Apex Laboratories, LLC
6700 SW Sandburg St. Tigard, Oregon 97223
503.718.2323

Level IV Data Package for

Anchor QEA, LLC

Gasco PreRD_DG 2019 – 4c. Waste Characterization

Apex Laboratories Work Order #:

A9K0609

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard, OR 97223 phone 503-718-2323

Table of Contents
A9K0609
(page 1 of 2)

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard, OR 97223 phone 503-718-2323

Table of Contents
A9K0609
(page 2 of 2)

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Analytical Case Narrative

APEX LABORATORIES, LLC
6700 SW Sandburg St Tigard, OR 97223 phone 503-718-2323

Analytical Case Narrative

Client: Anchor QEA, LLC Date: 01/20/2020
Project: Gasco PreRD_DG 2019 – 4c. Waste Characterization
Apex Work Order Number: A9K0609

This data package contains data associated with analysis of samples for the above referenced Apex work order numbers. The data package Table of Contents, along with the PDF bookmarks, allow for ease of navigation and location of items within the data deliverable.

The Sample Receipt Documentation section of this package contains sample receipt information, including sample temperature and condition of receipt documented on Cooler Receipt Form(s). Apex analyzed the samples by the methods indicated on the Chain of Custody. Any additional analyses requested are indicated on the Apex Work Order.

If any anomalies were encountered during analysis that could potentially impact data quality, sample results are qualified and/or a separate Case Narrative is included in the Analytical Report. Please refer to the Notes and Definition section of the Analytical Report(s) for Qualifier explanations, Conventions, and the Blank Policy.

Data represented in this package are in compliance with the referenced method(s), both technically and for completeness, for all conditions other than those stated above and/or noted by qualification of the reported data. The signature below verifies that the Laboratory Director or his designee has authorized release of this data package.

Estella Rieben,
Quality Systems Manager
Apex Laboratories, LLC

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Analytical Report

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Friday, December 27, 2019

Ryan Barth
Anchor QEA, LLC
6720 SW Macadam Ave. Suite 125
Portland, OR 97219

RE: A9K0609 - Gasco PreRD_DG 2019 - 4c. Waste Characterization - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A9K0609, which was received by the laboratory on 11/19/2019 at 3:35:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	1.2 degC	Cooler #2	2.4 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PDI-138RAB-C-00-19.1-191118	A9K0609-01	SO	11/18/19 13:15	11/19/19 15:35
PDI-144RAB-C-00-29-191114	A9K0609-02	SO	11/14/19 16:00	11/19/19 15:35

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

ANALYTICAL SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-138RAB-C-00-19.1-191118 (A9K0609-01)				**Matrix: SO**		**Batch: 9120412**		
Benzene	ND	0.00625	0.0125	mg/L	50	12/03/19 11:00	1311/8260C	
2-Butanone (MEK)	ND	0.250	0.500	mg/L	50	12/03/19 11:00	1311/8260C	
Carbon tetrachloride	ND	0.0250	0.0500	mg/L	50	12/03/19 11:00	1311/8260C	
Chlorobenzene	ND	0.0125	0.0250	mg/L	50	12/03/19 11:00	1311/8260C	
Chloroform	ND	0.0250	0.0500	mg/L	50	12/03/19 11:00	1311/8260C	
1,4-Dichlorobenzene	ND	0.0125	0.0250	mg/L	50	12/03/19 11:00	1311/8260C	
1,2-Dichloroethane (EDC)	ND	0.0125	0.0250	mg/L	50	12/03/19 11:00	1311/8260C	
1,1-Dichloroethene	ND	0.0125	0.0250	mg/L	50	12/03/19 11:00	1311/8260C	
Tetrachloroethene (PCE)	ND	0.0125	0.0250	mg/L	50	12/03/19 11:00	1311/8260C	
Trichloroethene (TCE)	ND	0.0125	0.0250	mg/L	50	12/03/19 11:00	1311/8260C	
Vinyl chloride	ND	0.0125	0.0250	mg/L	50	12/03/19 11:00	1311/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits: 80-120 %*	*1*	*12/03/19 11:00*	*1311/8260C*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*12/03/19 11:00*	*1311/8260C*	
4-Bromofluorobenzene (Surr)			*102 %*	*80-120 %*	*1*	*12/03/19 11:00*	*1311/8260C*	
PDI-144RAB-C-00-29-191114 (A9K0609-02)				**Matrix: SO**		**Batch: 9120412**		**H-02**
Benzene	ND	0.00625	0.0125	mg/L	50	12/03/19 11:26	1311/8260C	
2-Butanone (MEK)	ND	0.250	0.500	mg/L	50	12/03/19 11:26	1311/8260C	
Carbon tetrachloride	ND	0.0250	0.0500	mg/L	50	12/03/19 11:26	1311/8260C	
Chlorobenzene	ND	0.0125	0.0250	mg/L	50	12/03/19 11:26	1311/8260C	
Chloroform	ND	0.0250	0.0500	mg/L	50	12/03/19 11:26	1311/8260C	
1,4-Dichlorobenzene	ND	0.0125	0.0250	mg/L	50	12/03/19 11:26	1311/8260C	
1,2-Dichloroethane (EDC)	ND	0.0125	0.0250	mg/L	50	12/03/19 11:26	1311/8260C	
1,1-Dichloroethene	ND	0.0125	0.0250	mg/L	50	12/03/19 11:26	1311/8260C	
Tetrachloroethene (PCE)	ND	0.0125	0.0250	mg/L	50	12/03/19 11:26	1311/8260C	
Trichloroethene (TCE)	ND	0.0125	0.0250	mg/L	50	12/03/19 11:26	1311/8260C	
Vinyl chloride	ND	0.0125	0.0250	mg/L	50	12/03/19 11:26	1311/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits: 80-120 %*	*1*	*12/03/19 11:26*	*1311/8260C*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*12/03/19 11:26*	*1311/8260C*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*12/03/19 11:26*	*1311/8260C*	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

ANALYTICAL SAMPLE RESULTS

TCLP Organochlorine Pesticides by EPA 1311/8081B

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-138RAB-C-00-19.1-191118 (A9K0609-01)				**Matrix: SO**		**Batch: 9120522**		
gamma-BHC (Lindane)	ND	0.0000750	0.000150	mg/L	1	12/05/19 17:33	1311/8081B	
Endrin	ND	0.0000750	0.000150	mg/L	1	12/05/19 17:33	1311/8081B	
Heptachlor	ND	0.0000750	0.000150	mg/L	1	12/05/19 17:33	1311/8081B	
Heptachlor epoxide	ND	0.0000750	0.000150	mg/L	1	12/05/19 17:33	1311/8081B	
Methoxychlor	ND	0.000200	0.000400	mg/L	1	12/05/19 17:33	1311/8081B	
Chlordane (Technical)	ND	0.000940	0.00188	mg/L	1	12/05/19 17:33	1311/8081B	
Toxaphene (Total)	ND	0.00250	0.00500	mg/L	1	12/05/19 17:33	1311/8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery:*	*81 %*	*Limits: 25-140 %*	*1*	*12/05/19 17:33*	*1311/8081B*	
Decachlorobiphenyl (Surr)			*86 %*	*30-135 %*	*1*	*12/05/19 17:33*	*1311/8081B*	
PDI-144RAB-C-00-29-191114 (A9K0609-02)				**Matrix: SO**		**Batch: 9120522**		
gamma-BHC (Lindane)	ND	0.0000750	0.000150	mg/L	1	12/05/19 17:50	1311/8081B	
Endrin	ND	0.0000750	0.000150	mg/L	1	12/05/19 17:50	1311/8081B	
Heptachlor	ND	0.0000750	0.000150	mg/L	1	12/05/19 17:50	1311/8081B	
Heptachlor epoxide	ND	0.0000750	0.000150	mg/L	1	12/05/19 17:50	1311/8081B	
Methoxychlor	ND	0.000200	0.000400	mg/L	1	12/05/19 17:50	1311/8081B	
Chlordane (Technical)	ND	0.000940	0.00188	mg/L	1	12/05/19 17:50	1311/8081B	
Toxaphene (Total)	ND	0.00250	0.00500	mg/L	1	12/05/19 17:50	1311/8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery:*	*79 %*	*Limits: 25-140 %*	*1*	*12/05/19 17:50*	*1311/8081B*	
Decachlorobiphenyl (Surr)			*83 %*	*30-135 %*	*1*	*12/05/19 17:50*	*1311/8081B*	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

ANALYTICAL SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-138RAB-C-00-19.1-191118 (A9K0609-01RE1)				**Matrix: SO**		**Batch: 9120484**		
2,4-Dinitrotoluene	ND	0.0100	0.0200	mg/L	10	12/05/19 09:49	1311/8270D	
Hexachlorobenzene	ND	0.0100	0.0200	mg/L	10	12/05/19 09:49	1311/8270D	
Hexachlorobutadiene	ND	0.0250	0.0500	mg/L	10	12/05/19 09:49	1311/8270D	
Hexachloroethane	ND	0.0250	0.0500	mg/L	10	12/05/19 09:49	1311/8270D	
2-Methylphenol	ND	0.0250	0.0500	mg/L	10	12/05/19 09:49	1311/8270D	
3+4-Methylphenol(s)	ND	0.0250	0.0500	mg/L	10	12/05/19 09:49	1311/8270D	
Nitrobenzene	ND	0.0250	0.0500	mg/L	10	12/05/19 09:49	1311/8270D	
Pentachlorophenol (PCP)	ND	0.0500	0.100	mg/L	10	12/05/19 09:49	1311/8270D	
Pyridine	ND	0.0500	0.100	mg/L	10	12/05/19 09:49	1311/8270D	
2,4,5-Trichlorophenol	ND	0.0250	0.0500	mg/L	10	12/05/19 09:49	1311/8270D	
2,4,6-Trichlorophenol	ND	0.0250	0.0500	mg/L	10	12/05/19 09:49	1311/8270D	
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*65 %*	*Limits: 44-120 %*	*10*	*12/05/19 09:49*	*1311/8270D*	
2-Fluorobiphenyl (Surr)			*82 %*	*44-120 %*	*10*	*12/05/19 09:49*	*1311/8270D*	
Phenol-d6 (Surr)			*10 %*	*10-120 %*	*10*	*12/05/19 09:49*	*1311/8270D*	
p-Terphenyl-d14 (Surr)			*91 %*	*50-133 %*	*10*	*12/05/19 09:49*	*1311/8270D*	
2-Fluorophenol (Surr)			*27 %*	*19-120 %*	*10*	*12/05/19 09:49*	*1311/8270D*	
2,4,6-Tribromophenol (Surr)			*61 %*	*43-140 %*	*10*	*12/05/19 09:49*	*1311/8270D*	
PDI-144RAB-C-00-29-191114 (A9K0609-02RE2)				**Matrix: SO**		**Batch: 9120579**		
2,4-Dinitrotoluene	ND	0.0100	0.0200	mg/L	10	12/06/19 12:09	1311/8270D	
Hexachlorobenzene	ND	0.0100	0.0200	mg/L	10	12/06/19 12:09	1311/8270D	
Hexachlorobutadiene	ND	0.0250	0.0500	mg/L	10	12/06/19 12:09	1311/8270D	
Hexachloroethane	ND	0.0250	0.0500	mg/L	10	12/06/19 12:09	1311/8270D	
2-Methylphenol	ND	0.0250	0.0500	mg/L	10	12/06/19 12:09	1311/8270D	
3+4-Methylphenol(s)	ND	0.0250	0.0500	mg/L	10	12/06/19 12:09	1311/8270D	
Nitrobenzene	ND	0.0250	0.0500	mg/L	10	12/06/19 12:09	1311/8270D	
Pentachlorophenol (PCP)	ND	0.0500	0.100	mg/L	10	12/06/19 12:09	1311/8270D	
Pyridine	ND	0.0500	0.100	mg/L	10	12/06/19 12:09	1311/8270D	
2,4,5-Trichlorophenol	ND	0.0250	0.0500	mg/L	10	12/06/19 12:09	1311/8270D	
2,4,6-Trichlorophenol	ND	0.0250	0.0500	mg/L	10	12/06/19 12:09	1311/8270D	
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*84 %*	*Limits: 44-120 %*	*10*	*12/06/19 12:09*	*1311/8270D*	
2-Fluorobiphenyl (Surr)			*89 %*	*44-120 %*	*10*	*12/06/19 12:09*	*1311/8270D*	
Phenol-d6 (Surr)			*20 %*	*10-120 %*	*10*	*12/06/19 12:09*	*1311/8270D*	
p-Terphenyl-d14 (Surr)			*96 %*	*50-133 %*	*10*	*12/06/19 12:09*	*1311/8270D*	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

ANALYTICAL SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-144RAB-C-00-29-191114 (A9K0609-02RE2)				**Matrix: SO**		**Batch: 9120579**		
Surrogate: 2-Fluorophenol (Surr)		*Recovery:*	*34 %*	*Limits: 19-120 %*	*10*	*12/06/19 12:09*	*1311/8270D*	
2,4,6-Tribromophenol (Surr)			*76 %*	*43-140 %*	*10*	*12/06/19 12:09*	*1311/8270D*	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-138RAB-C-00-19.1-191118 (A9K0609-01)				**Matrix: SO**				
Batch: 9120481								
Arsenic	ND	0.0500	0.100	mg/L	10	12/04/19 13:55	1311/6020A	
Barium	ND	2.50	5.00	mg/L	10	12/04/19 13:55	1311/6020A	
Cadmium	ND	0.0500	0.100	mg/L	10	12/04/19 13:55	1311/6020A	
Chromium	ND	0.0500	0.100	mg/L	10	12/04/19 13:55	1311/6020A	
Lead	ND	0.0250	0.0500	mg/L	10	12/04/19 13:55	1311/6020A	
Mercury	ND	0.00350	0.00700	mg/L	10	12/04/19 13:55	1311/6020A	
Selenium	ND	0.0500	0.100	mg/L	10	12/04/19 13:55	1311/6020A	
Silver	ND	0.0500	0.100	mg/L	10	12/04/19 13:55	1311/6020A	
PDI-144RAB-C-00-29-191114 (A9K0609-02)				**Matrix: SO**				
Batch: 9120481								
Arsenic	ND	0.0500	0.100	mg/L	10	12/04/19 14:00	1311/6020A	
Barium	ND	2.50	5.00	mg/L	10	12/04/19 14:00	1311/6020A	
Cadmium	ND	0.0500	0.100	mg/L	10	12/04/19 14:00	1311/6020A	
Chromium	ND	0.0500	0.100	mg/L	10	12/04/19 14:00	1311/6020A	
Lead	ND	0.0250	0.0500	mg/L	10	12/04/19 14:00	1311/6020A	
Mercury	ND	0.00350	0.00700	mg/L	10	12/04/19 14:00	1311/6020A	
Selenium	ND	0.0500	0.100	mg/L	10	12/04/19 14:00	1311/6020A	
Silver	ND	0.0500	0.100	mg/L	10	12/04/19 14:00	1311/6020A	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

ANALYTICAL SAMPLE RESULTS

Solid and Moisture Determinations

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-138RAB-C-00-19.1-191118 (A9K0609-01)				**Matrix: SO**				
Batch: 9111034								
Total Solids	**83.8**	1.00	1.00	% by Weight	1	11/22/19 16:02	SM 2540 G	
PDI-144RAB-C-00-29-191114 (A9K0609-02)				**Matrix: SO**				
Batch: 9111034								
Total Solids	**91.9**	1.00	1.00	% by Weight	1	11/22/19 16:02	SM 2540 G	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

ANALYTICAL SAMPLE RESULTS

TCLP Extraction by EPA 1311 (ZHE)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-138RAB-C-00-19.1-191118 (A9K0609-01)				**Matrix: SO**		**Batch: 9120402**		
TCLP ZHE Extraction	PREP	---		N/A	1	12/02/19 17:00	EPA 1311 ZHE	
TCLP Extraction	PREP	---		N/A	1	12/03/19 15:30	EPA 1311	
TCLP Extraction	PREP	---		N/A	1	12/03/19 15:30	EPA 1311	H-08
PDI-144RAB-C-00-29-191114 (A9K0609-02)				**Matrix: SO**		**Batch: 9120402**		
TCLP ZHE Extraction	PREP	---		N/A	1	12/02/19 17:00	EPA 1311 ZHE	H-02
TCLP Extraction	PREP	---		N/A	1	12/03/19 15:30	EPA 1311	
TCLP Extraction	PREP	---		N/A	1	12/03/19 15:30	EPA 1311	H-08

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9120412 - EPA 1311/5030B TCLP Volatiles							**Water**					
Blank (9120412-BLK1)			Prepared: 12/03/19 07:32 Analyzed: 12/03/19 09:39									**TCLP**
1311/8260C												
Benzene	ND	0.00625	0.0125	mg/L	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	0.250	0.500	mg/L	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.0250	0.0500	mg/L	50	---	---	---	---	---	---	
Chlorobenzene	ND	0.0125	0.0250	mg/L	50	---	---	---	---	---	---	
Chloroform	ND	0.0250	0.0500	mg/L	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.0125	0.0250	mg/L	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.0125	0.0250	mg/L	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.0125	0.0250	mg/L	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.0125	0.0250	mg/L	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.0125	0.0250	mg/L	50	---	---	---	---	---	---	
Vinyl chloride	ND	0.0125	0.0250	mg/L	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 111 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				
LCS (9120412-BS1)			Prepared: 12/03/19 07:32 Analyzed: 12/03/19 09:12									**TCLP**
1311/8260C												
Benzene	1.08	0.00625	0.0125	mg/L	50	1.00	---	108	80-120%	---	---	
2-Butanone (MEK)	1.85	0.250	0.500	mg/L	50	2.00	---	92	80-120%	---	---	
Carbon tetrachloride	1.25	0.0250	0.0500	mg/L	50	1.00	---	**125**	**80-120%**	---	---	Q-56
Chlorobenzene	1.05	0.0125	0.0250	mg/L	50	1.00	---	105	80-120%	---	---	
Chloroform	1.10	0.0250	0.0500	mg/L	50	1.00	---	110	80-120%	---	---	
1,4-Dichlorobenzene	1.02	0.0125	0.0250	mg/L	50	1.00	---	102	80-120%	---	---	
1,2-Dichloroethane (EDC)	0.948	0.0125	0.0250	mg/L	50	1.00	---	95	80-120%	---	---	
1,1-Dichloroethene	1.04	0.0125	0.0250	mg/L	50	1.00	---	104	80-120%	---	---	
Tetrachloroethene (PCE)	1.13	0.0125	0.0250	mg/L	50	1.00	---	113	80-120%	---	---	
Trichloroethene (TCE)	1.21	0.0125	0.0250	mg/L	50	1.00	---	**121**	**80-120%**	---	---	Q-56
Vinyl chloride	1.12	0.0125	0.0250	mg/L	50	1.00	---	112	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 110 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*			*"*				
Duplicate (9120412-DUP1)			Prepared: 12/03/19 10:37 Analyzed: 12/03/19 12:20									

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9120412 - EPA 1311/5030B TCLP Volatiles							**Water**					
Duplicate (9120412-DUP1)			Prepared: 12/03/19 10:37 Analyzed: 12/03/19 12:20									
QC Source Sample: Non-SDG (A9K0695-01)												
Benzene	**0.0618**	0.00625	0.0125	mg/L	50	---	0.0597	---	---	3	30%	
2-Butanone (MEK)	ND	0.250	0.500	mg/L	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	0.0250	0.0500	mg/L	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	0.0125	0.0250	mg/L	50	---	ND	---	---	---	30%	
Chloroform	ND	0.0250	0.0500	mg/L	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.0125	0.0250	mg/L	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.0125	0.0250	mg/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.0125	0.0250	mg/L	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.0125	0.0250	mg/L	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	0.0125	0.0250	mg/L	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.0125	0.0250	mg/L	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 111 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*100 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*				*"*			
Matrix Spike (9120412-MS1)			Prepared: 12/03/19 10:37 Analyzed: 12/03/19 13:14									
QC Source Sample: Non-SDG (A9K0695-02)												
1311/8260C												
Benzene	1.11	0.00625	0.0125	mg/L	50	1.00	ND	111	70-130%	---	---	
2-Butanone (MEK)	1.82	0.250	0.500	mg/L	50	2.00	ND	91	70-130%	---	---	
Carbon tetrachloride	1.24	0.0250	0.0500	mg/L	50	1.00	ND	124	70-130%	---	---	Q-54a
Chlorobenzene	1.08	0.0125	0.0250	mg/L	50	1.00	ND	108	70-130%	---	---	
Chloroform	1.11	0.0250	0.0500	mg/L	50	1.00	ND	111	70-130%	---	---	
1,4-Dichlorobenzene	1.05	0.0125	0.0250	mg/L	50	1.00	ND	105	70-130%	---	---	
1,2-Dichloroethane (EDC)	0.954	0.0125	0.0250	mg/L	50	1.00	ND	95	70-130%	---	---	
1,1-Dichloroethene	1.05	0.0125	0.0250	mg/L	50	1.00	ND	105	70-130%	---	---	
Tetrachloroethene (PCE)	1.14	0.0125	0.0250	mg/L	50	1.00	ND	114	70-130%	---	---	
Trichloroethene (TCE)	1.22	0.0125	0.0250	mg/L	50	1.00	ND	122	70-130%	---	---	Q-54
Vinyl chloride	1.13	0.0125	0.0250	mg/L	50	1.00	ND	113	70-130%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 109 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*98 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*				*"*			

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Organochlorine Pesticides by EPA 1311/8081B

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9120522 - EPA 1311/3510C (Neutral Ext.)							**Soil**					
Blank (9120522-BLK1)			Prepared: 12/04/19 15:00 Analyzed: 12/05/19 16:41									
1311/8081B												
gamma-BHC (Lindane)	ND	0.0000750	0.000150	mg/L	1	---	---	---	---	---	---	
Endrin	ND	0.0000750	0.000150	mg/L	1	---	---	---	---	---	---	
Heptachlor	ND	0.0000750	0.000150	mg/L	1	---	---	---	---	---	---	
Heptachlor epoxide	ND	0.0000750	0.000150	mg/L	1	---	---	---	---	---	---	
Methoxychlor	ND	0.000200	0.000400	mg/L	1	---	---	---	---	---	---	
Chlordane (Technical)	ND	0.000940	0.00188	mg/L	1	---	---	---	---	---	---	
Toxaphene (Total)	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 80 %*		*Limits: 25-140 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*87 %*		*30-135 %*			*"*				
LCS (9120522-BS1)			Prepared: 12/04/19 15:00 Analyzed: 12/05/19 16:58									
1311/8081B												
gamma-BHC (Lindane)	0.00215	0.0000750	0.000150	mg/L	1	0.00250	---	86	59-134%	---	---	
Endrin	0.00239	0.0000750	0.000150	mg/L	1	0.00250	---	96	60-138%	---	---	
Heptachlor	0.00202	0.0000750	0.000150	mg/L	1	0.00250	---	81	54-130%	---	---	
Heptachlor epoxide	0.00204	0.0000750	0.000150	mg/L	1	0.00250	---	82	61-133%	---	---	
Methoxychlor	0.00245	0.000200	0.000400	mg/L	1	0.00250	---	98	54-144%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 52 %*		*Limits: 25-140 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*74 %*		*30-135 %*			*"*				
LCS Dup (9120522-BSD1)			Prepared: 12/04/19 15:00 Analyzed: 12/05/19 17:16									**Q-19**
1311/8081B												
gamma-BHC (Lindane)	0.00224	0.0000750	0.000150	mg/L	1	0.00250	---	89	59-134%	4	30%	
Endrin	0.00257	0.0000750	0.000150	mg/L	1	0.00250	---	103	60-138%	7	30%	
Heptachlor	0.00216	0.0000750	0.000150	mg/L	1	0.00250	---	87	54-130%	7	30%	
Heptachlor epoxide	0.00217	0.0000750	0.000150	mg/L	1	0.00250	---	87	61-133%	6	30%	
Methoxychlor	0.00246	0.000200	0.000400	mg/L	1	0.00250	---	99	54-144%	0.7	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 53 %*		*Limits: 25-140 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*76 %*		*30-135 %*			*"*				

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9120484 - EPA 1311/3510C (BNA Extraction)							**Soil**					
Blank (9120484-BLK1)			Prepared: 12/04/19 11:10 Analyzed: 12/04/19 17:13									
1311/8270D												
2,4-Dinitrotoluene	ND	0.00300	0.00300	mg/L	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.00100	0.00200	mg/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
Hexachloroethane	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
Nitrobenzene	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.00500	0.0100	mg/L	1	---	---	---	---	---	---	
Pyridine	ND	0.00500	0.0100	mg/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 75 %*		*Limits: 44-120 %*			*Dilution: 1x*				
2-Fluorobiphenyl (Surr)			*80 %*		*44-120 %*			*"*				
Phenol-d6 (Surr)			*21 %*		*10-120 %*			*"*				
p-Terphenyl-d14 (Surr)			*85 %*		*50-133 %*			*"*				
2-Fluorophenol (Surr)			*35 %*		*19-120 %*			*"*				
2,4,6-Tribromophenol (Surr)			*99 %*		*43-140 %*			*"*				
LCS (9120484-BS1)			Prepared: 12/04/19 11:10 Analyzed: 12/04/19 17:47									
1311/8270D												
2,4-Dinitrotoluene	0.0367	0.0120	0.0120	mg/L	4	0.0400	---	92	57-128%	---	---	
Hexachlorobenzene	0.0368	0.00400	0.00800	mg/L	4	0.0400	---	92	52-125%	---	---	
Hexachlorobutadiene	0.0317	0.0100	0.0200	mg/L	4	0.0400	---	79	22-124%	---	---	
Hexachloroethane	0.0302	0.0100	0.0200	mg/L	4	0.0400	---	76	21-120%	---	---	
2-Methylphenol	0.0292	0.0100	0.0200	mg/L	4	0.0400	---	73	30-120%	---	---	
3+4-Methylphenol(s)	0.0269	0.0100	0.0200	mg/L	4	0.0400	---	67	29-120%	---	---	
Nitrobenzene	0.0349	0.0100	0.0200	mg/L	4	0.0400	---	87	45-121%	---	---	
Pentachlorophenol (PCP)	0.0408	0.0200	0.0400	mg/L	4	0.0400	---	102	35-138%	---	---	
Pyridine	0.0118	0.00400	0.00400	mg/L	4	0.0400	---	29	5-120%	---	---	
2,4,5-Trichlorophenol	0.0373	0.0100	0.0200	mg/L	4	0.0400	---	93	53-123%	---	---	
2,4,6-Trichlorophenol	0.0367	0.0100	0.0200	mg/L	4	0.0400	---	92	50-125%	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 88 %*		*Limits: 44-120 %*			*Dilution: 4x*				
2-Fluorobiphenyl (Surr)			*90 %*		*44-120 %*			*"*				

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9120484 - EPA 1311/3510C (BNA Extraction)							**Soil**					
LCS (9120484-BS1)				Prepared: 12/04/19 11:10 Analyzed: 12/04/19 17:47								
Surr: Phenol-d6 (Surr)			*Recovery: 26 %*	*Limits: 10-120 %*			*Dilution: 4x*					
p-Terphenyl-d14 (Surr)			*99 %*	*50-133 %*			*"*					
2-Fluorophenol (Surr)			*39 %*	*19-120 %*			*"*					
2,4,6-Tribromophenol (Surr)			*98 %*	*43-140 %*			*"*					
LCS Dup (9120484-BSD1)				Prepared: 12/04/19 11:10 Analyzed: 12/04/19 18:22								**Q-19**
1311/8270D												
2,4-Dinitrotoluene	0.0378	0.0120	0.0120	mg/L	4	0.0400	---	94	57-128%	3	30%	
Hexachlorobenzene	0.0358	0.00400	0.00800	mg/L	4	0.0400	---	89	52-125%	3	30%	
Hexachlorobutadiene	0.0330	0.0100	0.0200	mg/L	4	0.0400	---	83	22-124%	4	30%	
Hexachloroethane	0.0313	0.0100	0.0200	mg/L	4	0.0400	---	78	21-120%	3	30%	
2-Methylphenol	0.0301	0.0100	0.0200	mg/L	4	0.0400	---	75	30-120%	3	30%	
3+4-Methylphenol(s)	0.0280	0.0100	0.0200	mg/L	4	0.0400	---	70	29-120%	4	30%	
Nitrobenzene	0.0340	0.0100	0.0200	mg/L	4	0.0400	---	85	45-121%	3	30%	
Pentachlorophenol (PCP)	0.0418	0.0200	0.0400	mg/L	4	0.0400	---	104	35-138%	2	30%	
Pyridine	0.0119	0.00400	0.00400	mg/L	4	0.0400	---	30	5-120%	1	30%	
2,4,5-Trichlorophenol	0.0373	0.0100	0.0200	mg/L	4	0.0400	---	93	53-123%	0.2	30%	
2,4,6-Trichlorophenol	0.0376	0.0100	0.0200	mg/L	4	0.0400	---	94	50-125%	2	30%	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 85 %*	*Limits: 44-120 %*			*Dilution: 4x*					
2-Fluorobiphenyl (Surr)			*91 %*	*44-120 %*			*"*					
Phenol-d6 (Surr)			*29 %*	*10-120 %*			*"*					
p-Terphenyl-d14 (Surr)			*100 %*	*50-133 %*			*"*					
2-Fluorophenol (Surr)			*43 %*	*19-120 %*			*"*					
2,4,6-Tribromophenol (Surr)			*94 %*	*43-140 %*			*"*					

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9120579 - EPA 1311/3510C (BNA Extraction)							**Soil**					
Blank (9120579-BLK1)			Prepared: 12/05/19 14:31		Analyzed: 12/06/19 10:26							
1311/8270D												
2,4-Dinitrotoluene	ND	0.00300	0.00300	mg/L	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.00100	0.00200	mg/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
Hexachloroethane	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
Nitrobenzene	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.00500	0.0100	mg/L	1	---	---	---	---	---	---	
Pyridine	ND	0.00500	0.0100	mg/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 83 %*		*Limits: 44-120 %*			*Dilution: 1x*				
2-Fluorobiphenyl (Surr)			*78 %*		*44-120 %*			*"*				
Phenol-d6 (Surr)			*21 %*		*10-120 %*			*"*				
p-Terphenyl-d14 (Surr)			*96 %*		*50-133 %*			*"*				
2-Fluorophenol (Surr)			*33 %*		*19-120 %*			*"*				
2,4,6-Tribromophenol (Surr)			*103 %*		*43-140 %*			*"*				
LCS (9120579-BS1)			Prepared: 12/05/19 14:31		Analyzed: 12/06/19 11:00							
1311/8270D												
2,4-Dinitrotoluene	0.0391	0.00300	0.00300	mg/L	1	0.0400	---	98	57-128%	---	---	
Hexachlorobenzene	0.0352	0.00100	0.00200	mg/L	1	0.0400	---	88	52-125%	---	---	
Hexachlorobutadiene	0.0314	0.00250	0.00500	mg/L	1	0.0400	---	79	22-124%	---	---	
Hexachloroethane	0.0305	0.00250	0.00500	mg/L	1	0.0400	---	76	21-120%	---	---	
2-Methylphenol	0.0296	0.00250	0.00500	mg/L	1	0.0400	---	74	30-120%	---	---	
3+4-Methylphenol(s)	0.0273	0.00250	0.00500	mg/L	1	0.0400	---	68	29-120%	---	---	
Nitrobenzene	0.0318	0.00250	0.00500	mg/L	1	0.0400	---	80	45-121%	---	---	
Pentachlorophenol (PCP)	0.0423	0.00500	0.0100	mg/L	1	0.0400	---	106	35-138%	---	---	
Pyridine	0.0157	0.00500	0.0100	mg/L	1	0.0400	---	39	5-120%	---	---	
2,4,5-Trichlorophenol	0.0402	0.00250	0.00500	mg/L	1	0.0400	---	100	53-123%	---	---	
2,4,6-Trichlorophenol	0.0388	0.00250	0.00500	mg/L	1	0.0400	---	97	50-125%	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 88 %*		*Limits: 44-120 %*			*Dilution: 1x*				
2-Fluorobiphenyl (Surr)			*87 %*		*44-120 %*			*"*				

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9120579 - EPA 1311/3510C (BNA Extraction)							**Soil**					
LCS (9120579-BS1)				Prepared: 12/05/19 14:31		Analyzed: 12/06/19 11:00						
Surr: Phenol-d6 (Surr)			*Recovery: 34 %*	*Limits: 10-120 %*		*Dilution: 1x*						
p-Terphenyl-d14 (Surr)			*111 %*	*50-133 %*		*"*						
2-Fluorophenol (Surr)			*51 %*	*19-120 %*		*"*						
2,4,6-Tribromophenol (Surr)			*110 %*	*43-140 %*		*"*						
LCS Dup (9120579-BSD1)				Prepared: 12/05/19 14:31		Analyzed: 12/06/19 11:35						**Q-19**
1311/8270D												
2,4-Dinitrotoluene	0.0407	0.00300	0.00300	mg/L	1	0.0400	---	102	57-128%	4	30%	
Hexachlorobenzene	0.0361	0.00100	0.00200	mg/L	1	0.0400	---	90	52-125%	3	30%	
Hexachlorobutadiene	0.0308	0.00250	0.00500	mg/L	1	0.0400	---	77	22-124%	2	30%	
Hexachloroethane	0.0302	0.00250	0.00500	mg/L	1	0.0400	---	76	21-120%	0.7	30%	
2-Methylphenol	0.0287	0.00250	0.00500	mg/L	1	0.0400	---	72	30-120%	3	30%	
3+4-Methylphenol(s)	0.0262	0.00250	0.00500	mg/L	1	0.0400	---	65	29-120%	4	30%	
Nitrobenzene	0.0328	0.00250	0.00500	mg/L	1	0.0400	---	82	45-121%	3	30%	
Pentachlorophenol (PCP)	0.0442	0.00500	0.0100	mg/L	1	0.0400	---	111	35-138%	5	30%	
Pyridine	0.0153	0.00500	0.0100	mg/L	1	0.0400	---	38	5-120%	3	30%	
2,4,5-Trichlorophenol	0.0403	0.00250	0.00500	mg/L	1	0.0400	---	101	53-123%	0.4	30%	
2,4,6-Trichlorophenol	0.0387	0.00250	0.00500	mg/L	1	0.0400	---	97	50-125%	0.3	30%	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 89 %*	*Limits: 44-120 %*		*Dilution: 1x*						
2-Fluorobiphenyl (Surr)			*85 %*	*44-120 %*		*"*						
Phenol-d6 (Surr)			*31 %*	*10-120 %*		*"*						
p-Terphenyl-d14 (Surr)			*114 %*	*50-133 %*		*"*						
2-Fluorophenol (Surr)			*48 %*	*19-120 %*		*"*						
2,4,6-Tribromophenol (Surr)			*110 %*	*43-140 %*		*"*						

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Metals by EPA 6020A (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9120481 - EPA 1311/3015							**Soil**					
Blank (9120481-BLK1)			Prepared: 12/04/19 10:12 Analyzed: 12/04/19 13:46									
1311/6020A												
Arsenic	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLPa
Barium	ND	2.50	5.00	mg/L	10	---	---	---	---	---	---	TCLPa
Cadmium	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLPa
Chromium	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLPa
Lead	ND	0.0250	0.0500	mg/L	10	---	---	---	---	---	---	TCLPa
Mercury	ND	0.00350	0.00700	mg/L	10	---	---	---	---	---	---	TCLPa
Selenium	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLPa
Silver	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLPa
LCS (9120481-BS1)			Prepared: 12/04/19 10:12 Analyzed: 12/04/19 13:51									
1311/6020A												
Arsenic	5.17	0.0500	0.100	mg/L	10	5.00	---	103	80-120%	---	---	TCLPa
Barium	10.5	2.50	5.00	mg/L	10	10.0	---	105	80-120%	---	---	TCLPa
Cadmium	1.05	0.0500	0.100	mg/L	10	1.00	---	105	80-120%	---	---	TCLPa
Chromium	4.92	0.0500	0.100	mg/L	10	5.00	---	98	80-120%	---	---	TCLPa
Lead	5.32	0.0250	0.0500	mg/L	10	5.00	---	106	80-120%	---	---	TCLPa
Mercury	0.103	0.00350	0.00700	mg/L	10	0.100	---	103	80-120%	---	---	TCLPa
Selenium	1.02	0.0500	0.100	mg/L	10	1.00	---	102	80-120%	---	---	TCLPa
Silver	1.08	0.0500	0.100	mg/L	10	1.00	---	108	80-120%	---	---	TCLPa
Matrix Spike (9120481-MS1)			Prepared: 12/04/19 10:12 Analyzed: 12/04/19 14:24									
QC Source Sample: Non-SDG (A9K0695-02)												
1311/6020A												
Arsenic	5.24	0.0500	0.100	mg/L	10	5.00	ND	105	50-150%	---	---	
Barium	11.2	2.50	5.00	mg/L	10	10.0	ND	112	50-150%	---	---	
Cadmium	1.07	0.0500	0.100	mg/L	10	1.00	ND	107	50-150%	---	---	
Chromium	5.01	0.0500	0.100	mg/L	10	5.00	ND	100	50-150%	---	---	
Lead	5.47	0.0250	0.0500	mg/L	10	5.00	ND	109	50-150%	---	---	
Mercury	0.107	0.00350	0.00700	mg/L	10	0.100	ND	107	50-150%	---	---	
Selenium	1.02	0.0500	0.100	mg/L	10	1.00	ND	102	50-150%	---	---	
Silver	1.10	0.0500	0.100	mg/L	10	1.00	ND	110	50-150%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

QUALITY CONTROL (QC) SAMPLE RESULTS

Solid and Moisture Determinations

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9111034 - Total Solids (SM2540G/PSEP)							**Sediment**					
Duplicate (9111034-DUP1)				Prepared: 11/20/19 16:52		Analyzed: 11/22/19 16:02						
QC Source Sample: PDI-138RAB-C-00-19.1-191118 (A9K0609-01)												
SM 2540 G												
Total Solids	**83.2**	1.00	1.00	% by Weight	1	---	83.8	---	---	0.7	10%	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

SAMPLE PREPARATION INFORMATION

TCLP Volatile Organic Compounds by EPA 1311/8260C

Prep: EPA 1311/5030B TCLP Volatiles

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9120412							
A9K0609-01	SO	1311/8260C	11/18/19 13:15	12/03/19 10:37	5mL/5mL	5mL/5mL	1.00
A9K0609-02	SO	1311/8260C	11/14/19 16:00	12/03/19 10:37	5mL/5mL	5mL/5mL	1.00

TCLP Organochlorine Pesticides by EPA 1311/8081B

Prep: EPA 1311/3510C (Neutral Ext.)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9120522							
A9K0609-01	SO	1311/8081B	11/18/19 13:15	12/04/19 15:00	200mL/5mL	200mL/5mL	1.00
A9K0609-02	SO	1311/8081B	11/14/19 16:00	12/04/19 15:00	200mL/5mL	200mL/5mL	1.00

TCLP Semivolatile Organic Compounds by EPA 1311/8270D

Prep: EPA 1311/3510C (BNA Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9120484							
A9K0609-01RE1	SO	1311/8270D	11/18/19 13:15	12/04/19 11:10	200mL/2mL	200mL/2mL	1.00
Batch: 9120579							
A9K0609-02RE2	SO	1311/8270D	11/14/19 16:00	12/05/19 14:31	200mL/2mL	200mL/2mL	1.00

TCLP Metals by EPA 6020A (ICPMS)

Prep: EPA 1311/3015

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9120481							
A9K0609-01	SO	1311/6020A	11/18/19 13:15	12/04/19 10:12	10mL/50mL	10mL/50mL	1.00
A9K0609-02	SO	1311/6020A	11/14/19 16:00	12/04/19 10:12	10mL/50mL	10mL/50mL	1.00

Solid and Moisture Determinations

Prep: Total Solids (SM2540G/PSEP)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9111034							
A9K0609-01	SO	SM 2540 G	11/18/19 13:15	11/20/19 16:52			NA
A9K0609-02	SO	SM 2540 G	11/14/19 16:00	11/20/19 16:52			NA

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

SAMPLE PREPARATION INFORMATION

TCLP Extraction by EPA 1311

Prep: EPA 1311 (TCLP)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9120422							
A9K0609-01	SO	EPA 1311	11/18/19 13:15	12/03/19 15:30	100g/2000mL	100g/2000mL	NA
A9K0609-02	SO	EPA 1311	11/14/19 16:00	12/03/19 15:30	100g/2000mL	100g/2000mL	NA

Prep: EPA 1311 TCLP/ZHE

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9120402							
A9K0609-01	SO	EPA 1311 ZHE	11/18/19 13:15	12/02/19 17:00	25g/500mL	25g/500mL	NA
A9K0609-02	SO	EPA 1311 ZHE	11/14/19 16:00	12/02/19 17:00	25g/500mL	25g/500mL	NA

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

H-02	This sample was extracted outside of the recommended holding time.
H-08	Sample hold time extended by freezing at -18 degrees C. Total time at 4 degrees C was less than the standard hold time.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by +1%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by +5%. The results are reported as Estimated Values.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260C
TCLP	This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 9120402.
TCLPa	This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 9120422.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project:	**Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number:	**[none]**	**Report ID:**
Portland, OR 97219	Project Manager:	**Ryan Barth**	**A9K0609 - 12 27 19 1202**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project:	**Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number:	**[none]**	**Report ID:**
Portland, OR 97219	Project Manager:	**Ryan Barth**	**A9K0609 - 12 27 19 1202**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

LABORATORY ACCREDITATION INFORMATION

TNI Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

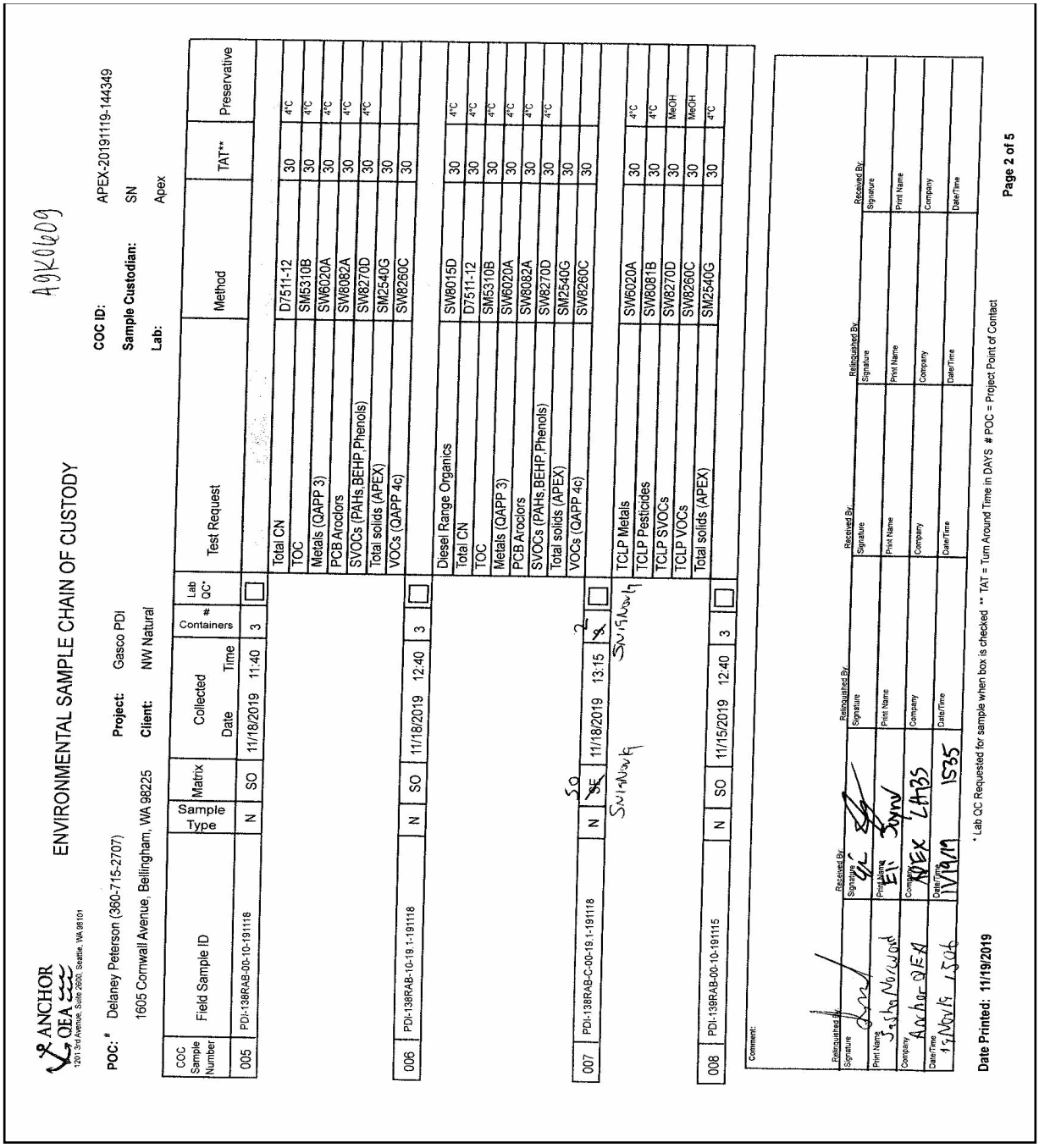
The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**



ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

ANCHOR QEA, 1201 3rd Avenue, Suite 2600, Seattle, WA 98101

A9K0609

POC: # Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225
Project: Gasco PDI
Client: NW Natural
COC ID: APEX-20191119-144349
Sample Custodian: SN
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	# Containers	Lab QC*	Test Request	Method	TAT**	Preservative
005	PDI-138RAB-00-10-191118	N	SO	11/18/2019	11:40	3	☐	Total CN	D7511-12	30	4°C
								TOC	SM5310B	30	4°C
								Metals (QAPP 3)	SW6020A	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								SVOCs (PAHs,BEHP,Phenols)	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	
								VOCs (QAPP 4c)	SW8260C	30	
006	PDI-138RAB-10-19 1-191118	N	SO	11/18/2019	12:40	3	☐	Diesel Range Organics	SW8015D	30	4°C
								Total CN	D7511-12	30	4°C
								TOC	SM5310B	30	4°C
								Metals (QAPP 3)	SW6020A	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								SVOCs (PAHs,BEHP,Phenols)	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	
								VOCs (QAPP 4c)	SW8260C	30	
007	PDI-138RAB-C-00-19 1-191118	N	SE	11/18/2019	13:15	2	☐	TCLP Metals	SW6020A	30	4°C
								TCLP Pesticides	SW8081B	30	4°C
								TCLP SVOCs	SW8270D	30	MeOH
								TCLP VOCs	SW8260C	30	MeOH
								Total solids (APEX)	SM2540G	30	4°C
008	PDI-138RAB-00-10-191115	N	SO	11/15/2019	12:40	3	☐				

Comment:

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

Date Printed: 11/19/2019

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

Page 2 of 5

Apex Laboratories

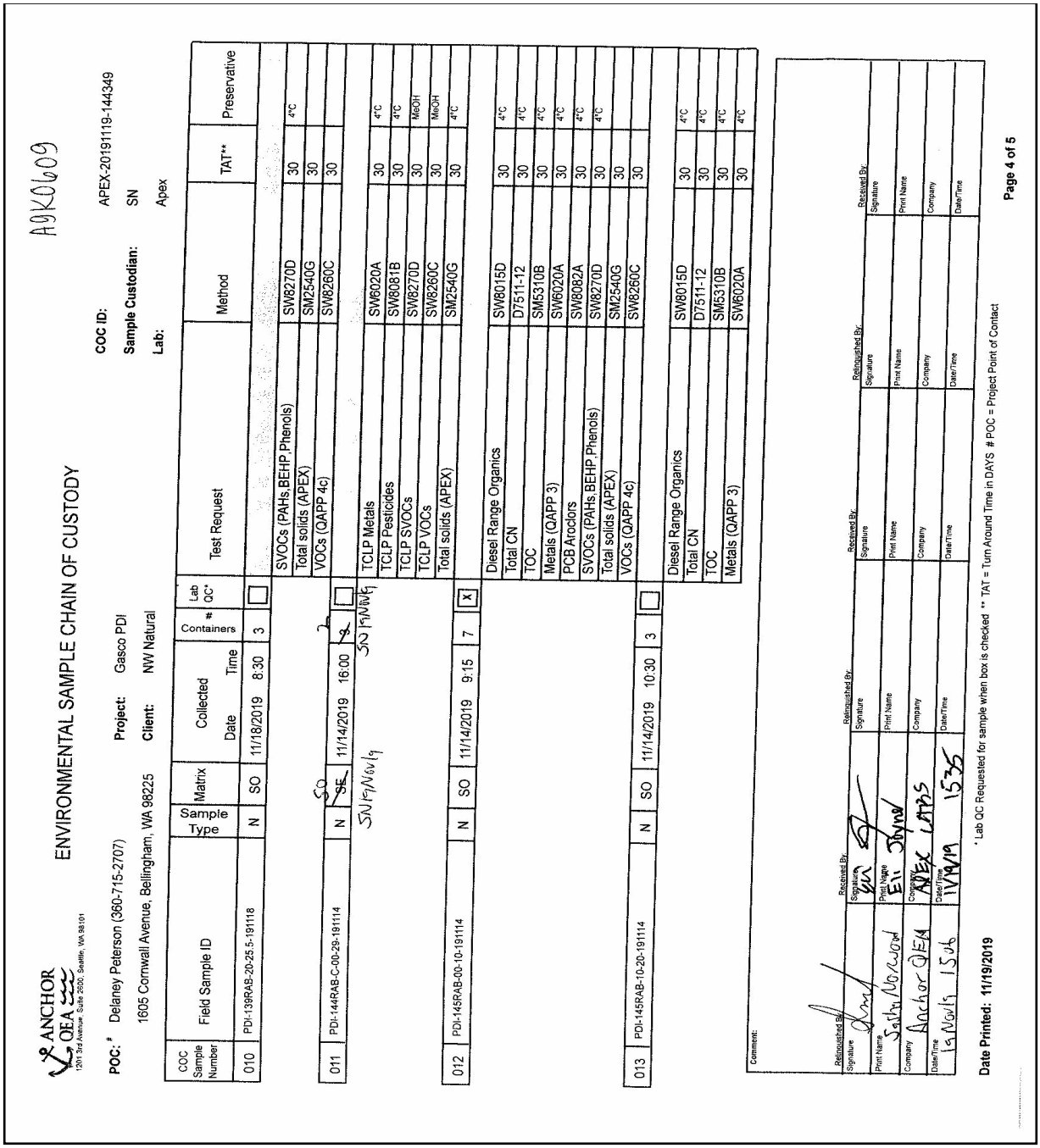
The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**



ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9K0609

ANCHOR QEA, LLC — 1201 3rd Avenue, Suite 2600, Seattle, WA 98101

POC: # Delaney Peterson (360-715-2707) — Project: Gasco PDI — Client: NW Natural
1605 Cornwall Avenue, Bellingham, WA 98225

COC ID: APEX-20191119-144349 — Sample Custodian: SN — Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	# Containers	Lab QC*	Test Request	Method	TAT**	Preservative
010	PDI-139RAB-20-25.5-191118	N	SO	11/18/2019	8:30	3		SVOCs (PAHs,BEHP,Phenols)	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	
								VOCs (QAPP 4c)	SW8260C	30	
011	PDI-144RAB-C-00-29-191114	N	SE	11/14/2019	16:00	8		TCLP Metals	SW6020A	30	4°C
								TCLP Pesticides	SW8081B	30	4°C
								TCLP SVOCs	SW8270D	30	4°C
								TCLP VOCs	SW8260C	30	MeOH
								Total solids (APEX)	SM2540G	30	MeOH
012	PDI-145RAB-00-10-191114	N	SO	11/14/2019	9:15	7	X	Diesel Range Organics	SW8015D	30	4°C
								Total CN	D7511-12	30	4°C
								TOC	SM5310B	30	4°C
								Metals (QAPP 3)	SW6020A	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								SVOCs (PAHs,BEHP,Phenols)	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 4c)	SW8260C	30	
013	PDI-145RAB-10-20-191114	N	SO	11/14/2019	10:30	3		Diesel Range Organics	SW8015D	30	4°C
								Total CN	D7511-12	30	4°C
								TOC	SM5310B	30	4°C
								Metals (QAPP 3)	SW6020A	30	4°C

Comment:

Relinquished By: Signature / Print Name / Company / Date/Time — Received By: Signature / Print Name / Company / Date/Time

Relinquished By: Signature / Print Name / Company / Date/Time — Received By: Signature / Print Name / Company / Date/Time

Relinquished By: Signature / Print Name / Company / Date/Time — Received By: Signature / Print Name / Company / Date/Time

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

Date Printed: 11/19/2019

Page 4 of 5

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0609 - 12 27 19 1202**

APEX LABS COOLER RECEIPT FORM

Client: Anchor QEA Element WO#: A9K0609

Project/Project #: Gasco PDI

Delivery Info:

Date/time received: 11/19/19 @ 1535 By: EJ

Delivered by: Apex X Client ___ ESS ___ FedEx ___ UPS ___ Swift ___ Senvoy ___ SDS ___ Other ___

Cooler Inspection Date/time inspected: 11/19/19 @ 1616 By: EJ

Chain of Custody included? Yes X No ___ Custody seals? (Yes) X ~~No~~ ___

Signed/dated by client? Yes X No ___ (BC) 11/20/19

Signed/dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	1.2	1.4					
Received on ice? (Y/N)	Y	Y					
Temp. blanks? (Y/N)	Y	Y					
Ice type: (Gel/Real/Other)	real	real					
Condition:	good	good					

Cooler out of temp? (Y/(N)) Possible reason why: ___

If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No/(NA)

Out of temperature samples form initiated? Yes/No/(NA)

Samples Inspection: Date/time inspected: 11/20/19 @ 1022 By: (BC)

All samples intact? Yes X No ___ Comments: ___

Bottle labels/COCs agree? Yes X No ___ Comments: ___

COC/container discrepancies form initiated? Yes ___ No ___ NA X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: ___

Do VOA vials have visible headspace? Yes ___ No ___ NA X

Comments ___

Water samples: pH checked: Yes ___ No ___ NA X pH appropriate? Yes ___ No ___ NA X

Comments: ___

Additional information: ___

Labeled by: (BC) Witness: JS Cooler Inspected by: NP See Project Contact Form: Y

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Sample Receipt Documentation
(Work orders, Chain of Custody & Cooler Receipt Forms)

A9K0609

Apex Laboratories

Client: Anchor QEA, LLC
Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization
Project Manager: Darwin Thomas
Project Number: [none]

Report To:
Anchor QEA, LLC
Ryan Barth
6720 SW Macadam Ave. Suite 125
Portland, OR 97219
Phone: (503) 670-1108
Fax: na

Invoice To:
Anchor QEA, LLC Seattle
Accounts Payable
1201 3rd Avenue, Suite 2600
Seattle, WA 98101
Phone :(206) 287-9130
Fax: (206) 287-9131

Date Due: 12/05/19 17:00 (10 day TAT)
Received By: Eli S. Joyner
Date Received: 11/19/19 15:35
Logged In By: Susan L. Treat
Date Logged In: 11/20/19 10:59

Cooler #1 received at 1.2°C

Custody Seals	Yes	Containers Intact	Yes	COC/Labels Agree	Yes	PH Confirmed	No	Received On Ice	Yes
Temperature OK	Yes								

Cooler #2 received at 2.4°C

Custody Seals	Yes	Containers Intact	Yes	COC/Labels Agree	Yes	PH Confirmed	No	Received On Ice	Yes
Temperature OK	Yes								

A9K0609-01 PDI-138RAB-C-00-19.1-191118 [Soil] Sampled 11/18/19 13:15

(GMT-08:00) Pacific Time (US & Canada) 3 Containers

Analysis	Due	TAT	Expires	Comments
Metals				
Metals, TCLP 8	12/04/19 17:00	10	05/16/20 13:15	
TCLP Extraction - Metals	11/21/19 17:00	2	12/16/19 13:15	
TCLP Extraction - Organics	11/21/19 17:00	2	12/02/19 13:15	
Project Mgmt				
Data Package	01/20/20 17:00	10	02/25/20 13:15	
Sample Control				
Archive Samples - Frozen	11/20/19 17:00	1	11/19/19 13:15	3 months
Semivols (ECD)				
1311/8081B TCLP Pest Reg List	12/04/19 17:00	10	11/25/19 13:15	
Semivols (Scan)				
1311/8270D TCLP SVOC Reg List	12/04/19 17:00	10	11/25/19 13:15	
Volatiles				
1311/8260C TCLP/ZHE VOC Reg List	12/04/19 17:00	10	12/02/19 13:15	
TCLP/ZHE Extraction	12/03/19 17:00	2	12/02/19 13:15	
Wet Chem				
Solids, Total (SM 2540 G,B)	12/04/19 17:00	10	05/16/20 13:15	

A9K0609

Apex Laboratories

Client:	**Anchor QEA, LLC**	**Project Manager:**	**Darwin Thomas**
Project:	**Gasco PreRD_DG 2019 - 4c. Waste Characterization**	**Project Number:**	**[none]**

Analysis	Due	TAT	Expires	Comments
Analysis	**Due**	**TAT**	**Expires**	**Comments**

A9K0609-02 PDI-144RAB-C-00-29-191114 [Soil] Sampled 11/14/19 16:00
(GMT-08:00) Pacific Time (US & Canada) 3 Containers

Metals				
Metals, TCLP 8	12/04/19 17:00	10	05/12/20 16:00	
TCLP Extraction - Metals	11/21/19 17:00	2	12/12/19 16:00	
TCLP Extraction - Organics	11/21/19 17:00	2	11/28/19 16:00	
Sample Control				
Archive Samples - Frozen	11/20/19 17:00	1	11/15/19 16:00	3 months
Semivols (ECD)				
1311/8081B TCLP Pest Reg List	12/04/19 17:00	10	11/21/19 16:00	
Semivols (Scan)				
1311/8270D TCLP SVOC Reg List	12/04/19 17:00	10	11/21/19 16:00	
Volatiles				
1311/8260C TCLP/ZHE VOC Reg List	12/04/19 17:00	10	11/28/19 16:00	
TCLP/ZHE Extraction	12/03/19 17:00	2	11/28/19 16:00	
Wet Chem				
Solids, Total (SM 2540 G,B)	12/04/19 17:00	10	05/12/20 16:00	

Analysis groups included in this work order

Metals, TCLP 8

Ag (Silver) - 6020 - TCLP	As (Arsenic) - 6020 - TCLP	Ba (Barium) - 6020 - TCLP	Cd (Cadmium) - 6020 - TCLP
Cr (Chromium) - 6020 - TCLP	Hg (Mercury) - 6020 - TCLP	Pb (Lead) - 6020 - TCLP	Se (Selenium) - 6020 - TCLP

Reviewed By

Date

ANCHOR QEA
1201 3rd Avenue, Suite 2600, Seattle, WA 98101

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9K0609

POC: # Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC ID: APEX-20191119-144349
Sample Custodian: SN
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
005	PDI-138RAB-00-10-191118	N	SO	11/18/2019	11:40	3	☐				
								Total CN	D7511-12	30	4°C
								TOC	SM5310B	30	4°C
								Metals (QAPP 3)	SW6020A	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								SVOCs (PAHs,BEHP,Phenols)	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	
								VOCs (QAPP 4c)	SW8260C	30	
006	PDI-138RAB-10-19.1-191118	N	SO	11/18/2019	12:40	3	☐				
								Diesel Range Organics	SW8015D	30	4°C
								Total CN	D7511-12	30	4°C
								TOC	SM5310B	30	4°C
								Metals (QAPP 3)	SW6020A	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								SVOCs (PAHs,BEHP,Phenols)	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	
								VOCs (QAPP 4c)	SW8260C	30	
007	PDI-138RAB-C-00-19.1-191118	N	~~SE~~ SO	11/18/2019	13:15	~~3~~ 2	☐				
								TCLP Metals	SW6020A	30	4°C
								TCLP Pesticides	SW8081B	30	4°C
								TCLP SVOCs	SW8270D	30	MeOH
								TCLP VOCs	SW8260C	30	MeOH
								Total solids (APEX)	SM2540G	30	4°C
008	PDI-139RAB-00-10-191115	N	SO	11/15/2019	12:40	3	☐				

SN 19Nov19 SN 19Nov19

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Print Name: Sasha Norwood	Print Name: Eli Joyner	Print Name	Print Name	Print Name	Print Name
Company: Anchor QEA	Company: APEX LABS	Company	Company	Company	Company
Date/Time: 19Nov19 1506	Date/Time: 11/19/19 1535	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 11/19/2019

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ANCHOR QEA
1201 3rd Avenue, Suite 2600, Seattle, WA 98101

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9K0609

POC: # Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC ID: APEX-20191119-144349
Sample Custodian: SN
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
010	PDI-139RAB-20-25.5-191118	N	SO	11/18/2019	8:30	3	☐	SVOCs (PAHs,BEHP,Phenols)	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	
								VOCs (QAPP 4c)	SW8260C	30	
011	PDI-144RAB-C-00-29-191114	N	~~SE~~ SO	11/14/2019	16:00	~~3~~ 2	☐	TCLP Metals	SW6020A	30	4°C
								TCLP Pesticides	SW8081B	30	4°C
								TCLP SVOCs	SW8270D	30	MeOH
								TCLP VOCs	SW8260C	30	MeOH
								Total solids (APEX)	SM2540G	30	4°C
012	PDI-145RAB-00-10-191114	N	SO	11/14/2019	9:15	7	X	Diesel Range Organics	SW8015D	30	4°C
								Total CN	D7511-12	30	4°C
								TOC	SM5310B	30	4°C
								Metals (QAPP 3)	SW6020A	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								SVOCs (PAHs,BEHP,Phenols)	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	
								VOCs (QAPP 4c)	SW8260C	30	
013	PDI-145RAB-10-20-191114	N	SO	11/14/2019	10:30	3	☐	Diesel Range Organics	SW8015D	30	4°C
								Total CN	D7511-12	30	4°C
								TOC	SM5310B	30	4°C
								Metals (QAPP 3)	SW6020A	30	4°C

SN 19Nov19 SN 19Nov19

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Print Name Sasha Norwood	Print Name Eli Joyner	Print Name	Print Name	Print Name	Print Name
Company Anchor QEA	Company APEX LABS	Company	Company	Company	Company
Date/Time 19Nov19 1506	Date/Time 11/19/19 1535	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 11/19/2019

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

APEX LABS COOLER RECEIPT FORM

Client: Anchor QEA Element WO#: A9K0609

Project/Project #: Gasco PDI

Delivery Info:

Date/time received: 11/19/19 @ 1535 By: EJ

Delivered by: Apex X Client ___ ESS ___ FedEx ___ UPS ___ Swift ___ Senvoy ___ SDS ___ Other ___

Cooler Inspection Date/time inspected: 11/19/19 @ 1616 By: EJ

Chain of Custody included? Yes X No ___ Custody seals? (Yes) X ~~No~~ X

Signed/dated by client? Yes X No ___ (&) 11/20/19

Signed/dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	1.2	1.4					
Received on ice? (Y/N)	Y	Y					
Temp. blanks? (Y/N)	Y	Y					
Ice type: (Gel/Real/Other)	real	real					
Condition:	good	good					

Cooler out of temp? (Y/N) Possible reason why: ___

If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No/(NA)

Out of temperature samples form initiated? Yes/No/(NA)

Samples Inspection: Date/time inspected: 11/20/19 @ 1022 By: (&)

All samples intact? Yes X No ___ Comments: ___

Bottle labels/COCs agree? Yes X No ___ Comments: ___

COC/container discrepancies form initiated? Yes ___ No ___ NA X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: ___

Do VOA vials have visible headspace? Yes ___ No ___ NA X

Comments ___

Water samples: pH checked: Yes ___ No ___ NA X pH appropriate? Yes ___ No ___ NA X

Comments: ___

Additional information: ___

Labeled by: (&) Witness: 15 Cooler Inspected by: NP See Project Contact Form: Y

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

CLP-Like Forms

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GCMS

METHOD: 1311/8260C

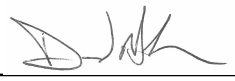
ANALYSES DATA PACKAGE COVER PAGE

1311/8260C

Laboratory: Apex Laboratories
SDG: Gasco PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-138RAB-C-00-19.1-191118	A9K0609-01	SO
PDI-144RAB-C-00-29-191114	A9K0609-02	SO

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 
Name: David G. Jack

Forms Created: 12/30/2019 11:36AM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

1311/8260C

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Water

Analyte	MDL	MRL	Units
Benzene	0.00625	0.0125	mg/L
2-Butanone (MEK)	0.250	0.500	mg/L
Carbon tetrachloride	0.0250	0.0500	mg/L
Chlorobenzene	0.0125	0.0250	mg/L
Chloroform	0.0250	0.0500	mg/L
1,4-Dichlorobenzene	0.0125	0.0250	mg/L
1,2-Dichloroethane (EDC)	0.0125	0.0250	mg/L
1,1-Dichloroethene	0.0125	0.0250	mg/L
Tetrachloroethene (PCE)	0.0125	0.0250	mg/L
Trichloroethene (TCE)	0.0125	0.0250	mg/L
Vinyl chloride	0.0125	0.0250	mg/L

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

ORGANIC ANALYSIS DATA SHEET

1311/8260C

PDI-138RAB-C-00-19.1-191118

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	SO	Laboratory ID:	A9K0609-01	File ID:	VI19120308.D
Sampled:	11/18/19 13:15	Prepared:	12/03/19 10:37	Analyzed:	12/03/19 11:00
		Preparation:	EPA 1311/5030B TCLP Vola	Initial/Final:	5 mL / 5 mL

Batch: 9120412 Sequence: 9L03025 Calibration: A9J2503 Instrument: VOA-GCMS9

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
71-43-2	Benzene	50	0.00625	U
78-93-3	2-Butanone (MEK)	50	0.250	U
56-23-5	Carbon tetrachloride	50	0.0250	U
108-90-7	Chlorobenzene	50	0.0125	U
67-66-3	Chloroform	50	0.0250	U
106-46-7	1,4-Dichlorobenzene	50	0.0125	U
107-06-2	1,2-Dichloroethane (EDC)	50	0.0125	U
75-35-4	1,1-Dichloroethene	50	0.0125	U
127-18-4	Tetrachloroethene (PCE)	50	0.0125	U
79-01-6	Trichloroethene (TCE)	50	0.0125	U
75-01-4	Vinyl chloride	50	0.0125	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	56.2	112	80 - 120	
Toluene-d8 (Surr)	50.0	50.4	101	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	51.0	102	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	126370	6.223	133707	6.217	
Chlorobenzene-d5 (ISTD)	371251	9.916	396617	9.916	
1,4-Dichlorobenzene-d4 (ISTD)	167558	11.856	198660	11.856	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

1311/8260C

PDI-144RAB-C-00-29-191114

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	SO	Laboratory ID:	A9K0609-02	File ID:	VI19120309.D
Sampled:	11/14/19 16:00	Prepared:	12/03/19 10:37	Analyzed:	12/03/19 11:26
		Preparation:	EPA 1311/5030B TCLP Vola	Initial/Final:	5 mL / 5 mL

Batch: 9120412 Sequence: 9L03025 Calibration: A9J2503 Instrument: VOA-GCMS9

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
71-43-2	Benzene	50	0.00625	U
78-93-3	2-Butanone (MEK)	50	0.250	U
56-23-5	Carbon tetrachloride	50	0.0250	U
108-90-7	Chlorobenzene	50	0.0125	U
67-66-3	Chloroform	50	0.0250	U
106-46-7	1,4-Dichlorobenzene	50	0.0125	U
107-06-2	1,2-Dichloroethane (EDC)	50	0.0125	U
75-35-4	1,1-Dichloroethene	50	0.0125	U
127-18-4	Tetrachloroethene (PCE)	50	0.0125	U
79-01-6	Trichloroethene (TCE)	50	0.0125	U
75-01-4	Vinyl chloride	50	0.0125	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	56.0	112	80 - 120	
Toluene-d8 (Surr)	50.0	50.5	101	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	50.4	101	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	119477	6.217	133707	6.217	
Chlorobenzene-d5 (ISTD)	344796	9.916	396617	9.916	
1,4-Dichlorobenzene-d4 (ISTD)	154568	11.856	198660	11.856	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

1311/8260C

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9120412 Batch Matrix: Water
Preparation: EPA 1311/5030B TCLP Volatiles

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9120412-BLK1	VI19120305.D	12/03/19 07:32	
LCS	9120412-BS1	VI19120304.D	12/03/19 07:32	
PDI-138RAB-C-00-19.1-191118	A9K0609-01	VI19120308.D	12/03/19 10:37	
PDI-144RAB-C-00-29-191114	A9K0609-02	VI19120309.D	12/03/19 10:37	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

METHOD BLANK DATA SHEET
1311/8260C

Laboratory:	Apex Laboratories			SDG:	Gasco PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Water	Laboratory ID:	9120412-BLK1	File ID:	VI19120305.D
Prepared:	12/03/19 07:32	Preparation:	EPA 1311/5030B TCLP Vola	Initial/Final:	5 mL / 5 mL
Analyzed:	12/03/19 09:39	Instrument:	VOA-GCMS9		
Batch:	9120412	Sequence:	9L03025	Calibration:	A9J2503

CAS NO.	COMPOUND	CONC. (mg/L)	Q
71-43-2	Benzene	0.00625	U
78-93-3	2-Butanone (MEK)	0.250	U
56-23-5	Carbon tetrachloride	0.0250	U
108-90-7	Chlorobenzene	0.0125	U
67-66-3	Chloroform	0.0250	U
106-46-7	1,4-Dichlorobenzene	0.0125	U
107-06-2	1,2-Dichloroethane (EDC)	0.0125	U
75-35-4	1,1-Dichloroethene	0.0125	U
127-18-4	Tetrachloroethene (PCE)	0.0125	U
79-01-6	Trichloroethene (TCE)	0.0125	U
75-01-4	Vinyl chloride	0.0125	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	55.7	111	80 - 120	
Toluene-d8 (Surr)	50.0	49.7	99	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	50.6	101	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	132073	6.217	133707	6.217	
Chlorobenzene-d5 (ISTD)	381817	9.916	396617	9.916	
1,4-Dichlorobenzene-d4 (ISTD)	170115	11.856	198660	11.856	

LCS / LCS DUPLICATE RECOVERY

1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Water		
Batch:	9120412	Laboratory ID:	9120412-BS1
Preparation:	EPA 1311/5030B TCLP Volatiles	Initial/Final:	5 mL / 5 mL

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC. (*=Out)	QC LIMITS REC.
Benzene	1.00	1.08	108	80 - 120
2-Butanone (MEK)	2.00	1.85	92	80 - 120
Carbon tetrachloride	1.00	1.25	125 *	80 - 120
Chlorobenzene	1.00	1.05	105	80 - 120
Chloroform	1.00	1.10	110	80 - 120
1,4-Dichlorobenzene	1.00	1.02	102	80 - 120
1,2-Dichloroethane (EDC)	1.00	0.948	95	80 - 120
1,1-Dichloroethene	1.00	1.04	104	80 - 120
Tetrachloroethene (PCE)	1.00	1.13	113	80 - 120
Trichloroethene (TCE)	1.00	1.21	121 *	80 - 120
Vinyl chloride	1.00	1.12	112	80 - 120

* = Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J24043	Instrument:	VOA-GCMS9
Matrix:	Water	Calibration:	A9J2503

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J24043-TUN1	VI19102415.D	10/24/19 15:01
Initial Cal Blank	9J24043-ICB1	VI19102416.D	10/24/19 15:28
Cal Standard	9J24043-CAL1	VI19102417.D	10/24/19 15:55
Cal Standard	9J24043-CAL2	VI19102418.D	10/24/19 16:21
Cal Standard	9J24043-CAL3	VI19102419.D	10/24/19 16:48
Cal Standard	9J24043-CAL4	VI19102420.D	10/24/19 17:15
Cal Standard	9J24043-CAL5	VI19102421.D	10/24/19 17:42
Cal Standard	9J24043-CAL6	VI19102422.D	10/24/19 18:09
Cal Standard	9J24043-CAL7	VI19102423.D	10/24/19 18:36
Cal Standard	9J24043-CAL8	VI19102424.D	10/24/19 19:03
Cal Standard	9J24043-CAL9	VI19102425.D	10/24/19 19:30
Cal Standard	9J24043-CALA	VI19102427.D	10/24/19 20:24
Cal Standard	9J24043-CALB	VI19102429.D	10/24/19 21:17
Initial Cal Check	9J24043-ICV1	VI19102432.D	10/24/19 22:38

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9L03025	Instrument:	VOA-GCMS9
Matrix:	Water	Calibration:	A9J2503

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9L03025-TUN1	VI19120303.D	12/03/19 08:45
Calibration Check	9L03025-CCV1	VI19120304.D	12/03/19 09:12
Blank	9120412-BLK1	VI19120305.D	12/03/19 09:39
PDI-138RAB-C-00-19.1-191118	A9K0609-01	VI19120308.D	12/03/19 11:00
PDI-144RAB-C-00-29-191114	A9K0609-02	VI19120309.D	12/03/19 11:26

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	VI19102415.D	Injection Date:	10/24/19
Instrument ID:	VOA-GCMS9	Injection Time:	15:01
Sequence:	9J24043	Lab Sample ID:	9J24043-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 95	50 - 200% of m/z 174	117.89	PASS
m/z 96	5 - 9% of m/z 95	6.78	PASS
m/z 173	Less than 2% of m/z 174	0.39	PASS
m/z 174	50 - 200% of m/z 95	84.82	PASS
m/z 175	5 - 9% of m/z 174	7.17	PASS
m/z 176	95 - 105% of m/z 174	96.98	PASS
m/z 177	5 - 10% of m/z 176	6.50	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	VI19120303.D	Injection Date:	12/03/19
Instrument ID:	VOA-GCMS9	Injection Time:	08:45
Sequence:	9L03025	Lab Sample ID:	9L03025-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 95	50 - 200% of m/z 174	113.54	PASS
m/z 96	5 - 9% of m/z 95	6.71	PASS
m/z 173	Less than 2% of m/z 174	0.40	PASS
m/z 174	50 - 200% of m/z 95	88.08	PASS
m/z 175	5 - 9% of m/z 174	7.19	PASS
m/z 176	95 - 105% of m/z 174	95.62	PASS
m/z 177	5 - 10% of m/z 176	6.74	PASS

INITIAL CALIBRATION DATA (Summary)

1311/8260C

Laboratory: Apex Laboratories SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatic

Calibration: A9J2503 Date: 10/25/19 11:16 Instrument: VOA-GCMS9

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Benzene	3.820688	Ave	4.855288	6.122454	7.160173E-02				***
2-Butanone (MEK)	0.6946318	Ave	5.120943	5.8565	0.1061664				***
Carbon tetrachloride	0.958096	Ave	12.51546	5.66	5.110175E-02				***
Chlorobenzene	0.9385267	Ave	6.79626	9.928546	1.897513E-02				***
Chloroform	1.575216	Ave	8.981403	5.5286	0.067176				
1,4-Dichlorobenzene	1.407811	Ave	7.702776	10.78391	33.16626				***
1,2-Dichloroethane (EDC)	1.251571	Ave	4.756875	6.338556	5.089469E-02				***
1,1-Dichloroethene	1.185277	Ave	4.829149	3.232	0.1325109				
Tetrachloroethene (PCE)	0.3422483	Ave	13.47971	8.7972	4.042701E-02				***
Trichloroethene (TCE)	0.9844716	Ave	10.55293	6.743	6.329732E-02				***
Vinyl chloride	1.085853	Ave	7.669228	1.9992	0.2472262				***
1,4-Difluorobenzene (Surr)	3.158849	Ave	0.8371646	6.780727	4.460955E-02				***
Toluene-d8 (Surr)	1.312366	Ave	1.829616	8.297273	1.899629E-02				***
4-Bromofluorobenzene (Surr)	0.8078842	Ave	3.581628	10.974	1.572481E-02				***

Note: ** Quad COD may be incorrect if weighting (1/a) or (1/a2) used. Weighting not shown here. Please see instrument calibration printouts for validation.

INITIAL CALIBRATION DATA

1311/8260C

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9J2503

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: VOA-GCMS9

Calibration Date: 10/25/19 11:16

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Benzene	0.1	3.949114	0.2	3.449838	0.4	3.773943	1	3.582293	2	4.047071	5	3.909918
2-Butanone (MEK)	0.2	~~0~~	0.4	~~0~~	0.8	~~0~~	2	0.6247684	4	0.7043731	10	0.704351
Carbon tetrachloride	0.1	~~0~~	0.2	~~0~~	0.4	~~0.6898245~~	1	0.7716967	2	0.9028342	5	0.8969462
Chlorobenzene	0.1	0.7802924	0.2	0.8622852	0.4	0.9452326	1	0.9282586	2	0.9824385	5	0.9841268
Chloroform	0.1	~~0~~	0.2	1.278444	0.4	1.442157	1	1.439553	2	1.642071	5	1.638231
1,4-Dichlorobenzene	0.1	1.113251	0.2	1.342384	0.4	1.453521	1	1.450559	2	1.531358	5	1.43969
1,2-Dichloroethane (EDC)	0.1	~~0~~	0.2	~~0~~	0.4	1.197705	1	1.130185	2	1.292084	5	1.293487
1,1-Dichloroethene	0.1	~~0~~	0.2	~~0~~	0.4	1.158637	1	1.066846	2	1.187607	5	1.199982
Tetrachloroethene (PCE)	0.1	~~0~~	0.2	0.2203159	0.4	0.334186	1	0.3207882	2	0.363807	5	0.361185
Trichloroethene (TCE)	0.1	~~0~~	0.2	0.8101892	0.4	0.8014466	1	0.9332747	2	1.032584	5	1.02153
Vinyl chloride	0.1	~~0~~	0.2	0.8842388	0.4	1.079386	1	1.012987	2	1.13503	5	1.139807
1,4-Difluorobenzene (Surr)	50	3.139024	50	3.131529	50	3.145975	50	3.159536	50	3.133965	50	3.188163
Toluene-d8 (Surr)	50	1.320931	50	1.332765	50	1.345328	50	1.320856	50	1.326656	50	1.321953
4-Bromofluorobenzene (Surr)	50	0.831108	50	0.83824	50	0.8349678	50	0.8234743	50	0.8250562	50	0.8153522

INITIAL CALIBRATION DATA (Continued)

1311/8260C

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration: A9J2503
Instrument: VOA-GCMS9
Matrix:
Calibration Date: 10/25/19 11:16

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Benzene	10	3.713991	20	3.910312	50	3.758481	100	4.021864	200	3.910748		
2-Butanone (MEK)	20	0.6623274	40	0.7169769	100	0.7014442	200	0.7409522	400	0.7018611		
Carbon tetrachloride	10	0.8859942	20	0.9772165	50	0.9911705	100	1.10568	200	1.13323		
Chlorobenzene	10	0.964716	20	0.9849134	50	0.9397401	100	0.9805969	200	0.9711928		
Chloroform	10	1.606991	20	1.695617	50	1.617019	100	1.719147	200	1.672928		
1,4-Dichlorobenzene	10	1.4332	20	1.477561	50	1.40642	100	1.43615	200	1.401823		
1,2-Dichloroethane (EDC)	10	1.230146	20	1.306225	50	1.244865	100	1.313294	200	1.256151		
1,1-Dichloroethene	10	1.158212	20	1.202649	50	1.192087	100	1.279045	200	1.222424		
Tetrachloroethene (PCE)	10	0.3532076	20	0.3701403	50	0.3520966	100	0.3717106	200	0.3750457		
Trichloroethene (TCE)	10	0.9969135	20	1.053302	50	1.025866	100	1.095246	200	1.074364		
Vinyl chloride	10	1.069187	20	1.110172	50	1.15024	100	1.154176	200	1.123309		
1,4-Difluorobenzene (Surr)	50	3.124014	50	3.1575	50	3.200969	50	3.186536	50	3.180128		
Toluene-d8 (Surr)	50	1.327143	50	1.301918	50	1.292388	50	1.274013	50	1.27207		
4-Bromofluorobenzene (Surr)	50	0.8117213	50	0.7980421	50	0.7955945	50	0.7620051	50	0.7511646		

SECOND-SOURCE CALIBRATION VERIFICATION

1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	VOA-GCMS9	Calibration:	A9J2503
Lab File ID:	VI19102432.D		
Sequence:	9J24043	Inject Date:	10/24/19
Lab Sample ID:	9J24043-ICV1	Inject Time:	22:38

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Benzene	20.0	19.7	-1.6	70 - 130
2-Butanone (MEK)	40.0	37.9	-5.3	70 - 130
Carbon tetrachloride	20.0	20.7	3.5	70 - 130
Chlorobenzene	20.0	20.6	3.0	70 - 130
Chloroform	20.0	20.9	4.3	70 - 130
1,4-Dichlorobenzene	20.0	20.5	2.4	70 - 130
1,2-Dichloroethane (EDC)	20.0	20.2	0.8	70 - 130
1,1-Dichloroethene	20.0	19.7	-1.4	70 - 130
Tetrachloroethene (PCE)	20.0	20.9	4.4	70 - 130
Trichloroethene (TCE)	20.0	21.2	6.2	70 - 130
Vinyl chloride	20.0	22.1	10.6	70 - 130

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J24043	Instrument:	VOA-GCMS9
Matrix:	Water	Calibration:	A9J2503

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9J24043-ICV1)				Lab File ID: VI19102432.D		Analyzed: 10/24/19 22:38		
1,4-Difluorobenzene (Surr)	50.0	101	70 - 130	6.782	6.780727	0.0013	+/-1.0	
Toluene-d8 (Surr)	50.0	99	70 - 130	8.297	8.297273	-0.0003	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	99	70 - 130	10.974	10.974	0.0000	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9L03025	Instrument:	VOA-GCMS9
Matrix:	Water	Calibration:	A9J2503

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
LCS (9120412-BS1)			Lab File ID: VI19120304.D		Analyzed: 12/03/19 09:12			
1,4-Difluorobenzene (Surr)	50.0	110	80 - 120	6.783	6.780727	0.0023	+/-1.0	
Toluene-d8 (Surr)	50.0	99	80 - 120	8.298	8.297273	0.0007	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	97	80 - 120	10.974	10.974	0.0000	+/-1.0	
Blank (9120412-BLK1)			Lab File ID: VI19120305.D		Analyzed: 12/03/19 09:39			
1,4-Difluorobenzene (Surr)	50.0	111	80 - 120	6.783	6.780727	0.0023	+/-1.0	
Toluene-d8 (Surr)	50.0	99	80 - 120	8.297	8.297273	-0.0003	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	101	80 - 120	10.974	10.974	0.0000	+/-1.0	
PDI-138RAB-C-00-19.1-191118 (A9K0609-01)			Lab File ID: VI19120308.D		Analyzed: 12/03/19 11:00			
1,4-Difluorobenzene (Surr)	50.0	112	80 - 120	6.783	6.780727	0.0023	+/-1.0	
Toluene-d8 (Surr)	50.0	101	80 - 120	8.303	8.297273	0.0057	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	102	80 - 120	10.974	10.974	0.0000	+/-1.0	
PDI-144RAB-C-00-29-191114 (A9K0609-02)			Lab File ID: VI19120309.D		Analyzed: 12/03/19 11:26			
1,4-Difluorobenzene (Surr)	50.0	112	80 - 120	6.783	6.780727	0.0023	+/-1.0	
Toluene-d8 (Surr)	50.0	101	80 - 120	8.297	8.297273	-0.0003	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	101	80 - 120	10.974	10.974	0.0000	+/-1.0	

INTERNAL STANDARD AREA AND RT SUMMARY
1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9L03025	Instrument:	VOA-GCMS9
Matrix:	Water	Calibration:	A9J2503

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (9120412-BS1)			Lab File ID: VI19120304.D			Analyzed: 12/03/19 09:12			
Pentafluorobenzene (ISTD)	133707	6.217	133707	6.217	100	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	396617	9.916	396617	9.916	100	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	198660	11.856	198660	11.856	100	50 - 200	0.0000	+/-0.50	
Calibration Check (9L03025-CCV1)			Lab File ID: VI19120304.D			Analyzed: 12/03/19 09:12			
Pentafluorobenzene (ISTD)	133707	6.217	112406	6.211	119	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	396617	9.916	307093	9.91	129	50 - 200	0.0060	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	198660	11.856	151591	11.85	131	50 - 200	0.0060	+/-0.50	
Blank (9120412-BLK1)			Lab File ID: VI19120305.D			Analyzed: 12/03/19 09:39			
Pentafluorobenzene (ISTD)	132073	6.217	133707	6.217	99	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	381817	9.916	396617	9.916	96	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	170115	11.856	198660	11.856	86	50 - 200	0.0000	+/-0.50	
PDI-138RAB-C-00-19.1-191118 (A9K0609-01)			Lab File ID: VI19120308.D			Analyzed: 12/03/19 11:00			
Pentafluorobenzene (ISTD)	126370	6.223	133707	6.217	95	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	371251	9.916	396617	9.916	94	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	167558	11.856	198660	11.856	84	50 - 200	0.0000	+/-0.50	
PDI-144RAB-C-00-29-191114 (A9K0609-02)			Lab File ID: VI19120309.D			Analyzed: 12/03/19 11:26			
Pentafluorobenzene (ISTD)	119477	6.217	133707	6.217	89	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	344796	9.916	396617	9.916	87	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	154568	11.856	198660	11.856	78	50 - 200	0.0000	+/-0.50	
Duplicate (9120412-DUP1)			Lab File ID: VI19120311.D			Analyzed: 12/03/19 12:20			
Pentafluorobenzene (ISTD)	127420	6.223	133707	6.217	95	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	371899	9.916	396617	9.916	94	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	174702	11.856	198660	11.856	88	50 - 200	0.0000	+/-0.50	
Matrix Spike (9120412-MS1)			Lab File ID: VI19120313.D			Analyzed: 12/03/19 13:14			
Pentafluorobenzene (ISTD)	132567	6.223	133707	6.217	99	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	394221	9.916	396617	9.916	99	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	194999	11.856	198660	11.856	98	50 - 200	0.0000	+/-0.50	

HOLDING TIME SUMMARY

1311/8260C

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatior

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-138RAB-C-00-19.1-191118	11/18/19 13:15	11/19/19 15:35	12/03/19 10:37	14.89	14.00	12/03/19 11:00	14.91	14.00	*
PDI-144RAB-C-00-29-191114	11/14/19 16:00	11/19/19 15:35	12/03/19 10:37	18.78	14.00	12/03/19 11:26	18.81	14.00	*

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GC

METHOD: 1311/8081B

ANALYSES DATA PACKAGE COVER PAGE

1311/8081B

Laboratory: Apex Laboratories
SDG: Gasco PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-138RAB-C-00-19.1-191118	A9K0609-01	SO
PDI-144RAB-C-00-29-191114	A9K0609-02	SO

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 
Name: David G. Jack

Forms Created: 12/30/2019 11:36AM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

1311/8081B

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Soil

Analyte	MDL	MRL	Units
gamma-BHC (Lindane) [2C]	0.0000750	0.000150	mg/L
Endrin [2C]	0.0000750	0.000150	mg/L
Heptachlor [2C]	0.0000750	0.000150	mg/L
Heptachlor epoxide [2C]	0.0000750	0.000150	mg/L
Methoxychlor [2C]	0.000200	0.000400	mg/L
Chlordane (Technical) [2C]	0.000940	0.00188	mg/L
Toxaphene (Total) [2C]	0.00250	0.00500	mg/L

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

ORGANIC ANALYSIS DATA SHEET

1311/8081B

PDI-138RAB-C-00-19.1-191118

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	SO	Laboratory ID:	A9K0609-01	File ID:	ECD5-12051923.D
Sampled:	11/18/19 13:15	Prepared:	12/04/19 15:00	Analyzed:	12/05/19 17:33
		Preparation:	EPA 1311/3510C (Neutral E	Initial/Final:	200 mL / 5 mL

Batch: 9120522 Sequence: 9L05032 Calibration: A9H2608 Instrument: DUALECD5

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
58-89-9	gamma-BHC (Lindane) [2C]	1	0.0000750	U
72-20-8	Endrin [2C]	1	0.0000750	U
76-44-8	Heptachlor [2C]	1	0.0000750	U
1024-57-3	Heptachlor epoxide [2C]	1	0.0000750	U
72-43-5	Methoxychlor [2C]	1	0.000200	U
12789-03-6	Chlordane (Technical) [2C]	1	0.000940	U
8001-35-2	Toxaphene (Total) [2C]	1	0.00250	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	0.00250	0.00203	81	25 - 140	
Decachlorobiphenyl (Surr) [2C]	0.00250	0.00214	86	30 - 135	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

1311/8081B

PDI-144RAB-C-00-29-191114

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	SO	Laboratory ID:	A9K0609-02	File ID:	ECD5-12051924.D
Sampled:	11/14/19 16:00	Prepared:	12/04/19 15:00	Analyzed:	12/05/19 17:50
		Preparation:	EPA 1311/3510C (Neutral E	Initial/Final:	200 mL / 5 mL

Batch: 9120522 Sequence: 9L05032 Calibration: A9H2608 Instrument: DUALECD5

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
58-89-9	gamma-BHC (Lindane) [2C]	1	0.0000750	U
72-20-8	Endrin [2C]	1	0.0000750	U
76-44-8	Heptachlor [2C]	1	0.0000750	U
1024-57-3	Heptachlor epoxide [2C]	1	0.0000750	U
72-43-5	Methoxychlor [2C]	1	0.000200	U
12789-03-6	Chlordane (Technical) [2C]	1	0.000940	U
8001-35-2	Toxaphene (Total) [2C]	1	0.00250	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	0.00250	0.00198	79	25 - 140	
Decachlorobiphenyl (Surr) [2C]	0.00250	0.00208	83	30 - 135	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

1311/8081B

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9120522 Batch Matrix: Soil
Preparation: EPA 1311/3510C (Neutral Ext.)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9120522-BLK1	ECD5-12051920.D	12/04/19 15:00	
LCS	9120522-BS1	ECD5-12051921.D	12/04/19 15:00	
LCS Dup	9120522-BSD1	ECD5-12051922.D	12/04/19 15:00	
PDI-138RAB-C-00-19.1-191118	A9K0609-01	ECD5-12051923.D	12/04/19 15:00	
PDI-144RAB-C-00-29-191114	A9K0609-02	ECD5-12051924.D	12/04/19 15:00	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

METHOD BLANK DATA SHEET
1311/8081B

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil	Laboratory ID:	9120522-BLK1	File ID:	ECD5-12051920.D
Prepared:	12/04/19 15:00	Preparation:	EPA 1311/3510C (Neutral E	Initial/Final:	200 mL / 5 mL
Analyzed:	12/05/19 16:41	Instrument:	DUALECD5		
Batch:	9120522	Sequence:	9L05032	Calibration:	A9H2608

CAS NO.	COMPOUND	CONC. (mg/L)	Q
58-89-9	gamma-BHC (Lindane) [2C]	0.0000750	U
72-20-8	Endrin [2C]	0.0000750	U
76-44-8	Heptachlor [2C]	0.0000750	U
1024-57-3	Heptachlor epoxide [2C]	0.0000750	U
72-43-5	Methoxychlor [2C]	0.000200	U
12789-03-6	Chlordane (Technical) [2C]	0.000940	U
8001-35-2	Toxaphene (Total) [2C]	0.00250	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	0.00250	0.00201	80	25 - 140	
Decachlorobiphenyl (Surr) [2C]	0.00250	0.00219	87	30 - 135	

LCS / LCS DUPLICATE RECOVERY

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil		
Batch:	9120522	Laboratory ID:	9120522-BS1
Preparation:	EPA 1311/3510C (Neutral Ext.)	Initial/Final:	200 mL / 5 mL

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC. (*=Out)	QC LIMITS REC.
gamma-BHC (Lindane) [2C]	0.00250	0.00215	86	59 - 134
Endrin [2C]	0.00250	0.00239	96	60 - 138
Heptachlor [2C]	0.00250	0.00202	81	54 - 130
Heptachlor epoxide [2C]	0.00250	0.00204	82	61 - 133
Methoxychlor [2C]	0.00250	0.00245	98	54 - 144

* = Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil		
Batch:	9120522	Laboratory ID:	9120522-BSD1
Preparation:	EPA 1311/3510C (Neutral Ext.)	Initial/Final:	200 mL / 5 mL

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS
gamma-BHC (Lindane) [2C]	0.00250	0.00224	89	4	30	59 - 134
Endrin [2C]	0.00250	0.00257	103	7	30	60 - 138
Heptachlor [2C]	0.00250	0.00216	87	7	30	54 - 130
Heptachlor epoxide [2C]	0.00250	0.00217	87	6	30	61 - 133
Methoxychlor [2C]	0.00250	0.00246	99	0.7	30	54 - 144

* = Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9H23034	Instrument:	DUALECD5
Matrix:	Soil	Calibration:	A9H2608

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Blank	9H23034-ICB1	ECD5-08231907.D	08/23/19 13:33
Cal Standard	9H23034-CAL1	ECD5-08231908.D	08/23/19 13:51
Cal Standard	9H23034-CAL2	ECD5-08231909.D	08/23/19 14:08
Cal Standard	9H23034-CAL3	ECD5-08231910.D	08/23/19 14:25
Cal Standard	9H23034-CAL4	ECD5-08231911.D	08/23/19 14:42
Cal Standard	9H23034-CAL5	ECD5-08231912.D	08/23/19 15:00
Cal Standard	9H23034-CAL6	ECD5-08231913.D	08/23/19 15:17
Cal Standard	9H23034-CAL7	ECD5-08231914.D	08/23/19 15:34
Cal Standard	9H23034-CAL8	ECD5-08231915.D	08/23/19 15:52
Initial Cal Check	9H23034-ICV1	ECD5-08231917.D	08/23/19 16:26
Cal Standard	9H23034-CALH	ECD5-08231928.D	08/23/19 19:36
Cal Standard	9H23034-CALI	ECD5-08231929.D	08/23/19 19:54
Cal Standard	9H23034-CALJ	ECD5-08231930.D	08/23/19 20:11
Cal Standard	9H23034-CALK	ECD5-08231931.D	08/23/19 20:28
Cal Standard	9H23034-CALL	ECD5-08231932.D	08/23/19 20:45
Cal Standard	9H23034-CALM	ECD5-08231933.D	08/23/19 21:02
Initial Cal Check	9H23034-ICV3	ECD5-08231935.D	08/23/19 21:37
Cal Standard	9H23034-CALN	ECD5-08231936.D	08/23/19 21:54
Cal Standard	9H23034-CALO	ECD5-08231937.D	08/23/19 22:11
Cal Standard	9H23034-CALP	ECD5-08231938.D	08/23/19 22:28
Cal Standard	9H23034-CALQ	ECD5-08231939.D	08/23/19 22:45
Cal Standard	9H23034-CALR	ECD5-08231940.D	08/23/19 23:03
Cal Standard	9H23034-CALS	ECD5-08231941.D	08/23/19 23:20
Initial Cal Check	9H23034-ICV4	ECD5-08231943.D	08/23/19 23:54

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9L05032	Instrument:	DUALECD5
Matrix:	Soil	Calibration:	A9H2608

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	9L05032-CCV2	ECD5-12051918.D	12/05/19 16:06
Calibration Blank	9L05032-CCB2	ECD5-12051919.D	12/05/19 16:24
Blank	9120522-BLK1	ECD5-12051920.D	12/05/19 16:41
LCS	9120522-BS1	ECD5-12051921.D	12/05/19 16:58
LCS Dup	9120522-BSD1	ECD5-12051922.D	12/05/19 17:16
PDI-138RAB-C-00-19.1-191118	A9K0609-01	ECD5-12051923.D	12/05/19 17:33
PDI-144RAB-C-00-29-191114	A9K0609-02	ECD5-12051924.D	12/05/19 17:50
Calibration Check	9L05032-CCV3	ECD5-12051927.D	12/05/19 18:42
Calibration Blank	9L05032-CCB3	ECD5-12051928.D	12/05/19 18:59

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

INITIAL CALIBRATION DATA

1311/8081B

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9H2608

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: DUALECD5

Calibration Date: 08/26/19 15:54

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
gamma-BHC (Lindane)	1	207427	2	203013.5	5	204144.8	10	203485.9	25	195026.3	50	195720
gamma-BHC (Lindane) [2C]	1	352286	2	345461	5	348535.4	10	347673.3	25	340335.4	50	347621.4
Endrin	1	156412	2	149257.5	5	147790.6	10	147550.8	25	140356.2	50	139591.4
Endrin [2C]	1	222882	2	212444.5	5	218575.4	10	224448.3	25	213035.3	50	220307.6
Heptachlor	1	192066	2	184807.5	5	179818.2	10	181962.1	25	172572.2	50	174703.2
Heptachlor [2C]	1	309811	2	293382.5	5	301643.6	10	300591.5	25	291291.3	50	291902.8
Heptachlor epoxide	1	200503	2	196026	5	184724	10	186542.8	25	173771.4	50	177386
Heptachlor epoxide [2C]	1	310098	2	303120	5	291188.2	10	295930.1	25	282589.2	50	296755.8
Methoxychlor	1	59659	2	55733	5	54077.6	10	56170.6	25	55611.32	50	57213.66
Methoxychlor [2C]	1	95155	2	89037	5	82760.4	10	88306.9	25	86666.36	50	86923.98
2,4,5,6-TCMX (Surr)	1	176748	2	174986	5	166841.2	10	164444.7	25	160633.3	50	161429.6
2,4,5,6-TCMX (Surr) [2C]	1	300053	2	300383	5	287575.2	10	286585.4	25	282916.9	50	283935
Decachlorobiphenyl (Surr)	1	163865	2	154952	5	140210	10	133546.8	25	133705.4	50	133579.8
Decachlorobiphenyl (Surr) [2C]	1	191572	2	195003	5	174184.2	10	167872.8	25	166529.2	50	174613.8

INITIAL CALIBRATION DATA (Continued)

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration:	A9H2608	Instrument:	DUALECD5
Matrix:		Calibration Date:	08/26/19 15:54

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
gamma-BHC (Lindane)	100	195950.9	200	209448.6								
gamma-BHC (Lindane) [2C]	100	367889.9	200	403828.4								
Endrin	100	138127.1	200	157131.5								
Endrin [2C]	100	231024.1	200	263897.9								
Heptachlor	100	175515.3	200	188928.5								
Heptachlor [2C]	100	302778.2	200	356415.9								
Heptachlor epoxide	100	173184.4	200	181290.8								
Heptachlor epoxide [2C]	100	300455.1	200	326650.4								
Methoxychlor	100	58773.29	200	71355.7								
Methoxychlor [2C]	100	94449.87	200	118570.5								
2,4,5,6-TCMX (Surr)	100	158509.2	200	164212.7								
2,4,5,6-TCMX (Surr) [2C]	100	292563.3	200	312922.3								
Decachlorobiphenyl (Surr)	100	134054	200	134876.2								
Decachlorobiphenyl (Surr) [2C]	100	177840.7	200	190488.9								

INITIAL CALIBRATION DATA (Continued)

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration:	A9H2608	Instrument:	DUALECD5
Matrix:		Calibration Date:	08/26/19 15:54

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Chlordane 1 (g)									50	20182.86	100	19788.97
Chlordane 2									50	25733.1	100	25195.2
Chlordane 3 (a)									50	5761.74	100	5481.96
Chlordane (Technical)									50	~~107.3~~	100	~~49.38~~
Chlordane 1 (g) [2C]									50	35094.14	100	33783.88
Chlordane 2 (a) [2C]									50	29448	100	29059.41
Chlordane 3 [2C]									50	8780.4	100	8744.65
Chlordane (Technical) [2C]									50	~~0~~	100	~~0~~

SECOND-SOURCE CALIBRATION VERIFICATION

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-08231917.D		
Sequence:	9H23034	Inject Date:	08/23/19
Lab Sample ID:	9H23034-ICV1	Inject Time:	16:26

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
gamma-BHC (Lindane)	50.0	51.4	2.8	70 - 130
gamma-BHC (Lindane) [2C]	50.0	52.7	5.5	70 - 130
Endrin	50.0	52.7	5.4	70 - 130
Endrin [2C]	50.0	53.1	6.3	70 - 130
Heptachlor	50.0	51.2	2.4	70 - 130
Heptachlor [2C]	50.0	52.3	4.6	70 - 130
Heptachlor epoxide	50.0	50.1	0.1	70 - 130
Heptachlor epoxide [2C]	50.0	51.4	2.7	70 - 130
Methoxychlor	50.0	55.4	10.7	70 - 130
Methoxychlor [2C]	50.0	56.3	12.5	70 - 130
2,4,5,6-TCMX (Surr)	50.0	49.5	-1.1	70 - 130
2,4,5,6-TCMX (Surr) [2C]	50.0	49.3	-1.4	70 - 130
Decachlorobiphenyl (Surr)	50.0	49.1	-1.8	70 - 130
Decachlorobiphenyl (Surr) [2C]	50.0	48.2	-3.6	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-08231935.D		
Sequence:	9H23034	Inject Date:	08/23/19
Lab Sample ID:	9H23034-ICV3	Inject Time:	21:37

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Chlordane 1 (g)	500	545	8.9	65 - 135
Chlordane 2	500	535	6.9	65 - 135
Chlordane 3 (a)	500	550	9.9	65 - 135
Chlordane (Technical)	500	543	8.6	65 - 135
Chlordane 1 (g) [2C]	500	549	9.8	65 - 135
Chlordane 2 (a) [2C]	500	536	7.3	65 - 135
Chlordane 3 [2C]	500	541	8.2	65 - 135
Chlordane (Technical) [2C]	500	542	8.4	65 - 135

SECOND-SOURCE CALIBRATION VERIFICATION

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-08231943.D		
Sequence:	9H23034	Inject Date:	08/23/19
Lab Sample ID:	9H23034-ICV4	Inject Time:	23:54

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Toxaphene 1	500	476	-4.9	65 - 135
Toxaphene 2	500	474	-5.1	65 - 135
Toxaphene 3	500	487	-2.7	65 - 135
Toxaphene 4	500	485	-3.0	65 - 135
Toxaphene 5	500	495	-1.0	65 - 135
Toxaphene 6	500	489	-2.2	65 - 135
Toxaphene (Total)	500	484	-3.2	65 - 135
Toxaphene 1 [2C]	500	477	-4.5	65 - 135
Toxaphene 2 [2C]	500	492	-1.6	65 - 135
Toxaphene 3 [2C]	500	483	-3.4	65 - 135
Toxaphene 4 [2C]	500	484	-3.1	65 - 135
Toxaphene 5 [2C]	500	488	-2.3	65 - 135
Toxaphene 6 [2C]	500	498	-0.5	65 - 135
Toxaphene (Total) [2C]	500	487	-2.6	65 - 135

CONTINUING CALIBRATION CHECK

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-12051918.D	Calibration Date:	08/26/19 15:54
Sequence:	9L05032	Injection Date:	12/05/19
Lab Sample ID:	9L05032-CCV2	Injection Time:	16:06

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
gamma-BHC (Lindane)	Ave	100	104		201777.1	210032.8	4.1	20
gamma-BHC (Lindane) [2C]	Ave	100	103		356703.9	368069.4	3.2	20
Endrin	Ave	100	105		147027.1	154214	4.9	20
Endrin [2C]	Ave	100	109		225826.9	246821.2	9.3	20
Heptachlor	Ave	100	108		181296.6	196121.4	8.2	20
Heptachlor [2C]	Ave	100	112		305977.1	342386.2	11.9	20
Heptachlor epoxide	Ave	100	97.3		184178.6	179138.5	-2.7	20
Heptachlor epoxide [2C]	Ave	100	101		300848.3	303466.8	0.9	20
Methoxychlor	Ave	100	111		58574.27	64859.61	10.7	20
Methoxychlor [2C]	XXX	100	101	0.5				20

** Quadratic Curve fit may be weighted (1/a or 1/a2).

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-12051927.D	Calibration Date:	08/26/19 15:54
Sequence:	9L05032	Injection Date:	12/05/19
Lab Sample ID:	9L05032-CCV3	Injection Time:	18:42

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
gamma-BHC (Lindane)	Ave	50.0	50.2		201777.1	202450.4	0.3	20
gamma-BHC (Lindane) [2C]	Ave	50.0	49.2		356703.9	351286.8	-1.5	20
Endrin	Ave	50.0	52.0		147027.1	152857.6	4.0	20
Endrin [2C]	Ave	50.0	51.6		225826.9	233215.2	3.3	20
Heptachlor	Ave	50.0	52.6		181296.6	190730.1	5.2	20
Heptachlor [2C]	Ave	50.0	53.3		305977.1	326161.6	6.6	20
Heptachlor epoxide	Ave	50.0	49.7		184178.6	183130.9	-0.6	20
Heptachlor epoxide [2C]	Ave	50.0	48.4		300848.3	291512.4	-3.1	20
Methoxychlor	Ave	50.0	47.9		58574.27	56083.22	-4.3	20
Methoxychlor [2C]	XXX	50.0	48.9	-2.2				20

** Quadratic Curve fit may be weighted (1/a or 1/a2).

* = Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9H23034	Instrument:	DUALECD5
Matrix:	Soil	Calibration:	A9H2608

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9H23034-ICV1)				Lab File ID: ECD5-08231917.D		Analyzed: 08/23/19 16:26		
2,4,5,6-TCMX (Surr)	50.0	99	70 - 130	5.395	5.39525	-0.0003	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	50.0	99	70 - 130	5.989	5.98975	-0.0008	+/-1.0	
Decachlorobiphenyl (Surr)	50.0	98	70 - 130	9.589	9.5925	-0.0035	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	50.0	96	70 - 130	10.539	10.54062	-0.0016	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9L05032	Instrument:	DUALECD5
Matrix:	Soil	Calibration:	A9H2608

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9L05032-CCV2)			Lab File ID: ECD5-12051918.D		Analyzed: 12/05/19 16:06			
2,4,5,6-TCMX (Surr)	100	101	80 - 120	5.192	5.39525	-0.2033	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	100	100	80 - 120	5.784	5.98975	-0.2058	+/-1.0	
Decachlorobiphenyl (Surr)	100	95	80 - 120	9.376	9.5925	-0.2165	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	105	80 - 120	10.291	10.54062	-0.2496	+/-1.0	
Calibration Blank (9L05032-CCB2)			Lab File ID: ECD5-12051919.D		Analyzed: 12/05/19 16:24			
2,4,5,6-TCMX (Surr) [2C]	100	97	25 - 140	5.784	5.98975	-0.2058	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	107	30 - 135	10.292	10.54062	-0.2486	+/-1.0	
Blank (9120522-BLK1)			Lab File ID: ECD5-12051920.D		Analyzed: 12/05/19 16:41			
2,4,5,6-TCMX (Surr) [2C]	0.00250	80	25 - 140	5.783	5.98975	-0.2068	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	87	30 - 135	10.291	10.54062	-0.2496	+/-1.0	
LCS (9120522-BS1)			Lab File ID: ECD5-12051921.D		Analyzed: 12/05/19 16:58			
2,4,5,6-TCMX (Surr) [2C]	0.00250	52	25 - 140	5.783	5.98975	-0.2068	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	74	30 - 135	10.291	10.54062	-0.2496	+/-1.0	
LCS Dup (9120522-BSD1)			Lab File ID: ECD5-12051922.D		Analyzed: 12/05/19 17:16			
2,4,5,6-TCMX (Surr) [2C]	0.00250	53	25 - 140	5.784	5.98975	-0.2058	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	76	30 - 135	10.292	10.54062	-0.2486	+/-1.0	
PDI-138RAB-C-00-19.1-191118 (A9K0609-01)			Lab File ID: ECD5-12051923.D		Analyzed: 12/05/19 17:33			
2,4,5,6-TCMX (Surr) [2C]	0.00250	81	25 - 140	5.784	5.98975	-0.2058	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	86	30 - 135	10.291	10.54062	-0.2496	+/-1.0	
PDI-144RAB-C-00-29-191114 (A9K0609-02)			Lab File ID: ECD5-12051924.D		Analyzed: 12/05/19 17:50			
2,4,5,6-TCMX (Surr) [2C]	0.00250	79	25 - 140	5.785	5.98975	-0.2048	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	83	30 - 135	10.293	10.54062	-0.2476	+/-1.0	
Calibration Check (9L05032-CCV3)			Lab File ID: ECD5-12051927.D		Analyzed: 12/05/19 18:42			
2,4,5,6-TCMX (Surr)	50.0	101	80 - 120	5.192	5.39525	-0.2033	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	50.0	89	80 - 120	5.783	5.98975	-0.2068	+/-1.0	
Decachlorobiphenyl (Surr)	50.0	91	80 - 120	9.377	9.5925	-0.2155	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	50.0	99	80 - 120	10.291	10.54062	-0.2496	+/-1.0	
Calibration Blank (9L05032-CCB3)			Lab File ID: ECD5-12051928.D		Analyzed: 12/05/19 18:59			
2,4,5,6-TCMX (Surr) [2C]	100	99	25 - 140	5.783	5.98975	-0.2068	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	108	30 - 135	10.292	10.54062	-0.2486	+/-1.0	

HOLDING TIME SUMMARY

1311/8081B

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatior

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-138RAB-C-00-19.1-191118	11/18/19 13:15	11/19/19 15:35	12/04/19 15:00	16.07	7.00	12/05/19 17:33	1.11	40.00	*
PDI-144RAB-C-00-29-191114	11/14/19 16:00	11/19/19 15:35	12/04/19 15:00	19.96	7.00	12/05/19 17:50	1.12	40.00	*

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GCMS

METHOD: 1311/8270D

ANALYSES DATA PACKAGE COVER PAGE

1311/8270D

Laboratory: Apex Laboratories
SDG: Gasco PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-138RAB-C-00-19.1-191118	A9K0609-01	SO
PDI-144RAB-C-00-29-191114	A9K0609-02	SO

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 
Name: David G. Jack

Forms Created: 12/30/2019 11:36AM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

1311/8270D

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Soil

Analyte	MDL	MRL	Units
2,4-Dinitrotoluene	0.00100	0.00200	mg/L
Hexachlorobenzene	0.00100	0.00200	mg/L
Hexachlorobutadiene	0.00250	0.00500	mg/L
Hexachloroethane	0.00250	0.00500	mg/L
2-Methylphenol	0.00250	0.00500	mg/L
3+4-Methylphenol(s)	0.00250	0.00500	mg/L
Nitrobenzene	0.00250	0.00500	mg/L
Pentachlorophenol (PCP)	0.00500	0.0100	mg/L
Pyridine	0.00500	0.0100	mg/L
2,4,5-Trichlorophenol	0.00250	0.00500	mg/L
2,4,6-Trichlorophenol	0.00250	0.00500	mg/L

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

ORGANIC ANALYSIS DATA SHEET

1311/8270D

PDI-138RAB-C-00-19.1-191118

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	SO	Laboratory ID:	A9K0609-01RE1	File ID:	I12051904.D
Sampled:	11/18/19 13:15	Prepared:	12/04/19 11:10	Analyzed:	12/05/19 09:49
		Preparation:	EPA 1311/3510C (BNA Extr	Initial/Final:	200 mL / 2 mL

Batch: 9120484 Sequence: 9L05023 Calibration: A9L0505 Instrument: SV-GCMS9

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
121-14-2	2,4-Dinitrotoluene	10	0.0100	U
118-74-1	Hexachlorobenzene	10	0.0100	U
87-68-3	Hexachlorobutadiene	10	0.0250	U
67-72-1	Hexachloroethane	10	0.0250	U
95-48-7	2-Methylphenol	10	0.0250	U
NA	3+4-Methylphenol(s)	10	0.0250	U
98-95-3	Nitrobenzene	10	0.0250	U
87-86-5	Pentachlorophenol (PCP)	10	0.0500	U
110-86-1	Pyridine	10	0.0500	U
95-95-4	2,4,5-Trichlorophenol	10	0.0250	U
88-06-2	2,4,6-Trichlorophenol	10	0.0250	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	0.0250	0.0164	65	44 - 120	
2-Fluorobiphenyl (Surr)	0.0250	0.0204	82	44 - 120	
Phenol-d6 (Surr)	0.0250	0.00262	10	10 - 120	
p-Terphenyl-d14 (Surr)	0.0250	0.0227	91	50 - 133	
2-Fluorophenol (Surr)	0.0250	0.00679	27	19 - 120	
2,4,6-Tribromophenol (Surr)	0.0250	0.0152	61	43 - 140	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	75415	6.621	69587	6.621	
Naphthalene-d8 (ISTD)	301493	7.889	266639	7.889	
Acenaphthene-d10 (ISTD)	146118	9.67	128749	9.665	
Phenanthrene-d10 (ISTD)	251500	11.178	232930	11.178	
Chrysene-d12 (ISTD)	242972	14.986	234434	14.986	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

1311/8270D

PDI-144RAB-C-00-29-191114

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	SO	Laboratory ID:	A9K0609-02RE2	File ID:	I12061907.D
Sampled:	11/14/19 16:00	Prepared:	12/05/19 14:31	Analyzed:	12/06/19 12:09
		Preparation:	EPA 1311/3510C (BNA Extr	Initial/Final:	200 mL / 2 mL

Batch: 9120579 Sequence: 9L06015 Calibration: A9L0505 Instrument: SV-GCMS9

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
121-14-2	2,4-Dinitrotoluene	10	0.0100	U
118-74-1	Hexachlorobenzene	10	0.0100	U
87-68-3	Hexachlorobutadiene	10	0.0250	U
67-72-1	Hexachloroethane	10	0.0250	U
95-48-7	2-Methylphenol	10	0.0250	U
NA	3+4-Methylphenol(s)	10	0.0250	U
98-95-3	Nitrobenzene	10	0.0250	U
87-86-5	Pentachlorophenol (PCP)	10	0.0500	U
110-86-1	Pyridine	10	0.0500	U
95-95-4	2,4,5-Trichlorophenol	10	0.0250	U
88-06-2	2,4,6-Trichlorophenol	10	0.0250	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	0.0250	0.0210	84	44 - 120	
2-Fluorobiphenyl (Surr)	0.0250	0.0222	89	44 - 120	
Phenol-d6 (Surr)	0.0250	0.00499	20	10 - 120	
p-Terphenyl-d14 (Surr)	0.0250	0.0239	96	50 - 133	
2-Fluorophenol (Surr)	0.0250	0.00853	34	19 - 120	
2,4,6-Tribromophenol (Surr)	0.0250	0.0190	76	43 - 140	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	68246	6.627	70986	6.621	
Naphthalene-d8 (ISTD)	285433	7.889	267392	7.889	
Acenaphthene-d10 (ISTD)	139210	9.67	127245	9.67	
Phenanthrene-d10 (ISTD)	244877	11.184	231769	11.183	
Chrysene-d12 (ISTD)	241589	14.992	232011	14.992	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

1311/8270D

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9120484 Batch Matrix: Soil
Preparation: EPA 1311/3510C (BNA Extraction)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9120484-BLK1	I12041904.D	12/04/19 11:10	
LCS	9120484-BS1	I12041905.D	12/04/19 11:10	
LCS Dup	9120484-BSD1	I12041906.D	12/04/19 11:10	
PDI-138RAB-C-00-19.1-191118	A9K0609-01RE1	I12051904.D	12/04/19 11:10	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

PREPARATION BATCH SUMMARY

1311/8270D

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9120579 Batch Matrix: Soil
Preparation: EPA 1311/3510C (BNA Extraction)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9120579-BLK1	I12061904.D	12/05/19 14:31	
LCS	9120579-BS1	I12061905.D	12/05/19 14:31	
LCS Dup	9120579-BSD1	I12061906.D	12/05/19 14:31	
PDI-144RAB-C-00-29-191114	A9K0609-02RE2	I12061907.D	12/05/19 14:31	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

METHOD BLANK DATA SHEET
1311/8270D

Laboratory:	Apex Laboratories			SDG:	Gasco PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil	Laboratory ID:	9120484-BLK1	File ID:	I12041904.D
Prepared:	12/04/19 11:10	Preparation:	EPA 1311/3510C (BNA Extr	Initial/Final:	200 mL / 2 mL
Analyzed:	12/04/19 17:13	Instrument:	SV-GCMS9		
Batch:	9120484	Sequence:	9L04040	Calibration:	A9L0505

CAS NO.	COMPOUND	CONC. (mg/L)	Q
121-14-2	2,4-Dinitrotoluene	0.00300	U
118-74-1	Hexachlorobenzene	0.00100	U
87-68-3	Hexachlorobutadiene	0.00250	U
67-72-1	Hexachloroethane	0.00250	U
95-48-7	2-Methylphenol	0.00250	U
NA	3+4-Methylphenol(s)	0.00250	U
98-95-3	Nitrobenzene	0.00250	U
87-86-5	Pentachlorophenol (PCP)	0.00500	U
110-86-1	Pyridine	0.00500	U
95-95-4	2,4,5-Trichlorophenol	0.00250	U
88-06-2	2,4,6-Trichlorophenol	0.00250	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	0.0250	0.0188	75	44 - 120	
2-Fluorobiphenyl (Surr)	0.0250	0.0200	80	44 - 120	
Phenol-d6 (Surr)	0.0250	0.00532	21	10 - 120	
p-Terphenyl-d14 (Surr)	0.0250	0.0212	85	50 - 133	
2-Fluorophenol (Surr)	0.0250	0.00873	35	19 - 120	
2,4,6-Tribromophenol (Surr)	0.0250	0.0247	99	43 - 140	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	83235	6.621	75214	6.621	
Naphthalene-d8 (ISTD)	314963	7.883	294817	7.889	
Acenaphthene-d10 (ISTD)	136293	9.664	142580	9.665	
Phenanthrene-d10 (ISTD)	207247	11.178	257721	11.178	
Chrysene-d12 (ISTD)	228836	14.981	254085	14.986	

METHOD BLANK DATA SHEET

1311/8270D

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil	Laboratory ID:	9120579-BLK1	File ID:	I12061904.D
Prepared:	12/05/19 14:31	Preparation:	EPA 1311/3510C (BNA Extr	Initial/Final:	200 mL / 2 mL
Analyzed:	12/06/19 10:26	Instrument:	SV-GCMS9		
Batch:	9120579	Sequence:	9L06015	Calibration:	A9L0505

CAS NO.	COMPOUND	CONC. (mg/L)	Q
121-14-2	2,4-Dinitrotoluene	0.00300	U
118-74-1	Hexachlorobenzene	0.00100	U
87-68-3	Hexachlorobutadiene	0.00250	U
67-72-1	Hexachloroethane	0.00250	U
95-48-7	2-Methylphenol	0.00250	U
NA	3+4-Methylphenol(s)	0.00250	U
98-95-3	Nitrobenzene	0.00250	U
87-86-5	Pentachlorophenol (PCP)	0.00500	U
110-86-1	Pyridine	0.00500	U
95-95-4	2,4,5-Trichlorophenol	0.00250	U
88-06-2	2,4,6-Trichlorophenol	0.00250	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	0.0250	0.0207	83	44 - 120	
2-Fluorobiphenyl (Surr)	0.0250	0.0196	78	44 - 120	
Phenol-d6 (Surr)	0.0250	0.00537	21	10 - 120	
p-Terphenyl-d14 (Surr)	0.0250	0.0240	96	50 - 133	
2-Fluorophenol (Surr)	0.0250	0.00831	33	19 - 120	
2,4,6-Tribromophenol (Surr)	0.0250	0.0258	103	43 - 140	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	64140	6.626	70986	6.621	
Naphthalene-d8 (ISTD)	266887	7.889	267392	7.889	
Acenaphthene-d10 (ISTD)	123896	9.67	127245	9.67	
Phenanthrene-d10 (ISTD)	198258	11.184	231769	11.183	
Chrysene-d12 (ISTD)	215006	14.992	232011	14.992	

LCS / LCS DUPLICATE RECOVERY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil		
Batch:	9120484	Laboratory ID:	9120484-BS1
Preparation:	EPA 1311/3510C (BNA Extraction)	Initial/Final:	200 mL / 2 mL

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC. (*=Out)	QC LIMITS REC.
2,4-Dinitrotoluene	0.0400	0.0367	92	57 - 128
Hexachlorobenzene	0.0400	0.0368	92	52 - 125
Hexachlorobutadiene	0.0400	0.0317	79	22 - 124
Hexachloroethane	0.0400	0.0302	76	21 - 120
2-Methylphenol	0.0400	0.0292	73	30 - 120
3+4-Methylphenol(s)	0.0400	0.0269	67	29 - 120
Nitrobenzene	0.0400	0.0349	87	45 - 121
Pentachlorophenol (PCP)	0.0400	0.0408	102	35 - 138
Pyridine	0.0400	0.0118	29	5 - 120
2,4,5-Trichlorophenol	0.0400	0.0373	93	53 - 123
2,4,6-Trichlorophenol	0.0400	0.0367	92	50 - 125

* = Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil		
Batch:	9120484	Laboratory ID:	9120484-BSD1
Preparation:	EPA 1311/3510C (BNA Extraction)	Initial/Final:	200 mL / 2 mL

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS
2,4-Dinitrotoluene	0.0400	0.0378	94	3	30	57 - 128
Hexachlorobenzene	0.0400	0.0358	89	3	30	52 - 125
Hexachlorobutadiene	0.0400	0.0330	83	4	30	22 - 124
Hexachloroethane	0.0400	0.0313	78	3	30	21 - 120
2-Methylphenol	0.0400	0.0301	75	3	30	30 - 120
3+4-Methylphenol(s)	0.0400	0.0280	70	4	30	29 - 120
Nitrobenzene	0.0400	0.0340	85	3	30	45 - 121
Pentachlorophenol (PCP)	0.0400	0.0418	104	2	30	35 - 138
Pyridine	0.0400	0.0119	30	1	30	5 - 120
2,4,5-Trichlorophenol	0.0400	0.0373	93	0.2	30	53 - 123
2,4,6-Trichlorophenol	0.0400	0.0376	94	2	30	50 - 125

* = Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil		
Batch:	9120579	Laboratory ID:	9120579-BS1
Preparation:	EPA 1311/3510C (BNA Extraction)	Initial/Final:	200 mL / 2 mL

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC. (*=Out)	QC LIMITS REC.
2,4-Dinitrotoluene	0.0400	0.0391	98	57 - 128
Hexachlorobenzene	0.0400	0.0352	88	52 - 125
Hexachlorobutadiene	0.0400	0.0314	79	22 - 124
Hexachloroethane	0.0400	0.0305	76	21 - 120
2-Methylphenol	0.0400	0.0296	74	30 - 120
3+4-Methylphenol(s)	0.0400	0.0273	68	29 - 120
Nitrobenzene	0.0400	0.0318	80	45 - 121
Pentachlorophenol (PCP)	0.0400	0.0423	106	35 - 138
Pyridine	0.0400	0.0157	39	5 - 120
2,4,5-Trichlorophenol	0.0400	0.0402	100	53 - 123
2,4,6-Trichlorophenol	0.0400	0.0388	97	50 - 125

* = Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil		
Batch:	9120579	Laboratory ID:	9120579-BSD1
Preparation:	EPA 1311/3510C (BNA Extraction)	Initial/Final:	200 mL / 2 mL

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS
2,4-Dinitrotoluene	0.0400	0.0407	102	4	30	57 - 128
Hexachlorobenzene	0.0400	0.0361	90	3	30	52 - 125
Hexachlorobutadiene	0.0400	0.0308	77	2	30	22 - 124
Hexachloroethane	0.0400	0.0302	76	0.7	30	21 - 120
2-Methylphenol	0.0400	0.0287	72	3	30	30 - 120
3+4-Methylphenol(s)	0.0400	0.0262	65	4	30	29 - 120
Nitrobenzene	0.0400	0.0328	82	3	30	45 - 121
Pentachlorophenol (PCP)	0.0400	0.0442	111	5	30	35 - 138
Pyridine	0.0400	0.0153	38	3	30	5 - 120
2,4,5-Trichlorophenol	0.0400	0.0403	101	0.4	30	53 - 123
2,4,6-Trichlorophenol	0.0400	0.0387	97	0.3	30	50 - 125

* = Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9L03048	Instrument:	SV-GCMS9
Matrix:	Soil	Calibration:	A9L0505

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9L03048-TUN1	I12031910.D	12/03/19 15:02
Initial Cal Blank	9L03048-ICB1	I12031911.D	12/03/19 15:29
Cal Standard	9L03048-CAL1	I12031912.D	12/03/19 16:03
Cal Standard	9L03048-CAL2	I12031913.D	12/03/19 16:38
Cal Standard	9L03048-CAL3	I12031914.D	12/03/19 17:12
Cal Standard	9L03048-CAL4	I12031915.D	12/03/19 17:46
Cal Standard	9L03048-CAL5	I12031916.D	12/03/19 18:20
Cal Standard	9L03048-CAL6	I12031917.D	12/03/19 18:54
Cal Standard	9L03048-CAL7	I12031918.D	12/03/19 19:28
Cal Standard	9L03048-CAL8	I12031919.D	12/03/19 20:02
Cal Standard	9L03048-CAL9	I12031920.D	12/03/19 20:36
Cal Standard	9L03048-CALA	I12031921.D	12/03/19 21:10
Initial Cal Check	9L03048-ICV1	I12031923.D	12/03/19 22:18

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9L04040	Instrument:	SV-GCMS9
Matrix:	Soil	Calibration:	A9L0505

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9L04040-TUN1	I12041901.D	12/04/19 13:03
Calibration Check	9L04040-CCV1	I12041902.D	12/04/19 13:30
Calibration Blank	9L04040-CCB1	I12041903.D	12/04/19 14:04
Blank	9120484-BLK1	I12041904.D	12/04/19 17:13
LCS	9120484-BS1	I12041905.D	12/04/19 17:47
LCS Dup	9120484-BSD1	I12041906.D	12/04/19 18:22

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9L05023	Instrument:	SV-GCMS9
Matrix:	Soil	Calibration:	A9L0505

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9L05023-TUN1	I12051901.D	12/05/19 08:13
Calibration Check	9L05023-CCV1	I12051902.D	12/05/19 08:40
Calibration Blank	9L05023-CCB1	I12051903.D	12/05/19 09:14
PDI-138RAB-C-00-19.1-191118	A9K0609-01RE1	I12051904.D	12/05/19 09:49

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9L06015	Instrument:	SV-GCMS9
Matrix:	Soil	Calibration:	A9L0505

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9L06015-TUN1	I12061901.D	12/06/19 08:51
Calibration Check	9L06015-CCV1	I12061902.D	12/06/19 09:18
Calibration Blank	9L06015-CCB1	I12061903.D	12/06/19 09:52
Blank	9120579-BLK1	I12061904.D	12/06/19 10:26
LCS	9120579-BS1	I12061905.D	12/06/19 11:00
LCS Dup	9120579-BSD1	I12061906.D	12/06/19 11:35
PDI-144RAB-C-00-29-191114	A9K0609-02RE2	I12061907.D	12/06/19 12:09

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	I12031910.D	Injection Date:	12/03/19
Instrument ID:	SV-GCMS9	Injection Time:	15:02
Sequence:	9L03048	Lab Sample ID:	9L03048-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	0.00	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.47	PASS
m/z 197	Less than 2% of m/z 198	0.00	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.93	PASS
m/z 365	1 - 100% of m/z 198	4.47	PASS
m/z 441	Less than 150% of m/z 443	42.99	PASS
m/z 442	0.1 - 200% of m/z 198	147.93	PASS
m/z 443	15 - 24% of m/z 442	19.89	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	I12041901.D	Injection Date:	12/04/19
Instrument ID:	SV-GCMS9	Injection Time:	13:03
Sequence:	9L04040	Lab Sample ID:	9L04040-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	0.00	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.54	PASS
m/z 197	Less than 2% of m/z 198	0.00	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.84	PASS
m/z 365	1 - 100% of m/z 198	4.75	PASS
m/z 441	Less than 150% of m/z 443	15.01	PASS
m/z 442	0.1 - 200% of m/z 198	163.17	PASS
m/z 443	15 - 24% of m/z 442	20.39	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	I12051901.D	Injection Date:	12/05/19
Instrument ID:	SV-GCMS9	Injection Time:	08:13
Sequence:	9L05023	Lab Sample ID:	9L05023-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	0.00	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.46	PASS
m/z 197	Less than 2% of m/z 198	0.00	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.83	PASS
m/z 365	1 - 100% of m/z 198	4.84	PASS
m/z 441	Less than 150% of m/z 443	48.11	PASS
m/z 442	0.1 - 200% of m/z 198	168.85	PASS
m/z 443	15 - 24% of m/z 442	20.04	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	I12061901.D	Injection Date:	12/06/19
Instrument ID:	SV-GCMS9	Injection Time:	08:51
Sequence:	9L06015	Lab Sample ID:	9L06015-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	0.00	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.50	PASS
m/z 197	Less than 2% of m/z 198	0.00	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.84	PASS
m/z 365	1 - 100% of m/z 198	4.77	PASS
m/z 441	Less than 150% of m/z 443	11.20	PASS
m/z 442	0.1 - 200% of m/z 198	157.88	PASS
m/z 443	15 - 24% of m/z 442	19.89	PASS

INITIAL CALIBRATION DATA (Summary)

1311/8270D

Laboratory: Apex Laboratories SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatic

Calibration: A9L0505 Date: 12/05/19 11:21 Instrument: SV-GCMS9

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
2,4-Dinitrotoluene	0.3652368	XXX	23.87898	9.853625	8.248147E-02				
Hexachlorobenzene	0.2859751	Ave	9.850469	10.7963	4.302851E-02			20	
Hexachlorobutadiene	0.1684219	Ave	5.805926	8.044	1.803934E-02			20	
Hexachloroethane	0.4404031	Ave	6.723751	7.1332	4.317847E-02			20	
2-Methylphenol	1.069714	Ave	9.151016	6.864	3.595535E-02			20	
3+4-Methylphenol(s)	1.326596	Ave	12.29261	7.0155	7.993426E-02			20	
Nitrobenzene	1.389916	Ave	9.694738	7.1897	6.161243E-02			20	
Pentachlorophenol (PCP)	0.1082644	XXX	42.42597	10.99288	2.689777E-02				
Pyridine	1.656234	Ave	13.20563	4.0036	0.9930149			20	
2,4,5-Trichlorophenol	0.3400341	XXX	20.67442	8.927667	2.664191E-02				
2,4,6-Trichlorophenol	0.3491485	XXX	21.64176	8.892333	2.166891E-02				
Nitrobenzene-d5 (Surr)	1.365043	Ave	7.167059	7.1696	5.398848E-02			20	
2-Fluorobiphenyl (Surr)	1.514726	Ave	11.80542	8.9763	2.243647E-02			20	
Phenol-d6 (Surr)	1.728584	Ave	12.3899	6.2617	9.195087E-02			20	
p-Terphenyl-d14 (Surr)	0.9172074	Ave	10.37128	12.9835	3.467299E-02			20	
2-Fluorophenol (Surr)	1.330564	Ave	12.87588	5.359	4.832153E-02			20	
2,4,6-Tribromophenol (Surr)	0.1145359	XXX	24.51955	10.47322	0.0253472				

Note: ** Quad COD may be incorrect if weighting (1/a) or (1/a2) used. Weighting not shown here. Please see instrument calibration printouts for validation.

INITIAL CALIBRATION DATA

1311/8270D

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9L0505

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: SV-GCMS9

Calibration Date: 12/05/19 11:21

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
2,4-Dinitrotoluene	20	~~0.1150357~~	50	~~0.1483001~~	100	0.1923473	200	0.2702921	500	0.3758181	1000	0.4050482
Hexachlorobenzene	20	0.2912949	50	0.3097776	100	0.3153097	200	0.315059	500	0.3089285	1000	0.2915877
Hexachlorobutadiene	20	0.1496107	50	0.1590627	100	0.1738486	200	0.1827865	500	0.1773178	1000	0.1753208
Hexachloroethane	20	0.3724165	50	0.4103978	100	0.4271729	200	0.4622715	500	0.4694551	1000	0.4482623
2-Methylphenol	20	0.8952794	50	1.040299	100	1.097925	200	1.144065	500	1.189625	1000	1.166971
3+4-Methylphenol(s)	20	1.018596	50	1.257201	100	1.392142	200	1.407659	500	1.547197	1000	1.477126
Nitrobenzene	20	1.268929	50	1.348227	100	1.463035	200	1.540349	500	1.576658	1000	1.508405
Pentachlorophenol (PCP)	20	~~3.902854E-02~~	50	~~2.992668E-02~~	100	3.230541E-02	200	5.311668E-02	500	8.904246E-02	1000	0.1125996
Pyridine	20	1.397179	50	1.391399	100	1.525617	200	1.359657	500	1.668046	1000	1.765368
2,4,5-Trichlorophenol	20	~~0.1293407~~	50	0.2172597	100	0.2379658	200	0.3032788	500	0.3695301	1000	0.3932486
2,4,6-Trichlorophenol	20	~~0.1746397~~	50	0.2123163	100	0.2473394	200	0.3019742	500	0.3795395	1000	0.3954416
Nitrobenzene-d5 (Surr)	20	1.193706	50	1.285809	100	1.382274	200	1.401108	500	1.492512	1000	1.479369
2-Fluorobiphenyl (Surr)	20	1.533611	50	1.639458	100	1.657137	200	1.680396	500	1.678182	1000	1.592355
Phenol-d6 (Surr)	20	1.321955	50	1.456418	100	1.586642	200	1.651718	500	1.845945	1000	1.856815
p-Terphenyl-d14 (Surr)	20	0.6921911	50	0.8205623	100	0.8835218	200	0.9561633	500	0.9974821	1000	0.9812226
2-Fluorophenol (Surr)	20	~~0.9372071~~	50	1.022093	100	1.16674	200	1.210887	500	1.330969	1000	1.314099
2,4,6-Tribromophenol (Surr)	20	~~5.180152E-02~~	50	6.175115E-02	100	7.744448E-02	200	0.1001649	500	0.1230215	1000	0.1286649

INITIAL CALIBRATION DATA (Continued)

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration:	A9L0505	Instrument:	SV-GCMS9
Matrix:		Calibration Date:	12/05/19 11:21

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
2,4-Dinitrotoluene	2000	0.4322672	4000	0.430378	6000	0.4195088	8000	0.3962347				
Hexachlorobenzene	2000	0.2793122	4000	0.260404	6000	0.2498132	8000	0.2382644				
Hexachlorobutadiene	2000	0.1707931	4000	0.1674733	6000	0.1663487	8000	0.1616573				
Hexachloroethane	2000	0.457141	4000	0.4499854	6000	0.4604258	8000	0.4465026				
2-Methylphenol	2000	1.130449	4000	1.088305	6000	1.001256	8000	0.9429606				
3+4-Methylphenol(s)	2000	1.435774	4000	1.36054	6000	1.230776	8000	1.138949				
Nitrobenzene	2000	1.411907	4000	1.361191	6000	1.256416	8000	1.164042				
Pentachlorophenol (PCP)	2000	0.1319852	4000	0.1451691	6000	0.1514884	8000	0.1504084				
Pyridine	2000	1.834107	4000	1.856385	6000	1.916297	8000	1.848283				
2,4,5-Trichlorophenol	2000	0.3992105	4000	0.3957039	6000	0.3851116	8000	0.3589977				
2,4,6-Trichlorophenol	2000	0.4146204	4000	0.4060803	6000	0.3944944	8000	0.3905307				
Nitrobenzene-d5 (Surr)	2000	1.428352	4000	1.407095	6000	1.326045	8000	1.254163				
2-Fluorobiphenyl (Surr)	2000	1.5354	4000	1.38235	6000	1.272272	8000	1.1761				
Phenol-d6 (Surr)	2000	1.887041	4000	1.962471	6000	1.900837	8000	1.816				
p-Terphenyl-d14 (Surr)	2000	0.9739951	4000	0.9635003	6000	0.9679083	8000	0.9355275				
2-Fluorophenol (Surr)	2000	1.433499	4000	1.464263	6000	1.536044	8000	1.496484				
2,4,6-Tribromophenol (Surr)	2000	0.1343763	4000	0.1355148	6000	0.136119	8000	0.133766				

SECOND-SOURCE CALIBRATION VERIFICATION

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	SV-GCMS9	Calibration:	A9L0505
Lab File ID:	I12031923.D		
Sequence:	9L03048	Inject Date:	12/03/19
Lab Sample ID:	9L03048-ICV1	Inject Time:	22:18

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
2,4-Dinitrotoluene	1000	1020	2.3	70 - 130
Hexachlorobenzene	1000	1040	3.8	70 - 130
Hexachlorobutadiene	1000	1060	6.0	70 - 130
Hexachloroethane	1000	1060	6.3	70 - 130
2-Methylphenol	1000	1110	10.5	70 - 130
3+4-Methylphenol(s)	1000	1140	13.5	70 - 130
Nitrobenzene	1000	1080	8.2	70 - 130
Pentachlorophenol (PCP)	1000	1060	5.7	70 - 130
Pyridine	1000	892	-10.8	70 - 130
2,4,5-Trichlorophenol	1000	1080	7.5	70 - 130
2,4,6-Trichlorophenol	1000	1060	5.5	70 - 130
Nitrobenzene-d5 (Surr)	1000	1090	8.8	70 - 130
2-Fluorobiphenyl (Surr)	1000	1080	8.2	70 - 130
Phenol-d6 (Surr)	1000	1060	6.4	70 - 130
p-Terphenyl-d14 (Surr)	1000	1090	8.9	70 - 130
2-Fluorophenol (Surr)	1000	1010	1.1	70 - 130
2,4,6-Tribromophenol (Surr)	1000	1070	6.7	70 - 130

CONTINUING CALIBRATION CHECK

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID:	SV-GCMS9	Calibration:	A9L0505
Lab File ID:	I12041902.D	Calibration Date:	12/05/19 11:21
Sequence:	9L04040	Injection Date:	12/04/19
Lab Sample ID:	9L04040-CCV1	Injection Time:	13:30

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
2,4-Dinitrotoluene	XXX	1000	1050	5.2				20
Hexachlorobenzene	Ave	1000	1030		0.2859751	0.2943648	2.9	20
Hexachlorobutadiene	Ave	1000	1060		0.1684219	0.1787753	6.1	20
Hexachloroethane	Ave	1000	1050		0.4404031	0.4629191	5.1	20
2-Methylphenol	Ave	1000	1100		1.069714	1.179647	10.3	20
3+4-Methylphenol(s)	Ave	1000	1160		1.326596	1.535326	15.7	20
Nitrobenzene	Ave	1000	1120		1.389916	1.553833	11.8	20
Pentachlorophenol (PCP)	XXX	1000	1180	17.6				20
Pyridine	Ave	1000	1070		1.656234	1.764193	6.5	20
2,4,5-Trichlorophenol	XXX	1000	1090	8.9				20
2,4,6-Trichlorophenol	XXX	1000	1070	6.8				20

** Quadratic Curve fit may be weighted (1/a or 1/a2).

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID:	SV-GCMS9	Calibration:	A9L0505
Lab File ID:	I12051902.D	Calibration Date:	12/05/19 11:21
Sequence:	9L05023	Injection Date:	12/05/19
Lab Sample ID:	9L05023-CCV1	Injection Time:	08:40

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
2,4-Dinitrotoluene	XXX	1000	1040	3.9				20
Hexachlorobenzene	Ave	1000	1050		0.2859751	0.3007856	5.2	20
Hexachlorobutadiene	Ave	1000	1050		0.1684219	0.1771459	5.2	20
Hexachloroethane	Ave	1000	1090		0.4404031	0.480607	9.1	20
2-Methylphenol	Ave	1000	1080		1.069714	1.150042	7.5	20
3+4-Methylphenol(s)	Ave	1000	1100		1.326596	1.463233	10.3	20
Nitrobenzene	Ave	1000	1040		1.389916	1.442137	3.8	20
Pentachlorophenol (PCP)	XXX	1000	1140	14.2				20
Pyridine	Ave	1000	1000		1.656234	1.658701	0.1	20
2,4,5-Trichlorophenol	XXX	1000	1080	7.8				20
2,4,6-Trichlorophenol	XXX	1000	1050	4.7				20

** Quadratic Curve fit may be weighted (1/a or 1/a2).

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID:	SV-GCMS9	Calibration:	A9L0505
Lab File ID:	I12061902.D	Calibration Date:	12/05/19 11:21
Sequence:	9L06015	Injection Date:	12/06/19
Lab Sample ID:	9L06015-CCV1	Injection Time:	09:18

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
2,4-Dinitrotoluene	XXX	1000	1060	5.8				20
Hexachlorobenzene	Ave	1000	1050		0.2859751	0.2996	4.8	20
Hexachlorobutadiene	Ave	1000	1100		0.1684219	0.1850916	9.9	20
Hexachloroethane	Ave	1000	1060		0.4404031	0.4655002	5.7	20
2-Methylphenol	Ave	1000	1060		1.069714	1.131913	5.8	20
3+4-Methylphenol(s)	Ave	1000	1090		1.326596	1.443411	8.8	20
Nitrobenzene	Ave	1000	1010		1.389916	1.402502	0.9	20
Pentachlorophenol (PCP)	XXX	1000	1150	14.9				20
Pyridine	Ave	1000	983		1.656234	1.628885	-1.7	20
2,4,5-Trichlorophenol	XXX	1000	1100	9.8				20
2,4,6-Trichlorophenol	XXX	1000	1060	6.5				20

** Quadratic Curve fit may be weighted (1/a or 1/a2).

* = Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9L03048	Instrument:	SV-GCMS9
Matrix:	Soil	Calibration:	A9L0505

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9L03048-ICV1)			Lab File ID: I12031923.D		Analyzed: 12/03/19 22:18			
Nitrobenzene-d5 (Surr)	1000	109	70 - 130	7.167	7.1696	-0.0026	+/-1.0	
2-Fluorobiphenyl (Surr)	1000	108	70 - 130	8.974	8.9763	-0.0023	+/-1.0	
Phenol-d6 (Surr)	1000	106	70 - 130	6.257	6.2617	-0.0047	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	109	70 - 130	12.981	12.9835	-0.0025	+/-1.0	
2-Fluorophenol (Surr)	1000	101	70 - 130	5.353	5.359	-0.0060	+/-1.0	
2,4,6-Tribromophenol (Surr)	1000	107	70 - 130	10.467	10.47322	-0.0062	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9L04040	Instrument:	SV-GCMS9
Matrix:	Soil	Calibration:	A9L0505

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9L04040-CCV1)			Lab File ID: I12041902.D		Analyzed: 12/04/19 13:30			
Nitrobenzene-d5 (Surr)	1000	112	80 - 120	7.167	7.1696	-0.0026	+/-1.0	
2-Fluorobiphenyl (Surr)	1000	107	80 - 120	8.975	8.9763	-0.0013	+/-1.0	
Phenol-d6 (Surr)	1000	108	80 - 120	6.258	6.2617	-0.0037	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	106	80 - 120	12.975	12.9835	-0.0085	+/-1.0	
2-Fluorophenol (Surr)	1000	99	80 - 120	5.354	5.359	-0.0050	+/-1.0	
2,4,6-Tribromophenol (Surr)	1000	109	80 - 120	10.467	10.47322	-0.0062	+/-1.0	
Calibration Blank (9L04040-CCB1)			Lab File ID: I12041903.D		Analyzed: 12/04/19 14:04			
Nitrobenzene-d5 (Surr)			44 - 120	0	7.1696	-7.1696	+/-1.0	
2-Fluorobiphenyl (Surr)			44 - 120	0	8.9763	-8.9763	+/-1.0	
Phenol-d6 (Surr)			10 - 120	0	6.2617	-6.2617	+/-1.0	
p-Terphenyl-d14 (Surr)			50 - 133	0	12.9835	-12.9835	+/-1.0	
2-Fluorophenol (Surr)			19 - 120	0	5.359	-5.3590	+/-1.0	
2,4,6-Tribromophenol (Surr)			43 - 140	0	10.47322	-10.4732	+/-1.0	
Blank (9120484-BLK1)			Lab File ID: I12041904.D		Analyzed: 12/04/19 17:13			
Nitrobenzene-d5 (Surr)	0.0250	75	44 - 120	7.161	7.1696	-0.0086	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	80	44 - 120	8.975	8.9763	-0.0013	+/-1.0	
Phenol-d6 (Surr)	0.0250	21	10 - 120	6.252	6.2617	-0.0097	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	85	50 - 133	12.981	12.9835	-0.0025	+/-1.0	
2-Fluorophenol (Surr)	0.0250	35	19 - 120	5.359	5.359	0.0000	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	99	43 - 140	10.467	10.47322	-0.0062	+/-1.0	
LCS (9120484-BS1)			Lab File ID: I12041905.D		Analyzed: 12/04/19 17:47			
Nitrobenzene-d5 (Surr)	0.0250	88	44 - 120	7.167	7.1696	-0.0026	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	90	44 - 120	8.974	8.9763	-0.0023	+/-1.0	
Phenol-d6 (Surr)	0.0250	26	10 - 120	6.257	6.2617	-0.0047	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	99	50 - 133	12.975	12.9835	-0.0085	+/-1.0	
2-Fluorophenol (Surr)	0.0250	39	19 - 120	5.359	5.359	0.0000	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	98	43 - 140	10.467	10.47322	-0.0062	+/-1.0	
LCS Dup (9120484-BSD1)			Lab File ID: I12041906.D		Analyzed: 12/04/19 18:22			
Nitrobenzene-d5 (Surr)	0.0250	85	44 - 120	7.167	7.1696	-0.0026	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	91	44 - 120	8.975	8.9763	-0.0013	+/-1.0	
Phenol-d6 (Surr)	0.0250	29	10 - 120	6.257	6.2617	-0.0047	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	100	50 - 133	12.981	12.9835	-0.0025	+/-1.0	
2-Fluorophenol (Surr)	0.0250	43	19 - 120	5.364	5.359	0.0050	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	94	43 - 140	10.472	10.47322	-0.0012	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9L05023	Instrument:	SV-GCMS9
Matrix:	Soil	Calibration:	A9L0505

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9L05023-CCV1)			Lab File ID: I12051902.D		Analyzed: 12/05/19 08:40			
Nitrobenzene-d5 (Surr)	1000	104	80 - 120	7.161	7.1696	-0.0086	+/-1.0	
2-Fluorobiphenyl (Surr)	1000	109	80 - 120	8.975	8.9763	-0.0013	+/-1.0	
Phenol-d6 (Surr)	1000	104	80 - 120	6.252	6.2617	-0.0097	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	107	80 - 120	12.981	12.9835	-0.0025	+/-1.0	
2-Fluorophenol (Surr)	1000	100	80 - 120	5.354	5.359	-0.0050	+/-1.0	
2,4,6-Tribromophenol (Surr)	1000	105	80 - 120	10.467	10.47322	-0.0062	+/-1.0	
Calibration Blank (9L05023-CCB1)			Lab File ID: I12051903.D		Analyzed: 12/05/19 09:14			
Nitrobenzene-d5 (Surr)			44 - 120	0	7.1696	-7.1696	+/-1.0	
2-Fluorobiphenyl (Surr)			44 - 120	0	8.9763	-8.9763	+/-1.0	
Phenol-d6 (Surr)			10 - 120	0	6.2617	-6.2617	+/-1.0	
p-Terphenyl-d14 (Surr)			50 - 133	0	12.9835	-12.9835	+/-1.0	
2-Fluorophenol (Surr)			19 - 120	0	5.359	-5.3590	+/-1.0	
2,4,6-Tribromophenol (Surr)			43 - 140	0	10.47322	-10.4732	+/-1.0	
PDI-138RAB-C-00-19.1-191118 (A9K0609-01RE1)			Lab File ID: I12051904.D		Analyzed: 12/05/19 09:49			
Nitrobenzene-d5 (Surr)	0.0250	65	44 - 120	7.167	7.1696	-0.0026	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	82	44 - 120	8.975	8.9763	-0.0013	+/-1.0	
Phenol-d6 (Surr)	0.0250	10	10 - 120	6.257	6.2617	-0.0047	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	91	50 - 133	12.981	12.9835	-0.0025	+/-1.0	
2-Fluorophenol (Surr)	0.0250	27	19 - 120	5.359	5.359	0.0000	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	61	43 - 140	10.467	10.47322	-0.0062	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9L06015	Instrument:	SV-GCMS9
Matrix:	Soil	Calibration:	A9L0505

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9L06015-CCV1)			Lab File ID: I12061902.D		Analyzed: 12/06/19 09:18			
Nitrobenzene-d5 (Surr)	1000	102	80 - 120	7.167	7.1696	-0.0026	+/-1.0	
2-Fluorobiphenyl (Surr)	1000	108	80 - 120	8.974	8.9763	-0.0023	+/-1.0	
Phenol-d6 (Surr)	1000	103	80 - 120	6.257	6.2617	-0.0047	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	106	80 - 120	12.981	12.9835	-0.0025	+/-1.0	
2-Fluorophenol (Surr)	1000	96	80 - 120	5.359	5.359	0.0000	+/-1.0	
2,4,6-Tribromophenol (Surr)	1000	113	80 - 120	10.472	10.47322	-0.0012	+/-1.0	
Calibration Blank (9L06015-CCB1)			Lab File ID: I12061903.D		Analyzed: 12/06/19 09:52			
Nitrobenzene-d5 (Surr)			44 - 120	0	7.1696	-7.1696	+/-1.0	
2-Fluorobiphenyl (Surr)			44 - 120	0	8.9763	-8.9763	+/-1.0	
Phenol-d6 (Surr)			10 - 120	0	6.2617	-6.2617	+/-1.0	
p-Terphenyl-d14 (Surr)			50 - 133	0	12.9835	-12.9835	+/-1.0	
2-Fluorophenol (Surr)			19 - 120	0	5.359	-5.3590	+/-1.0	
2,4,6-Tribromophenol (Surr)			43 - 140	0	10.47322	-10.4732	+/-1.0	
Blank (9120579-BLK1)			Lab File ID: I12061904.D		Analyzed: 12/06/19 10:26			
Nitrobenzene-d5 (Surr)	0.0250	83	44 - 120	7.167	7.1696	-0.0026	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	78	44 - 120	8.975	8.9763	-0.0013	+/-1.0	
Phenol-d6 (Surr)	0.0250	21	10 - 120	6.257	6.2617	-0.0047	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	96	50 - 133	12.986	12.9835	0.0025	+/-1.0	
2-Fluorophenol (Surr)	0.0250	33	19 - 120	5.359	5.359	0.0000	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	103	43 - 140	10.472	10.47322	-0.0012	+/-1.0	
LCS (9120579-BS1)			Lab File ID: I12061905.D		Analyzed: 12/06/19 11:00			
Nitrobenzene-d5 (Surr)	0.0250	88	44 - 120	7.172	7.1696	0.0024	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	87	44 - 120	8.98	8.9763	0.0037	+/-1.0	
Phenol-d6 (Surr)	0.0250	34	10 - 120	6.263	6.2617	0.0013	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	111	50 - 133	12.986	12.9835	0.0025	+/-1.0	
2-Fluorophenol (Surr)	0.0250	51	19 - 120	5.359	5.359	0.0000	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	110	43 - 140	10.472	10.47322	-0.0012	+/-1.0	
LCS Dup (9120579-BSD1)			Lab File ID: I12061906.D		Analyzed: 12/06/19 11:35			
Nitrobenzene-d5 (Surr)	0.0250	89	44 - 120	7.172	7.1696	0.0024	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	85	44 - 120	8.98	8.9763	0.0037	+/-1.0	
Phenol-d6 (Surr)	0.0250	31	10 - 120	6.263	6.2617	0.0013	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	114	50 - 133	12.986	12.9835	0.0025	+/-1.0	
2-Fluorophenol (Surr)	0.0250	48	19 - 120	5.364	5.359	0.0050	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	110	43 - 140	10.477	10.47322	0.0038	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9L06015	Instrument:	SV-GCMS9
Matrix:	Soil	Calibration:	A9L0505

Surrogate Compound	Spike Level mg/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
PDI-144RAB-C-00-29-191114 (A9K0609-02RE2)			Lab File ID: I12061907.D		Analyzed: 12/06/19 12:09			
Nitrobenzene-d5 (Surr)	0.0250	84	44 - 120	7.172	7.1696	0.0024	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	89	44 - 120	8.975	8.9763	-0.0013	+/-1.0	
Phenol-d6 (Surr)	0.0250	20	10 - 120	6.263	6.2617	0.0013	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	96	50 - 133	12.986	12.9835	0.0025	+/-1.0	
2-Fluorophenol (Surr)	0.0250	34	19 - 120	5.364	5.359	0.0050	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	76	43 - 140	10.472	10.47322	-0.0012	+/-1.0	

INTERNAL STANDARD AREA AND RT SUMMARY
1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9L05023	Instrument:	SV-GCMS9
Matrix:	Soil	Calibration:	A9L0505

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (9L05023-CCV1)			Lab File ID: I12051902.D			Analyzed: 12/05/19 08:40			
1,4-Dichlorobenzene-d4 (ISTD)	69587	6.621	81140	6.626	86	50 - 200	-0.0050	+/-0.50	
Naphthalene-d8 (ISTD)	266639	7.889	310642	7.889	86	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	128749	9.665	148649	9.67	87	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	232930	11.178	266040	11.184	88	50 - 200	-0.0060	+/-0.50	
Chrysene-d12 (ISTD)	234434	14.986	260632	14.986	90	50 - 200	0.0000	+/-0.50	
Calibration Blank (9L05023-CCB1)			Lab File ID: I12051903.D			Analyzed: 12/05/19 09:14			
1,4-Dichlorobenzene-d4 (ISTD)	72739	6.621	69587	6.621	105	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	296948	7.889	266639	7.889	111	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	147553	9.665	128749	9.665	115	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	250419	11.178	232930	11.178	108	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	240457	14.981	234434	14.986	103	50 - 200	-0.0050	+/-0.50	
PDI-138RAB-C-00-19.1-191118 (A9K0609-01RE1)			Lab File ID: I12051904.D			Analyzed: 12/05/19 09:49			
1,4-Dichlorobenzene-d4 (ISTD)	75415	6.621	69587	6.621	108	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	301493	7.889	266639	7.889	113	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	146118	9.67	128749	9.665	113	50 - 200	0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	251500	11.178	232930	11.178	108	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	242972	14.986	234434	14.986	104	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9L06015	Instrument:	SV-GCMS9
Matrix:	Soil	Calibration:	A9L0505

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (9L06015-CCV1)			Lab File ID: I12061902.D			Analyzed: 12/06/19 09:18			
1,4-Dichlorobenzene-d4 (ISTD)	70986	6.621	81140	6.626	87	50 - 200	-0.0050	+/-0.50	
Naphthalene-d8 (ISTD)	267392	7.889	310642	7.889	86	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	127245	9.67	148649	9.67	86	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	231769	11.183	266040	11.184	87	50 - 200	-0.0010	+/-0.50	
Chrysene-d12 (ISTD)	232011	14.992	260632	14.986	89	50 - 200	0.0060	+/-0.50	
Calibration Blank (9L06015-CCB1)			Lab File ID: I12061903.D			Analyzed: 12/06/19 09:52			
1,4-Dichlorobenzene-d4 (ISTD)	71390	6.626	70986	6.621	101	50 - 200	0.0050	+/-0.50	
Naphthalene-d8 (ISTD)	297332	7.889	267392	7.889	111	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	143216	9.67	127245	9.67	113	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	250978	11.183	231769	11.183	108	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	244752	14.992	232011	14.992	105	50 - 200	0.0000	+/-0.50	
Blank (9120579-BLK1)			Lab File ID: I12061904.D			Analyzed: 12/06/19 10:26			
1,4-Dichlorobenzene-d4 (ISTD)	64140	6.626	70986	6.621	90	50 - 200	0.0050	+/-0.50	
Naphthalene-d8 (ISTD)	266887	7.889	267392	7.889	100	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	123896	9.67	127245	9.67	97	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	198258	11.184	231769	11.183	86	50 - 200	0.0010	+/-0.50	
Chrysene-d12 (ISTD)	215006	14.992	232011	14.992	93	50 - 200	0.0000	+/-0.50	
LCS (9120579-BS1)			Lab File ID: I12061905.D			Analyzed: 12/06/19 11:00			
1,4-Dichlorobenzene-d4 (ISTD)	59741	6.627	70986	6.621	84	50 - 200	0.0060	+/-0.50	
Naphthalene-d8 (ISTD)	217699	7.894	267392	7.889	81	50 - 200	0.0050	+/-0.50	
Acenaphthene-d10 (ISTD)	108526	9.675	127245	9.67	85	50 - 200	0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	204950	11.189	231769	11.183	88	50 - 200	0.0060	+/-0.50	
Chrysene-d12 (ISTD)	192034	15.003	232011	14.992	83	50 - 200	0.0110	+/-0.50	
LCS Dup (9120579-BSD1)			Lab File ID: I12061906.D			Analyzed: 12/06/19 11:35			
1,4-Dichlorobenzene-d4 (ISTD)	60291	6.626	70986	6.621	85	50 - 200	0.0050	+/-0.50	
Naphthalene-d8 (ISTD)	218886	7.894	267392	7.889	82	50 - 200	0.0050	+/-0.50	
Acenaphthene-d10 (ISTD)	110491	9.675	127245	9.67	87	50 - 200	0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	205777	11.189	231769	11.183	89	50 - 200	0.0060	+/-0.50	
Chrysene-d12 (ISTD)	190206	15.008	232011	14.992	82	50 - 200	0.0160	+/-0.50	
PDI-144RAB-C-00-29-191114 (A9K0609-02RE2)			Lab File ID: I12061907.D			Analyzed: 12/06/19 12:09			
1,4-Dichlorobenzene-d4 (ISTD)	68246	6.627	70986	6.621	96	50 - 200	0.0060	+/-0.50	
Naphthalene-d8 (ISTD)	285433	7.889	267392	7.889	107	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	139210	9.67	127245	9.67	109	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	244877	11.184	231769	11.183	106	50 - 200	0.0010	+/-0.50	
Chrysene-d12 (ISTD)	241589	14.992	232011	14.992	104	50 - 200	0.0000	+/-0.50	

HOLDING TIME SUMMARY

1311/8270D

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatior

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-138RAB-C-00-19.1-191118	11/18/19 13:15	11/19/19 15:35	12/04/19 11:10	15.91	7.00	12/05/19 09:49	0.94	40.00	*
PDI-144RAB-C-00-29-191114	11/14/19 16:00	11/19/19 15:35	12/05/19 14:31	20.94	7.00	12/06/19 12:09	0.90	40.00	*

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: METALS

METHOD: 1311/6020A

ANALYSES DATA PACKAGE COVER PAGE

1311/6020A

Laboratory: Apex Laboratories

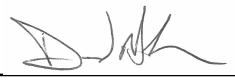
Client: Anchor QEA, LLC

SDG: Gasco PreRD_DG 2019

Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-138RAB-C-00-19.1-191118	A9K0609-01	SO
PDI-144RAB-C-00-29-191114	A9K0609-02	SO

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 

Name: David G. Jack

Forms Created: 12/30/2019 11:36AM

Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

1311/6020A

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Soil

Analyte	MDL	MRL	Units
Arsenic	0.0500	0.100	mg/L
Barium	2.50	5.00	mg/L
Cadmium	0.0500	0.100	mg/L
Chromium	0.0500	0.100	mg/L
Lead	0.0250	0.0500	mg/L
Mercury	0.00350	0.00700	mg/L
Selenium	0.0500	0.100	mg/L
Silver	0.0500	0.100	mg/L

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

INORGANIC ANALYSIS DATA SHEET

1311/6020A

PDI-138RAB-C-00-19.1-191118

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: SO
Laboratory ID: A9K0609-01
File ID: 9L04031-043
Sampled: 11/18/19 13:15
Prepared: 12/04/19 10:12
Analyzed: 12/04/19 13:55
Solids: N/A
Preparation: EPA 1311/3015
Initial/Final: 10 mL / 50 mL
Batch: 9120481
Sequence: 9L04031
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	Q	Method
7440-38-2	Arsenic	0.0500	10	U	1311/6020A
7440-39-3	Barium	2.50	10	U	1311/6020A
7440-43-9	Cadmium	0.0500	10	U	1311/6020A
7440-47-3	Chromium	0.0500	10	U	1311/6020A
7439-92-1	Lead	0.0250	10	U	1311/6020A
7439-97-6	Mercury	0.00350	10	U	1311/6020A
7782-49-2	Selenium	0.0500	10	U	1311/6020A
7440-22-4	Silver	0.0500	10	U	1311/6020A

INORGANIC ANALYSIS DATA SHEET

1311/6020A

PDI-144RAB-C-00-29-191114

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: SO
Laboratory ID: A9K0609-02
File ID: 9L04031-044
Sampled: 11/14/19 16:00
Prepared: 12/04/19 10:12
Analyzed: 12/04/19 14:00
Solids: N/A
Preparation: EPA 1311/3015
Initial/Final: 10 mL / 50 mL
Batch: 9120481
Sequence: 9L04031
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	Q	Method
7440-38-2	Arsenic	0.0500	10	U	1311/6020A
7440-39-3	Barium	2.50	10	U	1311/6020A
7440-43-9	Cadmium	0.0500	10	U	1311/6020A
7440-47-3	Chromium	0.0500	10	U	1311/6020A
7439-92-1	Lead	0.0250	10	U	1311/6020A
7439-97-6	Mercury	0.00350	10	U	1311/6020A
7782-49-2	Selenium	0.0500	10	U	1311/6020A
7440-22-4	Silver	0.0500	10	U	1311/6020A

PREPARATION BATCH SUMMARY

1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9120481 Batch Matrix: Soil
Preparation: EPA 1311/3015

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9120481-BLK1	9L04031-041	12/04/19 10:12	
LCS	9120481-BS1	9L04031-042	12/04/19 10:12	
PDI-138RAB-C-00-19.1-191118	A9K0609-01	9L04031-043	12/04/19 10:12	
PDI-144RAB-C-00-29-191114	A9K0609-02	9L04031-044	12/04/19 10:12	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

METHOD BLANK DATA SHEET
1311/6020A

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil	Laboratory ID:	9120481-BLK1	File ID:	9L04031-041
Prepared:	12/04/19 10:12	Preparation:	EPA 1311/3015	Initial/Final:	10 mL / 50 mL
Analyzed:	12/04/19 13:46	Instrument:	ICPMS5		
Batch:	9120481	Sequence:	9L04031	Calibration:	UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/L)	Q
7440-38-2	Arsenic	0.0500	U
7440-39-3	Barium	2.50	U
7440-43-9	Cadmium	0.0500	U
7440-47-3	Chromium	0.0500	U
7439-92-1	Lead	0.0250	U
7439-97-6	Mercury	0.00350	U
7782-49-2	Selenium	0.0500	U
7440-22-4	Silver	0.0500	U

LCS / LCS DUPLICATE RECOVERY

1311/6020A

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil		
Batch:	9120481	Laboratory ID:	9120481-BS1
Preparation:	EPA 1311/3015	Initial/Final:	10 mL / 50 mL

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC. (*=Out)	QC LIMITS REC.
Arsenic	5.00	5.17	103	80 - 120
Barium	10.0	10.5	105	80 - 120
Cadmium	1.00	1.05	105	80 - 120
Chromium	5.00	4.92	98	80 - 120
Lead	5.00	5.32	106	80 - 120
Mercury	0.100	0.103	103	80 - 120
Selenium	1.00	1.02	102	80 - 120
Silver	1.00	1.08	108	80 - 120

* = Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/6020A

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9L04031	Instrument:	ICPMS5
Matrix:	Soil	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	9L04031-ICV1	9L04031-015	12/04/19 11:39
Initial Cal Blank	9L04031-ICB1	9L04031-016	12/04/19 11:43
Instrument RL Check	9L04031-CRL1	9L04031-017	12/04/19 11:48
Instrument RL Check	9L04031-CRL2	9L04031-018	12/04/19 11:53
Instrument RL Check	9L04031-CRL3	9L04031-019	12/04/19 11:57
Calibration Check	9L04031-CCV1	9L04031-033	12/04/19 13:09
Calibration Blank	9L04031-CCB1	9L04031-034	12/04/19 13:13
Blank	9120481-BLK1	9L04031-041	12/04/19 13:46
LCS	9120481-BS1	9L04031-042	12/04/19 13:51
PDI-138RAB-C-00-19.1-191118	A9K0609-01	9L04031-043	12/04/19 13:55
PDI-144RAB-C-00-29-191114	A9K0609-02	9L04031-044	12/04/19 14:00
Calibration Check	9L04031-CCV2	9L04031-045	12/04/19 14:05
Calibration Blank	9L04031-CCB2	9L04031-046	12/04/19 14:09
Calibration Check	9L04031-CCV3	9L04031-055	12/04/19 14:55
Calibration Blank	9L04031-CCB3	9L04031-056	12/04/19 15:00
Instrument RL Check	9L04031-CRL4	9L04031-057	12/04/19 15:04
Instrument RL Check	9L04031-CRL5	9L04031-058	12/04/19 15:09
Instrument RL Check	9L04031-CRL6	9L04031-059	12/04/19 15:14
Calibration Check	9L04031-CCV4	9L04031-070	12/04/19 16:09
Calibration Blank	9L04031-CCB4	9L04031-071	12/04/19 16:14
Calibration Check	9L04031-CCV5	9L04031-082	12/04/19 17:05
Calibration Blank	9L04031-CCB5	9L04031-083	12/04/19 17:10
Calibration Check	9L04031-CCV6	9L04031-094	12/04/19 18:01
Calibration Blank	9L04031-CCB6	9L04031-095	12/04/19 18:05
Calibration Check	9L04031-CCV7	9L04031-096	12/04/19 18:10
Calibration Blank	9L04031-CCB7	9L04031-097	12/04/19 18:15
Instrument RL Check	9L04031-CRL7	9L04031-098	12/04/19 18:19
Instrument RL Check	9L04031-CRL8	9L04031-099	12/04/19 18:24
Instrument RL Check	9L04031-CRL9	9L04031-100	12/04/19 18:29
Instrument RL Check	9L04031-CRLA	9L04031-101	12/04/19 18:34

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

INITIAL AND CONTINUING CALIBRATION CHECK

1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Control Limt: +/- 10.00%
Sequence: 9L04031

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9L04031-ICV1	Arsenic	100	99.0	99	ug/L	1311/6020A
	Barium	100	104	104	ug/L	1311/6020A
	Cadmium	100	98.7	99	ug/L	1311/6020A
	Chromium	100	97.0	97	ug/L	1311/6020A
	Lead	100	103	103	ug/L	1311/6020A
	Mercury	800	832	104	ng/L	1311/6020A
	Selenium	40.0	40.3	101	ug/L	1311/6020A
	Silver	40.0	40.9	102	ug/L	1311/6020A
9L04031-CCV1	Arsenic	100	100	100	ug/L	1311/6020A
	Barium	100	105	105	ug/L	1311/6020A
	Cadmium	100	99.0	99	ug/L	1311/6020A
	Chromium	100	96.6	97	ug/L	1311/6020A
	Lead	100	103	103	ug/L	1311/6020A
	Mercury	800	784	98	ng/L	1311/6020A
	Selenium	40.0	40.4	101	ug/L	1311/6020A
	Silver	40.0	41.1	103	ug/L	1311/6020A
9L04031-CCV2	Arsenic	100	98.8	99	ug/L	1311/6020A
	Barium	100	104	104	ug/L	1311/6020A
	Cadmium	100	100	100	ug/L	1311/6020A
	Chromium	100	95.8	96	ug/L	1311/6020A
	Lead	100	104	104	ug/L	1311/6020A
	Mercury	800	804	101	ng/L	1311/6020A
	Selenium	40.0	40.6	102	ug/L	1311/6020A
	Silver	40.0	41.2	103	ug/L	1311/6020A
9L04031-CCV3	Arsenic	100	99.4	99	ug/L	1311/6020A
	Barium	100	104	104	ug/L	1311/6020A
	Cadmium	100	100	100	ug/L	1311/6020A
	Chromium	100	95.6	96	ug/L	1311/6020A
	Lead	100	103	103	ug/L	1311/6020A
	Mercury	800	804	101	ng/L	1311/6020A
	Selenium	40.0	40.9	102	ug/L	1311/6020A
	Silver	40.0	41.3	103	ug/L	1311/6020A
9L04031-CCV4	Arsenic	100	98.7	99	ug/L	1311/6020A
	Barium	100	104	104	ug/L	1311/6020A
	Cadmium	100	99.2	99	ug/L	1311/6020A
	Chromium	100	95.3	95	ug/L	1311/6020A
	Lead	100	103	103	ug/L	1311/6020A
	Mercury	800	811	101	ng/L	1311/6020A
	Selenium	40.0	40.5	101	ug/L	1311/6020A
	Silver	40.0	40.8	102	ug/L	1311/6020A
9L04031-CCV5	Arsenic	100	99.4	99	ug/L	1311/6020A
	Barium	100	105	105	ug/L	1311/6020A
	Cadmium	100	99.6	100	ug/L	1311/6020A
	Chromium	100	95.2	95	ug/L	1311/6020A
	Lead	100	103	103	ug/L	1311/6020A
	Mercury	800	809	101	ng/L	1311/6020A

INITIAL AND CONTINUING CALIBRATION CHECK

1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Control Limt: +/- 10.00%
Sequence: 9L04031

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9L04031-CCV5	Selenium	40.0	40.4	101	ug/L	1311/6020A
	Silver	40.0	41.2	103	ug/L	1311/6020A
9L04031-CCV6	Arsenic	100	99.3	99	ug/L	1311/6020A
	Barium	100	105	105	ug/L	1311/6020A
	Cadmium	100	98.2	98	ug/L	1311/6020A
	Chromium	100	95.0	95	ug/L	1311/6020A
	Lead	100	101	101	ug/L	1311/6020A
	Mercury	800	796	99	ng/L	1311/6020A
	Selenium	40.0	40.0	100	ug/L	1311/6020A
	Silver	40.0	40.9	102	ug/L	1311/6020A
9L04031-CCV7	Arsenic	100	100	100	ug/L	1311/6020A
	Barium	100	105	105	ug/L	1311/6020A
	Cadmium	100	98.3	98	ug/L	1311/6020A
	Chromium	100	96.5	96	ug/L	1311/6020A
	Lead	100	103	103	ug/L	1311/6020A
	Mercury	800	784	98	ng/L	1311/6020A
	Selenium	40.0	39.6	99	ug/L	1311/6020A
	Silver	40.0	40.9	102	ug/L	1311/6020A

* Values outside of QC limits

INSTRUMENT BLANKS

1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Instrument ID: ICPMS5
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence: 9L04031
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9L04031-ICB1	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
9L04031-CCB1	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
9L04031-CCB2	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
9L04031-CCB3	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
9L04031-CCB4	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A

INSTRUMENT BLANKS
1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Instrument ID: ICPMS5
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence: 9L04031
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9L04031-CCB4	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
9L04031-CCB5	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
9L04031-CCB6	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
9L04031-CCB7	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A

(Inst) indicates on-Instrument Result and Reporting Level. Used for non-digested Instrument Blanks.

CRDL STANDARD

1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Sequence: 9L04031

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9L04031-CRL1	Arsenic	0.180	0.169	94	ug/L	70 - 130
	Barium	0.180	0.216	120	ug/L	70 - 130
	Cadmium	0.180	0.191	106	ug/L	70 - 130
	Chromium	0.180	0.166	92	ug/L	70 - 130
	Lead	0.180	0.232	129	ug/L	70 - 130
	Selenium	0.180	0.170	94	ug/L	70 - 130
	Silver	0.180	0.180	100	ug/L	70 - 130
9L04031-CRL2	Arsenic	0.900	0.940	104	ug/L	70 - 130
	Barium	0.900	0.961	107	ug/L	70 - 130
	Cadmium	0.900	0.906	101	ug/L	70 - 130
	Chromium	0.900	0.878	98	ug/L	70 - 130
	Lead	0.900	0.952	106	ug/L	70 - 130
	Mercury	36.0	37.6	105	ng/L	70 - 130
	Selenium	0.900	0.843	94	ug/L	70 - 130
	Silver	0.900	0.888	99	ug/L	70 - 130
9L04031-CRL3	Arsenic	1.80	1.71	95	ug/L	70 - 130
	Barium	1.80	1.92	107	ug/L	70 - 130
	Cadmium	1.80	1.82	101	ug/L	70 - 130
	Chromium	1.80	1.71	95	ug/L	70 - 130
	Lead	1.80	1.90	105	ug/L	70 - 130
	Mercury	72.0	71.3	99	ng/L	70 - 130
	Selenium	1.80	1.66	92	ug/L	70 - 130
	Silver	1.80	1.77	98	ug/L	70 - 130
9L04031-CRL4	Arsenic	0.180	0.205	114	ug/L	70 - 130
	Barium	0.180	0.184	102	ug/L	70 - 130
	Cadmium	0.180	0.155	86	ug/L	70 - 130
	Chromium	0.180	0.193	107	ug/L	70 - 130
	Lead	0.180	0.209	116	ug/L	70 - 130

CRDL STANDARD

1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Sequence: 9L04031

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9L04031-CRL4	Selenium	0.180	0.157	87	ug/L	70 - 130
	Silver	0.180	0.191	106	ug/L	70 - 130
9L04031-CRL5	Arsenic	0.900	0.913	101	ug/L	70 - 130
	Barium	0.900	0.923	103	ug/L	70 - 130
	Cadmium	0.900	0.925	103	ug/L	70 - 130
	Chromium	0.900	0.888	99	ug/L	70 - 130
	Lead	0.900	0.965	107	ug/L	70 - 130
	Mercury	36.0	43.4	121	ng/L	70 - 130
	Selenium	0.900	0.910	101	ug/L	70 - 130
	Silver	0.900	0.902	100	ug/L	70 - 130
9L04031-CRL6	Arsenic	1.80	1.86	103	ug/L	70 - 130
	Barium	1.80	1.86	103	ug/L	70 - 130
	Cadmium	1.80	1.81	101	ug/L	70 - 130
	Chromium	1.80	1.72	96	ug/L	70 - 130
	Lead	1.80	1.90	105	ug/L	70 - 130
	Mercury	72.0	77.2	107	ng/L	70 - 130
	Selenium	1.80	1.73	96	ug/L	70 - 130
	Silver	1.80	1.80	100	ug/L	70 - 130
9L04031-CRL7	Arsenic	0.180	0.180	100	ug/L	70 - 130
	Barium	0.180	0.195	108	ug/L	70 - 130
	Cadmium	0.180	0.195	108	ug/L	70 - 130
	Chromium	0.180	0.164	91	ug/L	70 - 130
	Lead	0.180	0.212	118	ug/L	70 - 130
	Mercury	7.20	5.86	81	ng/L	70 - 130
	Silver	0.180	0.181	100	ug/L	70 - 130
9L04031-CRL8	Arsenic	0.900	0.844	94	ug/L	70 - 130
	Barium	0.900	0.957	106	ug/L	70 - 130
	Cadmium	0.900	0.916	102	ug/L	70 - 130

CRDL STANDARD

1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Sequence: 9L04031

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9L04031-CRL8	Chromium	0.900	0.843	94	ug/L	70 - 130
	Lead	0.900	0.934	104	ug/L	70 - 130
	Mercury	36.0	40.8	113	ng/L	70 - 130
	Selenium	0.900	0.976	108	ug/L	70 - 130
	Silver	0.900	0.910	101	ug/L	70 - 130
9L04031-CRL9	Arsenic	1.80	1.83	102	ug/L	70 - 130
	Barium	1.80	1.91	106	ug/L	70 - 130
	Cadmium	1.80	1.79	99	ug/L	70 - 130
	Chromium	1.80	1.71	95	ug/L	70 - 130
	Lead	1.80	1.84	102	ug/L	70 - 130
	Mercury	72.0	65.8	91	ng/L	70 - 130
	Selenium	1.80	1.73	96	ug/L	70 - 130
	Silver	1.80	1.77	98	ug/L	70 - 130
9L04031-CRLA	Arsenic	3.60	3.63	101	ug/L	70 - 130
	Barium	3.60	3.81	106	ug/L	70 - 130
	Cadmium	3.60	3.64	101	ug/L	70 - 130
	Chromium	3.60	3.41	95	ug/L	70 - 130
	Lead	3.60	3.68	102	ug/L	70 - 130
	Mercury	144	136	95	ng/L	70 - 130
	Selenium	3.60	3.73	104	ug/L	70 - 130
	Silver	3.60	3.57	99	ug/L	70 - 130

* Values outside of QC limits

HOLDING TIME SUMMARY

1311/6020A

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatior

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-138RAB-C-00-19.1-191118	11/18/19 13:15	11/19/19 15:35	12/04/19 10:12	15.87	28.00	12/04/19 13:55	16.03	28.00	
PDI-138RAB-C-00-19.1-191118	11/18/19 13:15	11/19/19 15:35	12/04/19 10:12	15.87	180.00	12/04/19 13:55	16.03	180.00	
PDI-144RAB-C-00-29-191114	11/14/19 16:00	11/19/19 15:35	12/04/19 10:12	19.76	28.00	12/04/19 14:00	19.92	28.00	
PDI-144RAB-C-00-29-191114	11/14/19 16:00	11/19/19 15:35	12/04/19 10:12	19.76	180.00	12/04/19 14:00	19.92	180.00	

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: WET

METHOD: SM 2540 G

ANALYSES DATA PACKAGE COVER PAGE

SM 2540 G

Laboratory: Apex Laboratories
SDG: Gasco PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-138RAB-C-00-19.1-191118	A9K0609-01	SO
PDI-144RAB-C-00-29-191114	A9K0609-02	SO

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 
Name: David G. Jack

Forms Created: 12/30/2019 11:36AM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

SM 2540 G

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Sediment

Analyte	MDL	MRL	Units
Total Solids	1.00	1.00	% by Weight

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-138RAB-C-00-19.1-191118

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: SO
Laboratory ID: A9K0609-01
Sampled: 11/18/19 13:15
Prepared: 11/20/19 16:52
Analyzed: 11/22/19 16:02
Solids: N/A
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9111034
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	83.8	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-144RAB-C-00-29-191114

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: SO
Laboratory ID: A9K0609-02
Sampled: 11/14/19 16:00
Prepared: 11/20/19 16:52
Analyzed: 11/22/19 16:02
Solids: N/A
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9111034
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	91.9	1		SM 2540 G

PREPARATION BATCH SUMMARY

SM 2540 G

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9111034 Batch Matrix: Sediment Preparation: Total Solids (SM2540G/PSEP)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PDI-138RAB-C-00-19.1-191118 (Du	9111034-DUP1		11/20/19 16:52	
PDI-138RAB-C-00-19.1-191118	A9K0609-01		11/20/19 16:52	
PDI-144RAB-C-00-29-191114	A9K0609-02		11/20/19 16:52	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

PDI-138RAB-C-00-19.1-191118

DUPLICATES

SM 2540 G

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Sediment
Batch: 9111034
Preparation: Total Solids (SM2540G/PSEP)
Source Sample Name: PDI-138RAB-C-00-19.1-191118

SDG: Gasco_PreRD_DG 2019
Project: Gasco_PreRD_DG 2019 - 4c. Waste Charact
Laboratory ID: 9111034-DUP1
Lab Source ID: A9K0609-01
Initial/Final: 1 N/A / 1 N/A
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Solids	10	83.8		83.2		0.7		SM 2540 G

* Values outside of QC limits

HOLDING TIME SUMMARY

SM 2540 G

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatior

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-138RAB-C-00-19.1-191118	11/18/19 13:15	11/19/19 15:35	11/20/19 16:52	2.15	180.00	11/22/19 16:02	1.97		
PDI-144RAB-C-00-29-191114	11/14/19 16:00	11/19/19 15:35	11/20/19 16:52	6.04	180.00	11/22/19 16:02	1.97		

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GCMS

METHOD: EPA 1311 ZHE

ANALYSES DATA PACKAGE COVER PAGE

EPA 1311 ZHE

Laboratory: Apex Laboratories

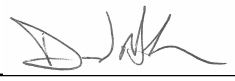
Client: Anchor QEA, LLC

SDG: Gasco PreRD_DG 2019

Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-138RAB-C-00-19.1-191118	A9K0609-01	SO
PDI-144RAB-C-00-29-191114	A9K0609-02	SO

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 

Name: David G. Jack

Forms Created: 12/30/2019 11:36AM

Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

EPA 1311 ZHE

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Solid

Analyte	MDL	MRL	Units

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

ORGANIC ANALYSIS DATA SHEET

EPA 1311 ZHE

PDI-138RAB-C-00-19.1-191118

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	SO	Laboratory ID:	A9K0609-01	File ID:	
Sampled:	11/18/19 13:15	Prepared:	12/02/19 17:00	Analyzed:	12/02/19 17:00
		Preparation:	EPA 1311 TCLP/ZHE	Initial/Final:	25 g / 500 mL
Batch:	9120402	Sequence:		Calibration:	Instrument: Inst

CAS NO.	COMPOUND	DILUTION	CONC. (N/A)	Q
NA	TCLP ZHE Extraction	1	PREP	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 1311 ZHE

PDI-144RAB-C-00-29-191114

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	SO	Laboratory ID:	A9K0609-02	File ID:	
Sampled:	11/14/19 16:00	Prepared:	12/02/19 17:00	Analyzed:	12/02/19 17:00
		Preparation:	EPA 1311 TCLP/ZHE	Initial/Final:	25 g / 500 mL
Batch:	9120402	Sequence:		Calibration:	Instrument: Inst

CAS NO.	COMPOUND	DILUTION	CONC. (N/A)	Q
NA	TCLP ZHE Extraction	1	PREP	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

EPA 1311 ZHE

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9120402 Batch Matrix: Solid Preparation: EPA 1311 TCLP/ZHE

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PDI-138RAB-C-00-19.1-191118	A9K0609-01		12/02/19 17:00	
PDI-144RAB-C-00-29-191114	A9K0609-02		12/02/19 17:00	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

HOLDING TIME SUMMARY

EPA 1311 ZHE

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatior

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-138RAB-C-00-19.1-191118	11/18/19 13:15	11/19/19 15:35	12/02/19 17:00	14.16	14.00	12/02/19 17:00	0.00		*
PDI-144RAB-C-00-29-191114	11/14/19 16:00	11/19/19 15:35	12/02/19 17:00	18.04	14.00	12/02/19 17:00	0.00		*

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: METALS

METHOD: EPA 1311

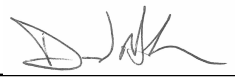
ANALYSES DATA PACKAGE COVER PAGE

EPA 1311

Laboratory: Apex Laboratories
SDG: Gasco PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-138RAB-C-00-19.1-191118	A9K0609-01	SO
PDI-144RAB-C-00-29-191114	A9K0609-02	SO

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 
Name: David G. Jack

Forms Created: 12/30/2019 11:36AM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

EPA 1311

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Charac

Batch Matrix: Soil

Analyte	MDL	MRL	Units

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

INORGANIC ANALYSIS DATA SHEET

EPA 1311

PDI-138RAB-C-00-19.1-191118

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: SO
Laboratory ID: A9K0609-01
Sampled: 11/18/19 13:15
Prepared: 12/03/19 15:30
Analyzed: 12/03/19 15:30
Solids: N/A
Preparation: EPA 1311 (TCLP)
Initial/Final: 100 g / 2000 mL
Batch: 9120422
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (N/A)	Dilution Factor	Q	Method
TCLP	TCLP Extraction	PREP	1		EPA 1311
TCLP	TCLP Extraction	PREP	1		EPA 1311

INORGANIC ANALYSIS DATA SHEET

EPA 1311

PDI-144RAB-C-00-29-191114

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: SO
Laboratory ID: A9K0609-02
Sampled: 11/14/19 16:00
Prepared: 12/03/19 15:30
Analyzed: 12/03/19 15:30
Solids: N/A
Preparation: EPA 1311 (TCLP)
Initial/Final: 100 g / 2000 mL
Batch: 9120422
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (N/A)	Dilution Factor	Q	Method
TCLP	TCLP Extraction	PREP	1		EPA 1311
TCLP	TCLP Extraction	PREP	1		EPA 1311

PREPARATION BATCH SUMMARY

EPA 1311

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9120422 Batch Matrix: Soil
Preparation: EPA 1311 (TCLP)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9120422-BLK1		12/03/19 15:30	
PDI-138RAB-C-00-19.1-191118	A9K0609-01		12/03/19 15:30	
PDI-144RAB-C-00-29-191114	A9K0609-02		12/03/19 15:30	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

METHOD BLANK DATA SHEET
EPA 1311

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil	Laboratory ID:	9120422-BLK1	File ID:	
Prepared:	12/03/19 15:30	Preparation:	EPA 1311 (TCLP)	Initial/Final:	50 g / 1000 mL
Analyzed:	12/03/19 15:30	Instrument:	Inst		
Batch:	9120422	Sequence:		Calibration:	

CAS NO.	COMPOUND	CONC. (N/A)	Q
TCLP	TCLP Extraction	PREP	U

HOLDING TIME SUMMARY

EPA 1311

Laboratory: Apex Laboratories

SDG: Gasco_PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatior

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-138RAB-C-00-19.1-191118	11/18/19 13:15	11/19/19 15:35	12/03/19 15:30	15.09	14.00	12/03/19 15:30	0.00		*
PDI-138RAB-C-00-19.1-191118	11/18/19 13:15	11/19/19 15:35	12/03/19 15:30	15.09	28.00	12/03/19 15:30	0.00		
PDI-144RAB-C-00-29-191114	11/14/19 16:00	11/19/19 15:35	12/03/19 15:30	18.98	14.00	12/03/19 15:30	0.00		*
PDI-144RAB-C-00-29-191114	11/14/19 16:00	11/19/19 15:35	12/03/19 15:30	18.98	28.00	12/03/19 15:30	0.00		

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Raw Data

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Volatile Organic Compounds by EPA 1311/8260C
Benchsheet & Sequence Data

Batch 9120412
Sequence 9L03025 (A9K0609-01,02)

PREPARATION BENCH SHEET

BATCH #: 9120412 (Water)

Apex Laboratories DEC 0 5 2019

APEX LABORATORIES

Prep Method: EPA 1311/5030B TCLP Volatiles

Lab Number	Cont.	Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH*
9120412-BLK1		QC	12/03/19 07:32	5	5			Extraction batch 9120402				
9120412-BS1		QC	12/03/19 07:32	5	5	A19K365		250			@50X	
A9K0609-01	B	1311/8260C TCLP/ZHE VOC	12/03/19 10:37	5	5					PDI-138RAB-C-00-19.1-191118		<2
A9K0609-02	B	1311/8260C TCLP/ZHE VOC	12/03/19 10:37	5	5					PDI-144RAB-C-00-29-191114		<2
A9K0695-01	B	1311/8260C TCLP/ZHE VOC	12/03/19 10:37	5	5					PDI-134RAB-C-00-25.5-191120		<2
9120412-DUP1		QC	12/03/19 10:37	5	5		A9K0695-01					<2
A9K0695-02	B	1311/8260C TCLP/ZHE VOC	12/03/19 10:37	5	5					PDI-136RAB-C-00-13.4-191119		<2
9120412-MS1		QC	12/03/19 10:37	5	5	A19K365	A9K0695-02	250			@50X	<2

*pH <2 verified 12/3/19 tnl N/A

Standards/Reagents

Reagent(s)			Analyte Spike(s)			Surrogate(s)		
Std ID	Exp. Date	Description	Std ID	Exp. Date	Description	Std ID	Exp. Date	Description
			A19K365	12/10/19	8260 Cal. Std. B VOCR+OXY Spike (20-40ug/r			

GCMS9

12/3/19 tnl
Prepared By: Date

MC 12/3/19
Reviewed By: Date

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	9L03025	Instrument:	VOA-GCMS9
Date:	12/03/19 07:33	Calibration:	A9J2503

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9L03025-IBL1	Water	QC	QC			A19I040	
2	9L03025-IBL2	Water	QC	QC			A19I040	
3	9L03025-TUN1	Water	QC	QC			A19I040	
4	9L03025-CCV1	Water	QC	QC			A19I040	
5	9120412-BS1	Water	QC	QC		9120412	A19I040	
6	9120412-BLK1	Water	QC	QC		9120412	A19I040	
7	9L03025-IBL3	Water	QC	QC			A19I040	
8	9L03025-IBL4	Water	QC	QC			A19I040	
9	A9K0609-01	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	12/04/19	9120412	A19I040	
10	A9K0609-02	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	12/04/19	9120412	A19I040	
11	A9K0695-01	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	12/06/19	9120412	A19I040	
12	9120412-DUP1	Water	QC	QC		9120412	A19I040	
13	A9K0695-02	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	12/06/19	9120412	A19I040	
14	9120412-MS1	Water	QC	QC		9120412	A19I040	
15	9L03025-IBL5	Water	QC	QC			A19I040	

Data Entered By: 12/3/19

Data Reviewed By: MV 12/3/19

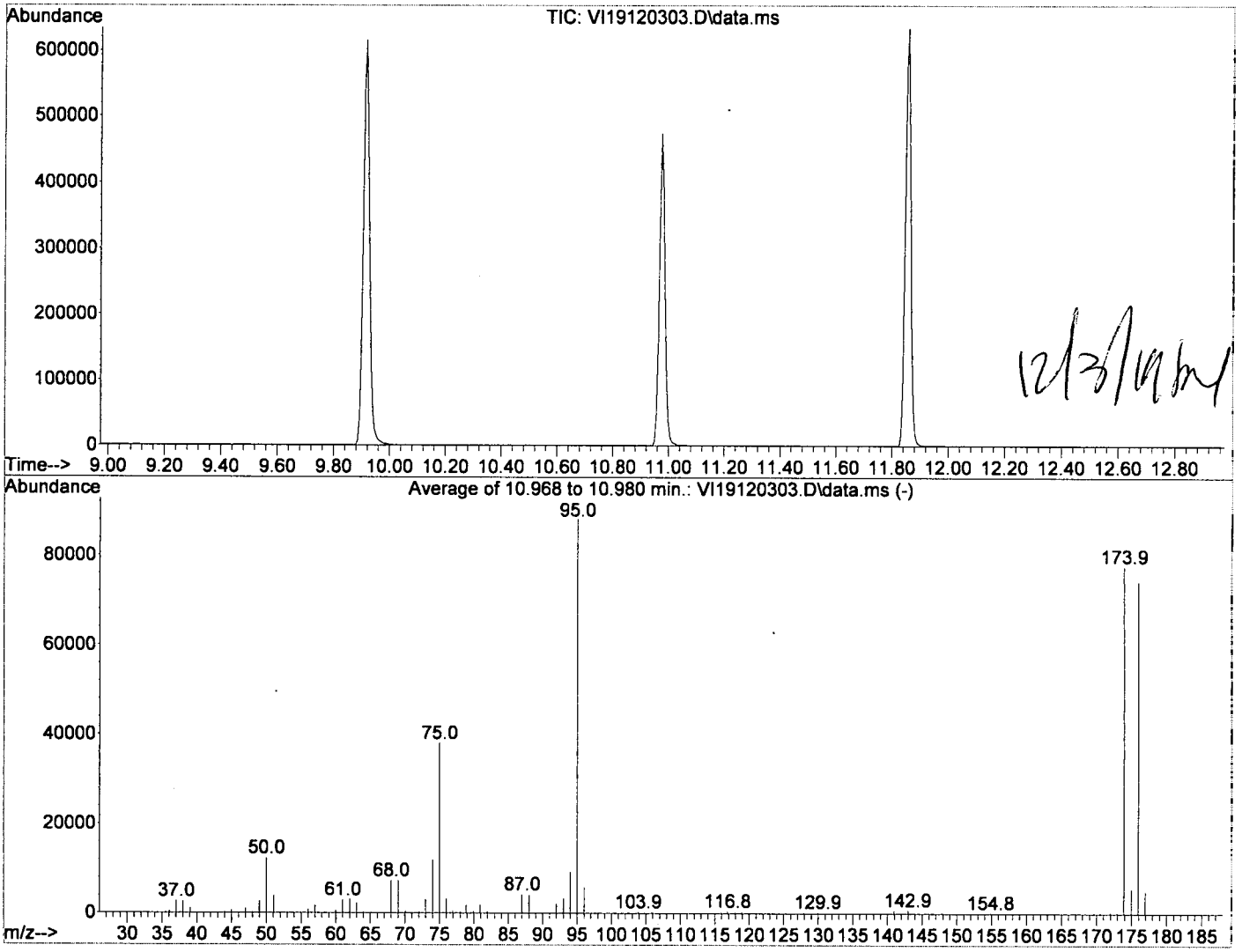
Comments:

BFB

Data Path : C:\msdchem\1\data\2019-12\9L03025\
Data File : VI19120303.D
Acq On : 3 Dec 2019 8:45 am
Operator : TNL
Sample : 9L03025-TUN1
Misc : A19I039 5mL BFB (IS/SURR)
ALS Vial : 3 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\methods\VI191025W.M
Title : EPA 8260: Volatile Organic Compounds
Last Update : Fri Oct 25 08:32:21 2019



AutoFind: Scans 1543, 1544, 1545; Background Corrected with Scan 1536

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	113.5	88205	PASS
96	95	5	9	6.7	5921	PASS
173	174	0.00	2	0.4	313	PASS
174	95	50	200	88.1	77688	PASS
175	174	5	9	7.2	5589	PASS
176	174	95	105	95.6	74283	PASS
177	176	5	10	6.7	5008	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L03025\
Data File : VI19120303.D
Acq On : 3 Dec 2019 8:45 am
Operator : TNL
Sample : 9L03025-TUN1
Misc : A19I039 5mL BFB (IS/SURR)
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Dec 03 09:33:23 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	126730	50.00	ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.916	117	357513	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.856	152	154784	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.718	111	136523	54.83	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	440079	54.97	ug/L	0.00
48) Toluene-d8 (S)	8.303	98	475661	50.69	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	128415	51.35	ug/L	0.00
Target Compounds						Qvalue
3) Chloromethane	1.897	50	320	0.12	ug/L #	47
5) Bromomethane	2.360	96	238	0.15	ug/L #	48
6) Chloroethane	2.506	64	234	0.18	ug/L #	36
14) Methylene Chloride	3.875	84	2723	0.31	ug/L	82
15) Acetone	3.942	43	3133	2.82	ug/L	83
19) tert-Butanol (TBA)	4.294	59	516	1.05	ug/L	46

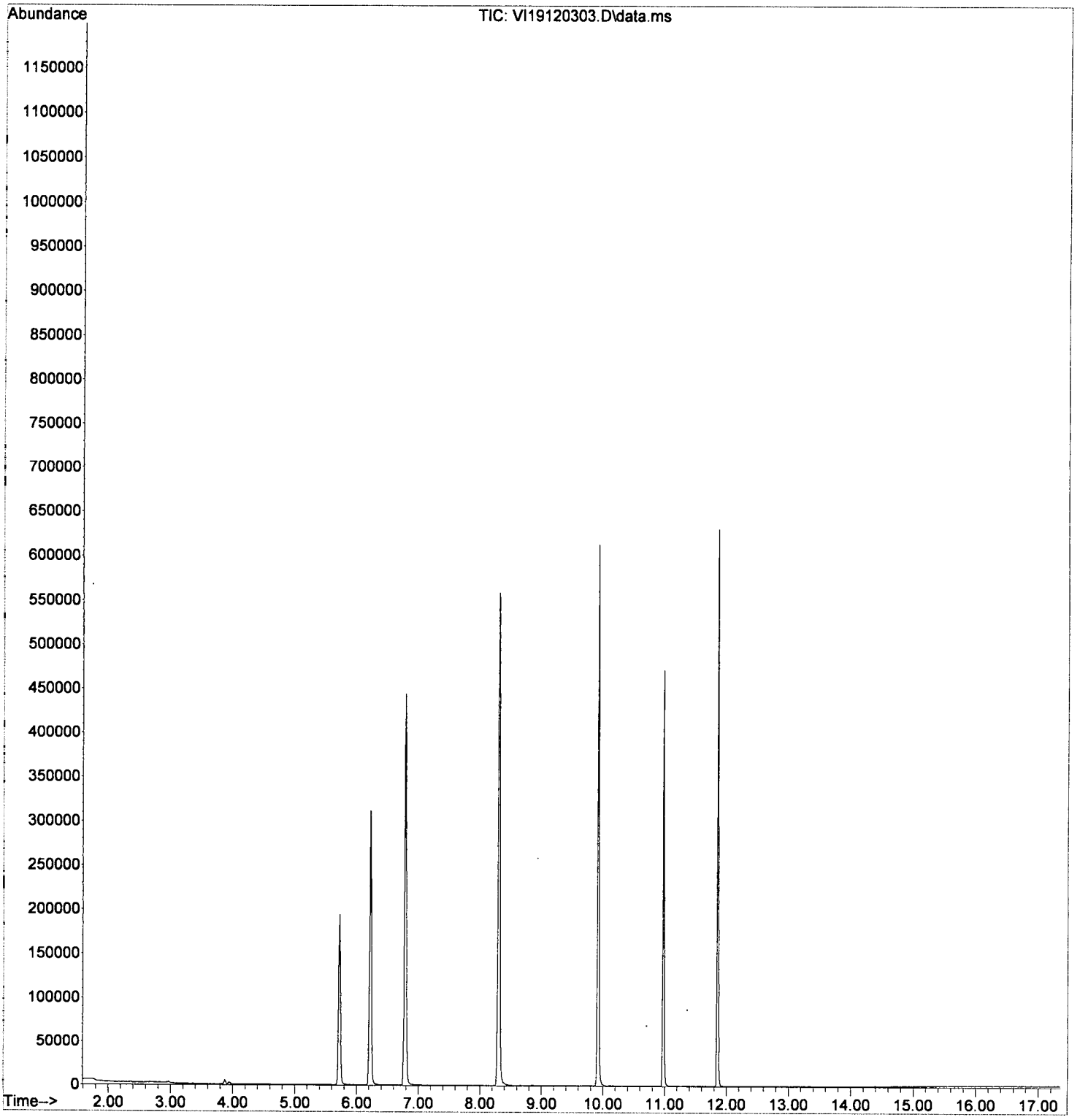
(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/3/19 h2

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L03025\
Data File : VI19120303.D
Acq On : 3 Dec 2019 8:45 am
Operator : TNL
Sample : 9L03025-TUN1
Misc : A19I039 5mL BFB (IS/SURR)
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Dec 03 09:33:23 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-12\9L03025\
Data File : VI19120304.D
Acq On : 3 Dec 2019 9:12 am
Operator : TNL
Sample : 9120412-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K365
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Dec 03 09:33:26 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

12/3/19 MJ

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)	
1	I	Pentafluorobenzene (I)	50.000	50.000	0.0	119	0.00	
2		Dichlorodifluoromethane	20.000	25.008	-25.0#	152	0.01	Q56
3	P	Chloromethane	20.000	19.807	1.0	127	0.00	
4	C	Vinyl Chloride	20.000	22.358	-11.8	130	0.00	
5		Bromomethane	20.000	26.111	-30.6#	162	0.01	Q56
6		Chloroethane	20.000	17.843	10.8	120	0.01	
7		Trichlorofluoromethane	20.000	22.301	-11.5	126	0.01	
8		Ethanol	1250.000	1123.629	10.1	103	0.00	
9	C	1,1-Dichloroethene	20.000	20.766	-3.8	122	0.01	
10		Carbon Disulfide	20.000	21.756	-8.8	129	0.01	
11		Freon 113	20.000	23.073	-15.4	132	0.01	
12		Iodomethane	20.000	12.513	NR 37.4#	83	0.01	
13		Acrolein	20.000	19.213	3.9	112	0.01	
14		Methylene Chloride	20.000	22.608	-13.0	131	0.00	
15		Acetone	40.000	33.301	16.7	99	0.01	
16		t-1,2-Dichloroethene	20.000	21.140	-5.7	117	0.01	
17		n-Hexane	20.000	23.129	-15.6	131	0.00	
18		Methyl-tert-butyl-ether	20.000	18.821	5.9	110	0.00	
19		tert-Butanol (TBA)	1250.000	1130.085	9.6	95	0.00	
20		Diisopropyl ether (DIPE)	5.000	4.084	18.3	91	0.00	
21	P	1,1-Dichloroethane	20.000	21.021	-5.1	121	0.01	
22		Acrylonitrile	20.000	21.371	-6.9	121	0.00	
23		Ethyl-tert-butyl ether (ET	5.000	3.939	NR 21.2#	88	0.00	
24		Vinyl Acetate	20.000	18.414	7.9	106	0.00	
25		c-1,2-Dichloroethene	20.000	20.288	-1.4	116	0.01	
26		2,2-Dichloropropane	20.000	22.098	-10.5	129	0.00	
27		Bromochloromethane	20.000	25.229	-26.1#	133	0.00	Q56
28	C	Chloroform	20.000	21.922	-9.6	121	0.00	
29		Carbon Tetrachloride	20.000	25.086	-25.4#	146	0.00	Q56
30		Tetrahydrofuran	20.000	18.244	8.8	105	0.00	
31		1,1,1-Trichloroethane	20.000	21.227	-6.1	122	0.00	
32	S	Dibromofluoromethane (S)	50.000	54.542	-9.1	131	0.00	
33		1,1-Dichloropropene	20.000	21.031	-5.2	122	0.00	
34		2-Butanone (MEK)	40.000	36.987	7.5	107	0.00	
35		Benzene	20.000	21.627	-8.1	126	0.00	
36		tert-Amyl methyl ether (TA	5.000	4.160	16.8	95	0.00	
37		1,2-Dichloroethane (EDC)	20.000	18.956	5.2	108	0.00	
38		iso-Butyl Alcohol	500.000	478.986	4.2	107	0.00	
39	S	1,4-Difluorobenzene (S)	50.000	54.869	-9.7	131	0.00	
40		Trichloroethene (TCE)	20.000	24.205	-21.0#	135	0.00	Q56
41		Tert-Amyl-Ethyl-Ether (TAEE	5.000	3.807	NR 23.9#	84	0.00	
42		Dibromomethane	20.000	22.573	-12.9	125	0.00	
43	C	1,2-Dichloropropane	20.000	21.078	-5.4	121	0.00	
44		Bromodichloromethane	20.000	22.494	-12.5	128	0.00	
45		Chlorobenzene-d5 (I)	50.000	50.000	0.0	129	0.00	
46		2-Chloroethyl Vinyl Ether	20.000	13.801	NR 31.0#	84	0.01	
47		c-1,3-Dichloropropene	20.000	19.996	0.0	122	0.00	
48	S	Toluene-d8 (S)	50.000	49.291	1.4	128	0.00	
49	C	Toluene	20.000	20.024	-0.1	127	0.00	
50		Tetrachloroethene (PCE)	20.000	22.674	-13.4	135	0.00	

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-12\9L03025\
Data File : VI19120304.D
Acq On : 3 Dec 2019 9:12 am
Operator : TNL
Sample : 9120412-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K365
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Dec 03 09:33:26 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)	
51		4-Methyl-2-Pentanone (MIBK)	40.000	34.698	13.3	102	0.00	
52		t-1,3-Dichloropropene	20.000	19.953	0.2	122	0.00	
53		1,1,2-Trichloroethane	20.000	21.090	-5.4	126	0.00	
54		Dibromochloromethane	20.000	26.875	-34.4#	152	0.00	Q57b
55		1,3-Dichloropropane	20.000	19.666	1.7	119	0.00	
56		1,2-Dibromoethane (EDB)	20.000	20.401	-2.0	123	0.00	
57		2-Hexanone	40.000	33.530	16.2	99	0.00	
58	P	Chlorobenzene	20.000	20.933	-4.7	129	0.00	
59	C	Ethylbenzene	20.000	19.701	1.5	123	0.00	
60		1,1,1,2-Tetrachloroethane	20.000	23.536	-17.7	141	0.00	
61		m,p-Xylenes (2)	40.000	39.785	0.5	121	0.00	
62		o-Xylene	20.000	18.951	5.2	113	0.00	
63		Styrene	20.000	20.115	-0.6	120	0.00	
64	P	Bromoform	20.000	26.732	-33.7#	176	0.00	Q57b
65		Isopropylbenzene	20.000	19.999	0.0	119	0.00	
66	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	131	0.00	
67	S	4-Bromofluorobenzene (S)	50.000	48.276	3.4	128	0.00	
68		Bromobenzene	20.000	20.529	-2.6	126	0.00	
69		n-Propylbenzene	20.000	19.484	2.6	122	0.00	
70	P	1,1,2,2-Tetrachloroethane	20.000	19.349	3.3	120	0.00	
71		2-Chlorotoluene	20.000	19.740	1.3	123	0.00	
72		1,3,5-Trimethylbenzene	20.000	19.773	1.1	120	0.00	
73		1,2,3-Trichloropropane	20.000	20.074	-0.4	126	0.00	
74		t-1,4-Dichloro-2-butene	20.000	18.173	9.1	113	0.00	
75		4-Chlorotoluene	20.000	19.036	4.8	119	0.00	
76		tert-Butylbenzene	20.000	17.802	11.0	110	0.00	
77		1,2,4-Trimethylbenzene	20.000	19.922	0.4	120	0.00	
78		sec-Butylbenzene	20.000	19.438	2.8	119	0.00	
79		4-Isopropyltoluene	20.000	20.110	-0.5	117	0.00	
80		1,3-Dichlorobenzene	20.000	20.228	-1.1	126	0.00	
81		1,4-Dichlorobenzene	20.000	20.315	-1.6	127	0.00	
82		n-Butylbenzene	20.000	20.280	-1.4	116	0.00	
83		1,2-Dichlorobenzene	20.000	20.166	-0.8	125	0.00	
84		1,2-Dibromo-3-Chloropropane	20.000	19.816	0.9	127	0.00	
85		Hexachlorobutadiene	20.000	19.409	3.0	117	0.00	
86		1,2,4-Trichlorobenzene	20.000	18.466	7.7	109	0.00	
87		Naphthalene	20.000	16.716	16.4	99	0.00	
88		1,2,3-Trichlorobenzene	20.000	19.164	4.2	113	0.00	

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L03025\
Data File : VI19120304.D
Acq On : 3 Dec 2019 9:12 am
Operator : TNL
Sample : 9120412-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K365
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Dec 03 09:33:26 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

12/3/19 tml

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	6.217	99	133707	50.00 ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.916	117	396617	50.00 ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.856	152	198660	50.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane (S)	5.718	111	143291	54.54 ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	463489	54.87 ug/L	0.00
48) Toluene-d8 (S)	8.298	98	513121	49.29 ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	154959	48.28 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.685	85	54658	25.01 ug/L	97 Q56
3) Chloromethane	1.898	50	57408	19.81 ug/L	96
4) Vinyl Chloride	2.001	62	64922	22.36 ug/L	98
5) Bromomethane	2.366	96	44698	26.11 ug/L	97 Q56
6) Chloroethane	2.500	64	23813	17.84 ug/L	81
7) Trichlorofluoromethane	2.670	101	73325	22.30 ug/L	96
8) Ethanol	3.236	45	72198	1123.63 ug/L	88
9) 1,1-Dichloroethene	3.242	61	65819	20.77 ug/L	82
10) Carbon Disulfide	3.254	76	127244	21.76 ug/L	99
11) Freon 113	3.291	101	52583	23.07 ug/L	97
12) Iodomethane	3.394	142	9517	12.51 ug/L	97
13) Acrolein	3.625	56	11672	19.21 ug/L	72
14) Methylene Chloride	3.875	84	57202	22.61 ug/L	84
15) Acetone	3.948	43	39019	33.30 ug/L	87
16) t-1,2-Dichloroethene	4.045	61	65580	21.14 ug/L	87
17) n-Hexane	4.124	86	10924	23.13 ug/L	99
18) Methyl-tert-butyl-ether	4.173	73	135715	18.82 ug/L	94
19) tert-Butanol (TBA)	4.295	59	585001	1130.08 ug/L	99
20) Diisopropyl ether (DIPE)	4.562	45	31684	4.08 ug/L	91
21) 1,1-Dichloroethane	4.690	63	90573	21.02 ug/L	96
22) Acrylonitrile	4.751	53	27716	21.37 ug/L	96
23) Ethyl-tert-butyl ether...	4.945	59	29370	3.94 ug/L	93
24) Vinyl Acetate	4.958	43	95830	18.41 ug/L	94
25) c-1,2-Dichloroethene	5.250	61	67481	20.29 ug/L	83
26) 2,2-Dichloropropane	5.353	77	62133	22.10 ug/L	94
27) Bromochloromethane	5.450	130	41176	25.23 ug/L	90 Q56
28) Chloroform	5.529	83	92343	21.92 ug/L	93
29) Carbon Tetrachloride	5.663	117	64272	25.09 ug/L	96 Q56
30) Tetrahydrofuran	5.700	42	22494	18.24 ug/L	85
31) 1,1,1-Trichloroethane	5.736	97	75478	21.23 ug/L	96
33) 1,1-Dichloropropene	5.864	75	71810	21.03 ug/L	95
34) 2-Butanone (MEK)	5.858	43	68705	36.99 ug/L	92
35) Benzene	6.126	78	220961	21.63 ug/L	93
36) tert-Amyl methyl ether...	6.253	73	28840	4.16 ug/L	93
37) 1,2-Dichloroethane (EDC)	6.345	62	63444	18.96 ug/L	91
38) iso-Butyl Alcohol	6.375	43	89138	478.99 ug/L	99
40) Trichloroethene (TCE)	6.746	130	63722	24.20 ug/L	94 Q56.
41) Tert-Amyl-Ethyl-Ether ...	6.996	59	19057	3.81 ug/L	81
42) Dibromomethane	7.202	93	37014	22.57 ug/L	94
43) 1,2-Dichloropropane	7.312	63	53715	21.08 ug/L	92
44) Bromodichloromethane	7.385	83	66095	22.49 ug/L	91
46) 2-Chloroethyl Vinyl Ether	8.030	63	28097	13.80 ug/L #	100
47) c-1,3-Dichloropropene	8.091	75	78411	20.00 ug/L	82

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L03025\
Data File : VI19120304.D
Acq On : 3 Dec 2019 9:12 am
Operator : TNL
Sample : 9120412-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K365
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Dec 03 09:33:26 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

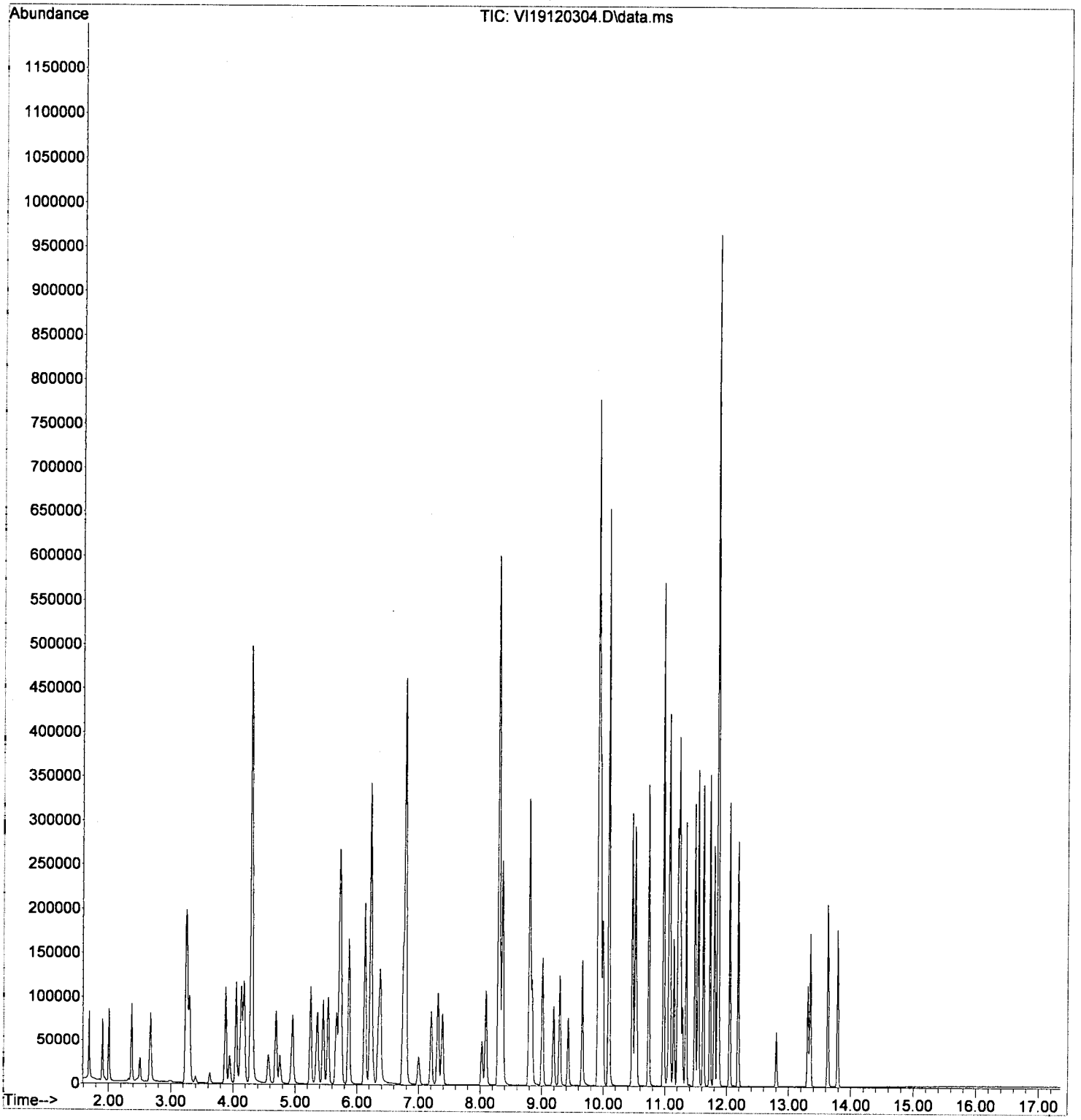
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
49) Toluene	8.358	91	233541	20.02 ug/L	100	
50) Tetrachloroethene (PCE)	8.796	166	61556	22.67 ug/L	92	
51) 4-Methyl-2-Pentanone (...	8.796	43	122855	34.70 ug/L	90	
52) t-1,3-Dichloropropene	8.839	75	69399	19.95 ug/L	99	
53) 1,1,2-Trichloroethane	9.009	97	54529	21.09 ug/L	90	
54) Dibromochloromethane	9.192	129	56174	26.87 ug/L	99	DG
55) 1,3-Dichloropropane	9.289	76	87711	19.67 ug/L	85	
56) 1,2-Dibromoethane (EDB)	9.429	107	57430	20.40 ug/L	93	
57) 2-Hexanone	9.654	43	86993	33.53 ug/L	88	
58) Chlorobenzene	9.928	112	155841	20.93 ug/L	96	
59) Ethylbenzene	9.952	91	240968	19.70 ug/L	96	
60) 1,1,1,2-Tetrachloroethane	9.989	131	51100	23.54 ug/L	94	
61) m,p-Xylenes (2)	10.086	91	358343	39.79 ug/L	99	
62) o-Xylene	10.469	91	169225	18.95 ug/L	95	
63) Styrene	10.512	104	144368	20.11 ug/L	97	
64) Bromoform	10.536	173	42021	26.73 ug/L	97	DG
65) Isopropylbenzene	10.731	105	217871	20.00 ug/L	98	
68) Bromobenzene	11.059	156	63210	20.53 ug/L	90	
69) n-Propylbenzene	11.078	91	257231	19.48 ug/L	98	
70) 1,1,2,2-Tetrachloroethane	11.139	85	50295	19.35 ug/L	95	
71) 2-Chlorotoluene	11.205	126	56159	19.74 ug/L	93	
72) 1,3,5-Trimethylbenzene	11.230	105	178396	19.77 ug/L	96	
73) 1,2,3-Trichloropropane	11.248	110	25375	20.07 ug/L	90	
74) t-1,4-Dichloro-2-butene	11.278	53	16438	18.17 ug/L	83	
75) 4-Chlorotoluene	11.339	91	154694	19.04 ug/L	99	
76) tert-Butylbenzene	11.485	91	89681	17.80 ug/L	92	
77) 1,2,4-Trimethylbenzene	11.540	105	180816	19.92 ug/L	99	
78) sec-Butylbenzene	11.619	105	216083	19.44 ug/L	98	
79) 4-Isopropyltoluene	11.729	119	176876	20.11 ug/L	96	
80) 1,3-Dichlorobenzene	11.802	146	108501	20.23 ug/L	99	
81) 1,4-Dichlorobenzene	11.863	146	113630	20.31 ug/L	98	
82) n-Butylbenzene	12.045	91	151586	20.28 ug/L	98	
83) 1,2-Dichlorobenzene	12.185	146	105046	20.17 ug/L	97	
84) 1,2-Dibromo-3-Chloropr...	12.799	157	17454	19.82 ug/L	90	
85) Hexachlorobutadiene	13.310	223	14127	19.41 ug/L	94	
86) 1,2,4-Trichlorobenzene	13.347	180	55438	18.47 ug/L	95	
87) Naphthalene	13.627	128	159555	16.72 ug/L	98	
88) 1,2,3-Trichlorobenzene	13.785	180	54624	19.16 ug/L	97	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L03025\
Data File : VI19120304.D
Acq On : 3 Dec 2019 9:12 am
Operator : TNL
Sample : 9120412-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K365
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Dec 03 09:33:26 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L03025\
Data File : VI19120305.D
Acq On : 3 Dec 2019 9:39 am
Operator : TNL
Sample : 9120412-BLK1@50
Misc : 50X 1mL/50mL ZHE FLUID 1
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Dec 03 10:48:40 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	132073	50.00	ug/L	#	0.00
45) Chlorobenzene-d5 (I)	9.916	117	381817	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.856	152	170115	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.718	111	141877	54.67	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	464577	55.68	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	498405	49.73	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	139177	50.63	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.898	50	333	0.12	ug/L	#	47
5) Bromomethane	2.372	96	362	0.21	ug/L	#	46
6) Chloroethane	2.512	64	638	0.48	ug/L	#	36
10) Carbon Disulfide	3.254	76	926	0.16	ug/L		78
14) Methylene Chloride	3.875	84	2003	Below Cal		#	74
15) Acetone	3.948	43	630	0.54	ug/L	#	44
81) 1,4-Dichlorobenzene	11.868	146	457	0.10	ug/L	#	38
82) n-Butylbenzene	12.045	91	768	0.12	ug/L		83
85) Hexachlorobutadiene	13.304	223	256	0.41	ug/L	#	50
86) 1,2,4-Trichlorobenzene	13.347	180	829	0.32	ug/L		69
87) Naphthalene	13.627	128	1975	0.24	ug/L		81
88) 1,2,3-Trichlorobenzene	13.785	180	841	0.34	ug/L		98

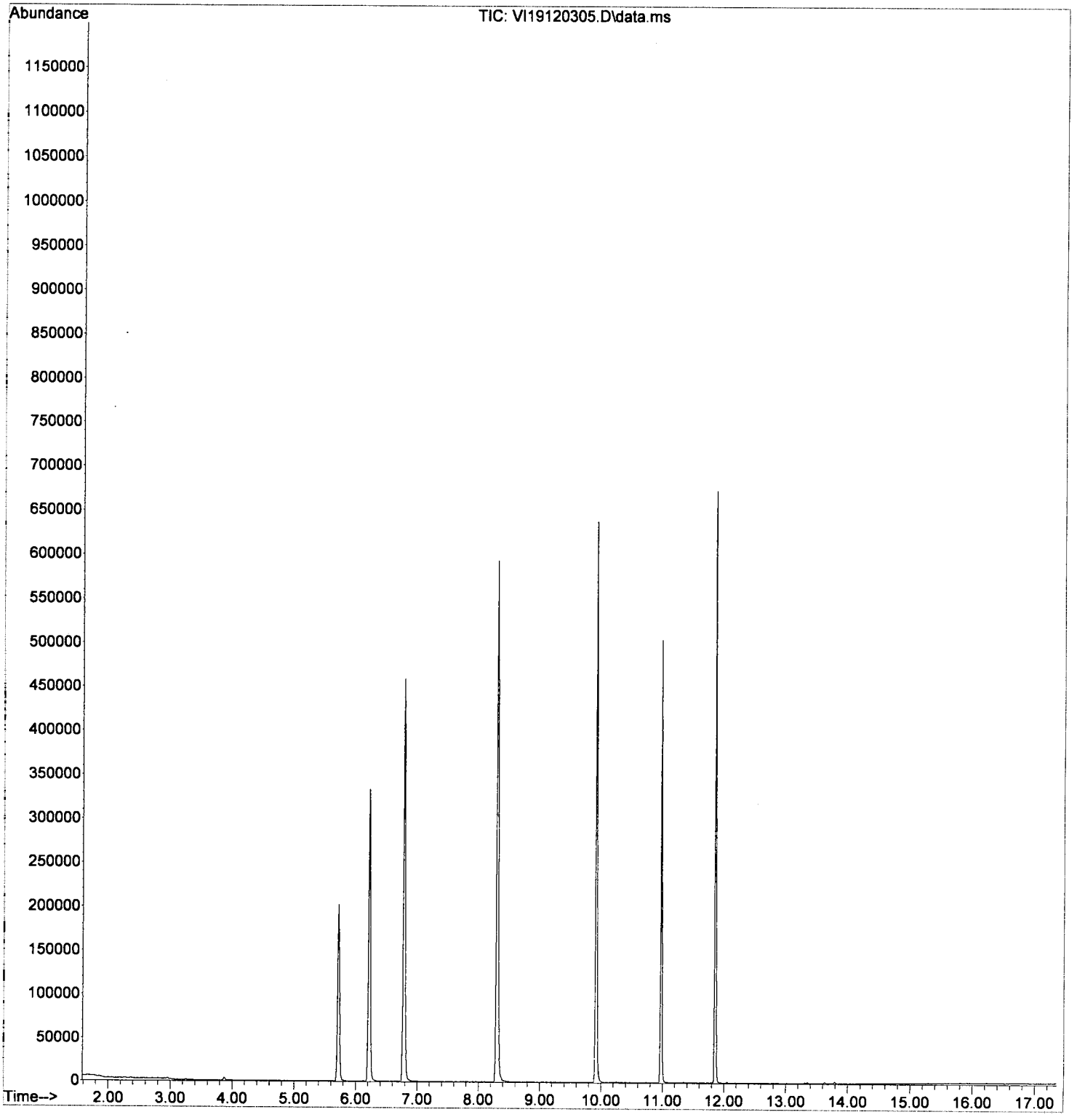
(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/3/1914

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L03025\
Data File : VI19120305.D
Acq On : 3 Dec 2019 9:39 am
Operator : TNL
Sample : 9120412-BLK1@50
Misc : 50X 1mL/50mL ZHE FLUID 1
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Dec 03 10:48:40 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L03025\
Data File : VI19120308.D
Acq On : 3 Dec 2019 11:00 am
Operator : TNL
Sample : A9K0609-01@50
Misc : 50X 1mL/50mL ZHE VOA LIST
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Dec 03 14:08:24 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.223	99	126370	50.00	ug/L	# 0.01
45) Chlorobenzene-d5 (I)	9.916	117	371251	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.856	152	167558	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.718	111	139087	56.02	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	448638	56.19	ug/L	0.00
48) Toluene-d8 (S)	8.303	98	490776	50.37	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	138091	51.01	ug/L	0.00
Target Compounds						Qvalue
5) Bromomethane	2.372	96	326	0.20	ug/L #	25
6) Chloroethane	2.500	64	176	0.14	ug/L #	36
14) Methylene Chloride	3.881	84	1186	Below Cal		87
15) Acetone	3.948	43	688	0.62	ug/L #	44
87) Naphthalene	13.633	128	2087	0.26	ug/L	81

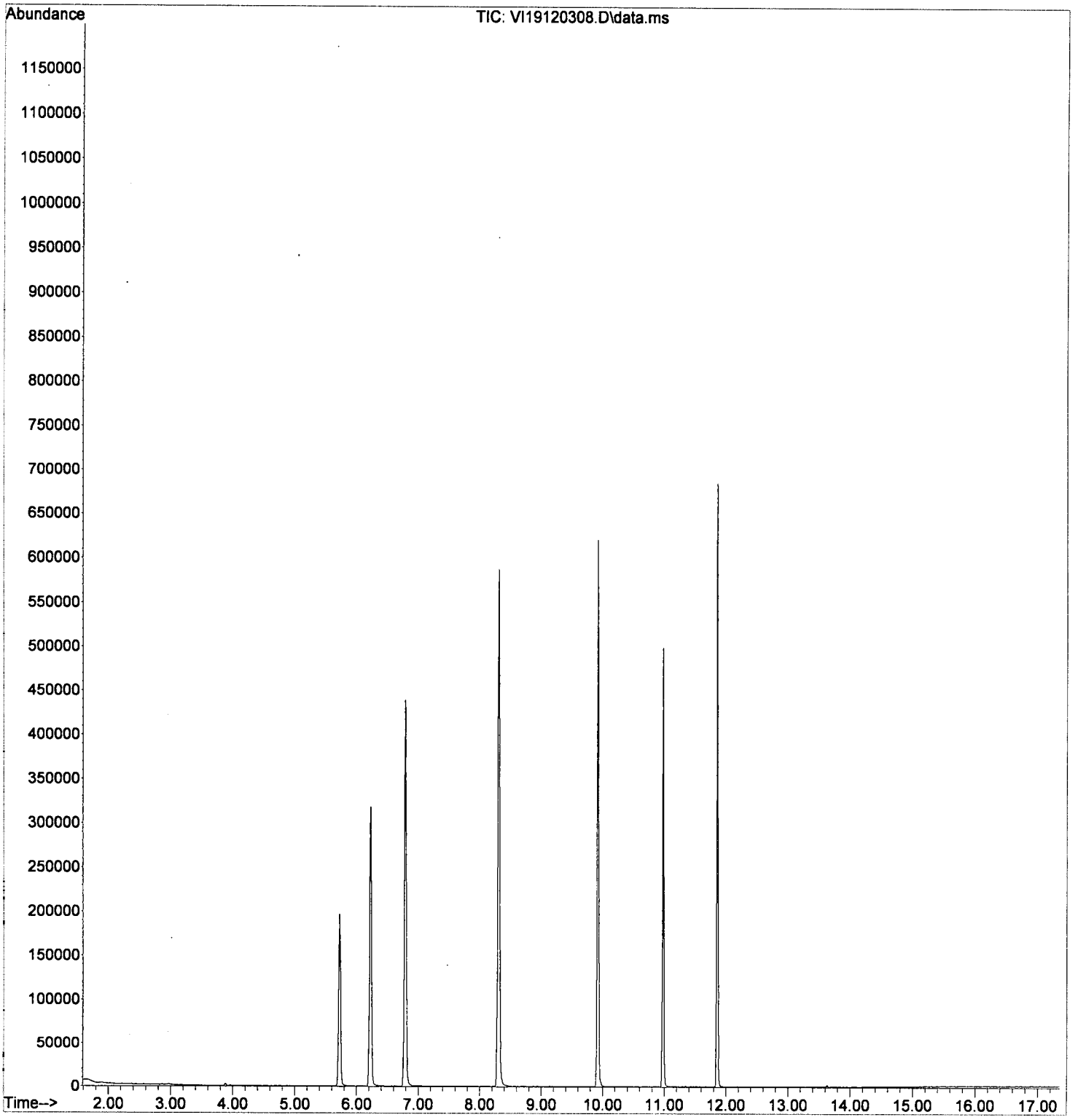
(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/3/19 tnl

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L03025\
Data File : VI19120308.D
Acq On : 3 Dec 2019 11:00 am
Operator : TNL
Sample : A9K0609-01@50
Misc : 50X 1mL/50mL ZHE VOA LIST
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Dec 03 14:08:24 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L03025\
Data File : VI19120309.D
Acq On : 3 Dec 2019 11:26 am
Operator : TNL
Sample : A9K0609-02@50
Misc : 50X 1mL/50mL ZHE VOA LIST
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Dec 03 14:08:27 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	6.217	99	119477	50.00 ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.916	117	344796	50.00 ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.856	152	154568	50.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane (S)	5.718	111	130116	55.43 ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	422754	56.01 ug/L	0.00
48) Toluene-d8 (S)	8.297	98	456819	50.48 ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	125977	50.44 ug/L	0.00
Target Compounds					Qvalue
5) Bromomethane	2.354	96	270	0.18 ug/L	# 1
6) Chloroethane	2.506	64	239	0.20 ug/L	# 36
14) Methylene Chloride	3.869	84	1129	Below Cal	# 78
15) Acetone	3.942	43	547	0.52 ug/L	# 44

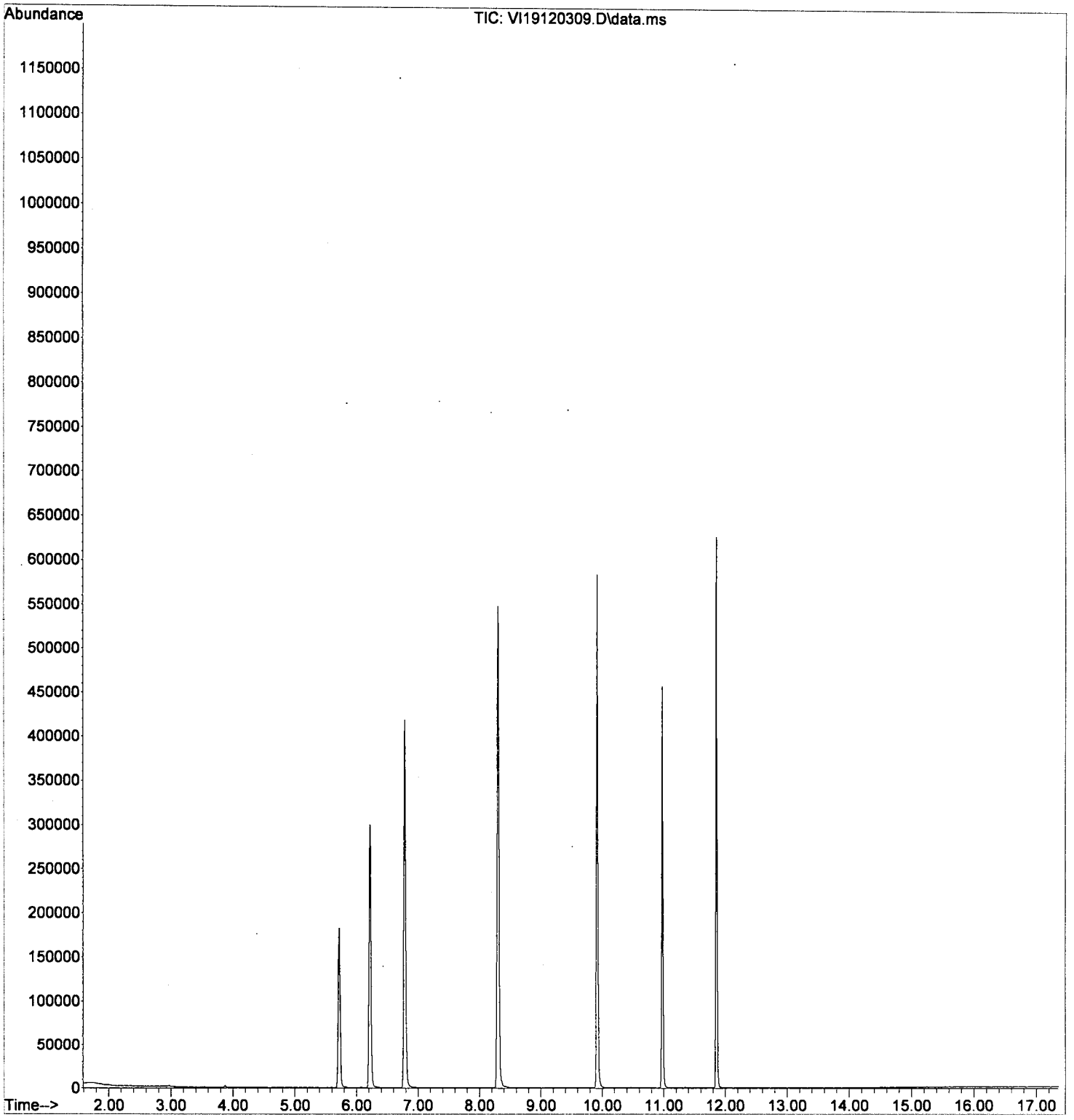
12/3/19

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L03025\
Data File : VI19120309.D
Acq On : 3 Dec 2019 11:26 am
Operator : TNL
Sample : A9K0609-02@50
Misc : 50X 1mL/50mL ZHE VOA LIST
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Dec 03 14:08:27 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Volatile Organic Compounds by EPA 1311/8260C
Calibration Data

Sequence 9J24043 (Cal ID A9J2503) VOA-GCMS9

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	9J24043	Instrument:	VOA-GCMS9
Date:	10/24/19 14:12	Calibration:	A9J2503

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J24043-IBL1	Water	QC	QC			A19I040	
2	9J24043-TUN1	Water	QC	QC			A19I040	
3	9J24043-ICB1	Water	QC	QC			A19I040	
4	9J24043-CAL1	Water	QC	QC			A19I040	A19J377
5	9J24043-CAL2	Water	QC	QC			A19I040	A19J378
6	9J24043-CAL3	Water	QC	QC			A19I040	A19J379
7	9J24043-CAL4	Water	QC	QC			A19I040	A19J380
8	9J24043-CAL5	Water	QC	QC			A19I040	A19J381
9	9J24043-CAL6	Water	QC	QC			A19I040	A19J382
10	9J24043-CAL7	Water	QC	QC			A19I040	A19J383
11	9J24043-CAL8	Water	QC	QC			A19I040	A19J384
12	9J24043-CAL9	Water	QC	QC			A19I040	A19J385
13	9J24043-IBL2	Water	QC	QC			A19I040	
14	9J24043-CALA	Water	QC	QC			A19I040	A19J386
15	9J24043-IBL3	Water	QC	QC			A19I040	
16	9J24043-CALB	Water	QC	QC			A19I040	A19J387
17	9J24043-IBL4	Water	QC	QC			A19I040	
18	9J24043-IBL5	Water	QC	QC			A19I040	
19	9J24043-ICV1	Water	QC	QC			A19I040	A19J131
20	9J24043-ICV2	Water	QC	QC			A19I040	A19E195
21	9J24043-IBL6	Water	QC	QC			A19I040	
22	9J24043-TUN2	Water	QC	QC			A19I040	
23	9J24043-IBL7	Water	QC	QC			A19I040	
24	9J24043-ICB2	Water	QC	QC			A19I040	
25	9J24043-CALC	Water	QC	QC			A19I040	A19J388
26	9J24043-CALD	Water	QC	QC			A19I040	A19J389
27	9J24043-CALE	Water	QC	QC			A19I040	A19J390
28	9J24043-CALF	Water	QC	QC			A19I040	A19J391
29	9J24043-CALH	Water	QC	QC			A19I040	A19J393
30	9J24043-CALI	Water	QC	QC			A19I040	A19J394
31	9J24043-CALJ	Water	QC	QC			A19I040	A19J395
32	9J24043-IBL8	Water	QC	QC			A19I040	
33	9J24043-IBL9	Water	QC	QC			A19I040	
34	9J24043-IBLA	Water	QC	QC			A19I040	
35	9J24043-IBLB	Water	QC	QC			A19I040	
36	9J24043-CALG	Water	QC	QC			A19I040	A19J392
37	9J24043-ICV3	Water	QC	QC			A19I040	A19G350

Data Entered By: 10/25/19

Data Reviewed By: 10/28/19

Comments:

Calibration Status Report VOA-GCMS9

Method Path : C:\msdchem\1\methods\
Method File : VI191025W.M
Title : EPA 8260: Volatile Organic Compounds
Last Update : Fri Oct 25 08:32:21 2019
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	0.1	-1	50	C:\msdchem\1\data\2019-10\9J24043\VI19102417.D
2	0.2	0	50	C:\msdchem\1\data\2019-10\9J24043\VI19102418.D
3	0.5	0	50	C:\msdchem\1\data\2019-10\9J24043\VI19102419.D
4	1	1	50	C:\msdchem\1\data\2019-10\9J24043\VI19102420.D
5	2	2	50	C:\msdchem\1\data\2019-10\9J24043\VI19102421.D
6	5	5	50	C:\msdchem\1\data\2019-10\9J24043\VI19102422.D
7	10	10	50	C:\msdchem\1\data\2019-10\9J24043\VI19102423.D
8	20	20	50	C:\msdchem\1\data\2019-10\9J24043\VI19102424.D
9	50	50	50	C:\msdchem\1\data\2019-10\9J24043\VI19102425.D
10	100	100	50	C:\msdchem\1\data\2019-10\9J24043\VI19102427.D
11	200	200	50	C:\msdchem\1\data\2019-10\9J24043\VI19102429.D

#	ID	Update Time	Quant Time	Acquisition Time
1	0.1	Oct 25 08:32 2019	Oct 25 08:17 2019	24 Oct 2019 3:55 pm
2	0.2	Oct 25 08:32 2019	Oct 25 08:19 2019	24 Oct 2019 4:21 pm
3	0.5	Oct 25 08:32 2019	Oct 25 08:21 2019	24 Oct 2019 4:48 pm
4	1	Oct 25 08:32 2019	Oct 25 08:23 2019	24 Oct 2019 5:15 pm
5	2	Oct 25 08:32 2019	Oct 25 08:24 2019	24 Oct 2019 5:42 pm
6	5	Oct 25 08:32 2019	Oct 25 08:25 2019	24 Oct 2019 6:09 pm
7	10	Oct 25 08:32 2019	Oct 25 08:10 2019	24 Oct 2019 6:36 pm
8	20	Oct 25 08:32 2019	Oct 25 08:10 2019	24 Oct 2019 7:03 pm
9	50	Oct 25 08:32 2019	Oct 25 08:10 2019	24 Oct 2019 7:30 pm
10	100	Oct 25 08:32 2019	Oct 25 08:10 2019	24 Oct 2019 8:24 pm
11	200	Oct 25 08:32 2019	Oct 25 08:30 2019	24 Oct 2019 9:17 pm

VI191025W.M Fri Oct 25 09:01:36 2019

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J24043

Analysis Included

8260C Full List
8260C Additional Cpds
8260C Iodomethane Add On
8260C Oxygenates

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD ID	Analyzed
9J24043-TUN1	MS Tune	Water		A19I040	10/24/2019 3:01:00PM
9J24043-ICB1	Initial Cal Blank	Water		A19I040	10/24/2019 3:28:00PM
9J24043-CAL1	Cal Standard	Water	A19J377	"	10/24/2019 3:55:00PM
9J24043-CAL2	Cal Standard	Water	A19J378	"	10/24/2019 4:21:00PM
9J24043-CAL3	Cal Standard	Water	A19J379	"	10/24/2019 4:48:00PM
9J24043-CAL4	Cal Standard	Water	A19J380	"	10/24/2019 5:15:00PM
9J24043-CAL5	Cal Standard	Water	A19J381	"	10/24/2019 5:42:00PM
9J24043-CAL6	Cal Standard	Water	A19J382	"	10/24/2019 6:09:00PM
9J24043-CAL7	Cal Standard	Water	A19J383	"	10/24/2019 6:36:00PM
9J24043-CAL8	Cal Standard	Water	A19J384	"	10/24/2019 7:03:00PM
9J24043-CAL9	Cal Standard	Water	A19J385	"	10/24/2019 7:30:00PM
9J24043-CALA	Cal Standard	Water	A19J386	"	10/24/2019 8:24:00PM
9J24043-CALB	Cal Standard	Water	A19J387	"	10/24/2019 9:17:00PM
9J24043-ICV1	Initial Cal Check	Water	A19J131	"	10/24/2019 10:38:00PM
9J24043-ICV2	Initial Cal Check	Water	A19E195	"	10/24/2019 11:05:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: A9J2503 Instrument: VOA-GCMS9

8260C Full List Sequence: 9J24043 Matrix: Water

9J24043-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J24043-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J24043-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J24043-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J24043-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J24043-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J24043-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J24043-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J24043-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J24043-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J24043-CALB	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J24043

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

Analytes With Quadratic Curve Fits

Qualifier	iMDL	iMRL	Spike Amt	%Difference	OK?	Raise MRL to ?
				———	☐	☐ ———

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

ICV RECOVERIES

Calibration: **A9J2503** Instrument: **VOA-GCMS9**

8260C Full List Sequence: **9J24043** Matrix: **Water**

9J24043-ICV1	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**
9J24043-ICV2	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

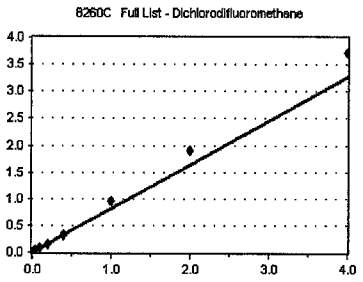
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

Dichlorodifluoromethane

Curve Fit: **AVERAGE RF**

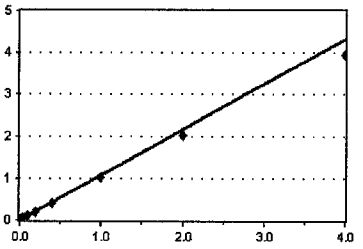


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	562	0.627	1.67
9J24043-CAL4	1	1583	0.682	1.68
9J24043-CAL5	2	3731	0.842	1.69
9J24043-CAL6	5	9010	0.812	1.68
9J24043-CAL7	10	18118	0.770	1.68
9J24043-CAL8	20	35982	0.800	1.67
9J24043-CAL9	50	109425	0.946	1.68
9J24043-CALA	100	212153	0.947	1.68
9J24043-CALB	200	431143	0.929	1.69

AVE RF **0.817** RF RSD **13.92** AVE RT **1.68**

Chloromethane

Curve Fit: **AVERAGE RF**

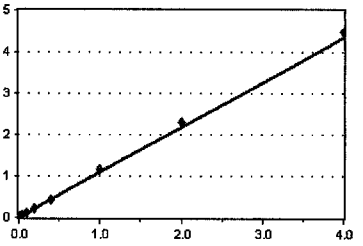


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~479~~	~~2.063~~	~~1.90~~
9J24043-CAL2	0.2	669	1.457	1.90
9J24043-CAL3	0.4	1136	1.268	1.89
9J24043-CAL4	1	2407	1.037	1.89
9J24043-CAL5	2	4743	1.070	1.90
9J24043-CAL6	5	11370	1.024	1.89
9J24043-CAL7	10	22449	0.954	1.90
9J24043-CAL8	20	45062	1.002	1.89
9J24043-CAL9	50	118956	1.029	1.89
9J24043-CALA	100	226754	1.012	1.90
9J24043-CALB	200	456703	0.984	1.90

AVE RF **1.084** RF RSD **14.45** AVE RT **1.90**

Vinyl chloride

Curve Fit: **AVERAGE RF**

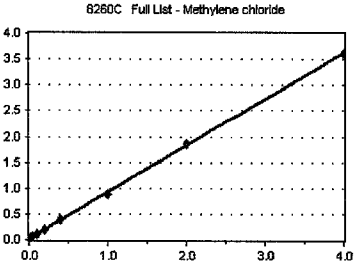


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	406	0.884	2.01
9J24043-CAL3	0.4	967	1.079	2.00
9J24043-CAL4	1	2351	1.013	2.00
9J24043-CAL5	2	5030	1.135	2.01
9J24043-CAL6	5	12653	1.140	2.00
9J24043-CAL7	10	25149	1.069	2.00
9J24043-CAL8	20	49916	1.110	2.00
9J24043-CAL9	50	133008	1.150	2.00
9J24043-CALA	100	258510	1.154	2.00
9J24043-CALB	200	521368	1.123	2.00

AVE RF **1.086** RF RSD **7.67** AVE RT **2.00**

Methylene chloride

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	2024	8.716	0.00
9J24043-CAL2	0.2	2201	4.794	0.00
9J24043-CAL3	0.4	2646	2.954	0.00
9J24043-CAL4	1	3939	1.697	0.00
9J24043-CAL5	2	6151	1.388	0.00
9J24043-CAL6	5	12549	1.130	3.87
9J24043-CAL7	10	22701	0.965	3.87
9J24043-CAL8	20	43598	0.970	3.87
9J24043-CAL9	50	102541	0.887	3.87
9J24043-CALA	100	209114	0.934	3.88
9J24043-CALB	200	419637	0.904	3.88

AVE RF **2.304** RF RSD **106.11** AVE RT **2.11**

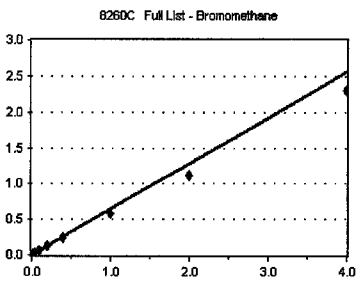
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

Bromomethane

Curve Fit: **AVERAGE RF**

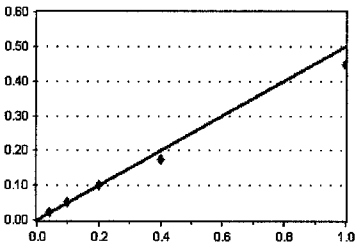


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~839~~	~~0.937~~	~~2.36~~
9J24043-CAL4	1	1763	0.760	2.36
9J24043-CAL5	2	3140	0.709	2.37
9J24043-CAL6	5	7782	0.701	2.36
9J24043-CAL7	10	14678	0.624	2.36
9J24043-CAL8	20	27599	0.614	2.35
9J24043-CAL9	50	66917	0.579	2.36
9J24043-CALA	100	125242	0.559	2.37
9J24043-CALB	200	267468	0.576	2.37

AVE RF **0.640** RF RSD **11.51** AVE RT **2.36**

Chloroethane

Curve Fit: **AVERAGE RF**

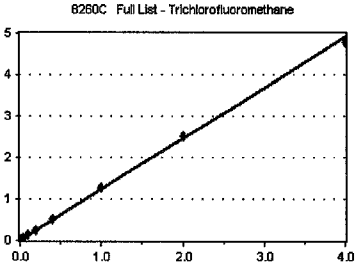


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL4~~	~~1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL5	2	2540	0.573	2.52
9J24043-CAL6	5	5899	0.531	2.51
9J24043-CAL7	10	11813	0.502	2.50
9J24043-CAL8	20	19851	0.442	2.49
9J24043-CAL9	50	51695	0.447	2.49
~~9J24043-CALA~~	~~100~~	~~53786~~	~~0.240~~	~~2.51~~
~~9J24043-CALB~~	~~200~~	~~53331~~	~~0.115~~	~~2.49~~

AVE RF **0.499** RF RSD **11.23** AVE RT **2.50**

Trichlorofluoromethane

Curve Fit: **AVERAGE RF**

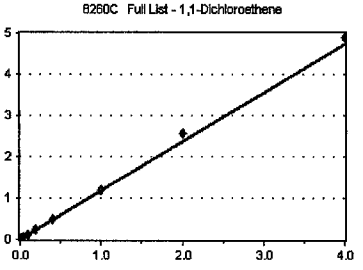


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	958	1.069	2.66
9J24043-CAL4	1	2784	1.200	2.66
9J24043-CAL5	2	5667	1.279	2.68
9J24043-CAL6	5	14236	1.282	2.66
9J24043-CAL7	10	29038	1.235	2.66
9J24043-CAL8	20	58162	1.294	2.66
9J24043-CAL9	50	145579	1.259	2.66
9J24043-CALA	100	279991	1.250	2.66
9J24043-CALB	200	556445	1.199	2.66

AVE RF **1.230** RF RSD **5.62** AVE RT **2.66**

1,1-Dichloroethene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	1038	1.159	3.23
9J24043-CAL4	1	2476	1.067	3.23
9J24043-CAL5	2	5263	1.188	3.24
9J24043-CAL6	5	13321	1.200	3.23
9J24043-CAL7	10	27243	1.158	3.23
9J24043-CAL8	20	54074	1.203	3.23
9J24043-CAL9	50	137847	1.192	3.23
9J24043-CALA	100	286478	1.279	3.24
9J24043-CALB	200	567371	1.222	3.23

AVE RF **1.185** RF RSD **4.83** AVE RT **3.23**

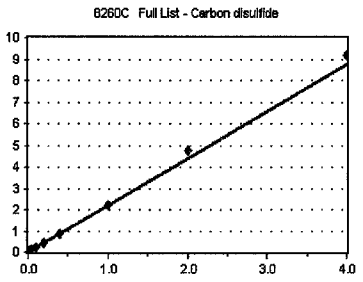
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

Carbon disulfide

Curve Fit: **AVERAGE RF**

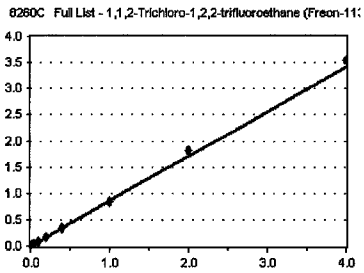


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	4573	1.970	3.25
9J24043-CAL5	2	9757	2.202	3.26
9J24043-CAL6	5	24060	2.167	3.25
9J24043-CAL7	10	49011	2.084	3.25
9J24043-CAL8	20	98898	2.200	3.24
9J24043-CAL9	50	254448	2.200	3.25
9J24043-CALA	100	531736	2.374	3.25
9J24043-CALB	200	1067583	2.300	3.25

AVE RF **2.187** RF RSD **5.64** AVE RT **3.25**

1,1,2-Trichloro-1,2,2-trifluoroethane

Curve Fit: **AVERAGE RF**

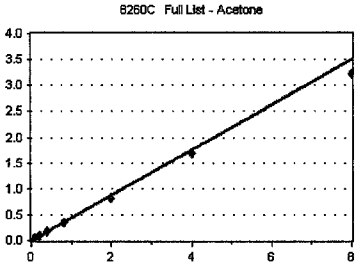


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	1717	0.740	3.29
9J24043-CAL5	2	3803	0.858	3.30
9J24043-CAL6	5	9544	0.860	3.29
9J24043-CAL7	10	19612	0.834	3.28
9J24043-CAL8	20	39711	0.883	3.28
9J24043-CAL9	50	97812	0.846	3.29
9J24043-CALA	100	204168	0.912	3.29
9J24043-CALB	200	411156	0.886	3.29

AVE RF **0.852** RF RSD **6.07** AVE RT **3.29**

Acetone

Curve Fit: **AVERAGE RF**

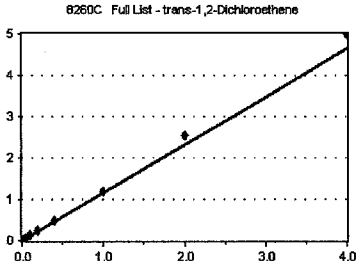


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.4~~	~~1168~~	~~1.272~~	~~3.95~~
~~9J24043-CAL3~~	~~0.8~~	~~1616~~	~~0.902~~	~~3.95~~
~~9J24043-CAL4~~	~~2~~	~~2940~~	~~0.633~~	~~3.95~~
9J24043-CAL5	4	4523	0.510	3.95
9J24043-CAL6	10	10355	0.466	3.94
9J24043-CAL7	20	19796	0.421	3.94
9J24043-CAL8	40	39380	0.438	3.94
9J24043-CAL9	100	93945	0.406	3.94
9J24043-CALA	200	188786	0.421	3.94
9J24043-CALB	400	375022	0.404	3.94

AVE RF **0.438** RF RSD **8.73** AVE RT **3.94**

trans-1,2-Dichloroethene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	360	0.784	4.05
9J24043-CAL3	0.4	963	1.075	4.04
9J24043-CAL4	1	2657	1.145	4.04
9J24043-CAL5	2	5503	1.242	4.05
9J24043-CAL6	5	13685	1.233	4.04
9J24043-CAL7	10	27372	1.164	4.04
9J24043-CAL8	20	56066	1.247	4.03
9J24043-CAL9	50	137318	1.188	4.04
9J24043-CALA	100	285846	1.276	4.04
9J24043-CALB	200	579277	1.248	4.04

AVE RF **1.160** RF RSD **12.54** AVE RT **4.04**

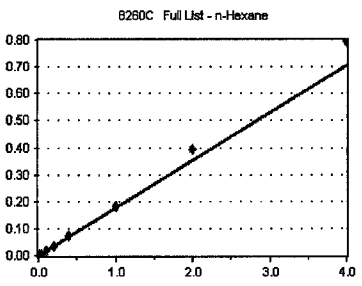
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

n-Hexane

Curve Fit: **AVERAGE RF**

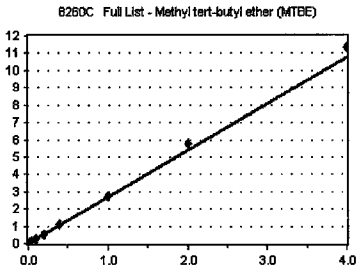


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	357	0.154	4.12
9J24043-CAL5	2	709	0.160	4.13
9J24043-CAL6	5	1836	0.165	4.12
9J24043-CAL7	10	4034	0.172	4.12
9J24043-CAL8	20	8308	0.185	4.12
9J24043-CAL9	50	21163	0.183	4.12
9J24043-CALA	100	43920	0.196	4.12
9J24043-CALB	200	92077	0.198	4.12

AVE RF **0.177** RF RSD **9.35** AVE RT **4.12**

Methyl tert-butyl ether (MTBE)

Curve Fit: **AVERAGE RF**

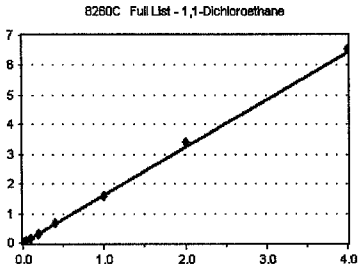


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	2309	2.577	4.17
9J24043-CAL4	1	5789	2.494	4.17
9J24043-CAL5	2	11957	2.698	4.17
9J24043-CAL6	5	29908	2.694	4.17
9J24043-CAL7	10	61557	2.617	4.17
9J24043-CAL8	20	123669	2.750	4.17
9J24043-CAL9	50	313020	2.707	4.17
9J24043-CALA	100	646936	2.888	4.17
9J24043-CALB	200	1318751	2.841	4.17

AVE RF **2.696** RF RSD **4.58** AVE RT **4.17**

1,1-Dichloroethane

Curve Fit: **AVERAGE RF**

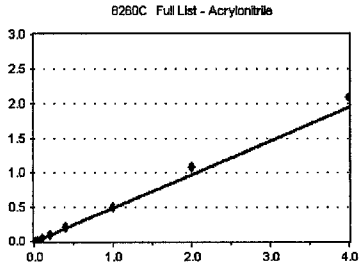


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	1323	1.477	4.68
9J24043-CAL4	1	3672	1.582	4.68
9J24043-CAL5	2	7227	1.631	4.69
9J24043-CAL6	5	18307	1.649	4.68
9J24043-CAL7	10	36999	1.573	4.68
9J24043-CAL8	20	75120	1.671	4.68
9J24043-CAL9	50	182910	1.582	4.68
9J24043-CALA	100	379907	1.696	4.68
9J24043-CALB	200	761535	1.641	4.68

AVE RF **1.611** RF RSD **4.09** AVE RT **4.68**

Acrylonitrile

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	876	0.377	4.75
9J24043-CAL5	2	1949	0.440	4.76
9J24043-CAL6	5	5426	0.489	4.75
9J24043-CAL7	10	11383	0.484	4.74
9J24043-CAL8	20	22973	0.511	4.75
9J24043-CAL9	50	58667	0.507	4.75
9J24043-CALA	100	122564	0.547	4.75
9J24043-CALB	200	243406	0.524	4.75

AVE RF **0.485** RF RSD **11.08** AVE RT **4.75**

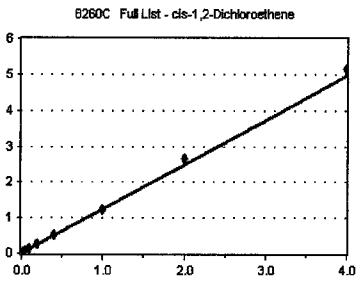
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

cis-1,2-Dichloroethene

Curve Fit: **AVERAGE RF**

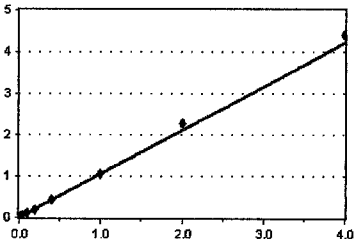


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	1008	1.125	5.24
9J24043-CAL4	1	2744	1.182	5.24
9J24043-CAL5	2	5568	1.256	5.25
9J24043-CAL6	5	13959	1.257	5.24
9J24043-CAL7	10	28723	1.221	5.24
9J24043-CAL8	20	58359	1.298	5.24
9J24043-CAL9	50	143124	1.238	5.24
9J24043-CALA	100	297452	1.328	5.24
9J24043-CALB	200	597836	1.288	5.24

AVE RF **1.244** RF RSD **4.98** AVE RT **5.24**

2,2-Dichloropropane

Curve Fit: **AVERAGE RF**

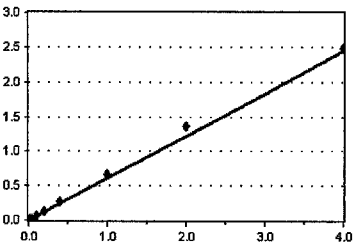


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	853	0.952	5.35
9J24043-CAL4	1	2316	0.998	5.35
9J24043-CAL5	2	4776	1.078	5.35
9J24043-CAL6	5	11793	1.062	5.35
9J24043-CAL7	10	23663	1.006	5.35
9J24043-CAL8	20	48254	1.073	5.35
9J24043-CAL9	50	122658	1.061	5.35
9J24043-CALA	100	252830	1.129	5.35
9J24043-CALB	200	512393	1.104	5.35

AVE RF **1.051** RF RSD **5.31** AVE RT **5.35**

Bromochloromethane

Curve Fit: **AVERAGE RF**

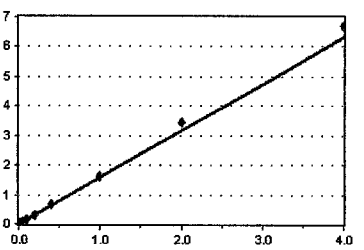


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	391	0.436	5.44
9J24043-CAL4	1	1188	0.512	5.45
9J24043-CAL5	2	2679	0.605	5.46
9J24043-CAL6	5	7172	0.646	5.44
9J24043-CAL7	10	14961	0.636	5.45
9J24043-CAL8	20	30935	0.688	5.44
9J24043-CAL9	50	77572	0.671	5.44
9J24043-CALA	100	151653	0.677	5.45
9J24043-CALB	200	288672	0.622	5.45

AVE RF **0.610** RF RSD **13.73** AVE RT **5.45**

Chloroform

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	587	1.278	5.53
9J24043-CAL3	0.4	1292	1.442	5.53
9J24043-CAL4	1	3341	1.440	5.53
9J24043-CAL5	2	7277	1.642	5.54
9J24043-CAL6	5	18186	1.638	5.53
9J24043-CAL7	10	37799	1.607	5.53
9J24043-CAL8	20	76239	1.696	5.52
9J24043-CAL9	50	186984	1.617	5.52
9J24043-CALA	100	385051	1.719	5.53
9J24043-CALB	200	776466	1.673	5.53

AVE RF **1.575** RF RSD **8.98** AVE RT **5.53**

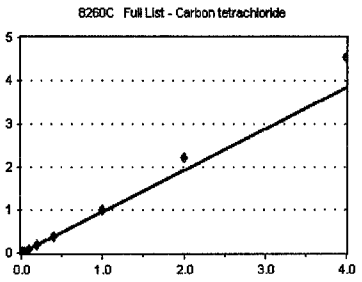
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

Carbon tetrachloride

Curve Fit: **AVERAGE RF**

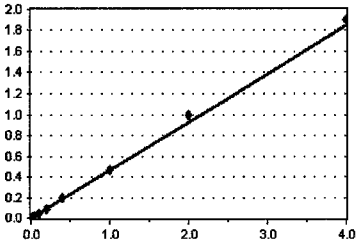


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~618~~	~~0.690~~	~~5.65~~
9J24043-CAL4	1	1791	0.772	5.66
9J24043-CAL5	2	4001	0.903	5.66
9J24043-CAL6	5	9957	0.897	5.66
9J24043-CAL7	10	20840	0.886	5.66
9J24043-CAL8	20	43938	0.977	5.66
9J24043-CAL9	50	114614	0.991	5.66
9J24043-CALA	100	247648	1.106	5.66
9J24043-CALB	200	525973	1.133	5.66

AVE RF **0.958** RF RSD **12.52** AVE RT **5.66**

Tetrahydrofuran

Curve Fit: **AVERAGE RF**

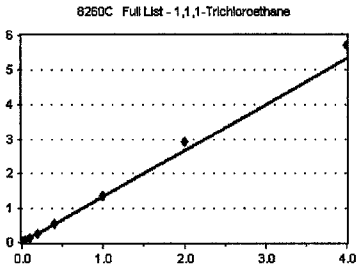


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	945	0.407	5.71
9J24043-CAL5	2	2045	0.461	5.71
9J24043-CAL6	5	5112	0.460	5.71
9J24043-CAL7	10	10375	0.441	5.70
9J24043-CAL8	20	21330	0.474	5.70
9J24043-CAL9	50	54072	0.468	5.69
9J24043-CALA	100	111881	0.500	5.70
9J24043-CALB	200	221252	0.477	5.69

AVE RF **0.461** RF RSD **5.94** AVE RT **5.70**

1,1,1-Trichloroethane

Curve Fit: **AVERAGE RF**

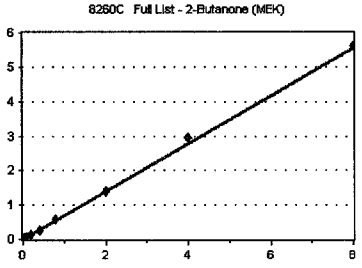


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	1012	1.130	5.73
9J24043-CAL4	1	2903	1.251	5.73
9J24043-CAL5	2	5937	1.340	5.74
9J24043-CAL6	5	14957	1.347	5.73
9J24043-CAL7	10	30210	1.284	5.74
9J24043-CAL8	20	62000	1.379	5.73
9J24043-CAL9	50	156566	1.354	5.73
9J24043-CALA	100	325398	1.453	5.74
9J24043-CALB	200	663507	1.430	5.74

AVE RF **1.330** RF RSD **7.37** AVE RT **5.73**

2-Butanone (MEK)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.8~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	2	2900	0.625	5.86
9J24043-CAL5	4	6243	0.704	5.87
9J24043-CAL6	10	15638	0.704	5.86
9J24043-CAL7	20	31158	0.662	5.86
9J24043-CAL8	40	64474	0.717	5.85
9J24043-CAL9	100	162223	0.701	5.85
9J24043-CALA	200	331914	0.741	5.85
9J24043-CALB	400	651518	0.702	5.85

AVE RF **0.695** RF RSD **5.12** AVE RT **5.86**

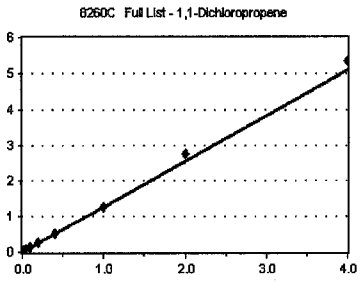
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

1,1-Dichloropropene

Curve Fit: **AVERAGE RF**

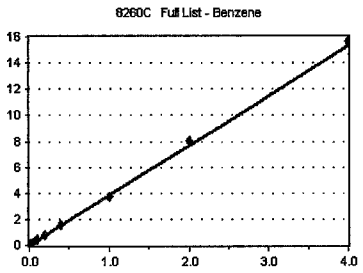


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	1049	1.171	5.87
9J24043-CAL4	1	2749	1.184	5.86
9J24043-CAL5	2	5724	1.292	5.87
9J24043-CAL6	5	14423	1.299	5.86
9J24043-CAL7	10	29295	1.245	5.86
9J24043-CAL8	20	59019	1.313	5.86
9J24043-CAL9	50	146998	1.271	5.86
9J24043-CALA	100	308104	1.376	5.86
9J24043-CALB	200	622283	1.341	5.86

AVE RF **1.277** RF RSD **5.30** AVE RT **5.86**

Benzene

Curve Fit: **AVERAGE RF**

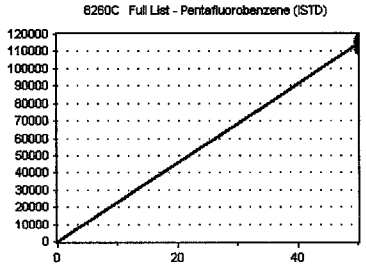


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	917	3.949	6.13
9J24043-CAL2	0.2	1584	3.450	6.13
9J24043-CAL3	0.4	3381	3.774	6.12
9J24043-CAL4	1	8314	3.582	6.13
9J24043-CAL5	2	17935	4.047	6.13
9J24043-CAL6	5	43404	3.910	6.12
9J24043-CAL7	10	87359	3.714	6.12
9J24043-CAL8	20	175817	3.910	6.12
9J24043-CAL9	50	434612	3.758	6.12
9J24043-CALA	100	900809	4.022	6.12
9J24043-CALB	200	1815119	3.911	6.12

AVE RF **3.821** RF RSD **4.86** AVE RT **6.12**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

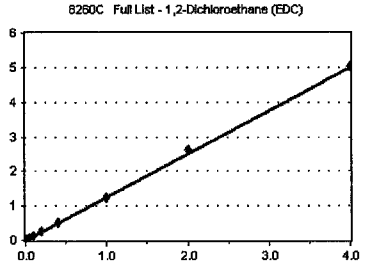


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	116102	2322.040	6.22
9J24043-CAL2	50	114788	2295.760	6.22
9J24043-CAL3	50	111985	2239.700	6.21
9J24043-CAL4	50	116043	2320.860	6.21
9J24043-CAL5	50	110790	2215.800	6.22
9J24043-CAL6	50	111010	2220.200	6.21
9J24043-CAL7	50	117608	2352.160	6.22
9J24043-CAL8	50	112406	2248.120	6.21
9J24043-CAL9	50	115635	2312.700	6.21
9J24043-CALA	50	111989	2239.780	6.22
9J24043-CALB	50	116034	2320.680	6.22

AVE RF **2280.709** RF RSD **2.13** AVE RT **6.21**

1,2-Dichloroethane (EDC)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	1073	1.198	6.33
9J24043-CAL4	1	2623	1.130	6.34
9J24043-CAL5	2	5726	1.292	6.35
9J24043-CAL6	5	14359	1.293	6.34
9J24043-CAL7	10	28935	1.230	6.34
9J24043-CAL8	20	58731	1.306	6.34
9J24043-CAL9	50	143950	1.245	6.34
9J24043-CALA	100	294149	1.313	6.34
9J24043-CALB	200	583025	1.256	6.34

AVE RF **1.252** RF RSD **4.76** AVE RT **6.34**

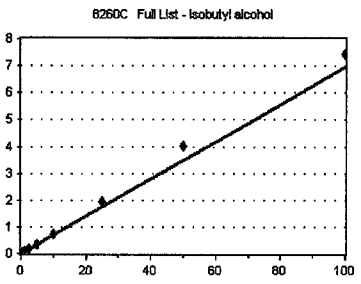
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

Isobutyl alcohol

Curve Fit: **AVERAGE RF**

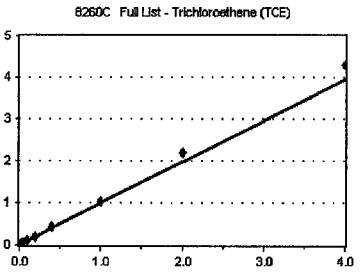


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~2.5~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~5~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	10	1172	5.233	6.39
9J24043-CAL4	25	3120	5.377	6.38
9J24043-CAL5	50	7968	7.192	6.38
9J24043-CAL6	125	20710	7.462	6.38
9J24043-CAL7	250	39286	6.681	6.38
9J24043-CAL8	500	83527	7.431	6.37
9J24043-CAL9	1250	224878	0.078	6.37
9J24043-CALA	2500	450055	8.037	6.38
9J24043-CALB	5000	863259	7.440	6.38

AVE RF **6.959** RF RSD **14.51** AVE RT **6.38**

Trichloroethene (TCE)

Curve Fit: **AVERAGE RF**

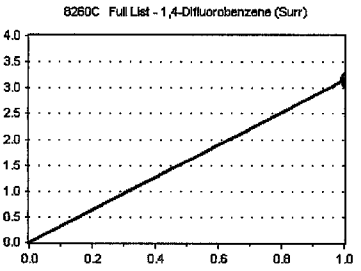


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	372	0.810	6.75
9J24043-CAL3	0.4	718	0.801	6.75
9J24043-CAL4	1	2166	0.933	6.74
9J24043-CAL5	2	4576	1.033	6.75
9J24043-CAL6	5	11340	1.022	6.74
9J24043-CAL7	10	23449	0.997	6.74
9J24043-CAL8	20	47359	1.053	6.74
9J24043-CAL9	50	118626	1.026	6.74
9J24043-CALA	100	245311	1.095	6.75
9J24043-CALB	200	498651	1.074	6.74

AVE RF **0.984** RF RSD **10.55** AVE RT **6.74**

1,4-Difluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

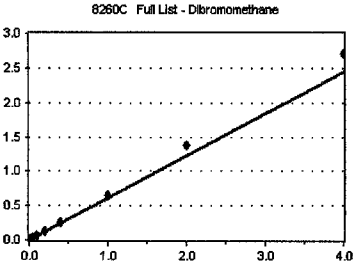


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	364447	3.139	6.78
9J24043-CAL2	50	359462	3.132	6.78
9J24043-CAL3	50	352302	3.146	6.78
9J24043-CAL4	50	366642	3.160	6.78
9J24043-CAL5	50	347212	3.134	6.78
9J24043-CAL6	50	353918	3.188	6.78
9J24043-CAL7	50	367409	3.124	6.78
9J24043-CAL8	50	354922	3.158	6.78
9J24043-CAL9	50	370144	3.201	6.78
9J24043-CALA	50	356857	3.187	6.78
9J24043-CALB	50	369003	3.180	6.78

AVE RF **3.159** RF RSD **0.84** AVE RT **6.78**

Dibromomethane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	378	0.422	7.20
9J24043-CAL4	1	1285	0.554	7.20
9J24043-CAL5	2	2755	0.622	7.20
9J24043-CAL6	5	7023	0.633	7.20
9J24043-CAL7	10	14594	0.620	7.20
9J24043-CAL8	20	29514	0.656	7.20
9J24043-CAL9	50	74270	0.642	7.20
9J24043-CALA	100	155032	0.692	7.20
9J24043-CALB	200	314382	0.677	7.20

AVE RF **0.613** RF RSD **13.36** AVE RT **7.20**

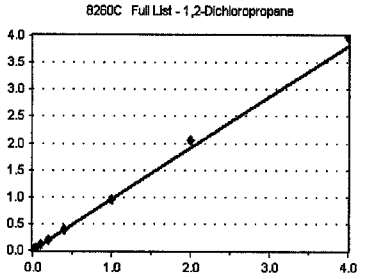
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

1,2-Dichloropropane

Curve Fit: **AVERAGE RF**

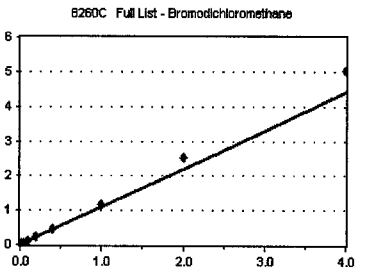


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	797	0.890	7.31
9J24043-CAL4	1	1944	0.838	7.31
9J24043-CAL5	2	4373	0.987	7.31
9J24043-CAL6	5	10897	0.982	7.31
9J24043-CAL7	10	21915	0.932	7.31
9J24043-CAL8	20	44422	0.988	7.31
9J24043-CAL9	50	109124	0.944	7.31
9J24043-CALA	100	229327	1.024	7.31
9J24043-CALB	200	461364	0.994	7.31

AVE RF **0.953** RF RSD **6.18** AVE RT **7.31**

Bromodichloromethane

Curve Fit: **AVERAGE RF**

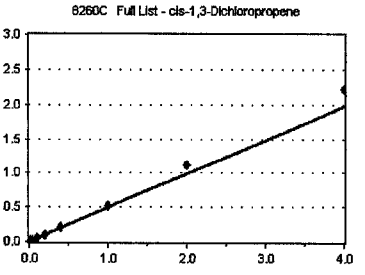


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	800	0.893	7.38
9J24043-CAL4	1	2259	0.973	7.38
9J24043-CAL5	2	4681	1.056	7.39
9J24043-CAL6	5	12021	1.083	7.38
9J24043-CAL7	10	25055	1.065	7.38
9J24043-CAL8	20	51693	1.150	7.38
9J24043-CAL9	50	133532	1.155	7.38
9J24043-CALA	100	282119	1.260	7.38
9J24043-CALB	200	582259	1.255	7.38

AVE RF **1.099** RF RSD **11.01** AVE RT **7.38**

cis-1,3-Dichloropropene

Curve Fit: **AVERAGE RF**

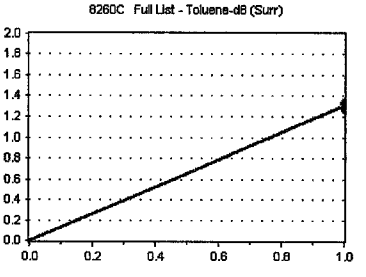


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	1014	0.431	8.09
9J24043-CAL4	1	2667	0.429	8.09
9J24043-CAL5	2	5578	0.468	8.09
9J24043-CAL6	5	14229	0.474	8.09
9J24043-CAL7	10	30482	0.487	8.09
9J24043-CAL8	20	64475	0.525	8.09
9J24043-CAL9	50	166893	0.520	8.09
9J24043-CALA	100	356393	0.559	8.09
9J24043-CALB	200	736312	0.556	8.09

AVE RF **0.494** RF RSD **9.88** AVE RT **8.09**

Toluene-d8 (Surr)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	406288	1.321	8.30
9J24043-CAL2	50	403793	1.333	8.30
9J24043-CAL3	50	396027	1.345	8.30
9J24043-CAL4	50	410518	1.321	8.30
9J24043-CAL5	50	395017	1.327	8.30
9J24043-CAL6	50	397005	1.322	8.30
9J24043-CAL7	50	415174	1.327	8.30
9J24043-CAL8	50	399810	1.302	8.30
9J24043-CAL9	50	415062	1.292	8.30
9J24043-CALA	50	405945	1.274	8.30
9J24043-CALB	50	420947	1.272	8.30

AVE RF **1.312** RF RSD **1.83** AVE RT **8.30**

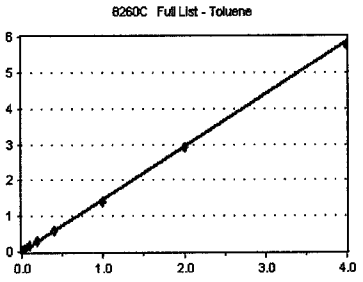
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

Toluene

Curve Fit: **AVERAGE RF**

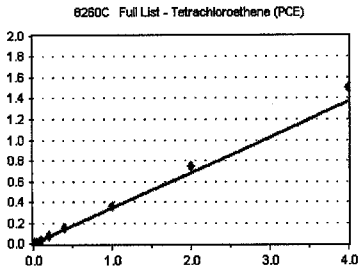


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	978	1.590	8.36
9J24043-CAL2	0.2	1744	1.439	8.35
9J24043-CAL3	0.4	3505	1.488	8.36
9J24043-CAL4	1	9040	1.454	8.35
9J24043-CAL5	2	17851	1.499	8.36
9J24043-CAL6	5	44272	1.474	8.36
9J24043-CAL7	10	90400	1.445	8.36
9J24043-CAL8	20	183309	1.492	8.36
9J24043-CAL9	50	446611	1.391	8.36
9J24043-CALA	100	931584	1.462	8.36
9J24043-CALB	200	1905088	1.439	8.36

AVE RF **1.470** RF RSD **3.41** AVE RT **8.36**

Tetrachloroethene (PCE)

Curve Fit: **AVERAGE RF**

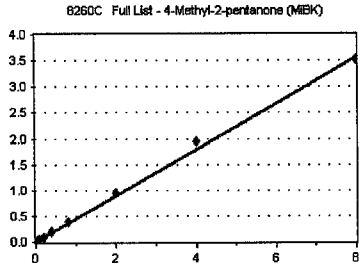


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	267	0.220	8.81
9J24043-CAL3	0.4	787	0.334	8.80
9J24043-CAL4	1	1994	0.321	8.80
9J24043-CAL5	2	4333	0.364	8.80
9J24043-CAL6	5	10847	0.361	8.80
9J24043-CAL7	10	22099	0.353	8.80
9J24043-CAL8	20	45467	0.370	8.80
9J24043-CAL9	50	113079	0.352	8.80
9J24043-CALA	100	236880	0.372	8.80
9J24043-CALB	200	496433	0.375	8.80

AVE RF **0.342** RF RSD **13.48** AVE RT **8.80**

4-Methyl-2-pentanone (MiBK)

Curve Fit: **AVERAGE RF**

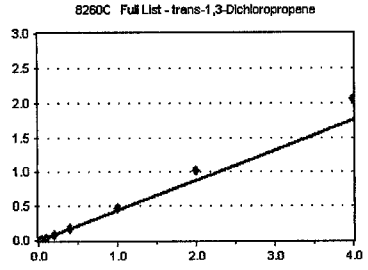


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.4	890	0.367	8.80
9J24043-CAL3	0.8	1912	0.406	8.81
9J24043-CAL4	2	5042	0.406	8.80
9J24043-CAL5	4	11029	0.463	8.81
9J24043-CAL6	10	28183	0.469	8.80
9J24043-CAL7	20	58009	0.464	8.80
9J24043-CAL8	40	120524	0.491	8.80
9J24043-CAL9	100	304356	0.474	8.80
9J24043-CALA	200	616767	0.484	8.80
9J24043-CALB	400	1166981	0.441	8.80

AVE RF **0.446** RF RSD **9.09** AVE RT **8.80**

trans-1,3-Dichloropropene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~610~~	~~0.259~~	~~8.84~~
9J24043-CAL4	1	2122	0.341	8.84
9J24043-CAL5	2	4500	0.378	8.84
9J24043-CAL6	5	12130	0.404	8.84
9J24043-CAL7	10	26302	0.420	8.84
9J24043-CAL8	20	57085	0.465	8.83
9J24043-CAL9	50	151987	0.473	8.83
9J24043-CALA	100	327146	0.513	8.84
9J24043-CALB	200	678927	0.513	8.84

AVE RF **0.438** RF RSD **14.34** AVE RT **8.84**

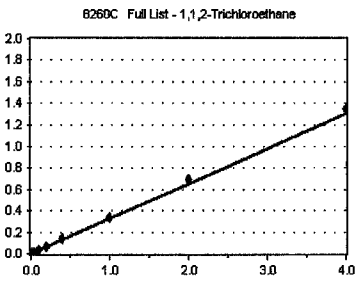
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

1,1,2-Trichloroethane

Curve Fit: **AVERAGE RF**

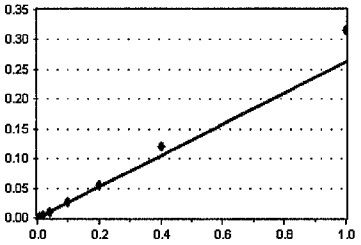


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	288	0.238	9.01
9J24043-CAL3	0.4	717	0.304	9.00
9J24043-CAL4	1	1944	0.313	9.00
9J24043-CAL5	2	4134	0.347	9.00
9J24043-CAL6	5	10336	0.344	9.00
9J24043-CAL7	10	21402	0.342	9.01
9J24043-CAL8	20	43171	0.351	9.00
9J24043-CAL9	50	107594	0.335	9.00
9J24043-CALA	100	221018	0.347	9.01
9J24043-CALB	200	447395	0.338	9.01

AVE RF **0.326** RF RSD **10.62** AVE RT **9.01**

Dibromochloromethane

Curve Fit: **AVERAGE RF**

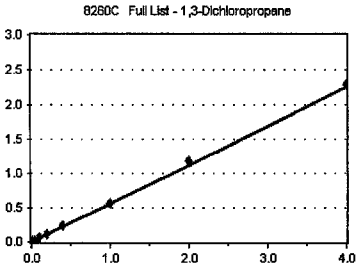


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	505	0.214	9.19
9J24043-CAL4	1	1349	0.217	9.19
9J24043-CAL5	2	3038	0.255	9.19
9J24043-CAL6	5	8016	0.267	9.19
9J24043-CAL7	10	17208	0.275	9.19
9J24043-CAL8	20	36932	0.301	9.19
9J24043-CAL9	50	101291	0.315	9.19
~~9J24043-CALA~~	~~100~~	~~222919~~	~~0.360~~	~~9.19~~
~~9J24043-CALB~~	~~200~~	~~473598~~	~~0.358~~	~~9.19~~

AVE RF **0.264** RF RSD **14.58** AVE RT **9.19**

1,3-Dichloropropane

Curve Fit: **AVERAGE RF**

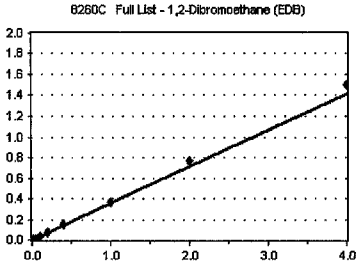


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	568	0.469	9.29
9J24043-CAL3	0.4	1253	0.532	9.29
9J24043-CAL4	1	3361	0.541	9.29
9J24043-CAL5	2	6889	0.578	9.29
9J24043-CAL6	5	17551	0.584	9.29
9J24043-CAL7	10	36354	0.581	9.29
9J24043-CAL8	20	73700	0.600	9.29
9J24043-CAL9	50	183541	0.571	9.29
9J24043-CALA	100	379039	0.595	9.29
9J24043-CALB	200	755862	0.571	9.29

AVE RF **0.562** RF RSD **6.98** AVE RT **9.29**

1,2-Dibromoethane (EDB)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~279~~	~~0.230~~	~~9.42~~
9J24043-CAL3	0.4	615	0.261	9.42
9J24043-CAL4	1	1928	0.310	9.42
9J24043-CAL5	2	4499	0.378	9.43
9J24043-CAL6	5	11270	0.375	9.42
9J24043-CAL7	10	22884	0.366	9.42
9J24043-CAL8	20	46797	0.381	9.42
9J24043-CAL9	50	117418	0.366	9.42
9J24043-CALA	100	243688	0.382	9.42
9J24043-CALB	200	496207	0.375	9.42

AVE RF **0.355** RF RSD **11.70** AVE RT **9.42**

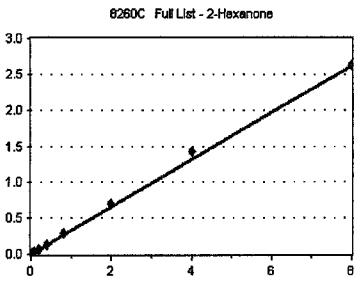
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

2-Hexanone

Curve Fit: **AVERAGE RF**

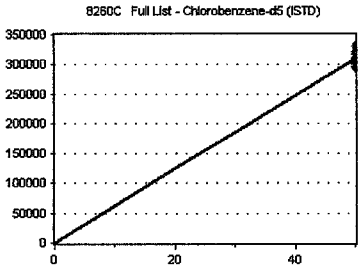


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.8	1346	0.286	9.66
9J24043-CAL4	2	3526	0.284	9.66
9J24043-CAL5	4	7610	0.319	9.66
9J24043-CAL6	10	19724	0.328	9.65
9J24043-CAL7	20	41881	0.335	9.65
9J24043-CAL8	40	87528	0.356	9.65
9J24043-CAL9	100	224495	0.350	9.65
9J24043-CALA	200	456833	0.358	9.65
9J24043-CALB	400	866990	0.327	9.65

AVE RF **0.327** RF RSD **8.41** AVE RT **9.66**

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**

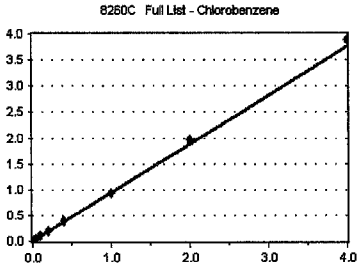


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	307577	6151.540	9.91
9J24043-CAL2	50	302974	6059.480	9.92
9J24043-CAL3	50	294372	5887.440	9.91
9J24043-CAL4	50	310797	6215.940	9.91
9J24043-CAL5	50	297754	5955.080	9.92
9J24043-CAL6	50	300317	6006.340	9.91
9J24043-CAL7	50	312833	6256.660	9.91
9J24043-CAL8	50	307093	6141.860	9.91
9J24043-CAL9	50	321159	6423.180	9.91
9J24043-CALA	50	318635	6372.700	9.91
9J24043-CALB	50	330915	6618.300	9.92

AVE RF **6189.865** RF RSD **3.53** AVE RT **9.91**

Chlorobenzene

Curve Fit: **AVERAGE RF**

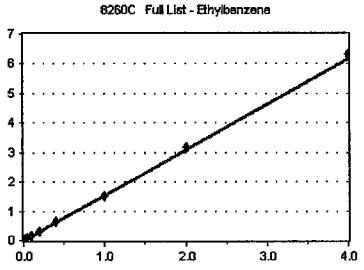


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	480	0.780	9.93
9J24043-CAL2	0.2	1045	0.862	9.93
9J24043-CAL3	0.4	2226	0.945	9.93
9J24043-CAL4	1	5770	0.928	9.93
9J24043-CAL5	2	11701	0.982	9.93
9J24043-CAL6	5	29555	0.984	9.93
9J24043-CAL7	10	60359	0.965	9.93
9J24043-CAL8	20	120984	0.985	9.93
9J24043-CAL9	50	301806	0.940	9.93
9J24043-CALA	100	624905	0.981	9.93
9J24043-CALB	200	1285529	0.971	9.93

AVE RF **0.939** RF RSD **6.80** AVE RT **9.93**

Ethylbenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	942	1.531	9.95
9J24043-CAL2	0.2	1835	1.514	9.95
9J24043-CAL3	0.4	3584	1.522	9.95
9J24043-CAL4	1	8761	1.409	9.95
9J24043-CAL5	2	19157	1.608	9.95
9J24043-CAL6	5	46860	1.560	9.95
9J24043-CAL7	10	96018	1.535	9.95
9J24043-CAL8	20	195460	1.591	9.95
9J24043-CAL9	50	486890	1.516	9.95
9J24043-CALA	100	1015747	1.594	9.95
9J24043-CALB	200	2091382	1.580	9.95

AVE RF **1.542** RF RSD **3.61** AVE RT **9.95**

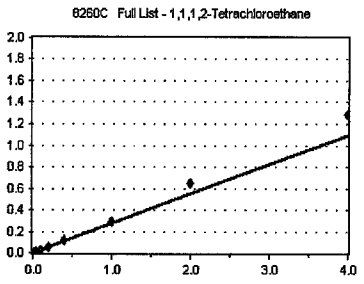
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

1,1,1,2-Tetrachloroethane

Curve Fit: **AVERAGE RF**

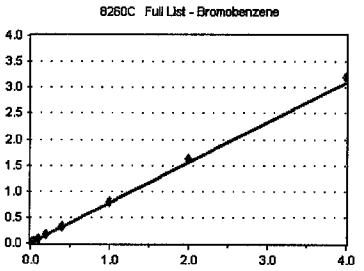


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~129~~	~~0.106~~	~~0.00~~
9J24043-CAL3	0.4	470	0.200	9.99
9J24043-CAL4	1	1476	0.237	9.99
9J24043-CAL5	2	2985	0.251	9.99
9J24043-CAL6	5	7981	0.266	9.99
9J24043-CAL7	10	16995	0.272	9.99
9J24043-CAL8	20	36336	0.296	9.99
9J24043-CAL9	50	95075	0.296	9.99
9J24043-CALA	100	206263	0.324	9.99
9J24043-CALB	200	427244	0.323	9.99

AVE RF **0.274** RF RSD **14.90** AVE RT **9.99**

Bromobenzene

Curve Fit: **AVERAGE RF**

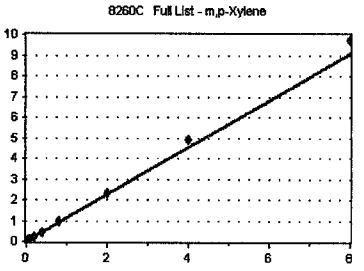


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	124	0.444	0.00
9J24043-CAL2	0.2	432	0.800	11.06
9J24043-CAL3	0.4	875	0.813	11.06
9J24043-CAL4	1	2220	0.771	11.06
9J24043-CAL5	2	4634	0.830	11.06
9J24043-CAL6	5	11623	0.819	11.06
9J24043-CAL7	10	24222	0.812	11.06
9J24043-CAL8	20	50013	0.825	11.06
9J24043-CAL9	50	126180	0.798	11.06
9J24043-CALA	100	265287	0.813	11.06
9J24043-CALB	200	542011	0.800	11.06

AVE RF **0.775** RF RSD **14.32** AVE RT **10.05**

m,p-Xylene

Curve Fit: **AVERAGE RF**

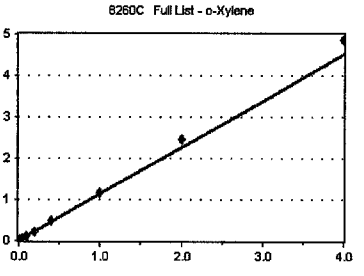


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.2	1368	1.112	10.09
9J24043-CAL2	0.4	2470	1.019	10.09
9J24043-CAL3	0.8	5197	1.103	10.09
9J24043-CAL4	2	12789	1.029	10.09
9J24043-CAL5	4	27092	1.137	10.09
9J24043-CAL6	10	68847	1.146	10.09
9J24043-CAL7	20	142004	1.135	10.09
9J24043-CAL8	40	297066	1.209	10.09
9J24043-CAL9	100	738497	1.150	10.09
9J24043-CALA	200	1568164	1.230	10.09
9J24043-CALB	400	3227914	1.219	10.09

AVE RF **1.135** RF RSD **6.12** AVE RT **10.09**

o-Xylene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	585	0.951	10.47
9J24043-CAL2	0.2	1221	1.008	10.47
9J24043-CAL3	0.4	2605	1.106	10.47
9J24043-CAL4	1	6630	1.067	10.46
9J24043-CAL5	2	13605	1.142	10.47
9J24043-CAL6	5	34456	1.147	10.46
9J24043-CAL7	10	71417	1.141	10.46
9J24043-CAL8	20	149422	1.216	10.46
9J24043-CAL9	50	371768	1.158	10.46
9J24043-CALA	100	785588	1.233	10.46
9J24043-CALB	200	1606355	1.214	10.46

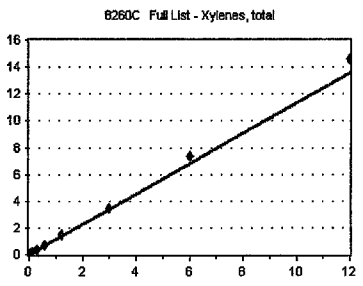
AVE RF **1.126** RF RSD **7.83** AVE RT **10.47**

Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

Xylenes, total

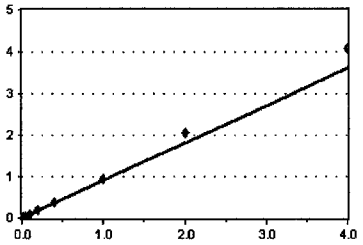


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.3	1953	1.058	10.47
9J24043-CAL2	0.6	3691	1.015	10.47
9J24043-CAL3	1.2	7802	1.104	10.47
9J24043-CAL4	3	19419	1.041	10.46
9J24043-CAL5	6	40697	1.139	10.47
9J24043-CAL6	15	103303	1.147	10.46
9J24043-CAL7	30	213421	1.137	10.46
9J24043-CAL8	60	446488	1.212	10.46
9J24043-CAL9	150	1110265	1.152	10.46
9J24043-CALA	300	2353752	1.231	10.46
9J24043-CALB	600	4834269	1.217	10.46

AVE RF **1.132** RF RSD **6.38** AVE RT **10.47**

Styrene

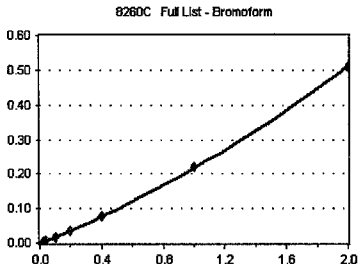


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~754~~	~~0.622~~	~~10.52~~
9J24043-CAL3	0.4	1656	0.703	10.52
9J24043-CAL4	1	4878	0.785	10.52
9J24043-CAL5	2	10363	0.870	10.52
9J24043-CAL6	5	26739	0.890	10.51
9J24043-CAL7	10	57022	0.911	10.51
9J24043-CAL8	20	120205	0.979	10.51
9J24043-CAL9	50	307044	0.956	10.51
9J24043-CALA	100	653902	1.026	10.51
9J24043-CALB	200	1353743	1.023	10.51

AVE RF **0.905** RF RSD **11.93** AVE RT **10.51**

Bromoform

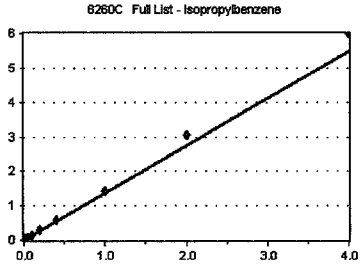


Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	795	0.128	10.54
9J24043-CAL5	2	1771	0.149	10.54
9J24043-CAL6	5	4690	0.156	10.54
9J24043-CAL7	10	10701	0.171	10.54
9J24043-CAL8	20	23844	0.194	10.54
9J24043-CAL9	50	71080	0.221	10.54
9J24043-CALA	100	162527	0.255	10.54
~~9J24043-CALB~~	~~200~~	~~351162~~	~~0.265~~	~~10.54~~

AVE RF **0.182** RF RSD **24.41** AVE RT **10.54**

Isopropylbenzene



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	1347	1.111	10.74
9J24043-CAL3	0.4	3067	1.302	10.73
9J24043-CAL4	1	7662	1.233	10.73
9J24043-CAL5	2	16325	1.371	10.73
9J24043-CAL6	5	41801	1.392	10.73
9J24043-CAL7	10	86673	1.385	10.73
9J24043-CAL8	20	182751	1.488	10.73
9J24043-CAL9	50	458349	1.427	10.73
9J24043-CALA	100	973691	1.528	10.73
9J24043-CALB	200	1980670	1.496	10.73

AVE RF **1.373** RF RSD **9.37** AVE RT **10.73**

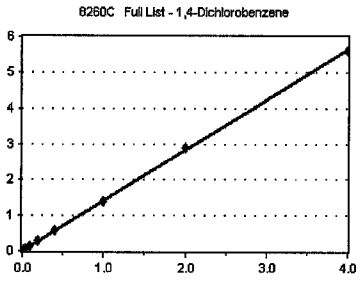
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

1,4-Dichlorobenzene

Curve Fit: **AVERAGE RF**

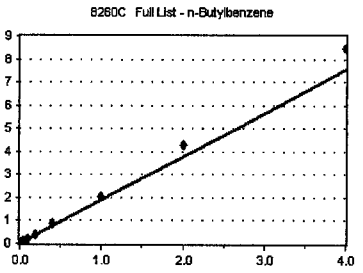


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	311	1.113	0.00
9J24043-CAL2	0.2	725	1.342	11.86
9J24043-CAL3	0.4	1564	1.454	11.86
9J24043-CAL4	1	4177	1.451	11.86
9J24043-CAL5	2	8550	1.531	11.86
9J24043-CAL6	5	20421	1.440	11.86
9J24043-CAL7	10	42771	1.433	11.86
9J24043-CAL8	20	89594	1.478	11.86
9J24043-CAL9	50	222386	1.406	11.86
9J24043-CALA	100	468883	1.436	11.86
9J24043-CALB	200	949679	1.402	11.86

AVE RF **1.408** RF RSD **7.70** AVE RT **10.78**

n-Butylbenzene

Curve Fit: **AVERAGE RF**

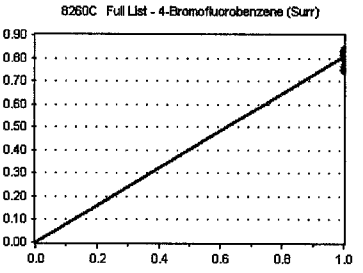


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	379	1.357	0.00
9J24043-CAL2	0.2	805	1.491	12.05
9J24043-CAL3	0.4	1867	1.735	12.05
9J24043-CAL4	1	4997	1.735	12.05
9J24043-CAL5	2	10626	1.903	12.05
9J24043-CAL6	5	28526	2.011	12.05
9J24043-CAL7	10	59515	1.994	12.05
9J24043-CAL8	20	130970	2.160	12.05
9J24043-CAL9	50	325681	2.060	12.05
9J24043-CALA	100	694929	2.129	12.05
9J24043-CALB	200	1435776	2.119	12.05

AVE RF **1.881** RF RSD **14.34** AVE RT **10.95**

4-Bromofluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

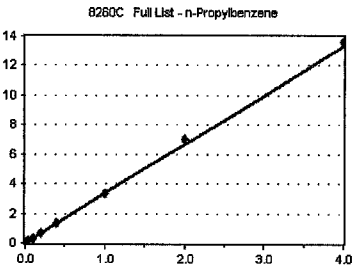


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	116090	0.831	10.97
9J24043-CAL2	50	113180	0.838	10.97
9J24043-CAL3	50	112304	0.835	10.97
9J24043-CAL4	50	118563	0.823	10.97
9J24043-CAL5	50	115163	0.825	10.97
9J24043-CAL6	50	115652	0.815	10.97
9J24043-CAL7	50	121121	0.812	10.97
9J24043-CAL8	50	120976	0.798	10.97
9J24043-CAL9	50	125801	0.796	10.97
9J24043-CALA	50	124392	0.762	10.97
9J24043-CALB	50	127221	0.751	10.97

AVE RF **0.808** RF RSD **3.58** AVE RT **10.97**

n-Propylbenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	873	3.125	11.08
9J24043-CAL2	0.2	1649	3.053	11.08
9J24043-CAL3	0.4	3544	3.294	11.08
9J24043-CAL4	1	9160	3.181	11.08
9J24043-CAL5	2	19292	3.455	11.08
9J24043-CAL6	5	48000	3.384	11.07
9J24043-CAL7	10	99009	3.318	11.07
9J24043-CAL8	20	210703	3.475	11.07
9J24043-CAL9	50	530991	3.358	11.07
9J24043-CALA	100	1142995	3.501	11.07
9J24043-CALB	200	2308779	3.408	11.07

AVE RF **3.323** RF RSD **4.44** AVE RT **11.07**

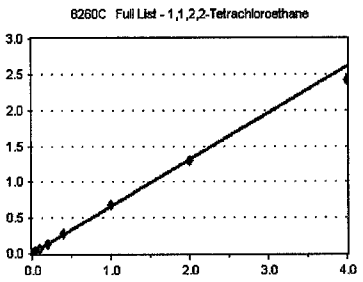
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

1,1,2,2-Tetrachloroethane

Curve Fit: **AVERAGE RF**

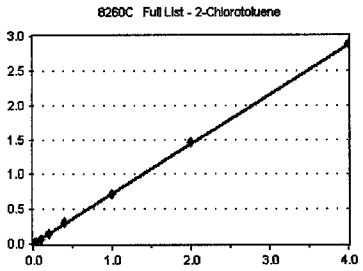


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	305	0.565	11.14
9J24043-CAL3	0.4	671	0.624	11.14
9J24043-CAL4	1	1876	0.651	11.14
9J24043-CAL5	2	4008	0.718	11.14
9J24043-CAL6	5	9843	0.694	11.14
9J24043-CAL7	10	20098	0.673	11.14
9J24043-CAL8	20	41819	0.690	11.14
9J24043-CAL9	50	106506	0.674	11.14
9J24043-CALA	100	212550	0.651	11.14
9J24043-CALB	200	408430	0.603	11.14

AVE RF **0.654** RF RSD **7.07** AVE RT **11.14**

2-Chlorotoluene

Curve Fit: **AVERAGE RF**

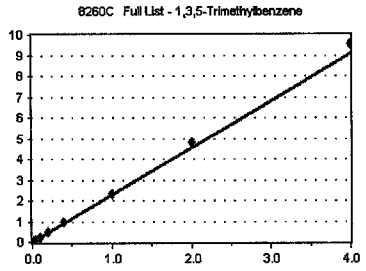


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	719	0.668	11.21
9J24043-CAL4	1	1910	0.663	11.21
9J24043-CAL5	2	4172	0.747	11.21
9J24043-CAL6	5	10150	0.716	11.21
9J24043-CAL7	10	21625	0.725	11.21
9J24043-CAL8	20	45664	0.753	11.21
9J24043-CAL9	50	113724	0.719	11.21
9J24043-CALA	100	238214	0.730	11.21
9J24043-CALB	200	490093	0.723	11.21

AVE RF **0.716** RF RSD **4.34** AVE RT **11.21**

1,3,5-Trimethylbenzene

Curve Fit: **AVERAGE RF**

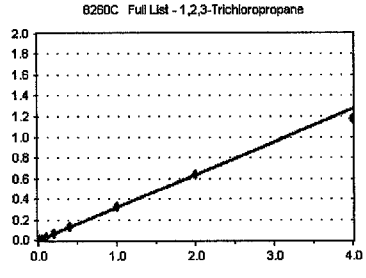


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	556	1.990	11.23
9J24043-CAL2	0.2	1127	2.087	11.23
9J24043-CAL3	0.4	2289	2.127	11.23
9J24043-CAL4	1	6197	2.152	11.23
9J24043-CAL5	2	13089	2.344	11.23
9J24043-CAL6	5	33314	2.349	11.23
9J24043-CAL7	10	69892	2.342	11.23
9J24043-CAL8	20	148694	2.452	11.23
9J24043-CAL9	50	370702	2.344	11.23
9J24043-CALA	100	783721	2.400	11.23
9J24043-CALB	200	1618836	2.390	11.23

AVE RF **2.271** RF RSD **6.72** AVE RT **11.23**

1,2,3-Trichloropropane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	271	0.252	11.25
9J24043-CAL4	1	887	0.308	11.25
9J24043-CAL5	2	1935	0.347	11.25
9J24043-CAL6	5	4862	0.343	11.25
9J24043-CAL7	10	10162	0.341	11.25
9J24043-CAL8	20	20199	0.333	11.25
9J24043-CAL9	50	51746	0.327	11.25
9J24043-CALA	100	103994	0.319	11.25
9J24043-CALB	200	199656	0.295	11.25

AVE RF **0.318** RF RSD **9.47** AVE RT **11.25**

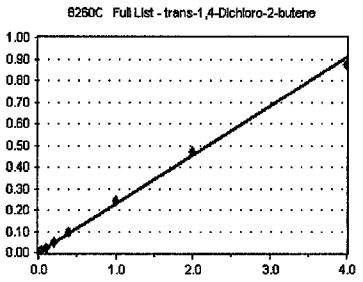
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

trans-1,4-Dichloro-2-butene

Curve Fit: **AVERAGE RF**

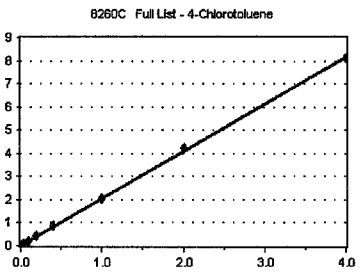


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	531	0.184	11.29
9J24043-CAL5	2	1313	0.235	11.28
9J24043-CAL6	5	3293	0.232	11.28
9J24043-CAL7	10	6985	0.234	11.28
9J24043-CAL8	20	14515	0.239	11.28
9J24043-CAL9	50	38431	0.243	11.28
9J24043-CALA	100	76466	0.234	11.28
9J24043-CALB	200	148266	0.219	11.28

AVE RF **0.228** RF RSD **8.27** AVE RT **11.28**

4-Chlorotoluene

Curve Fit: **AVERAGE RF**

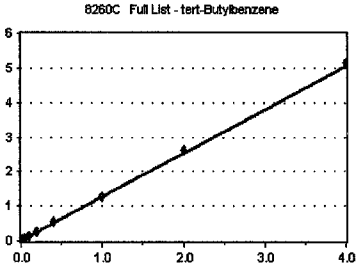


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	1020	1.889	11.34
9J24043-CAL3	0.4	2178	2.024	11.34
9J24043-CAL4	1	5461	1.896	11.34
9J24043-CAL5	2	11718	2.099	11.34
9J24043-CAL6	5	30239	2.132	11.34
9J24043-CAL7	10	61742	2.069	11.34
9J24043-CAL8	20	129933	2.143	11.34
9J24043-CAL9	50	325043	2.056	11.33
9J24043-CALA	100	688819	2.110	11.34
9J24043-CALB	200	1379272	2.036	11.34

AVE RF **2.045** RF RSD **4.37** AVE RT **11.34**

tert-Butylbenzene

Curve Fit: **AVERAGE RF**

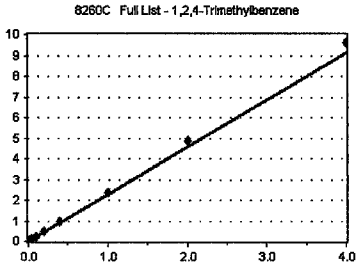


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	602	1.115	11.49
9J24043-CAL3	0.4	1248	1.160	11.49
9J24043-CAL4	1	3551	1.233	11.49
9J24043-CAL5	2	7395	1.324	11.49
9J24043-CAL6	5	18808	1.326	11.48
9J24043-CAL7	10	38411	1.287	11.48
9J24043-CAL8	20	81742	1.348	11.48
9J24043-CAL9	50	202040	1.278	11.48
9J24043-CALA	100	431117	1.320	11.48
9J24043-CALB	200	872573	1.288	11.48

AVE RF **1.268** RF RSD **6.05** AVE RT **11.48**

1,2,4-Trimethylbenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	536	1.919	11.54
9J24043-CAL2	0.2	1066	1.974	11.54
9J24043-CAL3	0.4	2387	2.218	11.54
9J24043-CAL4	1	6319	2.194	11.53
9J24043-CAL5	2	12974	2.324	11.53
9J24043-CAL6	5	34216	2.412	11.54
9J24043-CAL7	10	70882	2.375	11.53
9J24043-CAL8	20	151018	2.491	11.53
9J24043-CAL9	50	374779	2.370	11.53
9J24043-CALA	100	798406	2.445	11.53
9J24043-CALB	200	1629601	2.405	11.53

AVE RF **2.284** RF RSD **8.30** AVE RT **11.54**

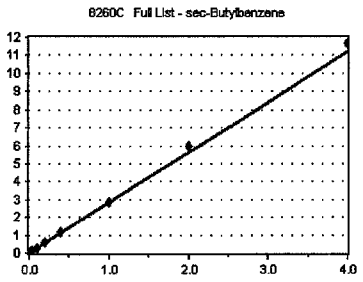
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

sec-Butylbenzene

Curve Fit: **AVERAGE RF**

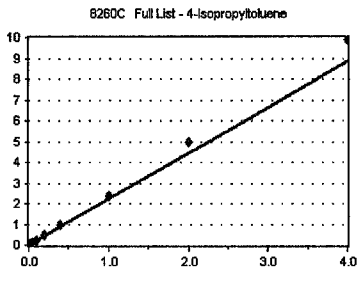


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	1301	2.409	11.62
9J24043-CAL3	0.4	2990	2.779	11.62
9J24043-CAL4	1	7450	2.587	11.62
9J24043-CAL5	2	15756	2.822	11.62
9J24043-CAL6	5	40240	2.837	11.62
9J24043-CAL7	10	83977	2.814	11.62
9J24043-CAL8	20	180894	2.983	11.62
9J24043-CAL9	50	451933	2.858	11.62
9J24043-CALA	100	969880	2.971	11.62
9J24043-CALB	200	1977513	2.919	11.62

AVE RF **2.798** RF RSD **6.31** AVE RT **11.62**

4-Isopropyltoluene

Curve Fit: **AVERAGE RF**

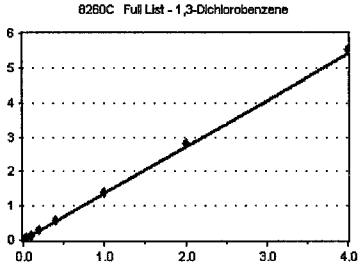


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	481	1.722	11.73
9J24043-CAL2	0.2	919	1.702	11.72
9J24043-CAL3	0.4	2236	2.078	11.73
9J24043-CAL4	1	6086	2.114	11.73
9J24043-CAL5	2	12523	2.243	11.73
9J24043-CAL6	5	33176	2.339	11.73
9J24043-CAL7	10	68628	2.300	11.73
9J24043-CAL8	20	151382	2.497	11.73
9J24043-CAL9	50	378247	2.392	11.73
9J24043-CALA	100	812481	2.489	11.73
9J24043-CALB	200	1677679	2.476	11.73

AVE RF **2.214** RF RSD **12.88** AVE RT **11.73**

1,3-Dichlorobenzene

Curve Fit: **AVERAGE RF**

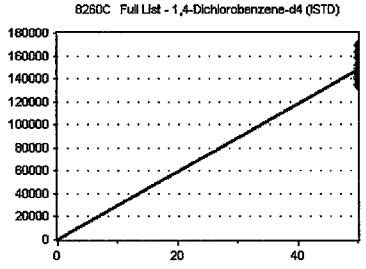


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	629	1.165	11.80
9J24043-CAL3	0.4	1412	1.312	11.80
9J24043-CAL4	1	3650	1.268	11.80
9J24043-CAL5	2	7718	1.382	11.80
9J24043-CAL6	5	19712	1.390	11.80
9J24043-CAL7	10	41299	1.384	11.80
9J24043-CAL8	20	86247	1.422	11.80
9J24043-CAL9	50	218694	1.383	11.80
9J24043-CALA	100	461068	1.412	11.80
9J24043-CALB	200	936572	1.382	11.80

AVE RF **1.350** RF RSD **5.93** AVE RT **11.80**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	139681	2793.620	11.85
9J24043-CAL2	50	135021	2700.420	11.85
9J24043-CAL3	50	134501	2690.020	11.85
9J24043-CAL4	50	143979	2879.580	11.85
9J24043-CAL5	50	139582	2791.640	11.85
9J24043-CAL6	50	141843	2836.860	11.85
9J24043-CAL7	50	149215	2984.300	11.85
9J24043-CAL8	50	151591	3031.820	11.85
9J24043-CAL9	50	158122	3162.440	11.85
9J24043-CALA	50	163243	3264.860	11.85
9J24043-CALB	50	169365	3387.300	11.85

AVE RF **2956.624** RF RSD **7.86** AVE RT **11.85**

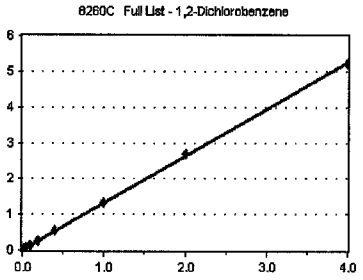
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

1,2-Dichlorobenzene

Curve Fit: **AVERAGE RF**

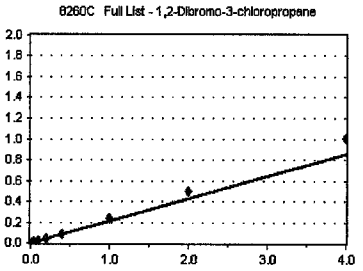


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	624	1.155	12.19
9J24043-CAL3	0.4	1284	1.193	12.19
9J24043-CAL4	1	3650	1.268	12.19
9J24043-CAL5	2	7854	1.407	12.19
9J24043-CAL6	5	19460	1.372	12.19
9J24043-CAL7	10	40125	1.345	12.18
9J24043-CAL8	20	83871	1.383	12.19
9J24043-CAL9	50	211431	1.337	12.18
9J24043-CALA	100	439251	1.345	12.19
9J24043-CALB	200	884385	1.305	12.19

AVE RF **1.311** RF RSD **6.28** AVE RT **12.18**

1,2-Dibromo-3-chloropropane

Curve Fit: **AVERAGE RF**

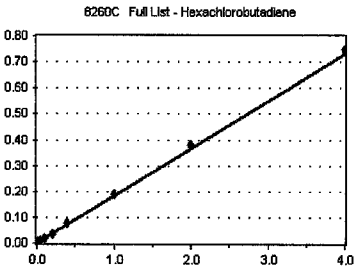


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL4~~	1	447	0.155	12.80
9J24043-CAL5	2	1006	0.180	12.80
9J24043-CAL6	5	2728	0.192	12.80
9J24043-CAL7	10	6234	0.209	12.80
9J24043-CAL8	20	13740	0.227	12.80
9J24043-CAL9	50	38435	0.243	12.80
9J24043-CALA	100	81625	0.250	12.80
9J24043-CALB	200	169849	0.251	12.80

AVE RF **0.213** RF RSD **16.56** 12.84 AVE RT **12.80**

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**

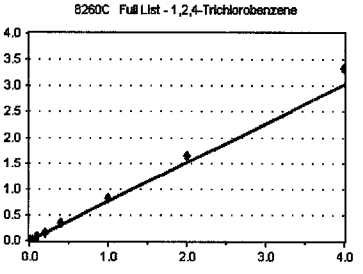


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	443	0.154	13.31
9J24043-CAL5	2	963	0.172	13.30
9J24043-CAL6	5	2715	0.191	13.30
9J24043-CAL7	10	5468	0.183	13.30
9J24043-CAL8	20	12054	0.199	13.30
9J24043-CAL9	50	29829	0.189	13.30
9J24043-CALA	100	62008	0.190	13.30
9J24043-CALB	200	126838	0.187	13.30

AVE RF **0.183** RF RSD **7.66** AVE RT **13.30**

1,2,4-Trichlorobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~244~~	~~0.452~~	~~13.35~~
9J24043-CAL3	0.4	615	0.572	13.35
9J24043-CAL4	1	1833	0.637	13.35
9J24043-CAL5	2	4043	0.724	13.34
9J24043-CAL6	5	11114	0.784	13.35
9J24043-CAL7	10	23133	0.775	13.35
9J24043-CAL8	20	50962	0.840	13.35
9J24043-CAL9	50	128379	0.812	13.34
9J24043-CALA	100	268764	0.823	13.35
9J24043-CALB	200	564943	0.834	13.35

AVE RF **0.756** RF RSD **12.49** AVE RT **13.35**

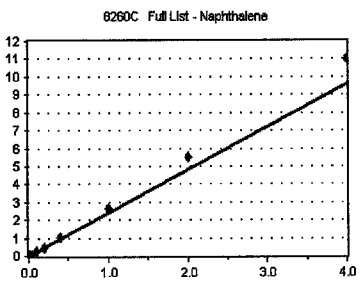
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VI191025W.M VI191025G.M**

Naphthalene

Curve Fit: **AVERAGE RF**

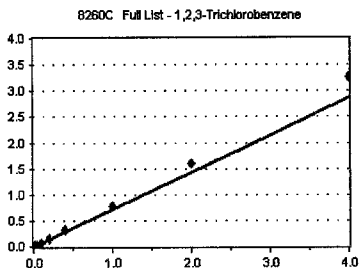


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~924~~	~~1.711~~	~~13.63~~
9J24043-CAL3	0.4	2009	1.867	13.63
9J24043-CAL4	1	5345	1.856	13.63
9J24043-CAL5	2	12724	2.279	13.63
9J24043-CAL6	5	32892	2.319	13.63
9J24043-CAL7	10	72324	2.423	13.63
9J24043-CAL8	20	161860	2.669	13.63
9J24043-CAL9	50	425207	2.689	13.63
9J24043-CALA	100	899370	2.755	13.63
9J24043-CALB	200	1872418	2.764	13.63

AVE RF **2.402** RF RSD **14.83** AVE RT **13.63**

1,2,3-Trichlorobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	261	0.483	13.79
9J24043-CAL3	0.4	687	0.638	13.78
9J24043-CAL4	1	1879	0.653	13.79
9J24043-CAL5	2	4073	0.729	13.79
9J24043-CAL6	5	10402	0.733	13.79
9J24043-CAL7	10	22293	0.747	13.79
9J24043-CAL8	20	48345	0.797	13.79
9J24043-CAL9	50	123175	0.779	13.79
9J24043-CALA	100	260549	0.798	13.79
9J24043-CALB	200	552458	0.815	13.79

AVE RF **0.717** RF RSD **14.16** AVE RT **13.79**

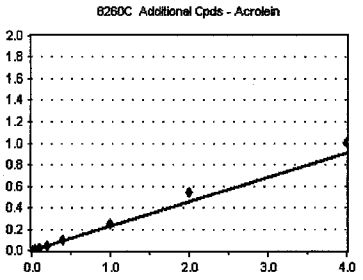
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Additional Cpds** Instrument Cal ID: **VI191025W.M VI191025G.M**

Acrolein

Curve Fit: **AVERAGE RF**

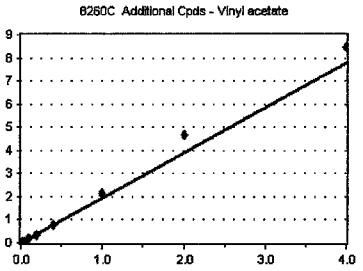


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	420	0.181	3.63
9J24043-CAL5	2	927	0.209	3.63
9J24043-CAL6	5	2465	0.222	3.62
9J24043-CAL7	10	4855	0.206	3.62
9J24043-CAL8	20	10458	0.233	3.61
9J24043-CAL9	50	28604	0.247	3.61
9J24043-CALA	100	60054	0.268	3.63
9J24043-CALB	200	116360	0.251	3.62

AVE RF **0.227** RF RSD **12.43** AVE RT **3.62**

Vinyl acetate

Curve Fit: **AVERAGE RF**

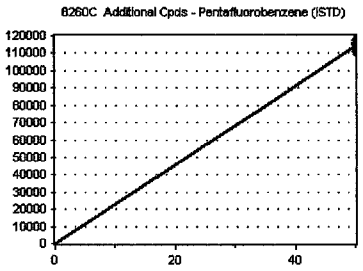


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	3620	1.560	4.96
9J24043-CAL5	2	7854	1.772	4.96
9J24043-CAL6	5	20467	1.844	4.96
9J24043-CAL7	10	42656	1.813	4.96
9J24043-CAL8	20	90141	2.005	4.95
9J24043-CAL9	50	246127	2.128	4.95
9J24043-CALA	100	522592	2.333	4.96
9J24043-CALB	200	980632	2.113	4.96

AVE RF **1.946** RF RSD **12.62** AVE RT **4.96**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

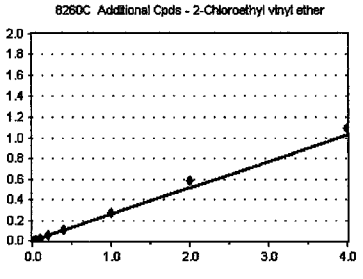


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	116102	2322.040	6.22
9J24043-CAL2	50	114788	2295.760	6.22
9J24043-CAL3	50	111985	2239.700	6.21
9J24043-CAL4	50	116043	2320.860	6.21
9J24043-CAL5	50	110790	2215.800	6.22
9J24043-CAL6	50	111010	2220.200	6.21
9J24043-CAL7	50	117608	2352.160	6.22
9J24043-CAL8	50	112406	2248.120	6.21
9J24043-CAL9	50	115635	2312.700	6.21
9J24043-CALA	50	111989	2239.780	6.22
9J24043-CALB	50	116034	2320.680	6.22

AVE RF **2280.709** RF RSD **2.13** AVE RT **6.21**

2-Chloroethyl vinyl ether

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~369~~	~~0.152~~	~~8.04~~
9J24043-CAL4	1	1378	0.222	8.03
9J24043-CAL5	2	2589	0.217	8.03
9J24043-CAL6	5	7592	0.253	8.02
9J24043-CAL7	10	15685	0.251	8.02
9J24043-CAL8	20	33274	0.271	8.02
9J24043-CAL9	50	88331	0.275	8.02
9J24043-CALA	100	185987	0.292	8.02
9J24043-CALB	200	361318	0.273	8.02

AVE RF **0.257** RF RSD **10.27** AVE RT **8.02**

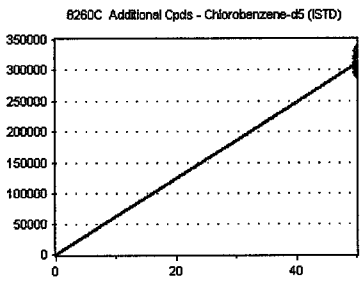
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Additional Cpds** Instrument Cal ID: **VI191025W.M VI191025G.M**

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	307577	6151.540	9.91
9J24043-CAL2	50	302974	6059.480	9.92
9J24043-CAL3	50	294372	5887.440	9.91
9J24043-CAL4	50	310797	6215.940	9.91
9J24043-CAL5	50	297754	5955.080	9.92
9J24043-CAL6	50	300317	6006.340	9.91
9J24043-CAL7	50	312833	6256.660	9.91
9J24043-CAL8	50	307093	6141.860	9.91
9J24043-CAL9	50	321159	6423.180	9.91
9J24043-CALA	50	318635	6372.700	9.91
9J24043-CALB	50	330915	6618.300	9.92

AVE RF **6189.865** RF RSD **3.53** AVE RT **9.91**

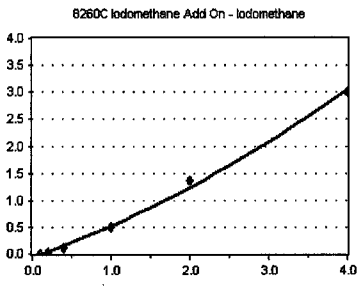
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Iodomethane Add On** Instrument Cal ID: **VI191025W.M VI191025G.M**

Iodomethane

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

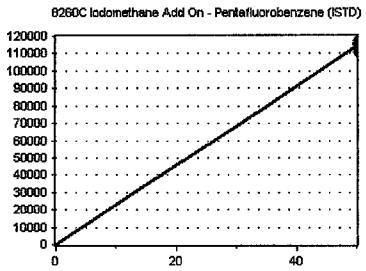


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL4~~	~~1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL5~~	~~2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL6	5	916	8.252	3.38
9J24043-CAL7	10	3125	0.133	3.39
9J24043-CAL8	20	11472	0.255	3.38
9J24043-CAL9	50	57651	0.499	3.38
9J24043-CALA	100	153366	0.685	3.39
9J24043-CALB	200	348091	0.750	3.39

AVE RF **0.401** RF RSD **71.16** AVE RT **3.39**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	116102	2322.040	6.22
9J24043-CAL2	50	114788	2295.760	6.22
9J24043-CAL3	50	111985	2239.700	6.21
9J24043-CAL4	50	116043	2320.860	6.21
9J24043-CAL5	50	110790	2215.800	6.22
9J24043-CAL6	50	111010	2220.200	6.21
9J24043-CAL7	50	117608	2352.160	6.22
9J24043-CAL8	50	112406	2248.120	6.21
9J24043-CAL9	50	115635	2312.700	6.21
9J24043-CALA	50	111989	2239.780	6.22
9J24043-CALB	50	116034	2320.680	6.22

AVE RF **2280.709** RF RSD **2.13** AVE RT **6.21**

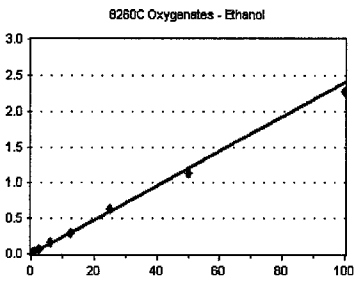
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VI191025W.M VI191025G.M**

Ethanol

Curve Fit: **AVERAGE RF**

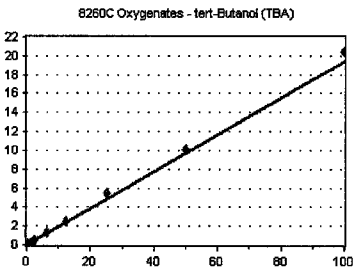


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~6.25~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~12.5~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	25	1315	2.349	3.23
9J24043-CAL4	62.5	3446	2.376	3.24
9J24043-CAL5	125	7229	2.610	3.24
9J24043-CAL6	312	17243	2.489	3.23
9J24043-CAL7	625	34617	2.355	3.24
9J24043-CAL8	1250	70360	2.504	3.23
9J24043-CAL9	2500	131053	2.267	3.23
9J24043-CALA	5000	254643	2.274	3.24

AVE RF **2.403** RF RSD **5.02** AVE RT **3.23**

tert-Butanol (TBA)

Curve Fit: **AVERAGE RF**

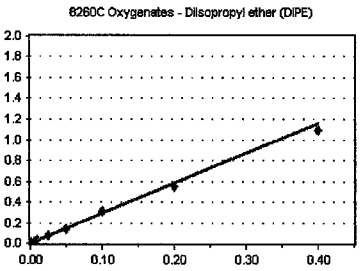


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	6.25	2472	0.170	4.30
9J24043-CAL2	12.5	4690	0.163	4.30
9J24043-CAL3	25	10086	0.180	4.29
9J24043-CAL4	62.5	25977	0.179	4.30
9J24043-CAL5	125	58093	0.210	4.30
9J24043-CAL6	312	143817	0.208	4.29
9J24043-CAL7	625	292252	0.199	4.29
9J24043-CAL8	1250	614954	0.219	4.29
9J24043-CAL9	2500	1172838	0.203	4.29
9J24043-CALA	5000	2295578	0.205	4.29

AVE RF **0.194** RF RSD **9.71** AVE RT **4.29**

Diisopropyl ether (DIPE)

Curve Fit: **AVERAGE RF**

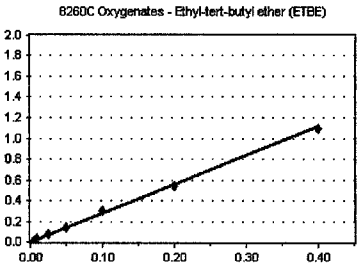


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.1	638	2.849	4.56
9J24043-CAL4	0.25	1604	2.764	4.56
9J24043-CAL5	0.5	3305	2.983	4.57
9J24043-CAL6	1.25	8576	3.090	4.57
9J24043-CAL7	2.5	17135	2.914	4.57
9J24043-CAL8	5	34871	3.102	4.56
9J24043-CAL9	10	63994	2.767	4.56
9J24043-CALA	20	122827	2.742	4.57

AVE RF **2.901** RF RSD **5.01** AVE RT **4.57**

Ethyl-tert-butyl ether (ETBE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	0.25	1449	2.497	4.94
9J24043-CAL5	0.5	3145	2.839	4.94
9J24043-CAL6	1.25	8071	2.908	4.94
9J24043-CAL7	2.5	16756	2.849	4.94
9J24043-CAL8	5	33471	2.978	4.94
9J24043-CAL9	10	63126	2.730	4.94
9J24043-CALA	20	121788	2.719	4.94

AVE RF **2.789** RF RSD **5.66** AVE RT **4.94**

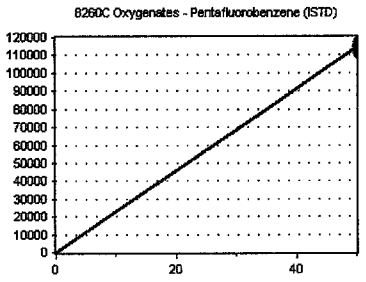
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VI191025W.M VI191025G.M**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

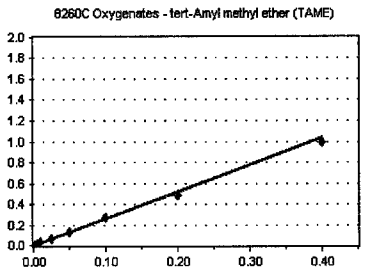


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	116102	2322.040	6.22
9J24043-CAL2	50	114788	2295.760	6.22
9J24043-CAL3	50	111985	2239.700	6.21
9J24043-CAL4	50	116043	2320.860	6.21
9J24043-CAL5	50	110790	2215.800	6.22
9J24043-CAL6	50	111010	2220.200	6.21
9J24043-CAL7	50	117608	2352.160	6.22
9J24043-CAL8	50	112406	2248.120	6.21
9J24043-CAL9	50	115635	2312.700	6.21
9J24043-CALA	50	111989	2239.780	6.22
9J24043-CALB	50	116034	2320.680	6.22

AVE RF **2280.709** RF RSD **2.13** AVE RT **6.21**

tert-Amyl methyl ether (TAME)

Curve Fit: **AVERAGE RF**

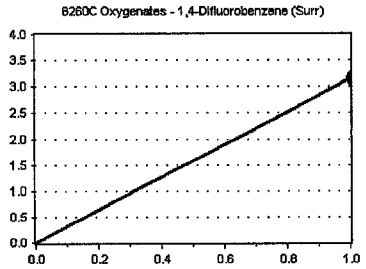


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.1	580	2.590	6.25
9J24043-CAL4	0.25	1462	2.520	6.25
9J24043-CAL5	0.5	2996	2.704	6.25
9J24043-CAL6	1.25	7445	2.683	6.25
9J24043-CAL7	2.5	15349	2.610	6.25
9J24043-CAL8	5	30296	2.695	6.25
9J24043-CAL9	10	56793	2.456	6.24
9J24043-CALA	20	111127	2.481	6.25

AVE RF **2.592** RF RSD **3.80** AVE RT **6.25**

1,4-Difluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

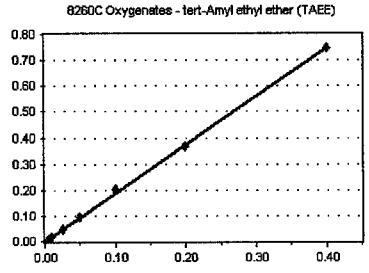


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	364447	3.139	6.78
9J24043-CAL2	50	359462	3.132	6.78
9J24043-CAL3	50	352302	3.146	6.78
9J24043-CAL4	50	366642	3.160	6.78
9J24043-CAL5	50	347212	3.134	6.78
9J24043-CAL6	50	353918	3.188	6.78
9J24043-CAL7	50	367409	3.124	6.78
9J24043-CAL8	50	354922	3.158	6.78
9J24043-CAL9	50	370144	3.201	6.78
9J24043-CALA	50	356857	3.187	6.78
9J24043-CALB	50	369003	3.180	6.78

AVE RF **3.159** RF RSD **0.84** AVE RT **6.78**

tert-Amyl ethyl ether (TAEE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	0.25	950	1.637	7.00
9J24043-CAL5	0.5	2147	1.938	7.00
9J24043-CAL6	1.25	5331	1.921	7.00
9J24043-CAL7	2.5	11032	1.876	7.00
9J24043-CAL8	5	22696	2.019	7.00
9J24043-CAL9	10	42660	1.845	7.00
9J24043-CALA	20	83591	1.866	7.00

AVE RF **1.872** RF RSD **6.33** AVE RT **7.00**

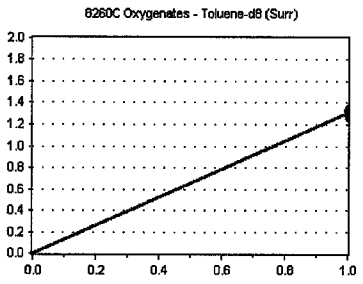
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VI191025W.M VI191025G.M**

Toluene-d8 (Surr)

Curve Fit: **AVERAGE RF**

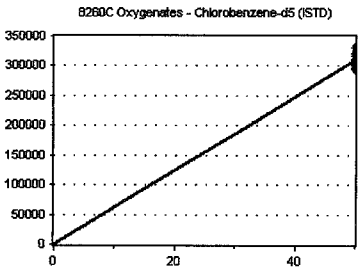


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	406288	1.321	8.30
9J24043-CAL2	50	403793	1.333	8.30
9J24043-CAL3	50	396027	1.345	8.30
9J24043-CAL4	50	410518	1.321	8.30
9J24043-CAL5	50	395017	1.327	8.30
9J24043-CAL6	50	397005	1.322	8.30
9J24043-CAL7	50	415174	1.327	8.30
9J24043-CAL8	50	399810	1.302	8.30
9J24043-CAL9	50	415062	1.292	8.30
9J24043-CALA	50	405945	1.274	8.30
9J24043-CALB	50	420947	1.272	8.30

AVE RF **1.312** RF RSD **1.83** AVE RT **8.30**

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**

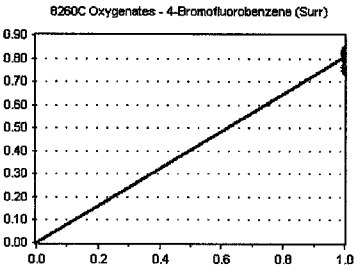


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	307577	6151.540	9.91
9J24043-CAL2	50	302974	6059.480	9.92
9J24043-CAL3	50	294372	5887.440	9.91
9J24043-CAL4	50	310797	6215.940	9.91
9J24043-CAL5	50	297754	5955.080	9.92
9J24043-CAL6	50	300317	6006.340	9.91
9J24043-CAL7	50	312833	6256.660	9.91
9J24043-CAL8	50	307093	6141.860	9.91
9J24043-CAL9	50	321159	6423.180	9.91
9J24043-CALA	50	318635	6372.700	9.91
9J24043-CALB	50	330915	6618.300	9.92

AVE RF **6189.865** RF RSD **3.53** AVE RT **9.91**

4-Bromofluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

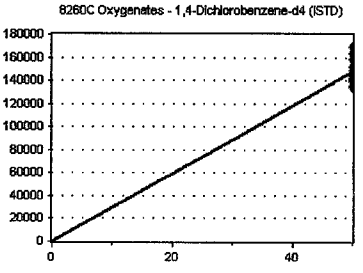


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	116090	0.831	10.97
9J24043-CAL2	50	113180	0.838	10.97
9J24043-CAL3	50	112304	0.835	10.97
9J24043-CAL4	50	118563	0.823	10.97
9J24043-CAL5	50	115163	0.825	10.97
9J24043-CAL6	50	115652	0.815	10.97
9J24043-CAL7	50	121121	0.812	10.97
9J24043-CAL8	50	120976	0.798	10.97
9J24043-CAL9	50	125801	0.796	10.97
9J24043-CALA	50	124392	0.762	10.97
9J24043-CALB	50	127221	0.751	10.97

AVE RF **0.808** RF RSD **3.58** AVE RT **10.97**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	139681	2793.620	11.85
9J24043-CAL2	50	135021	2700.420	11.85
9J24043-CAL3	50	134501	2690.020	11.85
9J24043-CAL4	50	143979	2879.580	11.85
9J24043-CAL5	50	139582	2791.640	11.85
9J24043-CAL6	50	141843	2836.860	11.85
9J24043-CAL7	50	149215	2984.300	11.85
9J24043-CAL8	50	151591	3031.820	11.85
9J24043-CAL9	50	158122	3162.440	11.85
9J24043-CALA	50	163243	3264.860	11.85
9J24043-CALB	50	169365	3387.300	11.85

AVE RF **2956.624** RF RSD **7.86** AVE RT **11.85**

Response Factor Report VOA-GCMS9

Method Path : C:\msdchem\1\methods\
Method File : VI191025W.M
Title : EPA 8260: Volatile Organic Compounds
Last Update : Fri Oct 25 08:32:21 2019
Response Via : Initial Calibration

Calibration Files
0.1 =VI19102417.D 0.2 =VI19102418.D 0.5 =VI19102419.D 1 =VI19102420.D 2 =VI19102421.D 5 =VI19102422.D
10 =VI19102423.D 20 =VI19102424.D 50 =VI19102425.D 100 =VI19102427.D 200 =VI19102429.D

		Compound	0.1	0.2	0.5	1	2	5	10	20	50	100	200	Avg	%RSD
1)	I	Pentafluorobenzene...	----------			ISTD	----------								
2)		Dichlorodifluo...			0.627	0.682	0.842	0.812	0.770	0.800	0.946	0.947	0.929	0.817	13.92
3)	P	Chloromethane		1.457	1.268	1.037	1.070	1.024	0.954	1.002	1.029	1.012	0.984	1.084	14.45
4)	C	Vinyl Chloride		0.884	1.079	1.013	1.135	1.140	1.069	1.110	1.150	1.154	1.123	1.086	7.67
5)		Bromomethane				0.760	0.709	0.701	0.624	0.614	0.579	0.559	0.576	0.640	11.51
6)		Chloroethane					0.573	0.531	0.502	0.442	0.447			0.499	11.23
7)		Trichlorofluor...			1.069	1.200	1.279	1.282	1.235	1.294	1.259	1.250	1.199	1.230	5.62
8)		Ethanol			0.023	0.024	0.026	0.025	0.024	0.025	0.023	0.023		0.024	5.02
9)	C	1,1-Dichloroet...			1.159	1.067	1.188	1.200	1.158	1.203	1.192	1.279	1.222	1.185	4.83
10)		Carbon Disulfide				1.970	2.202	2.167	2.084	2.200	2.200	2.374	2.300	2.187	5.64
11)		Freon 113				0.740	0.858	0.860	0.834	0.883	0.846	0.912	0.886	0.852	6.07
12)		Iodomethane						0.083	0.133	0.255	0.499	0.685	0.750	0.401	71.16
13)		Acrolein				0.181	0.209	0.222	0.206	0.233	0.247	0.268	0.251	0.227	12.43
14)		Methylene Chlo...	8.716	4.794	2.954	1.697	1.388	1.130	0.965	0.970	0.887	0.934	0.904	2.304	106.11
15)		Acetone					0.510	0.466	0.421	0.438	0.406	0.421	0.404	0.438	8.73
16)		t-1,2-Dichloro...		0.784	1.075	1.145	1.242	1.233	1.164	1.247	1.188	1.276	1.248	1.160	12.54
17)		n-Hexane				0.154	0.160	0.165	0.172	0.185	0.183	0.196	0.198	0.177	9.35
18)		Methyl-tert-bu...			2.577	2.494	2.698	2.694	2.617	2.750	2.707	2.888	2.841	2.696	4.58
19)		tert-Butanol ...	0.170	0.163	0.180	0.179	0.210	0.208	0.199	0.219	0.203	0.205		0.194	9.71
20)		Diisopropyl et...			2.849	2.764	2.983	3.090	2.914	3.102	2.767	2.742		2.901	5.01
21)	P	1,1-Dichloroet...			1.477	1.582	1.631	1.649	1.573	1.671	1.582	1.696	1.641	1.611	4.09
22)		Acrylonitrile				0.377	0.440	0.489	0.484	0.511	0.507	0.547	0.524	0.485	11.08
23)		Ethyl-tert-but...				2.497	2.839	2.908	2.849	2.978	2.730	2.719		2.789	5.66
24)		Vinyl Acetate				1.560	1.772	1.844	1.813	2.005	2.128	2.333	2.113	1.946	12.62
25)		c-1,2-Dichloro...			1.125	1.182	1.256	1.257	1.221	1.298	1.238	1.328	1.288	1.244	4.98
26)		2,2-Dichloropr...			0.952	0.998	1.078	1.062	1.006	1.073	1.061	1.129	1.104	1.051	5.31
27)		Bromochloromet...			0.436	0.512	0.605	0.646	0.636	0.688	0.671	0.677	0.622	0.610	13.73
28)	C	Chloroform		1.278	1.442	1.440	1.642	1.638	1.607	1.696	1.617	1.719	1.673	1.575	8.98
29)		Carbon Tetrach...				0.772	0.903	0.897	0.886	0.977	0.991	1.106	1.133	0.958	12.52
30)		Tetrahydrofuran				0.407	0.461	0.460	0.441	0.474	0.468	0.500	0.477	0.461	5.94
31)		1,1,1-Trichlor...			1.130	1.251	1.340	1.347	1.284	1.379	1.354	1.453	1.430	1.330	7.37
32)	S	Dibromofluorom...	0.960	0.964	0.965	0.962	0.982	0.984	0.967	0.975	1.010	1.016	1.023	0.982	2.38
33)		1,1-Dichloropr...			1.171	1.184	1.292	1.299	1.245	1.313	1.271	1.376	1.341	1.277	5.30
34)		2-Butanone (MEK)				0.625	0.704	0.704	0.662	0.717	0.701	0.741	0.702	0.695	5.12
35)		Benzene	3.949	3.450	3.774	3.582	4.047	3.910	3.714	3.910	3.758	4.022	3.911	3.821	4.86
36)		tert-Amyl meth...			2.590	2.520	2.704	2.683	2.610	2.695	2.456	2.481		2.592	3.80
37)		1,2-Dichloroet...			1.198	1.130	1.292	1.293	1.230	1.306	1.245	1.313	1.256	1.252	4.76
38)		iso-Butyl Alcohol			0.052	0.054	0.072	0.075	0.067	0.074	0.078	0.080	0.074	0.070	14.51
39)	S	1,4-Difluorobe...	3.139	3.132	3.146	3.160	3.134	3.188	3.124	3.158	3.201	3.187	3.180	3.159	0.84
40)		Trichloroethen...		0.810	0.801	0.933	1.033	1.022	0.997	1.053	1.026	1.095	1.074	0.984	10.55
41)		Tert-Amyl-Ethy...				1.637	1.938	1.921	1.876	2.019	1.845	1.866		1.872	6.33

Method Path : C:\msdchem\1\methods\
Method File : VI191025W.M
Title : EPA 8260: Volatile Organic Compounds

42)		Dibromomethane			0.422	0.554	0.622	0.633	0.620	0.656	0.642	0.692	0.677	0.613	13.36
43)	C	1,2-Dichloropr...			0.890	0.838	0.987	0.982	0.932	0.988	0.944	1.024	0.994	0.953	6.18
44)		Bromodichlorom...			0.893	0.973	1.056	1.083	1.065	1.150	1.155	1.260	1.255	1.099	11.01
45)		Chlorobenzene-d5 (I)	----------ISTD----------												
46)		2-Chloroethyl ...				0.222	0.217	0.253	0.251	0.271	0.275	0.292	0.273	0.257	10.27
47)		c-1,3-Dichloro...			0.431	0.429	0.468	0.474	0.487	0.525	0.520	0.559	0.556	0.494	9.88
48)	S	Toluene-d8 (S)	1.321	1.333	1.345	1.321	1.327	1.322	1.327	1.302	1.292	1.274	1.272	1.312	1.83
49)	C	Toluene	1.590	1.439	1.488	1.454	1.499	1.474	1.445	1.492	1.391	1.462	1.439	1.470	3.41
50)		Tetrachloroeth...		0.220	0.334	0.321	0.364	0.361	0.353	0.370	0.352	0.372	0.375	0.342	13.48
51)		4-Methyl-2-Pen...		0.367	0.406	0.406	0.463	0.469	0.464	0.491	0.474	0.484	0.441	0.446	9.09
52)		t-1,3-Dichloro...				0.341	0.378	0.404	0.420	0.465	0.473	0.513	0.513	0.438	14.34
53)		1,1,2-Trichlor...		0.238	0.304	0.313	0.347	0.344	0.342	0.351	0.335	0.347	0.338	0.326	10.62
54)		Dibromochlorom...			0.214	0.217	0.255	0.267	0.275	0.301	0.315			0.264	14.58
55)		1,3-Dichloropr...		0.469	0.532	0.541	0.578	0.584	0.581	0.600	0.571	0.595	0.571	0.562	6.98
56)		1,2-Dibromoeth...			0.261	0.310	0.378	0.375	0.366	0.381	0.366	0.382	0.375	0.355	11.70
57)		2-Hexanone			0.286	0.284	0.319	0.328	0.335	0.356	0.350	0.358	0.327	0.327	8.41
58)	P	Chlorobenzene	0.780	0.862	0.945	0.928	0.982	0.984	0.965	0.985	0.940	0.981	0.971	0.939	6.80
59)	C	Ethylbenzene	1.531	1.514	1.522	1.409	1.608	1.560	1.535	1.591	1.516	1.594	1.580	1.542	3.61
60)		1,1,1,2-Tetrac...			0.200	0.237	0.251	0.266	0.272	0.296	0.296	0.324	0.323	0.274	14.90
61)		m,p-Xylenes (2)	1.112	1.019	1.103	1.029	1.137	1.146	1.135	1.209	1.150	1.230	1.219	1.135	6.12
62)		o-Xylene	0.951	1.008	1.106	1.067	1.142	1.147	1.141	1.216	1.158	1.233	1.214	1.126	7.83
63)		Styrene			0.703	0.785	0.870	0.890	0.911	0.979	0.956	1.026	1.023	0.905	11.93
64)	P	Bromoform				0.128	0.149	0.156	0.171	0.194	0.221	0.255		0.182	24.41
65)		Isopropylbenzene		1.111	1.302	1.233	1.371	1.392	1.385	1.488	1.427	1.528	1.496	1.373	9.37
66)	I	1,4-Dichlorobenzen...	----------ISTD----------												
67)	S	4-Bromofluorob...	0.831	0.838	0.835	0.823	0.825	0.815	0.812	0.798	0.796	0.762	0.751	0.808	3.58
68)		Bromobenzene	0.444	0.800	0.813	0.771	0.830	0.819	0.812	0.825	0.798	0.813	0.800	0.775	14.32
69)		n-Propylbenzene	3.125	3.053	3.294	3.181	3.455	3.384	3.318	3.475	3.358	3.501	3.408	3.323	4.44
70)	P	1,1,2,2-Tetrac...		0.565	0.624	0.651	0.718	0.694	0.673	0.690	0.674	0.651	0.603	0.654	7.07
71)		2-Chlorotoluene			0.668	0.663	0.747	0.716	0.725	0.753	0.719	0.730	0.723	0.716	4.34
72)		1,3,5-Trimethy...	1.990	2.087	2.127	2.152	2.344	2.349	2.342	2.452	2.344	2.400	2.390	2.271	6.72
73)		1,2,3-Trichlor...			0.252	0.308	0.347	0.343	0.341	0.333	0.327	0.319	0.295	0.318	9.47
74)		t-1,4-Dichloro...				0.184	0.235	0.232	0.234	0.239	0.243	0.234	0.219	0.228	8.27
75)		4-Chlorotoluene		1.889	2.024	1.896	2.099	2.132	2.069	2.143	2.056	2.110	2.036	2.045	4.37
76)		tert-Butylbenzene		1.115	1.160	1.233	1.324	1.326	1.287	1.348	1.278	1.320	1.288	1.268	6.05
77)		1,2,4-Trimethy...	1.919	1.974	2.218	2.194	2.324	2.412	2.375	2.491	2.370	2.445	2.405	2.284	8.30
78)		sec-Butylbenzene		2.409	2.779	2.587	2.822	2.837	2.814	2.983	2.858	2.971	2.919	2.798	6.32
79)		4-Isopropyltol...	1.722	1.702	2.078	2.114	2.243	2.339	2.300	2.497	2.392	2.489	2.476	2.214	12.88
80)		1,3-Dichlorobe...		1.165	1.312	1.268	1.382	1.390	1.384	1.422	1.383	1.412	1.382	1.350	5.93
81)		1,4-Dichlorobe...	1.113	1.342	1.454	1.451	1.531	1.440	1.433	1.478	1.406	1.436	1.402	1.408	7.70
82)		n-Butylbenzene	1.357	1.491	1.735	1.735	1.903	2.011	1.994	2.160	2.060	2.129	2.119	1.881	14.34
83)		1,2-Dichlorobe...		1.155	1.193	1.268	1.407	1.372	1.345	1.383	1.337	1.345	1.305	1.311	6.28
84)		1,2-Dibromo-3-...					0.180	0.192	0.209	0.227	0.243	0.250	0.251	0.222	12.86
85)		Hexachlorobuta...				0.154	0.172	0.191	0.183	0.199	0.189	0.190	0.187	0.183	7.66
86)		1,2,4-Trichlor...			0.572	0.637	0.724	0.784	0.775	0.840	0.812	0.823	0.834	0.756	12.49
87)		Naphthalene			1.867	1.856	2.279	2.319	2.423	2.669	2.689	2.755	2.764	2.402	14.83
88)		1,2,3-Trichlor...		0.483	0.638	0.653	0.729	0.733	0.747	0.797	0.779	0.798	0.815	0.717	14.16

(#) = Out of Range

Compound List Report VOA-GCMS9

Method Path : C:\msdchem\1\methods\
Method File : VI191025W.M
Title : EPA 8260: Volatile Organic Compounds
Last Update : Fri Oct 25 08:32:21 2019
Response Via : Initial Calibration

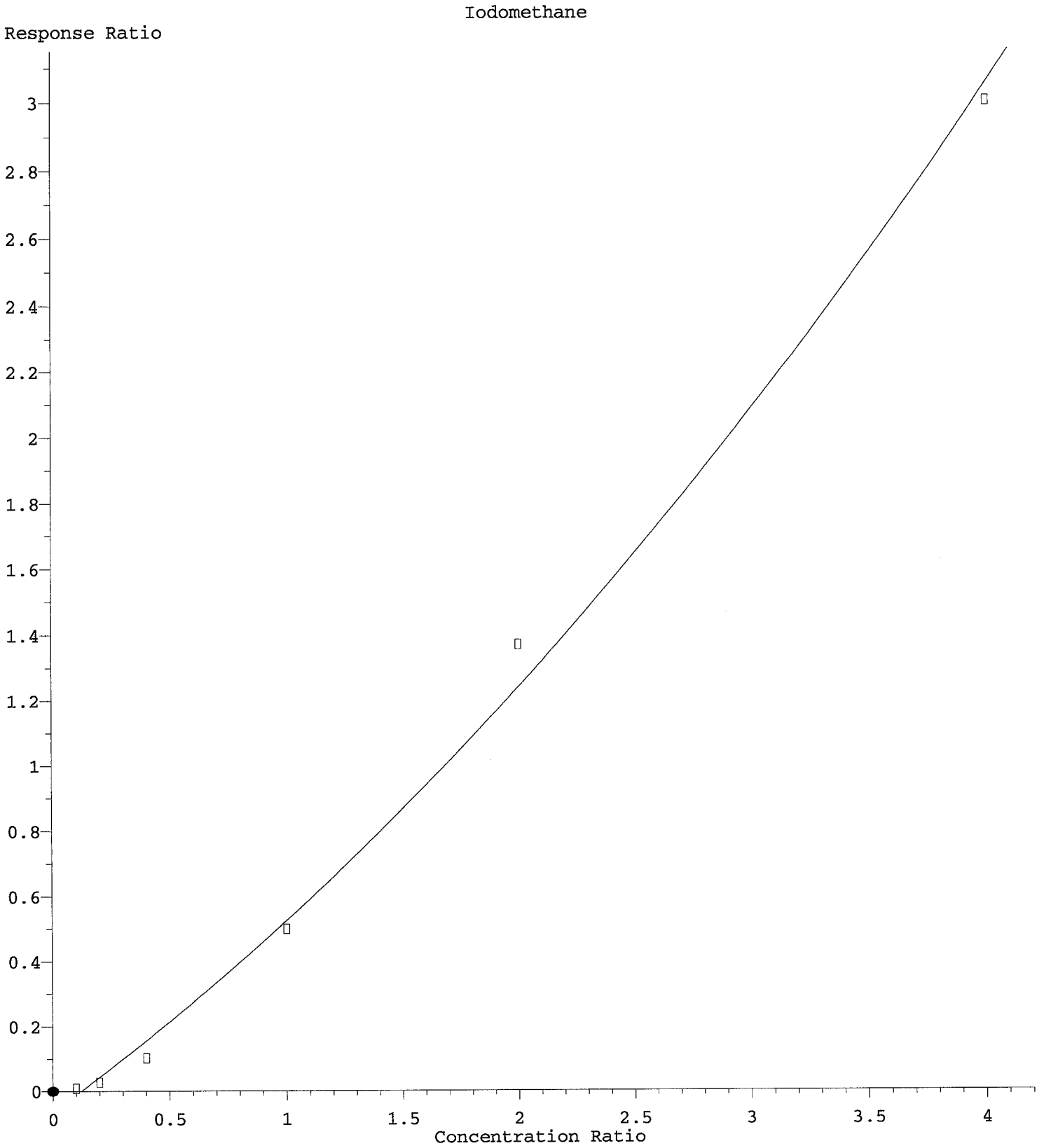
Total Cpnds : 88

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene (I)	99	6.211	1.000	A	2	A	R
2		Dichlorodifluoromethane	85	1.673	0.269	A	2	A	R
3	P	Chloromethane	50	1.891	0.304	A	2	A	R
4	C	Vinyl Chloride	62	1.995	0.321	A	2	A	R
5		Bromomethane	96	2.353	0.379	A	2	A	R
6		Chloroethane	64	2.487	0.400	A	2	A	R
7		Trichlorofluoromethane	101	2.658	0.428	A	2	A	R
8		Ethanol	45	3.230	0.520	A	1	A	R
9	C	1,1-Dichloroethene	61	3.230	0.520	A	2	A	R
10		Carbon Disulfide	76	3.242	0.522	A	2	A	R
11		Freon 113	101	3.279	0.528	A	2	A	R
12		Iodomethane	142	3.382	0.545	QV	2	A	R
13		Acrolein	56	3.613	0.582	A	2	A	R
14		Methylene Chloride	84	3.868	0.623	QV	2	A	R
15		Acetone	43	3.935	0.634	A	1	A	R
16		t-1,2-Dichloroethene	61	4.033	0.649	A	2	A	R
17		n-Hexane	86	4.118	0.663	A	3	A	R
18		Methyl-tert-butyl-ether	73	4.167	0.671	A	3	A	R
19		tert-Butanol (TBA)	59	4.288	0.690	A	1	A	R
20		Diisopropyl ether (DIPE)	45	4.562	0.735	A	2	A	R
21	P	1,1-Dichloroethane	63	4.678	0.753	A	2	A	R
22		Acrylonitrile	53	4.745	0.764	A	2	A	R
23		Ethyl-tert-butyl ether (ETBE)	59	4.939	0.795	A	2	A	R
24		Vinyl Acetate	43	4.951	0.797	A	2	A	R
25		c-1,2-Dichloroethene	61	5.238	0.843	A	2	A	R
26		2,2-Dichloropropane	77	5.347	0.861	A	2	A	R
27		Bromochloromethane	130	5.444	0.877	A	2	A	R
28	C	Chloroform	83	5.523	0.889	A	2	A	R
29		Carbon Tetrachloride	117	5.657	0.911	A	2	A	R
30		Tetrahydrofuran	42	5.700	0.918	A	2	A	R
31		1,1,1-Trichloroethane	97	5.730	0.923	A	2	A	R
32	S	Dibromofluoromethane (S)	111	5.712	0.920	A	2	A	R
33		1,1-Dichloropropene	75	5.858	0.943	A	2	A	R
34		2-Butanone (MEK)	43	5.852	0.942	A	2	A	R
35		Benzene	78	6.120	0.985	A	2	A	R
36		tert-Amyl methyl ether (TAME)	73	6.247	1.006	A	2	A	R
37		1,2-Dichloroethane (EDC)	62	6.339	1.021	A	2	A	R
38		iso-Butyl Alcohol	43	6.369	1.025	A	2	A	R
39	S	1,4-Difluorobenzene (S)	114	6.777	1.091	A	2	A	R
40		Trichloroethene (TCE)	130	6.740	1.085	A	2	A	R
41		Tert-Amyl-Ethyl-Ether (TAEE)	59	6.996	1.126	A	2	A	R
42		Dibromomethane	93	7.196	1.159	A	2	A	R
43	C	1,2-Dichloropropane	63	7.306	1.176	A	2	A	R
44		Bromodichloromethane	83	7.379	1.188	A	2	A	R
45	I	Chlorobenzene-d5 (I)	117	9.910	1.000	A	2	A	R
46		2-Chloroethyl Vinyl Ether	63	8.017	0.809	A	2	A	R
47		c-1,3-Dichloropropene	75	8.091	0.816	A	2	A	R
48	S	Toluene-d8 (S)	98	8.298	0.837	A	2	A	R
49	C	Toluene	91	8.358	0.843	A	2	A	R
50		Tetrachloroethene (PCE)	166	8.796	0.888	A	2	A	R
51		4-Methyl-2-Pentanone (MIBK)	43	8.796	0.888	A	2	A	R
52		t-1,3-Dichloropropene	75	8.832	0.891	A	2	A	R
53		1,1,2-Trichloroethane	97	9.003	0.909	A	2	A	R
54		Dibromochloromethane	129	9.185	0.927	A	2	A	R
55		1,3-Dichloropropane	76	9.289	0.937	A	2	A	R

56		1,2-Dibromoethane (EDB)	107	9.423	0.951	A	2	A	R
57		2-Hexanone	43	9.654	0.974	A	2	A	R
58	P	Chlorobenzene	112	9.928	1.002	A	2	A	R
59	C	Ethylbenzene	91	9.952	1.004	A	2	A	R
60		1,1,1,2-Tetrachloroethane	131	9.988	1.008	A	2	A	R
61		m,p-Xylenes (2)	91	10.086	1.018	A	2	A	R
62		o-Xylene	91	10.463	1.056	A	2	A	R
63		Styrene	104	10.512	1.061	A	2	A	R
64	P	Bromoform	173	10.536	1.063	Q	2	A	R
65		Isopropylbenzene	105	10.731	1.083	A	2	A	R
66	I	1,4-Dichlorobenzene-d4 (I)	152	11.850	1.000	A	2	A	R
67	S	4-Bromofluorobenzene (S)	174	10.974	0.926	A	2	A	R
68		Bromobenzene	156	11.060	0.933	A	2	A	R
69		n-Propylbenzene	91	11.072	0.934	A	2	A	R
70	P	1,1,2,2-Tetrachloroethane	85	11.139	0.940	A	2	A	R
71		2-Chlorotoluene	126	11.206	0.946	A	2	A	R
72		1,3,5-Trimethylbenzene	105	11.229	0.948	A	2	A	R
73		1,2,3-Trichloropropane	110	11.248	0.949	A	2	A	R
74		t-1,4-Dichloro-2-butene	53	11.279	0.952	A	3	A	R
75		4-Chlorotoluene	91	11.339	0.957	A	2	A	R
76		tert-Butylbenzene	91	11.479	0.969	A	2	A	R
77		1,2,4-Trimethylbenzene	105	11.534	0.973	A	2	A	R
78		sec-Butylbenzene	105	11.619	0.980	A	2	A	R
79		4-Isopropyltoluene	119	11.728	0.990	A	2	A	R
80		1,3-Dichlorobenzene	146	11.796	0.995	A	2	A	R
81		1,4-Dichlorobenzene	146	11.863	1.001	A	2	A	R
82		n-Butylbenzene	91	12.045	1.016	A	2	A	R
83		1,2-Dichlorobenzene	146	12.185	1.028	A	2	A	R
84		1,2-Dibromo-3-Chloropropane	157	12.799	1.080	A	2	A	R
85		Hexachlorobutadiene	223	13.304	1.123	A	3	A	R
86		1,2,4-Trichlorobenzene	180	13.346	1.126	A	2	A	R
87		Naphthalene	128	13.626	1.150	A	2	A	R
88		1,2,3-Trichlorobenzene	180	13.784	1.163	A	2	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

VI191025W.M Fri Oct 25 09:01:32 2019

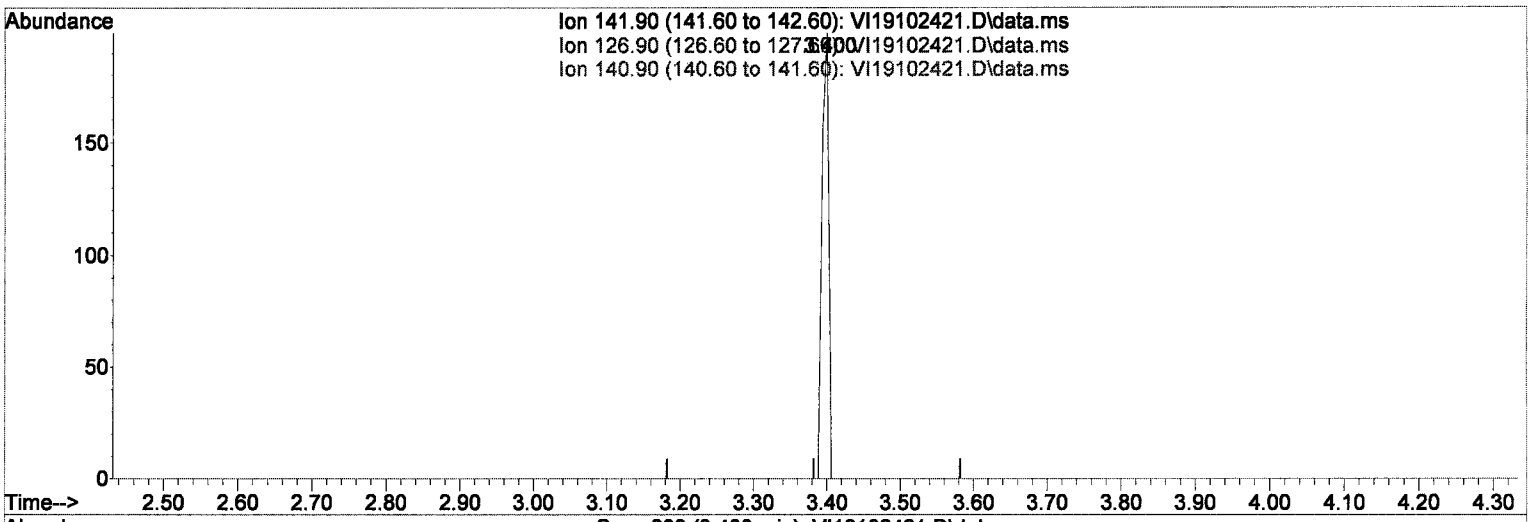


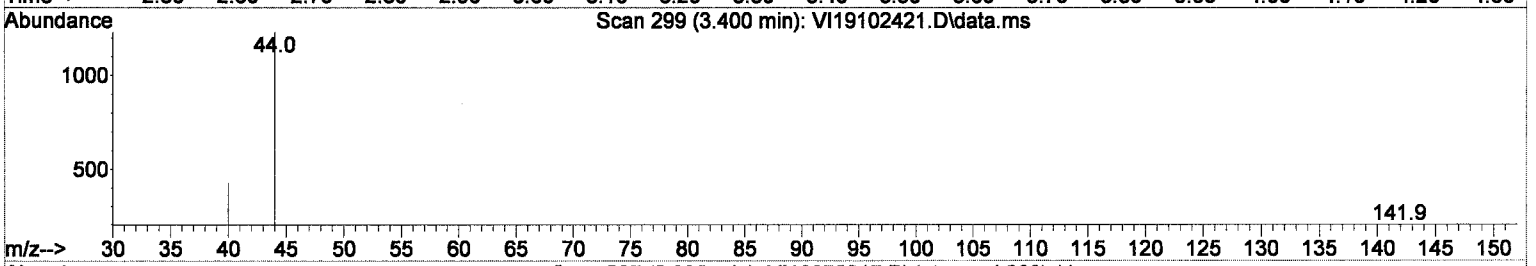
R = 6.36e-002 A*A + 5.25e-001 A - 6.41e-002
Coef of Det (r^2) = 0.993 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VI191025W.M
Calibration Table Last Updated: Fri Oct 25 08:33:22 2019

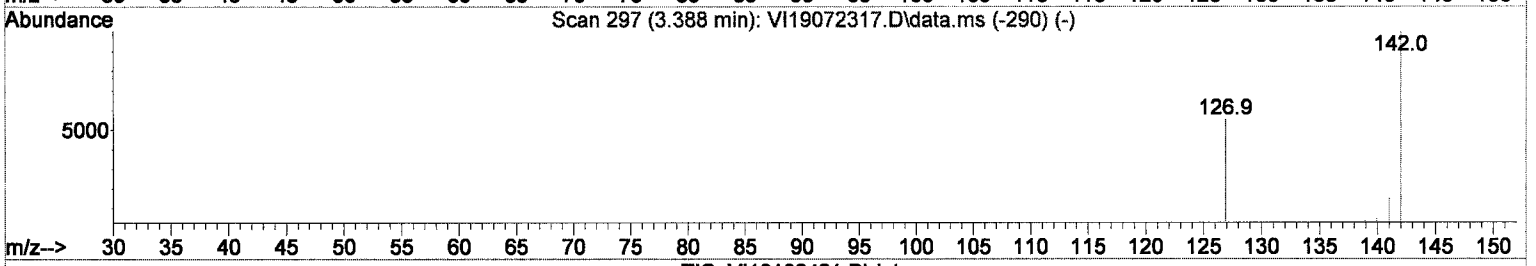
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\REQUANT\
Data File : VI19102421.D
Acq On : 24 Oct 2019 5:42 pm
Operator : MM
Sample : 9J24043-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:42:43 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration







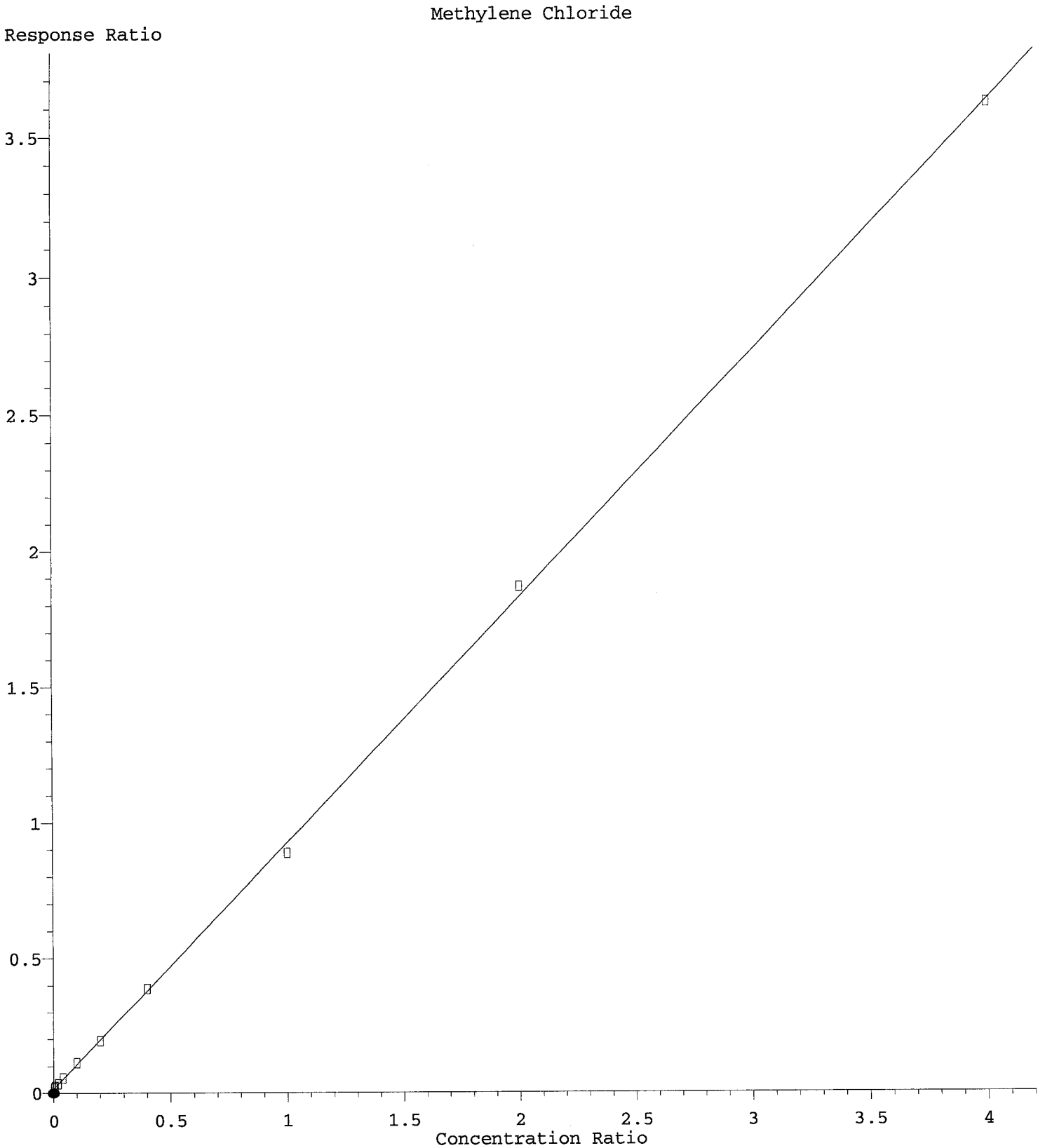
TIC: VI19102421.D\data.ms

(12) Iodomethane

3.400min (+ 0.018) 6.13 ug/L m

response 130

Ion	Exp%	Act%
141.90	100.00	100.00
126.90	34.80	0.00#
140.90	15.30	0.00#
0.00	0.00	0.00

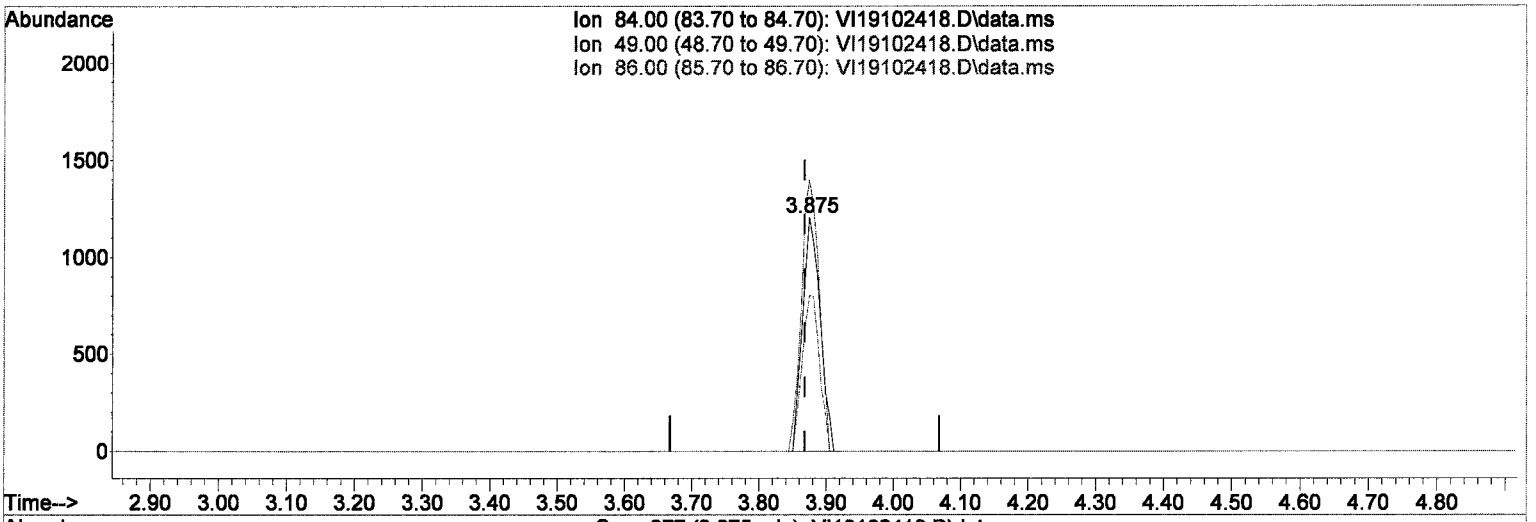


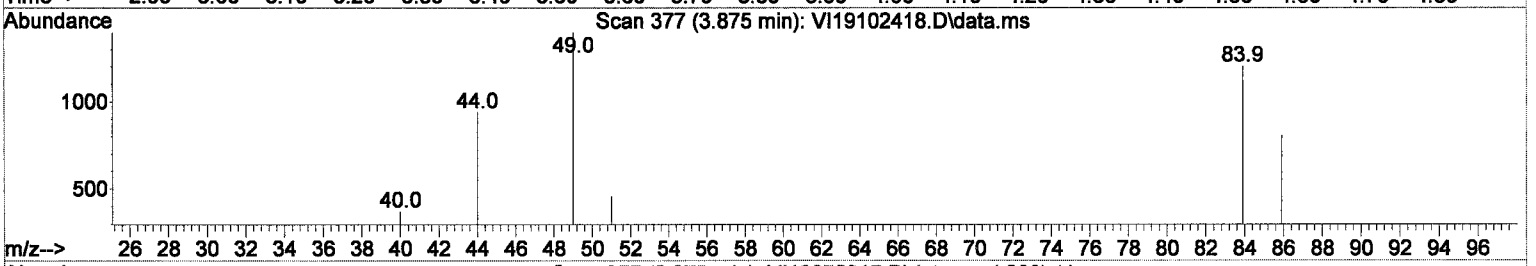
R = -2.46e-003 A*A + 9.12e-001 A + 1.58e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VI191025W.M
Calibration Table Last Updated: Fri Oct 25 08:34:03 2019

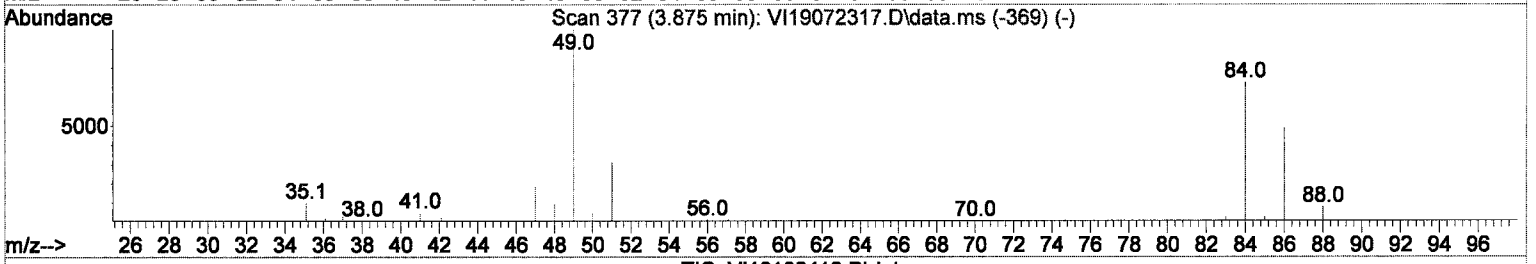
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\REQUANT\
Data File : VI19102418.D
Acq On : 24 Oct 2019 4:21 pm
Operator : MM
Sample : 9J24043-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:42:34 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration







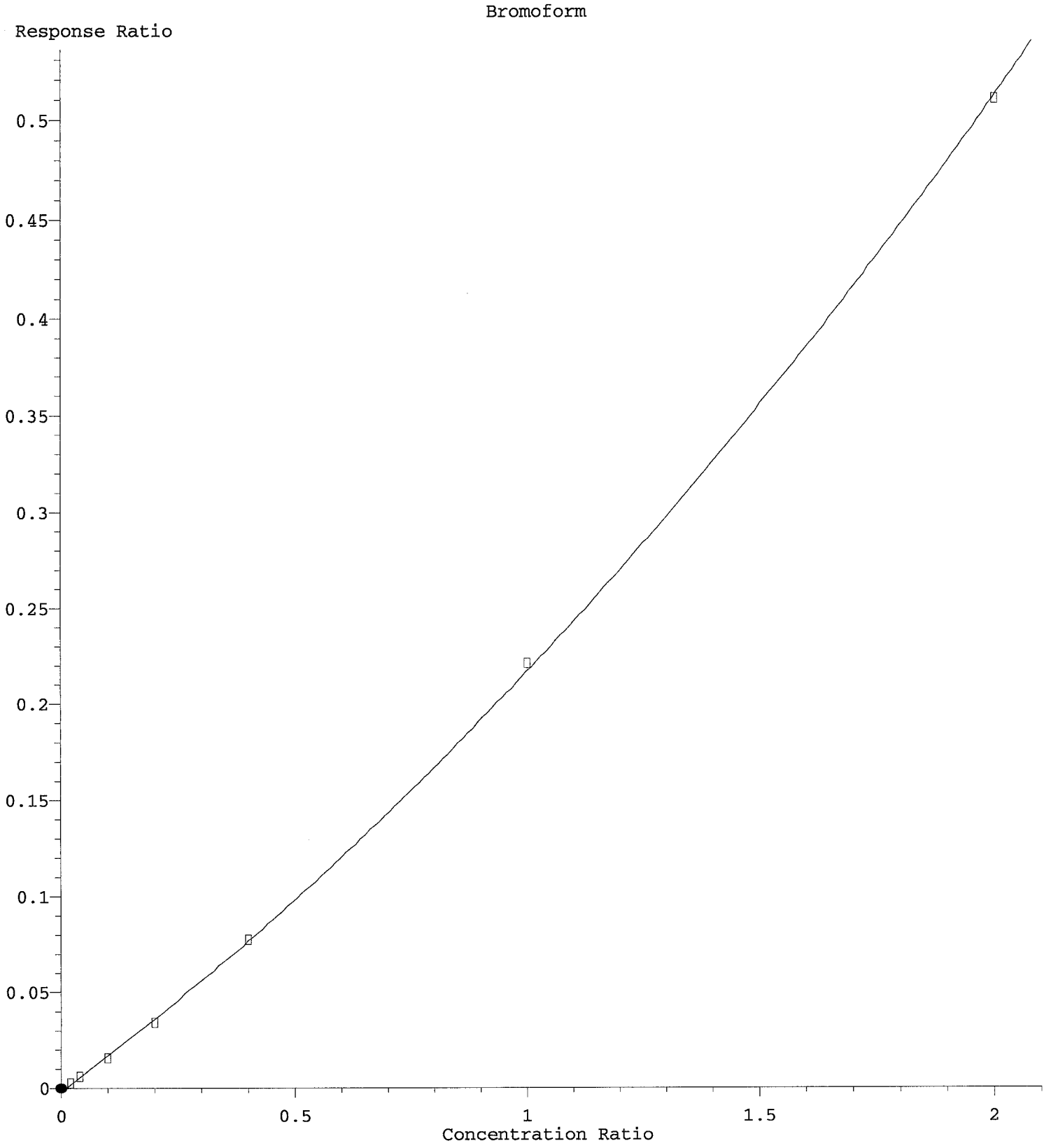
TIC: VI19102418.D\data.ms

(14) Methylene Chloride

3.875min (+ 0.007) 0.18 ug/L

response 2201

Ion	Exp%	Act%
84.00	100.00	100.00
49.00	134.70	116.13
86.00	61.50	66.92
0.00	0.00	0.00

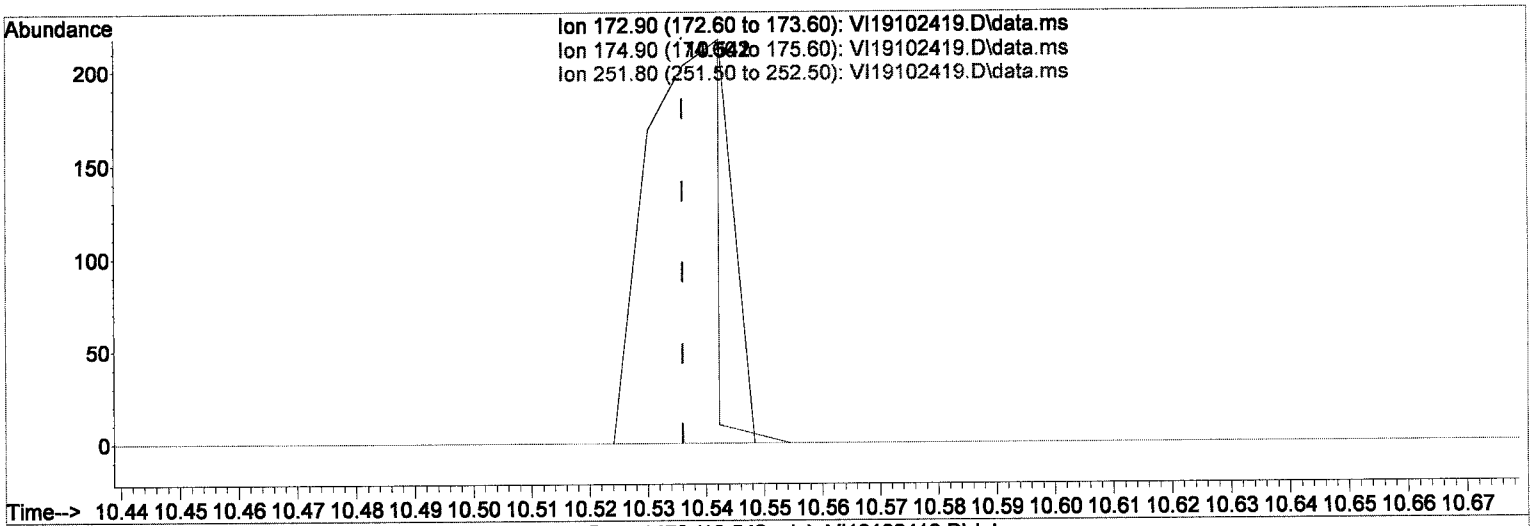


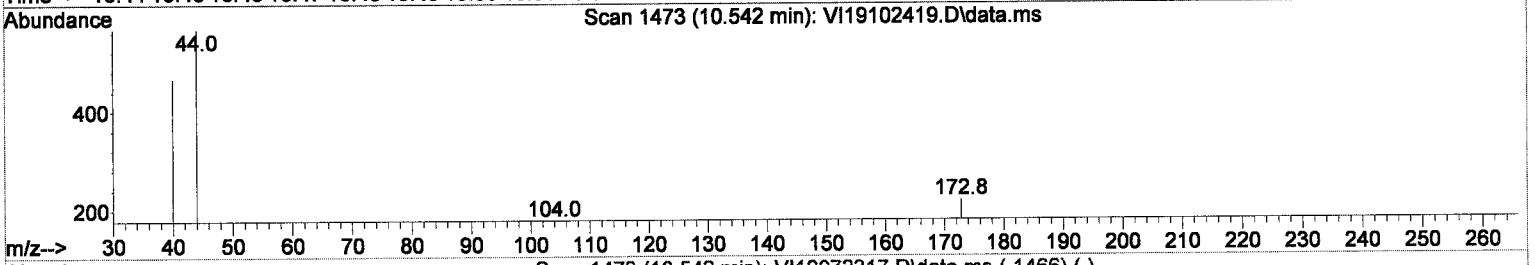
R = 3.82e-002 A*A + 1.80e-001 A - 1.40e-003
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VI191025W.M
Calibration Table Last Updated: Fri Oct 25 08:48:07 2019

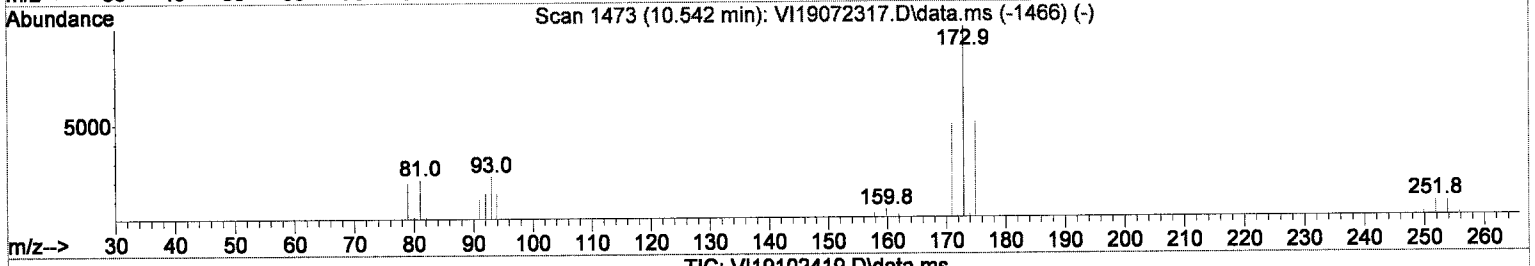
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\REQUANT\
Data File : VI19102419.D
Acq On : 24 Oct 2019 4:48 pm
Operator : MM
Sample : 9J24043-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:48:10 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration







TIC: VI19102419.D\data.ms

(64) Bromoform (P)

10.542min (+ 0.006) 0.38 ug/L m

response -4

Ion	Exp%	Act%
172.90	100.00	100.00
174.90	49.20	0.00#
251.80	13.30	0.00
0.00	0.00	-0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102432.D
Acq On : 24 Oct 2019 10:38 pm
Operator : MM
Sample : 9J24043-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:53 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

MM 10/25/19

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (I)	50.000	50.000	0.0	103	0.00
2		Dichlorodifluoromethane	20.000	25.235	-26.2#	133	0.00
3	P	Chloromethane	20.000	20.727	-3.6	115	0.00
4	C	Vinyl Chloride	20.000	22.118	-10.6	111	0.00
5		Bromomethane	20.000	22.648	-13.2	122	0.00
6		Chloroethane	20.000	17.519	12.4	102	0.00
7		Trichlorofluoromethane	20.000	20.686	-3.4	101	0.00
8		~~Ethanol~~	~~1250.000~~	~~37.145~~	~~97.0#~~	~~3~~	~~0.00~~
9	C	1,1-Dichloroethene	20.000	19.721	1.4	100	0.00
10		Carbon Disulfide	20.000	18.350	8.2	94	0.00
11		Freon 113	20.000	19.089	4.6	95	0.00
12		Iodomethane	20.000	16.515	17.4	117	0.00
13		Acrolein	20.000	20.473	-2.4	103	0.00
14		Methylene Chloride	20.000	19.959	0.2	101	0.00
15		Acetone	40.000	37.600	6.0	97	0.00
16		t-1,2-Dichloroethene	20.000	20.982	-4.9	100	0.00
17		n-Hexane	20.000	19.272	3.6	95	0.00
18		Methyl-tert-butyl-ether	20.000	19.588	2.1	99	0.00
19		~~tert-Butanol (TBA)~~	~~1250.000~~	~~28.139~~	~~97.7#~~	~~2~~	~~0.00~~
20		~~Diisopropyl ether (DIPE)~~	~~5.000~~	~~0.181~~	~~96.4#~~	~~3~~	~~0.00~~
21	P	1,1-Dichloroethane	20.000	20.526	-2.6	102	0.00
22		Acrylonitrile	20.000	19.587	2.1	96	0.00
23		~~Ethyl-tert-butyl ether (ET~~	~~5.000~~	~~0.158~~	~~96.8#~~	~~3~~	~~0.00~~
24		Vinyl Acetate	20.000	19.888	0.6	99	0.00
25		c-1,2-Dichloroethene	20.000	20.039	-0.2	99	0.00
26		2,2-Dichloropropane	20.000	17.720	11.4	89	0.00
27		Bromochloromethane	20.000	22.053	-10.3	101	0.00
28	C	Chloroform	20.000	20.857	-4.3	100	0.00
29		Carbon Tetrachloride	20.000	20.695	-3.5	104	0.00
30		Tetrahydrofuran	20.000	19.026	4.9	95	0.00
31		1,1,1-Trichloroethane	20.000	19.935	0.3	99	0.00
32	S	Dibromofluoromethane (S)	50.000	50.291	-0.6	104	0.00
33		1,1-Dichloropropene	20.000	19.605	2.0	98	0.00
34		2-Butanone (MEK)	40.000	37.882	5.3	94	0.00
35		Benzene	20.000	19.670	1.6	99	0.00
36		~~tert-Amyl methyl ether (TA~~	~~5.000~~	~~0.175~~	~~96.5#~~	~~3~~	~~0.01~~
37		1,2-Dichloroethane (EDC)	20.000	20.160	-0.8	99	0.00
38		iso-Butyl Alcohol	500.000	519.105	-3.8	100	0.00
39	S	1,4-Difluorobenzene (S)	50.000	50.364	-0.7	104	0.00
40		Trichloroethene (TCE)	20.000	21.245	-6.2	102	0.00
41		~~Tert-Amyl-Ethyl-Ether (TAEE~~	~~5.000~~	~~0.144~~	~~97.1#~~	~~3~~	~~0.00~~
42		Dibromomethane	20.000	21.130	-5.6	102	0.00
43	C	1,2-Dichloropropane	20.000	20.286	-1.4	101	0.00
44		Bromodichloromethane	20.000	20.751	-3.8	102	0.00
45		Chlorobenzene-d5 (I)	50.000	50.000	0.0	104	0.00
46		2-Chloroethyl Vinyl Ether	20.000	20.093	-0.5	99	0.00
47		c-1,3-Dichloropropene	20.000	19.890	0.5	98	0.00
48	S	Toluene-d8 (S)	50.000	49.306	1.4	104	0.00
49	C	Toluene	20.000	19.385	3.1	99	0.00
50		Tetrachloroethene (PCE)	20.000	20.889	-4.4	101	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102432.D
Acq On : 24 Oct 2019 10:38 pm
Operator : MM
Sample : 9J24043-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:53 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		4-Methyl-2-Pentanone (MIBK)	40.000	41.038	-2.6	97	0.00
52		t-1,3-Dichloropropene	20.000	20.701	-3.5	102	0.00
53		1,1,2-Trichloroethane	20.000	21.234	-6.2	103	0.00
54		Dibromochloromethane	20.000	23.749	-18.7	108	0.00
55		1,3-Dichloropropane	20.000	20.475	-2.4	100	0.00
56		1,2-Dibromoethane (EDB)	20.000	20.657	-3.3	100	0.00
57		2-Hexanone	40.000	40.560	-1.4	97	0.00
58	P	Chlorobenzene	20.000	20.598	-3.0	102	0.00
59	C	Ethylbenzene	20.000	20.146	-0.7	102	0.00
60		1,1,1,2-Tetrachloroethane	20.000	21.774	-8.9	105	0.00
61		m,p-Xylenes (2)	40.000	40.933	-2.3	100	0.00
62		o-Xylene	20.000	20.989	-4.9	101	0.00
63		Styrene	20.000	20.857	-4.3	100	0.00
64	P	Bromoform	20.000	21.372	-6.9	111	0.00
65		Isopropylbenzene	20.000	20.931	-4.7	101	0.00
66	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	104	0.00
67	S	4-Bromofluorobenzene (S)	50.000	49.582	0.8	105	0.00
68		Bromobenzene	20.000	20.988	-4.9	103	0.00
69		n-Propylbenzene	20.000	20.099	-0.5	100	0.00
70	P	1,1,2,2-Tetrachloroethane	20.000	20.344	-1.7	100	0.00
71		2-Chlorotoluene	20.000	19.935	0.3	99	0.00
72		1,3,5-Trimethylbenzene	20.000	20.663	-3.3	100	0.00
73		1,2,3-Trichloropropane	20.000	20.663	-3.3	103	0.00
74		t-1,4-Dichloro-2-butene	20.000	17.538	12.3	87	0.00
75		4-Chlorotoluene	20.000	20.563	-2.8	102	0.00
76		tert-Butylbenzene	20.000	20.366	-1.8	100	0.00
77		1,2,4-Trimethylbenzene	20.000	20.724	-3.6	99	0.00
78		sec-Butylbenzene	20.000	20.458	-2.3	100	0.00
79		4-Isopropyltoluene	20.000	21.662	-8.3	100	0.00
80		1,3-Dichlorobenzene	20.000	20.840	-4.2	103	0.00
81		1,4-Dichlorobenzene	20.000	20.477	-2.4	102	0.00
82		n-Butylbenzene	20.000	22.267	-11.3	101	0.00
83		1,2-Dichlorobenzene	20.000	20.819	-4.1	103	0.00
84		1,2-Dibromo-3-Chloropropane	20.000	20.036	-0.2	102	0.00
85		Hexachlorobutadiene	20.000	21.851	-9.3	105	0.00
86		1,2,4-Trichlorobenzene	20.000	22.259	-11.3	104	0.00
87		Naphthalene	20.000	21.916	-9.6	103	0.00
88		1,2,3-Trichlorobenzene	20.000	22.607	-13.0	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102433.D
Acq On : 24 Oct 2019 11:05 pm
Operator : MM
Sample : 9J24043-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:56 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

M 10/25/19

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (I)	50.000	50.000	0.0	99	0.00
2		Dichlorodifluoromethane	20.000	0.142	99.3#	1	0.00
3	P	Chloromethane	20.000	0.423	97.9#	2	0.00
4	C	Vinyl Chloride	20.000	0.200	99.0#	1	0.00
5		Bromomethane	20.000	0.740	96.3#	4	0.00
6		Chloroethane	20.000	0.736	96.3#	4	0.03
7		Trichlorofluoromethane	20.000	0.052	99.7#	0	0.01
8		Ethanol	1250.000	1059.187	15.3	80	0.00
9	C	1,1-Dichloroethene	20.000	0.161	99.2#	1	0.00
10		Carbon Disulfide	20.000	0.494	97.5#	2	0.01
11		Freon 113	20.000	0.000	100.0#	0	-3.28#
12		Iodomethane	20.000	6.269	68.7#	3	0.00
13		Acrolein	20.000	0.000	100.0#	0	-3.61#
14		Methylene Chloride	20.000	0.401	98.0#	6	0.00
15		Acetone	40.000	1.018	97.5#	3	0.01
16		t-1,2-Dichloroethene	20.000	0.302	98.5#	1	0.00
17		n-Hexane	20.000	0.000	100.0#	0	-4.12#
18		Methyl-tert-butyl-ether	20.000	0.085	99.6#	0	0.00
19		tert-Butanol (TBA)	1250.000	1179.792	5.6	83	0.00
20		Diisopropyl ether (DIPE)	5.000	4.407	11.9	82	0.00
21	P	1,1-Dichloroethane	20.000	0.254	98.7#	1	0.00
22		Acrylonitrile	20.000	0.000	100.0#	0	-4.74#
23		Ethyl-tert-butyl ether (ET	5.000	4.402	12.0	82	0.00
24		Vinyl Acetate	20.000	0.689	96.6#	3	-0.02
25		c-1,2-Dichloroethene	20.000	0.236	98.8#	1	0.00
26		2,2-Dichloropropane	20.000	0.080	99.6#	0	0.01
27		Bromochloromethane	20.000	0.000	100.0#	0	-5.44#
28	C	Chloroform	20.000	0.223	98.9#	1	0.00
29		Carbon Tetrachloride	20.000	0.000	100.0#	0	-5.66#
30		Tetrahydrofuran	20.000	0.000	100.0#	0	-5.70#
31		1,1,1-Trichloroethane	20.000	0.094	99.5#	0	0.00
32	S	Dibromofluoromethane (S)	50.000	49.641	0.7	99	0.00
33		1,1-Dichloropropene	20.000	0.226	98.9#	1	0.00
34		2-Butanone (MEK)	40.000	0.000	100.0#	0	-5.85#
35		Benzene	20.000	0.266	98.7#	1	0.00
36		tert-Amyl methyl ether (TA	5.000	4.185	16.3	80	0.00
37		1,2-Dichloroethane (EDC)	20.000	0.071	99.6#	0	0.01
38		iso-Butyl Alcohol	500.000	0.000	100.0#	0	-6.37#
39	S	1,4-Difluorobenzene (S)	50.000	50.455	-0.9	100	0.00
40		Trichloroethene (TCE)	20.000	0.257	98.7#	1	0.01
41		Tert-Amyl-Ethyl-Ether (TAEE	5.000	4.278	14.4	78	0.00
42		Dibromomethane	20.000	0.000	100.0#	0	-7.20#
43	C	1,2-Dichloropropane	20.000	0.177	99.1#	1	0.00
44		Bromodichloromethane	20.000	0.108	99.5#	1	0.00
45		Chlorobenzene-d5 (I)	50.000	50.000	0.0	97	0.00
46		2-Chloroethyl Vinyl Ether	20.000	0.000	100.0#	0	-8.02#
47		c-1,3-Dichloropropene	20.000	0.143	99.3#	1	0.00
48	S	Toluene-d8 (S)	50.000	50.620	-1.2	99	0.00
49	C	Toluene	20.000	0.283	98.6#	1	0.00
50		Tetrachloroethene (PCE)	20.000	0.334	98.3#	1	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102433.D
Acq On : 24 Oct 2019 11:05 pm
Operator : MM
Sample : 9J24043-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:56 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		4-Methyl-2-Pentanone (MIBK)	40.000	0.000	100.0#	0	-8.80#
52		t-1,3-Dichloropropene	20.000	0.080	99.6#	0	0.02
53		1,1,2-Trichloroethane	20.000	0.000	100.0#	0	-9.00#
54		Dibromochloromethane	20.000	0.000	100.0#	0	-9.19#
55		1,3-Dichloropropane	20.000	0.089	99.6#	0	0.00
56		1,2-Dibromoethane (EDB)	20.000	0.000	100.0#	0	-9.42#
57		2-Hexanone	40.000	0.000	100.0#	0	-9.65#
58	P	Chlorobenzene	20.000	0.297	98.5#	1	0.00
59	C	Ethylbenzene	20.000	0.274	98.6#	1	0.00
60		1,1,1,2-Tetrachloroethane	20.000	0.153	99.2#	1	0.00
61		m,p-Xylenes (2)	40.000	0.530	98.7#	1	0.00
62		o-Xylene	20.000	0.258	98.7#	1	0.00
63		Styrene	20.000	0.234	98.8#	1	0.00
64	P	Bromoform	20.000	0.000	100.0#	0	-10.54#
65		Isopropylbenzene	20.000	0.224	98.9#	1	0.00
66	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	92	0.00
67	S	4-Bromofluorobenzene (S)	50.000	50.894	-1.8	94	0.00
68		Bromobenzene	20.000	0.267	98.7#	1	0.00
69		n-Propylbenzene	20.000	0.308	98.5#	1	0.00
70	P	1,1,2,2-Tetrachloroethane	20.000	0.000	100.0#	0	-11.14#
71		2-Chlorotoluene	20.000	0.261	98.7#	1	0.00
72		1,3,5-Trimethylbenzene	20.000	0.279	98.6#	1	0.00
73		1,2,3-Trichloropropane	20.000	0.000	100.0#	0	-11.25#
74		t-1,4-Dichloro-2-butene	20.000	0.000	100.0#	0	-11.28#
75		4-Chlorotoluene	20.000	0.357	98.2#	2	0.00
76		tert-Butylbenzene	20.000	0.243	98.8#	1	0.00
77		1,2,4-Trimethylbenzene	20.000	0.300	98.5#	1	0.00
78		sec-Butylbenzene	20.000	0.275	98.6#	1	0.00
79		4-Isopropyltoluene	20.000	0.295	98.5#	1	0.00
80		1,3-Dichlorobenzene	20.000	0.371	98.1#	2	0.00
81		1,4-Dichlorobenzene	20.000	0.404	98.0#	2	0.00
82		n-Butylbenzene	20.000	0.398	98.0#	2	0.00
83		1,2-Dichlorobenzene	20.000	0.272	98.6#	1	0.00
84		1,2-Dibromo-3-Chloropropane	20.000	0.000	100.0#	0	-12.80#
85		Hexachlorobutadiene	20.000	0.497	97.5#	2	0.00
86		1,2,4-Trichlorobenzene	20.000	0.570	97.2#	2	0.00
87		Naphthalene	20.000	0.356	98.2#	1	0.00
88		1,2,3-Trichlorobenzene	20.000	0.570	97.2#	2	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Calibration Status Report VOA-GCMS9

Method Path : C:\msdchem\1\methods\
Method File : VI191025G.M
Title : NWTPH-Gx by GC/MS
Last Update : Fri Oct 25 10:31:05 2019
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	50	50	50	C:\msdchem\1\data\2019-10\9J24043\VI19102439.D
2	100	100	50	C:\msdchem\1\data\2019-10\9J24043\VI19102440.D
3	250	250	50	C:\msdchem\1\data\2019-10\9J24043\VI19102441.D
4	500	500	50	C:\msdchem\1\data\2019-10\9J24043\VI19102442.D
5	1000	1000	50	C:\msdchem\1\data\2019-10\9J24043\VI19102452.D
6	2500	2500	50	C:\msdchem\1\data\2019-10\9J24043\VI19102444.D
7	5000	5000	50	C:\msdchem\1\data\2019-10\9J24043\VI19102445.D
8	10K	10000	50	C:\msdchem\1\data\2019-10\9J24043\VI19102446.D

#	ID	Update Time	Quant Time	Acquisition Time
1	50	Oct 25 09:04 2019	Oct 25 08:55 2019	25 Oct 2019 1:46 am
2	100	Oct 25 09:04 2019	Oct 25 08:55 2019	25 Oct 2019 2:13 am
3	250	Oct 25 09:04 2019	Oct 25 08:55 2019	25 Oct 2019 2:40 am
4	500	Oct 25 09:04 2019	Oct 25 08:55 2019	25 Oct 2019 3:07 am
5	1000	Oct 25 10:31 2019	Oct 25 10:30 2019	25 Oct 2019 10:13 am
6	2500	Oct 25 09:04 2019	Oct 25 08:55 2019	25 Oct 2019 4:00 am
7	5000	Oct 25 09:04 2019	Oct 25 08:55 2019	25 Oct 2019 4:27 am
8	10K	Oct 25 09:04 2019	Oct 25 08:55 2019	25 Oct 2019 4:54 am

VI191025G.M Fri Oct 25 10:41:17 2019

Response Factor Report VOA-GCMS9

Method Path : C:\msdchem\1\methods\
Method File : VI191025G.M
Title : NWTPH-Gx by GC/MS
Last Update : Fri Oct 25 10:31:05 2019
Response Via : Initial Calibration

Calibration Files
50 =VI19102439.D 100 =VI19102440.D 250 =VI19102441.D 500 =VI19102442.D 1000=VI19102452.D 2500=VI19102444.D
5000=VI19102445.D 10K =VI19102446.D

		Compound	50	100	250	500	1000	2500	5000	10K	Avg	%RSD
1)	I	Pentafluorobenzene...	----------ISTD----------									
2)	S	1,4-Difluorobe...	1.634	1.635	1.620	1.616	1.606	1.628	1.624	1.644	1.626	0.73
3)	S	4-Bromofluorob...	0.521	0.525	0.529	0.536	0.539	0.555	0.563	0.574	0.543	3.54
4)	H	NWTPH-Gx (TPH)	0.926	1.028	1.244	1.386	1.437	1.550	1.569	1.699	1.355	19.99
5)	H	TPHg (C5-C9)	3.091	2.191	1.950	1.925	1.927	1.943	1.882	1.984	2.112	19.26
6)	H	TPHg (C6-C10)	2.666	1.908	1.665	1.633	1.632	1.643	1.597	1.694	1.805	20.00
7)	H	CA-LUFT (C5-C12)	3.259	2.422	2.257	2.271	2.291	2.353	2.307	2.441	2.450	13.62
8)		Benzene (NR)									0.000	-1.00
9)	S	Toluene-d8 (NR)									0.000	-1.00
10)		Toluene (NR)									0.000	-1.00
11)	S	Chlorobenzene-...									0.000	-1.00
12)	S	1,4-Dichlorobe...									0.000	-1.00
13)		Naphthalene (NR)									0.000	-1.00

(#) = Out of Range

Compound List Report VOA-GCMS9

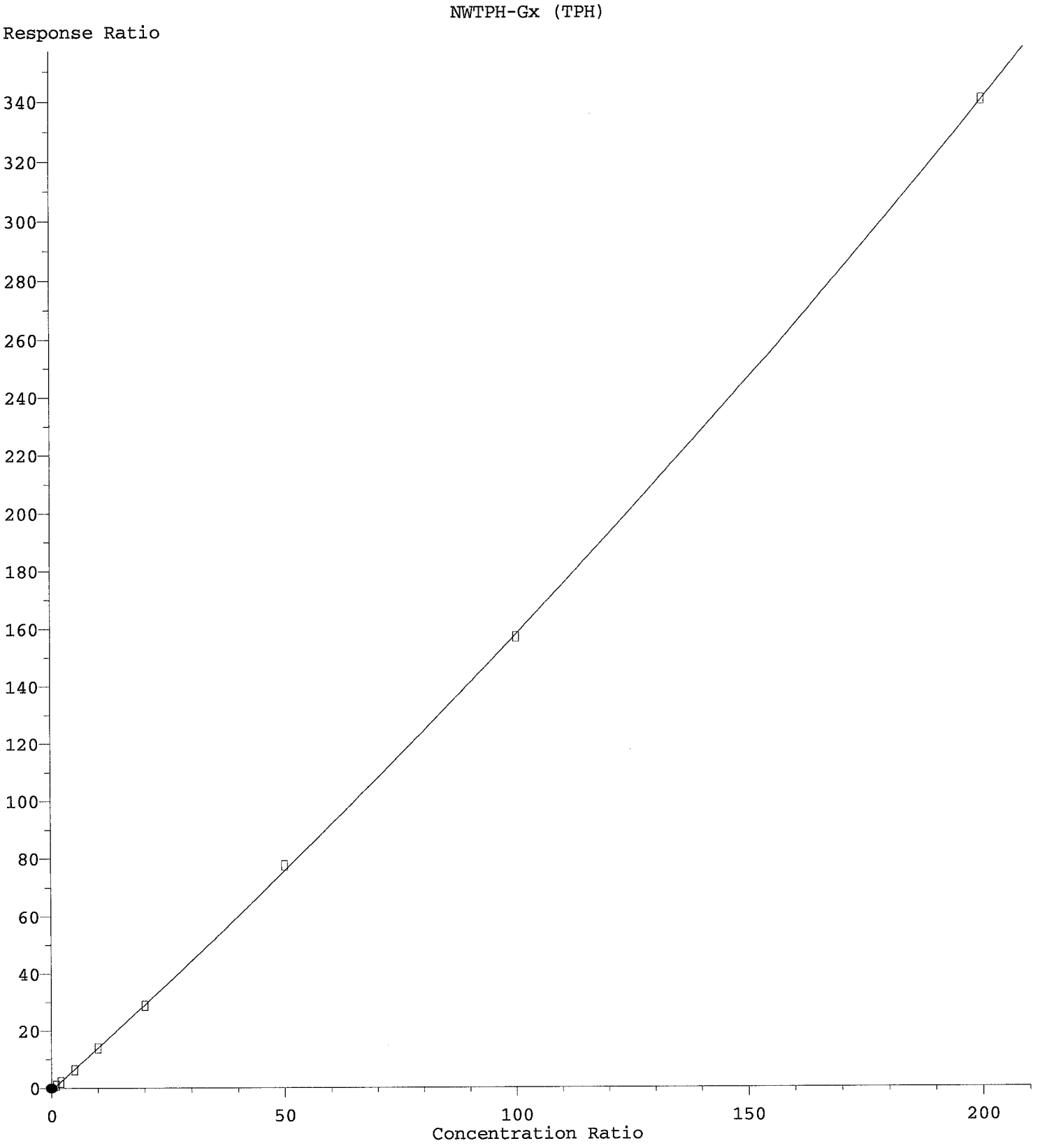
Method Path : C:\msdchem\1\methods\
Method File : VI191025G.M
Title : NWTPH-Gx by GC/MS
Last Update : Fri Oct 25 10:31:05 2019
Response Via : Initial Calibration

Total Cpnds : 13

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene (IS)	168	6.217	1.000	A	2	A	B
2	S	1,4-Difluorobenzene (Sur)	114	6.783	1.091	A	2	A	B
3	S	4-Bromofluorobenzene (Sur)	174	10.974	1.765	A	2	A	B
4	H	NWTPH-Gx (TPH)	TIC	9.890	1.591	Q	0	A	B
5	H	TPHg (C5-C9)	TIC	9.890	1.591	Q	0	A	B
6	H	TPHg (C6-C10)	TIC	9.890	1.591	Q	0	A	B
7	H	CA-LUFT (C5-C12)	TIC	9.890	1.591	Q	0	A	B
8		Benzene (NR)	78	6.120	0.984	A	2	A	B
9	S	Toluene-d8 (NR)	98	8.298	1.335	A	2	A	B
10		Toluene (NR)	91	8.358	1.344	A	2	A	B
11	S	Chlorobenzene-d5 (NR)	117	9.916	1.595	A	2	A	B
12	S	1,4-Dichlorobenzene-d4 (NR)	150	11.850	1.906	A	2	A	B
13		Naphthalene (NR)	128	13.627	2.192	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

VI191025G.M Fri Oct 25 10:41:12 2019

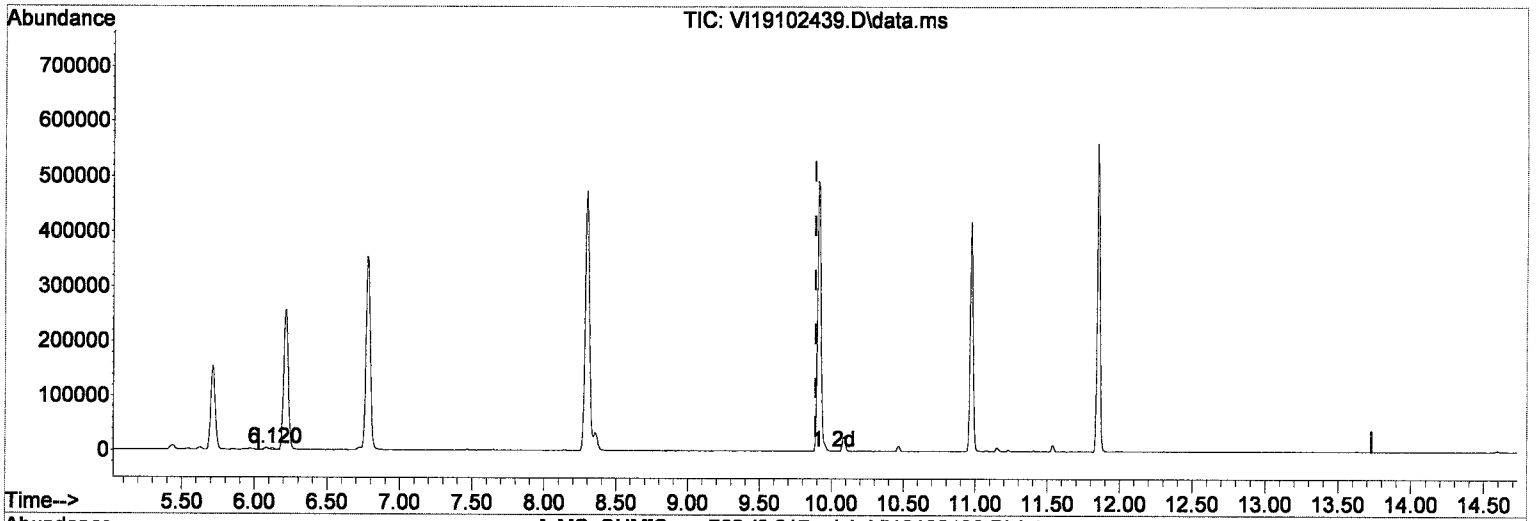


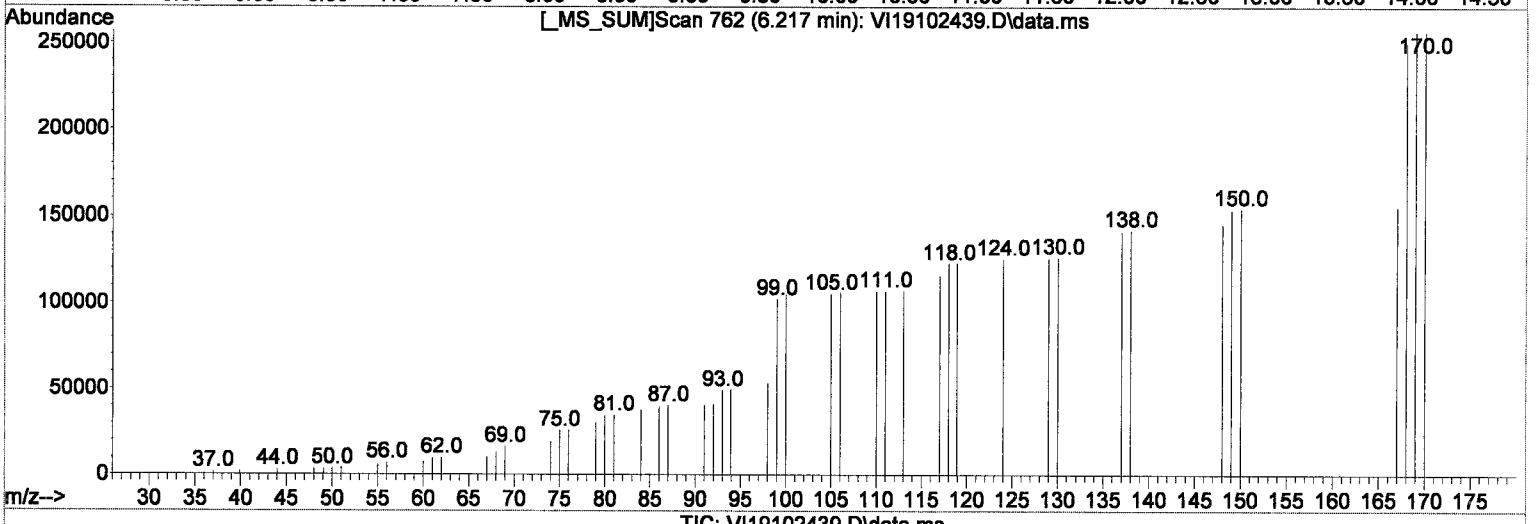
R = 1.17e-003 A*A + 1.47e+000 A - 7.24e-001
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VI191025G.M
Calibration Table Last Updated: Fri Oct 25 10:31:34 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\REQUANT\
Data File : VI19102439.D
Acq On : 25 Oct 2019 1:46 am
Operator : MM
Sample : 9J24043-CALC
Misc : 1X 5mL 50PPB GX
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:32:52 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





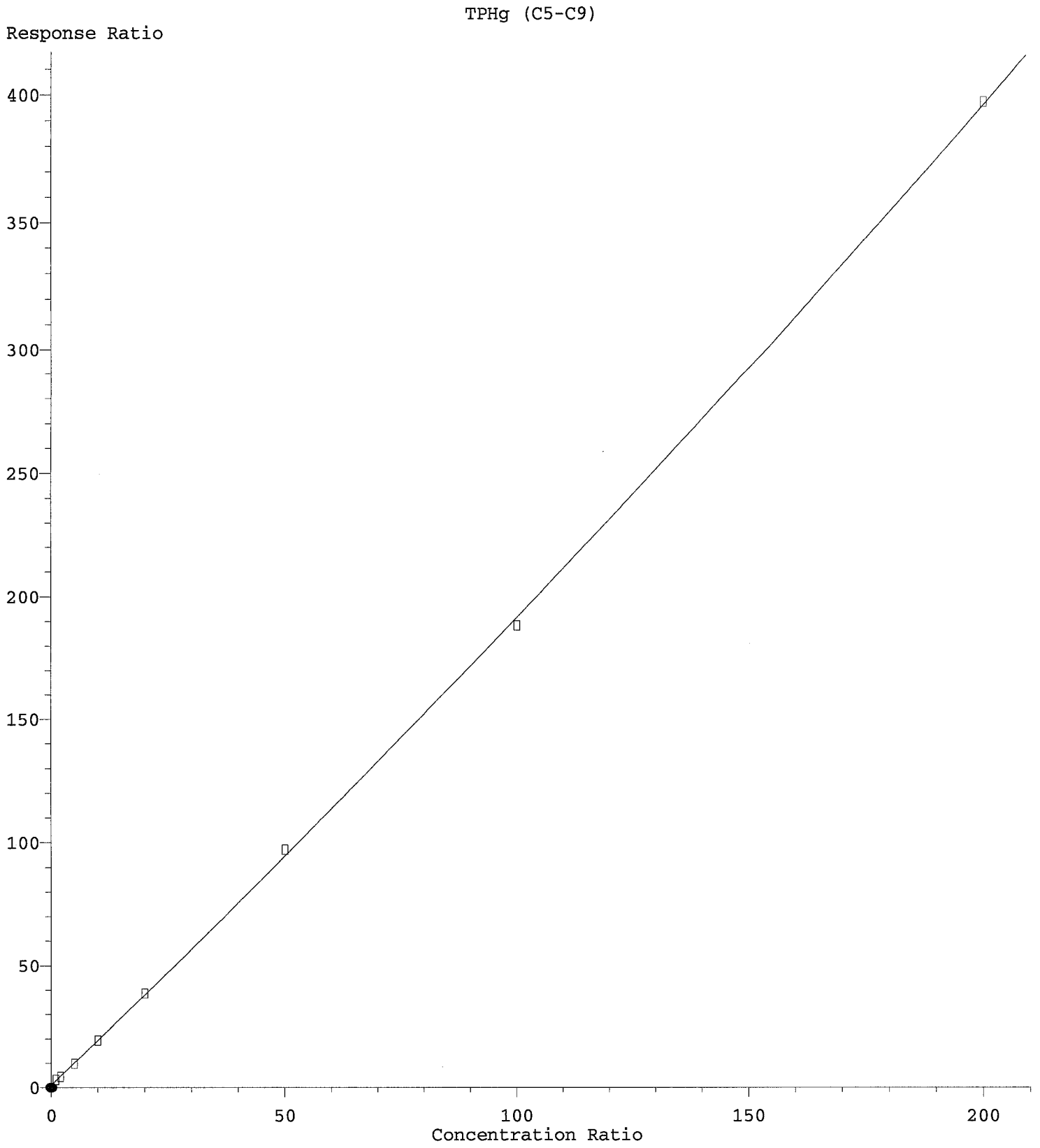
TIC: VI19102439.D\data.ms

(4) NWTPH-Gx (TPH) (H)

9.890min (0.000) 25.47 ug/L m

response 5099

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

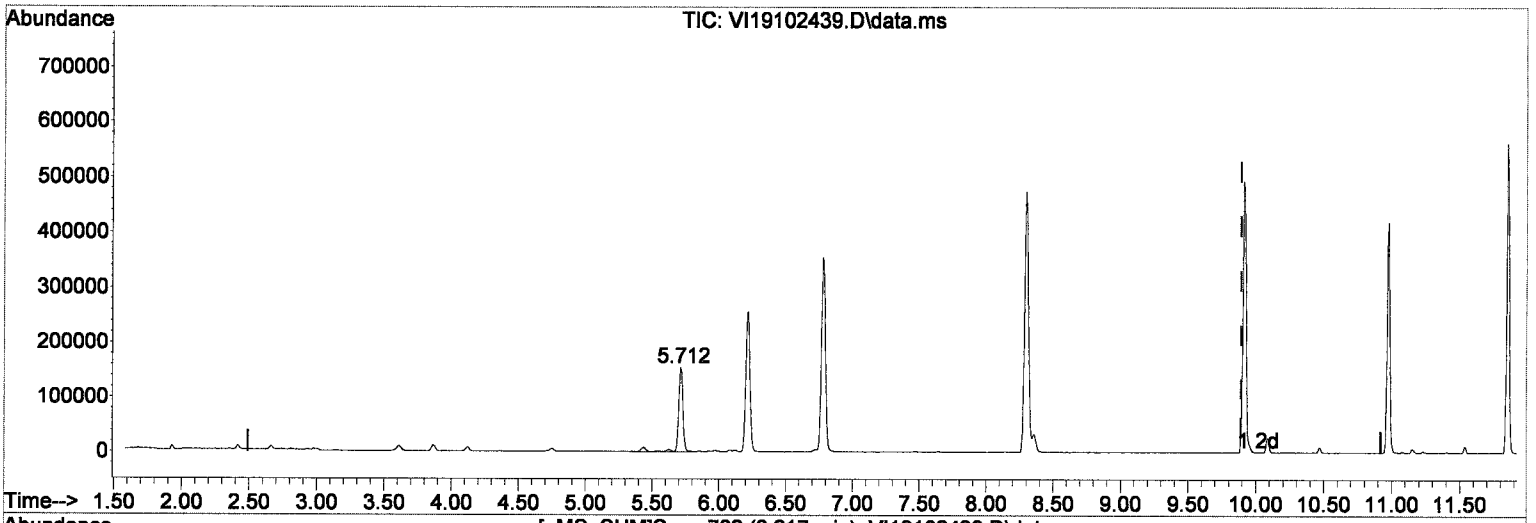


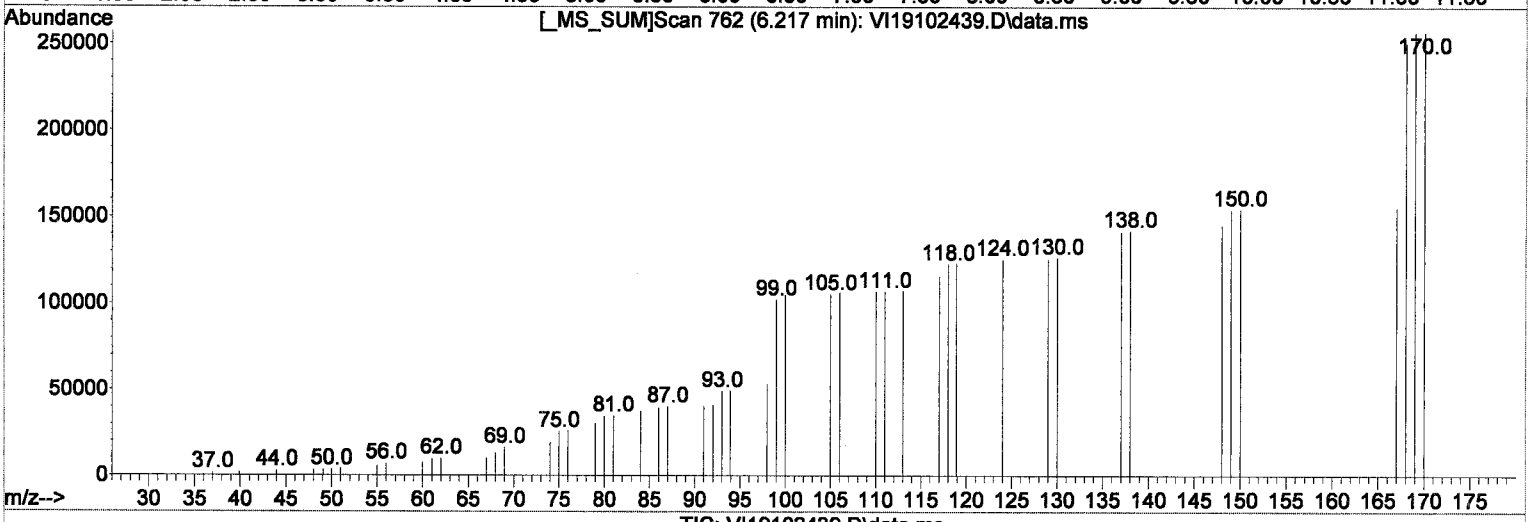
R = 6.91e-004 A*A + 1.84e+000 A + 1.03e+000
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w/(1/a)
Method Name: C:\msdchem\1\methods\VI191025G.M
Calibration Table Last Updated: Fri Oct 25 10:31:34 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\REQUANT\
Data File : VI19102439.D
Acq On : 25 Oct 2019 1:46 am
Operator : MM
Sample : 9J24043-CALC
Misc : 1X 5mL 50PPB GX
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:32:52 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





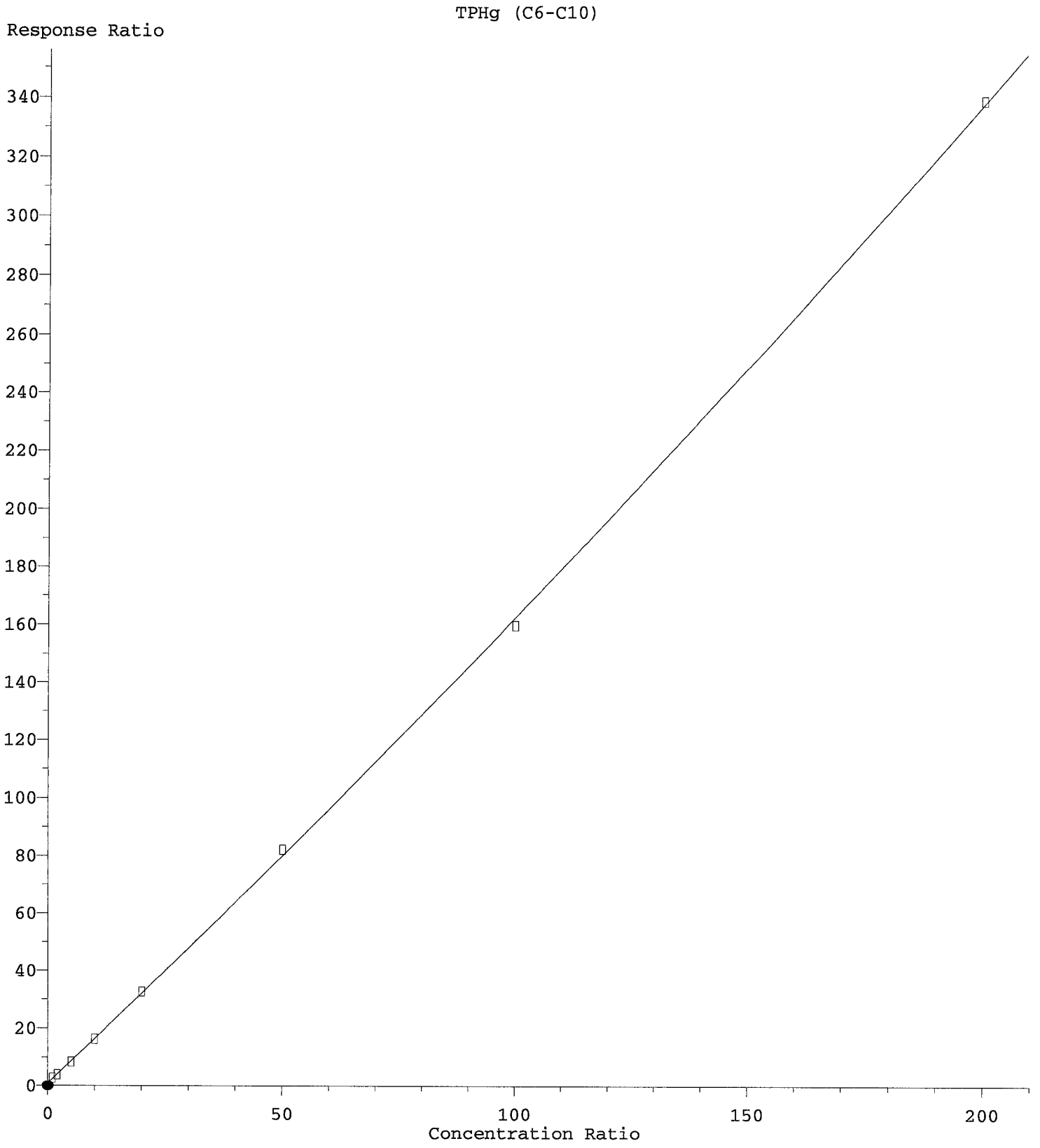
TIC: VI19102439.D\data.ms

(5) TPHg (C5-C9) (H)

9.890min (0.000) 19.12 ug/L m

response 362226

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

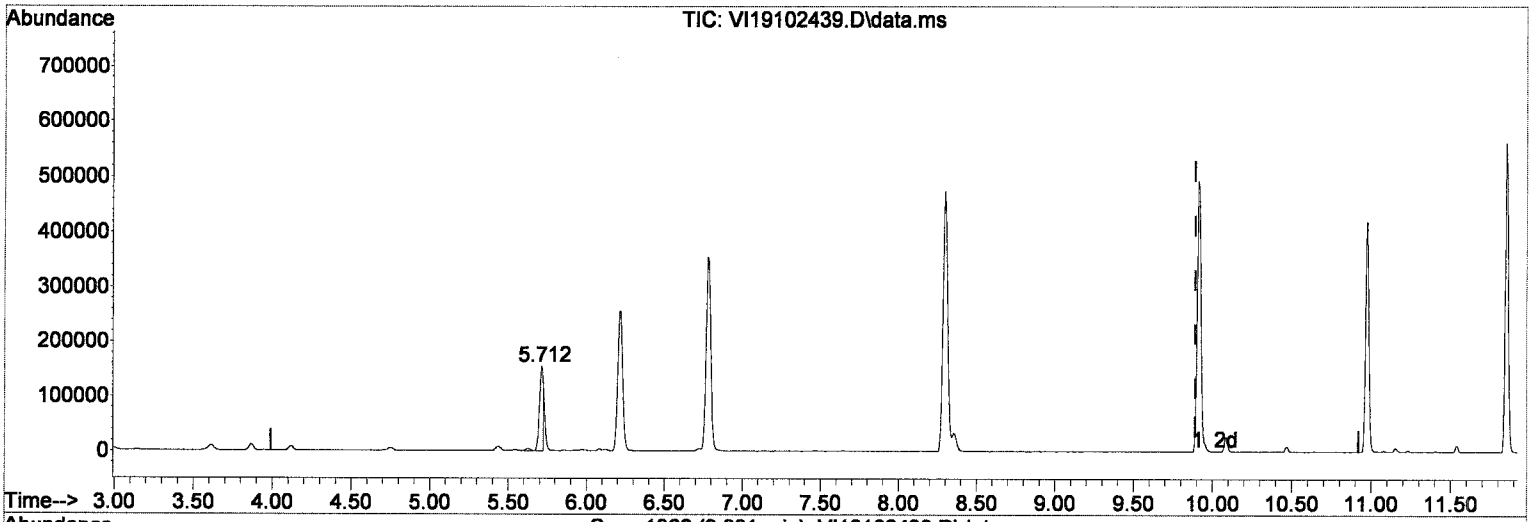


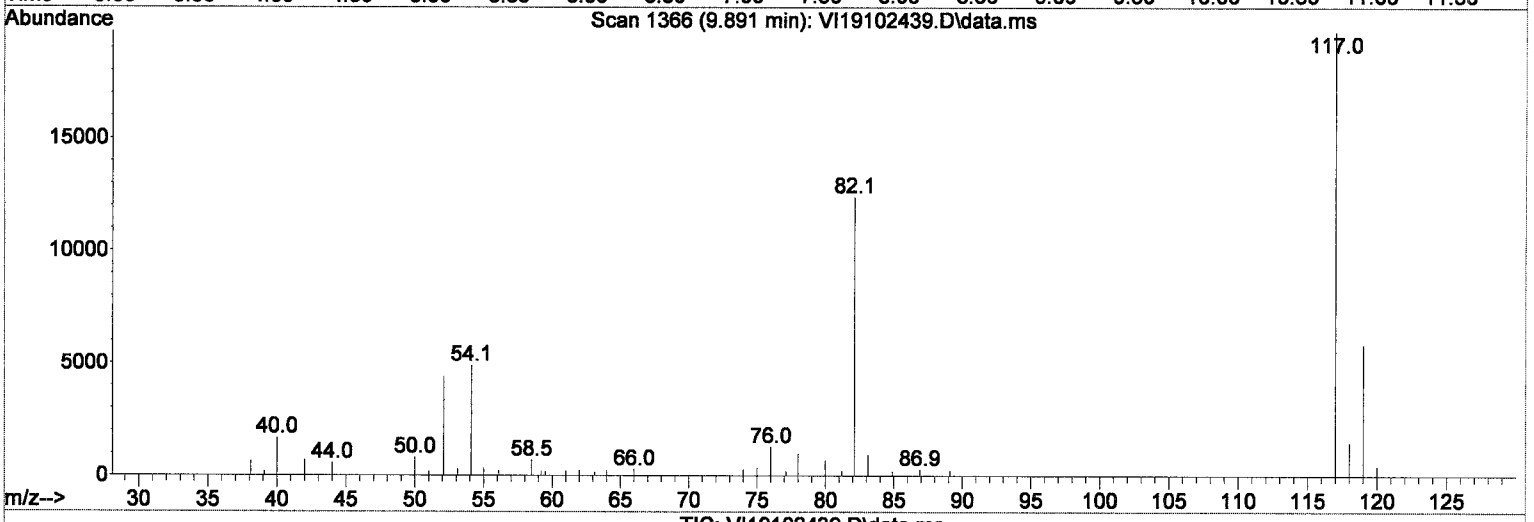
R = 6.87e-004 A*A + 1.55e+000 A + 9.51e-001
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VI191025G.M
Calibration Table Last Updated: Fri Oct 25 10:31:34 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\REQUANT\
Data File : VI19102439.D
Acq On : 25 Oct 2019 1:46 am
Operator : MM
Sample : 9J24043-CALC
Misc : 1X 5mL 50PPB GX
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:32:52 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





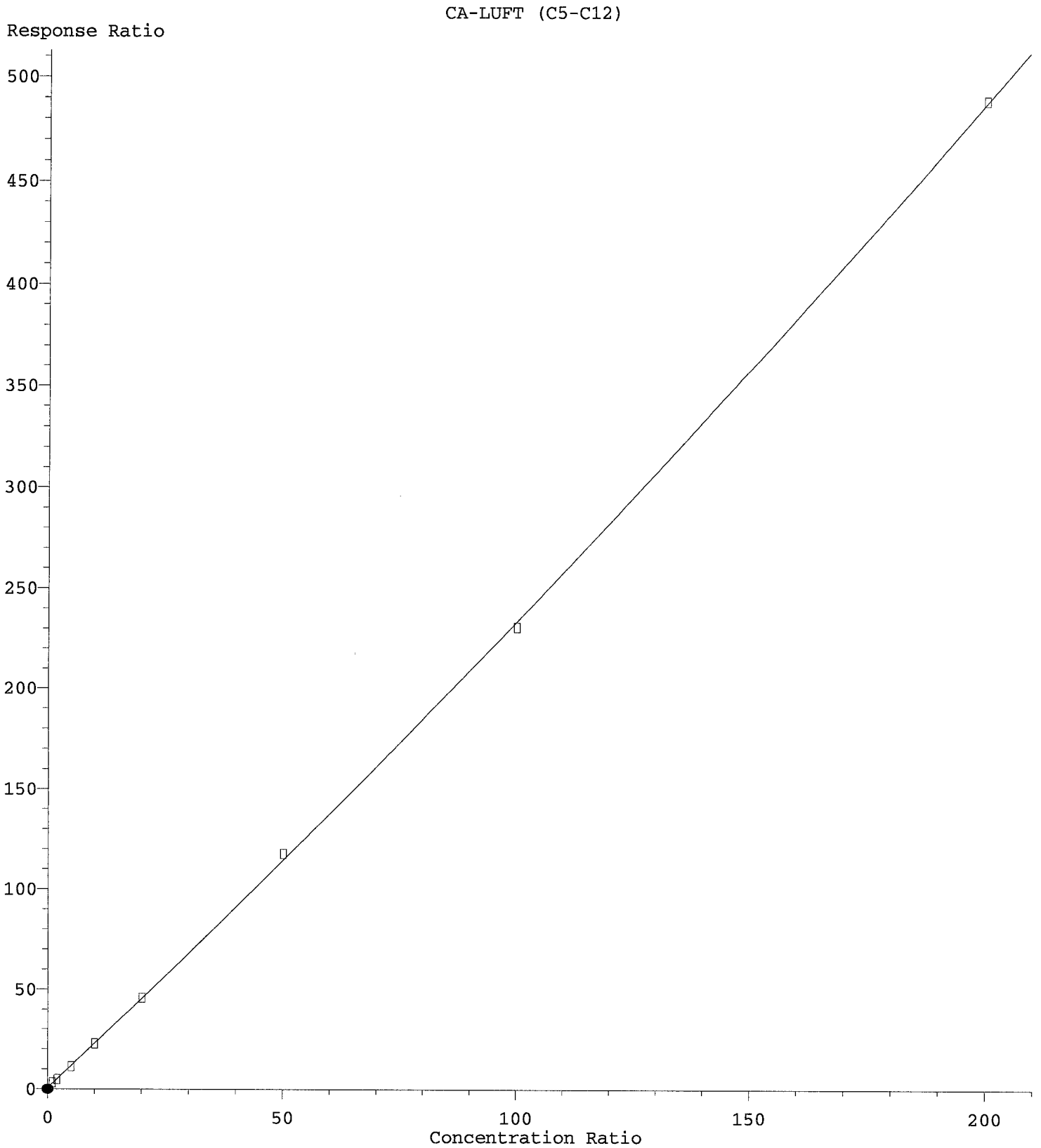
TIC: VI19102439.D\data.ms

(6) TPHg (C6-C10) (H)

9.890min (0.000) 12.28 ug/L m

response 278598

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

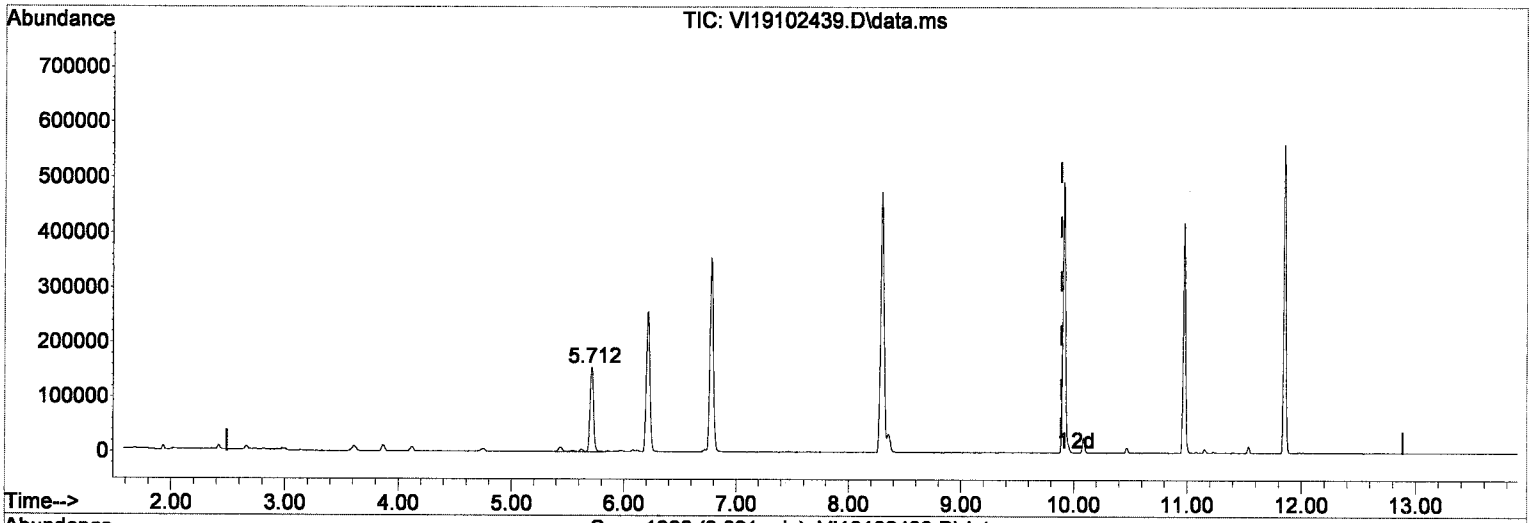


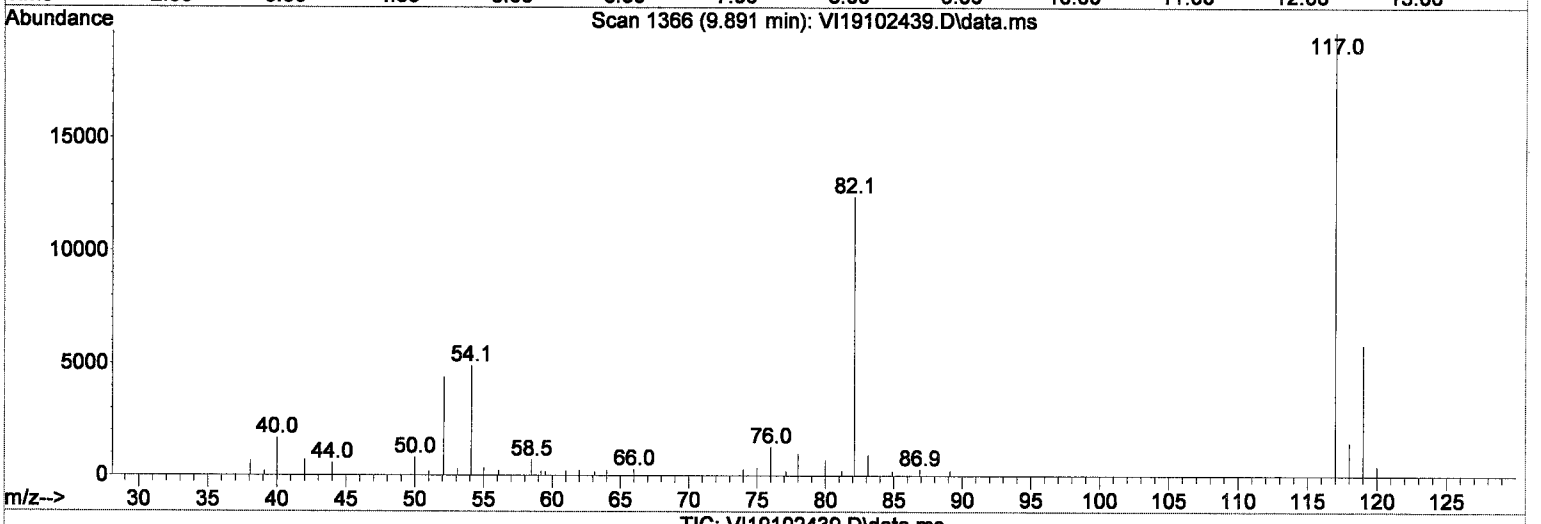
R = 1.05e-003 A*A + 2.22e+000 A + 7.45e-001
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\V1191025G.M
Calibration Table Last Updated: Fri Oct 25 10:31:34 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\REQUANT\
Data File : VI19102439.D
Acq On : 25 Oct 2019 1:46 am
Operator : MM
Sample : 9J24043-CALC
Misc : 1X 5mL 50PPB GX
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:32:52 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





TIC: VI19102439.D\data.ms

(7) CA-LUFT (C5-C12) (H)

9.890min (0.000) 22.21 ug/L m

response 362637

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102453.D
Acq On : 25 Oct 2019 10:40 am
Operator : MM
Sample : 9J24043-ICV3
Misc : 1X 5mL 500PPB GX
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:55:48 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (IS)	50.000	50.000	0.0	103	0.00
2	S	1,4-Difluorobenzene (Sur)	50.000	49.705	0.6	103	0.00
3	S	4-Bromofluorobenzene (Sur)	50.000	48.785	2.4	102	0.00
4	H	NWTPH-Gx (TPH)	500.000	512.008	-2.4	108	0.00
5	H	TPHg (C5-C9)	500.000	489.707	2.1	102	0.00
6	H	TPHg (C6-C10)	500.000	503.040	-0.6	105	0.00
7	H	CA-LUFT (C5-C12)	500.000	493.527	1.3	104	0.00
8		Benzene (NR)	-1.000	0.000	0.0	100	0.00
9	S	Toluene-d8 (NR)	-1.000	0.000	0.0	102	0.00
10		Toluene (NR)	-1.000	0.000	0.0	103	0.00
11	S	Chlorobenzene-d5 (NR)	-1.000	0.000	0.0	103	0.00
12	S	1,4-Dichlorobenzene-d4 (NR)	-1.000	0.000	0.0	100	0.00
13		Naphthalene (NR)	-1.000	0.000	0.0	114	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J24043

Analysis Included

8015D-Mod Gasoline (C6-C10) by GC/MS
CA LUFT GRO
NWTPH-Gx

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD ID	Analyzed
9J24043-TUN2	MS Tune	Water		A19I040	10/24/2019 11:59:00PM
9J24043-ICB2	Initial Cal Blank	Water		A19I040	10/25/2019 1:19:00AM
9J24043-CALC	Cal Standard	Water	A19J388	"	10/25/2019 1:46:00AM
9J24043-CALD	Cal Standard	Water	A19J389	"	10/25/2019 2:13:00AM
9J24043-CALE	Cal Standard	Water	A19J390	"	10/25/2019 2:40:00AM
9J24043-CALF	Cal Standard	Water	A19J391	"	10/25/2019 3:07:00AM
9J24043-CALH	Cal Standard	Water	A19J393	"	10/25/2019 4:00:00AM
9J24043-CALI	Cal Standard	Water	A19J394	"	10/25/2019 4:27:00AM
9J24043-CALJ	Cal Standard	Water	A19J395	"	10/25/2019 4:54:00AM
9J24043-CALG	Cal Standard	Water	A19J392	"	10/25/2019 10:13:00AM
9J24043-ICV3	Initial Cal Check	Water	A19G350	"	10/25/2019 10:40:00AM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9J2503** Instrument: **VOA-GCMS9**

8015D-Mod Gasoline (C6-C10 Sequence: **9J24043** Matrix: **Water**

9J24043-CALC	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J24043-CALD	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J24043-CALE	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J24043-CALF	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J24043-CALG	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J24043-CALH	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J24043-CALI	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J24043-CALJ	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J24043

Analytes With Quadratic Curve Fits

Qualifier	iMDL	iMRL	Spike Amt	%Difference	OK?	Raise MRL to ?
				———	☐	☐ ———

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

ICV RECOVERIES

Calibration: **A9J2503** Instrument: **VOA-GCMS9**

NWTPH-Gx Sequence: **9J24043** Matrix: **Water**

9J24043-ICV3	Inst. MRL	ICV Level	Result	%Rec.	Qual

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

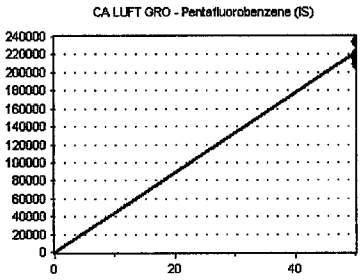
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **CA LUFT GRO** Instrument Cal ID: **VI191025W.M VI191025G.M**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

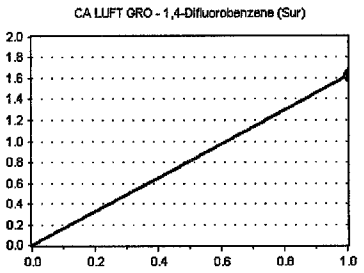


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	209290	4185.800	6.22
9J24043-CALD	50	209478	4189.560	6.22
9J24043-CALE	50	220921	4418.420	6.22
9J24043-CALF	50	214780	4295.600	6.22
9J24043-CALG	50	234293	4685.860	6.22
9J24043-CALH	50	216435	4328.700	6.22
9J24043-CALI	50	233849	4676.980	6.22
9J24043-CALJ	50	234183	4683.660	6.22

AVE RF **4433.073** RF RSD **4.95** AVE RT **6.22**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

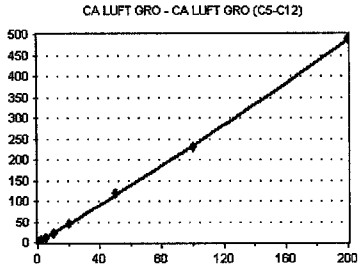


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	341977	1.634	6.78
9J24043-CALD	50	342473	1.635	6.78
9J24043-CALE	50	357958	1.620	6.78
9J24043-CALF	50	347086	1.616	6.78
9J24043-CALG	50	376297	1.606	6.78
9J24043-CALH	50	352248	1.628	6.78
9J24043-CALI	50	379658	1.624	6.78
9J24043-CALJ	50	384961	1.644	6.78

AVE RF **1.626** RF RSD **0.73** AVE RT **6.78**

CA LUFT GRO (C5-C12)

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

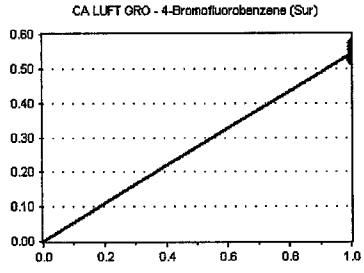


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	681991	3.259	9.89
9J24043-CALD	100	1014687	2.422	9.89
9J24043-CALE	250	2493143	2.257	9.89
9J24043-CALF	500	4877141	2.271	9.89
9J24043-CALG	1000	1.073362E+07	2.291	9.89
9J24043-CALH	2500	2.54612E+07	2.353	9.89
9J24043-CALI	5000	5.393736E+07	2.307	9.89
9J24043-CALJ	10000	1.143412E+08	2.441	9.89

AVE RF **2.450** RF RSD **13.62** AVE RT **9.89**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	109139	0.521	10.97
9J24043-CALD	50	110020	0.525	10.97
9J24043-CALE	50	116770	0.529	10.97
9J24043-CALF	50	115043	0.536	10.97
9J24043-CALG	50	126230	0.539	10.97
9J24043-CALH	50	120135	0.555	10.97
9J24043-CALI	50	131653	0.563	10.97
9J24043-CALJ	50	134509	0.574	10.97

AVE RF **0.543** RF RSD **3.54** AVE RT **10.97**

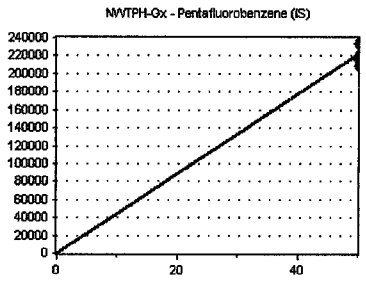
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **NWTPH-Gx** Instrument Cal ID: **VI191025W.M VI191025G.M**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

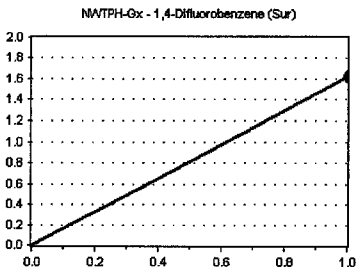


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	209290	4185.800	6.22
9J24043-CALD	50	209478	4189.560	6.22
9J24043-CALE	50	220921	4418.420	6.22
9J24043-CALF	50	214780	4295.600	6.22
9J24043-CALG	50	234293	4685.860	6.22
9J24043-CALH	50	216435	4328.700	6.22
9J24043-CALI	50	233849	4676.980	6.22
9J24043-CALJ	50	234183	4683.660	6.22

AVE RF **4433.073** RF RSD **4.95** AVE RT **6.22**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

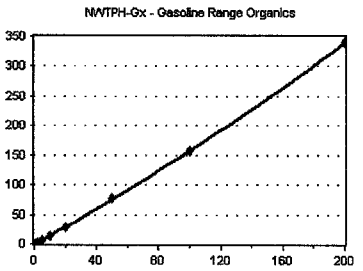


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	341977	1.634	6.78
9J24043-CALD	50	342473	1.635	6.78
9J24043-CALE	50	357958	1.620	6.78
9J24043-CALF	50	347086	1.616	6.78
9J24043-CALG	50	376297	1.606	6.78
9J24043-CALH	50	352248	1.628	6.78
9J24043-CALI	50	379658	1.624	6.78
9J24043-CALJ	50	384961	1.644	6.78

AVE RF **1.626** RF RSD **0.73** AVE RT **6.78**

Gasoline Range Organics

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

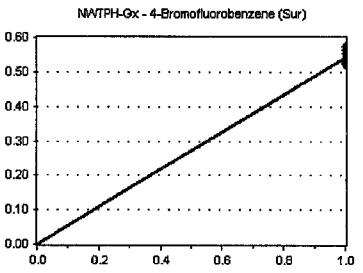


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	193702	0.926	9.89
9J24043-CALD	100	430822	1.028	9.89
9J24043-CALE	250	1374008	1.244	9.89
9J24043-CALF	500	2976997	1.386	9.89
9J24043-CALG	1000	6735895	1.437	9.89
9J24043-CALH	2500	1.67752E+07	1.550	9.89
9J24043-CALI	5000	3.669824E+07	1.569	9.89
9J24043-CALJ	10000	7.956248E+07	1.699	9.89

AVE RF **1.355** RF RSD **19.99** AVE RT **9.89**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	109139	0.521	10.97
9J24043-CALD	50	110020	0.525	10.97
9J24043-CALE	50	116770	0.529	10.97
9J24043-CALF	50	115043	0.536	10.97
9J24043-CALG	50	126230	0.539	10.97
9J24043-CALH	50	120135	0.555	10.97
9J24043-CALI	50	131653	0.563	10.97
9J24043-CALJ	50	134509	0.574	10.97

AVE RF **0.543** RF RSD **3.54** AVE RT **10.97**

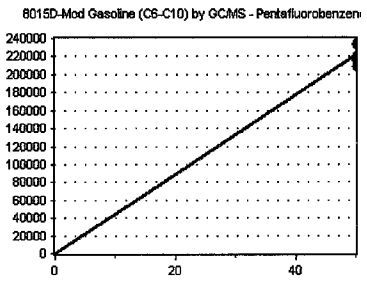
Element Calibration Review Sheet

Calibration ID: **A9J2503** Instrument: **VOA-GCMS9** Calibration Date: **10/25/2019**

Analysis: **8015D-Mod Gasoline (C6-C1** Instrument Cal ID: **VI191025W.M VI191025G.M**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

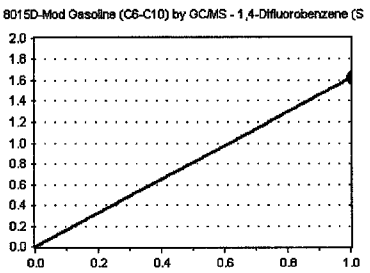


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	209290	4185.800	6.22
9J24043-CALD	50	209478	4189.560	6.22
9J24043-CALE	50	220921	4418.420	6.22
9J24043-CALF	50	214780	4295.600	6.22
9J24043-CALG	50	234293	4685.860	6.22
9J24043-CALH	50	216435	4328.700	6.22
9J24043-CALI	50	233849	4676.980	6.22
9J24043-CALJ	50	234183	4683.660	6.22

AVE RF **4433.073** RF RSD **4.95** AVE RT **6.22**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

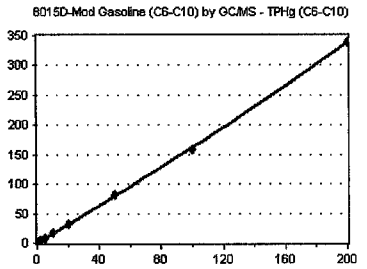


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	341977	1.634	6.78
9J24043-CALD	50	342473	1.635	6.78
9J24043-CALE	50	357958	1.620	6.78
9J24043-CALF	50	347086	1.616	6.78
9J24043-CALG	50	376297	1.606	6.78
9J24043-CALH	50	352248	1.628	6.78
9J24043-CALI	50	379658	1.624	6.78
9J24043-CALJ	50	384961	1.644	6.78

AVE RF **1.626** RF RSD **0.73** AVE RT **6.78**

TPHg (C6-C10)

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

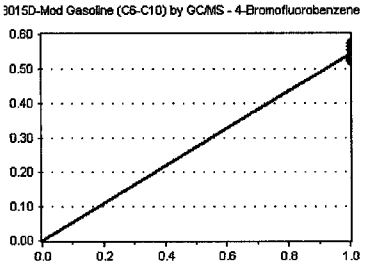


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	557886	2.666	9.89
9J24043-CALD	100	799328	1.908	9.89
9J24043-CALE	250	1839524	1.665	9.89
9J24043-CALF	500	3507779	1.633	9.89
9J24043-CALG	1000	7648071	1.632	9.89
9J24043-CALH	2500	1.778026E+07	1.643	9.89
9J24043-CALI	5000	3.735262E+07	1.597	9.89
9J24043-CALJ	10000	7.933946E+07	1.694	9.89

AVE RF **1.805** RF RSD **20.00** AVE RT **9.89**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	109139	0.521	10.97
9J24043-CALD	50	110020	0.525	10.97
9J24043-CALE	50	116770	0.529	10.97
9J24043-CALF	50	115043	0.536	10.97
9J24043-CALG	50	126230	0.539	10.97
9J24043-CALH	50	120135	0.555	10.97
9J24043-CALI	50	131653	0.563	10.97
9J24043-CALJ	50	134509	0.574	10.97

AVE RF **0.543** RF RSD **3.54** AVE RT **10.97**

Injection Log

Directory: v:\data\2019-10\9J24043

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	Vi19102414.d	1.	9J24043-IBL1	1X 5mL DI	24 Oct 2019 14:34
2	2	Vi19102415.d	1.	9J24043-TUN1	A19I040 BFB (IS/...	24 Oct 2019 15:01
3	3	Vi19102416.d	1.	9J24043-ICB1	1X 5mL DI	24 Oct 2019 15:28
4	4	Vi19102417.d	1.	9J24043-CAL1	1X 5mL 0.1/0.2...	24 Oct 2019 15:55
5	5	Vi19102418.d	1.	9J24043-CAL2	1X 5mL 0.2/0.4...	24 Oct 2019 16:21
6	6	Vi19102419.d	1.	9J24043-CAL3	1X 5mL 0.4/0.8...	24 Oct 2019 16:48
7	7	Vi19102420.d	1.	9J24043-CAL4	1X 5mL 1/2PPB ...	24 Oct 2019 17:15
8	8	Vi19102421.d	1.	9J24043-CAL5	1X 5mL 2/4PPB ...	24 Oct 2019 17:42
9	9	Vi19102422.d	1.	9J24043-CAL6	1X 5mL 5/10PPB...	24 Oct 2019 18:09
10	10	Vi19102423.d	1.	9J24043-CAL7	1X 5mL 10/20PP...	24 Oct 2019 18:36
11	11	Vi19102424.d	1.	9J24043-CAL8	1X 5mL 20/40PP...	24 Oct 2019 19:03
12	12	Vi19102425.d	1.	9J24043-CAL9	1X 5mL 50/100P...	24 Oct 2019 19:30
13	13	Vi19102426.d	1.	9J24043-IBL2	1X 5mL DI	24 Oct 2019 19:57
14	14	Vi19102427.d	1.	9J24043-CALA	1X 5mL 100/200...	24 Oct 2019 20:24
15	15	Vi19102428.d	1.	9J24043-IBL3	1X 5mL DI	24 Oct 2019 20:51
16	16	Vi19102429.d	1.	9J24043-CALB	1X 5mL 200/400...	24 Oct 2019 21:17
17	17	Vi19102430.d	1.	9J24043-IBL4	1X 5mL DI	24 Oct 2019 21:44
18	18	Vi19102431.d	1.	9J24043-IBL5	1X 5mL DI	24 Oct 2019 22:11
19	19	Vi19102432.d	1.	9J24043-ICV1	1X 5mL 20/40PP...	24 Oct 2019 22:38
20	20	Vi19102433.d	1.	9J24043-ICV2	1X 5mL 5/1250P...	24 Oct 2019 23:05
21	21	Vi19102434.d	1.	9J24043-IBL6	1X 5mL DI	24 Oct 2019 23:32
22	22	Vi19102435.d	1.	9J24043-TUN2	A19I040 BFB (IS/...	24 Oct 2019 23:59
23	23	Vi19102436.d	1.	9J24043-RT1	A18A167 VPH RT STD	25 Oct 2019 00:26
24	24	Vi19102437.d	1.	9J24043-IBL7	1X 5mL DI	25 Oct 2019 00:52
25	25	Vi19102438.d	1.	9J24043-ICB2	1X 5mL DI	25 Oct 2019 01:19
26	26	Vi19102439.d	1.	9J24043-CALC	1X 5mL 50PPB GX	25 Oct 2019 01:46
27	27	Vi19102440.d	1.	9J24043-CALD	1X 5mL 100PPB GX	25 Oct 2019 02:13
28	28	Vi19102441.d	1.	9J24043-CALE	1X 5mL 250PPB GX	25 Oct 2019 02:40
29	29	Vi19102442.d	1.	9J24043-CALF	1X 5mL 500PPB GX	25 Oct 2019 03:07
30	30	Vi19102443.d	1.	9J24043-CALG	1X 5mL 1000PPB GX	25 Oct 2019 03:34
31	31	Vi19102444.d	1.	9J24043-CALH	1X 5mL 2500PPB GX	25 Oct 2019 04:00
32	32	Vi19102445.d	1.	9J24043-CALI	1X 5mL 5000PPB GX	25 Oct 2019 04:27
33	33	Vi19102446.d	1.	9J24043-CALJ	1X 5mL 10000PP...	25 Oct 2019 04:54
34	34	Vi19102447.d	1.	9J24043-IBL8	1X 5mL DI	25 Oct 2019 05:21
35	35	Vi19102448.d	1.	9J24043-IBL9	1X 5mL DI	25 Oct 2019 05:48
36	36	Vi19102449.d	1.	9J24043-ICV3	1X 5mL 500PPB GX	25 Oct 2019 06:15
37	37	Vi19102450.d	1.	9J24043-IBLA	1X 5mL DI	25 Oct 2019 06:42

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102414.D
Acq On : 24 Oct 2019 2:34 pm
Operator : MM
Sample : 9J24043-IBL1
Misc : 1X 5mL DI
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

NR

Quant Time: Oct 25 08:52:04 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

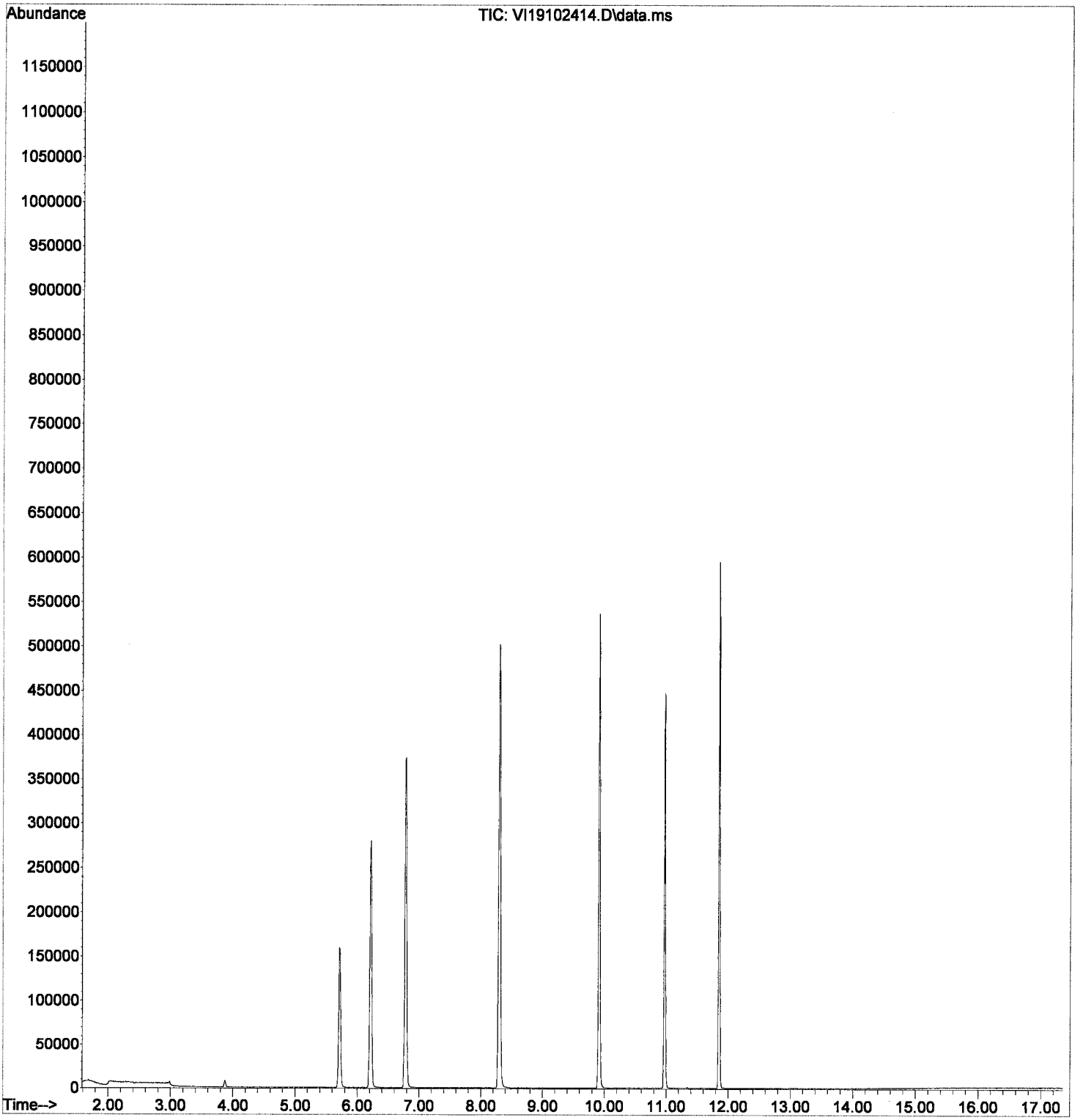
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	116268	50.00	ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.909	117	306026	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	138672	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.712	111	110907	48.55	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	362815	49.39	ug/L	0.00
48) Toluene-d8 (S)	8.297	98	408743	50.89	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	116096	51.81	ug/L	0.00
Target Compounds						Qvalue
6) Chloroethane	2.451	64	166	0.14	ug/L	# 58
14) Methylene Chloride	3.868	84	3943	0.99	ug/L	87
15) Acetone	3.948	43	891	0.87	ug/L	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102414.D
Acq On : 24 Oct 2019 2:34 pm
Operator : MM
Sample : 9J24043-IBL1
Misc : 1X 5mL DI
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:04 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

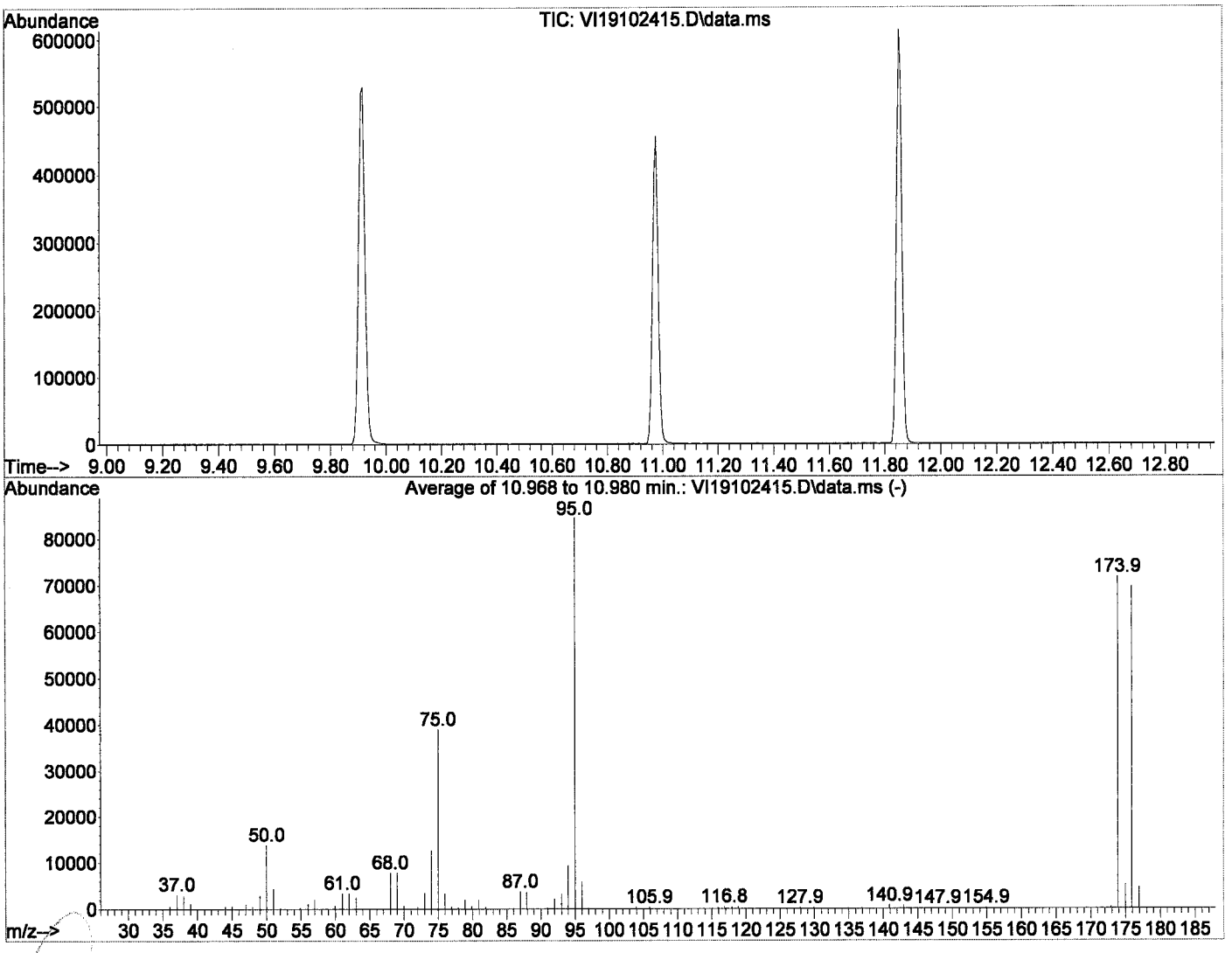


BFB

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102415.D
Acq On : 24 Oct 2019 3:01 pm
Operator : MM
Sample : 9J24043-TUN1
Misc : A19I040 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\methods\VI191025W.M
Title : EPA 8260: Volatile Organic Compounds
Last Update : Fri Oct 25 08:32:21 2019



AutoFind: Scans 1543, 1544, 1545; Background Corrected with Scan 1536

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	117.9	84595	PASS
96	95	5	9	6.8	5736	PASS
173	174	0.00	2	0.4	280	PASS
174	95	50	200	84.8	71757	PASS
175	174	5	9	7.2	5145	PASS
176	174	95	105	97.0	69587	PASS
177	176	5	10	6.5	4525	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102415.D
Acq On : 24 Oct 2019 3:01 pm
Operator : MM
Sample : 9J24043-TUN1
Misc : A19I040 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:12 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

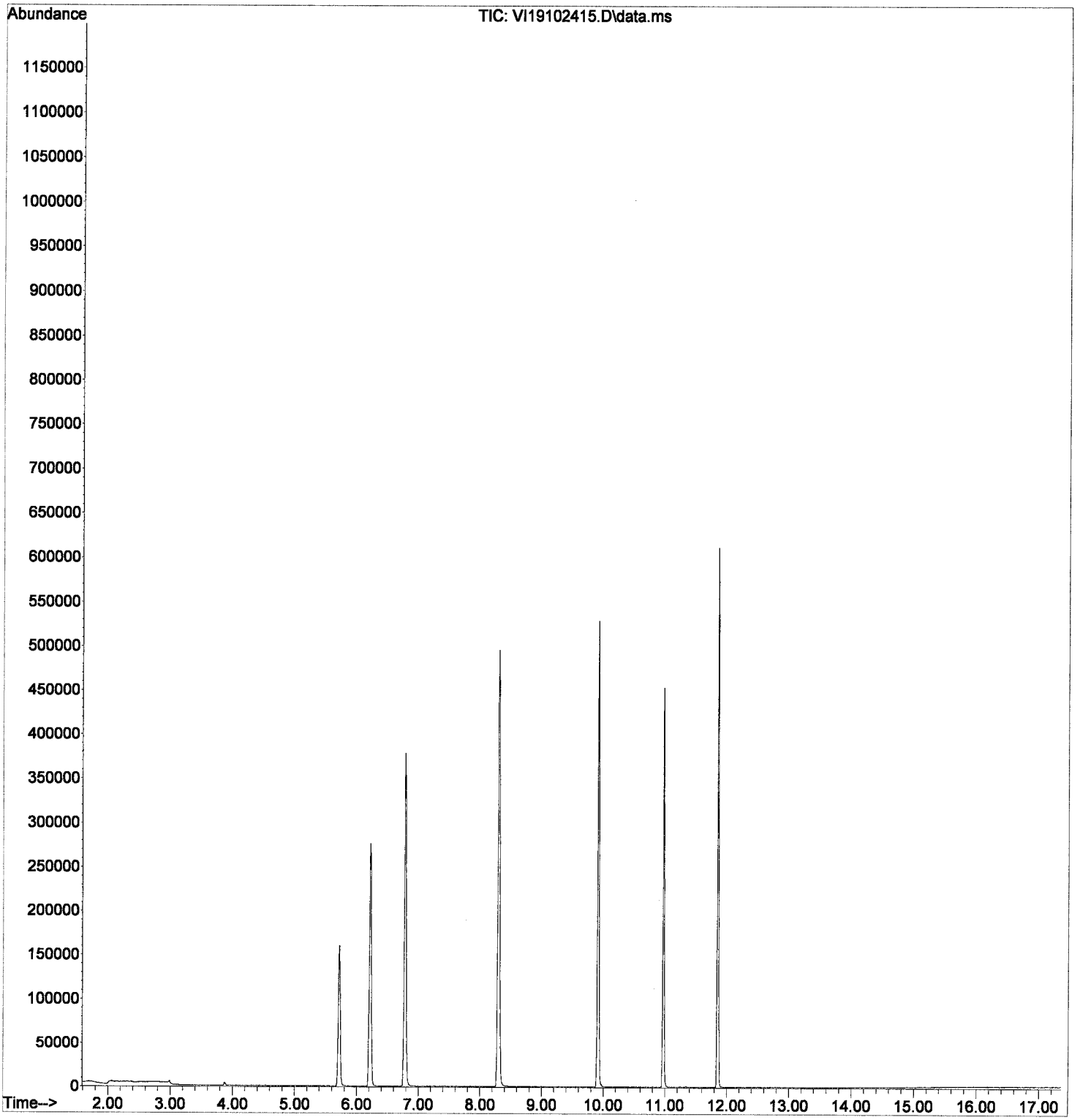
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	6.217	99	115135	50.00 ug/L	0.00
45) Chlorobenzene-d5 (I)	9.916	117	306446	50.00 ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	141323	50.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane (S)	5.718	111	110753	48.96 ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	360182	49.52 ug/L	0.00
48) Toluene-d8 (S)	8.297	98	404469	50.29 ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	115450	50.56 ug/L	0.00
Target Compounds					Qvalue
3) Chloromethane	1.904	50	226	0.09 ug/L #	47
6) Chloroethane	2.463	64	432	0.38 ug/L #	36
14) Methylene Chloride	3.875	84	1793	Below Cal #	76
15) Acetone	3.948	43	857	0.85 ug/L #	44
19) tert-Butanol (TBA)	4.307	59	115	0.26 ug/L	46

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102415.D
Acq On : 24 Oct 2019 3:01 pm
Operator : MM
Sample : 9J24043-TUN1
Misc : A19I040 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:12 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102416.D
Acq On : 24 Oct 2019 3:28 pm
Operator : MM
Sample : 9J24043-ICB1
Misc : 1X 5mL DI
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

10/25

Quant Time: Oct 25 08:52:24 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

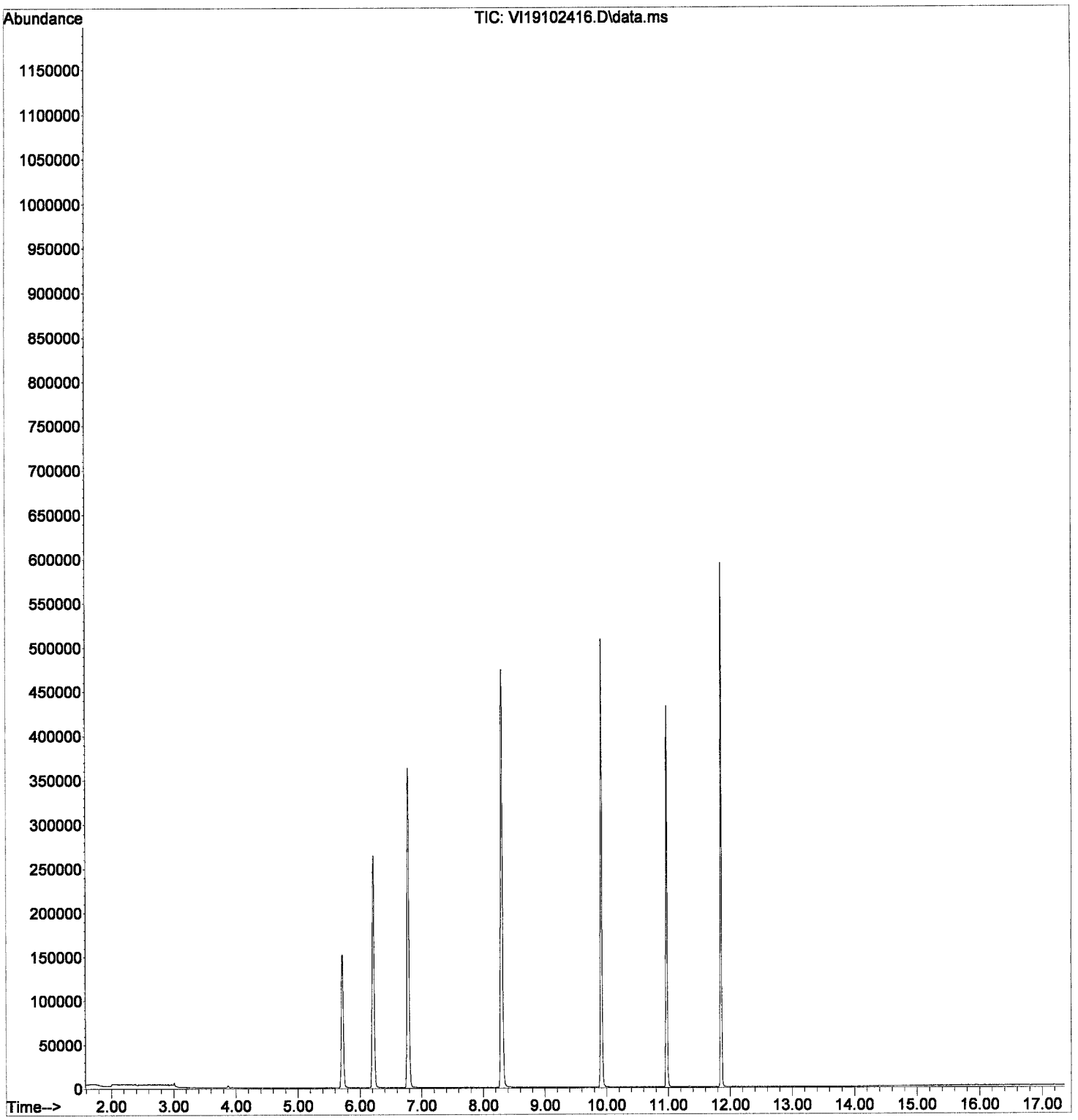
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	6.217	99	109157	50.00 ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.916	117	292802	50.00 ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	134268	50.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane (S)	5.712	111	106415	49.62 ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.782	114	343590	49.82 ug/L	0.00
48) Toluene-d8 (S)	8.297	98	387024	50.36 ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	109949	50.68 ug/L	0.00
Target Compounds					Qvalue
3) Chloromethane	1.897	50	228	0.10 ug/L	# 47
6) Chloroethane	2.530	64	212	0.19 ug/L	# 36
14) Methylene Chloride	3.868	84	1359	Below Cal	85
15) Acetone	3.948	43	763	0.80 ug/L	# 44

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102416.D
Acq On : 24 Oct 2019 3:28 pm
Operator : MM
Sample : 9J24043-ICB1
Misc : 1X 5mL DI
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:24 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102417.D
Acq On : 24 Oct 2019 3:55 pm
Operator : MM
Sample : 9J24043-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:17:09 2019
Quant Method : C:\msdchem\1\methods\~~VI191025W~~.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	116102	50.00	ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.909	117	307577	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	139681	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.712	111	111441	46.79	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	364447	54.80	ug/L	0.00
48) Toluene-d8 (S)	8.297	98	406288	51.17	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	116090	51.67	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	1.897	50	479	0.18	ug/L	91
4) Vinyl Chloride	0.000		0	N.D.	d	
5) Bromomethane	0.000		0	N.D.	d	
6) Chloroethane	0.000		0	N.D.	d	
7) Trichlorofluoromethane	0.000		0	N.D.	d	
8) Ethanol	0.000		0	N.D.	d	
9) 1,1-Dichloroethene	0.000		0	N.D.	d	
10) Carbon Disulfide	0.000		0	N.D.	d	
11) Freon 113	0.000		0	N.D.		
12) Iodomethane	0.000		0	N.D.		
13) Acrolein	0.000		0	N.D.		
14) Methylene Chloride	3.875	84	2024	Below Cal		84
15) Acetone	0.000		0	N.D.	d	
16) t-1,2-Dichloroethene	0.000		0	N.D.		
17) n-Hexane	0.000		0	N.D.		
18) Methyl-tert-butyl-ether	0.000		0	N.D.	d	
19) tert-Butanol (TBA)	4.300	59	2472	6.89	ug/L	83
20) Diisopropyl ether (DIPE)	0.000		0	N.D.		
21) 1,1-Dichloroethane	0.000		0	N.D.	d	
22) Acrylonitrile	0.000		0	N.D.		
23) Ethyl-tert-butyl ether...	0.000		0	N.D.		
24) Vinyl Acetate	0.000		0	N.D.		
25) c-1,2-Dichloroethene	0.000		0	N.D.		
26) 2,2-Dichloropropane	0.000		0	N.D.		
27) Bromochloromethane	0.000		0	N.D.		
28) Chloroform	0.000		0	N.D.		
29) Carbon Tetrachloride	0.000		0	N.D.		
30) Tetrahydrofuran	0.000		0	N.D.		
31) 1,1,1-Trichloroethane	0.000		0	N.D.		
33) 1,1-Dichloropropene	0.000		0	N.D.		
34) 2-Butanone (MEK)	0.000		0	N.D.	d	
35) Benzene	6.132	78	917	0.12	ug/L	55
36) tert-Amyl methyl ether...	0.000		0	N.D.		
37) 1,2-Dichloroethane (EDC)	0.000		0	N.D.	d	
38) iso-Butyl Alcohol	0.000		0	N.D.		
40) Trichloroethene (TCE)	0.000		0	N.D.		
41) Tert-Amyl-Ethyl-Ether ...	0.000		0	N.D.		
42) Dibromomethane	0.000		0	N.D.		
43) 1,2-Dichloropropane	0.000		0	N.D.		
44) Bromodichloromethane	0.000		0	N.D.		
46) 2-Chloroethyl Vinyl Ether	0.000		0	N.D.		
47) c-1,3-Dichloropropene	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102417.D
Acq On : 24 Oct 2019 3:55 pm
Operator : MM
Sample : 9J24043-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:17:09 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	8.358	91	978	0.11	ug/L	85
50) Tetrachloroethene (PCE)	0.000		0	N.D.		
51) 4-Methyl-2-Pentanone (...	0.000		0	N.D.	d	
52) t-1,3-Dichloropropene	0.000		0	N.D.		
53) 1,1,2-Trichloroethane	0.000		0	N.D.		
54) Dibromochloromethane	0.000		0	N.D.		
55) 1,3-Dichloropropane	0.000		0	N.D.	d	
56) 1,2-Dibromoethane (EDB)	0.000		0	N.D.		
57) 2-Hexanone	0.000		0	N.D.		
58) Chlorobenzene	9.934	112	480	0.09	ug/L #	35
59) Ethylbenzene	9.952	91	942	0.10	ug/L	91
60) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
61) m,p-Xylenes (2)	10.086	91	1368	0.27	ug/L	84
62) o-Xylene	10.469	91	585	0.15	ug/L	89
63) Styrene	0.000		0	N.D.	d	
64) Bromoform	0.000		0	N.D.		
65) Isopropylbenzene	0.000		0	N.D.	d	
68) Bromobenzene	11.059	156	124	0.06	ug/L #	82
69) n-Propylbenzene	11.078	91	873	0.10	ug/L	58
70) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
71) 2-Chlorotoluene	0.000		0	N.D.		
72) 1,3,5-Trimethylbenzene	11.230	105	556	0.10	ug/L	92
73) 1,2,3-Trichloropropane	0.000		0	N.D.		
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.		
75) 4-Chlorotoluene	0.000		0	N.D.	d	
76) tert-Butylbenzene	0.000		0	N.D.	d	
77) 1,2,4-Trimethylbenzene	11.540	105	536	0.17	ug/L	80
78) sec-Butylbenzene	0.000		0	N.D.	d	
79) 4-Isopropyltoluene	11.728	119	481	0.20	ug/L	68
80) 1,3-Dichlorobenzene	0.000		0	N.D.	d	
81) 1,4-Dichlorobenzene	11.868	146	311	0.08	ug/L #	41
82) n-Butylbenzene	12.045	91	379	0.08	ug/L	81
83) 1,2-Dichlorobenzene	0.000		0	N.D.	d	
84) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.		
85) Hexachlorobutadiene	0.000		0	N.D.		
86) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
87) Naphthalene	0.000		0	N.D.	d	
88) 1,2,3-Trichlorobenzene	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102417.D
Acq On : 24 Oct 2019 3:55 pm
Operator : MM
Sample : 9J24043-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:12 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	116102	50.00	ug/L	#	0.00
45) Chlorobenzene-d5 (I)	9.909	117	307577	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	139681	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	111441	46.79	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	364447	54.80	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	406288	51.17	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	116090	51.67	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.			
3) Chloromethane	1.897	50	479	0.18	ug/L		91
4) Vinyl Chloride	2.001	62	158	0.07	ug/L	#	50
5) Bromomethane	2.372	96	279	0.15	ug/L	#	64
6) Chloroethane	2.506	64	114	0.09	ug/L	#	61
7) Trichlorofluoromethane	2.676	101	188	0.05	ug/L	#	27
8) Ethanol	3.236	45	213	4.59	ug/L	#	29
9) 1,1-Dichloroethene	3.236	61	133	0.05	ug/L	#	28
10) Carbon Disulfide	3.254	76	531	0.11	ug/L		78
11) Freon 113	0.000		0	N.D.			
12) Iodomethane	0.000		0	N.D.			
13) Acrolein	0.000		0	N.D.			
14) Methylene Chloride	3.875	84	2024	Below Cal			84
15) Acetone	3.948	43	877	0.88	ug/L	#	44
16) t-1,2-Dichloroethene	0.000		0	N.D.			
17) n-Hexane	0.000		0	N.D.			
18) Methyl-tert-butyl-ether	4.167	73	444	0.08	ug/L		63
19) tert-Butanol (TBA)	4.300	59	2472	6.89	ug/L		83
20) Diisopropyl ether (DIPE)	0.000		0	N.D.			
21) 1,1-Dichloroethane	4.690	63	147	0.04	ug/L	#	48
22) Acrylonitrile	0.000		0	N.D.			
23) Ethyl-tert-butyl ether...	0.000		0	N.D.			
24) Vinyl Acetate	0.000		0	N.D.			
25) c-1,2-Dichloroethene	0.000		0	N.D.			
26) 2,2-Dichloropropane	0.000		0	N.D.			
27) Bromochloromethane	0.000		0	N.D.			
28) Chloroform	0.000		0	N.D.			
29) Carbon Tetrachloride	0.000		0	N.D.			
30) Tetrahydrofuran	0.000		0	N.D.			
31) 1,1,1-Trichloroethane	0.000		0	N.D.			
33) 1,1-Dichloropropene	0.000		0	N.D.			
34) 2-Butanone (MEK)	5.882	43	122	0.08	ug/L		52
35) Benzene	6.132	78	917	0.12	ug/L		55
36) tert-Amyl methyl ether...	0.000		0	N.D.			
37) 1,2-Dichloroethane (EDC)	6.345	62	176	0.05	ug/L		54
38) iso-Butyl Alcohol	0.000		0	N.D.			
40) Trichloroethene (TCE)	0.000		0	N.D.			
41) Tert-Amyl-Ethyl-Ether ...	0.000		0	N.D.			
42) Dibromomethane	0.000		0	N.D.			
43) 1,2-Dichloropropane	0.000		0	N.D.			
44) Bromodichloromethane	0.000		0	N.D.			
46) 2-Chloroethyl Vinyl Ether	0.000		0	N.D.			
47) c-1,3-Dichloropropene	0.000		0	N.D.			

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102417.D
Acq On : 24 Oct 2019 3:55 pm
Operator : MM
Sample : 9J24043-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:12 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

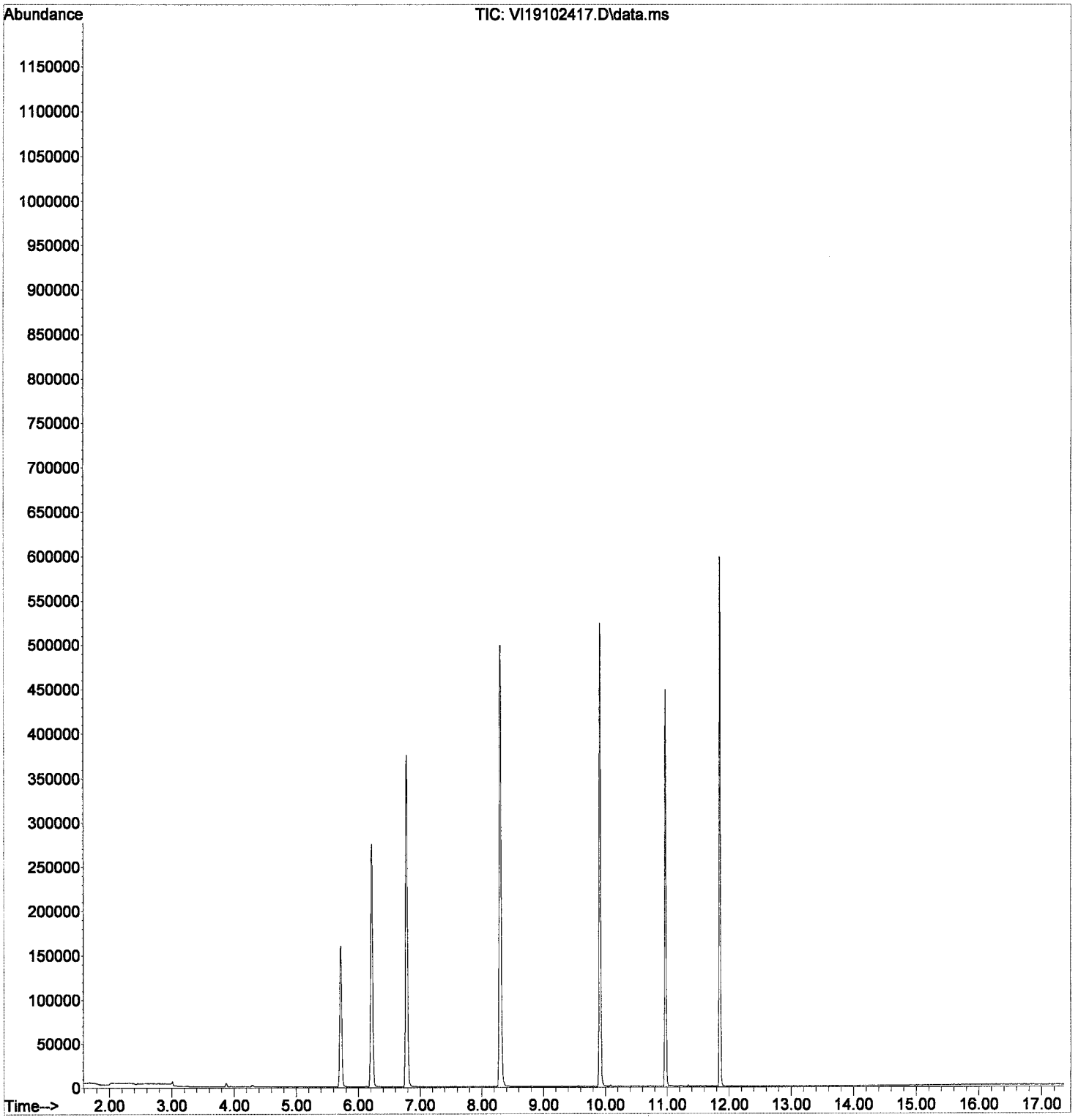
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	978	0.11	ug/L		85
50) Tetrachloroethene (PCE)	0.000		0	N.D.			
51) 4-Methyl-2-Pentanone (...	8.808	43	433	0.16	ug/L	#	43
52) t-1,3-Dichloropropene	0.000		0	N.D.			
53) 1,1,2-Trichloroethane	0.000		0	N.D.			
54) Dibromochloromethane	0.000		0	N.D.			
55) 1,3-Dichloropropane	9.289	76	204	0.06	ug/L	#	27
56) 1,2-Dibromoethane (EDB)	0.000		0	N.D.			
57) 2-Hexanone	0.000		0	N.D.			
58) Chlorobenzene	9.934	112	480	0.09	ug/L	#	35
59) Ethylbenzene	9.952	91	942	0.10	ug/L		91
60) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.			
61) m,p-Xylenes (2)	10.086	91	1368	0.27	ug/L		84
62) o-Xylene	10.469	91	585	0.15	ug/L		89
63) Styrene	10.524	104	329	0.22	ug/L	#	42
64) Bromoform	0.000		0	N.D.			
65) Isopropylbenzene	10.731	105	805	0.22	ug/L		54
68) Bromobenzene	11.059	156	124	0.06	ug/L	#	82
69) n-Propylbenzene	11.078	91	873	0.10	ug/L		58
70) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.			
71) 2-Chlorotoluene	0.000		0	N.D.			
72) 1,3,5-Trimethylbenzene	11.230	105	556	0.10	ug/L		92
73) 1,2,3-Trichloropropane	0.000		0	N.D.			
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
75) 4-Chlorotoluene	11.339	91	458	0.09	ug/L	#	45
76) tert-Butylbenzene	11.485	91	177	0.06	ug/L	#	74
77) 1,2,4-Trimethylbenzene	11.540	105	536	0.17	ug/L		80
78) sec-Butylbenzene	11.619	105	687	0.10	ug/L		59
79) 4-Isopropyltoluene	11.728	119	481	0.20	ug/L		68
80) 1,3-Dichlorobenzene	11.801	146	273	0.08	ug/L	#	76
81) 1,4-Dichlorobenzene	11.868	146	311	0.08	ug/L	#	41
82) n-Butylbenzene	12.045	91	379	0.08	ug/L		81
83) 1,2-Dichlorobenzene	12.185	146	241	0.07	ug/L	#	25
84) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
85) Hexachlorobutadiene	0.000		0	N.D.			
86) 1,2,4-Trichlorobenzene	0.000		0	N.D.			
87) Naphthalene	13.633	128	452	0.48	ug/L		81
88) 1,2,3-Trichlorobenzene	0.000		0	N.D.			

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102417.D
Acq On : 24 Oct 2019 3:55 pm
Operator : MM
Sample : 9J24043-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:12 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102418.D
Acq On : 24 Oct 2019 4:21 pm
Operator : MM
Sample : 9J24043-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:19:21 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	114788	50.00	ug/L	0.00
45) Chlorobenzene-d5 (I)	9.916	117	302974	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	135021	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.718	111	110610	46.98	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	359462	54.66	ug/L	0.00
48) Toluene-d8 (S)	8.297	98	403793	51.63	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	113180	52.11	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	d	
3) Chloromethane	1.904	50	669	0.25	ug/L	89
4) Vinyl Chloride	2.007	62	406	0.17	ug/L	91
5) Bromomethane	0.000		0	N.D.	d	
6) Chloroethane	0.000		0	N.D.	d	
7) Trichlorofluoromethane	0.000		0	N.D.	d	
8) Ethanol	0.000		0	N.D.	d	
9) 1,1-Dichloroethene	0.000		0	N.D.	d	
10) Carbon Disulfide	0.000		0	N.D.	d	
11) Freon 113	0.000		0	N.D.	d	
12) Iodomethane	0.000		0	N.D.		
13) Acrolein	0.000		0	N.D.		
14) Methylene Chloride	3.875	84	2201	Below Cal		87
15) Acetone	3.954	43	1168	1.18	ug/L	93
16) t-1,2-Dichloroethene	4.045	61	360	0.14	ug/L	74
17) n-Hexane	0.000		0	N.D.	d	
18) Methyl-tert-butyl-ether	0.000		0	N.D.	d	
19) tert-Butanol (TBA)	4.300	59	4690	13.22	ug/L	91
20) Diisopropyl ether (DIPE)	0.000		0	N.D.		
21) 1,1-Dichloroethane	0.000		0	N.D.	d	
22) Acrylonitrile	0.000		0	N.D.		
23) Ethyl-tert-butyl ether...	0.000		0	N.D.		
24) Vinyl Acetate	0.000		0	N.D.	d	
25) c-1,2-Dichloroethene	0.000		0	N.D.	d	
26) 2,2-Dichloropropane	0.000		0	N.D.	d	
27) Bromochloromethane	0.000		0	N.D.		
28) Chloroform	5.529	83	587	0.15	ug/L	74
29) Carbon Tetrachloride	0.000		0	N.D.	d	
30) Tetrahydrofuran	0.000		0	N.D.		
31) 1,1,1-Trichloroethane	0.000		0	N.D.	d	
33) 1,1-Dichloropropene	0.000		0	N.D.	d	
34) 2-Butanone (MEK)	0.000		0	N.D.	d	
35) Benzene	6.126	78	1584	0.20	ug/L	77
36) tert-Amyl methyl ether...	0.000		0	N.D.		
37) 1,2-Dichloroethane (EDC)	0.000		0	N.D.	d	
38) iso-Butyl Alcohol	0.000		0	N.D.	d	
40) Trichloroethene (TCE)	6.752	130	372	0.19	ug/L #	75
41) Tert-Amyl-Ethyl-Ether ...	0.000		0	N.D.		
42) Dibromomethane	0.000		0	N.D.	d	
43) 1,2-Dichloropropane	0.000		0	N.D.	d	
44) Bromodichloromethane	0.000		0	N.D.	d	
46) 2-Chloroethyl Vinyl Ether	0.000		0	N.D.		
47) c-1,3-Dichloropropene	0.000		0	N.D.	d	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102418.D
Acq On : 24 Oct 2019 4:21 pm
Operator : MM
Sample : 9J24043-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:19:21 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.352	91	1744	0.21	ug/L		93
50) Tetrachloroethene (PCE)	8.808	166	267	0.14	ug/L	#	25
51) 4-Methyl-2-Pentanone (...	8.796	43	890	0.33	ug/L		85
52) t-1,3-Dichloropropene	0.000		0	N.D.	d		
53) 1,1,2-Trichloroethane	9.009	97	288	0.14	ug/L	#	10
54) Dibromochloromethane	0.000		0	N.D.			
55) 1,3-Dichloropropane	9.289	76	568	0.17	ug/L		84
56) 1,2-Dibromoethane (EDB)	9.423	107	279	0.13	ug/L		84
57) 2-Hexanone	0.000		0	N.D.	d		
58) Chlorobenzene	9.928	112	1045	0.19	ug/L	#	25
59) Ethylbenzene	9.952	91	1835	0.21	ug/L		93
60) 1,1,1,2-Tetrachloroethane	9.989	131	129	0.07	ug/L	#	74
61) m,p-Xylenes (2)	10.086	91	2470	0.45	ug/L		93
62) o-Xylene	10.469	91	1221	0.26	ug/L		90
63) Styrene	10.518	104	754	0.31	ug/L		82
64) Bromoform	0.000		0	N.D.			
65) Isopropylbenzene	10.737	105	1347	0.29	ug/L		86
68) Bromobenzene	11.059	156	432	0.22	ug/L		89
69) n-Propylbenzene	11.078	91	1649	0.19	ug/L		94
70) 1,1,2,2-Tetrachloroethane	11.138	85	305	0.17	ug/L	#	75
71) 2-Chlorotoluene	0.000		0	N.D.	d		
72) 1,3,5-Trimethylbenzene	11.230	105	1127	0.20	ug/L		79
73) 1,2,3-Trichloropropane	0.000		0	N.D.			
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
75) 4-Chlorotoluene	11.339	91	1020	0.20	ug/L		80
76) tert-Butylbenzene	11.485	91	602	0.19	ug/L	#	77
77) 1,2,4-Trimethylbenzene	11.540	105	1066	0.27	ug/L		83
78) sec-Butylbenzene	11.619	105	1301	0.19	ug/L		81
79) 4-Isopropyltoluene	11.722	119	919	0.29	ug/L		98
80) 1,3-Dichlorobenzene	11.802	146	629	0.18	ug/L		91
81) 1,4-Dichlorobenzene	11.862	146	725	0.19	ug/L	#	31
82) n-Butylbenzene	12.045	91	805	0.17	ug/L		79
83) 1,2-Dichlorobenzene	12.185	146	624	0.19	ug/L		90
84) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
85) Hexachlorobutadiene	0.000		0	N.D.			
86) 1,2,4-Trichlorobenzene	13.347	180	244	0.16	ug/L		66
87) Naphthalene	13.627	128	924	0.58	ug/L		81
88) 1,2,3-Trichlorobenzene	13.791	180	261	0.17	ug/L		76

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102418.D
Acq On : 24 Oct 2019 4:21 pm
Operator : MM
Sample : 9J24043-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:16 2019
Quant Method : C:\msdchem\1\methods\VI~~191025W~~.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	114788	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.916	117	302974	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	135021	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.718	111	110610	46.98	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	359462	54.66	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	403793	51.63	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	113180	52.11	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.685	85	202	0.09	ug/L	#	49
3) Chloromethane	1.904	50	669	0.25	ug/L		89
4) Vinyl Chloride	2.007	62	406	0.17	ug/L		91
5) Bromomethane	2.366	96	403	0.22	ug/L	#	8
6) Chloroethane	2.512	64	534	0.44	ug/L	#	62
7) Trichlorofluoromethane	2.670	101	442	0.12	ug/L	#	76
8) Ethanol	3.242	45	573	12.50	ug/L	#	29
9) 1,1-Dichloroethene	3.236	61	354	0.12	ug/L	#	62
10) Carbon Disulfide	3.260	76	912	0.19	ug/L		78
11) Freon 113	3.297	101	119	0.06	ug/L	#	19
12) Iodomethane	0.000		0	N.D.			
13) Acrolein	0.000		0	N.D.			
14) Methylene Chloride	3.875	84	2201	Below Cal			87
15) Acetone	3.954	43	1168	1.18	ug/L		93
16) t-1,2-Dichloroethene	4.045	61	360	0.14	ug/L		74
17) n-Hexane	0.000		0	N.D.			
18) Methyl-tert-butyl-ether	4.167	73	1035	0.18	ug/L		63
19) tert-Butanol (TBA)	4.300	59	4690	13.22	ug/L		91
20) Diisopropyl ether (DIPE)	0.000		0	N.D.			
21) 1,1-Dichloroethane	4.690	63	650	0.18	ug/L	#	48
22) Acrylonitrile	0.000		0	N.D.			
23) Ethyl-tert-butyl ether...	0.000		0	N.D.			
24) Vinyl Acetate	4.982	43	476	0.11	ug/L		74
25) c-1,2-Dichloroethene	5.243	61	345	0.12	ug/L	#	70
26) 2,2-Dichloropropane	5.359	77	299	0.12	ug/L	#	30
27) Bromochloromethane	0.000		0	N.D.			
28) Chloroform	5.529	83	587	0.15	ug/L		74
29) Carbon Tetrachloride	5.675	117	123	0.05	ug/L	#	14
30) Tetrahydrofuran	0.000		0	N.D.			
31) 1,1,1-Trichloroethane	5.730	97	415	0.13	ug/L	#	25
33) 1,1-Dichloropropene	5.864	75	388	0.15	ug/L	#	43
34) 2-Butanone (MEK)	5.876	43	395	0.26	ug/L		52
35) Benzene	6.126	78	1584	0.20	ug/L		77
36) tert-Amyl methyl ether...	0.000		0	N.D.			
37) 1,2-Dichloroethane (EDC)	6.351	62	371	0.12	ug/L		54
38) iso-Butyl Alcohol	6.387	43	468	3.43	ug/L		89
40) Trichloroethene (TCE)	6.752	130	372	0.19	ug/L	#	75
41) Tert-Amyl-Ethyl-Ether ...	0.000		0	N.D.			
42) Dibromomethane	7.196	93	115	0.08	ug/L	#	2
43) 1,2-Dichloropropane	7.312	63	259	0.12	ug/L	#	35
44) Bromodichloromethane	7.379	83	222	0.08	ug/L	#	27
46) 2-Chloroethyl Vinyl Ether	0.000		0	N.D.			
47) c-1,3-Dichloropropene	8.097	75	326	0.11	ug/L	#	31

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102418.D
Acq On : 24 Oct 2019 4:21 pm
Operator : MM
Sample : 9J24043-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:16 2019
Quant Method : C:\msdchem\1\methods\~~VI191025W~~.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

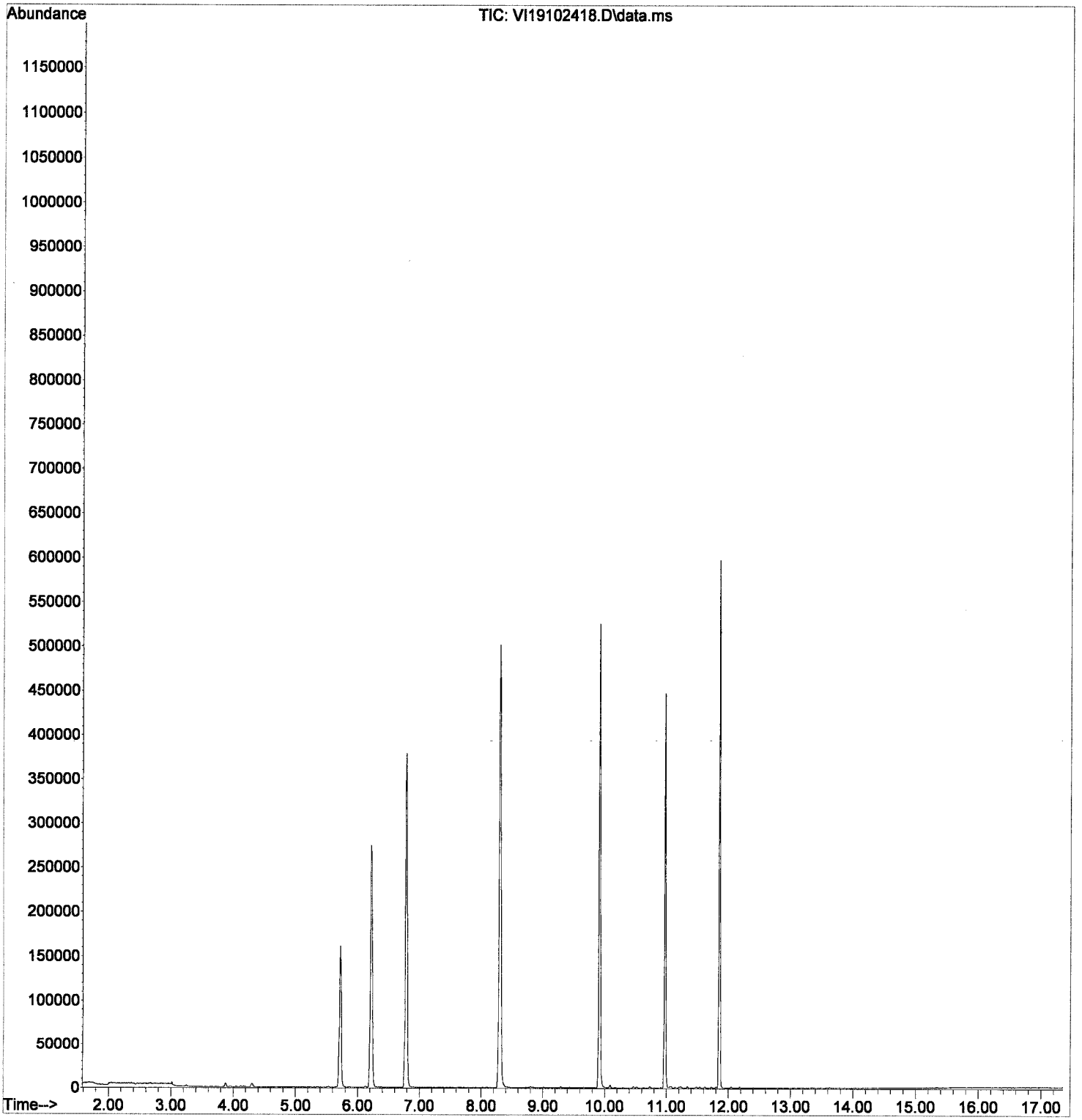
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.352	91	1744	0.21	ug/L		93
50) Tetrachloroethene (PCE)	8.808	166	267	0.14	ug/L	#	25
51) 4-Methyl-2-Pentanone (...	8.796	43	890	0.33	ug/L		85
52) t-1,3-Dichloropropene	8.839	75	300	0.11	ug/L	#	45
53) 1,1,2-Trichloroethane	9.009	97	288	0.14	ug/L	#	10
54) Dibromochloromethane	0.000		0	N.D.			
55) 1,3-Dichloropropane	9.289	76	568	0.17	ug/L		84
56) 1,2-Dibromoethane (EDB)	9.423	107	279	0.13	ug/L		84
57) 2-Hexanone	9.666	43	516	0.27	ug/L	#	35
58) Chlorobenzene	9.928	112	1045	0.19	ug/L	#	25
59) Ethylbenzene	9.952	91	1835	0.21	ug/L		93
60) 1,1,1,2-Tetrachloroethane	9.989	131	129	0.07	ug/L	#	74
61) m,p-Xylenes (2)	10.086	91	2470	0.45	ug/L		93
62) o-Xylene	10.469	91	1221	0.26	ug/L		90
63) Styrene	10.518	104	754	0.31	ug/L		82
64) Bromoform	0.000		0	N.D.			
65) Isopropylbenzene	10.737	105	1347	0.29	ug/L		86
68) Bromobenzene	11.059	156	432	0.22	ug/L		89
69) n-Propylbenzene	11.078	91	1649	0.19	ug/L		94
70) 1,1,2,2-Tetrachloroethane	11.138	85	305	0.17	ug/L	#	75
71) 2-Chlorotoluene	11.211	126	229	0.14	ug/L	#	88
72) 1,3,5-Trimethylbenzene	11.230	105	1127	0.20	ug/L		79
73) 1,2,3-Trichloropropane	0.000		0	N.D.			
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
75) 4-Chlorotoluene	11.339	91	1020	0.20	ug/L		80
76) tert-Butylbenzene	11.485	91	602	0.19	ug/L	#	77
77) 1,2,4-Trimethylbenzene	11.540	105	1066	0.27	ug/L		83
78) sec-Butylbenzene	11.619	105	1301	0.19	ug/L		81
79) 4-Isopropyltoluene	11.722	119	919	0.29	ug/L		98
80) 1,3-Dichlorobenzene	11.802	146	629	0.18	ug/L		91
81) 1,4-Dichlorobenzene	11.862	146	725	0.19	ug/L	#	31
82) n-Butylbenzene	12.045	91	805	0.17	ug/L		79
83) 1,2-Dichlorobenzene	12.185	146	624	0.19	ug/L		90
84) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
85) Hexachlorobutadiene	0.000		0	N.D.			
86) 1,2,4-Trichlorobenzene	13.347	180	244	0.16	ug/L		66
87) Naphthalene	13.627	128	924	0.58	ug/L		81
88) 1,2,3-Trichlorobenzene	13.791	180	261	0.17	ug/L		76

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102418.D
Acq On : 24 Oct 2019 4:21 pm
Operator : MM
Sample : 9J24043-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:16 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102419.D
Acq On : 24 Oct 2019 4:48 pm
Operator : MM
Sample : 9J24043-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:21:58 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.211	99	111985	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.910	117	294372	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	134501	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	108083	47.05	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.777	114	352302	54.92	ug/L		-0.01
48) Toluene-d8 (S)	8.297	98	396027	52.12	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	112304	51.91	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.672	85	562	0.26	ug/L		90
3) Chloromethane	1.891	50	1136	0.44	ug/L		91
4) Vinyl Chloride	1.995	62	967	0.42	ug/L		83
5) Bromomethane	2.360	96	839	0.47	ug/L		69
6) Chloroethane	0.000		0	N.D.	d		
7) Trichlorofluoromethane	2.664	101	958	0.26	ug/L		86
8) Ethanol	3.230	45	1315	29.40	ug/L		96
9) 1,1-Dichloroethene	3.230	61	1038	0.37	ug/L		87
10) Carbon Disulfide	0.000		0	N.D.	d		
11) Freon 113	0.000		0	N.D.	d		
12) Iodomethane	0.000		0	N.D.			
13) Acrolein	0.000		0	N.D.			
14) Methylene Chloride	3.869	84	2646	Below Cal			89
15) Acetone	3.948	43	1616	1.67	ug/L		96
16) t-1,2-Dichloroethene	4.039	61	963	0.38	ug/L		98
17) n-Hexane	0.000		0	N.D.			
18) Methyl-tert-butyl-ether	4.167	73	2309	0.41	ug/L		94
19) tert-Butanol (TBA)	4.294	59	10086	29.13	ug/L		91
20) Diisopropyl ether (DIPE)	4.562	45	638	0.11	ug/L		76
21) 1,1-Dichloroethane	4.684	63	1323	0.37	ug/L		87
22) Acrylonitrile	0.000		0	N.D.	d		
23) Ethyl-tert-butyl ether...	0.000		0	N.D.	d		
24) Vinyl Acetate	0.000		0	N.D.	d		
25) c-1,2-Dichloroethene	5.244	61	1008	0.36	ug/L		91
26) 2,2-Dichloropropane	5.347	77	853	0.34	ug/L		76
27) Bromochloromethane	5.444	130	391	0.28	ug/L		94
28) Chloroform	5.529	83	1292	0.34	ug/L		95
29) Carbon Tetrachloride	5.651	117	618	0.24	ug/L		90
30) Tetrahydrofuran	0.000		0	N.D.	d		
31) 1,1,1-Trichloroethane	5.730	97	1012	0.32	ug/L		93
33) 1,1-Dichloropropene	5.870	75	1049	0.41	ug/L	#	43
34) 2-Butanone (MEK)	0.000		0	N.D.	d		
35) Benzene	6.120	78	3381	0.44	ug/L		99
36) tert-Amyl methyl ether...	6.247	73	580	0.11	ug/L	#	21
37) 1,2-Dichloroethane (EDC)	6.332	62	1073	0.34	ug/L		54
38) iso-Butyl Alcohol	6.387	43	1172	8.80	ug/L		84
40) Trichloroethene (TCE)	6.746	130	718	0.37	ug/L		74
41) Tert-Amyl-Ethyl-Ether ...	0.000		0	N.D.			
42) Dibromomethane	7.202	93	378	0.27	ug/L		86
43) 1,2-Dichloropropane	7.312	63	797	0.38	ug/L		95
44) Bromodichloromethane	7.379	83	800	0.29	ug/L		93
46) 2-Chloroethyl Vinyl Ether	8.036	63	359	1.00	ug/L	#	100
47) c-1,3-Dichloropropene	8.091	75	1014	0.36	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102419.D
Acq On : 24 Oct 2019 4:48 pm
Operator : MM
Sample : 9J24043-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:21:58 2019
Quant Method : C:\msdchem\1\methods\~~VI191025~~W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	3505	0.43	ug/L		93
50) Tetrachloroethene (PCE)	8.796	166	787	0.42	ug/L		94
51) 4-Methyl-2-Pentanone (...	8.808	43	1912	0.73	ug/L		91
52) t-1,3-Dichloropropene	8.839	75	610	0.22	ug/L	#	45
53) 1,1,2-Trichloroethane	9.003	97	717	0.36	ug/L		82
54) Dibromochloromethane	9.186	129	505	0.24	ug/L		86
55) 1,3-Dichloropropane	9.289	76	1253	0.38	ug/L		95
56) 1,2-Dibromoethane (EDB)	9.423	107	615	0.30	ug/L		96
57) 2-Hexanone	9.660	43	1346	0.71	ug/L		91
58) Chlorobenzene	9.928	112	2226	0.43	ug/L	#	64
59) Ethylbenzene	9.952	91	3584	0.42	ug/L		99
60) 1,1,1,2-Tetrachloroethane	9.989	131	470	0.26	ug/L	#	66
61) m,p-Xylenes (2)	10.086	91	5197	0.91	ug/L		96
62) o-Xylene	10.469	91	2605	0.49	ug/L		93
63) Styrene	10.518	104	1656	0.51	ug/L		93
64) Bromoform	0.000		0	N.D.	d		
65) Isopropylbenzene	10.731	105	3067	0.54	ug/L		92
68) Bromobenzene	11.059	156	875	0.45	ug/L		92
69) n-Propylbenzene	11.078	91	3544	0.42	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.139	85	671	0.38	ug/L		87
71) 2-Chlorotoluene	11.205	126	719	0.43	ug/L		98
72) 1,3,5-Trimethylbenzene	11.230	105	2289	0.41	ug/L		92
73) 1,2,3-Trichloropropane	11.248	110	271	0.32	ug/L		91
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
75) 4-Chlorotoluene	11.339	91	2178	0.44	ug/L		99
76) tert-Butylbenzene	11.485	91	1248	0.40	ug/L		99
77) 1,2,4-Trimethylbenzene	11.540	105	2387	0.51	ug/L		98
78) sec-Butylbenzene	11.619	105	2990	0.44	ug/L		97
79) 4-Isopropyltoluene	11.729	119	2236	0.56	ug/L		92
80) 1,3-Dichlorobenzene	11.802	146	1412	0.41	ug/L		95
81) 1,4-Dichlorobenzene	11.862	146	1564	0.42	ug/L	#	54
82) n-Butylbenzene	12.045	91	1867	0.40	ug/L		85
83) 1,2-Dichlorobenzene	12.185	146	1284	0.39	ug/L		95
84) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
85) Hexachlorobutadiene	0.000		0	N.D.			
86) 1,2,4-Trichlorobenzene	13.347	180	615	0.40	ug/L		89
87) Naphthalene	13.633	128	2009	0.81	ug/L		81
88) 1,2,3-Trichlorobenzene	13.779	180	687	0.45	ug/L		72

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102419.D
Acq On : 24 Oct 2019 4:48 pm
Operator : MM
Sample : 9J24043-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:19 2019
Quant Method : C:\msdchem\1\methods\~~VI191025~~W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.211	99	111985	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.910	117	294372	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	134501	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	108083	47.05	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.777	114	352302	54.92	ug/L		-0.01
48) Toluene-d8 (S)	8.297	98	396027	52.12	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	112304	51.91	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.672	85	562	0.26	ug/L		90
3) Chloromethane	1.891	50	1136	0.44	ug/L		91
4) Vinyl Chloride	1.995	62	967	0.42	ug/L		83
5) Bromomethane	2.360	96	839	0.47	ug/L		69
6) Chloroethane	2.512	64	672	0.57	ug/L	#	66
7) Trichlorofluoromethane	2.664	101	958	0.26	ug/L		86
8) Ethanol	3.230	45	1315	29.40	ug/L		96
9) 1,1-Dichloroethene	3.230	61	1038	0.37	ug/L		87
10) Carbon Disulfide	3.242	76	1798	0.39	ug/L		78
11) Freon 113	3.285	101	569	0.31	ug/L	#	63
12) Iodomethane	0.000		0	N.D.			
13) Acrolein	0.000		0	N.D.			
14) Methylene Chloride	3.869	84	2646	Below Cal			89
15) Acetone	3.948	43	1616	1.67	ug/L		96
16) t-1,2-Dichloroethene	4.039	61	963	0.38	ug/L		98
17) n-Hexane	0.000		0	N.D.			
18) Methyl-tert-butyl-ether	4.167	73	2309	0.41	ug/L		94
19) tert-Butanol (TBA)	4.294	59	10086	29.13	ug/L		91
20) Diisopropyl ether (DIPE)	4.562	45	638	0.11	ug/L		76
21) 1,1-Dichloroethane	4.684	63	1323	0.37	ug/L		87
22) Acrylonitrile	4.751	53	129	0.12	ug/L	#	15
23) Ethyl-tert-butyl ether...	4.945	59	438	0.09	ug/L	#	38
24) Vinyl Acetate	4.964	43	1231	0.29	ug/L		74
25) c-1,2-Dichloroethene	5.244	61	1008	0.36	ug/L		91
26) 2,2-Dichloropropane	5.347	77	853	0.34	ug/L		76
27) Bromochloromethane	5.444	130	391	0.28	ug/L		94
28) Chloroform	5.529	83	1292	0.34	ug/L		95
29) Carbon Tetrachloride	5.651	117	618	0.24	ug/L		90
30) Tetrahydrofuran	5.712	42	281	0.30	ug/L	#	62
31) 1,1,1-Trichloroethane	5.730	97	1012	0.32	ug/L		93
33) 1,1-Dichloropropene	5.870	75	1049	0.41	ug/L	#	43
34) 2-Butanone (MEK)	5.864	43	1016	0.69	ug/L		52
35) Benzene	6.120	78	3381	0.44	ug/L		99
36) tert-Amyl methyl ether...	6.247	73	580	0.11	ug/L	#	21
37) 1,2-Dichloroethane (EDC)	6.332	62	1073	0.34	ug/L		54
38) iso-Butyl Alcohol	6.387	43	1172	8.80	ug/L		84
40) Trichloroethene (TCE)	6.746	130	718	0.37	ug/L		74
41) Tert-Amyl-Ethyl-Ether ...	0.000		0	N.D.			
42) Dibromomethane	7.202	93	378	0.27	ug/L		86
43) 1,2-Dichloropropane	7.312	63	797	0.38	ug/L		95
44) Bromodichloromethane	7.379	83	800	0.29	ug/L		93
46) 2-Chloroethyl Vinyl Ether	8.036	63	359	1.00	ug/L	#	100
47) c-1,3-Dichloropropene	8.091	75	1014	0.36	ug/L		89

10/25/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102419.D
Acq On : 24 Oct 2019 4:48 pm
Operator : MM
Sample : 9J24043-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:19 2019
Quant Method : C:\msdchem\1\methods\~~VI191025~~W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

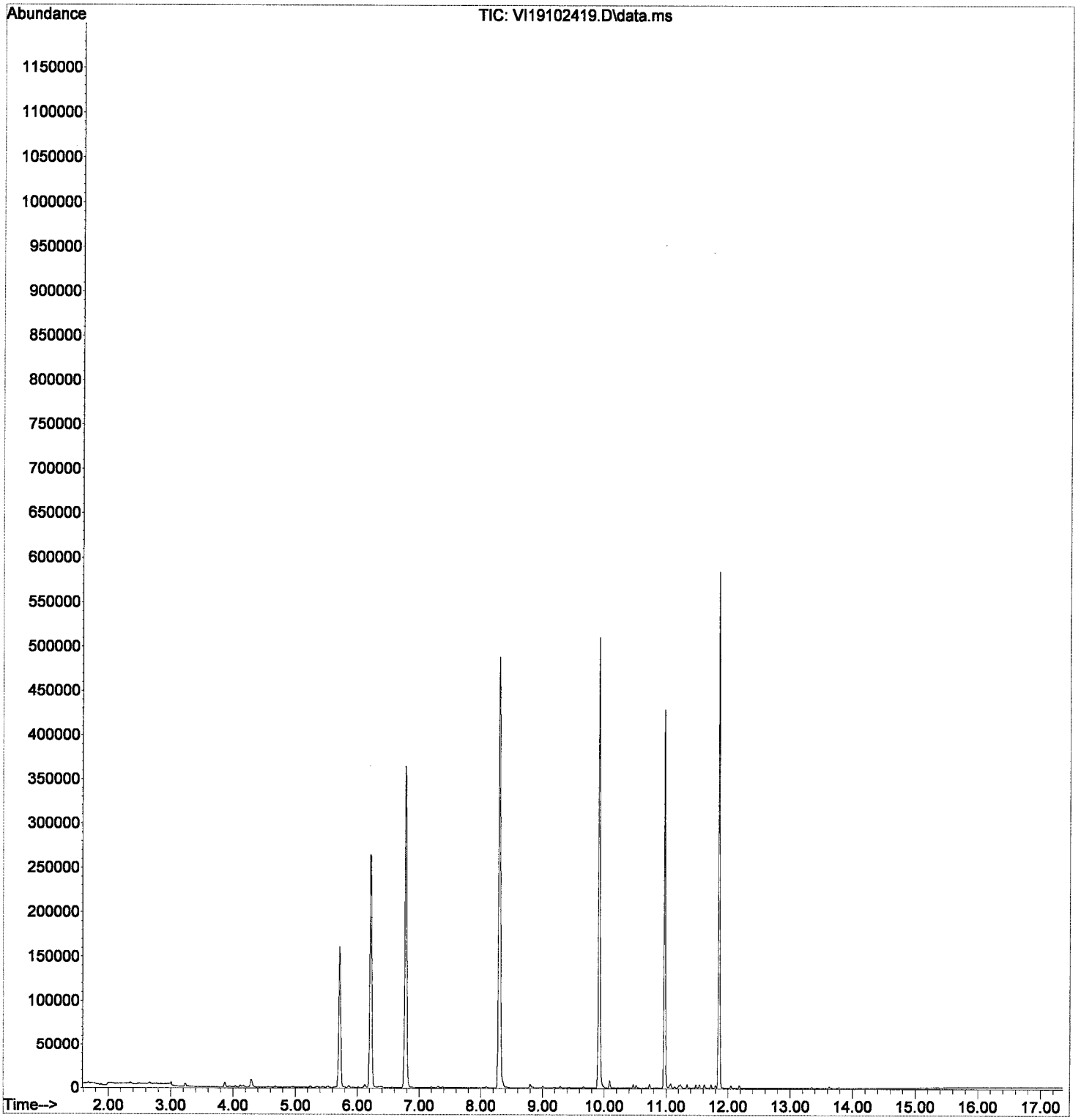
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	3505	0.43	ug/L		93
50) Tetrachloroethene (PCE)	8.796	166	787	0.42	ug/L		94
51) 4-Methyl-2-Pentanone (...	8.808	43	1912	0.73	ug/L		91
52) t-1,3-Dichloropropene	8.839	75	610	0.22	ug/L	#	45
53) 1,1,2-Trichloroethane	9.003	97	717	0.36	ug/L		82
54) Dibromochloromethane	9.186	129	505	0.24	ug/L		86
55) 1,3-Dichloropropane	9.289	76	1253	0.38	ug/L		95
56) 1,2-Dibromoethane (EDB)	9.423	107	615	0.30	ug/L		96
57) 2-Hexanone	9.660	43	1346	0.71	ug/L		91
58) Chlorobenzene	9.928	112	2226	0.43	ug/L	#	64
59) Ethylbenzene	9.952	91	3584	0.42	ug/L		99
60) 1,1,1,2-Tetrachloroethane	9.989	131	470	0.26	ug/L	#	66
61) m,p-Xylenes (2)	10.086	91	5197	0.91	ug/L		96
62) o-Xylene	10.469	91	2605	0.49	ug/L		93
63) Styrene	10.518	104	1656	0.51	ug/L		93
64) Bromoform	10.542	173	215	0.15	ug/L	#	36
65) Isopropylbenzene	10.731	105	3067	0.54	ug/L		92
68) Bromobenzene	11.059	156	875	0.45	ug/L		92
69) n-Propylbenzene	11.078	91	3544	0.42	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.139	85	671	0.38	ug/L		87
71) 2-Chlorotoluene	11.205	126	719	0.43	ug/L		98
72) 1,3,5-Trimethylbenzene	11.230	105	2289	0.41	ug/L		92
73) 1,2,3-Trichloropropane	11.248	110	271	0.32	ug/L		91
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
75) 4-Chlorotoluene	11.339	91	2178	0.44	ug/L		99
76) tert-Butylbenzene	11.485	91	1248	0.40	ug/L		99
77) 1,2,4-Trimethylbenzene	11.540	105	2387	0.51	ug/L		98
78) sec-Butylbenzene	11.619	105	2990	0.44	ug/L		97
79) 4-Isopropyltoluene	11.729	119	2236	0.56	ug/L		92
80) 1,3-Dichlorobenzene	11.802	146	1412	0.41	ug/L		95
81) 1,4-Dichlorobenzene	11.862	146	1564	0.42	ug/L	#	54
82) n-Butylbenzene	12.045	91	1867	0.40	ug/L		85
83) 1,2-Dichlorobenzene	12.185	146	1284	0.39	ug/L		95
84) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
85) Hexachlorobutadiene	0.000		0	N.D.			
86) 1,2,4-Trichlorobenzene	13.347	180	615	0.40	ug/L		89
87) Naphthalene	13.633	128	2009	0.81	ug/L		81
88) 1,2,3-Trichlorobenzene	13.779	180	687	0.45	ug/L		72

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102419.D
Acq On : 24 Oct 2019 4:48 pm
Operator : MM
Sample : 9J24043-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:19 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102420.D
Acq On : 24 Oct 2019 5:15 pm
Operator : MM
Sample : 9J24043-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:23 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.211	99	116043	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.910	117	310797	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	143979	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	111608	46.89	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	366642	55.15	ug/L		0.00
48) Toluene-d8 (S)	8.298	98	410518	51.17	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	118563	51.20	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.679	85	1583	0.69	ug/L		98
3) Chloromethane	1.892	50	2407	0.90	ug/L		90
4) Vinyl Chloride	1.995	62	2351	0.98	ug/L		95
5) Bromomethane	2.360	96	1763	0.95	ug/L	#	71
6) Chloroethane	2.500	64	2425	1.99	ug/L		75
7) Trichlorofluoromethane	2.664	101	2784	0.73	ug/L		90
8) Ethanol	3.236	45	3446	74.35	ug/L		88
9) 1,1-Dichloroethene	3.230	61	2476	0.85	ug/L		86
10) Carbon Disulfide	3.248	76	4573	0.95	ug/L		96
11) Freon 113	3.285	101	1717	0.90	ug/L		98
12) Iodomethane	0.000		0	N.D.			
13) Acrolein	3.625	56	420	1.01	ug/L		60
14) Methylene Chloride	3.869	84	3939	Below Cal			91
15) Acetone	3.948	43	2940	2.94	ug/L		92
16) t-1,2-Dichloroethene	4.039	61	2657	1.01	ug/L		94
17) n-Hexane	4.124	86	357	1.11	ug/L	#	60
18) Methyl-tert-butyl-ether	4.167	73	5789	1.00	ug/L		81
19) tert-Butanol (TBA)	4.295	59	25977	72.41	ug/L		88
20) Diisopropyl ether (DIPE)	4.562	45	1604	0.27	ug/L		98
21) 1,1-Dichloroethane	4.684	63	3672	0.99	ug/L		94
22) Acrylonitrile	4.751	53	876	0.80	ug/L		79
23) Ethyl-tert-butyl ether...	4.939	59	1449	0.28	ug/L		83
24) Vinyl Acetate	4.964	43	3620	0.82	ug/L		88
25) c-1,2-Dichloroethene	5.244	61	2744	0.95	ug/L		83
26) 2,2-Dichloropropane	5.353	77	2316	0.90	ug/L		92
27) Bromochloromethane	5.450	130	1188	0.83	ug/L		88
28) Chloroform	5.530	83	3341	0.84	ug/L		98
29) Carbon Tetrachloride	5.663	117	1791	0.66	ug/L		91
30) Tetrahydrofuran	5.706	42	945	0.99	ug/L		87
31) 1,1,1-Trichloroethane	5.730	97	2903	0.89	ug/L		93
33) 1,1-Dichloropropene	5.864	75	2749	1.05	ug/L		93
34) 2-Butanone (MEK)	5.858	43	2900	1.90	ug/L		90
35) Benzene	6.126	78	8314	1.05	ug/L		96
36) tert-Amyl methyl ether...	6.247	73	1462	0.28	ug/L		60
37) 1,2-Dichloroethane (EDC)	6.339	62	2623	0.81	ug/L		91
38) iso-Butyl Alcohol	6.375	43	3120	22.60	ug/L		86
40) Trichloroethene (TCE)	6.740	130	2166	1.08	ug/L		94
41) Tert-Amyl-Ethyl-Ether ...	6.996	59	950	0.29	ug/L		74
42) Dibromomethane	7.196	93	1285	0.90	ug/L		96
43) 1,2-Dichloropropane	7.306	63	1944	0.91	ug/L		93
44) Bromodichloromethane	7.379	83	2259	0.78	ug/L		96
46) 2-Chloroethyl Vinyl Ether	8.030	63	1378	1.78	ug/L	#	100
47) c-1,3-Dichloropropene	8.091	75	2667	0.91	ug/L		93

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102420.D
Acq On : 24 Oct 2019 5:15 pm
Operator : MM
Sample : 9J24043-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:23 2019
Quant Method : C:\msdchem\1\methods\VI~~191025W~~.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

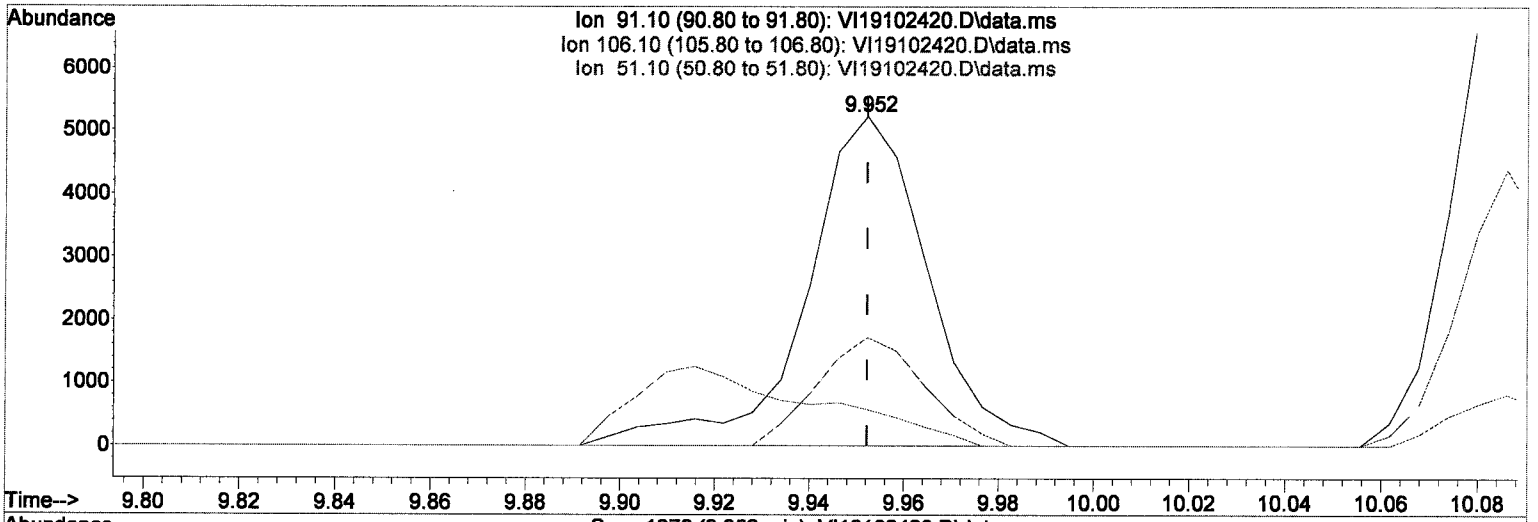
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.352	91	9040	1.04	ug/L		99
50) Tetrachloroethene (PCE)	8.796	166	1994	1.00	ug/L		91
51) 4-Methyl-2-Pentanone (...	8.802	43	5042	1.83	ug/L		93
52) t-1,3-Dichloropropene	8.839	75	2122	0.72	ug/L		95
53) 1,1,2-Trichloroethane	9.003	97	1944	0.93	ug/L		92
54) Dibromochloromethane	9.186	129	1349	0.61	ug/L		88
55) 1,3-Dichloropropane	9.289	76	3361	0.96	ug/L		93
56) 1,2-Dibromoethane (EDB)	9.423	107	1928	0.90	ug/L		93
57) 2-Hexanone	9.660	43	3526	1.77	ug/L		99
58) Chlorobenzene	9.928	112	5770	1.05	ug/L		93
59) Ethylbenzene	9.952	91	~~9335~~ 8761	1.03	ug/L		97
60) 1,1,1,2-Tetrachloroethane	9.989	131	1476	0.77	ug/L		91
61) m,p-Xylenes (2)	10.086	91	12789	2.05	ug/L		99
62) o-Xylene	10.463	91	6630	1.11	ug/L		97
63) Styrene	10.518	104	4878	1.15	ug/L		95
64) Bromoform	10.536	173	795	0.51	ug/L		91
65) Isopropylbenzene	10.731	105	7662	1.14	ug/L		98
68) Bromobenzene	11.059	156	2220	1.07	ug/L		88
69) n-Propylbenzene	11.078	91	9160	1.02	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.139	85	1876	1.00	ug/L		85
71) 2-Chlorotoluene	11.205	126	1910	1.07	ug/L		98
72) 1,3,5-Trimethylbenzene	11.230	105	6197	1.03	ug/L		90
73) 1,2,3-Trichloropropane	11.248	110	887	0.97	ug/L		97
74) t-1,4-Dichloro-2-butene	11.285	53	531	0.74	ug/L	#	41
75) 4-Chlorotoluene	11.339	91	5461	1.02	ug/L		98
76) tert-Butylbenzene	11.485	91	3551	1.07	ug/L		94
77) 1,2,4-Trimethylbenzene	11.534	105	6319	1.16	ug/L		93
78) sec-Butylbenzene	11.619	105	7450	1.03	ug/L		98
79) 4-Isopropyltoluene	11.729	119	6086	1.25	ug/L		98
80) 1,3-Dichlorobenzene	11.796	146	3650	1.00	ug/L		96
81) 1,4-Dichlorobenzene	11.863	146	4177	1.04	ug/L		86
82) n-Butylbenzene	12.045	91	4997	1.00	ug/L		93
83) 1,2-Dichlorobenzene	12.185	146	3650	1.04	ug/L		97
84) 1,2-Dibromo-3-Chloropr...	12.799	157	447	0.82	ug/L	#	69
85) Hexachlorobutadiene	13.310	223	443	0.91	ug/L		96
86) 1,2,4-Trichlorobenzene	13.347	180	1833	1.10	ug/L		94
87) Naphthalene	13.627	128	5345	1.42	ug/L		98
88) 1,2,3-Trichlorobenzene	13.785	180	1879	1.15	ug/L		89

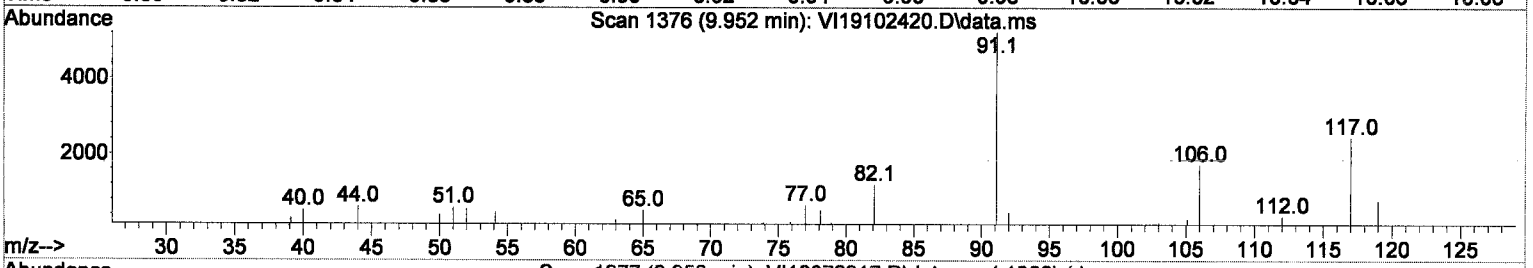
(#) = qualifier out of range (m) = manual integration (+) = signals summed

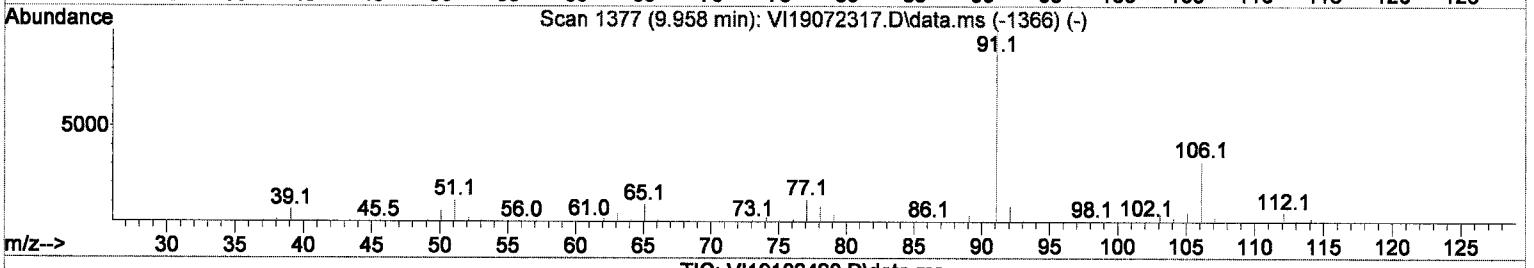
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102420.D
Acq On : 24 Oct 2019 5:15 pm
Operator : MM
Sample : 9J24043-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:23 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration







TIC: VI19102420.D\data.ms

(59) Ethylbenzene (C)

9.952min (+ 0.000) 1.03 ug/L

response 9335

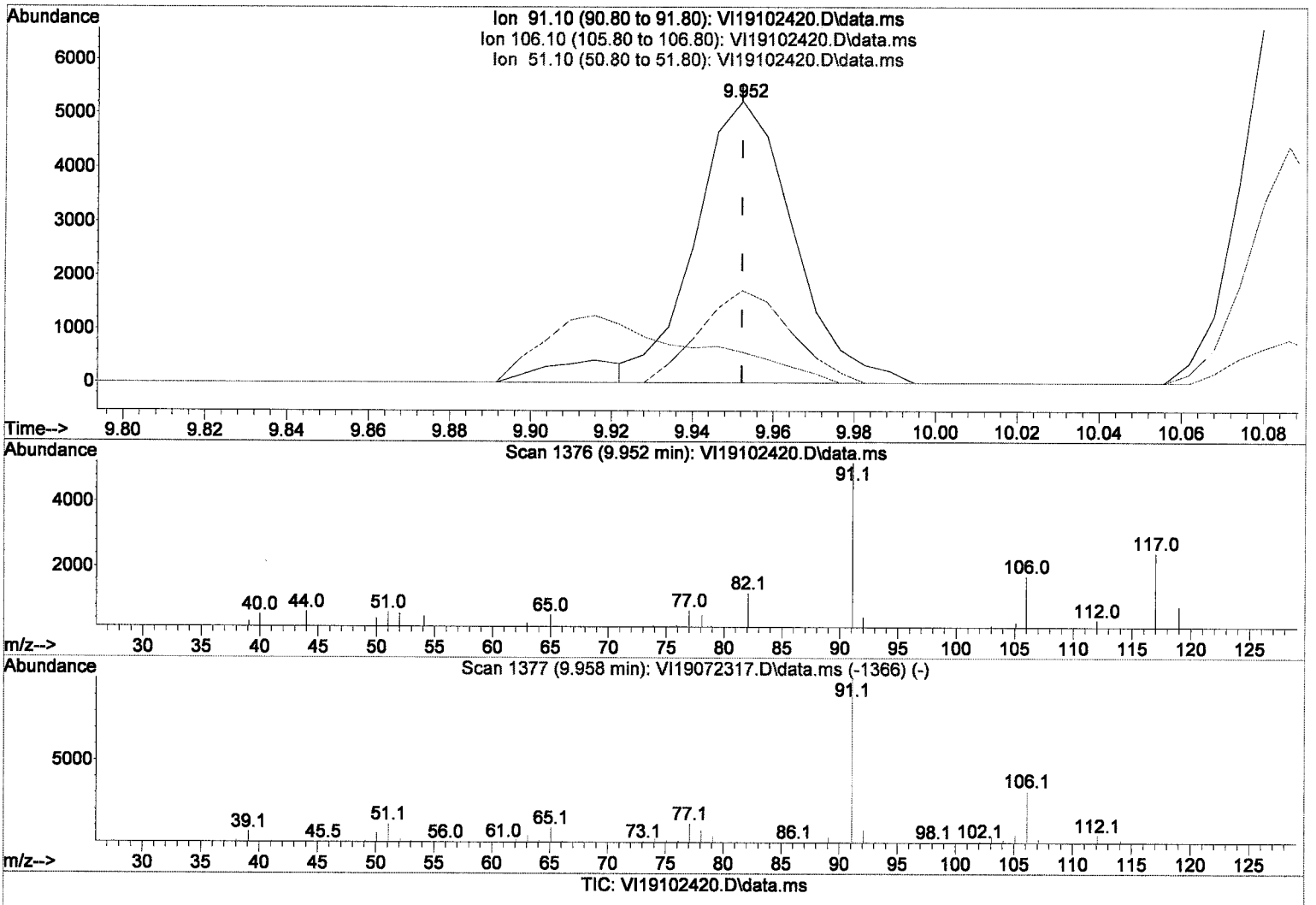
Ion	Exp%	Act%
91.10	100.00	100.00
106.10	30.80	32.98
51.10	10.40	11.11
0.00	0.00	0.00

M.2

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102420.D
Acq On : 24 Oct 2019 5:15 pm
Operator : MM
Sample : 9J24043-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:23 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



TIC: VI19102420.D\data.ms

(59) Ethylbenzene (C)

9.952min (+ 0.000) 0.96 ug/L m

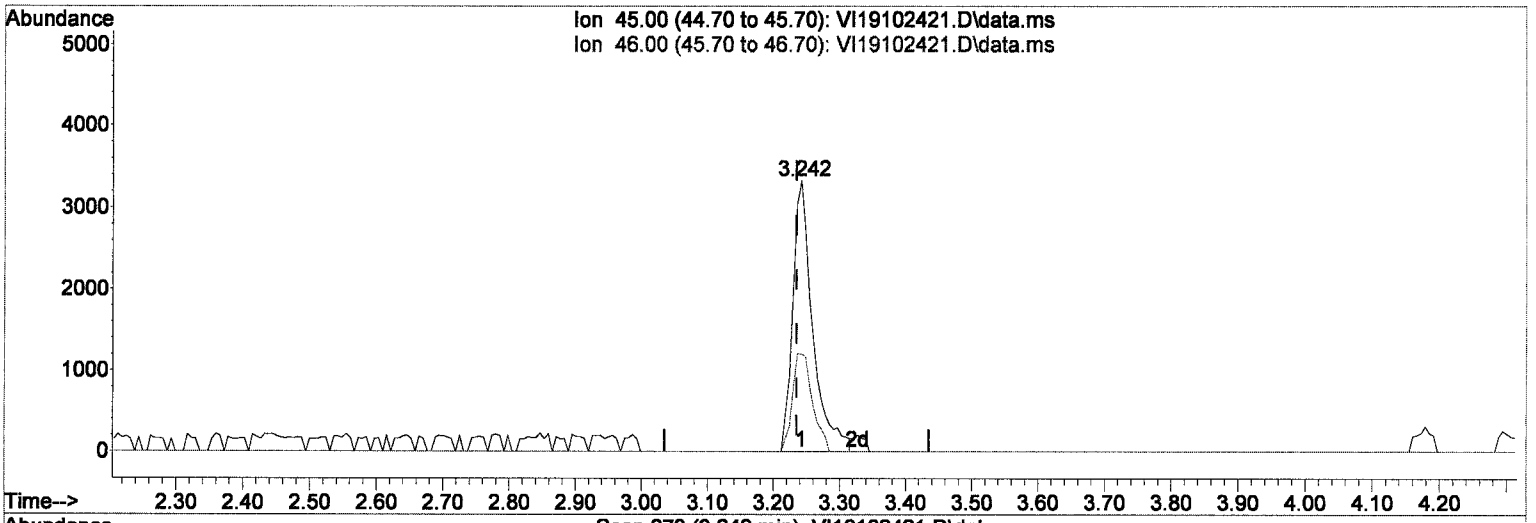
response 8761

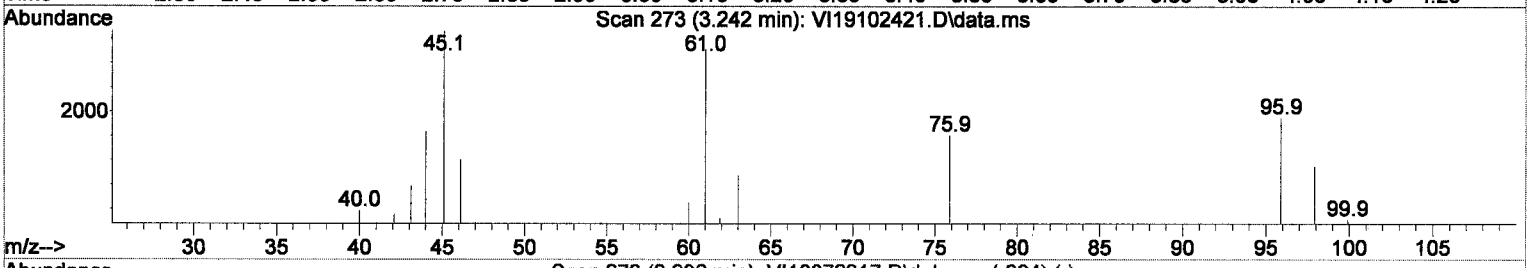
Ion	Exp%	Act%
91.10	100.00	100.00
106.10	30.80	32.98
51.10	10.40	11.11
0.00	0.00	0.00

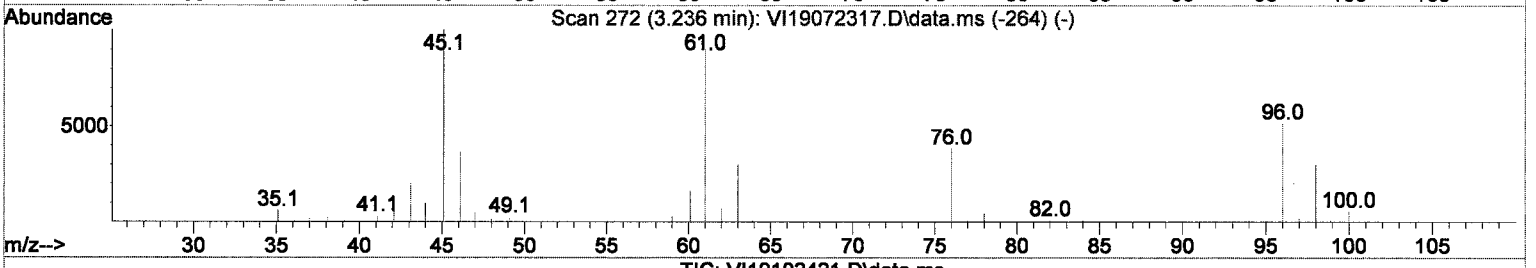
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102421.D
Acq On : 24 Oct 2019 5:42 pm
Operator : MM
Sample : 9J24043-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:26 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration







TIC: VI19102421.D\data.ms

(8) Ethanol

3.242min (+ 0.007) 157.83 ug/L

response 6984

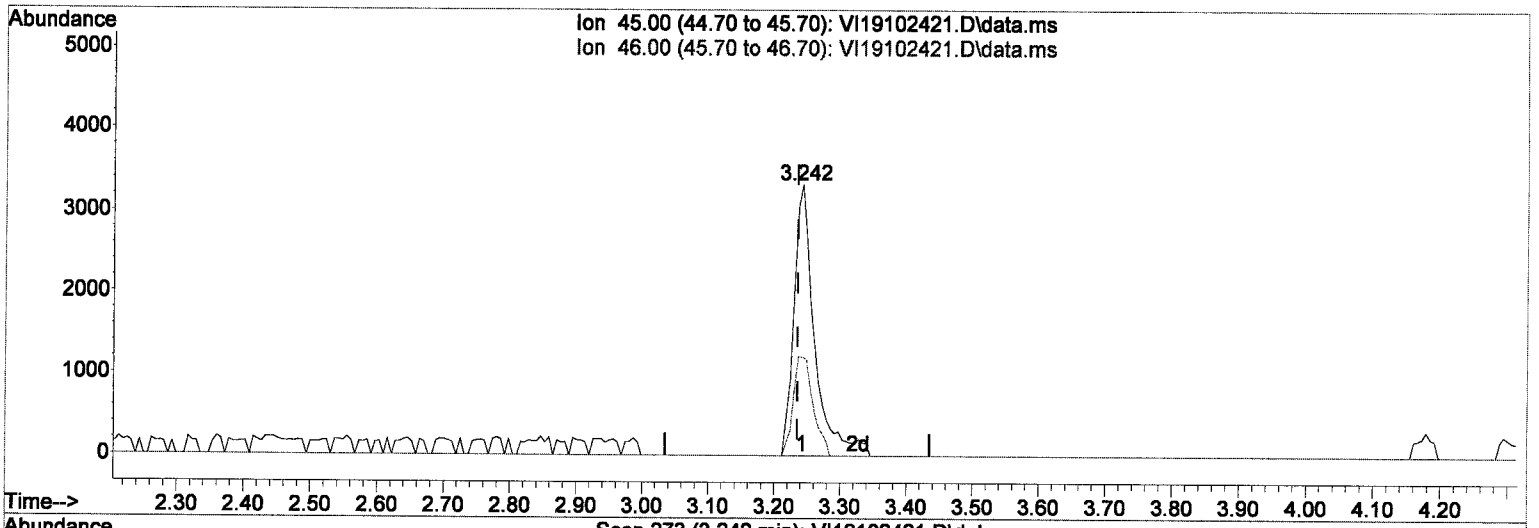
M.2.

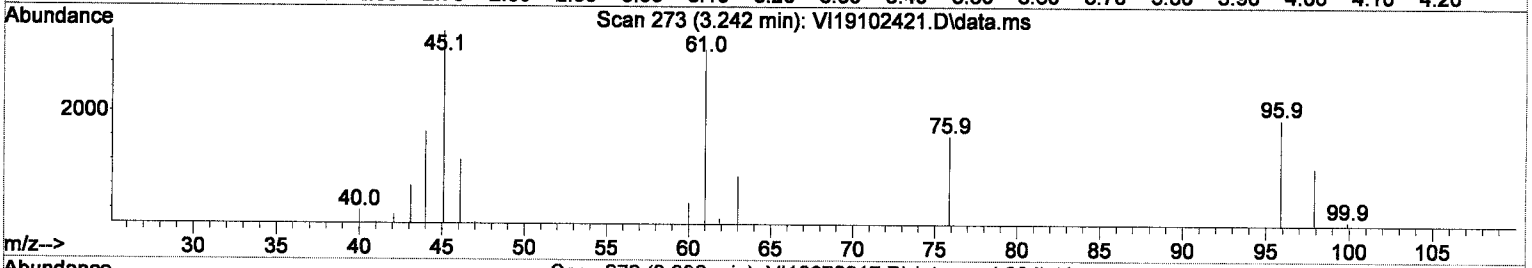
Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	36.12
0.00	0.00	0.00
0.00	0.00	0.00

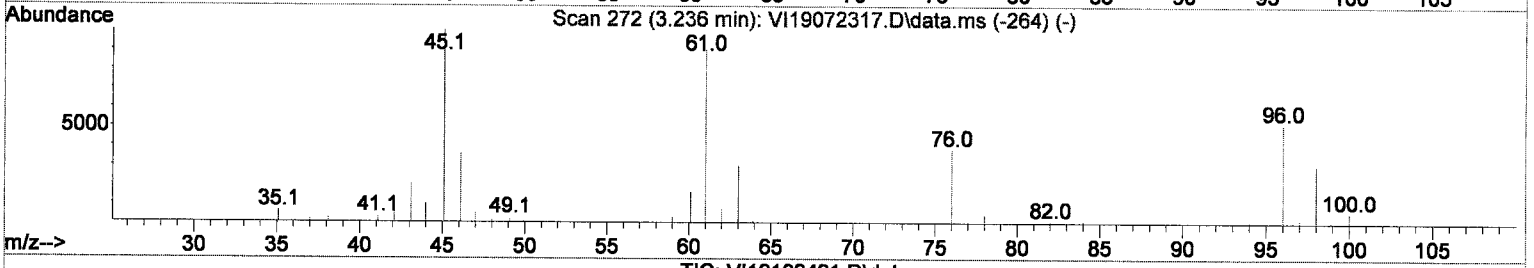
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102421.D
Acq On : 24 Oct 2019 5:42 pm
Operator : MM
Sample : 9J24043-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:26 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration







TIC: VI19102421.D\data.ms

(8) Ethanol

3.242min (+ 0.007) 163.37 ug/L m

response 7229

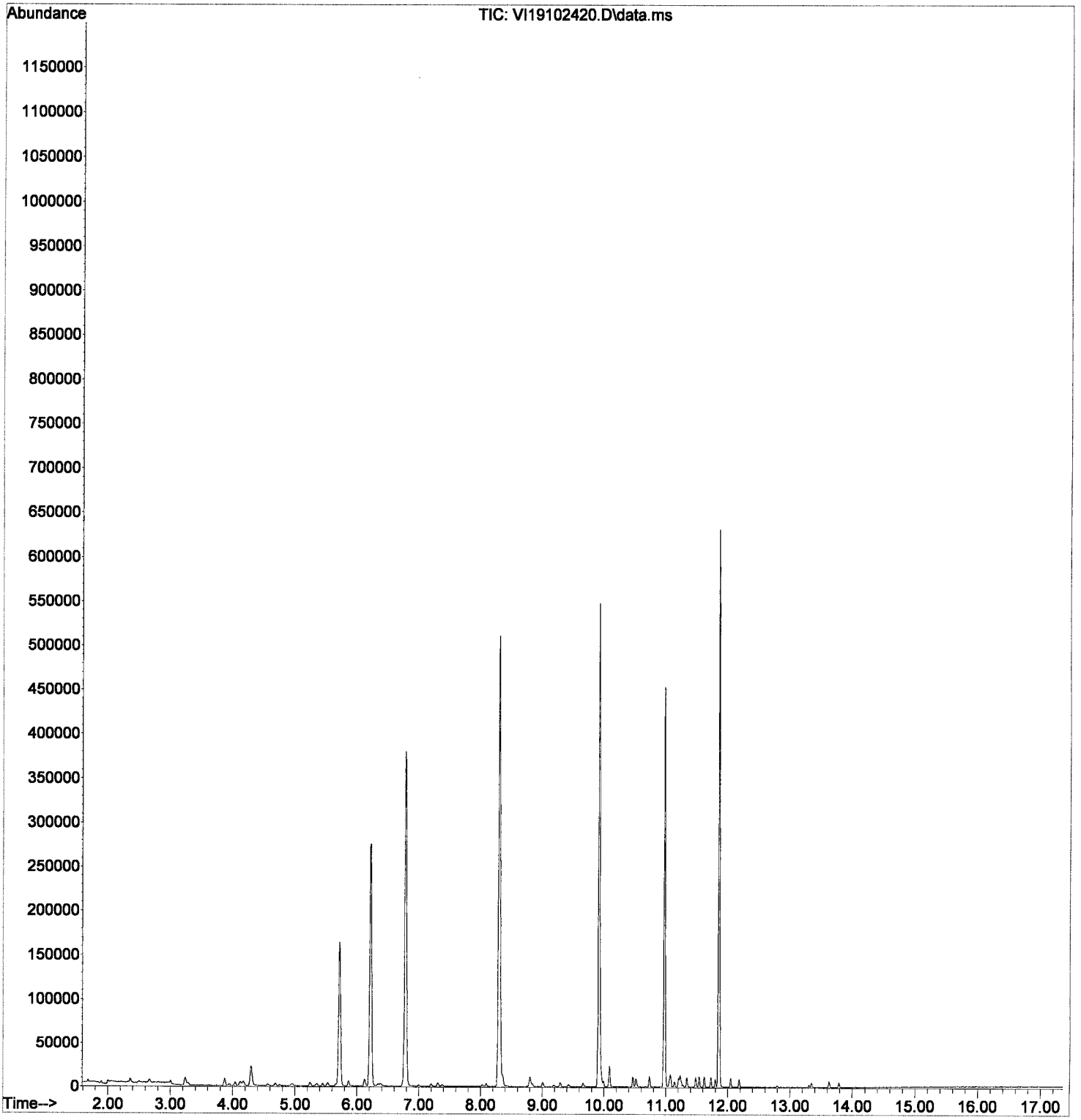
Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	36.12
0.00	0.00	0.00
0.00	0.00	0.00

M 10/25/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102420.D
Acq On : 24 Oct 2019 5:15 pm
Operator : MM
Sample : 9J24043-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:23 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102421.D
Acq On : 24 Oct 2019 5:42 pm
Operator : MM
Sample : 9J24043-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

MM 10/25/19

Quant Time: Oct 25 08:10:26 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	110790	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.916	117	297754	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	139582	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.718	111	108776	47.86	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	347212	54.71	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	395017	51.39	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	115163	51.29	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	3731	1.71	ug/L		97
3) Chloromethane	1.904	50	4743	1.85	ug/L		90
4) Vinyl Chloride	2.007	62	5030	2.20	ug/L		95
5) Bromomethane	2.372	96	3140	1.78	ug/L		93
6) Chloroethane	2.524	64	2540	2.19	ug/L		82
7) Trichlorofluoromethane	2.682	101	5667	1.55	ug/L		97
8) Ethanol	3.242	45	~~6984~~ 7129	157.83	ug/L		83
9) 1,1-Dichloroethene	3.242	61	5263	1.88	ug/L		96
10) Carbon Disulfide	3.260	76	9757	2.13	ug/L		99
11) Freon 113	3.297	101	3803	2.08	ug/L		95
12) Iodomethane	~~3.400~~	~~142~~	~~130~~	5.22	ug/L	#	47
13) Acrolein	3.625	56	927	2.34	ug/L		71
14) Methylene Chloride	3.881	84	6151	Below Cal			89
15) Acetone	3.948	43	4523	4.74	ug/L		93
16) t-1,2-Dichloroethene	4.051	61	5503	2.20	ug/L		91
17) n-Hexane	4.130	86	709	2.31	ug/L	#	84
18) Methyl-tert-butyl-ether	4.173	73	11957	2.16	ug/L		93
19) tert-Butanol (TBA)	4.301	59	58093	169.62	ug/L		94
20) Diisopropyl ether (DIPE)	4.568	45	3305	0.59	ug/L		95
21) 1,1-Dichloroethane	4.690	63	7227	2.05	ug/L		100
22) Acrylonitrile	4.763	53	1949	1.87	ug/L		96
23) Ethyl-tert-butyl ether...	4.939	59	3145	0.63	ug/L		96
24) Vinyl Acetate	4.964	43	7854	1.87	ug/L		99
25) c-1,2-Dichloroethene	5.250	61	5568	2.02	ug/L		93
26) 2,2-Dichloropropane	5.353	77	4776	1.94	ug/L		95
27) Bromochloromethane	5.456	130	2679	1.97	ug/L		99
28) Chloroform	5.536	83	7277	1.92	ug/L		99
29) Carbon Tetrachloride	5.663	117	4001	1.54	ug/L		98
30) Tetrahydrofuran	5.706	42	2045	2.23	ug/L		88
31) 1,1,1-Trichloroethane	5.736	97	5937	1.90	ug/L		97
33) 1,1-Dichloropropene	5.870	75	5724	2.28	ug/L		95
34) 2-Butanone (MEK)	5.870	43	6243	4.29	ug/L		98
35) Benzene	6.126	78	17935	2.38	ug/L		94
36) tert-Amyl methyl ether...	6.247	73	2996	0.60	ug/L		72
37) 1,2-Dichloroethane (EDC)	6.345	62	5726	1.86	ug/L		98
38) iso-Butyl Alcohol	6.381	43	7968	60.45	ug/L		93
40) Trichloroethene (TCE)	6.746	130	4576	2.38	ug/L		95
41) Tert-Amyl-Ethyl-Ether ...	7.002	59	2147	0.68	ug/L		90
42) Dibromomethane	7.202	93	2755	2.01	ug/L		88
43) 1,2-Dichloropropane	7.312	63	4373	2.13	ug/L		93
44) Bromodichloromethane	7.385	83	4681	1.70	ug/L		94
46) 2-Chloroethyl Vinyl Ether	8.030	63	2589	2.82	ug/L	#	100
47) c-1,3-Dichloropropene	8.091	75	5578	1.98	ug/L		90

Qual

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102421.D
Acq On : 24 Oct 2019 5:42 pm
Operator : MM
Sample : 9J24043-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:26 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

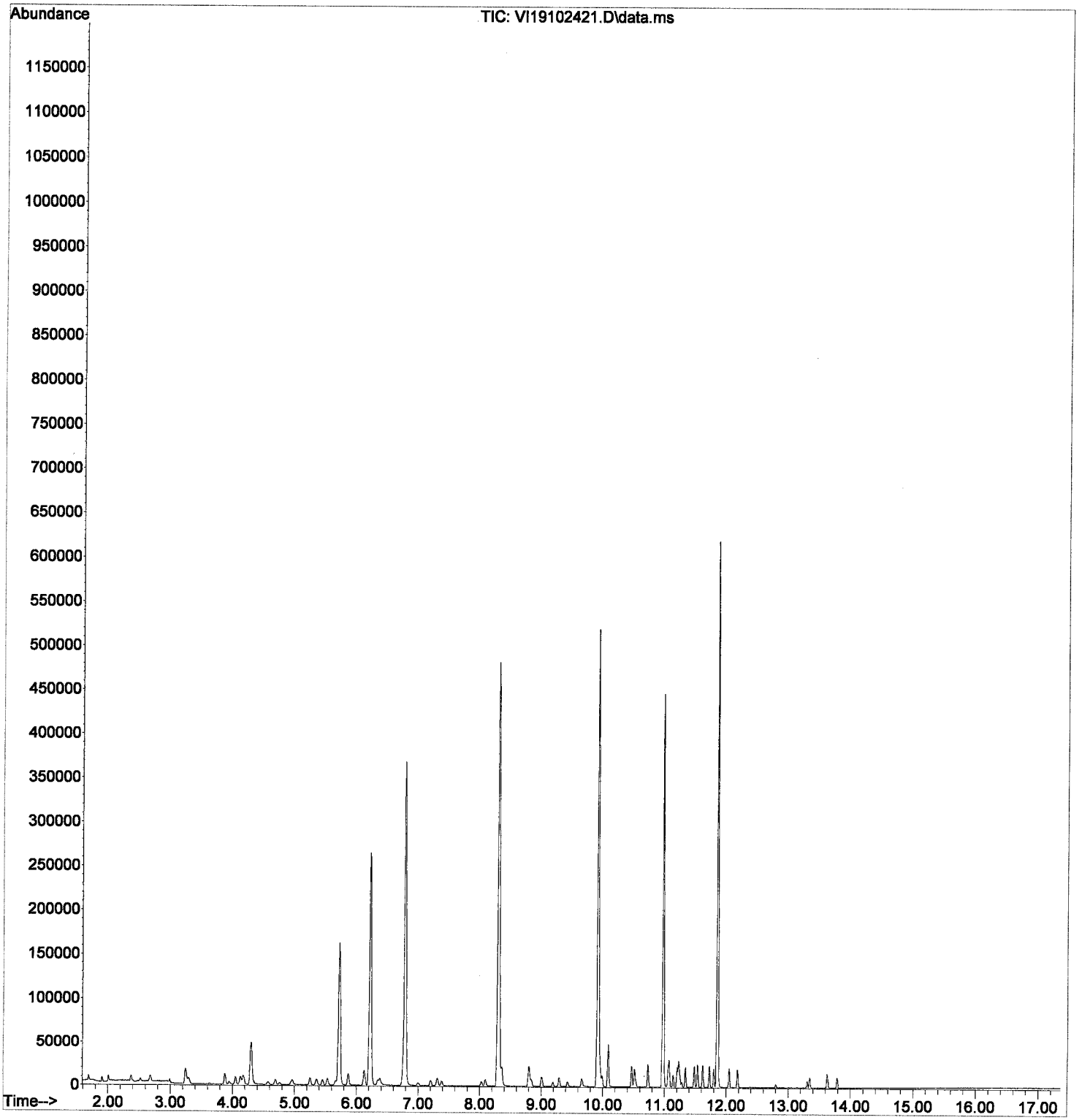
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	17851	2.14	ug/L		99
50) Tetrachloroethene (PCE)	8.796	166	4333	2.28	ug/L		92
51) 4-Methyl-2-Pentanone (...	8.809	43	11029	4.18	ug/L		98
52) t-1,3-Dichloropropene	8.839	75	4500	1.60	ug/L		95
53) 1,1,2-Trichloroethane	9.003	97	4134	2.06	ug/L		93
54) Dibromochloromethane	9.192	129	3038	1.44	ug/L		91
55) 1,3-Dichloropropane	9.289	76	6889	2.05	ug/L		90
56) 1,2-Dibromoethane (EDB)	9.429	107	4499	2.18	ug/L		100
57) 2-Hexanone	9.660	43	7610	3.99	ug/L		92
58) Chlorobenzene	9.928	112	11701	2.22	ug/L		98
59) Ethylbenzene	9.952	91	19157	2.20	ug/L		95
60) 1,1,1,2-Tetrachloroethane	9.989	131	2985	1.63	ug/L		94
61) m,p-Xylenes (2)	10.086	91	27092	4.47	ug/L		98
62) o-Xylene	10.469	91	13605	2.31	ug/L		96
63) Styrene	10.518	104	10363	2.35	ug/L		98
64) Bromoform	10.536	173	1771	1.19	ug/L		90
65) Isopropylbenzene	10.731	105	16325	2.39	ug/L		97
68) Bromobenzene	11.059	156	4634	2.30	ug/L		83
69) n-Propylbenzene	11.078	91	19292	2.21	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.139	85	4008	2.20	ug/L		91
71) 2-Chlorotoluene	11.205	126	4172	2.40	ug/L		98
72) 1,3,5-Trimethylbenzene	11.230	105	13089	2.24	ug/L		97
73) 1,2,3-Trichloropropane	11.248	110	1935	2.17	ug/L		93
74) t-1,4-Dichloro-2-butene	11.278	53	1313	1.90	ug/L	#	50
75) 4-Chlorotoluene	11.339	91	11718	2.26	ug/L		99
76) tert-Butylbenzene	11.485	91	7395	2.30	ug/L		98
77) 1,2,4-Trimethylbenzene	11.534	105	12974	2.38	ug/L		98
78) sec-Butylbenzene	11.619	105	15756	2.25	ug/L		99
79) 4-Isopropyltoluene	11.729	119	12523	2.53	ug/L		97
80) 1,3-Dichlorobenzene	11.802	146	7718	2.18	ug/L		97
81) 1,4-Dichlorobenzene	11.862	146	8550	2.20	ug/L		91
82) n-Butylbenzene	12.045	91	10626	2.18	ug/L		98
83) 1,2-Dichlorobenzene	12.185	146	7854	2.32	ug/L		97
84) 1,2-Dibromo-3-Chloropr...	12.799	157	1006	1.90	ug/L		77
85) Hexachlorobutadiene	13.304	223	963	2.05	ug/L		87
86) 1,2,4-Trichlorobenzene	13.341	180	4043	2.51	ug/L		89
87) Naphthalene	13.627	128	12724	2.92	ug/L		97
88) 1,2,3-Trichlorobenzene	13.785	180	4073	2.58	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102421.D
Acq On : 24 Oct 2019 5:42 pm
Operator : MM
Sample : 9J24043-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:26 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102422.D
Acq On : 24 Oct 2019 6:09 pm
Operator : MM
Sample : 9J24043-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

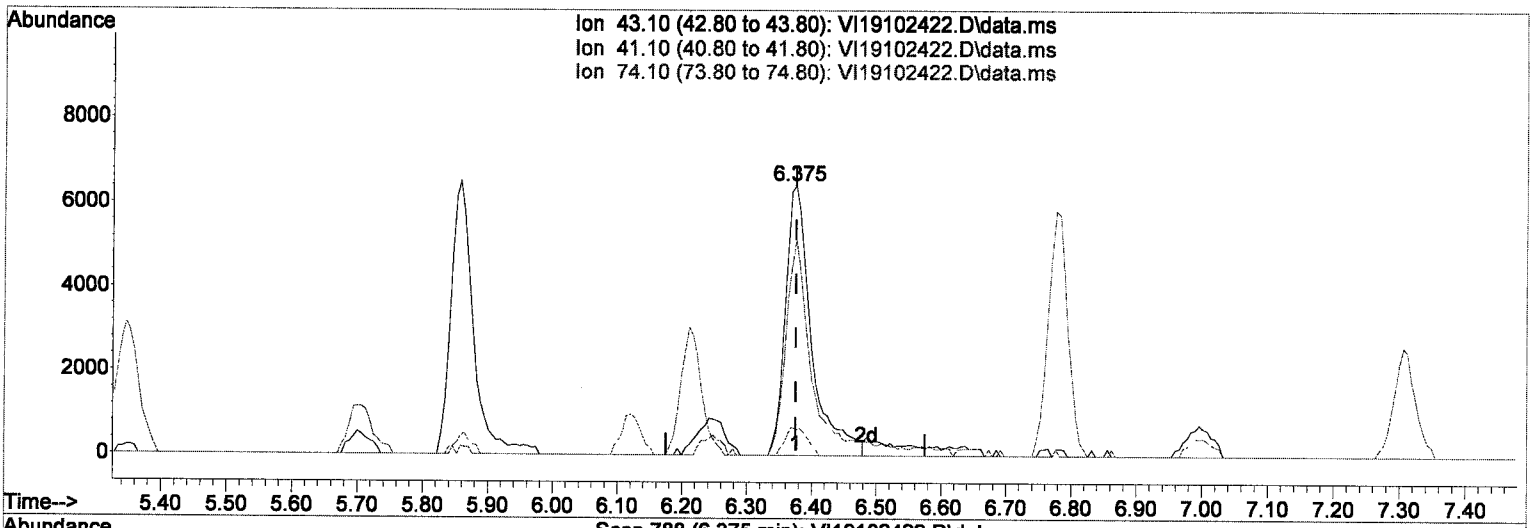
Quant Time: Oct 25 08:10:29 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

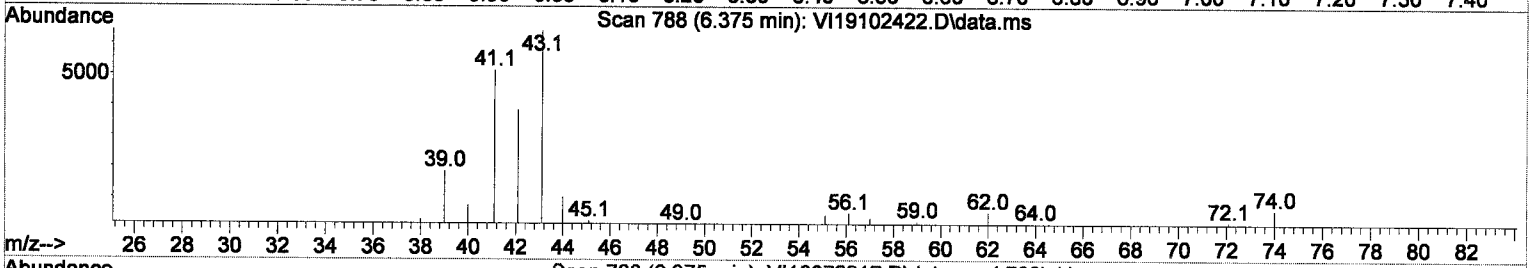
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.211	99	111010	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.910	117	300317	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	141843	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	109232	47.97	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.777	114	353918	55.65	ug/L		-0.01
48) Toluene-d8 (S)	8.297	98	397005	51.21	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	115652	50.69	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.679	85	9010	4.13	ug/L		98
3) Chloromethane	1.891	50	11370	4.42	ug/L		96
4) Vinyl Chloride	1.995	62	12653	5.52	ug/L		96
5) Bromomethane	2.360	96	7782	4.40	ug/L		97
6) Chloroethane	2.506	64	5899	5.07	ug/L		79
7) Trichlorofluoromethane	2.664	101	14236	3.89	ug/L		96
8) Ethanol	3.230	45	17243	388.90	ug/L		85
9) 1,1-Dichloroethene	3.230	61	13321	4.75	ug/L		93
10) Carbon Disulfide	3.248	76	24060	5.23	ug/L		98
11) Freon 113	3.291	101	9544	5.22	ug/L		91
12) Iodomethane	3.382	142	916	6.05	ug/L	#	79
13) Acrolein	3.619	56	2465	6.22	ug/L		88
14) Methylene Chloride	3.869	84	12549	2.62	ug/L		87
15) Acetone	3.942	43	10355	10.83	ug/L		98
16) t-1,2-Dichloroethene	4.039	61	13685	5.45	ug/L		96
17) n-Hexane	4.118	86	1836	5.97	ug/L		92
18) Methyl-tert-butyl-ether	4.167	73	29908	5.40	ug/L		93
19) tert-Butanol (TBA)	4.288	59	143817	419.08	ug/L		97
20) Diisopropyl ether (DIPE)	4.568	45	8576	1.52	ug/L		93
21) 1,1-Dichloroethane	4.684	63	18307	5.17	ug/L		95
22) Acrylonitrile	4.751	53	5426	5.19	ug/L		98
23) Ethyl-tert-butyl ether...	4.939	59	8071	1.61	ug/L		98
24) Vinyl Acetate	4.958	43	20467	4.86	ug/L		97
25) c-1,2-Dichloroethene	5.244	61	13959	5.05	ug/L		90
26) 2,2-Dichloropropane	5.353	77	11793	4.78	ug/L		98
27) Bromochloromethane	5.444	130	7172	5.26	ug/L		96
28) Chloroform	5.529	83	18186	4.79	ug/L		96
29) Carbon Tetrachloride	5.657	117	9957	3.83	ug/L		96
30) Tetrahydrofuran	5.706	42	5112	5.57	ug/L		83
31) 1,1,1-Trichloroethane	5.730	97	14957	4.77	ug/L		94
33) 1,1-Dichloropropene	5.864	75	14423	5.74	ug/L		94
34) 2-Butanone (MEK)	5.858	43	15638	10.72	ug/L		94
35) Benzene	6.120	78	43404	5.74	ug/L		97
36) tert-Amyl methyl ether...	6.247	73	7445	1.48	ug/L		89
37) 1,2-Dichloroethane (EDC)	6.339	62	14359	4.65	ug/L		90
38) iso-Butyl Alcohol	6.375	43	~~18074~~ 20710	136.86	ug/L		98
40) Trichloroethene (TCE)	6.740	130	11340	5.89	ug/L		97
41) Tert-Amyl-Ethyl-Ether ...	6.996	59	5331	1.68	ug/L		83
42) Dibromomethane	7.196	93	7023	5.12	ug/L		97
43) 1,2-Dichloropropane	7.306	63	10897	5.31	ug/L		88
44) Bromodichloromethane	7.379	83	12021	4.36	ug/L		95
46) 2-Chloroethyl Vinyl Ether	8.024	63	7592	6.83	ug/L	#	100
47) c-1,3-Dichloropropene	8.091	75	14229	5.00	ug/L		87

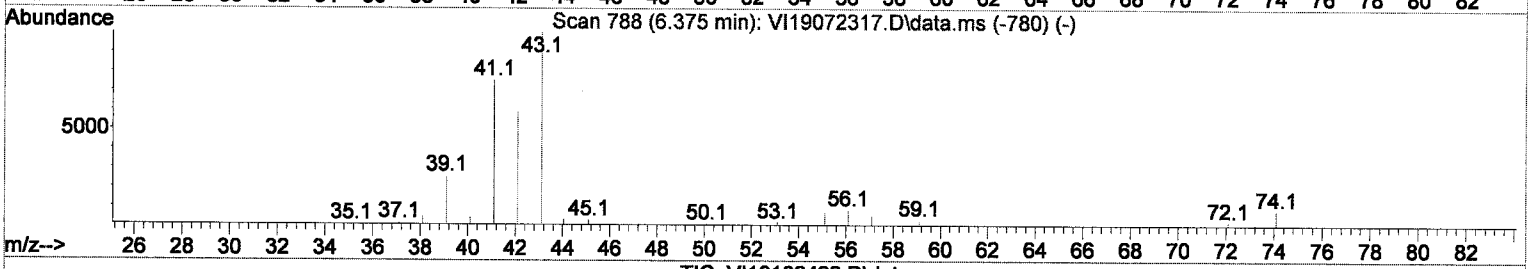
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102422.D
Acq On : 24 Oct 2019 6:09 pm
Operator : MM
Sample : 9J24043-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:29 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration







TIC: VI19102422.D\data.ms

(38) iso-Butyl Alcohol

6.375min (+ 0.000) 136.86 ug/L

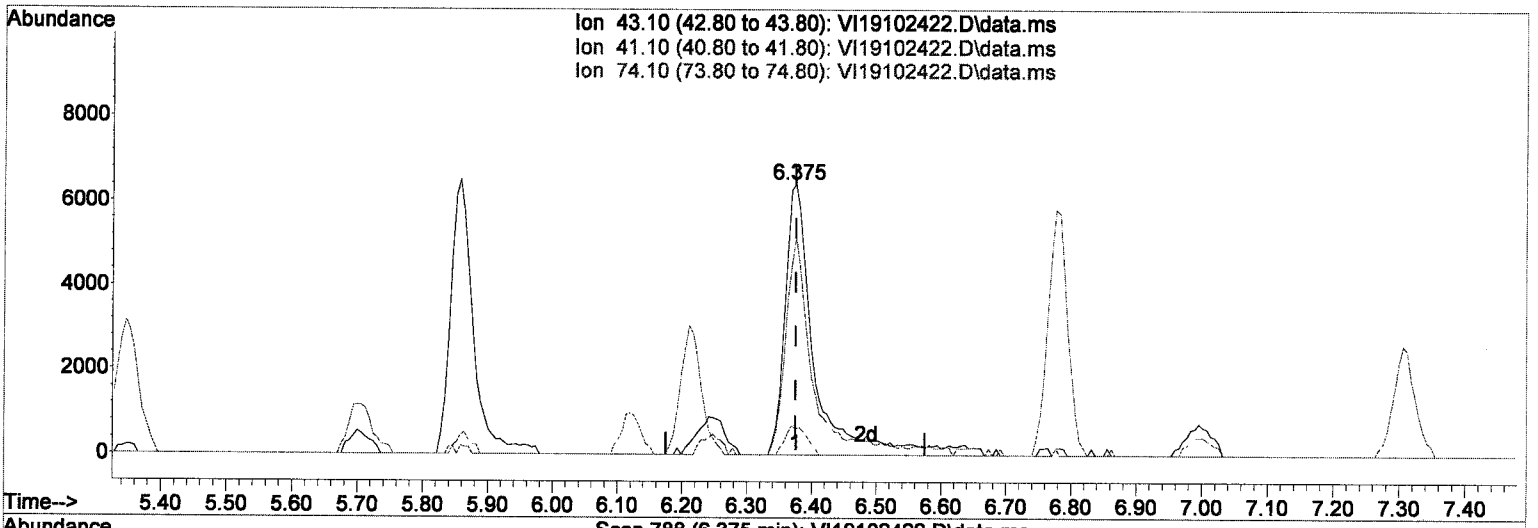
response 18074

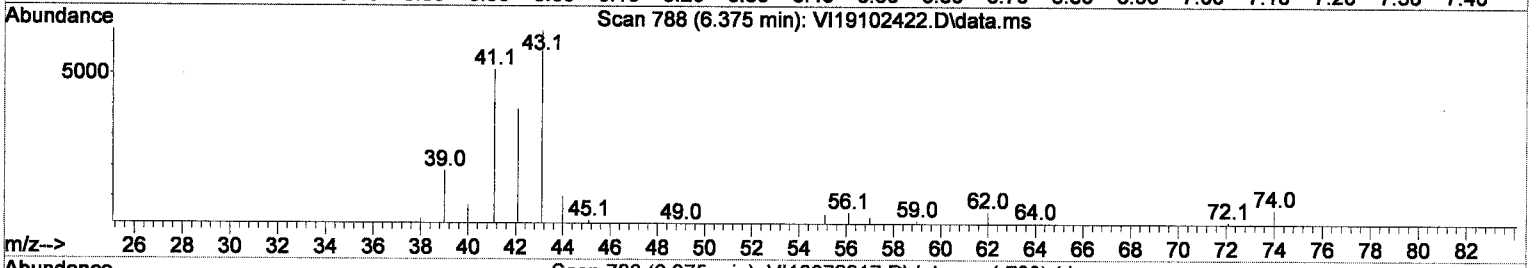
Ion	Exp%	Act%
43.10	100.00	100.00
41.10	78.60	80.03
74.10	11.20	9.63
0.00	0.00	0.00

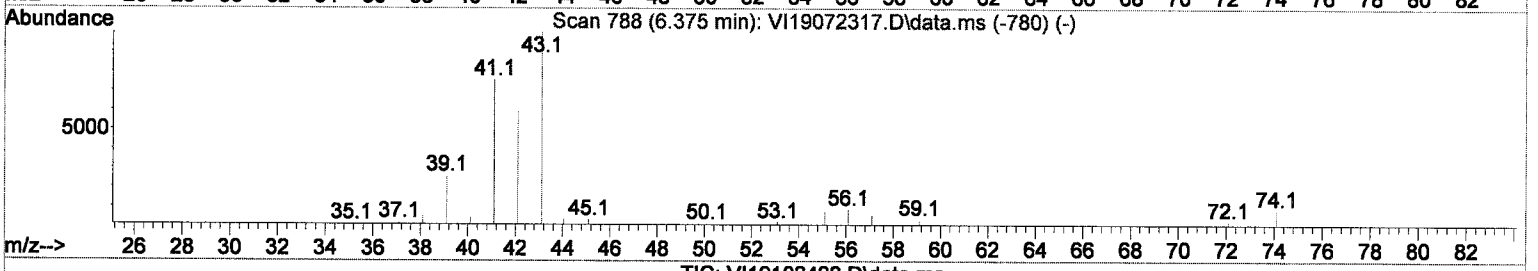
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102422.D
Acq On : 24 Oct 2019 6:09 pm
Operator : MM
Sample : 9J24043-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:29 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration







TIC: VI19102422.D\data.ms

(38) iso-Butyl Alcohol

6.375min (+ 0.000) 156.81 ug/L m

response 20710

Ion	Exp%	Act%
43.10	100.00	100.00
41.10	78.60	80.03
74.10	11.20	9.63
0.00	0.00	0.00

M 10/25/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102422.D
Acq On : 24 Oct 2019 6:09 pm
Operator : MM
Sample : 9J24043-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:29 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

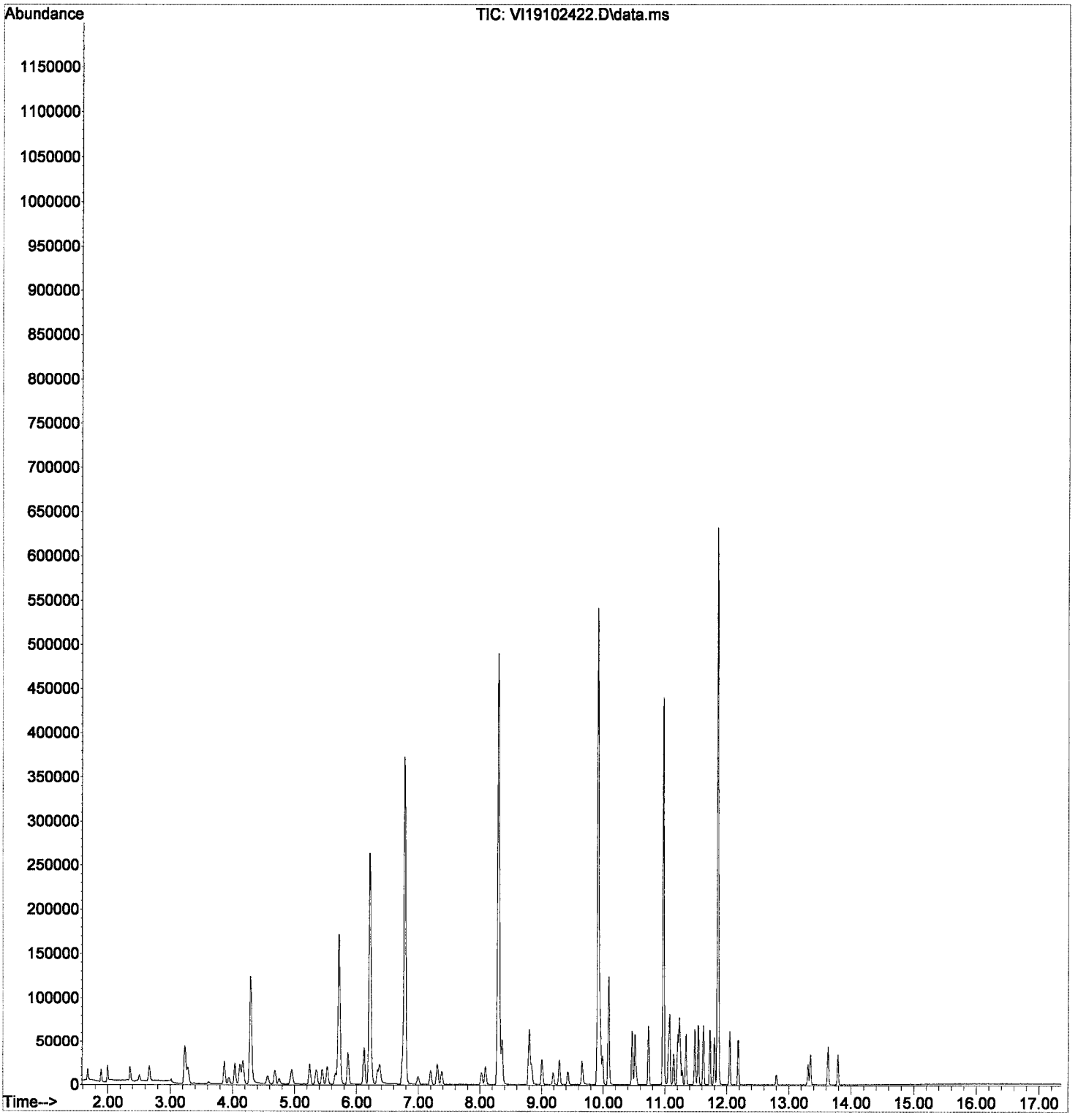
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	44272	5.27	ug/L		100
50) Tetrachloroethene (PCE)	8.796	166	10847	5.65	ug/L		90
51) 4-Methyl-2-Pentanone (...	8.796	43	28183	10.59	ug/L		97
52) t-1,3-Dichloropropene	8.839	75	12130	4.29	ug/L		98
53) 1,1,2-Trichloroethane	9.003	97	10336	5.11	ug/L		93
54) Dibromochloromethane	9.186	129	8016	3.77	ug/L		99
55) 1,3-Dichloropropane	9.289	76	17551	5.18	ug/L		88
56) 1,2-Dibromoethane (EDB)	9.423	107	11270	5.42	ug/L		98
57) 2-Hexanone	9.654	43	19724	10.24	ug/L		92
58) Chlorobenzene	9.928	112	29555	5.55	ug/L		97
59) Ethylbenzene	9.952	91	46860	5.34	ug/L		98
60) 1,1,1,2-Tetrachloroethane	9.989	131	7981	4.33	ug/L		94
61) m,p-Xylenes (2)	10.086	91	68847	11.15	ug/L		99
62) o-Xylene	10.463	91	34456	5.68	ug/L		99
63) Styrene	10.512	104	26739	5.76	ug/L		98
64) Bromoform	10.536	173	4690	3.11	ug/L		97
65) Isopropylbenzene	10.731	105	41801	5.88	ug/L		99
68) Bromobenzene	11.059	156	11623	5.69	ug/L		87
69) n-Propylbenzene	11.072	91	48000	5.40	ug/L		98
70) 1,1,2,2-Tetrachloroethane	11.139	85	9843	5.31	ug/L		96
71) 2-Chlorotoluene	11.205	126	10150	5.76	ug/L		90
72) 1,3,5-Trimethylbenzene	11.230	105	33314	5.62	ug/L		97
73) 1,2,3-Trichloropropane	11.248	110	4862	5.37	ug/L		96
74) t-1,4-Dichloro-2-butene	11.278	53	3293	4.68	ug/L	#	57
75) 4-Chlorotoluene	11.339	91	30239	5.73	ug/L		95
76) tert-Butylbenzene	11.479	91	18808	5.76	ug/L		94
77) 1,2,4-Trimethylbenzene	11.540	105	34216	6.04	ug/L		97
78) sec-Butylbenzene	11.619	105	40240	5.67	ug/L		98
79) 4-Isopropyltoluene	11.729	119	33176	6.39	ug/L		99
80) 1,3-Dichlorobenzene	11.796	146	19712	5.49	ug/L		98
81) 1,4-Dichlorobenzene	11.862	146	20421	5.17	ug/L		94
82) n-Butylbenzene	12.045	91	28526	5.77	ug/L		98
83) 1,2-Dichlorobenzene	12.185	146	19460	5.65	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	12.799	157	2728	5.06	ug/L		90
85) Hexachlorobutadiene	13.304	223	2715	5.67	ug/L		94
86) 1,2,4-Trichlorobenzene	13.347	180	11114	6.78	ug/L		93
87) Naphthalene	13.627	128	32892	6.76	ug/L		97
88) 1,2,3-Trichlorobenzene	13.785	180	10402	6.49	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102422.D
Acq On : 24 Oct 2019 6:09 pm
Operator : MM
Sample : 9J24043-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:29 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102423.D
Acq On : 24 Oct 2019 6:36 pm
Operator : MM
Sample : 9J24043-CAL7
Misc : 1X 5mL 10/20PPB VOCR
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:32 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	117608	50.00	ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.909	117	312833	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	149215	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.712	111	113697	47.13	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.782	114	367409	54.53	ug/L	0.00
48) Toluene-d8 (S)	8.297	98	415174	51.41	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	121121	50.47	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.678	85	18118	7.84	ug/L	99
3) Chloromethane	1.897	50	22449	8.25	ug/L	98
4) Vinyl Chloride	2.001	62	25149	10.35	ug/L	96
5) Bromomethane	2.360	96	14678	7.84	ug/L	99
6) Chloroethane	2.500	64	11813	9.58	ug/L	80
7) Trichlorofluoromethane	2.664	101	29038	7.49	ug/L	94
8) Ethanol	3.236	45	34617	736.96	ug/L	86
9) 1,1-Dichloroethene	3.230	61	27243	9.18	ug/L	93
10) Carbon Disulfide	3.248	76	49011	10.06	ug/L	98
11) Freon 113	3.284	101	19612	10.13	ug/L	99
12) Iodomethane	3.388	142	3125	8.20	ug/L	93
13) Acrolein	3.619	56	4855	11.57	ug/L	76
14) Methylene Chloride	3.868	84	22701	7.47	ug/L	90
15) Acetone	3.941	43	19796	19.53	ug/L	95
16) t-1,2-Dichloroethene	4.039	61	27372	10.29	ug/L	93
17) n-Hexane	4.124	86	4034	12.37	ug/L	92
18) Methyl-tert-butyl-ether	4.167	73	61557	10.49	ug/L	95
19) tert-Butanol (TBA)	4.294	59	292252	803.84	ug/L	99
20) Diisopropyl ether (DIPE)	4.568	45	17135	2.87	ug/L	96
21) 1,1-Dichloroethane	4.684	63	36999	9.87	ug/L	97
22) Acrylonitrile	4.744	53	11383	10.28	ug/L	91
23) Ethyl-tert-butyl ether...	4.939	59	16756	3.15	ug/L	98
24) Vinyl Acetate	4.957	43	42656	9.56	ug/L	97
25) c-1,2-Dichloroethene	5.243	61	28723	9.81	ug/L	90
26) 2,2-Dichloropropane	5.353	77	23663	9.05	ug/L	99
27) Bromochloromethane	5.450	130	14961	10.35	ug/L	91
28) Chloroform	5.529	83	37799	9.40	ug/L	97
29) Carbon Tetrachloride	5.657	117	20840	7.56	ug/L	94
30) Tetrahydrofuran	5.700	42	10375	10.67	ug/L	83
31) 1,1,1-Trichloroethane	5.736	97	30210	9.09	ug/L	97
33) 1,1-Dichloropropene	5.864	75	29295	11.00	ug/L	95
34) 2-Butanone (MEK)	5.858	43	31158	20.17	ug/L	96
35) Benzene	6.119	78	87359	10.91	ug/L	96
36) tert-Amyl methyl ether...	6.247	73	15349	2.88	ug/L	94
37) 1,2-Dichloroethane (EDC)	6.338	62	28935	8.85	ug/L	92
38) iso-Butyl Alcohol	6.375	43	39286	280.78	ug/L	94
40) Trichloroethene (TCE)	6.740	130	23449	11.49	ug/L	96
41) Tert-Amyl-Ethyl-Ether ...	7.001	59	11032	3.28	ug/L	85
42) Dibromomethane	7.196	93	14594	10.04	ug/L	95
43) 1,2-Dichloropropane	7.312	63	21915	10.08	ug/L	94
44) Bromodichloromethane	7.379	83	25055	8.58	ug/L	99
46) 2-Chloroethyl Vinyl Ether	8.023	63	15685	12.76	ug/L #	100
47) c-1,3-Dichloropropene	8.090	75	30482	10.29	ug/L	89

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102423.D
Acq On : 24 Oct 2019 6:36 pm
Operator : MM
Sample : 9J24043-CAL7
Misc : 1X 5mL 10/20PPB VOCR
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:32 2019
Quant Method : C:\msdchem\1\methods\~~VI191025W.~~M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

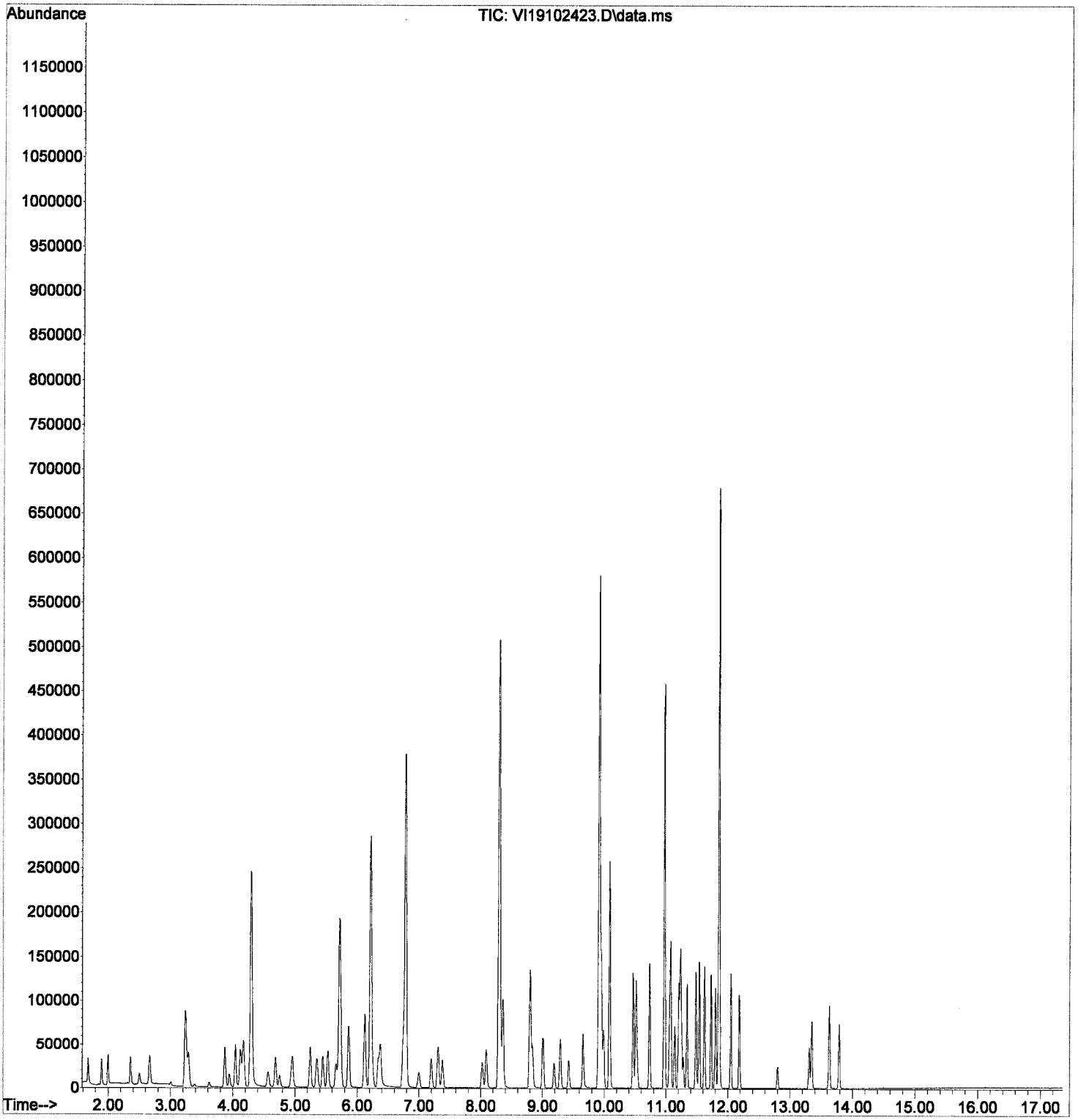
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	90400	10.33	ug/L		100
50) Tetrachloroethene (PCE)	8.796	166	22099	11.06	ug/L		92
51) 4-Methyl-2-Pentanone (...	8.802	43	58009	20.92	ug/L		92
52) t-1,3-Dichloropropene	8.839	75	26302	8.92	ug/L		96
53) 1,1,2-Trichloroethane	9.009	97	21402	10.15	ug/L		91
54) Dibromochloromethane	9.192	129	17208	7.78	ug/L		98
55) 1,3-Dichloropropane	9.289	76	36354	10.31	ug/L		92
56) 1,2-Dibromoethane (EDB)	9.423	107	22884	10.57	ug/L		92
57) 2-Hexanone	9.654	43	41881	20.88	ug/L		91
58) Chlorobenzene	9.928	112	60359	10.89	ug/L		98
59) Ethylbenzene	9.952	91	96018	10.49	ug/L		97
60) 1,1,1,2-Tetrachloroethane	9.988	131	16995	8.86	ug/L		94
61) m,p-Xylenes (2)	10.086	91	142004	21.90	ug/L		100
62) o-Xylene	10.463	91	71417	11.16	ug/L		99
63) Styrene	10.512	104	57022	11.55	ug/L		96
64) Bromoform	10.536	173	10701	6.82	ug/L		97
65) Isopropylbenzene	10.731	105	86673	11.50	ug/L		99
68) Bromobenzene	11.059	156	24222	11.27	ug/L		89
69) n-Propylbenzene	11.071	91	99009	10.59	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.138	85	20098	10.31	ug/L		97
71) 2-Chlorotoluene	11.205	126	21625	11.66	ug/L		93
72) 1,3,5-Trimethylbenzene	11.230	105	69892	11.21	ug/L		98
73) 1,2,3-Trichloropropane	11.248	110	10162	10.68	ug/L		92
74) t-1,4-Dichloro-2-butene	11.278	53	6985	9.43	ug/L	#	66
75) 4-Chlorotoluene	11.339	91	61742	11.13	ug/L		98
76) tert-Butylbenzene	11.479	91	38411	11.19	ug/L		96
77) 1,2,4-Trimethylbenzene	11.534	105	70882	11.77	ug/L		98
78) sec-Butylbenzene	11.619	105	83977	11.24	ug/L		99
79) 4-Isopropyltoluene	11.728	119	68628	12.35	ug/L		98
80) 1,3-Dichlorobenzene	11.795	146	41299	10.93	ug/L		98
81) 1,4-Dichlorobenzene	11.862	146	42771	10.30	ug/L		96
82) n-Butylbenzene	12.045	91	59515	11.45	ug/L		98
83) 1,2-Dichlorobenzene	12.179	146	40125	11.07	ug/L		99
84) 1,2-Dibromo-3-Chloropr...	12.799	157	6234	10.99	ug/L		83
85) Hexachlorobutadiene	13.304	223	5468	10.86	ug/L		93
86) 1,2,4-Trichlorobenzene	13.347	180	23133	13.41	ug/L		99
87) Naphthalene	13.626	128	72324	13.49	ug/L		97
88) 1,2,3-Trichlorobenzene	13.785	180	22293	13.22	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102423.D
Acq On : 24 Oct 2019 6:36 pm
Operator : MM
Sample : 9J24043-CAL7
Misc : 1X 5mL 10/20PPB VOCR
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:32 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102424.D
Acq On : 24 Oct 2019 7:03 pm
Operator : MM
Sample : 9J24043-CAL8
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:35 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

MM 10/25/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.211	99	112406	50.00	ug/L	0.00
45) Chlorobenzene-d5 (I)	9.910	117	307093	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	151591	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.712	111	109549	47.51	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.777	114	354922	55.12	ug/L	-0.01
48) Toluene-d8 (S)	8.298	98	399810	50.43	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	120976	49.61	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.673	85	35982	16.29	ug/L	98
3) Chloromethane	1.892	50	45062	17.32	ug/L	97
4) Vinyl Chloride	1.995	62	49916	21.50	ug/L	96
5) Bromomethane	2.354	96	27599	15.42	ug/L	98
6) Chloroethane	2.488	64	19851	16.84	ug/L	80
7) Trichlorofluoromethane	2.658	101	58162	15.70	ug/L	96
8) Ethanol	3.230	45	70360	1567.21	ug/L	87
9) 1,1-Dichloroethene	3.230	61	54074	19.06	ug/L	94
10) Carbon Disulfide	3.242	76	98898	21.25	ug/L	98
11) Freon 113	3.279	101	39711	21.45	ug/L	97
12) Iodomethane	3.382	142	11472	16.74	ug/L	96
13) Acrolein	3.613	56	10458	26.07	ug/L	77
14) Methylene Chloride	3.869	84	43598	19.20	ug/L	88
15) Acetone	3.936	43	39380	40.66	ug/L	94
16) t-1,2-Dichloroethene	4.033	61	56066	22.05	ug/L	94
17) n-Hexane	4.118	86	8308	26.66	ug/L	95
18) Methyl-tert-butyl-ether	4.167	73	123669	22.05	ug/L	95
19) tert-Butanol (TBA)	4.289	59	614954	1769.71	ug/L	97
20) Diisopropyl ether (DIPE)	4.562	45	34871	6.10	ug/L	94
21) 1,1-Dichloroethane	4.678	63	75120	20.96	ug/L	96
22) Acrylonitrile	4.745	53	22973	21.71	ug/L	97
23) Ethyl-tert-butyl ether...	4.939	59	33471	6.59	ug/L	98
24) Vinyl Acetate	4.952	43	90141	21.14	ug/L	97
25) c-1,2-Dichloroethene	5.238	61	58359	20.86	ug/L	92
26) 2,2-Dichloropropane	5.347	77	48254	19.30	ug/L	97
27) Bromochloromethane	5.444	130	30935	22.39	ug/L	93
28) Chloroform	5.523	83	76239	19.85	ug/L	97
29) Carbon Tetrachloride	5.657	117	43938	16.68	ug/L	92
30) Tetrahydrofuran	5.700	42	21330	22.95	ug/L	89
31) 1,1,1-Trichloroethane	5.730	97	62000	19.52	ug/L	96
33) 1,1-Dichloropropene	5.858	75	59019	23.19	ug/L	96
34) 2-Butanone (MEK)	5.852	43	64474	43.67	ug/L	98
35) Benzene	6.120	78	175817	22.96	ug/L	96
36) tert-Amyl methyl ether...	6.247	73	30296	5.94	ug/L	96
37) 1,2-Dichloroethane (EDC)	6.339	62	58731	18.79	ug/L	91
38) iso-Butyl Alcohol	6.369	43	83527	624.61	ug/L	94
40) Trichloroethene (TCE)	6.740	130	47359	24.28	ug/L	92
41) Tert-Amyl-Ethyl-Ether ...	6.996	59	22696	7.05	ug/L	83
42) Dibromomethane	7.196	93	29514	21.24	ug/L	94
43) 1,2-Dichloropropane	7.306	63	44422	21.38	ug/L	92
44) Bromodichloromethane	7.379	83	51693	18.52	ug/L	94
46) 2-Chloroethyl Vinyl Ether	8.018	63	33274	26.29	ug/L #	100
47) c-1,3-Dichloropropene	8.091	75	64475	22.18	ug/L	87

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102424.D
Acq On : 24 Oct 2019 7:03 pm
Operator : MM
Sample : 9J24043-CAL8
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:35 2019
Quant Method : C:\msdchem\1\methods\~~VI191025~~W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

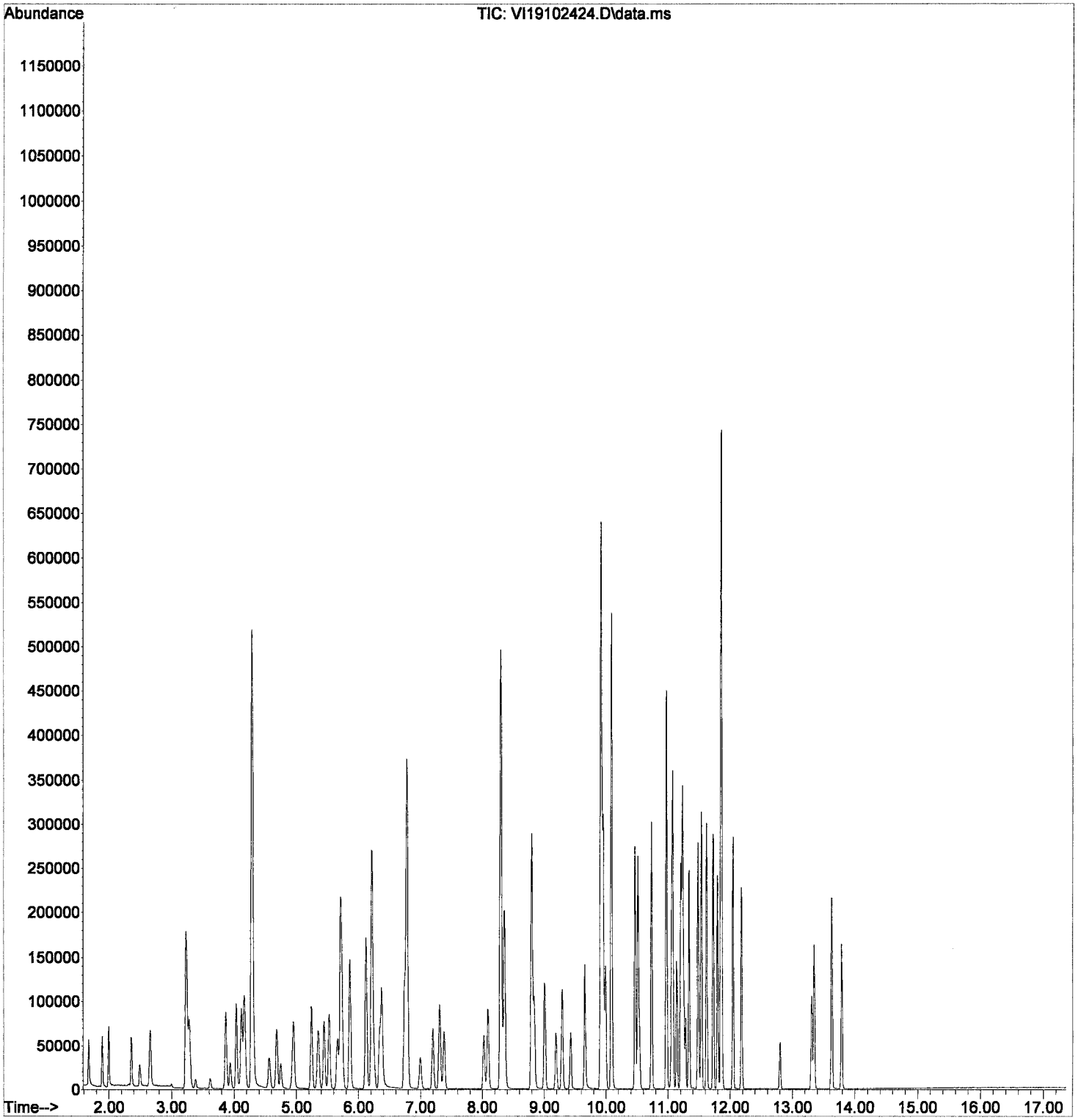
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	183309	21.33	ug/L		100
50) Tetrachloroethene (PCE)	8.796	166	45467	23.17	ug/L		91
51) 4-Methyl-2-Pentanone (...	8.796	43	120524	44.27	ug/L		94
52) t-1,3-Dichloropropene	8.833	75	57085	19.72	ug/L		96
53) 1,1,2-Trichloroethane	9.003	97	43171	20.86	ug/L		95
54) Dibromochloromethane	9.186	129	36932	17.00	ug/L		99
55) 1,3-Dichloropropane	9.289	76	73700	21.29	ug/L		92
56) 1,2-Dibromoethane (EDB)	9.423	107	46797	22.02	ug/L		95
57) 2-Hexanone	9.654	43	87528	44.45	ug/L		92
58) Chlorobenzene	9.928	112	120984	22.23	ug/L		99
59) Ethylbenzene	9.952	91	195460	21.76	ug/L		96
60) 1,1,1,2-Tetrachloroethane	9.989	131	36336	19.29	ug/L		96
61) m,p-Xylenes (2)	10.086	91	297066	46.05	ug/L		100
62) o-Xylene	10.463	91	149422	23.36	ug/L		99
63) Styrene	10.512	104	120205	24.26	ug/L		98
64) Bromoform	10.536	173	23844	15.48	ug/L		97
65) Isopropylbenzene	10.731	105	182751	24.16	ug/L		100
68) Bromobenzene	11.060	156	50013	22.90	ug/L		89
69) n-Propylbenzene	11.072	91	210703	22.19	ug/L		100
70) 1,1,2,2-Tetrachloroethane	11.139	85	41819	21.12	ug/L		95
71) 2-Chlorotoluene	11.206	126	45664	24.23	ug/L		95
72) 1,3,5-Trimethylbenzene	11.230	105	148694	23.48	ug/L		98
73) 1,2,3-Trichloropropane	11.248	110	20199	20.89	ug/L		96
74) t-1,4-Dichloro-2-butene	11.279	53	14515	19.29	ug/L	#	73
75) 4-Chlorotoluene	11.339	91	129933	23.05	ug/L		99
76) tert-Butylbenzene	11.479	91	81742	23.44	ug/L		95
77) 1,2,4-Trimethylbenzene	11.534	105	151018	24.30	ug/L		97
78) sec-Butylbenzene	11.619	105	180894	23.84	ug/L		99
79) 4-Isopropyltoluene	11.729	119	151382	26.15	ug/L		97
80) 1,3-Dichlorobenzene	11.796	146	86247	22.48	ug/L		98
81) 1,4-Dichlorobenzene	11.863	146	89594	21.23	ug/L		97
82) n-Butylbenzene	12.045	91	130970	24.80	ug/L		97
83) 1,2-Dichlorobenzene	12.185	146	83871	22.77	ug/L		97
84) 1,2-Dibromo-3-Chloropr...	12.799	157	13740	23.83	ug/L		96
85) Hexachlorobutadiene	13.304	223	12054	23.57	ug/L		92
86) 1,2,4-Trichlorobenzene	13.347	180	50962	29.09	ug/L		98
87) Naphthalene	13.627	128	161860	28.24	ug/L		98
88) 1,2,3-Trichlorobenzene	13.785	180	48345	28.22	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102424.D
Acq On : 24 Oct 2019 7:03 pm
Operator : MM
Sample : 9J24043-CAL8
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:35 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102425.D
Acq On : 24 Oct 2019 7:30 pm
Operator : MM
Sample : 9J24043-CAL9
Misc : 1X 5mL 50/100PPB VOCR
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:38 2019
Quant Method : C:\msdchem\1\methods\~~VI191025~~W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.211	99	115635	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.910	117	321159	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	158122	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	116809	49.24	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.777	114	370144	55.88	ug/L		-0.01
48) Toluene-d8 (S)	8.298	98	415062	50.06	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	125801	49.46	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.679	85	109425	48.15	ug/L		99
3) Chloromethane	1.892	50	118956	44.44	ug/L		96
4) Vinyl Chloride	1.995	62	133008	55.69	ug/L		97
5) Bromomethane	2.360	96	66917	36.34	ug/L		96
6) Chloroethane	2.494	64	51695	42.64	ug/L		82
7) Trichlorofluoromethane	2.664	101	145579	38.20	ug/L		95
8) Ethanol	3.230	45	131053	2837.58	ug/L		88
9) 1,1-Dichloroethene	3.230	61	137847	47.23	ug/L		91
10) Carbon Disulfide	3.248	76	254448	53.14	ug/L		98
11) Freon 113	3.285	101	97812	51.37	ug/L		94
12) Iodomethane	3.382	142	57651	55.87	ug/L		92
13) Acrolein	3.613	56	28604	69.32	ug/L		78
14) Methylene Chloride	3.869	84	102541	48.75	ug/L		89
15) Acetone	3.936	43	93945	94.28	ug/L		97
16) t-1,2-Dichloroethene	4.039	61	137318	52.49	ug/L		92
17) n-Hexane	4.118	86	21163	66.01	ug/L	#	91
18) Methyl-tert-butyl-ether	4.167	73	313020	54.26	ug/L		94
19) tert-Butanol (TBA)	4.288	59	1172838	3280.93	ug/L		94
20) Diisopropyl ether (DIPE)	4.562	45	63994	10.88	ug/L		93
21) 1,1-Dichloroethane	4.684	63	182910	49.62	ug/L		96
22) Acrylonitrile	4.745	53	58667	53.90	ug/L		96
23) Ethyl-tert-butyl ether...	4.939	59	63126	12.08	ug/L		96
24) Vinyl Acetate	4.952	43	246127	56.12	ug/L		96
25) c-1,2-Dichloroethene	5.238	61	143124	49.74	ug/L		92
26) 2,2-Dichloropropane	5.347	77	122658	47.70	ug/L		96
27) Bromochloromethane	5.444	130	77572	54.59	ug/L		95
28) Chloroform	5.523	83	186984	47.32	ug/L		97
29) Carbon Tetrachloride	5.657	117	114614	42.30	ug/L		94
30) Tetrahydrofuran	5.694	42	54072	56.56	ug/L		88
31) 1,1,1-Trichloroethane	5.730	97	156566	47.91	ug/L		96
33) 1,1-Dichloropropene	5.858	75	146998	56.14	ug/L		96
34) 2-Butanone (MEK)	5.852	43	162223	106.80	ug/L		96
35) Benzene	6.120	78	434612	55.18	ug/L		96
36) tert-Amyl methyl ether...	6.241	73	56793	10.83	ug/L		98
37) 1,2-Dichloroethane (EDC)	6.339	62	143950	44.78	ug/L		92
38) iso-Butyl Alcohol	6.369	43	224878	1634.66	ug/L		92
40) Trichloroethene (TCE)	6.740	130	118626	59.12	ug/L		95
41) Tert-Amyl-Ethyl-Ether ...	6.996	59	42660	12.88	ug/L		84
42) Dibromomethane	7.196	93	74270	51.96	ug/L		96
43) 1,2-Dichloropropane	7.306	63	109124	51.04	ug/L		92
44) Bromodichloromethane	7.379	83	133532	46.50	ug/L		95
46) 2-Chloroethyl Vinyl Ether	8.018	63	88331	62.62	ug/L	#	100
47) c-1,3-Dichloropropene	8.091	75	166893	54.89	ug/L		87

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102425.D
Acq On : 24 Oct 2019 7:30 pm
Operator : MM
Sample : 9J24043-CAL9
Misc : 1X 5mL 50/100PPB VOCR
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:38 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

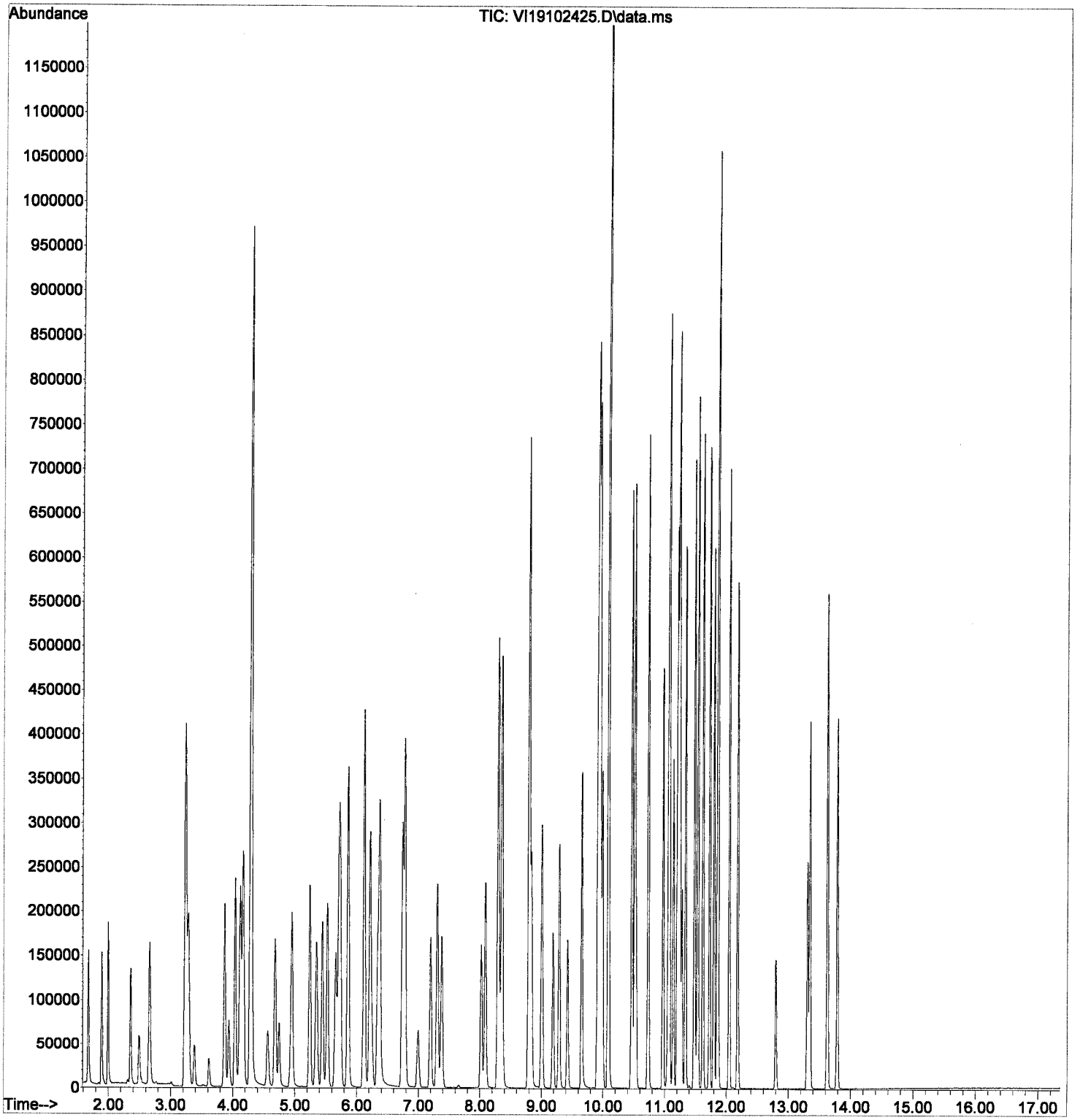
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	8.358	91	446611	49.69	ug/L	99
50) Tetrachloroethene (PCE)	8.796	166	113079	55.11	ug/L	92
51) 4-Methyl-2-Pentanone (...	8.796	43	304356	106.90	ug/L	94
52) t-1,3-Dichloropropene	8.833	75	151987	50.21	ug/L	97
53) 1,1,2-Trichloroethane	9.003	97	107594	49.71	ug/L	94
54) Dibromochloromethane	9.186	129	101291	44.59	ug/L	96
55) 1,3-Dichloropropane	9.289	76	183541	50.70	ug/L	91
56) 1,2-Dibromoethane (EDB)	9.423	107	117418	52.83	ug/L	95
57) 2-Hexanone	9.648	43	224495	109.02	ug/L	91
58) Chlorobenzene	9.928	112	301806	53.03	ug/L	98
59) Ethylbenzene	9.952	91	486890	51.84	ug/L	97
60) 1,1,1,2-Tetrachloroethane	9.989	131	95075	48.26	ug/L	97
61) m,p-Xylenes (2)	10.086	91	738497	106.14	ug/L	99
62) o-Xylene	10.463	91	371768	53.47	ug/L	99
63) Styrene	10.512	104	307044	56.78	ug/L	98
64) Bromoform	10.536	173	71080	44.14	ug/L	96
65) Isopropylbenzene	10.731	105	458349	55.46	ug/L	98
68) Bromobenzene	11.060	156	126180	55.39	ug/L	90
69) n-Propylbenzene	11.072	91	530991	53.60	ug/L	100
70) 1,1,2,2-Tetrachloroethane	11.139	85	106506	51.56	ug/L	94
71) 2-Chlorotoluene	11.206	126	113724	57.85	ug/L	93
72) 1,3,5-Trimethylbenzene	11.230	105	370702	56.11	ug/L	97
73) 1,2,3-Trichloropropane	11.248	110	51746	51.81	ug/L	92
74) t-1,4-Dichloro-2-butene	11.279	53	38431	48.98	ug/L	84
75) 4-Chlorotoluene	11.333	91	325043	55.29	ug/L	95
76) tert-Butylbenzene	11.479	91	202040	55.54	ug/L	97
77) 1,2,4-Trimethylbenzene	11.534	105	374779	56.03	ug/L	96
78) sec-Butylbenzene	11.619	105	451933	57.09	ug/L	98
79) 4-Isopropyltoluene	11.729	119	378247	59.61	ug/L	97
80) 1,3-Dichlorobenzene	11.796	146	218694	54.64	ug/L	99
81) 1,4-Dichlorobenzene	11.863	146	222386	50.52	ug/L	98
82) n-Butylbenzene	12.045	91	325681	59.11	ug/L	99
83) 1,2-Dichlorobenzene	12.179	146	211431	55.02	ug/L	98
84) 1,2-Dibromo-3-Chloropr...	12.799	157	38435	63.92	ug/L	93
85) Hexachlorobutadiene	13.304	223	29829	55.92	ug/L	96
86) 1,2,4-Trichlorobenzene	13.341	180	128379	70.24	ug/L	96
87) Naphthalene	13.627	128	425207	64.94	ug/L	98
88) 1,2,3-Trichlorobenzene	13.785	180	123175	68.94	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102425.D
Acq On : 24 Oct 2019 7:30 pm
Operator : MM
Sample : 9J24043-CAL9
Misc : 1X 5mL 50/100PPB VOCR
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:38 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102426.D
Acq On : 24 Oct 2019 7:57 pm
Operator : MM
Sample : 9J24043-IBL2
Misc : 1X 5mL DI
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:40 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

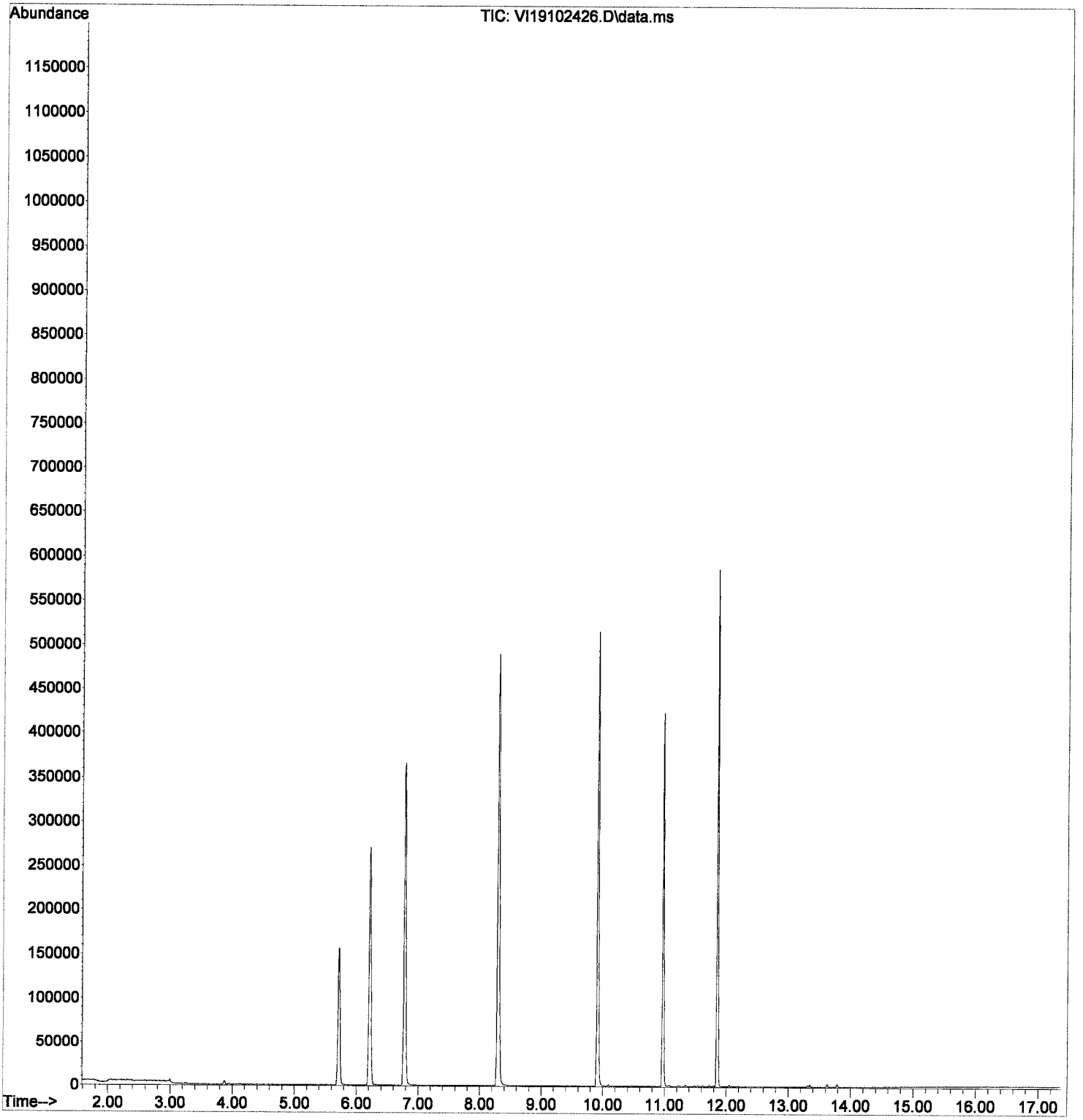
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	112457	50.00	ug/L	#	0.00
45) Chlorobenzene-d5 (I)	9.910	117	299558	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	136435	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	110045	49.80	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	354886	49.95	ug/L		0.00
48) Toluene-d8 (S)	8.298	98	401381	51.05	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	112112	50.86	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.679	85	219	0.12	ug/L	#	49
3) Chloromethane	1.898	50	309	0.13	ug/L	#	47
5) Bromomethane	2.366	96	254	0.18	ug/L	#	43
6) Chloroethane	2.518	64	211	0.19	ug/L	#	36
10) Carbon Disulfide	3.248	76	1601	0.33	ug/L		78
15) Acetone	3.948	43	1040	1.06	ug/L		95
50) Tetrachloroethene (PCE)	8.803	166	260	0.13	ug/L	#	25
61) m,p-Xylenes (2)	10.092	91	1118	0.16	ug/L		95
69) n-Propylbenzene	11.072	91	1265	0.14	ug/L		91
72) 1,3,5-Trimethylbenzene	11.230	105	651	0.11	ug/L		81
75) 4-Chlorotoluene	11.339	91	738	0.13	ug/L		86
76) tert-Butylbenzene	11.485	91	323	0.09	ug/L	#	83
77) 1,2,4-Trimethylbenzene	11.540	105	743	0.12	ug/L		92
78) sec-Butylbenzene	11.625	105	1155	0.15	ug/L		94
79) 4-Isopropyltoluene	11.729	119	1010	0.17	ug/L		89
80) 1,3-Dichlorobenzene	11.802	146	590	0.16	ug/L		93
81) 1,4-Dichlorobenzene	11.863	146	797	0.21	ug/L	#	7
82) n-Butylbenzene	12.051	91	1166	0.23	ug/L		98
83) 1,2-Dichlorobenzene	12.185	146	421	0.12	ug/L	#	70
85) Hexachlorobutadiene	13.304	223	332	0.66	ug/L	#	72
86) 1,2,4-Trichlorobenzene	13.341	180	1230	0.60	ug/L		94
87) Naphthalene	13.627	128	3549	0.54	ug/L		93
88) 1,2,3-Trichlorobenzene	13.785	180	1510	0.77	ug/L		82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102426.D
Acq On : 24 Oct 2019 7:57 pm
Operator : MM
Sample : 9J24043-IBL2
Misc : 1X 5mL DI
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:40 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102427.D
Acq On : 24 Oct 2019 8:24 pm
Operator : MM
Sample : 9J24043-CALA
Misc : 1X 5mL 100/200PPB VOCR
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:41 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	111989	50.00	ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.909	117	318635	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	163243	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.718	111	113819	49.55	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	356857	55.62	ug/L	0.00
48) Toluene-d8 (S)	8.297	98	405945	49.35	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	124392	47.37	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.684	85	212153	96.39	ug/L	98
3) Chloromethane	1.897	50	226754	87.47	ug/L	96
4) Vinyl Chloride	2.001	62	258510	111.76	ug/L	98
5) Bromomethane	2.366	96	125242	70.23	ug/L	98
6) Chloroethane	2.506	64	53786	45.81	ug/L	81
7) Trichlorofluoromethane	2.664	101	279991	75.86	ug/L	97
8) Ethanol	3.242	45	254643	5693.08	ug/L	88
9) 1,1-Dichloroethene	3.236	61	286478	101.36	ug/L	92
10) Carbon Disulfide	3.254	76	531736	114.66	ug/L	98
11) Freon 113	3.291	101	204168	110.71	ug/L	97
12) Iodomethane	3.388	142	153366	122.76	ug/L	92
13) Acrolein	3.625	56	60054	150.27	ug/L	72
14) Methylene Chloride	3.875	84	209114	104.97	ug/L	88
15) Acetone	3.942	43	188786	195.63	ug/L	96
16) t-1,2-Dichloroethene	4.039	61	285846	112.82	ug/L	95
17) n-Hexane	4.124	86	43920	141.46	ug/L	93
18) Methyl-tert-butyl-ether	4.167	73	646936	115.78	ug/L	92
19) tert-Butanol (TBA)	4.294	59	2295578	6630.79	ug/L	91
20) Diisopropyl ether (DIPE)	4.568	45	122827	21.57	ug/L	93
21) 1,1-Dichloroethane	4.684	63	379907	106.41	ug/L	96
22) Acrylonitrile	4.751	53	122564	116.27	ug/L	98
23) Ethyl-tert-butyl ether...	4.939	59	121788	24.06	ug/L	98
24) Vinyl Acetate	4.957	43	522592	123.03	ug/L	95
25) c-1,2-Dichloroethene	5.243	61	297452	106.74	ug/L	91
26) 2,2-Dichloropropane	5.353	77	252830	101.52	ug/L	95
27) Bromochloromethane	5.450	130	151653	110.19	ug/L	94
28) Chloroform	5.529	83	385051	100.61	ug/L	97
29) Carbon Tetrachloride	5.663	117	247648	94.37	ug/L	94
30) Tetrahydrofuran	5.700	42	111881	120.85	ug/L	86
31) 1,1,1-Trichloroethane	5.736	97	325398	102.81	ug/L	96
33) 1,1-Dichloropropene	5.864	75	308104	121.49	ug/L	95
34) 2-Butanone (MEK)	5.852	43	331914	225.64	ug/L	97
35) Benzene	6.119	78	900809	118.09	ug/L	96
36) tert-Amyl methyl ether...	6.247	73	111127	21.87	ug/L	99
37) 1,2-Dichloroethane (EDC)	6.338	62	294149	94.48	ug/L	92
38) iso-Butyl Alcohol	6.375	43	450055	3378.00	ug/L	92
40) Trichloroethene (TCE)	6.746	130	245311	126.23	ug/L	94
41) Tert-Amyl-Ethyl-Ether ...	6.995	59	83591	26.07	ug/L	86
42) Dibromomethane	7.196	93	155032	111.99	ug/L	94
43) 1,2-Dichloropropane	7.312	63	229327	110.76	ug/L	90
44) Bromodichloromethane	7.379	83	282119	101.45	ug/L	92
46) 2-Chloroethyl Vinyl Ether	8.024	63	185987	122.70	ug/L #	100
47) c-1,3-Dichloropropene	8.090	75	356393	118.14	ug/L	86

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102427.D
Acq On : 24 Oct 2019 8:24 pm
Operator : MM
Sample : 9J24043-CALA
Misc : 1X 5mL 100/200PPB VOCR
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:41 2019
Quant Method : C:\msdchem\1\methods\~~VI191025~~W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

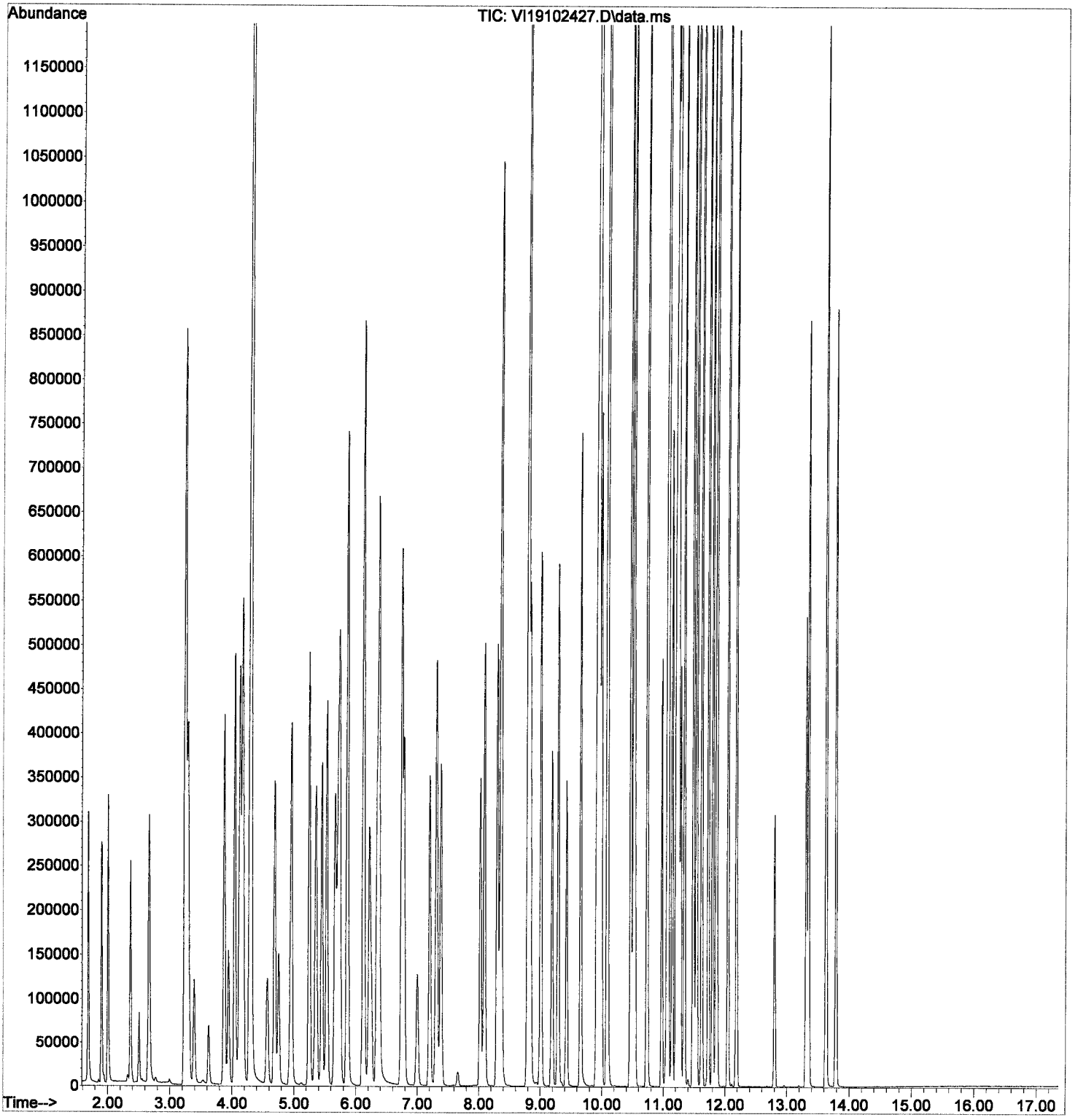
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	8.358	91	931584	104.48	ug/L	99
50) Tetrachloroethene (PCE)	8.796	166	236880	116.36	ug/L	92
51) 4-Methyl-2-Pentanone (...	8.796	43	616767	218.34	ug/L	92
52) t-1,3-Dichloropropene	8.839	75	327146	108.93	ug/L	98
53) 1,1,2-Trichloroethane	9.009	97	221018	102.93	ug/L	92
54) Dibromochloromethane	9.186	129	222919	98.91	ug/L	98
55) 1,3-Dichloropropane	9.289	76	379039	105.53	ug/L	90
56) 1,2-Dibromoethane (EDB)	9.423	107	243688	110.52	ug/L	94
57) 2-Hexanone	9.654	43	456833	223.60	ug/L	90
58) Chlorobenzene	9.928	112	624905	110.67	ug/L	98
59) Ethylbenzene	9.952	91	1015747	109.00	ug/L	97
60) 1,1,1,2-Tetrachloroethane	9.989	131	206263	105.52	ug/L	96
61) m,p-Xylenes (2)	10.086	91	1568164	215.46	ug/L	98
62) o-Xylene	10.463	91	785588	106.87	ug/L	100
63) Styrene	10.512	104	653902	114.07	ug/L	98
64) Bromoform	10.536	173	162527	101.72	ug/L	98
65) Isopropylbenzene	10.731	105	973691	110.72	ug/L	98
68) Bromobenzene	11.059	156	265287	112.81	ug/L	91
69) n-Propylbenzene	11.071	91	1142995	111.76	ug/L	100
70) 1,1,2,2-Tetrachloroethane	11.138	85	212550	99.67	ug/L	94
71) 2-Chlorotoluene	11.205	126	238214	117.38	ug/L	96
72) 1,3,5-Trimethylbenzene	11.230	105	783721	114.91	ug/L	97
73) 1,2,3-Trichloropropane	11.248	110	103994	99.89	ug/L	91
74) t-1,4-Dichloro-2-butene	11.278	53	76466	94.39	ug/L	93
75) 4-Chlorotoluene	11.339	91	688819	113.48	ug/L	98
76) tert-Butylbenzene	11.479	91	431117	114.79	ug/L	98
77) 1,2,4-Trimethylbenzene	11.534	105	798406	110.07	ug/L	97
78) sec-Butylbenzene	11.619	105	969880	118.68	ug/L	98
79) 4-Isopropyltoluene	11.728	119	812481	115.11	ug/L	97
80) 1,3-Dichlorobenzene	11.795	146	461068	111.58	ug/L	98
81) 1,4-Dichlorobenzene	11.862	146	468883	103.17	ug/L	97
82) n-Butylbenzene	12.045	91	694929	122.18	ug/L	99
83) 1,2-Dichlorobenzene	12.185	146	439251	110.73	ug/L	98
84) 1,2-Dibromo-3-Chloropr...	12.799	157	81625	131.48	ug/L	92
85) Hexachlorobutadiene	13.304	223	62008	112.60	ug/L	96
86) 1,2,4-Trichlorobenzene	13.347	180	268764	142.44	ug/L	98
87) Naphthalene	13.627	128	899370	118.81	ug/L	98
88) 1,2,3-Trichlorobenzene	13.785	180	260549	141.24	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102427.D
Acq On : 24 Oct 2019 8:24 pm
Operator : MM
Sample : 9J24043-CALA
Misc : 1X 5mL 100/200PPB VOCR
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:41 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102428.D
Acq On : 24 Oct 2019 8:51 pm
Operator : MM
Sample : 9J24043-IBL3
Misc : 1X 5mL DI
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:44 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	111004	50.00	ug/L	#	0.00
45) Chlorobenzene-d5 (I)	9.916	117	296306	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	134814	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.718	111	109567	50.24	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	354190	50.51	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	395820	50.89	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	112213	51.51	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.685	85	460	0.25	ug/L	#	49
3) Chloromethane	1.904	50	377	0.16	ug/L	#	47
4) Vinyl Chloride	2.007	62	243	0.10	ug/L	#	50
5) Bromomethane	2.378	96	380	0.27	ug/L	#	63
6) Chloroethane	2.475	64	250	0.23	ug/L	#	36
7) Trichlorofluoromethane	2.676	101	332	0.12	ug/L	#	27
9) 1,1-Dichloroethene	3.242	61	244	0.09	ug/L	#	66
10) Carbon Disulfide	3.260	76	3074	0.63	ug/L		91
11) Freon 113	3.303	101	464	0.25	ug/L	#	64
12) Iodomethane	3.394	142	124	6.13	ug/L	#	47
14) Methylene Chloride	3.881	84	3969	1.09	ug/L	#	77
15) Acetone	3.948	43	1229	1.26	ug/L		100
16) t-1,2-Dichloroethene	4.045	61	638	0.25	ug/L		95
19) tert-Butanol (TBA)	4.307	59	387	0.90	ug/L		46
33) 1,1-Dichloropropene	5.870	75	460	0.16	ug/L	#	43
40) Trichloroethene (TCE)	6.752	130	288	0.13	ug/L	#	77
49) Toluene	8.352	91	913	0.10	ug/L		85
50) Tetrachloroethene (PCE)	8.796	166	577	0.28	ug/L	#	68
58) Chlorobenzene	9.928	112	773	0.14	ug/L	#	1
59) Ethylbenzene	9.958	91	1209	0.13	ug/L		91
61) m,p-Xylenes (2)	10.092	91	2162	0.32	ug/L		89
62) o-Xylene	10.469	91	668	0.10	ug/L		82
63) Styrene	10.524	104	495	0.09	ug/L	#	42
65) Isopropylbenzene	10.731	105	1275	0.16	ug/L		97
68) Bromobenzene	11.059	156	288	0.14	ug/L		83
69) n-Propylbenzene	11.078	91	2421	0.27	ug/L		95
71) 2-Chlorotoluene	11.211	126	168	0.09	ug/L	#	78
72) 1,3,5-Trimethylbenzene	11.230	105	1309	0.21	ug/L		93
75) 4-Chlorotoluene	11.345	91	1369	0.25	ug/L		91
76) tert-Butylbenzene	11.485	91	751	0.22	ug/L		89
77) 1,2,4-Trimethylbenzene	11.540	105	1395	0.23	ug/L		94
78) sec-Butylbenzene	11.619	105	2367	0.31	ug/L		93
79) 4-Isopropyltoluene	11.729	119	2004	0.34	ug/L		95
80) 1,3-Dichlorobenzene	11.795	146	1269	0.35	ug/L		90
81) 1,4-Dichlorobenzene	11.862	146	1515	0.40	ug/L	#	64
82) n-Butylbenzene	12.045	91	2454	0.48	ug/L		99
83) 1,2-Dichlorobenzene	12.185	146	829	0.23	ug/L		91
85) Hexachlorobutadiene	13.304	223	765	1.55	ug/L		89
86) 1,2,4-Trichlorobenzene	13.341	180	2446	1.20	ug/L		96
87) Naphthalene	13.627	128	6843	1.06	ug/L		97
88) 1,2,3-Trichlorobenzene	13.785	180	2978	1.54	ug/L		95

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102428.D
Acq On : 24 Oct 2019 8:51 pm
Operator : MM
Sample : 9J24043-IBL3
Misc : 1X 5mL DI
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:44 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

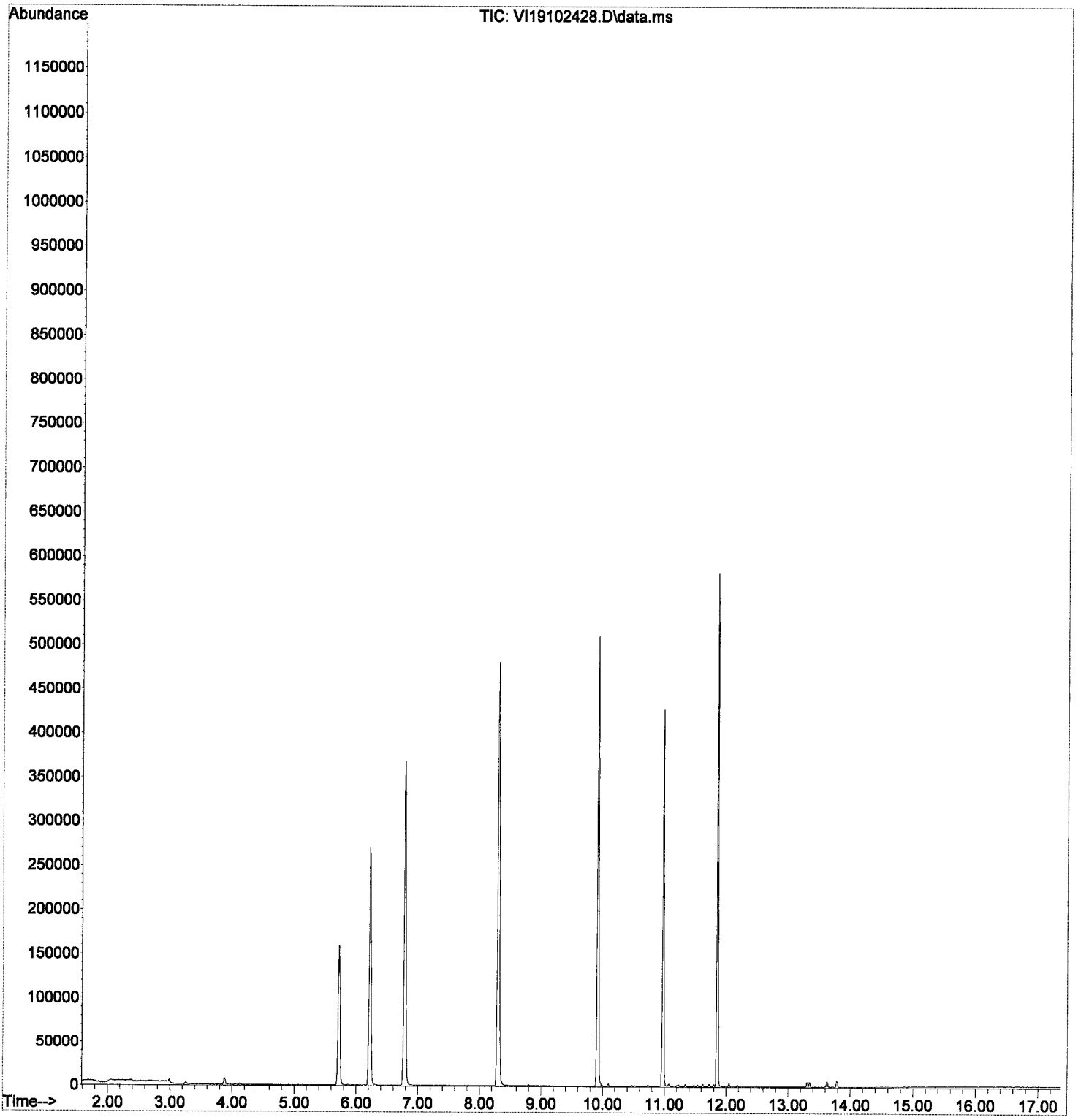
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102428.D
Acq On : 24 Oct 2019 8:51 pm
Operator : MM
Sample : 9J24043-IBL3
Misc : 1X 5mL DI
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:44 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102429.D
Acq On : 24 Oct 2019 9:17 pm
Operator : MM
Sample : 9J24043-CALB
Misc : 1X 5mL 200/400PPB VOCR
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:44 2019
Quant Method : C:\msdchem\1\methods\~~VI191025~~W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	116034	50.00	ug/L	#	0.00
45) Chlorobenzene-d5 (I)	9.916	117	330915	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	169365	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	118677	49.86	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	369003	55.51	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	420947	49.28	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	127221	46.70	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.685	85	431143	189.06	ug/L		99
3) Chloromethane	1.897	50	456703	170.02	ug/L		96
4) Vinyl Chloride	2.001	62	521368	217.54	ug/L		97
5) Bromomethane	2.366	96	267468	144.76	ug/L		99
6) Chloroethane	2.494	64	53331	43.84	ug/L		86
7) Trichlorofluoromethane	2.658	101	556445	145.51	ug/L		96
8) ~~Ethanol~~	~~3.248~~	~~45~~	~~3815~~	~~82.32~~	~~ug/L~~	~~#~~	~~1~~
9) 1,1-Dichloroethene	3.230	61	567371	193.74	ug/L		92
10) Carbon Disulfide	3.248	76	1067583	222.18	ug/L		98
11) Freon 113	3.285	101	411156	215.18	ug/L		96
12) Iodomethane	3.388	142	348091	216.50	ug/L		94
13) Acrolein	3.619	56	116360	281.01	ug/L		72
14) Methylene Chloride	3.875	84	419637	199.87	ug/L		87
15) Acetone	3.942	43	375022	375.07	ug/L		94
16) t-1,2-Dichloroethene	4.039	61	579277	220.67	ug/L		91
17) n-Hexane	4.124	86	92077	286.23	ug/L		96
18) Methyl-tert-butyl-ether	4.167	73	1318751	227.79	ug/L		93
19) ~~tert-Butanol (TBA)~~	~~4.294~~	~~59~~	~~1885~~	~~5.26~~	~~ug/L~~	~~#~~	~~34~~
20) ~~Diisopropyl ether (DIPE)~~	~~4.568~~	~~45~~	~~1263~~	~~0.21~~	~~ug/L~~		~~96~~
21) 1,1-Dichloroethane	4.684	63	761535	205.86	ug/L		97
22) Acrylonitrile	4.751	53	243406	222.86	ug/L		99
23) ~~Ethyl-tert-butyl ether...~~	~~4.939~~	~~59~~	~~984~~	~~0.19~~	~~ug/L~~	~~#~~	~~1~~
24) Vinyl Acetate	4.957	43	980632	222.81	ug/L		94
25) c-1,2-Dichloroethene	5.243	61	597836	207.05	ug/L		89
26) 2,2-Dichloropropane	5.353	77	512393	198.56	ug/L		92
27) Bromochloromethane	5.450	130	288672	202.44	ug/L		91
28) Chloroform	5.529	83	776466	195.81	ug/L		96
29) Carbon Tetrachloride	5.663	117	525973	193.45	ug/L		95
30) Tetrahydrofuran	5.694	42	221252	230.66	ug/L		85
31) 1,1,1-Trichloroethane	5.736	97	663507	202.33	ug/L		95
33) 1,1-Dichloropropene	5.864	75	622283	236.82	ug/L		94
34) 2-Butanone (MEK)	5.852	43	651518	427.47	ug/L		95
35) Benzene	6.119	78	1815119	229.66	ug/L		96
36) ~~tert-Amyl methyl ether...~~	~~6.253~~	~~73~~	~~804~~	~~0.15~~	~~ug/L~~	~~#~~	~~44~~
37) 1,2-Dichloroethane (EDC)	6.338	62	583025	180.73	ug/L		92
38) iso-Butyl Alcohol	6.375	43	863259	6253.53	ug/L		90
40) Trichloroethene (TCE)	6.740	130	498651	247.64	ug/L		95
41) ~~Tert-Amyl-Ethyl-Ether ...~~	~~7.002~~	~~59~~	~~794~~	~~0.24~~	~~ug/L~~		~~83~~
42) Dibromomethane	7.196	93	314382	219.17	ug/L		96
43) 1,2-Dichloropropane	7.312	63	461364	215.06	ug/L		91
44) Bromodichloromethane	7.379	83	582259	202.08	ug/L		93
46) 2-Chloroethyl Vinyl Ether	8.024	63	361318	207.89	ug/L	#	100
47) c-1,3-Dichloropropene	8.091	75	736312	235.01	ug/L		86

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102429.D
Acq On : 24 Oct 2019 9:17 pm
Operator : MM
Sample : 9J24043-CALB
Misc : 1X 5mL 200/400PPB VOCR
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:44 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

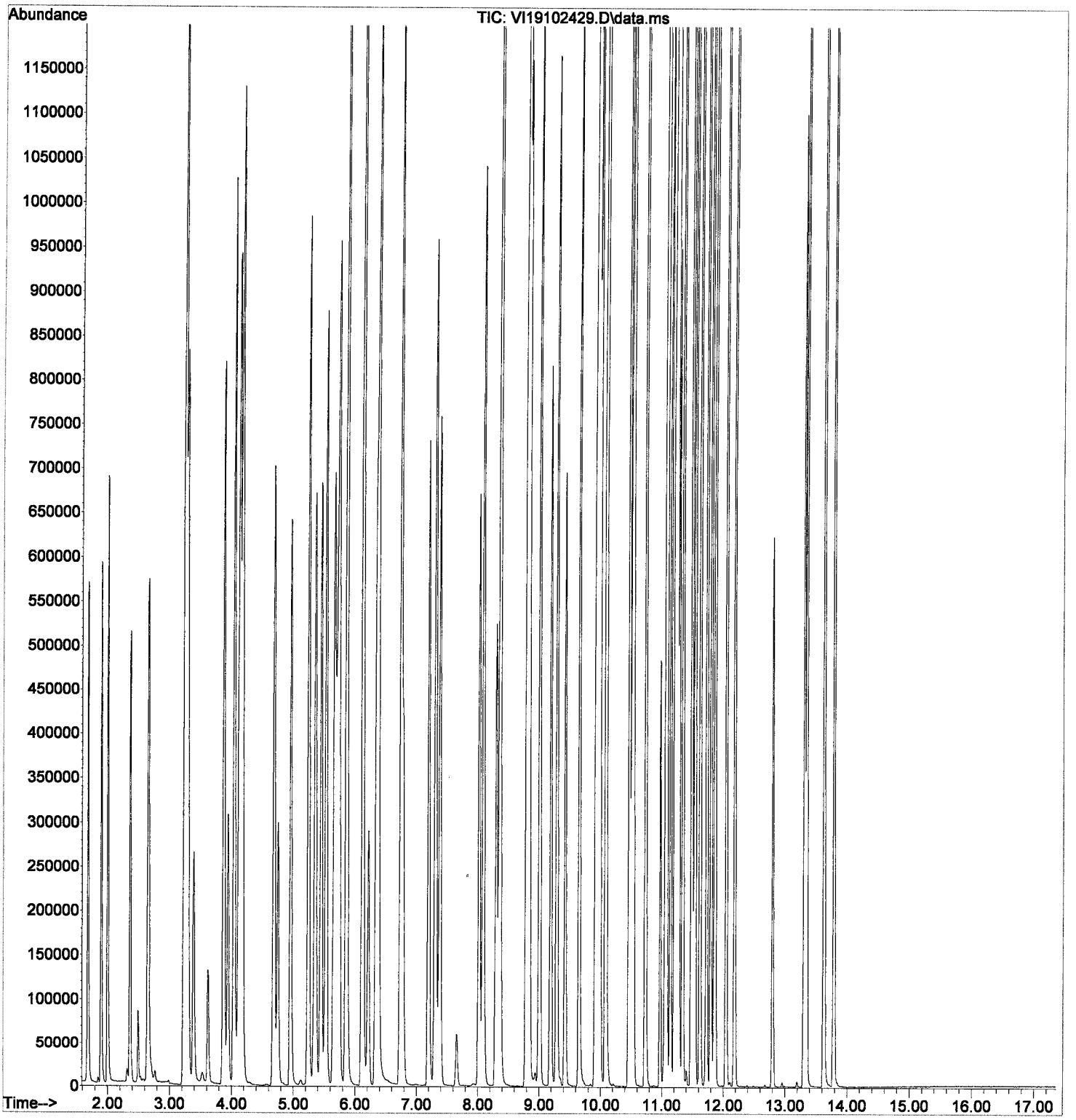
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	8.358	91	1905088	205.73	ug/L	100
50) Tetrachloroethene (PCE)	8.796	166	496433	234.81	ug/L	93
51) 4-Methyl-2-Pentanone (...	8.796	43	1166981	397.79	ug/L	90
52) t-1,3-Dichloropropene	8.839	75	678927	217.67	ug/L	98
53) 1,1,2-Trichloroethane	9.009	97	447395	200.62	ug/L	91
54) Dibromochloromethane	9.186	129	473598	202.33	ug/L	98
55) 1,3-Dichloropropane	9.289	76	755862	202.63	ug/L	88
56) 1,2-Dibromoethane (EDB)	9.423	107	496207	216.69	ug/L	95
57) 2-Hexanone	9.654	43	866990	408.61	ug/L	89
58) Chlorobenzene	9.928	112	1285529	219.22	ug/L	98
59) Ethylbenzene	9.952	91	2091382	216.09	ug/L	96
60) 1,1,1,2-Tetrachloroethane	9.989	131	427244	210.45	ug/L	97
61) m,p-Xylenes (2)	10.086	91	3227914	393.99	ug/L	97
62) o-Xylene	10.463	91	1606355	191.75	ug/L	99
63) Styrene	10.512	104	1353743	206.36	ug/L	98
64) Bromoform	10.536	173	351162	211.63	ug/L	97
65) Isopropylbenzene	10.731	105	1980670	196.46	ug/L	98
68) Bromobenzene	11.059	156	542011	222.15	ug/L	92
69) n-Propylbenzene	11.071	91	2308779	217.60	ug/L	99
70) 1,1,2,2-Tetrachloroethane	11.138	85	408430	184.60	ug/L	94
71) 2-Chlorotoluene	11.205	126	490093	232.77	ug/L	92
72) 1,3,5-Trimethylbenzene	11.230	105	1618836	228.77	ug/L	97
73) 1,2,3-Trichloropropane	11.248	110	199656	184.85	ug/L	91
74) t-1,4-Dichloro-2-butene	11.278	53	148266	176.41	ug/L	93
75) 4-Chlorotoluene	11.339	91	1379272	219.02	ug/L	99
76) tert-Butylbenzene	11.479	91	872573	223.94	ug/L	99
77) 1,2,4-Trimethylbenzene	11.534	105	1629601	200.54	ug/L	97
78) sec-Butylbenzene	11.619	105	1977513	233.24	ug/L	98
79) 4-Isopropyltoluene	11.729	119	1677679	205.31	ug/L	96
80) 1,3-Dichlorobenzene	11.795	146	936572	218.47	ug/L	99
81) 1,4-Dichlorobenzene	11.862	146	949679	201.41	ug/L	97
82) n-Butylbenzene	12.045	91	1435776	243.31	ug/L	100
83) 1,2-Dichlorobenzene	12.185	146	884385	214.88	ug/L	98
84) 1,2-Dibromo-3-Chloropr...	12.799	157	169849	263.70	ug/L	91
85) Hexachlorobutadiene	13.304	223	126838	221.99	ug/L	96
86) 1,2,4-Trichlorobenzene	13.347	180	564943	288.60	ug/L	97
87) Naphthalene	13.627	128	1872418	204.22	ug/L	98
88) 1,2,3-Trichlorobenzene	13.785	180	552458	288.66	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102429.D
Acq On : 24 Oct 2019 9:17 pm
Operator : MM
Sample : 9J24043-CALB
Misc : 1X 5mL 200/400PPB VOCR
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:44 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102430.D
Acq On : 24 Oct 2019 9:44 pm
Operator : MM
Sample : 9J24043-IBL4
Misc : 1X 5mL DI
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:47 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	114565	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.916	117	310520	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	145083	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.718	111	112455	49.96	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	365140	50.45	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	412521	50.61	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	119053	50.79	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.685	85	901	0.48	ug/L		86
3) Chloromethane	1.904	50	702	0.28	ug/L		91
4) Vinyl Chloride	2.007	62	555	0.22	ug/L		76
5) Bromomethane	2.366	96	620	0.42	ug/L	#	66
6) Chloroethane	2.475	64	119	0.10	ug/L	#	36
7) Trichlorofluoromethane	2.682	101	785	0.28	ug/L		75
9) 1,1-Dichloroethene	3.242	61	667	0.25	ug/L	#	68
10) Carbon Disulfide	3.254	76	6515	1.30	ug/L		94
11) Freon 113	3.291	101	931	0.48	ug/L		95
12) Iodomethane	3.394	142	137	6.13	ug/L	#	47
14) Methylene Chloride	3.875	84	7612	2.78	ug/L		89
15) Acetone	3.954	43	1615	1.61	ug/L		99
16) t-1,2-Dichloroethene	4.045	61	1218	0.46	ug/L		78
17) n-Hexane	4.136	86	112	0.28	ug/L	#	32
25) c-1,2-Dichloroethene	5.250	61	460	0.16	ug/L		83
33) 1,1-Dichloropropene	5.870	75	1080	0.37	ug/L		91
35) Benzene	6.132	78	1050	0.12	ug/L		55
40) Trichloroethene (TCE)	6.746	130	726	0.32	ug/L		83
49) Toluene	8.364	91	1892	0.21	ug/L		82
50) Tetrachloroethene (PCE)	8.802	166	1170	0.55	ug/L		97
52) t-1,3-Dichloropropene	8.851	75	248	0.09	ug/L	#	45
58) Chlorobenzene	9.928	112	1487	0.26	ug/L	#	41
59) Ethylbenzene	9.952	91	2481	0.26	ug/L		98
61) m,p-Xylenes (2)	10.086	91	3988	0.57	ug/L		87
62) o-Xylene	10.469	91	1347	0.19	ug/L		91
63) Styrene	10.518	104	1067	0.19	ug/L		84
65) Isopropylbenzene	10.731	105	2410	0.28	ug/L		98
68) Bromobenzene	11.059	156	607	0.27	ug/L	#	77
69) n-Propylbenzene	11.078	91	4614	0.48	ug/L		96
71) 2-Chlorotoluene	11.205	126	614	0.30	ug/L		91
72) 1,3,5-Trimethylbenzene	11.230	105	2535	0.38	ug/L		94
75) 4-Chlorotoluene	11.339	91	2932	0.49	ug/L		94
76) tert-Butylbenzene	11.479	91	1522	0.41	ug/L	#	74
77) 1,2,4-Trimethylbenzene	11.540	105	2816	0.42	ug/L		95
78) sec-Butylbenzene	11.619	105	4551	0.56	ug/L		94
79) 4-Isopropyltoluene	11.729	119	3934	0.61	ug/L		99
80) 1,3-Dichlorobenzene	11.802	146	2380	0.61	ug/L		96
81) 1,4-Dichlorobenzene	11.862	146	2728	0.67	ug/L	#	77
82) n-Butylbenzene	12.045	91	4783	0.88	ug/L		94
83) 1,2-Dichlorobenzene	12.185	146	1646	0.43	ug/L		95
85) Hexachlorobutadiene	13.304	223	1948	3.66	ug/L		90
86) 1,2,4-Trichlorobenzene	13.347	180	4827	2.20	ug/L		92
87) Naphthalene	13.627	128	13602	1.95	ug/L		98

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102430.D
Acq On : 24 Oct 2019 9:44 pm
Operator : MM
Sample : 9J24043-IBL4
Misc : 1X 5mL DI
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:47 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

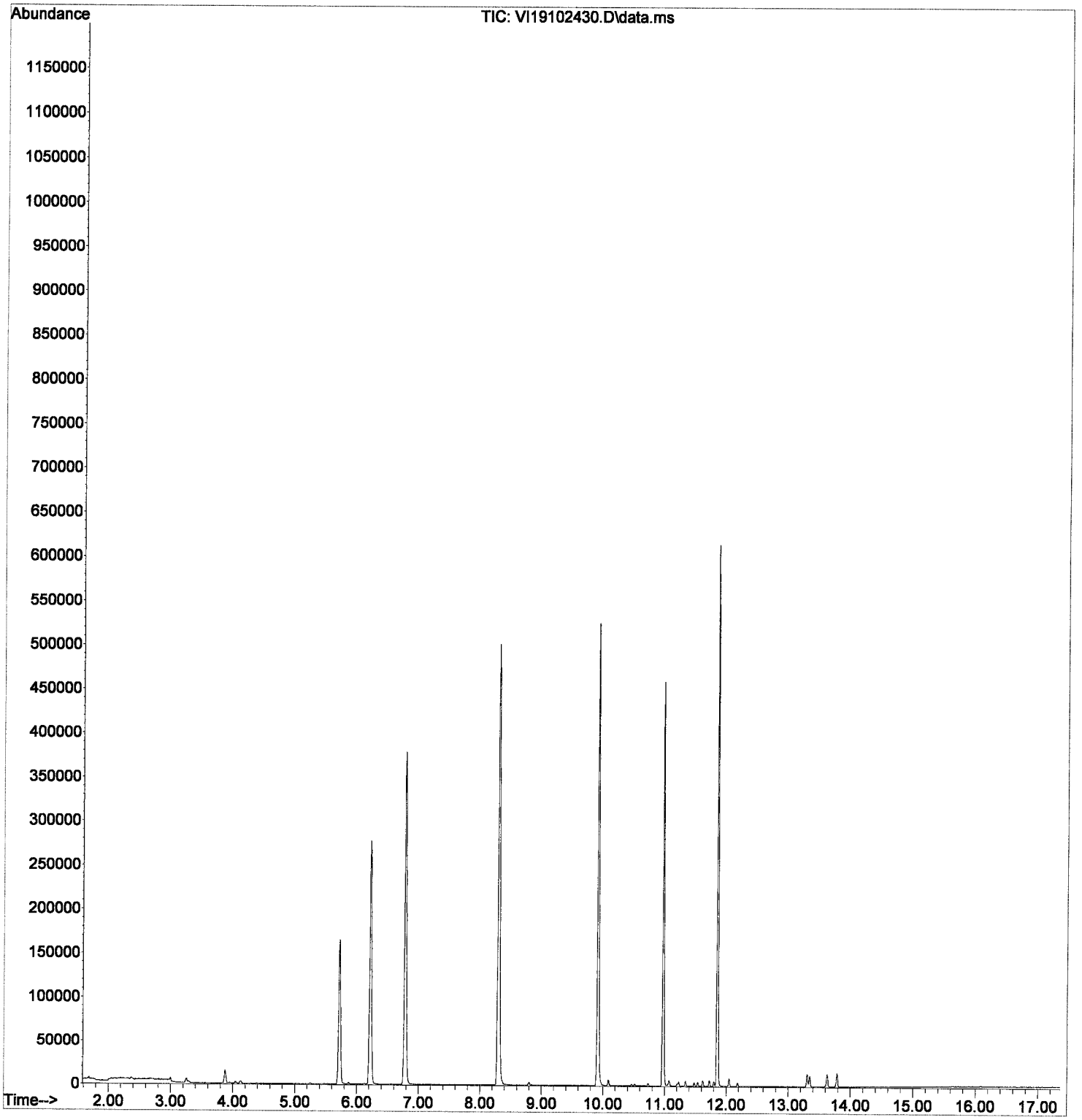
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
88) 1,2,3-Trichlorobenzene	13.785	180	5992	2.88	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102430.D
Acq On : 24 Oct 2019 9:44 pm
Operator : MM
Sample : 9J24043-IBL4
Misc : 1X 5mL DI
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:47 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102431.D
Acq On : 24 Oct 2019 10:11 pm
Operator : MM
Sample : 9J24043-IBL5
Misc : 1X 5mL DI
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:50 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

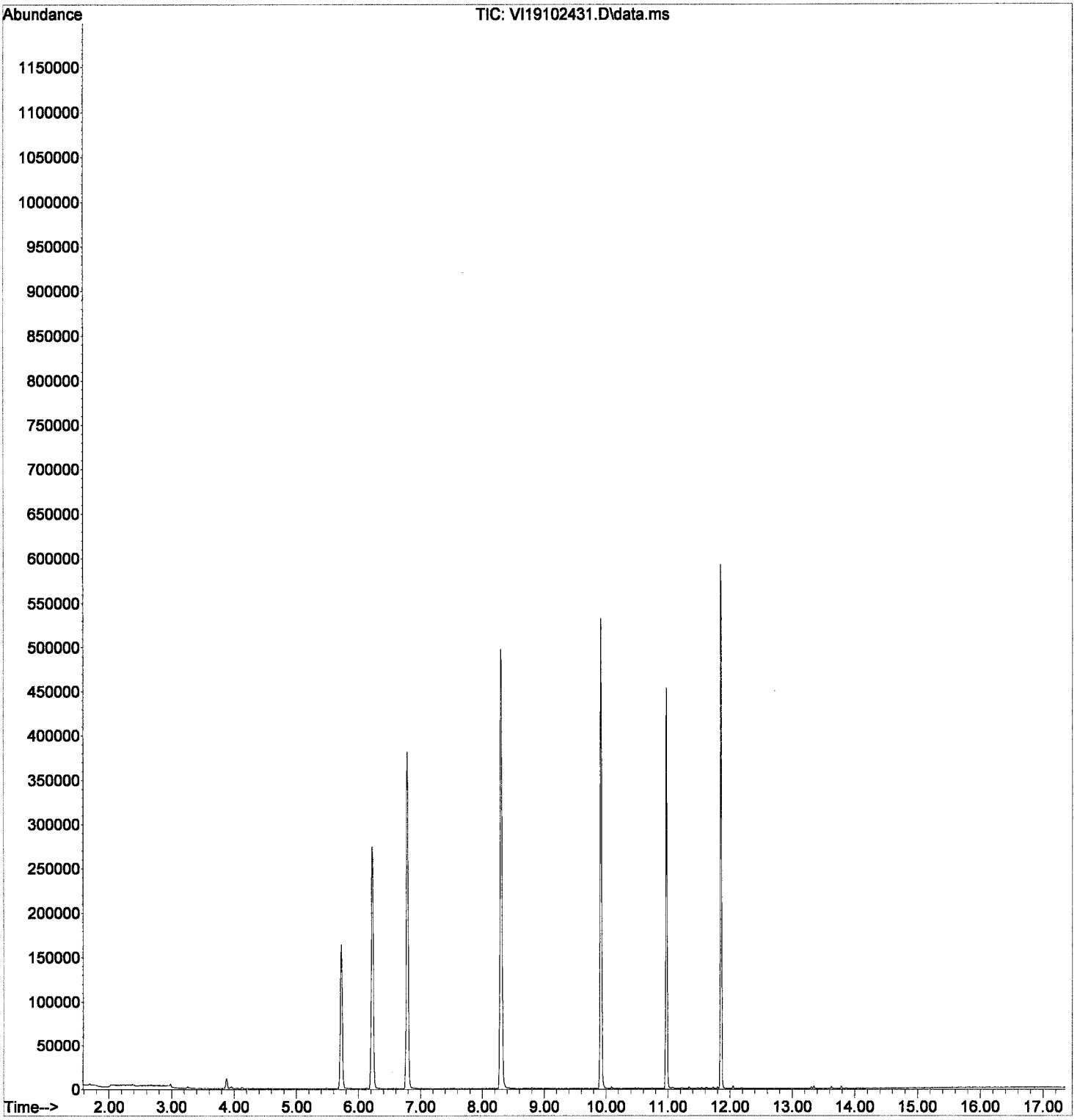
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	6.217	99	114296	50.00 ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.916	117	308297	50.00 ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	139384	50.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane (S)	5.718	111	112321	50.01 ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	364393	50.46 ug/L	0.00
48) Toluene-d8 (S)	8.297	98	406006	50.17 ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	117384	52.12 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.691	85	321	0.17 ug/L #	49
3) Chloromethane	1.904	50	302	0.12 ug/L #	47
5) Bromomethane	2.378	96	484	0.33 ug/L #	56
6) Chloroethane	2.500	64	259	0.23 ug/L #	36
10) Carbon Disulfide	3.260	76	2655	0.53 ug/L	89
11) Freon 113	3.291	101	416	0.21 ug/L #	74
14) Methylene Chloride	3.881	84	5891	1.96 ug/L	86
15) Acetone	3.954	43	3138	3.13 ug/L	97
16) t-1,2-Dichloroethene	4.039	61	402	0.15 ug/L #	70
33) 1,1-Dichloropropene	5.870	75	357	0.12 ug/L #	43
49) Toluene	8.358	91	884	0.10 ug/L	92
50) Tetrachloroethene (PCE)	8.802	166	422	0.20 ug/L #	70
58) Chlorobenzene	9.928	112	577	0.10 ug/L #	5
59) Ethylbenzene	9.952	91	980	0.10 ug/L	83
61) m,p-Xylenes (2)	10.086	91	1705	0.24 ug/L	86
65) Isopropylbenzene	10.737	105	735	0.09 ug/L	54
69) n-Propylbenzene	11.072	91	1706	0.18 ug/L	90
72) 1,3,5-Trimethylbenzene	11.230	105	901	0.14 ug/L	86
75) 4-Chlorotoluene	11.339	91	1026	0.18 ug/L	91
76) tert-Butylbenzene	11.479	91	379	0.11 ug/L #	75
77) 1,2,4-Trimethylbenzene	11.540	105	984	0.15 ug/L	90
78) sec-Butylbenzene	11.625	105	1431	0.18 ug/L	80
79) 4-Isopropyltoluene	11.729	119	1483	0.24 ug/L	96
80) 1,3-Dichlorobenzene	11.802	146	846	0.22 ug/L	96
81) 1,4-Dichlorobenzene	11.862	146	1023	0.26 ug/L #	40
82) n-Butylbenzene	12.051	91	1702	0.32 ug/L	91
83) 1,2-Dichlorobenzene	12.191	146	544	0.15 ug/L #	66
85) Hexachlorobutadiene	13.304	223	353	0.69 ug/L	94
86) 1,2,4-Trichlorobenzene	13.347	180	1099	0.52 ug/L	84
87) Naphthalene	13.627	128	2260	0.34 ug/L	81
88) 1,2,3-Trichlorobenzene	13.785	180	993	0.50 ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102431.D
Acq On : 24 Oct 2019 10:11 pm
Operator : MM
Sample : 9J24043-IBL5
Misc : 1X 5mL DI
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:50 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102432.D
Acq On : 24 Oct 2019 10:38 pm
Operator : MM
Sample : 9J24043-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

JV 10/25/19

Quant Time: Oct 25 08:52:53 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	115739	50.00	ug/L	#	0.00
45) Chlorobenzene-d5 (I)	9.909	117	319865	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	157880	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	114369	50.29	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.782	114	368262	50.36	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	413951	49.31	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	126483	49.58	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.678	85	47743	25.24	ug/L		99
3) Chloromethane	1.891	50	52000	20.73	ug/L		96
4) Vinyl Chloride	1.995	62	55595	22.12	ug/L		97
5) Bromomethane	2.360	96	33560	22.65	ug/L		98
6) Chloroethane	2.494	64	20238	17.52	ug/L		79
7) Trichlorofluoromethane	2.658	101	58875	20.69	ug/L		97
8) Ethanol	3.236	45	2066	37.15	ug/L		95
9) 1,1-Dichloroethene	3.230	61	54108	19.72	ug/L		91
10) Carbon Disulfide	3.248	76	92901	18.35	ug/L		98
11) Freon 113	3.278	101	37659	19.09	ug/L		97
12) Iodomethane	3.382	142	13440	16.51	ug/L		90
13) Acrolein	3.619	56	10766	20.47	ug/L		64
14) Methylene Chloride	3.868	84	43934	19.96	ug/L		87
15) Acetone	3.935	43	38135	37.60	ug/L		96
16) t-1,2-Dichloroethene	4.039	61	56343	20.98	ug/L		89
17) n-Hexane	4.124	86	7879	19.27	ug/L	#	88
18) Methyl-tert-butyl-ether	4.167	73	122260	19.59	ug/L		93
19) tert-Butanol (TBA)	4.294	59	12609	28.14	ug/L		83
20) Diisopropyl ether (DIPE)	4.562	45	1214	0.18	ug/L		74
21) 1,1-Dichloroethane	4.684	63	76555	20.53	ug/L		97
22) Acrylonitrile	4.744	53	21989	19.59	ug/L		99
23) Ethyl-tert-butyl ether...	4.945	59	1021	0.16	ug/L		69
24) Vinyl Acetate	4.957	43	89589	19.89	ug/L		95
25) c-1,2-Dichloroethene	5.243	61	57695	20.04	ug/L		92
26) 2,2-Dichloropropane	5.347	77	43127	17.72	ug/L		97
27) Bromochloromethane	5.444	130	31156	22.05	ug/L		93
28) Chloroform	5.523	83	76051	20.86	ug/L		96
29) Carbon Tetrachloride	5.657	117	45898	20.70	ug/L		97
30) Tetrahydrofuran	5.700	42	20305	19.03	ug/L		86
31) 1,1,1-Trichloroethane	5.730	97	61359	19.94	ug/L		97
33) 1,1-Dichloropropene	5.858	75	57945	19.60	ug/L		96
34) 2-Butanone (MEK)	5.852	43	60911	37.88	ug/L		97
35) Benzene	6.119	78	173963	19.67	ug/L		97
36) tert-Amyl methyl ether...	6.259	73	1053	0.18	ug/L		74
37) 1,2-Dichloroethane (EDC)	6.338	62	58405	20.16	ug/L		94
38) iso-Butyl Alcohol	6.375	43	83622	519.10	ug/L		92
40) Trichloroethene (TCE)	6.740	130	48413	21.24	ug/L		94
41) Tert-Amyl-Ethyl-Ether ...	6.995	59	625	0.14	ug/L	#	64
42) Dibromomethane	7.196	93	29991	21.13	ug/L		96
43) 1,2-Dichloropropane	7.306	63	44751	20.29	ug/L		93
44) Bromodichloromethane	7.379	83	52780	20.75	ug/L		94
46) 2-Chloroethyl Vinyl Ether	8.023	63	32992	20.09	ug/L	#	100
47) c-1,3-Dichloropropene	8.090	75	62899	19.89	ug/L		88

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102432.D
Acq On : 24 Oct 2019 10:38 pm
Operator : MM
Sample : 9J24043-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:53 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

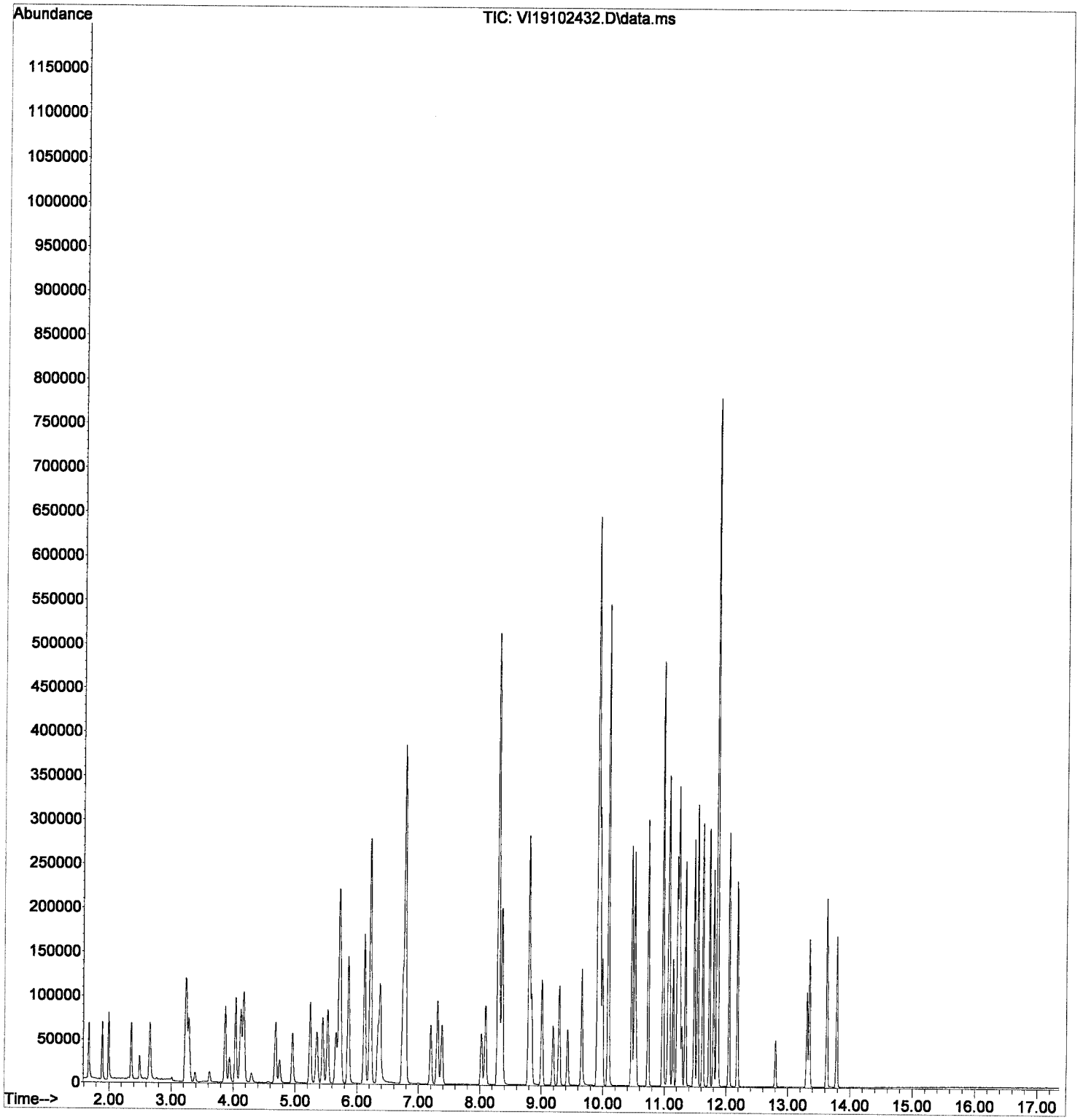
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	182339	19.39	ug/L		100
50) Tetrachloroethene (PCE)	8.796	166	45736	20.89	ug/L		91
51) 4-Methyl-2-Pentanone (...	8.796	43	117185	41.04	ug/L		94
52) t-1,3-Dichloropropene	8.839	75	58067	20.70	ug/L		99
53) 1,1,2-Trichloroethane	9.003	97	44277	21.23	ug/L		94
54) Dibromochloromethane	9.185	129	40034	23.75	ug/L		97
55) 1,3-Dichloropropane	9.289	76	73648	20.48	ug/L		92
56) 1,2-Dibromoethane (EDB)	9.423	107	46898	20.66	ug/L		94
57) 2-Hexanone	9.654	43	84867	40.56	ug/L		91
58) Chlorobenzene	9.928	112	123672	20.60	ug/L		98
59) Ethylbenzene	9.952	91	198723	20.15	ug/L		97
60) 1,1,1,2-Tetrachloroethane	9.988	131	38126	21.77	ug/L		95
61) m,p-Xylenes (2)	10.086	91	297332	40.93	ug/L		99
62) o-Xylene	10.463	91	151148	20.99	ug/L		99
63) Styrene	10.512	104	120728	20.86	ug/L		97
64) Bromoform	10.536	173	26445	21.37	ug/L		97
65) Isopropylbenzene	10.731	105	183894	20.93	ug/L		99
68) Bromobenzene	11.059	156	51357	20.99	ug/L		88
69) n-Propylbenzene	11.071	91	210884	20.10	ug/L		100
70) 1,1,2,2-Tetrachloroethane	11.138	85	42026	20.34	ug/L		94
71) 2-Chlorotoluene	11.205	126	45073	19.94	ug/L		95
72) 1,3,5-Trimethylbenzene	11.230	105	148155	20.66	ug/L		98
73) 1,2,3-Trichloropropane	11.248	110	20758	20.66	ug/L		90
74) t-1,4-Dichloro-2-butene	11.278	53	12607	17.54	ug/L	#	74
75) 4-Chlorotoluene	11.339	91	132799	20.56	ug/L		98
76) tert-Butylbenzene	11.479	91	81539	20.37	ug/L		95
77) 1,2,4-Trimethylbenzene	11.534	105	149487	20.72	ug/L		97
78) sec-Butylbenzene	11.619	105	180737	20.46	ug/L		99
79) 4-Isopropyltoluene	11.728	119	151416	21.66	ug/L		97
80) 1,3-Dichlorobenzene	11.795	146	88840	20.84	ug/L		98
81) 1,4-Dichlorobenzene	11.862	146	91025	20.48	ug/L		97
82) n-Butylbenzene	12.045	91	132273	22.27	ug/L		99
83) 1,2-Dichlorobenzene	12.179	146	86186	20.82	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	12.799	157	14025	20.04	ug/L		92
85) Hexachlorobutadiene	13.304	223	12640	21.85	ug/L		95
86) 1,2,4-Trichlorobenzene	13.347	180	53108	22.26	ug/L		97
87) Naphthalene	13.626	128	166250	21.92	ug/L		98
88) 1,2,3-Trichlorobenzene	13.785	180	51210	22.61	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102432.D
Acq On : 24 Oct 2019 10:38 pm
Operator : MM
Sample : 9J24043-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:53 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102433.D
Acq On : 24 Oct 2019 11:05 pm
Operator : MM
Sample : 9J24043-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:56 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	111178	50.00 ug/L	#	0.00
45) Chlorobenzene-d5 (I)	9.910	117	298625	50.00 ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	138840	50.00 ug/L		0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.712	111	108440	49.64 ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	354392	50.46 ug/L		0.00
48) Toluene-d8 (S)	8.297	98	396767	50.62 ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	114172	50.89 ug/L		0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.679	85	258	0.14 ug/L	#	49
3) Chloromethane	1.898	50	1019	0.42 ug/L		80
4) Vinyl Chloride	2.001	62	483	0.20 ug/L		73
5) Bromomethane	2.360	96	1054	0.74 ug/L		79
6) Chloroethane	2.512	64	817	0.74 ug/L	#	63
8) Ethanol	3.230	45	56590	1059.19 ug/L		85
9) 1,1-Dichloroethene	3.230	61	425	0.16 ug/L	#	74
10) Carbon Disulfide	3.254	76	2404	0.49 ug/L		78
12) Iodomethane	3.388	142	297	6.27 ug/L	#	47
14) Methylene Chloride	3.875	84	2571	0.40 ug/L		89
15) Acetone	3.948	43	992	1.02 ug/L		93
16) t-1,2-Dichloroethene	4.039	61	778	0.30 ug/L		95
18) Methyl-tert-butyl-ether	4.173	73	509	0.08 ug/L		63
19) tert-Butanol (TBA)	4.288	59	507827	1179.79 ug/L		99
20) Diisopropyl ether (DIPE)	4.562	45	28434	4.41 ug/L		96
21) 1,1-Dichloroethane	4.684	63	910	0.25 ug/L		91
23) Ethyl-tert-butyl ether...	4.939	59	27297	4.40 ug/L		98
24) Vinyl Acetate	4.933	43	2981	0.69 ug/L		63
25) c-1,2-Dichloroethene	5.244	61	653	0.24 ug/L		94
28) Chloroform	5.529	83	782	0.22 ug/L		86
31) 1,1,1-Trichloroethane	5.730	97	279	0.09 ug/L	#	25
33) 1,1-Dichloropropene	5.858	75	642	0.23 ug/L	#	43
35) Benzene	6.120	78	2264	0.27 ug/L		96
36) tert-Amyl methyl ether...	6.247	73	24122	4.18 ug/L		94
40) Trichloroethene (TCE)	6.752	130	563	0.26 ug/L		81
41) Tert-Amyl-Ethyl-Ether ...	6.996	59	17806	4.28 ug/L		82
43) 1,2-Dichloropropane	7.312	63	375	0.18 ug/L	#	35
44) Bromodichloromethane	7.379	83	264	0.11 ug/L		89
47) c-1,3-Dichloropropene	8.097	75	423	0.14 ug/L	#	31
49) Toluene	8.358	91	2481	0.28 ug/L		90
50) Tetrachloroethene (PCE)	8.796	166	682	0.33 ug/L		77
55) 1,3-Dichloropropane	9.289	76	299	0.09 ug/L	#	62
58) Chlorobenzene	9.928	112	1665	0.30 ug/L	#	53
59) Ethylbenzene	9.952	91	2525	0.27 ug/L		93
60) 1,1,1,2-Tetrachloroethane	9.989	131	250	0.15 ug/L	#	56
61) m,p-Xylenes (2)	10.086	91	3597	0.53 ug/L		99
62) o-Xylene	10.469	91	1736	0.26 ug/L		95
63) Styrene	10.518	104	1266	0.23 ug/L		98
65) Isopropylbenzene	10.731	105	1839	0.22 ug/L		96
68) Bromobenzene	11.066	156	575	0.27 ug/L	#	73
69) n-Propylbenzene	11.078	91	2840	0.31 ug/L		98
71) 2-Chlorotoluene	11.212	126	519	0.26 ug/L	#	70
72) 1,3,5-Trimethylbenzene	11.230	105	1758	0.28 ug/L		93

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102433.D
Acq On : 24 Oct 2019 11:05 pm
Operator : MM
Sample : 9J24043-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:56 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

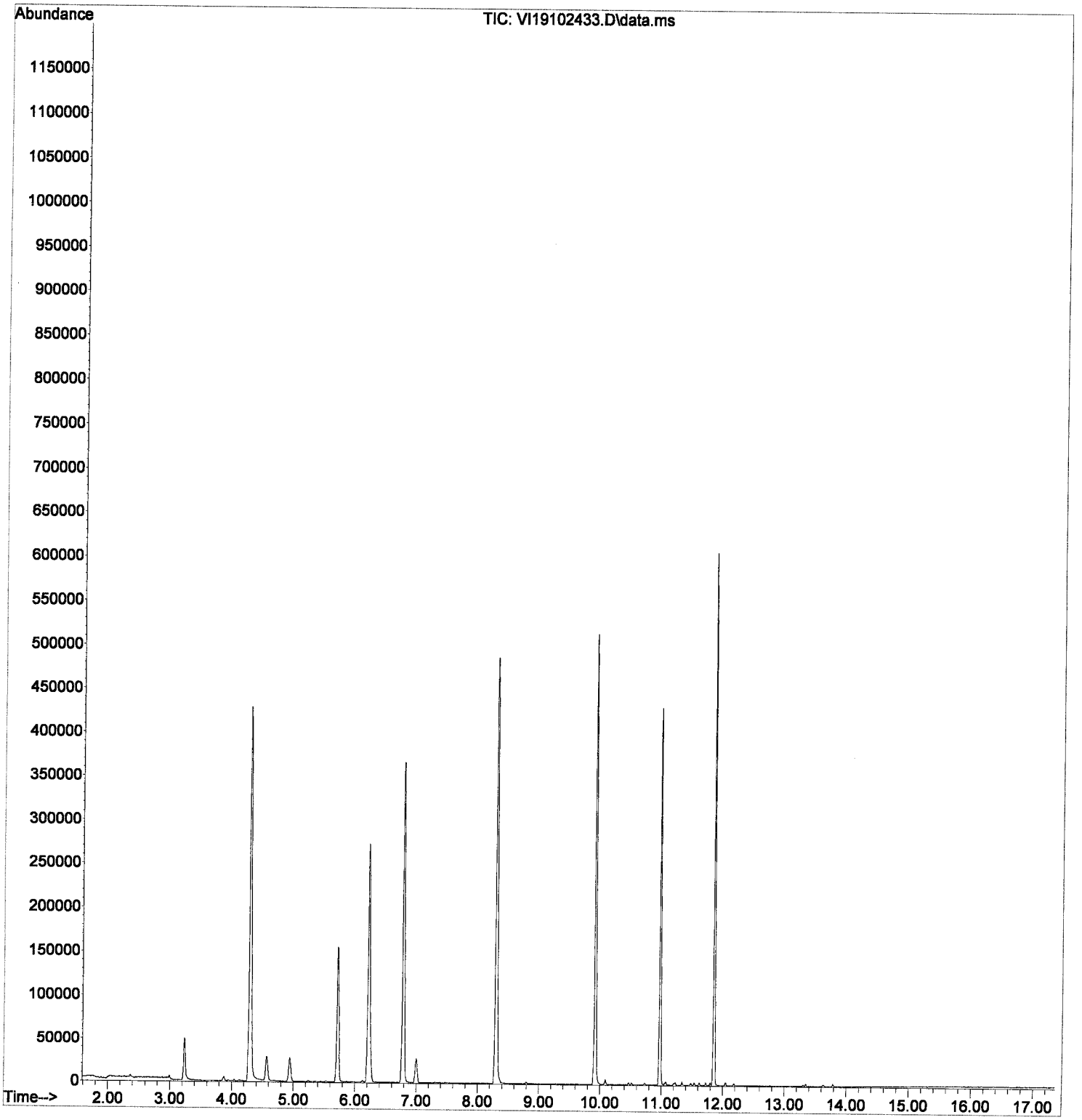
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
75) 4-Chlorotoluene	11.339	91	2029	0.36	ug/L		92
76) tert-Butylbenzene	11.479	91	857	0.24	ug/L		90
77) 1,2,4-Trimethylbenzene	11.540	105	1902	0.30	ug/L		99
78) sec-Butylbenzene	11.619	105	2140	0.28	ug/L		96
79) 4-Isopropyltoluene	11.729	119	1814	0.30	ug/L		89
80) 1,3-Dichlorobenzene	11.802	146	1391	0.37	ug/L		91
81) 1,4-Dichlorobenzene	11.862	146	1580	0.40	ug/L	#	77
82) n-Butylbenzene	12.051	91	2081	0.40	ug/L		97
83) 1,2-Dichlorobenzene	12.179	146	992	0.27	ug/L		94
85) Hexachlorobutadiene	13.304	223	253	0.50	ug/L		90
86) 1,2,4-Trichlorobenzene	13.347	180	1195	0.57	ug/L		98
87) Naphthalene	13.627	128	2373	0.36	ug/L		81
88) 1,2,3-Trichlorobenzene	13.785	180	1136	0.57	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102433.D
Acq On : 24 Oct 2019 11:05 pm
Operator : MM
Sample : 9J24043-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:56 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102434.D
Acq On : 24 Oct 2019 11:32 pm
Operator : MM
Sample : 9J24043-IBL6
Misc : 1X 5mL DI
ALS Vial : 21 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:59 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

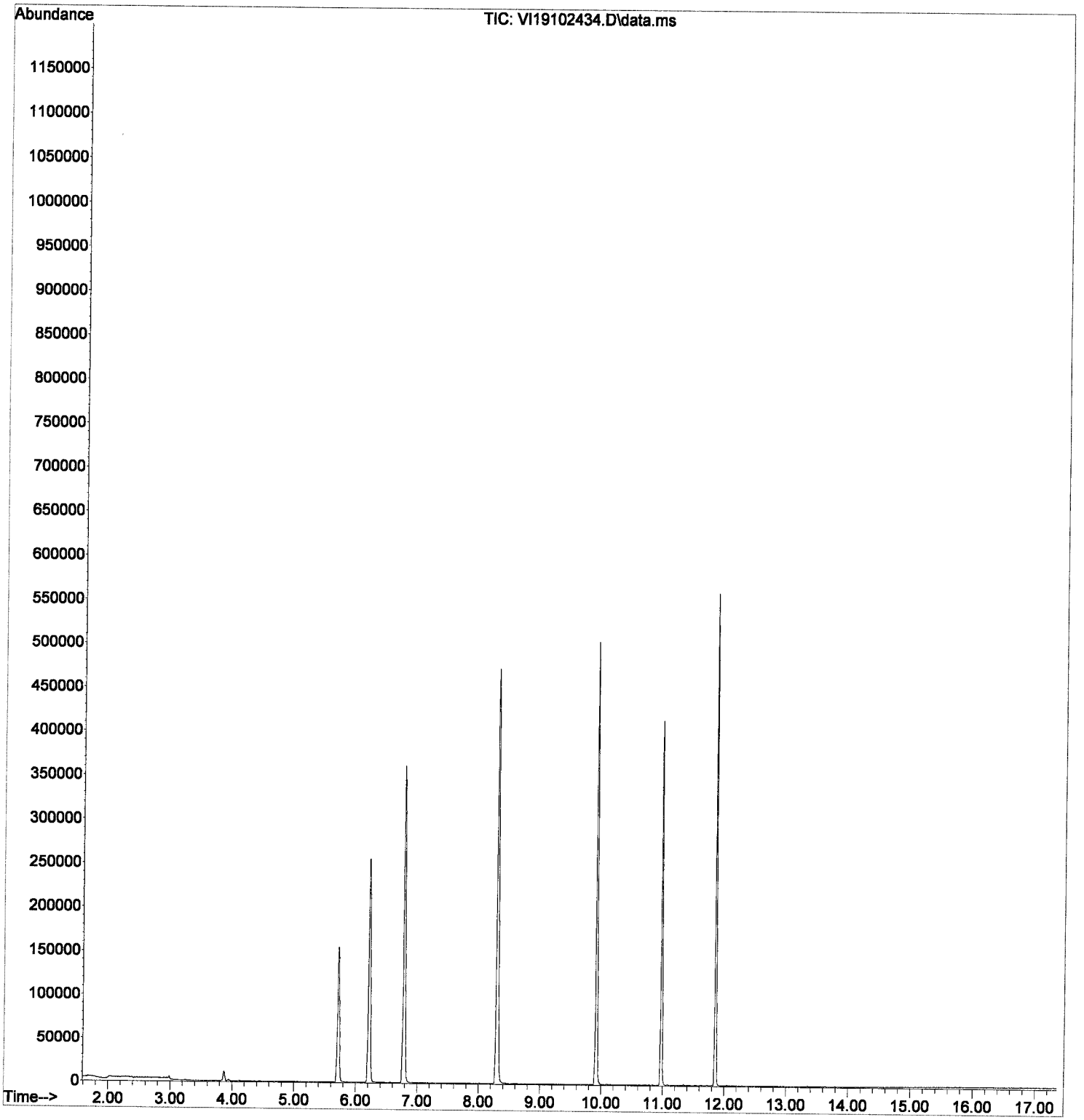
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.211	99	109647	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.910	117	290801	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	129266	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	106868	49.60	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.777	114	348077	50.25	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	390388	51.15	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	109398	52.38	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.891	50	233	0.10	ug/L	#	47
5) Bromomethane	2.360	96	288	0.21	ug/L	#	32
6) Chloroethane	2.500	64	219	0.20	ug/L	#	62
10) Carbon Disulfide	3.242	76	797	0.17	ug/L		78
14) Methylene Chloride	3.869	84	5477	1.87	ug/L		91
15) Acetone	3.942	43	1939	2.02	ug/L		95
19) tert-Butanol (TBA)	4.301	59	193	0.45	ug/L		46
61) m,p-Xylenes (2)	10.086	91	722	0.11	ug/L		86
79) 4-Isopropyltoluene	11.723	119	462	0.08	ug/L		51
81) 1,4-Dichlorobenzene	11.862	146	377	0.10	ug/L	#	1
82) n-Butylbenzene	12.045	91	599	0.12	ug/L		81
86) 1,2,4-Trichlorobenzene	13.341	180	337	0.17	ug/L		69
87) Naphthalene	13.633	128	630	0.10	ug/L		81
88) 1,2,3-Trichlorobenzene	13.785	180	159	0.09	ug/L		87

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102434.D
Acq On : 24 Oct 2019 11:32 pm
Operator : MM
Sample : 9J24043-IBL6
Misc : 1X 5mL DI
ALS Vial : 21 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:59 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

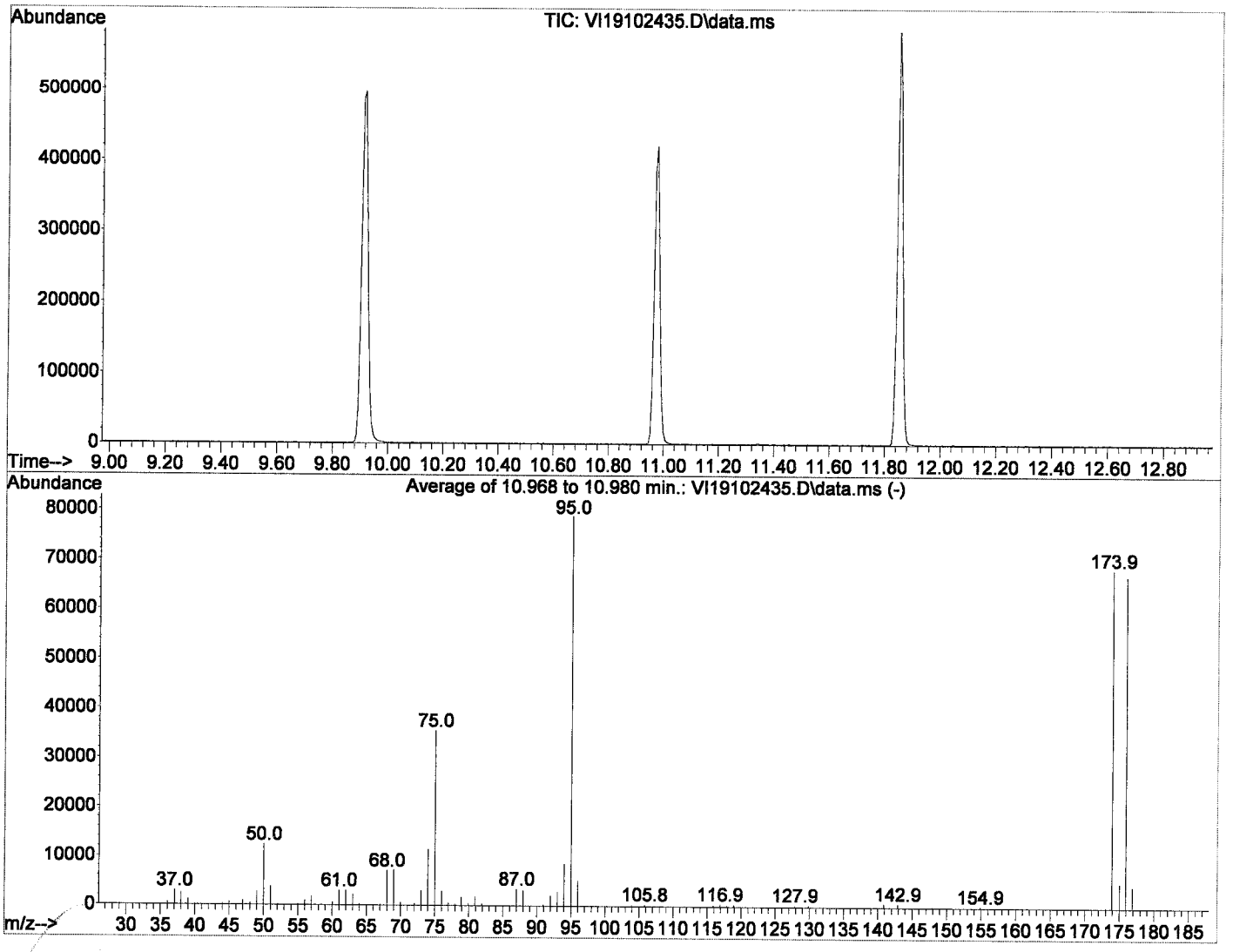


BFB

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102435.D
Acq On : 24 Oct 2019 11:59 pm
Operator : MM
Sample : 9J24043-TUN2
Misc : A19I040 BFB (IS/SURR)
ALS Vial : 22 Sample Multiplier: 1

Integration File: APEXG.P

Method : C:\msdchem\1\methods\VI191025G.M
Title : NWTPH-Gx by GC/MS
Last Update : Fri Oct 25 10:31:05 2019



AutoFind: Scans 1543, 1544, 1545; Background Corrected with Scan 1536

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	115.5	78893	PASS
96	95	5	9	6.6	5193	PASS
173	174	0.00	2	0.2	146	PASS
174	95	50	200	86.6	68315	PASS
175	174	5	9	7.2	4950	PASS
176	174	95	105	98.1	67045	PASS
177	176	5	10	6.4	4322	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102435.D
Acq On : 24 Oct 2019 11:59 pm
Operator : MM
Sample : 9J24043-TUN2
Misc : A19I040 BFB (IS/SURR)
ALS Vial : 22 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:34:47 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

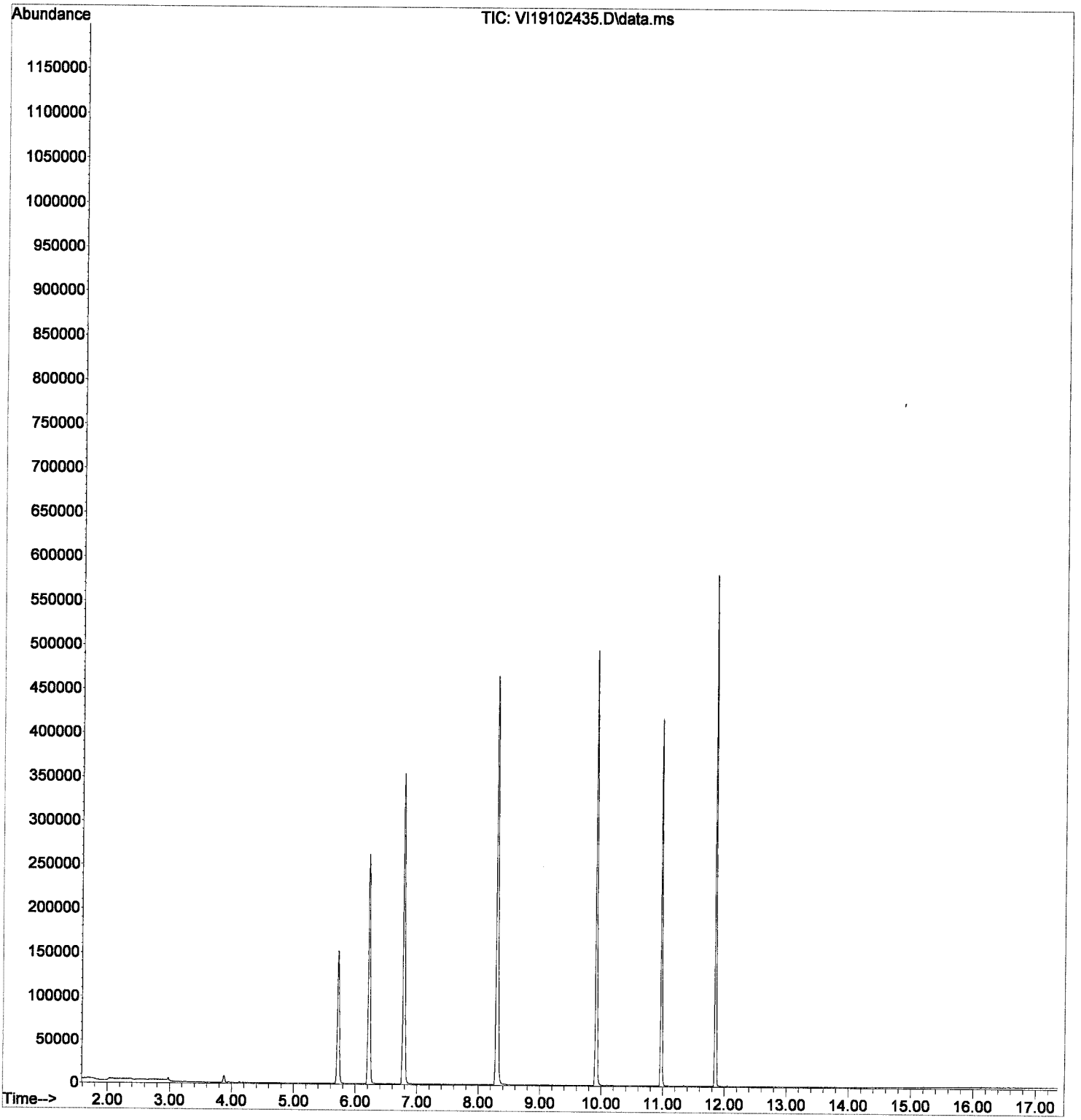
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	210406	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	342441	50.05	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	110054	48.18	ug/L	0.00
9) Toluene-d8 (NR)	8.298	98	383585	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	289628	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	210356	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	-629m	24.54	ug/L	
5) TPHg (C5-C9)	9.890	TIC	350597m	17.37	ug/L	
6) TPHg (C6-C10)	9.890	TIC	318995m	18.26	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	354669m	21.15	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102435.D
Acq On : 24 Oct 2019 11:59 pm
Operator : MM
Sample : 9J24043-TUN2
Misc : A19I040 BFB (IS/SURR)
ALS Vial : 22 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

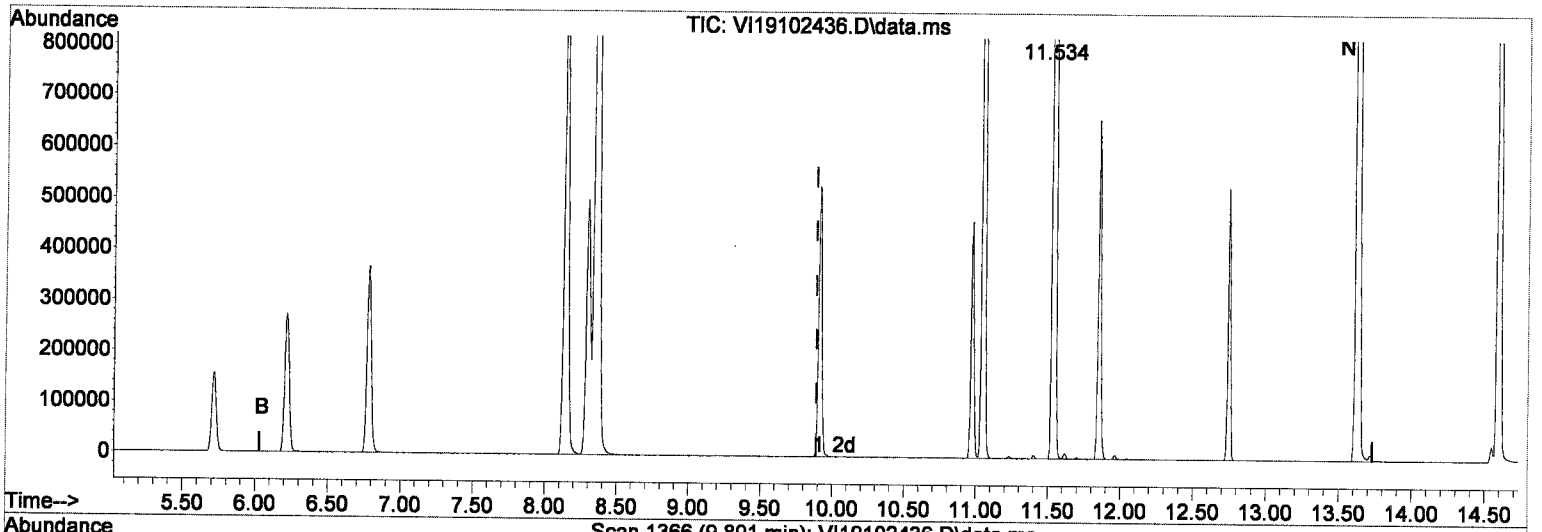
Quant Time: Oct 25 10:34:47 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

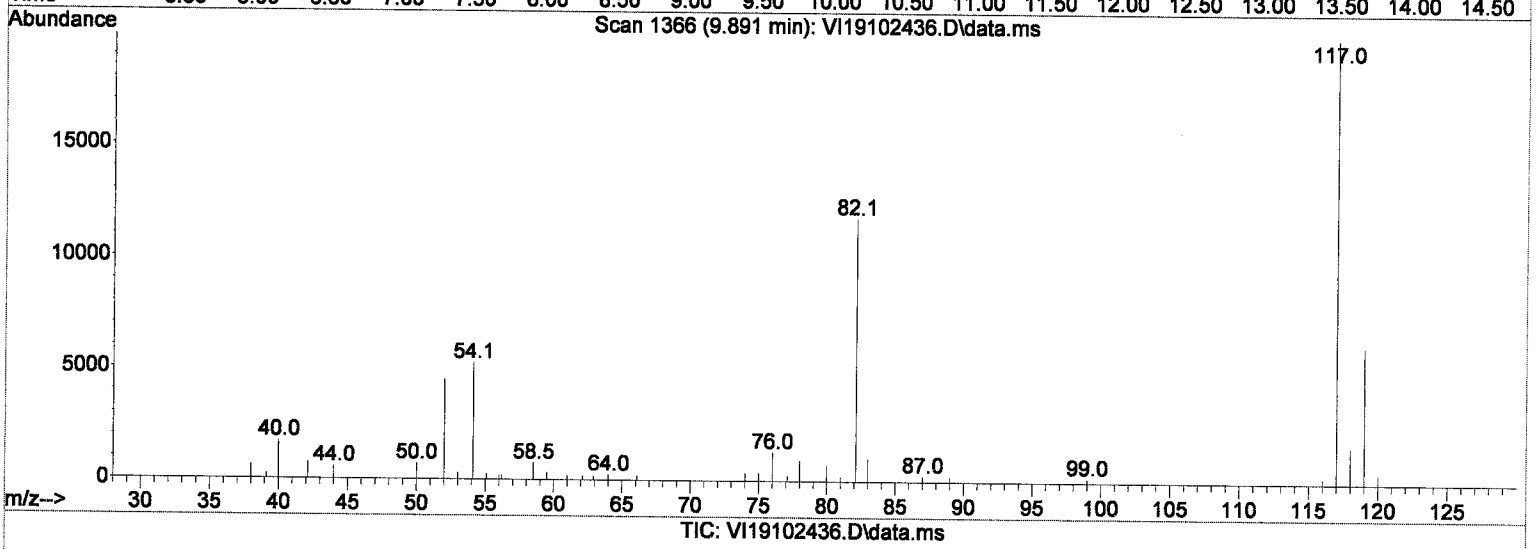


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102436.D
Acq On : 25 Oct 2019 12:26 am
Operator : MM
Sample : 9J24043-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:34:58 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





TIC: VI19102436.D\data.ms

(4) NWTPH-Gx (TPH) (H)

9.890min (0.000) 2930.43 ug/L m

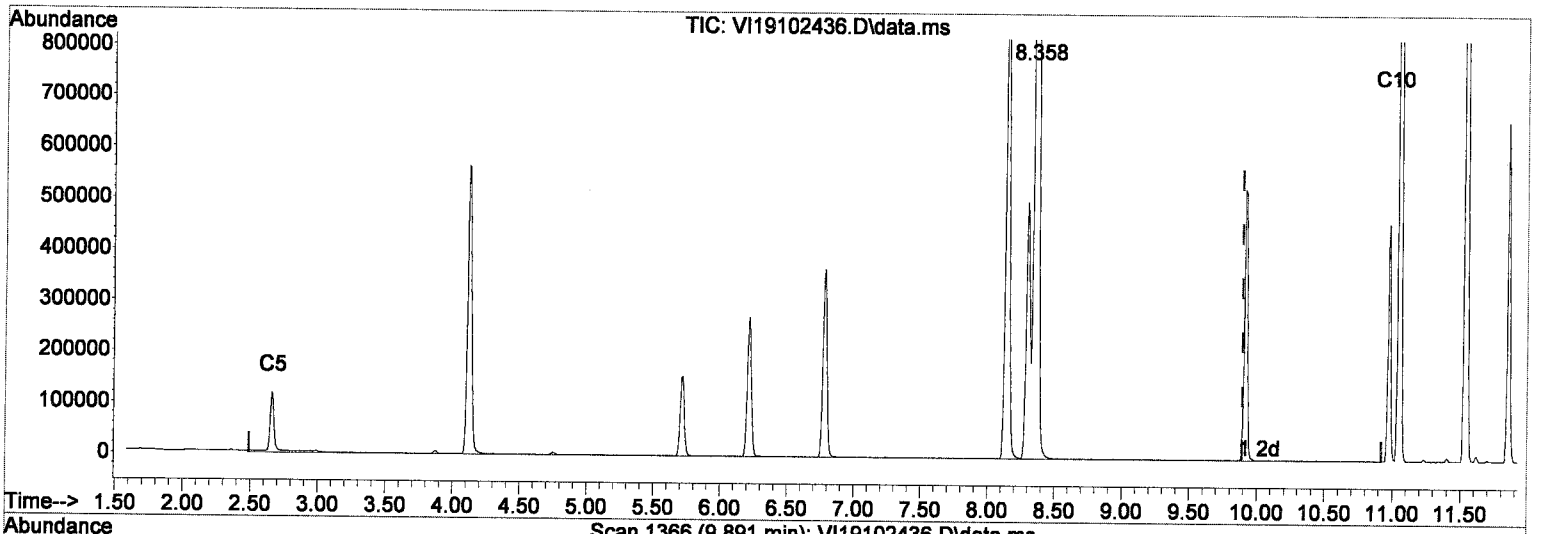
response 19501721

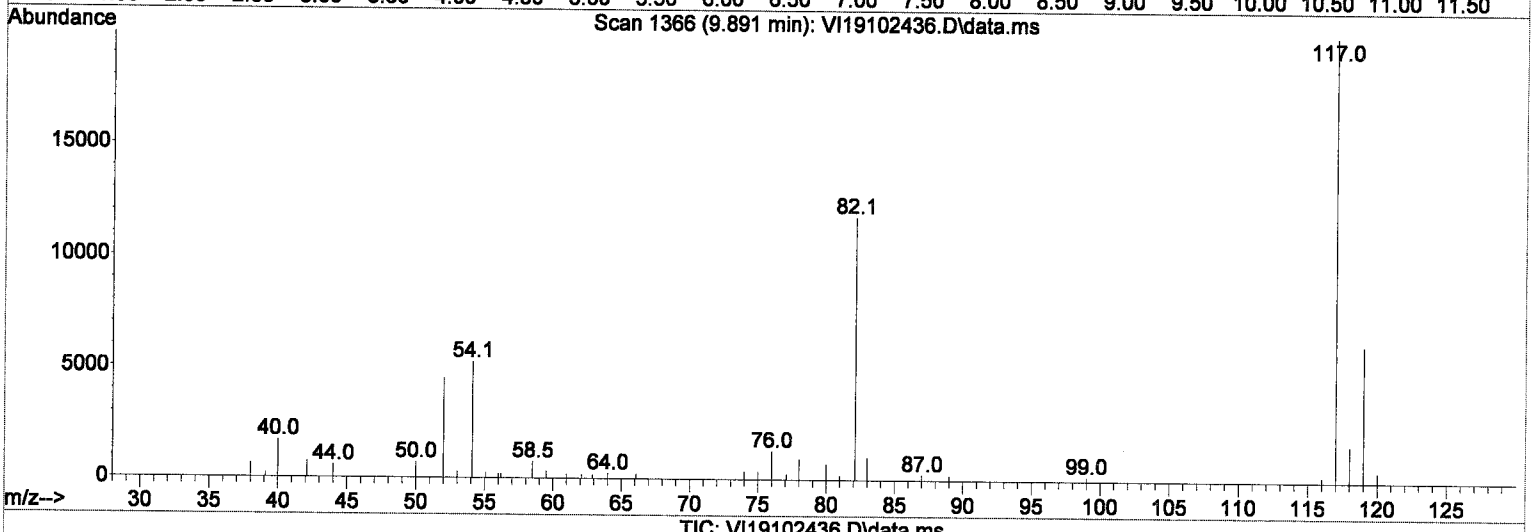
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	1.04#
0.00	0.00	0.76#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102436.D
Acq On : 25 Oct 2019 12:26 am
Operator : MM
Sample : 9J24043-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:34:58 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





TIC: VI19102436.D\data.ms

(5) TPHg (C5-C9) (H)

9.890min (0.000) 973.75 ug/L m

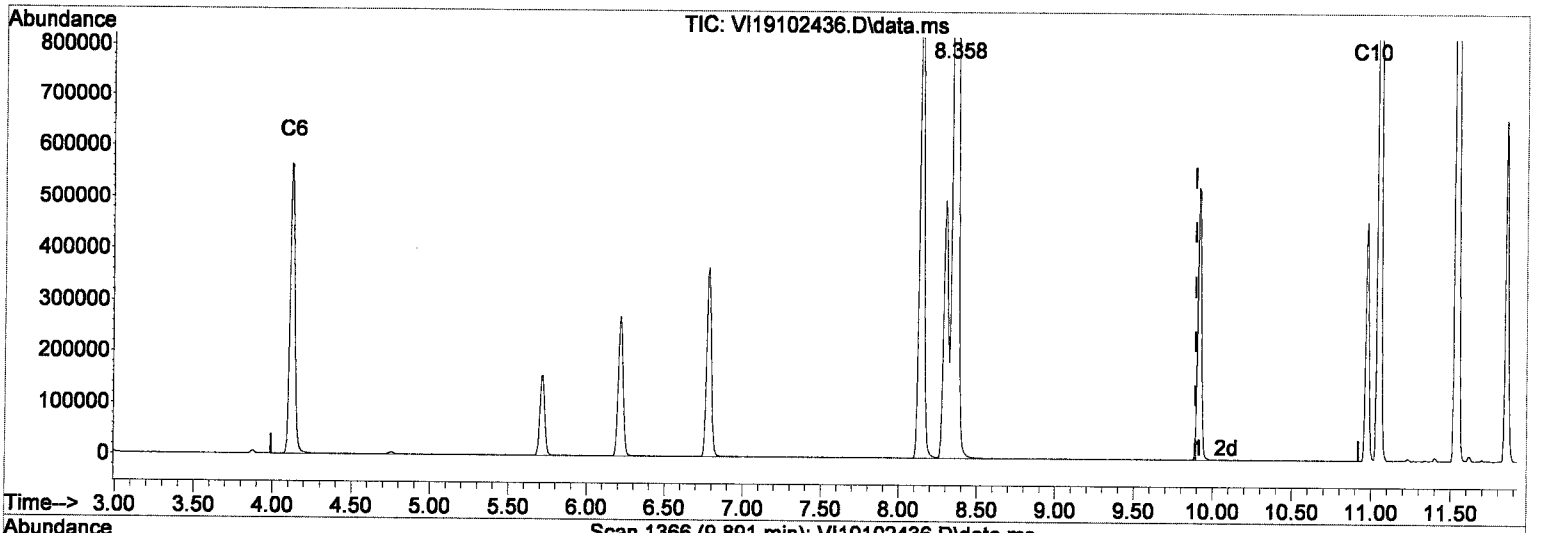
response 8083029

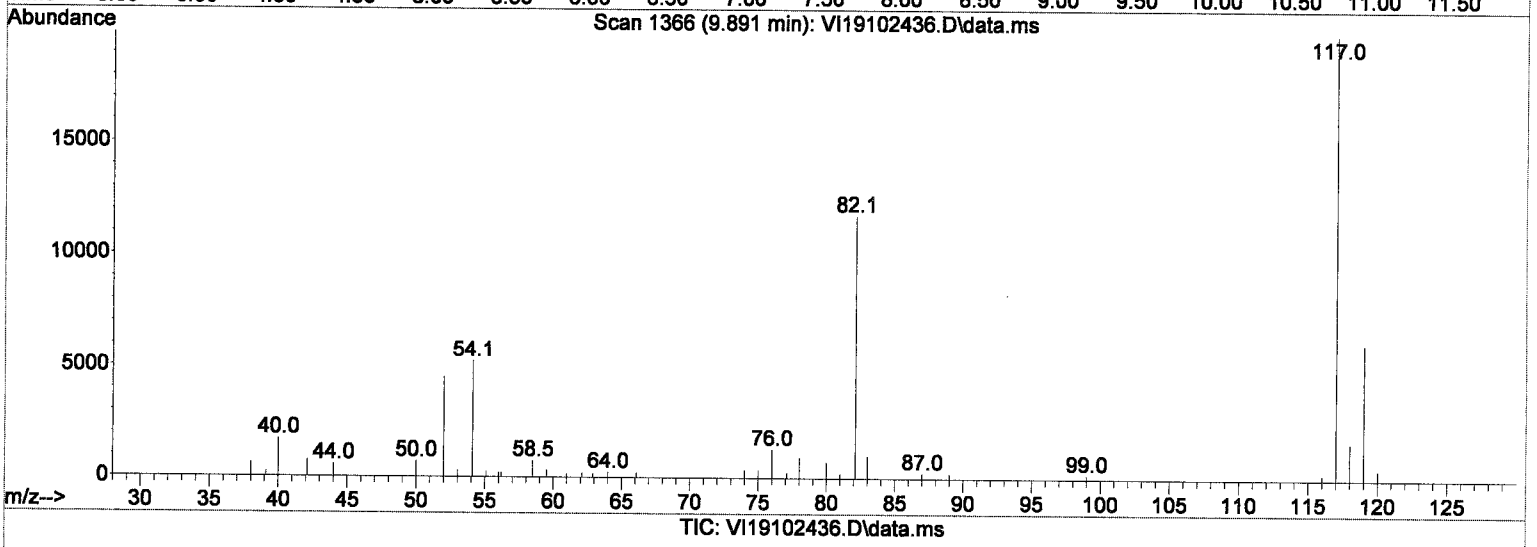
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.52#
0.00	0.00	1.83#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102436.D
Acq On : 25 Oct 2019 12:26 am
Operator : MM
Sample : 9J24043-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:34:58 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





TIC: VI19102436.D\data.ms

(6) TPHg (C6-C10) (H)

9.890min (0.000) 1119.88 ug/L m

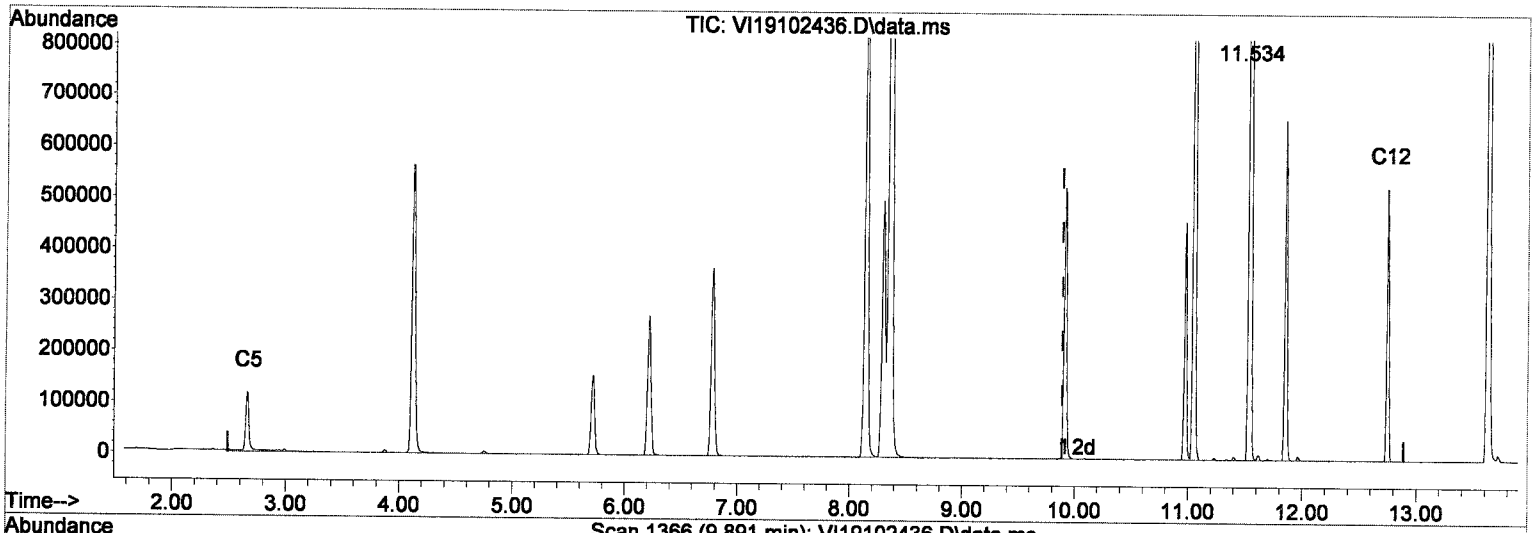
response 7845020

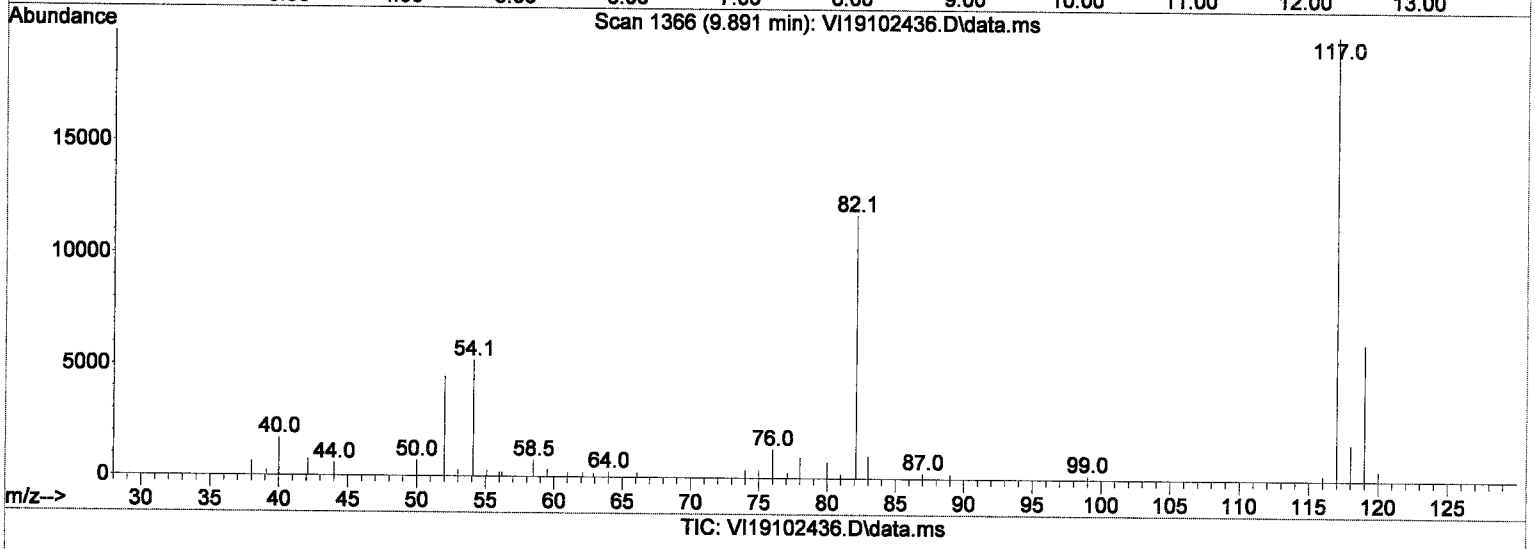
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.60#
0.00	0.00	1.88#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102436.D
Acq On : 25 Oct 2019 12:26 am
Operator : MM
Sample : 9J24043-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:34:58 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





(7) CA-LUFT (C5-C12) (H)

9.890min (0.000) 1651.42 ug/L m

response 16435844

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	1.24#
0.00	0.00	0.90#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102436.D
Acq On : 25 Oct 2019 12:26 am
Operator : MM
Sample : 9J24043-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:34:58 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

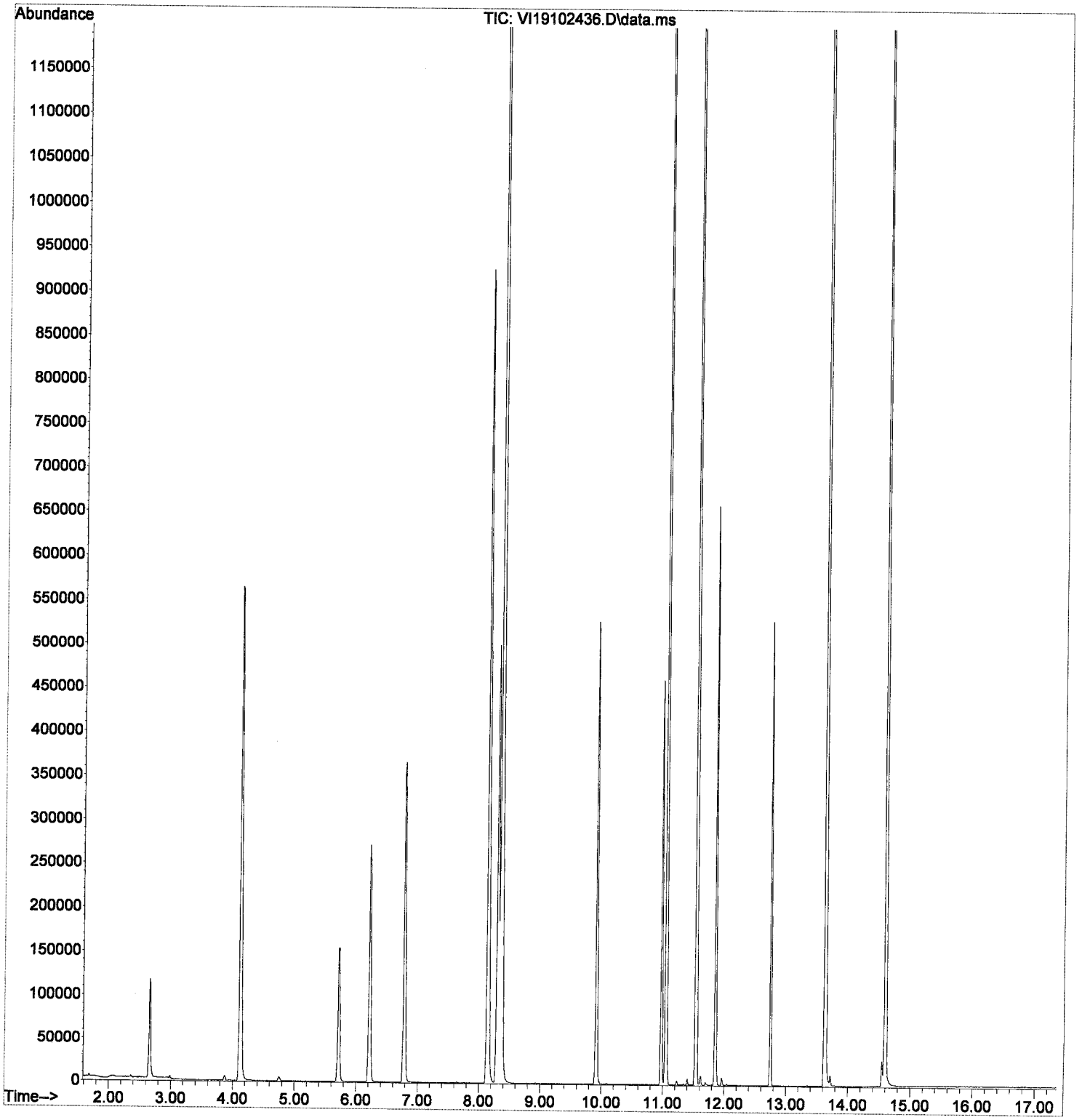
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	218196	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	354554	49.97	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	120603	50.92	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	405063	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	307990	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	238057	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	19501721m	2930.43	ug/L	
5) TPHg (C5-C9)	9.890	TIC	8083029m	973.75	ug/L	
6) TPHg (C6-C10)	9.890	TIC	7845020m	1119.88	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	16435844m	1651.42	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102436.D
Acq On : 25 Oct 2019 12:26 am
Operator : MM
Sample : 9J24043-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:34:58 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102437.D
Acq On : 25 Oct 2019 12:52 am
Operator : MM
Sample : 9J24043-IBL7
Misc : 1X 5mL DI
ALS Vial : 24 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:35:59 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

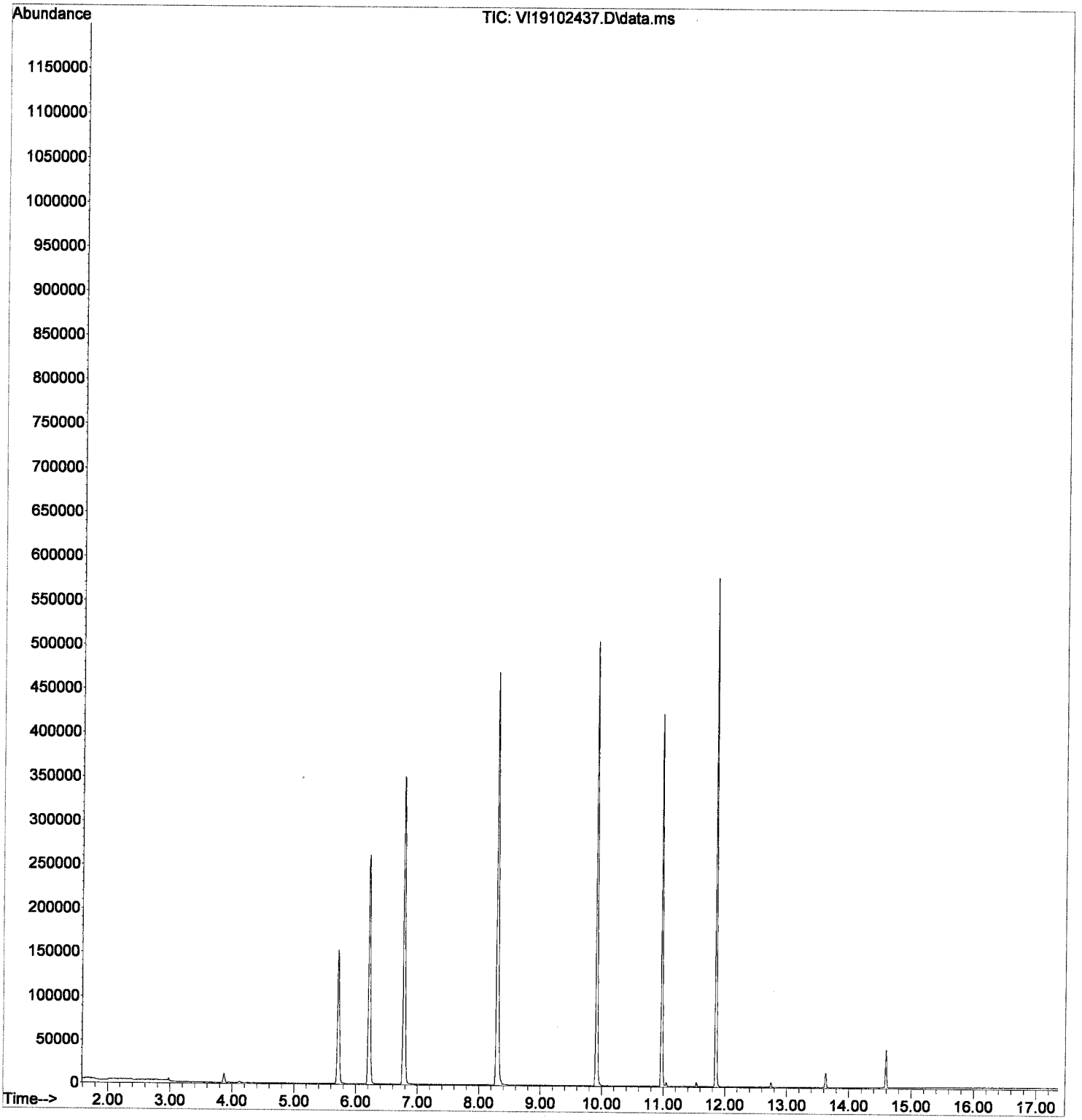
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	210247	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	345936	50.60	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	111405	48.81	ug/L	0.00
9) Toluene-d8 (NR)	8.298	98	383628	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.910	117	292283	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	209732	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	24413m	28.59	ug/L	
5) TPHg (C5-C9)	9.890	TIC	344892m	16.66	ug/L	
6) TPHg (C6-C10)	9.890	TIC	312692m	17.33	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	358119m	21.55	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102437.D
Acq On : 25 Oct 2019 12:52 am
Operator : MM
Sample : 9J24043-IBL7
Misc : 1X 5mL DI
ALS Vial : 24 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:35:59 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102438.D
Acq On : 25 Oct 2019 1:19 am
Operator : MM
Sample : 9J24043-ICB2
Misc : 1X 5mL DI
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

M 10/25/19

Quant Time: Oct 25 10:36:04 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

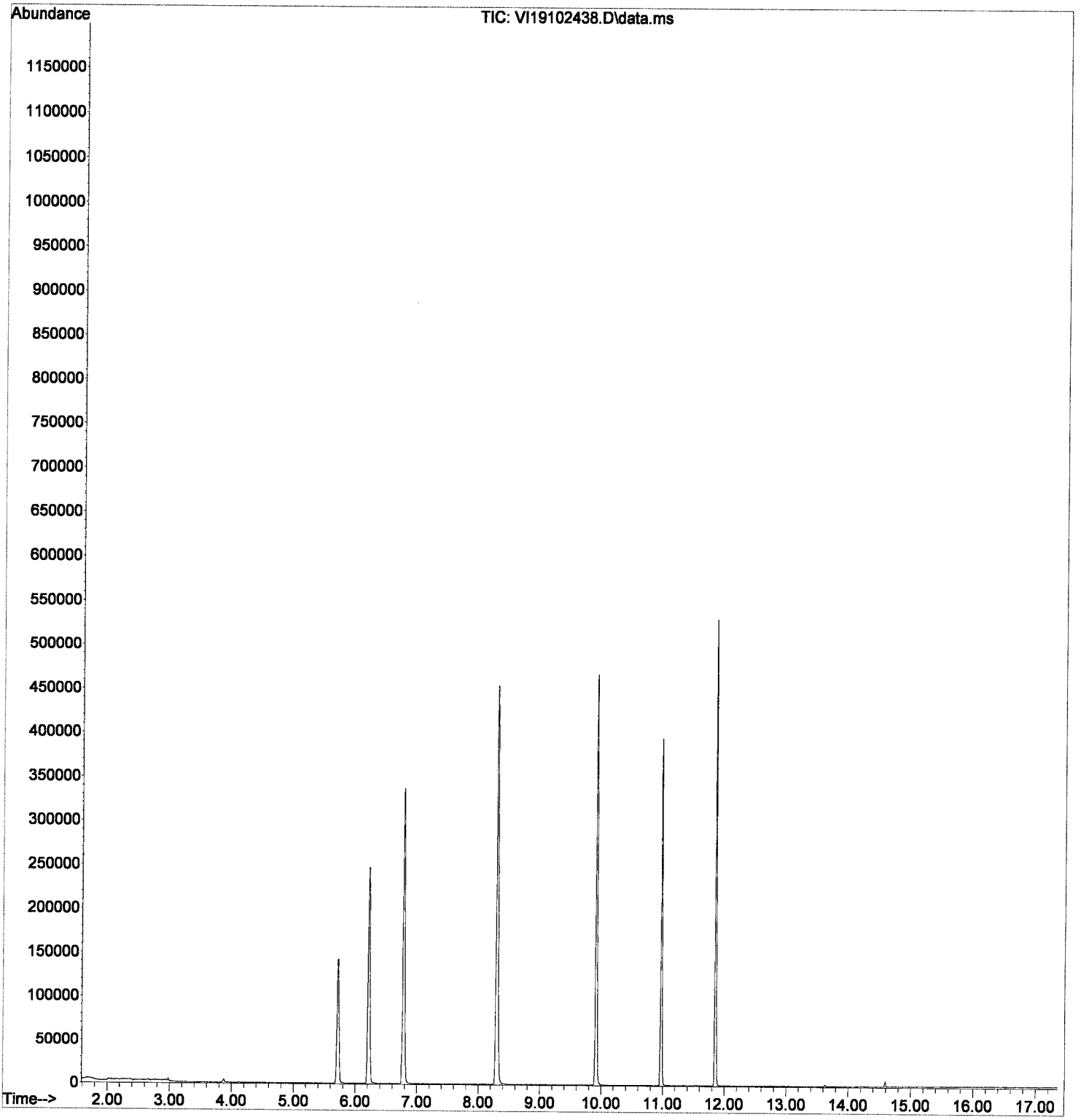
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	197519	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	324404	50.51	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	100113	46.69	ug/L	0.00
9) Toluene-d8 (NR)	8.298	98	365451	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	272946	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	191005	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	3183m	25.18	ug/L	
5) TPHg (C5-C9)	9.890	TIC	344149m	19.44	ug/L	
6) TPHg (C6-C10)	9.890	TIC	310754m	20.11	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	344897m	22.51	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102438.D
Acq On : 25 Oct 2019 1:19 am
Operator : MM
Sample : 9J24043-ICB2
Misc : 1X 5mL DI
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:04 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102439.D
Acq On : 25 Oct 2019 1:46 am
Operator : MM
Sample : 9J24043-CALC
Misc : 1X 5mL 50PPB GX
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

M 10/25/19

Quant Time: Oct 25 08:55:14 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration

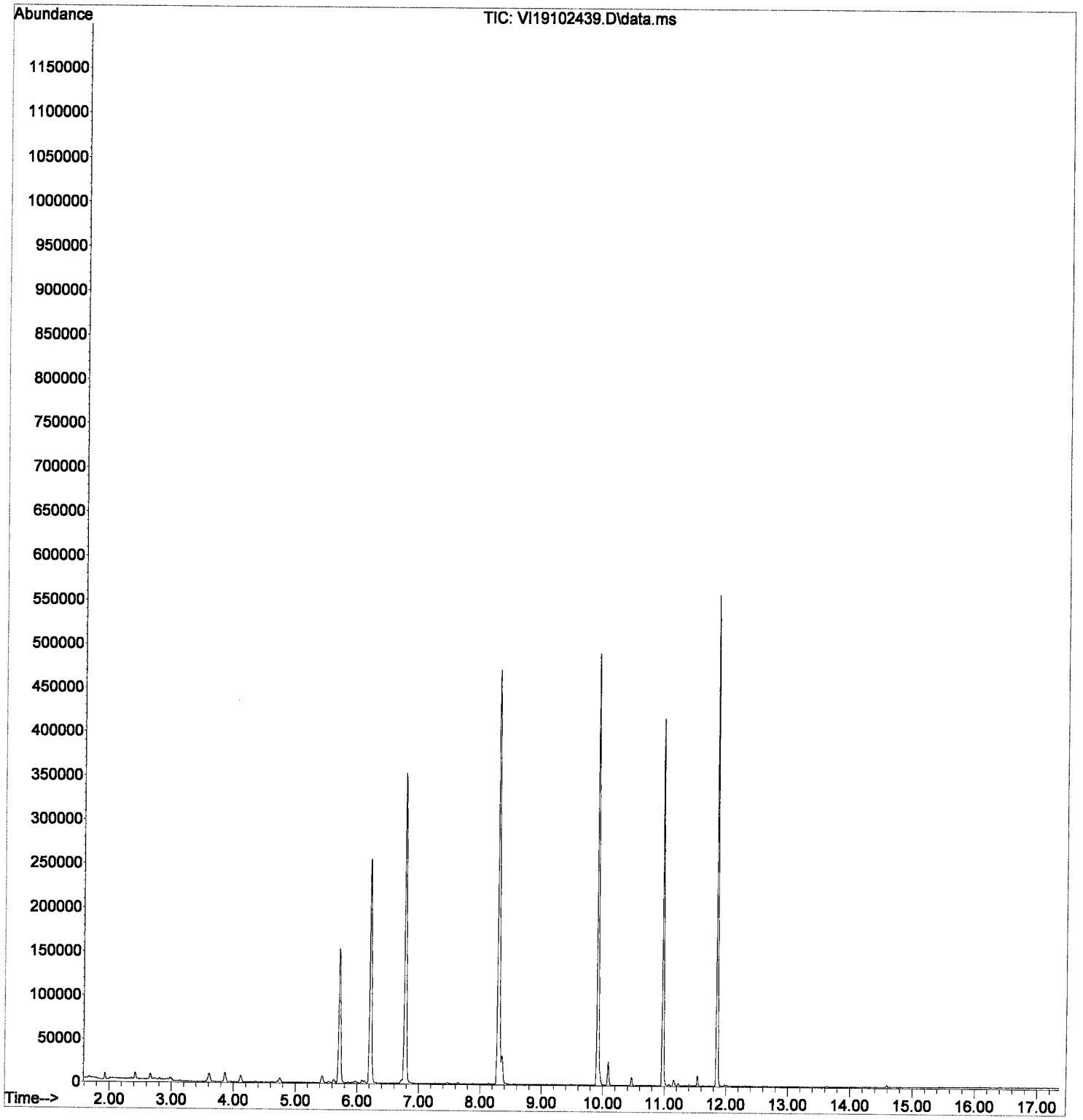
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	209290	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.777	114	341977	48.13	ug/L	-0.01
3) 4-Bromofluorobenzene (...	10.974	174	109139	43.97	ug/L	0.00
9) Toluene-d8 (NR)	8.298	98	385632	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	289080	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	203847	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	193702m	55.98	ug/L	
5) TPHg (C5-C9)	9.890	TIC	646954m	48.30	ug/L	
6) TPHg (C6-C10)	9.890	TIC	557886m	49.25	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	681991m	46.79	ug/L	
8) Benzene (NR)	6.120	78	3046	No Calib		
10) Toluene (NR)	8.358	91	26962	No Calib		
13) Naphthalene (NR)	13.633	128	1492	No Calib	#	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102439.D
Acq On : 25 Oct 2019 1:46 am
Operator : MM
Sample : 9J24043-CALC
Misc : 1X 5mL 50PPB GX
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:14 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102440.D
Acq On : 25 Oct 2019 2:13 am
Operator : MM
Sample : 9J24043-CALD
Misc : 1X 5mL 100PPB GX
ALS Vial : 27 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

W 10/25/19

Quant Time: Oct 25 08:55:16 2019
Quant Method : C:\msdchem\1\methods\VI~~191025G.M~~
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration

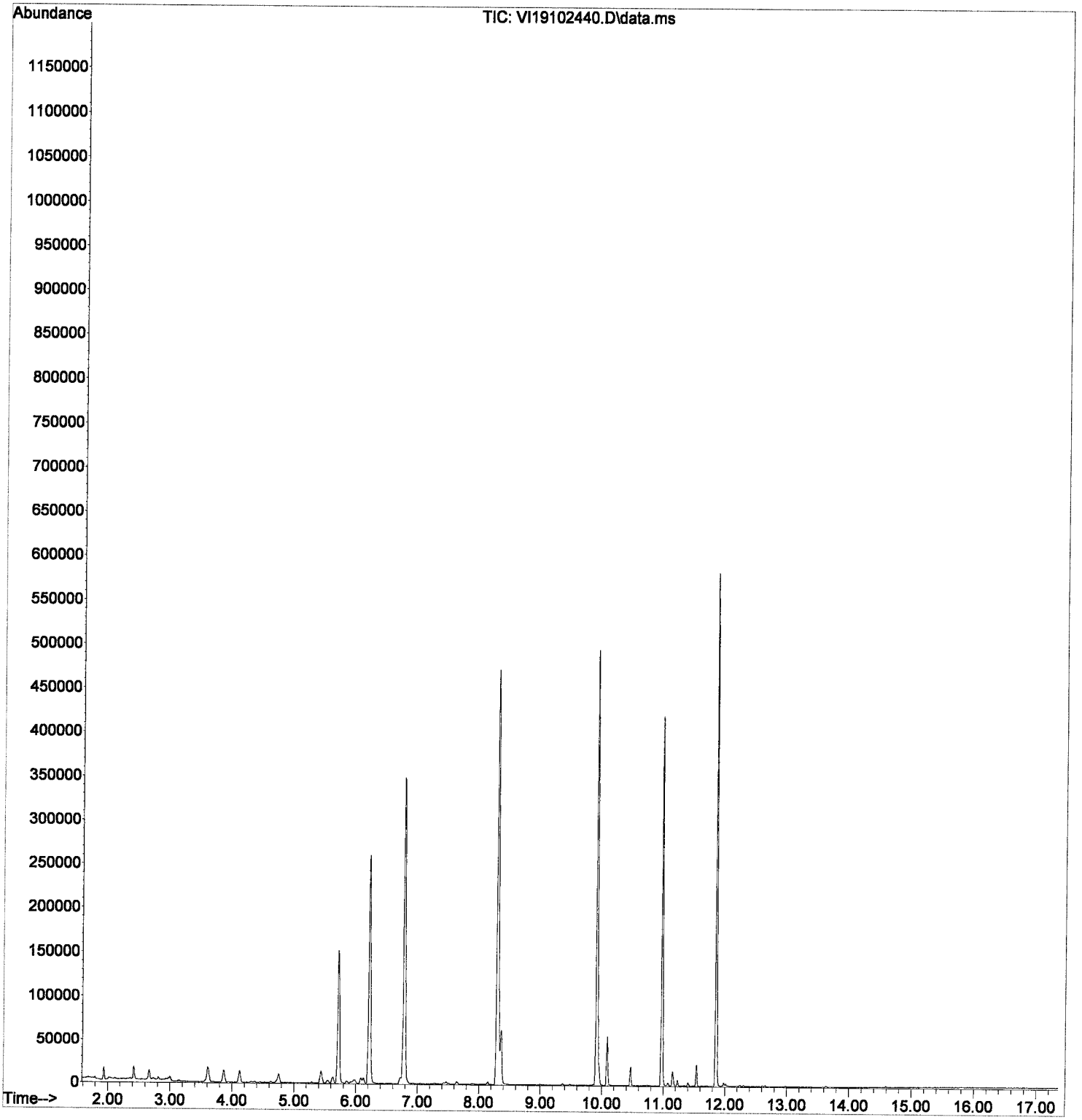
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	209478	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	342473	48.16	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	110020	44.29	ug/L	0.00
9) Toluene-d8 (NR)	8.298	98	383736	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	289519	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	212572	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	430822m	90.27	ug/L	
5) TPHg (C5-C9)	9.890	TIC	918071m	78.43	ug/L	
6) TPHg (C6-C10)	9.890	TIC	799328m	81.58	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	1014687m	77.57	ug/L	
8) Benzene (NR)	6.126	78	5908	No Calib		
10) Toluene (NR)	8.358	91	53262	No Calib		
13) Naphthalene (NR)	13.627	128	1678	No Calib	#	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102440.D
Acq On : 25 Oct 2019 2:13 am
Operator : MM
Sample : 9J24043-CALD
Misc : 1X 5mL 100PPB GX
ALS Vial : 27 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:16 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102441.D
Acq On : 25 Oct 2019 2:40 am
Operator : MM
Sample : 9J24043-CALE
Misc : 1X 5mL 250PPB GX
ALS Vial : 28 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:19 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration

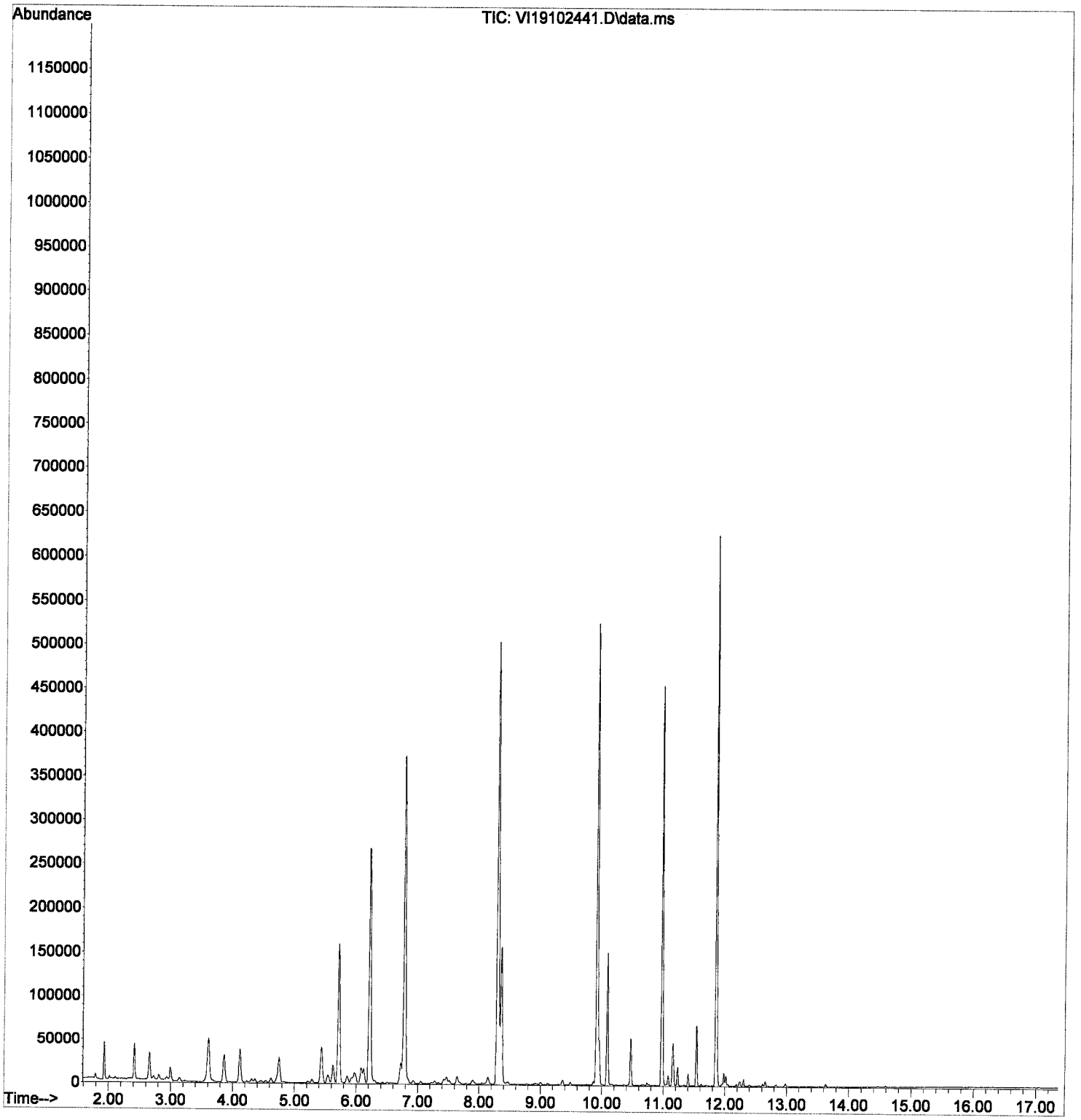
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	220921	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.777	114	357958	47.73	ug/L	-0.01
3) 4-Bromofluorobenzene (...	10.974	174	116770	44.57	ug/L	0.00
9) Toluene-d8 (NR)	8.298	98	404018	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	307058	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	223658	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	1374008m	216.41	ug/L	
5) TPHg (C5-C9)	9.890	TIC	2153713m	203.72	ug/L	
6) TPHg (C6-C10)	9.890	TIC	1839524m	208.44	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	2493143m	202.69	ug/L	
8) Benzene (NR)	6.120	78	15473	No Calib		
10) Toluene (NR)	8.358	91	140638	No Calib		
13) Naphthalene (NR)	13.627	128	3143	No Calib	#	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102441.D
Acq On : 25 Oct 2019 2:40 am
Operator : MM
Sample : 9J24043-CALE
Misc : 1X 5mL 250PPB GX
ALS Vial : 28 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:19 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102442.D
Acq On : 25 Oct 2019 3:07 am
Operator : MM
Sample : 9J24043-CALF
Misc : 1X 5mL 500PPB GX
ALS Vial : 29 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:22 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration

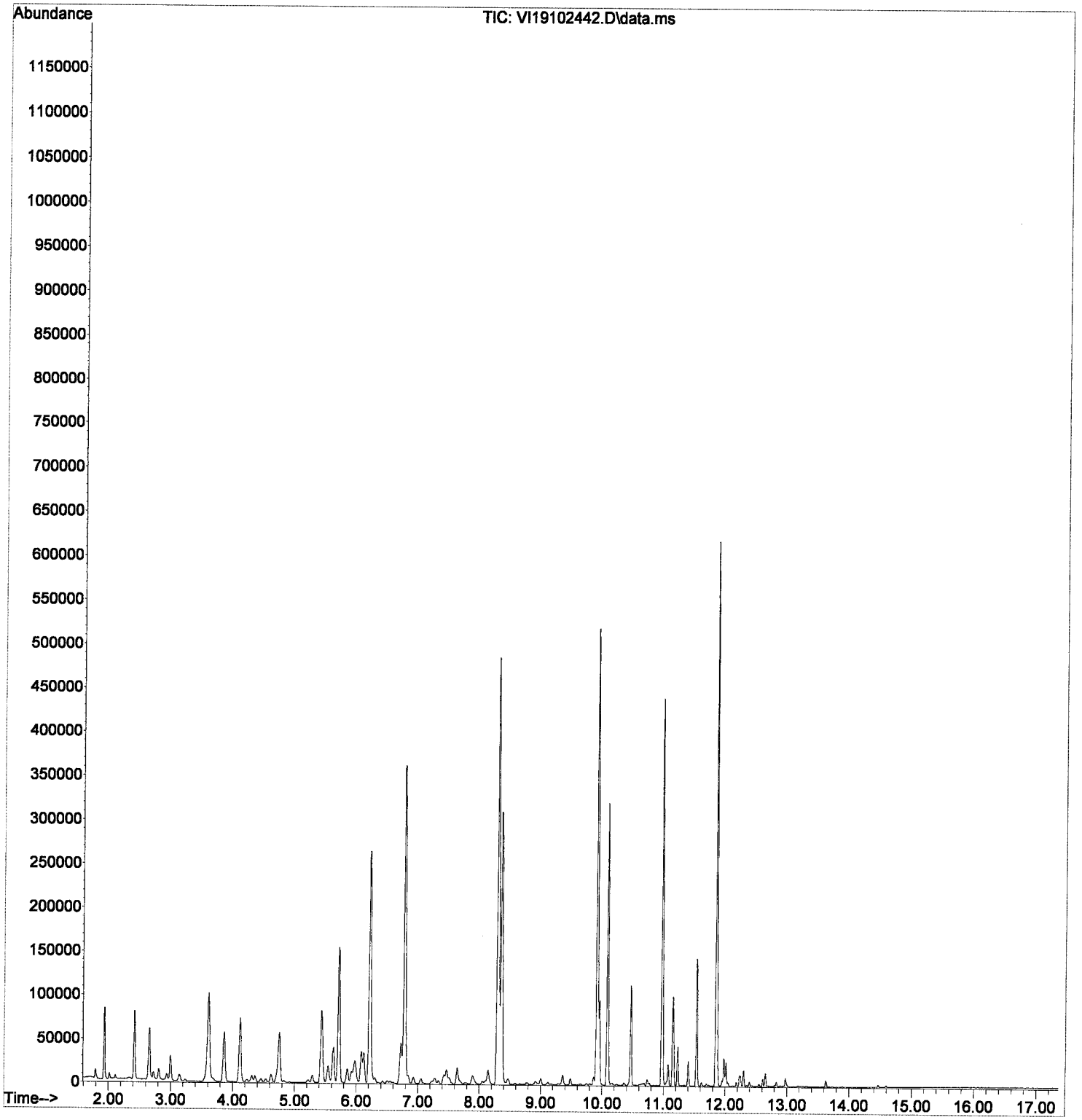
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	214780	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	347086	47.60	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	115043	45.16	ug/L	0.00
9) Toluene-d8 (NR)	8.298	98	395742	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	299444	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	223960	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	2976997m	447.66	ug/L	
5) TPHg (C5-C9)	9.890	TIC	4135130m	425.95	ug/L	
6) TPHg (C6-C10)	9.890	TIC	3507779m	433.73	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	4877141m	424.71	ug/L	
8) Benzene (NR)	6.120	78	31187	No Calib		
10) Toluene (NR)	8.358	91	281045	No Calib		
13) Naphthalene (NR)	13.627	128	6060	No Calib	#	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102442.D
Acq On : 25 Oct 2019 3:07 am
Operator : MM
Sample : 9J24043-CALF
Misc : 1X 5mL 500PPB GX
ALS Vial : 29 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:22 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102443.D
Acq On : 25 Oct 2019 3:34 am
Operator : MM
Sample : 9J24043-CALG
Misc : 1X 5mL 1000PPB GX
ALS Vial : 30 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:25 2019
Quant Method : C:\msdchem\1\methods\~~VI191025G~~.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration

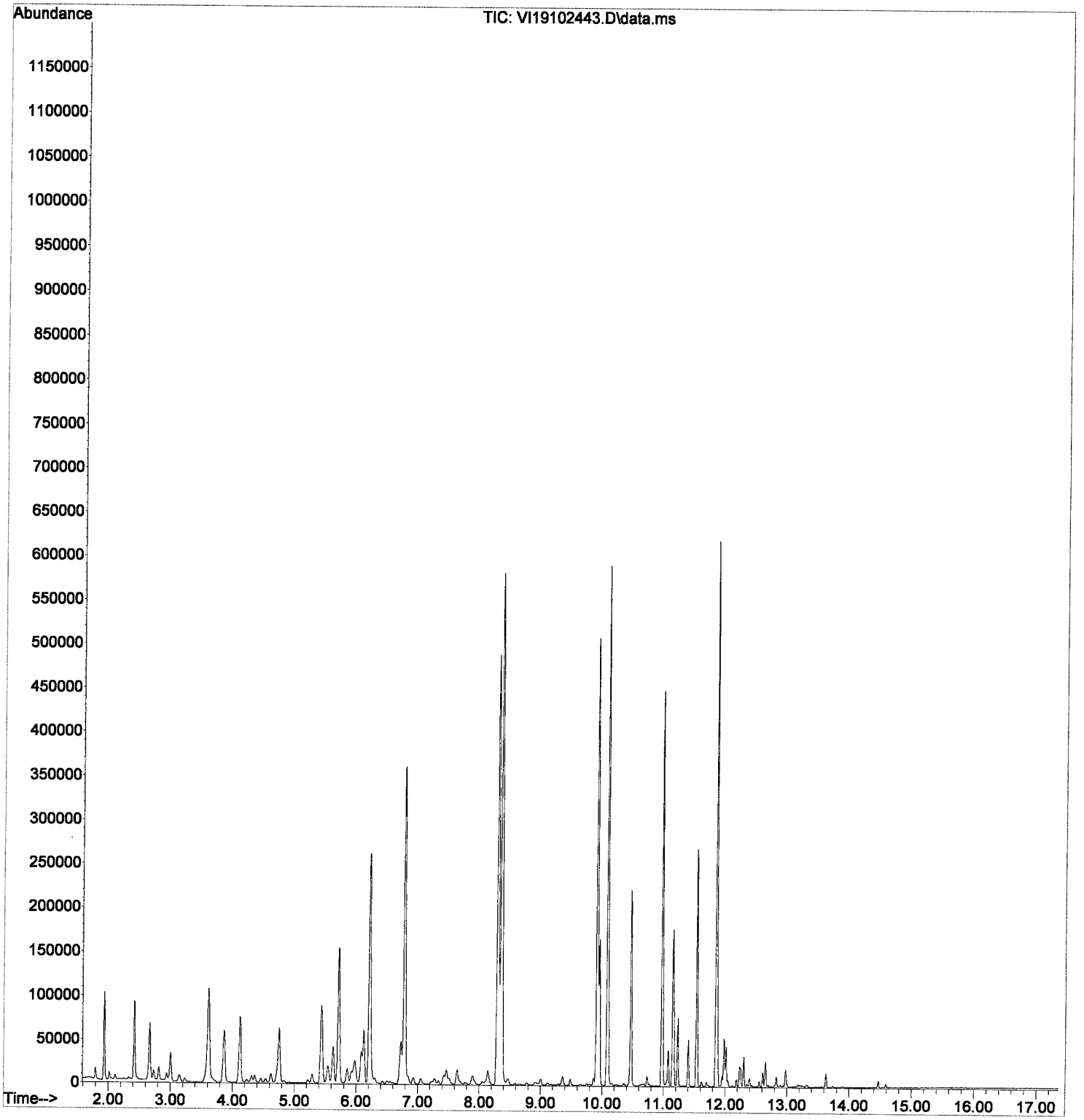
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	211453	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	348407	48.54	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	115114	45.90	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	392439	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	298529	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	222551	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	4888792m	727.40	ug/L	
5) TPHg (C5-C9)	9.890	TIC	5510904m	585.41	ug/L	
6) TPHg (C6-C10)	9.890	TIC	4867313m	622.06	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	6835714m	611.85	ug/L	
8) Benzene (NR)	6.119	78	58175	No Calib		
10) Toluene (NR)	8.358	91	520899	No Calib		
13) Naphthalene (NR)	13.627	128	12132	No Calib		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102443.D
Acq On : 25 Oct 2019 3:34 am
Operator : MM
Sample : 9J24043-CALG
Misc : 1X 5mL 1000PPB GX
ALS Vial : 30 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:25 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102444.D
Acq On : 25 Oct 2019 4:00 am
Operator : MM
Sample : 9J24043-CALH
Misc : 1X 5mL 2500PPB GX
ALS Vial : 31 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:28 2019
Quant Method : C:\msdchem\1\methods\~~VI191025~~G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration

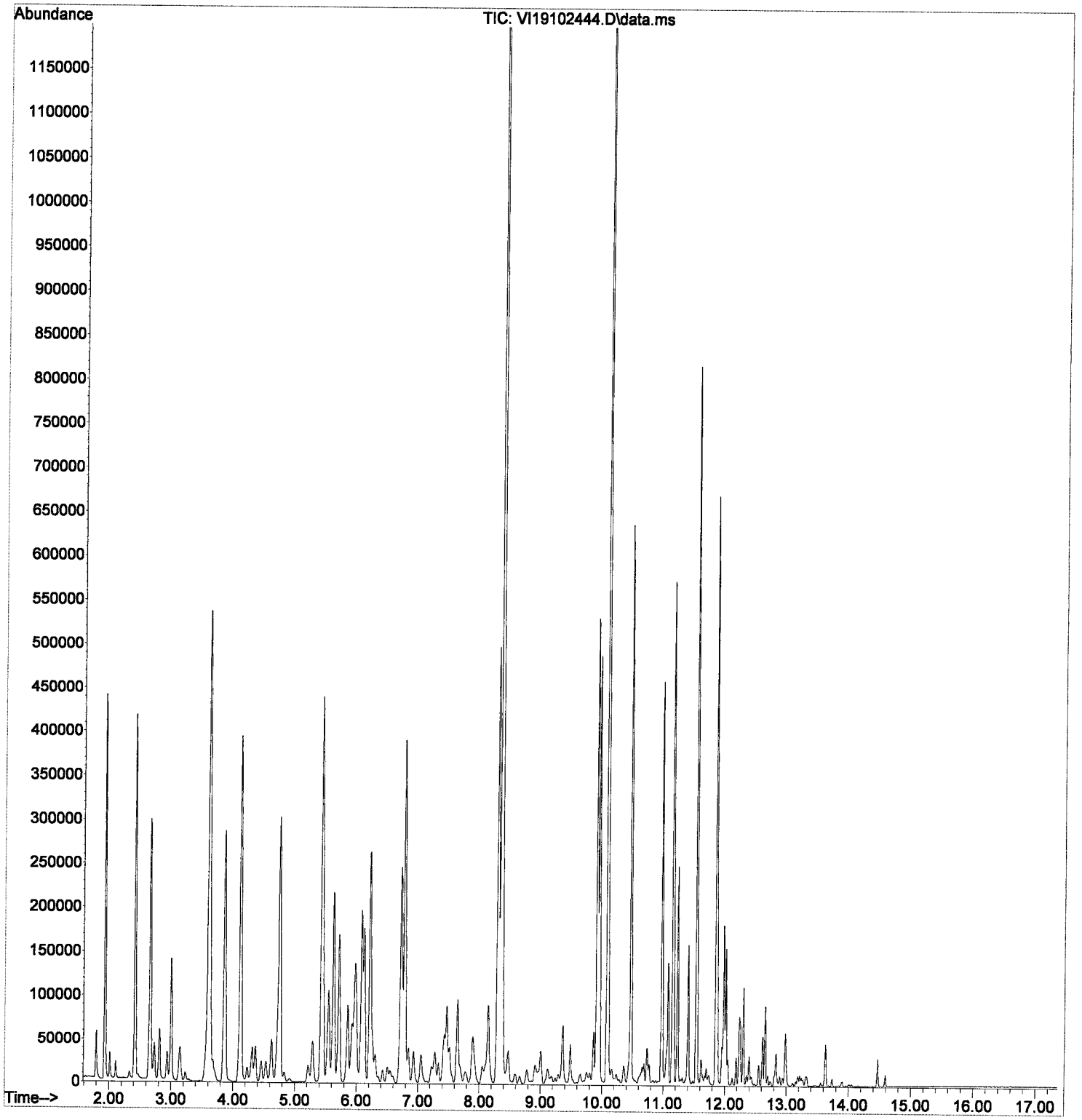
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	216435	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	352248	47.94	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	120135	46.80	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	398721	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	303642	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	237458	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	16775203m	2359.89	ug/L	
5) TPHg (C5-C9)	9.890	TIC	21028250m	2263.03	ug/L	
6) TPHg (C6-C10)	9.890	TIC	17780255m	2293.78	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	25461195m	2277.93	ug/L	
8) Benzene (NR)	6.119	78	158403	No Calib		
10) Toluene (NR)	8.358	91	1477009	No Calib		
13) Naphthalene (NR)	13.627	128	35052	No Calib		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102444.D
Acq On : 25 Oct 2019 4:00 am
Operator : MM
Sample : 9J24043-CALH
Misc : 1X 5mL 2500PPB GX
ALS Vial : 31 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:28 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102445.D
Acq On : 25 Oct 2019 4:27 am
Operator : MM
Sample : 9J24043-CALI
Misc : 1X 5mL 5000PPB GX
ALS Vial : 32 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:31 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration

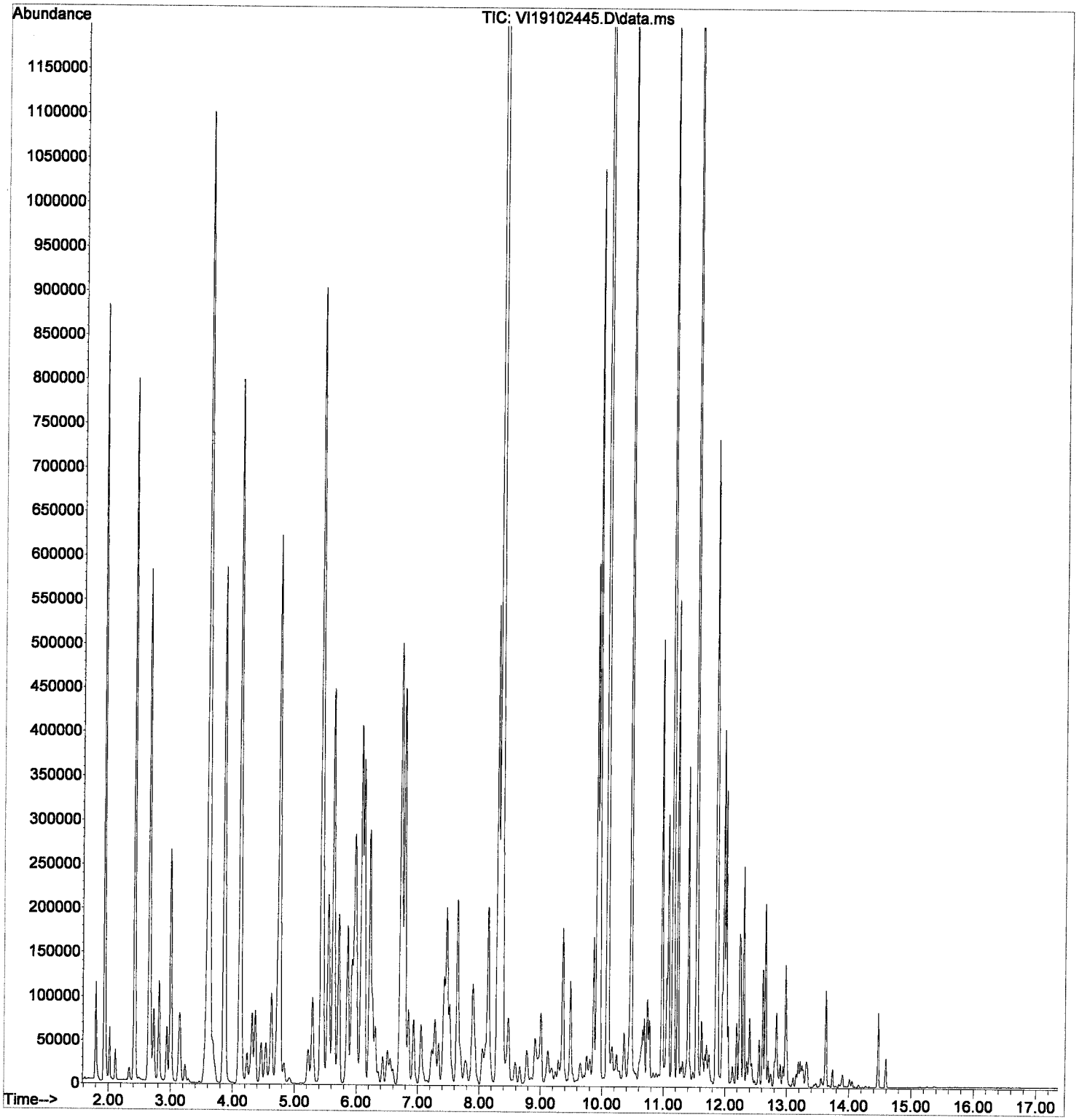
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	233849	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	379658	47.83	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	131653	47.47	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	428988	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	328511	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	265485	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	36698243m	4712.25	ug/L	
5) TPHg (C5-C9)	9.890	TIC	44004926m	4445.71	ug/L	
6) TPHg (C6-C10)	9.890	TIC	37352617m	4504.22	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	53937364m	4503.02	ug/L	
8) Benzene (NR)	6.119	78	331579	No Calib		
10) Toluene (NR)	8.358	91	3164737	No Calib		
13) Naphthalene (NR)	13.627	128	80787	No Calib		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102445.D
Acq On : 25 Oct 2019 4:27 am
Operator : MM
Sample : 9J24043-CALI
Misc : 1X 5mL 5000PPB GX
ALS Vial : 32 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:31 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102446.D
Acq On : 25 Oct 2019 4:54 am
Operator : MM
Sample : 9J24043-CALJ
Misc : 1X 5mL 10000PPB GX
ALS Vial : 33 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:34 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration

W 10/28/19

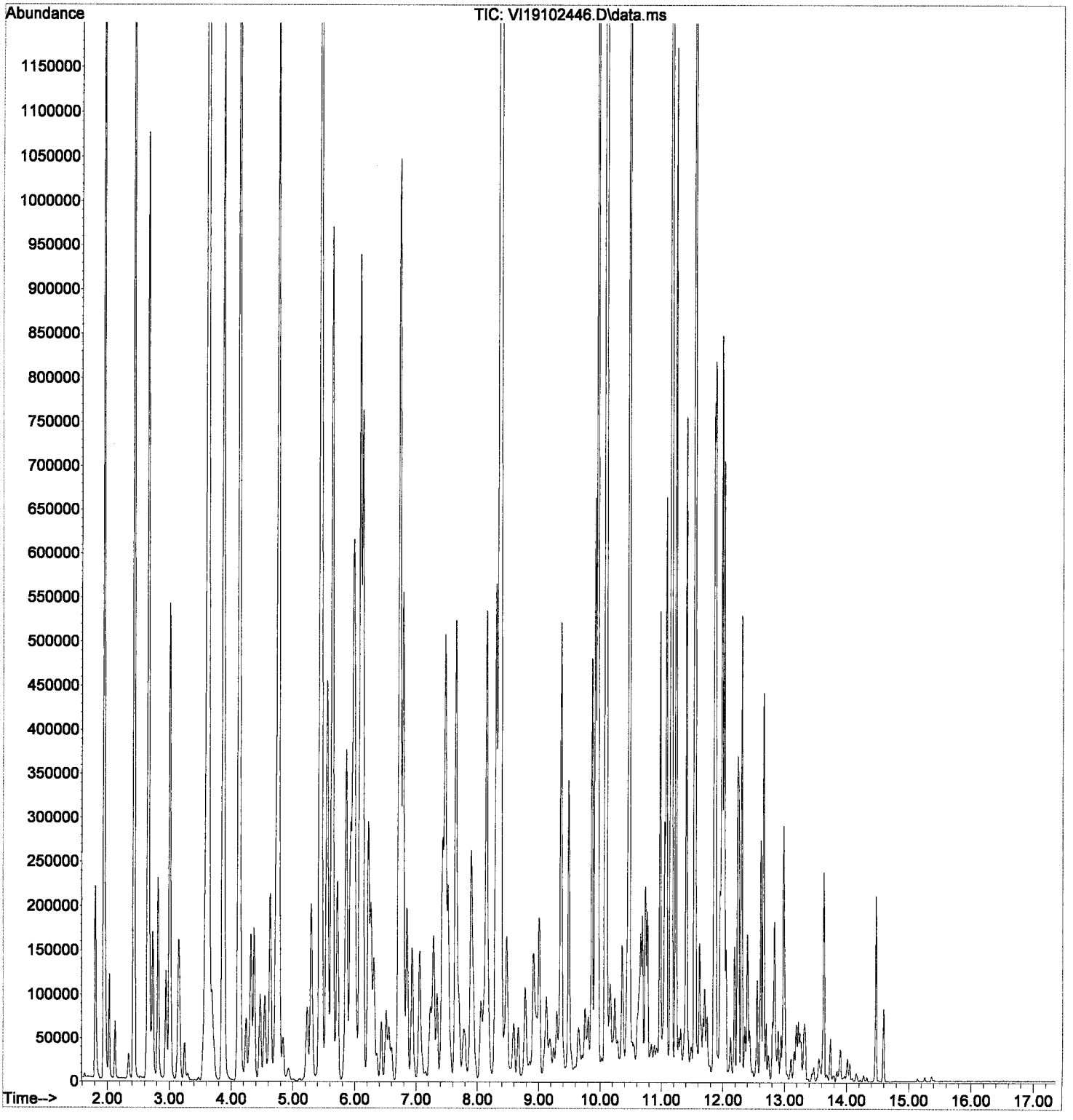
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	234183	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	384961	48.42	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	134509	48.43	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	441445	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	336849	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	271148	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	79562476m	9992.42	ug/L	
5) TPHg (C5-C9)	9.890	TIC	92937489m	9609.74	ug/L	
6) TPHg (C6-C10)	9.890	TIC	79339461m	9683.51	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	114341182m	9654.93	ug/L	
8) Benzene (NR)	6.126	78	681943	No Calib		
10) Toluene (NR)	8.358	91	6524048	No Calib		
13) Naphthalene (NR)	13.627	128	171453	No Calib		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102446.D
Acq On : 25 Oct 2019 4:54 am
Operator : MM
Sample : 9J24043-CALJ
Misc : 1X 5mL 10000PPB GX
ALS Vial : 33 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:34 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102447.D
Acq On : 25 Oct 2019 5:21 am
Operator : MM
Sample : 9J24043-IBL8
Misc : 1X 5mL DI
ALS Vial : 34 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:23 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

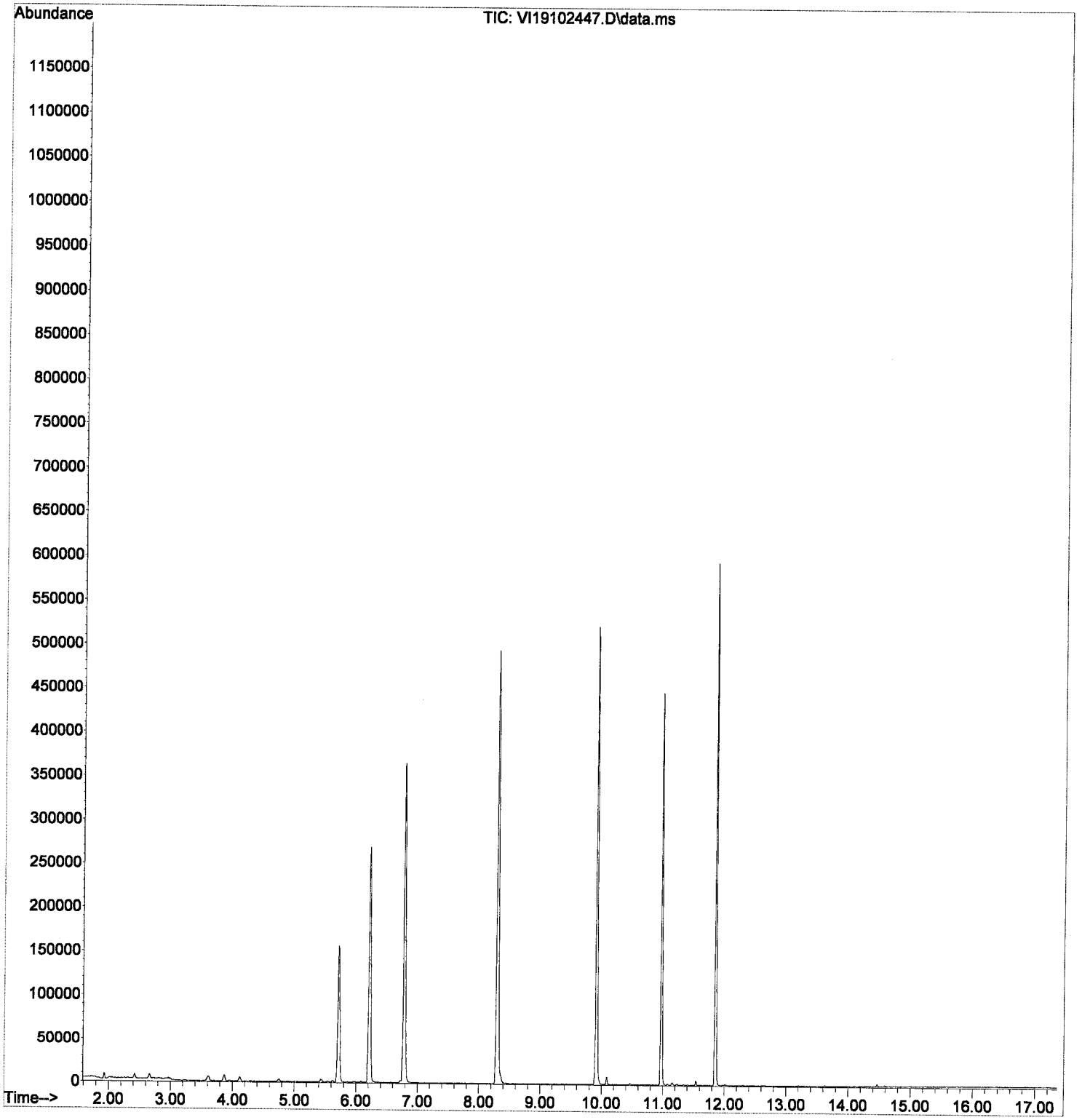
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	220300	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	358131	50.00	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	115759	48.41	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	401614	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	304304	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	217857	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	67010m	34.98	ug/L	
5) TPHg (C5-C9)	9.890	TIC	462754m	29.19	ug/L	
6) TPHg (C6-C10)	9.890	TIC	415778m	30.25	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	479273m	32.16	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102447.D
Acq On : 25 Oct 2019 5:21 am
Operator : MM
Sample : 9J24043-IBL8
Misc : 1X 5mL DI
ALS Vial : 34 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:23 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102448.D
Acq On : 25 Oct 2019 5:48 am
Operator : MM
Sample : 9J24043-IBL9
Misc : 1X 5mL DI
ALS Vial : 35 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:26 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

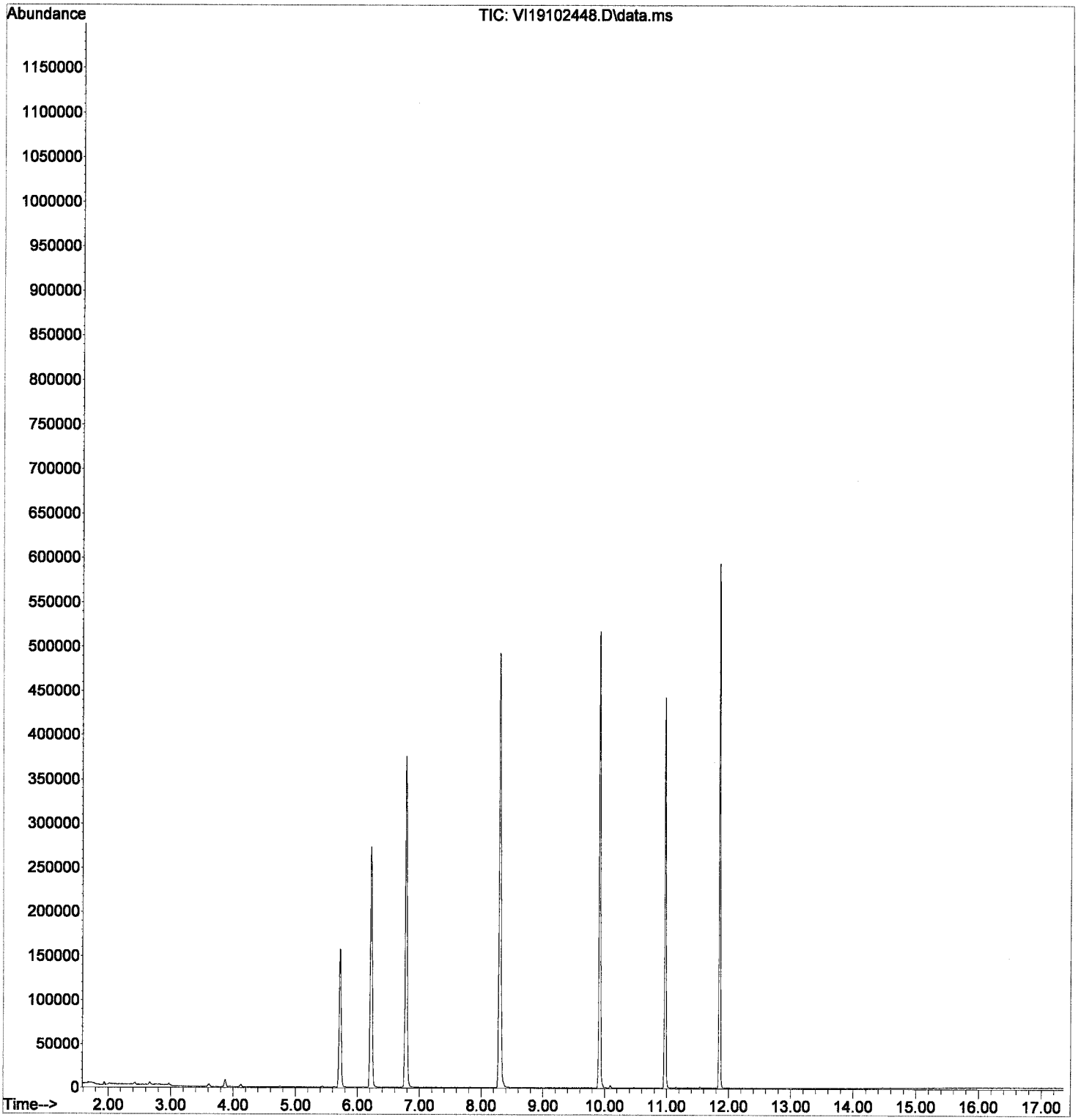
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	224165	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	364141	49.96	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	116148	47.73	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	404017	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	307716	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	221768	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	6246m	25.58	ug/L	
5) TPHg (C5-C9)	9.890	TIC	423048m	23.38	ug/L	
6) TPHg (C6-C10)	9.890	TIC	367482m	22.24	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	414999m	24.87	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102448.D
Acq On : 25 Oct 2019 5:48 am
Operator : MM
Sample : 9J24043-IBL9
Misc : 1X 5mL DI
ALS Vial : 35 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:26 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102449.D
Acq On : 25 Oct 2019 6:15 am
Operator : MM
Sample : NOT USED-ICV3
Misc : 1X 5mL 500PPB GX
ALS Vial : 36 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:29 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

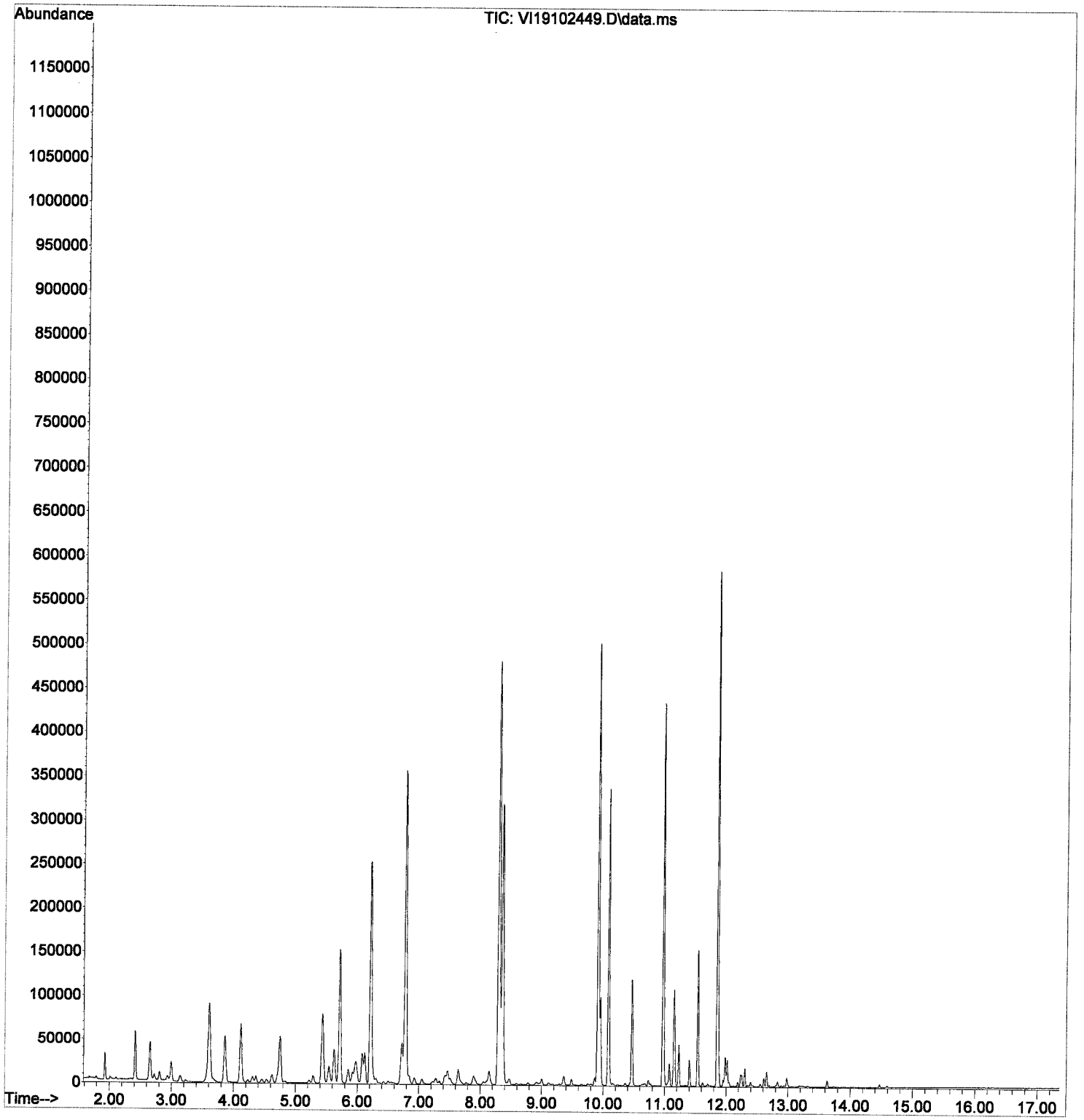
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	210169	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	342543	50.13	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	111447	48.85	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	389625	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	294881	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	215811	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	3057398m	515.56	ug/L	
5) TPHg (C5-C9)	9.890	TIC	4012577m	490.15	ug/L	
6) TPHg (C6-C10)	9.890	TIC	3490261m	503.63	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	4796224m	494.15	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102449.D
Acq On : 25 Oct 2019 6:15 am
Operator : MM
Sample : NOT USED-ICV3
Misc : 1X 5mL 500PPB GX
ALS Vial : 36 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:29 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102450.D
Acq On : 25 Oct 2019 6:42 am
Operator : MM
Sample : 9J24043-IBLA
Misc : 1X 5mL DI
ALS Vial : 37 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:32 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

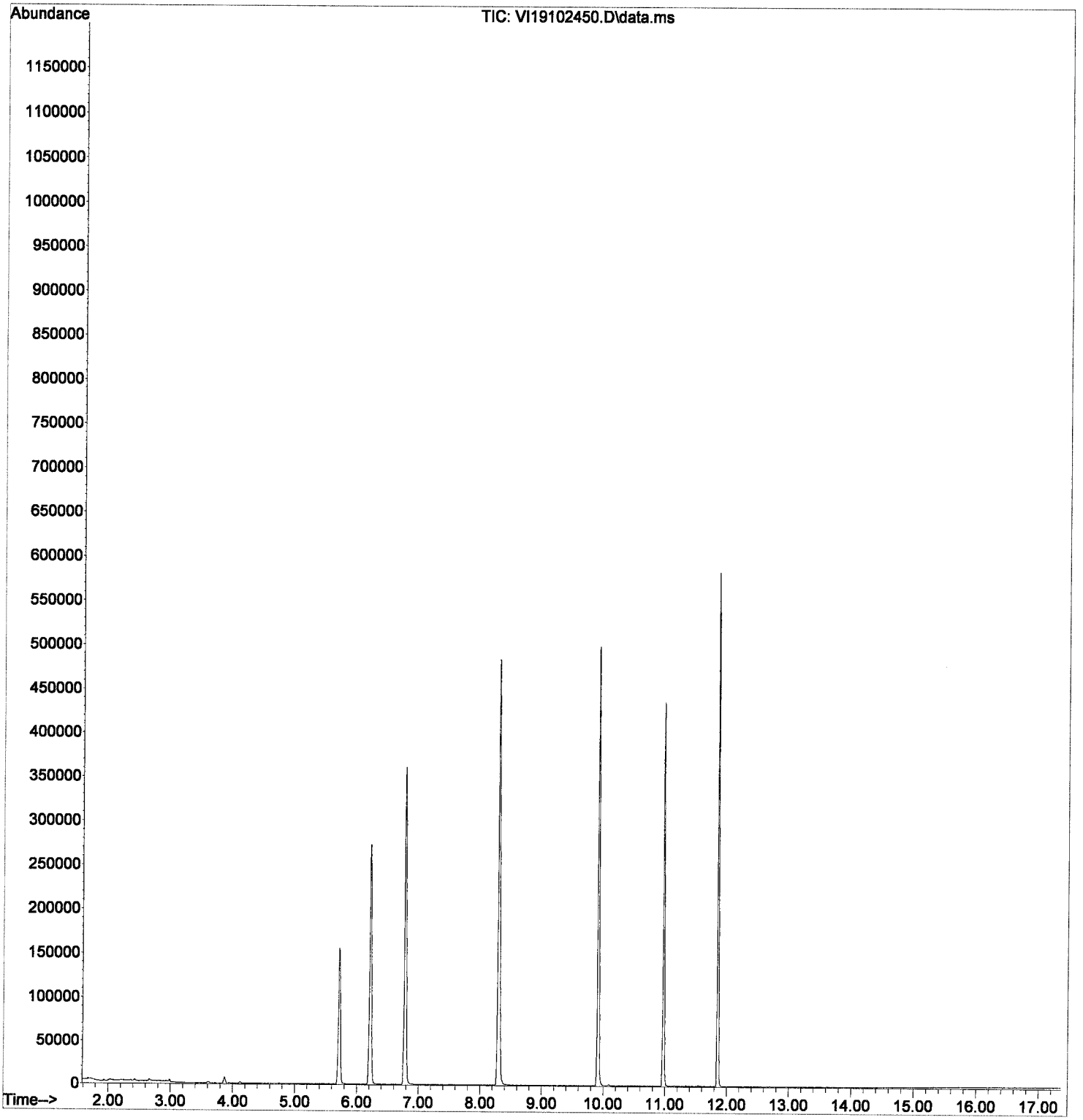
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	220005	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	355641	49.72	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	113694	47.61	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	395183	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	297812	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	216661	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	1338m	24.84	ug/L	
5) TPHg (C5-C9)	9.890	TIC	395852m	20.99	ug/L	
6) TPHg (C6-C10)	9.890	TIC	356830m	21.68	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	380718m	22.16	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102450.D
Acq On : 25 Oct 2019 6:42 am
Operator : MM
Sample : 9J24043-IBLA
Misc : 1X 5mL DI
ALS Vial : 37 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:32 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102451.D
Acq On : 25 Oct 2019 9:37 am
Operator : MM
Sample : 9J24043-IBLB
Misc : 1X 5mL DI
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:35 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

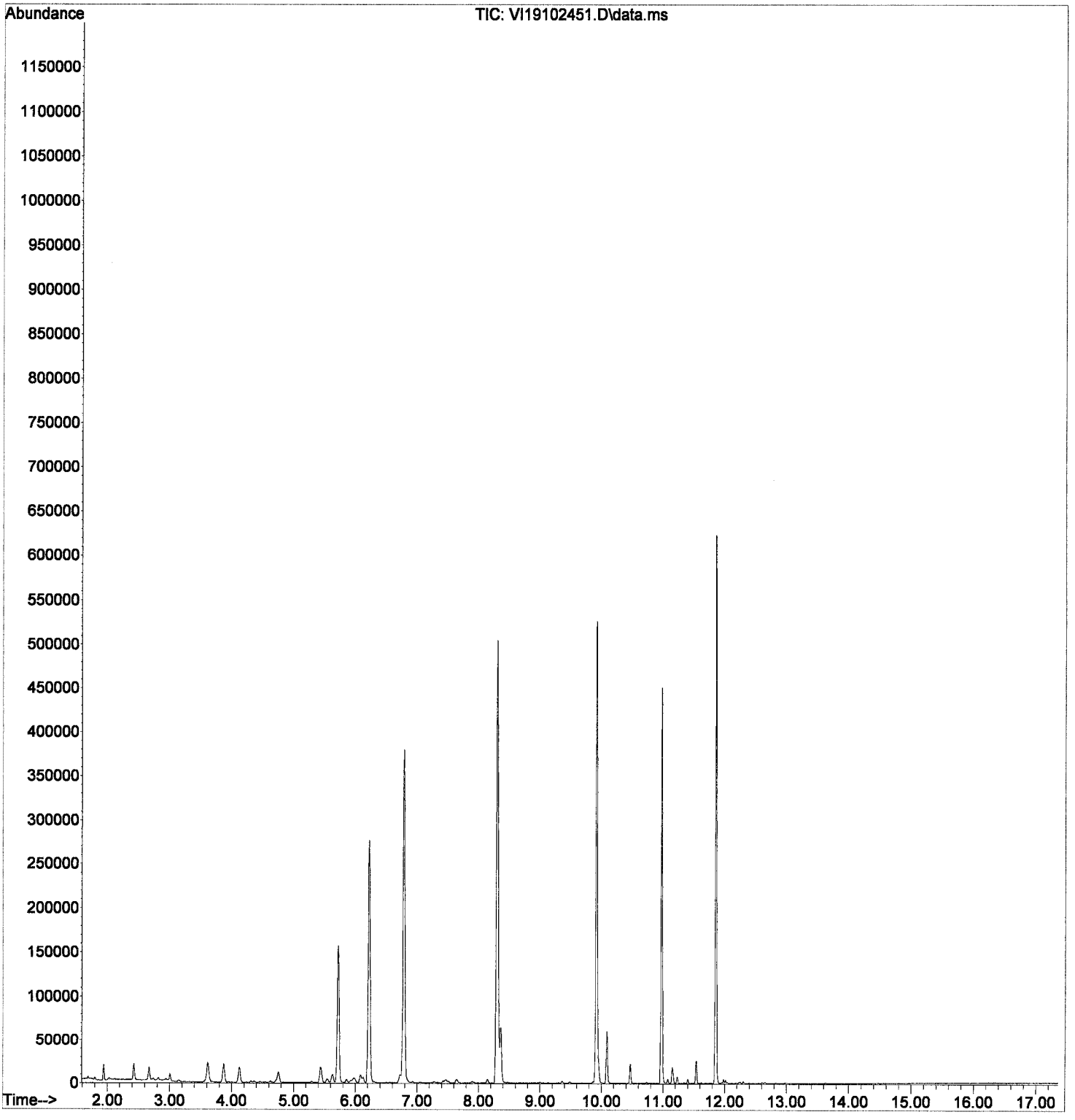
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	220874	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	362775	50.51	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	117808	49.14	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	408461	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	309494	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	224643	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	516538m	104.07	ug/L	
5) TPHg (C5-C9)	9.890	TIC	1099818m	107.51	ug/L	
6) TPHg (C6-C10)	9.890	TIC	929473m	105.15	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	1204383m	105.77	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102451.D
Acq On : 25 Oct 2019 9:37 am
Operator : MM
Sample : 9J24043-IBLB
Misc : 1X 5mL DI
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:35 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102452.D
Acq On : 25 Oct 2019 10:13 am
Operator : MM
Sample : 9J24043-CALG
Misc : 1X 5mL 1000PPB GX
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:30:48 2019
Quant Method : C:\msdchem\1\methods\~~VI191025G~~.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 09:04:24 2019
Response via : Initial Calibration

MM 10/25/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	234293	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	376297	49.24	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	126230	49.57	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	425778	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	321320	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	240304	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	6735895m	1025.45	ug/L	
5) TPHg (C5-C9)	9.890	TIC	9031832m	1085.81	ug/L	
6) TPHg (C6-C10)	9.890	TIC	7648071m	1079.95	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	10733621m	1066.65	ug/L	
8) Benzene (NR)	6.126	78	64412	No Calib		
10) Toluene (NR)	8.358	91	587525	No Calib		
13) Naphthalene (NR)	13.627	128	13369	No Calib		

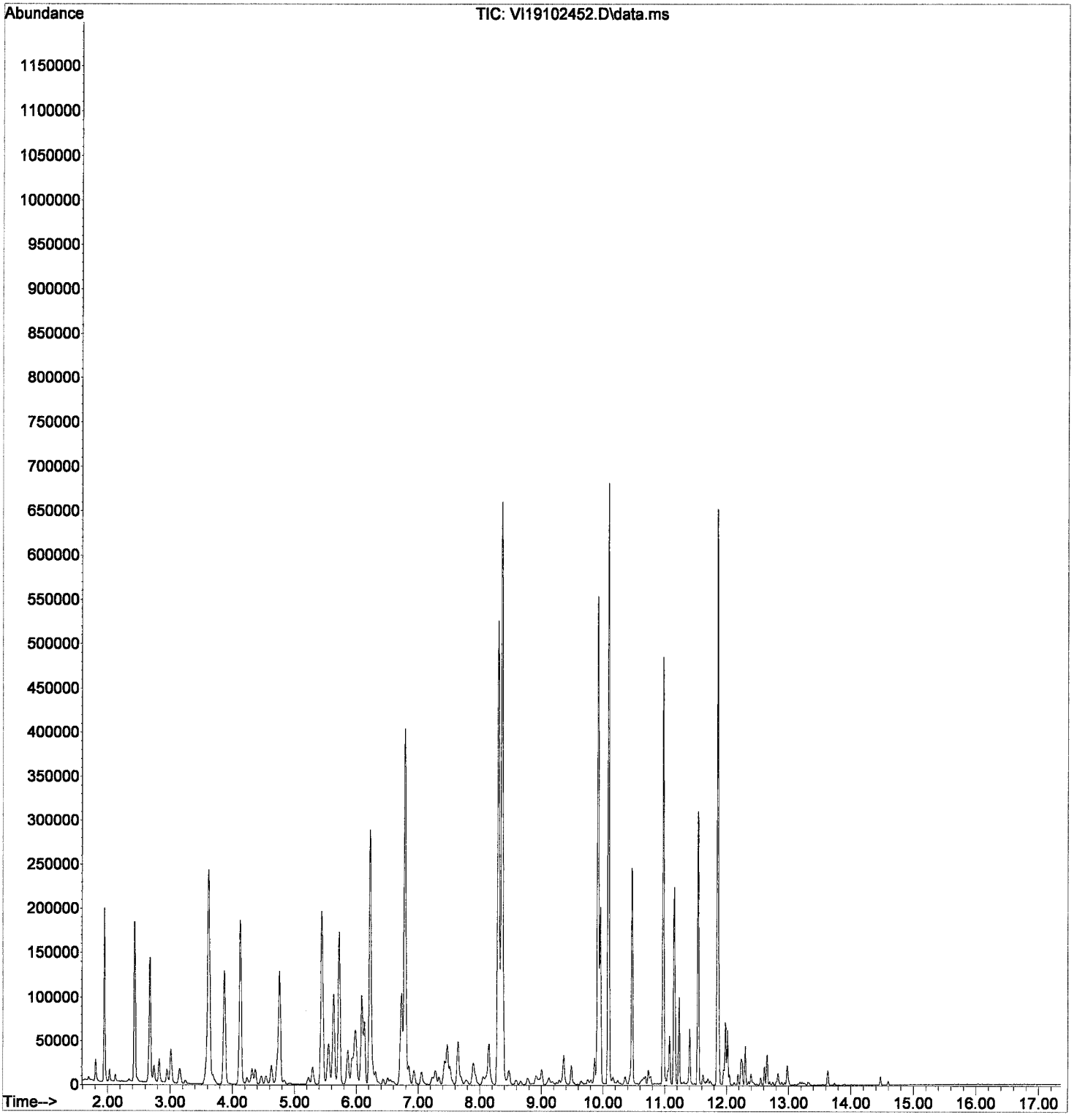
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Re-prepped @ 10/25/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102452.D
Acq On : 25 Oct 2019 10:13 am
Operator : MM
Sample : 9J24043-CALG
Misc : 1X 5mL 1000PPB GX
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:30:48 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 09:04:24 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102453.D
Acq On : 25 Oct 2019 10:40 am
Operator : MM
Sample : 9J24043-ICV3
Misc : 1X 5mL 500PPB GX
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:55:48 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

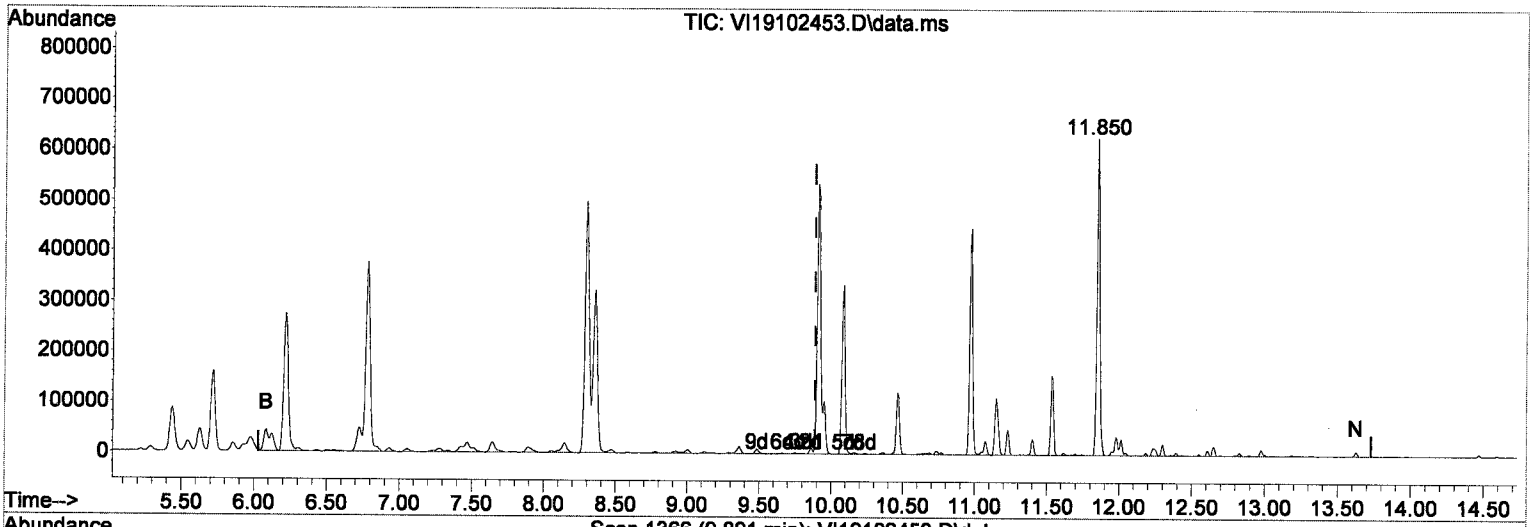
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	221958	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	358721	49.70	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	117543	48.79	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	403727	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.910	117	307598	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	224832	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	3205343m	512.01	ug/L	
5) TPHg (C5-C9)	9.890	TIC	4234043m	489.71	ug/L	
6) TPHg (C6-C10)	9.890	TIC	3681976m	503.04	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	5059070m	493.53	ug/L	

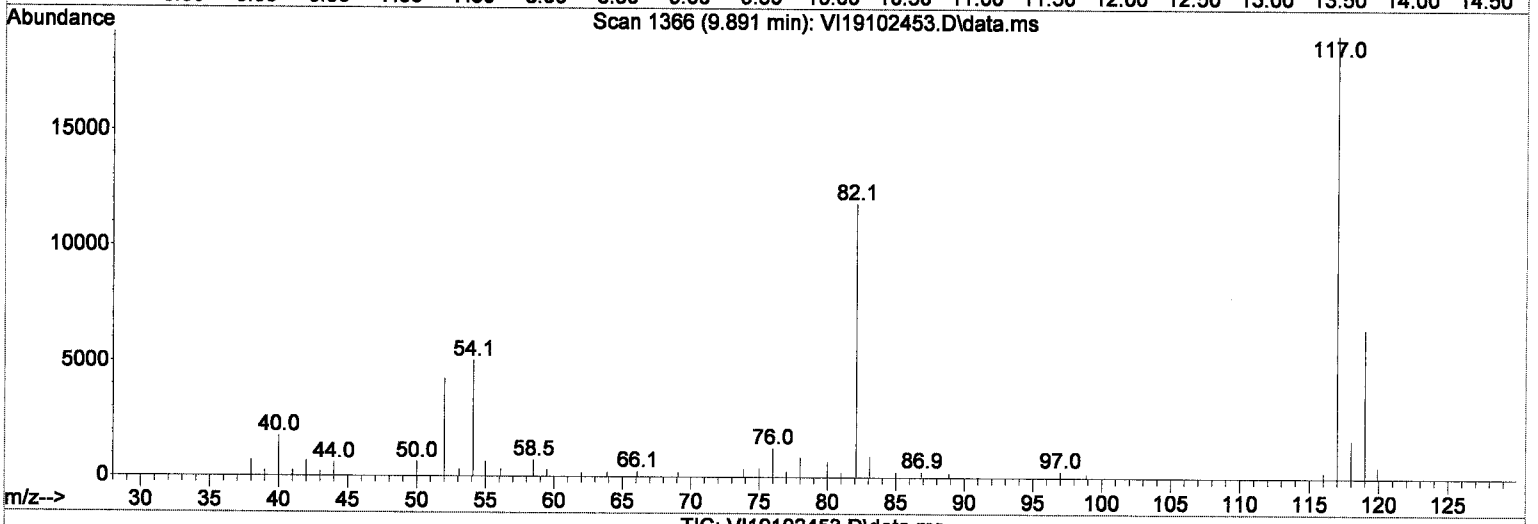
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102453.D
Acq On : 25 Oct 2019 10:40 am
Operator : MM
Sample : 9J24043-ICV3
Misc : 1X 5mL 500PPB GX
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:55:48 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





TIC: VI19102453.D\data.ms

(4) NWTPH-Gx (TPH) (H)

9.890min (0.000) 512.01 ug/L m

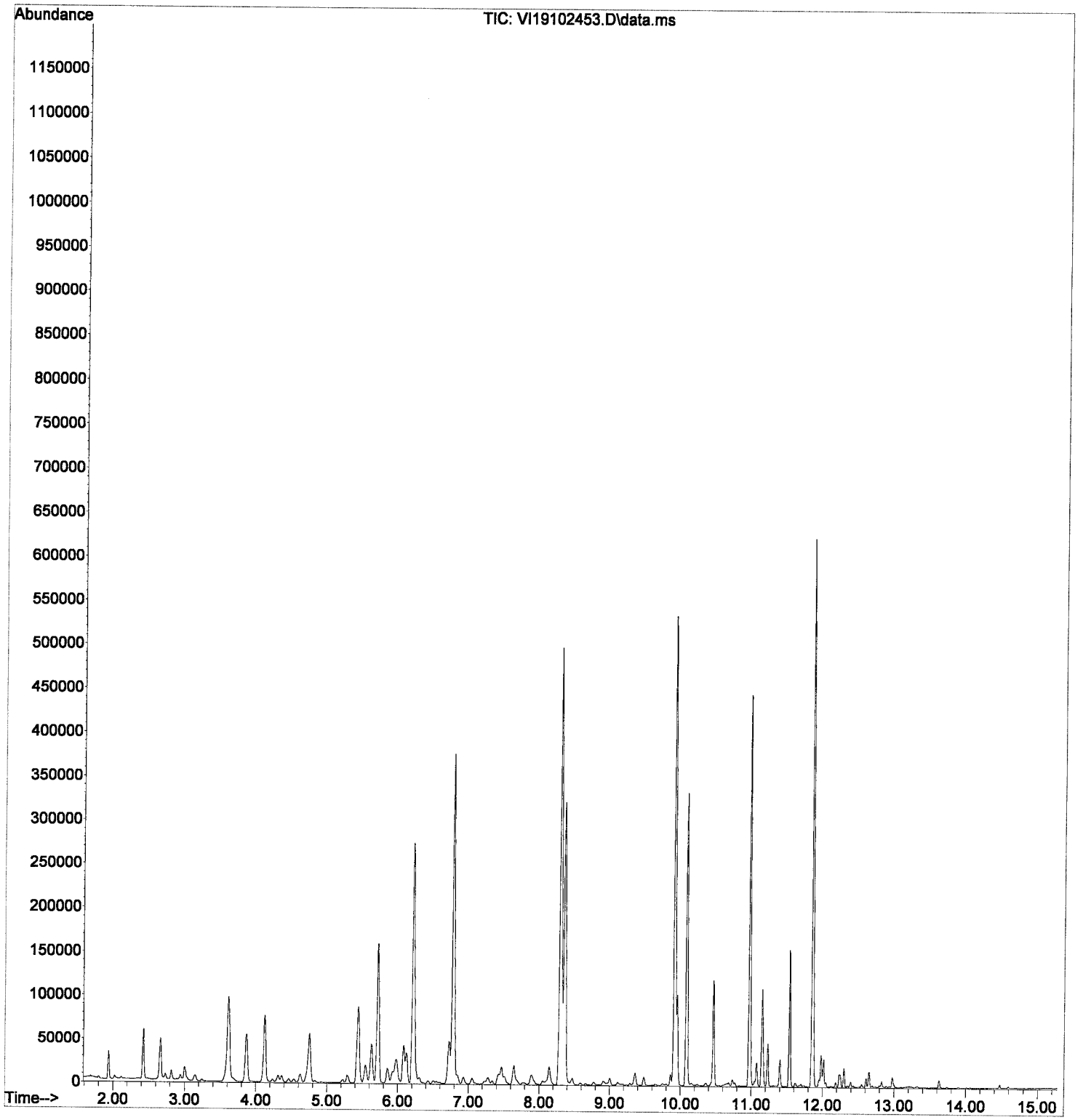
response 3205343

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.02#
0.00	0.00	0.01#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102453.D
Acq On : 25 Oct 2019 10:40 am
Operator : MM
Sample : 9J24043-ICV3
Misc : 1X 5mL 500PPB GX
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:55:48 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Organochloride Pesticides by EPA 8081B
Benchsheet & Analysis Sequence Data

Batch 9120522
Sequence 9L05032 (A9K0609-01,02)

Apex Laboratories

PREPARATION BENCH SHEET

DEC 1 0 2019

BATCH #: 9120522 (Soil)

Prep Method: EPA 1311/3510C (Neutral Ext.)

#	Lab Number		Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9120522-BLK1		QC	12/04/19 15:00	200	5				100					
	9120522-BSD1		QC	12/04/19 15:00	200	5	A19K227		100	100					
	9120522-BS1		QC	12/04/19 15:00	200	5	A19K227		100	100					
	A9K0609-01	A	1311/8081B TCLP Pest Reg List	12/04/19 15:00	200	5				100	PDI-138RAB-C-00-19.1-191118				
	A9K0609-02	A	1311/8081B TCLP Pest Reg List	12/04/19 15:00	200	5				100	PDI-144RAB-C-00-29-191114				
	A9K0695-01	A	1311/8081B TCLP Pest Reg List	12/04/19 15:00	200	5				100	PDI-134RAB-C-00-25.5-191120				
	A9K0695-02	A	1311/8081B TCLP Pest Reg List	12/04/19 15:00	200	5				100	PDI-136RAB-C-00-13.4-191119				

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A18K311	12/31/20	Glass Wool
A19H411	08/31/21	n-Hexane Lot# 192712
A19I263	03/18/20	DCM CHEM PROD. 194934
A19K010	10/29/25	Sodium Sulfate Lot # 188777

Analyte Spike(s)

Std ID	Exp. Date	Description
A19K227	05/07/20	Mix AB Pesticide Matrix Spike

Surrogate(s)

Std ID	Exp. Date	Description
A19K319	05/07/20	8082 PCB Surrogate Spike

3x rinse

Witness: _____

Prepared By: _____ Date

MJB 12/6/19

Reviewed By: Date

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9120522 (Soil)

Prep Method: EPA 1311/3510C (Neutral Ext.)

#	Lab Number		Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9120522-BLK1		QC	12/04/19 15:00	200	5 ✓				100				5	
	9120522-BSD1		QC	12/04/19 15:00	200	5 ✓	A19K227		100	100				6	
	9120522-BS1		QC	12/04/19 15:00	200	5 ✓	A19K227		100	100				6	
	A9K0609-01	A	1311/8081B TCLP Pest Reg List	12/04/19 15:00	200	5 ✓				100	PDI-138RAB-C-00-19.1-191118	‡1		5	
	A9K0609-02	A	1311/8081B TCLP Pest Reg List	12/04/19 15:00	200	5 ✓				100	PDI-144RAB-C-00-29-191114	‡1		5	
	A9K0695-01	A	1311/8081B TCLP Pest Reg List	12/04/19 15:00	200	5 ✓				100	PDI-134RAB-C-00-25.5-191120	‡1		5	
	A9K0695-02	A	1311/8081B TCLP Pest Reg List	12/04/19 15:00	200	5 ✓				100	PDI-136RAB-C-00-13.4-191119	‡1		5	

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A18K311	12/31/20	Glass Wool
A19H411	08/31/21	n-Hexane Lot# 192712
A19I263	03/18/20	DCM CHEM PROD. 194934
A19K010	10/29/25	Sodium Sulfate Lot # 188777

Analyte Spike(s) am

Std ID	Exp. Date	Description
A19K227	05/07/20	Mix AB Pesticide Matrix Spike

Surrogate(s) am

Std ID	Exp. Date	Description
~~A19K052~~ A19K319 am 12.04.19	~~04/17/20~~ 05/07/20	8082 PCB Surrogate Spike

3x rinse ✓ am 12.04.19

Witness: SCG 12/04/2019

‡1 = 2 mL exchanged with Hexane

am 12.04.19
Prepared By: Date

CAS 12/04/19
Reviewed By: Date

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9L05032** Instrument: **DUALECD5**

Date: **12/05/19 10:48** Calibration: **A9H2608**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9L05032-BKD1	Water	QC	QC				A19J201
2	9L05032-BKD2	Water	QC	QC				A19J201
3	9L05032-CCV1	Water	QC	QC				A19K133
4	9L05032-CCB1	Water	QC	QC				A19L018
5	9120397-BLK2	Water	QC	QC		9120397		
6	9120397-BS2	Water	QC	QC		9120397		
7	9120397-BSD2	Water	QC	QC		9120397		
8	A9K0537-02RE2	Water	608 Pesticides (SW)		12/04/19	9120397		
9	A9K0554-01RE2	Water	608 Pesticides (SW)		12/04/19	9120397		
10	A9K0566-01RE2	Water	608 Pesticides (SW)	Anchor QEA, LLC	12/04/19	9120397		
11	A9K0576-01RE2	Water	608 Pesticides (SW)		12/04/19	9120397		
12	A9K0576-02RE2	Water	608 Pesticides (SW)		12/04/19	9120397		
13	A9K0599-01RE2	Water	608 Pesticides (SW)		12/04/19	9120397		
14	A9K0613-01RE2	Water	608 Pesticides (SW)		12/05/19	9120397		
15	9L05032-CCV2	Water	QC	QC				A19K134
16	9L05032-CCB2	Water	QC	QC				A19L018
17	9120522-BLK1	Soil	QC	QC		9120522		
18	9120522-BS1	Soil	QC	QC		9120522		
19	9120522-BSD1	Soil	QC	QC		9120522		
20	A9K0609-01	Soil	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	12/04/19	9120522		
21	A9K0609-02	Soil	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	12/04/19	9120522		
22	A9K0695-01	Soil	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	12/06/19	9120522		
23	A9K0695-02	Soil	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	12/06/19	9120522		
24	9L05032-CCV3	Water	QC	QC				A19K133
25	9L05032-CCB3	Water	QC	QC				A19L018
26	9120453-BLK1	Water	QC	QC		9120453		
27	9120453-BS1	Water	QC	QC		9120453		
28	9120453-BSD1	Water	QC	QC		9120453		
29	A9K0749-01RE1	Water	608 Pesticides (SW)		12/10/19	9120453		
30	A9K0749-02RE1	Water	608 Pesticides (SW)		12/10/19	9120453		
31	A9K0763-01RE1	Water	608 Pesticides (SW)		12/10/19	9120453		
32	9L05032-CCV4	Water	QC	QC				A19K134
33	9L05032-CCB4	Water	QC	QC				A19L018
34	9L05032-IBL1	Water	QC	QC				
35	9L05032-IBL2	Water	QC	QC				

Comments:

Data Entered By: MB 12/6/19

Data Reviewed By: MB 12/6/19

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9L05032**	Instrument:	**DUALECD5**
Date:	**12/05/19 10:48**	Calibration:	**A9H2608**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9L05032-BKD1	Water	QC	QC				A19J201
2	9L05032-BKD2	Water	QC	QC				A19J201
3	9L05032-CCV1	Water	QC	QC				A19K133
4	9L05032-CCB1	Water	QC	QC				A19L018
5	9120397-BLK2	Water	QC	QC		9120397		
6	9120397-BS2	Water	QC	QC		9120397		
7	9120397-BSD2	Water	QC	QC		9120397		
8	A9K0537-02RE2	Water	608 Pesticides (SW)		12/04/19	9120397		
9	A9K0554-01RE2	Water	608 Pesticides (SW)		12/04/19	9120397		
10	A9K0566-01RE2	Water	608 Pesticides (SW)	Anchor QEA, LLC	12/04/19	9120397		
11	A9K0576-01RE2	Water	608 Pesticides (SW)		12/04/19	9120397		
12	A9K0576-02RE2	Water	608 Pesticides (SW)		12/04/19	9120397		
13	A9K0599-01RE2	Water	608 Pesticides (SW)		12/04/19	9120397		
14	A9K0613-01RE2	Water	608 Pesticides (SW)		12/05/19	9120397		
15	9L05032-CCV2	Water	QC	QC				A19K134
16	9L05032-CCB2	Water	QC	QC				A19L018

Data Entered By: MJB 12/5/19

Comments: Partial

Data Reviewed By: MJB 12/6/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-12\9L05032\
Data File : ECD5-12051903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 11:29
Operator : MJB
Sample : 9L05032-BKD1
Misc : A19J201
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 11:43:06 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT9.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	4,4'-DDE	7.381	1248508	NoCal	ng/mL
2)	Endrin	7.736	64933411	NoCal	ng/mL
3)	4,4'-DDD	7.798	16483694	NoCal	ng/mL
4)	4,4'-DDT	7.993	92784376	NoCal	ng/mL
5)	Endrin Aldehyde	8.181	3686861	NoCal	ng/mL
6)	Endrin Ketone	8.671	7551580	NoCal	ng/mL
8)	4,4'-DDE [2C]	8.137	2247419	NoCal	ng/mL
9)	Endrin [2C]	8.495	96364531	NoCal	ng/mL
10)	4,4'-DDD [2C]	8.550	22101876	NoCal	ng/mL
11)	Endrin Aldehyde [2C]	8.878	5611443	NoCal	ng/mL
12)	4,4'-DDT [2C]	8.772	133961679	NoCal	ng/mL
13)	Endrin Ketone [2C]	9.461	10091311	NoCal	ng/mL

(f)=RT Delta > 1/2 Window (m)=manual int.

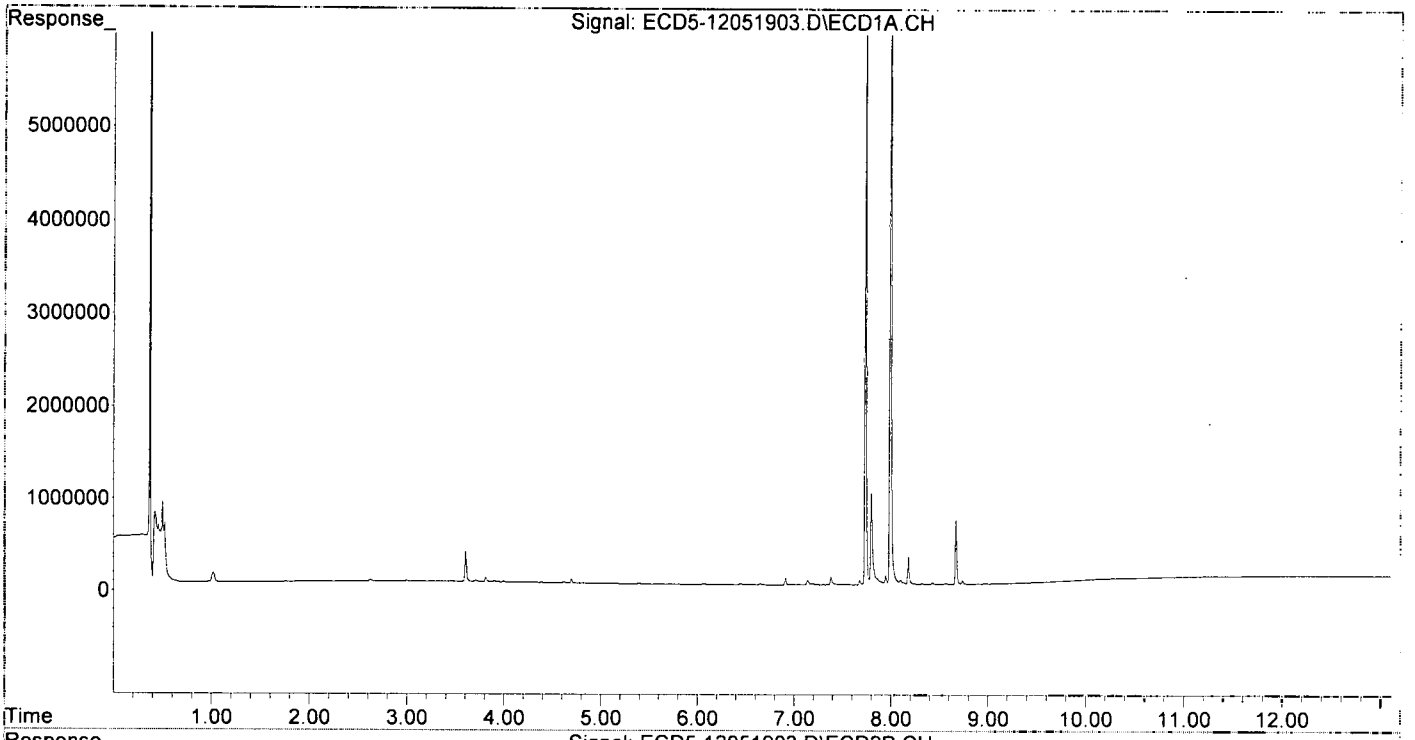
Failed maintenance performed.

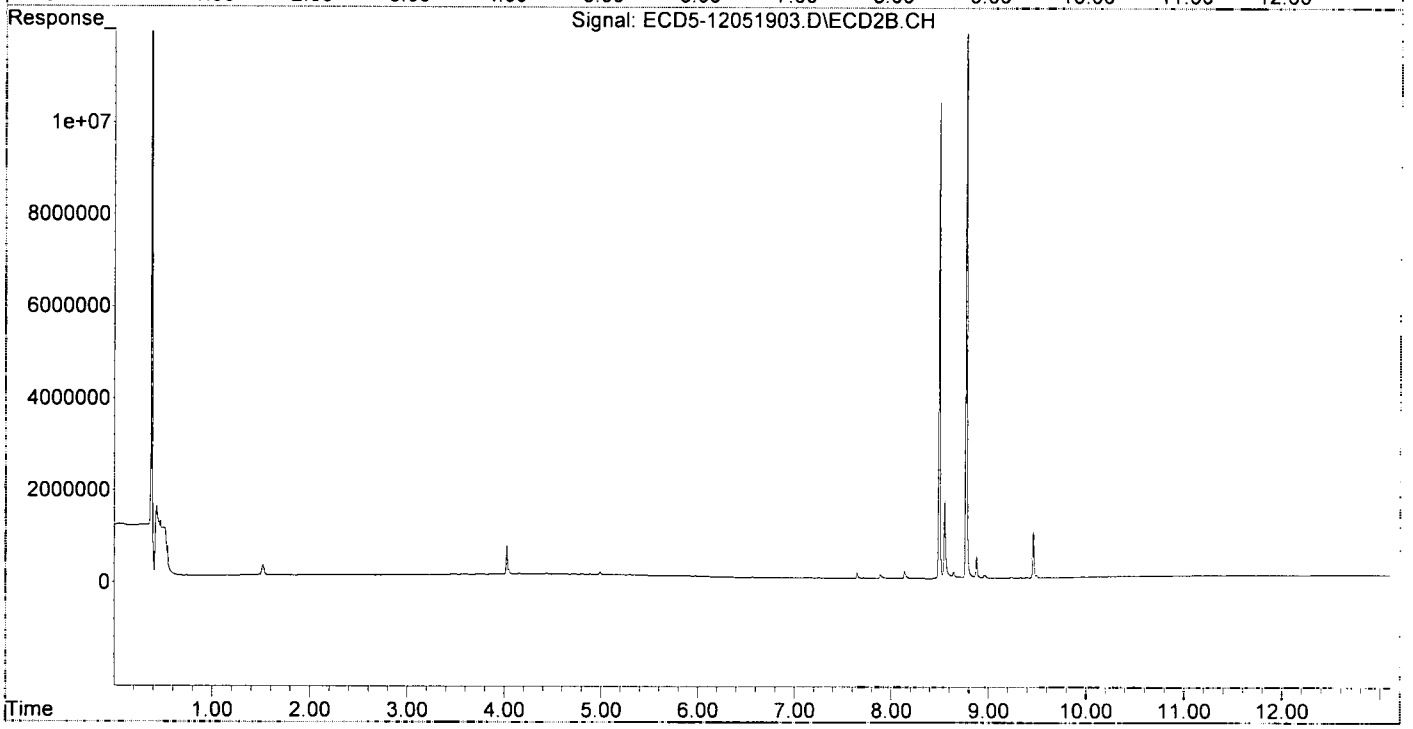
MJB 12/5/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-12\9L05032\
Data File : ECD5-12051903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 11:29
Operator : MJB
Sample : 9L05032-BKD1
Misc : A19J201
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 11:43:06 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT9.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Pesticide Breakdown Check (Validated 8/8/2013)

Sequence: 9L05032 BKD2
Data File: ECD5-12051905.D

First Column Area Counts		Percent Breakdown	
DDE	1227117		
DDD	11530641		
DDT	111954122	**10.23**	**PASS**
Endrin	71832658	**9.19**	**PASS**
Endrin Aldehyde	2809626		
Endrin Ketone	4458258		

Second Column Area Counts		Percent Breakdown	
DDE	1887775		
DDD	16646635		
DDT	157834735	**10.51**	**PASS**
Endrin	103153346	**10.31**	**PASS**
Endrin Aldehyde	5174982		
Endrin Ketone	6686531		

Breakdown must be less than 15% to accept sample data.

MJB 12/5/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-12\9L05032\
Data File : ECD5-12051905.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 12:22
Operator : MJB
Sample : 9L05032-BKD2
Misc : A19J201
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 12:36:35 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT9.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	4,4'-DDE	7.379	1227117	NoCal	ng/mL
2)	Endrin	7.736	71832658	NoCal	ng/mL
3)	4,4'-DDD	7.795	11530641	NoCal	ng/mL
4)	4,4'-DDT	7.991	111954122	NoCal	ng/mL
5)	Endrin Aldehyde	8.179	2809626	NoCal	ng/mL
6)	Endrin Ketone	8.670	4458258	NoCal	ng/mL
8)	4,4'-DDE [2C]	8.139	1887775	NoCal	ng/mL
9)	Endrin [2C]	8.496	103153346	NoCal	ng/mL
10)	4,4'-DDD [2C]	8.551	16646635	NoCal	ng/mL
11)	Endrin Aldehyde [2C]	8.879	5174982	NoCal	ng/mL
12)	4,4'-DDT [2C]	8.773	157834735	NoCal	ng/mL
13)	Endrin Ketone [2C]	9.463	6686531	NoCal	ng/mL

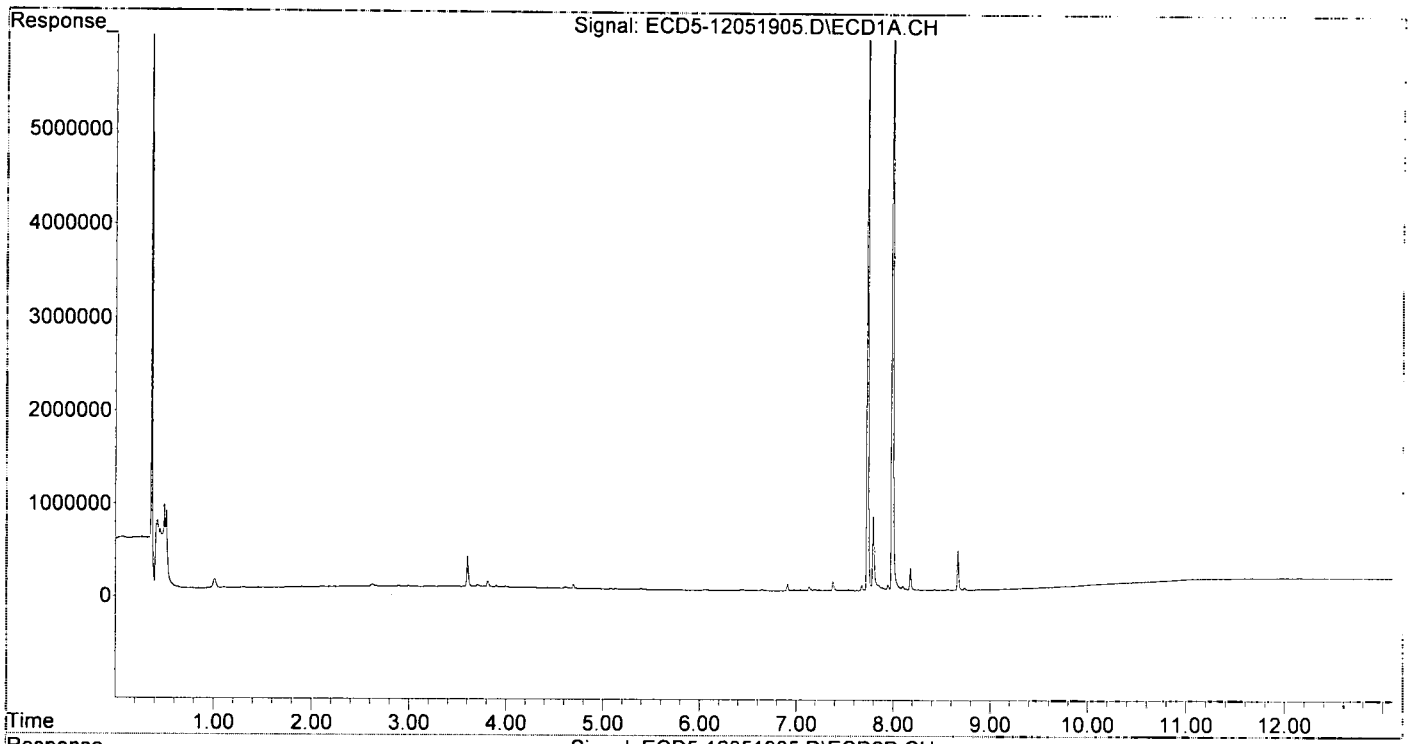
(f)=RT Delta > 1/2 Window (m)=manual int.

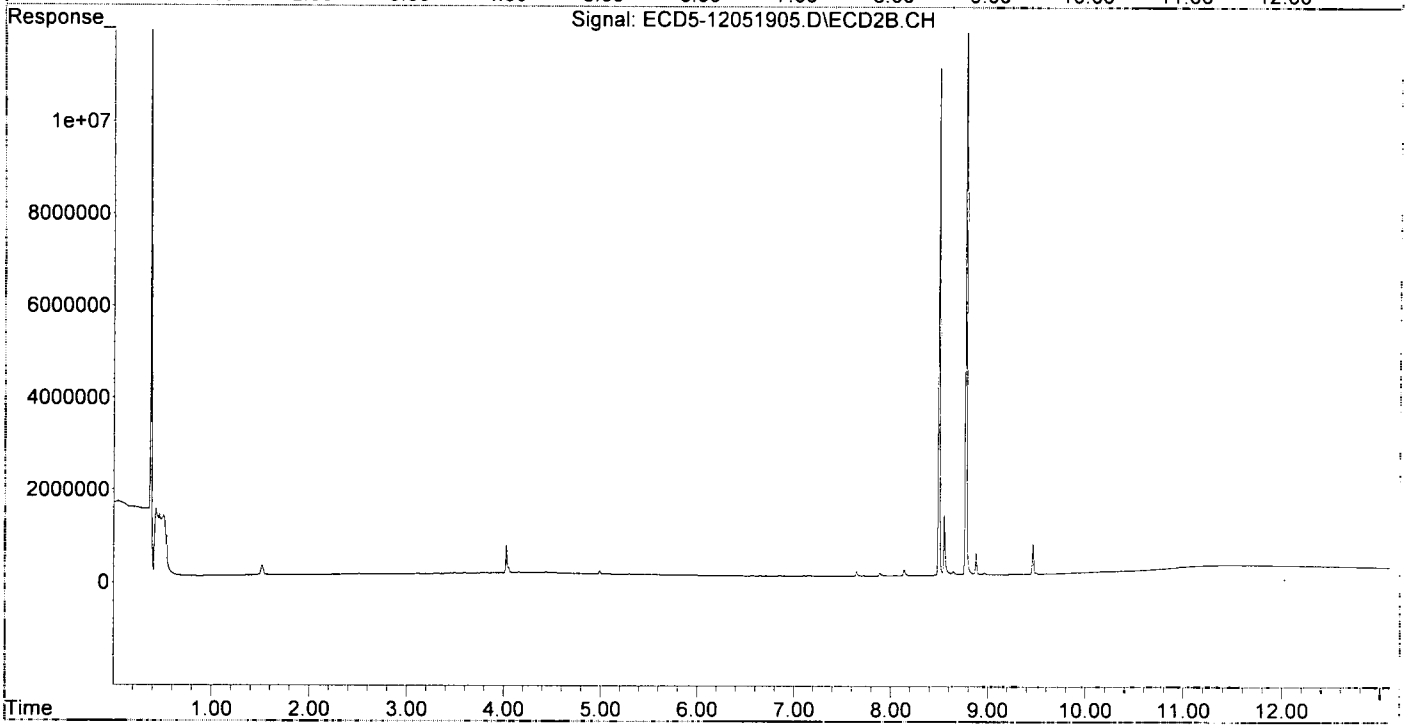
Replaced ½" split by MJB 12/5/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-12\9L05032\
Data File : ECD5-12051905.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 12:22
Operator : MJB
Sample : 9L05032-BKD2
Misc : A19J201
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 12:36:35 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT9.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 12:40
Operator : MJB
Sample : 9L05032-CCV1
Misc : A19K133, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 17:15:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 12/5/19

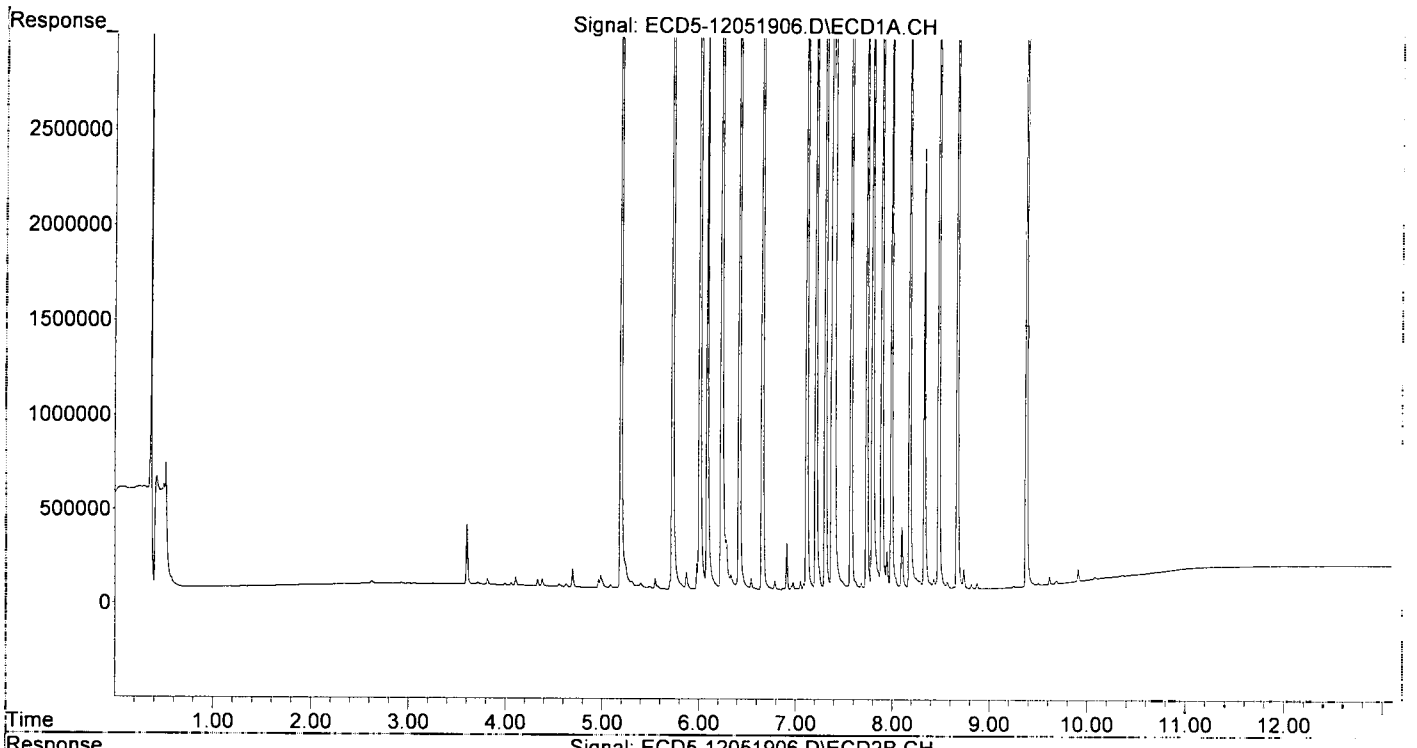
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.193	5.786	8012863	13293186	48.277	45.313	
22)	S	DCBP (S)	9.378	10.294	5757616	8100489	40.806	45.062	
		Target Compounds							
2)		a-BHC	5.727	6.391	11087285	18981980	48.347	46.259	
3)		g-BHC	6.009	6.707	9480701	15354941	46.986	43.047	
4)		b-BHC	6.085	6.775	3544165	5884024	39.213	37.178	
5)		Heptachlor	6.417	7.076	8872439	14479590	48.939	47.322	
6)		d-BHC	6.232	7.027	7646195	13999420	38.874	39.696	
7)		Aldrin	6.655	7.338	9085745	15797387	46.016	47.959	
8)		Heptachlo...	7.115	7.776	8367403	13032986	45.431	43.321	
9)		trans-Chl...	7.210	7.915	8489747	13661805	45.917	43.603	
10)		cis-Chlor...	7.307	8.023	8215912	13623150	45.125	46.775	
11)		Endosulfa...	7.401	8.070	8189499	12215137	48.123	44.390	
12)		4,4'-DDE	7.376	8.136	7869756	12673512	41.743	40.793	
13)		Dieldrin	7.573	8.270	8971722	13914834	46.733	45.750	
14)		Endrin	7.735	8.495	7141991	10310008	48.576	45.654	
15)		4,4'-DDD	7.794	8.549	6354970	9922700	40.441	38.728	
16)		Endosulfa...	7.891	8.643	6697007	10889260	46.633	47.220	
17)		4,4'-DDT	7.991	8.773	4992030	7272067	41.753	39.399	
18)		Endrin Al...	8.179	8.880	5541878	8917447	45.195	45.501	
19)		Endosulfa...	8.478	9.070	6377112	9650449	41.149	38.743	
20)		Methoxychlor	8.330	9.253	2313232	3415646	39.492	38.910	
21)		Endrin Ke...	8.670	9.463	7076298	10987229	42.434	42.699	
23)		Hexachlor...	2.998f	0.000	1758	0	0.010	N.D.	#
24)		Hexachlor...	0.000	6.299	0	77089	N.D.	0.245	#
25)		Oxychlordane	7.051f	7.740	46276	27711	0.281	0.101	#
26)		2,4'-DDE	0.000	7.970	0	75768	N.D.	0.357	#
27)		trans-Non...	7.307f	8.023	8215912	13623150	45.565	45.164	
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	7.735f	8.549	7141991	9922700	65.112	55.639	
30)		cis-Nonac...	7.794	8.549f	6354970	9922700	30.609	29.580	
31)		Mirex	8.478	9.495	6377112	166022	50.868	0.892	#
32)		Chlordane...	7.210f	7.970	8489747	75768	431.179	2.094	#
33)		Chlordane...	7.307f	8.070	8215912	12215137	327.793	402.289	
34)		Chlordane...	7.891	8.721	6697007	54513	1158.427	6.080	#
35)		Chlordane...	0.000	3.453	0	10718	N.D.	NoCal	
36)		Toxaphene...	7.307	8.270	8215912	13914834	9173.154	5302.388	#
37)		Toxaphene...	7.573f	8.643	8971722	10889260	5555.457	3308.774	#
38)		Toxaphene...	7.944f	8.643f	204138	10889260	60.620	2148.496	#
39)		Toxaphene...	8.179	8.721	5541878	54513	1710.376	6.529	#
40)		Toxaphene...	0.000	8.880f	0	8917447	N.D.	1913.468	#
41)		Toxaphene...	8.427f	9.253f	54370	3415646	17.181	719.053	#
42)		Toxaphene...	0.000	3.453	0	10718	N.D.	NoCal	

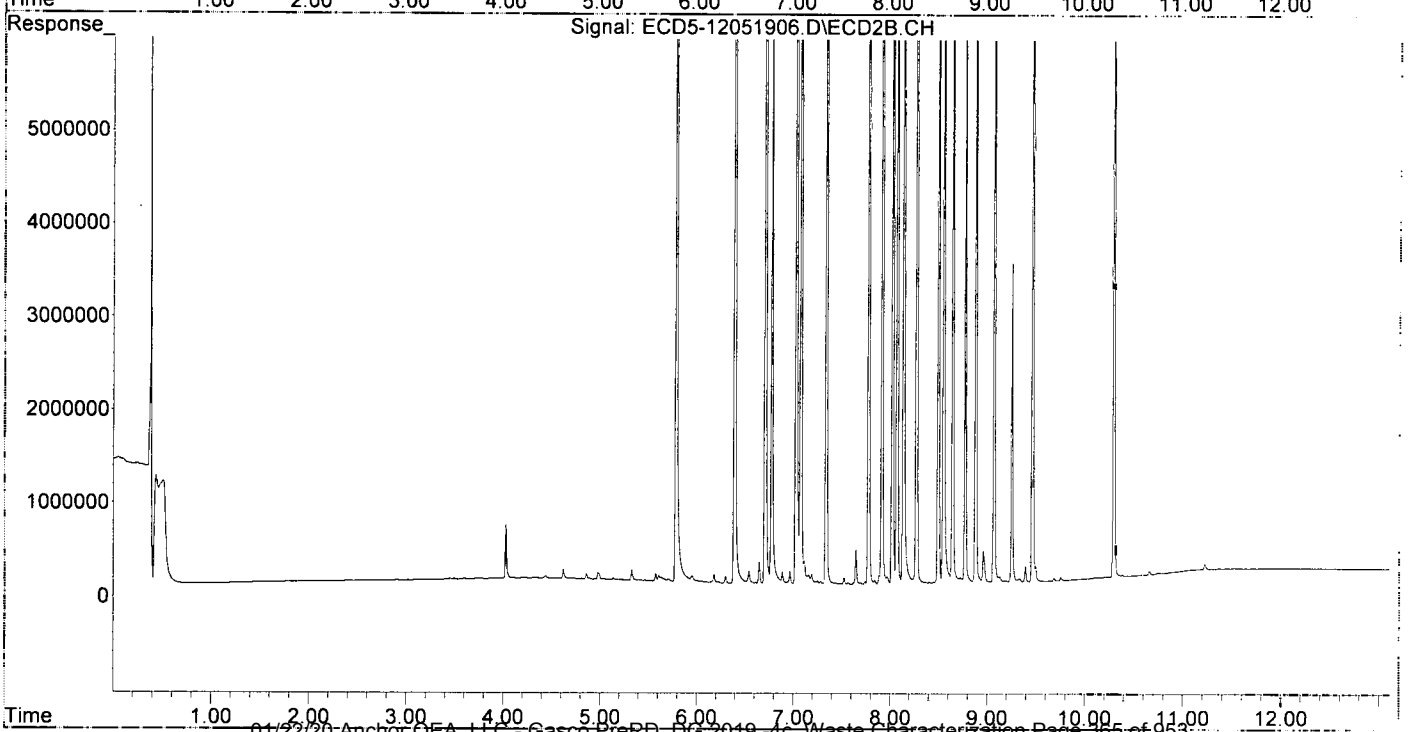
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 12:40
Operator : MJB
Sample : 9L05032-CCV1
Misc : A19K133, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 17:15:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 12:57
Operator : MJB
Sample : 9L05032-CCB1
Misc : A19L018
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 17:15:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MB 12/5/19

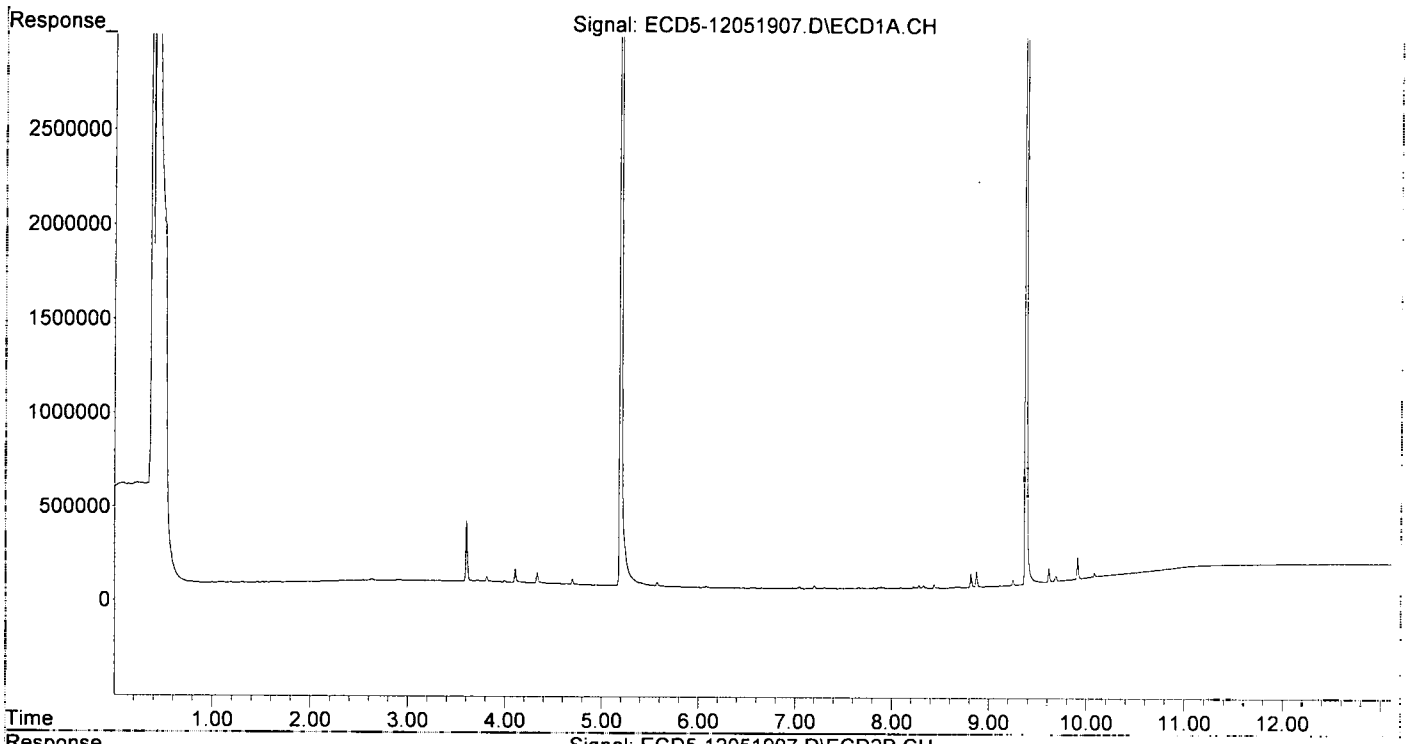
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.194	5.786	16508365	28241385	99.463	96.266	
22)	S	DCBP (S)	9.379	10.294	12066639	17693771	85.519	98.428	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.081	0.000	6534	0	0.072	N.D.	#
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	0.000	0.000	0	0	N.D.	N.D.	
7)		Aldrin	0.000	7.371f	0	16796	N.D.	0.051	#
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	7.200	0.000	15736	0	0.085	N.D.	#
10)		cis-Chlor...	7.300	0.000	5438	0	0.030	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	7.700f	8.512	3494	8384	0.024	0.037	#
15)		4,4'-DDD	7.810	8.512f	5283	8384	0.034	0.033	
16)		Endosulfa...	7.888	8.634	8932	10327	0.062	0.045	
17)		4,4'-DDT	0.000	8.790	0	6919	N.D.	0.002	#
18)		Endrin Al...	8.181	8.879	3391	6518	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.051	0	13571	N.D.	0.054	#
20)		Methoxychlor	8.329	0.000	14550	0	0.248	N.D.	#
21)		Endrin Ke...	8.689	9.466	5920	8112	0.035	0.032	
23)		Hexachlor...	0.000	3.495f	0	1317	N.D.	0.004	#
24)		Hexachlor...	5.573f	0.000	19479	0	0.110	N.D.	#
25)		Oxychlordane	7.045f	0.000	8090	0	0.049	N.D.	#
26)		2,4'-DDE	7.200f	0.000	15736	0	0.123	N.D.	#
27)		trans-Non...	7.300f	0.000	5438	0	87346.670	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	7.700	8.512f	3494	8384	0.032	0.047	#
30)		cis-Nonac...	7.810	0.000	5283	0	0.025	N.D.	#
31)		Mirex	8.436f	9.515f	20524	7635	0.164	0.041	#
32)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
33)		Chlordane...	7.300f	0.000	5438	0	0.217	N.D.	#
34)		Chlordane...	7.888	8.717	8932	11299	1.545	1.260	
35)		Chlordane...	0.000	3.451	0	5434	N.D.	NoCal	
36)		Toxaphene...	7.300	0.000	5438	0	6.071	N.D.	#
37)		Toxaphene...	0.000	8.634	0	10327	N.D.	3.138	#
38)		Toxaphene...	7.917	8.658	5677	7608	1.686	1.501	
39)		Toxaphene...	8.181f	8.717	3391	11299	1.047	1.353	
40)		Toxaphene...	0.000	8.879f	0	6518	N.D.	1.399	#
41)		Toxaphene...	8.436	9.320f	20524	28458	6.486	5.991	
42)		Toxaphene...	0.000	3.451	0	5434	N.D.	NoCal	

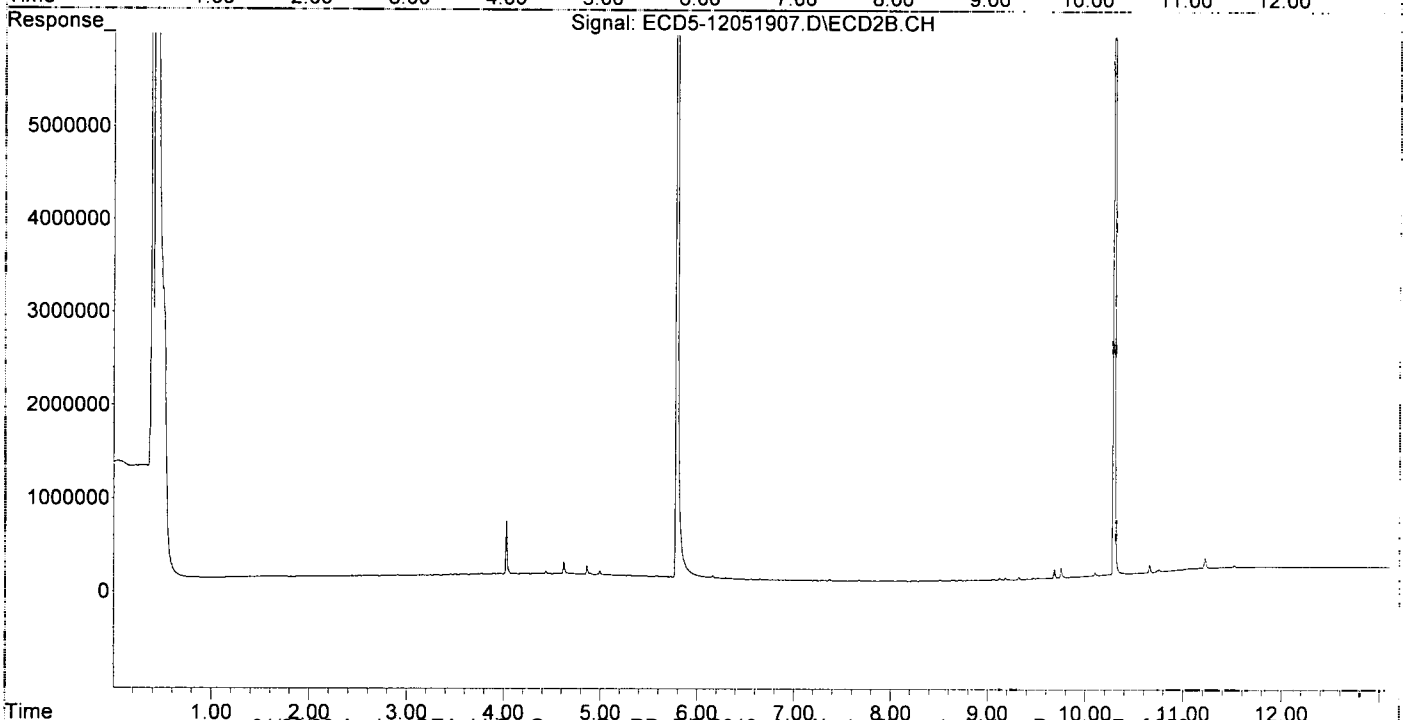
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 12:57
Operator : MJB
Sample : 9L05032-CCB1
Misc : A19L018
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 17:15:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 13:14
Operator : MJB
Sample : 9120397-BLK2
Misc : 1x, 608 (SW), GPC
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e.
Quant Time: Dec 05 17:37:23 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 12/5/19

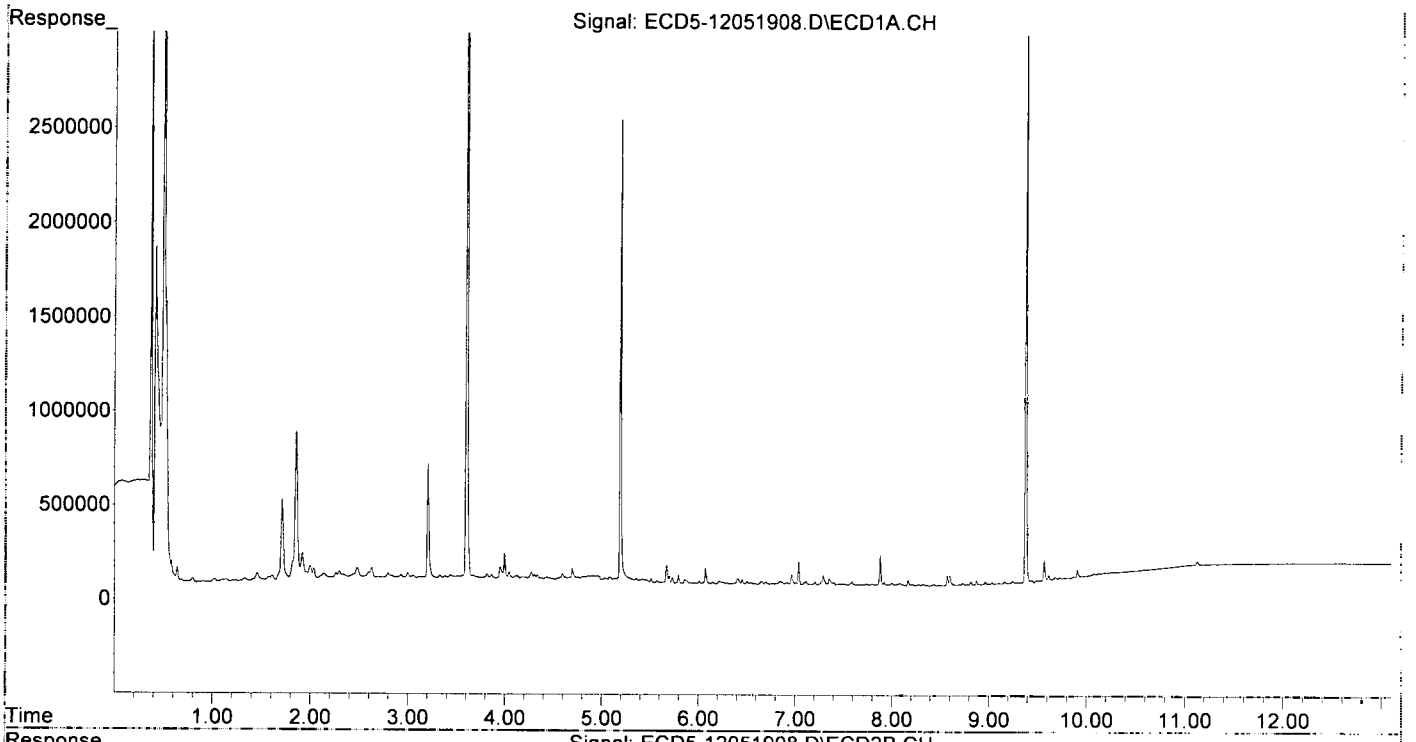
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.192	5.785	2455270	3918829	14.793	13.358	
22)	S	DCBP (S)	9.376	10.292	3362359	4445923	23.830	24.732	
		Target Compounds							
2)		a-BHC	5.730	6.389	38235	20905	0.167	0.051	#
3)		g-BHC	6.008	6.705	20374	26323	0.101	0.074	
4)		b-BHC	6.072	6.771	87776	20918	0.971	0.132	#
5)		Heptachlor	6.404	7.074	31777	19717	0.175	0.064	#
6)		d-BHC	6.213f	7.023	21379	37334	0.109	0.106	
7)		Aldrin	6.653	7.334	18402	16895	0.093	0.051	#
8)		Heptachlo...	7.112	7.760	21700	61491	0.118	0.204	#
9)		trans-Chl...	7.207	7.918	18308	77273	0.099	0.247	#
10)		cis-Chlor...	7.292	8.020	51293	27720	0.282	0.095	#
11)		Endosulfa...	7.399	8.056	15696	68268	0.092	0.248	#
12)		4,4'-DDE	7.371	8.135	19776	10632	0.105m	0.034	#
13)		Dieldrin	7.587	8.269	21723	12191	0.113	0.040	#
14)		Endrin	7.734	8.495	8222	10718	0.056	0.047	
15)		4,4'-DDD	7.795	8.547	5852	5070	0.037	0.020	#
16)		Endosulfa...	7.880	8.627	160412	191231	1.117	0.829	
17)		4,4'-DDT	7.999	8.775	14323	6679	0.120	0.001	#
18)		Endrin Al...	8.167	8.866	27886	31202	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.050f	0	5587	N.D.	0.022	#
20)		Methoxychlor	8.326	9.251	8131	6077	0.139	BelowCal	#
21)		Endrin Ke...	0.000	9.470	0	44904	N.D.	0.175	#
23)		Hexachlor...	3.056	3.520	40675	16467	0.223	0.044	#
24)		Hexachlor...	5.571f	6.277	19779	64345	0.112	0.205	#
25)		Oxychlordane	7.112f	7.760	21700	61491	0.132	0.224	#
26)		2,4'-DDE	0.000	7.956	0	31208	N.D.	0.147	#
27)		trans-Non...	7.353	8.020	37303	27720	87346.492	0.092	#
28)		2,4'-DDD	0.000	8.335	0	23537	N.D.	0.125	#
29)		2,4'-DDT	7.734f	8.547	8222	5070	0.075	0.028	#
30)		cis-Nonac...	7.795	8.547f	5852	5070	0.028	0.015	#
31)		Mirex	8.430f	9.470f	8673	44904	0.069	0.241	#
32)		Chlordane...	7.207f	7.956	18308	31208	0.930	0.862	
33)		Chlordane...	7.353	8.056	37303	68268	1.488	2.248	#
34)		Chlordane...	7.880	8.688f	160412	14998	27.748	1.673	#
35)		Chlordane...	3.439f	3.466	45727	823073	NoCal	NoCal	
36)		Toxaphene...	7.292f	8.269	51293	12191	57.270	4.646	#
37)		Toxaphene...	7.587f	8.627	21723	191231	13.451	58.107	#
38)		Toxaphene...	7.920	8.688	19371	14998	5.752	2.959	#
39)		Toxaphene...	8.167	0.000	27886	0	8.606	N.D.	#
40)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
41)		Toxaphene...	8.430f	9.292	8673	69457	2.741	14.622	#
42)		Toxaphene...	3.439f	3.466	45727	823073	NoCal	NoCal	

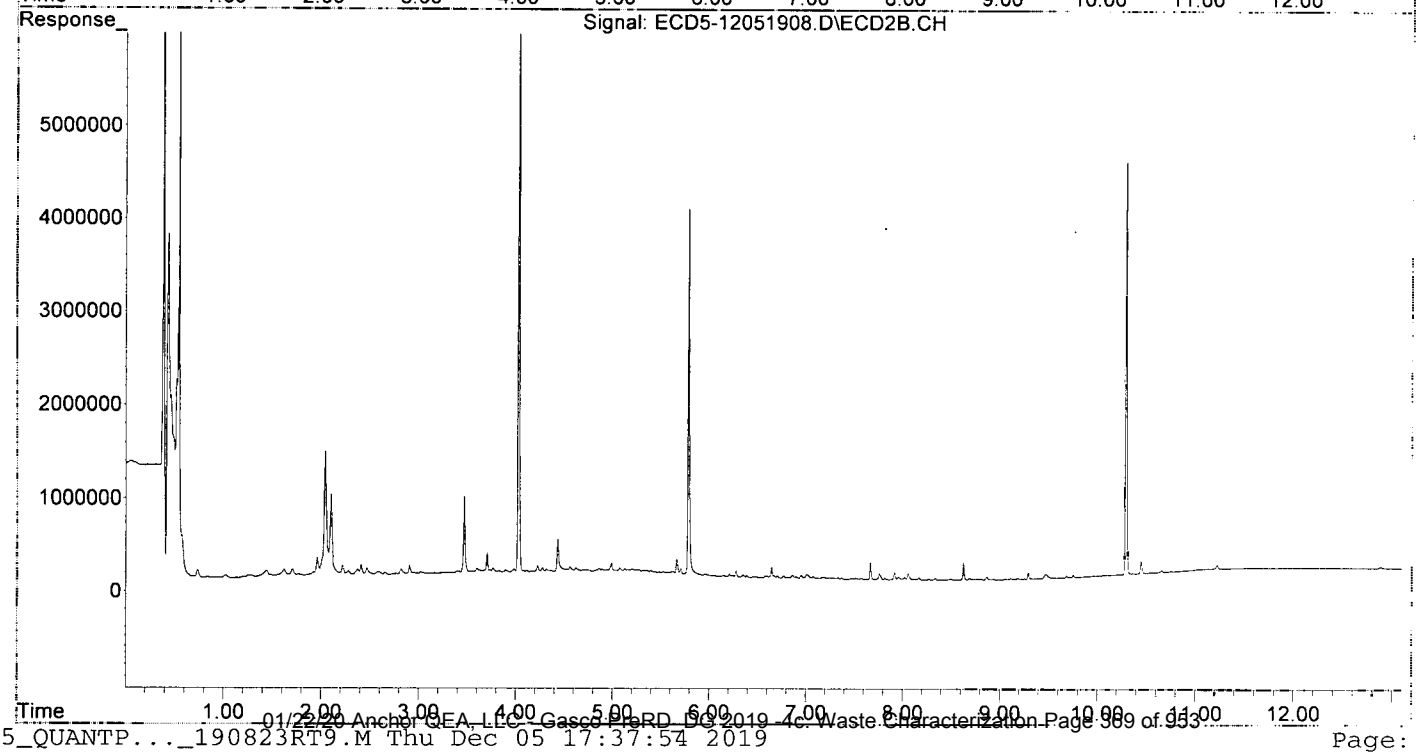
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 13:14
Operator : MJB
Sample : 9120397-BLK2
Misc : 1x, 608 (SW), GPC
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 17:37:23 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

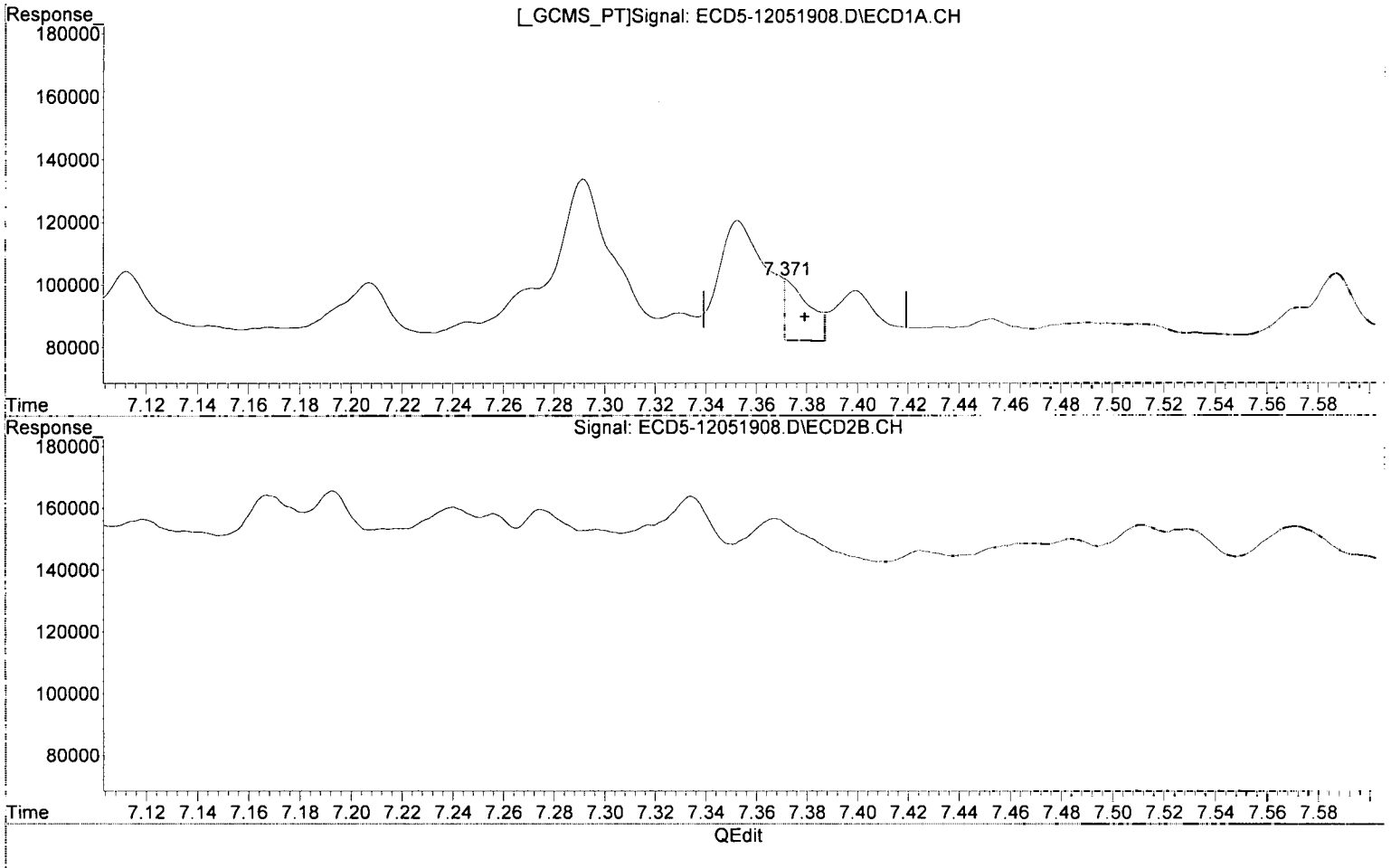




Quantitation Report (Qedit)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 13:14
Operator : MJB
Sample : 9120397-BLK2
Misc : 1x, 608 (SW), GPC
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 17:15:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.371min 0.105 ng/mL (m)

response 19776

MJB 12/15/19

(12) 4,4'-DDE #2

8.135min 0.034 ng/mL

response 10632

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 13:14
Operator : MJB
Sample : 9120397-BLK2
Misc : 1x, 608 (SW), GPC
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 17:15:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 12/5/19

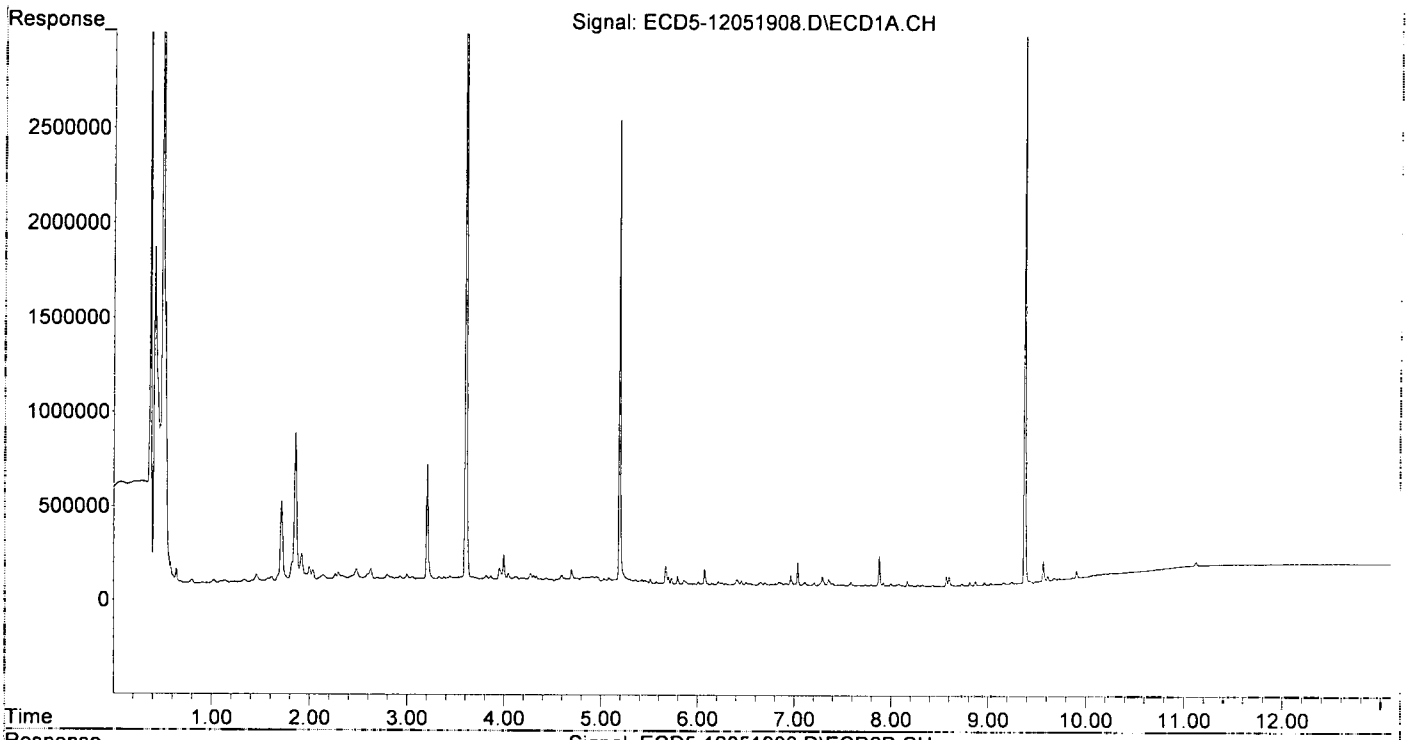
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.192	5.785	2455270	3918829	14.793	13.358	
22)	S	DCBP (S)	9.376	10.292	3362359	4445923	23.830	24.732	
		Target Compounds							
2)		a-BHC	5.730	6.389	38235	20905	0.167	0.051	#
3)		g-BHC	6.008	6.705	20374	26323	0.101	0.074	
4)		b-BHC	6.072	6.771	87776	20918	0.971	0.132	#
5)		Heptachlor	6.404	7.074	31777	19717	0.175	0.064	#
6)		d-BHC	6.213f	7.023	21379	37334	0.109	0.106	
7)		Aldrin	6.653	7.334	18402	16895	0.093	0.051	#
8)		Heptachlo...	7.112	7.760	21700	61491	0.118	0.204	#
9)		trans-Chl...	7.207	7.918	18308	77273	0.099	0.247	#
10)		cis-Chlor...	7.292	8.020	51293	27720	0.282	0.095	#
11)		Endosulfa...	7.399	8.056	15696	68268	0.092	0.248	#
12)		4,4'-DDE	7.399	8.135	15696	10632	0.083	0.034	#
13)		Dieldrin	7.587	8.269	21723	12191	0.113	0.040	#
14)		Endrin	7.734	8.495	8222	10718	0.056	0.047	
15)		4,4'-DDD	7.795	8.547	5852	5070	0.037	0.020	#
16)		Endosulfa...	7.880	8.627	160412	191231	1.117	0.829	
17)		4,4'-DDT	7.999	8.775	14323	6679	0.120	0.001	#
18)		Endrin Al...	8.167	8.866	27886	31202	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.050f	0	5587	N.D.	0.022	#
20)		Methoxychlor	8.326	9.251	8131	6077	0.139	BelowCal	#
21)		Endrin Ke...	0.000	9.470	0	44904	N.D.	0.175	#
23)		Hexachlor...	3.056	3.520	40675	16467	0.223	0.044	#
24)		Hexachlor...	5.571f	6.277	19779	64345	0.112	0.205	#
25)		Oxychlordane	7.112f	7.760	21700	61491	0.132	0.224	#
26)		2,4'-DDE	0.000	7.956	0	31208	N.D.	0.147	#
27)		trans-Non...	7.353	8.020	37303	27720	87346.492	0.092	#
28)		2,4'-DDD	0.000	8.335	0	23537	N.D.	0.125	#
29)		2,4'-DDT	7.734f	8.547	8222	5070	0.075	0.028	#
30)		cis-Nonac...	7.795	8.547f	5852	5070	0.028	0.015	#
31)		Mirex	8.430f	9.470f	8673	44904	0.069	0.241	#
32)		Chlordane...	7.207f	7.956	18308	31208	0.930	0.862	
33)		Chlordane...	7.353	8.056	37303	68268	1.488	2.248	#
34)		Chlordane...	7.880	8.688f	160412	14998	27.748	1.673	#
35)		Chlordane...	3.439f	3.466	45727	823073	NoCal	NoCal	
36)		Toxaphene...	7.292f	8.269	51293	12191	57.270	4.646	#
37)		Toxaphene...	7.587f	8.627	21723	191231	13.451	58.107	#
38)		Toxaphene...	7.920	8.688	19371	14998	5.752	2.959	#
39)		Toxaphene...	8.167	0.000	27886	0	8.606	N.D.	#
40)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
41)		Toxaphene...	8.430f	9.292	8673	69457	2.741	14.622	#
42)		Toxaphene...	3.439f	3.466	45727	823073	NoCal	NoCal	

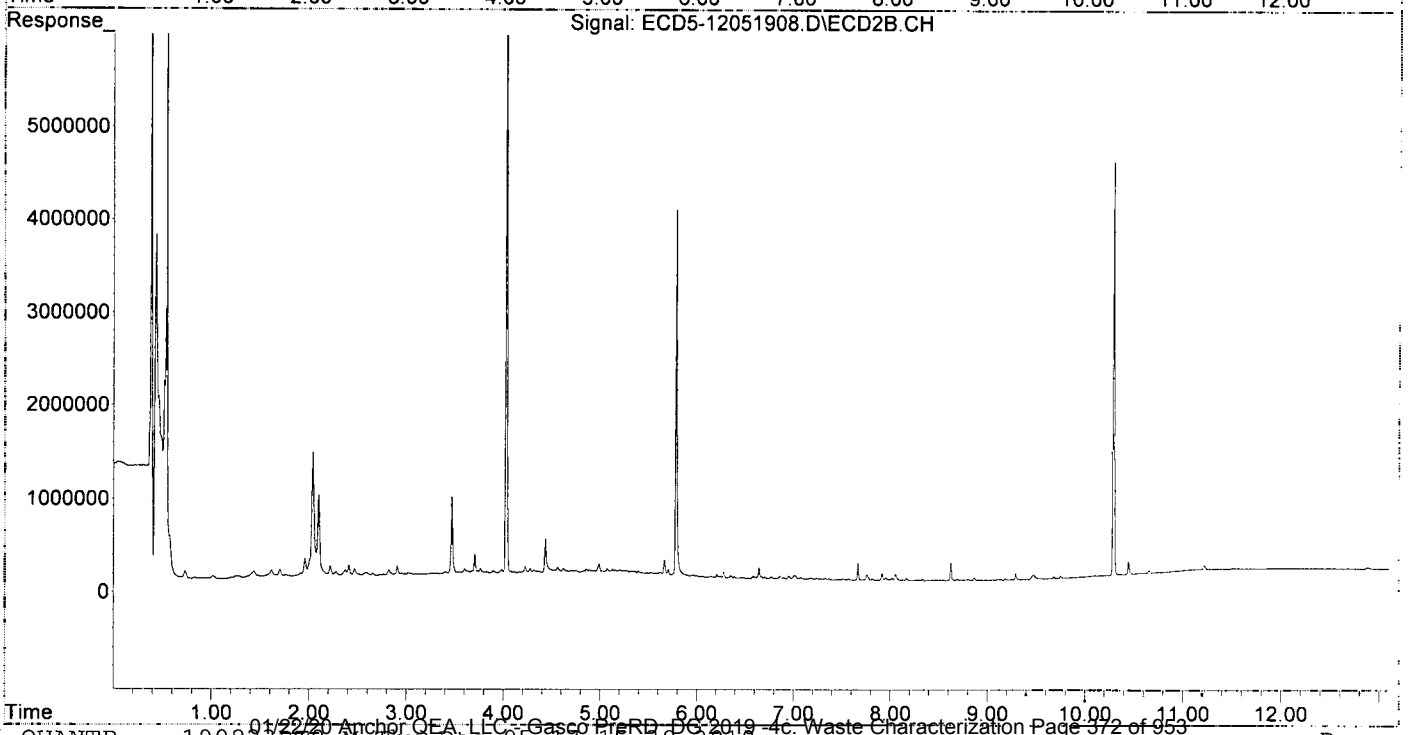
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 13:14
Operator : MJB
Sample : 9120397-BLK2
Misc : 1x, 608 (SW), GPC
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 17:15:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 13:31
Operator : MJB
Sample : 9120397-BS2
Misc : 1x, 608 (SW), GPC
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 17:15:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 12/5/19

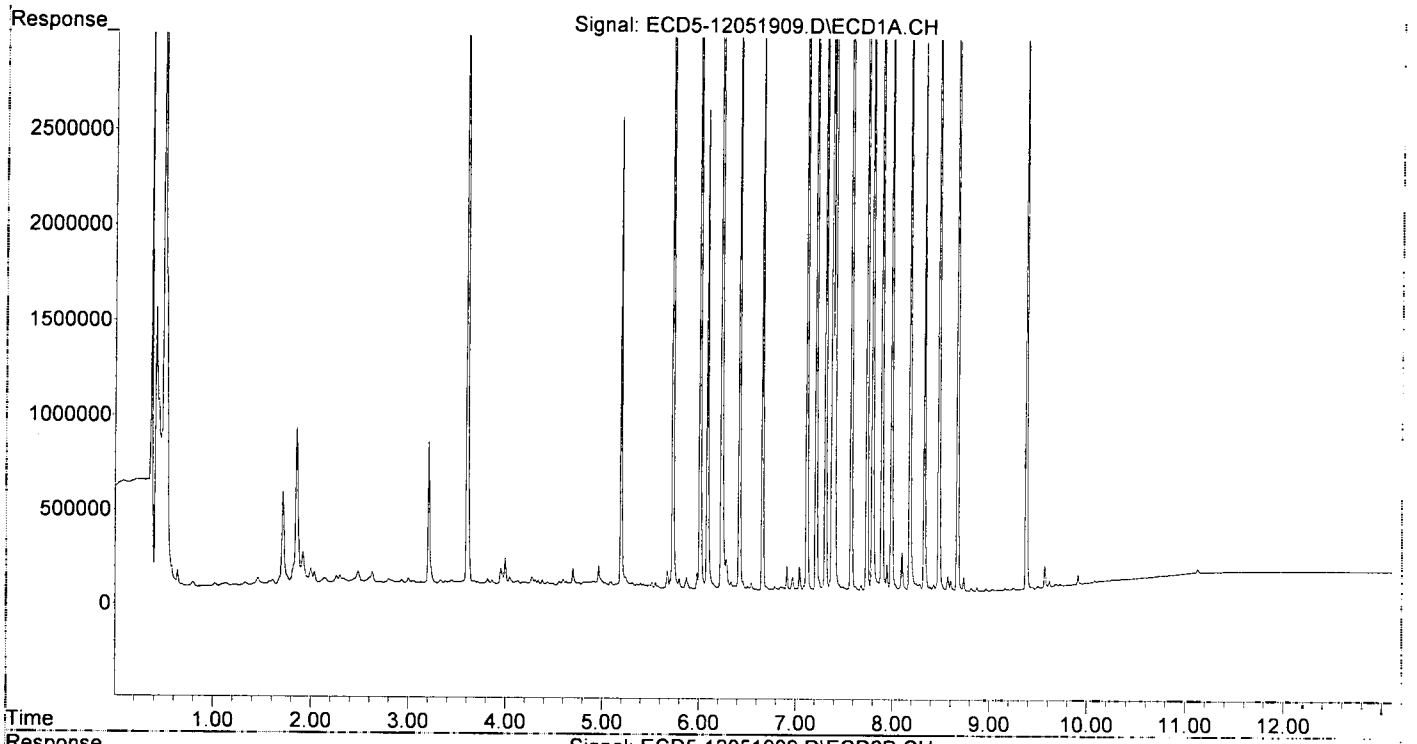
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.194	5.786	2487821	4014630	14.989	13.685	
22)	S	DCBP (S)	9.379	10.294	4177809	5683755	29.609	31.618	
		Target Compounds							
2)		a-BHC	5.728	6.391	6438763	11093724	28.077	27.035	
3)		g-BHC	6.010	6.708	5808850	9806247	28.788	27.491	
4)		b-BHC	6.086	6.775	2507362	4173460	27.741	26.370	
5)		Heptachlor	6.418	7.077	4269708	6713982	23.551	21.943	
6)		d-BHC	6.233	7.026	6052241	10749267	30.770	30.480	
7)		Aldrin	6.656	7.339	4005454	6514507	20.286	19.772	Q-30
8)		Heptachlo...	7.115	7.777	6106789	9130259	33.157	30.348	
9)		trans-Chl...	7.211	7.916	5884904	9184913	31.829	29.314	
10)		cis-Chlor...	7.308	8.023	5827596	9071173	32.007	31.146	
11)		Endosulfa...	7.402	8.072	6079679	9057599	35.725	32.916	
12)		4,4'-DDE	7.376	8.136	5879387	8989467	31.185	28.935	
13)		Dieldrin	7.574	8.271	7322838	11226589	38.144	36.911	
14)		Endrin	7.737	8.496	6154805	9139484	41.862	40.471	
15)		4,4'-DDD	7.794	8.549	5561539	8567065	35.392	33.437	
16)		Endosulfa...	7.891	8.644	6278848	9920671	43.721	43.020	
17)		4,4'-DDT	7.990	8.773	4995957	7224393	41.786	39.157	
18)		Endrin Al...	8.180	8.881	4846183	7592279	39.547	38.910	
19)		Endosulfa...	8.479	9.071	6126630	9358592	39.532	37.572	
20)		Methoxychlor	8.329	9.253	2878751	3987293	49.147	44.902	
21)		Endrin Ke...	8.671	9.464	6879055	10202288	41.252	39.649	
23)		Hexachlor...	3.056	3.567f	37731	22777	0.206	0.061	#
24)		Hexachlor...	0.000	6.299	0	24722	N.D.	0.079	#
25)		Oxychlordane	7.115f	7.741	6106789	27449	37.115	0.100	#
26)		2,4'-DDE	0.000	7.969	0	60081	N.D.	0.283	#
27)		trans-Non...	7.308f	8.023	5827596	9071173	32.223	30.073	
28)		2,4'-DDD	0.000	8.337	0	27666	N.D.	0.146	#
29)		2,4'-DDT	7.737f	8.549	6154805	8567065	56.112	48.038	
30)		cis-Nonac...	7.794	8.549f	5561539	8567065	26.788	25.539	
31)		Mirex	8.479	9.496	6126630	115603	48.870	0.621	#
32)		Chlordane...	7.211f	7.969	5884904	60081	298.884	1.660	#
33)		Chlordane...	7.308f	8.072	5827596	9057599	232.506	298.300	
34)		Chlordane...	7.891	8.721	6278848	37667	1086.095	4.201	#
35)		Chlordane...	3.441f	3.467	43512	1028783	NoCal	NoCal	
36)		Toxaphene...	7.308	8.271	5827596	11226589	6506.574	4278.005	
37)		Toxaphene...	7.574f	8.644	7322838	9920671	4534.438	3014.462	
38)		Toxaphene...	7.945f	8.644f	140693	9920671	41.780	1957.390	#
39)		Toxaphene...	8.180f	8.737	4846183	31214	1495.665	3.738	#
40)		Toxaphene...	8.390	8.881f	23258	7592279	9.702	1629.119	#
41)		Toxaphene...	8.427f	9.293	34911	82627	11.032	17.394	#
42)		Toxaphene...	3.441f	3.467	43512	1028783	NoCal	NoCal	

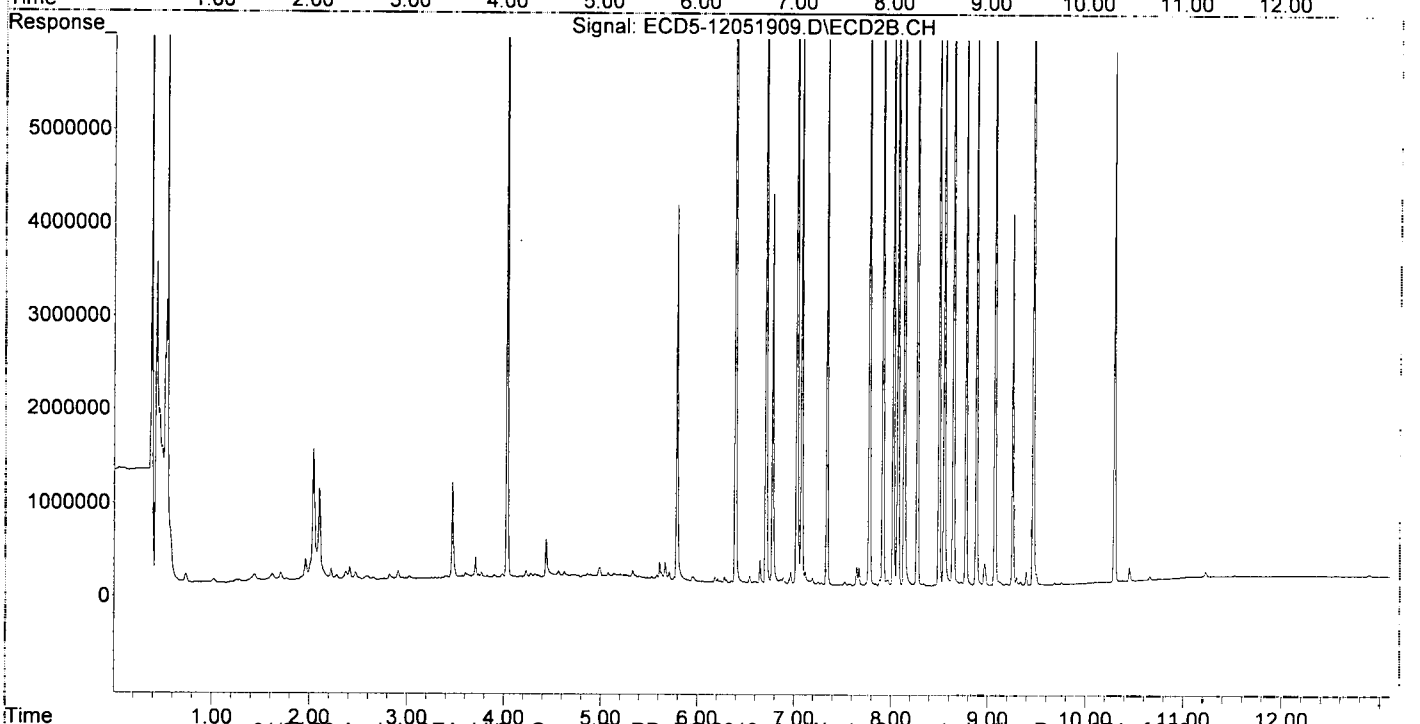
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 13:31
Operator : MJB
Sample : 9120397-BS2
Misc : 1x, 608 (SW), GPC
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 17:15:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 13:49
Operator : MJB
Sample : 9120397-BSD2
Misc : 1x, 608 (SW), GPC
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 17:15:50 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aq 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Q19

MJB 12/5/19

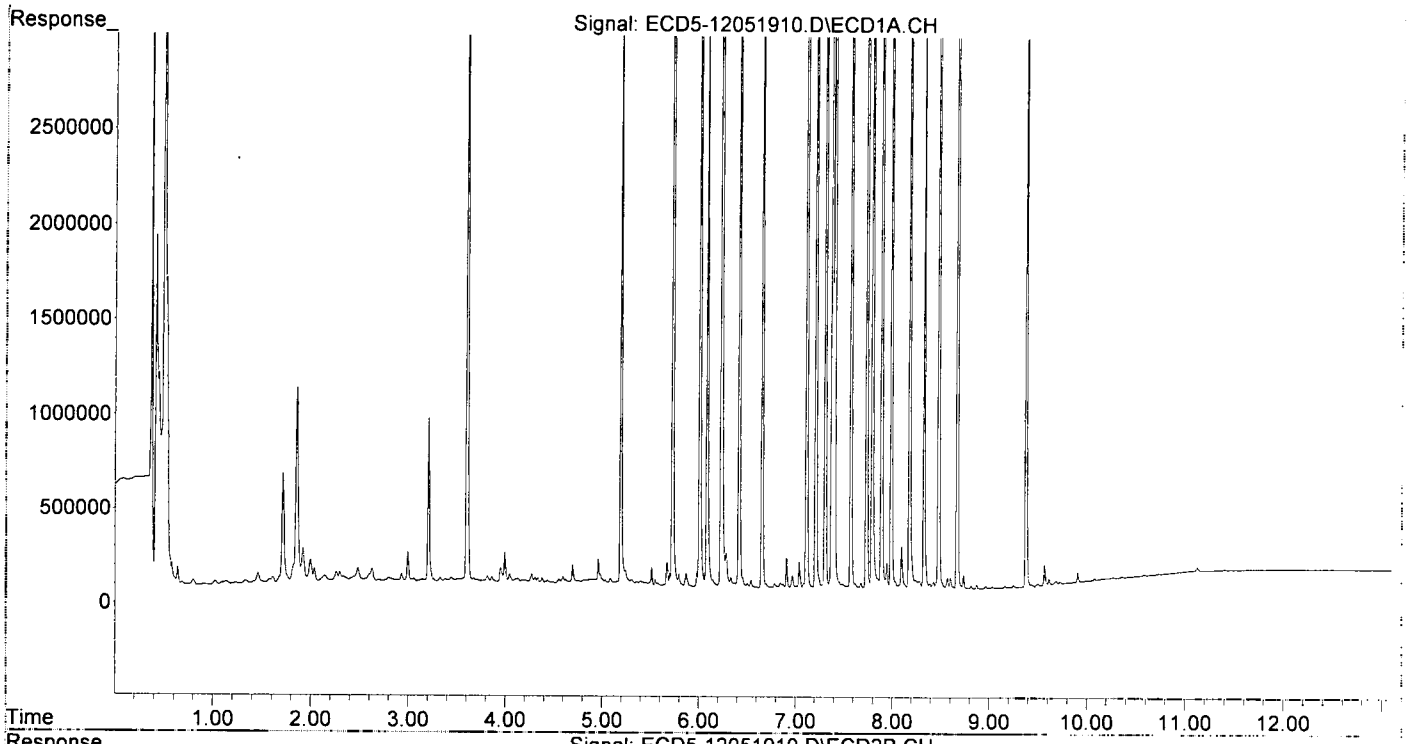
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.192	5.785	3792631	6090526	22.851	20.761	
22)	S	DCBP (S)	9.377	10.293	4287792	5667143	30.389	31.526	
		Target Compounds							
2)		a-BHC	5.727	6.390	8105528	13968643	35.345	34.042	
3)		g-BHC	6.008	6.706	7508073	12702251	37.210	35.610	
4)		b-BHC	6.084	6.774	3210612	5604600	35.522	35.413	
5)		Heptachlor	6.416	7.075	5523065	8934207	30.464	29.199	
6)		d-BHC	6.231	7.025	7267017	13488717	36.946	38.248	
7)		Aldrin	6.655	7.337	5239105	8528717	26.534	25.892	
8)		Heptachlo...	7.113	7.776	7198920	11332072	39.087	37.667	
9)		trans-Chl...	7.209	7.914	7250057	11268157	39.212	35.963	
10)		cis-Chlor...	7.306	8.022	6953230	11219346	38.190	38.522	
11)		Endosulfa...	7.400	8.070	7175418	11007539	42.164	40.002	
12)		4,4'-DDE	7.374	8.134	7036585	11036304	37.323	35.523	
13)		Dieldrin	7.572	8.269	8408330	13170138	43.798	43.301	
14)		Endrin	7.734	8.494	6963485	10648171	47.362	47.152	
15)		4,4'-DDD	7.792	8.547	6392335	9988279	40.679	38.984	
16)		Endosulfa...	7.889	8.642	6917841	10630149	48.171	46.097	
17)		4,4'-DDT	7.989	8.771	5705145	8458857	47.718	45.351	
18)		Endrin Al...	8.177	8.879	5393132	8764056	43.991	44.743	
19)		Endosulfa...	8.477	9.069	6607121	10192967	42.633	40.921	
20)		Methoxychlor	8.327	9.251	3054192	4296051	52.142	48.083	
21)		Endrin Ke...	8.668	9.462	7378030	11607883	44.244	45.111	
23)		Hexachlor...	3.056	3.568f	40258	39802	0.220	0.106	#
24)		Hexachlor...	5.571f	6.298	22199	29241	0.126	0.093	
25)		Oxychlordane	7.113f	7.776f	7198920	11332072	43.752	41.373	
26)		2,4'-DDE	0.000	7.968	0	65038	N.D.	0.307	#
27)		trans-Non...	7.306f	8.022	6953230	11219346	38.510	37.195	
28)		2,4'-DDD	0.000	8.335	0	30710	N.D.	0.163	#
29)		2,4'-DDT	7.734f	8.547	6963485	9988279	63.485	56.007	
30)		cis-Nonac...	7.792	8.547f	6392335	9988279	30.789	29.776	
31)		Mirex	8.477	9.495	6607121	119287	52.702	0.641	#
32)		Chlordane..:	7.209f	7.968	7250057	65038	368.217	1.797	#
33)		Chlordane...	7.306f	8.070	6953230	11007539	277.416	362.519	
34)		Chlordane...	7.889	8.719	6917841	42763	1196.626	4.770	#
35)		Chlordane...	3.440f	3.467	47801	1247334	NoCal	NoCal	
36)		Toxaphene...	7.306	8.269	6953230	13170138	7763.356	5018.614	
37)		Toxaphene...	7.572f	8.642	8408330	10630149	5206.595	3230.042	
38)		Toxaphene...	7.943f	8.642f	132481	10630149	39.341	2097.373	#
39)		Toxaphene...	8.177	8.736	5393132	35800	1664.468	4.288	#
40)		Toxaphene...	8.387	8.879f	26363	8764056	10.997	1880.554	#
41)		Toxaphene...	8.477f	9.292	6607121	41258	2087.833	8.686	#
42)		Toxaphene...	3.506f	3.467	37518	1247334	NoCal	NoCal	

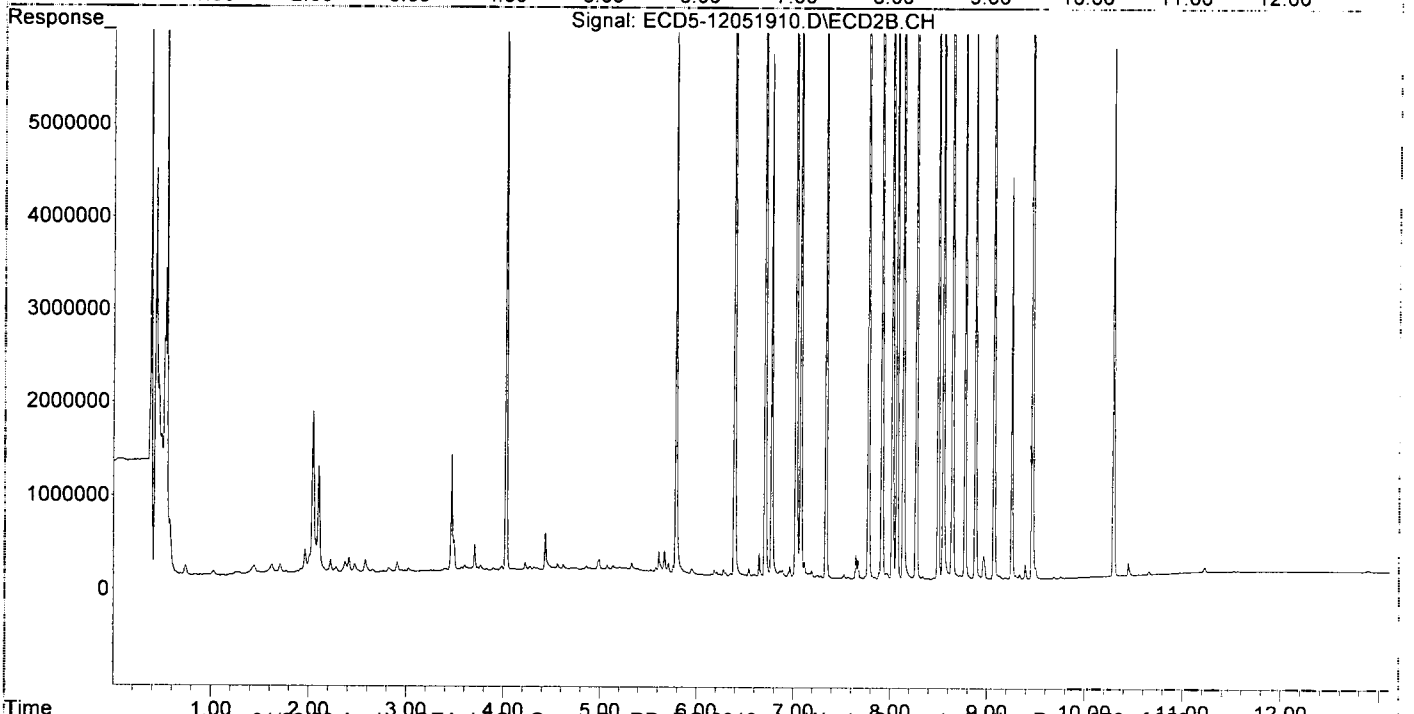
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 13:49
Operator : MJB
Sample : 9120397-BSD2
Misc : 1x, 608 (SW), GPC
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 17:15:50 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 16:06
Operator : MJB
Sample : 9L05032-CCV2
Misc : A19K134, AB 100 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 17:16:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 12/5/19

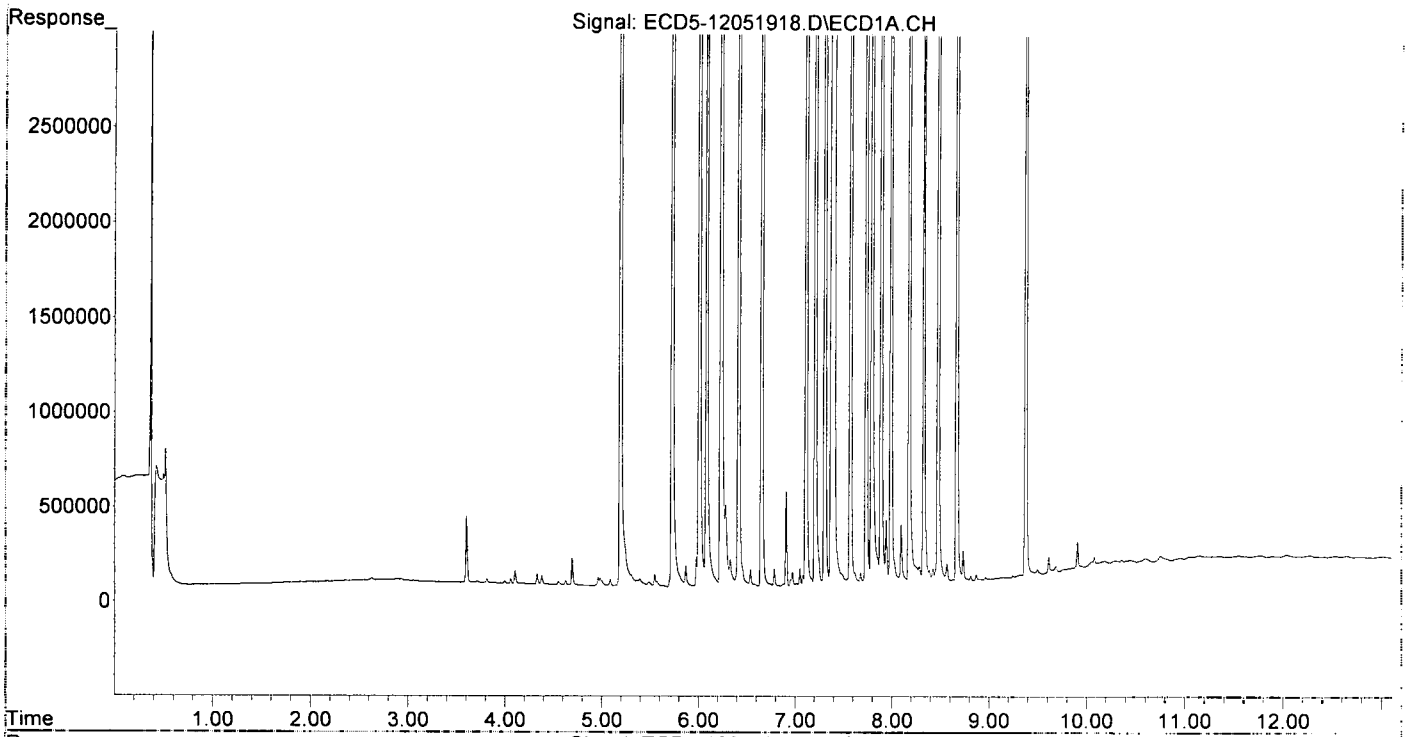
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.192	5.784	16842582	29281437	101.476	99.812	
22)	S	DCBP (S)	9.376	10.291	13371801	18866541	94.769	104.952	
		Target Compounds							
2)		a-BHC	5.727	6.390	23625696	43160564	103.021	105.183	
3)		g-BHC	6.007	6.706	21003278	36806941	104.091	103.186	
4)		b-BHC	6.083	6.772	7833798	14266859	86.673	90.145	
5)		Heptachlor	6.415	7.074	19612145	34238617	108.177	111.899	
6)		d-BHC	6.230	7.024	18107452	33752830	92.061	95.708	
7)		Aldrin	6.653	7.336	20301584	35043230	102.821	106.387	
8)		Heptachlo...	7.113	7.774	17913854	30346678	97.264	100.870	
9)		trans-Chl...	7.208	7.913	18904384	31957600	102.246	101.995	
10)		cis-Chlor...	7.306	8.021	18027387	30213263	99.013	103.738	
11)		Endosulfa...	7.399	8.069	17183777	27669496	100.974	100.552	
12)		4,4'-DDE	7.375	8.134	17677413	29636856	93.765	95.394	
13)		Dieldrin	7.572	8.269	19308916	32727131	100.578	107.602	
14)		Endrin	7.734	8.494	15421396	24682115	104.888	109.297	
15)		4,4'-DDD	7.792	8.547	14594669	23719643	92.877	92.578	
16)		Endosulfa...	7.889	8.641	14662518	24096400	102.099	104.492	
17)		4,4'-DDT	7.989	8.770	12875246	20206255	107.688	98.980	
18)		Endrin Al...	8.178	8.877	12466675	20176254	99.304	98.116	
19)		Endosulfa...	8.477	9.068	13935950	22470401	89.922	90.211	
20)		Methoxychlor	8.328	9.250	6485961	9908041	110.731	100.543	
21)		Endrin Ke...	8.669	9.461	16438746	25995590	98.578	101.026	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	6.298	0	75903	N.D.	0.242	#
25)		Oxychlordane	7.113f	7.737	17913854	47220	108.874	0.172	#
26)		2,4'-DDE	0.000	7.969	0	127952	N.D.	0.603	#
27)		trans-Non...	7.306f	8.021	18027387	30213263	100.420	100.165	
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	7.734f	8.547	15421396	23719643	140.594	133.003	
30)		cis-Nonac...	7.792	8.547f	14594669	23719643	70.297	70.710	
31)		Mirex	8.477	9.493	13935950	267560	111.161	1.438	#
32)		Chlordane...	7.208f	7.969	18904384	127952	960.120	3.536	#
33)		Chlordane...	7.306f	8.069	18027387	27669496	719.246	911.258	
34)		Chlordane...	7.889	8.718	14662518	78028	2536.276	8.703	#
35)		Chlordane...	0.000	3.450	0	10931	N.D.	NoCal	
36)		Toxaphene...	7.306	8.269	18027387	32727131	20127.772	12471.003	
37)		Toxaphene...	7.572f	8.641	19308916	24096400	11956.440	7321.852	
38)		Toxaphene...	7.943f	8.641f	332232	24096400	98.659	4754.320	#
39)		Toxaphene...	8.178	8.718	12466675	78028	3847.558	9.345	#
40)		Toxaphene...	8.388	8.877f	60782	20176254	25.356	4329.335	#
41)		Toxaphene...	8.477f	9.250f	13935950	9908041	4403.724	2085.815	#
42)		Toxaphene...	0.000	3.450	0	10931	N.D.	NoCal	

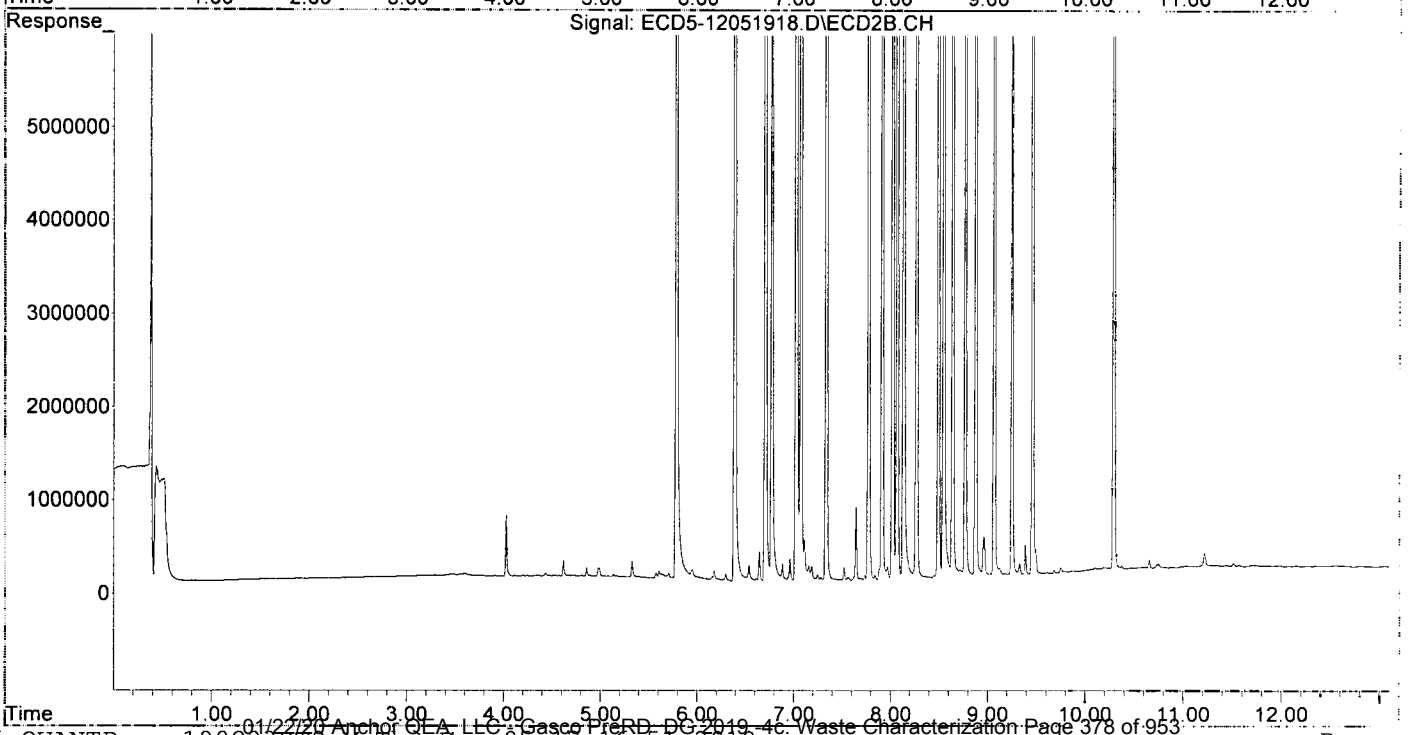
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 16:06
Operator : MJB
Sample : 9L05032-CCV2
Misc : A19K134, AB 100 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 17:16:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 16:24
Operator : MJB
Sample : 9L05032-CCB2
Misc : A19L018
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 17:16:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 12/5/19

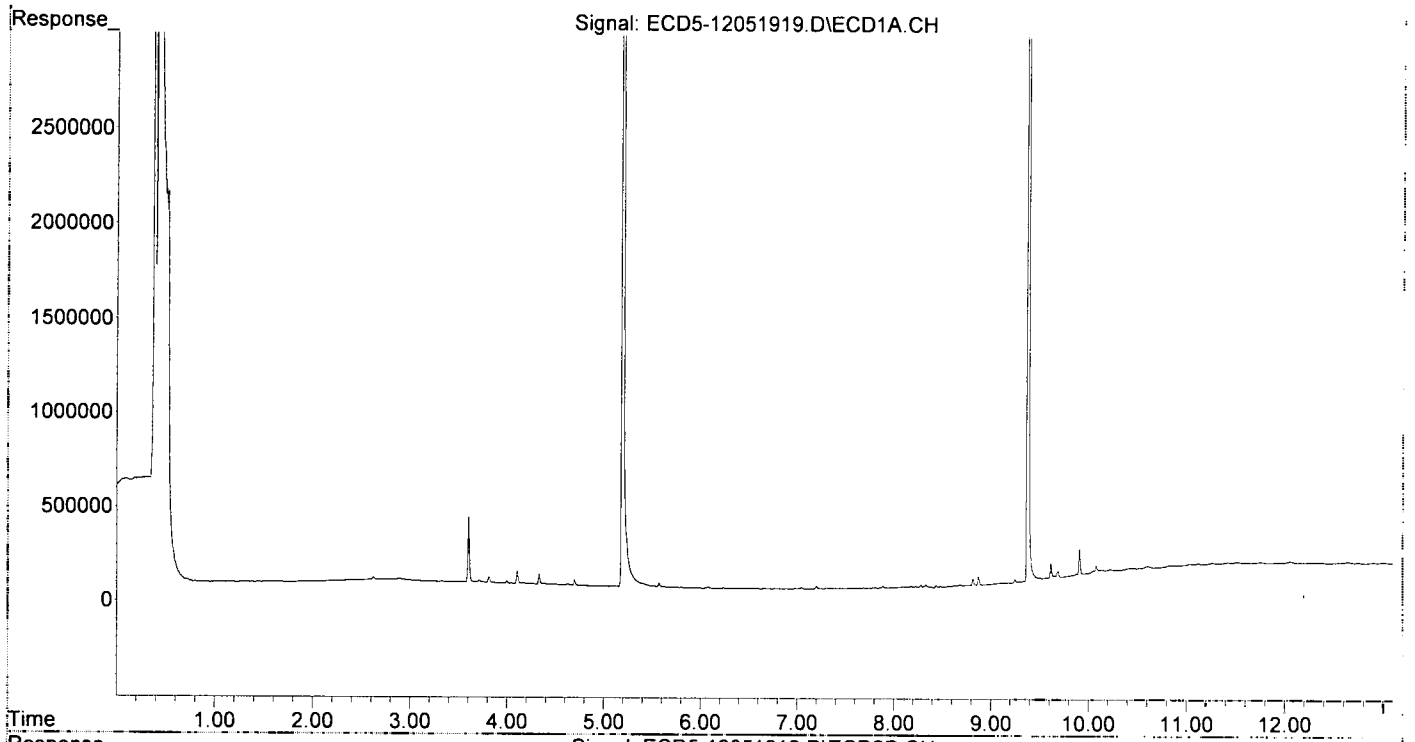
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.192	5.784	16648203	28358420	100.305	96.665	
22)	S	DCBP (S)	9.377	10.292	12734098	19211254	90.250	106.870	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.081	0.000	7572	0	0.084	N.D.	#
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.236	7.027	4422	8070	0.022	0.023	
7)		Aldrin	6.652	7.369f	3392	20276	0.017	0.062	#
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	7.199	0.000	15642	0	0.085	N.D.	#
10)		cis-Chlor...	7.299	0.000	4809	0	0.026	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	8.514	0	5721	N.D.	0.025	#
15)		4,4'-DDD	7.809	8.514f	4018	5721	0.026	0.022	
16)		Endosulfa...	7.887	8.631	10890	13348	0.076	0.058	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.179	8.877	8228	8768	BelowCal	BelowCal	
19)		Endosulfa...	8.479	9.068	5153	12161	0.033	0.049	#
20)		Methoxychlor	8.330	9.291f	13464	2542	0.230	BelowCal	#
21)		Endrin Ke...	8.688	9.463	6276	15346	0.038	0.060	#
23)		Hexachlor...	0.000	3.559f	0	8189	N.D.	0.022	#
24)		Hexachlor...	5.571f	0.000	19514	0	0.111	N.D.	#
25)		Oxychlordane	7.044f	0.000	9337	0	0.057	N.D.	#
26)		2,4'-DDE	7.199f	0.000	15642	0	0.122	N.D.	#
27)		trans-Non...	7.299f	0.000	4809	0	87346.674	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	7.686f	8.514f	3364	5721	0.031	0.032	
30)		cis-Nonac...	7.809	0.000	4018	0	0.019	N.D.	#
31)		Mirex	8.479	9.513f	5153	11632	0.041	0.063	#
32)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
33)		Chlordane...	7.299f	0.000	4809	0	0.192	N.D.	#
34)		Chlordane...	7.887	8.715	10890	8802	1.884	0.982	#
35)		Chlordane...	0.000	3.451	0	9268	N.D.	NoCal	
36)		Toxaphene...	7.299	0.000	4809	0	5.370	N.D.	#
37)		Toxaphene...	0.000	8.631	0	13348	N.D.	4.056	#
38)		Toxaphene...	7.914	8.656	3464	5333	1.029	1.052	
39)		Toxaphene...	8.179	8.715	8228	8802	2.539	1.054	#
40)		Toxaphene...	0.000	8.911	0	4501	N.D.	0.966	#
41)		Toxaphene...	8.435	9.291	11125	2542	3.515	0.535	#
42)		Toxaphene...	0.000	3.451	0	9268	N.D.	NoCal	

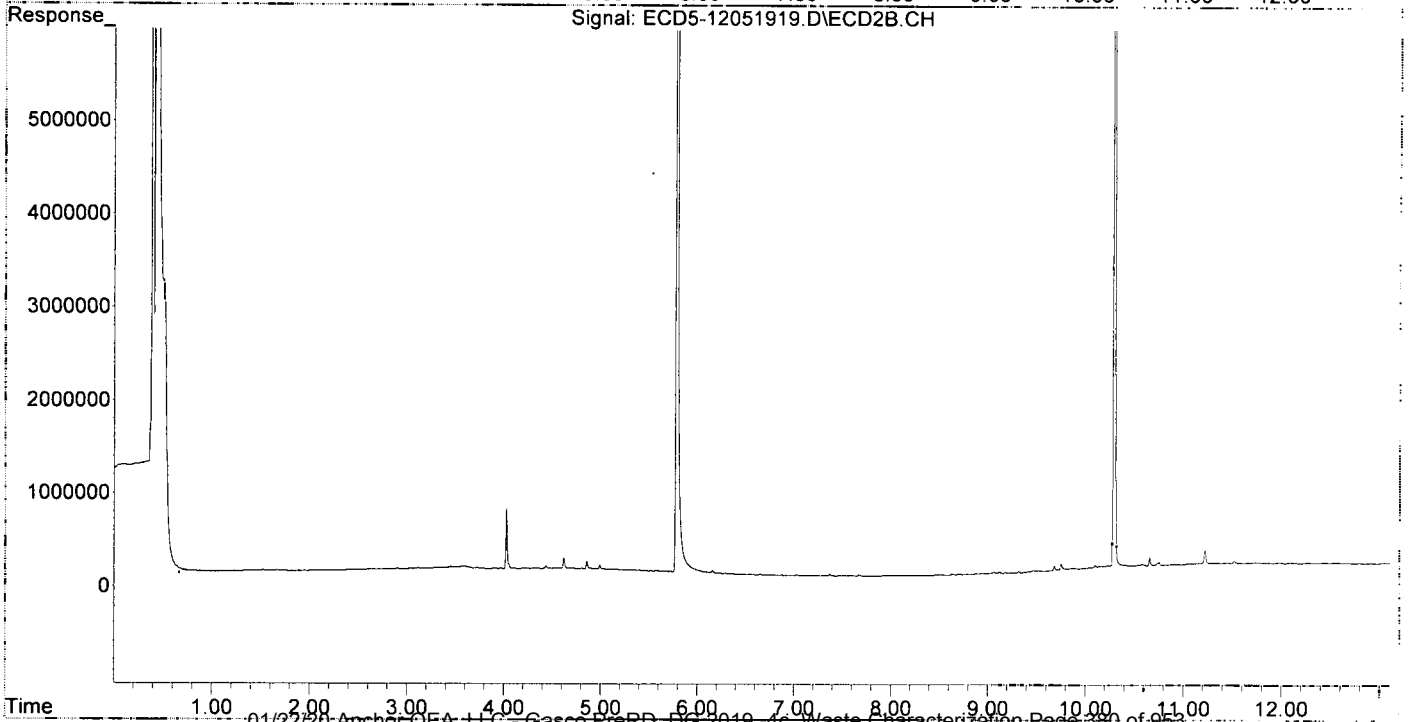
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 16:24
Operator : MJB
Sample : 9L05032-CCB2
Misc : A19L018
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 05 17:16:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 16:41
Operator : MJB
Sample : 9120522-BLK1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 12:53:19 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

WB 12/6/19

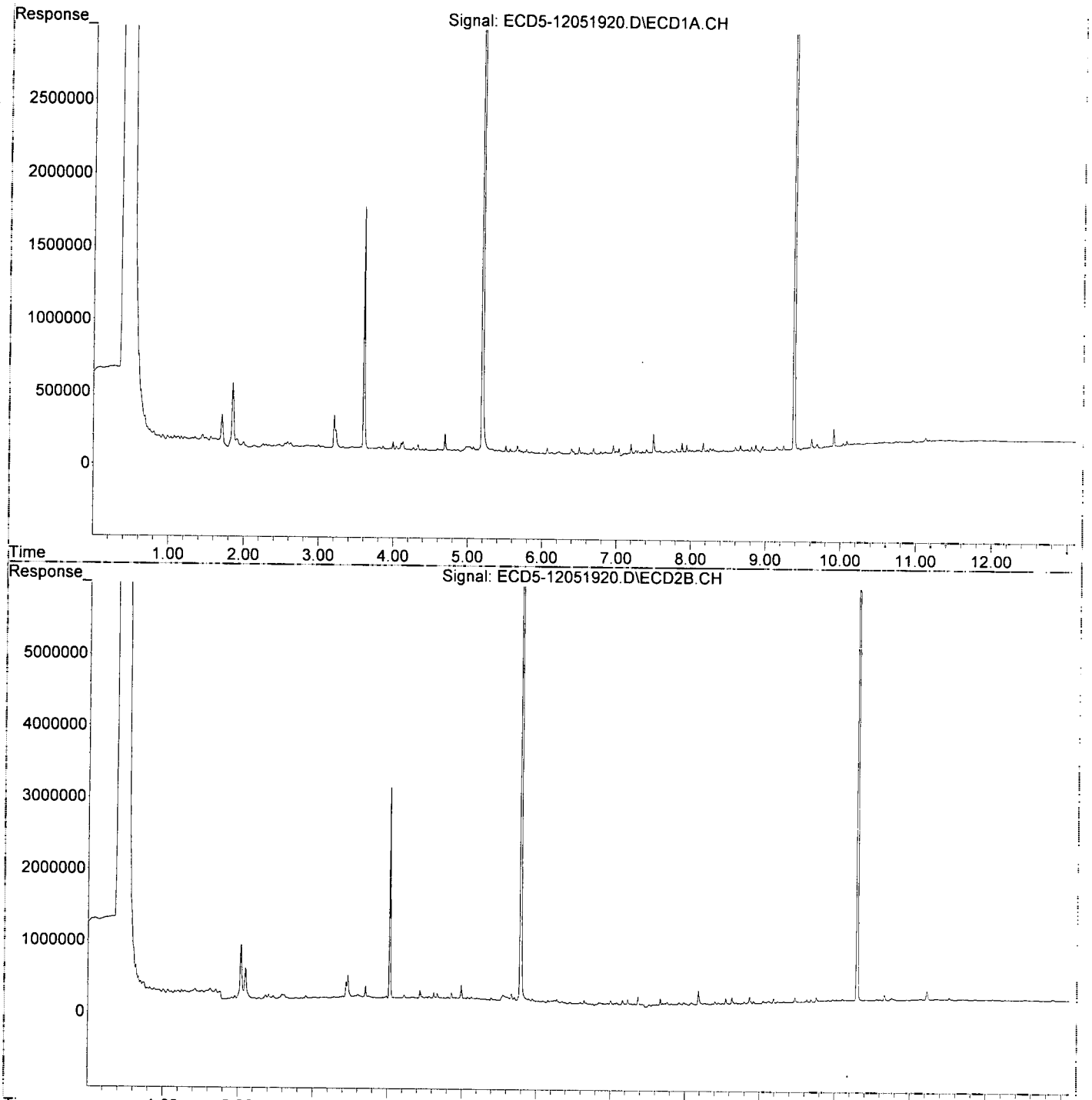
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.192	5.783	13109491	23611937	78.984	80.486
22)	S	DCBP (S)	9.376	10.291	11015932	15718696	78.073	87.441
		Target Compounds						
2)		a-BHC	5.728	0.000	17944	0	0.078	N.D. #
3)		g-BHC	6.010	6.704	7304	21960	0.036	0.062m#
4)		b-BHC	6.069	6.760	42763	21252	0.473	0.134 #
5)		Heptachlor	6.395f	7.079	41943	48173	0.231	0.157
6)		d-BHC	6.227	7.053f	18723	36952	0.095	0.105
7)		Aldrin	6.654	7.315f	17147	40354	0.087	0.123 #
8)		Heptachlo...	7.118	7.757f	16737	61611	0.091	0.205 #
9)		trans-Chl...	7.195	7.917	82205	48430	0.445	0.155 #
10)		cis-Chlor...	7.323	8.019	18129	24502	0.100	0.084
11)		Endosulfa...	7.402	8.083	39587	43499	0.233	0.158
12)		4,4'-DDE	7.372	8.176f	19302	205361	0.102	0.661 #
13)		Dieldrin	7.582	8.261	30247	27955	0.158	0.092 #
14)		Endrin	7.741	8.499	29912	15983	0.203	0.071 #
15)		4,4'-DDD	7.807	8.543	39945	87607	0.254	0.342
16)		Endosulfa...	7.880	8.626	80555	95720	0.561	0.415
17)		4,4'-DDT	7.985	8.757	29589	7238	0.247	0.004 #
18)		Endrin Al...	8.164	8.861	77069	96176	BelowCal	BelowCal
19)		Endosulfa...	8.478	9.066	16516	14945	0.107	0.060 #
20)		Methoxychlor	8.324	9.233f	22260	20655	0.380	0.070 #
21)		Endrin Ke...	8.663	9.466	53883	67630	0.323	0.263
23)		Hexachlor...	3.056	3.562f	19070	48576	0.104	0.129
24)		Hexachlor...	0.000	6.273	0	59808	N.D.	0.190 #
25)		Oxychlordane	7.118f	7.757	16737	61611	0.102	0.225 #
26)		2,4'-DDE	7.195f	7.943	82205	27016	0.641	0.127 #
27)		trans-Non...	7.349	8.019	25961	24502	87346.555	0.081 #
28)		2,4'-DDD	7.553f	8.337	25182	14976	0.221	0.079 #
29)		2,4'-DDT	7.741f	8.543	29912	87607	0.273	0.491 #
30)		cis-Nonac...	7.807	8.570	39945	12940	0.192	0.039 #
31)		Mirex	8.459	9.466f	16060	67630	0.128	0.363 #
32)		Chlordane...	7.259	7.943	36403	27016	1.849	0.747 #
33)		Chlordane...	7.349	8.083f	25961	43499	1.036	1.433
34)		Chlordane...	7.880	8.717	80555	11991	13.934	1.337 #
35)		Chlordane...	3.441f	3.441	20086	240982	NoCal	NoCal
36)		Toxaphene...	7.323	8.291	18129	21467	20.241	8.180 #
37)		Toxaphene...	7.582f	8.626	30247	95720	18.730	29.085 #
38)		Toxaphene...	7.913	8.681	19503	22711	5.792	4.481
39)		Toxaphene...	8.164	8.717	77069	11991	23.786	1.436 #
40)		Toxaphene...	8.395	8.915	17121	32178	7.142	6.905
41)		Toxaphene...	8.459	9.281	16060	10554	5.075	2.222 #
42)		Toxaphene...	3.441f	3.464	20086	338372	NoCal	NoCal

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 16:41
Operator : MJB
Sample : 9120522-BLK1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

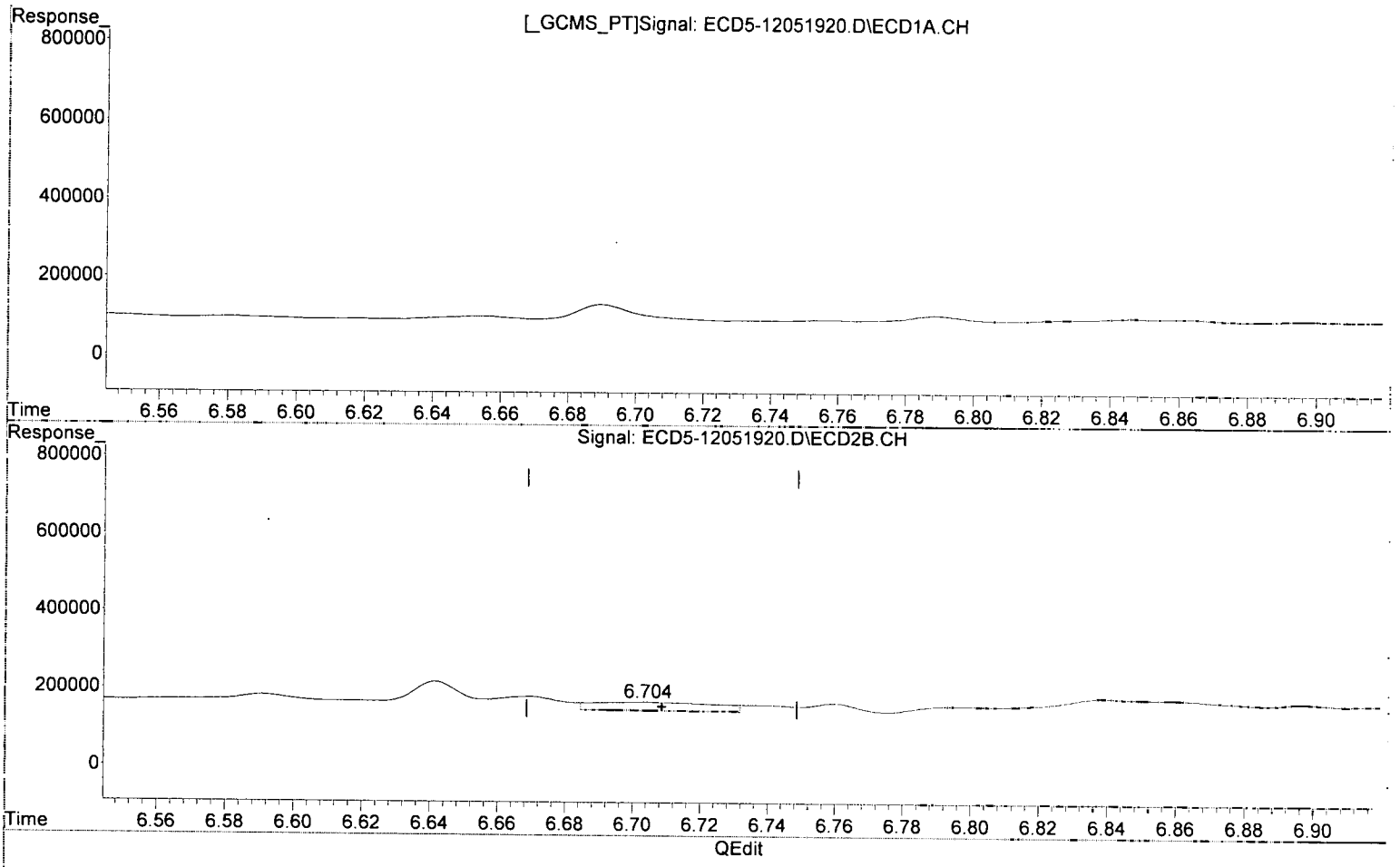
Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 12:53:19 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Qedit)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 16:41
Operator : MJB
Sample : 9120522-BLK1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:31:38 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(3) g-BHC

6.010min 0.036 ng/mL

response 7304

WP 12/16/19

(3) g-BHC #2

6.704min 0.062 ng/mL m

response 21960

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 16:41
Operator : MJB
Sample : 9120522-BLK1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:31:38 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJ MJB 12/6/19

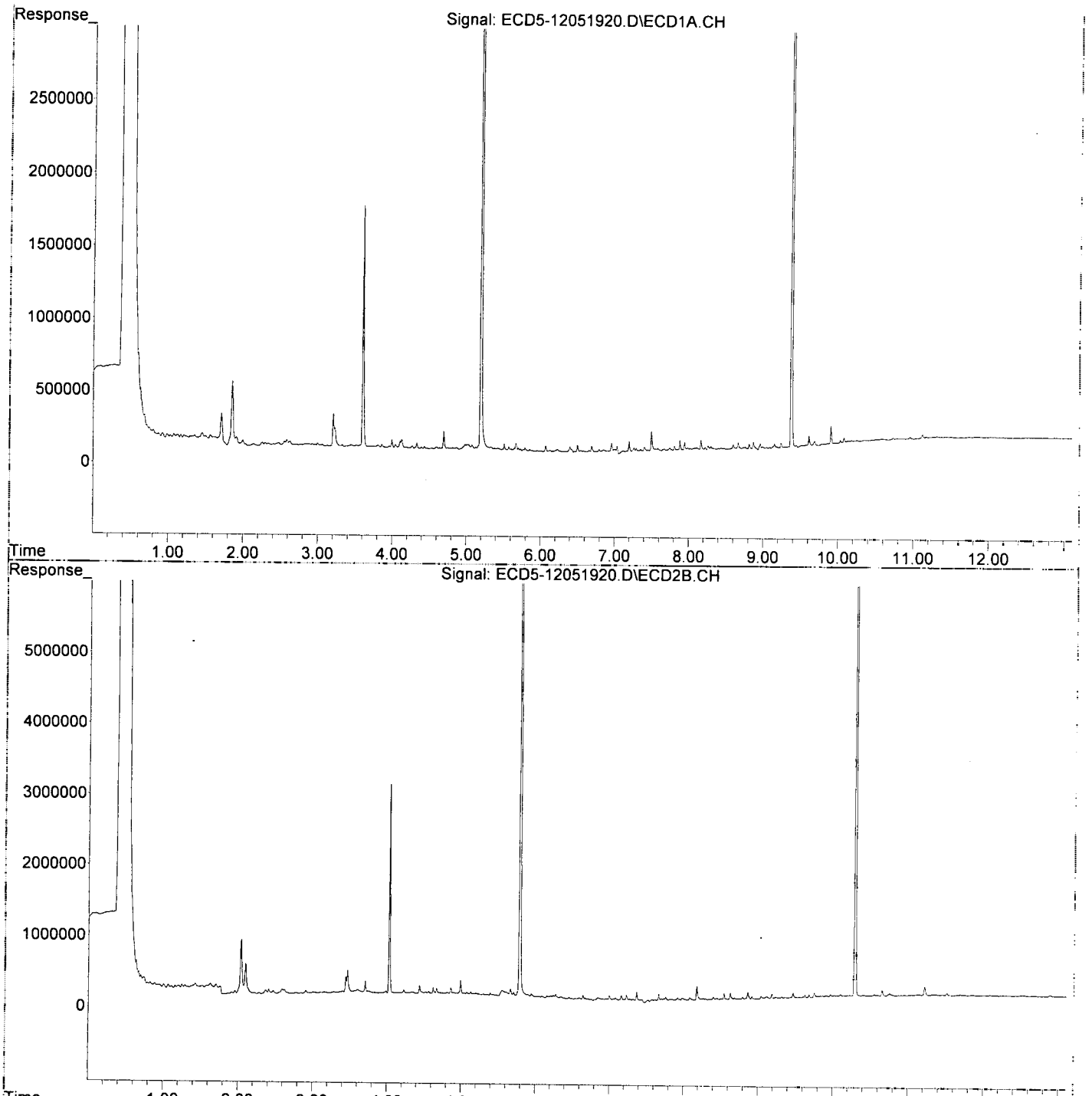
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.192	5.783	13109491	23611937	78.984	80.486
22) S	DCBP (S)	9.376	10.291	11015932	15718696	78.073	87.441
	Target Compounds						
2)	a-BHC	5.728	0.000	17944	0	0.078	N.D. #
3)	g-BHC	6.010	6.669f	7304	31684	0.036	0.089 #
4)	b-BHC	6.069	6.760	42763	21252	0.473	0.134 #
5)	Heptachlor	6.395f	7.079	41943	48173	0.231	0.157
6)	d-BHC	6.227	7.053f	18723	36952	0.095	0.105
7)	Aldrin	6.654	7.315f	17147	40354	0.087	0.123 #
8)	Heptachlo...	7.118	7.757f	16737	61611	0.091	0.205 #
9)	trans-Chl...	7.195	7.917	82205	48430	0.445	0.155 #
10)	cis-Chlor...	7.323	8.019	18129	24502	0.100	0.084
11)	Endosulfa...	7.402	8.083	39587	43499	0.233	0.158
12)	4,4'-DDE	7.372	8.176f	19302	205361	0.102	0.661 #
13)	Dieldrin	7.582	8.261	30247	27955	0.158	0.092 #
14)	Endrin	7.741	8.499	29912	15983	0.203	0.071 #
15)	4,4'-DDD	7.807	8.543	39945	87607	0.254	0.342
16)	Endosulfa...	7.880	8.626	80555	95720	0.561	0.415
17)	4,4'-DDT	7.985	8.757	29589	7238	0.247	0.004 #
18)	Endrin Al...	8.164	8.861	77069	96176	BelowCal	BelowCal
19)	Endosulfa...	8.478	9.066	16516	14945	0.107	0.060 #
20)	Methoxychlor	8.324	9.233f	22260	20655	0.380	0.070 #
21)	Endrin Ke...	8.663	9.466	53883	67630	0.323	0.263
23)	Hexachlor...	3.056	3.562f	19070	48576	0.104	0.129
24)	Hexachlor...	0.000	6.273	0	59808	N.D.	0.190 #
25)	Oxychlordane	7.118f	7.757	16737	61611	0.102	0.225 #
26)	2,4'-DDE	7.195f	7.943	82205	27016	0.641	0.127 #
27)	trans-Non...	7.349	8.019	25961	24502	87346.555	0.081 #
28)	2,4'-DDD	7.553f	8.337	25182	14976	0.221	0.079 #
29)	2,4'-DDT	7.741f	8.543	29912	87607	0.273	0.491 #
30)	cis-Nonac...	7.807	8.570	39945	12940	0.192	0.039 #
31)	Mirex	8.459	9.466f	16060	67630	0.128	0.363 #
32)	Chlordane...	7.259	7.943	36403	27016	1.849	0.747 #
33)	Chlordane...	7.349	8.083f	25961	43499	1.036	1.433
34)	Chlordane...	7.880	8.717	80555	11991	13.934	1.337 #
35)	Chlordane...	3.441f	3.441	20086	240982	NoCal	NoCal
36)	Toxaphene...	7.323	8.291	18129	21467	20.241	8.180 #
37)	Toxaphene...	7.582f	8.626	30247	95720	18.730	29.085 #
38)	Toxaphene...	7.913	8.681	19503	22711	5.792	4.481
39)	Toxaphene...	8.164	8.717	77069	11991	23.786	1.436 #
40)	Toxaphene...	8.395	8.915	17121	32178	7.142	6.905
41)	Toxaphene...	8.459	9.281	16060	10554	5.075	2.222 #
42)	Toxaphene...	3.441f	3.464	20086	338372	NoCal	NoCal

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 16:41
Operator : MJB
Sample : 9120522-BLK1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:31:38 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 16:58
Operator : MJB
Sample : 9120522-BS1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:31:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 12/6/19

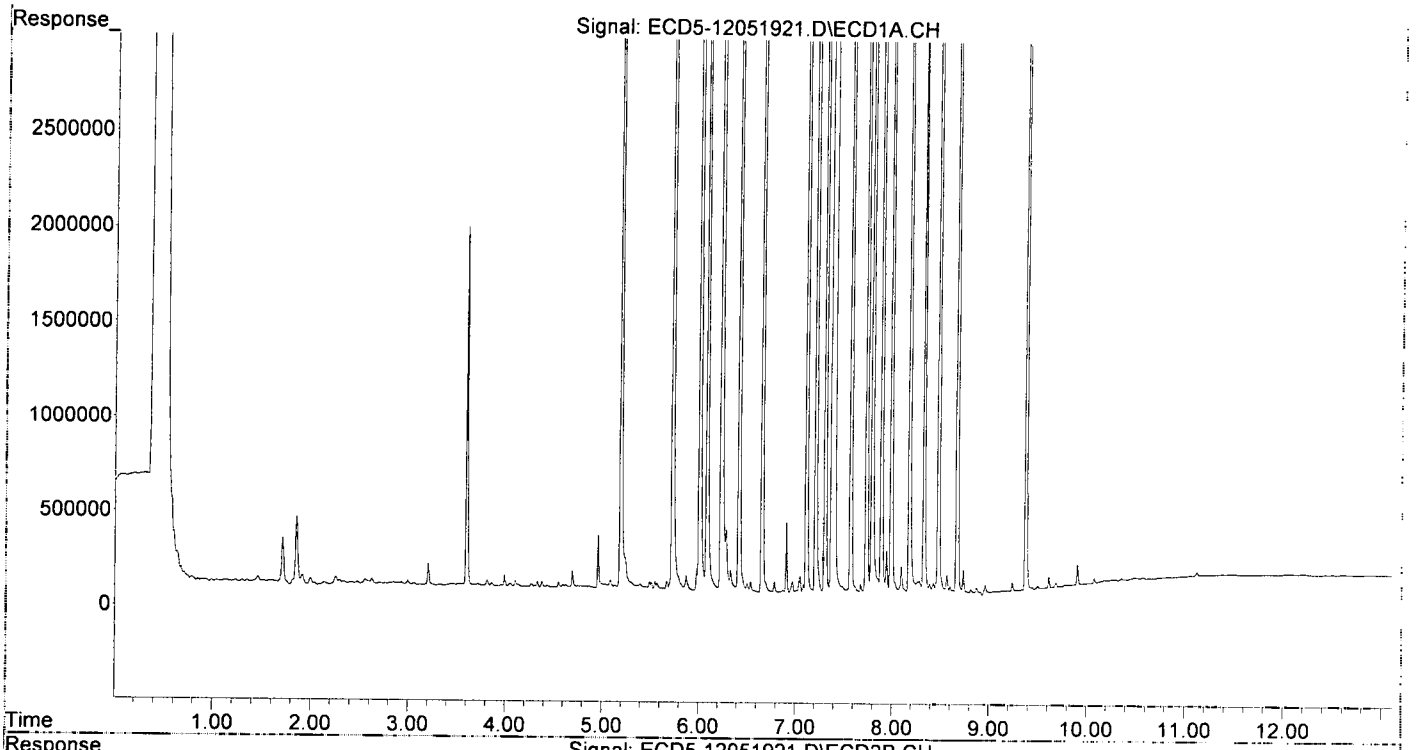
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.191	5.783	9262754	15344612	55.808	52.305	
22)	S	DCBP (S)	9.376	10.291	9201452	13291293	65.213	73.938	
		Target Compounds							
2)		a-BHC	5.726	6.389	19867693	34955248	86.634	85.186	
3)		g-BHC	6.007	6.706	17128361	30667613	84.888	85.975	
4)		b-BHC	6.083	6.772	6966778	12397222	77.080	78.332	
5)		Heptachlor	6.415	7.074	14059500	24746501	77.550	80.877	
6)		d-BHC	6.230	7.024	15846295	29592521	80.565	83.911	
7)		Aldrin	6.654	7.336	13407694	23516978	67.906	71.395	
8)		Heptachlo...	7.113	7.775	15199863	24538426	82.528	81.564	
9)		trans-Chl...	7.208	7.913	14804833	24806036	80.073	79.170	
10)		cis-Chlor...	7.305	8.021	14542312	23675935	79.872	81.292	
11)		Endosulfa...	7.399	8.069	14339019	23494272	84.258	85.379	
12)		4,4'-DDE	7.374	8.133	13440787	22700926	71.293	73.069	
13)		Dieldrin	7.571	8.268	15830587	26511120	82.460	87.165	
14)		Endrin	7.733	8.493	14271919	21588655	97.070	95.598	
15)		4,4'-DDD	7.791	8.546	12390833	19654930	78.852	76.713	
16)		Endosulfa...	7.888	8.640	13406754	22172884	93.354	96.150	
17)		4,4'-DDT	7.988	8.770	11396619	17572095	95.321	87.676	
18)		Endrin Al...	8.177	8.878	11102099	18276717	88.927	89.621	
19)		Endosulfa...	8.476	9.068	13002259	21542335	83.898	86.485	
20)		Methoxychlor	8.327	9.250	6350942	9592315	108.425	97.818	
21)		Endrin Ke...	8.668	9.461	15312506	24552593	91.824	95.418	
23)		Hexachlor...	3.058f	3.564f	18383	33303	0.101	0.089	
24)		Hexachlor...	0.000	6.297	0	45305	N.D.	0.144	#
25)		Oxychlordane	7.113f	7.737	15199863	32331	92.379	0.118	#
26)		2,4'-DDE	0.000	7.970	0	82716	N.D.	0.390	#
27)		trans-Non...	7.305f	8.021	14542312	23675935	80.927	78.492	
28)		2,4'-DDD	7.571f	0.000	15830587	0	138.713	N.D.	#
29)		2,4'-DDT	7.733f	8.546	14271919	19654930	130.114	110.211	
30)		cis-Nonac...	7.791	8.546f	12390833	19654930	59.682	58.593	
31)		Mirex	8.476	9.493	13002259	199913	103.714	1.074	#
32)		Chlordane...	7.208f	7.970	14804833	82716	751.911	2.286	#
33)		Chlordane...	7.305f	8.069	14542312	23494272	580.200	773.752	
34)		Chlordane...	7.888	8.717	13406754	52825	2319.058	5.892	#
35)		Chlordane...	3.456	3.465	18280	141051	NoCal	NoCal	
36)		Toxaphene...	7.305	8.268	14542312	26511120	16236.648	10102.330	
37)		Toxaphene...	0.000	8.640	0	22172884	N.D.	6737.379	#
38)		Toxaphene...	7.942f	8.640f	228261	22172884	67.784	4374.803	#
39)		Toxaphene...	8.177	8.735	11102099	42546	3426.413	5.095	#
40)		Toxaphene...	8.387	8.878f	55137	18276717	23.001	3921.741	#
41)		Toxaphene...	8.476f	9.250f	13002259	9592315	4108.680	2019.349	#
42)		Toxaphene...	3.456	3.465	18280	141051	NoCal	NoCal	

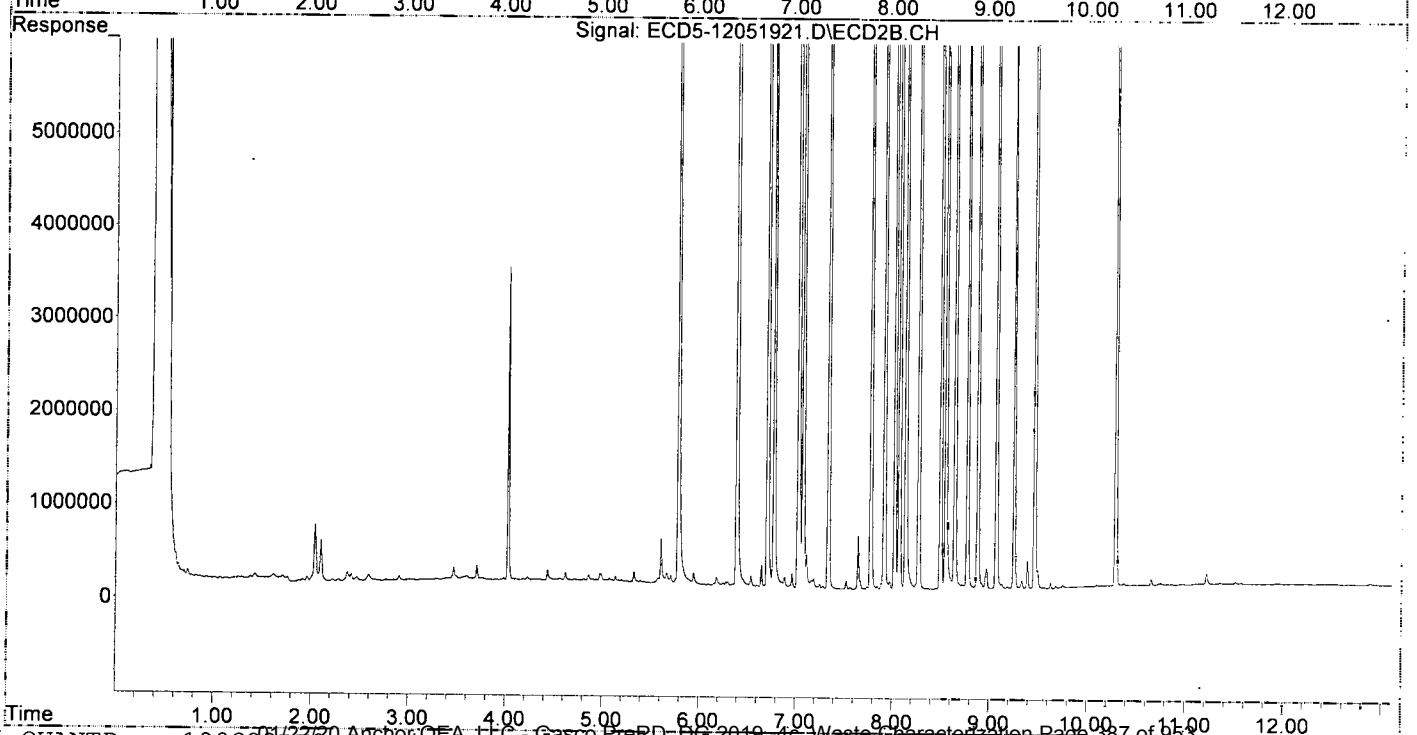
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 16:58
Operator : MJB
Sample : 9120522-BS1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:31:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 17:16
Operator : MJB
Sample : 9120522-BSD1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:31:52 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Q-14 MJB 12/6/19 MJB 12/5/19 12/6/19

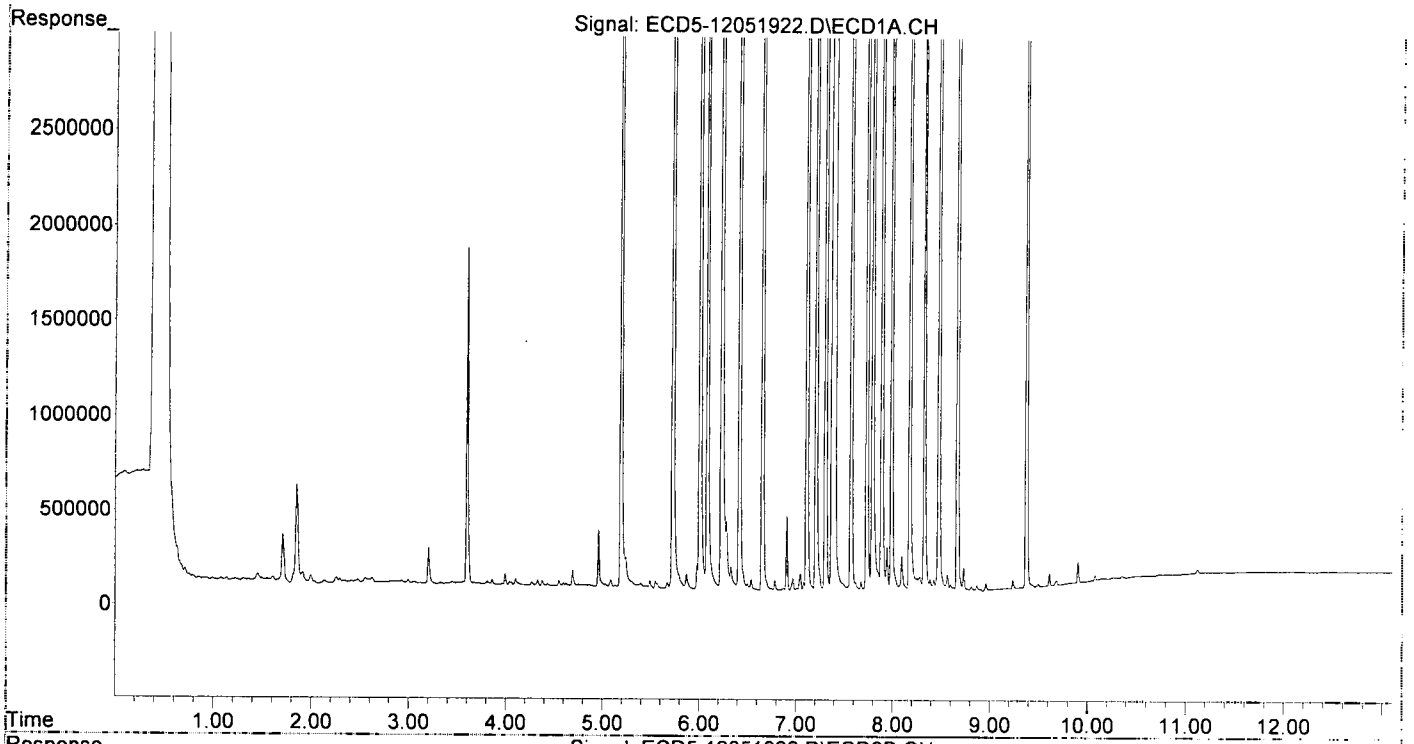
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.192	5.784	9527390	15669568	57.402	53.413	
22)	S DCBP (S)	9.376	10.292	9655295	13572773	68.429	75.504	
	Target Compounds							
2)	a-BHC	5.726	6.389	20417149	37255220	89.030	90.791	
3)	g-BHC	6.007	6.706	17878731	31910151	88.606	89.458	
4)	b-BHC	6.083	6.772	7001897	12402071	77.469	78.362	
5)	Heptachlor	6.416	7.075	15049107	26491722	83.008	86.581	
6)	d-BHC	6.231	7.024	16313577	30446493	82.940	86.332	
7)	Aldrin	6.654	7.337	14293271	25312571	72.391	76.846	
8)	Heptachlo...	7.113	7.774	15735645	26105199	85.437	86.772	
9)	trans-Chl...	7.209	7.913	15359885	25546658	83.075	81.534	
10)	cis-Chlor...	7.306	8.021	15212183	24778929	83.551	85.079	
11)	Endosulfa...	7.399	8.069	14708233	23923496	86.428	86.939	
12)	4,4'-DDE	7.374	8.133	13656482	22902652	72.437	73.718	
13)	Dieldrin	7.571	8.269	17244670	27151365	89.826	89.270	
14)	Endrin	7.734	8.494	15013812	23177814	102.116	102.635	
15)	4,4'-DDD	7.792	8.547	13103695	20444670	83.388	79.795	
16)	Endosulfa...	7.888	8.641	13742705	22800609	95.694	98.873	
17)	4,4'-DDT	7.989	8.771	11674987	17449903	97.649	87.142	
18)	Endrin Al...	8.177	8.877	11468394	18655376	91.725	91.326	
19)	Endosulfa...	8.477	9.068	13273705	21233942	85.649	85.247	
20)	Methoxychlor	8.328	9.250	6676706	9676519	113.987	98.547	
21)	Endrin Ke...	8.669	9.461	15758348	24649345	94.498	95.794	
23)	Hexachlor...	3.057f	3.565f	17004	27334	0.093	0.073	
24)	Hexachlor...	0.000	6.297	0	35600	N.D.	0.113	#
25)	Oxychlordane	7.113f	7.737	15735645	35983	95.635	0.131	#
26)	2,4'-DDE	0.000	7.969	0	95011	N.D.	0.448	#
27)	trans-Non...	7.306f	8.021	15212183	24778929	84.673	82.149	
28)	2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)	2,4'-DDT	7.734f	8.547	15013812	20444670	136.878	114.639	
30)	cis-Nonac...	7.792	8.547f	13103695	20444670	63.115	60.947	
31)	Mirex	8.477	9.493	13273705	194328	105.879	1.044	#
32)	Chlordane...	7.209f	7.969	15359885	95011	780.101	2.626	#
33)	Chlordane...	7.306f	8.069	15212183	23923496	606.926	787.888	
34)	Chlordane...	7.888	8.718	13742705	64254	2377.170	7.166	#
35)	Chlordane...	3.439f	3.466	17935	228663	NoCal	NoCal	
36)	Toxaphene...	7.306	8.269	15212183	27151365	16984.567	10346.301	
37)	Toxaphene...	7.571f	8.641	17244670	22800609	10678.221	6928.118	
38)	Toxaphene...	7.943f	8.641f	232369	22800609	69.004	4498.655	#
39)	Toxaphene...	8.177	8.718	11468394	64254	3539.461	7.695	#
40)	Toxaphene...	8.388	8.877f	61935	18655376	25.837	4002.992	#
41)	Toxaphene...	8.477f	9.250f	13273705	9676519	4194.456	2037.075	#
42)	Toxaphene...	3.439f	3.466	17935	228663	NoCal	NoCal	

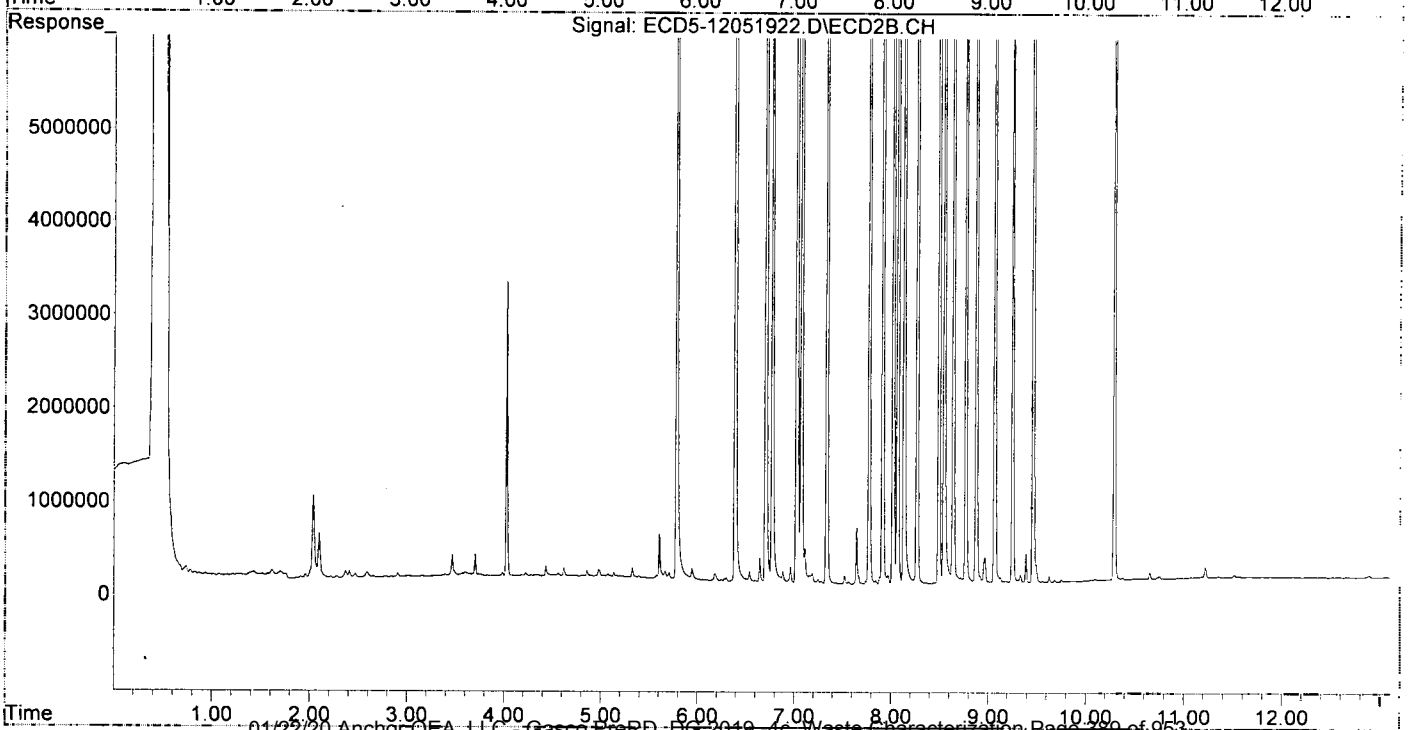
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 17:16
Operator : MJB
Sample : 9120522-BSD1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:31:52 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 17:33
Operator : MJB
Sample : A9K0609-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:31:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 12/6/19

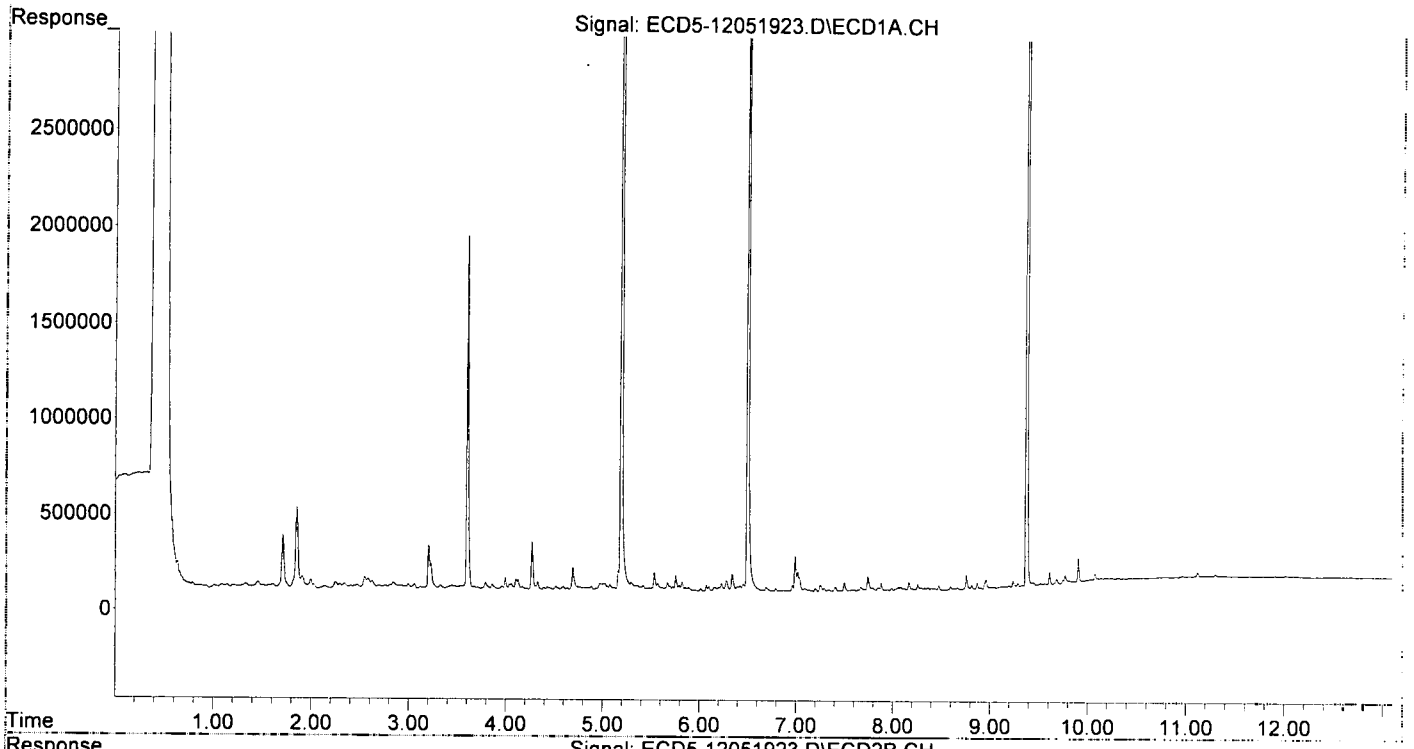
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.192	5.784	12952468	23771502	78.038	81.030	
22)	S	DCBP (S)	9.376	10.291	10741365	15400673	76.127	85.672	
		Target Compounds							
2)		a-BHC	5.727	6.384	24333	103920	0.106	0.253	#
3)		g-BHC	6.012	6.692	13113	35239	0.065	0.099	#
4)		b-BHC	6.100	6.772	24806	15958	0.274	0.101	#
5)		Heptachlor	6.419	7.082	27256	57036	0.150	0.186	
6)		d-BHC	6.231	7.023	41592	59120	0.211	0.168	
7)		Aldrin	6.692f	7.319	22780	33830	0.115	0.103	
8)		Heptachlo...	7.089f	7.758	14196	82613	0.077	0.275	#
9)		trans-Chl...	7.198	7.946f	15392	868189	0.083	2.771	#
10)		cis-Chlor...	7.291	7.986f	16455	53921	0.090	0.185	#
11)		Endosulfa...	7.406	8.084	23094	22822	0.136	0.083	
12)		4,4'-DDE	7.406f	8.130	23094	11604	0.122	0.037	#
13)		Dieldrin	7.574	8.259	6124	103225	0.032	0.339	#
14)		Endrin	7.744	8.499	75470	11216	0.513	0.050	#
15)		4,4'-DDD	7.791	8.567	16155	22683	0.103	0.089	
16)		Endosulfa...	7.882	8.628	41755	58793	0.291	0.255	
17)		4,4'-DDT	7.987	8.768	12746	10474	0.107	0.023	#
18)		Endrin Al...	8.167	8.863	40965	51573	BelowCal	BelowCal	
19)		Endosulfa...	8.476	9.067	23727	21759	0.153	0.087	#
20)		Methoxychlor	8.327	0.000	13128	0	0.224	N.D.	#
21)		Endrin Ke...	8.667	9.467	10508	79884	0.063	0.310	#
23)		Hexachlor...	3.059f	3.564f	28221	58601	0.154	0.156	
24)		Hexachlor...	0.000	6.275	0	47291	N.D.	0.151	#
25)		Oxychlordane	7.089	7.758	14196	82613	0.086	0.302	#
26)		2,4'-DDE	7.198f	7.946	15392	868189	0.120	4.093	#
27)		trans-Non...	7.343	7.986f	8055	53921	87346.655	0.179	#
28)		2,4'-DDD	7.500f	8.310	46124	16332	0.404	0.086	#
29)		2,4'-DDT	7.712	8.567f	9479	22683	0.086	0.127	#
30)		cis-Nonac...	7.791	8.567	16155	22683	0.078	0.068	
31)		Mirex	8.476	9.509	23727	14204	0.189	0.076	#
32)		Chlordane...	7.251	7.946	30683	868189	1.558	23.993	#
33)		Chlordane...	7.343	8.084f	8055	22822	0.321	0.752	#
34)		Chlordane...	7.882	8.684f	41755	13735	7.223	1.532	#
35)		Chlordane...	3.501f	3.441	16801	244091	NoCal	NoCal	
36)		Toxaphene...	7.343f	8.310f	8055	16332	8.994	6.223	
37)		Toxaphene...	7.603	8.628	5689	58793	3.523	17.865	#
38)		Toxaphene...	7.913	8.684	7012	13735	2.082	2.710	
39)		Toxaphene...	8.167	8.768f	40965	10474	12.643	1.254	#
40)		Toxaphene...	8.400	8.916	10306	22308	4.299	4.787	
41)		Toxaphene...	8.432	9.318f	11401	14858	3.603	3.128	
42)		Toxaphene...	3.501f	3.465	16801	366770	NoCal	NoCal	

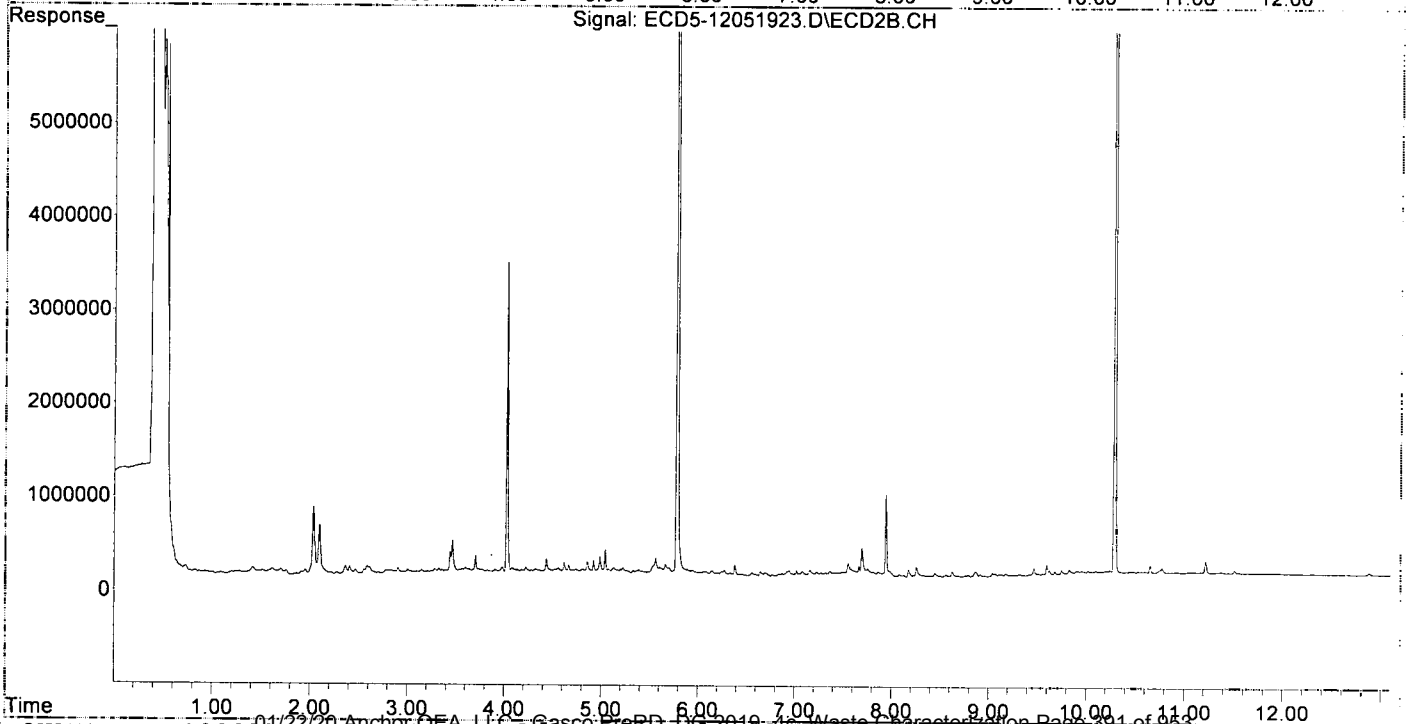
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 17:33
Operator : MJB
Sample : A9K0609-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:31:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 17:50
Operator : MJB
Sample : A9K0609-02
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:32:07 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 12/6/19

MJB 12/6/19

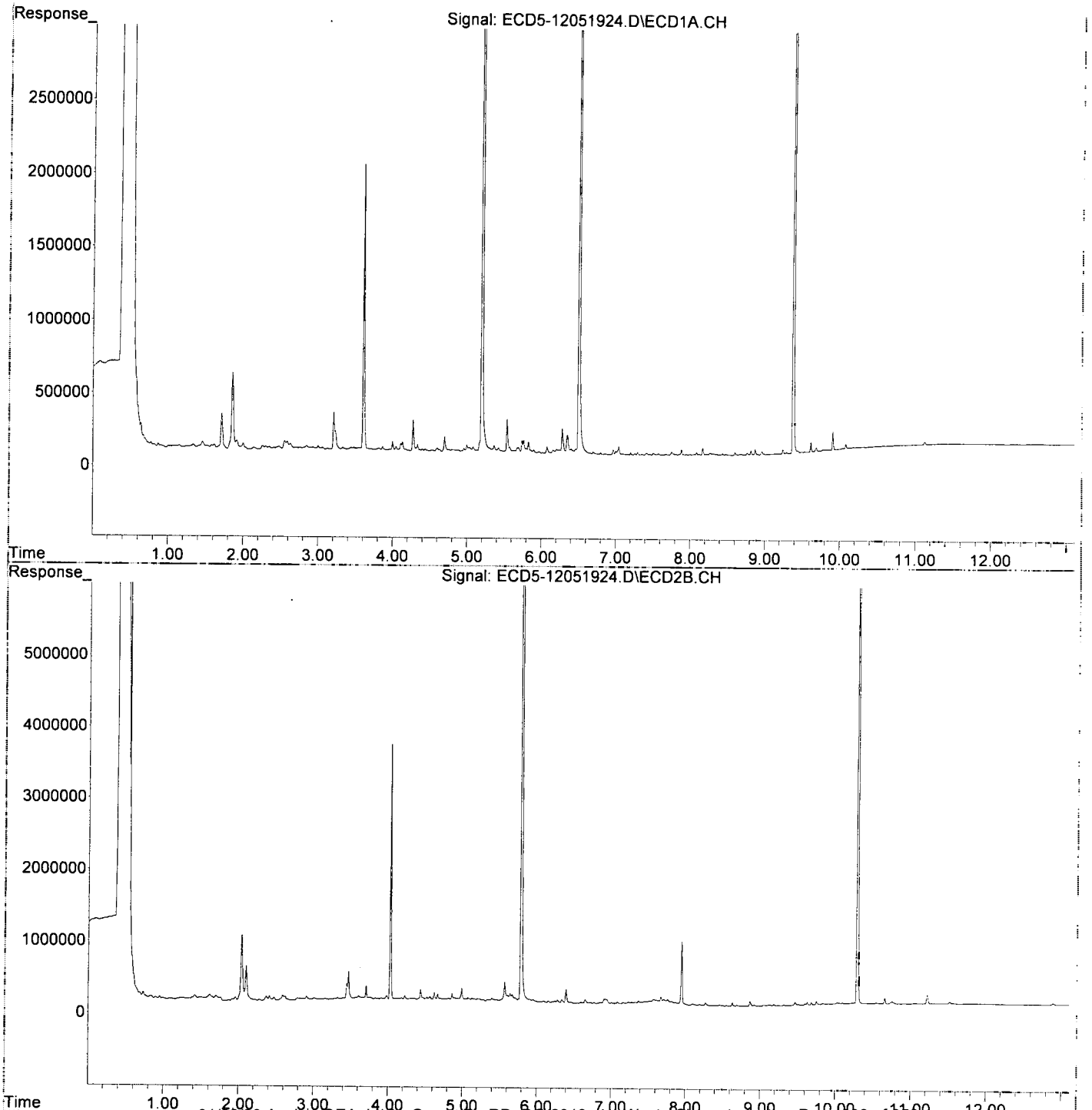
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.193	5.785	12628252	23221228	76.085	79.154	
22)	S	DCBP (S)	9.378	10.293	11058524	14988419	78.374	83.379	
		Target Compounds							
2)		a-BHC	5.757f	6.393	90455	191298	0.394	0.466	
3)		g-BHC	0.000	6.724	0	14779	N.D.	0.041	#
4)		b-BHC	6.074	6.771	47768	14002	0.529	0.088	#
5)		Heptachlor	6.395f	7.084	35614	22728	0.196	0.074	#
6)		d-BHC	6.236	7.004f	27203	11893	0.138	0.034	#
7)		Aldrin	6.695f	7.326	17115	5321	0.087	0.016	#
8)		Heptachlo...	0.000	7.760	0	65043	N.D.	0.216	#
9)		trans-Chl...	7.198	7.947f	14854	889431	0.080	2.839	#
10)		cis-Chlor...	7.295	0.000	17451	0	0.096	N.D.	#
11)		Endosulfa...	7.412	8.091f	12671	18061	0.074	0.066	
12)		4,4'-DDE	7.352f	0.000	6625	0	0.035	N.D.	#
13)		Dieldrin	7.573	8.268	11749	35993	0.061	0.118	#
14)		Endrin	7.751	0.000	22369	0	0.152	N.D.	#
15)		4,4'-DDD	7.807	8.547	6960	9774	0.044	0.038	
16)		Endosulfa...	7.884	8.629	38946	47808	0.271	0.207	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.168	8.865	49084	66721	BelowCal	BelowCal	
19)		Endosulfa...	8.479	9.068	8616	10187	0.056	0.041	
20)		Methoxychlor	8.329	0.000	9861	0	0.168	N.D.	#
21)		Endrin Ke...	8.668	9.469	7182	46326	0.043	0.180	#
23)		Hexachlor...	3.058f	3.564f	20007	36325	0.109	0.097	
24)		Hexachlor...	0.000	6.277	0	40113	N.D.	0.128	#
25)		Oxychlordane	0.000	7.760	0	65043	N.D.	0.237	#
26)		2,4'-DDE	7.198f	7.947	14854	889431	0.116	4.193	#
27)		trans-Non...	7.352	0.000	6625	0	87346.663	N.D.	#
28)		2,4'-DDD	7.506f	0.000	11972	0	0.105	N.D.	#
29)		2,4'-DDT	7.677f	8.547	7049	9774	0.064	0.055	
30)		cis-Nonac...	7.807	8.547f	6960	9774	0.034	0.029	
31)		Mirex	8.479	9.510	8616	11622	0.069	0.062	
32)		Chlordane...	7.252	7.947	9858	889431	0.501	24.580	#
33)		Chlordane...	7.352	8.091f	6625	18061	0.264	0.595	#
34)		Chlordane...	7.884	8.688f	38946	17479	6.737	1.950	#
35)		Chlordane...	3.474	3.443	24256	230127	NoCal	NoCal	
36)		Toxaphene...	7.295f	8.268	17451	35993	19.484	13.716	
37)		Toxaphene...	7.573f	8.629	11749	47808	7.275	14.527	#
38)		Toxaphene...	7.947f	8.688	5265	17479	1.563	3.449	#
39)		Toxaphene...	8.168	0.000	49084	0	15.149	N.D.	#
40)		Toxaphene...	0.000	8.920	0	14783	N.D.	3.172	#
41)		Toxaphene...	8.434	9.319f	12156	13101	3.841	2.758	
42)		Toxaphene...	3.474	3.466	24256	397353	NoCal	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 17:50
Operator : MJB
Sample : A9K0609-02
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:32:07 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 18:42
Operator : MJB
Sample : 9L05032-CCV3
Misc : A19K133, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 13:10:54 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 12/6/19

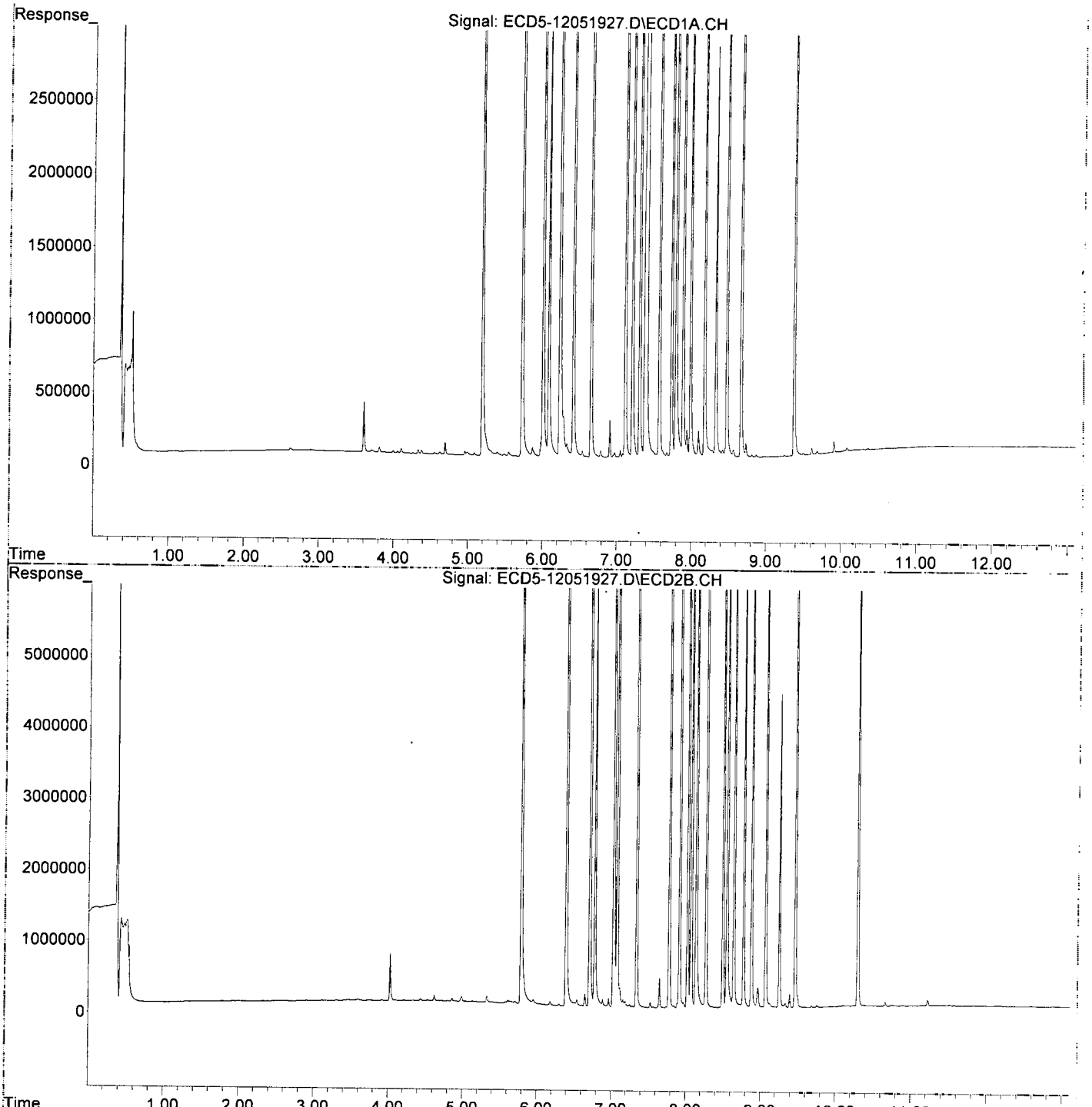
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.192	5.783	8345286	13022362	50.280	44.389	
22)	S	DCBP (S)	9.377	10.291	6409765	8878667	45.428	49.391	
		Target Compounds							
2)		a-BHC	5.726	6.389	12080398	20259363	52.677	49.372	
3)		g-BHC	6.007	6.705	10122518	17564337	50.167	49.241	
4)		b-BHC	6.084	6.773	3520884	6507667	38.955	41.119	
5)		Heptachlor	6.415	7.074	9536504	16308075	52.602	53.298	
6)		d-BHC	6.231	7.024	8028825	14883199	40.820	42.202	
7)		Aldrin	6.654	7.336	9624521	17370003	48.745	52.733	
8)		Heptachlo...	7.113	7.774	9156546	14575618	49.716	48.448	
9)		trans-Chl...	7.209	7.913	8891786	14821262	48.092	47.303	
10)		cis-Chlor...	7.306	8.021	8874644	14568523	48.743	50.021	
11)		Endosulfa...	7.399	8.068	8832521	13366119	51.901	48.573	
12)		4,4'-DDE	7.375	8.134	8198434	13924037	43.486m	44.818	
13)		Dieldrin	7.571	8.268	9694400	15561923	50.497	51.165	
14)		Endrin	7.734	8.493	7642880	11660757	51.983	51.636	
15)		4,4'-DDD	7.794	8.547	6795740	11056227	43.246	43.152	
16)		Endosulfa...	7.889	8.641	7119228	11761714	49.573	51.003	
17)		4,4'-DDT	7.990	8.771	5951884	9125954	49.781	48.647	
18)		Endrin Al...	8.178	8.878	6156876	9950773	50.154	50.576	
19)		Endosulfa...	8.477	9.068	6880431	11159282	44.396	44.801	
20)		Methoxychlor	8.330	9.251	2804161	4376790	47.874	48.909	
21)		Endrin Ke...	8.669	9.461	8180930	12607859	49.059	48.998	
23)		Hexachlor...	0.000	3.564f	0	9222	N.D.	0.025	#
24)		Hexachlor...	0.000	6.297	0	24096	N.D.	0.077	#
25)		Oxychlordane	7.113f	7.738	9156546	22284	55.650	0.081	#
26)		2,4'-DDE	0.000	7.968	0	73297	N.D.	0.346	#
27)		trans-Non...	7.306f	8.021	8874644	14568523	49.246	48.298	
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	7.734f	8.547	7642880	11056227	69.679	61.995	
30)		cis-Nonac...	7.794	8.547f	6795740	11056227	32.732	32.959	
31)		Mirex	8.477	9.493	6880431	166398	54.882	0.894	#
32)		Chlordane...	7.209f	7.968	8891786	73297	451.598	2.026	#
33)		Chlordane...	7.306f	8.068	8874644	13366119	354.075	440.195	
34)		Chlordane...	7.889	8.718	7119228	51449	1231.462	5.738	#
35)		Chlordane...	0.000	3.452	0	10983	N.D.	NoCal	
36)		Toxaphene...	7.306	8.268	8874644	15561923	9908.635	5930.028	#
37)		Toxaphene...	7.571f	8.641	9694400	11761714	6002.953	3573.875	#
38)		Toxaphene...	7.889f	8.641f	7119228	11761714	2114.106	2320.635	
39)		Toxaphene...	8.178	8.739	6156876	43472	1900.181	5.206	#
40)		Toxaphene...	8.423f	8.878f	49786	9950773	20.769	2135.195	#
41)		Toxaphene...	8.477f	9.307f	6880431	24443	2174.198	5.146	#
42)		Toxaphene...	0.000	3.452	0	10983	N.D.	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 18:42
Operator : MJB
Sample : 9L05032-CCV3
Misc : A19K133, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

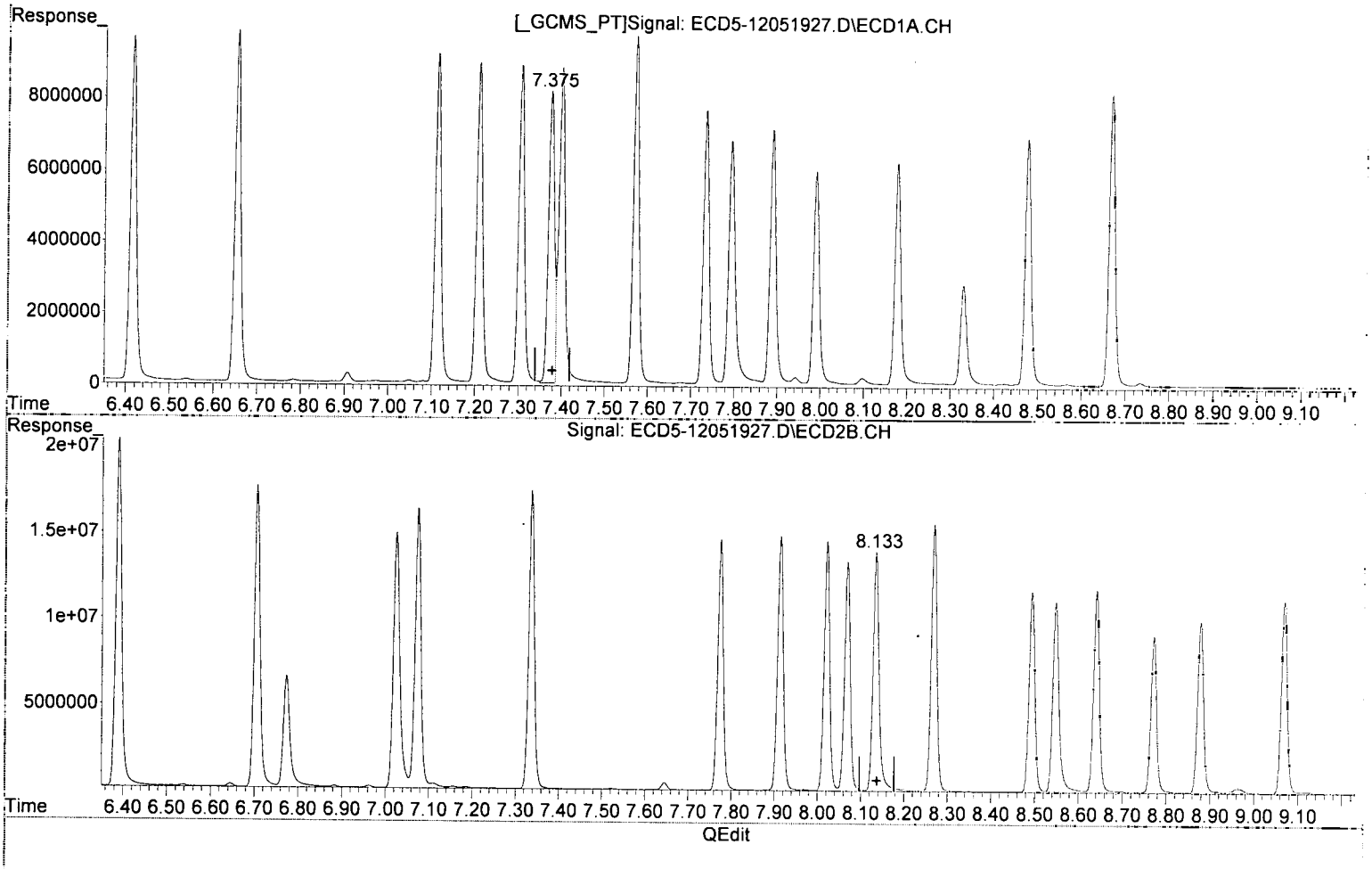
Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 13:10:54 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Qedit)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 18:42
Operator : MJB
Sample : 9L05032-CCV3
Misc : A19K133, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:32:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.375min 43.486 ng/mL (m)

response 8198434

MJB 12/6/19

(12) 4,4'-DDE #2

8.134min 44.818 ng/mL

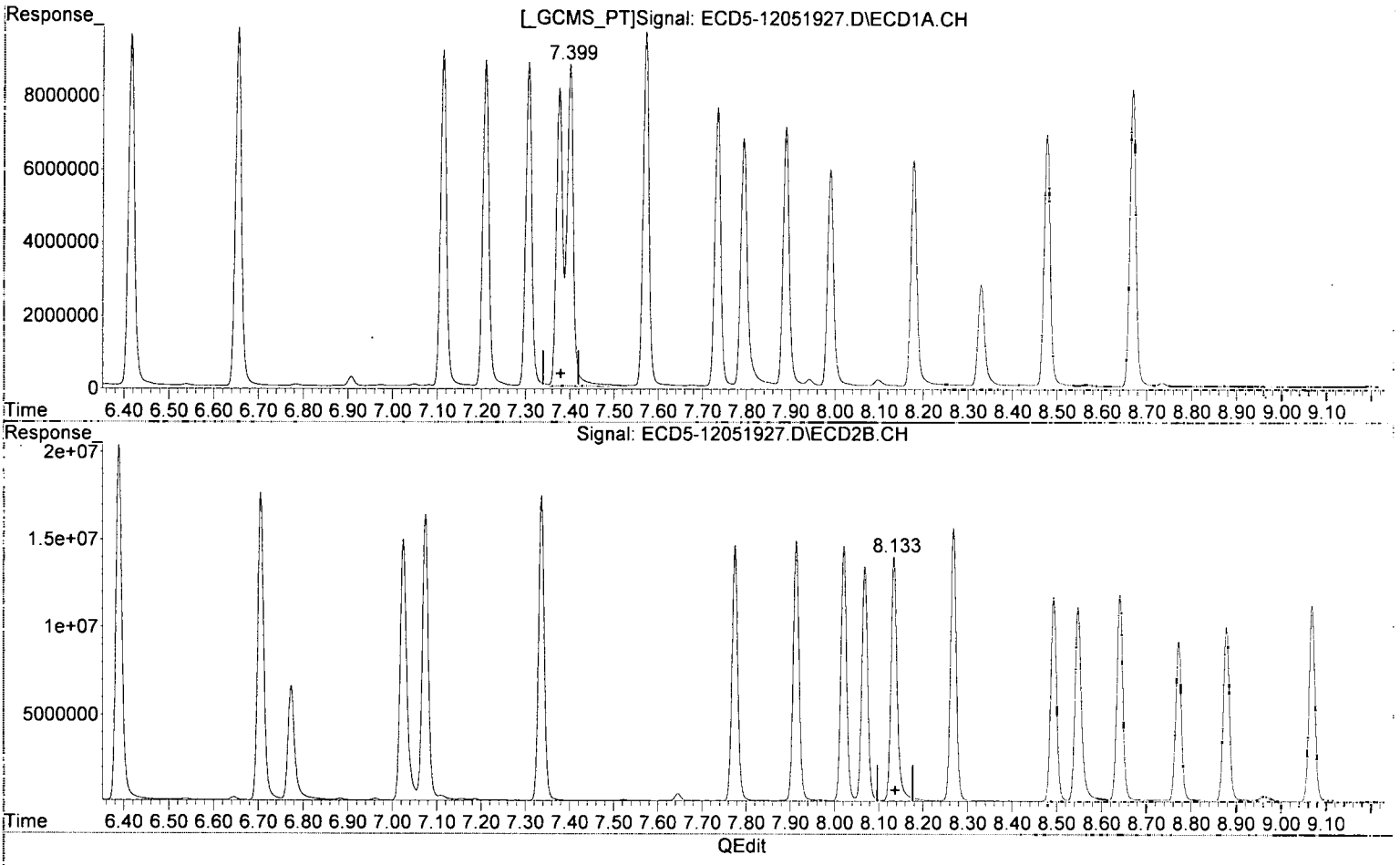
response 13924037

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 18:42
Operator : MJB
Sample : 9L05032-CCV3
Misc : A19K133, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:32:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.399min 46.849 ng/mL

response 8832521

MJB 12/6/19

(12) 4,4'-DDE #2

8.134min 44.818 ng/mL

response 13924037

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 18:42
Operator : MJB
Sample : 9L05032-CCV3
Misc : A19K133, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:32:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 12/6/19

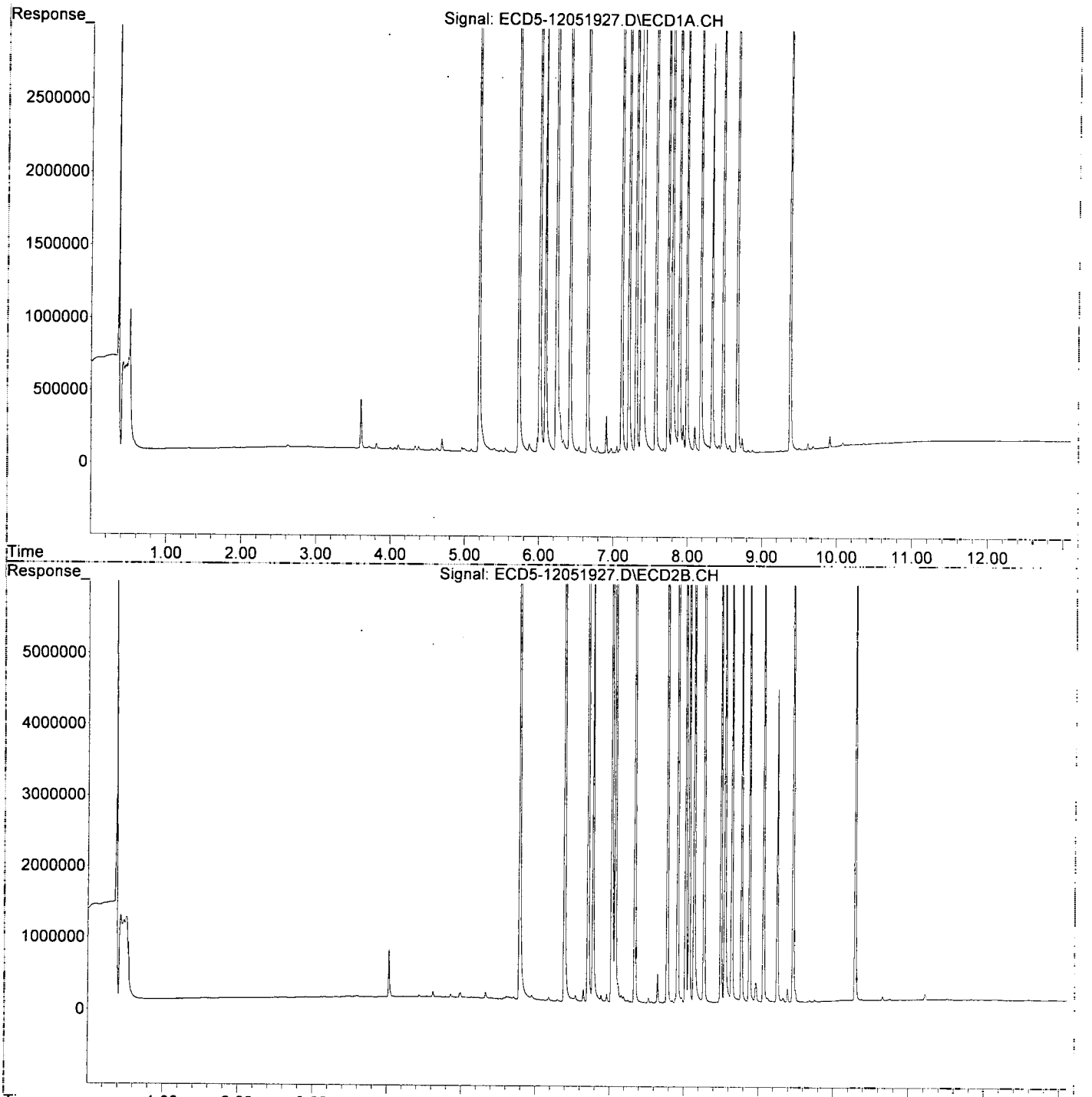
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.192	5.783	8345286	13022362	50.280	44.389	
22)	S DCBP (S)	9.377	10.291	6409765	8878667	45.428	49.391	
	Target Compounds							
2)	a-BHC	5.726	6.389	12080398	20259363	52.677	49.372	
3)	g-BHC	6.007	6.705	10122518	17564337	50.167	49.241	
4)	b-BHC	6.084	6.773	3520884	6507667	38.955	41.119	
5)	Heptachlor	6.415	7.074	9536504	16308075	52.602	53.298	
6)	d-BHC	6.231	7.024	8028825	14883199	40.820	42.202	
7)	Aldrin	6.654	7.336	9624521	17370003	48.745	52.733	
8)	Heptachlo...	7.113	7.774	9156546	14575618	49.716	48.448	
9)	trans-Chl...	7.209	7.913	8891786	14821262	48.092	47.303	
10)	cis-Chlor...	7.306	8.021	8874644	14568523	48.743	50.021	
11)	Endosulfa...	7.399	8.068	8832521	13366119	51.901	48.573	
12)	4,4'-DDE	7.399	8.134	8832521	13924037	46.849	44.818	
13)	Dieldrin	7.571	8.268	9694400	15561923	50.497	51.165	
14)	Endrin	7.734	8.493	7642880	11660757	51.983	51.636	
15)	4,4'-DDD	7.794	8.547	6795740	11056227	43.246	43.152	
16)	Endosulfa...	7.889	8.641	7119228	11761714	49.573	51.003	
17)	4,4'-DDT	7.990	8.771	5951884	9125954	49.781	48.647	
18)	Endrin Al...	8.178	8.878	6156876	9950773	50.154	50.576	
19)	Endosulfa...	8.477	9.068	6880431	11159282	44.396	44.801	
20)	Methoxychlor	8.330	9.251	2804161	4376790	47.874	48.909	
21)	Endrin Ke...	8.669	9.461	8180930	12607859	49.059	48.998	
23)	Hexachlor...	0.000	3.564f	0	9222	N.D.	0.025	#
24)	Hexachlor...	0.000	6.297	0	24096	N.D.	0.077	#
25)	Oxychlordane	7.113f	7.738	9156546	22284	55.650	0.081	#
26)	2,4'-DDE	0.000	7.968	0	73297	N.D.	0.346	#
27)	trans-Non...	7.306f	8.021	8874644	14568523	49.246	48.298	
28)	2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)	2,4'-DDT	7.734f	8.547	7642880	11056227	69.679	61.995	
30)	cis-Nonac...	7.794	8.547f	6795740	11056227	32.732	32.959	
31)	Mirex	8.477	9.493	6880431	166398	54.882	0.894	#
32)	Chlordane...	7.209f	7.968	8891786	73297	451.598	2.026	#
33)	Chlordane...	7.306f	8.068	8874644	13366119	354.075	440.195	
34)	Chlordane...	7.889	8.718	7119228	51449	1231.462	5.738	#
35)	Chlordane...	0.000	3.452	0	10983	N.D.	NoCal	
36)	Toxaphene...	7.306	8.268	8874644	15561923	9908.635	5930.028	#
37)	Toxaphene...	7.571f	8.641	9694400	11761714	6002.953	3573.875	#
38)	Toxaphene...	7.889f	8.641f	7119228	11761714	2114.106	2320.635	
39)	Toxaphene...	8.178	8.739	6156876	43472	1900.181	5.206	#
40)	Toxaphene...	8.423f	8.878f	49786	9950773	20.769	2135.195	#
41)	Toxaphene...	8.477f	9.307f	6880431	24443	2174.198	5.146	#
42)	Toxaphene...	0.000	3.452	0	10983	N.D.	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 18:42
Operator : MJB
Sample : 9L05032-CCV3
Misc : A19K133, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:32:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 18:59
Operator : MJB
Sample : 9L05032-CCB2
Misc : A19L018
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:32:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 12/6/19

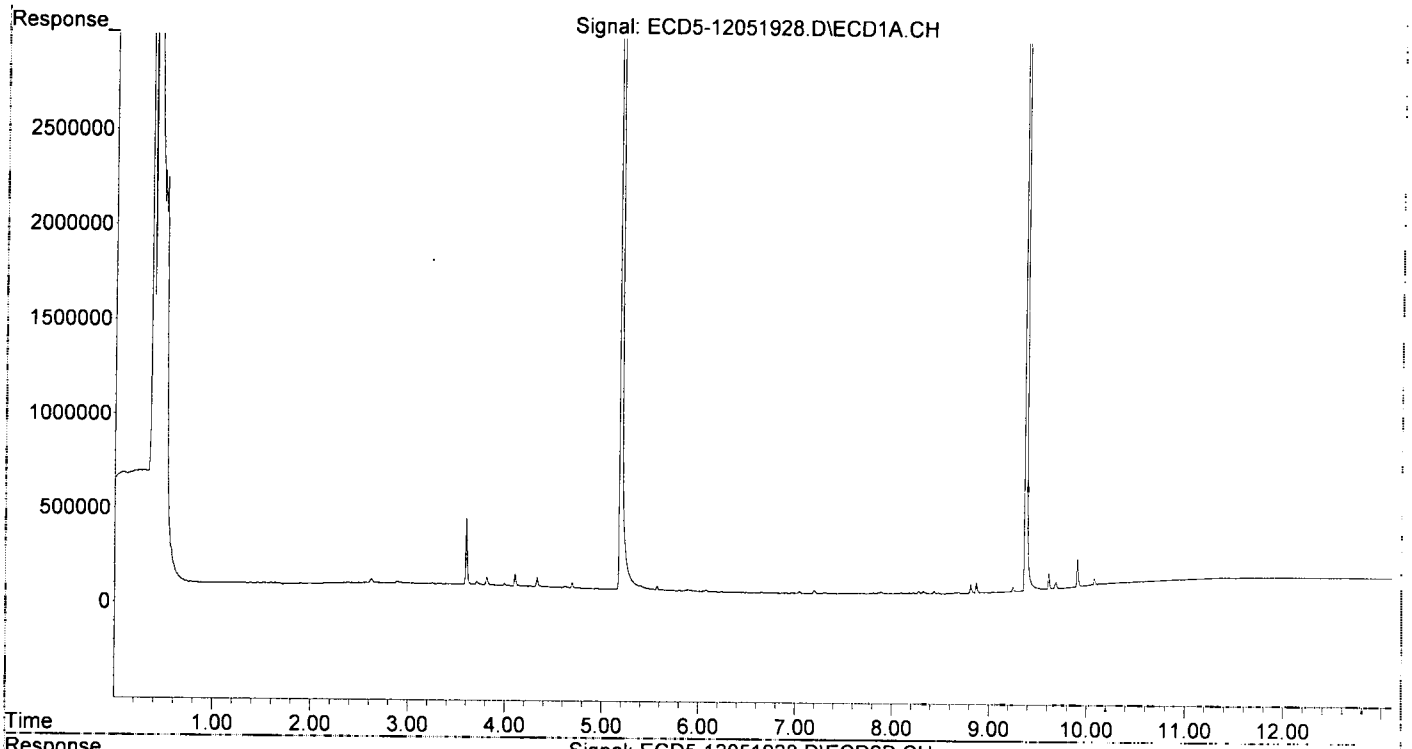
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.192	5.783	17118398	28985145	103.138	98.802	
22)	S	DCBP (S)	9.377	10.292	13054060	19368303	92.517	107.744	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.079	0.000	8587	0	0.095	N.D.	#
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.236	7.028	3494	6765	0.018	0.019	
7)		Aldrin	6.652	7.369f	4237	21325	0.021	0.065	#
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	7.198	0.000	17313	0	0.094	N.D.	#
10)		cis-Chlor...	7.300	0.000	4628	0	0.025	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	8.512	0	5864	N.D.	0.026	#
15)		4,4'-DDD	7.808	8.512f	4611	5864	0.029	0.023	
16)		Endosulfa...	7.887	8.631	11318	13785	0.079	0.060	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.179	8.876	5289	9270	BelowCal	BelowCal	
19)		Endosulfa...	8.478	9.066	5732	9422	0.037	0.038	
20)		Methoxychlor	8.328	0.000	13206	0	0.225	N.D.	#
21)		Endrin Ke...	8.688	9.463	6259	9819	0.038	0.038	
23)		Hexachlor...	0.000	3.567f	0	5226	N.D.	0.014	#
24)		Hexachlor...	5.571f	0.000	23280	0	0.132	N.D.	#
25)		Oxychlordane	7.044f	0.000	9441	0	0.057	N.D.	#
26)		2,4'-DDE	7.198f	0.000	17313	0	0.135	N.D.	#
27)		trans-Non...	7.300f	0.000	4628	0	87346.675	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	7.685f	8.512f	3697	5864	0.034	0.033	
30)		cis-Nonac...	7.808	0.000	4611	0	0.022	N.D.	#
31)		Mirex	8.478	9.511	5732	8030	0.046	0.043	
32)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
33)		Chlordane...	7.300f	0.000	4628	0	0.185	N.D.	#
34)		Chlordane...	7.887	8.715	11318	10870	1.958	1.212	
35)		Chlordane...	0.000	3.452	0	15647	N.D.	NoCal	
36)		Toxaphene...	7.300	0.000	4628	0	5.167	N.D.	#
37)		Toxaphene...	0.000	8.631	0	13785	N.D.	4.189	#
38)		Toxaphene...	7.887f	8.655	11318	6523	3.361	1.287	#
39)		Toxaphene...	8.179	8.715	5289	10870	1.632	1.302	
40)		Toxaphene...	0.000	8.876f	0	9270	N.D.	1.989	#
41)		Toxaphene...	8.435	9.318f	14860	19448	4.696	4.094	
42)		Toxaphene...	0.000	3.452	0	15647	N.D.	NoCal	

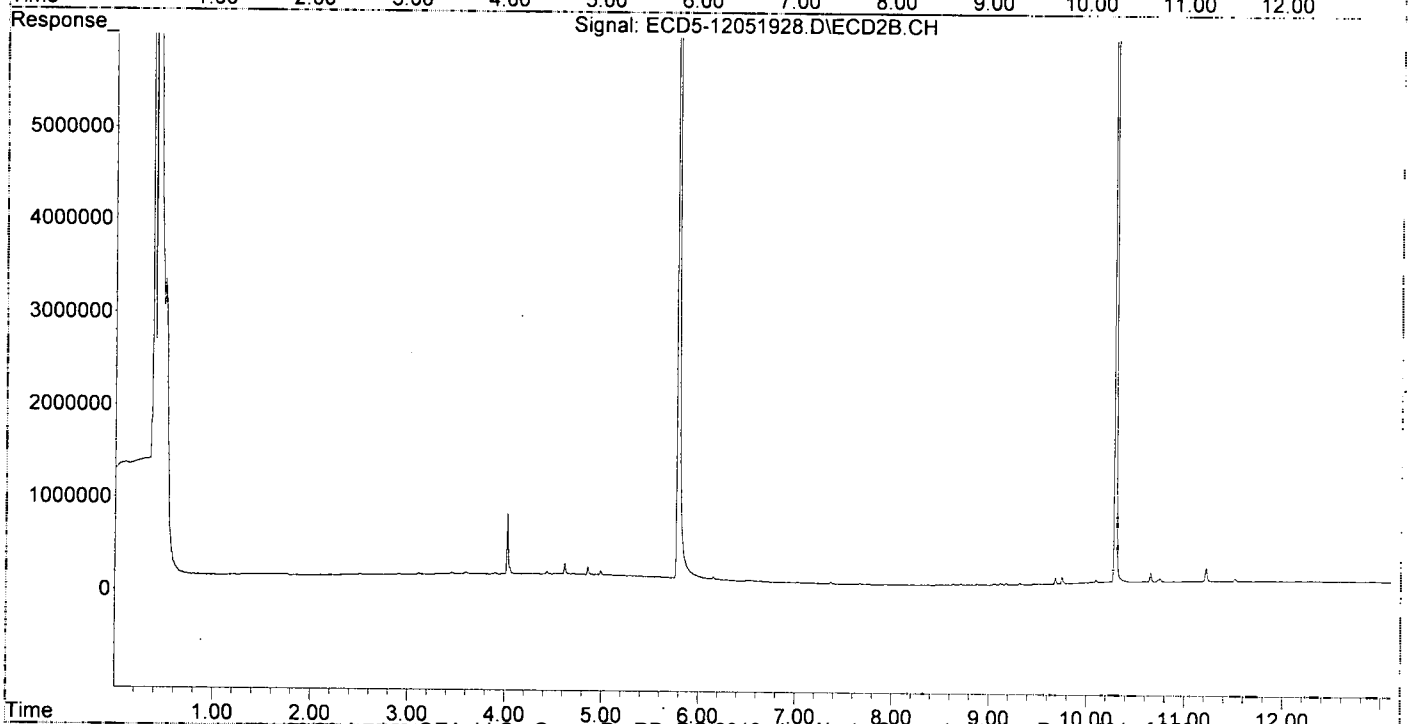
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 18:59
Operator : MJB
Sample : 9L05032-CCB2
Misc : A19L018
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:32:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 19:16
Operator : MJB
Sample : 9120453-BLK1
Misc : 1x, 608 (SW), GPC
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:32:41 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 12/6/19

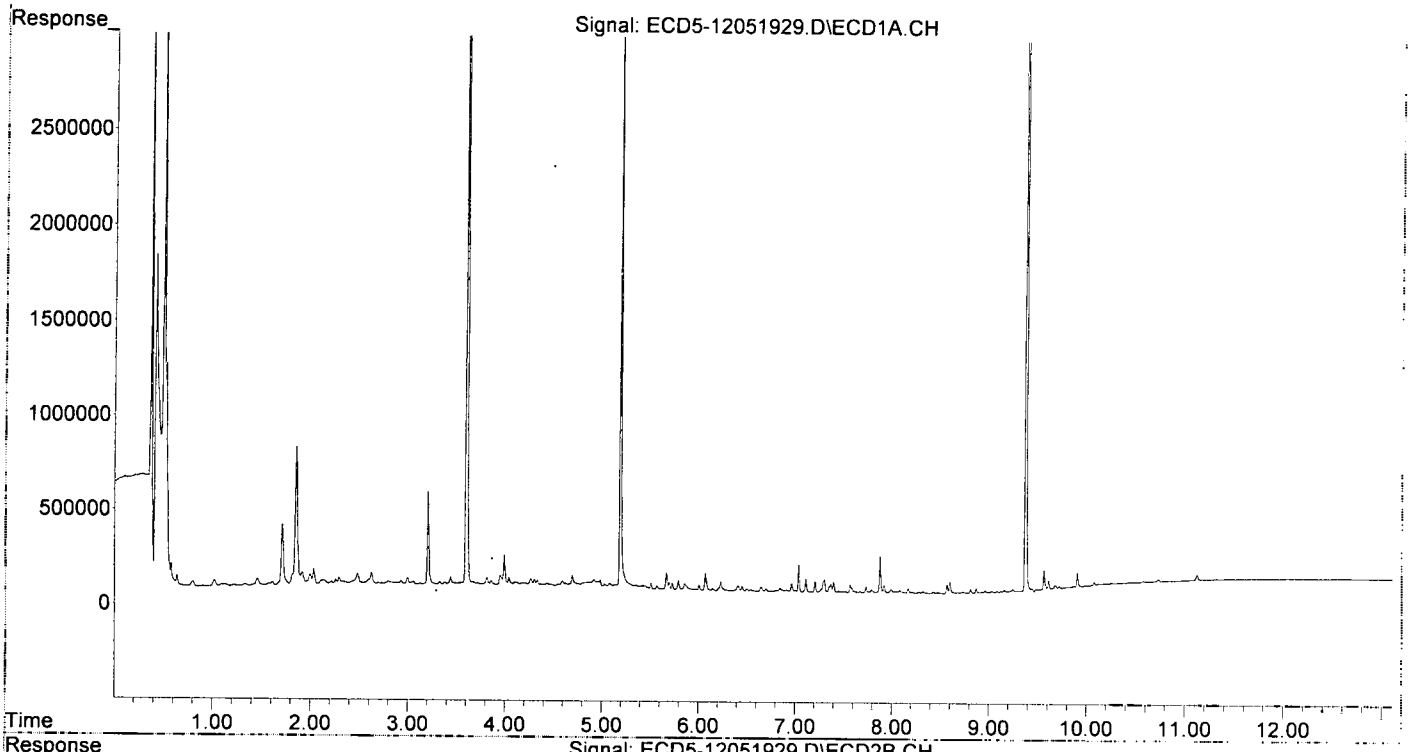
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.191	5.783	3038904	4882240	18.309	16.642	
22)	S	DCBP (S)	9.375	10.290	5892723	7811881	41.763	43.457	
		Target Compounds							
2)		a-BHC	5.729	6.387	40629	22269	0.177	0.054	#
3)		g-BHC	6.007	6.704	33229	45543	0.165	0.128	
4)		b-BHC	6.072	6.772	95988	36456	1.062	0.230	#
5)		Heptachlor	6.412	7.072	32766	29197	0.181	0.095	#
6)		d-BHC	6.231	7.023	49266	93783	0.250	0.266	
7)		Aldrin	6.651	7.333	24899	24127	0.126	0.073	#
8)		Heptachlo...	7.112	7.771	71449	107760	0.388	0.358	
9)		trans-Chl...	7.207	7.914	59761	142176	0.323	0.454	#
10)		cis-Chlor...	7.303	8.019	69963	93578	0.384	0.321	
11)		Endosulfa...	7.399	8.066	57903	102337	0.340	0.372	
12)		4,4'-DDE	7.371	8.132	43850	52541	0.233	0.169	
13)		Dieldrin	7.571	8.266	41563	60118	0.216	0.198	
14)		Endrin	7.732	8.491	33124	45927	0.225	0.203	
15)		4,4'-DDD	7.790	8.545	16038	18691	0.102	0.073	
16)		Endosulfa...	7.879	8.625	193981	232762	1.351	1.009	
17)		4,4'-DDT	7.992	8.769	18922	20255	0.158	0.080	#
18)		Endrin Al...	8.168	8.865	23148	22762	BelowCal	BelowCal	
19)		Endosulfa...	8.475	9.065	5857	7330	0.038	0.029	
20)		Methoxychlor	8.326	9.249	10953	10988	0.187	BelowCal	#
21)		Endrin Ke...	8.667	9.468	5007	47075	0.030	0.183	#
23)		Hexachlor...	3.053	3.516	37287	18485	0.204	0.049	#
24)		Hexachlor...	0.000	6.276	0	74368	N.D.	0.237	#
25)		Oxychlordane	7.112f	7.771f	71449	107760	0.434	0.393	
26)		2,4'-DDE	0.000	7.957	0	35595	N.D.	0.168	#
27)		trans-Non...	7.303f	8.019	69963	93578	0.074	0.310	#
28)		2,4'-DDD	0.000	8.333	0	47238	N.D.	0.250	#
29)		2,4'-DDT	7.732	8.545	33124	18691	0.302	0.105	#
30)		cis-Nonac...	7.790	8.545f	16038	18691	0.077	0.056	
31)		Mirex	8.475	9.468f	5857	47075	0.047	0.253	#
32)		Chlordane...	7.207f	7.957	59761	35595	3.035	0.984	#
33)		Chlordane...	7.371f	8.066	43850	102337	1.750	3.370	#
34)		Chlordane...	7.879	8.686f	193981	18482	33.554	2.061	#
35)		Chlordane...	3.485	3.465	31925	643917	NoCal	NoCal	
36)		Toxaphene...	7.303	8.266f	69963	60118	78.115	22.908	#
37)		Toxaphene...	0.000	8.625	0	232762	N.D.	70.726	#
38)		Toxaphene...	7.920	8.686	40119	18482	11.914	3.647	#
39)		Toxaphene...	8.168	8.769f	23148	20255	7.144	2.426	#
40)		Toxaphene...	0.000	8.933f	0	6400	N.D.	1.373	#
41)		Toxaphene...	8.429f	9.289	8197	64589	2.590	13.597	#
42)		Toxaphene...	3.485	3.465	31925	643917	NoCal	NoCal	

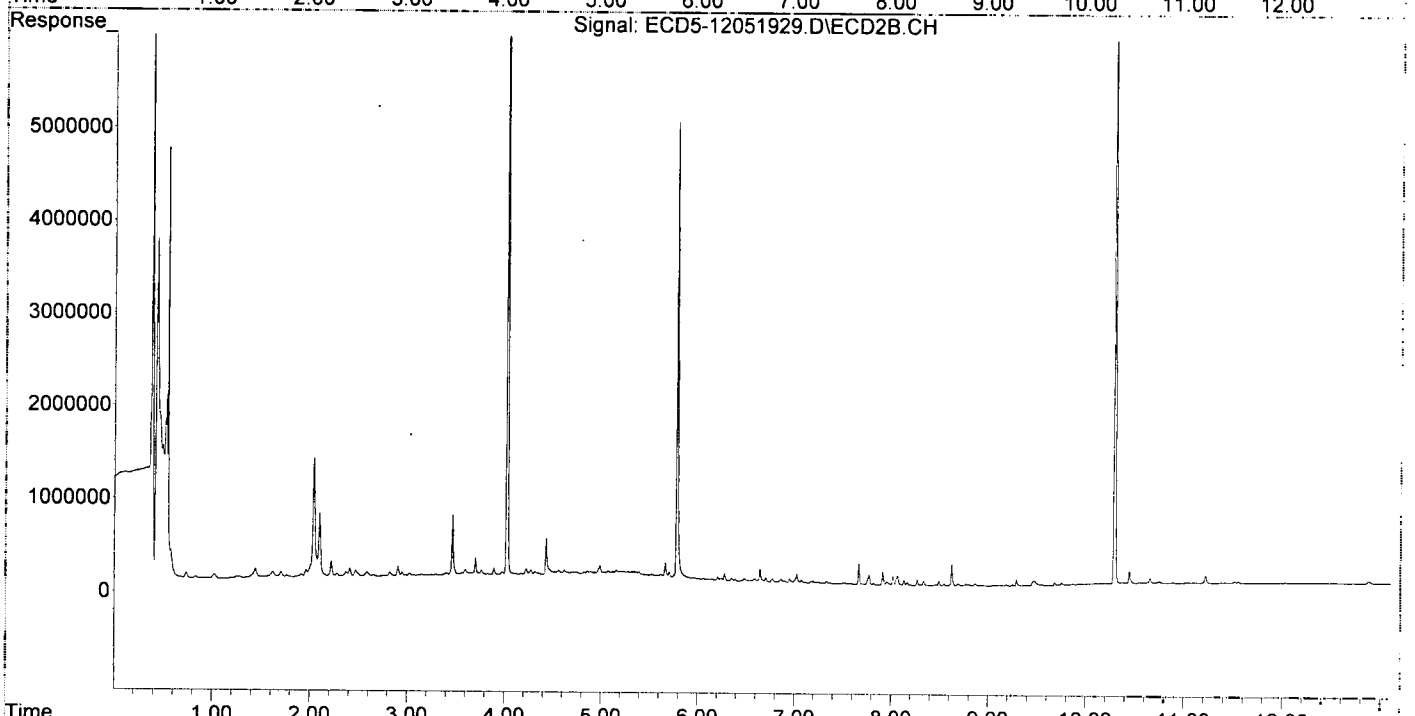
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 19:16
Operator : MJB
Sample : 9120453-BLK1
Misc : 1x, 608 (SW), GPC
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:32:41 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 19:33
Operator : MJB
Sample : 9120453-BS1
Misc : 1x, 608 (SW), GPC
ALS Vial : 24 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:32:48 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 12/6/19

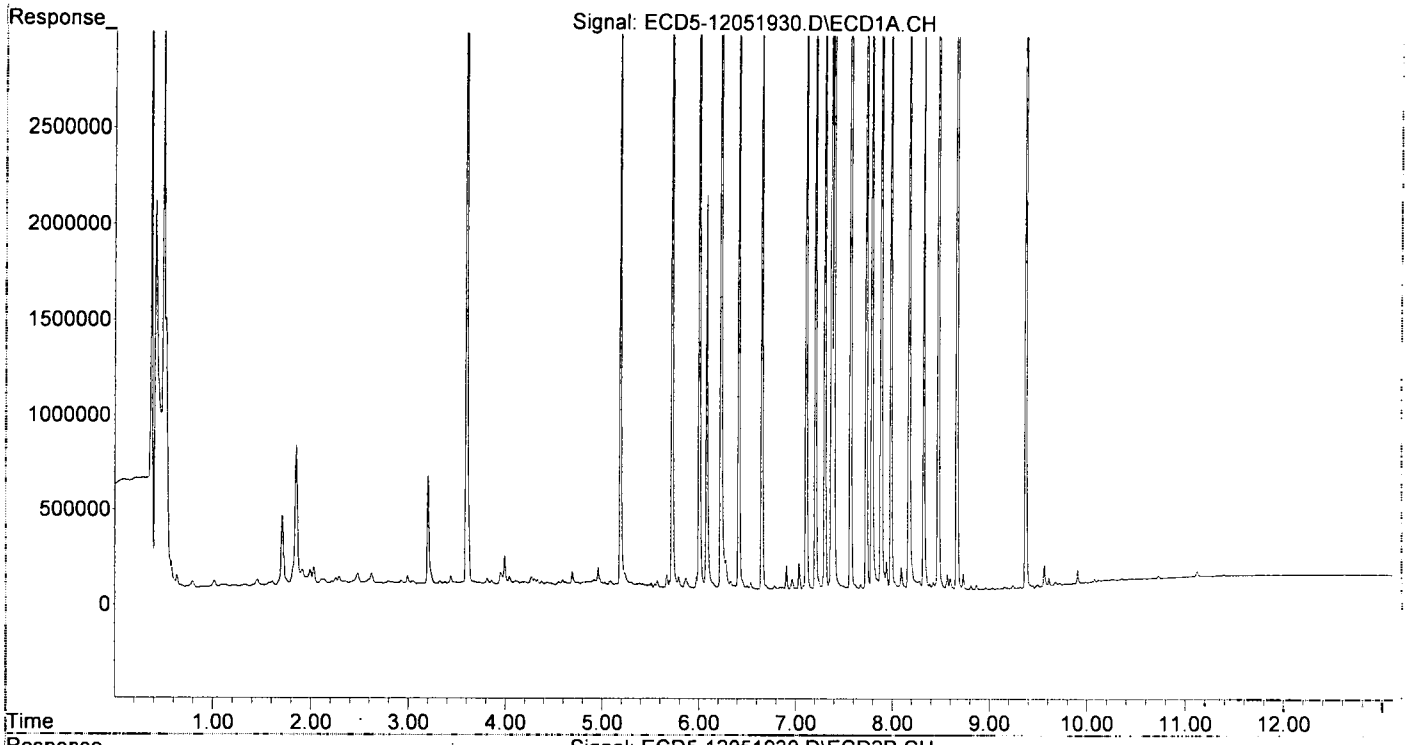
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.190	5.782	3647513	5996684	21.976	20.441	
22)	S	DCBP (S)	9.375	10.290	5615970	7284672	39.802	40.524	
		Target Compounds							
2)		a-BHC	5.724	6.387	5762808	9643224	25.129	23.501	
3)		g-BHC	6.006	6.704	4990024	8615787	24.730	24.154	
4)		b-BHC	6.082	6.772	2072539	3498870	22.930	22.108	
5)		Heptachlor	6.414	7.073	4329337	7113310	23.880	23.248	
6)		d-BHC	6.230	7.023	4861473	8559103	24.716	24.270	
7)		Aldrin	6.653	7.334	4276010	6984134	21.657	21.203	
8)		Heptachlo...	7.112	7.773	5159116	7921824	28.011	26.332	
9)		trans-Chl...	7.207	7.911	4871124	7886678	26.346	25.171	
10)		cis-Chlor...	7.304	8.019	4806044	7598708	26.397	26.090	
11)		Endosulfa...	7.399	8.067	5380226	7941110	31.615	28.858	
12)		4,4'-DDE	7.372	8.132	5395913	8298883	28.621	26.712	
13)		Dieldrin	7.570	8.267	6713530	10574228	34.970	34.766	
14)		Endrin	7.732	8.492	5828004	8797569	39.639	38.957	
15)		4,4'-DDD	7.790	8.545	5761858	8951974	36.667	34.939	
16)		Endosulfa...	7.887	8.639	6594847	10334216	45.921	44.813	
17)		4,4'-DDT	7.987	8.769	5374539	7968904	44.953	42.908	
18)		Endrin Al...	8.176	8.876	5443915	8666857	44.402	44.262	
19)		Endosulfa...	8.475	9.066	6656165	10091944	42.949	40.516	
20)		Methoxychlor	8.326	9.249	3238991	4778744	55.297	52.984	
21)		Endrin Ke...	8.666	9.460	7624628	11388706	45.723	44.260	
23)		Hexachlor...	3.051	3.563f	36336	21257	0.199	0.057	#
24)		Hexachlor...	0.000	6.276	0	69649	N.D.	0.222	#
25)		Oxychlordane	7.112f	7.773f	5159116	7921824	31.355	28.922	
26)		2,4'-DDE	0.000	7.963	0	67614	N.D.	0.319	#
27)		trans-Non...	7.304f	8.019	4806044	7598708	26.517	25.192	
28)		2,4'-DDD	7.570f	8.332	6713530	53427	58.826	0.283	#
29)		2,4'-DDT	7.732	8.545	5828004	8951974	53.133	50.196	
30)		cis-Nonac...	7.790	8.545f	5761858	8951974	27.753	26.686	
31)		Mirex	8.475	9.492	6656165	135104	53.094	0.726	#
32)		Chlordane...	7.207f	7.963	4871124	67614	247.396	1.869	#
33)		Chlordane...	7.372f	8.067	5395913	7941110	215.283	261.530	
34)		Chlordane...	7.887	8.717	6594847	38327	1140.756	4.275	#
35)		Chlordane...	3.485	3.464	30436	780364	NoCal	NoCal	
36)		Toxaphene...	7.304	8.267f	4806044	10574228	5366.000	4029.416	
37)		Toxaphene...	0.000	8.639	0	10334216	N.D.	3140.121	#
38)		Toxaphene...	7.941f	8.639f	145396	10334216	43.176	2038.984	#
39)		Toxaphene...	8.176	8.717	5443915	38327	1680.141	4.590	#
40)		Toxaphene...	8.386	8.876f	29717	8666857	12.397	1859.698	#
41)		Toxaphene...	8.475f	9.289	6656165	69334	2103.331	14.596	#
42)		Toxaphene...	3.485	3.464	30436	780364	NoCal	NoCal	

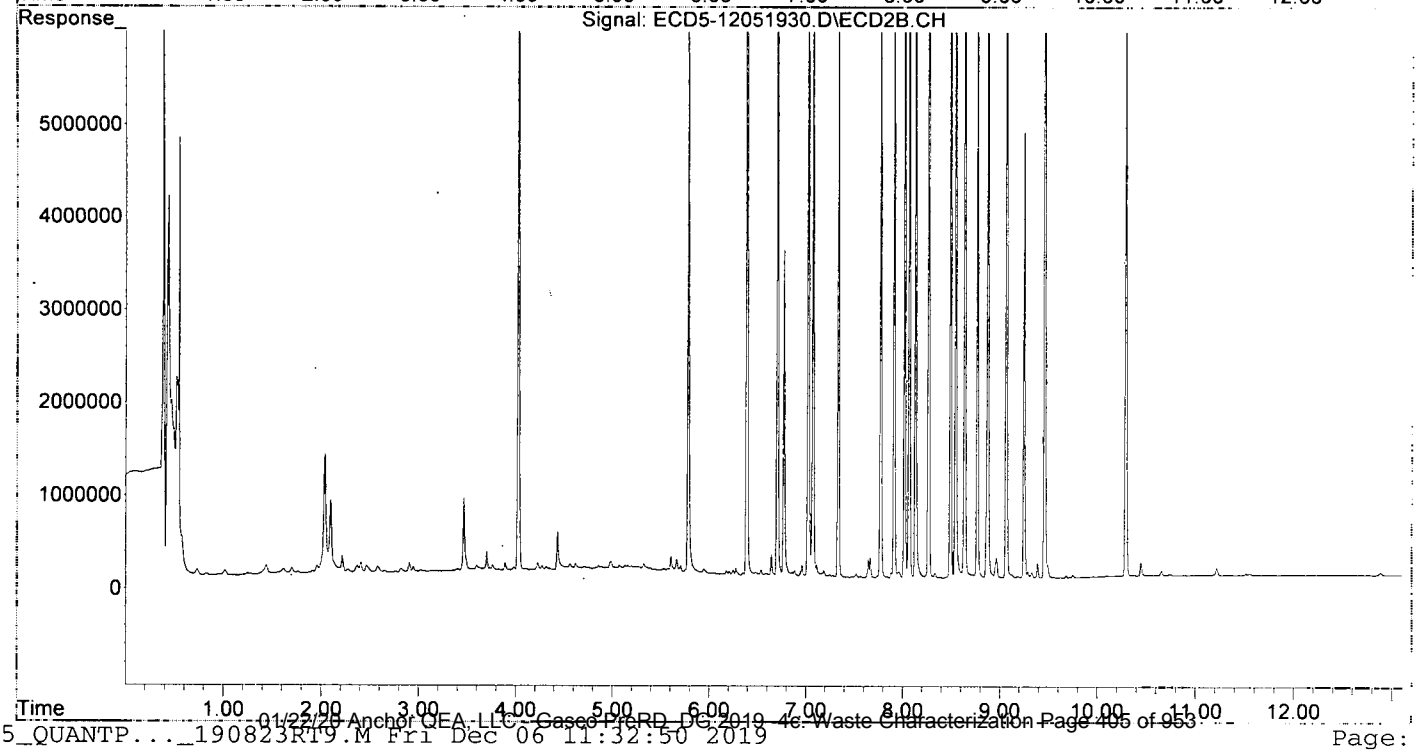
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 19:33
Operator : MJB
Sample : 9120453-BS1
Misc : 1x, 608 (SW), GPC
ALS Vial : 24 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:32:48 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 19:51
Operator : MJB
Sample : 9120453-BSD1
Misc : 1x, 608 (SW), GPC
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:32:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 12/6/19

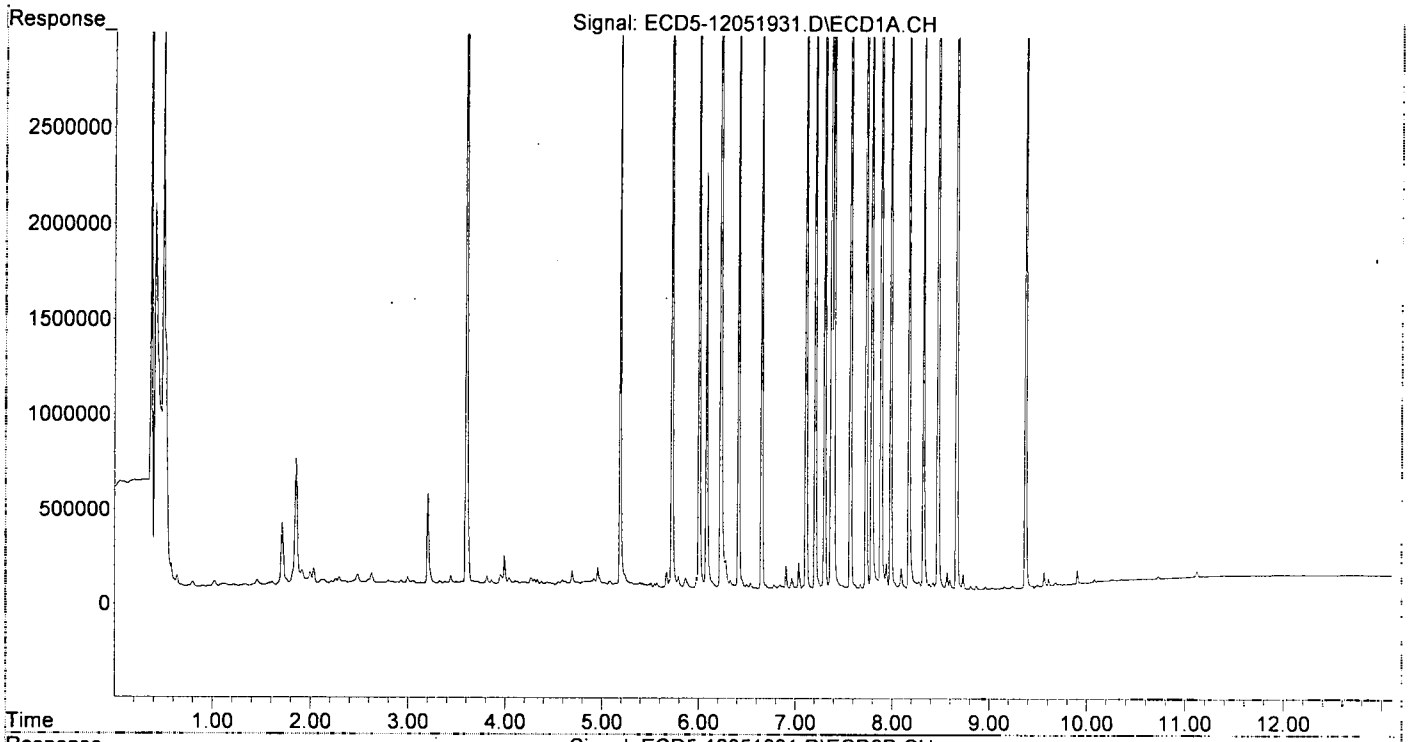
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.191	5.783	3134135	4983610	18.883	16.988	
22)	S	DCBP (S)	9.375	10.290	5377254	7091627	38.110	39.450	
		Target Compounds							
2)		a-BHC	5.725	6.388	5535233	9539839	24.137	23.249	
3)		g-BHC	6.007	6.705	5031495	8490424	24.936	23.802	
4)		b-BHC	6.083	6.772	2186940	3725130	24.196	23.537	
5)		Heptachlor	6.415	7.073	4219511	6871401	23.274	22.457	
6)		d-BHC	6.230	7.023	5370686	9557776	27.305	27.102	
7)		Aldrin	6.654	7.335	4003860	6636281	20.278	20.147	@ 30
8)		Heptachlo...	7.112	7.773	5370367	8475729	29.158	28.173	
9)		trans-Chl...	7.207	7.912	5198182	8303526	28.115	26.501	
10)		cis-Chlor...	7.305	8.020	5303705	8268865	29.130	28.391	
11)		Endosulfa...	7.399	8.067	5652072	8586426	33.212	31.203	
12)		4,4'-DDE	7.373	8.132	5582617	8782066	29.611	28.267	
13)		Dieldrin	7.570	8.267	7067977	11181177	36.816	36.762	
14)		Endrin	7.733	8.492	6221087	9099347	42.313	40.293	
15)		4,4'-DDD	7.790	8.545	5916326	8925751	37.650	34.837	
16)		Endosulfa...	7.888	8.640	6635977	10562296	46.208	45.802	
17)		4,4'-DDT	7.988	8.769	5454934	8182640	45.625	43.976	
18)		Endrin Al...	8.177	8.876	5016946	8085155	40.937	41.373	
19)		Endosulfa...	8.476	9.066	6597848	10523694	42.573	42.249	
20)		Methoxychlor	8.326	9.249	3177302	4743163	54.244	52.626	
21)		Endrin Ke...	8.668	9.460	7352157	11341763	44.089	44.077	
23)		Hexachlor...	3.054	3.565f	35103	26311	0.192	0.070	#
24)		Hexachlor...	0.000	6.276	0	71588	N.D.	0.228	#
25)		Oxychlordane	7.112f	7.737	5370367	18078	32.639	0.066	#
26)		2,4'-DDE	0.000	7.964	0	65224	N.D.	0.307	#
27)		trans-Non...	7.305f	8.020	5303705	8268865	29.296	27.413	
28)		2,4'-DDD	7.570f	8.333	7067977	50025	61.932	0.265	#
29)		2,4'-DDT	7.733f	8.545	6221087	8925751	56.716	50.049	
30)		cis-Nonac...	7.790	8.545f	5916326	8925751	28.497	26.608	
31)		Mirex	8.476	9.460f	6597848	11341763	52.628	60.953	
32)		Chlordane...	7.207f	7.964	5198182	65224	264.006	1.803	#
33)		Chlordane...	7.305f	8.067	5303705	8586426	211.604	282.782	
34)		Chlordane...	7.888	8.717	6635977	35560	1147.870	3.966	#
35)		Chlordane...	3.484	3.465	29423	620251	NoCal	NoCal	
36)		Toxaphene...	7.305	8.267f	5303705	11181177	5921.643	4260.700	
37)		Toxaphene...	0.000	8.640	0	10562296	N.D.	3209.424	#
38)		Toxaphene...	7.942f	8.640f	136531	10562296	40.544	2083.985	#
39)		Toxaphene...	8.177	8.734	5016946	32732	1548.367	3.920	#
40)		Toxaphene...	8.386	8.876f	29540	8085155	12.323	1734.879	#
41)		Toxaphene...	8.476f	9.290	6597848	89569	2084.903	18.856	#
42)		Toxaphene...	3.484	3.465	29423	620251	NoCal	NoCal	

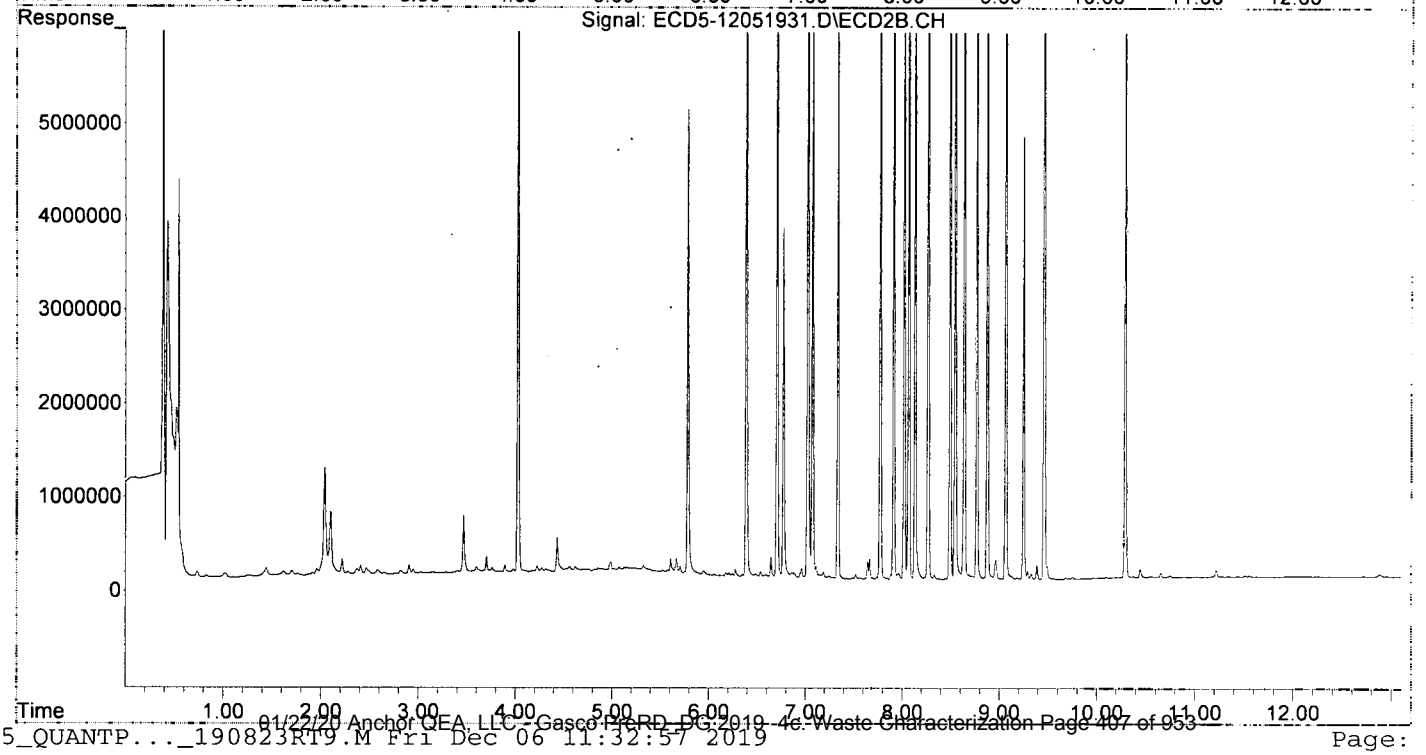
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 19:51
Operator : MJB
Sample : 9120453-BSD1
Misc : 1x, 608 (SW), GPC
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:32:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 20:59
Operator : MJB
Sample : 9L05032-CCV4
Misc : A19K134, AB 100 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:33:23 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 12/6/19

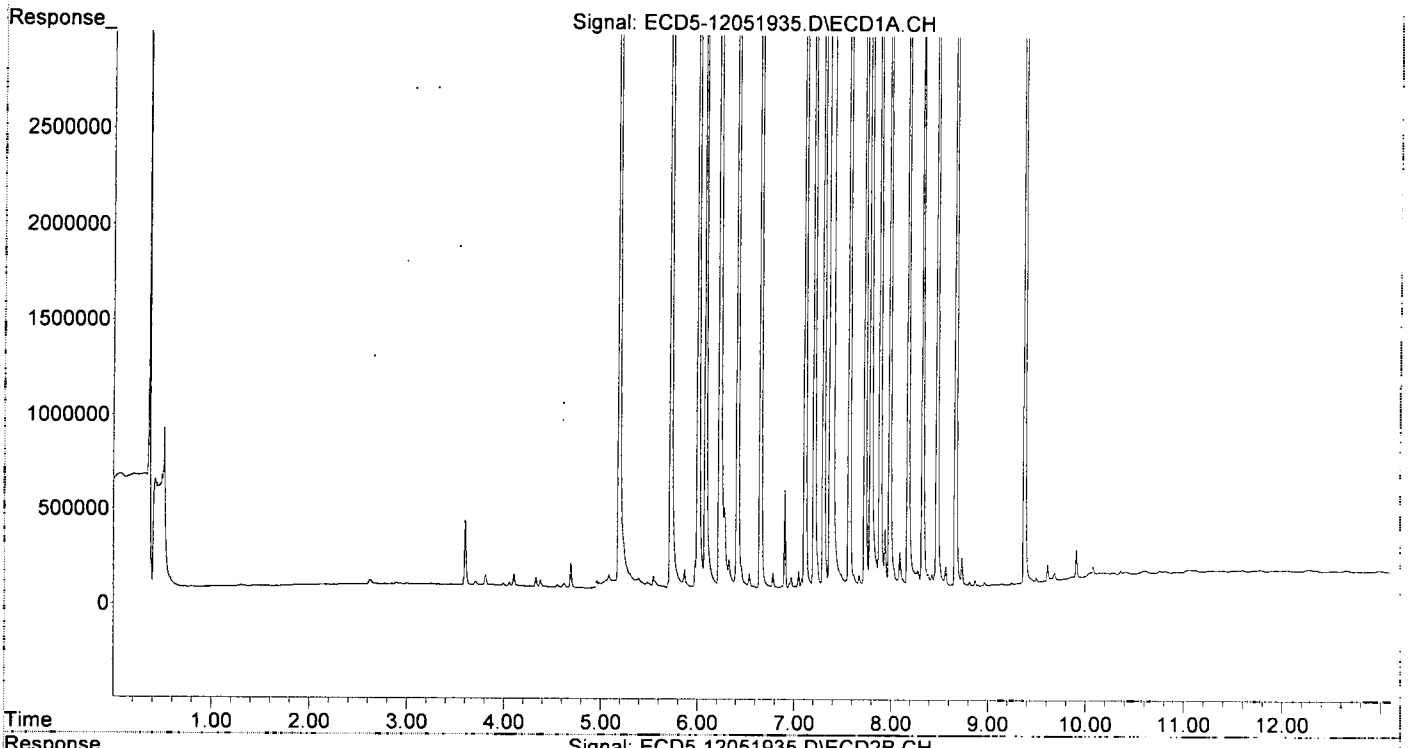
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.191	5.782	16723829	28958841	100.761	98.712	
22)	S	DCBP (S)	9.376	10.290	13513093	19674992	95.771	109.450	
		Target Compounds							
2)		a-BHC	5.725	6.388	24665174	44751649	107.554	109.060	
3)		g-BHC	6.006	6.704	20881191	37396322	103.486	104.839	
4)		b-BHC	6.082	6.770	7994295	14395901	88.449	90.960	
5)		Heptachlor	6.414	7.072	20190732	35530951	111.368	116.123	
6)		d-BHC	6.229	7.022	18286198	34095310	92.970	96.679	
7)		Aldrin	6.652	7.334	20158709	36798125	102.098	111.715	
8)		Heptachlo...	7.112	7.773	18270915	31558624	99.202	104.899	
9)		trans-Chl...	7.207	7.911	18836853	32155017	101.881	102.625	
10)		cis-Chlor...	7.304	8.019	18212006	30803183	100.027	105.763	
11)		Endosulfa...	7.398	8.067	17328011	28374578	101.822	103.114	
12)		4,4'-DDE	7.373	8.132	18230737	30422169	96.699	97.922	
13)		Dieldrin	7.570	8.267	19233299	33497374	100.184	110.134	
14)		Endrin	7.733	8.492	16190072	26572916	110.116	117.669	
15)		4,4'-DDD	7.791	8.545	14436039	25067530	91.867	97.838	
16)		Endosulfa...	7.888	8.639	14855495	25665850	103.442	111.297	
17)		4,4'-DDT	7.988	8.769	14006644	22131560	117.151	107.022	
18)		Endrin Al...	8.176	8.876	12505824	21298187	99.600	103.068	
19)		Endosulfa...	8.476	9.066	14506438	24189227	93.603	97.111	
20)		Methoxychlor	8.327	9.249	6857439	11199824	117.073	111.464	
21)		Endrin Ke...	8.668	9.460	16874115	27901262	101.189	108.432	
23)		Hexachlor...	0.000	3.564f	0	4416	N.D.	0.012	#
24)		Hexachlor...	0.000	6.295	0	65021	N.D.	0.207	#
25)		Oxychlordane	7.112f	7.736	18270915	37302	111.044	0.136	#
26)		2,4'-DDE	0.000	7.968	0	115606	N.D.	0.545	#
27)		trans-Non...	7.304f	8.019	18212006	30803183	101.453	102.120	
28)		2,4'-DDD	7.570f	0.000	19233299	0	168.528	N.D.	#
29)		2,4'-DDT	7.733f	8.545	16190072	25067530	147.602	140.561	
30)		cis-Nonac...	7.791	8.545f	14436039	25067530	69.533	74.728	
31)		Mirex	8.476	9.491	14506438	267091	115.712	1.435	#
32)		Chlordane...	7.207f	7.968	18836853	115606	956.690	3.195	#
33)		Chlordane...	7.373f	8.067	18230737	28374578	727.359	934.479	
34)		Chlordane...	7.888	8.716	14855495	82777	2569.656	9.232	#
35)		Chlordane...	0.000	3.449	0	13635	N.D.	NoCal	
36)		Toxaphene...	7.304	8.267f	18212006	33497374	20333.901	12764.512	
37)		Toxaphene...	0.000	8.639	0	25665850	N.D.	7798.740	#
38)		Toxaphene...	7.941f	8.639f	306959	25665850	91.154	5063.979	#
39)		Toxaphene...	8.176	8.716	12505824	82777	3859.640	9.914	#
40)		Toxaphene...	8.424f	8.876f	63676	21298187	26.563	4570.075	#
41)		Toxaphene...	8.476f	9.249f	14506438	11199824	4583.997	2357.757	#
42)		Toxaphene...	0.000	3.449	0	13635	N.D.	NoCal	

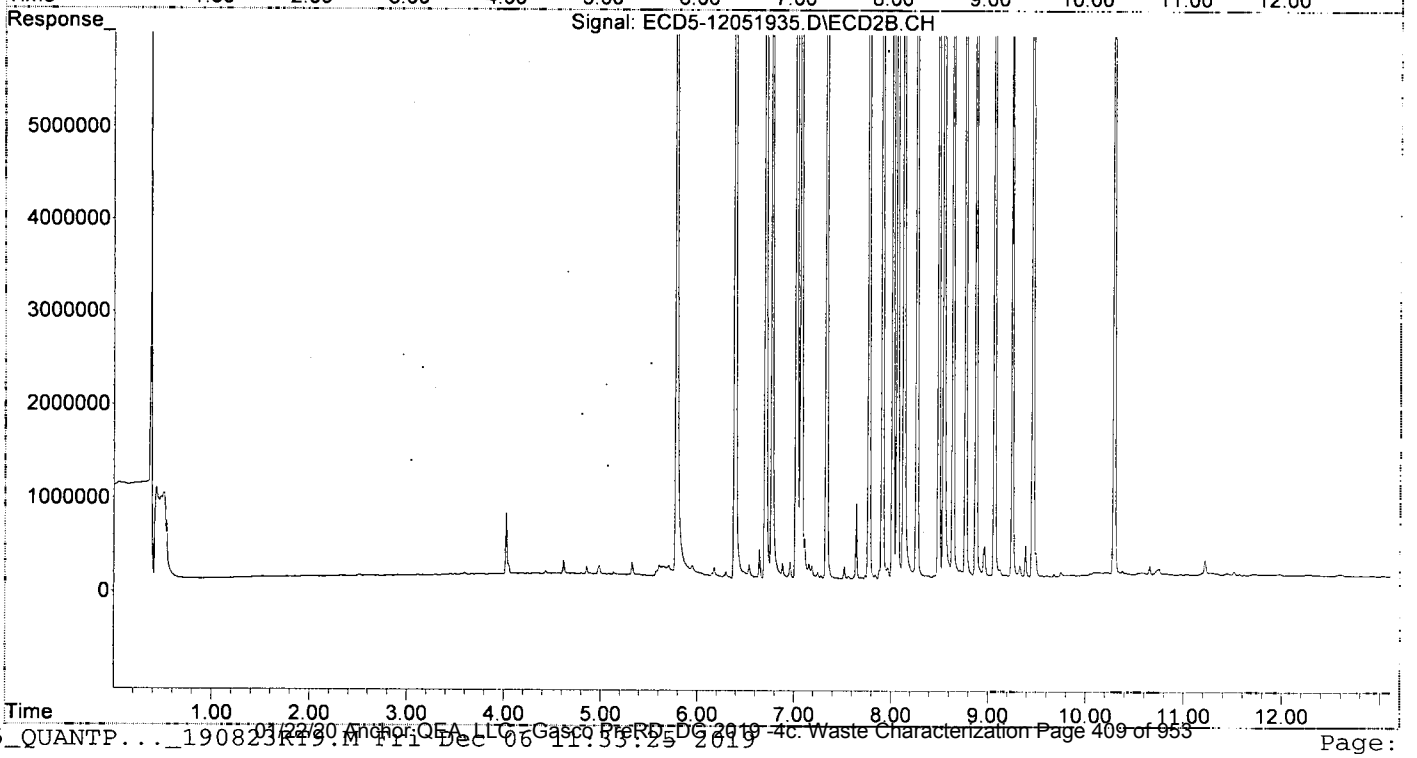
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 20:59
Operator : MJB
Sample : 9L05032-CCV4
Misc : A19K134, AB 100 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:33:23 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 21:16
Operator : MJB
Sample : 9L05032-CCB4
Misc : A19L018
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:33:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 12/6/19

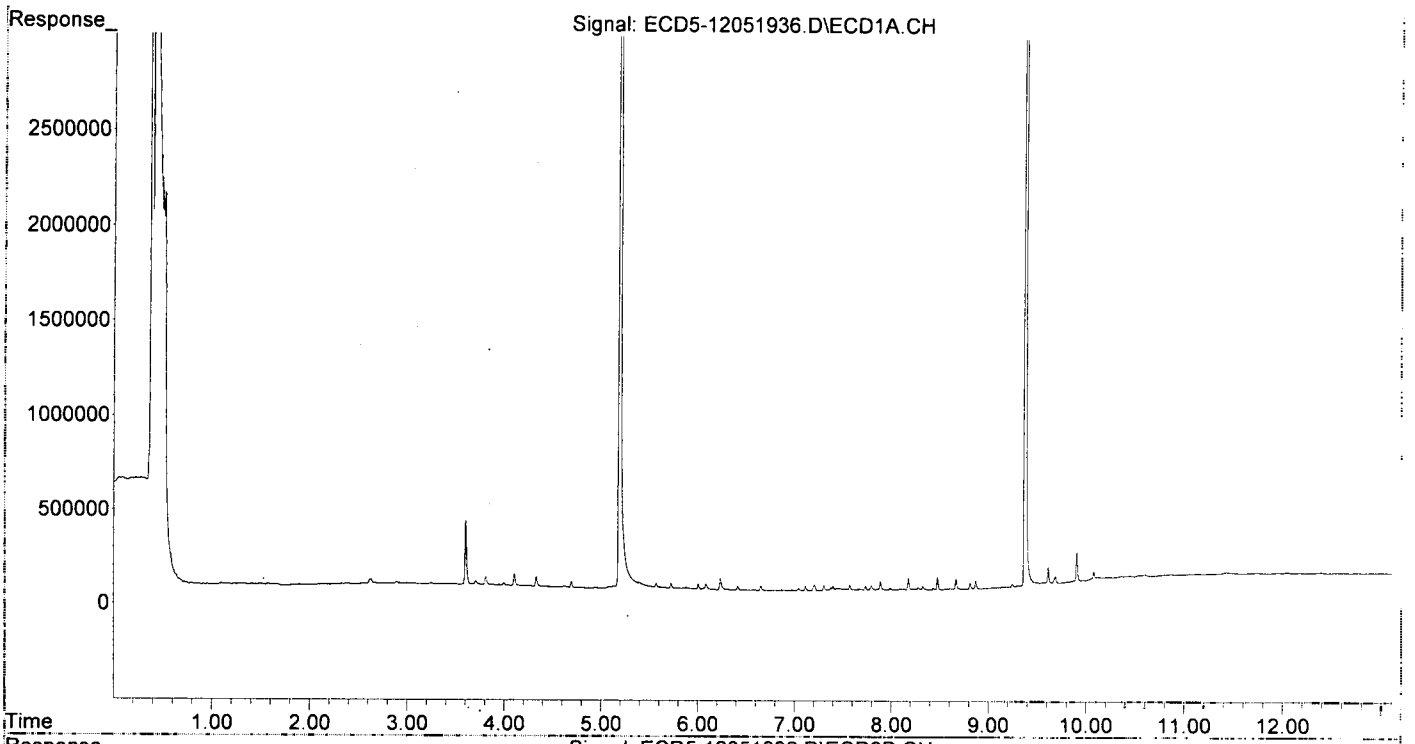
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.192	5.783	17634190	29959664	106.246	102.124	
22)	S	DCBP (S)	9.377	10.290	14161505	19771367	100.366	109.986	
		Target Compounds							
2)		a-BHC	5.724	6.387	33291	36628	0.145	0.089	
3)		g-BHC	6.006	6.704	31747	45876	0.157	0.129	
4)		b-BHC	6.085	6.776	30127	38458	0.333	0.243	
5)		Heptachlor	6.415	7.073	22038	35749	0.122	0.117	
6)		d-BHC	6.234	7.026	59531	110832	0.303	0.314	
7)		Aldrin	6.653	7.335	23528	30452	0.119	0.092	
8)		Heptachlo...	7.114	7.773	24313	38490	0.132	0.128	
9)		trans-Chl...	7.207	7.913	28662	35628	0.155	0.114	
10)		cis-Chlor...	7.306	8.020	26716	35061	0.147	0.120	
11)		Endosulfa...	7.401	8.067	24384	32279	0.143	0.117	
12)		4,4'-DDE	7.377	8.136	17256	41692	0.092	0.134	#
13)		Dieldrin	7.572	8.267	29184	36023	0.152	0.118	
14)		Endrin	7.734	8.492	22383	32009	0.152	0.142	
15)		4,4'-DDD	7.795	8.548	23833	33141	0.152	0.129	
16)		Endosulfa...	7.889	8.640	47673	62073	0.332	0.269	
17)		4,4'-DDT	7.990	8.771	11666	13906	0.098	0.043	#
18)		Endrin Al...	8.178	8.876	63950	95721	BelowCal	BelowCal	
19)		Endosulfa...	8.477	9.067	66460	98205	0.429	0.394	
20)		Methoxychlor	8.328	9.249	19490	12519	0.333	BelowCal	#
21)		Endrin Ke...	8.669	9.459	54908	77625	0.329	0.302	
23)		Hexachlor...	2.999f	0.000	6250	0	0.034	N.D.	#
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	7.114f	7.773f	24313	38490	0.148	0.141	
26)		2,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
27)		trans-Non...	7.306f	8.020	26716	35061	87346.551	0.116	#
28)		2,4'-DDD	7.532	0.000	7234	0	0.063	N.D.	#
29)		2,4'-DDT	7.734f	8.548	22383	33141	0.204	0.186	
30)		cis-Nonac...	7.795	8.548f	23833	33141	0.115	0.099	
31)		Mirex	8.477	9.494	66460	3757	0.530	0.020	#
32)		Chlordane...	7.207f	0.000	28662	0	1.456	N.D.	#
33)		Chlordane...	7.306f	8.067	26716	32279	1.066	1.063	
34)		Chlordane...	7.889	8.716	47673	6863	8.246	0.765	#
35)		Chlordane...	0.000	3.450	0	13173	N.D.	NoCal	
36)		Toxaphene...	7.306	8.267f	26716	36023	29.829	13.727	#
37)		Toxaphene...	7.572f	8.640	29184	62073	18.071	18.861	
38)		Toxaphene...	7.889f	8.692f	47673	4972	14.157	0.981	#
39)		Toxaphene...	8.178	8.716	63950	6863	19.737	0.822	#
40)		Toxaphene...	0.000	8.933f	0	3757	N.D.	0.806	#
41)		Toxaphene...	8.434	9.317f	9970	15557	3.150	3.275	
42)		Toxaphene...	0.000	3.450	0	13173	N.D.	NoCal	

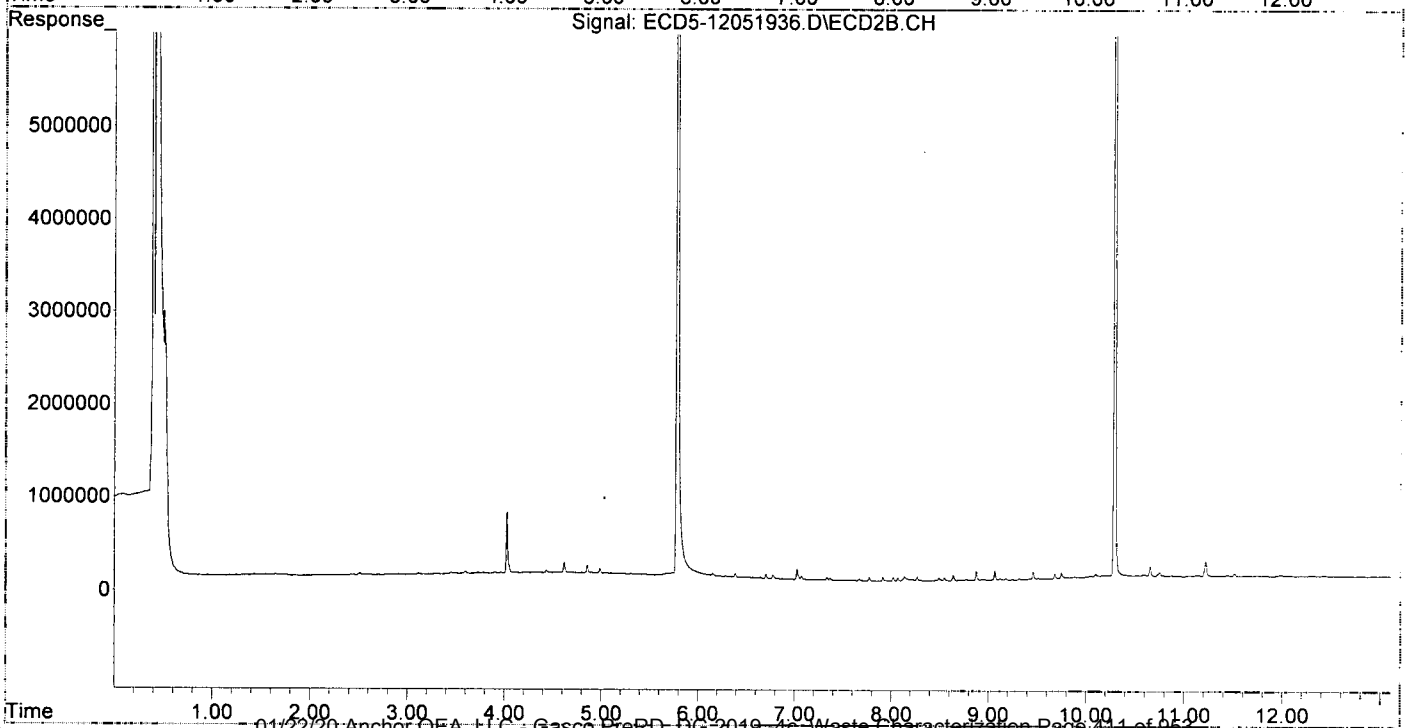
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-12\9L05032\
Data File : ECD5-12051936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 21:16
Operator : MJB
Sample : 9L05032-CCB4
Misc : A19L018
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Dec 06 11:33:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT9.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Organochloride Pesticides by EPA 8081B
Calibration Data

Sequence 9H23034 (Cal ID A9H2608) DualECD5

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9H23034**	Instrument:	**DUALECD5**
Date:	**08/23/19 11:23**	Calibration:	**A9H2608**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9H23034-BKD1	Water	QC	QC				A19G138
2	9H23034-BKD2	Water	QC	QC				A19G138
3	9H23034-ICB1	Water	QC	QC				A19H348
4	9H23034-CAL1	Water	QC	QC				A19E245
5	9H23034-CAL2	Water	QC	QC				A19E246
6	9H23034-CAL3	Water	QC	QC				A19E247
7	9H23034-CAL4	Water	QC	QC				A19E249
8	9H23034-CAL5	Water	QC	QC				A19E250
9	9H23034-CAL6	Water	QC	QC				A19H383
10	9H23034-CAL7	Water	QC	QC				A19H384
11	9H23034-CAL8	Water	QC	QC				A19E244
12	9H23034-IBL1	Water	QC	QC				
13	9H23034-ICV1	Water	QC	QC				A19E106
14	9H23034-CAL9	Water	QC	QC				A19E272
15	9H23034-CALA	Water	QC	QC				A19E273
16	9H23034-CALB	Water	QC	QC				A19E274
17	9H23034-CALC	Water	QC	QC				A19E275
18	9H23034-CALD	Water	QC	QC				A19E276
19	9H23034-CALE	Water	QC	QC				A19E154
20	9H23034-CALF	Water	QC	QC				A19E155
21	9H23034-CALG	Water	QC	QC				A19E271
22	9H23034-IBL2	Water	QC	QC				
23	9H23034-ICV2	Water	QC	QC				A19E043
24	9H23034-CALH	Water	QC	QC				A19F232
25	9H23034-CALI	Water	QC	QC				A19F233
26	9H23034-CALJ	Water	QC	QC				A19F234
27	9H23034-CALK	Water	QC	QC				A19F235
28	9H23034-CALL	Water	QC	QC				A19F236
29	9H23034-CALM	Water	QC	QC				A19F231
30	9H23034-IBL3	Water	QC	QC				
31	9H23034-ICV3	Water	QC	QC				A19E108
32	9H23034-CALN	Water	QC	QC				A19D122
33	9H23034-CALO	Water	QC	QC				A19D123
34	9H23034-CALP	Water	QC	QC				A19D124
35	9H23034-CALQ	Water	QC	QC				A19D125
36	9H23034-CALR	Water	QC	QC				A19D126
37	9H23034-CALS	Water	QC	QC				A19D121
38	9H23034-IBL4	Water	QC	QC				
39	9H23034-ICV4	Water	QC	QC				A19D127

Data Entered By: MJB 8/26/19

Comments: ICAL

Data Reviewed By: [illegible] 8/30/19

Calibration Status Report DUALECD5

Method Path : R:\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

A9H2608

MJB 8/26/19

#	ID	Conc	ISTD Conc	Path\File
1	1	50	0	R:\data\2019-08\9H23034\ECD5-08231936.D
2	2	100	0	R:\data\2019-08\9H23034\ECD5-08231937.D
3	3	200	0	R:\data\2019-08\9H23034\ECD5-08231938.D
4	4	500	0	R:\data\2019-08\9H23034\ECD5-08231939.D
5	5	1000	0	R:\data\2019-08\9H23034\ECD5-08231940.D
6	6	2000	0	R:\data\2019-08\9H23034\ECD5-08231941.D
7	7	-1	0	R:\data\2019-08\9H23034\ECD5-08231924.D
8	8	-1	0	R:\data\2019-08\9H23034\ECD5-08231925.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Aug 26 11:47 2019	Aug 26 11:37 2019	23 Aug 2019 21:54
2	2	Aug 26 11:47 2019	Aug 26 11:38 2019	23 Aug 2019 22:11
3	3	Aug 26 11:48 2019	Aug 26 11:39 2019	23 Aug 2019 22:28
4	4	Aug 26 11:48 2019	Aug 26 11:36 2019	23 Aug 2019 22:45
5	5	Aug 26 11:48 2019	Aug 26 11:40 2019	23 Aug 2019 23:03
6	6	Aug 26 11:48 2019	Aug 26 11:40 2019	23 Aug 2019 23:20
7	7	Aug 26 11:46 2019	Aug 26 11:26 2019	23 Aug 2019 18:27
8	8	Aug 26 11:46 2019	Aug 26 11:27 2019	23 Aug 2019 18:45

ECD5_QUANTPEST_190823.M Mon Aug 26 16:04:23 2019

Response Factor Report DUALECD5

Method Path : C:\msdchem\4\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

Calibration Files
1 =ECD5-08231936.D 2 =ECD5-08231937.D 3 =ECD5-08231938.D 4 =ECD5-08231939.D 5 =ECD5-08231940.D
6 =ECD5-08231941.D 7 =ECD5-08231924.D 8 =ECD5-08231925.D

		Compound	1	2	3	4	5	6	7	8	Avg		%RSD
1)	S	TCMX (S)	1.767	1.750	1.668	1.644	1.606	1.614	1.585	1.642	1.660	E5	4.00
2)		a-BHC	2.320	2.292	2.296	2.347	2.221	2.274	2.236	2.360	2.293	E5	2.14
3)		g-BHC	2.074	2.030	2.041	2.035	1.950	1.957	1.960	2.094	2.018	E5	2.76
4)		b-BHC	1.043	0.971	0.914	0.911	0.824	0.820	0.836	0.912	0.904	E5	8.59
5)		Heptachlor	1.921	1.848	1.798	1.820	1.726	1.747	1.755	1.889	1.813	E5	3.86
6)		d-BHC	1.998	1.935	2.008	2.006	1.867	1.922	1.948	2.051	1.967	E5	3.02
7)		Aldrin	2.055	1.998	2.025	2.011	1.938	1.866	1.911	1.992	1.974	E5	3.23
8)		Heptachlor Exp...	2.005	1.960	1.847	1.865	1.738	1.774	1.732	1.813	1.842	E5	5.42
9)		trans-Chlordane	1.972	1.911	1.853	1.848	1.761	1.792	1.773	1.881	1.849	E5	3.93
10)		cis-Chlordane	2.098	1.950	1.818	1.843	1.698	1.725	1.674	1.760	1.821	E5	7.86
11)		Endosulfan I	1.852	1.787	1.723	1.709	1.645	1.597	1.609	1.693	1.702	E5	5.13
12)		4,4'-DDE	1.934	1.943	1.907	1.891	1.828	1.835	1.805	1.938	1.885	E5	2.92
13)		Dieldrin	1.977	1.979	1.944	1.955	1.833	1.877	1.832	1.961	1.920	E5	3.25
14)		Endrin	1.564	1.493	1.478	1.476	1.404	1.396	1.381	1.571	1.470	E5	4.98
15)		4,4'-DDD	1.650	1.573	1.581	1.566	1.491	1.545	1.544	1.622	1.571	E5	3.11
16)		Endosulfan II	1.581	1.496	1.419	1.448	1.349	1.368	1.354	1.474	1.436	E5	5.61
17)		4,4'-DDT	1.139	1.091	1.106	1.147	1.170	1.241	1.218	1.454	1.196	E5	9.72
18)		Endrin Aldehyde	2.413	1.641	1.367	1.375	1.248	1.245	1.236	1.331	1.482	E5	26.87
19)		Endosulfan Sul...	1.761	1.611	1.538	1.554	1.458	1.484	1.437	1.556	1.550	E5	6.64
20)		Methoxychlor	5.966	5.573	5.408	5.617	5.561	5.721	5.877	7.136	5.857	E4	9.33
21)		Endrin Ketone	1.776	1.656	1.623	1.664	1.604	1.638	1.625	1.755	1.668	E5	3.80
22)	S	DCBP (S)	1.639	1.550	1.402	1.335	1.337	1.336	1.341	1.349	1.411	E5	8.33
23)		Hexachlorobuta...	1.982	1.879	1.918	1.838	1.746	1.752	1.795	1.708	1.827	E5	5.17
24)		Hexachlorobenzene	1.947	1.810	1.708	1.712	1.674	1.782	1.767	1.704	1.763	E5	4.96
25)		Oxychlordane	1.768	1.697	1.639	1.592	1.553	1.677	1.636	1.602	1.645	E5	4.13
26)		2,4'-DDE	1.379	1.326	1.266	1.245	1.224	1.302	1.277	1.241	1.283	E5	4.01
27)		trans-Nonachlor	2.368	2.076	1.866	1.818	1.756	1.916	1.835	1.751	1.923	E5	10.78
28)		2,4'-DDD	1.202	1.165	1.122	1.104	1.098	1.184	1.159	1.096	1.141	E5	3.65
29)		2,4'-DDT	1.071	1.021	1.074	1.052	1.092	1.137	1.177	1.151	1.097	E5	4.88
30)		cis-Nonachlor	2.192	2.117	2.052	2.032	1.997	2.123	2.093	2.002	2.076	E5	3.25
31)		Mirex	1.474	1.334	1.257	1.196	1.164	1.244	1.196	1.164	1.254	E5	8.39
32)		Chlordane (1)	2.018	1.979	1.925	1.926	1.964	2.002			1.969	E4	1.96
33)		Chlordane (2)	2.573	2.520	2.453	2.435	2.508	2.549			2.506	E4	2.14
34)		Chlordane (3)	5.762	5.482	5.508	5.843	5.988	6.104			5.781	E3	4.34
35)		Chlordane - AVE									0.000		-1.00
36)		Toxaphene (1)	9.850	9.158	8.802	8.837	8.719	8.373			8.956	E2	5.64
37)		Toxaphene (2)	1.766	1.661	1.588	1.639	1.556	1.479			1.615	E3	6.08
38)		Toxaphene (3)	3.388	3.328	3.222	3.355	3.496	3.416			3.367	E3	2.72
39)		Toxaphene (4)	3.286	3.203	3.162	3.299	3.287	3.204			3.240	E3	1.78
40)		Toxaphene (5)	2.294	2.290	2.272	2.443	2.546	2.537			2.397	E3	5.33
41)		Toxaphene (6)	3.063	3.026	2.990	3.247	3.407	3.255			3.165	E3	5.17
42)		Toxaphene - AVE									0.000		-1.00

MJB 8/26/19

Method Path : C:\msdchem\4\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5

Signal #2 Calibration Files
1 =ECD5-08231936.D 2 =ECD5-08231937.D 3 =ECD5-08231938.D
4 =ECD5-08231939.D 5 =ECD5-08231940.D 6 =ECD5-08231941.D

		Compound	1	2	3	4	5	6	Avg		%RSD
44)	S	TCMX (S) #2	3.001	3.004	2.876	2.866	2.829	2.839	2.926	3.129 2.934 E5	3.54
45)		a-BHC #2	3.931	3.923	3.971	4.096	3.964	4.053	4.170	4.719 4.103 E5	6.41
46)		g-BHC #2	3.523	3.455	3.485	3.477	3.403	3.476	3.679	4.038 3.567 E5	5.79
47)		b-BHC #2	1.763	1.676	1.577	1.581	1.471	1.503	1.463	1.628 1.583 E5	6.60
48)		Heptachlor #2	3.098	2.934	3.016	3.006	2.913	2.919	3.028	3.564 3.060 E5	6.98
49)		d-BHC #2	3.491	3.346	3.435	3.614	3.299	3.462	3.518	4.049 3.527 E5	6.60
50)		Aldrin #2	3.175	3.177	3.202	3.341	3.151	3.253	3.391	3.661 3.294 E5	5.19
51)		Heptachlor Exp...	3.101	3.031	2.912	2.959	2.826	2.968	3.005	3.267 3.008 E5	4.40
52)		trans-Chlordan...	3.641	3.222	3.004	3.003	2.863	2.936	3.074	3.322 3.133 E5	8.10
53)		cis-Chlordane #2	2.994	2.898	2.870	2.860	2.774	2.800	2.904	3.199 2.912 E5	4.59
54)		Endosulfan I #2	2.789	2.702	2.654	2.724	2.629	2.742	2.721	3.052 2.752 E5	4.77
55)		4,4'-DDE #2	2.985	2.990	2.976	3.050	3.000	3.111	3.250	3.492 3.107 E5	5.82
56)		Dieldrin #2	2.967	2.919	2.925	2.899	2.934	3.087	3.100	3.502 3.042 E5	6.61
57)		Endrin #2	2.229	2.124	2.186	2.244	2.130	2.203	2.310	2.639 2.258 E5	7.32
58)		4,4'-DDD #2	2.515	2.441	2.417	2.425	2.459	2.632	2.630	2.978 2.562 E5	7.37
59)		Endosulfan II #2	2.322	2.311	2.193	2.244	2.179	2.307	2.302	2.592 2.306 E5	5.55
60)		4,4'-DDT #2	1.797	1.709	1.747	1.841	1.792	1.857	1.979	2.410 1.892 E5	11.88
61)		Endrin Aldehyd...	3.486	2.388	2.092	2.125	1.939	2.042	2.050	2.254 2.297 E5	21.77
62)		Endosulfan Sul...	2.658	2.494	2.352	2.425	2.392	2.430	2.448	2.730 2.491 E5	5.35
63)		Methoxychlor #2	0.952	0.890	0.828	0.883	0.867	0.869	0.944	1.186 0.927 E5	12.09
64)		Endrin Ketone #2	2.558	2.466	2.410	2.497	2.357	2.591	2.664	3.043 2.573 E5	8.31
65)	S	DCBP (S) #2	1.916	1.950	1.742	1.679	1.665	1.746	1.778	1.905 1.798 E5	6.18
66)		Hexachlorobuta...	3.832	3.773	3.755	3.702	3.557	3.727	3.930	3.799 3.759 E5	2.87
67)		Hexachlorobenz...	3.280	3.164	2.971	2.936	2.967	3.219	3.277	3.313 3.141 E5	5.04
68)		Oxychlordane #2	2.791	2.705	2.651	2.539	2.481	2.835	2.973	2.937 2.739 E5	6.49
69)		2,4'-DDE #2	2.192	2.059	2.059	2.018	2.000	2.201	2.216	2.225 2.121 E5	4.52
70)		trans-Nonachlo...	3.062	2.939	2.935	2.844	2.837	3.162	3.198	3.154 3.016 E5	4.84
71)		2,4'-DDD #2	1.920	1.868	1.797	1.779	1.756	1.985	2.012	1.992 1.889 E5	5.47
72)		2,4'-DDT #2	1.733	1.661	1.746	1.703	1.762	1.762	1.900	2.000 1.783 E5	6.24
73)		cis-Nonachlor #2	3.327	3.124	3.174	3.148	3.288	3.544	3.607	3.623 3.354 E5	6.23
74)		Mirex #2	2.098	1.941	1.791	1.723	1.655	1.820	1.936	1.921 1.861 E5	7.59
75)		Chlordane (1) #2	3.509	3.378	3.376	3.566	3.797	4.085		3.618 E4	7.62
76)		Chlordane (2) #2	2.945	2.906	2.942	2.962	3.149	3.314		3.036 E4	5.30
77)		Chlordane (3) #2	8.780	8.745	8.659	8.543	9.359	9.709		8.966 E3	5.14
78)		Chlordane - AV...								0.000	-1.00
79)		Toxaphene (1) #2	2.737	2.675	2.545	2.618	2.655	2.515		2.624 E3	3.16
80)		Toxaphene (2) #2	3.294	3.241	3.227	3.295	3.384	3.305		3.291 E3	1.70
81)		Toxaphene (3) #2	5.097	4.944	4.978	4.950	5.168	5.273		5.068 E3	2.65
82)		Toxaphene (4) #2	8.327	8.119	7.902	8.505	8.650	8.595		8.350 E3	3.51
83)		Toxaphene (5) #2	4.664	4.522	4.477	4.681	4.900	4.718		4.660 E3	3.24
84)		Toxaphene (6) #2	4.618	4.525	4.526	4.740	5.047	5.045		4.750 E3	5.10
85)		Toxaphene - AV...								0.000	-1.00

(#) = Out of Range

MJB 8/26/19

Compound List Report DUALECD5

Method Path : R:\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

Total Cpnds : 85

MWB 8/26/19

PK#		Compound Name	Exp_RT	Rel_RT	Cal	A/H	ID
1	S	TCMX (S)	5.394	1.000	A	H	R
2		a-BHC	5.934	1.000	A	H	R
3		g-BHC	6.218	1.000	A	H	R
4		b-BHC	6.296	1.000	A	H	R
5		Heptachlor	6.632	1.000	A	H	R
6		d-BHC	6.446	1.000	A	H	R
7		Aldrin	6.873	1.000	A	H	R
8		Heptachlor Expoxide	7.332	1.000	A	H	R
9		trans-Chlordane	7.428	1.000	A	H	R
10		cis-Chlordane	7.524	1.000	A	H	R
11		Endosulfan I	7.621	1.000	A	H	R
12		4,4'-DDE	7.583	1.000	A	H	R
13		Dieldrin	7.792	1.000	A	H	R
14		Endrin	7.957	1.000	A	H	R
15		4,4'-DDD	8.003	1.000	A	H	R
16		Endosulfan II	8.114	1.000	A	H	R
17		4,4'-DDT	8.202	1.000	A	H	R
18		Endrin Aldehyde	8.403	1.000	Q	H	R
19		Endosulfan Sulfate	8.705	1.000	A	H	R
20		Methoxychlor	8.540	1.000	A	H	R
21		Endrin Ketone	8.899	1.000	A	H	R
22	S	DCBP (S)	9.592	1.000	A	H	R
23		Hexachlorobutadiene	3.198	1.000	A	H	R
24		Hexachlorobenzene	5.774	1.000	A	H	R
25		Oxychlordane	7.261	1.000	A	H	R
26		2,4'-DDE	7.333	1.000	A	H	R
27		trans-Nonachlor	7.515	1.000	Q	H	R
28		2,4'-DDD	7.705	1.000	A	H	R
29		2,4'-DDT	7.887	1.000	A	H	R
30		cis-Nonachlor	7.985	1.000	A	H	R
31		Mirex	8.652	1.000	A	H	R
32		Chlordane (1)	7.427	1.000	A	H	R
33		Chlordane (2)	7.520	1.000	A	H	R
34		Chlordane (3)	8.067	1.000	A	H	R
35		Chlordane - AVE	3.447	1.000	A	H	R
36		Toxaphene (1)	7.502	1.000	A	H	R
37		Toxaphene (2)	7.794	1.000	A	H	R
38		Toxaphene (3)	8.105	1.000	A	H	R
39		Toxaphene (4)	8.346	1.000	A	H	R
40		Toxaphene (5)	8.574	1.000	A	H	R
41		Toxaphene (6)	8.640	1.000	A	H	R
42		Toxaphene - AVE	3.450	1.000	A	H	R
43		Signal #2	3.544	1.000	A	H	R
44	S	TCMX (S) #2	5.988	1.000	A	H	R
45		a-BHC #2	6.595	1.000	A	H	R
46		g-BHC #2	6.914	1.000	A	H	R
47		b-BHC #2	6.978	1.000	A	H	R
48		Heptachlor #2	7.290	1.000	A	H	R
49		d-BHC #2	7.231	1.000	A	H	R
50		Aldrin #2	7.555	1.000	A	H	R
51		Heptachlor Expoxide #2	7.992	1.000	A	H	R
52		trans-Chlordane #2	8.131	1.000	A	H	R
53		cis-Chlordane #2	8.238	1.000	A	H	R
54		Endosulfan I #2	8.289	1.000	A	H	R
55		4,4'-DDE #2	8.343	1.000	A	H	R
56		Dieldrin #2	8.489	1.000	A	H	R

57		Endrin #2	8.715	1.000	A	H	R
58		4,4'-DDD #2	8.758	1.000	A	H	R
59		Endosulfan II #2	8.863	1.000	A	H	R
60		4,4'-DDT #2	8.984	1.000	Q	H	R
61		Endrin Aldehyde #2	9.099	1.000	Q	H	R
62		Endosulfan Sulfate #2	9.289	1.000	A	H	R
63		Methoxychlor #2	9.463	1.000	Q	H	R
64		Endrin Ketone #2	9.687	1.000	A	H	R
65	S	DCBP (S) #2	10.541	1.000	A	H	R
66		Hexachlorobutadiene #2	3.688	1.000	A	H	R
67		Hexachlorobenzene #2	6.454	1.000	A	H	R
68		Oxychlordane #2	7.920	1.000	A	H	R
69		2,4'-DDE #2	8.122	1.000	A	H	R
70		trans-Nonachlor #2	8.194	1.000	A	H	R
71		2,4'-DDD #2	8.495	1.000	A	H	R
72		2,4'-DDT #2	8.718	1.000	A	H	R
73		cis-Nonachlor #2	8.758	1.000	A	H	R
74		Mirex #2	9.679	1.000	A	H	R
75		Chlordane (1) #2	8.129	1.000	A	H	R
76		Chlordane (2) #2	8.236	1.000	A	H	R
77		Chlordane (3) #2	8.896	1.000	A	H	R
78		Chlordane - AVE #2	3.428	1.000	A	H	R
79		Toxaphene (1) #2	8.466	1.000	A	H	R
80		Toxaphene (2) #2	8.812	1.000	A	H	R
81		Toxaphene (3) #2	8.848	1.000	A	H	R
82		Toxaphene (4) #2	8.915	1.000	A	H	R
83		Toxaphene (5) #2	9.091	1.000	A	H	R
84		Toxaphene (6) #2	9.470	1.000	A	H	R
85		Toxaphene - AVE #2	3.434	1.000	A	H	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

ECD5_QUANTPEST_190823.M Mon Aug 26 16:04:34 2019

Calibration Report DUALECD5

Method Path : R:\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

Calibration Files
1 =ECD5-08231936 2 =ECD5-08231937 3 =ECD5-08231938 4 =ECD5-08231939 5 =ECD5-08

6 =ECD5-08231941 7 =ECD5-08231924 8 =ECD5-08231925

MJB 5/26/19

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	S	TCMX (S)	Avg	-----	1.6598 e5	-----	0.0400
2)		a-BHC	Avg	-----	2.2933 e5	-----	0.0214
3)		g-BHC	Avg	-----	2.0178 e5	-----	0.0276
4)		b-BHC	Avg	-----	9.0384 e4	-----	0.0859
5)		Heptachlor	Avg	-----	1.8130 e5	-----	0.0386
6)		d-BHC	Avg	-----	1.9669 e5	-----	0.0302
7)		Aldrin	Avg	-----	1.9745 e5	-----	0.0323
8)		Heptachlor Expoxide	Avg	-----	1.8418 e5	-----	0.0542
9)		trans-Chlordane	Avg	-----	1.8489 e5	-----	0.0393
10)		cis-Chlordane	Avg	-----	1.8207 e5	-----	0.0786
11)		Endosulfan I	Avg	-----	1.7018 e5	-----	0.0513
12)		4,4'-DDE	Avg	-----	1.8853 e5	-----	0.0292
13)		Dieldrin	Avg	-----	1.9198 e5	-----	0.0325
14)		Endrin	Avg	-----	1.4703 e5	-----	0.0498
15)		4,4'-DDD	Avg	-----	1.5714 e5	-----	0.0311
16)		Endosulfan II	Avg	-----	1.4361 e5	-----	0.0561
17)		4,4'-DDT	Avg	-----	1.1956 e5	-----	0.0972
18)		Endrin Aldehyde	Quad	1.1904 e5	1.1635 e5	8.0472 e1	0.9966
19)		Endosulfan Sulfate	Avg	-----	1.5498 e5	-----	0.0664
20)		Methoxychlor	Avg	-----	5.8574 e4	-----	0.0933
21)		Endrin Ketone	Avg	-----	1.6676 e5	-----	0.0380
22)	S	DCBP (S)	Avg	-----	1.4110 e5	-----	0.0833
23)		Hexachlorobutadiene	Avg	-----	1.8274 e5	-----	0.0517
24)		Hexachlorobenzene	Avg	-----	1.7629 e5	-----	0.0496
25)		Oxychlordane	Avg	-----	1.6454 e5	-----	0.0413
26)		2,4'-DDE	Avg	-----	1.2826 e5	-----	0.0401
27)		trans-Nonachlor	Quad	5.6661 e4	1.7916 e5	-2.0512	0.9987
28)		2,4'-DDD	Avg	-----	1.1413 e5	-----	0.0365
29)		2,4'-DDT	Avg	-----	1.0969 e5	-----	0.0488
30)		cis-Nonachlor	Avg	-----	2.0762 e5	-----	0.0325
31)		Mirex	Avg	-----	1.2537 e5	-----	0.0839
32)		Chlordane (1)	Avg	-----	1.9690 e4	-----	0.0196
33)		Chlordane (2)	Avg	-----	2.5064 e4	-----	0.0214
34)		Chlordane (3)	Avg	-----	5.7811 e3	-----	0.0434
35)		Chlordane - AVE	Avg	-----	-----	-----	0.0000
36)		Toxaphene (1)	Avg	-----	8.9565 e2	-----	0.0564
37)		Toxaphene (2)	Avg	-----	1.6149 e3	-----	0.0608
38)		Toxaphene (3)	Avg	-----	3.3675 e3	-----	0.0272
39)		Toxaphene (4)	Avg	-----	3.2402 e3	-----	0.0178
40)		Toxaphene (5)	Avg	-----	2.3971 e3	-----	0.0533
41)		Toxaphene (6)	Avg	-----	3.1646 e3	-----	0.0517
42)		Toxaphene - AVE	Avg	-----	-----	-----	0.0000

Signal #2

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	S	TCMX (S)	Avg	-----	2.9337 e5	-----	0.0354
2)		a-BHC	Avg	-----	4.1034 e5	-----	0.0641
3)		g-BHC	Avg	-----	3.5670 e5	-----	0.0579
4)		b-BHC	Avg	-----	1.5827 e5	-----	0.0660
5)		Heptachlor	Avg	-----	3.0598 e5	-----	0.0698
6)		d-BHC	Avg	-----	3.5267 e5	-----	0.0660
7)		Aldrin	Avg	-----	3.2939 e5	-----	0.0519

8)		Heptachlor Expoxide	Avg	-----	3.0085 e5	-----	0.0440
9)		trans-Chlordane	Avg	-----	3.1333 e5	-----	0.0810
10)		cis-Chlordane	Avg	-----	2.9125 e5	-----	0.0459
11)		Endosulfan I	Avg	-----	2.7518 e5	-----	0.0477
12)		4,4'-DDE	Avg	-----	3.1068 e5	-----	0.0582
13)		Dieldrin	Avg	-----	3.0415 e5	-----	0.0661
14)		Endrin	Avg	-----	2.2583 e5	-----	0.0732
15)		4,4'-DDD	Avg	-----	2.5621 e5	-----	0.0737
16)		Endosulfan II	Avg	-----	2.3061 e5	-----	0.0555
17)		4,4'-DDT	Quad	6.5669 e3	1.7140 e5	3.3014 e2	0.9992
18)		Endrin Aldehyde	Quad	1.5509 e5	1.8265 e5	2.1823 e2	0.9961
19)		Endosulfan Sulfate	Avg	-----	2.4909 e5	-----	0.0535
20)		Methoxychlor	Quad	1.4992 e4	8.0453 e4	1.7846 e2	0.9988
21)		Endrin Ketone	Avg	-----	2.5732 e5	-----	0.0831
22)	S	DCBP (S)	Avg	-----	1.7976 e5	-----	0.0618
23)		Hexachlorobutadiene	Avg	-----	3.7593 e5	-----	0.0287
24)		Hexachlorobenzene	Avg	-----	3.1409 e5	-----	0.0504
25)		Oxychlordane	Avg	-----	2.7390 e5	-----	0.0649
26)		2,4'-DDE	Avg	-----	2.1214 e5	-----	0.0452
27)		trans-Nonachlor	Avg	-----	3.0164 e5	-----	0.0484
28)		2,4'-DDD	Avg	-----	1.8886 e5	-----	0.0547
29)		2,4'-DDT	Avg	-----	1.7834 e5	-----	0.0624
30)		cis-Nonachlor	Avg	-----	3.3545 e5	-----	0.0623
31)		Mirex	Avg	-----	1.8607 e5	-----	0.0759
32)		Chlordane (1)	Avg	-----	3.6185 e4	-----	0.0762
33)		Chlordane (2)	Avg	-----	3.0364 e4	-----	0.0530
34)		Chlordane (3)	Avg	-----	8.9659 e3	-----	0.0514
35)		Chlordane - AVE	Avg	-----	-----	-----	0.0000
36)		Toxaphene (1)	Avg	-----	2.6243 e3	-----	0.0316
37)		Toxaphene (2)	Avg	-----	3.2910 e3	-----	0.0170
38)		Toxaphene (3)	Avg	-----	5.0683 e3	-----	0.0265
39)		Toxaphene (4)	Avg	-----	8.3498 e3	-----	0.0351
40)		Toxaphene (5)	Avg	-----	4.6604 e3	-----	0.0324
41)		Toxaphene (6)	Avg	-----	4.7502 e3	-----	0.0510
42)		Toxaphene - AVE	Avg	-----	-----	-----	0.0000

ECD5_QUANTPEST_190823.M Mon Aug 26 16:04:42 2019

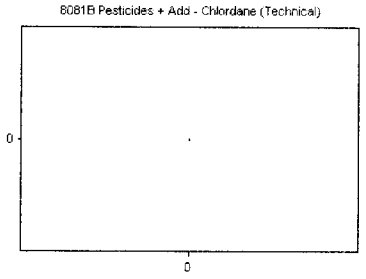
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Chlordane (Technical)

Curve Fit: **AVERAGE RF**

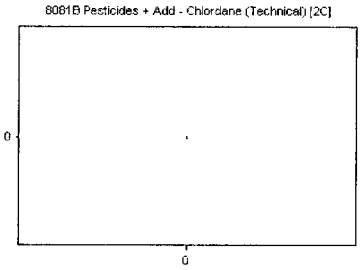


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALH~~	~~50~~	~~5365~~	~~107.300~~	~~3.45~~
~~9H23034-CALI~~	~~100~~	~~4938~~	~~49.380~~	~~3.45~~
~~9H23034-CALJ~~	~~200~~	~~4503~~	~~22.515~~	~~3.45~~
~~9H23034-CALK~~	~~500~~	~~4056~~	~~8.112~~	~~3.45~~
~~9H23034-CALL~~	~~1000~~	~~4825~~	~~4.825~~	~~3.45~~
~~9H23034-CALM~~	~~2000~~	~~4939~~	~~2.469~~	~~3.45~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Chlordane (Technical) [2C]

Curve Fit: **AVERAGE RF**

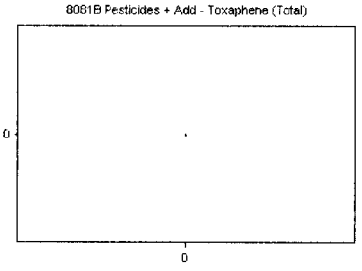


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALH~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALI~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALJ~~	~~200~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALK~~	~~500~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALL~~	~~1000~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALM~~	~~2000~~	~~0~~	~~0.000~~	~~0.00~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Toxaphene (Total)

Curve Fit: **AVERAGE RF**

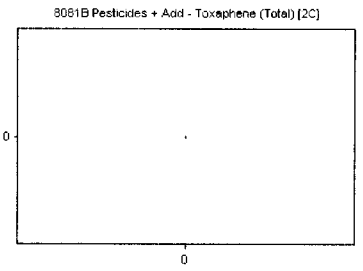


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALN~~	~~50~~	~~4023~~	~~80.460~~	~~3.45~~
~~9H23034-CALO~~	~~100~~	~~3536~~	~~35.360~~	~~3.45~~
~~9H23034-CALP~~	~~200~~	~~3919~~	~~19.595~~	~~3.45~~
~~9H23034-CALQ~~	~~500~~	~~4132~~	~~8.264~~	~~3.45~~
~~9H23034-CALR~~	~~1000~~	~~2687~~	~~2.687~~	~~3.45~~
~~9H23034-CALS~~	~~2000~~	~~4166~~	~~2.083~~	~~3.45~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Toxaphene (Total) [2C]

Curve Fit: **AVERAGE RF**

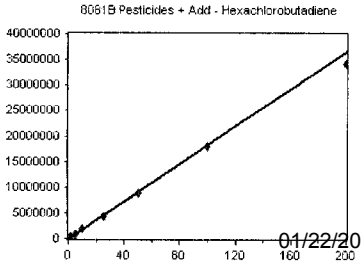


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALN~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALO~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALP~~	~~200~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALQ~~	~~500~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALR~~	~~1000~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALS~~	~~2000~~	~~0~~	~~0.000~~	~~0.00~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	198207	198207.000	3.20
9H23034-CALA	2	375794	187897.000	3.20
9H23034-CALB	5	959211	191842.200	3.20
9H23034-CALC	10	1838187	183818.700	3.20
9H23034-CALD	25	4363988	174559.500	3.20
9H23034-CALE	50	8761747	175234.900	3.20
9H23034-CALF	100	795213E+07	179521.300	3.20
9H23034-CALG	200	416653E+07	170832.600	3.20

AVE RF **182739.200** RF RSD **5.17** AVE RT **3.20**

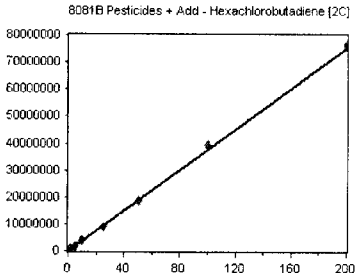
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Hexachlorobutadiene [2C]

Curve Fit: **AVERAGE RF**

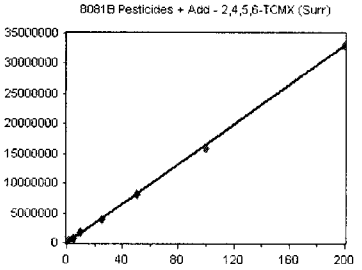


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	383198	383198.000	3.69
9H23034-CALA	2	754548	377274.000	3.69
9H23034-CALB	5	1877484	375496.800	3.69
9H23034-CALC	10	3701532	370153.200	3.69
9H23034-CALD	25	8892238	355689.500	3.69
9H23034-CALE	50	863562E+07	372712.400	3.69
9H23034-CALF	100	929888E+07	392988.800	3.69
9H23034-CALG	200	598857E+07	379942.800	3.69

AVE RF **375931.900** RF RSD **2.87** AVE RT **3.69**

2,4,5,6-TCMX (Surr)

Curve Fit: **AVERAGE RF**

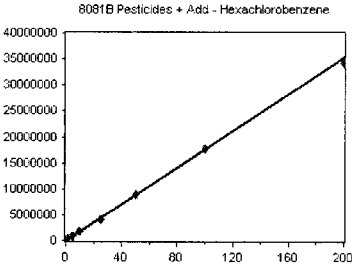


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176748	176748.000	5.40
9H23034-CAL2	2	349972	174986.000	5.40
9H23034-CAL3	5	834206	166841.200	5.40
9H23034-CAL4	10	1644447	164444.700	5.40
9H23034-CAL5	25	4015832	160633.300	5.39
9H23034-CAL6	50	8071481	161429.600	5.39
9H23034-CAL7	100	585092E+07	158509.200	5.40
9H23034-CAL8	200	284254E+07	164212.700	5.39

AVE RF **165975.600** RF RSD **4.00** AVE RT **5.40**

Hexachlorobenzene

Curve Fit: **AVERAGE RF**

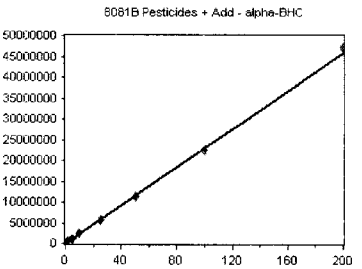


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	194679	194679.000	5.78
9H23034-CALA	2	362082	181041.000	5.78
9H23034-CALB	5	853793	170758.600	5.78
9H23034-CALC	10	1711884	171188.400	5.77
9H23034-CALD	25	4184551	167382.000	5.77
9H23034-CALE	50	8911624	178232.500	5.77
9H23034-CALF	100	767002E+07	176700.200	5.78
9H23034-CALG	200	407346E+07	170367.300	5.77

AVE RF **176293.600** RF RSD **4.96** AVE RT **5.77**

alpha-BHC

Curve Fit: **AVERAGE RF**

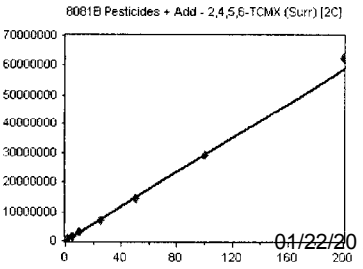


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	231994	231994.000	5.94
9H23034-CAL2	2	458365	229182.500	5.94
9H23034-CAL3	5	1147932	229586.400	5.94
9H23034-CAL4	10	2347065	234706.500	5.94
9H23034-CAL5	25	5553096	222123.800	5.94
9H23034-CAL6	50	136959E+07	227391.800	5.94
9H23034-CAL7	100	236358E+07	223635.800	5.94
9H23034-CAL8	200	720225E+07	236011.200	5.94

AVE RF **229329.000** RF RSD **2.14** AVE RT **5.94**

2,4,5,6-TCMX (Surr) [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	300053	300053.000	5.99
9H23034-CAL2	2	600766	300383.000	5.99
9H23034-CAL3	5	1437876	287575.200	5.99
9H23034-CAL4	10	2865854	286585.400	5.99
9H23034-CAL5	25	7072923	282916.900	5.99
9H23034-CAL6	50	419675E+07	283935.000	5.99
9H23034-CAL7	100	925633E+07	292563.300	5.99
9H23034-CAL8	200	258445E+07	312922.300	5.99

AVE RF **293366.800** RF RSD **3.54** AVE RT **5.99**

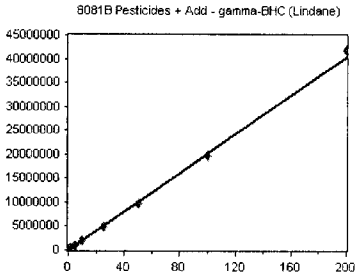
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

gamma-BHC (Lindane)

Curve Fit: **AVERAGE RF**

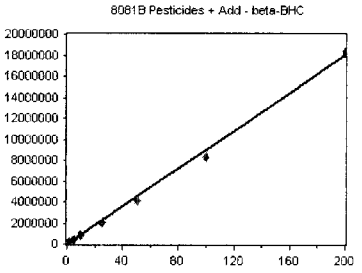


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	207427	207427.000	6.22
9H23034-CAL2	2	406027	203013.500	6.22
9H23034-CAL3	5	1020724	204144.800	6.22
9H23034-CAL4	10	2034859	203485.900	6.22
9H23034-CAL5	25	4875657	195026.300	6.22
9H23034-CAL6	50	9785999	195720.000	6.22
9H23034-CAL7	100	959509E+07	195950.900	6.22
9H23034-CAL8	200	188973E+07	209448.600	6.22

AVE RF **201777.100** RF RSD **2.76** AVE RT **6.22**

beta-BHC

Curve Fit: **AVERAGE RF**

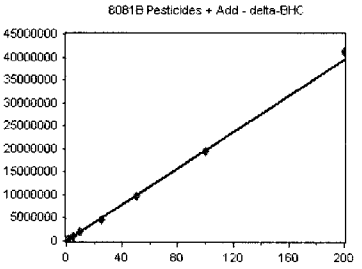


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	104326	104326.000	6.30
9H23034-CAL2	2	194168	97084.000	6.30
9H23034-CAL3	5	456954	91390.800	6.30
9H23034-CAL4	10	910875	91087.500	6.30
9H23034-CAL5	25	2060378	82415.120	6.30
9H23034-CAL6	50	4100858	82017.160	6.30
9H23034-CAL7	100	8355416	83554.160	6.30
9H23034-CAL8	200	.82387E+07	91193.500	6.29

AVE RF **90383.530** RF RSD **8.59** AVE RT **6.30**

delta-BHC

Curve Fit: **AVERAGE RF**

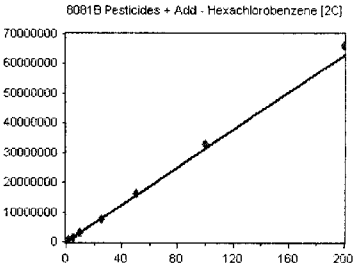


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	199840	199840.000	6.45
9H23034-CAL2	2	386980	193490.000	6.45
9H23034-CAL3	5	1004012	200802.400	6.45
9H23034-CAL4	10	2006493	200649.300	6.45
9H23034-CAL5	25	4667166	186686.600	6.45
9H23034-CAL6	50	9610742	192214.800	6.45
9H23034-CAL7	100	947558E+07	194755.800	6.45
9H23034-CAL8	200	101659E+07	205083.000	6.45

AVE RF **196690.200** RF RSD **3.02** AVE RT **6.45**

Hexachlorobenzene [2C]

Curve Fit: **AVERAGE RF**

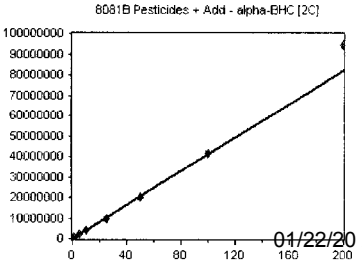


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	328025	328025.000	6.45
9H23034-CALA	2	632830	316415.000	6.45
9H23034-CALB	5	1485583	297116.600	6.45
9H23034-CALC	10	2936294	293629.400	6.45
9H23034-CALD	25	7416324	296653.000	6.45
9H23034-CALE	50	309416E+07	321883.200	6.45
9H23034-CALF	100	276671E+07	327667.100	6.46
9H23034-CALG	200	326197E+07	331309.800	6.45

AVE RF **314087.400** RF RSD **5.04** AVE RT **6.45**

alpha-BHC [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	393119	393119.000	6.60
9H23034-CAL2	2	784586	392293.000	6.60
9H23034-CAL3	5	1985438	397087.600	6.60
9H23034-CAL4	10	4095890	409589.000	6.60
9H23034-CAL5	25	9910863	396434.500	6.60
9H23034-CAL6	50	026582E+07	405316.400	6.60
9H23034-CAL7	100	169921E+07	416992.100	6.60
9H23034-CAL8	200	437675E+07	471883.800	6.60

AVE RF **410339.400** RF RSD **6.41** AVE RT **6.60**

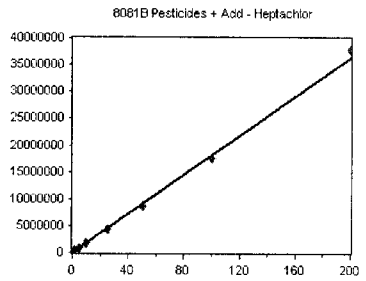
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Heptachlor

Curve Fit: **AVERAGE RF**

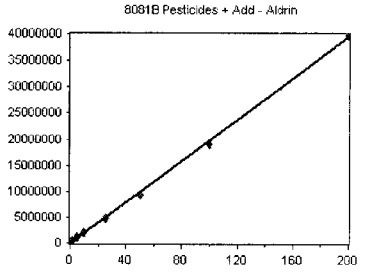


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	192066	192066.000	6.64
9H23034-CAL2	2	369615	184807.500	6.64
9H23034-CAL3	5	899091	179818.200	6.64
9H23034-CAL4	10	1819621	181962.100	6.63
9H23034-CAL5	25	4314306	172572.200	6.63
9H23034-CAL6	50	8735158	174703.200	6.63
9H23034-CAL7	100	755153E+07	175515.300	6.63
9H23034-CAL8	200	3.77857E+07	188928.500	6.63

AVE RF **181296.600** RF RSD **3.86** AVE RT **6.63**

Aldrin

Curve Fit: **AVERAGE RF**

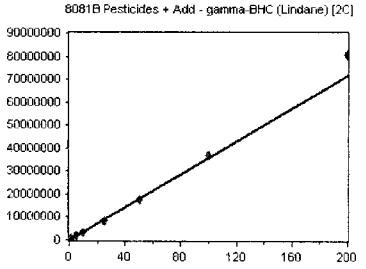


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	205523	205523.000	6.88
9H23034-CAL2	2	399550	199775.000	6.88
9H23034-CAL3	5	1012733	202546.600	6.88
9H23034-CAL4	10	2010802	201080.200	6.88
9H23034-CAL5	25	4845355	193814.200	6.87
9H23034-CAL6	50	9327672	186553.400	6.87
9H23034-CAL7	100	910807E+07	191080.700	6.87
9H23034-CAL8	200	3.98384E+07	199192.000	6.87

AVE RF **197445.600** RF RSD **3.23** AVE RT **6.87**

gamma-BHC (Lindane) [2C]

Curve Fit: **AVERAGE RF**

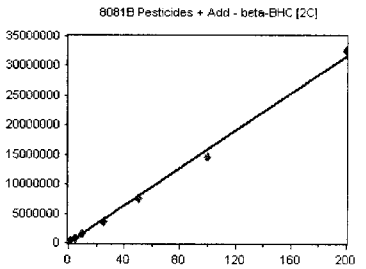


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	352286	352286.000	6.92
9H23034-CAL2	2	690922	345461.000	6.92
9H23034-CAL3	5	1742677	348535.400	6.92
9H23034-CAL4	10	3476733	347673.300	6.92
9H23034-CAL5	25	8508386	340335.400	6.91
9H23034-CAL6	50	738107E+07	347621.400	6.91
9H23034-CAL7	100	678899E+07	367889.900	6.91
9H23034-CAL8	200	076568E+07	403828.400	6.91

AVE RF **356703.900** RF RSD **5.79** AVE RT **6.91**

beta-BHC [2C]

Curve Fit: **AVERAGE RF**

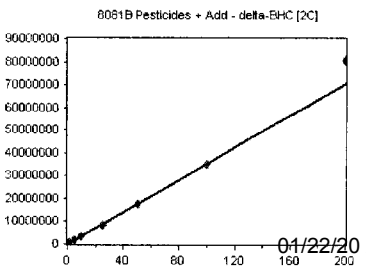


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176262	176262.000	6.98
9H23034-CAL2	2	335260	167630.000	6.98
9H23034-CAL3	5	788630	157726.000	6.98
9H23034-CAL4	10	1580847	158084.700	6.98
9H23034-CAL5	25	3677155	147086.200	6.98
9H23034-CAL6	50	7516011	150320.200	6.98
9H23034-CAL7	100	462518E+07	146251.800	6.98
9H23034-CAL8	200	255343E+07	162767.200	6.98

AVE RF **158266.000** RF RSD **6.60** AVE RT **6.98**

delta-BHC [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	349123	349123.000	7.23
9H23034-CAL2	2	669122	334561.000	7.23
9H23034-CAL3	5	1717450	343490.000	7.23
9H23034-CAL4	10	3613517	361351.700	7.23
9H23034-CAL5	25	8247775	329911.000	7.23
9H23034-CAL6	50	731126E+07	346225.200	7.23
9H23034-CAL7	100	517663E+07	351766.300	7.23
9H23034-CAL8	200	097975E+07	404898.800	7.23

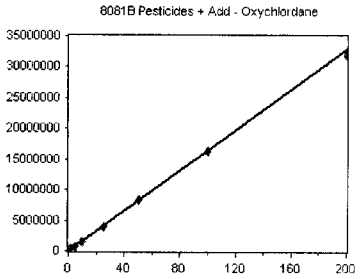
AVE RF **352665.900** RF RSD **6.60** AVE RT **7.23**

Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Oxychlordane

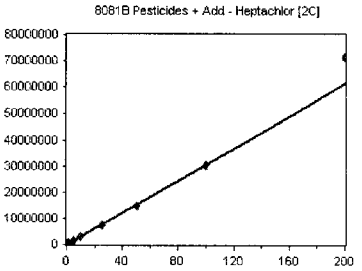


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	176844	176844.000	7.26
9H23034-CALA	2	339370	169685.000	7.26
9H23034-CALB	5	819748	163949.600	7.26
9H23034-CALC	10	1591613	159161.300	7.26
9H23034-CALD	25	3881255	155250.200	7.26
9H23034-CALE	50	8382873	167657.500	7.26
9H23034-CALF	100	535922E+07	163592.200	7.26
9H23034-CALG	200	203263E+07	160163.200	7.26

AVE RF **164537.900** RF RSD **4.13** AVE RT **7.26**

Heptachlor [2C]

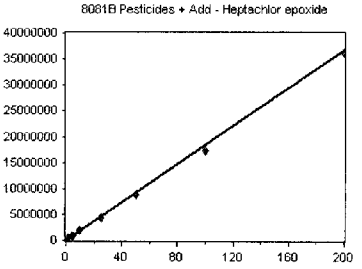


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	309811	309811.000	7.29
9H23034-CAL2	2	586765	293382.500	7.29
9H23034-CAL3	5	1508218	301643.600	7.29
9H23034-CAL4	10	3005915	300591.500	7.29
9H23034-CAL5	25	7282282	291291.300	7.29
9H23034-CAL6	50	459514E+07	291902.800	7.29
9H23034-CAL7	100	027782E+07	302778.200	7.29
9H23034-CAL8	200	128318E+07	356415.900	7.29

AVE RF **305977.100** RF RSD **6.98** AVE RT **7.29**

Heptachlor epoxide

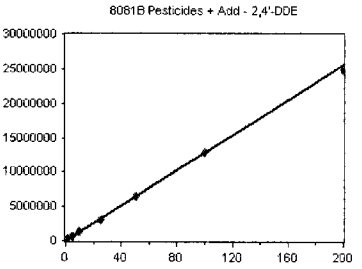


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	200503	200503.000	7.34
9H23034-CAL2	2	392052	196026.000	7.34
9H23034-CAL3	5	923620	184724.000	7.34
9H23034-CAL4	10	1865428	186542.800	7.34
9H23034-CAL5	25	4344286	173771.400	7.33
9H23034-CAL6	50	8869300	177386.000	7.33
9H23034-CAL7	100	731844E+07	173184.400	7.33
9H23034-CAL8	200	625817E+07	181290.800	7.33

AVE RF **184178.600** RF RSD **5.42** AVE RT **7.33**

2,4'-DDE

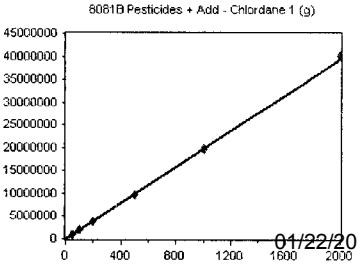


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	137947	137947.000	7.34
9H23034-CALA	2	265212	132606.000	7.33
9H23034-CALB	5	633168	126633.600	7.33
9H23034-CALC	10	1245265	124526.500	7.33
9H23034-CALD	25	3059421	122376.800	7.33
9H23034-CALE	50	6510588	130211.800	7.33
9H23034-CALF	100	276907E+07	127690.700	7.33
9H23034-CALG	200	1.48192E+07	124096.000	7.33

AVE RF **128261.100** RF RSD **4.01** AVE RT **7.33**

Chlordane 1 (g)



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1009143	20182.860	7.43
9H23034-CALI	100	1978897	19788.970	7.43
9H23034-CALJ	200	3849299	19246.490	7.43
9H23034-CALK	500	9628671	19257.340	7.43
9H23034-CALL	1000	964377E+07	19643.770	7.43
9H23034-CALM	2000	1.00365E+07	20018.250	7.43

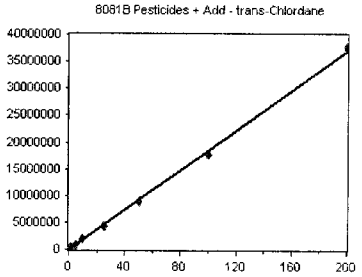
AVE RF **19689.810** RF RSD **1.96** AVE RT **7.43**

Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

trans-Chlordane

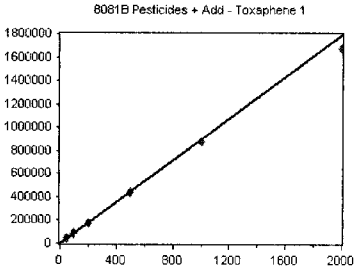


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	197202	197202.000	7.43
9H23034-CAL2	2	382271	191135.500	7.43
9H23034-CAL3	5	926577	185315.400	7.43
9H23034-CAL4	10	1847996	184799.600	7.43
9H23034-CAL5	25	4401456	176058.200	7.43
9H23034-CAL6	50	8959305	179186.100	7.43
9H23034-CAL7	100	773279E+07	177327.900	7.43
9H23034-CAL8	200	762141E+07	188107.000	7.43

AVE RF **184891.500** RF RSD **3.93** AVE RT **7.43**

Toxaphene 1

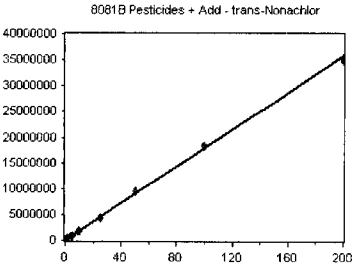


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	49250	985.000	7.51
9H23034-CALO	100	91576	915.760	7.50
9H23034-CALP	200	176047	880.235	7.50
9H23034-CALQ	500	441826	883.652	7.50
9H23034-CALR	1000	871889	871.889	7.50
9H23034-CALS	2000	1674674	837.337	7.50

AVE RF **895.646** RF RSD **5.63** AVE RT **7.50**

trans-Nonachlor

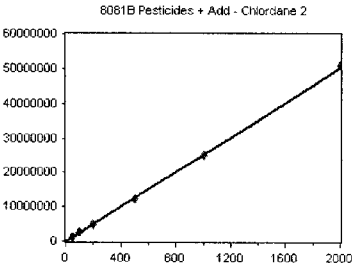


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	236836	236836.000	7.52
9H23034-CALA	2	415126	207563.000	7.52
9H23034-CALB	5	933222	186644.400	7.52
9H23034-CALC	10	1817552	181755.200	7.52
9H23034-CALD	25	4391046	175641.800	7.52
9H23034-CALE	50	9581794	191635.900	7.52
9H23034-CALF	100	835125E+07	183512.500	7.52
9H23034-CALG	200	502792E+07	175139.600	7.51

AVE RF **192341.100** RF RSD **10.78** AVE RT **7.52**

Chlordane 2

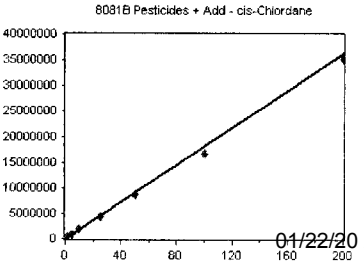


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1286655	25733.100	7.52
9H23034-CALI	100	2519520	25195.200	7.52
9H23034-CALJ	200	4906320	24531.600	7.52
9H23034-CALK	500	217652E+07	24353.040	7.52
9H23034-CALL	1000	508324E+07	25083.240	7.52
9H23034-CALM	2000	097914E+07	25489.570	7.52

AVE RF **25064.290** RF RSD **2.14** AVE RT **7.52**

cis-Chlordane



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	209780	209780.000	7.53
9H23034-CAL2	2	389999	194999.500	7.53
9H23034-CAL3	5	908795	181759.000	7.53
9H23034-CAL4	10	1843346	184334.600	7.53
9H23034-CAL5	25	4244413	169776.500	7.53
9H23034-CAL6	50	8622674	172453.500	7.52
9H23034-CAL7	100	574258E+07	167425.800	7.52
9H23034-CAL8	200	520794E+07	176039.700	7.52

AVE RF **182071.100** RF RSD **7.66** AVE RT **7.53**

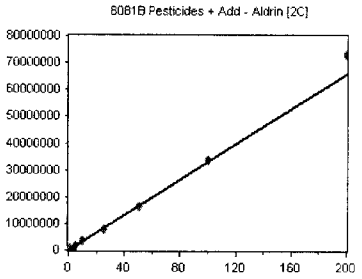
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Aldrin [2C]

Curve Fit: **AVERAGE RF**

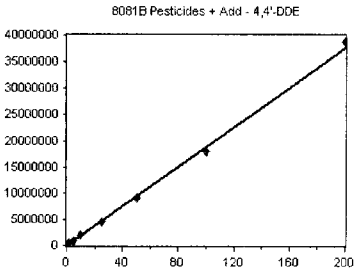


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	317466	317466.000	7.56
9H23034-CAL2	2	635458	317729.000	7.56
9H23034-CAL3	5	1600995	320199.000	7.56
9H23034-CAL4	10	3341093	334109.300	7.56
9H23034-CAL5	25	7878574	315143.000	7.56
9H23034-CAL6	50	526442E+07	325288.400	7.56
9H23034-CAL7	100	390642E+07	339064.200	7.56
9H23034-CAL8	200	322818E+07	366140.900	7.55

AVE RF **329392.500** RF RSD **5.19** AVE RT **7.56**

4,4'-DDE

Curve Fit: **AVERAGE RF**

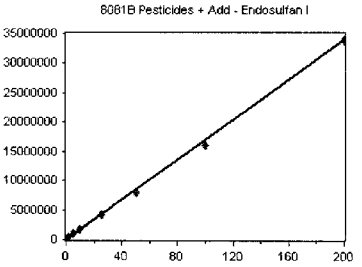


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	193435	193435.000	7.59
9H23034-CAL2	2	388618	194309.000	7.59
9H23034-CAL3	5	953351	190670.200	7.59
9H23034-CAL4	10	1890931	189093.100	7.59
9H23034-CAL5	25	4571066	182842.600	7.58
9H23034-CAL6	50	9177389	183547.800	7.58
9H23034-CAL7	100	805255E+07	180525.500	7.58
9H23034-CAL8	200	876308E+07	193815.400	7.58

AVE RF **188529.800** RF RSD **2.92** AVE RT **7.58**

Endosulfan I

Curve Fit: **AVERAGE RF**

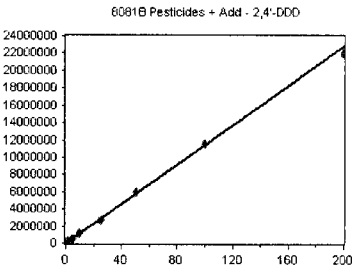


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	185217	185217.000	7.63
9H23034-CAL2	2	357368	178684.000	7.63
9H23034-CAL3	5	861509	172301.800	7.62
9H23034-CAL4	10	1709332	170933.200	7.62
9H23034-CAL5	25	4111285	164451.400	7.62
9H23034-CAL6	50	7984410	159688.200	7.62
9H23034-CAL7	100	1.609E+07	160900.000	7.62
9H23034-CAL8	200	385259E+07	169263.000	7.62

AVE RF **170179.800** RF RSD **5.13** AVE RT **7.62**

2,4'-DDD

Curve Fit: **AVERAGE RF**

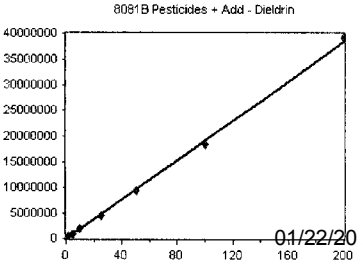


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	120240	120240.000	7.71
9H23034-CALA	2	233089	116544.500	7.71
9H23034-CALB	5	560942	112188.400	7.71
9H23034-CALC	10	1103587	110358.700	7.71
9H23034-CALD	25	2745178	109807.100	7.71
9H23034-CALE	50	5920095	118401.900	7.71
9H23034-CALF	100	158755E+07	115875.500	7.71
9H23034-CALG	200	191696E+07	109584.800	7.70

AVE RF **114125.100** RF RSD **3.65** AVE RT **7.71**

Dieldrin

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	197721	197721.000	7.80
9H23034-CAL2	2	395728	197864.000	7.80
9H23034-CAL3	5	972009	194401.800	7.80
9H23034-CAL4	10	1954890	195489.000	7.80
9H23034-CAL5	25	4582306	183292.200	7.79
9H23034-CAL6	50	9386664	187733.300	7.79
9H23034-CAL7	100	832442E+07	183244.200	7.79
9H23034-CAL8	200	921777E+07	196088.800	7.79

AVE RF **191979.300** RF RSD **3.25** AVE RT **7.79**

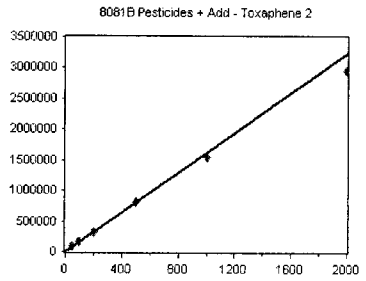
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Toxaphene 2

Curve Fit: **AVERAGE RF**

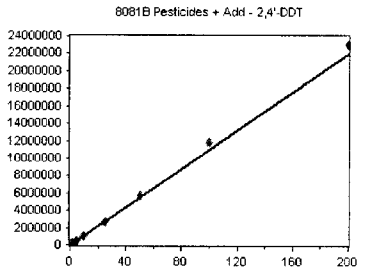


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	88321	1766.420	7.79
9H23034-CALO	100	166085	1660.850	7.80
9H23034-CALP	200	317587	1587.935	7.80
9H23034-CALQ	500	819454	1638.908	7.79
9H23034-CALR	1000	1556013	1556.013	7.79
9H23034-CALS	2000	2958997	1479.499	7.79

AVE RF **1614.937** RF RSD **6.08** AVE RT **7.79**

2,4'-DDT

Curve Fit: **AVERAGE RF**

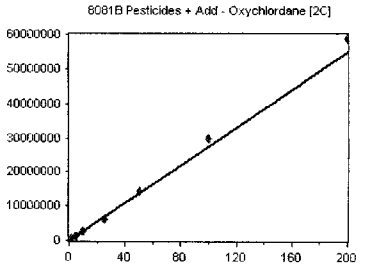


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	107110	107110.000	7.89
9H23034-CALA	2	204209	102104.500	7.89
9H23034-CALB	5	536967	107393.400	7.89
9H23034-CALC	10	1051565	105156.500	7.89
9H23034-CALD	25	2728794	109151.800	7.89
9H23034-CALE	50	5687323	113746.500	7.89
9H23034-CALF	100	177135E+07	117713.500	7.89
9H23034-CALG	200	302496E+07	115124.800	7.89

AVE RF **109687.600** RF RSD **4.88** AVE RT **7.89**

Oxychlordane [2C]

Curve Fit: **AVERAGE RF**

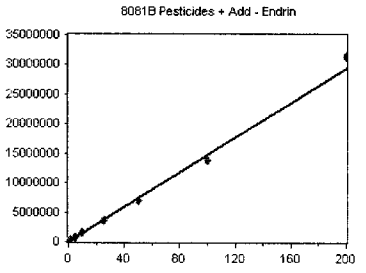


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	279143	279143.000	7.92
9H23034-CALA	2	541023	270511.500	7.92
9H23034-CALB	5	1325543	265108.600	7.92
9H23034-CALC	10	2538903	253890.300	7.92
9H23034-CALD	25	6202791	248111.600	7.92
9H23034-CALE	50	417254E+07	283450.800	7.92
9H23034-CALF	100	973215E+07	297321.500	7.92
9H23034-CALG	200	873698E+07	293684.900	7.92

AVE RF **273902.800** RF RSD **6.49** AVE RT **7.92**

Endrin

Curve Fit: **AVERAGE RF**

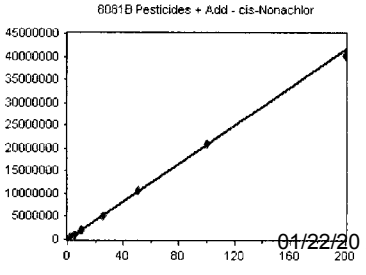


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	156412	156412.000	7.96
9H23034-CAL2	2	298515	149257.500	7.96
9H23034-CAL3	5	738953	147790.600	7.96
9H23034-CAL4	10	1475508	147550.800	7.96
9H23034-CAL5	25	3508904	140356.200	7.96
9H23034-CAL6	50	6979572	139591.400	7.96
9H23034-CAL7	100	381271E+07	138127.100	7.96
9H23034-CAL8	200	142631E+07	157131.500	7.96

AVE RF **147027.100** RF RSD **4.98** AVE RT **7.96**

cis-Nonachlor

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	219220	219220.000	7.99
9H23034-CALA	2	423442	211721.000	7.99
9H23034-CALB	5	1025899	205179.800	7.99
9H23034-CALC	10	2032010	203201.000	7.99
9H23034-CALD	25	4993110	199724.400	7.99
9H23034-CALE	50	061602E+07	212320.400	7.99
9H23034-CALF	100	093264E+07	209326.400	7.99
9H23034-CALG	200	004618E+07	200230.900	7.98

AVE RF **207613.600** RF RSD **3.25** AVE RT **7.99**

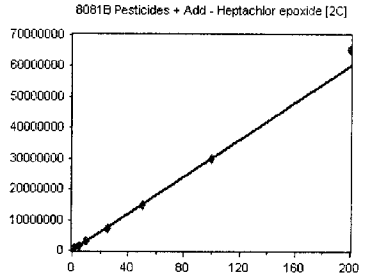
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Heptachlor epoxide [2C]

Curve Fit: **AVERAGE RF**

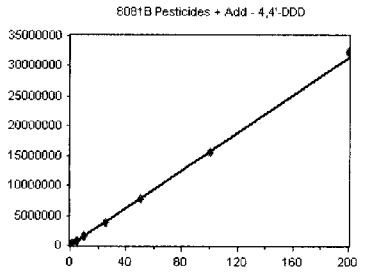


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	310098	310098.000	7.99
9H23034-CAL2	2	606240	303120.000	7.99
9H23034-CAL3	5	1455941	291188.200	7.99
9H23034-CAL4	10	2959301	295930.100	7.99
9H23034-CAL5	25	7064729	282589.200	7.99
9H23034-CAL6	50	483779E+07	296755.800	7.99
9H23034-CAL7	100	004551E+07	300455.100	7.99
9H23034-CAL8	200	533007E+07	326650.400	7.99

AVE RF **300848.300** RF RSD **4.40** AVE RT **7.99**

4,4'-DDD

Curve Fit: **AVERAGE RF**

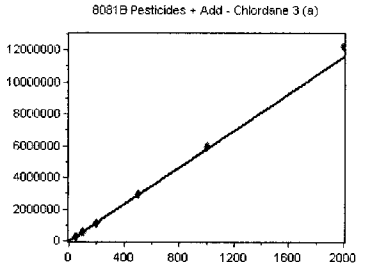


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	164956	164956.000	8.01
9H23034-CAL2	2	314622	157311.000	8.01
9H23034-CAL3	5	790498	158099.600	8.01
9H23034-CAL4	10	1565974	156597.400	8.01
9H23034-CAL5	25	3727035	149081.400	8.00
9H23034-CAL6	50	7726197	154523.900	8.00
9H23034-CAL7	100	543715E+07	154371.500	8.00
9H23034-CAL8	200	3.24368E+07	162184.000	8.00

AVE RF **157140.600** RF RSD **3.11** AVE RT **8.00**

Chlordane 3 (a)

Curve Fit: **AVERAGE RF**

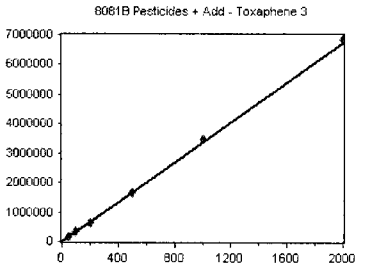


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	288087	5761.740	8.07
9H23034-CALI	100	548196	5481.960	8.07
9H23034-CALJ	200	1101677	5508.385	8.07
9H23034-CALK	500	2921278	5842.556	8.07
9H23034-CALL	1000	5987927	5987.927	8.07
9H23034-CALM	2000	220831E+07	6104.155	8.07

AVE RF **5781.121** RF RSD **4.34** AVE RT **8.07**

Toxaphene 3

Curve Fit: **AVERAGE RF**

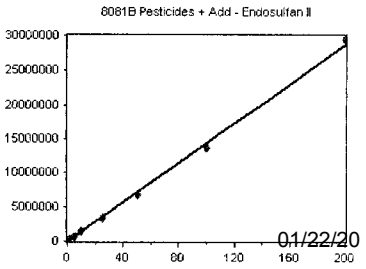


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	169381	3387.620	8.11
9H23034-CALO	100	332842	3328.420	8.11
9H23034-CALP	200	644464	3222.320	8.11
9H23034-CALQ	500	1677481	3354.962	8.11
9H23034-CALR	1000	3495877	3495.877	8.11
9H23034-CALS	2000	6831460	3415.730	8.10

AVE RF **3367.488** RF RSD **2.72** AVE RT **8.11**

Endosulfan II

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	158139	158139.000	8.12
9H23034-CAL2	2	299106	149553.000	8.12
9H23034-CAL3	5	709544	141908.800	8.12
9H23034-CAL4	10	1448080	144808.000	8.12
9H23034-CAL5	25	3371864	134874.600	8.12
9H23034-CAL6	50	6840920	136818.400	8.11
9H23034-CAL7	100	.35435E+07	135435.000	8.11
9H23034-CAL8	200	947104E+07	147355.200	8.11

AVE RF **143611.500** RF RSD **5.61** AVE RT **8.12**

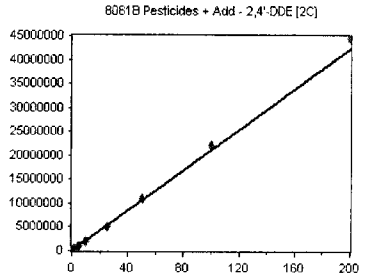
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

2,4'-DDE [2C]

Curve Fit: **AVERAGE RF**

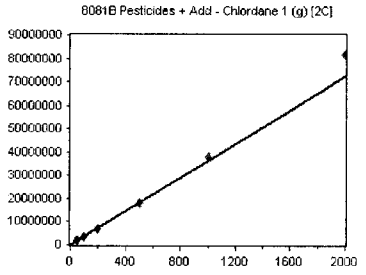


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	219164	219164.000	8.12
9H23034-CALA	2	411812	205906.000	8.12
9H23034-CALB	5	1029687	205937.400	8.12
9H23034-CALC	10	2018331	201833.100	8.12
9H23034-CALD	25	4999232	199969.300	8.12
9H23034-CALE	50	.10064E+07	220128.000	8.12
9H23034-CALF	100	:.21644E+07	221644.000	8.12
9H23034-CALG	200	450459E+07	222523.000	8.12

AVE RF **212138.100** RF RSD **4.52** AVE RT **8.12**

Chlordane 1 (g) [2C]

Curve Fit: **AVERAGE RF**

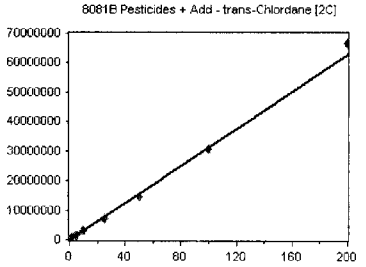


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1754707	35094.140	8.13
9H23034-CALI	100	3378388	33783.880	8.13
9H23034-CALJ	200	6751197	33755.980	8.13
9H23034-CALK	500	783043E+07	35660.860	8.13
9H23034-CALL	1000	796674E+07	37966.740	8.13
9H23034-CALM	2000	169171E+07	40845.860	8.13

AVE RF **36184.580** RF RSD **7.62** AVE RT **8.13**

trans-Chlordane [2C]

Curve Fit: **AVERAGE RF**

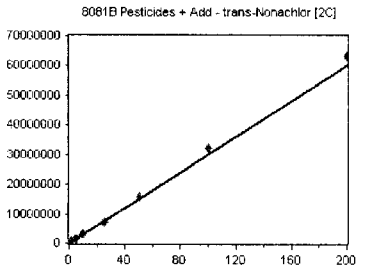


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	364142	364142.000	8.14
9H23034-CAL2	2	644454	322227.000	8.14
9H23034-CAL3	5	1502119	300423.800	8.13
9H23034-CAL4	10	3002782	300278.200	8.13
9H23034-CAL5	25	7157480	286299.200	8.13
9H23034-CAL6	50	467872E+07	293574.400	8.13
9H23034-CAL7	100	074227E+07	307422.700	8.13
9H23034-CAL8	200	644797E+07	332239.800	8.13

AVE RF **313325.900** RF RSD **8.10** AVE RT **8.13**

trans-Nonachlor [2C]

Curve Fit: **AVERAGE RF**

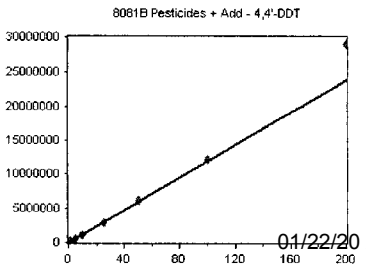


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	306202	306202.000	8.20
9H23034-CALA	2	587765	293882.500	8.19
9H23034-CALB	5	1467723	293544.600	8.19
9H23034-CALC	10	2844404	284440.400	8.19
9H23034-CALD	25	7092288	283691.500	8.19
9H23034-CALE	50	580771E+07	316154.200	8.19
9H23034-CALF	100	197527E+07	319752.700	8.20
9H23034-CALG	200	308364E+07	315418.200	8.19

AVE RF **301635.800** RF RSD **4.84** AVE RT **8.19**

4,4'-DDT

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	113897	113897.000	8.21
9H23034-CAL2	2	218190	109095.000	8.20
9H23034-CAL3	5	553009	110601.800	8.21
9H23034-CAL4	10	1146556	114655.600	8.20
9H23034-CAL5	25	2924467	116978.700	8.20
9H23034-CAL6	50	6205369	124107.400	8.20
9H23034-CAL7	100	217696E+07	121769.600	8.20
9H23034-CAL8	200	907522E+07	145376.100	8.20

AVE RF **119560.100** RF RSD **9.72** AVE RT **8.20**

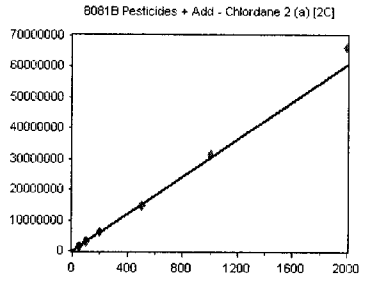
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Chlordane 2 (a) [2C]

Curve Fit: **AVERAGE RF**

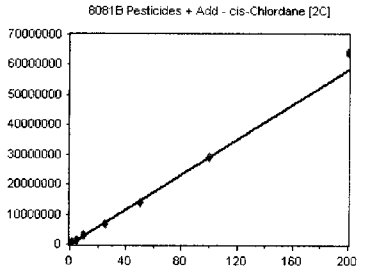


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1472400	29448.000	8.24
9H23034-CALI	100	2905941	29059.410	8.24
9H23034-CALJ	200	5883615	29418.070	8.24
9H23034-CALK	500	481227E+07	29624.540	8.24
9H23034-CALL	1000	149368E+07	31493.680	8.24
9H23034-CALM	2000	528139E+07	33140.700	8.24

AVE RF **30364.070** RF RSD **5.30** AVE RT **8.24**

cis-Chlordane [2C]

Curve Fit: **AVERAGE RF**

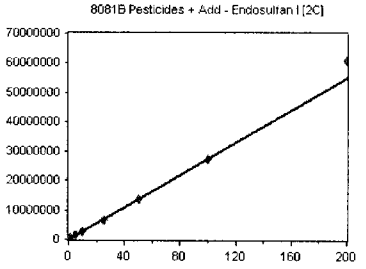


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	299422	299422.000	8.24
9H23034-CAL2	2	579667	289833.500	8.24
9H23034-CAL3	5	1434855	286971.000	8.24
9H23034-CAL4	10	2859573	285957.300	8.24
9H23034-CAL5	25	6935857	277434.300	8.24
9H23034-CAL6	50	400212E+07	280042.400	8.24
9H23034-CAL7	100	904286E+07	290428.600	8.24
9H23034-CAL8	200	397706E+07	319885.300	8.24

AVE RF **291246.800** RF RSD **4.59** AVE RT **8.24**

Endosulfan I [2C]

Curve Fit: **AVERAGE RF**

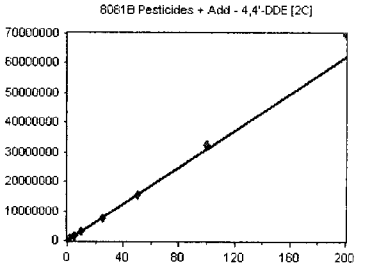


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	278874	278874.000	8.29
9H23034-CAL2	2	540442	270221.000	8.29
9H23034-CAL3	5	1327191	265438.200	8.29
9H23034-CAL4	10	2724272	272427.200	8.29
9H23034-CAL5	25	6571512	262860.500	8.29
9H23034-CAL6	50	371233E+07	274246.600	8.29
9H23034-CAL7	100	721271E+07	272127.100	8.29
9H23034-CAL8	200	104351E+07	305217.600	8.29

AVE RF **275176.500** RF RSD **4.77** AVE RT **8.29**

4,4'-DDE [2C]

Curve Fit: **AVERAGE RF**

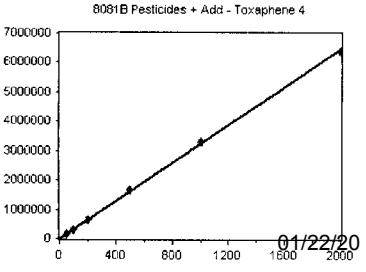


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	298463	298463.000	8.35
9H23034-CAL2	2	598066	299033.000	8.35
9H23034-CAL3	5	1487999	297599.800	8.35
9H23034-CAL4	10	3049792	304979.200	8.35
9H23034-CAL5	25	7501047	300041.900	8.34
9H23034-CAL6	50	555471E+07	311094.200	8.34
9H23034-CAL7	100	324996E+07	324996.000	8.34
9H23034-CAL8	200	984235E+07	349211.800	8.34

AVE RF **310677.400** RF RSD **5.82** AVE RT **8.34**

Toxaphene 4

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	164317	3286.340	8.35
9H23034-CALO	100	320313	3203.130	8.35
9H23034-CALP	200	632351	3161.755	8.35
9H23034-CALQ	500	1649569	3299.138	8.35
9H23034-CALR	1000	3287014	3287.014	8.35
9H23034-CALS	2000	6407070	3203.535	8.35

AVE RF **3240.152** RF RSD **1.78** AVE RT **8.35**

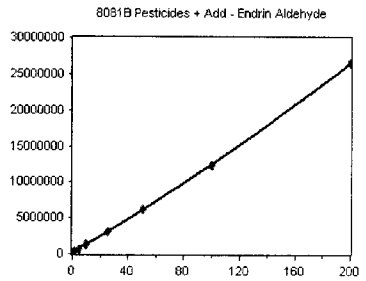
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Endrin Aldehyde

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

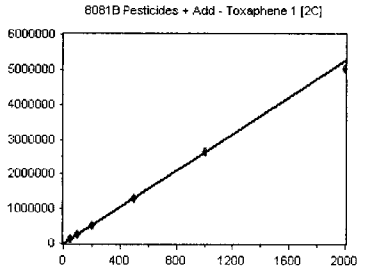


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	241285	241285.000	8.41
9H23034-CAL2	2	328182	164091.000	8.41
9H23034-CAL3	5	683393	136678.600	8.41
9H23034-CAL4	10	1375129	137512.900	8.41
9H23034-CAL5	25	3119767	124790.700	8.40
9H23034-CAL6	50	6224451	124489.000	8.40
9H23034-CAL7	100	236381E+07	123638.100	8.40
9H23034-CAL8	200	362767E+07	133138.300	8.40

AVE RF **148203.000** RF RSD **26.87** AVE RT **8.41**

Toxaphene 1 [2C]

Curve Fit: **AVERAGE RF**

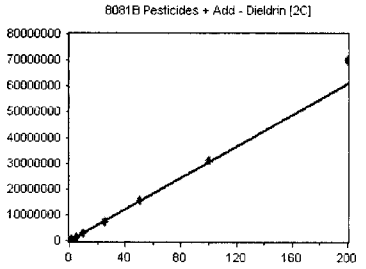


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	136848	2736.960	8.47
9H23034-CALO	100	267534	2675.340	8.47
9H23034-CALP	200	508983	2544.915	8.47
9H23034-CALQ	500	1308994	2617.988	8.47
9H23034-CALR	1000	2654886	2654.886	8.47
9H23034-CALS	2000	5030917	2515.458	8.47

AVE RF **2624.258** RF RSD **3.16** AVE RT **8.47**

Dieldrin [2C]

Curve Fit: **AVERAGE RF**

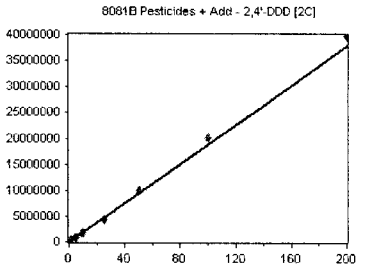


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	296684	296684.000	8.49
9H23034-CAL2	2	583812	291906.000	8.49
9H23034-CAL3	5	1462538	292507.600	8.49
9H23034-CAL4	10	2898866	289886.600	8.49
9H23034-CAL5	25	7333890	293355.600	8.49
9H23034-CAL6	50	543411E+07	308682.200	8.49
9H23034-CAL7	100	100196E+07	310019.600	8.49
9H23034-CAL8	200	003178E+07	350158.900	8.49

AVE RF **304150.100** RF RSD **6.61** AVE RT **8.49**

2,4'-DDD [2C]

Curve Fit: **AVERAGE RF**

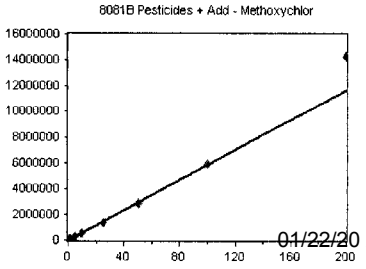


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	192040	192040.000	8.50
9H23034-CALA	2	373596	186798.000	8.50
9H23034-CALB	5	898697	179739.400	8.50
9H23034-CALC	10	1778790	177879.000	8.50
9H23034-CALD	25	4389185	175567.400	8.50
9H23034-CALE	50	9924934	198498.700	8.50
9H23034-CALF	100	011892E+07	201189.200	8.50
9H23034-CALG	200	3.98393E+07	199196.500	8.49

AVE RF **188863.500** RF RSD **5.47** AVE RT **8.50**

Methoxychlor

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	59659	59659.000	8.54
9H23034-CAL2	2	111466	55733.000	8.54
9H23034-CAL3	5	270388	54077.600	8.54
9H23034-CAL4	10	561706	56170.600	8.54
9H23034-CAL5	25	1390283	55611.320	8.54
9H23034-CAL6	50	2860683	57213.660	8.54
9H23034-CAL7	100	5877329	58773.290	8.54
9H23034-CAL8	200	427114E+07	71355.700	8.54

AVE RF **58574.270** RF RSD **9.93** AVE RT **8.54**

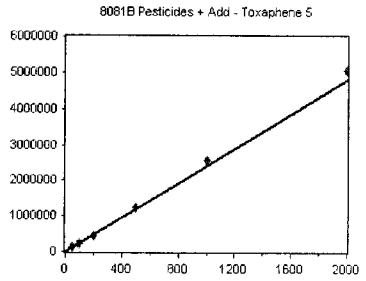
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Toxaphene 5

Curve Fit: **AVERAGE RF**

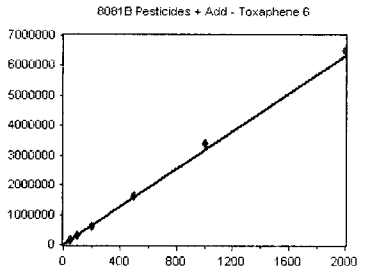


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	114720	2294.400	8.57
9H23034-CALO	100	228960	2289.600	8.57
9H23034-CALP	200	454431	2272.155	8.57
9H23034-CALQ	500	1221560	2443.120	8.57
9H23034-CALR	1000	2546293	2546.293	8.57
9H23034-CALS	2000	5074570	2537.285	8.57

AVE RF **2397.142** RF RSD **5.33** AVE RT **8.57**

Toxaphene 6

Curve Fit: **AVERAGE RF**

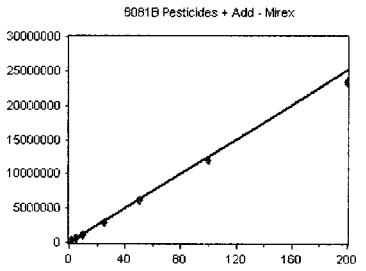


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	153138	3062.760	8.64
9H23034-CALO	100	302577	3025.770	8.64
9H23034-CALP	200	597991	2989.955	8.64
9H23034-CALQ	500	1623402	3246.804	8.64
9H23034-CALR	1000	3406737	3406.737	8.64
9H23034-CALS	2000	6510950	3255.475	8.64

AVE RF **3164.584** RF RSD **5.17** AVE RT **8.64**

Mirex

Curve Fit: **AVERAGE RF**

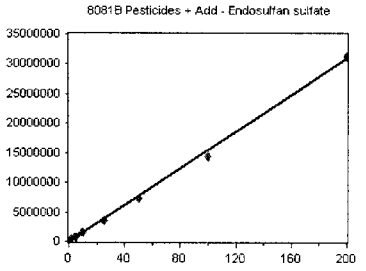


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	147356	147356.000	8.66
9H23034-CALA	2	266770	133385.000	8.66
9H23034-CALB	5	628618	125723.600	8.65
9H23034-CALC	10	1196365	119636.500	8.65
9H23034-CALD	25	2910818	116432.700	8.65
9H23034-CALE	50	6218341	124366.800	8.65
9H23034-CALF	100	196075E+07	119607.500	8.65
9H23034-CALG	200	2.3285E+07	116425.000	8.65

AVE RF **125366.600** RF RSD **8.39** AVE RT **8.65**

Endosulfan sulfate

Curve Fit: **AVERAGE RF**

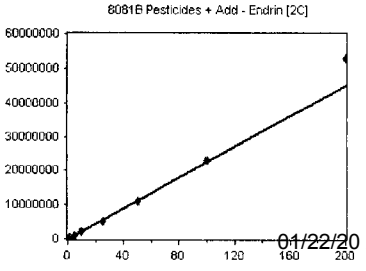


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176097	176097.000	8.71
9H23034-CAL2	2	322163	161081.500	8.71
9H23034-CAL3	5	768798	153759.600	8.71
9H23034-CAL4	10	1553540	155354.000	8.71
9H23034-CAL5	25	3645411	145816.400	8.71
9H23034-CAL6	50	7420576	148411.500	8.71
9H23034-CAL7	100	436679E+07	143667.900	8.70
9H23034-CAL8	200	112652E+07	155632.600	8.70

AVE RF **154977.600** RF RSD **6.64** AVE RT **8.71**

Endrin [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	222882	222882.000	8.72
9H23034-CAL2	2	424889	212444.500	8.72
9H23034-CAL3	5	1092877	218575.400	8.72
9H23034-CAL4	10	2244483	224448.300	8.72
9H23034-CAL5	25	5325883	213035.300	8.72
9H23034-CAL6	50	101538E+07	220307.600	8.72
9H23034-CAL7	100	310241E+07	231024.100	8.72
9H23034-CAL8	200	277958E+07	263897.900	8.72

AVE RF **225826.900** RF RSD **7.92** AVE RT **8.72**

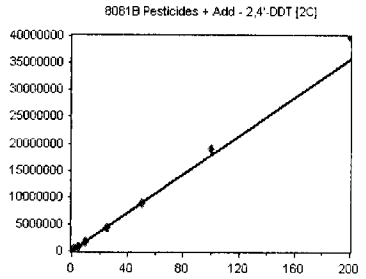
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

2,4'-DDT [2C]

Curve Fit: **AVERAGE RF**

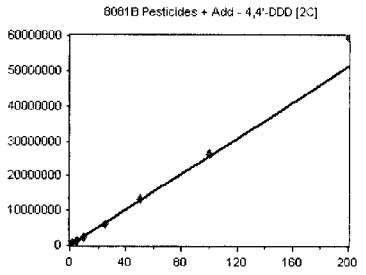


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	173338	173338.000	8.72
9H23034-CALA	2	332170	166085.000	8.72
9H23034-CALB	5	873074	174614.800	8.72
9H23034-CALC	10	1702568	170256.800	8.72
9H23034-CALD	25	4405554	176222.200	8.72
9H23034-CALE	50	8810591	176211.800	8.72
9H23034-CALF	100	899897E+07	189989.700	8.72
9H23034-CALG	200	999923E+07	199996.200	8.72

AVE RF **178339.300** RF RSD **6.24** AVE RT **8.72**

4,4'-DDD [2C]

Curve Fit: **AVERAGE RF**

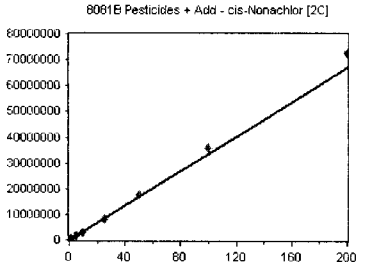


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	251549	251549.000	8.76
9H23034-CAL2	2	488120	244060.000	8.76
9H23034-CAL3	5	1208642	241728.400	8.76
9H23034-CAL4	10	2425496	242549.600	8.76
9H23034-CAL5	25	6146469	245858.800	8.76
9H23034-CAL6	50	315945E+07	263189.000	8.76
9H23034-CAL7	100	629748E+07	262974.800	8.76
9H23034-CAL8	200	956027E+07	297801.400	8.76

AVE RF **256213.900** RF RSD **7.37** AVE RT **8.76**

cis-Nonachlor [2C]

Curve Fit: **AVERAGE RF**

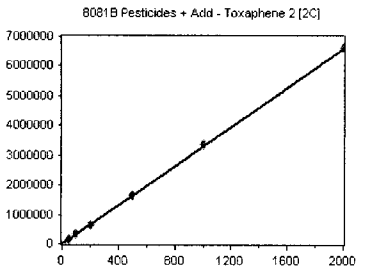


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	332745	332745.000	8.76
9H23034-CALA	2	624783	312391.500	8.76
9H23034-CALB	5	1587243	317448.600	8.76
9H23034-CALC	10	3148054	314805.400	8.76
9H23034-CALD	25	8219393	328775.700	8.76
9H23034-CALE	50	772123E+07	354424.600	8.76
9H23034-CALF	100	607264E+07	360726.400	8.76
9H23034-CALG	200	245582E+07	362279.100	8.76

AVE RF **335449.500** RF RSD **6.23** AVE RT **8.76**

Toxaphene 2 [2C]

Curve Fit: **AVERAGE RF**

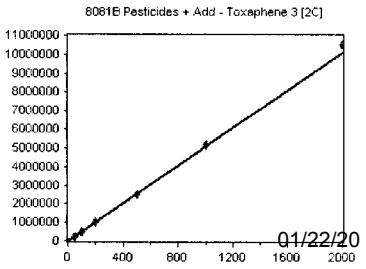


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	164706	3294.120	8.81
9H23034-CALO	100	324070	3240.700	8.81
9H23034-CALP	200	645322	3226.610	8.81
9H23034-CALQ	500	1647741	3295.482	8.81
9H23034-CALR	1000	3384036	3384.036	8.81
9H23034-CALS	2000	6610397	3305.198	8.81

AVE RF **3291.024** RF RSD **1.70** AVE RT **8.81**

Toxaphene 3 [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	254833	5096.660	8.85
9H23034-CALO	100	494430	4944.300	8.85
9H23034-CALP	200	995555	4977.775	8.85
9H23034-CALQ	500	2475022	4950.044	8.85
9H23034-CALR	1000	5168269	5168.269	8.85
9H23034-CALS	2000	054571E+07	5272.855	8.85

AVE RF **5068.317** RF RSD **2.65** AVE RT **8.85**

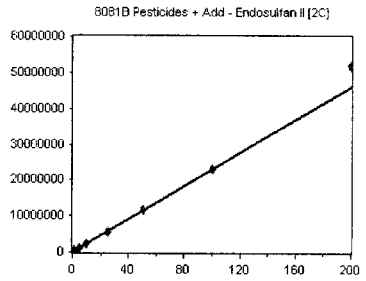
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Endosulfan II [2C]

Curve Fit: **AVERAGE RF**

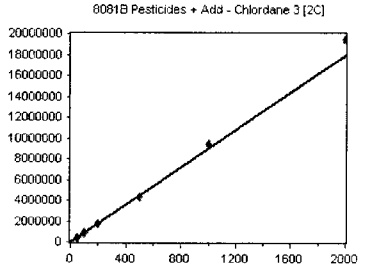


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	232156	232156.000	8.87
9H23034-CAL2	2	462256	231128.000	8.86
9H23034-CAL3	5	1096359	219271.800	8.87
9H23034-CAL4	10	2243610	224361.000	8.86
9H23034-CAL5	25	5447602	217904.100	8.86
9H23034-CAL6	50	153453E+07	230690.600	8.86
9H23034-CAL7	100	301637E+07	230163.700	8.86
9H23034-CAL8	200	183489E+07	259174.400	8.86

AVE RF **230606.200** RF RSD **5.55** AVE RT **8.86**

Chlordane 3 [2C]

Curve Fit: **AVERAGE RF**

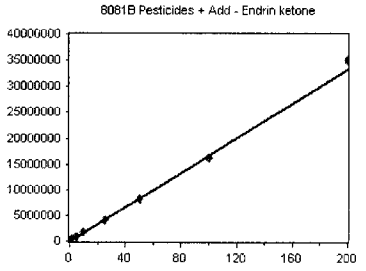


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	439020	8780.400	8.90
9H23034-CALI	100	874465	8744.650	8.90
9H23034-CALJ	200	1731727	8658.635	8.90
9H23034-CALK	500	4271709	8543.418	8.90
9H23034-CALL	1000	9358900	9358.900	8.90
9H23034-CALM	2000	941852E+07	9709.260	8.90

AVE RF **8965.877** RF RSD **5.14** AVE RT **8.90**

Endrin ketone

Curve Fit: **AVERAGE RF**

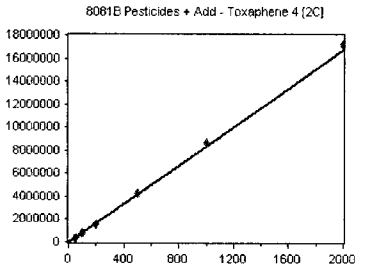


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	177552	177552.000	8.90
9H23034-CAL2	2	331269	165634.500	8.90
9H23034-CAL3	5	811384	162276.800	8.90
9H23034-CAL4	10	1664380	166438.000	8.90
9H23034-CAL5	25	4008958	160358.300	8.90
9H23034-CAL6	50	8190707	163814.100	8.90
9H23034-CAL7	100	525194E+07	162519.400	8.90
9H23034-CAL8	200	509472E+07	175473.600	8.90

AVE RF **166758.300** RF RSD **3.80** AVE RT **8.90**

Toxaphene 4 [2C]

Curve Fit: **AVERAGE RF**

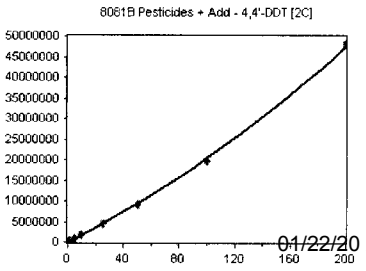


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	416348	8326.960	8.92
9H23034-CALO	100	811948	8119.480	8.92
9H23034-CALP	200	1580436	7902.180	8.91
9H23034-CALQ	500	4252640	8505.280	8.92
9H23034-CALR	1000	8650068	8650.068	8.92
9H23034-CALS	2000	719004E+07	8595.020	8.91

AVE RF **8349.831** RF RSD **3.51** AVE RT **8.91**

4,4'-DDT [2C]

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	179700	179700.000	8.99
9H23034-CAL2	2	341782	170891.000	8.99
9H23034-CAL3	5	873653	174730.600	8.99
9H23034-CAL4	10	1841119	184111.900	8.99
9H23034-CAL5	25	4480388	179215.500	8.98
9H23034-CAL6	50	9285492	185709.800	8.99
9H23034-CAL7	100	.97895E+07	197895.000	8.98
9H23034-CAL8	200	820344E+07	241017.200	8.98

AVE RF **189158.900** RF RSD **11.88** AVE RT **8.99**

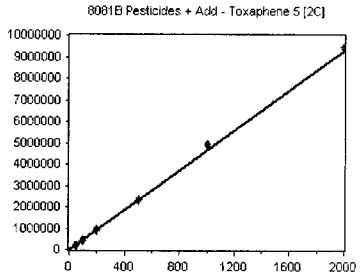
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Toxaphene 5 [2C]

Curve Fit: **AVERAGE RF**

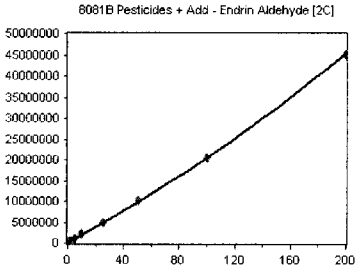


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	233185	4663.700	9.09
9H23034-CALO	100	452209	4522.090	9.09
9H23034-CALP	200	895397	4476.985	9.09
9H23034-CALQ	500	2340668	4681.336	9.09
9H23034-CALR	1000	4900430	4900.430	9.09
9H23034-CALS	2000	9435236	4717.618	9.09

AVE RF **4660.360** RF RSD **3.24** AVE RT **9.09**

Endrin Aldehyde [2C]

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

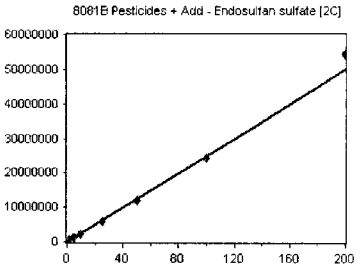


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	348624	348624.000	9.10
9H23034-CAL2	2	477694	238847.000	9.10
9H23034-CAL3	5	1045869	209173.800	9.10
9H23034-CAL4	10	2125028	212502.800	9.10
9H23034-CAL5	25	4848504	193940.200	9.10
9H23034-CAL6	50	020903E+07	204180.600	9.10
9H23034-CAL7	100	050274E+07	205027.400	9.10
9H23034-CAL8	200	508454E+07	225422.700	9.10

AVE RF **229714.800** RF RSD **21.77** AVE RT **9.10**

Endosulfan sulfate [2C]

Curve Fit: **AVERAGE RF**

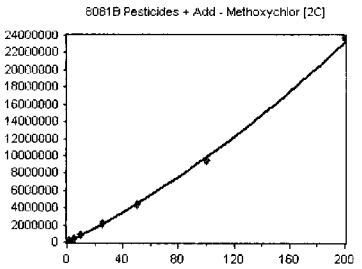


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	265797	265797.000	9.29
9H23034-CAL2	2	498767	249383.500	9.29
9H23034-CAL3	5	1175908	235181.600	9.29
9H23034-CAL4	10	2424584	242458.400	9.29
9H23034-CAL5	25	5978906	239156.200	9.29
9H23034-CAL6	50	214929E+07	242985.800	9.29
9H23034-CAL7	100	447732E+07	244773.200	9.29
9H23034-CAL8	200	459279E+07	272964.000	9.29

AVE RF **249087.500** RF RSD **5.35** AVE RT **9.29**

Methoxychlor [2C]

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

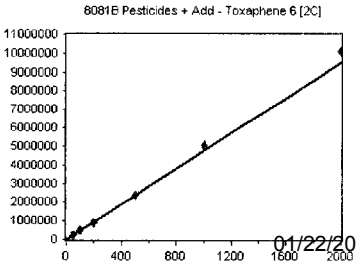


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	95155	95155.000	9.47
9H23034-CAL2	2	178074	89037.000	9.47
9H23034-CAL3	5	413802	82760.400	9.47
9H23034-CAL4	10	883069	88306.900	9.47
9H23034-CAL5	25	2166659	86666.360	9.46
9H23034-CAL6	50	4346199	86923.980	9.46
9H23034-CAL7	100	9444987	94449.870	9.46
9H23034-CAL8	200	1.37141E+07	118570.500	9.46

AVE RF **92733.750** RF RSD **12.09** AVE RT **9.46**

Toxaphene 6 [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	230922	4618.440	9.47
9H23034-CALO	100	452485	4524.850	9.47
9H23034-CALP	200	905244	4526.220	9.47
9H23034-CALQ	500	2369795	4739.590	9.47
9H23034-CALR	1000	5046645	5046.645	9.47
9H23034-CALS	2000	009095E+07	5045.475	9.47

AVE RF **4750.203** RF RSD **5.10** AVE RT **9.47**

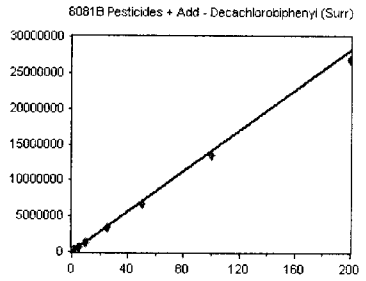
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Decachlorobiphenyl (Surr)

Curve Fit: **AVERAGE RF**

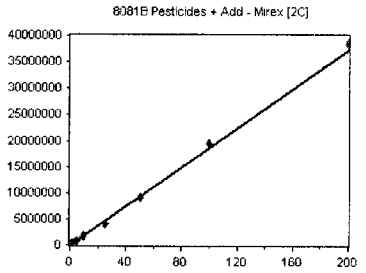


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	163865	163865.000	9.59
9H23034-CAL2	2	309904	154952.000	9.59
9H23034-CAL3	5	701050	140210.000	9.59
9H23034-CAL4	10	1335468	133546.800	9.59
9H23034-CAL5	25	3342634	133705.400	9.59
9H23034-CAL6	50	6678990	133579.800	9.59
9H23034-CAL7	100	.34054E+07	134054.000	9.59
9H23034-CAL8	200	697523E+07	134876.200	9.59

AVE RF **141098.600** RF RSD **8.33** AVE RT **9.59**

Mirex [2C]

Curve Fit: **AVERAGE RF**

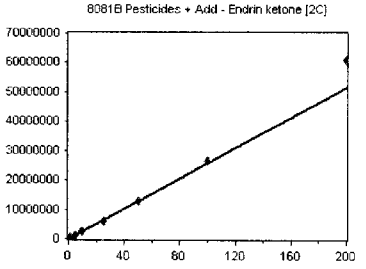


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	209783	209783.000	9.68
9H23034-CALA	2	388199	194099.500	9.68
9H23034-CALB	5	895523	179104.600	9.68
9H23034-CALC	10	1722960	172296.000	9.68
9H23034-CALD	25	4138115	165524.600	9.68
9H23034-CALE	50	9100959	182019.200	9.68
9H23034-CALF	100	.93632E+07	193632.000	9.68
9H23034-CALG	200	842553E+07	192127.600	9.68

AVE RF **186073.300** RF RSD **7.59** AVE RT **9.68**

Endrin ketone [2C]

Curve Fit: **AVERAGE RF**

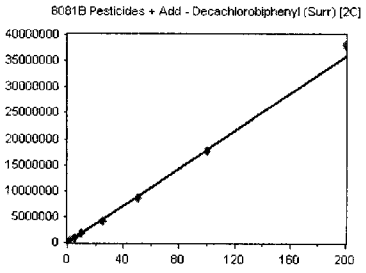


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	255763	255763.000	9.69
9H23034-CAL2	2	493110	246555.000	9.69
9H23034-CAL3	5	1205004	241000.800	9.69
9H23034-CAL4	10	2496985	249698.500	9.69
9H23034-CAL5	25	5893691	235747.600	9.69
9H23034-CAL6	50	295457E+07	259091.400	9.69
9H23034-CAL7	100	563656E+07	266365.600	9.69
9H23034-CAL8	200	086138E+07	304306.900	9.69

AVE RF **257316.100** RF RSD **8.31** AVE RT **9.69**

Decachlorobiphenyl (Surr) [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	191572	191572.000	10.54
9H23034-CAL2	2	390006	195003.000	10.54
9H23034-CAL3	5	870921	174184.200	10.54
9H23034-CAL4	10	1678728	167872.800	10.54
9H23034-CAL5	25	4163229	166529.200	10.54
9H23034-CAL6	50	8730692	174613.800	10.54
9H23034-CAL7	100	778407E+07	177840.700	10.54
9H23034-CAL8	200	809778E+07	190488.900	10.54

AVE RF **179763.100** RF RSD **6.18** AVE RT **10.54**

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

Analysis Included

1311/8081B TCLP Pest Reg List
1311/8081B TCLP Pest Reg List +ADD
1311/8081B TCLP Pesticides (All)
1311/8081B TCLP Pesticides + Add (All)
1312/8081B SPLP Pesticides
608 Additionals Only (QC)
608 Pest (Chlordane)
608 Pesticides
608 Pesticides (DDT Only)
608 Pesticides (SW)
608 Pesticides (SW) Full List
608 Pesticides (TTO)
608 Pesticides + Adds
608.3 Additionals - DEVELOPMENT
608.3 Chlordane - DEVELOPMENT
608.3 PCBs - DEVELOPMENT
608.3 Pesticides - DEVELOPMENT
608.3 Pesticides + Adds - DEVELOPMENT
608.3 Toxaphene - DEVELOPMENT
8081B Pesticides
8081B 2,4+4,4-DDx Only (+Add)
8081B Chlordane
8081B DDT Only
8081B Pesticides + Add
8081B RSET FW Sed (+Add) (2016)
8081B RSET Sediment List (+Add)
8081B RSET Sediment Marine (2016) (+Add)
8081B Toxaphene

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed
9H23034-ICB1	Initial Cal Blank	Water	A19H348		8/23/2019 1:33:00PM
9H23034-CAL1	Cal Standard	Water	A19E245	"	8/23/2019 1:51:00PM
9H23034-CAL2	Cal Standard	Water	A19E246	"	8/23/2019 2:08:00PM
9H23034-CAL3	Cal Standard	Water	A19E247	"	8/23/2019 2:25:00PM
9H23034-CAL4	Cal Standard	Water	A19E249	"	8/23/2019 2:42:00PM
9H23034-CAL5	Cal Standard	Water	A19E250	"	8/23/2019 3:00:00PM
9H23034-CAL6	Cal Standard	Water	A19H383	"	8/23/2019 3:17:00PM
9H23034-CAL7	Cal Standard	Water	A19H384	"	8/23/2019 3:34:00PM
9H23034-CAL8	Cal Standard	Water	A19E244	"	8/23/2019 3:52:00PM
9H23034-ICV1	Initial Cal Check	Water	A19E106	"	8/23/2019 4:26:00PM
9H23034-CAL9	Cal Standard	Water	A19E272	"	8/23/2019 4:44:00PM
9H23034-CALA	Cal Standard	Water	A19E273	"	8/23/2019 5:01:00PM
9H23034-CALB	Cal Standard	Water	A19E274	"	8/23/2019 5:18:00PM
9H23034-CALC	Cal Standard	Water	A19E275	"	8/23/2019 5:35:00PM
9H23034-CALD	Cal Standard	Water	A19E276	"	8/23/2019 5:53:00PM
9H23034-CALE	Cal Standard	Water	A19E154	"	8/23/2019 6:10:00PM
9H23034-CALF	Cal Standard	Water	A19E155	"	8/23/2019 6:27:00PM
9H23034-CALG	Cal Standard	Water	A19E271	"	8/23/2019 6:45:00PM
9H23034-ICV2	Initial Cal Check	Water	A19E043	"	8/23/2019 7:19:00PM
9H23034-CALH	Cal Standard	Water	A19F232	"	8/23/2019 7:36:00PM
9H23034-CALI	Cal Standard	Water	A19F233	"	8/23/2019 7:54:00PM
9H23034-CALJ	Cal Standard	Water	A19F234	"	8/23/2019 8:11:00PM
9H23034-CALK	Cal Standard	Water	A19F235	"	8/23/2019 8:28:00PM
9H23034-CALL	Cal Standard	Water	A19F236	"	8/23/2019 8:45:00PM
9H23034-CALM	Cal Standard	Water	A19F231	"	8/23/2019 9:02:00PM
9H23034-ICV3	Initial Cal Check	Water	A19E108	"	8/23/2019 9:37:00PM
9H23034-CALN	Cal Standard	Water	A19D122	"	8/23/2019 9:54:00PM
9H23034-CALO	Cal Standard	Water	A19D123	"	8/23/2019 10:11:00PM
9H23034-CALP	Cal Standard	Water	A19D124	"	8/23/2019 10:28:00PM
9H23034-CALQ	Cal Standard	Water	A19D125	"	8/23/2019 10:45:00PM
9H23034-CALR	Cal Standard	Water	A19D126	"	8/23/2019 11:03:00PM
9H23034-CALS	Cal Standard	Water	A19D121	"	8/23/2019 11:20:00PM
9H23034-ICV4	Initial Cal Check	Water	A19D127	"	8/23/2019 11:54:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9H2608** Instrument: **DualECD5F**

1311/8081B TCLP Pest Reg L Sequence: **9H23034** Matrix: **Water**

9H23034-CAL1	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL2	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL3	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL4	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL5	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

9H23034-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALB	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALC	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALD	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALE	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALF	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALG	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALH	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALI	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALJ	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALK	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALL	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALM	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALN	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALO	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALP	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALQ	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALR	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALS	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

Analytes With Quadratic Curve Fits

Qualifier	iMDL	iMRL	Spike Amt	%Difference	OK?	Raise MRL to ?
				———	☐	☐ ———

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

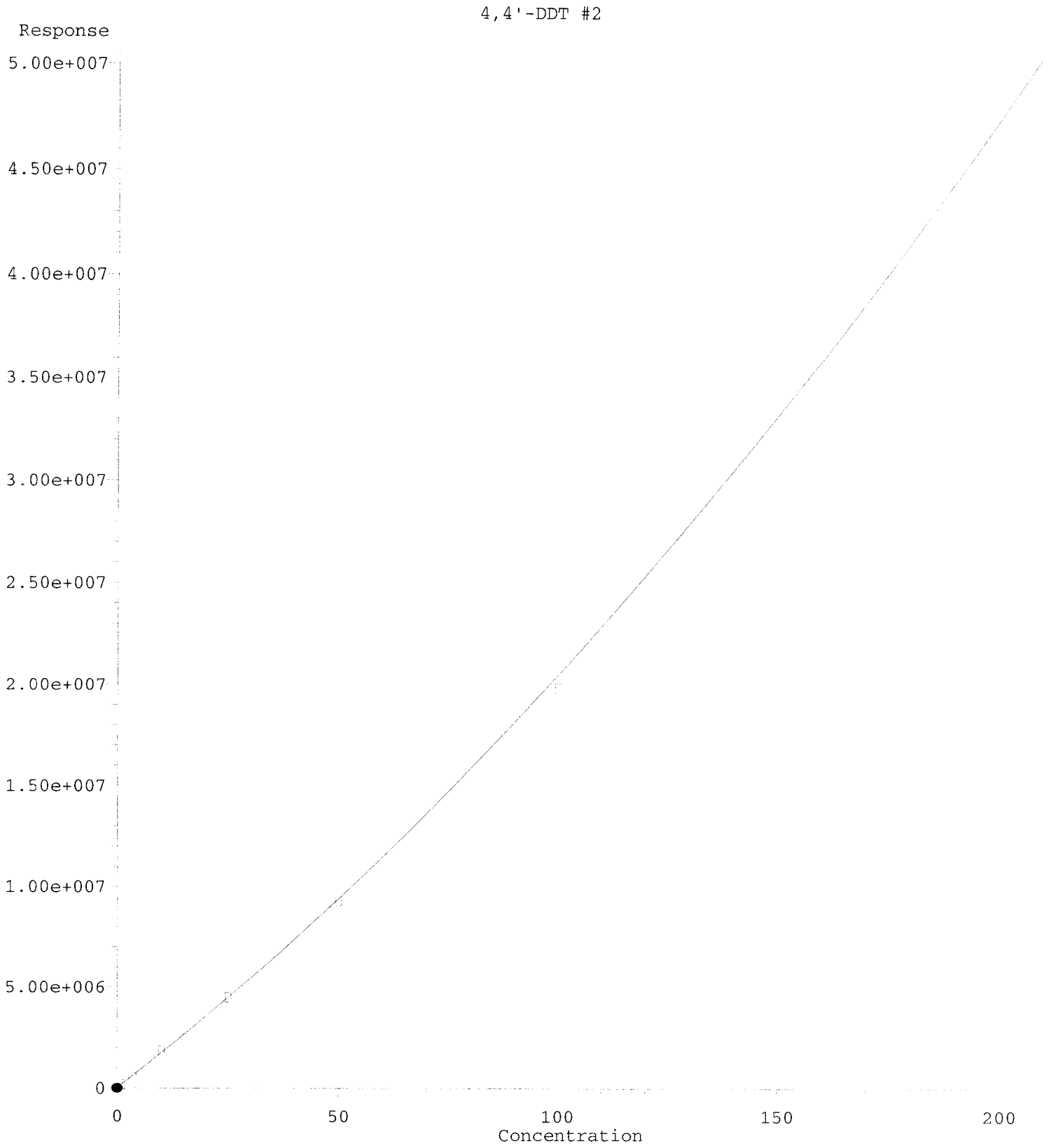
ICV RECOVERIES

Calibration: **A9H2608** Instrument: **DualECD5F**

608 Pesticides (SW) Full List Sequence: **9H23034** Matrix: **Water**

9H23034-ICV1	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**
9H23034-ICV2	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**
9H23034-ICV3	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**
9H23034-ICV4	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

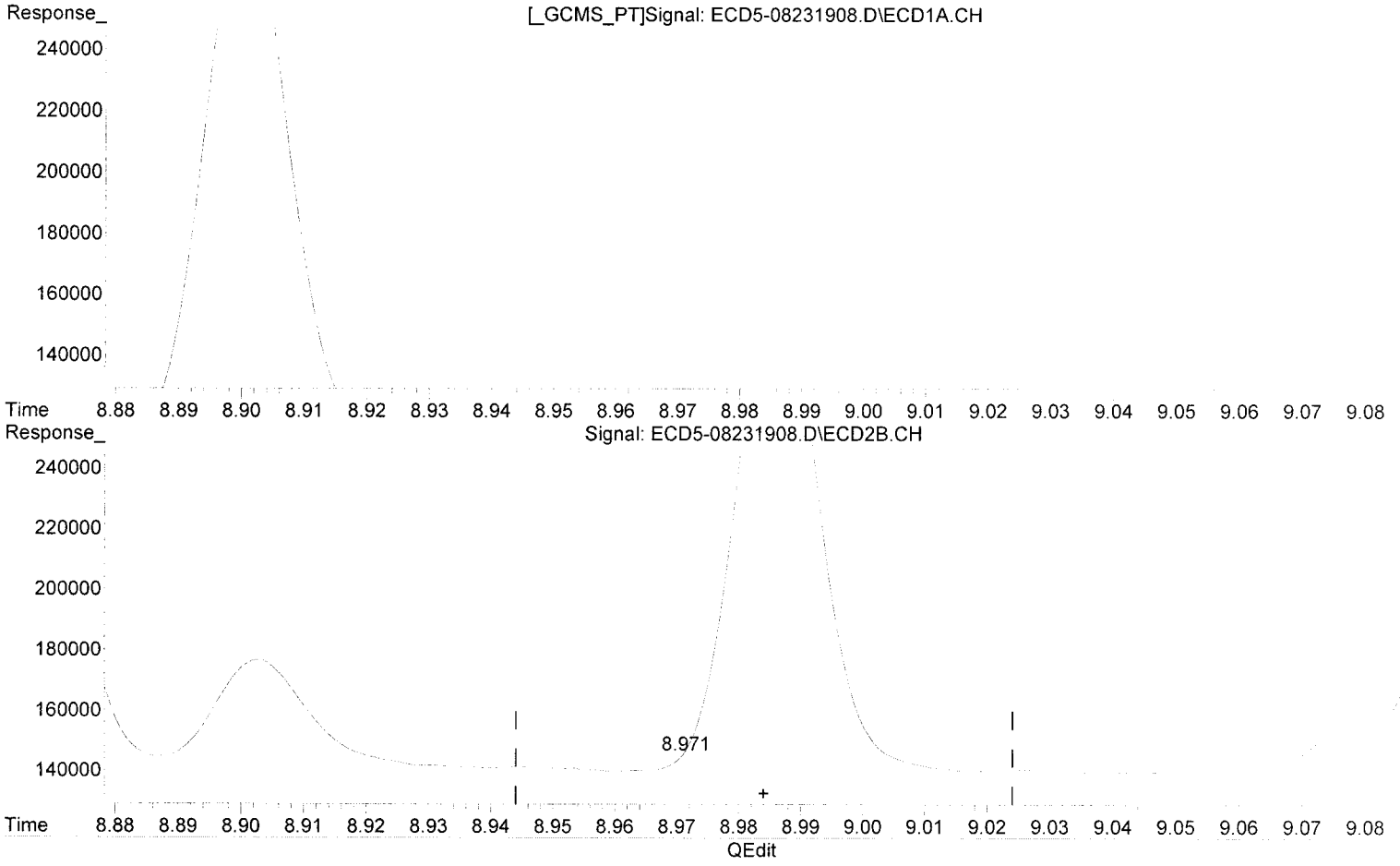


R = 3.30e+002 A*A + 1.71e+005 A + 6.57e+003
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(17) 4,4'-DDT

8.205min 0.953 ng/mL

response 113897

MJB 8/26/19

(17) 4,4'-DDT #2

8.971min -0.006 ng/mL m

response 5621

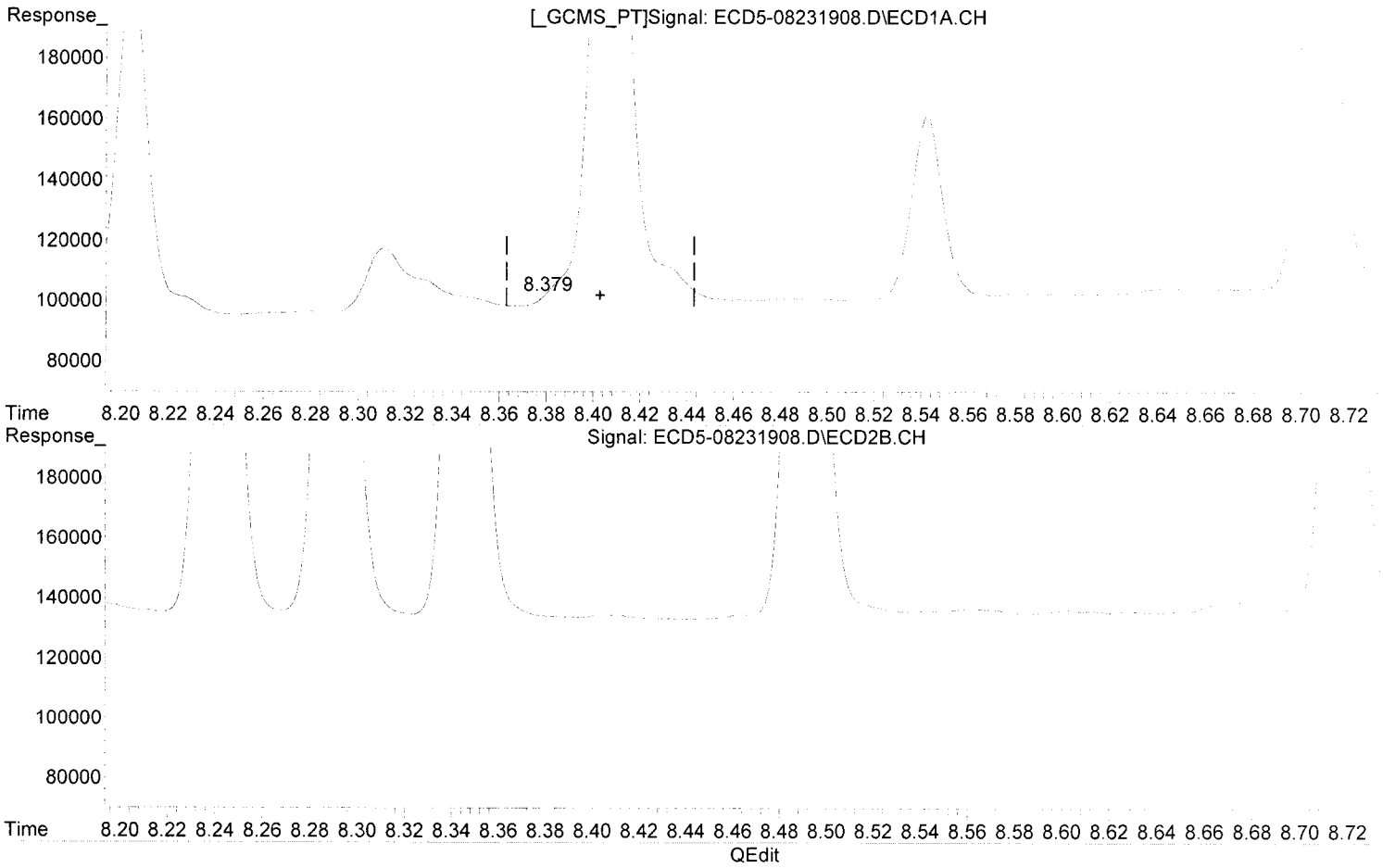
(+) = Expected Retention Time

R = 8.05e+001 A*A + 1.16e+005 A + 1.19e+005
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(18) Endrin Aldehyde

8.379min -0.993 ng/mL (m)

response 3543

MJB 9/26/19

(18) Endrin Aldehyde #2

9.101min 1.058 ng/mL

response 348624

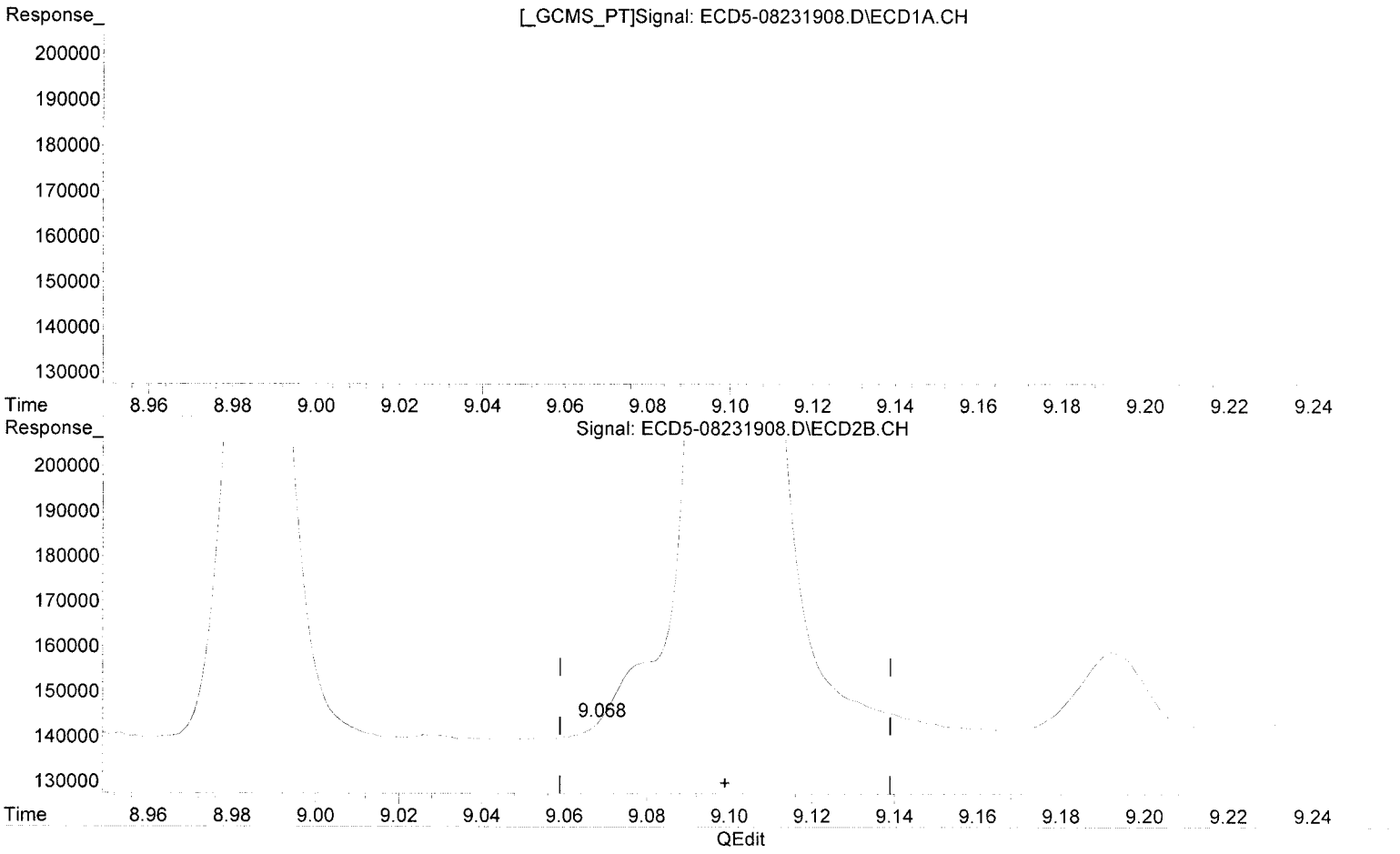
(+) = Expected Retention Time

R = 2.18e+002 A*A + 1.83e+005 A + 1.55e+005
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(18) Endrin Aldehyde

8.379min -0.993 ng/mL m

response 3543

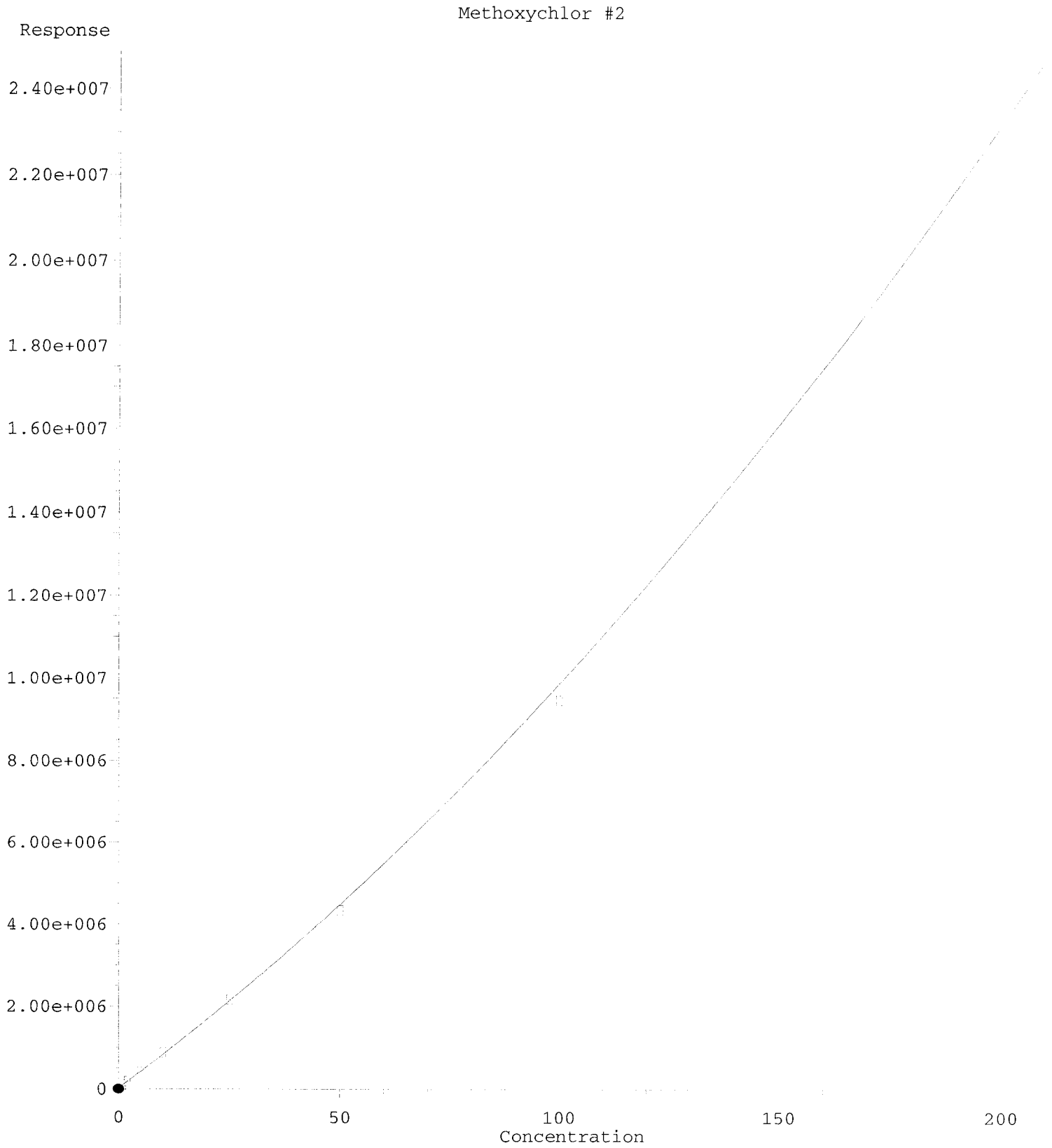
MJB 8/26/19

(18) Endrin Aldehyde #2

9.068min -0.831 ng/mL m

response 3374

(+) = Expected Retention Time

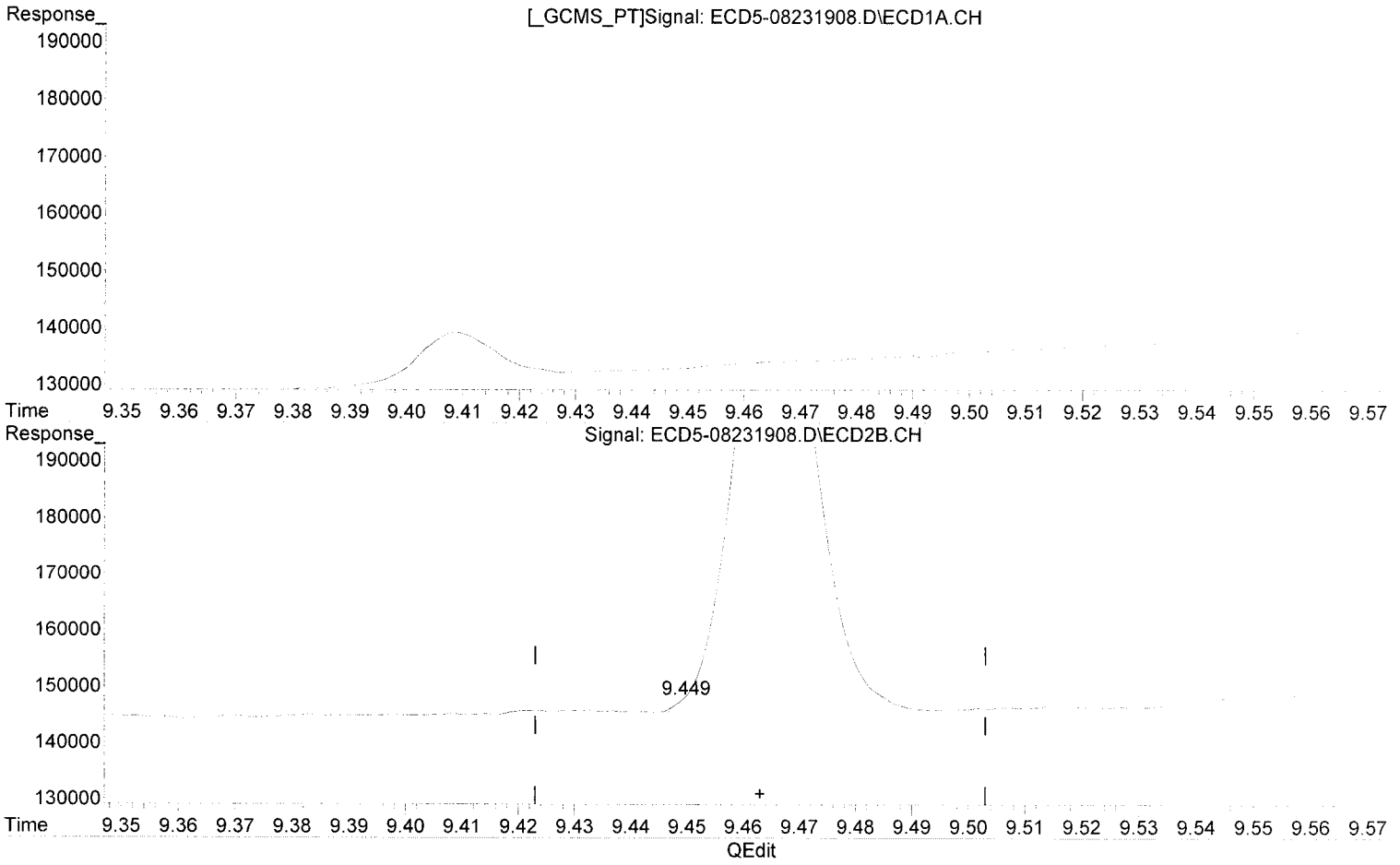


R = 1.78e+002 A*A + 8.05e+004 A + 1.50e+004
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(20) Methoxychlor

8.543min 1.019 ng/mL

response 59659

MJB 8/26/19

(20) Methoxychlor #2

9.449min -0.161 ng/mL (m)

response 2070

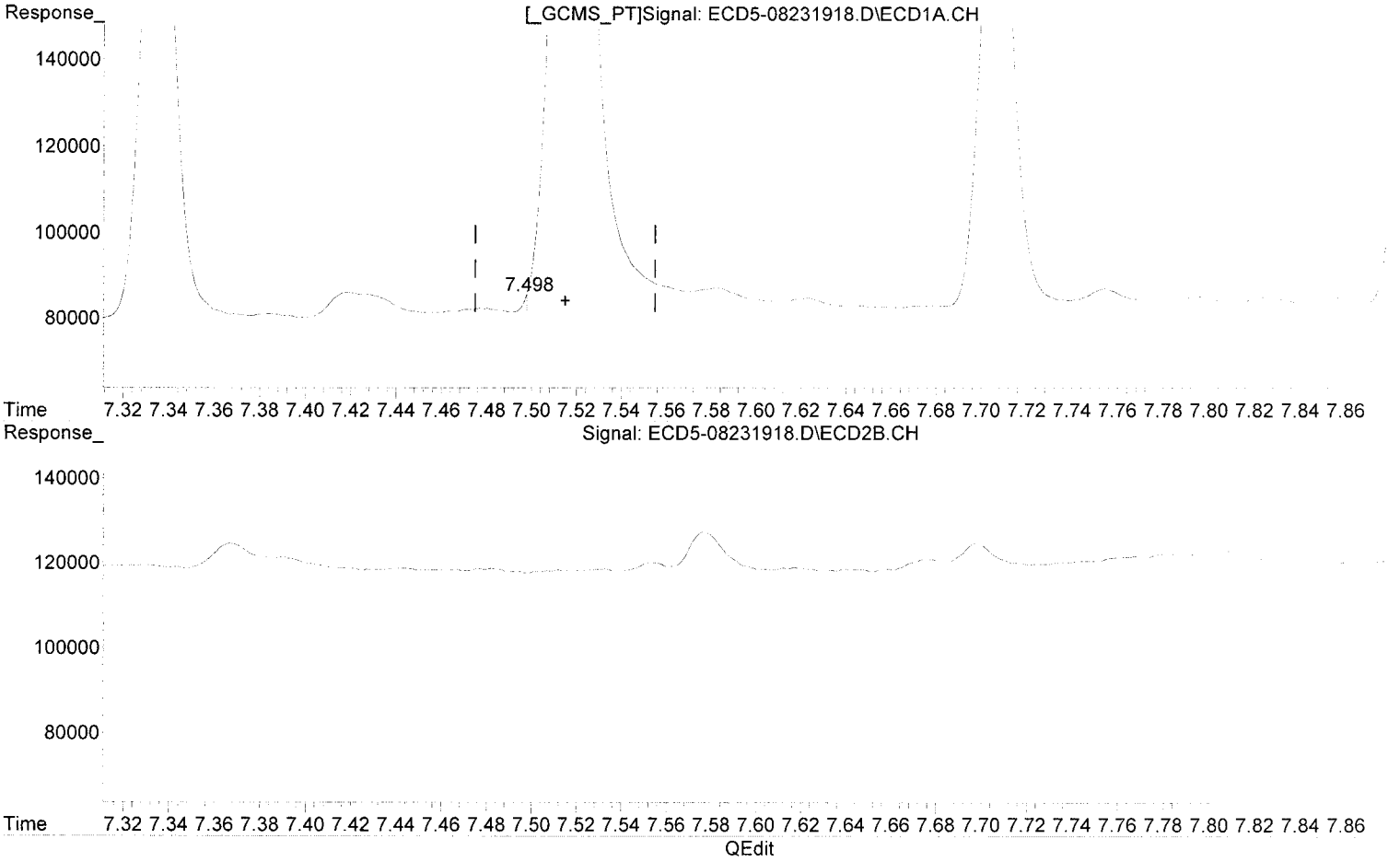
(+) = Expected Retention Time

R = -2.05e+000 A*A + 1.79e+005 A + 5.67e+004
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(27) trans-Nonachlor

7.498min 87346.675 ng/mL (m)

response 4608

Q-011

MJB 8/26/19

(27) trans-Nonachlor #2

8.195min 1.015 ng/mL

response 306202

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:33
Operator : MJB
Sample : 9H23034-ICB1
Misc : A19H348
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

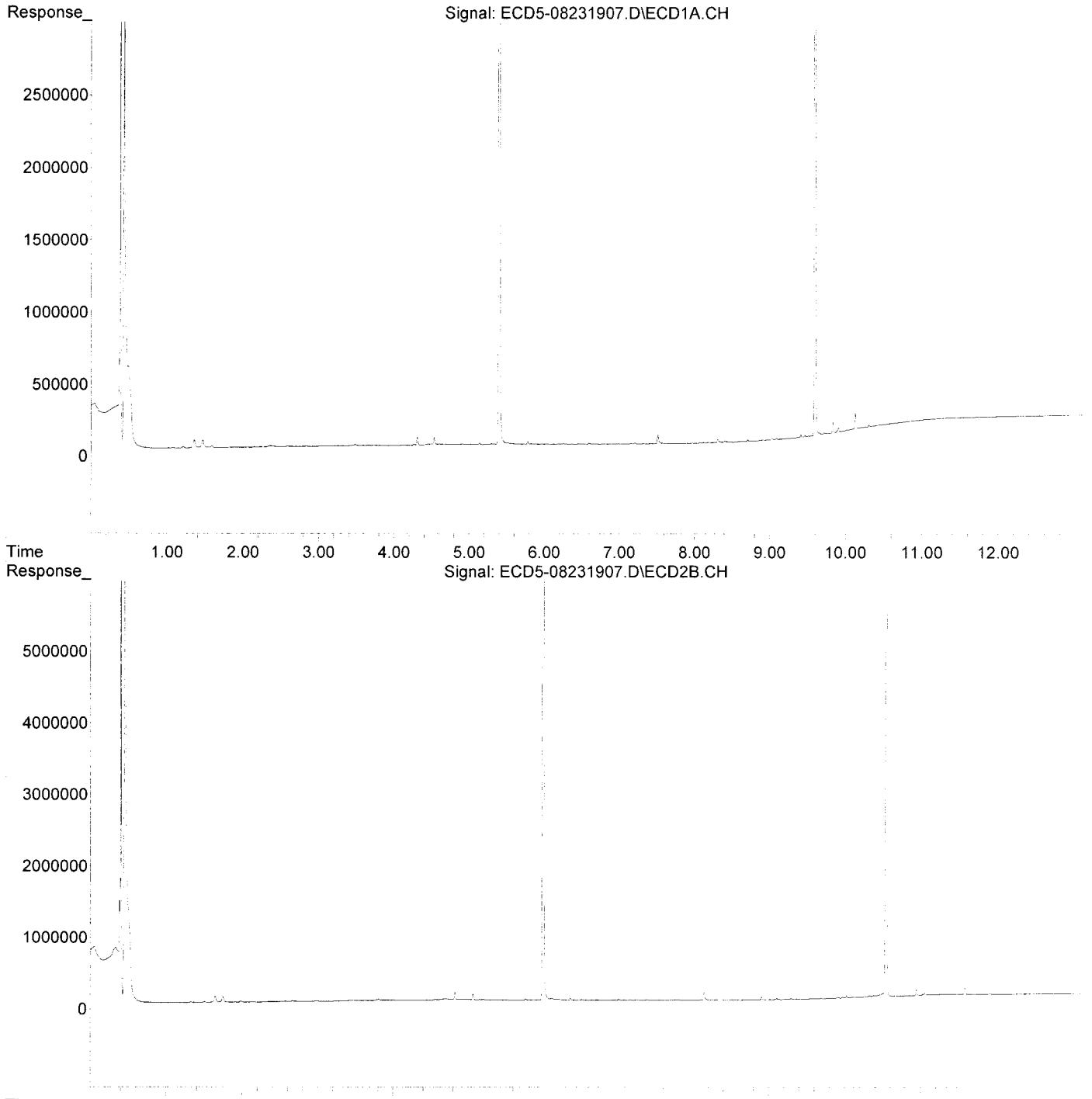
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.398	5.992	15096765	27637017	90.958	94.206	
22)	S	DCBP (S)	9.594	10.543	12462090	16576085	88.322	92.211	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.253f	0.000	6973	0	0.035	N.D.	#
4)		b-BHC	0.000	7.003f	0	10802	N.D.	0.068	#
5)		Heptachlor	6.596f	0.000	8260	0	0.046	N.D.	#
6)		d-BHC	6.451	7.234	5541	7061	0.028	0.020	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.318	0.000	2356	0	0.013	N.D.	#
9)		trans-Chl...	0.000	8.140	0	104395	N.D.	0.333	#
10)		cis-Chlor...	7.514	0.000	58774	0	0.323	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	8.119	0.000	3735	0	0.026	N.D.	#
17)		4,4'-DDT	8.185	0.000	4049	0	0.034	N.D.	#
18)		Endrin Al...	8.408	9.102	14375	14948	BelowCal	BelowCal	
19)		Endosulfa...	8.709	9.292	12123	14809	0.078	0.059	
20)		Methoxychlor	8.542	0.000	4975	0	0.085	N.D.	#
21)		Endrin Ke...	8.903	9.690	4830	7943	0.029	0.031	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.779	0.000	21656	0	0.123	N.D.	#
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	7.318	8.140	2356	104395	0.018	0.492	#
27)		trans-Non...	7.514	0.000	58774	0	0.012	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.652	9.690	4544	7943	0.036	0.043	
32)		Chlordane...	0.000	8.140	0	104395	N.D.	2.885	#
33)		Chlordane...	7.514	0.000	58774	0	2.345	N.D.	#
34)		Chlordane...	0.000	8.904	0	37260	N.D.	4.156	#
35)		Chlordane...	3.445	0.000	6677	0	NoCal	N.D.	
36)		Toxaphene...	7.514	0.000	58774	0	65.621	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.119	0.000	3735	0	1.109	N.D.	#
39)		Toxaphene...	8.312f	8.904	24186	37260	7.464	4.462	#
40)		Toxaphene...	8.542f	9.102	4975	14948	2.075	3.207	#
41)		Toxaphene...	8.652	0.000	4544	0	1.436	N.D.	#
42)		Toxaphene...	3.445	0.000	6677	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:33
Operator : MJB
Sample : 9H23034-ICB1
Misc : A19H348
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:09
Operator : MJB
Sample : 9H23034-IBL1
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:50 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Clean

MJB 8/26/19

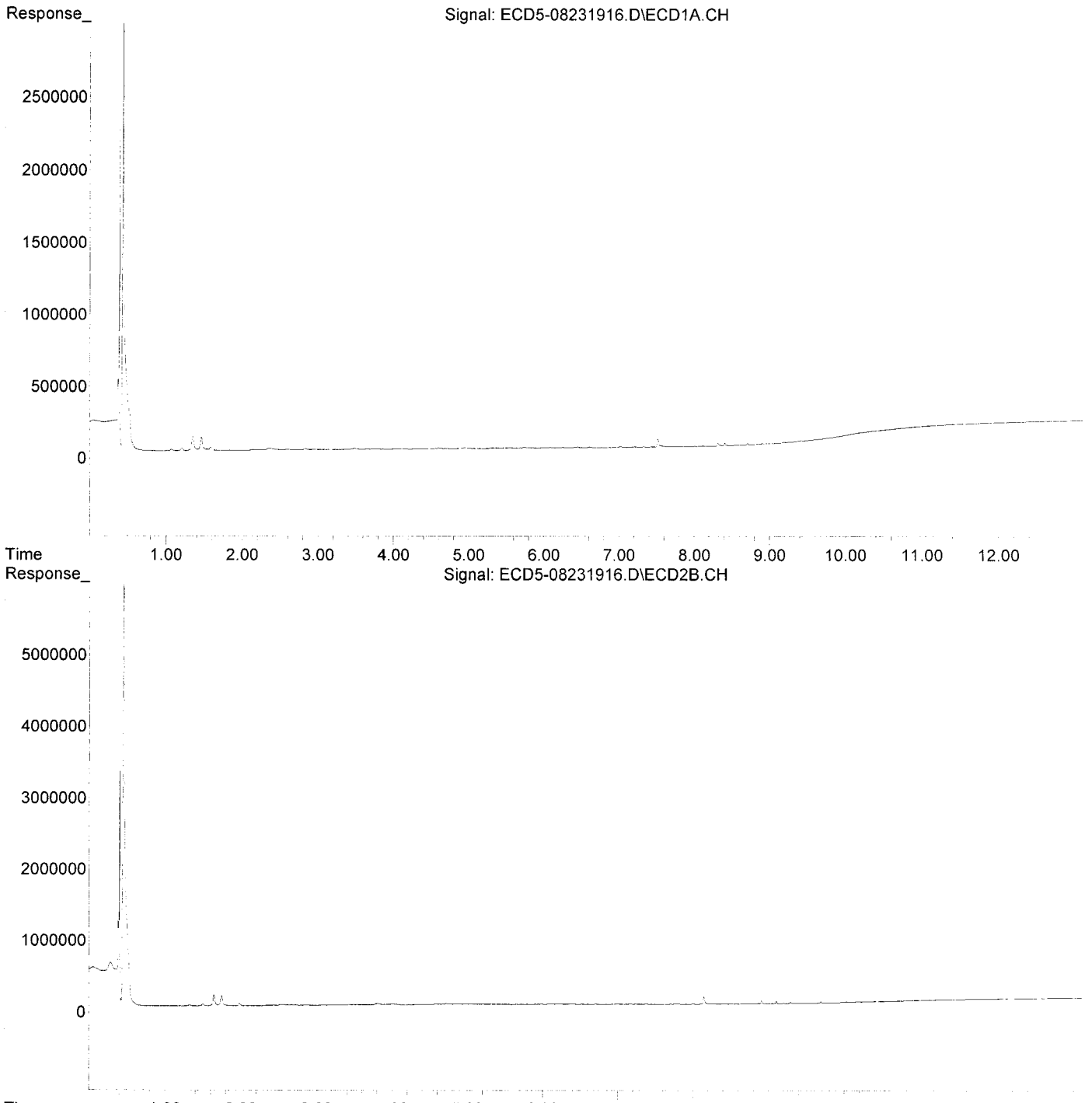
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	7755	N.D.	0.026	#
22)	S	DCBP (S)	9.595	10.540	5550	5660	0.039	0.031	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4370	0	0.022	N.D.	#
4)		b-BHC	0.000	7.003f	0	7432	N.D.	0.047	#
5)		Heptachlor	6.602f	0.000	4945	0	0.027	N.D.	#
6)		d-BHC	6.450	7.233	6336	9226	0.032	0.026	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	0.000	8.142	0	99412	N.D.	0.317	#
10)		cis-Chlor...	7.516	0.000	56525	0	0.310	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	8.007	0.000	1177	0	0.007	N.D.	#
16)		Endosulfa...	8.117	8.865	3391	6280	0.024	0.027	
17)		4,4'-DDT	8.226f	0.000	1460	0	0.012	N.D.	#
18)		Endrin Al...	8.407	9.100	21929	28697	BelowCal	BelowCal	
19)		Endosulfa...	8.707	9.291	12087	18257	0.078	0.073	
20)		Methoxychlor	8.544	0.000	4198	0	0.072	N.D.	#
21)		Endrin Ke...	8.901	9.686	4385	18734	0.026	0.073	#
23)		Hexachlor...	0.000	3.689	0	2782	N.D.	0.007	#
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	0.000	8.142	0	99412	N.D. Q ok	0.469	#
27)		trans-Non...	7.516	0.000	56525	0 ~~87346.385~~		N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	8.007f	0.000	1177	0	0.006	N.D.	#
31)		Mirex	0.000	9.686	0	18734	N.D.	0.101	#
32)		Chlordane...	0.000	8.142	0	99412	N.D.	2.747	#
33)		Chlordane...	7.516	0.000	56525	0	2.255	N.D.	#
34)		Chlordane...	8.065	8.904	2775	39801	0.480	4.439	#
35)		Chlordane...	3.447	0.000	4520	0	NoCal	N.D.	
36)		Toxaphene...	7.516	0.000	56525	0	63.111	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.117	8.865	3391	6280	1.007	1.239	
39)		Toxaphene...	8.314f	8.904	23317	39801	7.196	4.767	
40)		Toxaphene...	8.583	9.100	2463	28697	1.028	6.158	#
41)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)		Toxaphene...	3.447	0.000	4520	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:09
Operator : MJB
Sample : 9H23034-IBL1
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:50 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231917.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:26
Operator : MJB
Sample : 9H23034-ICV1
Misc : A19E106, AB 50 ppb
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

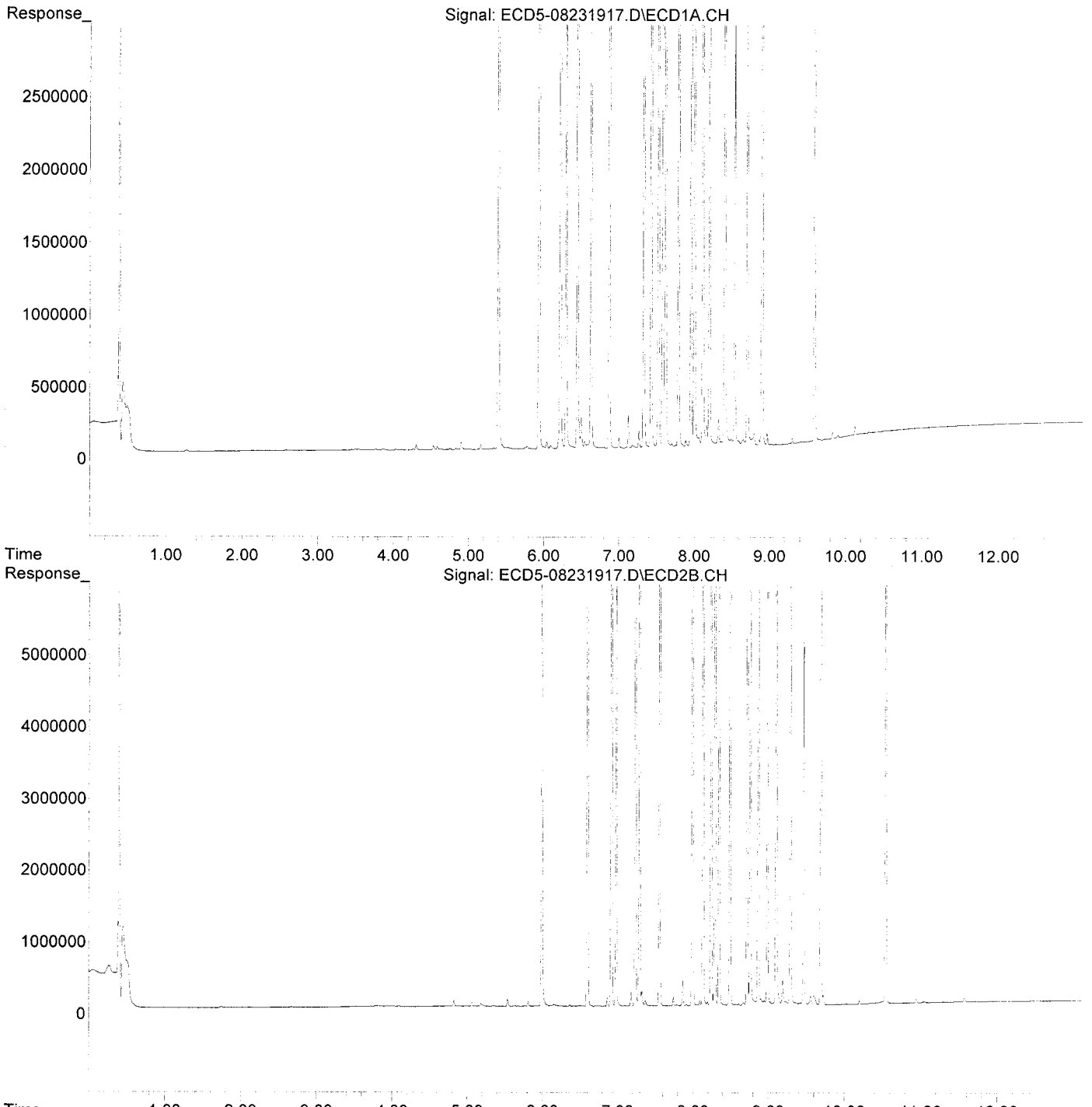
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.395	5.989	8209928	14467910	49.465	49.317	
22)	S	DCBP (S)	9.589	10.539	6928381	8667079	49.103	48.214	
		Target Compounds							
2)		a-BHC	5.935	6.596	11712240	21507667	51.072	52.414	
3)		g-BHC	6.218	6.913	10370774	18809716	51.397	52.732	
4)		b-BHC	6.296	6.977	4410789	7929442	48.801	50.102	
5)		Heptachlor	6.629	7.288	9286546	15998647	51.223	52.287	
6)		d-BHC	6.446	7.231	10162400	18561571	51.667	52.632	
7)		Aldrin	6.870	7.553	10415223	17743229	52.750	53.867	
8)		Heptachlo...	7.330	7.991	9218950	15454788	50.054	51.371	
9)		trans-Chl...	7.427	8.130	9449748	15882363	51.110	50.690	
10)		cis-Chlor...	7.523	8.238	8891439	15040020	48.835	51.640	
11)		Endosulfa...	7.620	8.288	8454858	14042285	49.682	51.030	
12)		4,4'-DDE	7.583	8.343	9669653	16358741	51.290	52.655	
13)		Dieldrin	7.792	8.489	9566646	15751562	49.832	51.789	
14)		Endrin	7.957	8.715	7744641	11999227	52.675	53.135	
15)		4,4'-DDD	8.003	8.758	8044313	14118585	51.192	55.105	
16)		Endosulfa...	8.114	8.862	7639079	12307624	53.193	53.371	
17)		4,4'-DDT	8.201	8.984	6427421	10243965	53.759	54.092	
18)		Endrin Al...	8.403	9.098	7471981	12138603	60.652	61.144	
19)		Endosulfa...	8.704	9.289	8022310	12945664	51.764	51.972	
20)		Methoxychlor	8.537	9.463	3243218	5107379	55.369	56.272	
21)		Endrin Ke...	8.898	9.687	8897553	13958232	53.356	54.245	
23)		Hexachlor...	0.000	3.713f	0	6424	N.D.	0.017	#
24)		Hexachlor...	5.778	6.482f	19713	11218	0.112	0.036	#
25)		Oxychlordane	7.266	7.916	116203	18640	0.706	0.068	#
26)		2,4'-DDE	7.330	8.130	9218950	15882363	71.876	74.868	
27)		trans-Non...	7.523	8.193	8891439	52587	49.340	0.174	#
28)		2,4'-DDD	7.704	8.489	22276	15751562	0.195	83.402	#
29)		2,4'-DDT	7.889	8.715	44366	11999227	0.404	67.283	#
30)		cis-Nonac...	8.003	8.758	8044313	14118585	38.746	42.089	
31)		Mirex	8.653	9.687	40409	13958232	0.322	75.015	#
32)		Chlordane...	7.427	8.130	9449748	15882363	479.936	438.926	
33)		Chlordane...	7.523	8.238	8891439	15040020	354.745	495.323	
34)		Chlordane...	0.000	8.899	0	79876	N.D.	8.909	#
35)		Chlordane...	3.446	0.000	5075	0	NoCal	N.D.	
36)		Toxaphene...	7.523f	8.489f	8891439	15751562	9927.388	6002.292	
37)		Toxaphene...	7.792	0.000	9566646	0	5923.845	N.D.	#
38)		Toxaphene...	8.114	8.862	7639079	12307624	2268.479	2428.346	
39)		Toxaphene...	8.324f	8.899	184731	79876	57.013	9.566	#
40)		Toxaphene...	8.537f	9.098	3243218	12138603	1352.952	2604.650	#
41)		Toxaphene...	8.653	9.463	40409	5107379	12.769	1075.192	#
42)		Toxaphene...	3.446	0.000	5075	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231917.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:26
Operator : MJB
Sample : 9H23034-ICV1
Misc : A19E106, AB 50 ppb
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231926.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:02
Operator : MJB
Sample : 9H23034-IBL2
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:03 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

clean MJB 8/26/19

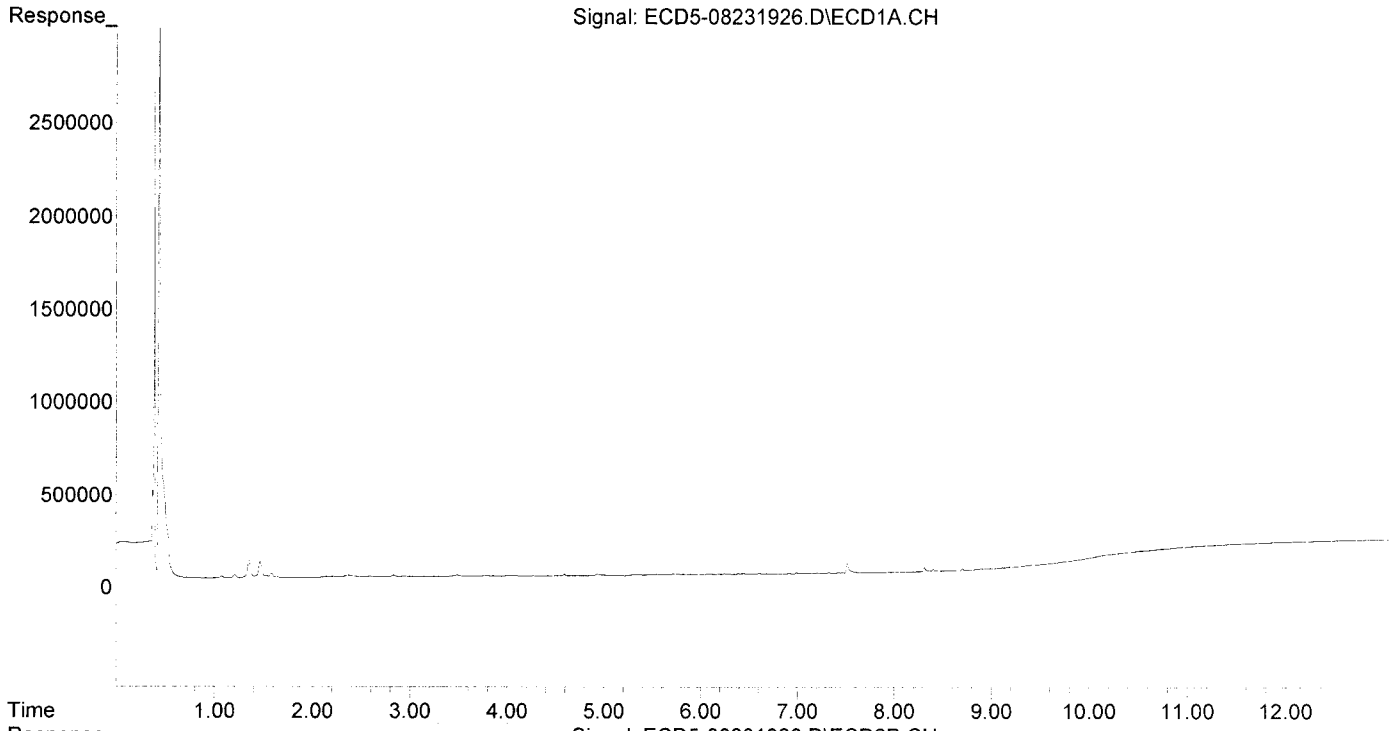
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.979	0	6612	N.D.	0.023	#
22) S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.246f	0.000	5266	0	0.026	N.D.	#
4)	b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)	Heptachlor	6.606f	0.000	2965	0	0.016	N.D.	#
6)	d-BHC	6.448	7.230	6262	8744	0.032	0.025	
7)	Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)	Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)	trans-Chl...	0.000	8.141	0	95737	N.D.	0.306	#
10)	cis-Chlor...	7.516	0.000	51171	0	0.281	N.D.	#
11)	Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)	Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)	Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)	4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)	Endosulfa...	8.115	8.861	2908	5919	0.020	0.026	
17)	4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)	Endrin Al...	8.404	9.098	11210	14199	BelowCal	BelowCal	
19)	Endosulfa...	8.705	9.288	9669	15528	0.062	0.062	
20)	Methoxychlor	8.535	0.000	2114	0	0.036	N.D.	#
21)	Endrin Ke...	8.899	9.685	4160	14028	0.025	0.055	#
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)	Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)	2,4'-DDE	0.000	8.141	0	95737	N.D. Q-PU	0.451	#
27)	trans-Non...	7.516	0.000	51171	0	~~87346.415~~	N.D.	#
28)	2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)	2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)	cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)	Mirex	8.653	9.685	1197	14028	0.010	0.075	#
32)	Chlordane...	0.000	8.141	0	95737	N.D.	2.646	#
33)	Chlordane...	7.516	0.000	51171	0	2.042	N.D.	#
34)	Chlordane...	8.051	8.903	2776	42860	0.480	4.780	#
35)	Chlordane...	3.446	0.000	4206	0	NoCal	N.D.	
36)	Toxaphene...	7.516	0.000	51171	0	57.133	N.D.	#
37)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)	Toxaphene...	8.115	8.861	2908	5919	0.863	1.168	
39)	Toxaphene...	8.313f	8.903	23619	42860	7.290	5.133	
40)	Toxaphene...	8.535f	9.098	2114	14199	0.882	3.047	#
41)	Toxaphene...	8.653	0.000	1197	0	0.378	N.D.	#
42)	Toxaphene...	3.446	0.000	4206	0	NoCal	N.D.	

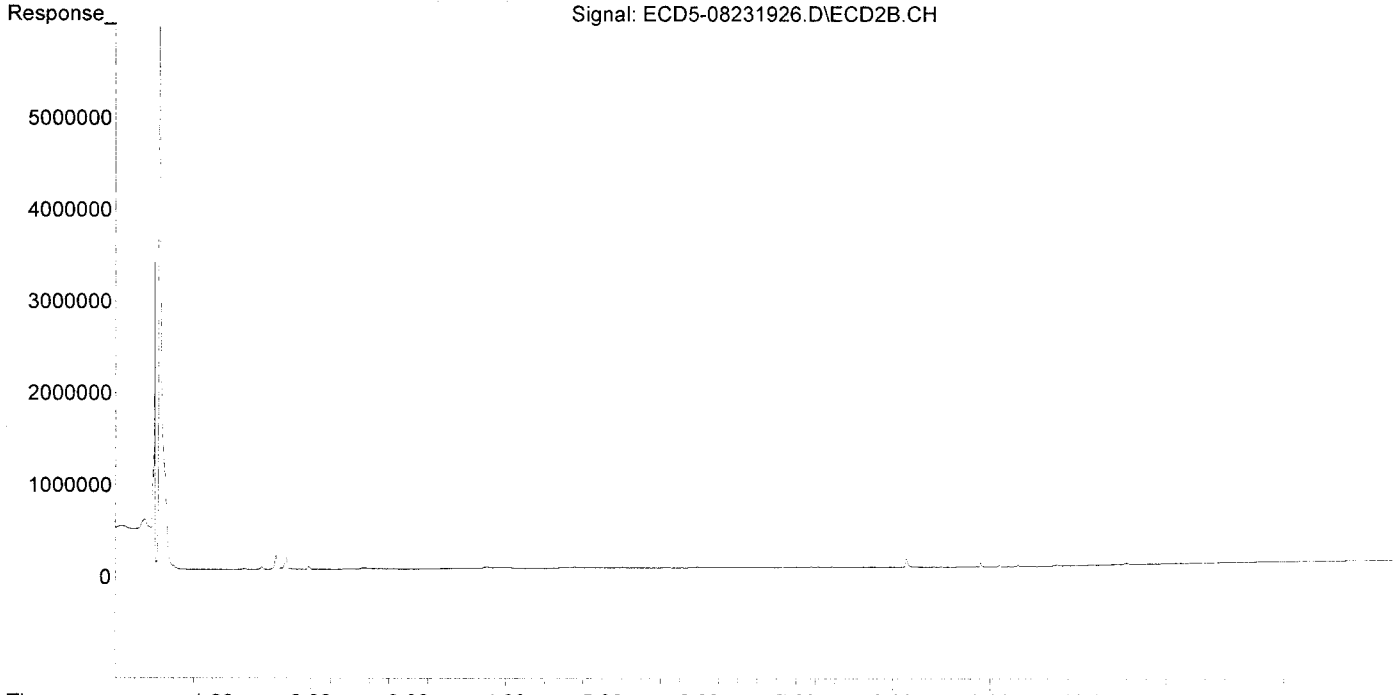
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231926.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:02
Operator : MJB
Sample : 9H23034-IBL2
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:03 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:19
Operator : MJB
Sample : 9H23034-ICV2
Misc : A19E043, 9-42 50 ppb
ALS Vial : 21 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

WP 8/26/19

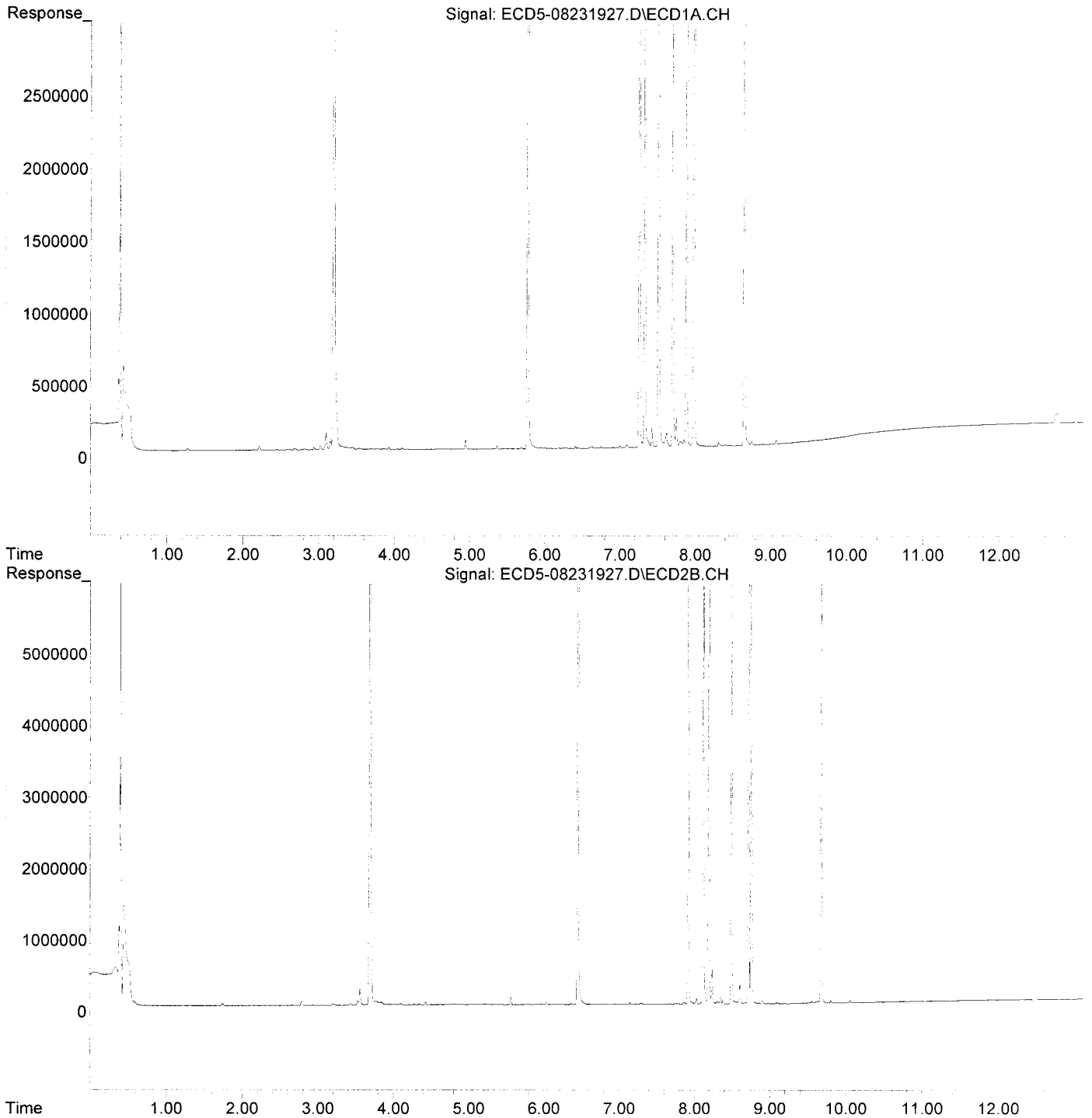
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.979	21795	7434	0.131	0.025	#
22)	S	DCBP (S)	9.593	0.000	5164	0	0.037	N.D.	#
		Target Compounds							
2)		a-BHC	5.944	0.000	7626	0	0.033	N.D.	#
3)		g-BHC	6.193f	6.950f	4309	4488	0.021	0.013	#
4)		b-BHC	6.276f	6.950f	4448	4488	0.049	0.028	#
5)		Heptachlor	6.631	7.288	13910	18612	0.077	0.061	
6)		d-BHC	6.450	7.231	4193	7280	0.021	0.021	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.333	7.969f	6044730	30442	32.820	0.101	#
9)		trans-Chl...	7.428	8.122	135885	10152421	0.735	32.402	#
10)		cis-Chlor...	7.515	8.238	9079715	499411	49.869	1.715	#
11)		Endosulfa...	7.623	8.313f	100346	33305	0.590	0.121	#
12)		4,4'-DDE	7.585	8.350	33793	99515	0.179	0.320	#
13)		Dieldrin	7.801	8.494	35090	9221128	0.183	30.318	#
14)		Endrin	7.985f	8.719	9530740	8396212	64.823	37.180	#
15)		4,4'-DDD	7.985	8.758	9530740	16410440	60.651	64.050	
16)		Endosulfa...	0.000	8.903f	0	43832	N.D.	0.190	#
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.400	9.100	6045	8867	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.288	0	6758	N.D.	0.027	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.897	9.678	3909	8640754	0.023	33.580	#
23)		Hexachlor...	3.197	3.687	8657262	18235302	47.375	48.507	
24)		Hexachlor...	5.774	6.453	8419764	15057280	47.760	47.940	
25)		Oxychlordane	7.260	7.920	8060765	13729255	48.990	50.125	
26)		2,4'-DDE	7.333	8.122	6044730	10152421	47.128	47.858	
27)		trans-Non...	7.515	8.194	9079715	15314695	50.392	50.772	
28)		2,4'-DDD	7.704	8.494	5439144	9221128	47.659	48.824	
29)		2,4'-DDT	7.888	8.719	5329154	8396212	48.585	47.080	
30)		cis-Nonac...	7.985	8.758	9530740	16410440	45.906	48.921	
31)		Mirex	8.652	9.678	5900124	8640754	47.063	46.437	
32)		Chlordane...	7.428	8.122	135885	10152421	6.901	280.573	#
33)		Chlordane...	7.515	8.238	9079715	499411	362.257	16.447	#
34)		Chlordane...	0.000	8.903	0	43832	N.D.	4.889	#
35)		Chlordane...	3.444	3.433	15163	32758	NoCal	NoCal	
36)		Toxaphene...	7.515	8.494f	9079715	9221128	10137.600	3513.804	#
37)		Toxaphene...	7.801	0.000	35090	0	21.729	N.D.	#
38)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
39)		Toxaphene...	8.313f	8.903	24546	43832	7.576	5.249	
40)		Toxaphene...	0.000	9.100	0	8867	N.D.	1.903	#
41)		Toxaphene...	8.652	0.000	5900124	0	1864.424	N.D.	#
42)		Toxaphene...	3.444	3.433	15163	32758	NoCal	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:19
Operator : MJB
Sample : 9H23034-ICV2
Misc : A19E043, 9-42 50 ppb
ALS Vial : 21 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:20
Operator : MJB
Sample : 9H23034-IBL3
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

clear MJB 8/26/19

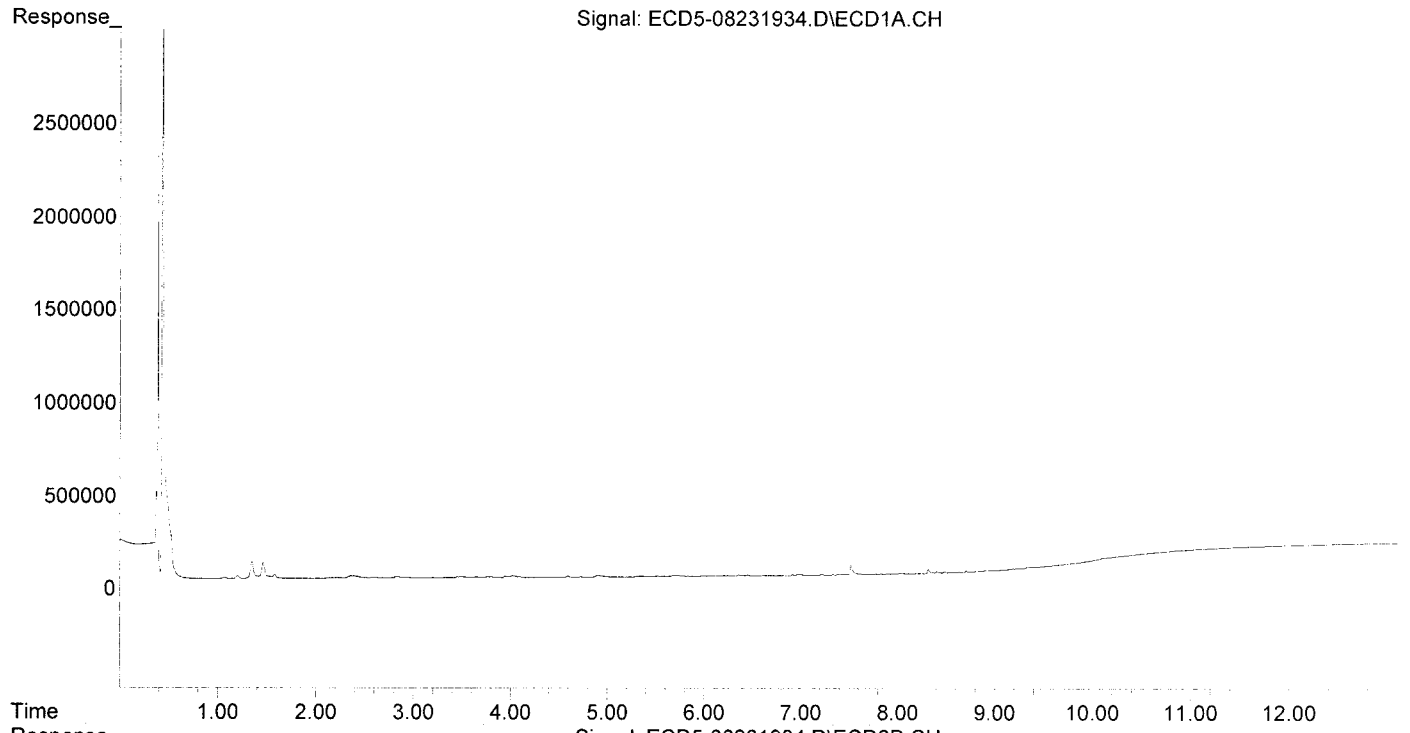
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.976	0	5923	N.D.	0.020	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.207	0.000	3774	0	0.019	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	6.609f	0.000	2731	0	0.015	N.D.	#
6)		d-BHC	6.450	7.231	5497	6832	0.028	0.019	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	0.000	8.142	0	83130	N.D.	0.265	#
10)		cis-Chlor...	7.519	0.000	51396	0	0.282	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	8.023f	0.000	4578	0	0.029	N.D.	#
16)		Endosulfa...	8.116	8.861	1913	3871	0.013	0.017	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.405	9.098	8970	10610	BelowCal	BelowCal	
19)		Endosulfa...	8.706	9.288	7044	10525	0.045	0.042	
20)		Methoxychlor	8.536	0.000	1701	0	0.029	N.D.	#
21)		Endrin Ke...	8.919f	9.686	4032	9735	0.024	0.038	#
23)		Hexachlor...	0.000	3.679	0	2600	N.D.	0.007	#
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	0.000	8.142	0	83130	N.D. RDel	0.392	#
27)		trans-Non...	7.519	0.000	51396	0 ~~87346.414~~		N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	8.023f	0.000	4578	0	0.022	N.D.	#
31)		Mirex	0.000	9.686	0	9735	N.D.	0.052	#
32)		Chlordane...	0.000	8.142	0	83130	N.D.	2.297	#
33)		Chlordane...	7.519	0.000	51396	0	2.051	N.D.	#
34)		Chlordane...	0.000	8.904	0	38172	N.D.	4.258	#
35)		Chlordane...	3.449	0.000	3828	0	NoCal	N.D.	
36)		Toxaphene...	7.519	0.000	51396	0	57.384	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.116	8.861	1913	3871	0.568	0.764	
39)		Toxaphene...	8.316f	8.904	21302	38172	6.574	4.572	
40)		Toxaphene...	8.536f	9.098	1701	10610	0.709	2.277	#
41)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)		Toxaphene...	3.449	0.000	3828	0	NoCal	N.D.	

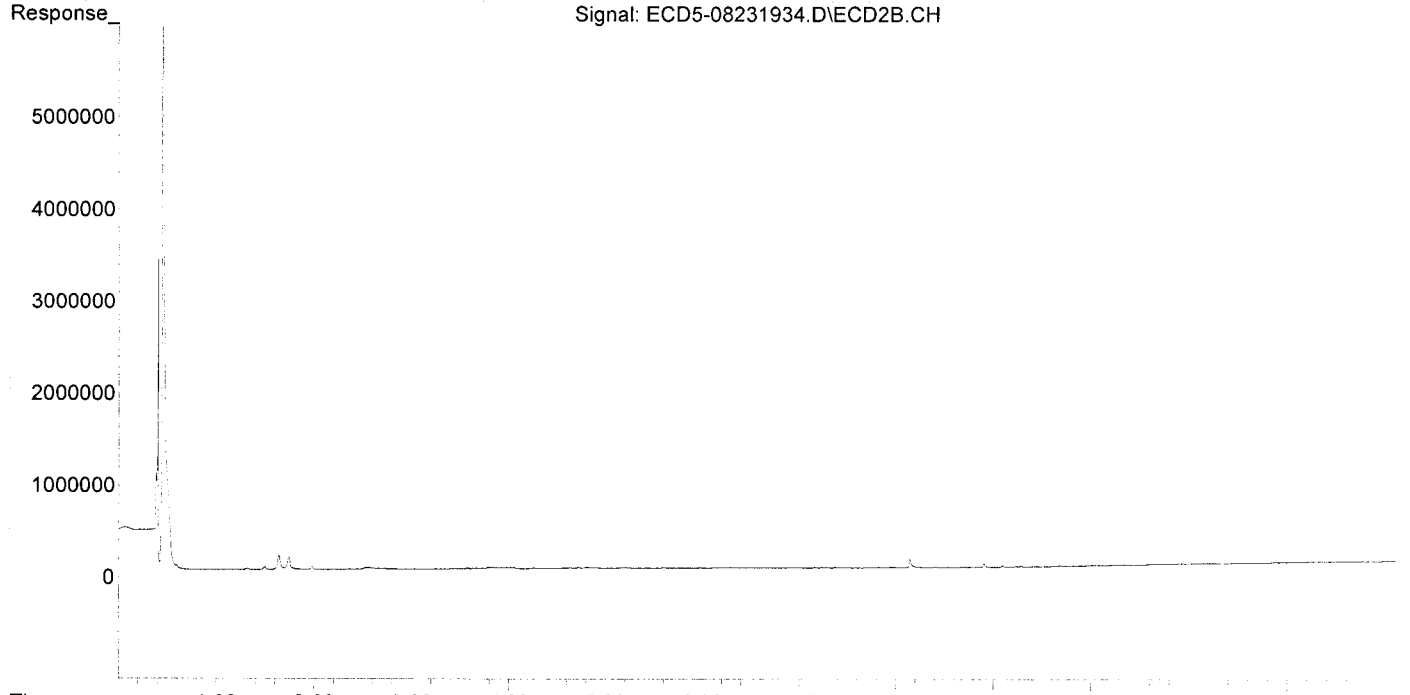
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:20
Operator : MJB
Sample : 9H23034-IBL3
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:37
Operator : MJB
Sample : 9H23034-ICV3
Misc : A19F108, CHLOR 500 ppb
ALS Vial : 28 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.975	0	8961	N.D.	0.031	#
22)	S	DCBP (S)	9.601	10.507f	18796	7616	0.133	0.042	#
		Target Compounds							
2)		a-BHC	5.934	6.622f	9141	348363	0.040	0.849	#
3)		g-BHC	6.194f	6.923	92353	182619	0.458	0.512	
4)		b-BHC	6.323f	7.017f	112667	560662	1.247	3.543	#
5)		Heptachlor	6.630	7.288	4625489	7814185	25.513	25.538	
6)		d-BHC	6.412f	7.222	337700	61064	1.717	0.173	#
7)		Aldrin	6.874	7.557	83911	133681	0.425	0.406	
8)		Heptachlo...	7.336	8.010	771372	473989	4.188	1.576	#
9)		trans-Chl...	7.427	8.130	10721056	19872286	57.986	63.424	
10)		cis-Chlor...	7.520	8.238	13401062	16289264	73.603	55.929	
11)		Endosulfa...	7.639	8.310f	285254	253033	1.676	0.920	#
12)		4,4'-DDE	7.578	8.333	311083	429833	1.650	1.384	
13)		Dieldrin	7.806	8.488	355046	1298858	1.849	4.270	#
14)		Endrin	7.984f	8.713	1829350	383068	12.442	1.696	#
15)		4,4'-DDD	7.984	8.759	1829350	3046940	11.641	11.892	
16)		Endosulfa...	8.118	8.873	216170	351371	1.505	1.524	
17)		4,4'-DDT	0.000	8.994	0	130946	N.D.	0.725	#
18)		Endrin Al...	8.427f	9.128f	55387	802635	BelowCal	3.530	
19)		Endosulfa...	8.708	9.290	120383	34589	0.777	0.139	#
20)		Methoxychlor	8.552	9.463	53824	27882	0.919	0.160	#
21)		Endrin Ke...	8.894	9.687	19548	156351	0.117	0.608	#
23)		Hexachlor...	3.198	3.688	5435	10087	0.030	0.027	
24)		Hexachlor...	5.768	6.431f	8591	38244	0.049	0.122	#
25)		Oxychlordane	7.253	7.933	114695	258636	0.697	0.944	
26)		2,4'-DDE	7.336	8.130	771372	19872286	6.014	93.676	#
27)		trans-Non...	7.520	8.195	13401062	14312099	74.546	47.448	
28)		2,4'-DDD	7.674f	8.488	831029	1298858	7.282	6.877	
29)		2,4'-DDT	7.913f	8.713	254540	383068	2.321	2.148	
30)		cis-Nonac...	7.984	8.759	1829350	3046940	8.811	9.083	
31)		Mirex	8.643	9.687	16477	156351	0.131	0.840	#
32)		Chlordane...	7.427	8.130	10721056	19872286	544.503	549.192	
33)		Chlordane...	7.520	8.238	13401062	16289264	534.667	536.465	
34)		Chlordane...	8.068	8.898	3177144	4850138	549.572	540.955	
35)		Chlordane...	3.448	0.000	3889	0	NoCal	N.D.	
36)		Toxaphene...	7.520	8.488f	13401062	1298858	14962.430	494.943	#
37)		Toxaphene...	7.806	8.814	355046	496679	219.851	150.919	
38)		Toxaphene...	8.118	8.851	216170	383467	64.193	75.660	
39)		Toxaphene...	8.347	8.898	132572	4850138	40.915	580.866	#
40)		Toxaphene...	8.552f	9.068f	53824	98957	22.453	21.234	
41)		Toxaphene...	8.643	9.463	16477	27882	5.207	5.870	
42)		Toxaphene...	3.448	0.000	3889	0	NoCal	N.D.	

A 542.91

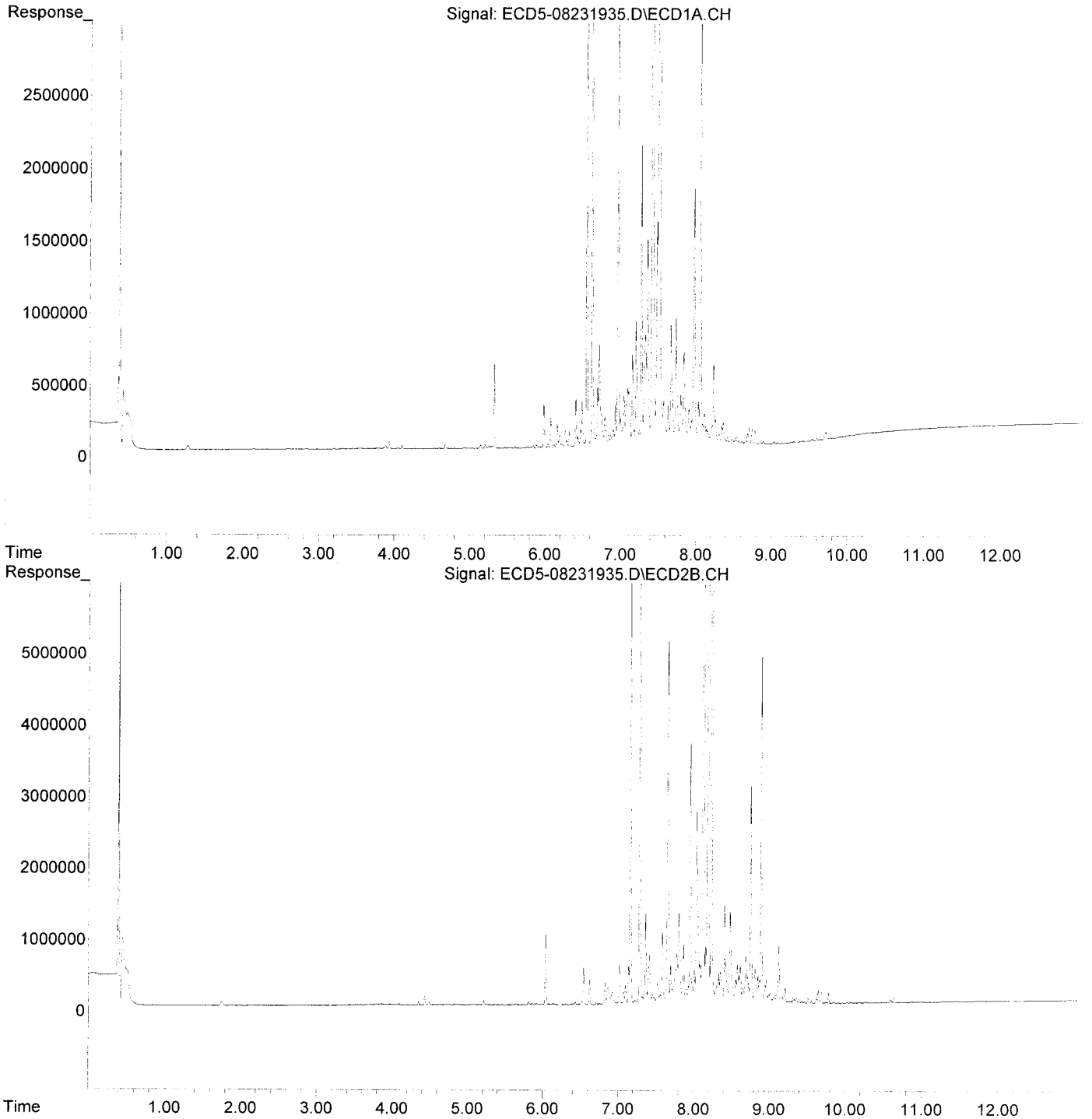
E 542.20

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:37
Operator : MJB
Sample : 9H23034-ICV3
Misc : A19F108, CHLOR 500 ppb
ALS Vial : 28 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231942.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:37
Operator : MJB
Sample : 9H23034-IBL4
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 9/26/19

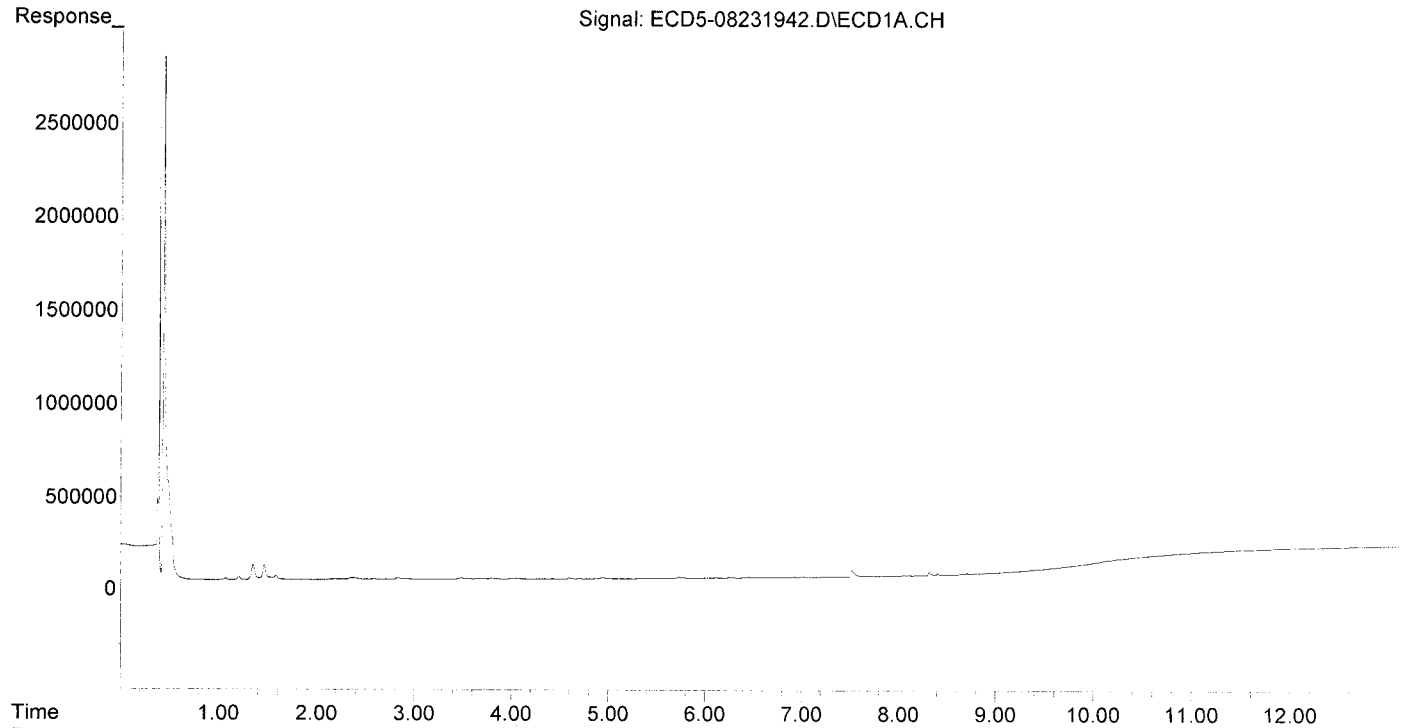
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.983	0	6142	N.D.	0.021	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.248f	0.000	4243	0	0.021	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.450	7.232	5264	7410	0.027	0.021	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.334	0.000	1978	0	0.011	N.D.	#
9)		trans-Chl...	7.425	8.145	1693	72982	0.009	0.233	#
10)		cis-Chlor...	7.522	0.000	38316	0	0.210	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	8.117	0.000	2505	0	0.017	N.D.	#
17)		4,4'-DDT	8.194	0.000	767	0	0.006	N.D.	#
18)		Endrin Al...	8.406	9.100	10140	13686	BelowCal	BelowCal	
19)		Endosulfa...	8.707	9.290	7273	12897	0.047	0.052	
20)		Methoxychlor	8.540	0.000	2018	0	0.034	N.D.	#
21)		Endrin Ke...	8.901	9.687	3565	7207	0.021	0.028	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	7.334	8.145f	1978	72982	0.015 Q2d	0.344	#
27)		trans-Non...	7.522	0.000	38316	0	~~87346.487~~	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.644	9.687	766	7207	0.006	0.039	#
32)		Chlordane...	7.425	8.145	1693	72982	0.086	2.017	#
33)		Chlordane...	7.522	0.000	38316	0	1.529	N.D.	#
34)		Chlordane...	8.049	8.906	2785	37528	0.482	4.186	#
35)		Chlordane...	3.451	0.000	3890	0	NoCal	N.D.	
36)		Toxaphene...	7.522f	0.000	38316	0	42.781	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.117	0.000	2505	0	0.744	N.D.	#
39)		Toxaphene...	8.318f	8.906	18960	37528	5.852	4.495	
40)		Toxaphene...	8.540f	9.100	2018	13686	0.842	2.937	#
41)		Toxaphene...	8.644	0.000	766	0	0.242	N.D.	#
42)		Toxaphene...	3.451	0.000	3890	0	NoCal	N.D.	

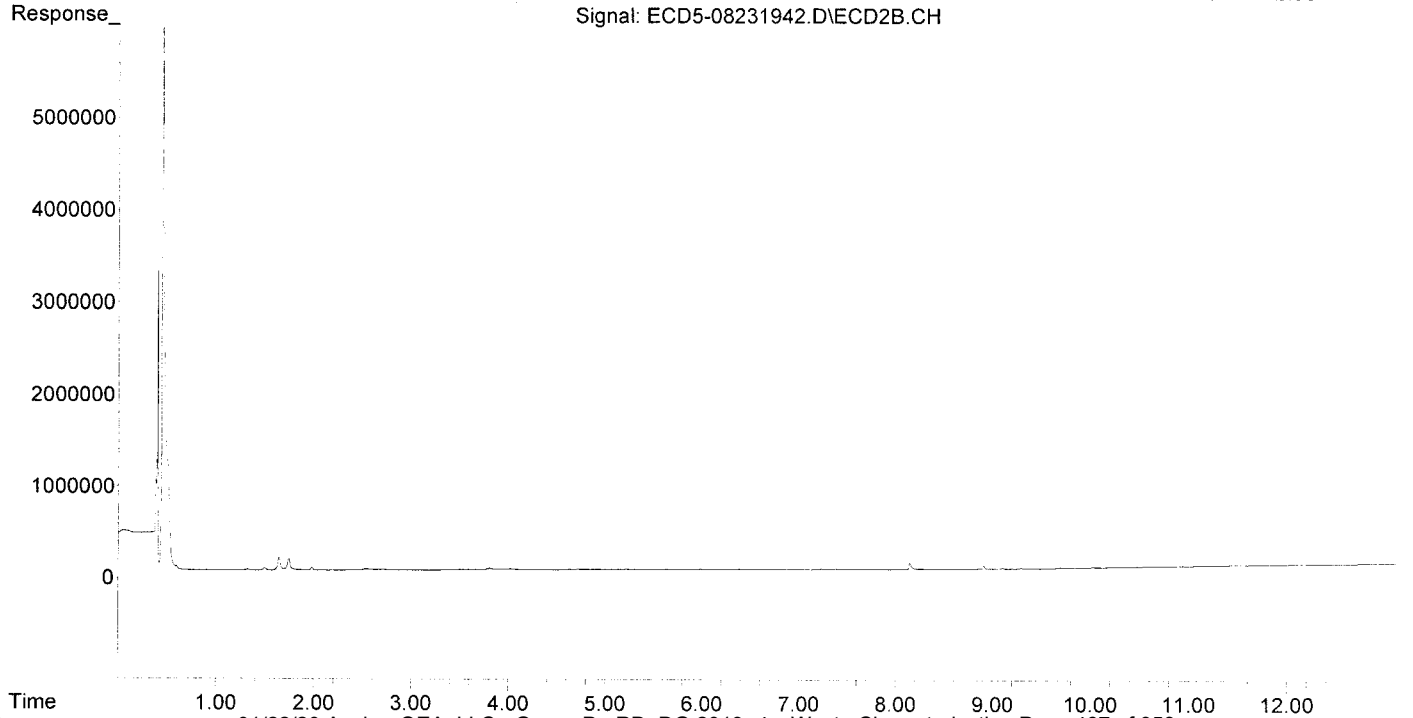
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231942.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:37
Operator : MJB
Sample : 9H23034-IBL4
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231943.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:54
Operator : MJB
Sample : 9H23034-ICV4
Misc : A19D127, TOX 500 ppb
ALS Vial : 35 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	5611	N.D.	0.019	#
22)	S	DCBP (S)	9.591	10.521	22246	40017	0.158	0.223	#
		Target Compounds							
2)		a-BHC	5.949	6.596	3272	7415	0.014	0.018	
3)		g-BHC	6.247f	6.907	6246	18839	0.031	0.053	#
4)		b-BHC	6.296	6.966	11447	24200	0.127	0.153	
5)		Heptachlor	6.631	7.293	23849	45477	0.132	0.149	
6)		d-BHC	6.434	7.233	11867	47325	0.060	0.134	#
7)		Aldrin	6.871	7.582f	53004	119759	0.268	0.364	
8)		Heptachlo...	7.358f	7.984	250185	414973	1.358	1.379	
9)		trans-Chl...	7.445	8.135	315388	332556	1.706	1.061	
10)		cis-Chlor...	7.501f	8.220	426074	475646	2.340	1.633	
11)		Endosulfa...	7.629	8.295	511717	592244	3.007	2.152	
12)		4,4'-DDE	7.551f	8.359	359885	753065	1.909	2.424	
13)		Dieldrin	7.794	8.506	766286	726725	3.992	2.389	#
14)		Endrin	7.934f	8.711	607064	1341537	4.129	5.941	#
15)		4,4'-DDD	8.021	8.761	679517	912025	4.324	3.560	
16)		Endosulfa...	8.105	8.848	1638713	2447077	11.411	10.611	
17)		4,4'-DDT	8.184	8.976	1416015	960593	11.844	5.508	#
18)		Endrin Al...	8.392	9.091	1088580	2275708	8.285	11.454	
19)		Endosulfa...	8.709	9.291	549140	929201	3.543	3.730	
20)		Methoxychlor	8.543	9.470	549172	2364076	9.376	27.518	#
21)		Endrin Ke...	8.893	9.712f	380224	458705	2.280	1.783	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.813f	6.462	3660	6563	0.021	0.021	
25)		Oxychlordane	7.265	7.936	334880	406205	2.035	1.483	
26)		2,4'-DDE	7.358f	8.112	250185	466633	1.951	2.200	
27)		trans-Non...	7.501	8.205	426074	457454	2.062	1.517	
28)		2,4'-DDD	7.712	8.506	575777	726725	5.045	3.848	
29)		2,4'-DDT	7.898	8.711	911632	1341537	8.311	7.522	
30)		cis-Nonac...	7.982	8.761	1096031	912025	5.279	2.719	#
31)		Mirex	8.641	9.712f	1546722	458705	12.338	2.465	#
32)		Chlordane...	7.445	8.135	315388	332556	16.018	9.191	#
33)		Chlordane...	7.501	8.220	426074	475646	16.999	15.665	
34)		Chlordane...	8.046f	8.915	705731	4045258	122.075	451.184	#
35)		Chlordane...	3.453	0.000	2732	0	NoCal	N.D.	
36)		Toxaphene...	7.501	8.466	426074	1252556	475.717	477.299	
37)		Toxaphene...	7.794	8.813	766286	1618562	474.499	491.811	
38)		Toxaphene...	8.105	8.848	1638713	2447077	486.627	482.818	
39)		Toxaphene...	8.346	8.915	1570667	4045258	484.751	484.472	
40)		Toxaphene...	8.573	9.091	1186452	2275708	494.944	488.312	
41)		Toxaphene...	8.641	9.470	1546722	2364076	488.760	497.679	
42)		Toxaphene...	3.453	0.000	2732	0	NoCal	N.D.	

A B

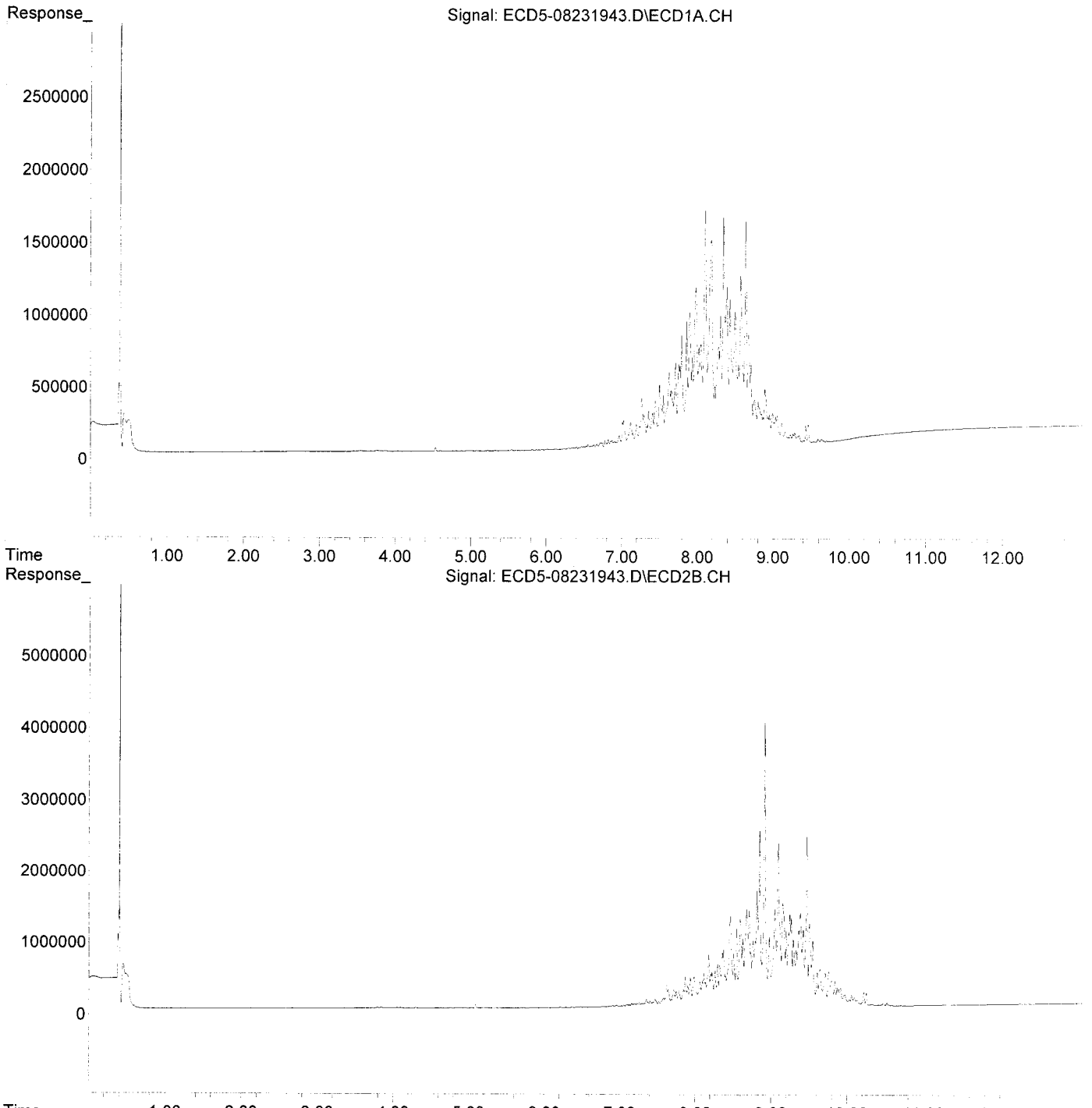
484.22 487.07

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231943.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:54
Operator : MJB
Sample : 9H23034-ICV4
Misc : A19D127, TOX 500 ppb
ALS Vial : 35 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

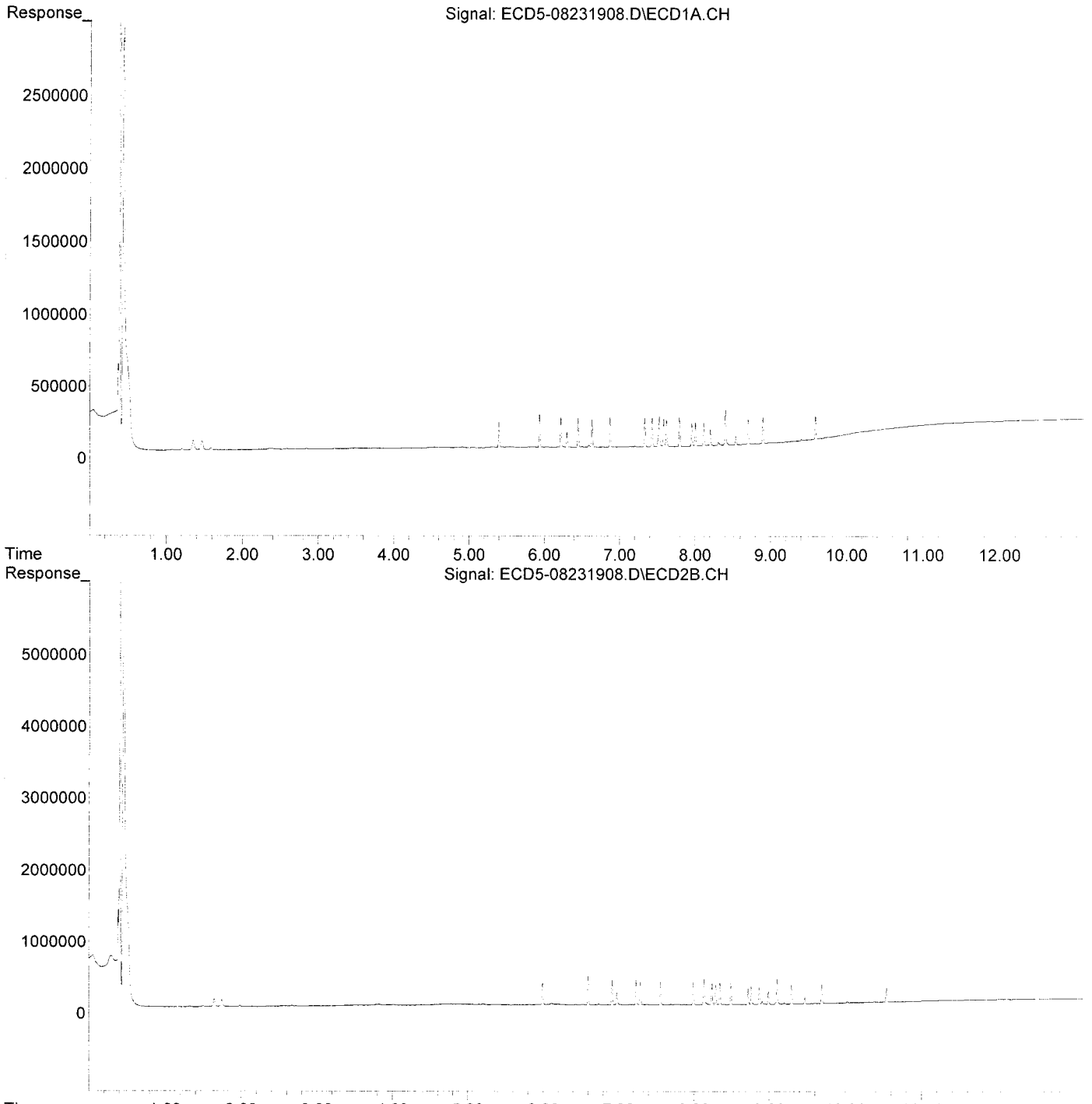
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.397	5.991	176748	300053	1.065	1.023	
22)	S	DCBP (S)	9.593	10.541	163865	191572	1.161	1.066	
		Target Compounds							
2)		a-BHC	5.937	6.597	231994	393119	1.012	0.958	
3)		g-BHC	6.221	6.915	207427	352286	1.028	0.988	
4)		b-BHC	6.300	6.980	104326	176262	1.154	1.114	
5)		Heptachlor	6.635	7.292	192066	309811	1.059	1.013	
6)		d-BHC	6.450	7.234	199840	349123	1.016	0.990	
7)		Aldrin	6.875	7.557	205523	317466	1.041	0.964	
8)		Heptachlo...	7.335	7.994	200503	310098	1.089	1.031	
9)		trans-Chl...	7.433	8.135	197202	364142	1.067	1.162	
10)		cis-Chlor...	7.528	8.241	209780	299422	1.152	1.028	
11)		Endosulfa...	7.625	8.291	185217	278874	1.088	1.013	
12)		4,4'-DDE	7.586	8.346	193435	298463	1.026	0.961	
13)		Dieldrin	7.796	8.491	197721	296684	1.030	0.975	
14)		Endrin	7.961	8.718	156412	222882	1.064	0.987	
15)		4,4'-DDD	8.007	8.760	164956	251549	1.050	0.982	
16)		Endosulfa...	8.118	8.865	158139	232156	1.101	1.007	
17)		4,4'-DDT	8.205	8.986	113897	179700	0.953	1.008	
18)		Endrin Al...	8.407	9.101	241285	348624	1.050	1.058	
19)		Endosulfa...	8.708	9.292	176097	265797	1.136	1.067	
20)		Methoxychlor	8.543	9.466	59659	95155	1.019	0.994	
21)		Endrin Ke...	8.901	9.690	177552	255763	1.065	0.994	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	7.335	8.135	200503	364142	1.563	1.717	
27)		trans-Non...	7.528	0.000	209780	0	0.855	N.D.	#
28)		2,4'-DDD	0.000	8.491	0	296684	N.D.	1.571	#
29)		2,4'-DDT	0.000	8.718	0	222882	N.D.	1.250	#
30)		cis-Nonac...	8.007f	8.760	164956	251549	0.795	0.750	
31)		Mirex	0.000	9.690	0	255763	N.D.	1.375	#
32)		Chlordane...	7.433	8.135	197202	364142	10.016	10.063	
33)		Chlordane...	7.528	8.241	209780	299422	8.370	9.861	
34)		Chlordane...	0.000	8.903	0	37787	N.D.	4.214	#
35)		Chlordane...	3.445	0.000	4502	0	NoCal	N.D.	
36)		Toxaphene...	7.528f	8.491f	209780	296684	234.222	113.054	#
37)		Toxaphene...	7.796	0.000	197721	0	122.432	N.D.	#
38)		Toxaphene...	8.118	8.865	158139	232156	46.960	45.805	
39)		Toxaphene...	8.312f	8.903	20859	37787	6.438	4.525	
40)		Toxaphene...	8.543f	9.101	59659	348624	24.888	74.806	#
41)		Toxaphene...	0.000	9.466	0	95155	N.D.	20.032	#
42)		Toxaphene...	3.445	0.000	4502	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:08
Operator : MJB
Sample : 9H23034-CAL2
Misc : A19E246, AB 2 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

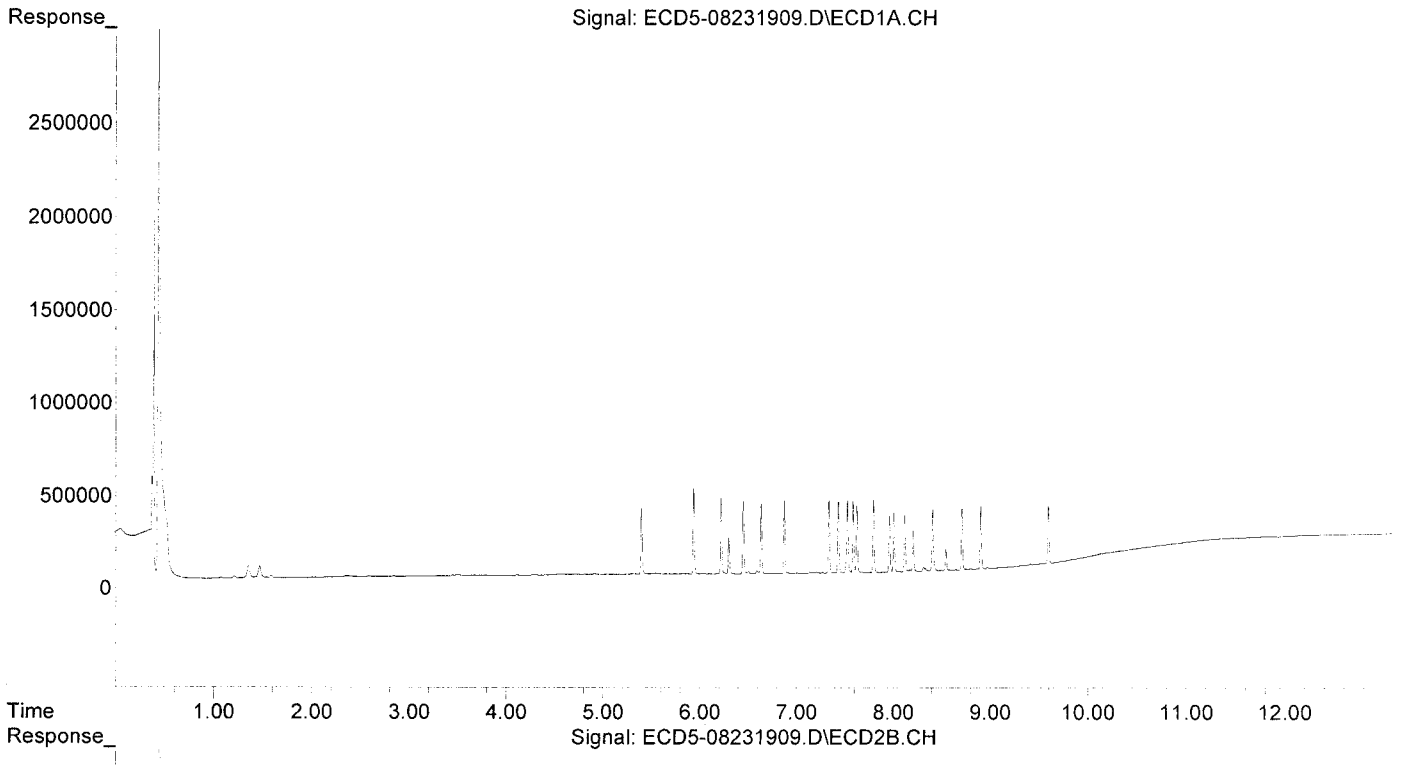
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.396	5.990	349972	600766	2.109	2.048	
22)	S	DCBP (S)	9.593	10.542	309904	390006	2.196	2.170	
		Target Compounds							
2)		a-BHC	5.936	6.597	458365	784586	1.999	1.912	
3)		g-BHC	6.220	6.915	406027	690922	2.012	1.937	
4)		b-BHC	6.300	6.980	194168	335260	2.148	2.118	
5)		Heptachlor	6.635	7.291	369615	586765	2.039	1.918	
6)		d-BHC	6.450	7.233	386980	669122	1.967	1.897	
7)		Aldrin	6.875	7.556	399550	635458	2.024	1.929	
8)		Heptachlo...	7.335	7.993	392052	606240	2.129	2.015	
9)		trans-Chl...	7.432	8.135	382271	644454	2.068	2.057	
10)		cis-Chlor...	7.527	8.241	389999	579667	2.142	1.990	
11)		Endosulfa...	7.625	8.291	357368	540442	2.100	1.964	
12)		4,4'-DDE	7.586	8.345	388618	598066	2.061	1.925	
13)		Dieldrin	7.796	8.491	395728	583812	2.061	1.919	
14)		Endrin	7.960	8.718	298515	424889	2.030	1.881	
15)		4,4'-DDD	8.006	8.760	314622	488120	2.002	1.905	
16)		Endosulfa...	8.118	8.864	299106	462256	2.083	2.005	
17)		4,4'-DDT	8.204	8.986	218190	341782	1.825	1.948	
18)		Endrin Al...	8.407	9.101	328182	477694	1.795	1.763	
19)		Endosulfa...	8.707	9.291	322163	498767	2.079	2.002	
20)		Methoxychlor	8.542	9.465	111466	178074	1.903	2.018	
21)		Endrin Ke...	8.901	9.689	331269	493110	1.987	1.916	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	7.271	0.000	4709	0	0.029	N.D.	#
26)		2,4'-DDE	7.335	8.135	392052	644454	3.057	3.038	
27)		trans-Non...	7.527	0.000	389999	0	1.861	N.D.	#
28)		2,4'-DDD	0.000	8.491	0	583812	N.D.	3.091	#
29)		2,4'-DDT	0.000	8.718	0	424889	N.D.	2.382	#
30)		cis-Nonac...	8.006f	8.760	314622	488120	1.515	1.455	
31)		Mirex	8.657	9.689	1737	493110	0.014	2.650	#
32)		Chlordane...	7.432	8.135	382271	644454	19.415	17.810	
33)		Chlordane...	7.527	8.241	389999	579667	15.560	19.091	
34)		Chlordane...	8.065	8.903	2900	40429	0.502	4.509	#
35)		Chlordane...	3.445	0.000	4897	0	NoCal	N.D.	
36)		Toxaphene...	7.527f	8.491f	389999	583812	435.438	222.468	#
37)		Toxaphene...	7.796	0.000	395728	0	245.042	N.D.	#
38)		Toxaphene...	8.118	8.864	299106	462256	88.822	91.205	
39)		Toxaphene...	8.312f	8.903	21365	40429	6.594	4.842	
40)		Toxaphene...	8.582	9.101	2314	477694	0.965	102.502	#
41)		Toxaphene...	8.657	9.465	1737	178074	0.549	37.488	#
42)		Toxaphene...	3.445	0.000	4897	0	NoCal	N.D.	

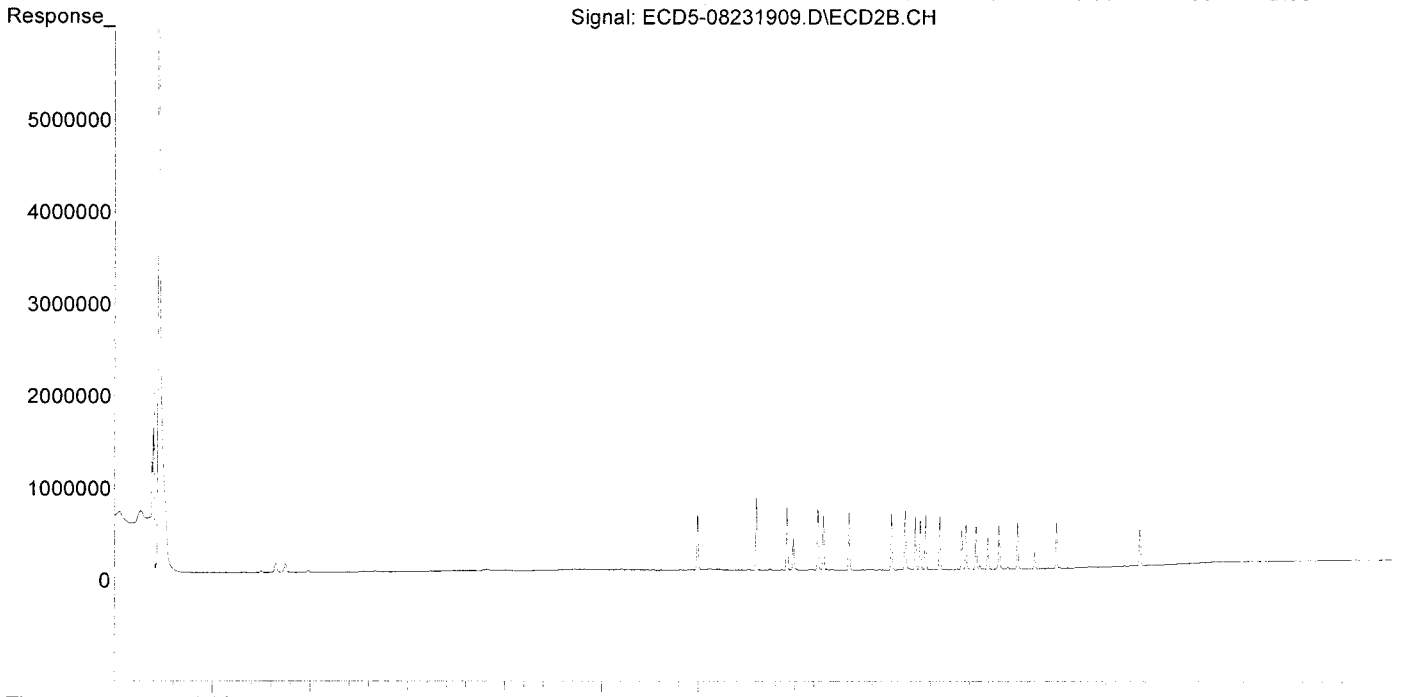
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:08
Operator : MJB
Sample : 9H23034-CAL2
Misc : A19E246, AB 2 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:25
Operator : MJB
Sample : 9H23034-CAL3
Misc : A19E247, AB 5 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:25 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

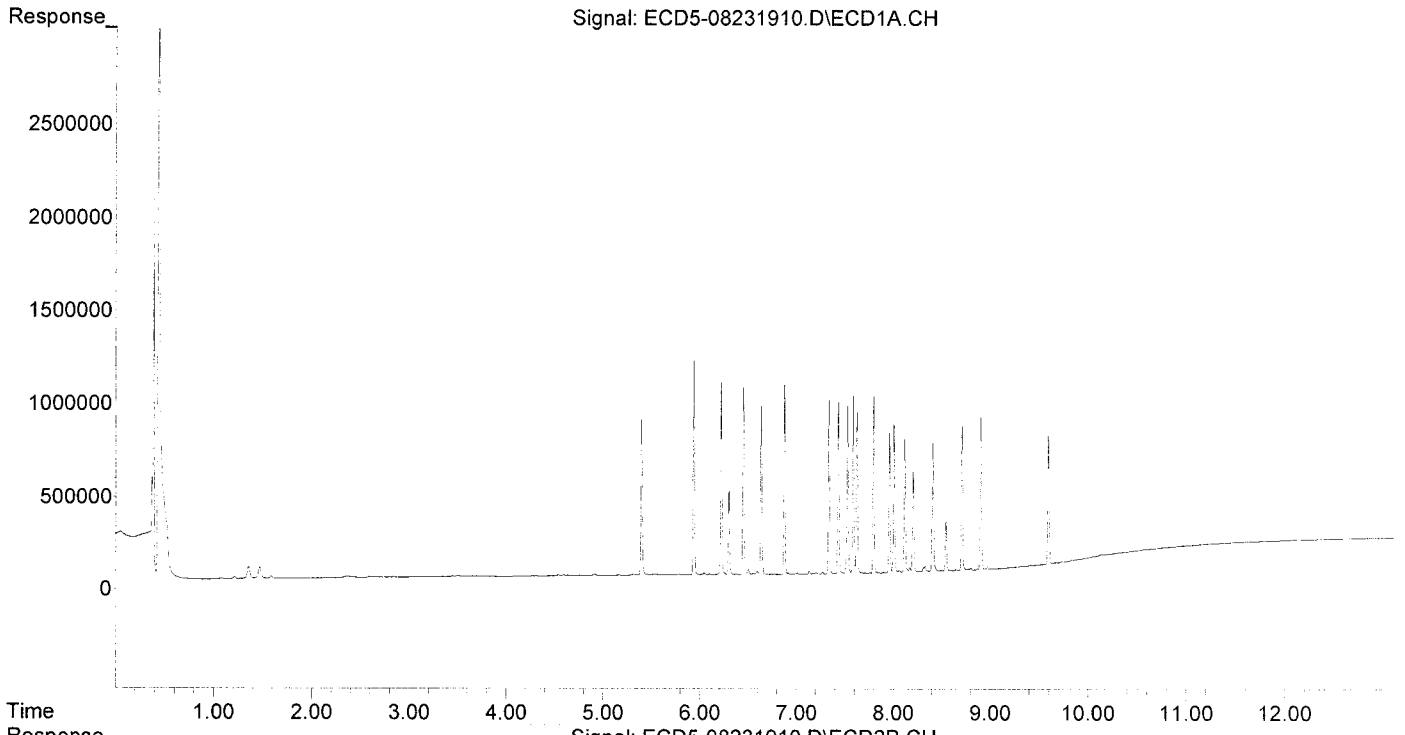
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.396	5.990	834206	1437876	5.026	4.901	
22) S	DCBP (S)	9.594	10.542	701050	870921	4.969	4.845	
	Target Compounds							
2)	a-BHC	5.937	6.597	1147932	1985438	5.006	4.839	
3)	g-BHC	6.220	6.915	1020724	1742677	5.059	4.885	
4)	b-BHC	6.300	6.980	456954	788630	5.056	4.983	
5)	Heptachlor	6.635	7.291	899091	1508218	4.959	4.929	
6)	d-BHC	6.449	7.233	1004012	1717450	5.105	4.870	
7)	Aldrin	6.875	7.556	1012733	1600995	5.129	4.860	
8)	Heptachlo...	7.335	7.994	923620	1455941	5.015	4.839	
9)	trans-Chl...	7.432	8.134	926577	1502119	5.011	4.794	
10)	cis-Chlor...	7.528	8.241	908795	1434855	4.991	4.927	
11)	Endosulfa...	7.624	8.290	861509	1327191	5.062	4.823	
12)	4,4'-DDE	7.586	8.345	953351	1487999	5.057	4.790	
13)	Dieldrin	7.796	8.491	972009	1462538	5.063	4.809	
14)	Endrin	7.960	8.718	738953	1092877	5.026	4.839	
15)	4,4'-DDD	8.007	8.759	790498	1208642	5.031	4.717	
16)	Endosulfa...	8.118	8.865	709544	1096359	4.941	4.754	
17)	4,4'-DDT	8.205	8.986	553009	873653	4.625	5.010	
18)	Endrin Al...	8.407	9.101	683393	1045869	4.834	4.849	
19)	Endosulfa...	8.708	9.291	768798	1175908	4.961	4.721	
20)	Methoxychlor	8.542	9.466	270388	413802	4.616	4.904	
21)	Endrin Ke...	8.901	9.689	811384	1205004	4.866	4.683	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.782	0.000	4389	0	0.025	N.D.	#
25)	Oxychlordane	7.271	0.000	11672	0	0.071	N.D.	#
26)	2,4'-DDE	7.335	8.134	923620	1502119	7.201	7.081	
27)	trans-Non...	7.528	0.000	908795	0	4.756	N.D.	#
28)	2,4'-DDD	0.000	8.491	0	1462538	N.D.	7.744	#
29)	2,4'-DDT	7.894	8.718	3329	1092877	0.030	6.128	#
30)	cis-Nonac...	8.007f	8.759	790498	1208642	3.808	3.603	
31)	Mirex	8.645	9.689	4292	1205004	0.034	6.476	#
32)	Chlordane...	7.432	8.134	926577	1502119	47.059	41.513	
33)	Chlordane...	7.528	8.241	908795	1434855	36.259	47.255	
34)	Chlordane...	8.063	8.903	7555	42265	1.307	4.714	#
35)	Chlordane...	3.446	0.000	4904	0	NoCal	N.D.	
36)	Toxaphene...	7.528f	8.491f	908795	1462538	1014.680	557.315	#
37)	Toxaphene...	7.796	0.000	972009	0	601.886	N.D.	#
38)	Toxaphene...	8.118	8.865	709544	1096359	210.704	216.316	
39)	Toxaphene...	8.328	8.903	27348	42265	8.440	5.062	#
40)	Toxaphene...	8.542f	9.101	270388	1045869	112.796	224.418	#
41)	Toxaphene...	8.645	9.466	4292	413802	1.356	87.113	#
42)	Toxaphene...	3.446	0.000	4904	0	NoCal	N.D.	

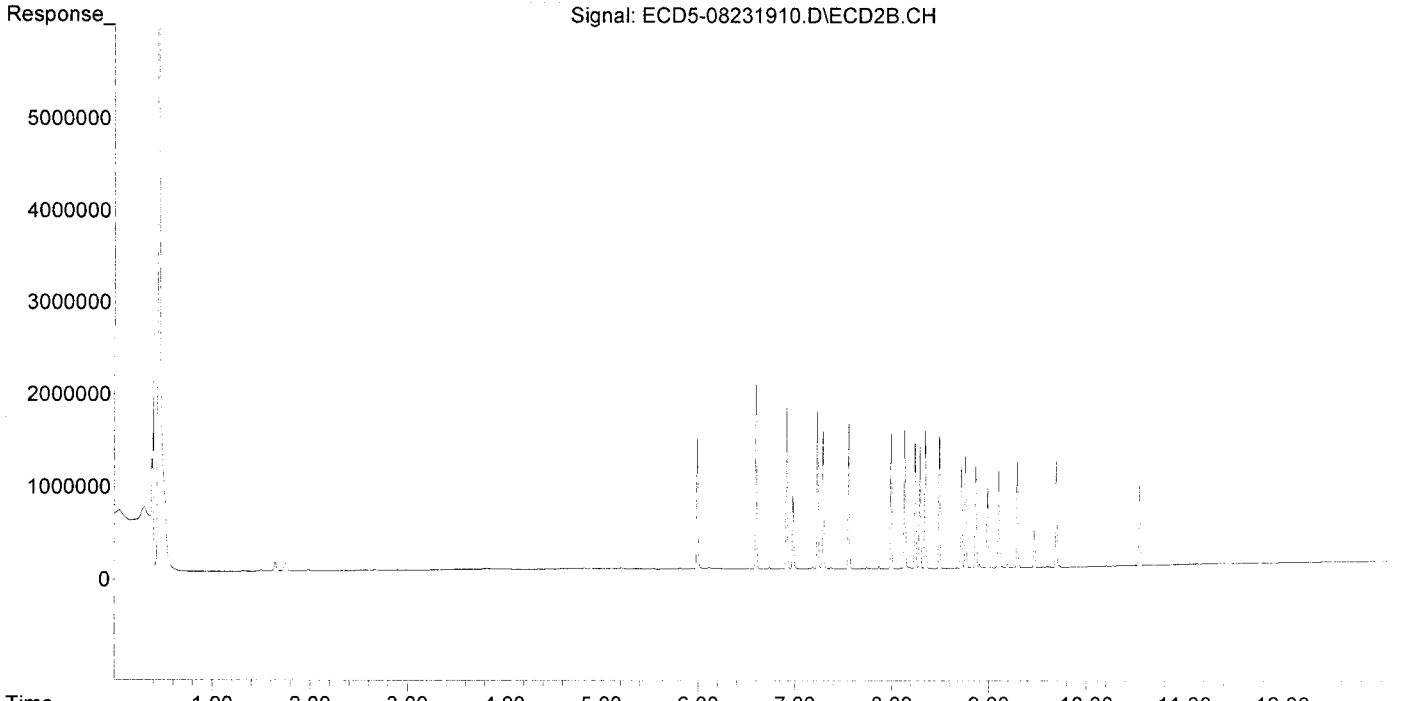
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:25
Operator : MJB
Sample : 9H23034-CAL3
Misc : A19E247, AB 5 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:25 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:42
Operator : MJB
Sample : 9H23034-CAL4
Misc : A19E249, AB 10 ppb
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

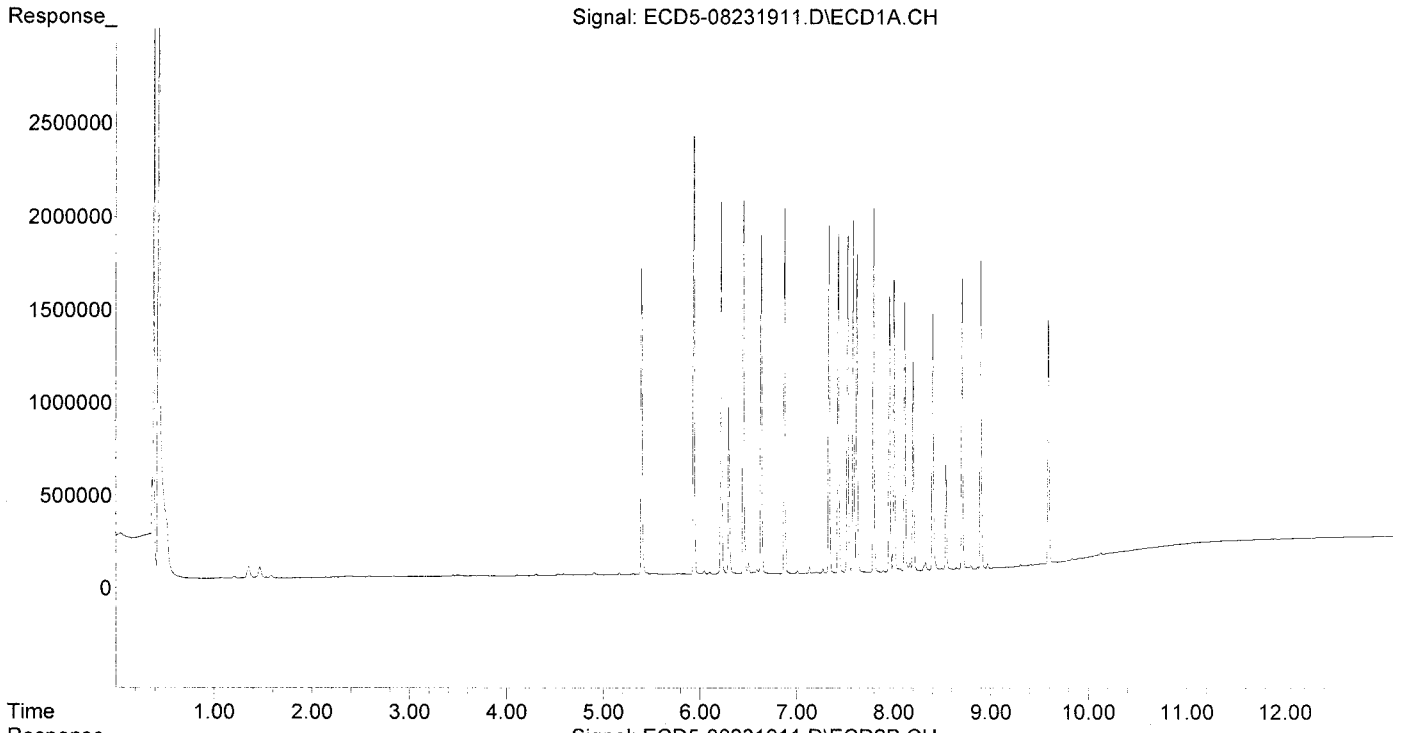
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.396	5.990	1644447	2865854	9.908	9.769	
22) S	DCBP (S)	9.593	10.541	1335468	1678728	9.465	9.339	
	Target Compounds							
2)	a-BHC	5.936	6.597	2347065	4095890	10.234	9.982	
3)	g-BHC	6.220	6.915	2034859	3476733	10.085	9.747	
4)	b-BHC	6.299	6.980	910875	1580847	10.078	9.989	
5)	Heptachlor	6.634	7.291	1819621	3005915	10.037	9.824	
6)	d-BHC	6.449	7.234	2006493	3613517	10.201	10.246	
7)	Aldrin	6.875	7.556	2010802	3341093	10.184	10.143	
8)	Heptachlo...	7.335	7.994	1865428	2959301	10.128	9.837	
9)	trans-Chl...	7.431	8.134	1847996	3002782	9.995	9.584	
10)	cis-Chlor...	7.527	8.241	1843346	2859573	10.124	9.818	
11)	Endosulfa...	7.623	8.291	1709332	2724272	10.044	9.900	
12)	4,4'-DDE	7.585	8.346	1890931	3049792	10.030	9.817	
13)	Dieldrin	7.795	8.491	1954890	2898866	10.183	9.531	
14)	Endrin	7.960	8.718	1475508	2244483	10.036	9.939	
15)	4,4'-DDD	8.006	8.760	1565974	2425496	9.965	9.467	
16)	Endosulfa...	8.117	8.864	1448080	2243610	10.083	9.729	
17)	4,4'-DDT	8.204	8.987	1146556	1841119	9.590	10.491	
18)	Endrin Al...	8.406	9.101	1375129	2125028	10.716	10.650	
19)	Endosulfa...	8.707	9.292	1553540	2424584	10.024	9.734	
20)	Methoxychlor	8.542	9.465	561706	883069	9.590	10.543	
21)	Endrin Ke...	8.900	9.689	1664380	2496985	9.981	9.704	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.781	0.000	6414	0	0.036	N.D.	#
25)	Oxychlordane	7.271	0.000	23125	0	0.141	N.D.	#
26)	2,4'-DDE	7.335	8.134	1865428	3002782	14.544	14.155	
27)	trans-Non...	7.527	0.000	1843346	0	9.974	N.D.	#
28)	2,4'-DDD	0.000	8.491	0	2898866	N.D.	15.349	#
29)	2,4'-DDT	7.893	8.718	6940	2244483	0.063	12.585	#
30)	cis-Nonac...	8.006f	8.760	1565974	2425496	7.543	7.231	
31)	Mirex	8.644	9.689	9584	2496985	0.076	13.419	#
32)	Chlordane...	7.431	8.134	1847996	3002782	93.856	82.985	
33)	Chlordane...	7.527	8.241	1843346	2859573	73.545	94.176	
34)	Chlordane...	8.062	8.903	15147	46214	2.620	5.154	#
35)	Chlordane...	3.446	0.000	4445	0	NoCal	N.D.	
36)	Toxaphene...	7.527f	8.491f	1843346	2898866	2058.116	1104.642	#
37)	Toxaphene...	7.795	0.000	1954890	0	1210.504	N.D.	#
38)	Toxaphene...	8.117	8.864	1448080	2243610	430.018	442.674	
39)	Toxaphene...	8.328	8.903	47046	46214	14.520	5.535	#
40)	Toxaphene...	8.542f	9.101	561706	2125028	234.323	455.980	#
41)	Toxaphene...	8.644	9.465	9584	883069	3.029	185.901	#
42)	Toxaphene...	3.446	0.000	4445	0	NoCal	N.D.	

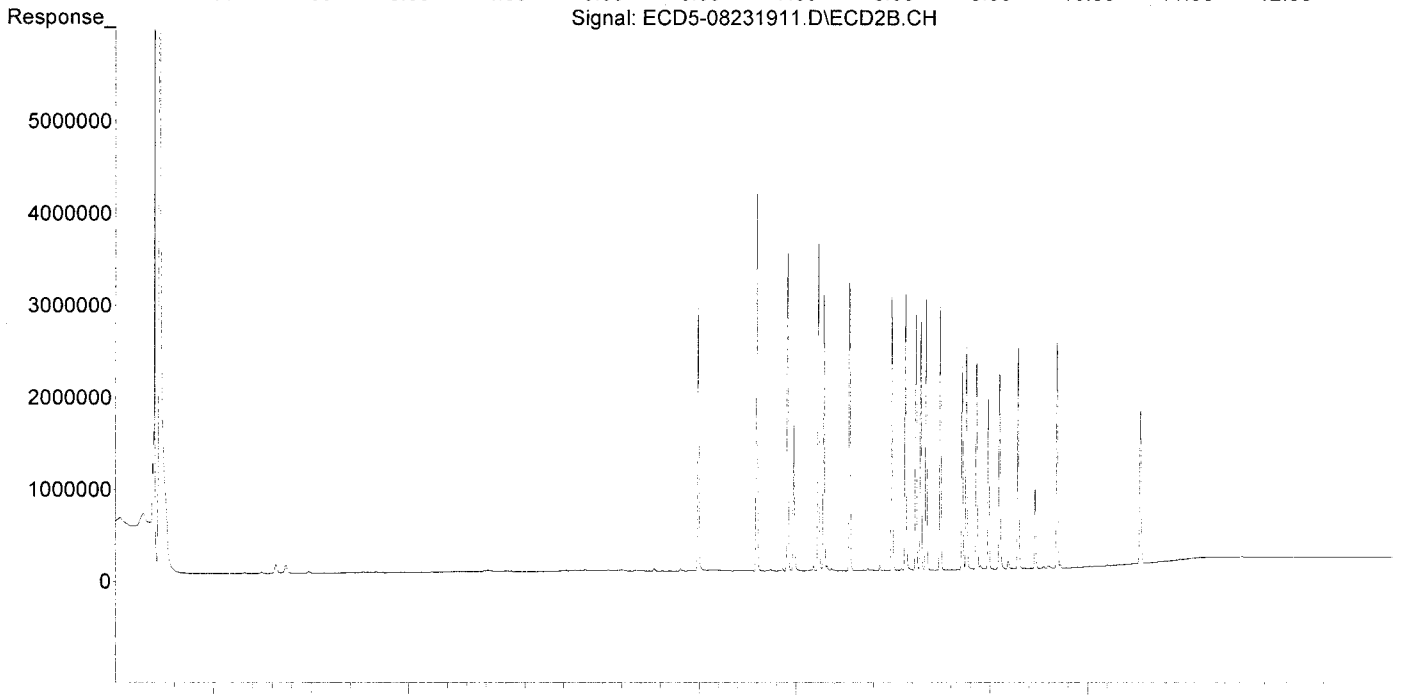
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:42
Operator : MJB
Sample : 9H23034-CAL4
Misc : A19E249, AB 10 ppb
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:00
Operator : MJB
Sample : 9H23034-CAL5
Misc : A19E250, AB 25 ppb
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:01 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MB 8/26/19

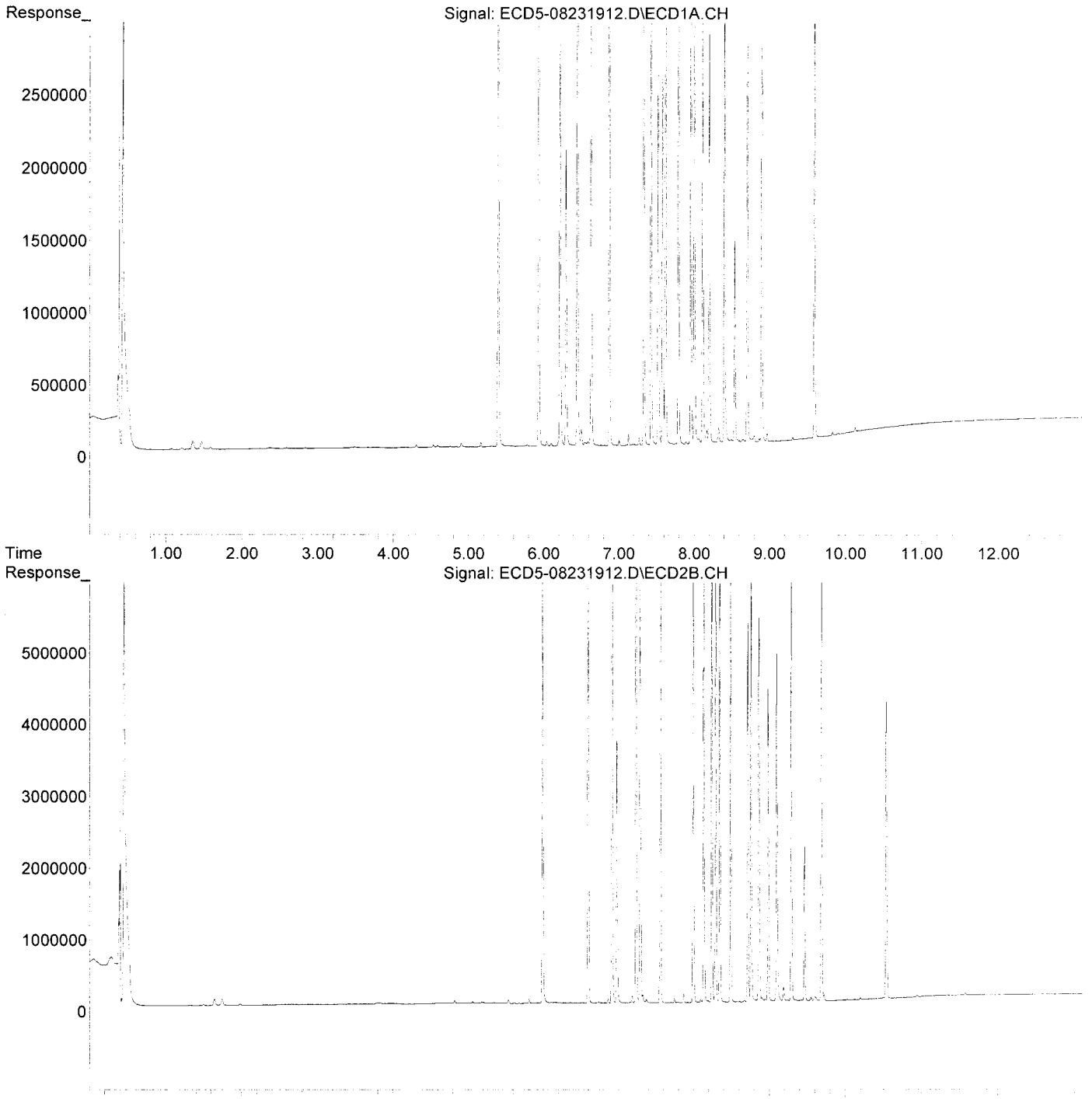
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.989	4015832	7072923	24.195	24.109	
22)	S	DCBP (S)	9.592	10.539	3342634	4163229	23.690	23.160	
		Target Compounds							
2)		a-BHC	5.935	6.596	5553096	9910863	24.215	24.153	
3)		g-BHC	6.218	6.913	4875657	8508386	24.164	23.853	
4)		b-BHC	6.297	6.978	2060378	3677155	22.796	23.234	
5)		Heptachlor	6.633	7.289	4314306	7282282	23.797	23.800	
6)		d-BHC	6.447	7.232	4667166	8247775	23.729	23.387	
7)		Aldrin	6.873	7.555	4845355	7878574	24.540	23.919	
8)		Heptachlo...	7.332	7.992	4344286	7064729	23.587	23.483	
9)		trans-Chl...	7.429	8.131	4401456	7157480	23.806	22.844	
10)		cis-Chlor...	7.525	8.239	4244413	6935857	23.312	23.814	
11)		Endosulfa...	7.621	8.288	4111285	6571512	24.158	23.881	
12)		4,4'-DDE	7.583	8.343	4571066	7501047	24.246	24.144	
13)		Dieldrin	7.792	8.489	4582306	7333890	23.869	24.113	
14)		Endrin	7.957	8.716	3508904	5325883	23.866	23.584	
15)		4,4'-DDD	8.004	8.758	3727035	6146469	23.718	23.990	
16)		Endosulfa...	8.115	8.862	3371864	5447602	23.479	23.623	
17)		4,4'-DDT	8.202	8.984	2924467	4480388	24.460	24.907	
18)		Endrin Al...	8.404	9.099	3119767	4848504	25.346	24.953	
19)		Endosulfa...	8.705	9.289	3645411	5978906	23.522	24.003	
20)		Methoxychlor	8.540	9.463	1390283	2166659	23.735	25.322	
21)		Endrin Ke...	8.899	9.688	4008958	5893691	24.041	22.904	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.779	0.000	7817	0	0.044	N.D.	#
25)		Oxychlordane	7.269	0.000	51278	0	0.312	N.D.	#
26)		2,4'-DDE	7.332	8.131	4344286	7157480	33.871	33.740	
27)		trans-Non...	7.525	8.192	4244413	24831	23.380	0.082	#
28)		2,4'-DDD	0.000	8.489	0	7333890	N.D.	38.832	#
29)		2,4'-DDT	7.891	8.716	15573	5325883	0.142	29.864	#
30)		cis-Nonac...	8.004	8.758	3727035	6146469	17.952	18.323	
31)		Mirex	8.651	9.688	18145	5893691	0.145	31.674	#
32)		Chlordane...	7.429	8.131	4401456	7157480	223.542	197.805	
33)		Chlordane...	7.525	8.239	4244413	6935857	169.341	228.423	
34)		Chlordane...	8.059	8.901	33094	57884	5.724	6.456	
35)		Chlordane...	3.446	0.000	4689	0	NoCal	N.D.	
36)		Toxaphene...	7.525f	8.489f	4244413	7333890	4738.933	2794.653	#
37)		Toxaphene...	7.792	0.000	4582306	0	2837.449	N.D.	#
38)		Toxaphene...	8.115	8.862	3371864	5447602	1001.299	1074.835	
39)		Toxaphene...	8.326f	8.901	104762	57884	32.332	6.932	#
40)		Toxaphene...	8.540f	9.099	1390283	4848504	579.975	1040.371	#
41)		Toxaphene...	8.651	9.463	18145	2166659	5.734	456.119	#
42)		Toxaphene...	3.446	0.000	4689	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:00
Operator : MJB
Sample : 9H23034-CAL5
Misc : A19E250, AB 25 ppb
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:01 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:17
Operator : MJB
Sample : 9H23034-CAL6
Misc : A19H383, AB 50 ppb
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

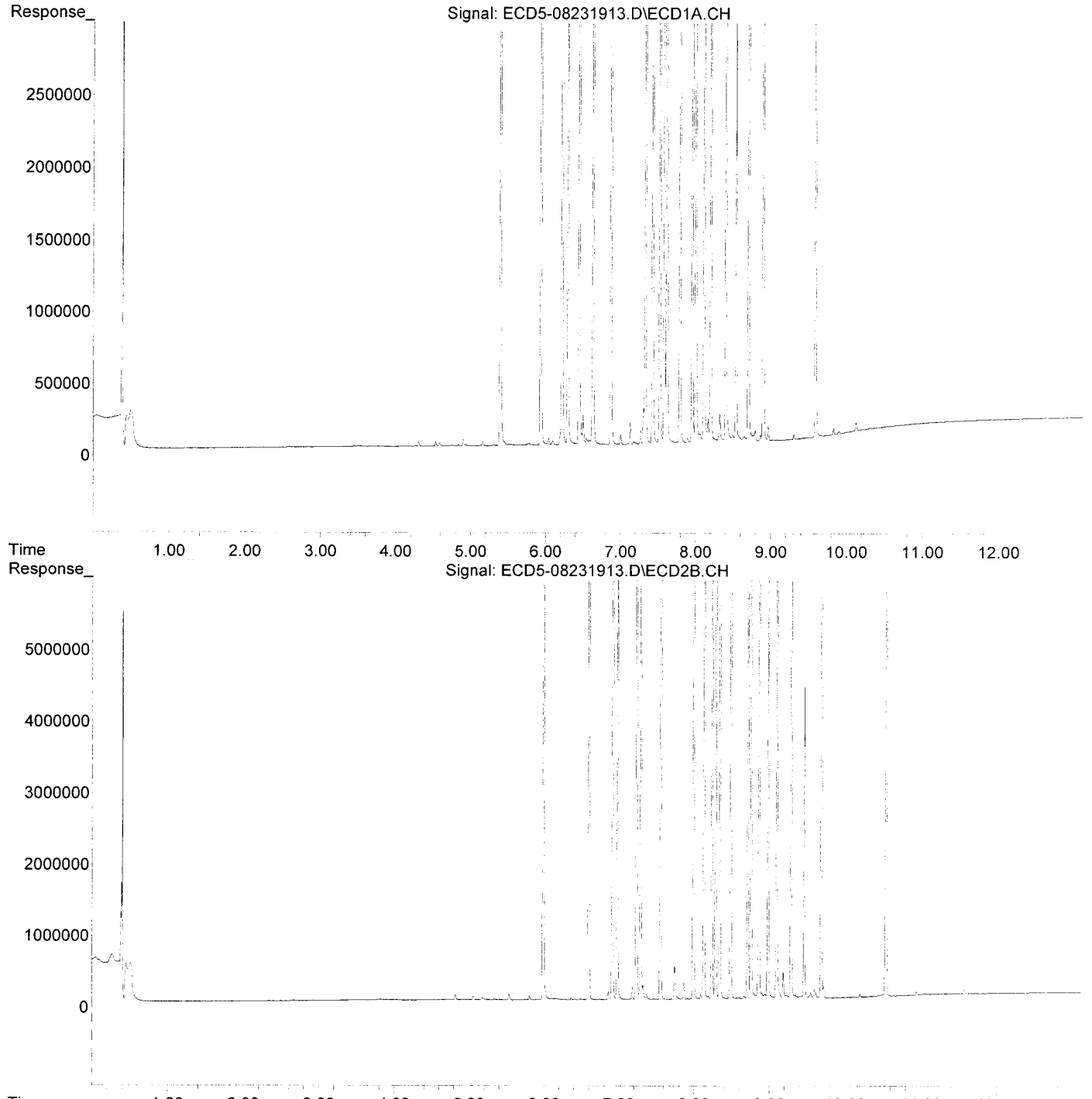
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.989	8071481	14196745	48.631	48.392	
22)	S	DCBP (S)	9.592	10.541	6678990	8730692	47.336	48.568	
		Target Compounds							
2)		a-BHC	5.935	6.596	11369592	20265817	49.578	49.388	
3)		g-BHC	6.218	6.914	9785999	17381069	48.499	48.727	
4)		b-BHC	6.296	6.978	4100858	7516011	45.372	47.490	
5)		Heptachlor	6.632	7.290	8735158	14595143	48.182	47.700	
6)		d-BHC	6.447	7.232	9610742	17311258	48.862	49.087	
7)		Aldrin	6.873	7.555	9327672	16264416	47.242	49.377	
8)		Heptachlo...	7.332	7.992	8869300	14837794	48.156	49.320	
9)		trans-Chl...	7.428	8.131	8959305	14678719	48.457	46.848	
10)		cis-Chlor...	7.524	8.238	8622674	14002116	47.359	48.076	
11)		Endosulfa...	7.621	8.289	7984410	13712329	46.917	49.831	
12)		4,4'-DDE	7.583	8.344	9177389	15554706	48.679	50.067	
13)		Dieldrin	7.792	8.489	9386664	15434113	48.894	50.745	
14)		Endrin	7.957	8.716	6979572	11015379	47.471	48.778	
15)		4,4'-DDD	8.004	8.758	7726197	13159451	49.167	51.361	
16)		Endosulfa...	8.114	8.863	6840920	11534525	47.635	50.018	
17)		4,4'-DDT	8.202	8.985	6205369	9285492	51.902	49.430	
18)		Endrin Al...	8.404	9.099	6224451	10209034	50.697	51.836	
19)		Endosulfa...	8.705	9.289	7420576	12149289	47.882	48.775	
20)		Methoxychlor	8.540	9.464	2860683	4346199	48.839	48.597	
21)		Endrin Ke...	8.899	9.687	8190707	12954568	49.117	50.345	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.777	6.487f	17034	6623	0.097	0.021	#
25)		Oxychlordane	7.268	7.916	93115	13858	0.566	0.051	#
26)		2,4'-DDE	7.332	8.131	8869300	14678719	69.150	69.194	
27)		trans-Non...	7.524	8.193	8622674	44541	47.838	0.148	#
28)		2,4'-DDD	7.705	8.489	15706	15434113	0.138	81.721	#
29)		2,4'-DDT	7.890	8.716	32276	11015379	0.294	61.766	#
30)		cis-Nonac...	8.004	8.758	7726197	13159451	37.214	39.229	
31)		Mirex	8.653	9.687	33100	12954568	0.264	69.621	#
32)		Chlordane...	7.428	8.131	8959305	14678719	455.027	405.662	
33)		Chlordane...	7.524	8.238	8622674	14002116	344.022	461.141	
34)		Chlordane...	8.059	8.901	56505	76664	9.774	8.551	
35)		Chlordane...	3.445	0.000	3954	0	NoCal	N.D.	
36)		Toxaphene...	7.524f	8.489f	8622674	15434113	9627.309	5881.324	
37)		Toxaphene...	7.792	8.823	9386664	45987	5812.397	13.973	#
38)		Toxaphene...	8.114	8.863	6840920	11534525	2031.460	2275.810	
39)		Toxaphene...	8.325f	8.901	190344	76664	58.746	9.182	#
40)		Toxaphene...	8.540f	9.099	2860683	10209034	1193.372	2190.611	#
41)		Toxaphene...	8.653	9.464	33100	4346199	10.460	914.950	#
42)		Toxaphene...	3.445	0.000	3954	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:17
Operator : MJB
Sample : 9H23034-CAL6
Misc : A19H383, AB 50 ppb
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:34
Operator : MJB
Sample : 9H23034-CAL7
Misc : A19H382, AB 100 ppb
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

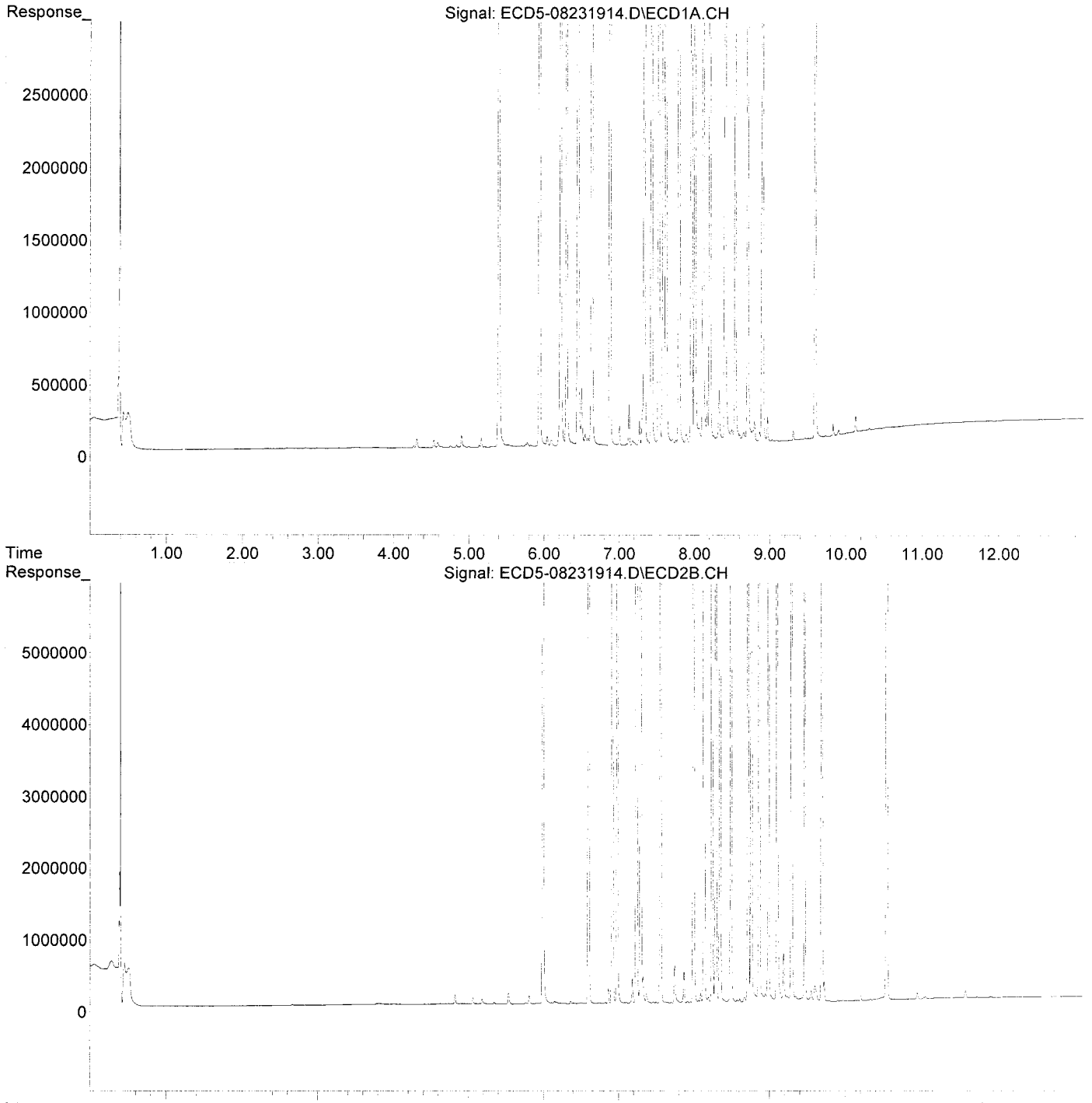
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.395	5.989	15850922	29256334	95.502	99.726	
22)	S	DCBP (S)	9.592	10.540	13405396	17784069	95.007	98.931	
		Target Compounds							
2)		a-BHC	5.935	6.596	22363584	41699210	97.517	101.621	
3)		g-BHC	6.218	6.914	19595093	36788994	97.113	103.136	
4)		b-BHC	6.296	6.977	8355416	14625175	92.444	92.409	
5)		Heptachlor	6.632	7.289	17551528	30277818	96.811	98.955	
6)		d-BHC	6.446	7.232	19475580	35176633	99.016	99.745	
7)		Aldrin	6.872	7.555	19108074	33906422	96.776	102.936	
8)		Heptachlo...	7.331	7.991	17318444	30045511	94.031	99.869	
9)		trans-Chl...	7.427	8.131	17732791	30742272	95.909	98.116	
10)		cis-Chlor...	7.523	8.238	16742584	29042863	91.956	99.719	
11)		Endosulfa...	7.619	8.288	16089996	27212707	94.547	98.892	
12)		4,4'-DDE	7.582	8.344	18052552	32499603	95.754	104.609	
13)		Dieldrin	7.791	8.488	18324422	31001958	95.450	101.930	
14)		Endrin	7.957	8.715	13812708	23102413	93.947	102.301	
15)		4,4'-DDD	8.003	8.758	15437146	26297484	98.238	102.639	
16)		Endosulfa...	8.113	8.861	13543500	23016371	94.307	99.808	
17)		4,4'-DDT	8.201	8.984	12176961	19789501	101.848	97.215	
18)		Endrin Al...	8.403	9.098	12363806	20502737	98.526	99.562	
19)		Endosulfa...	8.704	9.289	14366789	24477320	92.702	98.268	
20)		Methoxychlor	8.539	9.463	5877329	9444987	100.340	96.538	
21)		Endrin Ke...	8.898	9.687	16251943	26636559	97.458	103.517	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.777	0.000	29252	0	0.166	N.D.	#
25)		Oxychlordane	7.267	7.915	165864	25145	1.008	0.092	#
26)		2,4'-DDE	7.331	8.131	17318444	30742272	135.025	144.916	
27)		trans-Non...	7.523	8.192	16742584	77338	93.233	0.256	#
28)		2,4'-DDD	7.704	8.488	32176	31001958	0.282	164.150	#
29)		2,4'-DDT	7.889	8.715	66298	23102413	0.604	129.542	#
30)		cis-Nonac...	8.003	8.758	15437146	26297484	74.355	78.395	
31)		Mirex	8.651	9.687	63592	26636559	0.507	143.151	#
32)		Chlordane...	7.427	8.131	17732791	30742272	900.616	849.596	
33)		Chlordane...	7.523	8.238	16742584	29042863	667.985	956.488	#
34)		Chlordane...	8.059	8.899	102306	115089	17.697	12.836	
35)		Chlordane...	3.447	0.000	5362	0	NoCal	N.D.	
36)		Toxaphene...	7.523f	8.488f	16742584	31001958	18693.275	11813.609	
37)		Toxaphene...	7.791	0.000	18324422	0	11346.823	N.D.	#
38)		Toxaphene...	8.113	8.861	13543500	23016371	4021.839	4541.226	
39)		Toxaphene...	8.324f	8.899	362066	115089	111.744	13.783	#
40)		Toxaphene...	8.598f	9.098	51910	20502737	21.655	4399.391	#
41)		Toxaphene...	8.651	9.463	63592	9444987	20.095	1988.334	#
42)		Toxaphene...	3.447	0.000	5362	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:34
Operator : MJB
Sample : 9H23034-CAL7
Misc : A19H382, AB 100 ppb
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:52
Operator : MJB
Sample : 9H23034-CAL8
Misc : A19E244, AB 200 ppb
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

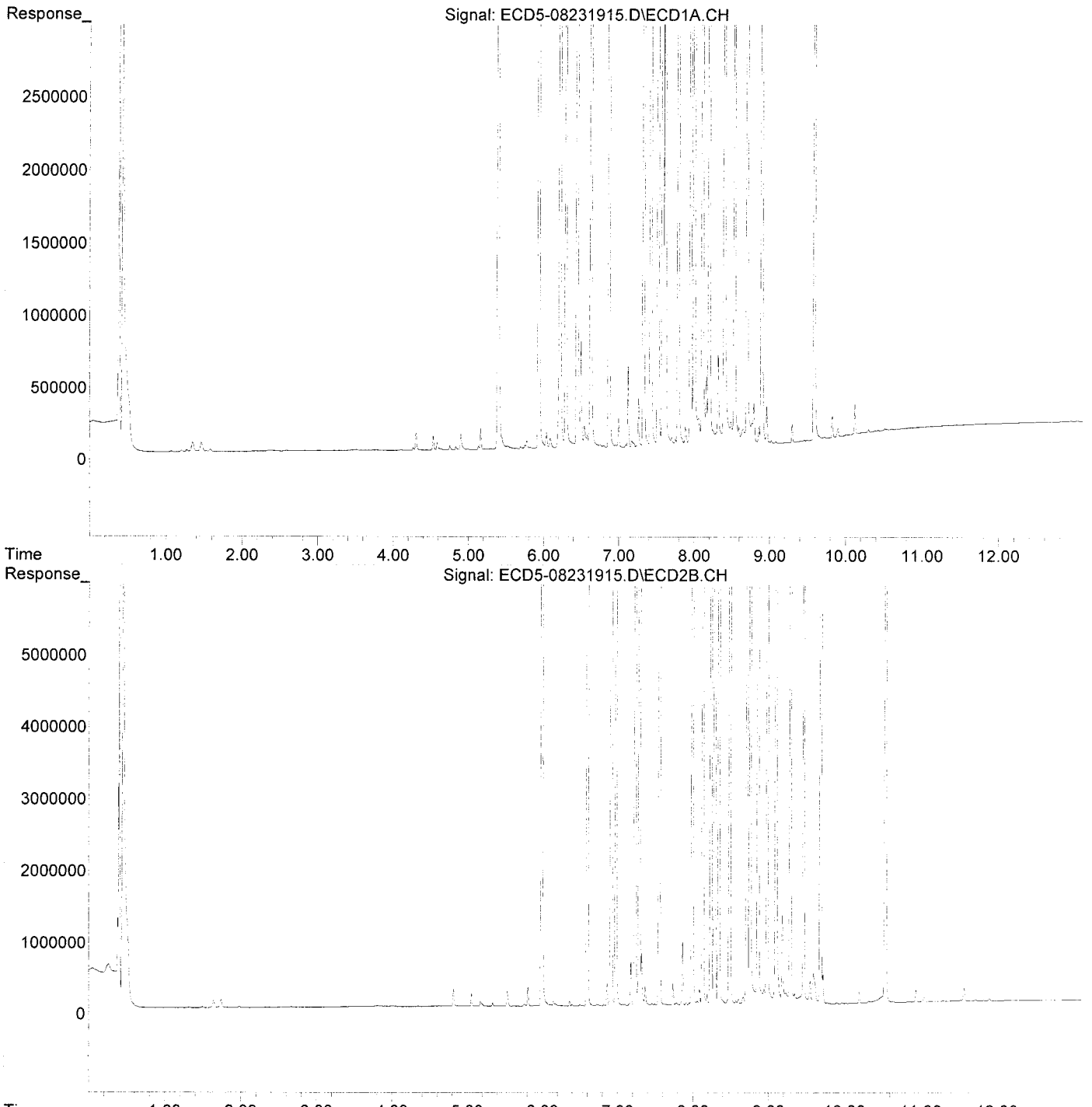
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.990	32842535	62584449	197.876	213.332	
22)	S	DCBP (S)	9.591	10.539	26975231	38097779	191.180	211.933	
		Target Compounds							
2)		a-BHC	5.935	6.597	47202252	94376748	205.828	229.997	
3)		g-BHC	6.218	6.914	41889726	80765680	207.604	226.422	
4)		b-BHC	6.294	6.977	18238696	32553433	201.792	205.688	
5)		Heptachlor	6.630	7.289	37785699	71283176	208.419	232.969	
6)		d-BHC	6.445	7.232	41016592	80979751	208.534	229.622	
7)		Aldrin	6.870	7.554	39838403	73228186	201.769	222.313	
8)		Heptachlo...	7.330	7.991	36258170	65330070	196.864	217.153	
9)		trans-Chl...	7.425	8.130	37621413	66447972	203.478	212.073	
10)		cis-Chlor...	7.521	8.238	35207945	63977063	193.375	219.666	
11)		Endosulfa...	7.618	8.288	33852593	61043507	198.922	221.834	
12)		4,4'-DDE	7.581	8.344	38763081	69842351	205.607	224.807	
13)		Dieldrin	7.791	8.489	39217772	70031781	204.281	230.254	
14)		Endrin	7.955	8.715	31426311	52779585	213.745	233.717	
15)		4,4'-DDD	8.002	8.758	32436804	59560270	206.419	232.463	
16)		Endosulfa...	8.112	8.862	29471042	51834888	205.214	224.777	
17)		4,4'-DDT	8.200	8.984	29075222	48203441	243.185	202.337	
18)		Endrin Al...	8.402	9.098	26627672	45084544	200.132	198.781	
19)		Endosulfa...	8.704	9.289	31126520	54592794	200.845	219.171	
20)		Methoxychlor	8.537	9.463	14271143	23714100	243.642	203.084	
21)		Endrin Ke...	8.898	9.688	35094718	60861376	210.452	236.524	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.776	0.000	55469	0	0.315	N.D.	#
25)		Oxychlordane	7.265	7.915	336226	30124	2.043	0.110	#
26)		2,4'-DDE	7.330	8.130	36258170	66447972	282.690	313.230	
27)		trans-Non...	7.521	8.191	35207945	140624	196.641	0.466	#
28)		2,4'-DDD	7.703	8.489	57049	70031781	0.500	370.806	#
29)		2,4'-DDT	7.886	8.715	129876	52779585	1.184	295.950	#
30)		cis-Nonac...	8.002	8.758	32436804	59560270	156.235	177.554	
31)		Mirex	8.651	9.688	103310	60861376	0.824	327.083	#
32)		Chlordane...	7.425	8.130	37621413	66447972	1910.724	1836.362	
33)		Chlordane...	7.521	8.238	35207945	63977063	1404.705	2106.999	#
34)		Chlordane...	8.058	8.862f	183720	51834888	31.779	5781.350	#
35)		Chlordane...	3.445	0.000	4872	0	NoCal	N.D.	
36)		Toxaphene...	7.521	8.489f	35207945	70031781	39310.050	26686.316	
37)		Toxaphene...	7.791	0.000	39217772	0	24284.375	N.D.	#
38)		Toxaphene...	8.112	8.862	29471042	51834888	8751.637	10227.240	
39)		Toxaphene...	8.322f	8.943f	634260	207653	195.750	24.869	#
40)		Toxaphene...	8.537f	9.098	14271143	45084544	5953.399	9674.052	#
41)		Toxaphene...	8.651	9.463	103310	23714100	32.646	4992.230	#
42)		Toxaphene...	3.445	0.000	4872	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:52
Operator : MJB
Sample : 9H23034-CAL8
Misc : A19E244, AB 200 ppb
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

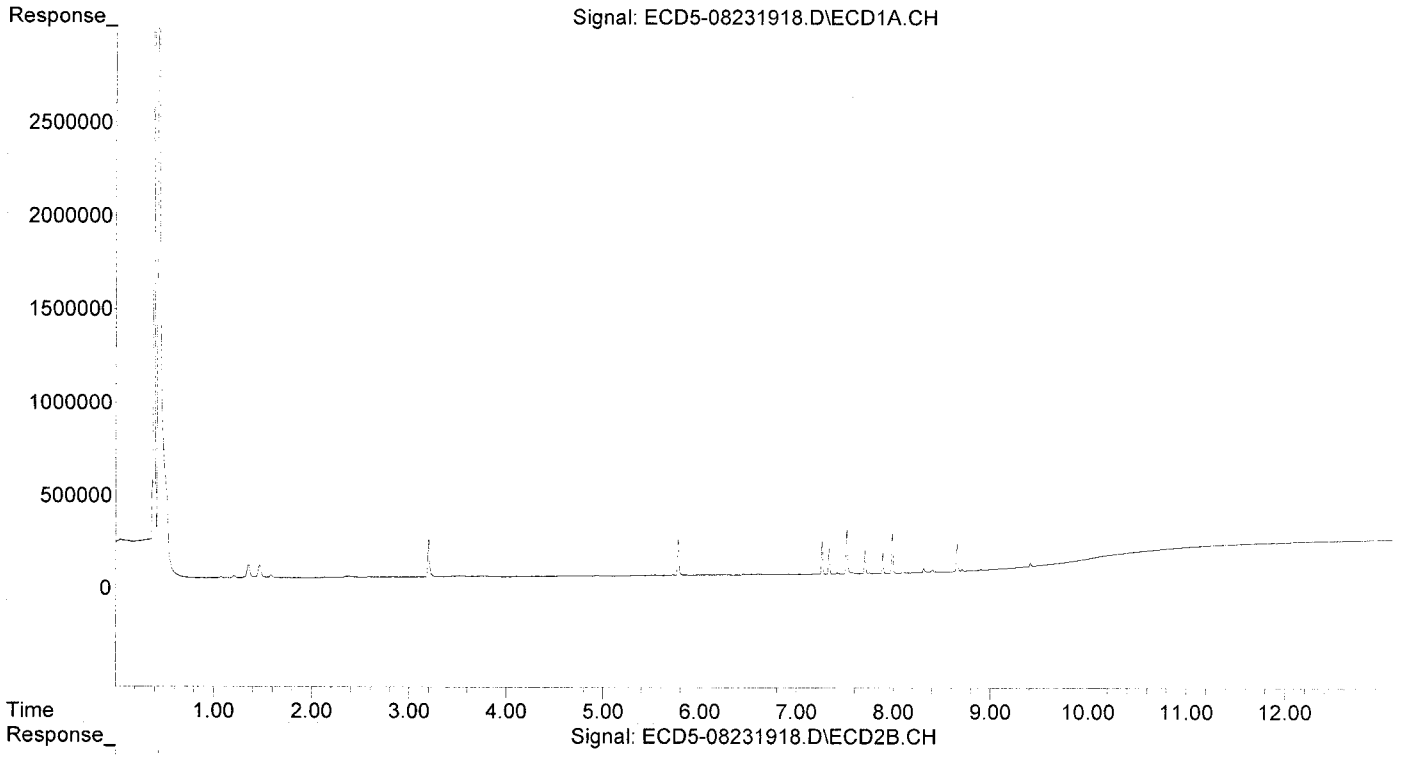
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6576	N.D.	0.022	#
22)	S	DCBP (S)	9.593	10.540	2255	5805	0.016	0.032	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4648	0	0.023	N.D.	#
4)		b-BHC	0.000	7.002f	0	7162	N.D.	0.045	#
5)		Heptachlor	6.601f	0.000	3572	0	0.020	N.D.	#
6)		d-BHC	6.449	7.232	5321	8483	0.027	0.024	
7)		Aldrin	0.000	7.577f	0	8990	N.D.	0.027	#
8)		Heptachlo...	7.335	0.000	137947	0	0.749	N.D.	#
9)		trans-Chl...	7.420	8.123	5532	219164	0.030	0.699	#
10)		cis-Chlor...	7.518	0.000	236836	0	1.301	N.D.	#
11)		Endosulfa...	7.582f	0.000	5522	0	0.032	N.D.	#
12)		4,4'-DDE	7.582	0.000	5522	0	0.029	N.D.	#
13)		Dieldrin	7.755f	8.495	4087	192040	0.021	0.631	#
14)		Endrin	7.987f	8.719	219220	173338	1.491	0.768	#
15)		4,4'-DDD	7.987	8.759	219220	332745	1.395	1.299	
16)		Endosulfa...	8.116	8.903f	2586	40443	0.018	0.175	#
17)		4,4'-DDT	8.202	0.000	1027	0	0.009	N.D.	#
18)		Endrin Al...	8.404	9.099	13122	17799	BelowCal	BelowCal	
19)		Endosulfa...	8.706	9.290	8041	12118	0.052	0.049	
20)		Methoxychlor	8.548	0.000	665	0	0.011	N.D.	#
21)		Endrin Ke...	8.900	9.680	3962	209783	0.024	0.815	#
23)		Hexachlor...	3.198	3.687	198207	383198	1.085	1.019	
24)		Hexachlor...	5.775	6.453	194679	328025	1.104	1.044	
25)		Oxychlordane	7.263	7.922	176844	279143	1.075	1.019	
26)		2,4'-DDE	7.335	8.123	137947	219164	1.076	1.033	
27)		trans-Non...	7.518	8.195	236836	306202	1.006	1.015	
28)		2,4'-DDD	7.707	8.495	120240	192040	1.054	1.017	
29)		2,4'-DDT	7.890	8.719	107110	173338	0.977	0.972	
30)		cis-Nonac...	7.987	8.759	219220	332745	1.056	0.992	
31)		Mirex	8.655	9.680	147356	209783	1.175	1.127	
32)		Chlordane...	7.420	8.123	5532	219164	0.281	6.057	#
33)		Chlordane...	7.518	0.000	236836	0	9.449	N.D.	#
34)		Chlordane...	0.000	8.903	0	40443	N.D.	4.511	#
35)		Chlordane...	3.444	0.000	4642	0	NoCal	N.D.	
36)		Toxaphene...	7.518	8.495f	236836	192040	264.430	73.179	#
37)		Toxaphene...	7.755f	0.000	4087	0	2.531	N.D.	#
38)		Toxaphene...	8.116	0.000	2586	0	0.768	N.D.	#
39)		Toxaphene...	8.312f	8.903	22217	40443	6.857	4.844	
40)		Toxaphene...	8.548f	9.099	665	17799	0.277	3.819	#
41)		Toxaphene...	8.655	0.000	147356	0	46.564	N.D.	#
42)		Toxaphene...	3.444	0.000	4642	0	NoCal	N.D.	

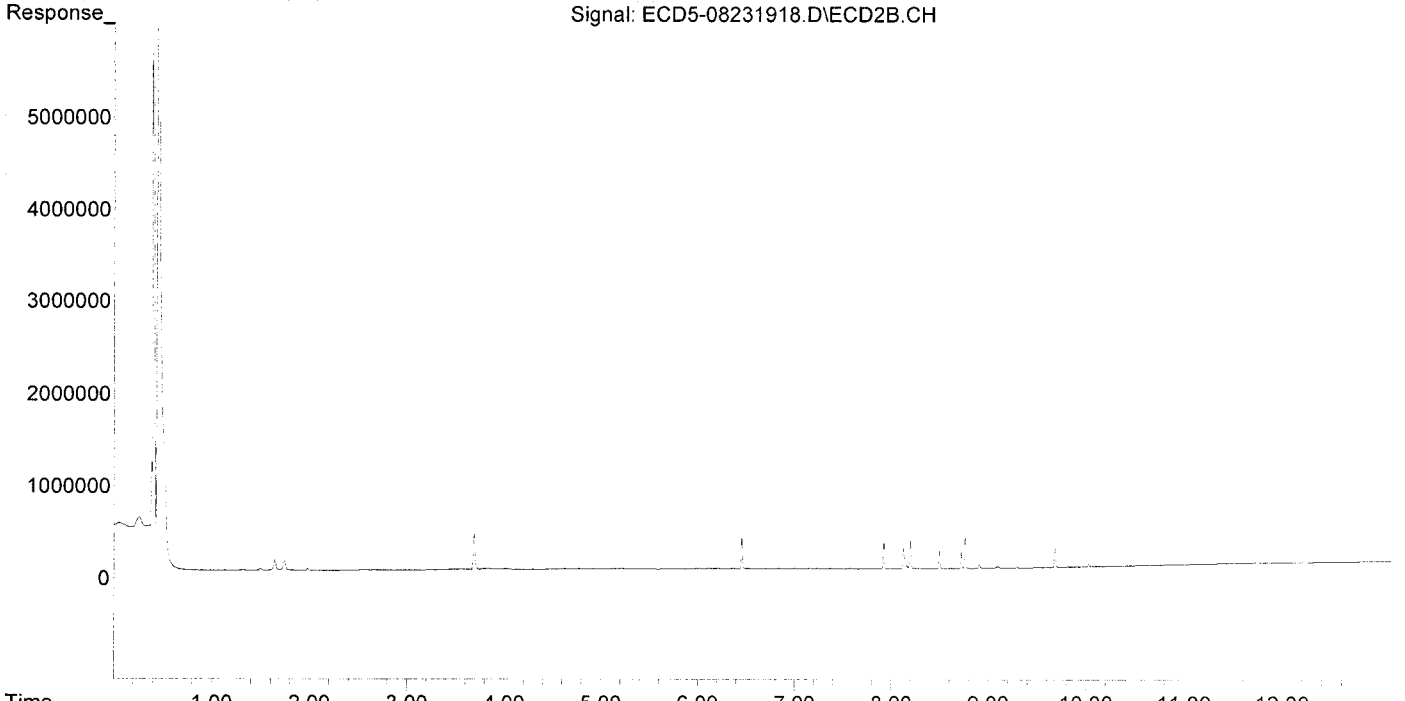
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:01
Operator : MJB
Sample : 9H23034-CALA
Misc : A19E273, 9-42 2 ppb
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:30 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 9/26/19

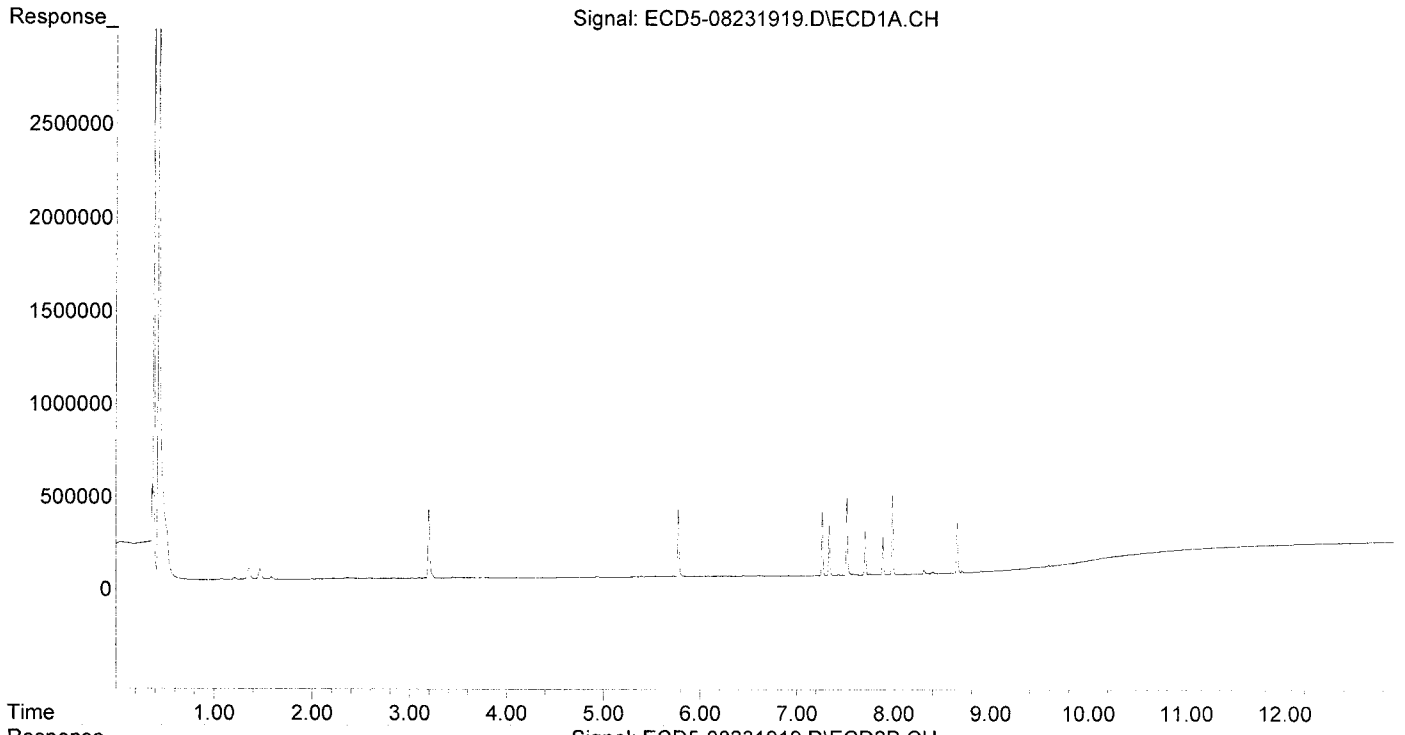
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.986	6323	13044	0.038	0.044	
22)	S	DCBP (S)	9.592	10.539	6116	7474	0.043	0.042	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.248f	0.000	3811	0	0.019	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	6.631	0.000	3915	0	0.022	N.D.	#
6)		d-BHC	6.449	7.231	6839	9605	0.035	0.027	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.334	0.000	265212	0	1.440	N.D.	#
9)		trans-Chl...	7.429	8.123	4955	411812	0.027	1.314	#
10)		cis-Chlor...	7.518	0.000	415126	0	2.280	N.D.	#
11)		Endosulfa...	7.582f	0.000	3811	0	0.022	N.D.	#
12)		4,4'-DDE	7.582	0.000	3811	0	0.020	N.D.	#
13)		Dieldrin	7.754f	8.495	8020	373596	0.042	1.228	#
14)		Endrin	7.986f	8.718	423442	332170	2.880	1.471	#
15)		4,4'-DDD	7.986	8.758	423442	624783	2.695	2.439	
16)		Endosulfa...	8.116	8.862	3733	5461	0.026	0.024	
17)		4,4'-DDT	8.200	0.000	1311	0	0.011	N.D.	#
18)		Endrin Al...	8.405	9.099	11160	14424	BelowCal	BelowCal	
19)		Endosulfa...	8.705	9.289	10006	14488	0.065	0.058	
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.899	9.680	5404	388199	0.032	1.509	#
23)		Hexachlor...	3.198	3.687	375794	754548	2.056	2.007	
24)		Hexachlor...	5.775	6.453	362082	632830	2.054	2.015	
25)		Oxychlordane	7.262	7.921	339370	541023	2.063	1.975	
26)		2,4'-DDE	7.334	8.123	265212	411812	2.068	1.941	
27)		trans-Non...	7.518	8.194	415126	587765	2.001	1.949	
28)		2,4'-DDD	7.707	8.495	233089	373596	2.042	1.978	
29)		2,4'-DDT	7.889	8.718	204209	332170	1.862	1.863	
30)		cis-Nonac...	7.986	8.758	423442	624783	2.040	1.863	
31)		Mirex	8.655	9.680	266770	388199	2.128	2.086	
32)		Chlordane...	7.429	8.123	4955	411812	0.252	11.381	#
33)		Chlordane...	7.518	0.000	415126	0	16.562	N.D.	#
34)		Chlordane...	0.000	8.903	0	41985	N.D.	4.683	#
35)		Chlordane...	3.444	0.000	5015	0	NoCal	N.D.	
36)		Toxaphene...	7.518	8.495f	415126	373596	463.493	142.363	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.116	8.862	3733	5461	1.108	1.077	
39)		Toxaphene...	8.312f	8.903	22876	41985	7.060	5.028	
40)		Toxaphene...	0.000	9.099	0	14424	N.D.	3.095	#
41)		Toxaphene...	8.655	0.000	266770	0	84.299	N.D.	#
42)		Toxaphene...	3.444	0.000	5015	0	NoCal	N.D.	

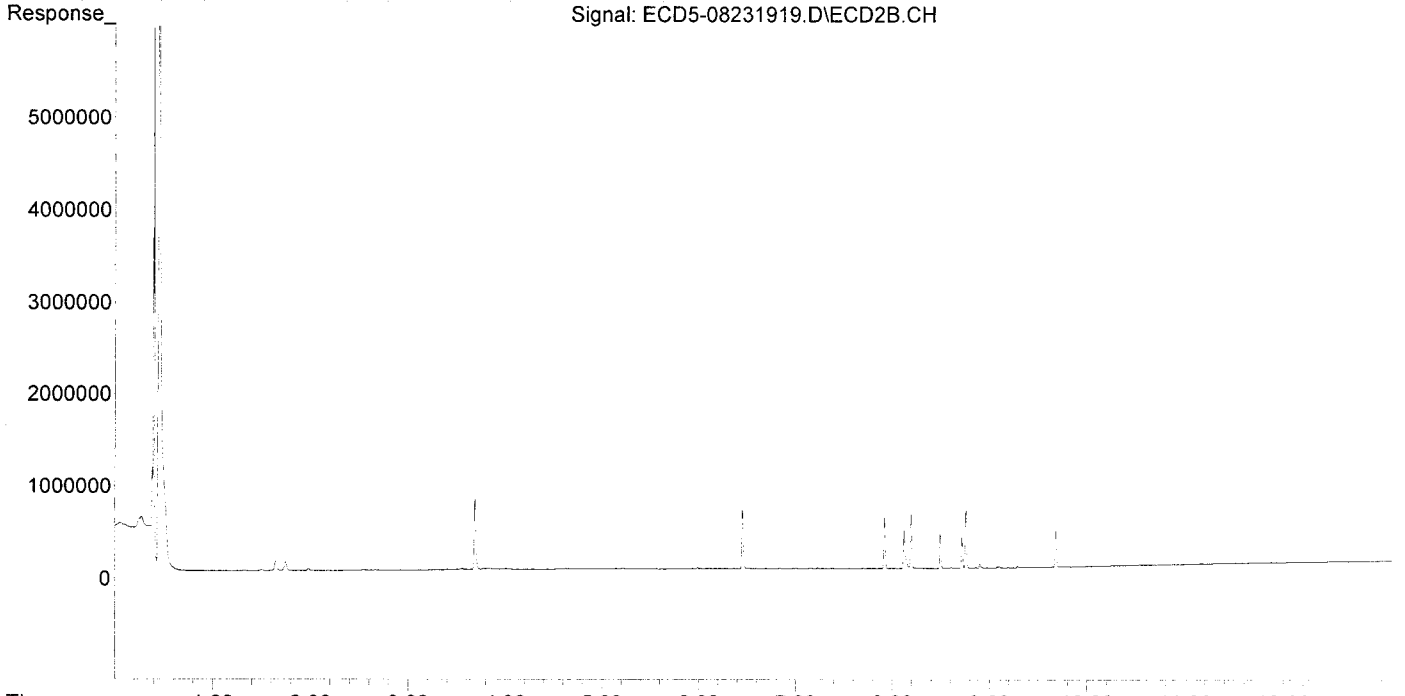
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:01
Operator : MJB
Sample : 9H23034-CALA
Misc : A19E273, 9-42 2 ppb
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:30 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:18
Operator : MJB
Sample : 9H23034-CALB
Misc : A19E274, 9-42 5 ppb
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:42 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

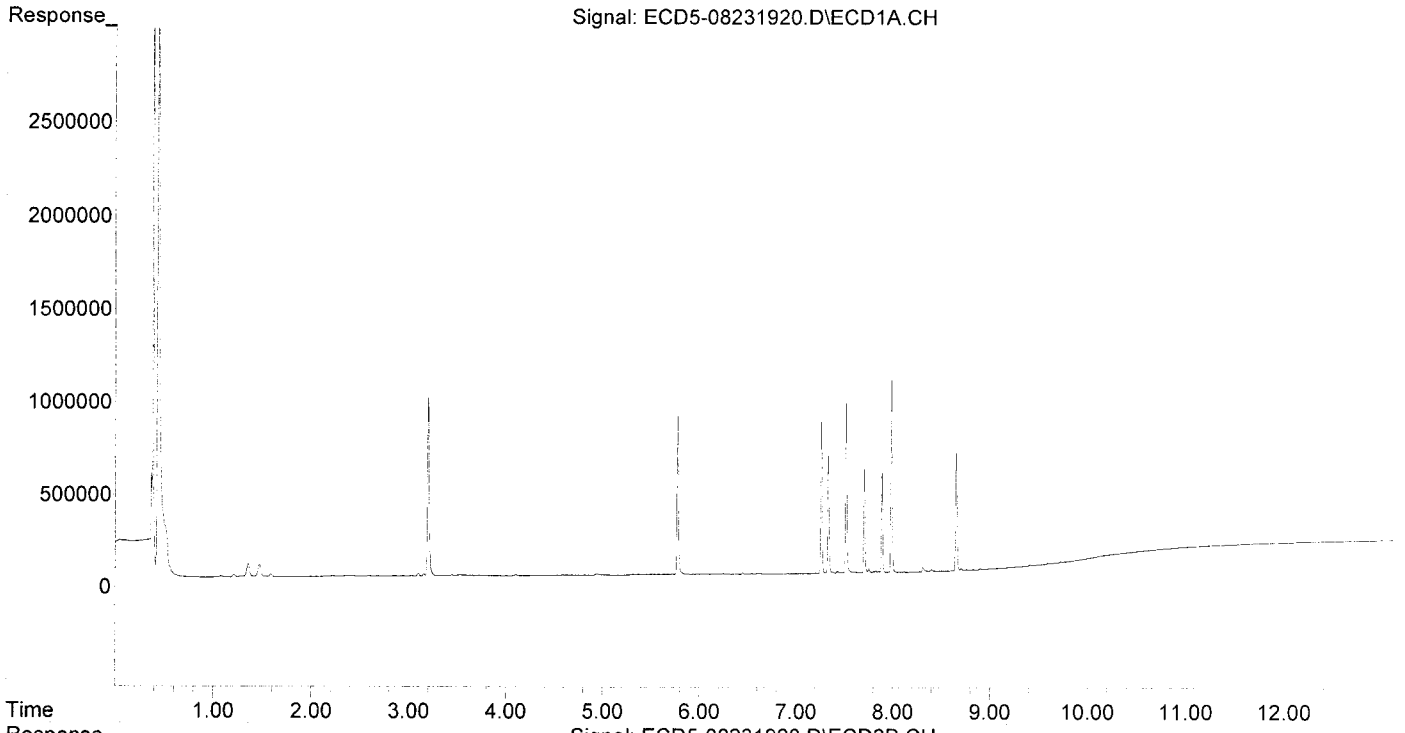
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.368f	5.982	4403	6341	0.027	0.022	
22)	S	DCBP (S)	9.592	10.539	7940	5412	0.056	0.030	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.247f	0.000	5412	0	0.027	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	6.631	7.289	4685	5276	0.026	0.017	
6)		d-BHC	6.449	7.232	7597	11663	0.039	0.033	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.334	7.991	633168	6408	3.438	0.021	#
9)		trans-Chl...	7.429	8.123	9886	1029687	0.053	3.286	#
10)		cis-Chlor...	7.518	8.236	933222	8550	5.126	0.029	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	7.799	8.495	5522	898697	0.029	2.955	#
14)		Endrin	7.986f	8.719	1025899	873074	6.978	3.866	#
15)		4,4'-DDD	7.986	8.759	1025899	1587243	6.529	6.195	
16)		Endosulfa...	8.116	8.862	3810	5519	0.027	0.024	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.404	9.098	10319	12495	BelowCal	BelowCal	
19)		Endosulfa...	8.705	9.289	10733	14179	0.069	0.057	
20)		Methoxychlor	8.550	0.000	617	0	0.011	N.D.	#
21)		Endrin Ke...	8.899	9.679	5632	895523	0.034	3.480	#
23)		Hexachlor...	3.198	3.687	959211	1877484	5.249	4.994	
24)		Hexachlor...	5.775	6.453	853793	1485583	4.843	4.730	
25)		Oxychlordane	7.262	7.921	819748	1325543	4.982	4.839	
26)		2,4'-DDE	7.334	8.123	633168	1029687	4.937	4.854	
27)		trans-Non...	7.518	8.194	933222	1467723	4.893	4.866	
28)		2,4'-DDD	7.705	8.495	560942	898697	4.915	4.758	
29)		2,4'-DDT	7.889	8.719	536967	873074	4.895	4.896	
30)		cis-Nonac...	7.986	8.759	1025899	1587243	4.941	4.732	
31)		Mirex	8.654	9.679	628618	895523	5.014	4.813	
32)		Chlordane...	7.429	8.123	9886	1029687	0.502	28.457	#
33)		Chlordane...	7.518	8.236	933222	8550	37.233	0.282	#
34)		Chlordane...	0.000	8.903	0	41570	N.D.	4.636	#
35)		Chlordane...	3.443	3.434	5083	3848	NoCal	NoCal	
36)		Toxaphene...	7.518	8.495f	933222	898697	1041.953	342.457	#
37)		Toxaphene...	7.799	0.000	5522	0	3.419	N.D.	#
38)		Toxaphene...	8.116	8.862	3810	5519	1.131	1.089	
39)		Toxaphene...	8.312f	8.903	22738	41570	7.017	4.979	
40)		Toxaphene...	8.550f	9.098	617	12495	0.257	2.681	#
41)		Toxaphene...	8.654	0.000	628618	0	198.642	N.D.	#
42)		Toxaphene...	3.443	3.434	5083	3848	NoCal	NoCal	

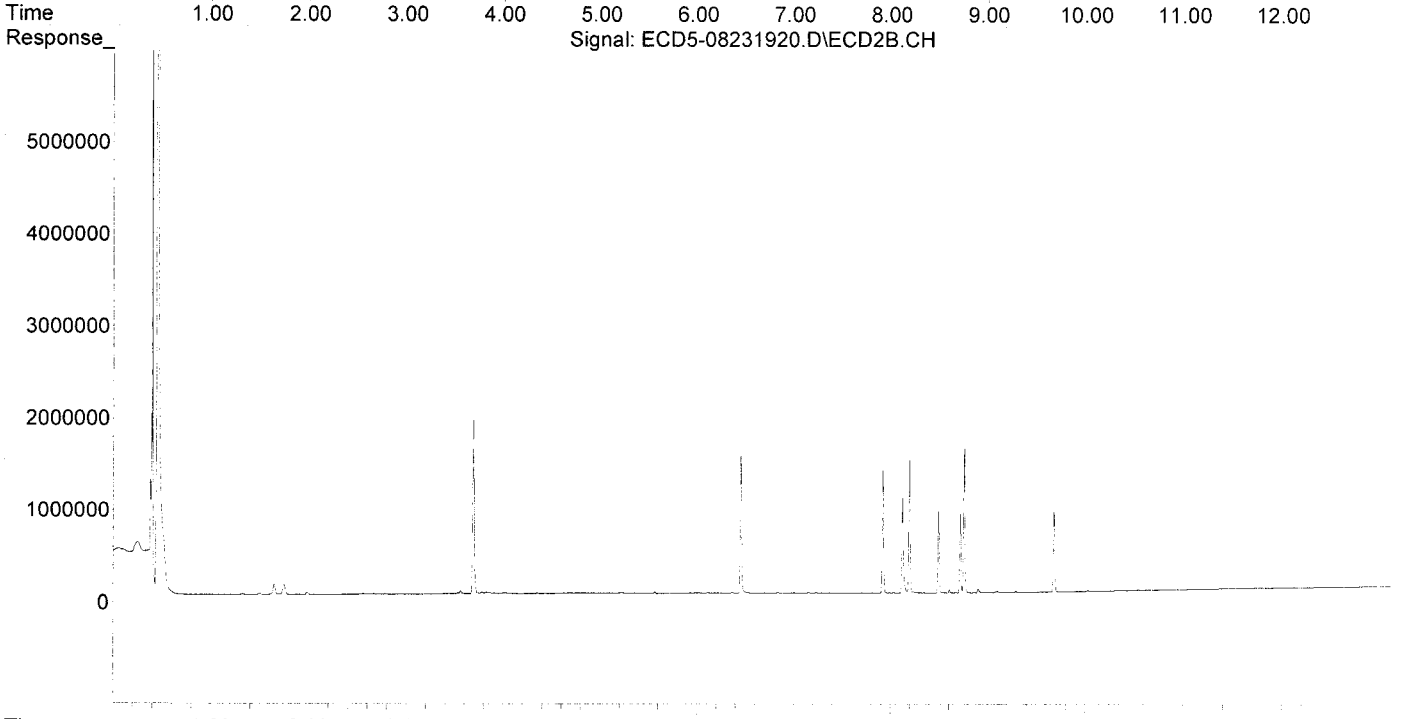
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:18
Operator : MJB
Sample : 9H23034-CALB
Misc : A19E274, 9-42 5 ppb
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:42 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:35
Operator : MJB
Sample : 9H23034-CALC
Misc : A19E275, 9-42 10 ppb
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/27/19

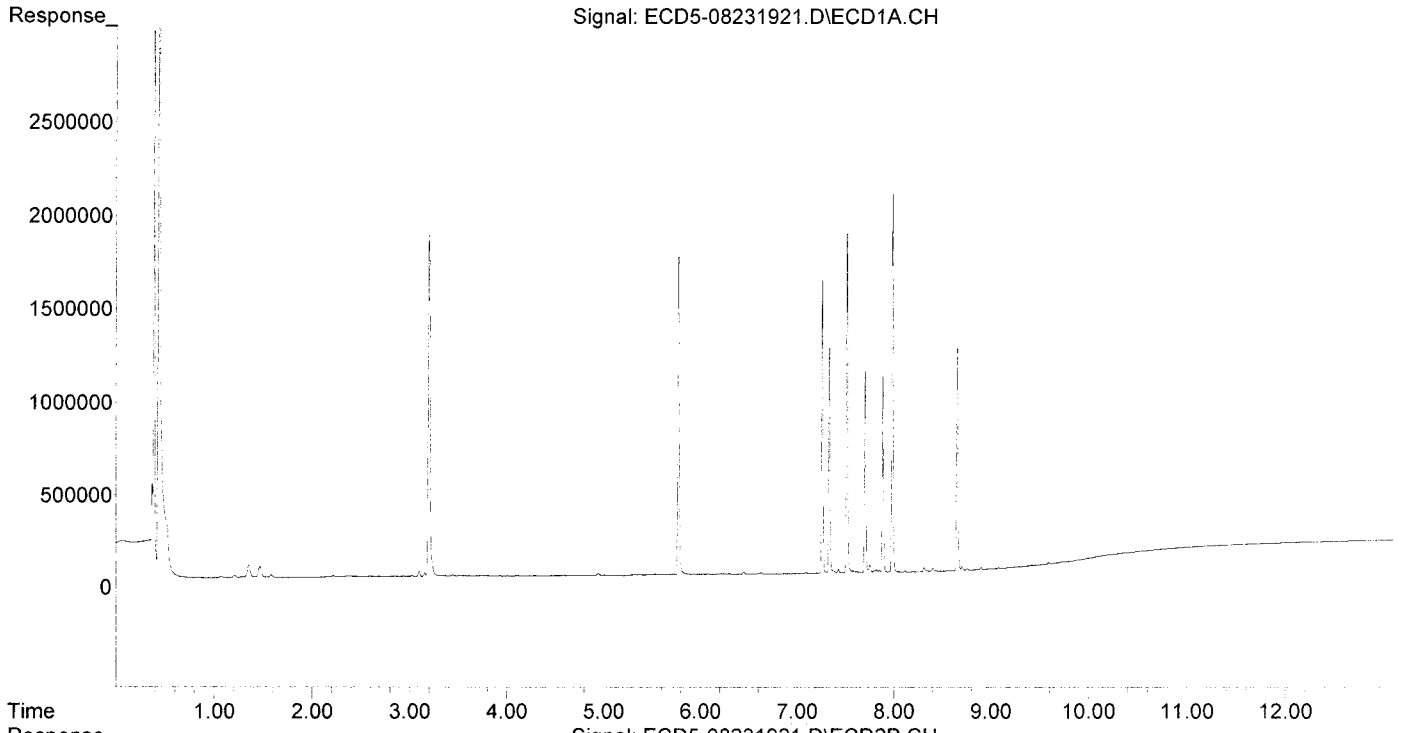
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.983	5244	8048	0.032	0.027	
22)	S	DCBP (S)	9.591	10.539	8426	10511	0.060	0.058	
		Target Compounds							
2)		a-BHC	5.934	6.594	5268	9085	0.023	0.022	
3)		g-BHC	6.219	6.912	5161	7308	0.026	0.020	
4)		b-BHC	6.300	6.978	6085	7741	0.067	0.049	
5)		Heptachlor	6.631	7.288	8267	12275	0.046	0.040	
6)		d-BHC	6.449	7.232	14325	24245	0.073	0.069	
7)		Aldrin	6.872	7.553	3901	5863	0.020	0.018	
8)		Heptachlo...	7.333	7.990	1245265	15714	6.761	0.052	#
9)		trans-Chl...	7.428	8.122	20597	2018331	0.111	6.442	#
10)		cis-Chlor...	7.516	8.236	1817552	21137	9.983	0.073	#
11)		Endosulfa...	7.620	8.289	8045	10794	0.047	0.039	
12)		4,4'-DDE	7.582	8.342	11334	7910	0.060	0.025	#
13)		Dieldrin	7.797	8.495	12142	1778790	0.063	5.848	#
14)		Endrin	7.986f	8.719	2032010	1702568	13.821	7.539	#
15)		4,4'-DDD	7.986	8.759	2032010	3148054	12.931	12.287	
16)		Endosulfa...	8.115	8.863	8267	13466	0.058	0.058	
17)		4,4'-DDT	8.202	0.000	2833	0	0.024	N.D.	#
18)		Endrin Al...	8.404	9.098	18899	26666	BelowCal	BelowCal	
19)		Endosulfa...	8.705	9.289	20232	26713	0.131	0.107	
20)		Methoxychlor	8.543	0.000	1294	0	0.022	N.D.	#
21)		Endrin Ke...	8.899	9.679	11108	1722960	0.067	6.696	#
23)		Hexachlor...	3.198	3.687	1838187	3701532	10.059	9.846	
24)		Hexachlor...	5.774	6.453	1711884	2936294	9.710	9.349	
25)		Oxychlordane	7.261	7.921	1591613	2538903	9.673	9.269	
26)		2,4'-DDE	7.333	8.122	1245265	2018331	9.709	9.514	
27)		trans-Non...	7.516	8.194	1817552	2844404	9.830	9.430	
28)		2,4'-DDD	7.705	8.495	1103587	1778790	9.670	9.418	
29)		2,4'-DDT	7.888	8.719	1051565	1702568	9.587	9.547	
30)		cis-Nonac...	7.986	8.759	2032010	3148054	9.787	9.385	
31)		Mirex	8.654	9.679	1196365	1722960	9.543	9.260	
32)		Chlordane...	7.428	8.122	20597	2018331	1.046	55.779	#
33)		Chlordane...	7.516	8.236	1817552	21137	72.516	0.696	#
34)		Chlordane...	0.000	8.903	0	42511	N.D.	4.741	#
35)		Chlordane...	3.445	3.433	6229	7261	NoCal	NoCal	
36)		Toxaphene...	7.516	8.495f	1817552	1778790	2029.316	677.826	#
37)		Toxaphene...	7.797	0.000	12142	0	7.518	N.D.	#
38)		Toxaphene...	8.115	8.863	8267	13466	2.455	2.657	
39)		Toxaphene...	8.312f	8.903	23581	42511	7.278	5.091	
40)		Toxaphene...	8.582	9.098	560	26666	0.234	5.722	#
41)		Toxaphene...	8.654	0.000	1196365	0	378.048	N.D.	#
42)		Toxaphene...	3.445	3.433	6229	7261	NoCal	NoCal	

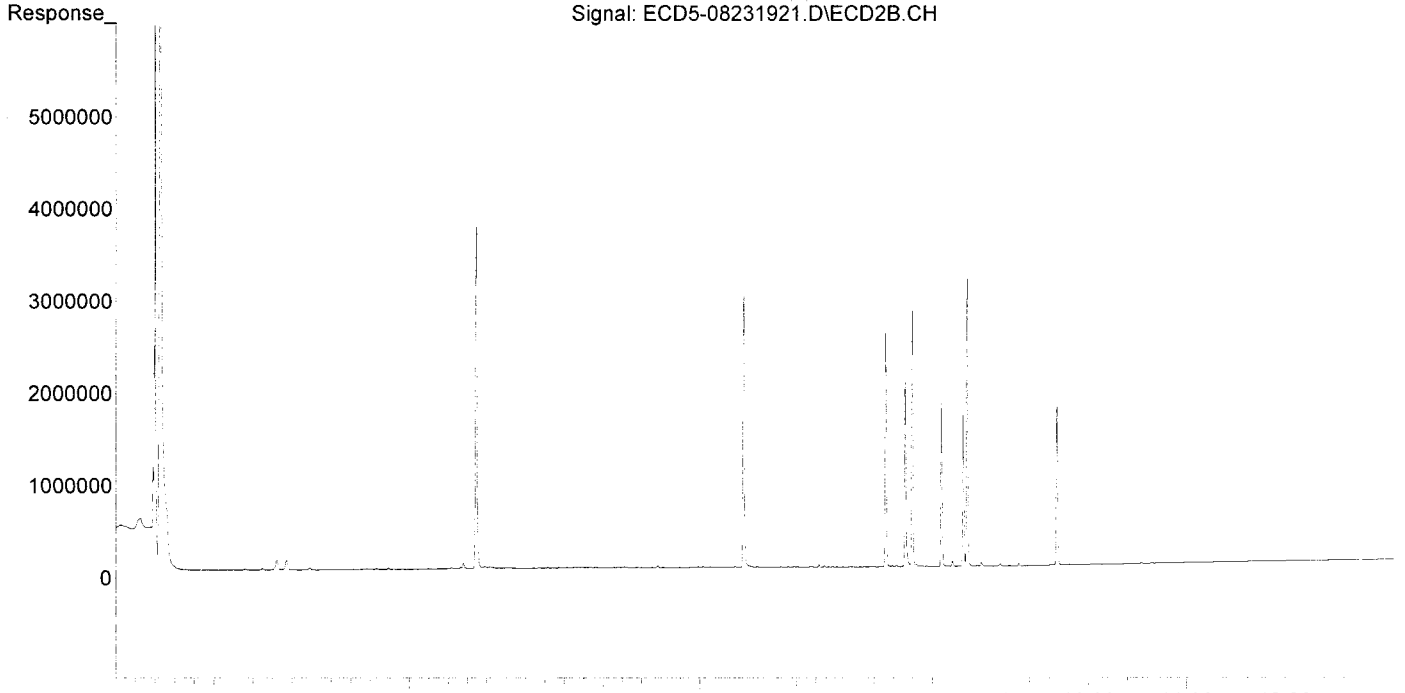
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:35
Operator : MJB
Sample : 9H23034-CALC
Misc : A19E275, 9-42 10 ppb
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:53
Operator : MJB
Sample : 9H23034-CALD
Misc : A19E276, 9-42 25 ppb
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

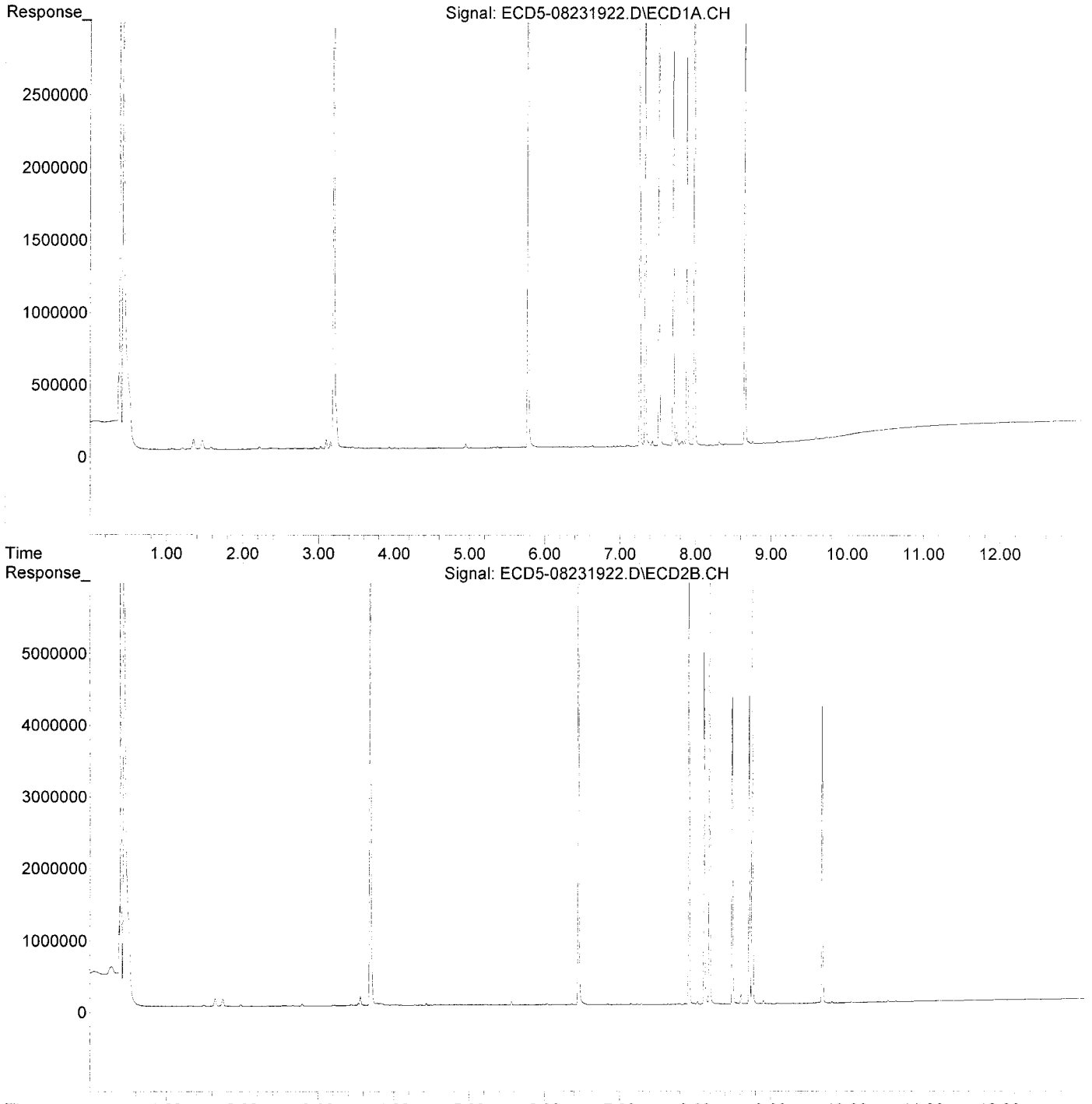
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.367f	5.981	10828	6833	0.065	0.023	#
22) S	DCBP (S)	9.592	10.539	20297	20262	0.144	0.113	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.248f	0.000	5786	0	0.029	N.D.	#
4)	b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)	Heptachlor	6.632	7.288	9958	12977	0.055	0.042	
6)	d-BHC	6.450	7.231	5090	7876	0.026	0.022	
7)	Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)	Heptachlo...	7.333	7.989	3059421	19960	16.611	0.066	#
9)	trans-Chl...	7.428	8.122	36083	4999232	0.195	15.955	#
10)	cis-Chlor...	7.516	8.235	4391046	27018	24.117	0.093	#
11)	Endosulfa...	7.604	8.299	11350	9999	0.067	0.036	#
12)	4,4'-DDE	7.604f	0.000	11350	0	0.060	N.D.	#
13)	Dieldrin	7.800	8.495	19961	4389185	0.104	14.431	#
14)	Endrin	7.986f	8.719	4993110	4405554	33.960	19.509	#
15)	4,4'-DDD	7.986	8.759	4993110	8219393	31.775	32.080	
16)	Endosulfa...	0.000	8.862	0	7977	N.D.	0.035	#
17)	4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)	Endrin Al...	8.404	9.098	7779	9076	BelowCal	BelowCal	
19)	Endosulfa...	0.000	9.289	0	11382	N.D.	0.046	#
20)	Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)	Endrin Ke...	8.899	9.679	4709	4138115	0.028	16.082	#
23)	Hexachlor...	3.198	3.687	4363988	8892238	23.881	23.654	
24)	Hexachlor...	5.774	6.453	4184551	7416324	23.736	23.612	
25)	Oxychlordane	7.261	7.920	3881255	6202791	23.589	22.646	
26)	2,4'-DDE	7.333	8.122	3059421	4999232	23.853	23.566	
27)	trans-Non...	7.516	8.194	4391046	7092288	24.199	23.513	
28)	2,4'-DDD	7.705	8.495	2745178	4389185	24.054	23.240	
29)	2,4'-DDT	7.888	8.719	2728794	4405554	24.878	24.703	
30)	cis-Nonac...	7.986	8.759	4993110	8219393	24.050	24.503	
31)	Mirex	8.654	9.679	2910818	4138115	23.218	22.239	
32)	Chlordane...	7.428	8.122	36083	4999232	1.833	138.159	#
33)	Chlordane...	7.516	8.235	4391046	27018	175.191	0.890	#
34)	Chlordane...	0.000	8.903	0	43328	N.D.	4.833	#
35)	Chlordane...	3.444	3.433	9286	16581	NoCal	NoCal	
36)	Toxaphene...	7.516	8.495f	4391046	4389185	4902.650	1672.543	#
37)	Toxaphene...	7.800	0.000	19961	0	12.360	N.D.	#
38)	Toxaphene...	0.000	8.862	0	7977	N.D.	1.574	#
39)	Toxaphene...	8.313f	8.903	24731	43328	7.633	5.189	
40)	Toxaphene...	8.607f	9.098	797	9076	0.332	1.947	#
41)	Toxaphene...	8.654	0.000	2910818	0	919.811	N.D.	#
42)	Toxaphene...	3.444	3.433	9286	16581	NoCal	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:53
Operator : MJB
Sample : 9H23034-CALD
Misc : A19E276, 9-42 25 ppb
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

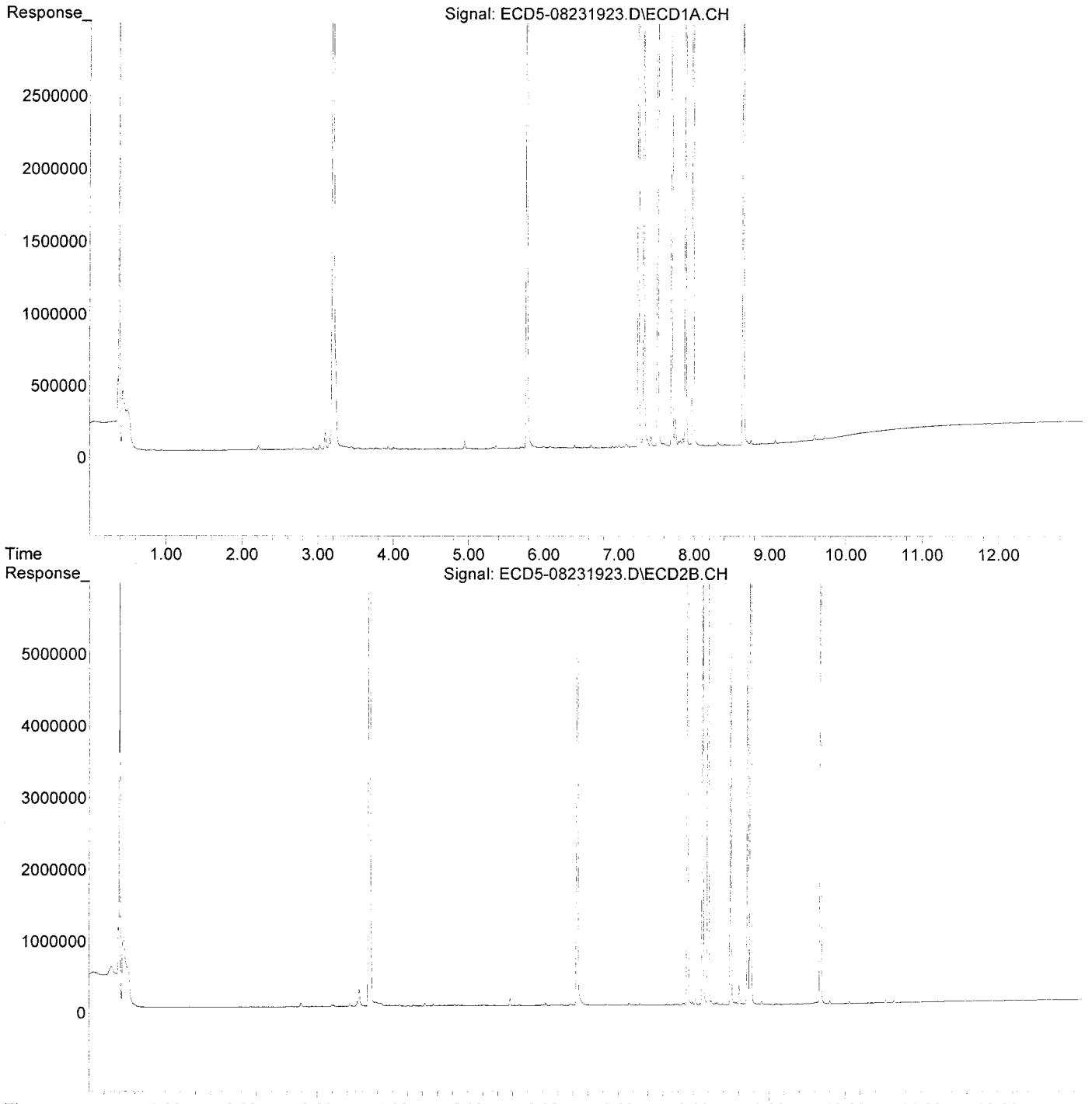
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.367f	5.981	19019	8441	0.115	0.029	#
22) S	DCBP (S)	9.591	10.538	35203	39503	0.249	0.220	
	Target Compounds							
2)	a-BHC	5.949	0.000	5252	0	0.023	N.D.	#
3)	g-BHC	6.196f	6.951f	4084	3735	0.020	0.010	#
4)	b-BHC	0.000	6.951f	0	3735	N.D.	0.024	#
5)	Heptachlor	6.632	7.289	17900	26152	0.099	0.085	
6)	d-BHC	6.450	7.232	4458	7173	0.023	0.020	
7)	Aldrin	0.000	7.520f	0	4998	N.D.	0.015	#
8)	Heptachlo...	7.333	7.989	6510588	39220	35.349	0.130	#
9)	trans-Chl...	7.428	8.122	71663	11006400	0.388	35.128	#
10)	cis-Chlor...	7.516	8.236	9581794	53379	52.627	0.183	#
11)	Endosulfa...	7.604	8.299	22096	24918	0.130	0.091	
12)	4,4'-DDE	7.604f	8.314f	22096	29928	0.117	0.096	
13)	Dieldrin	7.798	8.495	33203	9924934	0.173	32.632	#
14)	Endrin	7.985f	8.718	10616019	8810591	72.204	39.015	#
15)	4,4'-DDD	7.985	8.758	10616019	17721229	67.557	69.166	
16)	Endosulfa...	0.000	8.862	0	12791	N.D.	0.055	#
17)	4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)	Endrin Al...	8.409	9.099	5626	7468	BelowCal	BelowCal	
19)	Endosulfa...	0.000	9.289	0	9409	N.D.	0.038	#
20)	Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)	Endrin Ke...	8.898	9.679	5162	9100959	0.031	35.369	#
23)	Hexachlor...	3.198	3.688	8761747	18635615	47.947	49.572	
24)	Hexachlor...	5.774	6.454	8911624	16094159	50.550	51.241	
25)	Oxychlordane	7.261	7.920	8382873	14172543	50.948	51.743	
26)	2,4'-DDE	7.333	8.122	6510588	11006400	50.760	51.883	
27)	trans-Non...	7.516	8.194	9581794	15807712	53.197	52.407	
28)	2,4'-DDD	7.705	8.495	5920095	9924934	51.874	52.551	
29)	2,4'-DDT	7.888	8.718	5687323	8810591	51.850	49.404	
30)	cis-Nonac...	7.985	8.758	10616019	17721229	51.133	52.828	
31)	Mirex	8.652	9.679	6218341	9100959	49.601	48.911	
32)	Chlordane...	7.428	8.122	71663	11006400	3.640	304.174	#
33)	Chlordane...	7.516	8.236	9581794	53379	382.289	1.758	#
34)	Chlordane...	0.000	8.903	0	43859	N.D.	4.892	#
35)	Chlordane...	3.445	3.433	16729	32384	NoCal	NoCal	
36)	Toxaphene...	7.516	8.495f	9581794	9924934	10698.176	3781.996	#
37)	Toxaphene...	7.798	0.000	33203	0	20.560	N.D.	#
38)	Toxaphene...	0.000	8.862	0	12791	N.D.	2.524	#
39)	Toxaphene...	8.314f	8.903	24262	43859	7.488	5.253	
40)	Toxaphene...	8.605f	9.099	1073	7468	0.448	1.603	#
41)	Toxaphene...	8.652	0.000	6218341	0	1964.980	N.D.	#
42)	Toxaphene...	3.445	3.433	16729	32384	NoCal	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

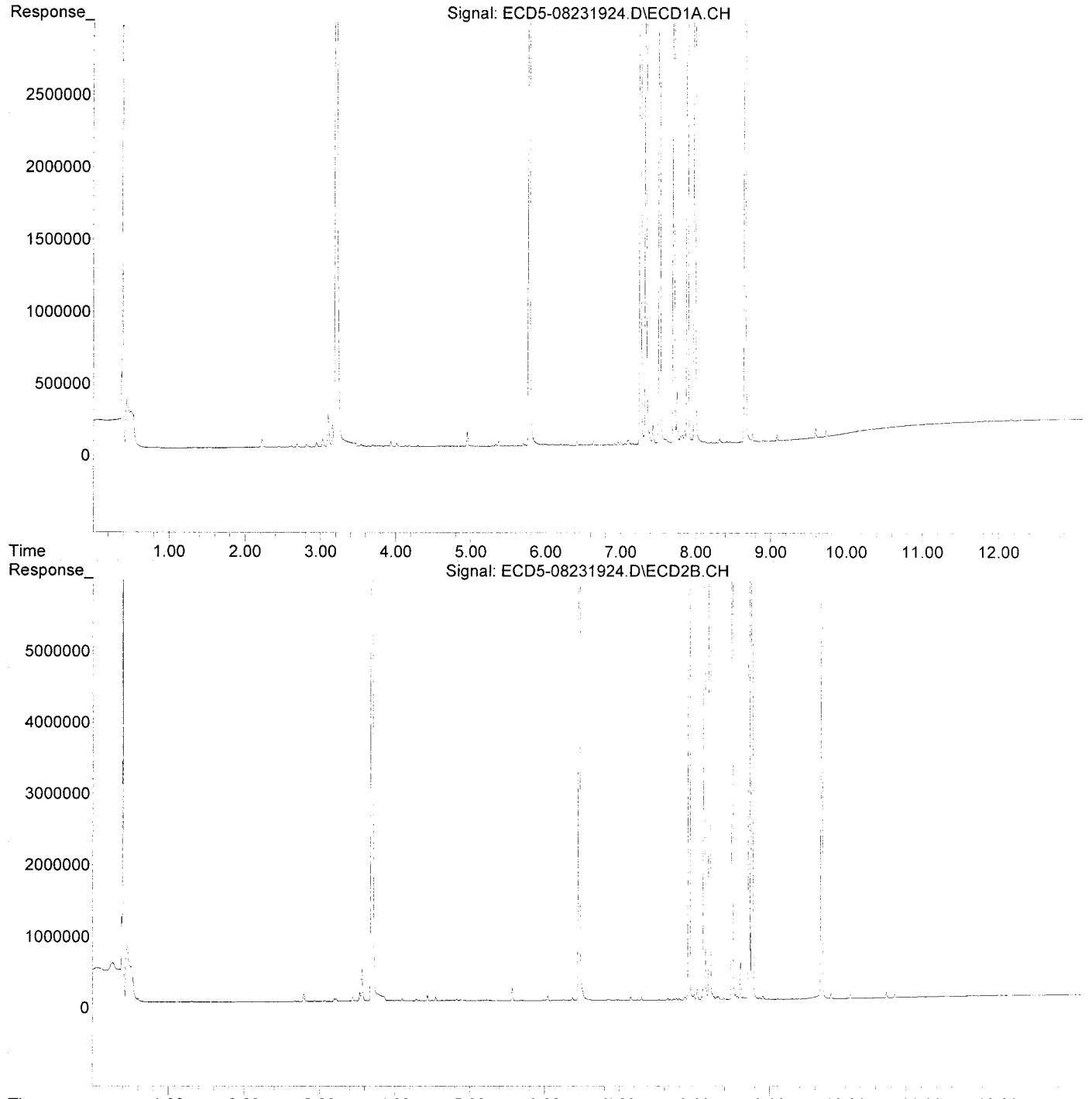
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.368f	5.981	33988	9402	0.205	0.032	#
22)	S	DCBP (S)	9.592	10.540	62236	73549	0.441	0.409	
		Target Compounds							
2)		a-BHC	5.950	0.000	8055	0	0.035	N.D.	#
3)		g-BHC	6.198	6.952f	8435	9250	0.042	0.026	
4)		b-BHC	6.301	6.979	5312	6852	0.059	0.043	
5)		Heptachlor	6.634	7.290	29320	42832	0.162	0.140	
6)		d-BHC	6.451	7.234	4881	8440	0.025	0.024	
7)		Aldrin	0.000	7.521f	0	8525	N.D.	0.026	#
8)		Heptachlo...	7.334	7.990	12769067	71027	69.330	0.236	#
9)		trans-Chl...	7.428	8.123	131019	22164400	0.709	70.739	#
10)		cis-Chlor...	7.516	8.237	18351251	88947	100.792	0.305	#
11)		Endosulfa...	7.604	8.299	36455	42308	0.214	0.154	
12)		4,4'-DDE	7.604f	8.315f	36455	43813	0.193	0.141	
13)		Dieldrin	7.798	8.496	56666	20118925	0.295	66.148	#
14)		Endrin	7.986f	8.721	20932641	18998968	142.373	84.131	#
15)		4,4'-DDD	7.986	8.760	20932641	36072644	133.210	140.791	
16)		Endosulfa...	8.115	8.863	14279	23343	0.099	0.101	
17)		4,4'-DDT	8.202	8.985	6473	9074	0.054	0.015	#
18)		Endrin Al...	8.415	9.101	7567	8073	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.290	0	9186	N.D.	0.037	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.898	9.680	6812	19363200	0.041	75.251	#
23)		Hexachlor...	3.199	3.690	17952134	39298885	98.239	104.537	
24)		Hexachlor...	5.776	6.455	17670025	32766708	100.231	104.324	
25)		Oxychlordane	7.261	7.922	16359215	29732149	99.425	108.550	
26)		2,4'-DDE	7.334	8.123	12769067	22164400	99.555	104.481	
27)		trans-Non...	7.516	8.195	18351251	31975271	102.232	106.006	
28)		2,4'-DDD	7.705	8.496	11587554	20118925	101.534	106.526	
29)		2,4'-DDT	7.888	8.721	11771354	18998968	107.317	106.533	
30)		cis-Nonac...	7.986	8.760	20932641	36072644	100.824	107.535	
31)		Mirex	8.653	9.680	11960753	19363200	95.406	104.062	
32)		Chlordane...	7.428	8.123	131019	22164400	6.654	612.537	#
33)		Chlordane...	7.516	8.237	18351251	88947	732.167	2.929	#
34)		Chlordane...	0.000	8.905	0	44814	N.D.	4.998	#
35)		Chlordane...	3.443	3.434	27193	63535	NoCal	NoCal	
36)		Toxaphene...	7.516	8.496f	18351251	20118925	20489.369	7666.519	#
37)		Toxaphene...	7.798	0.000	56666	0	35.089	N.D.	#
38)		Toxaphene...	8.115	8.863	14279	23343	4.240	4.606	
39)		Toxaphene...	8.316f	8.905	25592	44814	7.898	5.367	
40)		Toxaphene...	8.604f	9.101	1951	8073	0.814	1.732	#
41)		Toxaphene...	8.653	0.000	11960753	0	3779.567	N.D.	#
42)		Toxaphene...	3.443	3.434	27193	63535	NoCal	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:40 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 6/26/19

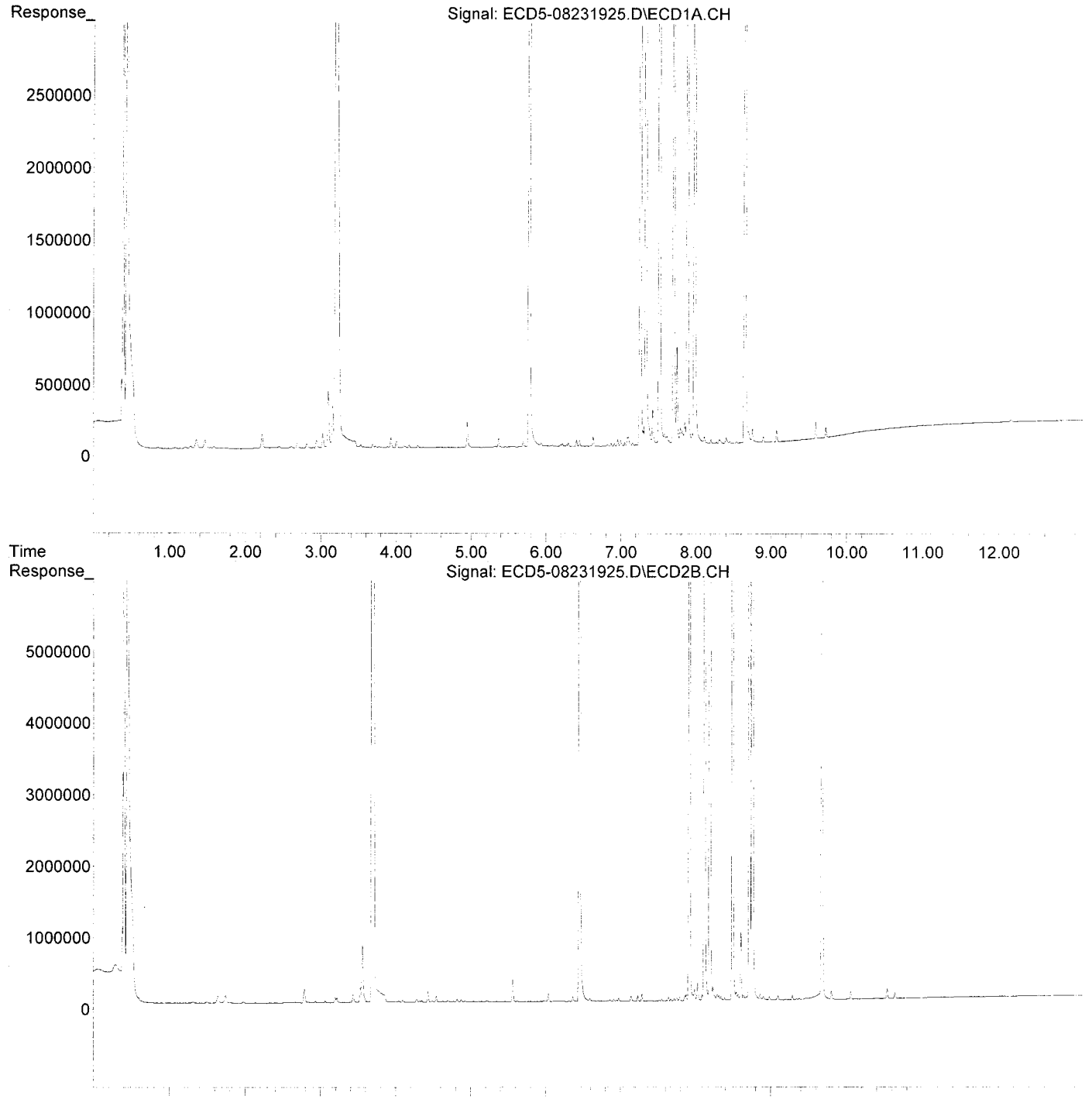
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.367f	5.980	60549	10992	0.365	0.037	#
22)	S DCBP (S)	9.590	10.538	118766	140925	0.842	0.784	
	Target Compounds							
2)	a-BHC	5.933	6.593	27118	40902	0.118	0.100	
3)	g-BHC	6.218	6.912	21255	30993	0.105	0.087	
4)	b-BHC	6.299	6.977	25058	44238	0.277	0.280	
5)	Heptachlor	6.630	7.287	63252	104459	0.349	0.341	
6)	d-BHC	6.448	7.231	43545	78794	0.221	0.223	
7)	Aldrin	6.870	7.552	17012	29944	0.086	0.091	
8)	Heptachlo...	7.331	7.988	24819199	162906	134.756	0.541	#
9)	trans-Chl...	7.425	8.122	250239	44504592	1.353	142.039	#
10)	cis-Chlor...	7.514	8.235	35027918	188111	192.386	0.646	#
11)	Endosulfa...	7.581f	8.289	74592	84898	0.438	0.309	
12)	4,4'-DDE	7.581	8.341	74592	59877	0.396	0.193	#
13)	Dieldrin	7.794	8.494	114089	39839303	0.594	130.986	#
14)	Endrin	7.984f	8.719	40046185	39999231	272.373	177.123	
15)	4,4'-DDD	7.984	8.759	40046185	72455823	254.843	282.794	
16)	Endosulfa...	8.113	8.861	50946	84198	0.355	0.365	
17)	4,4'-DDT	8.201	8.983	28640	48189	0.240	0.243	
18)	Endrin Al...	8.404	9.098	39025	57504	BelowCal	BelowCal	
19)	Endosulfa...	0.000	9.289	0	61418	N.D.	0.247	#
20)	Methoxychlor	8.541	9.464	9687	26335	0.165	0.141	
21)	Endrin Ke...	8.898	9.679	37586	38425530	0.225	149.332	#
23)	Hexachlor...	3.199	3.689	34166533	75988565	186.969	202.134	
24)	Hexachlor...	5.774	6.454	34073459	66261966	193.277	210.967	
25)	Oxychlordane	7.258	7.920	32032634	58736982	194.683	214.445	
26)	2,4'-DDE	7.331	8.122	24819199	44504592	193.505	209.791	
27)	trans-Non...	7.514	8.194	35027918	63083636	195.632	209.138	
28)	2,4'-DDD	7.703	8.494	21916962	39839303	192.043	210.942	
29)	2,4'-DDT	7.887	8.719	23024956	39999231	209.914	224.287	
30)	cis-Nonac...	7.984	8.759	40046185	72455823	192.886	215.996	
31)	Mirex	8.652	9.679	23284997	38425530	185.735	206.507	
32)	Chlordane...	7.425	8.122	250239	44504592	12.709	1229.933	#
33)	Chlordane...	7.514	8.235	35027918	188111	1397.523	6.195	#
34)	Chlordane...	0.000	8.902	0	52051	N.D.	5.805	#
35)	Chlordane...	3.438	3.433	48985	106773	NoCal	NoCal	
36)	Toxaphene...	7.514	8.494f	35027918	39839303	39109.048	15181.168	#
37)	Toxaphene...	7.794	0.000	114089	0	70.646	N.D.	#
38)	Toxaphene...	8.113	8.861	50946	84198	15.129	16.613	
39)	Toxaphene...	8.313f	8.902	28693	52051	8.856	6.234	
40)	Toxaphene...	8.602f	9.098	3169	57504	1.322	12.339	#
41)	Toxaphene...	8.652	9.464	23284997	26335	7357.999	5.544	#
42)	Toxaphene...	3.438	3.433	48985	106773	NoCal	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:40 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:36
Operator : MJB
Sample : 9H23034-CALH
Misc : A19F232, CHLOR 50 ppb
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MB 4/26/19

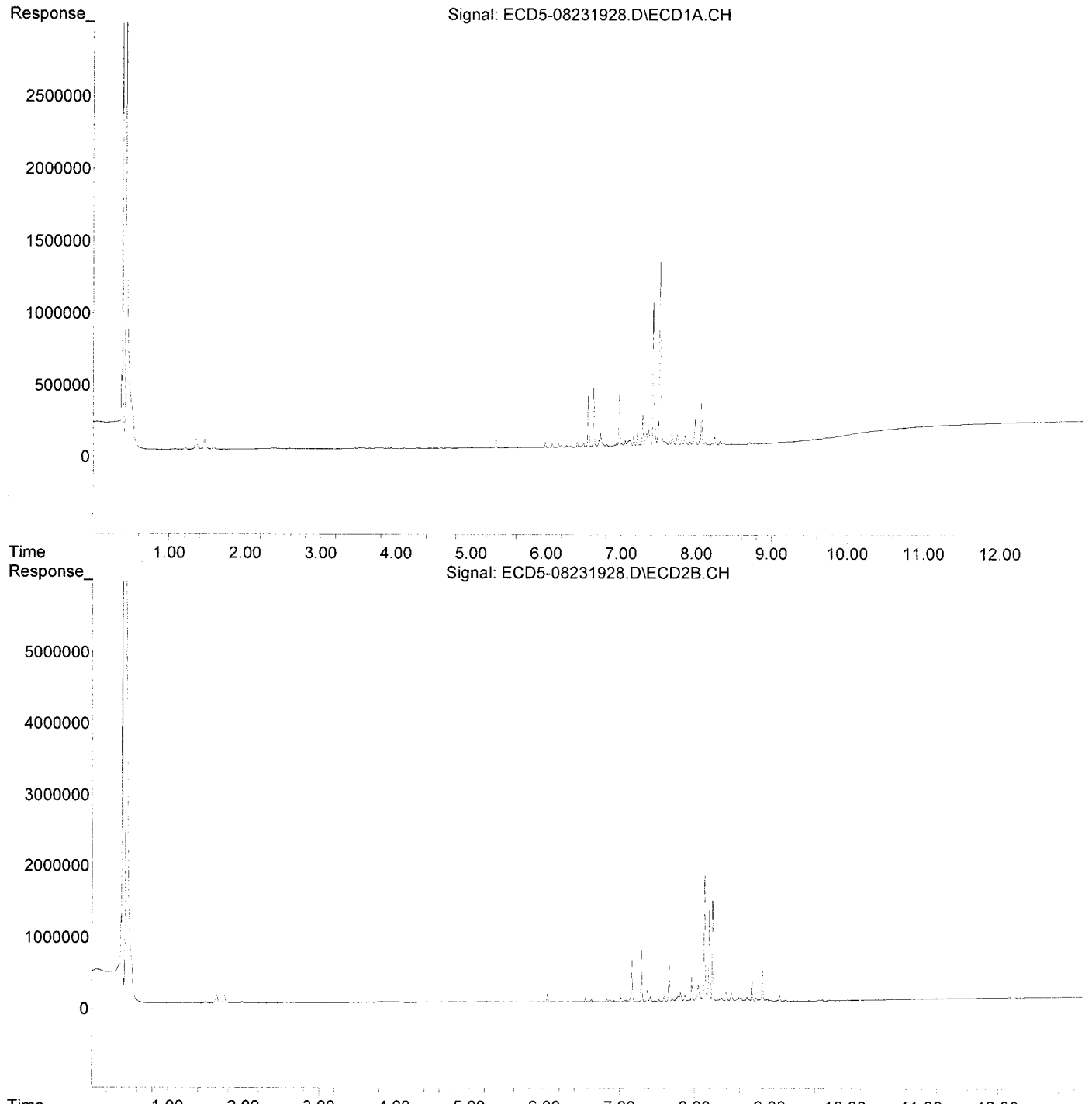
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	0.000	0	0	N.D.	N.D.	
22)	S	DCBP (S)	9.606	0.000	5901	0	0.042	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	41997	N.D.	0.102	#
3)		g-BHC	6.194f	6.924	13212	19652	0.065	0.055	
4)		b-BHC	6.323f	7.016f	10976	62438	0.121	0.395	#
5)		Heptachlor	6.632	7.288	412192	714454	2.274	2.335	
6)		d-BHC	6.412f	0.000	34416	0	0.175	N.D.	#
7)		Aldrin	6.877	7.558	6150	10093	0.031	0.031	
8)		Heptachlo...	7.337	8.010	84467	51183	0.459	0.170	#
9)		trans-Chl...	7.429	8.131	1009143	1754707	5.458	5.600	
10)		cis-Chlor...	7.521	8.237	1286655	1472400	7.067	5.056	
11)		Endosulfa...	7.640	8.308	29794	24027	0.175	0.087	#
12)		4,4'-DDE	7.579	8.333	33953	45018	0.180	0.145	
13)		Dieldrin	7.807	8.488	35520	119533	0.185	0.393	#
14)		Endrin	7.986f	8.714	182097	37218	1.239	0.165	#
15)		4,4'-DDD	7.986	8.759	182097	301826	1.159	1.178	
16)		Endosulfa...	8.118	8.873	19535	32870	0.136	0.143	
17)		4,4'-DDT	0.000	8.994	0	11155	N.D.	0.027	#
18)		Endrin Al...	8.368f	9.128f	14946	80647	BelowCal	BelowCal	
19)		Endosulfa...	8.708	9.316f	13079	6249	0.084	0.025	#
20)		Methoxychlor	8.553	0.000	3815	0	0.065	N.D.	#
21)		Endrin Ke...	8.899	9.686	2603	18155	0.016	0.071	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	7.256	7.934	11579	24468	0.070	0.089	
26)		2,4'-DDE	7.337	8.131	84467	1754707	0.659	8.272	#
27)		trans-Non...	7.521	8.194	1286655	1274306	6.866	4.225	
28)		2,4'-DDD	7.675f	8.488	83034	119533	0.728	0.633	
29)		2,4'-DDT	7.914f	8.714	22312	37218	0.203	0.209	
30)		cis-Nonac...	7.986	8.759	182097	301826	0.877	0.900	
31)		Mirex	0.000	9.686	0	18155	N.D.	0.098	#
32)		Chlordane...	7.429	8.131	1009143	1754707	51.253	48.493	
33)		Chlordane...	7.521	8.237	1286655	1472400	51.334	48.492	
34)		Chlordane...	8.068	8.897	288087	439020	49.832	48.966	
35)		Chlordane...	3.446	0.000	5365	0	NoCal	N.D.	
36)		Toxaphene...	7.521	8.488f	1286655	119533	1436.564	45.549	#
37)		Toxaphene...	7.807	8.814	35520	51904	21.995	15.771	
38)		Toxaphene...	8.118	8.851	19535	35575	5.801	7.019	
39)		Toxaphene...	8.348	8.897	14389	439020	4.441	52.578	#
40)		Toxaphene...	8.553f	9.128f	3815	80647	1.591	17.305	#
41)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)		Toxaphene...	3.446	0.000	5365	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:36
Operator : MJB
Sample : 9H23034-CALH
Misc : A19F232, CHLOR 50 ppb
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:54
Operator : MJB
Sample : 9H23034-CALI
Misc : A19F233, CHLOR 100 ppb
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

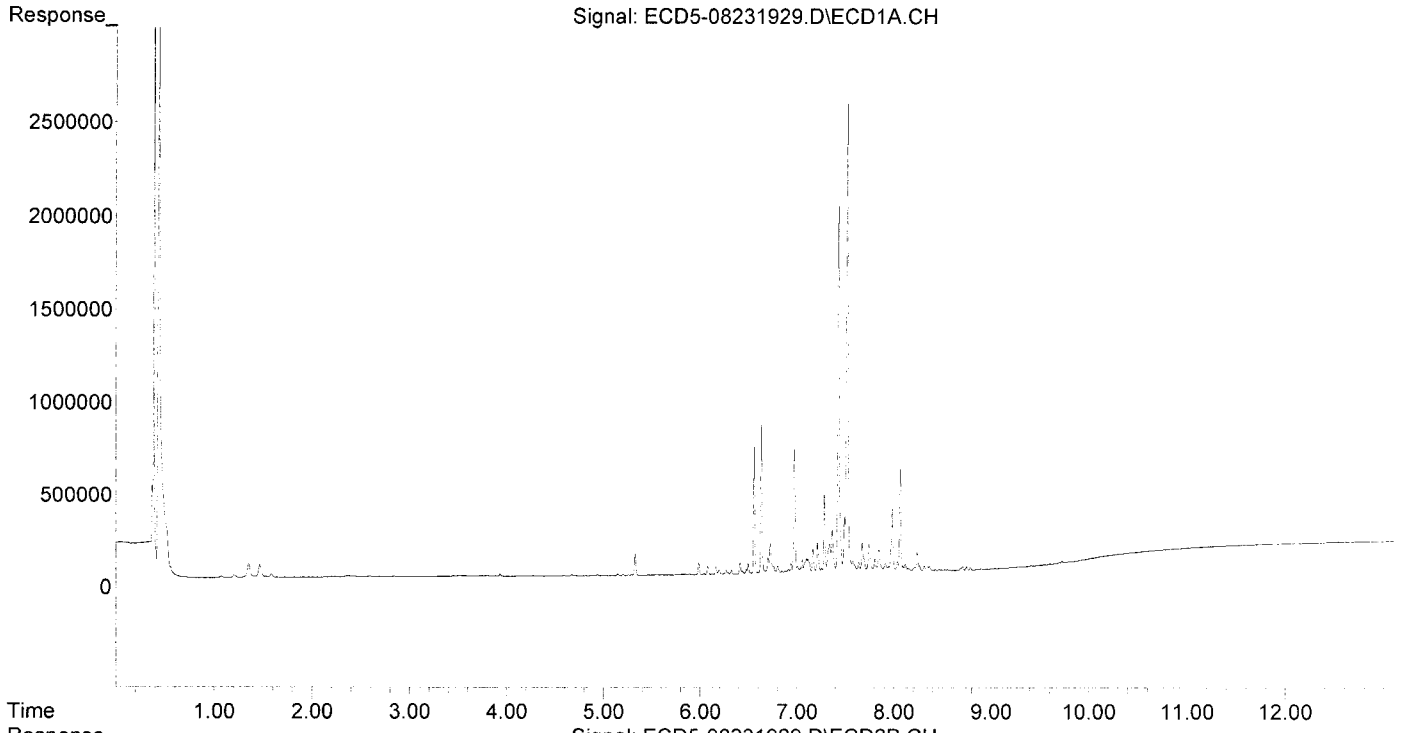
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	5943	N.D.	0.020	#
22)	S	DCBP (S)	9.606	0.000	7472	0	0.053	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	77932	N.D.	0.190	#
3)		g-BHC	6.194f	6.923	23514	36662	0.117	0.103	
4)		b-BHC	6.323f	7.016f	21053	115009	0.233	0.727	#
5)		Heptachlor	6.632	7.288	802906	1372147	4.429	4.484	
6)		d-BHC	6.412f	0.000	63497	0	0.323	N.D.	#
7)		Aldrin	6.877	7.558	12864	20481	0.065	0.062	
8)		Heptachlo...	7.338	8.010	155514	93915	0.844	0.312	#
9)		trans-Chl...	7.429	8.130	1978897	3378388	10.703	10.782	
10)		cis-Chlor...	7.521	8.238	2519520	2905941	13.838	9.978	
11)		Endosulfa...	7.641f	8.309f	56850	48968	0.334	0.178	#
12)		4,4'-DDE	7.579	8.334	63125	84256	0.335	0.271	
13)		Dieldrin	7.807	8.488	69910	230931	0.364	0.759	#
14)		Endrin	7.986f	8.713	344068	89428	2.340	0.396	#
15)		4,4'-DDD	7.986	8.760	344068	593441	2.190	2.316	
16)		Endosulfa...	8.118	8.873	39271	74727	0.273	0.324	
17)		4,4'-DDT	0.000	8.995	0	22043	N.D.	0.090	#
18)		Endrin Al...	8.428f	9.128f	7592	153472	BelowCal	BelowCal	
19)		Endosulfa...	8.709	9.317f	21141	11695	0.136	0.047	#
20)		Methoxychlor	8.553	0.000	6889	0	0.118	N.D.	#
21)		Endrin Ke...	8.897	9.687	3240	29883	0.019	0.116	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	6.430f	0	7921	N.D.	0.025	#
25)		Oxychlordane	7.255	7.934	24127	50634	0.147	0.185	
26)		2,4'-DDE	7.338	8.130	155514	3378388	1.212	15.925	#
27)		trans-Non...	7.521	8.195	2519520	2542319	13.749	8.428	
28)		2,4'-DDD	7.676f	8.488	159771	230931	1.400	1.223	
29)		2,4'-DDT	7.914f	8.713	44472	89428	0.405	0.501	
30)		cis-Nonac...	7.986	8.760	344068	593441	1.657	1.769	
31)		Mirex	0.000	9.687	0	29883	N.D.	0.161	#
32)		Chlordane...	7.429	8.130	1978897	3378388	100.505	93.365	
33)		Chlordane...	7.521	8.238	2519520	2905941	100.522	95.703	
34)		Chlordane...	8.068	8.898	548196	874465	94.825	97.533	
35)		Chlordane...	3.446	0.000	4938	0	NoCal	N.D.	
36)		Toxaphene...	7.521	8.488f	2519520	230931	2813.072	87.999	#
37)		Toxaphene...	7.807	8.815	69910	108014	43.289	32.821	
38)		Toxaphene...	8.118	8.851	39271	84269	11.662	16.627	#
39)		Toxaphene...	8.349	8.898	25383	874465	7.834	104.728	#
40)		Toxaphene...	8.553f	9.068f	6889	13931	2.874	2.989	
41)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)		Toxaphene...	3.446	0.000	4938	0	NoCal	N.D.	

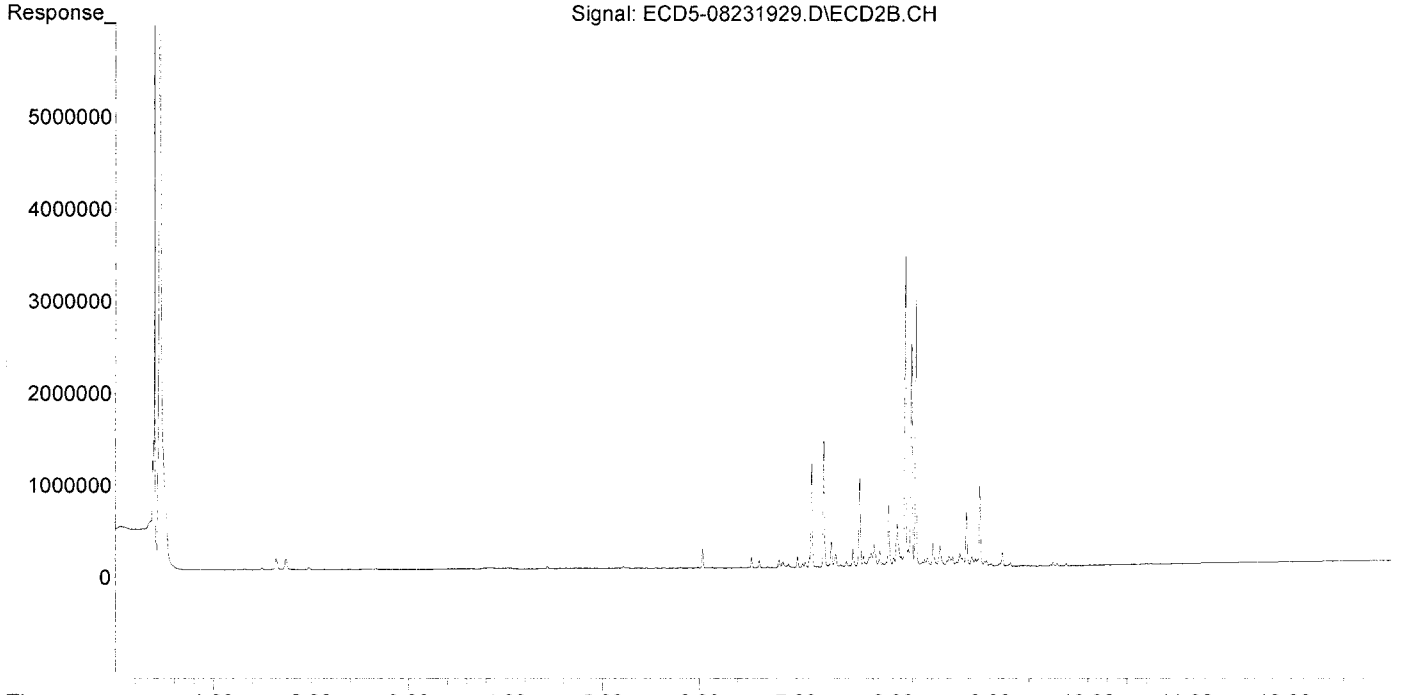
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:54
Operator : MJB
Sample : 9H23034-CALI
Misc : A19F233, CHLOR 100 ppb
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:11
Operator : MJB
Sample : 9H23034-CALJ
Misc : A19F234, CHLOR 200 ppb
ALS Vial : 24 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

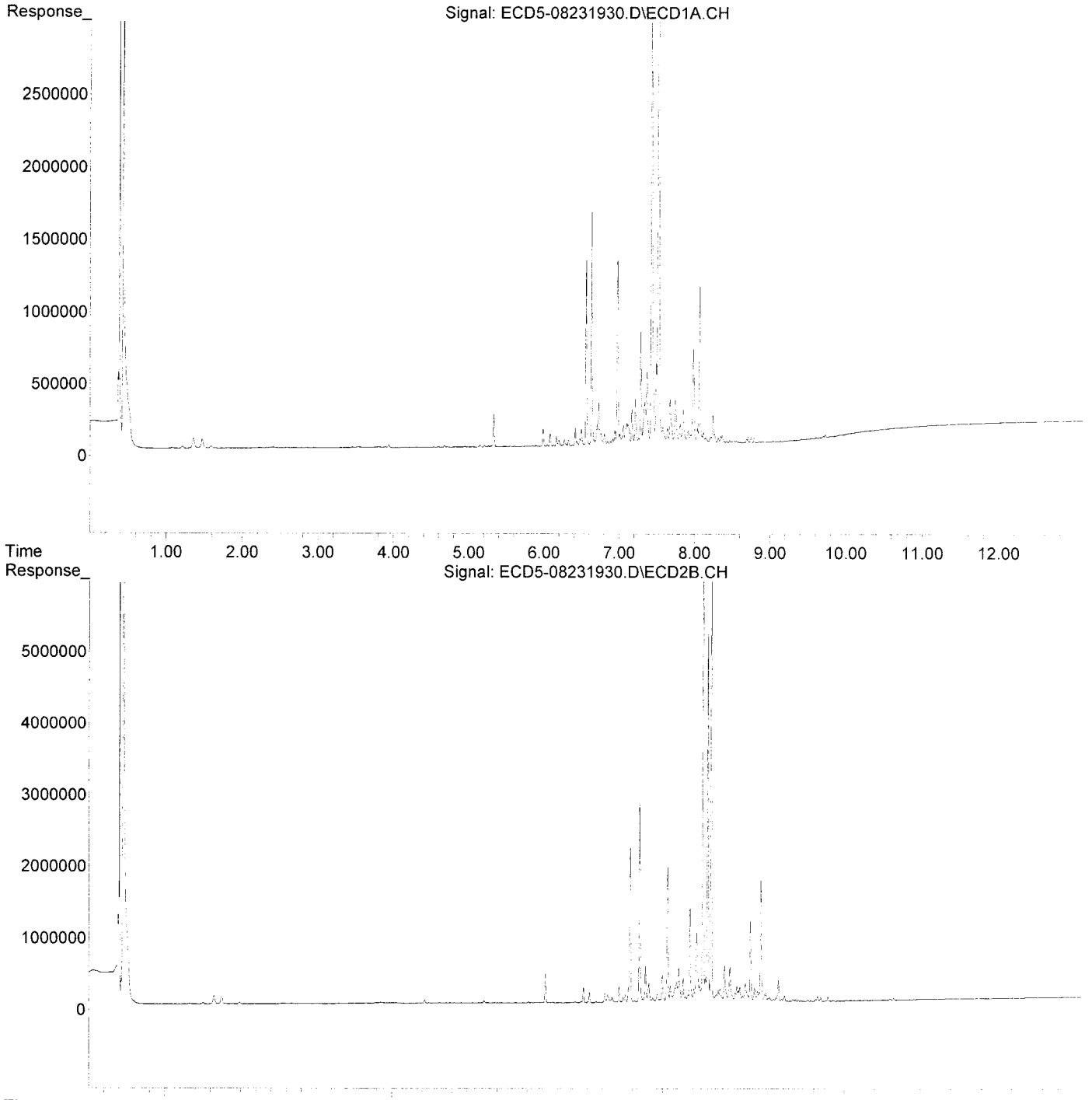
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	0.000	0	0	N.D.	N.D.	
22)	S	DCBP (S)	9.605	0.000	9631	0	0.068	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.623f	0	141009	N.D.	0.344	#
3)		g-BHC	6.197f	6.925	44236	70355	0.219	0.197	
4)		b-BHC	6.269f	0.000	45994	0	0.509	N.D.	#
5)		Heptachlor	6.633	7.290	1604459	2790294	8.850	9.119	
6)		d-BHC	6.414f	7.222	125171	21783	0.636	0.062	#
7)		Aldrin	6.878	7.559	27966	42088	0.142	0.128	
8)		Heptachlo...	7.339	8.011	296306	184421	1.609	0.613	#
9)		trans-Chl...	7.429	8.131	3849299	6751197	20.819	21.547	
10)		cis-Chlor...	7.522	8.239	4906320	5883615	26.947	20.201	
11)		Endosulfa...	7.641f	8.311f	111658	101195	0.656	0.368	#
12)		4,4'-DDE	7.579	8.334	119469	162236	0.634	0.522	
13)		Dieldrin	7.808	8.488	135995	479651	0.708	1.577	#
14)		Endrin	7.986f	8.714	662867	142098	4.508	0.629	#
15)		4,4'-DDD	7.986	8.759	662867	1113368	4.218	4.345	
16)		Endosulfa...	8.119	8.852	78177	142714	0.544	0.619	
17)		4,4'-DDT	0.000	8.995	0	47222	N.D.	0.237	#
18)		Endrin Al...	8.429f	9.129f	17160	296262	BelowCal	0.772	
19)		Endosulfa...	8.709	9.317f	39967	28714	0.258	0.115	#
20)		Methoxychlor	8.528	9.426f	15895	10981	0.271	BelowCal	#
21)		Endrin Ke...	8.895	9.688	5405	57534	0.032	0.224	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.768	6.432f	3592	14719	0.020	0.047	#
25)		Oxychlordane	7.256	7.935	46857	97946	0.285	0.358	
26)		2,4'-DDE	7.339	8.131	296306	6751197	2.310	31.825	#
27)		trans-Non...	7.522	8.196	4906320	5159253	27.077	17.104	
28)		2,4'-DDD	7.676f	8.488	310109	479651	2.717	2.540	
29)		2,4'-DDT	7.915f	8.714	90205	142098	0.822	0.797	
30)		cis-Nonac...	7.986	8.759	662867	1113368	3.193	3.319	
31)		Mirex	8.690f	9.688	25315	57534	0.202	0.309	#
32)		Chlordane...	7.429	8.131	3849299	6751197	195.499	186.577	
33)		Chlordane...	7.522	8.239	4906320	5883615	195.749	193.769	
34)		Chlordane...	8.069	8.898	1101677	1731727	190.565	193.146	
35)		Chlordane...	3.448	0.000	4503	0	NoCal	N.D.	
36)		Toxaphene...	7.522f	8.488f	4906320	479651	5477.960	182.776	#
37)		Toxaphene...	7.808	8.815	135995	186597	84.211	56.699	
38)		Toxaphene...	8.119	8.852	78177	142714	23.215	28.158	
39)		Toxaphene...	8.349	8.898	48611	1731727	15.003	207.397	#
40)		Toxaphene...	8.553f	9.069f	15795	32796	6.589	7.037	
41)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)		Toxaphene...	3.448	0.000	4503	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:11
Operator : MJB
Sample : 9H23034-CALJ
Misc : A19F234, CHLOR 200 ppb
ALS Vial : 24 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:28
Operator : MJB
Sample : 9H23034-CALK
Misc : A19F235, CHLOR 500 ppb
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:52 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 6/26/19

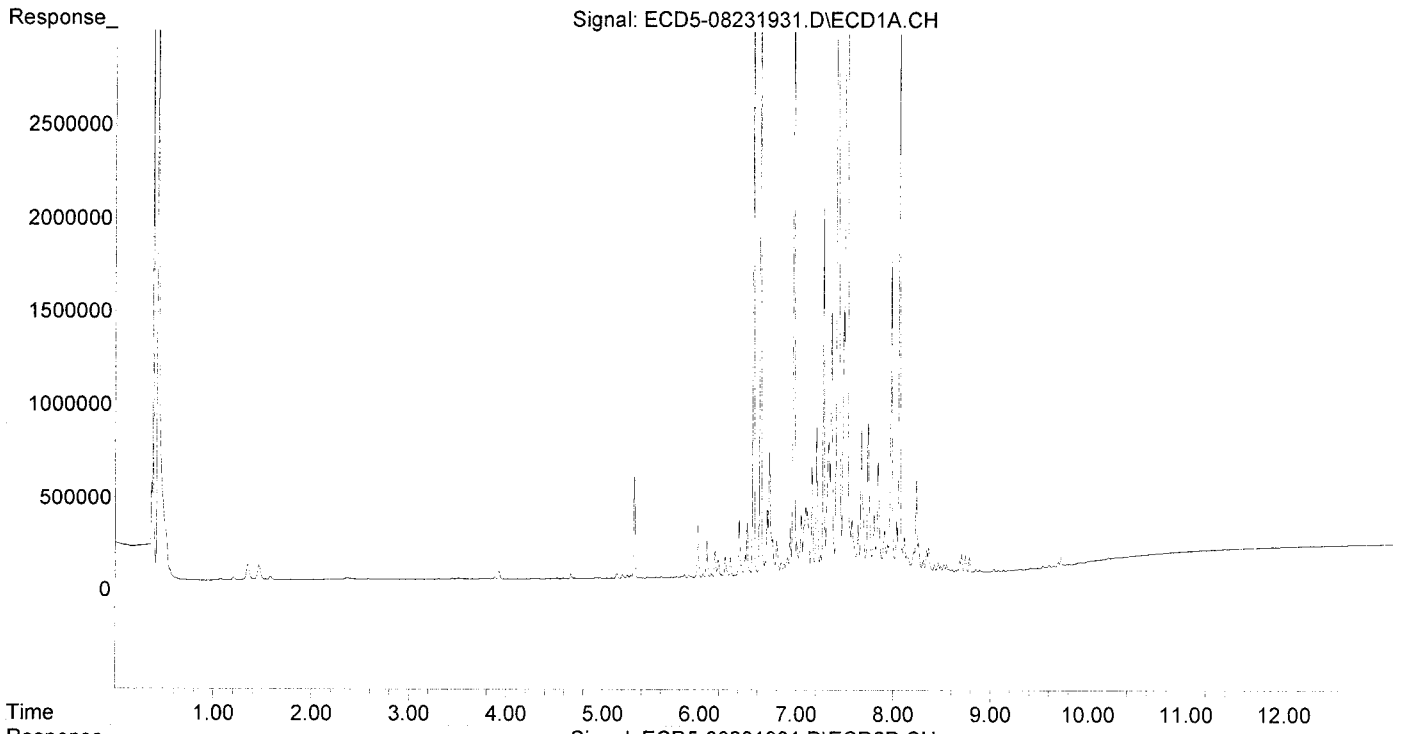
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.982	0	9372	N.D.	0.032	#
22)	S	DCBP (S)	9.605	10.512f	13871	6664	0.098	0.037	#
		Target Compounds							
2)		a-BHC	0.000	6.621f	0	314411	N.D.	0.766	#
3)		g-BHC	6.194f	6.923	92958	161395	0.461	0.452	
4)		b-BHC	6.322f	7.016f	105835	520011	1.171	3.286	#
5)		Heptachlor	6.631	7.288	4107971	7192687	22.659	23.507	
6)		d-BHC	6.412f	7.219	305503	51612	1.553	0.146	#
7)		Aldrin	6.876	7.558	67201	101902	0.340	0.309	
8)		Heptachlo...	7.336	8.009	709786	434942	3.854	1.446	#
9)		trans-Chl...	7.427	8.129	9628671	17830433	52.077	56.907	
10)		cis-Chlor...	7.520	8.237	12176524	14812273	66.878	50.858	
11)		Endosulfa...	7.639	8.308	267451	260205	1.572	0.946	
12)		4,4'-DDE	7.577	8.332	288716	403680	1.531	1.299	
13)		Dieldrin	7.806	8.487	320749	1311343	1.671	4.312	#
14)		Endrin	7.984f	8.712	1680286	346653	11.428	1.535	#
15)		4,4'-DDD	7.984	8.758	1680286	2798638	10.693	10.923	
16)		Endosulfa...	8.118	8.872	194466	323054	1.354	1.401	
17)		4,4'-DDT	0.000	8.994	0	120742	N.D.	0.665	#
18)		Endrin Al...	8.427f	9.127f	45775	749534	BelowCal	3.242	
19)		Endosulfa...	8.708	9.316f	99125	76741	0.640	0.308	#
20)		Methoxychlor	8.552	9.462	44336	19918	0.757	0.061	#
21)		Endrin Ke...	8.892	9.686	12903	140715	0.077	0.547	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.767	6.430f	6475	34351	0.037	0.109	#
25)		Oxychlordane	7.283f	7.933	1963331	230983	11.932	0.843	#
26)		2,4'-DDE	7.336	8.129	709786	17830433	5.534	84.051	#
27)		trans-Non...	7.520	8.194	12176524	13173616	67.700	43.674	
28)		2,4'-DDD	7.674f	8.487	765105	1311343	6.704	6.943	
29)		2,4'-DDT	7.913f	8.712	230360	346653	2.100	1.944	
30)		cis-Nonac...	7.984	8.758	1680286	2798638	8.093	8.343	
31)		Mirex	8.645	9.686	12290	140715	0.098	0.756	#
32)		Chlordane...	7.427	8.129	9628671	17830433	489.023	492.763	
33)		Chlordane...	7.520	8.237	12176524	14812273	485.812	487.822	
34)		Chlordane...	8.067	8.896	2921278	4271709	505.313	476.441	
35)		Chlordane...	3.447	0.000	4056	0	NoCal	N.D.	
36)		Toxaphene...	7.520	8.487f	12176524	1311343	13595.220	499.701	#
37)		Toxaphene...	7.806	8.813	320749	462807	198.614	140.627	
38)		Toxaphene...	8.118	8.850	194466	348421	57.748	68.745	
39)		Toxaphene...	8.348	8.896	120098	4271709	37.065	511.592	#
40)		Toxaphene...	8.552f	9.067f	44336	90716	18.495	19.465	
41)		Toxaphene...	8.645	9.462	12290	19918	3.884	4.193	
42)		Toxaphene...	3.447	0.000	4056	0	NoCal	N.D.	

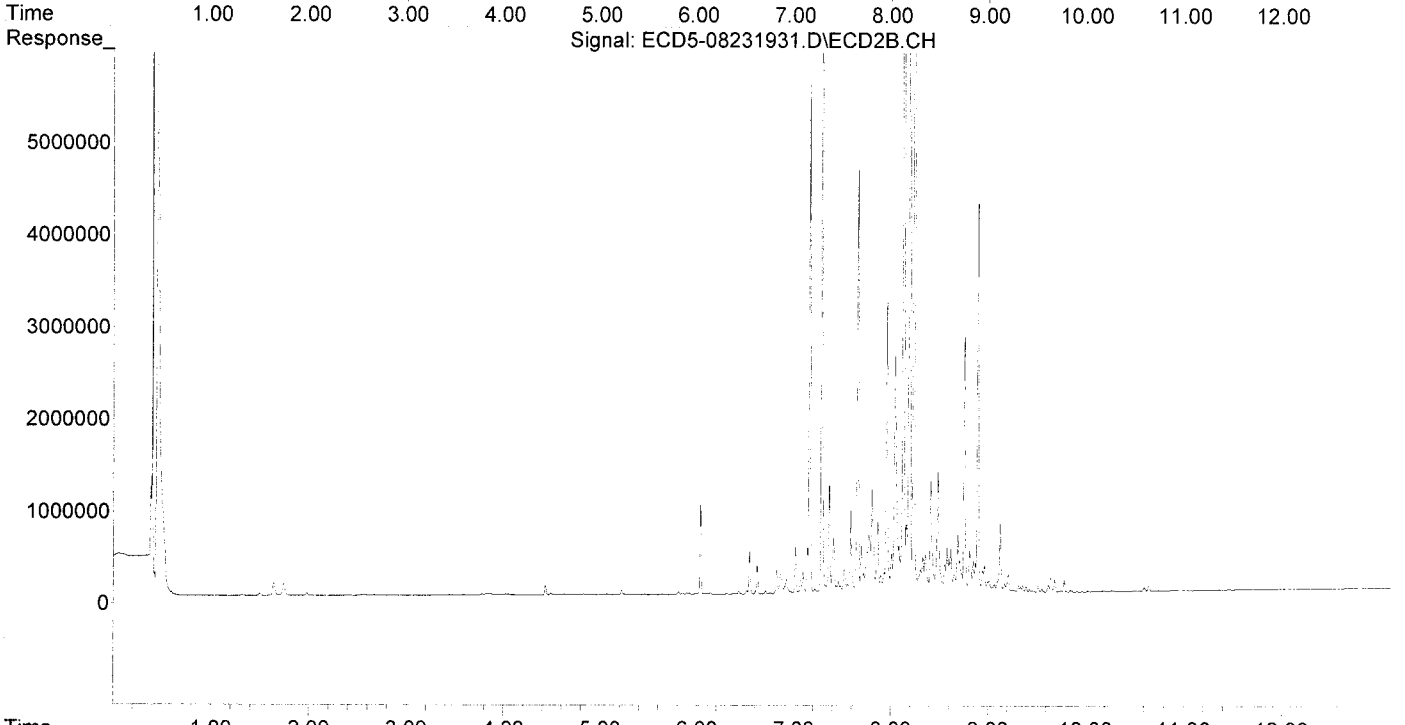
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:28
Operator : MJB
Sample : 9H23034-CALK
Misc : A19F235, CHLOR 500 ppb
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:52 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:45
Operator : MJB
Sample : 9H23034-CALL
Misc : A19F236, CHLOR 1000 ppb
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:05:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

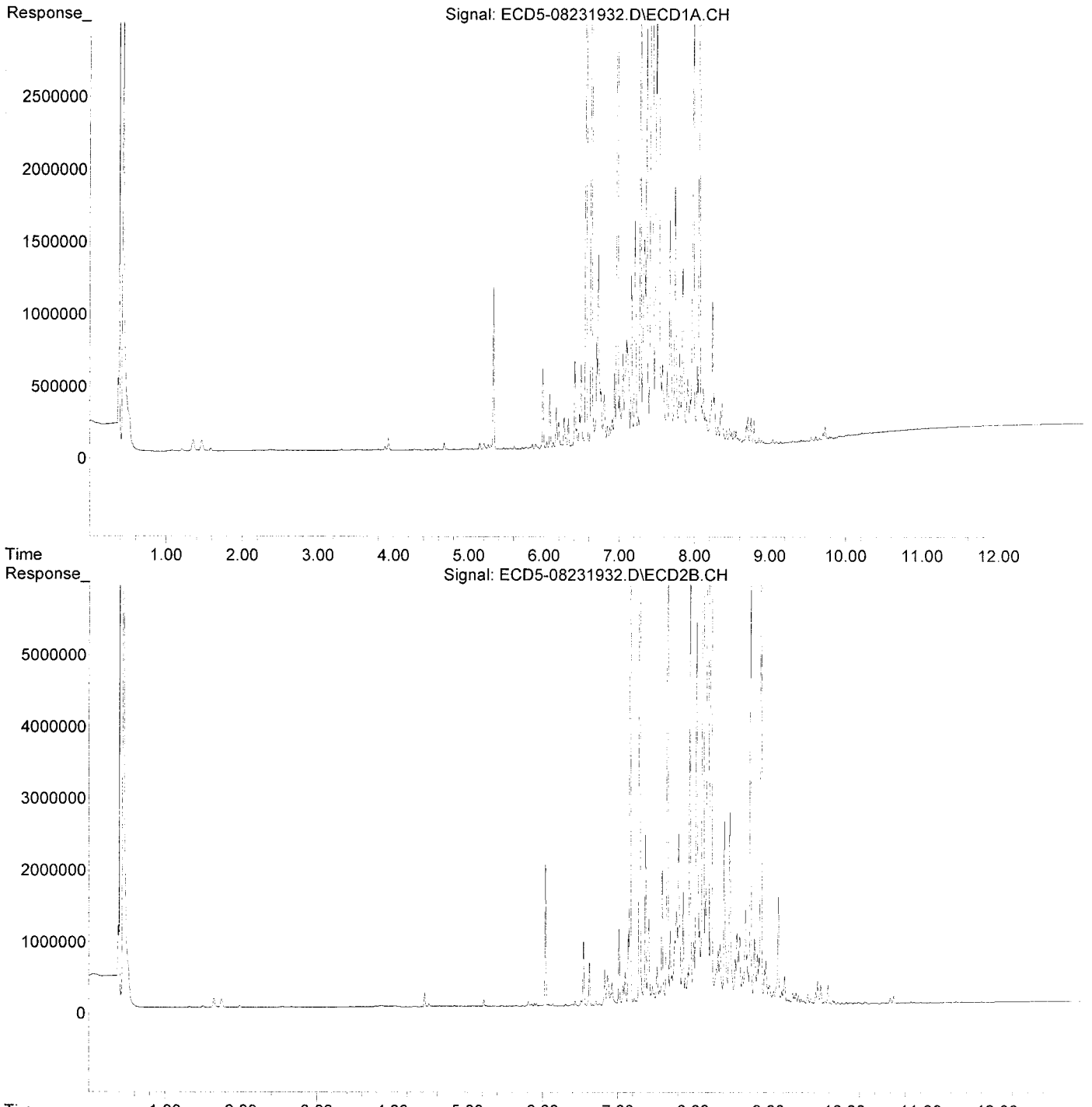
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.393	5.980	6433	11040	0.039	0.038	
22)	S	DCBP (S)	9.604	10.553	33011	8716	0.234	0.048	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	610263	N.D.	1.487	#
3)		g-BHC	6.194f	6.923	179715	319626	0.891	0.896	
4)		b-BHC	6.322f	7.016f	206312	1070369	2.283	6.763	#
5)		Heptachlor	6.631	7.288	8491782	15019038	46.839	49.085	
6)		d-BHC	6.411f	7.241	615917	64884	3.131	0.184	#
7)		Aldrin	6.875	7.558	134371	205192	0.681	0.623	
8)		Heptachlo...	7.335	8.009	1431988	873449	7.775	2.903	#
9)		trans-Chl...	7.426	8.130	19643766	37966746	106.245	121.173	
10)		cis-Chlor...	7.519	8.237	25083239	31493677	137.766	108.134	
11)		Endosulfa...	7.638	8.309f	523226	508009	3.075	1.846	
12)		4,4'-DDE	7.576	8.332	564335	775935	2.993	2.498	
13)		Dieldrin	7.805	8.487	632206	2703774	3.293	8.890	#
14)		Endrin	7.985f	8.713	3305895	704023	22.485	3.118	#
15)		4,4'-DDD	7.985	8.758	3305895	5865563	21.038	22.893	
16)		Endosulfa...	8.118	8.872	392448	653843	2.733	2.835	
17)		4,4'-DDT	8.241f	8.994	1019486	242495	8.527	1.373	#
18)		Endrin Al...	8.427f	9.128f	96085	1500188	BelowCal	7.301	
19)		Endosulfa...	8.708	9.269	190049	57556	1.226	0.231	#
20)		Methoxychlor	8.552	9.462	93194	45695	1.591	0.381	#
21)		Endrin Ke...	8.891	9.687	25043	266287	0.150	1.035	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.767	6.430f	12323	65416	0.070	0.208	#
25)		Oxychlordane	7.252	7.933	207847	466300	1.263	1.702	
26)		2,4'-DDE	7.335	8.130	1431988	37966746	11.165	178.972	#
27)		trans-Non...	7.519	8.194	25083239	27721467	139.911	91.904	
28)		2,4'-DDD	7.673f	8.487	1536407	2703774	13.462	14.316	
29)		2,4'-DDT	7.912f	8.713	462112	704023	4.213	3.948	
30)		cis-Nonac...	7.985	8.758	3305895	5865563	15.923	17.486	
31)		Mirex	8.645	9.687	28961	266287	0.231	1.431	#
32)		Chlordane...	7.426	8.130	19643766	37966746	997.671	1049.252	
33)		Chlordane...	7.519	8.237	25083239	31493677	1000.756	1037.202	
34)		Chlordane...	8.067	8.897	5987927	9358900	1035.773	1043.835	
35)		Chlordane...	3.447	0.000	4825	0	NoCal	N.D.	
36)		Toxaphene...	7.519	8.487f	25083239	2703774	28005.706	1030.300	#
37)		Toxaphene...	7.805	8.814	632206	927954	391.474	281.965	
38)		Toxaphene...	8.118	8.850	392448	706508	116.540	139.397	
39)		Toxaphene...	8.348	8.897	233440	9358900	72.046	1120.849	#
40)		Toxaphene...	8.552f	9.067f	93194	183092	38.877	39.287	
41)		Toxaphene...	8.645	9.462	28961	45695	9.152	9.620	
42)		Toxaphene...	3.447	0.000	4825	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:45
Operator : MJB
Sample : 9H23034-CALL
Misc : A19F236, CHLOR 1000 ppb
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:05:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:02
Operator : MJB
Sample : 9H23034-CALM
Misc : A19F231, CHLOR 2000 ppb
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:05:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

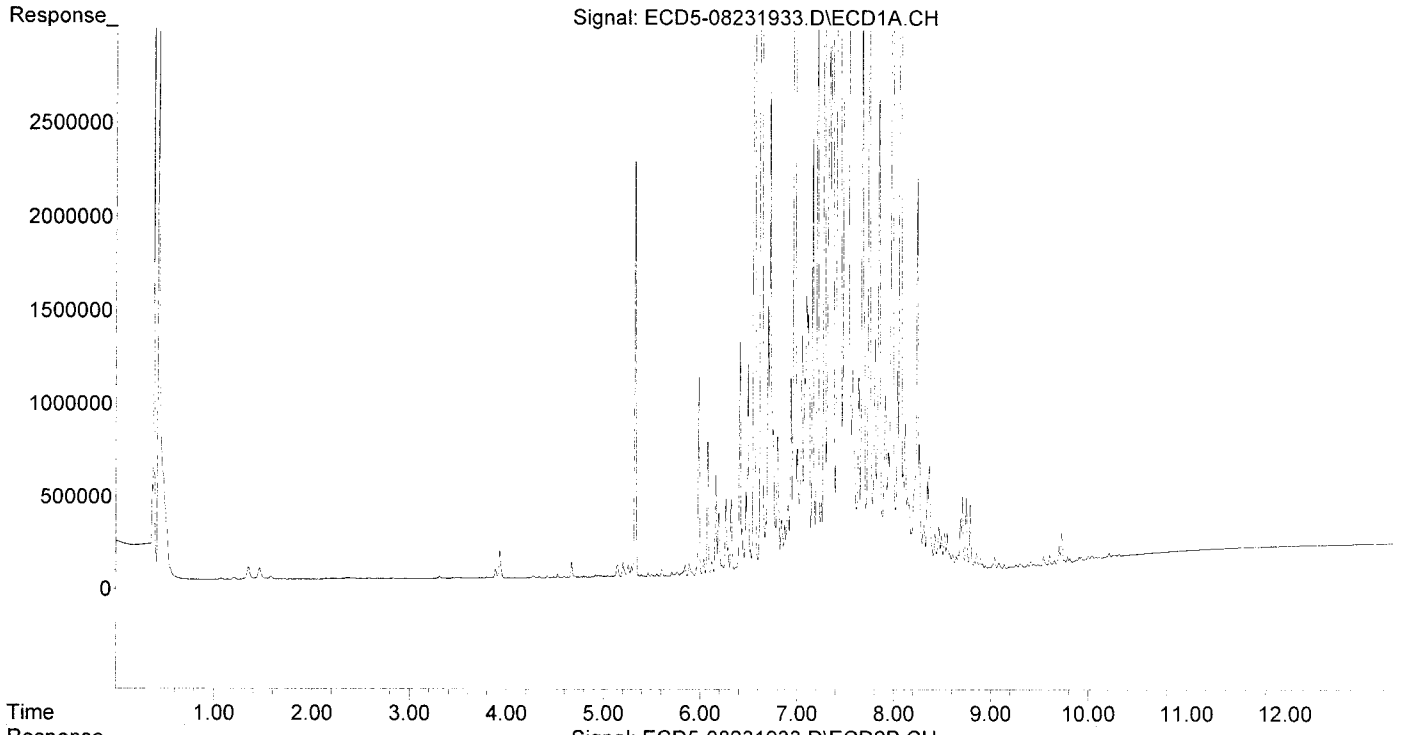
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.393	5.971	11655	15748	0.070	0.054	
22)	S	DCBP (S)	9.604	10.552	57777	17575	0.409	0.098	#
		Target Compounds							
2)		a-BHC	0.000	6.621f	0	1174704	N.D.	2.863	#
3)		g-BHC	6.193f	6.922	334417	594314	1.657	1.666	
4)		b-BHC	6.321f	7.016f	403109	2092681	4.460	13.223	#
5)		Heptachlor	6.630	7.288	16898199	31950039	93.207	104.420	
6)		d-BHC	6.411f	7.240	1241284	122584	6.311	0.348	#
7)		Aldrin	6.874	7.557	258489	381283	1.309	1.158	
8)		Heptachlo...	7.335	8.008	2829322	1755780	15.362	5.836	#
9)		trans-Chl...	7.426	8.130	40036500	81691713	216.541	260.724	
10)		cis-Chlor...	7.519	8.238	50979142	66281388	279.996	227.578	
11)		Endosulfa...	7.638	8.308	1047673	1022624	6.156	3.716	
12)		4,4'-DDE	7.576	8.332	1098754	1565142	5.828	5.038	
13)		Dieldrin	7.805	8.486	1246658	5614133	6.494	18.458	#
14)		Endrin	7.984f	8.692f	6820662	2823722	46.391	12.504	#
15)		4,4'-DDD	7.984	8.759	6820662	12014776	43.405	46.894	
16)		Endosulfa...	8.118	8.872	787524	1320218	5.484	5.725	
17)		4,4'-DDT	8.242f	8.993	2107649	483614	17.628	2.768	#
18)		Endrin Al...	8.427f	9.128f	193793	3090717	0.642	15.775	#
19)		Endosulfa...	8.709	9.268f	400484	128754	2.584	0.517	#
20)		Methoxychlor	8.552	9.462	195767	96597	3.342	1.012	#
21)		Endrin Ke...	8.892	9.686	57711	528113	0.346	2.052	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.766	6.430f	22503	117032	0.128	0.373	#
25)		Oxychlordane	7.252	7.932	378689	930396	2.302	3.397	#
26)		2,4'-DDE	7.335	8.130	2829322	81691713	22.059	385.087	#
27)		trans-Non...	7.519	8.194	50979142	59315099	285.157	196.645	
28)		2,4'-DDD	7.673f	8.486	3134690	5614133	27.467	29.726	
29)		2,4'-DDT	7.912f	8.692f	956476	2823722	8.720	15.833	#
30)		cis-Nonac...	7.984	8.759	6820662	12014776	32.852	35.817	
31)		Mirex	8.645	9.686	70178	528113	0.560	2.838	#
32)		Chlordane...	7.426	8.130	40036500	81691713	2033.382	2257.639	
33)		Chlordane...	7.519	8.238	50979142	66281388	2033.935	2182.889	
34)		Chlordane...	8.067	8.897	12208306	19418517	2111.754	2165.824	
35)		Chlordane...	3.449	0.000	4939	0	NoCal	N.D.	
36)		Toxaphene...	7.519	8.486f	50979142	5614133	56918.762	2139.322	#
37)		Toxaphene...	7.805	8.814	1246658	1872513	771.954	568.976	
38)		Toxaphene...	8.118	8.850	787524	1450920	233.861	286.273	
39)		Toxaphene...	8.368f	8.897	565943	19418517	174.666	2325.617	#
40)		Toxaphene...	8.552f	9.067f	195767	367185	81.667	78.789	
41)		Toxaphene...	8.645	9.462	70178	96597	22.176	20.335	
42)		Toxaphene...	3.449	0.000	4939	0	NoCal	N.D.	

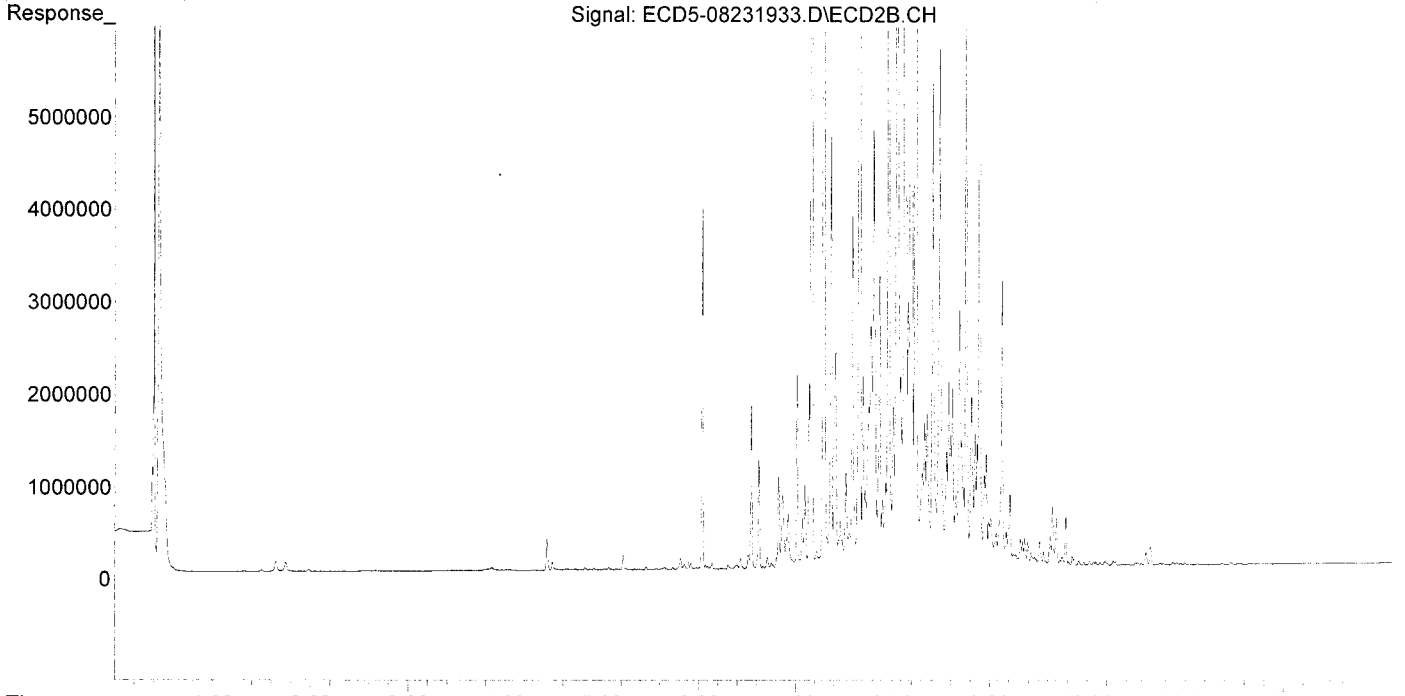
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:02
Operator : MJB
Sample : 9H23034-CALM
Misc : A19F231, CHLOR 2000 ppb
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:05:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:06:20 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

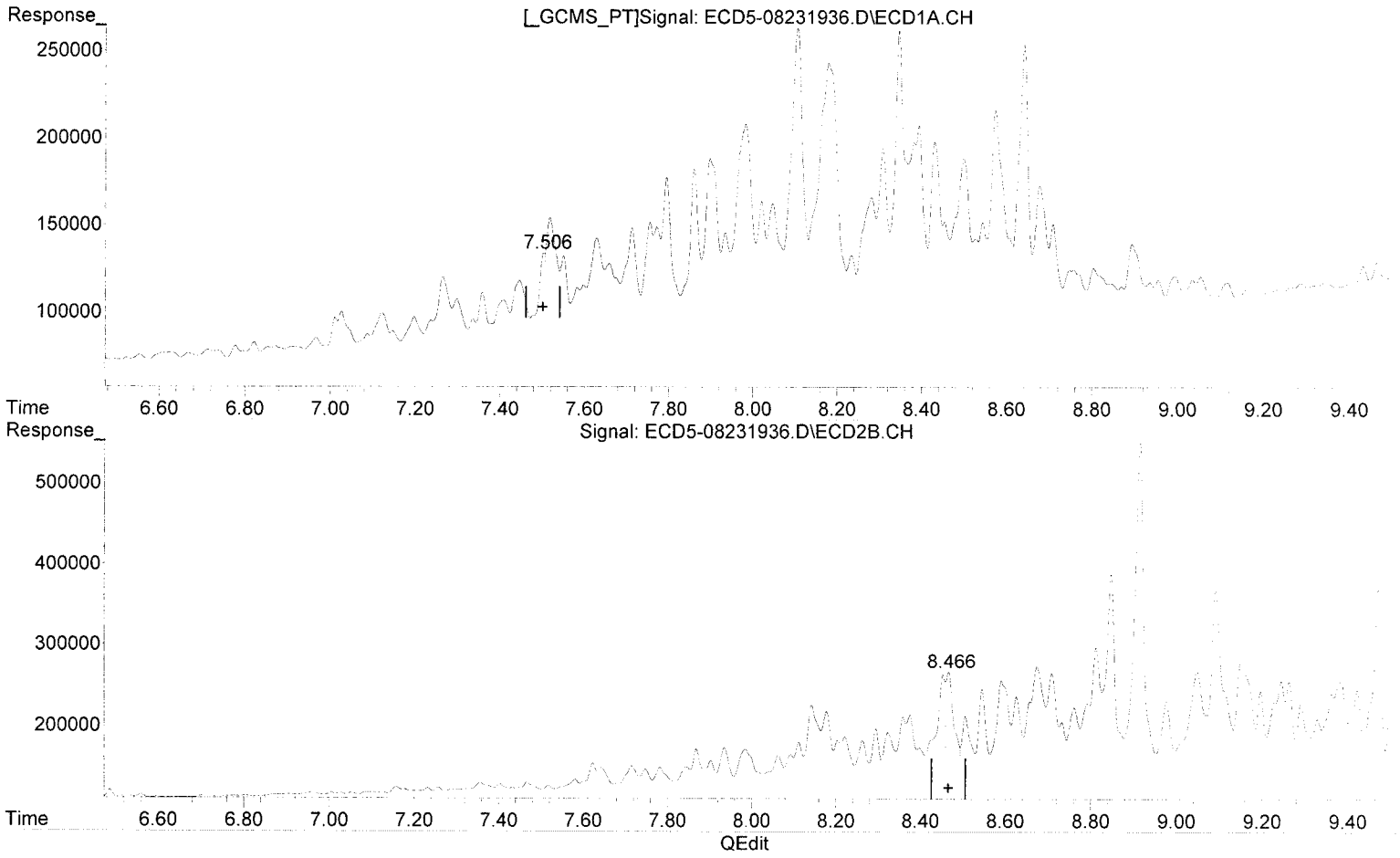
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6201	N.D.	0.021	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4430	0	0.022	N.D.	#
4)		b-BHC	6.297	0.000	3017	0	0.033	N.D.	#
5)		Heptachlor	6.627	0.000	4370	0	0.024	N.D.	#
6)		d-BHC	6.469f	0.000	2958	0	0.015	N.D.	#
7)		Aldrin	6.871	7.582f	4859	11806	0.025	0.036	#
8)		Heptachlo...	7.336	7.985	13601	46078	0.074	0.153	#
9)		trans-Chl...	7.446	8.142	34060	99117	0.184	0.316	#
10)		cis-Chlor...	7.518	8.221	69068	59106	0.379	0.203	#
11)		Endosulfa...	7.629	8.294	55946	68659	0.329	0.250	
12)		4,4'-DDE	7.550f	8.359	47125	82546	0.250	0.266	
13)		Dieldrin	7.794	8.505	88321	82204	0.460	0.270	#
14)		Endrin	7.934f	8.709	54457	133121	0.370	0.589	#
15)		4,4'-DDD	8.020	8.762	70973	90688	0.452	0.354	
16)		Endosulfa...	8.105	8.847	169381	254833	1.179	1.105	
17)		4,4'-DDT	8.180f	8.977	146997	96725	1.229	0.525	#
18)		Endrin Al...	8.392	9.091	108459	233185	BelowCal	0.427	
19)		Endosulfa...	8.708	9.291	48053	90329	0.310	0.363	
20)		Methoxychlor	8.573f	9.470	114720	230922	1.959	2.668	
21)		Endrin Ke...	8.894	9.711f	33550	36259	0.201	0.141	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	6.487f	0	8846	N.D.	0.028	#
25)		Oxychlordane	7.265	7.935	38772	48452	0.236	0.177	
26)		2,4'-DDE	7.336	8.112	13601	53529	0.106	0.252	#
27)		trans-Non...	7.518	8.204	69068	54722	0.069	0.181	#
28)		2,4'-DDD	7.713	8.505	60294	82204	0.528	0.435	
29)		2,4'-DDT	7.899	8.709	96979	133121	0.884	0.746	
30)		cis-Nonac...	7.981	8.762	116026	90688	0.559	0.270	#
31)		Mirex	8.641	9.711f	153138	36259	1.222	0.195	#
32)		Chlordane...	7.446	8.142	34060	99117	1.730	2.739	#
33)		Chlordane...	7.518	8.221	69068	59106	2.756	1.947	
34)		Chlordane...	8.047f	8.915	69875	416348	12.087	46.437	#
35)		Chlordane...	3.449	0.000	4023	0	NoCal	N.D.	
36)		Toxaphene...	7.506	8.466	49110	136848	54.832m	52.147	
37)		Toxaphene...	7.794	8.813	88321	164706	54.690	50.047	
38)		Toxaphene...	8.105	8.847	169381	254833	50.299	50.280	
39)		Toxaphene...	8.346	8.915	164317	416348	50.713	49.863	
40)		Toxaphene...	8.573	9.091	114720	233185	47.857	50.036	
41)		Toxaphene...	8.641	9.470	153138	230922	48.391	48.613	
42)		Toxaphene...	3.449	0.000	4023	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:05:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.506min 54.832 ng/mL m

response 49110

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 52.147 ng/mL

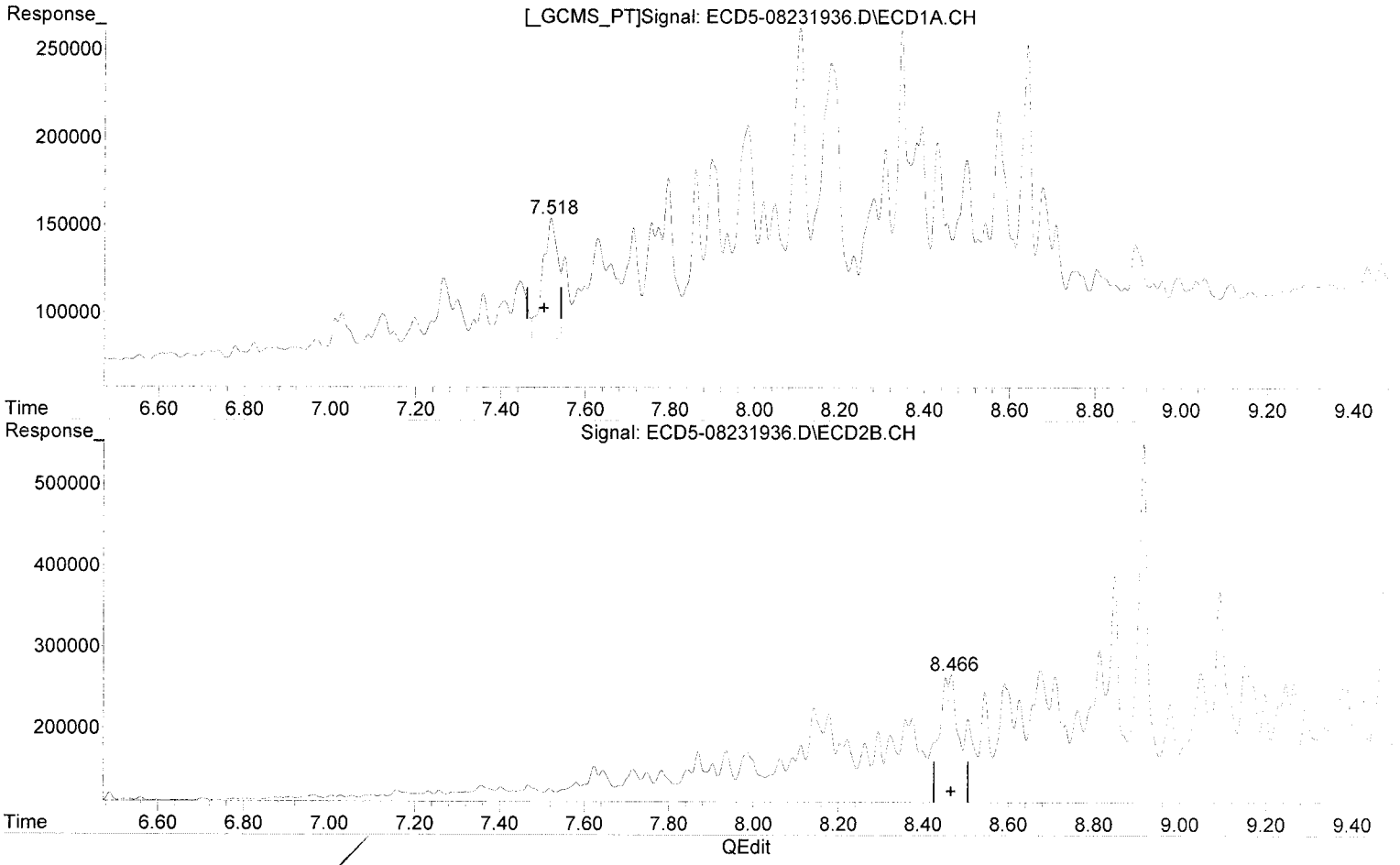
response 136848

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:05:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.518min 77.115 ng/mL

response 69068

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 52.147 ng/mL

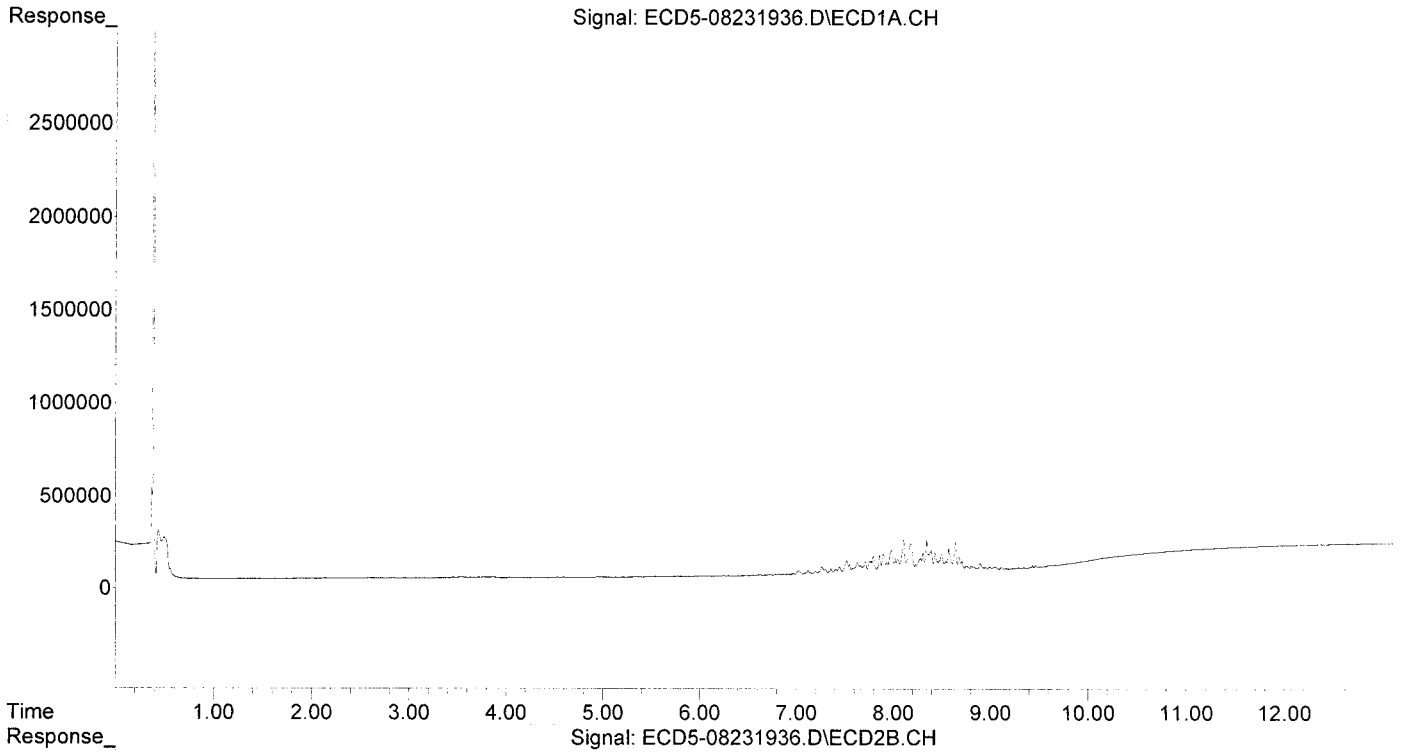
response 136848

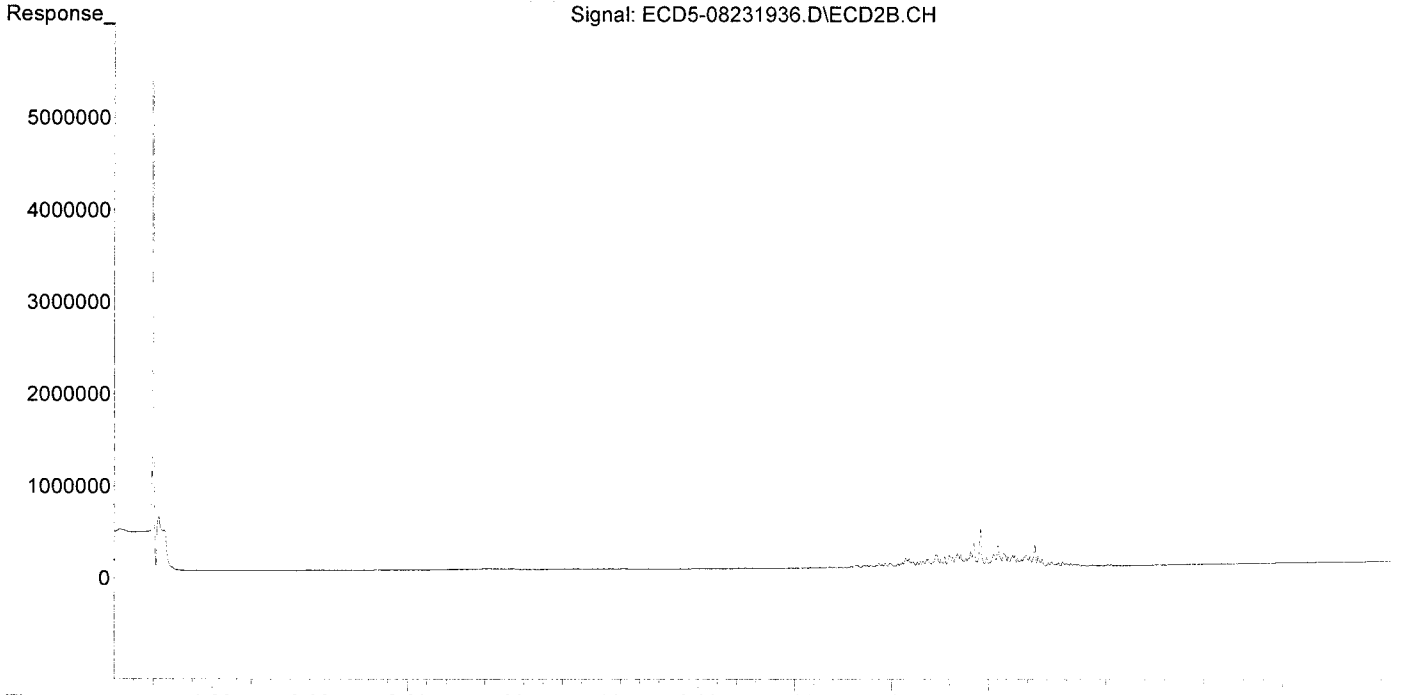
(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:06:20 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

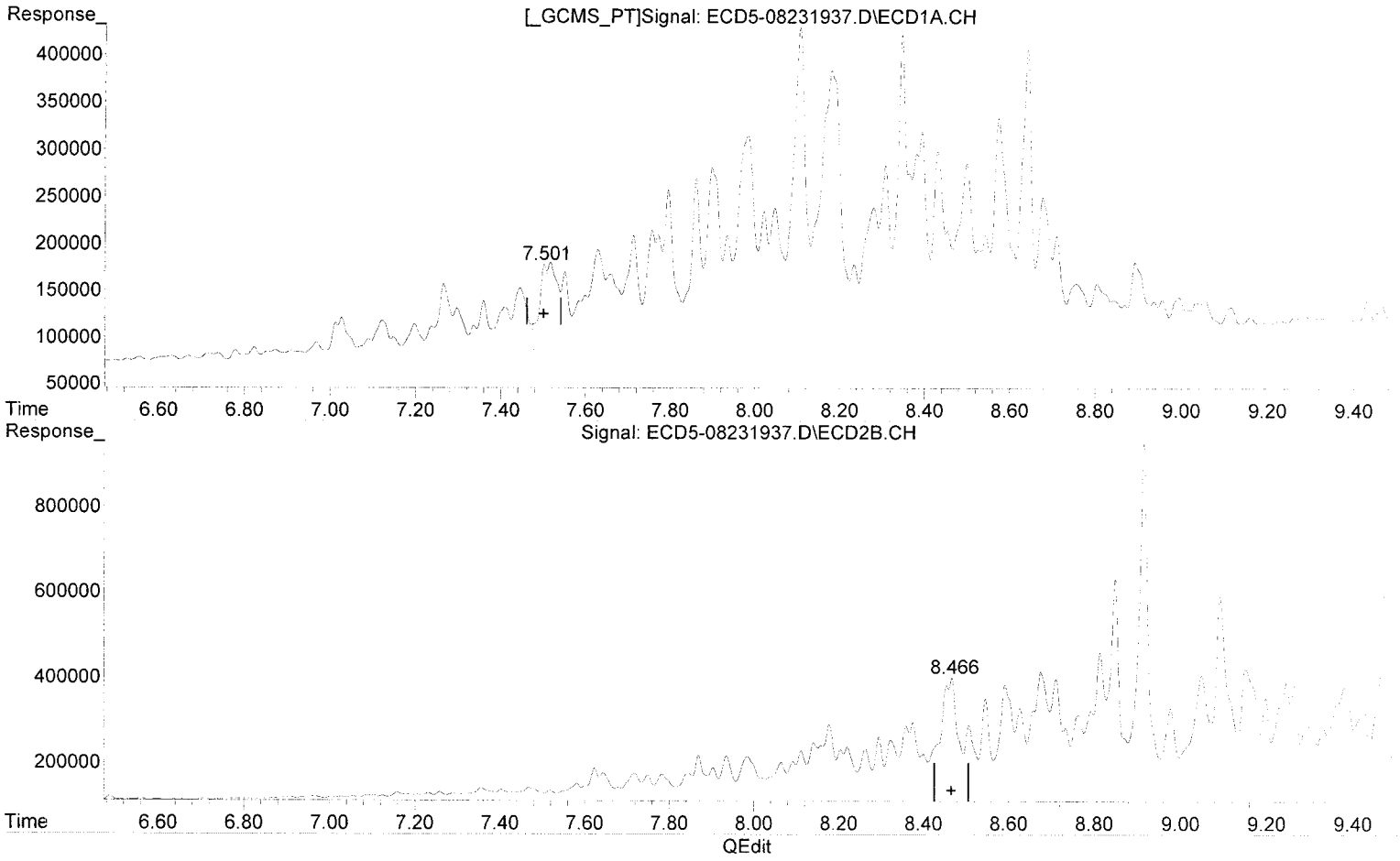
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.985	0	6562	N.D.	0.022	#
22) S	DCBP (S)	9.592	0.000	4802	0	0.034	N.D.	#
	Target Compounds							
2)	a-BHC	5.952	0.000	2451	0	0.011	N.D.	#
3)	g-BHC	6.250f	0.000	4208	0	0.021	N.D.	#
4)	b-BHC	6.297	6.965	3419	5803	0.038	0.037	
5)	Heptachlor	6.629	7.259f	5698	7338	0.031	0.024	
6)	d-BHC	6.470f	7.259f	3844	7338	0.020	0.021	
7)	Aldrin	6.872	7.582f	9196	24729	0.047	0.075	#
8)	Heptachlo...	7.359f	7.984	53934	87078	0.293	0.289	
9)	trans-Chl...	7.445	8.141	66985	117380	0.362	0.375	
10)	cis-Chlor...	7.517	8.220	93146	107177	0.512	0.368	
11)	Endosulfa...	7.629	8.295	104883	129689	0.616	0.471	
12)	4,4'-DDE	7.551f	8.359	82562	155356	0.438	0.500	
13)	Dieldrin	7.795	8.506	166085	156611	0.865	0.515	#
14)	Endrin	7.934f	8.710	115324	262153	0.784	1.161	#
15)	4,4'-DDD	8.021	8.762	139852	178338	0.890	0.696	
16)	Endosulfa...	8.106	8.848	332842	494430	2.318	2.144	
17)	4,4'-DDT	8.182f	8.977	285351	192921	2.387	1.085	#
18)	Endrin Al...	8.393	9.091	215405	452209	0.828	1.624	#
19)	Endosulfa...	8.710	9.291	103697	183737	0.669	0.738	
20)	Methoxychlor	8.543	9.471	105544	452485	1.802	5.374	#
21)	Endrin Ke...	8.894	9.712f	71764	83930	0.430	0.326	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.811f	6.488f	2684	8988	0.015	0.029	#
25)	Oxychlordane	7.266	7.935	73507	87358	0.447	0.319	
26)	2,4'-DDE	7.359f	8.112	53934	99205	0.420	0.468	
27)	trans-Non...	7.517	8.204	93146	102328	0.204	0.339	#
28)	2,4'-DDD	7.713	8.506	118203	156611	1.036	0.829	
29)	2,4'-DDT	7.899	8.710	187872	262153	1.713	1.470	
30)	cis-Nonac...	7.982	8.762	219963	178338	1.059	0.532	#
31)	Mirex	8.641	9.712f	302577	83930	2.414	0.451	#
32)	Chlordane...	7.410	8.141	46689	117380	2.371	3.244	
33)	Chlordane...	7.517	8.220	93146	107177	3.716	3.530	
34)	Chlordane...	8.047f	8.915	142490	811948	24.647	90.560	#
35)	Chlordane...	3.450	0.000	3536	0	NoCal	N.D.	
36)	Toxaphene...	7.501	8.466	91358	267534	102.002m	101.946	
37)	Toxaphene...	7.795	8.813	166085	324070	102.843	98.471	
38)	Toxaphene...	8.106	8.848	332842	494430	98.840	97.553	
39)	Toxaphene...	8.346	8.915	320313	811948	98.857	97.241	
40)	Toxaphene...	8.574	9.091	228960	452209	95.514	97.033	
41)	Toxaphene...	8.641	9.471	302577	452485	95.614	95.256	
42)	Toxaphene...	3.450	0.000	3536	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:06:39 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.501min 102.002 ng/mL (m)

response 91358

(36) Toxaphene (1) #2

8.466min 101.946 ng/mL

response 267534

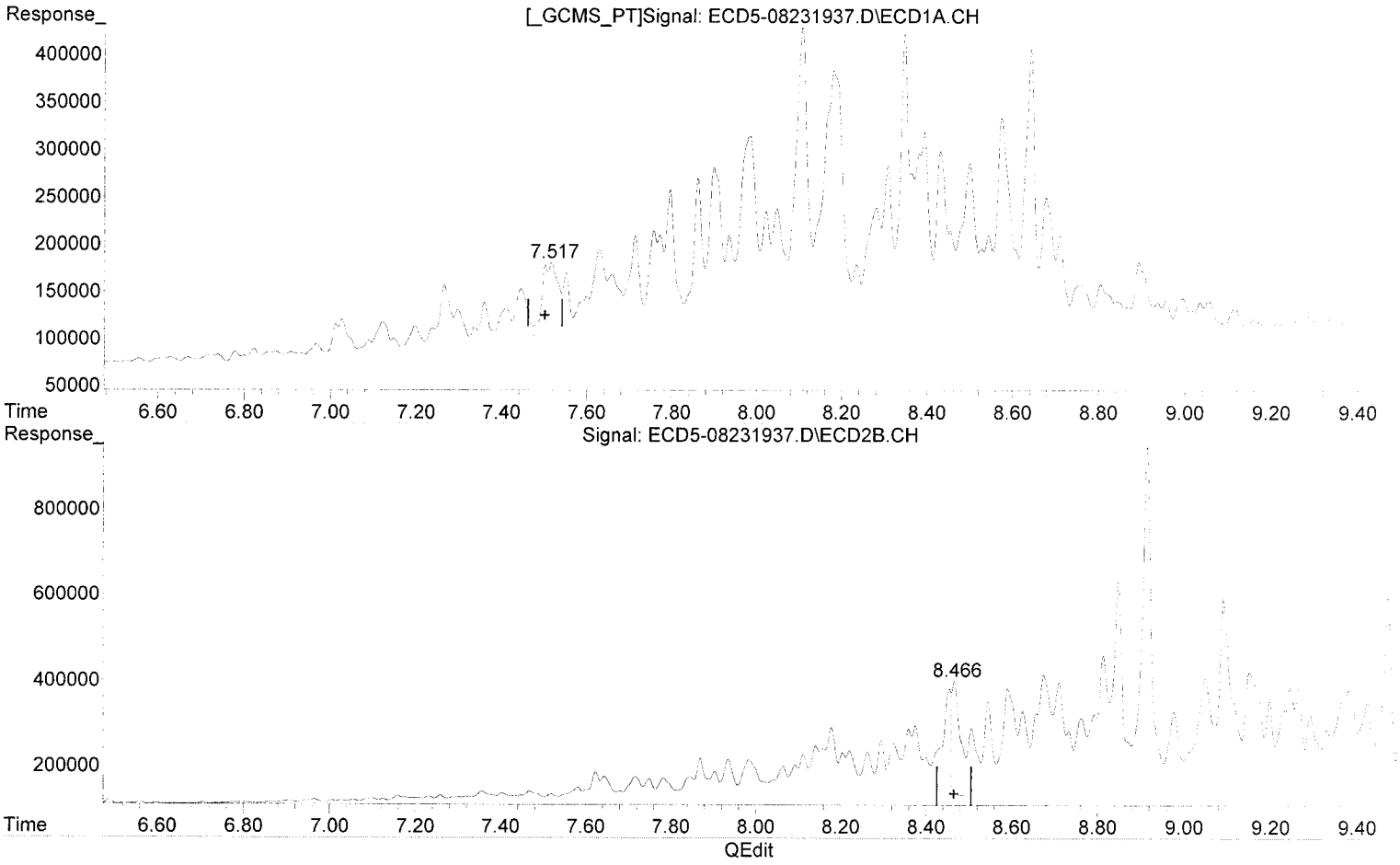
MD 6/26/19 MMB 6/26/19

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:06:39 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.517min 103.998 ng/mL

response 93146

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 101.946 ng/mL

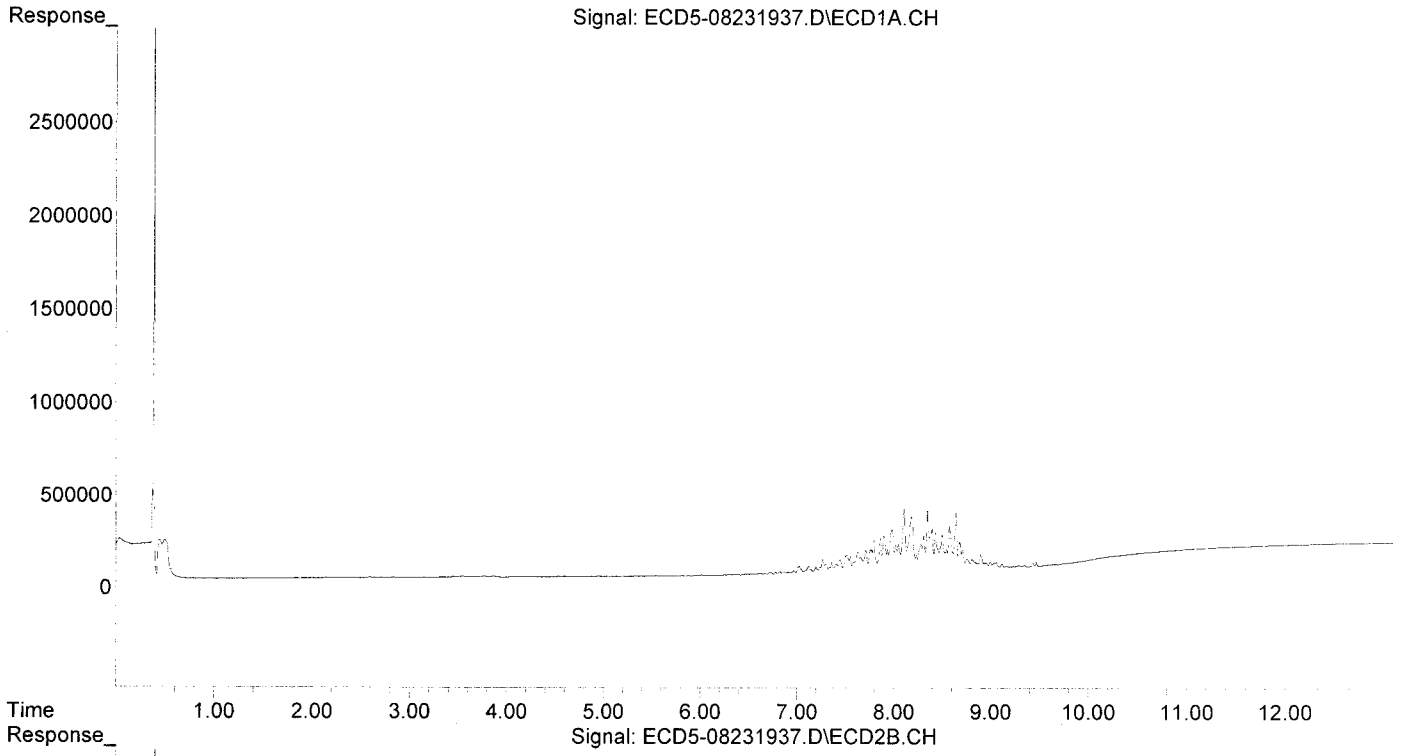
response 267534

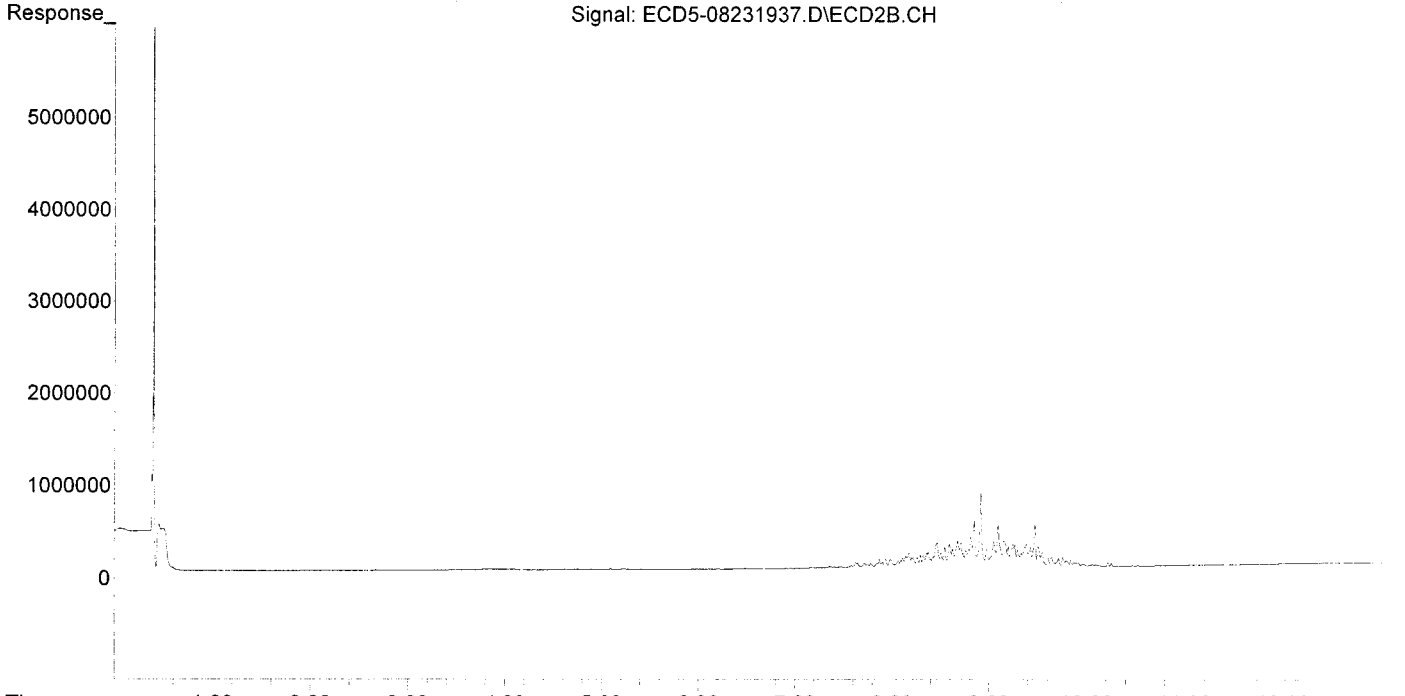
(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231938.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:28
Operator : MJB
Sample : 9H23034-CALP
Misc : A19D124, TOX 200 ppb
ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MWB 8/26/19

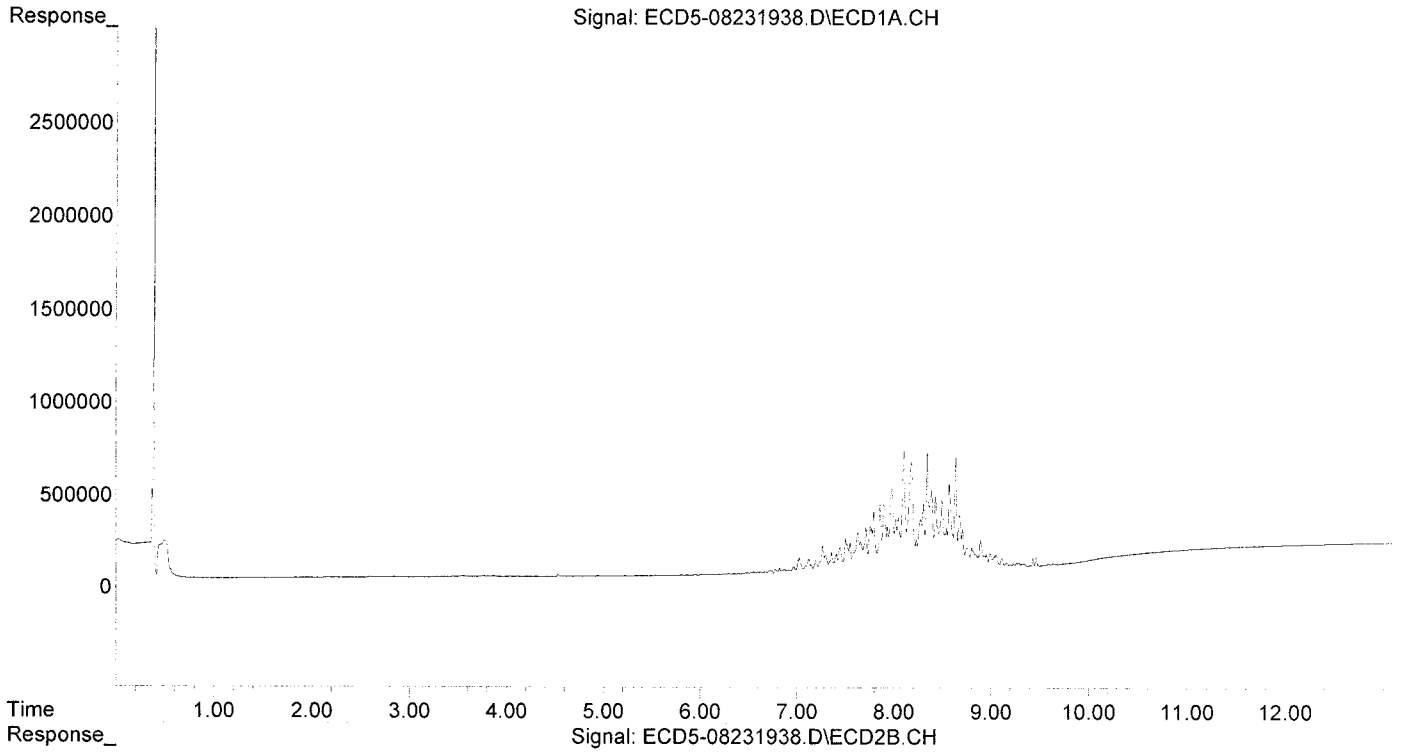
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6031	N.D.	0.021	#
22)	S	DCBP (S)	9.591	10.521	8317	11024	0.059	0.061	
		Target Compounds							
2)		a-BHC	5.950	0.000	2445	0	0.011	N.D.	#
3)		g-BHC	6.249f	6.906	4762	8484	0.024	0.024	
4)		b-BHC	6.297	6.965	5553	11866	0.061	0.075	
5)		Heptachlor	6.630	7.292	9834	18991	0.054	0.062	
6)		d-BHC	6.469f	7.232	7279	22404	0.037	0.064	#
7)		Aldrin	6.872	7.582f	20475	52234	0.104	0.159	#
8)		Heptachlo...	7.336	7.984	58943	180203	0.320	0.599	#
9)		trans-Chl...	7.445	8.139	130754	171469	0.707	0.547	
10)		cis-Chlor...	7.502f	8.220	176047	207038	0.967	0.711	
11)		Endosulfa...	7.629	8.294	203563	255143	1.196	0.927	
12)		4,4'-DDE	7.551f	8.358	153844	307212	0.816	0.989	
13)		Dieldrin	7.795	8.506	317587	302159	1.654	0.993	
14)		Endrin	7.934f	8.709	233827	517355	1.590	2.291	#
15)		4,4'-DDD	8.021	8.761	271844	361076	1.730	1.409	
16)		Endosulfa...	8.105	8.847	644464	995555	4.488	4.317	
17)		4,4'-DDT	8.182f	8.976	572615	378347	4.789	2.160	#
18)		Endrin Al...	8.392	9.090	423151	895397	2.609	4.034	#
19)		Endosulfa...	8.709	9.290	207483	368442	1.339	1.479	
20)		Methoxychlor	8.543	9.469	215126	905244	3.673	10.806	#
21)		Endrin Ke...	8.893	9.711f	142657	173912	0.855	0.676	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.811f	6.487f	2563	8587	0.015	0.027	#
25)		Oxychlordane	7.266	7.935	140581	179085	0.854	0.654	
26)		2,4'-DDE	7.336	8.112	58943	198883	0.460	0.938	#
27)		trans-Non...	7.502	8.205	176047	199265	0.666	0.661	
28)		2,4'-DDD	7.713	8.506	232393	302159	2.036	1.600	
29)		2,4'-DDT	7.899	8.709	356627	517355	3.251	2.901	
30)		cis-Nonac...	7.982	8.761	437778	361076	2.109	1.076	#
31)		Mirex	8.640	9.711f	597991	173912	4.770	0.935	#
32)		Chlordane...	7.445	8.139	130754	171469	6.641	4.739	
33)		Chlordane...	7.502	8.220	176047	207038	7.024	6.819	
34)		Chlordane...	8.047f	8.914	280898	1580436	48.589	176.272	#
35)		Chlordane...	3.451	0.000	3919	0	NoCal	N.D.	
36)		Toxaphene...	7.502	8.466	176047	508983	196.559	193.953	
37)		Toxaphene...	7.795	8.812	317587	645322	196.656	196.085	
38)		Toxaphene...	8.105	8.847	644464	995555	191.378	196.427	
39)		Toxaphene...	8.346	8.914	632351	1580436	195.161	189.278	
40)		Toxaphene...	8.574	9.090	454431	895397	189.572	192.130	
41)		Toxaphene...	8.640	9.469	597991	905244	188.964	190.570	
42)		Toxaphene...	3.451	0.000	3919	0	NoCal	N.D.	

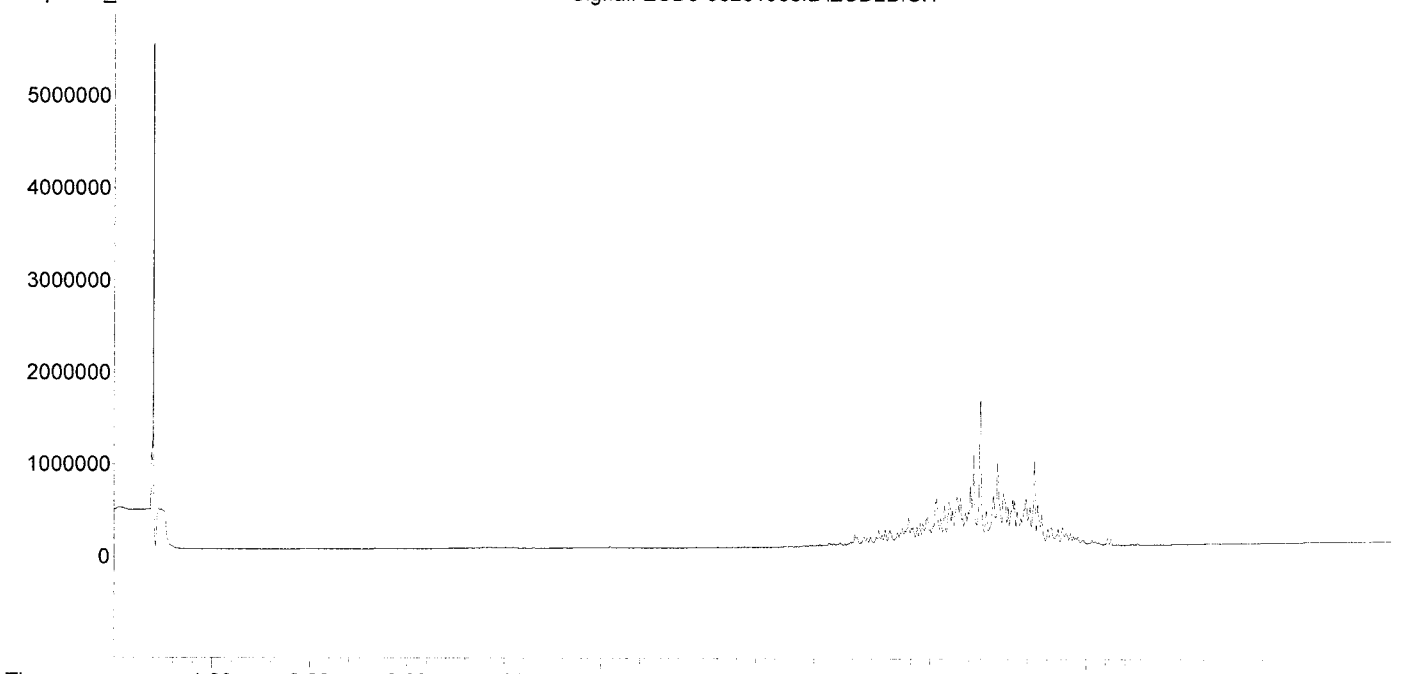
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231938.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:28
Operator : MJB
Sample : 9H23034-CALP
Misc : A19D124, TOX 200 ppb
ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231939.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:45
Operator : MJB
Sample : 9H23034-CALQ
Misc : A19D125, TOX 500 ppb
ALS Vial : 32 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

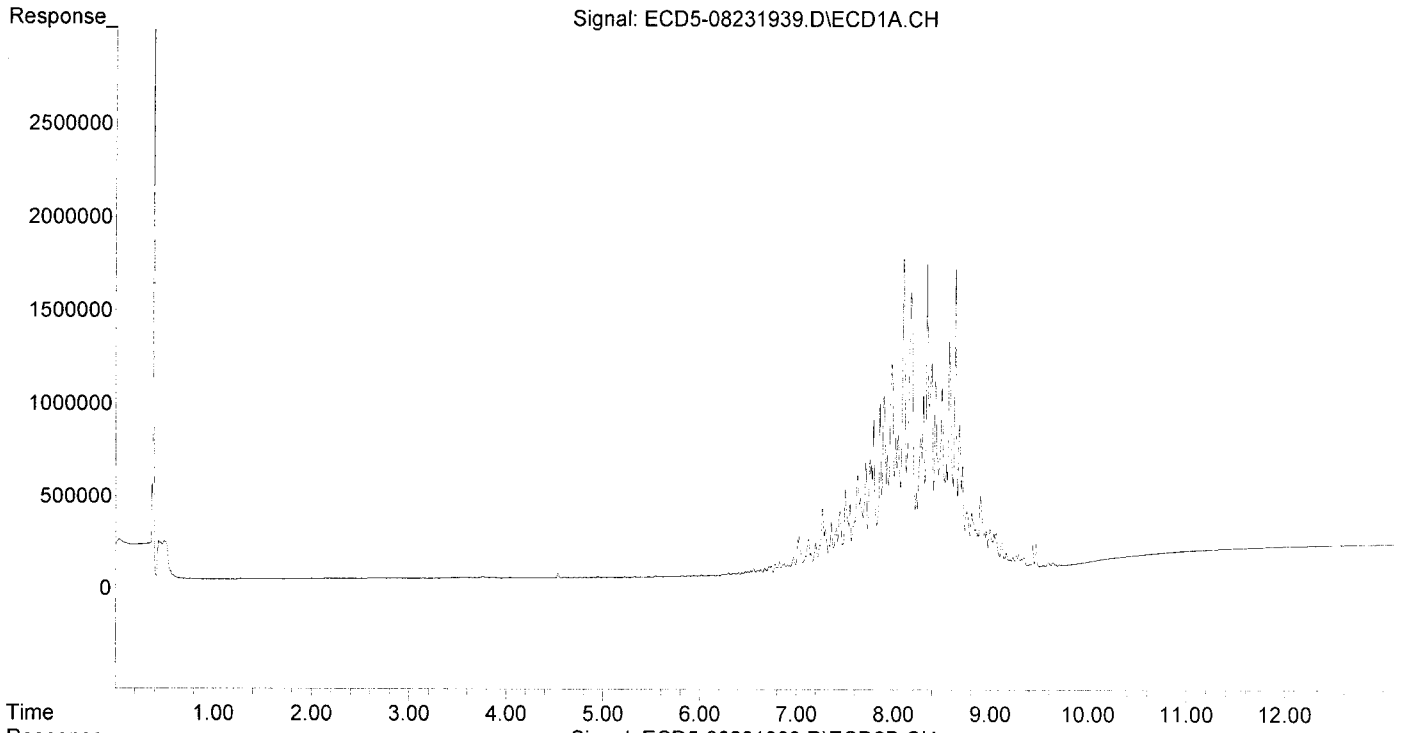
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.984	0	5601	N.D.	0.019	#
22) S	DCBP (S)	9.591	10.521	21035	39647	0.149	0.221	#
	Target Compounds							
2)	a-BHC	5.938	6.598	3646	8422	0.016	0.021	
3)	g-BHC	6.246f	6.908	6276	21315	0.031	0.060	#
4)	b-BHC	6.296	6.966	12656	26420	0.140	0.167	
5)	Heptachlor	6.631	7.291	26275	48687	0.145	0.159	
6)	d-BHC	6.434	7.233	12949	50866	0.066	0.144	#
7)	Aldrin	6.871	7.582f	54986	128738	0.278	0.391	#
8)	Heptachlo...	7.337	7.985	148782	431601	0.808	1.435	#
9)	trans-Chl...	7.445	8.136	326510	348418	1.766	1.112	
10)	cis-Chlor...	7.502f	8.220	441826	492762	2.427	1.692	
11)	Endosulfa...	7.629	8.295	523361	619890	3.075	2.253	
12)	4,4'-DDE	7.551f	8.358	370244	790371	1.964	2.544	
13)	Dieldrin	7.794	8.506	819454	752423	4.268	2.474	#
14)	Endrin	7.934f	8.711	624315	1366705	4.246	6.052	#
15)	4,4'-DDD	8.021	8.761	715456	940917	4.553	3.672	
16)	Endosulfa...	8.105	8.848	1677481	2475022	11.681	10.733	
17)	4,4'-DDT	8.182f	8.977	1480674	1000646	12.384	5.736	#
18)	Endrin Al...	8.392	9.091	1117641	2340668	8.532	11.800	
19)	Endosulfa...	8.709	9.290	555797	952729	3.586	3.825	
20)	Methoxychlor	8.574f	9.470	1221560	2369795	20.855	27.582	
21)	Endrin Ke...	8.894	9.711f	386326	477017	2.317	1.854	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.814f	6.461	4241	6767	0.024	0.022	
25)	Oxychlordane	7.265	7.936	350487	422818	2.130	1.544	
26)	2,4'-DDE	7.337	8.112	148782	485681	1.160	2.289	#
27)	trans-Non...	7.502	8.205	441826	487255	2.150	1.615	
28)	2,4'-DDD	7.713	8.506	583556	752423	5.113	3.984	
29)	2,4'-DDT	7.899	8.711	935213	1366705	8.526	7.664	
30)	cis-Nonac...	7.981	8.761	1117997	940917	5.385	2.805	#
31)	Mirex	8.640	9.711f	1623402	477017	12.949	2.564	#
32)	Chlordane...	7.408	8.136	238293	348418	12.102	9.629	
33)	Chlordane...	7.502	8.220	441826	492762	17.628	16.228	
34)	Chlordane...	8.046f	8.915	731630	4252640	126.555	474.314	#
35)	Chlordane...	3.450	0.000	4132	0	NoCal	N.D.	
36)	Toxaphene...	7.502	8.466	441826	1308994	493.303	498.805	
37)	Toxaphene...	7.794	8.812	819454	1647741	507.421	500.677	
38)	Toxaphene...	8.105	8.848	1677481	2475022	498.140	488.332	
39)	Toxaphene...	8.346	8.915	1649569	4252640	509.102	509.308	
40)	Toxaphene...	8.574	9.091	1221560	2340668	509.590	502.251	
41)	Toxaphene...	8.640	9.470	1623402	2369795	512.991	498.883	
42)	Toxaphene...	3.450	0.000	4132	0	NoCal	N.D.	

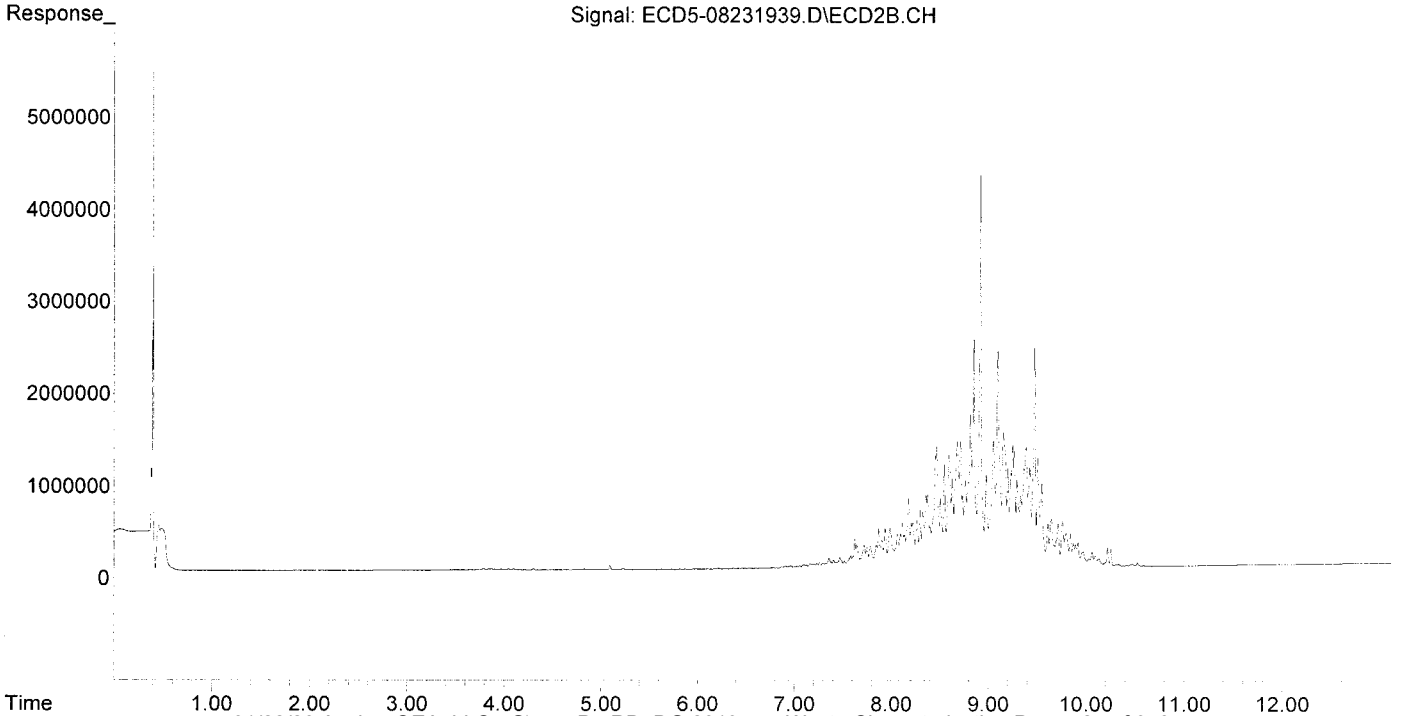
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231939.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:45
Operator : MJB
Sample : 9H23034-CALQ
Misc : A19D125, TOX 500 ppb
ALS Vial : 32 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231940.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:03
Operator : MJB
Sample : 9H23034-CALR
Misc : A19D126, TOX 1000 ppb
ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MB 8/26/19

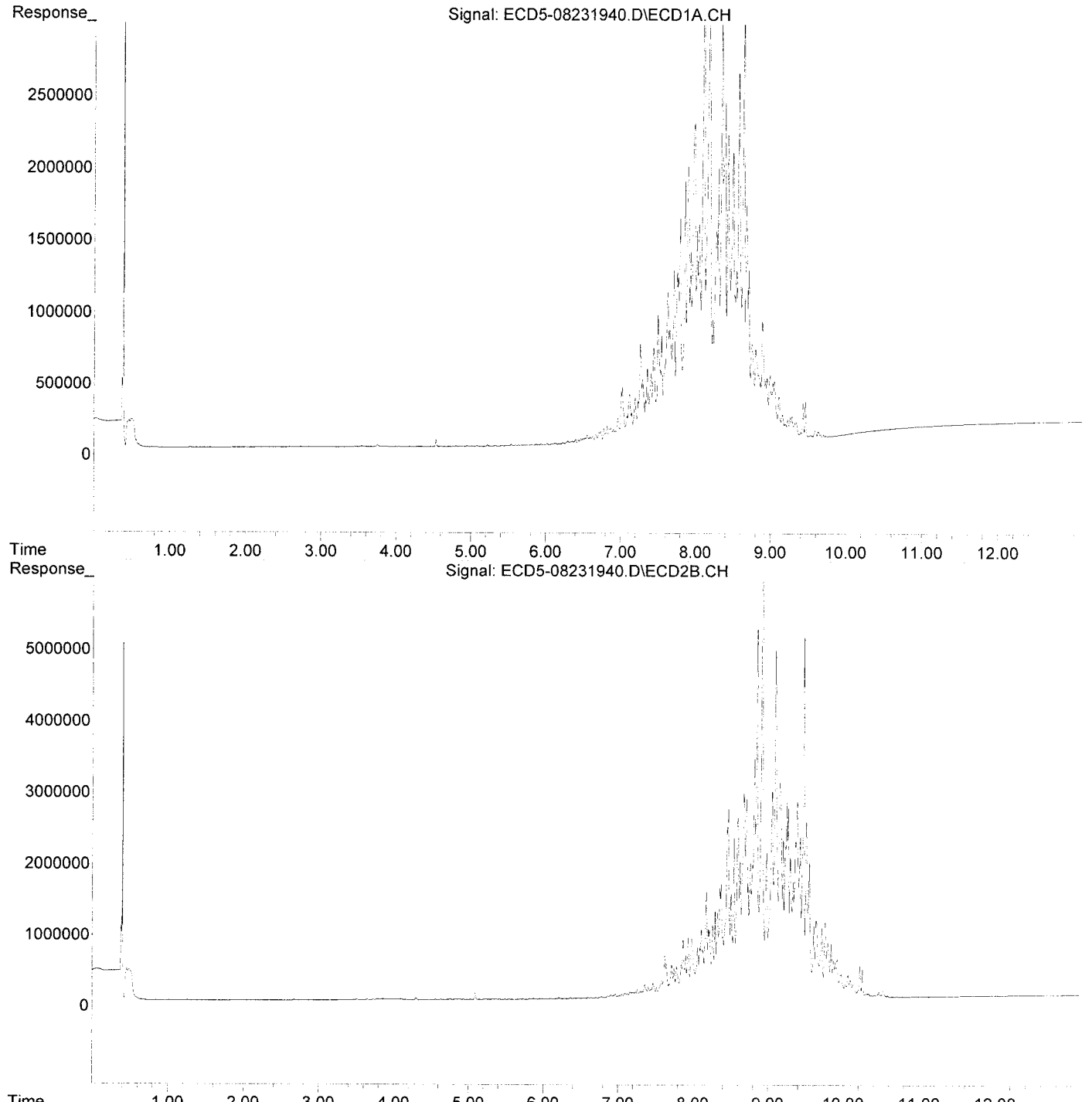
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.415f	5.982	2381	5264	0.014	0.018	
22)	S DCBP (S)	9.591	10.522	47060	86882	0.334	0.483	#
	Target Compounds							
2)	a-BHC	5.937	6.597	7133	14957	0.031	0.036	
3)	g-BHC	6.231	6.907	12268	49388	0.061	0.138	#
4)	b-BHC	6.296	6.967	24041	58985	0.266	0.373	#
5)	Heptachlor	6.632	7.293	48435	95609	0.267	0.312	
6)	d-BHC	6.434	7.233	28416	100471	0.144	0.285	#
7)	Aldrin	6.871	7.551	108360	147580	0.549	0.448	
8)	Heptachlo...	7.336	7.985	294905	840940	1.601	2.795	#
9)	trans-Chl...	7.445	8.111f	659823	964498	3.569	3.078	
10)	cis-Chlor...	7.501f	8.220	871889	947518	4.789	3.253	
11)	Endosulfa...	7.628	8.295	1038833	1226540	6.104	4.457	
12)	4,4'-DDE	7.550f	8.358	746675	1543581	3.961	4.968	
13)	Dieldrin	7.793	8.506	1556013	1462579	8.105	4.809	#
14)	Endrin	7.933f	8.711	1312768	2786774	8.929	12.340	
15)	4,4'-DDD	8.020	8.762	1452045	1895471	9.240	7.398	
16)	Endosulfa...	8.105	8.848	3495877	5168269	24.343	22.412	
17)	4,4'-DDT	8.183	8.977	2996314	2028436	25.061	11.540	#
18)	Endrin Al...	8.391	9.091	2338006	4900430	18.826	25.221	
19)	Endosulfa...	8.709	9.291	1188299	2002950	7.668	8.041	
20)	Methoxychlor	8.543	9.470	1177404	5046645	20.101	55.668	#
21)	Endrin Ke...	8.893	9.712f	829327	990858	4.973	3.851	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.745f	6.463	2404	9221	0.014	0.029	#
25)	Oxychlordane	7.265	7.936	684836	845822	4.162	3.088	
26)	2,4'-DDE	7.336	8.111	294905	964498	2.299	4.547	#
27)	trans-Non...	7.501	8.204	871889	963521	4.550	3.194	
28)	2,4'-DDD	7.712	8.506	1203385	1462579	10.544	7.744	
29)	2,4'-DDT	7.898	8.711	1885482	2786774	17.190	15.626	
30)	cis-Nonac...	7.981	8.762	2207076	1895471	10.631	5.651	#
31)	Mirex	8.640	9.712f	3406737	990858	27.174	5.325	#
32)	Chlordane...	7.445	8.111	659823	964498	33.511	26.655	
33)	Chlordane...	7.501	8.220	871889	947518	34.786	31.205	
34)	Chlordane...	8.045f	8.915	1508434	8650068	260.924	964.776	#
35)	Chlordane...	3.451	0.000	2687	0	NoCal	N.D.	
36)	Toxaphene...	7.501	8.467	871889	2654886	973.473	1011.671	
37)	Toxaphene...	7.793	8.813	1556013	3384036	963.512	1028.262	
38)	Toxaphene...	8.105	8.848	3495877	5168269	1038.126	1019.721	
39)	Toxaphene...	8.345	8.915	3287014	8650068	1014.463	1035.957	
40)	Toxaphene...	8.573	9.091	2546293	4900430	1062.220	1051.514	
41)	Toxaphene...	8.640	9.470	3406737	5046645	1076.520	1062.406	
42)	Toxaphene...	3.451	0.000	2687	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231940.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:03
Operator : MJB
Sample : 9H23034-CALR
Misc : A19D126, TOX 1000 ppb
ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231941.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:20
Operator : MJB
Sample : 9H23034-CALS
Misc : A19D121, TOX 2000 ppb
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:58 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

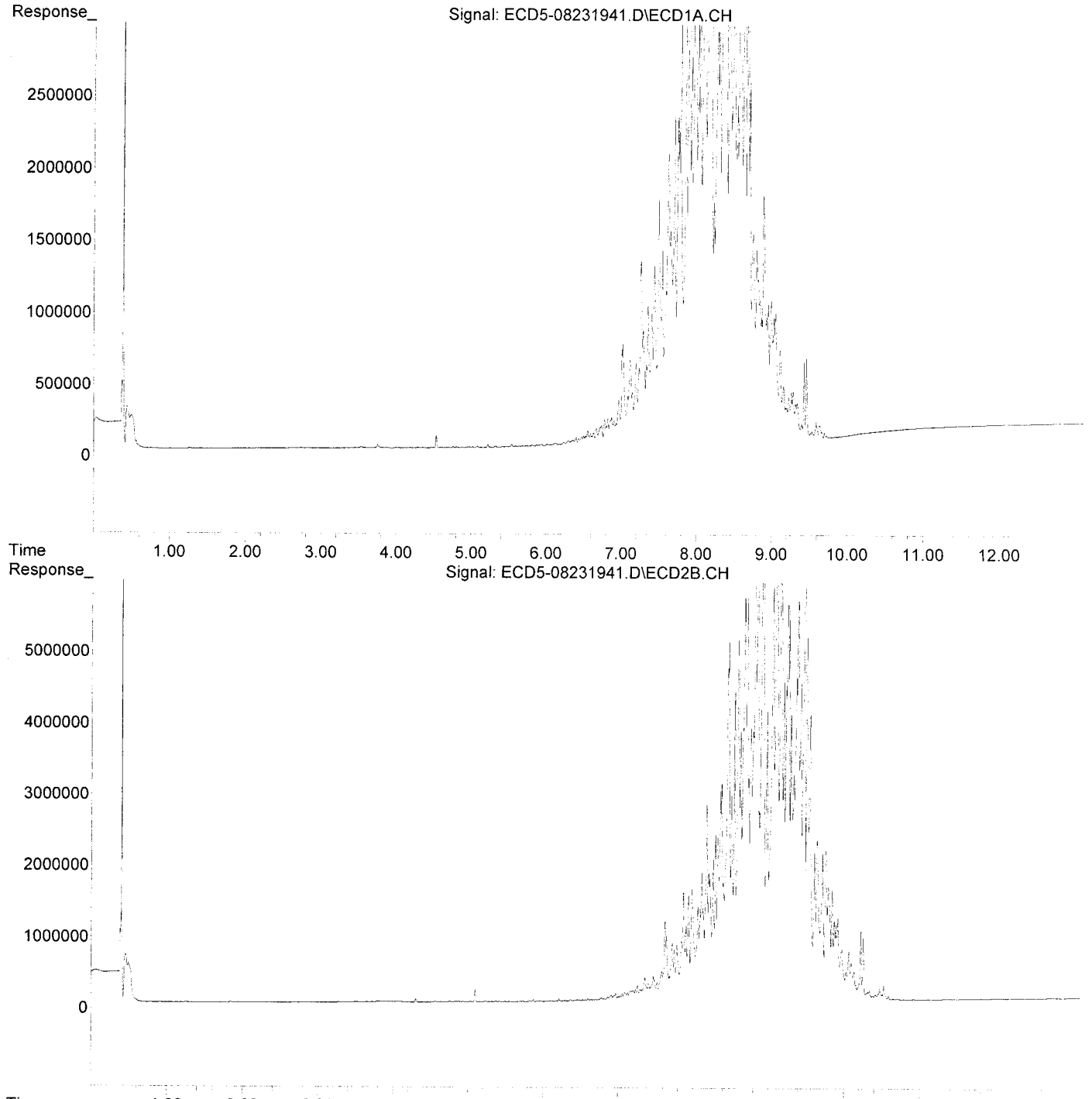
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.416f	5.979	3411	9459	0.021	0.032	#
22)	S	DCBP (S)	9.591	10.521	106938	194794	0.758	1.084	#
		Target Compounds							
2)		a-BHC	5.935	6.596	13246	39719	0.058	0.097	#
3)		g-BHC	6.231	6.908	20790	85564	0.103	0.240	#
4)		b-BHC	6.295	6.967	35592	107682	0.394	0.680	#
5)		Heptachlor	6.633	7.293	79787	161818	0.440	0.529	
6)		d-BHC	6.433	7.233	46116	159995	0.234	0.454	#
7)		Aldrin	6.871	7.581f	182635	424827	0.925	1.290	
8)		Heptachlo...	7.357f	7.984	952857	1568607	5.174	5.214	
9)		trans-Chl...	7.444	8.111f	1223688	1798529	6.618	5.740	
10)		cis-Chlor...	7.500f	8.218f	1674674	1710240	9.198	5.872	
11)		Endosulfa...	7.627	8.294	1999949	2341198	11.752	8.508	
12)		4,4'-DDE	7.549f	8.357	1335034	2938735	7.081	9.459	
13)		Dieldrin	7.792	8.505	2958997	2895788	15.413	9.521	
14)		Endrin	7.981f	8.711	4441487	5651216	30.209	25.025	
15)		4,4'-DDD	8.020	8.761	2883315	3832878	18.349	14.960	
16)		Endosulfa...	8.104	8.848	6831460	10545708	47.569	45.730	
17)		4,4'-DDT	8.183	8.977	5897786	4051156	49.329	22.612	#
18)		Endrin Al...	8.391	9.091	4718611	9435236	38.506	48.051	
19)		Endosulfa...	8.708	9.291	2483005	4046643	16.022	16.246	
20)		Methoxychlor	8.542	9.471	2322878	10090951	39.657	102.111	#
21)		Endrin Ke...	8.893	9.712f	1725359	2080010	10.346	8.083	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.744f	6.462	3614	25550	0.021	0.081	#
25)		Oxychlordane	7.264	7.935	1262060	1485955	7.670	5.425	
26)		2,4'-DDE	7.357f	8.111	952857	1798529	7.429	8.478	
27)		trans-Non...	7.500	8.204	1674674	1791431	9.032	5.939	
28)		2,4'-DDD	7.712	8.505	2255144	2895788	19.760	15.333	
29)		2,4'-DDT	7.898	8.711	3633258	5651216	33.124	31.688	
30)		cis-Nonac...	7.981	8.761	4441487	3832878	21.393	11.426	#
31)		Mirex	8.640	9.712f	6510950	2080010	51.935	11.178	#
32)		Chlordane...	7.444	8.111	1223688	1798529	62.149	49.704	
33)		Chlordane...	7.500	8.218	1674674	1710240	66.815	56.324	
34)		Chlordane...	8.044f	8.914	2935856	17190037	507.835	1917.273	#
35)		Chlordane...	3.452	0.000	4166	0	NoCal	N.D.	
36)		Toxaphene...	7.500	8.466	1674674	5030917	1869.791	1917.082	
37)		Toxaphene...	7.792	8.813	2958997	6610397	1832.266	2008.613	
38)		Toxaphene...	8.104	8.848	6831460	10545708	2028.651	2080.712	
39)		Toxaphene...	8.345	8.914	6407070	17190037	1977.398	2058.728	
40)		Toxaphene...	8.572	9.091	5074570	9435236	2116.925	2024.573	
41)		Toxaphene...	8.640	9.471	6510950	10090951	2057.443	2124.320	
42)		Toxaphene...	3.452	0.000	4166	0	NoCal	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231941.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:20
Operator : MJB
Sample : 9H23034-CALS
Misc : A19D121, TOX 2000 ppb
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:58 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Sequence Name: C:\msdchem\4\sequence\9H23034.s
Comment: Pesticides
Operator: MJB
Data Path: C:\MSDCHEM\4\DATA\2019-08\9H23034\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info
1)	Sample	100	CONDITIONING RUN
	Datafile		ECD5-08231901
	Method		ECD5_AQUPEST_160111
2)	Sample	100	CONDITIONING RUN
	Datafile		ECD5-08231902
	Method		ECD5_AQUPEST_160111
3)	Sample	1	Hexane
	Datafile		ECD5-08231903
	Method		ECD5_AQUPEST_160111
4)	Sample	2	9H23034-BKD1
	Datafile		ECD5-08231904
	Method		ECD5_AQUPEST_160111
5)	Sample	1	Hexane
	Datafile		ECD5-08231905
	Method		ECD5_AQUPEST_160111
6)	Sample	2	9H23034-BKD2
	Datafile		ECD5-08231906
	Method		ECD5_AQUPEST_160111
7)	Sample	3	9H23034-ICB1
	Datafile		ECD5-08231907
	Method		ECD5_AQUPEST_160111
8)	Sample	4	9H23034-CAL1
	Datafile		ECD5-08231908
	Method		ECD5_AQUPEST_160111
9)	Sample	5	9H23034-CAL2
	Datafile		ECD5-08231909
	Method		ECD5_AQUPEST_160111
10)	Sample	6	9H23034-CAL3
	Datafile		ECD5-08231910
	Method		ECD5_AQUPEST_160111
11)	Sample	7	9H23034-CAL4
	Datafile		ECD5-08231911
	Method		ECD5_AQUPEST_160111
12)	Sample	8	9H23034-CAL5
	Datafile		ECD5-08231912
	Method		ECD5_AQUPEST_160111
13)	Sample	9	9H23034-CAL6
	Datafile		ECD5-08231913
	Method		ECD5_AQUPEST_160111
14)	Sample	10	9H23034-CAL7
	Datafile		ECD5-08231914
	Method		ECD5_AQUPEST_160111
15)	Sample	11	9H23034-CAL8
	Datafile		ECD5-08231915
	Method		ECD5_AQUPEST_160111
16)	Sample	1	9H23034-IBL1
	Datafile		ECD5-08231916
	Method		ECD5_AQUPEST_160111
17)	Sample	12	9H23034-ICV1
	Datafile		ECD5-08231917
	Method		ECD5_AQUPEST_160111
18)	Sample	13	9H23034-CAL9
	Datafile		ECD5-08231918
	Method		ECD5_AQUPEST_160111
19)	Sample	14	9H23034-CALA
	Datafile		ECD5-08231919
	Method		ECD5_AQUPEST_160111
20)	Sample	15	9H23034-CALB

MB 8/26/19

	Datafile		ECD5-08231920
	Method		ECD5_AQUPEST_160111
21)	Sample	16	9H23034-CALC
	Datafile		ECD5-08231921
	Method		ECD5_AQUPEST_160111
22)	Sample	17	9H23034-CALD
	Datafile		ECD5-08231922
	Method		ECD5_AQUPEST_160111
23)	Sample	18	9H23034-CALE
	Datafile		ECD5-08231923
	Method		ECD5_AQUPEST_160111
24)	Sample	19	9H23034-CALF
	Datafile		ECD5-08231924
	Method		ECD5_AQUPEST_160111
25)	Sample	20	9H23034-CALG
	Datafile		ECD5-08231925
	Method		ECD5_AQUPEST_160111
26)	Sample	1	9H23034-IBL2
	Datafile		ECD5-08231926
	Method		ECD5_AQUPEST_160111
27)	Sample	21	9H23034-ICV2
	Datafile		ECD5-08231927
	Method		ECD5_AQUPEST_160111
28)	Sample	22	9H23034-CALH
	Datafile		ECD5-08231928
	Method		ECD5_AQUPEST_160111
29)	Sample	23	9H23034-CALI
	Datafile		ECD5-08231929
	Method		ECD5_AQUPEST_160111
30)	Sample	24	9H23034-CALJ
	Datafile		ECD5-08231930
	Method		ECD5_AQUPEST_160111
31)	Sample	25	9H23034-CALK
	Datafile		ECD5-08231931
	Method		ECD5_AQUPEST_160111
32)	Sample	26	9H23034-CALL
	Datafile		ECD5-08231932
	Method		ECD5_AQUPEST_160111
33)	Sample	27	9H23034-CALM
	Datafile		ECD5-08231933
	Method		ECD5_AQUPEST_160111
34)	Sample	1	9H23034-IBL3
	Datafile		ECD5-08231934
	Method		ECD5_AQUPEST_160111
35)	Sample	28	9H23034-ICV3
	Datafile		ECD5-08231935
	Method		ECD5_AQUPEST_160111
36)	Sample	29	9H23034-CALN
	Datafile		ECD5-08231936
	Method		ECD5_AQUPEST_160111
37)	Sample	30	9H23034-CALO
	Datafile		ECD5-08231937
	Method		ECD5_AQUPEST_160111
38)	Sample	31	9H23034-CALP
	Datafile		ECD5-08231938
	Method		ECD5_AQUPEST_160111
39)	Sample	32	9H23034-CALQ
	Datafile		ECD5-08231939
	Method		ECD5_AQUPEST_160111
40)	Sample	33	9H23034-CALR
	Datafile		ECD5-08231940
	Method		ECD5_AQUPEST_160111
41)	Sample	34	9H23034-CALS
	Datafile		ECD5-08231941
	Method		ECD5_AQUPEST_160111
42)	Sample	1	9H23034-IBL4
	Datafile		ECD5-08231942
	Method		ECD5_AQUPEST_160111
43)	Sample	35	9H23034-ICV4
	Datafile		ECD5-08231943
	Method		ECD5_AQUPEST_160111

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-08\9H23034\
Data File : ECD5-08231904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 12:24
Operator : MJB
Sample : 9H23034-BKD1
Misc : A19G138
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 23 12:40:24 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	4,4'-DDE	7.587	1120444	NoCal	ng/mL
2)	Endrin	7.960	63253664	NoCal	ng/mL
3)	4,4'-DDD	8.007	6621952	NoCal	ng/mL
4)	4,4'-DDT	8.205	107029729	NoCal	ng/mL
5)	Endrin Aldehyde	8.407	4202397	NoCal	ng/mL
6)	Endrin Ketone	8.901	6297738	NoCal	ng/mL
8)	4,4'-DDE [2C]	8.347	1706439	NoCal	ng/mL
9)	Endrin [2C]	8.719	95742281	NoCal	ng/mL
10)	4,4'-DDD [2C]	8.761	11347306	NoCal	ng/mL
11)	Endrin Aldehyde [2C]	9.102	6529476	NoCal	ng/mL
12)	4,4'-DDT [2C]	8.988	167003448	NoCal	ng/mL
13)	Endrin Ketone [2C]	9.690	10363842	NoCal	ng/mL

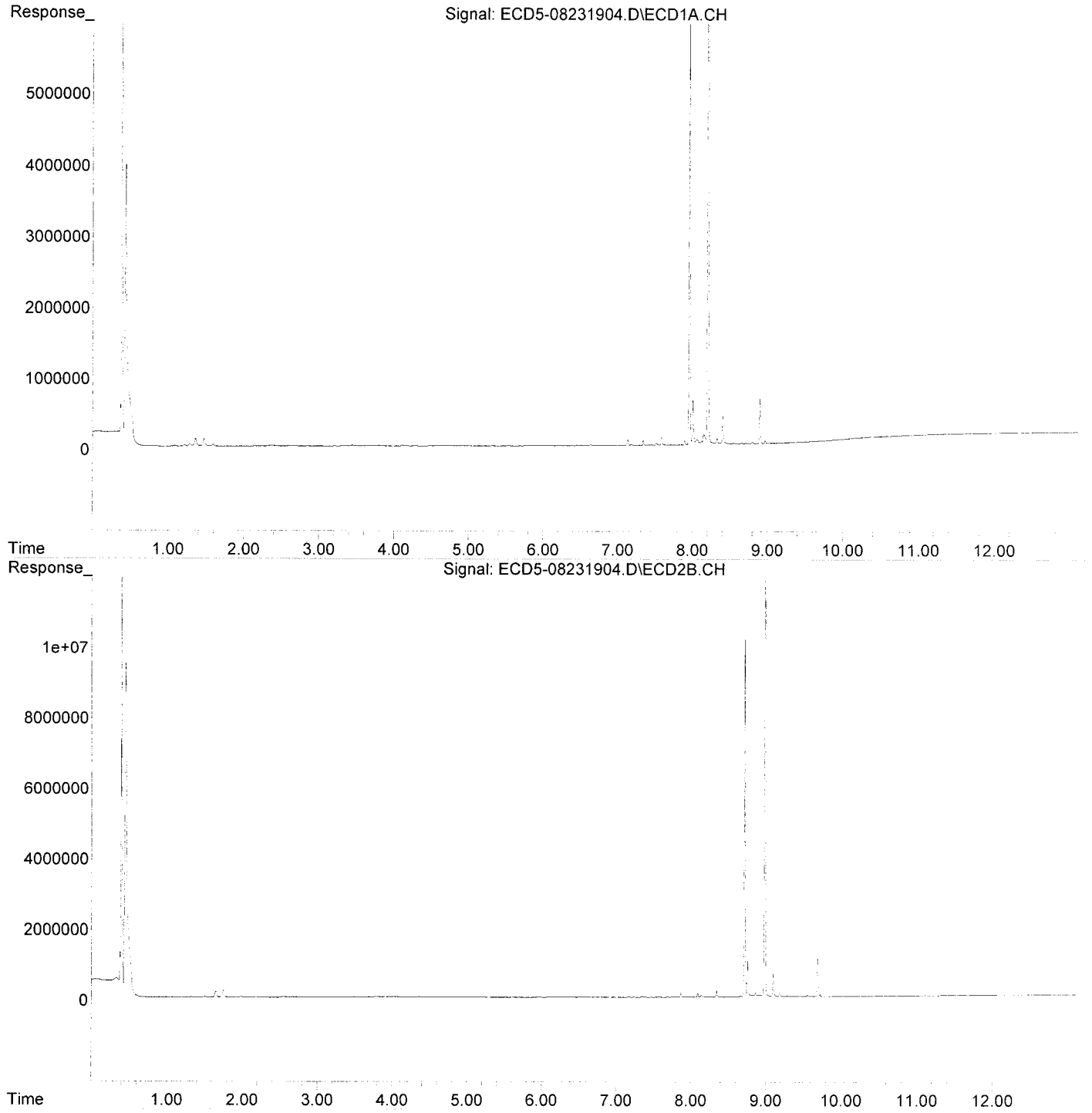
(f)=RT Delta > 1/2 Window (m)=manual int.

Breakdown passing, but ~~the~~ High. maintenance performed
MJB 8/26/19
MJB 8/26/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-08\9H23034\
Data File : ECD5-08231904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 12:24
Operator : MJB
Sample : 9H23034-BKD1
Misc : A19G138
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 23 12:40:24 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Pesticide Breakdown Check (Validated 8/8/2013)

Sequence: 9H23034 BKD2
Data File: ECD5-08231906.D

First Column Area Counts		Percent Breakdown	
DDE	734891		
DDD	4530463		
DDT	125149199	**4.04**	**PASS**
Endrin	70846235	**8.91**	**PASS**
Endrin Aldehyde	2399187		
Endrin Ketone	4532548		

Second Column Area Counts		Percent Breakdown	
DDE	977816		
DDD	7819328		
DDT	188765825	**4.45**	**PASS**
Endrin	109289125	**8.73**	**PASS**
Endrin Aldehyde	3703608		
Endrin Ketone	6751447		

Breakdown must be less than 15% to accept sample data.

MJB 8/26/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-08\9H23034\
Data File : ECD5-08231906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:16
Operator : MJB
Sample : 9H23034-BKD2
Misc : A19G138
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 23 13:30:06 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	4,4'-DDE	7.586	734891	NoCal	ng/mL
2)	Endrin	7.960	70846235	NoCal	ng/mL
3)	4,4'-DDD	8.007	4530463	NoCal	ng/mL
4)	4,4'-DDT	8.205	125149199	NoCal	ng/mL
5)	Endrin Aldehyde	8.407	2399187	NoCal	ng/mL
6)	Endrin Ketone	8.902	4532548	NoCal	ng/mL
8)	4,4'-DDE [2C]	8.345	977816	NoCal	ng/mL
9)	Endrin [2C]	8.718	109289125	NoCal	ng/mL
10)	4,4'-DDD [2C]	8.760	7819328	NoCal	ng/mL
11)	Endrin Aldehyde [2C]	9.101	3703608	NoCal	ng/mL
12)	4,4'-DDT [2C]	8.988	188765825	NoCal	ng/mL
13)	Endrin Ketone [2C]	9.690	6751447	NoCal	ng/mL

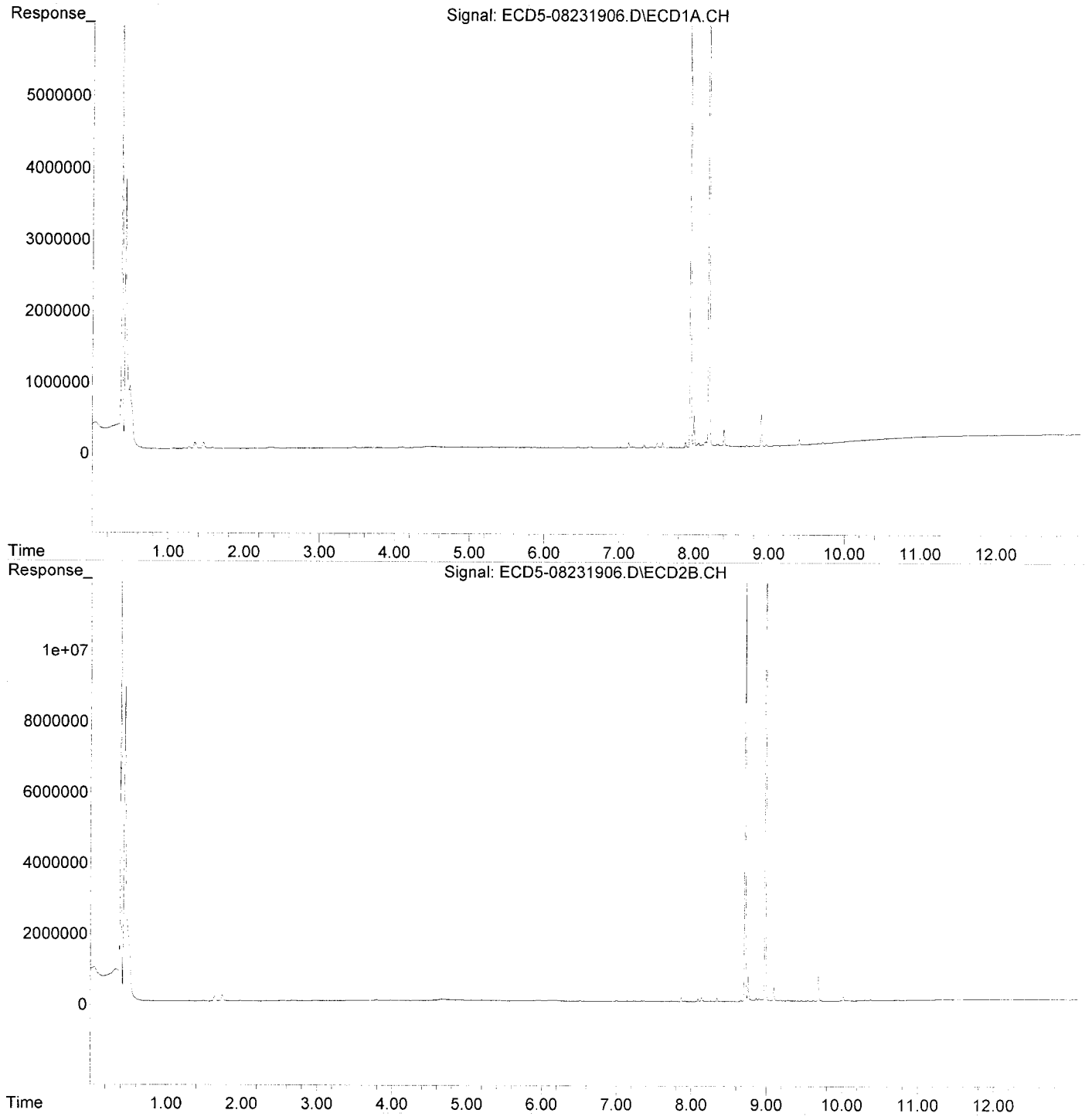
(f)=RT Delta > 1/2 Window (m)=manual int.

Swabbed in IBA w/ Hexane. MWP 8/26/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-08\9H23034\
Data File : ECD5-08231906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:16
Operator : MJB
Sample : 9H23034-BKD2
Misc : A19G138
ALS Vial : 2 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 23 13:30:06 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:15:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

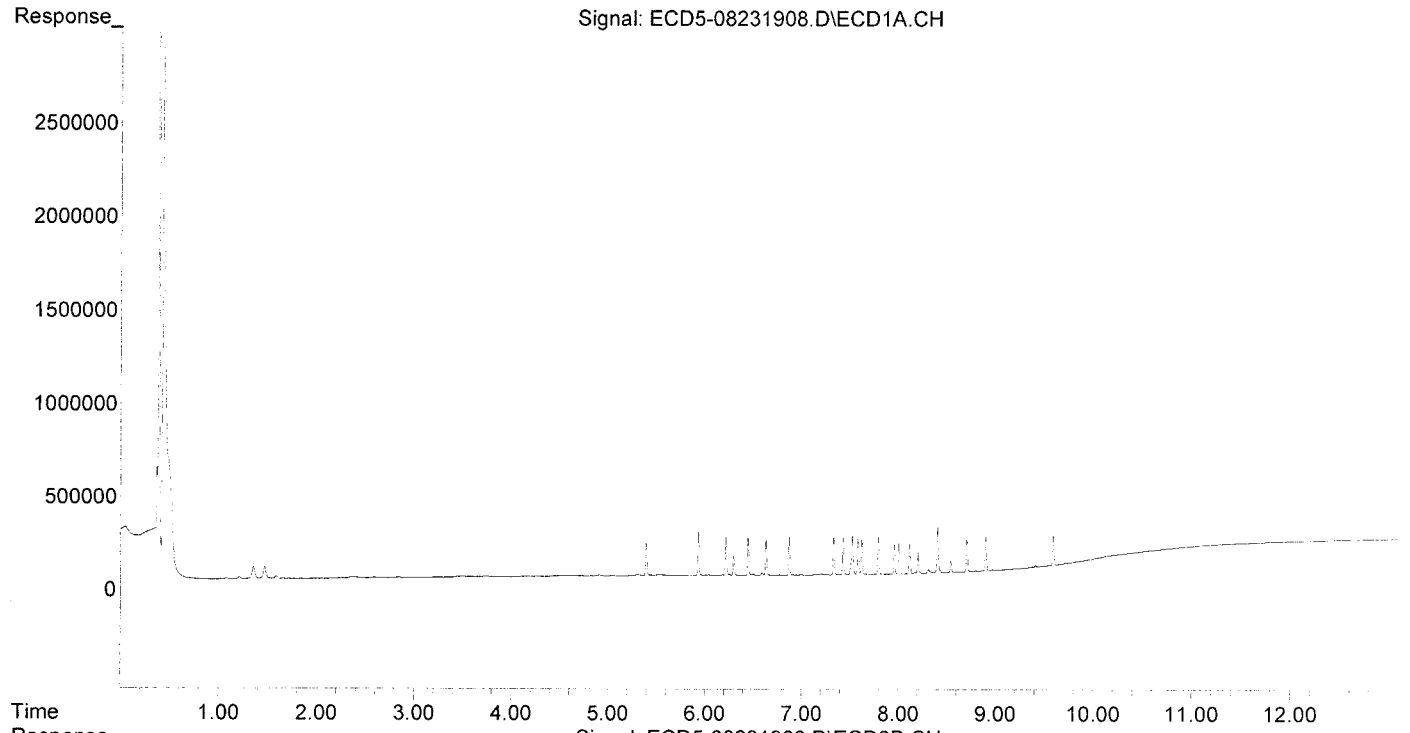
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.397	5.991	176748	300053	1.633	1.607
22)	S	DCBP (S)	9.593	10.541	163865	191572	1.202	1.206
		Target Compounds						
2)		a-BHC	5.937	6.597	231994	393119	1.665	1.296
3)		g-BHC	6.221	6.915	207427	352286	1.380	1.170
4)		b-BHC	6.300	6.980	104326	176262	1.760	1.450
5)		Heptachlor	6.635	7.292	192066	309811	1.183	1.054
6)		d-BHC	6.450	7.234	199840	349123	1.893	1.474
7)		Aldrin	6.875	7.557	205523	317466	1.221	1.096
8)		Heptachlo...	7.335	7.994	200503	310098	1.276	1.175
9)		trans-Chl...	7.433	8.135	197202	364142	1.276	1.384
10)		cis-Chlor...	7.528	8.241	209780	299422	1.367	1.179
11)		Endosulfa...	7.625	8.291	185217	278874	1.245	1.173
12)		4,4'-DDE	7.586	8.346	193435	298463	1.647	1.374
13)		Dieldrin	7.796	8.491	197721	296684	1.194	1.095
14)		Endrin	7.961	8.718	156412	222882	1.190	1.096
15)		4,4'-DDD	8.007	8.760	164956	251549	1.683	1.281
16)		Endosulfa...	8.118	8.865	158139	232156	1.378	1.183
17)		4,4'-DDT	8.205	8.986	113897	179700	1.686	1.607
18)		Endrin Al...	8.407	9.101	241285	348624	2.337	2.034
19)		Endosulfa...	8.708	9.292	176097	265797	1.418	1.337
20)		Methoxychlor	8.543	9.466	59659	95155	1.698	1.611
21)		Endrin Ke...	8.901	9.690	177552	255763	1.293	1.268
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

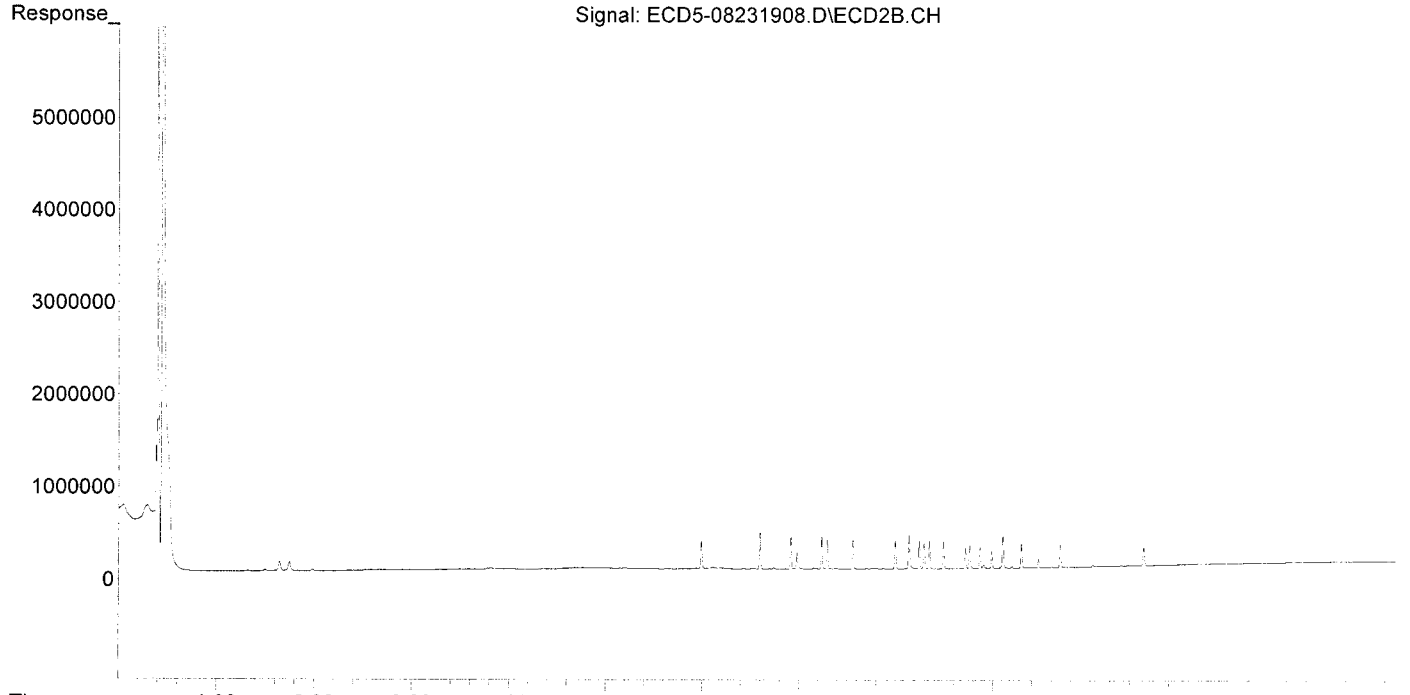
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:15:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:08
Operator : MJB
Sample : 9H23034-CAL2
Misc : A19E246, AB 2 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:16:21 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

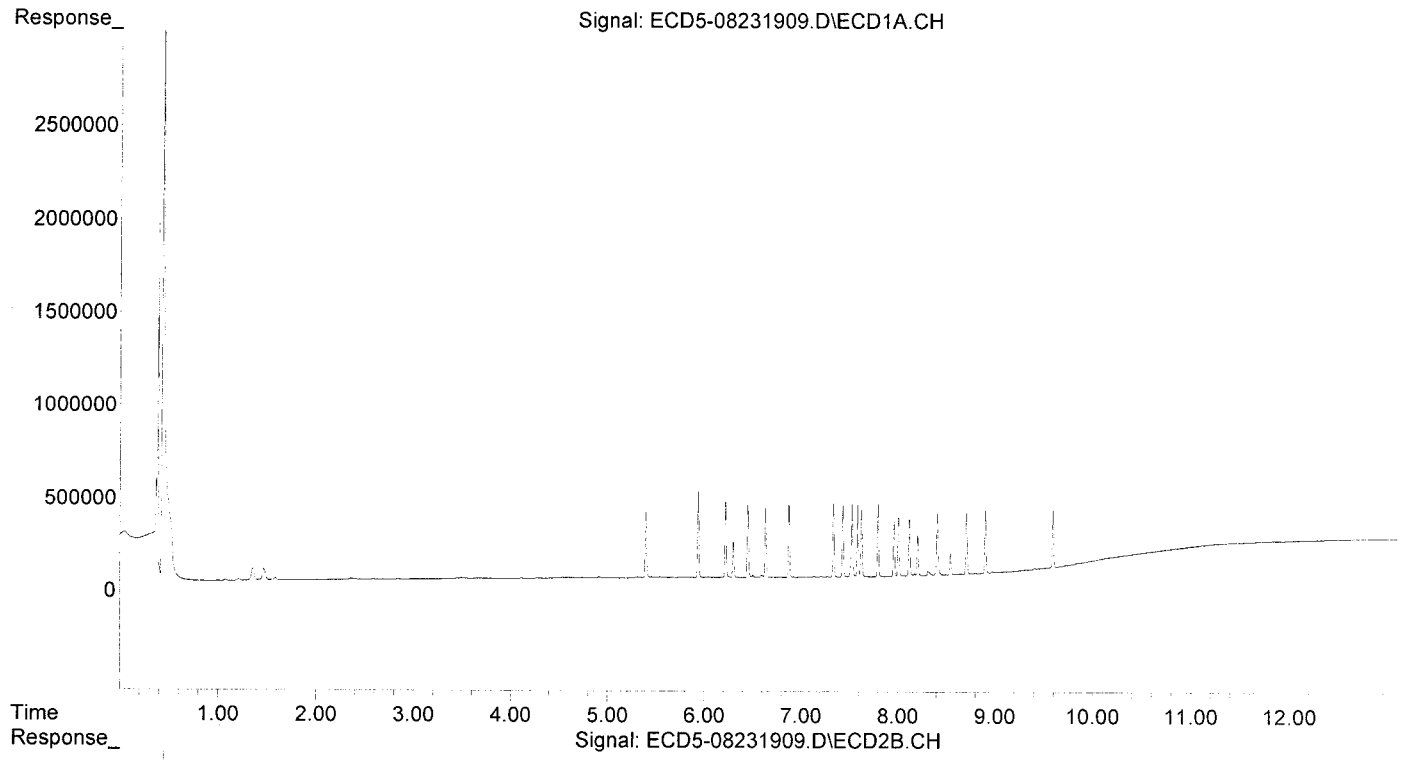
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	349972	600766	3.233	3.230
22)	S	DCBP (S)	9.593	10.542	309904	390006	2.547	2.456
		Target Compounds						
2)		a-BHC	5.936	6.597	458365	784586	3.177	2.540
3)		g-BHC	6.220	6.915	406027	690922	2.702	2.295
4)		b-BHC	6.300	6.980	194168	335260	3.275	2.757
5)		Heptachlor	6.635	7.291	369615	586765	2.276	1.995
6)		d-BHC	6.450	7.233	386980	669122	3.575	2.783
7)		Aldrin	6.875	7.556	399550	635458	2.375	2.194
8)		Heptachlo...	7.335	7.993	392052	606240	2.495	2.296
9)		trans-Chl...	7.432	8.135	382271	644454	2.473	2.449
10)		cis-Chlor...	7.527	8.241	389999	579667	2.541	2.282
11)		Endosulfa...	7.625	8.291	357368	540442	2.402	2.273
12)		4,4'-DDE	7.586	8.345	388618	598066	3.268	2.709
13)		Dieldrin	7.796	8.491	395728	583812	2.390	2.154
14)		Endrin	7.960	8.718	298515	424889	2.271	2.149
15)		4,4'-DDD	8.006	8.760	314622	488120	3.236	2.486
16)		Endosulfa...	8.118	8.864	299106	462256	2.607	2.355
17)		4,4'-DDT	8.204	8.986	218190	341782	3.052	2.875
18)		Endrin Al...	8.407	9.101	328182	477694	3.179	2.786
19)		Endosulfa...	8.707	9.291	322163	498767	2.595	2.558
20)		Methoxychlor	8.542	9.465	111466	178074	3.136	2.980
21)		Endrin Ke...	8.901	9.689	331269	493110	2.413	2.461
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

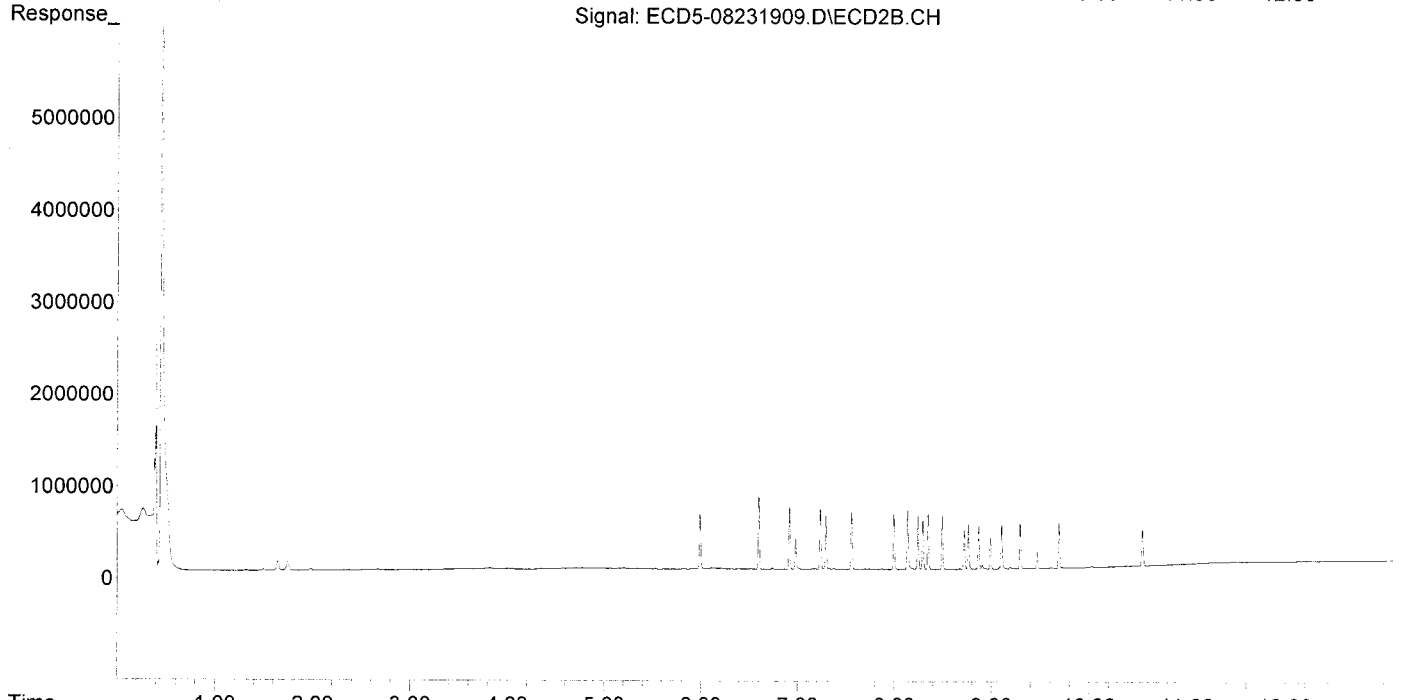
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:08
Operator : MJB
Sample : 9H23034-CAL2
Misc : A19E246, AB 2 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:16:21 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:25
Operator : MJB
Sample : 9H23034-CAL3
Misc : A19E247, AB 5 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:16:57 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

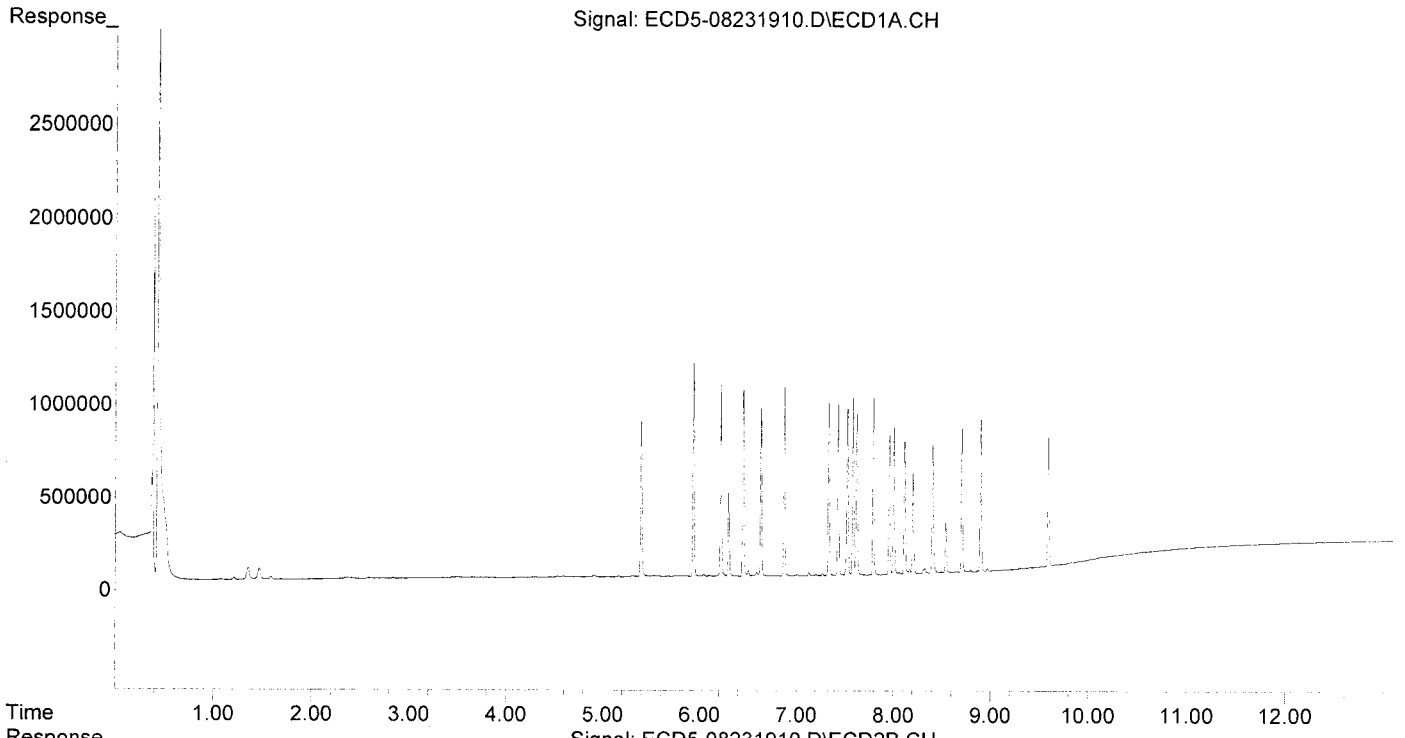
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	834206	1437876	7.707	7.700
22)	S	DCBP (S)	9.594	10.542	701050	870921	6.146	5.485
		Target Compounds						
2)		a-BHC	5.937	6.597	1147932	1985438	7.742	6.328
3)		g-BHC	6.220	6.915	1020724	1742677	6.792	5.790
4)		b-BHC	6.300	6.980	456954	788630	7.708	6.486
5)		Heptachlor	6.635	7.291	899091	1508218	5.537	5.129
6)		d-BHC	6.449	7.233	1004012	1717450	9.061	7.030
7)		Aldrin	6.875	7.556	1012733	1600995	6.019	5.528
8)		Heptachlo...	7.335	7.994	923620	1455941	5.877	5.514
9)		trans-Chl...	7.432	8.134	926577	1502119	5.993	5.707
10)		cis-Chlor...	7.528	8.241	908795	1434855	5.922	5.649
11)		Endosulfa...	7.624	8.290	861509	1327191	5.790	5.583
12)		4,4'-DDE	7.586	8.345	953351	1487999	7.901	6.642
13)		Dieldrin	7.796	8.491	972009	1462538	5.870	5.397
14)		Endrin	7.960	8.718	738953	1092877	5.622	5.608
15)		4,4'-DDD	8.007	8.759	790498	1208642	8.130	6.156
16)		Endosulfa...	8.118	8.865	709544	1096359	6.185	5.586
17)		4,4'-DDT	8.205	8.986	553009	873653	7.371	6.957
18)		Endrin Al...	8.407	9.101	683393	1045869	6.620	6.101
19)		Endosulfa...	8.708	9.291	768798	1175908	6.192	6.083
20)		Methoxychlor	8.542	9.466	270388	413802	7.493	6.808
21)		Endrin Ke...	8.901	9.689	811384	1205004	5.910	6.014
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

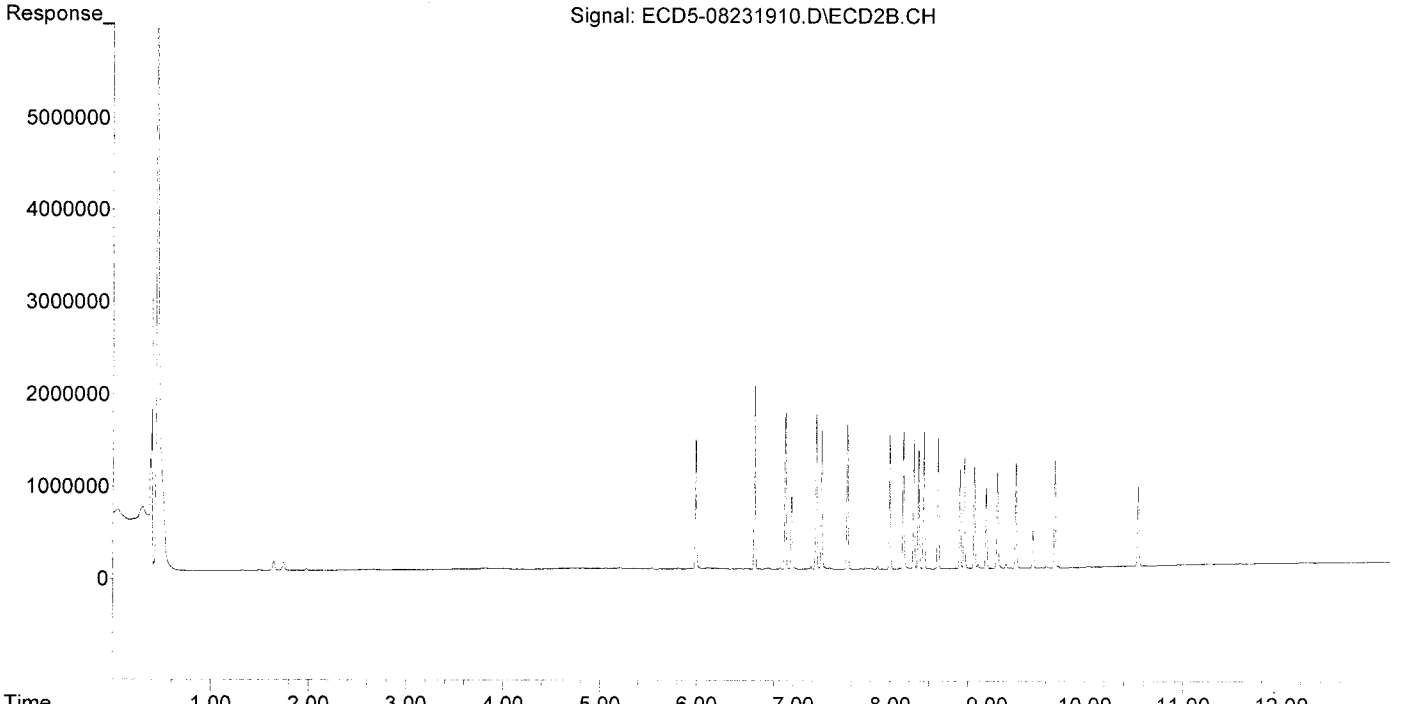
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:25
Operator : MJB
Sample : 9H23034-CAL3
Misc : A19E247, AB 5 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:16:57 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:42
Operator : MJB
Sample : 9H23034-CAL4
Misc : A19E249, AB 10 ppb
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:19:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

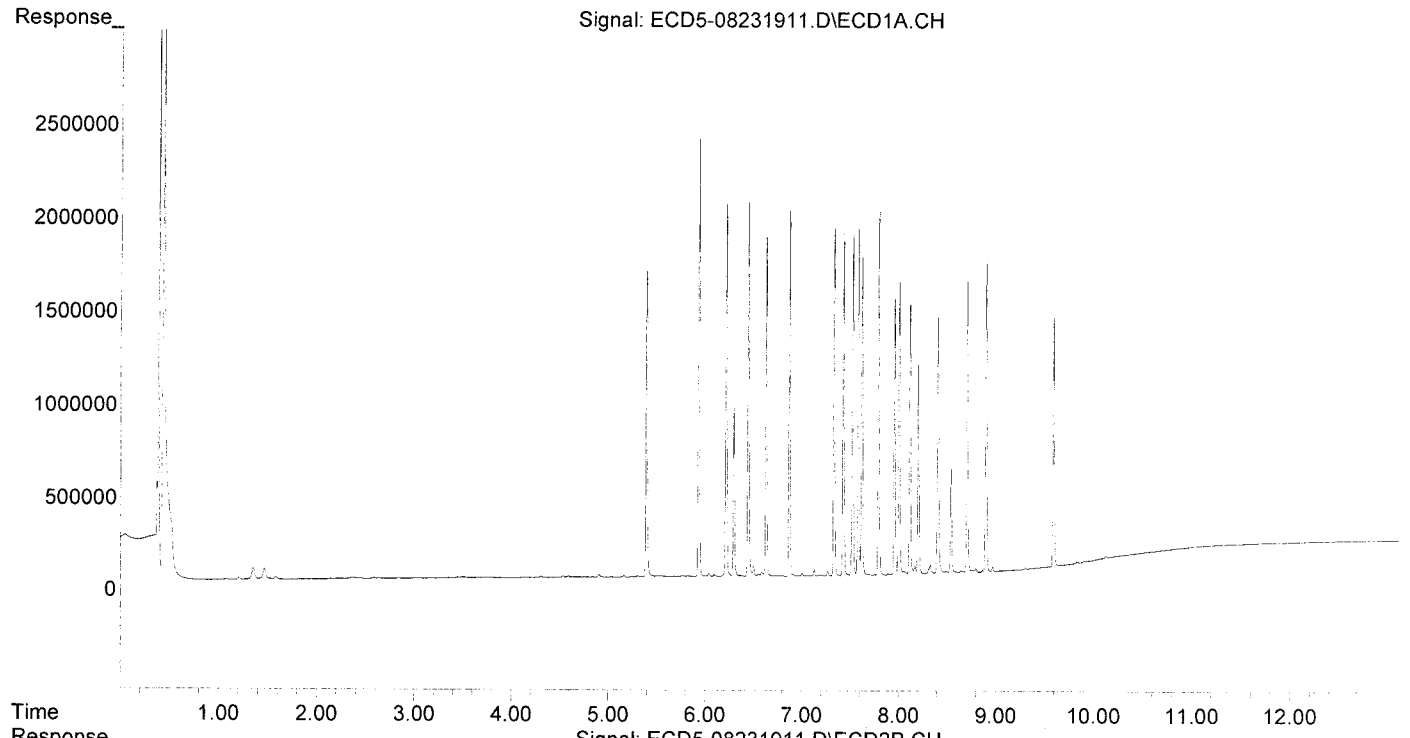
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.396	5.990	1644447	2865854	15.193	15.177
22) S	DCBP (S)	9.593	10.541	1335468	1678728	11.976	10.572
	Target Compounds						
2)	a-BHC	5.936	6.597	2347065	4095890	15.530	12.883
3)	g-BHC	6.220	6.915	2034859	3476733	13.541	11.551
4)	b-BHC	6.299	6.980	910875	1580847	15.365	13.002
5)	Heptachlor	6.634	7.291	1819621	3005915	11.206	10.223
6)	d-BHC	6.449	7.234	2006493	3613517	17.784	14.564
7)	Aldrin	6.875	7.556	2010802	3341093	11.950	11.536
8)	Heptachlo...	7.335	7.994	1865428	2959301	11.869	11.208
9)	trans-Chl...	7.431	8.134	1847996	3002782	11.953	11.409
10)	cis-Chlor...	7.527	8.241	1843346	2859573	12.012	11.257
11)	Endosulfa...	7.623	8.291	1709332	2724272	11.488	11.460
12)	4,4'-DDE	7.585	8.346	1890931	3049792	15.482	13.444
13)	Dieldrin	7.795	8.491	1954890	2898866	11.805	10.697
14)	Endrin	7.960	8.718	1475508	2244483	11.225	11.476
15)	4,4'-DDD	8.006	8.760	1565974	2425496	15.969	12.353
16)	Endosulfa...	8.117	8.864	1448080	2243610	12.623	11.432
17)	4,4'-DDT	8.204	8.987	1146556	1841119	14.788	14.109
18)	Endrin Al...	8.406	9.101	1375129	2125028	13.321	12.396
19)	Endosulfa...	8.707	9.292	1553540	2424584	12.512	12.489
20)	Methoxychlor	8.542	9.465	561706	883069	15.275	14.167
21)	Endrin Ke...	8.900	9.689	1664380	2496985	12.124	12.365
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

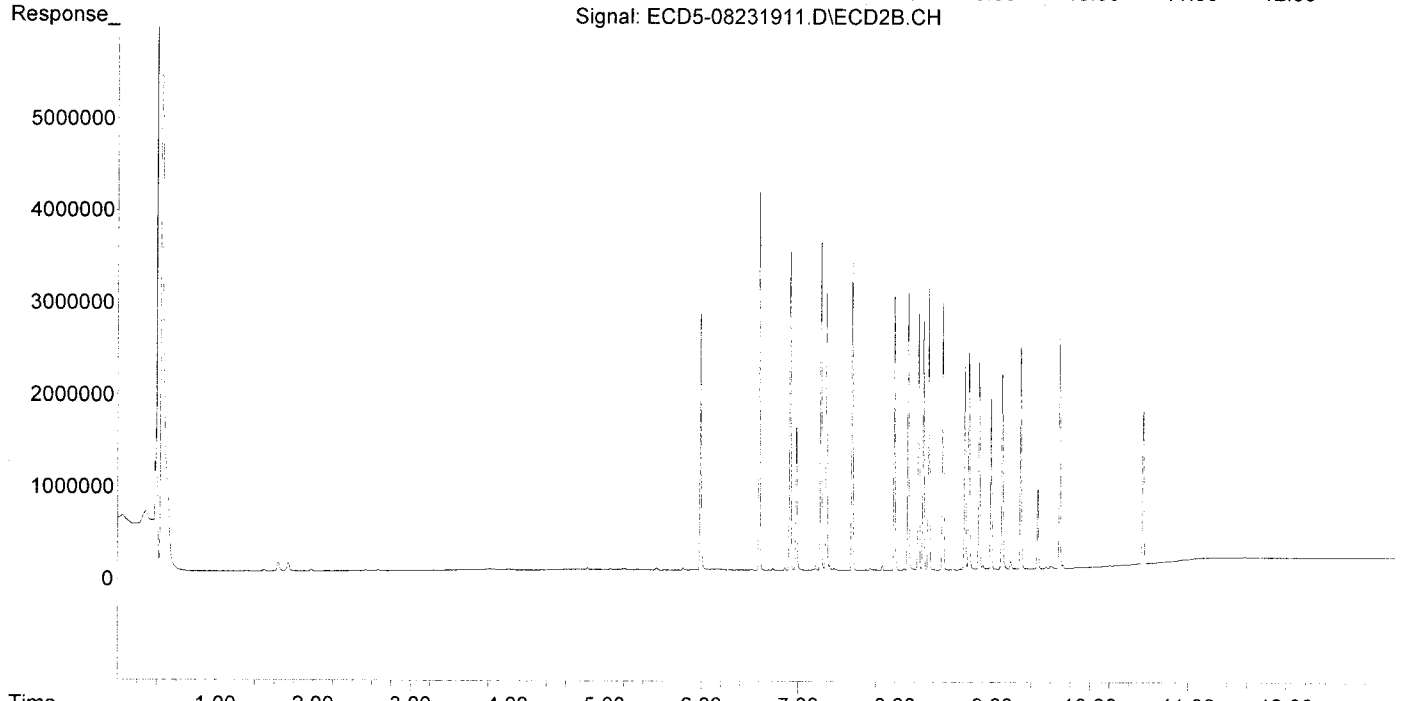
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:42
Operator : MJB
Sample : 9H23034-CAL4
Misc : A19E249, AB 10 ppb
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:19:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:00
Operator : MJB
Sample : 9H23034-CAL5
Misc : A19E250, AB 25 ppb
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:19:37 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

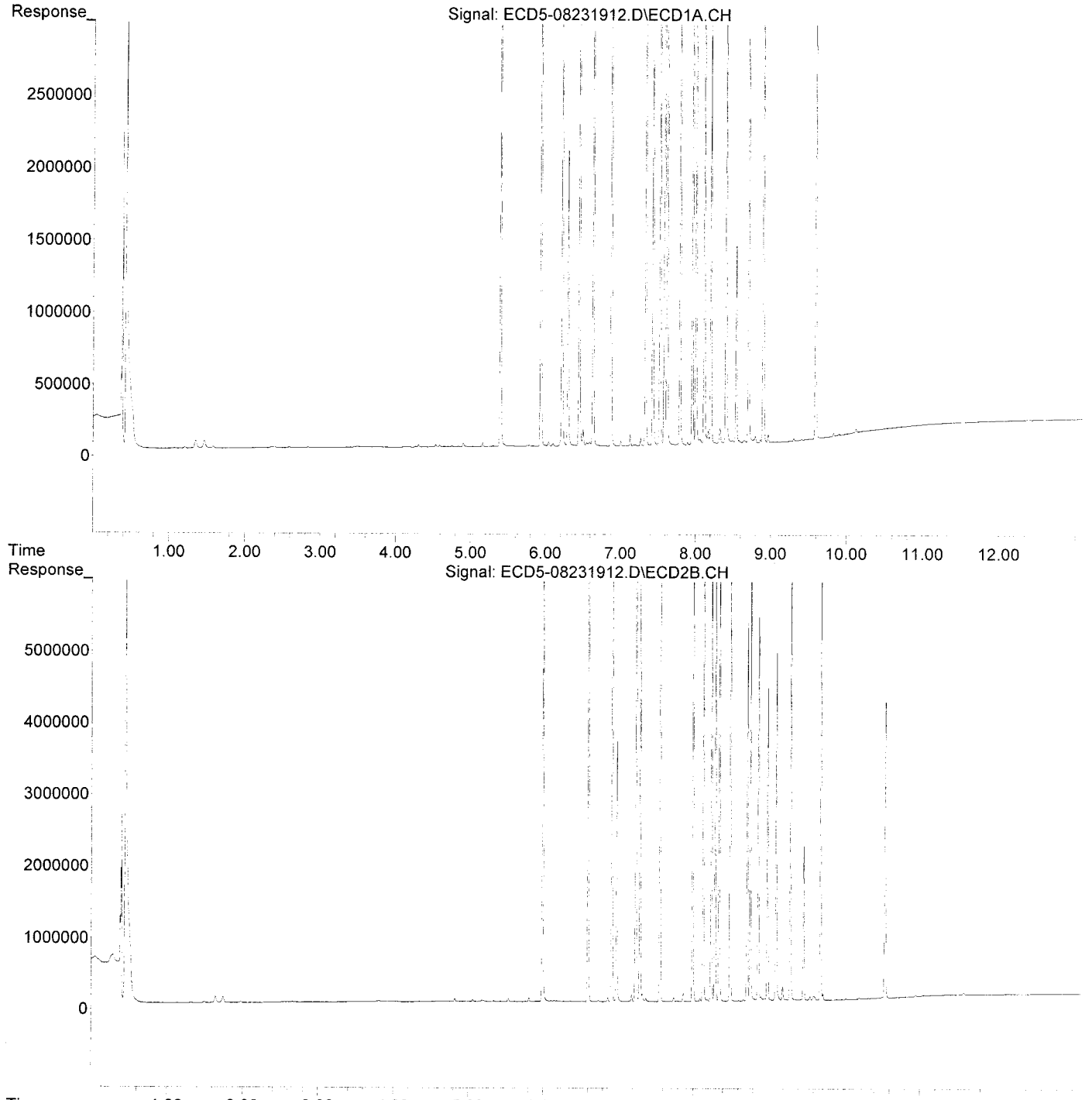
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.394	5.989	4015832	7072923	37.101	36.221
22) S	DCBP (S)	9.592	10.539	3342634	4163229	30.365	26.219
	Target Compounds						
2)	a-BHC	5.935	6.596	5553096	9910863	35.515	30.324
3)	g-BHC	6.218	6.913	4875657	8508386	32.445	28.267
4)	b-BHC	6.297	6.978	2060378	3677155	34.755	30.244
5)	Heptachlor	6.633	7.289	4314306	7282282	26.568	24.766
6)	d-BHC	6.447	7.232	4667166	8247775	39.910	32.244
7)	Aldrin	6.873	7.555	4845355	7878574	28.797	27.203
8)	Heptachlo...	7.332	7.992	4344286	7064729	27.642	26.758
9)	trans-Chl...	7.429	8.131	4401456	7157480	28.469	27.194
10)	cis-Chlor...	7.525	8.239	4244413	6935857	27.657	27.304
11)	Endosulfa...	7.621	8.288	4111285	6571512	27.630	27.643
12)	4,4'-DDE	7.583	8.343	4571066	7501047	36.397	32.167
13)	Dieldrin	7.792	8.489	4582306	7333890	27.672	27.063
14)	Endrin	7.957	8.716	3508904	5325883	26.694	26.642
15)	4,4'-DDD	8.004	8.758	3727035	6146469	37.001	31.304
16)	Endosulfa...	8.115	8.862	3371864	5447602	29.393	27.758
17)	4,4'-DDT	8.202	8.984	2924467	4480388	36.460	32.123
18)	Endrin Al...	8.404	9.099	3119767	4848504	30.221	28.282
19)	Endosulfa...	8.705	9.289	3645411	5978906	29.360	30.102
20)	Methoxychlor	8.540	9.463	1390283	2166659	36.145	32.800
21)	Endrin Ke...	8.899	9.688	4008958	5893691	29.202	28.514
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:00
Operator : MJB
Sample : 9H23034-CAL5
Misc : A19E250, AB 25 ppb
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:19:37 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:17
Operator : MJB
Sample : 9H23034-CAL6
Misc : A19H383, AB 50 ppb
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 10:58:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Wed Aug 07 17:49:44 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

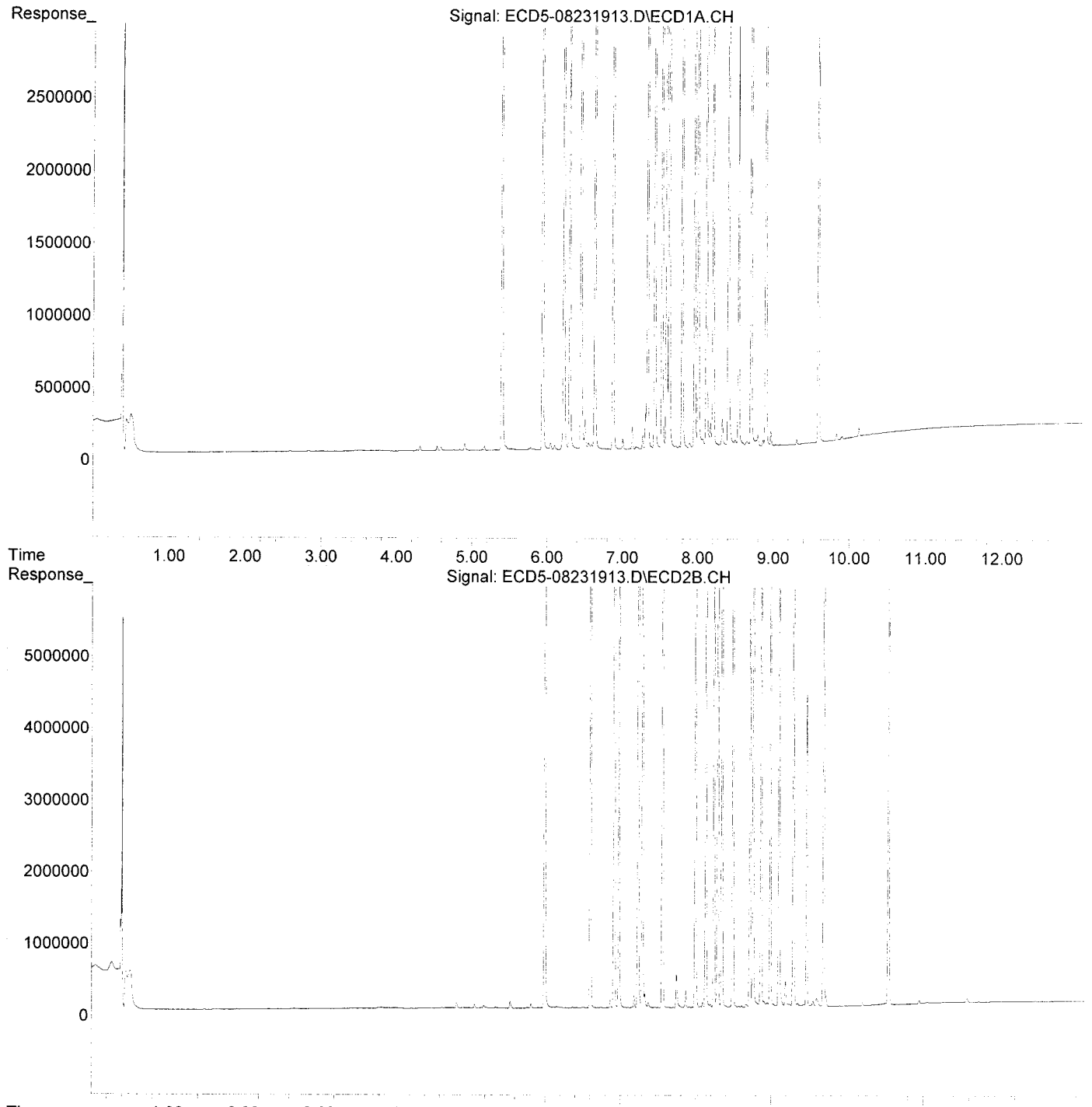
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.394	5.989	8071481	14196745	74.571	69.077
22) S	DCBP (S)	9.592	10.541	6678990	8730692	60.740	54.984
	Target Compounds						
2)	a-BHC	5.935	6.596	11369592	20265817	69.154	59.445
3)	g-BHC	6.218	6.914	9785999	17381069	65.120	57.745
4)	b-BHC	6.296	6.978	4100858	7516011	69.174	61.818
5)	Heptachlor	6.632	7.290	8735158	14595143	53.793	49.636
6)	d-BHC	6.447	7.232	9610742	17311258	77.761	64.308
7)	Aldrin	6.873	7.555	9327672	16264416	55.436	56.158
8)	Heptachlo...	7.332	7.992	8869300	14837794	56.434	56.198
9)	trans-Chl...	7.428	8.131	8959305	14678719	57.950	55.771
10)	cis-Chlor...	7.524	8.238	8622674	14002116	56.187	55.122
11)	Endosulfa...	7.621	8.289	7984410	13712329	53.659	57.680
12)	4,4'-DDE	7.583	8.344	9177389	15554706	70.089	63.904
13)	Dieldrin	7.792	8.489	9386664	15434113	56.685	56.955
14)	Endrin	7.957	8.716	6979572	11015379	53.097	52.880
15)	4,4'-DDD	8.004	8.758	7726197	13159451	73.239	67.021
16)	Endosulfa...	8.114	8.863	6840920	11534525	59.632	58.774
17)	4,4'-DDT	8.202	8.985	6205369	9285492	69.085	60.834
18)	Endrin Al...	8.404	9.099	6224451	10209034	60.296	59.551
19)	Endosulfa...	8.705	9.289	7420576	12149289	59.766	58.797
20)	Methoxychlor	8.540	9.464	2860683	4346199	69.570	60.726
21)	Endrin Ke...	8.899	9.687	8190707	12954568	59.663	59.905
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:17
Operator : MJB
Sample : 9H23034-CAL6
Misc : A19H383, AB 50 ppb
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 10:58:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Wed Aug 07 17:49:44 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:34
Operator : MJB
Sample : 9H23034-CAL7
Misc : A19H382, AB 100 ppb
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:20:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

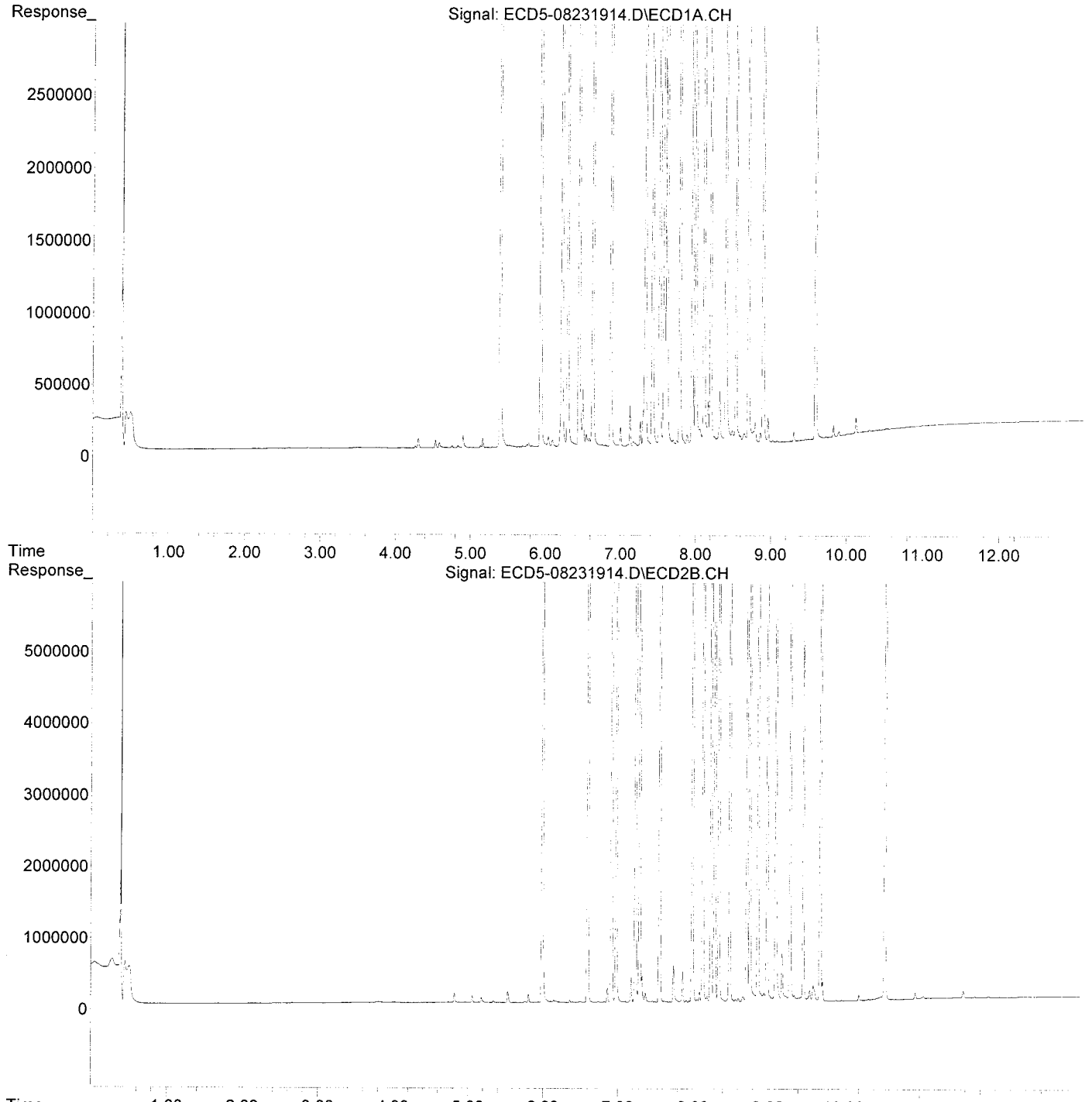
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.395	5.989	15850922	29256334	146.444	130.224
22)	S	DCBP (S)	9.592	10.540	13405396	17784069	121.277	111.999
		Target Compounds						
2)		a-BHC	5.935	6.596	22363584	41699210	125.842	113.668
3)		g-BHC	6.218	6.914	19595093	36788994	130.394	122.224
4)		b-BHC	6.296	6.977	8355416	14625175	140.940	120.290
5)		Heptachlor	6.632	7.289	17551528	30277818	108.086	102.970
6)		d-BHC	6.446	7.232	19475580	35176633	144.149	120.302
7)		Aldrin	6.872	7.555	19108074	33906422	113.562	117.072
8)		Heptachlo...	7.331	7.991	17318444	30045511	110.195	113.798
9)		trans-Chl...	7.427	8.131	17732791	30742272	114.698	116.803
10)		cis-Chlor...	7.523	8.238	16742584	29042863	109.098	114.333
11)		Endosulfa...	7.619	8.288	16089996	27212707	108.133	114.469
12)		4,4'-DDE	7.582	8.344	18052552	32499603	128.779	123.812
13)		Dieldrin	7.791	8.488	18324422	31001958	110.659	114.403
14)		Endrin	7.957	8.715	13812708	23102413	103.080	102.828
15)		4,4'-DDD	8.003	8.758	15437146	26297484	135.694	133.933
16)		Endosulfa...	8.113	8.861	13543500	23016371	118.059	117.279
17)		4,4'-DDT	8.201	8.984	12176961	19789501	120.685	112.516
18)		Endrin Al...	8.403	9.098	12363806	20502737	119.767	119.596
19)		Endosulfa...	8.704	9.289	14366789	24477320	115.711	110.592
20)		Methoxychlor	8.539	9.463	5877329	9444987	128.396	114.860
21)		Endrin Ke...	8.898	9.687	16251943	26636559	118.383	114.357
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:34
Operator : MJB
Sample : 9H23034-CAL7
Misc : A19H382, AB 100 ppb
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:20:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:52
Operator : MJB
Sample : 9H23034-CAL8
Misc : A19E244, AB 200 ppb
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:20:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

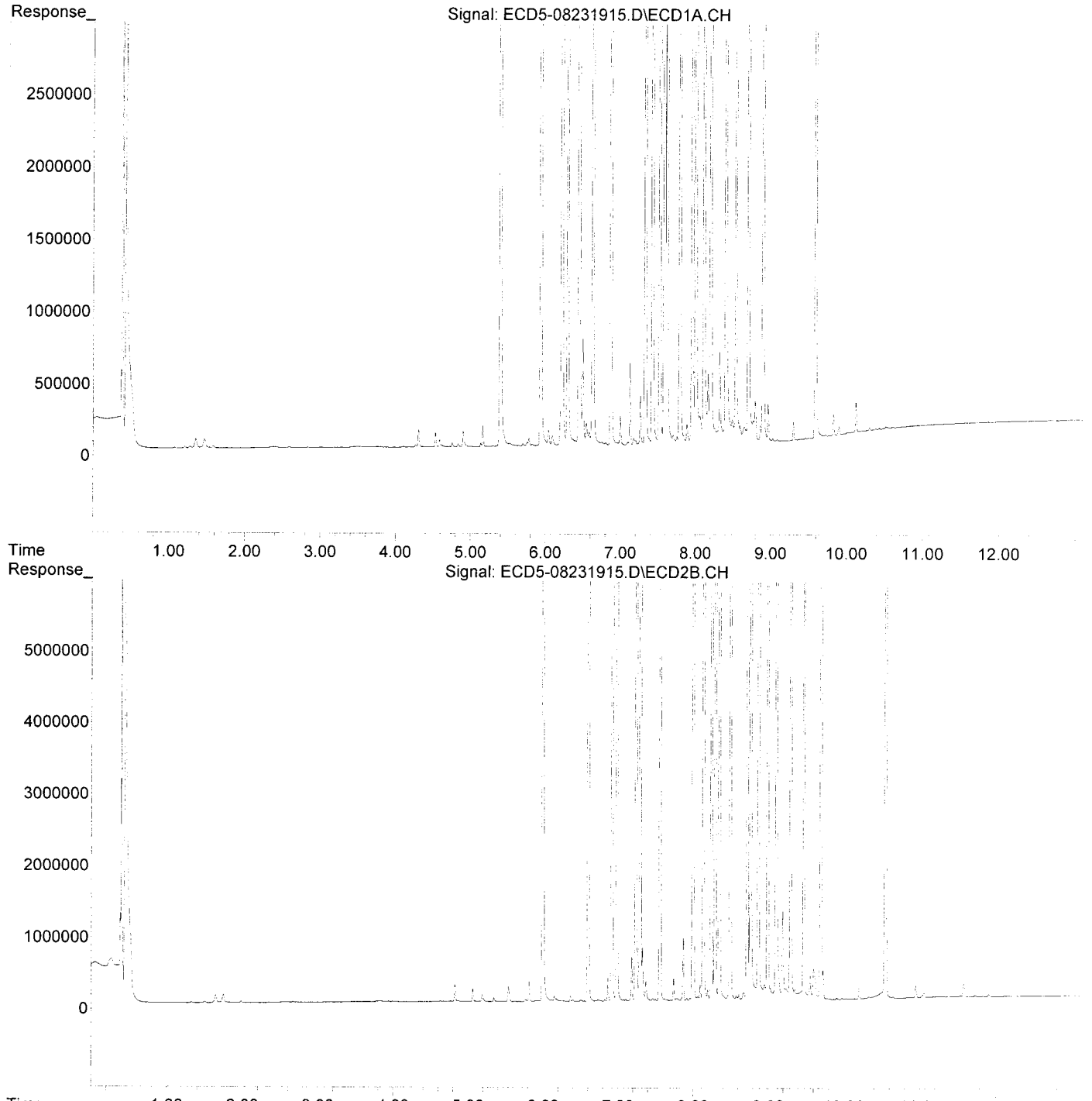
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.394	5.990	32842535	62584449	303.426	241.228
22) S	DCBP (S)	9.591	10.539	26975231	38097779	240.687	239.929
	Target Compounds						
2)	a-BHC	5.935	6.597	47202252	94376748	232.879	224.790
3)	g-BHC	6.218	6.914	41889726	80765680	278.753	268.327
4)	b-BHC	6.294	6.977	18238696	32553433	307.652	267.747
5)	Heptachlor	6.630	7.289	37785699	71283176	232.692	242.422
6)	d-BHC	6.445	7.232	41016592	80979751	263.399	237.546
7)	Aldrin	6.870	7.554	39838403	73228186	236.765	252.843
8)	Heptachlo...	7.330	7.991	36258170	65330070	230.706	247.439
9)	trans-Chl...	7.425	8.130	37621413	66447972	243.340	252.464
10)	cis-Chlor...	7.521	8.238	35207945	63977063	229.421	251.859
11)	Endosulfa...	7.618	8.288	33852593	61043507	227.507	256.777
12)	4,4'-DDE	7.581	8.344	38763081	69842351	244.719	234.608
13)	Dieldrin	7.791	8.489	39217772	70031781	236.831	258.430
14)	Endrin	7.955	8.715	31426311	52779585	239.075	204.455
15)	4,4'-DDD	8.002	8.758	32436804	59560270	251.258	303.340
16)	Endosulfa...	8.112	8.862	29471042	51834888	256.899	264.124
17)	4,4'-DDT	8.200	8.984	29075222	48203441	232.877	216.675
18)	Endrin Al...	8.402	9.098	26627672	45084544	257.940	262.986
19)	Endosulfa...	8.704	9.289	31126520	54592794	250.696	216.937
20)	Methoxychlor	8.537	9.463	14271143	23714100	255.612	227.264
21)	Endrin Ke...	8.898	9.688	35094718	60861376	255.639	227.431
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:52
Operator : MJB
Sample : 9H23034-CAL8
Misc : A19E244, AB 200 ppb
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:20:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:23:34 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

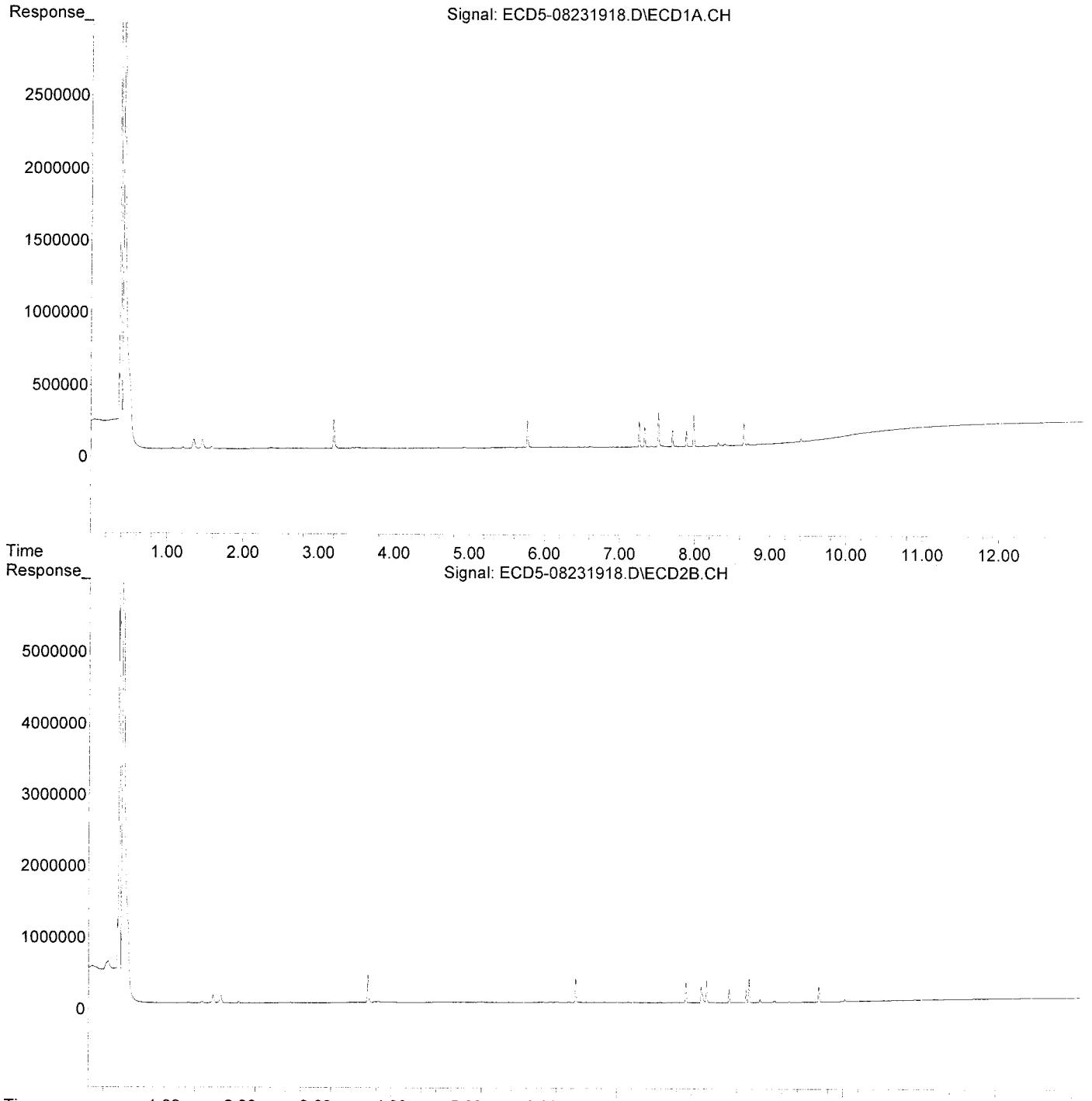
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	3.198	3.687	198207	383198	1.330	1.219
24)	Hexachlor...	5.775	6.453	194679	328025	1.585	1.463
25)	Oxychlordane	7.263	7.922	176844	279143	1.364	1.326
26)	2,4'-DDE	7.335	8.123	137947	219164	1.468	1.405
27)	trans-Non...	7.518	8.195	236836	306202	1.652	1.333
28)	2,4'-DDD	7.707	8.495	120240	192040	1.439	1.409
29)	2,4'-DDT	7.890	8.719	107110	173338	1.500	1.372
30)	cis-Nonac...	7.987	8.759	219220	332745	1.362	1.310
31)	Mirex	8.655	9.680	147356	209783	1.505	1.458
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:23:34 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:01
Operator : MJB
Sample : 9H23034-CALA
Misc : A19E273, 9-42 2 ppb
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:24:10 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

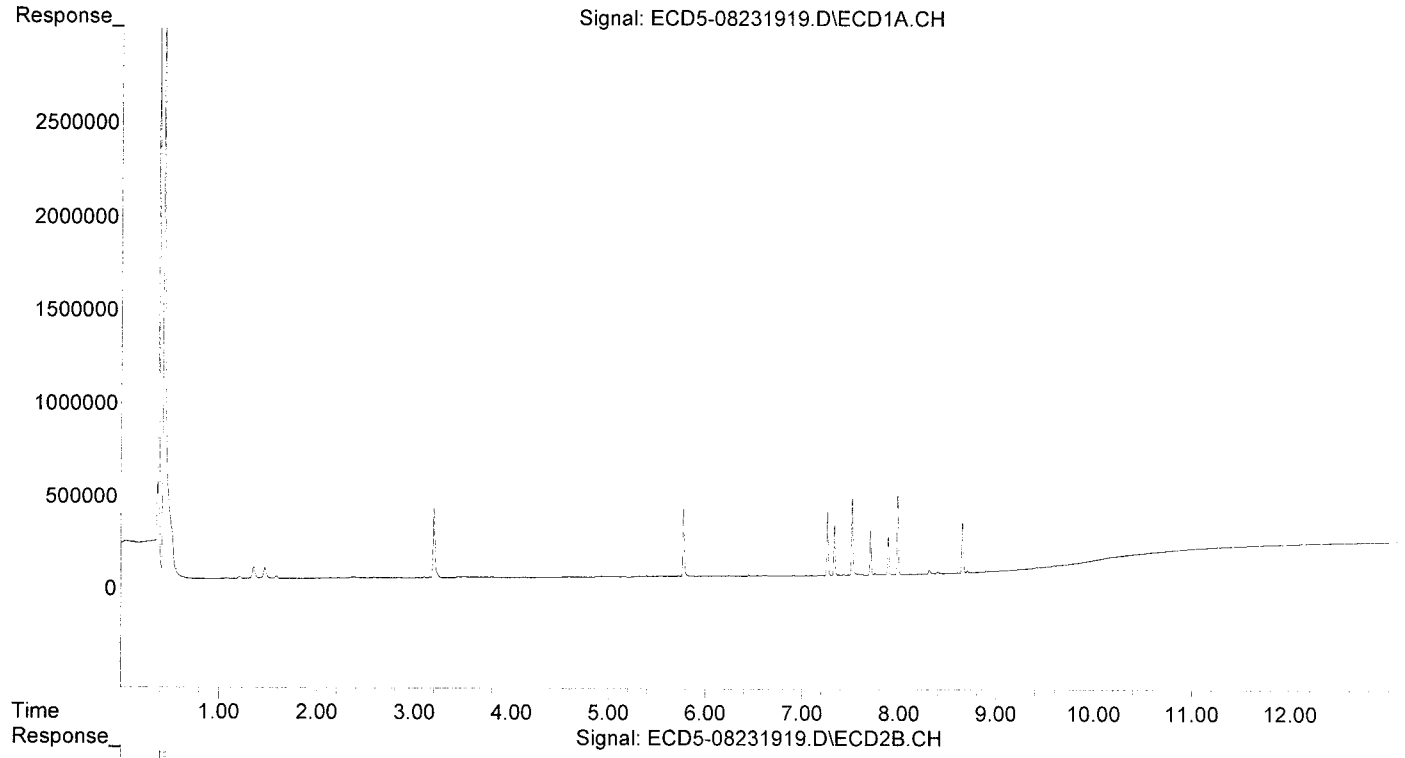
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	3.198	3.687	375794	754548	2.521	2.400
24)	Hexachlor...	5.775	6.453	362082	632830	2.948	2.823
25)	Oxychlordane	7.262	7.921	339370	541023	2.617	2.571
26)	2,4'-DDE	7.334	8.123	265212	411812	2.822	2.639
27)	trans-Non...	7.518	8.194	415126	587765	2.896	2.559
28)	2,4'-DDD	7.707	8.495	233089	373596	2.789	2.741
29)	2,4'-DDT	7.889	8.718	204209	332170	2.725	2.614
30)	cis-Nonac...	7.986	8.758	423442	624783	2.632	2.460
31)	Mirex	8.655	9.680	266770	388199	2.725	2.697
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

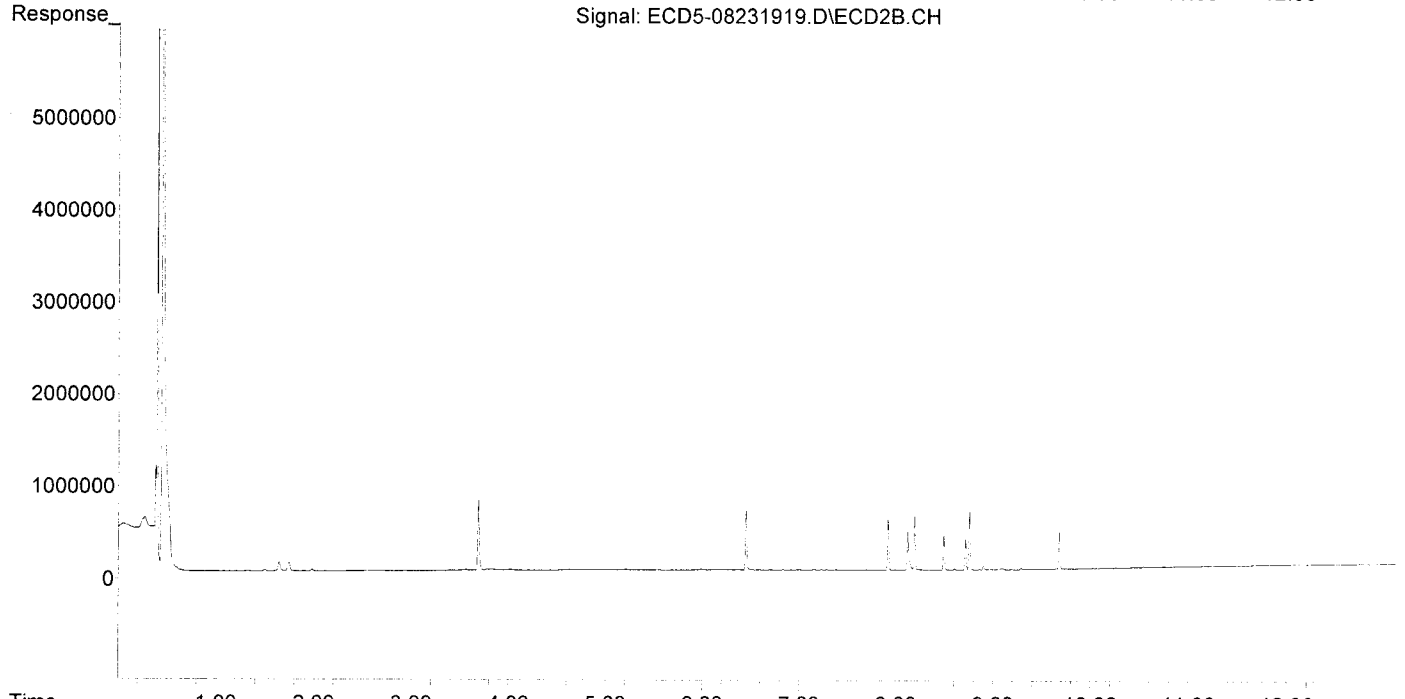
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:01
Operator : MJB
Sample : 9H23034-CALA
Misc : A19E273, 9-42 2 ppb
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:24:10 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:18
Operator : MJB
Sample : 9H23034-CALB
Misc : A19E274, 9-42 5 ppb
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:24:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

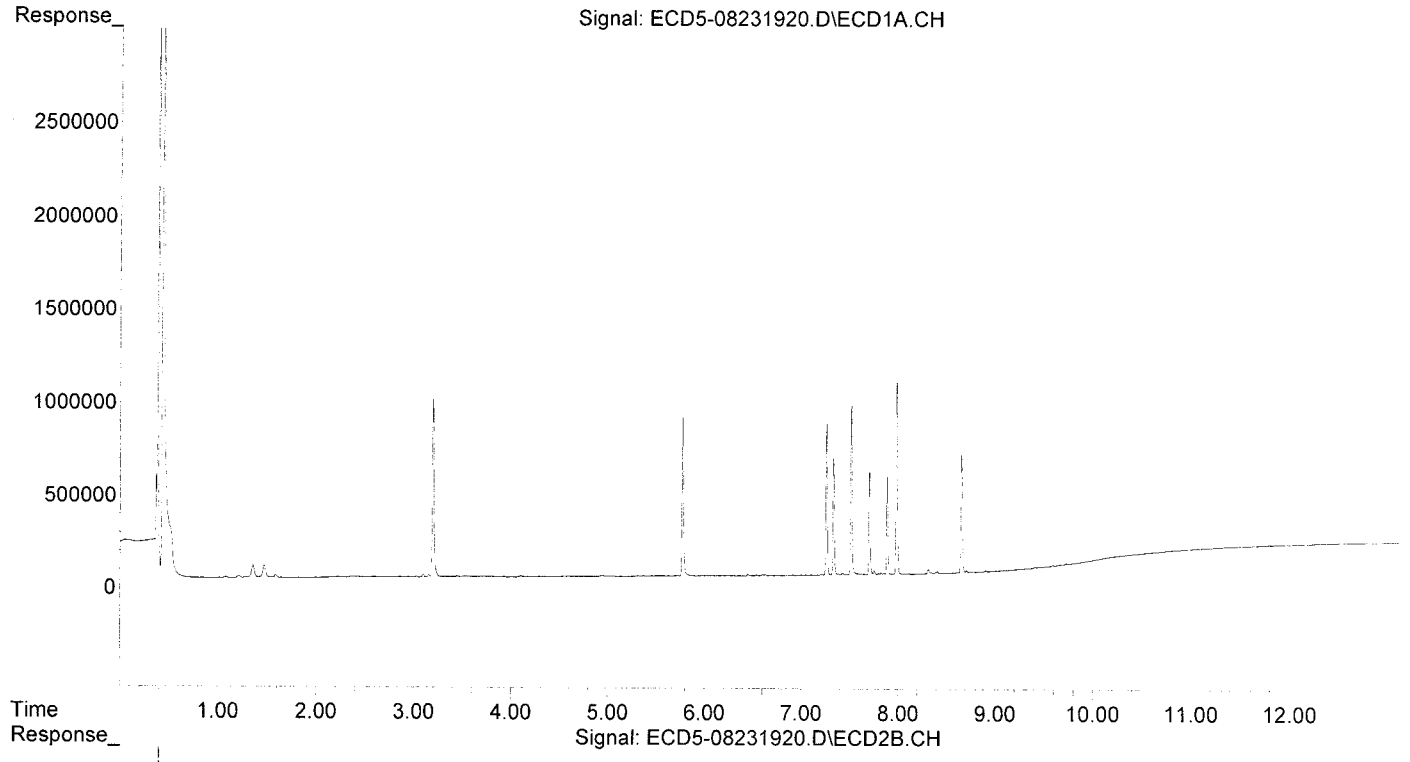
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	3.198	3.687	959211	1877484	6.435	5.971
24)	Hexachlor...	5.775	6.453	853793	1485583	6.951	6.626
25)	Oxychlordane	7.262	7.921	819748	1325543	6.321	6.298
26)	2,4'-DDE	7.334	8.123	633168	1029687	6.738	6.600
27)	trans-Non...	7.518	8.194	933222	1467723	6.510	6.390
28)	2,4'-DDD	7.705	8.495	560942	898697	6.711	6.593
29)	2,4'-DDT	7.889	8.719	536967	873074	6.892	6.802
30)	cis-Nonac...	7.986	8.759	1025899	1587243	6.376	6.249
31)	Mirex	8.654	9.679	628618	895523	6.422	6.222
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

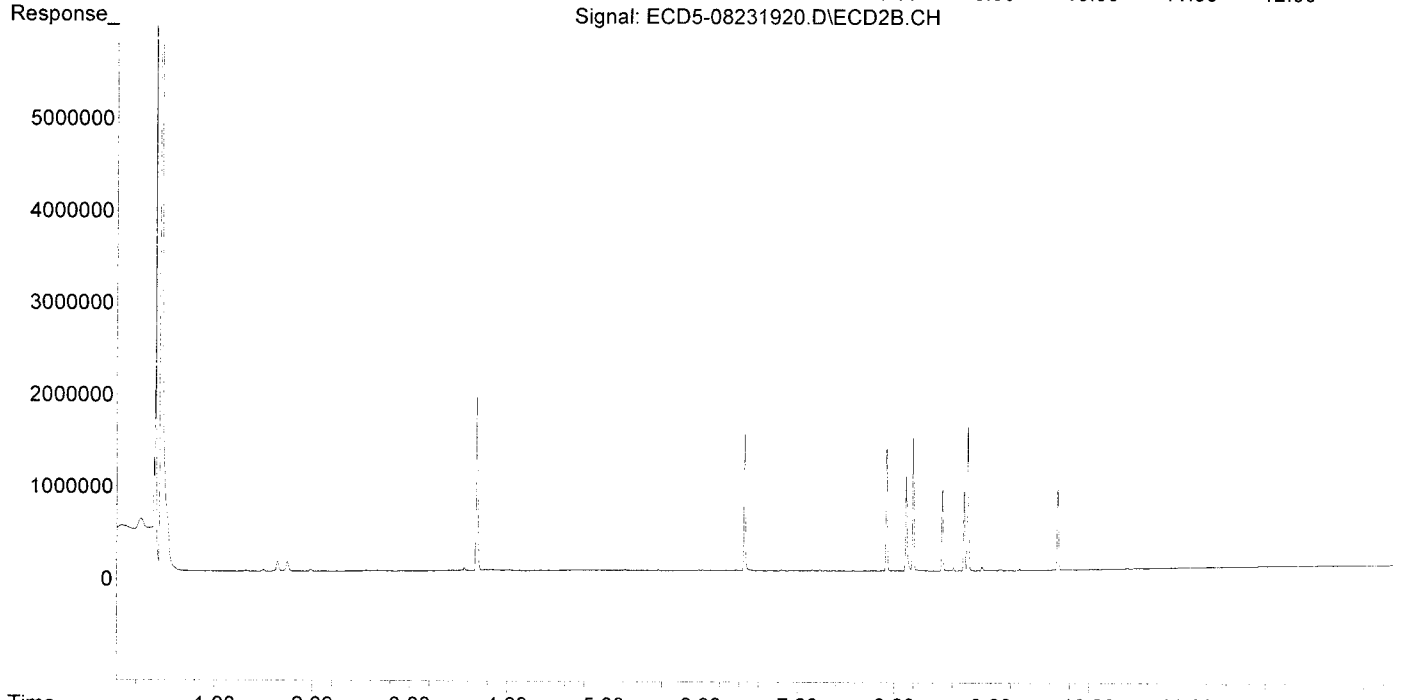
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:18
Operator : MJB
Sample : 9H23034-CALB
Misc : A19E274, 9-42 5 ppb
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:24:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:35
Operator : MJB
Sample : 9H23034-CALC
Misc : A19E275, 9-42 10 ppb
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:25:17 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

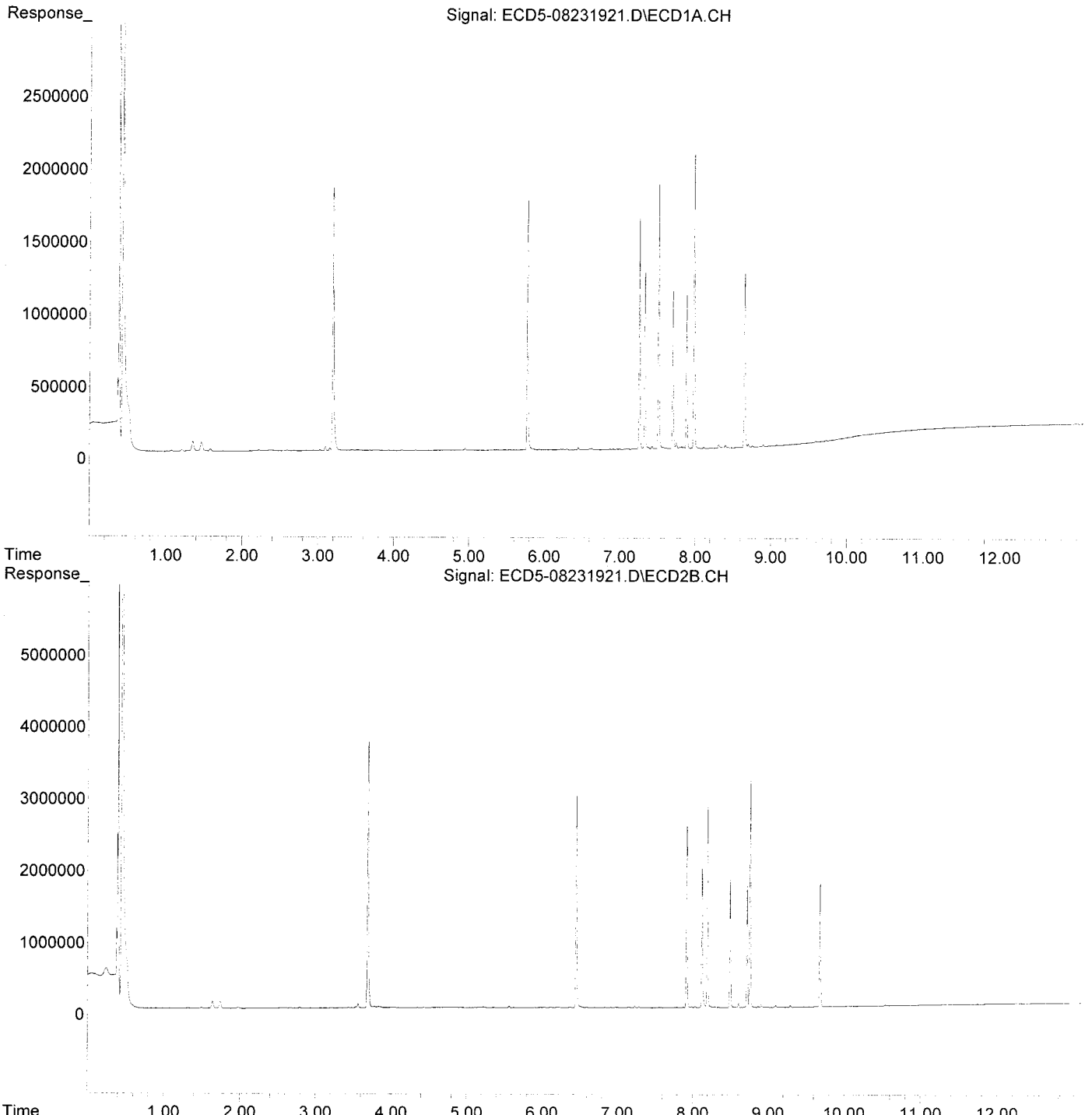
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	3.198	3.687	1838187	3701532	12.333	11.773
24)	Hexachlor...	5.774	6.453	1711884	2936294	13.936	13.097
25)	Oxychlordane	7.261	7.921	1591613	2538903	12.272	12.063
26)	2,4'-DDE	7.333	8.122	1245265	2018331	13.252	12.936
27)	trans-Non...	7.516	8.194	1817552	2844404	12.679	12.384
28)	2,4'-DDD	7.705	8.495	1103587	1778790	13.203	13.050
29)	2,4'-DDT	7.888	8.719	1051565	1702568	13.249	13.099
30)	cis-Nonac...	7.986	8.759	2032010	3148054	12.629	12.394
31)	Mirex	8.654	9.679	1196365	1722960	12.222	11.971
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:35
Operator : MJB
Sample : 9H23034-CALC
Misc : A19E275, 9-42 10 ppb
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:25:17 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:53
Operator : MJB
Sample : 9H23034-CALD
Misc : A19E276, 9-42 25 ppb
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:25:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 9/26/19

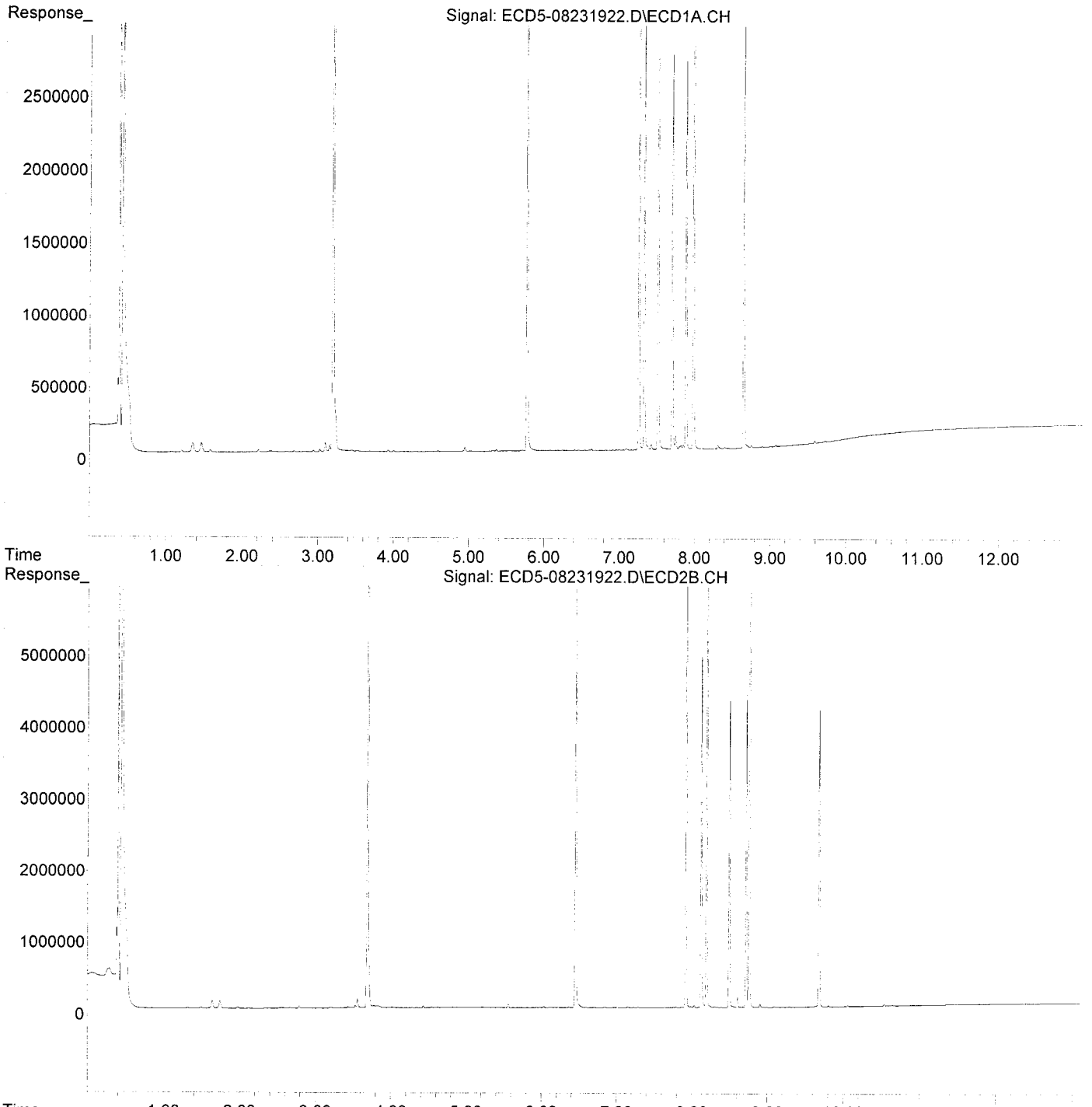
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	3.198	3.687	4363988	8892238	29.278	28.282
24)	Hexachlor...	5.774	6.453	4184551	7416324	34.066	33.080
25)	Oxychlordane	7.261	7.920	3881255	6202791	29.926	29.471
26)	2,4'-DDE	7.333	8.122	3059421	4999232	32.558	32.042
27)	trans-Non...	7.516	8.194	4391046	7092288	30.631	30.877
28)	2,4'-DDD	7.705	8.495	2745178	4389185	32.844	32.200
29)	2,4'-DDT	7.888	8.719	2728794	4405554	33.278	32.676
30)	cis-Nonac...	7.986	8.759	4993110	8219393	31.032	32.361
31)	Mirex	8.654	9.679	2910818	4138115	29.738	28.753
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:53
Operator : MJB
Sample : 9H23034-CALD
Misc : A19E276, 9-42 25 ppb
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:25:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:22:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

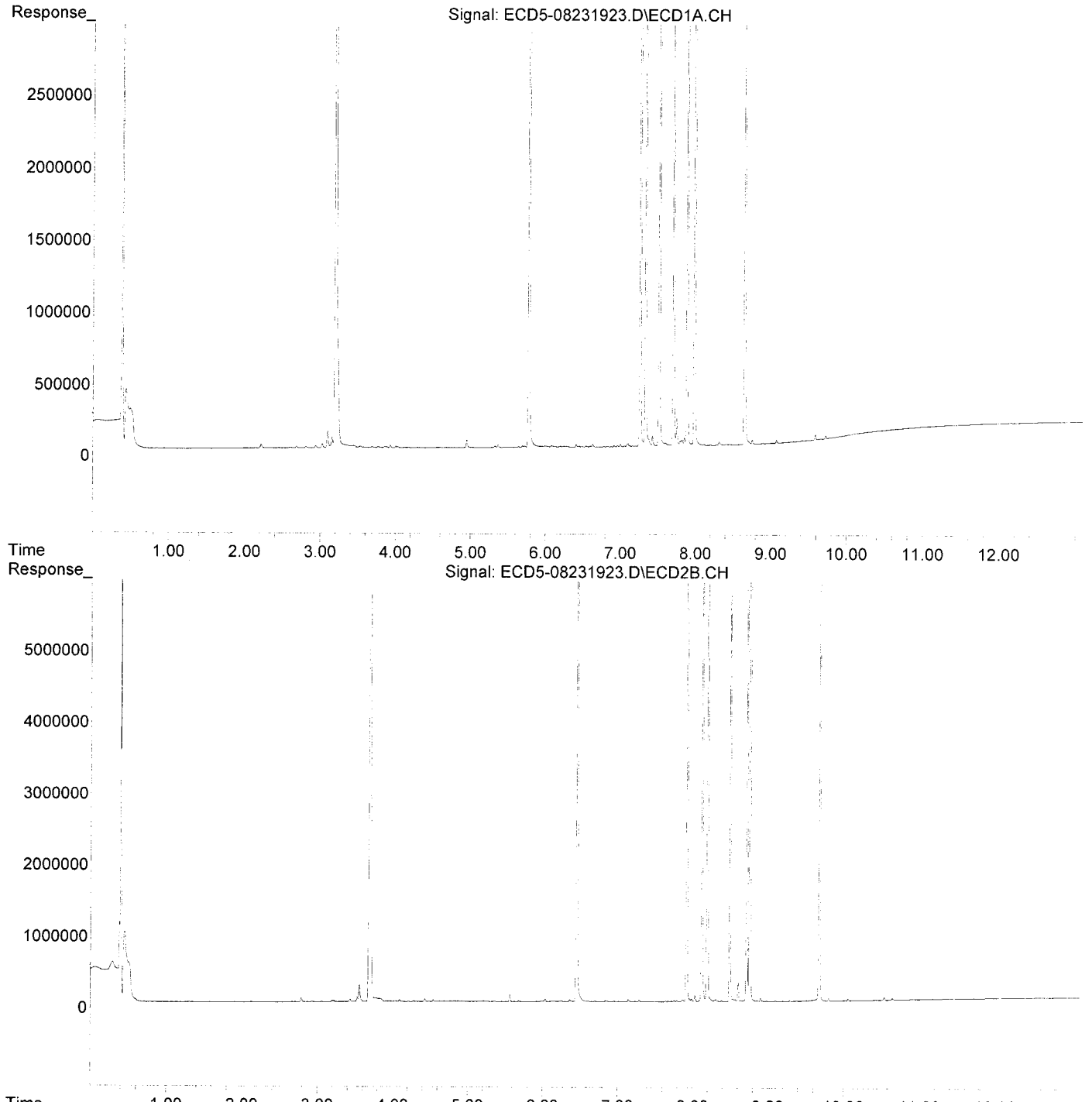
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	3.198	3.688	8761747	18635615	58.783	59.271
24)	Hexachlor...	5.774	6.454	8911624	16094159	72.549	71.786
25)	Oxychlordane	7.261	7.920	8382873	14172543	64.636	67.337
26)	2,4'-DDE	7.333	8.122	6510588	11006400	69.284	70.544
27)	trans-Non...	7.516	8.194	9581794	15807712	66.841	68.821
28)	2,4'-DDD	7.705	8.495	5920095	9924934	70.829	72.811
29)	2,4'-DDT	7.888	8.718	5687323	8810591	66.398	62.033
30)	cis-Nonac...	7.985	8.758	10616019	17721229	65.978	69.771
31)	Mirex	8.652	9.679	6218341	9100959	62.528	63.235
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:22:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:26:27 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/27/19

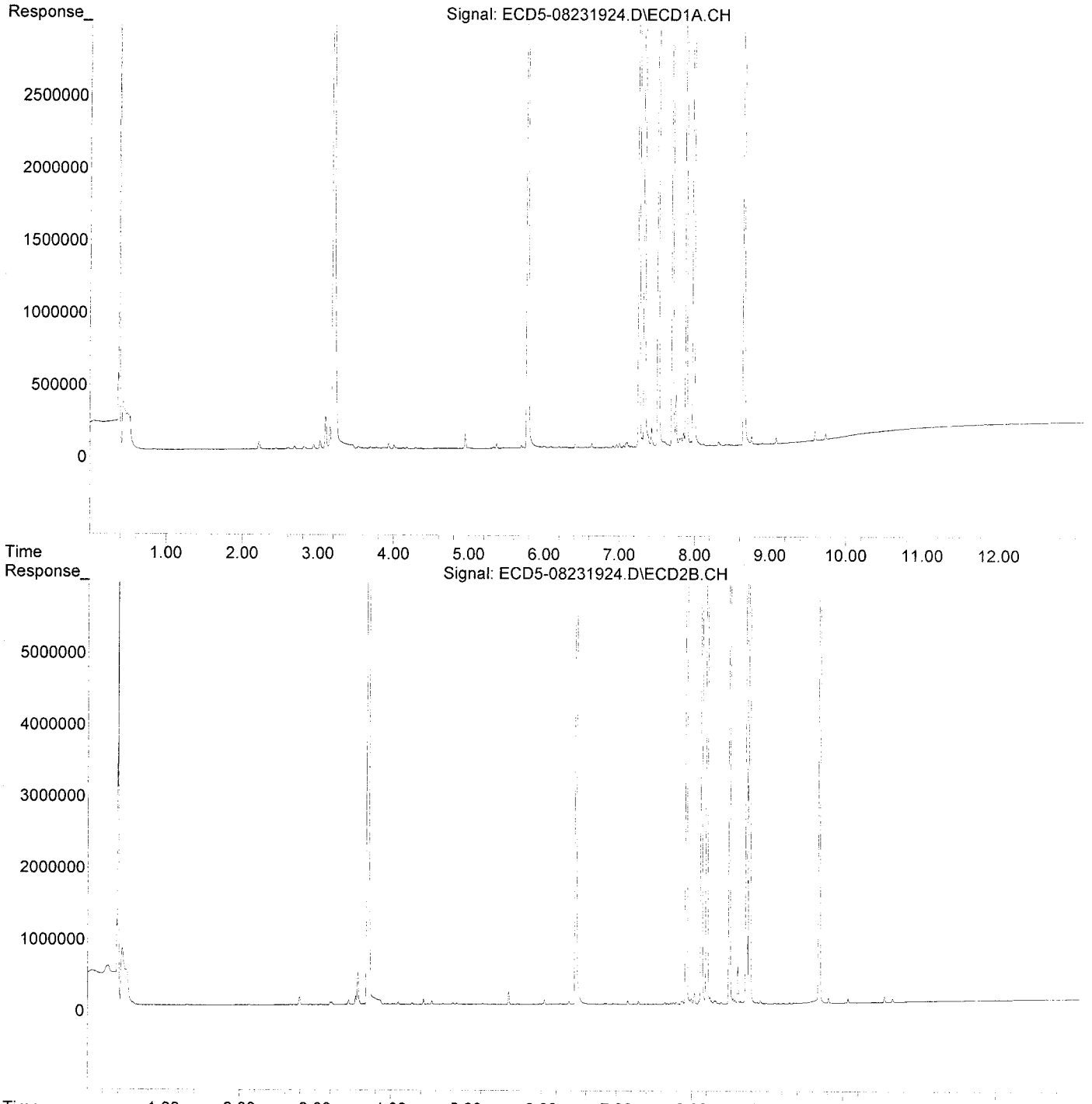
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	3.199	3.690	17952134	39298885	120.443	124.991
24)		Hexachlor...	5.776	6.455	17670025	32766708	143.851	146.152
25)		Oxychlordane	7.261	7.922	16359215	29732149	126.137	141.263
26)		2,4'-DDE	7.334	8.123	12769067	22164400	135.886	142.059
27)		trans-Non...	7.516	8.195	18351251	31975271	128.015	139.210
28)		2,4'-DDD	7.705	8.496	11587554	20118925	138.635	147.597
29)		2,4'-DDT	7.888	8.721	11771354	18998968	127.689	121.350
30)		cis-Nonac...	7.986	8.760	20932641	36072644	130.096	142.024
31)		Mirex	8.653	9.680	11960753	19363200	122.194	134.540
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:26:27 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:27:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

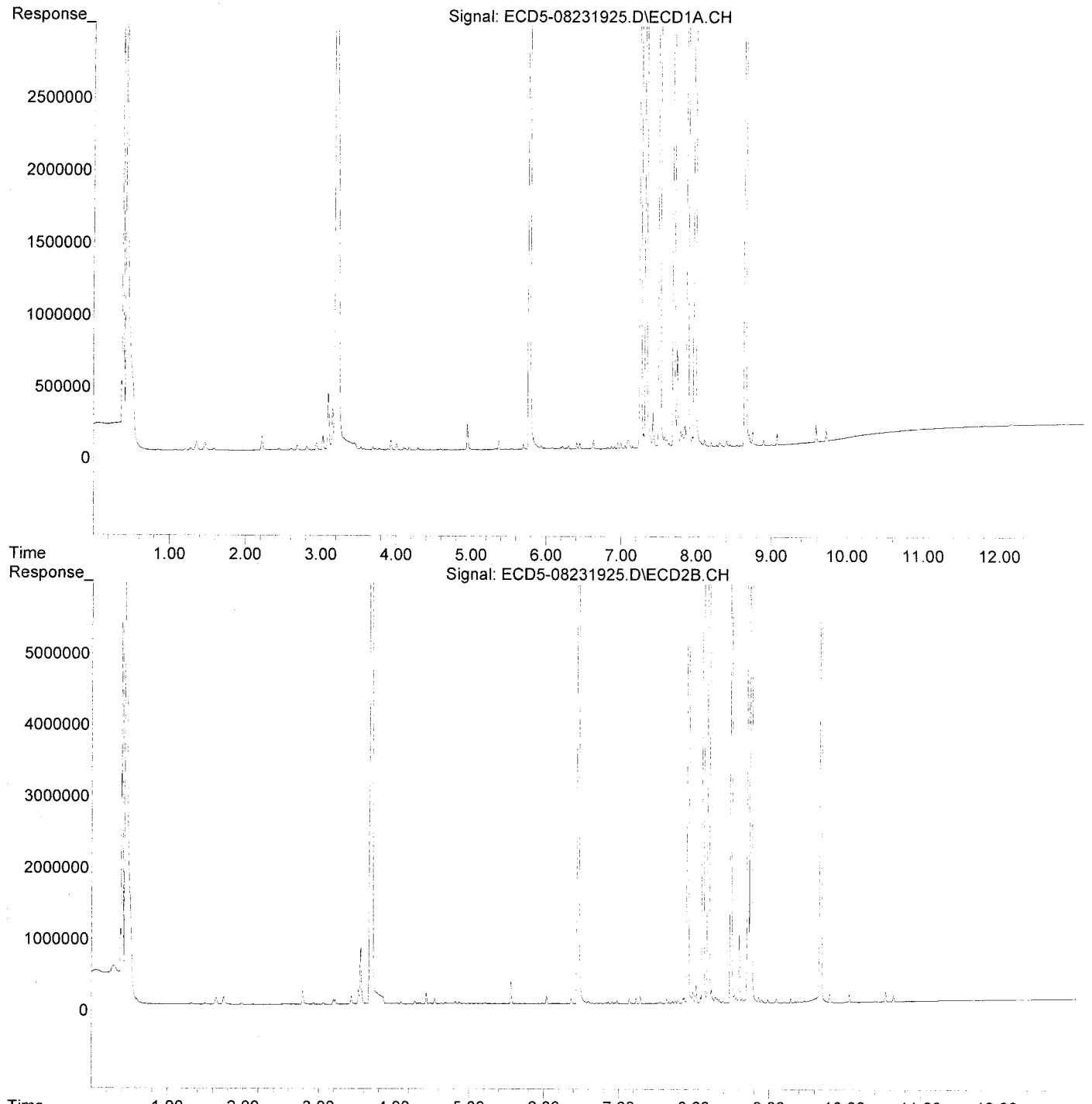
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	3.199	3.689	34166533	75988565	229.227	241.683
24)		Hexachlor...	5.774	6.454	34073459	66261966	277.392	295.553
25)		Oxychlordane	7.258	7.920	32032634	58736982	246.986	279.071
26)		2,4'-DDE	7.331	8.122	24819199	44504592	264.121	285.245
27)		trans-Non...	7.514	8.194	35027918	63083636	244.348	274.645
28)		2,4'-DDD	7.703	8.494	21916962	39839303	262.217	292.269
29)		2,4'-DDT	7.887	8.719	23024956	39999231	224.761	221.024
30)		cis-Nonac...	7.984	8.759	40046185	72455823	248.887	285.271
31)		Mirex	8.652	9.679	23284997	38425530	237.885	266.989
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:27:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:36
Operator : MJB
Sample : 9H23034-CALH
Misc : A19F232, CHLOR 50 ppb
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:31:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MP 8/26/19

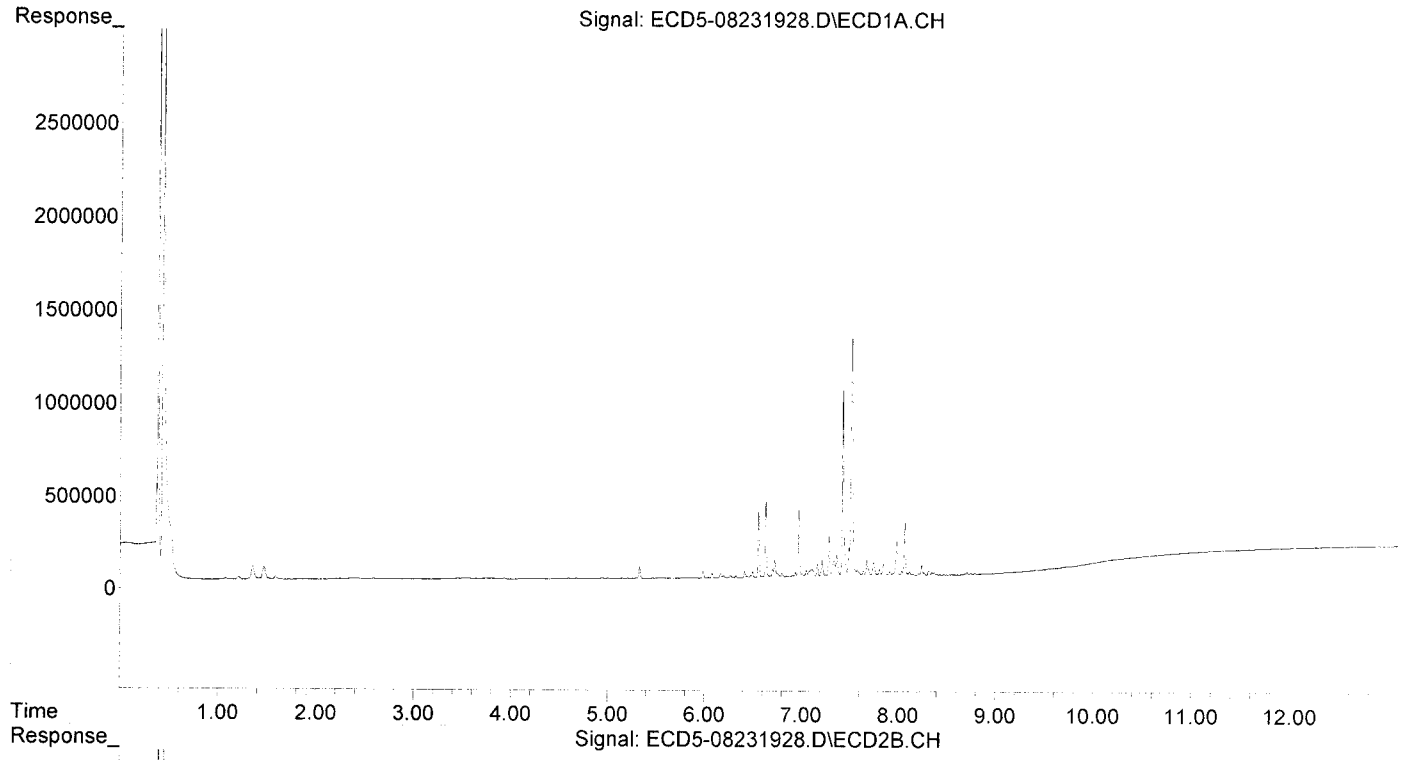
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.429	8.131	1009143	1754707	65.443	66.784
33)	Chlordane...	7.521	8.237	1286655	1472400	62.192	67.669
34)	Chlordane...	8.068	8.897	288087	439020	60.282	67.059
35)	Chlordane...	3.446	0.000	5365	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

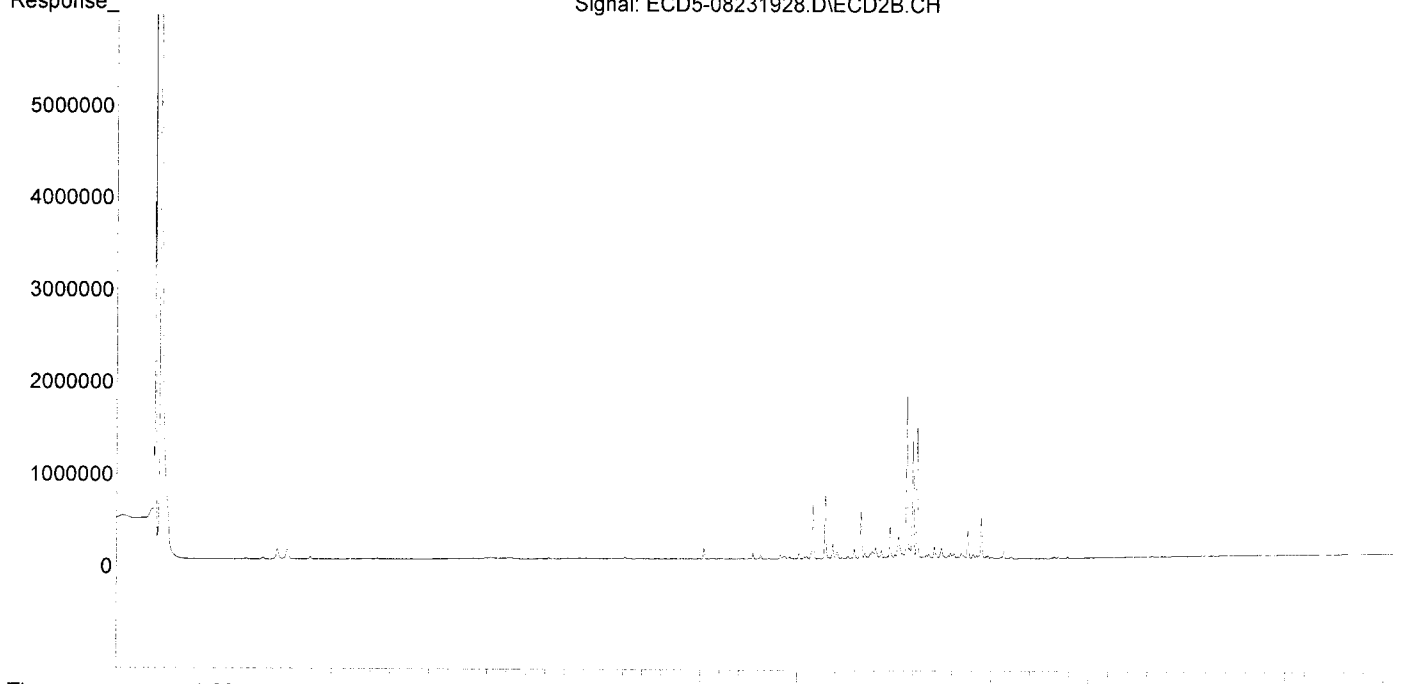
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:36
Operator : MJB
Sample : 9H23034-CALH
Misc : A19F232, CHLOR 50 ppb
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:31:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:54
Operator : MJB
Sample : 9H23034-CALI
Misc : A19F233, CHLOR 100 ppb
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:32:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

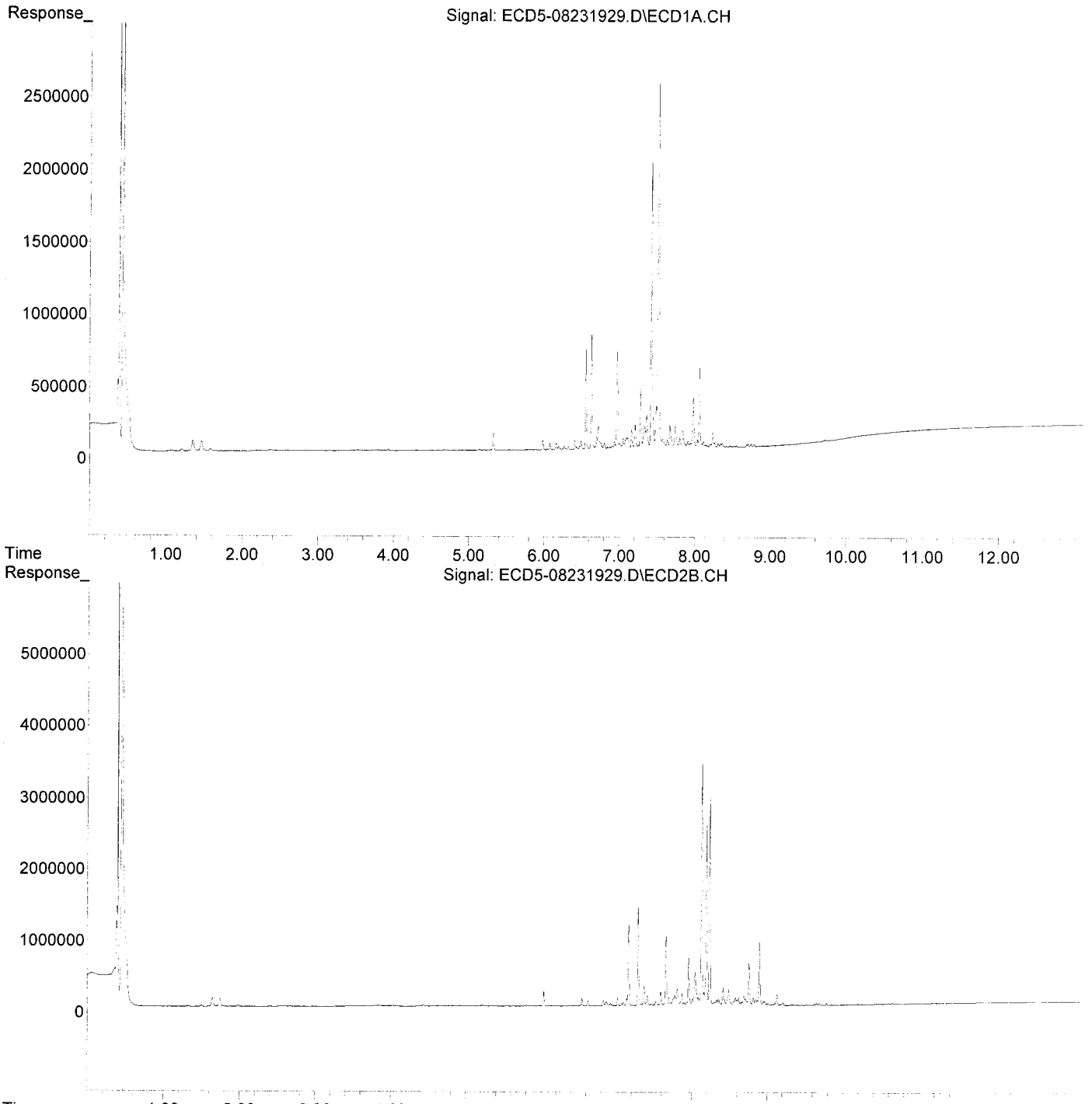
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	7.429	8.130	1978897	3378388	128.331	127.866
33)		Chlordane...	7.521	8.238	2519520	2905941	121.784	133.934
34)		Chlordane...	8.068	8.898	548196	874465	114.710	133.920
35)		Chlordane...	3.446	0.000	4938	0	NoCal	N.D.
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:54
Operator : MJB
Sample : 9H23034-CALI
Misc : A19F233, CHLOR 100 ppb
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:32:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:11
Operator : MJB
Sample : 9H23034-CALJ
Misc : A19F234, CHLOR 200 ppb
ALS Vial : 24 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

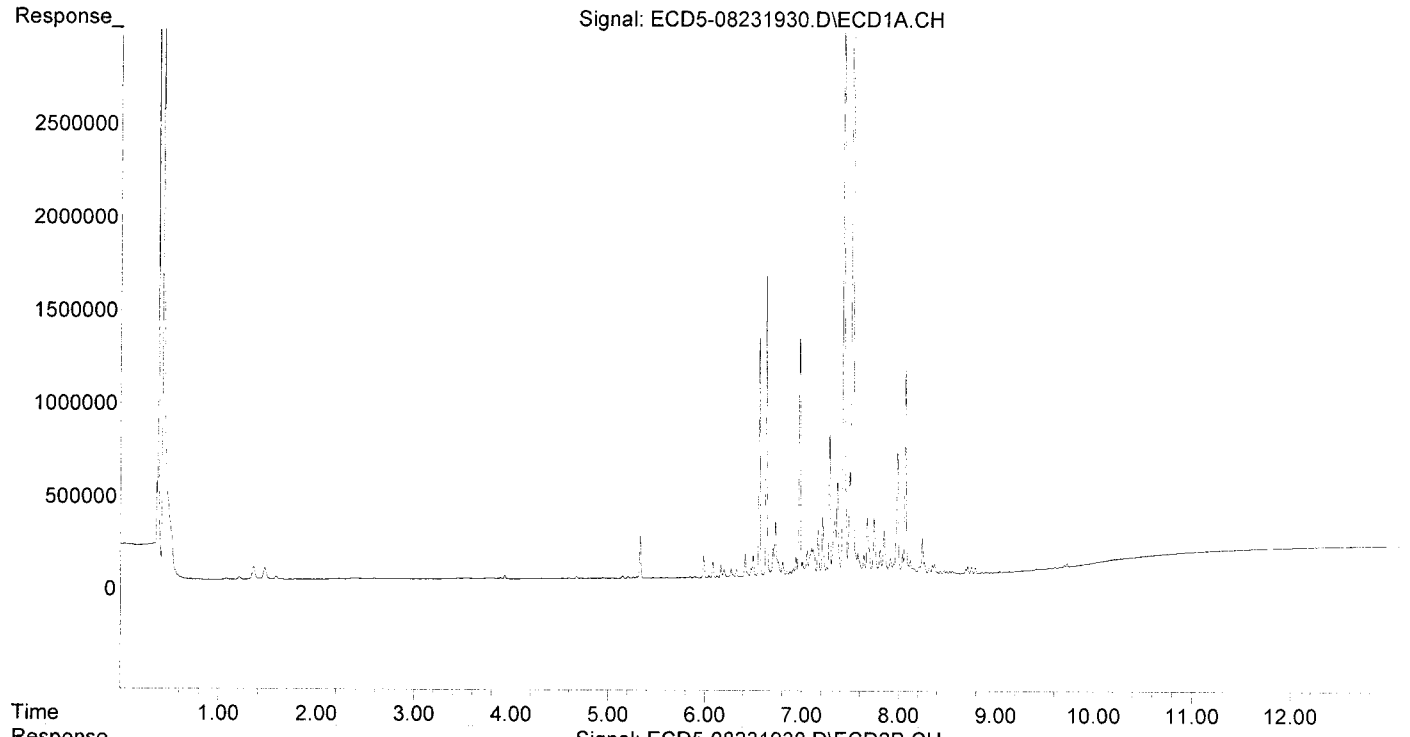
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.429	8.131	3849299	6751197	249.627	251.318
33)	Chlordane...	7.522	8.239	4906320	5883615	237.153	267.927
34)	Chlordane...	8.069	8.898	1101677	1731727	230.526	261.800
35)	Chlordane...	3.448	0.000	4503	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

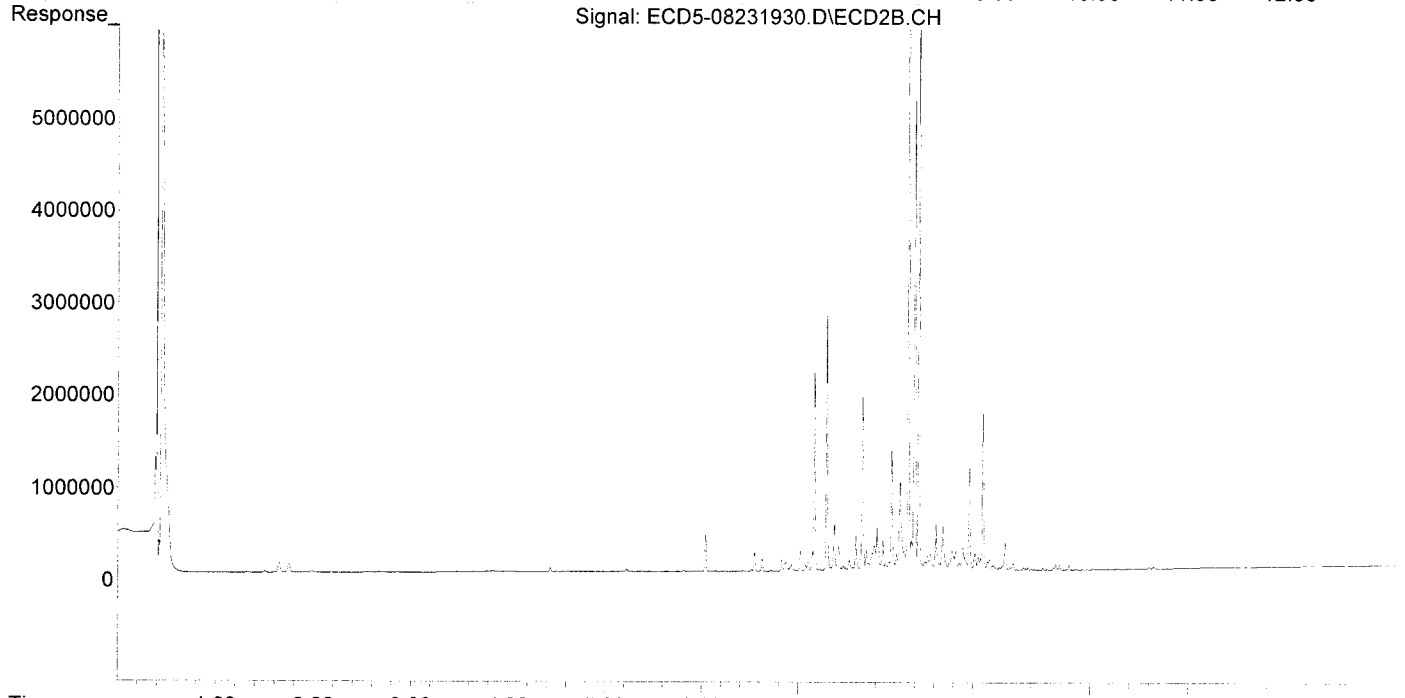
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:11
Operator : MJB
Sample : 9H23034-CALJ
Misc : A19F234, CHLOR 200 ppb
ALS Vial : 24 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:28
Operator : MJB
Sample : 9H23034-CALK
Misc : A19F235, CHLOR 500 ppb
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:28:33 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 9/26/19

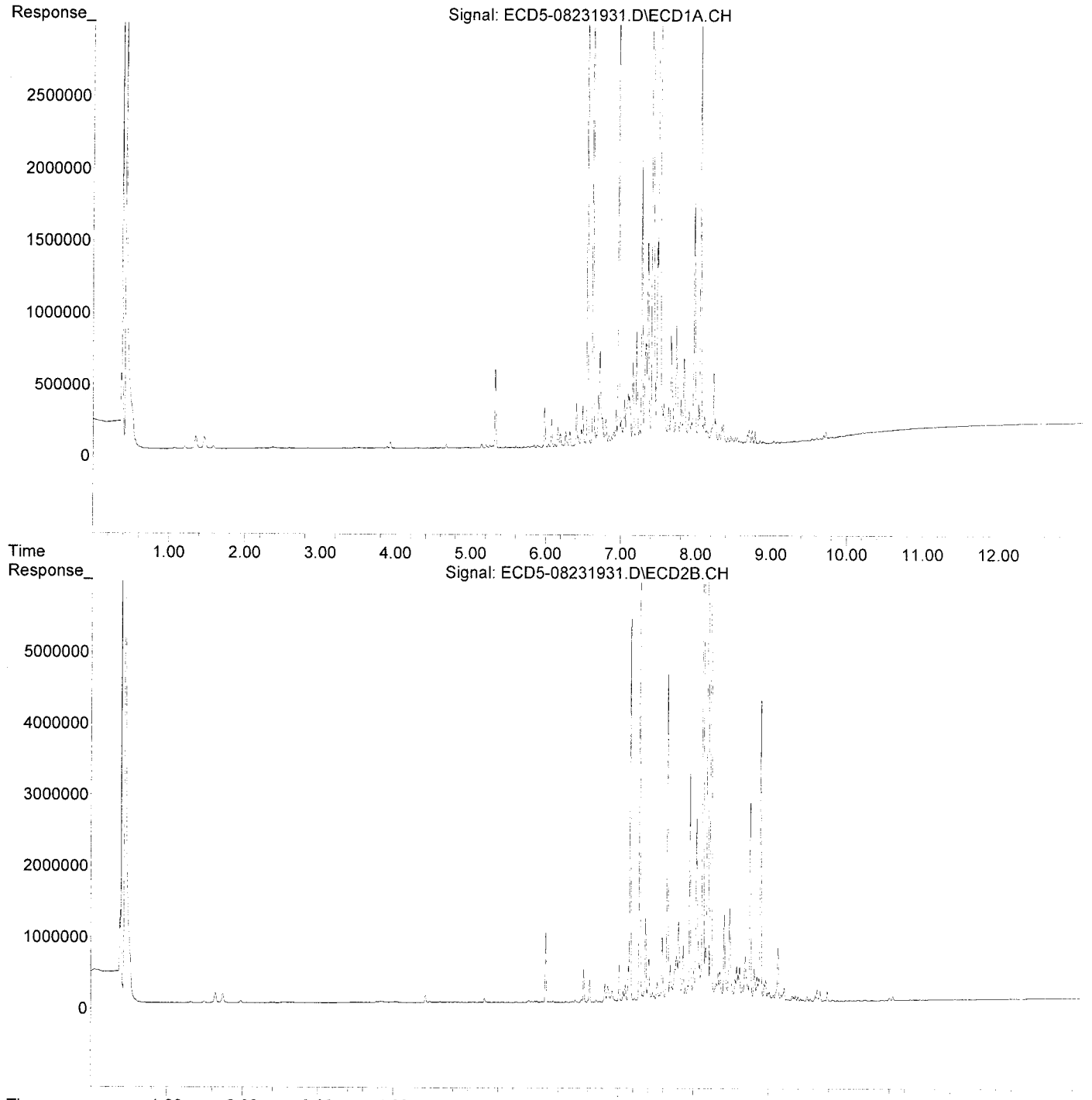
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.427	8.129	9628671	17830433	624.419	629.093
33)	Chlordane...	7.520	8.237	12176524	14812273	588.567	644.287
34)	Chlordane...	8.067	8.896	2921278	4271709	611.277	615.748
35)	Chlordane...	3.447	0.000	4056	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:28
Operator : MJB
Sample : 9H23034-CALK
Misc : A19F235, CHLOR 500 ppb
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:28:33 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:45
Operator : MJB
Sample : 9H23034-CALL
Misc : A19F236, CHLOR 1000 ppb
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 9/26/19

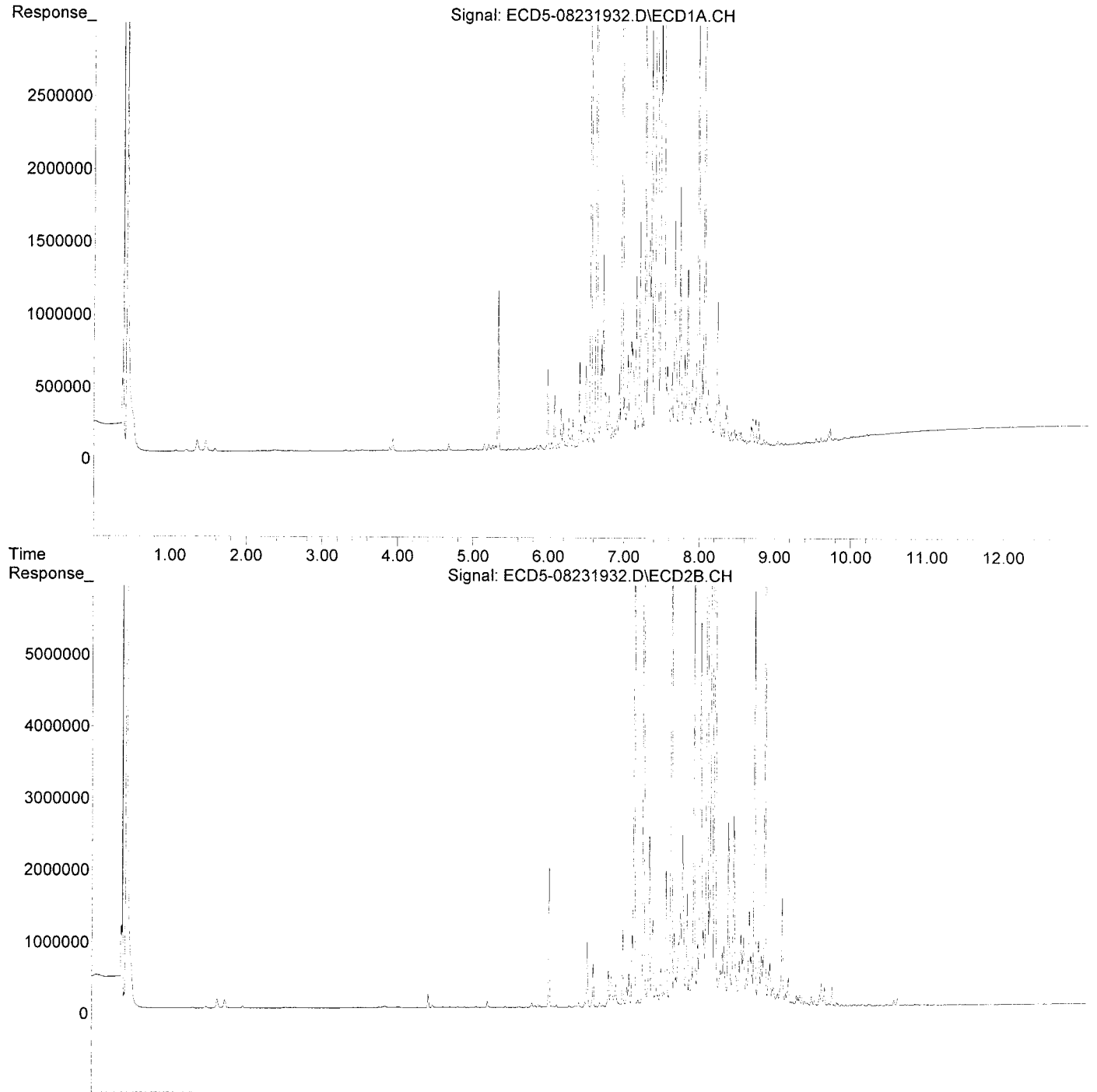
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.426	8.130	19643766	37966746	1273.898	1234.450
33)	Chlordane...	7.519	8.237	25083239	31493677	1212.428	1269.749
34)	Chlordane...	8.067	8.897	5987927	9358900	1252.974	1240.988
35)	Chlordane...	3.447	0.000	4825	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:45
Operator : MJB
Sample : 9H23034-CALL
Misc : A19F236, CHLOR 1000 ppb
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:02
Operator : MJB
Sample : 9H23034-CALM
Misc : A19F231, CHLOR 2000 ppb
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:34:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

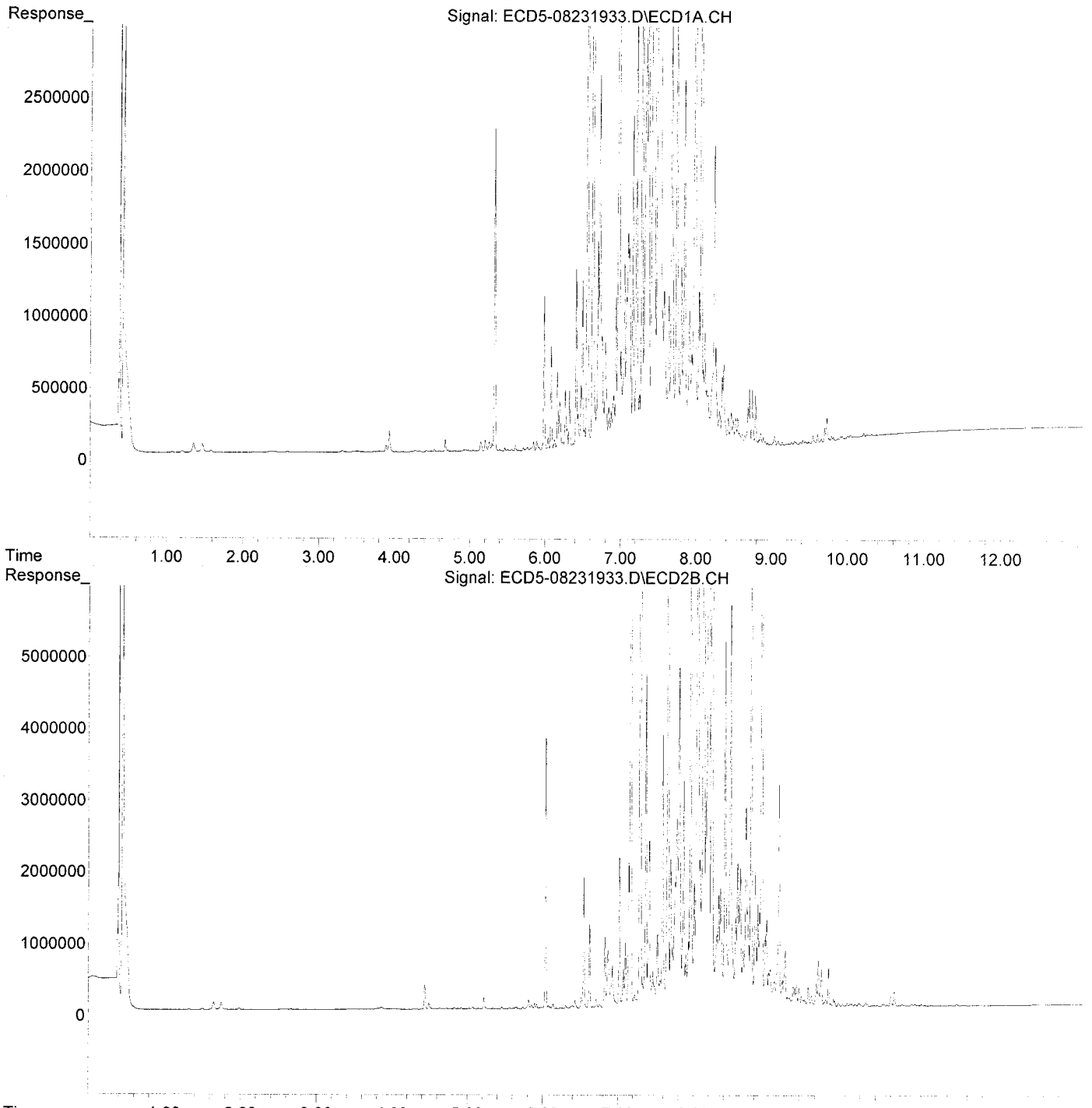
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	7.426	8.130	40036500	81691713	2596.366	2326.014
33)		Chlordane...	7.519	8.238	50979142	66281388	2464.138	2365.956
34)		Chlordane...	8.067	8.897	12208306	19418517	2554.588	2271.661
35)		Chlordane...	3.449	0.000	4939	0	NoCal	N.D.
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:02
Operator : MJB
Sample : 9H23034-CALM
Misc : A19F231, CHLOR 2000 ppb
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:34:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:48 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

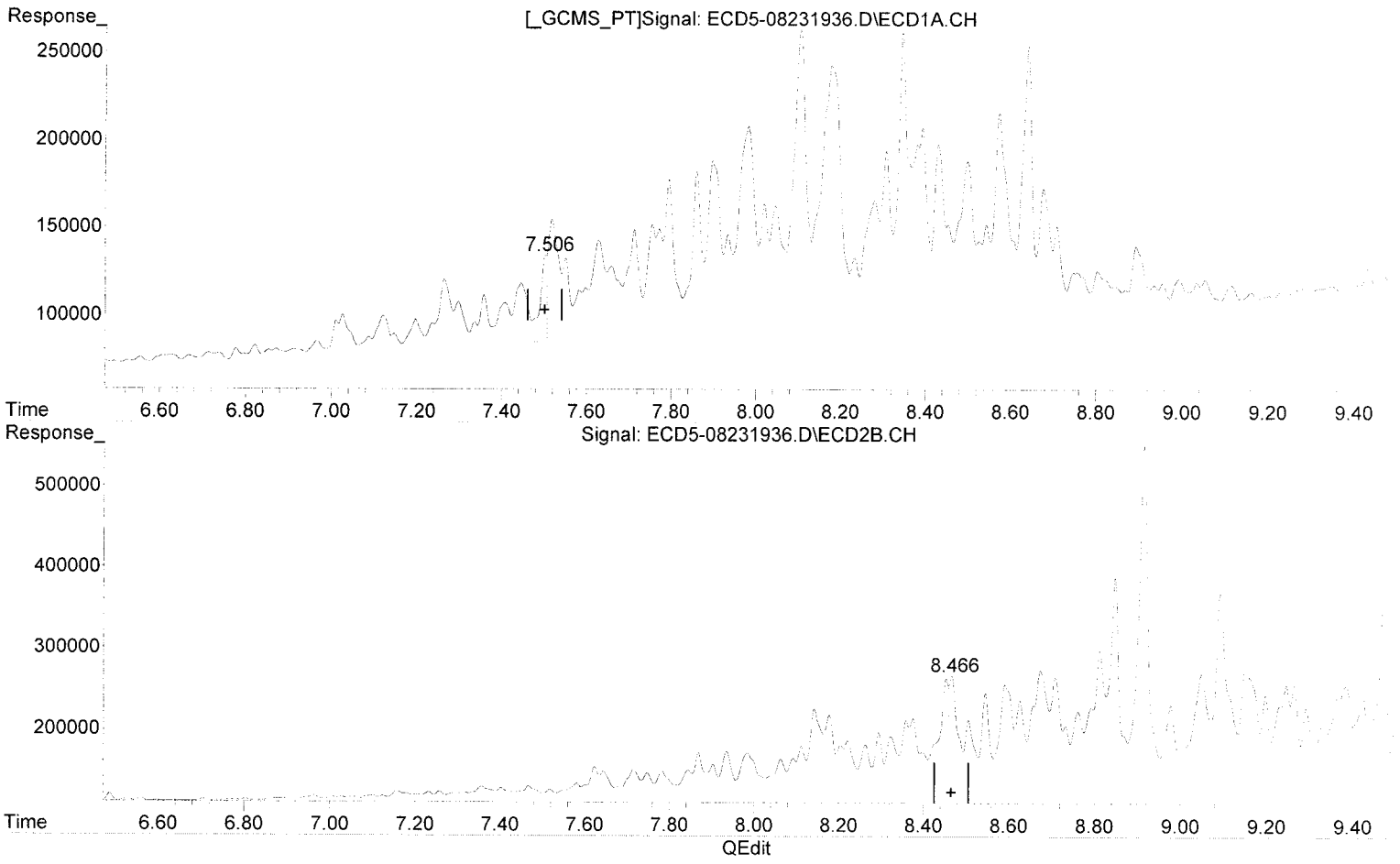
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	7.506	8.466	49250	136848	69.167m	65.864
37)	Toxaphene...	7.794	8.813	88321	164706	67.251	67.260
38)	Toxaphene...	8.105	8.847	169381	254833	62.397	67.028
39)	Toxaphene...	8.346	8.915	164317	416348	64.716	65.275
40)	Toxaphene...	8.573	9.091	114720	233185	60.554	65.984
41)	Toxaphene...	8.641	9.470	153138	230922	57.297	70.513
42)	Toxaphene...	3.449	0.000	4023	0	NoCal	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.506min 69.167 ng/mL (m)

response 49250

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 65.864 ng/mL

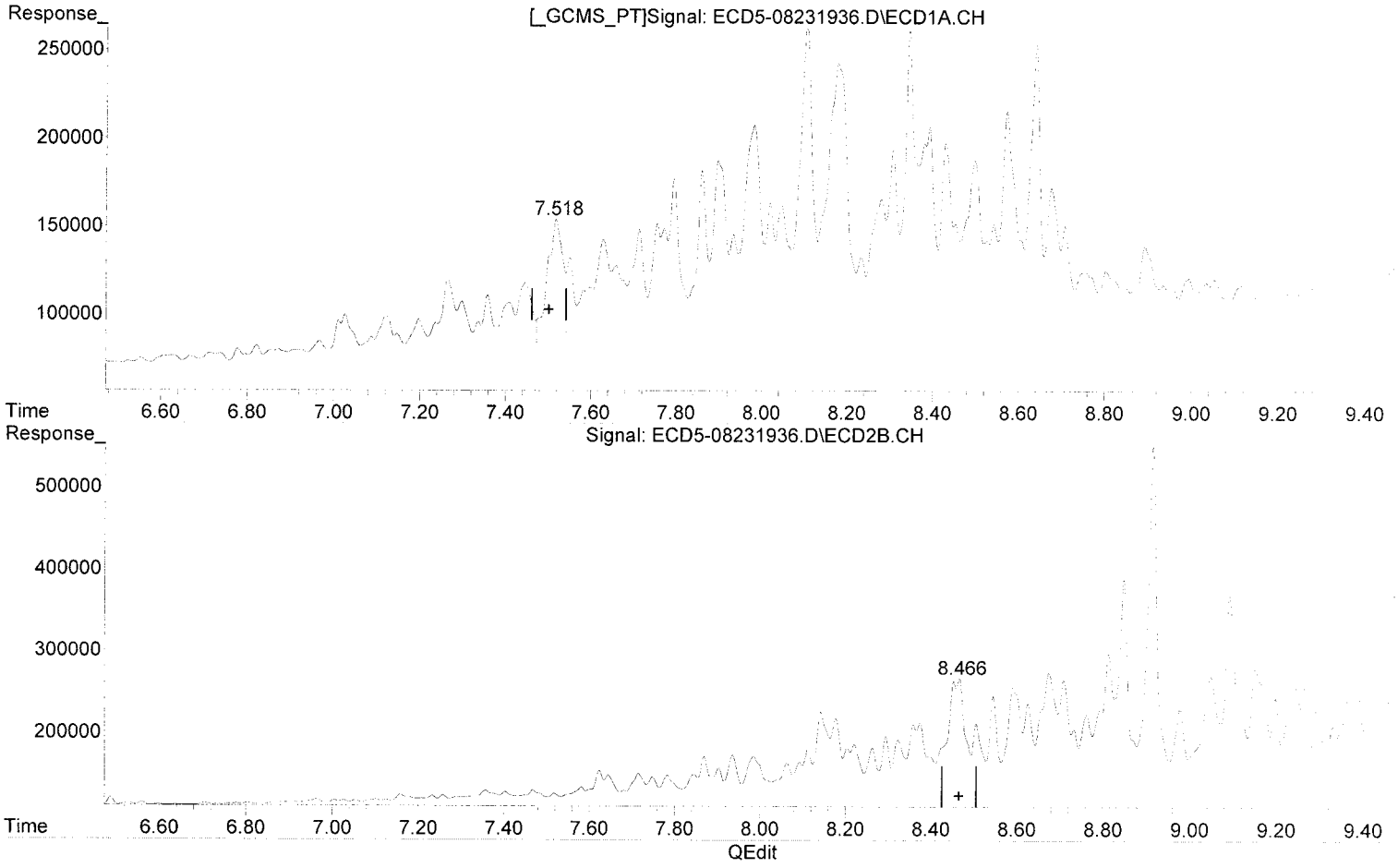
response 136848

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.518min 96.999 ng/mL

response 69068

MJB 6/26/19

(36) Toxaphene (1) #2

8.466min 65.864 ng/mL

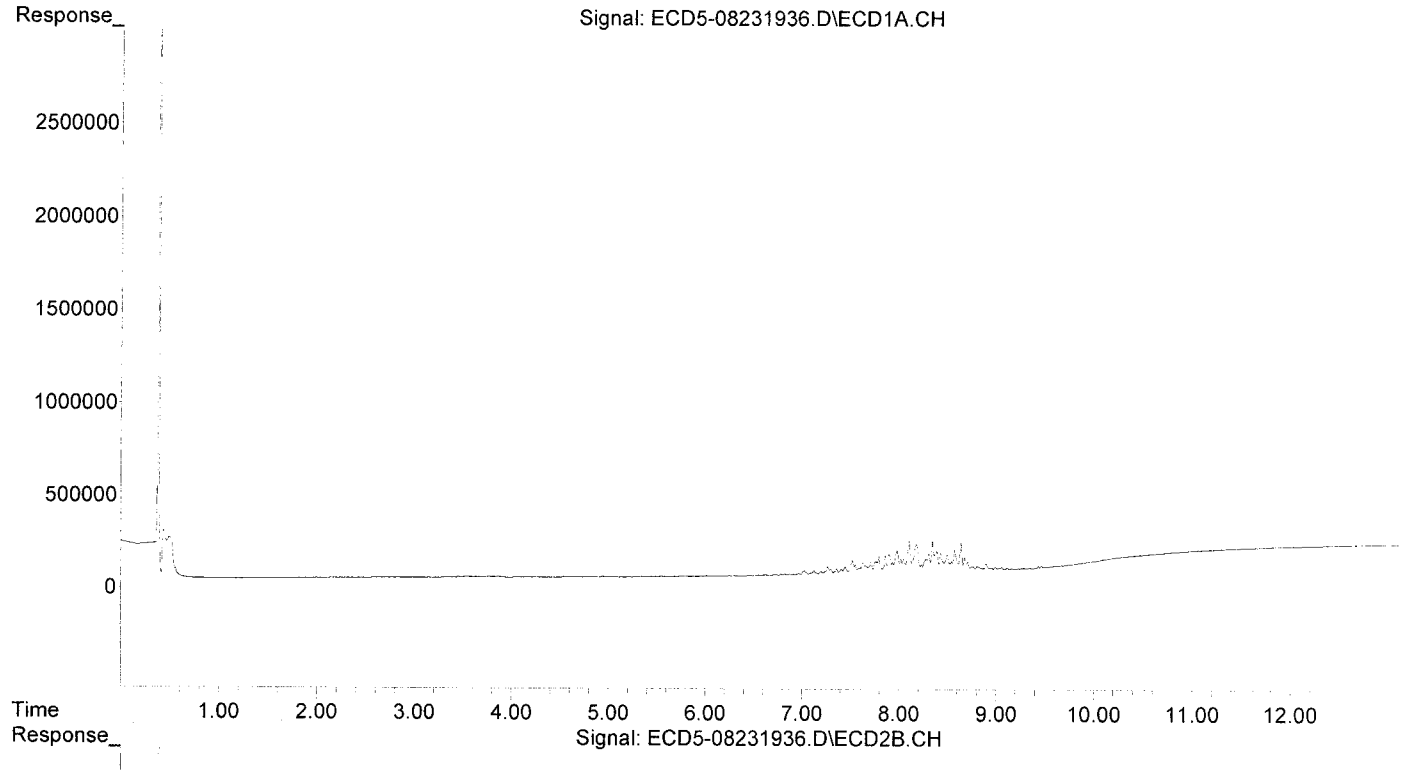
response 136848

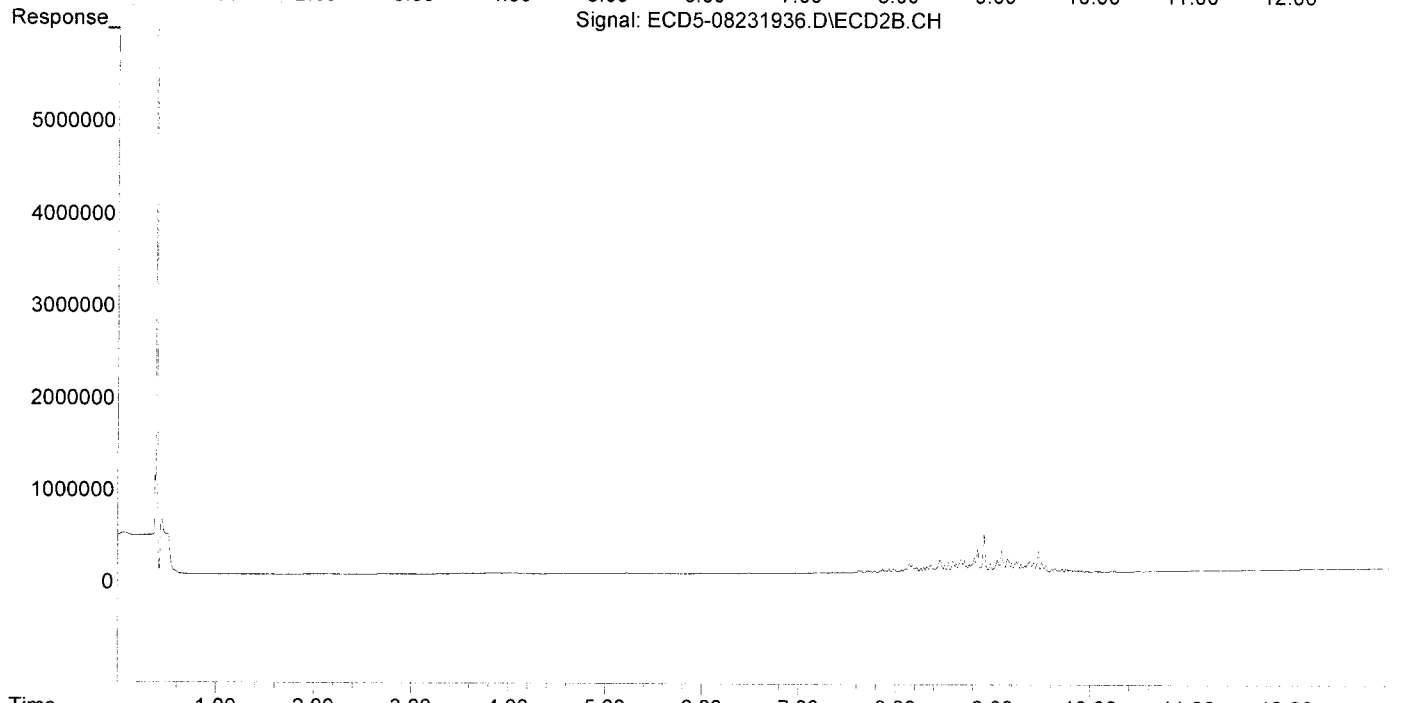
(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:48 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:38:53 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

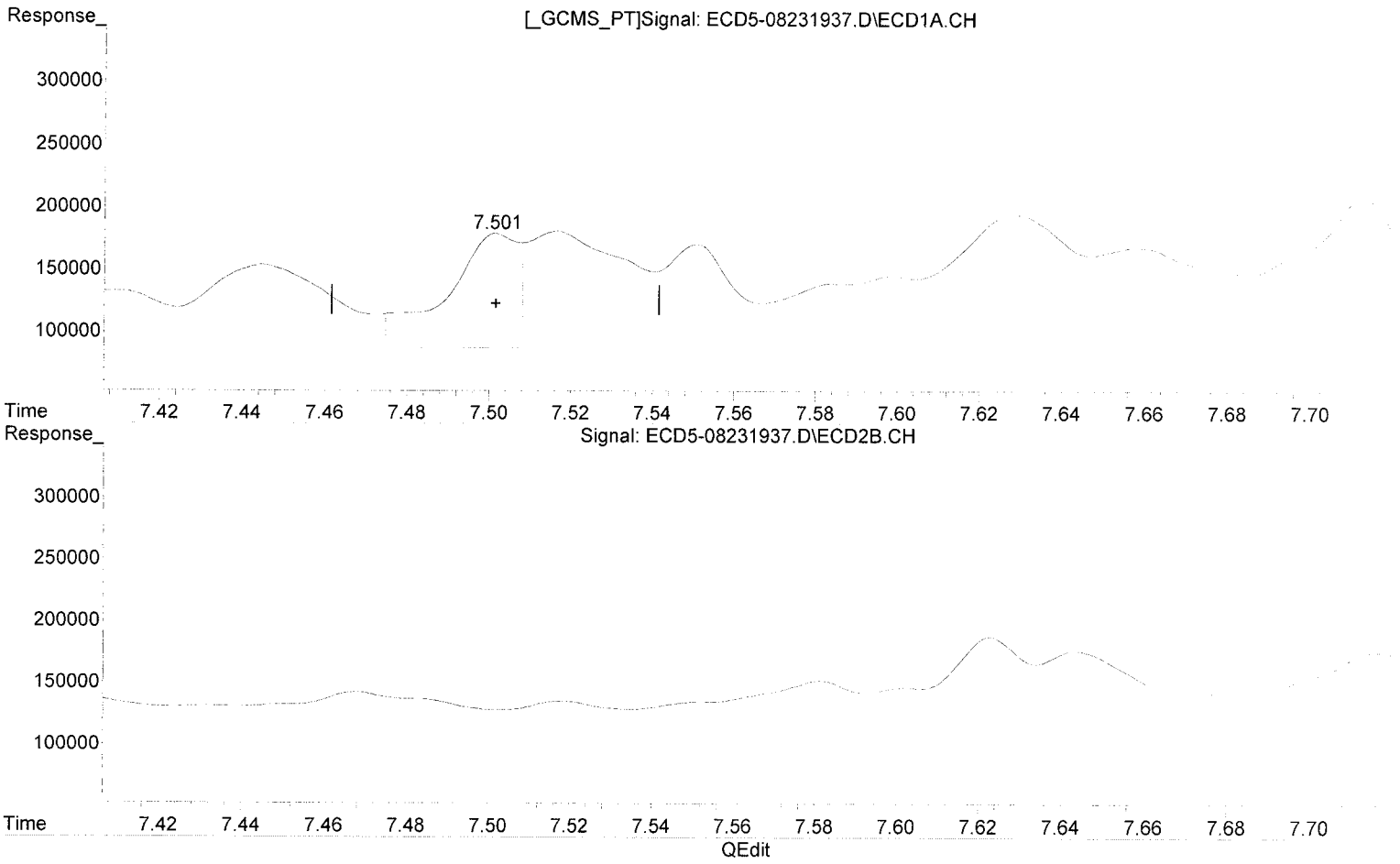
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.501	8.466	91576	267534	128.609m	128.761
37)		Toxaphene...	7.795	8.813	166085	324070	126.462	132.338
38)		Toxaphene...	8.106	8.848	332842	494430	122.613	130.048
39)		Toxaphene...	8.346	8.915	320313	811948	126.154	127.297
40)		Toxaphene...	8.574	9.091	228960	452209	120.854	127.962
41)		Toxaphene...	8.641	9.471	302577	452485	113.210	135.226
42)		Toxaphene...	3.450	0.000	3536	0	NoCal	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:38:11 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.501min 128.609 ng/mL m

response 91576

MJB 9/26/19

(36) Toxaphene (1) #2

8.466min 128.761 ng/mL

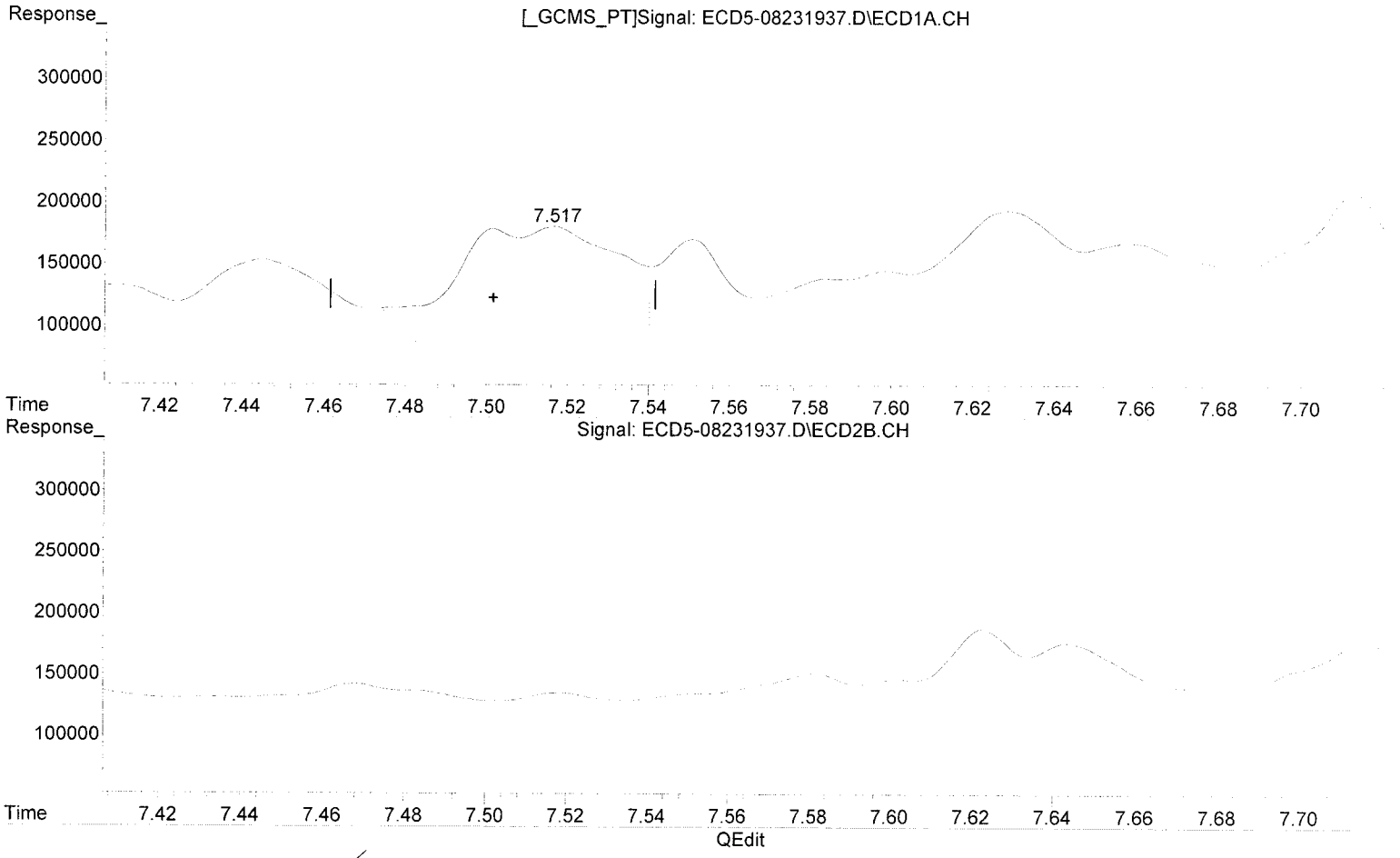
response 267534

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:38:11 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.517min 130.814 ng/mL

response 93146

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 128.761 ng/mL

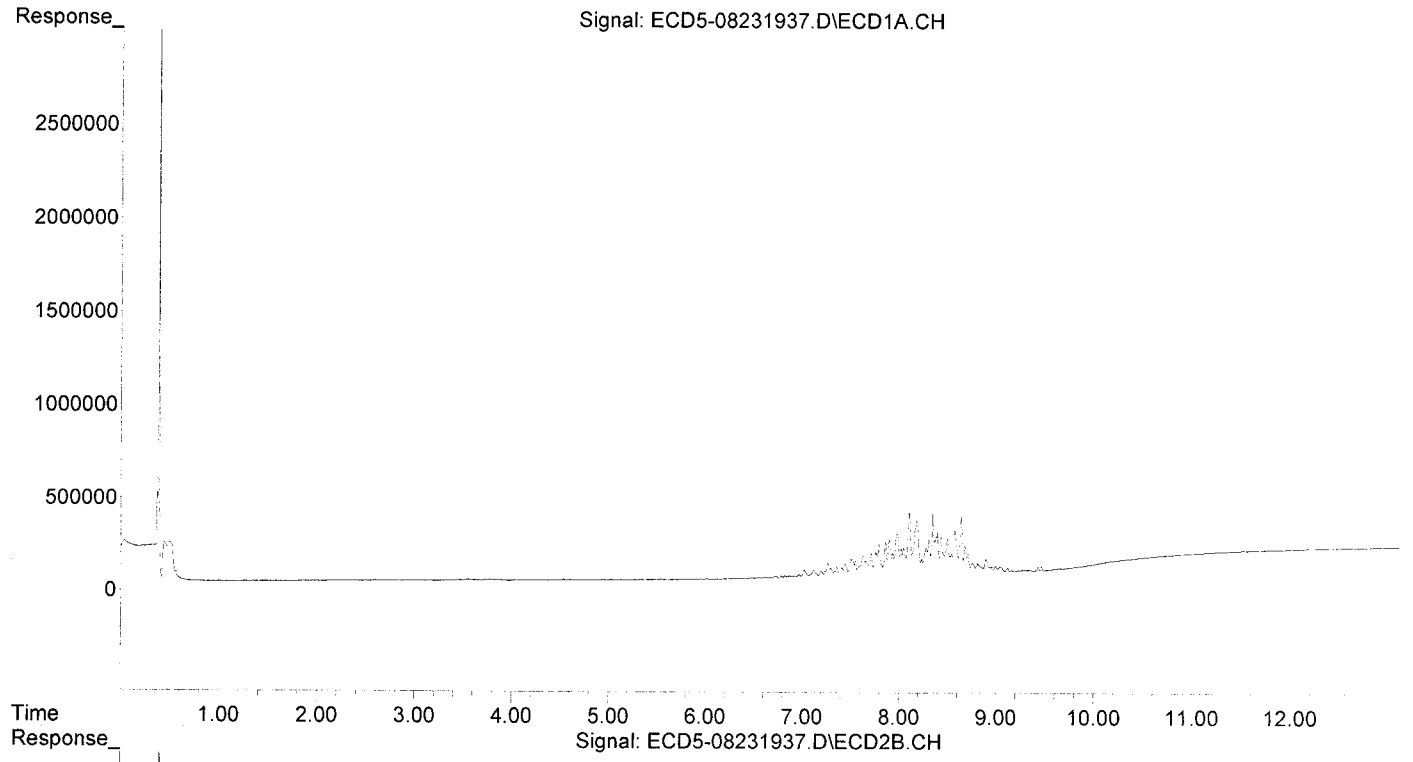
response 267534

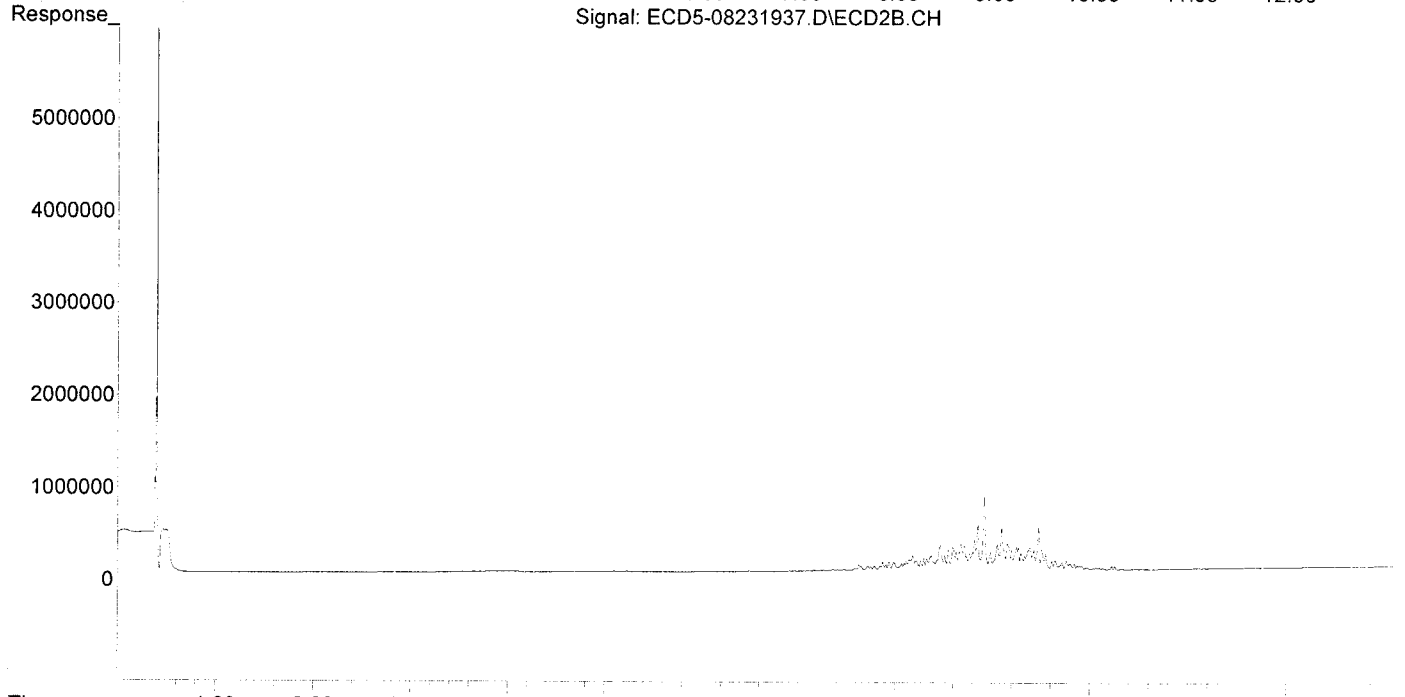
(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:38:53 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231938.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:28
Operator : MJB
Sample : 9H23034-CALP
Misc : A19D124, TOX 200 ppb
ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:39:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

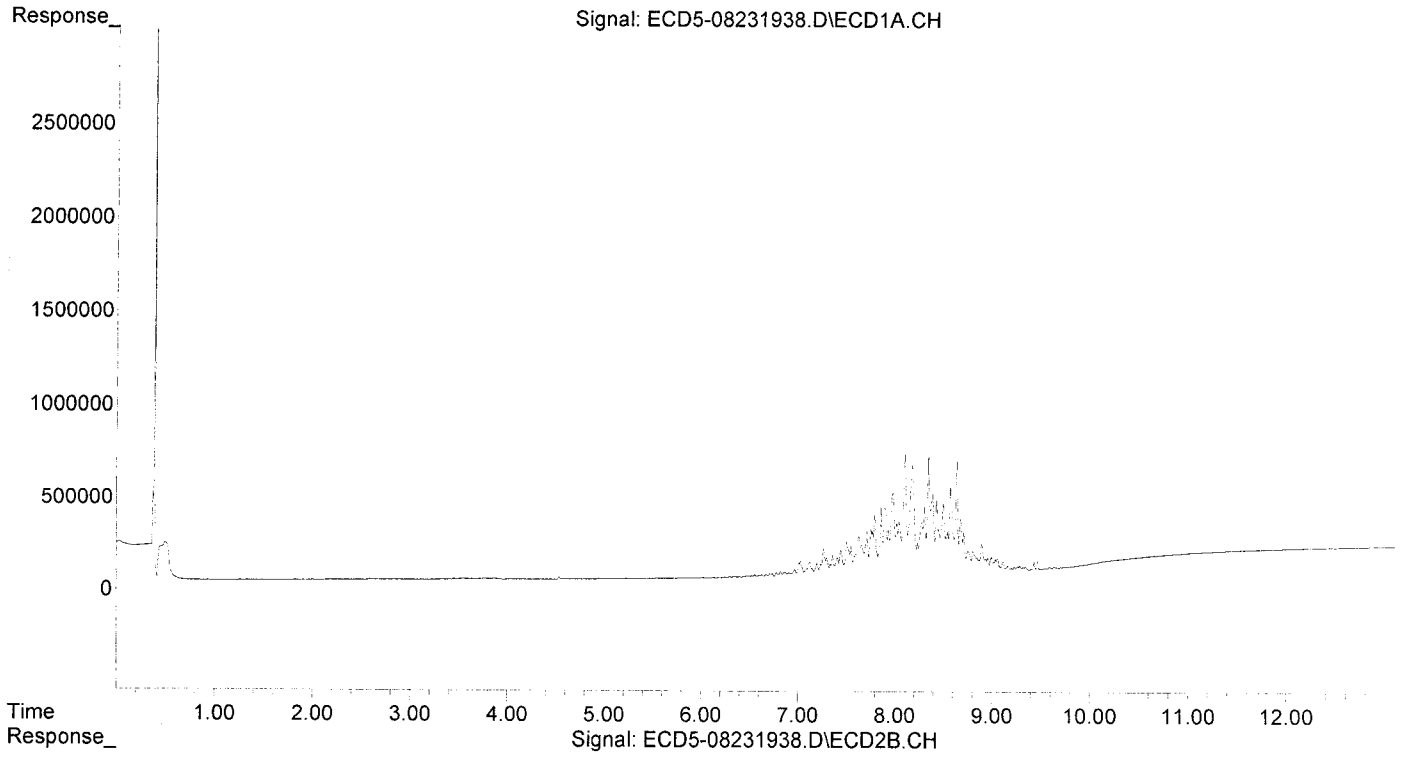
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.502	8.466	176047	508983	247.240	244.968
37)		Toxaphene...	7.795	8.812	317587	645322	241.821	263.525
38)		Toxaphene...	8.105	8.847	644464	995555	237.409	261.857
39)		Toxaphene...	8.346	8.914	632351	1580436	249.049	247.779
40)		Toxaphene...	8.574	9.090	454431	895397	239.867	253.371
41)		Toxaphene...	8.640	9.469	597991	905244	253.740	263.952
42)		Toxaphene...	3.451	0.000	3919	0	NoCal	N.D.

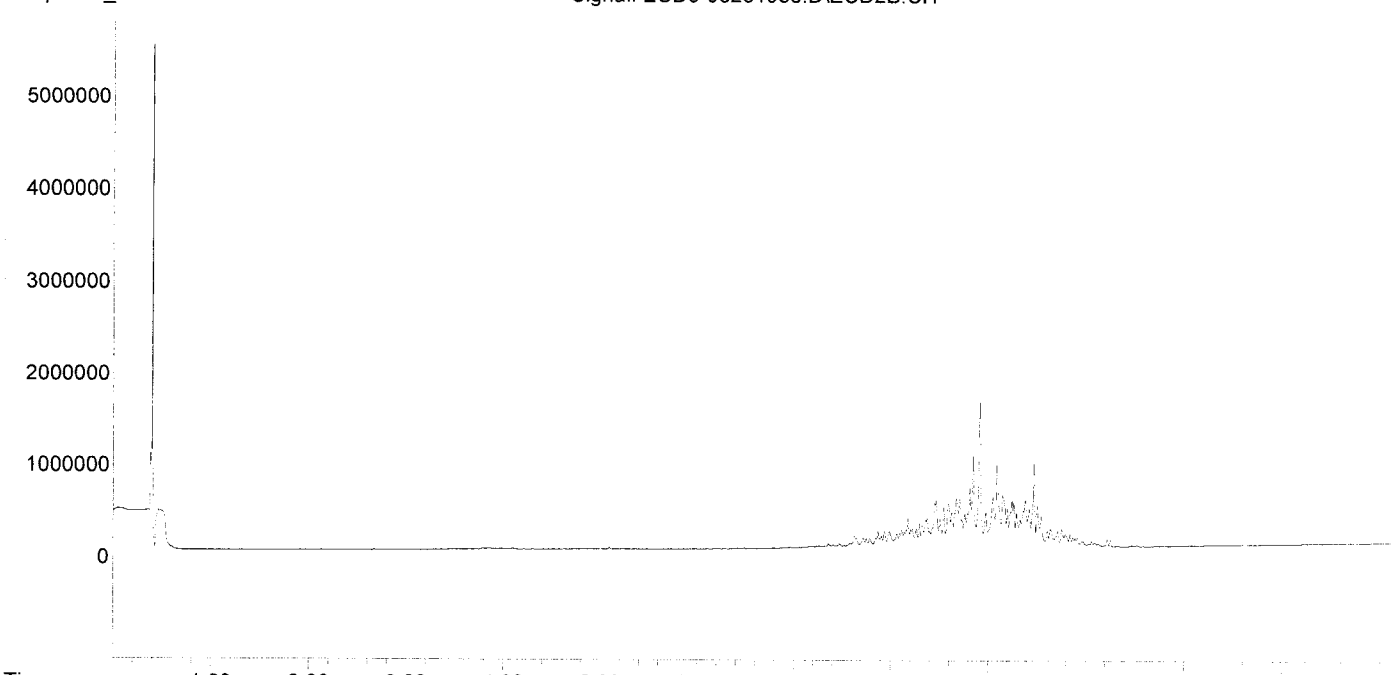
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231938.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:28
Operator : MJB
Sample : 9H23034-CALP
Misc : A19D124, TOX 200 ppb
ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:39:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231939.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:45
Operator : MJB
Sample : 9H23034-CALQ
Misc : A19D125, TOX 500 ppb
ALS Vial : 32 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:36:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

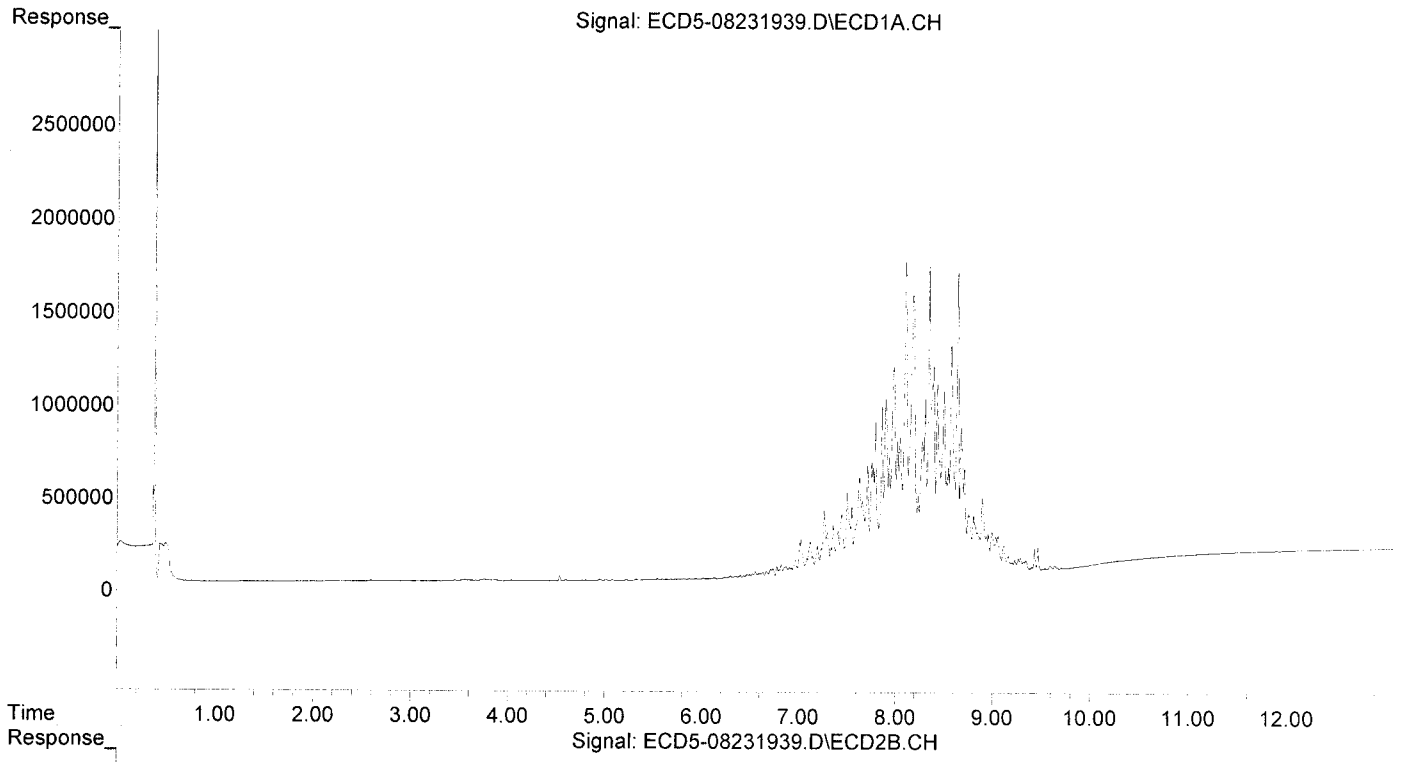
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.502	8.466	441826	1308994	620.497	630.004
37)		Toxaphene...	7.794	8.812	819454	1647741	623.958	672.874
38)		Toxaphene...	8.105	8.848	1677481	2475022	617.954	650.997
39)		Toxaphene...	8.346	8.915	1649569	4252640	649.677	666.725
40)		Toxaphene...	8.574	9.091	1221560	2340668	644.788	662.340
41)		Toxaphene...	8.640	9.470	1623402	2369795	607.400	652.719
42)		Toxaphene...	3.450	0.000	4132	0	NoCal	N.D.

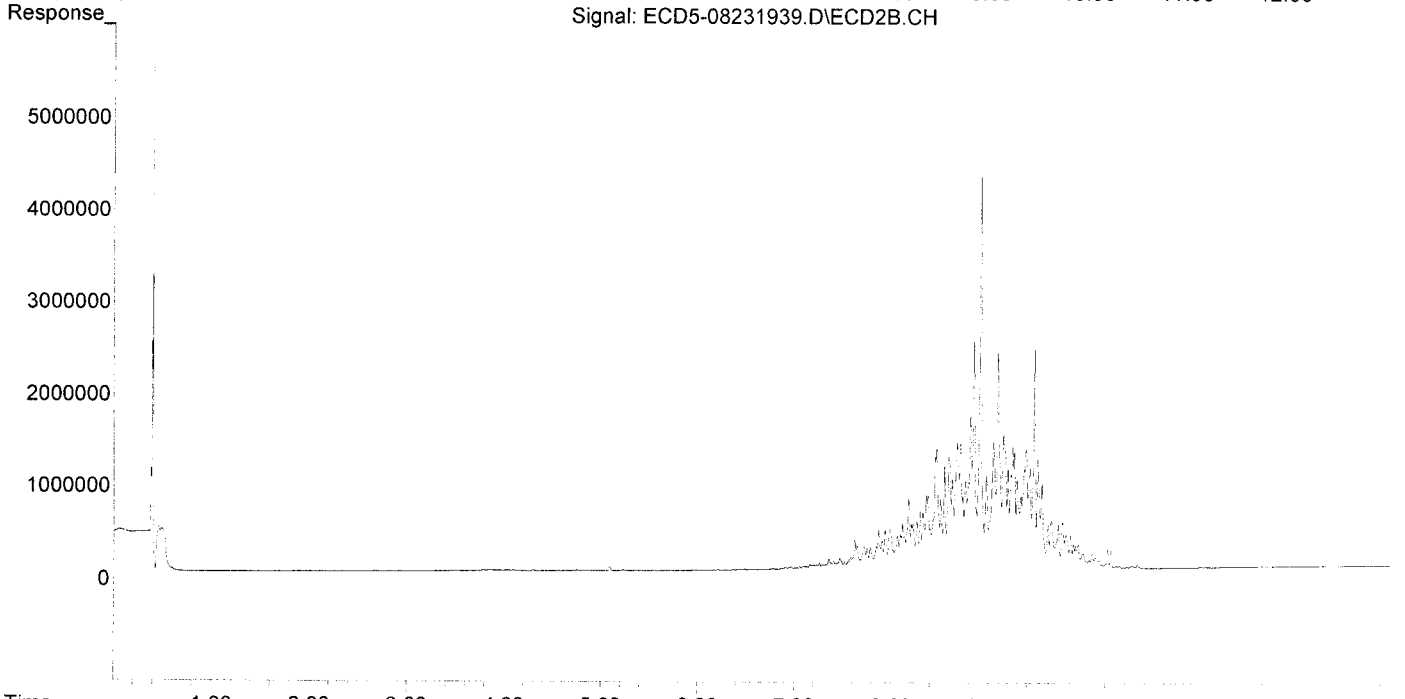
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231939.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:45
Operator : MJB
Sample : 9H23034-CALQ
Misc : A19D125, TOX 500 ppb
ALS Vial : 32 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:36:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231940.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:03
Operator : MJB
Sample : 9H23034-CALR
Misc : A19D126, TOX 1000 ppb
ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:40:10 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

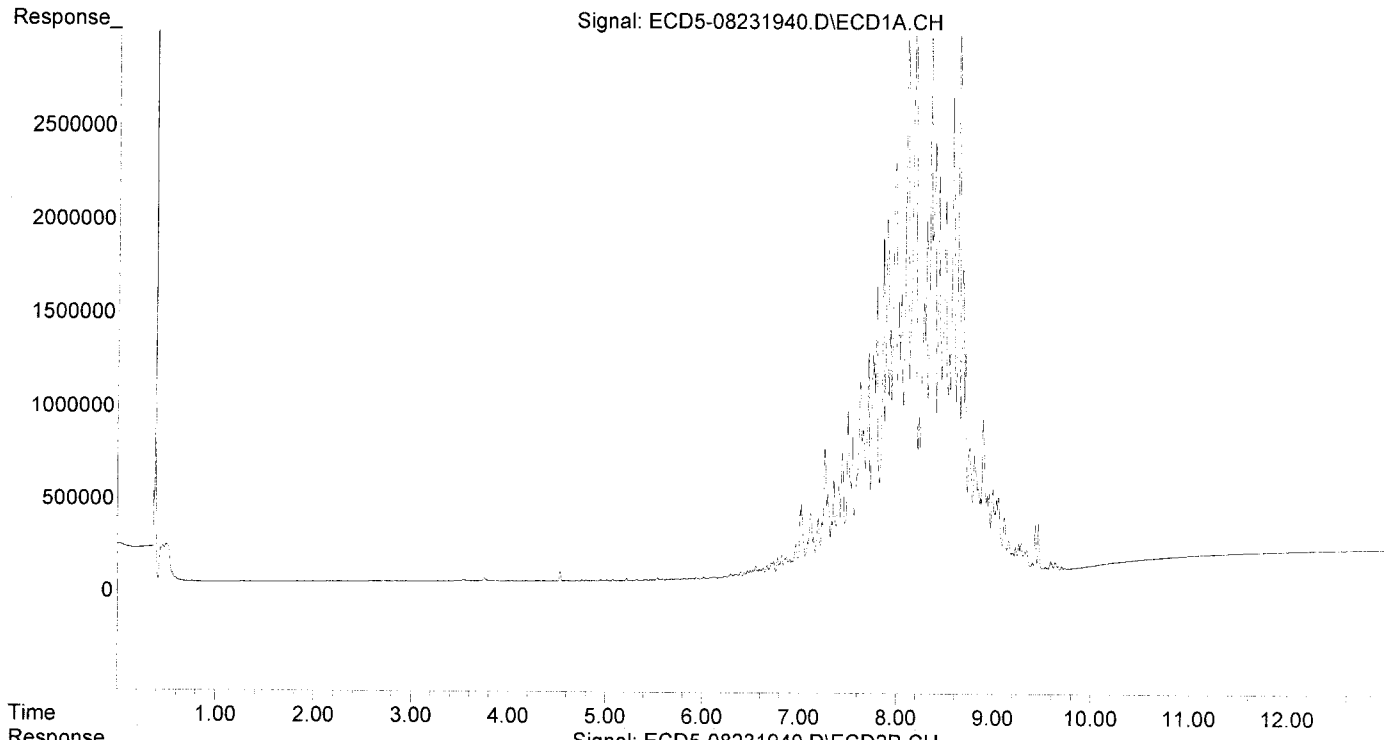
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.501	8.467	871889	2654886	1224.474	1277.768
37)		Toxaphene...	7.793	8.813	1556013	3384036	1184.797	1381.910
38)		Toxaphene...	8.105	8.848	3495877	5168269	1287.817	1359.392
39)		Toxaphene...	8.345	8.915	3287014	8650068	1294.579	1356.150
40)		Toxaphene...	8.573	9.091	2546293	4900430	1344.035	1386.677
41)		Toxaphene...	8.640	9.470	3406737	5046645	1274.639	1281.306
42)		Toxaphene...	3.451	0.000	2687	0	NoCal	N.D.

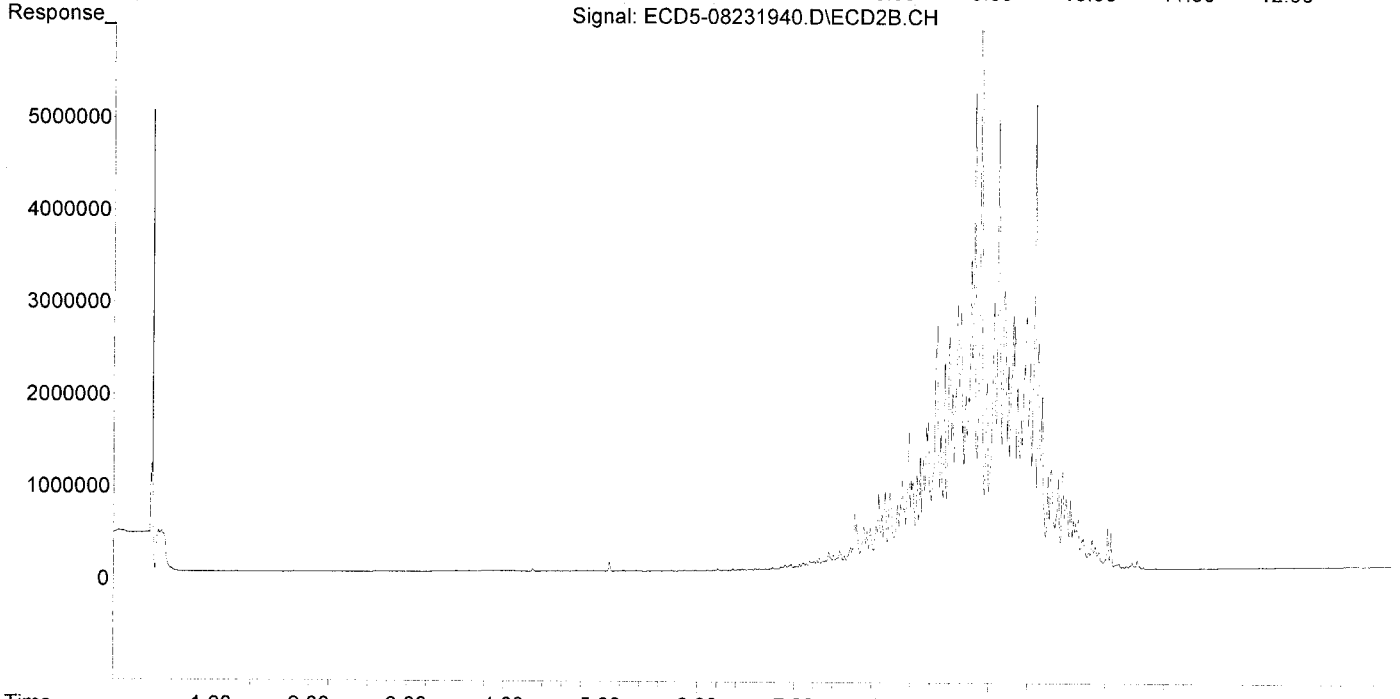
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231940.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:03
Operator : MJB
Sample : 9H23034-CALR
Misc : A19D126, TOX 1000 ppb
ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:40:10 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231941.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:20
Operator : MJB
Sample : 9H23034-CALS
Misc : A19D121, TOX 2000 ppb
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:40:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/20/19

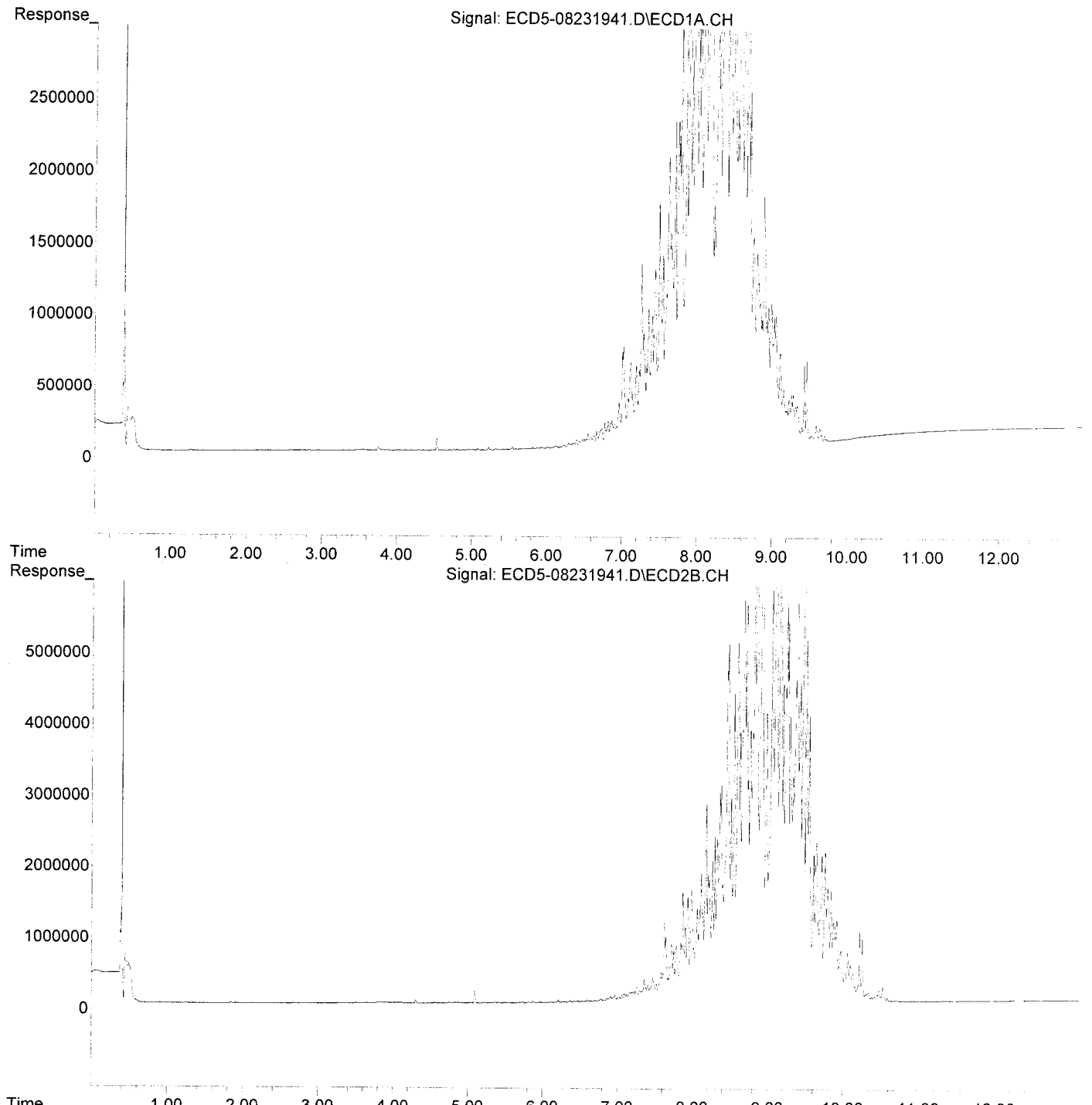
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.500	8.466	1674674	5030917	2351.899	2421.326
37)		Toxaphene...	7.792	8.813	2958997	6610397	2253.073	2699.433
38)		Toxaphene...	8.104	8.848	6831460	10545708	2516.585	2773.802
39)		Toxaphene...	8.345	8.914	6407070	17190037	2523.403	2695.039
40)		Toxaphene...	8.572	9.091	5074570	9435236	2678.561	2669.893
41)		Toxaphene...	8.640	9.471	6510950	10090951	2436.088	2281.169
42)		Toxaphene...	3.452	0.000	4166	0	NoCal	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231941.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:20
Operator : MJB
Sample : 9H23034-CALS
Misc : A19D121, TOX 2000 ppb
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:40:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Semivolatile Organic Compounds by EPA 8270D
Benchsheet & Analysis Sequence Data

Batch 9120484
Sequence 9L05023 (A9K0609-01RE1)

Apex Laboratories

PREPARATION BENCH SHEET

DEC 0 9 2019

BATCH #: 9120484 (Soil)

Prep Method: EPA 1311/3510C (BNA Extraction)

#	Lab Number		Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9120484-BLK1		QC	12/04/19 11:10	200	2				100					
	9120484-BSD1		QC	12/04/19 11:10	200	2	A19K302		100	100					
	9120484-BS1		QC	12/04/19 11:10	200	2	A19K302		100	100					
	A9K0609-01	A	1311/8270D TCLP SVOC Reg List	12/04/19 11:10	200	2				100	PDI-138RAB-C-00-19.1-191118				
	A9K0609-01RE1	A	1311/8270D TCLP SVOC Reg List	12/04/19 11:10	200	2				100	PDI-138RAB-C-00-19.1-191118	Added 12/5/2019 By ams			
	A9K0609-02	A	1311/8270D TCLP SVOC Reg List	12/04/19 11:10	200	2				100	PDI-144RAB-C-00-29-191114				
	A9K0609-02RE1	A	1311/8270D TCLP SVOC Reg List	12/04/19 11:10	200	2				100	PDI-144RAB-C-00-29-191114	Added 12/5/2019 By ams			
	A9K0695-01	A	1311/8270D TCLP SVOC Reg List	12/04/19 11:10	200	2				100	PDI-134RAB-C-00-25.5-191120				
	A9K0695-02	A	1311/8270D TCLP SVOC Reg List	12/04/19 11:10	200	2				100	PDI-136RAB-C-00-13.4-191119				
	A9K0695-02RE1	A	1311/8270D TCLP SVOC Reg List	12/04/19 11:10	200	2				100	PDI-136RAB-C-00-13.4-191119	Added 12/5/2019 By ams			

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A18K311	12/31/20	Glass Wool
A19H399	08/23/21	Conc. HCl - Omnitrace
A19I263	03/18/20	DCM CHEM PROD. 194934
A19I297	03/22/20	6N Sodium Hydroxide
A19K010	10/29/25	Sodium Sulfate Lot # 188777

Analyte Spike(s)

Std ID	Exp. Date	Description
A19K302	05/19/20	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s)

Std ID	Exp. Date	Description
A19K359	05/24/20	PAH Soil and Water Surr. (50ppm)

3x rinse

Witness: _____

Bottle Check: _____

Prepared By: _____ Date _____

Reviewed By: AMS Date 12/5/19

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9120484 (Soil)

Prep Method: EPA 1311/3510C (BNA Extraction)

#	Lab Number		Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9120484-BLK1		QC	12/04/19 11:10	200	2				100			✓		✓
	9120484-BSD1		QC	12/04/19 11:10	200	2	A19K302		100	100			✓		✓
	9120484-BS1		QC	12/04/19 11:10	200	2	A19K302		100	100			✓		✓
	A9K0609-01	A	1311/8270D TCLP SVOC Reg List	12/04/19 11:10	200	2				100	PDI-138RAB-C-00-19.1-191118		✓		✓
	A9K0609-02	A	1311/8270D TCLP SVOC Reg List	12/04/19 11:10	200	2				100	PDI-144RAB-C-00-29-191114		✓		✓
	A9K0695-01	A	1311/8270D TCLP SVOC Reg List	12/04/19 11:10	200	2				100	PDI-134RAB-C-00-25.5-191120		✓		✓
	A9K0695-02	A	1311/8270D TCLP SVOC Reg List	12/04/19 11:10	200	2				100	PDI-136RAB-C-00-13.4-191119		✓		✓

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A18K311	12/31/20	Glass Wool
A19H399	08/23/21	Conc. HCl - Omnitrace
A19I263	03/18/20	DCM CHEM PROD. 194934
A19I297	03/22/20	6N Sodium Hydroxide
A19K010	10/29/25	Sodium Sulfate Lot # 188777

Analyte Spike(s) am

Std ID	Exp. Date	Description
A19K302	05/19/20	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s) am

Std ID	Exp. Date	Description
A19K359	05/24/20	PAH Soil and Water Surr. (50ppm)

3x rinse ✓ am 12.04.19

Witness: NOT 12-4-19

Bottle Check: N/A am 12.04.19

am 12.04.19
Prepared By: Date

AMS 12/5/19
Reviewed By: Date

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9L05023**	Instrument:	**SV-GCMS9**
Date:	**12/05/19 08:06**	Calibration:	**A9L0505**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9L05023-TUN1	Water	QC	QC			A19I086	A19K329
2	9L05023-CCV1	Water	QC	QC			A19I086	A19G243
3	9L05023-CCB1	Water	QC	QC			A19I086	
4	A9K0609-01RE1	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	12/04/19	9120484	A19I086	
5	A9K0609-02RE1	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	12/04/19	9120484	A19I086	
6	A9K0695-02RE1	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	12/06/19	9120484	A19I086	
7	9L05023-IBL1	Water	QC	QC			A19I086	
8	9120554-BLK1	Water	QC	QC		9120554	A19I086	
9	A9L0098-01RE1	Water	8270D LL Full List		12/05/19	9120554	A19I086	
10	9L05023-IBL2	Water	QC	QC			A19I086	
11	9120574-BLK1	Water	QC	QC		9120574	A19I086	
12	A9L0098-01RE2	Water	8270D LL Full List		12/05/19	9120574	A19I086	
13	9L05023-IBL3	Water	QC	QC			A19I086	

Data Entered By: AMS 12/5/19 Comments:

Data Reviewed By: 12/5/19

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9L05023**	Instrument:	**SV-GCMS9**
Date:	**12/05/19 08:06**	Calibration:	**A9L0505**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9L05023-TUN1	Water	QC	QC			A19I086	A19K329
2	9L05023-CCV1	Water	QC	QC			A19I086	A19G243
3	9L05023-CCB1	Water	QC	QC			A19I086	
4	A9K0609-01RE1	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	12/04/19	9120484	A19I086	
5	A9K0609-02RE1	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	12/04/19	9120484	A19I086	
6	A9K0695-02RE1	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	12/06/19	9120484	A19I086	
7	9L05023-IBL1	Water	QC	QC			A19I086	
8	9120554-BLK1	Water	QC	QC		9120554	A19I086	
9	A9L0098-01RE1	Water	8270D LL Full List		12/05/19	9120554	A19I086	
10	9L05023-IBL2	Water	QC	QC			A19I086	

Partial

Data Entered By: AMS 12/5/19

Data Reviewed By: JD 12/5/19

Comments:

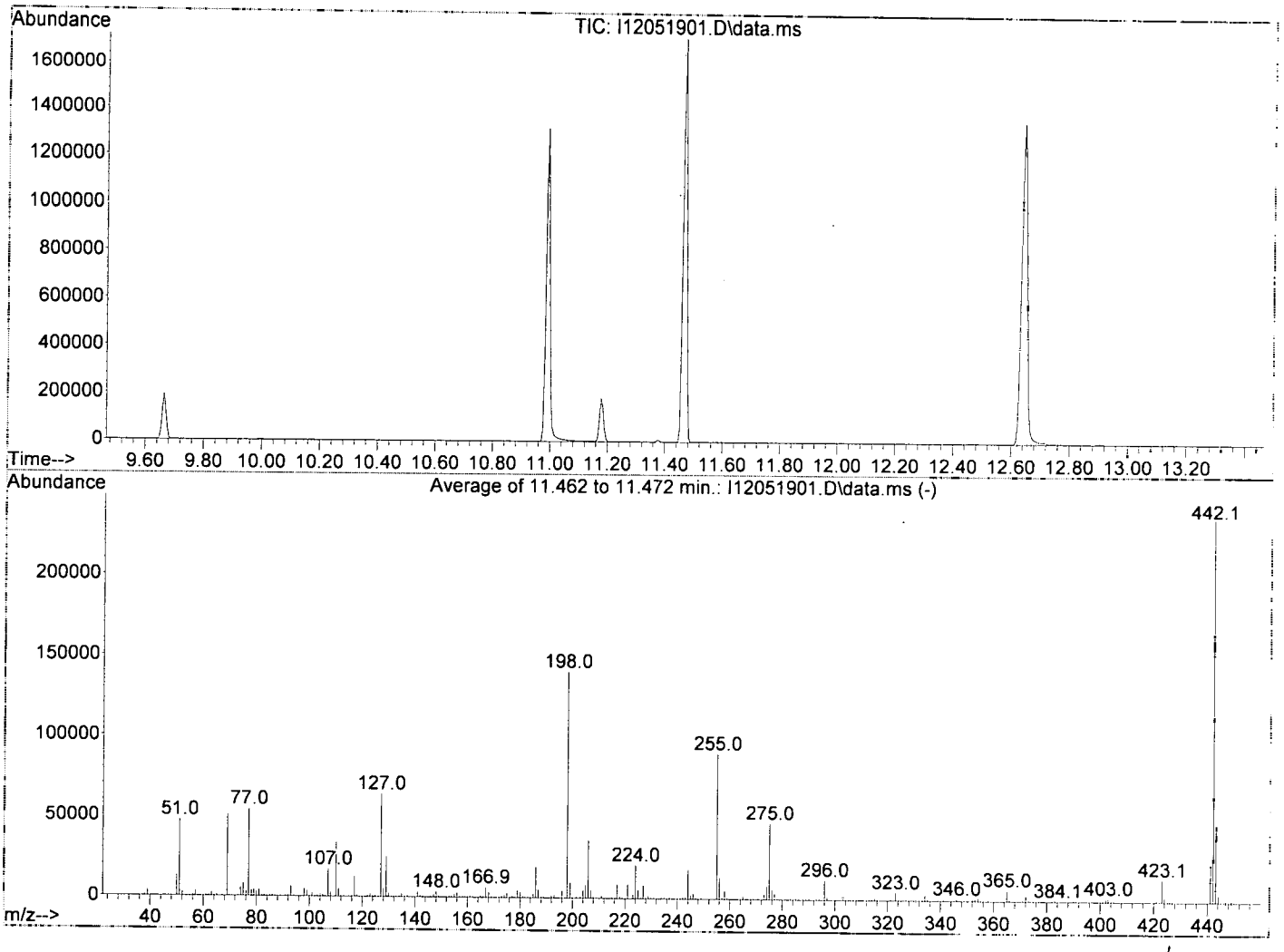
DFTPP

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051901.D
Acq On : 5 Dec 2019 8:13 am
Operator : JK /AMS /DTH
Sample : 9L05023-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

AMS 12/5/19

Integration File: rteint.p

Method : C:\msdchem\1\methods\DFTPP.M
Title : DFTPP Tune Methodug/mL
Last Update : Wed Dec 04 09:09:00 2019



AutoFind: Scans 1491, 1492, 1493; Background Corrected with Scan 1485

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	50635	PASS
70	69	0.00	2	0.5	233	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	140125	PASS
199	198	5	9	6.8	9569	PASS
365	198	1	100	4.8	6782	PASS
441	443	0.01	150	48.1	22805	PASS
442	198	0.10	200	168.9	236608	PASS
443	442	15	24	20.0	47405	PASS

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051901.D
Acq On : 5 Dec 2019 8:13 am
Operator : JK /AMS /DTH
Sample : 9L05023-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Dec 05 12:37:22 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Dec 04 09:09:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9

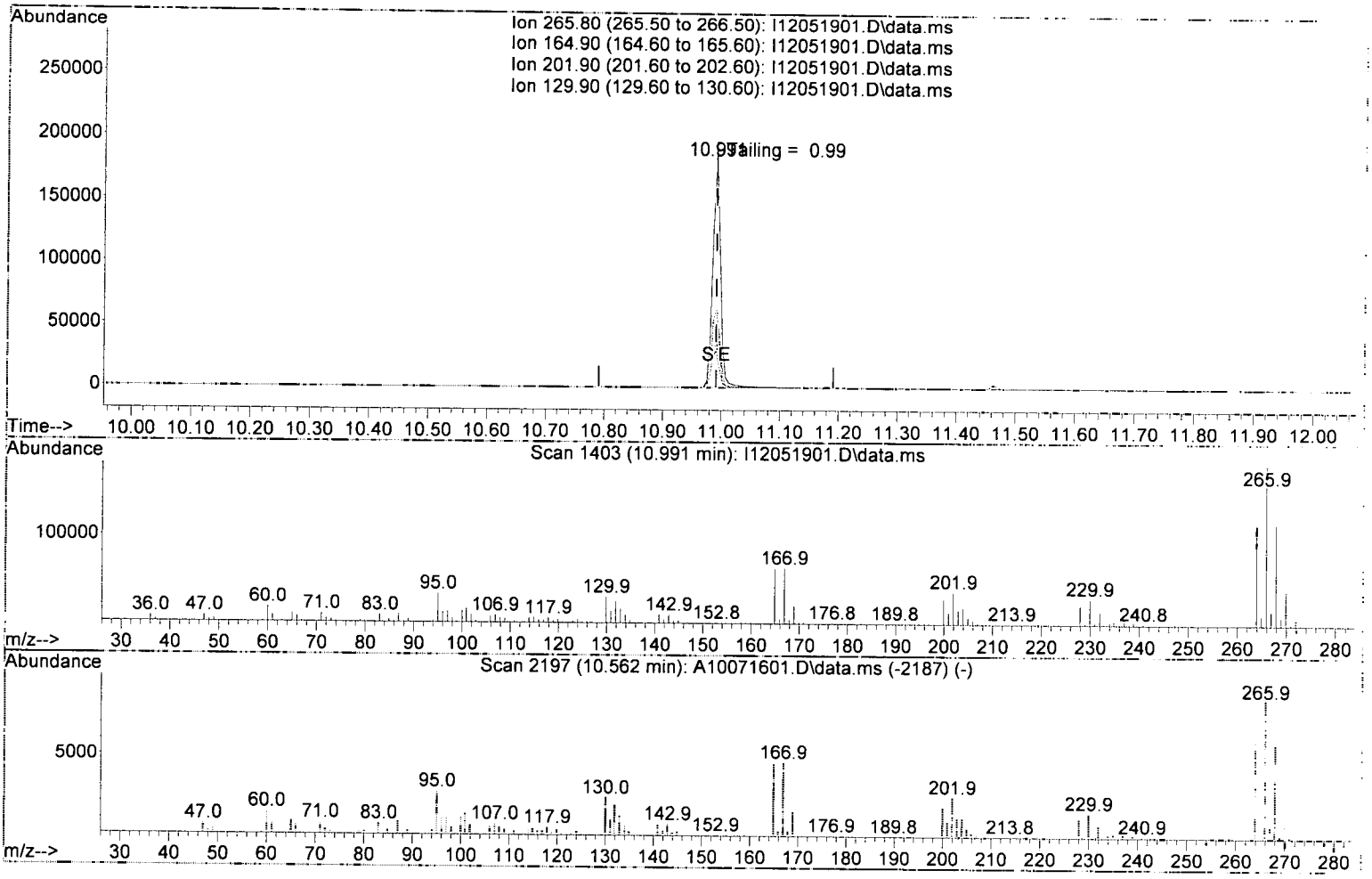
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.883	136	81661	2.00	ug/mL	0.00
2) Acenaphthene-d10	9.665	162	39361	2.00	ug/mL	0.00
4) Phenanthrene-d10	11.178	188	67916	2.00	ug/mL	0.00
10) Chrysene-d12	14.901	240	54502	2.00	ug/mL	0.00
11) Perylene-d12	16.997	264	45326	2.00	ug/mL	0.03
Target Compounds						Qvalue
3) Pentachlorophenol	10.991	266	170998	38.72	ug/mL	84
5) DFTPP	11.467	442	263683	46.18	ug/mL#	67
6) Benzidine	12.644	184	734659	35.93	ug/mL	90
7) 4,4-DDE	12.906	TIC	3560	No Calib	#	
8) 4,4-DDD	13.478	TIC	4774	1.70	ug/mL#	1
9) 4,4-DDT	13.986	TIC	2086674	36.46	ug/mL#	1

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051901.D
Acq On : 5 Dec 2019 8:13 am
Operator : JK /AMS /DTH
Sample : 9L05023-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Dec 05 12:37:22 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Dec 04 09:09:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I12051901.D\data.ms

(3) Pentachlorophenol

10.991min (-0.000) 38.72 ug/mL

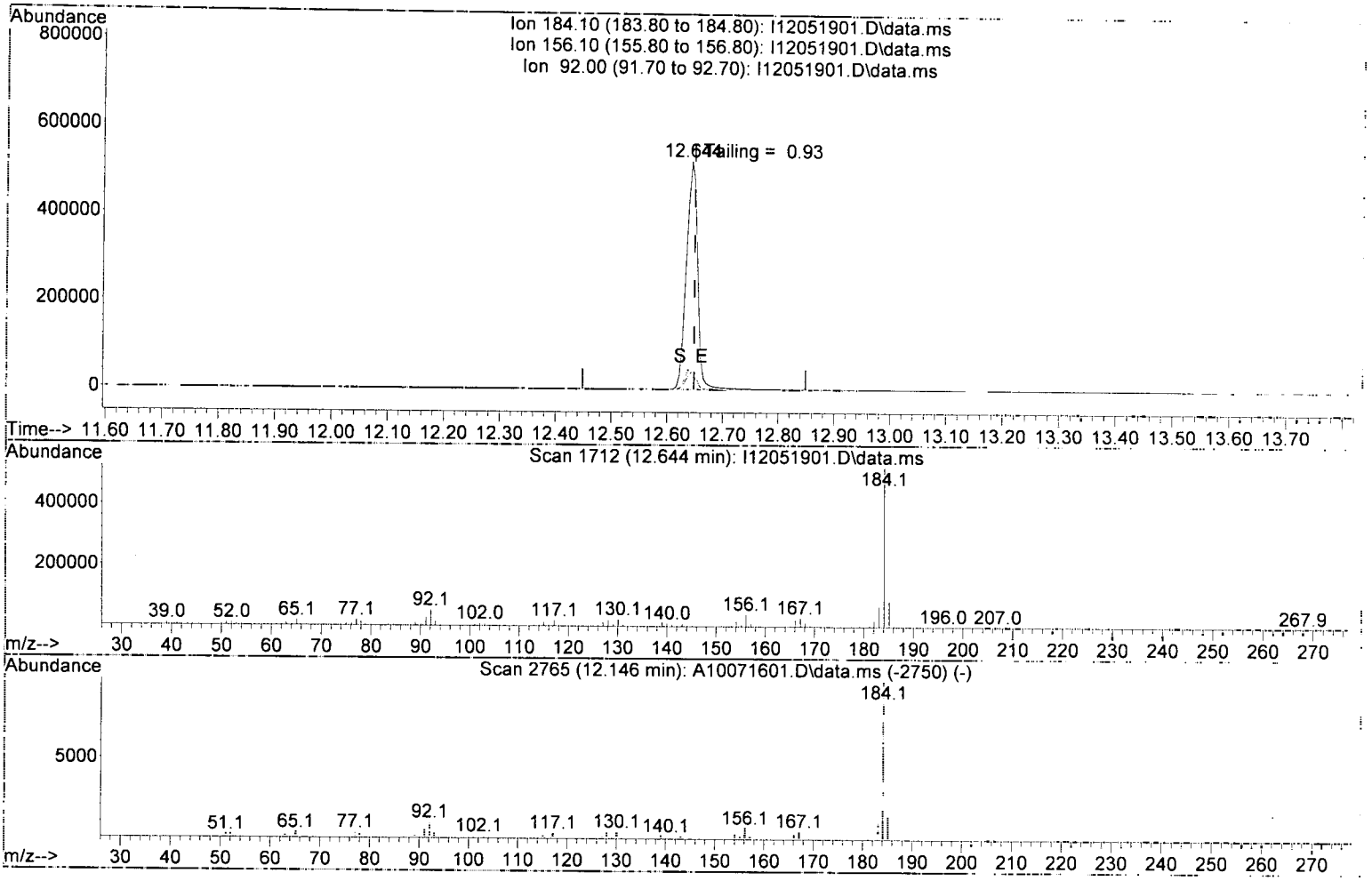
response 170998

Ion	Exp%	Act%
265.80	100.00	100.00
164.90	47.40	34.60
201.90	26.10	20.25
129.90	22.80	16.42

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051901.D
Acq On : 5 Dec 2019 8:13 am
Operator : JK /AMS /DTH
Sample : 9L05023-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Dec 05 12:37:22 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Dec 04 09:09:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I12051901.D\data.ms

(6) Benzidine

12.644min (-0.005) 35.93 ug/mL

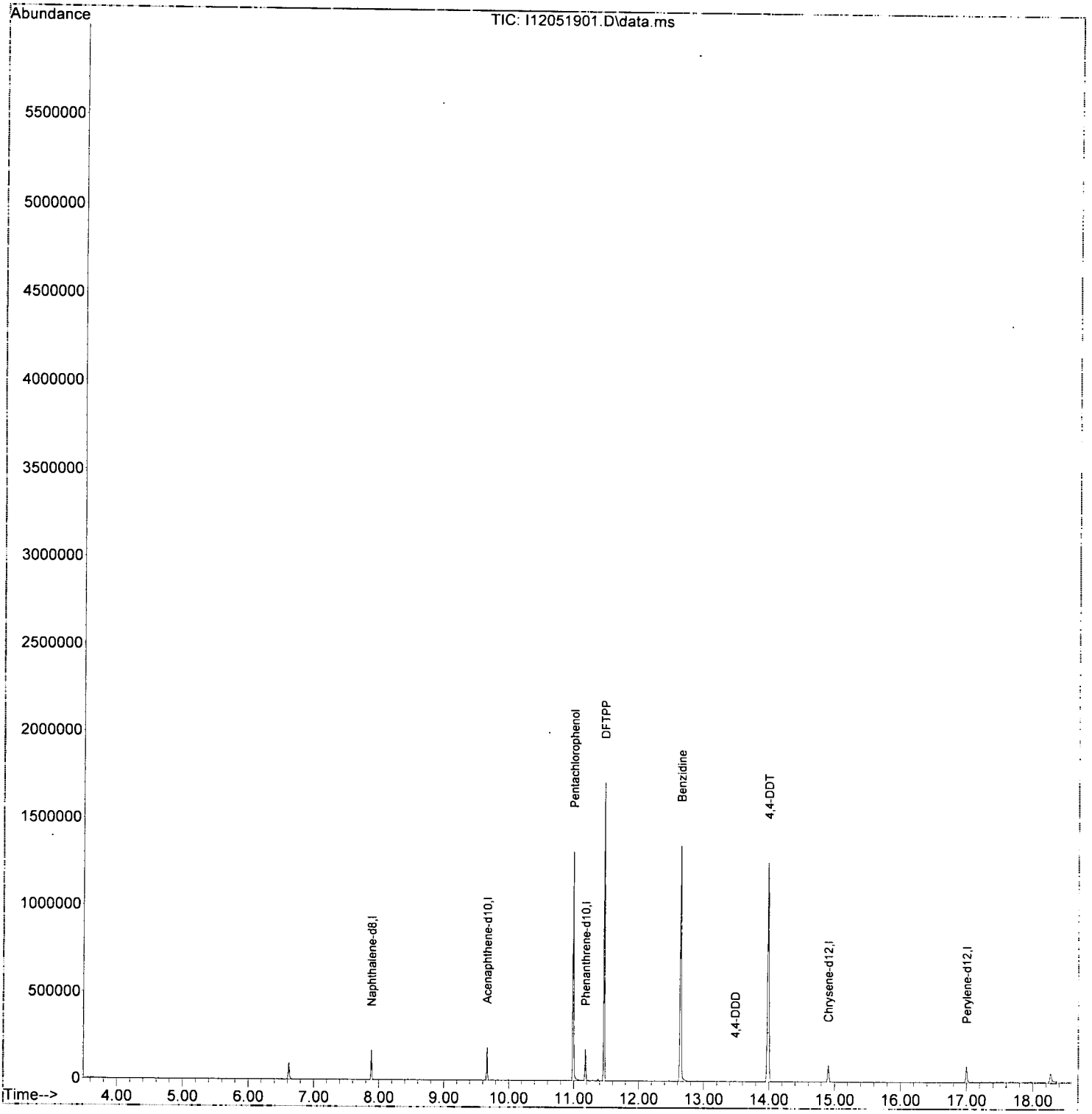
response 734659

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	9.40	7.72
92.00	15.50	9.78
0.00	0.00	0.00

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051901.D
Acq On : 5 Dec 2019 8:13 am
Operator : JK /AMS /DTH
Sample : 9L05023-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Dec 05 12:37:22 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Dec 04 09:09:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051902.D
Acq On : 5 Dec 2019 8:40 am
Operator : JK /AMS /DTH
Sample : 9L05023-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 12:38:30 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

AMS 12/5/19 AMS 12/5/19

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (IST	2000.000	2000.000	0.0	86	0.00
2	T	N-Nitrosodimethylamine	1000.000	972.201	2.8	82	0.00
3	T	Pyridine	1000.000	1001.489	-0.1	81	0.00
4	S	2-Fluorophenol (Surr)	1000.000	1000.843	-0.1	87	0.00
5	S	Phenol-d6 (Surr)	1000.000	1041.925	-4.2	83	0.00
6	T	Phenol	1000.000	1062.024	-6.2	83	0.00
7	T	Aniline	1000.000	1064.145	-6.4	81	0.00
8	T	Bis(2-chloroethyl) ether	1000.000	961.182	3.9	81	0.00
9	T	2-Chlorophenol	1000.000	1079.312	-7.9	85	0.00
10	T	1,3-Dichlorobenzene	1000.000	1058.474	-5.8	88	0.00
11	T	1,4-Dichlorobenzene	1000.000	1056.521	-5.7	88	0.00
12	T	Benzyl alcohol	1000.000	875.703	12.4	80	0.00
13	T	1,2-Dichlorobenzene	1000.000	1025.479	-2.5	85	0.00
14	T	2-Methylphenol	1000.000	1075.094	-7.5	85	0.00
15	T	2,2'-Oxybis(1-Chloropropane	1000.000	867.380	13.3	75	0.00
16	T	N-Nitrosodi-n-propylamine	1000.000	1043.585	-4.4	83	0.00
17	T	3+4-Methylphenol	1000.000	1102.998	-10.3	85	0.00
18	T	Hexachloroethane	1000.000	1091.289	-9.1	92	0.00
19	S	Nitrobenzene-d5 (Surr)	1000.000	1036.559	-3.7	82	0.00
20	T	Nitrobenzene	1000.000	1037.572	-3.8	82	0.00
21	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	86	0.00
22	T	Isophorone	1000.000	1016.574	-1.7	82	0.00
23	T	2-Nitrophenol	1000.000	1086.037	-8.6	85	0.00
24	T	2,4-Dimethylphenol	1000.000	1066.524	-6.7	85	0.00
25	T	Bis(2-chloroethoxy) methane	1000.000	1033.539	-3.4	83	0.00
26	T	Benzoic acid	2000.000	2018.440	-0.9	104	0.00
27	T	2,4-Dichlorophenol	1000.000	1099.221	-9.9	88	0.00
28	T	1,2,4-Trichlorobenzene	1000.000	1054.222	-5.4	87	0.00
29	T	Naphthalene	1000.000	1043.169	-4.3	87	0.00
30	T	4-Chloroaniline	1000.000	1153.854	-15.4	88	0.00
31	T	Hexachlorobutadiene	1000.000	1051.798	-5.2	87	0.00
32	T	4-Chloro-3-methylphenol	1000.000	1004.268	-0.4	84	0.00
33	T	2-Methylnaphthalene	1000.000	1062.297	-6.2	87	0.00
34	T	1-Methylnaphthalene	1000.000	1052.057	-5.2	87	0.00
35	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	87	0.00
36	T	Hexachlorocyclopentadiene	1000.000	1135.135	-13.5	91	0.00
37	T	2,4,6-Trichlorophenol	1000.000	1046.937	-4.7	87	0.00
38	T	2,4,5-Trichlorophenol	1000.000	1077.981	-7.8	89	0.00
39	T	1,1'-Biphenyl	1000.000	1086.068	-8.6	88	0.00
40	S	2-Fluorobiphenyl (Surr)	1000.000	1085.143	-8.5	89	0.00
41	T	2-Chloronaphthalene	1000.000	1085.989	-8.6	89	0.00
42	T	2-Nitroaniline	1000.000	1042.112	-4.2	88	0.00
43	T	2,6-Dimethylnaphthalene	1000.000	1096.481	-9.6	89	0.00
44	T	1,4-Dinitrobenzene	1000.000	1071.521	-7.2	92	0.00
45	T	Dimethyl phthalate	1000.000	1102.193	-10.2	89	0.00
46	T	1,3-Dinitrobenzene	1000.000	1082.987	-8.3	91	0.00
47	T	2,6-Dinitrotoluene	1000.000	1130.211	-13.0	89	0.00
48	T	1,2-Dinitrobenzene	1000.000	1040.082	-4.0	85	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051902.D
Acq On : 5 Dec 2019 8:40 am
Operator : JK /AMS /DTH
Sample : 9L05023-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 12:38:30 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	Acenaphthylene	1000.000	1114.058	-11.4	87	0.00
50	T	3-Nitroaniline	1000.000	1157.595	-15.8	87	0.00
51	T	Acenaphthene	1000.000	1052.345	-5.2	88	0.00
52	T	2,4-Dinitrophenol	1000.000	1065.034	-6.5	108	0.00
53	T	4-Nitrophenol	1000.000	1026.160	-2.6	89	0.00
54	T	2,4-Dinitrotoluene	1000.000	1039.368	-3.9	90	0.00
55	T	Dibenzofuran	1000.000	1084.143	-8.4	88	0.00
56	T	2,3,5,6-Tetrachlorophenol	1000.000	1095.475	-9.5	89	0.00
57	T	2,3,4,6-Tetrachlorophenol	1000.000	1071.357	-7.1	90	0.00
58	T	Diethyl phthalate	1000.000	1108.499	-10.8	87	0.00
59	T	2,3,5-Trimethylnaphthalene	1000.000	1080.280	-8.0	88	0.00
60	T	Fluorene	1000.000	1107.313	-10.7	89	0.00
61	T	4-Chlorophenyl phenyl ether	1000.000	1057.362	-5.7	89	0.00
62	T	4-Nitroaniline	1000.000	1106.156	-10.6	92	0.00
63	T	4,6-Dinitro-2-methylphenol	1000.000	1057.662	-5.8	100	0.00
64	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	88	0.00
65	T	N-Nitrosodiphenylamine	1000.000	1111.373	-11.1	88	0.00
66	T	Azobenzene (1,2-DPH)	1000.000	1028.989	-2.9	82	0.00
67	S	2,4,6-Tribromophenol (Surr)	1000.000	1054.478	-5.4	90	0.00
68	T	4-Bromophenyl phenyl ether	1000.000	1065.382	-6.5	88	0.00
69	T	Hexachlorobenzene	1000.000	1051.790	-5.2	90	0.00
70	T	Pentachlorophenol (PCP)	1000.000	1141.938	-14.2	100	0.00
71	T	Phenanthrene	1000.000	1044.499	-4.4	88	0.00
72	T	Anthracene	1000.000	1128.723	-12.9	89	0.00
73	T	Carbazole	1000.000	1056.499	-5.6	90	0.00
74	T	Di-n-butyl phthalate	1000.000	1148.597	-14.9	88	0.00
75	T	Fluoranthene	1000.000	1160.387	-16.0	89	0.00
76	T	Benzidine	2000.000	2088.617	-4.4	87	0.00
77	T	Pyrene	1000.000	1163.306	-16.3	90	0.00
78	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	90	0.00
79	S	Terphenyl-d14 (Surr)	1000.000	1071.468	-7.1	90	0.00
80	T	Butyl benzyl phthalate	1000.000	966.077	3.4	88	0.00
81	T	Bis(2-ethylhexyl) adipate	1000.000	942.432	5.8	85	0.00
82	T	3,3-Dichlorobenzidine	2000.000	1828.101	8.6	87	0.00
83	T	Benz(a)anthracene	1000.000	1066.837	-6.7	91	0.00
84	T	Chrysene	1000.000	1014.024	-1.4	89	0.00
85	T	Bis(2-ethylhexyl) phthalate	1000.000	999.279	0.1	89	0.00
86	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	91	0.00
87	T	Di-n-octyl phthalate	1000.000	910.583	8.9	83	0.00
88	T	Benzo(b)fluoranthene	1000.000	1078.811	-7.9	89	0.00
89	T	Benzo(k)fluoranthene	1000.000	1081.505	-8.2	90	0.00
90	T	Benzo(b+k)fluoranthene	2000.000	2150.891	-7.5	90	0.00
91	T	Benzo(e)pyrene	1000.000	1087.807	-8.8	90	0.00
92	T	Benzo(a)pyrene	1000.000	1107.138	-10.7	90	0.00
93	T	Perylene	1000.000	1029.027	-2.9	91	0.00
94	I	Dibenz(a,h)Anthrcene-d14 (I	2000.000	2000.000	0.0	89	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051902.D
Acq On : 5 Dec 2019 8:40 am
Operator : JK /AMS /DTH
Sample : 9L05023-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 12:38:30 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
95 T	Indeno(1,2,3-cd)pyrene	1000.000	1002.342	-0.2	88	0.00
96 T	Dibenz(a,h)anthracene	1000.000	1060.906	-6.1	90	0.00
97 T	Benzo(g,h,i)perylene	1000.000	1133.123	-13.3	90	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051902.D
Acq On : 5 Dec 2019 8:40 am
Operator : JK /AMS /DTH
Sample : 9L05023-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 12:38:30 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.621	152	69587	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	266639	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.665	162	128749	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.178	188	232930	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.986	240	234434	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.479	264	229583	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.881	292	191400	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.354	112	46334	1000.84	ng/ml	0.00
5) Phenol-d6 (Surr)	6.252	99	62665	1041.92	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.161	82	49231	1036.56	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.975	172	105812	1085.14	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.467	330	15329	1054.48	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.981	244	115196	1071.47	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.952	74	34811	972.20	ng/ml	93
3) Pyridine	3.984	79	57712	1001.49	ng/ml	94
6) Phenol	6.268	94	71023	1062.02	ng/ml	96
7) Aniline	6.295	93	73871	1064.15	ng/ml	98
8) Bis(2-chloroethyl) ether	6.354	93	53385	961.18	ng/ml	95
9) 2-Chlorophenol	6.418	128	52488	1079.31	ng/ml	93
10) 1,3-Dichlorobenzene	6.568	146	56770	1058.47	ng/ml	99
11) 1,4-Dichlorobenzene	6.637	146	55454	1056.52	ng/ml	98
12) Benzyl alcohol	6.750	108	26805	875.70	ng/ml	96
13) 1,2-Dichlorobenzene	6.792	146	53143	1025.48	ng/ml	97
14) 2-Methylphenol	6.857	107	40014	1075.09	ng/ml	100
15) 2,2'-Oxybis(1-Chloropr...	6.883	45	60300	867.38	ng/ml	88
16) N-Nitrosodi-n-propylamine	7.012	70	36956	1043.58	ng/ml	94
17) 3+4-Methylphenol	7.006	107	50911	1103.00	ng/ml	98
18) Hexachloroethane	7.129	201	16722	1091.29	ng/ml	97
20) Nitrobenzene	7.183	77	50177	1037.57	ng/ml	95
22) Isophorone	7.418	82	96631	1016.57	ng/ml	98
23) 2-Nitrophenol	7.504	139	26222	1086.04	ng/ml	90
24) 2,4-Dimethylphenol	7.536	122	40769	1066.52	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.627	93	57896	1033.54	ng/ml	99
26) Benzoic acid	7.621	105	24535	2018.44	ng/ml	95
27) 2,4-Dichlorophenol	7.739	162	38568	1099.22	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.830	180	46028	1054.22	ng/ml	97
29) Naphthalene	7.905	128	142868	1043.17	ng/ml	100
30) 4-Chloroaniline	7.953	127	52400	1153.85	ng/ml	96
31) Hexachlorobutadiene	8.039	225	23617	1051.80	ng/ml	99
32) 4-Chloro-3-methylphenol	8.434	107	37808	1004.27	ng/ml	97
33) 2-Methylnaphthalene	8.606	142	103536	1062.30	ng/ml	98
34) 1-Methylnaphthalene	8.707	142	96876	1052.06	ng/ml	99
36) Hexachlorocyclopentadiene	8.771	237	25816	1135.14	ng/ml	98
37) 2,4,6-Trichlorophenol	8.889	196	25675	1046.94	ng/ml	100
38) 2,4,5-Trichlorophenol	8.921	198	25959	1077.98	ng/ml	100
39) 1,1'-Biphenyl	9.076	154	118504	1086.07	ng/ml	98
41) 2-Chloronaphthalene	9.098	162	87644	1085.99	ng/ml	97
42) 2-Nitroaniline	9.194	138	26196	1042.11	ng/ml	87
43) 2,6-Dimethylnaphthalene	9.237	156	85950	1096.48	ng/ml	99

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051902.D
Acq On : 5 Dec 2019 8:40 am
Operator : JK /AMS /DTH
Sample : 9L05023-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

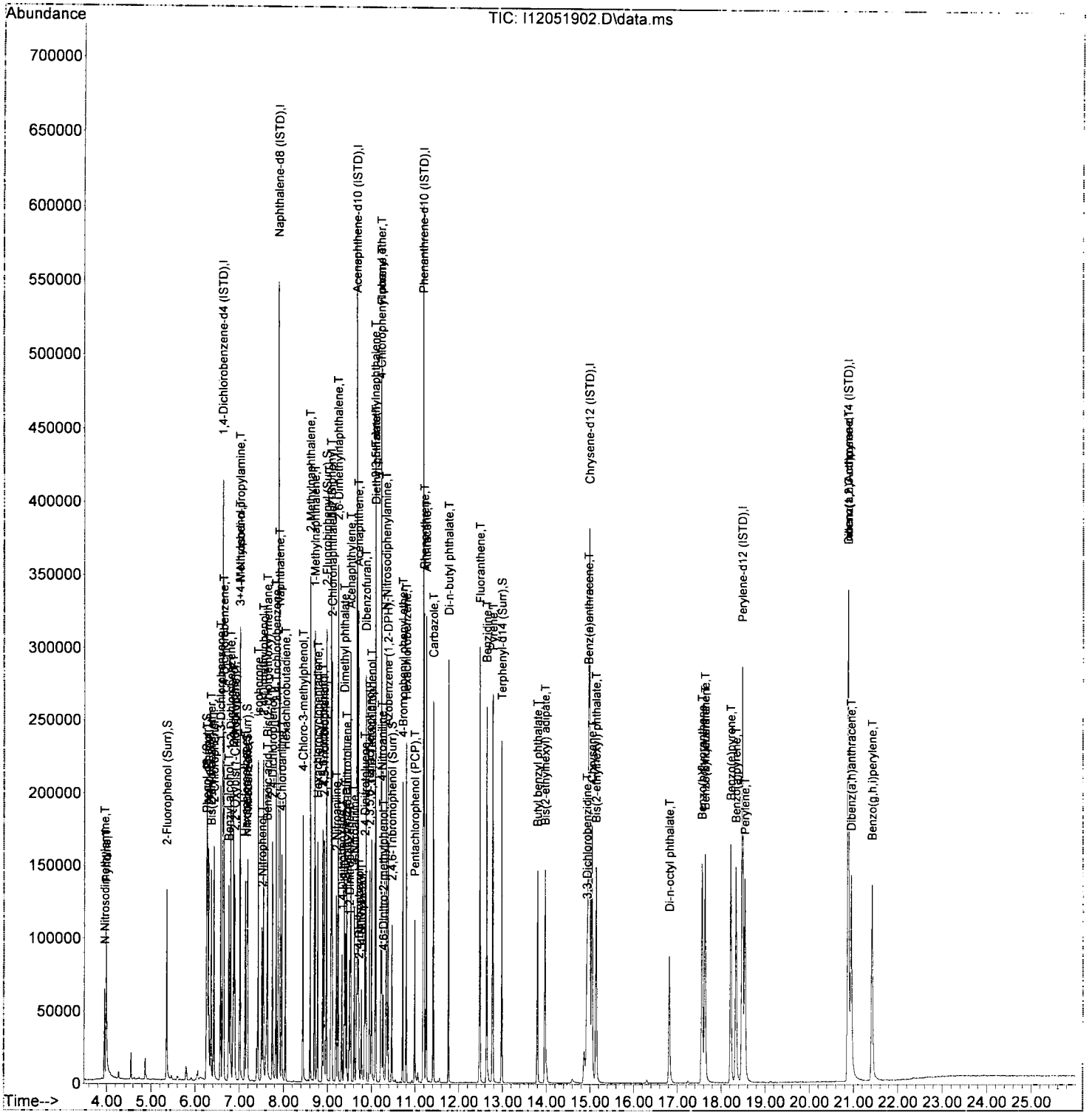
Quant Time: Dec 05 12:38:30 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.322	168	11523	1071.52	ng/ml	82
45)	Dimethyl phthalate	9.376	163	97253	1102.19	ng/ml	100
46)	1,3-Dinitrobenzene	9.402	168	14603	1082.99	ng/ml	92
47)	2,6-Dinitrotoluene	9.435	165	22288	1130.21	ng/ml	88
48)	1,2-Dinitrobenzene	9.493	168	10086	1040.08	ng/ml#	76
49)	Acenaphthylene	9.520	152	137829	1114.06	ng/ml	99
50)	3-Nitroaniline	9.606	138	21517	1157.60	ng/ml	99
51)	Acenaphthene	9.697	153	86641	1052.35	ng/ml	99
52)	2,4-Dinitrophenol	9.713	184	4622	1065.03	ng/ml	93
53)	4-Nitrophenol	9.772	139	13366	1026.16	ng/ml	94
54)	2,4-Dinitrotoluene	9.846	165	27156	1039.37	ng/ml	90
55)	Dibenzofuran	9.873	168	119745	1084.14	ng/ml	95
56)	2,3,5,6-Tetrachlorophenol	9.953	232	20136	1095.48	ng/ml	96
57)	2,3,4,6-Tetrachlorophenol	9.996	232	22425	1071.36	ng/ml	97
58)	Diethyl phthalate	10.092	149	88431	1108.50	ng/ml	99
59)	2,3,5-Trimethylnaphtha...	10.082	170	75744	1080.28	ng/ml	96
60)	Fluorene	10.221	166	93078	1107.31	ng/ml	100
61)	4-Chlorophenyl phenyl ...	10.216	204	44347	1057.36	ng/ml	99
62)	4-Nitroaniline	10.232	138	19541	1106.16	ng/ml	90
63)	4,6-Dinitro-2-methylph...	10.264	198	9278	1057.66	ng/ml	88
65)	N-Nitrosodiphenylamine	10.333	169	78053	1111.37	ng/ml	97
66)	Azobenzene (1,2-DPH)	10.376	77	84621	1028.99	ng/ml	94
68)	4-Bromophenyl phenyl e...	10.713	248	28158	1065.38	ng/ml	97
69)	Hexachlorobenzene	10.793	284	35031	1051.79	ng/ml	95
70)	Pentachlorophenol (PCP)	10.986	266	14973	1141.94	ng/ml	98
71)	Phenanthrene	11.205	178	131849	1044.50	ng/ml	99
72)	Anthracene	11.253	178	132101	1128.72	ng/ml	99
73)	Carbazole	11.414	167	116243	1056.50	ng/ml	98
74)	Di-n-butyl phthalate	11.761	149	140777	1148.60	ng/ml	99
75)	Fluoranthene	12.478	202	149444	1160.39	ng/ml	100
76)	Benzidine	12.633	184	120339	2088.62	ng/ml	97
77)	Pyrene	12.772	202	151929	1163.31	ng/ml	98
80)	Butyl benzyl phthalate	13.794	149	52653	966.08	ng/ml	93
81)	Bis(2-ethylhexyl) adipate	13.970	129	42124	942.43	ng/ml	98
82)	3,3-Dichlorobenzidine	14.928	252	40369	1828.10	ng/ml	94
83)	Benz(a)anthracene	14.965	228	130053	1066.84	ng/ml	100
84)	Chrysene	15.045	228	120773	1014.02	ng/ml	98
85)	Bis(2-ethylhexyl) phth...	15.136	149	76676	999.28	ng/ml	100
87)	Di-n-octyl phthalate	16.816	149	88092	910.58	ng/ml	97
88)	Benzo(b)fluoranthene	17.559	252	126323	1078.81	ng/ml	99
89)	Benzo(k)fluoranthene	17.629	252	127258	1081.51	ng/ml	98
90)	Benzo(b+k)fluoranthene	17.629	252	262733	2150.89	ng/ml	98
91)	Benzo(e)pyrene	18.217	252	126935	1087.81	ng/ml	99
92)	Benzo(a)pyrene	18.335	252	114349	1107.14	ng/ml	99
93)	Perylene	18.538	252	107301	1029.03	ng/ml	99
95)	Indeno(1,2,3-cd)pyrene	20.881	276	105591	1002.34	ng/ml	96
96)	Dibenz(a,h)anthracene	20.945	278	102287	1060.91	ng/ml	98
97)	Benzo(g,h,i)perylene	21.416	276	117466	1133.12	ng/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051902.D
Acq On : 5 Dec 2019 8:40 am
Operator : JK /AMS /DTH
Sample : 9L05023-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 12:38:30 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051903.D
Acq On : 5 Dec 2019 9:14 am
Operator : JK /AMS /DTH
Sample : 9L05023-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 12/5/19

Quant Time: Dec 05 12:39:05 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.621	152	72739	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	296948	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.665	162	147553	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.178	188	250419	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.981	240	240457	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.479	264	223896	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.881	292	180554	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	0.000	112	0	0.00	ng/ml	
5) Phenol-d6 (Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	0.000	82	0	0.00	ng/ml	
40) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	0.000	244	0	0.00	ng/ml	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	0.000		0	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	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	0.000		0	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	0.000		0	N.D.		
34) 1-Methylnaphthalene	0.000		0	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	0.000		0	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

J

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051903.D
Acq On : 5 Dec 2019 9:14 am
Operator : JK /AMS /DTH
Sample : 9L05023-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

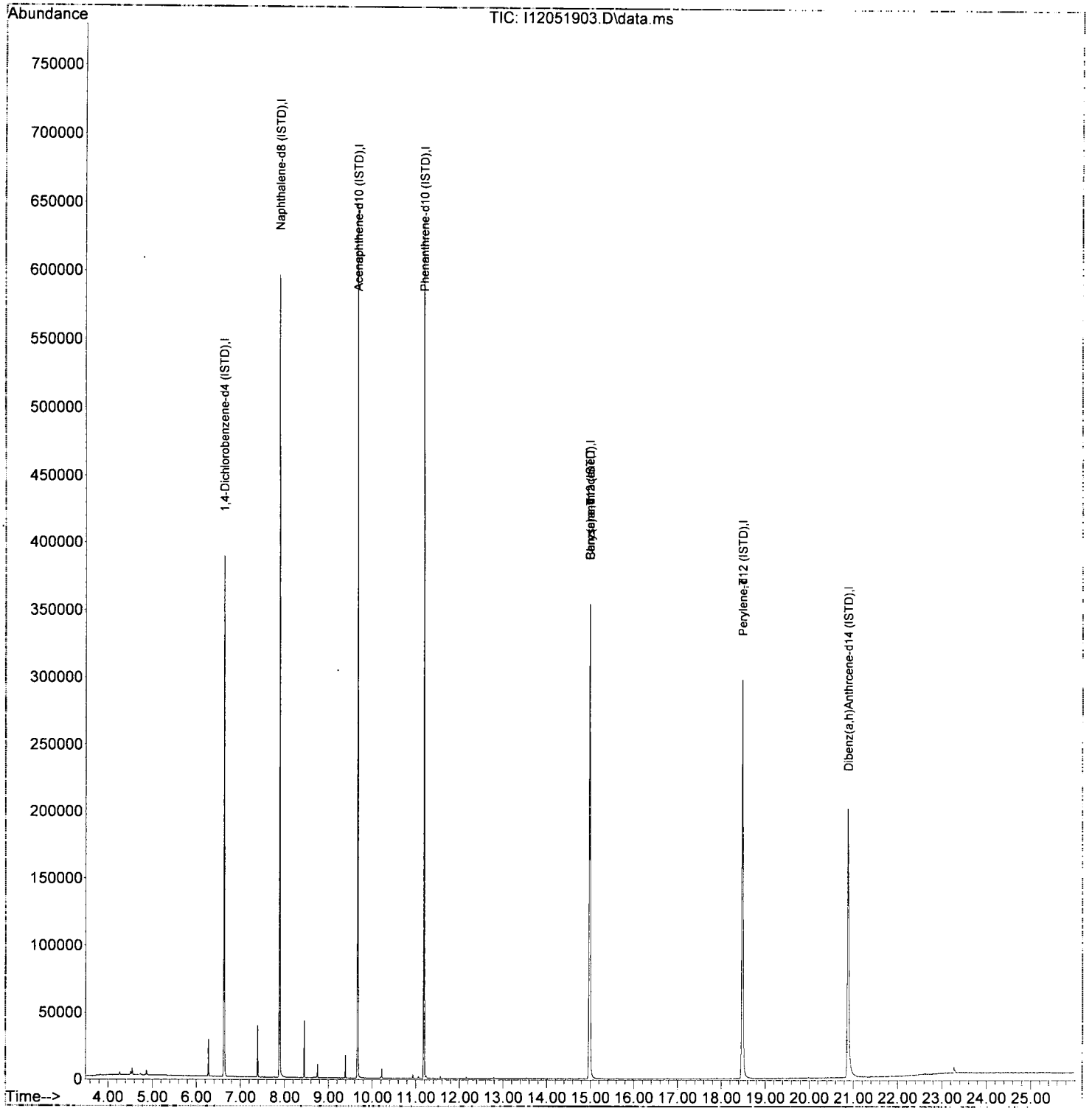
Quant Time: Dec 05 12:39:05 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	0.000		0	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	0.000		0	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	0.000		0	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	0.000		0	N.D.	
55) Dibenzofuran	0.000		0	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	0.000		0	N.D.	
60) Fluorene	0.000		0	N.D.	
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	0.000		0	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	0.000		0	N.D.	
71) Phenanthrene	11.178	178	77	N.D.	
72) Anthracene	11.178	178	77	N.D.	
73) Carbazole	0.000		0	N.D.	
74) Di-n-butyl phthalate	0.000		0	N.D.	
75) Fluoranthene	0.000		0	N.D.	
76) Benzidine	0.000		0	N.D.	
77) Pyrene	0.000		0	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	0.000		0	N.D.	
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.981	228	564	4.51 ng/ml	62
84) Chrysene	14.981	228	564	4.62 ng/ml	59
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	0.000		0	N.D.	
89) Benzo(k)fluoranthene	0.000		0	N.D.	
90) Benzo(b+k)fluoranthene	0.000		0	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.479	252	676	6.65 ng/ml#	62
95) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	
96) Dibenz(a,h)anthracene	0.000		0	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051903.D
Acq On : 5 Dec 2019 9:14 am
Operator : JK /AMS /DTH
Sample : 9L05023-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 12:39:05 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051904.D
Acq On : 5 Dec 2019 9:49 am
Operator : JK /AMS /DTH
Sample : A9K0609-01RE1@10
Misc : 10x, 8270D TCLP Reg List
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS R04
12/5/19

Quant Time: Dec 05 12:39:08 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.621	152	75415	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	301493	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	146118	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.178	188	251500	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.986	240	242972	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.479	264	227328	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.881	292	187167	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	3408	67.93	ng/ml	0.00
5) Phenol-d6 (Surr)	6.257	99	1707	26.19	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.167	82	8427	163.72	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.975	172	22552	203.79	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.467	330	1967	151.99	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.981	244	25328	227.30	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	0.000		0	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	7.595	122	62	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	7.611	105	169	832.47	ng/ml	85
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.910	128	27470	177.39	ng/ml	97
30) 4-Chloroaniline	7.910	127	3608	70.26	ng/ml#	35
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	8.605	142	2562	23.25	ng/ml	95
34) 1-Methylnaphthalene	8.707	142	5166	49.62	ng/ml	95
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	8.894	196	65	28.41	ng/ml#	36
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	9.076	154	694	5.60	ng/ml	95
41) 2-Chloronaphthalene	9.146	162	133	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	9.237	156	1161	13.05	ng/ml	99

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051904.D
Acq On : 5 Dec 2019 9:49 am
Operator : JK /AMS /DTH
Sample : A9K0609-01RE1@10
Misc : 10x, 8270D TCLP Reg List
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 12:39:08 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

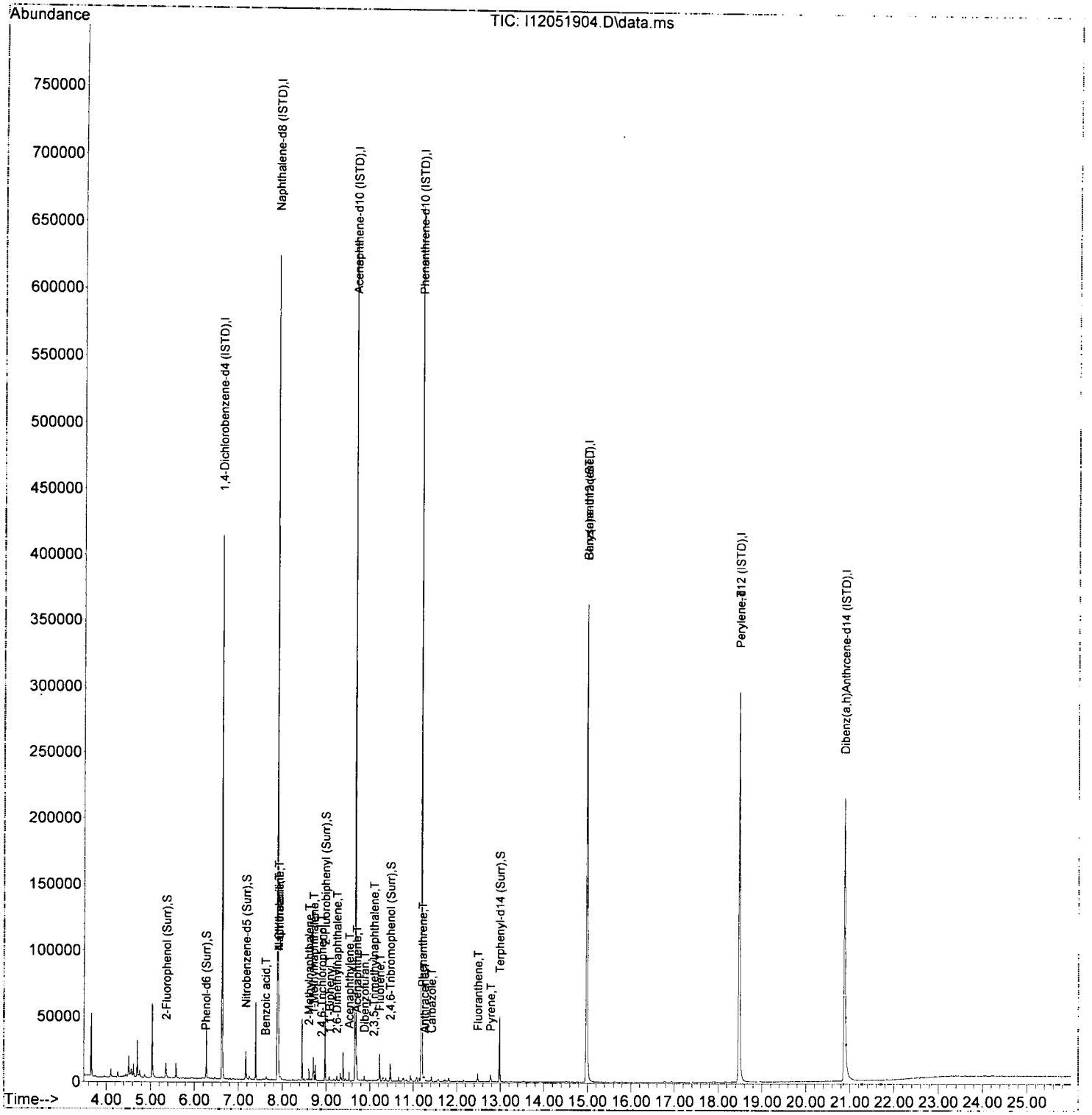
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	9.370	163	53	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.520	152	3095	22.04 ng/ml	92
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	9.697	153	4737	50.70 ng/ml	97
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	0.000		0	N.D.	
55) Dibenzofuran	9.873	168	1186	9.46 ng/ml	85
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	10.092	149	94	N.D.	
59) 2,3,5-Trimethylnaphtha...	10.087	170	280	3.52 ng/ml	75
60) Fluorene	10.221	166	4492	47.09 ng/ml	93
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	10.387	77	56	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	0.000		0	N.D.	
71) Phenanthrene	11.205	178	14544	106.71 ng/ml	99
72) Anthracene	11.253	178	1965	15.55 ng/ml	96
73) Carbazole	11.414	167	1770	22.38 ng/ml	94
74) Di-n-butyl phthalate	11.761	149	201	N.D.	
75) Fluoranthene	12.478	202	3197	22.99 ng/ml	95
76) Benzidine	0.000		0	N.D.	
77) Pyrene	12.772	202	3187	22.60 ng/ml	93
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	0.000		0	N.D.	
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.986	228	746	5.90 ng/ml	70
84) Chrysene	15.045	228	89	N.D.	
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	0.000		0	N.D.	
89) Benzo(k)fluoranthene	0.000		0	N.D.	
90) Benzo(b+k)fluoranthene	0.000		0	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.479	252	762	7.38 ng/ml#	68
95) Indeno(1,2,3-cd)pyrene	20.886	276	97	N.D.	
96) Dibenz(a,h)anthracene	0.000		0	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051904.D
Acq On : 5 Dec 2019 9:49 am
Operator : JK /AMS /DTH
Sample : A9K0609-01RE1@10
Misc : 10x, 8270D TCLP Reg List
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 12:39:08 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051905.D
Acq On : 5 Dec 2019 10:23 am
Operator : JK /AMS /DTH
Sample : A9K0609-02RE1@10
Misc : 10x, 8270D TCLP Reg List
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS R04 12/5/19

Quant Time: Dec 05 12:39:11 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.626	152	78364	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	312884	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	151137	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.178	188	263486	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.986	240	254515	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	18.479	264	240341	2000.00 ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.881	292	194215	2000.00 ng/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.359	112	2333	44.75 ng/ml	0.00
5) Phenol-d6 (Surr)	6.263	99	1390	20.52 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.167	82	6108	114.20 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.974	172	16234	141.82 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.472	330	1493	118.08 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.981	244	25728	220.42 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.	
3) Pyridine	0.000		0	N.D.	
6) Phenol	0.000		0	N.D.	
7) Aniline	6.354	93	52	N.D.	
8) Bis(2-chloroethyl) ether	6.354	93	52	N.D.	
9) 2-Chlorophenol	0.000		0	N.D.	
10) 1,3-Dichlorobenzene	0.000		0	N.D.	
11) 1,4-Dichlorobenzene	0.000		0	N.D.	
12) Benzyl alcohol	0.000		0	N.D.	
13) 1,2-Dichlorobenzene	0.000		0	N.D.	
14) 2-Methylphenol	0.000		0	N.D.	
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.	
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.	
17) 3+4-Methylphenol	0.000		0	N.D.	
18) Hexachloroethane	0.000		0	N.D.	
20) Nitrobenzene	0.000		0	N.D.	
22) Isophorone	7.418	82	84	N.D.	
23) 2-Nitrophenol	0.000		0	N.D.	
24) 2,4-Dimethylphenol	7.616	122	78	N.D.	
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.	
26) Benzoic acid	7.616	105	160	831.80 ng/ml#	67
27) 2,4-Dichlorophenol	0.000		0	N.D.	
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
29) Naphthalene	7.910	128	1072	6.67 ng/ml	96
30) 4-Chloroaniline	7.910	127	80	N.D.	
31) Hexachlorobutadiene	0.000		0	N.D.	
32) 4-Chloro-3-methylphenol	0.000		0	N.D.	
33) 2-Methylnaphthalene	8.605	142	235	N.D.	
34) 1-Methylnaphthalene	8.707	142	1425	13.19 ng/ml	90
36) Hexachlorocyclopentadiene	0.000		0	N.D.	
37) 2,4,6-Trichlorophenol	0.000		0	N.D.	
38) 2,4,5-Trichlorophenol	0.000		0	N.D.	
39) 1,1'-Biphenyl	9.081	154	60	N.D.	
41) 2-Chloronaphthalene	9.146	162	207	N.D.	
42) 2-Nitroaniline	0.000		0	N.D.	
43) 2,6-Dimethylnaphthalene	9.242	156	216	N.D.	

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051905.D
Acq On : 5 Dec 2019 10:23 am
Operator : JK /AMS /DTH
Sample : A9K0609-02RE1@10
Misc : 10x, 8270D TCLP Reg List
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 12:39:11 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

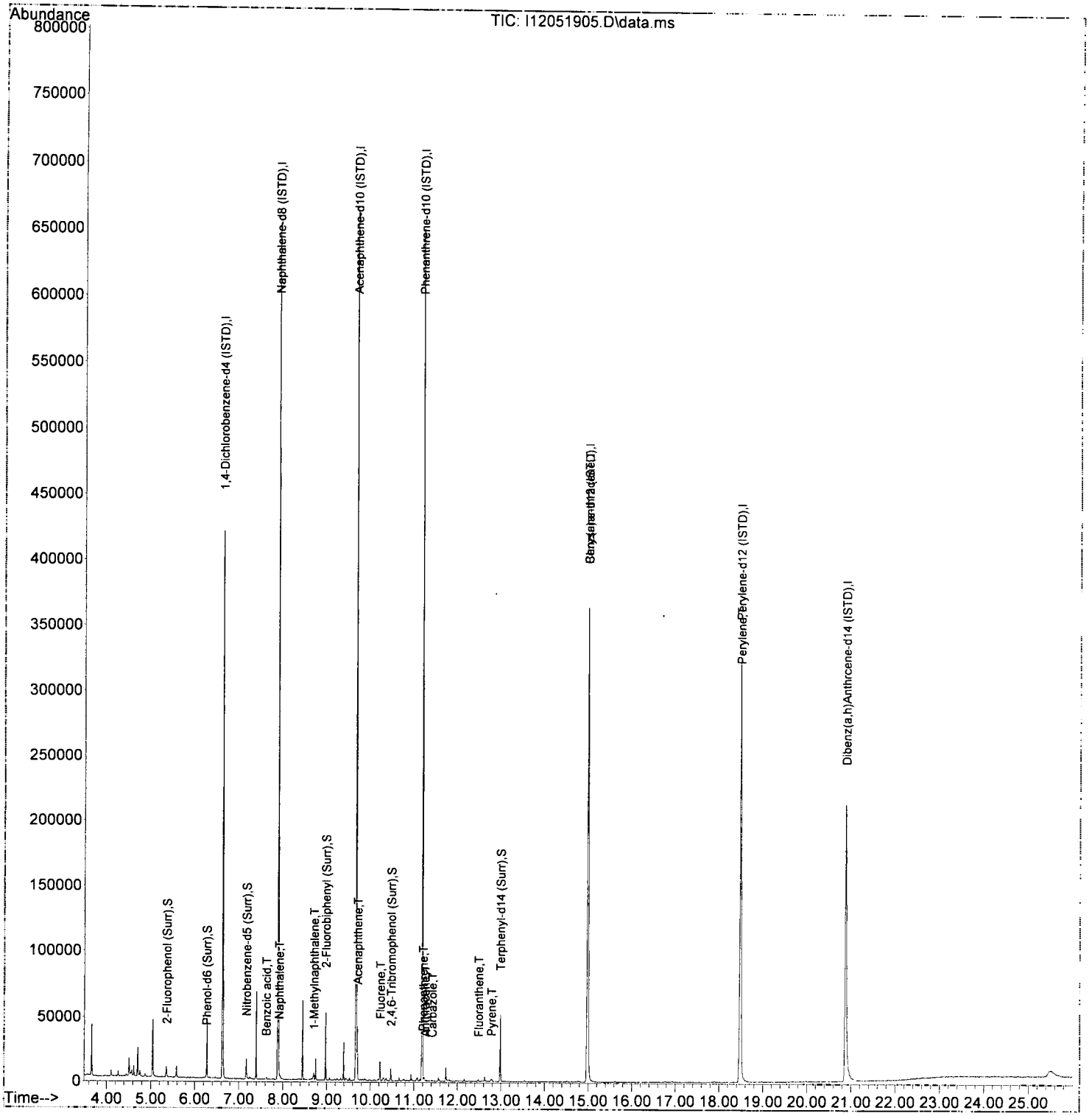
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	0.000		0	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.520	152	216	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	9.702	153	10934	113.13 ng/ml	99
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	0.000		0	N.D.	
55) Dibenzofuran	9.873	168	291	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	10.082	170	163	N.D.	
60) Fluorene	10.221	166	1569	15.90 ng/ml	97
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	10.338	169	102	N.D.	
66) Azobenzene (1,2-DPH)	10.387	77	78	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	0.000		0	N.D.	
71) Phenanthrene	11.205	178	611	4.28 ng/ml	93
72) Anthracene	11.253	178	399	3.01 ng/ml	93
73) Carbazole	11.413	167	66	8.86 ng/ml	60
74) Di-n-butyl phthalate	11.761	149	190	N.D.	
75) Fluoranthene	12.478	202	1010	6.93 ng/ml	93
76) Benzidine	0.000		0	N.D.	
77) Pyrene	12.772	202	1049	7.10 ng/ml	96
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	0.000		0	N.D.	
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.986	228	706	5.33 ng/ml	66
84) Chrysene	15.045	228	76	N.D.	
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	0.000		0	N.D.	
89) Benzo(k)fluoranthene	0.000		0	N.D.	
90) Benzo(b+k)fluoranthene	0.000		0	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.484	252	727	6.66 ng/ml#	65
95) Indeno(1,2,3-cd)pyrene	20.875	276	66	N.D.	
96) Dibenz(a,h)anthracene	0.000		0	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051905.D
Acq On : 5 Dec 2019 10:23 am
Operator : JK /AMS /DTH
Sample : A9K0609-02RE1@10
Misc : 10x, 8270D TCLP Reg List
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 12:39:11 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051908.D
Acq On : 5 Dec 2019 12:06 pm
Operator : JK /AMS /DTH
Sample : 9120554-BLK1
Misc : 1x, Bottle QC (water)
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 12:39:17 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

BOT
AMS 10/2/19 12/5/19
AMS 12/5/19

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.627	152	72731	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	280507	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	135202	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.184	188	244634	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.986	240	241483	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	18.479	264	231016	2000.00 ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.875	292	187958	2000.00 ng/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.364	112	192330	3974.86 ng/ml	0.00
5) Phenol-d6 (Surr)	6.263	99	248149	3947.59 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.167	82	211127	4253.12 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.980	172	413330	4036.54 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.472	330	67859	4197.67 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.986	244	519635	4692.18 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.	
3) Pyridine	0.000		0	N.D.	
6) Phenol	6.274	94	507	7.25 ng/ml#	1
7) Aniline	6.295	93	575	7.93 ng/ml	86
8) Bis(2-chloroethyl) ether	6.354	93	1429	ND 24.62 ng/ml#	23
9) 2-Chlorophenol	0.000		0	N.D.	
10) 1,3-Dichlorobenzene	6.643	146	171	3.05 ng/ml#	51
11) 1,4-Dichlorobenzene	6.643	146	171	3.12 ng/ml#	51
12) Benzyl alcohol	6.744	108	100	43.95 ng/ml#	1
13) 1,2-Dichlorobenzene	0.000		0	N.D.	
14) 2-Methylphenol	0.000		0	N.D.	
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.	
16) N-Nitrosodi-n-propylamine	7.012	70	89	N.D.	
17) 3+4-Methylphenol	6.947	107	235	4.87 ng/ml#	1
18) Hexachloroethane	0.000		0	N.D.	
20) Nitrobenzene	7.172	77	863	17.07 ng/ml#	32
22) Isophorone	7.418	82	157	N.D.	
23) 2-Nitrophenol	0.000		0	N.D.	
24) 2,4-Dimethylphenol	0.000		0	N.D.	
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.	
26) Benzoic acid	7.616	105	77	828.56 ng/ml#	10
27) 2,4-Dichlorophenol	0.000		0	N.D.	
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
29) Naphthalene	7.910	128	3099	21.51 ng/ml	96
30) 4-Chloroaniline	7.910	127	426	8.92 ng/ml#	48
31) Hexachlorobutadiene	0.000		0	N.D.	
32) 4-Chloro-3-methylphenol	0.000		0	N.D.	
33) 2-Methylnaphthalene	8.605	142	467	4.55 ng/ml	97
34) 1-Methylnaphthalene	8.707	142	325	3.35 ng/ml	77
36) Hexachlorocyclopentadiene	0.000		0	N.D.	
37) 2,4,6-Trichlorophenol	0.000		0	N.D.	
38) 2,4,5-Trichlorophenol	0.000		0	N.D.	
39) 1,1'-Biphenyl	9.076	154	784	6.84 ng/ml	89
41) 2-Chloronaphthalene	0.000		0	N.D.	
42) 2-Nitroaniline	0.000		0	N.D.	
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.	

MDL=MRL AMS 12/5/19

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051908.D
Acq On : 5 Dec 2019 12:06 pm
Operator : JK /AMS /DTH
Sample : 9120554-BLK1
Misc : 1x, Bottle QC (water)
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 12:39:17 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

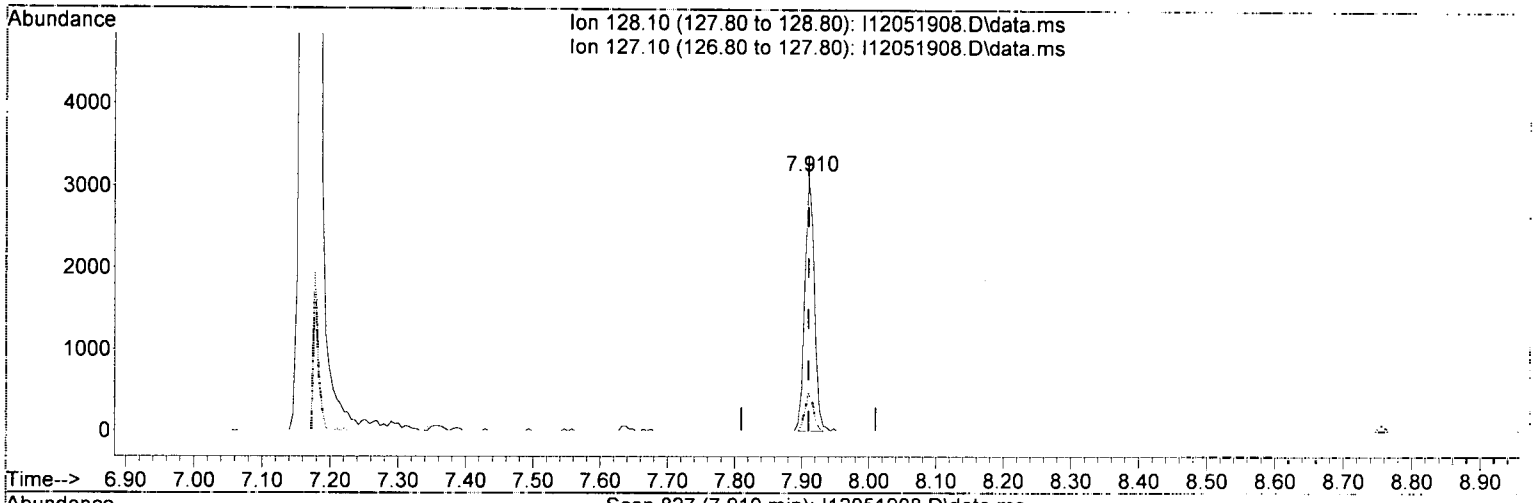
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	0.000		0	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.525	152	76	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	0.000		0	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	0.000		0	N.D.	
55) Dibenzofuran	9.878	168	87	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	0.000		0	N.D.	
60) Fluorene	0.000		0	N.D.	
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	0.000		0	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	0.000		0	N.D.	
71) Phenanthrene	11.205	178	254	N.D.	
72) Anthracene	11.205	178	254	N.D.	
73) Carbazole	0.000		0	N.D.	
74) Di-n-butyl phthalate	11.761	149	184	N.D.	
75) Fluoranthene	0.000		0	N.D.	
76) Benzidine	0.000		0	N.D.	
77) Pyrene	0.000		0	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	0.000		0	N.D.	
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.986	228	597	4.75 ng/ml	71
84) Chrysene	14.986	228	597	4.87 ng/ml	68
85) Bis(2-ethylhexyl) phth...	15.136	149	416	73.86 ng/ml	93
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	0.000		0	N.D.	
89) Benzo(k)fluoranthene	0.000		0	N.D.	
90) Benzo(b+k)fluoranthene	0.000		0	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.479	252	703	6.70 ng/ml#	59
95) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	
96) Dibenz(a,h)anthracene	0.000		0	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

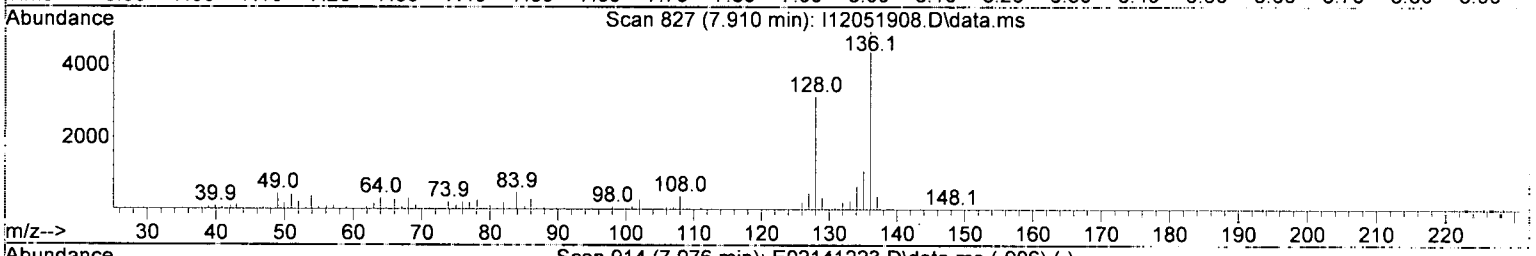
(#) = qualifier out of range (m) = manual integration (+) = signals summed

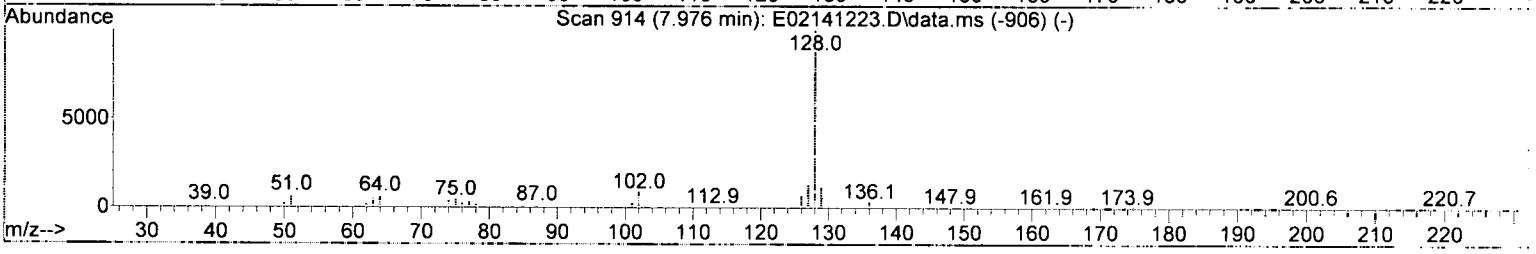
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051908.D
Acq On : 5 Dec 2019 12:06 pm
Operator : JK /AMS /DTH
Sample : 9120554-BLK1
Misc : 1x, Bottle QC (water)
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 12:39:17 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I12051908.D\data.ms

(29) Naphthalene (T)

7.910min (+ 0.000) 21.51 ng/ml

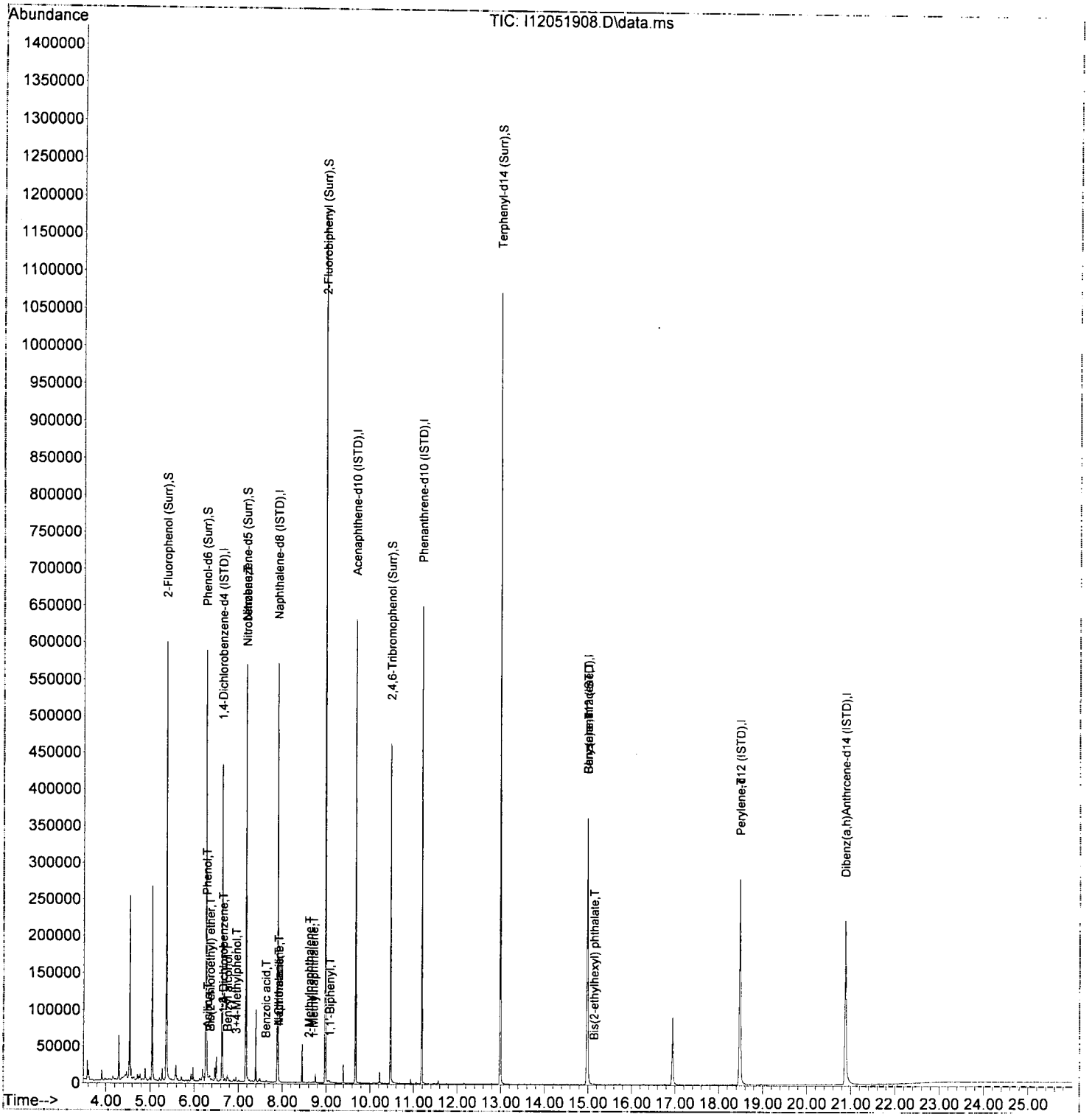
response 3099

Ion	Exp%	Act%
128.10	100.00	100.00
127.10	13.10	14.60
0.00	0.00	0.00
0.00	0.00	0.00

J-B02

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051908.D
Acq On : 5 Dec 2019 12:06 pm
Operator : JK /AMS /DTH
Sample : 9120554-BLK1
Misc : 1x, Bottle QC (water)
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 12:39:17 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051911.D
Acq On : 5 Dec 2019 2:21 pm
Operator : JK /AMS /DTH
Sample : 9120574-BLK1
Misc : 1x, Bottle QC (water)
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 12/5/19

Quant Time: Dec 05 14:53:58 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.626	152	86161	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	306070	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	140309	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.183	188	241948	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.986	240	242625	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	18.484	264	234837	2000.00 ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.886	292	192817	2000.00 ng/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.369	112	209259	3650.63 ng/ml	0.01
5) Phenol-d6 (Surr)	6.257	99	265045	3559.17 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.167	82	219844	3738.41 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.974	172	396476	3731.02 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.472	330	63039	3955.37 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.986	244	503679	4526.69 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.	
3) Pyridine	0.000		0	N.D.	
6) Phenol	6.273	94	505	6.10 ng/ml#	1
7) Aniline	6.295	93	280	3.26 ng/ml	59
8) Bis(2-chloroethyl) ether	6.354	93	930	13.52 ng/ml#	22
9) 2-Chlorophenol	0.000		0	N.D.	
10) 1,3-Dichlorobenzene	6.642	146	96	N.D.	
11) 1,4-Dichlorobenzene	6.642	146	96	N.D.	
12) Benzyl alcohol	6.739	108	88	43.19 ng/ml#	1
13) 1,2-Dichlorobenzene	0.000		0	N.D.	
14) 2-Methylphenol	6.862	107	59	N.D.	
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.	
16) N-Nitrosodi-n-propylamine	7.054	70	85	N.D.	
17) 3+4-Methylphenol	6.947	107	169	2.96 ng/ml#	1
18) Hexachloroethane	0.000		0	N.D.	
20) Nitrobenzene	7.167	77	826	13.79 ng/ml#	33
22) Isophorone	7.397	82	52	N.D.	
23) 2-Nitrophenol	0.000		0	N.D.	
24) 2,4-Dimethylphenol	0.000		0	N.D.	
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.	
26) Benzoic acid	7.611	105	82	828.47 ng/ml#	10
27) 2,4-Dichlorophenol	0.000		0	N.D.	
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
29) Naphthalene	7.910	128	1796	11.42 ng/ml	97
30) 4-Chloroaniline	7.910	127	219	4.20 ng/ml#	21
31) Hexachlorobutadiene	0.000		0	N.D.	
32) 4-Chloro-3-methylphenol	0.000		0	N.D.	
33) 2-Methylnaphthalene	8.605	142	296	2.65 ng/ml	91
34) 1-Methylnaphthalene	8.712	142	207	N.D.	
36) Hexachlorocyclopentadiene	0.000		0	N.D.	
37) 2,4,6-Trichlorophenol	0.000		0	N.D.	
38) 2,4,5-Trichlorophenol	0.000		0	N.D.	
39) 1,1'-Biphenyl	9.076	154	710	5.97 ng/ml	96
41) 2-Chloronaphthalene	0.000		0	N.D.	
42) 2-Nitroaniline	0.000		0	N.D.	
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.	

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051911.D
Acq On : 5 Dec 2019 2:21 pm
Operator : JK /AMS /DTH
Sample : 9120574-BLK1
Misc : 1x, Bottle QC (water)
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

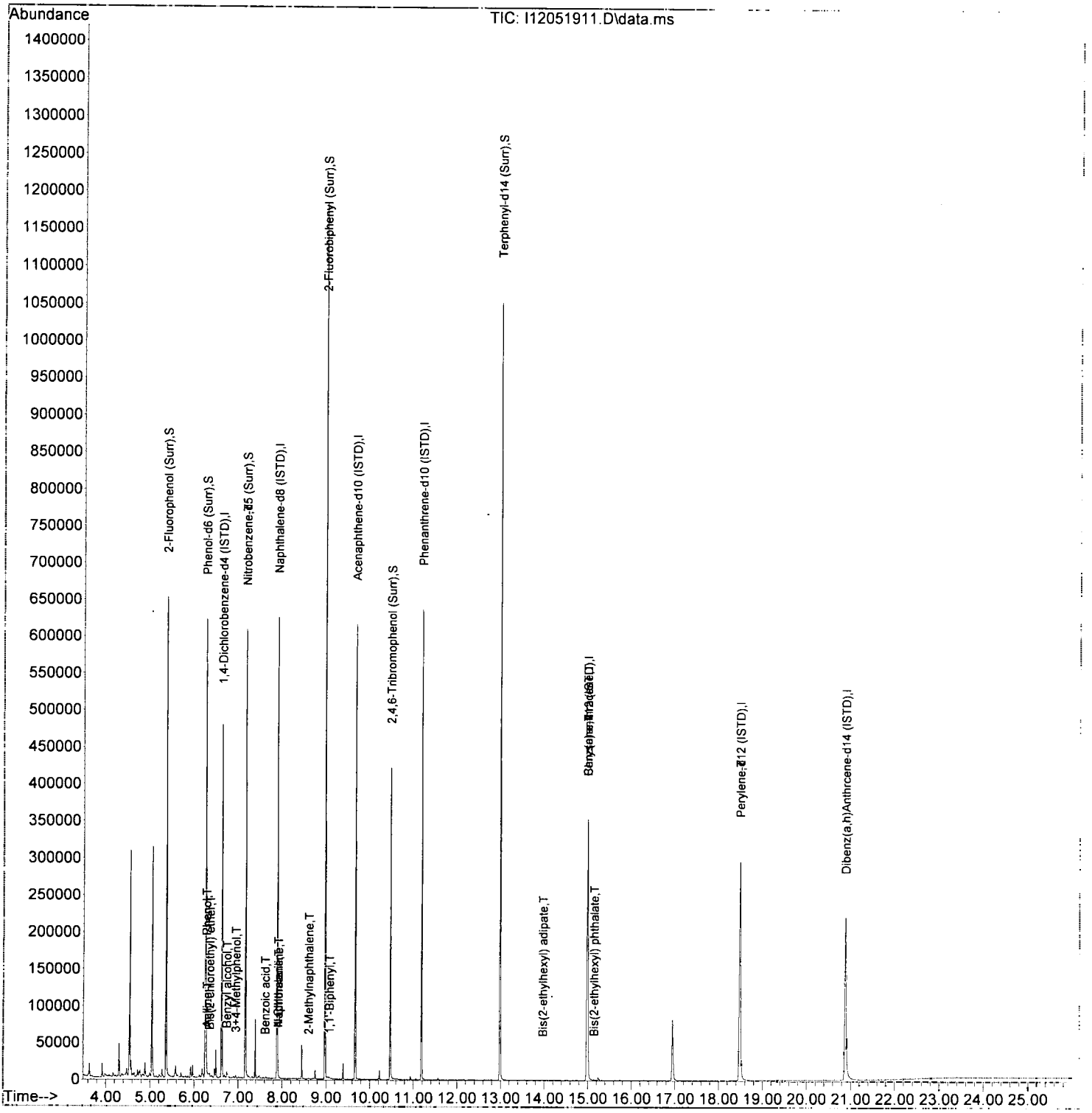
Quant Time: Dec 05 14:53:58 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44)	1,4-Dinitrobenzene	0.000		0	N.D.	
45)	Dimethyl phthalate	0.000		0	N.D.	
46)	1,3-Dinitrobenzene	0.000		0	N.D.	
47)	2,6-Dinitrotoluene	0.000		0	N.D.	
48)	1,2-Dinitrobenzene	0.000		0	N.D.	
49)	Acenaphthylene	0.000		0	N.D.	
50)	3-Nitroaniline	0.000		0	N.D.	
51)	Acenaphthene	0.000		0	N.D.	
52)	2,4-Dinitrophenol	0.000		0	N.D.	
53)	4-Nitrophenol	0.000		0	N.D.	
54)	2,4-Dinitrotoluene	0.000		0	N.D.	
55)	Dibenzofuran	9.878	168	76	N.D.	
56)	2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57)	2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58)	Diethyl phthalate	0.000		0	N.D.	
59)	2,3,5-Trimethylnaphtha...	0.000		0	N.D.	
60)	Fluorene	0.000		0	N.D.	
61)	4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62)	4-Nitroaniline	0.000		0	N.D.	
63)	4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65)	N-Nitrosodiphenylamine	0.000		0	N.D.	
66)	Azobenzene (1,2-DPH)	0.000		0	N.D.	
68)	4-Bromophenyl phenyl e...	0.000		0	N.D.	
69)	Hexachlorobenzene	0.000		0	N.D.	
70)	Pentachlorophenol (PCP)	0.000		0	N.D.	
71)	Phenanthrene	11.205	178	189	N.D.	
72)	Anthracene	11.205	178	189	N.D.	
73)	Carbazole	0.000		0	N.D.	
74)	Di-n-butyl phthalate	11.761	149	188	N.D.	
75)	Fluoranthene	0.000		0	N.D.	
76)	Benzidine	0.000		0	N.D.	
77)	Pyrene	12.772	202	50	N.D.	
80)	Butyl benzyl phthalate	0.000		0	N.D.	
81)	Bis(2-ethylhexyl) adipate	13.970	129	54	74.01 ng/ml	53
82)	3,3-Dichlorobenzidine	0.000		0	N.D.	
83)	Benz(a)anthracene	14.986	228	571	4.53 ng/ml	77
84)	Chrysene	14.986	228	571	4.63 ng/ml	73
85)	Bis(2-ethylhexyl) phth...	15.141	149	391	73.54 ng/ml	84
87)	Di-n-octyl phthalate	0.000		0	N.D.	
88)	Benzo(b)fluoranthene	0.000		0	N.D.	
89)	Benzo(k)fluoranthene	0.000		0	N.D.	
90)	Benzo(b+k)fluoranthene	0.000		0	N.D.	
91)	Benzo(e)pyrene	0.000		0	N.D.	
92)	Benzo(a)pyrene	0.000		0	N.D.	
93)	Perylene	18.484	252	803	7.53 ng/ml#	71
95)	Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	
96)	Dibenz(a,h)anthracene	0.000		0	N.D.	
97)	Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-12\9L05023\
Data File : I12051911.D
Acq On : 5 Dec 2019 2:21 pm
Operator : JK /AMS /DTH
Sample : 9120574-BLK1
Misc : 1x, Bottle QC (water)
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 14:53:58 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Semivolatile Organic Compounds by EPA 8270D
Benchsheet & Analysis Sequence Data

Sequence 9L04040 (QC Only)

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9L04040** Instrument: **SV-GCMS9**

Date: **12/04/19 12:57** Calibration: **A9L0505**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9L04040-TUN1	Soil	QC	QC			A19I086	A19K329
2	9L04040-CCV1	Soil	QC	QC			A19I086	A19G243
3	9L04040-CCB1	Soil	QC	QC			A19I086	
4	9120484-BLK1	Soil	QC	QC		9120484	A19I086	
5	9120484-BS1	Soil	QC	QC		9120484	A19I086	
6	9120484-BSD1	Soil	QC	QC		9120484	A19I086	
7	A9K0609-01	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	12/04/19	9120484	A19I086	
8	A9K0609-02	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	12/04/19	9120484	A19I086	
9	A9K0695-01	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	12/06/19	9120484	A19I086	
10	A9K0695-02	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	12/06/19	9120484	A19I086	
11	9L04040-IBL1	Soil	QC	QC			A19I086	

Data Entered By: AMS 12/5/19

Data Reviewed By: [signature] 12/5/19

Comments:

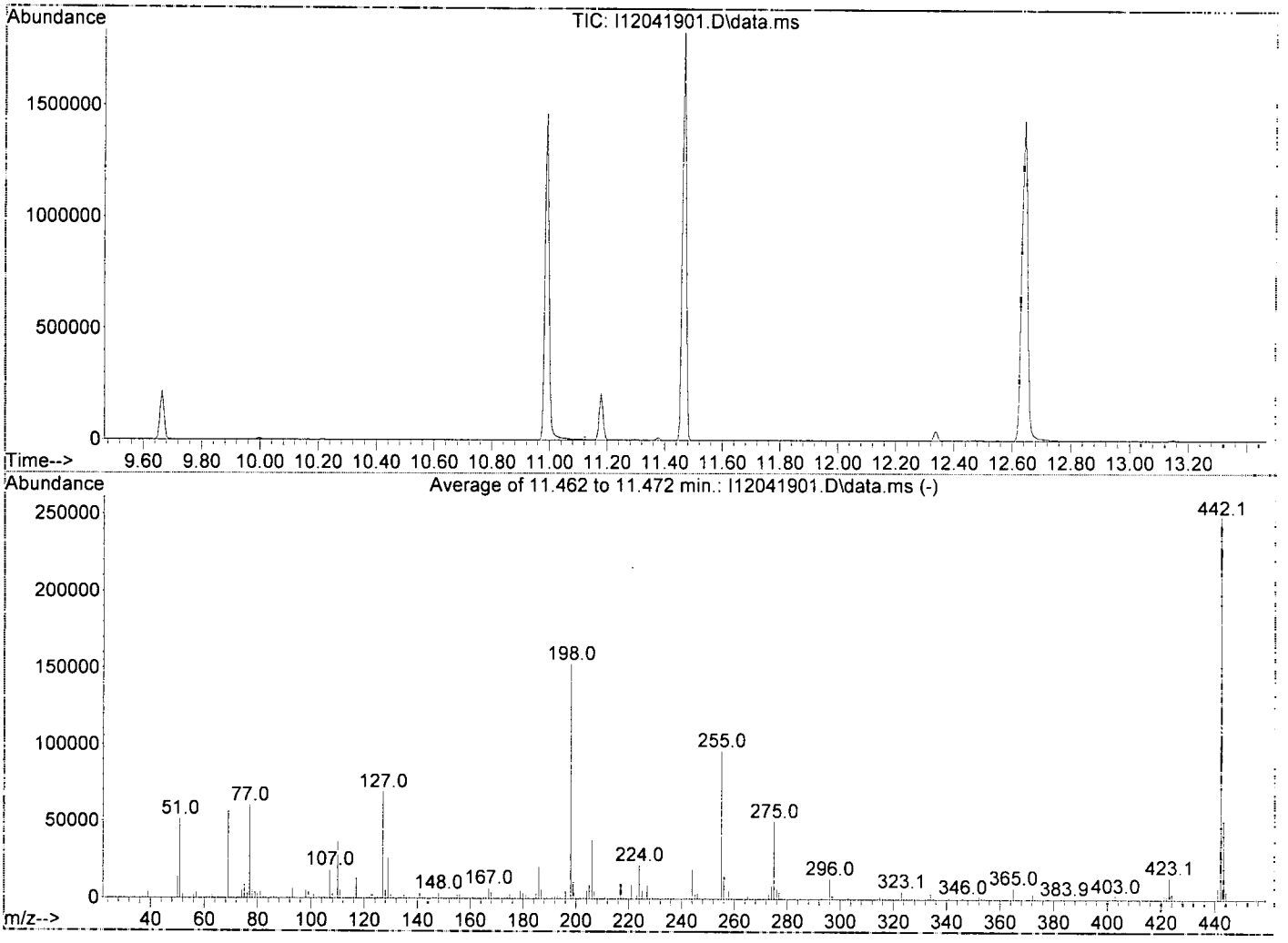
DFTPP

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041901.D
Acq On : 4 Dec 2019 1:03 pm
Operator : JK /AMS /DTH
Sample : 9L04040-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

AMS 12/5/19

Integration File: rteint.p

Method : C:\msdchem\1\methods\DFTPP.M
Title : DFTPP Tune Methodug/mL
Last Update : Wed Dec 04 09:09:00 2019



AutoFind: Scans 1491, 1492, 1493; Background Corrected with Scan 1485

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	55835	PASS
70	69	0.00	2	0.5	303	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	152627	PASS
199	198	5	9	6.8	10442	PASS
365	198	1	100	4.7	7249	PASS
441	443	0.01	150	15.0	7624	PASS
442	198	0.10	200	163.2	249045	PASS
443	442	15	24	20.4	50784	PASS

✓

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041901.D
Acq On : 4 Dec 2019 1:03 pm
Operator : JK /AMS /DTH
Sample : 9L04040-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Dec 05 08:50:14 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Dec 04 09:09:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9

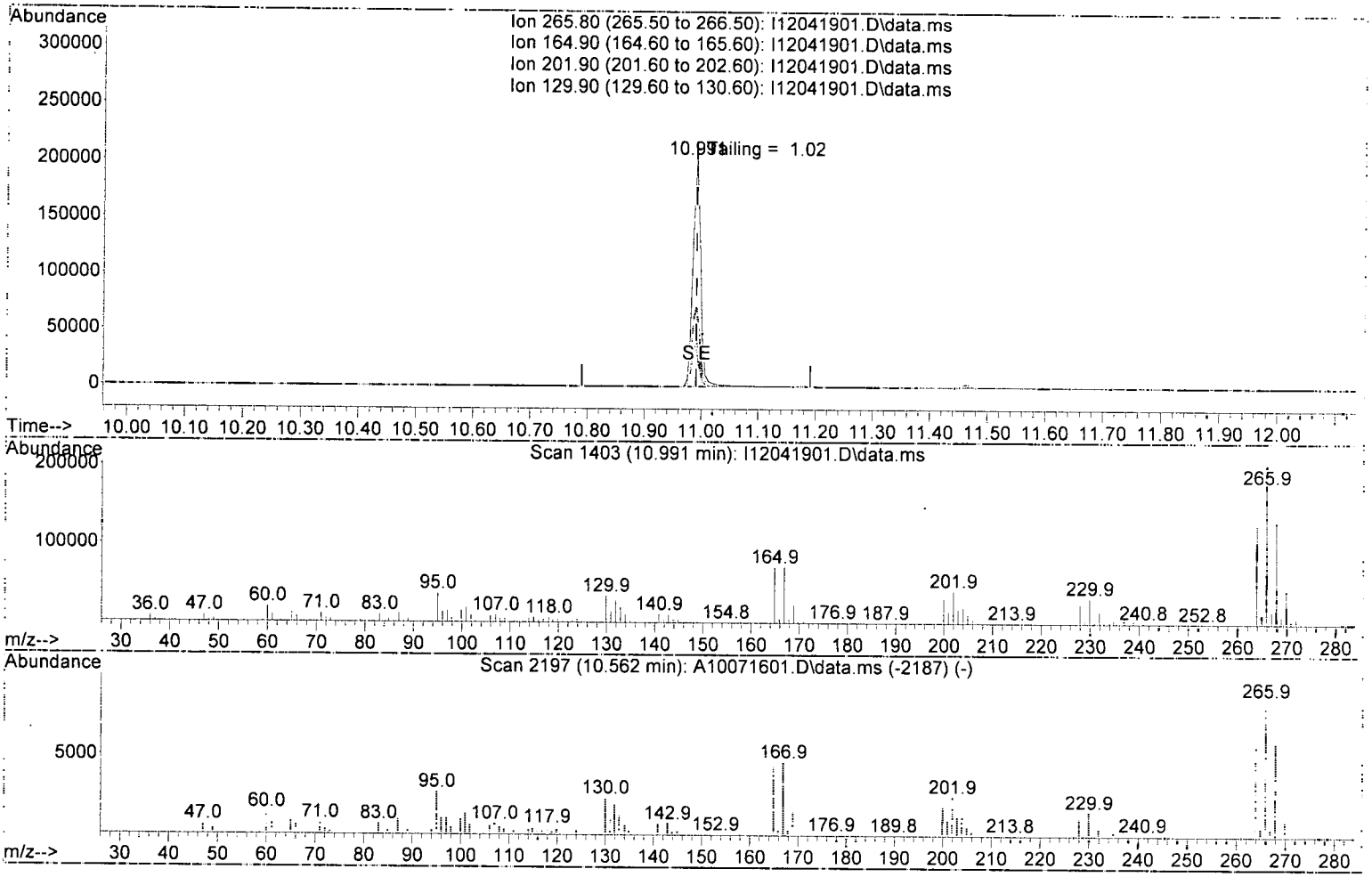
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.883	136	94738	2.00	ug/mL	0.00
2) Acenaphthene-d10	9.665	162	45636	2.00	ug/mL	0.00
4) Phenanthrene-d10	11.178	188	74245	2.00	ug/mL	0.00
10) Chrysene-d12	14.901	240	62376	2.00	ug/mL	0.00
11) Perylene-d12	16.987	264	53344	2.00	ug/mL	0.02
Target Compounds						Qvalue
3) Pentachlorophenol	10.991	266	194205	37.93	ug/mL	85
5) DFTPP	11.467	442	280664	44.97	ug/mL	71
6) Benzidine	12.644	184	792727	35.46	ug/mL	90
7) 4,4-DDE	12.900	TIC	3563	No Calib	#	
8) 4,4-DDD	13.478	TIC	5404	1.76	ug/mL#	1
9) 4,4-DDT	13.986	TIC	2276785	36.39	ug/mL#	1

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041901.D
Acq On : 4 Dec 2019 1:03 pm
Operator : JK /AMS /DTH
Sample : 9L04040-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Dec 05 08:50:14 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Dec 04 09:09:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I12041901.D\data.ms

(3) Pentachlorophenol

10.991min (-0.000) 37.93 ug/mL

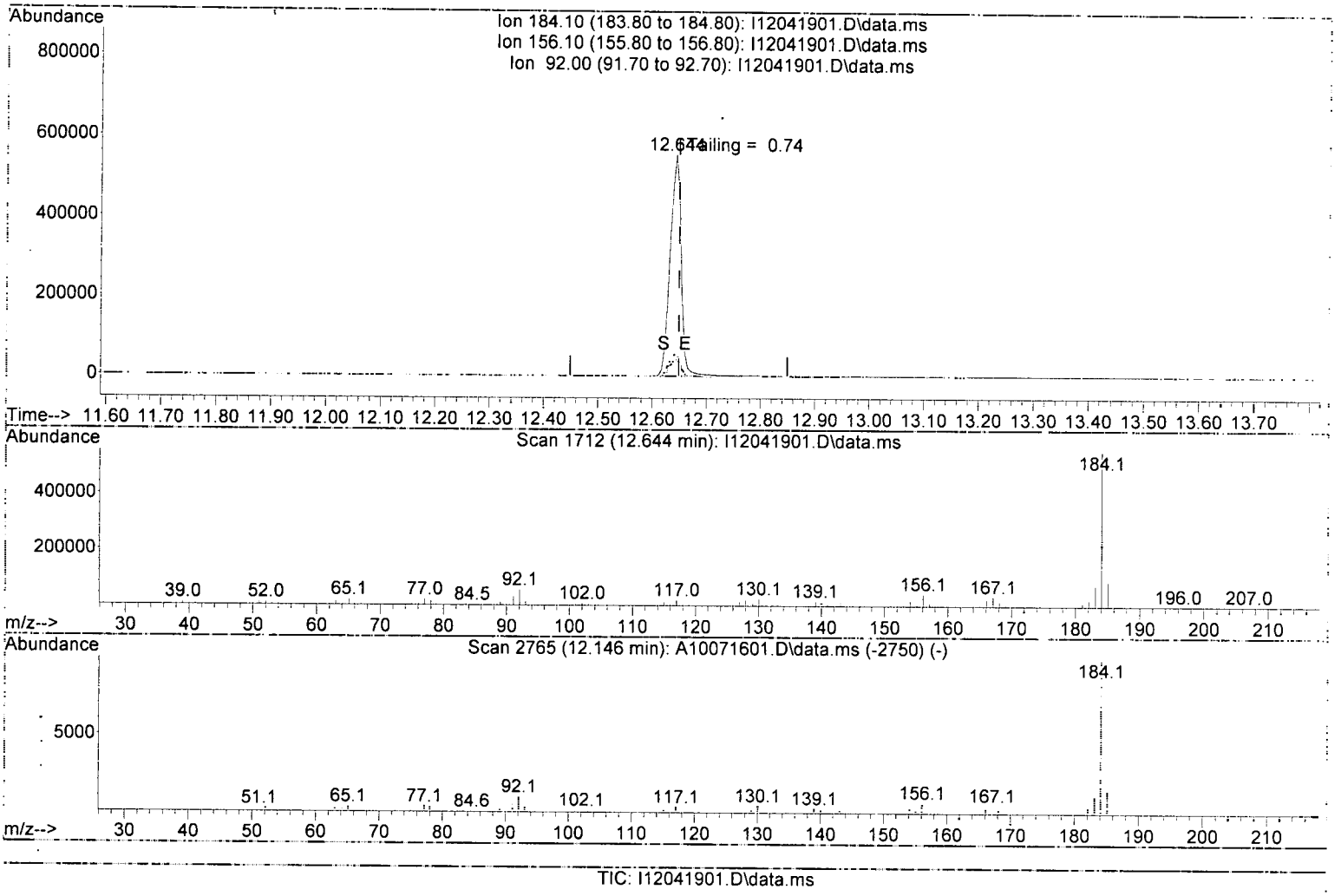
response 194205

Ion	Exp%	Act%
265.80	100.00	100.00
164.90	47.40	35.07
201.90	26.10	20.20
129.90	22.80	16.59

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041901.D
Acq On : 4 Dec 2019 1:03 pm
Operator : JK /AMS /DTH
Sample : 9L04040-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Dec 05 08:50:14 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Dec 04 09:09:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I12041901.D\data.ms

(6) Benzidine

12.644min (-0.005) 35.46 ug/mL

response 792727

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	9.40	7.64
92.00	15.50	9.95
0.00	0.00	0.00

DDT Breakdown Check (Validated 5/1/2013)

From:
9L04040-TUN1
SV-GCMS9

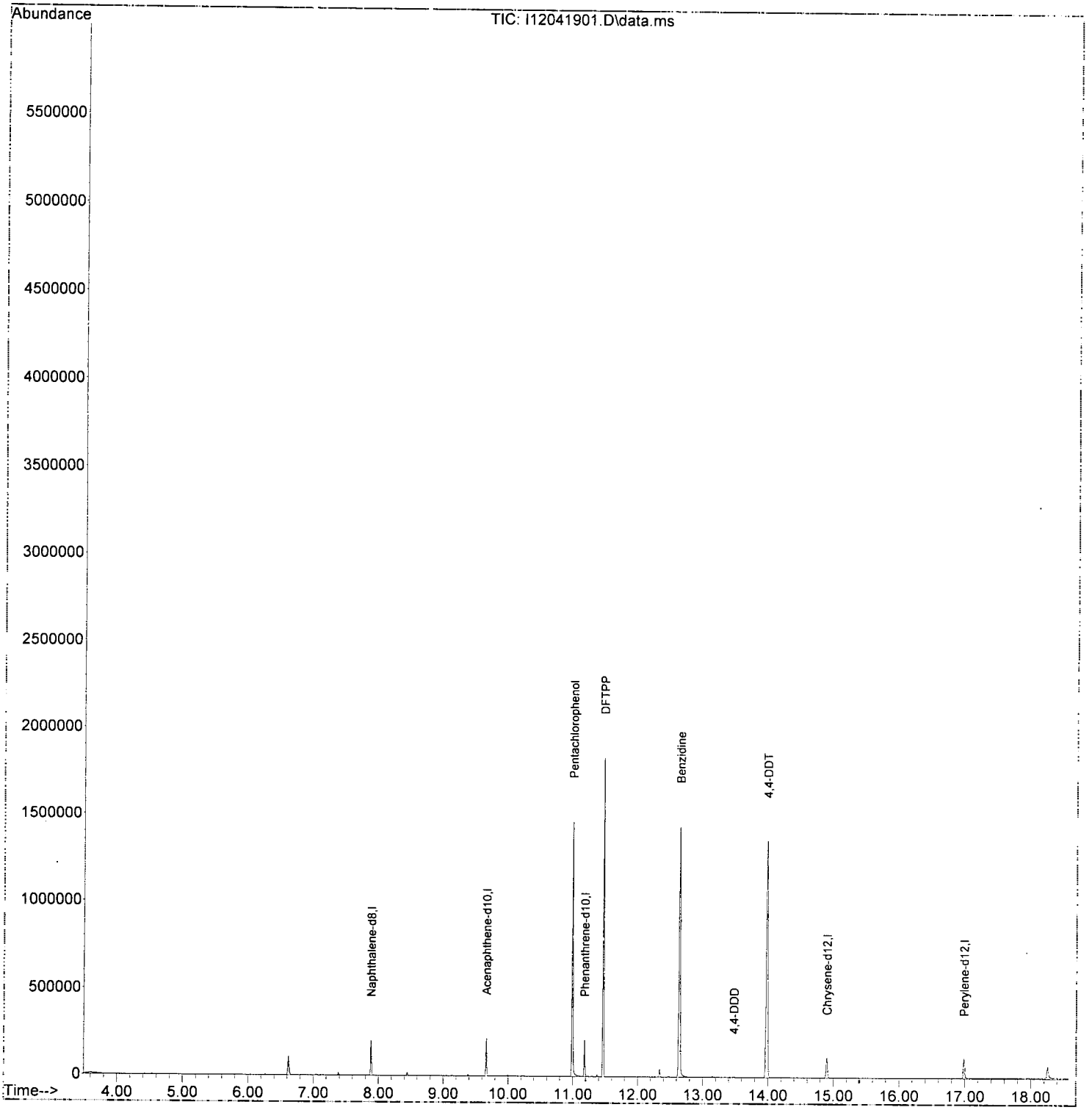
First Column Area Counts		Percent Breakdown	
DDE	3563		
DDD	5404		
DDT	2276785	0.39	PASS

Breakdown must be less than 20% to accept sample data.

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041901.D
Acq On : 4 Dec 2019 1:03 pm
Operator : JK /AMS /DTH
Sample : 9L04040-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Dec 05 08:50:14 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Dec 04 09:09:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041902.D
Acq On : 4 Dec 2019 1:30 pm
Operator : JK /AMS /DTH
Sample : 9L04040-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 12/5/19

Quant Time: Dec 05 08:51:29 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (IST	2000.000	2000.000	0.0	93	0.00
2	T	N-Nitrosodimethylamine	1000.000	1008.248	-0.8	92	0.00
3	T	Pyridine	1000.000	1065.183	-6.5	93	-0.01
4	S	2-Fluorophenol (Surr)	1000.000	985.201	1.5	92	0.00
5	S	Phenol-d6 (Surr)	1000.000	1084.808	-8.5	94	0.00
6	T	Phenol	1000.000	1106.860	-10.7	93	0.00
7	T	Aniline	1000.000	1127.873	-12.8	93	0.00
8	T	Bis(2-chloroethyl) ether	1000.000	1041.624	-4.2	94	0.00
9	T	2-Chlorophenol	1000.000	1111.667	-11.2	95	0.00
10	T	1,3-Dichlorobenzene	1000.000	1041.145	-4.1	94	0.00
11	T	1,4-Dichlorobenzene	1000.000	1044.268	-4.4	94	0.00
12	T	Benzyl alcohol	1000.000	953.548	4.6	94	0.00
13	T	1,2-Dichlorobenzene	1000.000	1043.363	-4.3	94	0.00
14	T	2-Methylphenol	1000.000	1102.770	-10.3	94	0.00
15	T	2,2'-Oxybis(1-Chloropropane	1000.000	978.929	2.1	92	0.00
16	T	N-Nitrosodi-n-propylamine	1000.000	1107.348	-10.7	95	0.00
17	T	3+4-Methylphenol	1000.000	1157.343	-15.7	96	0.00
18	T	Hexachloroethane	1000.000	1051.126	-5.1	96	0.00
19	S	Nitrobenzene-d5 (Surr)	1000.000	1120.732	-12.1	96	0.00
20	T	Nitrobenzene	1000.000	1117.933	-11.8	95	0.00
21	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	95	0.00
22	T	Isophorone	1000.000	1068.954	-6.9	95	0.00
23	T	2-Nitrophenol	1000.000	1095.881	-9.6	95	0.00
24	T	2,4-Dimethylphenol	1000.000	989.549	1.0	87	0.00
25	T	Bis(2-chloroethoxy) methane	1000.000	1080.888	-8.1	96	0.00
26	T	Benzoic acid	2000.000	1896.966	5.2	103	0.00
27	T	2,4-Dichlorophenol	1000.000	1105.568	-10.6	98	0.00
28	T	1,2,4-Trichlorobenzene	1000.000	1060.661	-6.1	97	0.00
29	T	Naphthalene	1000.000	1047.467	-4.7	96	0.00
30	T	4-Chloroaniline	1000.000	1200.564	-20.1#	101	0.00
31	T	Hexachlorobutadiene	1000.000	1061.473	-6.1	97	0.00
32	T	4-Chloro-3-methylphenol	1000.000	1035.536	-3.6	95	0.00
33	T	2-Methylnaphthalene	1000.000	1052.317	-5.2	95	0.00
34	T	1-Methylnaphthalene	1000.000	1060.958	-6.1	97	0.00
35	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	96	0.00
36	T	Hexachlorocyclopentadiene	1000.000	1058.845	-5.9	94	0.00
37	T	2,4,6-Trichlorophenol	1000.000	1068.367	-6.8	99	0.00
38	T	2,4,5-Trichlorophenol	1000.000	1088.808	-8.9	99	0.00
39	T	1,1'-Biphenyl	1000.000	1078.947	-7.9	97	0.00
40	S	2-Fluorobiphenyl (Surr)	1000.000	1068.743	-6.9	98	0.00
41	T	2-Chloronaphthalene	1000.000	1069.035	-6.9	97	0.00
42	T	2-Nitroaniline	1000.000	1066.139	-6.6	99	0.00
43	T	2,6-Dimethylnaphthalene	1000.000	1087.170	-8.7	98	0.00
44	T	1,4-Dinitrobenzene	1000.000	1086.434	-8.6	104	0.00
45	T	Dimethyl phthalate	1000.000	1088.362	-8.8	97	0.00
46	T	1,3-Dinitrobenzene	1000.000	1057.757	-5.8	99	0.00
47	T	2,6-Dinitrotoluene	1000.000	1124.382	-12.4	98	0.00
48	T	1,2-Dinitrobenzene	1000.000	1067.040	-6.7	97	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041902.D
Acq On : 4 Dec 2019 1:30 pm
Operator : JK /AMS /DTH
Sample : 9L04040-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 08:51:29 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	Acenaphthylene	1000.000	1112.771	-11.3	96	0.00
50	T	3-Nitroaniline	1000.000	1178.121	-17.8	99	0.00
51	T	Acenaphthene	1000.000	1052.197	-5.2	97	0.00
52	T	2,4-Dinitrophenol	1000.000	1063.447	-6.3	120	0.00
53	T	4-Nitrophenol	1000.000	1052.546	-5.3	101	0.00
54	T	2,4-Dinitrotoluene	1000.000	1051.976	-5.2	101	0.00
55	T	Dibenzofuran	1000.000	1066.772	-6.7	96	0.00
56	T	2,3,5,6-Tetrachlorophenol	1000.000	1115.509	-11.6	101	0.00
57	T	2,3,4,6-Tetrachlorophenol	1000.000	1055.013	-5.5	98	0.00
58	T	Diethyl phthalate	1000.000	1109.283	-10.9	97	0.00
59	T	2,3,5-Trimethylnaphthalene	1000.000	1088.421	-8.8	98	0.00
60	T	Fluorene	1000.000	1088.976	-8.9	97	0.00
61	T	4-Chlorophenyl phenyl ether	1000.000	1059.708	-6.0	99	0.00
62	T	4-Nitroaniline	1000.000	1105.889	-10.6	102	0.00
63	T	4,6-Dinitro-2-methylphenol	1000.000	1054.141	-5.4	110	0.00
64	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	97	0.00
65	T	N-Nitrosodiphenylamine	1000.000	1110.327	-11.0	97	0.00
66	T	Azobenzene (1,2-DPH)	1000.000	1078.409	-7.8	95	0.00
67	S	2,4,6-Tribromophenol (Surr)	1000.000	1087.241	-8.7	102	0.00
68	T	4-Bromophenyl phenyl ether	1000.000	1074.004	-7.4	98	0.00
69	T	Hexachlorobenzene	1000.000	1029.337	-2.9	98	0.00
70	T	Pentachlorophenol (PCP)	1000.000	1176.034	-17.6	114	0.00
71	T	Phenanthrene	1000.000	1035.586	-3.6	97	0.00
72	T	Anthracene	1000.000	1114.478	-11.4	97	0.00
73	T	Carbazole	1000.000	1046.008	-4.6	98	0.00
74	T	Di-n-butyl phthalate	1000.000	1161.362	-16.1	98	0.00
75	T	Fluoranthene	1000.000	1156.924	-15.7	98	0.00
76	T	Benzidine	2000.000	1986.719	0.7	91	0.00
77	T	Pyrene	1000.000	1128.725	-12.9	97	0.00
78	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	97	0.00
79	S	Terphenyl-d14 (Surr)	1000.000	1064.979	-6.5	97	0.00
80	T	Butyl benzyl phthalate	1000.000	1017.063	-1.7	101	0.00
81	T	Bis(2-ethylhexyl) adipate	1000.000	992.116	0.8	97	0.00
82	T	3,3-Dichlorobenzidine	2000.000	1966.273	1.7	100	0.00
83	T	Benz(a)anthracene	1000.000	1074.122	-7.4	99	0.00
84	T	Chrysene	1000.000	1017.668	-1.8	97	0.00
85	T	Bis(2-ethylhexyl) phthalate	1000.000	1012.182	-1.2	98	0.00
86	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	99	0.00
87	T	Di-n-octyl phthalate	1000.000	1024.919	-2.5	103	0.00
88	T	Benzo(b)fluoranthene	1000.000	1094.472	-9.4	98	0.00
89	T	Benzo(k)fluoranthene	1000.000	1112.190	-11.2	100	0.00
90	T	Benzo(b+k)fluoranthene	2000.000	2184.176	-9.2	99	0.00
91	T	Benzo(e)pyrene	1000.000	1109.416	-10.9	99	0.00
92	T	Benzo(a)pyrene	1000.000	1131.953	-13.2	100	0.00
93	T	Perylene	1000.000	1029.465	-2.9	99	0.00
94	I	Dibenz(a,h)Anthrcene-d14 (I	2000.000	2000.000	0.0	99	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041902.D
Acq On : 4 Dec 2019 1:30 pm
Operator : JK /AMS /DTH
Sample : 9L04040-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 08:51:29 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
95 T	Indeno(1,2,3-cd)pyrene	1000.000	1006.969	-0.7	98	0.00
96 T	Dibenz(a,h)anthracene	1000.000	1052.551	-5.3	99	0.00
97 T	Benzo(g,h,i)perylene	1000.000	1118.058	-11.8	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041902.D
Acq On : 4 Dec 2019 1:30 pm
Operator : JK /AMS /DTH
Sample : 9L04040-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 08:51:29 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.621	152	75214	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	294817	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.665	162	142580	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.178	188	257721	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.986	240	254085	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.479	264	248971	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.881	292	213300	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.354	112	49298	985.20	ng/ml	0.00
5) Phenol-d6 (Surr)	6.258	99	70520	1084.81	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.167	82	57533	1120.73	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.975	172	115408	1068.74	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.467	330	17509	1087.24	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.975	244	124096	1064.98	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.942	74	39021	1008.25	ng/ml	92
3) Pyridine	3.974	79	66346	1065.18	ng/ml	93
6) Phenol	6.268	94	80007	1106.86	ng/ml	97
7) Aniline	6.300	93	84626	1127.87	ng/ml	99
8) Bis(2-chloroethyl) ether	6.359	93	62531	1041.62	ng/ml	95
9) 2-Chlorophenol	6.418	128	58433	1111.67	ng/ml	96
10) 1,3-Dichlorobenzene	6.568	146	60356	1041.15	ng/ml	99
11) 1,4-Dichlorobenzene	6.643	146	59243	1044.27	ng/ml	98
12) Benzyl alcohol	6.755	108	31646	953.55	ng/ml	93
13) 1,2-Dichlorobenzene	6.792	146	58442	1043.36	ng/ml	97
14) 2-Methylphenol	6.862	107	44363	1102.77	ng/ml	97
15) 2,2'-Oxybis(1-Chloropr...	6.889	45	73558	978.93	ng/ml	90
16) N-Nitrosodi-n-propylamine	7.012	70	42385	1107.35	ng/ml	96
17) 3+4-Methylphenol	7.012	107	57739	1157.34	ng/ml	97
18) Hexachloroethane	7.129	201	17409	1051.13	ng/ml	95
20) Nitrobenzene	7.183	77	58435	1117.93	ng/ml	97
22) Isophorone	7.418	82	112348	1068.95	ng/ml	99
23) 2-Nitrophenol	7.504	139	29267	1095.88	ng/ml	94
24) 2,4-Dimethylphenol	7.536	122	41824	989.55	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.632	93	66947	1080.89	ng/ml	100
26) Benzoic acid	7.621	105	24242	1896.97	ng/ml	96
27) 2,4-Dichlorophenol	7.744	162	42894	1105.57	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.830	180	51203	1060.66	ng/ml	97
29) Naphthalene	7.910	128	158617	1047.47	ng/ml	99
30) 4-Chloroaniline	7.958	127	60283	1200.56	ng/ml	97
31) Hexachlorobutadiene	8.039	225	26353	1061.47	ng/ml	99
32) 4-Chloro-3-methylphenol	8.434	107	43154	1035.54	ng/ml	99
33) 2-Methylnaphthalene	8.606	142	113402	1052.32	ng/ml	98
34) 1-Methylnaphthalene	8.707	142	108020	1060.96	ng/ml	99
36) Hexachlorocyclopentadiene	8.777	237	26611	1058.84	ng/ml	100
37) 2,4,6-Trichlorophenol	8.889	196	29033	1068.37	ng/ml	99
38) 2,4,5-Trichlorophenol	8.921	198	29043	1088.81	ng/ml	100
39) 1,1'-Biphenyl	9.076	154	130374	1078.95	ng/ml	99
41) 2-Chloronaphthalene	9.098	162	95544	1069.04	ng/ml	100
42) 2-Nitroaniline	9.194	138	29679	1066.14	ng/ml	95
43) 2,6-Dimethylnaphthalene	9.237	156	94375	1087.17	ng/ml	99

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041902.D
Acq On : 4 Dec 2019 1:30 pm
Operator : JK /AMS /DTH
Sample : 9L04040-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 08:51:29 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

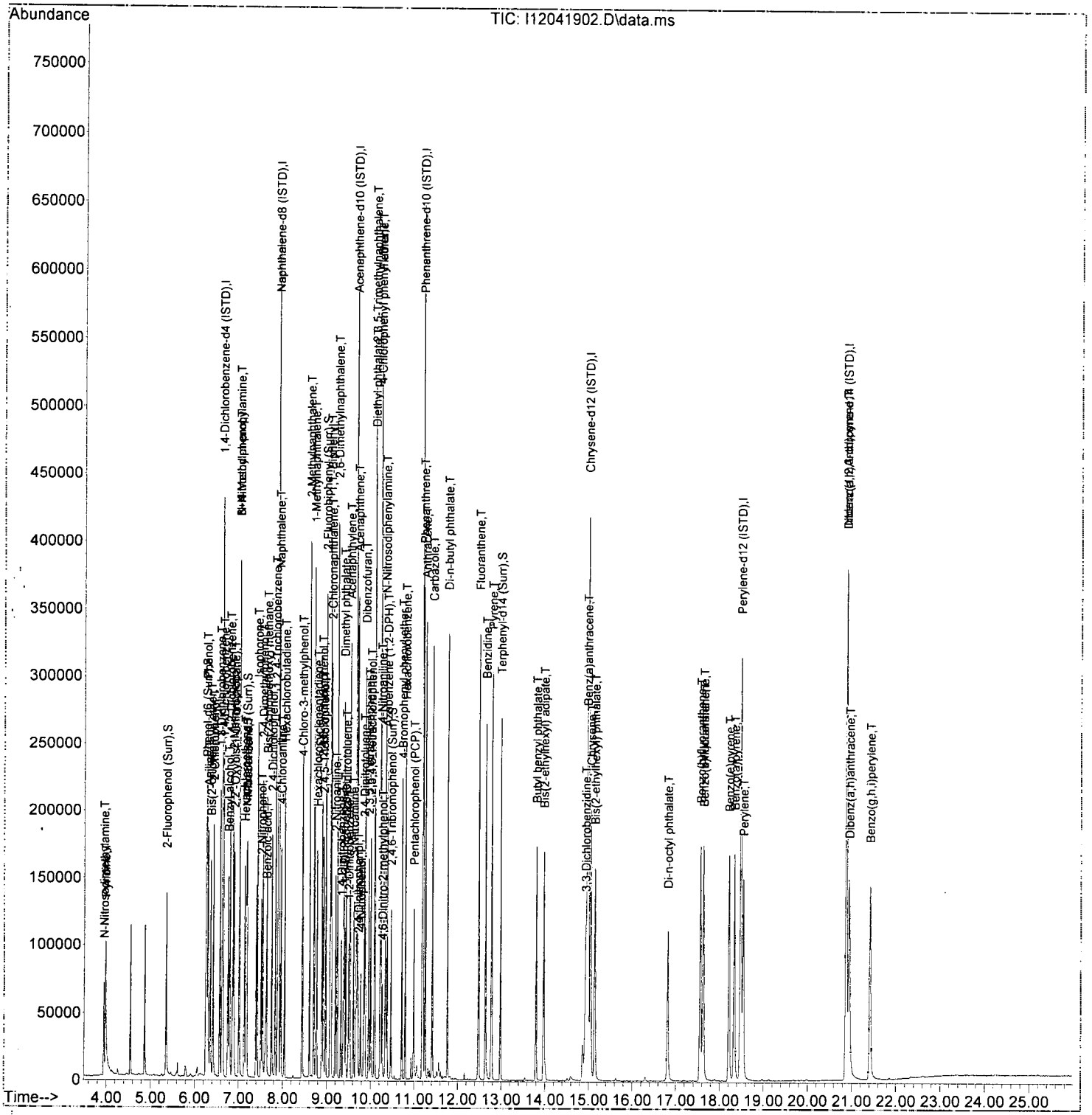
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.322	168	12957	1086.43	ng/ml	91
45) Dimethyl phthalate	9.381	163	106349	1088.36	ng/ml	98
46) 1,3-Dinitrobenzene	9.403	168	15795	1057.76	ng/ml	94
47) 2,6-Dinitrotoluene	9.435	165	24555	1124.38	ng/ml	91
48) 1,2-Dinitrobenzene	9.493	168	11459	1067.04	ng/ml	85
49) Acenaphthylene	9.520	152	152459	1112.77	ng/ml	100
50) 3-Nitroaniline	9.611	138	24251	1178.12	ng/ml	93
51) Acenaphthene	9.702	153	95935	1052.20	ng/ml	100
52) 2,4-Dinitrophenol	9.713	184	5108	1063.45	ng/ml	90
53) 4-Nitrophenol	9.772	139	15232	1052.55	ng/ml	91
54) 2,4-Dinitrotoluene	9.846	165	30458	1051.98	ng/ml	91
55) Dibenzofuran	9.873	168	130484	1066.77	ng/ml	96
56) 2,3,5,6-Tetrachlorophenol	9.953	232	22735	1115.51	ng/ml	97
57) 2,3,4,6-Tetrachlorophenol	9.996	232	24439	1055.01	ng/ml	97
58) Diethyl phthalate	10.092	149	98000	1109.28	ng/ml	99
59) 2,3,5-Trimethylnaphtha...	10.087	170	84513	1088.42	ng/ml	99
60) Fluorene	10.221	166	101370	1088.98	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.216	204	49220	1059.71	ng/ml	98
62) 4-Nitroaniline	10.232	138	21635	1105.89	ng/ml	94
63) 4,6-Dinitro-2-methylph...	10.264	198	10233	1054.14	ng/ml	95
65) N-Nitrosodiphenylamine	10.333	169	86279	1110.33	ng/ml	99
66) Azobenzene (1,2-DPH)	10.376	77	98124	1078.41	ng/ml	97
68) 4-Bromophenyl phenyl e...	10.718	248	31407	1074.00	ng/ml	97
69) Hexachlorobenzene	10.793	284	37932	1029.34	ng/ml	98
70) Pentachlorophenol (PCP)	10.986	266	17127	1176.03	ng/ml	99
71) Phenanthrene	11.205	178	144637	1035.59	ng/ml	99
72) Anthracene	11.253	178	144316	1114.48	ng/ml	100
73) Carbazole	11.414	167	127398	1046.01	ng/ml	99
74) Di-n-butyl phthalate	11.761	149	157491	1161.36	ng/ml	99
75) Fluoranthene	12.478	202	164856	1156.92	ng/ml	98
76) Benzidine	12.633	184	126163	1986.72	ng/ml	98
77) Pyrene	12.772	202	163102	1128.73	ng/ml	99
80) Butyl benzyl phthalate	13.794	149	60425	1017.06	ng/ml	95
81) Bis(2-ethylhexyl) adipate	13.970	129	48366	992.12	ng/ml	99
82) 3,3-Dichlorobenzidine	14.928	252	46735	1966.27	ng/ml	98
83) Benz(a)anthracene	14.960	228	141917	1074.12	ng/ml	98
84) Chrysene	15.045	228	131367	1017.67	ng/ml	97
85) Bis(2-ethylhexyl) phth...	15.136	149	84269	1012.18	ng/ml	98
87) Di-n-octyl phthalate	16.816	149	109732	1024.92	ng/ml	97
88) Benzo(b)fluoranthene	17.559	252	139063	1094.47	ng/ml	99
89) Benzo(k)fluoranthene	17.629	252	141960	1112.19	ng/ml	99
90) Benzo(b+k)fluoranthene	17.629	252	289430	2184.18	ng/ml	99
91) Benzo(e)pyrene	18.212	252	140389	1109.42	ng/ml	100
92) Benzo(a)pyrene	18.335	252	126881	1131.95	ng/ml	99
93) Perylene	18.538	252	116412	1029.46	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.875	276	118216	1006.97	ng/ml	99
96) Dibenz(a,h)anthracene	20.945	278	113093	1052.55	ng/ml	99
97) Benzo(g,h,i)perylene	21.416	276	129166	1118.06	ng/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041902.D
Acq On : 4 Dec 2019 1:30 pm
Operator : JK /AMS /DTH
Sample : 9L04040-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 08:51:29 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041903.D
Acq On : 4 Dec 2019 2:04 pm
Operator : JK /AMS /DTH
Sample : 9L04040-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 12/5/19

Quant Time: Dec 05 08:51:55 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.626	152	76163	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	313237	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	151297	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.178	188	254381	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.981	240	240919	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.479	264	229366	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.875	292	183476	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	0.000	112	0	0.00	ng/ml	
5) Phenol-d6 (Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	0.000	82	0	0.00	ng/ml	
40) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	0.000	244	0	0.00	ng/ml	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	0.000		0	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	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	0.000		0	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	0.000		0	N.D.		
34) 1-Methylnaphthalene	0.000		0	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	0.000		0	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041903.D
Acq On : 4 Dec 2019 2:04 pm
Operator : JK /AMS /DTH
Sample : 9L04040-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 08:51:55 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

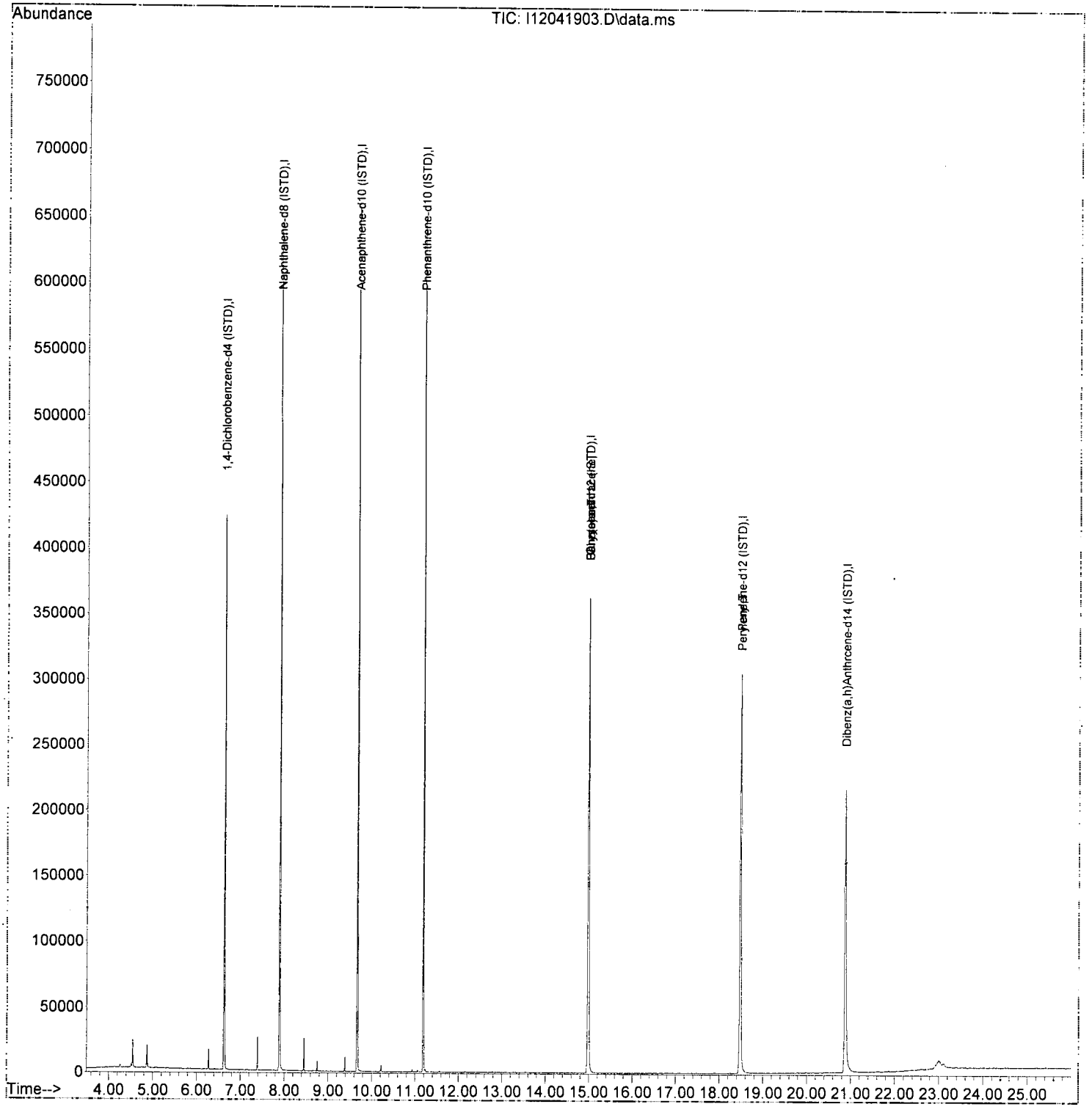
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	0.000		0	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	0.000		0	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	0.000		0	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	0.000		0	N.D.	
55) Dibenzofuran	0.000		0	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	0.000		0	N.D.	
60) Fluorene	0.000		0	N.D.	
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	0.000		0	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	0.000		0	N.D.	
71) Phenanthrene	11.183	178	92	N.D.	
72) Anthracene	11.183	178	92	N.D.	
73) Carbazole	0.000		0	N.D.	
74) Di-n-butyl phthalate	0.000		0	N.D.	
75) Fluoranthene	0.000		0	N.D.	
76) Benzidine	0.000		0	N.D.	
77) Pyrene	0.000		0	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	0.000		0	N.D.	
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.986	228	569	4.54 ng/ml	64
84) Chrysene	14.986	228	569	4.65 ng/ml	60
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	0.000		0	N.D.	
89) Benzo(k)fluoranthene	0.000		0	N.D.	
90) Benzo(b+k)fluoranthene	0.000		0	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.484	252	815	7.82 ng/ml#	70
95) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	
96) Dibenz(a,h)anthracene	0.000		0	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041903.D
Acq On : 4 Dec 2019 2:04 pm
Operator : JK /AMS /DTH
Sample : 9L04040-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 08:51:55 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041904.D
Acq On : 4 Dec 2019 5:13 pm
Operator : JK /AMS /DTH
Sample : 9120484-BLK1
Misc : 1x, 8270D TCLP SVOC REG LIST
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 12/5/19

Quant Time: Dec 05 08:51:58 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.621	152	83235	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.883	136	314963	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.664	162	136293	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.178	188	207247	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.981	240	228836	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	18.474	264	238411	2000.00 ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.875	292	209575	2000.00 ng/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.359	112	48328	872.74 ng/ml	0.00
5) Phenol-d6 (Surr)	6.252	99	38236	531.50 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.161	82	106771	1879.45 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.975	172	206594	2001.43 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.467	330	33011	2470.59 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.981	244	222833	2123.33 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	3.957	74	66	N.D.	
3) Pyridine	4.075	79	678	9.84 ng/ml	93
6) Phenol	6.263	94	858	10.73 ng/ml#	19
7) Aniline	6.348	93	852	10.26 ng/ml	64
8) Bis(2-chloroethyl) ether	6.348	93	852	12.82 ng/ml#	30
9) 2-Chlorophenol	6.407	128	82	N.D.	
10) 1,3-Dichlorobenzene	6.637	146	88	N.D.	
11) 1,4-Dichlorobenzene	6.637	146	88	N.D.	
12) Benzyl alcohol	6.755	108	198	46.10 ng/ml#	69
13) 1,2-Dichlorobenzene	0.000		0	N.D.	
14) 2-Methylphenol	6.856	107	465	10.45 ng/ml	88
15) 2,2'-Oxybis(1-Chloropr...	6.889	45	117	N.D.	
16) N-Nitrosodi-n-propylamine	7.017	70	95	N.D.	
17) 3+4-Methylphenol	7.012	107	268	4.85 ng/ml#	1
18) Hexachloroethane	0.000		0	N.D.	
20) Nitrobenzene	7.161	77	593	10.25 ng/ml#	38
22) Isophorone	7.413	82	370	3.30 ng/ml	67
23) 2-Nitrophenol	0.000		0	N.D.	
24) 2,4-Dimethylphenol	7.552	122	356	7.88 ng/ml	88
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.	
26) Benzoic acid	7.589	105	4447	1016.07 ng/ml	95
27) 2,4-Dichlorophenol	0.000		0	N.D.	
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
29) Naphthalene	7.905	128	5413	33.46 ng/ml	95
30) 4-Chloroaniline	7.905	127	762	14.20 ng/ml#	15
31) Hexachlorobutadiene	0.000		0	N.D.	
32) 4-Chloro-3-methylphenol	8.450	107	421	35.66 ng/ml#	1
33) 2-Methylnaphthalene	8.605	142	4305	37.39 ng/ml	95
34) 1-Methylnaphthalene	8.702	142	2571	23.64 ng/ml	95
36) Hexachlorocyclopentadiene	0.000		0	N.D.	
37) 2,4,6-Trichlorophenol	8.894	196	262	36.01 ng/ml#	66
38) 2,4,5-Trichlorophenol	8.926	198	139	30.84 ng/ml#	69
39) 1,1'-Biphenyl	9.071	154	2870	24.85 ng/ml	98
41) 2-Chloronaphthalene	0.000		0	N.D.	
42) 2-Nitroaniline	9.194	138	82	3.08 ng/ml#	1
43) 2,6-Dimethylnaphthalene	9.242	156	5780	69.66 ng/ml	97

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041904.D
Acq On : 4 Dec 2019 5:13 pm
Operator : JK /AMS /DTH
Sample : 9120484-BLK1
Misc : 1x, 8270D TCLP SVOC REG LIST
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 08:51:58 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

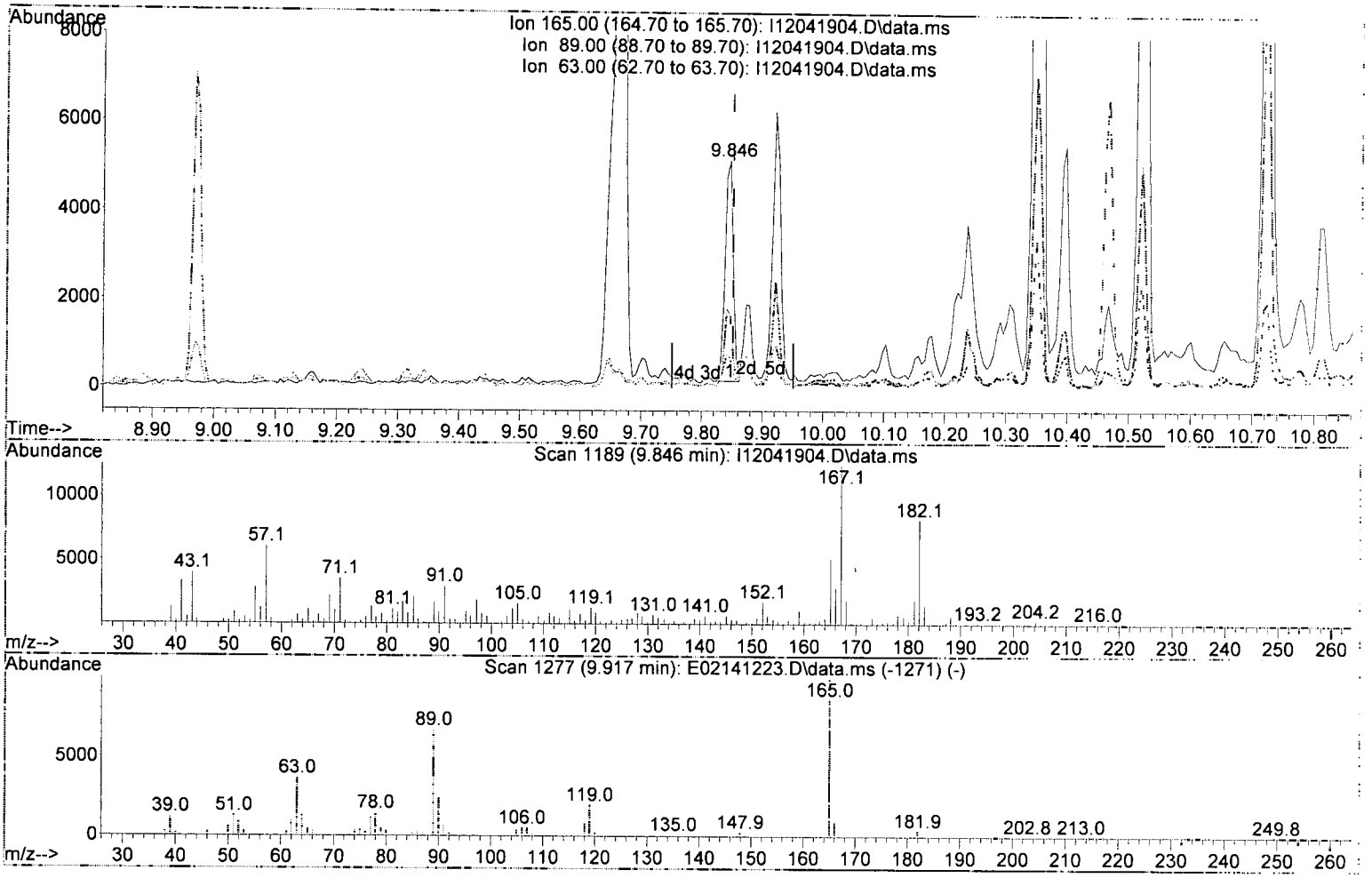
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.301	168	52	68.63	ng/ml#	1
45)	Dimethyl phthalate	9.376	163	206	N.D.		
46)	1,3-Dinitrobenzene	9.418	168	221	15.48	ng/ml	77
47)	2,6-Dinitrotoluene	9.434	165	203	9.72	ng/ml#	53
48)	1,2-Dinitrobenzene	9.461	168	52	5.07	ng/ml#	1
49)	Acenaphthylene	9.520	152	358	2.73	ng/ml#	1
50)	3-Nitroaniline	9.616	138	102	5.18	ng/ml#	60
51)	Acenaphthene	9.697	153	1009	11.58	ng/ml	76
52)	2,4-Dinitrophenol	9.643	184	65	194.91	ng/ml#	1
53)	4-Nitrophenol	9.771	139	383	107.39	ng/ml#	1
54)	2,4-Dinitrotoluene	9.846	165	4769	↑221.23	ng/ml#	52
55)	Dibenzofuran	9.873	168	1273	10.89	ng/ml#	5
56)	2,3,5,6-Tetrachlorophenol	9.953	232	182	48.44	ng/ml#	1
57)	2,3,4,6-Tetrachlorophenol	10.001	232	311	49.91	ng/ml#	1
58)	Diethyl phthalate	10.087	149	1101	13.04	ng/ml	87
59)	2,3,5-Trimethylnaphtha...	10.082	170	3583	48.27	ng/ml	96
60)	Fluorene	10.221	166	2148	24.14	ng/ml#	74
61)	4-Chlorophenyl phenyl ...	10.162	204	171	3.85	ng/ml#	1
62)	4-Nitroaniline	10.215	138	68	3.64	ng/ml	89
63)	4,6-Dinitro-2-methylph...	0.000		0	N.D.		
65)	N-Nitrosodiphenylamine	10.344	169	2827	45.24	ng/ml#	34
66)	Azobenzene (1,2-DPH)	10.392	77	2184	29.85	ng/ml#	1
68)	4-Bromophenyl phenyl e...	10.713	248	171	7.27	ng/ml#	1
69)	Hexachlorobenzene	0.000		0	N.D.		
70)	Pentachlorophenol (PCP)	10.991	266	522	123.60	ng/ml#	68
71)	Phenanthrene	11.205	178	5880	52.35	ng/ml	85
72)	Anthracene	11.237	178	571	5.48	ng/ml#	1
73)	Carbazole	11.413	167	577	13.90	ng/ml#	1
74)	Di-n-butyl phthalate	11.761	149	4059	37.22	ng/ml	87
75)	Fluoranthene	12.478	202	914	7.98	ng/ml	75
76)	Benzidine	12.606	184	58	167.60	ng/ml#	1
77)	Pyrene	12.767	202	2425	20.87	ng/ml	98
80)	Butyl benzyl phthalate	13.794	149	446	73.79	ng/ml#	60
81)	Bis(2-ethylhexyl) adipate	13.965	129	614	86.37	ng/ml	76
82)	3,3-Dichlorobenzidine	14.912	252	86	Below Cal	#	1
83)	Benz(a)anthracene	14.970	228	1027	8.63	ng/ml	87
84)	Chrysene	15.029	228	480	4.13	ng/ml#	53
85)	Bis(2-ethylhexyl) phth...	15.136	149	59399	808.99	ng/ml	100
87)	Di-n-octyl phthalate	16.773	149	107	84.41	ng/ml#	1
88)	Benzo(b)fluoranthene	17.543	252	62	7.94	ng/ml	48
89)	Benzo(k)fluoranthene	17.575	252	215	8.76	ng/ml	57
90)	Benzo(b+k)fluoranthene	17.575	252	223	16.91	ng/ml	57
91)	Benzo(e)pyrene	18.206	252	184	N.D.		
92)	Benzo(a)pyrene	18.335	252	103	9.74	ng/ml#	20
93)	Perylene	18.474	252	892	8.24	ng/ml#	69
95)	Indeno(1,2,3-cd)pyrene	20.859	276	110	N.D.		
96)	Dibenz(a,h)anthracene	0.000		0	N.D.		
97)	Benzo(g,h,i)perylene	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041904.D
Acq On : 4 Dec 2019 5:13 pm
Operator : JK /AMS /DTH
Sample : 9120484-BLK1
Misc : 1x, 8270D TCLP SVOC REG LIST
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 08:51:58 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I12041904.D\data.ms

(54) 2,4-Dinitrotoluene (T)

9.846min (-0.005) 221.23 ng/ml

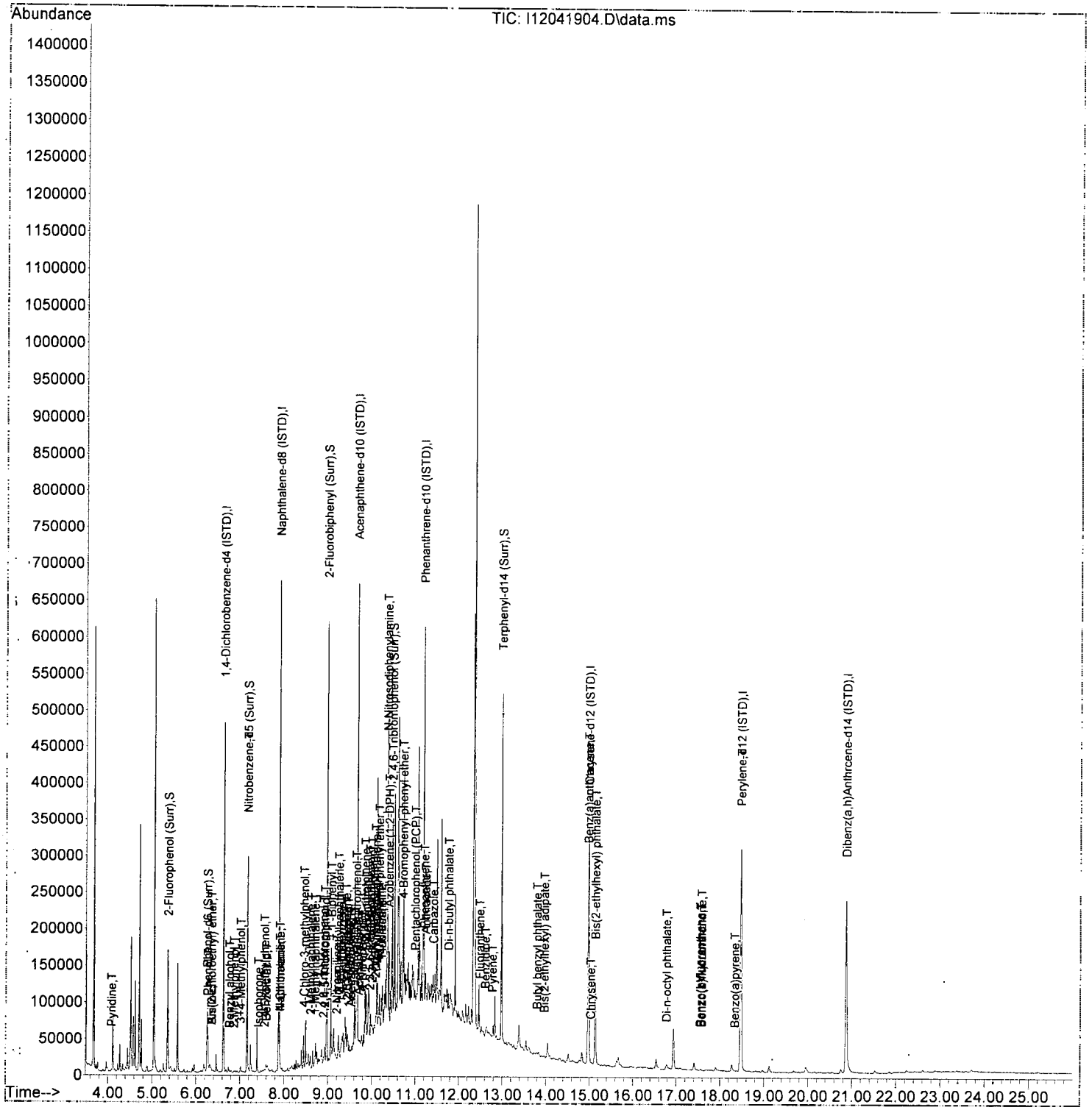
response 4769

Ion	Exp%	Act%
165.00	100.00	100.00
89.00	72.30	32.40#
63.00	45.90	13.63#
0.00	0.00	0.00

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041904.D
Acq On : 4 Dec 2019 5:13 pm
Operator : JK /AMS /DTH
Sample : 9120484-BLK1
Misc : 1x, 8270D TCLP SVOC REG LIST
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 08:51:58 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041905.D
Acq On : 4 Dec 2019 5:47 pm
Operator : JK /AMS /DTH
Sample : 9120484-BS1@4
Misc : 4x, 8270D TCLP SVOC REG LIST
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 12/5/19

Quant Time: Dec 05 08:52:01 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.621	152	76954	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	293397	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.664	162	142715	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.178	188	255724	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.981	240	253686	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.474	264	255493	2000.00	ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.875	292	221080	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	12516	244.47	ng/ml	0.00
5) Phenol-d6 (Surr)	6.257	99	10656	160.21	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.167	82	28742	547.23	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.974	172	60788	562.40	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.467	330	9485	609.92	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.975	244	72092	619.66	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.941	74	17461	440.97	ng/ml	95
3) Pyridine	3.990	79	18795	294.93	ng/ml	93
6) Phenol	6.268	94	18025	243.73	ng/ml	96
7) Aniline	6.300	93	49002	638.32	ng/ml	99
8) Bis(2-chloroethyl) ether	6.359	93	50794	826.98	ng/ml	95
9) 2-Chlorophenol	6.418	128	43260	804.40	ng/ml	96
10) 1,3-Dichlorobenzene	6.573	146	44762	754.69	ng/ml	97
11) 1,4-Dichlorobenzene	6.642	146	44224	761.90	ng/ml	97
12) Benzyl alcohol	6.755	108	18553	561.54	ng/ml	95
13) 1,2-Dichlorobenzene	6.792	146	44530	777.02	ng/ml	96
14) 2-Methylphenol	6.862	107	30049	730.06	ng/ml	96
15) 2,2'-Oxybis(1-Chloropr...	6.888	45	59242	770.58	ng/ml	90
16) N-Nitrosodi-n-propylamine	7.011	70	36429	930.22	ng/ml	96
17) 3+4-Methylphenol	7.011	107	34268	671.35	ng/ml	99
18) Hexachloroethane	7.129	201	12797	755.19	ng/ml	98
20) Nitrobenzene	7.183	77	46608	871.51	ng/ml	96
22) Isophorone	7.418	82	97537	932.52	ng/ml	99
23) 2-Nitrophenol	7.504	139	24610	932.46	ng/ml	95
24) 2,4-Dimethylphenol	7.541	122	35431	842.35	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.632	93	56170	911.28	ng/ml	100
26) Benzoic acid	7.600	105	9664	1266.12	ng/ml	96
27) 2,4-Dichlorophenol	7.744	162	35258	916.02	ng/ml	96
28) 1,2,4-Trichlorobenzene	7.830	180	38857	808.81	ng/ml	98
29) Naphthalene	7.910	128	127263	844.48	ng/ml	99
30) 4-Chloroaniline	7.958	127	45200	904.54	ng/ml	97
31) Hexachlorobutadiene	8.044	225	19588	792.80	ng/ml	97
32) 4-Chloro-3-methylphenol	8.434	107	35139	853.63	ng/ml	98
33) 2-Methylnaphthalene	8.605	142	91901	856.93	ng/ml	99
34) 1-Methylnaphthalene	8.707	142	86832	856.98	ng/ml	99
36) Hexachlorocyclopentadiene	8.777	237	19757	791.88	ng/ml	97
37) 2,4,6-Trichlorophenol	8.889	196	24854	918.13	ng/ml	95
38) 2,4,5-Trichlorophenol	8.921	198	24818	933.09	ng/ml	94
39) 1,1'-Biphenyl	9.076	154	270	N.D.		
41) 2-Chloronaphthalene	9.097	162	82171	918.54	ng/ml	100
42) 2-Nitroaniline	9.194	138	26244	941.85	ng/ml	93
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

J

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041905.D
Acq On : 4 Dec 2019 5:47 pm
Operator : JK /AMS /DTH
Sample : 9120484-BS1@4
Misc : 4x, 8270D TCLP SVOC REG LIST
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 08:52:01 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

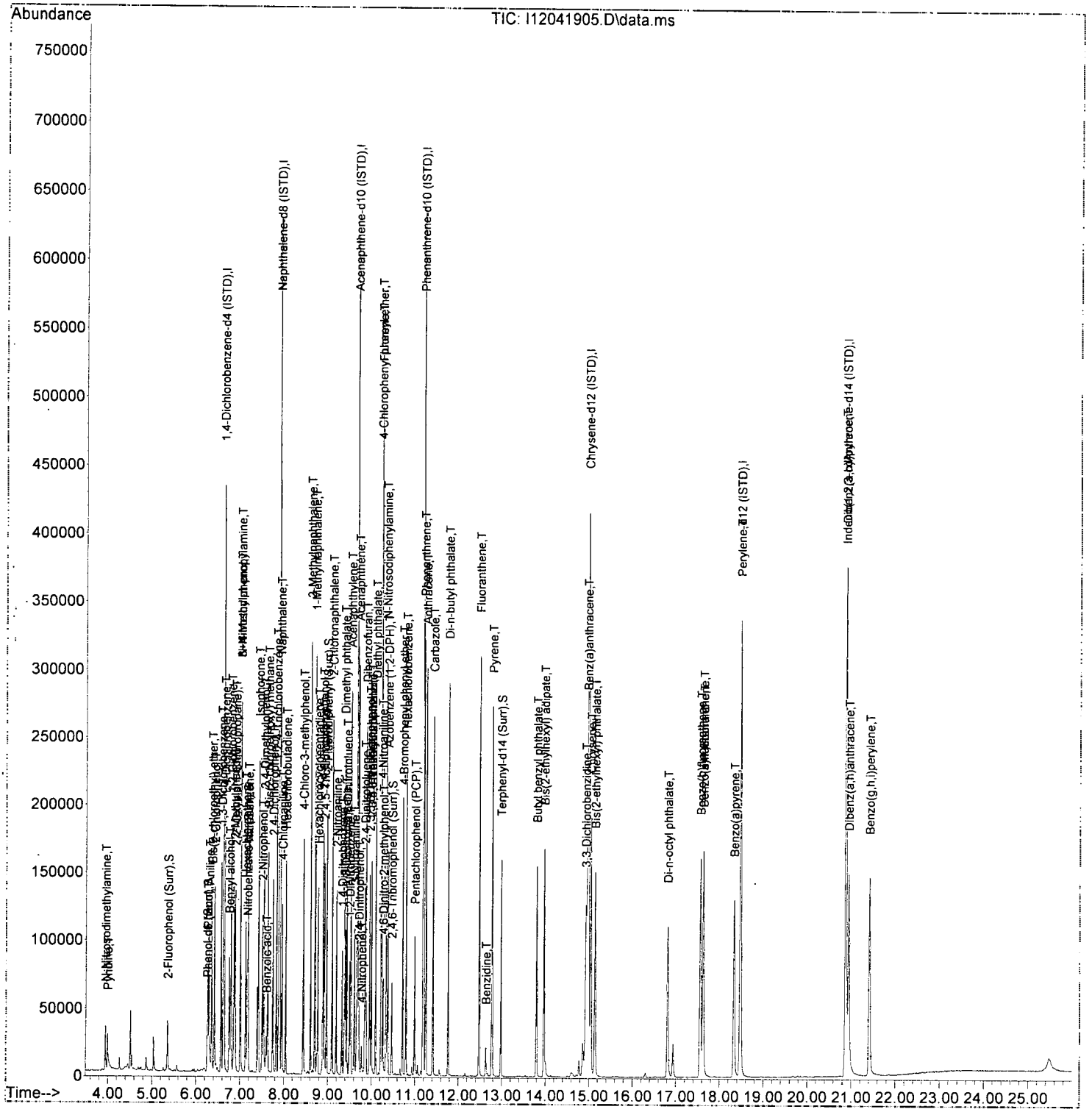
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.322	168	10876	926.58	ng/ml	94
45) Dimethyl phthalate	9.376	163	97533	997.20	ng/ml	99
46) 1,3-Dinitrobenzene	9.402	168	14196	949.78	ng/ml	96
47) 2,6-Dinitrotoluene	9.434	165	21683	991.93	ng/ml	95
48) 1,2-Dinitrobenzene	9.493	168	9608	893.83	ng/ml	86
49) Acenaphthylene	9.520	152	131040	955.53	ng/ml	100
50) 3-Nitroaniline	9.611	138	20067	973.94	ng/ml	94
51) Acenaphthene	9.702	153	81761	895.89	ng/ml	99
52) 2,4-Dinitrophenol	9.713	184	4844	1022.68	ng/ml	92
53) 4-Nitrophenol	9.771	139	4086	349.19	ng/ml	94
54) 2,4-Dinitrotoluene	9.846	165	26407	918.49	ng/ml	92
55) Dibenzofuran	9.873	168	113042	923.30	ng/ml	95
56) 2,3,5,6-Tetrachlorophenol	9.953	232	20458	1009.71	ng/ml	95
57) 2,3,4,6-Tetrachlorophenol	9.996	232	20723	900.27	ng/ml	97
58) Diethyl phthalate	10.092	149	91482	1034.52	ng/ml	99
59) 2,3,5-Trimethylnaphtha...	9.996	170	2032	26.14	ng/ml#	6
60) Fluorene	10.221	166	88919	954.32	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.215	204	43077	926.57	ng/ml	99
62) 4-Nitroaniline	10.231	138	18783	959.20	ng/ml	94
63) 4,6-Dinitro-2-methylph...	10.263	198	10374	1065.21	ng/ml	92
65) N-Nitrosodiphenylamine	10.333	169	76805	996.12	ng/ml	98
66) Azobenzene (1,2-DPH)	10.376	77	87309	967.04	ng/ml	97
68) 4-Bromophenyl phenyl e...	10.718	248	27428	945.26	ng/ml	98
69) Hexachlorobenzene	10.793	284	33652	920.32	ng/ml	97
70) Pentachlorophenol (PCP)	10.991	266	14452	1019.25	ng/ml	98
71) Phenanthrene	11.205	178	130482	941.53	ng/ml	99
72) Anthracene	11.253	178	127990	996.12	ng/ml	98
73) Carbazole	11.413	167	114740	945.23	ng/ml	99
74) Di-n-butyl phthalate	11.761	149	142660	1060.21	ng/ml	100
75) Fluoranthene	12.478	202	147722	1044.78	ng/ml	98
76) Benzidine	12.633	184	11666	334.57	ng/ml	95
77) Pyrene	12.772	202	151311	1055.30	ng/ml	99
80) Butyl benzyl phthalate	13.794	149	55830	948.59	ng/ml	95
81) Bis(2-ethylhexyl) adipate	13.970	129	46955	967.64	ng/ml	99
82) 3,3-Dichlorobenzidine	14.922	252	52890	2259.75	ng/ml	99
83) Benz(a)anthracene	14.960	228	134189	1017.23	ng/ml	99
84) Chrysene	15.040	228	121750	944.65	ng/ml	98
85) Bis(2-ethylhexyl) phth...	15.136	149	78566	950.39	ng/ml	99
87) Di-n-octyl phthalate	16.810	149	108233	990.81	ng/ml	98
88) Benzo(b)fluoranthene	17.559	252	128609	990.37	ng/ml	99
89) Benzo(k)fluoranthene	17.623	252	129027	986.26	ng/ml	99
90) Benzo(b+k)fluoranthene	17.623	252	265977	1960.65	ng/ml	99
91) Benzo(e)pyrene	18.206	252	123	N.D.		
92) Benzo(a)pyrene	18.329	252	111530	974.43	ng/ml	99
93) Perylene	18.474	252	3977	34.27	ng/ml	76
95) Indeno(1,2,3-cd)pyrene	20.870	276	111921	919.80	ng/ml	99
96) Dibenz(a,h)anthracene	20.939	278	106448	955.84	ng/ml	97
97) Benzo(g,h,i)perylene	21.410	276	122855	1026.01	ng/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041905.D
Acq On : 4 Dec 2019 5:47 pm
Operator : JK /AMS /DTH
Sample : 9120484-BS1@4
Misc : 4x, 8270D TCLP SVOC REG LIST
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 08:52:01 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041906.D
Acq On : 4 Dec 2019 6:22 pm
Operator : JK /AMS /DTH
Sample : 9120484-BSD1@4
Misc : 4x, 8270D TCLP SVOC REG LIST
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 12/5/19

Q-19

Quant Time: Dec 05 08:52:04 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.626	152	82181	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	307589	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	145917	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.184	188	269175	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.986	240	263285	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.479	264	260857	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.881	292	222426	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.364	112	14532	265.80	ng/ml	0.00
5) Phenol-d6 (Surr)	6.257	99	12964	182.52	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.167	82	29685	529.24	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.975	172	62528	565.80	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.472	330	9636	589.80	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.981	244	75094	621.93	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.963	74	20549	485.94	ng/ml	96
3) Pyridine	4.011	79	20300	298.29	ng/ml	97
6) Phenol	6.273	94	22261	281.86	ng/ml	96
7) Aniline	6.300	93	50426	615.09	ng/ml	99
8) Bis(2-chloroethyl) ether	6.359	93	52611	802.08	ng/ml	96
9) 2-Chlorophenol	6.423	128	45683	795.42	ng/ml	97
10) 1,3-Dichlorobenzene	6.573	146	49332	778.84	ng/ml	99
11) 1,4-Dichlorobenzene	6.643	146	48197	777.54	ng/ml	99
12) Benzyl alcohol	6.755	108	21800	614.08	ng/ml	98
13) 1,2-Dichlorobenzene	6.798	146	48136	786.52	ng/ml	97
14) 2-Methylphenol	6.862	107	33047	751.84	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.889	45	59945	730.13	ng/ml	90
16) N-Nitrosodi-n-propylamine	7.017	70	37265	891.05	ng/ml	96
17) 3+4-Methylphenol	7.012	107	38110	699.13	ng/ml	98
18) Hexachloroethane	7.135	201	14149	781.87	ng/ml	93
20) Nitrobenzene	7.188	77	48475	848.77	ng/ml	94
22) Isophorone	7.418	82	100164	913.46	ng/ml	99
23) 2-Nitrophenol	7.504	139	25992	939.09	ng/ml	97
24) 2,4-Dimethylphenol	7.541	122	38356	869.81	ng/ml	96
25) Bis(2-chloroethoxy) me...	7.632	93	58232	901.14	ng/ml	100
26) Benzoic acid	7.605	105	11159	1309.95	ng/ml	96
27) 2,4-Dichlorophenol	7.744	162	36654	908.48	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.835	180	41656	827.07	ng/ml	99
29) Naphthalene	7.910	128	133700	846.26	ng/ml	100
30) 4-Chloroaniline	7.958	127	45054	860.01	ng/ml	97
31) Hexachlorobutadiene	8.044	225	21388	825.72	ng/ml	97
32) 4-Chloro-3-methylphenol	8.440	107	36808	852.94	ng/ml	96
33) 2-Methylnaphthalene	8.605	142	95916	853.10	ng/ml	98
34) 1-Methylnaphthalene	8.707	142	89495	842.51	ng/ml	99
36) Hexachlorocyclopentadiene	8.777	237	21529	842.55	ng/ml	98
37) 2,4,6-Trichlorophenol	8.889	196	26062	940.87	ng/ml	97
38) 2,4,5-Trichlorophenol	8.926	198	25327	931.38	ng/ml	97
39) 1,1'-Biphenyl	9.082	154	292	N.D.		
41) 2-Chloronaphthalene	9.103	162	84029	918.69	ng/ml	97
42) 2-Nitroaniline	9.194	138	27155	953.16	ng/ml	95
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

J

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041906.D
Acq On : 4 Dec 2019 6:22 pm
Operator : JK /AMS /DTH
Sample : 9120484-BSD1@4
Misc : 4x, 8270D TCLP SVOC REG LIST
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

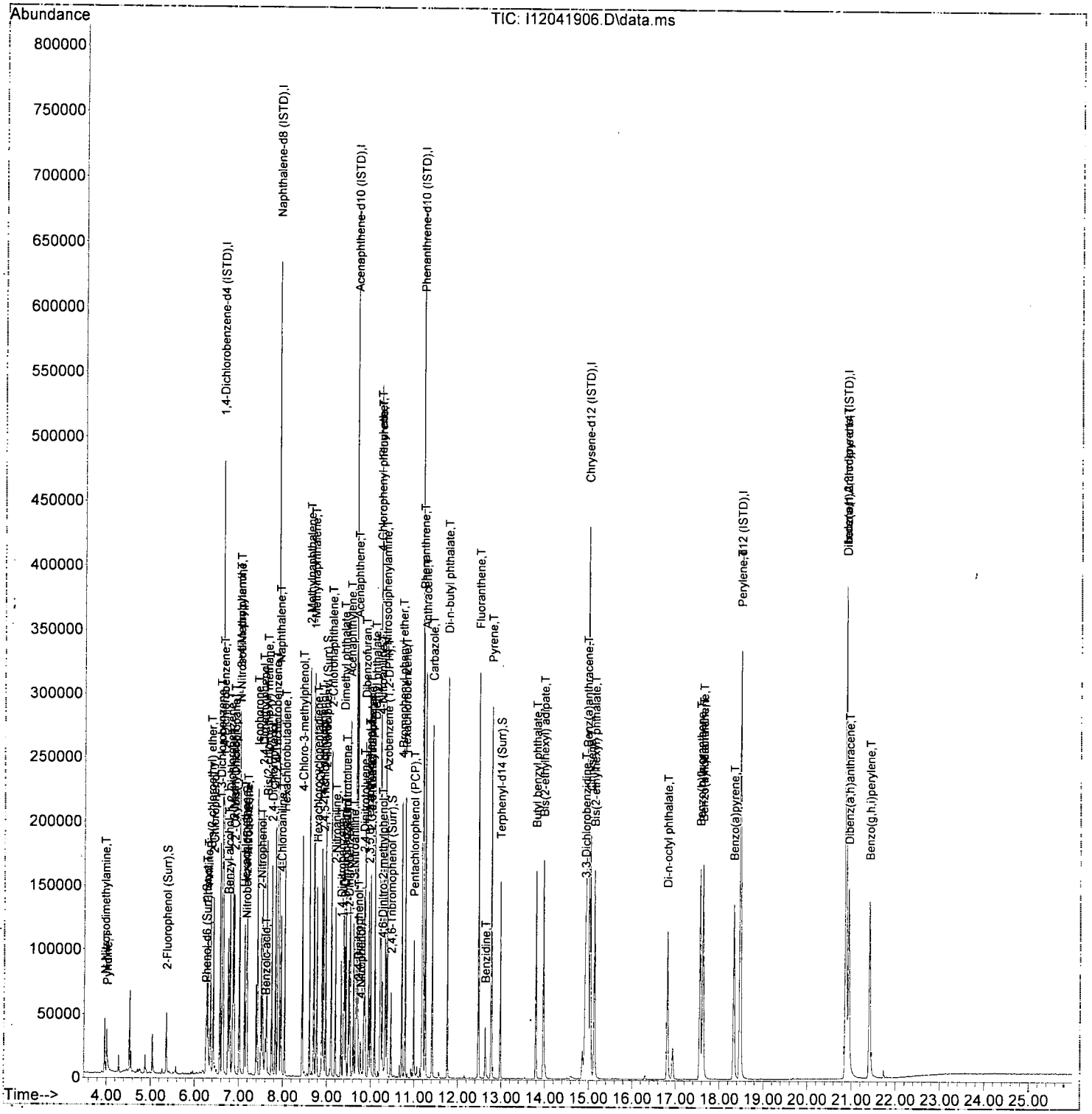
Quant Time: Dec 05 08:52:04 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.322	168	11577	960.87	ng/ml	98
45) Dimethyl phthalate	9.381	163	101172	1011.70	ng/ml	99
46) 1,3-Dinitrobenzene	9.408	168	14702	962.05	ng/ml	91
47) 2,6-Dinitrotoluene	9.440	165	22618	1012.00	ng/ml	85
48) 1,2-Dinitrobenzene	9.493	168	10296	936.82	ng/ml	83
49) Acenaphthylene	9.525	152	132464	944.72	ng/ml	100
50) 3-Nitroaniline	9.611	138	20682	981.76	ng/ml	97
51) Acenaphthene	9.702	153	84228	902.67	ng/ml	99
52) 2,4-Dinitrophenol	9.718	184	5663	1127.07	ng/ml	86
53) 4-Nitrophenol	9.771	139	5402	426.69	ng/ml	96
54) 2,4-Dinitrotoluene	9.846	165	27790	943.77	ng/ml	92
55) Dibenzofuran	9.873	168	116085	927.35	ng/ml	95
56) 2,3,5,6-Tetrachlorophenol	9.959	232	20946	1011.02	ng/ml	94
57) 2,3,4,6-Tetrachlorophenol	10.001	232	22095	937.01	ng/ml	97
58) Diethyl phthalate	10.092	149	94635	1046.70	ng/ml	99
59) 2,3,5-Trimethylnaphtha...	10.001	170	2143	26.97	ng/ml#	6
60) Fluorene	10.226	166	92565	971.65	ng/ml	98
61) 4-Chlorophenyl phenyl ...	10.215	204	45110	949.01	ng/ml	97
62) 4-Nitroaniline	10.231	138	20150	1006.43	ng/ml	96
63) 4,6-Dinitro-2-methylph...	10.264	198	11359	1127.01	ng/ml	98
65) N-Nitrosodiphenylamine	10.333	169	79465	979.12	ng/ml	99
66) Azobenzene (1,2-DPH)	10.381	77	88918	935.65	ng/ml	93
68) 4-Bromophenyl phenyl e...	10.718	248	28863	945.01	ng/ml	99
69) Hexachlorobenzene	10.793	284	34416	894.19	ng/ml	99
70) Pentachlorophenol (PCP)	10.991	266	15647	1044.89	ng/ml	97
71) Phenanthrene	11.205	178	133230	913.32	ng/ml	100
72) Anthracene	11.258	178	133346	985.94	ng/ml	99
73) Carbazole	11.414	167	119355	933.65	ng/ml	99
74) Di-n-butyl phthalate	11.761	149	150338	1061.44	ng/ml	99
75) Fluoranthene	12.478	202	152784	1026.58	ng/ml	99
76) Benzidine	12.633	184	21551	461.63	ng/ml	97
77) Pyrene	12.772	202	157488	1043.50	ng/ml	99
80) Butyl benzyl phthalate	13.794	149	57450	941.35	ng/ml	95
81) Bis(2-ethylhexyl) adipate	13.970	129	48889	970.42	ng/ml	97
82) 3,3-Dichlorobenzidine	14.928	252	53340	2188.76	ng/ml	98
83) Benz(a)anthracene	14.960	228	139815	1021.24	ng/ml	98
84) Chrysene	15.045	228	124101	927.79	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.136	149	81105	945.75	ng/ml	99
87) Di-n-octyl phthalate	16.810	149	108610	976.28	ng/ml	97
88) Benzo(b)fluoranthene	17.559	252	132467	998.77	ng/ml	99
89) Benzo(k)fluoranthene	17.623	252	134938	1009.99	ng/ml	99
90) Benzo(b+k)fluoranthene	17.623	252	275649	1989.53	ng/ml	99
91) Benzo(e)pyrene	18.206	252	62	N.D.		
92) Benzo(a)pyrene	18.329	252	113224	969.06	ng/ml	98
93) Perylene	18.479	252	3915	33.04	ng/ml	87
95) Indeno(1,2,3-cd)pyrene	20.875	276	115406	942.70	ng/ml	98
96) Dibenz(a,h)anthracene	20.945	278	107242	957.15	ng/ml	99
97) Benzo(g,h,i)perylene	21.415	276	125374	1040.71	ng/ml	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041906.D
Acq On : 4 Dec 2019 6:22 pm
Operator : JK /AMS /DTH
Sample : 9120484-BSD1@4
Misc : 4x, 8270D TCLP SVOC REG LIST
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 08:52:04 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041907.D
Acq On : 4 Dec 2019 6:56 pm
Operator : JK /AMS /DTH
Sample : A9K0609-01@50
Misc : 50x, 8270D TCLP SVOC REG LIST
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 08:52:07 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

RPY
AMS
12/5/19

RPY

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.626	152	82729	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	319797	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	155561	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.184	188	264477	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.986	240	256718	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.479	264	243159	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.875	292	198127	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	741	13.46	ng/ml	0.00
5) Phenol-d6 (Surr)	6.268	99	375	5.24	ng/ml	0.01
19) Nitrobenzene-d5 (Surr)	7.172	82	1808	32.02	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.975	172	4826	40.96	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.472	330	284	45.71	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.981	244	4811	40.86	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	6.873	107	50	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	0.000		0	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	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	7.910	128	5754	35.03	ng/ml	97
30) 4-Chloroaniline	7.910	127	795	14.60	ng/ml#	30
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	8.611	142	546	4.67	ng/ml	96
34) 1-Methylnaphthalene	8.707	142	1146	10.38	ng/ml	86
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	9.076	154	165	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	9.247	156	232	N.D.		

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041907.D
Acq On : 4 Dec 2019 6:56 pm
Operator : JK /AMS /DTH
Sample : A9K0609-01@50
Misc : 50x, 8270D TCLP SVOC REG LIST
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

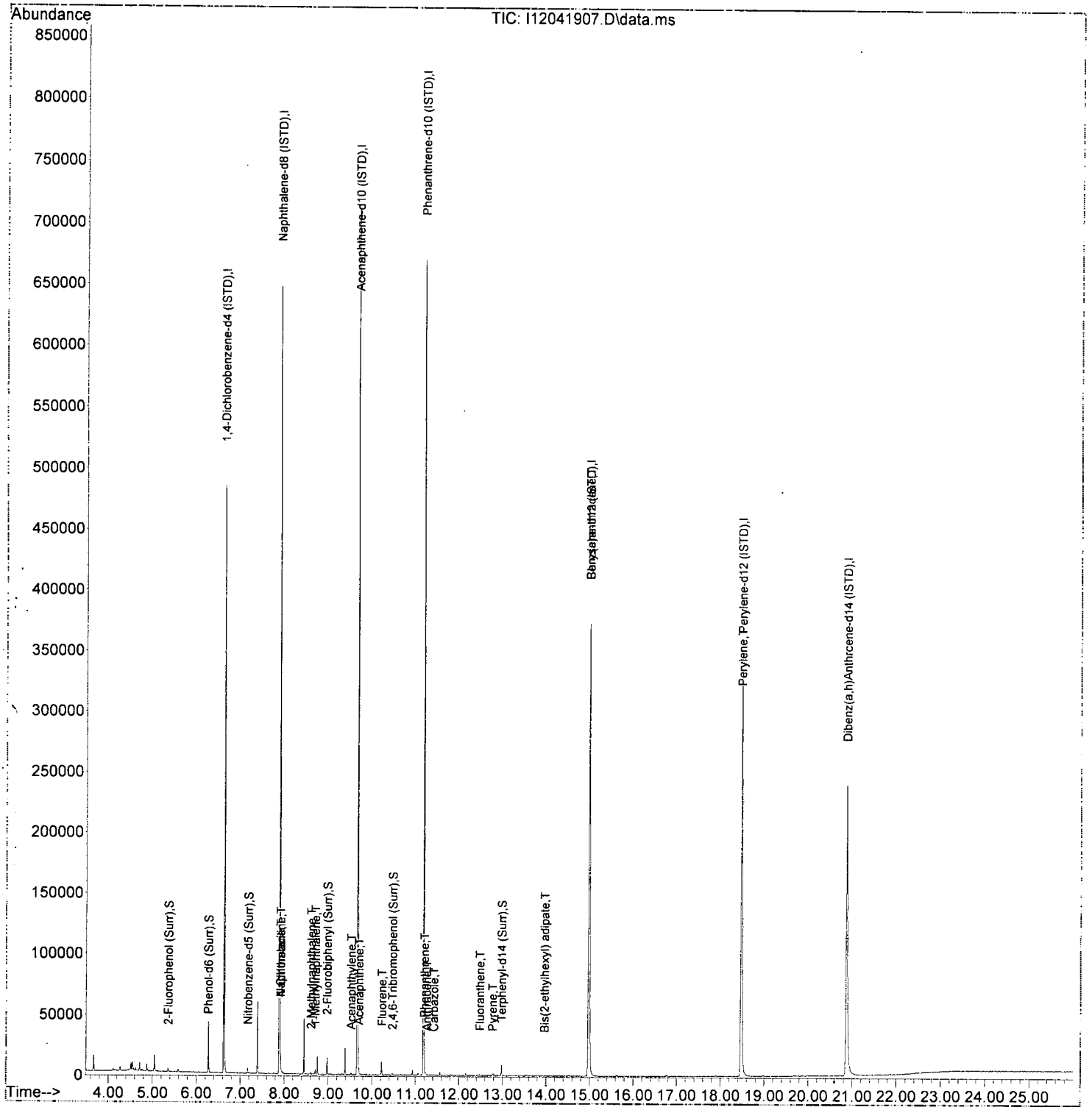
Quant Time: Dec 05 08:52:07 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	0.000		0	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.520	152	666	4.46 ng/ml	88
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	9.702	153	1019	10.24 ng/ml	92
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	0.000		0	N.D.	
55) Dibenzofuran	9.873	168	211	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	0.000		0	N.D.	
60) Fluorene	10.226	166	832	8.19 ng/ml	90
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	0.000		0	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	0.000		0	N.D.	
71) Phenanthrene	11.205	178	3166	22.09 ng/ml	94
72) Anthracene	11.258	178	389	2.93 ng/ml	96
73) Carbazole	11.419	167	351	11.00 ng/ml	70
74) Di-n-butyl phthalate	11.761	149	125	N.D.	
75) Fluoranthene	12.478	202	661	4.52 ng/ml	90
76) Benzidine	0.000		0	N.D.	
77) Pyrene	12.767	202	625	4.21 ng/ml	88
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	13.965	129	55	73.97 ng/ml	53
82) 3,3-Dichlorobenzidine	14.917	252	50	Below Cal #	54
83) Benz(a)anthracene	14.986	228	682	5.11 ng/ml	53
84) Chrysene	15.040	228	149	N.D.	
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	0.000		0	N.D.	
89) Benzo(k)fluoranthene	0.000		0	N.D.	
90) Benzo(b+k)fluoranthene	0.000		0	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.474	252	782	7.08 ng/ml#	64
95) Indeno(1,2,3-cd)pyrene	20.875	276	62	N.D.	
96) Dibenz(a,h)anthracene	0.000		0	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041907.D
Acq On : 4 Dec 2019 6:56 pm
Operator : JK /AMS /DTH
Sample : A9K0609-01@50
Misc : 50x, 8270D TCLP SVOC REG LIST
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 08:52:07 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041908.D
Acq On : 4 Dec 2019 7:31 pm
Operator : JK /AMS /DTH
Sample : A9K0609-02@50
Misc : 50x, 8270D TCLP SVOC REG LIST
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 12/5/19 RRL

Quant Time: Dec 05 08:52:10 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.627	152	79003	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	316003	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	152519	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.184	188	265083	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.986	240	249654	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.479	264	237397	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.881	292	193671	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	469	8.92	ng/ml	0.00
5) Phenol-d6 (Surr)	6.268	99	237	3.47	ng/ml	0.01
19) Nitrobenzene-d5 (Surr)	7.172	82	1070	19.84	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.975	172	3249	28.13	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.472	330	211	41.33	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.981	244	3960	34.59	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	0.000		0	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	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	7.905	128	210	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	0.000		0	N.D.		
34) 1-Methylnaphthalene	8.713	142	276	2.53	ng/ml	96
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	0.000		0	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	9.317	156	105	N.D.		

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041908.D
Acq On : 4 Dec 2019 7:31 pm
Operator : JK /AMS /DTH
Sample : A9K0609-02@50
Misc : 50x, 8270D TCLP SVOC REG LIST
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

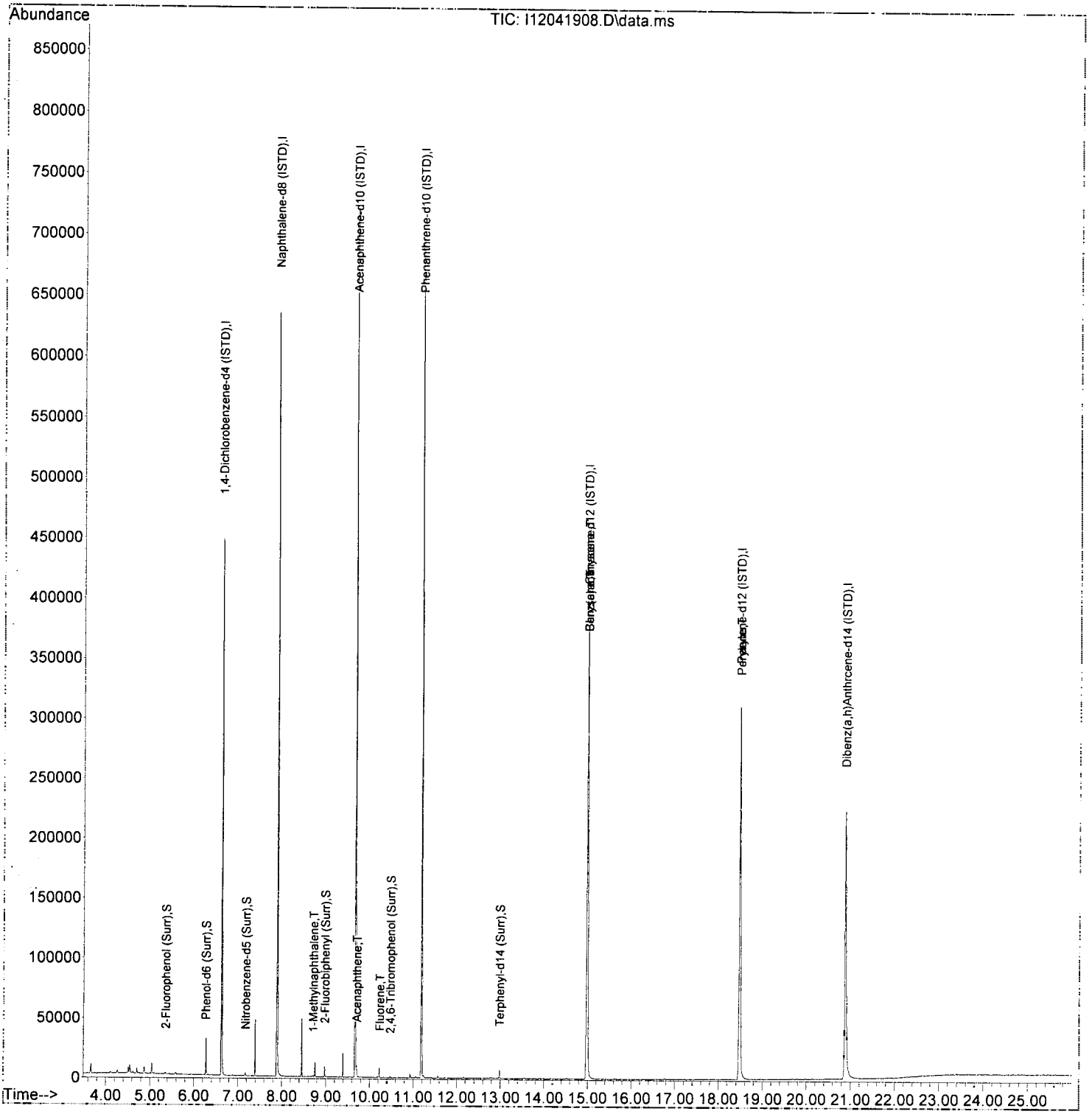
Quant Time: Dec 05 08:52:10 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	0.000		0	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	0.000		0	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	9.702	153	2237	22.94 ng/ml	97
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	0.000		0	N.D.	
55) Dibenzofuran	9.879	168	53	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	0.000		0	N.D.	
60) Fluorene	10.226	166	308	3.09 ng/ml	84
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	0.000		0	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	0.000		0	N.D.	
71) Phenanthrene	11.205	178	100	N.D.	
72) Anthracene	11.264	178	53	N.D.	
73) Carbazole	0.000		0	N.D.	
74) Di-n-butyl phthalate	0.000		0	N.D.	
75) Fluoranthene	12.473	202	161	N.D.	
76) Benzidine	0.000		0	N.D.	
77) Pyrene	12.767	202	204	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	0.000		0	N.D.	
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.992	228	601	4.63 ng/ml	66
84) Chrysene	14.992	228	601	4.74 ng/ml	62
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	0.000		0	N.D.	
89) Benzo(k)fluoranthene	0.000		0	N.D.	
90) Benzo(b+k)fluoranthene	0.000		0	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.485	252	824	7.64 ng/ml#	67
95) Indeno(1,2,3-cd)pyrene	20.881	276	74	N.D.	
96) Dibenz(a,h)anthracene	0.000		0	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-12\9L04040\
Data File : I12041908.D
Acq On : 4 Dec 2019 7:31 pm
Operator : JK /AMS /DTH
Sample : A9K0609-02@50
Misc : 50x, 8270D TCLP SVOC REG LIST
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 08:52:10 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Semivolatile Organic Compounds by EPA 8270D
Benchsheet & Analysis Sequence Data

Batch 9120579
Sequence 9L06015 (A9K0609-02RE2)

Apex Laboratories

PREPARATION BENCH SHEET

DEC 0 9 2019

BATCH #: 9120579 (Soil)

Prep Method: EPA 1311/3510C (BNA Extraction)

#	Lab Number		Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9120579-BLK1		QC	12/05/19 14:31	200	2				100					
	9120579-BSD1		QC	12/05/19 14:31	200	2	A19K302		100	100					
	9120579-BS1		QC	12/05/19 14:31	200	2	A19K302		100	100					
	A9K0609-02RE2	A	1311/8270D TCLP SVOC Reg List	12/05/19 14:31	200	2				100	PDI-144RAB-C-00-29-191114	Due to surrogate failures. Added 12/5/2019 By jk			

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A18K311	12/31/20	Glass Wool
A19H399	08/23/21	Conc. HCl - Omnitrace
A19I263	03/18/20	DCM CHEM PROD. 194934
A19I297	03/22/20	6N Sodium Hydroxide
A19K010	10/29/25	Sodium Sulfate Lot # 188777

Analyte Spike(s)

Std ID	Exp. Date	Description
A19K302	05/19/20	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s)

Std ID	Exp. Date	Description
A19K359	05/24/20	PAH Soil and Water Surr. (50ppm)

3x rinse

Witness: _____

Bottle Check: _____

Prepared By: _____ Date _____

Reviewed By: DH 12/6/19 Date

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9120579 (Soil)

Prep Method: EPA 1311/3510C (BNA Extraction)

#	Lab Number		Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9120579-BLK1		QC	12/05/19 14:31	200	2				100			✓		✓
	9120579-BSD1		QC	12/05/19 14:31	200	2	A19K302		100	100			✓		✓
	9120579-BS1		QC	12/05/19 14:31	200	2	A19K302		100	100			✓		✓
	A9K0609-02RE2	A	1311/8270D TCLP SVOC Reg List	12/05/19 14:31	200	2				100	PDI-144RAB-C-00-29-191114	Due to surrogate failures. Added 12/5/2019 By jk	✓		✓

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A18K311	12/31/20	Glass Wool
A19H399	08/23/21	Conc. HCl - Omnitrace
A19I263	03/18/20	DCM CHEM PROD. 194934
A19I297	03/22/20	6N Sodium Hydroxide
A19K010	10/29/25	Sodium Sulfate Lot # 188777

Analyte Spike(s)

Std ID	Exp. Date	Description
A19K302	05/19/20	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s)

Std ID	Exp. Date	Description
A19K359	05/24/20	PAH Soil and Water Surr. (50ppm)

3x rinse ✓ am 12.05.19

Witness: CAH 12.05.19

Bottle Check: N/A /am 12.05.19

am 12.05.19
Prepared By: Date

cas 12/05/19
Reviewed By: Date

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9L06015**	Instrument:	**SV-GCMS9**
Date:	**12/06/19 08:46**	Calibration:	**A9L0505**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9L06015-TUN1	Soil	QC	QC			A19I086	A19K329
2	9L06015-CCV1	Soil	QC	QC			A19I086	A19G243
3	9L06015-CCB1	Soil	QC	QC			A19I086	
4	9120579-BLK1	Soil	QC	QC		9120579	A19I086	
5	9120579-BS1	Soil	QC	QC		9120579	A19I086	
6	9120579-BSD1	Soil	QC	QC		9120579	A19I086	
7	A9K0609-02RE2	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	12/04/19	9120579	A19I086	
8	9L06015-IBL1	Soil	QC	QC			A19I086	
9	A9L0130-01RE1	Water	8270D LL Full List		12/17/19	9120590	A19I086	
10	9L06015-IBL2	Soil	QC	QC			A19I086	

Data Entered By: AMS 12/9/19

Data Reviewed By: [illegible] 12/10/19

Comments: ADDED 8270D LL FULL LIST Sample + QC

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9L06015**	Instrument:	**SV-GCMS9**
Date:	**12/06/19 08:46**	Calibration:	**A9L0505**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9L06015-TUN1	Soil	QC	QC			A19I086	A19K329
2	9L06015-CCV1	Soil	QC	QC			A19I086	A19G243
3	9L06015-CCB1	Soil	QC	QC			A19I086	
4	9120579-BLK1	Soil	QC	QC		9120579	A19I086	
5	9120579-BS1	Soil	QC	QC		9120579	A19I086	
6	9120579-BSD1	Soil	QC	QC		9120579	A19I086	
7	A9K0609-02RE2	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	12/04/19	9120579	A19I086	
8	9L06015-IBL1	Soil	QC	QC			A19I086	

Comments: Partial

Data Entered By: DH 12/6/19

Data Reviewed By: DH 12/6/19

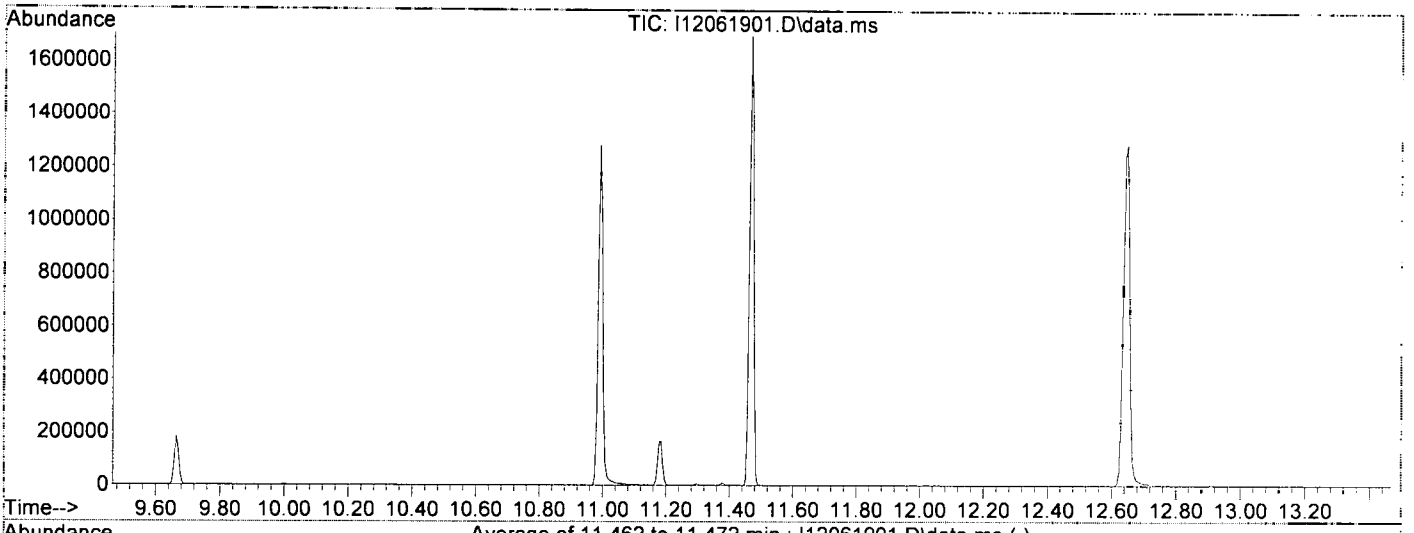
DFTPP

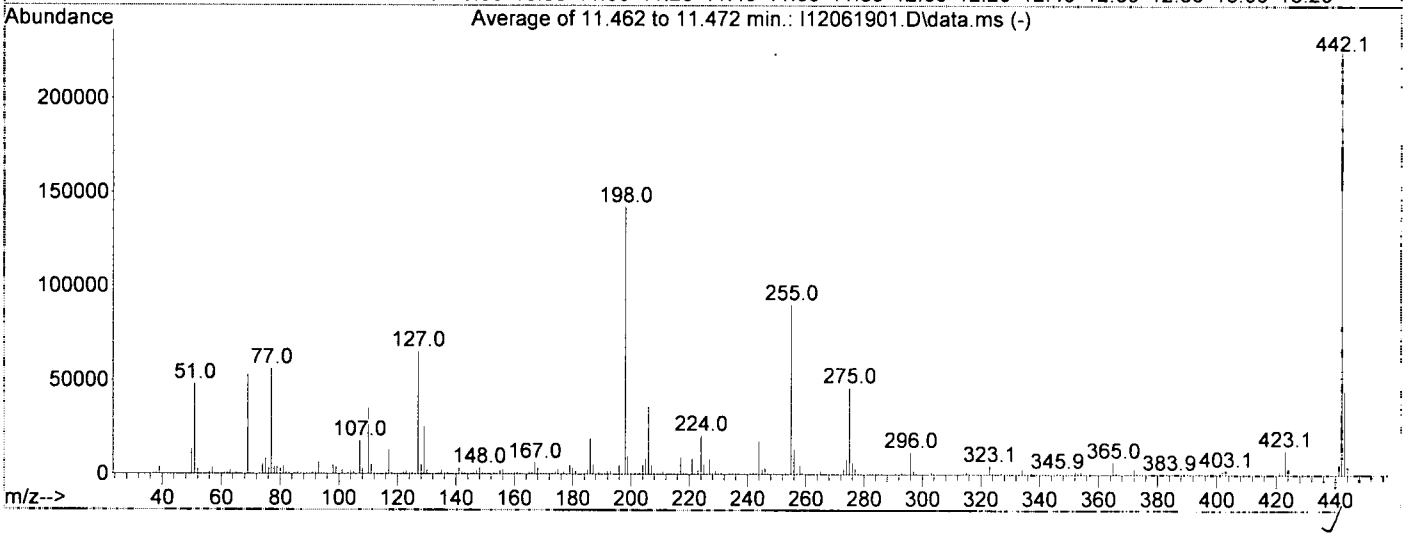
Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061901.D
Acq On : 6 Dec 2019 8:51 am
Operator : JK /AMS /DTH
Sample : 9L06015-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\DFTPP.M
Title : DFTPP Tune Methodug/mL
Last Update : Wed Dec 04 09:09:00 2019

DTH 12/6/19





AutoFind: Scans 1491, 1492, 1493; Background Corrected with Scan 1485

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	52960	PASS
70	69	0.00	2	0.5	265	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	142296	PASS
199	198	5	9	6.8	9731	PASS
365	198	1	100	4.8	6789	PASS
441	443	0.01	150	11.2	5003	PASS
442	198	0.10	200	157.9	224651	PASS
443	442	15	24	19.9	44680	PASS

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061901.D
Acq On : 6 Dec 2019 8:51 am
Operator : JK /AMS /DTH
Sample : 9L06015-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Dec 06 13:24:48 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Dec 04 09:09:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9

DTH 12/6/19

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	7.883	136	79647	2.00 ug/mL	0.00
2) Acenaphthene-d10	9.665	162	38669	2.00 ug/mL	0.00
4) Phenanthrene-d10	11.184	188	67914	2.00 ug/mL	0.00
10) Chrysene-d12	14.906	240	53832	2.00 ug/mL	0.00
11) Perylene-d12	17.035	264	43378	2.00 ug/mL	0.06
Target Compounds					Qvalue
3) Pentachlorophenol	10.991	266	176107	40.59 ug/mL	88
5) DFTPP	11.472	442	268334	47.00 ug/mL#	55
6) Benzidine	12.649	184	718032	35.12 ug/mL	88
7) 4,4-DDE	12.911	TIC	4436	No Calib #	
8) 4,4-DDD	~~13.483~~	~~TIC~~	1440 ~~4529~~	~~1.61 ug/mL#~~	~~1~~ mI
9) 4,4-DDT	13.992	TIC	2088208	36.49 ug/mL#	1

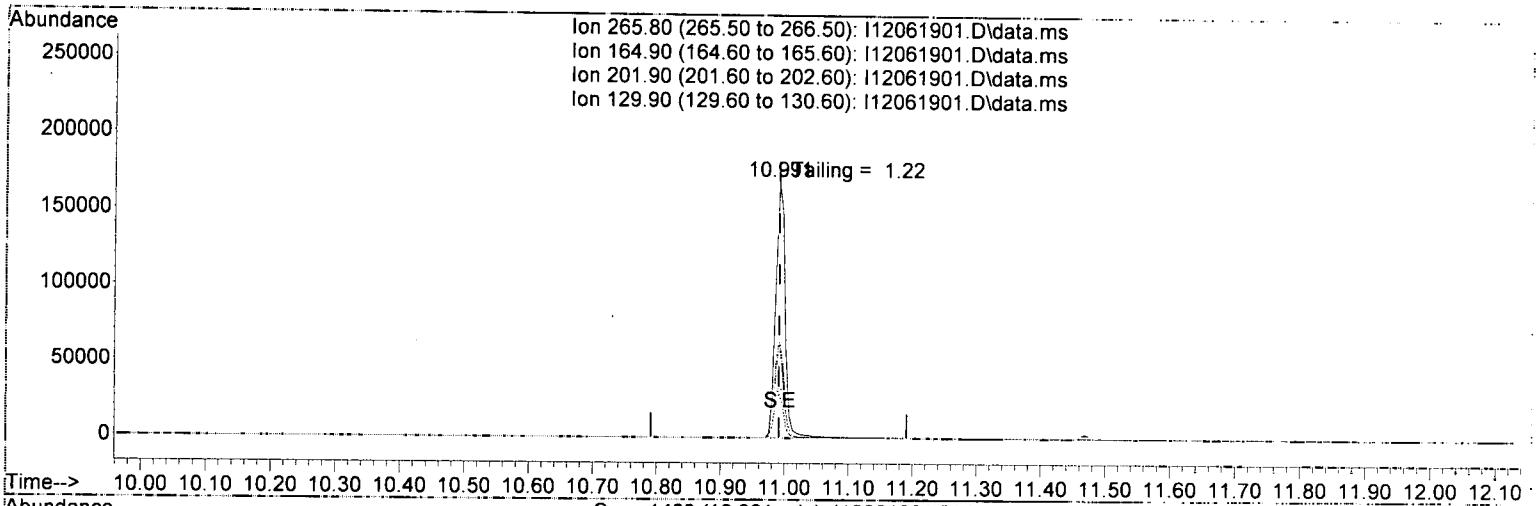
DTH 12/6/19

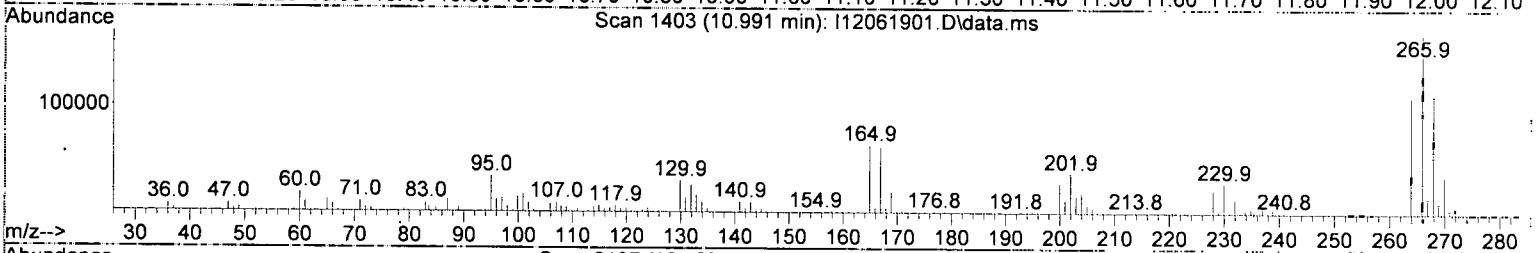
(#) = qualifier out of range (m) = manual integration (+) = signals summed

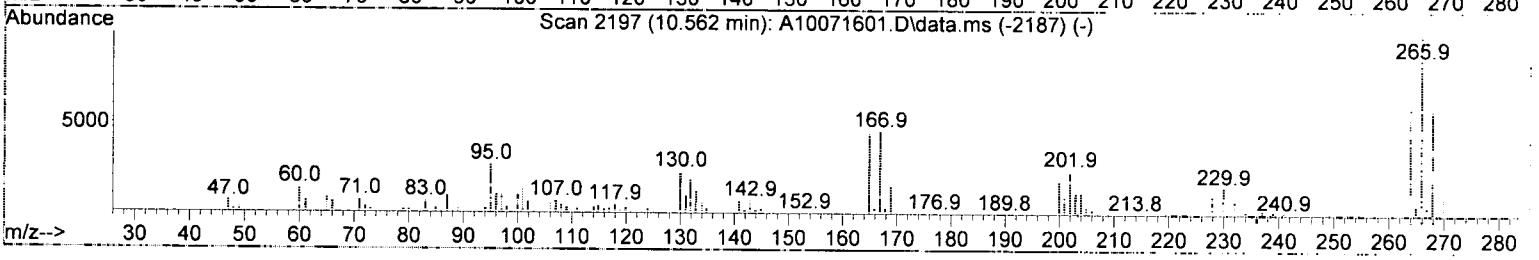
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061901.D
Acq On : 6 Dec 2019 8:51 am
Operator : JK /AMS /DTH
Sample : 9L06015-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Dec 06 13:24:48 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Dec 04 09:09:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I12061901.D\data.ms

(3) Pentachlorophenol

10.991min (-0.000) 40.59 ug/mL

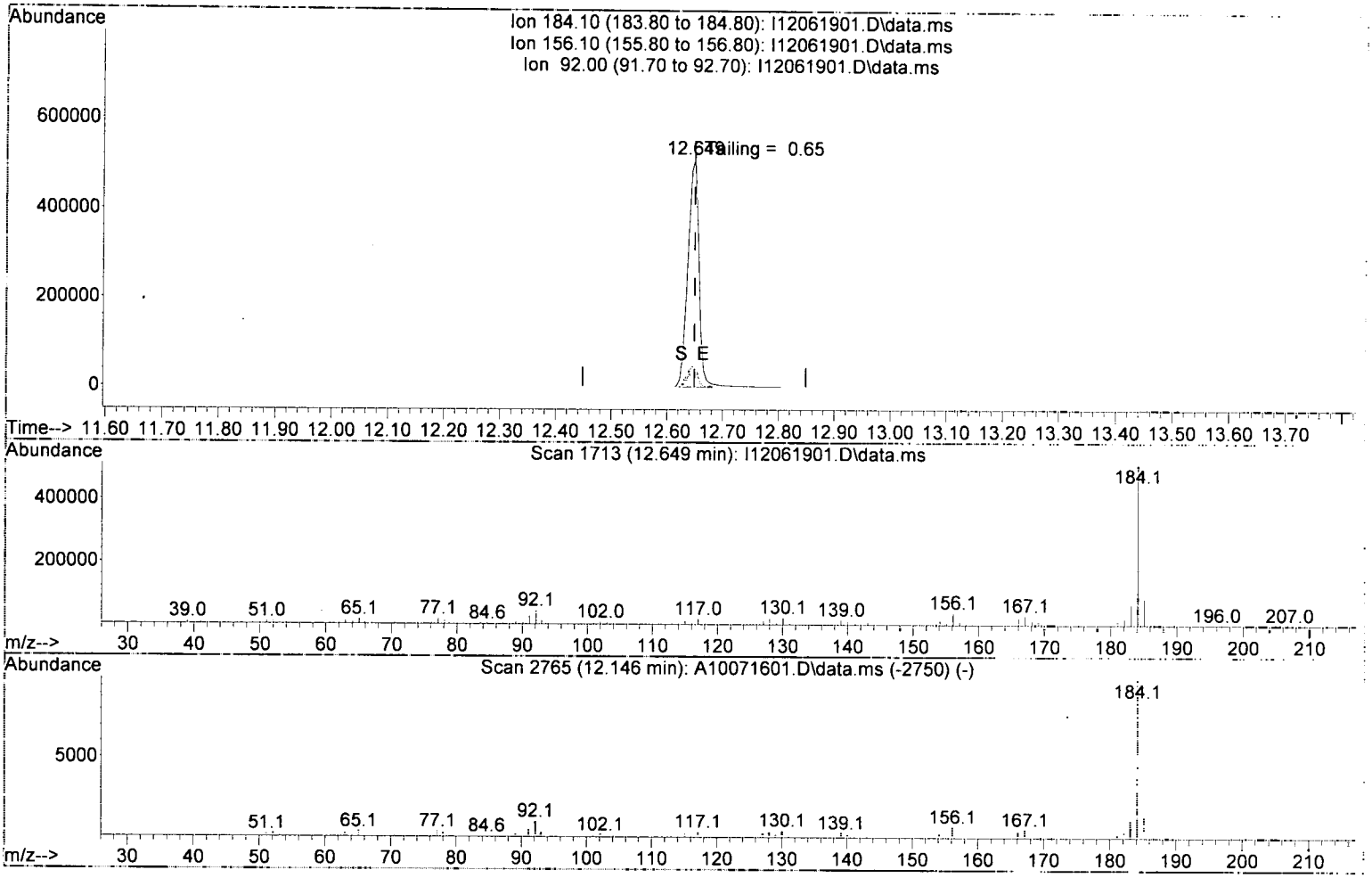
response 176107

Ion	Exp%	Act%
265.80	100.00	100.00
164.90	47.40	37.48
201.90	26.10	21.74
129.90	22.80	17.58

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061901.D
Acq On : 6 Dec 2019 8:51 am
Operator : JK /AMS /DTH
Sample : 9L06015-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Dec 06 13:24:48 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Dec 04 09:09:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I12061901.D\data.ms

(6) Benzidine

12.649min (-0.000) 35.12 ug/mL

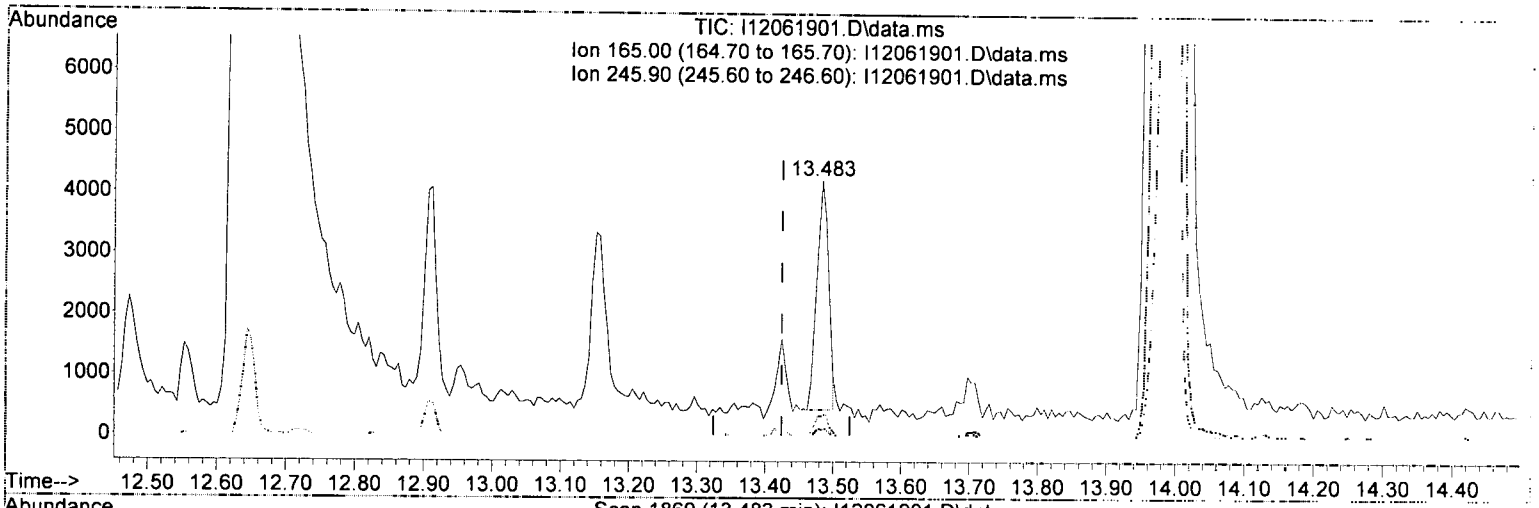
response 718032

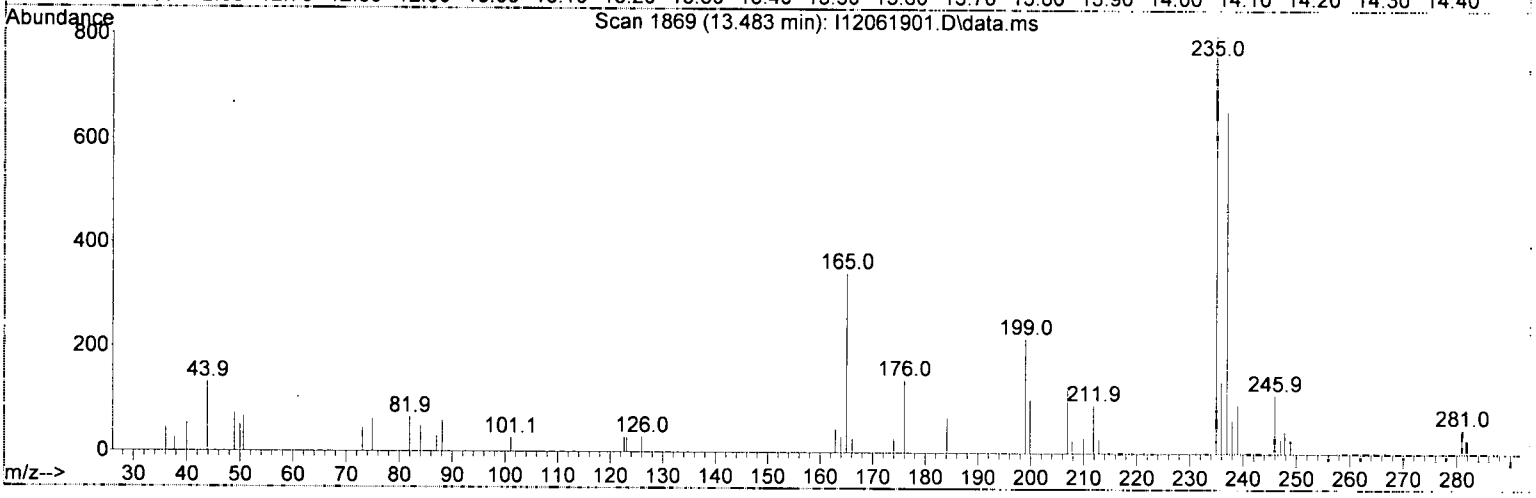
Ion	Exp%	Act%
184.10	100.00	100.00
156.10	9.40	7.46
92.00	15.50	8.57
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061901.D
Acq On : 6 Dec 2019 8:51 am
Operator : JK /AMS /DTH
Sample : 9L06015-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Dec 06 13:24:48 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Dec 04 09:09:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9





TIC: I12061901.D\data.ms

(8) 4,4-DDD

13.483min (+ 0.059) 1.61 ug/mL

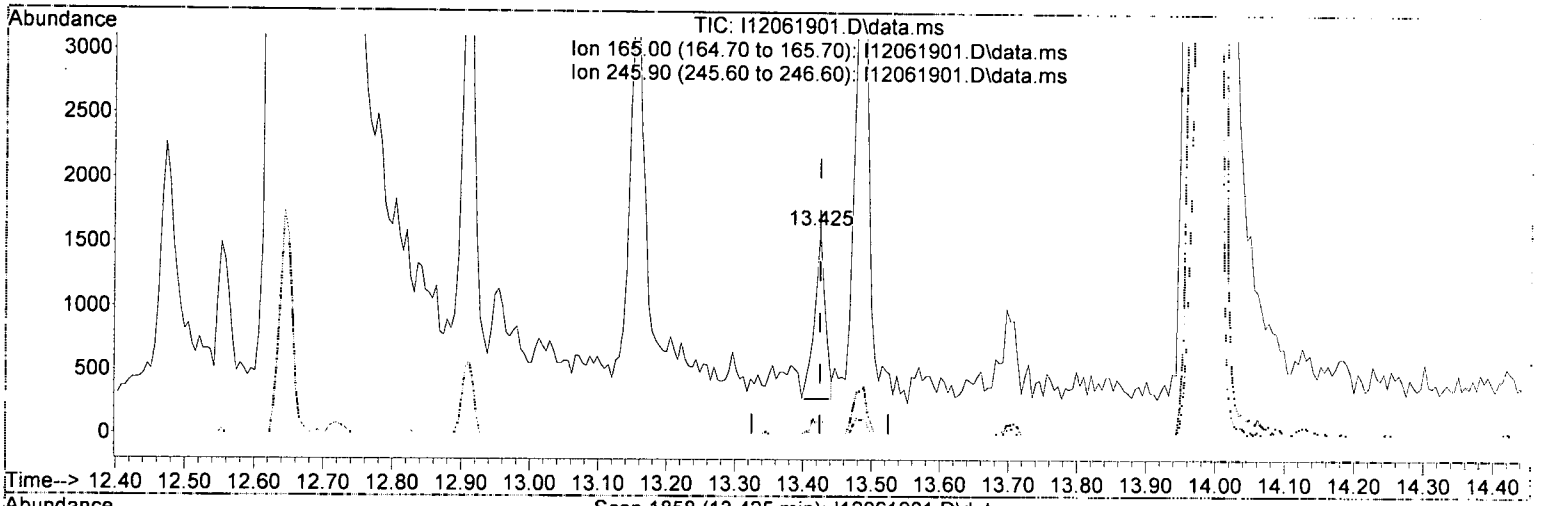
response 4529

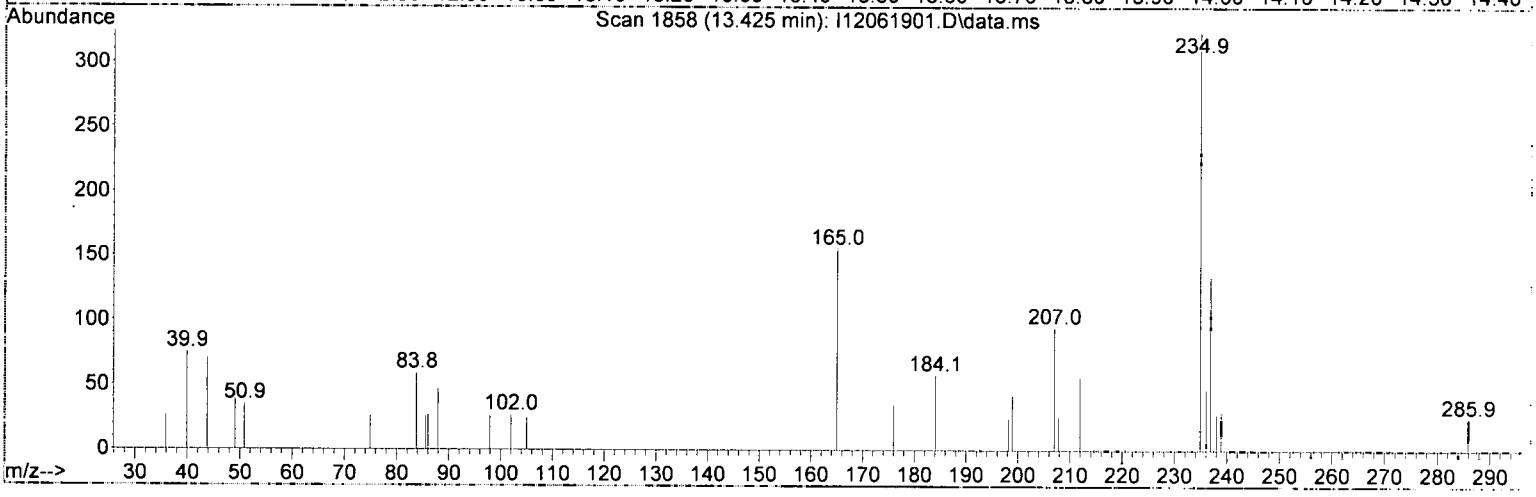
Signal	Exp%	Act%
TIC	100.00	100.00
165.00	971.30	8.16#
245.90	39.20	2.66#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061901.D
Acq On : 6 Dec 2019 8:51 am
Operator : JK /AMS /DTH
Sample : 9L06015-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Dec 06 13:24:48 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Dec 04 09:09:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9





TIC: I12061901.D\data.ms

(8) 4,4-DDD

13.425min (-0.000) 0.51 ug/mL (m)

response 1440

BTH 12/16/19

Signal	Exp%	Act%
TIC	100.00	100.00
165.00	971.30	15600.00#
245.90	39.20	0.00#
0.00	0.00	0.00

DDT Breakdown Check (Validated 5/1/2013)

From:
9L06015-TUN1
SV-GCMS9

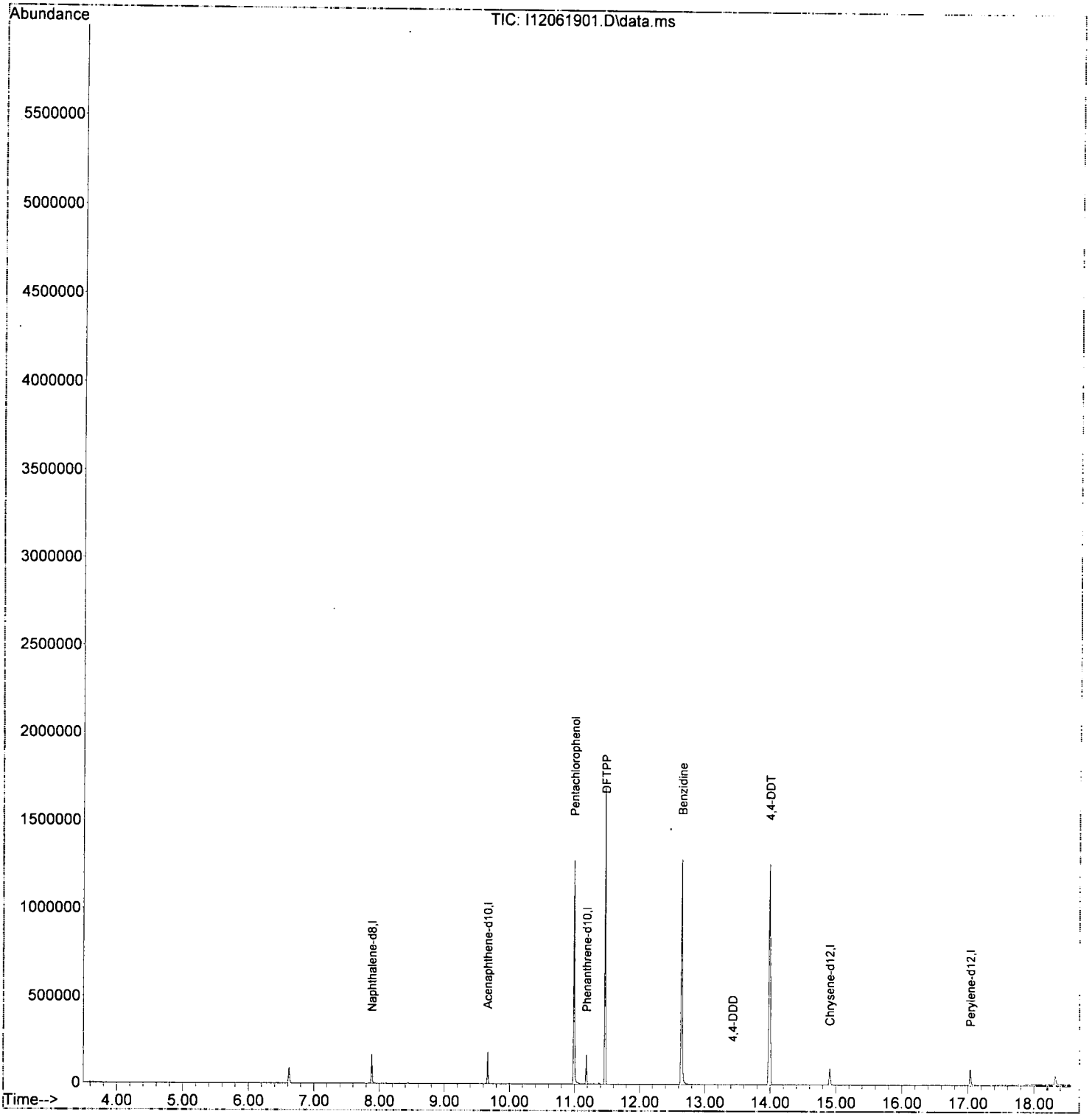
First Column Area Counts		J	Percent Breakdown
DDE	4436		
DDD	1440		
DDT	2088208	0.28	PASS

Breakdown must be less than 20% to accept sample data.

No Name Entered Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061901.D
Acq On : 6 Dec 2019 8:51 am
Operator : JK /AMS /DTH
Sample : 9L06015-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Dec 06 13:26:25 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Dec 04 09:09:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061902.D
Acq On : 6 Dec 2019 9:18 am
Operator : JK /AMS /DTH
Sample : 9L06015-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 06 13:28:40 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

DAT 12/6/19

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (IST	2000.000	2000.000	0.0	87	0.00
2	T	N-Nitrosodimethylamine	1000.000	923.254	7.7	80	0.00
3	T	Pyridine	1000.000	983.487	1.7	81	0.00
4	S	2-Fluorophenol (Surr)	1000.000	957.847	4.2	85	0.00
5	S	Phenol-d6 (Surr)	1000.000	1031.512	-3.2	84	0.00
6	T	Phenol	1000.000	1040.785	-4.1	83	0.00
7	T	Aniline	1000.000	1058.368	-5.8	82	0.00
8	T	Bis(2-chloroethyl) ether	1000.000	959.465	4.1	82	0.00
9	T	2-Chlorophenol	1000.000	1069.854	-7.0	86	0.00
10	T	1,3-Dichlorobenzene	1000.000	1042.384	-4.2	88	0.00
11	T	1,4-Dichlorobenzene	1000.000	1042.834	-4.3	89	0.00
12	T	Benzyl alcohol	1000.000	895.654	10.4	83	0.00
13	T	1,2-Dichlorobenzene	1000.000	1026.909	-2.7	87	0.00
14	T	2-Methylphenol	1000.000	1058.146	-5.8	85	0.00
15	T	2,2'-Oxybis(1-Chloropropane	1000.000	843.954	15.6	75	0.00
16	T	N-Nitrosodi-n-propylamine	1000.000	993.730	0.6	81	0.00
17	T	3+4-Methylphenol	1000.000	1088.057	-8.8	85	0.00
18	T	Hexachloroethane	1000.000	1056.987	-5.7	91	0.00
19	S	Nitrobenzene-d5 (Surr)	1000.000	1019.805	-2.0	82	0.00
20	T	Nitrobenzene	1000.000	1009.055	-0.9	81	0.00
21	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	86	0.00
22	T	Isophorone	1000.000	995.175	0.5	80	0.00
23	T	2-Nitrophenol	1000.000	1121.646	-12.2	88	0.00
24	T	2,4-Dimethylphenol	1000.000	1047.999	-4.8	84	0.00
25	T	Bis(2-chloroethoxy) methane	1000.000	1007.434	-0.7	81	0.00
26	T	Benzoic acid	2000.000	2034.949	-1.7	106	0.00
27	T	2,4-Dichlorophenol	1000.000	1114.130	-11.4	89	0.00
28	T	1,2,4-Trichlorobenzene	1000.000	1068.611	-6.9	88	0.00
29	T	Naphthalene	1000.000	1033.802	-3.4	86	0.00
30	T	4-Chloroaniline	1000.000	1090.373	-9.0	83	0.00
31	T	Hexachlorobutadiene	1000.000	1098.975	-9.9	91	0.00
32	T	4-Chloro-3-methylphenol	1000.000	985.860	1.4	82	0.00
33	T	2-Methylnaphthalene	1000.000	1046.189	-4.6	86	0.00
34	T	1-Methylnaphthalene	1000.000	1036.933	-3.7	86	0.00
35	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	86	0.00
36	T	Hexachlorocyclopentadiene	1000.000	1193.761	-19.4	95	0.00
37	T	2,4,6-Trichlorophenol	1000.000	1064.628	-6.5	88	0.00
38	T	2,4,5-Trichlorophenol	1000.000	1097.996	-9.8	89	0.00
39	T	1,1'-Biphenyl	1000.000	1071.827	-7.2	86	0.00
40	S	2-Fluorobiphenyl (Surr)	1000.000	1080.287	-8.0	88	0.00
41	T	2-Chloronaphthalene	1000.000	1076.998	-7.7	87	0.00
42	T	2-Nitroaniline	1000.000	1035.109	-3.5	86	0.00
43	T	2,6-Dimethylnaphthalene	1000.000	1079.404	-7.9	86	0.00
44	T	1,4-Dinitrobenzene	1000.000	1101.122	-10.1	94	0.00
45	T	Dimethyl phthalate	1000.000	1096.930	-9.7	87	0.00
46	T	1,3-Dinitrobenzene	1000.000	1085.733	-8.6	90	0.00
47	T	2,6-Dinitrotoluene	1000.000	1096.930	-9.7	86	0.00
48	T	1,2-Dinitrobenzene	1000.000	1070.426	-7.0	87	0.00

✓

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061902.D
Acq On : 6 Dec 2019 9:18 am
Operator : JK /AMS /DTH
Sample : 9L06015-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 06 13:28:40 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	Acenaphthylene	1000.000	1112.350	-11.2	86	0.00
50	T	3-Nitroaniline	1000.000	1148.687	-14.9	86	0.00
51	T	Acenaphthene	1000.000	1050.012	-5.0	87	0.00
52	T	2,4-Dinitrophenol	1000.000	1115.371	-11.5	114	0.00
53	T	4-Nitrophenol	1000.000	1062.927	-6.3	91	0.00
54	T	2,4-Dinitrotoluene	1000.000	1057.517	-5.8	91	0.00
55	T	Dibenzofuran	1000.000	1068.568	-6.9	86	0.00
56	T	2,3,5,6-Tetrachlorophenol	1000.000	1141.497	-14.1	92	0.00
57	T	2,3,4,6-Tetrachlorophenol	1000.000	1097.540	-9.8	92	0.00
58	T	Diethyl phthalate	1000.000	1101.333	-10.1	86	0.00
59	T	2,3,5-Trimethylnaphthalene	1000.000	1093.279	-9.3	88	0.00
60	T	Fluorene	1000.000	1084.675	-8.5	86	0.00
61	T	4-Chlorophenyl phenyl ether	1000.000	1054.685	-5.5	87	0.00
62	T	4-Nitroaniline	1000.000	1082.802	-8.3	89	0.00
63	T	4,6-Dinitro-2-methylphenol	1000.000	1065.263	-6.5	100	0.00
64	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	87	0.00
65	T	N-Nitrosodiphenylamine	1000.000	1098.165	-9.8	86	0.00
66	T	Azobenzene (1,2-DPH)	1000.000	1000.353	-0.0	80	0.00
67	S	2,4,6-Tribromophenol (Surr)	1000.000	1128.858	-12.9	96	0.00
68	T	4-Bromophenyl phenyl ether	1000.000	1066.498	-6.6	88	0.00
69	T	Hexachlorobenzene	1000.000	1047.644	-4.8	90	0.00
70	T	Pentachlorophenol (PCP)	1000.000	1148.890	-14.9	100	0.00
71	T	Phenanthrene	1000.000	1029.580	-3.0	87	0.00
72	T	Anthracene	1000.000	1113.003	-11.3	87	0.00
73	T	Carbazole	1000.000	1045.057	-4.5	88	0.00
74	T	Di-n-butyl phthalate	1000.000	1089.753	-9.0	83	0.00
75	T	Fluoranthene	1000.000	1139.246	-13.9	87	0.00
76	T	Benzidine	2000.000	2000.395	-0.0	83	0.00
77	T	Pyrene	1000.000	1146.263	-14.6	88	0.00
78	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	89	0.00
79	S	Terphenyl-d14 (Surr)	1000.000	1061.615	-6.2	88	0.00
80	T	Butyl benzyl phthalate	1000.000	917.240	8.3	82	0.00
81	T	Bis(2-ethylhexyl) adipate	1000.000	896.336	10.4	79	0.00
82	T	3,3-Dichlorobenzidine	2000.000	1740.266	13.0	82	0.01
83	T	Benz(a)anthracene	1000.000	1053.974	-5.4	89	0.00
84	T	Chrysene	1000.000	1010.175	-1.0	88	0.00
85	T	Bis(2-ethylhexyl) phthalate	1000.000	936.827	6.3	82	0.00
86	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	90	0.00
87	T	Di-n-octyl phthalate	1000.000	867.969	13.2	78	0.00
88	T	Benzo(b)fluoranthene	1000.000	1077.651	-7.8	89	0.00
89	T	Benzo(k)fluoranthene	1000.000	1076.958	-7.7	89	0.00
90	T	Benzo(b+k)fluoranthene	2000.000	2151.863	-7.6	90	0.00
91	T	Benzo(e)pyrene	1000.000	1099.853	-10.0	90	0.00
92	T	Benzo(a)pyrene	1000.000	1094.378	-9.4	88	0.01
93	T	Perylene	1000.000	1020.477	-2.0	90	0.00
94	I	Dibenz(a,h)Anthrcene-d14 (I	2000.000	2000.000	0.0	90	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061902.D
Acq On : 6 Dec 2019 9:18 am
Operator : JK /AMS /DTH
Sample : 9L06015-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 06 13:28:40 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
95 T	Indeno(1,2,3-cd)pyrene	1000.000	1006.148	-0.6	89	0.00
96 T	Dibenz(a,h)anthracene	1000.000	1030.476	-3.0	89	0.00
97 T	Benzo(g,h,i)perylene	1000.000	1100.336	-10.0	89	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061902.D
Acq On : 6 Dec 2019 9:18 am
Operator : JK /AMS /DTH
Sample : 9L06015-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 06 13:28:40 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

DAT 12/6/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.621	152	70986	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	267392	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	127245	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.183	188	231769	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.992	240	232011	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.490	264	228283	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.886	292	194432	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	45235	957.85	ng/ml	0.00
5) Phenol-d6 (Surr)	6.257	99	63286	1031.51	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.167	82	49409	1019.80	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.974	172	104108	1080.29	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.472	330	16373	1128.86	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.981	244	112957	1061.61	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.947	74	33723	923.25	ng/ml	95
3) Pyridine	3.984	79	57814	983.49	ng/ml	93
6) Phenol	6.268	94	71002	1040.79	ng/ml	98
7) Aniline	6.300	93	74947	1058.37	ng/ml	99
8) Bis(2-chloroethyl) ether	6.359	93	54361	959.46	ng/ml	94
9) 2-Chlorophenol	6.418	128	53074	1069.85	ng/ml	95
10) 1,3-Dichlorobenzene	6.573	146	57031	1042.38	ng/ml	99
11) 1,4-Dichlorobenzene	6.642	146	55836	1042.83	ng/ml	97
12) Benzyl alcohol	6.749	108	27991	895.65	ng/ml	98
13) 1,2-Dichlorobenzene	6.792	146	54287	1026.91	ng/ml	95
14) 2-Methylphenol	6.856	107	40175	1058.15	ng/ml	97
15) 2,2'-Oxybis(1-Chloropr...	6.889	45	59851	843.95	ng/ml	83
16) N-Nitrosodi-n-propylamine	7.012	70	35898	993.73	ng/ml	93
17) 3+4-Methylphenol	7.012	107	51231	1088.06	ng/ml	98
18) Hexachloroethane	7.129	201	16522	1056.99	ng/ml	95
20) Nitrobenzene	7.183	77	49779	1009.06	ng/ml	95
22) Isophorone	7.418	82	94864	995.17	ng/ml	98
23) 2-Nitrophenol	7.504	139	27195	1121.65	ng/ml	94
24) 2,4-Dimethylphenol	7.536	122	40174	1048.00	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.632	93	56593	1007.43	ng/ml	99
26) Benzoic acid	7.621	105	24962	2034.95	ng/ml	94
27) 2,4-Dichlorophenol	7.744	162	39210	1114.13	ng/ml	96
28) 1,2,4-Trichlorobenzene	7.830	180	46788	1068.61	ng/ml	99
29) Naphthalene	7.910	128	141985	1033.80	ng/ml	100
30) 4-Chloroaniline	7.958	127	49657	1090.37	ng/ml	97
31) Hexachlorobutadiene	8.038	225	24746	1098.98	ng/ml	99
32) 4-Chloro-3-methylphenol	8.434	107	37194	985.86	ng/ml	97
33) 2-Methylnaphthalene	8.605	142	102254	1046.19	ng/ml	99
34) 1-Methylnaphthalene	8.707	142	95753	1036.93	ng/ml	99
36) Hexachlorocyclopentadiene	8.777	237	26875	1193.76	ng/ml	98
37) 2,4,6-Trichlorophenol	8.889	196	25817	1064.63	ng/ml	98
38) 2,4,5-Trichlorophenol	8.926	198	26143	1098.00	ng/ml	98
39) 1,1'-Biphenyl	9.076	154	115584	1071.83	ng/ml	99
41) 2-Chloronaphthalene	9.098	162	85903	1077.00	ng/ml	98
42) 2-Nitroaniline	9.194	138	25716	1035.11	ng/ml	92
43) 2,6-Dimethylnaphthalene	9.237	156	83623	1079.40	ng/ml	100

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061902.D
Acq On : 6 Dec 2019 9:18 am
Operator : JK /AMS /DTH
Sample : 9L06015-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 06 13:28:40 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

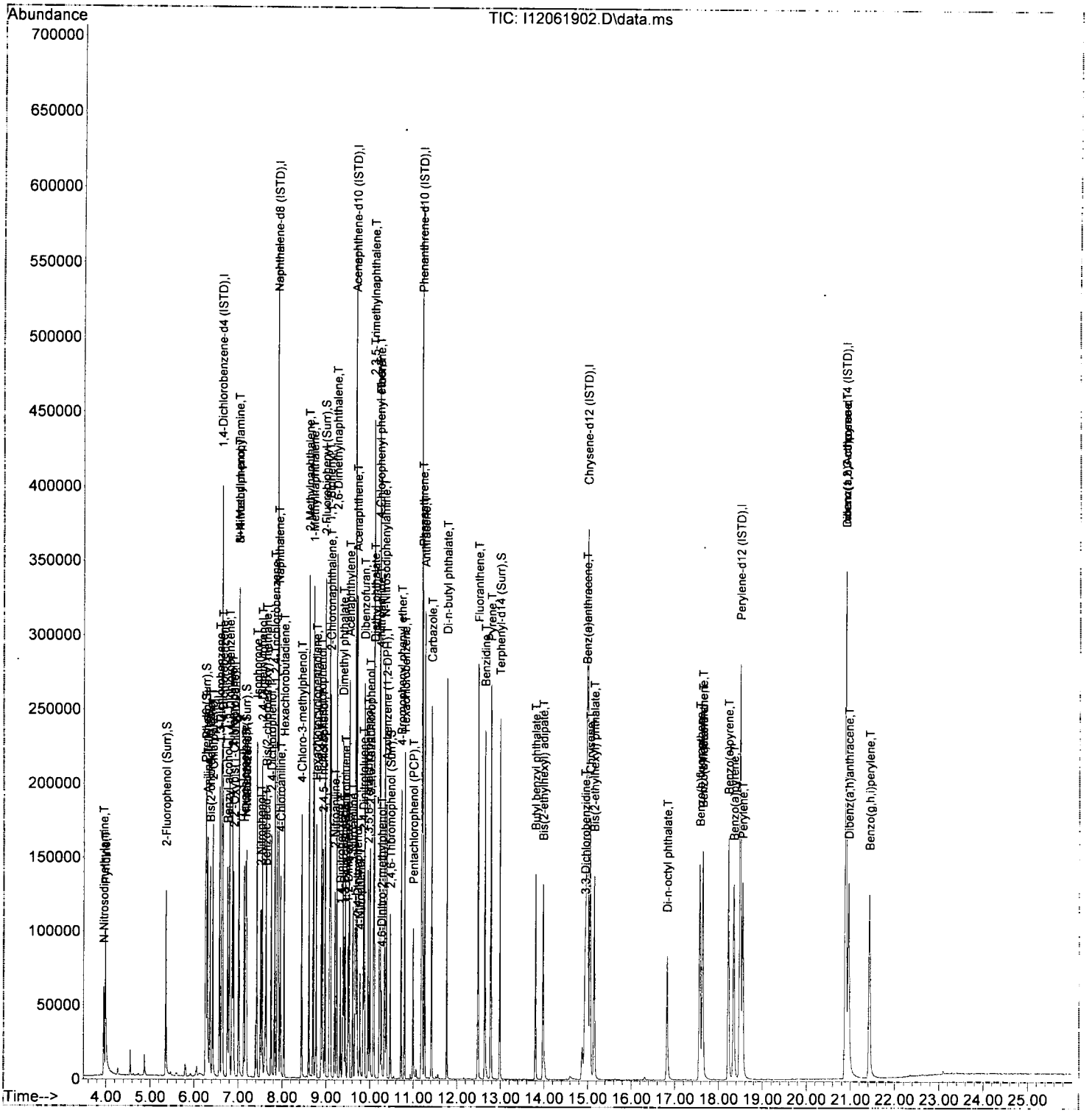
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.322	168	11736	1101.12	ng/ml	86
45) Dimethyl phthalate	9.381	163	95658	1096.93	ng/ml	98
46) 1,3-Dinitrobenzene	9.408	168	14469	1085.73	ng/ml	86
47) 2,6-Dinitrotoluene	9.440	165	21379	1096.93	ng/ml	85
48) 1,2-Dinitrobenzene	9.493	168	10259	1070.43	ng/ml	78
49) Acenaphthylene	9.525	152	136010	1112.35	ng/ml	98
50) 3-Nitroaniline	9.611	138	21102	1148.69	ng/ml	91
51) Acenaphthene	9.702	153	85439	1050.01	ng/ml	99
52) 2,4-Dinitrophenol	9.713	184	4868	1115.37	ng/ml	93
53) 4-Nitrophenol	9.771	139	13745	1062.93	ng/ml	93
54) 2,4-Dinitrotoluene	9.846	165	27333	1057.52	ng/ml	92
55) Dibenzofuran	9.873	168	116646	1068.57	ng/ml	95
56) 2,3,5,6-Tetrachlorophenol	9.959	232	20795	1141.50	ng/ml	92
57) 2,3,4,6-Tetrachlorophenol	10.001	232	22728	1097.54	ng/ml	94
58) Diethyl phthalate	10.098	149	86833	1101.33	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.087	170	75760	1093.28	ng/ml	98
60) Fluorene	10.226	166	90110	1084.67	ng/ml	98
61) 4-Chlorophenyl phenyl ...	10.215	204	43718	1054.69	ng/ml	96
62) 4-Nitroaniline	10.231	138	18905	1082.80	ng/ml	95
63) 4,6-Dinitro-2-methylph...	10.264	198	9250	1065.26	ng/ml	96
65) N-Nitrosodiphenylamine	10.333	169	76741	1098.17	ng/ml	99
66) Azobenzene (1,2-DPH)	10.381	77	81856	1000.35	ng/ml	90
68) 4-Bromophenyl phenyl e...	10.718	248	28047	1066.50	ng/ml	99
69) Hexachlorobenzene	10.798	284	34719	1047.64	ng/ml	95
70) Pentachlorophenol (PCP)	10.991	266	15001	1148.89	ng/ml	97
71) Phenanthrene	11.205	178	129318	1029.58	ng/ml	100
72) Anthracene	11.258	178	129612	1113.00	ng/ml	99
73) Carbazole	11.413	167	114470	1045.06	ng/ml	99
74) Di-n-butyl phthalate	11.761	149	132899	1089.75	ng/ml	99
75) Fluoranthene	12.483	202	145990	1139.25	ng/ml	98
76) Benzidine	12.638	184	114302	2000.39	ng/ml	96
77) Pyrene	12.772	202	148957	1146.26	ng/ml	98
80) Butyl benzyl phthalate	13.799	149	49183	917.24	ng/ml	93
81) Bis(2-ethylhexyl) adipate	13.975	129	39401	896.34	ng/ml	100
82) 3,3-Dichlorobenzidine	14.938	252	38207	1740.27	ng/ml	98
83) Benz(a)anthracene	14.970	228	127157	1053.97	ng/ml	98
84) Chrysene	15.051	228	119071	1010.17	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.147	149	70736	936.83	ng/ml	100
87) Di-n-octyl phthalate	16.821	149	82797	867.97	ng/ml	95
88) Benzo(b)fluoranthene	17.570	252	125467	1077.65	ng/ml	97
89) Benzo(k)fluoranthene	17.634	252	126000	1076.96	ng/ml	100
90) Benzo(b+k)fluoranthene	17.634	252	261366	2151.86	ng/ml	100
91) Benzo(e)pyrene	18.222	252	127614	1099.85	ng/ml	100
92) Benzo(a)pyrene	18.345	252	112347	1094.38	ng/ml	97
93) Perylene	18.543	252	105807	1020.48	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.886	276	107671	1006.15	ng/ml	96
96) Dibenz(a,h)anthracene	20.955	278	100927	1030.48	ng/ml	98
97) Benzo(g,h,i)perylene	21.426	276	115874	1100.34	ng/ml	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061902.D
Acq On : 6 Dec 2019 9:18 am
Operator : JK /AMS /DTH
Sample : 9L06015-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 06 13:28:40 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061903.D
Acq On : 6 Dec 2019 9:52 am
Operator : JK /AMS /DTH
Sample : 9L06015-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 06 13:29:46 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

DMT 12/6/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.626	152	71390	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	297332	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	143216	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.183	188	250978	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.992	240	244752	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.484	264	228890	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.886	292	187374	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	0.000	112	0	0.00	ng/ml	
5) Phenol-d6 (Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	0.000	82	0	0.00	ng/ml	
40) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	0.000	244	0	0.00	ng/ml	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	0.000		0	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	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	0.000		0	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	0.000		0	N.D.		
34) 1-Methylnaphthalene	0.000		0	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	0.000		0	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061903.D
Acq On : 6 Dec 2019 9:52 am
Operator : JK /AMS /DTH
Sample : 9L06015-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

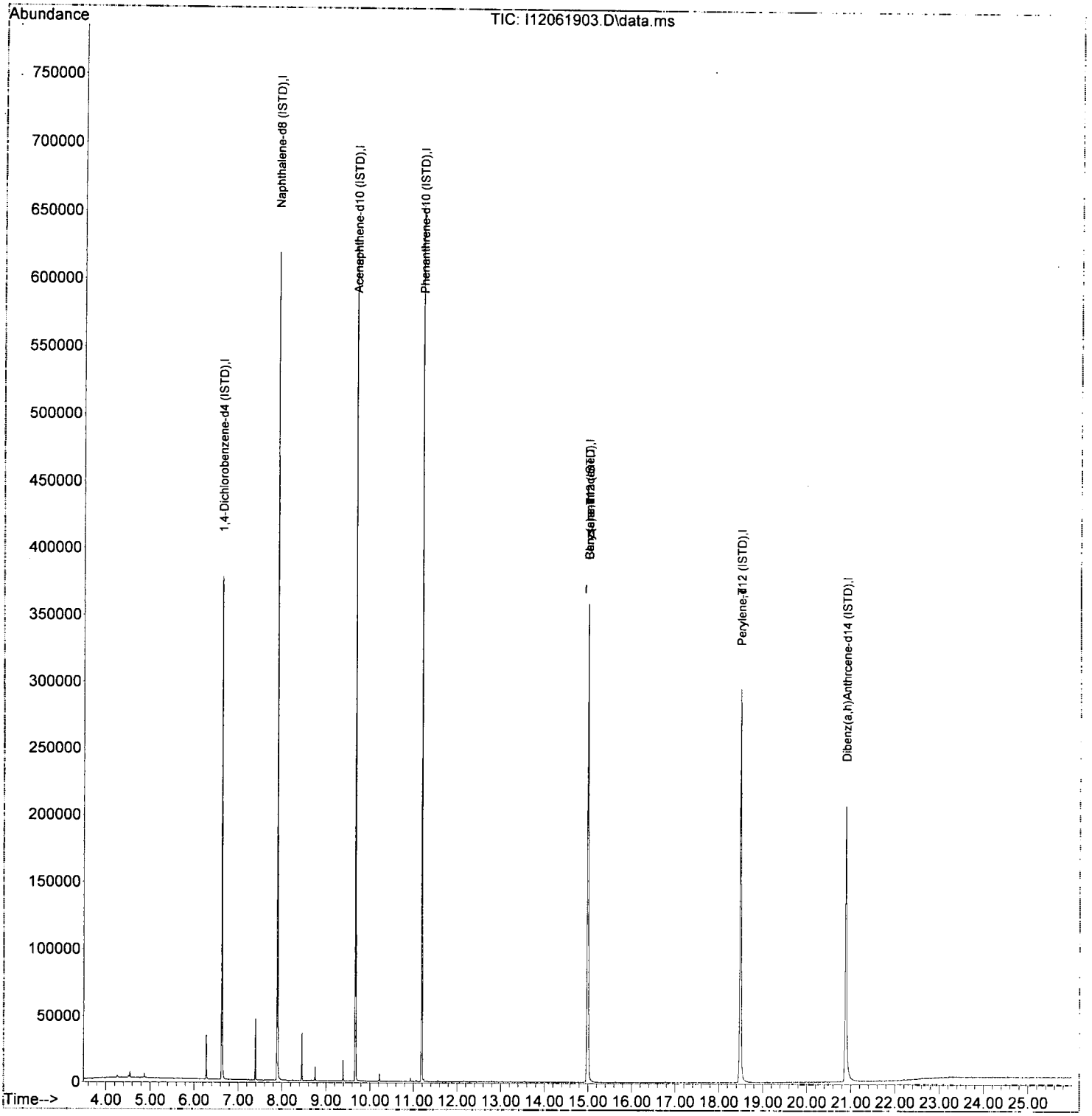
Quant Time: Dec 06 13:29:46 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	0.000		0	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	0.000		0	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	0.000		0	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	0.000		0	N.D.	
55) Dibenzofuran	0.000		0	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	0.000		0	N.D.	
60) Fluorene	0.000		0	N.D.	
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	0.000		0	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	0.000		0	N.D.	
71) Phenanthrene	11.183	178	77	N.D.	
72) Anthracene	11.183	178	77	N.D.	
73) Carbazole	0.000		0	N.D.	
74) Di-n-butyl phthalate	0.000		0	N.D.	
75) Fluoranthene	0.000		0	N.D.	
76) Benzidine	0.000		0	N.D.	
77) Pyrene	0.000		0	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	0.000		0	N.D.	
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.992	228	625	4.91 ng/ml	57
84) Chrysene	14.992	228	625	5.03 ng/ml	54
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	0.000		0	N.D.	
89) Benzo(k)fluoranthene	0.000		0	N.D.	
90) Benzo(b+k)fluoranthene	0.000		0	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.484	252	742	7.14 ng/ml#	63
95) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	
96) Dibenz(a,h)anthracene	0.000		0	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061903.D
Acq On : 6 Dec 2019 9:52 am
Operator : JK /AMS /DTH
Sample : 9L06015-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 06 13:29:46 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061904.D
Acq On : 6 Dec 2019 10:26 am
Operator : JK /AMS /DTH
Sample : 9120579-BLK1
Misc : 1x, 8270D TCLP REG LIST
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 06 13:29:49 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

DTH 12/6/19 B

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.626	152	64140	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	266887	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	123896	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.184	188	198258	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.992	240	215006	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	18.490	264	224415	2000.00 ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.886	292	194958	2000.00 ng/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.359	112	35448	830.72 ng/ml	0.00
5) Phenol-d6 (Surr)	6.257	99	29761	536.86 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.167	82	90427	2065.63 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.975	172	183543	1956.03 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.472	330	33058	2581.65 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.986	244	236258	2396.06 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.	
3) Pyridine	4.075	79	447	8.42 ng/ml	67
6) Phenol	6.273	94	725	11.76 ng/ml#	60
7) Aniline	6.354	93	335	5.24 ng/ml#	44
8) Bis(2-chloroethyl) ether	6.354	93	335	6.54 ng/ml#	22
9) 2-Chlorophenol	0.000		0	N.D.	
10) 1,3-Dichlorobenzene	0.000		0	N.D.	
11) 1,4-Dichlorobenzene	0.000		0	N.D.	
12) Benzyl alcohol	6.760	108	276	50.23 ng/ml	96
13) 1,2-Dichlorobenzene	0.000		0	N.D.	
14) 2-Methylphenol	6.867	107	149	4.34 ng/ml	70
15) 2,2'-Oxybis(1-Chloropr...	6.931	45	61	N.D.	
16) N-Nitrosodi-n-propylamine	7.001	70	113	3.46 ng/ml	46
17) 3+4-Methylphenol	7.022	107	192	4.51 ng/ml#	1
18) Hexachloroethane	0.000		0	N.D.	
20) Nitrobenzene	7.209	77	72	N.D.	
22) Isophorone	7.423	82	181	N.D.	
23) 2-Nitrophenol	0.000		0	N.D.	
24) 2,4-Dimethylphenol	7.557	122	156	4.08 ng/ml	81
25) Bis(2-chloroethoxy) me...	7.637	93	90	N.D.	
26) Benzoic acid	7.611	105	877	869.61 ng/ml	78
27) 2,4-Dichlorophenol	0.000		0	N.D.	
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
29) Naphthalene	7.910	128	3458	25.23 ng/ml	92
30) 4-Chloroaniline	7.915	127	388	8.54 ng/ml#	32
31) Hexachlorobutadiene	0.000		0	N.D.	
32) 4-Chloro-3-methylphenol	8.445	107	152	30.32 ng/ml#	1
33) 2-Methylnaphthalene	8.605	142	4226	43.32 ng/ml	99
34) 1-Methylnaphthalene	8.707	142	2677	29.04 ng/ml	95
36) Hexachlorocyclopentadiene	0.000		0	N.D.	
37) 2,4,6-Trichlorophenol	8.894	196	67	28.90 ng/ml#	56
38) 2,4,5-Trichlorophenol	0.000		0	N.D.	
39) 1,1'-Biphenyl	9.076	154	2916	27.77 ng/ml	96
41) 2-Chloronaphthalene	9.098	162	60	N.D.	
42) 2-Nitroaniline	9.253	138	82	3.39 ng/ml#	69
43) 2,6-Dimethylnaphthalene	9.242	156	5808	77.00 ng/ml	97

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061904.D
Acq On : 6 Dec 2019 10:26 am
Operator : JK /AMS /DTH
Sample : 9120579-BLK1
Misc : 1x, 8270D TCLP REG LIST
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 06 13:29:49 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

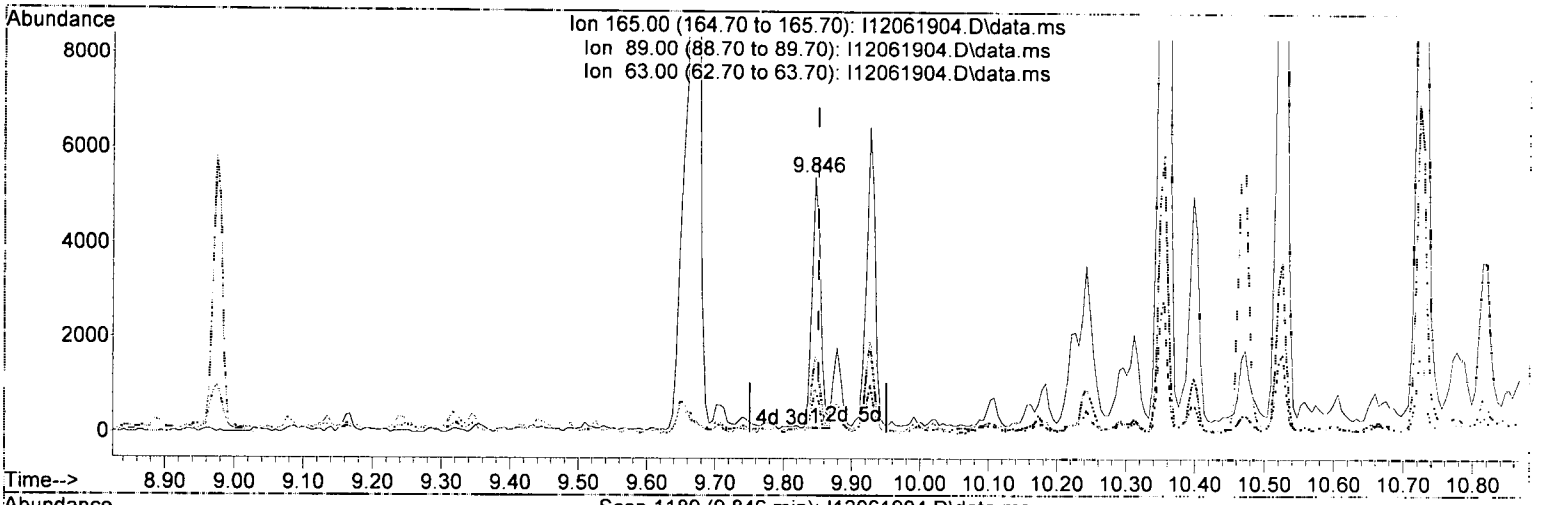
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.354	168	275	90.11 ng/ml#	18
45) Dimethyl phthalate	9.381	163	176	N.D.	
46) 1,3-Dinitrobenzene	9.413	168	120	9.25 ng/ml#	24
47) 2,6-Dinitrotoluene	9.435	165	297	15.65 ng/ml#	56
48) 1,2-Dinitrobenzene	9.413	168	120	12.86 ng/ml#	7
49) Acenaphthylene	9.525	152	335	2.81 ng/ml#	12
50) 3-Nitroaniline	9.600	138	94	5.26 ng/ml#	48
51) Acenaphthene	9.702	153	1526	19.26 ng/ml	78
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	9.771	139	243	99.35 ng/ml#	1
54) 2,4-Dinitrotoluene	9.846	165	4739	236.32 ng/ml#	53
55) Dibenzofuran	9.878	168	1209	11.37 ng/ml#	50
56) 2,3,5,6-Tetrachlorophenol	10.001	232	84	43.86 ng/ml#	1
57) 2,3,4,6-Tetrachlorophenol	10.001	232	84	40.31 ng/ml#	1
58) Diethyl phthalate	10.092	149	951	12.39 ng/ml	88
59) 2,3,5-Trimethylnaphtha...	10.087	170	3441	51.00 ng/ml	78
60) Fluorene	10.226	166	2203	27.23 ng/ml#	65
61) 4-Chlorophenyl phenyl ...	10.215	204	60	N.D.	
62) 4-Nitroaniline	10.215	138	63	3.71 ng/ml	82
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	10.344	169	1970	32.96 ng/ml#	60
66) Azobenzene (1,2-DPH)	10.392	77	2051	29.30 ng/ml#	1
68) 4-Bromophenyl phenyl e...	10.766	248	62	2.76 ng/ml#	1
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	10.996	266	169	94.64 ng/ml	89
71) Phenanthrene	11.205	178	6077	56.56 ng/ml	91
72) Anthracene	11.242	178	528	5.30 ng/ml#	1
73) Carbazole	11.414	167	432	12.70 ng/ml#	21
74) Di-n-butyl phthalate	11.767	149	3164	30.33 ng/ml	94
75) Fluoranthene	12.483	202	919	8.38 ng/ml	88
76) Benzidine	12.644	184	64	167.75 ng/ml#	1
77) Pyrene	12.777	202	2272	20.44 ng/ml	95
80) Butyl benzyl phthalate	13.794	149	559	76.50 ng/ml	80
81) Bis(2-ethylhexyl) adipate	13.970	129	462	83.69 ng/ml#	44
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.992	228	926	8.28 ng/ml	66
84) Chrysene	15.045	228	302	2.76 ng/ml	50
85) Bis(2-ethylhexyl) phth...	15.147	149	36085	548.95 ng/ml	99
87) Di-n-octyl phthalate	16.805	149	68	84.07 ng/ml#	1
88) Benzo(b)fluoranthene	17.570	252	121	8.50 ng/ml	57
89) Benzo(k)fluoranthene	17.629	252	71	7.62 ng/ml	57
90) Benzo(b+k)fluoranthene	17.629	252	71	15.74 ng/ml	57
91) Benzo(e)pyrene	18.228	252	72	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.490	252	795	7.80 ng/ml#	61
95) Indeno(1,2,3-cd)pyrene	20.886	276	83	N.D.	
96) Dibenz(a,h)anthracene	0.000		0	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

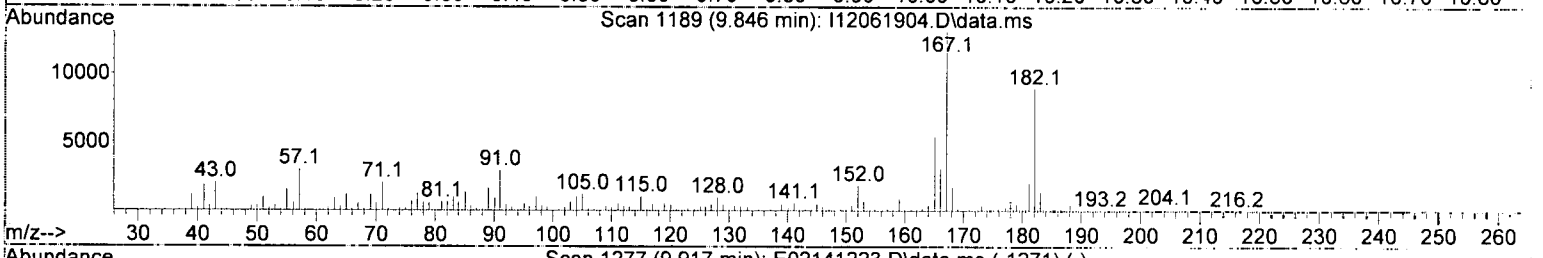
(#) = qualifier out of range (m) = manual integration (+) = signals summed

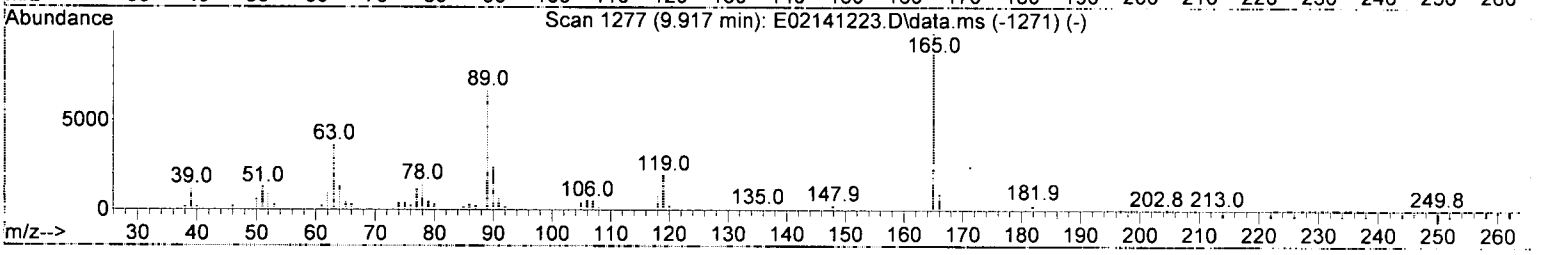
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061904.D
Acq On : 6 Dec 2019 10:26 am
Operator : JK /AMS /DTH
Sample : 9120579-BLK1
Misc : 1x, 8270D TCLP REG LIST
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 06 13:29:49 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I12061904.D\data.ms

(54) 2,4-Dinitrotoluene (T)

9.846min (-0.005) 236.32 ng/ml B

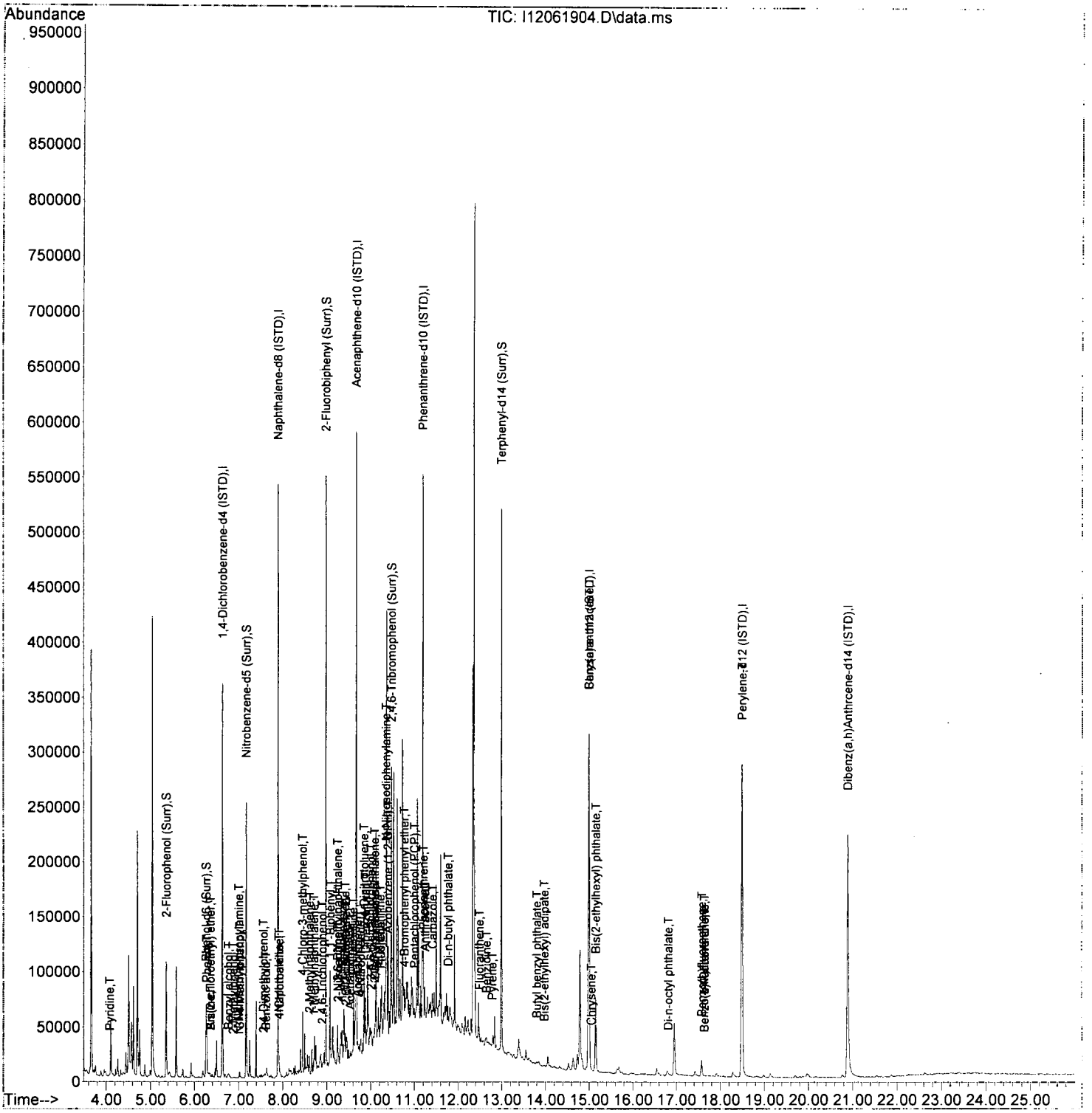
response 4739

Ion	Exp%	Act%
165.00	100.00	100.00
89.00	72.30	30.58#
63.00	45.90	17.17
0.00	0.00	0.00

Raise in QC
Interferent
Sample run @ 10x
Not affected JD 12/6/19

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061904.D
Acq On : 6 Dec 2019 10:26 am
Operator : JK /AMS /DTH
Sample : 9120579-BLK1
Misc : 1x, 8270D TCLP REG LIST
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 06 13:29:49 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061905.D
Acq On : 6 Dec 2019 11:00 am
Operator : JK /AMS /DTH
Sample : 9120579-BS1
Misc : 1x, 8270D TCLP REG LIST
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 06 13:29:52 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

DTH 12/6/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.627	152	59741	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.894	136	217699	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.675	162	108526	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.189	188	204950	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.003	240	192034	2000.00	ng/ml	0.02
86) Perylene-d12 (ISTD)	18.490	264	202774	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.897	292	185933	2000.00	ng/ml	0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	50479	1270.08	ng/ml	0.00
5) Phenol-d6 (Surr)	6.263	99	44325	858.45	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.172	82	90206	2212.31	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.980	172	178032	2166.01	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.472	330	36512	2750.98	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.986	244	244559	2776.95	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.947	74	61477	1999.90	ng/ml	98
3) Pyridine	3.984	79	77893	1574.47	ng/ml	94
6) Phenol	6.274	94	73916	1287.45	ng/ml	97
7) Aniline	6.300	93	174105	2921.42	ng/ml	98
8) Bis(2-chloroethyl) ether	6.359	93	151636	3180.12	ng/ml	94
9) 2-Chlorophenol	6.423	128	138591	3319.54	ng/ml	95
10) 1,3-Dichlorobenzene	6.573	146	132573	2879.20	ng/ml	99
11) 1,4-Dichlorobenzene	6.643	146	129521	2874.36	ng/ml	99
12) Benzyl alcohol	6.755	108	77452	2918.24	ng/ml	96
13) 1,2-Dichlorobenzene	6.798	146	126013	2832.38	ng/ml	97
14) 2-Methylphenol	6.867	107	94464	2956.35	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.889	45	146111	2448.11	ng/ml	85
16) N-Nitrosodi-n-propylamine	7.022	70	98280	3232.69	ng/ml	92
17) 3+4-Methylphenol	7.017	107	108063	2727.07	ng/ml	99
18) Hexachloroethane	7.135	201	40070	3045.98	ng/ml	97
20) Nitrobenzene	7.188	77	132121	3182.30	ng/ml	93
22) Isophorone	7.429	82	272881	3516.12	ng/ml	96
23) 2-Nitrophenol	7.509	139	74309	3579.24	ng/ml	93
24) 2,4-Dimethylphenol	7.547	122	102554	3285.95	ng/ml	99
25) Bis(2-chloroethoxy) me...	7.637	93	153143	3348.44	ng/ml	98
26) Benzoic acid	7.648	105	55085	3869.09	ng/ml	95
27) 2,4-Dichlorophenol	7.750	162	113376	3875.20	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.835	180	108855	3053.69	ng/ml	100
29) Naphthalene	7.916	128	343042	3067.85	ng/ml	99
30) 4-Chloroaniline	7.964	127	116806	3150.30	ng/ml	95
31) Hexachlorobutadiene	8.044	225	57615	3142.75	ng/ml	98
32) 4-Chloro-3-methylphenol	8.440	107	117906	3662.10	ng/ml	97
33) 2-Methylnaphthalene	8.611	142	261018	3280.14	ng/ml	99
34) 1-Methylnaphthalene	8.713	142	238728	3175.36	ng/ml	99
36) Hexachlorocyclopentadiene	8.777	237	68501	3392.49	ng/ml	99
37) 2,4,6-Trichlorophenol	8.894	196	82839	3881.94	ng/ml	98
38) 2,4,5-Trichlorophenol	8.926	198	82742	4019.91	ng/ml	99
39) 1,1'-Biphenyl	9.076	154	1308	14.22	ng/ml	85
41) 2-Chloronaphthalene	9.103	162	231439	3402.12	ng/ml	100
42) 2-Nitroaniline	9.199	138	86047	4060.93	ng/ml	88
43) 2,6-Dimethylnaphthalene	9.242	156	314	4.75	ng/ml	81

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061905.D
Acq On : 6 Dec 2019 11:00 am
Operator : JK /AMS /DTH
Sample : 9120579-BS1
Misc : 1x, 8270D TCLP REG LIST
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

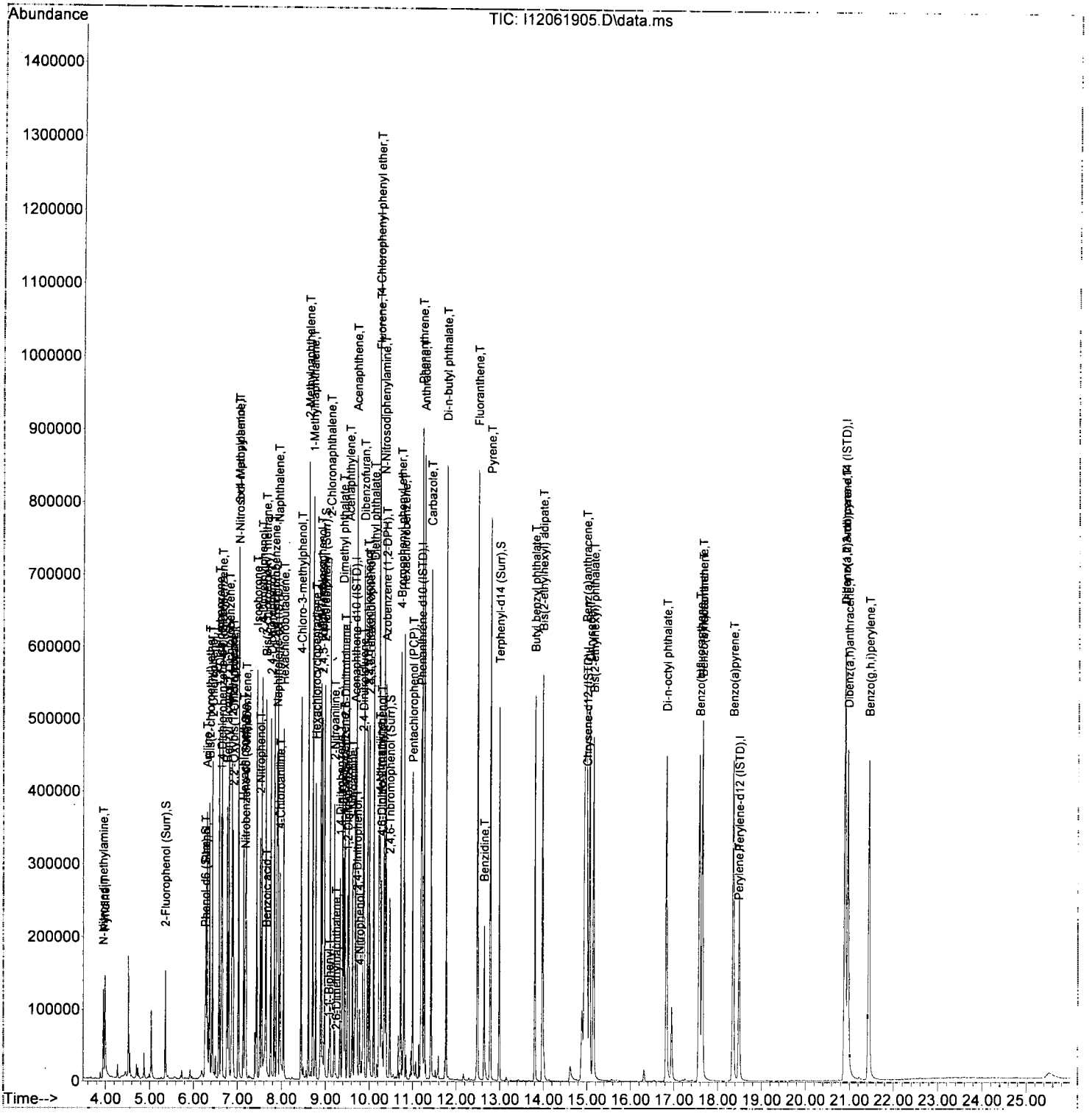
Quant Time: Dec 06 13:29:52 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.333	168	43733	4134.39 ng/ml	76
45) Dimethyl phthalate	9.392	163	287129	3860.48 ng/ml	99
46) 1,3-Dinitrobenzene	9.413	168	48307	4250.12 ng/ml	88
47) 2,6-Dinitrotoluene	9.445	165	68872	4143.25 ng/ml	86
48) 1,2-Dinitrobenzene	9.504	168	31885	3900.72 ng/ml	81
49) Acenaphthylene	9.531	152	362264	3473.78 ng/ml	100
50) 3-Nitroaniline	9.622	138	60954	3890.34 ng/ml	88
51) Acenaphthene	9.707	153	230739	3324.80 ng/ml	100
52) 2,4-Dinitrophenol	9.723	184	27337	4254.17 ng/ml	88
53) 4-Nitrophenol	9.777	139	20138	1722.13 ng/ml	93
54) 2,4-Dinitrotoluene	9.857	165	88538	3912.99 ng/ml	88
55) Dibenzofuran	9.879	168	319456	3431.23 ng/ml	97
56) 2,3,5,6-Tetrachlorophenol	9.959	232	71346	4126.67 ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	10.007	232	71826	3890.19 ng/ml	93
58) Diethyl phthalate	10.103	149	270410	4021.27 ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.066	170	97	N.D.	
60) Fluorene	10.232	166	242623	3424.25 ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.221	204	126306	3572.68 ng/ml	98
62) 4-Nitroaniline	10.242	138	58353	3918.71 ng/ml	96
63) 4,6-Dinitro-2-methylph...	10.274	198	45376	4557.85 ng/ml	90
65) N-Nitrosodiphenylamine	10.344	169	219433	3550.99 ng/ml	99
66) Azobenzene (1,2-DPH)	10.387	77	226448	3129.53 ng/ml	86
68) 4-Bromophenyl phenyl e...	10.724	248	88998	3827.03 ng/ml	97
69) Hexachlorobenzene	10.804	284	103026	3515.61 ng/ml	95
70) Pentachlorophenol (PCP)	10.996	266	59217	4226.52 ng/ml	99
71) Phenanthrene	11.210	178	370292	3333.90 ng/ml	99
72) Anthracene	11.264	178	367284	3566.65 ng/ml	100
73) Carbazole	11.419	167	330468	4022.88 ng/ml	99
74) Di-n-butyl phthalate	11.767	149	438124	4062.66 ng/ml	99
75) Fluoranthene	12.489	202	456255	4026.33 ng/ml	98
76) Benzidine	12.638	184	115065	2257.34 ng/ml	97
77) Pyrene	12.783	202	447817	3897.01 ng/ml	99
80) Butyl benzyl phthalate	13.804	149	202075	3836.98 ng/ml	91
81) Bis(2-ethylhexyl) adipate	13.981	129	171966	3918.12 ng/ml	99
82) 3,3-Dichlorobenzidine	14.944	252	187669	Below Cal	96
83) Benz(a)anthracene	14.981	228	410048	4106.34 ng/ml	98
84) Chrysene	15.061	228	370746	3800.12 ng/ml	100
85) Bis(2-ethylhexyl) phth...	15.152	149	265217	3865.08 ng/ml	98
87) Di-n-octyl phthalate	16.826	149	459225	3997.35 ng/ml	96
88) Benzo(b)fluoranthene	17.586	252	438023	3868.54 ng/ml	97
89) Benzo(k)fluoranthene	17.650	252	406590	3859.06 ng/ml	98
90) Benzo(b+k)fluoranthene	17.650	252	872222	7733.39 ng/ml	98
91) Benzo(e)pyrene	18.217	252	90	N.D.	
92) Benzo(a)pyrene	18.356	252	386069	3945.24 ng/ml	98
93) Perylene	18.479	252	7576	82.26 ng/ml	76
95) Indeno(1,2,3-cd)pyrene	20.902	276	401143	3919.89 ng/ml	96
96) Dibenz(a,h)anthracene	20.972	278	358169	3824.11 ng/ml	98
97) Benzo(g,h,i)perylene	21.442	276	418906	4159.75 ng/ml	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061905.D
Acq On : 6 Dec 2019 11:00 am
Operator : JK /AMS /DTH
Sample : 9120579-BS1
Misc : 1x, 8270D TCLP REG LIST
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 06 13:29:52 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061906.D
Acq On : 6 Dec 2019 11:35 am
Operator : JK /AMS /DTH
Sample : 9120579-BSD1
Misc : 1x, 8270D TCLP REG LIST
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Q19

Quant Time: Dec 06 13:29:56 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

DTH 12/6/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.626	152	60291	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.894	136	218886	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.675	162	110491	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.189	188	205777	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.008	240	190206	2000.00	ng/ml	0.02
86) Perylene-d12 (ISTD)	18.490	264	202826	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.902	292	186862	2000.00	ng/ml	0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.364	112	47831	1192.48	ng/ml	0.00
5) Phenol-d6 (Surr)	6.263	99	40717	781.38	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.172	82	91936	2234.17	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.980	172	178178	2129.23	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.477	330	36509	2740.15	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.986	244	247702	2839.67	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.952	74	60274	1942.88	ng/ml	98
3) Pyridine	3.990	79	76505	1532.31	ng/ml	88
6) Phenol	6.273	94	70294	1213.19	ng/ml	97
7) Aniline	6.306	93	174271	2897.53	ng/ml	99
8) Bis(2-chloroethyl) ether	6.364	93	156472	3251.61	ng/ml	93
9) 2-Chlorophenol	6.423	128	138472	3286.43	ng/ml	94
10) 1,3-Dichlorobenzene	6.573	146	132039	2841.45	ng/ml	98
11) 1,4-Dichlorobenzene	6.648	146	128883	2834.11	ng/ml	98
12) Benzyl alcohol	6.760	108	78089	2915.34	ng/ml	95
13) 1,2-Dichlorobenzene	6.798	146	124144	2764.92	ng/ml	98
14) 2-Methylphenol	6.867	107	92585	2871.12	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.894	45	149004	2473.80	ng/ml	82
16) N-Nitrosodi-n-propylamine	7.022	70	101723	3315.41	ng/ml	92
17) 3+4-Methylphenol	7.017	107	104654	2616.95	ng/ml	99
18) Hexachloroethane	7.135	201	40153	3024.44	ng/ml	97
20) Nitrobenzene	7.193	77	137415	3279.62	ng/ml	90
22) Isophorone	7.429	82	279009	3575.58	ng/ml	96
23) 2-Nitrophenol	7.509	139	77661	3712.90	ng/ml	94
24) 2,4-Dimethylphenol	7.546	122	105579	3364.53	ng/ml	99
25) Bis(2-chloroethoxy) me...	7.637	93	157414	3423.16	ng/ml	99
26) Benzoic acid	7.648	105	50126	3608.44	ng/ml	95
27) 2,4-Dichlorophenol	7.750	162	114104	3878.85	ng/ml	96
28) 1,2,4-Trichlorobenzene	7.835	180	108891	3038.14	ng/ml	98
29) Naphthalene	7.915	128	348636	3100.97	ng/ml	99
30) 4-Chloroaniline	7.964	127	132317	3549.28	ng/ml	96
31) Hexachlorobutadiene	8.044	225	56748	3078.68	ng/ml	99
32) 4-Chloro-3-methylphenol	8.445	107	116791	3610.05	ng/ml	94
33) 2-Methylnaphthalene	8.611	142	264140	3301.37	ng/ml	98
34) 1-Methylnaphthalene	8.712	142	245121	3242.72	ng/ml	100
36) Hexachlorocyclopentadiene	8.782	237	68797	3349.60	ng/ml	98
37) 2,4,6-Trichlorophenol	8.894	196	84039	3868.47	ng/ml	98
38) 2,4,5-Trichlorophenol	8.932	198	84544	4034.39	ng/ml	99
39) 1,1'-Biphenyl	9.081	154	1141	12.19	ng/ml	97
41) 2-Chloronaphthalene	9.103	162	234758	3389.54	ng/ml	99
42) 2-Nitroaniline	9.204	138	89921	4168.29	ng/ml	86
43) 2,6-Dimethylnaphthalene	9.247	156	303	4.50	ng/ml#	58

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061906.D
Acq On : 6 Dec 2019 11:35 am
Operator : JK /AMS /DTH
Sample : 9120579-BSD1
Misc : 1x, 8270D TCLP REG LIST
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 06 13:29:56 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

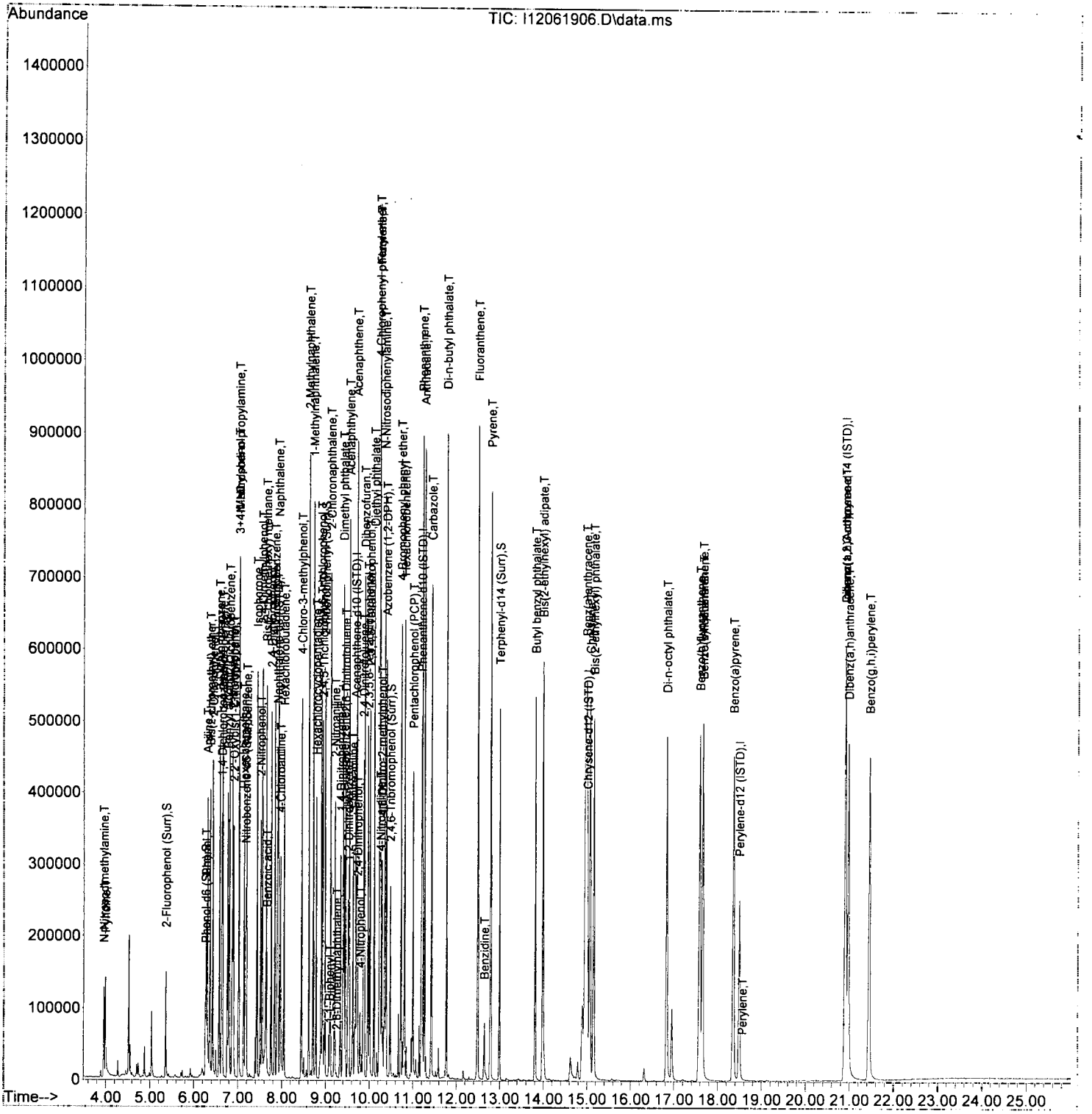
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.333	168	46229	4270.93 ng/ml	78
45)	Dimethyl phthalate	9.392	163	295529	3902.76 ng/ml	99
46)	1,3-Dinitrobenzene	9.413	168	50351	4351.17 ng/ml	91
47)	2,6-Dinitrotoluene	9.445	165	69650	4115.54 ng/ml	90
48)	1,2-Dinitrobenzene	9.509	168	33543	4030.58 ng/ml#	72
49)	Acenaphthylene	9.531	152	369105	3476.44 ng/ml	99
50)	3-Nitroaniline	9.622	138	61485	3854.44 ng/ml	92
51)	Acenaphthene	9.707	153	232509	3290.72 ng/ml	99
52)	2,4-Dinitrophenol	9.723	184	30068	4477.93 ng/ml	85
53)	4-Nitrophenol	9.782	139	19503	1646.96 ng/ml	92
54)	2,4-Dinitrotoluene	9.857	165	93645	4066.35 ng/ml	89
55)	Dibenzofuran	9.884	168	325663	3435.69 ng/ml	95
56)	2,3,5,6-Tetrachlorophenol	9.964	232	74144	4203.08 ng/ml	93
57)	2,3,4,6-Tetrachlorophenol	10.007	232	73833	3926.42 ng/ml	95
58)	Diethyl phthalate	10.103	149	278303	4065.05 ng/ml	98
59)	2,3,5-Trimethylnaphtha...	10.087	170	101	N.D.	
60)	Fluorene	10.231	166	250162	3467.86 ng/ml	100
61)	4-Chlorophenyl phenyl ...	10.221	204	128909	3581.46 ng/ml	98
62)	4-Nitroaniline	10.247	138	60221	3972.23 ng/ml	95
63)	4,6-Dinitro-2-methylph...	10.274	198	48944	4772.83 ng/ml	91
65)	N-Nitrosodiphenylamine	10.344	169	224435	3617.34 ng/ml	99
66)	Azobenzene (1,2-DPH)	10.387	77	231830	3191.03 ng/ml	87
68)	4-Bromophenyl phenyl e...	10.723	248	92043	3942.06 ng/ml	97
69)	Hexachlorobenzene	10.804	284	106240	3610.71 ng/ml	96
70)	Pentachlorophenol (PCP)	10.996	266	62804	4423.57 ng/ml	99
71)	Phenanthrene	11.210	178	382323	3428.39 ng/ml	100
72)	Anthracene	11.264	178	378945	3665.10 ng/ml	100
73)	Carbazole	11.424	167	341604	4183.37 ng/ml	98
74)	Di-n-butyl phthalate	11.766	149	456224	4213.50 ng/ml	98
75)	Fluoranthene	12.489	202	472769	4155.30 ng/ml	98
76)	Benzidine	12.638	184	40815	899.39 ng/ml	97
77)	Pyrene	12.783	202	475538	4121.61 ng/ml	99
80)	Butyl benzyl phthalate	13.810	149	215889	4095.10 ng/ml	90
81)	Bis(2-ethylhexyl) adipate	13.981	129	178422	4076.77 ng/ml	99
82)	3,3-Dichlorobenzidine	14.949	252	200616	Below Cal	98
83)	Benz(a)anthracene	14.981	228	422734	4274.07 ng/ml	98
84)	Chrysene	15.067	228	382998	3963.43 ng/ml	99
85)	Bis(2-ethylhexyl) phth...	15.152	149	276788	4059.65 ng/ml	98
87)	Di-n-octyl phthalate	16.826	149	479230	4131.82 ng/ml	96
88)	Benzo(b)fluoranthene	17.586	252	457887	4024.22 ng/ml	97
89)	Benzo(k)fluoranthene	17.655	252	414639	3933.36 ng/ml	98
90)	Benzo(b+k)fluoranthene	17.655	252	898673	7953.36 ng/ml	98
91)	Benzo(e)pyrene	18.233	252	117	N.D.	
92)	Benzo(a)pyrene	18.356	252	401551	4089.13 ng/ml	97
93)	Perylene	18.559	252	963	10.45 ng/ml	96
95)	Indeno(1,2,3-cd)pyrene	20.902	276	418446	4068.64 ng/ml	95
96)	Dibenz(a,h)anthracene	20.971	278	369780	3928.45 ng/ml	99
97)	Benzo(g,h,i)perylene	21.448	276	427580	4224.77 ng/ml	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061906.D
Acq On : 6 Dec 2019 11:35 am
Operator : JK /AMS /DTH
Sample : 9120579-BSD1
Misc : 1x, 8270D TCLP REG LIST
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 06 13:29:56 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061907.D
Acq On : 6 Dec 2019 12:09 pm
Operator : JK /AMS /DTH
Sample : A9K0609-02RE2@10
Misc : 10x, 8270D TCLP REG LIST
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 06 13:30:00 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

DTH 12/6/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.627	152	68246	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	285433	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	139210	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.184	188	244877	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.992	240	241589	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.484	264	231425	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.886	292	192329	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.364	112	3871	85.26	ng/ml	0.00
5) Phenol-d6 (Surr)	6.263	99	2946	49.95	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.172	82	9780	209.96	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.975	172	23396	221.91	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.472	330	2502	189.66	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.986	244	26463	238.85	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	6.279	94	70	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	6.862	107	57	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	7.028	107	69	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.172	77	94	N.D.		
22) Isophorone	7.423	82	91	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	7.541	122	85	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	7.595	105	201	834.43	ng/ml	98
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.916	128	353	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.440	107	145	29.89	ng/ml#	1
33) 2-Methylnaphthalene	8.611	142	174	N.D.		
34) 1-Methylnaphthalene	8.707	142	1900	19.28	ng/ml	86
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	9.082	154	99	N.D.		
41) 2-Chloronaphthalene	9.151	162	260	2.98	ng/ml#	38
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	9.247	156	347	4.09	ng/ml	96

J

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061907.D
Acq On : 6 Dec 2019 12:09 pm
Operator : JK /AMS /DTH
Sample : A9K0609-02RE2@10
Misc : 10x, 8270D TCLP REG LIST
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

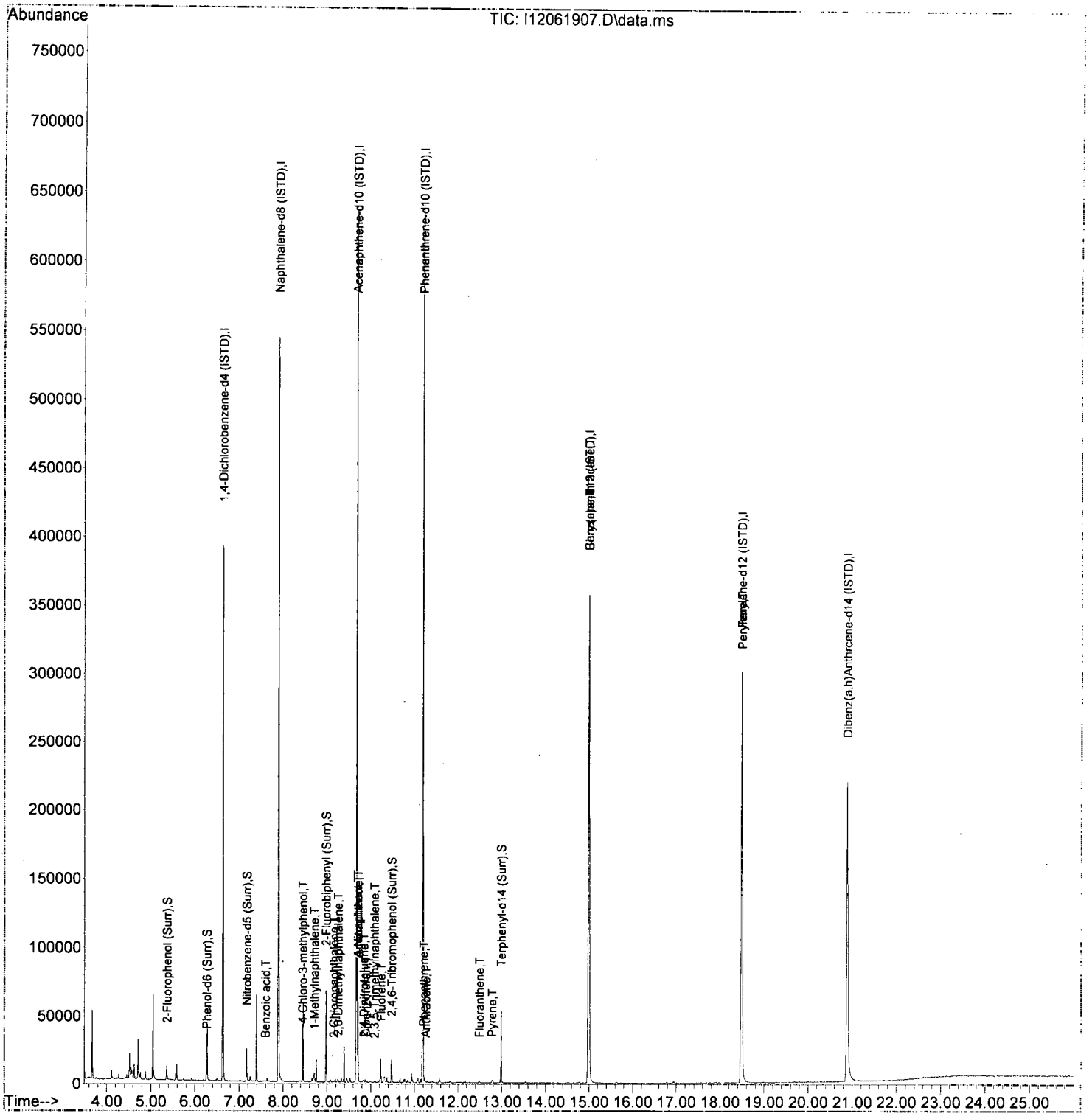
Quant Time: Dec 06 13:30:00 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	0.000		0	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.531	152	229	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	9.702	153	15003	168.53 ng/ml	98
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	9.702	139	96	87.30 ng/ml#	45
54) 2,4-Dinitrotoluene	9.836	165	84	62.20 ng/ml#	20
55) Dibenzofuran	9.879	168	375	3.14 ng/ml#	63
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	10.076	170	239	3.15 ng/ml#	37
60) Fluorene	10.226	166	2259	24.85 ng/ml	93
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	10.344	169	71	N.D.	
66) Azobenzene (1,2-DPH)	10.392	77	56	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	0.000		0	N.D.	
71) Phenanthrene	11.205	178	646	4.87 ng/ml	94
72) Anthracene	11.258	178	480	3.90 ng/ml	92
73) Carbazole	0.000		0	N.D.	
74) Di-n-butyl phthalate	11.761	149	178	N.D.	
75) Fluoranthene	12.483	202	1049	7.75 ng/ml	95
76) Benzidine	0.000		0	N.D.	
77) Pyrene	12.772	202	1125	8.19 ng/ml	94
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	0.000		0	N.D.	
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.992	228	605	4.82 ng/ml	66
84) Chrysene	14.992	228	588	4.79 ng/ml	62
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	0.000		0	N.D.	
89) Benzo(k)fluoranthene	0.000		0	N.D.	
90) Benzo(b+k)fluoranthene	0.000		0	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.490	252	734	6.98 ng/ml#	64
95) Indeno(1,2,3-cd)pyrene	20.870	276	97	N.D.	
96) Dibenz(a,h)anthracene	0.000		0	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-12\9L06015\
Data File : I12061907.D
Acq On : 6 Dec 2019 12:09 pm
Operator : JK /AMS /DTH
Sample : A9K0609-02RE2@10
Misc : 10x, 8270D TCLP REG LIST
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 06 13:30:00 2019
Quant Method : C:\msdchem\1\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Semivolatile Organic Compounds by EPA 8270D
Calibration Data

Sequence 9L03048 (Cal ID A9L0505) SV-GCMS9

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9L03048**	Instrument:	**SV-GCMS9**
Date:	**12/03/19 14:57**	Calibration:	**A9L0505**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9L03048-TUN1	Water	QC	QC			A19I086	A19K329
2	9L03048-ICB1	Water	QC	QC			A19I086	
3	9L03048-CAL1	Water	QC	QC			A19I086	A19K211
4	9L03048-CAL2	Water	QC	QC			A19I086	A19K212
5	9L03048-CAL3	Water	QC	QC			A19I086	A19K213
6	9L03048-CAL4	Water	QC	QC			A19I086	A19K214
7	9L03048-CAL5	Water	QC	QC			A19I086	A19K215
8	9L03048-CAL6	Water	QC	QC			A19I086	A19K216
9	9L03048-CAL7	Water	QC	QC			A19I086	A19K217
10	9L03048-CAL8	Water	QC	QC			A19I086	A19K218
11	9L03048-CAL9	Water	QC	QC			A19I086	A19K219
12	9L03048-CALA	Water	QC	QC			A19I086	A19K220
13	9L03048-IBL1	Water	QC	QC			A19I086	
14	9L03048-ICV1	Water	QC	QC			A19I086	A19I254
15	9L03048-IBL2	Water	QC	QC			A19I086	

Data Entered By: 12/5/19

Data Reviewed By: 12/11/19

Comments:

Calibration Status Report SV-GCMS9

Method Path : T:\methods\
Method File : SV9_120319.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Wed Dec 04 10:57:36 2019
Response Via : Initial Calibration

A9L0505
12/5/19

#	ID	Conc	ISTD Conc	Path\File
1	20	20	2000	T:\data\2019-12\9L03048\I12031912.D
2	50	50	2000	T:\data\2019-12\9L03048\I12031913.D
3	100	100	2000	T:\data\2019-12\9L03048\I12031914.D
4	200	200	2000	T:\data\2019-12\9L03048\I12031915.D
5	500	500	2000	T:\data\2019-12\9L03048\I12031916.D
6	1000	1000	2000	T:\data\2019-12\9L03048\I12031917.D
7	2000	2000	2000	T:\data\2019-12\9L03048\I12031918.D
8	4000	4000	2000	T:\data\2019-12\9L03048\I12031919.D
9	6000	6000	2000	T:\data\2019-12\9L03048\I12031920.D
10	8000	8000	2000	T:\data\2019-12\9L03048\I12031921.D

#	ID	Update Time	Quant Time	Acquisition Time
1	20	Dec 04 10:56 2019	Dec 04 10:12 2019	3 Dec 2019 4:03 pm
2	50	Dec 04 10:57 2019	Dec 04 10:14 2019	3 Dec 2019 4:38 pm
3	100	Dec 04 10:57 2019	Dec 04 09:13 2019	3 Dec 2019 5:12 pm
4	200	Dec 04 10:57 2019	Dec 04 09:14 2019	3 Dec 2019 5:46 pm
5	500	Dec 04 10:57 2019	Dec 04 09:14 2019	3 Dec 2019 6:20 pm
6	1000	Dec 04 10:57 2019	Dec 04 09:14 2019	3 Dec 2019 6:54 pm
7	2000	Dec 04 10:57 2019	Dec 04 09:14 2019	3 Dec 2019 7:28 pm
8	4000	Dec 04 10:57 2019	Dec 04 09:14 2019	3 Dec 2019 8:02 pm
9	6000	Dec 04 10:57 2019	Dec 04 10:20 2019	3 Dec 2019 8:36 pm
10	8000	Dec 04 10:57 2019	Dec 04 10:33 2019	3 Dec 2019 9:10 pm

SV9_120319.M Thu Dec 05 10:37:13 2019

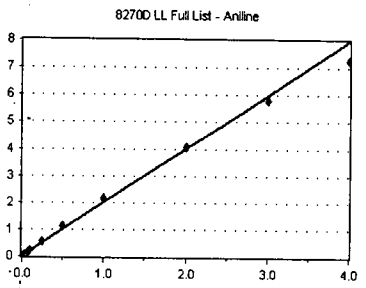
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

Aniline

Curve Fit: **AVERAGE RF**

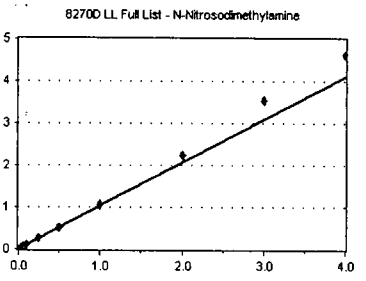


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1255	1.548	6.31
9L03048-CAL2	50	3454	1.797	6.30
9L03048-CAL3	100	7803	2.026	6.31
9L03048-CAL4	200	17717	2.110	6.31
9L03048-CAL5	500	46527	2.292	6.30
9L03048-CAL6	1000	90918	2.241	0.00
9L03048-CAL7	2000	163666	2.165	0.00
9L03048-CAL8	4000	276528	2.023	0.00
9L03048-CAL9	6000	400577	1.935	0.00
9L03048-CALA	8000	479598	1.815	0.00

AVE RF **1.995** RF RSD **11.44** AVE RT **3.15**

N-Nitrosodimethylamine

Curve Fit: **AVERAGE RF**

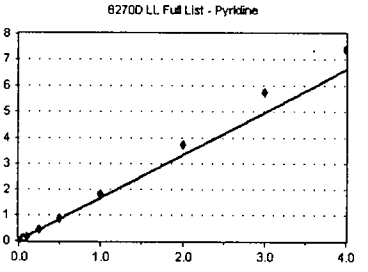


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	620	0.765	3.97
9L03048-CAL2	50	1783	0.927	3.96
9L03048-CAL3	100	3863	1.003	3.97
9L03048-CAL4	200	8304	0.989	3.96
9L03048-CAL5	500	21095	1.039	3.94
9L03048-CAL6	1000	42239	1.041	3.95
9L03048-CAL7	2000	80285	1.062	3.95
9L03048-CAL8	4000	153919	1.126	3.95
9L03048-CAL9	6000	244412	1.180	3.95
9L03048-CALA	8000	306026	1.158	3.96

AVE RF **1.029** RF RSD **11.80** AVE RT **3.96**

Pyridine

Curve Fit: **AVERAGE RF**

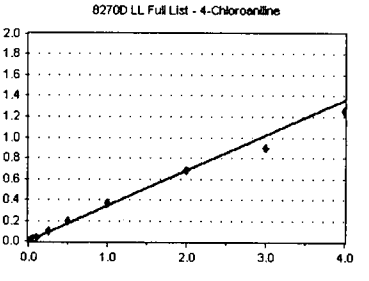


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1133	1.397	4.10
9L03048-CAL2	50	2675	1.391	4.04
9L03048-CAL3	100	5875	1.526	4.03
9L03048-CAL4	200	11415	1.360	4.01
9L03048-CAL5	500	33858	1.668	3.98
9L03048-CAL6	1000	71621	1.765	3.98
9L03048-CAL7	2000	138631	1.834	3.98
9L03048-CAL8	4000	253805	1.856	3.97
9L03048-CAL9	6000	396777	1.916	3.97
9L03048-CALA	8000	488420	1.848	3.98

AVE RF **1.656** RF RSD **13.21** AVE RT **4.00**

4-Chloroaniline

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	953	0.278	7.96
9L03048-CAL2	50	2616	0.315	7.96
9L03048-CAL3	100	5713	0.350	7.96
9L03048-CAL4	200	11829	0.355	7.96
9L03048-CAL5	500	32068	0.401	7.96
9L03048-CAL6	1000	59598	0.384	7.96
9L03048-CAL7	2000	104722	0.372	0.00
9L03048-CAL8	4000	175197	0.338	0.00
9L03048-CAL9	6000	227873	0.301	0.00
9L03048-CALA	8000	300670	0.313	0.00

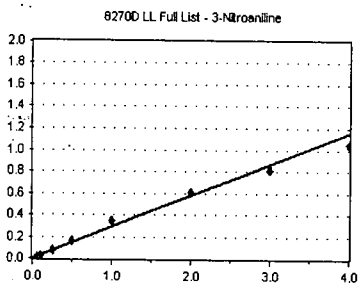
AVE RF **0.341** RF RSD **11.44** AVE RT **4.77**

Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

3-Nitroaniline

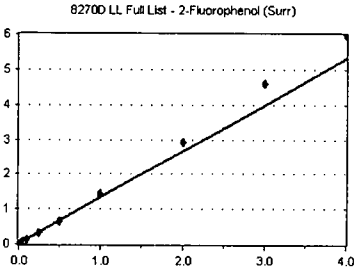


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~174~~	~~0.104~~	~~9.62~~
~~9L03048-CAL2~~	~~50~~	~~626~~	~~0.155~~	~~9.61~~
9L03048-CAL3	100	1701	0.213	9.61
9L03048-CAL4	200	4329	0.269	9.61
9L03048-CAL5	500	12379	0.318	9.61
9L03048-CAL6	1000	24616	0.331	9.61
9L03048-CAL7	2000	46707	0.341	0.00
9L03048-CAL8	4000	77930	0.305	0.00
9L03048-CAL9	6000	102695	0.270	0.00
9L03048-CALA	8000	129027	0.263	0.00

AVE RF **0.289** RF RSD **14.85** AVE RT **4.81**

2-Fluorophenol (Surr)

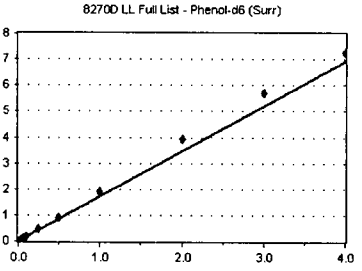


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~760~~	~~0.937~~	~~5.36~~
9L03048-CAL2	50	1965	1.022	5.36
9L03048-CAL3	100	4493	1.167	5.36
9L03048-CAL4	200	10166	1.211	5.36
9L03048-CAL5	500	27016	1.331	5.35
9L03048-CAL6	1000	53313	1.314	5.36
9L03048-CAL7	2000	108351	1.433	5.36
9L03048-CAL8	4000	200194	1.464	5.36
9L03048-CAL9	6000	318044	1.536	5.36
9L03048-CALA	8000	395455	1.496	5.36

AVE RF **1.331** RF RSD **12.88** AVE RT **5.36**

Phenol-d6 (Surr)

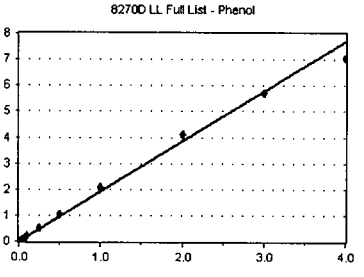


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1072	1.322	6.26
9L03048-CAL2	50	2800	1.456	6.26
9L03048-CAL3	100	6110	1.587	6.26
9L03048-CAL4	200	13867	1.652	6.26
9L03048-CAL5	500	37469	1.846	6.26
9L03048-CAL6	1000	75331	1.857	6.26
9L03048-CAL7	2000	142632	1.887	6.26
9L03048-CAL8	4000	268309	1.962	6.26
9L03048-CAL9	6000	393576	1.901	6.27
9L03048-CALA	8000	479889	1.816	6.27

AVE RF **1.729** RF RSD **12.39** AVE RT **6.26**

Phenol



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1298	1.601	6.27
9L03048-CAL2	50	3365	1.750	6.27
9L03048-CAL3	100	7079	1.838	6.27
9L03048-CAL4	200	16464	1.961	6.27
9L03048-CAL5	500	43537	2.145	6.27
9L03048-CAL6	1000	85835	2.116	6.27
9L03048-CAL7	2000	157741	2.087	6.27
9L03048-CAL8	4000	280072	2.049	6.28
9L03048-CAL9	6000	395390	1.910	6.28
9L03048-CALA	8000	466321	1.765	6.29

AVE RF **1.922** RF RSD **9.45** AVE RT **6.27**

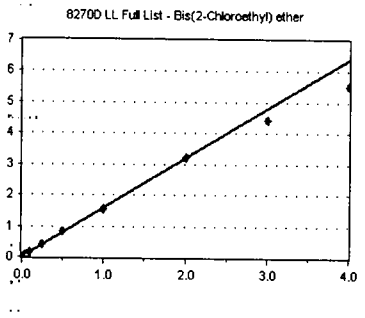
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

Bis(2-Chloroethyl) ether

Curve Fit: **AVERAGE RF**

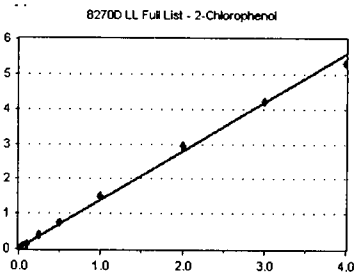


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1322	1.630	6.36
9L03048-CAL2	50	3277	1.705	6.36
9L03048-CAL3	100	6496	1.687	6.36
9L03048-CAL4	200	13753	1.638	6.36
9L03048-CAL5	500	33605	1.656	6.36
9L03048-CAL6	1000	66252	1.633	6.36
9L03048-CAL7	2000	117371	1.553	6.36
9L03048-CAL8	4000	220646	1.614	6.36
9L03048-CAL9	6000	304655	1.471	6.36
9L03048-CALA	8000	363767	1.377	6.37

AVE RF **1.596** RF RSD **6.39** AVE RT **6.36**

2-Chlorophenol

Curve Fit: **AVERAGE RF**

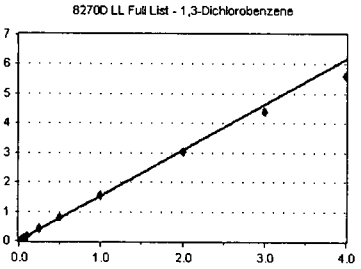


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	967	1.192	6.43
9L03048-CAL2	50	2376	1.236	6.42
9L03048-CAL3	100	5309	1.379	6.42
9L03048-CAL4	200	12018	1.431	6.42
9L03048-CAL5	500	31029	1.529	6.42
9L03048-CAL6	1000	61716	1.521	6.42
9L03048-CAL7	2000	112266	1.485	6.42
9L03048-CAL8	4000	200851	1.469	6.42
9L03048-CAL9	6000	290434	1.403	6.42
9L03048-CALA	8000	351884	1.332	6.42

AVE RF **1.398** RF RSD **8.24** AVE RT **6.42**

1,3-Dichlorobenzene

Curve Fit: **AVERAGE RF**

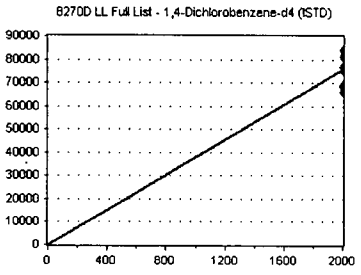


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1153	1.422	6.57
9L03048-CAL2	50	3054	1.589	6.57
9L03048-CAL3	100	6120	1.589	6.57
9L03048-CAL4	200	13821	1.646	6.57
9L03048-CAL5	500	33584	1.655	6.57
9L03048-CAL6	1000	64447	1.589	6.57
9L03048-CAL7	2000	117219	1.551	6.57
9L03048-CAL8	4000	206523	1.511	6.57
9L03048-CAL9	6000	303755	1.467	6.57
9L03048-CALA	8000	369308	1.398	6.57

AVE RF **1.541** RF RSD **5.81** AVE RT **6.57**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	2000	81092	40.546	6.63
9L03048-CAL2	2000	76901	38.451	6.63
9L03048-CAL3	2000	77018	38.509	6.63
9L03048-CAL4	2000	83955	41.978	6.63
9L03048-CAL5	2000	81192	40.596	6.63
9L03048-CAL6	2000	81140	40.570	6.63
9L03048-CAL7	2000	75585	37.793	6.63
9L03048-CAL8	2000	68360	34.180	6.63
9L03048-CAL9	2000	69018	34.509	6.63
9L03048-CALA	2000	66064	33.032	6.63

AVE RF **38.016** RF RSD **8.21** AVE RT **6.63**

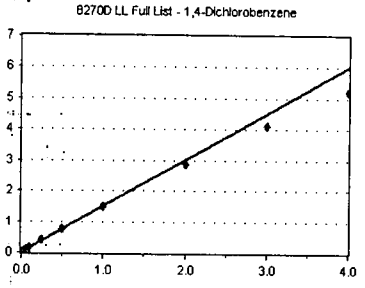
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

1,4-Dichlorobenzene

Curve Fit: **AVERAGE RF**

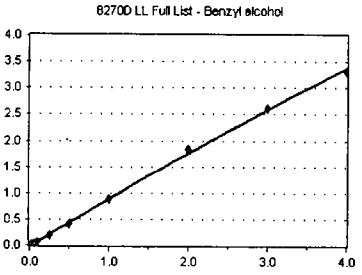


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1163	1.434	6.64
9L03048-CAL2	50	3134	1.630	6.64
9L03048-CAL3	100	6240	1.620	6.64
9L03048-CAL4	200	13571	1.616	6.64
9L03048-CAL5	500	32938	1.623	6.64
9L03048-CAL6	1000	62870	1.550	6.64
9L03048-CAL7	2000	112952	1.494	6.64
9L03048-CAL8	4000	196929	1.440	6.64
9L03048-CAL9	6000	284898	1.376	6.64
9L03048-CALA	8000	343825	1.301	6.64

AVE RF **1.509** RF RSD **7.80** AVE RT **6.64**

Benzyl alcohol

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

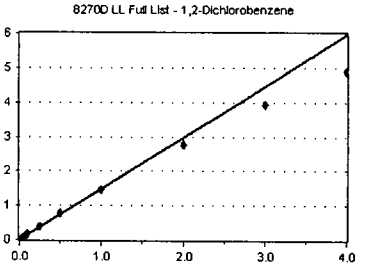


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~203~~	~~0.250~~	~~6.77~~
9L03048-CAL2	50	947	0.493	6.76
9L03048-CAL3	100	1740	0.452	6.76
9L03048-CAL4	200	5100	0.607	6.76
9L03048-CAL5	500	15610	0.769	6.76
9L03048-CAL6	1000	33704	0.831	6.76
9L03048-CAL7	2000	67600	0.894	6.76
9L03048-CAL8	4000	126371	0.924	6.76
9L03048-CAL9	6000	180424	0.871	6.77
9L03048-CALA	8000	218745	0.828	6.77

AVE RF **0.741** RF RSD **24.03** AVE RT **6.76**

1,2-Dichlorobenzene

Curve Fit: **AVERAGE RF**

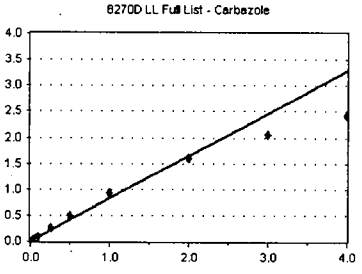


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1271	1.567	6.79
9L03048-CAL2	50	3087	1.606	6.80
9L03048-CAL3	100	6036	1.567	6.80
9L03048-CAL4	200	13817	1.646	6.80
9L03048-CAL5	500	32535	1.603	6.79
9L03048-CAL6	1000	62351	1.537	6.80
9L03048-CAL7	2000	109758	1.452	6.80
9L03048-CAL8	4000	189553	1.386	6.80
9L03048-CAL9	6000	269994	1.304	6.80
9L03048-CALA	8000	323930	1.226	6.80

AVE RF **1.489** RF RSD **9.52** AVE RT **6.80**

Carbazole

Curve Fit: **AVERAGE RF** Q 1/a2 MKT 12/11/19



Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1783	0.633	11.42
9L03048-CAL2	50	5043	0.736	11.41
9L03048-CAL3	100	11582	0.854	11.41
9L03048-CAL4	200	26791	0.956	11.41
9L03048-CAL5	500	70636	1.039	11.41
9L03048-CAL6	1000	129438	0.973	11.41
9L03048-CAL7	2000	236632	0.931	0.00
9L03048-CAL8	4000	389068	0.802	0.00
9L03048-CAL9	6000	500765	0.682	0.00
9L03048-CALA	8000	575598	0.605	0.00

AVE RF **0.821** RF RSD **18.65** AVE RT **6.85**

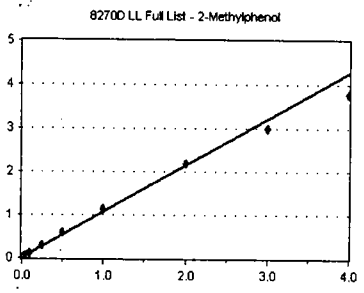
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

2-Methylphenol

Curve Fit: **AVERAGE RF**

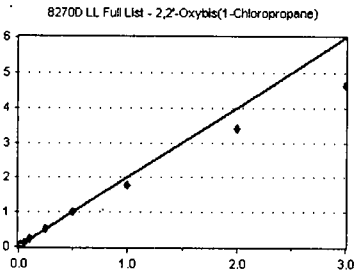


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	726	0.895	6.87
9L03048-CAL2	50	2000	1.040	6.86
9L03048-CAL3	100	4228	1.098	6.86
9L03048-CAL4	200	9605	1.144	6.86
9L03048-CAL5	500	24147	1.190	6.86
9L03048-CAL6	1000	47344	1.167	6.86
9L03048-CAL7	2000	85445	1.130	6.86
9L03048-CAL8	4000	148793	1.088	6.87
9L03048-CAL9	6000	207314	1.001	6.87
9L03048-CALA	8000	249183	0.943	6.87

AVE RF **1.070** RF RSD **9.15** AVE RT **6.86**

2,2'-Oxybis(1-Chloropropane)

Curve Fit: **AVERAGE RF**

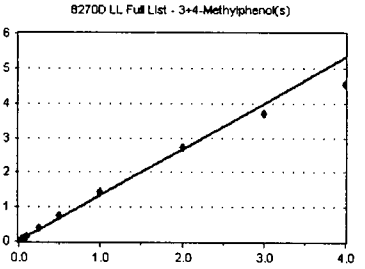


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1701	2.098	6.89
9L03048-CAL2	50	4371	2.274	6.89
9L03048-CAL3	100	8672	2.252	6.89
9L03048-CAL4	200	18847	2.245	6.89
9L03048-CAL5	500	42485	2.093	6.89
9L03048-CAL6	1000	80267	1.978	6.89
9L03048-CAL7	2000	135468	1.792	6.89
9L03048-CAL8	4000	233716	1.709	6.89
9L03048-CAL9	6000	319137	1.541	6.89
~~9L03048-CALA~~	~~8000~~	~~371752~~	~~1.407~~	~~6.89~~

AVE RF **1.998** RF RSD **13.18** AVE RT **6.89**

3+4-Methylphenol(s)

Curve Fit: **AVERAGE RF**

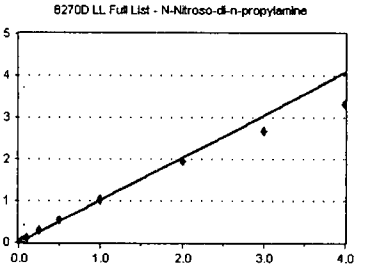


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	826	1.019	7.02
9L03048-CAL2	50	2417	1.257	7.01
9L03048-CAL3	100	5361	1.392	7.01
9L03048-CAL4	200	11818	1.408	7.01
9L03048-CAL5	500	31405	1.547	7.01
9L03048-CAL6	1000	59927	1.477	7.01
9L03048-CAL7	2000	108523	1.436	7.01
9L03048-CAL8	4000	186013	1.361	7.02
9L03048-CAL9	6000	254837	1.231	7.02
9L03048-CALA	8000	300974	1.139	7.03

AVE RF **1.327** RF RSD **12.29** AVE RT **7.02**

N-Nitroso-di-n-propylamine

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	798	0.984	7.02
9L03048-CAL2	50	1987	1.034	7.02
9L03048-CAL3	100	4176	1.084	7.02
9L03048-CAL4	200	9090	1.083	7.02
9L03048-CAL5	500	23607	1.163	7.01
9L03048-CAL6	1000	44516	1.097	7.02
9L03048-CAL7	2000	78452	1.038	7.02
9L03048-CAL8	4000	133289	0.975	7.02
9L03048-CAL9	6000	183872	0.888	7.03
9L03048-CALA	8000	219865	0.832	7.03

AVE RF **1.018** RF RSD **9.88** AVE RT **7.02**

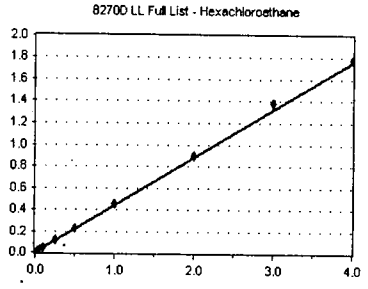
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

Hexachloroethane

Curve Fit: **AVERAGE RF**

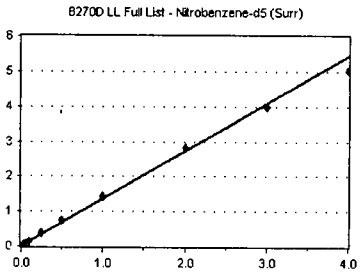


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	302	0.372	7.14
9L03048-CAL2	50	789	0.410	7.13
9L03048-CAL3	100	1645	0.427	7.13
9L03048-CAL4	200	3881	0.462	7.14
9L03048-CAL5	500	9529	0.469	7.13
9L03048-CAL6	1000	18186	0.448	7.14
9L03048-CAL7	2000	34553	0.457	7.14
9L03048-CAL8	4000	61522	0.450	7.14
9L03048-CAL9	6000	95333	0.460	7.14
9L03048-CALA	8000	117991	0.447	7.14

AVE RF **0.440** RF RSD **6.72** AVE RT **7.13**

Nitrobenzene-d5 (Surr)

Curve Fit: **AVERAGE RF**

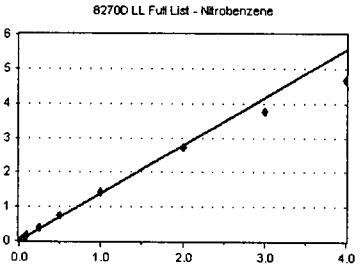


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	968	1.194	7.17
9L03048-CAL2	50	2472	1.286	7.17
9L03048-CAL3	100	5323	1.382	7.17
9L03048-CAL4	200	11763	1.401	7.17
9L03048-CAL5	500	30295	1.493	7.17
9L03048-CAL6	1000	60018	1.479	7.17
9L03048-CAL7	2000	107962	1.428	7.17
9L03048-CAL8	4000	192378	1.407	7.17
9L03048-CAL9	6000	274563	1.326	7.17
9L03048-CALA	8000	331420	1.254	7.18

AVE RF **1.365** RF RSD **7.17** AVE RT **7.17**

Nitrobenzene

Curve Fit: **AVERAGE RF**

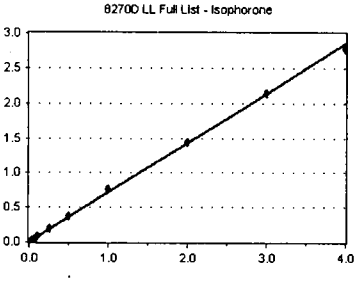


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1029	1.269	7.19
9L03048-CAL2	50	2592	1.348	7.19
9L03048-CAL3	100	5634	1.463	7.19
9L03048-CAL4	200	12932	1.540	7.19
9L03048-CAL5	500	32003	1.577	7.18
9L03048-CAL6	1000	61196	1.508	7.19
9L03048-CAL7	2000	106719	1.412	7.19
9L03048-CAL8	4000	186102	1.361	7.19
9L03048-CAL9	6000	260146	1.256	7.19
9L03048-CALA	8000	307605	1.164	7.20

AVE RF **1.390** RF RSD **9.69** AVE RT **7.19**

Isophorone

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2062	0.601	7.42
9L03048-CAL2	50	5441	0.656	7.42
9L03048-CAL3	100	11206	0.686	7.42
9L03048-CAL4	200	24749	0.743	7.42
9L03048-CAL5	500	63524	0.794	7.42
9L03048-CAL6	1000	118024	0.760	7.42
9L03048-CAL7	2000	213192	0.756	7.42
9L03048-CAL8	4000	375433	0.724	7.43
9L03048-CAL9	6000	541874	0.715	7.43
9L03048-CALA	8000	665888	0.693	7.44

AVE RF **0.713** RF RSD **7.89** AVE RT **7.43**

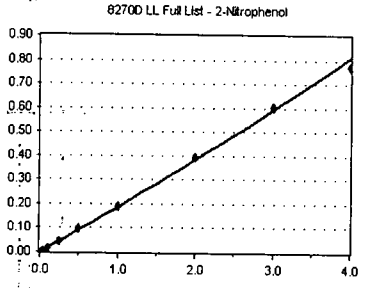
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

2-Nitrophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

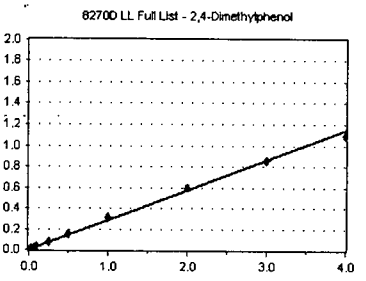


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~250~~	~~7.291~~	~~7.51~~
9L03048-CAL2	50	751	9.057	7.50
9L03048-CAL3	100	1804	0.110	7.51
9L03048-CAL4	200	4437	0.133	7.51
9L03048-CAL5	500	14203	0.178	7.50
9L03048-CAL6	1000	30876	0.199	7.50
9L03048-CAL7	2000	54150	0.192	7.50
9L03048-CAL8	4000	102512	0.198	7.51
9L03048-CAL9	6000	152907	0.202	7.51
9L03048-CALA	8000	185322	0.193	7.51

AVE RF **0.166** RF RSD **25.84** AVE RT **7.51**

2,4-Dimethylphenol

Curve Fit: **AVERAGE RF**

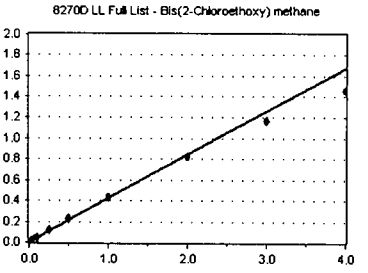


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~660~~	~~0.192~~	~~7.54~~
9L03048-CAL2	50	2005	0.242	7.54
9L03048-CAL3	100	4258	0.261	7.54
9L03048-CAL4	200	9473	0.285	7.54
9L03048-CAL5	500	25236	0.315	7.54
9L03048-CAL6	1000	48041	0.309	7.54
9L03048-CAL7	2000	87956	0.312	7.54
9L03048-CAL8	4000	154105	0.297	7.55
9L03048-CAL9	6000	217024	0.286	7.55
9L03048-CALA	8000	262222	0.273	7.55

AVE RF **0.287** RF RSD **8.70** AVE RT **7.54**

Bis(2-Chloroethoxy) methane

Curve Fit: **AVERAGE RF**

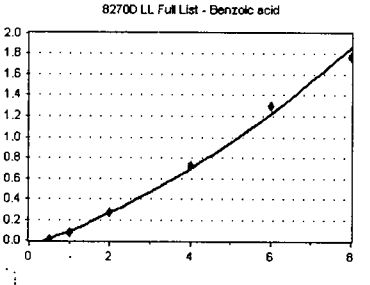


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1334	0.389	7.63
9L03048-CAL2	50	3419	0.412	7.63
9L03048-CAL3	100	7097	0.435	7.63
9L03048-CAL4	200	14981	0.450	7.63
9L03048-CAL5	500	37517	0.469	7.63
9L03048-CAL6	1000	69778	0.449	7.63
9L03048-CAL7	2000	122646	0.435	7.63
9L03048-CAL8	4000	212599	0.410	7.64
9L03048-CAL9	6000	294291	0.388	7.64
9L03048-CALA	8000	349639	0.364	7.64

AVE RF **0.420** RF RSD **7.87** AVE RT **7.63**

Benzoic acid

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~40~~	~~0~~	~~0.000~~	~~0.00~~
~~9L03048-CAL2~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9L03048-CAL3~~	~~200~~	~~139~~	~~4.256~~	~~7.54~~
~~9L03048-CAL4~~	~~400~~	~~633~~	~~9.507~~	~~7.58~~
9L03048-CAL5	1000	5088	3.180	7.60
9L03048-CAL6	2000	23552	7.582	7.62
9L03048-CAL7	4000	75163	0.133	7.65
9L03048-CAL8	8000	187586	0.181	7.70
9L03048-CAL9	12000	327041	0.216	7.73
9L03048-CALA	16000	425227	0.221	7.74

AVE RF **0.143** RF RSD **53.96** AVE RT **7.67**

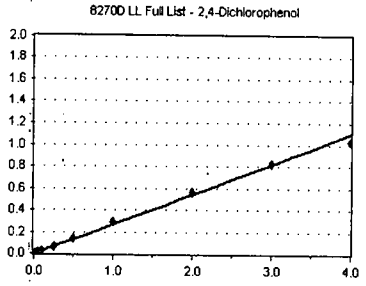
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

2,4-Dichlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

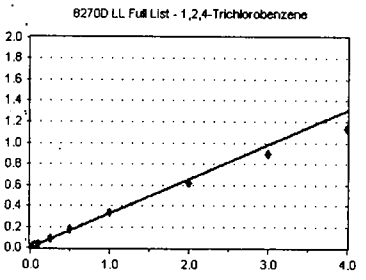


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	445	0.130	7.74
9L03048-CAL2	50	1440	0.174	7.74
9L03048-CAL3	100	3184	0.195	7.74
9L03048-CAL4	200	7872	0.236	7.74
9L03048-CAL5	500	22117	0.276	7.74
9L03048-CAL6	1000	43869	0.282	7.74
9L03048-CAL7	2000	82288	0.292	7.74
9L03048-CAL8	4000	146333	0.282	7.75
9L03048-CAL9	6000	208408	0.275	7.76
9L03048-CALA	8000	246195	0.256	7.76

AVE RF **0.240** RF RSD **23.12** AVE RT **7.75**

1,2,4-Trichlorobenzene

Curve Fit: **AVERAGE RF**

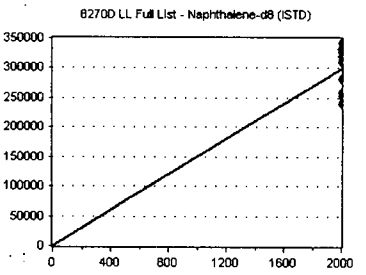


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1085	0.316	7.83
9L03048-CAL2	50	2902	0.350	7.83
9L03048-CAL3	100	5594	0.343	7.84
9L03048-CAL4	200	11689	0.351	7.84
9L03048-CAL5	500	28376	0.355	7.84
9L03048-CAL6	1000	52938	0.341	7.84
9L03048-CAL7	2000	93155	0.330	7.84
9L03048-CAL8	4000	159886	0.309	7.84
9L03048-CAL9	6000	225381	0.297	7.84
9L03048-CALA	8000	271812	0.283	7.84

AVE RF **0.327** RF RSD **7.61** AVE RT **7.83**

Naphthalene-d8 (ISTD)

Curve Fit: **AVERAGE RF**

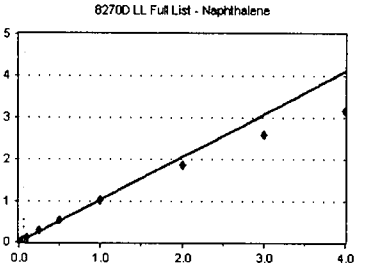


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	2000	342890	171.445	7.89
9L03048-CAL2	2000	331693	165.847	7.89
9L03048-CAL3	2000	326606	163.303	7.89
9L03048-CAL4	2000	332902	166.451	7.89
9L03048-CAL5	2000	320013	160.006	7.89
9L03048-CAL6	2000	310642	155.321	7.89
9L03048-CAL7	2000	281885	140.943	7.89
9L03048-CAL8	2000	259116	129.558	7.89
9L03048-CAL9	2000	252672	126.336	7.89
9L03048-CALA	2000	240133	120.066	7.89

AVE RF **149.928** RF RSD **12.66** AVE RT **7.89**

Naphthalene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	3690	1.076	7.91
9L03048-CAL2	50	9311	1.123	7.91
9L03048-CAL3	100	18476	1.131	7.91
9L03048-CAL4	200	37855	1.137	7.91
9L03048-CAL5	500	91141	1.139	7.91
9L03048-CAL6	1000	164864	1.061	7.91
9L03048-CAL7	2000	288400	1.023	7.92
9L03048-CAL8	4000	480003	0.926	7.92
9L03048-CAL9	6000	653583	0.862	7.92
9L03048-CALA	8000	761715	0.793	7.92

AVE RF **1.027** RF RSD **12.16** AVE RT **7.91**

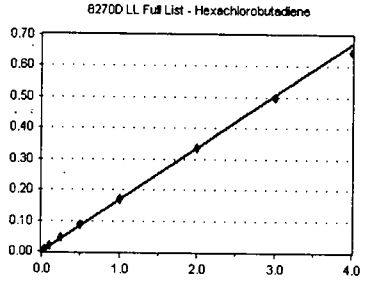
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**

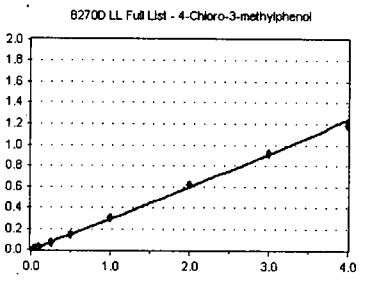


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	513	0.150	8.04
9L03048-CAL2	50	1319	0.159	8.04
9L03048-CAL3	100	2839	0.174	8.04
9L03048-CAL4	200	6085	0.183	8.04
9L03048-CAL5	500	14186	0.177	8.04
9L03048-CAL6	1000	27231	0.175	8.04
9L03048-CAL7	2000	48144	0.171	8.04
9L03048-CAL8	4000	86790	0.167	8.04
9L03048-CAL9	6000	126095	0.166	8.04
9L03048-CALA	8000	155277	0.162	8.04

AVE RF **0.168** RF RSD **5.81** AVE RT **8.04**

4-Chloro-3-methylphenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

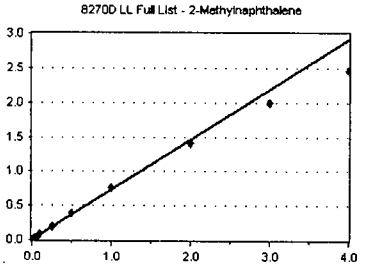


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~340~~	~~9.916~~	~~8.44~~
9L03048-CAL2	50	1256	0.151	8.44
9L03048-CAL3	100	3107	0.190	8.44
9L03048-CAL4	200	7447	0.224	8.44
9L03048-CAL5	500	22351	0.279	8.44
9L03048-CAL6	1000	45215	0.291	8.44
9L03048-CAL7	2000	85765	0.304	8.44
9L03048-CAL8	4000	159539	0.308	8.44
9L03048-CAL9	6000	232146	0.306	8.45
9L03048-CALA	8000	286207	0.298	8.45

AVE RF **0.261** RF RSD **22.28** AVE RT **8.44**

2-Methylnaphthalene

Curve Fit: **AVERAGE RF**

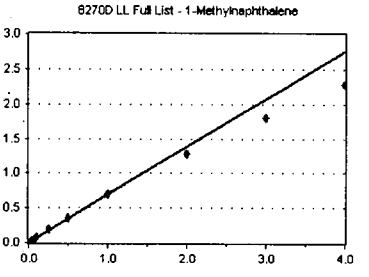


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2430	0.709	8.61
9L03048-CAL2	50	6232	0.752	8.61
9L03048-CAL3	100	12389	0.759	8.61
9L03048-CAL4	200	25881	0.777	8.61
9L03048-CAL5	500	64287	0.804	8.61
9L03048-CAL6	1000	119447	0.769	8.61
9L03048-CAL7	2000	214169	0.760	8.61
9L03048-CAL8	4000	365323	0.705	8.61
9L03048-CAL9	6000	502226	0.663	8.61
9L03048-CALA	8000	590164	0.614	8.61

AVE RF **0.731** RF RSD **7.94** AVE RT **8.61**

1-Methylnaphthalene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2328	0.679	8.71
9L03048-CAL2	50	6060	0.731	8.71
9L03048-CAL3	100	12294	0.753	8.71
9L03048-CAL4	200	24634	0.740	8.71
9L03048-CAL5	500	62032	0.775	8.71
9L03048-CAL6	1000	111578	0.718	8.71
9L03048-CAL7	2000	196570	0.697	8.71
9L03048-CAL8	4000	333327	0.643	8.71
9L03048-CAL9	6000	454977	0.600	8.71
9L03048-CALA	8000	547369	0.570	8.71

AVE RF **0.691** RF RSD **9.78** AVE RT **8.71**

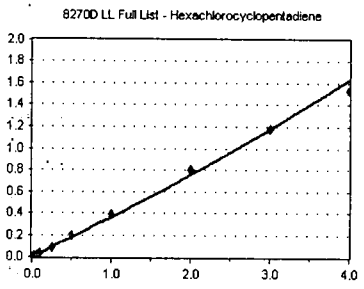
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

Hexachlorocyclopentadiene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

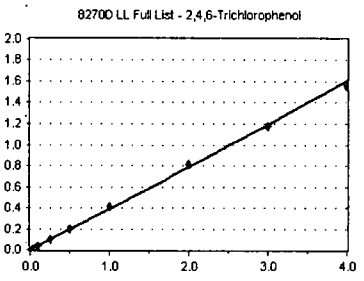


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	396	0.236	8.78
9L03048-CAL2	50	1037	0.256	8.78
9L03048-CAL3	100	2263	0.283	8.78
9L03048-CAL4	200	5088	0.316	8.78
9L03048-CAL5	500	13870	0.356	8.78
9L03048-CAL6	1000	28270	0.380	8.78
9L03048-CAL7	2000	53845	0.394	8.78
9L03048-CAL8	4000	101731	0.398	8.78
9L03048-CAL9	6000	149931	0.394	8.78
9L03048-CALA	8000	188518	0.385	8.78

AVE RF **0.340** RF RSD **18.27** AVE RT **8.78**

2,4,6-Trichlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

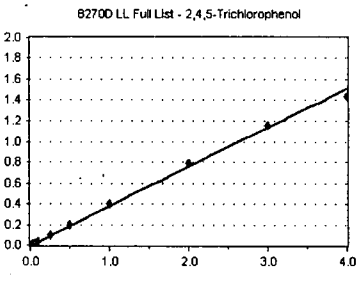


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~293~~	~~0.175~~	~~8.89~~
9L03048-CAL2	50	859	0.212	8.89
9L03048-CAL3	100	1979	0.247	8.89
9L03048-CAL4	200	4861	0.302	8.89
9L03048-CAL5	500	14788	0.380	8.89
9L03048-CAL6	1000	29391	0.395	8.89
9L03048-CAL7	2000	56718	0.415	8.89
9L03048-CAL8	4000	103786	0.406	8.89
9L03048-CAL9	6000	150184	0.394	8.89
9L03048-CALA	8000	191296	0.391	8.89

AVE RF **0.349** RF RSD **21.64** AVE RT **8.89**

2,4,5-Trichlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

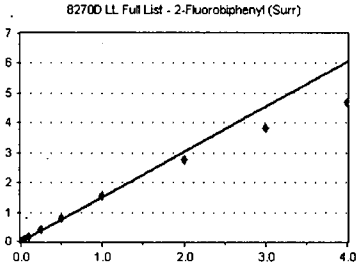


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~217~~	~~0.129~~	~~8.93~~
9L03048-CAL2	50	879	0.217	8.93
9L03048-CAL3	100	1904	0.238	8.93
9L03048-CAL4	200	4882	0.303	8.93
9L03048-CAL5	500	14398	0.370	8.93
9L03048-CAL6	1000	29228	0.393	8.93
9L03048-CAL7	2000	54610	0.399	8.93
9L03048-CAL8	4000	101134	0.396	8.93
9L03048-CAL9	6000	146612	0.385	8.93
9L03048-CALA	8000	175850	0.359	8.93

AVE RF **0.340** RF RSD **20.67** AVE RT **8.93**

2-Fluorobiphenyl (Surr)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2573	1.534	8.97
9L03048-CAL2	50	6633	1.639	8.98
9L03048-CAL3	100	13259	1.657	8.98
9L03048-CAL4	200	27050	1.680	8.98
9L03048-CAL5	500	65387	1.678	8.98
9L03048-CAL6	1000	118351	1.592	8.98
9L03048-CAL7	2000	210035	1.535	8.97
9L03048-CAL8	4000	353301	1.382	8.98
9L03048-CAL9	6000	484354	1.272	8.98
9L03048-CALA	8000	576096	1.176	8.98

AVE RF **1.515** RF RSD **11.81** AVE RT **8.98**

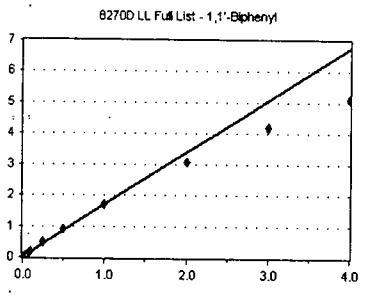
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

1,1'-Biphenyl

Curve Fit: **AVERAGE RF**

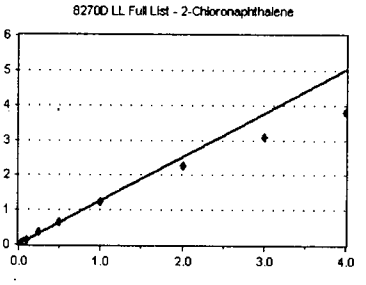


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2772	1.652	9.08
9L03048-CAL2	50	7529	1.861	9.08
9L03048-CAL3	100	15045	1.880	9.08
9L03048-CAL4	200	30824	1.915	9.08
9L03048-CAL5	500	74411	1.910	9.08
9L03048-CAL6	1000	134132	1.805	9.08
9L03048-CAL7	2000	234019	1.711	9.08
9L03048-CAL8	4000	393452	1.539	9.08
9L03048-CAL9	6000	533040	1.400	9.09
9L03048-CALA	8000	625310	1.277	9.09

AVE RF **1.695** RF RSD **13.29** AVE RT **9.08**

2-Chloronaphthalene

Curve Fit: **AVERAGE RF**

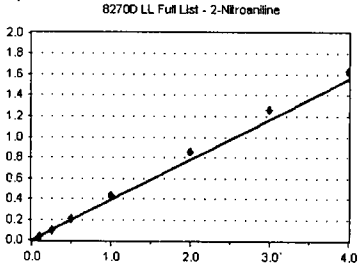


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2071	1.234	9.10
9L03048-CAL2	50	5582	1.380	9.10
9L03048-CAL3	100	11271	1.409	9.10
9L03048-CAL4	200	22623	1.405	9.10
9L03048-CAL5	500	55514	1.425	9.10
9L03048-CAL6	1000	98523	1.326	9.10
9L03048-CAL7	2000	170195	1.244	9.10
9L03048-CAL8	4000	288950	1.131	9.10
9L03048-CAL9	6000	393007	1.032	9.11
9L03048-CALA	8000	465897	0.951	9.11

AVE RF **1.254** RF RSD **13.39** AVE RT **9.10**

2-Nitroaniline

Curve Fit: **AVERAGE RF**

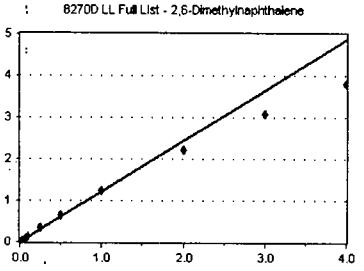


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~248~~	~~0.148~~	~~9.20~~
~~9L03048-CAL2~~	~~50~~	~~816~~	~~0.202~~	~~9.19~~
~~9L03048-CAL3~~	~~100~~	~~1702~~	~~0.213~~	~~9.19~~
9L03048-CAL4	200	4435	0.276	9.20
9L03048-CAL5	500	14324	0.368	9.19
9L03048-CAL6	1000	29886	0.402	9.20
9L03048-CAL7	2000	58736	0.429	9.20
9L03048-CAL8	4000	109829	0.430	9.21
9L03048-CAL9	6000	160094	0.421	9.21
9L03048-CALA	8000	200120	0.409	9.21

AVE RF **0.390** RF RSD **14.09** AVE RT **9.20**

2,6-Dimethylnaphthalene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2019	1.203	9.24
9L03048-CAL2	50	5091	1.258	9.24
9L03048-CAL3	100	10680	1.335	9.24
9L03048-CAL4	200	21960	1.364	9.24
9L03048-CAL5	500	53918	1.384	9.24
9L03048-CAL6	1000	96698	1.301	9.24
9L03048-CAL7	2000	170221	1.244	9.24
9L03048-CAL8	4000	284384	1.113	9.24
9L03048-CAL9	6000	389841	1.024	9.25
9L03048-CALA	8000	465388	0.950	9.25

AVE RF **1.218** RF RSD **12.01** AVE RT **9.24**

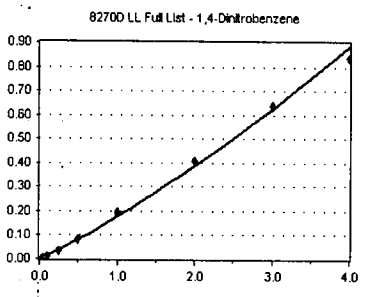
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

1,4-Dinitrobenzene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

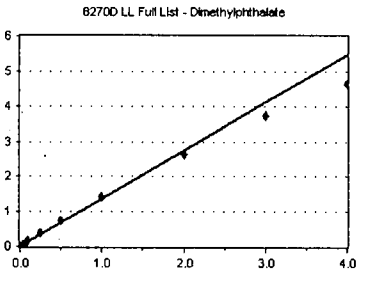


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~78~~	~~4.649~~	~~9.32~~
~~9L03048-CAL2~~	~~50~~	~~252~~	~~6.229~~	~~9.32~~
9L03048-CAL3	100	582	7.274	9.32
9L03048-CAL4	200	1578	9.803	9.32
9L03048-CAL5	500	5249	0.135	9.33
9L03048-CAL6	1000	12471	0.168	9.33
9L03048-CAL7	2000	26946	0.197	9.33
9L03048-CAL8	4000	52480	0.205	9.33
9L03048-CAL9	6000	81003	0.213	9.34
9L03048-CALA	8000	102409	0.209	9.34

AVE RF **0.162** RF RSD **33.56** AVE RT **9.33**

Dimethylphthalate

Curve Fit: **AVERAGE RF**

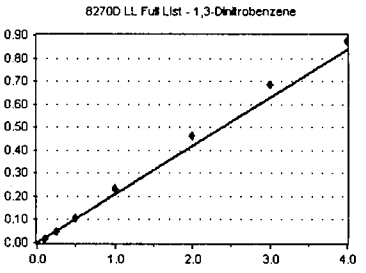


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2021	1.205	9.38
9L03048-CAL2	50	5537	1.369	9.38
9L03048-CAL3	100	11562	1.445	9.38
9L03048-CAL4	200	24457	1.519	9.38
9L03048-CAL5	500	60250	1.546	9.38
9L03048-CAL6	1000	109754	1.477	9.38
9L03048-CAL7	2000	195262	1.427	9.39
9L03048-CAL8	4000	337370	1.320	9.39
9L03048-CAL9	6000	473072	1.243	9.40
9L03048-CALA	8000	566278	1.156	9.40

AVE RF **1.371** RF RSD **9.89** AVE RT **9.38**

1,3-Dinitrobenzene

Curve Fit: **AVERAGE RF**

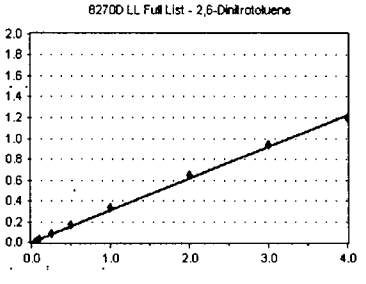


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~91~~	~~5.424~~	~~9.41~~
~~9L03048-CAL2~~	~~50~~	~~287~~	~~7.094~~	~~9.40~~
~~9L03048-CAL3~~	~~100~~	~~866~~	~~0.108~~	~~9.40~~
9L03048-CAL4	200	2388	0.148	9.41
9L03048-CAL5	500	7509	0.193	9.41
9L03048-CAL6	1000	16032	0.216	9.41
9L03048-CAL7	2000	31750	0.232	9.41
9L03048-CAL8	4000	58815	0.230	9.41
9L03048-CAL9	6000	86942	0.228	9.42
9L03048-CALA	8000	107208	0.219	9.42

AVE RF **0.209** RF RSD **14.37** AVE RT **9.41**

2,6-Dinitrotoluene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~222~~	~~0.132~~	~~9.43~~
~~9L03048-CAL2~~	~~50~~	~~670~~	~~0.166~~	~~9.44~~
9L03048-CAL3	100	1827	0.228	9.44
9L03048-CAL4	200	4524	0.281	9.44
9L03048-CAL5	500	13018	0.334	9.44
9L03048-CAL6	1000	24950	0.336	9.44
9L03048-CAL7	2000	45780	0.335	9.44
9L03048-CAL8	4000	82704	0.324	9.45
9L03048-CAL9	6000	118901	0.312	9.45
9L03048-CALA	8000	147404	0.301	9.46

AVE RF **0.306** RF RSD **12.04** AVE RT **9.44**

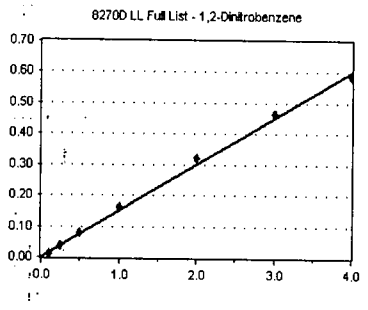
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

1,2-Dinitrobenzene

Curve Fit: **AVERAGE RF**

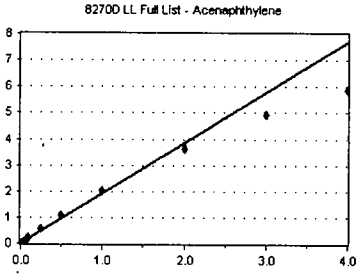


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~61~~	~~3.636~~	~~9.41~~
~~9L03048-CAL2~~	~~50~~	~~286~~	~~7.069~~	~~9.49~~
~~9L03048-CAL3~~	~~100~~	~~780~~	~~9.749~~	~~9.49~~
9L03048-CAL4	200	1939	0.120	9.49
9L03048-CAL5	500	5867	0.151	9.49
9L03048-CAL6	1000	11843	0.159	9.49
9L03048-CAL7	2000	22033	0.161	9.50
9L03048-CAL8	4000	41107	0.161	9.51
9L03048-CAL9	6000	59297	0.156	9.52
9L03048-CALA	8000	71730	0.146	9.52

AVE RF **0.151** RF RSD **9.56** AVE RT **9.50**

Acenaphthylene

Curve Fit: **AVERAGE RF**

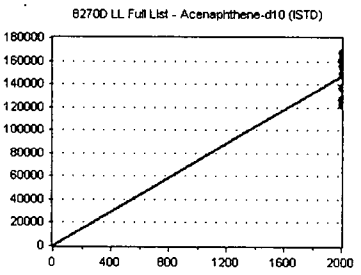


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2850	1.699	9.53
9L03048-CAL2	50	7740	1.913	9.53
9L03048-CAL3	100	16908	2.113	9.53
9L03048-CAL4	200	34979	2.173	9.53
9L03048-CAL5	500	87197	2.238	9.53
9L03048-CAL6	1000	158316	2.130	9.53
9L03048-CAL7	2000	276910	2.024	9.53
9L03048-CAL8	4000	464682	1.818	9.53
9L03048-CAL9	6000	624405	1.640	9.53
9L03048-CALA	8000	720035	1.470	9.53

AVE RF **1.922** RF RSD **13.41** AVE RT **9.53**

Acenaphthene-d10 (ISTD)

Curve Fit: **AVERAGE RF**

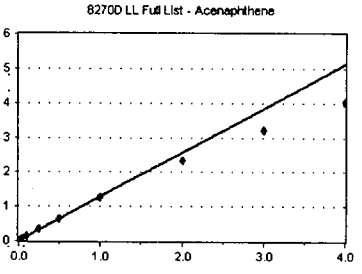


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	2000	167774	83.887	9.67
9L03048-CAL2	2000	161834	80.917	9.67
9L03048-CAL3	2000	160023	80.011	9.67
9L03048-CAL4	2000	160974	80.487	9.67
9L03048-CAL5	2000	155852	77.926	9.67
9L03048-CAL6	2000	148649	74.324	9.67
9L03048-CAL7	2000	136795	68.398	9.67
9L03048-CAL8	2000	127790	63.895	9.67
9L03048-CAL9	2000	126900	63.450	9.68
9L03048-CALA	2000	122459	61.229	9.68

AVE RF **73.453** RF RSD **11.52** AVE RT **9.67**

Acenaphthene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2357	1.405	9.70
9L03048-CAL2	50	5425	1.341	9.70
9L03048-CAL3	100	11107	1.388	9.70
9L03048-CAL4	200	22873	1.421	9.70
9L03048-CAL5	500	54943	1.410	9.70
9L03048-CAL6	1000	98670	1.328	9.70
9L03048-CAL7	2000	173177	1.266	9.70
9L03048-CAL8	4000	296440	1.160	9.71
9L03048-CAL9	6000	406943	1.069	9.71
9L03048-CALA	8000	490886	1.002	9.71

AVE RF **1.279** RF RSD **11.84** AVE RT **9.70**

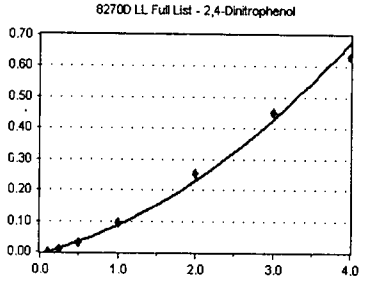
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

2,4-Dinitrophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

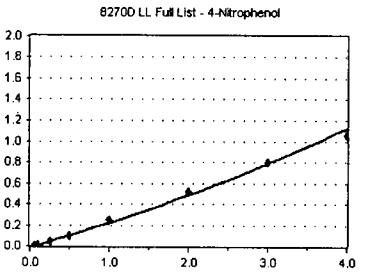


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~0~~	~~0.000~~	~~0.00~~
~~9L03048-CAL2~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9L03048-CAL3~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
9L03048-CAL4	200	194	1.205	9.72
9L03048-CAL5	500	1322	3.393	9.72
9L03048-CAL6	1000	4261	5.733	9.72
9L03048-CAL7	2000	12862	0.094	9.72
9L03048-CAL8	4000	32374	0.127	9.72
9L03048-CAL9	6000	56948	0.150	9.73
9L03048-CALA	8000	77359	0.158	9.73

AVE RF **9.022** RF RSD **63.70** AVE RT **9.72**

4-Nitrophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

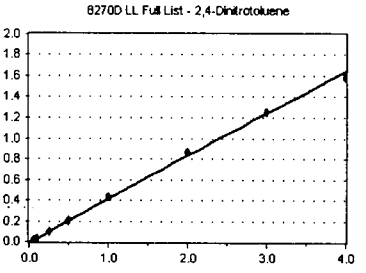


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~0~~	~~0.000~~	~~0.00~~
~~9L03048-CAL2~~	~~50~~	~~136~~	~~3.361~~	~~9.77~~
9L03048-CAL3	100	479	5.987	9.77
9L03048-CAL4	200	1445	8.977	9.77
9L03048-CAL5	500	6508	0.167	9.77
9L03048-CAL6	1000	15067	0.203	9.77
9L03048-CAL7	2000	33445	0.244	9.78
9L03048-CAL8	4000	65917	0.258	9.78
9L03048-CAL9	6000	101931	0.268	9.79
9L03048-CALA	8000	129793	0.265	9.79

AVE RF **0.194** RF RSD **42.07** AVE RT **9.78**

2,4-Dinitrotoluene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

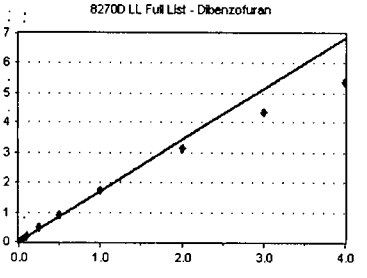


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~193~~	~~0.115~~	~~9.85~~
~~9L03048-CAL2~~	~~50~~	~~600~~	~~0.148~~	~~9.85~~
9L03048-CAL3	100	1539	0.192	9.85
9L03048-CAL4	200	4351	0.270	9.85
9L03048-CAL5	500	14643	0.376	9.85
9L03048-CAL6	1000	30105	0.405	9.85
9L03048-CAL7	2000	59132	0.432	9.85
9L03048-CAL8	4000	109996	0.430	9.86
9L03048-CAL9	6000	159707	0.420	9.86
9L03048-CALA	8000	194090	0.396	9.87

AVE RF **0.365** RF RSD **23.88** AVE RT **9.85**

Dibenzofuran

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2936	1.750	9.87
9L03048-CAL2	50	7253	1.793	9.87
9L03048-CAL3	100	14840	1.855	9.87
9L03048-CAL4	200	30987	1.925	9.87
9L03048-CAL5	500	74125	1.902	9.87
9L03048-CAL6	1000	135577	1.824	9.87
9L03048-CAL7	2000	238007	1.740	9.88
9L03048-CAL8	4000	402377	1.574	9.88
9L03048-CAL9	6000	553828	1.455	9.88
9L03048-CALA	8000	656214	1.340	9.88

AVE RF **1.716** RF RSD **11.44** AVE RT **9.88**

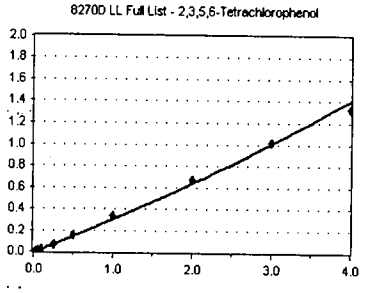
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

2,3,5,6-Tetrachlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

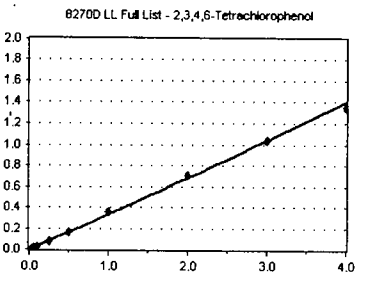


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~90~~	~~5.364~~	~~9.96~~
9L03048-CAL2	50	389	0.096	9.95
9L03048-CAL3	100	963	0.120	9.96
9L03048-CAL4	200	3190	0.198	9.96
9L03048-CAL5	500	10526	0.270	9.96
9L03048-CAL6	1000	22504	0.303	9.96
9L03048-CAL7	2000	45542	0.333	9.96
9L03048-CAL8	4000	85335	0.334	9.96
9L03048-CAL9	6000	128655	0.338	9.96
9L03048-CALA	8000	162823	0.332	9.96

AVE RF **0.258** RF RSD **37.28** AVE RT **9.96**

2,3,4,6-Tetrachlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

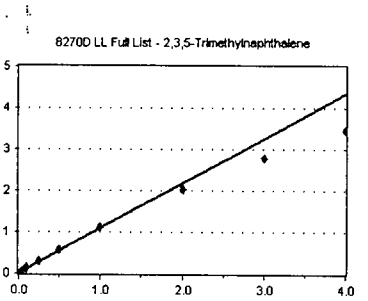


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~148~~	~~8.821~~	~~10.00~~
9L03048-CAL2	50	490	0.121	10.00
9L03048-CAL3	100	1304	0.163	10.00
9L03048-CAL4	200	3973	0.247	10.00
9L03048-CAL5	500	12612	0.324	10.00
9L03048-CAL6	1000	24817	0.334	10.00
9L03048-CAL7	2000	49283	0.360	10.00
9L03048-CAL8	4000	89845	0.352	10.01
9L03048-CAL9	6000	131822	0.346	10.01
9L03048-CALA	8000	165998	0.339	10.01

AVE RF **0.287** RF RSD **31.09** AVE RT **10.00**

2,3,5-Trimethylnaphthalene

Curve Fit: **AVERAGE RF**

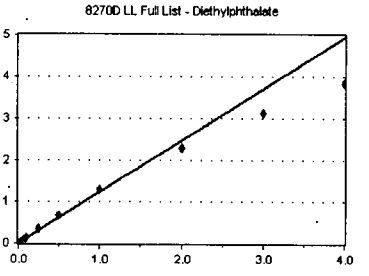


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1727	1.029	10.09
9L03048-CAL2	50	4530	1.120	10.09
9L03048-CAL3	100	9475	1.184	10.09
9L03048-CAL4	200	19994	1.242	10.09
9L03048-CAL5	500	48060	1.233	10.09
9L03048-CAL6	1000	86205	1.160	10.09
9L03048-CAL7	2000	153262	1.120	10.09
9L03048-CAL8	4000	258901	1.013	10.09
9L03048-CAL9	6000	353106	0.928	10.09
9L03048-CALA	8000	422363	0.862	10.10

AVE RF **1.089** RF RSD **11.74** AVE RT **10.09**

Diethylphthalate

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1942	1.158	10.09
9L03048-CAL2	50	4900	1.211	10.09
9L03048-CAL3	100	10642	1.330	10.09
9L03048-CAL4	200	23152	1.438	10.09
9L03048-CAL5	500	56335	1.446	10.09
9L03048-CAL6	1000	101129	1.361	10.10
9L03048-CAL7	2000	177170	1.295	10.10
9L03048-CAL8	4000	293319	1.148	10.10
9L03048-CAL9	6000	398303	1.046	10.11
9L03048-CALA	8000	470201	0.960	10.11

AVE RF **1.239** RF RSD **13.16** AVE RT **10.10**

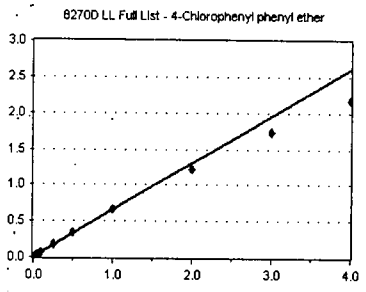
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

4-Chlorophenyl phenyl ether

Curve Fit: **AVERAGE RF**

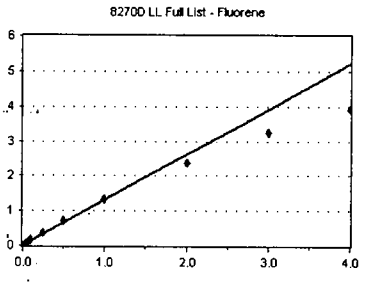


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1156	0.689	10.22
9L03048-CAL2	50	2650	0.655	10.22
9L03048-CAL3	100	5534	0.692	10.22
9L03048-CAL4	200	11318	0.703	10.22
9L03048-CAL5	500	27746	0.712	10.22
9L03048-CAL6	1000	49966	0.672	10.22
9L03048-CAL7	2000	90397	0.661	10.22
9L03048-CAL8	4000	154914	0.606	10.22
9L03048-CAL9	6000	220999	0.581	10.23
9L03048-CALA	8000	266759	0.545	10.23

AVE RF **0.652** RF RSD **8.62** AVE RT **10.22**

Fluorene

Curve Fit: **AVERAGE RF**

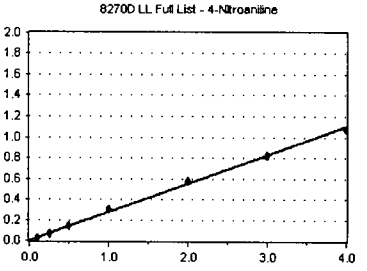


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2103	1.253	10.22
9L03048-CAL2	50	5658	1.398	10.23
9L03048-CAL3	100	11451	1.431	10.23
9L03048-CAL4	200	24375	1.514	10.23
9L03048-CAL5	500	57878	1.485	10.23
9L03048-CAL6	1000	104671	1.408	10.23
9L03048-CAL7	2000	181772	1.329	10.23
9L03048-CAL8	4000	300618	1.176	10.23
9L03048-CAL9	6000	410765	1.079	10.23
9L03048-CALA	8000	481267	0.983	10.24

AVE RF **1.306** RF RSD **13.67** AVE RT **10.23**

4-Nitroaniline

Curve Fit: **AVERAGE RF**

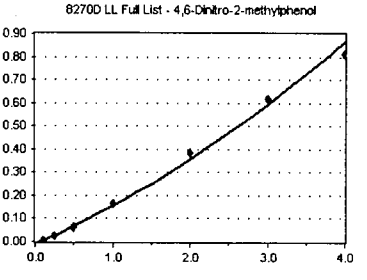


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~154~~	~~9.179~~	~~10.23~~
~~9L03048-CAL2~~	~~50~~	~~552~~	~~0.136~~	~~10.23~~
~~9L03048-CAL3~~	~~100~~	~~1311~~	~~0.164~~	~~10.23~~
9L03048-CAL4	200	3715	0.231	10.23
9L03048-CAL5	500	10822	0.278	10.23
9L03048-CAL6	1000	21162	0.285	10.23
9L03048-CAL7	2000	40971	0.300	10.24
9L03048-CAL8	4000	72956	0.285	10.25
9L03048-CAL9	6000	104811	0.275	10.25
9L03048-CALA	8000	130990	0.267	10.26

AVE RF **0.274** RF RSD **7.90** AVE RT **10.24**

4,6-Dinitro-2-methylphenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~0~~	~~0.000~~	~~0.00~~
~~9L03048-CAL2~~	~~50~~	~~52~~	~~1.285~~	~~10.26~~
~~9L03048-CAL3~~	~~100~~	~~201~~	~~2.512~~	~~10.26~~
9L03048-CAL4	200	779	4.839	10.26
9L03048-CAL5	500	3544	9.096	10.26
9L03048-CAL6	1000	9285	0.125	10.26
9L03048-CAL7	2000	22787	0.167	10.27
9L03048-CAL8	4000	48951	0.192	10.27
9L03048-CAL9	6000	78166	0.205	10.29
9L03048-CALA	8000	99419	0.203	10.29

AVE RF **0.147** RF RSD **41.36** AVE RT **10.27**

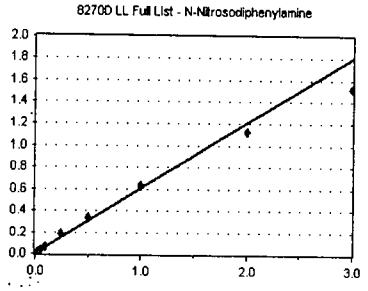
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

N-Nitrosodiphenylamine

Curve Fit: **AVERAGE RF**

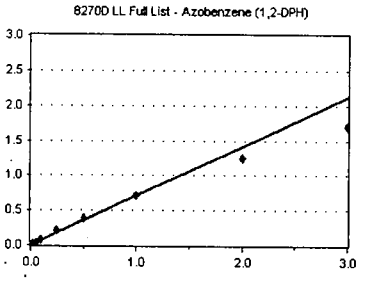


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1283	0.455	10.33
9L03048-CAL2	50	3867	0.565	10.33
9L03048-CAL3	100	8677	0.640	10.33
9L03048-CAL4	200	19213	0.686	10.33
9L03048-CAL5	500	48634	0.715	10.33
9L03048-CAL6	1000	89163	0.670	10.34
9L03048-CAL7	2000	158972	0.625	10.34
9L03048-CAL8	4000	272217	0.561	10.34
9L03048-CAL9	6000	374468	0.510	10.35
~~9L03048-CALA~~	~~8000~~	~~449608~~	~~0.473~~	~~10.35~~

AVE RF **0.603** RF RSD **14.31** AVE RT **10.34**

Azobenzene (1,2-DPH)

Curve Fit: **AVERAGE RF**

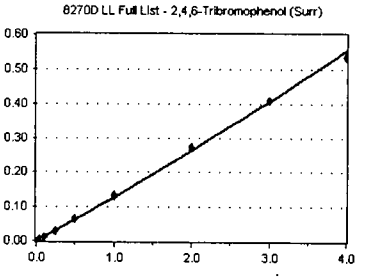


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1643	0.583	10.38
9L03048-CAL2	50	4633	0.676	10.38
9L03048-CAL3	100	10213	0.753	10.38
9L03048-CAL4	200	22527	0.804	10.38
9L03048-CAL5	500	57570	0.846	10.38
9L03048-CAL6	1000	102869	0.773	10.38
9L03048-CAL7	2000	183471	0.722	10.38
9L03048-CAL8	4000	304430	0.628	10.39
9L03048-CAL9	6000	418126	0.569	10.39
~~9L03048-CALA~~	~~8000~~	~~492851~~	~~0.518~~	~~10.39~~

AVE RF **0.706** RF RSD **13.92** AVE RT **10.38**

2,4,6-Tribromophenol (Surr)

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

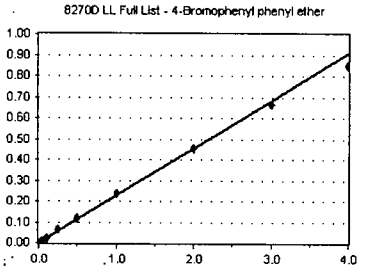


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~146~~	~~5.180~~	~~10.47~~
9L03048-CAL2	50	423	6.175	10.47
9L03048-CAL3	100	1050	7.744	10.47
9L03048-CAL4	200	2806	0.100	10.47
9L03048-CAL5	500	8367	0.123	10.47
9L03048-CAL6	1000	17115	0.129	10.47
9L03048-CAL7	2000	34168	0.134	10.47
9L03048-CAL8	4000	65706	0.136	10.47
9L03048-CAL9	6000	100016	0.136	10.48
9L03048-CALA	8000	127228	0.134	10.48

AVE RF **0.115** RF RSD **24.52** AVE RT **10.47**

4-Bromophenyl phenyl ether

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	579	0.205	10.72
9L03048-CAL2	50	1474	0.215	10.72
9L03048-CAL3	100	3017	0.223	10.72
9L03048-CAL4	200	6693	0.239	10.72
9L03048-CAL5	500	16943	0.249	10.72
9L03048-CAL6	1000	31952	0.240	10.72
9L03048-CAL7	2000	59875	0.235	10.72
9L03048-CAL8	4000	110191	0.227	10.72
9L03048-CAL9	6000	163449	0.222	10.72
9L03048-CALA	8000	202383	0.213	10.72

AVE RF **0.227** RF RSD **6.10** AVE RT **10.72**

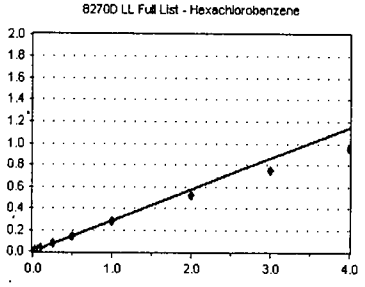
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

Hexachlorobenzene

Curve Fit: **AVERAGE RF**

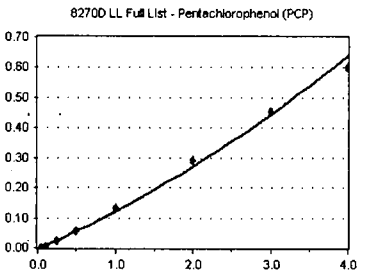


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	821	0.291	10.79
9L03048-CAL2	50	2122	0.310	10.79
9L03048-CAL3	100	4275	0.315	10.79
9L03048-CAL4	200	8826	0.315	10.79
9L03048-CAL5	500	21011	0.309	10.79
9L03048-CAL6	1000	38787	0.292	10.79
9L03048-CAL7	2000	71021	0.279	10.80
9L03048-CAL8	4000	126260	0.260	10.80
9L03048-CAL9	6000	183555	0.250	10.80
9L03048-CALA	8000	226619	0.238	10.80

AVE RF **0.286** RF RSD **9.85** AVE RT **10.80**

Pentachlorophenol (PCP)

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

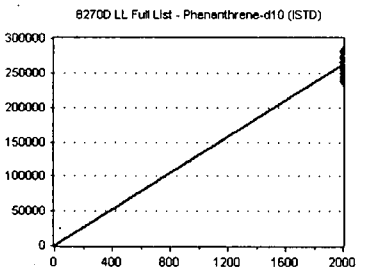


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~110~~	~~3.903~~	~~10.99~~
~~9L03048-CAL2~~	~~50~~	~~205~~	~~2.993~~	~~10.99~~
9L03048-CAL3	100	438	3.231	11.00
9L03048-CAL4	200	1488	5.312	10.99
9L03048-CAL5	500	6056	8.904	10.99
9L03048-CAL6	1000	14978	0.113	10.99
9L03048-CAL7	2000	33560	0.132	10.99
9L03048-CAL8	4000	70387	0.145	10.99
9L03048-CAL9	6000	111309	0.151	11.00
9L03048-CALA	8000	143057	0.150	11.00

AVE RF **0.108** RF RSD **42.43** AVE RT **10.99**

Phenanthrene-d10 (ISTD)

Curve Fit: **AVERAGE RF**

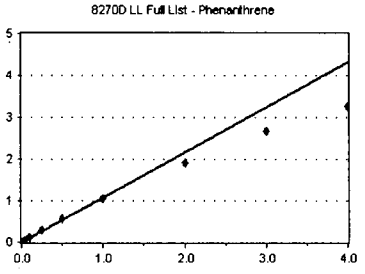


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	2000	281845	140.923	11.18
9L03048-CAL2	2000	274003	137.001	11.18
9L03048-CAL3	2000	271162	135.581	11.18
9L03048-CAL4	2000	280138	140.069	11.18
9L03048-CAL5	2000	272050	136.025	11.18
9L03048-CAL6	2000	266040	133.020	11.18
9L03048-CAL7	2000	254271	127.135	11.18
9L03048-CAL8	2000	242431	121.215	11.18
9L03048-CAL9	2000	244923	122.461	11.19
9L03048-CALA	2000	237781	118.890	11.19

AVE RF **131.232** RF RSD **6.20** AVE RT **11.18**

Phenanthrene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	3456	1.226	11.21
9L03048-CAL2	50	8173	1.193	11.21
9L03048-CAL3	100	16108	1.188	11.21
9L03048-CAL4	200	33616	1.200	11.21
9L03048-CAL5	500	80755	1.187	11.21
9L03048-CAL6	1000	149146	1.121	11.21
9L03048-CAL7	2000	269481	1.060	11.21
9L03048-CAL8	4000	462405	0.954	11.21
9L03048-CAL9	6000	653492	0.889	11.22
9L03048-CALA	8000	779684	0.820	11.22

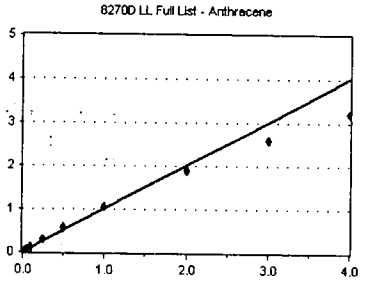
AVE RF **1.084** RF RSD **13.54** AVE RT **11.21**

Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

Anthracene

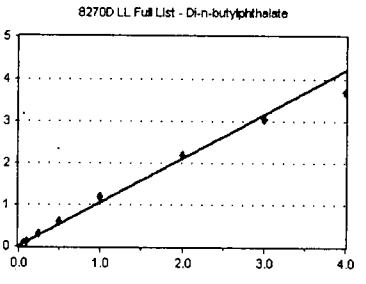


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2551	0.905	11.26
9L03048-CAL2	50	6645	0.970	11.26
9L03048-CAL3	100	14351	1.058	11.26
9L03048-CAL4	200	32114	1.146	11.26
9L03048-CAL5	500	79918	1.175	11.26
9L03048-CAL6	1000	148998	1.120	11.26
9L03048-CAL7	2000	270521	1.064	11.26
9L03048-CAL8	4000	459537	0.948	11.26
9L03048-CAL9	6000	632566	0.861	11.26
9L03048-CALA	8000	762087	0.801	11.27

AVE RF **1.005** RF RSD **12.64** AVE RT **11.26**

Di-n-butylphthalate

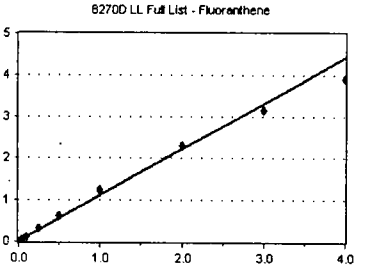


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~1716~~	~~0.609~~	~~11.76~~
~~9L03048-CAL2~~	~~50~~	~~4715~~	~~0.688~~	~~11.76~~
9L03048-CAL3	100	10998	0.811	11.76
9L03048-CAL4	200	28038	1.001	11.76
9L03048-CAL5	500	78970	1.161	11.76
9L03048-CAL6	1000	159941	1.202	11.76
9L03048-CAL7	2000	304858	1.199	11.76
9L03048-CAL8	4000	533571	1.100	11.77
9L03048-CAL9	6000	747267	1.017	11.77
9L03048-CALA	8000	881700	0.927	11.77

AVE RF **1.052** RF RSD **13.24** AVE RT **11.76**

Fluoranthene

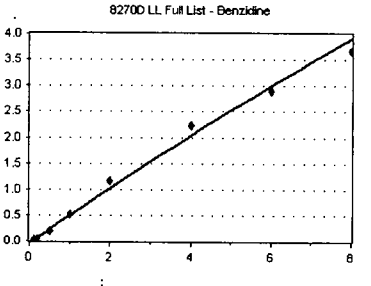


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2450	0.869	12.48
9L03048-CAL2	50	6606	0.964	12.48
9L03048-CAL3	100	14475	1.068	12.48
9L03048-CAL4	200	33612	1.200	12.48
9L03048-CAL5	500	87684	1.289	12.48
9L03048-CAL6	1000	167410	1.259	12.48
9L03048-CAL7	2000	314125	1.235	12.48
9L03048-CAL8	4000	553812	1.142	12.48
9L03048-CAL9	6000	774023	1.053	12.49
9L03048-CALA	8000	930387	0.978	12.49

AVE RF **1.106** RF RSD **12.80** AVE RT **12.48**

Benzidine



Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~40~~	~~926~~	~~0.164~~	~~12.63~~
~~9L03048-CAL2~~	~~100~~	~~1166~~	~~8.511~~	~~12.63~~
9L03048-CAL3	200	4188	0.154	12.63
9L03048-CAL4	400	10893	0.194	12.63
9L03048-CAL5	1000	54874	0.403	12.63
9L03048-CAL6	2000	138388	0.520	12.63
9L03048-CAL7	4000	297903	0.586	12.64
9L03048-CAL8	8000	540514	0.557	12.64
9L03048-CAL9	12000	707393	0.481	12.65
9L03048-CALA	16000	875986	0.461	12.66

AVE RF **0.420** RF RSD **38.58** AVE RT **12.64**

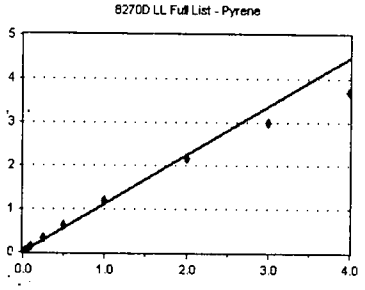
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

Pyrene

Curve Fit: **AVERAGE RF**

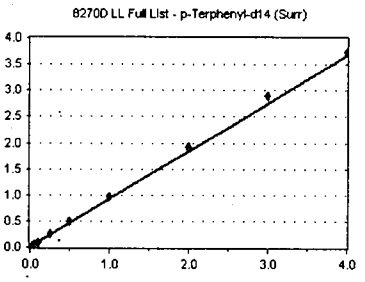


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2612	0.927	12.77
9L03048-CAL2	50	7061	1.031	12.77
9L03048-CAL3	100	15621	1.152	12.77
9L03048-CAL4	200	35949	1.283	12.77
9L03048-CAL5	500	91011	1.338	12.77
9L03048-CAL6	1000	168737	1.269	12.77
9L03048-CAL7	2000	304683	1.198	12.77
9L03048-CAL8	4000	526068	1.085	12.78
9L03048-CAL9	6000	736750	1.003	12.78
9L03048-CALA	8000	882836	0.928	12.79

AVE RF **1.121** RF RSD **13.31** AVE RT **12.78**

p-Terphenyl-d14 (Surr)

Curve Fit: **AVERAGE RF**

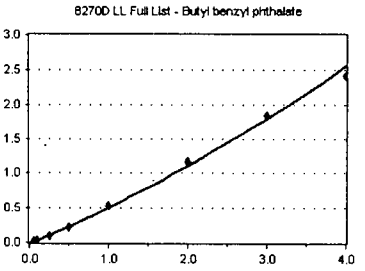


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1858	0.692	12.98
9L03048-CAL2	50	5357	0.821	12.98
9L03048-CAL3	100	11527	0.884	12.98
9L03048-CAL4	200	26772	0.956	12.98
9L03048-CAL5	500	67248	0.997	12.98
9L03048-CAL6	1000	127869	0.981	12.98
9L03048-CAL7	2000	237910	0.974	12.98
9L03048-CAL8	4000	420934	0.964	12.99
9L03048-CAL9	6000	600621	0.968	12.99
9L03048-CALA	8000	723275	0.936	12.99

AVE RF **0.917** RF RSD **10.37** AVE RT **12.98**

Butyl benzyl phthalate

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

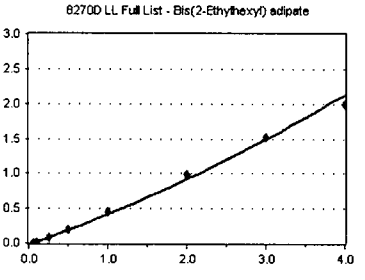


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~391~~	~~0.146~~	~~13.79~~
~~9L03048-CAL2~~	~~50~~	~~1049~~	~~0.161~~	~~13.80~~
9L03048-CAL3	100	2495	0.191	13.80
9L03048-CAL4	200	7795	0.278	13.80
9L03048-CAL5	500	26971	0.400	13.80
9L03048-CAL6	1000	60095	0.461	13.80
9L03048-CAL7	2000	131363	0.538	13.80
9L03048-CAL8	4000	256309	0.587	13.80
9L03048-CAL9	6000	380099	0.613	13.81
9L03048-CALA	8000	466464	0.603	13.81

AVE RF **0.459** RF RSD **34.43** AVE RT **13.80**

Bis(2-Ethylhexyl) adipate

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~358~~	~~0.133~~	~~13.97~~
~~9L03048-CAL2~~	~~50~~	~~777~~	~~0.119~~	~~13.97~~
9L03048-CAL3	100	1789	0.137	13.97
9L03048-CAL4	200	5653	0.202	13.98
9L03048-CAL5	500	21591	0.320	13.97
9L03048-CAL6	1000	49833	0.382	13.97
9L03048-CAL7	2000	110181	0.451	13.98
9L03048-CAL8	4000	217064	0.497	13.98
9L03048-CAL9	6000	315678	0.509	13.98
9L03048-CALA	8000	385486	0.499	13.99

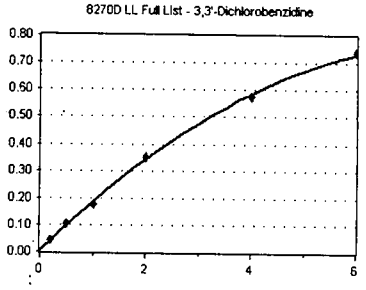
AVE RF **0.375** RF RSD **38.21** AVE RT **13.98**

Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

3,3'-Dichlorobenzidine

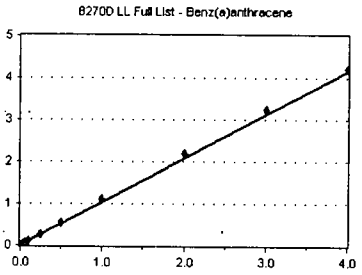


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~40~~	~~740~~	~~0.138~~	~~0.00~~
~~9L03048-CAL2~~	~~100~~	~~1996~~	~~0.153~~	~~0.00~~
~~9L03048-CAL3~~	~~200~~	~~4805~~	~~0.184~~	~~14.93~~
9L03048-CAL4	400	12293	0.220	14.93
9L03048-CAL5	1000	27812	0.206	14.93
9L03048-CAL6	2000	46667	0.179	14.93
9L03048-CAL7	4000	85387	0.175	14.93
9L03048-CAL8	8000	126011	0.144	14.94
9L03048-CAL9	12000	152911	0.123	14.95
~~9L03048-CALA~~	~~16000~~	~~189164~~	~~0.122~~	~~14.95~~

AVE RF **0.175** RF RSD **20.83** AVE RT **14.94**

Benz(a)anthracene

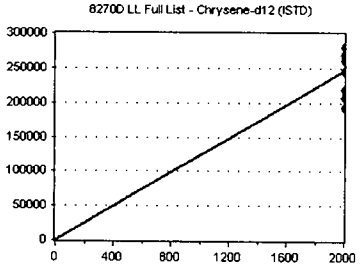


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2620	0.976	14.97
9L03048-CAL2	50	5742	0.880	14.97
9L03048-CAL3	100	12136	0.930	14.97
9L03048-CAL4	200	29244	1.044	14.97
9L03048-CAL5	500	76462	1.134	14.97
9L03048-CAL6	1000	143013	1.097	14.97
9L03048-CAL7	2000	270284	1.107	14.97
9L03048-CAL8	4000	477652	1.093	14.98
9L03048-CAL9	6000	671286	1.082	14.98
9L03048-CALA	8000	816781	1.056	14.99

AVE RF **1.040** RF RSD **8.07** AVE RT **14.97**

Chrysene-d12 (ISTD)

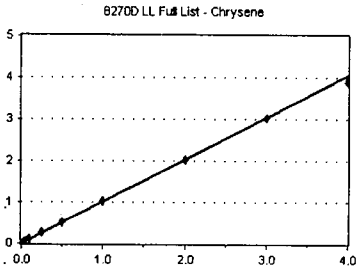


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	2000	268423	134.211	14.99
9L03048-CAL2	2000	261138	130.569	14.99
9L03048-CAL3	2000	260933	130.466	14.99
9L03048-CAL4	2000	279994	139.997	14.99
9L03048-CAL5	2000	269671	134.835	14.99
9L03048-CAL6	2000	260632	130.316	14.99
9L03048-CAL7	2000	244262	122.131	14.99
9L03048-CAL8	2000	218440	109.220	15.00
9L03048-CAL9	2000	206845	103.423	15.01
9L03048-CALA	2000	193280	96.640	15.01

AVE RF **123.181** RF RSD **12.07** AVE RT **14.99**

Chrysene



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2548	0.949	15.04
9L03048-CAL2	50	6638	1.017	15.04
9L03048-CAL3	100	13394	1.027	15.04
9L03048-CAL4	200	29363	1.049	15.05
9L03048-CAL5	500	72081	1.069	15.05
9L03048-CAL6	1000	135043	1.036	15.05
9L03048-CAL7	2000	249591	1.022	15.05
9L03048-CAL8	4000	442427	1.013	15.06
9L03048-CAL9	6000	625029	1.007	15.07
9L03048-CALA	8000	751720	0.972	15.08

AVE RF **1.016** RF RSD **3.43** AVE RT **15.05**

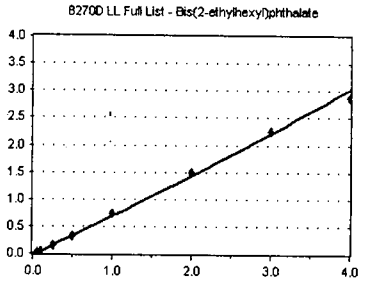
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

Bis(2-ethylhexyl)phthalate

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

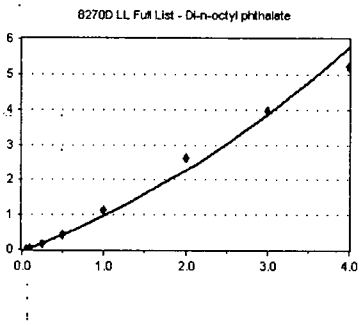


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~563~~	~~0.210~~	~~15.14~~
~~9L03048-CAL2~~	~~50~~	~~1339~~	~~0.205~~	~~15.14~~
9L03048-CAL3	100	3319	0.254	15.15
9L03048-CAL4	200	10701	0.382	15.14
9L03048-CAL5	500	39213	0.582	15.14
9L03048-CAL6	1000	86095	0.661	15.14
9L03048-CAL7	2000	176928	0.724	15.14
9L03048-CAL8	4000	328020	0.751	15.15
9L03048-CAL9	6000	466925	0.752	15.15
9L03048-CALA	8000	556986	0.720	15.16

AVE RF **0.603** RF RSD **31.12** AVE RT **15.15**

Di-n-octyl phthalate

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

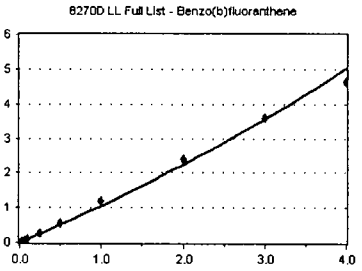


Standard	Concentration	Response	Response Factor	RT
~~9L03048-CAL1~~	~~20~~	~~707~~	~~0.273~~	~~16.81~~
~~9L03048-CAL2~~	~~50~~	~~1487~~	~~0.243~~	~~16.81~~
9L03048-CAL3	100	3108	0.252	16.81
9L03048-CAL4	200	8951	0.332	16.82
9L03048-CAL5	500	38790	0.603	16.82
9L03048-CAL6	1000	106646	0.844	16.82
9L03048-CAL7	2000	266541	1.122	16.82
9L03048-CAL8	4000	575101	1.310	16.82
9L03048-CAL9	6000	848830	1.317	16.83
9L03048-CALA	8000	1053413	1.304	16.84

AVE RF **0.886** RF RSD **50.24** AVE RT **16.82**

Benzo(b)fluoranthene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

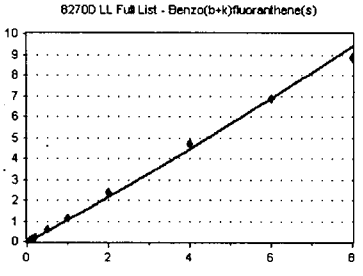


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1911	0.739	17.55
9L03048-CAL2	50	3980	0.650	17.56
9L03048-CAL3	100	9057	0.735	17.56
9L03048-CAL4	200	24272	0.901	17.56
9L03048-CAL5	500	69749	1.085	17.56
9L03048-CAL6	1000	141587	1.121	17.56
9L03048-CAL7	2000	282074	1.188	17.57
9L03048-CAL8	4000	529474	1.206	17.58
9L03048-CAL9	6000	771504	1.197	17.60
9L03048-CALA	8000	934117	1.156	17.60

AVE RF **0.998** RF RSD **21.99** AVE RT **17.57**

Benzo(b+k)fluoranthene(s)

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	40	3928	0.759	17.55
9L03048-CAL2	100	8721	0.713	17.62
9L03048-CAL3	200	20058	0.814	17.63
9L03048-CAL4	400	52531	0.975	17.63
9L03048-CAL5	1000	147166	1.145	17.63
9L03048-CAL6	2000	291935	1.156	17.63
9L03048-CAL7	4000	565512	1.191	17.63
9L03048-CAL8	8000	1027057	1.170	17.65
9L03048-CAL9	12000	1472100	1.142	17.67
9L03048-CALA	16000	1795348	1.111	17.67

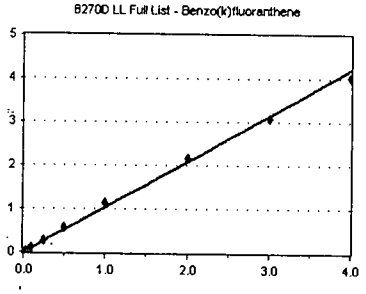
AVE RF **1.018** RF RSD **18.41** AVE RT **17.63**

Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

Benzo(k)fluoranthene

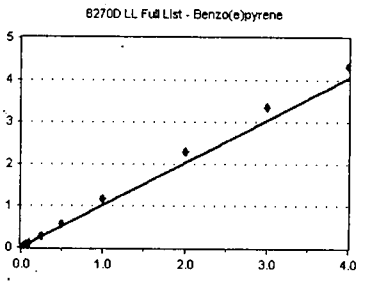


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2017	0.780	17.62
9L03048-CAL2	50	4087	0.668	17.62
9L03048-CAL3	100	9950	0.807	17.63
9L03048-CAL4	200	26053	0.968	17.63
9L03048-CAL5	500	72041	1.121	17.63
9L03048-CAL6	1000	141965	1.124	17.63
9L03048-CAL7	2000	269127	1.133	17.63
9L03048-CAL8	4000	471682	1.074	17.65
9L03048-CAL9	6000	662984	1.029	17.67
9L03048-CALA	8000	815308	1.009	17.67

AVE RF **0.971** RF RSD **16.92** AVE RT **17.64**

Benzo(e)pyrene

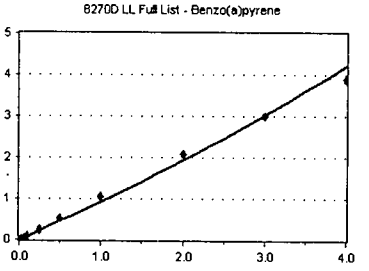


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2091	0.808	18.21
9L03048-CAL2	50	4620	0.755	18.22
9L03048-CAL3	100	10805	0.877	18.22
9L03048-CAL4	200	26664	0.990	18.22
9L03048-CAL5	500	71817	1.117	18.22
9L03048-CAL6	1000	141399	1.120	18.22
9L03048-CAL7	2000	275483	1.160	18.22
9L03048-CAL8	4000	501602	1.142	18.24
9L03048-CAL9	6000	717478	1.113	18.25
9L03048-CALA	8000	874278	1.082	18.27

AVE RF **1.017** RF RSD **14.77** AVE RT **18.23**

Benzo(a)pyrene

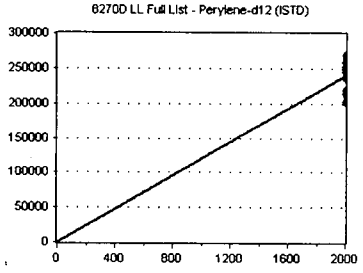


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1587	0.613	18.34
9L03048-CAL2	50	3268	0.534	18.34
9L03048-CAL3	100	7465	0.606	18.34
9L03048-CAL4	200	21101	0.784	18.34
9L03048-CAL5	500	63972	0.995	18.34
9L03048-CAL6	1000	127496	1.010	18.34
9L03048-CAL7	2000	250773	1.056	18.35
9L03048-CAL8	4000	454160	1.034	18.36
9L03048-CAL9	6000	645759	1.002	18.38
9L03048-CALA	8000	786876	0.974	18.38

AVE RF **0.861** RF RSD **23.88** AVE RT **18.35**

Perylene-d12 (ISTD)



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	2000	258693	129.346	18.48
9L03048-CAL2	2000	244791	122.395	18.48
9L03048-CAL3	2000	246501	123.250	18.48
9L03048-CAL4	2000	269268	134.634	18.48
9L03048-CAL5	2000	257148	128.574	18.49
9L03048-CAL6	2000	252576	126.288	18.48
9L03048-CAL7	2000	237473	118.736	18.48
9L03048-CAL8	2000	219521	109.760	18.49
9L03048-CAL9	2000	214795	107.398	18.51
9L03048-CALA	2000	201932	100.966	18.51

AVE RF **120.135** RF RSD **9.03** AVE RT **18.49**

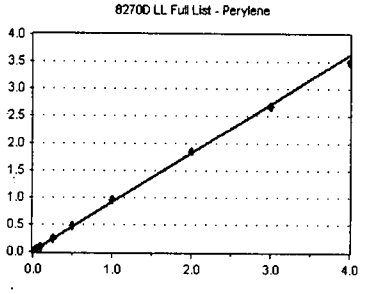
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

Perylene

Curve Fit: **AVERAGE RF**

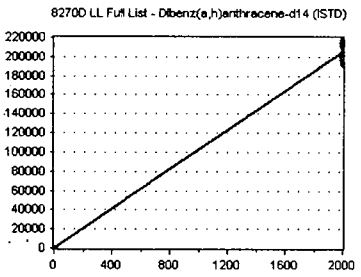


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2263	0.875	18.53
9L03048-CAL2	50	5321	0.869	18.53
9L03048-CAL3	100	10830	0.879	18.54
9L03048-CAL4	200	24848	0.923	18.54
9L03048-CAL5	500	62255	0.968	18.54
9L03048-CAL6	1000	118069	0.935	18.54
9L03048-CAL7	2000	224877	0.947	18.55
9L03048-CAL8	4000	402426	0.917	18.56
9L03048-CAL9	6000	577170	0.896	18.58
9L03048-CALA	8000	707152	0.875	18.59

AVE RF **0.908** RF RSD **3.82** AVE RT **18.55**

Dibenz(a,h)anthracene-d14 (ISTD)

Curve Fit: **AVERAGE RF**

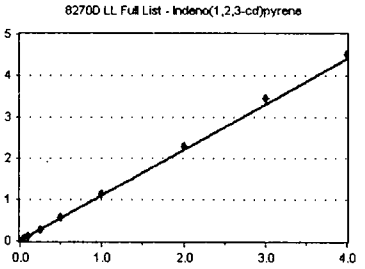


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	2000	204569	102.285	20.88
9L03048-CAL2	2000	196186	98.093	20.88
9L03048-CAL3	2000	197498	98.749	20.88
9L03048-CAL4	2000	217430	108.715	20.88
9L03048-CAL5	2000	213969	106.985	20.88
9L03048-CAL6	2000	215522	107.761	20.88
9L03048-CAL7	2000	212089	106.045	20.88
9L03048-CAL8	2000	202306	101.153	20.90
9L03048-CAL9	2000	201906	100.953	20.92
9L03048-CALA	2000	193681	96.840	20.92

AVE RF **102.758** RF RSD **4.21** AVE RT **20.89**

Indeno(1,2,3-cd)pyrene

Curve Fit: **AVERAGE RF**

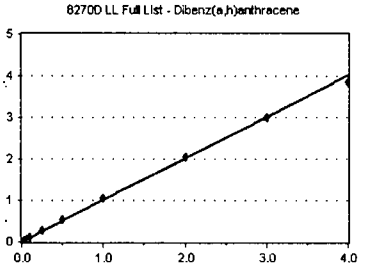


Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	2118	1.035	20.88
9L03048-CAL2	50	4903	1.000	20.88
9L03048-CAL3	100	10373	1.050	20.88
9L03048-CAL4	200	24305	1.118	20.88
9L03048-CAL5	500	60260	1.127	20.88
9L03048-CAL6	1000	120357	1.117	20.88
9L03048-CAL7	2000	238903	1.126	20.89
9L03048-CAL8	4000	465463	1.150	20.90
9L03048-CAL9	6000	698647	1.153	20.92
9L03048-CALA	8000	876084	1.131	20.93

AVE RF **1.101** RF RSD **4.79** AVE RT **20.89**

Dibenz(a,h)anthracene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1905	0.931	20.94
9L03048-CAL2	50	4756	0.970	20.95
9L03048-CAL3	100	9692	0.981	20.95
9L03048-CAL4	200	22210	1.021	20.95
9L03048-CAL5	500	57867	1.082	20.95
9L03048-CAL6	1000	113808	1.056	20.95
9L03048-CAL7	2000	222804	1.051	20.96
9L03048-CAL8	4000	412814	1.020	20.97
9L03048-CAL9	6000	604383	0.998	20.99
9L03048-CALA	8000	747087	0.964	21.00

AVE RF **1.007** RF RSD **4.68** AVE RT **20.96**

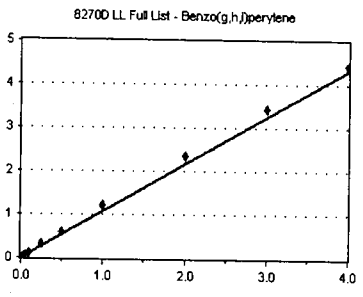
Element Calibration Review Sheet

Calibration ID: **A9L0505** Instrument: **SV-GCMS9** Calibration Date: **12/05/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9L0505**

Benzo(g,h,i)perylene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9L03048-CAL1	20	1656	0.810	21.41
9L03048-CAL2	50	4102	0.836	21.40
9L03048-CAL3	100	9583	0.970	21.41
9L03048-CAL4	200	24173	1.112	21.42
9L03048-CAL5	500	66868	1.250	21.42
9L03048-CAL6	1000	130758	1.213	21.42
9L03048-CAL7	2000	257095	1.212	21.42
9L03048-CAL8	4000	476116	1.177	21.44
9L03048-CAL9	6000	694573	1.147	21.47
9L03048-CALA	8000	856246	1.105	21.48

AVE RF **1.083** RF RSD **14.57** AVE RT **21.43**

Response Factor Report SV-GCMS9

Method Path : T:\methods\
Method File : SV9_120319.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Wed Dec 04 10:57:36 2019
Response Via : Initial Calibration

9/d 12/5/19

Calibration Files
20 =I12031912.D 50 =I12031913.D 100 =I12031914.D 200 =I12031915.D 500 =I12031916.D 1000=I12031917.D 2000=I12031918.D
4000=I12031919.D 6000=I12031920.D 8000=I12031921.D

		Compound	20	50	100	200	500	1000	2000	4000	6000	8000	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------	ISTD	----------									8.21
2)	T	N-Nitrosodimet...	0.765	0.927	1.003	0.989	1.039	1.041	1.062	1.126	1.180	1.158	1.029	11.80
3)	T	Pyridine	1.397	1.391	1.526	1.360	1.668	1.765	1.834	1.856	1.916	1.848	1.656	13.21
4)	S	2-Fluorophenol...		1.022	1.167	1.211	1.331	1.314	1.433	1.464	1.536	1.496	1.331	12.88
5)	S	Phenol-d6 (Surr)	1.322	1.456	1.587	1.652	1.846	1.857	1.887	1.962	1.901	1.816	1.729	12.39
6)	T	Phenol	1.601	1.750	1.838	1.961	2.145	2.116	2.087	2.049	1.910	1.765	1.922	9.45
7)	T	Aniline	1.548	1.797	2.026	2.110	2.292	2.241	2.165	2.023	1.935	1.815	1.995	11.44
8)	T	Bis(2-chloroet...	1.630	1.705	1.687	1.638	1.656	1.633	1.553	1.614	1.471	1.377	1.596	6.39
9)	T	2-Chlorophenol	1.192	1.236	1.379	1.431	1.529	1.521	1.485	1.469	1.403	1.332	1.398	8.24
10)	T	1,3-Dichlorobe...	1.422	1.589	1.589	1.646	1.655	1.589	1.551	1.511	1.467	1.398	1.541	5.81
11)	T	1,4-Dichlorobe...	1.434	1.630	1.620	1.616	1.623	1.550	1.494	1.440	1.376	1.301	1.509	7.80
12)	T	Benzyl alcohol		0.493	0.452	0.607	0.769	0.831	0.894	0.924	0.871	0.828	0.741	24.03
13)	T	1,2-Dichlorobe...	1.567	1.606	1.567	1.646	1.603	1.537	1.452	1.386	1.304	1.226	1.489	9.52
14)	T	2-Methylphenol	0.895	1.040	1.098	1.144	1.190	1.167	1.130	1.088	1.001	0.943	1.070	9.15
15)	T	2,2'-Oxybis(1-...	2.098	2.274	2.252	2.245	2.093	1.978	1.792	1.709	1.541		1.998	13.18
16)	T	N-Nitrosodi-n-...	0.984	1.034	1.084	1.083	1.163	1.097	1.038	0.975	0.888	0.832	1.018	9.88
17)	T	3+4-Methylphenol	1.019	1.257	1.392	1.408	1.547	1.477	1.436	1.361	1.231	1.139	1.327	12.29
18)	T	Hexachloroethane	0.372	0.410	0.427	0.462	0.469	0.448	0.457	0.450	0.460	0.447	0.440	6.72
19)	S	Nitrobenzene-d...	1.194	1.286	1.382	1.401	1.493	1.479	1.428	1.407	1.326	1.254	1.365	7.17
20)	T	Nitrobenzene	1.269	1.348	1.463	1.540	1.577	1.508	1.412	1.361	1.256	1.164	1.390	9.69
21)	I	Naphthalene-d8 (ISTD)	----------	ISTD	----------									12.66
22)	T	Isophorone	0.601	0.656	0.686	0.743	0.794	0.760	0.756	0.724	0.715	0.693	0.713	7.89
23)	T	2-Nitrophenol		0.091	0.110	0.133	0.178	0.199	0.192	0.198	0.202	0.193	0.166	25.84
24)	T	2,4-Dimethylph...		0.242	0.261	0.285	0.315	0.309	0.312	0.297	0.286	0.273	0.287	8.70
25)	T	Bis(2-chloroet...	0.389	0.412	0.435	0.450	0.469	0.449	0.435	0.410	0.388	0.364	0.420	7.87
26)	T	Benzoic acid					0.032	0.076	0.133	0.181	0.216	0.221	0.143	53.96
27)	T	2,4-Dichloroph...	0.130	0.174	0.195	0.236	0.276	0.282	0.292	0.282	0.275	0.256	0.240	23.12
28)	T	1,2,4-Trichlor...	0.316	0.350	0.343	0.351	0.355	0.341	0.330	0.309	0.297	0.283	0.327	7.61
29)	T	Naphthalene	1.076	1.123	1.131	1.137	1.139	1.061	1.023	0.926	0.862	0.793	1.027	12.16
30)	T	4-Chloroaniline	0.278	0.315	0.350	0.355	0.401	0.384	0.372	0.338	0.301	0.313	0.341	11.44
31)	T	Hexachlorobuta...	0.150	0.159	0.174	0.183	0.177	0.175	0.171	0.167	0.166	0.162	0.168	5.81
32)	T	4-Chloro-3-met...		0.151	0.190	0.224	0.279	0.291	0.304	0.308	0.306	0.298	0.261	22.28
33)	T	2-Methylnaphth...	0.709	0.752	0.759	0.777	0.804	0.769	0.760	0.705	0.663	0.614	0.731	7.94
34)	T	1-Methylnaphth...	0.679	0.731	0.753	0.740	0.775	0.718	0.697	0.643	0.600	0.570	0.691	9.78
35)	I	Acenaphthene-d10 (...	----------	ISTD	----------									11.52
36)	T	Hexachlorocycl...	0.236	0.256	0.283	0.316	0.356	0.380	0.394	0.398	0.394	0.385	0.340	18.27
37)	T	2,4,6-Trichlor...		0.212	0.247	0.302	0.380	0.395	0.415	0.406	0.394	0.391	0.349	21.64
38)	T	2,4,5-Trichlor...		0.217	0.238	0.303	0.370	0.393	0.399	0.396	0.385	0.359	0.340	20.67
39)	T	1,1'-Biphenyl	1.652	1.861	1.880	1.915	1.910	1.805	1.711	1.539	1.400	1.277	1.695	13.29

Method Path : T:\methods\
Method File : SV9_120319.M
Title : EPA 8270D: Semivolatile Organics

40)	S	2-Fluorobiphen...	1.534	1.639	1.657	1.680	1.678	1.592	1.535	1.382	1.272	1.176	1.515	11.81
41)	T	2-Chloronaphth...	1.234	1.380	1.409	1.405	1.425	1.326	1.244	1.131	1.032	0.951	1.254	13.39
42)	T	2-Nitroaniline				0.276	0.368	0.402	0.429	0.430	0.421	0.409	0.390	14.09
43)	T	2,6-Dimethylna...	1.203	1.258	1.335	1.364	1.384	1.301	1.244	1.113	1.024	0.950	1.218	12.01
44)	T	1,4-Dinitroben...			0.073	0.098	0.135	0.168	0.197	0.205	0.213	0.209	0.162	33.56
45)	T	Dimethyl phtha...	1.205	1.369	1.445	1.519	1.546	1.477	1.427	1.320	1.243	1.156	1.371	9.89
46)	T	1,3-Dinitroben...				0.148	0.193	0.216	0.232	0.230	0.228	0.219	0.209	14.37
47)	T	2,6-Dinitrotol...			0.228	0.281	0.334	0.336	0.335	0.324	0.312	0.301	0.306	12.04
48)	T	1,2-Dinitroben...				0.120	0.151	0.159	0.161	0.161	0.156	0.146	0.151	9.56
49)	T	Acenaphthylene	1.699	1.913	2.113	2.173	2.238	2.130	2.024	1.818	1.640	1.470	1.922	13.41
50)	T	3-Nitroaniline			0.213	0.269	0.318	0.331	0.341	0.305	0.270	0.263	0.289	14.85
51)	T	Acenaphthene	1.405	1.341	1.388	1.421	1.410	1.328	1.266	1.160	1.069	1.002	1.279	11.84
52)	T	2,4-Dinitrophenol				0.012	0.034	0.057	0.094	0.127	0.150	0.158	0.090	63.70
53)	T	4-Nitrophenol			0.060	0.090	0.167	0.203	0.244	0.258	0.268	0.265	0.194	42.07
54)	T	2,4-Dinitrotol...			0.192	0.270	0.376	0.405	0.432	0.430	0.420	0.396	0.365	23.88
55)	T	Dibenzofuran	1.750	1.793	1.855	1.925	1.902	1.824	1.740	1.574	1.455	1.340	1.716	11.44
56)	T	2,3,5,6-Tetrac...		0.096	0.120	0.198	0.270	0.303	0.333	0.334	0.338	0.332	0.258	37.28
57)	T	2,3,4,6-Tetrac...		0.121	0.163	0.247	0.324	0.334	0.360	0.352	0.346	0.339	0.287	31.09
58)	T	Diethyl phthalate	1.158	1.211	1.330	1.438	1.446	1.361	1.295	1.148	1.046	0.960	1.239	13.16
59)	T	2,3,5-Trimethy...	1.029	1.120	1.184	1.242	1.233	1.160	1.120	1.013	0.928	0.862	1.089	11.74
60)	T	Fluorene	1.253	1.398	1.431	1.514	1.485	1.408	1.329	1.176	1.079	0.983	1.306	13.67
61)	T	4-Chlorophenyl...	0.689	0.655	0.692	0.703	0.712	0.672	0.661	0.606	0.581	0.545	0.652	8.62
62)	T	4-Nitroaniline				0.231	0.278	0.285	0.300	0.285	0.275	0.267	0.274	7.90
63)	T	4,6-Dinitro-2-...				0.048	0.091	0.125	0.167	0.192	0.205	0.203	0.147	41.36
64)	I	Phenanthrene-d10 (...	----------ISTD----------											6.20
65)	T	N-Nitrosodiphe...	0.455	0.565	0.640	0.686	0.715	0.670	0.625	0.561	0.510		0.603	14.31
66)	T	Azobenzene (1,...	0.583	0.676	0.753	0.804	0.846	0.773	0.722	0.628	0.569		0.706	13.92
67)	S	2,4,6-Tribromo...		0.062	0.077	0.100	0.123	0.129	0.134	0.136	0.136	0.134	0.115	24.52
68)	T	4-Bromophenyl ...	0.205	0.215	0.223	0.239	0.249	0.240	0.235	0.227	0.222	0.213	0.227	6.10
69)	T	Hexachlorobenzene	0.291	0.310	0.315	0.315	0.309	0.292	0.279	0.260	0.250	0.238	0.286	9.85
70)	T	Pentachlorophe...			0.032	0.053	0.089	0.113	0.132	0.145	0.151	0.150	0.108	42.43
71)	T	Phenanthrene	1.226	1.193	1.188	1.200	1.187	1.121	1.060	0.954	0.889	0.820	1.084	13.54
72)	T	Anthracene	0.905	0.970	1.058	1.146	1.175	1.120	1.064	0.948	0.861	0.801	1.005	12.64
73)	T	Carbazole	0.633	0.736	0.854	0.956	1.039	0.973	0.931	0.802	0.682	0.605	0.821	18.65
74)	T	Di-n-butyl pht...			0.811	1.001	1.161	1.202	1.199	1.100	1.017	0.927	1.052	13.24
75)	T	Fluoranthene	0.869	0.964	1.068	1.200	1.289	1.259	1.235	1.142	1.053	0.978	1.106	12.80
76)	T	Benzidine			0.154	0.194	0.403	0.520	0.586	0.557	0.481	0.461	0.420	38.58
77)	T	Pyrene	0.927	1.031	1.152	1.283	1.338	1.269	1.198	1.085	1.003	0.928	1.121	13.31
78)	I	Chrysene-d12 (ISTD)	----------ISTD----------											12.07
79)	S	Terphenyl-d14 ...	0.692	0.821	0.884	0.956	0.997	0.981	0.974	0.964	0.968	0.936	0.917	10.37
80)	T	Butyl benzyl p...			0.191	0.278	0.400	0.461	0.538	0.587	0.613	0.603	0.459	34.43
81)	T	Bis(2-ethylhex...			0.137	0.202	0.320	0.382	0.451	0.497	0.509	0.499	0.375	38.21
82)	T	3,3-Dichlorobe...				0.220	0.206	0.179	0.175	0.144	0.123		0.175	20.83
83)	T	Benz(a)anthracene	0.976	0.880	0.930	1.044	1.134	1.097	1.107	1.093	1.082	1.056	1.040	8.07
84)	T	Chrysene	0.949	1.017	1.027	1.049	1.069	1.036	1.022	1.013	1.007	0.972	1.016	3.43
85)	T	Bis(2-ethylhex...			0.254	0.382	0.582	0.661	0.724	0.751	0.752	0.720	0.603	31.12
86)	I	Perylene-d12 (ISTD)	----------ISTD----------											9.03
87)	T	Di-n-octyl pht...			0.252	0.332	0.603	0.844	1.122	1.310	1.317	1.304	0.886	50.24

Method Path : T:\methods\
Method File : SV9_120319.M
Title : EPA 8270D: Semivolatile Organics

88)	T	Benzo(b)fluora...	0.739	0.650	0.735	0.901	1.085	1.121	1.188	1.206	1.197	1.156	0.998	21.99
89)	T	Benzo(k)fluora...	0.780	0.668	0.807	0.968	1.121	1.124	1.133	1.074	1.029	1.009	0.971	16.92
90)	T	Benzo(b+k)fluo...	0.759	0.713	0.814	0.975	1.145	1.156	1.191	1.170	1.142	1.111	1.018	18.41
91)	T	Benzo(e)pyrene	0.808	0.755	0.877	0.990	1.117	1.120	1.160	1.142	1.113	1.082	1.017	14.77
92)	T	Benzo(a)pyrene	0.613	0.534	0.606	0.784	0.995	1.010	1.056	1.034	1.002	0.974	0.861	23.88
93)	T	Perylene	0.875	0.869	0.879	0.923	0.968	0.935	0.947	0.917	0.896	0.875	0.908	3.82
94)	I	Dibenz(a,h)Anthrce...	----------ISTD----------											4.21
95)	T	Indeno(1,2,3-c...	1.035	1.000	1.050	1.118	1.127	1.117	1.126	1.150	1.153	1.131	1.101	4.79
96)	T	Dibenz(a,h)ant...	0.931	0.970	0.981	1.021	1.082	1.056	1.051	1.020	0.998	0.964	1.007	4.68
97)	T	Benzo(g,h,i)pe...	0.810	0.836	0.970	1.112	1.250	1.213	1.212	1.177	1.147	1.105	1.083	14.57

(#) = Out of Range

Compound List Report SV-GCMS9

Method Path : T:\methods\
Method File : SV9_120319.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Wed Dec 04 10:57:36 2019
Response Via : Initial Calibration

12/4/19

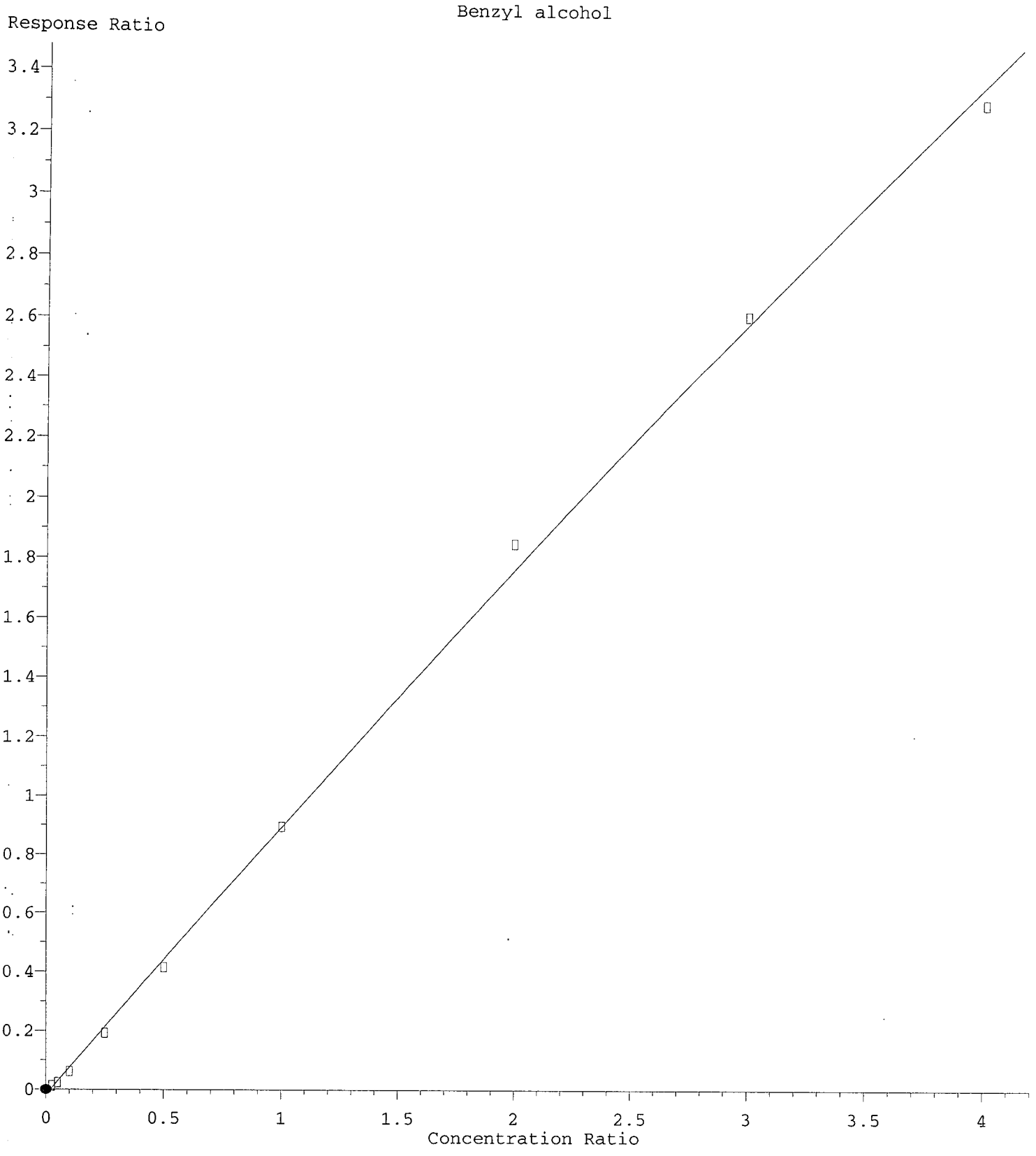
Total Cpnds : 97

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-Dichlorobenzene-d4 (ISTD)	152	6.626	1.000	A	2	A	R
2	T	N-Nitrosodimethylamine	74	3.947	0.596	A	2	A	R
3	T	Pyridine	79	3.984	0.601	A	2	A	R
4	S	2-Fluorophenol (Surr)	112	5.358	0.809	A	1	A	R
5	S	Phenol-d6 (Surr)	99	6.257	0.944	A	2	A	R
6	T	Phenol	94	6.273	0.947	A	2	A	R
7	T	Aniline	93	6.300	0.951	A	2	A	R
8	T	Bis(2-chloroethyl) ether	93	6.359	0.960	A	2	A	R
9	T	2-Chlorophenol	128	6.423	0.969	A	2	A	R
10	T	1,3-Dichlorobenzene	146	6.573	0.992	A	2	A	R
11	T	1,4-Dichlorobenzene	146	6.643	1.002	A	2	A	R
12	T	Benzyl alcohol	108	6.754	1.019	Q	2	A	R
13	T	1,2-Dichlorobenzene	146	6.798	1.026	A	2	A	R
14	T	2-Methylphenol	107	6.862	1.036	A	2	A	R
15	T	2,2'-Oxybis(1-Chloropropane)	45	6.888	1.040	A	2	A	R
16	T	N-Nitrosodi-n-propylamine	70	7.017	1.059	A	2	A	R
17	T	3+4-Methylphenol	107	7.011	1.058	A	3	A	R
18	T	Hexachloroethane	201	7.135	1.077	A	2	A	R
19	S	Nitrobenzene-d5 (Surr)	82	7.167	1.082	A	2	A	R
20	T	Nitrobenzene	77	7.188	1.085	A	2	A	R
21	I	Naphthalene-d8 (ISTD)	136	7.889	1.000	A	1	A	R
22	T	Isophorone	82	7.418	0.940	A	2	A	R
23	T	2-Nitrophenol	139	7.503	0.951	Q	2	A	R
24	T	2,4-Dimethylphenol	122	7.541	0.956	A	2	A	R
25	T	Bis(2-chloroethoxy) methane	93	7.632	0.967	A	2	A	R
26	T	Benzoic acid	105	7.621	0.966	Q	2	A	R
27	T	2,4-Dichlorophenol	162	7.744	0.982	Q	2	A	R
28	T	1,2,4-Trichlorobenzene	180	7.835	0.993	A	2	A	R
29	T	Naphthalene	128	7.910	1.003	A	1	A	R
30	T	4-Chloroaniline	127	7.958	1.009	A	2	A	R
31	T	Hexachlorobutadiene	225	8.044	1.020	A	2	A	R
32	T	4-Chloro-3-methylphenol	107	8.439	1.070	Q	2	A	R
33	T	2-Methylnaphthalene	142	8.605	1.091	A	2	A	R
34	T	1-Methylnaphthalene	142	8.707	1.104	A	2	A	R
35	I	Acenaphthene-d10 (ISTD)	162	9.670	1.000	A	2	A	R
36	T	Hexachlorocyclopentadiene	237	8.777	0.908	Q	2	A	R
37	T	2,4,6-Trichlorophenol	196	8.888	0.919	Q	2	A	R
38	T	2,4,5-Trichlorophenol	198	8.926	0.923	Q	2	A	R
39	T	1,1'-Biphenyl	154	9.076	0.939	A	2	A	R
40	S	2-Fluorobiphenyl (Surr)	172	8.975	0.928	A	2	A	R
41	T	2-Chloronaphthalene	162	9.103	0.941	A	2	A	R
42	T	2-Nitroaniline	138	9.199	0.951	A	2	A	R
43	T	2,6-Dimethylnaphthalene	156	9.237	0.955	A	2	A	R
44	T	1,4-Dinitrobenzene	168	9.327	0.965	Q	2	A	R
45	T	Dimethyl phthalate	163	9.381	0.970	A	2	A	R
46	T	1,3-Dinitrobenzene	168	9.407	0.973	A	2	A	R
47	T	2,6-Dinitrotoluene	165	9.439	0.976	A	2	A	R
48	T	1,2-Dinitrobenzene	168	9.493	0.982	A	2	A	R
49	T	Acenaphthylene	152	9.525	0.985	A	2	A	R
50	T	3-Nitroaniline	138	9.611	0.994	A	2	A	R
51	T	Acenaphthene	153	9.702	1.003	A	2	A	R
52	T	2,4-Dinitrophenol	184	9.718	1.005	Q	2	A	R
53	T	4-Nitrophenol	139	9.771	1.010	Q	2	A	R
54	T	2,4-Dinitrotoluene	165	9.851	1.019	Q	2	A	R

55	T	Dibenzofuran	168	9.873	1.021	A		2	A	R
56	T	2,3,5,6-Tetrachlorophenol	232	9.958	1.030	Q		2	A	R
57	T	2,3,4,6-Tetrachlorophenol	232	10.001	1.034	Q		2	A	R
58	T	Diethyl phthalate	149	10.098	1.044	A		2	A	R
59	T	2,3,5-Trimethylnaphthalene	170	10.087	1.043	A		2	A	R
60	T	Fluorene	166	10.226	1.058	A		2	A	R
61	T	4-Chlorophenyl phenyl ether	204	10.221	1.057	A		2	A	R
62	T	4-Nitroaniline	138	10.231	1.058	A		2	A	R
63	T	4,6-Dinitro-2-methylphenol	198	10.263	1.061	Q		2	A	R
64	I	Phenanthrene-d10 (ISTD)	188	11.184	1.000	A		2	A	R
65	T	N-Nitrosodiphenylamine	169	10.338	0.924	A		2	A	R
66	T	Azobenzene (1,2-DPH)	77	10.381	0.928	A		2	A	R
67	S	2,4,6-Tribromophenol (Surr)	330	10.472	0.936	Q		2	A	R
68	T	4-Bromophenyl phenyl ether	248	10.718	0.958	A		2	A	R
69	T	Hexachlorobenzene	284	10.793	0.965	A		2	A	R
70	T	Pentachlorophenol (PCP)	266	10.990	0.983	Q		2	A	R
71	T	Phenanthrene	178	11.205	1.002	A		2	A	R
72	T	Anthracene	178	11.258	1.007	A		2	A	R
73	T	Carbazole	167	11.414	1.021	Q		2	A	R
74	T	Di-n-butyl phthalate	149	11.761	1.052	A		2	A	R
75	T	Fluoranthene	202	12.478	1.116	A		2	A	R
76	T	Benzidine	184	12.633	1.130	Q		2	A	R
77	T	Pyrene	202	12.772	1.142	A		2	A	R
78	I	Chrysene-d12 (ISTD)	240	14.986	1.000	A		2	A	R
79	S	Terphenyl-d14 (Surr)	244	12.981	0.866	A		2	A	R
80	T	Butyl benzyl phthalate	149	13.799	0.921	Q		2	A	R
81	T	Bis(2-ethylhexyl) adipate	129	13.970	0.932	Q		2	A	R
82	T	3,3-Dichlorobenzidine	252	14.927	0.996	Q		2	A	R
83	T	Benz(a)anthracene	228	14.965	0.999	A		2	A	R
84	T	Chrysene	228	15.045	1.004	A		2	A	R
85	T	Bis(2-ethylhexyl) phthalate	149	15.141	1.010	Q		2	A	R
86	I	Perylene-d12 (ISTD)	264	18.484	1.000	A		2	A	R
87	T	Di-n-octyl phthalate	149	16.815	0.910	Q		2	A	R
88	T	Benzo(b)fluoranthene	252	17.564	0.950	Q		2	A	R
89	T	Benzo(k)fluoranthene	252	17.628	0.954	Q		2	A	R
90	T	Benzo(b+k)fluoranthene	252	17.628	0.954	Q		2	A	R
91	T	Benzo(e)pyrene	252	18.217	0.986	A		2	A	R
92	T	Benzo(a)pyrene	252	18.334	0.992	Q		2	A	R
93	T	Perylene	252	18.543	1.003	A		2	A	B
94	I	Dibenz(a,h)Anthrcene-d14 (I...	292	20.881	1.000	A		1	A	B
95	T	Indeno(1,2,3-cd)pyrene	276	20.881	1.000	A		1	A	R
96	T	Dibenz(a,h)anthracene	278	20.950	1.003	A		2	A	R
97	T	Benzo(g,h,i)perylene	276	21.415	1.026	A		2	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

SV9_120319.M Wed Dec 04 12:37:07 2019

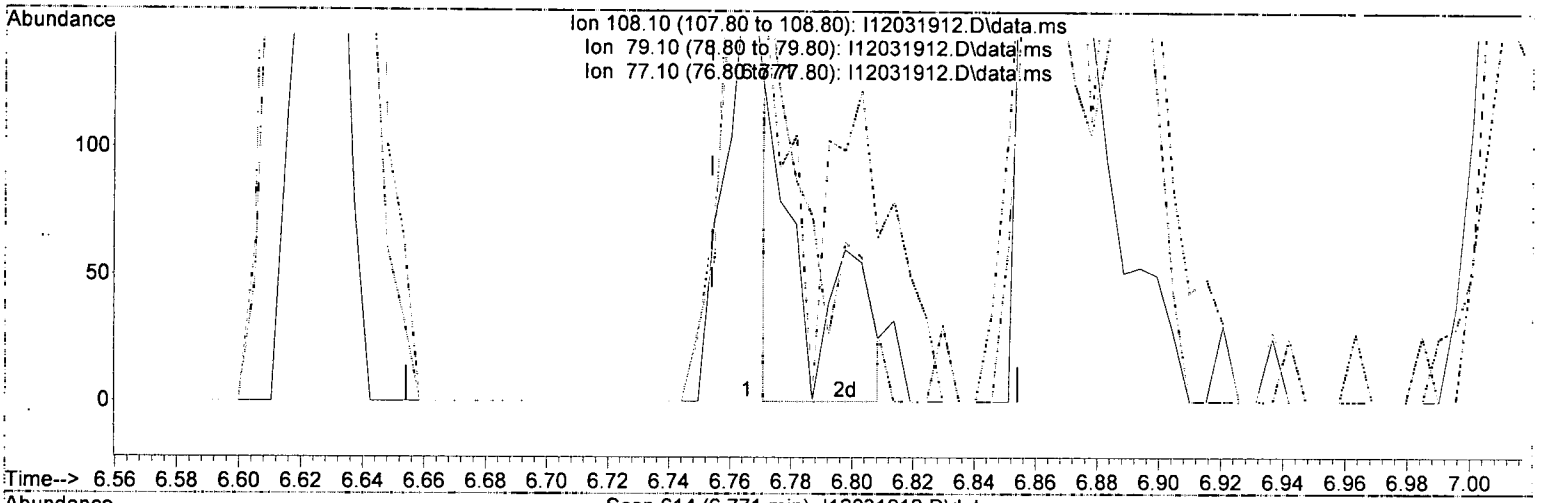


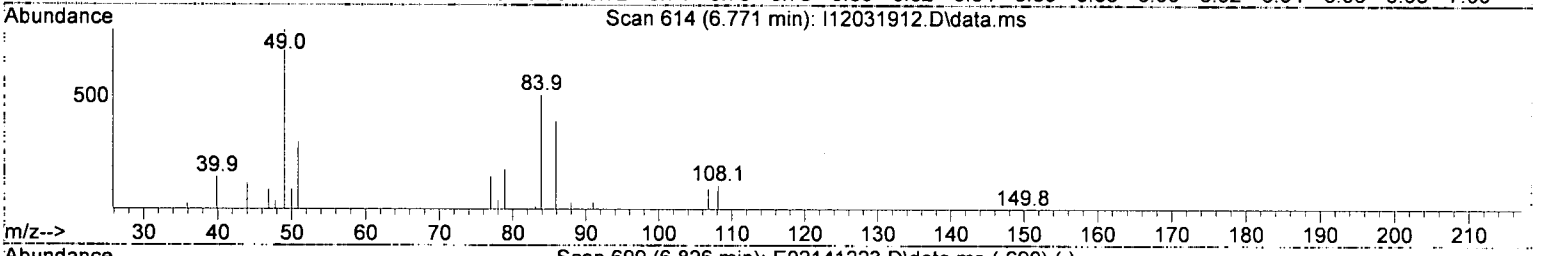
R = -2.13e-002 A*A + 9.33e-001 A - 1.91e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic
Method Name: T:\methods\SV9_120319.M

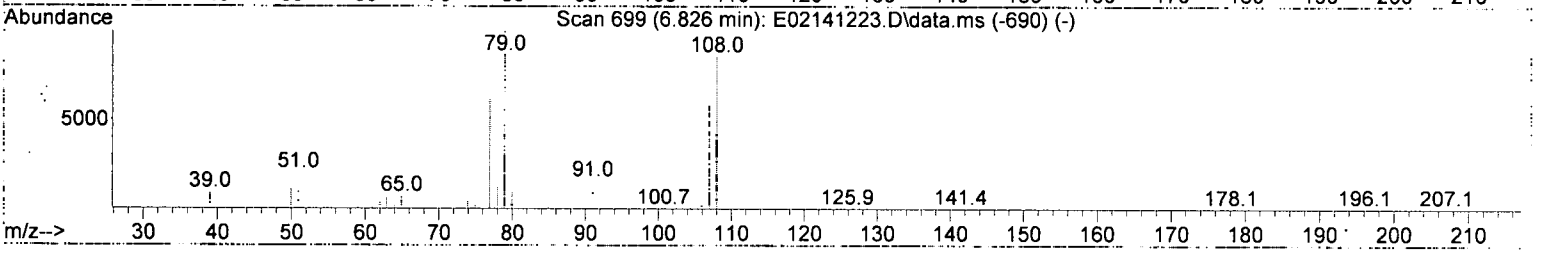
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:45:38 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







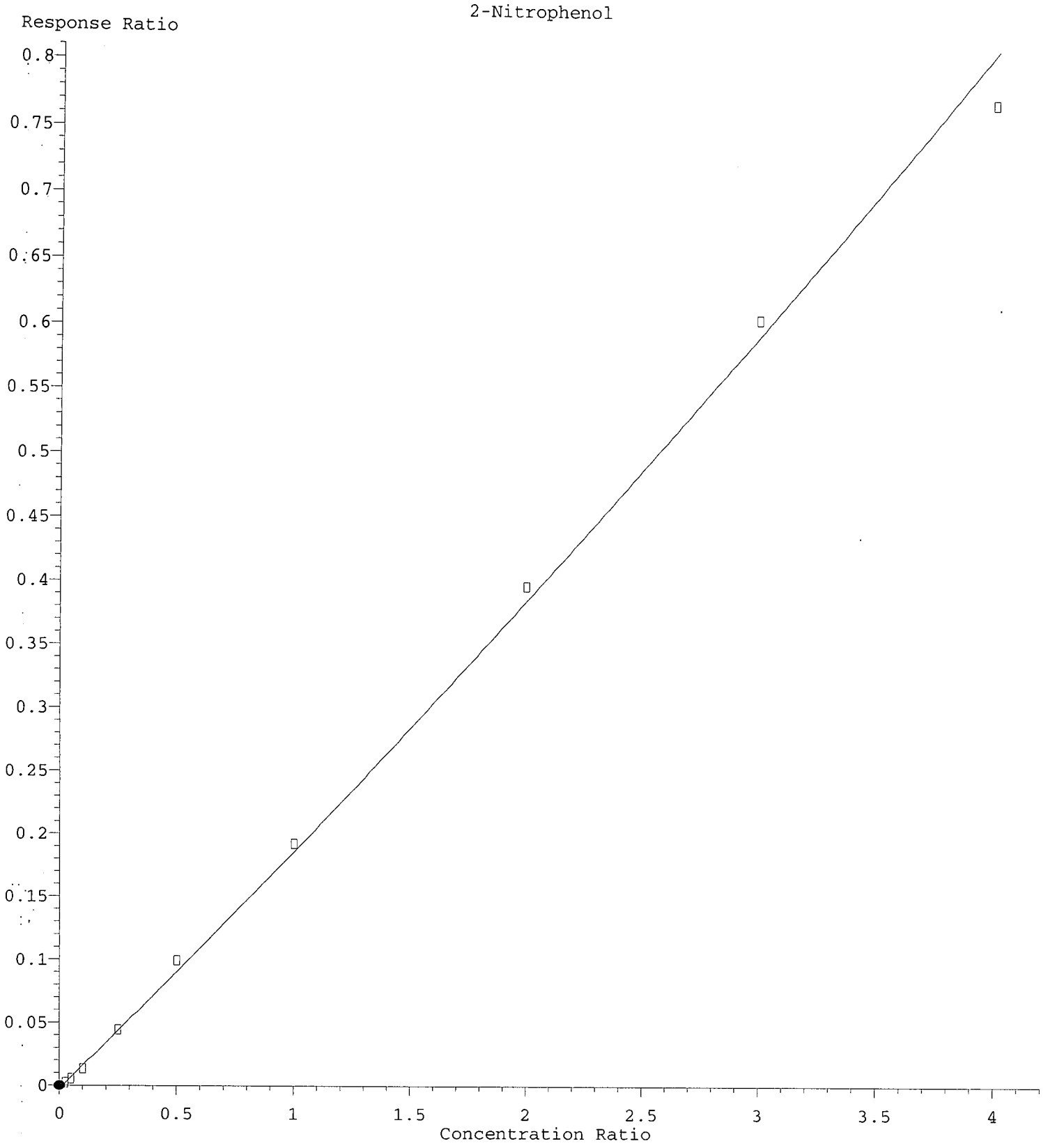
TIC: I12031912.D\data.ms

(12) Benzyl alcohol (T)

6.771min (+ 0.017) 43.77 ng/ml m

response 105

Ion	Exp%	Act%
108.10	100.00	100.00
79.10	129.70	152.80
77.10	80.30	128.80#
0.00	0.00	0.00

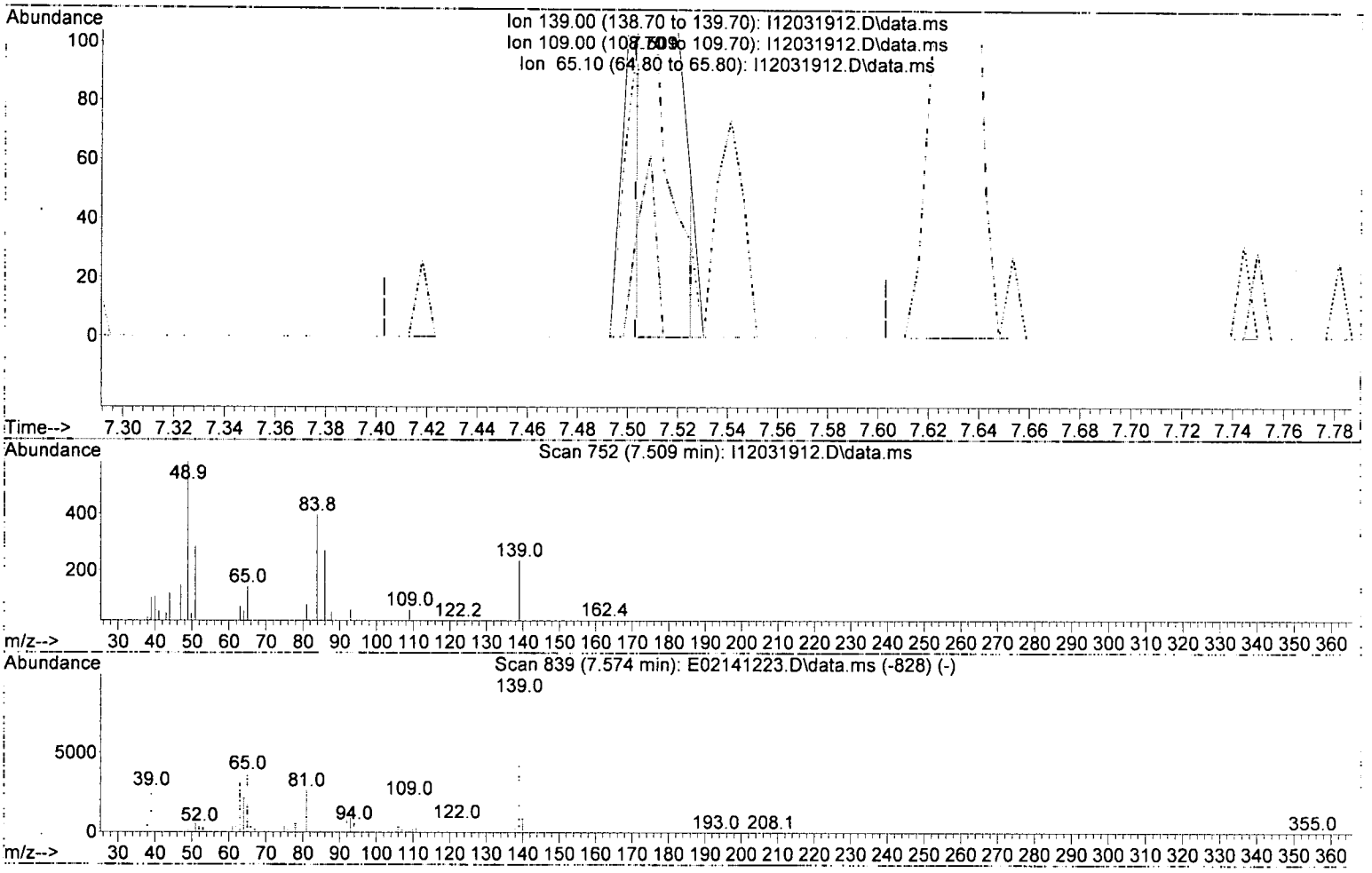


R = 4.97e-003 A*A + 1.83e-001 A - 2.68e-003
Coef of Det (r^2) = 0.993 Curve Fit: Quadratic 1/(1*x^2)
Method Name: T:\methods\SV9_120319.M

Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:45:38 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



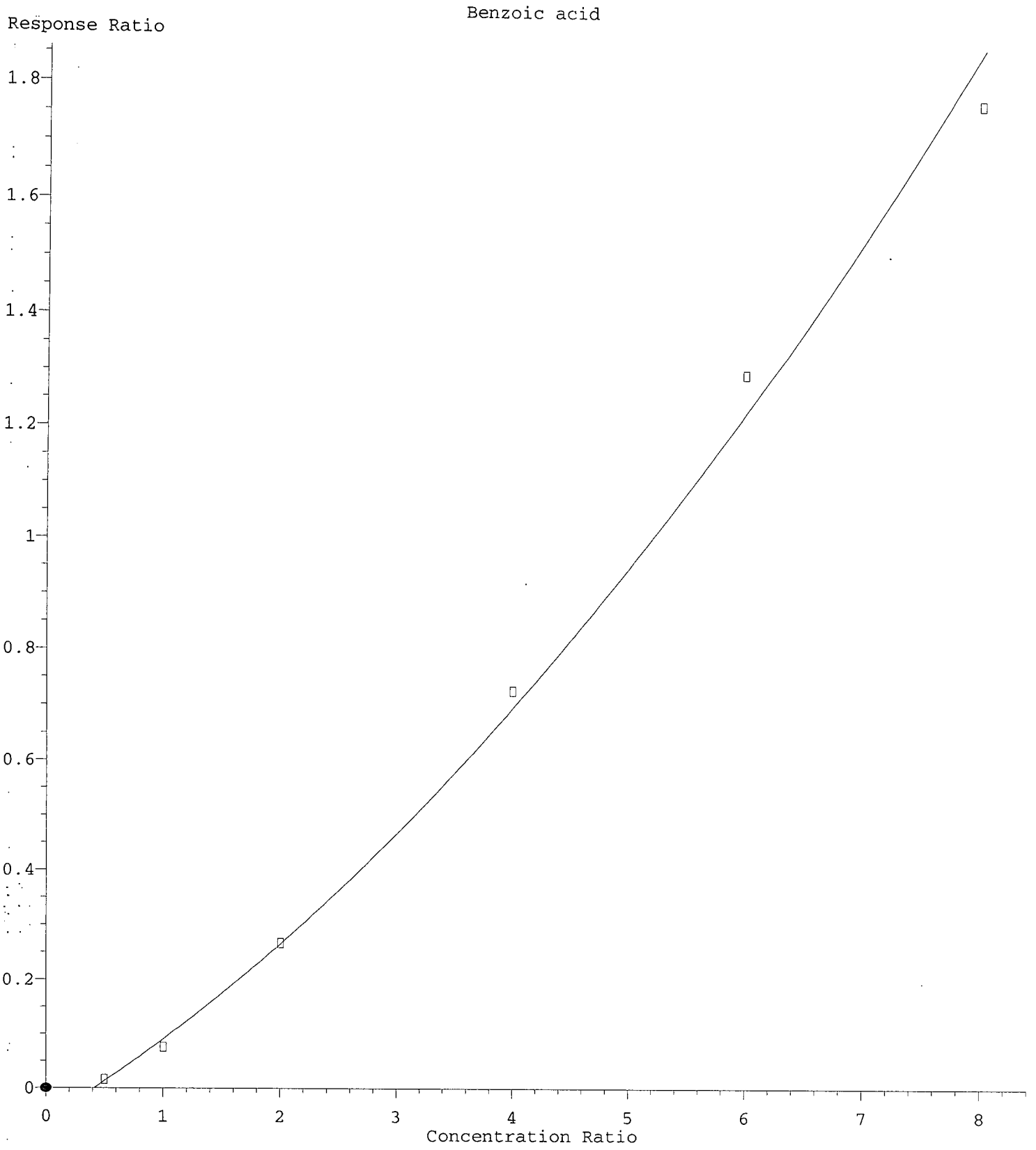
TIC: I12031912.D\data.ms

(23) 2-Nitrophenol (T)

7.509min (+ 0.006) 34.54 ng/ml m ✓

response 168

Ion	Exp%	Act%
139.00	100.00	100.00
109.00	23.30	26.38
65.10	47.80	60.43
0.00	0.00	0.00

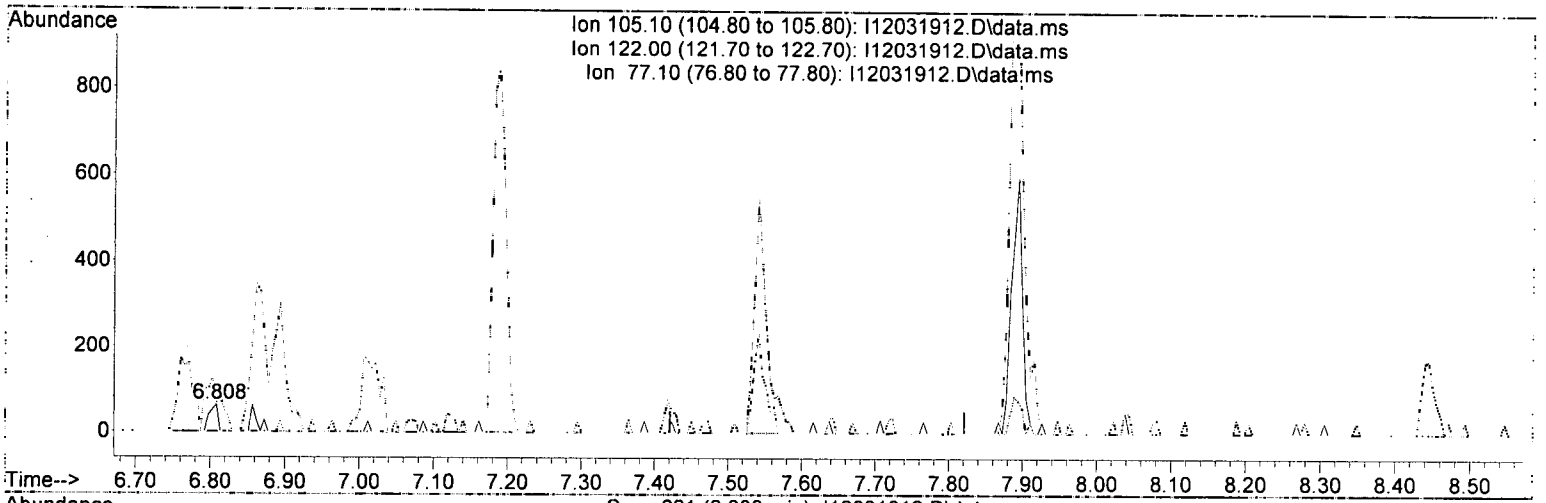


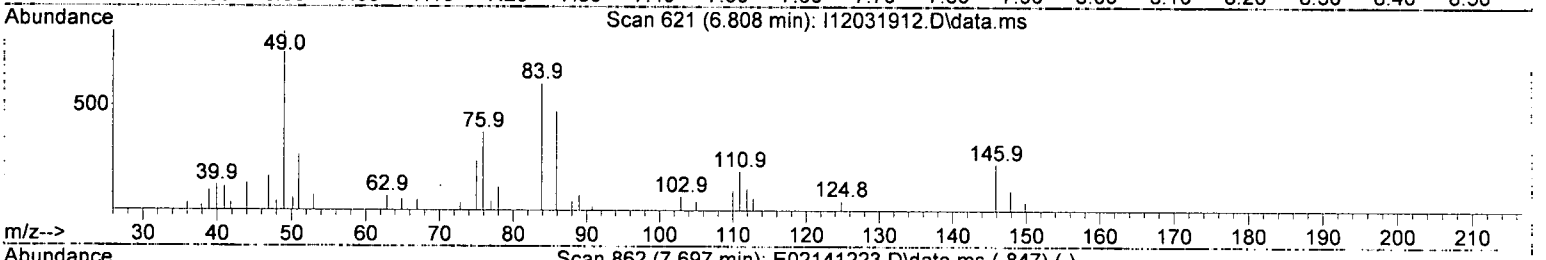
R = 1.30e-002 A*A + 1.36e-001 A - 5.82e-002
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_120319.M
Calibration Table Last Updated: Thu Dec 05 10:37:26 2019

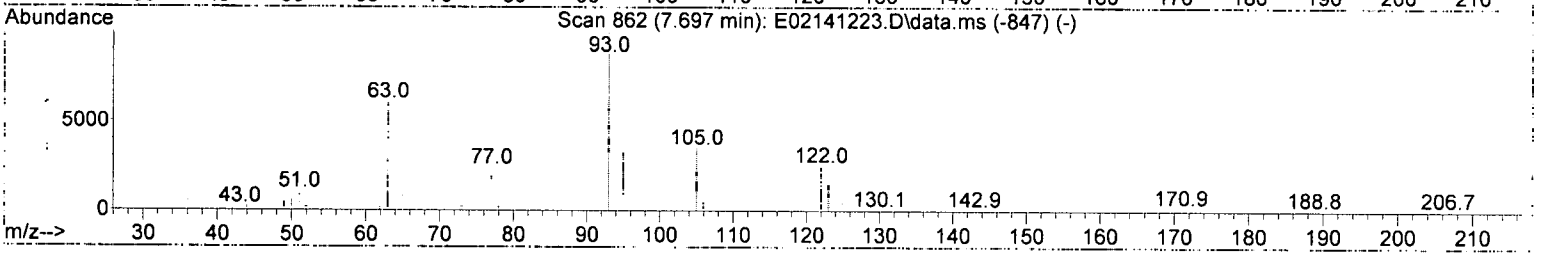
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:45:38 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







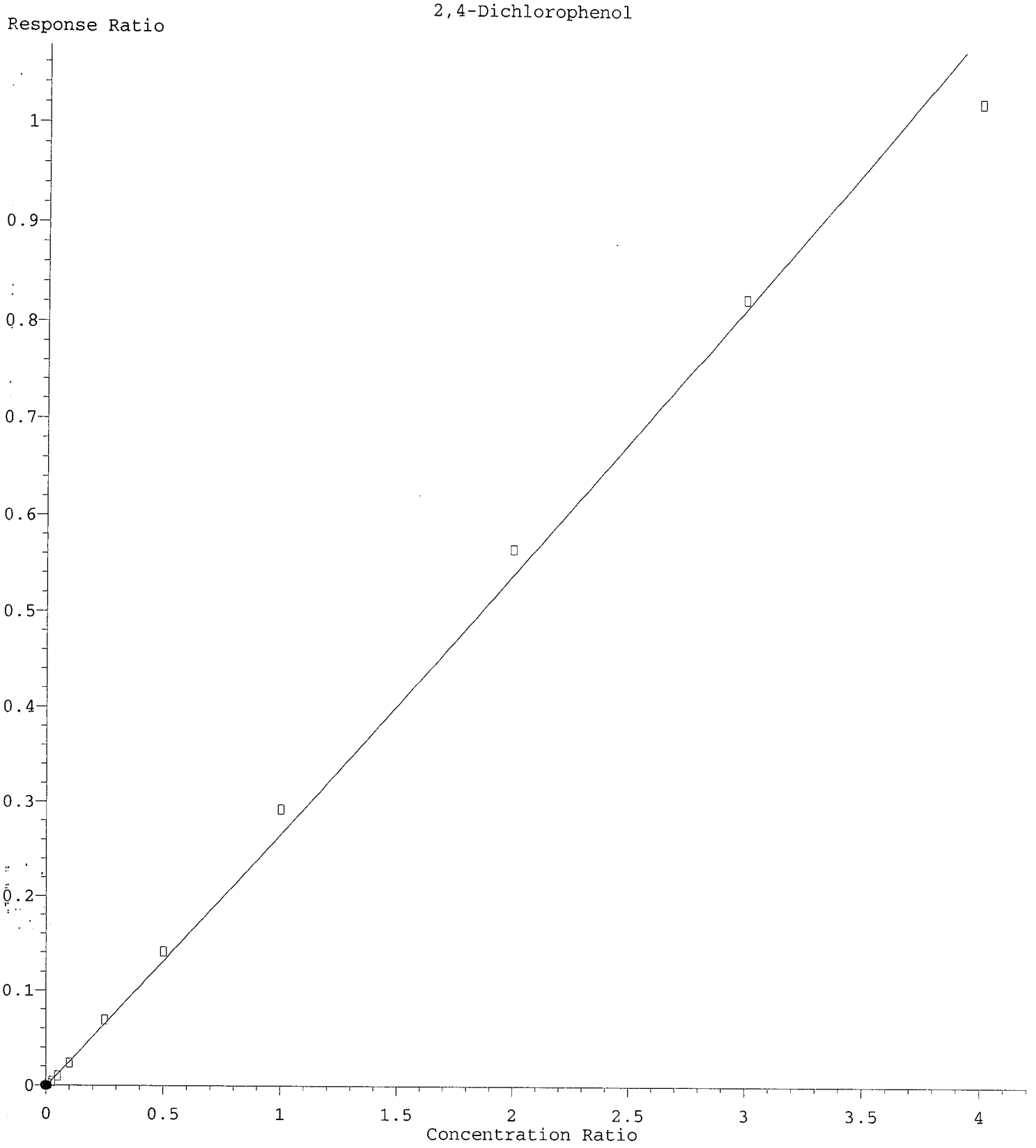
TIC: I12031912.D\data.ms

(26) Benzoic acid (T)

6.808min (-0.813) 831.31 ng/ml m ✓

response 163

Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	0.00#
77.10	77.80	103.17
0.00	0.00	0.00

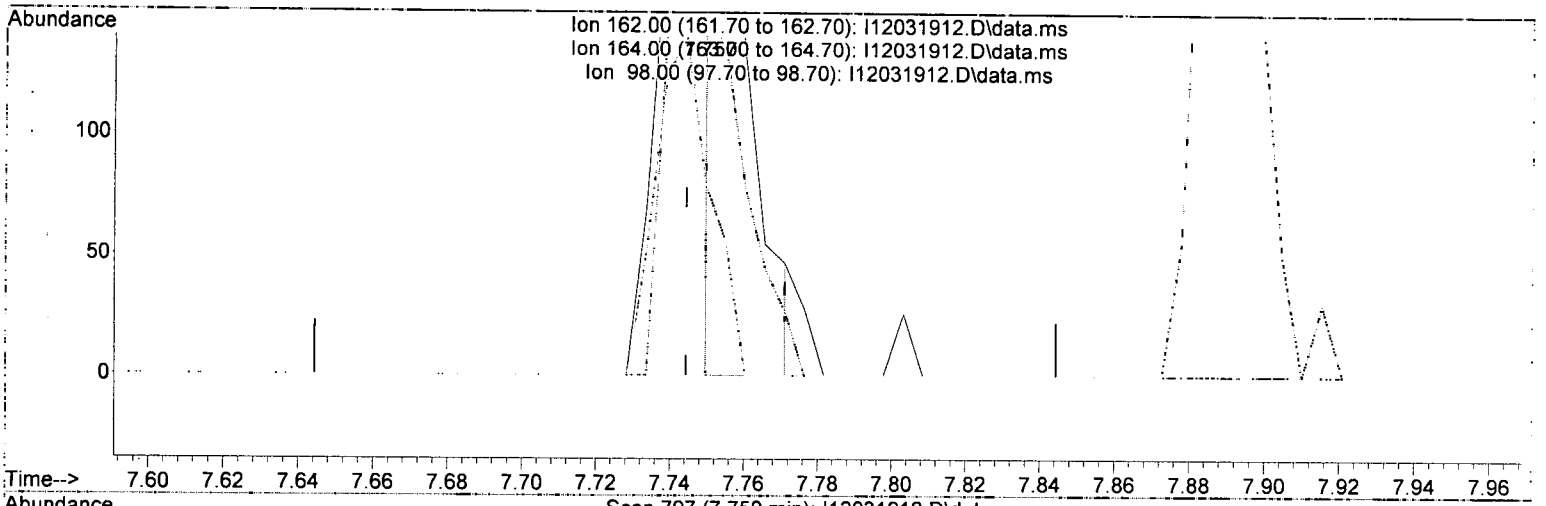


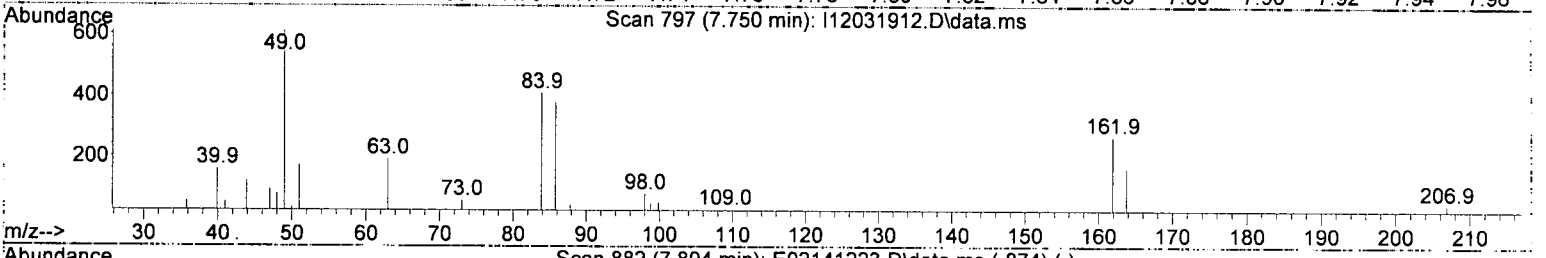
R = 2.59e-003 A*A + 2.65e-001 A - 1.54e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic (1/x^2)
Method Name: T:\methods\SV9_120319.M

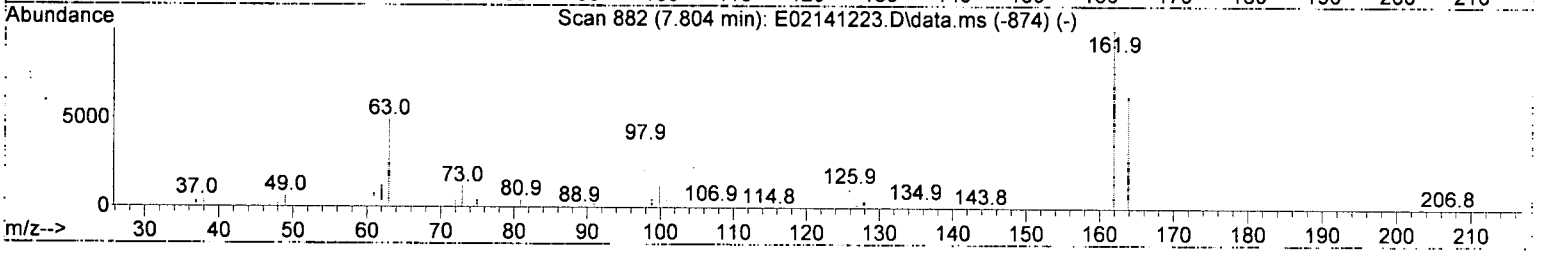
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:45:38 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







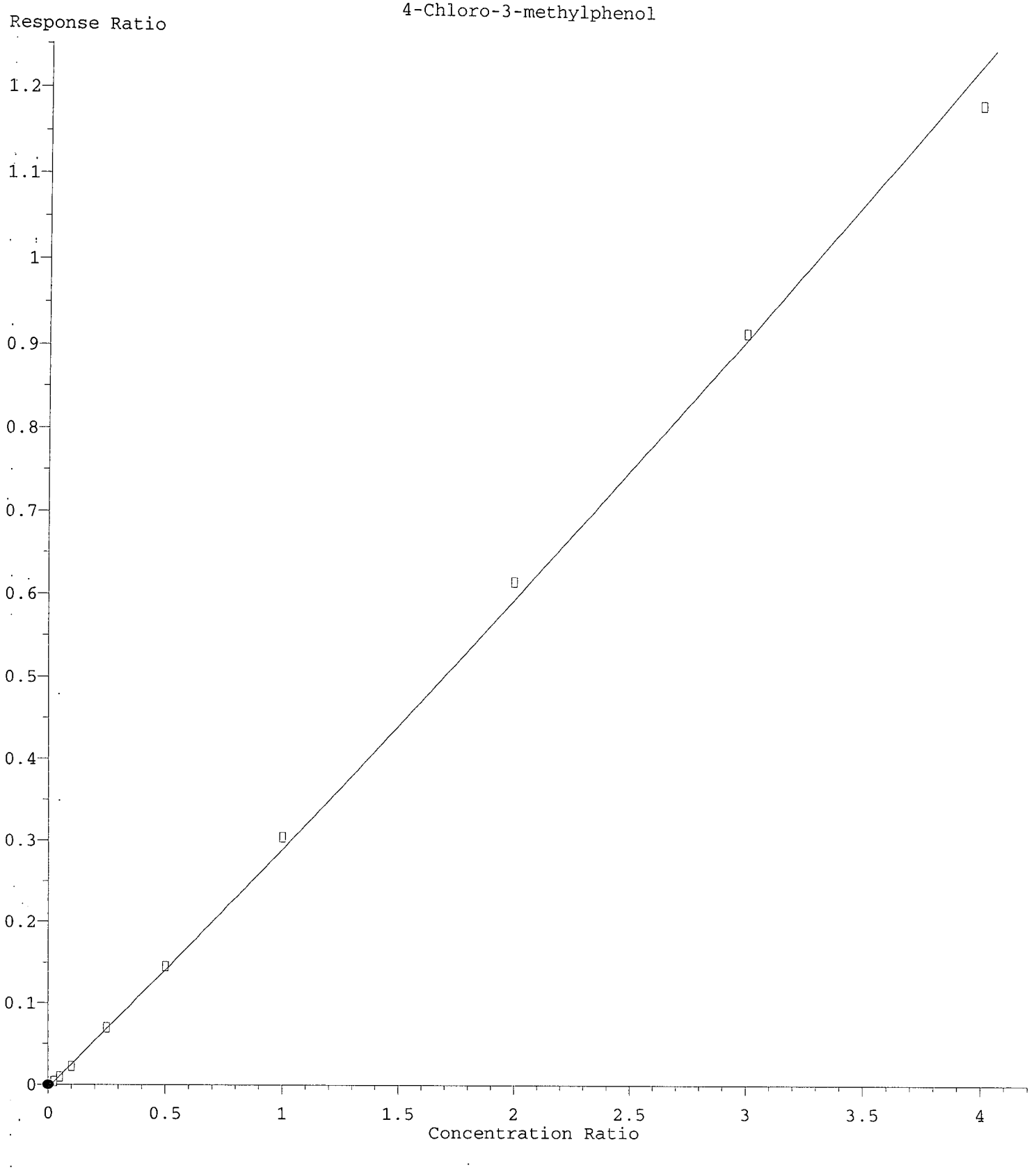
TIC: I12031912.D\data.ms

(27) 2,4-Dichlorophenol (T)

7.750min (+ 0.005) 15.03 ng/ml m

response 153

Ion	Exp%	Act%
162.00	100.00	100.00
164.00	63.40	61.05
98.00	39.00	29.59
0.00	0.00	0.00

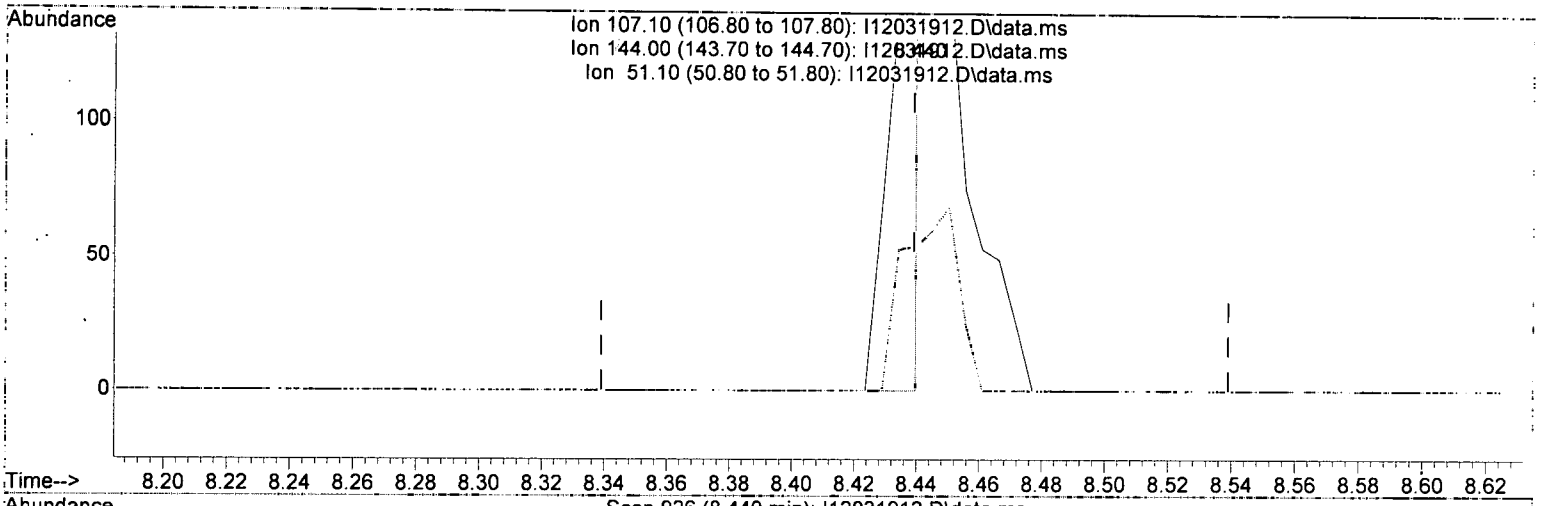


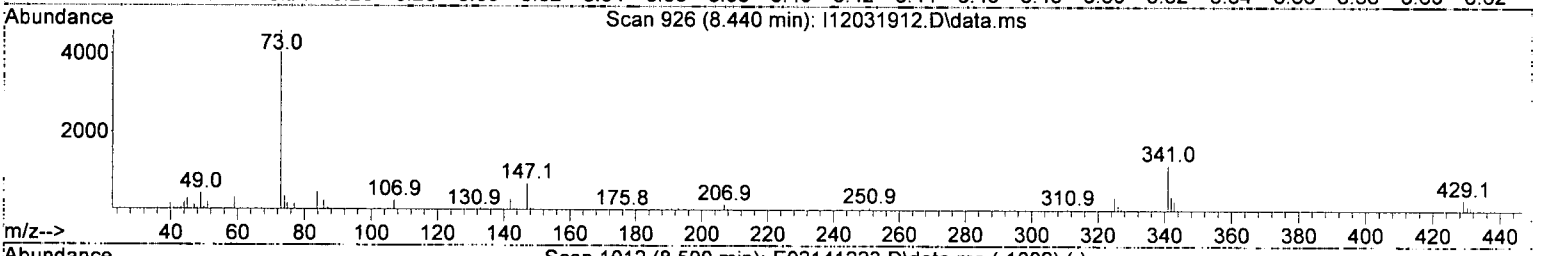
R = 5.97e-003 A*A + 2.87e-001 A - 3.78e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic 1/(1/x^2)
Method Name: T:\methods\SV9_120319.M
Calibration Table Last Updated: Thu Dec 05 10:37:26 2019

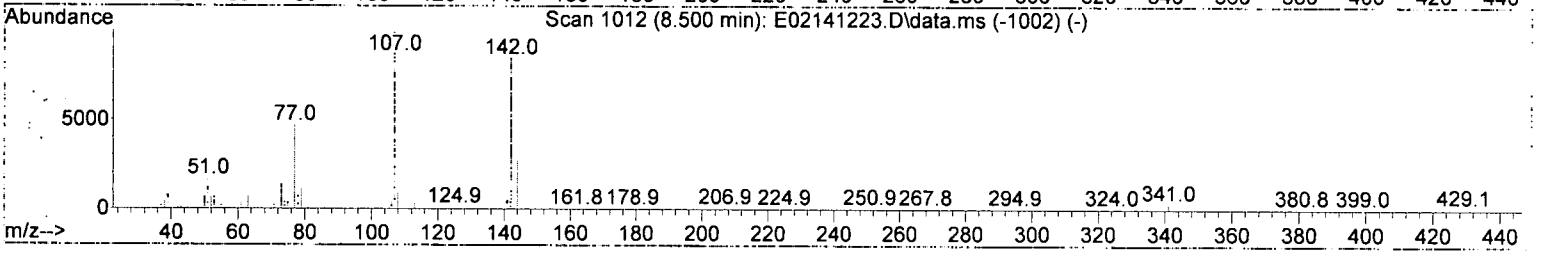
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:45:38 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







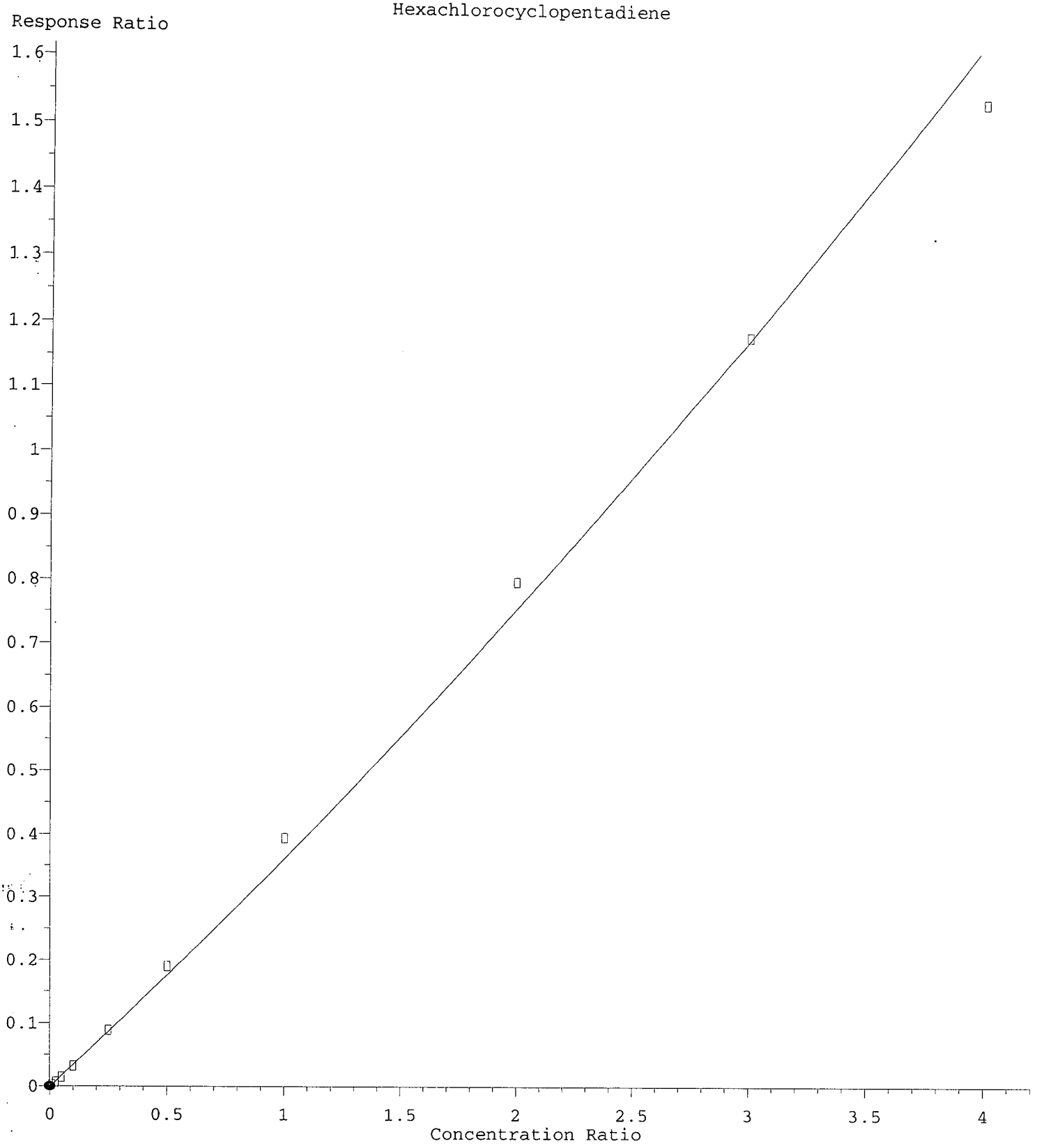
TIC: I12031912.D\data.ms

(32) 4-Chloro-3-methylphenol (T)

8.440min (+ 0.001) 29.46 ng/ml m

response 153

Ion	Exp%	Act%
107.10	100.00	100.00
144.00	26.80	20.85
51.10	22.20	79.15#
0.00	0.00	0.00

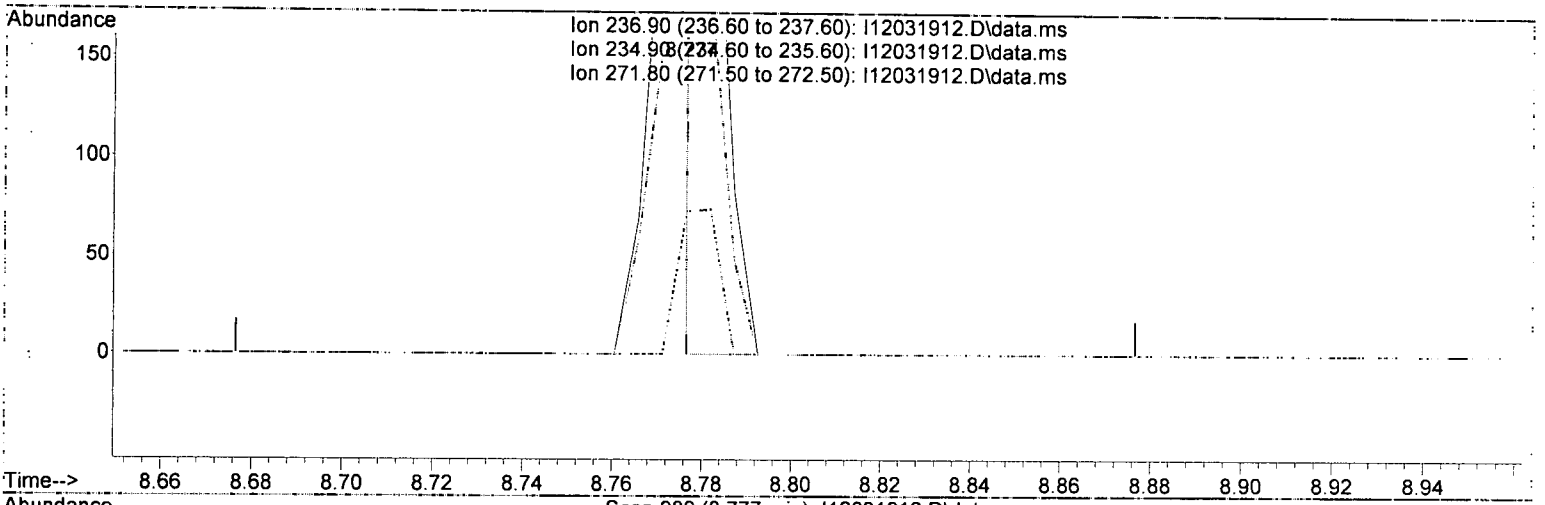


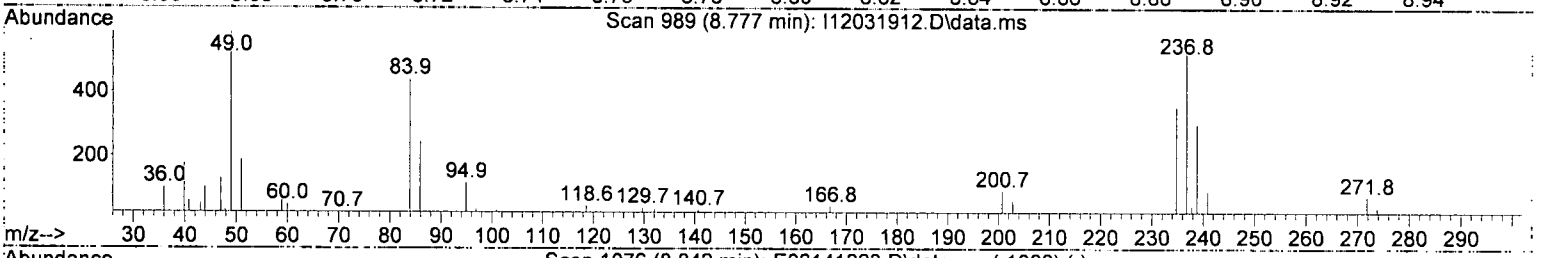
R = 1.53e-002 A*A + 3.47e-001 A - 1.34e-003
Coef of Det (r^2) = 0.999 Curve fit: Quadratic
Method Name: T:\methods\SV9_120319.M

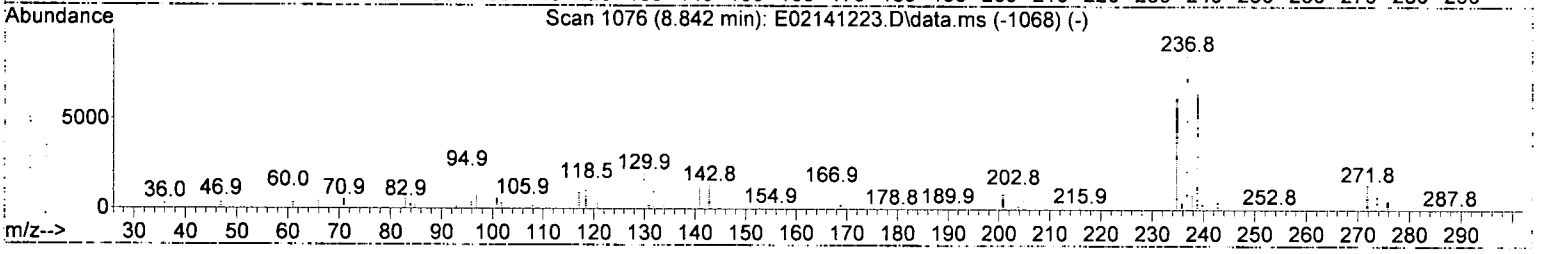
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:45:38 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







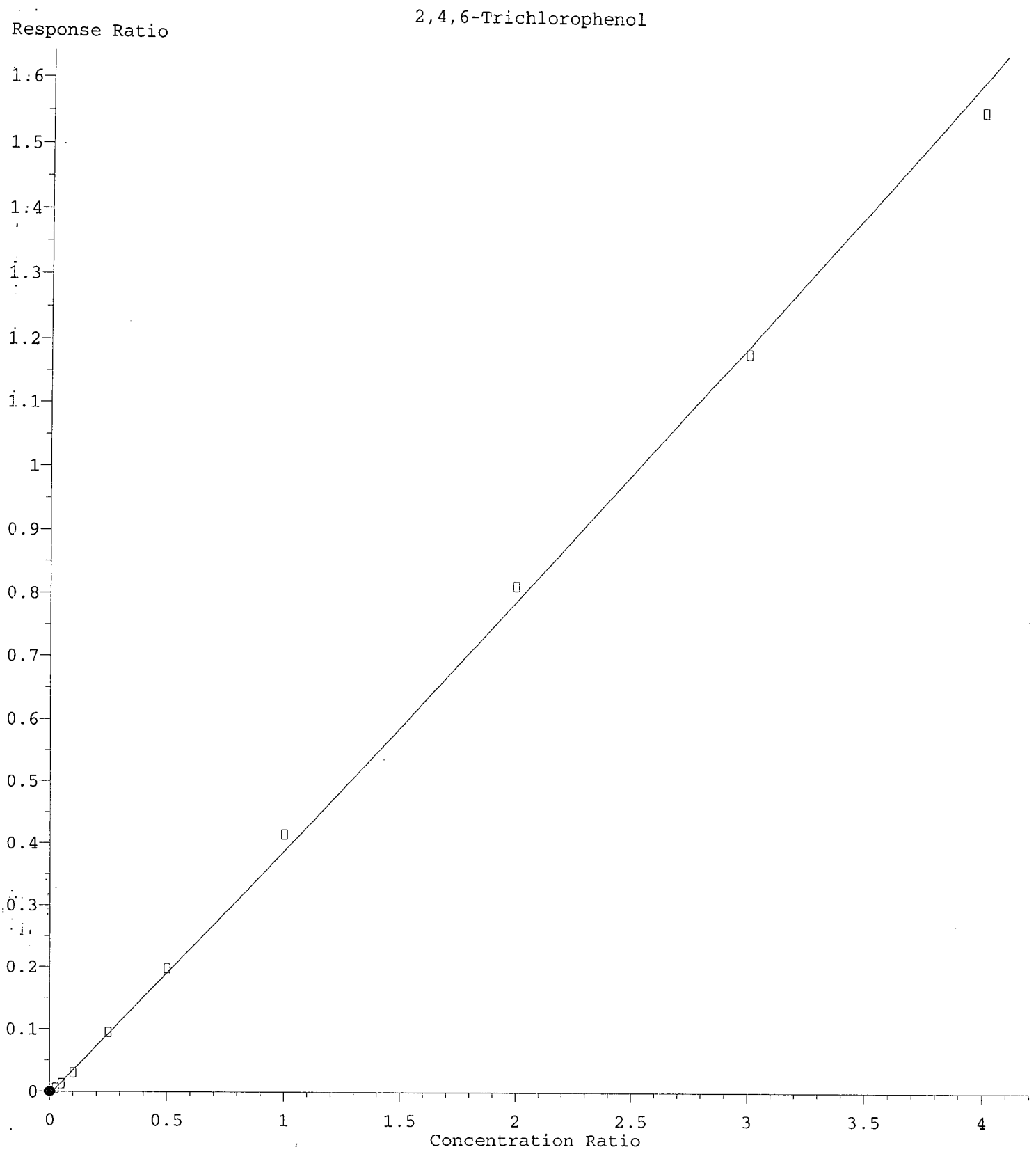
TIC: I12031912.D\data.ms

(36) Hexachlorocyclopentadiene (T)

8.777min (-0.000) 11.75 ng/ml m ✓

response 117

Ion	Exp%	Act%
236.90	100.00	100.00
234.90	64.60	65.50
271.80	14.70	13.47
0.00	0.00	0.00

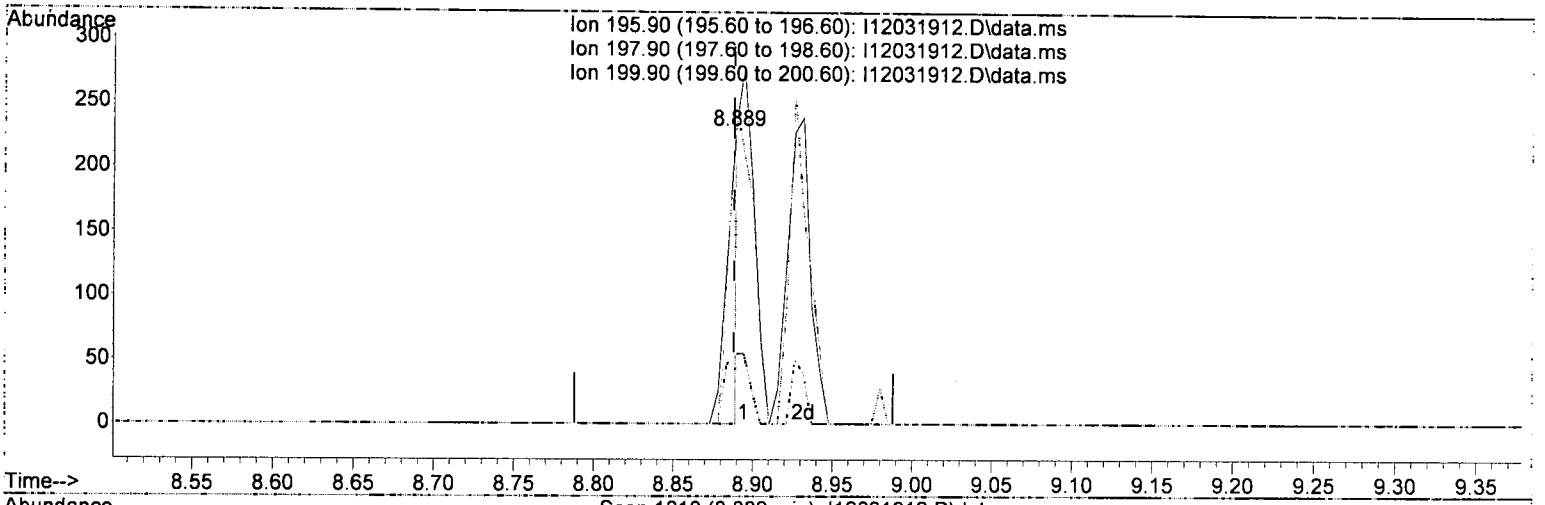


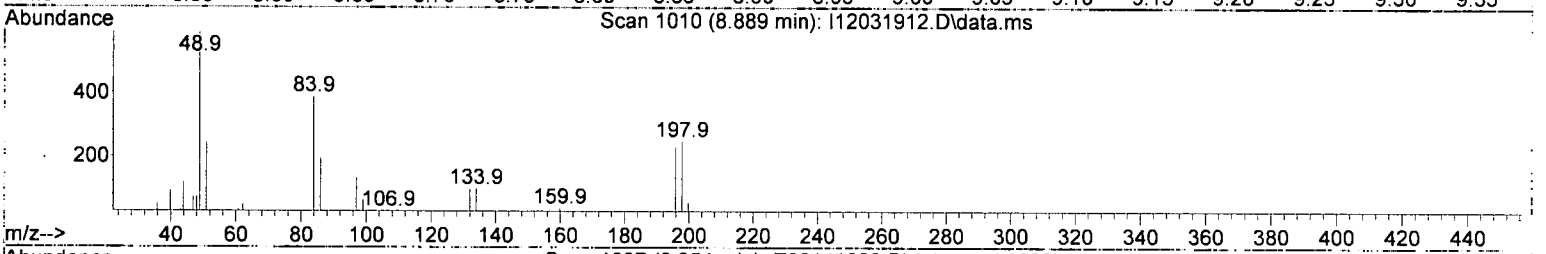
R = 3.68e-003 A*A + 3.89e-001 A - 5.08e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic (1/a^2)
Method Name: T:\methods\SV9_120319.M

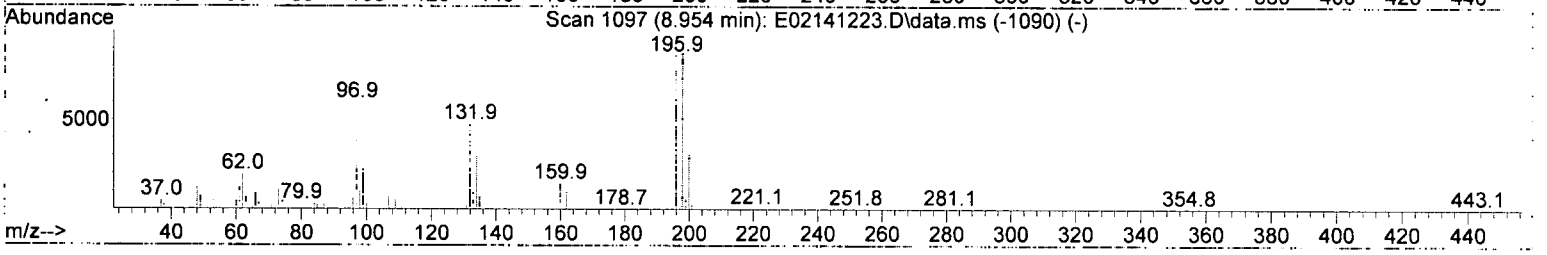
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:45:38 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







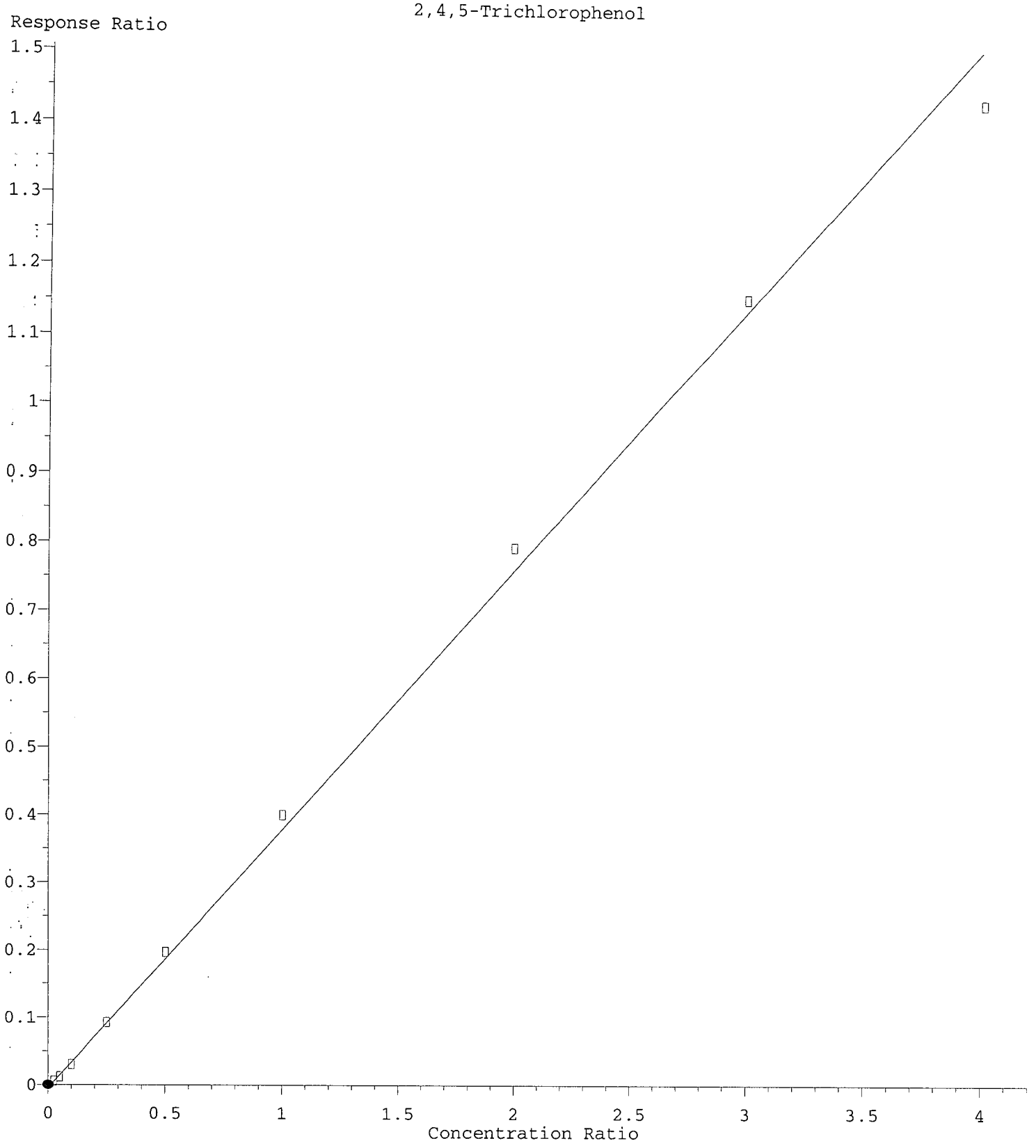
TIC: I12031912.D\data.ms

(37) 2,4,6-Trichlorophenol (T)

8.889min (+ 0.001) 29.83 ng/ml m

response 121

Ion	Exp%	Act%
195.90	100.00	100.00
197.90	98.10	108.30
199.90	32.40	24.02
0.00	0.00	0.00

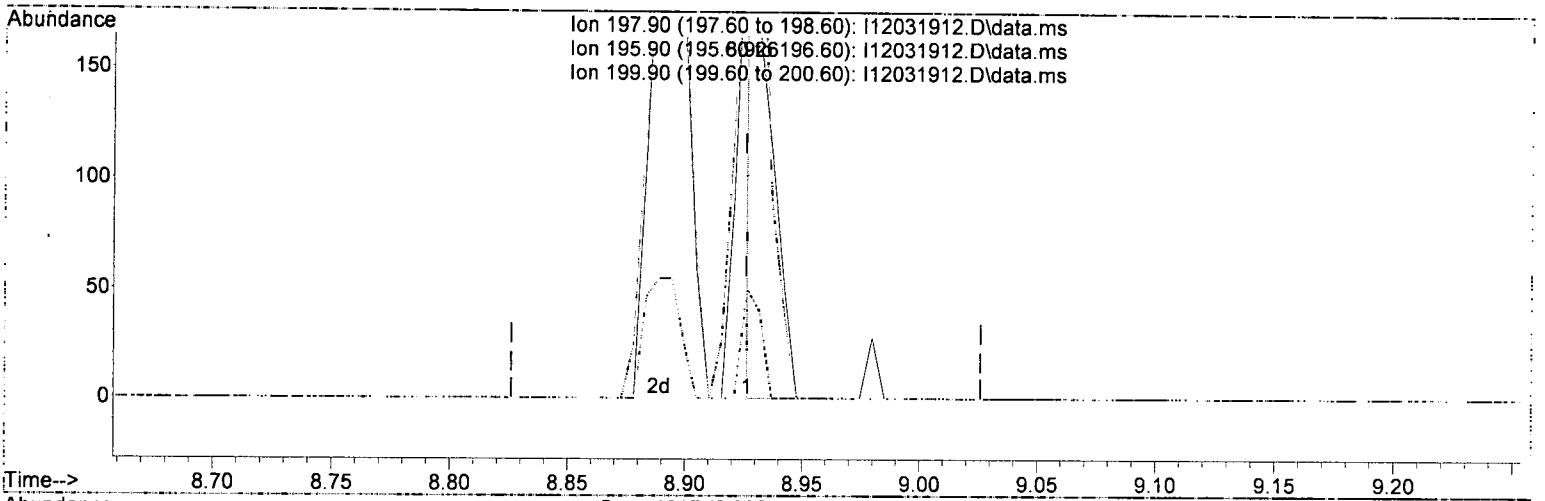


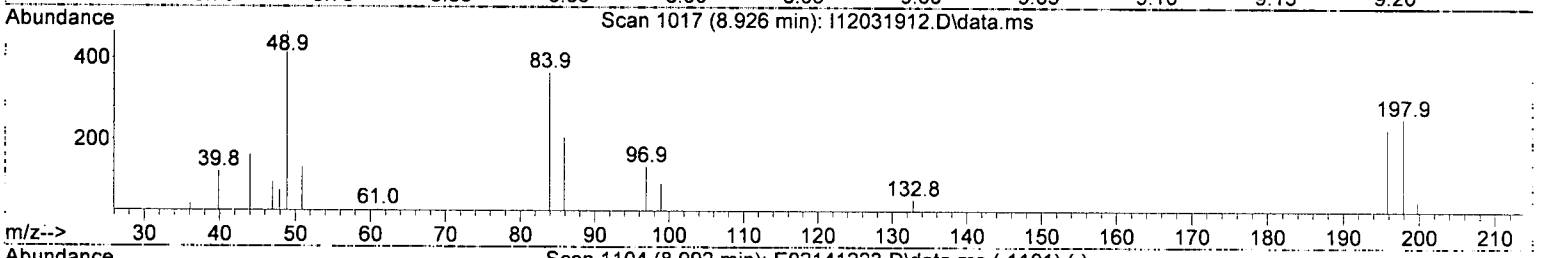
R = -9.57e-004 A*A + 3.84e-001 A - 4.90e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic 1/(1/x^2)
Method Name: T:\methods\SV9_120319.M
Calibration Table Last Updated: Thu Dec 05 10:37:26 2019

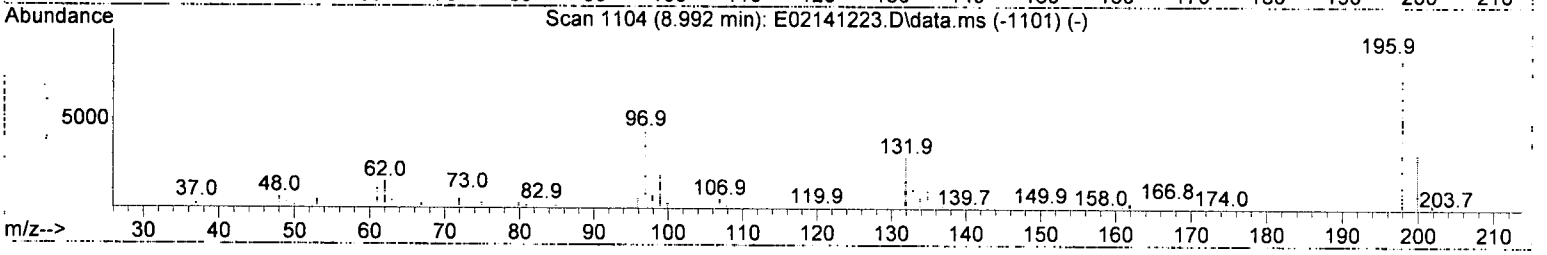
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:45:38 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







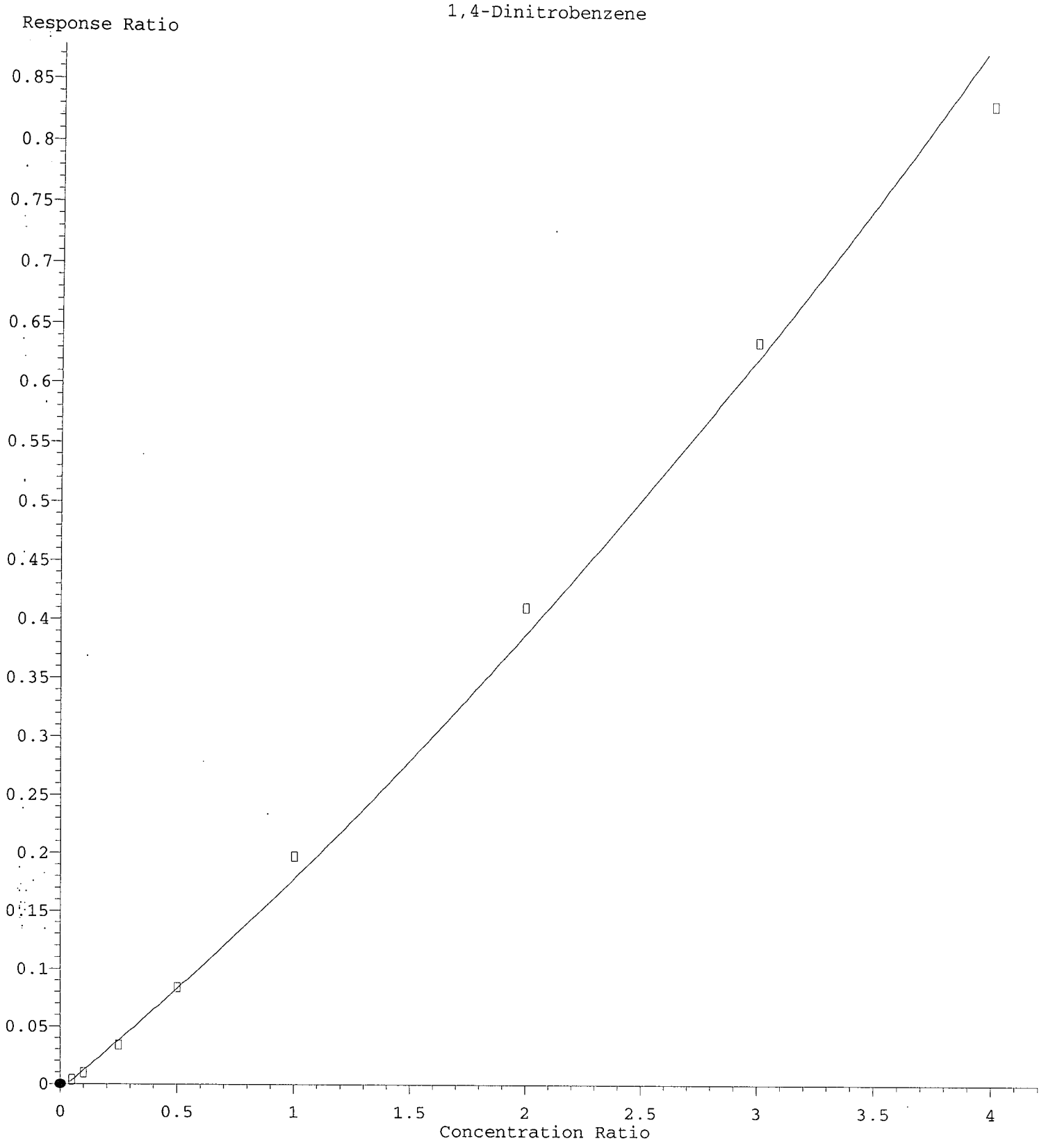
TIC: I12031912.D\data.ms

(38) 2,4,5-Trichlorophenol (T)

8.926min (+ 0.000) 28.82 ng/ml m

response 106

Ion	Exp%	Act%
197.90	100.00	100.00
195.90	103.70	89.76
199.90	30.90	19.69
0.00	0.00	0.00

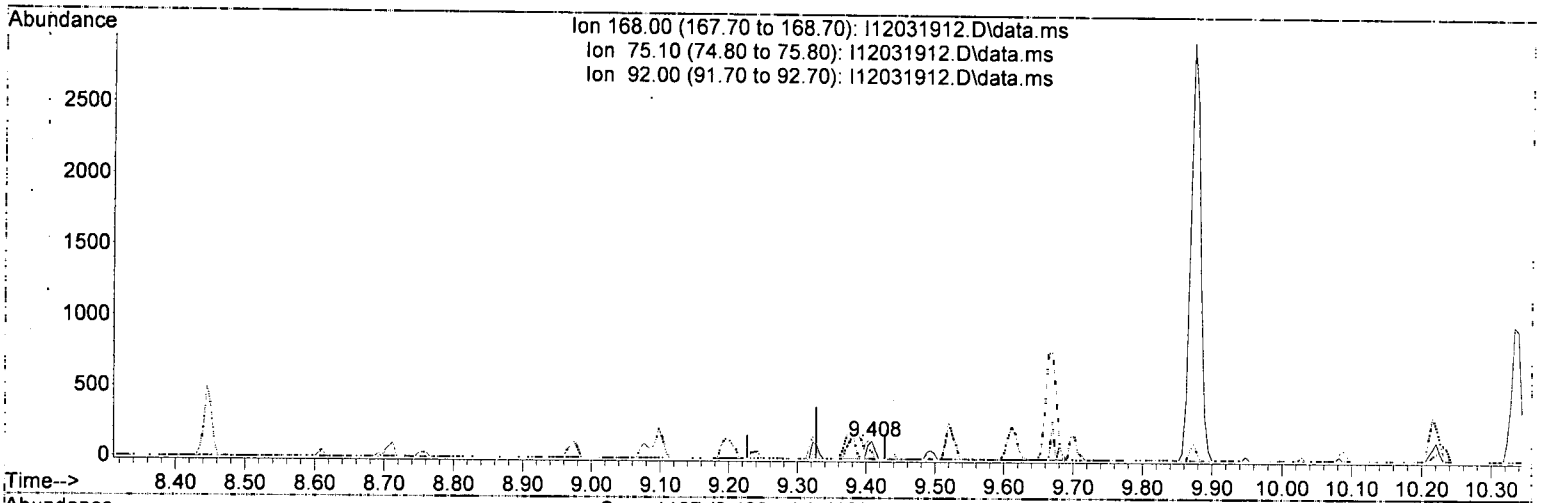


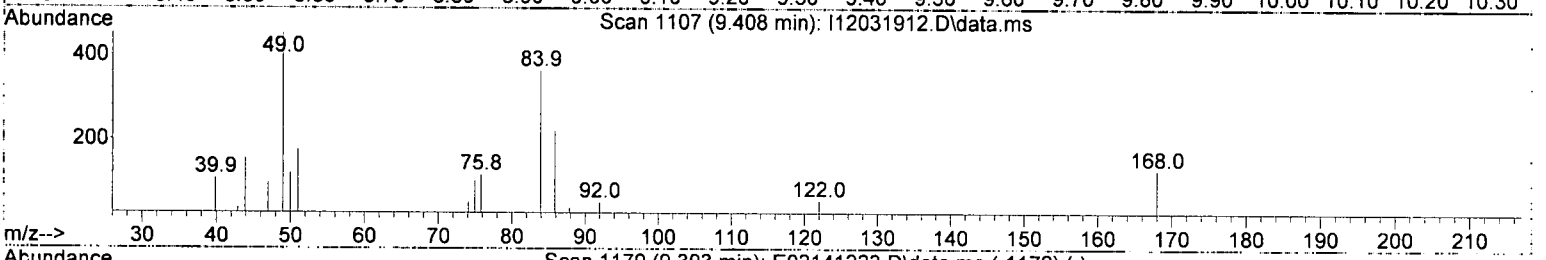
R = 1.33e-002 A*A + 1.70e-001 A - 5.47e-003
Coef of Det (r^2) = 0.993 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_120319.M
Calibration Table Last Updated: Thu Dec 05 10:37:26 2019

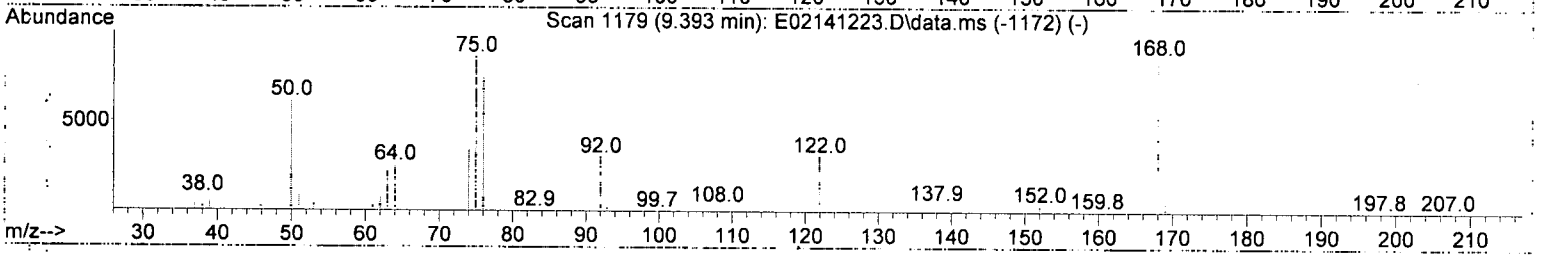
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:45:38 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







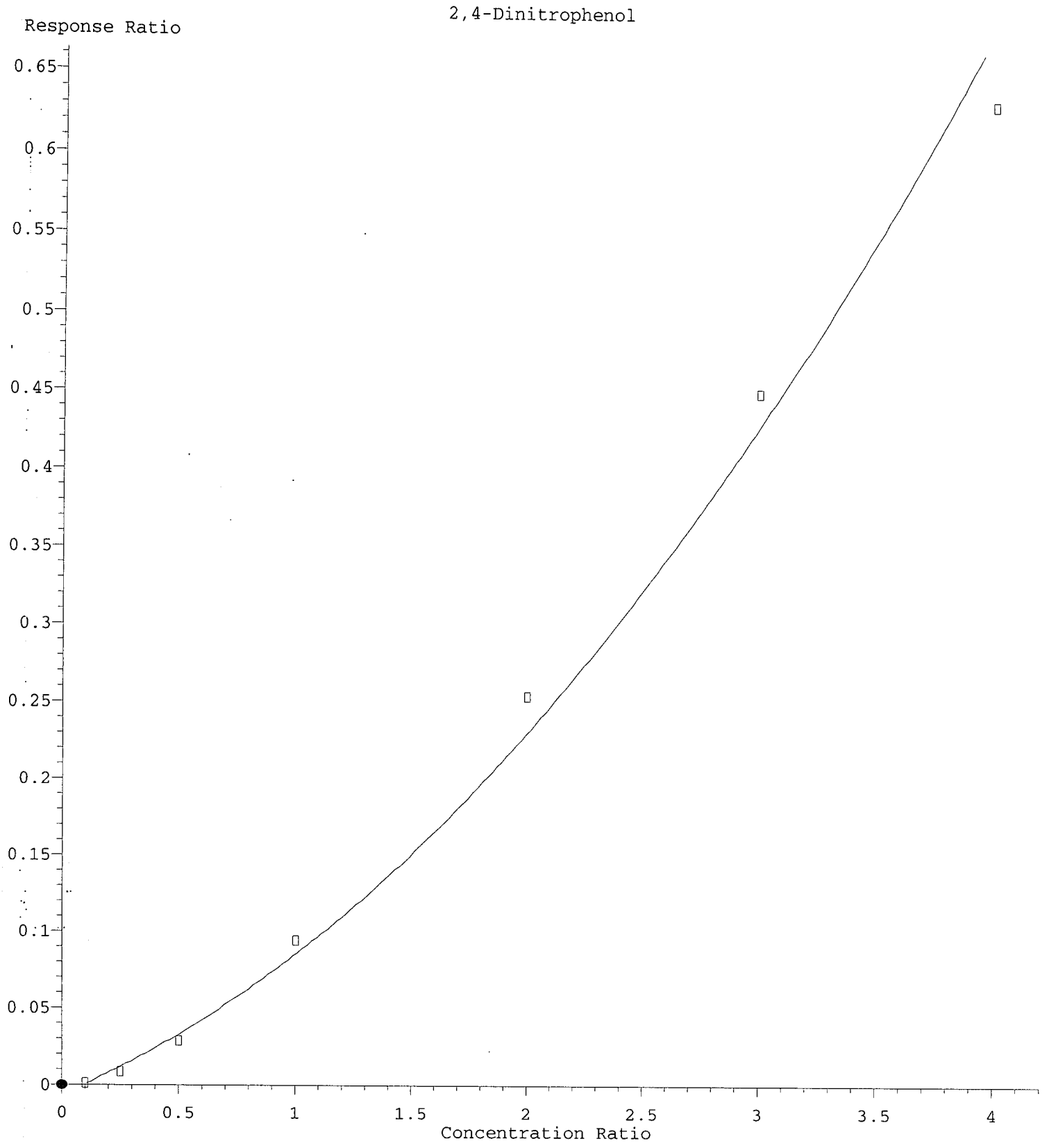
TIC: I12031912.D\data.ms

(44) 1,4-Dinitrobenzene (T)

9.408min (+ 0.081) 75.95 ng/ml m √

response 169

Ion	Exp%	Act%
168.00	100.00	100.00
75.10	130.80	91.34#
92.00	42.80	40.16
0.00	0.00	0.00

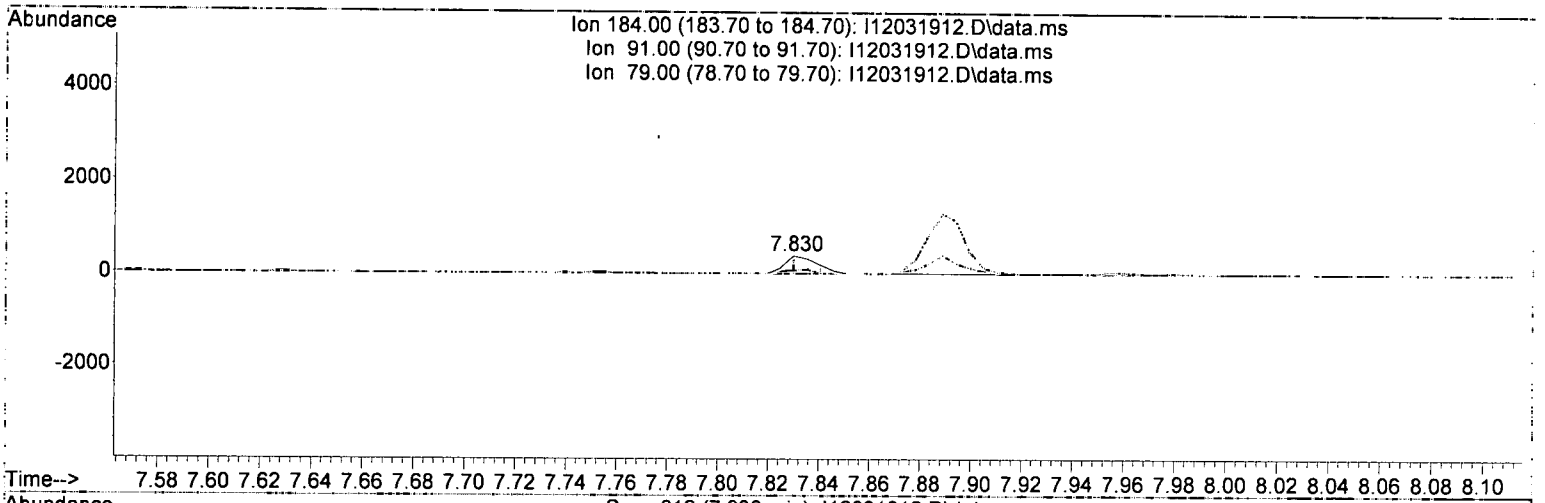


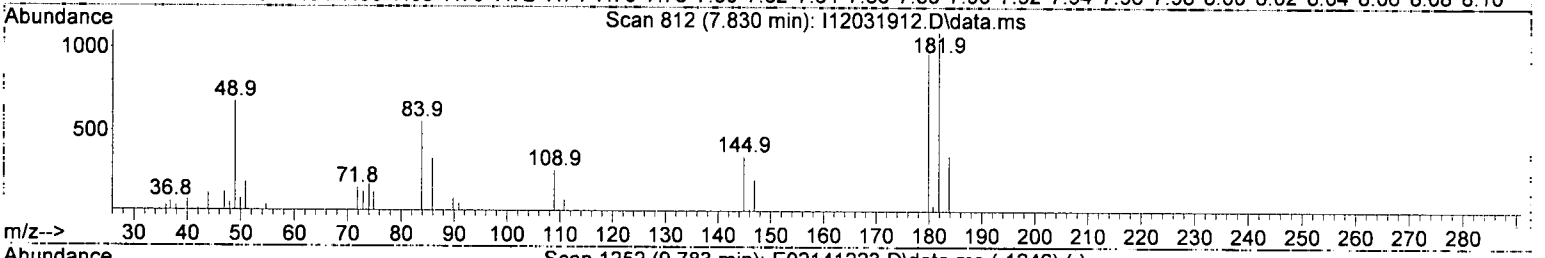
R = 2.66e-002 A*A + 6.46e-002 A - 6.08e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_120319.M
Calibration Table Last Updated: Thu Dec 05 10:37:26 2019

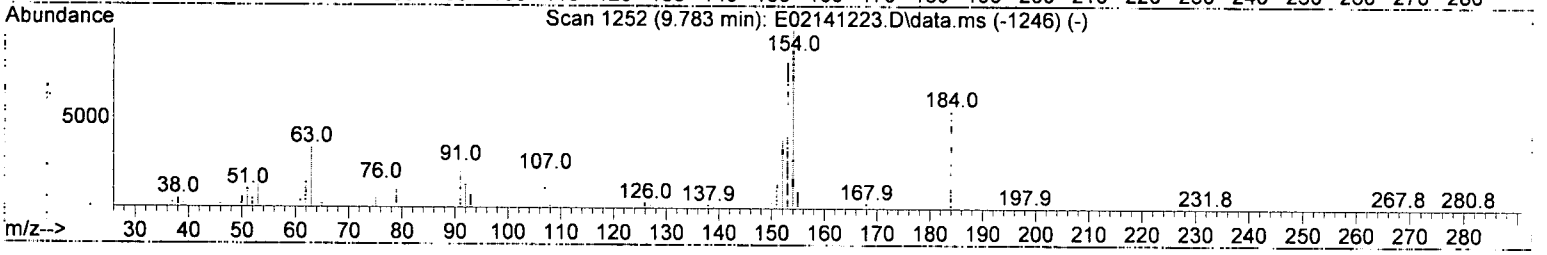
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:45:38 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







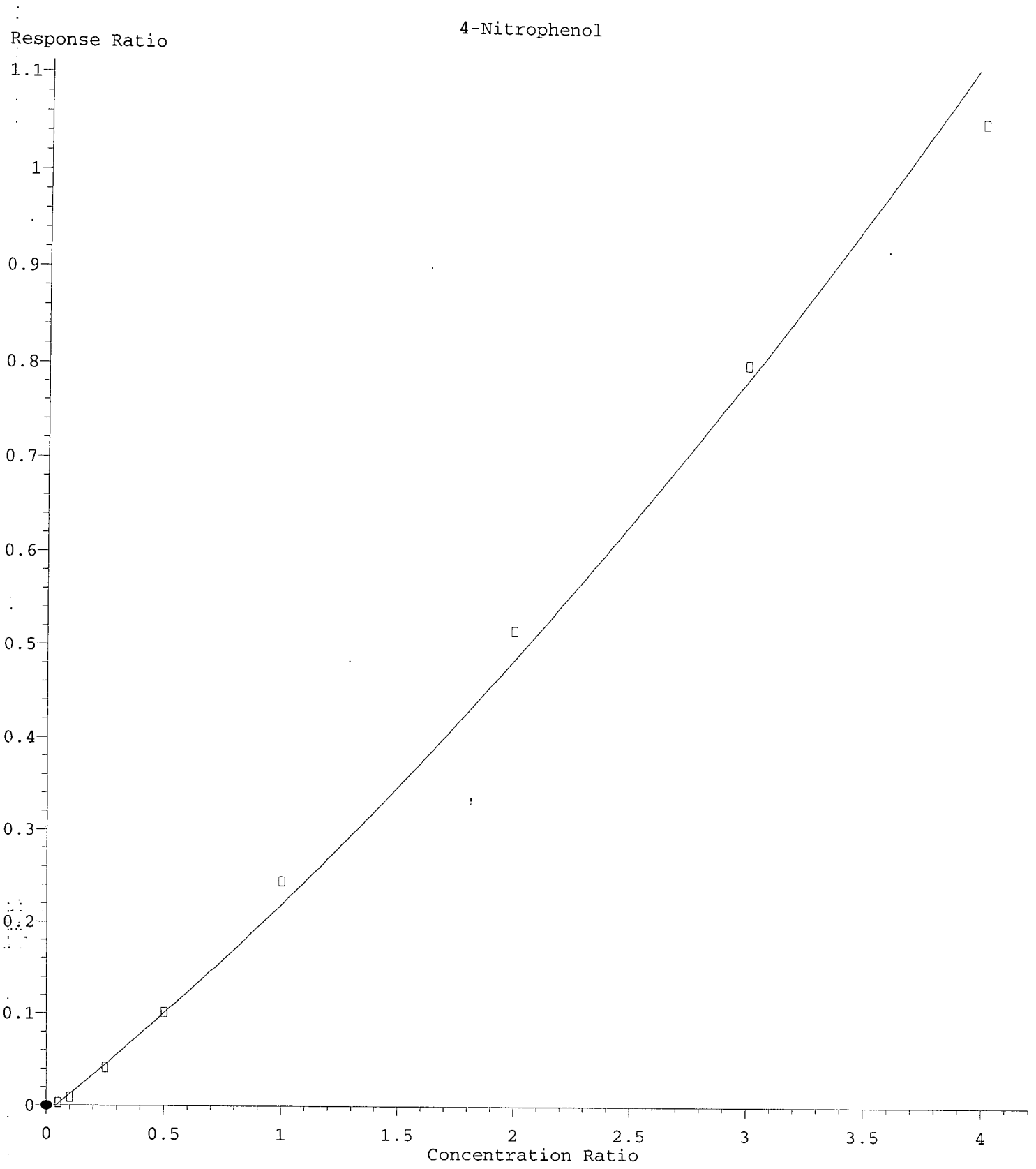
TIC: I12031912.D\data.ms

(52) 2,4-Dinitrophenol (T)

7.830min (-1.888) 207.68 ng/ml m

response 155

Ion	Exp%	Act%
184.00	100.00	100.00
91.00	48.80	18.99
79.00	36.60	0.00#
0.00	0.00	0.00

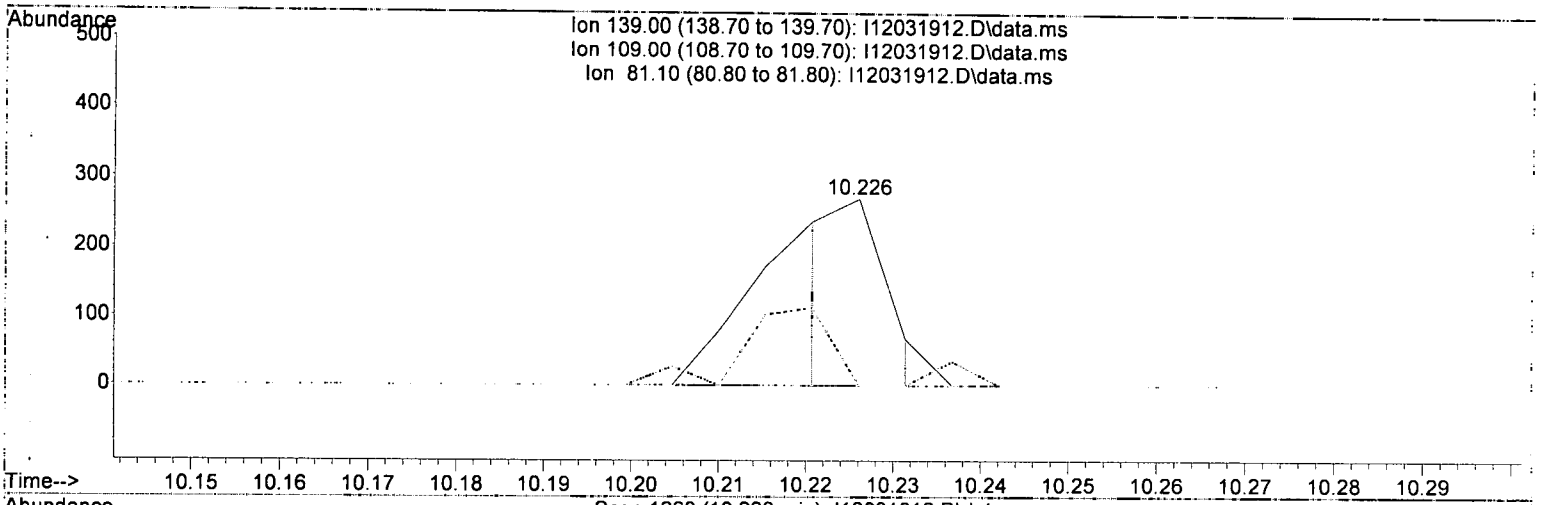


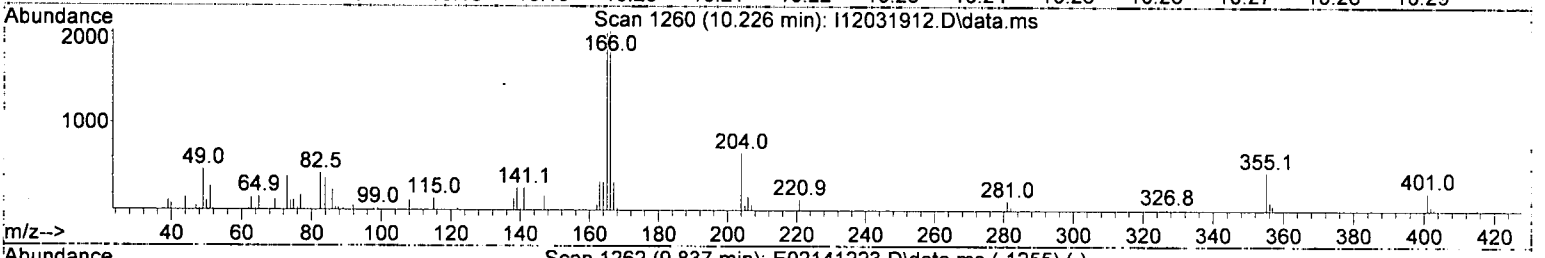
R = 1.86e-002 A*A + 2.09e-001 A - 8.48e-003
Coef of Det (r^2) = 0.991 Curve Fit - Quadratic (1/a^2)
Method Name: T:\methods\SV9_120319.M

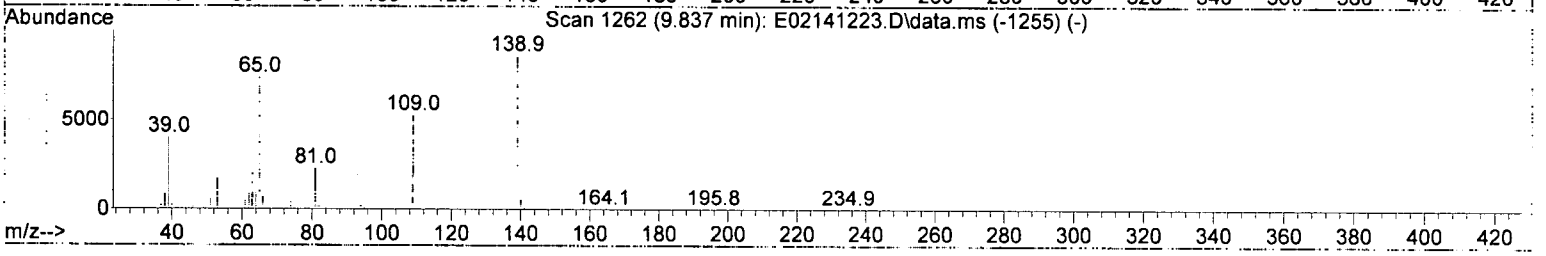
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:45:38 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







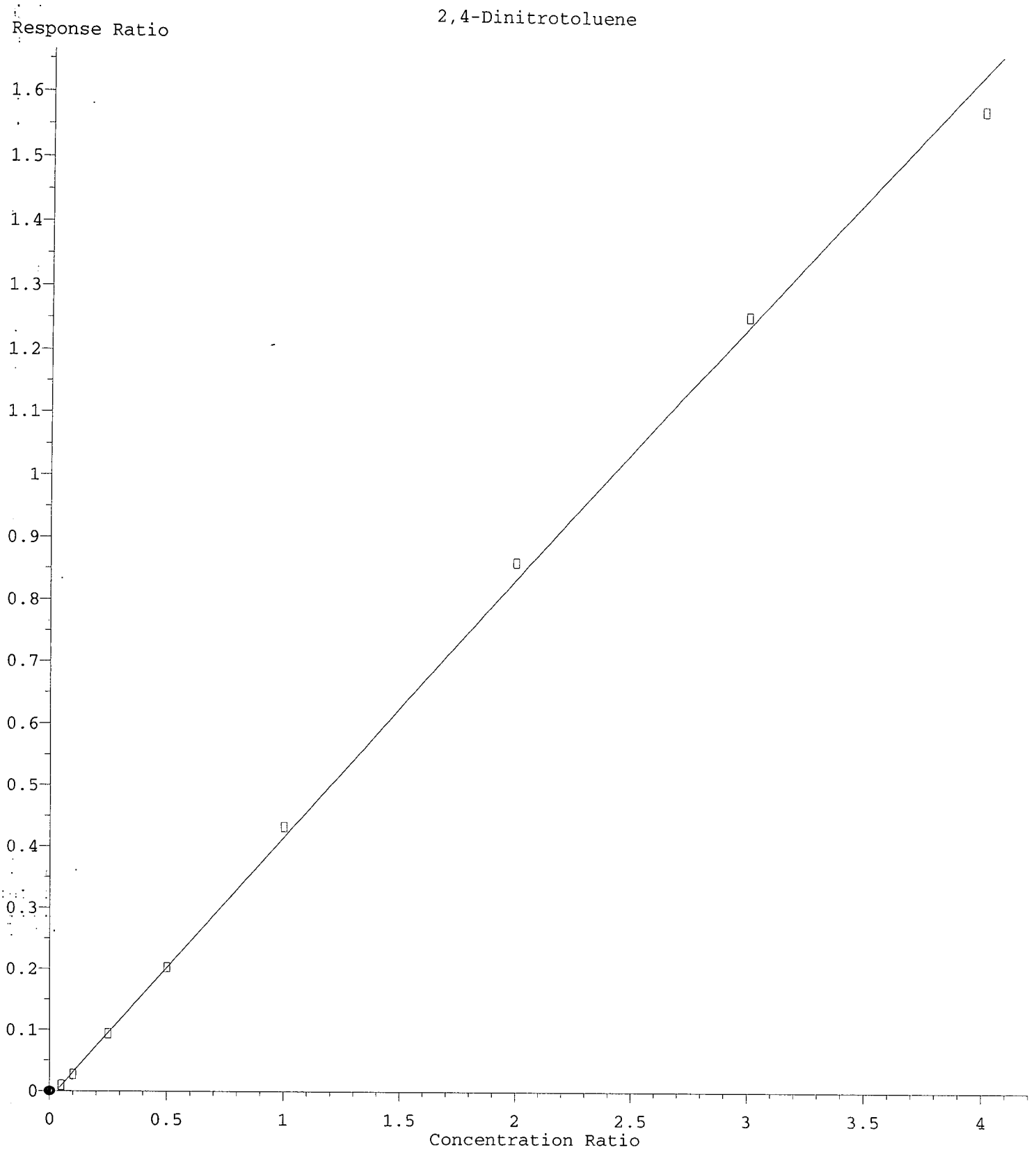
TIC: I12031912.D\data.ms

(53) 4-Nitrophenol (T)

10.226min (+ 0.455) 86.86 ng/ml m

response 108

Ion	Exp%	Act%
139.00	100.00	100.00
109.00	61.50	0.00#
81.10	31.00	0.00#
0.00	0.00	0.00

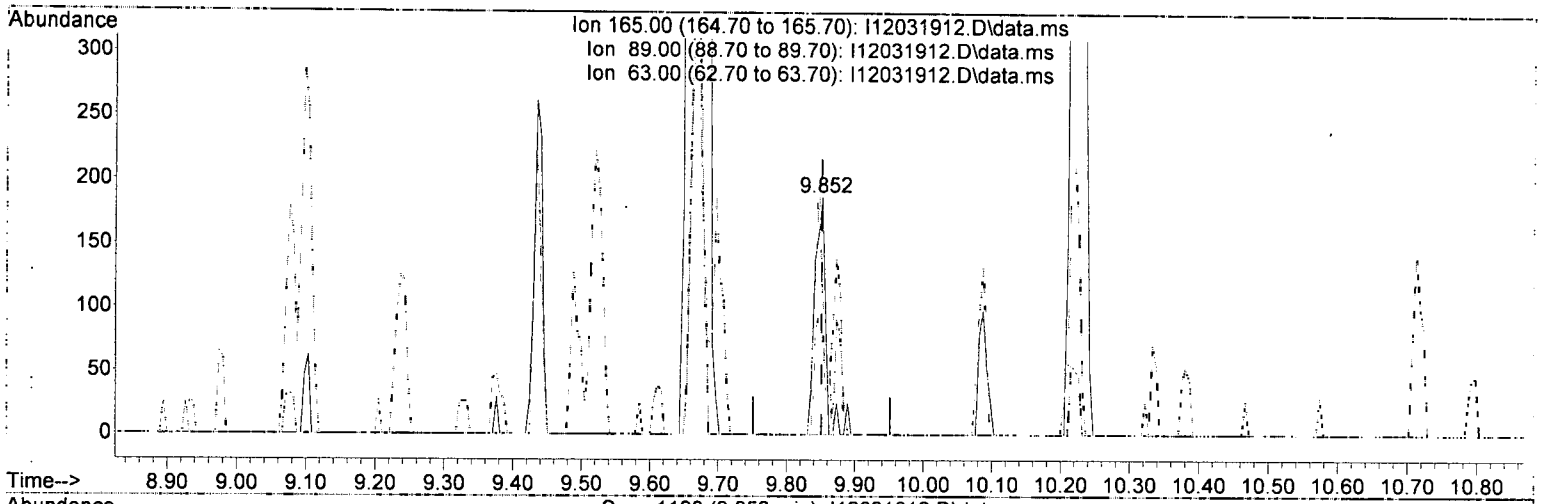


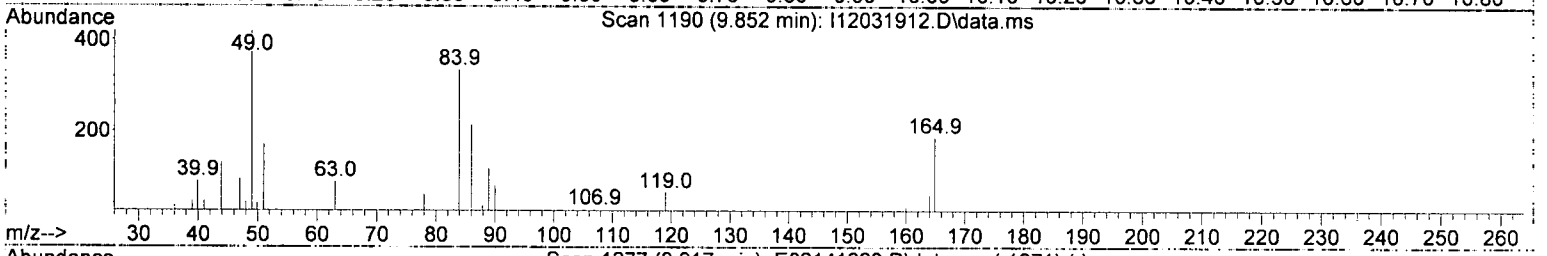
R = -4.92e-003 A*A + 4.33e-001 A - 1.29e-002
Coef of Det (r^2) = 0.998 Curve fit: Quadratic 1/x^2
Method Name: T:\methods\SV9_120319.M

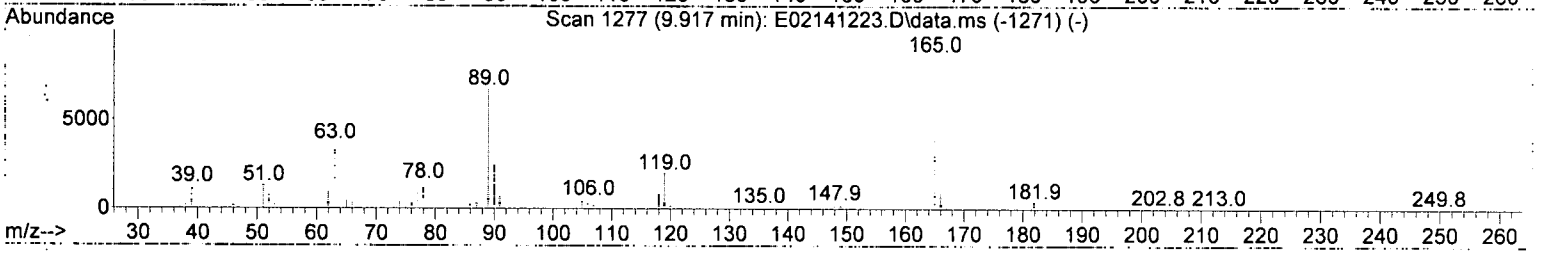
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:45:38 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







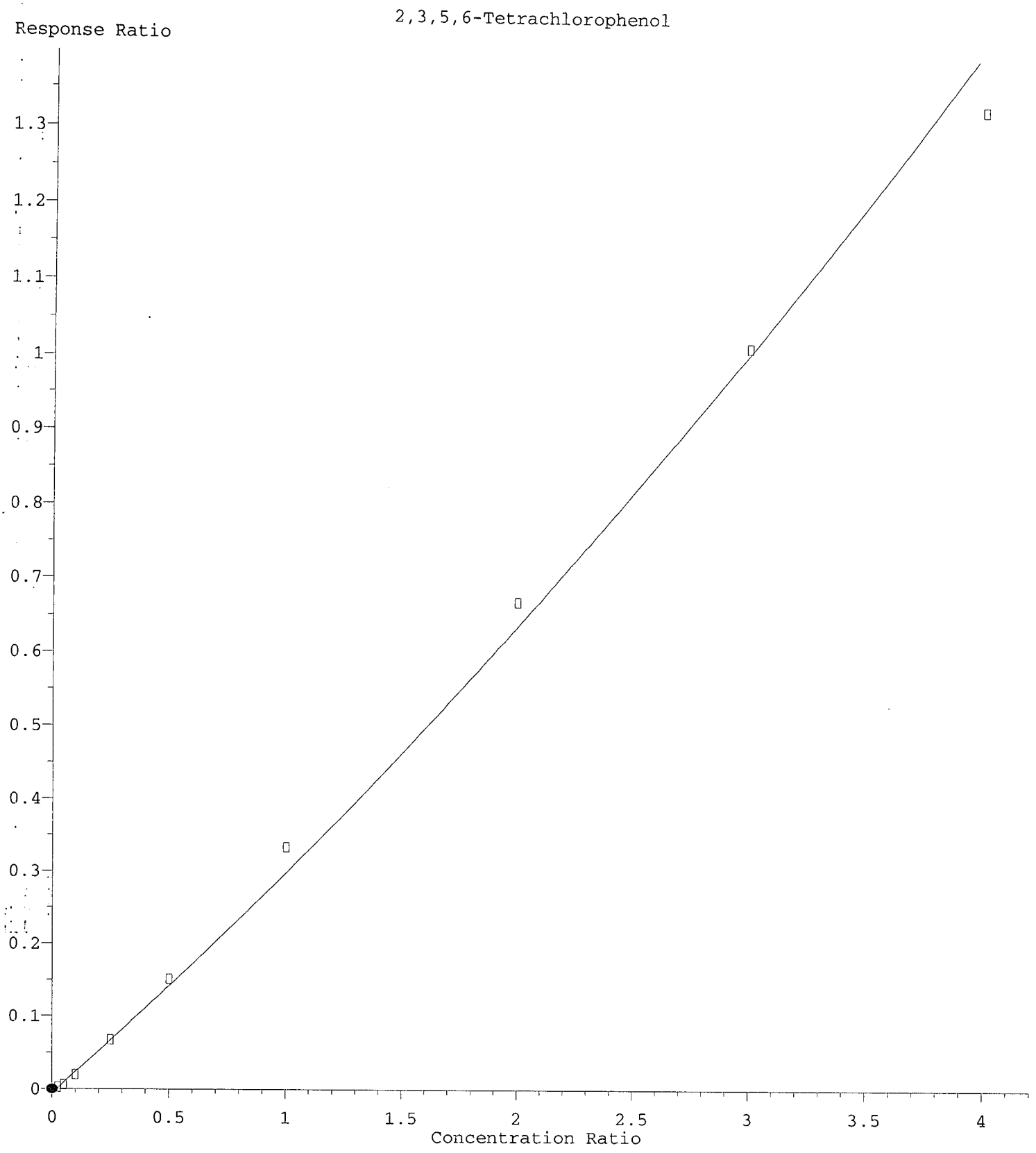
TIC: I12031912.D\data.ms

(54) 2,4-Dinitrotoluene (T)

9.852min (+ 0.001) 64.73 ng/ml ✓

response 193

Ion	Exp%	Act%
165.00	100.00	100.00
89.00	72.30	63.10
63.00	45.90	47.06
0.00	0.00	0.00

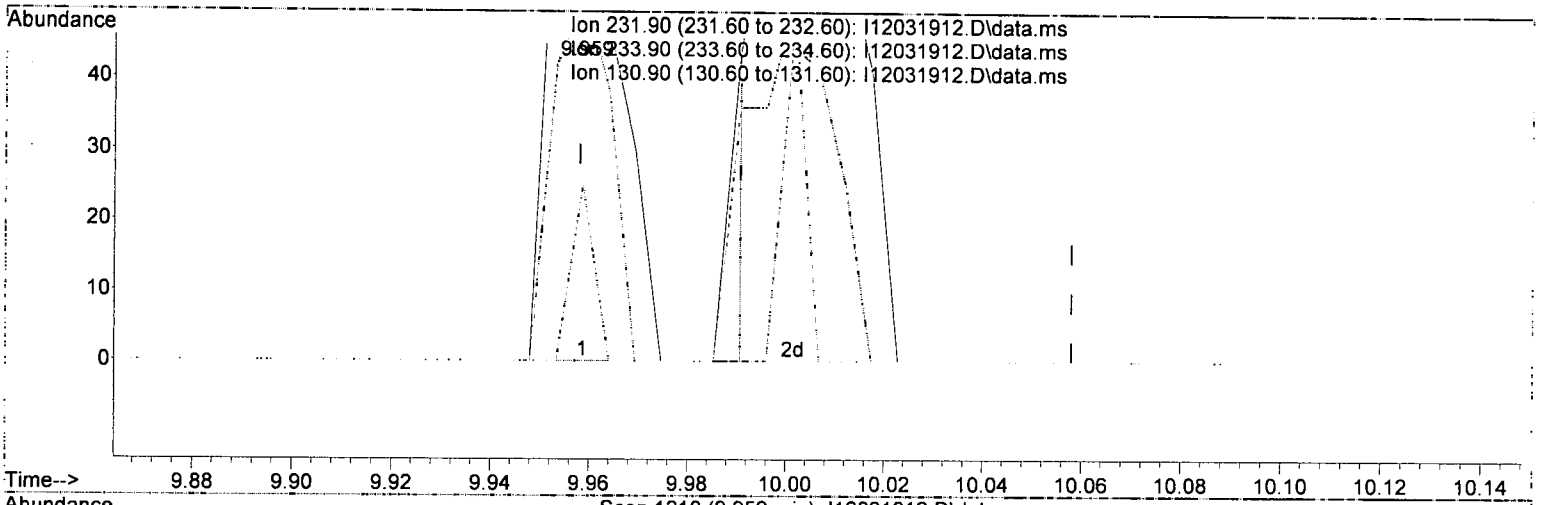


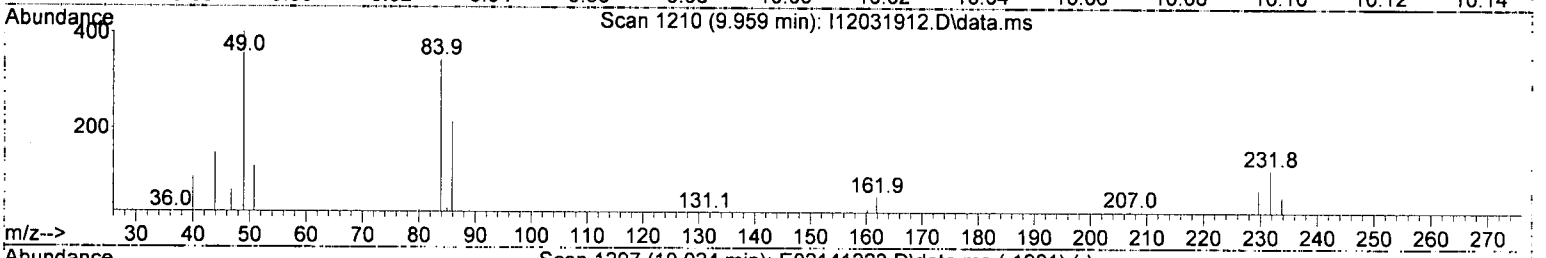
R = 1.69e-002 A*A + 2.87e-001 A - 5.61e-003
Coef of Det (r^2) = 0.988 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_120319.M
Calibration Table Last Updated: Thu Dec 05 10:37:26 2019

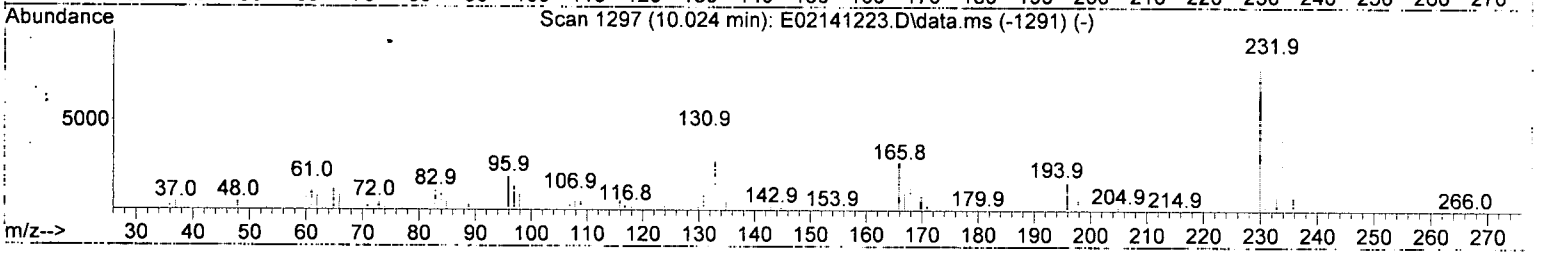
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:53:59 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







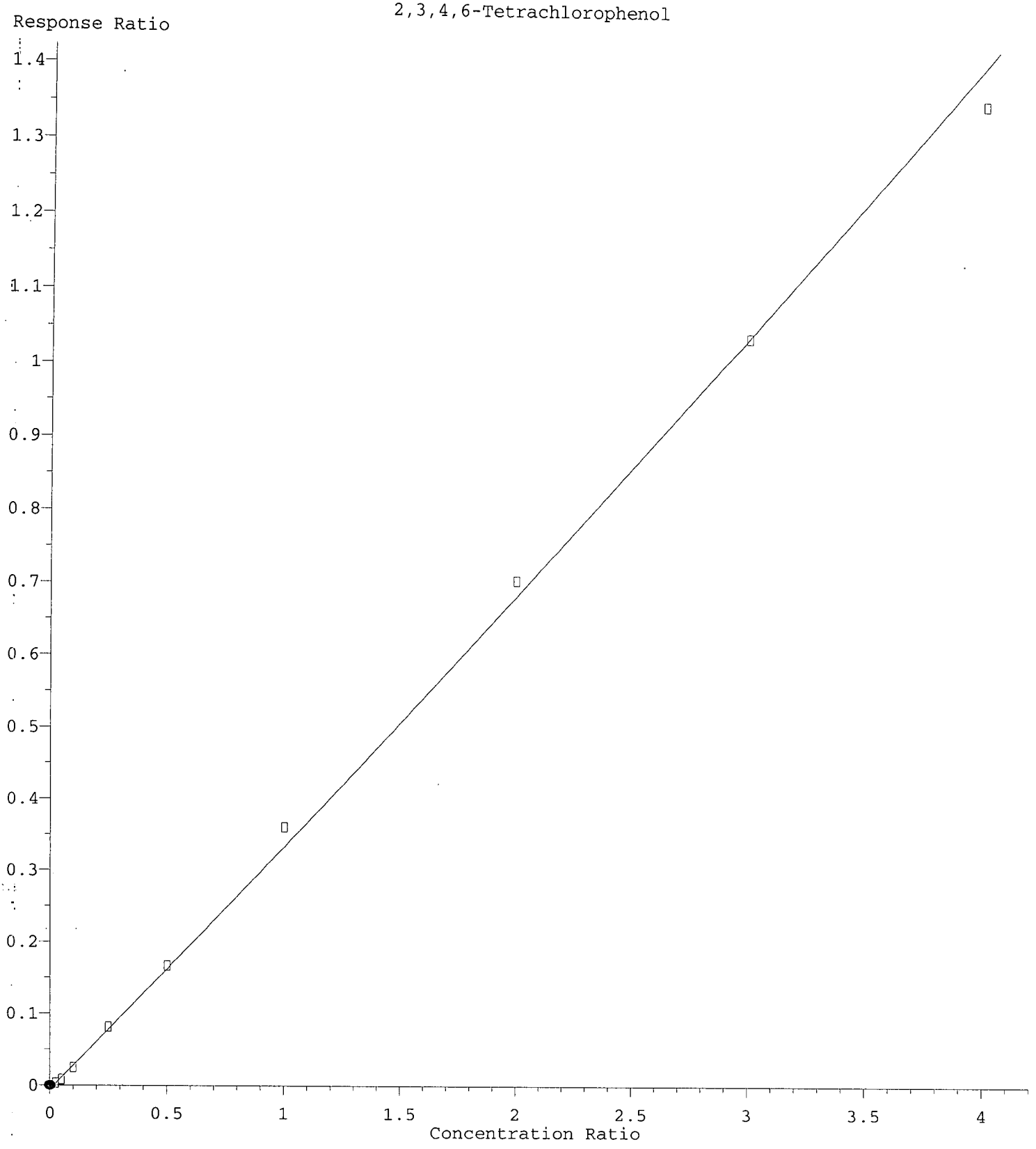
TIC: I12031912.D\data.ms

(56) 2,3,5,6-Tetrachlorophenol (T)

9.959min (+ 0.001) 43.46 ng/ml m

response 104

Ion	Exp%	Act%
231.90	100.00	100.00
233.90	49.20	49.57
130.90	41.10	21.74
0.00	0.00	0.00

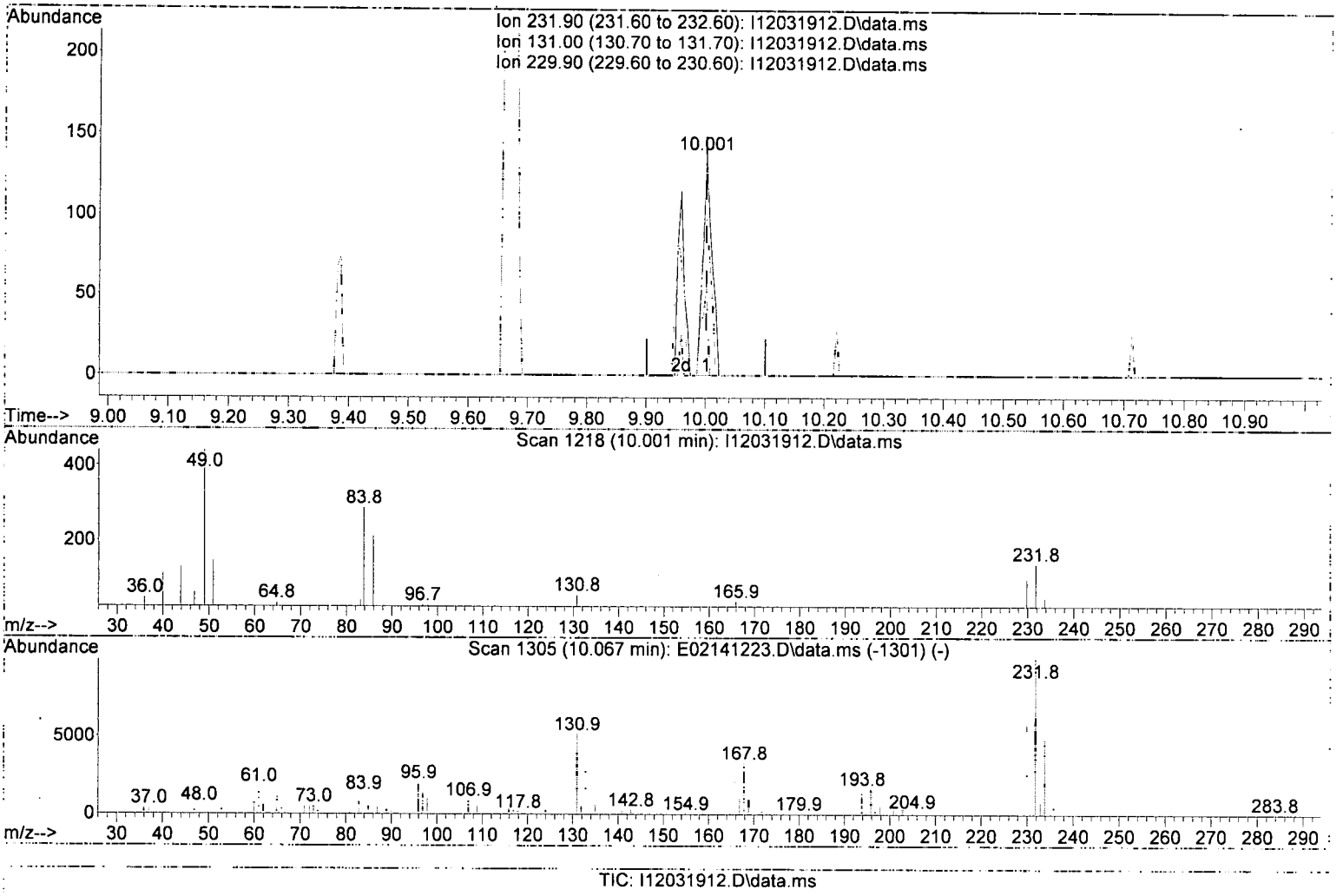


R = 4.91e-003 A*A + 3.34e-001 A - 6.05e-003
Coef of Det (r^2) = 0.993 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_120319.M
Calibration Table Last Updated: Thu Dec 05 10:37:26 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:53:59 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



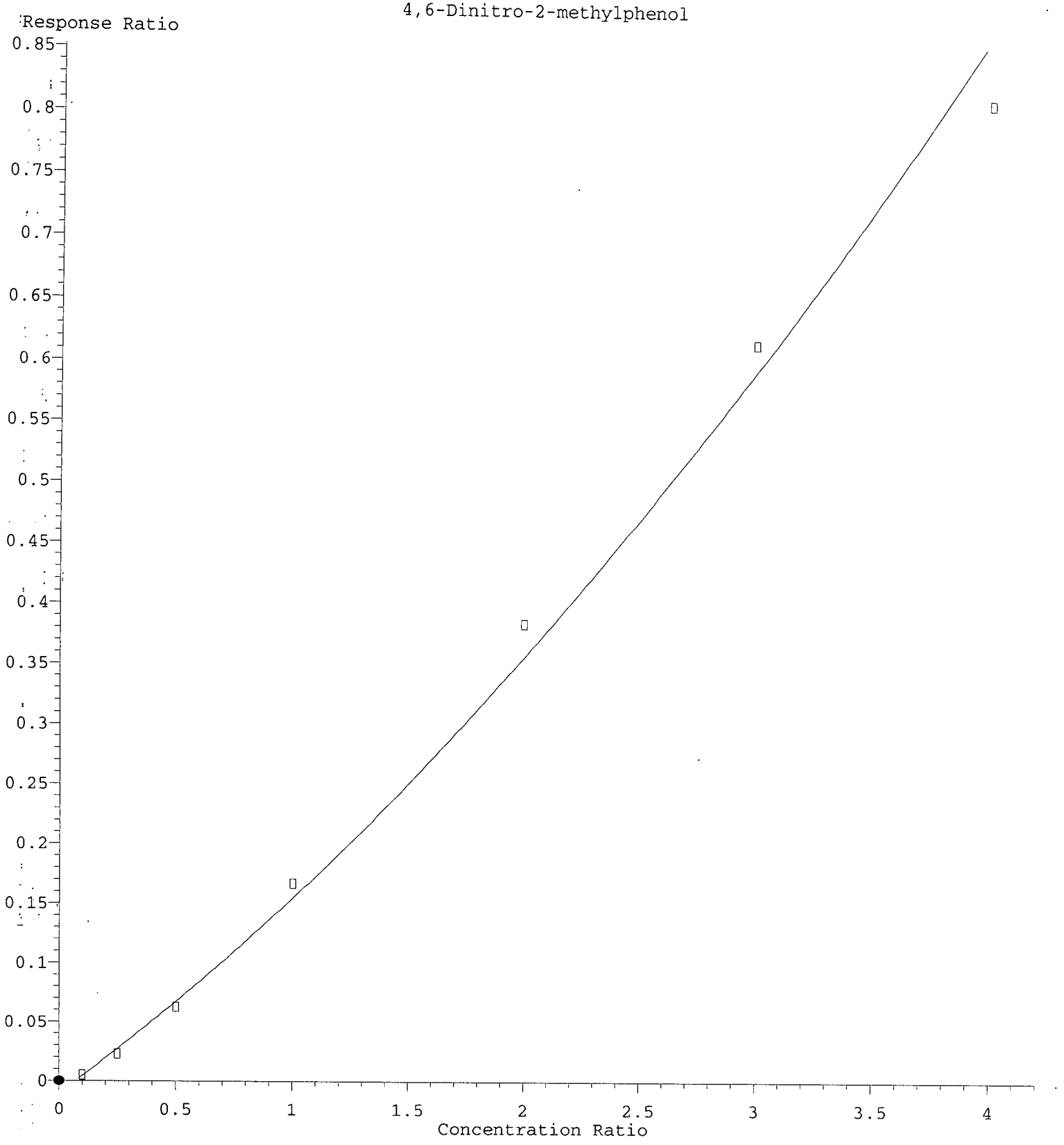
TIC: I12031912.D\data.ms

(57) 2,3,4,6-Tetrachlorophenol (T)

10.001min (+ 0.000) 41.53 ng/ml √

response 148

Ion	Exp%	Act%
231.90	100.00	100.00
131.00	47.70	39.86
229.90	78.50	70.29
0.00	0.00	0.00

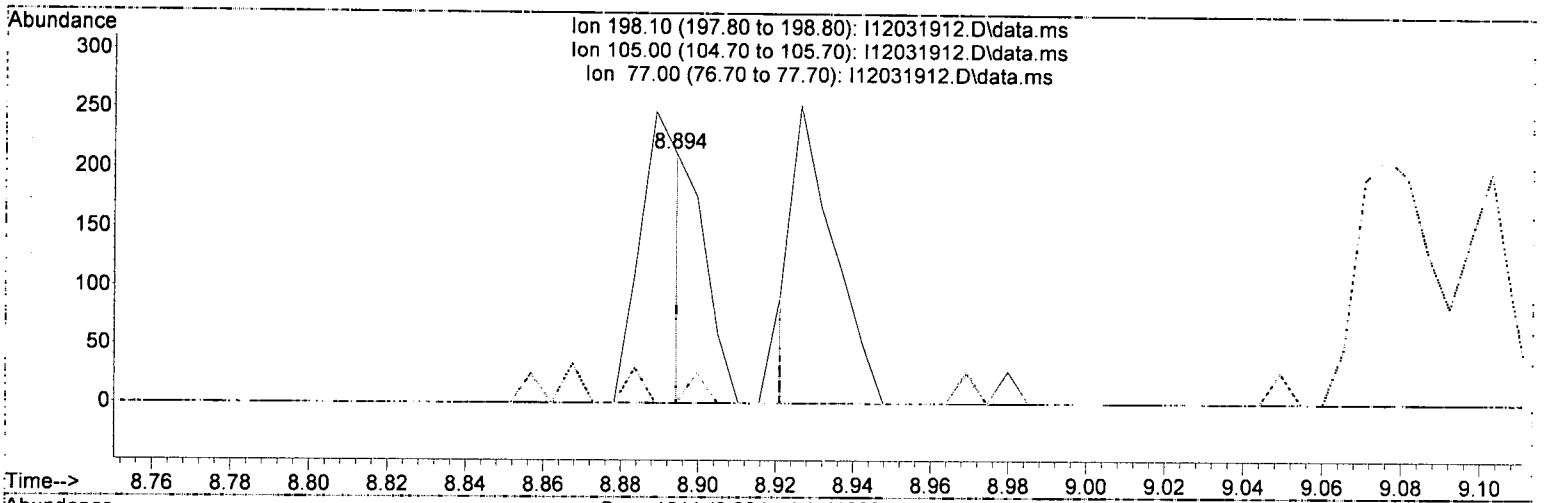


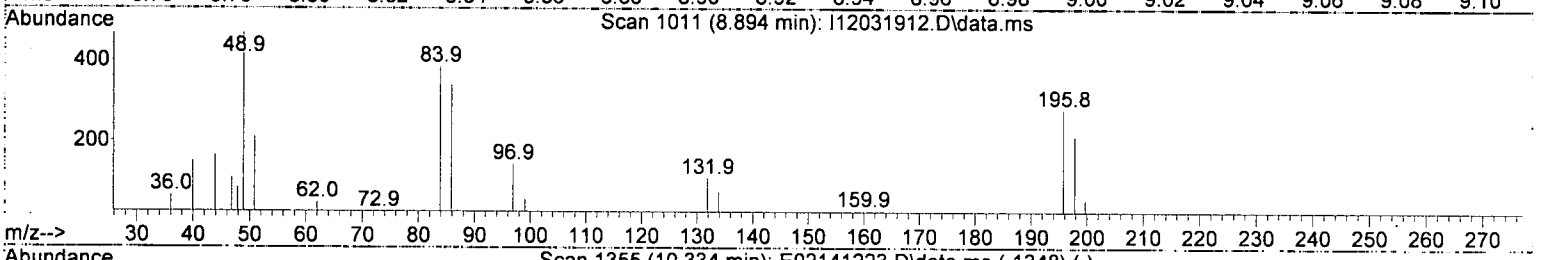
R = 1.80e-002 A*A + 1.47e-001 A - 1.08e-002
Coef of Det (r^2) = 0.993 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_120319.M
Calibration Table Last Updated: Thu Dec 05 10:37:26 2019

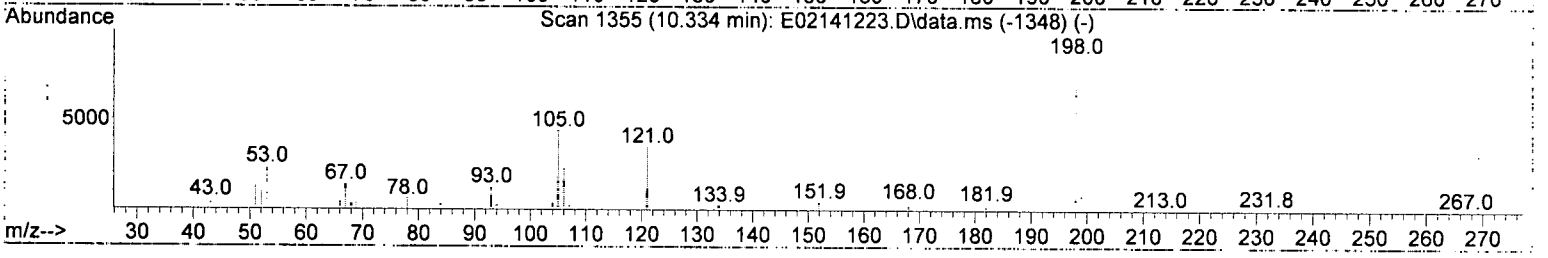
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:53:59 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I12031912.D\data.ms

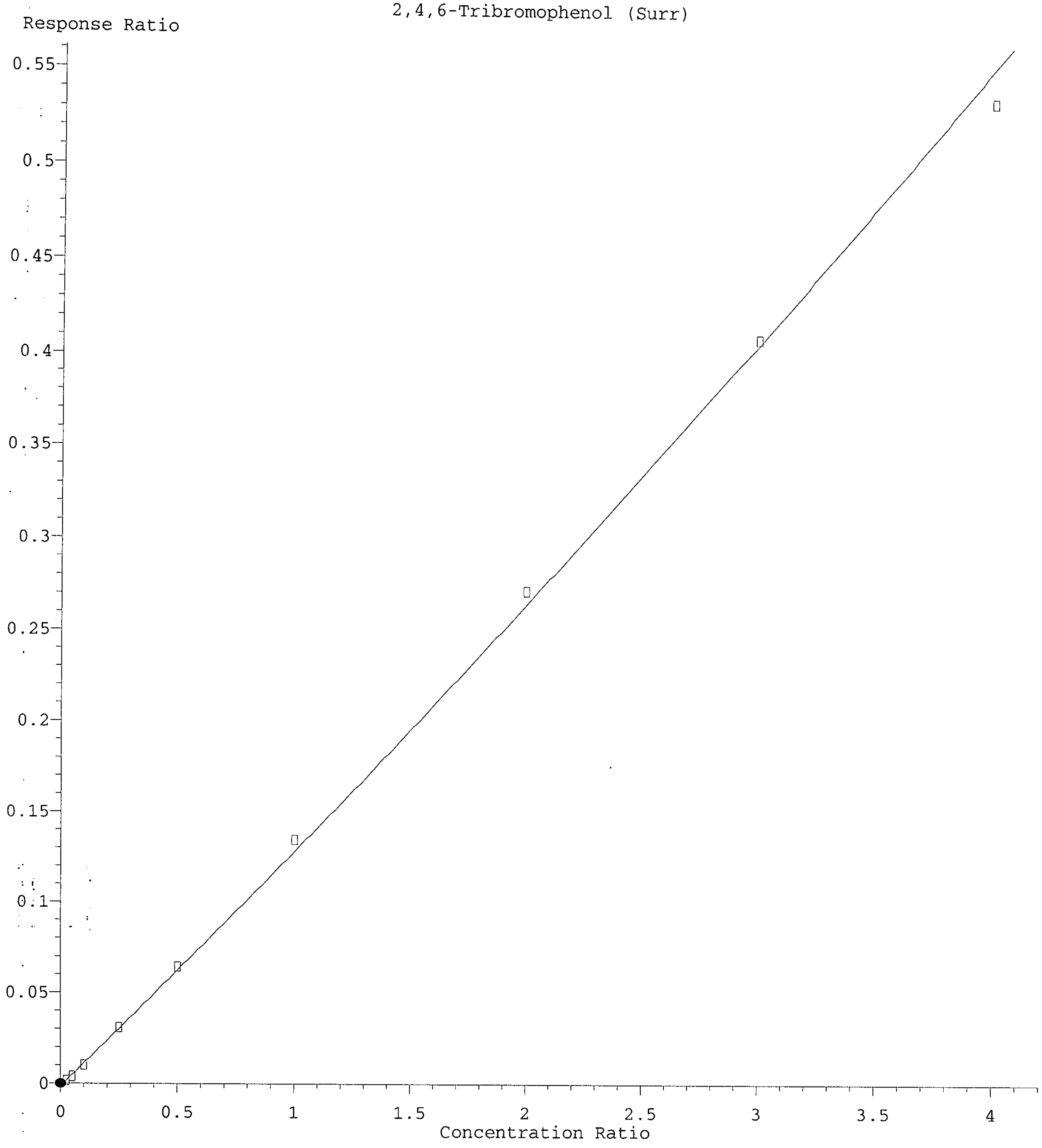
(63) 4,6-Dinitro-2-methylphenol (T)

8.894min (-1.369) 153.42 ng/ml m

response 105

Ion	Exp%	Act%
198.10	100.00	100.00
105.00	46.50	0.00#
77.00	25.30	0.00
0.00	0.00	0.00

2,4,6-Tribromophenol (Surr)

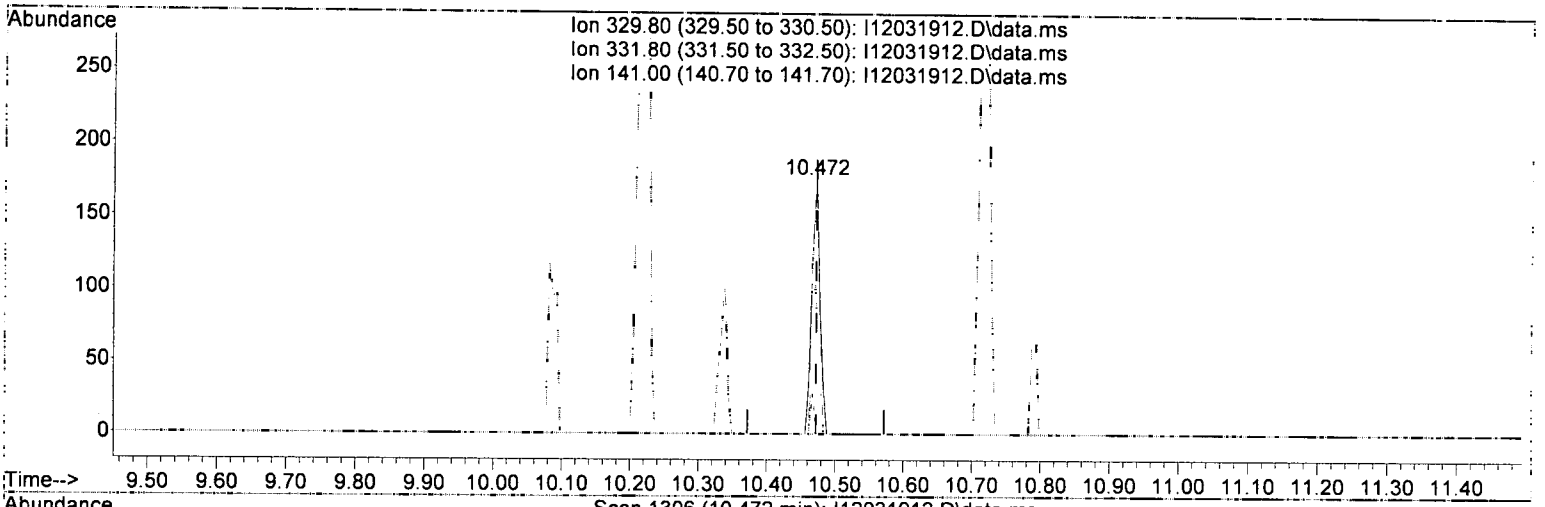


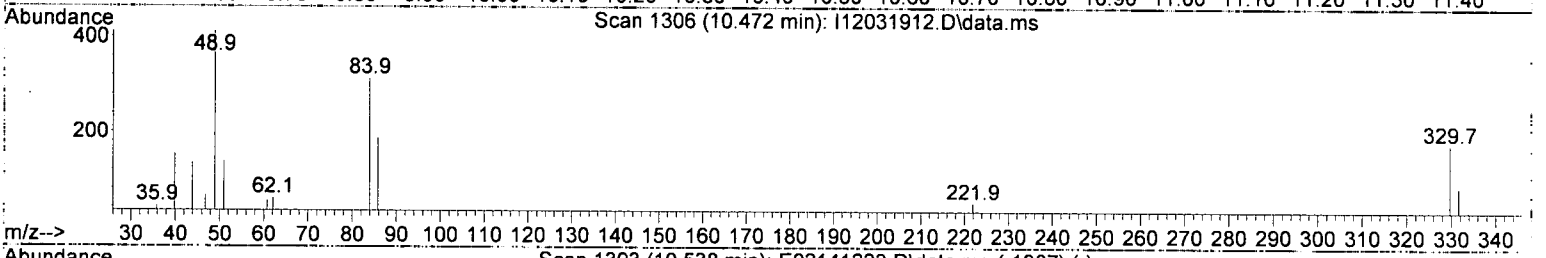
R = 3.03e-003 A*A + 1.27e-001 A - 1.82e-003
Coef of Det (r^2) = 0.996 Curve Fit: Qua[illegible]^2)
Method Name: T:\methods\SV9_120319.M

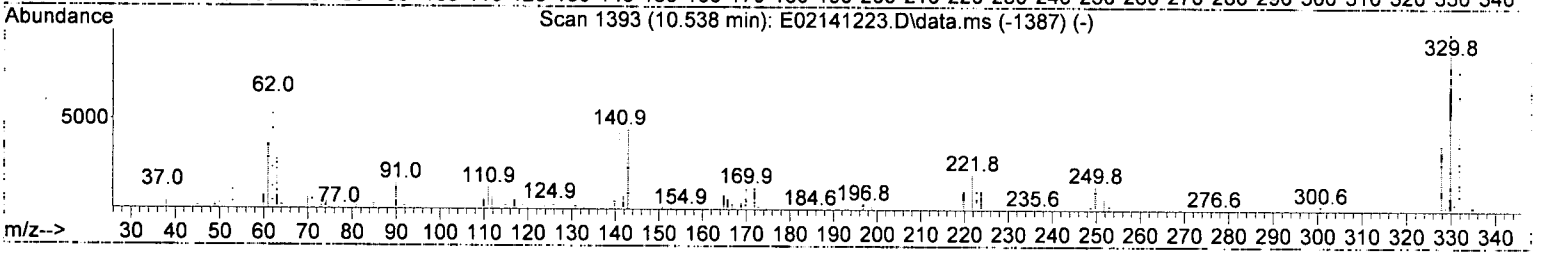
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:53:59 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I12031912.D\data.ms

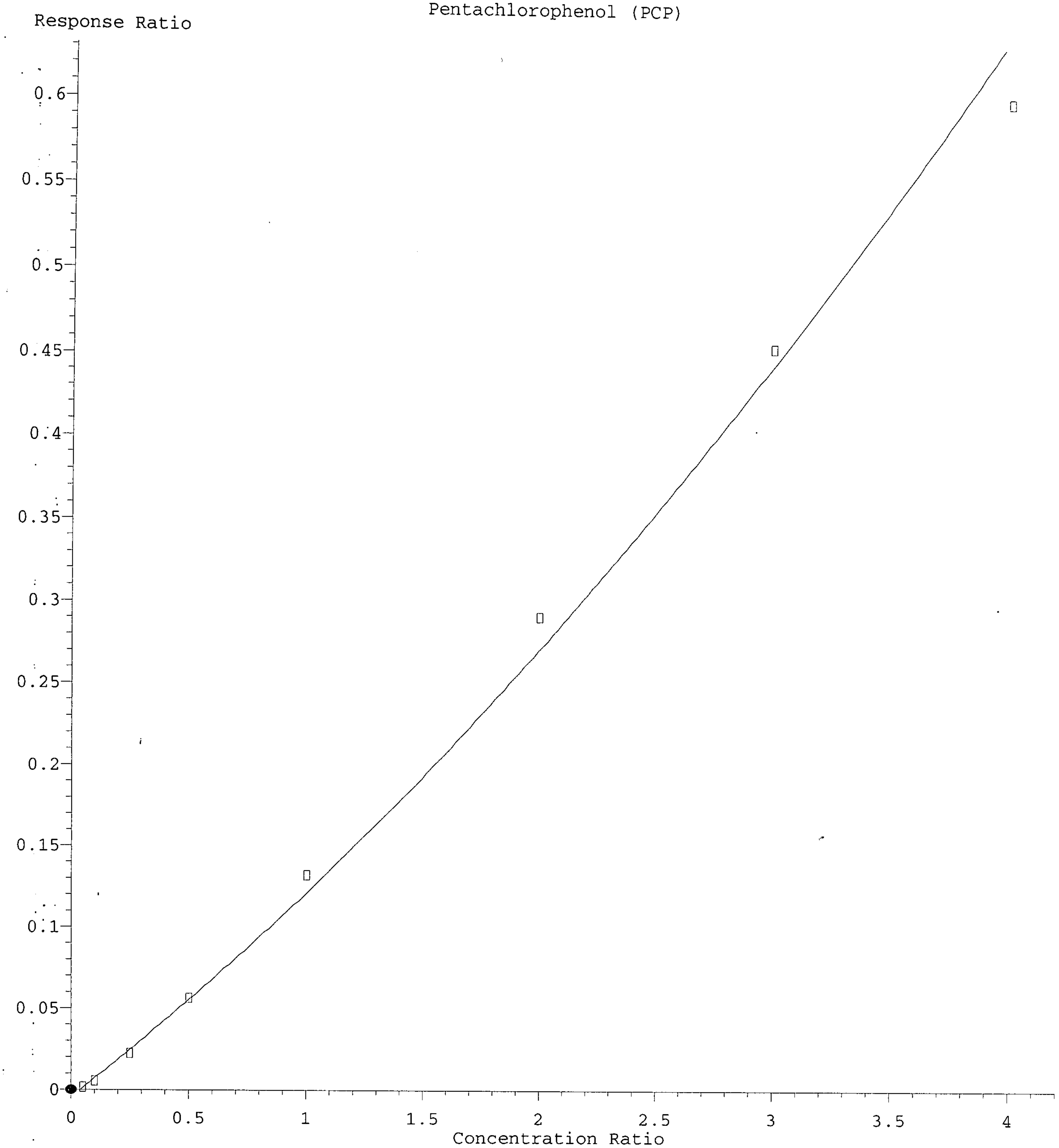
(67) 2,4,6-Tribromophenol (Surr) (S)

10.472min (+ 0.000) 36.95 ng/ml

response 146

Ion	Exp%	Act%
329.80	100.00	100.00
331.80	99.50	49.43#
141.00	32.90	0.00#
0.00	0.00	0.00

Pentachlorophenol (PCP)

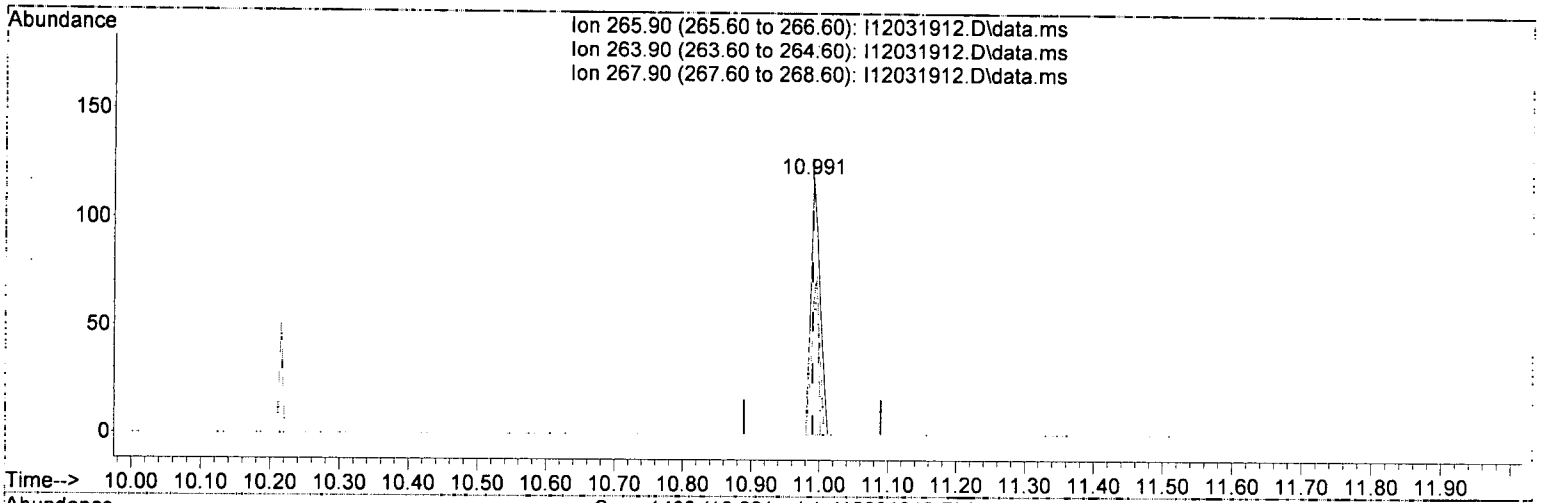


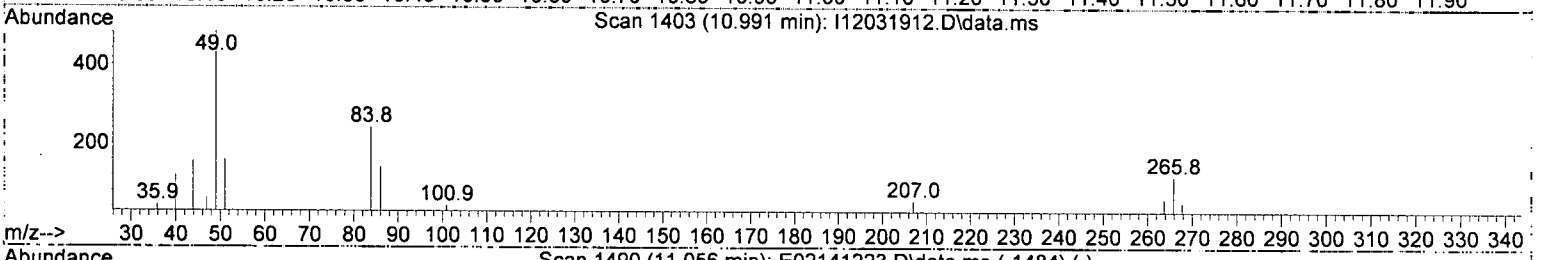
R = 1.19e-002 A*A + 1.14e-001 A - 4.56e-003
Coef of Det (r^2) = 0.992   Curve Fit: Quadratic w/(a^2)
Method Name: T:\methods\SV9_120319.M
Calibration Table Last Updated: Thu Dec 05 10:37:06 2019

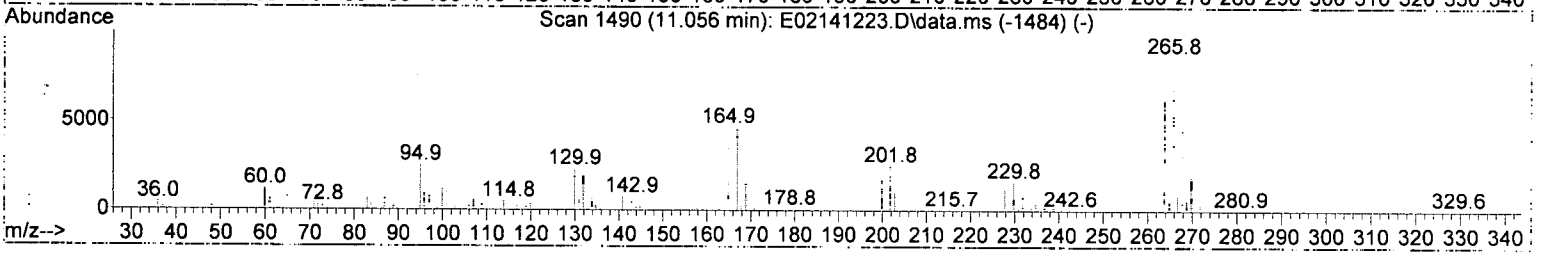
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:53:59 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







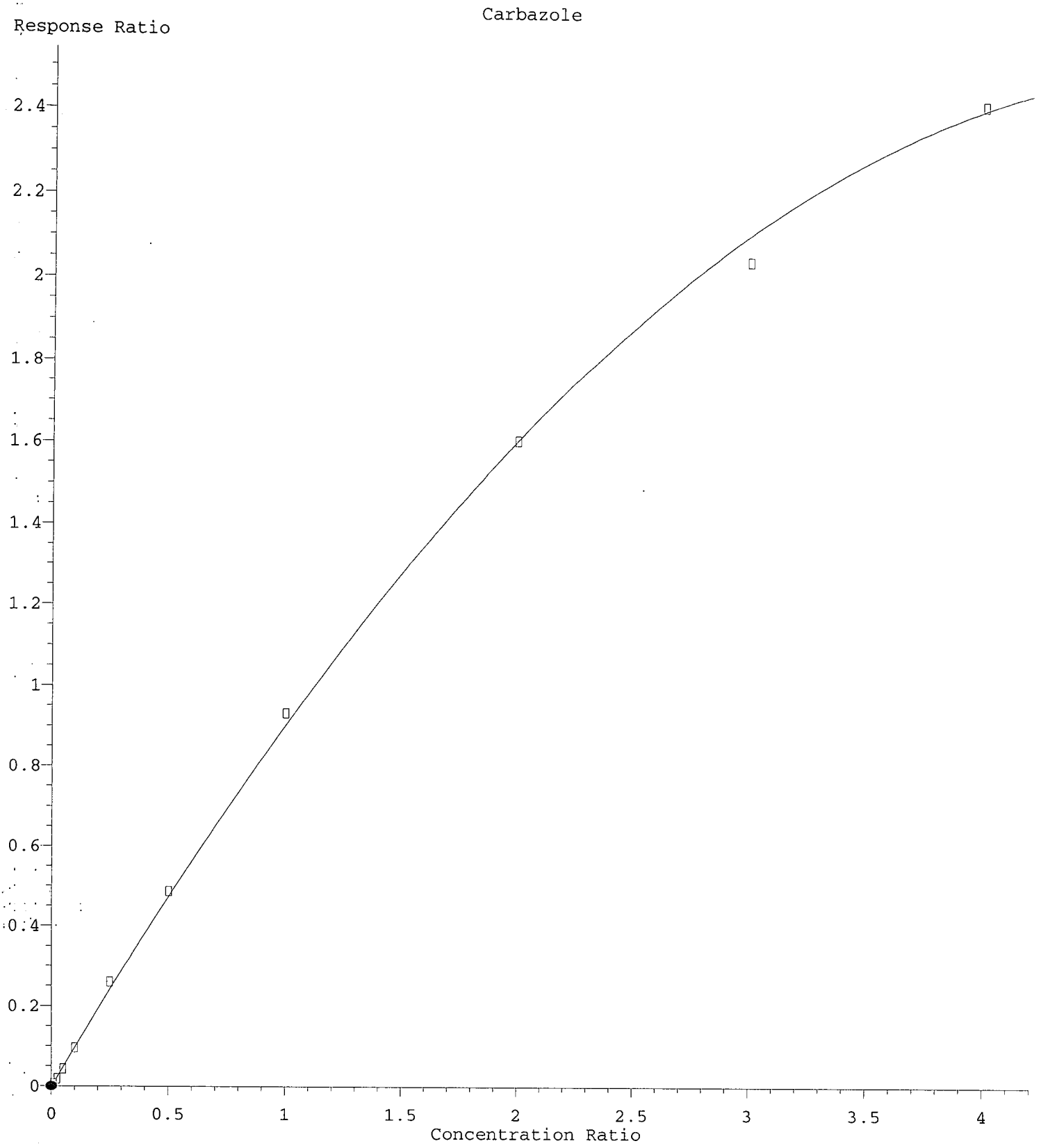
TIC: I12031912.D\data.ms

(70) Pentachlorophenol (PCP) (T)

10.991min (+ 0.001) 86.60 ng/ml

response 110

Ion	Exp%	Act%
265.90	100.00	100.00
263.90	62.10	52.10
267.90	66.50	44.54
0.00	0.00	0.00

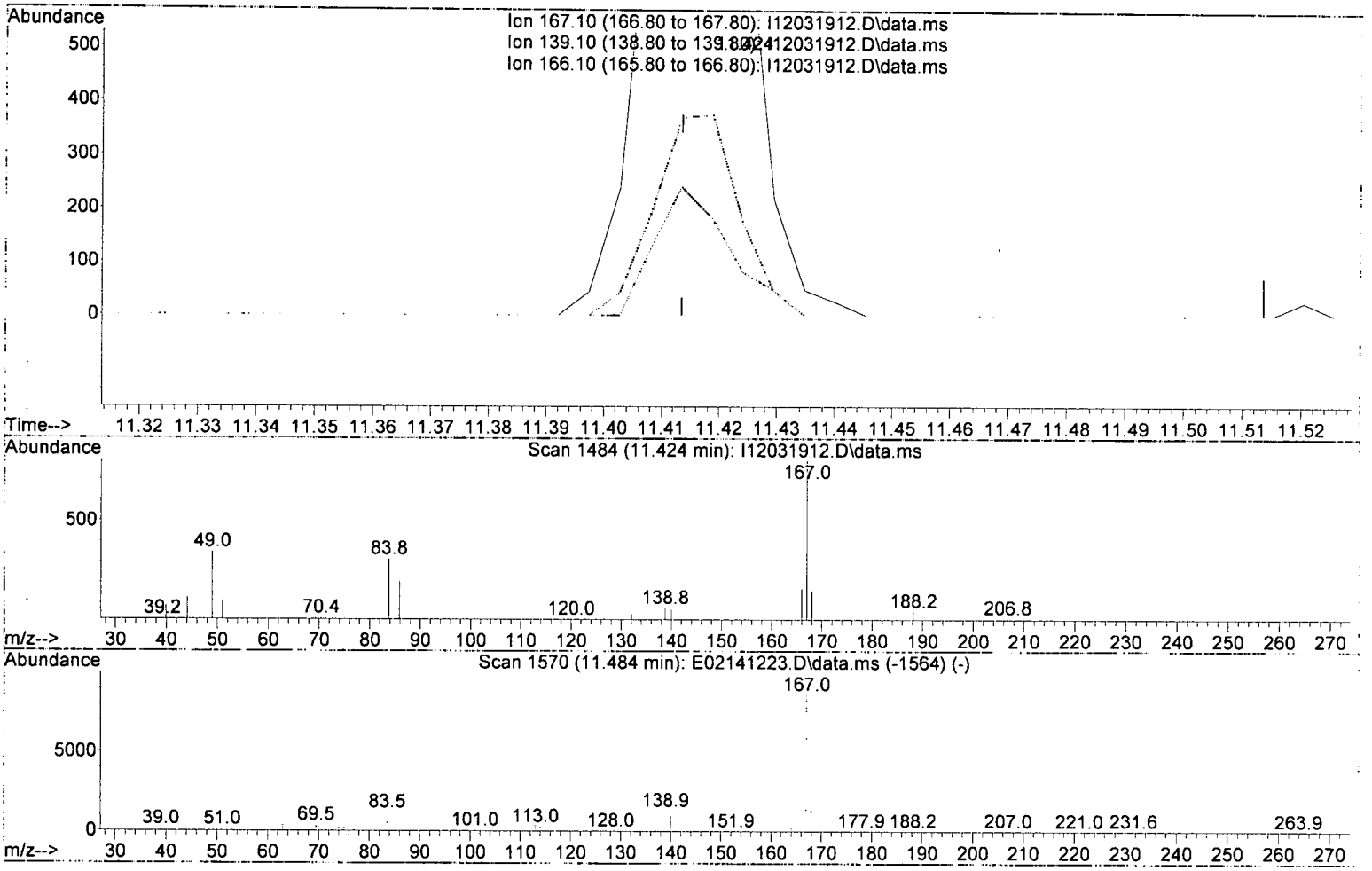


R = -1.00e-001 A*A + 1.01e+000 A - 4.20e-003
Coef of Det (r^2) = 0.996 Curve fit: Quadratic (1/x^2)
Method Name: T:\methods\SV9_120319.M

Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:53:59 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



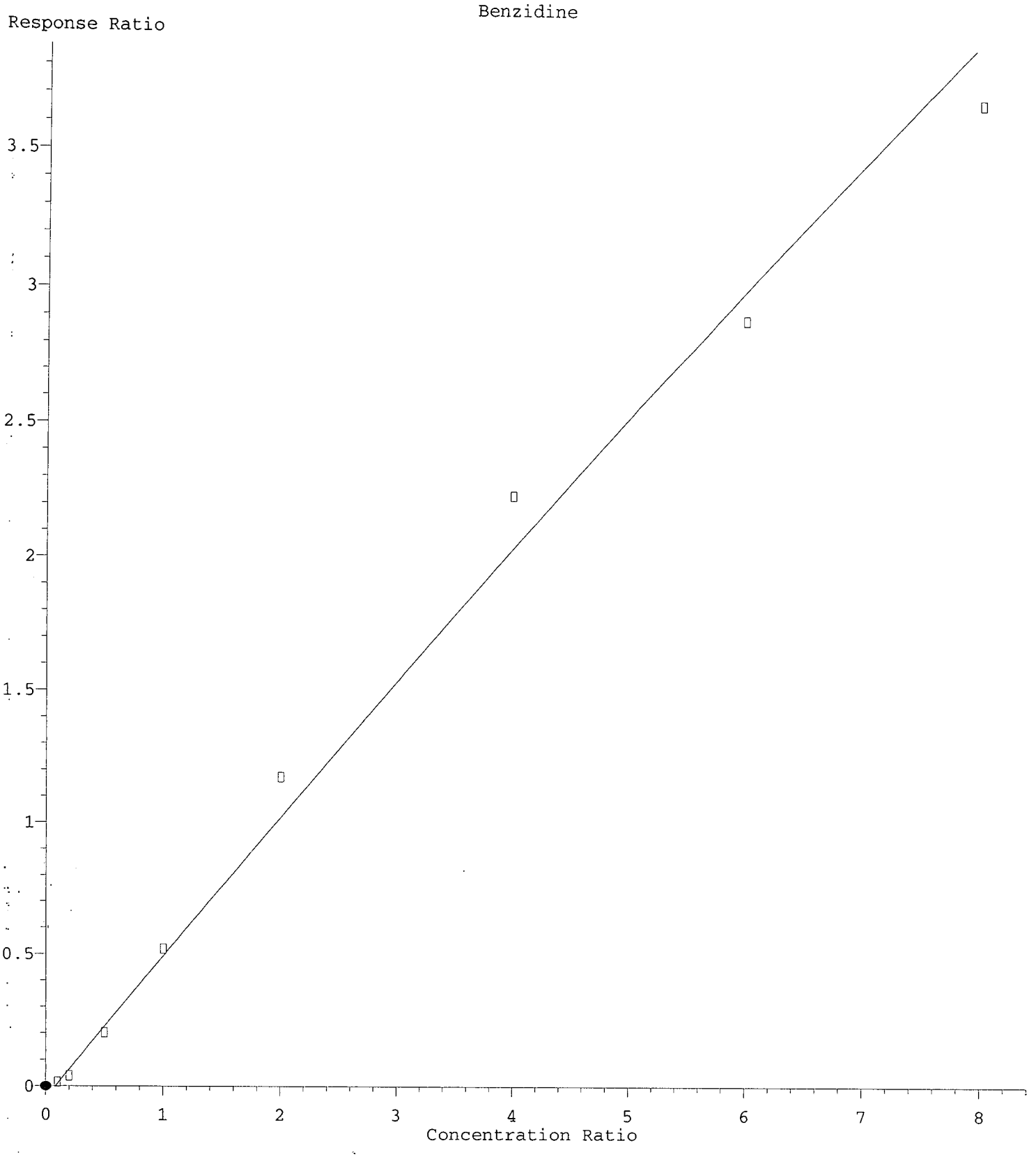
TIC: I12031912.D\data.ms

(73) Carbazole (T)

11.424min (+ 0.011) 9.07 ng/ml m

response 101

Ion	Exp%	Act%
167.10	100.00	100.00
139.10	13.40	10.25
166.10	20.80	21.90
0.00	0.00	0.00

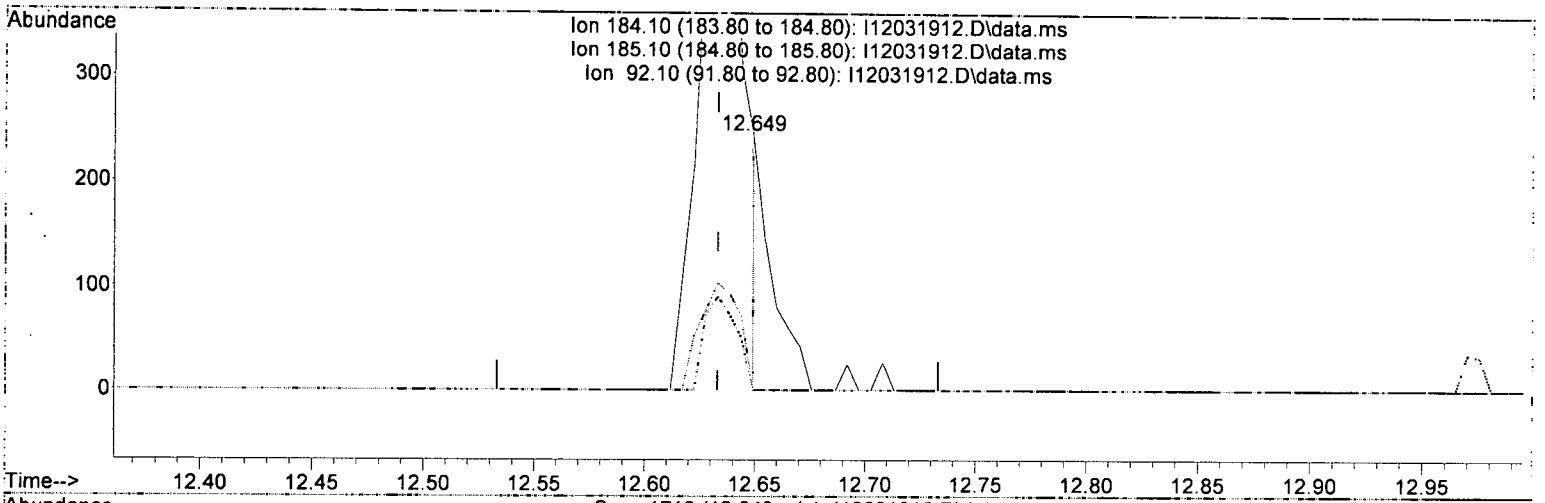


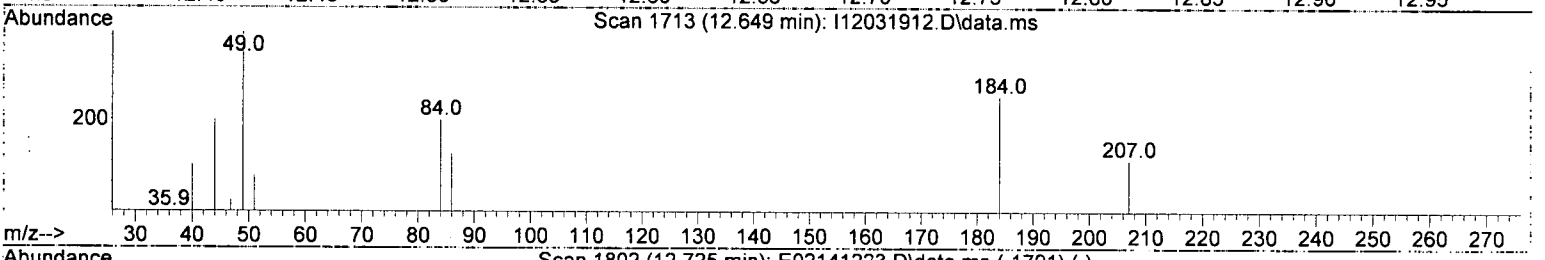
R = -6.28e-003 A*A + 5.45e-001 A - 4.53e-002
Coef of Det (r^2) = 0.978 Curve Fit: Quadratic (1/a^2)
Method Name: T:\methods\SV9_120319.M

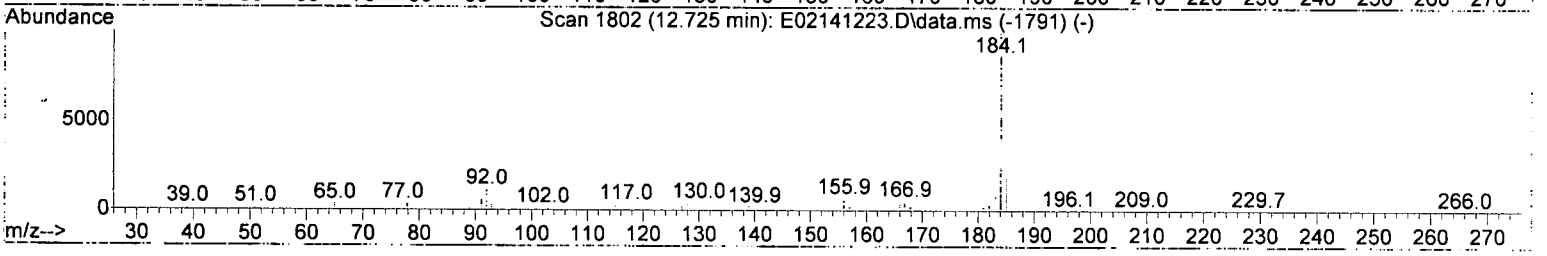
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:53:59 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







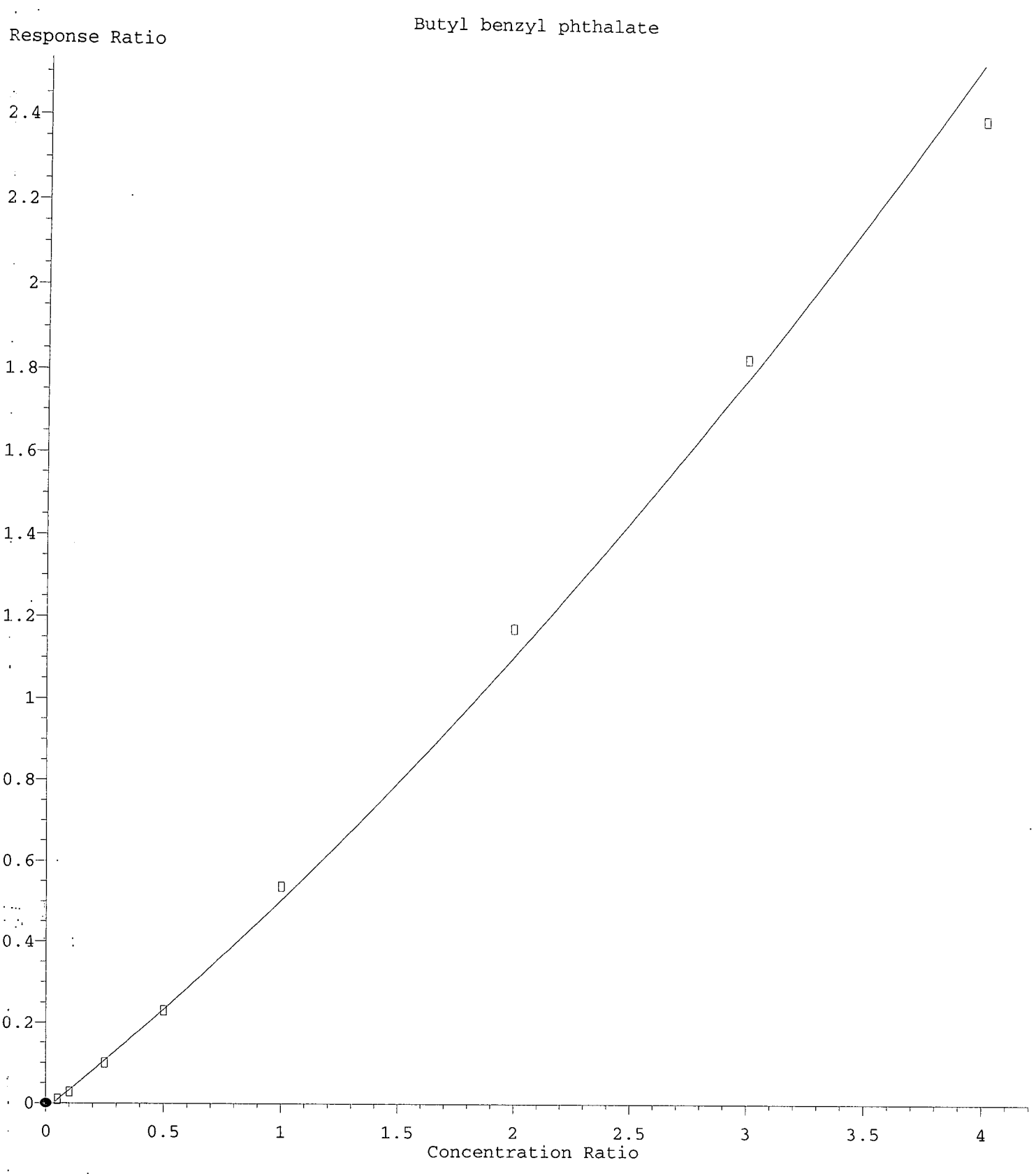
TIC: I12031912.D\data.ms

(76) Benzidine (T)

12.649min (+ 0.016) 167.94 ng/ml m

response 105

Ion	Exp%	Act%
184.10	100.00	100.00
185.10	14.70	0.00
92.10	9.90	0.00
0.00	0.00	0.00

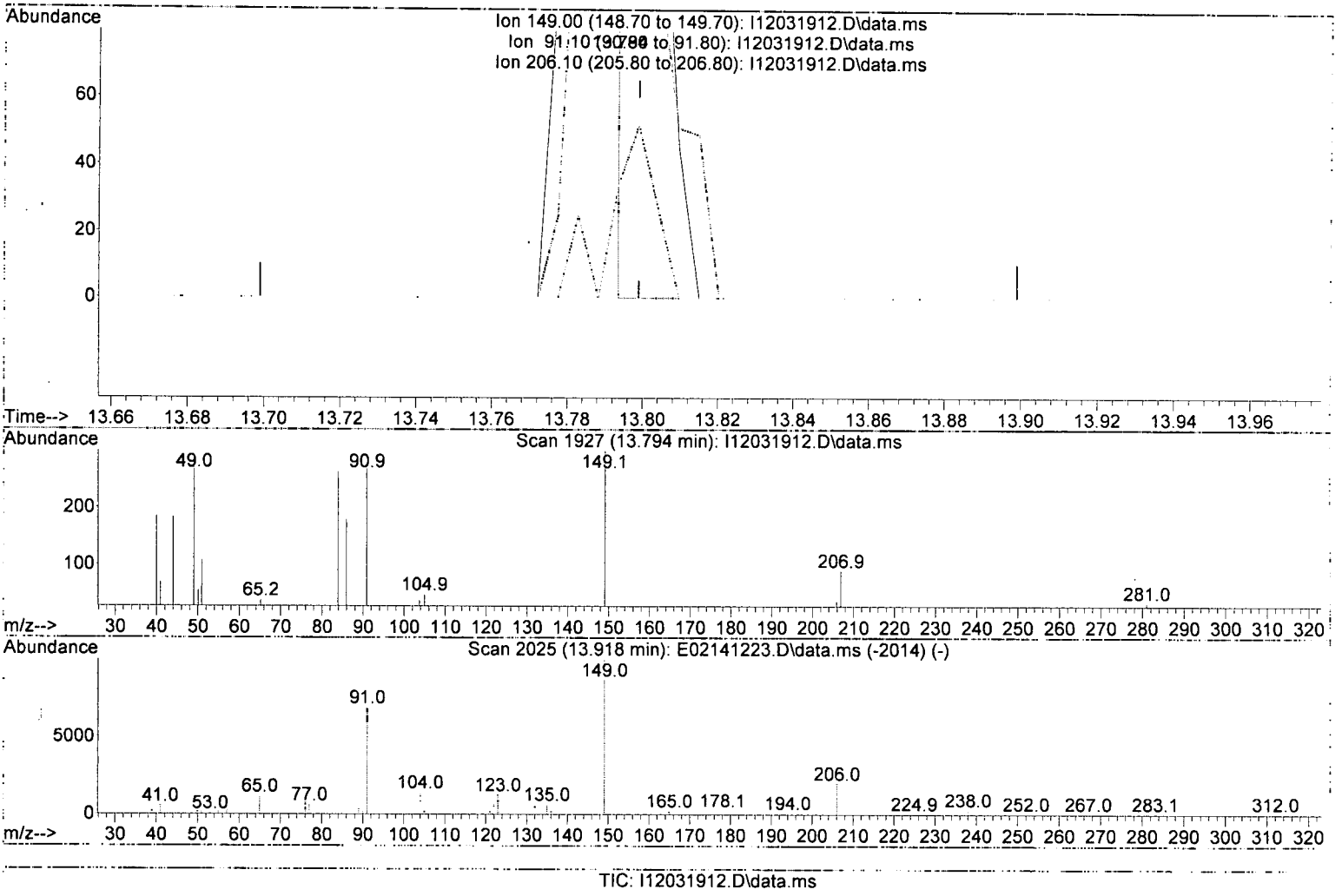


R = 4.12e-002 A*A + 4.78e-001 A - 1.57e-002
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_120319.M
Calibration Table Last Updated: Thu Dec 05 10:37:26 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:53:59 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



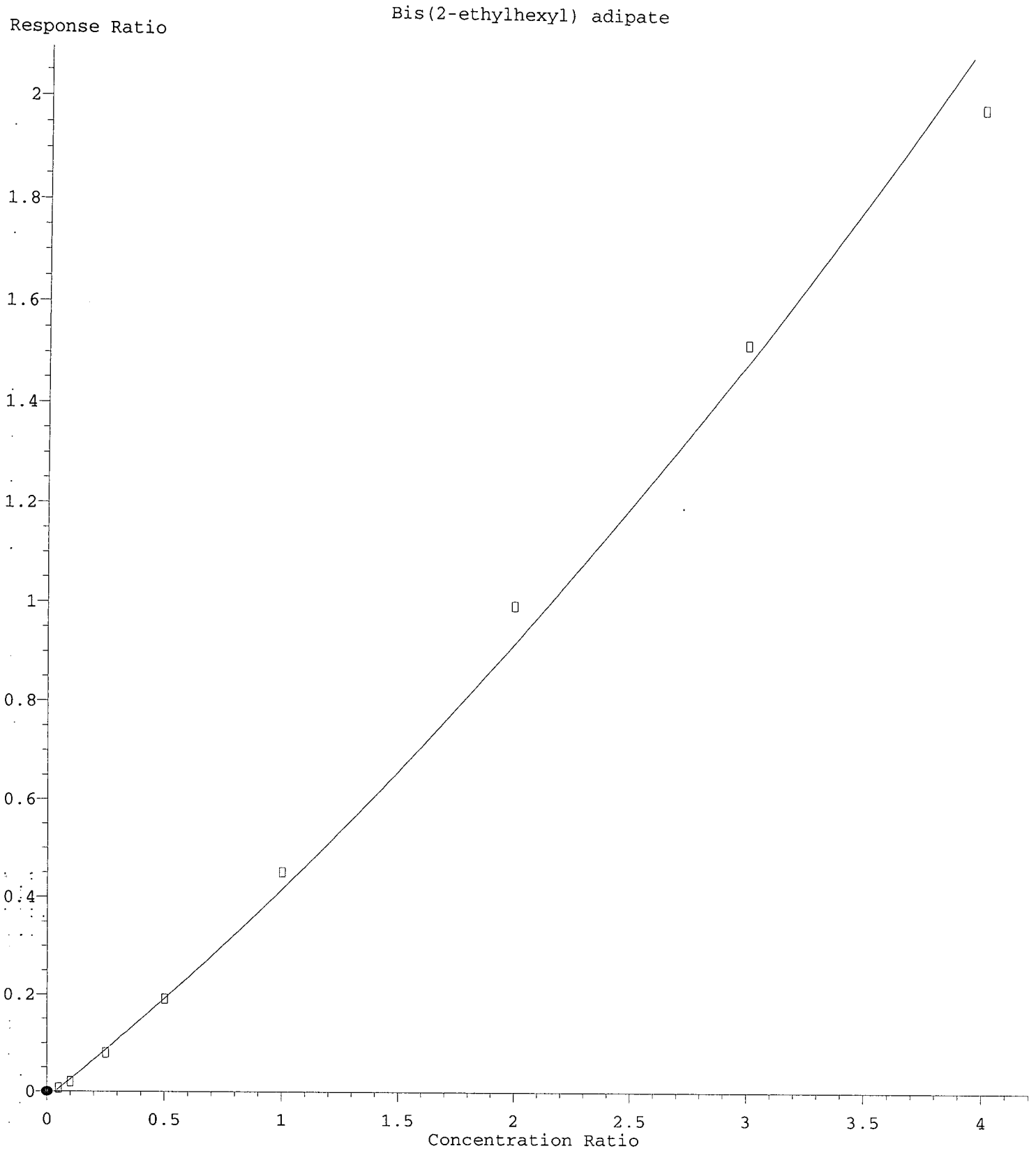
TIC: I12031912.D\data.ms

(80) Butyl benzyl phthalate (T)

13.794min (-0.005) 68.01 ng/ml m ✓

response 150

Ion	Exp%	Act%
149.00	100.00	100.00
91.10	73.80	89.63
206.10	20.40	11.37
0.00	0.00	0.00

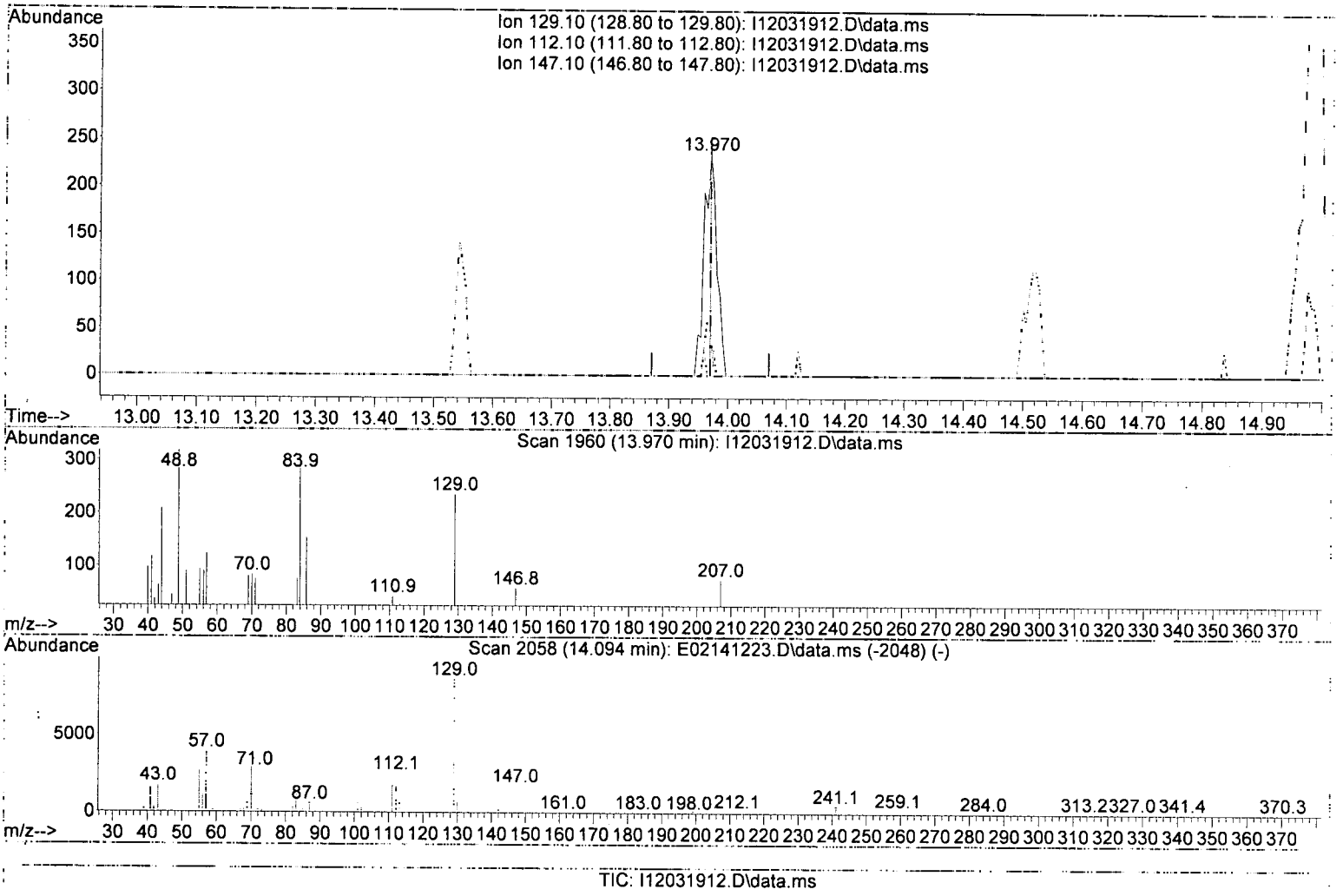


R = 3.53e-002 A*A + 3.95e-001 A - 1.45e-002
Coef of Det (r^2) = 0.993 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_120319.M
Calibration Table Last Updated: Thu Dec 05 10:37:26 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:53:59 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



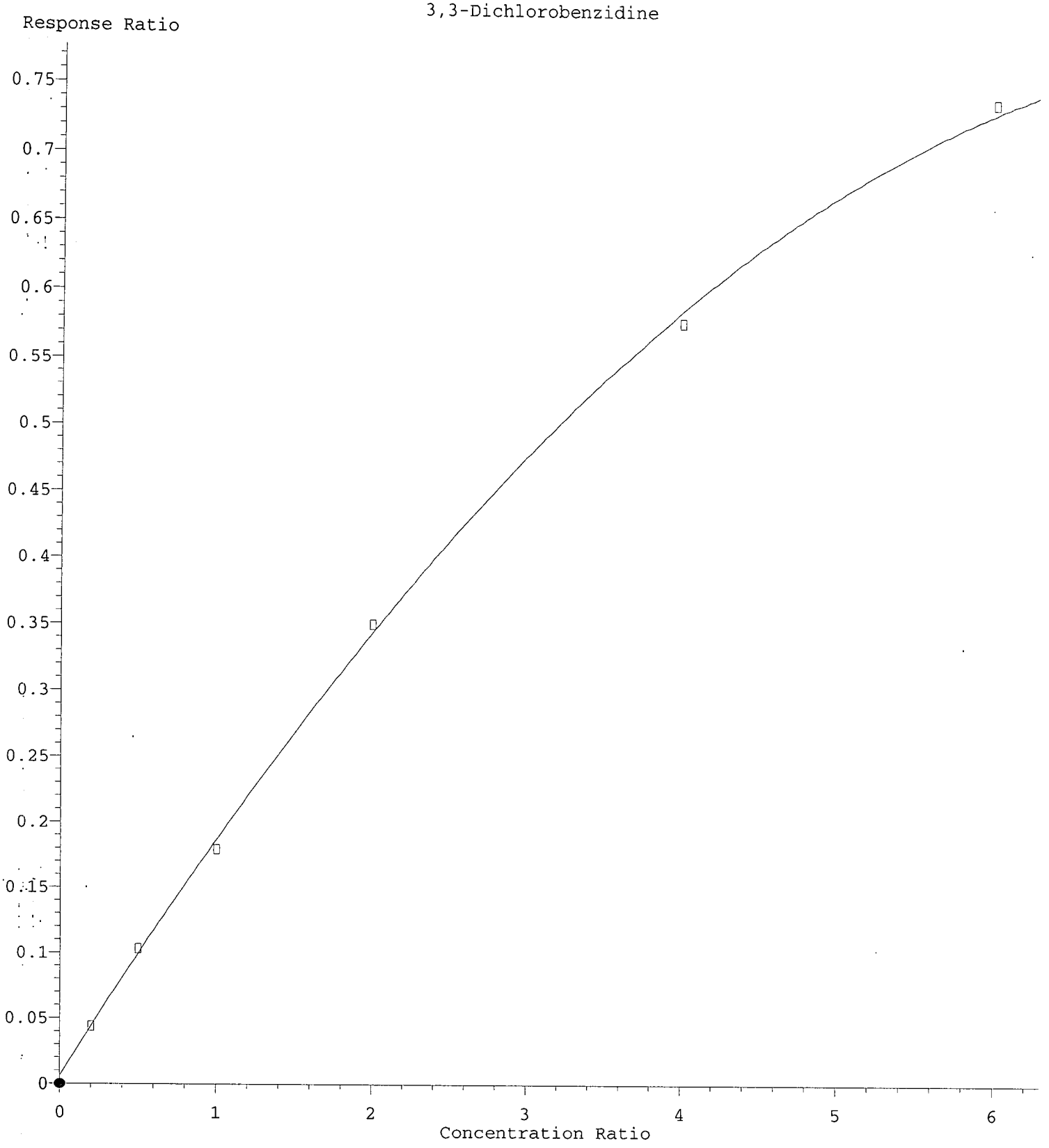
TIC: I12031912.D\data.ms

(81) Bis(2-ethylhexyl) adipate (T)

13.970min (+ 0.000) 75.44 ng/ml m ✓

response 136

Ion	Exp%	Act%
129.10	100.00	100.00
112.10	26.60	0.00
147.10	16.90	24.68
0.00	0.00	0.00

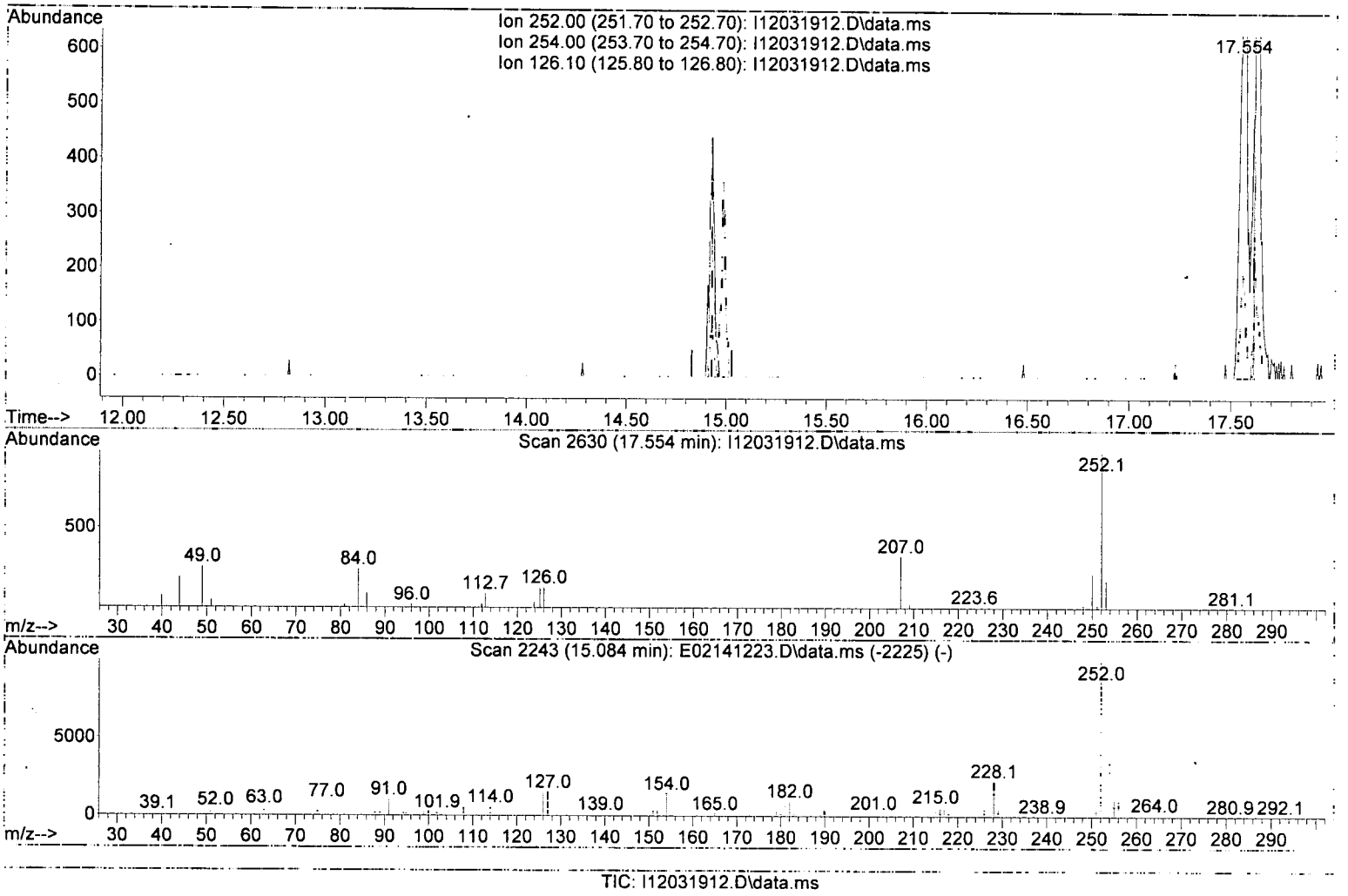


R = -1.19e-002 A*A + 1.92e-001 A + 6.21e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic 1/a^2
Method Name: T:\methods\SV9_120319.M
Calibration Table Last Updated: Thu Dec 05 10:37:26 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:53:59 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



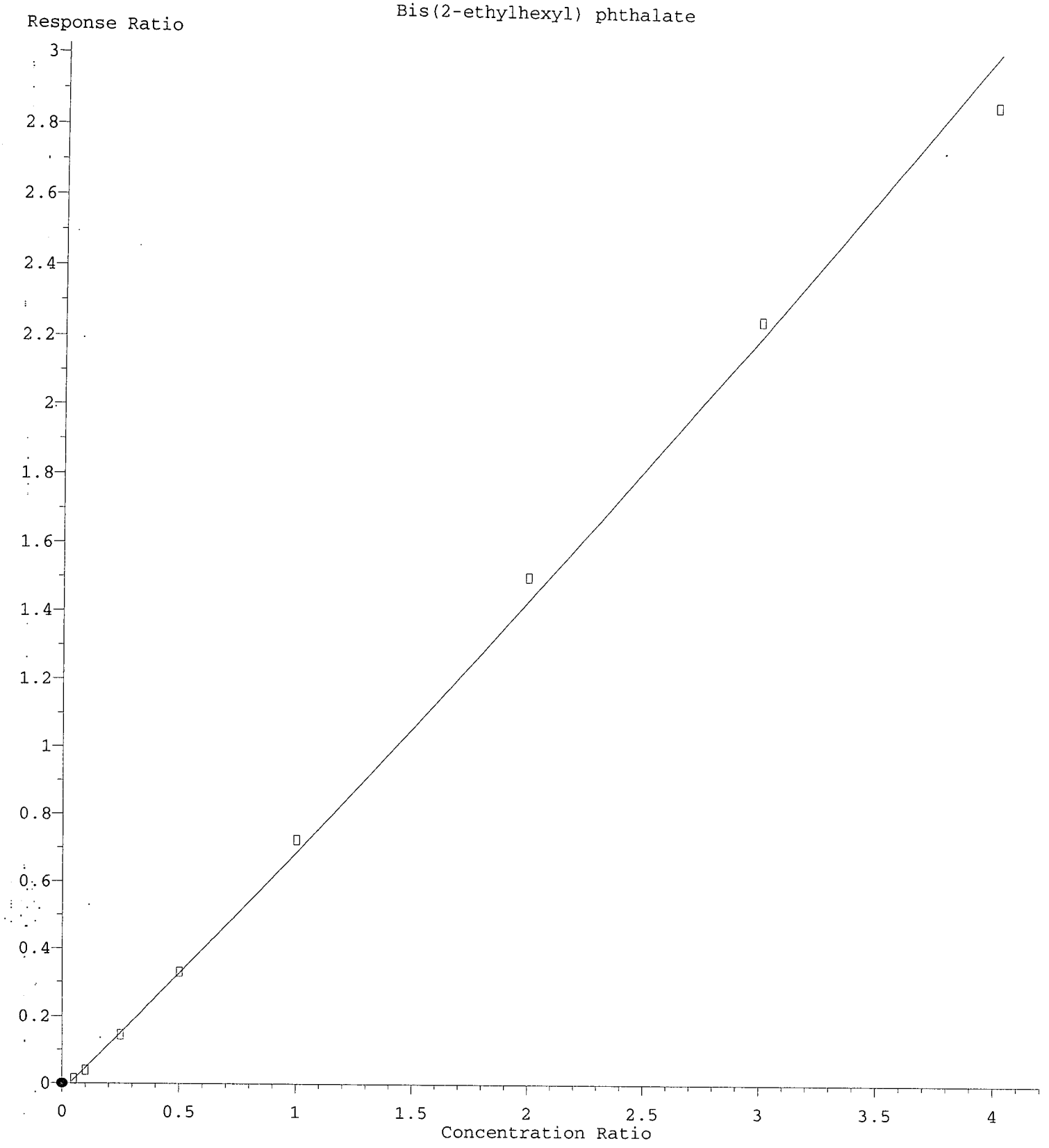
TIC: I12031912.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

17.554min (+ 2.627) 58.48 ng/ml m

response 3174

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	64.00	0.00#
126.10	14.00	15.37
0.00	0.00	0.00

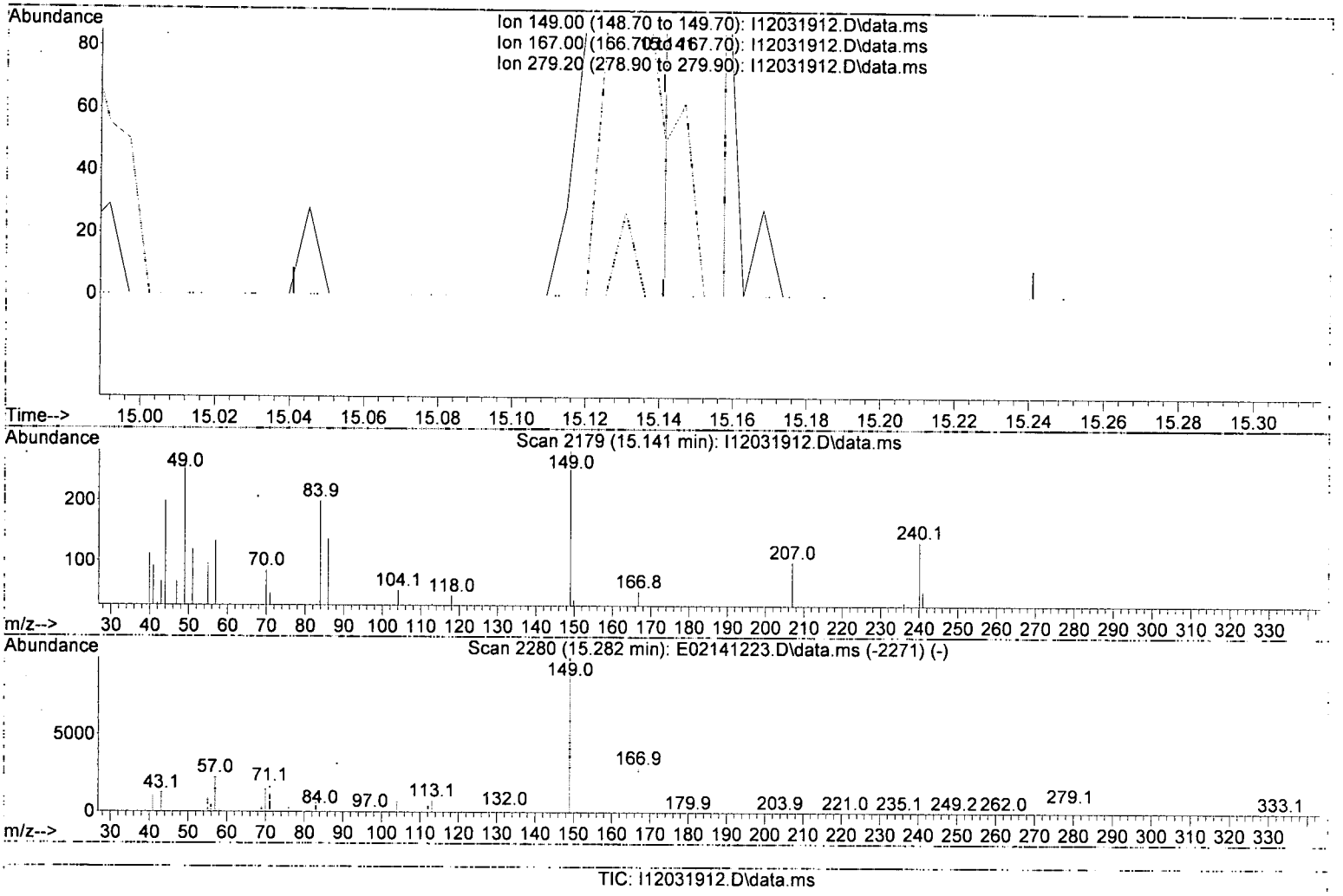


R = 1.71e-002 A*A + 6.94e-001 A - 2.39e-002
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_120319.M
Calibration Table Last Updated: Thu Dec 05 10:37:26 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:53:59 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



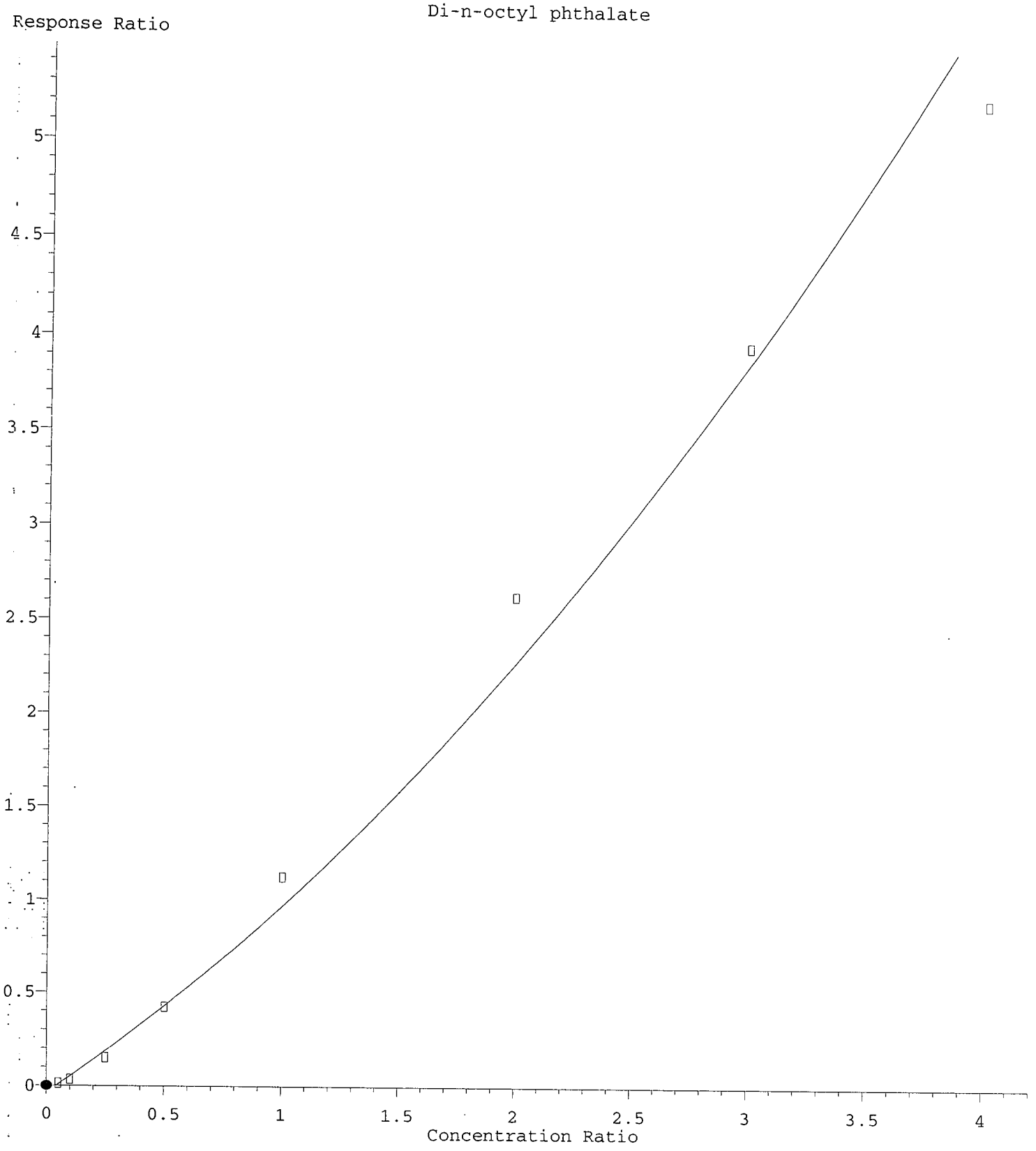
TIC: I12031912.D\data.ms

(85) Bis(2-ethylhexyl) phthalate (T)

15.141min (+ 0.000) 70.55 ng/ml m

response 154

Ion	Exp%	Act%
149.00	100.00	100.00
167.00	29.50	17.73
279.20	6.80	0.00
0.00	0.00	0.00

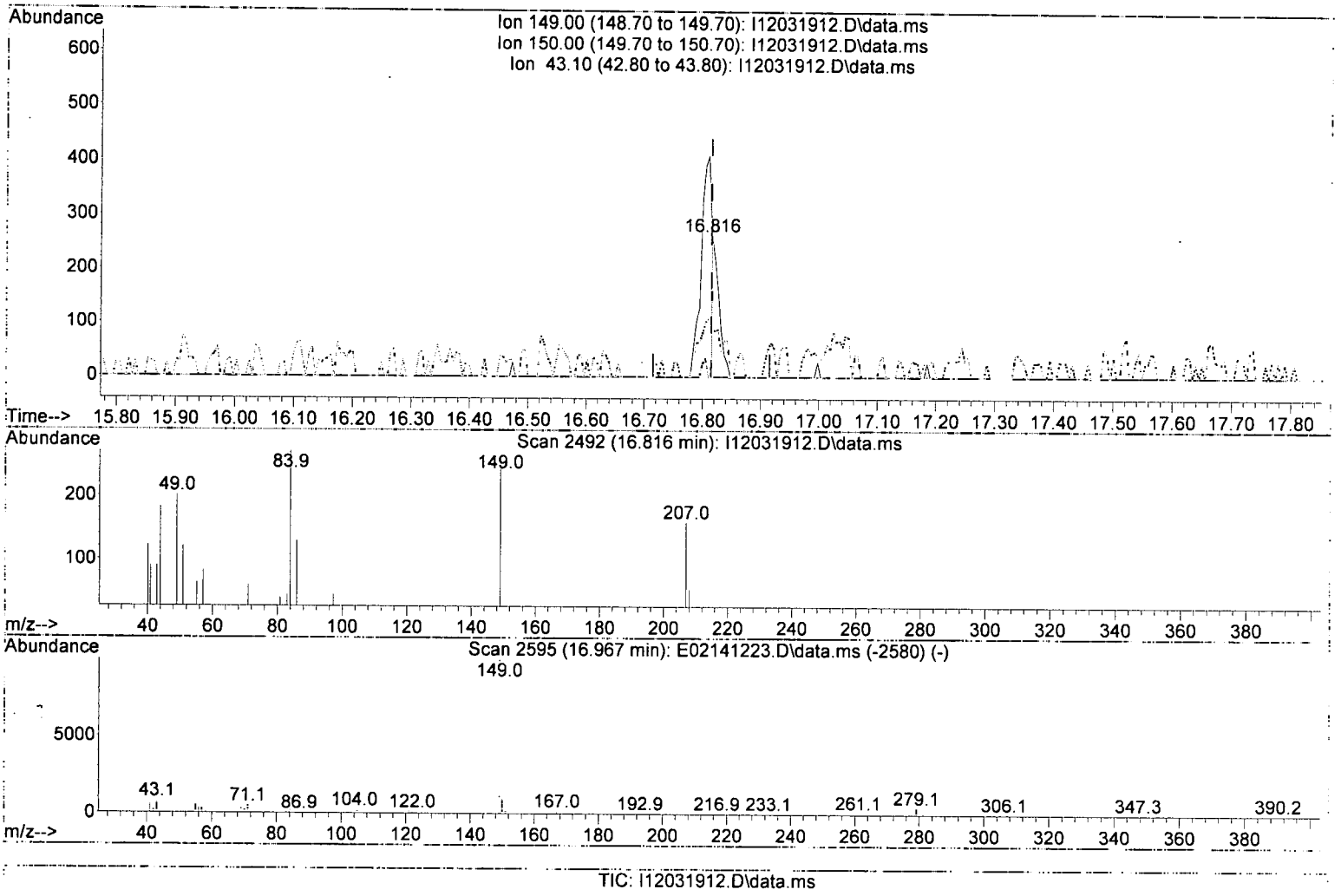


R = 1.49e-001 A*A + 8.54e-001 A - 3.58e-002
Coef of Det (r^2) = 0.981 Curve Fit - Quadratic 1/(A^2)
Method Name: T:\methods\SV9_120319.M
Calibration Table Last Updated: Thu Dec 05 10:27:26 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:53:59 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



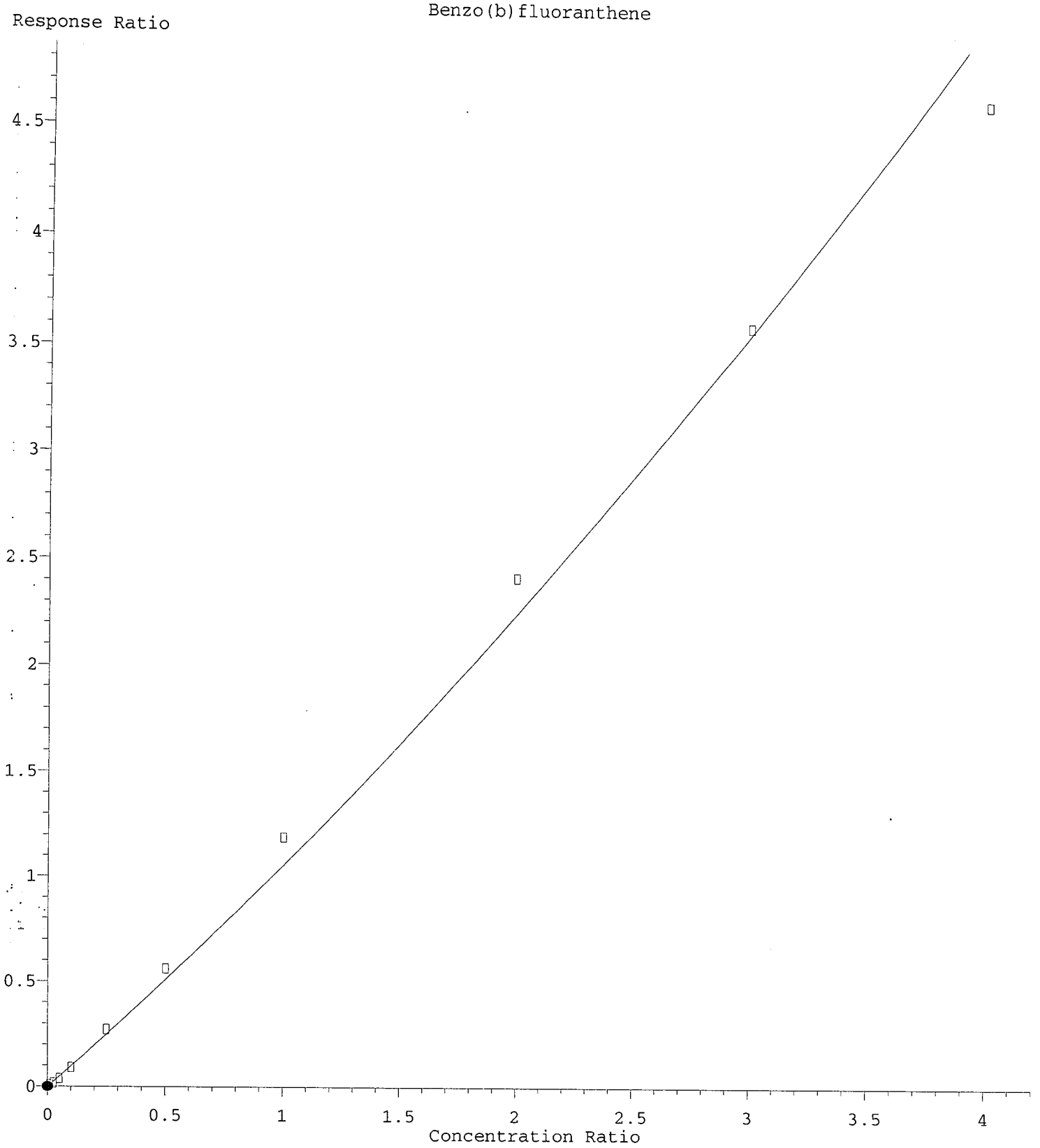
TIC: I12031912.D\data.ms

(87) Di-n-octyl phthalate (T)

16.816min (+ 0.001) 84.90 ng/ml m

response 171

Ion	Exp%	Act%
149.00	100.00	100.00
150.00	9.20	0.00
43.10	10.80	34.22
0.00	0.00	0.00

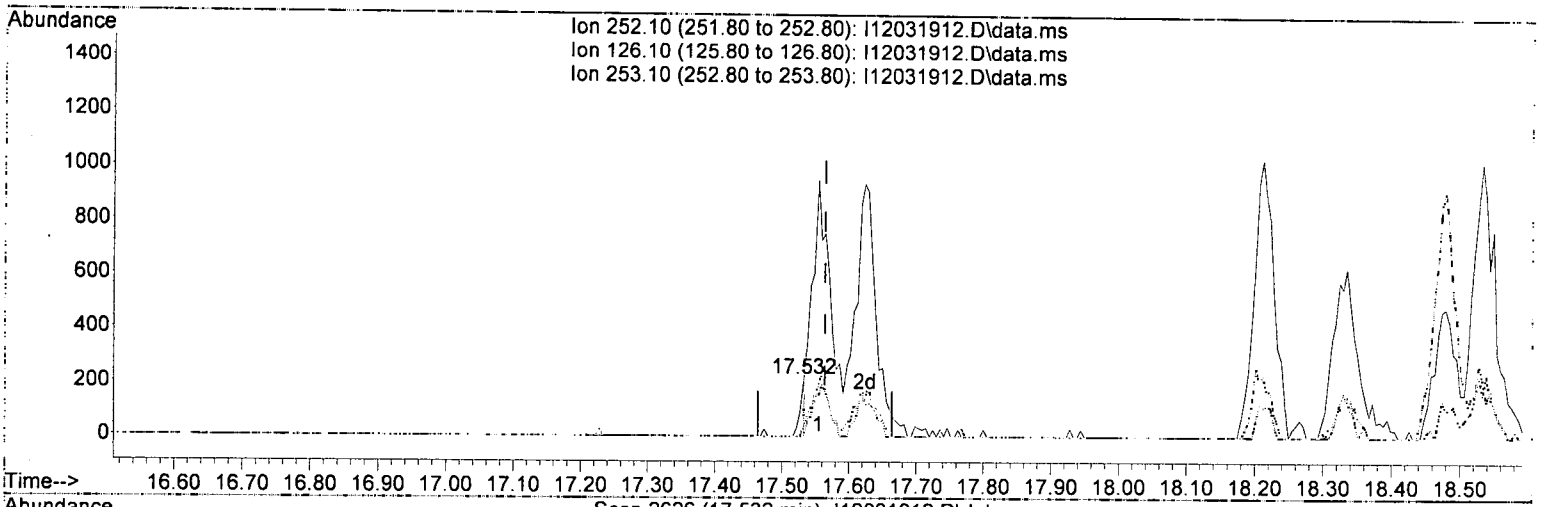


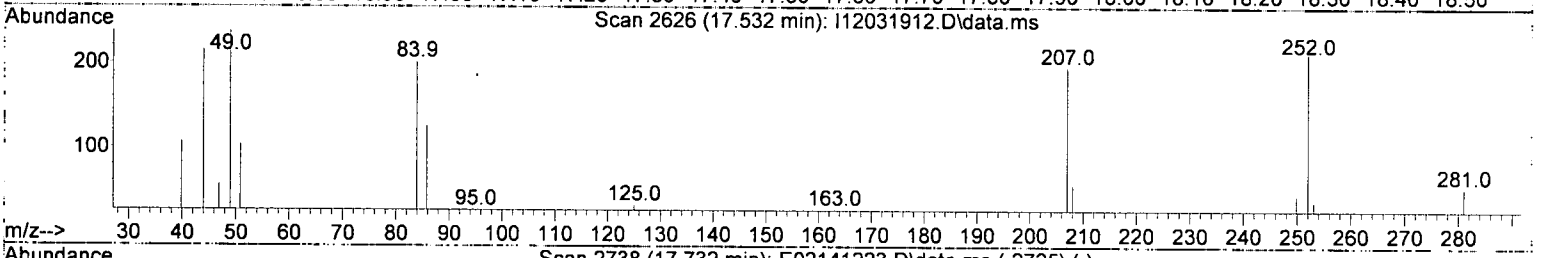
R = 6.58e-002 A*A + 9.91e-001 A - 3.68e-003
Coef of Det (r^2) = 0.984 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_120319.M
Calibration Table Last Updated: Thu Dec 05 10:37:26 2019

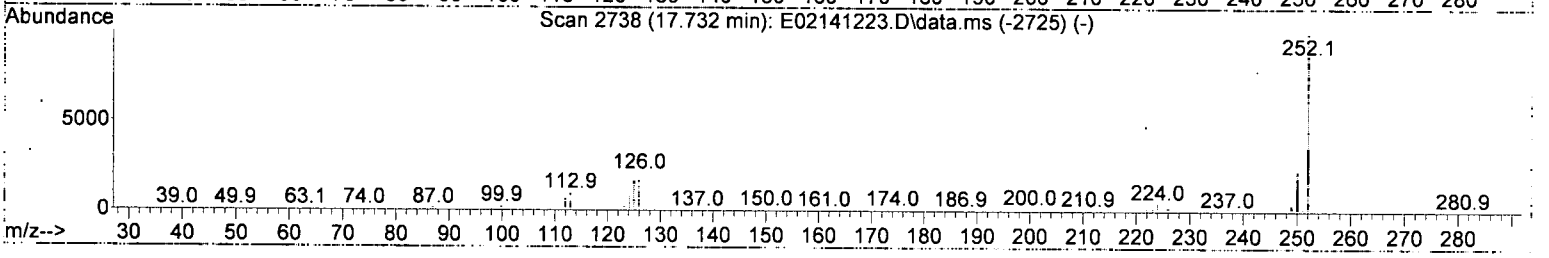
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:53:59 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







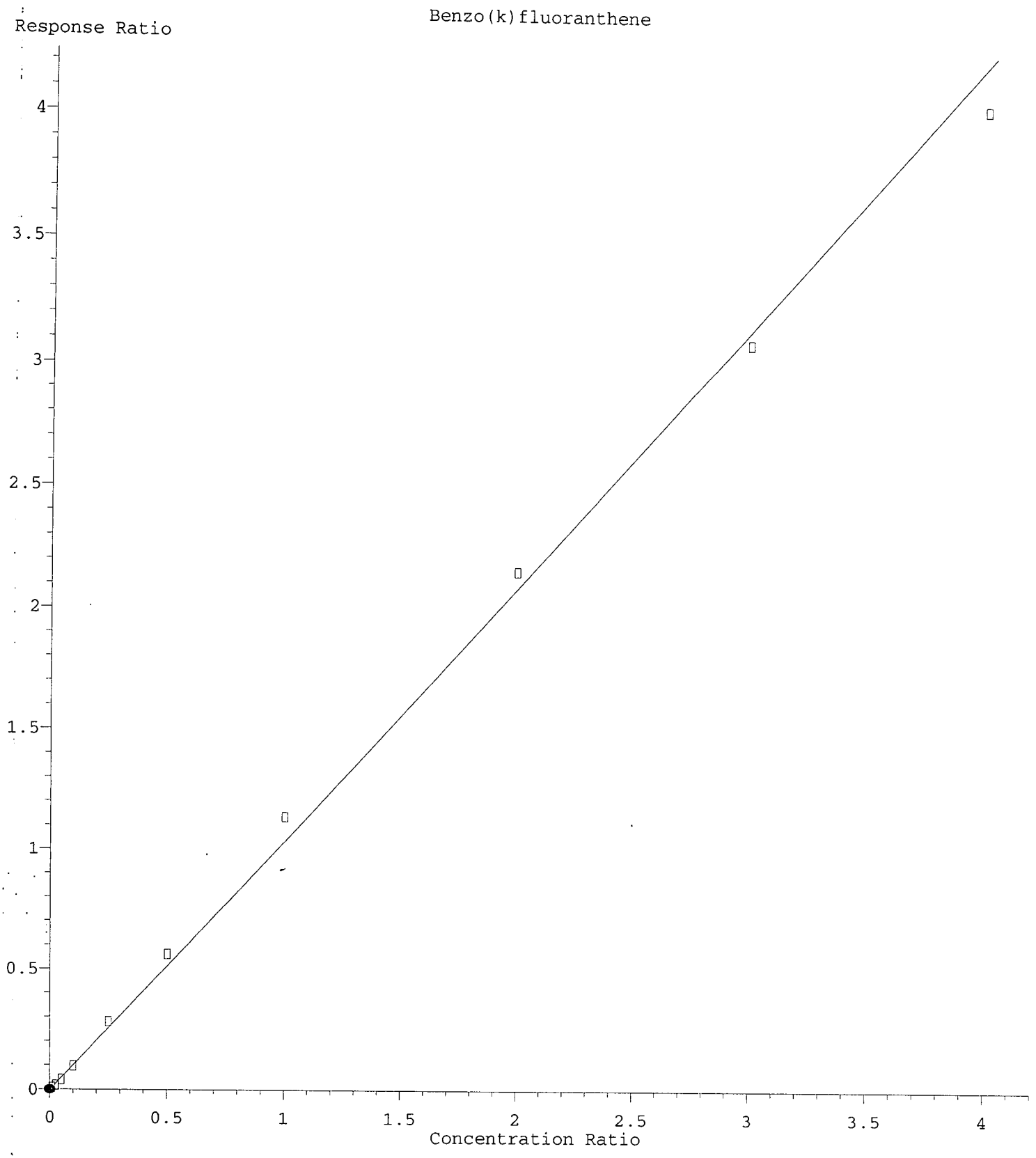
TIC: I12031912.D\data.ms

(88) Benzo(b)fluoranthene (T)

17.532min (-0.032) 8.25 ng/ml m

response 108

Ion	Exp%	Act%
252.10	100.00	100.00
126.10	16.90	0.00
253.10	21.90	17.13
0.00	0.00	0.00

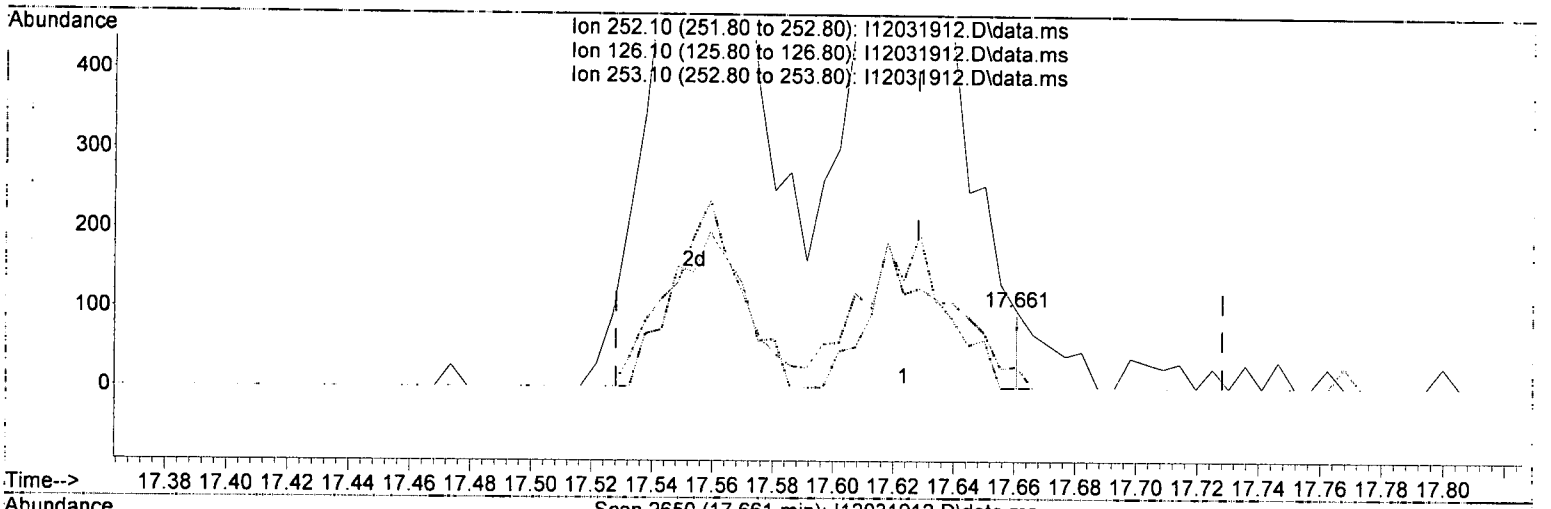


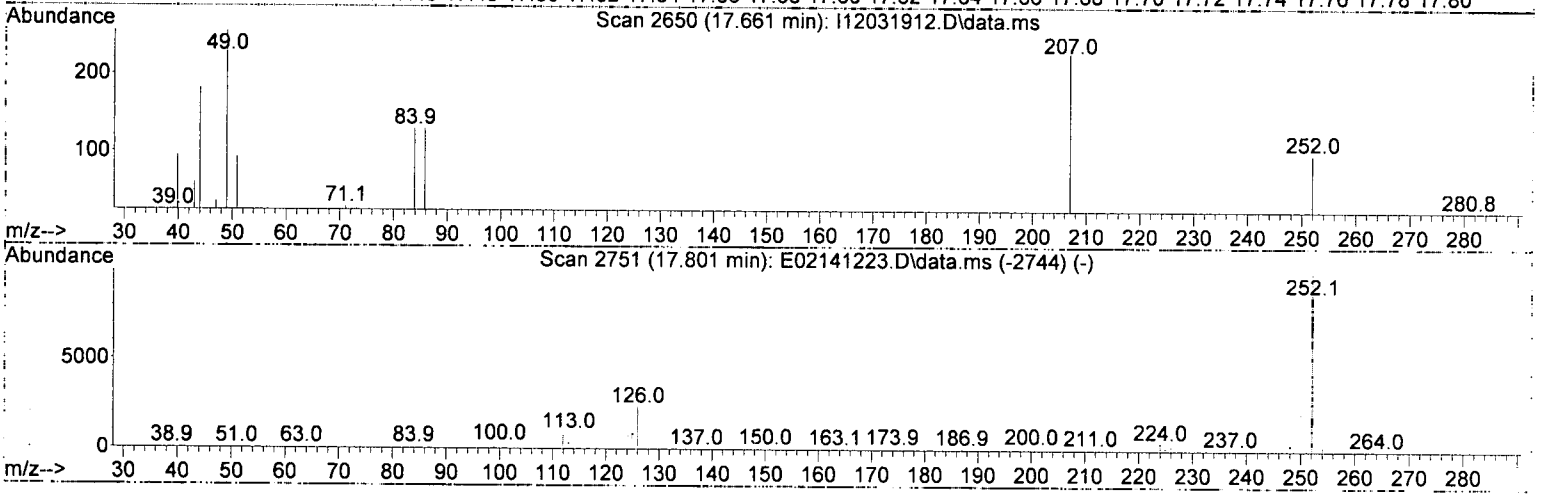
R = 6.72e-003 A*A + 1.03e+000 A - 3.60e-003
Coef of Det (r^2) = 0.985 Curve Fit : Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_120319.M
Calibration Table Last Updated: Thu Dec 05 10:37:26 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:53:59 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9





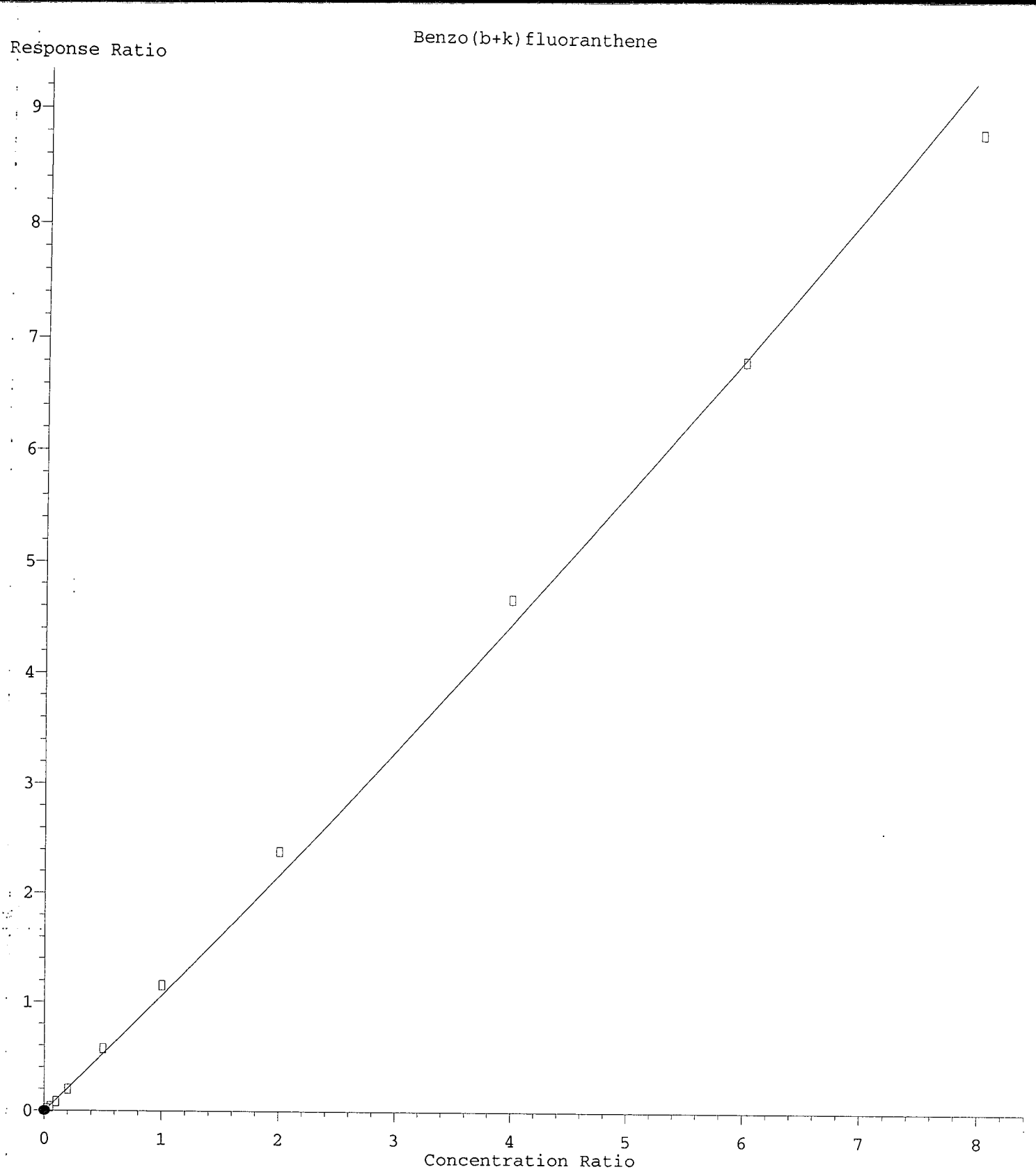
TIC: I12031912.D\data.ms

(89) Benzo(k)fluoranthene (T)

17.661min (+ 0.033) 8.08 ng/ml m

response 143

Ion	Exp%	Act%
252.10	100.00	100.00
126.10	17.60	0.00
253.10	21.80	27.55
0.00	0.00	0.00

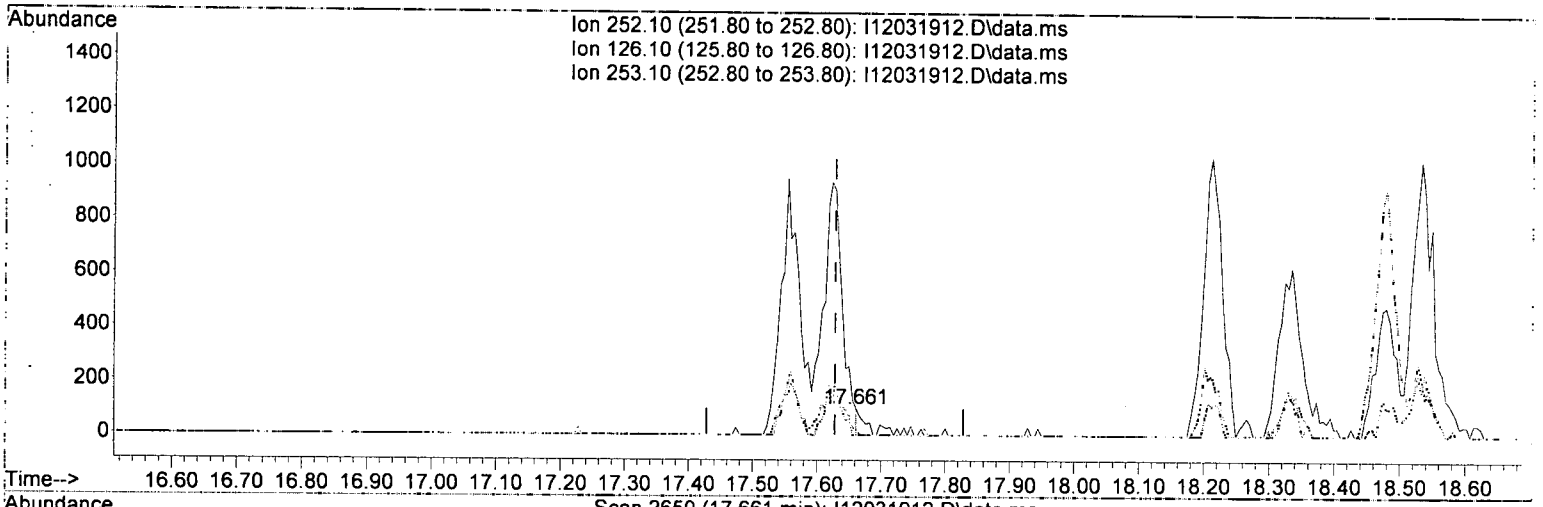


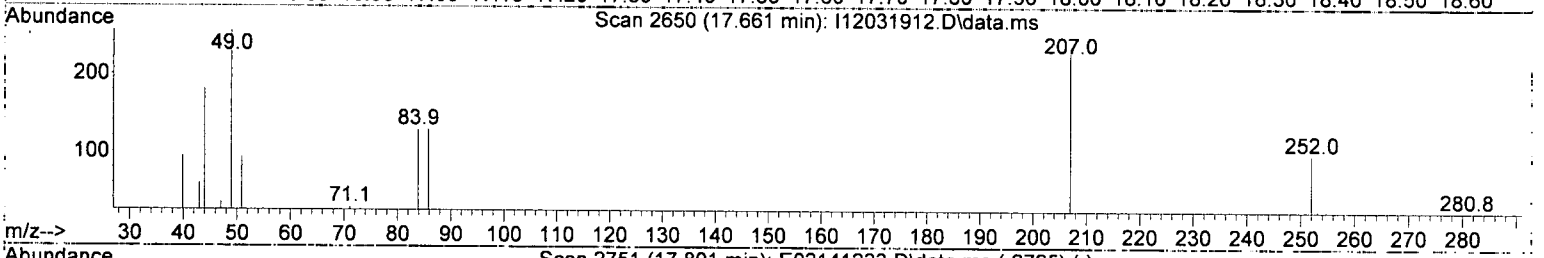
R = 1.54e-002 A*A + 1.05e+000 A - 7.99e-003
Coef of Det (r^2) = 0.988 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_120319.M
Calibration Table Last Updated: Thu Dec 05 10:37:26 2019

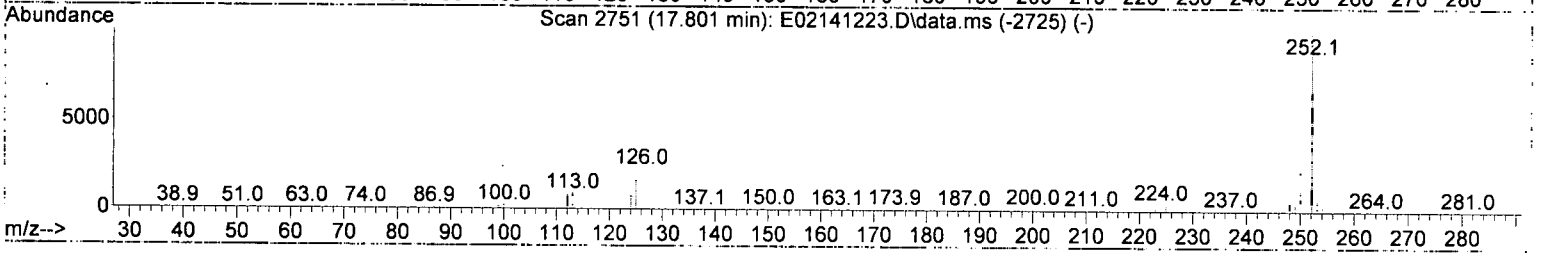
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:53:59 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







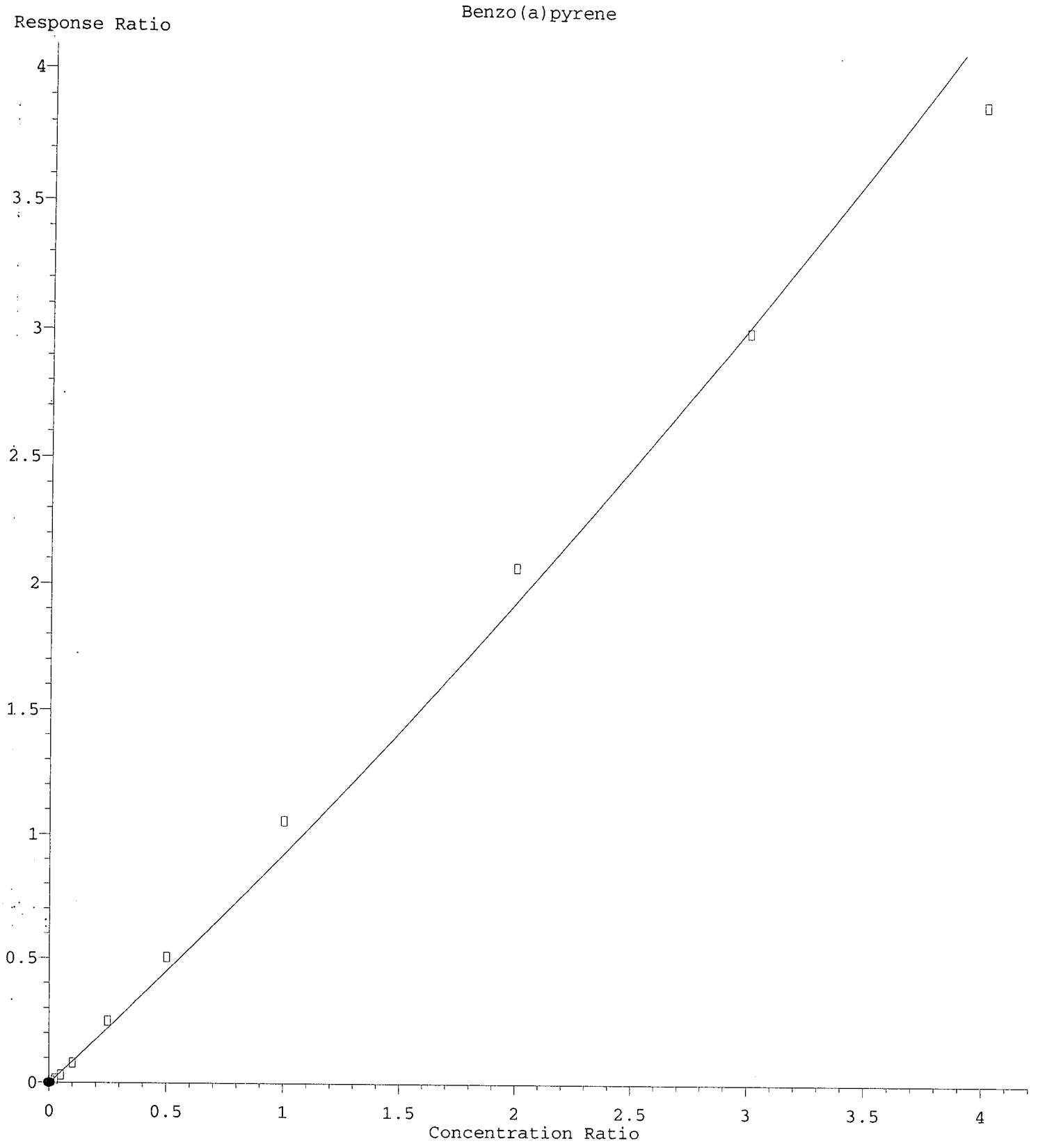
TIC: I12031912.D\data.ms

(90) Benzo(b+k)fluoranthene (T)

17.661min (+ 0.033) 15.92 ng/ml m ✓

response 107

Ion	Exp%	Act%
252.10	100.00	100.00
126.10	17.60	0.00
253.10	21.80	27.55
0.00	0.00	0.00

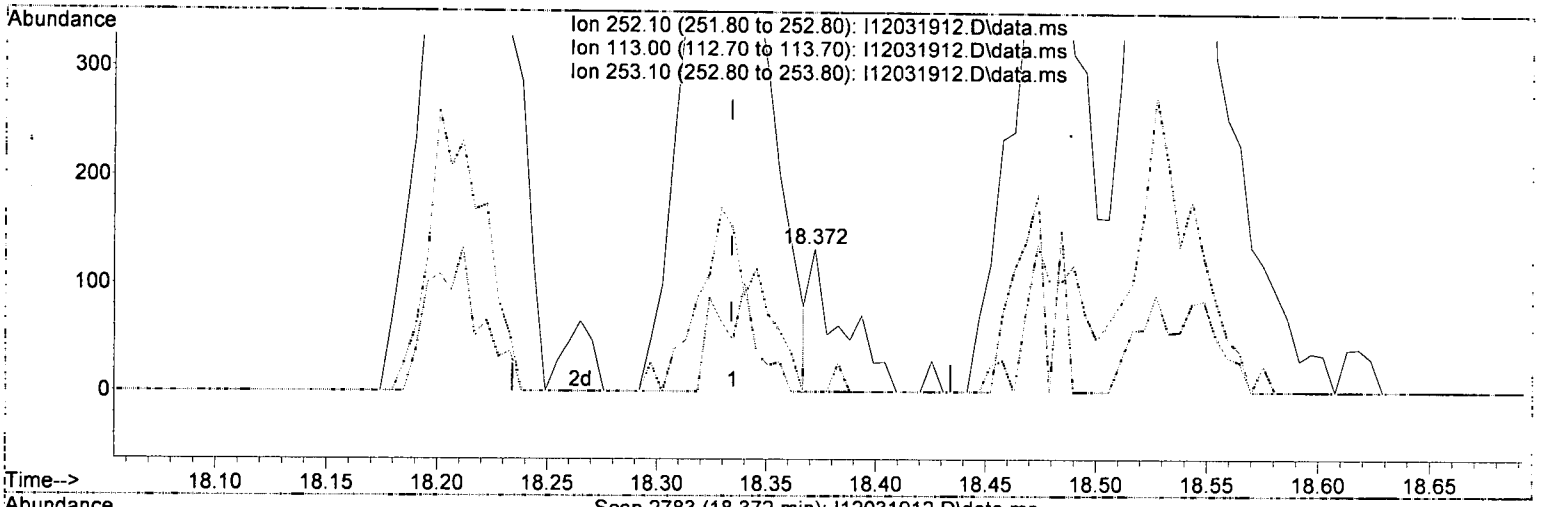


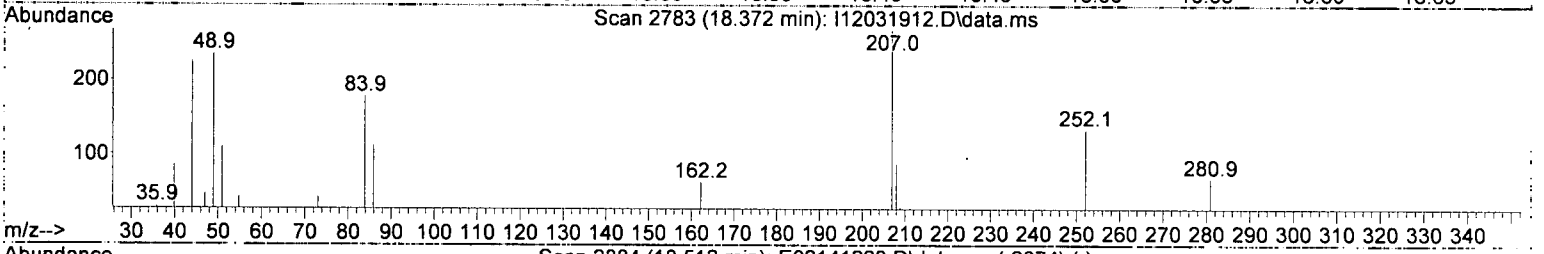
R = 4.26e-002 A*A + 8.83e-001 A - 3.87e-003
Coef of Det (r^2) = 0.978 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_120319.M
Calibration Table Last Updated: Thu Dec 05 10:37:26 2019

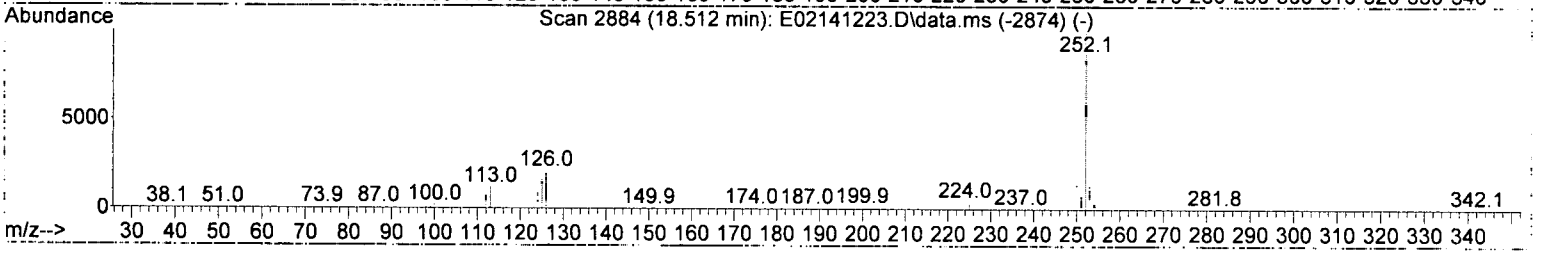
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\REQUANT\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 12:53:59 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I12031912.D\data.ms

(92) Benzo(a)pyrene (T)

18.372min (+ 0.038) 9.94 ng/ml m

response 135 ✓

Ion	Exp%	Act%
252.10	100.00	100.00
113.00	10.80	0.00
253.10	22.90	0.00
0.00	0.00	0.00

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9L03048

Analysis Included
8270D LL Full List

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed
9L03048-TUN1	MS Tune	Soil	A19K329	A19I086	12/3/2019 3:02:00PM
9L03048-ICB1	Initial Cal Blank	Soil		A19I086	12/3/2019 3:29:00PM
9L03048-CAL1	Cal Standard	Soil	A19K211	"	12/3/2019 4:03:00PM
9L03048-CAL2	Cal Standard	Soil	A19K212	"	12/3/2019 4:38:00PM
9L03048-CAL3	Cal Standard	Soil	A19K213	"	12/3/2019 5:12:00PM
9L03048-CAL4	Cal Standard	Soil	A19K214	"	12/3/2019 5:46:00PM
9L03048-CAL5	Cal Standard	Soil	A19K215	"	12/3/2019 6:20:00PM
9L03048-CAL6	Cal Standard	Soil	A19K216	"	12/3/2019 6:54:00PM
9L03048-CAL7	Cal Standard	Soil	A19K217	"	12/3/2019 7:28:00PM
9L03048-CAL8	Cal Standard	Soil	A19K218	"	12/3/2019 8:02:00PM
9L03048-CAL9	Cal Standard	Soil	A19K219	"	12/3/2019 8:36:00PM
9L03048-CALA	Cal Standard	Soil	A19K220	"	12/3/2019 9:10:00PM
9L03048-ICV1	Initial Cal Check	Soil	A19I254	"	12/3/2019 10:18:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: A9L0505 Instrument: SV-GCMS9

8270D LL Full List Sequence: 9L03048 Matrix: Soil

9L03048-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9L03048-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9L03048-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9L03048-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9L03048-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9L03048-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9L03048-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9L03048-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9L03048-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9L03048-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9L03048

Analytes With Quadratic Curve Fits

Qualifier	iMDL	iMRL	Spike Amt	%Difference	OK?	Raise MRL to ?
				———	☐	☐ ———

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

ICV RECOVERIES

Calibration: **A9L0505** Instrument: **SV-GCMS9**

8270D LL Full List Sequence: **9L03048** Matrix: **Soil**

9L03048-ICV1	Inst. MRL	ICV Level	Result	%Rec.	Qual

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9L03048

Analysis Included
8270D LL Full List

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed	
9L03048-TUN1	MS Tune	Water	A19K329	A19I086	12/3/2019	3:02:00PM
9L03048-ICB1	Initial Cal Blank	Water		A19I086	12/3/2019	3:29:00PM
9L03048-CAL1	Cal Standard	Water	A19K211	"	12/3/2019	4:03:00PM
9L03048-CAL2	Cal Standard	Water	A19K212	"	12/3/2019	4:38:00PM
9L03048-CAL3	Cal Standard	Water	A19K213	"	12/3/2019	5:12:00PM
9L03048-CAL4	Cal Standard	Water	A19K214	"	12/3/2019	5:46:00PM
9L03048-CAL5	Cal Standard	Water	A19K215	"	12/3/2019	6:20:00PM
9L03048-CAL6	Cal Standard	Water	A19K216	"	12/3/2019	6:54:00PM
9L03048-CAL7	Cal Standard	Water	A19K217	"	12/3/2019	7:28:00PM
9L03048-CAL8	Cal Standard	Water	A19K218	"	12/3/2019	8:02:00PM
9L03048-CAL9	Cal Standard	Water	A19K219	"	12/3/2019	8:36:00PM
9L03048-CALA	Cal Standard	Water	A19K220	"	12/3/2019	9:10:00PM
9L03048-ICV1	Initial Cal Check	Water	A19I254	"	12/3/2019	10:18:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9L0505** Instrument: **SV-GCMS9**

8270D LL Full List Sequence: **9L03048** Matrix: **Water**

9L03048-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9L03048-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9L03048-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9L03048-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9L03048-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9L03048-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9L03048-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9L03048-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9L03048-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9L03048-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9L03048

Analytes With Quadratic Curve Fits

Qualifier	iMDL	iMRL	Spike Amt	%Difference	OK?	Raise MRL to ?
				———	☐	☐ ———

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

ICV RECOVERIES

Calibration: **A9L0505** Instrument: **SV-GCMS9**

8270D LL Full List Sequence: **9L03048** Matrix: **Water**

9L03048-ICV1	Inst. MRL	ICV Level	Result	%Rec.	Qual

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

Evaluate Continuing Calibration Report

Data Path : T:\data\2019-12\9L03048\
Data File : I12031923.D
Acq On : 3 Dec 2019 10:18 pm
Operator : JK /AMS /DTH
Sample : 9L03048-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 10:40:53 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

12/5/19

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (IST	2000.000	2000.000	0.0	98	0.00
2	T	N-Nitrosodimethylamine	1000.000	978.295	2.2	94	0.00
3	T	Pyridine	1000.000	891.856	10.8	82	0.00
4	S	2-Fluorophenol (Surr)	1000.000	1011.107	-1.1	100	0.00
5	S	Phenol-d6 (Surr)	1000.000	1064.287	-6.4	97	0.00
6	T	Phenol	1000.000	1089.724	-9.0	97	0.00
7	T	Aniline	1000.000	1109.000	-10.9	96	0.00
8	T	Bis(2-chloroethyl) ether	1000.000	1010.657	-1.1	97	0.00
9	T	2-Chlorophenol	1000.000	1077.436	-7.7	97	0.00
10	T	1,3-Dichlorobenzene	1000.000	1028.919	-2.9	98	0.00
11	T	1,4-Dichlorobenzene	1000.000	1012.675	-1.3	96	0.00
12	T	Benzyl alcohol	1000.000	910.317	9.0	94	0.00
13	T	1,2-Dichlorobenzene	1000.000	1010.029	-1.0	96	0.00
14	T	2-Methylphenol	1000.000	1105.418	-10.5	99	0.00
15	T	2,2'-Oxybis(1-Chloropropane	1000.000	930.418	7.0	92	0.00
16	T	N-Nitrosodi-n-propylamine	1000.000	1074.079	-7.4	97	0.00
17	T	3+4-Methylphenol	1000.000	1135.283	-13.5	100	0.00
18	T	Hexachloroethane	1000.000	1062.551	-6.3	102	0.00
19	S	Nitrobenzene-d5 (Surr)	1000.000	1088.317	-8.8	98	0.00
20	T	Nitrobenzene	1000.000	1081.639	-8.2	97	0.00
21	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	98	0.00
22	T	Isophorone	1000.000	1052.379	-5.2	97	0.00
23	T	2-Nitrophenol	1000.000	1120.123	-12.0	101	0.00
24	T	2,4-Dimethylphenol	1000.000	1034.072	-3.4	94	0.00
25	T	Bis(2-chloroethoxy) methane	1000.000	1074.545	-7.5	99	0.00
26	T	Benzoic acid	2000.000	1833.571	8.3	100	0.00
27	T	2,4-Dichlorophenol	1000.000	1107.924	-10.8	102	0.00
28	T	1,2,4-Trichlorobenzene	1000.000	1041.039	-4.1	99	0.00
29	T	Naphthalene	1000.000	1036.065	-3.6	99	0.00
30	T	4-Chloroaniline	1000.000	1158.182	-15.8	101	0.00
31	T	Hexachlorobutadiene	1000.000	1059.733	-6.0	100	0.00
32	T	4-Chloro-3-methylphenol	1000.000	1027.519	-2.8	98	0.00
33	T	2-Methylnaphthalene	1000.000	1063.275	-6.3	100	0.00
34	T	1-Methylnaphthalene	1000.000	1060.101	-6.0	100	0.00
35	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	99	0.00
36	T	Hexachlorocyclopentadiene	1000.000	1088.255	-8.8	100	0.00
37	T	2,4,6-Trichlorophenol	1000.000	1055.262	-5.5	101	0.00
38	T	2,4,5-Trichlorophenol	1000.000	1075.383	-7.5	102	0.00
39	T	1,1'-Biphenyl	1000.000	1047.374	-4.7	98	0.00
40	S	2-Fluorobiphenyl (Surr)	1000.000	1082.434	-8.2	102	0.00
41	T	2-Chloronaphthalene	1000.000	1041.948	-4.2	98	0.00
42	T	2-Nitroaniline	1000.000	1046.918	-4.7	101	0.00
43	T	2,6-Dimethylnaphthalene	1000.000	1053.047	-5.3	98	0.00
44	T	1,4-Dinitrobenzene	1000.000	1090.820	-9.1	108	0.00
45	T	Dimethyl phthalate	1000.000	1088.452	-8.8	100	0.00
46	T	1,3-Dinitrobenzene	1000.000	1074.385	-7.4	104	0.00
47	T	2,6-Dinitrotoluene	1000.000	1114.028	-11.4	101	0.00
48	T	1,2-Dinitrobenzene	1000.000	1032.793	-3.3	97	0.00

Evaluate Continuing Calibration Report

Data Path : T:\data\2019-12\9L03048\
Data File : I12031923.D
Acq On : 3 Dec 2019 10:18 pm
Operator : JK /AMS /DTH
Sample : 9L03048-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 10:40:53 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	Acenaphthylene	1000.000	1103.973	-10.4	99	0.00
50	T	3-Nitroaniline	1000.000	1135.488	-13.5	98	0.00
51	T	Acenaphthene	1000.000	1030.661	-3.1	99	0.00
52	T	2,4-Dinitrophenol	1000.000	955.980	4.4	107	0.00
53	T	4-Nitrophenol	1000.000	1059.913	-6.0	106	0.00
54	T	2,4-Dinitrotoluene	1000.000	1022.736	-2.3	102	0.00
55	T	Dibenzofuran	1000.000	1047.165	-4.7	98	0.00
56	T	2,3,5,6-Tetrachlorophenol	1000.000	1080.961	-8.1	101	0.00
57	T	2,3,4,6-Tetrachlorophenol	1000.000	1035.279	-3.5	100	0.00
58	T	Diethyl phthalate	1000.000	1101.273	-10.1	100	0.00
59	T	2,3,5-Trimethylnaphthalene	1000.000	1053.869	-5.4	98	0.00
60	T	Fluorene	1000.000	1068.614	-6.9	98	0.00
61	T	4-Chlorophenyl phenyl ether	1000.000	1037.339	-3.7	100	0.00
62	T	4-Nitroaniline	1000.000	1042.064	-4.2	100	0.00
63	T	4,6-Dinitro-2-methylphenol	1000.000	1106.989	-10.7	121	0.00
64	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	99	0.00
65	T	N-Nitrosodiphenylamine	1000.000	1090.947	-9.1	97	0.00
66	T	Azobenzene (1,2-DPH)	1000.000	1073.246	-7.3	97	0.00
67	S	2,4,6-Tribromophenol (Surr)	1000.000	1067.330	-6.7	103	0.00
68	T	4-Bromophenyl phenyl ether	1000.000	1062.820	-6.3	100	0.00
69	T	Hexachlorobenzene	1000.000	1038.115	-3.8	101	0.00
70	T	Pentachlorophenol (PCP)	1000.000	1056.571	-5.7	104	0.00
71	T	Phenanthrene	1000.000	1025.265	-2.5	98	0.00
72	T	Anthracene	1000.000	1108.129	-10.8	99	0.00
73	T	Carbazole	1000.000	1035.048	-3.5	100	0.00
74	T	Di-n-butyl phthalate	1000.000	1162.303	-16.2	101	0.00
75	T	Fluoranthene	1000.000	1138.427	-13.8	99	0.00
76	T	Benzidine	2000.000	2100.063	-5.0	99	0.00
77	T	Pyrene	1000.000	1146.409	-14.6	101	0.00
78	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
79	S	Terphenyl-d14 (Surr)	1000.000	1088.643	-8.9	102	0.00
80	T	Butyl benzyl phthalate	1000.000	1016.172	-1.6	103	0.00
81	T	Bis(2-ethylhexyl) adipate	1000.000	1037.941	-3.8	104	0.00
82	T	3,3-Dichlorobenzidine	2000.000	2020.169	-1.0	105	0.00
83	T	Benz(a)anthracene	1000.000	1106.063	-10.6	105	0.00
84	T	Chrysene	1000.000	1013.819	-1.4	99	0.00
85	T	Bis(2-ethylhexyl) phthalate	1000.000	1047.981	-4.8	104	0.00
86	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	101	0.00
87	T	Di-n-octyl phthalate	1000.000	1032.509	-3.3	107	0.01
88	T	Benzo(b)fluoranthene	1000.000	1066.786	-6.7	98	0.00
89	T	Benzo(k)fluoranthene	1000.000	1090.328	-9.0	101	0.00
90	T	Benzo(b+k)fluoranthene	2000.000	2138.052	-6.9	100	0.00
91	T	Benzo(e)pyrene	1000.000	1089.727	-9.0	100	0.01
92	T	Benzo(a)pyrene	1000.000	1046.683	-4.7	94	0.01
93	T	Perylene	1000.000	1191.015	-19.1	117	0.00
94	I	Dibenz(a,h)Anthrcene-d14 (I	2000.000	2000.000	0.0	102	0.02

Evaluate Continuing Calibration Report

Data Path : T:\data\2019-12\9L03048\
Data File : I12031923.D
Acq On : 3 Dec 2019 10:18 pm
Operator : JK /AMS /DTH
Sample : 9L03048-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 10:40:53 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
95 T	Indeno(1,2,3-cd)pyrene	1000.000	1002.655	-0.3	101	0.01
96 T	Dibenz(a,h)anthracene	1000.000	1042.598	-4.3	101	0.01
97 T	Benzo(g,h,i)perylene	1000.000	1114.563	-11.5	101	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031910.D
Acq On : 3 Dec 2019 3:02 pm
Operator : JK /AMS /DTH
Sample : 9L03048-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Dec 04 09:09:11 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Dec 04 09:09:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 12/4/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.889	136	87384	2.00	ug/mL	0.00
2) Acenaphthene-d10	9.670	162	42215	2.00	ug/mL	0.00
4) Phenanthrene-d10	11.184	188	72470	2.00	ug/mL	0.00
10) Chrysene-d12	14.901	240	62442	2.00	ug/mL	0.00
11) Perylene-d12	16.971	264	56594	2.00	ug/mL	0.00
Target Compounds						Qvalue
3) Pentachlorophenol	10.991	266	179831	37.97	ug/mL	89
5) DFTPP	11.472	442	253687	41.64	ug/mL#	58
6) Benzidine	12.649	184	805064	36.90	ug/mL	90
7) 4,4-DDE	12.906	TIC	4158	No Calib	#	
8) 4,4-DDD	13.425	TIC	2312	0.77	ug/mL#	1
9) 4,4-DDT	13.986	TIC	2319093	37.97	ug/mL#	1

(#) = qualifier out of range (m) = manual integration (+) = signals summed

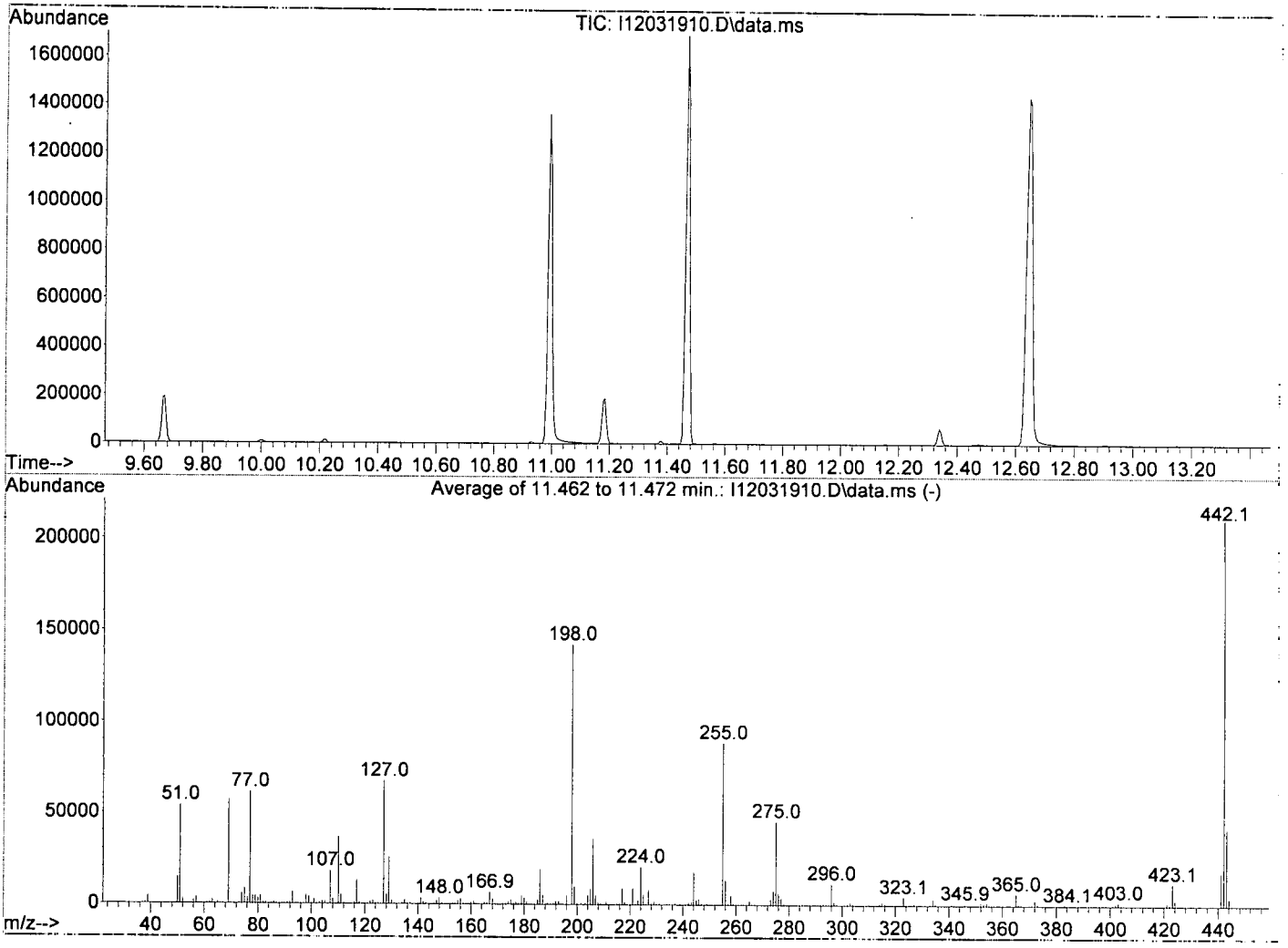
DFTPP

Data Path : T:\data\2019-12\9L03048\
Data File : I12031910.D
Acq On : 3 Dec 2019 3:02 pm
Operator : JK /AMS /DTH
Sample : 9L03048-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : T:\methods\DFTPP.M
Title : DFTPP Tune Methodug/mL
Last Update : Wed Dec 04 09:09:00 2019

12/4/19



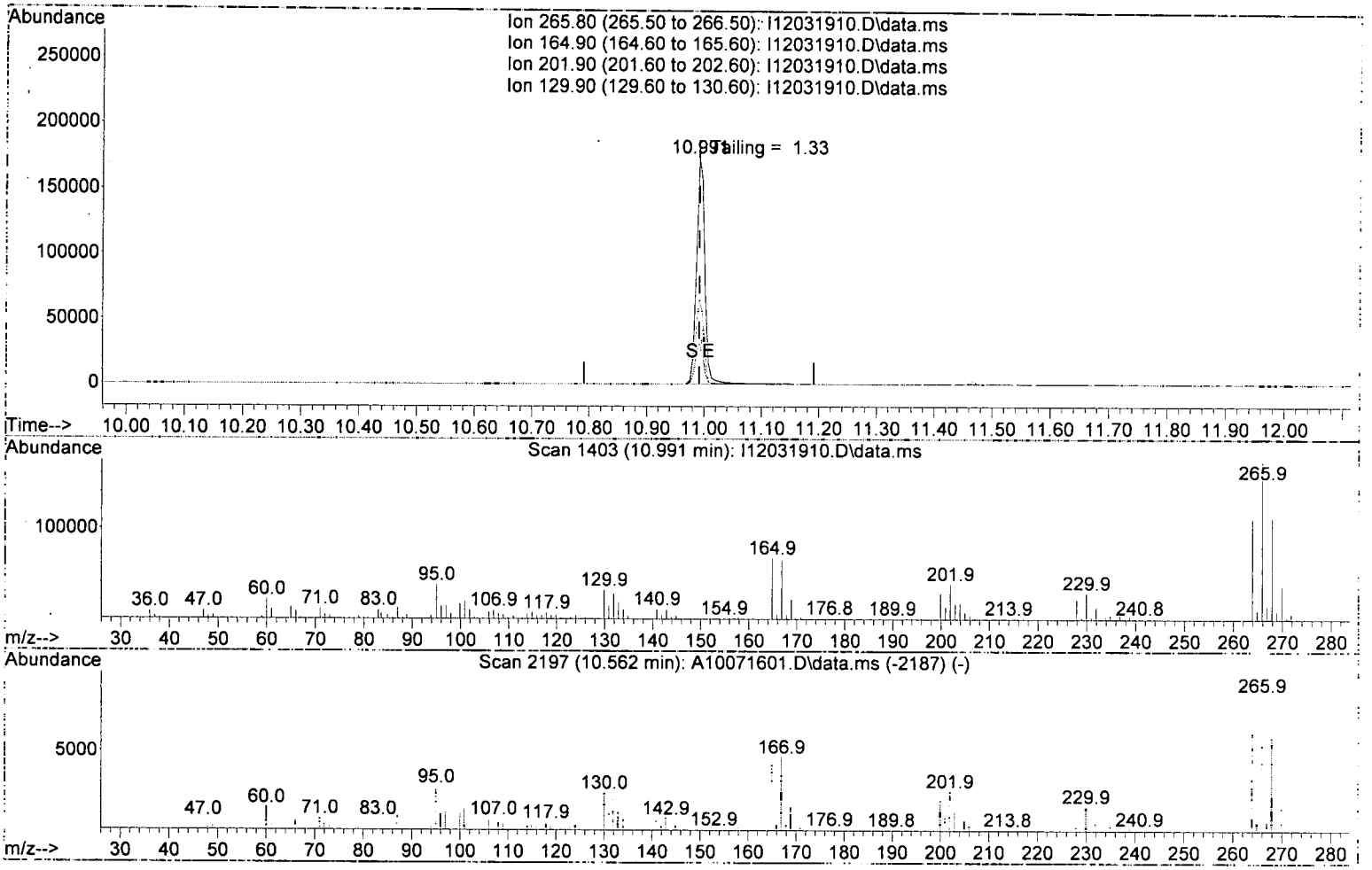
AutoFind: Scans 1491, 1492, 1493; Background Corrected with Scan 1485

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	56984	PASS
70	69	0.00	2	0.5	266	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	142403	PASS
199	198	5	9	6.9	9873	PASS
365	198	1	100	4.5	6365	PASS
441	443	0.01	150	43.0	18011	PASS
442	198	0.10	200	147.9	210659	PASS
443	442	15	24	19.9	41896	PASS

Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031910.D
Acq On : 3 Dec 2019 3:02 pm
Operator : JK /AMS /DTH
Sample : 9L03048-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Dec 04 09:09:11 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Dec 04 09:09:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I12031910.D\data.ms

(3) Pentachlorophenol

10.991min (0.000) 37.97 ug/mL

response 179831

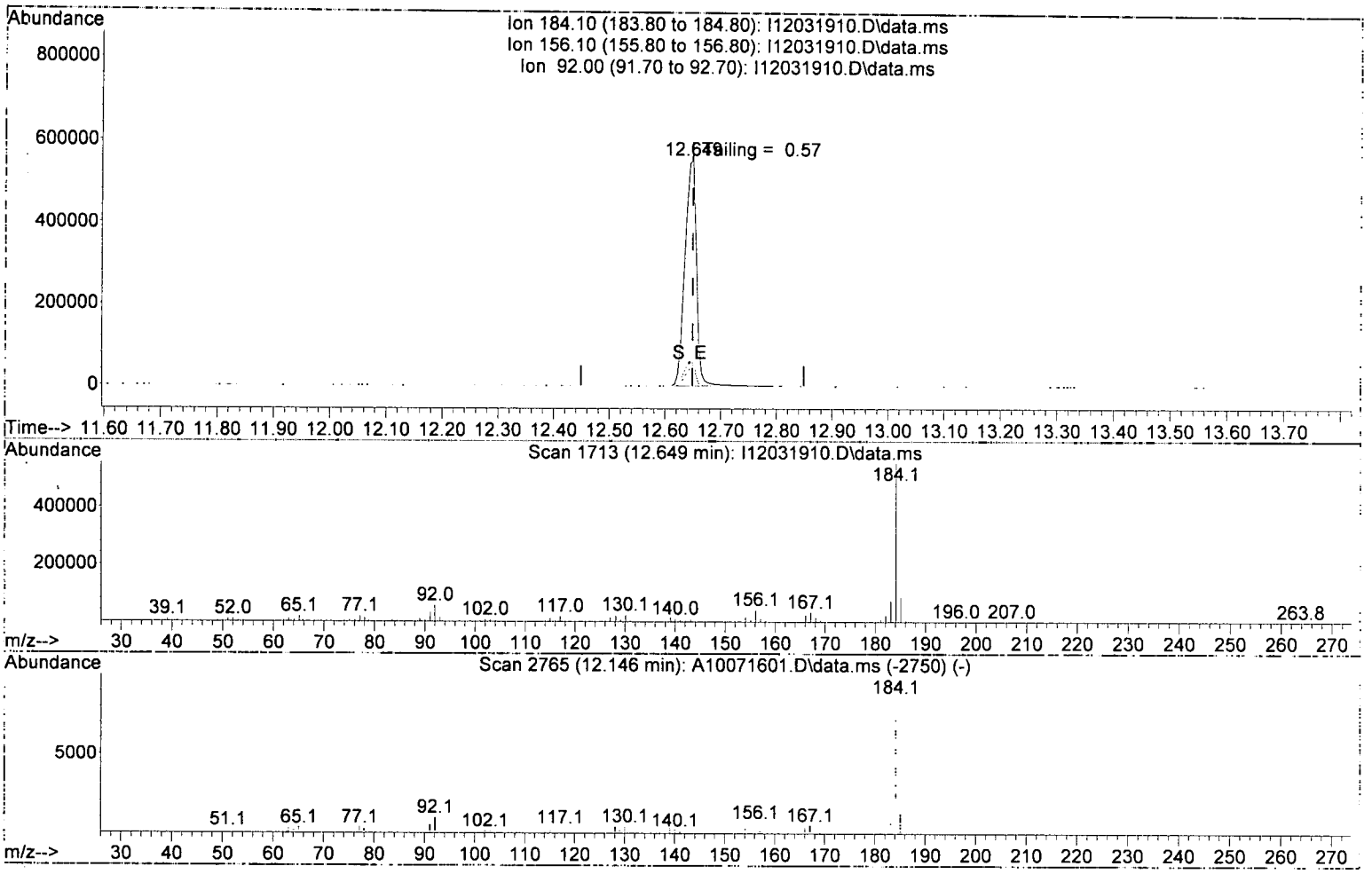
Ion	Exp%	Act%
265.80	100.00	100.00
164.90	47.40	38.44
201.90	26.10	21.98
129.90	22.80	18.10

JK 12/4/19

Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031910.D
Acq On : 3 Dec 2019 3:02 pm
Operator : JK /AMS /DTH
Sample : 9L03048-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Dec 04 09:09:11 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Dec 04 09:09:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I12031910.D\data.ms

(6) Benzidine

12.649min (0.000) 36.90 ug/mL

response 805064

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	9.40	7.53
92.00	15.50	10.11
0.00	0.00	0.00

JK 12/4/19

DDT Breakdown Check (Validated 5/1/2013)

From:
9L03048-TUN1
SV-GCMS9

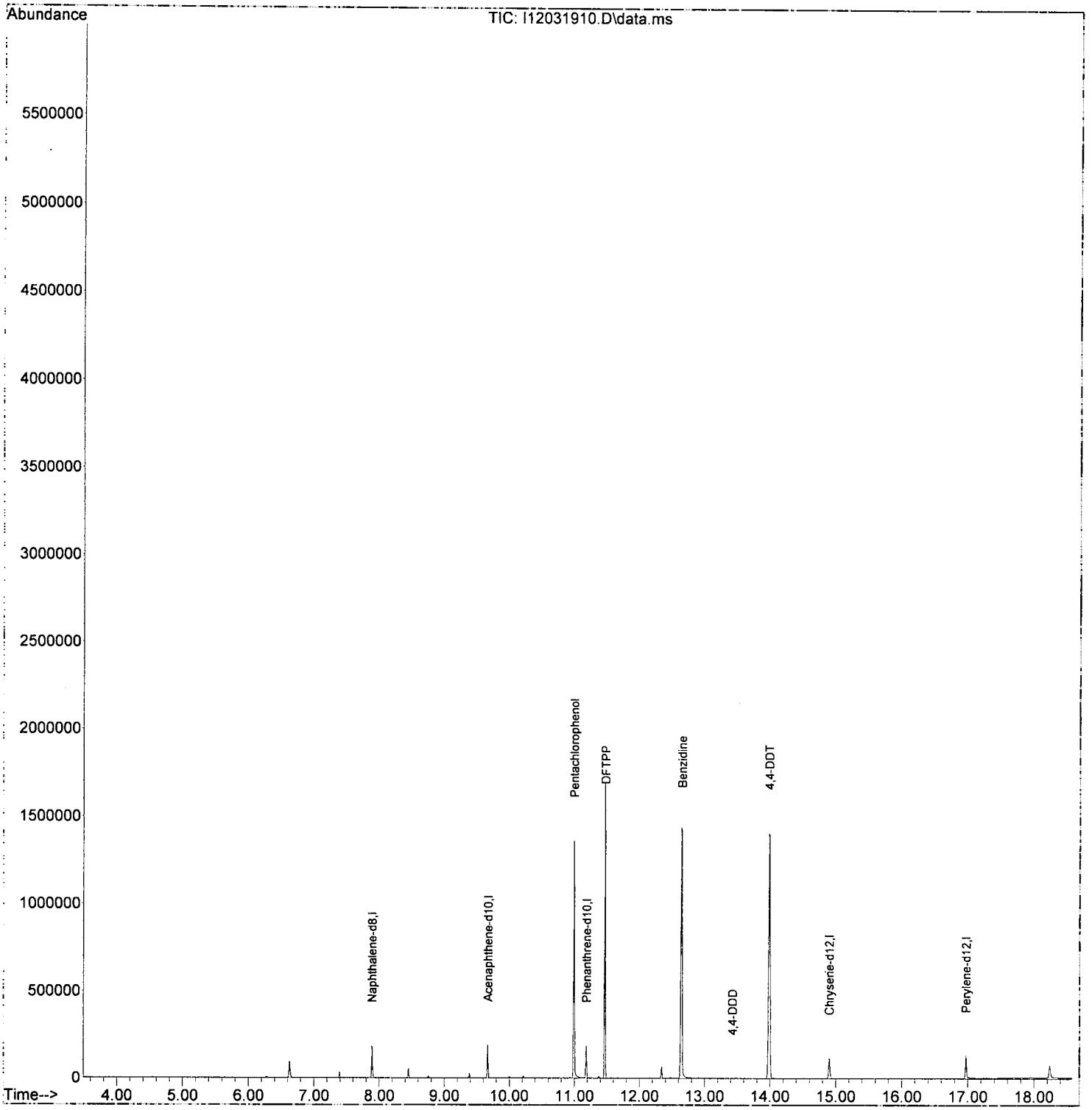
First Column Area Counts		Percent Breakdown	
DDE	4158		✓
DDD	2312		
DDT	2319093	0.28	PASS

Breakdown must be less than 20% to accept sample data.

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031910.D
Acq On : 3 Dec 2019 3:02 pm
Operator : JK /AMS /DTH
Sample : 9L03048-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Dec 04 09:09:11 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Dec 04 09:09:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031911.D
Acq On : 3 Dec 2019 3:29 pm
Operator : JK /AMS /DTH
Sample : 9L03048-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:13:32 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

12/4/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.626	152	72716	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	314821	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	155418	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.183	188	257400	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.986	240	239075	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.479	264	224812	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.881	292	174975	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	0.000	112	0	0.00	ng/ml	
5) Phenol-d6 (Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	0.000	82	0	0.00	ng/ml	
40) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	0.000	244	0	0.00	ng/ml	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	0.000		0	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	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	0.000		0	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	0.000		0	N.D.		
34) 1-Methylnaphthalene	0.000		0	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	0.000		0	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031911.D
Acq On : 3 Dec 2019 3:29 pm
Operator : JK /AMS /DTH
Sample : 9L03048-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:13:32 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

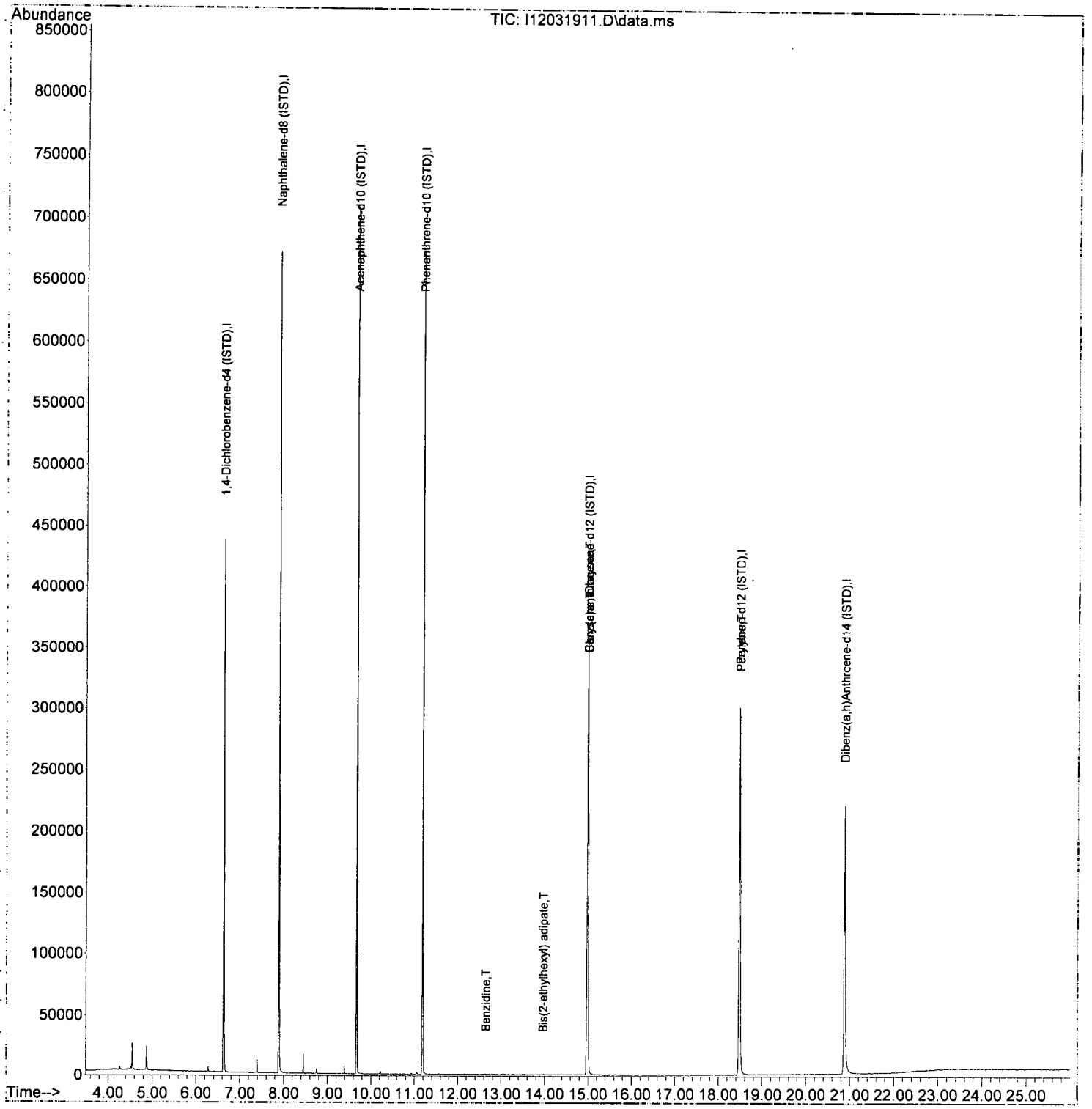
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.		
45) Dimethyl phthalate	0.000		0	N.D.		
46) 1,3-Dinitrobenzene	0.000		0	N.D.		
47) 2,6-Dinitrotoluene	0.000		0	N.D.		
48) 1,2-Dinitrobenzene	0.000		0	N.D.		
49) Acenaphthylene	0.000		0	N.D.		
50) 3-Nitroaniline	0.000		0	N.D.		
51) Acenaphthene	0.000		0	N.D.		
52) 2,4-Dinitrophenol	0.000		0	N.D.		
53) 4-Nitrophenol	0.000		0	N.D.		
54) 2,4-Dinitrotoluene	0.000		0	N.D.		
55) Dibenzofuran	0.000		0	N.D.		
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.		
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.		
58) Diethyl phthalate	0.000		0	N.D.		
59) 2,3,5-Trimethylnaphtha...	0.000		0	N.D.		
60) Fluorene	0.000		0	N.D.		
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.		
62) 4-Nitroaniline	0.000		0	N.D.		
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.		
65) N-Nitrosodiphenylamine	0.000		0	N.D.		
66) Azobenzene (1,2-DPH)	0.000		0	N.D.		
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.		
69) Hexachlorobenzene	0.000		0	N.D.		
70) Pentachlorophenol (PCP)	0.000		0	N.D.		
71) Phenanthrene	11.178	178	86	N.D.		
72) Anthracene	11.178	178	86	N.D.		
73) Carbazole	0.000		0	N.D.		
74) Di-n-butyl phthalate	0.000		0	N.D.		
75) Fluoranthene	0.000		0	N.D.		
76) Benzidine	12.638	184	473	14.17	ng/ml	63
77) Pyrene	0.000		0	N.D.		
80) Butyl benzyl phthalate	0.000		0	N.D.		
81) Bis(2-ethylhexyl) adipate	13.965	129	107	114.52	ng/ml	53
82) 3,3-Dichlorobenzidine	0.000		0	N.D.		
83) Benz(a)anthracene	14.992	228	612	4.70	ng/ml	71
84) Chrysene	14.992	228	612	5.03	ng/ml	67
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.		
87) Di-n-octyl phthalate	0.000		0	N.D.		
88) Benzo(b)fluoranthene	0.000		0	N.D.		
89) Benzo(k)fluoranthene	0.000		0	N.D.		
90) Benzo(b+k)fluoranthene	0.000		0	N.D.		
91) Benzo(e)pyrene	0.000		0	N.D.		
92) Benzo(a)pyrene	0.000		0	N.D.		
93) Perylene	18.484	252	773	7.64	ng/ml#	70
95) Indeno(1,2,3-cd)pyrene	20.875	276	66	N.D.		
96) Dibenz(a,h)anthracene	0.000		0	N.D.		
97) Benzo(g,h,i)perylene	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031911.D
Acq On : 3 Dec 2019 3:29 pm
Operator : JK /AMS /DTH
Sample : 9L03048-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:13:32 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031911.D
Acq On : 3 Dec 2019 3:29 pm
Operator : JK /AMS /DTH
Sample : 9L03048-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Final Reqnant

Quant Time: Dec 05 10:40:20 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

12/5/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.626	152	72716	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	314821	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	155418	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.183	188	257400	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.986	240	239075	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.479	264	224812	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.881	292	174975	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	0.000	112	0	0.00	ng/ml	
5) Phenol-d6 (Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	0.000	82	0	0.00	ng/ml	
40) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	0.000	244	0	0.00	ng/ml	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	0.000		0	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	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	0.000		0	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	0.000		0	N.D.		
34) 1-Methylnaphthalene	0.000		0	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	0.000		0	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031911.D
Acq On : 3 Dec 2019 3:29 pm
Operator : JK /AMS /DTH
Sample : 9L03048-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 10:40:20 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

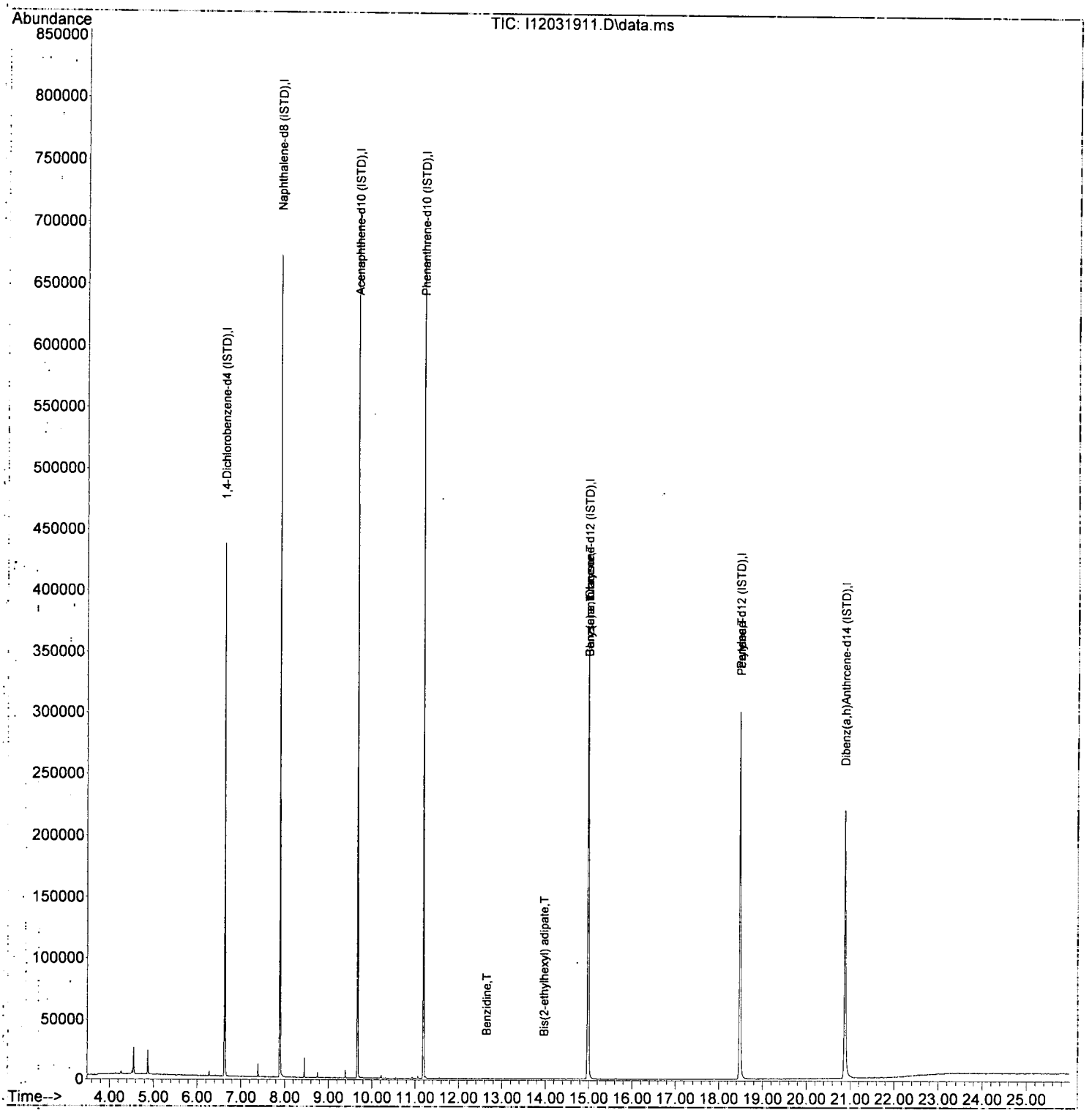
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	0.000		0	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	0.000		0	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	0.000		0	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	0.000		0	N.D.	
55) Dibenzofuran	0.000		0	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	0.000		0	N.D.	
60) Fluorene	0.000		0	N.D.	
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	0.000		0	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	0.000		0	N.D.	
71) Phenanthrene	11.178	178	86	N.D.	
72) Anthracene	11.178	178	86	N.D.	
73) Carbazole	0.000		0	N.D.	
74) Di-n-butyl phthalate	0.000		0	N.D.	
75) Fluoranthene	0.000		0	N.D.	
76) Benzidine	12.638	184	473	173.33 ng/ml	63
77) Pyrene	0.000		0	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	13.965	129	107	75.15 ng/ml	53
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.992	228	612	4.92 ng/ml	71
84) Chrysene	14.992	228	612	5.04 ng/ml	67
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	0.000		0	N.D.	
89) Benzo(k)fluoranthene	0.000		0	N.D.	
90) Benzo(b+k)fluoranthene	0.000		0	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.484	252	773	7.57 ng/ml#	70
95) Indeno(1,2,3-cd)pyrene	20.875	276	66	N.D.	
96) Dibenz(a,h)anthracene	0.000		0	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031911.D
Acq On : 3 Dec 2019 3:29 pm
Operator : JK /AMS /DTH
Sample : 9L03048-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 10:40:20 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:13:38 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 12/4/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.626	152	81092	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	342890	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	167774	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.183	188	281845	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.986	240	268423	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.479	264	258693	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.881	292	204569	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	760	22.76	ng/ml	0.00
5) Phenol-d6 (Surr)	6.257	99	1072	17.24	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.172	82	968	20.21	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.974	172	2573	19.56	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.472	330	146	36.54	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.981	244	1858	14.87	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.968	74	620	16.32	ng/ml	91
3) Pyridine	~~4.075~~	~~79~~	~~221~~	~~3.61~~	~~ng/ml~~	67
6) Phenol	6.273	94	1298	20.54	ng/ml	84
7) Aniline	6.305	93	1255	34.52	ng/ml	98
8) Bis(2-chloroethyl) ether	6.359	93	1322	22.71	ng/ml	97
9) 2-Chlorophenol	6.429	128	967	18.09	ng/ml	90
10) 1,3-Dichlorobenzene	6.573	146	1153	18.25	ng/ml	97
11) 1,4-Dichlorobenzene	6.642	146	1163	19.10	ng/ml	90
12) Benzyl alcohol	6.765	108	203	72.33	ng/ml#	78
13) 1,2-Dichlorobenzene	6.792	146	1271	21.24	ng/ml	85
14) 2-Methylphenol	6.867	107	726	18.74	ng/ml	79
15) 2,2'-Oxybis(1-Chloropr...	6.888	45	1701	28.26	ng/ml	97
16) N-Nitrosodi-n-propylamine	7.017	70	798	24.08	ng/ml	93
17) 3+4-Methylphenol	7.017	107	826	24.51	ng/ml	79
18) Hexachloroethane	7.135	201	302	15.66	ng/ml	95
20) Nitrobenzene	7.188	77	1029	21.84	ng/ml	82
22) Isophorone	7.423	82	2062	18.79	ng/ml	95
23) 2-Nitrophenol	7.509	139	250	7.11	ng/ml	85
24) 2,4-Dimethylphenol	7.541	122	660	24.53	ng/ml	82
25) Bis(2-chloroethoxy) me...	7.632	93	1334	19.90	ng/ml	97
26) Benzoic acid	0.000		0	N.D.		
27) 2,4-Dichlorophenol	7.744	162	445	40.49	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.830	180	1085	17.95	ng/ml	94
29) Naphthalene	7.910	128	3690	21.15	ng/ml	96
30) 4-Chloroaniline	7.958	127	953	34.65	ng/ml	93
31) Hexachlorobutadiene	8.044	225	513	15.81	ng/ml	81
32) 4-Chloro-3-methylphenol	8.440	107	340	77.25	ng/ml#	40
33) 2-Methylnaphthalene	8.605	142	2430	19.41	ng/ml	96
34) 1-Methylnaphthalene	8.707	142	2328	19.35	ng/ml	93
36) Hexachlorocyclopentadiene	8.777	237	396	36.83	ng/ml	99
37) 2,4,6-Trichlorophenol	8.894	196	293	42.36	ng/ml	78
38) 2,4,5-Trichlorophenol	8.926	198	217	33.82	ng/ml	85
39) 1,1'-Biphenyl	9.076	154	2772	19.42	ng/ml	93
41) 2-Chloronaphthalene	9.103	162	2071	19.54	ng/ml	91
42) 2-Nitroaniline	9.199	138	248	7.75	ng/ml	88
43) 2,6-Dimethylnaphthalene	9.237	156	2019	19.30	ng/ml	96

See MI

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:13:38 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

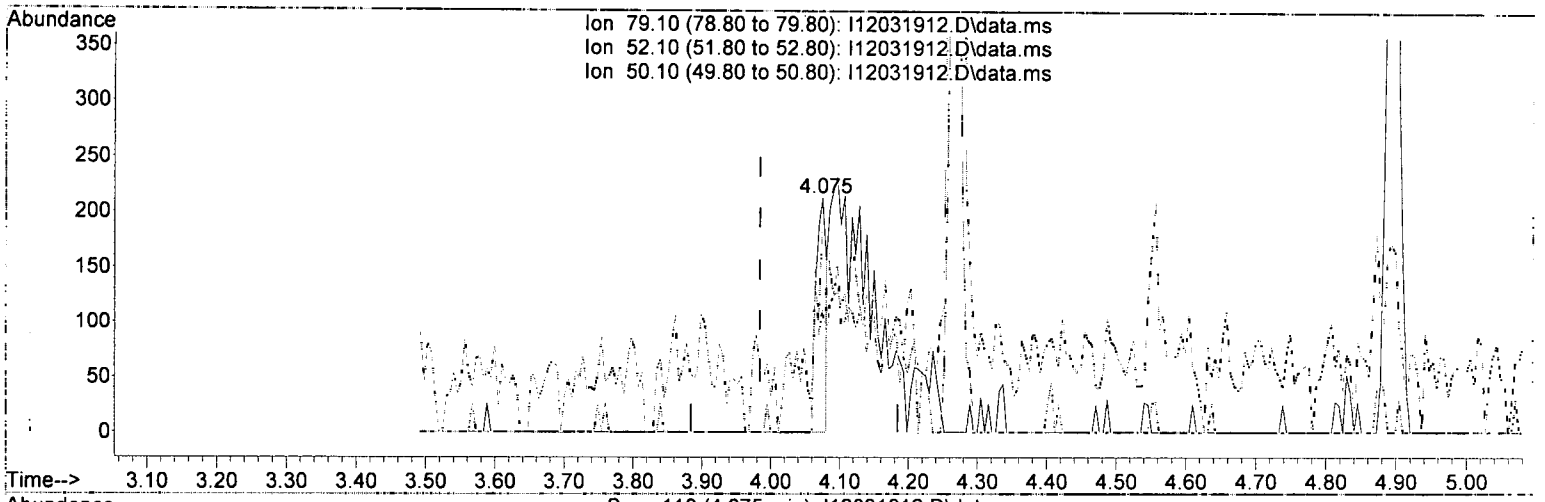
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.322	168	78	65.88	ng/ml	88
45)	Dimethyl phthalate	9.376	163	2021	16.99	ng/ml	96
46)	1,3-Dinitrobenzene	9.408	168	91	4.72	ng/ml#	51
47)	2,6-Dinitrotoluene	9.434	165	222	8.23	ng/ml	69
48)	1,2-Dinitrobenzene	9.408	168	61	4.67	ng/ml#	71
49)	Acenaphthylene	9.525	152	2850	17.13	ng/ml	96
50)	3-Nitroaniline	9.616	138	174	3.67	ng/ml	94
51)	Acenaphthene	9.702	153	2357	21.75	ng/ml	93
52)	2,4-Dinitrophenol	0.000		0	N.D.		
53)	4-Nitrophenol	0.000		0	N.D.		
54)	2,4-Dinitrotoluene	9.852	165	193	36.78	ng/ml	93
55)	Dibenzofuran	9.873	168	2936	19.32	ng/ml	94
56)	2,3,5,6-Tetrachlorophenol	9.959	232	90	33.25	ng/ml	86
57)	2,3,4,6-Tetrachlorophenol	10.001	232	148	36.48	ng/ml	90
58)	Diethyl phthalate	10.092	149	1942	18.13	ng/ml	95
59)	2,3,5-Trimethylnaphtha...	10.087	170	1727	17.66	ng/ml	96
60)	Fluorene	10.221	166	2103	17.82	ng/ml	97
61)	4-Chlorophenyl phenyl ...	10.221	204	1156	19.50	ng/ml	97
62)	4-Nitroaniline	10.231	138	154	7.03	ng/ml	72
63)	4,6-Dinitro-2-methylph...	0.000		0	N.D.		
65)	N-Nitrosodiphenylamine	10.333	169	1283	14.78	ng/ml	92
66)	Azobenzene (1,2-DPH)	10.376	77	1643	19.95	ng/ml	97
68)	4-Bromophenyl phenyl e...	10.718	248	579	17.04	ng/ml	96
69)	Hexachlorobenzene	10.793	284	821	18.90	ng/ml	96
70)	Pentachlorophenol (PCP)	10.991	266	110	80.99	ng/ml	80
71)	Phenanthrene	11.205	178	3456	22.51	ng/ml	97
72)	Anthracene	11.258	178	2551	17.68	ng/ml	97
73)	Carbazole	11.419	167	1783	18.92	ng/ml	96
74)	Di-n-butyl phthalate	11.761	149	1716	11.37	ng/ml	97
75)	Fluoranthene	12.478	202	2450	14.48	ng/ml	93
76)	Benzidine	12.633	184	926	48.49	ng/ml	95
77)	Pyrene	12.772	202	2612	15.22	ng/ml	96
80)	Butyl benzyl phthalate	13.794	149	391	66.26	ng/ml	81
81)	Bis(2-ethylhexyl) adipate	13.970	129	358	118.32	ng/ml	61
82)	3,3-Dichlorobenzidine	14.928	252	740	Below Cal		84
83)	Benz(a)anthracene	14.965	228	2620	17.91	ng/ml	91
84)	Chrysene	15.040	228	2548	18.65	ng/ml	95
85)	Bis(2-ethylhexyl) phth...	15.136	149	563	71.59	ng/ml	94
87)	Di-n-octyl phthalate	16.810	149	707	77.67	ng/ml	66
88)	Benzo(b)fluoranthene	17.554	252	1911	14.65	ng/ml	96
89)	Benzo(k)fluoranthene	17.623	252	2017	25.58	ng/ml	86
90)	Benzo(b+k)fluoranthene	17.554	252	3928	45.93	ng/ml	96
91)	Benzo(e)pyrene	18.212	252	2091	15.65	ng/ml	97
92)	Benzo(a)pyrene	18.335	252	1587	30.50	ng/ml	96
93)	Perylene	18.532	252	2263	19.45	ng/ml	97
95)	Indeno(1,2,3-cd)pyrene	20.875	276	2118	17.75	ng/ml	50
96)	Dibenz(a,h)anthracene	20.939	278	1905	18.58	ng/ml	90
97)	Benzo(g,h,i)perylene	21.410	276	1656	14.28	ng/ml	88

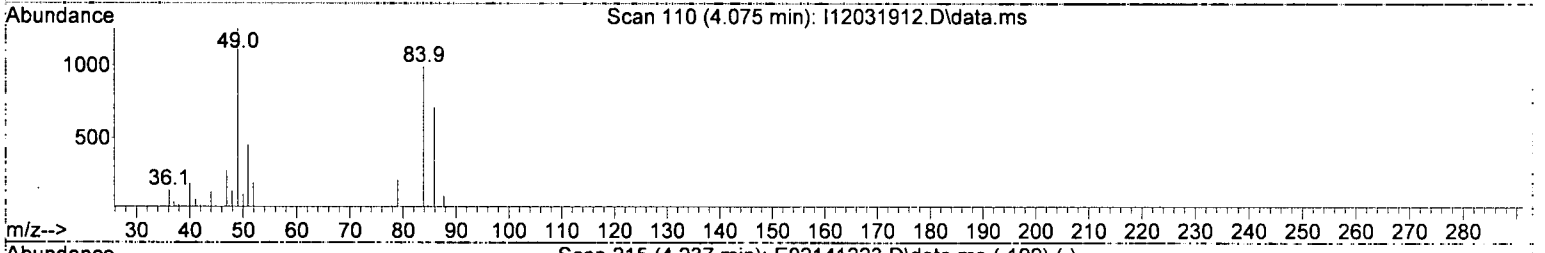
(#) = qualifier out of range (m) = manual integration (+) = signals summed

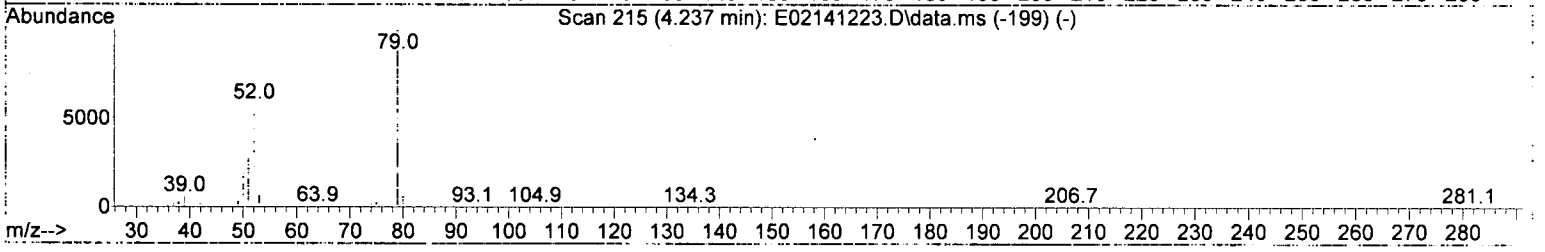
Quantitation Report (Qedit)

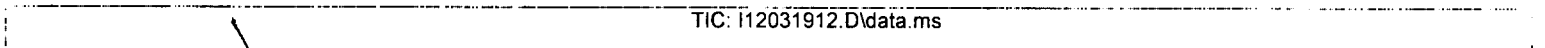
Data Path : T:\data\2019-12\9L03048\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:13:38 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9









(3) Pyridine (T)

4.075min (+ 0.091) 3.61 ng/ml

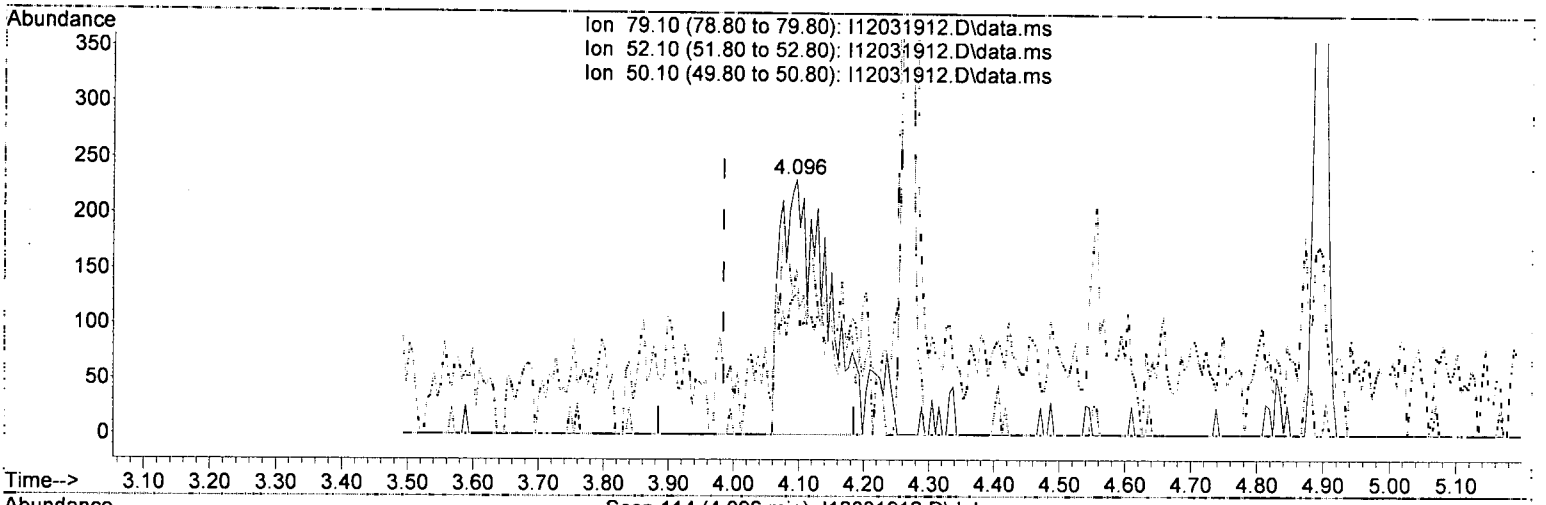
response 221

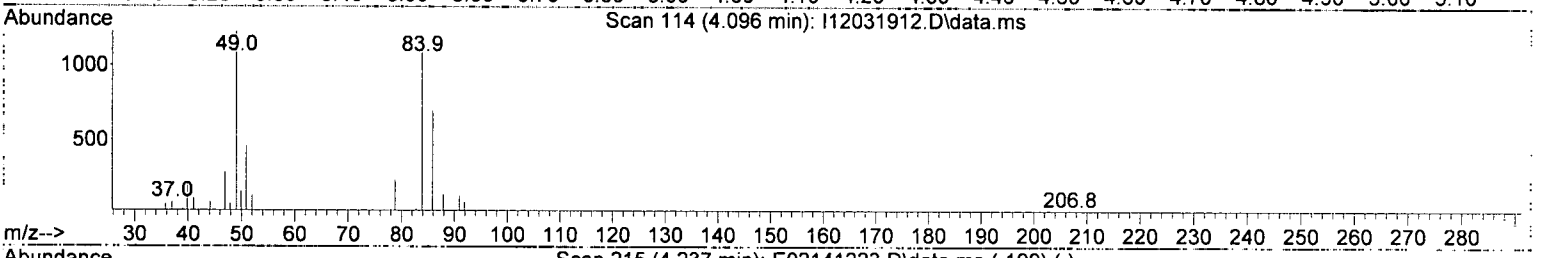
Ion	Exp%	Act%
79.10	100.00	100.00
52.10	69.90	90.61
50.10	25.60	52.58
0.00	0.00	0.00

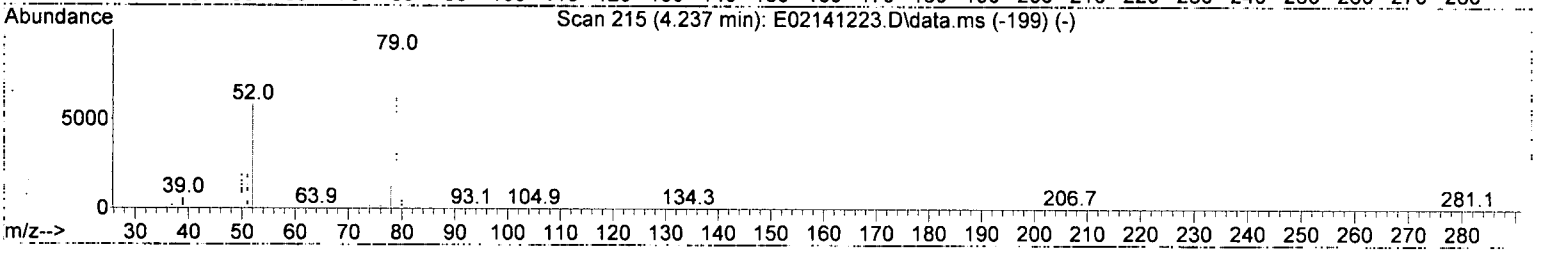
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:13:38 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I12031912.D\data.ms

(3) Pyridine (T)

4.096min (+ 0.112) 18.53 ng/ml m 12/9/19

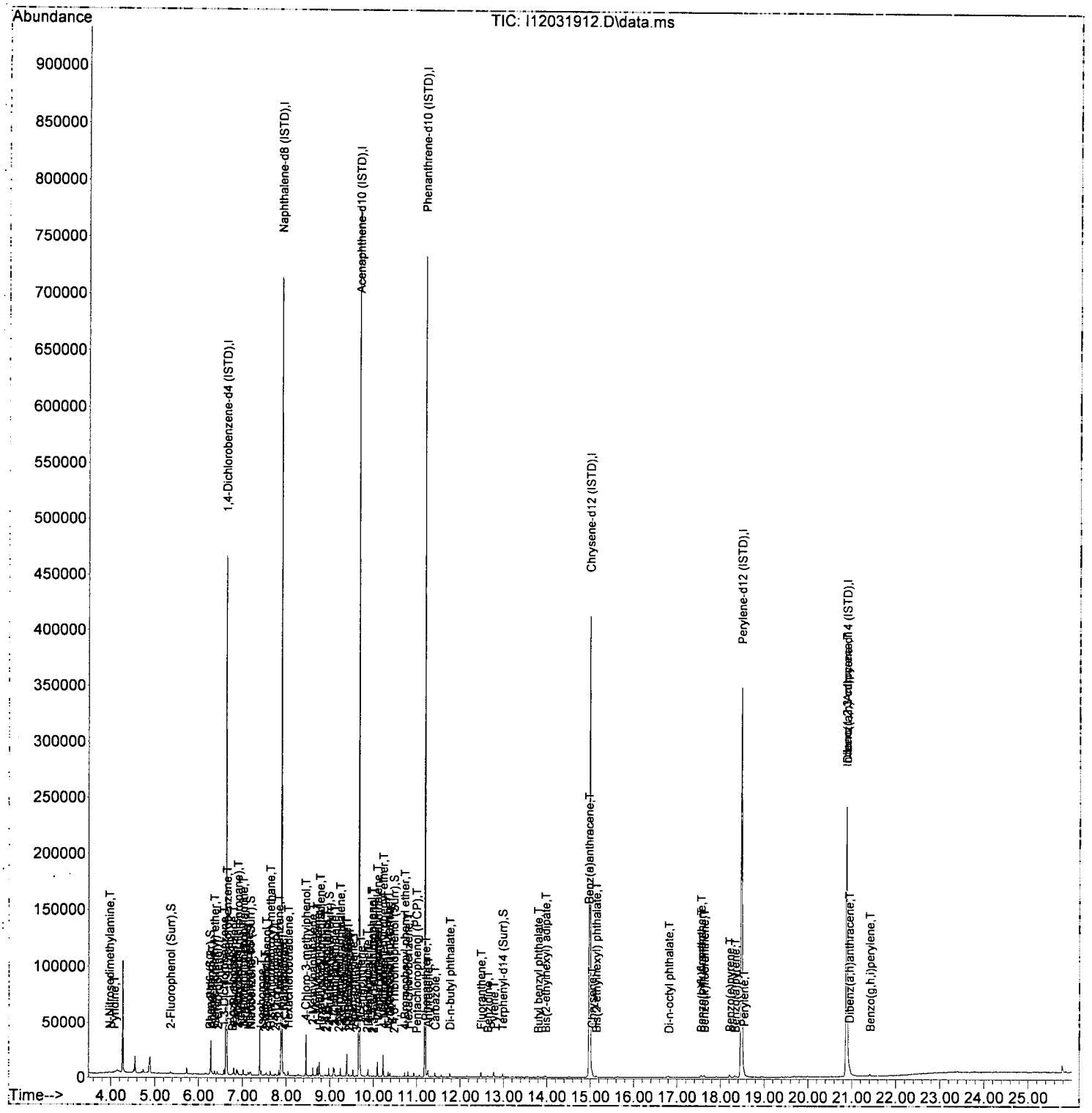
response 1133

Ion	Exp%	Act%
79.10	100.00	100.00
52.10	69.90	55.60
50.10	25.60	65.95#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031912.D
Acq On : 3 Dec 2019 4:03 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL1
Misc : 1x, A19K211@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:13:38 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031913.D
Acq On : 3 Dec 2019 4:38 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL2
Misc : 1x, A19K212@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:13:46 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JJR 12/4/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.627	152	76901	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	331693	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	161834	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.184	188	274003	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.987	240	261138	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.479	264	244791	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.875	292	196186	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	1965	48.28	ng/ml	0.00
5) Phenol-d6 (Surr)	6.263	99	2800	47.49	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.167	82	2472	54.41	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.975	172	6633	52.26	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.472	330	423	51.45	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.981	244	5357	44.06	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.963	74	1783	49.50	ng/ml	98
3) Pyridine	4.038	79	2675	46.14	ng/ml	86
6) Phenol	6.268	94	3365	56.14	ng/ml	95
7) Aniline	6.300	93	3454	86.69	ng/ml	100
8) Bis(2-chloroethyl) ether	6.359	93	3277	59.37	ng/ml	96
9) 2-Chlorophenol	6.423	128	2376	46.88	ng/ml	95
10) 1,3-Dichlorobenzene	6.573	146	3054	50.98	ng/ml	99
11) 1,4-Dichlorobenzene	6.643	146	3134	54.29	ng/ml	98
12) Benzyl alcohol	6.760	108	947	98.10	ng/ml	95
13) 1,2-Dichlorobenzene	6.798	146	3087	54.40	ng/ml	96
14) 2-Methylphenol	6.862	107	2000	54.43	ng/ml	97
15) 2,2'-Oxybis(1-Chloropr...	6.889	45	4371	76.58	ng/ml	95
16) N-Nitrosodi-n-propylamine	7.017	70	1987	63.22	ng/ml	96
17) 3+4-Methylphenol	7.012	107	2417	58.85	ng/ml	95
18) Hexachloroethane	7.129	201	789	43.13	ng/ml	94
20) Nitrobenzene	7.188	77	2592	58.01	ng/ml	94
22) Isophorone	7.424	82	5441	51.25	ng/ml	99
23) 2-Nitrophenol	7.504	139	751	22.09	ng/ml	89
24) 2,4-Dimethylphenol	7.541	122	2005	52.18	ng/ml	94
25) Bis(2-chloroethoxy) me...	7.632	93	3419	52.73	ng/ml	99
26) Benzoic acid	0.000		0	N.D.		
27) 2,4-Dichlorophenol	7.744	162	1440	62.66	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.830	180	2902	49.62	ng/ml	96
29) Naphthalene	7.910	128	9311	55.18	ng/ml	97
30) 4-Chloroaniline	7.958	127	2616	88.87	ng/ml	98
31) Hexachlorobutadiene	8.044	225	1319	42.03	ng/ml	97
32) 4-Chloro-3-methylphenol	8.440	107	1256	97.00	ng/ml	92
33) 2-Methylnaphthalene	8.606	142	6232	51.46	ng/ml	94
34) 1-Methylnaphthalene	8.707	142	6060	52.07	ng/ml	96
36) Hexachlorocyclopentadiene	8.777	237	1037	57.41	ng/ml	99
37) 2,4,6-Trichlorophenol	8.894	196	859	59.75	ng/ml	97
38) 2,4,5-Trichlorophenol	8.927	196	739	50.78	ng/ml	90
39) 1,1'-Biphenyl	9.076	154	7529	54.68	ng/ml	94
41) 2-Chloronaphthalene	9.098	162	5582	54.59	ng/ml	99
42) 2-Nitroaniline	9.194	138	816	26.44	ng/ml	98
43) 2,6-Dimethylnaphthalene	9.237	156	5091	50.45	ng/ml	97

See NJ

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031913.D
Acq On : 3 Dec 2019 4:38 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL2
Misc : 1x, A19K212@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:13:46 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

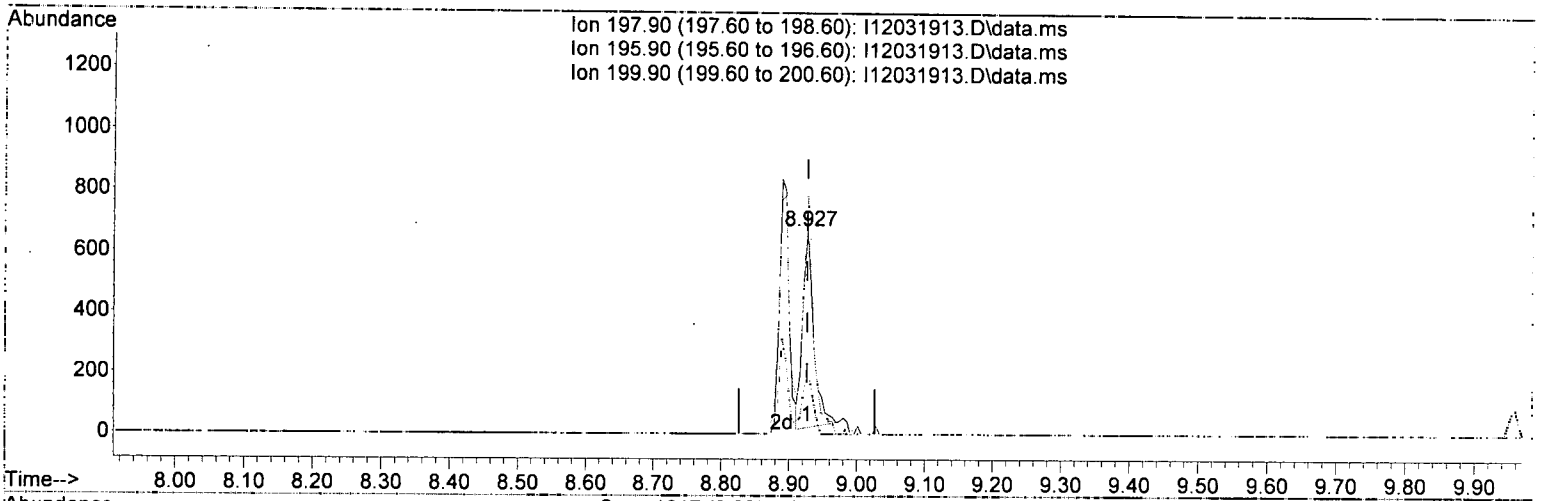
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.322	168	252	76.40	ng/ml#	81
45) Dimethyl phthalate	9.376	163	5537	48.24	ng/ml	97
46) 1,3-Dinitrobenzene	9.403	168	287	15.45	ng/ml	73
47) 2,6-Dinitrotoluene	9.435	165	670	25.76	ng/ml	91
48) 1,2-Dinitrobenzene	9.488	168	286	22.69	ng/ml#	50
49) Acenaphthylene	9.526	152	7740	48.23	ng/ml	98
50) 3-Nitroaniline	9.611	138	626	35.89	ng/ml	95
51) Acenaphthene	9.697	153	5425	51.89	ng/ml	97
52) 2,4-Dinitrophenol	0.000		0	N.D.		
53) 4-Nitrophenol	9.772	139	136	123.21	ng/ml#	61
54) 2,4-Dinitrotoluene	9.846	165	600	47.84	ng/ml	95
55) Dibenzofuran	9.873	168	7253	49.48	ng/ml	94
56) 2,3,5,6-Tetrachlorophenol	9.953	232	389	43.39	ng/ml	85
57) 2,3,4,6-Tetrachlorophenol	10.002	232	490	47.80	ng/ml	92
58) Diethyl phthalate	10.093	149	4900	47.43	ng/ml	99
59) 2,3,5-Trimethylnaphtha...	10.087	170	4530	48.03	ng/ml	98
60) Fluorene	10.226	166	5658	49.71	ng/ml	93
61) 4-Chlorophenyl phenyl ...	10.216	204	2650	46.34	ng/ml	97
62) 4-Nitroaniline	10.226	138	552	26.14	ng/ml	93
63) 4,6-Dinitro-2-methylph...	10.264	198	52	145.06	ng/ml	76
65) N-Nitrosodiphenylamine	10.333	169	3867	45.82	ng/ml	97
66) Azobenzene (1,2-DPH)	10.376	77	4633	57.87	ng/ml	95
68) 4-Bromophenyl phenyl e...	10.718	248	1474	44.61	ng/ml	90
69) Hexachlorobenzene	10.793	284	2122	50.23	ng/ml	94
70) Pentachlorophenol (PCP)	10.986	266	205	86.35	ng/ml	81
71) Phenanthrene	11.205	178	8173	54.75	ng/ml	97
72) Anthracene	11.259	178	6645	47.36	ng/ml	97
73) Carbazole	11.414	167	5043	43.24	ng/ml	98
74) Di-n-butyl phthalate	11.761	149	4715	32.13	ng/ml	99
75) Fluoranthene	12.478	202	6606	40.16	ng/ml	96
76) Benzidine	12.633	184	1166	71.30	ng/ml	99
77) Pyrene	12.772	202	7061	42.33	ng/ml	97
80) Butyl benzyl phthalate	13.799	149	1049	76.42	ng/ml	82
81) Bis(2-ethylhexyl) adipate	13.970	129	777	125.36	ng/ml	84
82) 3,3-Dichlorobenzidine	14.922	252	1996	Below Cal		91
83) Benz(a)anthracene	14.965	228	5742	40.35	ng/ml	97
84) Chrysene	15.040	228	6638	49.95	ng/ml	97
85) Bis(2-ethylhexyl) phth...	15.136	149	1339	80.03	ng/ml	90
87) Di-n-octyl phthalate	16.810	149	1487	83.02	ng/ml	92
88) Benzo(b)fluoranthene	17.559	252	3980	32.24	ng/ml	96
89) Benzo(k)fluoranthene	17.623	252	4087	40.78	ng/ml	97
90) Benzo(b+k)fluoranthene	17.623	252	8721	81.84	ng/ml	97
91) Benzo(e)pyrene	18.217	252	4620	36.55	ng/ml	92
92) Benzo(a)pyrene	18.335	252	3268	43.65	ng/ml	91
93) Perylene	18.533	252	5321	48.33	ng/ml	97
95) Indeno(1,2,3-cd)pyrene	20.875	276	4903	42.86	ng/ml	71
96) Dibenz(a,h)anthracene	20.945	278	4756	48.36	ng/ml	91
97) Benzo(g,h,i)perylene	21.400	276	4102	36.89	ng/ml	93

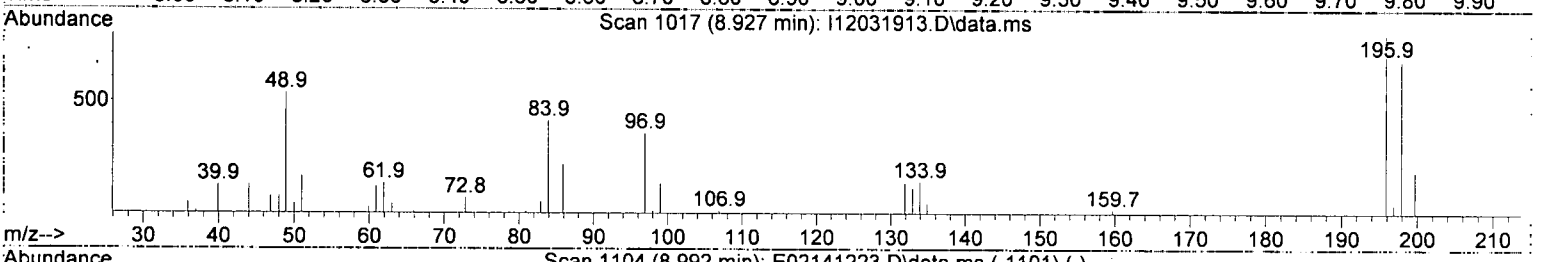
(#) = qualifier out of range (m) = manual integration (+) = signals summed

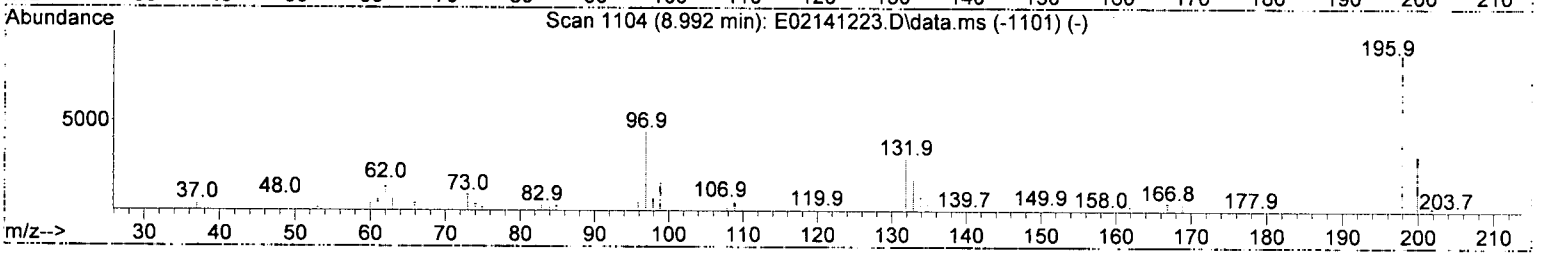
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031913.D
Acq On : 3 Dec 2019 4:38 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL2
Misc : 1x, A19K212@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:13:46 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I12031913.D\data.ms

(38) 2,4,5-Trichlorophenol (T)

8.927min (+ 0.000) 50.78 ng/ml

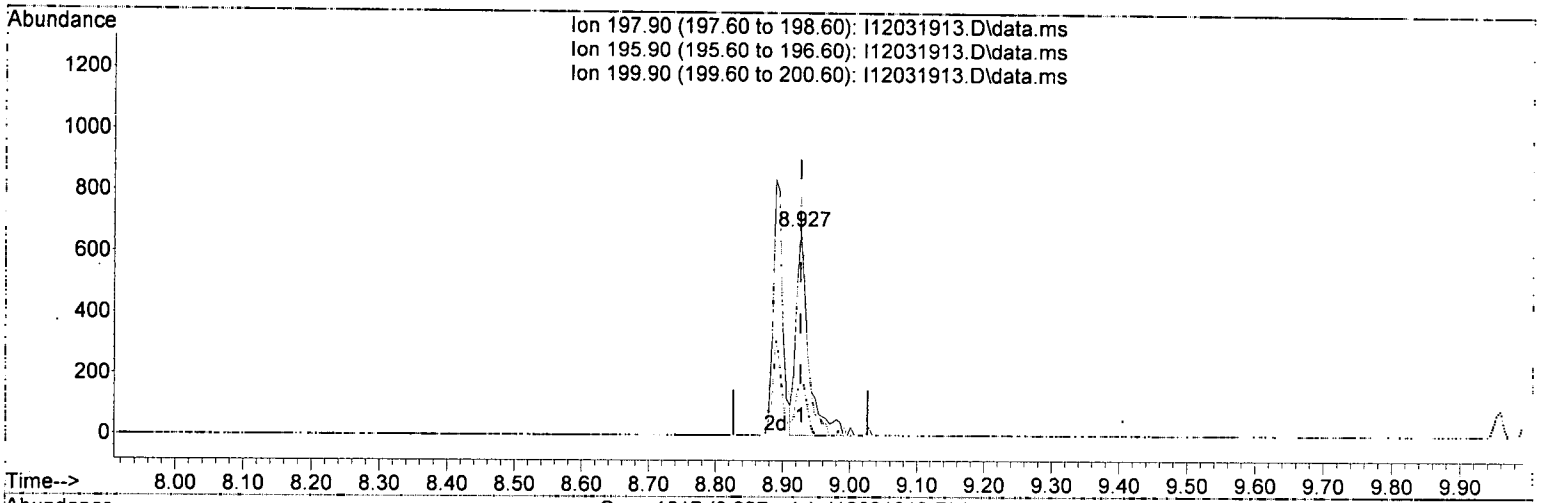
response 739

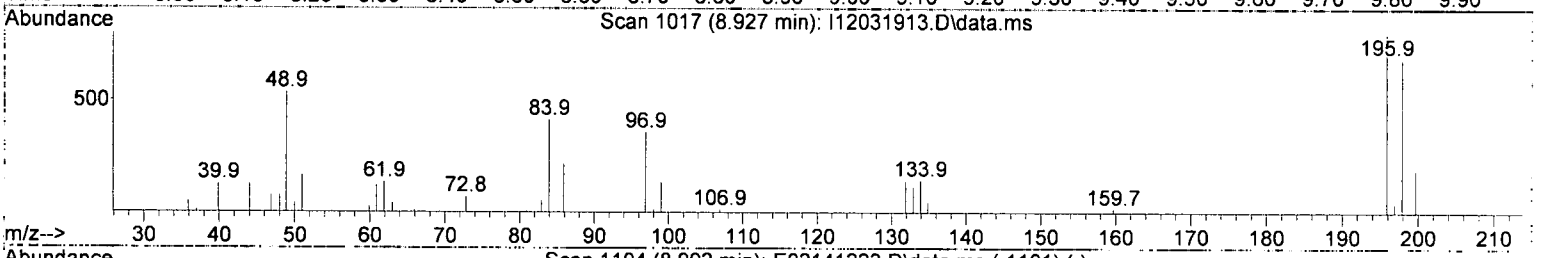
Ion	Exp%	Act%
197.90	100.00	100.00
195.90	103.70	116.34
199.90	30.90	30.01
0.00	0.00	0.00

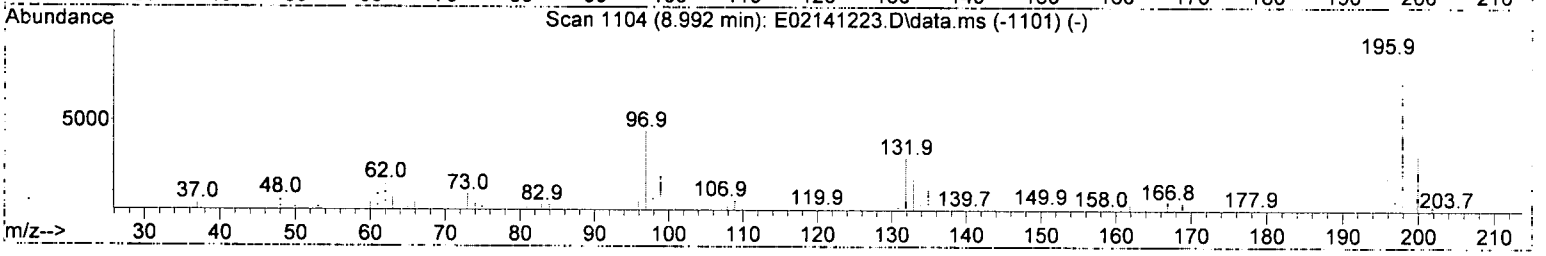
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031913.D
Acq On : 3 Dec 2019 4:38 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL2
Misc : 1x, A19K212@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:13:46 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I12031913.D\data.ms

(38) 2,4,5-Trichlorophenol (T)

8.927min (+ 0.000) 55.27 ng/ml m 12/4/19

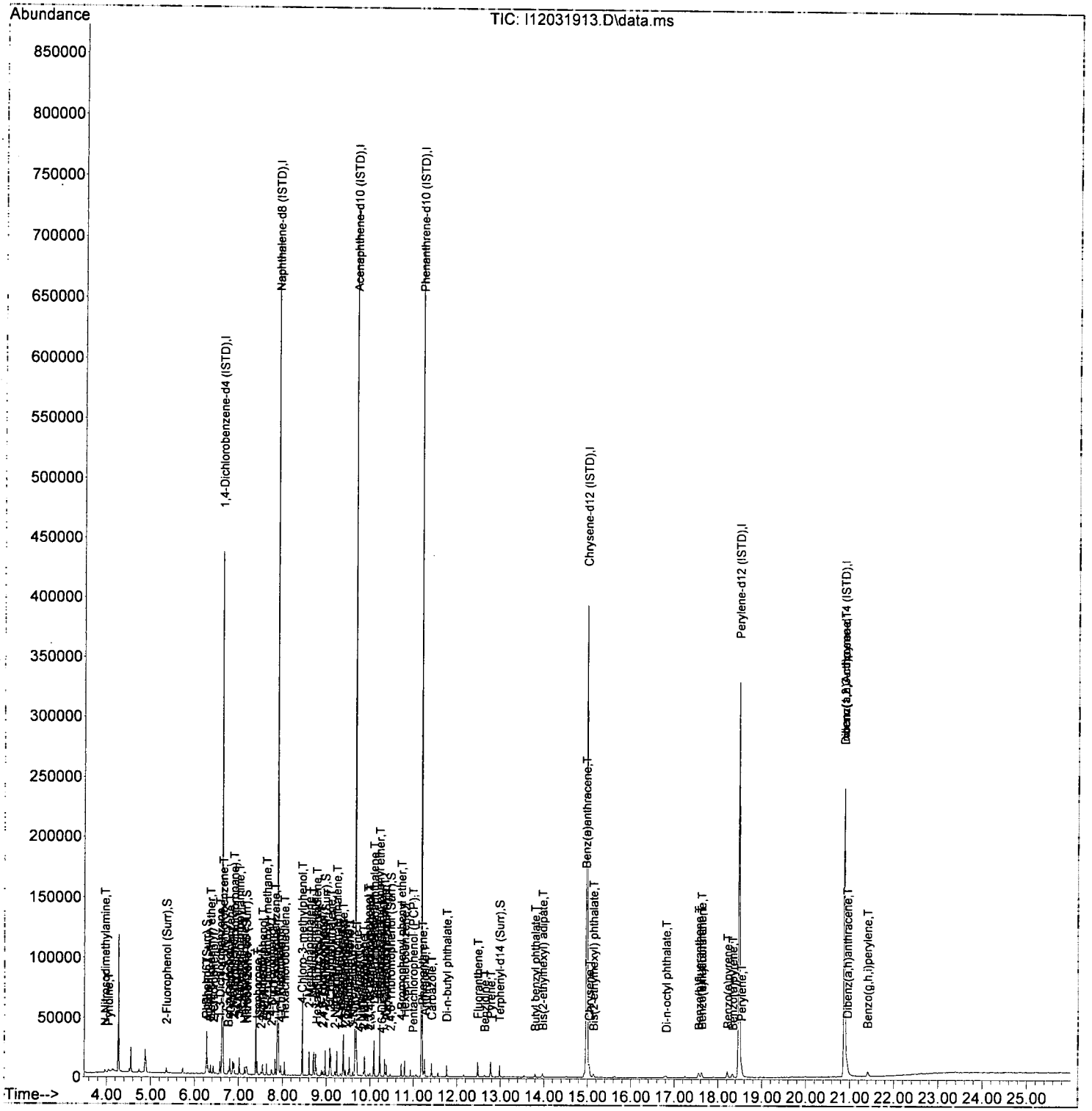
response 879

Ion	Exp%	Act%
197.90	100.00	100.00
195.90	103.70	116.34
199.90	30.90	30.01
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031913.D
Acq On : 3 Dec 2019 4:38 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL2
Misc : 1x, A19K212@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:13:46 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031914.D
Acq On : 3 Dec 2019 5:12 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL3
Misc : 1x, A19K213@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:13:53 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

GP 12/4/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.627	152	77018	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	326606	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	160023	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.184	188	271162	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.986	240	260933	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.479	264	246501	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.881	292	197498	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.364	112	4493	99.87	ng/ml	0.00
5) Phenol-d6 (Surr)	6.257	99	6110	103.46	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.167	82	5323	116.99	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.975	172	13259	105.65	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.472	330	1050	85.33	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.981	244	11527	94.88	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.968	74	3863	107.08	ng/ml	96
3) Pyridine	4.027	79	5875	101.17	ng/ml	97
6) Phenol	6.268	94	7079	117.93	ng/ml	95
7) Aniline	6.306	93	7803	189.75	ng/ml	95
8) Bis(2-chloroethyl) ether	6.359	93	6496	117.51	ng/ml	99
9) 2-Chlorophenol	6.423	128	5309	104.59	ng/ml	98
10) 1,3-Dichlorobenzene	6.573	146	6120	102.00	ng/ml	95
11) 1,4-Dichlorobenzene	6.643	146	6240	107.93	ng/ml	100
12) Benzyl alcohol	6.760	108	1740	125.09	ng/ml	97
13) 1,2-Dichlorobenzene	6.798	146	6036	106.21	ng/ml	99
14) 2-Methylphenol	6.862	107	4228	114.88	ng/ml	96
15) 2,2'-Oxybis(1-Chloropr...	6.889	45	8672	151.70	ng/ml	95
16) N-Nitrosodi-n-propylamine	7.017	70	4176	132.66	ng/ml	94
17) 3+4-Methylphenol	7.012	107	5361	120.65	ng/ml	89
18) Hexachloroethane	7.129	201	1645	89.79	ng/ml	86
20) Nitrobenzene	7.188	77	5634	125.90	ng/ml	99
22) Isophorone	7.423	82	11206	107.19	ng/ml	97
23) 2-Nitrophenol	7.509	139	1804	53.88	ng/ml	93
24) 2,4-Dimethylphenol	7.541	122	4258	99.15	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.632	93	7097	111.15	ng/ml	98
26) Benzoic acid	7.541	105	139	777.84	ng/ml#	1
27) 2,4-Dichlorophenol	7.744	162	3184	102.04	ng/ml	99
28) 1,2,4-Trichlorobenzene	7.835	180	5594	97.15	ng/ml	94
29) Naphthalene	7.910	128	18476	111.20	ng/ml	100
30) 4-Chloroaniline	7.958	127	5713	192.49	ng/ml	97
31) Hexachlorobutadiene	8.044	225	2839	91.87	ng/ml	94
32) 4-Chloro-3-methylphenol	8.440	107	3107	137.45	ng/ml	88
33) 2-Methylnaphthalene	8.606	142	12389	103.89	ng/ml	96
34) 1-Methylnaphthalene	8.707	142	12294	107.27	ng/ml	96
36) Hexachlorocyclopentadiene	8.777	237	2263	96.76	ng/ml	96
37) 2,4,6-Trichlorophenol	8.894	196	1979	94.23	ng/ml	89
38) 2,4,5-Trichlorophenol	8.926	198	1904	88.79	ng/ml	94
39) 1,1'-Biphenyl	9.076	154	15045	110.51	ng/ml	99
41) 2-Chloronaphthalene	9.098	162	11271	111.47	ng/ml	98
42) 2-Nitroaniline	9.194	138	1702	55.78	ng/ml	82
43) 2,6-Dimethylnaphthalene	9.237	156	10680	107.03	ng/ml	99

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031914.D
Acq On : 3 Dec 2019 5:12 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL3
Misc : 1x, A19K213@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:13:53 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

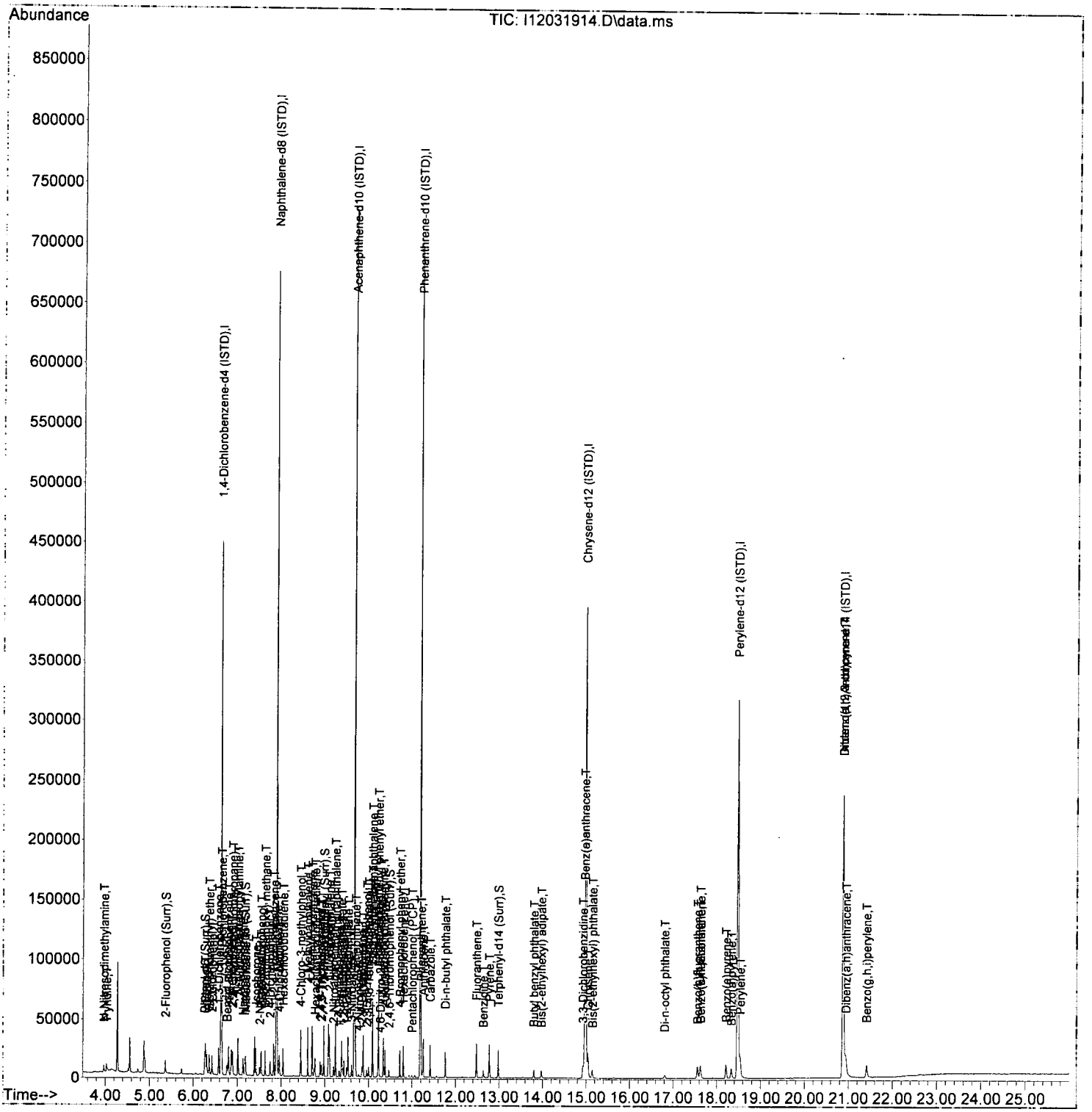
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.322	168	582	96.42	ng/ml#	70
45) Dimethyl phthalate	9.376	163	11562	101.88	ng/ml	99
46) 1,3-Dinitrobenzene	9.402	168	866	47.14	ng/ml	92
47) 2,6-Dinitrotoluene	9.435	165	1827	71.03	ng/ml	96
48) 1,2-Dinitrobenzene	9.493	168	780	62.58	ng/ml	80
49) Acenaphthylene	9.525	152	16908	106.56	ng/ml	99
50) 3-Nitroaniline	9.611	138	1701	113.57	ng/ml	87
51) Acenaphthene	9.702	153	11107	107.44	ng/ml	98
52) 2,4-Dinitrophenol	0.000		0	N.D.		
53) 4-Nitrophenol	9.772	139	479	139.20	ng/ml	74
54) 2,4-Dinitrotoluene	9.846	165	1539	73.42	ng/ml	96
55) Dibenzofuran	9.873	168	14840	102.38	ng/ml	97
56) 2,3,5,6-Tetrachlorophenol	9.959	232	963	63.01	ng/ml	97
57) 2,3,4,6-Tetrachlorophenol	10.002	232	1304	74.85	ng/ml	95
58) Diethyl phthalate	10.092	149	10642	104.18	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.087	170	9475	101.59	ng/ml	98
60) Fluorene	10.226	166	11451	101.75	ng/ml	95
61) 4-Chlorophenyl phenyl ...	10.221	204	5534	97.88	ng/ml	98
62) 4-Nitroaniline	10.226	138	1311	62.78	ng/ml	89
63) 4,6-Dinitro-2-methylph...	10.264	198	201	153.88	ng/ml	86
65) N-Nitrosodiphenylamine	10.333	169	8677	103.88	ng/ml	98
66) Azobenzene (1,2-DPH)	10.376	77	10213	128.91	ng/ml	97
68) 4-Bromophenyl phenyl e...	10.718	248	3017	92.27	ng/ml	98
69) Hexachlorobenzene	10.793	284	4275	102.26	ng/ml	96
70) Pentachlorophenol (PCP)	10.996	266	438	99.33	ng/ml	74
71) Phenanthrene	11.205	178	16108	109.04	ng/ml	100
72) Anthracene	11.258	178	14351	103.36	ng/ml	96
73) Carbazole	11.414	167	11582	92.84	ng/ml	98
74) Di-n-butyl phthalate	11.761	149	10998	75.73	ng/ml	98
75) Fluoranthene	12.478	202	14475	88.93	ng/ml	98
76) Benzidine	12.633	184	4188	324.62	ng/ml	96
77) Pyrene	12.772	202	15621	94.63	ng/ml	96
80) Butyl benzyl phthalate	13.799	149	2495	98.41	ng/ml	87
81) Bis(2-ethylhexyl) adipate	13.970	129	1789	142.00	ng/ml	91
82) 3,3-Dichlorobenzidine	14.928	252	4805	106.29	ng/ml	96
83) Benz(a)anthracene	14.965	228	12136	85.35	ng/ml	96
84) Chrysene	15.040	228	13394	100.87	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.147	149	3319	101.18	ng/ml	94
87) Di-n-octyl phthalate	16.805	149	3108	93.48	ng/ml	97
88) Benzo(b)fluoranthene	17.559	252	9057	72.86	ng/ml	97
89) Benzo(k)fluoranthene	17.629	252	9950	81.28	ng/ml	98
90) Benzo(b+k)fluoranthene	17.629	252	20058	162.24	ng/ml	98
91) Benzo(e)pyrene	18.217	252	10805	84.89	ng/ml	94
92) Benzo(a)pyrene	18.335	252	7465	74.54	ng/ml	98
93) Perylene	18.538	252	10830	97.68	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.875	276	10373	90.06	ng/ml	91
96) Dibenz(a,h)anthracene	20.945	278	9692	97.89	ng/ml	96
97) Benzo(g,h,i)perylene	21.410	276	9583	85.61	ng/ml	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031914.D
Acq On : 3 Dec 2019 5:12 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL3
Misc : 1x, A19K213@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:13:53 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031915.D
Acq On : 3 Dec 2019 5:46 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL4
Misc : 1x, A19K214@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:00 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 12/4/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.627	152	83955	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	332902	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	160974	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.184	188	280138	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.986	240	279994	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.484	264	269268	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.881	292	217430	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	10166	198.15	ng/ml	0.00
5) Phenol-d6 (Surr)	6.257	99	13867	215.41	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.167	82	11763	237.17	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.975	172	27050	214.27	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.472	330	2806	174.85	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.981	244	26772	205.36	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.958	74	8304	211.16	ng/ml	94
3) Pyridine	4.006	79	11415	180.33	ng/ml	97
6) Phenol	6.268	94	16464	251.62	ng/ml	97
7) Aniline	6.306	93	17717	403.76	ng/ml	97
8) Bis(2-chloroethyl) ether	6.359	93	13753	228.23	ng/ml	99
9) 2-Chlorophenol	6.423	128	12018	217.20	ng/ml	96
10) 1,3-Dichlorobenzene	6.573	146	13821	211.33	ng/ml	98
11) 1,4-Dichlorobenzene	6.643	146	13571	215.33	ng/ml	97
12) Benzyl alcohol	6.760	108	5100	225.26	ng/ml	93
13) 1,2-Dichlorobenzene	6.798	146	13817	223.04	ng/ml	96
14) 2-Methylphenol	6.862	107	9605	239.42	ng/ml	97
15) 2,2'-Oxybis(1-Chloropr...	6.889	45	18847	302.45	ng/ml	96
16) N-Nitrosodi-n-propylamine	7.017	70	9090	264.91	ng/ml	96
17) 3+4-Methylphenol	7.012	107	11818	236.17	ng/ml	98
18) Hexachloroethane	7.135	201	3881	194.34	ng/ml	96
20) Nitrobenzene	7.188	77	12932	265.11	ng/ml	97
22) Isophorone	7.418	82	24749	232.25	ng/ml	97
23) 2-Nitrophenol	7.509	139	4437	130.02	ng/ml	97
24) 2,4-Dimethylphenol	7.541	122	9473	202.90	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.632	93	14981	230.19	ng/ml	98
26) Benzoic acid	7.584	105	633	793.77	ng/ml	74
27) 2,4-Dichlorophenol	7.744	162	7872	203.24	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.835	180	11689	199.16	ng/ml	97
29) Naphthalene	7.910	128	37855	223.53	ng/ml	99
30) 4-Chloroaniline	7.958	127	11829	393.38	ng/ml	99
31) Hexachlorobutadiene	8.044	225	6085	193.19	ng/ml	99
32) 4-Chloro-3-methylphenol	8.440	107	7447	228.21	ng/ml	95
33) 2-Methylnaphthalene	8.605	142	25881	212.93	ng/ml	99
34) 1-Methylnaphthalene	8.707	142	24634	210.88	ng/ml	99
36) Hexachlorocyclopentadiene	8.777	237	5088	185.69	ng/ml	95
37) 2,4,6-Trichlorophenol	8.889	196	4861	181.39	ng/ml	97
38) 2,4,5-Trichlorophenol	8.926	198	4882	184.35	ng/ml	93
39) 1,1'-Biphenyl	9.076	154	30824	225.07	ng/ml	99
41) 2-Chloronaphthalene	9.103	162	22623	222.41	ng/ml	97
42) 2-Nitroaniline	9.199	138	4435	144.48	ng/ml	92
43) 2,6-Dimethylnaphthalene	9.237	156	21960	218.76	ng/ml	99

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031915.D
Acq On : 3 Dec 2019 5:46 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL4
Misc : 1x, A19K214@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:00 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

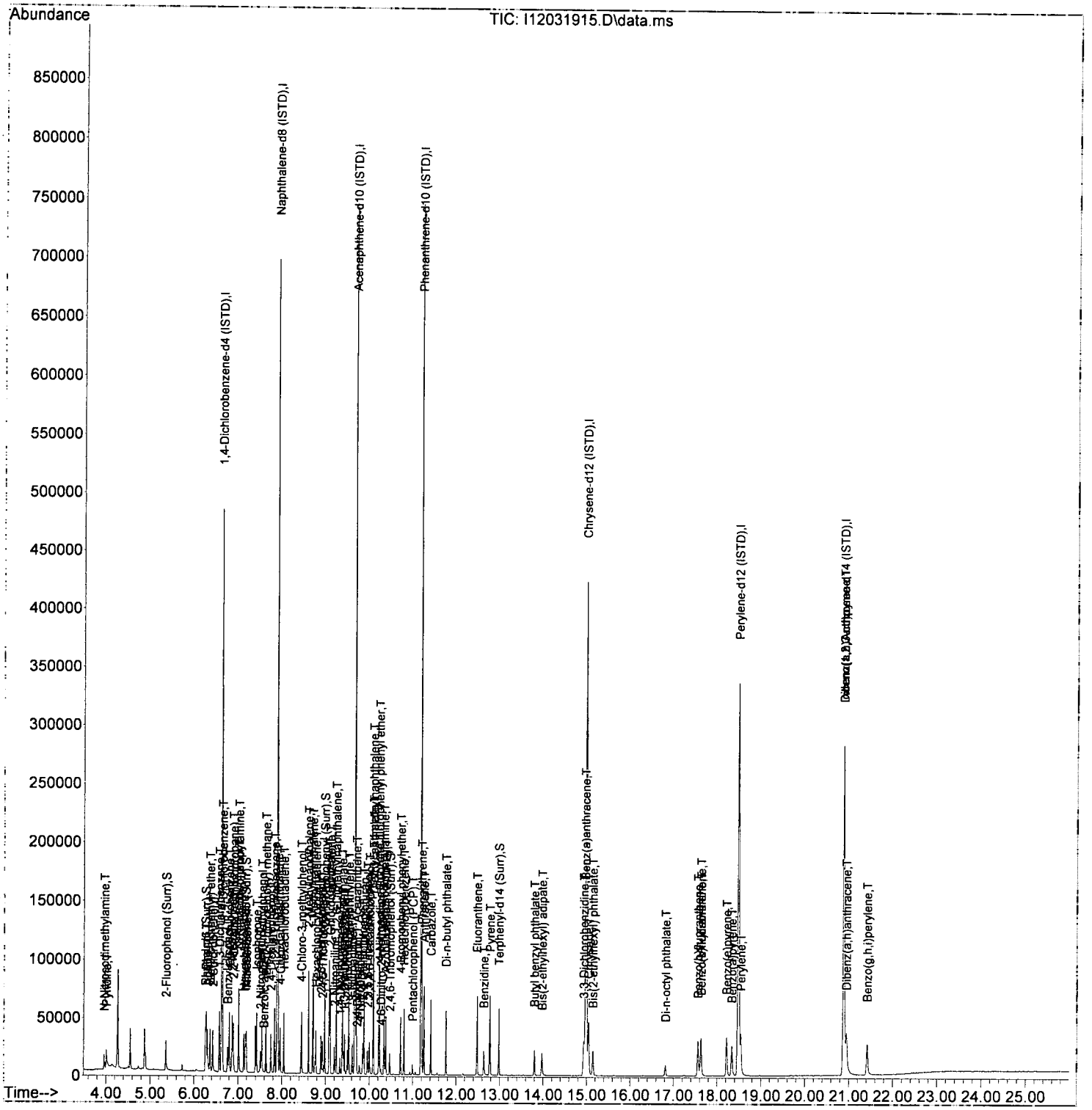
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.322	168	1578	155.72	ng/ml	96
45) Dimethyl phthalate	9.376	163	24457	214.24	ng/ml	100
46) 1,3-Dinitrobenzene	9.408	168	2388	129.21	ng/ml	91
47) 2,6-Dinitrotoluene	9.435	165	4524	174.84	ng/ml	98
48) 1,2-Dinitrobenzene	9.493	168	1939	154.64	ng/ml	83
49) Acenaphthylene	9.525	152	34979	219.14	ng/ml	99
50) 3-Nitroaniline	9.611	138	4329	304.81	ng/ml	100
51) Acenaphthene	9.702	153	22873	219.96	ng/ml	96
52) 2,4-Dinitrophenol	9.718	184	194	207.36	ng/ml	64
53) 4-Nitrophenol	9.771	139	1445	183.65	ng/ml	94
54) 2,4-Dinitrotoluene	9.846	165	4351	148.90	ng/ml	93
55) Dibenzofuran	9.873	168	30987	212.51	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.959	232	3190	138.00	ng/ml	94
57) 2,3,4,6-Tetrachlorophenol	10.001	232	3973	162.23	ng/ml	97
58) Diethyl phthalate	10.092	149	23152	225.30	ng/ml	99
59) 2,3,5-Trimethylnaphtha...	10.087	170	19994	213.11	ng/ml	98
60) Fluorene	10.226	166	24375	215.30	ng/ml	96
61) 4-Chlorophenyl phenyl ...	10.221	204	11318	198.99	ng/ml	98
62) 4-Nitroaniline	10.231	138	3715	176.84	ng/ml	94
63) 4,6-Dinitro-2-methylph...	10.264	198	779	187.65	ng/ml	97
65) N-Nitrosodiphenylamine	10.333	169	19213	222.65	ng/ml	98
66) Azobenzene (1,2-DPH)	10.376	77	22527	275.23	ng/ml	97
68) 4-Bromophenyl phenyl e...	10.718	248	6693	198.13	ng/ml	98
69) Hexachlorobenzene	10.793	284	8826	204.37	ng/ml	98
70) Pentachlorophenol (PCP)	10.991	266	1488	154.58	ng/ml	93
71) Phenanthrene	11.205	178	33616	220.27	ng/ml	99
72) Anthracene	11.258	178	32114	223.88	ng/ml	98
73) Carbazole	11.414	167	26791	204.11	ng/ml	99
74) Di-n-butyl phthalate	11.761	149	28038	186.89	ng/ml	99
75) Fluoranthene	12.478	202	33612	199.88	ng/ml	99
76) Benzidine	12.633	184	10893	807.54	ng/ml	99
77) Pyrene	12.772	202	35949	210.80	ng/ml	97
80) Butyl benzyl phthalate	13.799	149	7795	170.75	ng/ml	96
81) Bis(2-ethylhexyl) adipate	13.976	129	5653	199.19	ng/ml	98
82) 3,3-Dichlorobenzidine	14.933	252	12293	760.34	ng/ml	99
83) Benz(a)anthracene	14.965	228	29244	191.67	ng/ml	100
84) Chrysene	15.045	228	29363	206.08	ng/ml	100
85) Bis(2-ethylhexyl) phth...	15.142	149	10701	172.30	ng/ml	99
87) Di-n-octyl phthalate	16.816	149	8951	126.54	ng/ml	99
88) Benzo(b)fluoranthene	17.559	252	24272	178.75	ng/ml	95
89) Benzo(k)fluoranthene	17.629	252	26053	178.18	ng/ml	96
90) Benzo(b+k)fluoranthene	17.629	252	52531	362.33	ng/ml	96
91) Benzo(e)pyrene	18.217	252	26664	191.77	ng/ml	100
92) Benzo(a)pyrene	18.335	252	21101	162.50	ng/ml	100
93) Perylene	18.538	252	24848	205.16	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.881	276	24305	191.69	ng/ml	99
96) Dibenz(a,h)anthracene	20.945	278	22210	203.76	ng/ml	96
97) Benzo(g,h,i)perylene	21.415	276	24173	196.15	ng/ml	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031915.D
Acq On : 3 Dec 2019 5:46 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL4
Misc : 1x, A19K214@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:00 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031916.D
Acq On : 3 Dec 2019 6:20 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL5
Misc : 1x, A19K215@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:08 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

GB 12/4/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.627	152	81192	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	320013	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	155852	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.184	188	272050	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.987	240	269671	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.485	264	257148	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.881	292	213969	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.354	112	27016	525.34	ng/ml	0.00
5) Phenol-d6 (Surr)	6.258	99	37469	601.86	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.167	82	30295	631.62	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.975	172	65387	534.98	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.472	330	8367	478.50	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.981	244	67248	535.58	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.942	74	21095	554.67	ng/ml	92
3) Pyridine	3.979	79	33858	553.08	ng/ml	93
6) Phenol	6.268	94	43537	688.02	ng/ml	97
7) Aniline	6.300	93	46527	1338.44	ng/ml	99
8) Bis(2-chloroethyl) ether	6.359	93	33605	576.66	ng/ml	97
9) 2-Chlorophenol	6.418	128	31029	579.87	ng/ml	100
10) 1,3-Dichlorobenzene	6.573	146	33584	530.98	ng/ml	98
11) 1,4-Dichlorobenzene	6.643	146	32938	540.41	ng/ml	99
12) Benzyl alcohol	6.755	108	15610	570.12	ng/ml	97
13) 1,2-Dichlorobenzene	6.792	146	32535	543.08	ng/ml	96
14) 2-Methylphenol	6.862	107	24147	622.39	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.889	45	42485	704.98	ng/ml	93
16) N-Nitrosodi-n-propylamine	7.012	70	23607	711.38	ng/ml	99
17) 3+4-Methylphenol	7.012	107	31405	638.94	ng/ml	99
18) Hexachloroethane	7.129	201	9529	493.40	ng/ml	94
20) Nitrobenzene	7.183	77	32003	678.40	ng/ml	98
22) Isophorone	7.418	82	63524	620.13	ng/ml	100
23) 2-Nitrophenol	7.504	139	14203	432.96	ng/ml	97
24) 2,4-Dimethylphenol	7.541	122	25236	543.61	ng/ml	94
25) Bis(2-chloroethoxy) me...	7.632	93	37517	599.69	ng/ml	99
26) Benzoic acid	7.600	105	5088	944.22	ng/ml	96
27) 2,4-Dichlorophenol	7.744	162	22117	534.04	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.835	180	28376	502.95	ng/ml	99
29) Naphthalene	7.910	128	91141	559.86	ng/ml	99
30) 4-Chloroaniline	7.958	127	32068	1199.19	ng/ml	96
31) Hexachlorobutadiene	8.044	225	14186	468.53	ng/ml	99
32) 4-Chloro-3-methylphenol	8.440	107	22351	562.51	ng/ml	98
33) 2-Methylnaphthalene	8.606	142	64287	550.21	ng/ml	98
34) 1-Methylnaphthalene	8.707	142	62032	552.41	ng/ml	99
36) Hexachlorocyclopentadiene	8.777	237	13870	478.48	ng/ml	96
37) 2,4,6-Trichlorophenol	8.889	196	14788	498.43	ng/ml	94
38) 2,4,5-Trichlorophenol	8.927	198	14398	506.53	ng/ml	99
39) 1,1'-Biphenyl	9.076	154	74411	561.20	ng/ml	98
41) 2-Chloronaphthalene	9.103	162	55514	563.70	ng/ml	96
42) 2-Nitroaniline	9.194	138	14324	481.97	ng/ml	95
43) 2,6-Dimethylnaphthalene	9.237	156	53918	554.78	ng/ml	99

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031916.D
Acq On : 3 Dec 2019 6:20 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL5
Misc : 1x, A19K215@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:08 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

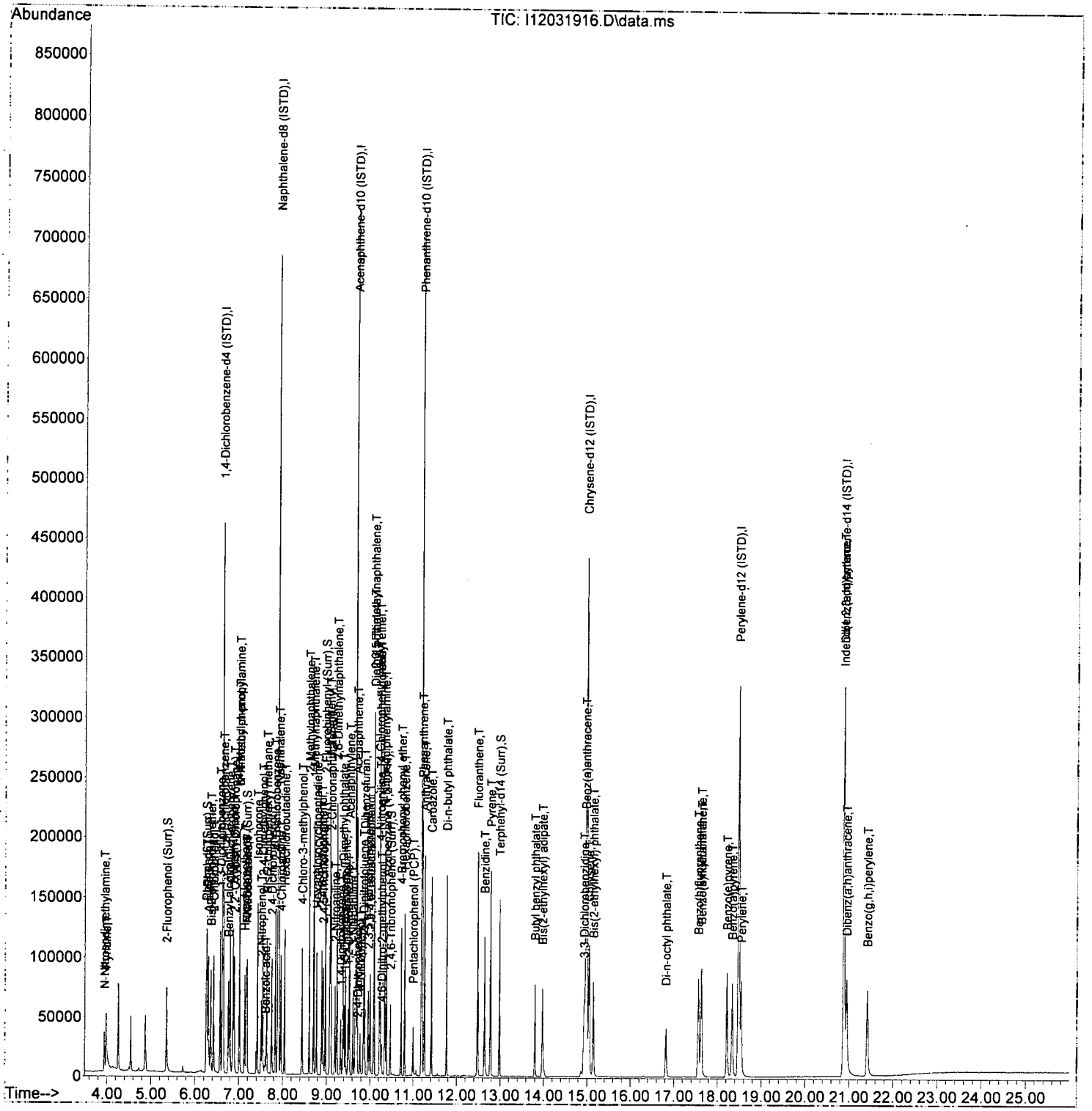
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.328	168	5249	384.47	ng/ml	88
45)	Dimethyl phthalate	9.376	163	60250	545.12	ng/ml	99
46)	1,3-Dinitrobenzene	9.408	168	7509	419.65	ng/ml	91
47)	2,6-Dinitrotoluene	9.440	165	13018	519.64	ng/ml	86
48)	1,2-Dinitrobenzene	9.493	168	5867	483.29	ng/ml	86
49)	Acenaphthylene	9.526	152	87197	564.24	ng/ml	99
50)	3-Nitroaniline	9.611	138	12379	973.03	ng/ml	95
51)	Acenaphthene	9.702	153	54943	545.72	ng/ml	99
52)	2,4-Dinitrophenol	9.718	184	1322	341.78	ng/ml	84
53)	4-Nitrophenol	9.772	139	6508	427.23	ng/ml	96
54)	2,4-Dinitrotoluene	9.846	165	14643	440.74	ng/ml	97
55)	Dibenzofuran	9.873	168	74125	525.06	ng/ml	96
56)	2,3,5,6-Tetrachlorophenol	9.959	232	10526	398.01	ng/ml	96
57)	2,3,4,6-Tetrachlorophenol	10.002	232	12612	460.39	ng/ml	96
58)	Diethyl phthalate	10.093	149	56335	566.22	ng/ml	99
59)	2,3,5-Trimethylnaphtha...	10.087	170	48060	529.09	ng/ml	94
60)	Fluorene	10.226	166	57878	528.04	ng/ml	99
61)	4-Chlorophenyl phenyl ...	10.216	204	27746	503.87	ng/ml	98
62)	4-Nitroaniline	10.232	138	10822	532.06	ng/ml	91
63)	4,6-Dinitro-2-methylph...	10.264	198	3544	355.63	ng/ml	95
65)	N-Nitrosodiphenylamine	10.333	169	48634	580.36	ng/ml	100
66)	Azobenzene (1,2-DPH)	10.381	77	57570	724.30	ng/ml	95
68)	4-Bromophenyl phenyl e...	10.718	248	16943	516.47	ng/ml	97
69)	Hexachlorobenzene	10.793	284	21011	500.97	ng/ml	98
70)	Pentachlorophenol (PCP)	10.991	266	6056	406.49	ng/ml	95
71)	Phenanthrene	11.205	178	80755	544.87	ng/ml	100
72)	Anthracene	11.259	178	79918	573.71	ng/ml	98
73)	Carbazole	11.414	167	70636	584.11	ng/ml	99
74)	Di-n-butyl phthalate	11.761	149	78970	542.02	ng/ml	99
75)	Fluoranthene	12.478	202	87684	536.93	ng/ml	100
76)	Benzidine	12.633	184	54874	3273.20	ng/ml	96
77)	Pyrene	12.772	202	91011	549.54	ng/ml	98
80)	Butyl benzyl phthalate	13.799	149	26971	454.19	ng/ml	96
81)	Bis(2-ethylhexyl) adipate	13.970	129	21591	456.10	ng/ml	98
82)	3,3-Dichlorobenzidine	14.928	252	27812	2252.29	ng/ml	99
83)	Benz(a)anthracene	14.965	228	76462	520.33	ng/ml	97
84)	Chrysene	15.045	228	72081	525.25	ng/ml	98
85)	Bis(2-ethylhexyl) phth...	15.142	149	39213	472.51	ng/ml	100
87)	Di-n-octyl phthalate	16.816	149	38790	315.40	ng/ml	98
88)	Benzo(b)fluoranthene	17.559	252	69749	537.88	ng/ml	99
89)	Benzo(k)fluoranthene	17.629	252	72041	497.45	ng/ml	99
90)	Benzo(b+k)fluoranthene	17.629	252	147166	1028.35	ng/ml	99
91)	Benzo(e)pyrene	18.217	252	71817	540.86	ng/ml	98
92)	Benzo(a)pyrene	18.335	252	63972	477.28	ng/ml	99
93)	Perylene	18.543	252	62255	538.25	ng/ml	98
95)	Indeno(1,2,3-cd)pyrene	20.875	276	60260	482.94	ng/ml	97
96)	Dibenz(a,h)anthracene	20.945	278	57867	539.48	ng/ml	97
97)	Benzo(g,h,i)perylene	21.416	276	66868	551.38	ng/ml	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031916.D
Acq On : 3 Dec 2019 6:20 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL5
Misc : 1x, A19K215@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:08 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031917.D
Acq On : 3 Dec 2019 6:54 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL6
Misc : 1x, A19K216@1000
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:15 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 12/4/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.626	152	81140	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	310642	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	148649	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.184	188	266040	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.986	240	260632	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.484	264	252576	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.881	292	215522	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	53313	1014.48	ng/ml	0.00
5) Phenol-d6 (Surr)	6.257	99	75331	1210.80	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.167	82	60018	1252.11	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.975	172	118351	1015.24	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.472	330	17115	975.12	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.981	244	127869	1053.70	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.947	74	42239	1111.35	ng/ml	96
3) Pyridine	3.984	79	71621	1170.70	ng/ml	93
6) Phenol	6.273	94	85835	1357.34	ng/ml	96
7) Aniline	6.300	93	90918	Below Cal		98
8) Bis(2-chloroethyl) ether	6.359	93	66252	1137.61	ng/ml	98
9) 2-Chlorophenol	6.423	128	61716	1154.08	ng/ml	96
10) 1,3-Dichlorobenzene	6.573	146	64447	1019.59	ng/ml	99
11) 1,4-Dichlorobenzene	6.643	146	62870	1032.16	ng/ml	100
12) Benzyl alcohol	6.755	108	33704	1153.76	ng/ml	97
13) 1,2-Dichlorobenzene	6.798	146	62351	1041.43	ng/ml	97
14) 2-Methylphenol	6.862	107	47344	1221.09	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.889	45	80267	1332.77	ng/ml	93
16) N-Nitrosodi-n-propylamine	7.017	70	44516	1342.32	ng/ml	95
17) 3+4-Methylphenol	7.012	107	59927	1224.20	ng/ml	98
18) Hexachloroethane	7.135	201	18186	942.26	ng/ml	97
20) Nitrobenzene	7.188	77	61196	1298.07	ng/ml	95
22) Isophorone	7.418	82	118024	1186.93	ng/ml	99
23) 2-Nitrophenol	7.504	139	30876	969.61	ng/ml	98
24) 2,4-Dimethylphenol	7.541	122	48041	1060.59	ng/ml	96
25) Bis(2-chloroethoxy) me...	7.632	93	69778	1149.02	ng/ml	99
26) Benzoic acid	7.621	105	23552	1576.36	ng/ml	96
27) 2,4-Dichlorophenol	7.744	162	43869	1057.79	ng/ml	99
28) 1,2,4-Trichlorobenzene	7.835	180	52938	966.60	ng/ml	98
29) Naphthalene	7.910	128	164864	1043.27	ng/ml	99
30) 4-Chloroaniline	7.958	127	59598	2792.87	ng/ml	96
31) Hexachlorobutadiene	8.044	225	27231	926.50	ng/ml	99
32) 4-Chloro-3-methylphenol	8.440	107	45215	1092.94	ng/ml	96
33) 2-Methylnaphthalene	8.605	142	119447	1053.15	ng/ml	99
34) 1-Methylnaphthalene	8.707	142	111578	1023.61	ng/ml	99
36) Hexachlorocyclopentadiene	8.777	237	28270	997.07	ng/ml	98
37) 2,4,6-Trichlorophenol	8.889	196	29391	1005.17	ng/ml	99
38) 2,4,5-Trichlorophenol	8.926	198	29228	1049.21	ng/ml	99
39) 1,1'-Biphenyl	9.076	154	134132	1060.62	ng/ml	99
41) 2-Chloronaphthalene	9.103	162	98523	1048.90	ng/ml	98
42) 2-Nitroaniline	9.199	138	29886	1054.33	ng/ml	90
43) 2,6-Dimethylnaphthalene	9.237	156	96698	1043.17	ng/ml	98

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031917.D
Acq On : 3 Dec 2019 6:54 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL6
Misc : 1x, A19K216@1000
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:15 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

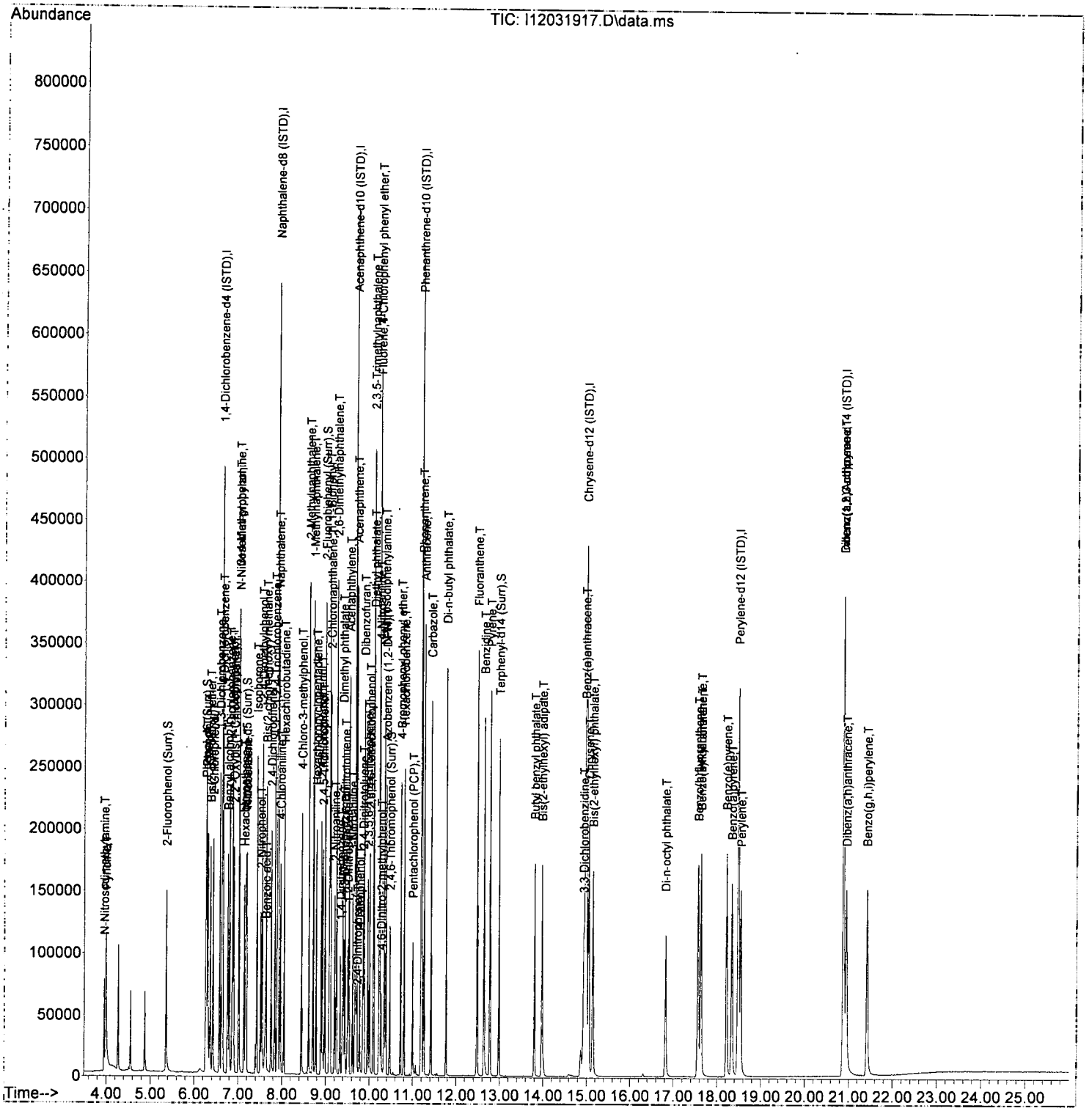
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.328	168	12471	861.22	ng/ml	85
45) Dimethyl phthalate	9.381	163	109754	1041.13	ng/ml	99
46) 1,3-Dinitrobenzene	9.408	168	16032	939.39	ng/ml	93
47) 2,6-Dinitrotoluene	9.440	165	24950	1044.19	ng/ml	87
48) 1,2-Dinitrobenzene	9.493	168	11843	1022.84	ng/ml	90
49) Acenaphthylene	9.525	152	158316	1074.08	ng/ml	99
50) 3-Nitroaniline	9.611	138	24616	2330.07	ng/ml	96
51) Acenaphthene	9.702	153	98670	1027.53	ng/ml	99
52) 2,4-Dinitrophenol	9.718	184	4261	695.24	ng/ml	84
53) 4-Nitrophenol	9.771	139	15067	870.26	ng/ml	96
54) 2,4-Dinitrotoluene	9.852	165	30105	920.21	ng/ml	91
55) Dibenzofuran	9.873	168	135577	1006.89	ng/ml	97
56) 2,3,5,6-Tetrachlorophenol	9.959	232	22504	857.42	ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	10.001	232	24817	919.13	ng/ml	97
58) Diethyl phthalate	10.098	149	101129	1065.70	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.087	170	86205	995.01	ng/ml	93
60) Fluorene	10.226	166	104671	1001.22	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.221	204	49966	951.35	ng/ml	99
62) 4-Nitroaniline	10.231	138	21162	1090.85	ng/ml	96
63) 4,6-Dinitro-2-methylph...	10.264	198	9285	724.22	ng/ml	96
65) N-Nitrosodiphenylamine	10.338	169	89163	1088.04	ng/ml	99
66) Azobenzene (1,2-DPH)	10.381	77	102869	1323.45	ng/ml	92
68) 4-Bromophenyl phenyl e...	10.718	248	31952	995.99	ng/ml	99
69) Hexachlorobenzene	10.793	284	38787	945.70	ng/ml	97
70) Pentachlorophenol (PCP)	10.991	266	14978	905.55	ng/ml	99
71) Phenanthrene	11.205	178	149146	1029.06	ng/ml	99
72) Anthracene	11.258	178	148998	1093.77	ng/ml	99
73) Carbazole	11.414	167	129438	1256.86	ng/ml	99
74) Di-n-butyl phthalate	11.761	149	159941	1122.58	ng/ml	100
75) Fluoranthene	12.478	202	167410	1048.29	ng/ml	99
76) Benzidine	12.633	184	138388	6469.56	ng/ml	97
77) Pyrene	12.772	202	168737	1041.89	ng/ml	99
80) Butyl benzyl phthalate	13.799	149	60095	958.41	ng/ml	96
81) Bis(2-ethylhexyl) adipate	13.970	129	49833	933.44	ng/ml	99
82) 3,3-Dichlorobenzidine	14.928	252	46667	4111.56	ng/ml	98
83) Benz(a)anthracene	14.965	228	143013	1006.98	ng/ml	99
84) Chrysene	15.045	228	135043	1018.18	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.142	149	86095	995.19	ng/ml	100
87) Di-n-octyl phthalate	16.816	149	106646	754.06	ng/ml	97
88) Benzo(b)fluoranthene	17.564	252	141587	1111.64	ng/ml	99
89) Benzo(k)fluoranthene	17.629	252	141965	1001.18	ng/ml	98
90) Benzo(b+k)fluoranthene	17.629	252	291935	2065.74	ng/ml	98
91) Benzo(e)pyrene	18.217	252	141399	1084.17	ng/ml	99
92) Benzo(a)pyrene	18.335	252	127496	959.39	ng/ml	99
93) Perylene	18.543	252	118069	1039.29	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.881	276	120357	957.62	ng/ml	99
96) Dibenz(a,h)anthracene	20.950	278	113808	1053.36	ng/ml	98
97) Benzo(g,h,i)perylene	21.415	276	130758	1070.43	ng/ml	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031917.D
Acq On : 3 Dec 2019 6:54 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL6
Misc : 1x, A19K216@1000
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:15 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031918.D
Acq On : 3 Dec 2019 7:28 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL7
Misc : 1x, A19K217@2000
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:23 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

GR 12/4/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.626	152	75585	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.894	136	281885	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	136795	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.183	188	254271	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.992	240	244262	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.484	264	237473	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.881	292	212089	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	108351	2132.12	ng/ml	0.00
5) Phenol-d6 (Surr)	6.263	99	142632	2461.03	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.167	82	107962	2417.86	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.974	172	210035	1957.84	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.472	330	34168	2031.94	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.981	244	237910	2091.88	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.947	74	80285	2267.62	ng/ml	94
3) Pyridine	3.979	79	138631	2432.56	ng/ml	93
6) Phenol	6.273	94	157741	2677.73	ng/ml	98
7) Aniline	6.300	93	163666	Below Cal		98
8) Bis(2-chloroethyl) ether	6.359	93	117371	2163.50	ng/ml	98
9) 2-Chlorophenol	6.423	128	112266	2253.64	ng/ml	97
10) 1,3-Dichlorobenzene	6.573	146	117219	1990.77	ng/ml	99
11) 1,4-Dichlorobenzene	6.642	146	112952	1990.67	ng/ml	100
12) Benzyl alcohol	6.755	108	67600	2400.63	ng/ml	97
13) 1,2-Dichlorobenzene	6.798	146	109758	1967.99	ng/ml	97
14) 2-Methylphenol	6.862	107	85445	2365.74	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.888	45	135468	2414.65	ng/ml	92
16) N-Nitrosodi-n-propylamine	7.017	70	78452	2539.46	ng/ml	97
17) 3+4-Methylphenol	7.011	107	108523	2419.31	ng/ml	99
18) Hexachloroethane	7.135	201	34553	1921.85	ng/ml	98
20) Nitrobenzene	7.188	77	106719	2430.05	ng/ml	93
22) Isophorone	7.423	82	213192	2362.72	ng/ml	98
23) 2-Nitrophenol	7.504	139	54150	1873.97	ng/ml	99
24) 2,4-Dimethylphenol	7.541	122	87956	2152.67	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.632	93	122646	2225.62	ng/ml	99
26) Benzoic acid	7.653	105	75163	3476.41	ng/ml	95
27) 2,4-Dichlorophenol	7.744	162	82288	2148.97	ng/ml	99
28) 1,2,4-Trichlorobenzene	7.835	180	93155	1874.44	ng/ml	99
29) Naphthalene	7.915	128	288400	2011.19	ng/ml	100
30) 4-Chloroaniline	7.958	127	104722	Below Cal		99
31) Hexachlorobutadiene	8.044	225	48144	1805.15	ng/ml	98
32) 4-Chloro-3-methylphenol	8.440	107	85765	2194.38	ng/ml	96
33) 2-Methylnaphthalene	8.605	142	214169	2080.95	ng/ml	98
34) 1-Methylnaphthalene	8.707	142	196570	1987.29	ng/ml	99
36) Hexachlorocyclopentadiene	8.777	237	53845	2048.91	ng/ml	100
37) 2,4,6-Trichlorophenol	8.894	196	56718	2085.19	ng/ml	97
38) 2,4,5-Trichlorophenol	8.926	198	54610	2109.15	ng/ml	98
39) 1,1'-Biphenyl	9.081	154	234019	2010.81	ng/ml	100
41) 2-Chloronaphthalene	9.103	162	170195	1968.96	ng/ml	100
42) 2-Nitroaniline	9.199	138	58736	2251.66	ng/ml	91
43) 2,6-Dimethylnaphthalene	9.242	156	170221	1995.46	ng/ml	99

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031918.D
Acq On : 3 Dec 2019 7:28 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL7
Misc : 1x, A19K217@2000
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:23 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

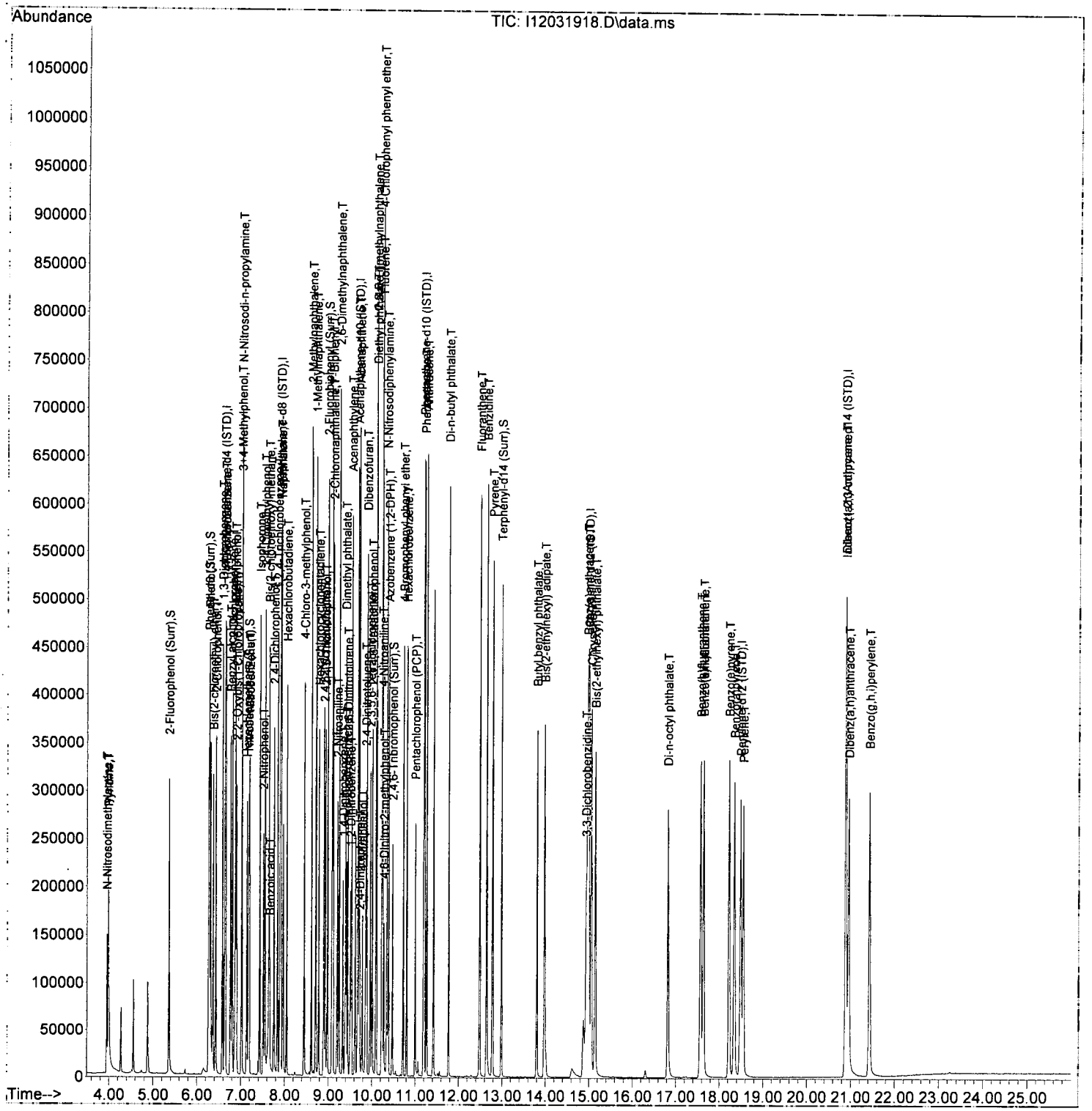
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.327	168	26946	1914.15	ng/ml	88
45)	Dimethyl phthalate	9.386	163	195262	2012.77	ng/ml	99
46)	1,3-Dinitrobenzene	9.408	168	31750	2021.60	ng/ml	92
47)	2,6-Dinitrotoluene	9.440	165	45780	2081.99	ng/ml	92
48)	1,2-Dinitrobenzene	9.499	168	22033	2067.81	ng/ml	88
49)	Acenaphthylene	9.525	152	276910	2041.47	ng/ml	100
50)	3-Nitroaniline	9.616	138	46707	Below Cal		92
51)	Acenaphthene	9.702	153	173177	1959.70	ng/ml	99
52)	2,4-Dinitrophenol	9.718	184	12862	1695.99	ng/ml	93
53)	4-Nitrophenol	9.777	139	33445	1935.07	ng/ml	93
54)	2,4-Dinitrotoluene	9.852	165	59132	1960.94	ng/ml	93
55)	Dibenzofuran	9.878	168	238007	1920.79	ng/ml	96
56)	2,3,5,6-Tetrachlorophenol	9.959	232	45542	1863.48	ng/ml	96
57)	2,3,4,6-Tetrachlorophenol	10.001	232	49283	1962.17	ng/ml	96
58)	Diethyl phthalate	10.098	149	177170	2028.82	ng/ml	100
59)	2,3,5-Trimethylnaphtha...	10.087	170	153262	1922.29	ng/ml	97
60)	Fluorene	10.226	166	181772	1889.38	ng/ml	99
61)	4-Chlorophenyl phenyl ...	10.221	204	90397	1870.29	ng/ml	100
62)	4-Nitroaniline	10.237	138	40971	2294.96	ng/ml	94
63)	4,6-Dinitro-2-methylph...	10.269	198	22787	1664.54	ng/ml	94
65)	N-Nitrosodiphenylamine	10.338	169	158972	2029.70	ng/ml	99
66)	Azobenzene (1,2-DPH)	10.381	77	183471	2469.68	ng/ml	95
68)	4-Bromophenyl phenyl e...	10.718	248	59875	1952.78	ng/ml	99
69)	Hexachlorobenzene	10.798	284	71021	1811.78	ng/ml	96
70)	Pentachlorophenol (PCP)	10.991	266	33560	1984.48	ng/ml	98
71)	Phenanthrene	11.210	178	269481	1945.39	ng/ml	100
72)	Anthracene	11.258	178	270521	2077.77	ng/ml	99
73)	Carbazole	11.419	167	236632	Below Cal		98
74)	Di-n-butyl phthalate	11.761	149	304858	2238.74	ng/ml	99
75)	Fluoranthene	12.483	202	314125	2058.04	ng/ml	100
76)	Benzidine	12.638	184	297903	10955.20	ng/ml	98
77)	Pyrene	12.772	202	304683	1968.38	ng/ml	99
80)	Butyl benzyl phthalate	13.799	149	131363	2104.97	ng/ml	96
81)	Bis(2-ethylhexyl) adipate	13.975	129	110181	2052.12	ng/ml	98
82)	3,3-Dichlorobenzidine	14.933	252	85387	8094.59	ng/ml	98
83)	Benz(a)anthracene	14.965	228	270284	2030.65	ng/ml	98
84)	Chrysene	15.050	228	249591	2007.96	ng/ml	99
85)	Bis(2-ethylhexyl) phth...	15.141	149	176928	2129.95	ng/ml	99
87)	Di-n-octyl phthalate	16.816	149	266541	1904.91	ng/ml	97
88)	Benzo(b)fluoranthene	17.570	252	282074	2355.49	ng/ml	99
89)	Benzo(k)fluoranthene	17.634	252	269127	2076.42	ng/ml	99
90)	Benzo(b+k)fluoranthene	17.634	252	565512	4273.42	ng/ml	99
91)	Benzo(e)pyrene	18.222	252	275483	2246.59	ng/ml	98
92)	Benzo(a)pyrene	18.345	252	250773	2038.62	ng/ml	98
93)	Perylene	18.548	252	224877	2105.35	ng/ml	99
95)	Indeno(1,2,3-cd)pyrene	20.886	276	238903	1931.60	ng/ml	99
96)	Dibenz(a,h)anthracene	20.955	278	222804	2095.57	ng/ml	98
97)	Benzo(g,h,i)perylene	21.421	276	257095	2138.73	ng/ml	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031918.D
Acq On : 3 Dec 2019 7:28 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL7
Misc : 1x, A19K217@2000
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:23 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031919.D
Acq On : 3 Dec 2019 8:02 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL8
Misc : 1x, A19K218@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:31 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

12/4/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.627	152	68360	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.894	136	259116	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	127790	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.184	188	242431	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.997	240	218440	2000.00	ng/ml	0.01
86) Perylene-d12 (ISTD)	18.490	264	219521	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.897	292	202306	2000.00	ng/ml	0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	200194	4110.09	ng/ml	0.00
5) Phenol-d6 (Surr)	6.263	99	268309	5118.80	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.172	82	192378	4763.75	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.980	172	353301	3525.37	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.472	330	65706	4183.11	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.986	244	420934	4138.68	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.947	74	153919	4805.85	ng/ml	96
3) Pyridine	3.974	79	253805	4924.22	ng/ml	96
6) Phenol	6.279	94	280072	5256.85	ng/ml	99
7) Aniline	6.306	93	276528	Below Cal		99
8) Bis(2-chloroethyl) ether	6.364	93	220646	4497.02	ng/ml	96
9) 2-Chlorophenol	6.423	128	200851	4458.05	ng/ml	97
10) 1,3-Dichlorobenzene	6.573	146	206523	3878.16	ng/ml	99
11) 1,4-Dichlorobenzene	6.643	146	196929	3837.49	ng/ml	99
12) Benzyl alcohol	6.760	108	126371	4860.71	ng/ml	98
13) 1,2-Dichlorobenzene	6.798	146	189553	3757.95	ng/ml	98
14) 2-Methylphenol	6.867	107	148793	4555.08	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.889	45	233716	4606.16	ng/ml	90
16) N-Nitrosodi-n-propylamine	7.022	70	133289	4770.52	ng/ml	95
17) 3+4-Methylphenol	7.017	107	186013	4763.55	ng/ml	99
18) Hexachloroethane	7.135	201	61522	3783.53	ng/ml	99
20) Nitrobenzene	7.194	77	186102	4685.52	ng/ml	93
22) Isophorone	7.429	82	375433	4526.39	ng/ml	97
23) 2-Nitrophenol	7.509	139	102512	3859.38	ng/ml	96
24) 2,4-Dimethylphenol	7.547	122	154105	4182.71	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.637	93	212599	4196.98	ng/ml	98
26) Benzoic acid	7.696	105	187586	7500.47	ng/ml	96
27) 2,4-Dichlorophenol	7.750	162	146333	4112.73	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.835	180	159886	3499.89	ng/ml	98
29) Naphthalene	7.916	128	480003	3641.50	ng/ml	98
30) 4-Chloroaniline	7.964	127	175197	Below Cal		98
31) Hexachlorobutadiene	8.044	225	86790	3540.13	ng/ml	99
32) 4-Chloro-3-methylphenol	8.440	107	159539	4316.51	ng/ml	98
33) 2-Methylnaphthalene	8.611	142	365323	3861.53	ng/ml	99
34) 1-Methylnaphthalene	8.713	142	333327	3666.00	ng/ml	100
36) Hexachlorocyclopentadiene	8.777	237	101731	4167.43	ng/ml	99
37) 2,4,6-Trichlorophenol	8.894	196	103786	4106.21	ng/ml	99
38) 2,4,5-Trichlorophenol	8.927	198	101134	4181.41	ng/ml	98
39) 1,1'-Biphenyl	9.082	154	393452	3618.97	ng/ml	98
41) 2-Chloronaphthalene	9.103	162	288950	3578.37	ng/ml	99
42) 2-Nitroaniline	9.205	138	109829	4507.02	ng/ml	88
43) 2,6-Dimethylnaphthalene	9.242	156	284384	3568.69	ng/ml	96

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031919.D
Acq On : 3 Dec 2019 8:02 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL8
Misc : 1x, A19K218@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:31 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

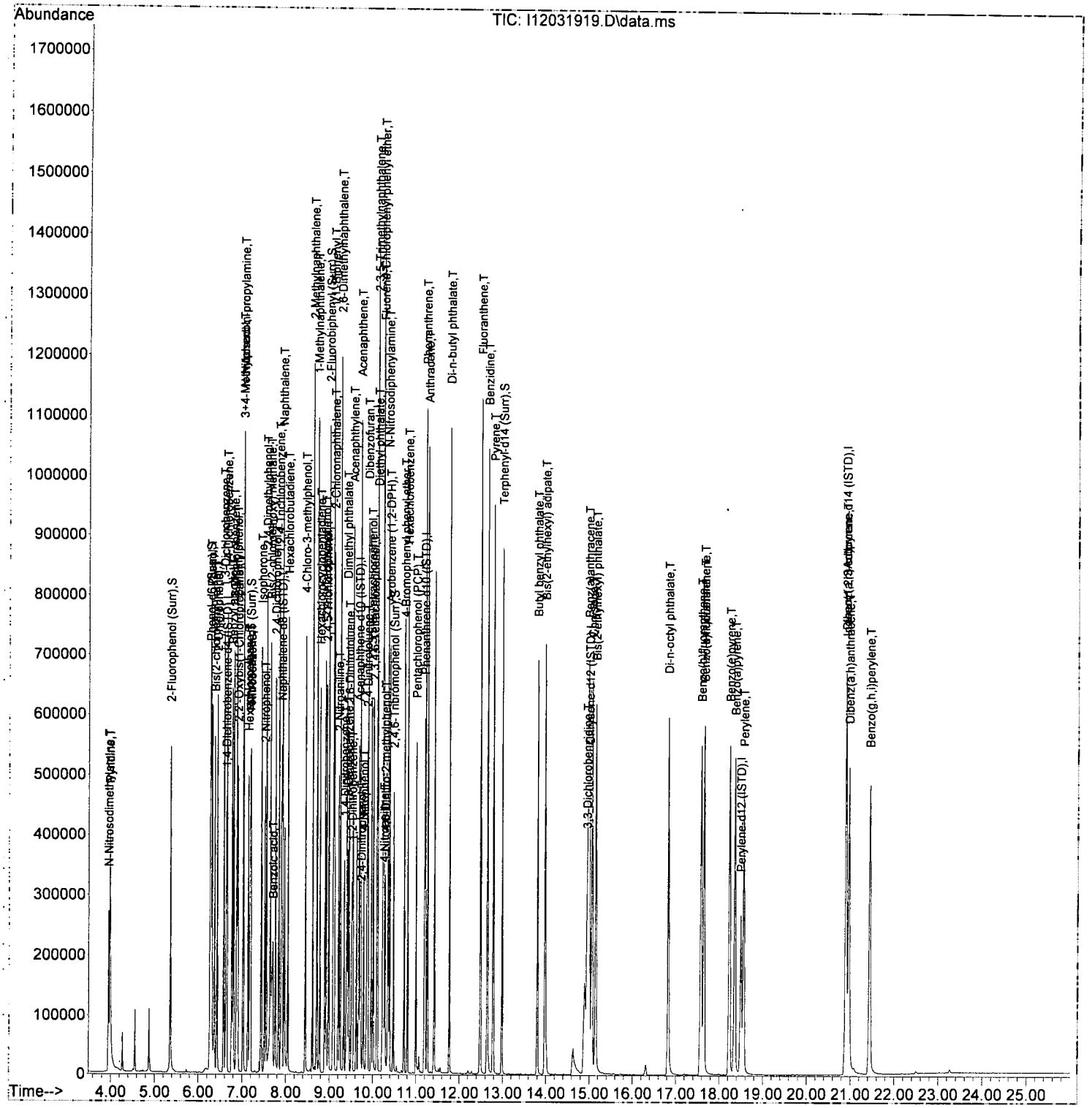
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.333	168	52480	3831.98	ng/ml	82
45) Dimethyl phthalate	9.392	163	337370	3722.68	ng/ml	99
46) 1,3-Dinitrobenzene	9.413	168	58815	4008.78	ng/ml	92
47) 2,6-Dinitrotoluene	9.445	165	82704	4026.27	ng/ml	92
48) 1,2-Dinitrobenzene	9.509	168	41107	4129.78	ng/ml#	76
49) Acenaphthylene	9.531	152	464682	3667.19	ng/ml	100
50) 3-Nitroaniline	9.622	138	77930	Below Cal		95
51) Acenaphthene	9.707	153	296440	3590.95	ng/ml	100
52) 2,4-Dinitrophenol	9.723	184	32374	3615.09	ng/ml	90
53) 4-Nitrophenol	9.782	139	65917	3957.16	ng/ml	93
54) 2,4-Dinitrotoluene	9.857	165	109996	4009.15	ng/ml	93
55) Dibenzofuran	9.879	168	402377	3476.13	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.959	232	85335	3762.71	ng/ml	98
57) 2,3,4,6-Tetrachlorophenol	10.007	232	89845	3855.39	ng/ml	96
58) Diethyl phthalate	10.103	149	293319	3595.56	ng/ml	99
59) 2,3,5-Trimethylnaphtha...	10.092	170	258901	3476.10	ng/ml	97
60) Fluorene	10.232	166	300618	3344.89	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.221	204	154914	3431.00	ng/ml	98
62) 4-Nitroaniline	10.248	138	72956	4374.55	ng/ml	97
63) 4,6-Dinitro-2-methylph...	10.274	198	48951	3514.58	ng/ml	96
65) N-Nitrosodiphenylamine	10.344	169	272217	3645.31	ng/ml	99
66) Azobenzene (1,2-DPH)	10.387	77	304430	4298.03	ng/ml	89
68) 4-Bromophenyl phenyl e...	10.724	248	110191	3769.31	ng/ml	98
69) Hexachlorobenzene	10.799	284	126260	3378.26	ng/ml	97
70) Pentachlorophenol (PCP)	10.991	266	70387	4121.32	ng/ml	97
71) Phenanthrene	11.210	178	462405	3501.15	ng/ml	98
72) Anthracene	11.264	178	459537	3701.91	ng/ml	99
73) Carbazole	11.419	167	389068	Below Cal		99
74) Di-n-butyl phthalate	11.767	149	533571	4109.67	ng/ml	99
75) Fluoranthene	12.483	202	553812	3805.59	ng/ml	99
76) Benzidine	12.644	184	540514	16171.97	ng/ml	99
77) Pyrene	12.778	202	526068	3564.61	ng/ml	99
80) Butyl benzyl phthalate	13.799	149	256309	4324.59	ng/ml	97
81) Bis(2-ethylhexyl) adipate	13.976	129	217064	4399.22	ng/ml	99
82) 3,3-Dichlorobenzidine	14.944	252	126011	13053.24	ng/ml	99
83) Benz(a)anthracene	14.976	228	477652	4012.83	ng/ml	97
84) Chrysene	15.061	228	442427	3980.07	ng/ml	100
85) Bis(2-ethylhexyl) phth...	15.147	149	328020	4460.93	ng/ml	99
87) Di-n-octyl phthalate	16.821	149	575101	4467.09	ng/ml	97
88) Benzo(b)fluoranthene	17.581	252	529474	4783.00	ng/ml	99
89) Benzo(k)fluoranthene	17.650	252	471682	4221.53	ng/ml	99
90) Benzo(b+k)fluoranthene	17.650	252	1027057	8523.95	ng/ml	99
91) Benzo(e)pyrene	18.238	252	501602	4425.13	ng/ml	99
92) Benzo(a)pyrene	18.361	252	454160	4199.61	ng/ml	98
93) Perylene	18.559	252	402426	4075.71	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.902	276	465463	3945.39	ng/ml	100
96) Dibenz(a,h)anthracene	20.966	278	412814	4070.46	ng/ml	98
97) Benzo(g,h,i)perylene	21.437	276	476116	4152.27	ng/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031919.D
Acq On : 3 Dec 2019 8:02 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL8
Misc : 1x, A19K218@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:31 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031920.D
Acq On : 3 Dec 2019 8:36 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL9
Misc : 1x, A19K219@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:39 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

12/4/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.626	152	69018	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.894	136	252672	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.675	162	126900	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.189	188	244923	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.008	240	206845	2000.00	ng/ml	0.02
86) Perylene-d12 (ISTD)	18.506	264	214795	2000.00	ng/ml	0.02
94) Dibenz(a,h)Anthrcene-d...	20.918	292	201906	2000.00	ng/ml	0.04
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	318044	6122.52	ng/ml	0.00
5) Phenol-d6 (Surr)	6.268	99	393576	7437.06	ng/ml	0.01
19) Nitrobenzene-d5 (Surr)	7.172	82	274563	6734.03	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.980	172	484354	4866.96	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.477	330	100016	6483.20	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.991	244	600621	6236.42	ng/ml	0.01
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.952	74	244412	7560.16	ng/ml	96
3) Pyridine	3.974	79	396777	7624.71	ng/ml	94
6) Phenol	6.284	94	395390	7350.57	ng/ml	98
7) Aniline	6.306	93	400577	Below Cal		97
8) Bis(2-chloroethyl) ether	6.364	93	304655	6150.02	ng/ml	97
9) 2-Chlorophenol	6.423	128	290434	6384.95	ng/ml	98
10) 1,3-Dichlorobenzene	6.573	146	303755	5649.63	ng/ml	98
11) 1,4-Dichlorobenzene	6.643	146	284898	5498.79	ng/ml	98
12) Benzyl alcohol	6.766	108	180424	6811.86	ng/ml	97
13) 1,2-Dichlorobenzene	6.798	146	269994	5301.69	ng/ml	99
14) 2-Methylphenol	6.867	107	207314	6286.11	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.894	45	319137	6229.70	ng/ml	86
16) N-Nitrosodi-n-propylamine	7.033	70	183872	6518.19	ng/ml	92
17) 3+4-Methylphenol	7.022	107	254837	6683.03	ng/ml	98
18) Hexachloroethane	7.135	201	95333	5806.98	ng/ml	99
20) Nitrobenzene	7.193	77	260146	6487.29	ng/ml	94
22) Isophorone	7.434	82	541874	6699.69	ng/ml	98
23) 2-Nitrophenol	7.509	139	152907	5903.47	ng/ml	96
24) 2,4-Dimethylphenol	7.552	122	217024	6168.62	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.637	93	294291	5957.85	ng/ml	98
26) Benzoic acid	7.552	105	7552	1093.50	ng/ml#	1
27) 2,4-Dichlorophenol	7.755	162	208408	5971.07	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.835	180	225381	5059.40	ng/ml	98
29) Naphthalene	7.915	128	653583	5084.80	ng/ml	97
30) 4-Chloroaniline	7.964	127	227873	Below Cal		98
31) Hexachlorobutadiene	8.044	225	126095	5274.53	ng/ml	100
32) 4-Chloro-3-methylphenol	8.445	107	232146	6334.22	ng/ml	96
33) 2-Methylnaphthalene	8.611	142	502226	5444.01	ng/ml	98
34) 1-Methylnaphthalene	8.712	142	454977	5131.55	ng/ml	99
36) Hexachlorocyclopentadiene	8.777	237	149931	6245.99	ng/ml	99
37) 2,4,6-Trichlorophenol	8.894	196	150184	6045.90	ng/ml	99
38) 2,4,5-Trichlorophenol	8.932	198	146612	6129.02	ng/ml	99
39) 1,1'-Biphenyl	9.087	154	533040	4937.29	ng/ml	98
41) 2-Chloronaphthalene	9.108	162	393007	4901.16	ng/ml	98
42) 2-Nitroaniline	9.210	138	160094	6615.80	ng/ml	88
43) 2,6-Dimethylnaphthalene	9.247	156	389841	4926.37	ng/ml	96

see NJ

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031920.D
Acq On : 3 Dec 2019 8:36 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL9
Misc : 1x, A19K219@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:39 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

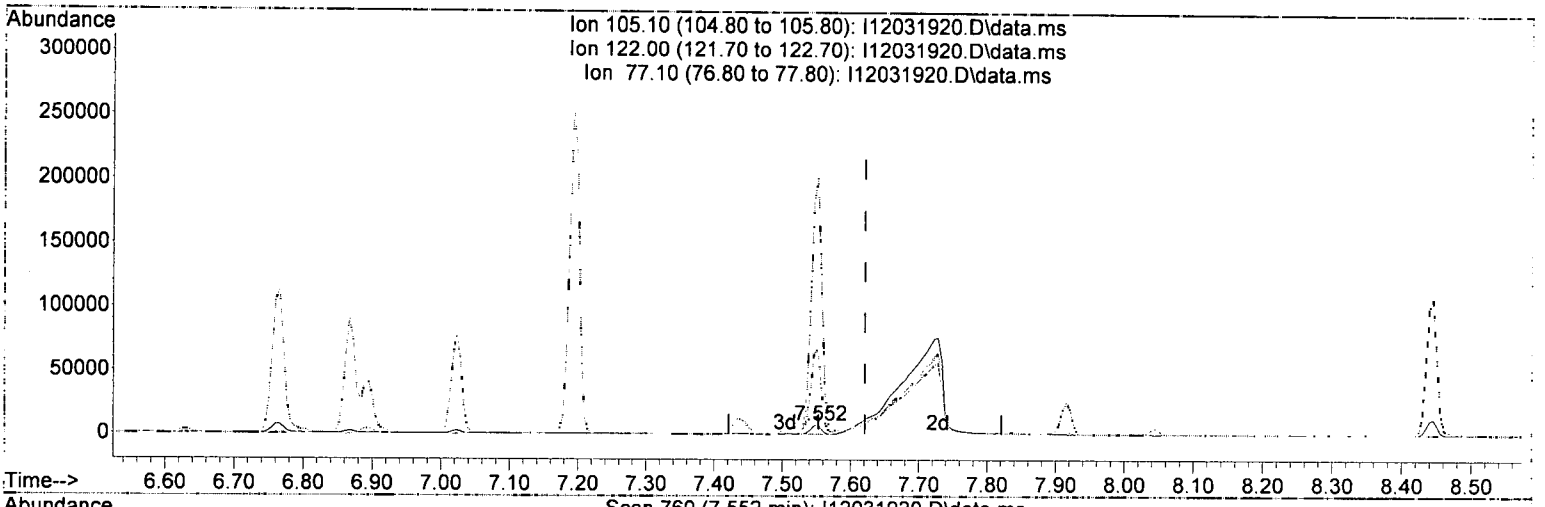
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.338	168	81003	5783.32	ng/ml	80
45)	Dimethyl phthalate	9.397	163	473072	5256.68	ng/ml	98
46)	1,3-Dinitrobenzene	9.424	168	86942	5967.46	ng/ml	89
47)	2,6-Dinitrotoluene	9.451	165	118901	5829.04	ng/ml	90
48)	1,2-Dinitrobenzene	9.515	168	59297	5999.01	ng/ml	81
49)	Acenaphthylene	9.531	152	624405	4962.26	ng/ml	99
50)	3-Nitroaniline	9.627	138	102695	Below Cal		96
51)	Acenaphthene	9.707	153	406943	4964.11	ng/ml	98
52)	2,4-Dinitrophenol	9.729	184	56948	5461.39	ng/ml	88
53)	4-Nitrophenol	9.788	139	101931	6104.16	ng/ml	94
54)	2,4-Dinitrotoluene	9.862	165	159707	6060.88	ng/ml	93
55)	Dibenzofuran	9.884	168	553828	4818.07	ng/ml	98
56)	2,3,5,6-Tetrachlorophenol	9.964	232	128655	5789.56	ng/ml	96
57)	2,3,4,6-Tetrachlorophenol	10.007	232	131822	5768.05	ng/ml	97
58)	Diethyl phthalate	10.108	149	398303	4916.71	ng/ml	97
59)	2,3,5-Trimethylnaphtha...	10.092	170	353106	4774.18	ng/ml	94
60)	Fluorene	10.231	166	410765	4602.52	ng/ml	99
61)	4-Chlorophenyl phenyl ...	10.226	204	220999	4928.96	ng/ml	100
62)	4-Nitroaniline	10.253	138	104811	6328.70	ng/ml	97
63)	4,6-Dinitro-2-methylph...	10.285	198	78166	5372.26	ng/ml	87
65)	N-Nitrosodiphenylamine	10.349	169	374468	4963.55	ng/ml	100
66)	Azobenzene (1,2-DPH)	10.387	77	418126	5843.16	ng/ml	90
68)	4-Bromophenyl phenyl e...	10.724	248	163449	5534.22	ng/ml	99
69)	Hexachlorobenzene	10.804	284	183555	4861.30	ng/ml	97
70)	Pentachlorophenol (PCP)	10.996	266	111309	6191.44	ng/ml	98
71)	Phenanthrene	11.216	178	653492	4897.64	ng/ml	97
72)	Anthracene	11.264	178	632566	5043.94	ng/ml	98
73)	Carbazole	11.424	167	500765	Below Cal		98
74)	Di-n-butyl phthalate	11.767	149	747267	5697.03	ng/ml	97
75)	Fluoranthene	12.489	202	774023	5264.68	ng/ml	98
76)	Benzidine	12.649	184	707393	18812.67	ng/ml	98
77)	Pyrene	12.783	202	736750	4941.38	ng/ml	98
80)	Butyl benzyl phthalate	13.810	149	380099	6466.18	ng/ml	93
81)	Bis(2-ethylhexyl) adipate	13.981	129	315678	6717.42	ng/ml	99
82)	3,3-Dichlorobenzidine	14.949	252	152911	16391.28	ng/ml	99
83)	Benz(a)anthracene	14.981	228	671286	5955.71	ng/ml	97
84)	Chrysene	15.072	228	625029	5937.95	ng/ml	98
85)	Bis(2-ethylhexyl) phth...	15.152	149	466925	6862.36	ng/ml	97
87)	Di-n-octyl phthalate	16.832	149	848830	6878.84	ng/ml	97
88)	Benzo(b)fluoranthene	17.597	252	771504	7122.72	ng/ml	99
89)	Benzo(k)fluoranthene	17.666	252	662984	6615.76	ng/ml	98
90)	Benzo(b+k)fluoranthene	17.666	252	1472100	12695.69	ng/ml	98
91)	Benzo(e)pyrene	18.254	252	717478	6468.85	ng/ml	98
92)	Benzo(a)pyrene	18.377	252	645759	6480.40	ng/ml	100
93)	Perylene	18.581	252	577170	5974.11	ng/ml	99
95)	Indeno(1,2,3-cd)pyrene	20.923	276	698647	5933.66	ng/ml	99
96)	Dibenz(a,h)anthracene	20.993	278	604383	5971.18	ng/ml	98
97)	Benzo(g,h,i)perylene	21.469	276	694573	6069.46	ng/ml	99

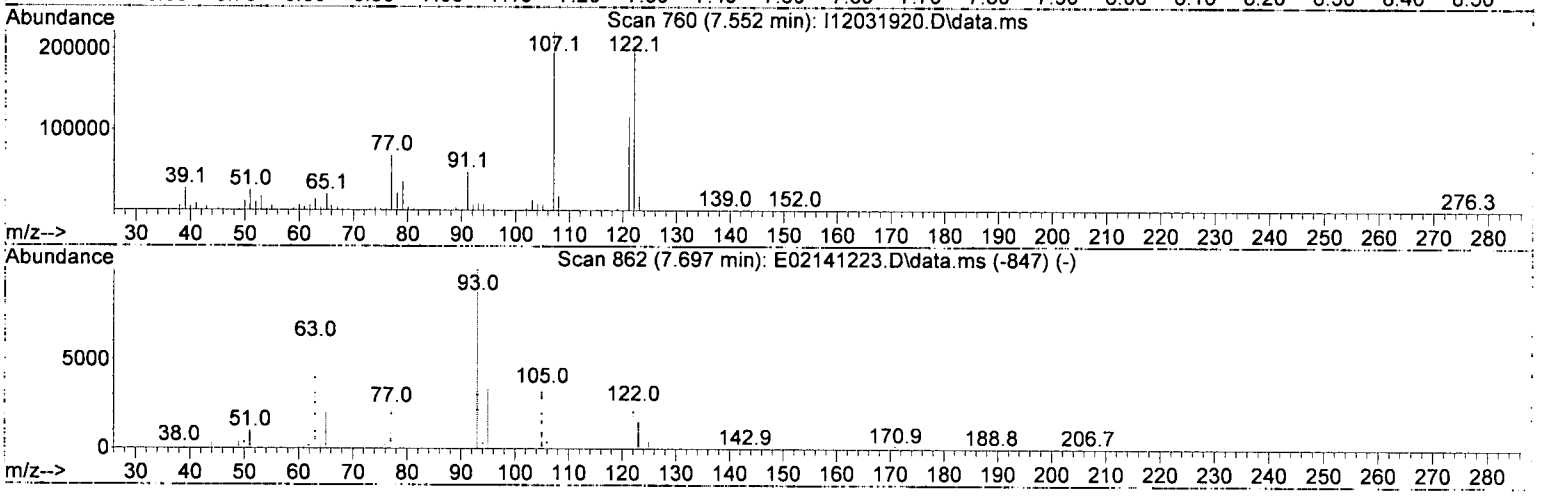
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031920.D
Acq On : 3 Dec 2019 8:36 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL9
Misc : 1x, A19K219@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:39 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9





TIC: I12031920.D\data.ms

(26) Benzoic acid (T)

7.552min (-0.070) 1093.50 ng/ml

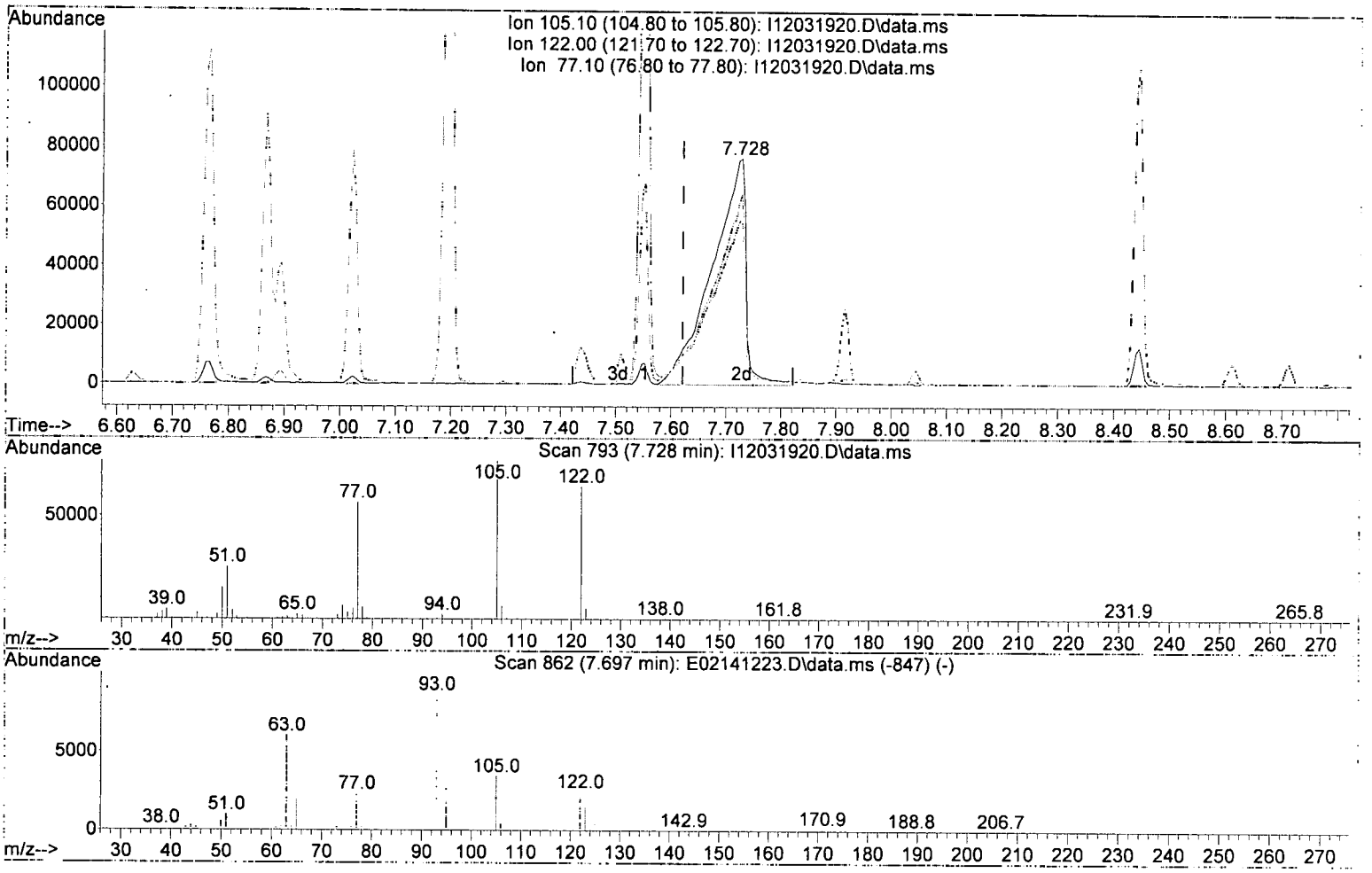
response 7552

Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	2782.92#
77.10	77.80	939.54#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031920.D
Acq On : 3 Dec 2019 8:36 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL9
Misc : 1x, A19K219@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:39 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I12031920.D\data.ms

(26) Benzoic acid (T)

7.728min (+ 0.107) 11813.95 ng/ml m

12/11/19

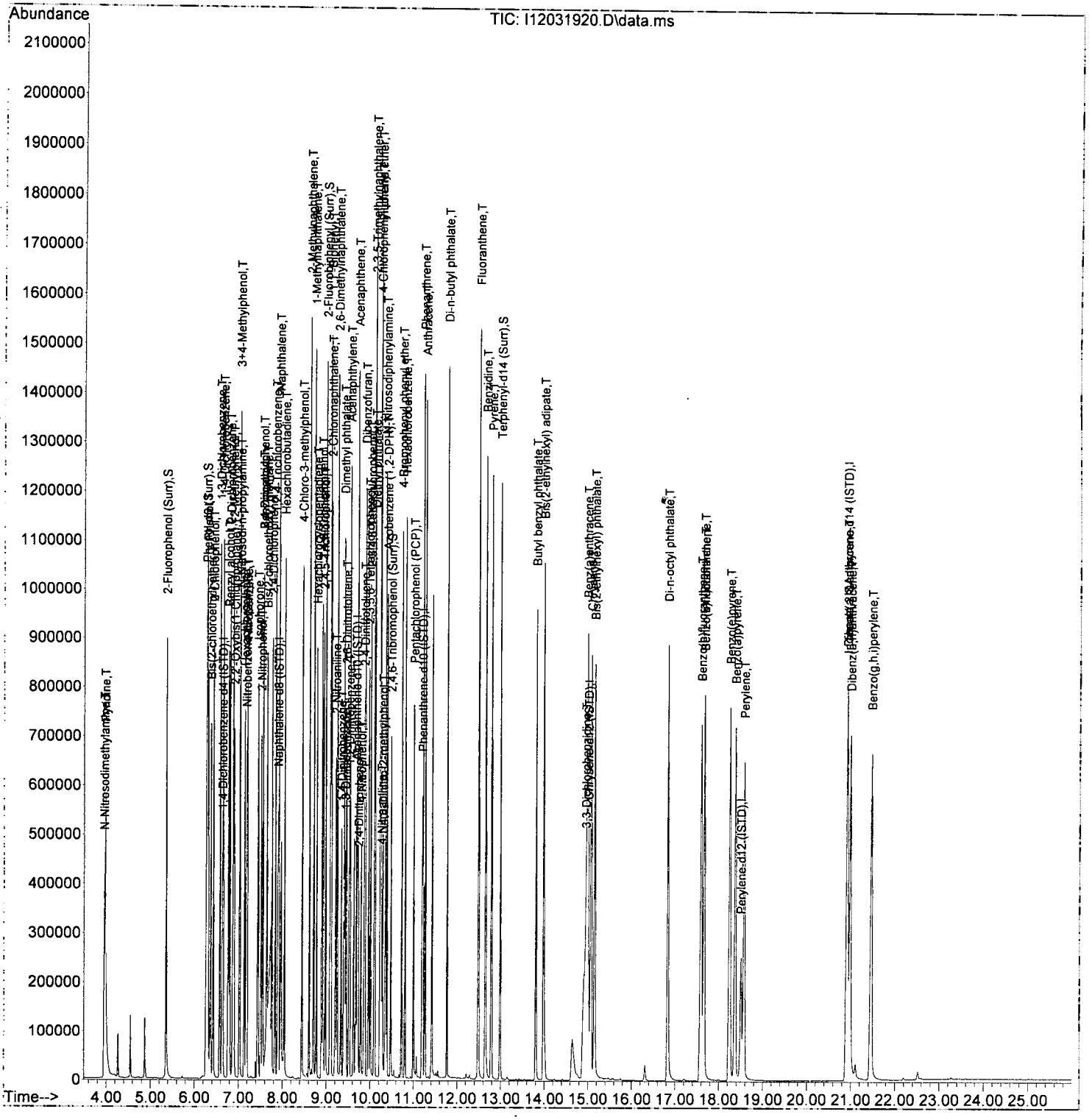
response 327041

Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	83.87
77.10	77.80	73.87
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031920.D
Acq On : 3 Dec 2019 8:36 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CAL9
Misc : 1x, A19K219@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:39 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031921.D
Acq On : 3 Dec 2019 9:10 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CALA
Misc : 1x, A19K220@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:46 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 12/4/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.627	152	66064	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.894	136	240133	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.675	162	122459	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.189	188	237781	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.013	240	193280	2000.00	ng/ml	0.03
86) Perylene-d12 (ISTD)	18.506	264	201932	2000.00	ng/ml	0.02
94) Dibenz(a,h)Anthrcene-d...	20.918	292	193681	2000.00	ng/ml	0.04
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	395455	7645.93	ng/ml	0.00
5) Phenol-d6 (Surr)	6.274	99	479889	9473.51	ng/ml	0.02
19) Nitrobenzene-d5 (Surr)	7.178	82	331420	8491.99	ng/ml	0.01
40) 2-Fluorobiphenyl (Surr)	8.980	172	576096	5998.75	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.478	330	127228	8754.67	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.991	244	723275	8037.05	ng/ml	0.01
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.958	74	306026	9889.27	ng/ml	95
3) Pyridine	3.979	79	488420	9805.46	ng/ml	96
6) Phenol	6.290	94	466321	9056.87	ng/ml	93
7) Aniline	6.306	93	479598	Below Cal		96
8) Bis(2-chloroethyl) ether	6.370	93	363767	7671.66	ng/ml	96
9) 2-Chlorophenol	6.423	128	351884	8081.78	ng/ml	97
10) 1,3-Dichlorobenzene	6.573	146	369308	7176.01	ng/ml	97
11) 1,4-Dichlorobenzene	6.643	146	343825	6932.86	ng/ml	99
12) Benzyl alcohol	6.766	108	218745	8571.34	ng/ml	98
13) 1,2-Dichlorobenzene	6.798	146	323930	6645.21	ng/ml	99
14) 2-Methylphenol	6.867	107	249183	7893.50	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.894	45	371752	7581.25	ng/ml	85
16) N-Nitrosodi-n-propylamine	7.033	70	219865	8142.63	ng/ml	94
17) 3+4-Methylphenol	7.028	107	300974	8525.35	ng/ml	96
18) Hexachloroethane	7.135	201	117991	7508.50	ng/ml	96
20) Nitrobenzene	7.199	77	307605	8013.77	ng/ml	91
22) Isophorone	7.440	82	665888	8662.90	ng/ml	96
23) 2-Nitrophenol	7.509	139	185322	7528.56	ng/ml	96
24) 2,4-Dimethylphenol	7.552	122	262222	8002.38	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.643	93	349639	7447.96	ng/ml	97
26) Benzoic acid	7.552	105	9107	1178.78	ng/ml#	1
27) 2,4-Dichlorophenol	7.755	162	246195	7394.24	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.835	180	271812	6420.30	ng/ml	98
29) Naphthalene	7.916	128	761715	6235.50	ng/ml	96
30) 4-Chloroaniline	7.964	127	300670	Below Cal		98
31) Hexachlorobutadiene	8.044	225	155277	6834.37	ng/ml	98
32) 4-Chloro-3-methylphenol	8.445	107	286207	8115.09	ng/ml	96
33) 2-Methylnaphthalene	8.611	142	590164	6731.28	ng/ml	99
34) 1-Methylnaphthalene	8.713	142	547369	6495.98	ng/ml	98
36) Hexachlorocyclopentadiene	8.777	237	188518	8223.37	ng/ml	99
37) 2,4,6-Trichlorophenol	8.894	196	191296	8079.97	ng/ml	98
38) 2,4,5-Trichlorophenol	8.932	198	175850	7647.82	ng/ml	99
39) 1,1'-Biphenyl	9.087	154	625310	6001.99	ng/ml	97
41) 2-Chloronaphthalene	9.108	162	465897	6020.87	ng/ml	96
42) 2-Nitroaniline	9.210	138	200120	8569.76	ng/ml	89
43) 2,6-Dimethylnaphthalene	9.247	156	465388	6094.32	ng/ml	95

see MS

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031921.D
Acq On : 3 Dec 2019 9:10 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CALA
Misc : 1x, A19K220@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:46 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

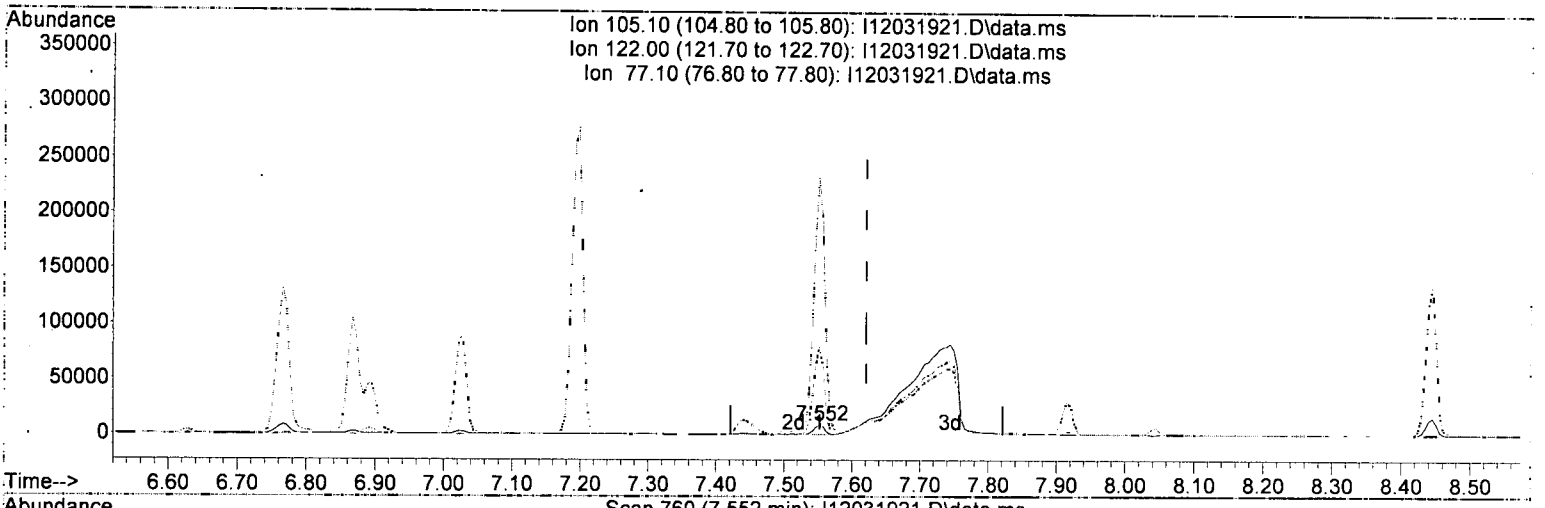
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.338	168	102409	7412.40 ng/ml	83
45) Dimethyl phthalate	9.403	163	566278	6520.56 ng/ml	99
46) 1,3-Dinitrobenzene	9.424	168	107208	7625.31 ng/ml	92
47) 2,6-Dinitrotoluene	9.456	165	147404	7488.44 ng/ml	85
48) 1,2-Dinitrobenzene	9.520	168	71730	7520.01 ng/ml	84
49) Acenaphthylene	9.531	152	720035	5929.77 ng/ml	97
50) 3-Nitroaniline	9.627	138	129027	Below Cal	94
51) Acenaphthene	9.707	153	490886	6205.25 ng/ml	98
52) 2,4-Dinitrophenol	9.734	184	77359	6915.04 ng/ml	86
53) 4-Nitrophenol	9.793	139	129793	8025.75 ng/ml	93
54) 2,4-Dinitrotoluene	9.868	165	194090	7880.39 ng/ml	93
55) Dibenzofuran	9.884	168	656214	5915.81 ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.964	232	162823	7701.78 ng/ml	97
57) 2,3,4,6-Tetrachlorophenol	10.007	232	165998	7631.01 ng/ml	96
58) Diethyl phthalate	10.109	149	470201	6014.73 ng/ml	96
59) 2,3,5-Trimethylnaphtha...	10.098	170	422363	5917.67 ng/ml	96
60) Fluorene	10.237	166	481267	5588.03 ng/ml	98
61) 4-Chlorophenyl phenyl ...	10.226	204	266759	6165.31 ng/ml	99
62) 4-Nitroaniline	10.258	138	130990	8196.28 ng/ml	96
63) 4,6-Dinitro-2-methylph...	10.285	198	99419	6846.36 ng/ml	93
65) N-Nitrosodiphenylamine	10.349	169	449608	6138.52 ng/ml	99
66) Azobenzene (1,2-DPH)	10.387	77	492851	7094.29 ng/ml	89
68) 4-Bromophenyl phenyl e...	10.724	248	202383	7058.31 ng/ml	99
69) Hexachlorobenzene	10.804	284	226619	6182.09 ng/ml	96
70) Pentachlorophenol (PCP)	10.996	266	143057	7943.68 ng/ml	97
71) Phenanthrene	11.216	178	779684	6018.91 ng/ml	97
72) Anthracene	11.269	178	762087	6259.23 ng/ml	97
73) Carbazole	11.424	167	575598	Below Cal	98
74) Di-n-butyl phthalate	11.767	149	881700	6923.83 ng/ml	96
75) Fluoranthene	12.489	202	930387	6518.30 ng/ml	99
76) Benzidine	12.655	184	875986	21636.03 ng/ml	98
77) Pyrene	12.788	202	882836	6099.03 ng/ml	97
80) Butyl benzyl phthalate	13.810	149	466464	8203.93 ng/ml	93
81) Bis(2-ethylhexyl) adipate	13.986	129	385486	8768.81 ng/ml	99
82) 3,3-Dichlorobenzidine	14.954	252	189164	21053.85 ng/ml	100
83) Benz(a)anthracene	14.987	228	816781	7755.14 ng/ml	97
84) Chrysene	15.077	228	751720	7642.77 ng/ml	98
85) Bis(2-ethylhexyl) phth...	15.158	149	556986	8965.93 ng/ml	96
87) Di-n-octyl phthalate	16.837	149	1053413	9306.36 ng/ml	97
88) Benzo(b)fluoranthene	17.602	252	934117	9173.35 ng/ml	99
89) Benzo(k)fluoranthene	17.672	252	815308	9898.79 ng/ml	98
90) Benzo(b+k)fluoranthene	17.672	252	1795348	16748.81 ng/ml	98
91) Benzo(e)pyrene	18.265	252	874278	8384.69 ng/ml	99
92) Benzo(a)pyrene	18.383	252	786876	9036.83 ng/ml	99
93) Perylene	18.586	252	707152	7785.76 ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.934	276	876084	7756.62 ng/ml	99
96) Dibenz(a,h)anthracene	20.998	278	747087	7694.52 ng/ml	98
97) Benzo(g,h,i)perylene	21.480	276	856246	7799.97 ng/ml	97

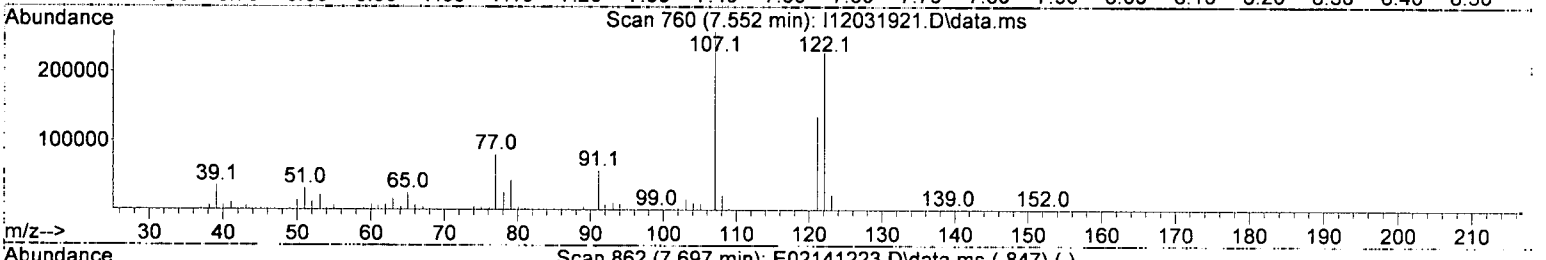
(#) = qualifier out of range (m) = manual integration (+) = signals summed

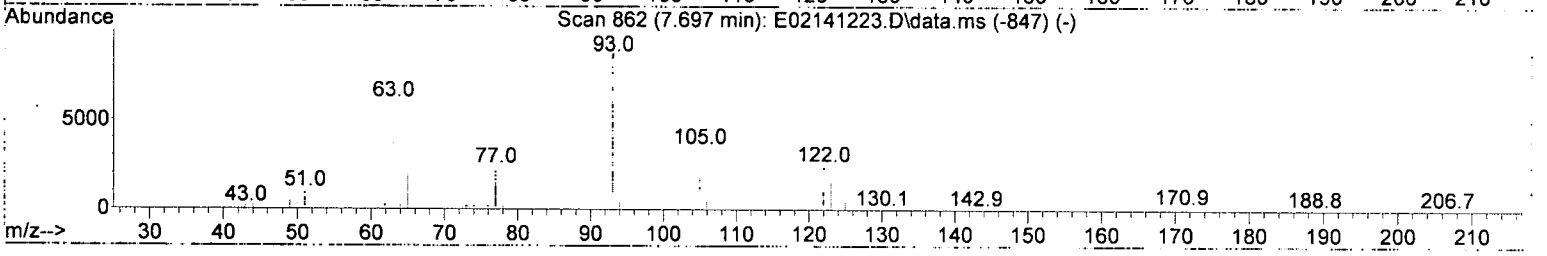
Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031921.D
Acq On : 3 Dec 2019 9:10 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CALA
Misc : 1x, A19K220@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:46 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I12031921.D\data.ms

(26) Benzoic acid (T)

7.552min (-0.069) 1178.78 ng/ml

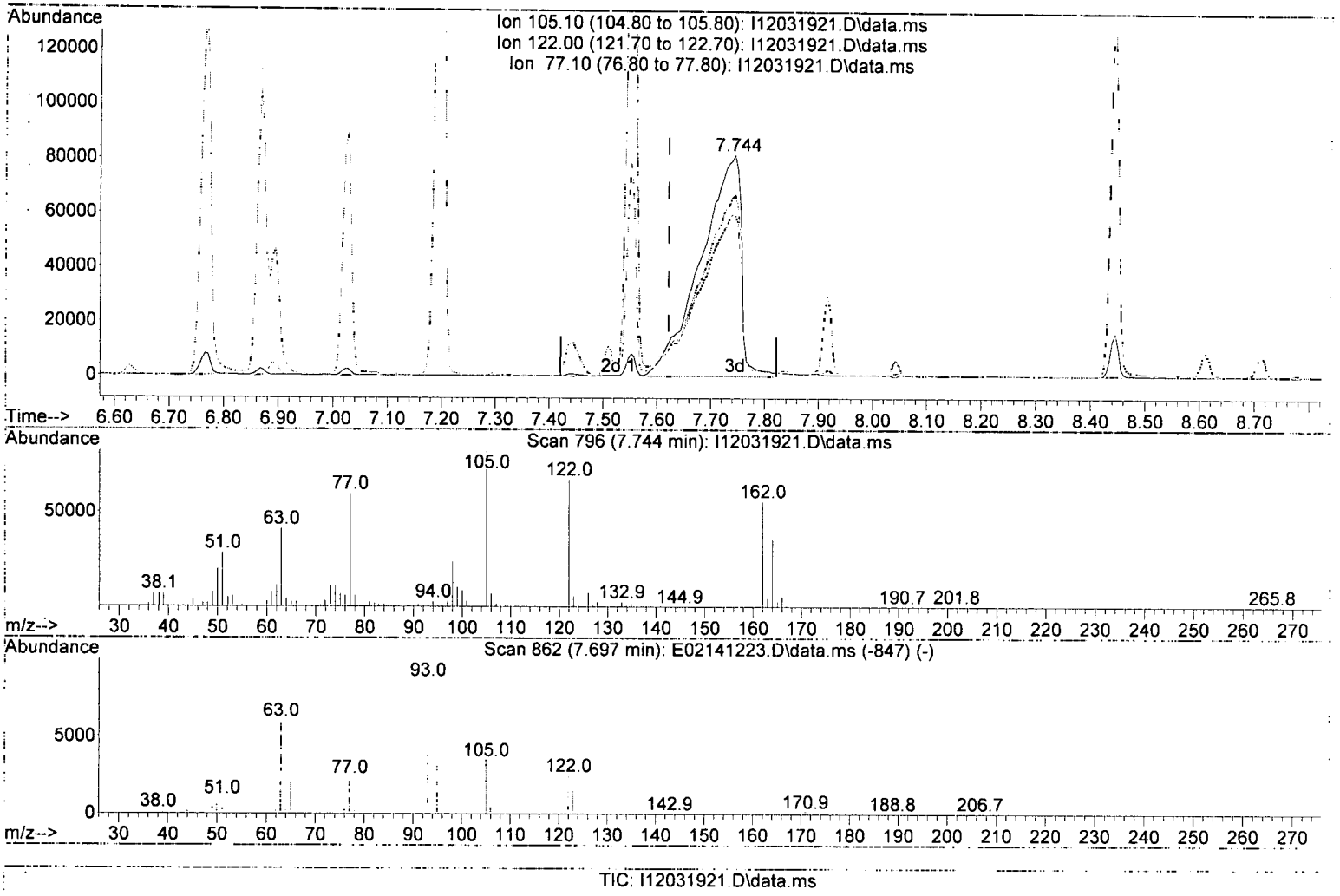
response 9107

Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	2791.62#
77.10	77.80	970.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031921.D
Acq On : 3 Dec 2019 9:10 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CALA
Misc : 1x, A19K220@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:46 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I12031921.D\data.ms

(26) Benzoic acid (T)

7.744min (+ 0.123) 15012.09 ng/ml m

12/4/19

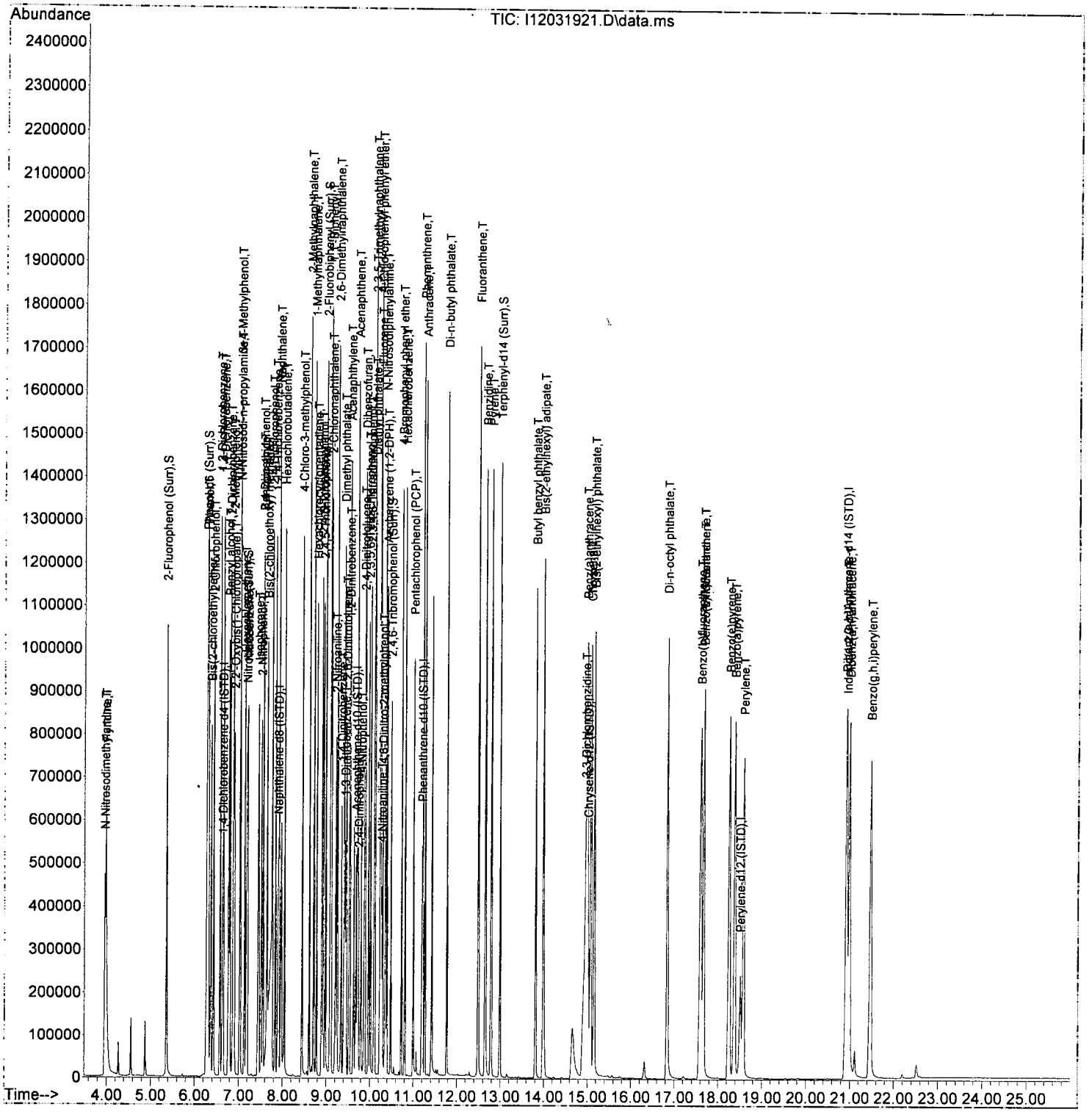
response 425227

Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	81.86
77.10	77.80	72.77
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031921.D
Acq On : 3 Dec 2019 9:10 pm
Operator : JK /AMS /DTH
Sample : 9L03048-CALA
Misc : 1x, A19K220@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:14:46 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031923.D
Acq On : 3 Dec 2019 10:18 pm
Operator : JK /AMS /DTH
Sample : 9L03048-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:15:06 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

12/4/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.621	152	79269	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	305935	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	147732	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.183	188	264239	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.992	240	260057	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.490	264	255903	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.897	292	219828	2000.00	ng/ml	0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.353	112	53422	1039.57	ng/ml	0.00
5) Phenol-d6 (Surr)	6.257	99	72916	1199.65	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.167	82	58881	1257.38	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.974	172	121110	1045.35	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.467	330	17610	1009.55	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.981	244	129835	1072.27	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.941	74	39903	1074.66	ng/ml	95
3) Pyridine	3.979	79	58545	979.55	ng/ml	95
6) Phenol	6.268	94	83015	1343.73	ng/ml	96
7) Aniline	6.300	93	87696	Below Cal		99
8) Bis(2-chloroethyl) ether	6.354	93	63943	1123.88	ng/ml	97
9) 2-Chlorophenol	6.418	128	59687	1142.48	ng/ml	97
10) 1,3-Dichlorobenzene	6.568	146	62863	1018.01	ng/ml	99
11) 1,4-Dichlorobenzene	6.637	146	60548	1017.50	ng/ml	99
12) Benzyl alcohol	6.755	108	31788	1116.24	ng/ml	94
13) 1,2-Dichlorobenzene	6.792	146	59625	1019.41	ng/ml	97
14) 2-Methylphenol	6.856	107	46867	1237.31	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.888	45	73682	1252.31	ng/ml	91
16) N-Nitrosodi-n-propylamine	7.012	70	43328	1337.33	ng/ml	96
17) 3+4-Methylphenol	7.006	107	59692	1248.51	ng/ml	98
18) Hexachloroethane	7.129	201	18547	983.65	ng/ml	95
20) Nitrobenzene	7.183	77	59586	1293.75	ng/ml	96
22) Isophorone	7.418	82	114777	1172.03	ng/ml	98
23) 2-Nitrophenol	7.504	139	31071	990.75	ng/ml	95
24) 2,4-Dimethylphenol	7.536	122	45354	1016.69	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.632	93	69064	1154.76	ng/ml	99
26) Benzoic acid	7.616	105	23605	1590.28	ng/ml	94
27) 2,4-Dichlorophenol	7.739	162	44608	1091.09	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.830	180	52151	966.88	ng/ml	99
29) Naphthalene	7.910	128	162807	1046.10	ng/ml	99
30) 4-Chloroaniline	7.953	127	60348	2924.19	ng/ml	97
31) Hexachlorobutadiene	8.038	225	27302	943.21	ng/ml	99
32) 4-Chloro-3-methylphenol	8.434	107	44422	1090.48	ng/ml	98
33) 2-Methylnaphthalene	8.605	142	118904	1064.50	ng/ml	98
34) 1-Methylnaphthalene	8.707	142	112003	1043.32	ng/ml	99
36) Hexachlorocyclopentadiene	8.777	237	28362	1006.34	ng/ml	98
37) 2,4,6-Trichlorophenol	8.889	196	29702	1021.64	ng/ml	96
38) 2,4,5-Trichlorophenol	8.921	198	29713	1072.70	ng/ml	98
39) 1,1'-Biphenyl	9.076	154	131132	1043.34	ng/ml	100
41) 2-Chloronaphthalene	9.097	162	96488	1033.61	ng/ml	99
42) 2-Nitroaniline	9.194	138	30197	1071.91	ng/ml	94
43) 2,6-Dimethylnaphthalene	9.237	156	94716	1028.13	ng/ml	98

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031923.D
Acq On : 3 Dec 2019 10:18 pm
Operator : JK /AMS /DTH
Sample : 9L03048-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:15:06 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

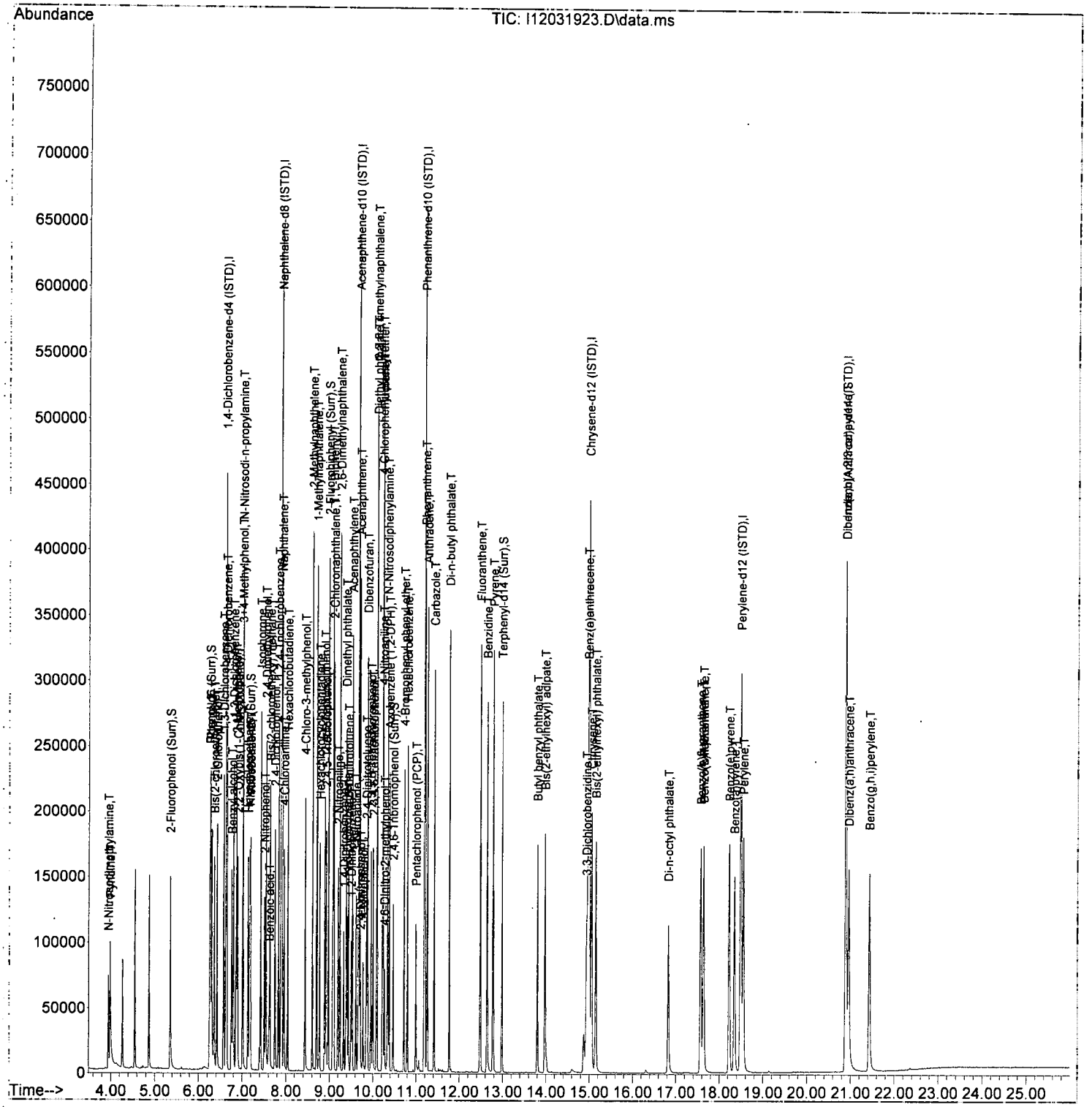
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.322	168	13485	930.84	ng/ml	91
45) Dimethyl phthalate	9.376	163	110201	1051.86	ng/ml	100
46) 1,3-Dinitrobenzene	9.402	168	16623	980.07	ng/ml	96
47) 2,6-Dinitrotoluene	9.434	165	25208	1061.54	ng/ml	93
48) 1,2-Dinitrobenzene	9.493	168	11492	998.69	ng/ml	81
49) Acenaphthylene	9.520	152	156719	1069.85	ng/ml	99
50) 3-Nitroaniline	9.611	138	24218	2298.99	ng/ml	93
51) Acenaphthene	9.702	153	97367	1020.25	ng/ml	99
52) 2,4-Dinitrophenol	9.713	184	4566	732.95	ng/ml	94
53) 4-Nitrophenol	9.771	139	15907	917.21	ng/ml	92
54) 2,4-Dinitrotoluene	9.846	165	30634	941.75	ng/ml	92
55) Dibenzofuran	9.873	168	132714	991.75	ng/ml	96
56) 2,3,5,6-Tetrachlorophenol	9.953	232	22778	872.79	ng/ml	98
57) 2,3,4,6-Tetrachlorophenol	10.001	232	24828	925.08	ng/ml	94
58) Diethyl phthalate	10.092	149	100808	1068.92	ng/ml	99
59) 2,3,5-Trimethylnaphtha...	10.087	170	84787	984.71	ng/ml	96
60) Fluorene	10.226	166	103069	992.01	ng/ml	100
61) 4-Chlorophenyl phenyl ...	10.215	204	49922	956.41	ng/ml	98
62) 4-Nitroaniline	10.231	138	21123	1095.60	ng/ml	95
63) 4,6-Dinitro-2-methylph...	10.263	198	11253	850.12	ng/ml	95
65) N-Nitrosodiphenylamine	10.333	169	86917	1067.86	ng/ml	98
66) Azobenzene (1,2-DPH)	10.376	77	100124	1296.92	ng/ml	98
68) 4-Bromophenyl phenyl e...	10.718	248	31866	1000.08	ng/ml	99
69) Hexachlorobenzene	10.793	284	39223	962.85	ng/ml	95
70) Pentachlorophenol (PCP)	10.991	266	15555	942.83	ng/ml	98
71) Phenanthrene	11.205	178	146817	1019.90	ng/ml	100
72) Anthracene	11.258	178	147123	1087.37	ng/ml	99
73) Carbazole	11.413	167	129315	1267.18	ng/ml	99
74) Di-n-butyl phthalate	11.761	149	161605	1141.99	ng/ml	100
75) Fluoranthene	12.478	202	166323	1048.58	ng/ml	99
76) Benzidine	12.633	184	137318	6465.31	ng/ml	98
77) Pyrene	12.772	202	169847	1055.89	ng/ml	99
80) Butyl benzyl phthalate	13.799	149	61785	985.18	ng/ml	97
81) Bis(2-ethylhexyl) adipate	13.975	129	52072	972.27	ng/ml	99
82) 3,3-Dichlorobenzidine	14.933	252	49016	4338.54	ng/ml	99
83) Benz(a)anthracene	14.970	228	149572	1055.49	ng/ml	99
84) Chrysene	15.051	228	133946	1012.15	ng/ml	100
85) Bis(2-ethylhexyl) phth...	15.147	149	89562	1035.19	ng/ml	100
87) Di-n-octyl phthalate	16.826	149	113940	791.45	ng/ml	97
88) Benzo(b)fluoranthene	17.570	252	139171	1078.46	ng/ml	100
89) Benzo(k)fluoranthene	17.634	252	143016	995.37	ng/ml	99
90) Benzo(b+k)fluoranthene	17.634	252	291066	2032.86	ng/ml	99
91) Benzo(e)pyrene	18.228	252	141737	1072.63	ng/ml	99
92) Benzo(a)pyrene	18.345	252	120272	893.20	ng/ml	99
93) Perylene	18.549	252	138430	1202.67	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.891	276	121312	946.31	ng/ml	99
96) Dibenz(a,h)anthracene	20.961	278	115452	1047.65	ng/ml	99
97) Benzo(g,h,i)perylene	21.431	276	132703	1065.07	ng/ml	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031923.D
Acq On : 3 Dec 2019 10:18 pm
Operator : JK /AMS /DTH
Sample : 9L03048-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 04 09:15:06 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 09:13:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031923.D
Acq On : 3 Dec 2019 10:18 pm
Operator : JK /AMS /DTH
Sample : 9L03048-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 10:40:53 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 12/5/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.621	152	79269	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.889	136	305935	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.670	162	147732	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.183	188	264239	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.992	240	260057	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.490	264	255903	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.897	292	219828	2000.00	ng/ml	0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.353	112	53322	1011.11	ng/ml	0.00
5) Phenol-d6 (Surr)	6.257	99	72916	1064.29	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.167	82	58881	1088.32	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.974	172	121110	1082.43	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.467	330	17610	1067.33	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.981	244	129835	1088.64	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.941	74	39903	978.30	ng/ml	95
3) Pyridine	3.979	79	58545	891.86	ng/ml	95
6) Phenol	6.268	94	83015	1089.72	ng/ml	96
7) Aniline	6.300	93	87696	1109.00	ng/ml	99
8) Bis(2-chloroethyl) ether	6.354	93	63943	1010.66	ng/ml	97
9) 2-Chlorophenol	6.418	128	59687	1077.44	ng/ml	97
10) 1,3-Dichlorobenzene	6.568	146	62863	1028.92	ng/ml	99
11) 1,4-Dichlorobenzene	6.637	146	60548	1012.67	ng/ml	99
12) Benzyl alcohol	6.755	108	31788	910.32	ng/ml	94
13) 1,2-Dichlorobenzene	6.792	146	59625	1010.03	ng/ml	97
14) 2-Methylphenol	6.856	107	46867	1105.42	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.888	45	73682	930.42	ng/ml	91
16) N-Nitrosodi-n-propylamine	7.012	70	43328	1074.08	ng/ml	96
17) 3+4-Methylphenol	7.006	107	59692	1135.28	ng/ml	98
18) Hexachloroethane	7.129	201	18547	1062.55	ng/ml	95
20) Nitrobenzene	7.183	77	59586	1081.64	ng/ml	96
22) Isophorone	7.418	82	114777	1052.38	ng/ml	98
23) 2-Nitrophenol	7.504	139	31071	1120.12	ng/ml	95
24) 2,4-Dimethylphenol	7.536	122	45354	1034.07	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.632	93	69064	1074.55	ng/ml	99
26) Benzoic acid	7.616	105	23605	1833.57	ng/ml	94
27) 2,4-Dichlorophenol	7.739	162	44608	1107.92	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.830	180	52151	1041.04	ng/ml	99
29) Naphthalene	7.910	128	162807	1036.07	ng/ml	99
30) 4-Chloroaniline	7.953	127	60348	1158.18	ng/ml	97
31) Hexachlorobutadiene	8.038	225	27302	1059.73	ng/ml	99
32) 4-Chloro-3-methylphenol	8.434	107	44422	1027.52	ng/ml	98
33) 2-Methylnaphthalene	8.605	142	118904	1063.27	ng/ml	98
34) 1-Methylnaphthalene	8.707	142	112003	1060.10	ng/ml	99
36) Hexachlorocyclopentadiene	8.777	237	28362	1088.26	ng/ml	98
37) 2,4,6-Trichlorophenol	8.889	196	29702	1055.26	ng/ml	96
38) 2,4,5-Trichlorophenol	8.921	198	29713	1075.38	ng/ml	98
39) 1,1'-Biphenyl	9.076	154	131132	1047.37	ng/ml	100
41) 2-Chloronaphthalene	9.097	162	96488	1041.95	ng/ml	99
42) 2-Nitroaniline	9.194	138	30197	1046.92	ng/ml	94
43) 2,6-Dimethylnaphthalene	9.237	156	94716	1053.05	ng/ml	98

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031923.D
Acq On : 3 Dec 2019 10:18 pm
Operator : JK /AMS /DTH
Sample : 9L03048-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 10:40:53 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9

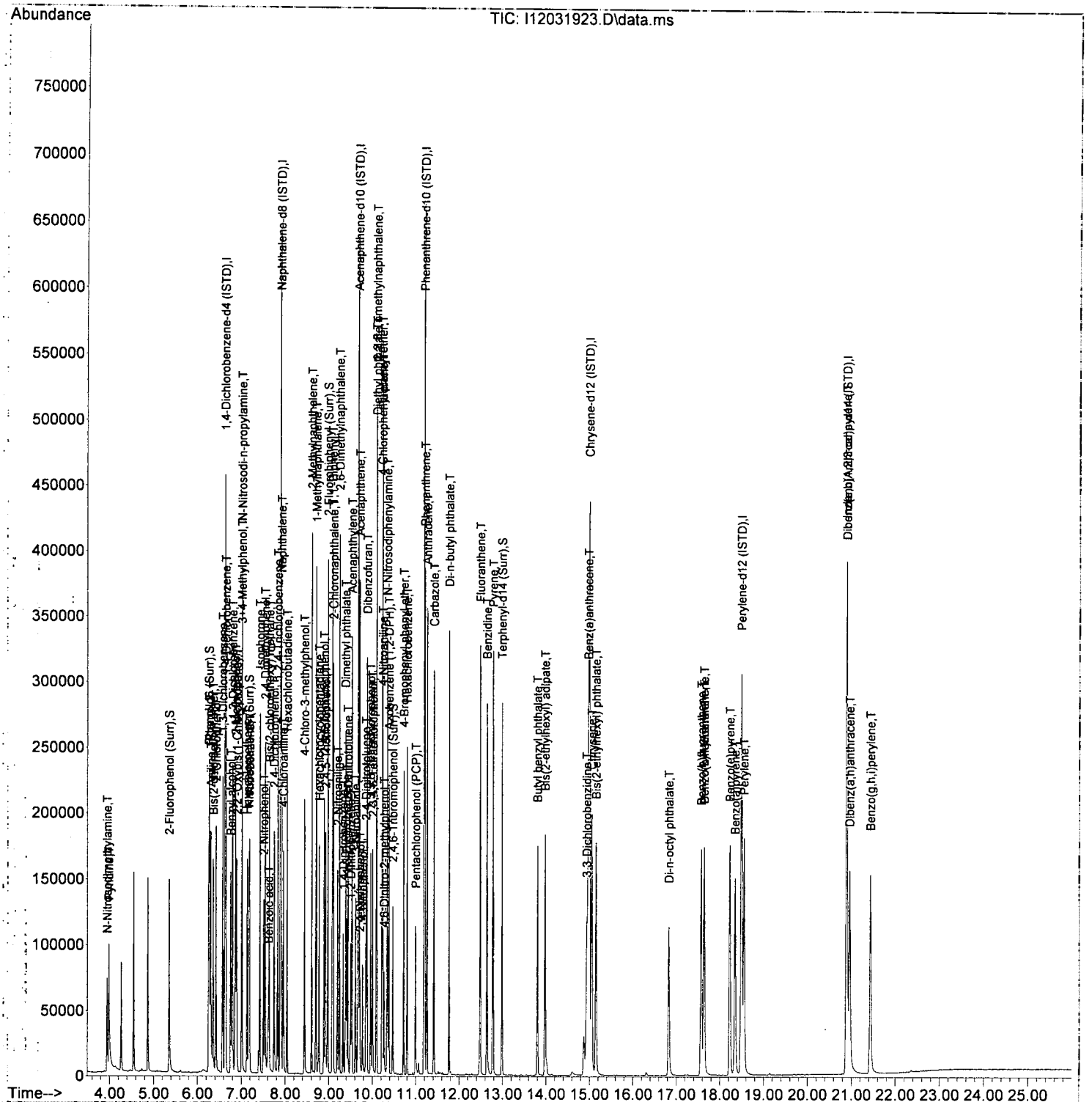
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.322	168	13485	1090.82	ng/ml	91
45)	Dimethyl phthalate	9.376	163	110201	1088.45	ng/ml	100
46)	1,3-Dinitrobenzene	9.402	168	16623	1074.38	ng/ml	96
47)	2,6-Dinitrotoluene	9.434	165	25208	1114.03	ng/ml	93
48)	1,2-Dinitrobenzene	9.493	168	11492	1032.79	ng/ml	81
49)	Acenaphthylene	9.520	152	156719	1103.97	ng/ml	99
50)	3-Nitroaniline	9.611	138	24218	1135.49	ng/ml	93
51)	Acenaphthene	9.702	153	97367	1030.66	ng/ml	99
52)	2,4-Dinitrophenol	9.713	184	4566	955.98	ng/ml	94
53)	4-Nitrophenol	9.771	139	15907	1059.91	ng/ml	92
54)	2,4-Dinitrotoluene	9.846	165	30634	1022.74	ng/ml	92
55)	Dibenzofuran	9.873	168	132714	1047.17	ng/ml	96
56)	2,3,5,6-Tetrachlorophenol	9.953	232	22778	1080.96	ng/ml	98
57)	2,3,4,6-Tetrachlorophenol	10.001	232	24828	1035.28	ng/ml	94
58)	Diethyl phthalate	10.092	149	100808	1101.27	ng/ml	99
59)	2,3,5-Trimethylnaphtha...	10.087	170	84787	1053.87	ng/ml	96
60)	Fluorene	10.226	166	103069	1068.61	ng/ml	100
61)	4-Chlorophenyl phenyl ...	10.215	204	49922	1037.34	ng/ml	98
62)	4-Nitroaniline	10.231	138	21123	1042.06	ng/ml	95
63)	4,6-Dinitro-2-methylph...	10.263	198	11253	1106.99	ng/ml	95
65)	N-Nitrosodiphenylamine	10.333	169	86917	1090.95	ng/ml	98
66)	Azobenzene (1,2-DPH)	10.376	77	100124	1073.25	ng/ml	98
68)	4-Bromophenyl phenyl e...	10.718	248	31866	1062.82	ng/ml	99
69)	Hexachlorobenzene	10.793	284	39223	1038.12	ng/ml	95
70)	Pentachlorophenol (PCP)	10.991	266	15555	1056.57	ng/ml	98
71)	Phenanthrene	11.205	178	146817	1025.26	ng/ml	100
72)	Anthracene	11.258	178	147123	1108.13	ng/ml	99
73)	Carbazole	11.413	167	129315	1035.05	ng/ml	99
74)	Di-n-butyl phthalate	11.761	149	161605	1162.30	ng/ml	100
75)	Fluoranthene	12.478	202	166323	1138.43	ng/ml	99
76)	Benzidine	12.633	184	137318	2100.06	ng/ml	98
77)	Pyrene	12.772	202	169847	1146.41	ng/ml	99
80)	Butyl benzyl phthalate	13.799	149	61785	1016.17	ng/ml	97
81)	Bis(2-ethylhexyl) adipate	13.975	129	52072	1037.94	ng/ml	99
82)	3,3-Dichlorobenzidine	14.933	252	49016	2020.17	ng/ml	99
83)	Benz(a)anthracene	14.970	228	149572	1106.06	ng/ml	99
84)	Chrysene	15.051	228	133946	1013.82	ng/ml	100
85)	Bis(2-ethylhexyl) phth...	15.147	149	89562	1047.98	ng/ml	100
87)	Di-n-octyl phthalate	16.826	149	113765	1032.51	ng/ml	97
88)	Benzo(b)fluoranthene	17.570	252	139171	1066.79	ng/ml	100
89)	Benzo(k)fluoranthene	17.634	252	143016	1090.33	ng/ml	99
90)	Benzo(b+k)fluoranthene	17.634	252	291066	2138.05	ng/ml	99
91)	Benzo(e)pyrene	18.228	252	141737	1089.73	ng/ml	99
92)	Benzo(a)pyrene	18.345	252	120272	1046.68	ng/ml	99
93)	Perylene	18.549	252	138430	1191.02	ng/ml	100
95)	Indeno(1,2,3-cd)pyrene	20.891	276	121312	1002.66	ng/ml	99
96)	Dibenz(a,h)anthracene	20.961	278	115452	1042.60	ng/ml	99
97)	Benzo(g,h,i)perylene	21.431	276	132703	1114.56	ng/ml	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-12\9L03048\
Data File : I12031923.D
Acq On : 3 Dec 2019 10:18 pm
Operator : JK /AMS /DTH
Sample : 9L03048-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Dec 05 10:40:53 2019
Quant Method : T:\methods\SV9_120319.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Dec 04 10:57:36 2019
Response via : Initial Calibration
InstName : SV-GCMS9



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Metals by EPA 6020A (ICPMS)
Benchsheet Data and Analysis (Including Calibration)

Batch 9120481
Sequence 9L04031

APEX LABORATORIES

Ag (Silver) - 6020 - TCLP
As (Arsenic) - 6020 - TCLP
Ba (Barium) - 6020 - TCLP
Cd (Cadmium) - 6020 - TCLP
Cr (Chromium) - 6020 - TCLP
Hg (Mercury) - 6020 - TCLP
Pb (Lead) - 6020 - TCLP
Se (Selenium) - 6020 - TCLP

PREPARATION BENCH SHEET

9120481

DEC 1 0 2019

Apex Laboratories
BATCH #: 9120481 (Soil)
Prep Method: EPA 1311/3015

Lab Number	Due	Prepared	Initial (mL)	Final (mL)	Client	ClientID / Sample	Extraction Comments
9120481-BLK1		12/04/19 10:12	10	50	QC Sample		
9120481-BS1		12/04/19 10:12	10	50	QC Sample		
Spike 1: 250 uL of A19J064 Spike 2: 1000 uL of A19K228							
A9K0609-01	12/04/19	12/04/19 10:12	10	50	Anchor QEA, LLC	PDI-138RAB-C-00-19-1-191	
☐ Ag (Silver) - 6020 - TCLP ☐ As (Arsenic) - 6020 - TCLP ☐ Ba (Barium) - 6020 - TCLP ☐ Cd (Cadmium) - 6020 - TCLP ☐ Cr (Chromium) - 6020 - TCLP ☐ Hg (Mercury) - 6020 - TCLP ☐ Pb (Lead) - 6020 - TCLP ☐ Se (Selenium) - 6020 - TCLP							
A9K0609-02	12/04/19	12/04/19 10:12	10	50	Anchor QEA, LLC	PDI-144RAB-C-00-29-1911	
☐ Ag (Silver) - 6020 - TCLP ☐ As (Arsenic) - 6020 - TCLP ☐ Ba (Barium) - 6020 - TCLP ☐ Cd (Cadmium) - 6020 - TCLP ☐ Cr (Chromium) - 6020 - TCLP ☐ Hg (Mercury) - 6020 - TCLP ☐ Pb (Lead) - 6020 - TCLP ☐ Se (Selenium) - 6020 - TCLP							
A9K0695-01	12/06/19	12/04/19 10:12	10	50	Anchor QEA, LLC	PDI-134RAB-C-00-25-5-191	
☐ Ag (Silver) - 6020 - TCLP ☐ As (Arsenic) - 6020 - TCLP ☐ Ba (Barium) - 6020 - TCLP ☐ Cd (Cadmium) - 6020 - TCLP ☐ Cr (Chromium) - 6020 - TCLP ☐ Hg (Mercury) - 6020 - TCLP ☐ Pb (Lead) - 6020 - TCLP ☐ Se (Selenium) - 6020 - TCLP							
A9K0695-02	12/06/19	12/04/19 10:12	10	50	Anchor QEA, LLC	PDI-136RAB-C-00-13.4-191	
☐ Ag (Silver) - 6020 - TCLP ☐ As (Arsenic) - 6020 - TCLP ☐ Ba (Barium) - 6020 - TCLP ☐ Cd (Cadmium) - 6020 - TCLP ☐ Cr (Chromium) - 6020 - TCLP ☐ Hg (Mercury) - 6020 - TCLP ☐ Pb (Lead) - 6020 - TCLP ☐ Se (Selenium) - 6020 - TCLP							
9120481-MS1		12/04/19 10:12	10	50	QC Sample		
Source: A9K0695-02 Spike 1: 250 uL of A19J064 Spike 2: 1000 uL of A19K228							

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L213	11/30/23	Metals Prep Balance 2
A17F264	06/23/23	Mars-6 Microwave
A19I314	03/22/20	Conc. HCl - Omnitrace
A19J492	04/28/20	Conc. HNO3 - Omnitrace

Analyte Spike(s)

Std ID	Exp. Date	Description
A19J064	12/28/19	###TCLP 1 Spk
A19K228	01/30/20	Hg Sb TCLP Spk Standard

CRL 12/4/19

Fluid ID: A19L016
Extraction Batch: 9120422
Digestion time and temperature achieved? Yes
Initials: CRL

CRL 12/4/19
Prepared By: Date

ESS 12/4/19
Reviewed By: Date

Batch #: 9120481

If observed weight loss < 0.2g Digestion is within control limits

If observed weight loss > 0.2g Enter data in to electronic VWW. Acceptance limit 1.0% sample loss.

Date: 12/04/19 Prepared by: CRL

#	Mars Tube ID	Sample ID	Pre-digestion Vessel + Sample Wt. (g)	Post-digestion Vessel + Sample Wt. (g)	Sample Wt. Loss (%)* *Formula only used if sample loss >0.2g*
1	S85	9120481-BLK1	207.70	207.69	n/a
2	S65	9120481-BS1	208.69	208.68	n/a
3	S100	A9K0609-01	210.80	210.79	n/a
4	S51	A9K0609-02	205.74	205.72	n/a
5	S105	A9K0695-01	207.31	207.30	n/a
6	S104	A9K0695-02	209.08	209.07	n/a
7	S18	9120481-MS1	208.83	208.82	n/a
8					n/a
9					n/a
10					n/a
11					n/a
12					n/a
13					n/a
14					n/a
15					n/a
16					n/a
17					n/a
18					n/a
19					n/a
20					n/a
21					n/a
22					n/a
23					n/a
24					n/a
					n/a

*Example Calculation: (Pre(g) – Post(g))/(Post(g) – 159.32g) This represents the mean weight of the empty digestion vessels. By factoring in the mean digestion vessel weight, we observe weight loss from only the sample, rather than as a percentage of the sample+vessel weight.

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9L04031** Instrument: **ICPMS5**

Date: **12/04/19 09:09** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9L04031-CAL1	Soil	QC	QC			A19J130	A19K144
2	9L04031-CAL2	Soil	QC	QC			A19J130	A19K145
3	9L04031-CAL3	Soil	QC	QC			A19J130	A19K146
4	9L04031-CAL4	Soil	QC	QC			A19J130	A19K147
5	9L04031-CAL5	Soil	QC	QC			A19J130	A19K148
6	9L04031-CAL6	Soil	QC	QC			A19J130	A19K149
7	9L04031-CAL7	Soil	QC	QC			A19J130	A19K150
8	9L04031-CAL8	Soil	QC	QC			A19J130	A19K151
9	9L04031-CAL9	Soil	QC	QC			A19J130	A19K152
10	9L04031-ICV1	Soil	QC	QC			A19J130	A19J138
11	9L04031-ICB1	Soil	QC	QC			A19J130	
12	9L04031-CRL1	Soil	QC	QC			A19J130	A19K144
13	9L04031-CRL2	Soil	QC	QC			A19J130	A19K145
14	9L04031-CRL3	Soil	QC	QC			A19J130	A19K146
15	9L04031-IFA1	Soil	QC	QC			A19J130	A19L002
16	9L04031-IFB1	Soil	QC	QC			A19J130	A19L003
17	9120475-BLK1	Soil	QC	QC		9120475	A19J130	
18	9120475-BS1	Soil	QC	QC		9120475	A19J130	
19	A9K0384-13	Soil	Pb (Lead) - 6020 - TCLP		12/09/19	9120475	A19J130	
20	A9K0384-16	Soil	Pb (Lead) - 6020 - TCLP		12/09/19	9120475	A19J130	
21	A9K0384-22	Soil	Pb (Lead) - 6020 - TCLP		12/09/19	9120475	A19J130	
22	A9K0384-28	Soil	Pb (Lead) - 6020 - TCLP		12/09/19	9120475	A19J130	
23	9120475-MS1	Soil	QC	QC		9120475	A19J130	
24	A9L0062-01	Soil	Pb (Lead) - 6020 - TCLP		12/04/19	9120475	A19J130	
25	9120475-MS2	Soil	QC	QC		9120475	A19J130	
26	9120476-BLK1	Paint Chip	QC	QC		9120476	A19J130	
27	9L04031-CCV1	Soil	QC	QC			A19J130	A19J138
28	9L04031-CCB1	Soil	QC	QC			A19J130	
29	9120476-BS1	Paint Chip	QC	QC		9120476	A19J130	
30	A9K0384-31	Paint Chip	Cr (Chromium) - 6020 - TCLP		12/09/19	9120476	A19J130	
31	"	Paint Chip	Pb (Lead) - 6020 - TCLP	"	12/09/19	9120476	A19J130	
32	9120476-MS1	Paint Chip	QC	QC		9120476	A19J130	
33	A9K0898-01	Paint Chip	Cr (Chromium) - 6020 - TCLP	(QC Source)		9120476	A19J130	
34	"	Paint Chip	Pb (Lead) - 6020 - TCLP	"	12/04/19	9120476	A19J130	
35	9120476-MS2	Paint Chip	QC	QC		9120476	A19J130	
36	9120476-MS3	Paint Chip	QC	QC		9120476	A19J130	
37	9120481-BLK1	Soil	QC	QC		9120481	A19J130	
38	9120481-BS1	Soil	QC	QC		9120481	A19J130	
39	A9K0609-01	Soil	Ag (Silver) - 6020 - TCLP	Anchor QEA, LLC	12/04/19	9120481	A19J130	
40	"	Soil	As (Arsenic) - 6020 - TCLP	"	12/04/19	9120481	A19J130	
41	"	Soil	Ba (Barium) - 6020 - TCLP	"	12/04/19	9120481	A19J130	
42	"	Soil	Cd (Cadmium) - 6020 - TCLP	"	12/04/19	9120481	A19J130	
43	"	Soil	Cr (Chromium) - 6020 - TCLP	"	12/04/19	9120481	A19J130	
44	"	Soil	Hg (Mercury) - 6020 - TCLP	"	12/04/19	9120481	A19J130	
45	"	Soil	Pb (Lead) - 6020 - TCLP	"	12/04/19	9120481	A19J130	
46	"	Soil	Se (Selenium) - 6020 - TCLP	"	12/04/19	9120481	A19J130	
47	A9K0609-02	Soil	Ag (Silver) - 6020 - TCLP	Anchor QEA, LLC	12/04/19	9120481	A19J130	
48	"	Soil	As (Arsenic) - 6020 - TCLP	"	12/04/19	9120481	A19J130	
49	"	Soil	Ba (Barium) - 6020 - TCLP	"	12/04/19	9120481	A19J130	
50	"	Soil	Cd (Cadmium) - 6020 - TCLP	"	12/04/19	9120481	A19J130	
51	"	Soil	Cr (Chromium) - 6020 - TCLP	"	12/04/19	9120481	A19J130	

Sequence: **9L04031** Instrument: **ICPMS5**

Date: **12/04/19 09:09** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
52	"	Soil	Hg (Mercury) - 6020 - TCLP	"	12/04/19	9120481	A19J130	
53	"	Soil	Pb (Lead) - 6020 - TCLP	"	12/04/19	9120481	A19J130	
54	"	Soil	Se (Selenium) - 6020 - TCLP	"	12/04/19	9120481	A19J130	
55	9L04031-CCV2	Soil	QC	QC			A19J130	A19J138
56	9L04031-CCB2	Soil	QC	QC			A19J130	
57	A9K0695-01	Soil	Ag (Silver) - 6020 - TCLP	Anchor QEA, LLC	12/06/19	9120481	A19J130	
58	"	Soil	As (Arsenic) - 6020 - TCLP	"	12/06/19	9120481	A19J130	
59	"	Soil	Ba (Barium) - 6020 - TCLP	"	12/06/19	9120481	A19J130	
60	"	Soil	Cd (Cadmium) - 6020 - TCLP	"	12/06/19	9120481	A19J130	
61	"	Soil	Cr (Chromium) - 6020 - TCLP	"	12/06/19	9120481	A19J130	
62	"	Soil	Hg (Mercury) - 6020 - TCLP	"	12/06/19	9120481	A19J130	
63	"	Soil	Pb (Lead) - 6020 - TCLP	"	12/06/19	9120481	A19J130	
64	"	Soil	Se (Selenium) - 6020 - TCLP	"	12/06/19	9120481	A19J130	
65	A9K0695-02	Soil	Ag (Silver) - 6020 - TCLP	Anchor QEA, LLC	12/06/19	9120481	A19J130	
66	"	Soil	As (Arsenic) - 6020 - TCLP	"	12/06/19	9120481	A19J130	
67	"	Soil	Ba (Barium) - 6020 - TCLP	"	12/06/19	9120481	A19J130	
68	"	Soil	Cd (Cadmium) - 6020 - TCLP	"	12/06/19	9120481	A19J130	
69	"	Soil	Cr (Chromium) - 6020 - TCLP	"	12/06/19	9120481	A19J130	
70	"	Soil	Hg (Mercury) - 6020 - TCLP	"	12/06/19	9120481	A19J130	
71	"	Soil	Pb (Lead) - 6020 - TCLP	"	12/06/19	9120481	A19J130	
72	"	Soil	Se (Selenium) - 6020 - TCLP	"	12/06/19	9120481	A19J130	
73	9120481-MS1	Soil	QC	QC		9120481	A19J130	
74	9120483-BLK1	Water	QC	QC		9120483	A19J130	
75	9120483-BS1	Water	QC	QC		9120483	A19J130	
76	A9L0052-01	Water	Pb (Lead) - 200.8 - Total	Calbag Metals	12/04/19	9120483	A19J130	
77	9120483-DUP1	Water	QC	QC		9120483	A19J130	
78	9120483-MS1	Water	QC	QC		9120483	A19J130	
79	9L04031-CCV3	Soil	QC	QC			A19J130	A19J138
80	9L04031-CCB3	Soil	QC	QC			A19J130	
81	9L04031-CRL4	Soil	QC	QC			A19J130	A19K144
82	9L04031-CRL5	Soil	QC	QC			A19J130	A19K145
83	9L04031-CRL6	Soil	QC	QC			A19J130	A19K146
84	A9K0692-04RE1	Soil	V (Vanadium) - 6020 - Total	Anchor QEA, LLC	12/06/19	9120438	A19J130	
85	A9K0692-06RE1	Soil	V (Vanadium) - 6020 - Total	Anchor QEA, LLC	12/06/19	9120438	A19J130	
86	9120438-MS2	Soil	QC	QC		9120438	A19J130	
87	9120438-MSD2	Soil	QC	QC		9120438	A19J130	
88	A9K0692-07RE1	Soil	V (Vanadium) - 6020 - Total	Anchor QEA, LLC	12/06/19	9120438	A19J130	
89	A9K0672-04RE1	Soil	Ag (Silver) - 6020 - Total		12/06/19	9120441	A19J130	
90	"	Soil	As (Arsenic) - 6020 - Total	"	12/06/19	9120441	A19J130	
91	"	Soil	Cd (Cadmium) - 6020 - Total	"	12/06/19	9120441	A19J130	
92	"	Soil	Cr (Chromium) - 6020 - Total	"	12/06/19	9120441	A19J130	
93	"	Soil	Se (Selenium) - 6020 - Total	"	12/06/19	9120441	A19J130	
94	9120510-BLK1	Solid	QC	QC		9120510	A19J130	
95	9120510-BS1	Solid	QC	QC		9120510	A19J130	
96	A9L0064-01	Solid	Ag (Silver) - 6020 - Total		12/06/19	9120510	A19J130	
97	"	Solid	As (Arsenic) - 6020 - Total	"	12/06/19	9120510	A19J130	
98	"	Solid	Ba (Barium) - 6020 - Total	"	12/06/19	9120510	A19J130	
99	"	Solid	Cd (Cadmium) - 6020 - Total	"	12/06/19	9120510	A19J130	
100	"	Solid	Cr (Chromium) - 6020 - Total	"	12/06/19	9120510	A19J130	
101	"	Solid	Hg (Mercury) - 6020 - Total	"	12/06/19	9120510	A19J130	
102	"	Solid	Pb (Lead) - 6020 - Total	"	12/06/19	9120510	A19J130	
103	"	Solid	Se (Selenium) - 6020 - Total	"	12/06/19	9120510	A19J130	
104	9120510-DUP1	Solid	QC	QC		9120510	A19J130	
105	9L04031-CCV4	Soil	QC	QC			A19J130	A19J138
106	9L04031-CCB4	Soil	QC	QC			A19J130	

Sequence: **9L04031** Instrument: **ICPMS5**

Date: **12/04/19 09:09** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
107	9120510-MS1	Solid	QC	QC		9120510	A19J130	
108	9120489-BLK1	Soil	QC	QC		9120489	A19J130	
109	9120489-BS1	Soil	QC	QC		9120489	A19J130	
110	A9K0672-01	Soil	Ag (Silver) - 6020 - Total		12/10/19	9120489	A19J130	
111	"	Soil	As (Arsenic) - 6020 - Total	"	12/10/19	9120489	A19J130	
112	"	Soil	Ba (Barium) - 6020 - Total	"	12/10/19	9120489	A19J130	
113	"	Soil	Cd (Cadmium) - 6020 - Total	"	12/10/19	9120489	A19J130	
114	"	Soil	Cr (Chromium) - 6020 - Total	"	12/10/19	9120489	A19J130	
115	"	Soil	Hg (Mercury) - 6020 - Total	"	12/10/19	9120489	A19J130	
116	"	Soil	Pb (Lead) - 6020 - Total	"	12/10/19	9120489	A19J130	
117	"	Soil	Se (Selenium) - 6020 - Total	"	12/10/19	9120489	A19J130	
118	A9K0672-06	Soil	Ag (Silver) - 6020 - Total		12/10/19	9120489	A19J130	
119	"	Soil	As (Arsenic) - 6020 - Total	"	12/10/19	9120489	A19J130	
120	"	Soil	Ba (Barium) - 6020 - Total	"	12/10/19	9120489	A19J130	
121	"	Soil	Cd (Cadmium) - 6020 - Total	"	12/10/19	9120489	A19J130	
122	"	Soil	Cr (Chromium) - 6020 - Total	"	12/10/19	9120489	A19J130	
123	"	Soil	Hg (Mercury) - 6020 - Total	"	12/10/19	9120489	A19J130	
124	"	Soil	Pb (Lead) - 6020 - Total	"	12/10/19	9120489	A19J130	
125	"	Soil	Se (Selenium) - 6020 - Total	"	12/10/19	9120489	A19J130	
126	A9K0747-01	Soil	Ag (Silver) - 6020 - Total		12/09/19	9120489	A19J130	
127	"	Soil	As (Arsenic) - 6020 - Total	"	12/09/19	9120489	A19J130	
128	"	Soil	Be (Beryllium) - 6020 - Total	"	12/09/19	9120489	A19J130	
129	"	Soil	Cd (Cadmium) - 6020 - Total	"	12/09/19	9120489	A19J130	
130	"	Soil	Cr (Chromium) - 6020 - Total	"	12/09/19	9120489	A19J130	
131	"	Soil	Cu (Copper) - 6020 - Total	"	12/09/19	9120489	A19J130	
132	"	Soil	Hg (Mercury) - 6020 - Total	"	12/09/19	9120489	A19J130	
133	"	Soil	Ni (Nickel) - 6020 - Total	"	12/09/19	9120489	A19J130	
134	"	Soil	Pb (Lead) - 6020 - Total	"	12/09/19	9120489	A19J130	
135	"	Soil	Sb (Antimony) - 6020 - Total	"	12/09/19	9120489	A19J130	
136	"	Soil	Se (Selenium) - 6020 - Total	"	12/09/19	9120489	A19J130	
137	"	Soil	Tl (Thallium) - 6020 - Total	"	12/09/19	9120489	A19J130	
138	"	Soil	Zn (Zinc) - 6020 - Total	"	12/09/19	9120489	A19J130	
139	A9K0747-02	Soil	Ag (Silver) - 6020 - Total		12/09/19	9120489	A19J130	
140	"	Soil	As (Arsenic) - 6020 - Total	"	12/09/19	9120489	A19J130	
141	"	Soil	Ba (Barium) - 6020 - Total	(QC Source)		9120489	A19J130	
142	"	Soil	Be (Beryllium) - 6020 - Total	"	12/09/19	9120489	A19J130	
143	"	Soil	Cd (Cadmium) - 6020 - Total	"	12/09/19	9120489	A19J130	
144	"	Soil	Cr (Chromium) - 6020 - Total	"	12/09/19	9120489	A19J130	
145	"	Soil	Cu (Copper) - 6020 - Total	"	12/09/19	9120489	A19J130	
146	"	Soil	Hg (Mercury) - 6020 - Total	"	12/09/19	9120489	A19J130	
147	"	Soil	Ni (Nickel) - 6020 - Total	"	12/09/19	9120489	A19J130	
148	"	Soil	Pb (Lead) - 6020 - Total	"	12/09/19	9120489	A19J130	
149	"	Soil	Sb (Antimony) - 6020 - Total	"	12/09/19	9120489	A19J130	
150	"	Soil	Se (Selenium) - 6020 - Total	"	12/09/19	9120489	A19J130	
151	"	Soil	Tl (Thallium) - 6020 - Total	"	12/09/19	9120489	A19J130	
152	"	Soil	Zn (Zinc) - 6020 - Total	"	12/09/19	9120489	A19J130	
153	9120489-DUP1	Soil	QC	QC		9120489	A19J130	
154	9120489-MS1	Soil	QC	QC		9120489	A19J130	
155	9L04031-CCV5	Soil	QC	QC			A19J130	A19J138
156	9L04031-CCB5	Soil	QC	QC			A19J130	
157	A9K0747-03	Soil	Ag (Silver) - 6020 - Total		12/09/19	9120489	A19J130	
158	"	Soil	As (Arsenic) - 6020 - Total	"	12/09/19	9120489	A19J130	
159	"	Soil	Be (Beryllium) - 6020 - Total	"	12/09/19	9120489	A19J130	
160	"	Soil	Cd (Cadmium) - 6020 - Total	"	12/09/19	9120489	A19J130	
161	"	Soil	Cr (Chromium) - 6020 - Total	"	12/09/19	9120489	A19J130	

Sequence: **9L04031** Instrument: **ICPMS5**

Date: **12/04/19 09:09** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
162	"	Soil	Cu (Copper) - 6020 - Total	"	12/09/19	9120489	A19J130	
163	"	Soil	Hg (Mercury) - 6020 - Total	"	12/09/19	9120489	A19J130	
164	"	Soil	Ni (Nickel) - 6020 - Total	"	12/09/19	9120489	A19J130	
165	"	Soil	Pb (Lead) - 6020 - Total	"	12/09/19	9120489	A19J130	
166	"	Soil	Sb (Antimony) - 6020 - Total	"	12/09/19	9120489	A19J130	
167	"	Soil	Se (Selenium) - 6020 - Total	"	12/09/19	9120489	A19J130	
168	"	Soil	Tl (Thallium) - 6020 - Total	"	12/09/19	9120489	A19J130	
169	"	Soil	Zn (Zinc) - 6020 - Total	"	12/09/19	9120489	A19J130	
170	A9L0049-12	Soil	Ag (Silver) - 6020 - Total		12/06/19	9120489	A19J130	
171	"	Soil	As (Arsenic) - 6020 - Total	"	12/06/19	9120489	A19J130	
172	"	Soil	Ba (Barium) - 6020 - Total	"	12/06/19	9120489	A19J130	
173	"	Soil	Cd (Cadmium) - 6020 - Total	"	12/06/19	9120489	A19J130	
174	"	Soil	Cr (Chromium) - 6020 - Total	"	12/06/19	9120489	A19J130	
175	"	Soil	Hg (Mercury) - 6020 - Total	"	12/06/19	9120489	A19J130	
176	"	Soil	Pb (Lead) - 6020 - Total	"	12/06/19	9120489	A19J130	
177	"	Soil	Se (Selenium) - 6020 - Total	"	12/06/19	9120489	A19J130	
178	A9L0084-11	Soil	Ag (Silver) - 6020 - Total		12/05/19	9120489	A19J130	
179	"	Soil	As (Arsenic) - 6020 - Total	"	12/05/19	9120489	A19J130	
180	"	Soil	Ba (Barium) - 6020 - Total	"	12/05/19	9120489	A19J130	
181	"	Soil	Cd (Cadmium) - 6020 - Total	"	12/05/19	9120489	A19J130	
182	"	Soil	Cr (Chromium) - 6020 - Total	"	12/05/19	9120489	A19J130	
183	"	Soil	Hg (Mercury) - 6020 - Total	"	12/05/19	9120489	A19J130	
184	"	Soil	Pb (Lead) - 6020 - Total	"	12/05/19	9120489	A19J130	
185	"	Soil	Se (Selenium) - 6020 - Total	"	12/05/19	9120489	A19J130	
186	A9L0084-12	Soil	Ag (Silver) - 6020 - Total		12/05/19	9120489	A19J130	
187	"	Soil	As (Arsenic) - 6020 - Total	"	12/05/19	9120489	A19J130	
188	"	Soil	Ba (Barium) - 6020 - Total	"	12/05/19	9120489	A19J130	
189	"	Soil	Cd (Cadmium) - 6020 - Total	"	12/05/19	9120489	A19J130	
190	"	Soil	Cr (Chromium) - 6020 - Total	"	12/05/19	9120489	A19J130	
191	"	Soil	Hg (Mercury) - 6020 - Total	"	12/05/19	9120489	A19J130	
192	"	Soil	Pb (Lead) - 6020 - Total	"	12/05/19	9120489	A19J130	
193	"	Soil	Se (Selenium) - 6020 - Total	"	12/05/19	9120489	A19J130	
194	A9L0084-20	Soil	Ag (Silver) - 6020 - Total		12/05/19	9120489	A19J130	
195	"	Soil	As (Arsenic) - 6020 - Total	"	12/05/19	9120489	A19J130	
196	"	Soil	Ba (Barium) - 6020 - Total	"	12/05/19	9120489	A19J130	
197	"	Soil	Cd (Cadmium) - 6020 - Total	"	12/05/19	9120489	A19J130	
198	"	Soil	Cr (Chromium) - 6020 - Total	"	12/05/19	9120489	A19J130	
199	"	Soil	Hg (Mercury) - 6020 - Total	"	12/05/19	9120489	A19J130	
200	"	Soil	Pb (Lead) - 6020 - Total	"	12/05/19	9120489	A19J130	
201	"	Soil	Se (Selenium) - 6020 - Total	"	12/05/19	9120489	A19J130	
202	A9L0084-21	Soil	Ag (Silver) - 6020 - Total		12/05/19	9120489	A19J130	
203	"	Soil	As (Arsenic) - 6020 - Total	"	12/05/19	9120489	A19J130	
204	"	Soil	Ba (Barium) - 6020 - Total	"	12/05/19	9120489	A19J130	
205	"	Soil	Cd (Cadmium) - 6020 - Total	"	12/05/19	9120489	A19J130	
206	"	Soil	Cr (Chromium) - 6020 - Total	"	12/05/19	9120489	A19J130	
207	"	Soil	Hg (Mercury) - 6020 - Total	"	12/05/19	9120489	A19J130	
208	"	Soil	Pb (Lead) - 6020 - Total	"	12/05/19	9120489	A19J130	
209	"	Soil	Se (Selenium) - 6020 - Total	"	12/05/19	9120489	A19J130	
210	A9L0084-22	Soil	Ag (Silver) - 6020 - Total		12/05/19	9120489	A19J130	
211	"	Soil	As (Arsenic) - 6020 - Total	"	12/05/19	9120489	A19J130	
212	"	Soil	Ba (Barium) - 6020 - Total	"	12/05/19	9120489	A19J130	
213	"	Soil	Cd (Cadmium) - 6020 - Total	"	12/05/19	9120489	A19J130	
214	"	Soil	Cr (Chromium) - 6020 - Total	"	12/05/19	9120489	A19J130	
215	"	Soil	Hg (Mercury) - 6020 - Total	"	12/05/19	9120489	A19J130	
216	"	Soil	Pb (Lead) - 6020 - Total	"	12/05/19	9120489	A19J130	

Sequence: **9L04031** Instrument: **ICPMS5**

Date: **12/04/19 09:09** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
217	"	Soil	Se (Selenium) - 6020 - Total	"	12/05/19	9120489	A19J130	
218	A9L0084-23	Soil	Ag (Silver) - 6020 - Total		12/05/19	9120489	A19J130	
219	"	Soil	As (Arsenic) - 6020 - Total	"	12/05/19	9120489	A19J130	
220	"	Soil	Ba (Barium) - 6020 - Total	"	12/05/19	9120489	A19J130	
221	"	Soil	Cd (Cadmium) - 6020 - Total	"	12/05/19	9120489	A19J130	
222	"	Soil	Cr (Chromium) - 6020 - Total	"	12/05/19	9120489	A19J130	
223	"	Soil	Hg (Mercury) - 6020 - Total	"	12/05/19	9120489	A19J130	
224	"	Soil	Pb (Lead) - 6020 - Total	"	12/05/19	9120489	A19J130	
225	"	Soil	Se (Selenium) - 6020 - Total	"	12/05/19	9120489	A19J130	
226	A9L0084-24	Soil	Ag (Silver) - 6020 - Total		12/05/19	9120489	A19J130	
227	"	Soil	As (Arsenic) - 6020 - Total	"	12/05/19	9120489	A19J130	
228	"	Soil	Ba (Barium) - 6020 - Total	"	12/05/19	9120489	A19J130	
229	"	Soil	Cd (Cadmium) - 6020 - Total	"	12/05/19	9120489	A19J130	
230	"	Soil	Cr (Chromium) - 6020 - Total	"	12/05/19	9120489	A19J130	
231	"	Soil	Hg (Mercury) - 6020 - Total	"	12/05/19	9120489	A19J130	
232	"	Soil	Pb (Lead) - 6020 - Total	"	12/05/19	9120489	A19J130	
233	"	Soil	Se (Selenium) - 6020 - Total	"	12/05/19	9120489	A19J130	
234	9L04031-CCV6	Soil	QC	QC			A19J130	A19J138
235	9L04031-CCB6	Soil	QC	QC			A19J130	
236	9L04031-CCV7	Soil	QC	QC			A19J130	A19J138
237	9L04031-CCB7	Soil	QC	QC			A19J130	
238	9L04031-CRL7	Soil	QC	QC			A19J130	A19K144
239	9L04031-CRL8	Soil	QC	QC			A19J130	A19K145
240	9L04031-CRL9	Soil	QC	QC			A19J130	A19K146
241	9L04031-CRLA	Soil	QC	QC			A19J130	A19K147

Data Entered By: ESS 12/5/19 Comments:

Data Reviewed By: 12/05/19

Tune Report

Batch Folder	C:\Agilent\ICPMH\1\DATA\9L04031.b
Acq. Date-Time	12/4/2019 10:24
Report Comment	9L04031 EPA Multi-mode Tune Report A19I052
Instrument Name	7700x JP09240003

[H2]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59		3121	31214.63	1000.00	
89		14872	148720.64	1000.00	
78		12			

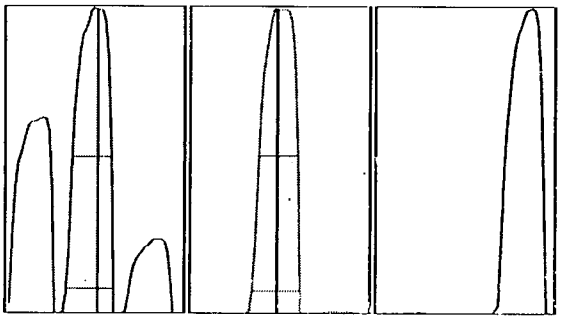
Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
78		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	1.48	5.00	
89	2.18	5.00	
78	35.54		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			
78			

Mass	Rep. 1 Count	Rep. 2 Count	Rep. 3 Count	Rep. 4 Count	Rep. 5 Count
59	3139	3110	3050	3133	3175
89	14940	14942	14326	15198	14955
78	10	7	13	16	17

Integration Time [sec] 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-5% (Actual)	W-5% (Required)	W-5% (Flag)
59	504.93	59.05	58.9 - 59.1		0.61	0.788	0.900	

Tune Report

89	2384.40	89.00	88.9 - 89.1	0.64	0.801	0.900
78			-			

Integration Time [sec] 0.1 **Acquisition Time [sec]** 100.35 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	2.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	3.3 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[He]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59		3728	37282.42	1000.00	
89		3877	38771.15	1000.00	
205		5032	50320.25	1000.00	
75		11			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	0.30	5.00	
89	2.47	5.00	
205	2.11	5.00	
75	15.63		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			

Tune Report

205
75

Mass	Rep. 1 Count	Rep. 2 Count	Rep. 3 Count	Rep. 4 Count	Rep. 5 Count
59	3740	3722	3730	3712	3737
89	3754	3873	3817	3978	3964
205	4899	4937	5091	5129	5104
75	14	10	10	11	13

Integration Time [sec] 0.1

Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-5% (Actual)	W-5% (Required)	W-5% (Flag)
59	601.62	59.05	58.9 - 59.1		0.64	0.788	0.900	
89	628.88	89.05	88.9 - 89.1		0.63	0.784	0.900	
205	857.55	205.00	204.9 - 205.1		0.59	0.753	0.900	
75	2.35	74.90	-		0.39	0.812		

Integration Time [sec] 0.1 **Acquisition Time [sec]** 134.8 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	1.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	3.3 mL/min	OctP RF	180 V
H2 Flow	0.0 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[NoGas]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
7		8596	85963.72	1000.00	
89		18459	184592.18	1000.00	
205		11132	111319.19	1000.00	
102		3			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
7		-	

Tune Report

89		-
205		-
102		-

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	0.91	5.00	
89	1.68	5.00	
205	1.04	5.00	
102	40.57		

Mass	Background (Actual)	Background (Required)	Background (Flag)
7			
89			
205			
102			

Mass	Rep. 1 Count	Rep. 2 Count	Rep. 3 Count	Rep. 4 Count	Rep. 5 Count
7	8603	8504	8720	8566	8588
89	18041	18421	18409	18515	18910
205	10990	11023	11203	11202	11242
102	3	5	3	2	3

Integration Time [sec] 0.1

Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-5% (Actual)	W-5% (Required)	W-5% (Flag)
7	1347.17	7.00	6.9 - 7.1		0.66	0.817	0.900	
89	3018.68	89.00	88.9 - 89.1		0.63	0.803	0.900	
205	1906.58	205.00	204.9 - 205.1		0.59	0.754	0.900	
102			-					

Integration Time [sec] 0.1 **Acquisition Time [sec]** 135.3 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	16.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	false	OctP Bias	-8.0 V

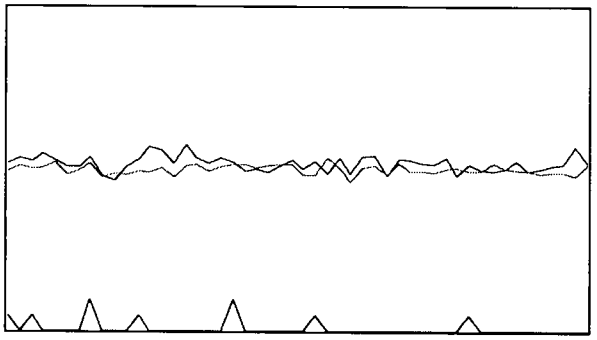
Tune Report

He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	0.0 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

Tune Report

Batch Folder	C:\Agilent\ICPMH\1\DATA\9L04031.b
Acq. Date-Time	12/4/2019 10:14
Report Comment	9L04031 Std Multi-mode Tune Report A19I052
Instrument Name	7700x JP09240003

[H2]



Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	1000	519	5193.36	1000.00	
89	5000	2502	25016.78	1000.00	
78	20	0			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
78		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	4.81	5.00	
89	2.89	5.00	
78	267.73		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			
78			

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.306

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min

Tune Report

Option Gas	0.0 %

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	2.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	3.3 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[He]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	1000	587	5872.57	1000.00	
89	1000	595	5951.02	1000.00	
205	1000	852	8524.09	1000.00	
75	20	2			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	6.23	5.00	[F]
89	6.11	5.00	[F]
205	4.43	5.00	
75	110.80		

see EPA report for RSDs ESS 12/5/19

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			
205			
75			

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.412

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C

Tune Report

Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	1.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	3.3 mL/min	OctP RF	180 V
H2 Flow	0.0 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[NoGas]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
7	2000	1354	13538.53	1000.00	
89	5000	2999	29992.07	1000.00	
205	5000	1906	19062.84	1000.00	
102	20	0			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
7		-	
89		-	
205		-	
102		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	4.83	5.00	
89	4.12	5.00	
205	5.29	5.00	[F]
102	416.50		

see EPA report for RSDs ESS 12/5/19

Mass	Background (Actual)	Background (Required)	Background (Flag)
7			
89			
205			
102			

Ratio (oxide)	156/140	1.277 %	✓
Ratio (2+)	69/138	1.865 %	✓

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.413

Tune Report

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	16.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	false	OctP Bias	-8.0 V
He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	0.0 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

P/A Factor Tuning Report

Current Sample

Sample Name: 9L04031-ICV1
Data File: 015_ICV.d
Acquired: 12/4/2019 11:39:02

Detector Parameters and P/A Factors

Discriminator: 4.5 mV
AnalogHV: 1870 V
PulseHV: 1704 V

Acquired: 12/3/2019 11:44:55

Mass[u]	Element	P/A Factor
6	Li	0.090004
7	Li	0.094505
11	B	0.102443
28	Si	0.098675
31	P	0.124270
45	Sc	0.126554
74	Ge	0.139907
88	Sr	0.140736
90	Zr	0.138257
103	Rh	0.144407
118	Sn	0.146234
159	Tb	0.148391
209	Bi	0.152692
197	Au	Signal too low
238	U	Signal too low

Independent Detector Parameters and P/A Factors

Tune Mode Name: H2
Discriminator: 4.5 mV
AnalogHV: 1870 V
PulseHV: 1704 V

Acquired: 12/4/2019 11:14:02

Mass[u]	Element	P/A Factor
23	Na	0.109094
44	Ca	0.122272
45	Sc	0.120349
56	Fe	0.126640
57	Fe	0.126701
74	Ge	Signal too low
78	Se	Signal too low

Tune Mode Name: He
Discriminator: 4.5 mV
AnalogHV: 1870 V
PulseHV: 1704 V

Acquired: 12/4/2019 11:24:30

Mass[u]	Element	P/A Factor
23	Na	0.108073
24	Mg	0.113744
27	Al	0.117695
39	K	0.120014
44	Ca	0.120678
51	V	0.121703
52	Cr	0.126047
55	Mn	0.126005
59	Co	0.128183
60	Ni	0.129059
65	Cu	0.130872
66	Zn	0.129080
138	Ba	0.134641

205	Tl	0.138158
45	Sc	Signal too low
74	Ge	Signal too low
75	As	Signal too low
95	Mo	Signal too low
103	Rh	Signal too low
107	Ag	Signal too low
111	Cd	Signal too low
121	Sb	Signal too low
159	Tb	Signal too low
209	Bi	Signal too low

Tune Mode Name: NoGas
Discriminator: 4.5 mV
AnalogHV: 1870 V
PulseHV: 1704 V

Acquired: 12/4/2019 11:25:54

Mass[u]	Element	P/A Factor
6	Li	0.086407
45	Sc	0.119828
47	Ti	0.118601
65	Cu	0.129086
74	Ge	0.132702
103	Rh	0.133861
111	Cd	0.134515
159	Tb	0.136799
182	W	0.136361
206	Pb	0.137683
207	Pb	0.139271
208	Pb	0.138665
209	Bi	0.142271
7	Li	Signal too low
9	Be	Signal too low
106	[Cd]	Signal too low
108	[Cd]	Signal too low
201	Hg	Signal too low

Created: 12/5/2019 10:04:23

Quantitation Report - ICPMS5

Sample Name:	**Rinse**	Total Dilution:	**1.0000**
File Name:	001RINS.d	Vial:	3
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	Rinse
Acq Time:	12/4/2019 10:29:57	I.S. Reference File:	---
Comment:	**rinse**	Last Calibration:	N/A

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas		ppb		881	0.18	
Na	23	45	He		ppb		2,974	90	
Mg	24	45	He		ppb		558	90	
Al	27	45	He		ppb		347	45	
K	39	45	He		ppb		23,561	90	
Ca	44	45	H2		ppb		356	90	
[Ca]	44	45	He		ppb		157		
Ti	47	45	NoGas		ppb		113	0.9	
V	51	74	He		ppb		1,185	0.9	
Cr	52	74	He		ppb		1,393	0.9	
Mn	55	74	He		ppb		198	0.9	
Fe	56	74	H2		ppb		35,611	45	
Co	59	74	He		ppb		882	0.18	
Ni	60	74	He		ppb		477	0.9	
Cu	65	74	He		ppb		109	0.9	
Zn	66	74	He		ppb		87	3.6	
As	75	74	He		ppb		17	0.9	
Se	78	74	H2		ppb		0	0.9	
Mo	95	103	He		ppb		58	0.9	
Ag	107	103	He		ppb		0	0.18	
Cd	111	103	He		ppb		2		
[Cd]	111	103	NoGas		ppb		2	0.18	
Sb	121	103	He		ppb		38	0.9	
Ba	138	159	He		ppb		1,618	0.9	
W	182	159	NoGas		ppb		48		
Hg	201	159	NoGas		ppt		4	72	
Tl	205	159	He		ppb		1,235	0.18	
Pb	208	159	NoGas		ppb		296	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	4,347	0.6	0	Pulse		
Sc	45	H2	793	2.1	0	Pulse		
Sc	45	He	38	22.2	0	Pulse		Note RSD; OK < 20%
Sc	45	NoGas	1,140	7.2	0	Pulse		
Ge	74	H2	158	5.4	0	Pulse		
Ge	74	He	44	9.9	0	Pulse		
Ge	74	NoGas	230	4.3	0	Pulse		
Rh	103	He	260	4.4	0	Pulse		
Rh	103	NoGas	556	4.5	0	Pulse		
Tb	159	He	12	41.7	0	Pulse		Note RSD; OK < 20%
Tb	159	NoGas	62	12.4	0	Pulse		
Bi	209	He	98	15.4	0	Pulse		Note RSD; OK < 20%
Bi	209	NoGas	241	10.4	0	Pulse		

Quantitation Report - ICPMS5

Sample Name:	**Rinse**	Total Dilution:	**1.0000**
File Name:	002RINS.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	Rinse
Acq Time:	12/4/2019 10:34:42	I.S. Reference File:	---
Comment:	**Cal Blk check**	Last Calibration:	N/A

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas		ppb		44	0.18	
Na	23	45	He		ppb		2,427	90	
Mg	24	45	He		ppb		519	90	
Al	27	45	He		ppb		107	45	
K	39	45	He		ppb		24,611	90	
Ca	44	45	H2		ppb		409	90	
[Ca]	44	45	He		ppb		186		
Ti	47	45	NoGas		ppb		12	0.9	
V	51	74	He		ppb		1,168	0.9	
Cr	52	74	He		ppb		217	0.9	
Mn	55	74	He		ppb		134	0.9	
Fe	56	74	H2		ppb		8,909	45	
Co	59	74	He		ppb		43	0.18	
Ni	60	74	He		ppb		62	0.9	
Cu	65	74	He		ppb		22	0.9	
Zn	66	74	He		ppb		48	3.6	
As	75	74	He		ppb		21	0.9	
Se	78	74	H2		ppb		3	0.9	
Mo	95	103	He		ppb		1	0.9	
Ag	107	103	He		ppb		3	0.18	
Cd	111	103	He		ppb		2		
[Cd]	111	103	NoGas		ppb		5	0.18	
Sb	121	103	He		ppb		37	0.9	
Ba	138	159	He		ppb		57	0.9	
W	182	159	NoGas		ppb		27		
Hg	201	159	NoGas		ppt		3	72	
Tl	205	159	He		ppb		39	0.18	
Pb	208	159	NoGas		ppb		597	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	922,459	1.4	0	Analog		
Sc	45	H2	1,745,676	1.1	0	Analog		
Sc	45	He	268,074	0.8	0	Pulse		
Sc	45	NoGas	2,757,781	1.1	0	Analog		
Ge	74	H2	545,864	0.6	0	Pulse		
Ge	74	He	160,739	1.0	0	Pulse		
Ge	74	NoGas	728,921	0.7	0	Pulse		
Rh	103	He	363,408	1.0	0	Pulse		
Rh	103	NoGas	771,038	0.5	0	Pulse		
Tb	159	He	519,938	1.0	0	Pulse		
Tb	159	NoGas	1,244,807	0.8	0	Pulse		
Bi	209	He	302,776	1.3	0	Pulse		
Bi	209	NoGas	723,538	0.6	0	Pulse		

Calibration Standard Report - ICPMS5

Sample Name:	**9L04031-CAL0**	Total Dilution:	**1.0000**
File Name:	003CALB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CalBlk
Acq Time:	12/4/2019 10:39:25	I.S. Reference File:	003CALB.d
Comment:	**Cal Blk (3.5% HNO3 + 0.4% HCl)**	Last Calibration:	12/04/2019 11:41:46

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0	ppb	N/A	36	57.3	
Na	23	45	He	0	ppb	N/A	2,326	5.3	
Mg	24	45	He	0	ppb	N/A	484	17.2	
Al	27	45	He	0	ppb	N/A	103	9.7	
K	39	45	He	0	ppb	N/A	24,278	1.8	
Ca	44	45	H2	0	ppb	N/A	390	9.7	
[Ca]	44	45	He	0	ppb	N/A	164	25.3	
Ti	47	45	NoGas	0	ppb	N/A	33	37.8	
V	51	74	He	0	ppb	N/A	1,109	3.0	
Cr	52	74	He	0	ppb	N/A	211	10.2	
Mn	55	74	He	0	ppb	N/A	114	20.7	
Fe	56	74	H2	0	ppb	N/A	7,660	2.7	
Co	59	74	He	0	ppb	N/A	43	35.3	
Ni	60	74	He	0	ppb	N/A	42	35.6	
Cu	65	74	He	0	ppb	N/A	32	6.0	
Zn	66	74	He	0	ppb	N/A	34	43.6	
As	75	74	He	0	ppb	N/A	15	33.5	
Se	78	74	H2	0	ppb	N/A	1	173.2	
Mo	95	103	He	0	ppb	N/A	3	173.2	
Ag	107	103	He	0	ppb	N/A	1	173.2	
Cd	111	103	He	0	ppb	N/A	1	86.6	
[Cd]	111	103	NoGas	0	ppb	N/A	12	34.0	
Sb	121	103	He	0	ppb	N/A	19	27.0	
Ba	138	159	He	0	ppb	N/A	54	14.1	
W	182	159	NoGas	0	ppb	N/A	19	97.2	
Hg	201	159	NoGas	-5.213	ppt	N/A	3	0.0	
Tl	205	159	He	0	ppb	N/A	14	26.7	
Pb	208	159	NoGas	0	ppb	N/A	531	10.4	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	924,117	0.8	924116.613333333	Analog	100.0	
Sc	45	H2	1,737,113	0.4	1737112.96	Analog	100.0	
Sc	45	He	266,696	0.5	266695.646666667	Pulse	100.0	
Sc	45	NoGas	2,759,645	1.0	2759645.24	Analog	100.0	
Ge	74	H2	544,240	0.2	544239.553333333	Pulse	100.0	
Ge	74	He	160,422	0.2	160421.983333333	Pulse	100.0	
Ge	74	NoGas	723,968	0.5	723967.716666667	Pulse	100.0	
Rh	103	He	360,477	1.0	360477.35	Pulse	100.0	
Rh	103	NoGas	765,123	0.5	765122.756666667	Pulse	100.0	
Tb	159	He	517,968	0.5	517968.26	Pulse	100.0	
Tb	159	NoGas	1,243,337	1.0	1243337.24	Pulse	100.0	
Bi	209	He	301,935	0.7	301934.656666667	Pulse	100.0	
Bi	209	NoGas	720,638	0.2	720637.873333333	Pulse	100.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9L04031-CAL1**	Total Dilution:	**1.0000**
File Name:	004CALS.d	Vial:	1102
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CalStd
Acq Time:	12/4/2019 10:44:08	I.S. Reference File:	003CALB.d
Comment:	**A19K144 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.173	ppb	9.4	456	8.5	
Na	23	45	He	8.739	ppb	4.4	10,114	3.5	
Mg	24	45	He	8.926	ppb	1.9	4,990	1.6	
Al	27	45	He	9.343	ppb	2.4	2,702	2.1	
K	39	45	He	9.088	ppb	14.9	28,371	1.6	
Ca	44	45	H2	9.594	ppb	5.9	2,135	4.7	
[Ca]	44	45	He	10.835	ppb	23.0	410	13.4	
Ti	47	45	NoGas	0.181	ppb	15.4	217	12.7	
V	51	74	He	0.152	ppb	7.7	1,568	2.0	
Cr	52	74	He	0.146	ppb	6.0	732	3.8	
Mn	55	74	He	0.187	ppb	7.7	590	6.5	
Fe	56	74	H2	9.228	ppb	1.2	92,758	1.1	
Co	59	74	He	0.175	ppb	6.6	889	6.6	
Ni	60	74	He	0.172	ppb	3.2	239	2.9	
Cu	65	74	He	0.216	ppb	9.5	337	8.9	
Zn	66	74	He	0.2	ppb	11.4	147	8.2	
As	75	74	He	0.169	ppb	18.8	76	15.5	
Se	78	74	H2	0.205	ppb	24.9	51	24.5	
Mo	95	103	He	0.151	ppb	17.5	242	17.5	
Ag	107	103	He	0.157	ppb	5.6	712	5.2	
Cd	111	103	He	0.159	ppb	5.4	117	5.7	
[Cd]	111	103	NoGas	0.171	ppb	10.5	363	10.0	
Sb	121	103	He	0.177	ppb	3.6	390	3.1	
Ba	138	159	He	0.215	ppb	3.5	947	4.3	
W	182	159	NoGas	-0.001	ppb	N/A	13	25.0	
Hg	201	159	NoGas	3.042	ppt	90.6	10	26.0	
Tl	205	159	He	0.175	ppb	3.7	1,319	2.7	
Pb	208	159	NoGas	0.177	ppb	4.0	4,209	3.0	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	887,416	1.5	924116.613333333	Analog	96.0	
Sc	45	H2	1,697,808	0.4	1737112.96	Analog	97.7	
Sc	45	He	266,372	0.6	266695.646666667	Pulse	99.9	
Sc	45	NoGas	2,684,212	0.6	2759645.24	Analog	97.3	
Ge	74	H2	537,654	0.4	544239.553333333	Pulse	98.8	
Ge	74	He	160,647	0.5	160421.983333333	Pulse	100.1	
Ge	74	NoGas	724,818	0.7	723967.716666667	Pulse	100.1	
Rh	103	He	362,004	0.4	360477.35	Pulse	100.4	
Rh	103	NoGas	764,295	0.6	765122.756666667	Pulse	99.9	
Tb	159	He	516,996	1.0	517968.26	Pulse	99.8	
Tb	159	NoGas	1,245,068	1.0	1243337.24	Pulse	100.1	
Bi	209	He	304,458	0.8	301934.656666667	Pulse	100.8	
Bi	209	NoGas	723,208	0.7	720637.873333333	Pulse	100.4	

Calibration Standard Report - ICPMS5

Sample Name:	**9L04031-CAL2**	Total Dilution:	**1.0000**
File Name:	005CALS.d	Vial:	1103
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CalStd
Acq Time:	12/4/2019 10:49:10	I.S. Reference File:	003CALB.d
Comment:	**A19K145 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.872	ppb	12.5	2,137	11.9	
Na	23	45	He	44.721	ppb	1.7	42,260	1.5	
Mg	24	45	He	44.837	ppb	1.0	23,156	1.0	
Al	27	45	He	45.249	ppb	2.6	12,712	2.2	
K	39	45	He	47.238	ppb	4.1	45,770	2.4	
Ca	44	45	H2	45.436	ppb	1.7	8,597	0.9	
[Ca]	44	45	He	45.065	ppb	1.2	1,189	1.0	
Ti	47	45	NoGas	0.867	ppb	8.9	920	8.7	
V	51	74	He	0.887	ppb	1.9	3,803	1.0	
Cr	52	74	He	0.868	ppb	2.8	3,333	2.5	
Mn	55	74	He	0.853	ppb	2.4	2,301	1.8	
Fe	56	74	H2	45.807	ppb	0.1	431,455	0.3	
Co	59	74	He	0.921	ppb	2.4	4,516	2.5	
Ni	60	74	He	0.933	ppb	6.6	1,115	5.2	
Cu	65	74	He	0.999	ppb	8.4	1,450	9.3	
Zn	66	74	He	0.926	ppb	6.0	557	4.7	
As	75	74	He	0.915	ppb	0.3	345	1.0	
Se	78	74	H2	0.88	ppb	5.3	217	5.1	
Mo	95	103	He	0.755	ppb	9.6	1,192	10.6	
Ag	107	103	He	0.872	ppb	0.6	3,932	1.2	
Cd	111	103	He	0.888	ppb	0.6	646	1.4	
[Cd]	111	103	NoGas	0.859	ppb	2.8	1,760	3.3	
Sb	121	103	He	0.832	ppb	4.5	1,757	5.7	
Ba	138	159	He	0.971	ppb	3.1	4,097	2.5	
W	182	159	NoGas	-0.001	ppb	N/A	14	74.2	
Hg	201	159	NoGas	33.275	ppt	4.0	38	3.5	
Tl	205	159	He	0.852	ppb	0.5	6,410	1.5	
Pb	208	159	NoGas	0.904	ppb	0.9	19,381	1.2	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	877,090	0.4	924116.613333333	Analog	94.9	
Sc	45	H2	1,680,658	0.8	1737112.96	Analog	96.8	
Sc	45	He	266,807	0.5	266695.646666667	Pulse	100.0	
Sc	45	NoGas	2,703,024	0.8	2759645.24	Analog	97.9	
Ge	74	H2	538,924	0.2	544239.553333333	Pulse	99.0	
Ge	74	He	161,571	1.2	160421.983333333	Pulse	100.7	
Ge	74	NoGas	722,036	0.7	723967.716666667	Pulse	99.7	
Rh	103	He	360,132	1.2	360477.35	Pulse	99.9	
Rh	103	NoGas	757,947	0.5	765122.756666667	Pulse	99.1	
Tb	159	He	519,507	1.0	517968.26	Pulse	100.3	
Tb	159	NoGas	1,248,758	0.3	1243337.24	Pulse	100.4	
Bi	209	He	303,769	0.8	301934.656666667	Pulse	100.6	
Bi	209	NoGas	723,659	0.6	720637.873333333	Pulse	100.4	

Calibration Standard Report - ICPMS5

Sample Name:	**9L04031-CAL3**	Total Dilution:	**1.0000**
File Name:	006CALS.d	Vial:	1104
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CalStd
Acq Time:	12/4/2019 10:54:09	I.S. Reference File:	003CALB.d
Comment:	**A19K146 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	1.743	ppb	1.9	4,273	1.4	
Na	23	45	He	88.763	ppb	1.3	81,816	1.3	
Mg	24	45	He	88.802	ppb	0.6	45,513	0.6	
Al	27	45	He	89.624	ppb	0.4	25,151	1.5	
K	39	45	He	92.403	ppb	2.3	66,484	0.3	
Ca	44	45	H2	92.074	ppb	1.1	17,015	1.0	
[Ca]	44	45	He	96.519	ppb	5.5	2,365	4.5	
Ti	47	45	NoGas	1.826	ppb	5.3	1,891	7.3	
V	51	74	He	1.798	ppb	0.8	6,515	1.4	
Cr	52	74	He	1.784	ppb	2.8	6,582	1.9	
Mn	55	74	He	1.825	ppb	2.4	4,759	2.8	
Fe	56	74	H2	91.646	ppb	0.1	849,983	0.6	
Co	59	74	He	1.772	ppb	2.2	8,590	1.8	
Ni	60	74	He	1.82	ppb	4.1	2,120	5.1	
Cu	65	74	He	1.966	ppb	6.7	2,800	7.1	
Zn	66	74	He	1.801	ppb	6.5	1,042	5.4	
As	75	74	He	1.808	ppb	8.7	662	8.6	
Se	78	74	H2	1.78	ppb	7.7	434	7.7	
Mo	95	103	He	1.606	ppb	5.5	2,509	4.9	
Ag	107	103	He	1.656	ppb	3.0	7,406	3.5	
Cd	111	103	He	1.818	ppb	2.5	1,313	3.2	
[Cd]	111	103	NoGas	1.746	ppb	1.3	3,546	1.7	
Sb	121	103	He	1.673	ppb	0.6	3,482	1.3	
Ba	138	159	He	1.952	ppb	0.5	8,159	0.5	
W	182	159	NoGas	0	ppb	N/A	19	36.7	
Hg	201	159	NoGas	70.686	ppt	5.9	71	4.3	
Tl	205	159	He	1.653	ppb	0.9	12,398	2.0	
Pb	208	159	NoGas	1.836	ppb	1.0	38,534	1.1	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	884,716	0.6	924116.613333333	Analog	95.7	
Sc	45	H2	1,678,746	0.5	1737112.96	Analog	96.6	
Sc	45	He	267,557	1.1	266695.646666667	Pulse	100.3	
Sc	45	NoGas	2,687,257	2.0	2759645.24	Analog	97.4	
Ge	74	H2	535,369	0.6	544239.553333333	Pulse	98.4	
Ge	74	He	160,443	1.1	160421.983333333	Pulse	100.0	
Ge	74	NoGas	720,294	1.1	723967.716666667	Pulse	99.5	
Rh	103	He	357,195	0.7	360477.35	Pulse	99.1	
Rh	103	NoGas	753,827	0.8	765122.756666667	Pulse	98.5	
Tb	159	He	518,106	1.0	517968.26	Pulse	100.0	
Tb	159	NoGas	1,240,393	1.0	1243337.24	Pulse	99.8	
Bi	209	He	302,627	1.2	301934.656666667	Pulse	100.2	
Bi	209	NoGas	720,859	1.0	720637.873333333	Pulse	100.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9L04031-CAL4**	Total Dilution:	**1.0000**
File Name:	007CALS.d	Vial:	1105
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CalStd
Acq Time:	12/4/2019 10:59:08	I.S. Reference File:	003CALB.d
Comment:	**A19K147 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	3.463	ppb	0.9	8,468	1.2	
Na	23	45	He	180.205	ppb	1.2	162,836	0.6	
Mg	24	45	He	179.057	ppb	2.3	90,788	1.2	
Al	27	45	He	181.522	ppb	1.0	50,573	2.3	
K	39	45	He	186.859	ppb	0.7	108,993	1.4	
Ca	44	45	H2	184.849	ppb	0.6	33,748	1.2	
[Ca]	44	45	He	181.173	ppb	4.2	4,272	3.5	
Ti	47	45	NoGas	3.51	ppb	4.8	3,579	5.9	
V	51	74	He	3.645	ppb	1.1	12,064	1.0	
Cr	52	74	He	3.472	ppb	0.8	12,608	1.2	
Mn	55	74	He	3.54	ppb	0.2	9,119	0.8	
Fe	56	74	H2	186.984	ppb	0.6	1,725,384	0.1	
Co	59	74	He	3.583	ppb	0.7	17,322	1.1	
Ni	60	74	He	3.759	ppb	3.8	4,332	4.4	
Cu	65	74	He	4.099	ppb	1.3	5,801	0.6	
Zn	66	74	He	3.675	ppb	5.3	2,091	5.8	
As	75	74	He	3.693	ppb	1.4	1,337	2.0	
Se	78	74	H2	3.494	ppb	5.0	851	5.4	
Mo	95	103	He	3.395	ppb	3.7	5,300	3.2	
Ag	107	103	He	3.326	ppb	2.4	14,866	1.3	
Cd	111	103	He	3.539	ppb	0.5	2,553	0.6	
[Cd]	111	103	NoGas	3.363	ppb	6.4	6,783	6.3	
Sb	121	103	He	3.253	ppb	1.6	6,753	2.3	
Ba	138	159	He	3.886	ppb	0.4	16,178	1.5	
W	182	159	NoGas	0	ppb	N/A	17	34.6	
Hg	201	159	NoGas	142.179	ppt	4.3	135	3.6	
Tl	205	159	He	3.381	ppb	3.0	25,316	1.7	
Pb	208	159	NoGas	3.579	ppb	0.3	74,575	0.5	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	885,979	2.1	924116.613333333	Analog	95.9	
Sc	45	H2	1,677,106	0.9	1737112.96	Analog	96.5	
Sc	45	He	266,172	1.6	266695.646666667	Pulse	99.8	
Sc	45	NoGas	2,669,174	1.7	2759645.24	Analog	96.7	
Ge	74	H2	535,073	0.5	544239.553333333	Pulse	98.3	
Ge	74	He	160,390	0.9	160421.983333333	Pulse	100.0	
Ge	74	NoGas	720,130	0.7	723967.716666667	Pulse	99.5	
Rh	103	He	357,104	1.1	360477.35	Pulse	99.1	
Rh	103	NoGas	749,989	0.5	765122.756666667	Pulse	98.0	
Tb	159	He	517,853	1.3	517968.26	Pulse	100.0	
Tb	159	NoGas	1,239,752	0.7	1243337.24	Pulse	99.7	
Bi	209	He	302,614	0.9	301934.656666667	Pulse	100.2	
Bi	209	NoGas	720,768	0.4	720637.873333333	Pulse	100.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9L04031-CAL5**	Total Dilution:	**1.0000**
File Name:	008CALS.d	Vial:	1106
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CalStd
Acq Time:	12/4/2019 11:04:06	I.S. Reference File:	003CALB.d
Comment:	**A19K148 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	9.59	ppb	3.1	23,296	1.4	
Na	23	45	He	397.997	ppb	0.2	353,562	0.1	
Mg	24	45	He	395.515	ppb	0.6	198,143	0.5	
Al	27	45	He	394.47	ppb	1.6	108,756	1.7	
K	39	45	He	409.301	ppb	0.6	207,960	0.6	
Ca	44	45	H2	403.329	ppb	1.2	72,757	0.7	
[Ca]	44	45	He	404.686	ppb	2.7	9,255	2.6	
Ti	47	45	NoGas	20.366	ppb	3.1	20,374	2.4	
V	51	74	He	19.941	ppb	0.3	60,442	0.5	
Cr	52	74	He	19.335	ppb	1.2	68,567	1.1	
Mn	55	74	He	19.772	ppb	1.4	49,919	1.2	
Fe	56	74	H2	411.681	ppb	0.5	3,764,133	0.9	
Co	59	74	He	20.137	ppb	1.0	96,202	1.2	
Ni	60	74	He	21.323	ppb	1.1	24,129	0.9	
Cu	65	74	He	21.852	ppb	1.0	30,485	1.0	
Zn	66	74	He	20.657	ppb	2.0	11,482	1.7	
As	75	74	He	20.013	ppb	2.0	7,106	1.9	
Se	78	74	H2	9.7	ppb	5.3	2,346	5.7	
Mo	95	103	He	9.22	ppb	1.5	14,154	1.3	
Ag	107	103	He	9.367	ppb	1.0	41,193	1.2	
Cd	111	103	He	19.891	ppb	0.5	14,114	0.6	
[Cd]	111	103	NoGas	19.074	ppb	1.0	37,677	0.8	
Sb	121	103	He	9.103	ppb	2.4	18,555	2.2	
Ba	138	159	He	21.546	ppb	0.8	88,574	1.8	
W	182	159	NoGas	0.001	ppb	111.2	28	36.7	
Hg	201	159	NoGas	411.298	ppt	0.7	372	1.2	
Tl	205	159	He	9.348	ppb	2.5	69,292	1.8	
Pb	208	159	NoGas	20.272	ppb	0.1	413,378	0.5	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	882,642	1.9	924116.613333333	Analog	95.5	
Sc	45	H2	1,667,338	1.2	1737112.96	Analog	96.0	
Sc	45	He	263,704	0.1	266695.646666667	Pulse	98.9	
Sc	45	NoGas	2,639,769	0.7	2759645.24	Analog	95.7	
Ge	74	H2	531,447	0.5	544239.553333333	Pulse	97.6	
Ge	74	He	158,823	0.3	160421.983333333	Pulse	99.0	
Ge	74	NoGas	704,975	1.0	723967.716666667	Pulse	97.4	
Rh	103	He	351,286	0.2	360477.35	Pulse	97.5	
Rh	103	NoGas	735,593	0.3	765122.756666667	Pulse	96.1	
Tb	159	He	512,717	0.9	517968.26	Pulse	99.0	
Tb	159	NoGas	1,220,434	0.6	1243337.24	Pulse	98.2	
Bi	209	He	302,612	0.8	301934.656666667	Pulse	100.2	
Bi	209	NoGas	715,536	0.5	720637.873333333	Pulse	99.3	

Calibration Standard Report - ICPMS5

Sample Name:	**9L04031-CAL6**	Total Dilution:	**1.0000**
File Name:	009CALS.d	Vial:	1107
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CalStd
Acq Time:	12/4/2019 11:09:04	I.S. Reference File:	003CALB.d
Comment:	**A19K149**	Last Calibration:	12/04/2019 11:41:46

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	49.745	ppb	1.3	113,403	0.6	
Na	23	45	He	2528.148	ppb	2.1	2,149,123	1.1	
Mg	24	45	He	2570.403	ppb	1.2	1,236,552	0.2	
Al	27	45	He	2475.362	ppb	1.0	656,178	0.3	
K	39	45	He	2577.288	ppb	0.8	1,137,720	0.5	
Ca	44	45	H2	2504.385	ppb	0.8	448,973	0.7	
[Ca]	44	45	He	2575.363	ppb	1.1	55,834	0.7	
Ti	47	45	NoGas	50.95	ppb	1.3	48,717	1.0	
V	51	74	He	49.554	ppb	0.7	143,264	0.4	
Cr	52	74	He	48.376	ppb	1.1	165,126	0.8	
Mn	55	74	He	49.486	ppb	0.4	120,318	0.3	
Fe	56	74	H2	2551.229	ppb	0.5	22,809,294	0.8	
Co	59	74	He	49.152	ppb	0.4	226,366	0.3	
Ni	60	74	He	52.551	ppb	1.4	57,284	0.9	
Cu	65	74	He	53.657	ppb	0.7	72,141	1.2	
Zn	66	74	He	51.637	ppb	1.4	27,628	0.8	
As	75	74	He	49.503	ppb	0.8	16,928	1.1	
Se	78	74	H2	49.381	ppb	2.2	11,691	1.3	
Mo	95	103	He	46.735	ppb	0.7	68,753	1.0	
Ag	107	103	He	46.738	ppb	0.8	196,988	0.5	
Cd	111	103	He	49.353	ppb	0.7	33,564	1.0	
[Cd]	111	103	NoGas	47.879	ppb	0.9	89,283	1.0	
Sb	121	103	He	46.312	ppb	1.0	90,406	0.6	
Ba	138	159	He	52.444	ppb	0.6	212,825	0.3	
W	182	159	NoGas	0.008	ppb	21.2	73	15.7	
Hg	201	159	NoGas	2001.581	ppt	1.8	1,747	1.7	
Tl	205	159	He	46.408	ppb	0.5	339,738	0.3	
Pb	208	159	NoGas	50.309	ppb	0.3	1,003,155	0.6	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	829,066	0.7	924116.613333333	Analog	89.7	
Sc	45	H2	1,664,201	1.5	1737112.96	Analog	95.8	
Sc	45	He	253,765	0.9	266695.646666667	Pulse	95.2	
Sc	45	NoGas	2,525,130	0.4	2759645.24	Analog	91.5	
Ge	74	H2	520,537	0.8	544239.553333333	Pulse	95.6	
Ge	74	He	153,156	0.6	160421.983333333	Pulse	95.5	
Ge	74	NoGas	671,602	0.8	723967.716666667	Pulse	92.8	
Rh	103	He	336,702	1.3	360477.35	Pulse	93.4	
Rh	103	NoGas	694,563	0.4	765122.756666667	Pulse	90.8	
Tb	159	He	506,365	0.6	517968.26	Pulse	97.8	
Tb	159	NoGas	1,194,285	0.3	1243337.24	Pulse	96.1	
Bi	209	He	294,383	0.4	301934.656666667	Pulse	97.5	
Bi	209	NoGas	698,051	0.5	720637.873333333	Pulse	96.9	

Calibration Standard Report - ICPMS5

Sample Name:	**9L04031-CAL7**	Total Dilution:	**1.0000**
File Name:	010CALS.d	Vial:	1108
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CalStd
Acq Time:	12/4/2019 11:14:00	I.S. Reference File:	003CALB.d
Comment:	**A19K150**	Last Calibration:	12/04/2019 11:41:46

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	100.175	ppb	0.3	209,594	0.3	
Na	23	45	He	4389.454	ppb	10.0	3,191,320	0.6	
Mg	24	45	He	4451.919	ppb	9.2	1,833,114	1.0	
Al	27	45	He	4278.851	ppb	10.3	970,177	0.1	
K	39	45	He	4529.232	ppb	10.6	1,695,163	0.6	
Ca	44	45	H2	4028.154	ppb	1.1	668,742	0.9	
[Ca]	44	45	He	4393.928	ppb	10.7	81,374	1.1	
Ti	47	45	NoGas	203.057	ppb	1.1	176,406	0.2	
V	51	74	He	214.186	ppb	11.6	526,744	0.3	
Cr	52	74	He	208.157	ppb	11.6	607,272	0.4	
Mn	55	74	He	215.131	ppb	11.8	447,077	0.6	
Fe	56	74	H2	4057.315	ppb	0.5	34,085,168	0.5	
Co	59	74	He	212.794	ppb	11.9	838,105	0.7	
Ni	60	74	He	226.102	ppb	12.5	210,604	1.3	
Cu	65	74	He	229.389	ppb	11.7	263,729	0.6	
Zn	66	74	He	224.485	ppb	12.1	102,625	0.8	
As	75	74	He	216.027	ppb	12.0	63,135	0.7	
Se	78	74	H2	100.344	ppb	1.1	22,327	0.6	
Mo	95	103	He	101.723	ppb	10.2	129,576	0.7	
Ag	107	103	He	101.707	ppb	10.6	371,082	0.4	
Cd	111	103	He	215.514	ppb	10.9	126,854	0.6	
[Cd]	111	103	NoGas	193.151	ppb	0.1	328,767	0.3	
Sb	121	103	He	101.949	ppb	10.0	172,336	0.2	
Ba	138	159	He	224.418	ppb	11.4	804,201	0.9	
W	182	159	NoGas	0.022	ppb	4.6	153	4.3	
Hg	201	159	NoGas	3998.193	ppt	1.4	3,272	1.2	
Tl	205	159	He	101.872	ppb	10.8	658,900	0.4	
Pb	208	159	NoGas	205.756	ppb	0.6	3,852,971	0.3	

NR - re-running for RSDs ESS 12/5/19

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	760,970	0.5	924116.613333333	Pulse	82.3	
Sc	45	H2	1,541,507	0.3	1737112.96	Analog	88.7	
Sc	45	He	218,524	9.8	266695.646666667	Pulse	81.9	
Sc	45	NoGas	2,295,447	1.0	2759645.24	Analog	83.2	
Ge	74	H2	489,183	0.8	544239.553333333	Pulse	89.9	
Ge	74	He	132,099	10.6	160421.983333333	Pulse	82.3	
Ge	74	NoGas	612,127	0.9	723967.716666667	Pulse	84.6	
Rh	103	He	293,472	9.7	360477.35	Pulse	81.4	
Rh	103	NoGas	634,050	0.3	765122.756666667	Pulse	82.9	
Tb	159	He	450,647	10.0	517968.26	Pulse	87.0	
Tb	159	NoGas	1,122,027	0.5	1243337.24	Pulse	90.2	
Bi	209	He	263,519	10.2	301934.656666667	Pulse	87.3	
Bi	209	NoGas	654,154	0.5	720637.873333333	Pulse	90.8	

Calibration Standard Report - ICPMS5

Sample Name:	**9L04031-CAL8**	Total Dilution:	**1.0000**
File Name:	011CALS.d	Vial:	1109
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CalStd
Acq Time:	12/4/2019 11:18:52	I.S. Reference File:	003CALB.d
Comment:	**A19K151**	Last Calibration:	12/04/2019 11:41:46

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.032	ppb	24.6	93	16.4	
Na	23	45	He	10023.162	ppb	0.3	7,423,104	0.5	
Mg	24	45	He	10033.789	ppb	0.7	4,207,073	0.3	
Al	27	45	He	10040.006	ppb	0.6	2,320,028	0.7	
K	39	45	He	10282.941	ppb	0.4	3,897,265	0.9	
Ca	44	45	H2	10418.492	ppb	0.8	1,605,357	0.3	
[Ca]	44	45	He	10025.563	ppb	0.6	189,096	0.2	
Ti	47	45	NoGas	503.362	ppb	1.2	416,040	0.8	
V	51	74	He	494.372	ppb	1.6	1,237,692	1.5	
Cr	52	74	He	496.856	ppb	1.1	1,476,875	1.0	
Mn	55	74	He	492.434	ppb	0.4	1,042,890	0.3	
Fe	56	74	H2	9991.072	ppb	0.6	77,857,459	0.3	
Co	59	74	He	494.962	ppb	0.4	1,986,866	0.3	
Ni	60	74	He	509.637	ppb	0.6	484,010	0.5	
Cu	65	74	He	512.856	ppb	0.6	600,850	0.6	
Zn	66	74	He	515.169	ppb	0.4	240,040	0.4	
As	75	74	He	493.638	ppb	0.5	147,038	0.4	
Se	78	74	H2	0.124	ppb	20.6	26	19.5	
Mo	95	103	He	0.092	ppb	25.0	121	23.7	
Ag	107	103	He	0.02	ppb	45.8	76	44.2	
Cd	111	103	He	500.386	ppb	0.4	298,220	0.8	
[Cd]	111	103	NoGas	482.855	ppb	0.2	785,052	0.2	
Sb	121	103	He	0.129	ppb	9.9	237	9.2	
Ba	138	159	He	524.256	ppb	0.8	1,951,629	0.4	
W	182	159	NoGas	100	ppb	0.4	603,724	0.3	
Hg	201	159	NoGas	79.197	ppt	11.6	70	10.6	
Tl	205	159	He	0.036	ppb	14.6	256	13.1	
Pb	208	159	NoGas	497.656	ppb	0.6	9,161,175	0.6	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref.CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	735,610	0.8	924116.613333333	Pulse	79.6	
Sc	45	H2	1,431,251	1.0	1737112.96	Analog	82.4	
Sc	45	He	221,226	0.7	266695.646666667	Pulse	83.0	
Sc	45	NoGas	2,183,978	0.4	2759645.24	Analog	79.1	
Ge	74	H2	453,819	0.5	544239.553333333	Pulse	83.4	
Ge	74	He	133,514	0.1	160421.983333333	Pulse	83.2	
Ge	74	NoGas	584,690	0.3	723967.716666667	Pulse	80.8	
Rh	103	He	295,063	1.0	360477.35	Pulse	81.9	
Rh	103	NoGas	605,654	0.4	765122.756666667	Pulse	79.2	
Tb	159	He	464,620	1.0	517968.26	Pulse	89.7	
Tb	159	NoGas	1,103,081	0.2	1243337.24	Pulse	88.7	
Bi	209	He	272,735	0.5	301934.656666667	Pulse	90.3	
Bi	209	NoGas	620,133	0.7	720637.873333333	Pulse	86.1	

Calibration Standard Report - ICPMS5

Sample Name:	**9L04031-CAL9**	Total Dilution:	**1.0000**
File Name:	012CALS.d	Vial:	1110
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CalStd
Acq Time:	12/4/2019 11:23:33	I.S. Reference File:	003CALB.d
Comment:	**A19K152**	Last Calibration:	12/04/2019 11:41:46

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.022	ppb	52.3	73	31.8	
Na	23	45	He	49962.822	ppb	0.6	35,934,052	0.5	
Mg	24	45	He	49953.61	ppb	0.9	20,343,055	0.3	
Al	27	45	He	49970.962	ppb	0.5	11,216,435	1.3	
K	39	45	He	49897.103	ppb	0.2	18,294,331	1.2	
Ca	44	45	H2	49913.782	ppb	1.3	7,415,730	0.6	
[Ca]	44	45	He	49959.551	ppb	0.7	914,791	0.8	
Ti	47	45	NoGas	2499.061	ppb	0.8	2,064,253	1.3	
V	51	74	He	-0.003	ppb	N/A	859	9.0	
Cr	52	74	He	1000.036	ppb	1.3	2,792,697	1.7	
Mn	55	74	He	2500.315	ppb	0.7	4,974,809	1.4	
Fe	56	74	H2	49994.517	ppb	1.0	354,030,613	0.6	
Co	59	74	He	0.224	ppb	7.8	880	7.6	
Ni	60	74	He	989.807	ppb	0.4	883,151	0.6	
Cu	65	74	He	987.472	ppb	0.5	1,086,899	0.5	
Zn	66	74	He	2494.969	ppb	0.3	1,092,129	1.1	
As	75	74	He	0.159	ppb	23.9	57	19.8	
Se	78	74	H2	0.129	ppb	22.2	25	21.2	
Mo	95	103	He	0.08	ppb	39.8	97	38.4	
Ag	107	103	He	0.023	ppb	7.0	80	7.2	
Cd	111	103	He	996.739	ppb	0.5	545,600	0.7	
[Cd]	111	103	NoGas	1010.068	ppb	1.3	1,509,452	0.9	
Sb	121	103	He	0.045	ppb	14.6	84	12.7	
Ba	138	159	He	2493.134	ppb	1.3	8,875,243	1.4	
W	182	159	NoGas	0.263	ppb	2.4	1,563	3.0	
Hg	201	159	NoGas	34.047	ppt	25.3	33	20.1	
Tl	205	159	He	0.003	ppb	57.2	34	36.6	
Pb	208	159	NoGas	0.168	ppb	4.2	3,467	3.1	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	746,047	0.1	924116.613333333	Pulse	80.7	
Sc	45	H2	1,380,292	1.4	1737112.96	Analog	79.5	
Sc	45	He	214,892	1.1	266695.646666667	Pulse	80.6	
Sc	45	NoGas	2,182,663	0.9	2759645.24	Analog	79.1	
Ge	74	H2	412,427	0.5	544239.553333333	Pulse	75.8	
Ge	74	He	125,441	1.0	160421.983333333	Pulse	78.2	
Ge	74	NoGas	551,995	0.9	723967.716666667	Pulse	76.2	
Rh	103	He	271,000	0.5	360477.35	Pulse	75.2	
Rh	103	NoGas	556,709	0.4	765122.756666667	Pulse	72.8	
Tb	159	He	444,287	0.3	517968.26	Pulse	85.8	
Tb	159	NoGas	1,073,781	0.6	1243337.24	Pulse	86.4	
Bi	209	He	250,448	0.6	301934.656666667	Pulse	82.9	
Bi	209	NoGas	590,171	0.4	720637.873333333	Pulse	81.9	

Quantitation Report - ICPMS5

Sample Name:	**Rinse**	Total Dilution:	**1.0000**
File Name:	013RINS.d	Vial:	3
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	Rinse
Acq Time:	12/4/2019 11:29:28	I.S. Reference File:	003CALB.d
Comment:	**Rinse for IFA/IFB carryover**	Last Calibration:	12/04/2019 11:41:46

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.015	ppb	16.8	61	0.18	
Na	23	45	He	4.236	ppb	6.9	5,333	90	
Mg	24	45	He	1.978	ppb	10.3	1,296	90	
Al	27	45	He	2.188	ppb	7.9	622	45	
K	39	45	He	2.193	ppb	34.8	22,068	90	
Ca	44	45	H2	4.099	ppb	14.1	979	90	
[Ca]	44	45	He	1.719	ppb	71.5	178		
Ti	47	45	NoGas	0.219	ppb	31.3	218	0.9	
V	51	74	He	-0.006	ppb	N/A	957	0.9	
Cr	52	74	He	0.042	ppb	23.5	316	0.9	
Mn	55	74	He	0.099	ppb	18.1	320	0.9	
Fe	56	74	H2	6.139	ppb	12.4	56,394	45	
Co	59	74	He	0.008	ppb	84.7	70	0.18	
Ni	60	74	He	0.023	ppb	89.3	60	0.9	
Cu	65	74	He	0.07	ppb	26.2	114	0.9	
Zn	66	74	He	0.212	ppb	29.9	134	3.6	
As	75	74	He	0.026	ppb	86.7	22	0.9	
Se	78	74	H2	0.018	ppb	66.6	5	0.9	
Mo	95	103	He	0.008	ppb	66.2	14	0.9	
Ag	107	103	He	0.001	ppb	155.1	7	0.18	
Cd	111	103	He	0.099	ppb	5.6	64		
[Cd]	111	103	NoGas	0.071	ppb	20.2	134	0.18	
Sb	121	103	He	0.018	ppb	44.9	50	0.9	
Ba	138	159	He	0.132	ppb	5.7	559	0.9	
W	182	159	NoGas	0.038	ppb	15.7	251		
Hg	201	159	NoGas	3.535	ppt	91.8	10	72	
Tl	205	159	He	0.001	ppb	114.2	18	0.18	
Pb	208	159	NoGas	0.064	ppb	15.7	1,705	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	769,902	0.4	924116.613333333	Pulse	83.3	
Sc	45	H2	1,471,557	1.4	1737112.96	Analog	84.7	
Sc	45	He	232,867	0.6	266695.646666667	Pulse	87.3	
Sc	45	NoGas	2,295,102	0.8	2759645.24	Analog	83.2	
Ge	74	H2	472,054	0.5	544239.553333333	Pulse	86.7	
Ge	74	He	140,677	0.8	160421.983333333	Pulse	87.7	
Ge	74	NoGas	615,024	0.4	723967.716666667	Pulse	85.0	
Rh	103	He	319,904	0.8	360477.35	Pulse	88.7	
Rh	103	NoGas	648,520	0.2	765122.756666667	Pulse	84.8	
Tb	159	He	481,344	0.7	517968.26	Pulse	92.9	
Tb	159	NoGas	1,135,416	0.8	1243337.24	Pulse	91.3	
Bi	209	He	285,793	1.2	301934.656666667	Pulse	94.7	
Bi	209	NoGas	671,781	0.4	720637.873333333	Pulse	93.2	

Calibration Standard Report - ICPMS5

Sample Name:	**9L04031-CAL7**	Total Dilution:	**1.0000**
File Name:	014CALS.d	Vial:	1108
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CalStd
Acq Time:	12/4/2019 11:34:12	I.S. Reference File:	003CALB.d
Comment:	**A19K150**	Last Calibration:	12/04/2019 11:41:46

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	100.15	ppb	0.4	202,625	0.1	
Na	23	45	He	4059.141	ppb	0.4	3,042,645	0.6	
Mg	24	45	He	4207.181	ppb	1.0	1,785,240	1.0	
Al	27	45	He	3947.456	ppb	0.2	922,930	0.2	
K	39	45	He	4176.113	ppb	1.3	1,613,387	1.5	
Ca	44	45	H2	3956.547	ppb	1.2	628,449	0.2	
[Ca]	44	45	He	4103.79	ppb	1.0	78,400	1.0	
Ti	47	45	NoGas	200.366	ppb	0.2	166,579	0.5	
V	51	74	He	198.565	ppb	0.5	498,658	0.3	
Cr	52	74	He	192.807	ppb	0.4	580,089	0.2	
Mn	55	74	He	198.717	ppb	0.1	426,781	0.2	
Fe	56	74	H2	4037.099	ppb	0.2	32,154,080	0.1	
Co	59	74	He	197.278	ppb	0.2	793,555	0.4	
Ni	60	74	He	207.942	ppb	0.7	199,786	0.9	
Cu	65	74	He	209.725	ppb	0.2	248,496	0.2	
Zn	66	74	He	206.65	ppb	0.6	97,645	0.7	
As	75	74	He	198.472	ppb	0.6	59,151	0.8	
Se	78	74	H2	100.43	ppb	0.9	21,258	1.2	
Mo	95	103	He	100.108	ppb	0.7	124,819	0.2	
Ag	107	103	He	100.084	ppb	0.5	357,433	0.5	
Cd	111	103	He	200.69	ppb	0.5	123,028	0.6	
[Cd]	111	103	NoGas	195.489	ppb	0.1	319,031	0.8	
Sb	121	103	He	100.274	ppb	0.6	165,418	0.9	
Ba	138	159	He	204.776	ppb	0.8	774,978	0.1	
W	182	159	NoGas	0.047	ppb	15.7	302	15.5	
Hg	201	159	NoGas	4002.084	ppt	1.0	3,241	0.8	
Tl	205	159	He	100.463	ppb	0.4	648,799	0.9	
Pb	208	159	NoGas	205.925	ppb	0.6	3,800,459	0.5	

ISTD Table:

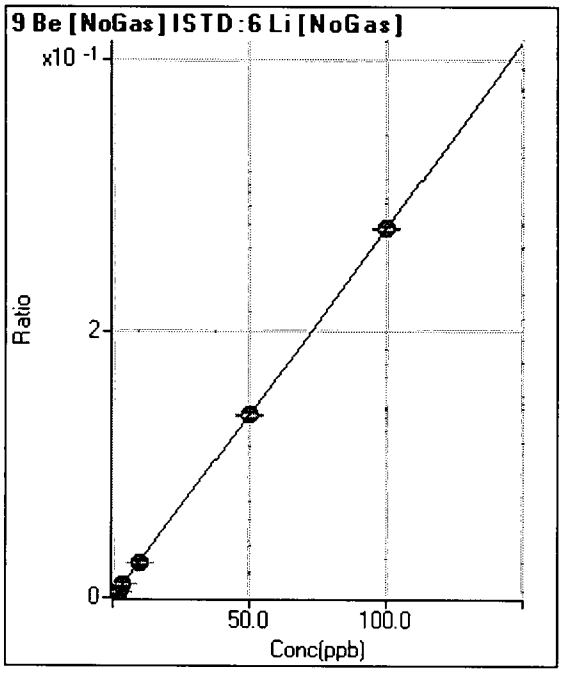
Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	736,544	0.5	924116.613333333	Pulse	79.7	
Sc	45	H2	1,475,120	1.3	1737112.96	Analog	84.9	
Sc	45	He	223,934	0.2	266695.646666667	Pulse	84.0	
Sc	45	NoGas	2,196,721	0.7	2759645.24	Analog	79.6	
Ge	74	H2	463,784	0.3	544239.553333333	Pulse	85.2	
Ge	74	He	135,446	0.3	160421.983333333	Pulse	84.4	
Ge	74	NoGas	586,794	0.6	723967.716666667	Pulse	81.1	
Rh	103	He	304,222	0.9	360477.35	Pulse	84.4	
Rh	103	NoGas	607,687	0.6	765122.756666667	Pulse	79.4	
Tb	159	He	472,605	0.9	517968.26	Pulse	91.2	
Tb	159	NoGas	1,105,710	1.1	1243337.24	Pulse	88.9	
Bi	209	He	280,031	0.5	301934.656666667	Pulse	92.7	
Bi	209	NoGas	645,305	0.6	720637.873333333	Pulse	89.5	

Calibration for 096_CCV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\9L04031.b\
Analysis File: 9L04031.batch.bin
DA Date-Time: 12/4/2019 18:13:24
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	9L04031-CAL0	12/4/2019 10:39:25
2	004CALS.d	9L04031-CAL1	12/4/2019 10:44:08
3	005CALS.d	9L04031-CAL2	12/4/2019 10:49:10
4	006CALS.d	9L04031-CAL3	12/4/2019 10:54:09
5	007CALS.d	9L04031-CAL4	12/4/2019 10:59:08
6	008CALS.d	9L04031-CAL5	12/4/2019 11:04:06
7	009CALS.d	9L04031-CAL6	12/4/2019 11:09:04
8	014CALS.d	9L04031-CAL7	12/4/2019 11:34:12
9	011CALS.d	9L04031-CAL8	12/4/2019 11:18:52
10	012CALS.d	9L04031-CAL9	12/4/2019 11:23:33

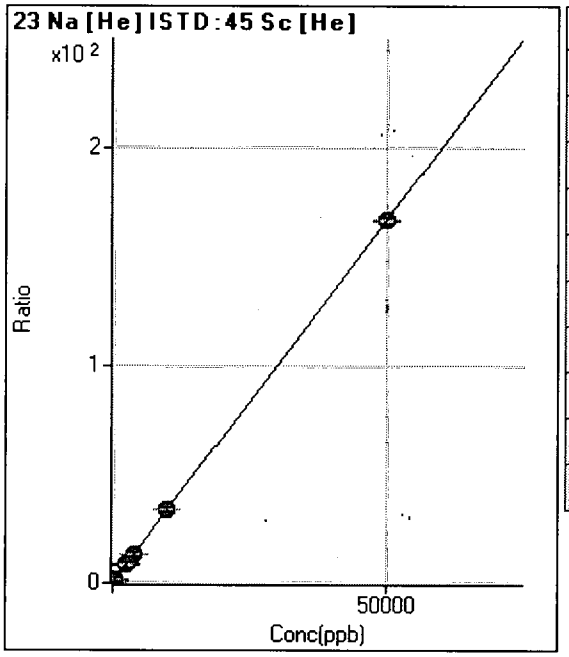
Calibration for 096_CCV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36	0.000	P	57.4
2	☐	0.180	0.173	456	0.001	P	8.7
3	☐	0.900	0.873	2,137	0.002	P	12.3
4	☐	1.800	1.744	4,273	0.005	P	1.9
5	☐	3.600	3.466	8,468	0.010	P	0.9
6	☐	10.000	9.599	23,296	0.026	P	3.1
7	☐	50.000	49.791	113,403	0.137	P	1.3
8	☐	100.000	100.150	202,625	0.275	P	0.4
9	☐			93	0.000	P	17.1
10	☐			73	0.000	P	31.8

y = 0.0027 * x + 3.8540E-005
R = 1.0000
DL = 0.02415
BEC = 0.01403

Weight: <None>
Min Conc: <None>

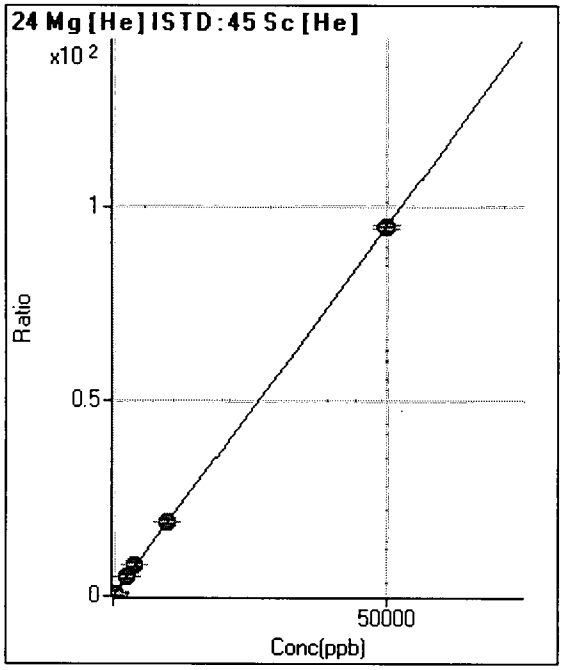


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2,326	0.009	P	5.8
2	☐			10,114	0.038	P	3.4
3	☐	45.000	44.743	42,260	0.158	P	1.7
4	☐	90.000	88.808	81,816	0.306	P	1.3
5	☐	180.000	180.296	162,836	0.612	P	1.2
6	☐	400.000	398.199	353,562	1.341	P	0.2
7	☐	2500.000	2529.430	2,149,123	8.470	A	2.1
8	☐	4000.000	4059.141	3,042,645	13.587	A	0.4
9	☐	10000.000	10028.246	7,423,104	33.555	A	0.3
10	☐	50000.000	49988.164	35,934,052	167.227	A	0.6

y = 0.0033 * x + 0.0087
R = 1.0000
DL = 0.4522
BEC = 2.607

Weight: <None>
Min Conc: <None>

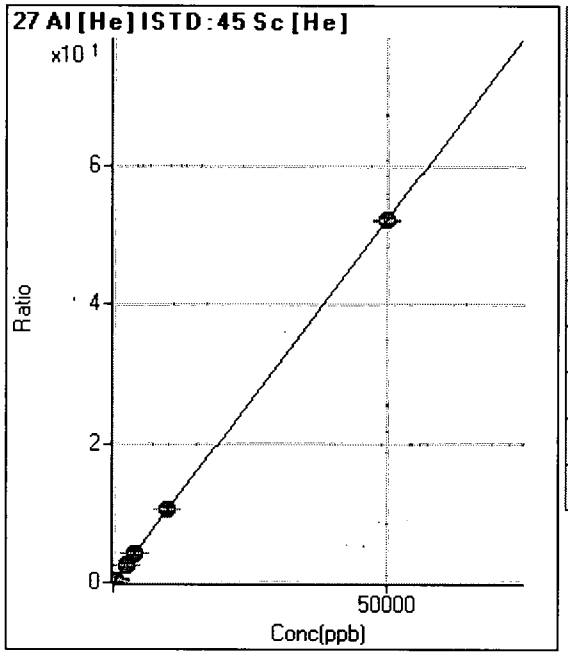
Calibration for 096_CCV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	484	0.002	P	17.0
2	☐			4,990	0.019	P	1.7
3	☐	45.000	44.854	23,156	0.087	P	1.0
4	☐	90.000	88.836	45,513	0.170	P	0.6
5	☐	180.000	179.125	90,788	0.341	P	2.3
6	☐	400.000	395.663	198,143	0.751	P	0.6
7	☐	2500.000	2571.370	1,236,552	4.873	A	1.2
8	☐	4000.000	4207.181	1,785,240	7.972	A	1.0
9	☐	10000.000	10037.561	4,207,073	19.018	A	0.7
10	☐	50000.000	49972.385	20,343,055	94.673	A	0.9

y = 0.0019 * x + 0.0018
R = 1.0000
DL = 0.4888
BEC = 0.9587

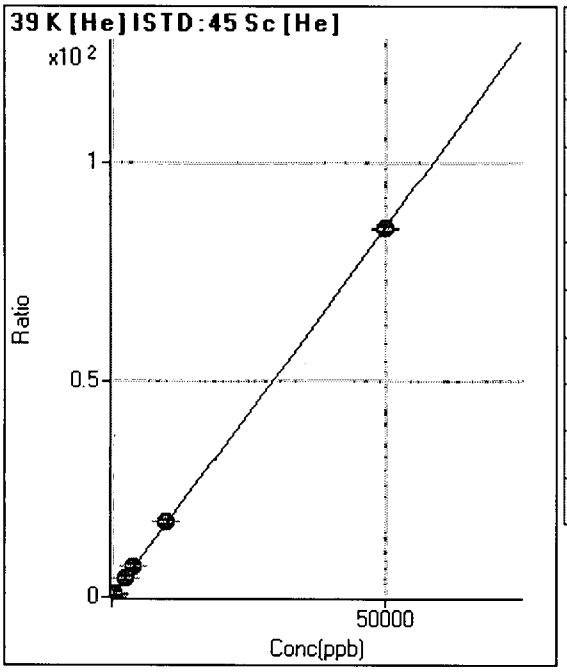
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	103	0.000	P	9.4
2	☐			2,702	0.010	P	2.3
3	☐	45.000	45.272	12,712	0.048	P	2.6
4	☐	90.000	89.670	25,151	0.094	P	0.4
5	☐	180.000	181.614	50,573	0.190	P	1.0
6	☐	400.000	394.671	108,756	0.412	P	1.6
7	☐	2500.000	2476.622	656,178	2.586	P	1.0
8	☐	4000.000	3947.456	922,930	4.121	P	0.2
9	☐	10000.000	10045.115	2,320,028	10.487	A	0.6
10	☐	50000.000	49996.387	11,216,435	52.195	A	0.5

y = 0.0010 * x + 3.8741E-004
R = 1.0000
DL = 0.1044
BEC = 0.3711

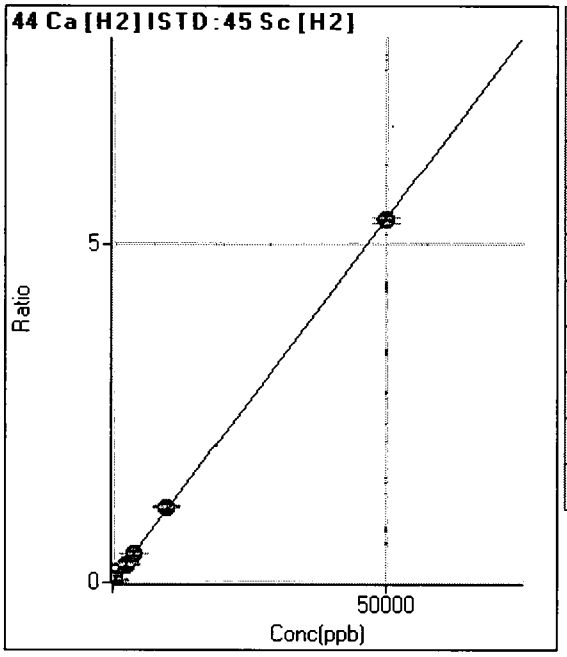
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24,278	0.091	P	1.3
2	☐			28,371	0.107	P	2.2
3	☐	45.000	47.263	45,770	0.172	P	1.9
4	☐	90.000	92.453	66,484	0.249	P	1.4
5	☐	180.000	186.961	108,993	0.409	P	0.5
6	☐	400.000	409.523	207,960	0.789	P	0.6
7	☐	2500.000	2578.686	1,137,720	4.484	P	0.8
8	☐	4000.000	4176.113	1,613,387	7.205	A	1.3
9	☐	10000.000	10288.518	3,897,265	17.616	A	0.4
10	☐	50000.000	49924.165	18,294,331	85.132	A	0.2

y = 0.0017 * x + 0.0910
R = 1.0000
DL = 2.01
BEC = 53.44

Weight: <None>
Min Conc: <None>

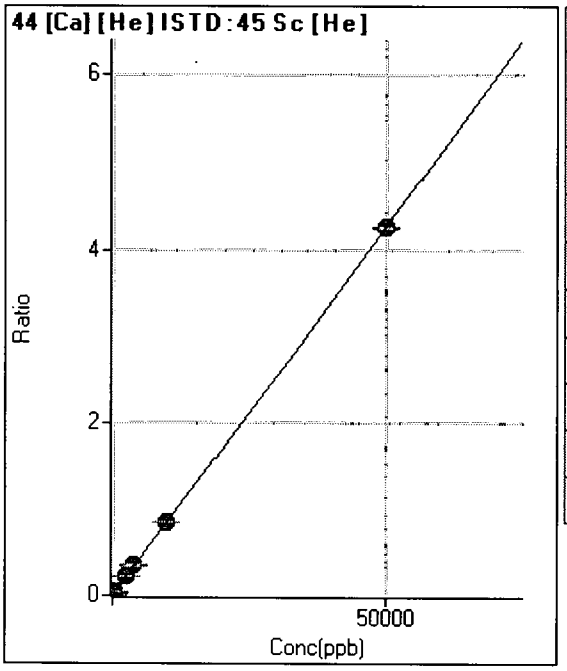


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	390	0.000	P	10.0
2	☐			2,135	0.001	P	4.8
3	☐	45.000	45.441	8,597	0.005	P	1.6
4	☐	90.000	92.084	17,015	0.010	P	1.1
5	☐	180.000	184.869	33,748	0.020	P	0.6
6	☐	400.000	403.373	72,757	0.044	P	1.2
7	☐	2500.000	2504.660	448,973	0.270	P	0.8
8	☐	4000.000	3956.547	628,449	0.426	P	1.2
9	☐	10000.000	10419.637	1,605,357	1.122	A	0.8
10	☐	50000.000	49919.267	7,415,730	5.373	A	1.3

y = 1.0763E-004 * x + 2.2457E-004
R = 1.0000
DL = 0.6265
BEC = 2.086

Weight: <None>
Min Conc: <None>

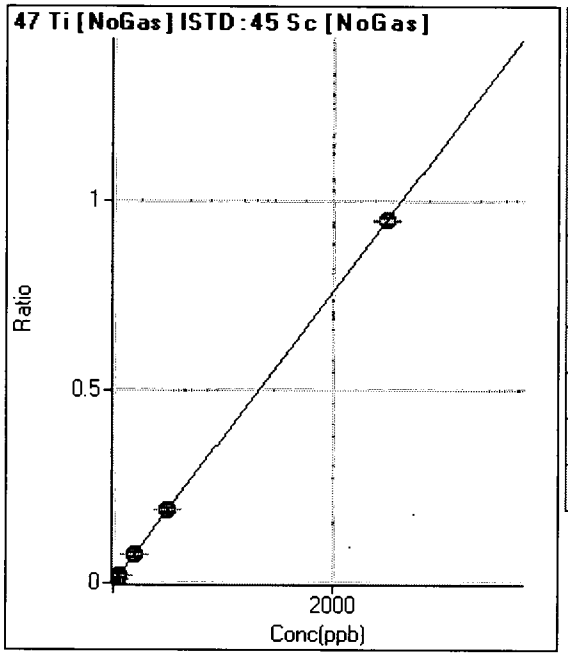
Calibration for 096_CCV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	164	0.001	P	25.5
2	☐			410	0.002	P	13.8
3	☐	45.000	45.085	1,189	0.004	P	1.0
4	☐	90.000	96.562	2,365	0.009	P	5.1
5	☐	180.000	181.254	4,272	0.016	P	4.1
6	☐	400.000	404.866	9,255	0.035	P	2.6
7	☐	2500.000	2576.510	55,834	0.220	P	1.1
8	☐	4000.000	4103.790	78,400	0.350	P	1.0
9	☐	10000.000	10030.030	189,096	0.855	P	0.6
10	☐	50000.000	49981.810	914,791	4.257	P	0.7

y = 8.5161E-005 * x + 6.1678E-004
R = 1.0000
DL = 5.54
BEC = 7.243

Weight: <None>
Min Conc: <None>

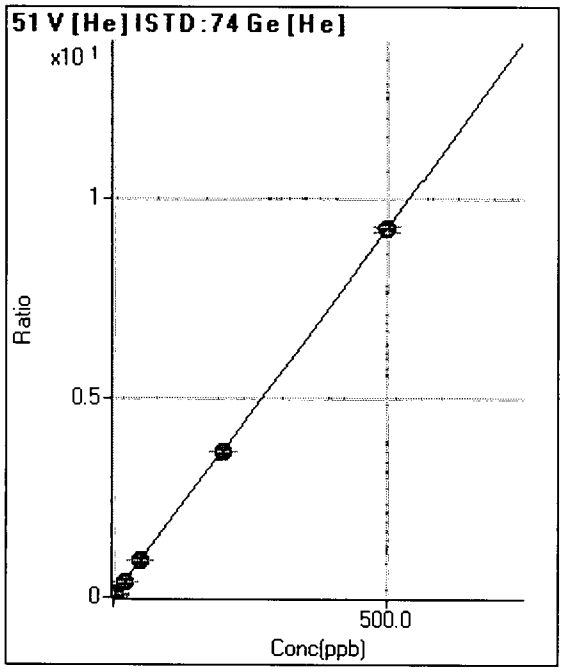


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	.33	0.000	P	37.6
2	☐	0.180	0.181	217	0.000	P	13.1
3	☐	0.900	0.867	920	0.000	P	8.6
4	☐	1.800	1.826	1,891	0.001	P	5.3
5	☐	3.600	3.510	3,579	0.001	P	4.8
6	☐	20.000	20.367	20,374	0.008	P	3.1
7	☐	50.000	50.954	48,717	0.019	P	1.3
8	☐	200.000	200.366	166,579	0.076	P	0.2
9	☐	500.000	503.404	416,040	0.191	P	1.2
10	☐	2500.000	2499.268	2,064,253	0.946	A	0.8

y = 3.7840E-004 * x + 1.2074E-005
R = 1.0000
DL = 0.03596
BEC = 0.03191

Weight: <None>
Min Conc: <None>

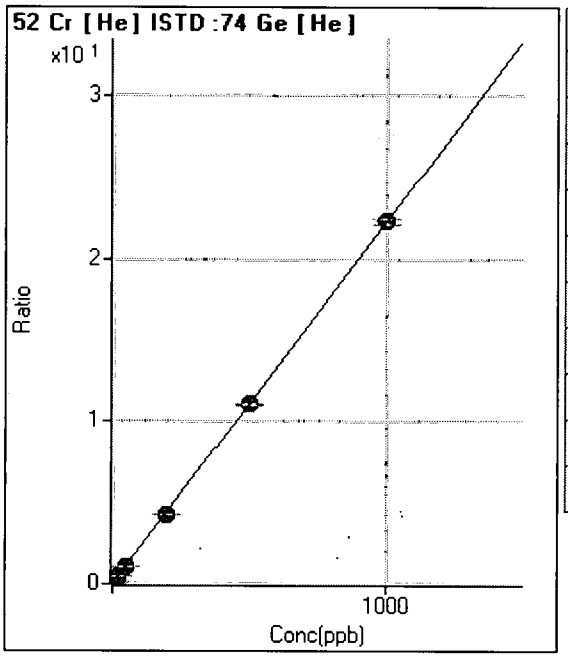
Calibration for 096_CCV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1,109	0.007	P	2.8
2	☐	0.180	0.154	1,568	0.010	P	2.2
3	☐	0.900	0.899	3,803	0.024	P	1.3
4	☐	1.800	1.821	6,515	0.041	P	0.7
5	☐	3.600	3.691	12,064	0.075	P	1.0
6	☐	20.000	20.190	60,442	0.381	P	0.3
7	☐	50.000	50.173	143,264	0.935	P	0.7
8	☐	200.000	198.565	498,658	3.682	P	0.5
9	☐	500.000	500.548	1,237,692	9.270	A	1.6
10	☐			859	0.007	P	9.3

y = 0.0185 * x + 0.0069
R = 1.0000
DL = 0.03182
BEC = 0.3736

Weight: <None>
Min Conc: <None>

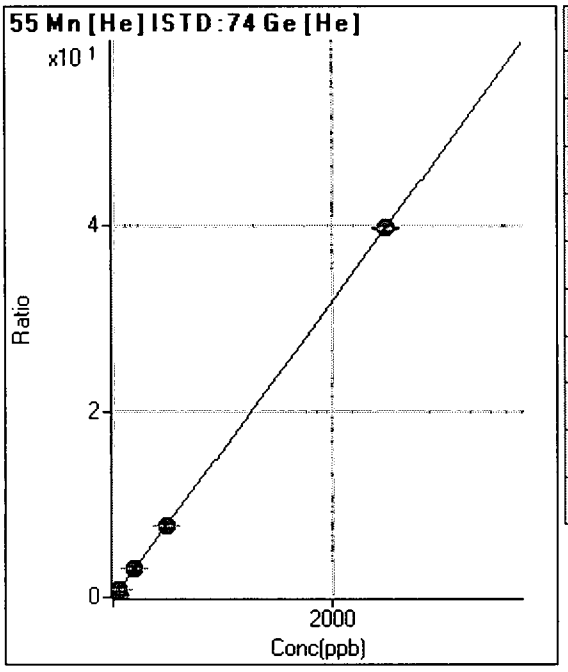


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	211	0.001	P	10.0
2	☐	0.180	0.146	732	0.005	P	4.2
3	☐	0.900	0.870	3,333	0.021	P	2.6
4	☐	1.800	1.789	6,582	0.041	P	2.8
5	☐	3.600	3.481	12,608	0.079	P	0.8
6	☐	20.000	19.382	68,567	0.432	P	1.1
7	☐	50.000	48.494	165,126	1.078	P	1.1
8	☐	200.000	192.807	580,089	4.283	P	0.4
9	☐	500.000	498.075	1,476,875	11.062	A	1.1
10	☐	1000.000	1002.489	2,792,697	22.263	A	1.3

y = 0.0222 * x + 0.0013
R = 1.0000
DL = 0.01773
BEC = 0.05926

Weight: <None>
Min Conc: <None>

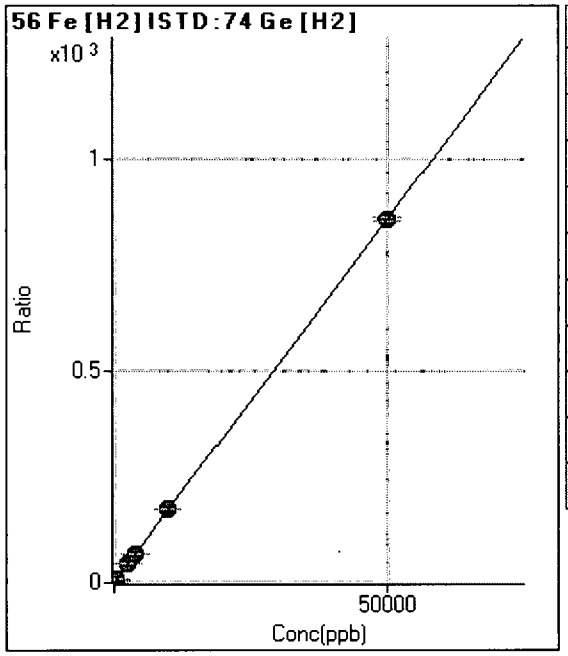
Calibration for 096_CCV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	114	0.001	P	20.9
2	☐	0.180	0.187	590	0.004	P	6.2
3	☐	0.900	0.854	2,301	0.014	P	2.3
4	☐	1.800	1.826	4,759	0.030	P	2.3
5	☐	3.600	3.542	9,119	0.057	P	0.2
6	☐	20.000	19.782	49,919	0.314	P	1.4
7	☐	50.000	49.511	120,318	0.786	P	0.4
8	☐	200.000	198.717	426,781	3.151	P	0.1
9	☐	500.000	492.683	1,042,890	7.811	P	0.4
10	☐	2500.000	2501.578	4,974,809	39.658	A	0.7

y = 0.0159 * x + 7.1362E-004
R = 1.0000
DL = 0.02818
BEC = 0.04502

Weight: <None>
Min Conc: <None>

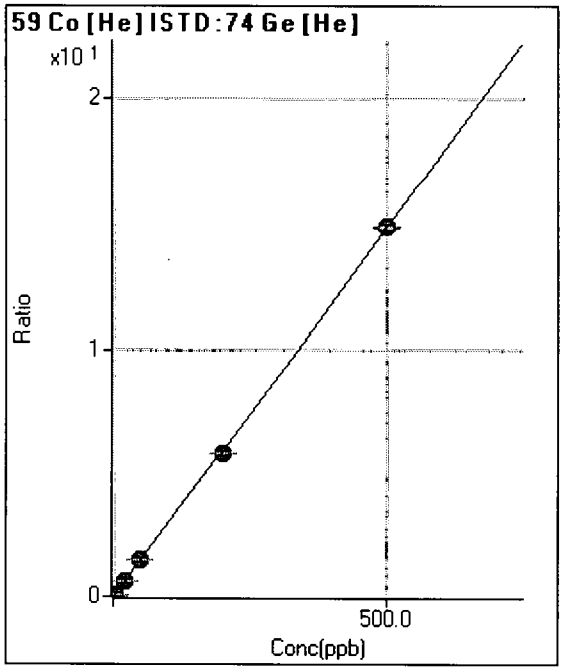


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7,660	0.014	P	2.7
2	☐			92,758	0.173	P	1.1
3	☐	45.000	45.808	431,455	0.801	P	0.1
4	☐	90.000	91.649	849,983	1.588	P	0.1
5	☐	180.000	186.989	1,725,384	3.225	A	0.6
6	☐	400.000	411.694	3,764,133	7.083	A	0.5
7	☐	2500.000	2551.308	22,809,294	43.819	A	0.5
8	☐	4000.000	4037.099	32,154,080	69.330	A	0.2
9	☐	10000.000	9991.382	77,857,459	171.563	A	0.6
10	☐	50000.000	49996.068	354,030,613	858.433	A	1.0

y = 0.0172 * x + 0.0141
R = 1.0000
DL = 0.06714
BEC = 0.8197

Weight: <None>
Min Conc: <None>

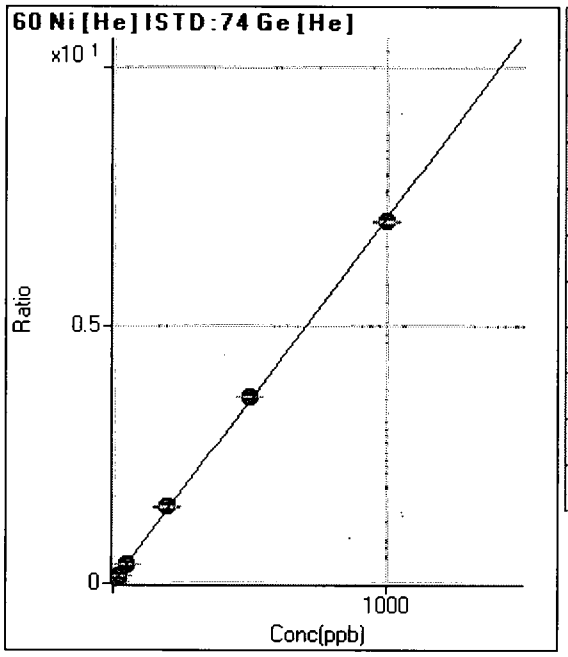
Calibration for 096_CCV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43	0.000	P	35.0
2	☐	0.180	0.177	889	0.006	P	6.3
3	☐	0.900	0.932	4,516	0.028	P	2.4
4	☐	1.800	1.794	8,590	0.054	P	2.1
5	☐	3.600	3.628	17,322	0.108	P	0.6
6	☐	20.000	20.387	96,202	0.606	P	1.0
7	☐	50.000	49.761	226,366	1.478	P	0.4
8	☐	200.000	197.278	793,555	5.859	P	0.2
9	☐	500.000	501.097	1,986,866	14.881	A	0.4
10	☐			880	0.007	P	7.5

y = 0.0297 * x + 2.7001E-004
R = 1.0000
DL = 0.009559
BEC = 0.009092

Weight: <None>
Min Conc: <None>

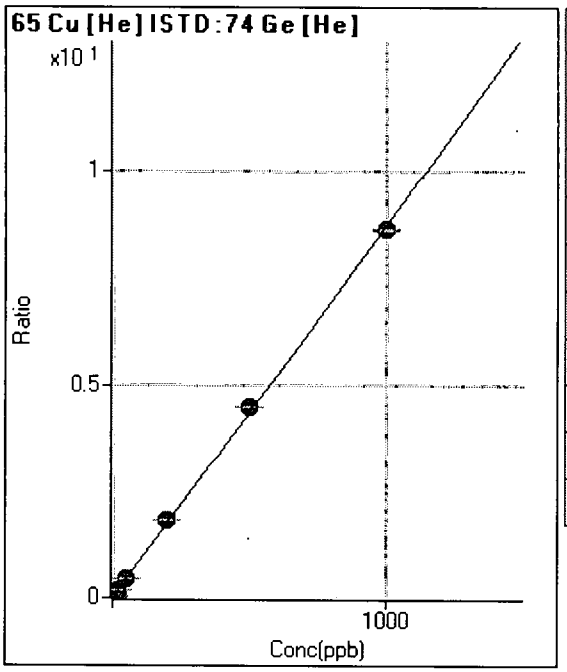


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	42	0.000	P	35.8
2	☐	0.180	0.173	239	0.001	P	2.7
3	☐	0.900	0.936	1,115	0.007	P	6.3
4	☐	1.800	1.826	2,120	0.013	P	4.0
5	☐	3.600	3.770	4,332	0.027	P	3.8
6	☐	20.000	21.385	24,129	0.152	P	1.1
7	☐	50.000	52.704	57,284	0.374	P	1.4
8	☐	200.000	207.942	199,786	1.475	P	0.7
9	☐	500.000	511.120	484,010	3.625	P	0.6
10	☐	1000.000	992.688	883,151	7.041	P	0.4

y = 0.0071 * x + 2.6334E-004
R = 0.9999
DL = 0.03986
BEC = 0.03713

Weight: <None>
Min Conc: <None>

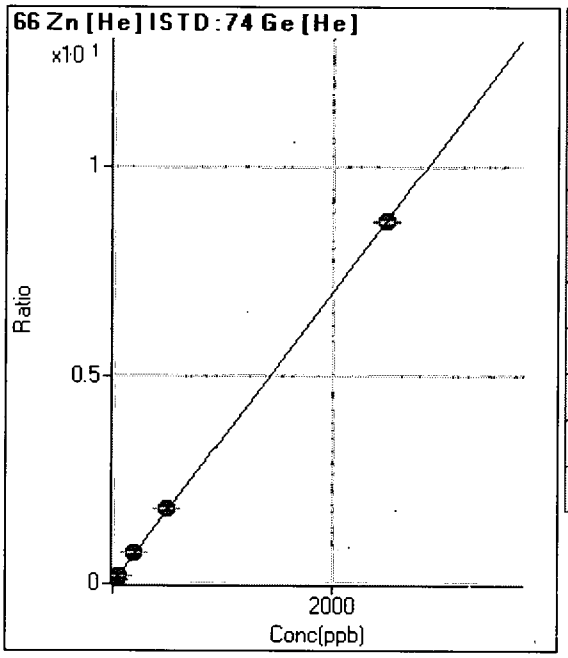
Calibration for 096_CCV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	32	0.000	P	6.2
2	☐	0.180	0.217	337	0.002	P	8.6
3	☐	0.900	1.002	1,450	0.009	P	8.3
4	☐	1.800	1.972	2,800	0.017	P	6.7
5	☐	3.600	4.112	5,801	0.036	P	1.3
6	☐	20.000	21.921	30,485	0.192	P	1.0
7	☐	50.000	53.827	72,141	0.471	P	0.7
8	☐	200.000	209.725	248,496	1.835	P	0.2
9	☐	500.000	514.473	600,850	4.500	P	0.6
10	☐	1000.000	990.587	1,086,899	8.665	P	0.5

y = 0.0087 * x + 2.0086E-004
R = 0.9998
DL = 0.004251
BEC = 0.02296

Weight: <None>
Min Conc: <None>

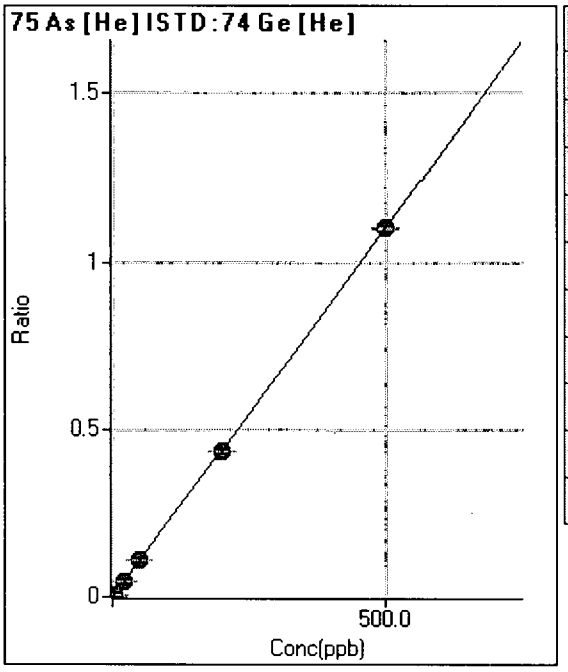


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	34	0.000	P	43.8
2	☐	0.180	0.200	147	0.001	P	8.7
3	☐	0.900	0.927	557	0.003	P	5.7
4	☐	1.800	1.802	1,042	0.006	P	6.3
5	☐	3.600	3.677	2,091	0.013	P	5.3
6	☐	20.000	20.668	11,482	0.072	P	1.9
7	☐	50.000	51.665	27,628	0.180	P	1.4
8	☐	200.000	206.650	97,645	0.721	P	0.6
9	☐	500.000	515.452	240,040	1.798	P	0.4
10	☐	2500.000	2496.339	1,092,129	8.706	P	0.3

y = 0.0035 * x + 2.1476E-004
R = 1.0000
DL = 0.08085
BEC = 0.06158

Weight: <None>
Min Conc: <None>

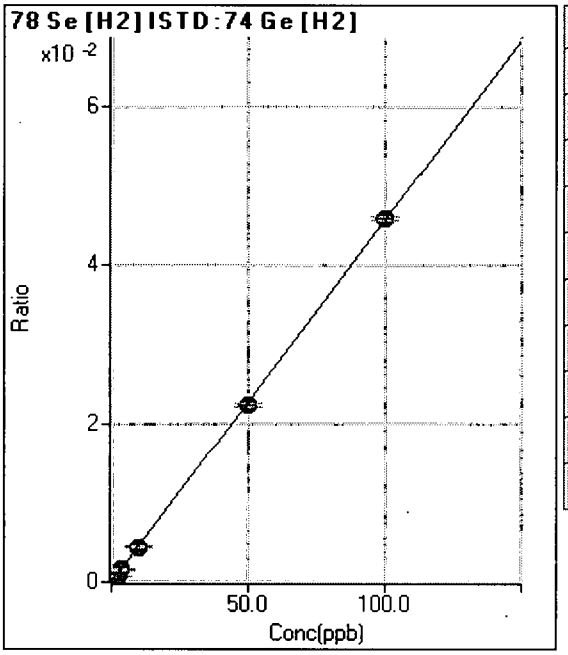
Calibration for 096_CCV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15	0.000	P	33.3
2	☐	0.180	0.172	76	0.000	P	15.0
3	☐	0.900	0.928	345	0.002	P	0.3
4	☐	1.800	1.833	662	0.004	P	8.5
5	☐	3.600	3.745	1,337	0.008	P	1.4
6	☐	20.000	20.294	7,106	0.045	P	2.0
7	☐	50.000	50.199	16,928	0.111	P	0.8
8	☐	200.000	198.472	59,151	0.437	P	0.6
9	☐	500.000	500.578	147,038	1.101	P	0.5
10	☐			57	0.000	P	18.8

y = 0.0022 * x + 9.5543E-005
R = 1.0000
DL = 0.04333
BEC = 0.04343

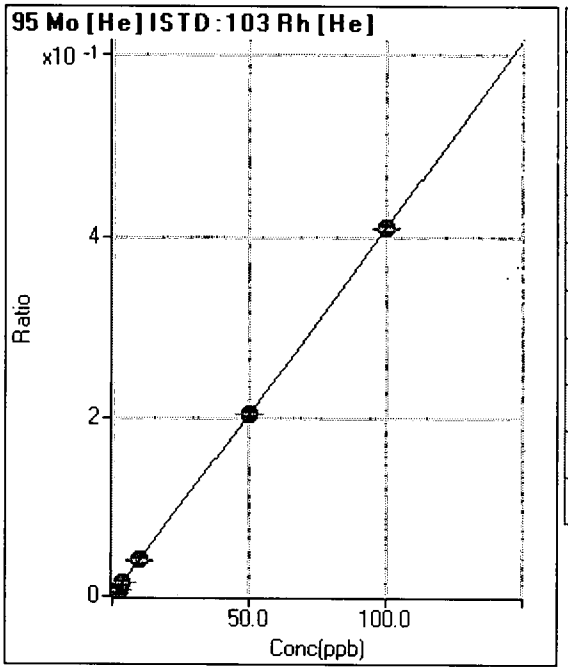
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1	0.000	P	173.2
2	☐	0.180	0.204	51	0.000	P	24.4
3	☐	0.900	0.877	217	0.000	P	5.2
4	☐	1.800	1.774	434	0.001	P	7.7
5	☐	3.600	3.482	851	0.002	P	5.0
6	☐	10.000	9.667	2,346	0.004	P	5.3
7	☐	50.000	49.216	11,691	0.022	P	2.2
8	☐	100.000	100.430	21,258	0.046	P	0.9
9	☐			26	0.000	P	20.0
10	☐			25	0.000	P	21.6

y = 4.5637E-004 * x + 1.8340E-006
R = 1.0000
DL = 0.02088
BEC = 0.004019

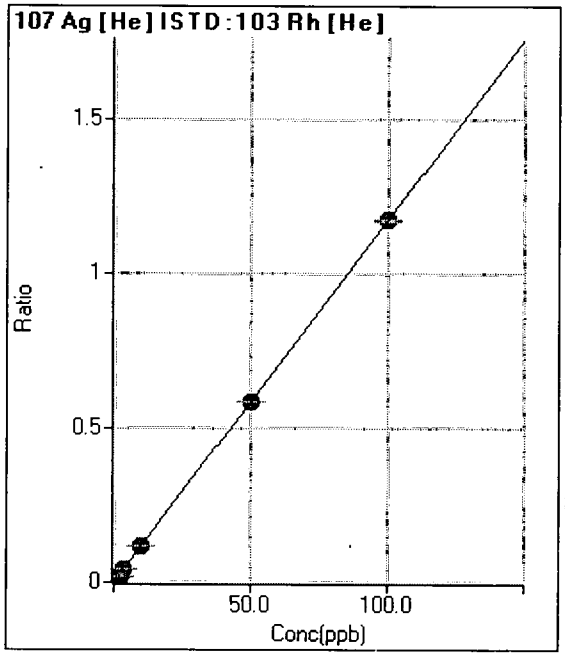
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3	0.000	P	173.2
2	☐	0.180	0.161	242	0.001	P	17.3
3	☐	0.900	0.805	1,192	0.003	P	9.5
4	☐	1.800	1.712	2,509	0.007	P	5.5
5	☐	3.600	3.619	5,300	0.015	P	3.7
6	☐	10.000	9.829	14,154	0.040	P	1.5
7	☐	50.000	49.822	68,753	0.204	P	0.7
8	☐	100.000	100.108	124,819	0.410	P	0.7
9	☐			121	0.000	P	24.4
10	☐			97	0.000	P	38.8

y = 0.0041 * x + 9.3483E-006
R = 1.0000
DL = 0.01185
BEC = 0.002281

Weight: <None>
Min Conc: <None>

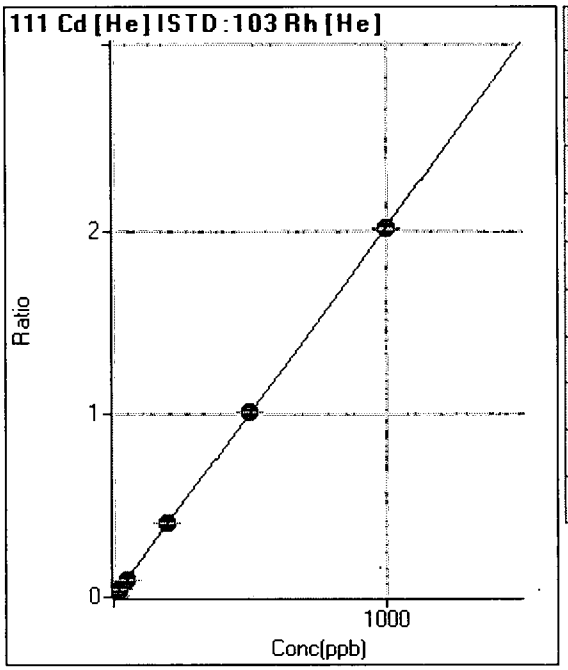


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1	0.000	P	173.2
2	☐	0.180	0.167	712	0.002	P	5.6
3	☐	0.900	0.930	3,932	0.011	P	0.6
4	☐	1.800	1.766	7,406	0.021	P	3.0
5	☐	3.600	3.546	14,866	0.042	P	2.4
6	☐	10.000	9.988	41,193	0.117	P	1.0
7	☐	50.000	49.839	196,988	0.585	P	0.8
8	☐	100.000	100.084	357,433	1.175	P	0.5
9	☐			76	0.000	P	45.3
10	☐			80	0.000	P	6.9

y = 0.0117 * x + 3.1130E-006
R = 1.0000
DL = 0.001378
BEC = 0.0002652

Weight: <None>
Min Conc: <None>

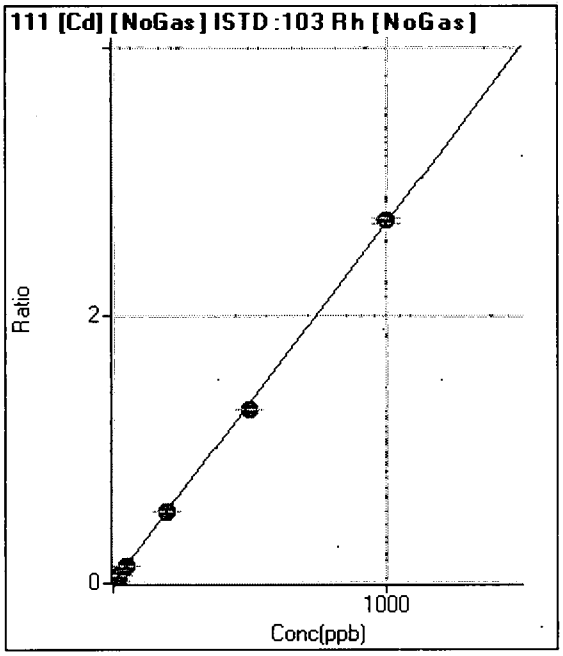
Calibration for 096_CCV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1	0.000	P	86.6
2	☐	0.180	0.159	117	0.000	P	5.3
3	☐	0.900	0.890	646	0.002	P	0.6
4	☐	1.800	1.822	1,313	0.004	P	2.5
5	☐	3.600	3.547	2,553	0.007	P	0.5
6	☐	20.000	19.938	14,114	0.040	P	0.5
7	☐	50.000	49.470	33,564	0.100	P	0.7
8	☐	200.000	200.690	123,028	0.404	P	0.5
9	☐	500.000	501.573	298,220	1.011	P	0.4
10	☐	1000.000	999.103	545,600	2.013	P	0.5

y = 0.0020 * x + 1.8526E-006
R = 1.0000
DL = 0.002389
BEC = 0.0009193

Weight: <None>
Min Conc: <None>

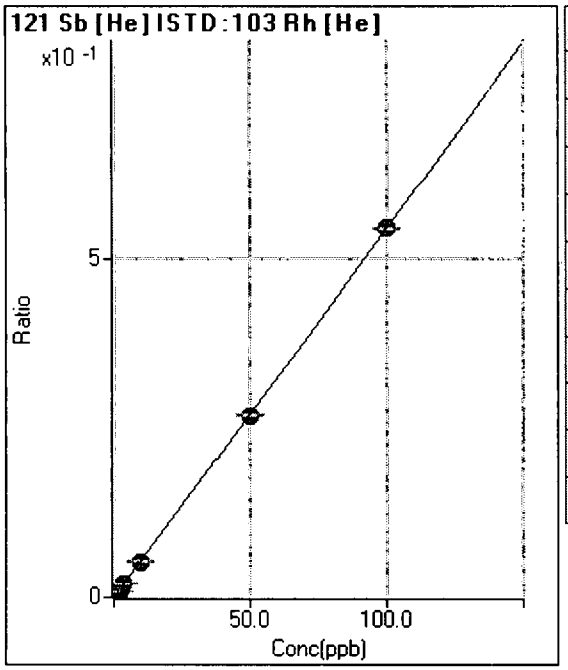


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12	0.000	P	34.4
2	☐	0.180	0.171	363	0.000	P	10.1
3	☐	0.900	0.859	1,760	0.002	P	2.8
4	☐	1.800	1.746	3,546	0.005	P	1.3
5	☐	3.600	3.362	6,783	0.009	P	6.4
6	☐	20.000	19.067	37,677	0.051	P	1.0
7	☐	50.000	47.862	89,283	0.129	P	0.9
8	☐	200.000	195.489	319,031	0.525	P	0.1
9	☐	500.000	482.675	785,052	1.296	P	0.2
10	☐	1000.000	1009.691	1,509,452	2.711	A	1.3

y = 0.0027 * x + 1.6264E-005
R = 0.9998
DL = 0.006245
BEC = 0.006056

Weight: <None>
Min Conc: <None>

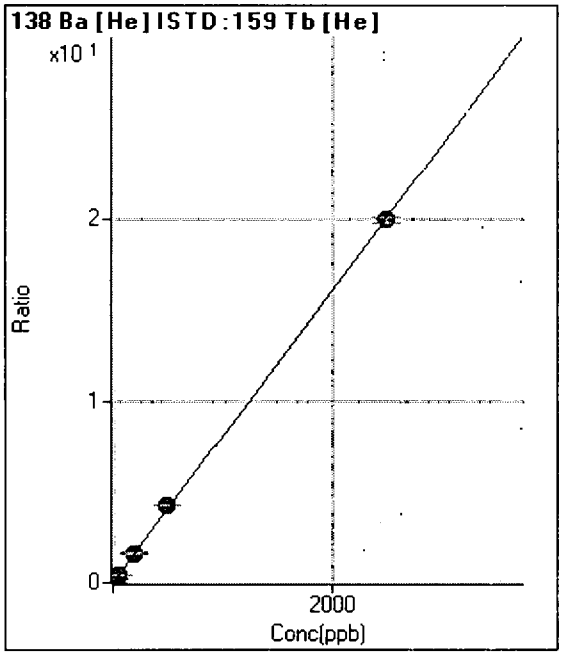
Calibration for 096_CCV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19	0.000	P	27.8
2	☐	0.180	0.189	390	0.001	P	3.4
3	☐	0.900	0.890	1,757	0.005	P	4.5
4	☐	1.800	1.788	3,482	0.010	P	0.6
5	☐	3.600	3.478	6,753	0.019	P	1.6
6	☐	10.000	9.732	18,555	0.053	P	2.4
7	☐	50.000	49.514	90,406	0.269	P	1.0
8	☐	100.000	100.274	165,418	0.544	P	0.6
9	☐			237	0.001	P	9.2
10	☐			84	0.000	P	12.1

y = 0.0054 * x + 5.2477E-005
R = 1.0000
DL = 0.008062
BEC = 0.009678

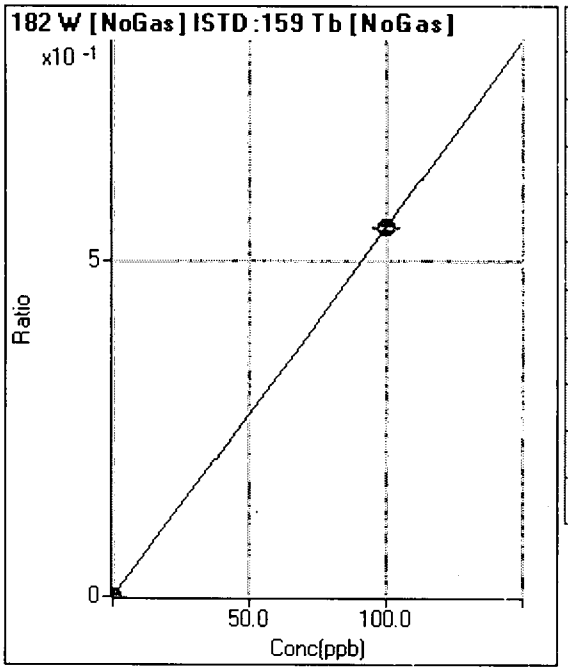
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	54	0.000	P	14.6
2	☐	0.180	0.215	947	0.002	P	3.3
3	☐	0.900	0.972	4,097	0.008	P	3.1
4	☐	1.800	1.953	8,159	0.016	P	0.5
5	☐	3.600	3.888	16,178	0.031	P	0.4
6	☐	20.000	21.559	88,574	0.173	P	0.8
7	☐	50.000	52.475	212,825	0.420	P	0.6
8	☐	200.000	204.776	774,978	1.640	P	0.8
9	☐	500.000	524.573	1,951,629	4.201	A	0.8
10	☐	2500.000	2494.641	8,875,243	19.976	A	1.3

y = 0.0080 * x + 1.0515E-004
R = 0.9999
DL = 0.005741
BEC = 0.01313

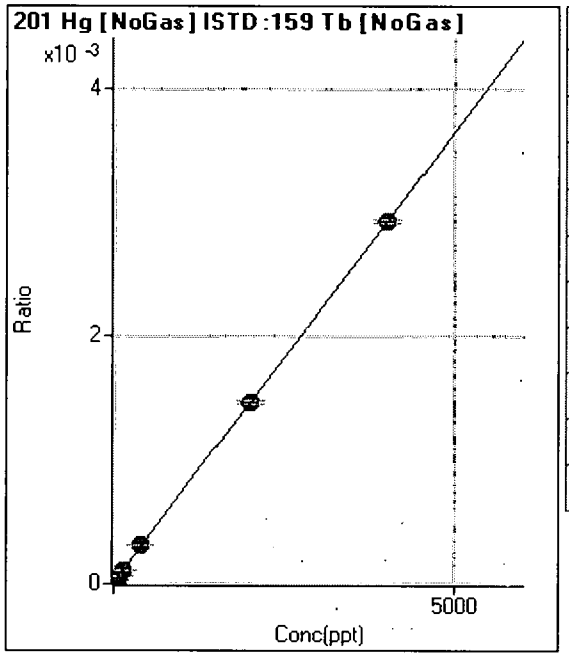
Weight: <None>
Min Conc: <None>



	Rjct	Conc	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	19	0.000	P	97.5
2	☐			13	0.000	P	24.8
3	☐			14	0.000	P	74.0
4	☐			19	0.000	P	37.6
5	☐			17	0.000	P	35.1
6	☐			28	0.000	P	36.4
7	☐			73	0.000	P	15.9
8	☐			302	0.000	P	14.8
9	☐	100.000	100.000	603,724	0.547	P	0.4
10	☐			1,563	0.001	P	2.4

y = 0.0055 * x + 1.5291E-005
R = 1.0000
DL = 0.008172
BEC = 0.002794

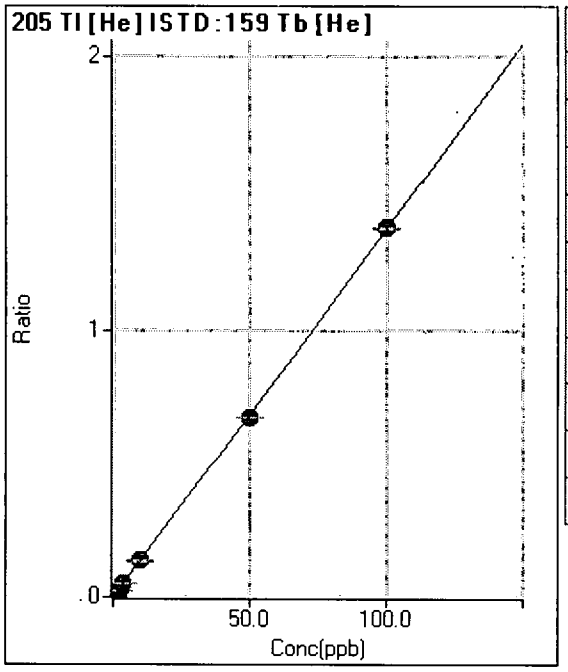
Weight: <None>
Min Conc: <None>



	Rjct	Conc	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-3.811	3	0.000	P	1.0
2	☐			10	0.000	P	25.0
3	☐	36.000	34.501	38	0.000	P	3.2
4	☐	72.000	71.740	71	0.000	P	5.3
5	☐	144.000	142.906	135	0.000	P	4.1
6	☐	400.000	410.791	372	0.000	P	0.6
7	☐	2000.000	1993.788	1,747	0.001	P	1.8
8	☐	4000.000	4002.084	3,241	0.003	P	1.0
9	☐			70	0.000	P	10.5
10	☐			33	0.000	P	20.5

y = 7.312897E-007 * x + 4.797734E-006
R = 1.0000
DL = 0.08128
BEC = 6.561

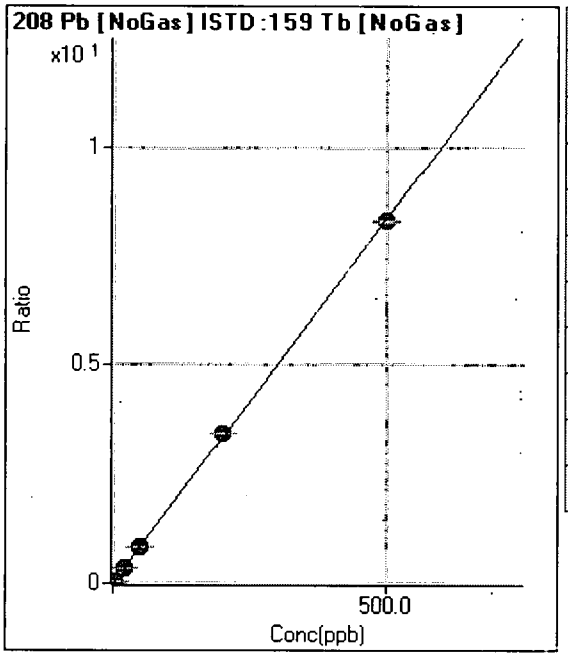
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	14	0.000	P	26.3
2	☐	0.180	0.185	1,319	0.003	P	3.7
3	☐	0.900	0.901	6,410	0.012	P	0.5
4	☐	1.800	1.749	12,398	0.024	P	0.9
5	☐	3.600	3.577	25,316	0.049	P	3.0
6	☐	10.000	9.890	69,292	0.135	P	2.5
7	☐	50.000	49.099	339,738	0.671	P	0.5
8	☐	100.000	100.463	648,799	1.373	P	0.4
9	☐			256	0.001	P	13.9
10	☐			34	0.000	P	36.6

y = 0.0137 * x + 2.7871E-005
R = 0.9999
DL = 0.001611
BEC = 0.00204

Weight: <None>
Min Conc: <None>

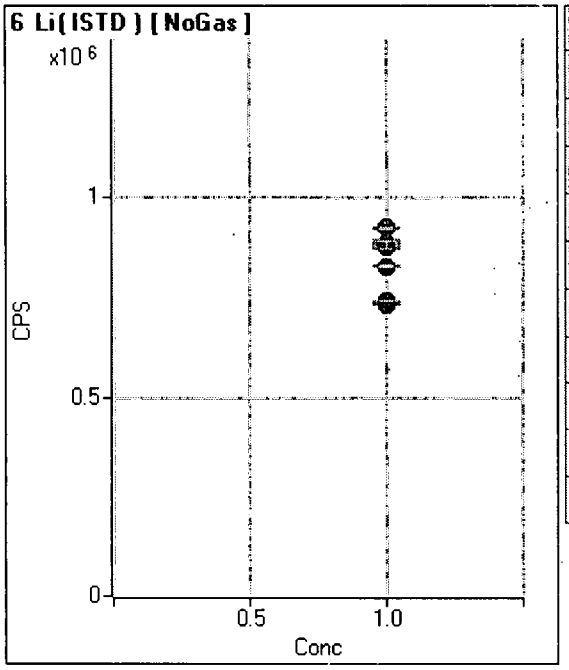


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	531	0.000	P	10.9
2	☐	0.180	0.177	4,209	0.003	P	3.5
3	☐	0.900	0.904	19,381	0.016	P	0.9
4	☐	1.800	1.836	38,534	0.031	P	1.0
5	☐	3.600	3.579	74,575	0.060	P	0.3
6	☐	20.000	20.269	413,378	0.339	P	0.1
7	☐	50.000	50.302	1,003,155	0.840	P	0.3
8	☐	200.000	205.925	3,800,459	3.437	A	0.6
9	☐	500.000	497.589	9,161,175	8.305	A	0.6
10	☐			3,467	0.003	P	3.7

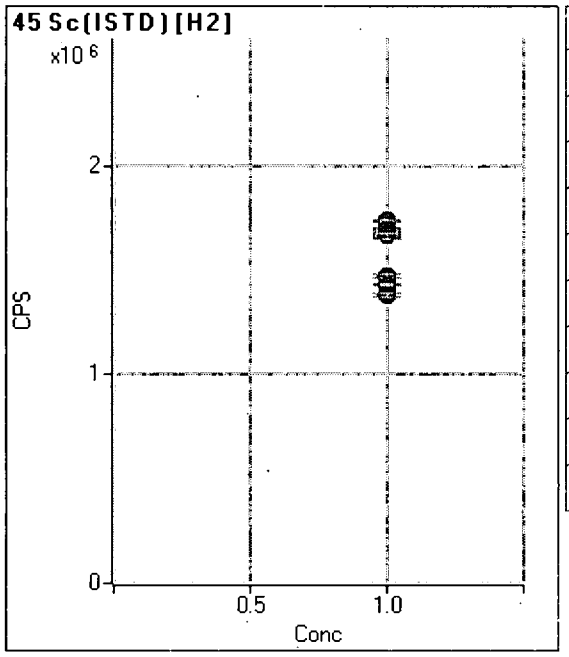
y = 0.0167 * x + 4.2733E-004
R = 0.9999
DL = 0.008366
BEC = 0.0256

Weight: <None>
Min Conc: <None>

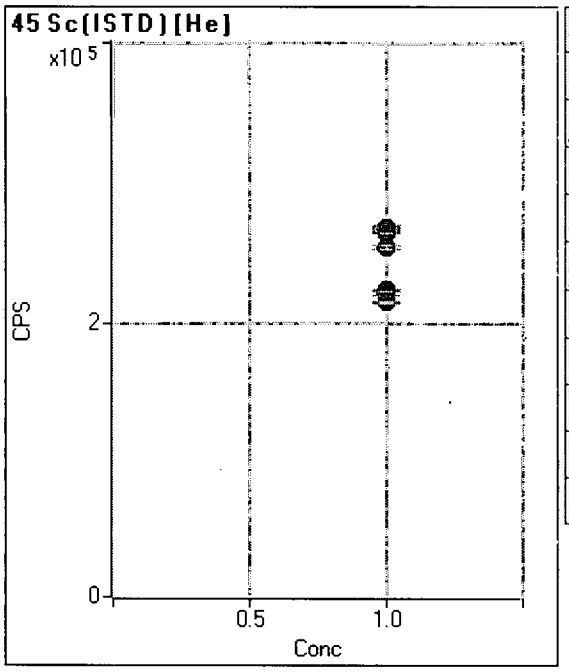
Calibration for 096_CCV.d



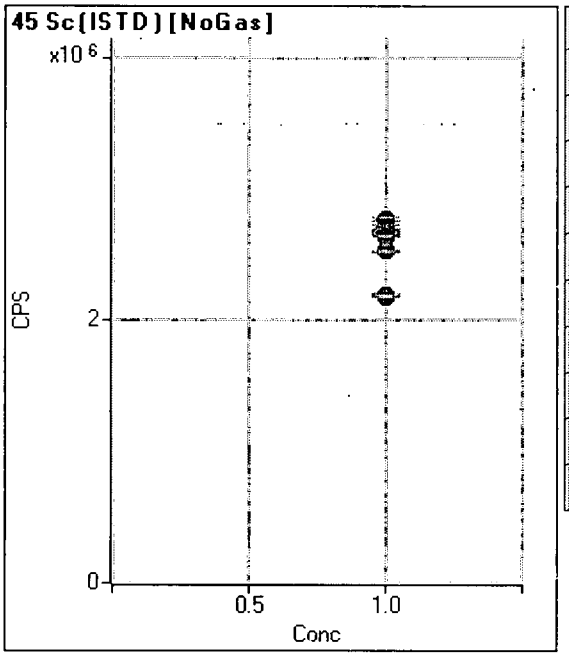
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		924,117		A	0.8
2	☐	1.000		887,416		A	1.5
3	☐	1.000		877,090		A	0.4
4	☐	1.000		884,716		A	0.6
5	☐	1.000		885,979		A	2.1
6	☐	1.000		882,642		A	1.9
7	☐	1.000		829,066		A	0.7
8	☐	1.000		736,544		P	0.5
9	☐	1.000		735,610		P	0.8
10	☐	1.000		746,047		P	0.1



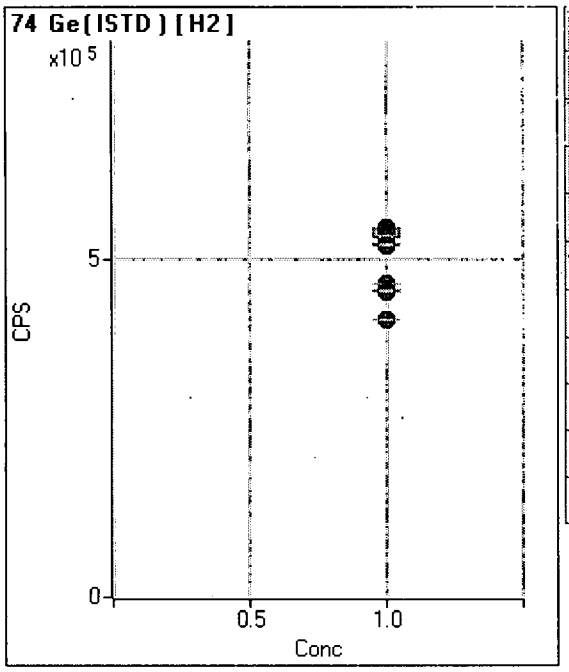
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1,737,113		A	0.4
2	☐	1.000		1,697,808		A	0.4
3	☐	1.000		1,680,658		A	0.8
4	☐	1.000		1,678,746		A	0.5
5	☐	1.000		1,677,106		A	0.9
6	☐	1.000		1,667,338		A	1.2
7	☐	1.000		1,664,201		A	1.5
8	☐	1.000		1,475,120		A	1.3
9	☐	1.000		1,431,251		A	1.0
10	☐	1.000		1,380,292		A	1.4



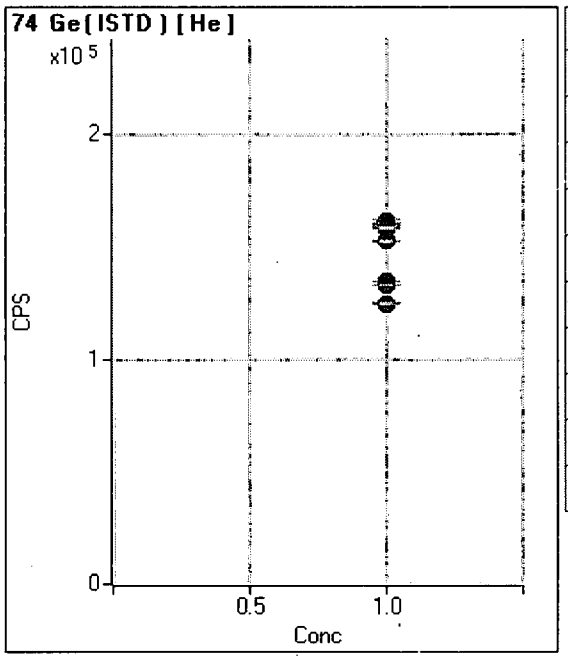
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		266,696		P	0.5
2	☐	1.000		266,372		P	0.6
3	☐	1.000		266,807		P	0.5
4	☐	1.000		267,557		P	1.1
5	☐	1.000		266,172		P	1.6
6	☐	1.000		263,704		P	0.1
7	☐	1.000		253,765		P	0.9
8	☐	1.000		223,934		P	0.2
9	☐	1.000		221,226		P	0.7
10	☐	1.000		214,892		P	1.1



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2,759,645		A	1.0
2	☐	1.000		2,684,212		A	0.6
3	☐	1.000		2,703,024		A	0.8
4	☐	1.000		2,687,257		A	2.0
5	☐	1.000		2,669,174		A	1.7
6	☐	1.000		2,639,769		A	0.7
7	☐	1.000		2,525,130		A	0.4
8	☐	1.000		2,196,721		A	0.7
9	☐	1.000		2,183,978		A	0.4
10	☐	1.000		2,182,663		A	0.9

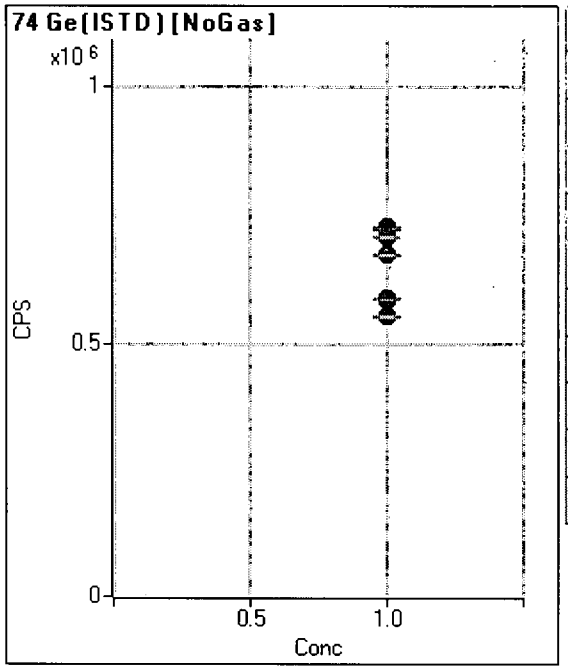


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		544,240		P	0.2
2	☐	1.000		537,654		P	0.4
3	☐	1.000		538,924		P	0.2
4	☐	1.000		535,369		P	0.6
5	☐	1.000		535,073		P	0.5
6	☐	1.000		531,447		P	0.5
7	☐	1.000		520,537		P	0.8
8	☐	1.000		463,784		P	0.3
9	☐	1.000		453,819		P	0.5
10	☐	1.000		412,427		P	0.5

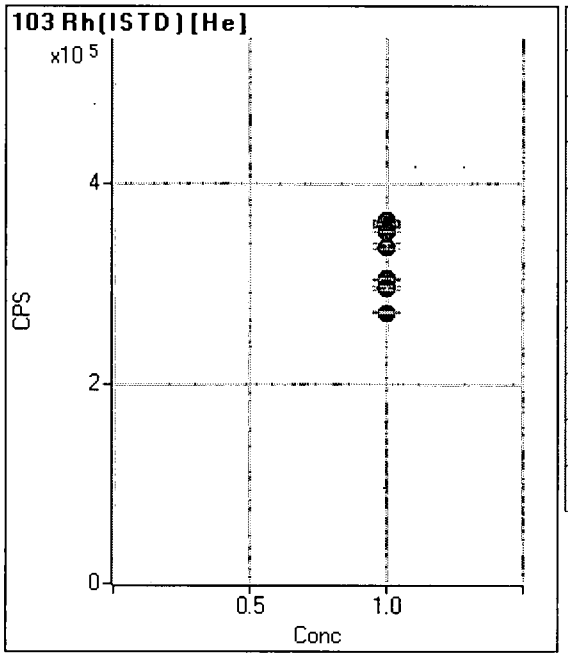


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		160,422		P	0.2
2	☐	1.000		160,647		P	0.5
3	☐	1.000		161,571		P	1.2
4	☐	1.000		160,443		P	1.1
5	☐	1.000		160,390		P	0.9
6	☐	1.000		158,823		P	0.3
7	☐	1.000		153,156		P	0.6
8	☐	1.000		135,446		P	0.3
9	☐	1.000		133,514		P	0.1
10	☐	1.000		125,441		P	1.0

Calibration for 096_CCV.d

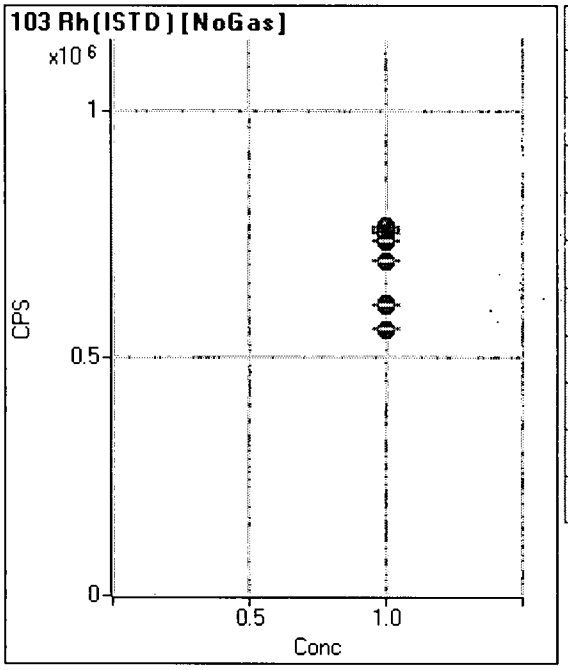


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		723,968		P	0.5
2	☐	1.000		724,818		P	0.7
3	☐	1.000		722,036		P	0.7
4	☐	1.000		720,294		P	1.1
5	☐	1.000		720,130		P	0.7
6	☐	1.000		704,975		P	1.0
7	☐	1.000		671,602		P	0.8
8	☐	1.000		586,794		P	0.6
9	☐	1.000		584,690		P	0.3
10	☐	1.000		551,995		P	0.9

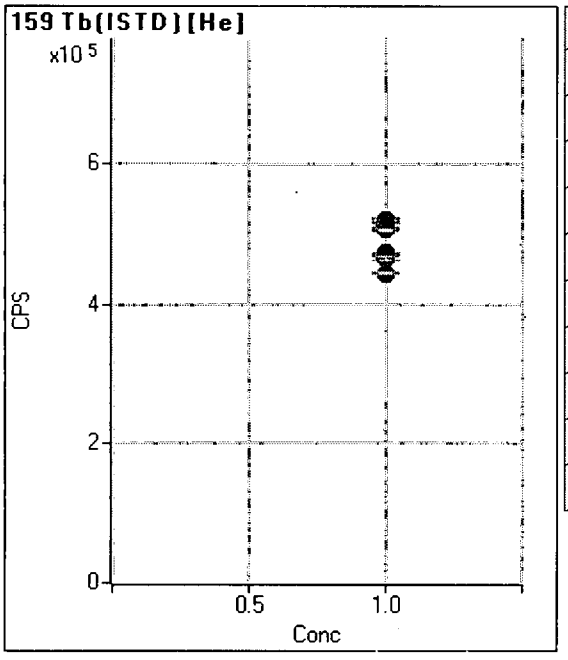


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		360,477		P	1.0
2	☐	1.000		362,004		P	0.4
3	☐	1.000		360,132		P	1.2
4	☐	1.000		357,195		P	0.7
5	☐	1.000		357,104		P	1.1
6	☐	1.000		351,286		P	0.2
7	☐	1.000		336,702		P	1.3
8	☐	1.000		304,222		P	0.9
9	☐	1.000		295,063		P	1.0
10	☐	1.000		271,000		P	0.5

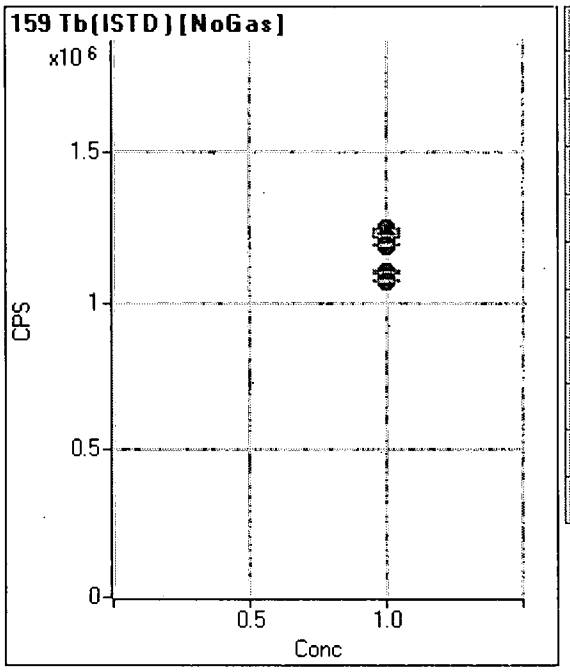
Calibration for 096_CCV.d



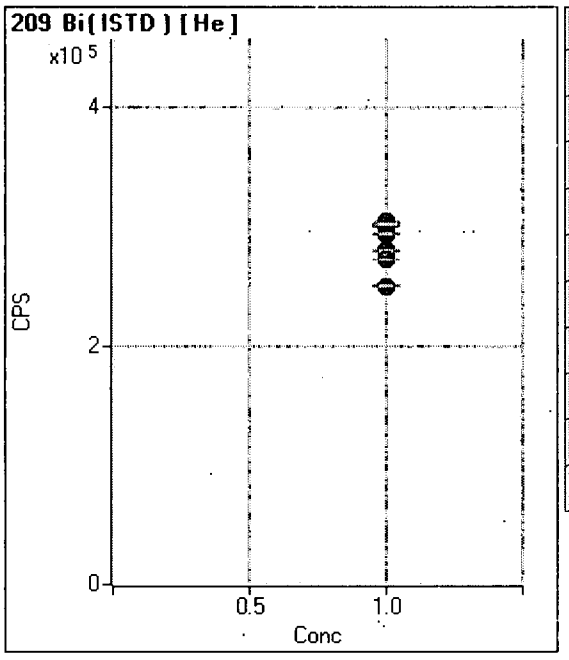
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		765,123		P	0.5
2	☐	1.000		764,295		P	0.6
3	☐	1.000		757,947		P	0.5
4	☐	1.000		753,827		P	0.8
5	☐	1.000		749,989		P	0.5
6	☐	1.000		735,593		P	0.3
7	☐	1.000		694,563		P	0.4
8	☐	1.000		607,687		P	0.6
9	☐	1.000		605,654		P	0.4
10	☐	1.000		556,709		P	0.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		517,968		P	0.5
2	☐	1.000		516,996		P	1.0
3	☐	1.000		519,507		P	1.0
4	☐	1.000		518,106		P	1.0
5	☐	1.000		517,853		P	1.3
6	☐	1.000		512,717		P	0.9
7	☐	1.000		506,365		P	0.6
8	☐	1.000		472,605		P	0.9
9	☐	1.000		464,620		P	1.0
10	☐	1.000		444,287		P	0.3

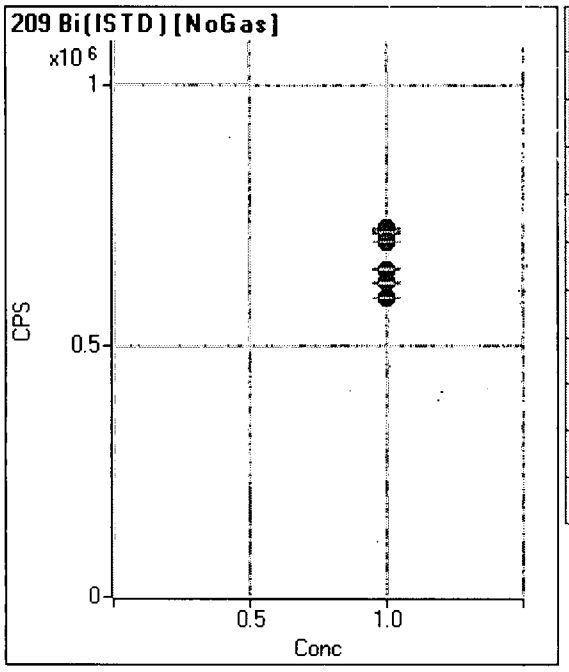


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1,243,337		P	1.0
2	☐	1.000		1,245,068		P	1.0
3	☐	1.000		1,248,758		P	0.3
4	☐	1.000		1,240,393		P	1.0
5	☐	1.000		1,239,752		P	0.7
6	☐	1.000		1,220,434		P	0.6
7	☐	1.000		1,194,285		P	0.3
8	☐	1.000		1,105,710		P	1.1
9	☐	1.000		1,103,081		P	0.2
10	☐	1.000		1,073,781		P	0.6



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		301,935		P	0.7
2	☐	1.000		304,458		P	0.8
3	☐	1.000		303,769		P	0.8
4	☐	1.000		302,627		P	1.2
5	☐	1.000		302,614		P	0.9
6	☐	1.000		302,612		P	0.8
7	☐	1.000		294,383		P	0.4
8	☐	1.000		280,031		P	0.5
9	☐	1.000		272,735		P	0.5
10	☐	1.000		250,448		P	0.6

Calibration for 096_CCV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		720,638		P	0.2
2	☐	1.000		723,208		P	0.7
3	☐	1.000		723,659		P	0.6
4	☐	1.000		720,859		P	1.0
5	☐	1.000		720,768		P	0.4
6	☐	1.000		715,536		P	0.5
7	☐	1.000		698,051		P	0.5
8	☐	1.000		645,305		P	0.6
9	☐	1.000		620,133		P	0.7
10	☐	1.000		590,171		P	0.4

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9L04031-ICV1**	Total Dilution:	**1.0000**
File Name:	015_ICV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	ICV
Acq Time:	12/4/2019 11:39:02	I.S. Reference File:	003CALB.d
Comment:	**A19J138 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.130	ppb	0.7	81,318	40	100.32	
Na	23	45	He	4054.228	ppb	1.6	3,020,570	4000	101.36	
Mg	24	45	He	4294.940	ppb	0.5	1,811,459	4000	107.37	
Al	27	45	He	3943.963	ppb	0.1	916,558	4000	98.6	
K	39	45	He	4208.788	ppb	0.7	1,615,995	4000	105.22	
Ca	44	45	H2	4095.160	ppb	0.3	626,290	4000	102.38	
[Ca]	44	45	He	4124.457	ppb	0.9	78,318	4000	103.11	
Ti	47	45	NoGas	100.208	ppb	1.2	83,985	100	100.21	
V	51	74	He	99.212	ppb	0.6	248,781	100	99.21	
Cr	52	74	He	97.032	ppb	1.4	291,032	100	97.03	
Mn	55	74	He	101.855	ppb	0.7	218,061	100	101.86	
Fe	56	74	H2	4152.841	ppb	0.1	32,396,951	4000	103.82	
Co	59	74	He	102.383	ppb	0.8	410,470	100	102.38	
Ni	60	74	He	107.349	ppb	0.4	102,809	100	107.35	
Cu	65	74	He	105.861	ppb	0.8	125,024	100	105.86	
Zn	66	74	He	102.500	ppb	0.9	48,286	100	102.5	
As	75	74	He	99.038	ppb	1.1	29,423	100	99.04	
Se	78	74	H2	40.330	ppb	2.0	8,361	40	100.82	
Mo	95	103	He	40.014	ppb	1.8	49,638	40	100.04	
Ag	107	103	He	40.942	ppb	0.8	145,483	40	102.35	
Cd	111	103	He	98.730	ppb	0.3	60,219	100	98.73	
[Cd]	111	103	NoGas	96.485	ppb	0.9	157,253	100	96.48	
Sb	121	103	He	39.707	ppb	0.4	65,183	40	99.27	
Ba	138	159	He	103.581	ppb	0.7	391,751	100	103.58	
Hg	201	159	NoGas	832.320	ppt	1.7	678	800	104.04	
Tl	205	159	He	40.334	ppb	0.4	260,287	40	100.84	
Pb	208	159	NoGas	103.429	ppb	0.3	1,909,512	100	103.43	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.3	737,547	924116.613333333	79.8	
Sc	45	H2	Analog	0.6	1,420,183	1737112.96	81.8	
Sc	45	He	Pulse	0.4	222,584	266695.646666667	83.5	
Sc	45	NoGas	Analog	0.9	2,214,267	2759645.24	80.2	
Ge	74	H2	Pulse	0.7	454,265	544239.553333333	83.5	
Ge	74	He	Pulse	0.5	134,992	160421.983333333	84.1	
Ge	74	NoGas	Pulse	0.8	585,502	723967.716666667	80.9	
Rh	103	He	Pulse	0.8	302,682	360477.35	84.0	
Rh	103	NoGas	Pulse	0.7	606,872	765122.756666667	79.3	
Tb	159	He	Pulse	0.3	472,244	517968.26	91.2	
Tb	159	NoGas	Pulse	0.6	1,105,919	1243337.24	88.9	
Bi	209	He	Pulse	0.6	279,188	301934.656666667	92.5	
Bi	209	NoGas	Pulse	0.6	651,942	720637.873333333	90.5	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9L04031-ICB1**	Total Dilution:	**1.0000**
File Name:	016_ICB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	ICB
Acq Time:	12/4/2019 11:43:41	I.S. Reference File:	003CALB.d
Comment:	**CCB**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.029	ppb	20.7	89	
Na	23	45	He	1.402	ppb	12.8	3,024	
Mg	24	45	He	0.319	ppb	40.3	546	
Al	27	45	He	0.262	ppb	28.4	149	
K	39	45	He	0.945	ppb	23.0	20,887	
Ca	44	45	H2	0.840	ppb	47.9	451	
[Ca]	44	45	He	0.800	ppb	272.1	154	
Ti	47	45	NoGas	0.013	ppb	224.7	38	
V	51	74	He	-0.050	ppb	N/A	828	
Cr	52	74	He	0.006	ppb	132.4	201	
Mn	55	74	He	-0.002	ppb	N/A	94	
Fe	56	74	H2	0.827	ppb	6.9	12,995	
Co	59	74	He	0.005	ppb	66.2	60	
Ni	60	74	He	0.009	ppb	58.3	46	
Cu	65	74	He	0.020	ppb	14.5	52	
Zn	66	74	He	0.026	ppb	92.8	42	
As	75	74	He	0.045	ppb	100.2	27	
Se	78	74	H2	0.048	ppb	36.0	11	
Mo	95	103	He	0.041	ppb	20.7	56	
Ag	107	103	He	0.009	ppb	41.4	32	
Cd	111	103	He	0.040	ppb	35.3	26	
[Cd]	111	103	NoGas	0.027	ppb	46.0	56	
Sb	121	103	He	0.267	ppb	23.9	468	
Ba	138	159	He	0.017	ppb	35.3	114	
Hg	201	159	NoGas	7.690	ppt	9.9	12	
Tl	205	159	He	0.008	ppb	31.8	66	
Pb	208	159	NoGas	0.071	ppb	12.4	1,811	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Pulse	0.3	746,528	924116.613333333	80.8	
Sc	45	H2	Analog	0.9	1,431,213	1737112.96	82.4	
Sc	45	He	Pulse	1.1	225,476	266695.646666667	84.5	
Sc	45	NoGas	Analog	1.0	2,250,938	2759645.24	81.6	
Ge	74	H2	Pulse	0.6	459,625	544239.553333333	84.5	
Ge	74	He	Pulse	0.8	138,359	160421.983333333	86.2	
Ge	74	NoGas	Pulse	0.5	603,315	723967.716666667	83.3	
Rh	103	He	Pulse	1.0	312,815	360477.35	86.8	
Rh	103	NoGas	Pulse	0.4	635,874	765122.756666667	83.1	
Tb	159	He	Pulse	1.4	474,276	517968.26	91.6	
Tb	159	NoGas	Pulse	0.6	1,119,642	1243337.24	90.1	
Bi	209	He	Pulse	1.2	281,102	301934.656666667	93.1	
Bi	209	NoGas	Pulse	0.8	661,468	720637.873333333	91.8	

CRL Verification Report - ICPMS5

Sample Name:	**9L04031-CRL1**	Total Dilution:	**1.0000**
File Name:	017CRL.d	Vial:	1102
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CRL1
Acq Time:	12/4/2019 11:48:24	I.S. Reference File:	003CALB.d
Comment:	**A19K144 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.212	ppb	12.4	477	117.78		
Na	23	45	He	10.246	ppb	1.7	9,974	113.84		
Mg	24	45	He	9.411	ppb	4.4	4,557	104.57		
Al	27	45	He	8.762	ppb	4.0	2,211	97.36		
K	39	45	He	9.620	ppb	12.6	24,915	106.89		
Ca	44	45	H2	9.082	ppb	7.0	1,778	100.91		
[Ca]	44	45	He	8.899	ppb	6.9	319	98.88		
Ti	47	45	NoGas	0.209	ppb	19.7	212	116.11		
V	51	74	He	0.173	ppb	9.1	1,422	96.11		
Cr	52	74	He	0.166	ppb	2.7	702	92.22		
Mn	55	74	He	0.180	ppb	3.7	501	100		
Fe	56	74	H2	9.197	ppb	0.4	80,954	102.19		
Co	59	74	He	0.182	ppb	11.2	800	101.11		
Ni	60	74	He	0.230	ppb	8.6	267	127.78		
Cu	65	74	He	0.205	ppb	10.8	281	113.89		
Zn	66	74	He	0.253	ppb	5.9	154	140.56	R-11	< MRL
As	75	74	He	0.169	ppb	17.8	66	93.89		
Se	78	74	H2	0.170	ppb	12.5	37	94.44		
Mo	95	103	He	0.206	ppb	6.7	273	114.44		
Ag	107	103	He	0.180	ppb	1.2	679	100		
Cd	111	103	He	0.191	ppb	8.5	124	106.11		
[Cd]	111	103	NoGas	0.169	ppb	4.4	306	93.89		
Sb	121	103	He	0.260	ppb	15.3	468	144.44	R-11	< MRL
Ba	138	159	He	0.216	ppb	5.3	878	120		
Hg	201	159	NoGas	9.573	ppt	17.6	13	132.96	R-11	< MRL
Tl	205	159	He	0.176	ppb	2.7	1,168	97.78		
Pb	208	159	NoGas	0.232	ppb	4.9	4,846	128.89		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.1	766,875	924116.613333333	83.0	
Sc	45	H2	Analog	0.7	1,479,497	1737112.96	85.2	
Sc	45	He	Pulse	1.0	231,974	266695.646666667	87.0	
Sc	45	NoGas	Analog	2.0	2,329,698	2759645.24	84.4	
Ge	74	H2	Pulse	0.1	470,713	544239.553333333	86.5	
Ge	74	He	Pulse	0.7	140,658	160421.983333333	87.7	
Ge	74	NoGas	Pulse	1.3	618,261	723967.716666667	85.4	
Rh	103	He	Pulse	1.0	319,975	360477.35	88.8	
Rh	103	NoGas	Pulse	0.8	648,706	765122.756666667	84.8	
Tb	159	He	Pulse	0.6	479,322	517968.26	92.5	
Tb	159	NoGas	Pulse	1.2	1,129,321	1243337.24	90.8	
Bi	209	He	Pulse	0.4	283,904	301934.656666667	94.0	
Bi	209	NoGas	Pulse	0.7	664,379	720637.873333333	92.2	

CRL Verification Report - ICPMS5

Sample Name:	**9L04031-CRL2**	Total Dilution:	**1.0000**
File Name:	018_CRL.d	Vial:	1103
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CRL2
Acq Time:	12/4/2019 11:53:05	I.S. Reference File:	003CALB.d
Comment:	**A19K145 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.891	ppb	9.0	1,925	99	
Na	23	45	He	46.446	ppb	2.0	38,555	103.21	
Mg	24	45	He	45.665	ppb	1.2	20,753	101.48	
Al	27	45	He	45.288	ppb	2.5	11,199	100.64	
K	39	45	He	47.525	ppb	2.2	40,410	105.61	
Ca	44	45	H2	44.985	ppb	3.8	7,637	99.97	
[Ca]	44	45	He	42.687	ppb	8.2	999	94.86	
Ti	47	45	NoGas	0.881	ppb	14.2	808	97.89	
V	51	74	He	0.927	ppb	3.2	3,436	103	
Cr	52	74	He	0.878	ppb	1.9	2,970	97.56	
Mn	55	74	He	0.923	ppb	2.9	2,189	102.56	
Fe	56	74	H2	45.567	ppb	0.1	378,998	101.26	
Co	59	74	He	0.904	ppb	4.2	3,871	100.44	
Ni	60	74	He	0.889	ppb	16.1	938	98.78	
Cu	65	74	He	0.958	ppb	3.3	1,225	106.44	
Zn	66	74	He	0.868	ppb	12.5	462	96.44	
As	75	74	He	0.940	ppb	5.4	309	104.44	
Se	78	74	H2	0.843	ppb	15.3	184	93.67	
Mo	95	103	He	0.885	ppb	14.6	1,169	98.33	
Ag	107	103	He	0.888	ppb	4.2	3,349	98.67	
Cd	111	103	He	0.906	ppb	1.5	587	100.67	
[Cd]	111	103	NoGas	0.891	ppb	12.9	1,583	99	
Sb	121	103	He	0.903	ppb	4.7	1,589	100.33	
Ba	138	159	He	0.961	ppb	8.7	3,748	106.78	
Hg	201	159	NoGas	37.629	ppt	35.2	37	104.52	
Tl	205	159	He	0.899	ppb	1.9	5,913	99.89	
Pb	208	159	NoGas	0.952	ppb	1.7	18,528	105.78	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.2	774,115	924116.613333333	83.8	
Sc	45	H2	Analog	1.1	1,507,491	1737112.96	86.8	
Sc	45	He	Pulse	0.6	234,968	266695.646666667	88.1	
Sc	45	NoGas	Analog	1.1	2,341,156	2759645.24	84.8	
Ge	74	H2	Pulse	0.4	475,860	544239.553333333	87.4	
Ge	74	He	Pulse	0.8	142,716	160421.983333333	89.0	
Ge	74	NoGas	Pulse	0.9	626,364	723967.716666667	86.5	
Rh	103	He	Pulse	0.9	321,219	360477.35	89.1	
Rh	103	NoGas	Pulse	0.7	657,141	765122.756666667	85.9	
Tb	159	He	Pulse	0.2	480,483	517968.26	92.8	
Tb	159	NoGas	Pulse	0.6	1,136,067	1243337.24	91.4	
Bi	209	He	Pulse	1.2	286,136	301934.656666667	94.8	
Bi	209	NoGas	Pulse	0.5	673,694	720637.873333333	93.5	

CRL Verification Report - ICPMS5

Sample Name:	**9L04031-CRL3**	Total Dilution:	**1.0000**
File Name:	019CRL_.d	Vial:	1104
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CRL3
Acq Time:	12/4/2019 11:57:46	I.S. Reference File:	003CALB.d
Comment:	**A19K146 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.836	ppb	2.7	3,965	102	
Na	23	45	He	91.326	ppb	1.1	74,561	101.47	
Mg	24	45	He	91.577	ppb	0.7	41,599	101.75	
Al	27	45	He	90.143	ppb	1.5	22,422	100.16	
K	39	45	He	93.014	ppb	1.5	59,198	103.35	
Ca	44	45	H2	90.874	ppb	2.9	15,216	100.97	
[Ca]	44	45	He	92.836	ppb	7.8	2,022	103.15	
Ti	47	45	NoGas	1.859	ppb	9.1	1,681	103.28	
V	51	74	He	1.848	ppb	2.5	5,922	102.67	
Cr	52	74	He	1.709	ppb	2.7	5,659	94.94	
Mn	55	74	He	1.823	ppb	4.7	4,266	101.28	
Fe	56	74	H2	89.692	ppb	0.5	747,230	99.66	
Co	59	74	He	1.816	ppb	1.7	7,810	100.89	
Ni	60	74	He	1.800	ppb	0.5	1,877	100	
Cu	65	74	He	1.933	ppb	6.0	2,466	107.39	
Zn	66	74	He	1.920	ppb	6.2	996	106.67	
As	75	74	He	1.713	ppb	4.2	557	95.17	
Se	78	74	H2	1.655	ppb	3.4	364	91.94	
Mo	95	103	He	1.819	ppb	2.7	2,414	101.06	
Ag	107	103	He	1.769	ppb	3.1	6,716	98.28	
Cd	111	103	He	1.815	ppb	2.6	1,183	100.83	
[Cd]	111	103	NoGas	1.628	ppb	3.2	2,877	90.44	
Sb	121	103	He	1.747	ppb	2.9	3,079	97.06	
Ba	138	159	He	1.920	ppb	1.2	7,516	106.67	
Hg	201	159	NoGas	71.258	ppt	8.3	65	98.97	
Tl	205	159	He	1.794	ppb	0.2	11,916	99.67	
Pb	208	159	NoGas	1.898	ppb	0.8	36,495	105.44	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.3	780,343	924116.613333333	84.4	
Sc	45	H2	Analog	0.4	1,520,837	1737112.96	87.5	
Sc	45	He	Pulse	0.4	237,292	266695.646666667	89.0	
Sc	45	NoGas	Analog	1.2	2,350,525	2759645.24	85.2	
Ge	74	H2	Pulse	0.6	480,834	544239.553333333	88.3	
Ge	74	He	Pulse	0.6	144,076	160421.983333333	89.8	
Ge	74	NoGas	Pulse	0.9	627,370	723967.716666667	86.7	
Rh	103	He	Pulse	1.0	323,362	360477.35	89.7	
Rh	103	NoGas	Pulse	0.8	655,691	765122.756666667	85.7	
Tb	159	He	Pulse	0.8	485,502	517968.26	93.7	
Tb	159	NoGas	Pulse	1.1	1,136,940	1243337.24	91.4	
Bi	209	He	Pulse	1.0	285,611	301934.656666667	94.6	
Bi	209	NoGas	Pulse	0.5	672,311	720637.873333333	93.3	

Quantitation Report ICPMS5

File Name	020ICSA.d		
File Path	C:\Agilent\ICPMH\1\DATA\9L04031.b		
Acq Time	12/4/2019 12:02:30	Sample Type	ICSA
Sample Name	**9L04031-IFA1**	Last Calib	12/04/2019 11:41:46
Comment	**A19L002**		
Prep Dilution	1.0000	Vial:	1111
Total Dilution	**1.0000**	Operator Name	ICPMS Analyst

FullQuant Table

Element	Mass	ISTD	Tune Mode	Raw Conc	Corrected Conc.	Units	RSD(%)	ExpectedValue	QC Flag
Be	9	6	NoGas	0.022	0.022	ppb	42.1		
Na	23	45	He	261710.73	261710.730	ppb	0.4		
Mg	24	45	He	104686.3	104686.300	ppb	0.9	100000	
Al	27	45	He	103928.665	103928.665	ppb	0.6	100000	
K	39	45	He	102338.731	102338.731	ppb	0.5	100000	
Ca	44	45	H2	299521.835	299521.835	ppb	0.9		
[Ca]	44	45	He	312505.305	312505.305	ppb	1.2		
Ti	47	45	NoGas	2159.595	2159.595	ppb	0.9		
V	51	74	He	0.189	0.189	ppb	1.3	2	
Cr	52	74	He	1.317	1.317	ppb	2.6	2	
Mn	55	74	He	3.148	3.148	ppb	1.4	2	> CRI
Fe	56	74	H2	257033.137	257033.137	ppb	0.2		
Co	59	74	He	0.708	0.708	ppb	2.0		
Ni	60	74	He	0.518	0.518	ppb	5.4	2	
Cu	65	74	He	0.684	0.684	ppb	11.3	2	
Zn	66	74	He	1.16	1.160	ppb	17.1	2	
As	75	74	He	0.228	0.228	ppb	14.1	0.9	
Se	78	74	H2	0.077	0.077	ppb	39.2	0.9	
Mo	95	103	He	2341.005	2341.005	ppb	1.4	2000	
Ag	107	103	He	0.039	0.039	ppb	40.7		
Cd	111	103	He	6.161	6.161	ppb	1.2		
[Cd]	111	103	NoGas	0.399	0.399	ppb	34.5		
Sb	121	103	He	0.218	0.218	ppb	10.2	0.9	
Ba	138	159	He	0.568	0.568	ppb	1.7	2	> CRI
W	182	159	NoGas	57.417	57.417	ppb	0.4		
Hg	201	159	NoGas	47.36	47.360	ppt	19.0		
Tl	205	159	He	0	0.000	ppb	N/A	0.9	
Pb	208	159	NoGas	0.194	0.194	ppb	1.8		

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	802,653	0.2	924116.613333333	Pulse	86.9	
Sc	45	H2	1,281,678	1.8	1737112.96	Analog	73.8	
Sc	45	He	209,617	1.1	266695.646666667	Pulse	78.6	
Sc	45	NoGas	2,236,826	1.4	2759645.24	Analog	81.1	
Ge	74	H2	360,673	0.9	544239.553333333	Pulse	66.3	IS Q-06
Ge	74	He	117,932	1.1	160421.983333333	Pulse	73.5	
Ge	74	NoGas	544,231	1.0	723967.716666667	Pulse	75.2	
Rh	103	He	238,512	1.4	360477.35	Pulse	66.2	IS Q-06
Rh	103	NoGas	521,136	0.1	765122.756666667	Pulse	68.1	IS Q-06
Tb	159	He	404,248	1.1	517968.26	Pulse	78.0	
Tb	159	NoGas	1,027,523	0.4	1243337.24	Pulse	82.6	
Bi	209	He	212,155	1.2	301934.656666667	Pulse	70.3	
Bi	209	NoGas	537,449	0.5	720637.873333333	Pulse	74.6	

Quantitation Report ICPMS5

File Name	021ICSB.d		
File Path	C:\Agilent\ICPMH\1\DATA\9L04031.b		
Acq Time	12/4/2019 12:07:01	Sample Type	ICSB
Sample Name	**9L04031-IFB1**	Last Calib	12/04/2019 11:41:46
Comment	**A19L003**	Vial:	1112
Prep Dilution	1.0000	Operator Name	ICPMS Analyst
Total Dilution	**1.0000**		

FullQuant Table

Element	Mass	ISTD	Tune Mode	Raw Conc	Corrected Conc.	Units	RSD(%)	ExpectedValue	QC Flag
Be	9	6	NoGas	0.018	0.018	ppb	56.2		
Na	23	45	He	264383.825	264383.825	ppb	0.3		
Mg	24	45	He	104835.918	104835.918	ppb	0.4	100000	
Al	27	45	He	102964.712	102964.712	ppb	0.1	100000	
K	39	45	He	101143.883	101143.883	ppb	0.4	100000	
Ca	44	45	H2	290211.619	290211.619	ppb	1.1		
[Ca]	44	45	He	307042.852	307042.852	ppb	0.3		
Ti	47	45	NoGas	2137.073	2137.073	ppb	1.6		
V	51	74	He	215.872	215.872	ppb	0.1	200	
Cr	52	74	He	201.087	201.087	ppb	0.7	200	
Mn	55	74	He	210.746	210.746	ppb	0.2	200	
Fe	56	74	H2	257692.013	257692.013	ppb	0.6		
Co	59	74	He	198.629	198.629	ppb	0.3		
Ni	60	74	He	197.601	197.601	ppb	0.2	200	
Cu	65	74	He	196.05	196.050	ppb	0.1	200	
Zn	66	74	He	94.706	94.706	ppb	2.3	100	
As	75	74	He	100.702	100.702	ppb	0.3	100	
Se	78	74	H2	100.008	100.008	ppb	1.7	100	
Mo	95	103	He	2303.519	2303.519	ppb	0.9	2000	
Ag	107	103	He	50.439	50.439	ppb	0.3	50	
Cd	111	103	He	103.324	103.324	ppb	0.5		
[Cd]	111	103	NoGas	97.84	97.840	ppb	0.9		
Sb	121	103	He	0.16	0.160	ppb	16.2	0.9	
Ba	138	159	He	0.69	0.690	ppb	2.8	2	
W	182	159	NoGas	56.868	56.868	ppb	0.3		
Hg	201	159	NoGas	1987.602	1987.602	ppt	3.7		
Tl	205	159	He	0.001	0.001	ppb	162.4	0.9	
Pb	208	159	NoGas	0.173	0.173	ppb	2.4		

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	803,185	0.3	924116.613333333	Pulse	86.9	
Sc	45	H2	1,366,378	1.2	1737112.96	Analog	78.7	
Sc	45	He	209,379	0.8	266695.646666667	Pulse	78.5	
Sc	45	NoGas	2,270,831	1.4	2759645.24	Analog	82.3	
Ge	74	H2	375,513	0.9	544239.553333333	Pulse	69.0	IS Q-06
Ge	74	He	116,778	0.7	160421.983333333	Pulse	72.8	
Ge	74	NoGas	544,262	0.6	723967.716666667	Pulse	75.2	
Rh	103	He	240,852	0.9	360477.35	Pulse	66.8	IS Q-06
Rh	103	NoGas	524,972	0.6	765122.756666667	Pulse	68.6	IS Q-06
Tb	159	He	398,307	0.7	517968.26	Pulse	76.9	
Tb	159	NoGas	1,023,345	0.7	1243337.24	Pulse	82.3	
Bi	209	He	208,765	1.2	301934.656666667	Pulse	69.1	IS Q-06
Bi	209	NoGas	531,473	0.1	720637.873333333	Pulse	73.8	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9L04031-CCV1**	Total Dilution:	**1.0000**
File Name:	033_CCV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CCV
Acq Time:	12/4/2019 13:09:17	I.S. Reference File:	003CALB.d
Comment:	**A19J138 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.343	ppb	1.0	81,201	40	100.86	
Na	23	45	He	4040.952	ppb	0.2	2,968,608	4000	101.02	
Mg	24	45	He	4319.888	ppb	1.3	1,796,503	4000	108	
Al	27	45	He	3963.857	ppb	0.7	908,282	4000	99.1	
K	39	45	He	4246.885	ppb	1.3	1,607,636	4000	106.17	
Ca	44	45	H2	4079.915	ppb	0.8	603,207	4000	102	
[Ca]	44	45	He	4167.585	ppb	1.0	78,029	4000	104.19	
Ti	47	45	NoGas	99.102	ppb	1.6	82,705	100	99.1	
V	51	74	He	99.012	ppb	0.7	243,960	100	99.01	
Cr	52	74	He	96.616	ppb	0.8	284,756	100	96.62	
Mn	55	74	He	102.343	ppb	0.2	215,300	100	102.34	
Fe	56	74	H2	4170.736	ppb	0.3	31,387,058	4000	104.27	
Co	59	74	He	101.424	ppb	0.7	399,556	100	101.42	
Ni	60	74	He	106.055	ppb	0.2	99,803	100	106.06	
Cu	65	74	He	104.778	ppb	0.6	121,593	100	104.78	
Zn	66	74	He	102.579	ppb	1.1	47,479	100	102.58	
As	75	74	He	100.158	ppb	1.6	29,237	100	100.16	
Se	78	74	H2	40.366	ppb	1.5	8,074	40	100.92	
Mo	95	103	He	40.595	ppb	1.8	49,254	40	101.49	
Ag	107	103	He	41.109	ppb	0.9	142,870	40	102.77	
Cd	111	103	He	99.046	ppb	1.0	59,086	100	99.05	
[Cd]	111	103	NoGas	96.435	ppb	0.3	155,994	100	96.44	
Sb	121	103	He	40.050	ppb	0.7	64,303	40	100.12	
Ba	138	159	He	104.593	ppb	0.7	388,791	100	104.59	
Hg	201	159	NoGas	783.720	ppt	2.3	631	800	97.96	
Tl	205	159	He	40.597	ppb	1.0	257,489	40	101.49	
Pb	208	159	NoGas	103.074	ppb	0.6	1,880,308	100	103.07	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.4	732,562	924116.613333333	79.3	
Sc	45	H2	Analog	0.8	1,372,984	1737112.96	79.0	
Sc	45	He	Pulse	0.1	219,469	266695.646666667	82.3	
Sc	45	NoGas	Analog	0.7	2,204,909	2759645.24	79.9	
Ge	74	H2	Pulse	0.3	438,219	544239.553333333	80.5	
Ge	74	He	Pulse	0.8	132,645	160421.983333333	82.7	
Ge	74	NoGas	Pulse	0.7	584,341	723967.716666667	80.7	
Rh	103	He	Pulse	0.8	296,042	360477.35	82.1	
Rh	103	NoGas	Pulse	0.8	602,333	765122.756666667	78.7	
Tb	159	He	Pulse	1.2	464,174	517968.26	89.6	
Tb	159	NoGas	Pulse	0.9	1,092,786	1243337.24	87.9	
Bi	209	He	Pulse	0.2	276,176	301934.656666667	91.5	
Bi	209	NoGas	Pulse	0.9	644,398	720637.873333333	89.4	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9L04031-CCB1**	Total Dilution:	**1.0000**
File Name:	034_CCB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CCB
Acq Time:	12/4/2019 13:13:58	I.S. Reference File:	003CALB.d
Comment:	**CCB**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.020	ppb	30.0	71	
Na	23	45	He	5.246	ppb	8.1	5,838	
Mg	24	45	He	0.632	ppb	31.0	670	
Al	27	45	He	0.381	ppb	29.5	174	
K	39	45	He	1.183	ppb	68.8	20,676	
Ca	44	45	H2	1.704	ppb	15.5	584	
[Ca]	44	45	He	-0.847	ppb	N/A	121	
Ti	47	45	NoGas	0.029	ppb	84.2	52	
V	51	74	He	0.069	ppb	24.4	1,120	
Cr	52	74	He	0.005	ppb	258.1	194	
Mn	55	74	He	-0.021	ppb	N/A	51	
Fe	56	74	H2	1.688	ppb	8.9	19,460	
Co	59	74	He	0.007	ppb	35.1	66	
Ni	60	74	He	-0.003	ppb	N/A	33	
Cu	65	74	He	-0.002	ppb	N/A	24	
Zn	66	74	He	0.004	ppb	942.5	31	
As	75	74	He	0.031	ppb	21.3	22	
Se	78	74	H2	0.036	ppb	86.3	8	
Mo	95	103	He	0.033	ppb	19.8	44	
Ag	107	103	He	0.010	ppb	43.6	36	
Cd	111	103	He	0.021	ppb	19.8	14	
[Cd]	111	103	NoGas	0.007	ppb	79.1	22	
Sb	121	103	He	0.243	ppb	5.7	424	
Ba	138	159	He	0.007	ppb	111.5	74	
Hg	201	159	NoGas	0.856	ppt	405.4	6	
Tl	205	159	He	0.005	ppb	53.1	42	
Pb	208	159	NoGas	0.028	ppb	5.1	991	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Pulse	0.5	751,322	924116.613333333	81.3	
Sc	45	H2	Analog	0.9	1,432,770	1737112.96	82.5	
Sc	45	He	Pulse	0.6	222,229	266695.646666667	83.3	
Sc	45	NoGas	Analog	0.8	2,262,001	2759645.24	82.0	
Ge	74	H2	Pulse	0.5	452,033	544239.553333333	83.1	
Ge	74	He	Pulse	0.5	136,593	160421.983333333	85.1	
Ge	74	NoGas	Pulse	0.5	596,829	723967.716666667	82.4	
Rh	103	He	Pulse	0.3	310,073	360477.35	86.0	
Rh	103	NoGas	Pulse	0.4	625,567	765122.756666667	81.8	
Tb	159	He	Pulse	0.1	471,322	517968.26	91.0	
Tb	159	NoGas	Pulse	0.4	1,107,618	1243337.24	89.1	
Bi	209	He	Pulse	0.2	280,816	301934.656666667	93.0	
Bi	209	NoGas	Pulse	0.3	660,207	720637.873333333	91.6	

Quantitation Report - ICPMS5

Sample Name:	**9120481-BLK1**	Total Dilution:	**10.0000**
File Name:	041SMPL.d	Vial:	3201
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	Sample
Acq Time:	12/4/2019 13:46:37	I.S. Reference File:	003CALB.d
Comment:	**9120481 TCLP RCRA**	Last Calibration:	12/04/2019 11:41:46

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.021	ppb	34.8	70	100	
Na	23	45	He	30608.127	ppb	1.3	22,270,544	50000	
Mg	24	45	He	5.644	ppb	2.5	2,720	50000	
Al	27	45	He	1.978	ppb	7.8	533	50000	
K	39	45	He	5.825	ppb	30.6	21,955	50000	
Ca	44	45	H2	50.03	ppb	4.1	7,889	50000	
[Ca]	44	45	He	45.967	ppb	12.1	986	50000	
Ti	47	45	NoGas	0.047	ppb	50.0	65	2500	
V	51	74	He	-0.092	ppb	N/A	683	500	
Cr	52	74	He	0.044	ppb	31.4	299	1000	
Mn	55	74	He	0.005	ppb	241.0	103	2500	
Fe	56	74	H2	0.541	ppb	9.2	10,251	50000	
Co	59	74	He	0.002	ppb	124.9	43	500	
Ni	60	74	He	0.608	ppb	10.6	599	1000	
Cu	65	74	He	0.053	ppb	9.4	87	1000	
Zn	66	74	He	0.167	ppb	22.3	104	2500	
As	75	74	He	0.05	ppb	41.2	27	500	
Se	78	74	H2	0.019	ppb	74.9	5	100	
Mo	95	103	He	0.033	ppb	60.0	42	100	
Ag	107	103	He	0.006	ppb	38.5	21	100	
Cd	111	103	He	0.009	ppb	49.5	6	1000	
[Cd]	111	103	NoGas	-0.001	ppb	N/A	8	1000	
Sb	121	103	He	0.05	ppb	31.0	94	100	
Ba	138	159	He	1.182	ppb	4.9	4,428	2500	
W	182	159	NoGas	0.002	ppb	150.2	27	40	
Hg	201	159	NoGas	13.739	ppt	24.7	16	4000.	
Tl	205	159	He	0.015	ppb	12.0	110	100	
Pb	208	159	NoGas	0.04	ppb	8.8	1,180	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	733,734	0.4	924116.613333333	Pulse	79.4	
Sc	45	H2	1,406,156	0.6	1737112.96	Analog	80.9	
Sc	45	He	217,492	0.4	266695.646666667	Pulse	81.6	
Sc	45	NoGas	2,162,773	1.1	2759645.24	Analog	78.4	
Ge	74	H2	438,770	0.2	544239.553333333	Pulse	80.6	
Ge	74	He	130,853	0.1	160421.983333333	Pulse	81.6	
Ge	74	NoGas	568,616	1.1	723967.716666667	Pulse	78.5	
Rh	103	He	292,562	0.7	360477.35	Pulse	81.2	
Rh	103	NoGas	584,624	0.2	765122.756666667	Pulse	76.4	
Tb	159	He	462,660	0.3	517968.26	Pulse	89.3	
Tb	159	NoGas	1,077,053	1.1	1243337.24	Pulse	86.6	
Bi	209	He	273,535	0.2	301934.656666667	Pulse	90.6	
Bi	209	NoGas	632,075	0.5	720637.873333333	Pulse	87.7	

Quantitation Report - ICPMS5

Sample Name:	**9120481-BS1**	Total Dilution:	**10.0000**
File Name:	042SMPL.d	Vial:	3202
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	Sample
Acq Time:	12/4/2019 13:51:17	I.S. Reference File:	003CALB.d
Comment:	**9120481 TCLP RCRA**	Last Calibration:	12/04/2019 11:41:46

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	49.922	ppb	0.3	98,254	100	
Na	23	45	He	29895.93	ppb	0.6	21,150,167	50000	
Mg	24	45	He	2.006	ppb	10.5	1,188	50000	
Al	27	45	He	0.595	ppb	29.2	213	50000	
K	39	45	He	4.813	ppb	19.9	20,984	50000	
Ca	44	45	H2	20.176	ppb	4.7	3,285	50000	
[Ca]	44	45	He	19.227	ppb	3.2	477	50000	
Ti	47	45	NoGas	0.067	ppb	50.9	78	2500	
V	51	74	He	50.125	ppb	0.7	120,062	500	
Cr	52	74	He	98.406	ppb	0.5	280,905	1000	
Mn	55	74	He	51.294	ppb	0.7	104,559	2500	
Fe	56	74	H2	0.33	ppb	13.2	8,518	50000	
Co	59	74	He	50.421	ppb	1.1	192,401	500	
Ni	60	74	He	52.145	ppb	1.1	47,545	1000	
Cu	65	74	He	53.591	ppb	1.2	60,247	1000	
Zn	66	74	He	106.5	ppb	0.5	47,744	2500	
As	75	74	He	103.484	ppb	1.7	29,259	500	
Se	78	74	H2	20.347	ppb	1.9	4,006	100	
Mo	95	103	He	0.025	ppb	45.1	32	100	
Ag	107	103	He	21.653	ppb	1.7	72,703	100	
Cd	111	103	He	20.955	ppb	0.5	12,079	1000	
[Cd]	111	103	NoGas	20.473	ppb	1.0	31,356	1000	
Sb	121	103	He	21.961	ppb	1.8	34,070	100	
Ba	138	159	He	210.17	ppb	0.9	767,552	2500	
W	182	159	NoGas	0.003	ppb	14.3	31	40	
Hg	201	159	NoGas	2054.634	ppt	1.9	1,598	4000	
Tl	205	159	He	51.911	ppb	0.5	323,499	100	
Pb	208	159	NoGas	106.42	ppb	0.2	1,882,982	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	716,394	0.8	924116.613333333	Pulse	77.5	
Sc	45	H2	1,371,134	0.7	1737112.96	Analog	78.9	
Sc	45	He	211,469	0.1	266695.646666667	Pulse	79.3	
Sc	45	NoGas	2,098,528	1.3	2759645.24	Analog	76.0	
Ge	74	H2	431,385	0.6	544239.553333333	Pulse	79.3	
Ge	74	He	128,473	0.7	160421.983333333	Pulse	80.1	
Ge	74	NoGas	552,945	0.6	723967.716666667	Pulse	76.4	
Rh	103	He	286,038	1.0	360477.35	Pulse	79.3	
Rh	103	NoGas	570,165	0.7	765122.756666667	Pulse	74.5	
Tb	159	He	456,035	0.3	517968.26	Pulse	88.0	
Tb	159	NoGas	1,059,902	0.7	1243337.24	Pulse	85.2	
Bi	209	He	268,795	0.7	301934.656666667	Pulse	89.0	
Bi	209	NoGas	625,153	0.4	720637.873333333	Pulse	86.7	

Quantitation Report - ICPMS5

Sample Name:	**A9K0609-01**	Total Dilution:	**10.0000**
File Name:	043SMPL.d	Vial:	3203
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	Sample
Acq Time:	12/4/2019 13:55:56	I.S. Reference File:	003CALB.d
Comment:	**9120481 TCLP RCRA**	Last Calibration:	12/04/2019 11:41:46

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.031	ppb	56.0	92	100	
Na	23	45	He	29651.905	ppb	0.5	21,717,928	50000	
Mg	24	45	He	256.745	ppb	0.3	106,889	50000	
Al	27	45	He	10.721	ppb	7.3	2,535	50000	
K	39	45	He	171.729	ppb	1.0	83,973	50000	
Ca	44	45	H2	9877.773	ppb	0.5	1,473,440	50000	
[Ca]	44	45	He	9774.186	ppb	0.2	182,372	50000	
Ti	47	45	NoGas	0.533	ppb	3.5	468	2500	
V	51	74	He	0.072	ppb	27.3	1,091	500	
Cr	52	74	He	0.033	ppb	28.9	272	1000	
Mn	55	74	He	146.565	ppb	0.8	307,236	2500	
Fe	56	74	H2	9.125	ppb	1.7	74,121	50000	
Co	59	74	He	1.558	ppb	3.2	6,150	500	
Ni	60	74	He	2.118	ppb	7.0	2,021	1000	
Cu	65	74	He	0.5	ppb	12.1	604	1000	
Zn	66	74	He	10.239	ppb	2.8	4,750	2500	
As	75	74	He	0.109	ppb	34.0	44	500	
Se	78	74	H2	0.023	ppb	88.7	5	100	
Mo	95	103	He	0.034	ppb	37.2	43	100	
Ag	107	103	He	0.004	ppb	0.4	13	100	
Cd	111	103	He	0.097	ppb	20.5	58	1000	
[Cd]	111	103	NoGas	0.086	ppb	38.4	147	1000	
Sb	121	103	He	0.135	ppb	17.6	230	100	
Ba	138	159	He	25.409	ppb	0.5	93,983	2500	
W	182	159	NoGas	0.002	ppb	18.1	28	40	
Hg	201	159	NoGas	10.857	ppt	28.7	14	4000	
Tl	205	159	He	0.019	ppb	20.9	131	100	
Pb	208	159	NoGas	0.328	ppb	3.8	6,401	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	740,761	0.3	924116.613333333	Pulse	80.2	
Sc	45	H2	1,385,591	0.6	1737112.96	Analog	79.8	
Sc	45	He	218,938	0.9	266695.646666667	Pulse	82.1	
Sc	45	NoGas	2,191,003	0.7	2759645.24	Analog	79.4	
Ge	74	H2	434,116	0.7	544239.553333333	Pulse	79.8	
Ge	74	He	132,197	1.0	160421.983333333	Pulse	82.4	
Ge	74	NoGas	576,757	0.9	723967.716666667	Pulse	79.7	
Rh	103	He	293,473	0.4	360477.35	Pulse	81.4	
Rh	103	NoGas	592,912	0.3	765122.756666667	Pulse	77.5	
Tb	159	He	461,664	0.7	517968.26	Pulse	89.1	
Tb	159	NoGas	1,085,622	0.4	1243337.24	Pulse	87.3	
Bi	209	He	273,097	1.0	301934.656666667	Pulse	90.4	
Bi	209	NoGas	640,435	0.6	720637.873333333	Pulse	88.9	

Quantitation Report - ICPMS5

Sample Name:	**A9K0609-02**	Total Dilution:	**10.0000**
File Name:	044SMPL.d	Vial:	3204
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	Sample
Acq Time:	12/4/2019 14:00:34	I.S. Reference File:	003CALB.d
Comment:	**9120481 TCLP RCRA**	Last Calibration:	12/04/2019 11:41:46

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.027	ppb	43.7	82	100	
Na	23	45	He	28530.856	ppb	0.6	20,623,081	50000	
Mg	24	45	He	180.016	ppb	0.6	74,077	50000	
Al	27	45	He	12.405	ppb	6.7	2,881	50000	
K	39	45	He	96.732	ppb	2.3	55,269	50000	
Ca	44	45	H2	667.751	ppb	0.6	100,523	50000	
[Ca]	44	45	He	683.682	ppb	2.1	12,715	50000	
Ti	47	45	NoGas	0.725	ppb	7.8	611	2500	
V	51	74	He	-0.069	ppb	N/A	734	500	
Cr	52	74	He	0.02	ppb	55.4	230	1000	
Mn	55	74	He	29.387	ppb	0.8	60,735	2500	
Fe	56	74	H2	12.206	ppb	1.0	96,658	50000	
Co	59	74	He	0.515	ppb	6.8	2,025	500	
Ni	60	74	He	0.995	ppb	4.7	952	1000	
Cu	65	74	He	0.808	ppb	8.9	947	1000	
Zn	66	74	He	4.445	ppb	1.4	2,046	2500	
As	75	74	He	0.051	ppb	29.4	27	500	
Se	78	74	H2	0.025	ppb	47.4	6	100	
Mo	95	103	He	0.016	ppb	52.4	22	100	
Ag	107	103	He	0.001	ppb	108.7	4	100	
Cd	111	103	He	0.04	ppb	26.8	24	1000	
[Cd]	111	103	NoGas	0.034	ppb	29.1	63	1000	
Sb	121	103	He	0.01	ppb	107.1	31	100	
Ba	138	159	He	6.165	ppb	1.0	22,708	2500	
W	182	159	NoGas	0.001	ppb	488.1	20	40	
Hg	201	159	NoGas	4.499	ppt	35.7	9	4000	
Tl	205	159	He	0.002	ppb	31.6	24	100	
Pb	208	159	NoGas	0.044	ppb	11.5	1,239	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	724,762	0.5	924116.613333333	Pulse	78.4	
Sc	45	H2	1,394,341	0.7	1737112.96	Analog	80.3	
Sc	45	He	216,070	0.8	266695.646666667	Pulse	81.0	
Sc	45	NoGas	2,135,277	0.6	2759645.24	Analog	77.4	
Ge	74	H2	432,175	0.4	544239.553333333	Pulse	79.4	
Ge	74	He	130,175	0.7	160421.983333333	Pulse	81.1	
Ge	74	NoGas	562,548	0.8	723967.716666667	Pulse	77.7	
Rh	103	He	291,808	0.7	360477.35	Pulse	81.0	
Rh	103	NoGas	578,941	0.1	765122.756666667	Pulse	75.7	
Tb	159	He	458,947	0.9	517968.26	Pulse	88.6	
Tb	159	NoGas	1,071,560	0.7	1243337.24	Pulse	86.2	
Bi	209	He	271,836	0.5	301934.656666667	Pulse	90.0	
Bi	209	NoGas	633,658	0.2	720637.873333333	Pulse	87.9	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9L04031-CCV2**	Total Dilution:	**1.0000**
File Name:	045_CCV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CCV
Acq Time:	12/4/2019 14:05:17	I.S. Reference File:	003CALB.d
Comment:	**A19J138 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.175	ppb	0.3	78,612	40	100.44	
Na	23	45	He	4096.633	ppb	1.4	2,897,167	4000	102.42	
Mg	24	45	He	4362.288	ppb	3.1	1,746,257	4000	109.06	
Al	27	45	He	3974.846	ppb	0.9	876,833	4000	99.37	
K	39	45	He	4301.087	ppb	0.9	1,567,302	4000	107.53	
Ca	44	45	H2	4028.264	ppb	1.4	594,523	4000	100.71	
[Ca]	44	45	He	4171.244	ppb	0.2	75,188	4000	104.28	
Ti	47	45	NoGas	99.276	ppb	1.9	79,919	100	99.28	
V	51	74	He	97.978	ppb	0.1	234,565	100	97.98	
Cr	52	74	He	95.772	ppb	0.3	274,247	100	95.77	
Mn	55	74	He	101.925	ppb	1.1	208,330	100	101.92	
Fe	56	74	H2	4189.887	ppb	0.6	30,952,293	4000	104.75	
Co	59	74	He	100.991	ppb	0.2	386,542	100	100.99	
Ni	60	74	He	104.934	ppb	0.4	95,942	100	104.93	
Cu	65	74	He	104.654	ppb	0.4	117,996	100	104.65	
Zn	66	74	He	101.827	ppb	0.3	45,793	100	101.83	
As	75	74	He	98.816	ppb	0.9	28,028	100	98.82	
Se	78	74	H2	40.647	ppb	0.9	7,980	40	101.62	
Mo	95	103	He	40.682	ppb	1.2	47,784	40	101.7	
Ag	107	103	He	41.225	ppb	1.1	138,677	40	103.06	
Cd	111	103	He	99.958	ppb	0.9	57,717	100	99.96	
[Cd]	111	103	NoGas	96.857	ppb	1.2	150,425	100	96.86	
Sb	121	103	He	40.702	ppb	0.3	63,255	40	101.76	
Ba	138	159	He	103.744	ppb	0.6	378,926	100	103.74	
Hg	201	159	NoGas	804.480	ppt	4.7	633	800	100.56	
Tl	205	159	He	40.682	ppb	0.2	253,542	40	101.7	
Pb	208	159	NoGas	104.313	ppb	0.6	1,858,401	100	104.31	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.5	712,195	924116.613333333	77.1	
Sc	45	H2	Analog	1.2	1,370,666	1737112.96	78.9	
Sc	45	He	Pulse	1.0	211,296	266695.646666667	79.2	
Sc	45	NoGas	Analog	0.3	2,126,792	2759645.24	77.1	
Ge	74	H2	Pulse	0.7	430,184	544239.553333333	79.0	
Ge	74	He	Pulse	0.5	128,873	160421.983333333	80.3	
Ge	74	NoGas	Pulse	0.7	561,336	723967.716666667	77.5	
Rh	103	He	Pulse	1.2	286,562	360477.35	79.5	
Rh	103	NoGas	Pulse	0.0	578,295	765122.756666667	75.6	
Tb	159	He	Pulse	0.2	456,068	517968.26	88.0	
Tb	159	NoGas	Pulse	0.9	1,067,228	1243337.24	85.8	
Bi	209	He	Pulse	0.4	271,470	301934.656666667	89.9	
Bi	209	NoGas	Pulse	0.7	631,830	720637.873333333	87.7	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9L04031-CCB2**	Total Dilution:	**1.0000**
File Name:	046_CCB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CCB
Acq Time:	12/4/2019 14:09:57	I.S. Reference File:	003CALB.d
Comment:	**CCB**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.024	ppb	18.5	73	
Na	23	45	He	5.611	ppb	5.2	5,748	
Mg	24	45	He	0.273	ppb	47.4	488	
Al	27	45	He	0.393	ppb	48.1	167	
K	39	45	He	-1.036	ppb	N/A	18,661	
Ca	44	45	H2	2.022	ppb	18.5	590	
[Ca]	44	45	He	-0.436	ppb	N/A	121	
Ti	47	45	NoGas	0.012	ppb	175.0	35	
V	51	74	He	-0.063	ppb	N/A	734	
Cr	52	74	He	-0.008	ppb	N/A	144	
Mn	55	74	He	-0.015	ppb	N/A	60	
Fe	56	74	H2	1.618	ppb	13.6	17,866	
Co	59	74	He	0.006	ppb	80.7	58	
Ni	60	74	He	0.014	ppb	52.4	47	
Cu	65	74	He	0.006	ppb	308.7	32	
Zn	66	74	He	-0.012	ppb	N/A	22	
As	75	74	He	0.019	ppb	137.9	18	
Se	78	74	H2	0.059	ppb	38.7	12	
Mo	95	103	He	0.037	ppb	0.6	47	
Ag	107	103	He	0.008	ppb	29.3	28	
Cd	111	103	He	0.016	ppb	46.3	10	
[Cd]	111	103	NoGas	0.010	ppb	38.4	25	
Sb	121	103	He	0.254	ppb	9.1	418	
Ba	138	159	He	0.009	ppb	40.6	79	
Hg	201	159	NoGas	2.495	ppt	121.4	7	
Tl	205	159	He	0.003	ppb	45.5	31	
Pb	208	159	NoGas	0.034	ppb	8.6	1,050	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Pulse	0.4	700,615	924116.613333333	75.8	
Sc	45	H2	Analog	0.8	1,334,903	1737112.96	76.8	
Sc	45	He	Pulse	0.4	209,058	266695.646666667	78.4	
Sc	45	NoGas	Analog	0.5	2,080,837	2759645.24	75.4	
Ge	74	H2	Pulse	0.3	426,904	544239.553333333	78.4	
Ge	74	He	Pulse	0.5	127,910	160421.983333333	79.7	
Ge	74	NoGas	Pulse	0.5	553,788	723967.716666667	76.5	
Rh	103	He	Pulse	0.6	292,760	360477.35	81.2	
Rh	103	NoGas	Pulse	0.3	583,797	765122.756666667	76.3	
Tb	159	He	Pulse	0.1	453,458	517968.26	87.5	
Tb	159	NoGas	Pulse	0.7	1,058,543	1243337.24	85.1	
Bi	209	He	Pulse	0.4	275,670	301934.656666667	91.3	
Bi	209	NoGas	Pulse	0.6	636,831	720637.873333333	88.4	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9L04031-CCV3**	Total Dilution:	**1.0000**
File Name:	055_CCV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CCV
Acq Time:	12/4/2019 14:55:32	I.S. Reference File:	003CALB.d
Comment:	**A19J138 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.994	ppb	0.7	78,351	40	99.98	
Na	23	45	He	4008.446	ppb	0.8	2,937,224	4000	100.21	
Mg	24	45	He	4284.064	ppb	1.0	1,777,054	4000	107.1	
Al	27	45	He	3954.789	ppb	0.4	903,898	4000	98.87	
K	39	45	He	4327.811	ppb	0.7	1,633,725	4000	108.2	
Ca	44	45	H2	4141.266	ppb	1.0	619,770	4000	103.53	
[Ca]	44	45	He	4177.908	ppb	1.2	78,021	4000	104.45	
Ti	47	45	NoGas	97.938	ppb	1.4	80,310	100	97.94	
V	51	74	He	97.686	ppb	0.7	243,679	100	97.69	
Cr	52	74	He	95.568	ppb	0.5	285,145	100	95.57	
Mn	55	74	He	102.081	ppb	0.5	217,398	100	102.08	
Fe	56	74	H2	4166.328	ppb	0.5	32,077,926	4000	104.16	
Co	59	74	He	100.695	ppb	0.3	401,580	100	100.7	
Ni	60	74	He	104.594	ppb	0.9	99,641	100	104.59	
Cu	65	74	He	104.290	ppb	1.3	122,516	100	104.29	
Zn	66	74	He	103.105	ppb	1.4	48,311	100	103.1	
As	75	74	He	99.351	ppb	0.4	29,361	100	99.35	
Se	78	74	H2	40.868	ppb	1.6	8,363	40	102.17	
Mo	95	103	He	40.657	ppb	2.0	49,609	40	101.64	
Ag	107	103	He	41.283	ppb	1.0	144,283	40	103.21	
Cd	111	103	He	100.027	ppb	0.1	60,007	100	100.03	
[Cd]	111	103	NoGas	94.933	ppb	0.4	151,157	100	94.93	
Sb	121	103	He	40.984	ppb	0.5	66,171	40	102.46	
Ba	138	159	He	104.492	ppb	0.2	394,060	100	104.49	
Hg	201	159	NoGas	804.062	ppt	1.7	642	800	100.51	
Tl	205	159	He	40.655	ppb	0.3	261,609	40	101.64	
Pb	208	159	NoGas	103.080	ppb	1.1	1,863,397	100	103.08	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.4	713,024	924116.613333333	77.2	
Sc	45	H2	Analog	1.9	1,389,916	1737112.96	80.0	
Sc	45	He	Pulse	0.2	218,911	266695.646666667	82.1	
Sc	45	NoGas	Analog	0.3	2,166,272	2759645.24	78.5	
Ge	74	H2	Pulse	0.8	448,347	544239.553333333	82.4	
Ge	74	He	Pulse	0.6	134,282	160421.983333333	83.7	
Ge	74	NoGas	Pulse	0.3	573,546	723967.716666667	79.2	
Rh	103	He	Pulse	0.3	297,703	360477.35	82.6	
Rh	103	NoGas	Pulse	0.4	592,890	765122.756666667	77.5	
Tb	159	He	Pulse	0.0	470,892	517968.26	90.9	
Tb	159	NoGas	Pulse	0.8	1,082,918	1243337.24	87.1	
Bi	209	He	Pulse	0.9	279,512	301934.656666667	92.6	
Bi	209	NoGas	Pulse	0.4	643,244	720637.873333333	89.3	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9L04031-CCB3**	Total Dilution:	**1.0000**
File Name:	056_CCB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CCB
Acq Time:	12/4/2019 15:00:11	I.S. Reference File:	003CALB.d
Comment:	**CCB**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.011	ppb	57.3	52	
Na	23	45	He	3.510	ppb	12.3	4,564	
Mg	24	45	He	0.278	ppb	37.5	522	
Al	27	45	He	0.350	ppb	41.9	168	
K	39	45	He	-0.439	ppb	N/A	20,135	
Ca	44	45	H2	1.335	ppb	53.8	518	
[Ca]	44	45	He	-0.220	ppb	N/A	133	
Ti	47	45	NoGas	0.028	ppb	58.6	50	
V	51	74	He	-0.004	ppb	N/A	933	
Cr	52	74	He	-0.003	ppb	N/A	170	
Mn	55	74	He	-0.017	ppb	N/A	60	
Fe	56	74	H2	1.476	ppb	12.8	17,639	
Co	59	74	He	0.007	ppb	55.2	66	
Ni	60	74	He	0.013	ppb	15.3	49	
Cu	65	74	He	0.004	ppb	46.3	32	
Zn	66	74	He	0.041	ppb	41.5	49	
As	75	74	He	0.021	ppb	89.3	19	
Se	78	74	H2	0.021	ppb	48.5	5	
Mo	95	103	He	0.035	ppb	42.0	47	
Ag	107	103	He	0.004	ppb	21.3	17	
Cd	111	103	He	0.017	ppb	46.1	11	
[Cd]	111	103	NoGas	0.010	ppb	185.8	27	
Sb	121	103	He	0.322	ppb	13.6	556	
Ba	138	159	He	0.011	ppb	78.9	92	
Hg	201	159	NoGas	3.118	ppt	119.0	8	
Tl	205	159	He	0.007	ppb	61.4	61	
Pb	208	159	NoGas	0.049	ppb	8.1	1,374	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Pulse	0.1	746,550	924116.613333333	80.8	
Sc	45	H2	Analog	1.1	1,406,593	1737112.96	81.0	
Sc	45	He	Pulse	1.1	223,051	266695.646666667	83.6	
Sc	45	NoGas	Analog	1.1	2,225,407	2759645.24	80.6	
Ge	74	H2	Pulse	0.7	447,459	544239.553333333	82.2	
Ge	74	He	Pulse	1.2	136,221	160421.983333333	84.9	
Ge	74	NoGas	Pulse	0.7	598,327	723967.716666667	82.6	
Rh	103	He	Pulse	0.5	308,920	360477.35	85.7	
Rh	103	NoGas	Pulse	0.8	628,994	765122.756666667	82.2	
Tb	159	He	Pulse	0.9	473,135	517968.26	91.3	
Tb	159	NoGas	Pulse	0.3	1,106,161	1243337.24	89.0	
Bi	209	He	Pulse	0.9	284,920	301934.656666667	94.4	
Bi	209	NoGas	Pulse	0.6	666,459	720637.873333333	92.5	

CRL Verification Report - ICPMS5

Sample Name:	**9L04031-CRL4**	Total Dilution:	**1.0000**
File Name:	057CRL.d	Vial:	1102
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CRL1
Acq Time:	12/4/2019 15:04:54	I.S. Reference File:	003CALB.d
Comment:	**A19K144 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.186	ppb	17.4	419	103.33		
Na	23	45	He	12.022	ppb	4.8	11,129	133.58	R-11	< MRL
Mg	24	45	He	9.604	ppb	5.0	4,551	106.71		
Al	27	45	He	9.009	ppb	3.7	2,227	100.1		
K	39	45	He	9.235	ppb	5.5	24,277	102.61		
Ca	44	45	H2	9.169	ppb	6.3	1,765	101.88		
[Ca]	44	45	He	9.861	ppb	7.6	331	109.57		
Ti	47	45	NoGas	0.196	ppb	17.1	197	108.89		
V	51	74	He	0.211	ppb	11.8	1,498	117.22		
Cr	52	74	He	0.193	ppb	20.8	776	107.22		
Mn	55	74	He	0.152	ppb	6.5	432	84.44		
Fe	56	74	H2	9.036	ppb	0.1	77,693	100.4		
Co	59	74	He	0.174	ppb	17.9	751	96.67		
Ni	60	74	He	0.165	ppb	6.0	199	91.67		
Cu	65	74	He	0.193	ppb	5.0	261	107.22		
Zn	66	74	He	0.235	ppb	14.8	143	130.56	R-11	< MRL
As	75	74	He	0.205	ppb	5.0	76	113.89		
Se	78	74	H2	0.157	ppb	27.6	34	87.22		
Mo	95	103	He	0.191	ppb	26.3	249	106.11		
Ag	107	103	He	0.191	ppb	10.1	706	106.11		
Cd	111	103	He	0.155	ppb	10.7	98	86.11		
[Cd]	111	103	NoGas	0.161	ppb	9.4	285	89.44		
Sb	121	103	He	0.268	ppb	13.4	472	148.89	R-11	< MRL
Ba	138	159	He	0.184	ppb	10.7	758	102.22		
Hg	201	159	NoGas	10.038	ppt	18.7	14	139.42	R-11	< MRL
Tl	205	159	He	0.181	ppb	1.7	1,199	100.56		
Pb	208	159	NoGas	0.209	ppb	5.2	4,417	116.11		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.3	761,479	924116.613333333	82.4	
Sc	45	H2	Analog	0.4	1,456,745	1737112.96	83.9	
Sc	45	He	Pulse	0.9	227,391	266695.646666667	85.3	
Sc	45	NoGas	Analog	0.9	2,280,307	2759645.24	82.6	
Ge	74	H2	Pulse	0.3	459,138	544239.553333333	84.4	
Ge	74	He	Pulse	1.2	138,507	160421.983333333	86.3	
Ge	74	NoGas	Pulse	0.7	607,375	723967.716666667	83.9	
Rh	103	He	Pulse	0.4	313,720	360477.35	87.0	
Rh	103	NoGas	Pulse	0.7	636,988	765122.756666667	83.3	
Tb	159	He	Pulse	0.8	479,780	517968.26	92.6	
Tb	159	NoGas	Pulse	0.8	1,126,640	1243337.24	90.6	
Bi	209	He	Pulse	0.7	285,923	301934.656666667	94.7	
Bi	209	NoGas	Pulse	0.6	670,456	720637.873333333	93.0	

CRL Verification Report - ICPMS5

Sample Name:	**9L04031-CRL5**	Total Dilution:	**1.0000**
File Name:	058_CRL.d	Vial:	1103
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CRL2
Acq Time:	12/4/2019 15:09:36	I.S. Reference File:	003CALB.d
Comment:	**A19K145 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.883	ppb	3.6	1,890	98.11	
Na	23	45	He	47.943	ppb	1.3	38,630	106.54	
Mg	24	45	He	45.609	ppb	0.7	20,154	101.35	
Al	27	45	He	44.878	ppb	2.5	10,791	99.73	
K	39	45	He	45.693	ppb	4.4	38,572	101.54	
Ca	44	45	H2	45.812	ppb	3.4	7,592	101.8	
[Ca]	44	45	He	45.759	ppb	13.4	1,031	101.69	
Ti	47	45	NoGas	0.894	ppb	7.0	803	99.33	
V	51	74	He	0.944	ppb	3.8	3,404	104.89	
Cr	52	74	He	0.888	ppb	6.1	2,936	98.67	
Mn	55	74	He	0.894	ppb	1.8	2,078	99.33	
Fe	56	74	H2	45.194	ppb	0.1	365,138	100.43	
Co	59	74	He	0.894	ppb	1.2	3,743	99.33	
Ni	60	74	He	0.911	ppb	3.8	939	101.22	
Cu	65	74	He	1.037	ppb	12.8	1,295	115.22	
Zn	66	74	He	0.902	ppb	9.2	469	100.22	
As	75	74	He	0.913	ppb	4.4	294	101.44	
Se	78	74	H2	0.910	ppb	8.0	193	101.11	
Mo	95	103	He	0.876	ppb	4.7	1,135	97.33	
Ag	107	103	He	0.902	ppb	1.6	3,338	100.22	
Cd	111	103	He	0.925	ppb	5.1	588	102.78	
[Cd]	111	103	NoGas	0.866	ppb	4.8	1,496	96.22	
Sb	121	103	He	0.994	ppb	10.0	1,715	110.44	
Ba	138	159	He	0.923	ppb	3.7	3,616	102.56	
Hg	201	159	NoGas	43.415	ppt	6.5	41	120.6	
Tl	205	159	He	0.918	ppb	3.0	6,065	102	
Pb	208	159	NoGas	0.965	ppb	0.8	18,692	107.22	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.1	767,110	924116.613333333	83.0	
Sc	45	H2	Analog	0.3	1,472,508	1737112.96	84.8	
Sc	45	He	Pulse	0.6	228,442	266695.646666667	85.7	
Sc	45	NoGas	Analog	1.0	2,292,312	2759645.24	83.1	
Ge	74	H2	Pulse	0.7	462,178	544239.553333333	84.9	
Ge	74	He	Pulse	0.8	139,597	160421.983333333	87.0	
Ge	74	NoGas	Pulse	0.6	610,263	723967.716666667	84.3	
Rh	103	He	Pulse	0.4	315,222	360477.35	87.4	
Rh	103	NoGas	Pulse	0.9	639,153	765122.756666667	83.5	
Tb	159	He	Pulse	0.6	482,532	517968.26	93.2	
Tb	159	NoGas	Pulse	0.7	1,130,709	1243337.24	90.9	
Bi	209	He	Pulse	0.7	286,589	301934.656666667	94.9	
Bi	209	NoGas	Pulse	0.3	676,866	720637.873333333	93.9	

CRL Verification Report - ICPMS5

Sample Name:	**9L04031-CRL6**	Total Dilution:	**1.0000**
File Name:	059CRL_.d	Vial:	1104
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CRL3
Acq Time:	12/4/2019 15:14:17	I.S. Reference File:	003CALB.d
Comment:	**A19K146 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.824	ppb	2.8	3,867	101.33	
Na	23	45	He	93.064	ppb	0.4	72,948	103.4	
Mg	24	45	He	91.553	ppb	0.7	39,949	101.73	
Al	27	45	He	92.050	ppb	2.5	21,989	102.28	
K	39	45	He	94.494	ppb	3.8	57,430	104.99	
Ca	44	45	H2	90.953	ppb	1.7	14,565	101.06	
[Ca]	44	45	He	96.912	ppb	5.0	2,021	107.68	
Ti	47	45	NoGas	1.702	ppb	5.7	1,511	94.56	
V	51	74	He	1.823	ppb	0.5	5,685	101.28	
Cr	52	74	He	1.724	ppb	1.2	5,539	95.78	
Mn	55	74	He	1.700	ppb	1.1	3,868	94.44	
Fe	56	74	H2	89.356	ppb	0.2	718,680	99.28	
Co	59	74	He	1.764	ppb	6.7	7,365	98	
Ni	60	74	He	1.819	ppb	5.0	1,841	101.06	
Cu	65	74	He	1.940	ppb	9.0	2,400	107.78	
Zn	66	74	He	1.785	ppb	9.7	900	99.17	
As	75	74	He	1.856	ppb	7.7	584	103.11	
Se	78	74	H2	1.729	ppb	3.7	367	96.06	
Mo	95	103	He	1.753	ppb	3.1	2,266	97.39	
Ag	107	103	He	1.803	ppb	2.7	6,666	100.17	
Cd	111	103	He	1.813	ppb	1.4	1,151	100.72	
[Cd]	111	103	NoGas	1.689	ppb	6.9	2,903	93.83	
Sb	121	103	He	1.905	ppb	2.9	3,269	105.83	
Ba	138	159	He	1.857	ppb	1.1	7,185	103.17	
Hg	201	159	NoGas	77.202	ppt	7.4	69	107.22	
Tl	205	159	He	1.786	ppb	2.1	11,721	99.22	
Pb	208	159	NoGas	1.896	ppb	2.2	36,039	105.33	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.2	765,960	924116.613333333	82.9	
Sc	45	H2	Analog	0.9	1,454,628	1737112.96	83.7	
Sc	45	He	Pulse	1.1	227,945	266695.646666667	85.5	
Sc	45	NoGas	Analog	0.4	2,302,615	2759645.24	83.4	
Ge	74	H2	Pulse	0.4	464,177	544239.553333333	85.3	
Ge	74	He	Pulse	0.8	139,853	160421.983333333	87.2	
Ge	74	NoGas	Pulse	0.6	611,551	723967.716666667	84.5	
Rh	103	He	Pulse	0.4	314,847	360477.35	87.3	
Rh	103	NoGas	Pulse	0.4	637,778	765122.756666667	83.4	
Tb	159	He	Pulse	0.1	479,773	517968.26	92.6	
Tb	159	NoGas	Pulse	0.8	1,123,818	1243337.24	90.4	
Bi	209	He	Pulse	0.3	285,791	301934.656666667	94.7	
Bi	209	NoGas	Pulse	0.4	675,161	720637.873333333	93.7	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9L04031-CCV4**	Total Dilution:	**1.0000**
File Name:	070_CCV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CCV
Acq Time:	12/4/2019 16:09:25	I.S. Reference File:	003CALB.d
Comment:	**A19J138 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.764	ppb	0.8	82,493	40	99.41	
Na	23	45	He	4035.001	ppb	1.3	3,088,375	4000	100.88	
Mg	24	45	He	4251.923	ppb	1.1	1,842,266	4000	106.3	
Al	27	45	He	3923.941	ppb	0.5	936,800	4000	98.1	
K	39	45	He	4291.416	ppb	0.8	1,692,351	4000	107.29	
Ca	44	45	H2	4074.904	ppb	0.7	631,575	4000	101.87	
[Ca]	44	45	He	4159.927	ppb	0.6	81,147	4000	104	
Ti	47	45	NoGas	98.806	ppb	1.6	85,721	100	98.81	
V	51	74	He	98.080	ppb	0.2	254,935	100	98.08	
Cr	52	74	He	95.276	ppb	0.4	296,212	100	95.28	
Mn	55	74	He	100.704	ppb	0.3	223,470	100	100.7	
Fe	56	74	H2	4126.032	ppb	0.6	32,576,701	4000	103.15	
Co	59	74	He	100.789	ppb	0.3	418,832	100	100.79	
Ni	60	74	He	104.819	ppb	1.5	104,052	100	104.82	
Cu	65	74	He	104.074	ppb	0.8	127,401	100	104.07	
Zn	66	74	He	101.414	ppb	0.3	49,517	100	101.41	
As	75	74	He	98.697	ppb	0.9	30,393	100	98.7	
Se	78	74	H2	40.526	ppb	1.1	8,504	40	101.32	
Mo	95	103	He	40.139	ppb	0.7	51,198	40	100.35	
Ag	107	103	He	40.838	ppb	0.3	149,193	40	102.1	
Cd	111	103	He	99.192	ppb	0.4	62,203	100	99.19	
[Cd]	111	103	NoGas	94.934	ppb	0.3	158,783	100	94.93	
Sb	121	103	He	40.311	ppb	0.3	68,034	40	100.78	
Ba	138	159	He	104.379	ppb	0.2	407,519	100	104.38	
Hg	201	159	NoGas	810.965	ppt	4.6	678	800	101.37	
Tl	205	159	He	39.812	ppb	0.6	265,221	40	99.53	
Pb	208	159	NoGas	102.736	ppb	0.5	1,945,486	100	102.74	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.5	755,059	924116.613333333	81.7	
Sc	45	H2	Analog	0.6	1,439,296	1737112.96	82.9	
Sc	45	He	Pulse	0.6	228,666	266695.646666667	85.7	
Sc	45	NoGas	Analog	0.5	2,292,100	2759645.24	83.1	
Ge	74	H2	Pulse	0.4	459,758	544239.553333333	84.5	
Ge	74	He	Pulse	0.2	139,918	160421.983333333	87.2	
Ge	74	NoGas	Pulse	0.2	604,086	723967.716666667	83.4	
Rh	103	He	Pulse	0.0	311,195	360477.35	86.3	
Rh	103	NoGas	Pulse	0.2	622,785	765122.756666667	81.4	
Tb	159	He	Pulse	0.4	487,506	517968.26	94.1	
Tb	159	NoGas	Pulse	0.6	1,134,368	1243337.24	91.2	
Bi	209	He	Pulse	0.8	284,272	301934.656666667	94.2	
Bi	209	NoGas	Pulse	0.5	671,709	720637.873333333	93.2	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9L04031-CCB4**	Total Dilution:	**1.0000**
File Name:	071_CCB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CCB
Acq Time:	12/4/2019 16:14:06	I.S. Reference File:	003CALB.d
Comment:	**CCB**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.007	ppb	159.1	46	
Na	23	45	He	2.005	ppb	6.2	3,634	
Mg	24	45	He	0.110	ppb	143.2	477	
Al	27	45	He	0.537	ppb	8.6	223	
K	39	45	He	0.298	ppb	304.7	21,558	
Ca	44	45	H2	1.617	ppb	16.7	598	
[Ca]	44	45	He	0.570	ppb	108.8	157	
Ti	47	45	NoGas	-0.003	ppb	N/A	27	
V	51	74	He	-0.021	ppb	N/A	942	
Cr	52	74	He	-0.001	ppb	N/A	187	
Mn	55	74	He	0.017	ppb	21.1	142	
Fe	56	74	H2	1.749	ppb	11.2	21,103	
Co	59	74	He	0.005	ppb	201.7	61	
Ni	60	74	He	0.004	ppb	167.9	42	
Cu	65	74	He	0.008	ppb	160.2	39	
Zn	66	74	He	0.016	ppb	189.5	39	
As	75	74	He	0.018	ppb	115.0	20	
Se	78	74	H2	0.027	ppb	95.3	7	
Mo	95	103	He	0.034	ppb	17.6	49	
Ag	107	103	He	0.007	ppb	12.2	27	
Cd	111	103	He	0.017	ppb	15.5	12	
[Cd]	111	103	NoGas	0.015	ppb	6.4	37	
Sb	121	103	He	0.183	ppb	6.9	341	
Ba	138	159	He	0.011	ppb	44.2	97	
Hg	201	159	NoGas	-1.302	ppt	N/A	5	
Tl	205	159	He	0.006	ppb	15.7	58	
Pb	208	159	NoGas	0.034	ppb	8.8	1,157	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Pulse	0.3	788,331	924116.613333333	85.3	
Sc	45	H2	Analog	0.7	1,500,143	1737112.96	86.4	
Sc	45	He	Pulse	0.5	235,509	266695.646666667	88.3	
Sc	45	NoGas	Analog	1.9	2,398,060	2759645.24	86.9	
Ge	74	H2	Pulse	0.4	478,649	544239.553333333	87.9	
Ge	74	He	Pulse	0.4	144,336	160421.983333333	90.0	
Ge	74	NoGas	Pulse	0.7	636,238	723967.716666667	87.9	
Rh	103	He	Pulse	1.2	326,384	360477.35	90.5	
Rh	103	NoGas	Pulse	0.3	666,502	765122.756666667	87.1	
Tb	159	He	Pulse	0.7	495,433	517968.26	95.6	
Tb	159	NoGas	Pulse	0.9	1,170,251	1243337.24	94.1	
Bi	209	He	Pulse	0.7	292,102	301934.656666667	96.7	
Bi	209	NoGas	Pulse	0.7	693,270	720637.873333333	96.2	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9L04031-CCV5**	Total Dilution:	**1.0000**
File Name:	082_CCV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CCV
Acq Time:	12/4/2019 17:05:20	I.S. Reference File:	003CALB.d
Comment:	**A19J138 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.320	ppb	0.4	82,003	40	100.8	
Na	23	45	He	3970.488	ppb	2.7	2,990,168	4000	99.26	
Mg	24	45	He	4157.016	ppb	4.0	1,772,023	4000	103.93	
Al	27	45	He	3906.511	ppb	1.4	917,751	4000	97.66	
K	39	45	He	4246.028	ppb	2.2	1,647,778	4000	106.15	
Ca	44	45	H2	4046.055	ppb	1.1	624,051	4000	101.15	
[Ca]	44	45	He	4156.462	ppb	1.7	79,787	4000	103.91	
Ti	47	45	NoGas	99.142	ppb	1.5	84,359	100	99.14	
V	51	74	He	97.659	ppb	0.7	249,673	100	97.66	
Cr	52	74	He	95.221	ppb	0.7	291,178	100	95.22	
Mn	55	74	He	101.040	ppb	1.1	220,531	100	101.04	
Fe	56	74	H2	4185.771	ppb	0.5	32,619,553	4000	104.64	
Co	59	74	He	100.945	ppb	0.8	412,587	100	100.94	
Ni	60	74	He	105.562	ppb	0.4	103,066	100	105.56	
Cu	65	74	He	104.581	ppb	0.8	125,919	100	104.58	
Zn	66	74	He	101.749	ppb	1.1	48,864	100	101.75	
As	75	74	He	99.387	ppb	0.3	30,102	100	99.39	
Se	78	74	H2	40.367	ppb	1.0	8,361	40	100.92	
Mo	95	103	He	40.109	ppb	1.5	50,495	40	100.27	
Ag	107	103	He	41.193	ppb	0.6	148,542	40	102.98	
Cd	111	103	He	99.557	ppb	0.3	61,624	100	99.56	
[Cd]	111	103	NoGas	95.437	ppb	1.0	158,252	100	95.44	
Sb	121	103	He	40.607	ppb	0.5	67,647	40	101.52	
Ba	138	159	He	104.683	ppb	0.3	403,670	100	104.68	
Hg	201	159	NoGas	809.051	ppt	1.5	673	800	101.13	
Tl	205	159	He	40.303	ppb	0.8	265,178	40	100.76	
Pb	208	159	NoGas	102.833	ppb	0.5	1,936,501	100	102.83	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.5	740,243	924116.613333333	80.1	
Sc	45	H2	Analog	0.8	1,432,309	1737112.96	82.5	
Sc	45	He	Pulse	1.3	225,035	266695.646666667	84.4	
Sc	45	NoGas	Analog	1.8	2,248,225	2759645.24	81.5	
Ge	74	H2	Pulse	0.6	453,793	544239.553333333	83.4	
Ge	74	He	Pulse	0.3	137,621	160421.983333333	85.8	
Ge	74	NoGas	Pulse	0.5	598,516	723967.716666667	82.7	
Rh	103	He	Pulse	0.6	307,169	360477.35	85.2	
Rh	103	NoGas	Pulse	0.5	617,446	765122.756666667	80.7	
Tb	159	He	Pulse	0.5	481,500	517968.26	93.0	
Tb	159	NoGas	Pulse	0.5	1,128,066	1243337.24	90.7	
Bi	209	He	Pulse	0.6	282,715	301934.656666667	93.6	
Bi	209	NoGas	Pulse	0.1	663,440	720637.873333333	92.1	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9L04031-CCB5**	Total Dilution:	**1.0000**
File Name:	083_CCB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CCB
Acq Time:	12/4/2019 17:10:01	I.S. Reference File:	003CALB.d
Comment:	**CCB**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.011	ppb	13.4	53	
Na	23	45	He	2.977	ppb	6.4	4,291	
Mg	24	45	He	0.590	ppb	35.6	673	
Al	27	45	He	1.329	ppb	4.3	408	
K	39	45	He	-0.390	ppb	N/A	20,758	
Ca	44	45	H2	3.194	ppb	11.6	832	
[Ca]	44	45	He	1.615	ppb	60.2	173	
Ti	47	45	NoGas	0.099	ppb	16.5	117	
V	51	74	He	-0.012	ppb	N/A	944	
Cr	52	74	He	0.015	ppb	51.4	231	
Mn	55	74	He	0.069	ppb	30.1	254	
Fe	56	74	H2	3.561	ppb	4.5	34,987	
Co	59	74	He	0.004	ppb	116.8	56	
Ni	60	74	He	-0.001	ppb	N/A	36	
Cu	65	74	He	0.027	ppb	29.7	61	
Zn	66	74	He	0.049	ppb	57.3	54	
As	75	74	He	0.039	ppb	70.2	26	
Se	78	74	H2	0.048	ppb	9.3	11	
Mo	95	103	He	0.029	ppb	75.2	41	
Ag	107	103	He	0.006	ppb	30.7	23	
Cd	111	103	He	0.037	ppb	12.1	24	
[Cd]	111	103	NoGas	0.021	ppb	64.3	48	
Sb	121	103	He	0.213	ppb	16.1	387	
Ba	138	159	He	0.030	ppb	24.1	166	
Hg	201	159	NoGas	1.960	ppt	93.6	7	
Tl	205	159	He	0.006	ppb	96.5	50	
Pb	208	159	NoGas	0.058	ppb	2.1	1,603	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Pulse	0.5	770,584	924116.613333333	83.4	
Sc	45	H2	Analog	2.6	1,466,093	1737112.96	84.4	
Sc	45	He	Pulse	0.8	229,717	266695.646666667	86.1	
Sc	45	NoGas	Analog	1.5	2,342,945	2759645.24	84.9	
Ge	74	H2	Pulse	0.6	465,204	544239.553333333	85.5	
Ge	74	He	Pulse	1.0	140,957	160421.983333333	87.9	
Ge	74	NoGas	Pulse	0.5	623,626	723967.716666667	86.1	
Rh	103	He	Pulse	0.9	320,227	360477.35	88.8	
Rh	103	NoGas	Pulse	0.8	654,049	765122.756666667	85.5	
Tb	159	He	Pulse	1.2	485,003	517968.26	93.6	
Tb	159	NoGas	Pulse	0.5	1,150,485	1243337.24	92.5	
Bi	209	He	Pulse	0.4	288,036	301934.656666667	95.4	
Bi	209	NoGas	Pulse	0.5	683,914	720637.873333333	94.9	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9L04031-CCV6**	Total Dilution:	**1.0000**
File Name:	094_CCV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CCV
Acq Time:	12/4/2019 18:01:13	I.S. Reference File:	003CALB.d
Comment:	**A19J138 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.945	ppb	1.5	84,767	40	99.86	
Na	23	45	He	3999.148	ppb	0.6	3,115,621	4000	99.98	
Mg	24	45	He	4250.340	ppb	1.2	1,874,481	4000	106.26	
Al	27	45	He	3923.419	ppb	0.2	953,422	4000	98.09	
K	39	45	He	4323.765	ppb	1.2	1,735,341	4000	108.09	
Ca	44	45	H2	4032.539	ppb	0.7	657,457	4000	100.81	
[Ca]	44	45	He	4142.670	ppb	0.2	82,256	4000	103.57	
Ti	47	45	NoGas	97.963	ppb	2.3	88,582	100	97.96	
V	51	74	He	98.502	ppb	0.2	259,244	100	98.5	
Cr	52	74	He	94.970	ppb	0.6	298,972	100	94.97	
Mn	55	74	He	102.170	ppb	0.6	229,568	100	102.17	
Fe	56	74	H2	4196.305	ppb	0.7	34,144,502	4000	104.91	
Co	59	74	He	101.329	ppb	0.7	426,372	100	101.33	
Ni	60	74	He	106.215	ppb	1.1	106,761	100	106.21	
Cu	65	74	He	104.845	ppb	0.6	129,958	100	104.84	
Zn	66	74	He	100.795	ppb	1.2	49,834	100	100.8	
As	75	74	He	99.312	ppb	0.7	30,966	100	99.31	
Se	78	74	H2	39.987	ppb	0.9	8,647	40	99.97	
Mo	95	103	He	40.453	ppb	1.2	52,222	40	101.13	
Ag	107	103	He	40.915	ppb	0.6	151,266	40	102.29	
Cd	111	103	He	98.184	ppb	0.9	62,307	100	98.18	
[Cd]	111	103	NoGas	95.352	ppb	0.9	163,314	100	95.35	
Sb	121	103	He	40.385	ppb	1.4	68,977	40	100.96	
Ba	138	159	He	105.400	ppb	0.6	408,418	100	105.4	
Hg	201	159	NoGas	795.927	ppt	4.0	675	800	99.49	
Tl	205	159	He	40.060	ppb	0.6	264,866	40	100.15	
Pb	208	159	NoGas	101.378	ppb	0.6	1,946,000	100	101.38	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.2	772,371	924116.613333333	83.6	
Sc	45	H2	Analog	0.1	1,513,983	1737112.96	87.2	
Sc	45	He	Pulse	0.5	232,749	266695.646666667	87.3	
Sc	45	NoGas	Analog	1.3	2,389,294	2759645.24	86.6	
Ge	74	H2	Pulse	0.5	473,821	544239.553333333	87.1	
Ge	74	He	Pulse	0.4	141,676	160421.983333333	88.3	
Ge	74	NoGas	Pulse	0.9	626,695	723967.716666667	86.6	
Rh	103	He	Pulse	0.9	314,933	360477.35	87.4	
Rh	103	NoGas	Pulse	0.4	637,764	765122.756666667	83.4	
Tb	159	He	Pulse	0.4	483,837	517968.26	93.4	
Tb	159	NoGas	Pulse	0.9	1,149,887	1243337.24	92.5	
Bi	209	He	Pulse	1.0	283,944	301934.656666667	94.0	
Bi	209	NoGas	Pulse	0.2	672,943	720637.873333333	93.4	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9L04031-CCB6**	Total Dilution:	**1.0000**
File Name:	095_CCB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CCB
Acq Time:	12/4/2019 18:05:54	I.S. Reference File:	003CALB.d
Comment:	**CCB**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.017	ppb	27.6	68	
Na	23	45	He	4.008	ppb	3.4	5,275	
Mg	24	45	He	1.306	ppb	9.0	1,022	
Al	27	45	He	2.965	ppb	4.9	830	
K	39	45	He	2.375	ppb	13.9	22,665	
Ca	44	45	H2	3.751	ppb	24.6	968	
[Ca]	44	45	He	2.051	ppb	58.9	189	
Ti	47	45	NoGas	0.244	ppb	4.5	257	
V	51	74	He	0.004	ppb	43.9	1,015	
Cr	52	74	He	0.025	ppb	16.8	272	
Mn	55	74	He	0.145	ppb	9.3	438	
Fe	56	74	H2	6.217	ppb	4.2	58,196	
Co	59	74	He	0.012	ppb	57.8	91	
Ni	60	74	He	0.018	ppb	70.3	57	
Cu	65	74	He	0.023	ppb	67.2	58	
Zn	66	74	He	0.072	ppb	32.6	68	
As	75	74	He	0.037	ppb	115.4	26	
Se	78	74	H2	0.051	ppb	50.2	12	
Mo	95	103	He	0.033	ppb	22.5	48	
Ag	107	103	He	0.008	ppb	42.1	30	
Cd	111	103	He	0.034	ppb	39.1	23	
[Cd]	111	103	NoGas	0.024	ppb	62.2	55	
Sb	121	103	He	0.249	ppb	12.0	460	
Ba	138	159	He	0.048	ppb	7.9	238	
Hg	201	159	NoGas	-0.508	ppt	N/A	5	
Tl	205	159	He	0.009	ppb	42.5	73	
Pb	208	159	NoGas	0.057	ppb	2.2	1,617	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Pulse	0.4	800,506	924116.613333333	86.6	
Sc	45	H2	Analog	0.7	1,539,571	1737112.96	88.6	
Sc	45	He	Pulse	1.3	238,392	266695.646666667	89.4	
Sc	45	NoGas	Analog	1.3	2,455,158	2759645.24	89.0	
Ge	74	H2	Pulse	0.2	481,737	544239.553333333	88.5	
Ge	74	He	Pulse	0.8	145,335	160421.983333333	90.6	
Ge	74	NoGas	Pulse	1.4	649,889	723967.716666667	89.8	
Rh	103	He	Pulse	0.6	327,804	360477.35	90.9	
Rh	103	NoGas	Pulse	0.8	680,647	765122.756666667	89.0	
Tb	159	He	Pulse	0.7	486,890	517968.26	94.0	
Tb	159	NoGas	Pulse	0.8	1,169,087	1243337.24	94.0	
Bi	209	He	Pulse	0.9	287,515	301934.656666667	95.2	
Bi	209	NoGas	Pulse	0.7	687,248	720637.873333333	95.4	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9L04031-CCV7**	Total Dilution:	**1.0000**
File Name:	096_CCV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CCV
Acq Time:	12/4/2019 18:10:37	I.S. Reference File:	003CALB.d
Comment:	**A19J138 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.111	ppb	0.8	83,961	40	100.28	
Na	23	45	He	3951.353	ppb	1.3	3,054,819	4000	98.78	
Mg	24	45	He	4230.690	ppb	1.2	1,851,527	4000	105.77	
Al	27	45	He	3895.701	ppb	0.3	939,421	4000	97.39	
K	39	45	He	4336.621	ppb	1.4	1,727,162	4000	108.42	
Ca	44	45	H2	4028.900	ppb	0.9	664,303	4000	100.72	
[Ca]	44	45	He	4161.556	ppb	0.6	81,997	4000	104.04	
Ti	47	45	NoGas	98.060	ppb	0.7	86,429	100	98.06	
V	51	74	He	98.909	ppb	0.6	256,028	100	98.91	
Cr	52	74	He	96.478	ppb	0.6	298,718	100	96.48	
Mn	55	74	He	102.031	ppb	1.4	225,491	100	102.03	
Fe	56	74	H2	4217.537	ppb	0.4	34,474,289	4000	105.44	
Co	59	74	He	101.674	ppb	0.6	420,777	100	101.67	
Ni	60	74	He	105.969	ppb	1.0	104,763	100	105.97	
Cu	65	74	He	104.181	ppb	0.7	127,012	100	104.18	
Zn	66	74	He	102.994	ppb	0.9	50,083	100	102.99	
As	75	74	He	100.493	ppb	1.1	30,819	100	100.49	
Se	78	74	H2	39.586	ppb	1.5	8,601	40	98.96	
Mo	95	103	He	40.505	ppb	1.1	51,522	40	101.26	
Ag	107	103	He	40.857	ppb	0.9	148,851	40	102.14	
Cd	111	103	He	98.348	ppb	0.7	61,503	100	98.35	
[Cd]	111	103	NoGas	94.995	ppb	0.4	160,928	100	95	
Sb	121	103	He	40.543	ppb	0.7	68,236	40	101.36	
Ba	138	159	He	105.009	ppb	0.0	404,692	100	105.01	
Hg	201	159	NoGas	783.867	ppt	2.1	655	800	97.98	
Tl	205	159	He	40.074	ppb	0.4	263,525	40	100.18	
Pb	208	159	NoGas	102.678	ppb	0.3	1,942,776	100	102.68	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.4	761,858	924116.613333333	82.4	
Sc	45	H2	Analog	1.3	1,531,254	1737112.96	88.1	
Sc	45	He	Pulse	0.2	230,962	266695.646666667	86.6	
Sc	45	NoGas	Analog	1.6	2,328,564	2759645.24	84.4	
Ge	74	H2	Pulse	0.8	475,990	544239.553333333	87.5	
Ge	74	He	Pulse	0.3	139,346	160421.983333333	86.9	
Ge	74	NoGas	Pulse	0.4	610,711	723967.716666667	84.4	
Rh	103	He	Pulse	0.1	310,337	360477.35	86.1	
Rh	103	NoGas	Pulse	0.6	630,791	765122.756666667	82.4	
Tb	159	He	Pulse	0.2	481,217	517968.26	92.9	
Tb	159	NoGas	Pulse	0.2	1,133,407	1243337.24	91.2	
Bi	209	He	Pulse	0.6	282,245	301934.656666667	93.5	
Bi	209	NoGas	Pulse	0.6	664,232	720637.873333333	92.2	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9L04031-CCB7**	Total Dilution:	**1.0000**
File Name:	097_CCB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CCB
Acq Time:	12/4/2019 18:15:16	I.S. Reference File:	003CALB.d
Comment:	**CCB**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.007	ppb	31.0	41	
Na	23	45	He	3.354	ppb	0.3	4,648	
Mg	24	45	He	1.052	ppb	21.1	888	
Al	27	45	He	1.702	ppb	14.4	504	
K	39	45	He	2.191	ppb	34.2	22,088	
Ca	44	45	H2	3.200	ppb	10.6	858	
[Ca]	44	45	He	2.107	ppb	53.9	186	
Ti	47	45	NoGas	0.188	ppb	41.2	180	
V	51	74	He	-0.001	ppb	N/A	980	
Cr	52	74	He	0.027	ppb	20.9	273	
Mn	55	74	He	0.072	ppb	17.3	264	
Fe	56	74	H2	5.121	ppb	2.3	48,140	
Co	59	74	He	0.016	ppb	20.9	107	
Ni	60	74	He	0.015	ppb	47.9	52	
Cu	65	74	He	0.032	ppb	24.6	68	
Zn	66	74	He	0.048	ppb	20.9	54	
As	75	74	He	0.057	ppb	25.8	31	
Se	78	74	H2	0.047	ppb	51.0	11	
Mo	95	103	He	0.043	ppb	30.4	60	
Ag	107	103	He	0.007	ppb	36.1	28	
Cd	111	103	He	0.036	ppb	15.1	24	
[Cd]	111	103	NoGas	0.029	ppb	31.8	56	
Sb	121	103	He	0.261	ppb	7.5	469	
Ba	138	159	He	0.034	ppb	7.1	183	
Hg	201	159	NoGas	-0.387	ppt	N/A	5	
Tl	205	159	He	0.007	ppb	31.7	61	
Pb	208	159	NoGas	0.065	ppb	11.9	1,591	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Pulse	10.4	721,274	924116.613333333	78.1	
Sc	45	H2	Analog	1.2	1,507,724	1737112.96	86.8	
Sc	45	He	Pulse	0.2	233,101	266695.646666667	87.4	
Sc	45	NoGas	Analog	10.7	2,198,423	2759645.24	79.7	
Ge	74	H2	Pulse	0.6	471,957	544239.553333333	86.7	
Ge	74	He	Pulse	0.3	142,091	160421.983333333	88.6	
Ge	74	NoGas	Pulse	11.6	582,720	723967.716666667	80.5	
Rh	103	He	Pulse	0.2	320,061	360477.35	88.8	
Rh	103	NoGas	Pulse	9.8	612,199	765122.756666667	80.0	
Tb	159	He	Pulse	0.4	482,602	517968.26	93.2	
Tb	159	NoGas	Pulse	10.5	1,063,572	1243337.24	85.5	
Bi	209	He	Pulse	1.1	285,729	301934.656666667	94.6	
Bi	209	NoGas	Pulse	10.3	624,045	720637.873333333	86.6	

CRL Verification Report - ICPMS5

Sample Name:	**9L04031-CRL7**	Total Dilution:	**1.0000**
File Name:	098CRL.d	Vial:	1102
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CRL1
Acq Time:	12/4/2019 18:19:59	I.S. Reference File:	003CALB.d
Comment:	**A19K144 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.167	ppb	14.0	397	92.78		
Na	23	45	He	9.753	ppb	1.1	9,866	108.37		
Mg	24	45	He	8.853	ppb	5.4	4,436	98.37		
Al	27	45	He	9.198	ppb	5.8	2,384	102.2		
K	39	45	He	10.218	ppb	10.5	25,872	113.53		
Ca	44	45	H2	10.131	ppb	5.0	2,011	112.57		
[Ca]	44	45	He	10.486	ppb	22.9	360	116.51		
Ti	47	45	NoGas	0.187	ppb	13.1	203	103.89		
V	51	74	He	0.172	ppb	12.7	1,472	95.56		
Cr	52	74	He	0.164	ppb	11.6	722	91.11		
Mn	55	74	He	0.160	ppb	9.9	474	88.89		
Fe	56	74	H2	9.693	ppb	1.3	87,109	107.7		
Co	59	74	He	0.177	ppb	4.4	806	98.33		
Ni	60	74	He	0.187	ppb	20.8	232	103.89		
Cu	65	74	He	0.166	ppb	15.3	241	92.22		
Zn	66	74	He	0.233	ppb	8.3	150	129.44		
As	75	74	He	0.180	ppb	27.7	72	100		
Se	78	74	H2	0.243	ppb	20.6	54	135	R-11	< MRL
Mo	95	103	He	0.193	ppb	13.8	261	107.22		
Ag	107	103	He	0.181	ppb	7.8	694	100.56		
Cd	111	103	He	0.195	ppb	11.5	129	108.33		
[Cd]	111	103	NoGas	0.182	ppb	11.1	341	101.11		
Sb	121	103	He	0.257	ppb	11.8	473	142.78	R-11	< MRL
Ba	138	159	He	0.195	ppb	3.4	813	108.33		
Hg	201	159	NoGas	5.860	ppt	73.7	11	81.39		
Tl	205	159	He	0.180	ppb	7.2	1,210	100		
Pb	208	159	NoGas	0.212	ppb	3.6	4,647	117.78		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.3	799,536	924116.613333333	86.5	
Sc	45	H2	Analog	0.8	1,529,522	1737112.96	88.0	
Sc	45	He	Pulse	0.8	238,621	266695.646666667	89.5	
Sc	45	NoGas	Analog	0.6	2,456,223	2759645.24	89.0	
Ge	74	H2	Pulse	0.5	482,604	544239.553333333	88.7	
Ge	74	He	Pulse	0.7	145,938	160421.983333333	91.0	
Ge	74	NoGas	Pulse	0.5	648,431	723967.716666667	89.6	
Rh	103	He	Pulse	0.8	326,782	360477.35	90.7	
Rh	103	NoGas	Pulse	0.6	677,114	765122.756666667	88.5	
Tb	159	He	Pulse	0.4	487,314	517968.26	94.1	
Tb	159	NoGas	Pulse	0.5	1,173,059	1243337.24	94.3	
Bi	209	He	Pulse	0.7	288,194	301934.656666667	95.4	
Bi	209	NoGas	Pulse	0.7	686,542	720637.873333333	95.3	

CRL Verification Report - ICPMS5

Sample Name:	**9L04031-CRL8**	Total Dilution:	**1.0000**
File Name:	099_CRL.d	Vial:	1103
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CRL2
Acq Time:	12/4/2019 18:24:42	I.S. Reference File:	003CALB.d
Comment:	**A19K145 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.857	ppb	3.0	1,932	95.22	
Na	23	45	He	45.309	ppb	0.5	38,762	100.69	
Mg	24	45	He	45.594	ppb	3.0	21,326	101.32	
Al	27	45	He	45.295	ppb	3.9	11,528	100.66	
K	39	45	He	47.459	ppb	2.3	41,562	105.46	
Ca	44	45	H2	45.922	ppb	4.2	8,062	102.05	
[Ca]	44	45	He	44.931	ppb	2.9	1,075	99.85	
Ti	47	45	NoGas	0.910	ppb	10.4	885	101.11	
V	51	74	He	0.943	ppb	1.5	3,577	104.78	
Cr	52	74	He	0.843	ppb	2.4	2,941	93.67	
Mn	55	74	He	0.864	ppb	12.0	2,115	96	
Fe	56	74	H2	45.393	ppb	0.5	389,057	100.87	
Co	59	74	He	0.907	ppb	8.2	3,992	100.78	
Ni	60	74	He	0.931	ppb	7.7	1,008	103.44	
Cu	65	74	He	0.942	ppb	7.2	1,239	104.67	
Zn	66	74	He	0.863	ppb	13.8	473	95.89	
As	75	74	He	0.844	ppb	6.8	287	93.78	
Se	78	74	H2	0.976	ppb	6.5	219	108.44	
Mo	95	103	He	0.959	ppb	4.0	1,300	106.56	
Ag	107	103	He	0.910	ppb	3.8	3,524	101.11	
Cd	111	103	He	0.916	ppb	2.6	610	101.78	
[Cd]	111	103	NoGas	0.873	ppb	1.6	1,613	97	
Sb	121	103	He	0.905	ppb	5.6	1,637	100.56	
Ba	138	159	He	0.957	ppb	2.4	3,823	106.33	
Hg	201	159	NoGas	40.759	ppt	16.5	41	113.22	
Tl	205	159	He	0.868	ppb	3.6	5,850	96.44	
Pb	208	159	NoGas	0.934	ppb	1.2	18,899	103.78	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.4	807,735	924116.613333333	87.4	
Sc	45	H2	Analog	1.3	1,559,856	1737112.96	89.8	
Sc	45	He	Pulse	0.4	241,830	266695.646666667	90.7	
Sc	45	NoGas	Analog	0.5	2,482,580	2759645.24	90.0	
Ge	74	H2	Pulse	0.2	490,328	544239.553333333	90.1	
Ge	74	He	Pulse	0.6	146,810	160421.983333333	91.5	
Ge	74	NoGas	Pulse	0.5	656,546	723967.716666667	90.7	
Rh	103	He	Pulse	0.9	329,959	360477.35	91.5	
Rh	103	NoGas	Pulse	0.2	683,393	765122.756666667	89.3	
Tb	159	He	Pulse	0.9	492,382	517968.26	95.1	
Tb	159	NoGas	Pulse	0.3	1,180,368	1243337.24	94.9	
Bi	209	He	Pulse	0.4	289,682	301934.656666667	95.9	
Bi	209	NoGas	Pulse	0.7	692,368	720637.873333333	96.1	

CRL Verification Report - ICPMS5

Sample Name:	**9L04031-CRL9**	Total Dilution:	**1.0000**
File Name:	100CRL_.d	Vial:	1104
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CRL3
Acq Time:	12/4/2019 18:29:24	I.S. Reference File:	003CALB.d
Comment:	**A19K146 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.765	ppb	1.2	3,964	98.06	
Na	23	45	He	89.962	ppb	1.1	75,105	99.96	
Mg	24	45	He	88.658	ppb	0.3	41,178	98.51	
Al	27	45	He	90.747	ppb	1.2	23,072	100.83	
K	39	45	He	94.110	ppb	1.3	60,959	104.57	
Ca	44	45	H2	89.575	ppb	1.7	15,538	99.53	
[Ca]	44	45	He	93.314	ppb	3.0	2,077	103.68	
Ti	47	45	NoGas	1.739	ppb	12.6	1,663	96.61	
V	51	74	He	1.844	ppb	0.6	6,043	102.44	
Cr	52	74	He	1.711	ppb	1.7	5,789	95.06	
Mn	55	74	He	1.746	ppb	1.6	4,182	97	
Fe	56	74	H2	89.776	ppb	0.7	766,655	99.75	
Co	59	74	He	1.742	ppb	4.2	7,657	96.78	
Ni	60	74	He	1.845	ppb	8.0	1,965	102.5	
Cu	65	74	He	1.925	ppb	2.8	2,508	106.94	
Zn	66	74	He	1.814	ppb	7.3	963	100.78	
As	75	74	He	1.833	ppb	8.2	608	101.83	
Se	78	74	H2	1.728	ppb	2.8	390	96	
Mo	95	103	He	1.748	ppb	2.0	2,377	97.11	
Ag	107	103	He	1.766	ppb	1.1	6,867	98.11	
Cd	111	103	He	1.785	ppb	5.8	1,192	99.17	
[Cd]	111	103	NoGas	1.714	ppb	2.1	3,159	95.22	
Sb	121	103	He	1.828	ppb	3.8	3,300	101.56	
Ba	138	159	He	1.907	ppb	3.1	7,563	105.94	
Hg	201	159	NoGas	65.772	ppt	5.7	62	91.35	
Tl	205	159	He	1.743	ppb	1.7	11,735	96.83	
Pb	208	159	NoGas	1.844	ppb	2.4	36,557	102.44	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Mix	0.6	811,248	924116.613333333	87.8	
Sc	45	H2	Analog	0.2	1,574,941	1737112.96	90.7	
Sc	45	He	Pulse	0.5	242,544	266695.646666667	90.9	
Sc	45	NoGas	Analog	0.9	2,481,327	2759645.24	89.9	
Ge	74	H2	Pulse	0.3	492,873	544239.553333333	90.6	
Ge	74	He	Pulse	0.9	147,250	160421.983333333	91.8	
Ge	74	NoGas	Pulse	1.3	656,455	723967.716666667	90.7	
Rh	103	He	Pulse	0.6	331,218	360477.35	91.9	
Rh	103	NoGas	Pulse	0.4	684,075	765122.756666667	89.4	
Tb	159	He	Pulse	1.0	492,037	517968.26	95.0	
Tb	159	NoGas	Pulse	0.5	1,171,929	1243337.24	94.3	
Bi	209	He	Pulse	0.7	287,706	301934.656666667	95.3	
Bi	209	NoGas	Pulse	0.1	689,031	720637.873333333	95.6	

CRL Verification Report - ICPMS5

Sample Name:	**9L04031-CRLA**	Total Dilution:	**1.0000**
File Name:	101CRL4.d	Vial:	1105
File Path:	C:\Agilent\ICPMH\1\DATA\9L04031.b	Sample Type:	CRL4
Acq Time:	12/4/2019 18:34:07	I.S. Reference File:	003CALB.d
Comment:	**A19K147 - ESS 12/04**	Last Calibration:	12/04/2019 11:41:46

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.478	ppb	3.7	7,704	96.61	
Na	23	45	He	180.406	ppb	0.6	147,385	100.23	
Mg	24	45	He	181.434	ppb	1.8	83,190	100.8	
Al	27	45	He	178.852	ppb	1.0	45,046	99.36	
K	39	45	He	188.205	ppb	1.0	99,098	104.56	
Ca	44	45	H2	183.688	ppb	0.7	31,608	102.05	
[Ca]	44	45	He	182.594	ppb	4.1	3,892	101.44	
Ti	47	45	NoGas	3.490	ppb	5.4	3,290	96.94	
V	51	74	He	3.617	ppb	1.2	10,881	100.47	
Cr	52	74	He	3.410	ppb	3.2	11,352	94.72	
Mn	55	74	He	3.570	ppb	0.2	8,444	99.17	
Fe	56	74	H2	190.541	ppb	0.2	1,624,482	105.86	
Co	59	74	He	3.603	ppb	0.5	15,805	100.08	
Ni	60	74	He	3.742	ppb	2.9	3,949	103.94	
Cu	65	74	He	3.803	ppb	2.6	4,931	105.64	
Zn	66	74	He	3.636	ppb	4.3	1,900	101	
As	75	74	He	3.633	ppb	3.9	1,192	100.92	
Se	78	74	H2	3.728	ppb	7.0	842	103.56	
Mo	95	103	He	3.461	ppb	2.9	4,686	96.14	
Ag	107	103	He	3.572	ppb	0.9	13,847	99.22	
Cd	111	103	He	3.642	ppb	2.0	2,424	101.17	
[Cd]	111	103	NoGas	3.394	ppb	2.1	6,192	94.28	
Sb	121	103	He	3.610	ppb	1.5	6,480	100.28	
Ba	138	159	He	3.806	ppb	0.9	15,000	105.72	
Hg	201	159	NoGas	136.197	ppt	1.5	123	94.58	
Tl	205	159	He	3.555	ppb	1.7	23,843	98.75	
Pb	208	159	NoGas	3.677	ppb	0.8	72,700	102.14	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.3	803,272	924116.613333333	86.9	
Sc	45	H2	Analog	0.7	1,580,818	1737112.96	91.0	
Sc	45	He	Pulse	0.5	240,749	266695.646666667	90.3	
Sc	45	NoGas	Analog	0.6	2,469,794	2759645.24	89.5	
Ge	74	H2	Pulse	0.5	494,424	544239.553333333	90.8	
Ge	74	He	Pulse	0.5	147,333	160421.983333333	91.8	
Ge	74	NoGas	Pulse	0.9	650,922	723967.716666667	89.9	
Rh	103	He	Pulse	0.8	330,167	360477.35	91.6	
Rh	103	NoGas	Pulse	0.2	678,001	765122.756666667	88.6	
Tb	159	He	Pulse	0.8	490,572	517968.26	94.7	
Tb	159	NoGas	Pulse	0.2	1,176,514	1243337.24	94.6	
Bi	209	He	Pulse	0.8	290,842	301934.656666667	96.3	
Bi	209	NoGas	Pulse	0.5	688,664	720637.873333333	95.6	

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Metals IFA/IFB Metals Internal Standards Recovery Summary

A19L002 IFA
A19L003 IFB
A9K0609 (I.S Tables)

Analytical Standard Record

A19L002

Description:	ICSA working std	Expires:	04/15/2020
Standard Type:	Calibration Standard	Prepared:	12/02/2019
Solvent:	3.5% HNO3 + 0.4% HCl	Prepared By:	Emily S. Stefansson
Final Volume (mls):	50	Department:	Metals
Vials:	1	Last Edit:	12/09/2019 12:30 by jsj

Analyte	Parent	CAS Number	Concentration	Units
Tungsten	A19J281	7440-33-7	0.1	ug/mL
Aluminum	A19K163	7429-90-5	100	ug/mL
Calcium	A19K163	7440-70-2	300	ug/mL
Carbon	A19K163	7440-44-0	200	ug/mL
Chlorine	A19K163	7782-50-5	2000	ug/mL
Iron	A19K163	7439-89-6	250	ug/mL
Magnesium	A19K163	7439-95-4	100	ug/mL
Molybdenum	A19K163	7439-98-7	2	ug/mL
Phosphorus	A19K163	7723-14-0	100	ug/mL
Potassium	A19K163	7440-09-7	100	ug/mL
Sodium	A19K163	7440-23-5	250	ug/mL
Sulfur	A19K163	7704-34-9	100	ug/mL
Titanium	A19K163	7440-32-6	2	ug/mL

Parent Standards used:

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit		(mls)
A19H398	Conc. HCl - Omnitrace	08/23/2019	Omni Trace	56208	08/23/2021	08/29/2019 11:38	by jsj	0.2
A19J277	Conc. HNO3 - Omnitrace	10/18/2019	Omni Trace	59162	04/15/2020	10/28/2019 13:30	by jsj	1.75
A19J281	1 W 10 ppm	10/18/2019	Dilution	n/a	04/15/2020	10/28/2019 12:35	by jsj	0.5
A19K163	6020A ICS Interferents A	11/11/2019	LGC	1021679-1	10/30/2020	11/12/2019 15:04	by jsj	5

Reviewed By _____ Date _____

Analytical Standard Record

A19L003

Description:	ICSA+B working std	Expires:	03/30/2020
Standard Type:	Calibration Standard	Prepared:	12/02/2019
Solvent:	3.5% HNO3 + 0.4% HCl	Prepared By:	Emily S. Stefansson
Final Volume (mls):	50	Department:	Metals
Vials:	1	Last Edit:	12/09/2019 12:30 by jsj

Analyte	Parent	CAS Number	Concentration	Units
Mercury	A19J028	7439-97-6	0.002	ug/mL
Tungsten	A19J281	7440-33-7	0.1	ug/mL
Aluminum	A19K163	7429-90-5	100	ug/mL
Calcium	A19K163	7440-70-2	300	ug/mL
Carbon	A19K163	7440-44-0	200	ug/mL
Chlorine	A19K163	7782-50-5	2000	ug/mL
Iron	A19K163	7439-89-6	250	ug/mL
Magnesium	A19K163	7439-95-4	100	ug/mL
Molybdenum	A19K163	7439-98-7	2	ug/mL
Phosphorus	A19K163	7723-14-0	100	ug/mL
Potassium	A19K163	7440-09-7	100	ug/mL
Sodium	A19K163	7440-23-5	250	ug/mL
Sulfur	A19K163	7704-34-9	100	ug/mL
Titanium	A19K163	7440-32-6	2	ug/mL
Arsenic	A19K267	7440-38-2	0.1	ug/mL
Cadmium	A19K267	7440-43-9	0.1	ug/mL
Chromium	A19K267	7440-47-3	0.2	ug/mL
Cobalt	A19K267	7440-48-4	0.2	ug/mL
Copper	A19K267	7440-50-8	0.2	ug/mL
Manganese	A19K267	7439-96-5	0.2	ug/mL
Nickel	A19K267	7440-02-0	0.2	ug/mL
Selenium	A19K267	7782-49-2	0.1	ug/mL
Silver	A19K267	7440-22-4	0.05	ug/mL
Vanadium	A19K267	7440-62-2	0.2	ug/mL
Zinc	A19K267	7440-66-6	0.1	ug/mL

Parent Standards used:

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit		(mls)
A19H398	Conc. HCl - Omnitrace	08/23/2019	Omni Trace	56208	08/23/2021	08/29/2019 11:38	by jsj	0.2
A19J028	Hg Stock 1.00ppm Std Primary	10/02/2019	n/a	n/a	03/30/2020	10/23/2019 17:40	by jsj	0.1
A19J277	Conc. HNO3 - Omnitrace	10/18/2019	Omni Trace	59162	04/15/2020	10/28/2019 13:30	by jsj	1.75
A19J281	1 W 10 ppm	10/18/2019	Dilution	n/a	04/15/2020	10/28/2019 12:35	by jsj	0.5
A19K163	6020A ICS Interferents A	11/11/2019	LGC	1021679-1	10/30/2020	11/12/2019 15:04	by jsj	5
A19K267	6020A & CLP-M ICS Analytes B	11/19/2019	LGC	1004999-3	11/11/2020	12/02/2019 15:04	by jsj	0.5

Reviewed By

Date

		6 Li (ISTD) [NoGas]	45 Sc (ISTD) [H2]	45 Sc (ISTD) [He]	45 Sc (ISTD) [NoGas]	74 Ge (ISTD) [H2]	74 Ge (ISTD) [He]	74 Ge (ISTD) [NoGas]	103 Rh (ISTD) [He]	103 Rh (ISTD) [NoGas]	159 Tb (ISTD) [He]	159 Tb (ISTD) [NoGas]	209 Bi (ISTD) [He]	209 Bi (ISTD) [NoGas]
Acq. Date-Time	Sample Name	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value
12/4/2019 10:29 AM	Rinse													
12/4/2019 10:34 AM	Rinse													
12/4/2019 10:39 AM	9L04031-CAL0	100	100	100	100	100	100	100	100	100	100	100	100	100
12/4/2019 10:44 AM	9L04031-CAL1	96.02851998	97.73736284	99.87859319	97.26654865	98.78990358	100.1401554	100.1174762	100.4234099	99.89176595	99.81238361	100.1392202	100.8358762	100.3566761
12/4/2019 10:49 AM	9L04031-CAL2	94.91113719	96.75009544	100.041738	97.94824739	99.02330264	100.7160428	99.73322291	99.90409291	99.06210388	100.2970291	100.4359576	100.6076182	100.4192628
12/4/2019 10:54 AM	9L04031-CAL3	95.73638802	96.63997403	100.3229449	97.37688941	98.37019257	100.0129222	99.4925957	99.08947492	98.52369833	100.0266374	99.76319672	100.2294459	100.0306788
12/4/2019 10:59 AM	9L04031-CAL4	95.87307603	96.5455835	99.80374508	96.72165265	98.31571044	99.97993625	99.46987553	99.06416127	98.02202807	99.97770777	99.71163844	100.2248974	100.0180359
12/4/2019 11:04 AM	9L04031-CAL5	95.51197189	95.98327503	98.87826565	95.65611291	97.64942479	99.00356341	97.37657179	97.45017914	96.14045941	98.98617984	98.15794252	100.2243653	99.29202722
12/4/2019 11:09 AM	9L04031-CAL6	89.71442219	95.80267634	95.1515869	91.50197062	95.64477018	95.47071843	92.76685519	93.40441963	90.77796044	97.75986789	96.05483009	97.4989986	96.86565877
12/4/2019 11:14 AM	9L04031-CAL7	82.34562598	88.73962117	81.93762168	83.17907534	89.88373906	82.34479917	84.55172552	81.41211184	82.86903696	87.00283038	90.24319768	87.27677689	90.77425628
12/4/2019 11:18 AM	9L04031-CAL8	79.60141026	82.39253096	82.95083032	79.13980313	83.38584309	83.22670241	80.76187882	81.85341002	79.15778412	89.70053493	88.7193333	90.32919562	86.05334981
12/4/2019 11:23 AM	9L04031-CAL9	80.73081282	79.4589808	80.57575468	79.09217684	75.78044401	78.19458867	76.24574926	75.17821577	72.76071434	85.77500354	86.36280961	82.94777732	81.89559165
12/4/2019 11:29 AM	Rinse	83.31220709	84.71277596	87.31566597	83.16656782	86.73636829	87.69204428	84.95191418	88.74458455	84.76028337	92.92931578	91.32007231	94.65386644	93.22029989
12/4/2019 11:34 AM	9L04031-CAL7	79.70254865	84.91792478	83.96630621	79.60157408	85.21695955	84.43095964	81.05245301	84.39413091	79.42346262	91.2420586	88.93081226	92.74559704	89.54631962
12/4/2019 11:39 AM	9L04031-ICV1	79.81105913	81.75537665	83.46002998	80.23738213	83.46780333	84.14791032	80.87406015	83.96694642	79.3169002	91.17231623	88.94760819	92.46643509	90.4673097
12/4/2019 11:43 AM	9L04031-ICB1	80.78289896	82.39032212	84.54435839	81.56622504	84.45263926	86.24667297	83.33458055	86.77787661	83.10745099	91.56468391	90.05136826	93.10030182	91.78926168
12/4/2019 11:48 AM	9L04031-CRL1	82.98462722	85.16987634	86.98080236	84.42018861	86.49010296	87.6801278	85.3990064	88.76419466	84.78456531	92.53881116	90.82980227	94.02839115	92.19321029
12/4/2019 11:53 AM	9L04031-CRL2	83.76814414	86.78140731	88.10348035	84.8354066	87.43576557	88.96306917	86.51816127	89.10934071	85.88706639	92.7630379	91.37242443	94.76766038	93.48581189
12/4/2019 11:57 AM	9L04031-CRL3	84.44202266	87.54968992	88.9749294	85.17490265	88.34971237	89.81047174	86.65721305	89.70375439	85.69748548	93.73196342	91.44259686	94.59376514	93.29386389
12/4/2019 12:02 PM	9L04031-IFA1	86.85628146	73.78210127	78.59783588	81.0548209	66.27108739	73.51350329	75.17338745	66.16558387	68.11148304	78.04493529	82.64231004	70.26533125	74.57960739
12/4/2019 12:07 PM	9L04031-IFB1	86.91383227	78.65797589	78.50844309	82.2870747	68.99770962	72.79420661	75.17762889	66.81472035	68.61281785	76.89786758	82.30632744	69.14236311	73.75039758
12/4/2019 12:17 PM	Rinse	71.56661296	75.90893705	76.96334851	72.58232173	78.03784334	78.56422629	74.85506525	80.76974323	75.09989497	87.94083573	84.71867509	91.15773582	88.57050681
12/4/2019 12:22 PM	9120475-BLK1	72.43037408	75.54350985	76.78969613	73.24679325	76.98814749	78.0347228	74.59280769	77.96801103	73.66118292	86.97608421	84.33395941	88.92082246	86.10024206
12/4/2019 12:27 PM	9120475-BS1	72.81124809	75.46761572	76.86732019	74.42672462	77.19886107	78.38969493	75.12223047	78.50015542	73.75845838	86.90036979	84.38916755	88.86295453	86.76297252
12/4/2019 12:31 PM	A9K0384-13	73.60354529	74.43165757	77.38464022	74.94727595	77.10158528	78.72640481	76.04288248	78.3459719	74.0501754	86.66470799	84.76827655	88.79835225	86.85132711
12/4/2019 12:36 PM	A9K0384-16	77.58869241	76.97084612	80.41710567	77.59362395	78.60347293	80.60443711	78.63635448	80.22106336	76.91074905	89.00565966	86.91475559	90.05860065	88.542891
12/4/2019 12:41 PM	A9K0384-22	74.60679674	78.46360416	79.26231742	74.96699805	79.09800149	79.7289669	76.2368124	79.90017496	74.50695875	87.99830708	85.06464639	89.89752165	87.15158749
12/4/2019 12:45 PM	A9K0384-28	74.87498944	77.45123956	79.2053861	74.89205605	78.39185411	79.96616424	76.39819897	79.83379816	74.69765974	88.02207173	85.53220873	89.71118221	87.45070952
12/4/2019 12:50 PM	9120475-MS1	73.34043744	77.6428928	78.83351652	74.17380685	78.39609489	79.79398709	74.50254078	79.47048268	72.82560589	87.58910569	82.76701715	89.5040789	84.63785246
12/4/2019 12:55 PM	A9L0062-01	76.46461206	78.11512826	79.95721315	76.78763751	79.42716414	81.06584519	78.30284375	80.49400885	75.60795637	88.20133496	85.80119046	89.33189043	86.91825578
12/4/2019 12:59 PM	9120475-MS2	76.70258274	78.43307572	79.42608837	76.53548915	79.5540378	80.78488827	78.08131868	79.90939606	75.76217606	88.20752389	85.98521213	88.98813062	87.15836852
12/4/2019 1:04 PM	9120476-BLK1	76.54351985	77.42268854	79.53544774	76.54645095	79.41931833	80.77816226	77.25400094	82.10650313	77.36168105	88.68268621	85.77834629	91.17359355	89.14658625
12/4/2019 1:09 PM	9L04031-CCV1	79.27160592	79.0382916	82.29195317	79.89826801	80.5195875	82.68504348	80.71370678	82.12495274	78.72367688	89.61433274	87.89132786	91.46879319	89.42047093
12/4/2019 1:13 PM	9L04031-CCB1	81.30166682	82.47995763	83.32696319	81.9671076	83.05768184	85.14612139	82.43864926	86.01727681	81.76029331	90.99428988	89.08427156	93.00538835	91.61422925
12/4/2019 1:18 PM	9120476-BS1	77.53544048	80.31148398	81.5224218	77.21747005	82.22173072	82.80266244	78.55570125	83.62330023	78.43020632	89.62112659	86.85709223	93.29539591	90.00590967
12/4/2019 1:23 PM	A9K0384-31	82.42639825	79.49302119	82.06528281	81.93411	79.65632364	82.81547032	81.37317771	82.59932651	79.28415731	90.43453808	89.00948708	92.17488415	90.87701848
12/4/2019 1:28 PM	9120476-MS1	73.50168585	81.22540958	81.88408	72.68631891	80.92651002	82.93741537	72.2677519	81.95522872	71.07351318	89.6418563	79.71889268	92.40785951	80.83088676
12/4/2019 1:32 PM	A9K0898-01	75.25484446	75.25973421	75.99515998	74.76737976	75.59350366	76.66485235	74.60175837	76.11450946	72.17796472	86.25334108	84.45602069	86.38726214	84.29742443
12/4/2019 1:37 PM	9120476-MS2	80.59794647	78.73061404	82.01349468	80.57899548	78.85911649	81.93628492	80.56113874	80.7639768	77.45477766	89.33909194	88.19080735	88.77164228	87.78629046
12/4/2019 1:41 PM	9120476-MS3	81.989312	83.45474091	83.05815491	80.84538009	82.37591588	83.94638557	80.99570692	83.16752957	79.19894571	90.31082651	88.40810372	91.80224061	89.50879037
12/4/2019 1:46 PM	9120481-BLK1	79.39843371	80.94784559	81.55060624	78.37143081	80.62073719	81.56824517	78.54157079	81.15960869	76.40914806	89.32213144	86.62594256	90.59394496	87.71042943
12/4/2019 1:51 PM	9120481-BS1	77.52198402	78.93174412	79.29227541	76.04341093	79.26379797	80.08424448	76.37697611	79.34973908	74.51936852	88.04309232	85.24651445	89.02409536	86.74991696
12/4/2019 1:55 PM	A9K0609-01	80.15885795	79.76400088	82.09268483	79.39435469	79.76554148	82.40608961	79.66607121	81.41222373	77.49241432	89.12974899	87.31514334	90.44895111	88.87051695
12/4/2019 2:00 PM	A9K0609-02	78.42756165	80.2677292	81.01737419	77.37505528	79.40893075	81.14537087	77.70350349	80.95033618	75.66644938	88.60523873	86.18421312	90.03142148	87.93013016
12/4/2019 2:05 PM	9L04031-CCV2	77.06760233	78.90483261	79.22739746	77.0675881	79.04305265	80.33353908	77.53602871	79.49518234	75.58203678	88.0494846	85.83579142	89.91024515	87.6765525
12/4/2019 2:09 PM	9L04031-CCB2	75.81461977	76.84607012	78.3883249	75.40231898	78.44043811	79.73349039	76.49339935	81.21457377	76.30114186	87.54554768	85.13719978	91.30117303	88.37044054
12/4/2019 2:14 PM	A9K0695-01	76.1931492	76.09947408	78.33046869	76.55559898	77.24918389	79.54169415	76.69335394	79.06762057	74.77741774	87.58811528	84.96903329	88.94878878	87.26750748
12/4/2019 2:19 PM	A9K0695-02	77.75749038	77.77413508	79.87071505	77.41824755	78.61458446	80.86242752	78.32274151	80.15803674	75.8248379	88.03883594	85.9182547	89.36053791	87.86131844
12/4/2019 2:24 PM	9120481-MS1	77.64357366	79.88886879	80.49012274	77.34349615	79.73817057	80.92684928	78.01527706	80.26916902	75.28152204	88.22131045	85.5737641	89.40783733	87.58920072
12/4/2019 2:28 PM	9120483-BLK1	75.20416579	78.48897748	79.52764108	75.05104279	78.46504308	80.45954425	75.09326049	82.07564405	74.80845939	87.98119985	83.43680593	90.88492955	86.68062464
12/4/2019 2:33 PM	9120483-BS1	77.1649811	77.27507312	79.70748404	77.02276109	77.96697136	80.28507523	77.62465651	80.87643879	76.3313771	88.0190355	85.73716573	89.83257603	87.47086065
12/4/2019 2:37 PM	A9L0052-01	81.28134507	80.7777607	82.75736009	81.09078929	81.90618585	83.56961884	81.52600773	84.77301371	80.91933152	91.38765054	89.7150728	99.9863083	98.40102538
12/4/2019 2:42 PM	9120483-DUP1	81.52744352	83.45574257	84.60957005	81.70890678	83.94945275	85.81837755	82.88049723	87.25616371	82.43437642	93.20509909	90.34549227	101.1633102	98.81385178
12/4/2019 2:47 PM	9120483-MS1	80.02905218	83.69239077	84.07861901	81.48714917	83.81444174	84.96452325	82.07215087	85.99167742	81.14436164	92.5740778	89.44999749	100.6192499	97.34877058
12/4/2019 2:55 PM	9L04031-CCV3	77.15735075	80.01296012	82.08267841	78.49821897	82.38047638	83.70558524	79.22262878	82.58572048	77.48958515	90.91127064	87.09768987	92.57373535	89.26040949
12/4/2019 3:00 PM	9L04031-CCB3	80.78524246	80.97304814	83.6351772	80.64104778	82.21725168	84.91408337	82.64556318	85.69742408	82.20830551	91.34446642	88.96709955	94.36493417	92.48183283
12/4/2019 3:04 PM	9L04031-CRL4	82.40069803	83.86014306	85.26233662	82.6304274	84.36321601	86.33894004	83.89534819	87.02907964	83.25298493	92.62723035	90.61421287	94.69682276	93.03646646
12/4/2019 3:09 PM	9L04031-CRL5	83.01007783	84.76752331	85.65639379	83.06545325	84.92185053	87.01839804	84.29416616	87.44582334	83.53605977	93.15864451	90.94146358	94.91742236	93.92597795
12/4/2019 3:14 PM	9L04031-CRL6	82.88565847	83.73823945	85.46996155	83.43881622	85.28915263	87.1782182	84.47207234	87.34155049	83.35636137	92.62596193	90.38720634	94.65322282	93.68934083
12/4/2019 3:19 PM	A9K0692-04RE1	81.54060275	83.53920212	85.25747589	83.10509168	84.30475156	86.31414502	83.22078266	86.58029138	82.54890097	92.31654529	90.17799574	95.83343844	93.71855199
12/4/2019 3:23 PM	A9K0692-06RE1	81.78958215	84.46281908	85.59257573	83.14425094	84.85434533	86.42450396	83.58355666	86.54996123	82.37205745	92.70789295	90.38553289	94.82073257	93.58192072
12/4/2019 3:28 PM	9120438-MS2	81.86584345	83.38376701	85.24121141	82.20789882	84.03829475	86.47405244	83.53898884	86.57967738	82.01976322	92.84657391	90.51918421	94.82967711	93.12110074
12/4/2019 3:36 PM	9120438-MSD2	81.81823979	83.57691642	86.87845223	83.31981698	85.33738323	88.09179207	84.10094575	87.24720245	82.64929183	94.08321467	91.39293911	96.24482326	93.97281053
12/4/2019 3:41 PM	A9K0692-07RE1	82.01833756	84.43233459	86.44254086	82.51796355	85.54994037	87.33729241	84.28876905	87.81040011	83.418703	93.85544332	91.56208791	96.75319926	94.92425234
12/4/2019 3:46 PM	A9K0672-04RE1	71.16925799	77.91346837	76.30844093	70.87847023	78.94469522	77.88848557	72.76414558	78.96716581	71.72429067	87.96722988	83.82010794	91.07739945	87.71816563
12/4/2019 3:50 PM	9120510-BLK1	72.60062316	74.86644162	75.28968664	72.64590816	75.52820827	77.65550835	74.13469795	80.43770203	74.33135773	88.85144172	84.97838312	90.54206949	88.21862457
12/4/2019 3:55 PM	9120510-BS1	78.845699	78.16716632	81.67908603	80.56735752	79.27649642	82.92244444	80.77032533	83.18217959	79.12544117	91.58650764	89.22602447	92.30444088	91.15797929
12/4/2019 4:00 PM	A9L0064-01	81.26280917	80.5615205	83.70212617	82.60311266	81.51829171	85.04221834	83.28420814	85.41969512	82.01364524	92.59599613	90.86308233	94.31698119	93.36694636
12/4/2019 4:04 PM	9120510-DUP1	81.10951538	83.33774851	84.86832943	81.91169335	83.82749849	85.44495824	82.93694772	86.55414365	82.45469604	92.84961013	90.95158661	94.41334641	93.3234178
12/4/2019 4:09 PM	9L04031-CCV4	81.70599061	82.85562865	85.74025343	83.05776241	84.47718421	87.21857842	83.44100334	86.32860474	81.39675905	94.11888031	91.2357514	94.15005876	93.21029256
12/4/2019 4:14 PM	9L04031-CCB4	85.30640852	86.3584164	88.30614458	86.89741174	87.94817106	89.97294739	87.88206693	90.54221761	87.11048402	95.64926494	94.12175252	96.74359674	96.20220349
12/4/2019 4:18 PM	9120510-MS1	80.17369806	80.42837544	82.81726483	81.4751254	81.62205606	83.72774554	81.25426956	83.65748269	79.70286703	91.34022099	90.01403915	92.14478824	90.81007224
12/4/2019 4:23 PM	9120510-MSD1	83.02918437	86.14133668	85.86552106	83.93205558	86.59633926	87.68158022	84.48388686	87.6978253	83.1345547	94.13156899	91.89241395	95.92260785	93.85889479
12/4/2019 4:28 PM	9120489-BLK1	82.97030508	84.11403559	86.33297901	83.52050196	85.40717909	87.46752186	84.12146969	88.75367805	83.91786735	93.54524349	92.08106134	94.7086178	93.73649258
12/4/2019 4:32 PM	9120489-BS1	80.32229691	83.57225696	84.11745979	81.73266189	84.20862661	85.21964207	82.2374354	85.85720758	81.13496402	92.9130709	90.50191295	93.334252	92.13603086
12/4/2019 4:37 PM	A9K0672-01	67.64741963	73.05253271	71.45726438	68.45837003	71.22861326	71.44368722	67.71270073	71.60797574	66.33422793	83.73517005	82.04851163	82.95065322	81.49223603
12/4/2019 4:42 PM	A9K0672-06	72.62461003	71.96768482	75.19653802	75.14122093	72.40917367	75.39726424	75.04255151	77.26696559	74.16773954	87.59755215	86.97060475	88.45972821	87.14307975
12/4/2019 4:46 PM	A9K0747-01	76.46510261	79.13585424	80.56579451	77.84423576	79.39173672	81.18278677	78.81430394	83.71705647	78.6147693	90.75969829	89.93278069	100.2899413	98.35802875
12/4/2019 4:51 PM	A9K0747-02	75.76532116	80.406582	80.48640689	77.63374723	80.40693367	81.36594538	78.18060396	83.17578159	78.13257478	91.20530796	88.8038947	97.69530156	95.2545981
12/4/2019 4:56 PM	9120489-DUP1	74.59896872	79.14549418	79.41745556	76.40811747	79.70797798	80.5114698	76.69954206	82.36751167	76.72238843	90.56372682	87.35218532	96.53701231	93.70599506
12/4/2019 5:00 PM	9120489-MS1	76.61307997	78.42969579	78.87870036	77.86126681	78.57586132	80.60790089	77.52983553	81.38219965	76.91152889	90.1797715	88.03983463	95.04340106	92.82375352
12/4/2019 5:05 PM	9L04031-CCV5	80.10279864	82.45341569	84.37900261	81.46791192	83.38119931	85.7870456	82.67160808	85.21167927	80.69899912	92.95928609	90.72884843	93.63441297	92.06290814
12/4/2019 5:10 PM	9L04031-CCB5	83.38599215	84.39828039	86.13446809	84.9002386	85.47786855	87.86609774	86.13997728	88.83409364	85.48283496	93.63570849	92.53199826	95.39694002	94.9039407
12/4/2019 5:14 PM	A9K0747-03	78.98873145	82.37639019	83.0563251	81.33937982	80.71290188	82.61059192	80.46242808	82.88881673	79.17992349	91.58150089	89.71769317	94.58347814	93.67562336
12/4/2019 5:19 PM	A9L0049-12	77.772794	84.57907308	84.29171335	83.21610957	79.88095206	81.48604529	79.84595768	82.18957261	79.24141689	91.40495983	90.50990247	90.87995496	89.56109773
12/4/2019 5:24 PM	A9L0084-11	77.46835479	82.96120689	82.31520689	81.40027496	79.00617122	80.17639727	78.76311796	80.89085856	77.73765296	90.44555098	89.24010164	90.21328533	88.56025756
12/4/2019 5:28 PM	A9L0084-12	77.12178741	82.89595936	83.35513013	82.19550435	79.04337358	80.65507024	78.96957882	80.69179381	78.27227262	90.40681116	89.68960237	90.14628518	89.22569071
12/4/2019 5:33 PM	A9L0084-20	76.5204654	82.56335635	82.67261305	81.37892294	78.46829594	80.01909547	78.19655402	80.22294235	76.97343747	90.24032476	88.53118697	89.98665131	87.90423088
12/4/2019 5:37 PM	A9L0084-21	77.62100399	84.68218555	84.58580764	83.57917955	79.18640925	80.71225068	79.94047064	80.92720389	78.8687072	89.99370541	89.94270586	90.07685957	89.40000017
12/4/2019 5:42 PM	A9L0084-22	78.12427165	84.14717429	84.43905984	83.50318222	79.71617106	81.50081883	80.36182414	81.72709603	79.28280023	90.48515122	90.29554202	90.29283676	89.61748666
12/4/2019 5:47 PM	A9L0084-23	78.00599401	84.22080373	84.03309895	82.38308849	80.34208907	82.04956532	80.19027506	81.98318979	79.3535575	90.84576984	90.8405883	90.91252824	90.4184849
12/4/2019 5:51 PM	A9L0084-24	78.45769457	83.92281985	83.73723611	82.75261171	80.22938134	81.87728427	80.19507269	82.69890559	79.67184804	90.85879381	90.59010222	92.1685649	91.3665954
12/4/2019 5:56 PM	9120489-MSD1	79.70068958	82.7489363	83.64310384	81.33255213	84.04973947	85.26688414	82.70075763	85.63988833	82.03364857	92.22595866	90.27817291	95.29994442	93.62620371
12/4/2019 6:01 PM	9L04031-CCV6	83.57939992	87.15511051	87.27134829	86.57975436	87.06113275	88.31485793	86.56397501	87.3654096	83.3544815	93.41057886	92.48395364	94.04146573	93.3815154
12/4/2019 6:05 PM	9L04031-CCB6	86.62394462	88.62813351	89.38718585	88.9664464	88.51554009	90.59550546	89.76771639	90.93595016	88.95919172	94.00003326	94.02812064	95.22414767	95.36662987
12/4/2019 6:10 PM	9L04031-CCV7	82.44175093	88.14936383	86.60142609	84.37910906	87.45958413	86.86239905	84.35615741	86.09044923	82.44306174	92.90477374	91.158431	93.47890471	92.17277469
12/4/2019 6:15 PM	9L04031-CCB7	78.05008656	86.79479447	87.4033002	79.66323732	86.7185575	88.5735278	80.48972303	88.78800846	80.01315798	93.17213504	85.54174489	94.63279566	86.59624569
12/4/2019 6:19 PM	9L04031-CRL7	86.51895787	88.0496505	89.47331399	89.0050237	88.67499254	90.97117509	89.56634231	90.65257036	88.49749064	94.08191858	94.34762446	95.44906389	95.26860005
12/4/2019 6:24 PM	9L04031-CRL8	87.40619979	89.79590366	90.67621576	89.96013029	90.09416601	91.51517991	90.68717912	91.53398588	89.3180544	95.06034211	94.93546953	95.94208999	96.07715872
12/4/2019 6:29 PM	9L04031-CRL9	87.7863596	90.66426342	90.94424288	89.91472421	90.56183139	91.78940875	90.67460858	91.88328476	89.40722614	94.99357998	94.2567588	95.28736444	95.61406806
12/4/2019 6:34 PM	9L04031-CRLA	86.92325461	91.00262426	90.27114103	89.49680962	90.84670044	91.84077951	89.91031115	91.59166588	88.61337662	94.71080332	94.62551769	96.32626803	95.56315853

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Total Solids by SM 2540G
Benchsheet Data

Batch 9111034 (A9K0609-01,02)

APEX LABORATORIES

Apex Laboratories

PREPARATION BENCH SHEET

Percent Solids + Dry Weight Worksheet

DEC 0 3 2019

BATCH #: 9111034 (Matrix: Sediment)

Lab Number	Analysis	QC Source ID	Prepared (Time In)	Weighed (Time Out)	Tare Wt. (g)	Wet Weight (+Tare) (g)	Dry Weight (+Tare) (g)	% Solids (Calc)	LogComments
A9K0609-01	Solids, Total (SM 254		11/20/19 16:52		1.285	28.31	23.934	83.8	
9111034-DUP1	QC	A9K0609-01	11/20/19 16:52		1.253	29.355	24.63	83.2	
A9K0609-02	Solids, Total (SM 254		11/20/19 16:52		1.269	29.116	26.868	91.9	

NRP 11/22/19
Prepared By: Date

James J Johnson 11/25/19
Reviewed By: Date

Batch #: 9111034

Total Solids Worksheet

Date: 11/20/2019

Analyst: nrp

Method: SM 2540 G

Sample ID	Tare Wt. (g)	Vessel ID	Initial (wet) Wt. (g)	Final Weight (g) 1st weighing	2nd Weighing	3rd Weighing	Comments
A9K0609-01	1.285	609-01	28.310	23.944	23.934		
9111034-DUP1	1.253	609-01DUP	29.355	24.647	24.630		source: A9K0609-01
A9K0609-02	1.269	609-02	29.116	26.875	26.868		
Date/time first in oven:		Oven temp. (°C; in/out):		102.4/101.3	102.1/104.1	/	
11/20/19@17:00		Time of weighing:		11/21@13:50	11/22@10:35		

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Extraction by EPA 1311
Benchsheet Data

Batch 9120422 (A9K0609-01,02)
Batch 9120402 (A9K0609-01,02) (ZHE)

PREPARATION BENCH SHEET

BATCH #: 9120402 (Solid)

Apex Laboratories

DEC 0 5 2019

Prep Method: EPA 1311 TCLP/ZHE

Lab Number	Cont.	Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH*
A9K0609-01	B	TCLP/ZHE Extraction	12/02/19 17:00	25	500					PDI-138RAB-C-00-19.1-191118		
A9K0609-02	B	TCLP/ZHE Extraction	12/02/19 17:00	25	500					PDI-144RAB-C-00-29-191114		
A9K0695-01	B	TCLP/ZHE Extraction	12/02/19 17:00	20	400					PDI-134RAB-C-00-25.5-191120		
A9K0695-02	B	TCLP/ZHE Extraction	12/02/19 17:00	20	400					PDI-136RAB-C-00-13.4-191119		

*pH <2 verified

Standards/Reagents

Reagent(s)			Analyte Spike(s)			Surrogate(s)		
Std ID	Exp. Date	Description	Std ID	Exp. Date	Description	Std ID	Exp. Date	Description

TCLP Fluid #1
Fluid ID: A19L004
Start: 12/02/19 1700
Stop: 12/03/19 0945
Temp: 21.7 to 23 C
A19F218 Metals Balance

Note A9K0609-02 ZHE Extraction out of hold time (11/28)
MKT 12/3/19

A9K0609-02 (~~HH~~ expired 12/2 ZHE extraction on 12/2)
tml 12/3/19

Prepared By: 12/3/19 Date

MKT 12/3/19
Reviewed By: Date

APEX LABS ZHE WORKSHEET

Batch # 9120402

Analyst 

Sample ID	ZHE #	Matrix	Weight of Sample in Pan (g)	Weight of Sample Remaining in Pan (g)	Weight of Sample Added (g)	TCLP Fluid #1 (g)	Initial PSI (5-10)	Final PSI *	Comments
A9K0609-01	1	Soil	NA	NA	25.0	500	10	10	
02	2	↓	↓	↓	25.0	500	10	10	
A9K0695-01	12				20.0	400	10	08	
02	26	↓	↓	↓	20.0	400	10	10	

*Re-extract if pressure reads 0 PSI

Start

Date/Initals 12/2/19 [illegible]

Time (18+/- 2h) 1700 [illegible]

RPM (30) 30

Stop

Date/Initials 12/3/19 [illegible]

Time 0945

Temp (23+/- 2°C) Min: 21.3 **Max:** 22.4 **(For thermometer SN _EU6200919)** _____ **C.F.** 0

Comments: TCLP Fluid # 1 Lot # A19L004 **Temp before C.F.** NA

PREPARATION BENCH SHEET 9120422

DEC 1 0 2019

Apex Laboratories

BATCH #: 9120422 (Matrix: Soil)

TCLP Leachate Bench Sheet

ESS 12/4/19

#	Lab Number	Analysis	Initial (g)	Final (mL)	Start Time	Stop Time	Sample pH	TCLP Fluid	Client / Sample
	9120422-BLK1	QC	50	1000	12/03/19 ~~14:31~~ 15:30	12/4/19 0800	4.92	#1	
	A9K0609-01	TCLP Extraction - Metals	100	2000	12/03/19 15:30	12/4/19 0800	5.5	#1	Anchor QEA, LLC / PDI-138RAB-C-00-19.1-191118
	A9K0609-01	TCLP Extraction - Organics	100	2000	12/03/19 15:30	12/4/19 0800	5.5	#1	Anchor QEA, LLC / PDI-138RAB-C-00-19.1-191118
	A9K0609-02	TCLP Extraction - Metals	100	2000	12/03/19 15:30	12/4/19 0800	4	#1	Anchor QEA, LLC / PDI-144RAB-C-00-29-191114
	A9K0609-02	TCLP Extraction - Organics	100	2000	12/03/19 15:30	12/4/19 0800	4	#1	Anchor QEA, LLC / PDI-144RAB-C-00-29-191114
	A9K0695-01	TCLP Extraction - Metals	100	2000	12/03/19 15:30	12/4/19 0800	4.5	#1	Anchor QEA, LLC / PDI-134RAB-C-00-25.5-191120
	A9K0695-01	TCLP Extraction - Organics	100	2000	12/03/19 15:30	12/4/19 0800	4.5	#1	Anchor QEA, LLC / PDI-134RAB-C-00-25.5-191120
	A9K0695-02	TCLP Extraction - Metals	100	2000	12/03/19 15:30	12/4/19 0800	4.5	#1	Anchor QEA, LLC / PDI-136RAB-C-00-13.4-191119
	A9K0695-02	TCLP Extraction - Organics	100	2000	12/03/19 15:30	12/4/19 0800	4.5	#1	Anchor QEA, LLC / PDI-136RAB-C-00-13.4-191119

Fluid ID: A19L016
Syringe Filter Lot: A19J375
% Solids Filter Lot: A19C193

CRL 12/4/19
Prepared By: Date

ESS 12/4/19
Reviewed By: Date

TCLP / SPLP* (circle one) **Batch #** 9120422 **Prepared By:** ICT

*For SPLP, the FD pre-test is not performed. If the sample is water or waste (not soil) then use fluid #1. If the sample is soil, FD is based on sample origination: east of the Mississippi R. - use fluid #1, west of the Mississippi R. - use fluid #2.

Fluid Determination (FD)

Sample ID	Weight 5 g	+DI H2O 96.5 mL (19.3 mL/g)	pH after 5 min stir	If pH >5, add 3.5 mL 1N HCl** (0.7mL/g)	Heat to 50° for 10 min.	pH @ room temp	Fluid #	% Solids	Size Reduction
	(g)	(mL)	(s.u.)	(mL or "NA")	("✓" or NA")	(s.u. or "NA")	("1" or "2")	(%)	("Y" or "N")
A9K0609-01	1.0	19.3	4.5	—	—	—	1	100	N
A9K0609-02	1.0	19.3	4.5	—	—	—	1	100	N
A9K0695-01	1.0	19.3	4.5	—	—	—	1	100	N
A9K0695-02	1.0	19.3	4.5	—	—	—	1	100	N

**pH<5, FD is done, use fluid #1

Extraction

Weight*20

Sample ID	Tare Weight	Weight 100±0.1	Fluid 2000±1%	Fluid #	Fluid ID	Extract pH (to nearest 0.5)
	(g)	(g)	(g)	("1" or "2")		(s.u.)
9120422-BLK1	1162.3	50	1000	1	A19L016	4.92
A9K0609-01	1178.9	100	2000	1		5.5
A9K0609-02	1170.9	100	2000	1		4
A9K0695-01	1179.9	100	2000	1		4.5
A9K0695-02	1149.4	100	2000	1		4.5

Extraction Start/Stop

	Date	Time	Intl.
START	12/3/19	15:30	ICT
STOP	12/4/19	08:00	MJG

Stop time window:

RPM 30

Reset Min/Max Temp ☒

	Min Temp	Max Temp
As read:	21.4	22.5
Corr factor:	-0.0	-0.0
Actual:	21.4	22.5

Thermometer ID: S/N RC-5-001

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Balance Checksheets

Extractions December 2019
Dry Weight December 2019
Wet Chem November 2019
Metals December 2019
Sample Rec. December 2019

Balance Challenge Log

Extractions
AND FX-2000
ID# 5210177

Weight ID	weight (g)	acceptance range (g)	
	=/<1g	± 0.02g	
	>1g	± 2%	
10077	0.5g	0.48	0.52
1000143395	300g	294.00	306.00

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Month: December
Year: 2019

Alternate Weight/ID used:

Date Range:

Day/Time	Initials	Weight One	Observed	Weight Two	Observed
1			~~0.50~~		~~300.00~~ wrong month
2 0723	AJJ		0.50		300.00
3 10:35	Gault		0.50		299.99
4 0725	AJJ		0.50		300.01
5 0712	AJJ		0.49		300.00
6 10:30	Gault		0.50		300.02
7					
8					
9	JAG		.48		300.00
10 1009	AJJ		0.51		300.02
11 0710	AJJ		0.50		300.02
12 0715	JAG		.50		300.01
13 07:17	JAG		.49		300.00
14 ~~0707~~	~~AJJ~~		~~0.~~ AJJ 12/16		
15					
16 0707	AJJ	0.50g	0.49	300.00g	300.01
17 0718	AJJ		0.50		300.00
18 06:55	CAH		0.50		300.01
19 07:20	JAG		.49		300.00
20 9:55	JC		0.50		300.00
21					
22					
23 3:50	Gault		0.51		300.02
24 13:35	JC		0.50		300.02
25					
26 10:40	Gault		0.49		300.00
27 11:25	Gault		0.50		300.01
28					
29					
30 9:20	JC		0.48		300.00
31 0934	AJJ		0.50		300.00

Balance Challenge Log

Dredd
Intelli-lab PC-6001
ID# 190408014

Weight ID	weight (g) =/<1g >1g	acceptance range (g) ± 0.02g ± 2%	
03-J68814-10	10.0	9.8	10.2
15477	200.0	196.0	204.0
15477 + 1000139353	1 kg + 2kg	2940.0	3060.0

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Month: December
Year: 2019

Alternate Weight/ID used:

Date Range:

	Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1								
2	800	ICT		10.0		199.9		3000.0
3	807	MJG		10.0		199.9		2999.9
4	835	MJG		10.0		199.9		3000.0
5	843	CRL		10.0		200.0		3000.0
6	815	CRL		10.0		200.0		3000.0
7								
8								
9	800	ICT		10.0		199.7		3000.2
10	803	MJG		10.0		199.9		3000.1
11	820	MJG		10.0		200.0		3000.1
12	828	MJG		10.0		199.9		3000.2
13	820	CRL		10.0		200.0		3000.1
14								
15	1510	TB		10.0		199.9		3000.2
16	814	MJG	10.0 g	10.0	200.0 g	199.9	3000.0 g	3000.1
17	832	MJG		10.0		200.0		3000.0
18	835	MJG		9.9		200.0		3000.0
19	808	MJG		9.9		200.0		3000.2
20	810	MJG		9.9		200.0		3000.1
21								
22								
23	801	MJG		10.0		199.9		3000.1
24								
25								
26	943	CRL		9.9		199.9		2999.9
27	1312	MAS		10.0		199.9		3000.0
28								
29								
30	800	CRL		9.9		199.9		2999.9
31	825	MJG		10.0		200.0		3000.0

Balance Challenge Log

Metals Prep Balance 2
Sartorius LC 620 P
40020073

Weight ID	weight (g)	acceptance range (g)	
	=/<1g	± 0.02g	
	>1g	± 2%	
03-J68049-19	0.100g	0.080	0.120
03-J68814-10	10g	9.800	10.200
15477 (100g + 500g)	600g	588.000	612.000

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Month: December
Year: 2019

Alternate Weight/ID used: | Date Range:

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1							
2 800	ICT		599.985		9.999		0.100
3 805	MJG		599.980		10.003		0.103
4 835	MJG		599.990		10.000		0.096
5 840	CRL		599.980		10.001		0.102
6 815	CRL		599.985		10.001		0.101
7							
8							
9 805	ICT		599.990		10.000		0.100
10 800	MJG		599.985		9.998		0.097
11 818	MJG		599.985		9.999		0.100
12 826	MJG		599.985		9.999		0.099
13 815	CRL		599.985		9.999		0.099
14							
15							
16 816	MJG	600.000g	599.985	10.000g	10.001	0.100g	0.100
17 833	MJG		599.985		10.001		0.102
18 832	MJG		599.990		10.004		0.105
19 807	MJG		599.985		10.001		0.102
20 811	MJG		599.990		10.001		0.100
21							
22							
23 759	MJG		599.995		10.001		0.103
24 800	ICT		599.990		10.000		0.100
25							
26 940	CRL		599.985		10.001		0.101
27 740	CRL		599.985		10.001		0.102
28							
29							
30 805	CRL		599.980		9.999		0.099
31 825	MJG		599.980		9.999		0.098

Balance Challenge Log

Wet Chem Balance 1
Ohaus Adventurer Pro
ID# 8C30461093

Weight ID	weight (g)	acceptance range (g)	
	<0.5000g	± 0.5mg	
	>/=0.5000g	± 0.1%	
1000015949	0.005g	0.0045	0.0055
66067	0.100g	0.0995	0.1005
66067	100g	99.9000	100.1000

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Month: NOV
Year: 2019

Alternate Weight/ID used: | Date Range:

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1							
2							
3							
4 9:59	MRF		99.9986		0.1001		0.0050
5 0:720	MRF		99.9989		0 1000		0.0050
6 0710	MVD		99.9986		0.0999		0.0050
7 0749	MRF		99.9981		0.1001		0.0051
8 0845	MVD		99.9987		0.1000		0.0051
9							
10							
11 7:55	MRF		99.9994		0.1001		0.0050
12 8:00	MRF		99.9993		0.1000		0.0051
13 9:46	MRF		99.9997		0.1002		0.0051
14 0827	CMM		99.9995		0.0998		0.0048
15 0613	JKP		100.0002		0.1001		0.0050
16		100.0000g		0.1000g		.0050g	
17							
18 9:25	MRF		100.0011		0.1000		0.0050
19 7:43	MRF		100.0014		0.0999		0.0049
20 10:30	MRF		100.0012		0.1000		0.0050
21 11:00	MRF		100.0011		0.1001		0.0049
22							
23							
24 12							
25 14:22	MRF		100.0017		0.1000		0.0051
26 7:35	MRF		100.0002		0.1000		0.0050
27 8:58	MRF		99.9997		0.1000		0.0050
28							
29							
30							
31							

Balance Challenge Log

BalanceName
Lady Justice
S/N 593312

Weight ID	weight (g)	acceptance range (g)	
	=/<1g	± 0.02g	
	>1g	± 2%	
10660	0.10g	0.08	0.12
10581	50.00g	49.00	51.00
15477	500.00g	490.00	510.00

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Month: December
Year: 2019

Alternate Weight/ID used:

Date Range:

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1						ONLY	
2 7:55			0.09		49.99	NEEDED	
3 8:00			0.10		50.00	WHEN	
4 8:02			0.10		49.99	WEIGHING	
5 7:50			0.09		50.00	OVER	
6 8:06			0.09		49.99	50 g	
7 9:10			0.09		49.99	KEPT	
8						IN METALS	
9 8:31			0.10		50.00	DEPT.	
10 8:10			0.10		49.99		
11 8:00			0.10		50.00		
12 6:30		[illegible]	[illegible]	⟷	0.09	500.00g	
13 6:55			0.10		49.99		
14 9:03			0.10		49.99		
15							
16 7:00		0.10g	0.09	50.00g	49.98		
17 7:30			0.10		49.99		
18 7:35			0.09		49.99		499.94 JS
19 7:55			0.09		49.99		499.95
20 9:05			0.10		49.99		
21 9:03	JS		0.10		49.99		
22							
23 7:25			0.09		49.98		
24 7:35			0.10		49.98		
25							
26 1:40			0.10		49.98		
27 1455			0.10		49.98		
28 1101			0.10		49.99		
29							
30 1548			0.10		49.99		
31 1410			0.10		49.99		