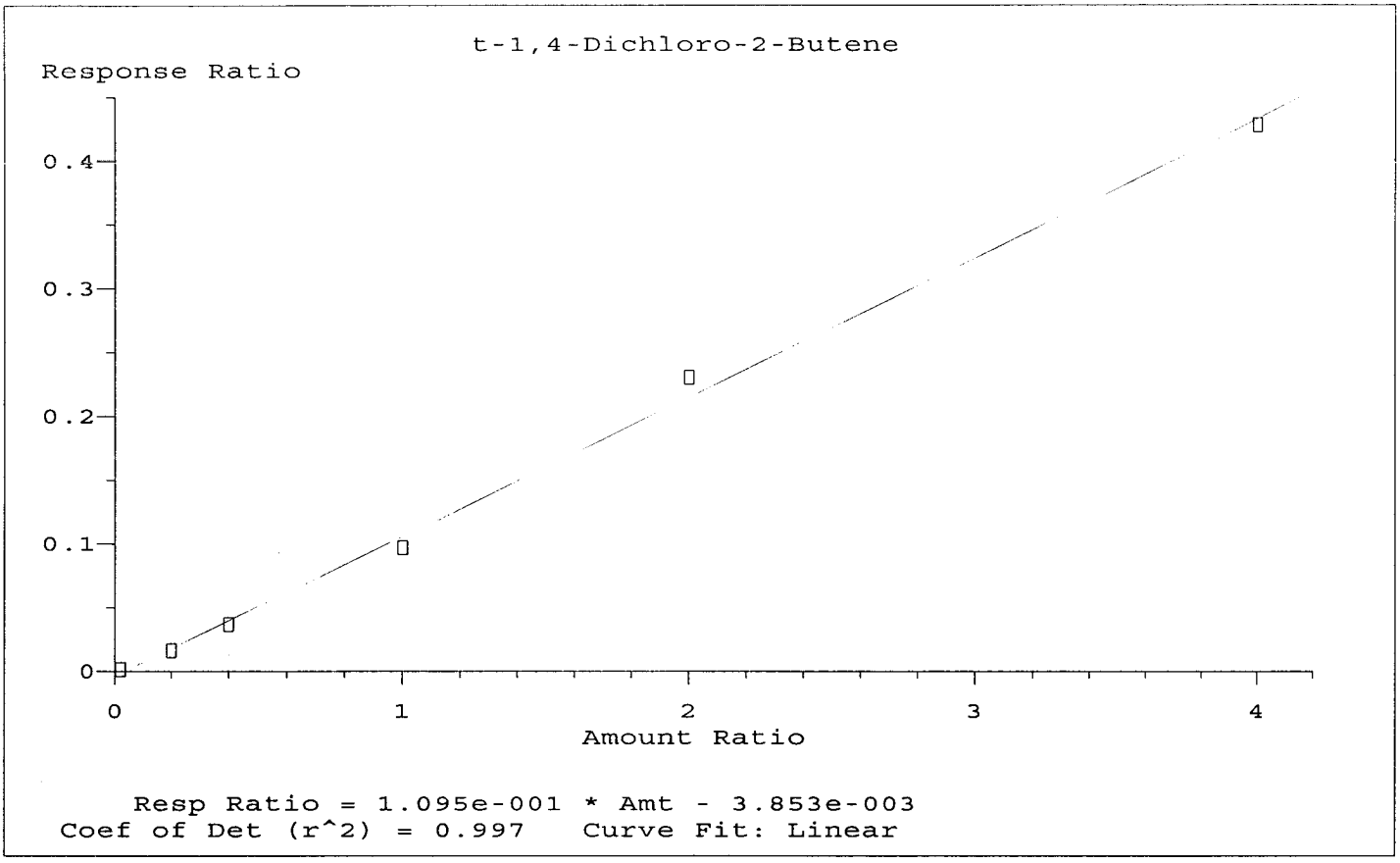
Return to Contents

Calibration Plot Report



Return to Contents

Calibration Plot Report



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV022.D
Acq On : 12 Nov 2013 7:25 pm
Operator : 486
Sample : BFB/0.5PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 13 09:43:03 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert-Butyl Alcohol-d9	4.130	65	68789	250.00	ug/l		0.00
4) Pentafluorobenzene	6.629	168	398502	50.00	ug/l		0.00
47) 1,4-Difluorobenzene	7.556	114	576993	50.00	ug/l		0.00
64) Chlorobenzene-d5	11.114	117	518911	50.00	ug/l		0.00
87) 1,4-Dichlorobenzene-d4	13.973	152	281637	50.00	ug/l		0.00
System Monitoring Compounds							
41) Dibromofluoromethane	6.525	113	148141	47.87	ug/l		0.00
Spiked Amount 50.000			Recovery = 95.74%				
46) 1,2-Dichloroethane-d4	6.956	65	158310	49.14	ug/l		0.00
Spiked Amount 50.000			Recovery = 98.28%				
61) Toluene-d8	9.368	98	683833	50.08	ug/l		0.00
Spiked Amount 50.000			Recovery = 100.16%				
80) 1,4-Bromofluorobenzene	12.549	95	250686	50.64	ug/l		0.00
Spiked Amount 50.000			Recovery = 101.28%				
Target Compounds							Qvalue
2) Ethanol	2.967	45	223	4.74	ug/l	#	46
3) Tert-Butyl Alcohol (TBA)	4.266	59	368	1.12	ug/l	#	5
5) Dichlorodifluoromethane	1.658	85	3325	0.68	ug/l		74
6) Chloromethane	1.832	50	8026	1.03	ug/l		100
7) Vinyl Chloride	1.952	62	3437	0.56	ug/l		89
8) Bromomethane	2.285	94	14853	4.16	ug/l		87
9) Chloroethane	2.405	64	3391	1.03	ug/l	#	8
10) 1,3-Butadiene	1.991	54	4358	0.89	ug/l	#	76
11) Trichlorofluoromethane	2.716	101	3039	0.46	ug/l		89
12) Diethyl Ether	3.076	45	1673	0.62	ug/l	#	83
13) Acetone	3.453	58	99	0.27	ug/l	#	1
14) Iodomethane	3.551	142	10523	4.51	ug/l		85
15) 1,1-Dichloroethene	3.360	61	3534	0.60	ug/l		82
16) 1,1,2-Trichloro-1,2,2-...	3.377	101	1967	0.49	ug/l	#	67
17) Isopropanol	3.688	45	591	2.01	ug/l		92
18) Carbon Disulfide	3.644	76	7915	0.58	ug/l		94
19) Acetonitrile	3.851	41	1044	0.45	ug/l		31
20) Acrylonitrile	0.000		0	N.D.			
21) Allyl Chloride	0.000		0	N.D.			
22) Acrolein	3.240	56	304	0.48	ug/l		83
23) Methylene Chloride	4.053	84	6735	1.59	ug/l		86
24) t-1,2-Dichloroethene	4.473	96	2085	0.51	ug/l		67
25) Isobutyl Alcohol	6.978	43	368	1.79	ug/l	#	20
26) Methyl-t-Butyl Ether (...	4.495	73	6564	0.58	ug/l		94
27) Hexane	4.910	57	5867	0.80	ug/l		85
28) 1,1-Dichloroethane	5.073	63	3999	0.54	ug/l		90
29) Vinyl Acetate	0.000		0	N.D.			
30) Diisopropyl Ether (DIPE)	5.248	45	7479	0.59	ug/l		86
31) Chloroprene	5.221	53	3412	0.55	ug/l		98
32) Ethyl-t-Butyl Ether (E...	5.750	59	6557	0.53	ug/l		94
33) c-1,2-Dichloroethene	5.897	96	2480	0.56	ug/l		96
34) 2,2-Dichloropropane	5.881	77	2218	0.51	ug/l		49
35) 2-Butanone	5.897	43	941	0.67	ug/l		48
36) Propionitrile	0.000		0	N.D.			
37) Methacrylonitrile	6.176	41	700	0.35	ug/l	#	11
38) Bromochloromethane	6.208	130	442	0.22	ug/l		84

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV022.D
Acq On : 12 Nov 2013 7:25 pm
Operator : 486
Sample : BFB/0.5PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 13 09:43:03 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39)	Tetrahydrofuran	6.285	42	115	0.09	ug/l	#	29
40)	Chloroform	6.328	83	3922	0.58	ug/l		83
42)	1,1,1-Trichloroethane	6.574	97	3188	0.55	ug/l		90
43)	Cyclohexane	6.634	84	13569	2.06	ug/l	#	63
44)	1,1-Dichloropropene	6.798	75	3194	0.58	ug/l		95
45)	Carbon Tetrachloride	6.792	117	2679	0.55	ug/l	#	62
48)	Benzene	7.049	78	10892	0.61	ug/l		85
49)	1,2-Dichloroethane	7.070	62	2741	0.58	ug/l	#	40
50)	Tert-Amyl-Methyl Ether...	7.234	73	6336	0.57	ug/l		81
51)	Thiophene	7.311	84	5324	0.59	ug/l		97
52)	2,2,4-Trimethyl Pentane	7.191	57	11737	0.65	ug/l		96
53)	Trichloroethene	7.873	95	2495	0.58	ug/l		94
54)	1,2-Dichloropropane	8.134	63	2646	0.61	ug/l		89
55)	Dibromomethane	8.265	93	126	N.D.			
56)	Methyl Methacrylate	8.331	69	1217	0.44	ug/l	#	73
57)	1,4-Dioxane	0.000		0	N.D.			
58)	Bromodichloromethane	8.478	83	2896	0.56	ug/l		92
59)	2-Chloroethyl Vinyl Ether	8.877	63	108	N.D.			
60)	c-1,3-Dichloropropene	9.040	75	2366	0.40	ug/l	#	72
62)	Toluene	9.449	91	12816	0.70	ug/l		97
63)	4-Methyl-2-Pentanone	9.220	58	360	0.26	ug/l	#	29
65)	t-1,3-Dichloropropene	9.717	75	2264	0.43	ug/l		75
66)	Ethyl Methacrylate	9.853	69	3156	0.58	ug/l		57
67)	1,1,2-Trichloroethane	9.919	83	1750	0.59	ug/l	#	63
68)	Tetrachloroethene	10.121	166	2449	0.49	ug/l		80
69)	1,3-Dichloropropane	10.126	76	2871	0.49	ug/l		67
70)	2-Hexanone	10.257	58	224	0.16	ug/l	#	1
71)	Dibromochloromethane	10.404	129	1890	0.48	ug/l		91
72)	1,2-Dibromoethane	10.524	107	1332	0.45	ug/l		91
73)	Chlorobenzene	11.146	112	6340	0.54	ug/l		100
74)	1,1,1,2-Tetrachloroethane	11.250	131	2532	0.62	ug/l	#	64
75)	Ethylbenzene	11.288	91	12258	0.62	ug/l		99
76)	p/m-Xylene	11.441	91	20918	1.28	ug/l		98
77)	o-Xylene	11.916	91	10050	0.60	ug/l		89
78)	Styrene	11.938	104	7621	0.57	ug/l		89
79)	Isopropylbenzene	12.363	105	11720	0.58	ug/l		98
81)	1,2,3-Trichloropropane	12.745	110	390	0.33	ug/l	#	31
82)	Bromobenzene	12.729	156	3024	0.58	ug/l	#	55
83)	n-Propylbenzene	12.876	91	14694	0.64	ug/l		92
84)	t-1,4-Dichloro-2-Butene	12.794	53	109	0.11	ug/l	#	21
85)	2-Chlorotoluene	12.969	91	9221	0.67	ug/l		100
86)	1,3,5-Trimethylbenzene	13.094	105	10129	0.60	ug/l		100
88)	Bromoform	12.139	173	1244	0.45	ug/l		90
89)	1,1,2,2-Tetrachloroethane	12.696	83	2778	0.60	ug/l		92
90)	4-Chlorotoluene	13.100	91	10719	0.67	ug/l		98
91)	1,2,4-Trimethylbenzene	13.558	105	11455	0.66	ug/l		95
92)	tert-Butylbenzene	13.493	134	2295	0.56	ug/l	#	85
93)	p-Isopropyltoluene	13.946	119	11605	0.60	ug/l		90
94)	sec-Butylbenzene	13.765	105	13279	0.59	ug/l		99
95)	1,3-Dichlorobenzene	13.891	146	6257	0.62	ug/l		98
96)	1,4-Dichlorobenzene	13.995	146	6096	0.61	ug/l		72
97)	1,2-Dichlorobenzene	14.458	146	5615	0.59	ug/l		95
98)	n-Butylbenzene	14.453	91	9917	0.58	ug/l		92
99)	1,2-Dibromo-3-Chloropr...	15.397	75	243	0.29	ug/l	#	1

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV022.D
Acq On : 12 Nov 2013 7:25 pm
Operator : 486
Sample : BFB/0.5PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 13 09:43:03 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

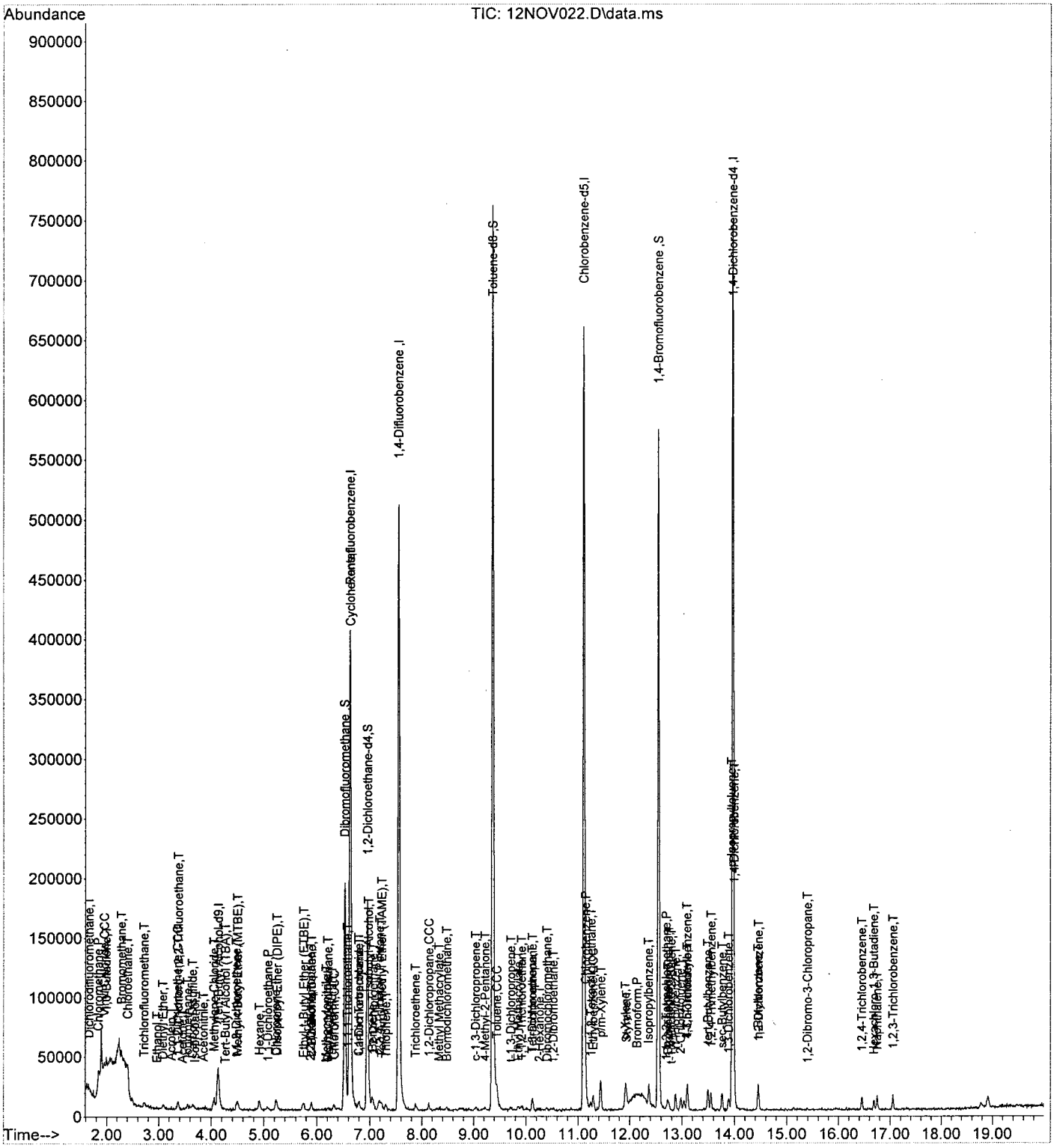
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	16.450	180	5368	0.68	ug/l	77
101) Hexachloro-1,3-Butadiene	16.685	225	3278	0.67	ug/l	90
102) Naphthalene	16.750	128	13655	0.85	ug/l	94
103) 1,2,3-Trichlorobenzene	17.056	180	5353	0.72	ug/l	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV022.D
Acq On : 12 Nov 2013 7:25 pm
Operator : 486
Sample : BFB/0.5PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 13 09:43:03 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV023.D
Acq On : 12 Nov 2013 7:50 pm
Operator : 486
Sample : 1PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 13 10:16:21 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert-Butyl Alcohol-d9	4.140	65	108740	250.00	ug/l		0.00
4) Pentafluorobenzene	6.628	168	455699	50.00	ug/l		0.00
47) 1,4-Difluorobenzene	7.556	114	661197	50.00	ug/l		0.00
64) Chlorobenzene-d5	11.114	117	594265	50.00	ug/l		0.00
87) 1,4-Dichlorobenzene-d4	13.973	152	310943	50.00	ug/l		0.00
System Monitoring Compounds							
41) Dibromofluoromethane	6.530	113	179429	50.71	ug/l		0.00
Spiked Amount 50.000			Recovery =	101.42%			
46) 1,2-Dichloroethane-d4	6.956	65	185921	50.47	ug/l		0.00
Spiked Amount 50.000			Recovery =	100.94%			
61) Toluene-d8	9.368	98	776047	49.59	ug/l		0.00
Spiked Amount 50.000			Recovery =	99.18%			
80) 1,4-Bromofluorobenzene	12.549	95	281441	49.64	ug/l		0.00
Spiked Amount 50.000			Recovery =	99.28%			
Target Compounds							Qvalue
2) Ethanol	2.967	45	233	3.14	ug/l	#	1
3) Tert-Butyl Alcohol (TBA)	4.277	59	2731	5.24	ug/l	#	63
5) Dichlorodifluoromethane	1.658	85	5194	0.93	ug/l		93
6) Chloromethane	1.827	50	10957	1.22	ug/l		90
7) Vinyl Chloride	1.952	62	6804	0.96	ug/l		98
8) Bromomethane	2.269	94	9083	2.22	ug/l		88
9) Chloroethane	2.400	64	4059m	1.08	ug/l		
10) 1,3-Butadiene	1.996	54	6890	1.23	ug/l		82
11) Trichlorofluoromethane	2.716	101	7362	0.98	ug/l		96
12) Diethyl Ether	3.087	45	3876	1.26	ug/l	#	71
13) Acetone	3.464	58	104	0.25	ug/l	#	1
14) Iodomethane	3.546	142	14463	5.42	ug/l		82
15) 1,1-Dichloroethene	3.355	61	6928	1.03	ug/l		89
16) 1,1,2-Trichloro-1,2,2-...	3.377	101	4516	0.98	ug/l		86
17) Isopropanol	3.693	45	1779	5.28	ug/l		92
18) Carbon Disulfide	3.638	76	15672	1.01	ug/l		93
19) Acetonitrile	3.857	41	6770	2.53	ug/l		77
20) Acrylonitrile	4.506	53	127	0.10	ug/l	#	22
21) Allyl Chloride	3.868	76	1919	1.11	ug/l	#	72
22) Acrolein	3.284	56	401	0.55	ug/l		66
23) Methylene Chloride	4.048	84	8690	1.79	ug/l		86
24) t-1,2-Dichloroethene	4.473	96	4439	0.95	ug/l		94
25) Isobutyl Alcohol	6.994	43	724	3.07	ug/l	#	20
26) Methyl-t-Butyl Ether (...	4.495	73	13292	1.03	ug/l		99
27) Hexane	4.899	57	10283	1.22	ug/l		87
28) 1,1-Dichloroethane	5.073	63	8802	1.04	ug/l		93
29) Vinyl Acetate	0.000		0	N.D.			
30) Diisopropyl Ether (DIPE)	5.237	45	14853	1.03	ug/l		92
31) Chloroprene	5.215	53	7220	1.02	ug/l		96
32) Ethyl-t-Butyl Ether (E...	5.750	59	13503	0.95	ug/l		99
33) c-1,2-Dichloroethene	5.903	96	4741	0.93	ug/l		80
34) 2,2-Dichloropropane	5.876	77	5980	1.19	ug/l		94
35) 2-Butanone	5.870	43	1539	0.96	ug/l		48
36) Propionitrile	6.039	54	116	0.21	ug/l		68
37) Methacrylonitrile	6.148	41	370	0.16	ug/l	#	11
38) Bromochloromethane	6.214	130	2515	1.12	ug/l	#	64

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV023.D
Acq On : 12 Nov 2013 7:50 pm
Operator : 486
Sample : 1PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 13 10:16:21 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
39)	Tetrahydrofuran	6.285	42	104	N.D.		
40)	Chloroform	6.323	83	7558	0.98 ug/l		89
42)	1,1,1-Trichloroethane	6.579	97	6736	1.01 ug/l		81
43)	Cyclohexane	6.634	84	19605	2.60 ug/l	#	67
44)	1,1-Dichloropropene	6.798	75	6591	1.04 ug/l		93
45)	Carbon Tetrachloride	6.803	117	5469	0.98 ug/l		70
48)	Benzene	7.049	78	21249	1.04 ug/l		96
49)	1,2-Dichloroethane	7.054	62	5500	1.02 ug/l		91
50)	Tert-Amyl-Methyl Ether...	7.234	73	12798	1.00 ug/l		87
51)	Thiophene	7.321	84	10267	1.00 ug/l		84
52)	2,2,4-Trimethyl Pentane	7.185	57	23015	1.12 ug/l		89
53)	Trichloroethene	7.883	95	4995	1.02 ug/l		87
54)	1,2-Dichloropropane	8.129	63	4930	0.99 ug/l		89
55)	Dibromomethane	8.271	93	2424	1.09 ug/l	#	57
56)	Methyl Methacrylate	8.331	69	2602	0.82 ug/l		86
57)	1,4-Dioxane	8.358	88	515	9.36 ug/l	#	13
58)	Bromodichloromethane	8.484	83	6194	1.04 ug/l		98
59)	2-Chloroethyl Vinyl Ether	8.877	63	1632	0.72 ug/l	#	45
60)	c-1,3-Dichloropropene	9.040	75	6339	0.92 ug/l		92
62)	Toluene	9.455	91	23605	1.12 ug/l		97
63)	4-Methyl-2-Pentanone	9.226	58	1615	1.01 ug/l		79
65)	t-1,3-Dichloropropene	9.711	75	4624	0.77 ug/l		84
66)	Ethyl Methacrylate	9.853	69	5545	0.90 ug/l		97
67)	1,1,2-Trichloroethane	9.919	83	3638	1.08 ug/l		93
68)	Tetrachloroethene	10.131	166	5351	0.94 ug/l		88
69)	1,3-Dichloropropane	10.126	76	7261	1.08 ug/l		84
70)	2-Hexanone	10.235	58	894	0.57 ug/l	#	67
71)	Dibromochloromethane	10.399	129	4538	1.00 ug/l		87
72)	1,2-Dibromoethane	10.524	107	3124	0.92 ug/l		87
73)	Chlorobenzene	11.152	112	14378	1.06 ug/l		99
74)	1,1,1,2-Tetrachloroethane	11.250	131	4652	1.00 ug/l		87
75)	Ethylbenzene	11.288	91	24527	1.08 ug/l		91
76)	p/m-Xylene	11.436	91	39878	2.14 ug/l		90
77)	o-Xylene	11.916	91	20501	1.07 ug/l		99
78)	Styrene	11.932	104	15963	1.04 ug/l		92
79)	Isopropylbenzene	12.374	105	25284	1.10 ug/l		98
81)	1,2,3-Trichloropropane	12.751	110	1402	1.03 ug/l	#	32
82)	Bromobenzene	12.740	156	5890	0.98 ug/l		84
83)	n-Propylbenzene	12.871	91	28748	1.09 ug/l		98
84)	t-1,4-Dichloro-2-Butene	12.783	53	888	0.79 ug/l	#	55
85)	2-Chlorotoluene	12.969	91	17465	1.11 ug/l		82
86)	1,3,5-Trimethylbenzene	13.094	105	20812	1.08 ug/l		93
88)	Bromoform	12.129	173	3115	1.01 ug/l		79
89)	1,1,2,2-Tetrachloroethane	12.701	83	5248	1.02 ug/l		93
90)	4-Chlorotoluene	13.111	91	19493	1.10 ug/l		99
91)	1,2,4-Trimethylbenzene	13.553	105	20735	1.08 ug/l		98
92)	tert-Butylbenzene	13.487	134	4654	1.03 ug/l		96
93)	p-Isopropyltoluene	13.945	119	22512	1.05 ug/l		96
94)	sec-Butylbenzene	13.765	105	27493	1.10 ug/l		99
95)	1,3-Dichlorobenzene	13.891	146	12315	1.10 ug/l		98
96)	1,4-Dichlorobenzene	13.995	146	11366	1.03 ug/l		89
97)	1,2-Dichlorobenzene	14.464	146	10892	1.04 ug/l		87
98)	n-Butylbenzene	14.453	91	20042	1.05 ug/l		89
99)	1,2-Dibromo-3-Chloropr...	15.402	75	647	0.69 ug/l		86

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV023.D
Acq On : 12 Nov 2013 7:50 pm
Operator : 486
Sample : 1PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 13 10:16:21 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

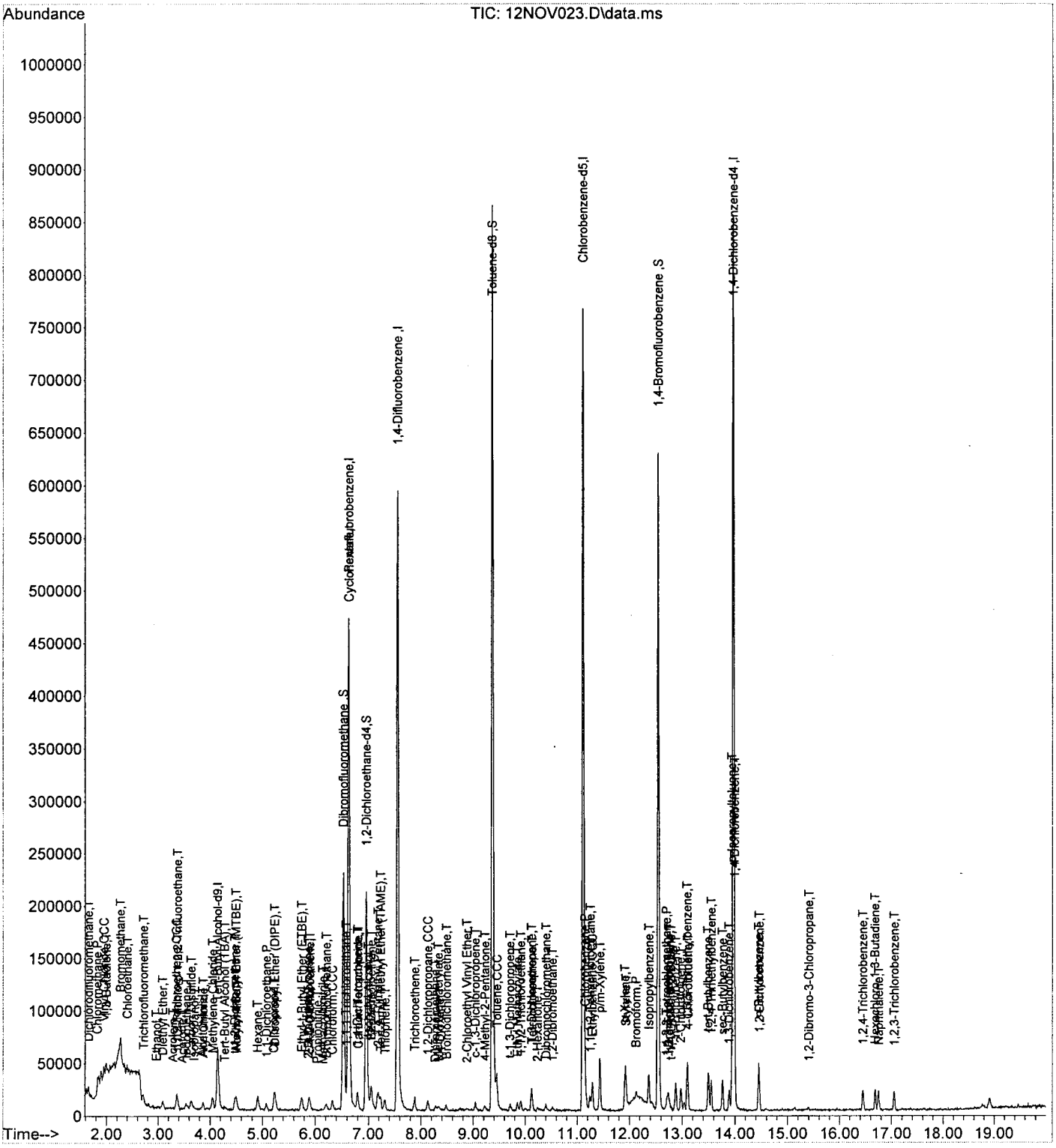
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	16.450	180	9995	1.14	ug/l	94
101) Hexachloro-1,3-Butadiene	16.685	225	5905	1.09	ug/l	93
102) Naphthalene	16.756	128	21473	1.21	ug/l	98
103) 1,2,3-Trichlorobenzene	17.056	180	9348	1.14	ug/l	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV023.D
Acq On : 12 Nov 2013 7:50 pm
Operator : 486
Sample : 1PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 13 10:16:21 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

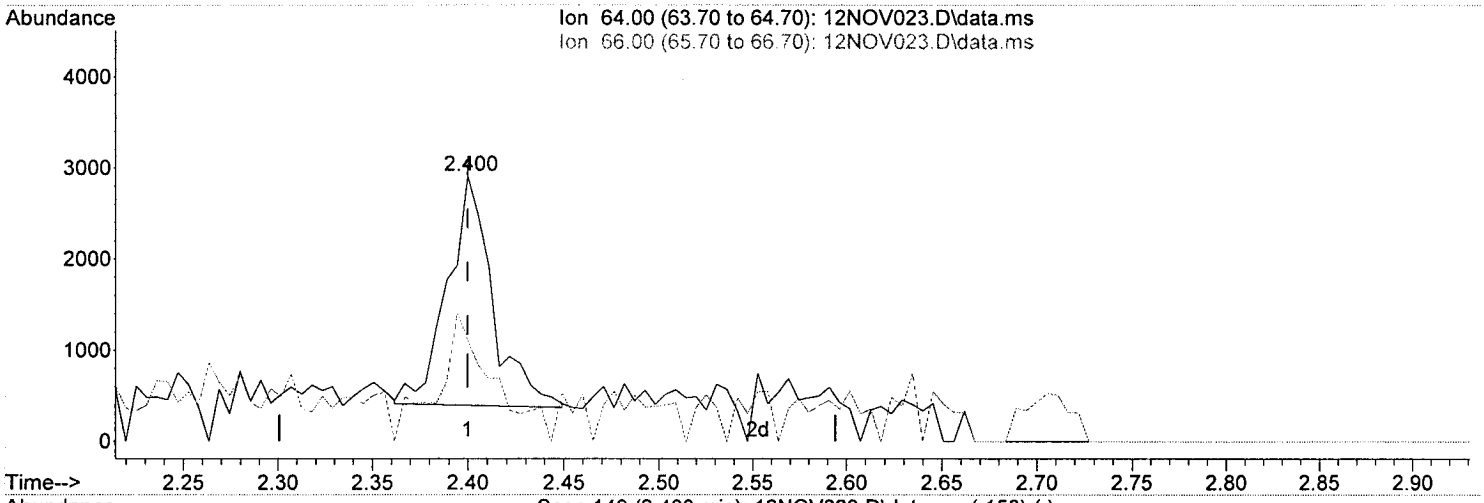


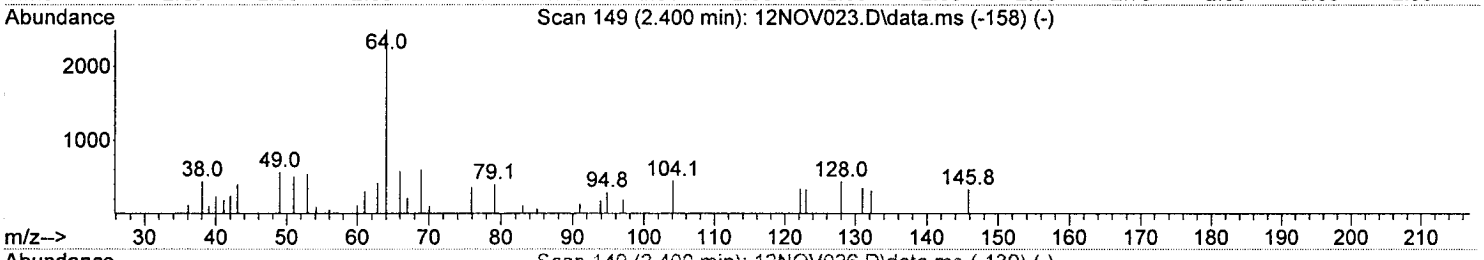
Return to Contents

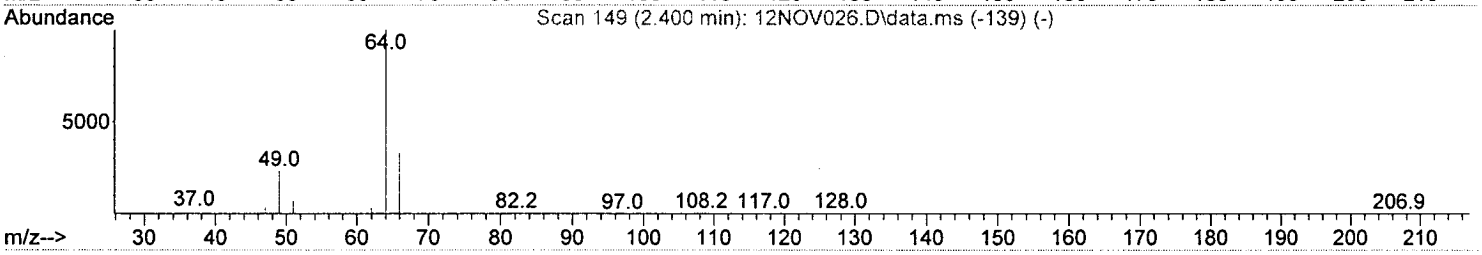
Quantitation Report (Qedit)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV023.D
Acq On : 12 Nov 2013 7:50 pm
Operator : 486
Sample : 1PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 13 09:43:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration







TIC: 12NOV023.D\data.ms

(9) Chloroethane (T)

2.400min (-0.000) 1.08 ug/l m

response 4059

Ion	Exp%	Act%
64.00	100.00	100.00
66.00	33.50	38.23
0.00	0.00	0.00
0.00	0.00	0.00

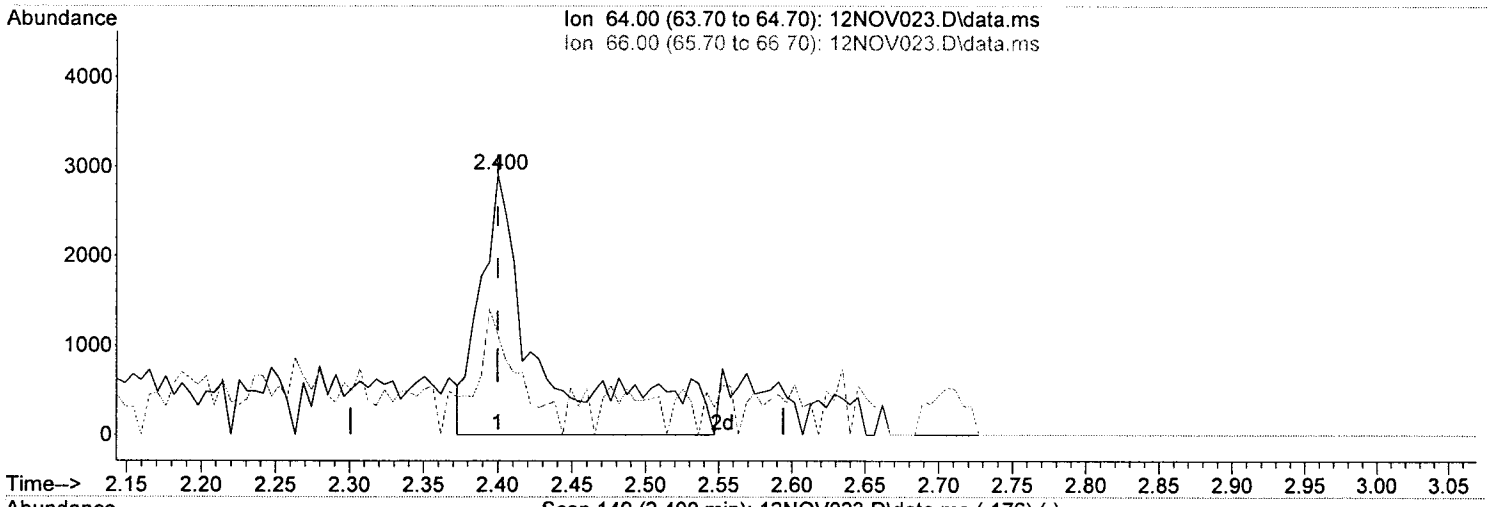
MANUAL INTEGRATION
BEFORE / AFTER
Date: 11/13/13
Chemist: 486 GL: 608
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

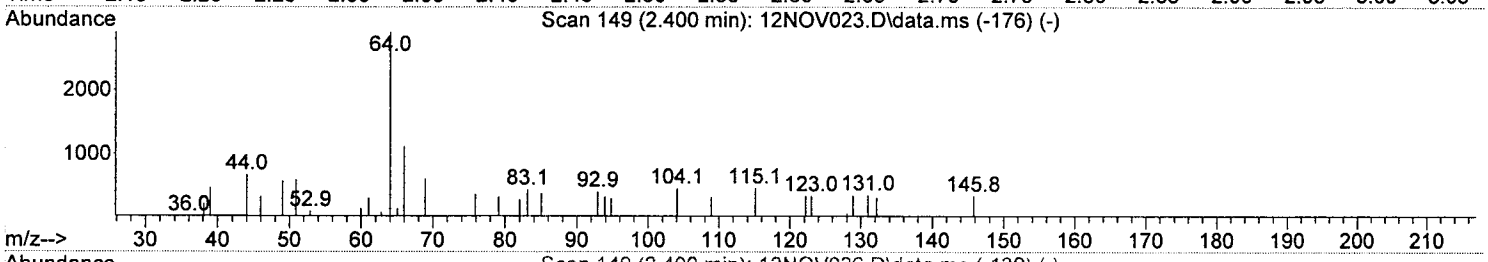
Return to Contents

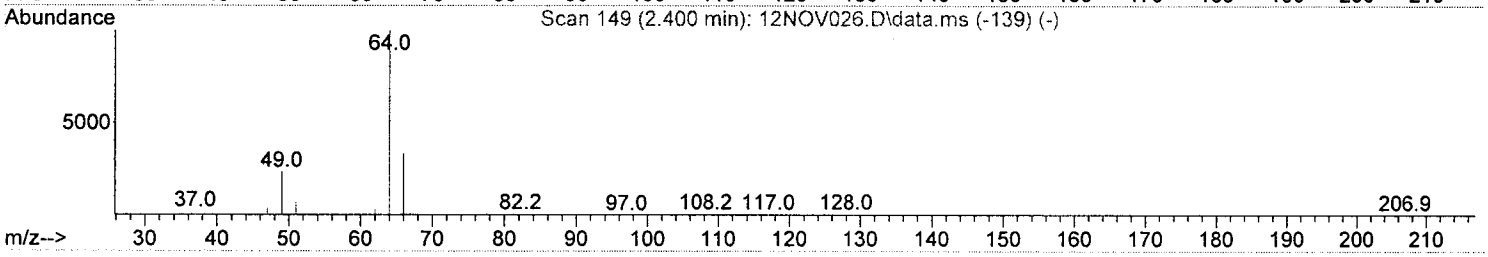
Quantitation Report (Qedit)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV023.D
Acq On : 12 Nov 2013 7:50 pm
Operator : 486
Sample : 1PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 13 09:43:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration







TIC: 12NOV023.D\data.ms

(9) Chloroethane (T)

2.400min (-0.000) 2.24 ug/l

response 8413

Ion	Exp%	Act%
64.00	100.00	100.00
66.00	33.50	27.79
0.00	0.00	0.00
0.00	0.00	0.00

MANUAL INTEGRATION
BEFORE / AFTER
Date: 11/13/13
Chemist: 486 GL: 608
Reason: BASELINE CORR., PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV024.D
Acq On : 12 Nov 2013 8:16 pm
Operator : 486
Sample : 10PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 13 10:19:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert-Butyl Alcohol-d9	4.135	65	79940	250.00	ug/l		0.00
4) Pentafluorobenzene	6.628	168	417614	50.00	ug/l		0.00
47) 1,4-Difluorobenzene	7.556	114	614289	50.00	ug/l		0.00
64) Chlorobenzene-d5	11.114	117	547657	50.00	ug/l		0.00
87) 1,4-Dichlorobenzene-d4	13.973	152	294846	50.00	ug/l		0.00
System Monitoring Compounds							
41) Dibromofluoromethane	6.530	113	162358	50.07	ug/l		0.00
Spiked Amount 50.000			Recovery =	100.14%			
46) 1,2-Dichloroethane-d4	6.956	65	170992	50.65	ug/l		0.00
Spiked Amount 50.000			Recovery =	101.30%			
61) Toluene-d8	9.367	98	722968	49.73	ug/l		0.00
Spiked Amount 50.000			Recovery =	99.46%			
80) 1,4-Bromofluorobenzene	12.543	95	260066	49.78	ug/l		0.00
Spiked Amount 50.000			Recovery =	99.56%			
Target Compounds							Qvalue
2) Ethanol	2.978	45	4741	86.78	ug/l		78
3) Tert-Butyl Alcohol (TBA)	4.260	59	17034	44.49	ug/l		91
5) Dichlorodifluoromethane	1.658	85	55262	10.76	ug/l		96
6) Chloromethane	1.832	50	71162	8.67	ug/l		99
7) Vinyl Chloride	1.952	62	66102	10.20	ug/l		94
8) Bromomethane	2.291	94	34757m	9.28	ug/l		
9) Chloroethane	2.411	64	40329	11.73	ug/l		94
10) 1,3-Butadiene	1.990	54	48893	9.52	ug/l		94
11) Trichlorofluoromethane	2.716	101	68569	9.99	ug/l		97
12) Diethyl Ether	3.082	45	27393	9.74	ug/l		91
13) Acetone	3.453	58	3247	8.38	ug/l	#	54
14) Iodomethane	3.546	142	38060	15.55	ug/l		88
15) 1,1-Dichloroethene	3.360	61	59818	9.68	ug/l		99
16) 1,1,2-Trichloro-1,2,2-...	3.382	101	41329	9.76	ug/l		99
17) Isopropanol	3.676	45	14377	46.60	ug/l		92
18) Carbon Disulfide	3.644	76	134523	9.47	ug/l		98
19) Acetonitrile	3.862	41	45553	18.61	ug/l		98
20) Acrylonitrile	4.468	53	9312m	7.75	ug/l		
21) Allyl Chloride	3.873	76	13834	8.73	ug/l		91
22) Acrolein	3.245	56	13126m	19.64	ug/l		
23) Methylene Chloride	4.048	84	44374	9.99	ug/l		96
24) t-1,2-Dichloroethene	4.473	96	40619	9.47	ug/l		98
25) Isobutyl Alcohol	6.989	43	4964	22.99	ug/l		86
26) Methyl-t-Butyl Ether (...	4.489	73	114940	9.73	ug/l		100
27) Hexane	4.910	57	71213	9.23	ug/l		96
28) 1,1-Dichloroethane	5.073	63	73567	9.46	ug/l		95
29) Vinyl Acetate	5.204	86	3794	6.45	ug/l	#	80
30) Diisopropyl Ether (DIPE)	5.237	45	125456	9.46	ug/l		94
31) Chloroprene	5.221	53	63379	9.81	ug/l		95
32) Ethyl-t-Butyl Ether (E...	5.744	59	125424	9.65	ug/l		93
33) c-1,2-Dichloroethene	5.897	96	45296	9.71	ug/l		90
34) 2,2-Dichloropropane	5.886	77	35929	7.82	ug/l		100
35) 2-Butanone	5.935	43	13881	9.46	ug/l		96
36) Propionitrile	5.995	54	4033	8.03	ug/l	#	26
37) Methacrylonitrile	6.192	41	20599	9.89	ug/l		78
38) Bromochloromethane	6.214	130	20868	10.13	ug/l		85

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV024.D
Acq On : 12 Nov 2013 8:16 pm
Operator : 486
Sample : 10PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 13 10:19:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39)	Tetrahydrofuran	6.306	42	13434	10.55	ug/l		84
40)	Chloroform	6.328	83	67574	9.60	ug/l		95
42)	1,1,1-Trichloroethane	6.574	97	58334	9.59	ug/l		99
43)	Cyclohexane	6.645	84	74622	10.79	ug/l		94
44)	1,1-Dichloropropene	6.792	75	55975	9.67	ug/l		96
45)	Carbon Tetrachloride	6.803	117	47255	9.19	ug/l		97
48)	Benzene	7.049	78	179426	9.43	ug/l		98
49)	1,2-Dichloroethane	7.054	62	46247	9.21	ug/l		97
50)	Tert-Amyl-Methyl Ether...	7.229	73	114422	9.58	ug/l		98
51)	Thiophene	7.310	84	90728	9.52	ug/l		99
52)	2,2,4-Trimethyl Pentane	7.185	57	179279	9.39	ug/l		98
53)	Trichloroethene	7.878	95	44369	9.74	ug/l		93
54)	1,2-Dichloropropane	8.129	63	45243	9.81	ug/l		99
55)	Dibromomethane	8.271	93	19136	9.24	ug/l		90
56)	Methyl Methacrylate	8.325	69	27688	9.35	ug/l		94
57)	1,4-Dioxane	8.342	88	4853	94.97	ug/l		77
58)	Bromodichloromethane	8.478	83	52993	9.59	ug/l		98
59)	2-Chloroethyl Vinyl Ether	8.866	63	17268	8.19	ug/l		96
60)	c-1,3-Dichloropropene	9.035	75	61382	9.63	ug/l		93
62)	Toluene	9.449	91	190439	9.71	ug/l		97
63)	4-Methyl-2-Pentanone	9.220	58	12575	8.43	ug/l		93
65)	t-1,3-Dichloropropene	9.711	75	51153	9.29	ug/l		95
66)	Ethyl Methacrylate	9.848	69	54427	9.55	ug/l		97
67)	1,1,2-Trichloroethane	9.913	83	30068	9.68	ug/l		95
68)	Tetrachloroethene	10.126	166	52120	9.95	ug/l		96
69)	1,3-Dichloropropane	10.115	76	56927	9.16	ug/l		96
70)	2-Hexanone	10.235	58	12612	8.76	ug/l		99
71)	Dibromochloromethane	10.393	129	38212	9.11	ug/l		100
72)	1,2-Dibromoethane	10.524	107	29910	9.56	ug/l		95
73)	Chlorobenzene	11.146	112	119712	9.59	ug/l		100
74)	1,1,1,2-Tetrachloroethane	11.239	131	41474	9.65	ug/l		99
75)	Ethylbenzene	11.288	91	206412	9.83	ug/l		98
76)	p/m-Xylene	11.435	91	319560	18.59	ug/l		98
77)	o-Xylene	11.916	91	168804	9.52	ug/l		100
78)	Styrene	11.927	104	139807	9.86	ug/l		94
79)	Isopropylbenzene	12.368	105	207424	9.77	ug/l		99
81)	1,2,3-Trichloropropane	12.756	110	12361	9.82	ug/l	#	78
82)	Bromobenzene	12.734	156	54443	9.85	ug/l		98
83)	n-Propylbenzene	12.876	91	243561	9.98	ug/l		96
84)	t-1,4-Dichloro-2-Butene	12.783	53	8918	8.60	ug/l		98
85)	2-Chlorotoluene	12.974	91	141390	9.78	ug/l		98
86)	1,3,5-Trimethylbenzene	13.094	105	172668	9.71	ug/l		95
88)	Bromoform	12.134	173	26250	8.99	ug/l		89
89)	1,1,2,2-Tetrachloroethane	12.701	83	46271	9.51	ug/l		92
90)	4-Chlorotoluene	13.105	91	161936	9.60	ug/l		98
91)	1,2,4-Trimethylbenzene	13.553	105	176314	9.66	ug/l		94
92)	tert-Butylbenzene	13.493	134	40592	9.48	ug/l		98
93)	p-Isopropyltoluene	13.945	119	199130	9.84	ug/l		98
94)	sec-Butylbenzene	13.765	105	226277	9.55	ug/l		99
95)	1,3-Dichlorobenzene	13.891	146	101295	9.56	ug/l		97
96)	1,4-Dichlorobenzene	14.000	146	100555	9.62	ug/l		96
97)	1,2-Dichlorobenzene	14.458	146	94622	9.55	ug/l		98
98)	n-Butylbenzene	14.453	91	179796	9.96	ug/l		98
99)	1,2-Dibromo-3-Chloropr...	15.391	75	8611	9.70	ug/l		100

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV024.D
Acq On : 12 Nov 2013 8:16 pm
Operator : 486
Sample : 10PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 13 10:19:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	16.450	180	79201	9.56	ug/l	98
101) Hexachloro-1,3-Butadiene	16.690	225	47724	9.30	ug/l	96
102) Naphthalene	16.744	128	164278	9.76	ug/l	96
103) 1,2,3-Trichlorobenzene	17.050	180	73465	9.43	ug/l	93

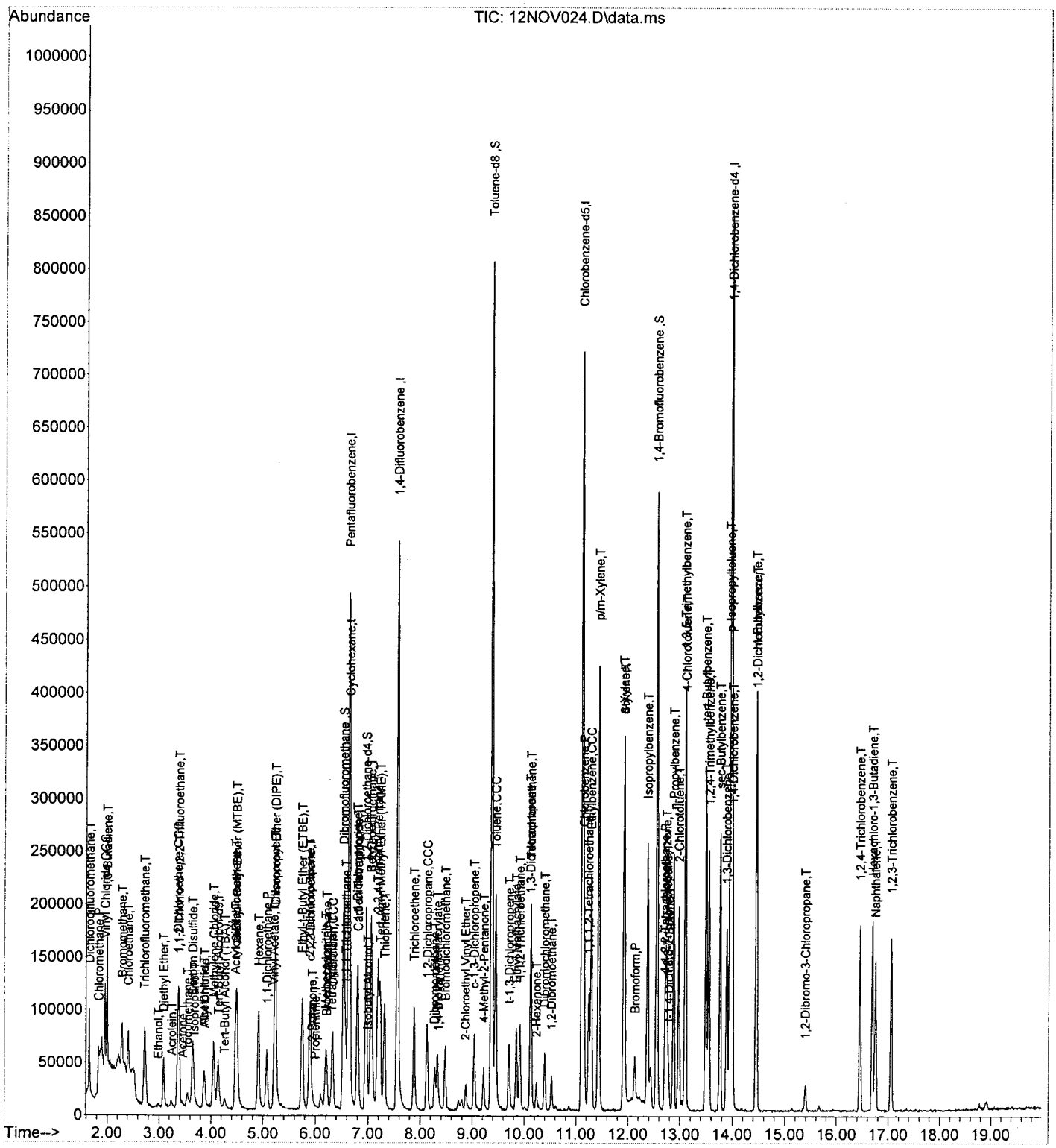
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV024.D
Acq On : 12 Nov 2013 8:16 pm
Operator : 486
Sample : 10PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 13 10:19:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

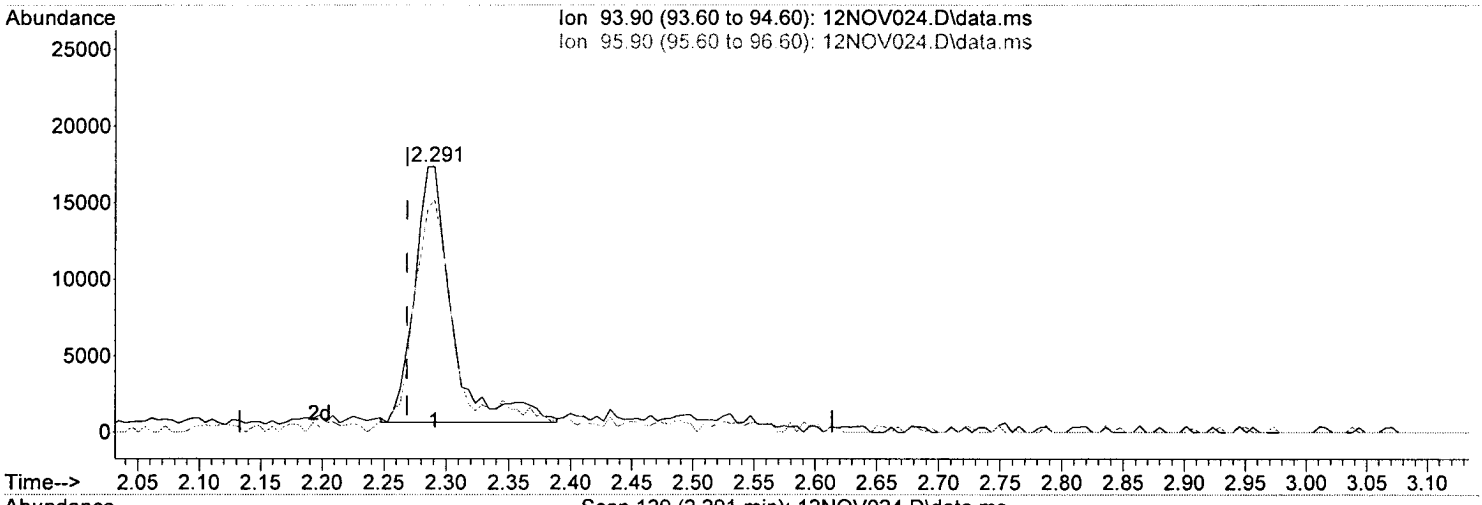


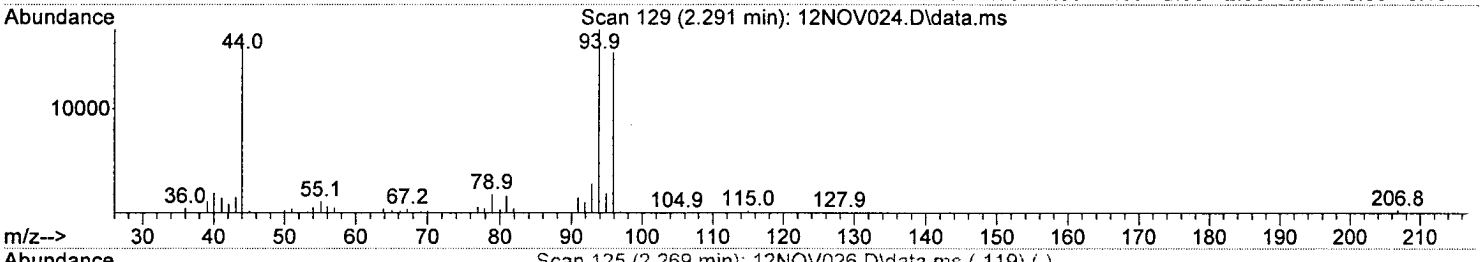
Return to Contents

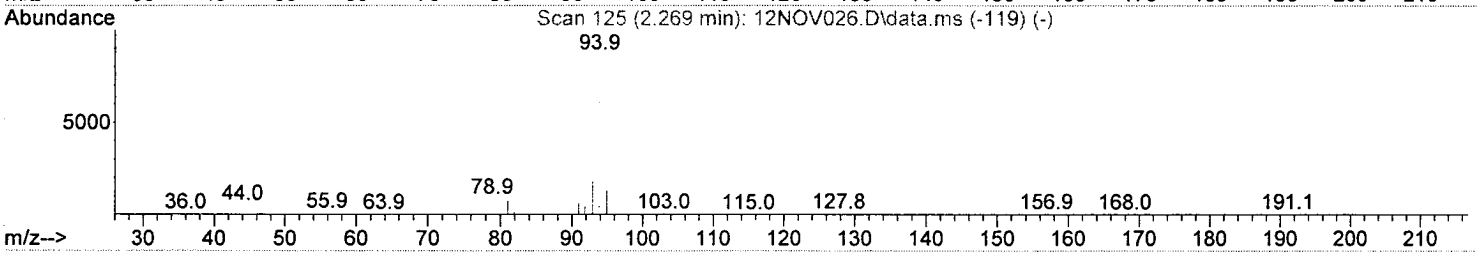
Quantitation Report (Qedit)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV024.D
Acq On : 12 Nov 2013 8:16 pm
Operator : 486
Sample : 10PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 13 09:43:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration







TIC: 12NOV024.D\data.ms

(8) Bromomethane (T)

2.291min (+ 0.022) 9.28 ug/l m

response 34757

Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.80	87.77
0.00	0.00	0.00
0.00	0.00	0.00

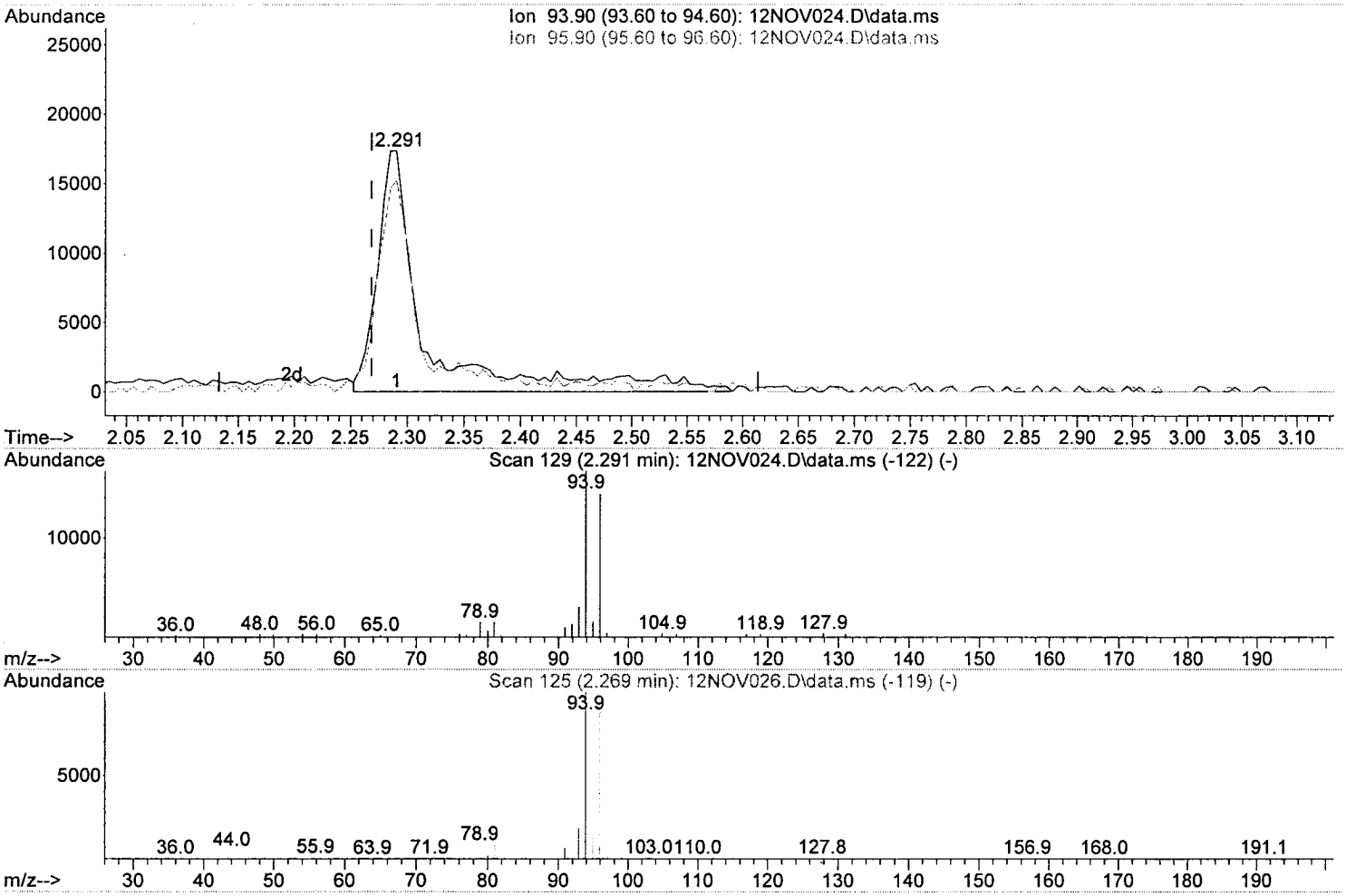
MANUAL INTEGRATION
BEFORE / ~~AFTER~~
Date: 11/13/13
Chemist: 486 GL: 608
Reason: BASELINE CORR., PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

Return to Contents

Quantitation Report (Qedit)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV024.D
Acq On : 12 Nov 2013 8:16 pm
Operator : 486
Sample : 10PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 13 09:43:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration



TIC: 12NOV024.D\data.ms

(8) Bromomethane (T)

2.291min (+ 0.022) 13.38 ug/l

response 50084

Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.80	83.87
0.00	0.00	0.00
0.00	0.00	0.00

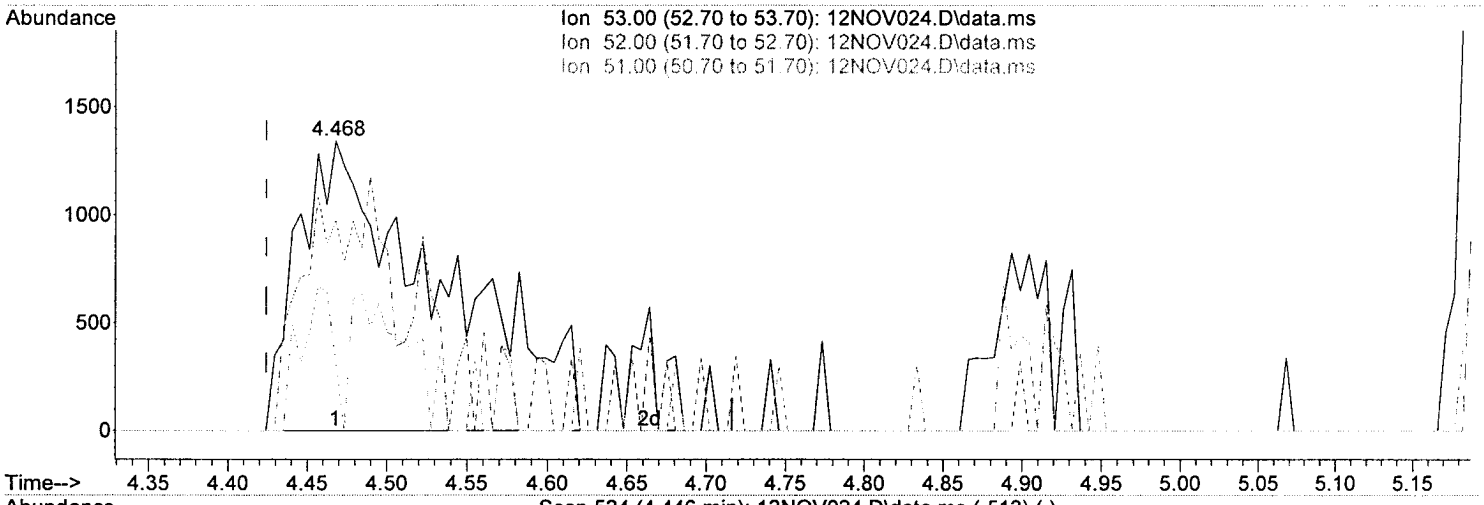
MANUAL INTEGRATION
BEFORE / AFTER
Date: 11/13/13
Chemist: 486 GL: bar
Reason: BASELINE CORR., PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

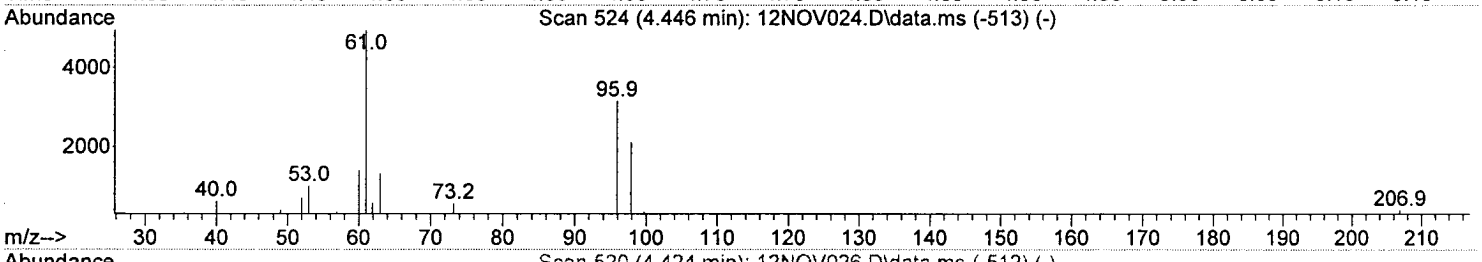
Return to Contents

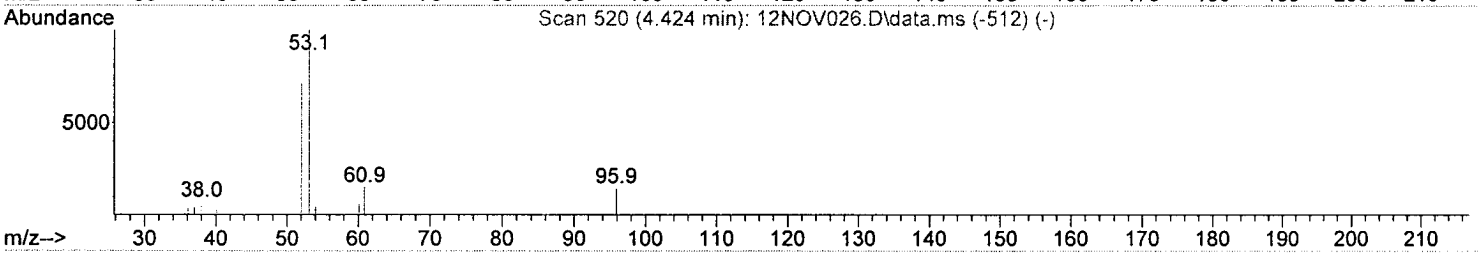
Quantitation Report (Qedit)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV024.D
Acq On : 12 Nov 2013 8:16 pm
Operator : 486
Sample : 10PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 13 09:43:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration







TIC: 12NOV024.D\data.ms

(20) Acrylonitrile (T)

4.468min (+ 0.044) 7.75 ug/l m

response 9312

Ion	Exp%	Act%
53.00	100.00	100.00
52.00	71.70	72.52
51.00	33.50	23.90
0.00	0.00	0.00

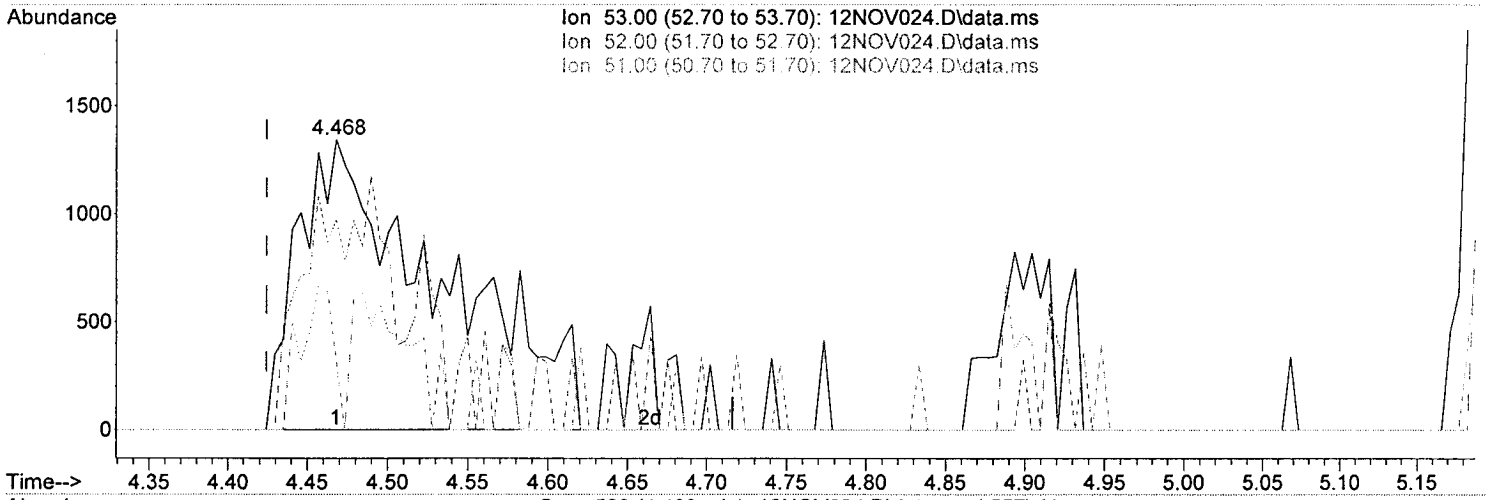
MANUAL INTEGRATION
BEFORE / AFTER
Date: 11/13/13
Chemist: 486 GL: 608
Reason: BASELINE CORR., PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

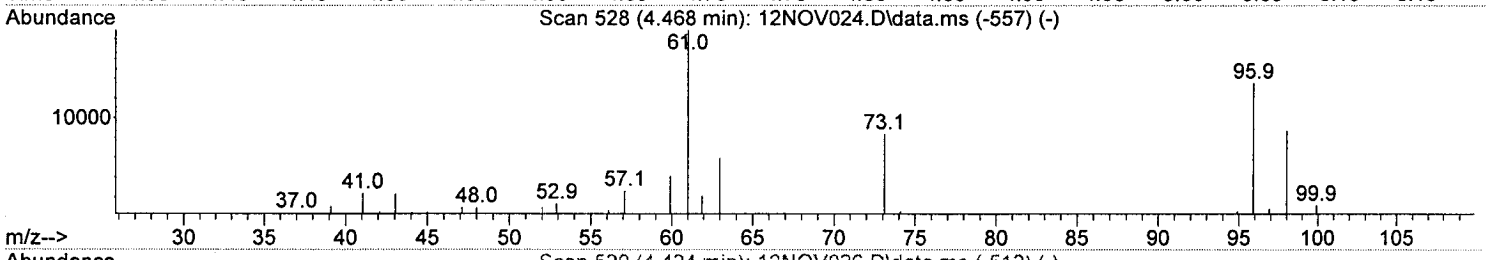
Return to Contents

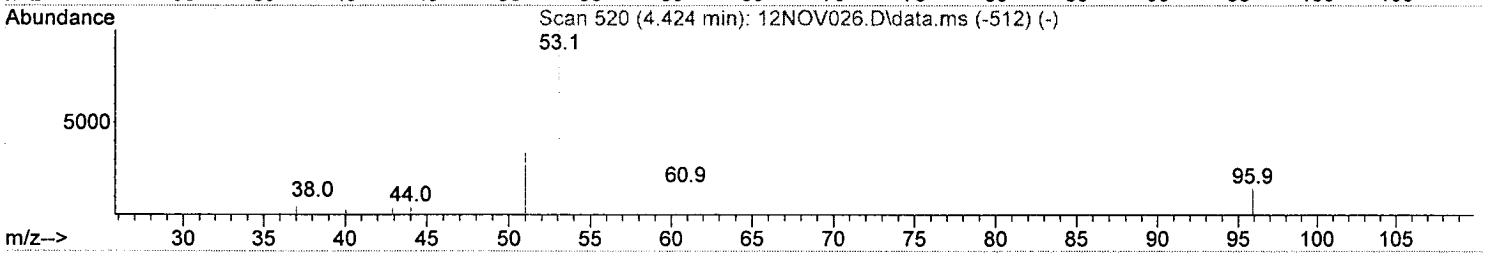
Quantitation Report (Qedit)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV024.D
Acq On : 12 Nov 2013 8:16 pm
Operator : 486
Sample : 10PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 13 09:43:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration







TIC: 12NOV024.D\data.ms

(20) Acrylonitrile (T)

4.468min (+ 0.044) 6.91 ug/l

response 8311

Ion	Exp%	Act%
53.00	100.00	100.00
52.00	71.70	72.52
51.00	33.50	23.90
0.00	0.00	0.00

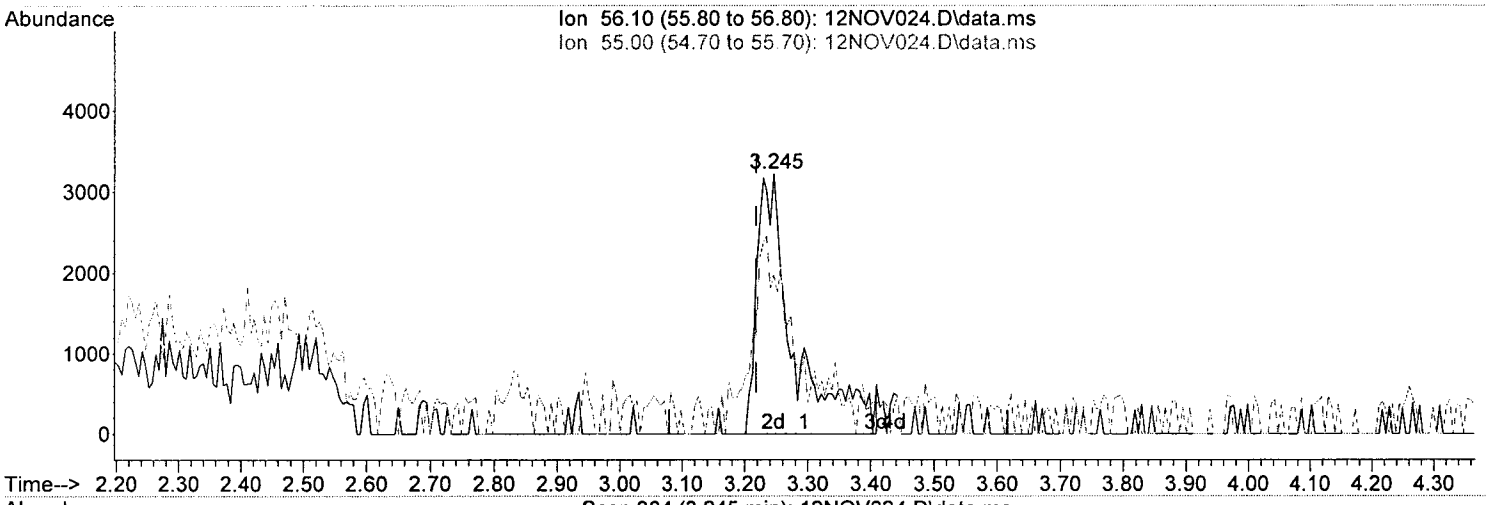
MANUAL INTEGRATION
BEFORE / AFTER
Date: 11/13/15
Chemist: 486 GL: 606
Reason: BASELINE CORR., PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

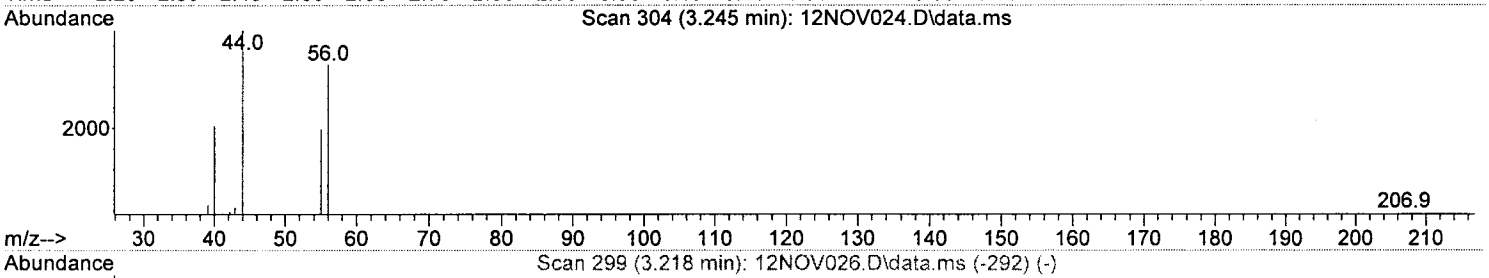
Return to Contents

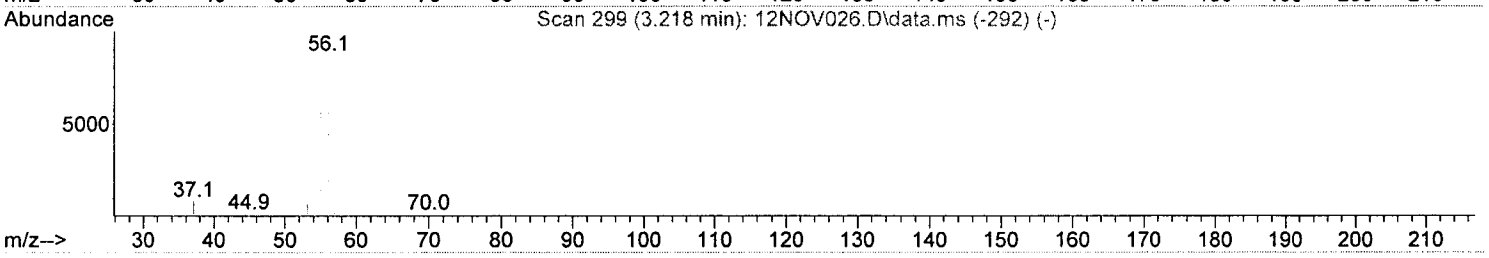
Quantitation Report (Qedit)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV024.D
Acq On : 12 Nov 2013 8:16 pm
Operator : 486
Sample : 10PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 13 10:19:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration







TIC: 12NOV024.D\data.ms

(22) Acrolein (T)

3.245min (+ 0.027) 19.64 ug/l m

response 13126

Ion	Exp%	Act%
56.10	100.00	100.00
55.00	74.90	61.48
0.00	0.00	0.00
0.00	0.00	0.00

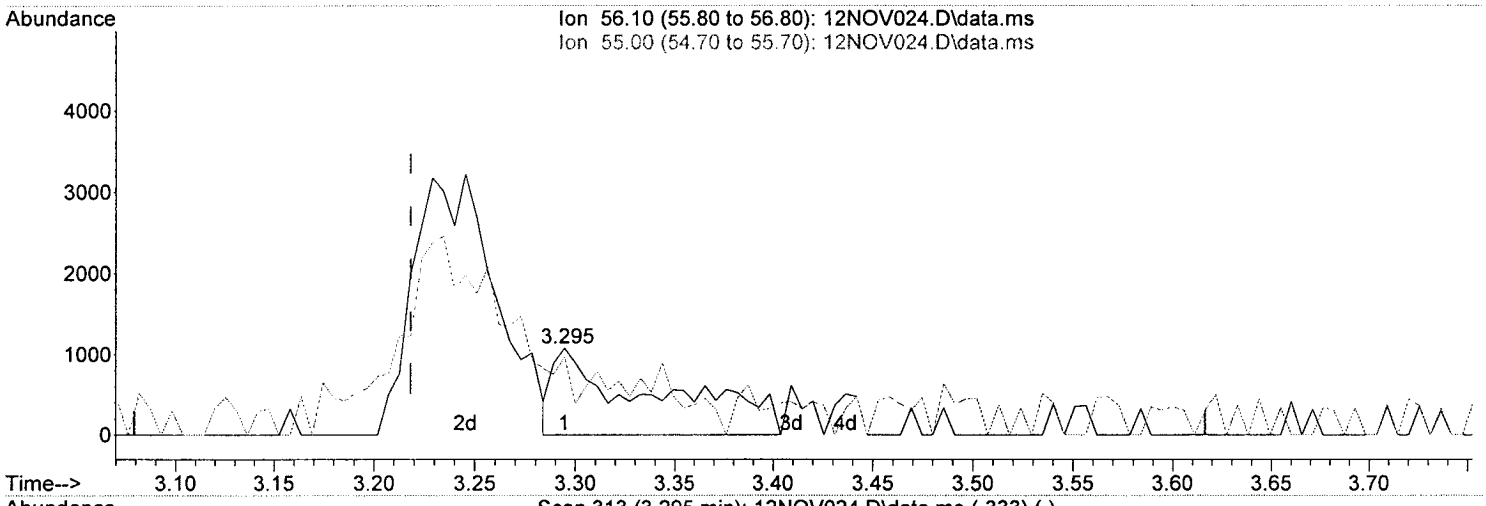
MANUAL INTEGRATION
BEFORE (AFTER)
Date: 11/13/13
Chemist: 486 GL: 608
Reason: BASELINE CORR., (PEAK ID CORR.)
Other :
This stamp appears in red ink on original copy.

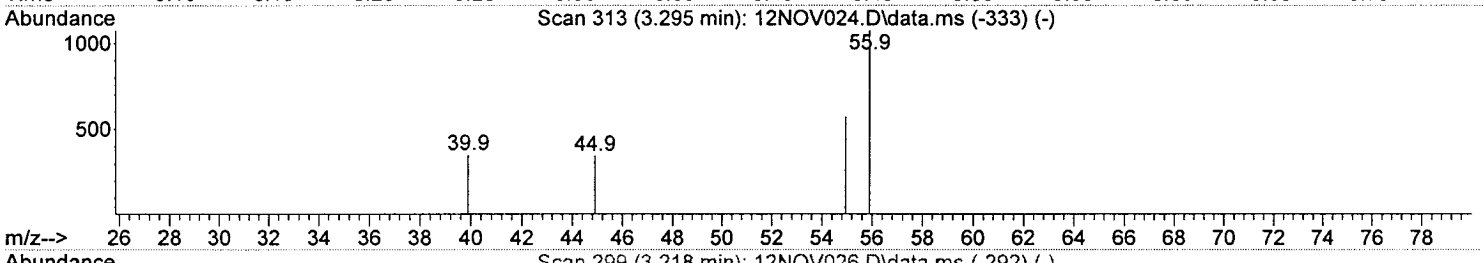
Return to Contents

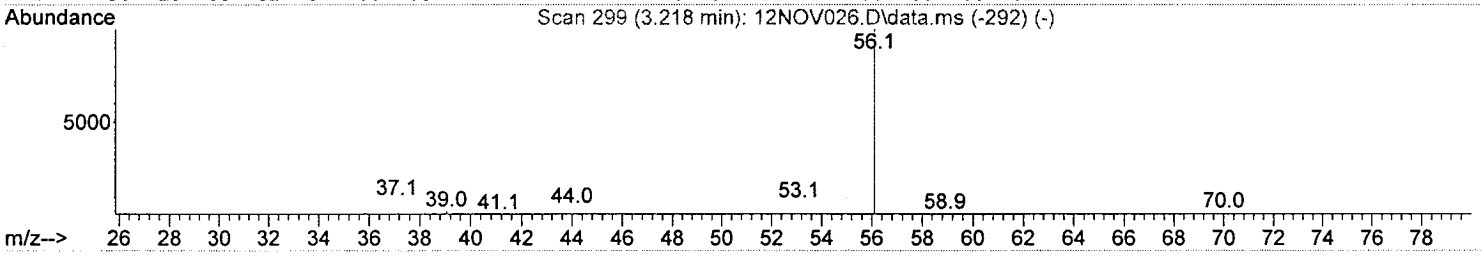
Quantitation Report (Qedit)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV024.D
Acq On : 12 Nov 2013 8:16 pm
Operator : 486
Sample : 10PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 13 09:43:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration







TIC: 12NOV024.D\data.ms

(22) Acrolein (T)

3.295min (+ 0.076) 5.79 ug/l

response 3868

Ion	Exp%	Act%
56.10	100.00	100.00
55.00	74.90	53.07
0.00	0.00	0.00
0.00	0.00	0.00

MANUAL INTEGRATION
BEFORE / AFTER
Date: 11/13/13
Chemist: 486 GL: 608
Reason: BASELINE CORR., PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV025.D
Acq On : 12 Nov 2013 8:42 pm
Operator : 486
Sample : 20PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 13 09:43:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert-Butyl Alcohol-d9	4.157	65	117698	250.00	ug/l		0.02
4) Pentafluorobenzene	6.629	168	463210	50.00	ug/l		0.00
47) 1,4-Difluorobenzene	7.556	114	673371	50.00	ug/l		0.00
64) Chlorobenzene-d5	11.114	117	596195	50.00	ug/l		0.00
87) 1,4-Dichlorobenzene-d4	13.967	152	310992	50.00	ug/l		0.00
System Monitoring Compounds							
41) Dibromofluoromethane	6.530	113	180357	50.14	ug/l		0.00
Spiked Amount 50.000			Recovery = 100.28%				
46) 1,2-Dichloroethane-d4	6.956	65	194028	51.81	ug/l		0.00
Spiked Amount 50.000			Recovery = 103.62%				
61) Toluene-d8	9.368	98	796997	50.01	ug/l		0.00
Spiked Amount 50.000			Recovery = 100.02%				
80) 1,4-Bromofluorobenzene	12.549	95	280777	49.36	ug/l		0.00
Spiked Amount 50.000			Recovery = 98.72%				
Target Compounds							Qvalue
2) Ethanol	2.962	45	17291	214.97	ug/l		91
3) Tert-Butyl Alcohol (TBA)	4.282	59	55599	98.64	ug/l		91
5) Dichlorodifluoromethane	1.658	85	111111	19.50	ug/l		99
6) Chloromethane	1.827	50	140095	15.39	ug/l		100
7) Vinyl Chloride	1.952	62	134137	18.66	ug/l		95
8) Bromomethane	2.285	94	85183	20.51	ug/l		98
9) Chloroethane	2.405	64	75610	19.83	ug/l		92
10) 1,3-Butadiene	1.996	54	104463	18.33	ug/l		98
11) Trichlorofluoromethane	2.716	101	157224	20.65	ug/l		98
12) Diethyl Ether	3.082	45	57579	18.47	ug/l		93
13) Acetone	3.442	58	8348	19.41	ug/l	#	82
14) Iodomethane	3.540	142	102644	37.82	ug/l		99
15) 1,1-Dichloroethene	3.349	61	129605	18.91	ug/l		96
16) 1,1,2-Trichloro-1,2,2-...	3.377	101	90734	19.32	ug/l		97
17) Isopropanol	3.677	45	34273	100.16	ug/l		84
18) Carbon Disulfide	3.633	76	298158	18.93	ug/l		99
19) Acetonitrile	3.857	41	127868	47.09	ug/l		100
20) Acrylonitrile	4.430	53	25706	19.28	ug/l		96
21) Allyl Chloride	3.862	76	41579	23.64	ug/l		84
22) Acrolein	3.218	56	30553	41.22	ug/l		99
23) Methylene Chloride	4.048	84	93706	19.03	ug/l		95
24) t-1,2-Dichloroethene	4.468	96	92080	19.35	ug/l		99
25) Isobutyl Alcohol	6.994	43	10841	45.27	ug/l		92
26) Methyl-t-Butyl Ether (...	4.506	73	255814	19.52	ug/l		98
27) Hexane	4.904	57	156755	18.32	ug/l		98
28) 1,1-Dichloroethane	5.068	63	165244	19.16	ug/l		99
29) Vinyl Acetate	5.210	86	12265	18.80	ug/l	#	77
30) Diisopropyl Ether (DIPE)	5.243	45	284055	19.31	ug/l		100
31) Chloroprene	5.215	53	138226	19.30	ug/l		99
32) Ethyl-t-Butyl Ether (E...	5.745	59	284883	19.76	ug/l		98
33) c-1,2-Dichloroethene	5.897	96	97994	18.94	ug/l		98
34) 2,2-Dichloropropane	5.887	77	126734	24.86	ug/l		99
35) 2-Butanone	5.936	43	31588	19.41	ug/l		99
36) Propionitrile	5.985	54	10426	18.70	ug/l		93
37) Methacrylonitrile	6.187	41	43065	18.65	ug/l		97
38) Bromochloromethane	6.203	130	45946	20.10	ug/l		100

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV025.D
Acq On : 12 Nov 2013 8:42 pm
Operator : 486
Sample : 20PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 13 09:43:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39)	Tetrahydrofuran	6.307	42	27656	19.58	ug/l		93
40)	Chloroform	6.323	83	151437	19.40	ug/l		99
42)	1,1,1-Trichloroethane	6.569	97	129577	19.20	ug/l		98
43)	Cyclohexane	6.650	84	146349	19.09	ug/l		98
44)	1,1-Dichloropropene	6.792	75	122081	19.01	ug/l		99
45)	Carbon Tetrachloride	6.798	117	111600	19.57	ug/l		91
48)	Benzene	7.049	78	382377	18.33	ug/l		99
49)	1,2-Dichloroethane	7.054	62	102771	18.68	ug/l		92
50)	Tert-Amyl-Methyl Ether...	7.229	73	252133	19.27	ug/l		94
51)	Thiophene	7.311	84	200252	19.18	ug/l		97
52)	2,2,4-Trimethyl Pentane	7.180	57	397619	18.99	ug/l		98
53)	Trichloroethene	7.878	95	98171	19.66	ug/l		95
54)	1,2-Dichloropropane	8.129	63	96816	19.16	ug/l		100
55)	Dibromomethane	8.276	93	45054	19.85	ug/l		93
56)	Methyl Methacrylate	8.326	69	63018	19.41	ug/l		94
57)	1,4-Dioxane	8.336	88	10315	184.14	ug/l		86
58)	Bromodichloromethane	8.473	83	114754	18.95	ug/l		97
59)	2-Chloroethyl Vinyl Ether	8.871	63	49941	21.60	ug/l		97
60)	c-1,3-Dichloropropene	9.035	75	140939	20.17	ug/l		99
62)	Toluene	9.450	91	408376	18.99	ug/l		96
63)	4-Methyl-2-Pentanone	9.220	58	32626	19.96	ug/l		98
65)	t-1,3-Dichloropropene	9.706	75	121913	20.34	ug/l		95
66)	Ethyl Methacrylate	9.848	69	121169	19.53	ug/l		97
67)	1,1,2-Trichloroethane	9.913	83	64445	19.07	ug/l		92
68)	Tetrachloroethene	10.132	166	111885	19.61	ug/l		95
69)	1,3-Dichloropropane	10.115	76	130406	19.28	ug/l		98
70)	2-Hexanone	10.230	58	30498	19.45	ug/l		88
71)	Dibromochloromethane	10.393	129	87005	19.06	ug/l		100
72)	1,2-Dibromoethane	10.524	107	66849	19.63	ug/l		100
73)	Chlorobenzene	11.146	112	258479	19.01	ug/l		98
74)	1,1,1,2-Tetrachloroethane	11.239	131	90385	19.32	ug/l		94
75)	Ethylbenzene	11.288	91	436848	19.12	ug/l		98
76)	p/m-Xylene	11.436	91	686500	36.69	ug/l		100
77)	o-Xylene	11.916	91	361612	18.73	ug/l		99
78)	Styrene	11.927	104	294847	19.09	ug/l		100
79)	Isopropylbenzene	12.369	105	445329	19.27	ug/l		98
81)	1,2,3-Trichloropropane	12.756	110	27192	19.85	ug/l	#	80
82)	Bromobenzene	12.729	156	116455	19.36	ug/l		92
83)	n-Propylbenzene	12.871	91	512282	19.28	ug/l		99
84)	t-1,4-Dichloro-2-Butene	12.778	53	21994	19.49	ug/l		99
85)	2-Chlorotoluene	12.974	91	297387	18.89	ug/l		99
86)	1,3,5-Trimethylbenzene	13.094	105	370419	19.13	ug/l		98
88)	Bromoform	12.129	173	56572	18.37	ug/l		98
89)	1,1,2,2-Tetrachloroethane	12.702	83	99843	19.46	ug/l		97
90)	4-Chlorotoluene	13.105	91	339191	19.07	ug/l		98
91)	1,2,4-Trimethylbenzene	13.553	105	367875	19.10	ug/l		97
92)	tert-Butylbenzene	13.493	134	88453	19.60	ug/l		99
93)	p-Isopropyltoluene	13.946	119	411036	19.25	ug/l		99
94)	sec-Butylbenzene	13.766	105	484722	19.40	ug/l		100
95)	1,3-Dichlorobenzene	13.891	146	212196	18.98	ug/l		97
96)	1,4-Dichlorobenzene	14.000	146	210343	19.08	ug/l		97
97)	1,2-Dichlorobenzene	14.453	146	200644	19.20	ug/l		96
98)	n-Butylbenzene	14.448	91	368021	19.34	ug/l		99
99)	1,2-Dibromo-3-Chloropr...	15.386	75	17979	19.20	ug/l		89

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV025.D
Acq On : 12 Nov 2013 8:42 pm
Operator : 486
Sample : 20PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 13 09:43:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

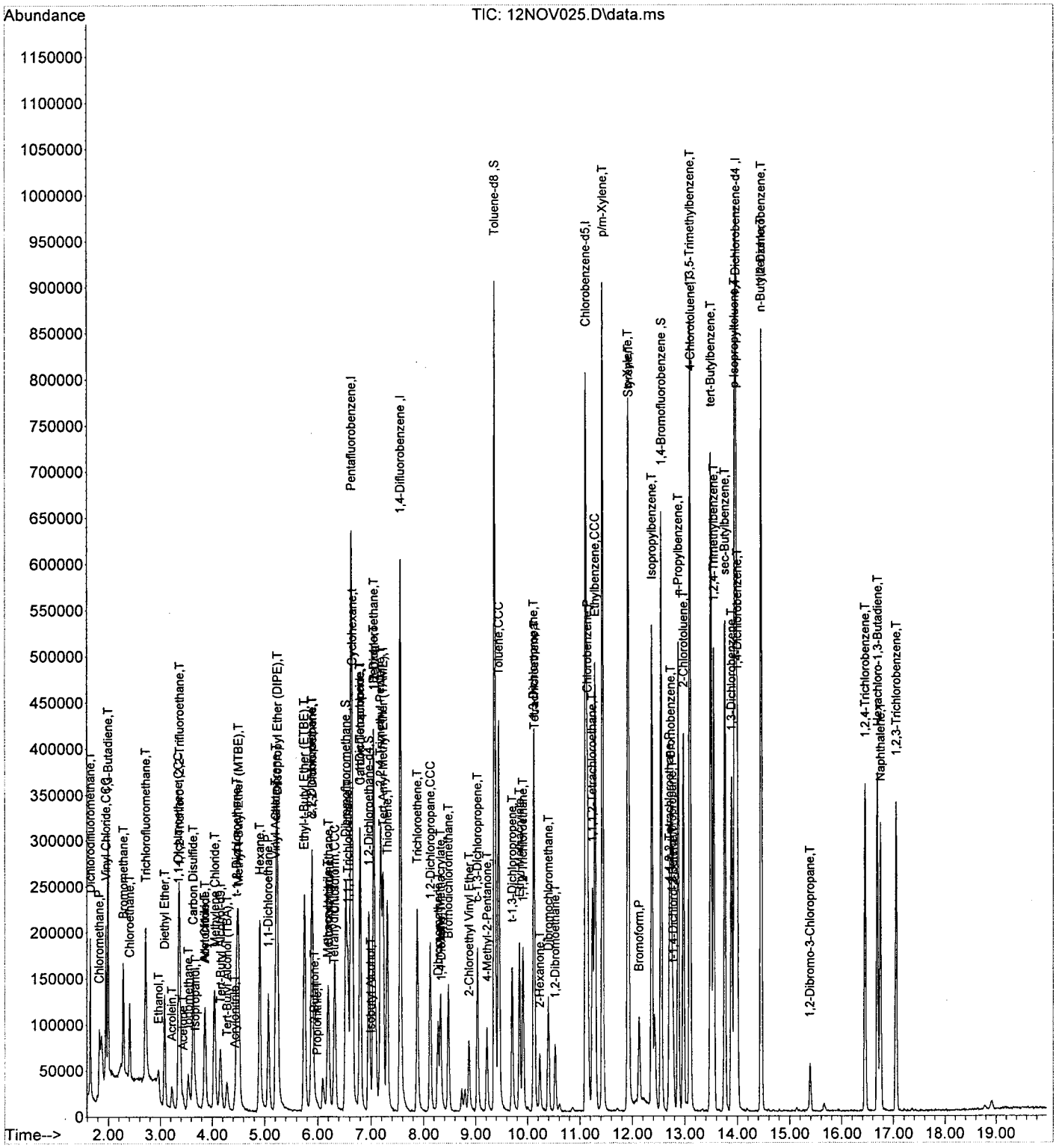
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	16.450	180	159662	18.27	ug/l	93
101) Hexachloro-1,3-Butadiene	16.690	225	105812	19.55	ug/l	96
102) Naphthalene	16.750	128	340327	19.16	ug/l	98
103) 1,2,3-Trichlorobenzene	17.050	180	152272	18.54	ug/l	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV025.D
Acq On : 12 Nov 2013 8:42 pm
Operator : 486
Sample : 20PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 13 09:43:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV026.D
Acq On : 12 Nov 2013 9:08 pm
Operator : 486
Sample : 50PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 13 09:43:23 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert-Butyl Alcohol-d9	4.135	65	61707	250.00	ug/l	0.00
4) Pentafluorobenzene	6.629	168	447233	50.00	ug/l	0.00
47) 1,4-Difluorobenzene	7.556	114	656809	50.00	ug/l	0.00
64) Chlorobenzene-d5	11.114	117	593091	50.00	ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.967	152	313337	50.00	ug/l	0.00
System Monitoring Compounds						
41) Dibromofluoromethane	6.525	113	179041	51.56	ug/l	0.00
Spiked Amount 50.000			Recovery =	103.12%		
46) 1,2-Dichloroethane-d4	6.956	65	177063	48.97	ug/l	0.00
Spiked Amount 50.000			Recovery =	97.94%		
61) Toluene-d8	9.368	98	781508	50.28	ug/l	0.00
Spiked Amount 50.000			Recovery =	100.56%		
80) 1,4-Bromofluorobenzene	12.549	95	288950	51.07	ug/l	0.00
Spiked Amount 50.000			Recovery =	102.14%		
Target Compounds						Qvalue
2) Ethanol	2.967	45	26448	627.18	ug/l	100
3) Tert-Butyl Alcohol (TBA)	4.255	59	65993	223.31	ug/l	100
5) Dichlorodifluoromethane	1.658	85	270704	49.22	ug/l	100
6) Chloromethane	1.827	50	372490	42.39	ug/l	100
7) Vinyl Chloride	1.952	62	331951	47.84	ug/l	100
8) Bromomethane	2.269	94	135083	33.69	ug/l	100
9) Chloroethane	2.400	64	168472	45.77	ug/l	100
10) 1,3-Butadiene	1.996	54	269199	48.92	ug/l	100
11) Trichlorofluoromethane	2.716	101	348142	47.36	ug/l	100
12) Diethyl Ether	3.076	45	137413	45.65	ug/l	100
13) Acetone	3.426	58	21431	51.62	ug/l	100
14) Iodomethane	3.551	142	305958	116.75	ug/l	100
15) 1,1-Dichloroethene	3.360	61	342496	51.76	ug/l	100
16) 1,1,2-Trichloro-1,2,2-...	3.377	101	234586	51.74	ug/l	100
17) Isopropanol	3.660	45	79769	241.44	ug/l	100
18) Carbon Disulfide	3.644	76	785696	51.66	ug/l	100
19) Acetonitrile	3.862	41	238374	90.93	ug/l	100
20) Acrylonitrile	4.424	53	59847	46.50	ug/l	100
21) Allyl Chloride	3.862	76	80424	47.37	ug/l	100
22) Acrolein	3.218	56	73453	102.64	ug/l	100
23) Methylene Chloride	4.042	84	238194	50.09	ug/l	100
24) t-1,2-Dichloroethene	4.468	96	238496	51.90	ug/l	100
25) Isobutyl Alcohol	6.983	43	19629	84.90	ug/l	100
26) Methyl-t-Butyl Ether (...	4.490	73	610650	48.26	ug/l	100
27) Hexane	4.904	57	411504	49.80	ug/l	100
28) 1,1-Dichloroethane	5.068	63	421710	50.65	ug/l	100
29) Vinyl Acetate	5.194	86	30529	48.46	ug/l	100
30) Diisopropyl Ether (DIPE)	5.232	45	720938	50.76	ug/l	100
31) Chloroprene	5.210	53	352786	51.01	ug/l	100
32) Ethyl-t-Butyl Ether (E...	5.739	59	708529	50.90	ug/l	100
33) c-1,2-Dichloroethene	5.897	96	261931	52.43	ug/l	100
34) 2,2-Dichloropropane	5.876	77	134581	27.34	ug/l	100
35) 2-Butanone	5.914	43	79975	50.90	ug/l	100
36) Propionitrile	5.974	54	27142	50.43	ug/l	99
37) Methacrylonitrile	6.176	41	109014	48.90	ug/l	100
38) Bromochloromethane	6.203	130	108033	48.95	ug/l	100

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV026.D
Acq On : 12 Nov 2013 9:08 pm
Operator : 486
Sample : 50PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 13 09:43:23 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39)	Tetrahydrofuran	6.290	42	64136	47.03	ug/l	100
40)	Chloroform	6.323	83	385291	51.11	ug/l	100
42)	1,1,1-Trichloroethane	6.569	97	331859	50.92	ug/l	100
43)	Cyclohexane	6.650	84	368451	49.77	ug/l	100
44)	1,1-Dichloropropene	6.792	75	312954	50.48	ug/l	100
45)	Carbon Tetrachloride	6.798	117	274128	49.80	ug/l	100
48)	Benzene	7.049	78	983888	48.35	ug/l	100
49)	1,2-Dichloroethane	7.049	62	258941	48.24	ug/l	100
50)	Tert-Amyl-Methyl Ether...	7.223	73	631267	49.45	ug/l	100
51)	Thiophene	7.305	84	514760	50.54	ug/l	100
52)	2,2,4-Trimethyl Pentane	7.185	57	1031641	50.51	ug/l	100
53)	Trichloroethene	7.873	95	247642	50.84	ug/l	100
54)	1,2-Dichloropropane	8.124	63	247052	50.12	ug/l	100
55)	Dibromomethane	8.271	93	111133	50.20	ug/l	100
56)	Methyl Methacrylate	8.320	69	155878	49.23	ug/l	100
57)	1,4-Dioxane	8.325	88	26257	480.55	ug/l	100
58)	Bromodichloromethane	8.473	83	294849	49.91	ug/l	100
59)	2-Chloroethyl Vinyl Ether	8.866	63	93971	41.66	ug/l	100
60)	c-1,3-Dichloropropene	9.035	75	365443	53.63	ug/l	100
62)	Toluene	9.449	91	1042454	49.70	ug/l	100
63)	4-Methyl-2-Pentanone	9.215	58	80678	50.60	ug/l	100
65)	t-1,3-Dichloropropene	9.700	75	323048	54.18	ug/l	100
66)	Ethyl Methacrylate	9.842	69	305049	49.42	ug/l	100
67)	1,1,2-Trichloroethane	9.913	83	165011	49.08	ug/l	100
68)	Tetrachloroethene	10.126	166	292065	51.47	ug/l	100
69)	1,3-Dichloropropane	10.115	76	332213	49.37	ug/l	100
70)	2-Hexanone	10.230	58	76583	49.10	ug/l	100
71)	Dibromochloromethane	10.393	129	230037	50.65	ug/l	100
72)	1,2-Dibromoethane	10.524	107	169971	50.17	ug/l	100
73)	Chlorobenzene	11.146	112	678307	50.16	ug/l	100
74)	1,1,1,2-Tetrachloroethane	11.239	131	234579	50.39	ug/l	100
75)	Ethylbenzene	11.288	91	1149633	50.57	ug/l	100
76)	p/m-Xylene	11.436	91	1779241	95.59	ug/l	100
77)	o-Xylene	11.910	91	927061	48.27	ug/l	100
78)	Styrene	11.927	104	769799	50.11	ug/l	100
79)	Isopropylbenzene	12.369	105	1151693	50.10	ug/l	100
81)	1,2,3-Trichloropropane	12.751	110	64488	47.31	ug/l	100
82)	Bromobenzene	12.729	156	302394	50.54	ug/l	100
83)	n-Propylbenzene	12.876	91	1322231	50.04	ug/l	100
84)	t-1,4-Dichloro-2-Butene	12.778	53	57559	51.26	ug/l	100
85)	2-Chlorotoluene	12.974	91	777619	49.66	ug/l	100
86)	1,3,5-Trimethylbenzene	13.094	105	974126	50.57	ug/l	100
88)	Bromoform	12.129	173	155097	50.00	ug/l	100
89)	1,1,2,2-Tetrachloroethane	12.701	83	253873	49.12	ug/l	100
90)	4-Chlorotoluene	13.105	91	887293	49.51	ug/l	100
91)	1,2,4-Trimethylbenzene	13.553	105	966947	49.83	ug/l	100
92)	tert-Butylbenzene	13.493	134	229282	50.41	ug/l	100
93)	p-Isopropyltoluene	13.946	119	1086465	50.51	ug/l	100
94)	sec-Butylbenzene	13.765	105	1259069	50.01	ug/l	100
95)	1,3-Dichlorobenzene	13.891	146	557172	49.46	ug/l	100
96)	1,4-Dichlorobenzene	14.000	146	554862	49.96	ug/l	100
97)	1,2-Dichlorobenzene	14.453	146	525624	49.93	ug/l	100
98)	n-Butylbenzene	14.448	91	969577	50.56	ug/l	100
99)	1,2-Dibromo-3-Chloropr...	15.391	75	45261	47.97	ug/l	100

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV026.D
Acq On : 12 Nov 2013 9:08 pm
Operator : 486
Sample : 50PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 13 09:43:23 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	16.450	180	438147	49.75	ug/l	100
101) Hexachloro-1,3-Butadiene	16.690	225	272766	50.02	ug/l	100
102) Naphthalene	16.750	128	894811	50.00	ug/l	100
103) 1,2,3-Trichlorobenzene	17.050	180	406237	49.09	ug/l	100

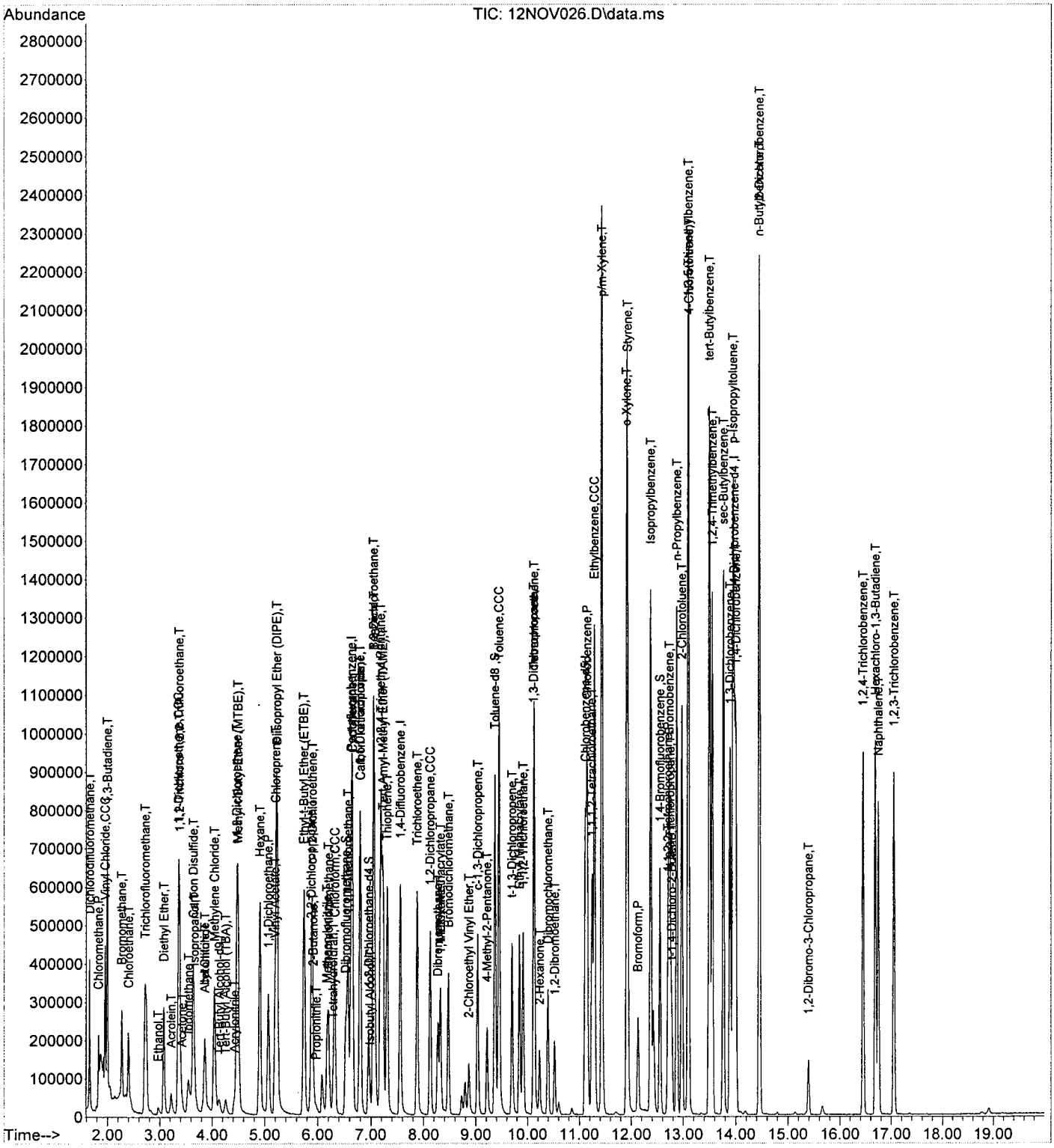
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV026.D
Acq On : 12 Nov 2013 9:08 pm
Operator : 486
Sample : 50PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 13 09:43:23 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV027.D
Acq On : 12 Nov 2013 9:34 pm
Operator : 486
Sample : 100/60PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 13 09:43:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert-Butyl Alcohol-d9	4.146	65	91408	250.00	ug/l		0.01
4) Pentafluorobenzene	6.629	168	410619	50.00	ug/l		0.00
47) 1,4-Difluorobenzene	7.551	114	605821	50.00	ug/l		0.00
64) Chlorobenzene-d5	11.114	117	547723	50.00	ug/l		0.00
87) 1,4-Dichlorobenzene-d4	13.973	152	285451	50.00	ug/l		0.00
System Monitoring Compounds							
41) Dibromofluoromethane	6.525	113	160458	50.32	ug/l		0.00
Spiked Amount 50.000			Recovery =	100.64%			
46) 1,2-Dichloroethane-d4	6.956	65	165738	49.93	ug/l		0.00
Spiked Amount 50.000			Recovery =	99.86%			
61) Toluene-d8	9.368	98	715606	49.91	ug/l		0.00
Spiked Amount 50.000			Recovery =	99.82%			
80) 1,4-Bromofluorobenzene	12.549	95	258451	49.46	ug/l		0.00
Spiked Amount 50.000			Recovery =	98.92%			
Target Compounds							Qvalue
2) Ethanol	2.973	45	59816	957.56	ug/l		89
3) Tert-Butyl Alcohol (TBA)	4.266	59	253370	578.79	ug/l		91
5) Dichlorodifluoromethane	1.652	85	330795	65.50	ug/l		100
6) Chloromethane	1.821	50	536723	66.53	ug/l		100
7) Vinyl Chloride	1.952	62	405434	63.64	ug/l		98
8) Bromomethane	2.269	94	203470	55.27	ug/l		98
9) Chloroethane	2.389	64	199977	59.17	ug/l		99
10) 1,3-Butadiene	1.991	54	535880	106.07	ug/l		97
11) Trichlorofluoromethane	2.700	101	433515	64.23	ug/l		96
12) Diethyl Ether	3.076	45	287709	104.09	ug/l		98
13) Acetone	3.431	58	44448	116.60	ug/l		92
14) Iodomethane	3.535	142	582771	242.21	ug/l		96
15) 1,1-Dichloroethene	3.349	61	680715	112.06	ug/l		97
16) 1,1,2-Trichloro-1,2,2-...	3.371	101	471493	113.26	ug/l		96
17) Isopropanol	3.660	45	170004	560.44	ug/l		94
18) Carbon Disulfide	3.633	76	1587981	113.72	ug/l		96
19) Acetonitrile	3.857	41	532475	221.22	ug/l		96
20) Acrylonitrile	4.402	53	146553	124.01	ug/l		90
21) Allyl Chloride	3.857	76	165197	105.97	ug/l	#	81
22) Acrolein	3.213	56	158762	241.62	ug/l		94
23) Methylene Chloride	4.031	84	484382	110.94	ug/l		99
24) t-1,2-Dichloroethene	4.462	96	486350	115.28	ug/l		99
25) Isobutyl Alcohol	6.983	43	42689	201.10	ug/l		93
26) Methyl-t-Butyl Ether (...	4.495	73	1295430	111.51	ug/l		98
27) Hexane	4.899	57	814235	107.33	ug/l		99
28) 1,1-Dichloroethane	5.068	63	861424	112.68	ug/l		97
29) Vinyl Acetate	5.183	86	75157	129.94	ug/l	#	89
30) Diisopropyl Ether (DIPE)	5.232	45	1459204	111.90	ug/l		96
31) Chloroprene	5.215	53	713112	112.31	ug/l		99
32) Ethyl-t-Butyl Ether (E...	5.745	59	1453579	113.74	ug/l		98
33) c-1,2-Dichloroethene	5.892	96	525150	114.49	ug/l		95
34) 2,2-Dichloropropane	5.881	77	543886	120.34	ug/l		98
35) 2-Butanone	5.914	43	159408	110.51	ug/l		97
36) Propionitrile	5.968	54	56375	114.09	ug/l		96
37) Methacrylonitrile	6.176	41	230798	112.75	ug/l		97
38) Bromochloromethane	6.203	130	210331	103.80	ug/l		95

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV027.D
Acq On : 12 Nov 2013 9:34 pm
Operator : 486
Sample : 100/60PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 13 09:43:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39)	Tetrahydrofuran	6.290	42	138500	110.63	ug/l	91
40)	Chloroform	6.318	83	785088	113.44	ug/l	98
42)	1,1,1-Trichloroethane	6.563	97	675503	112.90	ug/l	99
43)	Cyclohexane	6.645	84	735978	108.27	ug/l	99
44)	1,1-Dichloropropene	6.787	75	642389	112.85	ug/l	99
45)	Carbon Tetrachloride	6.798	117	571704	113.12	ug/l	99
48)	Benzene	7.049	78	1973943	105.16	ug/l	100
49)	1,2-Dichloroethane	7.049	62	533883	107.84	ug/l	98
50)	Tert-Amyl-Methyl Ether...	7.229	73	1326419	112.66	ug/l	97
51)	Thiophene	7.305	84	1057673	112.58	ug/l	98
52)	2,2,4-Trimethyl Pentane	7.185	57	2040177	108.30	ug/l	99
53)	Trichloroethene	7.873	95	493355	109.81	ug/l	98
54)	1,2-Dichloropropane	8.124	63	514022	113.06	ug/l	99
55)	Dibromomethane	8.265	93	224820	110.10	ug/l	95
56)	Methyl Methacrylate	8.320	69	328862	112.60	ug/l	95
57)	1,4-Dioxane	8.325	88	57444	1139.81	ug/l	83
58)	Bromodichloromethane	8.473	83	612181	112.36	ug/l	99
59)	2-Chloroethyl Vinyl Ether	8.866	63	247314	118.87	ug/l	98
60)	c-1,3-Dichloropropene	9.029	75	766765	121.99	ug/l	99
62)	Toluene	9.449	91	2092043	108.14	ug/l	100
63)	4-Methyl-2-Pentanone	9.215	58	167672	114.02	ug/l	96
65)	t-1,3-Dichloropropene	9.700	75	690418	125.39	ug/l	99
66)	Ethyl Methacrylate	9.842	69	635770	111.53	ug/l	100
67)	1,1,2-Trichloroethane	9.913	83	336335	108.32	ug/l	98
68)	Tetrachloroethene	10.126	166	587764	112.15	ug/l	98
69)	1,3-Dichloropropane	10.115	76	689745	110.99	ug/l	96
70)	2-Hexanone	10.230	58	163234	113.33	ug/l	93
71)	Dibromochloromethane	10.393	129	479323	114.29	ug/l	99
72)	1,2-Dibromoethane	10.524	107	362626	115.90	ug/l	98
73)	Chlorobenzene	11.146	112	1380791	110.56	ug/l	100
74)	1,1,1,2-Tetrachloroethane	11.245	131	479905	111.64	ug/l	93
75)	Ethylbenzene	11.288	91	2274125	108.33	ug/l	100
76)	p/m-Xylene	11.436	91	3488831	202.95	ug/l	99
77)	o-Xylene	11.910	91	1833237	103.36	ug/l	99
78)	Styrene	11.927	104	1555768	109.66	ug/l	99
79)	Isopropylbenzene	12.369	105	2289855	107.87	ug/l	99
81)	1,2,3-Trichloropropane	12.751	110	135381	107.55	ug/l	91
82)	Bromobenzene	12.729	156	609764	110.36	ug/l	98
83)	n-Propylbenzene	12.876	91	2621276	107.41	ug/l	98
84)	t-1,4-Dichloro-2-Butene	12.778	53	126305	121.81	ug/l	90
85)	2-Chlorotoluene	12.974	91	1557217	107.69	ug/l	100
86)	1,3,5-Trimethylbenzene	13.094	105	1929280	108.45	ug/l	100
88)	Bromoform	12.129	173	323942	114.63	ug/l	98
89)	1,1,2,2-Tetrachloroethane	12.701	83	521986	110.86	ug/l	100
90)	4-Chlorotoluene	13.105	91	1788047	109.51	ug/l	96
91)	1,2,4-Trimethylbenzene	13.553	105	1937625	109.61	ug/l	100
92)	tert-Butylbenzene	13.493	134	460769	111.21	ug/l	95
93)	p-Isopropyltoluene	13.946	119	2145041	109.46	ug/l	99
94)	sec-Butylbenzene	13.765	105	2511519	109.49	ug/l	99
95)	1,3-Dichlorobenzene	13.891	146	1126461	109.76	ug/l	97
96)	1,4-Dichlorobenzene	14.000	146	1127608	111.45	ug/l	98
97)	1,2-Dichlorobenzene	14.458	146	1065595	111.12	ug/l	99
98)	n-Butylbenzene	14.448	91	1908735	109.26	ug/l	99
99)	1,2-Dibromo-3-Chloropr...	15.391	75	95473	111.08	ug/l	99

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV027.D
Acq On : 12 Nov 2013 9:34 pm
Operator : 486
Sample : 100/60PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 13 09:43:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	16.450	180	876906	109.30	ug/l	99
101) Hexachloro-1,3-Butadiene	16.690	225	550209	110.75	ug/l	100
102) Naphthalene	16.750	128	1835398	112.58	ug/l	100
103) 1,2,3-Trichlorobenzene	17.050	180	831213	110.26	ug/l	98

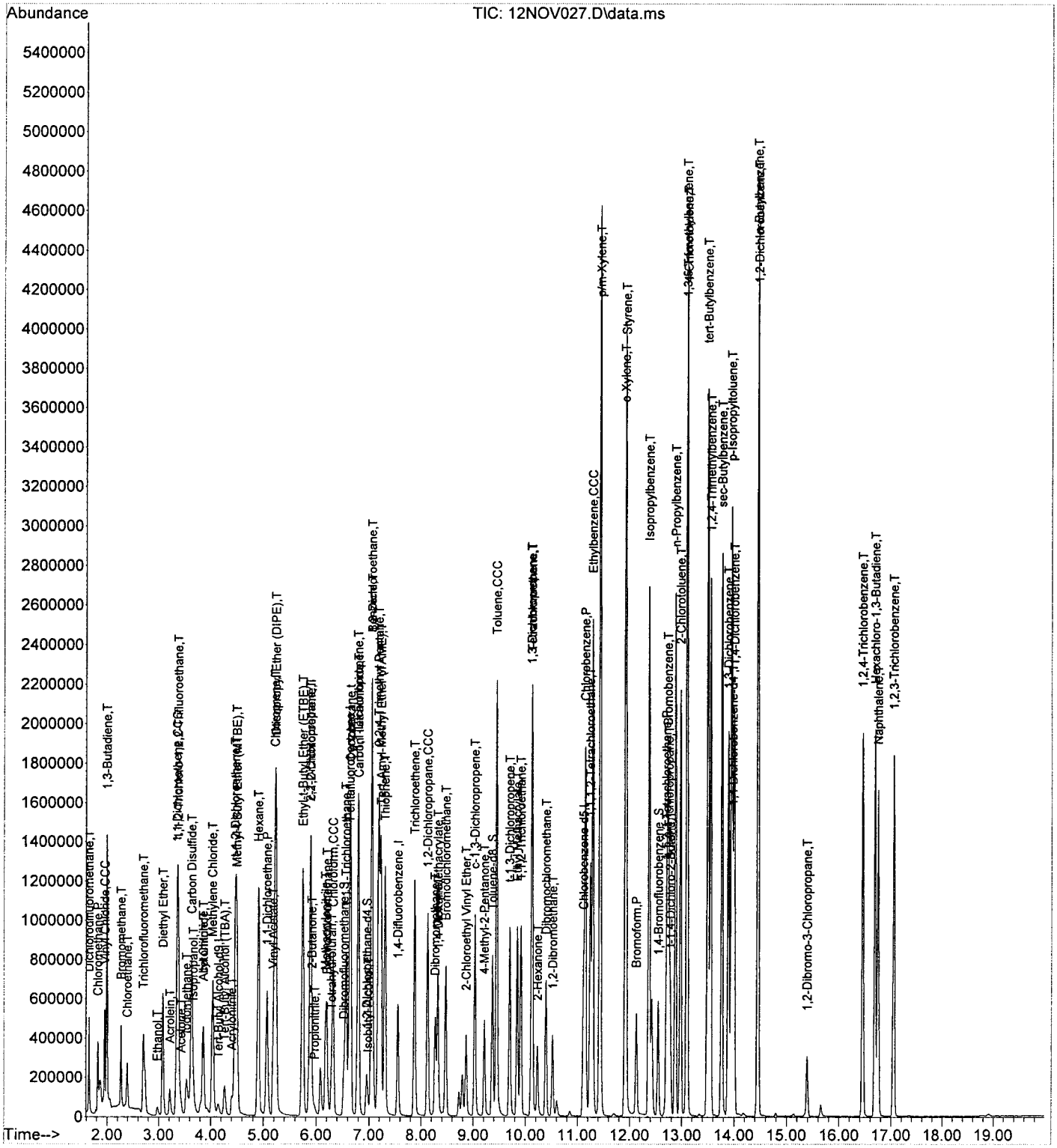
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV027.D
Acq On : 12 Nov 2013 9:34 pm
Operator : 486
Sample : 100/60PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 13 09:43:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV028.D
Acq On : 12 Nov 2013 10:00 pm
Operator : 486
Sample : 200/80PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 13 09:43:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert-Butyl Alcohol-d9	4.157	65	112696	250.00	ug/l		0.02
4) Pentafluorobenzene	6.629	168	476234	50.00	ug/l		0.00
47) 1,4-Difluorobenzene	7.556	114	693509	50.00	ug/l		0.00
64) Chlorobenzene-d5	11.114	117	627448	50.00	ug/l		0.00
87) 1,4-Dichlorobenzene-d4	13.973	152	329459	50.00	ug/l		0.00
System Monitoring Compounds							
41) Dibromofluoromethane	6.530	113	182423	49.33	ug/l		0.00
Spiked Amount 50.000			Recovery =	98.66%			
46) 1,2-Dichloroethane-d4	6.956	65	188759	49.03	ug/l		0.00
Spiked Amount 50.000			Recovery =	98.06%			
61) Toluene-d8	9.368	98	827127	50.40	ug/l		0.00
Spiked Amount 50.000			Recovery =	100.80%			
80) 1,4-Bromofluorobenzene	12.543	95	299616	50.05	ug/l		0.00
Spiked Amount 50.000			Recovery =	100.10%			
Target Compounds							Qvalue
2) Ethanol	2.984	45	130210	1690.72	ug/l		85
3) Tert-Butyl Alcohol (TBA)	4.277	59	552692	1024.06	ug/l		90
5) Dichlorodifluoromethane	1.652	85	443314	75.69	ug/l		99
6) Chloromethane	1.822	50	885091	94.60	ug/l		99
7) Vinyl Chloride	1.953	62	564612	76.41	ug/l		96
8) Bromomethane	2.264	94	355801	83.33	ug/l		99
9) Chloroethane	2.373	64	267989	68.37	ug/l		94
10) 1,3-Butadiene	1.996	54	1012456	172.79	ug/l		99
11) Trichlorofluoromethane	2.695	101	606105	77.43	ug/l		97
12) Diethyl Ether	3.077	45	567242	176.95	ug/l		96
13) Acetone	3.426	58	87852	198.71	ug/l		99
14) Iodomethane	3.535	142	1019417	365.32	ug/l		96
15) 1,1-Dichloroethene	3.344	61	1271916	180.53	ug/l		97
16) 1,1,2-Trichloro-1,2,2-...	3.366	101	881446	182.57	ug/l		97
17) Isopropanol	3.677	45	344694	979.76	ug/l		95
18) Carbon Disulfide	3.628	76	2994388	184.90	ug/l		96
19) Acetonitrile	3.851	41	979233	350.77	ug/l		96
20) Acrylonitrile	4.397	53	321905	234.86	ug/l		94
21) Allyl Chloride	3.857	76	299690	165.76	ug/l		96
22) Acrolein	3.207	56	322270	422.89	ug/l		97
23) Methylene Chloride	4.031	84	950206	187.65	ug/l		100
24) t-1,2-Dichloroethene	4.462	96	926565	189.37	ug/l		99
25) Isobutyl Alcohol	6.983	43	90986	369.57	ug/l		96
26) Methyl-t-Butyl Ether (...	4.495	73	2532227	187.95	ug/l		99
27) Hexane	4.899	57	1531637	174.08	ug/l		99
28) 1,1-Dichloroethane	5.068	63	1628591	183.68	ug/l		97
29) Vinyl Acetate	5.188	86	153811	229.29	ug/l	#	90
30) Diisopropyl Ether (DIPE)	5.237	45	2807355	185.62	ug/l		97
31) Chloroprene	5.210	53	1337457	181.61	ug/l		98
32) Ethyl-t-Butyl Ether (E...	5.745	59	2784866	187.88	ug/l		96
33) c-1,2-Dichloroethene	5.892	96	1018589	191.47	ug/l		94
34) 2,2-Dichloropropane	5.881	77	1083264	206.65	ug/l		97
35) 2-Butanone	5.914	43	342414	204.67	ug/l		96
36) Propionitrile	5.968	54	121669	212.31	ug/l		95
37) Methacrylonitrile	6.176	41	470496	198.18	ug/l		100
38) Bromochloromethane	6.203	130	398220	169.44	ug/l		98

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV028.D
Acq On : 12 Nov 2013 10:00 pm
Operator : 486
Sample : 200/80PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 13 09:43:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39)	Tetrahydrofuran	6.290	42	266506	183.54	ug/l	95
40)	Chloroform	6.318	83	1492365	185.92	ug/l	99
42)	1,1,1-Trichloroethane	6.563	97	1276395	183.93	ug/l	99
43)	Cyclohexane	6.645	84	1400643	177.66	ug/l	99
44)	1,1-Dichloropropene	6.787	75	1194780	180.97	ug/l	99
45)	Carbon Tetrachloride	6.798	117	1063446	181.43	ug/l	97
48)	Benzene	7.049	78	3725236	173.36	ug/l	99
49)	1,2-Dichloroethane	7.049	62	1044280	184.26	ug/l	98
50)	Tert-Amyl-Methyl Ether...	7.229	73	2605314	193.31	ug/l	97
51)	Thiophene	7.305	84	2045474	190.19	ug/l	99
52)	2,2,4-Trimethyl Pentane	7.185	57	3878226	179.84	ug/l	99
53)	Trichloroethene	7.873	95	935606	181.91	ug/l	97
54)	1,2-Dichloropropane	8.124	63	972400	186.83	ug/l	99
55)	Dibromomethane	8.266	93	416340	178.11	ug/l	97
56)	Methyl Methacrylate	8.320	69	657919	196.78	ug/l	98
57)	1,4-Dioxane	8.320	88	118702	2057.49	ug/l	99
58)	Bromodichloromethane	8.473	83	1160013	185.98	ug/l	99
59)	2-Chloroethyl Vinyl Ether	8.860	63	514328	215.95	ug/l	96
60)	c-1,3-Dichloropropene	9.029	75	1469458	204.23	ug/l	99
62)	Toluene	9.450	91	3924843	177.23	ug/l	99
63)	4-Methyl-2-Pentanone	9.215	58	338856	201.29	ug/l	96
65)	t-1,3-Dichloropropene	9.701	75	1355414	214.88	ug/l	99
66)	Ethyl Methacrylate	9.848	69	1260370	193.01	ug/l	98
67)	1,1,2-Trichloroethane	9.913	83	664053	186.69	ug/l	97
68)	Tetrachloroethene	10.126	166	1119925	186.54	ug/l	96
69)	1,3-Dichloropropane	10.115	76	1346397	189.13	ug/l	98
70)	2-Hexanone	10.230	58	341965	207.25	ug/l	97
71)	Dibromochloromethane	10.394	129	944183	196.52	ug/l	99
72)	1,2-Dibromoethane	10.524	107	702535	196.00	ug/l	96
73)	Chlorobenzene	11.147	112	2634992	184.17	ug/l	97
74)	1,1,1,2-Tetrachloroethane	11.245	131	933366	189.53	ug/l	94
75)	Ethylbenzene	11.288	91	4276168	177.82	ug/l	98
76)	p/m-Xylene	11.436	91	6531006	331.65	ug/l	96
77)	o-Xylene	11.916	91	3459361	170.25	ug/l	98
78)	Styrene	11.932	104	3003732	184.82	ug/l	97
79)	Isopropylbenzene	12.369	105	4282801	176.12	ug/l	99
81)	1,2,3-Trichloropropane	12.751	110	281830	195.45	ug/l	94
82)	Bromobenzene	12.729	156	1201736	189.87	ug/l	98
83)	n-Propylbenzene	12.876	91	4904385	175.43	ug/l	96
84)	t-1,4-Dichloro-2-Butene	12.778	53	269133	226.57	ug/l	96
85)	2-Chlorotoluene	12.974	91	2962739	178.85	ug/l	97
86)	1,3,5-Trimethylbenzene	13.094	105	3663120	179.75	ug/l	97
88)	Bromoform	12.129	173	667950	204.78	ug/l	93
89)	1,1,2,2-Tetrachloroethane	12.702	83	1044852	192.26	ug/l	99
90)	4-Chlorotoluene	13.105	91	3409268	180.91	ug/l	96
91)	1,2,4-Trimethylbenzene	13.553	105	3713193	181.99	ug/l	100
92)	tert-Butylbenzene	13.498	134	880104	184.04	ug/l	96
93)	p-Isopropyltoluene	13.946	119	4044551	178.83	ug/l	97
94)	sec-Butylbenzene	13.766	105	4658451	175.96	ug/l	97
95)	1,3-Dichlorobenzene	13.891	146	2148633	181.40	ug/l	96
96)	1,4-Dichlorobenzene	14.000	146	2191870	187.71	ug/l	98
97)	1,2-Dichlorobenzene	14.459	146	2063032	186.39	ug/l	99
98)	n-Butylbenzene	14.448	91	3547238	175.93	ug/l	97
99)	1,2-Dibromo-3-Chloropr...	15.392	75	198334	199.94	ug/l	94

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV028.D
Acq On : 12 Nov 2013 10:00 pm
Operator : 486
Sample : 200/80PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 13 09:43:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	16.450	180	1665229	179.84	ug/l	97
101) Hexachloro-1,3-Butadiene	16.690	225	1024591	178.69	ug/l	100
102) Naphthalene	16.750	128	3539165	188.09	ug/l	99
103) 1,2,3-Trichlorobenzene	17.056	180	1577627	181.32	ug/l	98

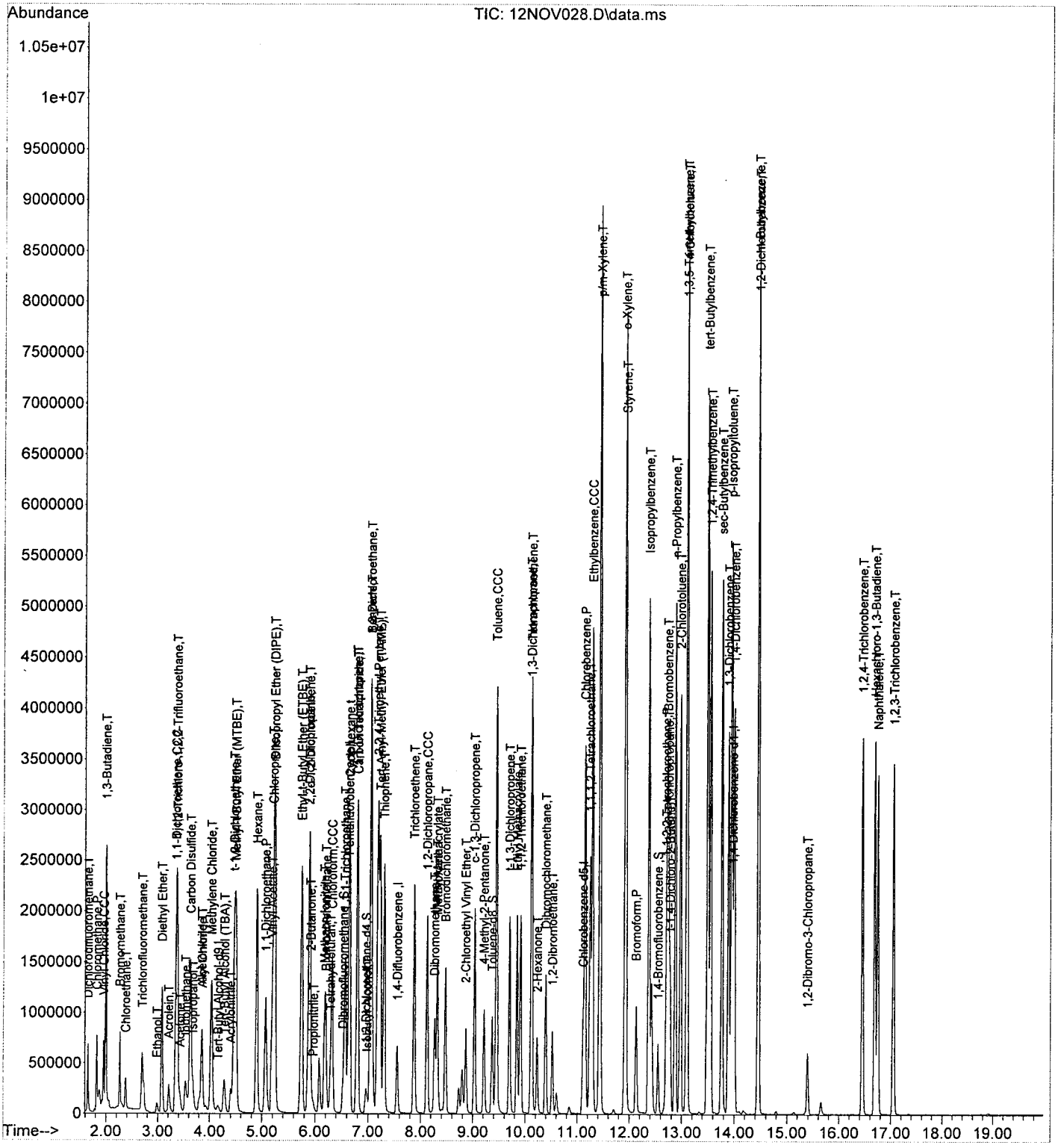
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV028.D
Acq On : 12 Nov 2013 10:00 pm
Operator : 486
Sample : 200/80PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 13 09:43:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 09:18:32 2013
Response via : Initial Calibration



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV029.D
Acq On : 12 Nov 2013 10:26 pm
Operator : 486
Sample : ICV V101713B/V110813B
Misc : V092013C
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Nov 13 10:35:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 10:34:57 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert-Butyl Alcohol-d9	4.140	65	91371	250.00	ug/l	0.00
4) Pentafluorobenzene	6.629	168	454204	50.00	ug/l	0.00
47) 1,4-Difluorobenzene	7.556	114	668074	50.00	ug/l	0.00
64) Chlorobenzene-d5	11.114	117	594517	50.00	ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.973	152	313636	50.00	ug/l	0.00
System Monitoring Compounds						
41) Dibromofluoromethane	6.530	113	181014	51.32	ug/l	0.00
Spiked Amount 50.000			Recovery =	102.64%		
46) 1,2-Dichloroethane-d4	6.956	65	178747	48.68	ug/l	0.00
Spiked Amount 50.000			Recovery =	97.36%		
61) Toluene-d8	9.368	98	781787	49.45	ug/l	0.00
Spiked Amount 50.000			Recovery =	98.90%		
80) 1,4-Bromofluorobenzene	12.543	95	280623	49.48	ug/l	0.00
Spiked Amount 50.000			Recovery =	98.96%		
Target Compounds						Qvalue
2) Ethanol	2.967	45	28136	450.60	ug/l	80
3) Tert-Butyl Alcohol (TBA)	4.261	59	110645	252.86	ug/l	95
5) Dichlorodifluoromethane	1.658	85	256968	46.00	ug/l	99
6) Chloromethane	1.827	50	349634	39.18	ug/l	96
7) Vinyl Chloride	1.952	62	322323	45.74	ug/l	97
8) Bromomethane	2.274	94	142023	37.99	ug/l	99
9) Chloroethane	2.394	64	154139	41.21	ug/l	97
10) 1,3-Butadiene	1.991	54	189845	33.97	ug/l	97
11) Trichlorofluoromethane	2.711	101	336389	45.06	ug/l	97
12) Diethyl Ether	3.076	45	136237	44.56	ug/l	98
13) Acetone	3.426	58	21684	51.42	ug/l	97
14) Iodomethane	3.546	142	410387	153.74	ug/l	97
15) 1,1-Dichloroethene	3.355	61	311380	46.34	ug/l	95
16) 1,1,2-Trichloro-1,2,2-...	3.377	101	219357	47.64	ug/l	96
17) Isopropanol	3.666	45	80091	238.69	ug/l	93
18) Carbon Disulfide	3.638	76	711491	46.06	ug/l	98
19) Acetonitrile	3.857	41	241407	90.67	ug/l	100
20) Acrylonitrile	4.419	53	65633	46.14	ug/l	90
21) Allyl Chloride	3.862	76	77524	44.96	ug/l	91
22) Acrolein	3.207	56	101522	131.67	ug/l	97
23) Methylene Chloride	4.042	84	230623	47.75	ug/l	99
24) t-1,2-Dichloroethene	4.468	96	238896	51.19	ug/l	100
25) Isobutyl Alcohol	6.989	43	19812	83.38	ug/l	99
26) Methyl-t-Butyl Ether (...	4.495	73	637116	49.58	ug/l	99
27) Hexane	4.904	57	390511	46.54	ug/l	96
28) 1,1-Dichloroethane	5.068	63	412516	48.78	ug/l	97
29) Vinyl Acetate	5.194	86	37444	58.53	ug/l	97
30) Diisopropyl Ether (DIPE)	5.237	45	731338	50.70	ug/l	98
31) Chloroprene	5.215	53	361972	51.56	ug/l	100
32) Ethyl-t-Butyl Ether (E...	5.745	59	721795	51.06	ug/l	97
33) c-1,2-Dichloroethene	5.892	96	254650	50.19	ug/l	94
34) 2,2-Dichloropropane	5.881	77	228729	45.75	ug/l	94
35) 2-Butanone	5.919	43	81698	50.56	ug/l	99
36) Propionitrile	5.979	54	27966	51.70	ug/l	88
37) Methacrylonitrile	6.176	41	108867	47.91	ug/l	98
38) Bromochloromethane	6.203	130	97957	43.70	ug/l	99

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV029.D
Acq On : 12 Nov 2013 10:26 pm
Operator : 486
Sample : ICV V101713B/V110813B
Misc : V092013C
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Nov 13 10:35:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 10:34:57 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39)	Tetrahydrofuran	6.296	42	58573	42.31	ug/l		90
40)	Chloroform	6.323	83	386403	50.47	ug/l		98
42)	1,1,1-Trichloroethane	6.569	97	331614	50.10	ug/l		98
43)	Cyclohexane	6.645	84	368372	48.99	ug/l	#	95
44)	1,1-Dichloropropene	6.787	75	313106	49.70	ug/l		98
45)	Carbon Tetrachloride	6.798	117	279142	49.93	ug/l		96
48)	Benzene	7.049	78	968191	46.77	ug/l		99
49)	1,2-Dichloroethane	7.054	62	259904	47.60	ug/l		100
50)	Tert-Amyl-Methyl Ether...	7.229	73	655107	50.46	ug/l		97
51)	Thiophene	7.305	84	516546	49.86	ug/l		100
52)	2,2,4-Trimethyl Pentane	7.185	57	1011860	48.71	ug/l		99
53)	Trichloroethene	7.873	95	248446	50.15	ug/l		94
54)	1,2-Dichloropropane	8.124	63	255006	50.86	ug/l		100
55)	Dibromomethane	8.271	93	106695	47.38	ug/l		98
56)	Methyl Methacrylate	8.320	69	169743	52.70	ug/l		97
57)	1,4-Dioxane	8.326	88	27627	497.10	ug/l		93
58)	Bromodichloromethane	8.473	83	288375	48.00	ug/l		98
59)	2-Chloroethyl Vinyl Ether	8.866	63	103028	44.91	ug/l		100
60)	c-1,3-Dichloropropene	9.035	75	375936	54.24	ug/l		98
62)	Toluene	9.450	91	1028616	48.22	ug/l		98
63)	4-Methyl-2-Pentanone	9.215	58	83524	51.50	ug/l		96
65)	t-1,3-Dichloropropene	9.701	75	293825	49.16	ug/l		100
66)	Ethyl Methacrylate	9.848	69	270089	43.65	ug/l		99
67)	1,1,2-Trichloroethane	9.913	83	165356	49.06	ug/l		97
68)	Tetrachloroethene	10.126	166	290797	51.12	ug/l		98
69)	1,3-Dichloropropane	10.115	76	328485	48.70	ug/l		99
70)	2-Hexanone	10.230	58	80182	51.29	ug/l		83
71)	Dibromochloromethane	10.393	129	228062	50.10	ug/l		100
72)	1,2-Dibromoethane	10.524	107	165366	48.69	ug/l		96
73)	Chlorobenzene	11.146	112	640160	47.22	ug/l		99
74)	1,1,1,2-Tetrachloroethane	11.245	131	235126	50.39	ug/l		97
75)	Ethylbenzene	11.288	91	1132092	49.68	ug/l		100
76)	p/m-Xylene	11.436	91	1689023	90.52	ug/l		97
77)	o-Xylene	11.910	91	856594	44.49	ug/l		97
78)	Styrene	11.932	104	757588	49.20	ug/l		97
79)	Isopropylbenzene	12.369	105	1062471	46.11	ug/l		98
81)	1,2,3-Trichloropropane	12.751	110	66250	48.49	ug/l		97
82)	Bromobenzene	12.729	156	296426	49.43	ug/l		92
83)	n-Propylbenzene	12.876	91	1198248	45.23	ug/l		99
84)	t-1,4-Dichloro-2-Butene	12.778	53	39362	31.99	ug/l		98
85)	2-Chlorotoluene	12.974	91	732747	46.68	ug/l		99
86)	1,3,5-Trimethylbenzene	13.094	105	988846	51.21	ug/l		100
88)	Bromoform	12.129	173	161620	52.05	ug/l		99
89)	1,1,2,2-Tetrachloroethane	12.702	83	262970	50.83	ug/l		95
90)	4-Chlorotoluene	13.105	91	815507	45.46	ug/l		99
91)	1,2,4-Trimethylbenzene	13.553	105	971646	50.02	ug/l		99
92)	tert-Butylbenzene	13.493	134	217395	47.75	ug/l		99
93)	p-Isopropyltoluene	13.946	119	995607	46.24	ug/l		100
94)	sec-Butylbenzene	13.766	105	1180520	46.84	ug/l		99
95)	1,3-Dichlorobenzene	13.891	146	528145	46.84	ug/l		99
96)	1,4-Dichlorobenzene	14.000	146	562959	50.64	ug/l		98
97)	1,2-Dichlorobenzene	14.458	146	500247	47.48	ug/l		96
98)	n-Butylbenzene	14.448	91	951588	49.58	ug/l		99
99)	1,2-Dibromo-3-Chloropr...	15.392	75	46245	48.97	ug/l		96

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV029.D
Acq On : 12 Nov 2013 10:26 pm
Operator : 486
Sample : ICV V101713B/V110813B
Misc : V092013C
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Nov 13 10:35:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 10:34:57 2013
Response via : Initial Calibration

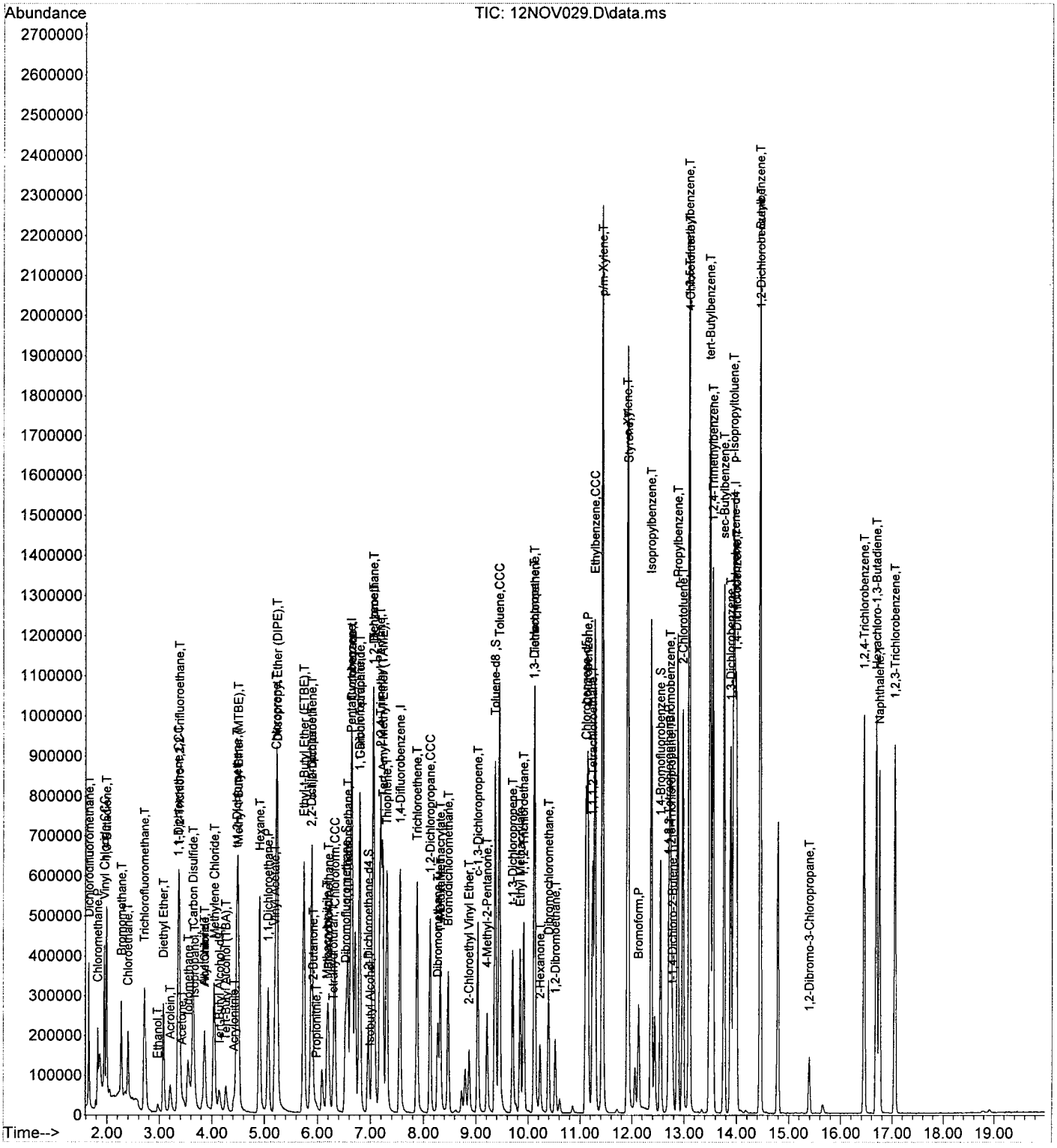
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	16.450	180	436035	49.47	ug/l	95
101) Hexachloro-1,3-Butadiene	16.690	225	276474	50.65	ug/l	99
102) Naphthalene	16.750	128	944328	52.72	ug/l	99
103) 1,2,3-Trichlorobenzene	17.050	180	413673	49.94	ug/l	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV029.D
Acq On : 12 Nov 2013 10:26 pm
Operator : 486
Sample : ICV V101713B/V110813B
Misc : V092013C
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Nov 13 10:35:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 10:34:57 2013
Response via : Initial Calibration



Return to Contents

EPA METHOD 8260B
Volatile Organics

Sample Data

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/14/2013 00:20
ANALYST: 486
DATA FILE: W:\GCMS_OO_DATA\2013\131113\13NOV033.D\13NOV033.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/13/2013 00:00

 # 1 **CLIENT SAMPLE NUMBER: QCTB-11082013**

LCS/MB BATCH: 131113L02
MS/MSD BATCH: 131113S02
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Acetone	0.00	1	ND	20	1	ug/L	
Benzene	0.00	1	ND	0.50	1	ug/L	
Bromobenzene	0.00	1	ND	1.0	1	ug/L	
Bromochloromethane	0.00	1	ND	1.0	1	ug/L	
Bromodichloromethane	0.00	1	ND	1.0	1	ug/L	
Bromoform	0.00	1	ND	1.0	1	ug/L	
Bromomethane	3.7	1	ND	10	1	ug/L	]k
2-Butanone	0.00	1	ND	10	1	ug/L	
n-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
sec-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
tert-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
Carbon Disulfide	0.00	1	ND	10	1	ug/L	
Carbon Tetrachloride	0.00	1	ND	0.50	1	ug/L	
Chlorobenzene	0.00	1	ND	1.0	1	ug/L	
Chloroethane	0.00	1	ND	5.0	1	ug/L	
Chloroform	0.00	1	ND	1.0	1	ug/L	
Chloromethane	0.21	1	ND	10	1	ug/L	]k
2-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
4-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
Dibromochloromethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dibromo-3-Chloropropane	0.00	1	ND	5.0	1	ug/L	
1,2-Dibromoethane	0.00	1	ND	1.0	1	ug/L	
Dibromomethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,3-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,4-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
Dichlorodifluoromethane	0.00	1	ND	1.0	1	ug/L	
1,1-Dichloroethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloroethane	0.00	1	ND	0.50	1	ug/L	
1,1-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
c-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
t-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
1,3-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
2,2-Dichloropropane	0.00	1	ND	1.0	1	ug/L	]
1,1-Dichloropropene	0.00	1	ND	1.0	1	ug/L	
c-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
t-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
Ethylbenzene	0.00	1	ND	1.0	1	ug/L	
2-Hexanone	0.00	1	ND	10	1	ug/L	
Isopropylbenzene	0.00	1	ND	1.0	1	ug/L	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/14/2013 00:20
ANALYST: 486
DATA FILE: W:\GCMS_OO_DATA\2013\131113\13NOV033.D\13NOV033.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/13/2013 00:00

 # 1 **CLIENT SAMPLE NUMBER: QCTB-11082013**

LCS/MB BATCH: 131113L02
MS/MSD BATCH: 131113S02
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
p-Isopropyltoluene	0.00	1	ND	1.0	1	ug/L	
Methylene Chloride	0.00	1	ND	10	1	ug/L	
4-Methyl-2-Pentanone	0.00	1	ND	10	1	ug/L	
Naphthalene	0.088	1	ND	10	1	ug/L	
n-Propylbenzene	0.00	1	ND	1.0	1	ug/L	
Styrene	0.00	1	ND	1.0	1	ug/L	
1,1,1,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
Tetrachloroethene	0.00	1	ND	1.0	1	ug/L	
Toluene	0.00	1	ND	1.0	1	ug/L	
1,2,3-Trichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,2,4-Trichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,1,1-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.00	1	ND	10	1	ug/L	
1,1,2-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
Trichloroethene	0.00	1	ND	1.0	1	ug/L	
Trichlorofluoromethane	0.00	1	ND	10	1	ug/L	
1,2,3-Trichloropropane	0.00	1	ND	5.0	1	ug/L	
1,2,4-Trimethylbenzene	0.00	1	ND	1.0	1	ug/L	
1,3,5-Trimethylbenzene	0.00	1	ND	1.0	1	ug/L	
Vinyl Acetate	0.00	1	ND	10	1	ug/L	
Vinyl Chloride	0.00	1	ND	0.50	1	ug/L	
p/m-Xylene	0.00	1	ND	1.0	1	ug/L	
o-Xylene	0.00	1	ND	1.0	1	ug/L	
Methyl-t-Butyl Ether (MTBE)	0.00	1	ND	1.0	1	ug/L	

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV033.D
Acq On : 14 Nov 2013 12:20 am
Operator : 486
Sample : 13-11-0697-1A 5ML PH<2
Misc : V092013C TB
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Nov 14 11:27:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert-Butyl Alcohol-d9	4.135	65	92979	250.00	ug/l		0.00
4) Pentafluorobenzene	6.629	168	469573	50.00	ug/l		0.00
47) 1,4-Difluorobenzene	7.556	114	678428	50.00	ug/l		0.00
64) Chlorobenzene-d5	11.114	117	610949	50.00	ug/l		0.00
87) 1,4-Dichlorobenzene-d4	13.967	152	328686	50.00	ug/l		0.00
System Monitoring Compounds							
41) Dibromofluoromethane	6.525	113	178220	48.88	ug/l		0.00
Spiked Amount 50.000			Recovery =	97.76%			
46) 1,2-Dichloroethane-d4	6.956	65	185419	48.84	ug/l		0.00
Spiked Amount 50.000			Recovery =	97.68%			
61) Toluene-d8	9.368	98	802161	49.96	ug/l		0.00
Spiked Amount 50.000			Recovery =	99.92%			
80) 1,4-Bromofluorobenzene	12.549	95	288486	49.49	ug/l		0.00
Spiked Amount 50.000			Recovery =	98.98%			
Target Compounds							Qvalue
2) Ethanol	3.049	45	137	2.16	ug/l	#	1
3) Tert-Butyl Alcohol (TBA)	0.000		0	N.D.			
5) Dichlorodifluoromethane	1.652	85	145	N.D.			
6) Chloromethane	1.832	50	1902	0.21	ug/l		63
7) Vinyl Chloride	0.000		0	N.D.			
8) Bromomethane	2.302	94	14374	3.72	ug/l	#	69
9) Chloroethane	0.000		0	N.D.	d		
10) 1,3-Butadiene	1.996	54	270	N.D.			
11) Trichlorofluoromethane	0.000		0	N.D.			
12) Diethyl Ether	3.049	45	137	N.D.			
13) Acetone	0.000		0	N.D.			
14) Iodomethane	3.562	142	112	N.D.			
15) 1,1-Dichloroethene	0.000		0	N.D.			
16) 1,1,2-Trichloro-1,2,2-...	0.000		0	N.D.			
17) Isopropanol	3.704	45	107	0.31	ug/l		92
18) Carbon Disulfide	0.000		0	N.D.			
19) Acetonitrile	3.846	41	150	N.D.			
20) Acrylonitrile	0.000		0	N.D.			
21) Allyl Chloride	0.000		0	N.D.			
22) Acrolein	0.000		0	N.D.			
23) Methylene Chloride	4.031	84	121	N.D.			
24) t-1,2-Dichloroethene	0.000		0	N.D.			
25) Isobutyl Alcohol	0.000		0	N.D.	d		
26) Methyl-t-Butyl Ether (...	0.000		0	N.D.			
27) Hexane	0.000		0	N.D.			
28) 1,1-Dichloroethane	0.000		0	N.D.			
29) Vinyl Acetate	0.000		0	N.D.			
30) Diisopropyl Ether (DIPE)	5.352	45	103	N.D.			
31) Chloroprene	0.000		0	N.D.			
32) Ethyl-t-Butyl Ether (E...	0.000		0	N.D.			
33) c-1,2-Dichloroethene	0.000		0	N.D.			
34) 2,2-Dichloropropane	0.000		0	N.D.			
35) 2-Butanone	0.000		0	N.D.	d		
36) Propionitrile	0.000		0	N.D.			
37) Methacrylonitrile	0.000		0	N.D.			
38) Bromochloromethane	0.000		0	N.D.			

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV033.D
Acq On : 14 Nov 2013 12:20 am
Operator : 486
Sample : 13-11-0697-1A 5ML PH<2
Misc : V092013C TB
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Nov 14 11:27:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39)	Tetrahydrofuran	0.000		0	N.D.		
40)	Chloroform	0.000		0	N.D.		
42)	1,1,1-Trichloroethane	0.000		0	N.D.		
43)	Cyclohexane	0.000		0	N.D.	d	
44)	1,1-Dichloropropene	6.765	75	99	N.D.		
45)	Carbon Tetrachloride	6.749	117	104	N.D.		
48)	Benzene	7.054	78	103	N.D.		
49)	1,2-Dichloroethane	0.000		0	N.D.		
50)	Tert-Amyl-Methyl Ether...	0.000		0	N.D.		
51)	Thiophene	0.000		0	N.D.		
52)	2,2,4-Trimethyl Pentane	7.180	57	119	N.D.		
53)	Trichloroethene	0.000		0	N.D.		
54)	1,2-Dichloropropane	0.000		0	N.D.		
55)	Dibromomethane	0.000		0	N.D.		
56)	Methyl Methacrylate	0.000		0	N.D.		
57)	1,4-Dioxane	0.000		0	N.D.		
58)	Bromodichloromethane	0.000		0	N.D.		
59)	2-Chloroethyl Vinyl Ether	0.000		0	N.D.		
60)	c-1,3-Dichloropropene	0.000		0	N.D.		
62)	Toluene	9.449	91	1137	N.D.		
63)	4-Methyl-2-Pentanone	0.000		0	N.D.		
65)	t-1,3-Dichloropropene	0.000		0	N.D.		
66)	Ethyl Methacrylate	0.000		0	N.D.		
67)	1,1,2-Trichloroethane	0.000		0	N.D.		
68)	Tetrachloroethene	0.000		0	N.D.		
69)	1,3-Dichloropropane	0.000		0	N.D.		
70)	2-Hexanone	0.000		0	N.D.		
71)	Dibromochloromethane	0.000		0	N.D.		
72)	1,2-Dibromoethane	0.000		0	N.D.		
73)	Chlorobenzene	0.000		0	N.D.		
74)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
75)	Ethylbenzene	11.294	91	628	N.D.		
76)	p/m-Xylene	11.441	91	591	N.D.		
77)	o-Xylene	11.910	91	117	N.D.		
78)	Styrene	0.000		0	N.D.		
79)	Isopropylbenzene	12.352	105	113	N.D.		
81)	1,2,3-Trichloropropane	0.000		0	N.D.		
82)	Bromobenzene	0.000		0	N.D.		
83)	n-Propylbenzene	12.871	91	454	N.D.		
84)	t-1,4-Dichloro-2-Butene	0.000		0	N.D.		
85)	2-Chlorotoluene	12.969	91	123	N.D.		
86)	1,3,5-Trimethylbenzene	13.083	105	118	N.D.		
88)	Bromoform	0.000		0	N.D.		
89)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
90)	4-Chlorotoluene	13.111	91	139	N.D.		
91)	1,2,4-Trimethylbenzene	13.558	105	336	N.D.		
92)	tert-Butylbenzene	0.000		0	N.D.		
93)	p-Isopropyltoluene	13.946	119	411	N.D.		
94)	sec-Butylbenzene	13.755	105	118	N.D.		
95)	1,3-Dichlorobenzene	0.000		0	N.D.		
96)	1,4-Dichlorobenzene	14.000	146	298	N.D.		
97)	1,2-Dichlorobenzene	0.000		0	N.D.		
98)	n-Butylbenzene	14.448	91	285	N.D.		
99)	1,2-Dibromo-3-Chloropr...	0.000		0	N.D.		

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV033.D
Acq On : 14 Nov 2013 12:20 am
Operator : 486
Sample : 13-11-0697-1A 5ML PH<2
Misc : V092013C TB
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Nov 14 11:27:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	16.472	180	102	N.D.		
101) Hexachloro-1,3-Butadiene	0.000		0	N.D.		
102) Naphthalene	16.756	128	1653	0.09	ug/l	68
103) 1,2,3-Trichlorobenzene	17.050	180	136	N.D.		

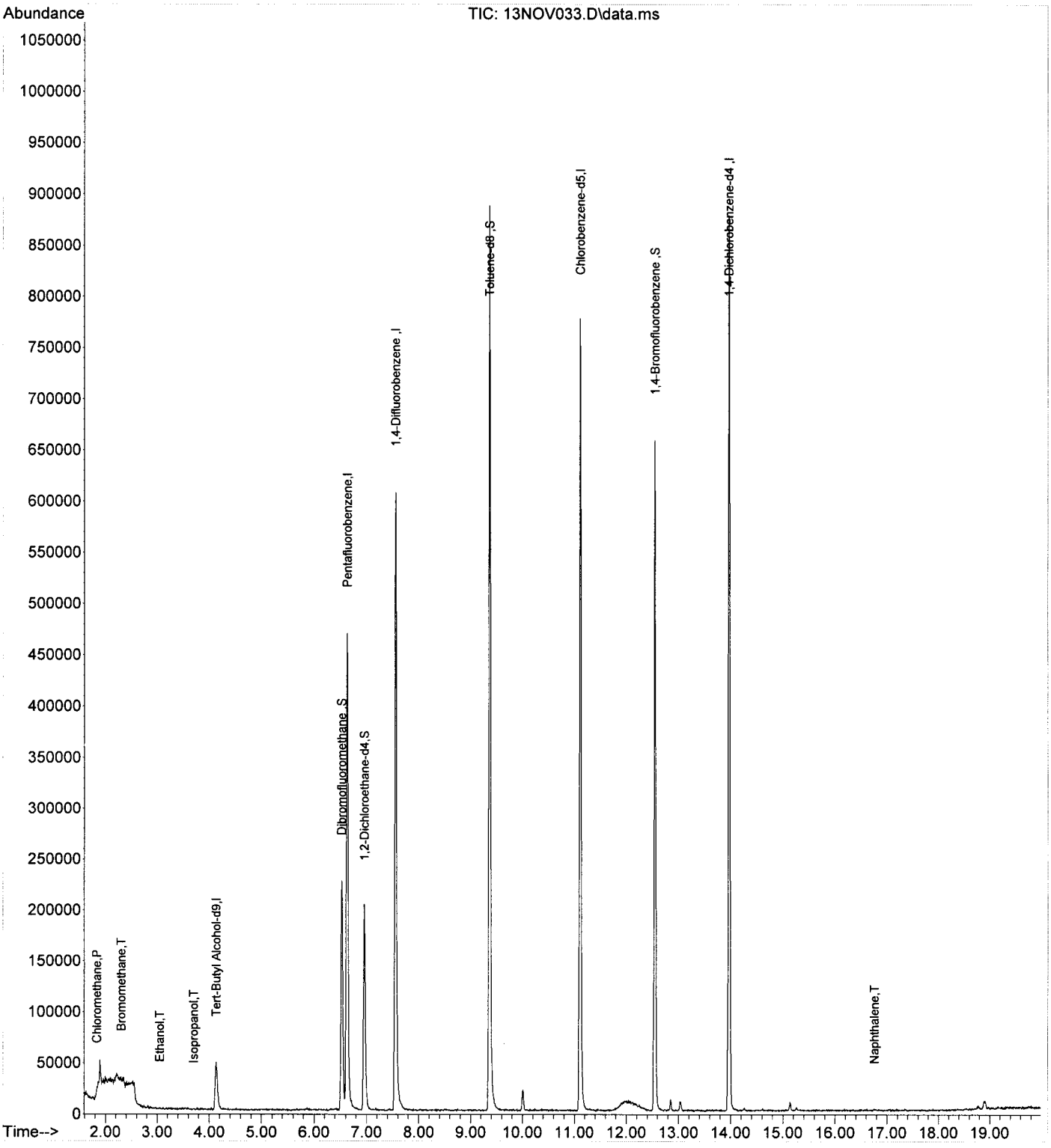
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV033.D
Acq On : 14 Nov 2013 12:20 am
Operator : 486
Sample : 13-11-0697-1A 5ML PH<2
Misc : V092013C TB
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Nov 14 11:27:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration



Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/14/2013 17:39
ANALYST: 486
DATA FILE: W:\GCMS_OO_DATA\2013\131114\14NOV018.D\14NOV018.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/14/2013 00:00

 # 2 **CLIENT SAMPLE NUMBER: 7-GW-23-28**

LCS/MB BATCH: 131114L01
MS/MSD BATCH: 131114S01
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Acetone	0.78	1	ND	20	1	ug/L	
Benzene	0.00	1	ND	0.50	1	ug/L	
Bromobenzene	0.00	1	ND	1.0	1	ug/L	
Bromochloromethane	0.00	1	ND	1.0	1	ug/L	
Bromodichloromethane	0.00	1	ND	1.0	1	ug/L	
Bromoform	0.00	1	ND	1.0	1	ug/L	
Bromomethane	2.9	1	ND	10	1	ug/L	]k
2-Butanone	0.00	1	ND	10	1	ug/L	
n-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
sec-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
tert-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
Carbon Disulfide	0.00	1	ND	10	1	ug/L	
Carbon Tetrachloride	0.00	1	ND	0.50	1	ug/L	
Chlorobenzene	0.00	1	ND	1.0	1	ug/L	
Chloroethane	0.00	1	ND	5.0	1	ug/L	
Chloroform	0.00	1	ND	1.0	1	ug/L	
Chloromethane	0.30	1	ND	10	1	ug/L	]k
2-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
4-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
Dibromochloromethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dibromo-3-Chloropropane	0.00	1	ND	5.0	1	ug/L	
1,2-Dibromoethane	0.00	1	ND	1.0	1	ug/L	
Dibromomethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,3-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,4-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
Dichlorodifluoromethane	0.00	1	ND	1.0	1	ug/L	
1,1-Dichloroethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloroethane	0.00	1	ND	0.50	1	ug/L	
1,1-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
c-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
t-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
1,3-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
2,2-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
1,1-Dichloropropene	0.00	1	ND	1.0	1	ug/L	
c-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
t-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
Ethylbenzene	0.00	1	ND	1.0	1	ug/L	
2-Hexanone	0.00	1	ND	10	1	ug/L	
Isopropylbenzene	0.00	1	ND	1.0	1	ug/L	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 13-11-0697
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/14/2013 17:39
ANALYST: 486
DATA FILE: W:\GCMS_OO_DATA\2013\131114\14NOV018.D\14NOV018.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/14/2013 00:00

 # 2 **CLIENT SAMPLE NUMBER: 7-GW-23-28**

LCS/MB BATCH: 131114L01
MS/MSD BATCH: 131114S01
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
p-Isopropyltoluene	0.00	1	ND	1.0	1	ug/L	
Methylene Chloride	0.00	1	ND	10	1	ug/L	
4-Methyl-2-Pentanone	0.00	1	ND	10	1	ug/L	
Naphthalene	0.00	1	ND	10	1	ug/L	
n-Propylbenzene	0.00	1	ND	1.0	1	ug/L	
Styrene	0.00	1	ND	1.0	1	ug/L	
1,1,1,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
Tetrachloroethene	0.00	1	ND	1.0	1	ug/L	
Toluene	0.11	1	ND	1.0	1	ug/L	
1,2,3-Trichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,2,4-Trichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,1,1-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.00	1	ND	10	1	ug/L	
1,1,2-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
Trichloroethene	0.00	1	ND	1.0	1	ug/L	
Trichlorofluoromethane	0.00	1	ND	10	1	ug/L	
1,2,3-Trichloropropane	0.00	1	ND	5.0	1	ug/L	
1,2,4-Trimethylbenzene	0.00	1	ND	1.0	1	ug/L	
1,3,5-Trimethylbenzene	0.00	1	ND	1.0	1	ug/L	
Vinyl Acetate	0.00	1	ND	10	1	ug/L	
Vinyl Chloride	0.00	1	ND	0.50	1	ug/L	
p/m-Xylene	0.00	1	ND	1.0	1	ug/L	
o-Xylene	0.00	1	ND	1.0	1	ug/L	
Methyl-t-Butyl Ether (MTBE)	0.00	1	ND	1.0	1	ug/L	

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV018.D
Acq On : 14 Nov 2013 5:39 pm
Operator : 486
Sample : 13-11-0697-2B 5ML PH<2
Misc : V092013C
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 10:11:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert-Butyl Alcohol-d9	4.124	65	77313	250.00	ug/l		-0.01
4) Pentafluorobenzene	6.629	168	464435	50.00	ug/l		0.00
47) 1,4-Difluorobenzene	7.556	114	669705	50.00	ug/l		0.00
64) Chlorobenzene-d5	11.114	117	608901	50.00	ug/l		0.00
87) 1,4-Dichlorobenzene-d4	13.967	152	329846	50.00	ug/l		0.00
System Monitoring Compounds							
41) Dibromofluoromethane	6.525	113	176041	48.81	ug/l		0.00
Spiked Amount 50.000			Recovery =	97.62%			
46) 1,2-Dichloroethane-d4	6.950	65	182676	48.65	ug/l		0.00
Spiked Amount 50.000			Recovery =	97.30%			
61) Toluene-d8	9.368	98	792110	49.98	ug/l		0.00
Spiked Amount 50.000			Recovery =	99.96%			
80) 1,4-Bromofluorobenzene	12.543	95	287123	49.43	ug/l		0.00
Spiked Amount 50.000			Recovery =	98.86%			
Target Compounds							Qvalue
2) Ethanol	3.027	45	109	2.06	ug/l	#	10
3) Tert-Butyl Alcohol (TBA)	0.000		0	N.D.	d		
5) Dichlorodifluoromethane	0.000		0	N.D.			
6) Chloromethane	1.827	50	2757	0.30	ug/l	#	41
7) Vinyl Chloride	0.000		0	N.D.			
8) Bromomethane	2.291	94	10958	2.87	ug/l		88
9) Chloroethane	0.000		0	N.D.	d		
10) 1,3-Butadiene	1.991	54	155	N.D.			
11) Trichlorofluoromethane	0.000		0	N.D.			
12) Diethyl Ether	0.000		0	N.D.	d		
13) Acetone	3.447	58	335	0.78	ug/l	#	12
14) Iodomethane	3.551	142	173	N.D.			
15) 1,1-Dichloroethene	0.000		0	N.D.			
16) 1,1,2-Trichloro-1,2,2-...	0.000		0	N.D.			
17) Isopropanol	3.677	45	129	0.38	ug/l		92
18) Carbon Disulfide	0.000		0	N.D.			
19) Acetonitrile	3.889	41	100	N.D.			
20) Acrylonitrile	0.000		0	N.D.			
21) Allyl Chloride	0.000		0	N.D.			
22) Acrolein	0.000		0	N.D.			
23) Methylene Chloride	0.000		0	N.D.			
24) t-1,2-Dichloroethene	0.000		0	N.D.			
25) Isobutyl Alcohol	0.000		0	N.D.	d		
26) Methyl-t-Butyl Ether (...	0.000		0	N.D.			
27) Hexane	4.904	57	246	N.D.			
28) 1,1-Dichloroethane	0.000		0	N.D.			
29) Vinyl Acetate	0.000		0	N.D.			
30) Diisopropyl Ether (DIPE)	0.000		0	N.D.			
31) Chloroprene	0.000		0	N.D.			
32) Ethyl-t-Butyl Ether (E...	5.854	59	1046	N.D.			
33) c-1,2-Dichloroethene	0.000		0	N.D.			
34) 2,2-Dichloropropane	0.000		0	N.D.	d		
35) 2-Butanone	0.000		0	N.D.	d		
36) Propionitrile	0.000		0	N.D.			
37) Methacrylonitrile	0.000		0	N.D.			
38) Bromochloromethane	0.000		0	N.D.			

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV018.D
Acq On : 14 Nov 2013 5:39 pm
Operator : 486
Sample : 13-11-0697-2B 5ML PH<2
Misc : V092013C
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 10:11:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
39) Tetrahydrofuran	0.000		0	N.D. d	
40) Chloroform	6.318	83	217	N.D.	
42) 1,1,1-Trichloroethane	0.000		0	N.D.	
43) Cyclohexane	0.000		0	N.D. d	
44) 1,1-Dichloropropene	6.803	75	102	N.D.	
45) Carbon Tetrachloride	0.000		0	N.D.	
48) Benzene	7.092	78	210	N.D.	
49) 1,2-Dichloroethane	0.000		0	N.D.	
50) Tert-Amyl-Methyl Ether...	0.000		0	N.D.	
51) Thiophene	0.000		0	N.D.	
52) 2,2,4-Trimethyl Pentane	0.000		0	N.D.	
53) Trichloroethene	0.000		0	N.D.	
54) 1,2-Dichloropropane	0.000		0	N.D.	
55) Dibromomethane	0.000		0	N.D.	
56) Methyl Methacrylate	0.000		0	N.D.	
57) 1,4-Dioxane	0.000		0	N.D.	
58) Bromodichloromethane	0.000		0	N.D.	
59) 2-Chloroethyl Vinyl Ether	8.877	63	99	N.D.	
60) c-1,3-Dichloropropene	0.000		0	N.D.	
62) Toluene	9.455	91	2300	0.11 ug/l	62
63) 4-Methyl-2-Pentanone	0.000		0	N.D.	
65) t-1,3-Dichloropropene	0.000		0	N.D.	
66) Ethyl Methacrylate	0.000		0	N.D.	
67) 1,1,2-Trichloroethane	0.000		0	N.D.	
68) Tetrachloroethene	0.000		0	N.D.	
69) 1,3-Dichloropropane	0.000		0	N.D.	
70) 2-Hexanone	0.000		0	N.D.	
71) Dibromochloromethane	0.000		0	N.D.	
72) 1,2-Dibromoethane	0.000		0	N.D.	
73) Chlorobenzene	0.000		0	N.D.	
74) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
75) Ethylbenzene	11.288	91	119	N.D.	
76) p/m-Xylene	11.441	91	667	N.D.	
77) o-Xylene	0.000		0	N.D.	
78) Styrene	0.000		0	N.D.	
79) Isopropylbenzene	0.000		0	N.D.	
81) 1,2,3-Trichloropropane	0.000		0	N.D.	
82) Bromobenzene	0.000		0	N.D.	
83) n-Propylbenzene	0.000		0	N.D.	
84) t-1,4-Dichloro-2-Butene	0.000		0	N.D.	
85) 2-Chlorotoluene	0.000		0	N.D.	
86) 1,3,5-Trimethylbenzene	0.000		0	N.D.	
88) Bromoform	0.000		0	N.D.	
89) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
90) 4-Chlorotoluene	0.000		0	N.D.	
91) 1,2,4-Trimethylbenzene	13.564	105	137	N.D.	
92) tert-Butylbenzene	0.000		0	N.D.	
93) p-Isopropyltoluene	13.956	119	102	N.D.	
94) sec-Butylbenzene	0.000		0	N.D.	
95) 1,3-Dichlorobenzene	0.000		0	N.D.	
96) 1,4-Dichlorobenzene	0.000		0	N.D.	
97) 1,2-Dichlorobenzene	0.000		0	N.D.	
98) n-Butylbenzene	0.000		0	N.D.	
99) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.	

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV018.D
Acq On : 14 Nov 2013 5:39 pm
Operator : 486
Sample : 13-11-0697-2B 5ML PH<2
Misc : V092013C
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 10:11:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
101) Hexachloro-1,3-Butadiene	0.000		0	N.D.		
102) Naphthalene	16.761	128	840	N.D.		
103) 1,2,3-Trichlorobenzene	0.000		0	N.D.		

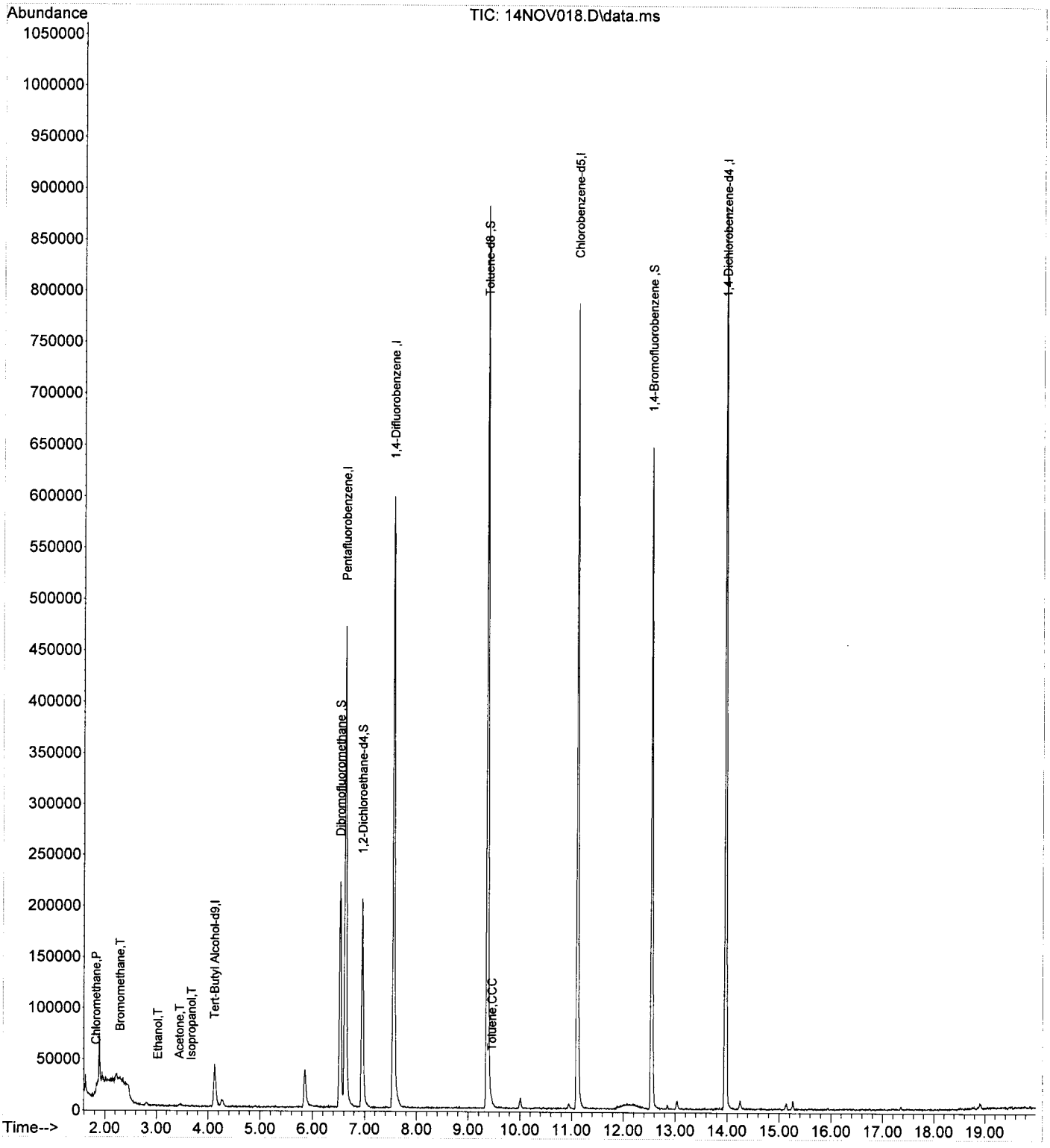
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV018.D
Acq On : 14 Nov 2013 5:39 pm
Operator : 486
Sample : 13-11-0697-2B 5ML PH<2
Misc : V092013C
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 10:11:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration



Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV015.D
Acq On : 14 Nov 2013 4:20 pm
Operator : 486
Sample : 13-11-0697-2B 5ML PH<2
Misc : V092013C
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 14 17:15:30 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert-Butyl Alcohol-d9	4.108	65	35328	250.00	ug/l	-0.03
4) Pentafluorobenzene	6.623	168	417753	50.00	ug/l	0.00
47) 1,4-Difluorobenzene	7.551	114	607052	50.00	ug/l	0.00
64) Chlorobenzene-d5	11.114	117	545382	50.00	ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.967	152	303402	50.00	ug/l	0.00
System Monitoring Compounds						
41) Dibromofluoromethane	6.525	113	154737	47.70	ug/l	0.00
Spiked Amount 50.000			Recovery =	95.40%		
46) 1,2-Dichloroethane-d4	6.945	65	162743	48.19	ug/l	-0.01
Spiked Amount 50.000			Recovery =	96.38%		
61) Toluene-d8	9.368	98	719402	50.07	ug/l	0.00
Spiked Amount 50.000			Recovery =	100.14%		
80) 1,4-Bromofluorobenzene	12.543	95	263703	50.68	ug/l	0.00
Spiked Amount 50.000			Recovery =	101.36%		
Target Compounds						Qvalue
2) Ethanol	0.000		0	N.D.		
3) Tert-Butyl Alcohol (TBA)	4.266	59	19277	113.94	ug/l #	58
5) Dichlorodifluoromethane	0.000		0	N.D.		
6) Chloromethane	1.865	50	2606	0.32	ug/l #	41
7) Vinyl Chloride	0.000		0	N.D.		
8) Bromomethane	2.313	94	680	0.20	ug/l	74
9) Chloroethane	2.416	64	1009	0.29	ug/l #	41
10) 1,3-Butadiene	2.029	54	207	N.D.		
11) Trichlorofluoromethane	0.000		0	N.D.		
12) Diethyl Ether	0.000		0	N.D.		
13) Acetone	3.453	58	1099	2.83	ug/l #	12
14) Iodomethane	3.551	142	230	0.09	ug/l #	43
15) 1,1-Dichloroethene	0.000		0	N.D.		
16) 1,1,2-Trichloro-1,2,2-...	0.000		0	N.D.		
17) Isopropanol	3.698	45	868	2.81	ug/l	92
18) Carbon Disulfide	0.000		0	N.D.		
19) Acetonitrile	3.928	41	120	N.D.		
20) Acrylonitrile	0.000		0	N.D.		
21) Allyl Chloride	0.000		0	N.D.		
22) Acrolein	0.000		0	N.D.		
23) Methylene Chloride	4.042	84	108	N.D.		
24) t-1,2-Dichloroethene	0.000		0	N.D.		
25) Isobutyl Alcohol	6.950	43	233	1.07	ug/l #	20
26) Methyl-t-Butyl Ether (...	0.000		0	N.D.		
27) Hexane	4.899	57	375	N.D.		
28) 1,1-Dichloroethane	0.000		0	N.D.		
29) Vinyl Acetate	0.000		0	N.D.		
30) Diisopropyl Ether (DIPE)	0.000		0	N.D.		
31) Chloroprene	0.000		0	N.D.		
32) Ethyl-t-Butyl Ether (E...	5.837	59	8217	0.63	ug/l #	34
33) c-1,2-Dichloroethene	0.000		0	N.D.		
34) 2,2-Dichloropropane	5.843	77	14760	3.21	ug/l	49
35) 2-Butanone	5.936	43	558	0.38	ug/l	48
36) Propionitrile	0.000		0	N.D.		
37) Methacrylonitrile	0.000		0	N.D.		
38) Bromochloromethane	0.000		0	N.D.		

Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV015.D
Acq On : 14 Nov 2013 4:20 pm
Operator : 486
Sample : 13-11-0697-2B 5ML PH<2
Misc : V092013C
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 14 17:15:30 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
39)	Tetrahydrofuran	6.367	42	179	0.14 ug/l #	27
40)	Chloroform	6.323	83	127	N.D.	
42)	1,1,1-Trichloroethane	0.000		0	N.D.	
43)	Cyclohexane	6.629	84	10679	1.54 ug/l #	44
44)	1,1-Dichloropropene	6.770	75	406	N.D.	
45)	Carbon Tetrachloride	6.743	117	100	N.D.	
48)	Benzene	7.049	78	2067	0.11 ug/l	41
49)	1,2-Dichloroethane	0.000		0	N.D.	
50)	Tert-Amyl-Methyl Ether...	0.000		0	N.D.	
51)	Thiophene	0.000		0	N.D.	
52)	2,2,4-Trimethyl Pentane	7.196	57	117	N.D.	
53)	Trichloroethene	0.000		0	N.D.	
54)	1,2-Dichloropropane	0.000		0	N.D.	
55)	Dibromomethane	0.000		0	N.D.	
56)	Methyl Methacrylate	8.282	69	98	N.D.	
57)	1,4-Dioxane	0.000		0	N.D.	
58)	Bromodichloromethane	0.000		0	N.D.	
59)	2-Chloroethyl Vinyl Ether	8.871	63	100	N.D.	
60)	c-1,3-Dichloropropene	0.000		0	N.D.	
62)	Toluene	9.449	91	2891	0.15 ug/l	74
63)	4-Methyl-2-Pentanone	0.000		0	N.D.	
65)	t-1,3-Dichloropropene	0.000		0	N.D.	
66)	Ethyl Methacrylate	0.000		0	N.D.	
67)	1,1,2-Trichloroethane	0.000		0	N.D.	
68)	Tetrachloroethene	0.000		0	N.D.	
69)	1,3-Dichloropropane	0.000		0	N.D.	
70)	2-Hexanone	0.000		0	N.D.	
71)	Dibromochloromethane	0.000		0	N.D.	
72)	1,2-Dibromoethane	0.000		0	N.D.	
73)	Chlorobenzene	0.000		0	N.D.	
74)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
75)	Ethylbenzene	11.283	91	391	N.D.	
76)	p/m-Xylene	11.430	91	1062	N.D.	
77)	o-Xylene	11.916	91	140	N.D.	
78)	Styrene	0.000		0	N.D.	
79)	Isopropylbenzene	0.000		0	N.D.	
81)	1,2,3-Trichloropropane	0.000		0	N.D.	
82)	Bromobenzene	0.000		0	N.D.	
83)	n-Propylbenzene	12.871	91	417	N.D.	
84)	t-1,4-Dichloro-2-Butene	0.000		0	N.D.	
85)	2-Chlorotoluene	0.000		0	N.D.	
86)	1,3,5-Trimethylbenzene	13.100	105	103	N.D.	
88)	Bromoform	0.000		0	N.D.	
89)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
90)	4-Chlorotoluene	0.000		0	N.D.	
91)	1,2,4-Trimethylbenzene	13.553	105	101	N.D.	
92)	tert-Butylbenzene	0.000		0	N.D.	
93)	p-Isopropyltoluene	0.000		0	N.D.	
94)	sec-Butylbenzene	0.000		0	N.D.	
95)	1,3-Dichlorobenzene	0.000		0	N.D.	
96)	1,4-Dichlorobenzene	14.011	146	100	N.D.	
97)	1,2-Dichlorobenzene	0.000		0	N.D.	
98)	n-Butylbenzene	0.000		0	N.D.	
99)	1,2-Dibromo-3-Chloropr...	0.000		0	N.D.	

Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV015.D
Acq On : 14 Nov 2013 4:20 pm
Operator : 486
Sample : 13-11-0697-2B 5ML PH<2
Misc : V092013C
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 14 17:15:30 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
101) Hexachloro-1,3-Butadiene	0.000		0	N.D.		
102) Naphthalene	16.745	128	212	N.D.		
103) 1,2,3-Trichlorobenzene	0.000		0	N.D.		

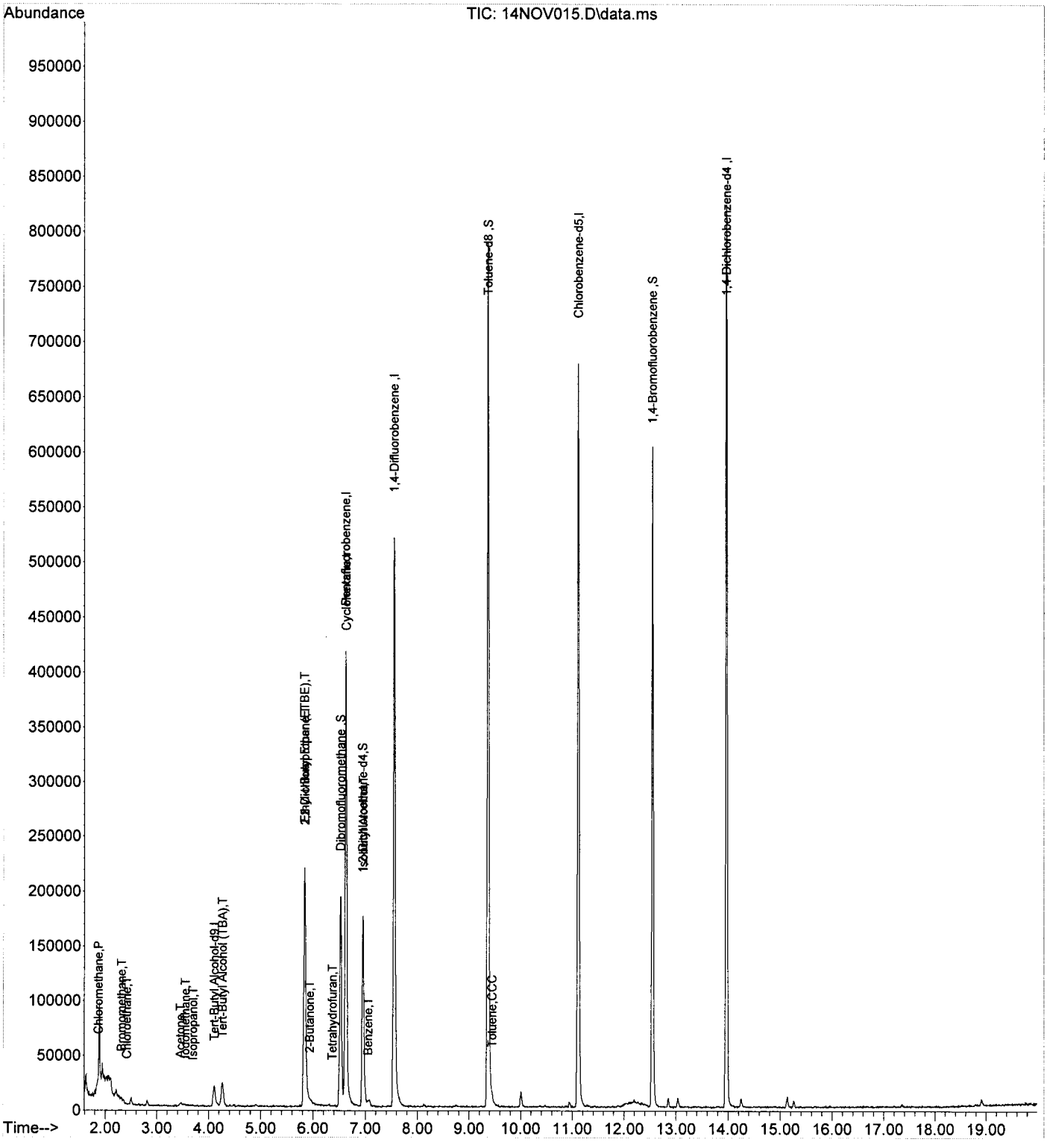
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV015.D
Acq On : 14 Nov 2013 4:20 pm
Operator : 486
Sample : 13-11-0697-2B 5ML PH<2
Misc : V092013C
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 14 17:15:30 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration



Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV038.D
Acq On : 14 Nov 2013 2:32 am
Operator : 486
Sample : 13-11-0697-2A 20X 250uL PH<2
Misc : V092013C
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Nov 14 09:11:27 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert-Butyl Alcohol-d9	4.135	65	77953	250.00	ug/l	0.00
4) Pentafluorobenzene	6.629	168	436313	50.00	ug/l	0.00
47) 1,4-Difluorobenzene	7.556	114	631451	50.00	ug/l	0.00
64) Chlorobenzene-d5	11.114	117	565741	50.00	ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.973	152	309918	50.00	ug/l	0.00
System Monitoring Compounds						
41) Dibromofluoromethane	6.525	113	171193	50.53	ug/l	0.00
Spiked Amount 50.000			Recovery =	101.06%		
46) 1,2-Dichloroethane-d4	6.956	65	172268	48.84	ug/l	0.00
Spiked Amount 50.000			Recovery =	97.68%		
61) Toluene-d8	9.368	98	746837	49.98	ug/l	0.00
Spiked Amount 50.000			Recovery =	99.96%		
80) 1,4-Bromofluorobenzene	12.543	95	271368	50.28	ug/l	0.00
Spiked Amount 50.000			Recovery =	100.56%		
Target Compounds						Qvalue
2) Ethanol	0.000		0	N.D.		
3) Tert-Butyl Alcohol (TBA)	0.000		0	N.D.		
5) Dichlorodifluoromethane	1.647	85	138	N.D.		
6) Chloromethane	1.838	50	3845	0.45	ug/l	95
7) Vinyl Chloride	0.000		0	N.D.		
8) Bromomethane	2.302	94	7239	2.02	ug/l	82
9) Chloroethane	2.471	64	176	N.D.		
10) 1,3-Butadiene	1.980	54	900	0.17	ug/l #	13
11) Trichlorofluoromethane	0.000		0	N.D.		
12) Diethyl Ether	3.218	45	104	N.D.		
13) Acetone	3.355	58	136	0.34	ug/l #	1
14) Iodomethane	3.546	142	448	0.17	ug/l #	43
15) 1,1-Dichloroethene	0.000		0	N.D.		
16) 1,1,2-Trichloro-1,2,2-...	0.000		0	N.D.		
17) Isopropanol	3.693	45	102	0.32	ug/l	92
18) Carbon Disulfide	0.000		0	N.D.		
19) Acetonitrile	3.906	41	113	N.D.		
20) Acrylonitrile	0.000		0	N.D.		
21) Allyl Chloride	0.000		0	N.D.		
22) Acrolein	3.453	56	108	0.15	ug/l #	12
23) Methylene Chloride	4.037	84	111	N.D.		
24) t-1,2-Dichloroethene	0.000		0	N.D.		
25) Isobutyl Alcohol	7.000	43	99	0.43	ug/l #	20
26) Methyl-t-Butyl Ether (...	0.000		0	N.D.		
27) Hexane	4.904	57	434	N.D.		
28) 1,1-Dichloroethane	0.000		0	N.D.		
29) Vinyl Acetate	0.000		0	N.D.		
30) Diisopropyl Ether (DIPE)	0.000		0	N.D.		
31) Chloroprene	5.215	53	128	N.D.		
32) Ethyl-t-Butyl Ether (E...	0.000		0	N.D.		
33) c-1,2-Dichloroethene	0.000		0	N.D.		
34) 2,2-Dichloropropane	0.000		0	N.D.		
35) 2-Butanone	5.925	43	368	0.24	ug/l	48
36) Propionitrile	0.000		0	N.D.		
37) Methacrylonitrile	0.000		0	N.D.		
38) Bromochloromethane	0.000		0	N.D.		

Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV038.D
Acq On : 14 Nov 2013 2:32 am
Operator : 486
Sample : 13-11-0697-2A 20X 250uL PH<2
Misc : V092013C
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Nov 14 09:11:27 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
39)	Tetrahydrofuran	6.230	42	106	N.D.	
40)	Chloroform	0.000		0	N.D.	
42)	1,1,1-Trichloroethane	0.000		0	N.D.	
43)	Cyclohexane	6.629	84	11232	1.56 ug/l #	46
44)	1,1-Dichloropropene	6.792	75	113	N.D.	
45)	Carbon Tetrachloride	6.781	117	136	N.D.	
48)	Benzene	7.049	78	1024	N.D.	
49)	1,2-Dichloroethane	0.000		0	N.D.	
50)	Tert-Amyl-Methyl Ether...	0.000		0	N.D.	
51)	Thiophene	0.000		0	N.D.	
52)	2,2,4-Trimethyl Pentane	7.180	57	767	N.D.	
53)	Trichloroethene	0.000		0	N.D.	
54)	1,2-Dichloropropane	0.000		0	N.D.	
55)	Dibromomethane	0.000		0	N.D.	
56)	Methyl Methacrylate	0.000		0	N.D.	
57)	1,4-Dioxane	0.000		0	N.D.	
58)	Bromodichloromethane	0.000		0	N.D.	
59)	2-Chloroethyl Vinyl Ether	0.000		0	N.D.	
60)	c-1,3-Dichloropropene	0.000		0	N.D.	
62)	Toluene	9.455	91	2241	0.11 ug/l	95
63)	4-Methyl-2-Pentanone	0.000		0	N.D.	
65)	t-1,3-Dichloropropene	0.000		0	N.D.	
66)	Ethyl Methacrylate	0.000		0	N.D.	
67)	1,1,2-Trichloroethane	0.000		0	N.D.	
68)	Tetrachloroethene	0.000		0	N.D.	
69)	1,3-Dichloropropane	0.000		0	N.D.	
70)	2-Hexanone	0.000		0	N.D.	
71)	Dibromochloromethane	0.000		0	N.D.	
72)	1,2-Dibromoethane	0.000		0	N.D.	
73)	Chlorobenzene	0.000		0	N.D.	
74)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
75)	Ethylbenzene	11.288	91	907	N.D.	
76)	p/m-Xylene	11.430	91	1899	0.11 ug/l #	25
77)	o-Xylene	11.916	91	1158	N.D.	
78)	Styrene	11.938	104	219	N.D.	
79)	Isopropylbenzene	12.369	105	232	N.D.	
81)	1,2,3-Trichloropropane	0.000		0	N.D.	
82)	Bromobenzene	0.000		0	N.D.	
83)	n-Propylbenzene	12.860	91	827	N.D.	
84)	t-1,4-Dichloro-2-Butene	0.000		0	N.D.	
85)	2-Chlorotoluene	12.963	91	226	N.D.	
86)	1,3,5-Trimethylbenzene	13.105	105	780	N.D.	
88)	Bromoform	0.000		0	N.D.	
89)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
90)	4-Chlorotoluene	13.105	91	394	N.D.	
91)	1,2,4-Trimethylbenzene	13.558	105	1009	N.D.	
92)	tert-Butylbenzene	0.000		0	N.D.	
93)	p-Isopropyltoluene	13.951	119	734	N.D.	
94)	sec-Butylbenzene	13.760	105	481	N.D.	
95)	1,3-Dichlorobenzene	13.886	146	138	N.D.	
96)	1,4-Dichlorobenzene	13.995	146	360	N.D.	
97)	1,2-Dichlorobenzene	14.459	146	158	N.D.	
98)	n-Butylbenzene	14.448	91	788	N.D.	
99)	1,2-Dibromo-3-Chloropr...	0.000		0	N.D.	

Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV038.D
Acq On : 14 Nov 2013 2:32 am
Operator : 486
Sample : 13-11-0697-2A 20X 250uL PH<2
Misc : V092013C
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Nov 14 09:11:27 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100)	1,2,4-Trichlorobenzene	16.461	180	416	N.D.		
101)	Hexachloro-1,3-Butadiene	0.000		0	N.D.		
102)	Naphthalene	16.745	128	3629	0.21	ug/l	83
103)	1,2,3-Trichlorobenzene	17.045	180	1102	0.13	ug/l	79

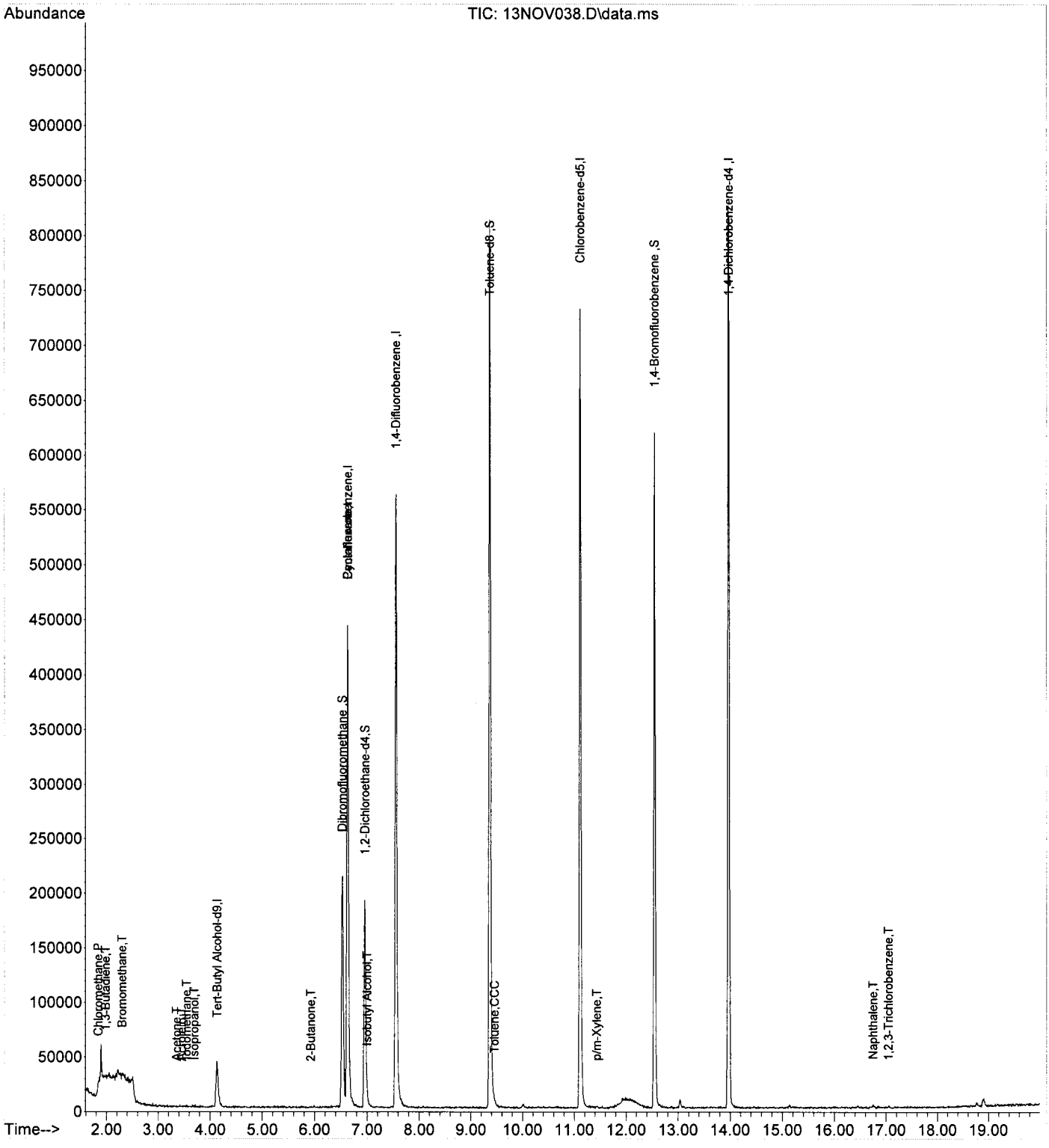
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (Not Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV038.D
Acq On : 14 Nov 2013 2:32 am
Operator : 486
Sample : 13-11-0697-2A 20X 250uL PH<2
Misc : V092013C
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Nov 14 09:11:27 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration



Return to Contents

EPA METHOD 8260B
Volatile Organics

Quality Control Data
Method Blank
LCS/LCSD
MS/MSD

Return to Contents

METHOD BLANK ASSOCIATION SUMMARY FOR METHOD: EPA 8260B

MB Sample ID: 099-14-001-12427
MB Batch ID: 131113L02
Instrument: GC/MS OO
Matrix: Water
Analyst: 486
D/T Analyzed: 11/13/2013 23:27
Data File: W:\GCMS_OO_DATA\2013\131113\13NOV031.D\13NOV031.rr

Reviewed By: 0
D/T Reviewed:
Extraction: EPA 5030C
D/T Extracted: 11/13/2013 00:00

Work Order #: 13-11-0697

Sample#	Client Sample ID	D/T Analyzed	Data File
1	QCTB-11082013	11/14/2013 00:20	W:\GCMS_OO_DATA\2013\131113\13NOV033.D\13NOV033.rr

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-001
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/13/2013 23:27
ANALYST: 486
DATA FILE: W:\GCMS_OO_DATA\2013\131113\13NOV031.D\13NOV031.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/13/2013 00:00

MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 131113L02
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Acetone	0.00	1	ND	20	1	ug/L	
Benzene	0.00	1	ND	0.50	1	ug/L	
Bromobenzene	0.00	1	ND	1.0	1	ug/L	
Bromochloromethane	0.00	1	ND	1.0	1	ug/L	
Bromodichloromethane	0.00	1	ND	1.0	1	ug/L	
Bromoform	0.00	1	ND	1.0	1	ug/L	
Bromomethane	1.4	1	ND	10	1	ug/L	
2-Butanone	0.00	1	ND	10	1	ug/L	
n-Butylbenzene	0.084	1	ND	1.0	1	ug/L	
sec-Butylbenzene	0.082	1	ND	1.0	1	ug/L	
tert-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
Carbon Disulfide	0.00	1	ND	10	1	ug/L	
Carbon Tetrachloride	0.00	1	ND	0.50	1	ug/L	
Chlorobenzene	0.00	1	ND	1.0	1	ug/L	
Chloroethane	0.00	1	ND	5.0	1	ug/L	
Chloroform	0.00	1	ND	1.0	1	ug/L	
Chloromethane	0.45	1	ND	10	1	ug/L	
2-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
4-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
Dibromochloromethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dibromo-3-Chloropropane	0.00	1	ND	5.0	1	ug/L	
1,2-Dibromoethane	0.00	1	ND	1.0	1	ug/L	
Dibromomethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichlorobenzene	0.090	1	ND	1.0	1	ug/L	
1,3-Dichlorobenzene	0.11	1	ND	1.0	1	ug/L	
1,4-Dichlorobenzene	0.13	1	ND	1.0	1	ug/L	
Dichlorodifluoromethane	0.00	1	ND	1.0	1	ug/L	
1,1-Dichloroethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloroethane	0.00	1	ND	0.50	1	ug/L	
1,1-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
c-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
t-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
1,3-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
2,2-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
1,1-Dichloropropene	0.00	1	ND	1.0	1	ug/L	
c-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
t-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
Ethylbenzene	0.089	1	ND	1.0	1	ug/L	
2-Hexanone	0.00	1	ND	10	1	ug/L	
Isopropylbenzene	0.00	1	ND	1.0	1	ug/L	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-001
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/13/2013 23:27
ANALYST: 486
DATA FILE: W:\GCMS_OO_DATA\2013\131113\13NOV031.D\13NOV031.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/13/2013 00:00

MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 131113L02
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
p-Isopropyltoluene	0.088	1	ND	1.0	1	ug/L	
Methylene Chloride	0.00	1	ND	10	1	ug/L	
4-Methyl-2-Pentanone	0.00	1	ND	10	1	ug/L	
Naphthalene	0.51	1	ND	10	1	ug/L	
n-Propylbenzene	0.089	1	ND	1.0	1	ug/L	
Styrene	0.00	1	ND	1.0	1	ug/L	
1,1,1,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
Tetrachloroethene	0.00	1	ND	1.0	1	ug/L	
Toluene	0.15	1	ND	1.0	1	ug/L	
1,2,3-Trichlorobenzene	0.35	1	ND	1.0	1	ug/L	
1,2,4-Trichlorobenzene	0.26	1	ND	1.0	1	ug/L	
1,1,1-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.00	1	ND	10	1	ug/L	
1,1,2-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
Trichloroethene	0.00	1	ND	1.0	1	ug/L	
Trichlorofluoromethane	0.00	1	ND	10	1	ug/L	
1,2,3-Trichloropropane	0.00	1	ND	5.0	1	ug/L	
1,2,4-Trimethylbenzene	0.12	1	ND	1.0	1	ug/L	
1,3,5-Trimethylbenzene	0.082	1	ND	1.0	1	ug/L	
Vinyl Acetate	0.00	1	ND	10	1	ug/L	
Vinyl Chloride	0.00	1	ND	0.50	1	ug/L	
p/m-Xylene	0.19	1	ND	1.0	1	ug/L	
o-Xylene	0.083	1	ND	1.0	1	ug/L	
Methyl-t-Butyl Ether (MTBE)	0.00	1	ND	1.0	1	ug/L	

Return to Contents

LCS QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

Work Order #: 13-11-0697
LCS/MB Batch ID: 131113L02
Instrument: GC/MS OO
Analyst: 486
D/T Analyzed: 11/13/2013 23:01
Data File: W:\GCMS_OO_DATA\2013\131113\13NOV030.D\13NOV030.rr

Reviewed By: 0
D/T Reviewed:
Extraction: EPA 5030C
D/T Extracted: 11/13/2013 00:00

Analyte	Conc. Added	Conc. Recovered	%Recovered	%Recovered Control Limit	ME Control Limit	Status	Qualifiers
Benzene	50.00	48.25	97	80-120	73-127	PASS	
Carbon Tetrachloride	50.00	50.01	100	66-138	54-150	PASS	
Chlorobenzene	50.00	48.19	96	80-120	73-127	PASS	
1,2-Dibromoethane	50.00	52.19	104	80-120	73-127	PASS	
1,2-Dichlorobenzene	50.00	48.02	96	80-120	73-127	PASS	
1,2-Dichloroethane	50.00	48.80	98	80-129	72-137	PASS	
1,1-Dichloroethene	50.00	47.67	95	71-131	61-141	PASS	
Ethylbenzene	50.00	50.14	100	80-123	73-130	PASS	
Toluene	50.00	49.51	99	79-121	72-128	PASS	
Trichloroethene	50.00	50.45	101	80-120	73-127	PASS	
Vinyl Chloride	50.00	48.53	97	70-136	59-147	PASS	
p/m-Xylene	100.0	91.04	91	75-125	67-133	PASS	
o-Xylene	50.00	44.77	90	75-125	67-133	PASS	
Methyl-t-Butyl Ether (MTBE)	50.00	50.60	101	72-126	63-135	PASS	
Tert-Butyl Alcohol (TBA)	250.0	248.9	100	71-125	62-134	PASS	
Diisopropyl Ether (DIPE)	50.00	51.82	104	69-129	59-139	PASS	
Ethyl-t-Butyl Ether (ETBE)	50.00	51.99	104	69-129	59-139	PASS	
Tert-Amyl-Methyl Ether (TAME)	50.00	52.24	104	67-133	56-144	PASS	
Ethanol	500.0	505.1	101	47-155	29-173	PASS	

Total number of LCS compounds: 19
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Compounds listed in bold are required to be reported.

Return to Contents

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

WORK ORDER:	**13-11-0697**	SAMPLE D/T EXTRACTED:	11/13/2013	EXTRACTION:	EPA 5030C
MS/MSD BATCH:	131113S02	MS D/T EXTRACTED:	11/13/2013	ANALYST:	486
SPIKED SAMPLE ID:	**13-11-0903-2**	MSD D/T EXTRACTED:	11/13/2013	SAMPLE INSTRUMENT NAME:	GC/MS OO
REVIEWED BY:	0	SAMPLE D/T ANALYZED:	11/14/2013 0:46	MS INSTRUMENT NAME:	GC/MS OO
DATE REVIEWED:		MS D/T ANALYZED:	11/14/2013 1:13	MSD INSTRUMENT NAME:	GC/MS OO
		MSD D/T ANALYZED:	11/14/2013 1:39		

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL ADDED	FINAL ADDED	MS CONC	% REC	MSD CONC	% REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Benzene	ND	50.00	50.00	45.02	90	47.68	95	78-120	6	0-20	PASS	
Carbon Tetrachloride	ND	50.00	50.00	47.22	94	48.55	97	67-139	3	0-20	PASS	
Chlorobenzene	ND	50.00	50.00	45.43	91	47.73	95	80-120	5	0-20	PASS	
1,2-Dibromoethane	ND	50.00	50.00	48.40	97	50.14	100	80-123	4	0-20	PASS	
1,2-Dichlorobenzene	ND	50.00	50.00	45.07	90	47.28	95	76-120	5	0-20	PASS	
1,2-Dichloroethane	ND	50.00	50.00	45.01	90	48.00	96	76-130	6	0-20	PASS	
1,1-Dichloroethene	ND	50.00	50.00	45.09	90	47.63	95	70-130	5	0-27	PASS	
Ethylbenzene	ND	50.00	50.00	47.03	94	49.72	99	73-127	6	0-20	PASS	
Toluene	ND	50.00	50.00	46.41	93	49.90	100	72-126	7	0-20	PASS	
Trichloroethene	ND	50.00	50.00	48.39	97	49.93	100	74-122	3	0-20	PASS	
Vinyl Chloride	ND	50.00	50.00	46.91	94	48.78	98	65-131	4	0-24	PASS	
p/m-Xylene	ND	100.0	100.0	86.23	86	90.38	90	70-130	5	0-30	PASS	
o-Xylene	ND	50.00	50.00	42.46	85	44.76	90	70-130	5	0-30	PASS	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	50.00	47.22	94	47.29	95	69-123	0	0-20	PASS	
Tert-Butyl Alcohol (TBA)	ND	250.0	250.0	229.4	92	244.1	98	65-131	6	0-22	PASS	
Diisopropyl Ether (DIPE)	3.811	50.00	50.00	52.64	98	54.08	101	68-128	3	0-22	PASS	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	50.00	48.50	97	50.12	100	69-123	3	0-21	PASS	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	50.00	47.19	94	49.74	99	70-124	5	0-20	PASS	
Ethanol	**ND**	**500.0**	**500.0**	**508.5**	**102**	**765.8**	**153**	**41-155**	**40**	**0-35**	**FAIL**	**4**

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	13NOV035.rr	W:\GCMS_OO_DATA\2013\131113\13NOV035.D\
MSD	13NOV036.rr	W:\GCMS_OO_DATA\2013\131113\13NOV036.D\

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8260B

WORK ORDER: 13-11-0697
BATCH ID:
LCS/MB: 131113L02
MS: 131113S02
EXTRACTION : EPA 5030C

REVIEWED BY: 163
D/T REVIEWED: 11/15/2013 12:30

1 CLIENT SAMPLE NUMBER : QCTB-11082013

INSTRUMENT: GC/MS OO
D/T EXTRACTED: 11/13/2013 00:00
DATA FILE: W:\GCMS_OO_DATA\2013\131113\13NOV033.D\13NOV033.rr

ANALYZED BY: 486
D/T ANALYZED 11/14/2013 00:20

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	98	80-126	PASS	
1,2-Dichloroethane-d4	98	80-134	PASS	
Toluene-d8	100	80-120	PASS	
1,4-Bromofluorobenzene	99	80-120	PASS	

MS CLIENT SAMPLE NUMBER : Matrix Spike

INSTRUMENT: GC/MS OO
D/T EXTRACTED: 11/13/2013 00:00
DATA FILE: W:\GCMS_OO_DATA\2013\131113\13NOV035.D\13NOV035.rr

ANALYZED BY: 486
D/T ANALYZED 11/14/2013 01:13

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	102	80-126	PASS	
1,2-Dichloroethane-d4	97	80-134	PASS	
Toluene-d8	98	80-120	PASS	
1,4-Bromofluorobenzene	97	80-120	PASS	

MSD CLIENT SAMPLE NUMBER : Matrix Spike Duplicate

INSTRUMENT: GC/MS OO
D/T EXTRACTED: 11/13/2013 00:00
DATA FILE: W:\GCMS_OO_DATA\2013\131113\13NOV036.D\13NOV036.rr

ANALYZED BY: 486
D/T ANALYZED 11/14/2013 01:39

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	101	80-126	PASS	
1,2-Dichloroethane-d4	95	80-134	PASS	
Toluene-d8	101	80-120	PASS	
1,4-Bromofluorobenzene	99	80-120	PASS	

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8260B

WORK ORDER: 13-11-0697
BATCH ID:
LCS/MB: 131113L02
MS:
EXTRACTION : EPA 5030C

REVIEWED BY: 163
D/T REVIEWED: 11/14/2013 15:20

 # MB **CLIENT SAMPLE NUMBER : Method Blank**

INSTRUMENT: GC/MS OO
D/T EXTRACTED: 11/13/2013 00:00
DATA FILE: W:\GCMS_OO_DATA\2013\131113\13NOV031.D\13NOV031.rr

ANALYZED BY: 486
D/T ANALYZED 11/13/2013 23:27

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	100	80-126	PASS	
1,2-Dichloroethane-d4	98	80-134	PASS	
Toluene-d8	98	80-120	PASS	
1,4-Bromofluorobenzene	99	80-120	PASS	

 # LCS **CLIENT SAMPLE NUMBER : Lab Control Sample**

INSTRUMENT: GC/MS OO
D/T EXTRACTED: 11/13/2013 00:00
DATA FILE: W:\GCMS_OO_DATA\2013\131113\13NOV030.D\13NOV030.rr

ANALYZED BY: 486
D/T ANALYZED 11/13/2013 23:01

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	100	80-126	PASS	
1,2-Dichloroethane-d4	97	80-134	PASS	
Toluene-d8	99	80-120	PASS	
1,4-Bromofluorobenzene	99	80-120	PASS	

Return to Contents

INTERNAL STANDARD COMPOUNDS AREA REPORT
FOR METHOD: EPA 8260B

ICAL BATCH ID: 131112IC CCV BATCH ID: 131113B

ICAL MIDPOINT

SAMPLE ID: **099-15-001-11433** D/T ANALYZED: 11/12/2013 21:08

DATA FILE: W:\GCMS_OO_DATA\2013\131112\12NOV026.D\12NOV026.rr

COMPOUND	AREA	RETENTION TIME
1,4-Dichlorobenzene-d4	313337	13.97
1,4-Difluorobenzene	656809	7.56
Pentafluorobenzene	447233	6.63
Chlorobenzene-d5	593091	11.11
Tert-Butyl Alcohol-d9	61707	4.14

ICV

SAMPLE ID **099-15-001-11433** D/T ANALYZED: 11/12/2013 22:26

DATA FILE: W:\GCMS_OO_DATA\2013\131112\12NOV029.D\12NOV029.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	313636	156668	626674	13.97	PASS
1,4-Difluorobenzene	668074	328404	1313618	7.56	PASS
Pentafluorobenzene	454204	223616	894466	6.63	PASS
Chlorobenzene-d5	594517	296546	1186182	11.11	PASS
Tert-Butyl Alcohol-d9	91371	30854	123414	4.14	PASS

CCV

SAMPLE ID **099-15-001-11460** D/T ANALYZED: 11/13/2013 22:34

DATA FILE: W:\GCMS_OO_DATA\2013\131113\13NOV029.D\13NOV029.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	323792	156668	626674	13.97	PASS
1,4-Difluorobenzene	676878	328404	1313618	7.56	PASS
Pentafluorobenzene	460851	223616	894466	6.63	PASS
Chlorobenzene-d5	606186	296546	1186182	11.11	PASS
Tert-Butyl Alcohol-d9	50670	30854	123414	4.12	PASS

LCS

SAMPLE ID **099-14-001-12427** D/T ANALYZED: 11/13/2013 23:01

DATA FILE: W:\GCMS_OO_DATA\2013\131113\13NOV030.D\13NOV030.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	320852	161896	647584	13.97	PASS
1,4-Difluorobenzene	676052	338439	1353756	7.56	PASS
Pentafluorobenzene	463795	230426	921702	6.62	PASS
Chlorobenzene-d5	611630	303093	1212372	11.11	PASS
Tert-Butyl Alcohol-d9	80343	25335	101340	4.14	PASS

Return to Contents

MB

SAMPLE ID 099-14-001-12427 D/T ANALYZED: 11/13/2013 23:27

DATA FILE: W:\GCMS_OO_DATA\2013\131113\13NOV031.D\13NOV031.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	334284	161896	647584	13.97	PASS
1,4-Difluorobenzene	695863	338439	1353756	7.56	PASS
Pentafluorobenzene	479984	230426	921702	6.63	PASS
Chlorobenzene-d5	622158	303093	1212372	11.11	PASS
Tert-Butyl Alcohol-d9	72002	25335	101340	4.12	PASS

CS

SAMPLE ID 13-11-0697-1 D/T ANALYZED: 11/14/2013 00:20

DATA FILE: W:\GCMS_OO_DATA\2013\131113\13NOV033.D\13NOV033.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	328686	161896	647584	13.97	PASS
1,4-Difluorobenzene	678428	338439	1353756	7.56	PASS
Pentafluorobenzene	469573	230426	921702	6.63	PASS
Chlorobenzene-d5	610949	303093	1212372	11.11	PASS
Tert-Butyl Alcohol-d9	92979	25335	101340	4.14	PASS

MS

SAMPLE ID 13-11-0903-2 D/T ANALYZED: 11/14/2013 01:13

DATA FILE: W:\GCMS_OO_DATA\2013\131113\13NOV035.D\13NOV035.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	331535	161896	647584	13.97	PASS
1,4-Difluorobenzene	717304	338439	1353756	7.56	PASS
Pentafluorobenzene	486074	230426	921702	6.63	PASS
Chlorobenzene-d5	644723	303093	1212372	11.11	PASS
Tert-Butyl Alcohol-d9	79965	25335	101340	4.13	PASS

MSD

SAMPLE ID 13-11-0903-2 D/T ANALYZED: 11/14/2013 01:39

DATA FILE: W:\GCMS_OO_DATA\2013\131113\13NOV036.D\13NOV036.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	313762	161896	647584	13.97	PASS
1,4-Difluorobenzene	655819	338439	1353756	7.56	PASS
Pentafluorobenzene	452732	230426	921702	6.63	PASS
Chlorobenzene-d5	594933	303093	1212372	11.11	PASS
Tert-Butyl Alcohol-d9	48047	25335	101340	4.13	PASS

Notes:
1) For CCV, all IS areas must be within 50% to 200% of the mid-point of the initial calibration IS area to be considered PASS.
2) For all samples including QC, all IS areas must be within 50% to 200% of the CCV IS area to be considered PASS.

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV031.D
Acq On : 13 Nov 2013 11:27 pm
Operator : 486
Sample : MB
Misc : V092013C
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Nov 14 10:52:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert-Butyl Alcohol-d9	4.124	65	72002	250.00	ug/l	-0.01
4) Pentafluorobenzene	6.628	168	479984	50.00	ug/l	0.00
47) 1,4-Difluorobenzene	7.556	114	695863	50.00	ug/l	0.00
64) Chlorobenzene-d5	11.114	117	622158	50.00	ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.973	152	334284	50.00	ug/l	0.00
System Monitoring Compounds						
41) Dibromofluoromethane	6.525	113	186041	49.92	ug/l	0.00
Spiked Amount 50.000			Recovery =	99.84%		
46) 1,2-Dichloroethane-d4	6.956	65	189448	48.82	ug/l	0.00
Spiked Amount 50.000			Recovery =	97.64%		
61) Toluene-d8	9.368	98	804526	48.85	ug/l	0.00
Spiked Amount 50.000			Recovery =	97.70%		
80) 1,4-Bromofluorobenzene	12.543	95	294616	49.64	ug/l	0.00
Spiked Amount 50.000			Recovery =	99.28%		
Target Compounds						Qvalue
2) Ethanol	2.994	45	117	2.38	ug/l #	1
3) Tert-Butyl Alcohol (TBA)	0.000		0	N.D.		
5) Dichlorodifluoromethane	1.663	85	468	N.D.		
6) Chloromethane	1.832	50	4247	0.45	ug/l #	39
7) Vinyl Chloride	1.958	62	104	N.D.		
8) Bromomethane	2.291	94	5472	1.39	ug/l #	62
9) Chloroethane	0.000		0	N.D.	d	
10) 1,3-Butadiene	2.001	54	426	N.D.		
11) Trichlorofluoromethane	0.000		0	N.D.		
12) Diethyl Ether	3.087	45	131	N.D.		
13) Acetone	0.000		0	N.D.		
14) Iodomethane	3.546	142	2894	1.03	ug/l #	43
15) 1,1-Dichloroethene	0.000		0	N.D.		
16) 1,1,2-Trichloro-1,2,2-...	0.000		0	N.D.		
17) Isopropanol	0.000		0	N.D.	d	
18) Carbon Disulfide	3.649	76	682	N.D.		
19) Acetonitrile	3.846	41	117	N.D.		
20) Acrylonitrile	0.000		0	N.D.		
21) Allyl Chloride	0.000		0	N.D.		
22) Acrolein	0.000		0	N.D.		
23) Methylene Chloride	0.000		0	N.D.	d	
24) t-1,2-Dichloroethene	0.000		0	N.D.		
25) Isobutyl Alcohol	0.000		0	N.D.	d	
26) Methyl-t-Butyl Ether (...	0.000		0	N.D.		
27) Hexane	4.888	57	125	N.D.		
28) 1,1-Dichloroethane	0.000		0	N.D.		
29) Vinyl Acetate	0.000		0	N.D.		
30) Diisopropyl Ether (DIPE)	5.237	45	104	N.D.		
31) Chloroprene	5.215	53	257	N.D.		
32) Ethyl-t-Butyl Ether (E...	0.000		0	N.D.		
33) c-1,2-Dichloroethene	0.000		0	N.D.		
34) 2,2-Dichloropropane	0.000		0	N.D.		
35) 2-Butanone	5.875	43	123	N.D.		
36) Propionitrile	0.000		0	N.D.		
37) Methacrylonitrile	6.143	41	113	N.D.		
38) Bromochloromethane	0.000		0	N.D.		

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV031.D
Acq On : 13 Nov 2013 11:27 pm
Operator : 486
Sample : MB
Misc : V092013C
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Nov 14 10:52:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
39) Tetrahydrofuran	0.000		0	N.D.	
40) Chloroform	6.323	83	239	N.D.	
42) 1,1,1-Trichloroethane	0.000		0	N.D.	
43) Cyclohexane	0.000		0	N.D. d	
44) 1,1-Dichloropropene	0.000		0	N.D.	
45) Carbon Tetrachloride	6.765	117	104	N.D.	
48) Benzene	7.059	78	1574	N.D.	
49) 1,2-Dichloroethane	0.000		0	N.D.	
50) Tert-Amyl-Methyl Ether...	7.256	73	107	N.D.	
51) Thiophene	7.300	84	114	N.D.	
52) 2,2,4-Trimethyl Pentane	7.185	57	1466	N.D.	
53) Trichloroethene	7.872	95	242	N.D.	
54) 1,2-Dichloropropane	0.000		0	N.D.	
55) Dibromomethane	0.000		0	N.D.	
56) Methyl Methacrylate	0.000		0	N.D.	
57) 1,4-Dioxane	0.000		0	N.D.	
58) Bromodichloromethane	0.000		0	N.D.	
59) 2-Chloroethyl Vinyl Ether	0.000		0	N.D.	
60) c-1,3-Dichloropropene	0.000		0	N.D.	
62) Toluene	9.455	91	3240	0.15 ug/l	87
63) 4-Methyl-2-Pentanone	0.000		0	N.D.	
65) t-1,3-Dichloropropene	0.000		0	N.D.	
66) Ethyl Methacrylate	0.000		0	N.D.	
67) 1,1,2-Trichloroethane	0.000		0	N.D.	
68) Tetrachloroethene	10.131	166	205	N.D.	
69) 1,3-Dichloropropane	10.131	76	122	N.D.	
70) 2-Hexanone	0.000		0	N.D.	
71) Dibromochloromethane	0.000		0	N.D.	
72) 1,2-Dibromoethane	0.000		0	N.D.	
73) Chlorobenzene	11.141	112	780	N.D.	
74) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
75) Ethylbenzene	11.288	91	2130	0.09 ug/l	98
76) p/m-Xylene	11.441	91	3737	0.19 ug/l	90
77) o-Xylene	11.916	91	1664	0.08 ug/l	92
78) Styrene	11.927	104	1123	N.D.	
79) Isopropylbenzene	12.374	105	1873	N.D.	
81) 1,2,3-Trichloropropane	0.000		0	N.D.	
82) Bromobenzene	12.718	156	332	N.D.	
83) n-Propylbenzene	12.881	91	2457	0.09 ug/l	50
84) t-1,4-Dichloro-2-Butene	0.000		0	N.D.	
85) 2-Chlorotoluene	0.000		0	N.D. d	
86) 1,3,5-Trimethylbenzene	13.100	105	1657	0.08 ug/l	82
88) Bromoform	0.000		0	N.D.	
89) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
90) 4-Chlorotoluene	0.000		0	N.D. d	
91) 1,2,4-Trimethylbenzene	13.547	105	2549	0.12 ug/l	95
92) tert-Butylbenzene	0.000		0	N.D.	
93) p-Isopropyltoluene	13.951	119	2025	0.09 ug/l	68
94) sec-Butylbenzene	13.760	105	2189	0.08 ug/l	60
95) 1,3-Dichlorobenzene	13.874	146	1352	0.11 ug/l #	26
96) 1,4-Dichlorobenzene	13.995	146	1551	0.13 ug/l #	67
97) 1,2-Dichlorobenzene	14.458	146	1016	0.09 ug/l	83
98) n-Butylbenzene	14.453	91	1720	0.08 ug/l	88
99) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.	

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV031.D
Acq On : 13 Nov 2013 11:27 pm
Operator : 486
Sample : MB
Misc : V092013C
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Nov 14 10:52:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

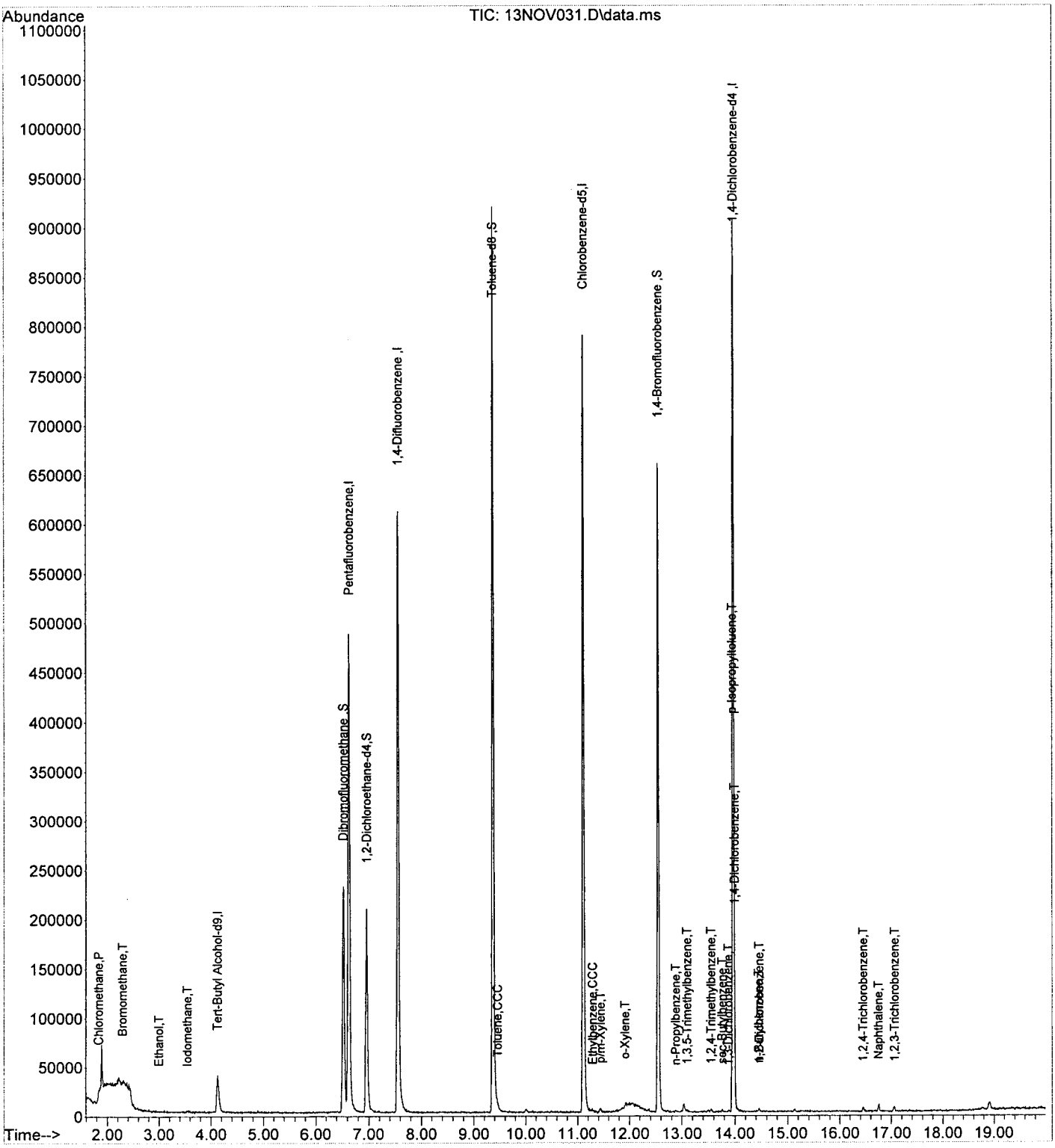
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	16.450	180	2428	0.26 ug/l	66
101) Hexachloro-1,3-Butadiene	16.695	225	458	N.D.	
102) Naphthalene	16.750	128	9732	0.51 ug/l	82
103) 1,2,3-Trichlorobenzene	17.061	180	3057	0.35 ug/l	67

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV031.D
Acq On : 13 Nov 2013 11:27 pm
Operator : 486
Sample : MB
Misc : V092013C
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Nov 14 10:52:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV030.D
Acq On : 13 Nov 2013 11:01 pm
Operator : 486
Sample : LCS V101713B/V110813B
Misc : V092013C
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Nov 14 09:10:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert-Butyl Alcohol-d9	4.140	65	80343	250.00	ug/l		0.00
4) Pentafluorobenzene	6.623	168	463795	50.00	ug/l		0.00
47) 1,4-Difluorobenzene	7.556	114	676052	50.00	ug/l		0.00
64) Chlorobenzene-d5	11.114	117	611630	50.00	ug/l		0.00
87) 1,4-Dichlorobenzene-d4	13.967	152	320852	50.00	ug/l		0.00
System Monitoring Compounds							
41) Dibromofluoromethane	6.530	113	179640	49.88	ug/l		0.00
Spiked Amount 50.000			Recovery =	99.76%			
46) 1,2-Dichloroethane-d4	6.950	65	182049	48.55	ug/l		0.00
Spiked Amount 50.000			Recovery =	97.10%			
61) Toluene-d8	9.368	98	795455	49.72	ug/l		0.00
Spiked Amount 50.000			Recovery =	99.44%			
80) 1,4-Bromofluorobenzene	12.543	95	289611	49.63	ug/l		0.00
Spiked Amount 50.000			Recovery =	99.26%			
Target Compounds							Qvalue
2) Ethanol	2.967	45	27731	505.07	ug/l		91
3) Tert-Butyl Alcohol (TBA)	4.260	59	95768	248.90	ug/l		91
5) Dichlorodifluoromethane	1.658	85	302088	52.96	ug/l		99
6) Chloromethane	1.827	50	389643	42.76	ug/l		96
7) Vinyl Chloride	1.952	62	349217	48.53	ug/l		94
8) Bromomethane	2.274	94	122528	32.10	ug/l		98
9) Chloroethane	2.400	64	183243	47.98	ug/l		100
10) 1,3-Butadiene	1.996	54	195125	34.19	ug/l		99
11) Trichlorofluoromethane	2.711	101	378939	49.71	ug/l		99
12) Diethyl Ether	3.076	45	139494	44.68	ug/l		93
13) Acetone	3.431	58	22981	53.37	ug/l		96
14) Iodomethane	3.546	142	325703	119.49	ug/l		95
15) 1,1-Dichloroethene	3.355	61	327105	47.67	ug/l		98
16) 1,1,2-Trichloro-1,2,2-...	3.382	101	234204	49.81	ug/l		98
17) Isopropanol	3.660	45	84781	247.45	ug/l		94
18) Carbon Disulfide	3.644	76	748710	47.47	ug/l		97
19) Acetonitrile	3.857	41	288497	106.12	ug/l		96
20) Acrylonitrile	4.419	53	64472	44.57	ug/l		98
21) Allyl Chloride	3.862	76	96071	54.56	ug/l		91
22) Acrolein	3.207	56	102237	129.85	ug/l		98
23) Methylene Chloride	4.042	84	246617	50.01	ug/l		98
24) t-1,2-Dichloroethene	4.468	96	250250	52.52	ug/l		95
25) Isobutyl Alcohol	6.989	43	19702	81.20	ug/l		84
26) Methyl-t-Butyl Ether (...	4.495	73	663970	50.60	ug/l		99
27) Hexane	4.904	57	398055	46.45	ug/l		97
28) 1,1-Dichloroethane	5.068	63	428358	49.61	ug/l		99
29) Vinyl Acetate	5.188	86	38504	58.94	ug/l	#	88
30) Diisopropyl Ether (DIPE)	5.232	45	763295	51.82	ug/l		96
31) Chloroprene	5.215	53	377998	52.73	ug/l		99
32) Ethyl-t-Butyl Ether (E...	5.739	59	750401	51.99	ug/l		98
33) c-1,2-Dichloroethene	5.892	96	272115	52.52	ug/l		94
34) 2,2-Dichloropropane	5.881	77	196006	38.39	ug/l		96
35) 2-Butanone	5.914	43	83658	50.70	ug/l		98
36) Propionitrile	5.985	54	27452	49.70	ug/l		92
37) Methacrylonitrile	6.176	41	114482	49.33	ug/l		99
38) Bromochloromethane	6.203	130	116957	51.10	ug/l		98

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV030.D
Acq On : 13 Nov 2013 11:01 pm
Operator : 486
Sample : LCS V101713B/V110813B
Misc : V092013C
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Nov 14 09:10:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39)	Tetrahydrofuran	6.296	42	65814	46.55	ug/l	94
40)	Chloroform	6.317	83	404464	51.74	ug/l	99
42)	1,1,1-Trichloroethane	6.569	97	345433	51.11	ug/l	99
43)	Cyclohexane	6.650	84	383298	49.92	ug/l	99
44)	1,1-Dichloropropene	6.787	75	333109	51.78	ug/l	99
45)	Carbon Tetrachloride	6.798	117	285501	50.01	ug/l	97
48)	Benzene	7.049	78	1010743	48.25	ug/l	98
49)	1,2-Dichloroethane	7.049	62	269633	48.80	ug/l	98
50)	Tert-Amyl-Methyl Ether...	7.229	73	686327	52.24	ug/l	98
51)	Thiophene	7.305	84	536920	51.21	ug/l	98
52)	2,2,4-Trimethyl Pentane	7.185	57	1047377	49.82	ug/l	99
53)	Trichloroethene	7.878	95	252923	50.45	ug/l	95
54)	1,2-Dichloropropane	8.124	63	264199	52.07	ug/l	100
55)	Dibromomethane	8.271	93	117367	51.51	ug/l	98
56)	Methyl Methacrylate	8.315	69	175297	53.78	ug/l	97
57)	1,4-Dioxane	8.325	88	29145	518.22	ug/l	95
58)	Bromodichloromethane	8.473	83	305635	50.27	ug/l	99
59)	2-Chloroethyl Vinyl Ether	8.866	63	92342	39.77	ug/l	98
60)	c-1,3-Dichloropropene	9.029	75	391776	55.86	ug/l	99
62)	Toluene	9.449	91	1068823	49.51	ug/l	100
63)	4-Methyl-2-Pentanone	9.215	58	88703	54.05	ug/l	98
65)	t-1,3-Dichloropropene	9.700	75	310776	50.54	ug/l	97
66)	Ethyl Methacrylate	9.842	69	285405	44.84	ug/l	98
67)	1,1,2-Trichloroethane	9.913	83	175545	50.63	ug/l	98
68)	Tetrachloroethene	10.126	166	303302	51.83	ug/l	96
69)	1,3-Dichloropropane	10.115	76	347651	50.10	ug/l	100
70)	2-Hexanone	10.230	58	86041	53.50	ug/l	86
71)	Dibromochloromethane	10.393	129	239552	51.15	ug/l	99
72)	1,2-Dibromoethane	10.524	107	182354	52.19	ug/l	93
73)	Chlorobenzene	11.146	112	672122	48.19	ug/l	99
74)	1,1,1,2-Tetrachloroethane	11.245	131	244433	50.92	ug/l	94
75)	Ethylbenzene	11.288	91	1175375	50.14	ug/l	99
76)	p/m-Xylene	11.436	91	1747564	91.04	ug/l	98
77)	o-Xylene	11.916	91	886708	44.77	ug/l	98
78)	Styrene	11.927	104	786271	49.63	ug/l	99
79)	Isopropylbenzene	12.369	105	1106932	46.70	ug/l	99
81)	1,2,3-Trichloropropane	12.751	110	68180	48.51	ug/l	95
82)	Bromobenzene	12.729	156	305445	49.51	ug/l	98
83)	n-Propylbenzene	12.871	91	1236204	45.36	ug/l	99
84)	t-1,4-Dichloro-2-Butene	12.778	53	39171	31.00	ug/l	97
85)	2-Chlorotoluene	12.974	91	744582	46.11	ug/l	100
86)	1,3,5-Trimethylbenzene	13.094	105	1015824	51.13	ug/l	99
88)	Bromoform	12.129	173	168416	53.02	ug/l	95
89)	1,1,2,2-Tetrachloroethane	12.701	83	270015	51.02	ug/l	98
90)	4-Chlorotoluene	13.100	91	840733	45.81	ug/l	96
91)	1,2,4-Trimethylbenzene	13.553	105	984755	49.56	ug/l	99
92)	tert-Butylbenzene	13.493	134	223739	48.04	ug/l	96
93)	p-Isopropyltoluene	13.945	119	1006272	45.69	ug/l	99
94)	sec-Butylbenzene	13.765	105	1195232	46.36	ug/l	99
95)	1,3-Dichlorobenzene	13.885	146	538422	46.68	ug/l	98
96)	1,4-Dichlorobenzene	14.000	146	573687	50.45	ug/l	98
97)	1,2-Dichlorobenzene	14.453	146	517611	48.02	ug/l	98
98)	n-Butylbenzene	14.448	91	946885	48.22	ug/l	99
99)	1,2-Dibromo-3-Chloropr...	15.397	75	47142	48.80	ug/l	92

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV030.D
Acq On : 13 Nov 2013 11:01 pm
Operator : 486
Sample : LCS V101713B/V110813B
Misc : V092013C
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Nov 14 09:10:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	16.450	180	433120	48.03	ug/l	99
101) Hexachloro-1,3-Butadiene	16.690	225	266217	47.67	ug/l	100
102) Naphthalene	16.750	128	958458	52.31	ug/l	98
103) 1,2,3-Trichlorobenzene	17.056	180	418760	49.42	ug/l	100

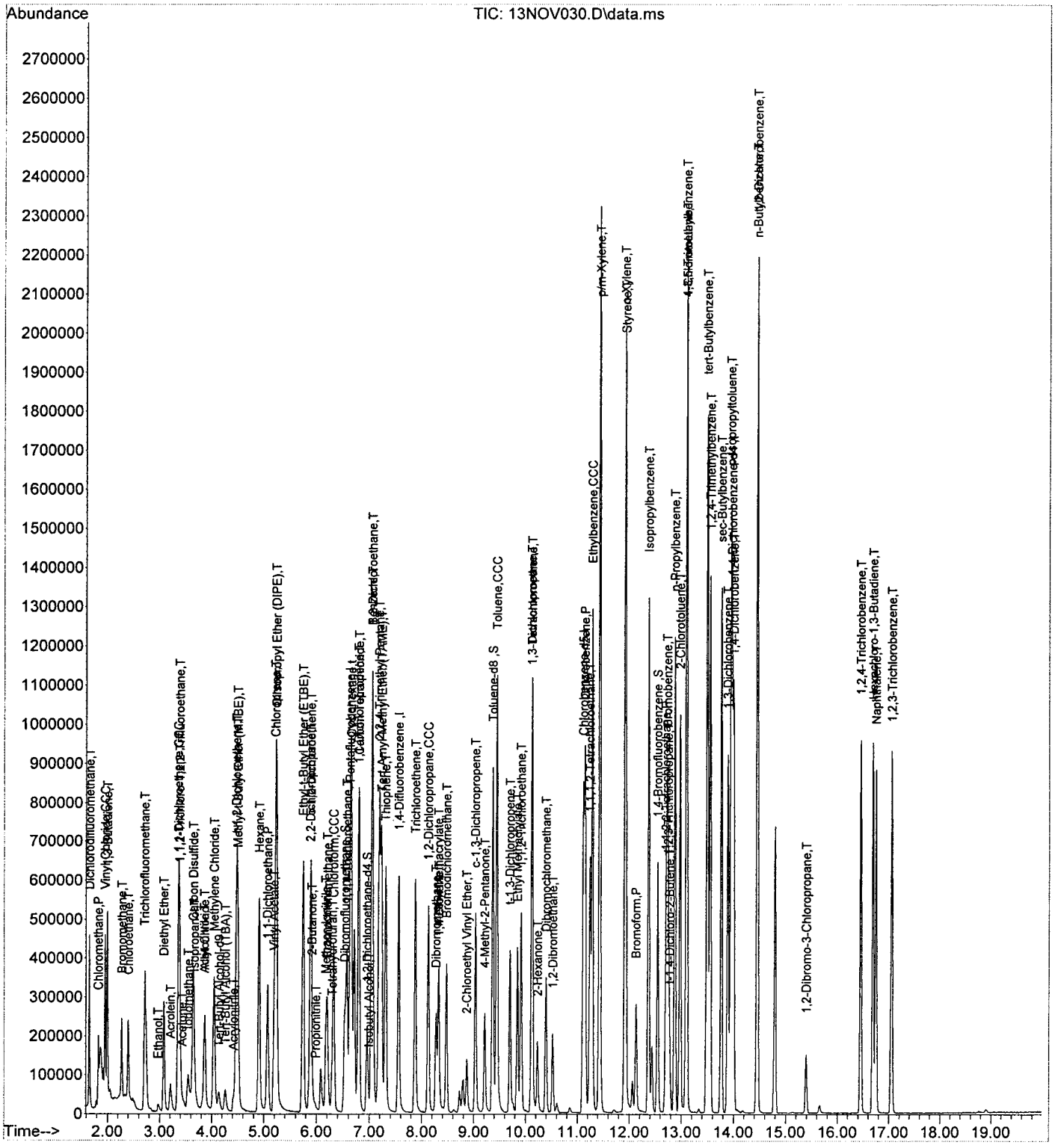
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV030.D
Acq On : 13 Nov 2013 11:01 pm
Operator : 486
Sample : LCS V101713B/V110813B
Misc : V092013C
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Nov 14 09:10:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV035.D
Acq On : 14 Nov 2013 1:13 am
Operator : 486
Sample : MS 0903-2A V101713B/V110813B
Misc : V092013C
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Nov 14 09:11:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert-Butyl Alcohol-d9	4.135	65	79965	250.00	ug/l	0.00
4) Pentafluorobenzene	6.628	168	486074	50.00	ug/l	0.00
47) 1,4-Difluorobenzene	7.556	114	717304	50.00	ug/l	0.00
64) Chlorobenzene-d5	11.114	117	644723	50.00	ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.967	152	331535	50.00	ug/l	0.00
System Monitoring Compounds						
41) Dibromofluoromethane	6.525	113	192294	50.95	ug/l	0.00
Spiked Amount 50.000			Recovery =	101.90%		
46) 1,2-Dichloroethane-d4	6.956	65	190007	48.35	ug/l	0.00
Spiked Amount 50.000			Recovery =	96.70%		
61) Toluene-d8	9.367	98	834819	49.18	ug/l	0.00
Spiked Amount 50.000			Recovery =	98.36%		
80) 1,4-Bromofluorobenzene	12.543	95	298968	48.61	ug/l	0.00
Spiked Amount 50.000			Recovery =	97.22%		
Target Compounds						Qvalue
2) Ethanol	2.973	45	27787	508.48	ug/l	94
3) Tert-Butyl Alcohol (TBA)	4.260	59	87859	229.42	ug/l	93
5) Dichlorodifluoromethane	1.658	85	305996	51.19	ug/l	98
6) Chloromethane	1.827	50	372478	39.00	ug/l	97
7) Vinyl Chloride	1.952	62	353796	46.91	ug/l	96
8) Bromomethane	2.274	94	124459	31.11	ug/l	100
9) Chloroethane	2.400	64	183686	45.89	ug/l	100
10) 1,3-Butadiene	1.996	54	188989	31.60	ug/l	99
11) Trichlorofluoromethane	2.711	101	369170	46.21	ug/l	100
12) Diethyl Ether	3.076	45	140140	42.83	ug/l	96
13) Acetone	3.431	58	25400	56.29	ug/l	93
14) Iodomethane	3.546	142	310215	108.59	ug/l	95
15) 1,1-Dichloroethene	3.360	61	324223	45.09	ug/l	98
16) 1,1,2-Trichloro-1,2,2-...	3.376	101	229199	46.51	ug/l	98
17) Isopropanol	3.666	45	82738	230.41	ug/l	95
18) Carbon Disulfide	3.644	76	737326	44.61	ug/l	99
19) Acetonitrile	3.862	41	279395	98.06	ug/l	95
20) Acrylonitrile	4.424	53	66873	44.16	ug/l	94
21) Allyl Chloride	3.862	76	92101	49.91	ug/l	85
22) Acrolein	3.224	56	76411	92.60	ug/l	86
23) Methylene Chloride	4.042	84	246983	47.79	ug/l	99
24) t-1,2-Dichloroethene	4.468	96	249080	49.88	ug/l	98
25) Isobutyl Alcohol	6.983	43	18585	73.09	ug/l	95
26) Methyl-t-Butyl Ether (...	4.495	73	649318	47.22	ug/l	99
27) Hexane	4.904	57	401040	44.66	ug/l	98
28) 1,1-Dichloroethane	5.068	63	428550	47.36	ug/l	98
29) Vinyl Acetate	5.188	86	29469	43.04	ug/l	98
30) Diisopropyl Ether (DIPE)	5.237	45	812522	52.64	ug/l	98
31) Chloroprene	5.215	53	375500	49.98	ug/l	98
32) Ethyl-t-Butyl Ether (E...	5.739	59	733786	48.50	ug/l	97
33) c-1,2-Dichloroethene	5.892	96	267586	49.28	ug/l	98
34) 2,2-Dichloropropane	5.886	77	177590	33.19	ug/l	96
35) 2-Butanone	5.919	43	83018	48.01	ug/l	97
36) Propionitrile	5.974	54	27743	47.92	ug/l	82
37) Methacrylonitrile	6.176	41	110145	45.29	ug/l	96
38) Bromochloromethane	6.203	130	111504	46.48	ug/l	99

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV035.D
Acq On : 14 Nov 2013 1:13 am
Operator : 486
Sample : MS 0903-2A V101713B/V110813B
Misc : V092013C
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Nov 14 09:11:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39)	Tetrahydrofuran	6.296	42	63911	43.13	ug/l	90
40)	Chloroform	6.323	83	402716	49.15	ug/l	97
42)	1,1,1-Trichloroethane	6.568	97	341911	48.27	ug/l	99
43)	Cyclohexane	6.645	84	382768	47.57	ug/l	99
44)	1,1-Dichloropropene	6.792	75	324831	48.18	ug/l	99
45)	Carbon Tetrachloride	6.798	117	282492	47.22	ug/l	96
48)	Benzene	7.049	78	1000566	45.02	ug/l	98
49)	1,2-Dichloroethane	7.054	62	263856	45.01	ug/l	98
50)	Tert-Amyl-Methyl Ether...	7.229	73	657898	47.19	ug/l	98
51)	Thiophene	7.305	84	533051	47.92	ug/l	97
52)	2,2,4-Trimethyl Pentane	7.185	57	1050518	47.10	ug/l	99
53)	Trichloroethene	7.878	95	257393	48.39	ug/l	98
54)	1,2-Dichloropropane	8.129	63	256085	47.57	ug/l	99
55)	Dibromomethane	8.271	93	112907	46.70	ug/l	97
56)	Methyl Methacrylate	8.320	69	172558	49.90	ug/l	95
57)	1,4-Dioxane	8.331	88	27594	462.43	ug/l	98
58)	Bromodichloromethane	8.473	83	294881	45.71	ug/l	98
59)	2-Chloroethyl Vinyl Ether	8.855	63	13039	5.29	ug/l	72
60)	c-1,3-Dichloropropene	9.029	75	383759	51.57	ug/l	100
62)	Toluene	9.449	91	1063010	46.41	ug/l	98
63)	4-Methyl-2-Pentanone	9.215	58	86204	49.51	ug/l	99
65)	t-1,3-Dichloropropene	9.700	75	297172	45.85	ug/l	98
66)	Ethyl Methacrylate	9.848	69	272827	40.66	ug/l	98
67)	1,1,2-Trichloroethane	9.913	83	172555	47.21	ug/l	99
68)	Tetrachloroethene	10.126	166	299328	48.52	ug/l	97
69)	1,3-Dichloropropane	10.115	76	337587	46.15	ug/l	98
70)	2-Hexanone	10.230	58	84256	49.70	ug/l	95
71)	Dibromochloromethane	10.393	129	232161	47.03	ug/l	97
72)	1,2-Dibromoethane	10.524	107	178274	48.40	ug/l	99
73)	Chlorobenzene	11.146	112	667877	45.43	ug/l	100
74)	1,1,1,2-Tetrachloroethane	11.244	131	243587	48.14	ug/l	93
75)	Ethylbenzene	11.288	91	1162111	47.03	ug/l	99
76)	p/m-Xylene	11.435	91	1744785	86.23	ug/l	99
77)	o-Xylene	11.916	91	886407	42.46	ug/l	98
78)	Styrene	11.927	104	765325	45.83	ug/l	99
79)	Isopropylbenzene	12.368	105	1109149	44.39	ug/l	98
81)	1,2,3-Trichloropropane	12.750	110	68319	46.11	ug/l	91
82)	Bromobenzene	12.723	156	302394	46.50	ug/l	94
83)	n-Propylbenzene	12.870	91	1239029	43.13	ug/l	100
84)	t-1,4-Dichloro-2-Butene	12.778	53	37088	28.03	ug/l	96
85)	2-Chlorotoluene	12.974	91	747166	43.89	ug/l	99
86)	1,3,5-Trimethylbenzene	13.094	105	1013163	48.38	ug/l	99
88)	Bromoform	12.128	173	162478	49.50	ug/l	97
89)	1,1,2,2-Tetrachloroethane	12.701	83	266717	48.77	ug/l	98
90)	4-Chlorotoluene	13.100	91	818881	43.19	ug/l	99
91)	1,2,4-Trimethylbenzene	13.553	105	979639	47.71	ug/l	98
92)	tert-Butylbenzene	13.493	134	225410	46.84	ug/l	93
93)	p-Isopropyltoluene	13.945	119	1024035	44.99	ug/l	98
94)	sec-Butylbenzene	13.765	105	1216625	45.67	ug/l	99
95)	1,3-Dichlorobenzene	13.891	146	530009	44.47	ug/l	99
96)	1,4-Dichlorobenzene	14.000	146	557024	47.40	ug/l	98
97)	1,2-Dichlorobenzene	14.453	146	501959	45.07	ug/l	98
98)	n-Butylbenzene	14.447	91	960462	47.34	ug/l	99
99)	1,2-Dibromo-3-Chloropr...	15.391	75	46980	47.06	ug/l	88

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV035.D
Acq On : 14 Nov 2013 1:13 am
Operator : 486
Sample : MS 0903-2A V101713B/V110813B
Misc : V092013C
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Nov 14 09:11:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	16.450	180	411960	44.21	ug/l	100
101) Hexachloro-1,3-Butadiene	16.690	225	273081	47.33	ug/l	98
102) Naphthalene	16.750	128	906150	47.86	ug/l	99
103) 1,2,3-Trichlorobenzene	17.050	180	394436	45.05	ug/l	99

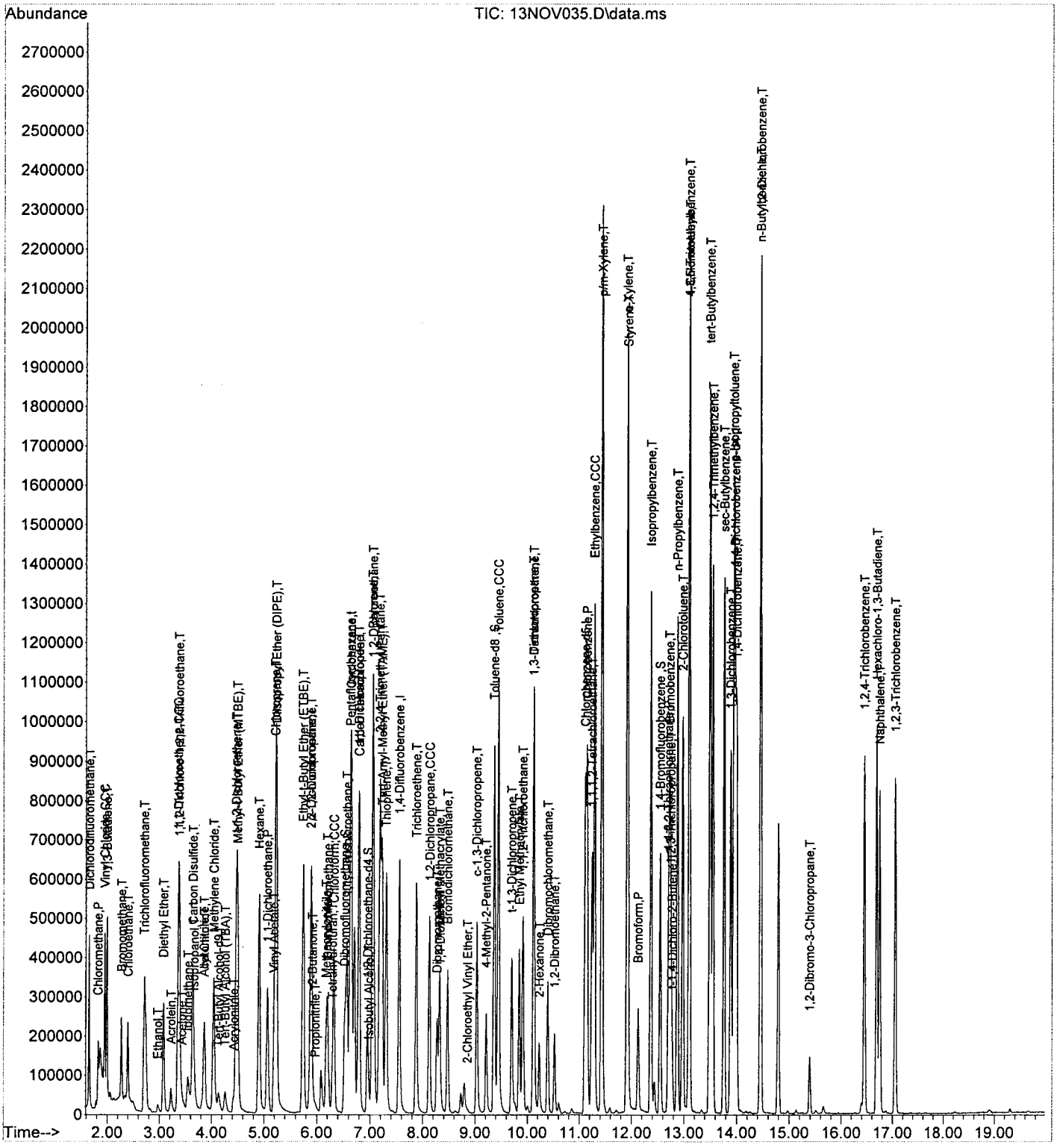
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV035.D
Acq On : 14 Nov 2013 1:13 am
Operator : 486
Sample : MS 0903-2A V101713B/V110813B
Misc : V092013C
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Nov 14 09:11:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV036.D
Acq On : 14 Nov 2013 1:39 am
Operator : 486
Sample : MSD 0903-2A V101713B/V110813B
Misc : V092013C
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Nov 14 09:11:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert-Butyl Alcohol-d9	4.130	65	48047	250.00	ug/l		0.00
4) Pentafluorobenzene	6.629	168	452732	50.00	ug/l		0.00
47) 1,4-Difluorobenzene	7.556	114	655819	50.00	ug/l		0.00
64) Chlorobenzene-d5	11.114	117	594933	50.00	ug/l		0.00
87) 1,4-Dichlorobenzene-d4	13.967	152	313762	50.00	ug/l		0.00
System Monitoring Compounds							
41) Dibromofluoromethane	6.530	113	177084	50.37	ug/l		0.00
Spiked Amount 50.000			Recovery =	100.74%			
46) 1,2-Dichloroethane-d4	6.950	65	173669	47.45	ug/l		0.00
Spiked Amount 50.000			Recovery =	94.90%			
61) Toluene-d8	9.368	98	780328	50.28	ug/l		0.00
Spiked Amount 50.000			Recovery =	100.56%			
80) 1,4-Bromofluorobenzene	12.549	95	281007	49.51	ug/l		0.00
Spiked Amount 50.000			Recovery =	99.02%			
Target Compounds							Qvalue
2) Ethanol	2.967	45	25145	765.81	ug/l		80
3) Tert-Butyl Alcohol (TBA)	4.250	59	56170	244.11	ug/l		98
5) Dichlorodifluoromethane	1.658	85	291640	52.38	ug/l		97
6) Chloromethane	1.827	50	388890	43.72	ug/l		99
7) Vinyl Chloride	1.952	62	342652	48.78	ug/l		97
8) Bromomethane	2.274	94	109666	29.43	ug/l		97
9) Chloroethane	2.400	64	175272	47.01	ug/l		95
10) 1,3-Butadiene	1.991	54	185739	33.34	ug/l		97
11) Trichlorofluoromethane	2.716	101	364524	48.99	ug/l		99
12) Diethyl Ether	3.071	45	131843	43.26	ug/l		97
13) Acetone	3.431	58	24210	57.60	ug/l		86
14) Iodomethane	3.546	142	341044	128.18	ug/l		98
15) 1,1-Dichloroethene	3.360	61	319002	47.63	ug/l		97
16) 1,1,2-Trichloro-1,2,2-...	3.377	101	220188	47.97	ug/l		99
17) Isopropanol	3.655	45	78733	235.41	ug/l		95
18) Carbon Disulfide	3.644	76	730896	47.47	ug/l		96
19) Acetonitrile	3.862	41	225966	85.15	ug/l		99
20) Acrylonitrile	4.419	53	61791	43.85	ug/l		85
21) Allyl Chloride	3.868	76	76319	44.40	ug/l		92
22) Acrolein	3.218	56	71496	93.03	ug/l		91
23) Methylene Chloride	4.042	84	243966	50.68	ug/l		98
24) t-1,2-Dichloroethene	4.468	96	241674	51.96	ug/l		98
25) Isobutyl Alcohol	6.983	43	18083	76.35	ug/l		99
26) Methyl-t-Butyl Ether (...	4.490	73	605687	47.29	ug/l		99
27) Hexane	4.904	57	381449	45.60	ug/l		98
28) 1,1-Dichloroethane	5.068	63	403459	47.87	ug/l		96
29) Vinyl Acetate	5.188	86	30320	47.55	ug/l	#	81
30) Diisopropyl Ether (DIPE)	5.232	45	777571	54.08	ug/l		99
31) Chloroprene	5.215	53	355325	50.78	ug/l		98
32) Ethyl-t-Butyl Ether (E...	5.739	59	706263	50.12	ug/l		97
33) c-1,2-Dichloroethene	5.886	96	262718	51.95	ug/l		95
34) 2,2-Dichloropropane	5.881	77	103790	20.83	ug/l		95
35) 2-Butanone	5.914	43	78692	48.86	ug/l		98
36) Propionitrile	5.974	54	27434	50.88	ug/l		85
37) Methacrylonitrile	6.176	41	103968	45.90	ug/l		100
38) Bromochloromethane	6.203	130	108651	48.63	ug/l		92

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV036.D
Acq On : 14 Nov 2013 1:39 am
Operator : 486
Sample : MSD 0903-2A V101713B/V110813B
Misc : V092013C
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Nov 14 09:11:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39)	Tetrahydrofuran	6.290	42	61760	44.75	ug/l		96
40)	Chloroform	6.318	83	385588	50.53	ug/l		100
42)	1,1,1-Trichloroethane	6.563	97	323829	49.09	ug/l		99
43)	Cyclohexane	6.645	84	361133	48.19	ug/l	#	96
44)	1,1-Dichloropropene	6.787	75	311470	49.60	ug/l		98
45)	Carbon Tetrachloride	6.798	117	270505	48.55	ug/l		98
48)	Benzene	7.049	78	968961	47.68	ug/l		100
49)	1,2-Dichloroethane	7.049	62	257248	48.00	ug/l		99
50)	Tert-Amyl-Methyl Ether...	7.223	73	633898	49.74	ug/l		98
51)	Thiophene	7.305	84	508095	49.96	ug/l		99
52)	2,2,4-Trimethyl Pentane	7.185	57	995369	48.81	ug/l		98
53)	Trichloroethene	7.873	95	242828	49.93	ug/l		99
54)	1,2-Dichloropropane	8.124	63	250594	50.92	ug/l		100
55)	Dibromomethane	8.271	93	104244	47.16	ug/l		99
56)	Methyl Methacrylate	8.315	69	166600	52.69	ug/l		98
57)	1,4-Dioxane	8.325	88	26507	485.86	ug/l		90
58)	Bromodichloromethane	8.467	83	283292	48.03	ug/l		98
59)	2-Chloroethyl Vinyl Ether	8.844	63	16949	7.53	ug/l		69
60)	c-1,3-Dichloropropene	9.029	75	365766	53.76	ug/l		99
62)	Toluene	9.450	91	1045017	49.90	ug/l		98
63)	4-Methyl-2-Pentanone	9.215	58	84550	53.11	ug/l		93
65)	t-1,3-Dichloropropene	9.700	75	283360	47.38	ug/l		97
66)	Ethyl Methacrylate	9.842	69	270418	43.67	ug/l		100
67)	1,1,2-Trichloroethane	9.913	83	165150	48.97	ug/l		98
68)	Tetrachloroethene	10.126	166	289265	50.82	ug/l		97
69)	1,3-Dichloropropane	10.115	76	327674	48.54	ug/l		98
70)	2-Hexanone	10.230	58	83840	53.59	ug/l		97
71)	Dibromochloromethane	10.393	129	225645	49.53	ug/l		99
72)	1,2-Dibromoethane	10.519	107	170390	50.14	ug/l		95
73)	Chlorobenzene	11.146	112	647506	47.73	ug/l		99
74)	1,1,1,2-Tetrachloroethane	11.245	131	235114	50.35	ug/l		95
75)	Ethylbenzene	11.288	91	1133775	49.72	ug/l		100
76)	p/m-Xylene	11.436	91	1687501	90.38	ug/l		98
77)	o-Xylene	11.910	91	862292	44.76	ug/l		98
78)	Styrene	11.927	104	758510	49.22	ug/l		98
79)	Isopropylbenzene	12.369	105	1081526	46.91	ug/l		99
81)	1,2,3-Trichloropropane	12.751	110	68210	49.89	ug/l	#	84
82)	Bromobenzene	12.729	156	306541	51.08	ug/l		97
83)	n-Propylbenzene	12.871	91	1208831	45.60	ug/l		99
84)	t-1,4-Dichloro-2-Butene	12.778	53	34187	28.00	ug/l		97
85)	2-Chlorotoluene	12.974	91	728520	46.38	ug/l		100
86)	1,3,5-Trimethylbenzene	13.094	105	997612	51.63	ug/l		98
88)	Bromoform	12.129	173	160064	51.53	ug/l		93
89)	1,1,2,2-Tetrachloroethane	12.701	83	262853	50.79	ug/l		99
90)	4-Chlorotoluene	13.100	91	814693	45.40	ug/l		98
91)	1,2,4-Trimethylbenzene	13.553	105	972209	50.03	ug/l		100
92)	tert-Butylbenzene	13.493	134	219412	48.18	ug/l		98
93)	p-Isopropyltoluene	13.946	119	1002686	46.55	ug/l		99
94)	sec-Butylbenzene	13.765	105	1183319	46.93	ug/l		100
95)	1,3-Dichlorobenzene	13.886	146	523714	46.43	ug/l		98
96)	1,4-Dichlorobenzene	14.000	146	556422	50.03	ug/l		98
97)	1,2-Dichlorobenzene	14.453	146	498340	47.28	ug/l		99
98)	n-Butylbenzene	14.448	91	945233	49.23	ug/l		98
99)	1,2-Dibromo-3-Chloropr...	15.391	75	45431	48.09	ug/l		88

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV036.D
Acq On : 14 Nov 2013 1:39 am
Operator : 486
Sample : MSD 0903-2A V101713B/V110813B
Misc : V092013C
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Nov 14 09:11:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	16.450	180	414903	47.05	ug/l	100
101) Hexachloro-1,3-Butadiene	16.690	225	266602	48.82	ug/l	98
102) Naphthalene	16.750	128	915130	51.07	ug/l	99
103) 1,2,3-Trichlorobenzene	17.050	180	400495	48.33	ug/l	98

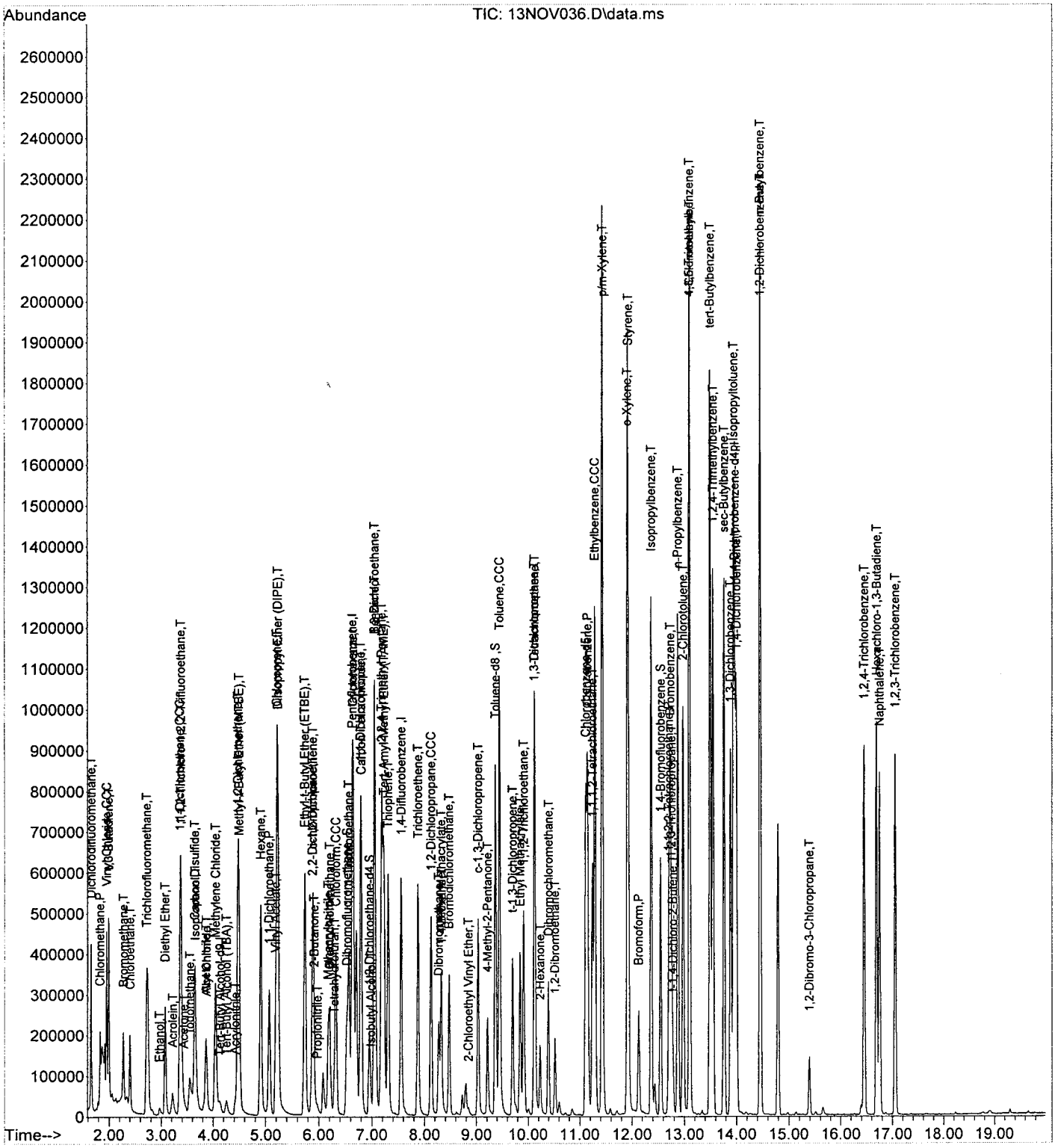
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV036.D
Acq On : 14 Nov 2013 1:39 am
Operator : 486
Sample : MSD 0903-2A V101713B/V110813B
Misc : V092013C
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Nov 14 09:11:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS OO DATA\2013\131113\
Data File : 13NOV034.D
Acq On : 14 Nov 2013 12:46 am
Operator : 486
Sample : 13-11-0903-2A 5ML PH<2
Misc : V092013C
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Nov 14 11:28:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert-Butyl Alcohol-d9	4.124	65	84642	250.00	ug/l	-0.01
4) Pentafluorobenzene	6.629	168	480300	50.00	ug/l	0.00
47) 1,4-Difluorobenzene	7.556	114	684746	50.00	ug/l	0.00
64) Chlorobenzene-d5	11.108	117	619849	50.00	ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.967	152	329434	50.00	ug/l	0.00
System Monitoring Compounds						
41) Dibromofluoromethane	6.530	113	184272	49.41	ug/l	0.00
Spiked Amount 50.000			Recovery =	98.82%		
46) 1,2-Dichloroethane-d4	6.956	65	187955	48.41	ug/l	0.00
Spiked Amount 50.000			Recovery =	96.82%		
61) Toluene-d8	9.368	98	807949	49.86	ug/l	0.00
Spiked Amount 50.000			Recovery =	99.72%		
80) 1,4-Bromofluorobenzene	12.549	95	296608	50.16	ug/l	0.00
Spiked Amount 50.000			Recovery =	100.32%		
Target Compounds						Qvalue
2) Ethanol	3.033	45	229	3.96	ug/l #	46
3) Tert-Butyl Alcohol (TBA)	4.244	59	104	0.26	ug/l #	58
5) Dichlorodifluoromethane	1.658	85	136	N.D.		
6) Chloromethane	1.832	50	2077	0.22	ug/l	84
7) Vinyl Chloride	0.000		0	N.D.		
8) Bromomethane	2.285	94	3006	0.76	ug/l #	42
9) Chloroethane	0.000		0	N.D.	d	
10) 1,3-Butadiene	1.980	54	103	N.D.		
11) Trichlorofluoromethane	0.000		0	N.D.		
12) Diethyl Ether	3.104	45	100	N.D.		
13) Acetone	3.442	58	2864	6.42	ug/l #	36
14) Iodomethane	0.000		0	N.D.	d	
15) 1,1-Dichloroethene	0.000		0	N.D.		
16) 1,1,2-Trichloro-1,2,2-...	0.000		0	N.D.		
17) Isopropanol	3.660	45	102	0.29	ug/l	92
18) Carbon Disulfide	3.649	76	102	N.D.		
19) Acetonitrile	0.000		0	N.D.	d	
20) Acrylonitrile	0.000		0	N.D.		
21) Allyl Chloride	0.000		0	N.D.		
22) Acrolein	0.000		0	N.D.	d	
23) Methylene Chloride	0.000		0	N.D.		
24) t-1,2-Dichloroethene	0.000		0	N.D.		
25) Isobutyl Alcohol	0.000		0	N.D.	d	
26) Methyl-t-Butyl Ether (...	4.506	73	3242	0.24	ug/l	53
27) Hexane	0.000		0	N.D.		
28) 1,1-Dichloroethane	0.000		0	N.D.		
29) Vinyl Acetate	0.000		0	N.D.		
30) Diisopropyl Ether (DIPE)	5.232	45	58125	3.81	ug/l	100
31) Chloroprene	0.000		0	N.D.		
32) Ethyl-t-Butyl Ether (E...	5.739	59	539	N.D.		
33) c-1,2-Dichloroethene	0.000		0	N.D.		
34) 2,2-Dichloropropane	5.854	77	228	N.D.		
35) 2-Butanone	5.897	43	122	N.D.		
36) Propionitrile	0.000		0	N.D.		
37) Methacrylonitrile	6.176	41	124	N.D.		
38) Bromochloromethane	0.000		0	N.D.		
39) Tetrahydrofuran	6.323	42	114	N.D.		
40) Chloroform	0.000		0	N.D.		
42) 1,1,1-Trichloroethane	0.000		0	N.D.		
43) Cyclohexane	0.000		0	N.D.	d	

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS OO DATA\2013\131113\
Data File : 13NOV034.D
Acq On : 14 Nov 2013 12:46 am
Operator : 486
Sample : 13-11-0903-2A 5ML PH<2
Misc : V092013C
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Nov 14 11:28:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

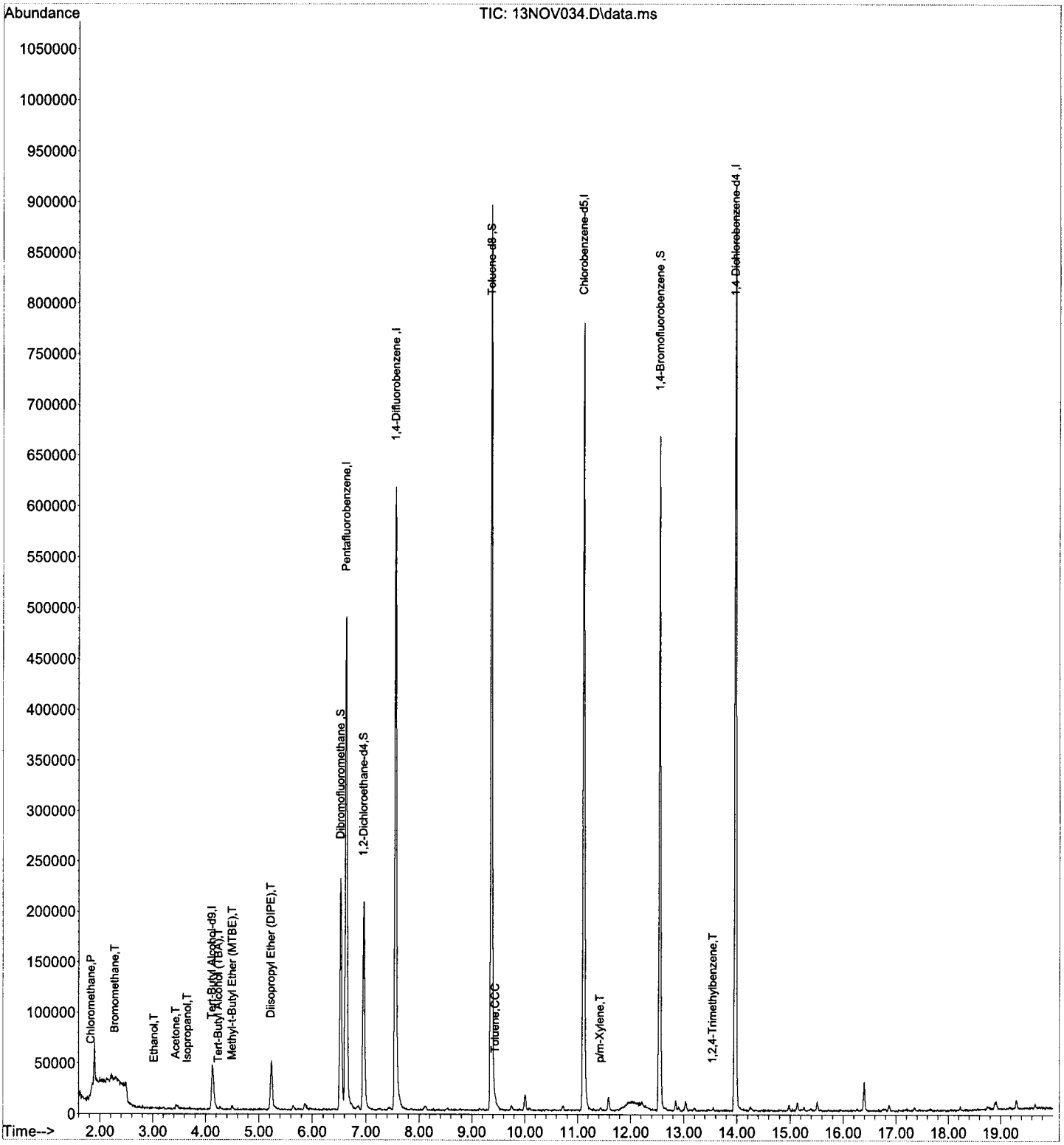
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,1-Dichloropropene	0.000		0	N.D.	
45) Carbon Tetrachloride	6.738	117	103	N.D.	
48) Benzene	7.049	78	353	N.D.	
49) 1,2-Dichloroethane	0.000		0	N.D.	
50) Tert-Amyl-Methyl Ether...	0.000		0	N.D.	
51) Thiophene	0.000		0	N.D.	
52) 2,2,4-Trimethyl Pentane	7.180	57	126	N.D.	
53) Trichloroethene	0.000		0	N.D.	
54) 1,2-Dichloropropane	0.000		0	N.D.	
55) Dibromomethane	0.000		0	N.D.	
56) Methyl Methacrylate	0.000		0	N.D.	
57) 1,4-Dioxane	0.000		0	N.D.	
58) Bromodichloromethane	0.000		0	N.D.	
59) 2-Chloroethyl Vinyl Ether	0.000		0	N.D.	
60) c-1,3-Dichloropropene	0.000		0	N.D.	
62) Toluene	9.449	91	1758	0.08 ug/l	75
63) 4-Methyl-2-Pentanone	0.000		0	N.D.	
65) t-1,3-Dichloropropene	0.000		0	N.D.	
66) Ethyl Methacrylate	0.000		0	N.D.	
67) 1,1,2-Trichloroethane	0.000		0	N.D.	
68) Tetrachloroethene	0.000		0	N.D.	
69) 1,3-Dichloropropane	0.000		0	N.D.	
70) 2-Hexanone	0.000		0	N.D.	
71) Dibromochloromethane	0.000		0	N.D.	
72) 1,2-Dibromoethane	0.000		0	N.D.	
73) Chlorobenzene	0.000		0	N.D.	
74) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
75) Ethylbenzene	0.000		0	N.D.	
76) p/m-Xylene	11.430	91	2101	0.11 ug/l	66
77) o-Xylene	11.916	91	462	N.D.	
78) Styrene	0.000		0	N.D.	
79) Isopropylbenzene	0.000		0	N.D.	
81) 1,2,3-Trichloropropane	0.000		0	N.D.	
82) Bromobenzene	0.000		0	N.D.	
83) n-Propylbenzene	0.000		0	N.D.	
84) t-1,4-Dichloro-2-Butene	0.000		0	N.D.	
85) 2-Chlorotoluene	0.000		0	N.D.	
86) 1,3,5-Trimethylbenzene	0.000		0	N.D.	
88) Bromoform	0.000		0	N.D.	
89) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
90) 4-Chlorotoluene	13.111	91	108	N.D.	
91) 1,2,4-Trimethylbenzene	13.553	105	2139	0.10 ug/l	81
92) tert-Butylbenzene	0.000		0	N.D.	
93) p-Isopropyltoluene	13.956	119	121	N.D.	
94) sec-Butylbenzene	0.000		0	N.D.	
95) 1,3-Dichlorobenzene	0.000		0	N.D.	
96) 1,4-Dichlorobenzene	0.000		0	N.D.	
97) 1,2-Dichlorobenzene	0.000		0	N.D.	
98) n-Butylbenzene	0.000		0	N.D.	
99) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.	
100) 1,2,4-Trichlorobenzene	16.450	180	219	N.D.	
101) Hexachloro-1,3-Butadiene	0.000		0	N.D.	
102) Naphthalene	16.761	128	1076	N.D.	
103) 1,2,3-Trichlorobenzene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS OO DATA\2013\131113\
Data File : 13NOV034.D
Acq On : 14 Nov 2013 12:46 am
Operator : 486
Sample : 13-11-0903-2A 5ML PH<2
Misc : V092013C
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Nov 14 11:28:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration



Return to Contents

METHOD BLANK ASSOCIATION SUMMARY FOR METHOD: EPA 8260B

MB Sample ID: 099-14-001-12429
MB Batch ID: 131114L01
Instrument: GC/MS OO
Matrix: Water
Analyst: 486
D/T Analyzed: 11/14/2013 11:43
Data File: W:\GCMS_OO_DATA\2013\131114\14NOV005.D\14NOV005.rr

Reviewed By: 163
D/T Reviewed: 11/14/2013 15:30
Extraction: EPA 5030C
D/T Extracted: 11/14/2013 00:00

Work Order #: 13-11-0697

Sample#	Client Sample ID	D/T Analyzed	Data File
2	7-GW-23-28	11/14/2013 17:39	W:\GCMS_OO_DATA\2013\131114\14NOV018.D\14NOV018.rr

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-001
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/14/2013 11:43
ANALYST: 486
DATA FILE: W:\GCMS_OO_DATA\2013\131114\14NOV005.D\14NOV005.rr

REVIEWED BY: 163
DATE REVIEWED: 11/14/2013 15:30
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/14/2013 00:00

MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 131114L01
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
Acetone	0.00	1	ND	20	1	ug/L	
Benzene	0.00	1	ND	0.50	1	ug/L	
Bromobenzene	0.00	1	ND	1.0	1	ug/L	
Bromochloromethane	0.00	1	ND	1.0	1	ug/L	
Bromodichloromethane	0.00	1	ND	1.0	1	ug/L	
Bromoform	0.00	1	ND	1.0	1	ug/L	
Bromomethane	0.00	1	ND	10	1	ug/L	
2-Butanone	0.00	1	ND	10	1	ug/L	
n-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
sec-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
tert-Butylbenzene	0.00	1	ND	1.0	1	ug/L	
Carbon Disulfide	0.00	1	ND	10	1	ug/L	
Carbon Tetrachloride	0.00	1	ND	0.50	1	ug/L	
Chlorobenzene	0.00	1	ND	1.0	1	ug/L	
Chloroethane	0.00	1	ND	5.0	1	ug/L	
Chloroform	0.00	1	ND	1.0	1	ug/L	
Chloromethane	0.31	1	ND	10	1	ug/L	
2-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
4-Chlorotoluene	0.00	1	ND	1.0	1	ug/L	
Dibromochloromethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dibromo-3-Chloropropane	0.00	1	ND	5.0	1	ug/L	
1,2-Dibromoethane	0.00	1	ND	1.0	1	ug/L	
Dibromomethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,3-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,4-Dichlorobenzene	0.00	1	ND	1.0	1	ug/L	
Dichlorodifluoromethane	0.00	1	ND	1.0	1	ug/L	
1,1-Dichloroethane	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloroethane	0.00	1	ND	0.50	1	ug/L	
1,1-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
c-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
t-1,2-Dichloroethene	0.00	1	ND	1.0	1	ug/L	
1,2-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
1,3-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
2,2-Dichloropropane	0.00	1	ND	1.0	1	ug/L	
1,1-Dichloropropene	0.00	1	ND	1.0	1	ug/L	
c-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
t-1,3-Dichloropropene	0.00	1	ND	0.50	1	ug/L	
Ethylbenzene	0.00	1	ND	1.0	1	ug/L	
2-Hexanone	0.00	1	ND	10	1	ug/L	
Isopropylbenzene	0.00	1	ND	1.0	1	ug/L	

Return to Contents

RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-001
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/14/2013 11:43
ANALYST: 486
DATA FILE: W:\GCMS_OO_DATA\2013\131114\14NOV005.D\14NOV005.rr

REVIEWED BY: 163
DATE REVIEWED: 11/14/2013 15:30
EXTRACTION : EPA 5030C
D/T EXTRACTED: 11/14/2013 00:00

MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 131114L01
MS/MSD BATCH:
COMMENT:

COMPOUND	ON COL CON	DF	CONC	RL	PF	UNITS	QUAL
p-Isopropyltoluene	0.00	1	ND	1.0	1	ug/L	
Methylene Chloride	0.00	1	ND	10	1	ug/L	
4-Methyl-2-Pentanone	0.00	1	ND	10	1	ug/L	
Naphthalene	0.20	1	ND	10	1	ug/L	
n-Propylbenzene	0.00	1	ND	1.0	1	ug/L	
Styrene	0.00	1	ND	1.0	1	ug/L	
1,1,1,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2,2-Tetrachloroethane	0.00	1	ND	1.0	1	ug/L	
Tetrachloroethene	0.00	1	ND	1.0	1	ug/L	
Toluene	0.27	1	ND	1.0	1	ug/L	
1,2,3-Trichlorobenzene	0.10	1	ND	1.0	1	ug/L	
1,2,4-Trichlorobenzene	0.00	1	ND	1.0	1	ug/L	
1,1,1-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.00	1	ND	10	1	ug/L	
1,1,2-Trichloroethane	0.00	1	ND	1.0	1	ug/L	
Trichloroethene	0.00	1	ND	1.0	1	ug/L	
Trichlorofluoromethane	0.00	1	ND	10	1	ug/L	
1,2,3-Trichloropropane	0.00	1	ND	5.0	1	ug/L	
1,2,4-Trimethylbenzene	0.095	1	ND	1.0	1	ug/L	
1,3,5-Trimethylbenzene	0.00	1	ND	1.0	1	ug/L	
Vinyl Acetate	0.00	1	ND	10	1	ug/L	
Vinyl Chloride	0.00	1	ND	0.50	1	ug/L	
p/m-Xylene	0.17	1	ND	1.0	1	ug/L	
o-Xylene	0.00	1	ND	1.0	1	ug/L	
Methyl-t-Butyl Ether (MTBE)	0.00	1	ND	1.0	1	ug/L	

Return to Contents

LCS QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

Work Order #: 13-11-0697
LCS/MB Batch ID: 131114L01
Instrument: GC/MS OO
Analyst: 486
D/T Analyzed: 11/14/2013 10:41
Data File: W:\GCMS_OO_DATA\2013\131114\14NOV003.D\14NOV003.rr

Reviewed By: 163
D/T Reviewed: 11/14/2013 15:30
Extraction: EPA 5030C
D/T Extracted: 11/14/2013 00:00

Analyte	Conc. Added	Conc. Recovered	%Recovered	%Recovered Control Limit	ME Control Limit	Status	Qualifiers
Benzene	50.00	46.50	93	80-120	73-127	PASS	
Carbon Tetrachloride	50.00	49.22	98	66-138	54-150	PASS	
Chlorobenzene	50.00	46.80	94	80-120	73-127	PASS	
1,2-Dibromoethane	50.00	50.78	102	80-120	73-127	PASS	
1,2-Dichlorobenzene	50.00	47.29	95	80-120	73-127	PASS	
1,2-Dichloroethane	50.00	46.07	92	80-129	72-137	PASS	
1,1-Dichloroethene	50.00	46.45	93	71-131	61-141	PASS	
Ethylbenzene	50.00	49.45	99	80-123	73-130	PASS	
Toluene	50.00	48.65	97	79-121	72-128	PASS	
Trichloroethene	50.00	49.97	100	80-120	73-127	PASS	
Vinyl Chloride	50.00	48.72	97	70-136	59-147	PASS	
p/m-Xylene	100.0	89.86	90	75-125	67-133	PASS	
o-Xylene	50.00	43.93	88	75-125	67-133	PASS	
Methyl-t-Butyl Ether (MTBE)	50.00	46.97	94	72-126	63-135	PASS	
Tert-Butyl Alcohol (TBA)	250.0	229.4	92	71-125	62-134	PASS	
Diisopropyl Ether (DIPE)	50.00	49.82	100	69-129	59-139	PASS	
Ethyl-t-Butyl Ether (ETBE)	50.00	50.05	100	69-129	59-139	PASS	
Tert-Amyl-Methyl Ether (TAME)	50.00	49.17	98	67-133	56-144	PASS	
Ethanol	500.0	595.0	119	47-155	29-173	PASS	

Total number of LCS compounds: 19
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Compounds listed in bold are required to be reported.

Return to Contents

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

WORK ORDER:	**13-11-0697**	SAMPLE D/T EXTRACTED:	11/14/2013	EXTRACTION:	EPA 5030C
MS/MSD BATCH:	131114S01	MS D/T EXTRACTED:	11/14/2013	ANALYST:	486
SPIKED SAMPLE ID:	**13-11-0910-2**	MSD D/T EXTRACTED:	11/14/2013	SAMPLE INSTRUMENT NAME:	GC/MS OO
REVIEWED BY:	163	SAMPLE D/T ANALYZED:	11/14/2013 14:34	MS INSTRUMENT NAME:	GC/MS OO
DATE REVIEWED:	11/14/2013 15:30	MS D/T ANALYZED:	11/14/2013 13:10	MSD INSTRUMENT NAME:	GC/MS OO
		MSD D/T ANALYZED:	11/14/2013 13:37		

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL ADDED	FINAL ADDED	MS CONC	% REC	MSD CONC	% REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Benzene	ND	50.00	50.00	47.35	95	47.33	95	78-120	0	0-20	PASS	
Carbon Tetrachloride	ND	50.00	50.00	49.94	100	49.81	100	67-139	0	0-20	PASS	
Chlorobenzene	ND	50.00	50.00	47.22	94	47.34	95	80-120	0	0-20	PASS	
1,2-Dibromoethane	ND	50.00	50.00	51.51	103	49.46	99	80-123	4	0-20	PASS	
1,2-Dichlorobenzene	ND	50.00	50.00	47.59	95	48.38	97	76-120	2	0-20	PASS	
1,2-Dichloroethane	ND	50.00	50.00	47.65	95	47.48	95	76-130	0	0-20	PASS	
1,1-Dichloroethene	ND	50.00	50.00	47.02	94	48.13	96	70-130	2	0-27	PASS	
Ethylbenzene	ND	50.00	50.00	49.62	99	49.55	99	73-127	0	0-20	PASS	
Toluene	ND	50.00	50.00	48.92	98	49.30	99	72-126	1	0-20	PASS	
Trichloroethene	ND	50.00	50.00	50.79	102	51.44	103	74-122	1	0-20	PASS	
Vinyl Chloride	ND	50.00	50.00	50.32	101	50.87	102	65-131	1	0-24	PASS	
p/m-Xylene	ND	100.0	100.0	90.23	90	90.50	91	70-130	0	0-30	PASS	
o-Xylene	ND	50.00	50.00	44.05	88	44.19	88	70-130	0	0-30	PASS	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	50.00	49.23	98	47.25	94	69-123	4	0-20	PASS	
Tert-Butyl Alcohol (TBA)	ND	250.0	250.0	243.7	97	250.0	100	65-131	3	0-22	PASS	
Diisopropyl Ether (DIPE)	9.227	50.00	50.00	59.60	101	59.91	101	68-128	1	0-22	PASS	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	50.00	51.10	102	50.80	102	69-123	1	0-21	PASS	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	50.00	50.02	100	50.08	100	70-124	0	0-20	PASS	
Ethanol	ND	500.0	500.0	504.3	101	706.4	141	41-155	33	0-35	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	14NOV008.rr	W:\GCMS_OO_DATA\2013\131114\14NOV008.D\
MSD	14NOV009.rr	W:\GCMS_OO_DATA\2013\131114\14NOV009.D\

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8260B

WORK ORDER: 13-11-0697
BATCH ID:
LCS/MB: 131114L01
MS: 131114S01
EXTRACTION : EPA 5030C

REVIEWED BY: 163
D/T REVIEWED: 11/15/2013 12:30

2 CLIENT SAMPLE NUMBER : 7-GW-23-28

INSTRUMENT: GC/MS OO
D/T EXTRACTED: 11/14/2013 00:00
DATA FILE: W:\GCMS_OO_DATA\2013\131114\14NOV018.D\14NOV018.rr

ANALYZED BY: 486
D/T ANALYZED 11/14/2013 17:39

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	98	80-126	PASS	
1,2-Dichloroethane-d4	97	80-134	PASS	
Toluene-d8	100	80-120	PASS	
1,4-Bromofluorobenzene	99	80-120	PASS	

MS CLIENT SAMPLE NUMBER : Matrix Spike

INSTRUMENT: GC/MS OO
D/T EXTRACTED: 11/14/2013 00:00
DATA FILE: W:\GCMS_OO_DATA\2013\131114\14NOV008.D\14NOV008.rr

ANALYZED BY: 486
D/T ANALYZED 11/14/2013 13:10

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	103	80-126	PASS	
1,2-Dichloroethane-d4	99	80-134	PASS	
Toluene-d8	100	80-120	PASS	
1,4-Bromofluorobenzene	98	80-120	PASS	

MSD CLIENT SAMPLE NUMBER : Matrix Spike Duplicate

INSTRUMENT: GC/MS OO
D/T EXTRACTED: 11/14/2013 00:00
DATA FILE: W:\GCMS_OO_DATA\2013\131114\14NOV009.D\14NOV009.rr

ANALYZED BY: 486
D/T ANALYZED 11/14/2013 13:37

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	100	80-126	PASS	
1,2-Dichloroethane-d4	97	80-134	PASS	
Toluene-d8	100	80-120	PASS	
1,4-Bromofluorobenzene	98	80-120	PASS	

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8260B

WORK ORDER: 13-11-0697
BATCH ID:
LCS/MB: 131114L01
MS:
EXTRACTION : EPA 5030C

REVIEWED BY: 163
D/T REVIEWED: 11/14/2013 15:30

 # MB **CLIENT SAMPLE NUMBER : Method Blank**

INSTRUMENT: GC/MS OO
D/T EXTRACTED: 11/14/2013 00:00
DATA FILE: W:\GCMS_OO_DATA\2013\131114\14NOV005.D\14NOV005.rr

ANALYZED BY: 486
D/T ANALYZED 11/14/2013 11:43

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	96	80-126	PASS	
1,2-Dichloroethane-d4	95	80-134	PASS	
Toluene-d8	100	80-120	PASS	
1,4-Bromofluorobenzene	100	80-120	PASS	

 # LCS **CLIENT SAMPLE NUMBER : Lab Control Sample**

INSTRUMENT: GC/MS OO
D/T EXTRACTED: 11/14/2013 00:00
DATA FILE: W:\GCMS_OO_DATA\2013\131114\14NOV003.D\14NOV003.rr

ANALYZED BY: 486
D/T ANALYZED 11/14/2013 10:41

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Dibromofluoromethane	103	80-126	PASS	
1,2-Dichloroethane-d4	97	80-134	PASS	
Toluene-d8	99	80-120	PASS	
1,4-Bromofluorobenzene	97	80-120	PASS	

Return to Contents

INTERNAL STANDARD COMPOUNDS AREA REPORT
FOR METHOD: EPA 8260B

ICAL BATCH ID: 131112IC CCV BATCH ID: 131114A

ICAL MIDPOINT

SAMPLE ID: 099-15-001-11433 D/T ANALYZED: 11/12/2013 21:08

DATA FILE: W:\GCMS_OO_DATA\2013\131112\12NOV026.D\12NOV026.rr

COMPOUND	AREA	RETENTION TIME
1,4-Dichlorobenzene-d4	313337	13.97
1,4-Difluorobenzene	656809	7.56
Pentafluorobenzene	447233	6.63
Chlorobenzene-d5	593091	11.11
Tert-Butyl Alcohol-d9	61707	4.14

ICV

SAMPLE ID 099-15-001-11433 D/T ANALYZED: 11/12/2013 22:26

DATA FILE: W:\GCMS_OO_DATA\2013\131112\12NOV029.D\12NOV029.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	313636	156668	626674	13.97	PASS
1,4-Difluorobenzene	668074	328404	1313618	7.56	PASS
Pentafluorobenzene	454204	223616	894466	6.63	PASS
Chlorobenzene-d5	594517	296546	1186182	11.11	PASS
Tert-Butyl Alcohol-d9	91371	30854	123414	4.14	PASS

CCV

SAMPLE ID 099-15-001-11461 D/T ANALYZED: 11/14/2013 10:06

DATA FILE: W:\GCMS_OO_DATA\2013\131114\14NOV002.D\14NOV002.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	337794	156668	626674	13.97	PASS
1,4-Difluorobenzene	716929	328404	1313618	7.55	PASS
Pentafluorobenzene	484100	223616	894466	6.63	PASS
Chlorobenzene-d5	649321	296546	1186182	11.11	PASS
Tert-Butyl Alcohol-d9	104215	30854	123414	4.14	PASS

LCS

SAMPLE ID 099-14-001-12429 D/T ANALYZED: 11/14/2013 10:41

DATA FILE: W:\GCMS_OO_DATA\2013\131114\14NOV003.D\14NOV003.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	334761	168897	675588	13.97	PASS
1,4-Difluorobenzene	713341	358464	1433858	7.55	PASS
Pentafluorobenzene	487404	242050	968200	6.62	PASS
Chlorobenzene-d5	640046	324660	1298642	11.11	PASS
Tert-Butyl Alcohol-d9	74082	52108	208430	4.13	PASS

Return to Contents

MB

SAMPLE ID 099-14-001-12429 D/T ANALYZED: 11/14/2013 11:43

DATA FILE: W:\GCMS_OO_DATA\2013\131114\14NOV005.D\14NOV005.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	309450	168897	675588	13.97	PASS
1,4-Difluorobenzene	629390	358464	1433858	7.55	PASS
Pentafluorobenzene	440607	242050	968200	6.63	PASS
Chlorobenzene-d5	569491	324660	1298642	11.11	PASS
Tert-Butyl Alcohol-d9	58161	52108	208430	4.12	PASS

MS

SAMPLE ID 13-11-0910-2 D/T ANALYZED: 11/14/2013 13:10

DATA FILE: W:\GCMS_OO_DATA\2013\131114\14NOV008.D\14NOV008.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	332227	168897	675588	13.97	PASS
1,4-Difluorobenzene	693227	358464	1433858	7.56	PASS
Pentafluorobenzene	472091	242050	968200	6.63	PASS
Chlorobenzene-d5	626619	324660	1298642	11.11	PASS
Tert-Butyl Alcohol-d9	85108	52108	208430	4.14	PASS

MSD

SAMPLE ID 13-11-0910-2 D/T ANALYZED: 11/14/2013 13:37

DATA FILE: W:\GCMS_OO_DATA\2013\131114\14NOV009.D\14NOV009.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	317800	168897	675588	13.97	PASS
1,4-Difluorobenzene	670443	358464	1433858	7.56	PASS
Pentafluorobenzene	458994	242050	968200	6.63	PASS
Chlorobenzene-d5	611191	324660	1298642	11.11	PASS
Tert-Butyl Alcohol-d9	55372	52108	208430	4.12	PASS

CS

SAMPLE ID 13-11-0697-2 D/T ANALYZED: 11/14/2013 17:39

DATA FILE: W:\GCMS_OO_DATA\2013\131114\14NOV018.D\14NOV018.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	329846	168897	675588	13.97	PASS
1,4-Difluorobenzene	669705	358464	1433858	7.56	PASS
Pentafluorobenzene	464435	242050	968200	6.63	PASS
Chlorobenzene-d5	608901	324660	1298642	11.11	PASS
Tert-Butyl Alcohol-d9	77313	52108	208430	4.12	PASS

Notes:
1) For CCV, all IS areas must be within 50% to 200% of the mid-point of the initial calibration IS area to be considered PASS.
2) For all samples including QC, all IS areas must be within 50% to 200% of the CCV IS area to be considered PASS.

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV005.D
Acq On : 14 Nov 2013 11:43 am
Operator : 486
Sample : MB
Misc : V092013C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 14 12:55:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert-Butyl Alcohol-d9	4.124	65	58161	250.00	ug/l	-0.01
4) Pentafluorobenzene	6.629	168	440607	50.00	ug/l	0.00
47) 1,4-Difluorobenzene	7.551	114	629390	50.00	ug/l	0.00
64) Chlorobenzene-d5	11.114	117	569491	50.00	ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.973	152	309450	50.00	ug/l	0.00
System Monitoring Compounds						
41) Dibromofluoromethane	6.525	113	164219	48.00	ug/l	0.00
Spiked Amount 50.000			Recovery =	96.00%		
46) 1,2-Dichloroethane-d4	6.951	65	169968	47.72	ug/l	0.00
Spiked Amount 50.000			Recovery =	95.44%		
61) Toluene-d8	9.368	98	747458	50.18	ug/l	0.00
Spiked Amount 50.000			Recovery =	100.36%		
80) 1,4-Bromofluorobenzene	12.549	95	272075	50.08	ug/l	0.00
Spiked Amount 50.000			Recovery =	100.16%		
Target Compounds						Qvalue
2) Ethanol	0.000		0	N.D.		
3) Tert-Butyl Alcohol (TBA)	0.000		0	N.D.		
5) Dichlorodifluoromethane	1.663	85	104	N.D.		
6) Chloromethane	1.838	50	2680	0.31	ug/l #	41
7) Vinyl Chloride	0.000		0	N.D.		
8) Bromomethane	0.000		0	N.D.	d	
9) Chloroethane	0.000		0	N.D.	d	
10) 1,3-Butadiene	1.985	54	282	N.D.		
11) Trichlorofluoromethane	0.000		0	N.D.		
12) Diethyl Ether	3.098	45	111	N.D.		
13) Acetone	0.000		0	N.D.		
14) Iodomethane	3.546	142	1312	0.51	ug/l #	43
15) 1,1-Dichloroethene	0.000		0	N.D.		
16) 1,1,2-Trichloro-1,2,2-...	0.000		0	N.D.		
17) Isopropanol	0.000		0	N.D.	d	
18) Carbon Disulfide	0.000		0	N.D.		
19) Acetonitrile	4.015	41	132	N.D.		
20) Acrylonitrile	0.000		0	N.D.		
21) Allyl Chloride	0.000		0	N.D.		
22) Acrolein	0.000		0	N.D.	d	
23) Methylene Chloride	4.059	84	119	N.D.		
24) t-1,2-Dichloroethene	0.000		0	N.D.		
25) Isobutyl Alcohol	0.000		0	N.D.	d	
26) Methyl-t-Butyl Ether (...	0.000		0	N.D.		
27) Hexane	4.899	57	378	N.D.		
28) 1,1-Dichloroethane	0.000		0	N.D.		
29) Vinyl Acetate	0.000		0	N.D.		
30) Diisopropyl Ether (DIPE)	0.000		0	N.D.		
31) Chloroprene	0.000		0	N.D.		
32) Ethyl-t-Butyl Ether (E...	0.000		0	N.D.		
33) c-1,2-Dichloroethene	0.000		0	N.D.		
34) 2,2-Dichloropropane	0.000		0	N.D.		
35) 2-Butanone	5.887	43	102	N.D.		
36) Propionitrile	0.000		0	N.D.		
37) Methacrylonitrile	6.208	41	106	N.D.		
38) Bromochloromethane	0.000		0	N.D.		

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV005.D
Acq On : 14 Nov 2013 11:43 am
Operator : 486
Sample : MB
Misc : V092013C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 14 12:55:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
39) Tetrahydrofuran	0.000		0	N.D. d	
40) Chloroform	0.000		0	N.D.	
42) 1,1,1-Trichloroethane	0.000		0	N.D.	
43) Cyclohexane	0.000		0	N.D. d	
44) 1,1-Dichloropropene	0.000		0	N.D.	
45) Carbon Tetrachloride	0.000		0	N.D.	
48) Benzene	7.049	78	1545	N.D.	
49) 1,2-Dichloroethane	0.000		0	N.D.	
50) Tert-Amyl-Methyl Ether...	0.000		0	N.D.	
51) Thiophene	0.000		0	N.D.	
52) 2,2,4-Trimethyl Pentane	7.191	57	1736	0.09 ug/l #	53
53) Trichloroethene	0.000		0	N.D.	
54) 1,2-Dichloropropane	0.000		0	N.D.	
55) Dibromomethane	0.000		0	N.D.	
56) Methyl Methacrylate	0.000		0	N.D.	
57) 1,4-Dioxane	0.000		0	N.D.	
58) Bromodichloromethane	0.000		0	N.D.	
59) 2-Chloroethyl Vinyl Ether	0.000		0	N.D.	
60) c-1,3-Dichloropropene	0.000		0	N.D.	
62) Toluene	9.450	91	5412	0.27 ug/l	95
63) 4-Methyl-2-Pentanone	0.000		0	N.D.	
65) t-1,3-Dichloropropene	0.000		0	N.D.	
66) Ethyl Methacrylate	0.000		0	N.D.	
67) 1,1,2-Trichloroethane	0.000		0	N.D.	
68) Tetrachloroethene	0.000		0	N.D.	
69) 1,3-Dichloropropane	0.000		0	N.D.	
70) 2-Hexanone	0.000		0	N.D.	
71) Dibromochloromethane	0.000		0	N.D.	
72) 1,2-Dibromoethane	0.000		0	N.D.	
73) Chlorobenzene	11.141	112	230	N.D.	
74) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
75) Ethylbenzene	11.299	91	1251	N.D.	
76) p/m-Xylene	11.430	91	3068	0.17 ug/l	70
77) o-Xylene	11.916	91	1405	N.D.	
78) Styrene	11.932	104	217	N.D.	
79) Isopropylbenzene	12.380	105	639	N.D.	
81) 1,2,3-Trichloropropane	0.000		0	N.D.	
82) Bromobenzene	0.000		0	N.D.	
83) n-Propylbenzene	12.882	91	1020	N.D.	
84) t-1,4-Dichloro-2-Butene	0.000		0	N.D.	
85) 2-Chlorotoluene	12.969	91	249	N.D.	
86) 1,3,5-Trimethylbenzene	13.100	105	642	N.D.	
88) Bromoform	0.000		0	N.D.	
89) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
90) 4-Chlorotoluene	13.105	91	647	N.D.	
91) 1,2,4-Trimethylbenzene	13.553	105	1818	0.09 ug/l	70
92) tert-Butylbenzene	0.000		0	N.D.	
93) p-Isopropyltoluene	13.957	119	917	N.D.	
94) sec-Butylbenzene	13.766	105	306	N.D.	
95) 1,3-Dichlorobenzene	13.891	146	169	N.D.	
96) 1,4-Dichlorobenzene	14.006	146	546	N.D.	
97) 1,2-Dichlorobenzene	14.453	146	124	N.D.	
98) n-Butylbenzene	14.459	91	373	N.D.	
99) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.	

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV005.D
Acq On : 14 Nov 2013 11:43 am
Operator : 486
Sample : MB
Misc : V092013C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 14 12:55:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	16.456	180	566	N.D.		
101) Hexachloro-1,3-Butadiene	16.690	225	103	N.D.		
102) Naphthalene	16.750	128	3576	0.20	ug/l	68
103) 1,2,3-Trichlorobenzene	17.050	180	854	0.10	ug/l	83

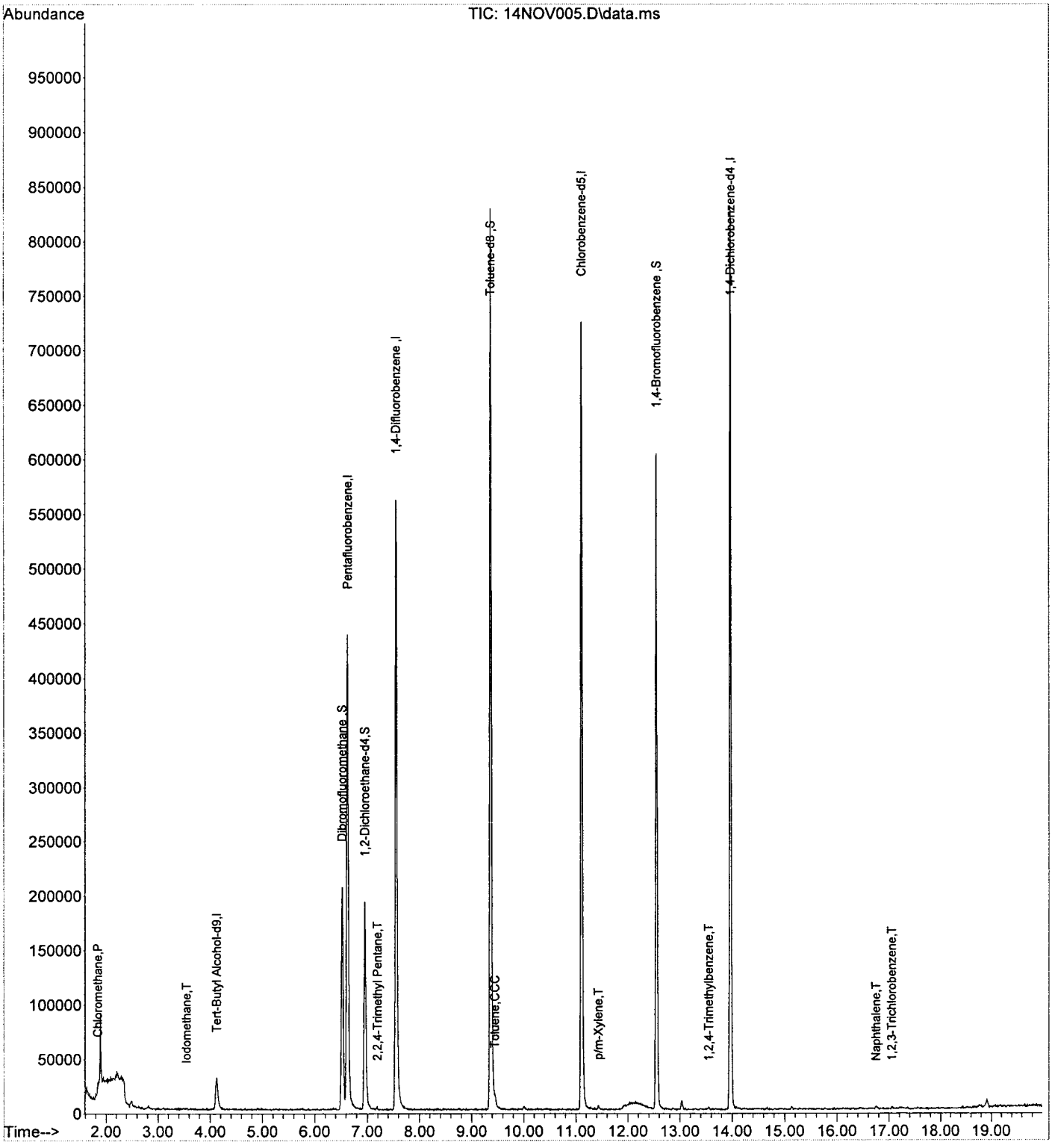
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV005.D
Acq On : 14 Nov 2013 11:43 am
Operator : 486
Sample : MB
Misc : V092013C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 14 12:55:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV003.D
Acq On : 14 Nov 2013 10:41 am
Operator : 486
Sample : LCS V101713B/V110813B
Misc : V092013C
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 14 11:03:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert-Butyl Alcohol-d9	4.129	65	74082	250.00	ug/l		0.00
4) Pentafluorobenzene	6.623	168	487404	50.00	ug/l		0.00
47) 1,4-Difluorobenzene	7.551	114	713341	50.00	ug/l		0.00
64) Chlorobenzene-d5	11.108	117	640046	50.00	ug/l		0.00
87) 1,4-Dichlorobenzene-d4	13.967	152	334761	50.00	ug/l		0.00
System Monitoring Compounds							
41) Dibromofluoromethane	6.519	113	194815	51.47	ug/l		0.00
Spiked Amount 50.000			Recovery =	102.94%			
46) 1,2-Dichloroethane-d4	6.950	65	190933	48.46	ug/l		0.00
Spiked Amount 50.000			Recovery =	96.92%			
61) Toluene-d8	9.362	98	836993	49.58	ug/l		0.00
Spiked Amount 50.000			Recovery =	99.16%			
80) 1,4-Bromofluorobenzene	12.543	95	297563	48.73	ug/l		0.00
Spiked Amount 50.000			Recovery =	97.46%			
Target Compounds							Qvalue
2) Ethanol	2.967	45	30122	594.99	ug/l		91
3) Tert-Butyl Alcohol (TBA)	4.260	59	81374	229.36	ug/l		88
5) Dichlorodifluoromethane	1.658	85	312436	52.12	ug/l		98
6) Chloromethane	1.827	50	407539	42.56	ug/l		100
7) Vinyl Chloride	1.952	62	368412	48.72	ug/l		98
8) Bromomethane	2.269	94	125125	31.19	ug/l		99
9) Chloroethane	2.394	64	184862	46.06	ug/l		98
10) 1,3-Butadiene	1.990	54	196056	32.69	ug/l		99
11) Trichlorofluoromethane	2.711	101	383914	47.92	ug/l		96
12) Diethyl Ether	3.071	45	141683	43.19	ug/l		98
13) Acetone	3.415	58	38596	85.30	ug/l		92
14) Iodomethane	3.535	142	354807	123.86	ug/l		99
15) 1,1-Dichloroethene	3.355	61	334946	46.45	ug/l		98
16) 1,1,2-Trichloro-1,2,2-...	3.371	101	239948	48.56	ug/l		97
17) Isopropanol	3.649	45	86902	241.35	ug/l		95
18) Carbon Disulfide	3.638	76	773860	46.69	ug/l		99
19) Acetonitrile	3.857	41	296646	103.83	ug/l		97
20) Acrylonitrile	4.413	53	62691	41.60	ug/l		96
21) Allyl Chloride	3.862	76	100399	54.26	ug/l		92
22) Acrolein	3.196	56	106873	129.17	ug/l		100
23) Methylene Chloride	4.037	84	250767	48.39	ug/l		96
24) t-1,2-Dichloroethene	4.462	96	257542	51.43	ug/l		100
25) Isobutyl Alcohol	6.983	43	20017	78.50	ug/l		82
26) Methyl-t-Butyl Ether (...	4.484	73	647744	46.97	ug/l		99
27) Hexane	4.899	57	416123	46.21	ug/l		98
28) 1,1-Dichloroethane	5.062	63	436657	48.12	ug/l		98
29) Vinyl Acetate	5.182	86	39660	57.77	ug/l	#	67
30) Diisopropyl Ether (DIPE)	5.232	45	771177	49.82	ug/l		100
31) Chloroprene	5.210	53	387233	51.40	ug/l		98
32) Ethyl-t-Butyl Ether (E...	5.734	59	759206	50.05	ug/l		97
33) c-1,2-Dichloroethene	5.886	96	278648	51.18	ug/l		96
34) 2,2-Dichloropropane	5.875	77	182528	34.02	ug/l		99
35) 2-Butanone	5.908	43	122250	70.51	ug/l		100
36) Propionitrile	5.968	54	28487	49.07	ug/l		97
37) Methacrylonitrile	6.170	41	113158	46.40	ug/l		99
38) Bromochloromethane	6.197	130	115738	48.12	ug/l		100

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV003.D
Acq On : 14 Nov 2013 10:41 am
Operator : 486
Sample : LCS V101713B/V110813B
Misc : V092013C
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 14 11:03:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Tetrahydrofuran	6.290	42	67494	45.43	ug/l		95
40) Chloroform	6.317	83	405483	49.36	ug/l		99
42) 1,1,1-Trichloroethane	6.563	97	352989	49.70	ug/l		99
43) Cyclohexane	6.645	84	395040	48.96	ug/l	#	96
44) 1,1-Dichloropropene	6.787	75	329157	48.68	ug/l		99
45) Carbon Tetrachloride	6.792	117	295247	49.22	ug/l		94
48) Benzene	7.043	78	1027695	46.50	ug/l		99
49) 1,2-Dichloroethane	7.043	62	268547	46.07	ug/l		97
50) Tert-Amyl-Methyl Ether...	7.223	73	681716	49.17	ug/l		96
51) Thiophene	7.300	84	535898	48.44	ug/l		99
52) 2,2,4-Trimethyl Pentane	7.179	57	1089782	49.13	ug/l		98
53) Trichloroethene	7.872	95	264344	49.97	ug/l		98
54) 1,2-Dichloropropane	8.123	63	261421	48.83	ug/l		100
55) Dibromomethane	8.265	93	114874	47.78	ug/l		99
56) Methyl Methacrylate	8.314	69	179354	52.15	ug/l		97
57) 1,4-Dioxane	8.325	88	30102	507.26	ug/l		87
58) Bromodichloromethane	8.467	83	298878	46.59	ug/l		98
59) 2-Chloroethyl Vinyl Ether	8.865	63	95610	39.03	ug/l		97
60) c-1,3-Dichloropropene	9.029	75	403615	54.54	ug/l		99
62) Toluene	9.444	91	1108257	48.65	ug/l		99
63) 4-Methyl-2-Pentanone	9.209	58	90281	52.14	ug/l		97
65) t-1,3-Dichloropropene	9.700	75	314577	48.89	ug/l		98
66) Ethyl Methacrylate	9.842	69	286281	42.98	ug/l		97
67) 1,1,2-Trichloroethane	9.913	83	175530	48.38	ug/l		98
68) Tetrachloroethene	10.126	166	320812	52.39	ug/l		98
69) 1,3-Dichloropropane	10.115	76	345360	47.56	ug/l		97
70) 2-Hexanone	10.230	58	102084	60.65	ug/l		95
71) Dibromochloromethane	10.393	129	237616	48.48	ug/l		97
72) 1,2-Dibromoethane	10.519	107	185652	50.78	ug/l		91
73) Chlorobenzene	11.146	112	682987	46.80	ug/l		99
74) 1,1,1,2-Tetrachloroethane	11.239	131	247237	49.22	ug/l		95
75) Ethylbenzene	11.288	91	1213007	49.45	ug/l		100
76) p/m-Xylene	11.430	91	1805191	89.86	ug/l		98
77) o-Xylene	11.910	91	910456	43.93	ug/l		98
78) Styrene	11.927	104	802297	48.39	ug/l		100
79) Isopropylbenzene	12.368	105	1140535	45.98	ug/l		99
81) 1,2,3-Trichloropropane	12.745	110	73023	49.64	ug/l		89
82) Bromobenzene	12.729	156	317729	49.21	ug/l		99
83) n-Propylbenzene	12.870	91	1309509	45.92	ug/l		100
84) t-1,4-Dichloro-2-Butene	12.778	53	40674	30.78	ug/l		96
85) 2-Chlorotoluene	12.974	91	780753	46.20	ug/l		98
86) 1,3,5-Trimethylbenzene	13.094	105	1064303	51.20	ug/l		100
88) Bromoform	12.128	173	171184	51.65	ug/l		98
89) 1,1,2,2-Tetrachloroethane	12.701	83	275501	49.89	ug/l		100
90) 4-Chlorotoluene	13.100	91	877063	45.81	ug/l		99
91) 1,2,4-Trimethylbenzene	13.553	105	1038238	50.08	ug/l		98
92) tert-Butylbenzene	13.492	134	231935	47.73	ug/l		98
93) p-Isopropyltoluene	13.945	119	1087584	47.33	ug/l		98
94) sec-Butylbenzene	13.765	105	1272645	47.31	ug/l		99
95) 1,3-Dichlorobenzene	13.891	146	566204	47.05	ug/l		98
96) 1,4-Dichlorobenzene	14.000	146	603194	50.84	ug/l		98
97) 1,2-Dichlorobenzene	14.453	146	531799	47.29	ug/l		98
98) n-Butylbenzene	14.447	91	1056458	51.57	ug/l		100
99) 1,2-Dibromo-3-Chloropr...	15.391	75	49972	49.58	ug/l		93

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV003.D
Acq On : 14 Nov 2013 10:41 am
Operator : 486
Sample : LCS V101713B/V110813B
Misc : V092013C
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 14 11:03:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	16.450	180	480521	51.07	ug/l	99
101) Hexachloro-1,3-Butadiene	16.690	225	293732	50.42	ug/l	99
102) Naphthalene	16.750	128	966477	50.55	ug/l	99
103) 1,2,3-Trichlorobenzene	17.055	180	436785	49.41	ug/l	99

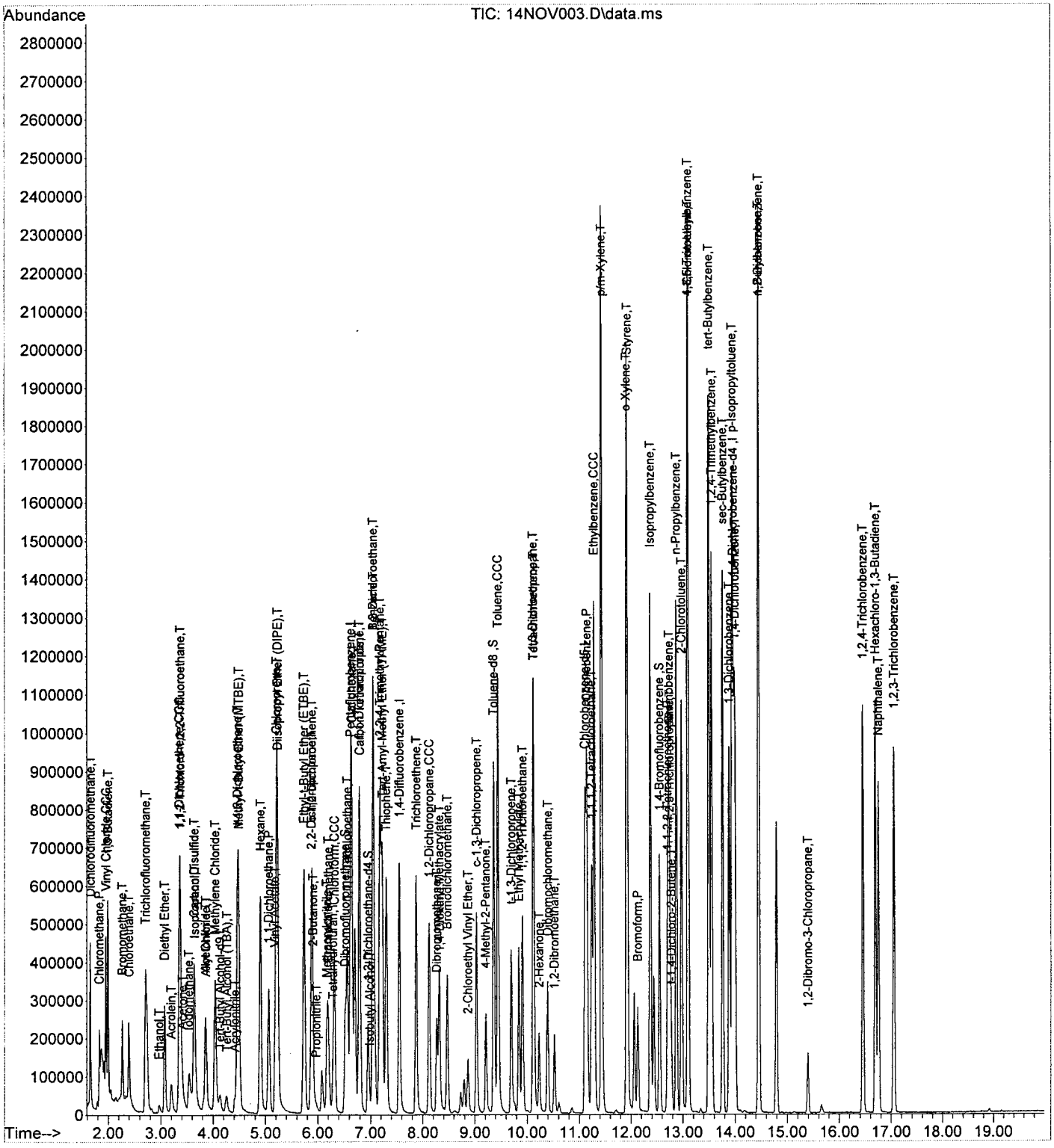
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV003.D
Acq On : 14 Nov 2013 10:41 am
Operator : 486
Sample : LCS V101713B/V110813B
Misc : V092013C
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 14 11:03:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV008.D
Acq On : 14 Nov 2013 1:10 pm
Operator : 486
Sample : MS 0910-2A V101713B/V110813B
Misc : V092013C
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 14 15:09:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert-Butyl Alcohol-d9	4.135	65	85108	250.00	ug/l	0.00
4) Pentafluorobenzene	6.629	168	472091	50.00	ug/l	0.00
47) 1,4-Difluorobenzene	7.556	114	693227	50.00	ug/l	0.00
64) Chlorobenzene-d5	11.114	117	626619	50.00	ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.967	152	332227	50.00	ug/l	0.00
System Monitoring Compounds						
41) Dibromofluoromethane	6.525	113	188215	51.34	ug/l	0.00
Spiked Amount 50.000			Recovery =	102.68%		
46) 1,2-Dichloroethane-d4	6.951	65	188491	49.39	ug/l	0.00
Spiked Amount 50.000			Recovery =	98.78%		
61) Toluene-d8	9.368	98	822076	50.11	ug/l	0.00
Spiked Amount 50.000			Recovery =	100.22%		
80) 1,4-Bromofluorobenzene	12.543	95	293874	49.16	ug/l	0.00
Spiked Amount 50.000			Recovery =	98.32%		
Target Compounds						Qvalue
2) Ethanol	2.973	45	29330	504.29	ug/l	89
3) Tert-Butyl Alcohol (TBA)	4.255	59	99344	243.74	ug/l	88
5) Dichlorodifluoromethane	1.658	85	314090	54.10	ug/l	98
6) Chloromethane	1.827	50	394092	42.49	ug/l	97
7) Vinyl Chloride	1.952	62	368587	50.32	ug/l	98
8) Bromomethane	2.269	94	128064	32.96	ug/l	96
9) Chloroethane	2.394	64	188921	48.59	ug/l	99
10) 1,3-Butadiene	1.991	54	191613	32.99	ug/l	99
11) Trichlorofluoromethane	2.711	101	389854	50.24	ug/l	100
12) Diethyl Ether	3.076	45	141525	44.54	ug/l	95
13) Acetone	3.426	58	23759	54.21	ug/l	90
14) Iodomethane	3.546	142	311512	112.28	ug/l	96
15) 1,1-Dichloroethene	3.355	61	328371	47.02	ug/l	99
16) 1,1,2-Trichloro-1,2,2-...	3.377	101	232559	48.59	ug/l	97
17) Isopropanol	3.666	45	87586	251.14	ug/l	96
18) Carbon Disulfide	3.644	76	741413	46.18	ug/l	99
19) Acetonitrile	3.862	41	281366	101.67	ug/l	98
20) Acrylonitrile	4.413	53	67364	45.62	ug/l	89
21) Allyl Chloride	3.862	76	95389	53.22	ug/l	93
22) Acrolein	3.218	56	80963	101.03	ug/l	97
23) Methylene Chloride	4.042	84	247110	49.23	ug/l	100
24) t-1,2-Dichloroethene	4.468	96	250677	51.68	ug/l	97
25) Isobutyl Alcohol	6.983	43	20029	81.10	ug/l	94
26) Methyl-t-Butyl Ether (...	4.495	73	657578	49.23	ug/l	99
27) Hexane	4.904	57	407107	46.68	ug/l	97
28) 1,1-Dichloroethane	5.068	63	423057	48.13	ug/l	97
29) Vinyl Acetate	5.183	86	39006	58.66	ug/l	98
30) Diisopropyl Ether (DIPE)	5.232	45	893627	59.60	ug/l	96
31) Chloroprene	5.215	53	371794	50.95	ug/l	96
32) Ethyl-t-Butyl Ether (E...	5.745	59	750792	51.10	ug/l	98
33) c-1,2-Dichloroethene	5.892	96	272443	51.66	ug/l	95
34) 2,2-Dichloropropane	5.881	77	206375	39.71	ug/l	99
35) 2-Butanone	5.919	43	85351	50.82	ug/l	100
36) Propionitrile	5.974	54	26669	47.43	ug/l	96
37) Methacrylonitrile	6.176	41	114781	48.59	ug/l	94
38) Bromochloromethane	6.208	130	115625	49.63	ug/l	90

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV008.D
Acq On : 14 Nov 2013 1:10 pm
Operator : 486
Sample : MS 0910-2A V101713B/V110813B
Misc : V092013C
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 14 15:09:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39)	Tetrahydrofuran	6.290	42	75162	52.23	ug/l		95
40)	Chloroform	6.318	83	400165	50.29	ug/l		100
42)	1,1,1-Trichloroethane	6.569	97	349558	50.81	ug/l		97
43)	Cyclohexane	6.645	84	384792	49.24	ug/l	#	96
44)	1,1-Dichloropropene	6.787	75	328131	50.11	ug/l		99
45)	Carbon Tetrachloride	6.798	117	290185	49.94	ug/l		99
48)	Benzene	7.049	78	1017062	47.35	ug/l		99
49)	1,2-Dichloroethane	7.049	62	269934	47.65	ug/l		99
50)	Tert-Amyl-Methyl Ether...	7.223	73	673850	50.02	ug/l		97
51)	Thiophene	7.305	84	533590	49.63	ug/l		99
52)	2,2,4-Trimethyl Pentane	7.180	57	1061218	49.23	ug/l		99
53)	Trichloroethene	7.873	95	261115	50.79	ug/l		99
54)	1,2-Dichloropropane	8.124	63	264036	50.75	ug/l		99
55)	Dibromomethane	8.271	93	114451	48.98	ug/l		94
56)	Methyl Methacrylate	8.320	69	180293	53.95	ug/l		93
57)	1,4-Dioxane	8.326	88	28577	495.53	ug/l		94
58)	Bromodichloromethane	8.473	83	297743	47.76	ug/l		98
59)	2-Chloroethyl Vinyl Ether	8.844	63	13653	5.73	ug/l		75
60)	c-1,3-Dichloropropene	9.029	75	399111	55.49	ug/l		99
62)	Toluene	9.450	91	1082820	48.92	ug/l		100
63)	4-Methyl-2-Pentanone	9.215	58	91030	54.10	ug/l		95
65)	t-1,3-Dichloropropene	9.701	75	314292	49.89	ug/l		99
66)	Ethyl Methacrylate	9.848	69	290507	44.55	ug/l		99
67)	1,1,2-Trichloroethane	9.913	83	175070	49.28	ug/l		98
68)	Tetrachloroethene	10.126	166	312037	52.04	ug/l		99
69)	1,3-Dichloropropane	10.115	76	347050	48.82	ug/l		99
70)	2-Hexanone	10.230	58	90530	54.94	ug/l		100
71)	Dibromochloromethane	10.394	129	239423	49.90	ug/l		99
72)	1,2-Dibromoethane	10.524	107	184378	51.51	ug/l		99
73)	Chlorobenzene	11.146	112	674629	47.22	ug/l		98
74)	1,1,1,2-Tetrachloroethane	11.245	131	245505	49.92	ug/l		95
75)	Ethylbenzene	11.288	91	1191635	49.62	ug/l		99
76)	p/m-Xylene	11.436	91	1774508	90.23	ug/l		98
77)	o-Xylene	11.910	91	893944	44.05	ug/l		100
78)	Styrene	11.927	104	776008	47.81	ug/l		98
79)	Isopropylbenzene	12.369	105	1125280	46.33	ug/l		99
81)	1,2,3-Trichloropropane	12.756	110	70319	48.83	ug/l		87
82)	Bromobenzene	12.729	156	317554	50.24	ug/l		95
83)	n-Propylbenzene	12.876	91	1283726	45.98	ug/l		99
84)	t-1,4-Dichloro-2-Butene	12.778	53	42461	32.70	ug/l		98
85)	2-Chlorotoluene	12.974	91	761782	46.05	ug/l		98
86)	1,3,5-Trimethylbenzene	13.094	105	1046731	51.43	ug/l		100
88)	Bromoform	12.129	173	170988	51.99	ug/l		95
89)	1,1,2,2-Tetrachloroethane	12.702	83	276075	50.38	ug/l		96
90)	4-Chlorotoluene	13.100	91	866685	45.61	ug/l		99
91)	1,2,4-Trimethylbenzene	13.553	105	1022757	49.71	ug/l		98
92)	tert-Butylbenzene	13.493	134	227692	47.22	ug/l		98
93)	p-Isopropyltoluene	13.946	119	1074466	47.11	ug/l		98
94)	sec-Butylbenzene	13.766	105	1260693	47.22	ug/l		99
95)	1,3-Dichlorobenzene	13.891	146	565441	47.34	ug/l		99
96)	1,4-Dichlorobenzene	14.000	146	598585	50.83	ug/l		99
97)	1,2-Dichlorobenzene	14.458	146	531136	47.59	ug/l		98
98)	n-Butylbenzene	14.448	91	1043103	51.30	ug/l		99
99)	1,2-Dibromo-3-Chloropr...	15.386	75	48917	48.90	ug/l		86

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV008.D
Acq On : 14 Nov 2013 1:10 pm
Operator : 486
Sample : MS 0910-2A V101713B/V110813B
Misc : V092013C
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 14 15:09:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100)	1,2,4-Trichlorobenzene	16.450	180	471533	50.50	ug/l	99
101)	Hexachloro-1,3-Butadiene	16.690	225	291176	50.36	ug/l	99
102)	Naphthalene	16.750	128	975062	51.39	ug/l	100
103)	1,2,3-Trichlorobenzene	17.050	180	442546	50.44	ug/l	99

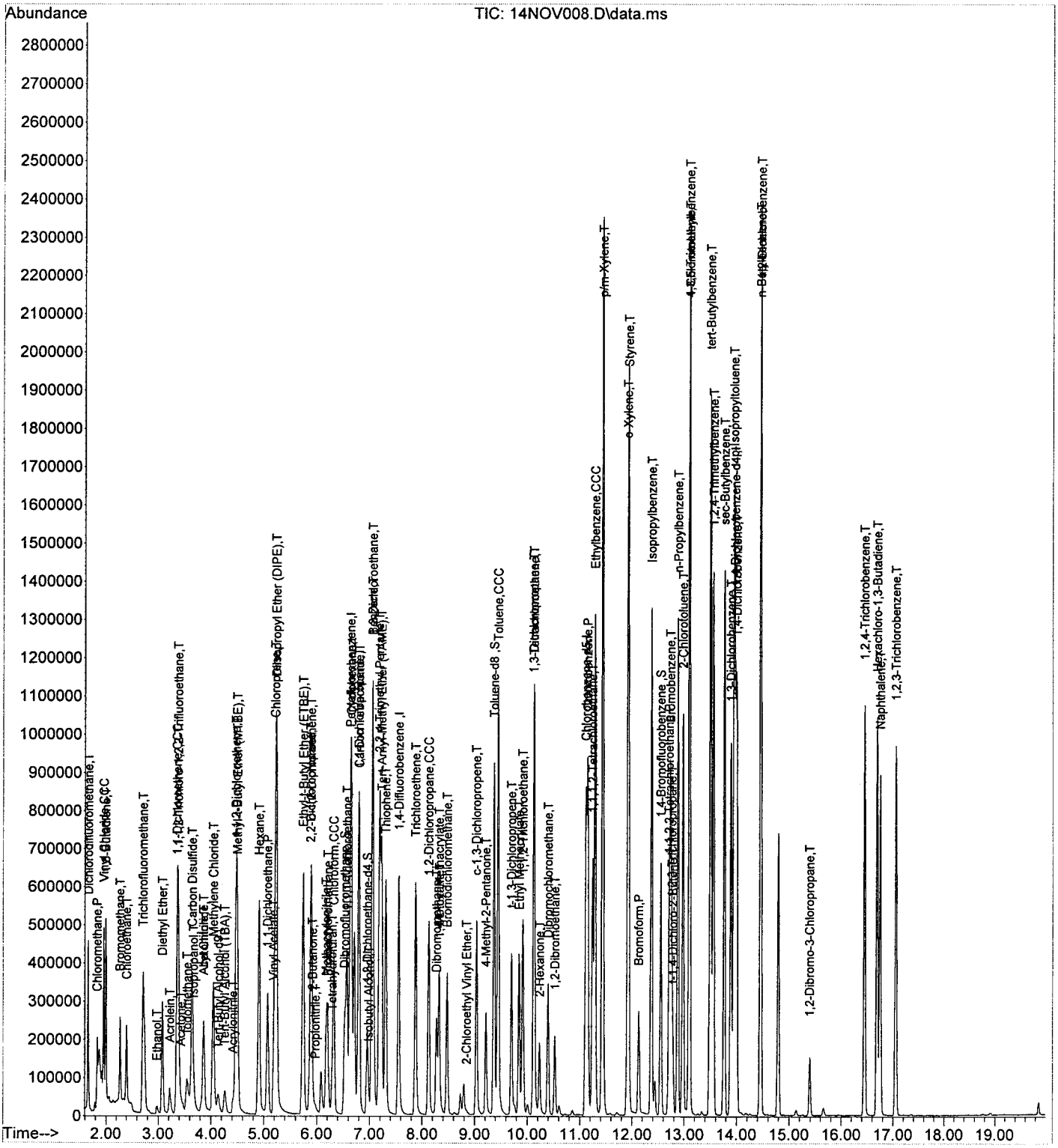
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV008.D
Acq On : 14 Nov 2013 1:10 pm
Operator : 486
Sample : MS 0910-2A V101713B/V110813B
Misc : V092013C
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 14 15:09:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV009.D
Acq On : 14 Nov 2013 1:37 pm
Operator : 486
Sample : MSD 0910-2A V101713B/V110813B
Misc : V092013C
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 14 15:09:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert-Butyl Alcohol-d9	4.124	65	55372	250.00	ug/l		-0.01
4) Pentafluorobenzene	6.628	168	458994	50.00	ug/l		0.00
47) 1,4-Difluorobenzene	7.556	114	670443	50.00	ug/l		0.00
64) Chlorobenzene-d5	11.114	117	611191	50.00	ug/l		0.00
87) 1,4-Dichlorobenzene-d4	13.967	152	317800	50.00	ug/l		0.00
System Monitoring Compounds							
41) Dibromofluoromethane	6.525	113	177715	49.86	ug/l		0.00
Spiked Amount 50.000			Recovery =	99.72%			
46) 1,2-Dichloroethane-d4	6.950	65	180063	48.53	ug/l		0.00
Spiked Amount 50.000			Recovery =	97.06%			
61) Toluene-d8	9.368	98	796140	50.18	ug/l		0.00
Spiked Amount 50.000			Recovery =	100.36%			
80) 1,4-Bromofluorobenzene	12.549	95	285893	49.03	ug/l		0.00
Spiked Amount 50.000			Recovery =	98.06%			
Target Compounds							Qvalue
2) Ethanol	2.967	45	26732	706.44	ug/l		86
3) Tert-Butyl Alcohol (TBA)	4.249	59	66308	250.05	ug/l		92
5) Dichlorodifluoromethane	1.658	85	310660	55.03	ug/l		99
6) Chloromethane	1.827	50	405712	44.99	ug/l		96
7) Vinyl Chloride	1.952	62	362303	50.87	ug/l		97
8) Bromomethane	2.269	94	115622	30.60	ug/l		99
9) Chloroethane	2.394	64	182057	48.16	ug/l		96
10) 1,3-Butadiene	1.991	54	191306	33.88	ug/l		98
11) Trichlorofluoromethane	2.716	101	380529	50.44	ug/l		98
12) Diethyl Ether	3.071	45	137097	44.37	ug/l		94
13) Acetone	3.431	58	22951	53.86	ug/l	#	83
14) Iodomethane	3.551	142	354330	131.35	ug/l		99
15) 1,1-Dichloroethene	3.360	61	326825	48.13	ug/l		99
16) 1,1,2-Trichloro-1,2,2-...	3.376	101	229400	49.30	ug/l		100
17) Isopropanol	3.660	45	78817	232.45	ug/l		99
18) Carbon Disulfide	3.644	76	735071	47.09	ug/l		98
19) Acetonitrile	3.862	41	249839	92.86	ug/l		98
20) Acrylonitrile	4.419	53	65956	45.91	ug/l		94
21) Allyl Chloride	3.862	76	81201	46.60	ug/l		95
22) Acrolein	3.218	56	80959	103.90	ug/l		98
23) Methylene Chloride	4.042	84	244313	50.06	ug/l		93
24) t-1,2-Dichloroethene	4.468	96	241572	51.23	ug/l		94
25) Isobutyl Alcohol	6.972	43	20838	86.78	ug/l		92
26) Methyl-t-Butyl Ether (...	4.484	73	613505	47.25	ug/l		98
27) Hexane	4.904	57	394987	46.58	ug/l		98
28) 1,1-Dichloroethane	5.068	63	412697	48.30	ug/l		96
29) Vinyl Acetate	5.188	86	37670	58.27	ug/l		97
30) Diisopropyl Ether (DIPE)	5.232	45	873239	59.91	ug/l		99
31) Chloroprene	5.210	53	364494	51.38	ug/l		96
32) Ethyl-t-Butyl Ether (E...	5.739	59	725678	50.80	ug/l		97
33) c-1,2-Dichloroethene	5.892	96	265958	51.87	ug/l		97
34) 2,2-Dichloropropane	5.886	77	134398	26.60	ug/l		96
35) 2-Butanone	5.914	43	76584	46.90	ug/l		96
36) Propionitrile	5.968	54	26214	47.95	ug/l		90
37) Methacrylonitrile	6.176	41	112110	48.82	ug/l		97
38) Bromochloromethane	6.203	130	110363	48.72	ug/l		99

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV009.D
Acq On : 14 Nov 2013 1:37 pm
Operator : 486
Sample : MSD 0910-2A V101713B/V110813B
Misc : V092013C
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 14 15:09:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39)	Tetrahydrofuran	6.290	42	72017	51.47	ug/l		95
40)	Chloroform	6.317	83	390196	50.44	ug/l		96
42)	1,1,1-Trichloroethane	6.563	97	333632	49.88	ug/l		99
43)	Cyclohexane	6.645	84	374353	49.27	ug/l	#	95
44)	1,1-Dichloropropene	6.787	75	314779	49.44	ug/l		99
45)	Carbon Tetrachloride	6.798	117	281399	49.81	ug/l		98
48)	Benzene	7.043	78	983117	47.33	ug/l		99
49)	1,2-Dichloroethane	7.049	62	260153	47.48	ug/l		97
50)	Tert-Amyl-Methyl Ether...	7.223	73	652525	50.08	ug/l		96
51)	Thiophene	7.305	84	516098	49.64	ug/l		99
52)	2,2,4-Trimethyl Pentane	7.185	57	1043156	50.04	ug/l		100
53)	Trichloroethene	7.872	95	255767	51.44	ug/l		100
54)	1,2-Dichloropropane	8.123	63	256928	51.06	ug/l		99
55)	Dibromomethane	8.271	93	108882	48.18	ug/l		97
56)	Methyl Methacrylate	8.320	69	172300	53.31	ug/l		96
57)	1,4-Dioxane	8.320	88	27755	497.63	ug/l		93
58)	Bromodichloromethane	8.467	83	291495	48.34	ug/l		100
59)	2-Chloroethyl Vinyl Ether	8.855	63	16820	7.31	ug/l		70
60)	c-1,3-Dichloropropene	9.029	75	385044	55.36	ug/l		99
62)	Toluene	9.449	91	1055545	49.30	ug/l		100
63)	4-Methyl-2-Pentanone	9.215	58	86889	53.39	ug/l		94
65)	t-1,3-Dichloropropene	9.700	75	304000	49.48	ug/l		97
66)	Ethyl Methacrylate	9.842	69	279252	43.90	ug/l		99
67)	1,1,2-Trichloroethane	9.913	83	168366	48.59	ug/l		94
68)	Tetrachloroethene	10.126	166	301442	51.55	ug/l		97
69)	1,3-Dichloropropane	10.115	76	331598	47.82	ug/l		98
70)	2-Hexanone	10.230	58	83580	52.00	ug/l		99
71)	Dibromochloromethane	10.393	129	230256	49.20	ug/l		99
72)	1,2-Dibromoethane	10.524	107	172697	49.46	ug/l		95
73)	Chlorobenzene	11.146	112	659707	47.34	ug/l		99
74)	1,1,1,2-Tetrachloroethane	11.245	131	237289	49.47	ug/l		99
75)	Ethylbenzene	11.288	91	1160602	49.55	ug/l		98
76)	p/m-Xylene	11.436	91	1736060	90.50	ug/l		99
77)	o-Xylene	11.916	91	874639	44.19	ug/l		98
78)	Styrene	11.927	104	768351	48.53	ug/l		98
79)	Isopropylbenzene	12.369	105	1099705	46.42	ug/l		99
81)	1,2,3-Trichloropropane	12.751	110	65836	46.87	ug/l		90
82)	Bromobenzene	12.729	156	306983	49.79	ug/l		98
83)	n-Propylbenzene	12.876	91	1255036	46.09	ug/l		99
84)	t-1,4-Dichloro-2-Butene	12.778	53	39158	31.02	ug/l		98
85)	2-Chlorotoluene	12.974	91	747702	46.34	ug/l		97
86)	1,3,5-Trimethylbenzene	13.094	105	1033365	52.06	ug/l		99
88)	Bromoform	12.128	173	165469	52.59	ug/l		92
89)	1,1,2,2-Tetrachloroethane	12.701	83	267235	50.98	ug/l		99
90)	4-Chlorotoluene	13.100	91	851897	46.87	ug/l		98
91)	1,2,4-Trimethylbenzene	13.553	105	1012113	51.42	ug/l		100
92)	tert-Butylbenzene	13.498	134	225885	48.97	ug/l		93
93)	p-Isopropyltoluene	13.945	119	1049987	48.13	ug/l		99
94)	sec-Butylbenzene	13.765	105	1225707	48.00	ug/l		100
95)	1,3-Dichlorobenzene	13.891	146	546434	47.83	ug/l		97
96)	1,4-Dichlorobenzene	14.000	146	587103	52.12	ug/l		98
97)	1,2-Dichlorobenzene	14.453	146	516531	48.38	ug/l		99
98)	n-Butylbenzene	14.447	91	1018359	52.36	ug/l		99
99)	1,2-Dibromo-3-Chloropr...	15.391	75	45596	47.65	ug/l		88

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV009.D
Acq On : 14 Nov 2013 1:37 pm
Operator : 486
Sample : MSD 0910-2A V101713B/V110813B
Misc : V092013C
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 14 15:09:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	16.450	180	460923	51.60	ug/l	99
101) Hexachloro-1,3-Butadiene	16.685	225	284997	51.53	ug/l	98
102) Naphthalene	16.750	128	952448	52.48	ug/l	99
103) 1,2,3-Trichlorobenzene	17.050	180	433358	51.63	ug/l	98

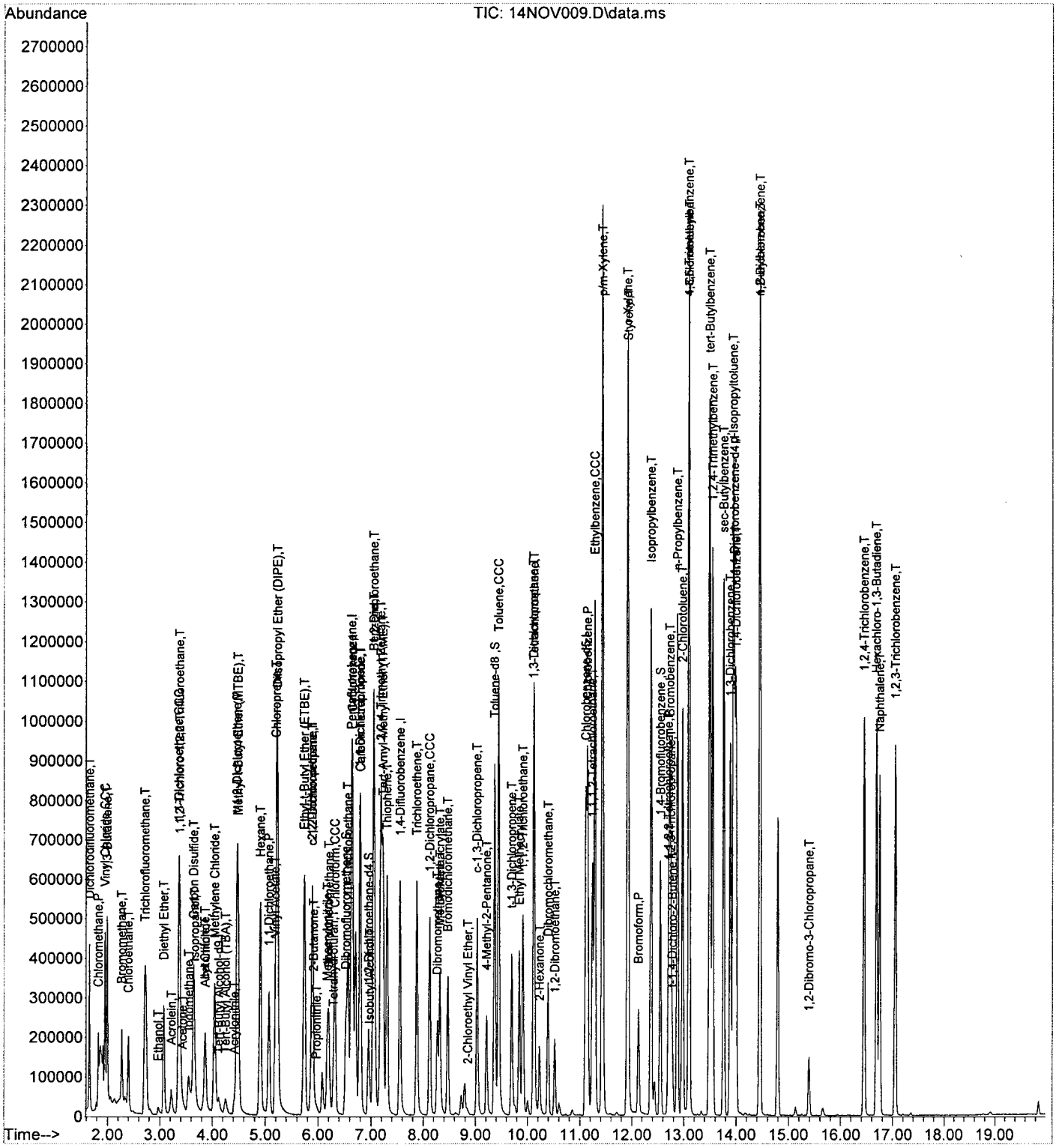
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV009.D
Acq On : 14 Nov 2013 1:37 pm
Operator : 486
Sample : MSD 0910-2A V101713B/V110813B
Misc : V092013C
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 14 15:09:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration



Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS OO DATA\2013\131114\
Data File : 14NOV011.D
Acq On : 14 Nov 2013 2:34 pm
Operator : 486
Sample : 13-11-0910-2A 5ML PH<2
Misc : V092013C
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 14 15:11:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert-Butyl Alcohol-d9	4.118	65	55668	250.00	ug/l	-0.02
4) Pentafluorobenzene	6.623	168	467016	50.00	ug/l	0.00
47) 1,4-Difluorobenzene	7.550	114	676442	50.00	ug/l	0.00
64) Chlorobenzene-d5	11.114	117	605499	50.00	ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.973	152	338659	50.00	ug/l	0.00
System Monitoring Compounds						
41) Dibromofluoromethane	6.525	113	176368	48.63	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.26%			
46) 1,2-Dichloroethane-d4	6.950	65	181423	48.05	ug/l	0.00
Spiked Amount 50.000			Recovery = 96.10%			
61) Toluene-d8	9.367	98	799774	49.96	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.92%			
80) 1,4-Bromofluorobenzene	12.543	95	293625	50.83	ug/l	0.00
Spiked Amount 50.000			Recovery = 101.66%			
Target Compounds						Qvalue
2) Ethanol	3.044	45	118	3.10	ug/l #	46
3) Tert-Butyl Alcohol (TBA)	4.249	59	271	1.02	ug/l #	58
5) Dichlorodifluoromethane	1.663	85	114	N.D.		
6) Chloromethane	1.832	50	4287	0.47	ug/l	94
7) Vinyl Chloride	0.000		0	N.D.		
8) Bromomethane	2.296	94	3172	0.83	ug/l #	27
9) Chloroethane	0.000		0	N.D.	d	
10) 1,3-Butadiene	2.023	54	121	N.D.		
11) Trichlorofluoromethane	0.000		0	N.D.		
12) Diethyl Ether	3.044	45	118	N.D.		
13) Acetone	3.453	58	793	1.83	ug/l #	56
14) Iodomethane	3.567	142	2087	0.76	ug/l #	43
15) 1,1-Dichloroethene	0.000		0	N.D.		
16) 1,1,2-Trichloro-1,2,2-...	0.000		0	N.D.		
17) Isopropanol	0.000		0	N.D.	d	
18) Carbon Disulfide	0.000		0	N.D.		
19) Acetonitrile	3.846	41	104	N.D.		
20) Acrylonitrile	0.000		0	N.D.		
21) Allyl Chloride	0.000		0	N.D.		
22) Acrolein	0.000		0	N.D.		
23) Methylene Chloride	4.042	84	105	N.D.		
24) t-1,2-Dichloroethene	0.000		0	N.D.		
25) Isobutyl Alcohol	0.000		0	N.D.	d	
26) Methyl-t-Butyl Ether (...	0.000		0	N.D.		
27) Hexane	4.910	57	205	N.D.		
28) 1,1-Dichloroethane	0.000		0	N.D.		
29) Vinyl Acetate	0.000		0	N.D.		
30) Diisopropyl Ether (DIPE)	5.232	45	136855	9.23	ug/l	97
31) Chloroprene	0.000		0	N.D.		
32) Ethyl-t-Butyl Ether (E...	0.000		0	N.D.		
33) c-1,2-Dichloroethene	0.000		0	N.D.		
34) 2,2-Dichloropropane	5.859	77	405	N.D.		
35) 2-Butanone	5.886	43	122	N.D.		
36) Propionitrile	0.000		0	N.D.		
37) Methacrylonitrile	6.132	41	98	N.D.		
38) Bromochloromethane	0.000		0	N.D.		
39) Tetrahydrofuran	6.306	42	7693	5.40	ug/l	85
40) Chloroform	0.000		0	N.D.		
42) 1,1,1-Trichloroethane	0.000		0	N.D.		
43) Cyclohexane	0.000		0	N.D.	d	

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS OO DATA\2013\131114\
Data File : 14NOV011.D
Acq On : 14 Nov 2013 2:34 pm
Operator : 486
Sample : 13-11-0910-2A 5ML PH<2
Misc : V092013C
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 14 15:11:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44)	1,1-Dichloropropene	0.000		0	N.D.	
45)	Carbon Tetrachloride	6.716	117	275	N.D.	
48)	Benzene	7.043	78	107	N.D.	
49)	1,2-Dichloroethane	0.000		0	N.D.	
50)	Tert-Amyl-Methyl Ether...	0.000		0	N.D.	
51)	Thiophene	7.338	84	108	N.D.	
52)	2,2,4-Trimethyl Pentane	7.174	57	279	N.D.	
53)	Trichloroethene	0.000		0	N.D.	
54)	1,2-Dichloropropane	0.000		0	N.D.	
55)	Dibromomethane	0.000		0	N.D.	
56)	Methyl Methacrylate	0.000		0	N.D.	
57)	1,4-Dioxane	0.000		0	N.D.	
58)	Bromodichloromethane	0.000		0	N.D.	
59)	2-Chloroethyl Vinyl Ether	0.000		0	N.D.	
60)	c-1,3-Dichloropropene	0.000		0	N.D.	
62)	Toluene	9.444	91	2238	0.10 ug/l #	41
63)	4-Methyl-2-Pentanone	0.000		0	N.D.	
65)	t-1,3-Dichloropropene	0.000		0	N.D.	
66)	Ethyl Methacrylate	0.000		0	N.D.	
67)	1,1,2-Trichloroethane	0.000		0	N.D.	
68)	Tetrachloroethene	0.000		0	N.D.	
69)	1,3-Dichloropropane	0.000		0	N.D.	
70)	2-Hexanone	0.000		0	N.D.	
71)	Dibromochloromethane	0.000		0	N.D.	
72)	1,2-Dibromoethane	0.000		0	N.D.	
73)	Chlorobenzene	0.000		0	N.D.	
74)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
75)	Ethylbenzene	11.294	91	755	N.D.	
76)	p/m-Xylene	11.435	91	2082	0.11 ug/l	99
77)	o-Xylene	11.910	91	621	N.D.	
78)	Styrene	11.932	104	233	N.D.	
79)	Isopropylbenzene	12.363	105	221	N.D.	
81)	1,2,3-Trichloropropane	0.000		0	N.D.	
82)	Bromobenzene	0.000		0	N.D.	
83)	n-Propylbenzene	12.876	91	714	N.D.	
84)	t-1,4-Dichloro-2-Butene	0.000		0	N.D.	
85)	2-Chlorotoluene	12.963	91	497	N.D.	
86)	1,3,5-Trimethylbenzene	13.094	105	500	N.D.	
88)	Bromoform	0.000		0	N.D.	
89)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
90)	4-Chlorotoluene	13.111	91	349	N.D.	
91)	1,2,4-Trimethylbenzene	13.553	105	1306	N.D.	
92)	tert-Butylbenzene	0.000		0	N.D.	
93)	p-Isopropyltoluene	13.940	119	626	N.D.	
94)	sec-Butylbenzene	13.760	105	690	N.D.	
95)	1,3-Dichlorobenzene	13.902	146	216	N.D.	
96)	1,4-Dichlorobenzene	14.011	146	407	N.D.	
97)	1,2-Dichlorobenzene	14.475	146	120	N.D.	
98)	n-Butylbenzene	14.464	91	774	N.D.	
99)	1,2-Dibromo-3-Chloropr...	0.000		0	N.D.	
100)	1,2,4-Trichlorobenzene	16.444	180	423	N.D.	
101)	Hexachloro-1,3-Butadiene	16.695	225	105	N.D.	
102)	Naphthalene	16.750	128	3433	0.18 ug/l	68
103)	1,2,3-Trichlorobenzene	17.050	180	859	0.10 ug/l #	32

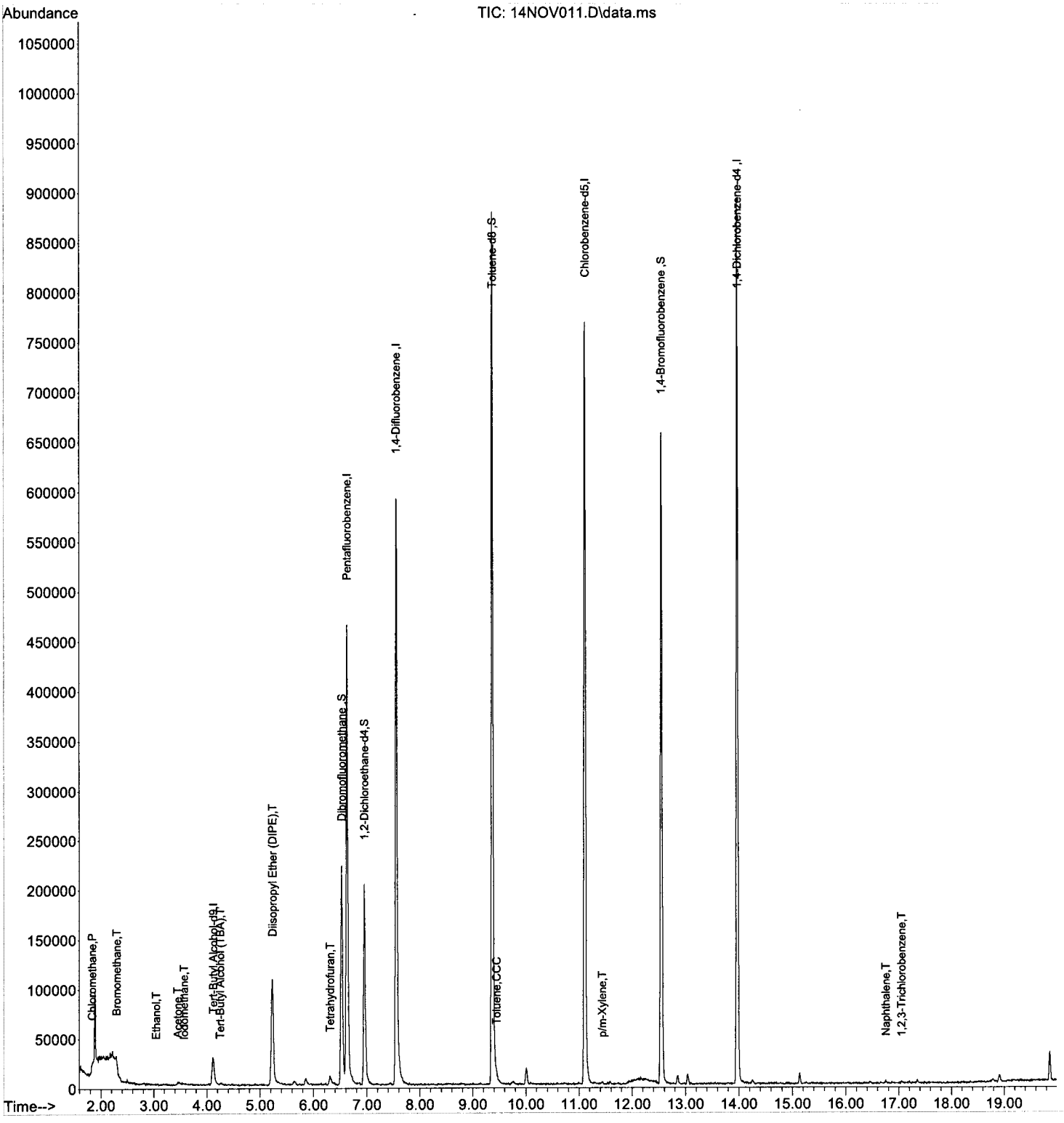
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS OO DATA\2013\131114\
Data File : 14NOV011.D
Acq On : 14 Nov 2013 2:34 pm
Operator : 486
Sample : 13-11-0910-2A 5ML PH<2
Misc : V092013C
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 14 15:11:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration



Return to Contents

EPA METHOD 8260B
Volatile Organics

Continuing Calibration Data

Return to Contents

CCV ASSOCIATION SUMMARY
FOR METHOD: EPA 8260B

BATCH ID: 131113B
INSTRUMENT: GC/MS OO

ANALYZED BY: 486

WORK ORDER: 099-15-001
MATRIX: Water

REVIEWED BY:
D/T REVIEWED:

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
11460	Daily Calibration	11/13/2013 22:34	W:\GCMS_OO_DATA\2013\131113\13NOV029.D\13NOV029.rr

WORK ORDER: 13-11-0697
MATRIX: Water

REVIEWED BY: 163
D/T REVIEWED: 11/15/2013 12:30

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
1	QCTB-11082013	11/14/2013 00:20	W:\GCMS_OO_DATA\2013\131113\13NOV033.D\13NOV033.rr

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

CCV WORK ORDER: 099-15-001-11460-4410
INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 131112IC
INITIAL DATE ANALYZED: 11/12/13 19:25
ANALYST: 486

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 131113B
CCV DATE ANALYZED: 11/13/13 22:34

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Acetone	Avg Resp	0.00	0.046	0.049			-5	0-20	PASS
Benzene	Avg Resp	0.00	1.549	1.452			6	0-20	PASS
Bromobenzene	Avg Resp	0.00	0.504	0.511			-1	0-20	PASS
Bromochloromethane	Avg Resp	0.00	0.247	0.249			-1	0-20	PASS
Bromodichloromethane	Avg Resp	0.00	0.450	0.436			3	0-20	PASS
Bromoform	Avg Resp	0.10	0.495	0.478			3	0-20	PASS
Bromomethane	**Avg Resp**	**0.00**	**0.412**	**0.223**			**46**	0-20	**FAIL**
2-Butanone	Avg Resp	0.00	0.178	0.160			10	0-20	PASS
n-Butylbenzene	Avg Resp	0.00	3.060	2.957			3	0-20	PASS
sec-Butylbenzene	Avg Resp	0.00	4.018	3.926			2	0-20	PASS
tert-Butylbenzene	Avg Resp	0.00	0.726	0.706			3	0-20	PASS
Carbon Disulfide	Avg Resp	0.00	1.700	1.732			-2	0-20	PASS
Carbon Tetrachloride	Avg Resp	0.00	0.615	0.586			5	0-20	PASS
Chlorobenzene	Avg Resp	0.30	1.140	1.136			0	0-20	PASS
Chloroethane	Avg Resp	0.00	0.412	0.395			4	0-20	PASS
Chloroform	Avg Resp	0.00	0.843	0.839			0	0-20	PASS
Chloromethane	**Avg Resp**	**0.10**	**0.982**	**0.756**			**23**	0-20	**FAIL**
2-Chlorotoluene	Avg Resp	0.00	1.320	1.277			3	0-20	PASS
4-Chlorotoluene	Avg Resp	0.00	2.860	2.744			4	0-20	PASS
Dibromochloromethane	Avg Resp	0.00	0.383	0.382			0	0-20	PASS
1,2-Dibromo-3-Chloropropane	Avg Resp	0.00	0.151	0.150			0	0-20	PASS
1,2-Dibromoethane	Avg Resp	0.00	0.286	0.297			-4	0-20	PASS
Dibromomethane	Avg Resp	0.00	0.169	0.171			-2	0-20	PASS
1,2-Dichlorobenzene	Avg Resp	0.00	1.680	1.644			2	0-20	PASS
1,3-Dichlorobenzene	Avg Resp	0.00	1.798	1.721			4	0-20	PASS
1,4-Dichlorobenzene	Avg Resp	0.00	1.772	1.715			3	0-20	PASS
Dichlorodifluoromethane	Avg Resp	0.00	0.615	0.587			5	0-20	PASS
1,1-Dichloroethane	Avg Resp	0.10	0.931	0.916			2	0-20	PASS
1,2-Dichloroethane	Avg Resp	0.00	0.409	0.382			6	0-20	PASS
1,1-Dichloroethene	Avg Resp	0.00	0.740	0.744			-1	0-20	PASS
c-1,2-Dichloroethene	Avg Resp	0.00	0.559	0.567			-1	0-20	PASS
t-1,2-Dichloroethene	Avg Resp	0.00	0.514	0.519			-1	0-20	PASS
1,2-Dichloropropane	Avg Resp	0.00	0.375	0.373			1	0-20	PASS
1,3-Dichloropropane	Avg Resp	0.00	0.567	0.560			1	0-20	PASS
2,2-Dichloropropane	**Avg Resp**	**0.00**	**0.550**	**0.215**			**61**	0-20	**FAIL**
1,1-Dichloropropene	Avg Resp	0.00	0.694	0.657			5	0-20	PASS
c-1,3-Dichloropropene	Avg Resp	0.00	0.519	0.543			-5	0-20	PASS
t-1,3-Dichloropropene	Avg Resp	0.00	0.503	0.522			-4	0-20	PASS
Ethylbenzene	Avg Resp	0.00	1.916	1.895			1	0-20	PASS

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

CCV WORK ORDER: 099-15-001-11460-4410
INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 131112IC
INITIAL DATE ANALYZED: 11/12/13 19:25
ANALYST: 486

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 131113B
CCV DATE ANALYZED: 11/13/13 22:34

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
2-Hexanone	Avg Resp	0.00	0.131	0.129			2	0-20	PASS
Isopropylbenzene	Avg Resp	0.00	1.938	1.912			1	0-20	PASS
p-Isopropyltoluene	Avg Resp	0.00	3.432	3.291			4	0-20	PASS
Methylene Chloride	Avg Resp	0.00	0.532	0.528			1	0-20	PASS
4-Methyl-2-Pentanone	Avg Resp	0.00	0.121	0.119			2	0-20	PASS
Naphthalene	Avg Resp	0.00	2.856	2.858			0	0-20	PASS
n-Propylbenzene	Avg Resp	0.00	2.228	2.202			1	0-20	PASS
Styrene	Avg Resp	0.00	1.295	1.288			1	0-20	PASS
1,1,1,2-Tetrachloroethane	Avg Resp	0.00	0.392	0.391			0	0-20	PASS
1,1,2,2-Tetrachloroethane	Avg Resp	0.30	0.825	0.810			2	0-20	PASS
Tetrachloroethene	Avg Resp	0.00	0.478	0.491			-3	0-20	PASS
Toluene	Avg Resp	0.00	1.597	1.562			2	0-20	PASS
1,2,3-Trichlorobenzene	Avg Resp	0.00	1.320	1.270			4	0-20	PASS
1,2,4-Trichlorobenzene	Avg Resp	0.00	1.405	1.337			5	0-20	PASS
1,1,1-Trichloroethane	Avg Resp	0.00	0.729	0.703			4	0-20	PASS
1,1,2-Trichloro-1,2,2-Trifluoroethane	Avg Resp	0.00	0.507	0.500			1	0-20	PASS
1,1,2-Trichloroethane	Avg Resp	0.00	0.283	0.277			2	0-20	PASS
Trichloroethene	Avg Resp	0.00	0.371	0.366			1	0-20	PASS
Trichlorofluoromethane	Avg Resp	0.00	0.822	0.760			8	0-20	PASS
1,2,3-Trichloropropane	Avg Resp	0.00	0.115	0.110			4	0-20	PASS
1,2,4-Trimethylbenzene	Avg Resp	0.00	3.096	2.993			3	0-20	PASS
1,3,5-Trimethylbenzene	Avg Resp	0.00	1.624	1.613			1	0-20	PASS
Vinyl Acetate	Avg Resp	0.00	0.070	0.076			-8	0-20	PASS
Vinyl Chloride	Avg Resp	0.00	0.776	0.696			10	0-20	PASS
p/m-Xylene	Avg Resp	0.00	1.569	1.457			7	0-20	PASS
o-Xylene	Avg Resp	0.00	1.619	1.531			5	0-20	PASS
Methyl-t-Butyl Ether (MTBE)	Avg Resp	0.00	1.415	1.326			6	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

Data File:

Data File Name:

W:\GCMS_OO_DATA\2013\131113\13NOV029.D\13NOV029.rr

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV029.D
Acq On : 13 Nov 2013 10:34 pm
Operator : 486
Sample : BFB/CCV V101713A/V110813A
Misc : V092013C/ GCMS OO
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 14 09:10:38 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Tert-Butyl Alcohol-d9	1.000	1.000	0.0	82	-0.01
2	T	Ethanol	0.171	0.241	-40.9#	92	0.00
3	T	Tert-Butyl Alcohol (TBA)	1.197	1.039	13.2	80	0.00
4	I	Pentafluorobenzene	1.000	1.000	0.0	103	0.00
5	T	Dichlorodifluoromethane	0.615	0.587	4.6	100	0.00
6	P	Chloromethane	0.982	0.756	23.0#	94	0.04
7	CCC	Vinyl Chloride	0.776	0.696	10.3	97	0.00
8	T	Bromomethane	0.412	0.223	45.9#	76	0.00
9	T	Chloroethane	0.412	0.395	4.1	108	0.00
10	T	1,3-Butadiene	0.615	0.564	8.3	97	0.00
11	T	Trichlorofluoromethane	0.822	0.760	7.5	101	0.00
12	T	Diethyl Ether	0.337	0.308	8.6	103	0.00
13	T	Acetone	0.046	0.049#	-6.5	105	0.00
14	T	Iodomethane	0.294	0.277	5.8	83	0.00
15	CCC	1,1-Dichloroethene	0.740	0.744	-0.5	100	0.00
16	T	1,1,2-Trichloro-1,2,2-Trifl	0.507	0.500	1.4	98	0.00
17	T	Isopropanol	0.037	0.033#	10.8	96	-0.01
18	T	Carbon Disulfide	1.700	1.732	-1.9	102	0.00
19	T	Acetonitrile	0.293	0.282	3.8	109	0.00
20	T	Acrylonitrile	0.146	0.146	0.0	112	0.00
21	T	Allyl Chloride	0.190	0.196	-3.2	112	0.00
22	T	Acrolein	0.085	0.075#	11.8	94	0.00
23	T	Methylene Chloride	0.532	0.528	0.8	102	0.00
24	T	t-1,2-Dichloroethene	0.514	0.519	-1.0	100	0.00
25	T	Isobutyl Alcohol	0.026	0.020#	23.1#	94	0.00
26	T	Methyl-t-Butyl Ether (MTBE)	1.415	1.326	6.3	100	0.00
27	T	Hexane	0.924	0.862	6.7	97	0.00
28	P	1,1-Dichloroethane	0.931	0.916	1.6	100	0.00
29	T	Vinyl Acetate	0.070	0.076#	-8.6	115	-0.01
30	T	Diisopropyl Ether (DIPE)	1.588	1.572	1.0	100	0.00
31	T	Chloroprene	0.773	0.739	4.4	97	0.00
32	T	Ethyl-t-Butyl Ether (ETBE)	1.556	1.522	2.2	99	0.00
33	T	c-1,2-Dichloroethene	0.559	0.567	-1.4	100	0.00
34	T	2,2-Dichloropropane	0.550	0.215	60.9#	74	0.00
35	T	2-Butanone	0.178	0.160	10.1	92	0.00
36	T	Propionitrile	0.060	0.059#	1.7	101	0.01
37	T	Methacrylonitrile	0.250	0.234	6.4	99	0.00
38	T	Bromochloromethane	0.247	0.249	-0.8	106	0.00
39	T	Tetrahydrofuran	0.152	0.142	6.6	102	0.00
40	CCC	Chloroform	0.843	0.839	0.5	100	0.00
41	S	Dibromofluoromethane	0.388	0.387	0.3	100	0.00
42	T	1,1,1-Trichloroethane	0.729	0.703	3.6	98	0.00
43	t	Cyclohexane	0.828	0.792	4.3	99	0.00
44	T	1,1-Dichloropropene	0.694	0.657	5.3	97	0.00
45	T	Carbon Tetrachloride	0.615	0.586	4.7	98	0.00
46	S	1,2-Dichloroethane-d4	0.404	0.395	2.2	103	0.00
47	I	1,4-Difluorobenzene	1.000	1.000	0.0	103	0.00
48	T	Benzene	1.549	1.452	6.3	100	0.00

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV029.D
Acq On : 13 Nov 2013 10:34 pm
Operator : 486
Sample : BFB/CCV V101713A/V110813A
Misc : V092013C/ GCMS OO
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 14 09:10:38 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	1,2-Dichloroethane	0.409	0.382	6.6	100	0.00
50	T	Tert-Amyl-Methyl Ether (TAM	0.972	0.926	4.7	99	0.00
51	T	Thiophene	0.775	0.765	1.3	101	0.00
52	T	2,2,4-Trimethyl Pentane	1.555	1.491	4.1	98	0.00
53	T	Trichloroethene	0.371	0.366	1.3	100	0.00
54	CCC	1,2-Dichloropropane	0.375	0.373	0.5	102	0.00
55	T	Dibromomethane	0.169	0.171	-1.2	104	0.00
56	T	Methyl Methacrylate	0.241	0.234	2.9	101	0.00
57	T	1,4-Dioxane	0.004	0.004#	0.0	106	0.00
58	T	Bromodichloromethane	0.450	0.436	3.1	100	0.00
59	T	2-Chloroethyl Vinyl Ether	0.172	0.122	29.1#	88	0.00
60	T	c-1,3-Dichloropropene	0.519	0.543	-4.6	101	0.00
61	S	Toluene-d8	1.183	1.176	0.6	102	0.00
62	CCC	Toluene	1.597	1.562	2.2	101	0.00
63	T	4-Methyl-2-Pentanone	0.121	0.119	1.7	100	0.00
64	I	Chlorobenzene-d5	1.000	1.000	0.0	102	0.00
65	T	t-1,3-Dichloropropene	0.503	0.522	-3.8	98	0.00
66	T	Ethyl Methacrylate	0.520	0.513	1.3	102	0.00
67	T	1,1,2-Trichloroethane	0.283	0.277	2.1	102	0.00
68	T	Tetrachloroethene	0.478	0.491	-2.7	102	0.00
69	T	1,3-Dichloropropane	0.567	0.560	1.2	102	0.00
70	T	2-Hexanone	0.131	0.129	1.5	102	0.00
71	T	Dibromochloromethane	0.383	0.382	0.3	101	0.00
72	T	1,2-Dibromoethane	0.286	0.297	-3.8	106	0.00
73	P	Chlorobenzene	1.140	1.136	0.4	102	0.00
74	T	1,1,1,2-Tetrachloroethane	0.392	0.391	0.3	101	0.00
75	CCC	Ethylbenzene	1.916	1.895	1.1	100	0.00
76	T	p/m-Xylene	1.569	1.457	7.1	99	0.00
77	T	o-Xylene	1.619	1.531	5.4	100	0.00
78	T	Styrene	1.295	1.288	0.5	101	0.00
79	T	Isopropylbenzene	1.938	1.912	1.3	101	0.00
80	S	1,4-Bromofluorobenzene	0.477	0.485	-1.7	102	0.00
81	T	1,2,3-Trichloropropane	0.115	0.110	4.3	104	0.00
82	T	Bromobenzene	0.504	0.511	-1.4	102	0.00
83	T	n-Propylbenzene	2.228	2.202	1.2	101	0.00
84	T	t-1,4-Dichloro-2-Butene	0.095	0.091#	4.2	96	0.00
85	T	2-Chlorotoluene	1.320	1.277	3.3	100	0.00
86	T	1,3,5-Trimethylbenzene	1.624	1.613	0.7	100	0.00
87	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00
88	P	Bromoform	0.495	0.478	3.4	100	0.00
89	P	1,1,2,2-Tetrachloroethane	0.825	0.810	1.8	103	0.00
90	T	4-Chlorotoluene	2.860	2.744	4.1	100	0.00
91	T	1,2,4-Trimethylbenzene	3.096	2.993	3.3	100	0.00
92	T	tert-Butylbenzene	0.726	0.706	2.8	100	0.00
93	T	p-Isopropyltoluene	3.432	3.291	4.1	98	0.00
94	T	sec-Butylbenzene	4.018	3.926	2.3	101	0.00
95	T	1,3-Dichlorobenzene	1.798	1.721	4.3	100	0.00
96	T	1,4-Dichlorobenzene	1.772	1.715	3.2	100	0.00

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV029.D
Acq On : 13 Nov 2013 10:34 pm
Operator : 486
Sample : BFB/CCV V101713A/V110813A
Misc : V092013C/ GCMS OO
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 14 09:10:38 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
97	T	1,2-Dichlorobenzene	1.680	1.644	2.1	101	0.00
98	T	n-Butylbenzene	3.060	2.957	3.4	99	0.00
99	T	1,2-Dibromo-3-Chloropropane	0.151	0.150	0.7	108	0.00
100	T	1,2,4-Trichlorobenzene	1.405	1.337	4.8	99	0.00
101	T	Hexachloro-1,3-Butadiene	0.870	0.830	4.6	99	0.00
102	T	Naphthalene	2.856	2.858	-0.1	103	0.00
103	T	1,2,3-Trichlorobenzene	1.320	1.270	3.8	101	0.00

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

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV029.D
Acq On : 13 Nov 2013 10:34 pm
Operator : 486
Sample : BFB/CCV V101713A/V110813A
Misc : V092013C/ GCMS OO
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 14 09:10:38 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert-Butyl Alcohol-d9	4.124	65	50670	250.00	ug/l	-0.01
4) Pentafluorobenzene	6.629	168	460851	50.00	ug/l	0.00
47) 1,4-Difluorobenzene	7.556	114	676878	50.00	ug/l	0.00
64) Chlorobenzene-d5	11.114	117	606186	50.00	ug/l	0.00
87) 1,4-Dichlorobenzene-d4	13.973	152	323792	50.00	ug/l	0.00
System Monitoring Compounds						
41) Dibromofluoromethane	6.525	113	178197	49.80	ug/l	0.00
Spiked Amount 50.000			Recovery =	99.60%		
46) 1,2-Dichloroethane-d4	6.950	65	181871	48.82	ug/l	0.00
Spiked Amount 50.000			Recovery =	97.64%		
61) Toluene-d8	9.368	98	795698	49.67	ug/l	0.00
Spiked Amount 50.000			Recovery =	99.34%		
80) 1,4-Bromofluorobenzene	12.549	95	293934	50.83	ug/l	0.00
Spiked Amount 50.000			Recovery =	101.66%		
Target Compounds						Qvalue
2) Ethanol	2.967	45	24405	704.80	ug/l	86
3) Tert-Butyl Alcohol (TBA)	4.255	59	52641	216.93	ug/l	97
5) Dichlorodifluoromethane	1.658	85	270359	47.70	ug/l	96
6) Chloromethane	1.871	50	348459	38.49	ug/l	99
7) Vinyl Chloride	1.952	62	320678	44.85	ug/l	98
8) Bromomethane	2.269	94	102577	27.04	ug/l	97
9) Chloroethane	2.400	64	181833	47.91	ug/l	93
10) 1,3-Butadiene	1.991	54	259938	45.84	ug/l	99
11) Trichlorofluoromethane	2.716	101	350350	46.25	ug/l	97
12) Diethyl Ether	3.076	45	141783	45.71	ug/l	100
13) Acetone	3.426	58	22445	52.46	ug/l	89
14) Iodomethane	3.546	142	255236	94.24	ug/l	86
15) 1,1-Dichloroethene	3.360	61	342676	50.26	ug/l	98
16) 1,1,2-Trichloro-1,2,2-...	3.377	101	230631	49.36	ug/l	98
17) Isopropanol	3.649	45	76799	225.58	ug/l	99
18) Carbon Disulfide	3.644	76	798279	50.94	ug/l	99
19) Acetonitrile	3.862	41	260144	96.30	ug/l	96
20) Acrylonitrile	4.424	53	67218	46.53	ug/l	92
21) Allyl Chloride	3.862	76	90122	51.51	ug/l	92
22) Acrolein	3.218	56	68762	87.89	ug/l	100
23) Methylene Chloride	4.042	84	243152	49.62	ug/l	98
24) t-1,2-Dichloroethene	4.468	96	239262	50.53	ug/l	97
25) Isobutyl Alcohol	6.978	43	18522	76.82	ug/l	98
26) Methyl-t-Butyl Ether (...	4.490	73	610874	46.85	ug/l	99
27) Hexane	4.904	57	397311	46.66	ug/l	97
28) 1,1-Dichloroethane	5.068	63	421963	49.18	ug/l	99
29) Vinyl Acetate	5.183	86	35026	53.96	ug/l	100
30) Diisopropyl Ether (DIPE)	5.232	45	724244	49.48	ug/l	98
31) Chloroprene	5.215	53	340736	47.84	ug/l	99
32) Ethyl-t-Butyl Ether (E...	5.739	59	701399	48.90	ug/l	99
33) c-1,2-Dichloroethene	5.892	96	261192	50.74	ug/l	96
34) 2,2-Dichloropropane	5.876	77	99030	19.52	ug/l	99
35) 2-Butanone	5.914	43	73644	44.92	ug/l	100
36) Propionitrile	5.985	54	27398	49.91	ug/l	88
37) Methacrylonitrile	6.176	41	107891	46.79	ug/l	99
38) Bromochloromethane	6.203	130	114865	50.51	ug/l	93

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV029.D
Acq On : 13 Nov 2013 10:34 pm
Operator : 486
Sample : BFB/CCV V101713A/V110813A
Misc : V092013C/ GCMS OO
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 14 09:10:38 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
39) Tetrahydrofuran	6.296	42	65308	46.49 ug/l	97
40) Chloroform	6.318	83	386879	49.81 ug/l	96
42) 1,1,1-Trichloroethane	6.563	97	323981	48.25 ug/l	99
43) Cyclohexane	6.645	84	364942	47.84 ug/l	99
44) 1,1-Dichloropropene	6.792	75	302811	47.37 ug/l	97
45) Carbon Tetrachloride	6.798	117	269919	47.59 ug/l	98
48) Benzene	7.043	78	982936	46.87 ug/l	99
49) 1,2-Dichloroethane	7.049	62	258904	46.80 ug/l	98
50) Tert-Amyl-Methyl Ether...	7.223	73	627090	47.67 ug/l	97
51) Thiophene	7.305	84	517700	49.32 ug/l	98
52) 2,2,4-Trimethyl Pentane	7.185	57	1009251	47.95 ug/l	99
53) Trichloroethene	7.873	95	247760	49.36 ug/l	98
54) 1,2-Dichloropropane	8.124	63	252249	49.66 ug/l	99
55) Dibromomethane	8.265	93	115838	50.77 ug/l	93
56) Methyl Methacrylate	8.320	69	158118	48.45 ug/l	93
57) 1,4-Dioxane	8.320	88	27921	495.85 ug/l	93
58) Bromodichloromethane	8.473	83	294875	48.44 ug/l	100
59) 2-Chloroethyl Vinyl Ether	8.866	63	82267	35.39 ug/l	94
60) c-1,3-Dichloropropene	9.029	75	367371	52.31 ug/l	100
62) Toluene	9.450	91	1057502	48.93 ug/l	99
63) 4-Methyl-2-Pentanone	9.215	58	80663	49.09 ug/l	95
65) t-1,3-Dichloropropene	9.700	75	316509	51.94 ug/l	98
66) Ethyl Methacrylate	9.842	69	310793	49.26 ug/l	99
67) 1,1,2-Trichloroethane	9.913	83	167825	48.84 ug/l	95
68) Tetrachloroethene	10.126	166	297720	51.33 ug/l	97
69) 1,3-Dichloropropane	10.115	76	339722	49.40 ug/l	99
70) 2-Hexanone	10.230	58	78073	48.98 ug/l	90
71) Dibromochloromethane	10.393	129	231446	49.86 ug/l	99
72) 1,2-Dibromoethane	10.519	107	180090	52.01 ug/l	92
73) Chlorobenzene	11.146	112	688687	49.82 ug/l	97
74) 1,1,1,2-Tetrachloroethane	11.245	131	237315	49.88 ug/l	96
75) Ethylbenzene	11.288	91	1148462	49.43 ug/l	99
76) p/m-Xylene	11.430	91	1766758	92.86 ug/l	99
77) o-Xylene	11.916	91	928156	47.28 ug/l	100
78) Styrene	11.932	104	780607	49.71 ug/l	93
79) Isopropylbenzene	12.369	105	1158937	49.33 ug/l	98
81) 1,2,3-Trichloropropane	12.751	110	66811	47.96 ug/l	94
82) Bromobenzene	12.729	156	309857	50.67 ug/l	97
83) n-Propylbenzene	12.876	91	1334899	49.42 ug/l	99
84) t-1,4-Dichloro-2-Butene	12.778	53	54992	43.18 ug/l	95
85) 2-Chlorotoluene	12.974	91	774052	48.37 ug/l	98
86) 1,3,5-Trimethylbenzene	13.094	105	977550	49.65 ug/l	99
88) Bromoform	12.129	173	154720	48.27 ug/l	93
89) 1,1,2,2-Tetrachloroethane	12.701	83	262293	49.11 ug/l	97
90) 4-Chlorotoluene	13.100	91	888393	47.97 ug/l	100
91) 1,2,4-Trimethylbenzene	13.553	105	969233	48.33 ug/l	99
92) tert-Butylbenzene	13.493	134	228442	48.61 ug/l	94
93) p-Isopropyltoluene	13.946	119	1065743	47.95 ug/l	99
94) sec-Butylbenzene	13.765	105	1271179	48.86 ug/l	99
95) 1,3-Dichlorobenzene	13.886	146	557288	47.87 ug/l	98
96) 1,4-Dichlorobenzene	14.000	146	555289	48.39 ug/l	99
97) 1,2-Dichlorobenzene	14.453	146	532202	48.93 ug/l	99
98) n-Butylbenzene	14.448	91	957435	48.32 ug/l	99
99) 1,2-Dibromo-3-Chloropr...	15.391	75	48660	49.91 ug/l	99

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV029.D
Acq On : 13 Nov 2013 10:34 pm
Operator : 486
Sample : BFB/CCV V101713A/V110813A
Misc : V092013C/ GCMS OO
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 14 09:10:38 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	16.450	180	433025	47.58	ug/l	99
101) Hexachloro-1,3-Butadiene	16.690	225	268693	47.68	ug/l	99
102) Naphthalene	16.750	128	925498	50.05	ug/l	99
103) 1,2,3-Trichlorobenzene	17.050	180	411097	48.08	ug/l	97

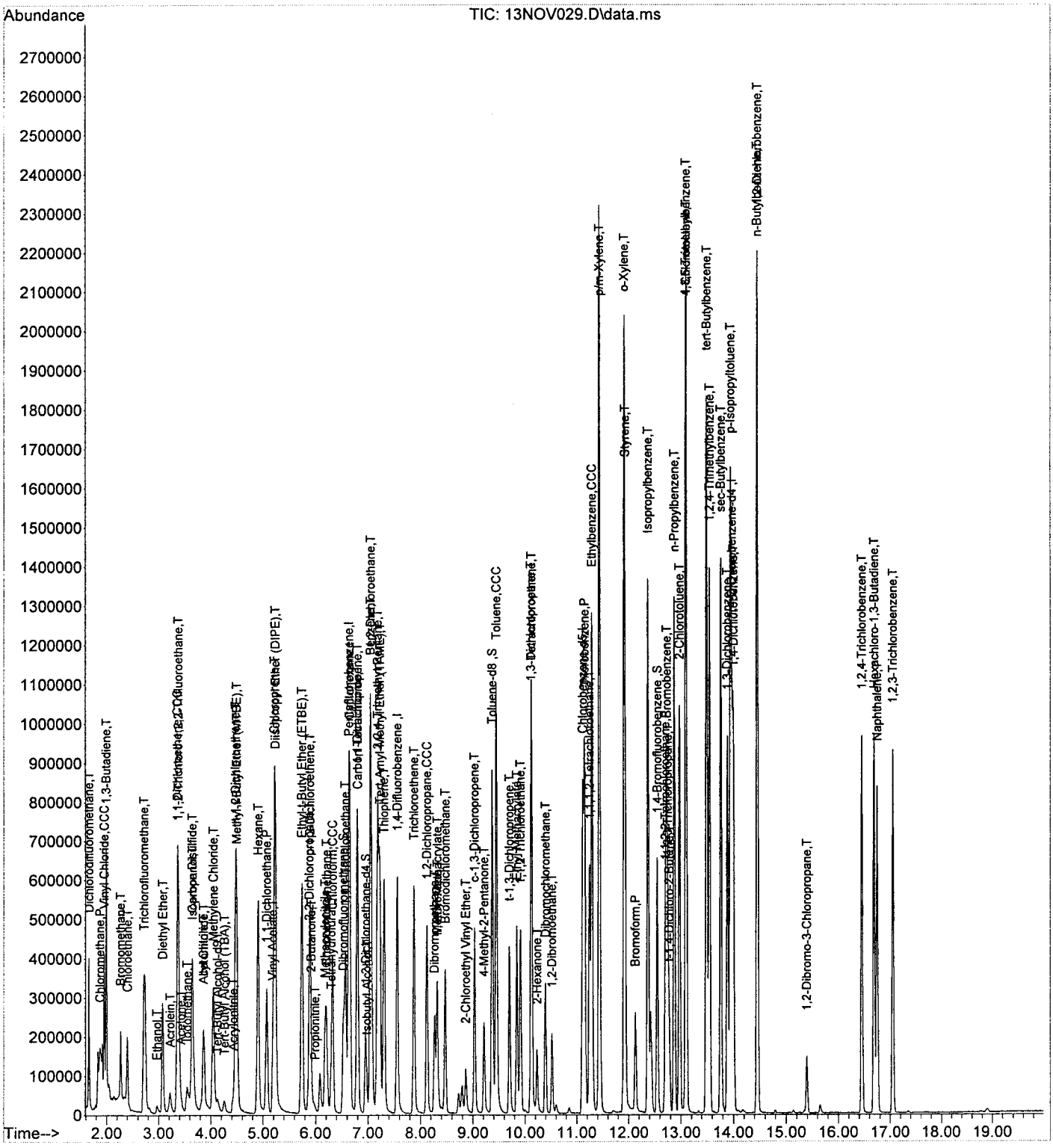
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV029.D
Acq On : 13 Nov 2013 10:34 pm
Operator : 486
Sample : BFB/CCV V101713A/V110813A
Misc : V092013C/ GCMS OO
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 14 09:10:38 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration



Return to Contents

CCV ASSOCIATION SUMMARY
FOR METHOD: EPA 8260B

BATCH ID: 131114A
INSTRUMENT: GC/MS OO

ANALYZED BY: 486

WORK ORDER: 099-15-001
MATRIX: Water

REVIEWED BY:
D/T REVIEWED:

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
11461	Daily Calibration	11/14/2013 10:06	W:\GCMS_OO_DATA\2013\131114\14NOV002.D\14NOV002.rr

WORK ORDER: 13-11-0697
MATRIX: Water

REVIEWED BY: 163
D/T REVIEWED: 11/15/2013 12:30

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
2	7-GW-23-28	11/14/2013 17:39	W:\GCMS_OO_DATA\2013\131114\14NOV018.D\14NOV018.rr

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

CCV WORK ORDER: 099-15-001-11461-4410
INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 131112IC
INITIAL DATE ANALYZED: 11/12/13 19:25
ANALYST: 486

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 131114A
CCV DATE ANALYZED: 11/14/13 10:06

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Acetone	Avg Resp	0.00	0.046	0.049			-5	0-20	PASS
Benzene	Avg Resp	0.00	1.549	1.501			3	0-20	PASS
Bromobenzene	Avg Resp	0.00	0.504	0.511			-1	0-20	PASS
Bromochloromethane	Avg Resp	0.00	0.247	0.256			-4	0-20	PASS
Bromodichloromethane	Avg Resp	0.00	0.450	0.451			0	0-20	PASS
Bromoform	Avg Resp	0.10	0.495	0.500			-1	0-20	PASS
Bromomethane	**Avg Resp**	**0.00**	**0.412**	**0.292**			**29**	0-20	**FAIL**
2-Butanone	Avg Resp	0.00	0.178	0.179			-1	0-20	PASS
n-Butylbenzene	Avg Resp	0.00	3.060	3.222			-5	0-20	PASS
sec-Butylbenzene	Avg Resp	0.00	4.018	4.096			-2	0-20	PASS
tert-Butylbenzene	Avg Resp	0.00	0.726	0.757			-4	0-20	PASS
Carbon Disulfide	Avg Resp	0.00	1.700	1.778			-5	0-20	PASS
Carbon Tetrachloride	Avg Resp	0.00	0.615	0.646			-5	0-20	PASS
Chlorobenzene	Avg Resp	0.30	1.140	1.151			-1	0-20	PASS
Chloroethane	Avg Resp	0.00	0.412	0.395			4	0-20	PASS
Chloroform	Avg Resp	0.00	0.843	0.869			-3	0-20	PASS
Chloromethane	**Avg Resp**	**0.10**	**0.982**	**0.759**			**23**	0-20	**FAIL**
2-Chlorotoluene	Avg Resp	0.00	1.320	1.304			1	0-20	PASS
4-Chlorotoluene	Avg Resp	0.00	2.860	2.874			0	0-20	PASS
Dibromochloromethane	Avg Resp	0.00	0.383	0.391			-2	0-20	PASS
1,2-Dibromo-3-Chloropropane	Avg Resp	0.00	0.151	0.149			1	0-20	PASS
1,2-Dibromoethane	Avg Resp	0.00	0.286	0.306			-7	0-20	PASS
Dibromomethane	Avg Resp	0.00	0.169	0.172			-2	0-20	PASS
1,2-Dichlorobenzene	Avg Resp	0.00	1.680	1.730			-3	0-20	PASS
1,3-Dichlorobenzene	Avg Resp	0.00	1.798	1.844			-3	0-20	PASS
1,4-Dichlorobenzene	Avg Resp	0.00	1.772	1.831			-3	0-20	PASS
Dichlorodifluoromethane	Avg Resp	0.00	0.615	0.605			2	0-20	PASS
1,1-Dichloroethane	Avg Resp	0.10	0.931	0.957			-3	0-20	PASS
1,2-Dichloroethane	Avg Resp	0.00	0.409	0.397			3	0-20	PASS
1,1-Dichloroethene	Avg Resp	0.00	0.740	0.767			-4	0-20	PASS
c-1,2-Dichloroethene	Avg Resp	0.00	0.559	0.584			-5	0-20	PASS
t-1,2-Dichloroethene	Avg Resp	0.00	0.514	0.550			-7	0-20	PASS
1,2-Dichloropropane	Avg Resp	0.00	0.375	0.381			-1	0-20	PASS
1,3-Dichloropropane	Avg Resp	0.00	0.567	0.575			-1	0-20	PASS
2,2-Dichloropropane	Avg Resp	0.00	0.550	0.610			-11	0-20	PASS
1,1-Dichloropropene	Avg Resp	0.00	0.694	0.720			-4	0-20	PASS
c-1,3-Dichloropropene	Avg Resp	0.00	0.519	0.582			-12	0-20	PASS
t-1,3-Dichloropropene	Avg Resp	0.00	0.503	0.554			-10	0-20	PASS
Ethylbenzene	Avg Resp	0.00	1.916	1.927			-1	0-20	PASS

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

CCV WORK ORDER: 099-15-001-11461-4410
INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 131112IC
INITIAL DATE ANALYZED: 11/12/13 19:25
ANALYST: 486

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 131114A
CCV DATE ANALYZED: 11/14/13 10:06

COMPOUND NAME	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
2-Hexanone	Avg Resp	0.00	0.131	0.137			-4	0-20	PASS
Isopropylbenzene	Avg Resp	0.00	1.938	1.949			-1	0-20	PASS
p-Isopropyltoluene	Avg Resp	0.00	3.432	3.547			-3	0-20	PASS
Methylene Chloride	Avg Resp	0.00	0.532	0.530			0	0-20	PASS
4-Methyl-2-Pentanone	Avg Resp	0.00	0.121	0.125			-3	0-20	PASS
Naphthalene	Avg Resp	0.00	2.856	2.922			-2	0-20	PASS
n-Propylbenzene	Avg Resp	0.00	2.228	2.247			-1	0-20	PASS
Styrene	Avg Resp	0.00	1.295	1.297			0	0-20	PASS
1,1,1,2-Tetrachloroethane	Avg Resp	0.00	0.392	0.397			-1	0-20	PASS
1,1,2,2-Tetrachloroethane	Avg Resp	0.30	0.825	0.838			-2	0-20	PASS
Tetrachloroethene	Avg Resp	0.00	0.478	0.501			-5	0-20	PASS
Toluene	Avg Resp	0.00	1.597	1.589			1	0-20	PASS
1,2,3-Trichlorobenzene	Avg Resp	0.00	1.320	1.346			-2	0-20	PASS
1,2,4-Trichlorobenzene	Avg Resp	0.00	1.405	1.480			-5	0-20	PASS
1,1,1-Trichloroethane	Avg Resp	0.00	0.729	0.761			-4	0-20	PASS
1,1,2-Trichloro-1,2,2-Trifluoroethane	Avg Resp	0.00	0.507	0.542			-7	0-20	PASS
1,1,2-Trichloroethane	Avg Resp	0.00	0.283	0.279			2	0-20	PASS
Trichloroethene	Avg Resp	0.00	0.371	0.380			-3	0-20	PASS
Trichlorofluoromethane	Avg Resp	0.00	0.822	0.813			1	0-20	PASS
1,2,3-Trichloropropane	Avg Resp	0.00	0.115	0.112			3	0-20	PASS
1,2,4-Trimethylbenzene	Avg Resp	0.00	3.096	3.155			-2	0-20	PASS
1,3,5-Trimethylbenzene	Avg Resp	0.00	1.624	1.634			-1	0-20	PASS
Vinyl Acetate	Avg Resp	0.00	0.070	0.076			-8	0-20	PASS
Vinyl Chloride	Avg Resp	0.00	0.776	0.743			4	0-20	PASS
p/m-Xylene	Avg Resp	0.00	1.569	1.494			5	0-20	PASS
o-Xylene	Avg Resp	0.00	1.619	1.552			4	0-20	PASS
Methyl-t-Butyl Ether (MTBE)	Avg Resp	0.00	1.415	1.417			0	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

Data File:

Data File Name:

W:\GCMS_OO_DATA\2013\131114\14NOV002.D\14NOV002.rr

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV002.D
Acq On : 14 Nov 2013 10:06 am
Operator : 486
Sample : BFB/CCV V101713A/V110813A
Misc : V092013C
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 10:56:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Tert-Butyl Alcohol-d9	1.000	1.000	0.0	169	0.00
2	T	Ethanol	0.171	0.141	17.5	111	0.00
3	T	Tert-Butyl Alcohol (TBA)	1.197	1.247	-4.2	197	0.01
4	I	Pentafluorobenzene	1.000	1.000	0.0	108	0.00
5	T	Dichlorodifluoromethane	0.615	0.605	1.6	108	0.00
6	P	Chloromethane	0.982	0.759	22.7#	99	0.00
7	CCC	Vinyl Chloride	0.776	0.743	4.3	108	0.00
8	T	Bromomethane	0.412	0.292	29.1#	105	0.00
9	T	Chloroethane	0.412	0.395	4.1	113	0.00
10	T	1,3-Butadiene	0.615	0.606	1.5	109	0.00
11	T	Trichlorofluoromethane	0.822	0.813	1.1	113	-0.01
12	T	Diethyl Ether	0.337	0.319	5.3	112	0.00
13	T	Acetone	0.046	0.049#	-6.5	111	0.00
14	T	Iodomethane	0.294	0.343	-16.7	109	-0.01
15	CCC	1,1-Dichloroethene	0.740	0.767	-3.6	108	0.00
16	T	1,1,2-Trichloro-1,2,2-Trifl	0.507	0.542	-6.9	112	0.00
17	T	Isopropanol	0.037	0.037#	0.0	111	0.00
18	T	Carbon Disulfide	1.700	1.778	-4.6	110	0.00
19	T	Acetonitrile	0.293	0.360	-22.9#	146	0.00
20	T	Acrylonitrile	0.146	0.156	-6.8	127	-0.01
21	T	Allyl Chloride	0.190	0.243	-27.9#	146	0.00
22	T	Acrolein	0.085	0.081#	4.7	107	0.00
23	T	Methylene Chloride	0.532	0.530	0.4	108	0.00
24	T	t-1,2-Dichloroethene	0.514	0.550	-7.0	112	0.00
25	T	Isobutyl Alcohol	0.026	0.023#	11.5	111	0.00
26	T	Methyl-t-Butyl Ether (MTBE)	1.415	1.417	-0.1	112	0.00
27	T	Hexane	0.924	0.914	1.1	108	0.00
28	P	1,1-Dichloroethane	0.931	0.957	-2.8	110	0.00
29	T	Vinyl Acetate	0.070	0.076#	-8.6	121	-0.01
30	T	Diisopropyl Ether (DIPE)	1.588	1.595	-0.4	107	0.00
31	T	Chloroprene	0.773	0.788	-1.9	108	0.00
32	T	Ethyl-t-Butyl Ether (ETBE)	1.556	1.603	-3.0	110	0.00
33	T	c-1,2-Dichloroethene	0.559	0.584	-4.5	108	0.00
34	T	2,2-Dichloropropane	0.550	0.610	-10.9	219#	0.00
35	T	2-Butanone	0.178	0.179	-0.6	109	0.00
36	T	Propionitrile	0.060	0.060#	0.0	107	0.00
37	T	Methacrylonitrile	0.250	0.249	0.4	111	0.00
38	T	Bromochloromethane	0.247	0.256	-3.6	115	0.00
39	T	Tetrahydrofuran	0.152	0.150	1.3	113	0.00
40	CCC	Chloroform	0.843	0.869	-3.1	109	0.00
41	S	Dibromofluoromethane	0.388	0.398	-2.6	108	0.00
42	T	1,1,1-Trichloroethane	0.729	0.761	-4.4	111	0.00
43	t	Cyclohexane	0.828	0.844	-1.9	111	0.00
44	T	1,1-Dichloropropene	0.694	0.720	-3.7	111	0.00
45	T	Carbon Tetrachloride	0.615	0.646	-5.0	114	0.00
46	S	1,2-Dichloroethane-d4	0.404	0.399	1.2	109	0.00
47	I	1,4-Difluorobenzene	1.000	1.000	0.0	109	0.00
48	T	Benzene	1.549	1.501	3.1	109	0.00

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV002.D
Acq On : 14 Nov 2013 10:06 am
Operator : 486
Sample : BFB/CCV V101713A/V110813A
Misc : V092013C
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 10:56:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	1,2-Dichloroethane	0.409	0.397	2.9	110	0.00
50	T	Tert-Amyl-Methyl Ether (TAM	0.972	0.950	2.3	108	0.00
51	T	Thiophene	0.775	0.783	-1.0	109	0.00
52	T	2,2,4-Trimethyl Pentane	1.555	1.558	-0.2	108	0.00
53	T	Trichloroethene	0.371	0.380	-2.4	110	0.00
54	CCC	1,2-Dichloropropane	0.375	0.381	-1.6	111	0.00
55	T	Dibromomethane	0.169	0.172	-1.8	111	0.00
56	T	Methyl Methacrylate	0.241	0.244	-1.2	112	0.00
57	T	1,4-Dioxane	0.004	0.004#	0.0	118	0.00
58	T	Bromodichloromethane	0.450	0.451	-0.2	110	0.00
59	T	2-Chloroethyl Vinyl Ether	0.172	0.160	7.0	122	0.00
60	T	c-1,3-Dichloropropene	0.519	0.582	-12.1	114	0.00
61	S	Toluene-d8	1.183	1.156	2.3	106	0.00
62	CCC	Toluene	1.597	1.589	0.5	109	0.00
63	T	4-Methyl-2-Pentanone	0.121	0.125	-3.3	111	0.00
64	I	Chlorobenzene-d5	1.000	1.000	0.0	109	0.00
65	T	t-1,3-Dichloropropene	0.503	0.554	-10.1	111	0.00
66	T	Ethyl Methacrylate	0.520	0.516	0.8	110	0.00
67	T	1,1,2-Trichloroethane	0.283	0.279	1.4	110	0.00
68	T	Tetrachloroethene	0.478	0.501	-4.8	111	0.00
69	T	1,3-Dichloropropane	0.567	0.575	-1.4	112	0.00
70	T	2-Hexanone	0.131	0.137	-4.6	116	0.00
71	T	Dibromochloromethane	0.383	0.391	-2.1	110	0.00
72	T	1,2-Dibromoethane	0.286	0.306	-7.0	117	0.00
73	P	Chlorobenzene	1.140	1.151	-1.0	110	0.00
74	T	1,1,1,2-Tetrachloroethane	0.392	0.397	-1.3	110	0.00
75	CCC	Ethylbenzene	1.916	1.927	-0.6	109	0.00
76	T	p/m-Xylene	1.569	1.494	4.8	109	0.00
77	T	o-Xylene	1.619	1.552	4.1	109	0.00
78	T	Styrene	1.295	1.297	-0.2	109	0.00
79	T	Isopropylbenzene	1.938	1.949	-0.6	110	0.00
80	S	1,4-Bromofluorobenzene	0.477	0.464	2.7	104	0.00
81	T	1,2,3-Trichloropropane	0.115	0.112	2.6	112	0.00
82	T	Bromobenzene	0.504	0.511	-1.4	110	0.00
83	T	n-Propylbenzene	2.228	2.247	-0.9	110	0.00
84	T	t-1,4-Dichloro-2-Butene	0.095	0.102	-7.4	116	0.00
85	T	2-Chlorotoluene	1.320	1.304	1.2	109	0.00
86	T	1,3,5-Trimethylbenzene	1.624	1.634	-0.6	109	0.00
87	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	108	0.00
88	P	Bromoform	0.495	0.500	-1.0	109	0.00
89	P	1,1,2,2-Tetrachloroethane	0.825	0.838	-1.6	112	0.00
90	T	4-Chlorotoluene	2.860	2.874	-0.5	109	0.00
91	T	1,2,4-Trimethylbenzene	3.096	3.155	-1.9	110	0.00
92	T	tert-Butylbenzene	0.726	0.757	-4.3	112	0.00
93	T	p-Isopropyltoluene	3.432	3.547	-3.4	110	0.00
94	T	sec-Butylbenzene	4.018	4.096	-1.9	110	0.00
95	T	1,3-Dichlorobenzene	1.798	1.844	-2.6	112	0.00
96	T	1,4-Dichlorobenzene	1.772	1.831	-3.3	111	0.00

Return to Contents

Evaluate Continuing Calibration Report

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV002.D
Acq On : 14 Nov 2013 10:06 am
Operator : 486
Sample : BFB/CCV V101713A/V110813A
Misc : V092013C
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 10:56:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
97	T	1,2-Dichlorobenzene	1.680	1.730	-3.0	111	0.00
98	T	n-Butylbenzene	3.060	3.222	-5.3	112	0.00
99	T	1,2-Dibromo-3-Chloropropane	0.151	0.149	1.3	112	0.00
100	T	1,2,4-Trichlorobenzene	1.405	1.480	-5.3	114	0.00
101	T	Hexachloro-1,3-Butadiene	0.870	0.906	-4.1	112	0.00
102	T	Naphthalene	2.856	2.922	-2.3	110	0.00
103	T	1,2,3-Trichlorobenzene	1.320	1.346	-2.0	112	0.00

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

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV002.D
Acq On : 14 Nov 2013 10:06 am
Operator : 486
Sample : BFB/CCV V101713A/V110813A
Misc : V092013C
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 10:56:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert-Butyl Alcohol-d9	4.140	65	104215	250.00	ug/l		0.00
4) Pentafluorobenzene	6.628	168	484100	50.00	ug/l		0.00
47) 1,4-Difluorobenzene	7.551	114	716929	50.00	ug/l		0.00
64) Chlorobenzene-d5	11.114	117	649321	50.00	ug/l		0.00
87) 1,4-Dichlorobenzene-d4	13.967	152	337794	50.00	ug/l		0.00
System Monitoring Compounds							
41) Dibromofluoromethane	6.525	113	192597	51.24	ug/l		0.00
Spiked Amount 50.000			Recovery =	102.48%			
46) 1,2-Dichloroethane-d4	6.950	65	193253	49.38	ug/l		0.00
Spiked Amount 50.000			Recovery =	98.76%			
61) Toluene-d8	9.368	98	829015	48.86	ug/l		0.00
Spiked Amount 50.000			Recovery =	97.72%			
80) 1,4-Bromofluorobenzene	12.543	95	301598	48.69	ug/l		0.00
Spiked Amount 50.000			Recovery =	97.38%			
Target Compounds							Qvalue
2) Ethanol	2.973	45	29354	412.17	ug/l		88
3) Tert-Butyl Alcohol (TBA)	4.266	59	129907	260.29	ug/l		93
5) Dichlorodifluoromethane	1.658	85	292873	49.19	ug/l		98
6) Chloromethane	1.827	50	367546	38.64	ug/l		96
7) Vinyl Chloride	1.952	62	359716	47.89	ug/l		99
8) Bromomethane	2.269	94	141434	35.49	ug/l		99
9) Chloroethane	2.394	64	191067	47.93	ug/l		97
10) 1,3-Butadiene	1.991	54	293529	49.28	ug/l		98
11) Trichlorofluoromethane	2.705	101	393621	49.47	ug/l		99
12) Diethyl Ether	3.076	45	154284	47.35	ug/l		93
13) Acetone	3.426	58	23684	52.70	ug/l	#	84
14) Iodomethane	3.540	142	332532	116.88	ug/l		96
15) 1,1-Dichloroethene	3.355	61	371340	51.85	ug/l		97
16) 1,1,2-Trichloro-1,2,2-...	3.377	101	262150	53.41	ug/l		97
17) Isopropanol	3.666	45	88737	248.13	ug/l		95
18) Carbon Disulfide	3.638	76	860618	52.28	ug/l		97
19) Acetonitrile	3.857	41	348238	122.72	ug/l		95
20) Acrylonitrile	4.413	53	75740	49.56	ug/l		96
21) Allyl Chloride	3.857	76	117467	63.92	ug/l		92
22) Acrolein	3.213	56	78304	95.28	ug/l		89
23) Methylene Chloride	4.037	84	256506	49.83	ug/l		96
24) t-1,2-Dichloroethene	4.462	96	266243	53.53	ug/l		99
25) Isobutyl Alcohol	6.978	43	21859	86.31	ug/l		87
26) Methyl-t-Butyl Ether (...	4.495	73	686166	50.10	ug/l		98
27) Hexane	4.899	57	442633	49.49	ug/l		97
28) 1,1-Dichloroethane	5.068	63	463267	51.40	ug/l		97
29) Vinyl Acetate	5.183	86	36981	54.23	ug/l		96
30) Diisopropyl Ether (DIPE)	5.232	45	772043	50.22	ug/l		98
31) Chloroprene	5.215	53	381678	51.01	ug/l		98
32) Ethyl-t-Butyl Ether (E...	5.745	59	775847	51.49	ug/l		96
33) c-1,2-Dichloroethene	5.892	96	282826	52.30	ug/l		92
34) 2,2-Dichloropropane	5.881	77	295228	55.40	ug/l		98
35) 2-Butanone	5.919	43	86885	50.45	ug/l		99
36) Propionitrile	5.974	54	29115	50.50	ug/l		81
37) Methacrylonitrile	6.176	41	120708	49.84	ug/l		99
38) Bromochloromethane	6.197	130	123834	51.83	ug/l		95

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV002.D
Acq On : 14 Nov 2013 10:06 am
Operator : 486
Sample : BFB/CCV V101713A/V110813A
Misc : V092013C
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 10:56:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39)	Tetrahydrofuran	6.296	42	72489	49.12	ug/l	90
40)	Chloroform	6.317	83	420484	51.53	ug/l	99
42)	1,1,1-Trichloroethane	6.563	97	368252	52.20	ug/l	99
43)	Cyclohexane	6.645	84	408505	50.97	ug/l	100
44)	1,1-Dichloropropene	6.787	75	348514	51.90	ug/l	98
45)	Carbon Tetrachloride	6.798	117	312552	52.46	ug/l	100
48)	Benzene	7.049	78	1075956	48.44	ug/l	99
49)	1,2-Dichloroethane	7.049	62	284586	48.57	ug/l	98
50)	Tert-Amyl-Methyl Ether...	7.223	73	681358	48.90	ug/l	97
51)	Thiophene	7.305	84	561657	50.52	ug/l	98
52)	2,2,4-Trimethyl Pentane	7.185	57	1117286	50.12	ug/l	98
53)	Trichloroethene	7.878	95	272745	51.30	ug/l	95
54)	1,2-Dichloropropane	8.124	63	273000	50.74	ug/l	99
55)	Dibromomethane	8.271	93	123511	51.11	ug/l	91
56)	Methyl Methacrylate	8.320	69	174654	50.53	ug/l	96
57)	1,4-Dioxane	8.325	88	31005	519.86	ug/l	93
58)	Bromodichloromethane	8.473	83	323066	50.10	ug/l	97
59)	2-Chloroethyl Vinyl Ether	8.860	63	114736	46.60	ug/l	97
60)	c-1,3-Dichloropropene	9.029	75	417156	56.08	ug/l	99
62)	Toluene	9.449	91	1138952	49.75	ug/l	100
63)	4-Methyl-2-Pentanone	9.215	58	89322	51.33	ug/l	96
65)	t-1,3-Dichloropropene	9.700	75	360041	55.16	ug/l	99
66)	Ethyl Methacrylate	9.842	69	334971	49.57	ug/l	97
67)	1,1,2-Trichloroethane	9.913	83	180991	49.17	ug/l	96
68)	Tetrachloroethene	10.126	166	325481	52.39	ug/l	98
69)	1,3-Dichloropropane	10.115	76	373492	50.70	ug/l	97
70)	2-Hexanone	10.230	58	89031	52.14	ug/l	98
71)	Dibromochloromethane	10.393	129	253898	51.07	ug/l	100
72)	1,2-Dibromoethane	10.524	107	198417	53.49	ug/l	96
73)	Chlorobenzene	11.146	112	747564	50.49	ug/l	99
74)	1,1,1,2-Tetrachloroethane	11.245	131	258101	50.65	ug/l	98
75)	Ethylbenzene	11.288	91	1251308	50.28	ug/l	98
76)	p/m-Xylene	11.436	91	1939700	95.18	ug/l	98
77)	o-Xylene	11.916	91	1007843	47.93	ug/l	100
78)	Styrene	11.927	104	842124	50.07	ug/l	100
79)	Isopropylbenzene	12.369	105	1265382	50.28	ug/l	99
81)	1,2,3-Trichloropropane	12.756	110	72518	48.60	ug/l	89
82)	Bromobenzene	12.729	156	331990	50.69	ug/l	94
83)	n-Propylbenzene	12.871	91	1459238	50.44	ug/l	98
84)	t-1,4-Dichloro-2-Butene	12.778	53	66530	48.55	ug/l	98
85)	2-Chlorotoluene	12.974	91	846976	49.41	ug/l	98
86)	1,3,5-Trimethylbenzene	13.094	105	1061108	50.31	ug/l	98
88)	Bromoform	12.129	173	168992	50.53	ug/l	93
89)	1,1,2,2-Tetrachloroethane	12.701	83	283073	50.80	ug/l	98
90)	4-Chlorotoluene	13.100	91	970768	50.25	ug/l	100
91)	1,2,4-Trimethylbenzene	13.553	105	1065638	50.94	ug/l	100
92)	tert-Butylbenzene	13.493	134	255742	52.16	ug/l	94
93)	p-Isopropyltoluene	13.945	119	1198261	51.67	ug/l	99
94)	sec-Butylbenzene	13.765	105	1383616	50.97	ug/l	98
95)	1,3-Dichlorobenzene	13.891	146	623025	51.30	ug/l	98
96)	1,4-Dichlorobenzene	14.000	146	618383	51.65	ug/l	97
97)	1,2-Dichlorobenzene	14.458	146	584453	51.50	ug/l	97
98)	n-Butylbenzene	14.447	91	1088489	52.65	ug/l	98
99)	1,2-Dibromo-3-Chloropr...	15.391	75	50485	49.64	ug/l	95

Return to Contents

Quantitation Report (QT Reviewed)

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV002.D
Acq On : 14 Nov 2013 10:06 am
Operator : 486
Sample : BFB/CCV V101713A/V110813A
Misc : V092013C
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 10:56:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration

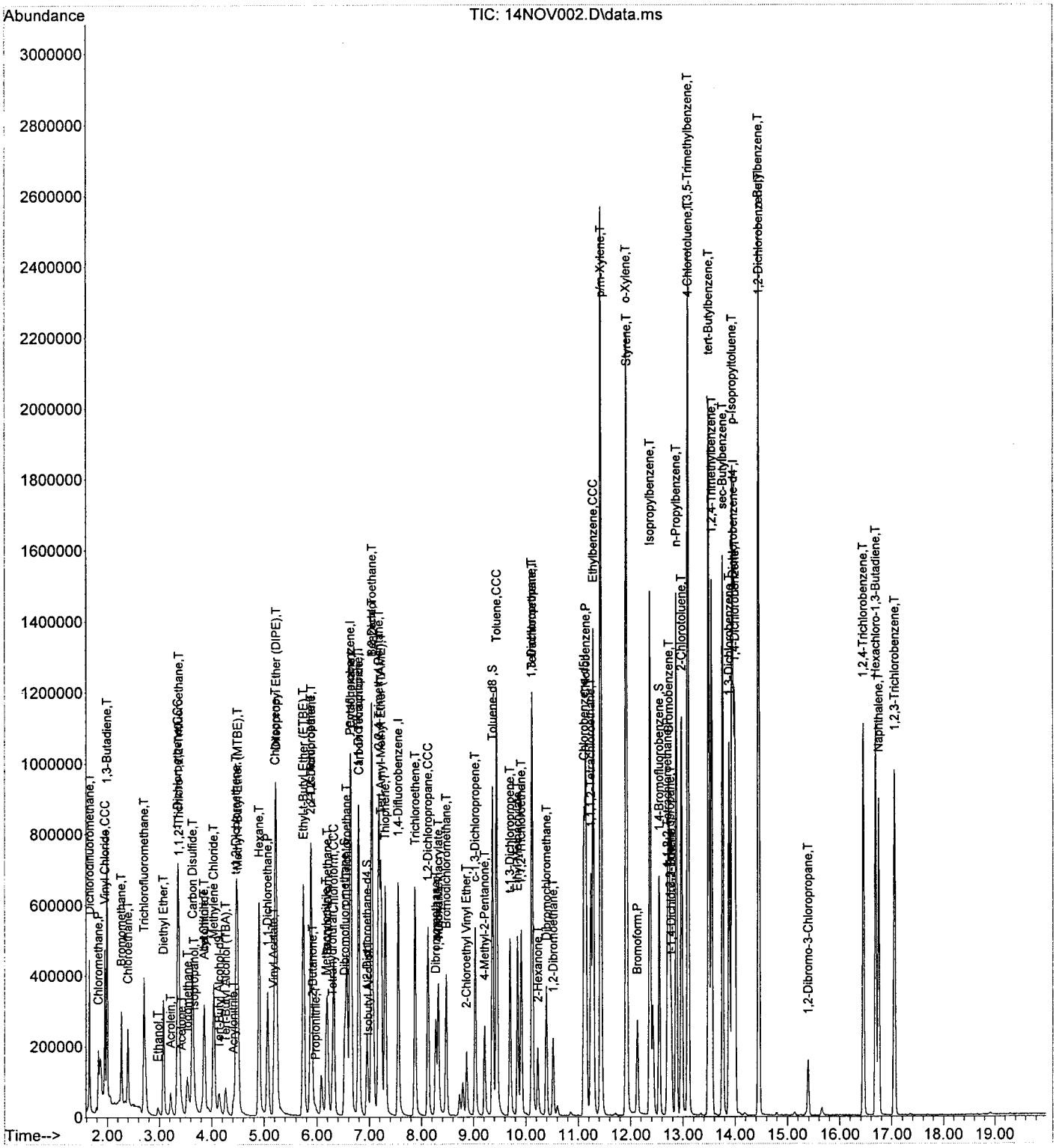
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) 1,2,4-Trichlorobenzene	16.450	180	499829	52.65	ug/l	98
101) Hexachloro-1,3-Butadiene	16.690	225	306052	52.06	ug/l	99
102) Naphthalene	16.750	128	987096	51.17	ug/l	99
103) 1,2,3-Trichlorobenzene	17.056	180	454522	50.95	ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV002.D
Acq On : 14 Nov 2013 10:06 am
Operator : 486
Sample : BFB/CCV V101713A/V110813A
Misc : V092013C
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 10:56:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\131112.M
Quant Title : EPA 8260B/8260C
QLast Update : Wed Nov 13 11:11:08 2013
Response via : Initial Calibration



Return to Contents

EPA METHOD 8260B
Volatile Organics

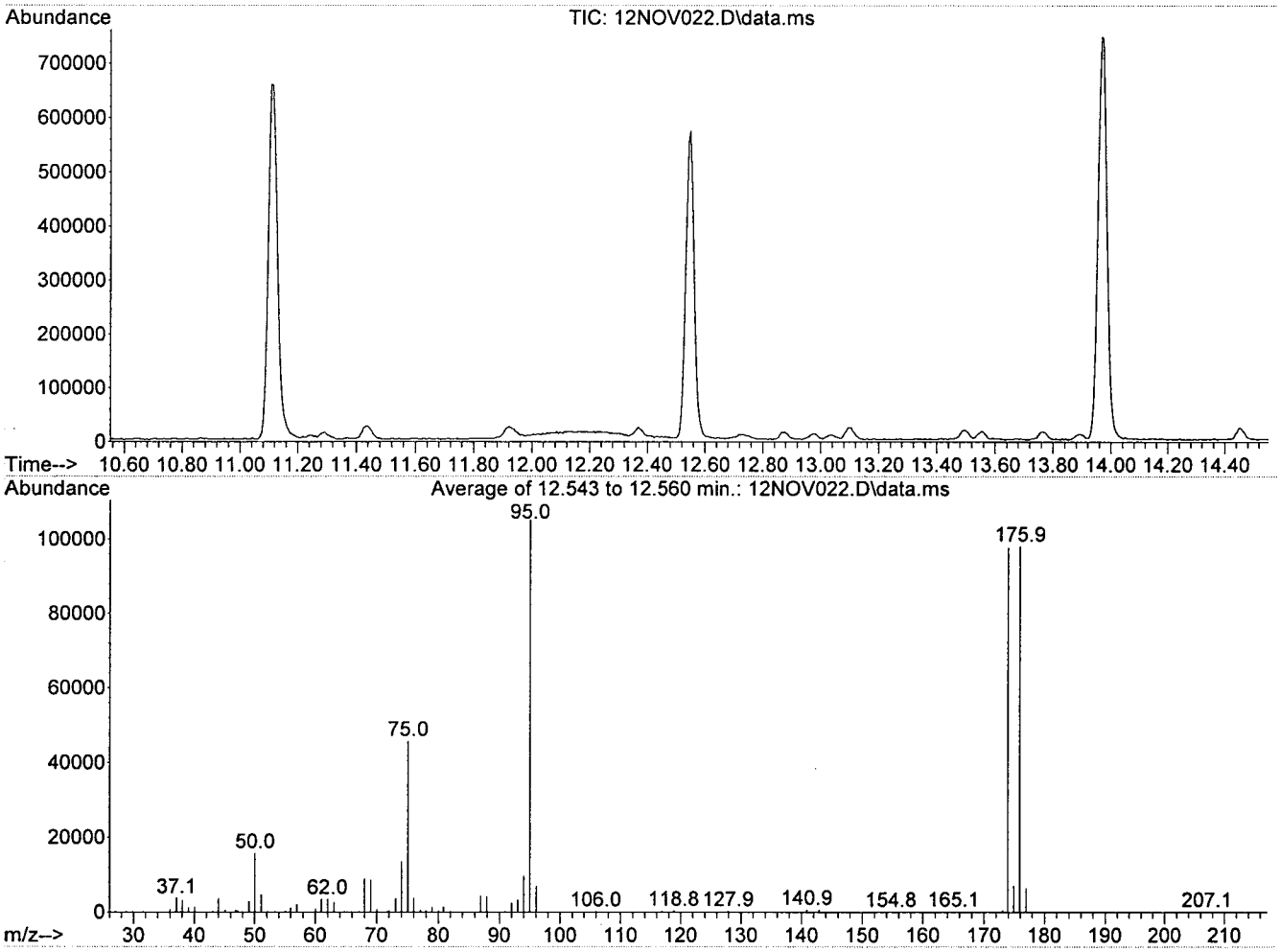
Tuning Reports

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131112\
Data File : 12NOV022.D
Acq On : 12 Nov 2013 7:25 pm
Operator : 486
Sample : BFB/0.5PPB IC V101713A/V110813A
Misc : V092013C
ALS Vial : 15 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\131112.M
Title : EPA 8260B/8260C
Last Update : Wed Nov 13 10:08:51 2013



Spectrum Information: Average of 12.543 to 12.560 min.

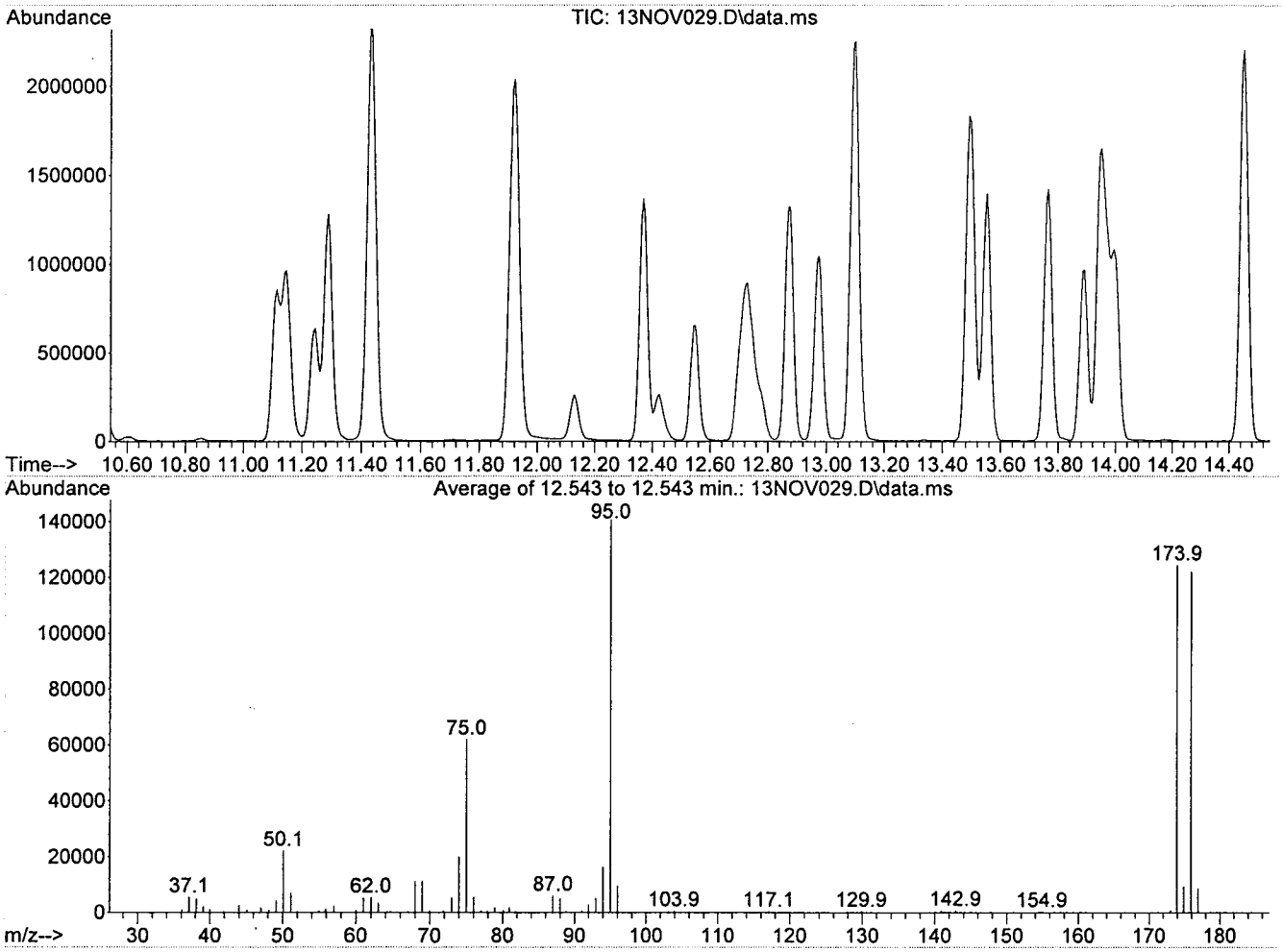
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.1	15852	PASS
75	95	30	60	43.6	45860	PASS
95	95	100	100	100.0	105224	PASS
96	95	5	9	6.8	7124	PASS
173	174	0.00	2	0.5	464	PASS
174	95	50	100	92.9	97794	PASS
175	174	5	9	7.3	7125	PASS
176	174	95	101	100.4	98230	PASS
177	176	5	9	6.6	6450	PASS

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131113\
Data File : 13NOV029.D
Acq On : 13 Nov 2013 10:34 pm
Operator : 486
Sample : BFB/CCV V101713A/V110813A
Misc : V092013C/ GCMS OO
ALS Vial : 29 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\131112.M
Title : EPA 8260B/8260C
Last Update : Wed Nov 13 11:11:08 2013



Spectrum Information: Average of 12.543 to 12.543 min.

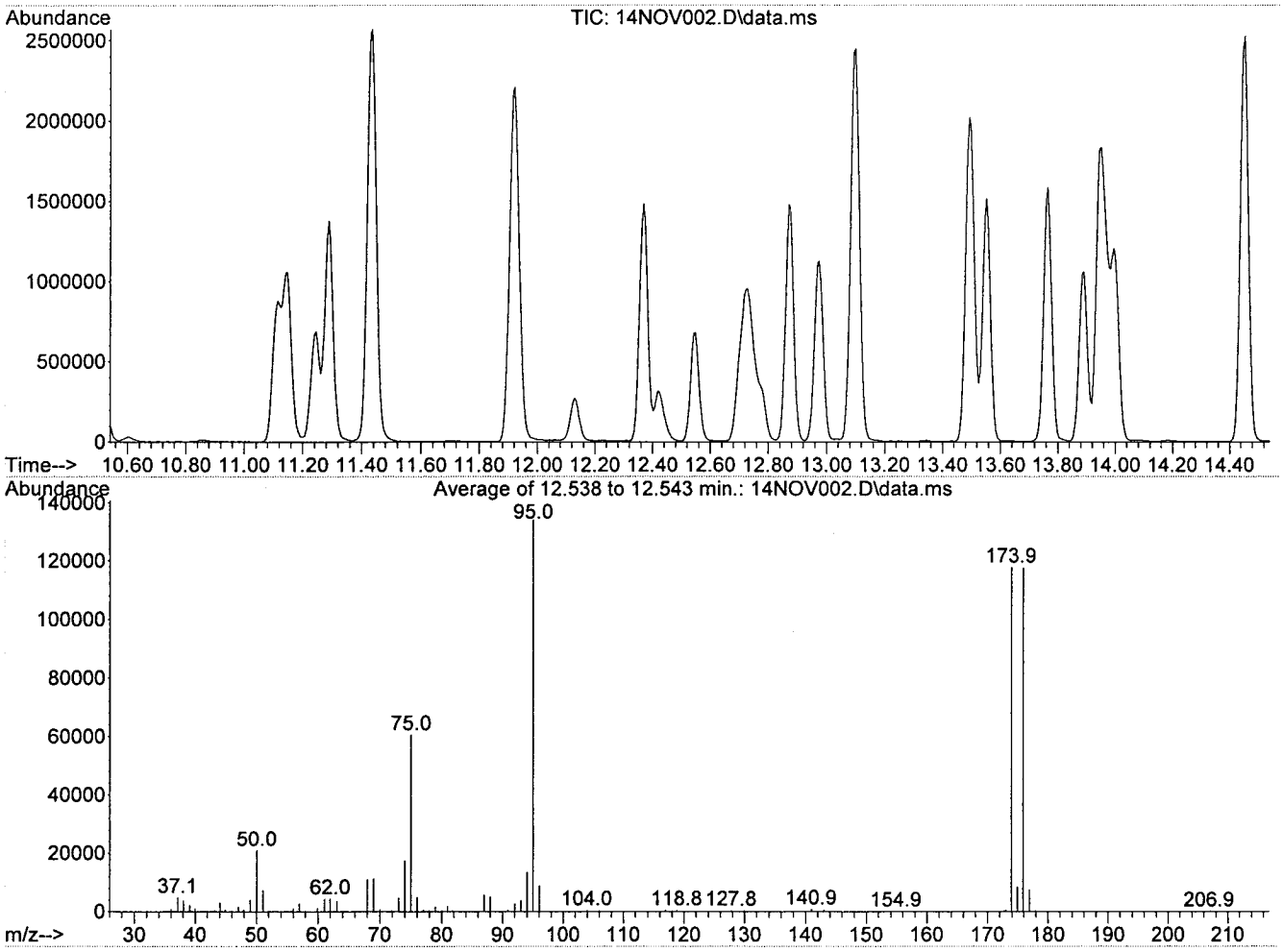
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.8	22232	PASS
75	95	30	60	44.1	62056	PASS
95	95	100	100	100.0	140800	PASS
96	95	5	9	6.8	9631	PASS
173	174	0.00	2	0.6	779	PASS
174	95	50	100	88.5	124576	PASS
175	174	5	9	7.7	9536	PASS
176	174	95	101	98.0	122080	PASS
177	176	5	9	7.1	8698	PASS

Return to Contents

Data Path : W:\GCMS_OO_DATA\2013\131114\
Data File : 14NOV002.D
Acq On : 14 Nov 2013 10:06 am
Operator : 486
Sample : BFB/CCV V101713A/V110813A
Misc : V092013C
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\131112.M
Title : EPA 8260B/8260C
Last Update : Wed Nov 13 11:11:08 2013



Spectrum Information: Average of 12.538 to 12.543 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.7	21004	PASS
75	95	30	60	45.2	60608	PASS
95	95	100	100	100.0	134140	PASS
96	95	5	9	6.7	8965	PASS
173	174	0.00	2	0.5	542	PASS
174	95	50	100	87.8	117780	PASS
175	174	5	9	7.4	8660	PASS
176	174	95	101	99.8	117568	PASS
177	176	5	9	6.6	7713	PASS

Return to Contents

EPA METHOD 8260B
Volatile Organics

Run Logs

Return to Contents

Injection Log

Directory: W:\GCMS_OO_DATA\2013\131112

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12nov001.d	1.	BLANK	V092013C/ GCMS OO	12 Nov 2013 09:54
2	2	12nov002.d	1.	BLANK	V092013C	12 Nov 2013 10:21
3	3	12nov003.d	1.	BFB/0.5PPB IC V101713A/V110813A	V092013C	12 Nov 2013 10:47
4	4	12nov004.d	1.	1PPB IC V101713A/V110813A	V092013C	12 Nov 2013 11:13
5	5	12nov005.d	1.	10PPB IC V101713A/V110813A	V092013C	12 Nov 2013 11:39
6	6	12nov006.d	1.	20PPB IC V101713A/V110813A	V092013C	12 Nov 2013 12:06
7	7	12nov007.d	1.	50PPB IC V101713A/V110813A	V092013C	12 Nov 2013 12:32
8	1	12nov008.d	1.	BLANK change dry purge 1->0.5 min	V092013C	12 Nov 2013 12:59
9	2	12nov009.d	1.	BFB/0.5PPB IC V101713A/V110813A	V092013C	12 Nov 2013 13:25
10	3	12nov010.d	1.	1PPB IC V101713A/V110813A	V092013C	12 Nov 2013 13:51
11	4	12nov011.d	1.	10PPB IC V101713A/V110813A	V092013C	12 Nov 2013 14:17
12	5	12nov012.d	1.	20PPB IC V101713A/V110813A	V092013C	12 Nov 2013 14:42
13	6	12nov013.d	1.	50PPB IC V101713A/V110813A	V092013C	12 Nov 2013 15:09
14	7	12nov014.d	1.	100/60PPB IC V101713A/V110813A	V092013C	12 Nov 2013 15:35
15	8	12nov015.d	1.	X..200/80PPB IC V101713A/V110813A	V092013C -TBA-d-9 ↓	12 Nov 2013 16:01
16	9	12nov016.d	1.	200PPB IC V101713A/V110813A	V092013C ↓	12 Nov 2013 16:39
17	10	12nov017.d	1.	ICV V101713B/V110813B	V092013C	12 Nov 2013 17:04
18	11	12nov018.d	1.	ICV V101713B/V110813B	V092013C/ GCMS OO	12 Nov 2013 17:36
19	12	12nov019.d	1.	BLANK	V092013C	12 Nov 2013 18:07
20	13	12nov020.d	1.	BLANK	V092013C	12 Nov 2013 18:33
21	14	12nov021.d	1.	BLANK	V092013C	12 Nov 2013 18:59
22	15	12nov022.d	1.	BFB/0.5PPB IC V101713A/V110813A	V092013C	12 Nov 2013 19:25
23	16	12nov023.d	1.	1PPB IC V101713A/V110813A	V092013C	12 Nov 2013 19:50
24	17	12nov024.d	1.	10PPB IC V101713A/V110813A	V092013C pass.	12 Nov 2013 20:16
25	18	12nov025.d	1.	20PPB IC V101713A/V110813A	V092013C	12 Nov 2013 20:42
26	19	12nov026.d	1.	50PPB IC V101713A/V110813A	V092013C	12 Nov 2013 21:08
27	20	12nov027.d	1.	100/60PPB IC V101713A/V110813A	V092013C	12 Nov 2013 21:34
28	21	12nov028.d	1.	200/80PPB IC V101713A/V110813A	V092013C	12 Nov 2013 22:00
29	22	12nov029.d	1.	ICV V101713B/V110813B	V092013C	12 Nov 2013 22:26
30	23	12nov030.d	1.	LCS V101713B/V110813B	V092013C	12 Nov 2013 22:51
31	24	12nov031.d	1.	BLANK	V092013C	12 Nov 2013 23:17
32	25	12nov032.d	1.	BLANK	V092013C	12 Nov 2013 23:43
33	26	12nov033.d	1.	MB	V092013C	13 Nov 2013 00:09

Return to Contents

Injection Log

Directory: W:\GCMS_OO_DATA\2013\131113

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	13nov001.d	1.	BLANK	V092013C/ GCMS OO	13 Nov 2013 09:55
2	2	13nov002.d	1.	BFB/CCV V101713A/V110813A	V092013C	13 Nov 2013 10:21
3	3	13nov003.d	1.	LCS V101713B/V110813B	V092013C	13 Nov 2013 10:53
4	4	13nov004.d	1.	BLANK	V092013C	13 Nov 2013 11:29
5	5	13nov005.d	1.	MB	V092013C	13 Nov 2013 11:55
6	6	13nov006.d	1.	13-11-0702-2A 5ML PH<2	V092013C	13 Nov 2013 12:22
7	7	13nov007.d	1.	13-11-0702-3A 5ML PH<2	V092013C	13 Nov 2013 12:49
8	8	13nov008.d	1.	MS 0702-3A V101713B/V110813B	V092013C	13 Nov 2013 13:16
9	9	13nov009.d	1.	MSD 0702-3A V101713B/V110813B	V092013C	13 Nov 2013 13:42
10	10	13nov010.d	1.	BLANK	V092013C	13 Nov 2013 14:08
11	11	13nov011.d	1.	13-11-0569-1A 5ML PH<2	V092013C	13 Nov 2013 14:35
12	12	13nov012.d	1.	13-11-0569-2A 5ML PH<2	V092013C	13 Nov 2013 15:01
13	13	13nov013.d	1.	13-11-0569-3A 5ML PH<2	V092013C	13 Nov 2013 15:28
14	14	13nov014.d	1.	13-11-0569-4A 5ML PH<2	V092013C	13 Nov 2013 15:55
15	15	13nov015.d	1.	13-11-0569-5A 5ML PH<2	V092013C	13 Nov 2013 16:22
16	16	13nov016.d	1.	13-11-0569-6A 5ML PH<2	V092013C	13 Nov 2013 16:49
17	17	13nov017.d	1.	13-11-0569-7A 5ML PH<2	V092013C	13 Nov 2013 17:16
18	18	13nov018.d	1.	13-11-0569-8A 5ML PH<2	V092013C	13 Nov 2013 17:43
19	19	13nov019.d	1.	13-11-1023-1A 5ML PH<2	V092013C EB	13 Nov 2013 18:10
20	20	13nov020.d	1.	13-11-1023-2A 5ML PH<2	V092013C	13 Nov 2013 18:37
21	21	13nov021.d	1.	13-11-1023-3A 5ML PH<2	V092013C	13 Nov 2013 19:03
22	22	13nov022.d	1.	13-11-0569-9A 5ML PH<2	V092013C	13 Nov 2013 19:29
23	23	13nov023.d	1.	13-11-0569-10A 5ML PH<2	V092013C	13 Nov 2013 19:56
24	24	13nov024.d	1.	13-11-0569-11A 5ML PH<2	V092013C	13 Nov 2013 20:22
25	25	13nov025.d	1.	13-11-0569-12A 5ML PH<2	V092013C	13 Nov 2013 20:49
26	26	13nov026.d	1.	13-11-0569-13A 5ML PH<2	V092013C	13 Nov 2013 21:15
27	27	13nov027.d	1.	13-11-0569-14A 2.5X 2ML PH<2	V092013C	13 Nov 2013 21:41
28	28	13nov028.d	1.	BLANK	V092013C	13 Nov 2013 22:08
29	29	13nov029.d	1.	BFB/CCV V101713A/V110813A	V092013C/ GCMS OO	13 Nov 2013 22:34
30	30	13nov030.d	1.	LCS V101713B/V110813B	V092013C	13 Nov 2013 23:01
31	31	13nov031.d	1.	BLANK	V092013C	13 Nov 2013 23:27
32	32	13nov032.d	1.	MB	V092013C	13 Nov 2013 23:53
33	33	13nov033.d	1.	13-11-0697-1A 5ML PH<2	V092013C TB	14 Nov 2013 00:20
34	34	13nov034.d	1.	13-11-0903-2A 5ML PH<2	V092013C	14 Nov 2013 00:46
35	35	13nov035.d	1.	MS 0903-2A V101713B/V110813B	V092013C	14 Nov 2013 01:13
36	36	13nov036.d	1.	MSD 0903-2A V101713B/V110813B	V092013C	14 Nov 2013 01:39
37	37	13nov037.d	1.	BLANK	V092013C	14 Nov 2013 02:06
38	38	13nov038.d	1.	13-11-0697-2A 20X 250uL PH<2	V092013C	14 Nov 2013 02:32
39	39	13nov039.d	1.	13-11-0903-3A 5ML PH<2	V092013C	14 Nov 2013 02:59
40	40	13nov040.d	1.	13-11-0903-4A 5ML PH<2	V092013C	14 Nov 2013 03:26
41	41	13nov041.d	1.	13-11-0903-5A 2X 2.5ML PH<2	V092013C	14 Nov 2013 03:53
42	42	13nov042.d	1.	13-11-0907-2A 5ML PH<2	V092013C	14 Nov 2013 04:19
43	43	13nov043.d	1.	13-11-0907-3A 5ML PH<2	V092013C	14 Nov 2013 04:46
44	44	13nov044.d	1.	13-11-0907-4A 5ML PH<2	V092013C	14 Nov 2013 05:12
45	45	13nov045.d	1.	13-11-0907-5A 5ML PH<2	V092013C	14 Nov 2013 05:39
46	46	13nov046.d	1.	13-11-0907-6A 5ML PH<2	V092013C	14 Nov 2013 06:05
47	47	13nov047.d	1.	13-11-0907-7A 5ML PH<2	V092013C	14 Nov 2013 06:31
48	48	13nov048.d	1.	13-11-0907-8A 5ML PH<2	V092013C	14 Nov 2013 06:58
49	49	13nov049.d	1.	BLANK	V092013C	14 Nov 2013 07:24

Return to Contents

Injection Log

Directory: W:\GCMS_OO_DATA\2013\131114

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	14nov001.d	1.	BLANK	V092013C/ GCMS OO	14 Nov 2013 09:40
2	2	14nov002.d	1.	BFB/CCV V101713A/V110813A	V092013C	14 Nov 2013 10:06
3	3	14nov003.d	1.	LCS V101713B/V110813B	V092013C	14 Nov 2013 10:41
4	4	14nov004.d	1.	BLANK	V092013C	14 Nov 2013 11:17
5	5	14nov005.d	1.	MB	V092013C	14 Nov 2013 11:43
6	6	14nov006.d	1.	13-11-0910-2A 5ML PH<2 TBA d-9 ↓	V092013C	14 Nov 2013 12:18
7	7	14nov007.d	1.	13-11-0569-14A 5ML PH<2	V092013C	14 Nov 2013 12:44
8	8	14nov008.d	1.	MS 0910-2A V101713B/V110813B	V092013C	14 Nov 2013 13:10
9	9	14nov009.d	1.	MSD 0910-2A V101713B/V110813B	V092013C	14 Nov 2013 13:37
10	10	14nov010.d	1.	BLANK	V092013C	14 Nov 2013 14:05
11	11	14nov011.d	1.	13-11-0910-2A 5ML PH<2	V092013C	14 Nov 2013 14:34
12	12	14nov012.d	1.	13-11-0910-3A 5ML PH<2	V092013C	14 Nov 2013 15:01
13	13	14nov013.d	1.	13-11-0703-4B 5ML PH<2	V092013C	14 Nov 2013 15:28
14	14	14nov014.d	1.	13-11-0703-5B 5ML PH<2	V092013C	14 Nov 2013 15:54
15	15	14nov015.d	1.	13-11-0697-2B 5ML PH<2 TBA d-9 ↓	V092013C	14 Nov 2013 16:20
16	16	14nov016.d	1.	13-11-0907-7B 5ML PH<2	V092013C	14 Nov 2013 16:46
17	17	14nov017.d	1.	13-11-0907-8B 5ML PH<2	V092013C	14 Nov 2013 17:13
18	18	14nov018.d	1.	13-11-0697-2B 5ML PH<2	V092013C	14 Nov 2013 17:39
19	19	14nov019.d	1.	13-11-0913-2A 5ML PH<2 TBA d-9 ↓	V092013C	14 Nov 2013 18:05
20	20	14nov020.d	1.	13-11-0913-3A 5ML PH<2	V092013C	14 Nov 2013 18:32
21	21	14nov021.d	1.	13-11-0913-4A 5ML PH<2	V092013C	14 Nov 2013 18:58
22	22	14nov022.d	1.	13-11-0901-2A 5ML PH<2	V092013C	14 Nov 2013 19:24
23	23	14nov023.d	1.	13-11-0901-3A 5ML PH<2 TBA d-9 ↓	V092013C	14 Nov 2013 19:51
24	24	14nov024.d	1.	13-11-0901-4A 5ML PH<2	V092013C	14 Nov 2013 20:18
25	25	14nov025.d	1.	13-11-0442-1A 5ML PH<2	V092013C	14 Nov 2013 20:45
26	26	14nov026.d	1.	13-11-0442-2A 5ML PH<2	V092013C	14 Nov 2013 21:12
27	27	14nov027.d	1.	13-11-0442-3A 5ML PH<2	V092013C	14 Nov 2013 21:39
28	28	14nov028.d	1.	BLANK	V092013C	14 Nov 2013 22:05
29	29	14nov029.d	1.	BFB/CCV V101713A/V110813A Ethanol ↑	V092013C/ GCMS OO	14 Nov 2013 22:32
30	30	14nov030.d	1.	LCS V101713B/V110813B Ethanol ↑	V092013C	14 Nov 2013 22:59
31	31	14nov031.d	1.	BLANK	V092013C	14 Nov 2013 23:26
32	32	14nov032.d	1.	MB V2	V092013C	14 Nov 2013 23:52
33	33	14nov033.d	1.	13-11-0904-2A 5ML PH<2	V092013C	15 Nov 2013 00:19
34	34	14nov034.d	1.	13-11-0904-3A 5ML PH<2 TBA	V092013C	15 Nov 2013 00:46
35	35	14nov035.d	1.	MS 0904-3A V101713B/V110813B	V092013C Ethanol ↑	15 Nov 2013 01:12
36	36	14nov036.d	1.	MSD 0904-3A V101713B/V110813B	V092013C	15 Nov 2013 01:39
37	37	14nov037.d	1.	BLANK	V092013C	15 Nov 2013 02:05
38	38	14nov038.d	1.	13-11-0904-4A 5ML PH<2	V092013C	15 Nov 2013 02:32
39	39	14nov039.d	1.	13-11-0904-5A 5ML PH<2	V092013C	15 Nov 2013 02:58
40	40	14nov040.d	1.	13-11-0904-6A 5ML PH<2	V092013C	15 Nov 2013 03:25
41	41	14nov041.d	1.	13-11-0904-7A 5ML PH<2	V092013C	15 Nov 2013 03:51
42	42	14nov042.d	1.	13-11-0904-8A 5ML PH<2	V092013C	15 Nov 2013 04:18
43	43	14nov043.d	1.	13-11-0904-9A 5ML PH<2 TBA-d9 ↑	V092013C DUP.	15 Nov 2013 04:45
44	44	14nov044.d	1.	13-11-0908-2A 5X 1ML PH<2 TBA	V092013C	15 Nov 2013 05:11
45	45	14nov045.d	1.	13-11-0908-3A 5ML PH<2	V092013C	15 Nov 2013 05:37
46	46	14nov046.d	1.	13-11-0902-2A 5ML PH<2 TBA d9 ↑	V092013C	15 Nov 2013 06:04
47	47	14nov047.d	1.	13-11-0902-3A 5ML PH<2	V092013C	15 Nov 2013 06:30
48	48	14nov048.d	1.	13-11-0913-5A 5ML PH<2	V092013C	15 Nov 2013 06:56
49	49	14nov049.d	1.	BLANK	V092013C	15 Nov 2013 07:23

Return to Contents

EPA METHOD 8260B
Volatile Organics

Standards Preparation Logs

Return to Contents

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
7/9/13	V0709BB	TPPH 8260	TPPH LCS (Accu) Unleaded gasoline	VOA-06-13-25	1ml	20,000ppm	20ml	1000ppm	Meoh	V06-23-19	1/9/14 (to 7/15/13)	670	
↓	V0709BC	8260 VPH	VPH Mixture	VOA-06-14-10	1ml	500ppm	10ml	50ppm	Meoh	V06-23-19	1/9/14 (to 7/15/13)	670	
7/10/13	V071013A	8260	8260 IS/SURR 250PPM	VOA-06-09-05	2mL	12500PPM	100mL	250PPM	MeOH	V06-23-19	10/10/13	823	
7/12/13	V071213A	8260 CCV(G)	502.2 Calibration Mix #1	V-06-19-15	1.25ml	2000ppm	50ml	50ppm	MeOH	V06-23-19	7/21/13	670	
↓	V071213B	8260 LCS (G)	↓	V-06-23-10	↓	↓	↓	↓	↓	↓	↓	↓	
7/15/13	V071513A	8260	Cyclohexanone	V05-88-25	110µl	neat	10ml	10000ppm	Me OH	V06-23-19 (23) (to 7/15/13)	1/15/14 (to 7/15/13)	131	
↓	↓	↓	+ TAA	V05-88-24	125µl	↓	↓	↓	↓	↓	1/15/14 (to 7/15/13)	131	
7/16/13	V071613A	8260 CCV(L)	Custom VOC Std.	V06-17-7	1ml	2000 – 20000ppm	40ml	50-500 ppm	MeOH	V06-23-23	8/18/13	131	
			Acrolein	V053013A	0.4ml	10,000ppm							
			Vinyl Acetate	V041713B	1ml	2000ppm							
			2-CEVE	V06-22-8	1ml	2000ppm							
			Calif. oxyg. Mix#1	V06-22-3 (to 7/16/13)	1ml	2000 – 20000 ppm							
			8260B Calib. Mix#1	V06-21-23	1ml	2000ppm							
			VOA Calib. Mix #1	V06-21-20	0.4ml	5000ppm							
↓	↓	↓	cyclohexanone+TAA	V071513A	1ml	10,000ppm	↓	↓	↓	↓	↓	↓	
7/16/13	V071613B	8260 LCS(L)	VOA Custom Std	V06-18-6	1ml	2000 – 20000ppm	40ml	50-500 ppm	MeOH	V06-23-23	8/18/13	131	
			Acrolein	V071613C	0.4ml	10,000ppm							
			Vinyl Acetate	V041713A	1ml	2000ppm							
			volatile organic Compds	V06-20-5	1ml	2000ppm							
↓	↓	↓	Chloroprene	V06-16-8	1ml	2000ppm	↓	↓	↓	↓	↓	↓	

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
8/12/13	V081213A	8260	250 ppm IS/surr std.	V-06-09-08	2mL.	12500ppm	100ml.	250ppm	MeOH	V-06-25-13	11/12/13	316	
~~8/16/13~~	~~V081613A~~	~~8260~~	(CCV) ~~CFC Custom STD 50ppm~~										670 8/16/13
~~8/16/13~~	~~V081613B~~	~~8260~~	(LCS) ~~VOA Custom STD 50ppm~~										670 8/16/13
8/16/13	V081613A	8260	CCV(G) 502.2 Calib. Mix #1	V-06-22-15	1.25ml	2000ppm	50ml	50ppm	MeOH	V-06-25-13	8/25/13	670	
8/16/13	V081613B	8260	LCS(G) 502.2 Calib. Mix #1	V-06-23-16	↓	↓	↓	↓	↓	↓	↓	↓	
8/19/13	V081913A	8260	250ppm Cyclohexanone + TAA	V071513A	250µl	10000ppm	10ml	250ppm	MeOH	V06-25-13 ~~V06-[illegible]~~	1/15/14 ~~[illegible]~~	131	8/30/13
8/23/13	V082313A	8260 CCV(G)	502.2 Calib Mix #1	V-06-22-16	1.25mL	2000ppm	50mL	50ppm	MeOH	V06-25-13 ~~V06-2[illegible]~~	9/1/13 ~~[illegible]~~	486	
↓	V082313B	8260 LCS(G)	VOC high conc Mix #6	V-06-24-08	1mL	↓	40mL	↓	↓	↓	↓	↓	
8/23/13	608 08/23/13 C V082313A	8260CCV	Freon 1,2,3	V06-02-04	50µl	1000ppm	1ml	50ppm	MeOH	V06-25-13	09/24/13 ~~20~~	608 08/23/13 608	
↓	↓	↓	1,2-Dichlorotrifluoro ethane	V06-07-20	↓	↓	↓	↓	↓	↓	↓	↓	
	V082313D	8260 LCS	2,2-Dichloro-1,1,1-tri fluoroethane	V06-16-25	250µl	200ppm	1ml	50ppm					
↓	↓	↓	1,2-Dichlorotrifluoro ethane	V06-07-25	50µl 608 08/23/13	1000ppm	↓	↓	↓	↓	↓	↓	
8/23/13	V082313E	8260LCS(G)	VOC-gases	V06-19-22	1ml	2000ppm	40ml	50ppm	MeOH	V06-25-19	9/1/13	131	
8/28/13	V082813A	8260	250ppm IS/surr std.	V06-09-089 628 08/28/13	2mL	12500 ppm	100ml	250ppm	MeOH	V06-25-19	11/28/13	626	
8/30/13	V083013A	CCV(G) 8260	502.2 Calib Mix #1	V06-22-17	1.25mL	2000ppm	50mL	50ppm	MeOH	V06-25-19	9/8/13 ~~11/28/13~~ 823	823 8/30	
8/30/13	V083013B	LCS(G) 8260	502.2 Calib Mix #1 ~~VOC Gases~~ 823 8/30	V06-27-01	↓	↓	↓	↓	↓	↓	↓	↓	
9/4/13	V090413A	SRL 524M IS/surr SOIL	Custom IS/SURR (soil)	V06-01-23	250µl	ppm 10-6250	10mL	ppm 0.2-125	MeOH	V06-26-04	12/4/13	486	
9/4/13	V090413B	8260(CCV)	Vinyl Acetate	V06-11-9	21.4µl	neat	10ml	2000ppm	MeOH	V06-26-04	3/4/14	131	
9/4/13	V090413C	8260L(CCV)	Custom VOC std	V06-17-9	1ml	2000-20000ppm	40ml	50-500 ppm	MeOH	V06-26-04	10/6/13	131	
↓	↓	↓	Acrolein	V080613A	0.4ml	10000 ppm	↓	↓	↓	↓	↓	↓	

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
9/11/13	V091113C	SRL 524/8260 SIM	504.1 Calib. Mix	V05-89-14	50µl	2000ppm	1ml	10ppm	MeOH	V06-26-04	12/11/13	131	
9/11/13	V091113D	LCS SRL524/8260 SIM	Ethanol	V05-89-09	125µl	10,000ppm	10ml	0.05-125	MeOH	V06-26-04	12/11/13	131	
↓	↓	↓	504.1 Calib. Mix	V091113C	50µl	10ppm	↓	↓	↓	↓	↓	↓	
↓	↓	↓	1,4-Dioxane	V05-89-12	250µl	2000ppm	↓	↓	↓	↓	↓	↓	
9/13/13	V091313A	8260 CCV (Gas)	502.2 Calib. mix #1	V-06-26-17	1.25mL	2,000 ppm	50mL	50ppm	MeOH	V-06-26-04	09/22/13	486	
↓	V091313B	8260 LCS (gas)	502.2 Calib. mix #1	V-06-27-03	↓	↓	↓	↓	↓	↓	↓	↓	
9/13/13	V091313C	8260	250PPM IS/SURROGATE	V-06-09-10	2 mL	12500PPM	100mL	250PPM ~~10~~ 8239/13	MeOH	V-06-26-10	12/13/13	823	
9/17/13	V091713A	IS/SURR. SRL524M	Custom IS/SURR.	V06-02-02	1mL	ppm 10.6250	10mL	ppm 1.625	MeOH	V-06-26-10	12/17/13	486	
9/18/13	V091813A	CF-C 8260 LCS	Chlorotrifluoroethene	V06-27-12	100µl	1000ppm	2ml	50ppm	MeOH	V06-26-10	10/18/13	131	
↓	↓	↓	2-Chloro-1,1,1-trifluoroethane	V06-27-13	100µl	↓	↓	↓	↓	↓	↓	↓	
↓	↓	↓	2,2-Dichloro-1,1,1-trifluoroethane	V06-27-14	100µl	↓	↓	↓	↓	↓	↓	↓	
9/20/13	V092013A	8260 CCV (GAS)	502.2 Calib Mix #1	V-06-26-18	1.25ml	2000ppm	50ml	50ppm	MeOH	V06-26-10	9/27/13	670	
↓	V092013B	8260 LCS (GAS)	502.2 Calib Mix #1	V-06-27-04	↓	↓	↓	↓	↓	↓	↓	↓	
9/20/13	V092013C	IS/SURR 8260	50PPM IS/SURR	V-06-21-01	2mL	12500PPM	500mL	50PPM	MeOH	V-06-26-10	12/20/13	823	
9/25/13	V092513A	8260 CCV	Freon 1,2,3 608 09/25/13	~~V06-02-04~~ ~~V06-09-20~~	50µl	1000ppm	1ml	50ppm	MeOH	V-06-26-15	10/25/13	608	
↓	↓	↓	1-2,-Dichlorotrifluoro ethane	V06-07-20 ~~V06-16-25~~ 608 09/25/13	↓	↓	↓	↓	↓	↓	↓	↓	
↓	V092513B	8260 LCS	2,2- Dichloro-1,1,1-trifluoroethane	V06-16-25	250µl	200ppm	1ml	↓	↓	↓	↓	↓	
↓	↓	↓	1,2-Dichlorotrifluoro ethane 608 9/25/13 ~~ethane~~	V06-09-25	50 608 µl 09/25/13	1000ppm	↓	↓	↓	↓	↓	↓	
~~9/26/13~~	~~V092613A~~	8260 CCV (gas)	~~502.2 Calib Mix #1~~	~~V06-26-19~~	~~1.25 ml~~	~~2000ppm~~	~~50ml~~	~~50ppm~~	~~MeOH~~	~~V-06-26-15~~	~~10/6/13~~	~~608~~	608
↓	V092613B	8260 LCS (gas)	502.2 Calib Mix #1	V06-27-09	↓	↓	↓	↓	↓	↓	↓	↓	09/27/13

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL AMOUNT	INITIAL CONC.	FINAL VOLUME	FINAL CONC.	SOLVENT NAME	SOLVENT ID #	EXPIR. DATE	PREP BY	COMMENTS
10/1/13	V100113B	8260	Acrolein (CCV)	V06-24-13	60µl	neat	5ml	10.000ppm	MeOH	V06-27-17	12/1/13	131	
10/2/13	V100213A	524.2	524 IS/SURR. MIX	V-05-63-25	250µl	2000ppm	20ml	25ppm	MeOH	V06-27-17	01/02/14	60A	
10/4/13	V100413A	8260	502.2 Calib. mix #1 CCV	V-06-26-20	1.25ml	2000ppm	50 ml.	50 ppm	MeOH	V-06-27-17	10/13/13	31L	
↓	V100413B	8260	502.2 Calib. mix #1 LCS	V-06-27-06	↓	↓	↓	↓	↓	↓	↓	↓	
10/10/13	V101013A	8260 CCV	Freon 1,23	V06-29-13	50µl	1000ppm	1ml	50ppm	MeOH	V-06-27-17	11/10/13	60A	
↓	~~V101013B~~ 60E 10/10/13	↓	1,2-Dichlorotrifluoro ethane	V06-07-20	↓	↓	↓		↓	↓	↓	↓	
10/10/13	V101013B	8260 LCS	2,2-Dichloro-1,1,1-tri fluoroethane	V06-16-25	250µl	200ppm	1ml						
↓	↓	↓	1,2-Dichlorotrifluoro ethane	V06-07-25	50µl	1000ppm	↓	↓	↓	↓	↓	↓	
10/11/13	V101113A	8260	502.2 Calib mix #1 CCV gas	V06-26-21	1.25ml	2000ppm	50ml	50ppm	MeOH	V-06-29-17	10/20/13	51O	
↓	V101113B	8260	502.2 Calib mix #1 LCS gas	V-06-27-07	↓	↓	↓	↓	↓	↓	↓	↓	
10/17/13	V101713A	8260 L(CCV)	Custom VOC std.	V06-17-11	1ml	2000 – 20000 ppm	40ml	50-500 ppm	MeOH	V06-29-17	11/17/13	131	
↓	↓	↓	Acrolein	V100113B	0.4ml	10,000ppm	↓	↓	↓	↓	↓	↓	
			Vinyl Acetate	V090413B	1ml	2000 ppm							
			2-CEVE	V-06-22-12	1ml	2000 ppm							
			Calif. Oxyg. Mix #1	V-06-22-7	1ml	2000 – 20000 ppm							
			8260B Calib. Mix #1	V-06-22-2	1ml	2000 ppm							
			VOA Calib. Mix #1	V-06-15-15	0.4ml	5000 ppm							
↓	↓	↓	THA + Cyclohexanone	V071513A	1ml	10000ppm	↓	↓	↓	↓	↓	↓	
10/17/13	V101713B	8260 L(LCS)	VOA Custom std	V-06-18-10	1ml	2000 – 20000ppm	40ml	50-500 ppm	MeOH	V06-~~26-04~~ 29-17 10/17/13	11/17/13	131	
↓	↓	↓	Acrolein	V101713C	0.4ml	10,000ppm	↓	↓	↓	↓	↓	↓	

Standard Preparation Logbook

PREP DATE	NEW STANDARD ID #	TEST METHOD	SOURCE STANDARD(S) OR MIXTURE(S)	SOURCE STANDARD ID #	INITIAL		FINAL		SOLVENT		EXPIR. DATE	PREP BY	COMMENTS
					AMOUNT	CONC.	VOLUME	CONC.	NAME	ID #			
10/17/13	V101713B	8260L(LCS)	Vinyl Acetate	V101713D	1ml	2000ppm	40ml	50-500 ppm	MeOH	V.06.29.17	11/17/13	131	
↓	↓	↓	Volatile organic Compds	V.06.20.9	1ml	2000ppm	↓	↓	↓	↓	↓	↓	
			Chloroprene	V.06.23.5	1ml	2000ppm							
			2-CEVE	V.06.29.7	1ml	2000ppm							
			VoA Calib. Mix #1	V.06.25.23	0.4ml	5000ppm							
			EPA 524.2 Rev.4 Mix	V.06.24.20	1ml	2000ppm							
↓	↓	↓	TAA + Cyclohexanone	V071513A	1ml	10,000ppm	↓	↓	↓	↓	↓	↓	
10/17/13	V101713C	8260	Acrolein (LCS)	V.06.24.13	60µl	neat	5ml	10,000ppm	MeOH	V.06.29.17	12/17/13	316	
10/17/13 (13 months)	V101713D	8260	Vinyl Acetate (LCS)	V.06.11.9	21.4µl	neat	10ml	2000ppm	MeOH	V.06.29.17	4/17/14	↓	
10/18/13	V101813A	8260	502.2 Calib mix #1 CCV gas	V-06-26-22	1.25mL	2000ppm	50mL	50ppm	MeOH	V-06-29-17	10/26/13	823	
↓	V101813B	8260	502.2 Calib mix #1 LCS gas	V-06-27-08	↓	↓	↓	↓	↓	↓	↓	↓	
10/19/13	V101913A	8260 (IS/SS)	250PPM IS/SS	V-06-21-03	2mL	12500PPM	100mL	250PPM	MeOH	V-06-29-17	1/19/14	823	
10/25/13	V102513A	8260 CCV (g)	502.2 Calib Mix #1	V-06-26-23	1.25mL	2000 ppm	50mL	50ppm	MeOH	V-06-29-24	11/03/13	486	
↓	V102513B	8260 LCS (g)	502.2 Calib mix #1	V-06-27-09	↓	↓	↓	↓	↓	↓	↓	↓	
11/01/13	V110113A	8260 CCV (g)	502.2 Calib Mix #1	V-06-26-24	1.25ml	2000ppm	50ml	50ppm	MeOH	V-06-30-24	11/10/13	608	
↓	V110113B	8260 LCS (g)	502.2 Calib Mix #1	V-06-27-10	↓	↓	↓	↓	↓	↓	↓	↓	
11/07/13	V110713A	IS/SUR. SRL-524M	Custom IS/SUR	V06-02-03	1mL	ppm 10.6250	10mL	ppm 1.625	MeOH	V06-30-24	02/07/14	486	
11/08/13	V110813A	8260 CCV (g)	502.2 calib. mix #1	V-06-26-25	1.25ml	2000ppm	50ml	50ppm	MeOH	V-06-30-24	11/17/13	316	
↓	V110813B	8260 LCS (g)	502.2 calib. mix #1	V-06-31-21	↓	↓	↓	↓	↓	↓	↓	↓	
11/08/13	V1108BC	524.2	524 IS/surr. mix	V-05-63-25	250 20 µl	2000ppm	20ml	25ppm	MeOH	V-06-30-24	02/08/14	608	

608 11/08/13

CHEMICAL RECEIVING LOGBOOK

LINE NO.	CHEMICAL	SOURCE	CATALOG NO.	LOT NO.	EXP. DATE	AMOUNT RECEIVED	TYPE CONT.	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO
1	Methanol	Fisher	A453-1	113540	07/2015	1 L	Glass	07/17/12	163	07/18/12	697
2										07/20/12	697
3										07/26/12	697
4										07/26/12	826
5										07/27/12	70
6										07/30/12	697
7										08/04/12	697
8										08/10/12	697
9										08/14/12	697
10										08/14/12	697
11										8/17/12	316
12										08/17/12	697
13	Cyclohexanone	Accustandard	M-554-0Y	21207104g	Jan 05/2013	1 ml.	Amp.	07/17/12	70	Disposed 1/17/13	70
14	VOA Custom std.	Supelco	21551859	LB94004	7/13	1 ml.	Amp	07/19/12	70	07/27/12	70
15										08/21/12	70
16										09/14/12	70
17										J	70
18										Disposed 12/03/12	
19											
20											
21											
22											
23											
24	2-Methyl-2-butanol	FLUKA	19954	BCBB9501V	07/2015	1 ml.	Glass	07/23/12	70	07/23/12	70
25	Cyclohexanone	FLUKA	02482	BCBG1242V	07/2015	1 ml	Glass	07/23/12	70	07/23/12	70

Reviewed by: MW on 7/24/12

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	California Oxygenates Mix 1	Restek	30465	A089093	6/17	1 mL	Amp	11/16/12	131	1/24/13	131	
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	2/8/13	131	
3										3/7/13	131	
4										3/19/13	131	
5										4/18/13	131	
6										5/7/13	131	
7										5/30/13	131	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/21/13	131	
9	Vinyl Acetate	ChemService	N-13746-10G	838900	9/30/17	10G	Amp	11/16/12	131	1/14/13	131	
10	Acrolein	ChemService	N-11030-1G	701100	8/31/13	1g	Amp	11/16/12	131	11/30/12	131	
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	Expired	131	
12	Methanol	Fisher	A453-1	117046	12/12/15	1L	glass	12/12/12	131	12/21/12	670	
13	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/22/12	697	
14										12/28/12	697	
15										1/04/13	498	
16										1/7/13	721	
17										1/10/13	849	
18										1/15/13	697	
19										01/17/13	841	
20										1/21/13	849	
21										1/22/13	721	
22										1/23/13	849	
23	↓	↓	↓	↓	↓	↓	↓	↓	↓	01/24/13	697	
24	Methanol Production Grade	VWR	BDH 2018	08221102	12/15	1G	Plastic	12/13/12	791	12/13/12	791	
25	↓ for un source cleaning	↓	↓	↓	↓	↓	↓	↓	1	1/9/12	791	

COMMENTS: _____

Book Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	502.2 Calibration Mix#1	Restek	30042	A091556	06/2019	1ml	Ampule	3/22/13	131	3/22/13	721	
2										3/24/13	670	
3										4/5/13	486	
4										4/12/13	608	
5										4/12/13	131	
6										4/19/13	721	
7										4/24/13	316	
8										5/3/13	670	
9										5/10/13	486	
10	~~VOA Calibration Mix#1~~	~~Restek~~	~~30006~~	~~A090791~~	~~12/2015~~	~~1ml~~	~~Ampule~~	~~3/22/13~~	~~131~~	5/17/13	608	
11												
12										Void	131	3/22/13
13												from line #11 to 14
14										Void	131	3/22/13
15	VOA Calibration Mix#1	Restek	30006	A090791	12/2015	1ml	Ampule	3/22/13	131	9/28/13	131	
16										12/9/13	131	
17												
18												
19	California Oxygenates Mix#1	Restek	30465	A090673	09/2017	1ml	Ampule	3/22/13	131	11/12/13	131	
20										12/9/13	131	
21										1/9/14	131	
22												
23												
24	BTEX Standard	Restek	30213	A089584	08/2019	1ml	Ampule	3/22/13	131			
25												

COMMENTS:

Book Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Freon 123	Accustandard	M-REF-X-05	21012001	12/1/20	1ml	Ampule	3/29/13	131	12/10/13	316	
2	↓	↓	↓	↓	↓	↓	↓	↓	↓			
3	↓	↓	↓	↓	↓	↓	↓	↓	↓			
4	Custom VOC standard	Accustandard	S-21698-R7	213031473	5/28/14	1ml	Ampule	3/29/13	131	5/7/13	131	
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	5/30/13	131	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/21/13	131	
7	↓	↓	↓	↓	↓	↓	↓	↓	↓	7/16/13	131	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/8/13	131	
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/4/13	131	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/28/13	131	
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/17/13	131	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/12/13	131	
13	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/9/13	131	
14	MeOH	Fisher	A453-1	117046	4/16	1L	glass	4/1/13	131	4/3/13	834	
15	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
16	↓	↓	↓	↓	↓	↓	↓	↓	↓	4/5/13	697	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	4/10/13	697	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	4/12/13	697	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	4/12/13	608	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	4/16/13	697	
21	↓	↓	↓	↓	↓	↓	↓	↓	↓	4/19/13	697	
22	↓	↓	↓	↓	↓	↓	↓	↓	↓	4/19/13	697	
23	↓	↓	↓	↓	↓	↓	↓	↓	↓	4/25/13	697	
24	↓	↓	↓	↓	↓	↓	↓	↓	↓	4/25/13	697	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓	04/30/13	841	

COMMENTS: _____

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Crotonaldehyde	Accustandard	M-554-03	212011058-01	8/18/12	1ml	Ampule	4/8/13	131	4/8/13	131	
2	2,2-Dichloro-1,1,1-trifluoroethane	Absolute	71261	012510	01/25/15	1 ml	Ampule	04/9/13	70			
3	2-Pentanone	Accustd	M-8015B/8021-22	B7020174-4D	01/17/13	1ml	Amp.	04/09/13	70	4/9/13	131	EXP. 02/06/14
4	VOA Custom Standard	Supelco	21651B34	LB 99682	10/14	1ml	Amp.	4/10/13	131	5/30/13	131	
5	"	"	"	"	"	"	"	"	"	6/21/13	131	
6	"	"	"	"	"	"	"	"	"	7/16/13	131	
7	"	"	"	"	"	"	"	"	"	8/8/13	131	
8	"	"	"	"	"	"	"	"	"	9/4/13	131	
9	"	"	"	"	"	"	"	"	"	9/28/13	131	
10	"	"	"	"	"	"	"	"	"	10/7/13	131	
11	"	"	"	"	"	"	"	"	"	11/12/13	131	
12	"	"	"	"	"	"	"	"	"	12/9/13	131	
13	"	"	"	"	"	"	"	"	"	1/9/14	131	
14	2-Pentanone (LCS)	SpexCertiprep	S-2986	C112115016	04/10/15	1ml	Amp	04/11/13	70	4/18/13	131	
15	2,2-Dichloro-1,1,1-trifluoroethane	Absolute	71261	012510	1/25/15	1ml	Amp.	4/17/13	131			
16	MeOH	Fisher	A453-1	117046	4/16	1L	Glass	4/22/13	131	4/30/13	697	
17	"	"	"	"	"	"	"	"	"	5/2/13	697	
18	"	"	"	"	"	"	"	"	"	5/9/13	697	
19	"	"	"	"	"	"	"	"	"	↓	↓	
20	"	"	"	"	"	"	"	"	"	5/14/13	626	
21	"	"	"	"	"	"	"	"	"	05/08/13	697	
22	"	"	"	"	"	"	"	"	"	05/10/13	697	
23	"	"	"	"	"	"	"	"	"	05/15/13	697	
24	"	"	"	"	"	"	"	"	"	5/20/13	316	
25	"	"	"	"	"	"	"	"	"	5/20/13	697	

COMMENTS: _____

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Volatile Organic CMPDS - Gases	Accustandard	M-502B-10X-PAK	21303048	5/12/16	1ml	Ampule	5/16/13	131			
2	↓	↓	↓	↓	↓	↓	↓	↓	↓			
3	Volatile Organic CMPDS - Liquids	Accustandard	M502A-R-10X-PAK	212101379	11/2/15	1ml	Ampule	5/16/13	131	5/30/13	131	
4	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/21/13	131	
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	7/16/13	131	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/8/13	131	
7	↓	↓	↓	↓	↓	↓	↓	↓	↓	4/4/13	131	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/28/13	131	
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/17/13	131	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/12/13	131	
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	12/9/13	131	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	1/9/14	131	
13	Methanol	Fisher	A453-1	125253	5/17/16	1L	glass	5/17/13	131	5/24/13	721	
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	5/25/13	697	
15	↓	↓	↓	↓	↓	↓	↓	↓	↓	5/30/13	697	
16	↓	↓	↓	↓	↓	↓	↓	↓	↓	06/05/13	eH	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	06/06/13	697	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	06/12/13	697	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	06/14/13	4xx	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	06/15/13	697	
21	↓	↓	↓	↓	↓	↓	↓	↓	↓	06/20/13	697	
22	↓	↓	↓	↓	↓	↓	↓	↓	↓	06/25/13	791	
23	↓	↓	↓	↓	↓	↓	↓	↓	↓	06/25/13	697	
24	↓	↓	↓	↓	↓	↓	↓	↓	↓	06/28/13	697	
25	Custom std. Quote# 10301 2-889 (8260 25155)	Altra Scientific	CUS-9349	CK-1766	6/30/15	1ml	Ampule	6/4/13	131	09/20/13	823	

COMMENTS: _____

Book Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Custom Std. Quote# 103012-889	Ultra Scientific	CUS-9349	CK-1766	6/30/15	1ml	Ampule	6/4/13	131	09/20/13	823	
2	(8260 IS/SS)		CUS-9349 12/6/13							10/1/13	131	
3										~~10/1/13~~ 10/19/13	~~823~~ 131	Tu 10/1/13
4										11/15/13	823	
5										11/20/13	EA9	
6										12/11/13	486	
7										12/28/13	626	
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20	VOA Calibration Mix #1	Restek	30006	A090791	12/15	1ml	Ampule	6/4/13	131	7/16/13	131	
21												
22												
23	8260B Calibration Mix #1	Restek	30633	A093741	2/16	1ml	Ampule	6/4/13	131	7/16/13	131	
24										8/1/13	131	
25										9/4/13	131	

COMMENTS: _____

Book Number: 6

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	8260B Calibration Mix #1	Restek	~~30633~~ AC 6/4/13	A093741	2/16	1ml	Ampule	6/4/13	131	9/28/13	131	
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/17/13	131	
3	California Oxyg. Mix #1	Restek	30465	A092255	12/17	1ml	Ampule	6/4/13	131	7/16/13	131	
4	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/8/13	131	
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/4/13	131	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/28/13	131	
7	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/17/13	131	
8	2CEVE	Restek	30265	A092589	12/17	1ml	Ampule	6/4/13	131	7/16/13	131	
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/8/13	131	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/4/13	131	
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/28/13	131	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/17/13	131	
13	502.2 Calibration Mix #1	Restek	30042	A093159	9/19	1ml	Ampule	6/4/13	131	8/2/13	316	
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/9/13	608	
15	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/16/13	608	
16	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/23/13	486	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/30/13	823	
18	Sea Sand	Fisher	S25-3	123310	6/18	2.5kg	plastic	6/5/13	131	06/06/13	697	
19	EPA 524 Rev. 4 Ketones Mix	Supelco	47428-U	LB84657	5/14	1ml	Ampule	6/14/13	131			
20	↓	↓	↓	↓	↓	↓	↓	↓	↓			
21	↓	↓	↓	↓	↓	↓	↓	↓	↓			
22	2CEVE	Supelco	86-1206	LB94166	7/15	1ml	Ampule	6/14/13	131	empty	Ampule	
23	↓	↓	↓	↓	↓	↓	↓	↓	↓	7/16/13	131	
24	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/8/13	131	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/4/13	131	

COMMENTS: _____

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	2CEVE	Supelco	86-1206	LB94166	7/15	1ml	Ampule	6/14/13	131	9/28/13	131	
2	Chloroprene	Supelco	861145	LC00162	6/14	1ml	Ampule	6/14/13	131	2/8/13	131	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/4/13	131	
4										9/28/13	131	
5										10/17/13	131	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/12/13	131	
7	502.2 Calibration Mix #1	Restek	30042	A094181	11/19	1ml	Ampule	6/20/13	131	6/21/13	608	
8	(LCS) ↓	↓	↓	↓	↓	↓	↓	↓	↓	6/28/13	316	
9										7/05/13	721	
10										7/12/13	670	
11										7/19/13	466	
12										7/26/13	608	
13										8/2/13	316	
14										8/9/13	608	
15										8/9/13	608	
16	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/16/13	670	
17	MeOH	Fisher	A453-1	125253	6/21/15	1L	glass	6/21/13	131	6/28/13 8/23	823 6/28/13	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/02/13	697	
19										7/5/13	721	
20										7/10/13	697	
21										7/11/13	867	
22										7/11/13	697	
23										7/12/13	670	
24										7/13/13	697	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓	7/15/13	670	

COMMENTS: _____

Book Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	MeOH	Fisher	A453-1	125253	6/21/15	1L	glass	6/21/13	131	~~6/28/13~~ 6/26/13	6/28/13 823	
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	7/16/13	697	
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/17/13	697	
4	Sodium Bisulfate	Fisher	S240-3	126178	6/28/16	3kg	plastic	6/28/13	131	7/2/13	834	
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	8/19/13	607	
6	↓	↓	↓	↓	↓	↓	↓	↓	↓	09/11/13	607	
7	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/03/13	607	
8	Volatile Organics High Conc. Mix #6	ChemService	M-VOHC6M5-1ml	1657100	6/30/14	1ml	Ampule	7/1/13	131	8/23/13	480	
9	↓	↓	↓	↓	↓	↓	↓	↓	↓			
10	↓	↓	↓	↓	↓	↓	↓	↓	↓			
11	↓	↓	↓	↓	↓	↓	↓	↓	↓			
12	↓	↓	↓	↓	↓	↓	↓	↓	↓			
13	Acrolein	chemservice	N-11030-1G	1506200	5/30/14	1ml	Ampule	7/11/13	131	10/1/13	131	
14	Cyclohexanone	chemservice	N-11531-10G	1365600	1/31/18	10g	glass	7/1/13	131			
15	tert-Amyl Alcohol (TAA)	chemservice	N-13518-10G	1593900	5/31/19	10g	glass	7/1/13	131			
16	Sea Sand	Fisher	S25-3	123310	7/2/16	3kg	plastic	7/2/13	131	07/02/13	697	
17	EPA 524.2 Rev. 4 Mix	Supelco	47427-U	LC0110	9/14	1ml	Ampule	7/11/13	131	8/8/13	131	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/4/13	131	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/28/13	131	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/17/13	131	
21	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/12/13	131	
22	MeOH	Fisher	A453-1	125253	7/12/15	1L	glass	7/12/13	131	07/18/13	697	
23	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/19/13	486	
24	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/19/13	697	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓	07/19/13	697	

COMMENTS: _____

Book Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Me OH	Fisher	A453-1	125253	7/12/15	1L	glass	7/12/13	131	07/19/13	697	
2										07/24/13	697	
3										07/24/13	791	
4										07/25/13	791	
5										07/26/13	697	
6										7/27/13	670	
7										7/31/13	697	
8										↓	↓	
9	Sea Sand	Fisher	S25-3	123310A	7/16/16	3kg	plastic	7/16/13	131	07/17/13	697	
10	Me OH	Fisher	A453-1	125253	7/26/15	1L	Glass	7/26/13	131	08/02/13	626	
11										08/05/13	697	
12										08/08/13	876	
13										8/12/13	316	
14										08/14/13	697	
15										08/15/13	791	
16										08/16/13	697	
17										08/17/13	697	
18										08/21/13	697	
19										08/23/13	626	
20										8/26/13	131	
21										8/29/13	697	
22	VOA Calibration Mix #1 (LCS)	Restek	30006	A090981	12/15	1ml	Ampule	7/29/13	131	8/8/13	131	
23										10/17/13	131	
24										~~11/12/13~~ 1/9/14	~~131~~ 131	Dr 12/9/13
25												

COMMENTS:

Book Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	VOA Calibration Mix #1 (LCS)	Restek	30006	A090981	12/15	1mL	Ampule	7/29/13	131			
2	↓	↓	↓	↓	↓	↓	↓	↓	↓			
3	Sea sand.	Fisher	S25-3	123310A	8/16	3Kg	plastic	8/16/13	131	08/16/13	697	
4	MeOH	Fisher	A453-1	125253	8/20/15	1L	Glass	8/20/13	697	09/04/13	486	
5	↓	↓	↓	↓	↓	↓	↓	↓	↓	09/04/13	697	
6										09/06/13	697	
7										↓	↓	
8										09/07/13	791	
9										09/12/13	697	
10										09/13/13	823	
11										09/17/13	697	
12										09/20/13	697	
13										↓	↓	
14										↓	↓	
15	↓	↓	↓	↓	↓	↓	↓	↓	↓	09/20/13	823	
16	502.2 Calibration Mix #1 (CCV)	Restek	30042	A097263	4/20	1mL	Ampule	8/26/13	131	9/6/13	316	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	9/13/13	486	
18										9/20/13	697	
19										9/27/13	608	
20										10/04/13	316	
21										10/11/13	510	
22										10/18/13	823	
23										10/25/13	486	
24										11/01/13	608	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/8/13	316	

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Volatile Organic Compds Liquids	Accustandard	M-502A-R-10X	21307090	7/10/16	1ml	Ampule	10/8/13	131			
2	↓	↓	↓	↓	↓	↓	↓	↓	↓			
3												
4												
5												
6	↓	↓	↓	↓	↓	↓	↓	↓	↓			
7	2-CEVE	Supelco	86-1206	LB94166	7/15	1ml	Ampule	10/8/13	131	10/17/13	131	
8	↓	↓	↓	↓	↓	↓	↓	↓	↓	11/12/13	131	
9										12/9/13	131	
10										1/9/14	131	
11												
12	↓	↓	↓	↓	↓	↓	↓	↓	↓			
13	Freon 123	Supelco	CRM4841 2	LC01303	6/16	1ml	Ampule	10/8/13	131	10/10/13	RP	
14	↓	↓	↓	↓	↓	↓	↓	↓	↓			
15	↓	↓	↓	↓	↓	↓	↓	↓	↓			
16	Methanol	Fisher	A453-1	125253	10/15	1L	Glass	10/10/13	131	10/10/13	697	
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	10/11/13	131	
18										10/14/13	697	
19										↓	↓	
20										10/19/13	697	
21										10/19/13	823	
22										10/21/13	697	
23										10/23/13	697	
24										10/23/13	697	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓			

COMMENTS: _____

Book Number: 6

Return to Contents

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED DATE	RECEIVED WHO	OPENED DATE	OPENED WHO	COMMENTS
1	Methanol	Fisher	A453-1	125253	6/25/15	1L	glass	10/25/13	131	11/05/13	697	
2										11/06/13	697	
3										11/08/13	697	
4										11/11/13	626	
5										11/12/13	697	
6										11/12/13	608	
7										11/19/13	697	
8										11/20/13	697	
9										11/20/13	849	
10										11/22/13	697	
11	CCV 502.2 Calibration Mix#1	Restek	30042	A097263	4/30/20	1ml	Ampule	11/6/13	131	11/15/13	510	
12										11/22/13	823	
13										12/06/13	486	
14										12/13/13	316	
15										12/27/13	510	
16										1/3/14	849	
17										11/0/14	686	
18										1/17/14	823	
19												
20												
21	LCS 502.2 Calibration Mix#1	Restek	30042	A098714	6/30/20	1ml	Ampule	11/6/13	131	11/08/13	316	
22										11/15/13	510	
23										11/22/13	849	
24										12/06/13	486	
25										12/13/13	316	

COMMENTS: _____

Book Number: 6

Return to Contents