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 #:

A9K0330

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

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Analytical Case Narrative

APEX LABORATORIES, LLC
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Analytical Case Narrative

Client: Anchor QEA, LLC Date: 12/24/2019
Project: Gasco PreRD_DG 2019 4c. Waste Characterization
Apex Work Order Number: A9K0330

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

Wednesday, December 4, 2019

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

RE: A9K0330 - 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 A9K0330, which was received by the laboratory on 11/12/2019 at 4:00:00PM.

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	5.4 degC	Cooler #2	5.8 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.

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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**	**A9K0330 - 12 04 19 1350**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PDI-140RAB-C-00-12.7-191108	**A9K0330-01**	**Soil**	**11/08/19 12:15**	**11/12/19 16:00**

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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**	**A9K0330 - 12 04 19 1350**

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-140RAB-C-00-12.7-191108 (A9K0330-01)				**Matrix: Soil**		**Batch: 9110893**		
Benzene	ND	0.00625	0.0125	mg/L	50	11/18/19 12:25	1311/8260C	
2-Butanone (MEK)	ND	0.250	0.500	mg/L	50	11/18/19 12:25	1311/8260C	
Carbon tetrachloride	ND	0.0250	0.0500	mg/L	50	11/18/19 12:25	1311/8260C	
Chlorobenzene	ND	0.0125	0.0250	mg/L	50	11/18/19 12:25	1311/8260C	
Chloroform	ND	0.0250	0.0500	mg/L	50	11/18/19 12:25	1311/8260C	
1,4-Dichlorobenzene	ND	0.0125	0.0250	mg/L	50	11/18/19 12:25	1311/8260C	
1,2-Dichloroethane (EDC)	ND	0.0125	0.0250	mg/L	50	11/18/19 12:25	1311/8260C	
1,1-Dichloroethene	ND	0.0125	0.0250	mg/L	50	11/18/19 12:25	1311/8260C	
Tetrachloroethene (PCE)	ND	0.0125	0.0250	mg/L	50	11/18/19 12:25	1311/8260C	
Trichloroethene (TCE)	ND	0.0125	0.0250	mg/L	50	11/18/19 12:25	1311/8260C	
Vinyl chloride	ND	0.0125	0.0250	mg/L	50	11/18/19 12:25	1311/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits: 80-120 %*	*1*	*11/18/19 12:25*	*1311/8260C*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*11/18/19 12:25*	*1311/8260C*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*11/18/19 12:25*	*1311/8260C*	

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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**	**A9K0330 - 12 04 19 1350**

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-140RAB-C-00-12.7-191108 (A9K0330-01)				**Matrix: Soil**		**Batch: 9111112**		
gamma-BHC (Lindane)	ND	0.0000750	0.000150	mg/L	1	11/25/19 13:26	1311/8081B	
Endrin	ND	0.0000750	0.000150	mg/L	1	11/25/19 13:26	1311/8081B	
Heptachlor	ND	0.0000750	0.000150	mg/L	1	11/25/19 13:26	1311/8081B	
Heptachlor epoxide	ND	0.0000750	0.000150	mg/L	1	11/25/19 13:26	1311/8081B	
Methoxychlor	ND	0.000200	0.000400	mg/L	1	11/25/19 13:26	1311/8081B	
Chlordane (Technical)	ND	0.000940	0.00188	mg/L	1	11/25/19 13:26	1311/8081B	
Toxaphene (Total)	ND	0.00250	0.00500	mg/L	1	11/25/19 13:26	1311/8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 53 %*	*Limits: 25-140 %*	*1*	*11/25/19 13:26*	*1311/8081B*	
Decachlorobiphenyl (Surr)			*82 %*	*30-135 %*	*1*	*11/25/19 13:26*	*1311/8081B*	

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0330 - 12 04 19 1350**

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-140RAB-C-00-12.7-191108 (A9K0330-01RE1)				**Matrix: Soil**		**Batch: 9111111**		
2,4-Dinitrotoluene	ND	0.0100	0.0200	mg/L	10	11/26/19 13:51	1311/8270D	
Hexachlorobenzene	ND	0.0100	0.0200	mg/L	10	11/26/19 13:51	1311/8270D	
Hexachlorobutadiene	ND	0.0250	0.0500	mg/L	10	11/26/19 13:51	1311/8270D	
Hexachloroethane	ND	0.0250	0.0500	mg/L	10	11/26/19 13:51	1311/8270D	
2-Methylphenol	ND	0.0250	0.0500	mg/L	10	11/26/19 13:51	1311/8270D	
3+4-Methylphenol(s)	ND	0.0250	0.0500	mg/L	10	11/26/19 13:51	1311/8270D	
Nitrobenzene	ND	0.0250	0.0500	mg/L	10	11/26/19 13:51	1311/8270D	
Pentachlorophenol (PCP)	ND	0.0500	0.100	mg/L	10	11/26/19 13:51	1311/8270D	
Pyridine	ND	0.0500	0.100	mg/L	10	11/26/19 13:51	1311/8270D	
2,4,5-Trichlorophenol	ND	0.0250	0.0500	mg/L	10	11/26/19 13:51	1311/8270D	
2,4,6-Trichlorophenol	ND	0.0250	0.0500	mg/L	10	11/26/19 13:51	1311/8270D	
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*64 %*	*Limits: 44-120 %*	*10*	*11/26/19 13:51*	*1311/8270D*	
2-Fluorobiphenyl (Surr)			*78 %*	*44-120 %*	*10*	*11/26/19 13:51*	*1311/8270D*	
Phenol-d6 (Surr)			*16 %*	*10-120 %*	*10*	*11/26/19 13:51*	*1311/8270D*	
p-Terphenyl-d14 (Surr)			*86 %*	*50-133 %*	*10*	*11/26/19 13:51*	*1311/8270D*	
2-Fluorophenol (Surr)			*37 %*	*19-120 %*	*10*	*11/26/19 13:51*	*1311/8270D*	
2,4,6-Tribromophenol (Surr)			*81 %*	*43-140 %*	*10*	*11/26/19 13:51*	*1311/8270D*	

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0330 - 12 04 19 1350**

ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-140RAB-C-00-12.7-191108 (A9K0330-01)				**Matrix: Soil**				
Batch: 9111059								
Arsenic	ND	0.0500	0.100	mg/L	10	11/21/19 14:27	1311/6020A	
Barium	ND	2.50	5.00	mg/L	10	11/21/19 14:27	1311/6020A	
Cadmium	ND	0.0500	0.100	mg/L	10	11/21/19 14:27	1311/6020A	
Chromium	ND	0.0500	0.100	mg/L	10	11/21/19 14:27	1311/6020A	
Lead	ND	0.0250	0.0500	mg/L	10	11/21/19 14:27	1311/6020A	
Mercury	ND	0.00350	0.00700	mg/L	10	11/21/19 14:27	1311/6020A	
Selenium	ND	0.0500	0.100	mg/L	10	11/21/19 14:27	1311/6020A	
Silver	ND	0.0500	0.100	mg/L	10	11/21/19 14:27	1311/6020A	

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Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0330 - 12 04 19 1350**

ANALYTICAL SAMPLE RESULTS

Solid and Moisture Determinations

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-140RAB-C-00-12.7-191108 (A9K0330-01)				**Matrix: Soil**				
Batch: 9110767								
Total Solids	**81.6**	1.00	1.00	% by Weight	1	11/15/19 17:02	SM 2540 G	

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0330 - 12 04 19 1350**

ANALYTICAL SAMPLE RESULTS

TCLP Extraction by EPA 1311 (ZHE)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-140RAB-C-00-12.7-191108 (A9K0330-01)				**Matrix: Soil**		**Batch: 9110812**		
TCLP ZHE Extraction	PREP	---		N/A	1	11/14/19 15:20	EPA 1311 ZHE	
TCLP Extraction	PREP	---		N/A	1	11/20/19 17:27	EPA 1311	
TCLP Extraction	PREP	---		N/A	1	11/20/19 17:27	EPA 1311	

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0330 - 12 04 19 1350**

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 9110893 - EPA 1311/5030B TCLP Volatiles									**Water**			
Blank (9110893-BLK1)			Prepared: 11/18/19 08:00 Analyzed: 11/18/19 11:58									**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: 109 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*101 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*				*"*			
LCS (9110893-BS1)			Prepared: 11/18/19 08:00 Analyzed: 11/18/19 11:31									**TCLP**
1311/8260C												
Benzene	1.06	0.00625	0.0125	mg/L	50	1.00	---	106	80-120%	---	---	
2-Butanone (MEK)	1.95	0.250	0.500	mg/L	50	2.00	---	97	80-120%	---	---	
Carbon tetrachloride	1.17	0.0250	0.0500	mg/L	50	1.00	---	117	80-120%	---	---	
Chlorobenzene	1.03	0.0125	0.0250	mg/L	50	1.00	---	103	80-120%	---	---	
Chloroform	1.08	0.0250	0.0500	mg/L	50	1.00	---	108	80-120%	---	---	
1,4-Dichlorobenzene	1.01	0.0125	0.0250	mg/L	50	1.00	---	101	80-120%	---	---	
1,2-Dichloroethane (EDC)	0.954	0.0125	0.0250	mg/L	50	1.00	---	95	80-120%	---	---	
1,1-Dichloroethene	1.03	0.0125	0.0250	mg/L	50	1.00	---	103	80-120%	---	---	
Tetrachloroethene (PCE)	1.06	0.0125	0.0250	mg/L	50	1.00	---	106	80-120%	---	---	
Trichloroethene (TCE)	1.12	0.0125	0.0250	mg/L	50	1.00	---	112	80-120%	---	---	
Vinyl chloride	1.02	0.0125	0.0250	mg/L	50	1.00	---	102	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 107 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*99 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*				*"*			
Duplicate (9110893-DUP1)			Prepared: 11/18/19 11:41 Analyzed: 11/18/19 12:52									

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0330 - 12 04 19 1350**

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 9110893 - EPA 1311/5030B TCLP Volatiles							**Water**					
Duplicate (9110893-DUP1)			Prepared: 11/18/19 11:41		Analyzed: 11/18/19 12:52							
QC Source Sample: PDI-140RAB-C-00-12.7-191108 (A9K0330-01)												
1311/8260C												
Benzene	ND	0.00625	0.0125	mg/L	50	---	ND	---	---	---	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: 109 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*101 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
Matrix Spike (9110893-MS1)			Prepared: 11/18/19 11:41		Analyzed: 11/18/19 13:19							
QC Source Sample: PDI-140RAB-C-00-12.7-191108 (A9K0330-01)												
1311/8260C												
Benzene	1.03	0.00625	0.0125	mg/L	50	1.00	ND	103	70-130%	---	---	
2-Butanone (MEK)	1.92	0.250	0.500	mg/L	50	2.00	ND	96	70-130%	---	---	
Carbon tetrachloride	1.13	0.0250	0.0500	mg/L	50	1.00	ND	113	70-130%	---	---	
Chlorobenzene	0.996	0.0125	0.0250	mg/L	50	1.00	ND	100	70-130%	---	---	
Chloroform	1.06	0.0250	0.0500	mg/L	50	1.00	ND	106	70-130%	---	---	
1,4-Dichlorobenzene	0.964	0.0125	0.0250	mg/L	50	1.00	ND	96	70-130%	---	---	
1,2-Dichloroethane (EDC)	0.947	0.0125	0.0250	mg/L	50	1.00	ND	95	70-130%	---	---	
1,1-Dichloroethene	0.995	0.0125	0.0250	mg/L	50	1.00	ND	99	70-130%	---	---	
Tetrachloroethene (PCE)	1.01	0.0125	0.0250	mg/L	50	1.00	ND	101	70-130%	---	---	
Trichloroethene (TCE)	1.09	0.0125	0.0250	mg/L	50	1.00	ND	109	70-130%	---	---	
Vinyl chloride	0.977	0.0125	0.0250	mg/L	50	1.00	ND	98	70-130%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 109 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				

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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**	**A9K0330 - 12 04 19 1350**

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 9110893 - EPA 1311/5030B TCLP Volatiles												**Water**
Matrix Spike (9110893-MS1)					Prepared: 11/18/19 11:41		Analyzed: 11/18/19 13:19					
QC Source Sample: PDI-140RAB-C-00-12.7-191108 (A9K0330-01)												
Surr: 4-Bromofluorobenzene (Surr)					*Recovery: 97 %*		*Limits: 80-120 %*					*Dilution: 1x*

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0330 - 12 04 19 1350**

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 9111112 - EPA 1311/3510C (Neutral Ext.)							**Soil**					
Blank (9111112-BLK1)			Prepared: 11/22/19 11:21		Analyzed: 11/25/19 12:34							
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: 51 %*		*Limits: 25-140 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*74 %*		*30-135 %*			*"*				
LCS (9111112-BS1)			Prepared: 11/22/19 11:21		Analyzed: 11/25/19 12:51							
1311/8081B												
gamma-BHC (Lindane)	0.00218	0.0000750	0.000150	mg/L	1	0.00250	---	87	59-134%	---	---	
Endrin	0.00252	0.0000750	0.000150	mg/L	1	0.00250	---	101	60-138%	---	---	
Heptachlor	0.00206	0.0000750	0.000150	mg/L	1	0.00250	---	82	54-130%	---	---	
Heptachlor epoxide	0.00214	0.0000750	0.000150	mg/L	1	0.00250	---	86	61-133%	---	---	
Methoxychlor	0.00234	0.000200	0.000400	mg/L	1	0.00250	---	94	54-144%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 62 %*		*Limits: 25-140 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*73 %*		*30-135 %*			*"*				
LCS Dup (9111112-BSD1)			Prepared: 11/22/19 11:21		Analyzed: 11/25/19 13:08							**Q-19**
1311/8081B												
gamma-BHC (Lindane)	0.00199	0.0000750	0.000150	mg/L	1	0.00250	---	80	59-134%	9	30%	
Endrin	0.00213	0.0000750	0.000150	mg/L	1	0.00250	---	85	60-138%	17	30%	
Heptachlor	0.00182	0.0000750	0.000150	mg/L	1	0.00250	---	73	54-130%	12	30%	
Heptachlor epoxide	0.00201	0.0000750	0.000150	mg/L	1	0.00250	---	80	61-133%	7	30%	
Methoxychlor	0.00207	0.000200	0.000400	mg/L	1	0.00250	---	83	54-144%	12	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 60 %*		*Limits: 25-140 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*63 %*		*30-135 %*			*"*				

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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**	**A9K0330 - 12 04 19 1350**

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 9111111 - EPA 1311/3510C (BNA Extraction)							**Soil**					
Blank (9111111-BLK1)			Prepared: 11/22/19 11:18		Analyzed: 11/22/19 19:04							
1311/8270D												
2,4-Dinitrotoluene	ND	0.00100	0.00200	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: 62 %*		*Limits: 44-120 %*			*Dilution: 1x*				
2-Fluorobiphenyl (Surr)			*59 %*		*44-120 %*			*"*				
Phenol-d6 (Surr)			*19 %*		*10-120 %*			*"*				
p-Terphenyl-d14 (Surr)			*77 %*		*50-133 %*			*"*				
2-Fluorophenol (Surr)			*34 %*		*19-120 %*			*"*				
2,4,6-Tribromophenol (Surr)			*77 %*		*43-140 %*			*"*				
LCS (9111111-BS1)			Prepared: 11/22/19 11:18		Analyzed: 11/22/19 19:40							
1311/8270D												
2,4-Dinitrotoluene	0.0324	0.00400	0.00800	mg/L	4	0.0400	---	81	57-128%	---	---	
Hexachlorobenzene	0.0294	0.00400	0.00800	mg/L	4	0.0400	---	74	52-125%	---	---	
Hexachlorobutadiene	0.0243	0.0100	0.0200	mg/L	4	0.0400	---	61	22-124%	---	---	
Hexachloroethane	0.0241	0.0100	0.0200	mg/L	4	0.0400	---	60	21-120%	---	---	
2-Methylphenol	0.0217	0.0100	0.0200	mg/L	4	0.0400	---	54	30-120%	---	---	
3+4-Methylphenol(s)	0.0196	0.0100	0.0100	mg/L	4	0.0400	---	49	29-120%	---	---	
Nitrobenzene	0.0230	0.0100	0.0200	mg/L	4	0.0400	---	58	45-121%	---	---	
Pentachlorophenol (PCP)	0.0291	0.0200	0.0200	mg/L	4	0.0400	---	73	35-138%	---	---	
Pyridine	0.0102	0.00400	0.00400	mg/L	4	0.0400	---	25	5-120%	---	---	
2,4,5-Trichlorophenol	0.0325	0.0100	0.0200	mg/L	4	0.0400	---	81	53-123%	---	---	
2,4,6-Trichlorophenol	0.0321	0.0100	0.0200	mg/L	4	0.0400	---	80	50-125%	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 59 %*		*Limits: 44-120 %*			*Dilution: 4x*				
2-Fluorobiphenyl (Surr)			*64 %*		*44-120 %*			*"*				

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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**	**A9K0330 - 12 04 19 1350**

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 9111111 - EPA 1311/3510C (BNA Extraction)							**Soil**					
LCS (9111111-BS1)				Prepared: 11/22/19 11:18 Analyzed: 11/22/19 19:40								
Surr: Phenol-d6 (Surr)			*Recovery: 20 %*	*Limits: 10-120 %*			*Dilution: 4x*					
p-Terphenyl-d14 (Surr)			*80 %*	*50-133 %*			*"*					
2-Fluorophenol (Surr)			*33 %*	*19-120 %*			*"*					
2,4,6-Tribromophenol (Surr)			*75 %*	*43-140 %*			*"*					
LCS Dup (9111111-BSD1)				Prepared: 11/22/19 11:19 Analyzed: 11/22/19 20:15								**Q-19**
1311/8270D												
2,4-Dinitrotoluene	0.0336	0.00400	0.00800	mg/L	4	0.0400	---	84	57-128%	4	30%	
Hexachlorobenzene	0.0307	0.00400	0.00800	mg/L	4	0.0400	---	77	52-125%	4	30%	
Hexachlorobutadiene	0.0251	0.0100	0.0200	mg/L	4	0.0400	---	63	22-124%	3	30%	
Hexachloroethane	0.0237	0.0100	0.0200	mg/L	4	0.0400	---	59	21-120%	2	30%	
2-Methylphenol	0.0214	0.0100	0.0200	mg/L	4	0.0400	---	53	30-120%	2	30%	
3+4-Methylphenol(s)	0.0193	0.0100	0.0100	mg/L	4	0.0400	---	48	29-120%	1	30%	
Nitrobenzene	0.0243	0.0100	0.0200	mg/L	4	0.0400	---	61	45-121%	5	30%	
Pentachlorophenol (PCP)	0.0305	0.0200	0.0200	mg/L	4	0.0400	---	76	35-138%	5	30%	
Pyridine	0.00930	0.00400	0.00400	mg/L	4	0.0400	---	23	5-120%	9	30%	
2,4,5-Trichlorophenol	0.0325	0.0100	0.0200	mg/L	4	0.0400	---	81	53-123%	0.2	30%	
2,4,6-Trichlorophenol	0.0326	0.0100	0.0200	mg/L	4	0.0400	---	82	50-125%	2	30%	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 62 %*	*Limits: 44-120 %*			*Dilution: 4x*					
2-Fluorobiphenyl (Surr)			*70 %*	*44-120 %*			*"*					
Phenol-d6 (Surr)			*19 %*	*10-120 %*			*"*					
p-Terphenyl-d14 (Surr)			*84 %*	*50-133 %*			*"*					
2-Fluorophenol (Surr)			*31 %*	*19-120 %*			*"*					
2,4,6-Tribromophenol (Surr)			*77 %*	*43-140 %*			*"*					

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0330 - 12 04 19 1350**

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 9111059 - EPA 1311/3015							**Soil**					
Blank (9111059-BLK1)			Prepared: 11/21/19 10:29 Analyzed: 11/21/19 14:18									
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 (9111059-BS1)			Prepared: 11/21/19 10:29 Analyzed: 11/21/19 14:22									
1311/6020A												
Arsenic	5.04	0.0500	0.100	mg/L	10	5.00	---	101	80-120%	---	---	TCLPa
Barium	10.4	2.50	5.00	mg/L	10	10.0	---	104	80-120%	---	---	TCLPa
Cadmium	1.02	0.0500	0.100	mg/L	10	1.00	---	102	80-120%	---	---	TCLPa
Chromium	4.78	0.0500	0.100	mg/L	10	5.00	---	96	80-120%	---	---	TCLPa
Lead	5.20	0.0250	0.0500	mg/L	10	5.00	---	104	80-120%	---	---	TCLPa
Mercury	0.103	0.00350	0.00700	mg/L	10	0.100	---	103	80-120%	---	---	TCLPa
Selenium	0.998	0.0500	0.100	mg/L	10	1.00	---	100	80-120%	---	---	TCLPa
Silver	1.05	0.0500	0.100	mg/L	10	1.00	---	105	80-120%	---	---	TCLPa
Matrix Spike (9111059-MS1)			Prepared: 11/21/19 10:29 Analyzed: 11/21/19 14:32									
QC Source Sample: PDI-140RAB-C-00-12.7-191108 (A9K0330-01)												
1311/6020A												
Arsenic	5.05	0.0500	0.100	mg/L	10	5.00	ND	101	50-150%	---	---	
Barium	11.6	2.50	5.00	mg/L	10	10.0	ND	116	50-150%	---	---	
Cadmium	1.01	0.0500	0.100	mg/L	10	1.00	ND	101	50-150%	---	---	
Chromium	4.82	0.0500	0.100	mg/L	10	5.00	ND	96	50-150%	---	---	
Lead	5.20	0.0250	0.0500	mg/L	10	5.00	ND	104	50-150%	---	---	
Mercury	0.103	0.00350	0.00700	mg/L	10	0.100	ND	103	50-150%	---	---	
Selenium	1.00	0.0500	0.100	mg/L	10	1.00	ND	100	50-150%	---	---	
Silver	1.05	0.0500	0.100	mg/L	10	1.00	ND	105	50-150%	---	---	

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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**	**A9K0330 - 12 04 19 1350**

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 9110767 - Total Solids (SM2540G/PSEP)							**Sediment**					
Duplicate (9110767-DUP1)			Prepared: 11/13/19 13:41		Analyzed: 11/15/19 17:02							
QC Source Sample: PDI-140RAB-C-00-12.7-191108 (A9K0330-01)												
SM 2540 G												
Total Solids	**81.3**	1.00	1.00	% by Weight	1	---	81.6	---	---	0.4	10%	

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Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0330 - 12 04 19 1350**

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: 9110893							
A9K0330-01	Soil	1311/8260C	11/08/19 12:15	11/18/19 11:41	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: 9111112							
A9K0330-01	Soil	1311/8081B	11/08/19 12:15	11/22/19 11:21	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: 9111111							
A9K0330-01RE1	Soil	1311/8270D	11/08/19 12:15	11/22/19 11:18	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: 9111059							
A9K0330-01	Soil	1311/6020A	11/08/19 12:15	11/21/19 10:29	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: 9110767							
A9K0330-01	Soil	SM 2540 G	11/08/19 12:15	11/13/19 13:41			NA

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: 9111023							
A9K0330-01	Soil	EPA 1311	11/08/19 12:15	11/20/19 17:27	100g/2000mL	100g/2000mL	NA

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0330 - 12 04 19 1350**

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

Prep: EPA 1311 TCLP/ZHE

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9110812							
A9K0330-01	Soil	EPA 1311 ZHE	11/08/19 12:15	11/14/19 15:20	25g/500mL	25g/500mL	NA

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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**	**A9K0330 - 12 04 19 1350**

QUALIFIER DEFINITIONS

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

Apex Laboratories

Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
TCLP	This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 9110812.
TCLPa	This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 9111023.

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**	**A9K0330 - 12 04 19 1350**

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

Darwin Thomas, Business Development Director

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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**	**A9K0330 - 12 04 19 1350**

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

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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**	**A9K0330 - 12 04 19 1350**

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

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Darwin Thomas, Business Development Director

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
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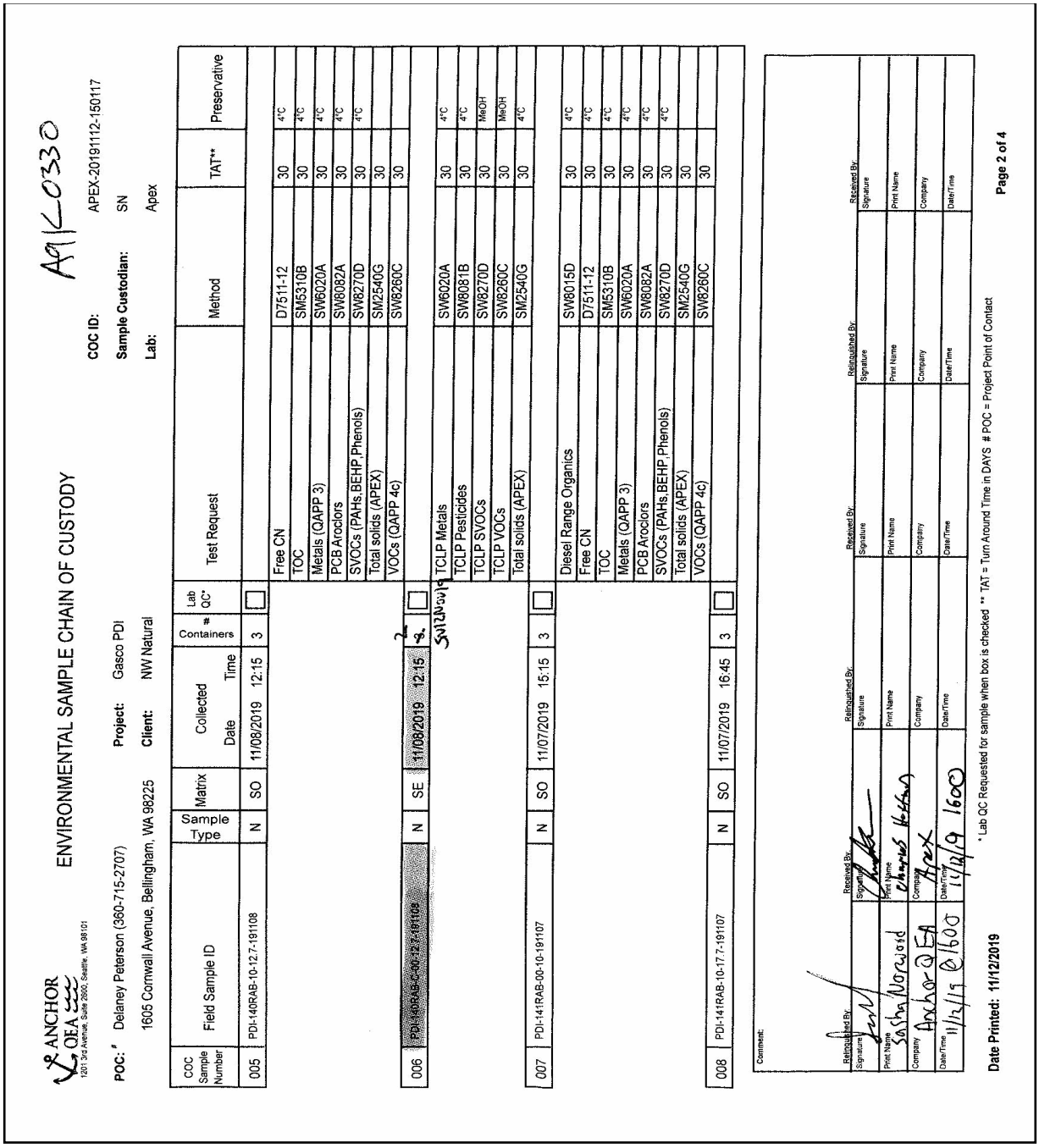
Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9K0330 - 12 04 19 1350**



ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9K0330

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

COC ID: APEX-20191112-150117

POC: # Delaney Peterson (360-715-2707) Project: Gasco PDI Sample Custodian: SN

1605 Cornwall Avenue, Bellingham, WA 98225 Client: NW Natural 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-140RAB-10-12.7-191108	N	SO	11/08/2019	12:15	3	☐	Free 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-140RAB-GW-12.7-191108	N	SE	11/08/2019	12:15	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
007	PDI-141RAB-00-10-191107	N	SO	11/07/2019	15:15	3	☐	Diesel Range Organics	SW8015D	30	4°C
								Free 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	
008	PDI-141RAB-10-17.7-191107	N	SO	11/07/2019	16:45	3	☐				

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature:	Signature:	Signature:	Signature:	Signature:	Signature:
Print Name: Sasha Worsard	Print Name: Charles Hudson	Print Name:	Print Name:	Print Name:	Print Name:
Company: Anchor QEA	Company: Apex	Company:	Company:	Company:	Company:
Date/Time: 11/12/19 @ 1600	Date/Time: 11/12/19 1600	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Date Printed: 11/12/2019

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

Page 2 of 4

Apex Laboratories

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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**	**A9K0330 - 12 04 19 1350**

APEX LABS COOLER RECEIPT FORM

Client: Anchor Element WO#: A9K0330

Project/Project #: Gasco PDI - Waste characterization

Delivery Info:

Date/time received: 12/12/19 @ 1600 By: CFH

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

Cooler Inspection Date/time inspected: 12/12/19 @ 1649 By: CFH

Chain of Custody included? Yes X No Custody seals? Yes No X

Signed/dated by client? Yes X No

Signed/dated by Apex? Yes X No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	5.4	5.8					
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: 12/13/19 @ 1200 By: CMB

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: CMB Witness: NRP Cooler Inspected by: CMB 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)

A9K0330

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: 11/26/19 17:00 (10 day TAT)
Received By: Charles F. Hoffman
Date Received: 11/12/19 16:00
Logged In By: Cameron L O'Brien
Date Logged In: 11/13/19 12:06

Cooler #1 received at 5.4°C

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

Cooler #2 received at 5.8°C

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

Analysis	Due	TAT	Expires	Comments
A9K0330-01 PDI-140RAB-C-00-12.7-191108 [Soil] Sampled 11/08/19 12:15 (GMT-08:00) Pacific Time (US & Canada) 3 Containers				**matrix changed to soil - SO per client, 11/14**
Metals				
Metals, TCLP 8	11/25/19 17:00	10	05/06/20 12:15	matrix changed to soil / SO per client +11/14
TCLP Extraction - Metals	11/15/19 17:00	2	12/06/19 12:15	matrix changed to soil / SO per client +11/14
TCLP Extraction - Organics	11/15/19 17:00	2	11/22/19 12:15	matrix changed to soil / SO per client +11/14
Project Mgmt				
Data Package	01/13/20 17:00	10	02/15/20 12:15	matrix changed to soil / SO per client +11/14
Sample Control				
Archive Samples - Frozen	02/10/20 17:00	10	11/09/19 12:15	3 months
Semivols (ECD)				
1311/8081B TCLP Pest Reg List	11/25/19 17:00	10	11/15/19 12:15	matrix changed to soil / SO per client +11/14
Semivols (Scan)				
1311/8270D TCLP SVOC Reg List	11/25/19 17:00	10	11/15/19 12:15	matrix changed to soil / SO per client +11/14
Volatiles				
1311/8260C TCLP/ZHE VOC Reg List	11/25/19 17:00	10	11/22/19 12:15	matrix changed to soil / SO per client +11/14
TCLP/ZHE Extraction	11/15/19 17:00	2	11/22/19 12:15	matrix changed to soil / SO per client +11/14
Wet Chem				
Solids, Total (SM 2540 G,B)	11/25/19 17:00	10	05/06/20 12:15	matrix changed to soil / SO per client +11/14

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

A9K0330

Apex Laboratories

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

Reviewed By

Date

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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A91L0330

COC ID: APEX-20191112-150117

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

Project: Gasco PDI
Client: NW Natural

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-140RAB-10-12.7-191108	N	SO	11/08/2019	12:15	3	☐				
								Free 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-140RAB-C-00-12.7-191108	N	SE	11/08/2019	12:15	2 3.	☐				
								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
007	PDI-141RAB-00-10-191107	N	SO	11/07/2019	15:15	3	☐				
								Diesel Range Organics	SW8015D	30	4°C
								Free 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	
008	PDI-141RAB-10-17.7-191107	N	SO	11/07/2019	16:45	3	☐				

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 Charles Hoffman	Print Name	Print Name	Print Name	Print Name
Company Anchor QEA	Company Apex	Company	Company	Company	Company
Date/Time 11/12/19 @1600	Date/Time 11/12/19 1600	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 11/12/2019

* 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 Element WO#: A9 140330

Project/Project #: Gasco PDI - Waste characterization

Delivery Info:

Date/time received: 11/12/19 @ 1600 By: CFH

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

Cooler Inspection Date/time inspected: 11/12/19 @ 1649 By: CFH

Chain of Custody included? Yes X No ___ Custody seals? Yes ___ No X

Signed/dated by client? Yes X No ___

Signed/dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	5.4	5.8					
Received on ice? (Y/N)	Y	Y					
Temp. blanks? (Y/N)	Y	Y					
Ice type: (Gel/Real/Other)	Real	Real					
Condition:	Cool	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: 11/13/19 @ 1200 By: CMB

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: CMB Witness: NRP Cooler Inspected by: CMB 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

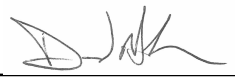
ANALYSES DATA PACKAGE COVER PAGE

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-140RAB-C-00-12.7-191108	A9K0330-01	Soil

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: 12/19/2019 1:10PM
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-140RAB-C-00-12.7-191108

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil	Laboratory ID:	A9K0330-01	File ID:	VI19111809.D
Sampled:	11/08/19 12:15	Prepared:	11/18/19 11:41	Analyzed:	11/18/19 12:25
		Preparation:	EPA 1311/5030B TCLP Vola	Initial/Final:	5 mL / 5 mL

Batch: 9110893 Sequence: 9K18032 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	54.5	109	80 - 120	
Toluene-d8 (Surr)	50.0	50.4	101	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	50.1	100	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	92752	6.217	103421	6.211	
Chlorobenzene-d5 (ISTD)	262950	9.909	297816	9.91	
1,4-Dichlorobenzene-d4 (ISTD)	116445	11.85	143383	11.85	

* 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: 9110893 Batch Matrix: Water
Preparation: EPA 1311/5030B TCLP Volatiles

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110893-BLK1	VI19111808.D	11/18/19 08:00	
LCS	9110893-BS1	VI19111807.D	11/18/19 08:00	
PDI-140RAB-C-00-12.7-191108 (Du	9110893-DUP1	VI19111810.D	11/18/19 11:41	
PDI-140RAB-C-00-12.7-191108 (M	9110893-MS1	VI19111811.D	11/18/19 11:41	
PDI-140RAB-C-00-12.7-191108	A9K0330-01	VI19111809.D	11/18/19 11:41	

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:	9110893-BLK1	File ID:	VI19111808.D
Prepared:	11/18/19 08:00	Preparation:	EPA 1311/5030B TCLP Vola	Initial/Final:	5 mL / 5 mL
Analyzed:	11/18/19 11:58	Instrument:	VOA-GCMS9		
Batch:	9110893	Sequence:	9K18032	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	54.6	109	80 - 120	
Toluene-d8 (Surr)	50.0	50.7	101	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	50.7	101	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	93963	6.217	103421	6.211	
Chlorobenzene-d5 (ISTD)	265537	9.91	297816	9.91	
1,4-Dichlorobenzene-d4 (ISTD)	117010	11.85	143383	11.85	

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:	9110893	Laboratory ID:	9110893-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	1.06	106	80 - 120
2-Butanone (MEK)	2.00	1.95	97	80 - 120
Carbon tetrachloride	1.00	1.17	117	80 - 120
Chlorobenzene	1.00	1.03	103	80 - 120
Chloroform	1.00	1.08	108	80 - 120
1,4-Dichlorobenzene	1.00	1.01	101	80 - 120
1,2-Dichloroethane (EDC)	1.00	0.954	95	80 - 120
1,1-Dichloroethene	1.00	1.03	103	80 - 120
Tetrachloroethene (PCE)	1.00	1.06	106	80 - 120
Trichloroethene (TCE)	1.00	1.12	112	80 - 120
Vinyl chloride	1.00	1.02	102	80 - 120

* = Values outside of QC limits

DUPLICATES

PDI-140RAB-C-00-12.7-191108

1311/8260C

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Charact
Matrix: Water
Laboratory ID: 9110893-DUP1
Batch: 9110893
Lab Source ID: A9K0330-01
Preparation: EPA 1311/5030B TCLP Volatiles
Initial/Final: 5 mL / 5 mL
Source Sample Name: PDI-140RAB-C-00-12.7-191108
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (mg/L)	C	DUPLICATE CONCENTRATION (mg/L)	C	RPD %	Q	METHOD
Benzene	30	0.00		ND				1311/8260C
2-Butanone (MEK)	30	0.00		ND				1311/8260C
Carbon tetrachloride	30	0.00		ND				1311/8260C
Chlorobenzene	30	0.00		ND				1311/8260C
Chloroform	30	0.00		ND				1311/8260C
1,4-Dichlorobenzene	30	0.00		ND				1311/8260C
1,2-Dichloroethane (EDC)	30	0.00		ND				1311/8260C
1,1-Dichloroethene	30	0.00		ND				1311/8260C
Tetrachloroethene (PCE)	30	0.00		ND				1311/8260C
Trichloroethene (TCE)	30	0.00		ND				1311/8260C
Vinyl chloride	30	0.00		ND				1311/8260C

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

1311/8260C

PDI-140RAB-C-00-12.7-191108

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Water		
Batch:	9110893	Laboratory ID:	9110893-MS1
Preparation:	EPA 1311/5030B TCLP Volatiles	Initial/Final:	5 mL / 5 mL

Source Sample Name: PDI-140RAB-C-00-12.7-191108

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC. (*=Out)	QC LIMITS REC.
Benzene	1.00	ND	1.03	103	70 - 130
2-Butanone (MEK)	2.00	ND	1.92	96	70 - 130
Carbon tetrachloride	1.00	ND	1.13	113	70 - 130
Chlorobenzene	1.00	ND	0.996	100	70 - 130
Chloroform	1.00	ND	1.06	106	70 - 130
1,4-Dichlorobenzene	1.00	ND	0.964	96	70 - 130
1,2-Dichloroethane (EDC)	1.00	ND	0.947	95	70 - 130
1,1-Dichloroethene	1.00	ND	0.995	99	70 - 130
Tetrachloroethene (PCE)	1.00	ND	1.01	101	70 - 130
Trichloroethene (TCE)	1.00	ND	1.09	109	70 - 130
Vinyl chloride	1.00	ND	0.977	98	70 - 130

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:	9K18032	Instrument:	VOA-GCMS9
Matrix:	Water	Calibration:	A9J2503

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9K18032-TUN1	VI19111806.D	11/18/19 11:04
Calibration Check	9K18032-CCV1	VI19111807.D	11/18/19 11:31
Blank	9110893-BLK1	VI19111808.D	11/18/19 11:58
PDI-140RAB-C-00-12.7-191108	A9K0330-01	VI19111809.D	11/18/19 12:25
PDI-140RAB-C-00-12.7-191108 (Du	9110893-DUP1	VI19111810.D	11/18/19 12:52
PDI-140RAB-C-00-12.7-191108 (MS	9110893-MS1	VI19111811.D	11/18/19 13:19

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:	VI19111806.D	Injection Date:	11/18/19
Instrument ID:	VOA-GCMS9	Injection Time:	11:04
Sequence:	9K18032	Lab Sample ID:	9K18032-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 95	50 - 200% of m/z 174	107.41	PASS
m/z 96	5 - 9% of m/z 95	6.47	PASS
m/z 173	Less than 2% of m/z 174	0.43	PASS
m/z 174	50 - 200% of m/z 95	93.10	PASS
m/z 175	5 - 9% of m/z 174	7.23	PASS
m/z 176	95 - 105% of m/z 174	97.26	PASS
m/z 177	5 - 10% of m/z 176	6.64	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:	9K18032	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 (9110893-BS1)			Lab File ID: VI19111807.D		Analyzed: 11/18/19 11:31			
1,4-Difluorobenzene (Surr)	50.0	107	80 - 120	6.777	6.780727	-0.0037	+/-1.0	
Toluene-d8 (Surr)	50.0	99	80 - 120	8.297	8.297273	-0.0003	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	98	80 - 120	10.974	10.974	0.0000	+/-1.0	
Blank (9110893-BLK1)			Lab File ID: VI19111808.D		Analyzed: 11/18/19 11:58			
1,4-Difluorobenzene (Surr)	50.0	109	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	
PDI-140RAB-C-00-12.7-191108 (A9K0330-01)			Lab File ID: VI19111809.D		Analyzed: 11/18/19 12:25			
1,4-Difluorobenzene (Surr)	50.0	109	80 - 120	6.776	6.780727	-0.0047	+/-1.0	
Toluene-d8 (Surr)	50.0	101	80 - 120	8.297	8.297273	-0.0003	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	100	80 - 120	10.974	10.974	0.0000	+/-1.0	
Duplicate (9110893-DUP1)			Lab File ID: VI19111810.D		Analyzed: 11/18/19 12:52			
1,4-Difluorobenzene (Surr)	50.0	109	80 - 120	6.783	6.780727	0.0023	+/-1.0	
Toluene-d8 (Surr)	50.0	101	80 - 120	8.298	8.297273	0.0007	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	102	80 - 120	10.974	10.974	0.0000	+/-1.0	
Matrix Spike (9110893-MS1)			Lab File ID: VI19111811.D		Analyzed: 11/18/19 13:19			
1,4-Difluorobenzene (Surr)	50.0	109	80 - 120	6.777	6.780727	-0.0037	+/-1.0	
Toluene-d8 (Surr)	50.0	98	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	

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:	9K18032	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 (9110893-BS1)			Lab File ID: VI19111807.D			Analyzed: 11/18/19 11:31			
Pentafluorobenzene (ISTD)	103421	6.211	103421	6.211	100	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	297816	9.91	297816	9.91	100	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	143383	11.85	143383	11.85	100	50 - 200	0.0000	+/-0.50	
Calibration Check (9K18032-CCV1)			Lab File ID: VI19111807.D			Analyzed: 11/18/19 11:31			
Pentafluorobenzene (ISTD)	103421	6.211	112406	6.211	92	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	297816	9.91	307093	9.91	97	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	143383	11.85	151591	11.85	95	50 - 200	0.0000	+/-0.50	
Blank (9110893-BLK1)			Lab File ID: VI19111808.D			Analyzed: 11/18/19 11:58			
Pentafluorobenzene (ISTD)	93963	6.217	103421	6.211	91	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	265537	9.91	297816	9.91	89	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	117010	11.85	143383	11.85	82	50 - 200	0.0000	+/-0.50	
PDI-140RAB-C-00-12.7-191108 (A9K0330-01)			Lab File ID: VI19111809.D			Analyzed: 11/18/19 12:25			
Pentafluorobenzene (ISTD)	92752	6.217	103421	6.211	90	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	262950	9.909	297816	9.91	88	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	116445	11.85	143383	11.85	81	50 - 200	0.0000	+/-0.50	
Duplicate (9110893-DUP1)			Lab File ID: VI19111810.D			Analyzed: 11/18/19 12:52			
Pentafluorobenzene (ISTD)	91208	6.211	103421	6.211	88	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	259214	9.91	297816	9.91	87	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	115138	11.85	143383	11.85	80	50 - 200	0.0000	+/-0.50	
Matrix Spike (9110893-MS1)			Lab File ID: VI19111811.D			Analyzed: 11/18/19 13:19			
Pentafluorobenzene (ISTD)	100290	6.217	103421	6.211	97	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	296267	9.91	297816	9.91	99	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	144017	11.85	143383	11.85	100	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-140RAB-C-00-12.7-191108	11/08/19 12:15	11/12/19 16:00	11/18/19 11:41	9.98	14.00	11/18/19 12:25	10.01	14.00	

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GC

METHOD: 1311/8081B

ANALYSES DATA PACKAGE COVER PAGE

1311/8081B

Laboratory: Apex Laboratories

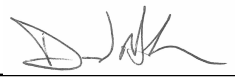
Client: Anchor QEA, LLC

SDG: Gasco PreRD_DG 2019

Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-140RAB-C-00-12.7-191108	A9K0330-01	Soil

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: 12/18/2019 12:01PM

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-140RAB-C-00-12.7-191108

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil	Laboratory ID:	A9K0330-01	File ID:	ECD5-11251909.D
Sampled:	11/08/19 12:15	Prepared:	11/22/19 11:21	Analyzed:	11/25/19 13:26
		Preparation:	EPA 1311/3510C (Neutral E	Initial/Final:	200 mL / 5 mL

Batch: 9111112 Sequence: 9K25040 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	0.00133	53	25 - 140	
Decachlorobiphenyl (Surr) [2C]	0.00250	0.00204	82	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: 9111112 Batch Matrix: Soil
Preparation: EPA 1311/3510C (Neutral Ext.)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9111112-BLK1	ECD5-11251906.D	11/22/19 11:21	
LCS	9111112-BS1	ECD5-11251907.D	11/22/19 11:21	
LCS Dup	9111112-BSD1	ECD5-11251908.D	11/22/19 11:21	
PDI-140RAB-C-00-12.7-191108	A9K0330-01	ECD5-11251909.D	11/22/19 11:21	

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:	9111112-BLK1	File ID:	ECD5-11251906.D
Prepared:	11/22/19 11:21	Preparation:	EPA 1311/3510C (Neutral E	Initial/Final:	200 mL / 5 mL
Analyzed:	11/25/19 12:34	Instrument:	DUALECD5		
Batch:	9111112	Sequence:	9K25040	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	0.00127	51	25 - 140	
Decachlorobiphenyl (Surr) [2C]	0.00250	0.00185	74	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:	9111112	Laboratory ID:	9111112-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	0.00218	87	59 - 134
Endrin [2C]	0.00250	0.00252	101	60 - 138
Heptachlor [2C]	0.00250	0.00206	82	54 - 130
Heptachlor epoxide [2C]	0.00250	0.00214	86	61 - 133
Methoxychlor [2C]	0.00250	0.00234	94	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:	9111112	Laboratory ID:	9111112-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	0.00199	80	9	30	59 - 134
Endrin [2C]	0.00250	0.00213	85	17	30	60 - 138
Heptachlor [2C]	0.00250	0.00182	73	12	30	54 - 130
Heptachlor epoxide [2C]	0.00250	0.00201	80	7	30	61 - 133
Methoxychlor [2C]	0.00250	0.00207	83	12	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:	9K25040	Instrument:	DUALECD5
Matrix:	Soil	Calibration:	A9H2608

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	9K25040-CCV1	ECD5-11251904.D	11/25/19 12:00
Calibration Blank	9K25040-CCB1	ECD5-11251905.D	11/25/19 12:17
Blank	9111112-BLK1	ECD5-11251906.D	11/25/19 12:34
LCS	9111112-BS1	ECD5-11251907.D	11/25/19 12:51
LCS Dup	9111112-BSD1	ECD5-11251908.D	11/25/19 13:08
PDI-140RAB-C-00-12.7-191108	A9K0330-01	ECD5-11251909.D	11/25/19 13:26
Calibration Check	9K25040-CCV2	ECD5-11251910.D	11/25/19 13:43
Calibration Blank	9K25040-CCB2	ECD5-11251911.D	11/25/19 14:00

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.

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:	ECD5-11251904.D	Calibration Date:	08/26/19 15:54
Sequence:	9K25040	Injection Date:	11/25/19
Lab Sample ID:	9K25040-CCV1	Injection Time:	12:00

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	46.4		201777.1	187337.9	-7.2	20
gamma-BHC (Lindane) [2C]	Ave	50.0	44.6		356703.9	317933.8	-10.9	20
Endrin	Ave	50.0	45.4		147027.1	133531.9	-9.2	20
Endrin [2C]	Ave	50.0	43.2		225826.9	195111.4	-13.6	20
Heptachlor	Ave	50.0	46.1		181296.6	167164.8	-7.8	20
Heptachlor [2C]	Ave	50.0	45.4		305977.1	277944.4	-9.2	20
Heptachlor epoxide	Ave	50.0	45.1		184178.6	166056.2	-9.8	20
Heptachlor epoxide [2C]	Ave	50.0	44.0		300848.3	264697.2	-12.0	20
Methoxychlor	Ave	50.0	42.0		58574.27	49200.32	-16.0	20
Methoxychlor [2C]	XXX	50.0	41.1	-17.8				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:	ECD5-11251910.D	Calibration Date:	08/26/19 15:54
Sequence:	9K25040	Injection Date:	11/25/19
Lab Sample ID:	9K25040-CCV2	Injection Time:	13:43

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	97.5		201777.1	196729.4	-2.5	20
gamma-BHC (Lindane) [2C]	Ave	100	96.3		356703.9	343438.1	-3.7	20
Endrin	Ave	100	96.2		147027.1	141463.7	-3.8	20
Endrin [2C]	Ave	100	97.8		225826.9	220793.1	-2.2	20
Heptachlor	Ave	100	99.5		181296.6	180316.9	-0.5	20
Heptachlor [2C]	Ave	100	100		305977.1	306403	0.1	20
Heptachlor epoxide	Ave	100	92.7		184178.6	170661	-7.3	20
Heptachlor epoxide [2C]	Ave	100	92.0		300848.3	276655.4	-8.0	20
Methoxychlor	Ave	100	88.2		58574.27	51686.75	-11.8	20
Methoxychlor [2C]	XXX	100	86.3	-13.7				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:	9K25040	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 (9K25040-CCV1)			Lab File ID: ECD5-11251904.D		Analyzed: 11/25/19 12:00			
2,4,5,6-TCMX (Surr)	50.0	97	80 - 120	5.231	5.39525	-0.1643	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	50.0	88	80 - 120	5.822	5.98975	-0.1678	+/-1.0	
Decachlorobiphenyl (Surr)	50.0	90	80 - 120	9.415	9.5925	-0.1775	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	50.0	93	80 - 120	10.329	10.54062	-0.2116	+/-1.0	
Calibration Blank (9K25040-CCB1)			Lab File ID: ECD5-11251905.D		Analyzed: 11/25/19 12:17			
2,4,5,6-TCMX (Surr) [2C]	100	85	25 - 140	5.821	5.98975	-0.1688	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	90	30 - 135	10.33	10.54062	-0.2106	+/-1.0	
Blank (9111112-BLK1)			Lab File ID: ECD5-11251906.D		Analyzed: 11/25/19 12:34			
2,4,5,6-TCMX (Surr) [2C]	0.00250	51	25 - 140	5.82	5.98975	-0.1698	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	74	30 - 135	10.329	10.54062	-0.2116	+/-1.0	
LCS (9111112-BS1)			Lab File ID: ECD5-11251907.D		Analyzed: 11/25/19 12:51			
2,4,5,6-TCMX (Surr) [2C]	0.00250	62	25 - 140	5.82	5.98975	-0.1698	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	73	30 - 135	10.329	10.54062	-0.2116	+/-1.0	
LCS Dup (9111112-BSD1)			Lab File ID: ECD5-11251908.D		Analyzed: 11/25/19 13:08			
2,4,5,6-TCMX (Surr) [2C]	0.00250	60	25 - 140	5.82	5.98975	-0.1698	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	63	30 - 135	10.329	10.54062	-0.2116	+/-1.0	
PDI-140RAB-C-00-12.7-191108 (A9K0330-01)			Lab File ID: ECD5-11251909.D		Analyzed: 11/25/19 13:26			
2,4,5,6-TCMX (Surr) [2C]	0.00250	53	25 - 140	5.819	5.98975	-0.1708	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	82	30 - 135	10.328	10.54062	-0.2126	+/-1.0	
Calibration Check (9K25040-CCV2)			Lab File ID: ECD5-11251910.D		Analyzed: 11/25/19 13:43			
2,4,5,6-TCMX (Surr)	100	100	80 - 120	5.23	5.39525	-0.1652	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	100	94	80 - 120	5.82	5.98975	-0.1698	+/-1.0	
Decachlorobiphenyl (Surr)	100	89	80 - 120	9.415	9.5925	-0.1775	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	99	80 - 120	10.329	10.54062	-0.2116	+/-1.0	
Calibration Blank (9K25040-CCB2)			Lab File ID: ECD5-11251911.D		Analyzed: 11/25/19 14:00			
2,4,5,6-TCMX (Surr) [2C]	100	85	25 - 140	5.82	5.98975	-0.1698	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	89	30 - 135	10.33	10.54062	-0.2106	+/-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-140RAB-C-00-12.7-191108	11/08/19 12:15	11/12/19 16:00	11/22/19 11:21	13.96	7.00	11/25/19 13:26	3.09	40.00	*

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GCMS

METHOD: 1311/8270D

ANALYSES DATA PACKAGE COVER PAGE

1311/8270D

Laboratory: Apex Laboratories

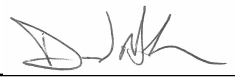
Client: Anchor QEA, LLC

SDG: Gasco PreRD_DG 2019

Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-140RAB-C-00-12.7-191108	A9K0330-01	Soil

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: 12/18/2019 12:01PM

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-140RAB-C-00-12.7-191108

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil	Laboratory ID:	A9K0330-01RE1	File ID:	J11261911.D
Sampled:	11/08/19 12:15	Prepared:	11/22/19 11:18	Analyzed:	11/26/19 13:51
		Preparation:	EPA 1311/3510C (BNA Extr	Initial/Final:	200 mL / 2 mL

Batch: 9111111 Sequence: 9K26022 Calibration: A9I2405 Instrument: SV-GCMS10

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	0.0160	64	44 - 120	
2-Fluorobiphenyl (Surr)	0.0250	0.0195	78	44 - 120	
Phenol-d6 (Surr)	0.0250	0.00407	16	10 - 120	
p-Terphenyl-d14 (Surr)	0.0250	0.0215	86	50 - 133	
2-Fluorophenol (Surr)	0.0250	0.00922	37	19 - 120	
2,4,6-Tribromophenol (Surr)	0.0250	0.0203	81	43 - 140	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	431997	6.386	361048	6.38	
Naphthalene-d8 (ISTD)	1598362	7.648	1385010	7.648	
Acenaphthene-d10 (ISTD)	846322	9.424	748930	9.424	
Phenanthrene-d10 (ISTD)	1533271	10.937	1388573	10.937	
Chrysene-d12 (ISTD)	1574148	14.526	1350896	14.526	

* 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: 9111111 Batch Matrix: Soil
Preparation: EPA 1311/3510C (BNA Extraction)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9111111-BLK1	J11221915.D	11/22/19 11:18	
LCS	9111111-BS1	J11221916.D	11/22/19 11:18	
LCS Dup	9111111-BSD1	J11221917.D	11/22/19 11:19	
PDI-140RAB-C-00-12.7-191108	A9K0330-01RE1	J11261911.D	11/22/19 11:18	

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.

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:	9111111-BLK1	File ID:	J11221915.D
Prepared:	11/22/19 11:18	Preparation:	EPA 1311/3510C (BNA Extr	Initial/Final:	200 mL / 2 mL
Analyzed:	11/22/19 19:04	Instrument:	SV-GCMS10		
Batch:	9111111	Sequence:	9K22026	Calibration:	A9I2405

CAS NO.	COMPOUND	CONC. (mg/L)	Q
121-14-2	2,4-Dinitrotoluene	0.00100	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	0.0156	62	44 - 120	
2-Fluorobiphenyl (Surr)	0.0250	0.0147	59	44 - 120	
Phenol-d6 (Surr)	0.0250	0.00464	19	10 - 120	
p-Terphenyl-d14 (Surr)	0.0250	0.0193	77	50 - 133	
2-Fluorophenol (Surr)	0.0250	0.00848	34	19 - 120	
2,4,6-Tribromophenol (Surr)	0.0250	0.0192	77	43 - 140	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	429838	6.386	354309	6.38	
Naphthalene-d8 (ISTD)	1606950	7.643	1356622	7.648	
Acenaphthene-d10 (ISTD)	861246	9.424	717364	9.424	
Phenanthrene-d10 (ISTD)	1531885	10.932	1328005	10.932	
Chrysene-d12 (ISTD)	1568661	14.521	1255683	14.526	

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:	9111111	Laboratory ID:	9111111-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	0.0324	81	57 - 128
Hexachlorobenzene	0.0400	0.0294	74	52 - 125
Hexachlorobutadiene	0.0400	0.0243	61	22 - 124
Hexachloroethane	0.0400	0.0241	60	21 - 120
2-Methylphenol	0.0400	0.0217	54	30 - 120
3+4-Methylphenol(s)	0.0400	0.0196	49	29 - 120
Nitrobenzene	0.0400	0.0230	58	45 - 121
Pentachlorophenol (PCP)	0.0400	0.0291	73	35 - 138
Pyridine	0.0400	0.0102	25	5 - 120
2,4,5-Trichlorophenol	0.0400	0.0325	81	53 - 123
2,4,6-Trichlorophenol	0.0400	0.0321	80	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:	9111111	Laboratory ID:	9111111-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	0.0336	84	4	30	57 - 128
Hexachlorobenzene	0.0400	0.0307	77	4	30	52 - 125
Hexachlorobutadiene	0.0400	0.0251	63	3	30	22 - 124
Hexachloroethane	0.0400	0.0237	59	2	30	21 - 120
2-Methylphenol	0.0400	0.0214	53	2	30	30 - 120
3+4-Methylphenol(s)	0.0400	0.0193	48	1	30	29 - 120
Nitrobenzene	0.0400	0.0243	61	5	30	45 - 121
Pentachlorophenol (PCP)	0.0400	0.0305	76	5	30	35 - 138
Pyridine	0.0400	0.00930	23	9	30	5 - 120
2,4,5-Trichlorophenol	0.0400	0.0325	81	0.2	30	53 - 123
2,4,6-Trichlorophenol	0.0400	0.0326	82	2	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:	9I19035	Instrument:	SV-GCMS10
Matrix:	Soil	Calibration:	A9I2405

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9I19035-TUN1	J09191916.D	09/20/19 00:22
Initial Cal Blank	9I19035-ICB1	J09191917.D	09/20/19 00:49
Cal Standard	9I19035-CAL1	J09191918.D	09/20/19 01:24
Cal Standard	9I19035-CAL2	J09191919.D	09/20/19 01:59
Cal Standard	9I19035-CAL3	J09191920.D	09/20/19 02:34
Cal Standard	9I19035-CAL4	J09191921.D	09/20/19 03:09
Cal Standard	9I19035-CAL5	J09191922.D	09/20/19 03:44
Cal Standard	9I19035-CAL6	J09191923.D	09/20/19 04:19
Cal Standard	9I19035-CAL7	J09191924.D	09/20/19 04:54
Cal Standard	9I19035-CAL8	J09191925.D	09/20/19 05:29
Cal Standard	9I19035-CAL9	J09191926.D	09/20/19 06:04
Cal Standard	9I19035-CALA	J09191927.D	09/20/19 06:39
Initial Cal Check	9I19035-ICV1	J09191929.D	09/20/19 07:50

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:	9K22026	Instrument:	SV-GCMS10
Matrix:	Soil	Calibration:	A9I2405

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9K22026-TUN2	J11221904.D	11/22/19 12:36
Calibration Check	9K22026-CCV2	J11221905.D	11/22/19 13:04
Calibration Blank	9K22026-CCB1	J11221906.D	11/22/19 13:40
Blank	9111111-BLK1	J11221915.D	11/22/19 19:04
LCS	9111111-BS1	J11221916.D	11/22/19 19:40
LCS Dup	9111111-BSD1	J11221917.D	11/22/19 20:15

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:	9K26022	Instrument:	SV-GCMS10
Matrix:	Soil	Calibration:	A9I2405

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9K26022-TUN2	J11261904.D	11/26/19 09:49
Calibration Check	9K26022-CCV2	J11261905.D	11/26/19 10:16
Calibration Blank	9K26022-CCB1	J11261906.D	11/26/19 10:52
PDI-140RAB-C-00-12.7-191108	A9K0330-01RE1	J11261911.D	11/26/19 13:51

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:	J09191916.D	Injection Date:	09/20/19
Instrument ID:	SV-GCMS10	Injection Time:	00:22
Sequence:	9I19035	Lab Sample ID:	9I19035-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	1.61	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.51	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	6.90	PASS
m/z 365	1 - 100% of m/z 198	3.17	PASS
m/z 441	Less than 150% of m/z 443	73.90	PASS
m/z 442	0.1 - 200% of m/z 198	95.52	PASS
m/z 443	15 - 24% of m/z 442	19.71	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:	J11221904.D	Injection Date:	11/22/19
Instrument ID:	SV-GCMS10	Injection Time:	12:36
Sequence:	9K22026	Lab Sample ID:	9K22026-TUN2

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	1.47	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.31	PASS
m/z 197	Less than 2% of m/z 198	0.22	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	7.07	PASS
m/z 365	1 - 100% of m/z 198	3.60	PASS
m/z 441	Less than 150% of m/z 443	75.90	PASS
m/z 442	0.1 - 200% of m/z 198	113.01	PASS
m/z 443	15 - 24% of m/z 442	19.69	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:	J11261904.D	Injection Date:	11/26/19
Instrument ID:	SV-GCMS10	Injection Time:	09:49
Sequence:	9K26022	Lab Sample ID:	9K26022-TUN2

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	1.33	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.56	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	7.11	PASS
m/z 365	1 - 100% of m/z 198	3.56	PASS
m/z 441	Less than 150% of m/z 443	76.36	PASS
m/z 442	0.1 - 200% of m/z 198	112.47	PASS
m/z 443	15 - 24% of m/z 442	20.09	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: A9I2405 Date: 09/24/19 12:40 Instrument: SV-GCMS10

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
2,4-Dinitrotoluene	0.3649887	XXX	21.34667	9.806875	0.113925				
Hexachlorobenzene	0.2707358	Ave	10.60551	10.7482	4.451335E-02			20	
Hexachlorobutadiene	0.1891523	Ave	6.739156	7.9913	2.888985E-02			20	
Hexachloroethane	0.4806864	Ave	5.451873	7.077	2.898215E-02			20	
2-Methylphenol	1.03014	Ave	9.222719	6.8119	8.482721E-02			20	
3+4-Methylphenol(s)	1.277354	Ave	11.32459	6.961556	8.520401E-02			20	
Nitrobenzene	1.221036	Ave	7.439446	7.1363	0.1023456			20	
Pentachlorophenol (PCP)	0.1189653	XXX	26.10993	10.94237	3.850139E-02				
Pyridine	1.298764	Ave	10.27213	3.950556	0.8873878			20	
2,4,5-Trichlorophenol	0.3514615	XXX	18.51245	8.876	5.529415E-02				
2,4,6-Trichlorophenol	0.3575479	XXX	19.98563	8.842555	5.254443E-02				
Nitrobenzene-d5 (Surr)	1.205168	Ave	9.142619	7.1168	8.867008E-02			20	
2-Fluorobiphenyl (Surr)	1.565217	Ave	12.06569	8.927444	2.774874E-02			20	
Phenol-d6 (Surr)	1.553469	Ave	11.40827	6.2088	0.1181197			20	
p-Terphenyl-d14 (Surr)	0.9216776	Ave	6.530579	12.9267	5.442172E-02			20	
2-Fluorophenol (Surr)	1.213667	Ave	14.14738	5.3054	0.1655531			20	
2,4,6-Tribromophenol (Surr)	0.1092555	XXX	18.24175	10.42356	6.009604E-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

1311/8270D

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Calibration: A9I2405

SDG: Gasco_PreRD_DG 2019
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Instrument: SV-GCMS10
Calibration Date: 09/24/19 12:40

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	~~0.1603367~~	50	~~0.1627974~~	100	0.2214885	200	0.2765041	500	0.369336	1000	0.3982255
Hexachlorobenzene	20	0.3002082	50	0.2799895	100	0.2916868	200	0.277925	500	0.2949459	1000	0.2857907
Hexachlorobutadiene	20	0.1839228	50	0.199773	100	0.1954379	200	0.2004045	500	0.2006305	1000	0.1988902
Hexachloroethane	20	0.4342819	50	0.4549996	100	0.4516267	200	0.4715052	500	0.4944285	1000	0.4835438
2-Methylphenol	20	0.9295757	50	0.8796476	100	0.9810251	200	1.076563	500	1.154826	1000	1.147864
3+4-Methylphenol(s)	20	1.06531	50	1.132761	100	1.159969	200	1.345101	500	1.440506	1000	1.458462
Nitrobenzene	20	1.075593	50	1.183026	100	1.189288	200	1.30162	500	1.340887	1000	1.326686
Pentachlorophenol (PCP)	20	~~8.691609E-02~~	50	~~5.118127E-02~~	100	7.761508E-02	200	6.955638E-02	500	0.1080871	1000	0.1222728
Pyridine	20	~~0.7561372~~	50	1.052968	100	1.276558	200	1.345625	500	1.118092	1000	1.285171
2,4,5-Trichlorophenol	20	~~0.1901559~~	50	0.2373804	100	0.2701951	200	0.3011386	500	0.3811527	1000	0.3898394
2,4,6-Trichlorophenol	20	~~0.1746999~~	50	0.2365366	100	0.2572544	200	0.3068435	500	0.3835634	1000	0.4024493
Nitrobenzene-d5 (Surr)	20	0.9806475	50	1.085379	100	1.135054	200	1.209032	500	1.31341	1000	1.321832
2-Fluorobiphenyl (Surr)	20	1.476909	50	1.609929	100	1.734744	200	1.751334	500	1.739556	1000	1.652173
Phenol-d6 (Surr)	20	1.197274	50	1.304845	100	1.445522	200	1.602349	500	1.667059	1000	1.681755
p-Terphenyl-d14 (Surr)	20	0.8205178	50	0.9023018	100	0.9773009	200	0.9592621	500	0.994643	1000	0.9688955
2-Fluorophenol (Surr)	20	0.9398586	50	1.045277	100	0.9521188	200	1.216931	500	1.280008	1000	1.263499
2,4,6-Tribromophenol (Surr)	20	~~6.623006E-02~~	50	7.092577E-02	100	8.598271E-02	200	9.861561E-02	500	0.1200291	1000	0.122147

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: A9I2405
Instrument: SV-GCMS10
Matrix:
Calibration Date: 09/24/19 12:40

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	0.4391508	4000	0.4369418	6000	0.4126319	8000	0.3656313				
Hexachlorobenzene	2000	0.2793127	4000	0.2519446	6000	0.2310087	8000	0.2145459				
Hexachlorobutadiene	2000	0.1905242	4000	0.1849175	6000	0.1738819	8000	0.1631409				
Hexachloroethane	2000	0.5034331	4000	0.5096268	6000	0.5004542	8000	0.5029646				
2-Methylphenol	2000	1.116896	4000	1.057322	6000	1.00091	8000	0.9567711				
3+4-Methylphenol(s)	2000	1.400529	4000	1.304656	6000	1.18889	8000	~~1.118737~~				
Nitrobenzene	2000	1.280974	4000	1.234394	6000	1.165306	8000	1.112587				
Pentachlorophenol (PCP)	2000	0.1418302	4000	0.1484859	6000	0.1453844	8000	0.1384905				
Pyridine	2000	1.375861	4000	1.417463	6000	1.442542	8000	1.374592				
2,4,5-Trichlorophenol	2000	0.4178827	4000	0.4063886	6000	0.3928207	8000	0.3663551				
2,4,6-Trichlorophenol	2000	0.4232436	4000	0.4186057	6000	0.4009108	8000	0.3885235				
Nitrobenzene-d5 (Surr)	2000	1.281854	4000	1.28613	6000	1.24582	8000	1.192526				
2-Fluorobiphenyl (Surr)	2000	1.564374	4000	1.350787	6000	1.207146	8000	~~1.092707~~				
Phenol-d6 (Surr)	2000	1.673553	4000	1.705426	6000	1.658679	8000	1.598233				
p-Terphenyl-d14 (Surr)	2000	0.953339	4000	0.9235964	6000	0.8801238	8000	0.8367959				
2-Fluorophenol (Surr)	2000	1.332531	4000	1.380766	6000	1.371479	8000	1.354202				
2,4,6-Tribromophenol (Surr)	2000	0.1302975	4000	0.1246898	6000	0.1182398	8000	0.1123724				

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-GCMS10	Calibration:	A9I2405
Lab File ID:	J09191929.D		
Sequence:	9I19035	Inject Date:	09/20/19
Lab Sample ID:	9I19035-ICV1	Inject Time:	07:50

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
2,4-Dinitrotoluene	1000	1050	4.8	70 - 130
Hexachlorobenzene	1000	1010	1.0	70 - 130
Hexachlorobutadiene	1000	1040	3.7	70 - 130
Hexachloroethane	1000	1040	4.1	70 - 130
2-Methylphenol	1000	1050	5.3	70 - 130
3+4-Methylphenol(s)	1000	1070	6.7	70 - 130
Nitrobenzene	1000	1060	5.8	70 - 130
Pentachlorophenol (PCP)	1000	976	-2.4	70 - 130
Pyridine	1000	896	-10.4	70 - 130
2,4,5-Trichlorophenol	1000	1050	4.8	70 - 130
2,4,6-Trichlorophenol	1000	1030	3.4	70 - 130
Nitrobenzene-d5 (Surr)	1000	1070	6.6	70 - 130
2-Fluorobiphenyl (Surr)	1000	1060	6.2	70 - 130
Phenol-d6 (Surr)	1000	1020	1.6	70 - 130
p-Terphenyl-d14 (Surr)	1000	1060	6.1	70 - 130
2-Fluorophenol (Surr)	1000	981	-1.9	70 - 130
2,4,6-Tribromophenol (Surr)	1000	1040	4.1	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-GCMS10	Calibration:	A9I2405
Lab File ID:	J11221905.D	Calibration Date:	09/24/19 12:40
Sequence:	9K22026	Injection Date:	11/22/19
Lab Sample ID:	9K22026-CCV2	Injection Time:	13:04

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	1070	6.9				20
Hexachlorobenzene	Ave	1000	1030		0.2707358	0.2780547	2.7	20
Hexachlorobutadiene	Ave	1000	1090		0.1891523	0.2054972	8.6	20
Hexachloroethane	Ave	1000	1050		0.4806864	0.5066425	5.4	20
2-Methylphenol	Ave	1000	1010		1.03014	1.044681	1.4	20
3+4-Methylphenol(s)	Ave	1000	1030		1.277354	1.317663	3.2	20
Nitrobenzene	Ave	1000	911		1.221036	1.112695	-8.9	20
Pentachlorophenol (PCP)	XXX	1000	972	-2.8				20
Pyridine	Ave	1000	886		1.298764	1.15012	-11.4	20
2,4,5-Trichlorophenol	XXX	1000	1110	10.5				20
2,4,6-Trichlorophenol	XXX	1000	1130	12.6				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-GCMS10	Calibration:	A9I2405
Lab File ID:	J11261905.D	Calibration Date:	09/24/19 12:40
Sequence:	9K26022	Injection Date:	11/26/19
Lab Sample ID:	9K26022-CCV2	Injection Time:	10:16

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	1110	11.3				20
Hexachlorobenzene	Ave	1000	1020		0.2707358	0.2760474	2.0	20
Hexachlorobutadiene	Ave	1000	1080		0.1891523	0.2040592	7.9	20
Hexachloroethane	Ave	1000	1060		0.4806864	0.5087024	5.8	20
2-Methylphenol	Ave	1000	1020		1.03014	1.051367	2.1	20
3+4-Methylphenol(s)	Ave	1000	1040		1.277354	1.328959	4.0	20
Nitrobenzene	Ave	1000	925		1.221036	1.129324	-7.5	20
Pentachlorophenol (PCP)	XXX	1000	955	-4.5				20
Pyridine	Ave	1000	891		1.298764	1.157447	-10.9	20
2,4,5-Trichlorophenol	XXX	1000	1120	12.4				20
2,4,6-Trichlorophenol	XXX	1000	1140	14.2				20

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

* = Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9I19035	Instrument:	SV-GCMS10
Matrix:	Soil	Calibration:	A9I2405

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9I19035-ICV1)			Lab File ID: J09191929.D		Analyzed: 09/20/19 07:50			
Nitrobenzene-d5 (Surr)	1000	107	70 - 130	7.113	7.1168	-0.0038	+/-1.0	
2-Fluorobiphenyl (Surr)	1000	106	70 - 130	8.927	8.927444	-0.0004	+/-1.0	
Phenol-d6 (Surr)	1000	102	70 - 130	6.209	6.2088	0.0002	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	106	70 - 130	12.917	12.9267	-0.0097	+/-1.0	
2-Fluorophenol (Surr)	1000	98	70 - 130	5.316	5.3054	0.0106	+/-1.0	
2,4,6-Tribromophenol (Surr)	1000	104	70 - 130	10.419	10.42356	-0.0046	+/-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:	9K22026	Instrument:	SV-GCMS10
Matrix:	Soil	Calibration:	A9I2405

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9K22026-CCV2)			Lab File ID: J11221905.D		Analyzed: 11/22/19 13:04			
Nitrobenzene-d5 (Surr)	1000	96	80 - 120	6.926	7.1168	-0.1908	+/-1.0	
2-Fluorobiphenyl (Surr)	1000	104	80 - 120	8.734	8.927444	-0.1934	+/-1.0	
Phenol-d6 (Surr)	1000	95	80 - 120	6.038	6.2088	-0.1708	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	107	80 - 120	12.665	12.9267	-0.2617	+/-1.0	
2-Fluorophenol (Surr)	1000	104	80 - 120	5.123	5.3054	-0.1824	+/-1.0	
2,4,6-Tribromophenol (Surr)	1000	98	80 - 120	10.226	10.42356	-0.1976	+/-1.0	
Calibration Blank (9K22026-CCB1)			Lab File ID: J11221906.D		Analyzed: 11/22/19 13:40			
Nitrobenzene-d5 (Surr)			44 - 120	6.915	7.1168	-0.2018	+/-1.0	
2-Fluorobiphenyl (Surr)			44 - 120	0	8.927444	-8.9274	+/-1.0	
Phenol-d6 (Surr)			10 - 120	0	6.2088	-6.2088	+/-1.0	
p-Terphenyl-d14 (Surr)			50 - 133	0	12.9267	-12.9267	+/-1.0	
2-Fluorophenol (Surr)			19 - 120	0	5.3054	-5.3054	+/-1.0	
2,4,6-Tribromophenol (Surr)			43 - 140	0	10.42356	-10.4236	+/-1.0	
Blank (9111111-BLK1)			Lab File ID: J11221915.D		Analyzed: 11/22/19 19:04			
Nitrobenzene-d5 (Surr)	0.0250	62	44 - 120	6.926	7.1168	-0.1908	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	59	44 - 120	8.734	8.927444	-0.1934	+/-1.0	
Phenol-d6 (Surr)	0.0250	19	10 - 120	6.038	6.2088	-0.1708	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	77	50 - 133	12.665	12.9267	-0.2617	+/-1.0	
2-Fluorophenol (Surr)	0.0250	34	19 - 120	5.129	5.3054	-0.1764	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	77	43 - 140	10.226	10.42356	-0.1976	+/-1.0	
LCS (9111111-BS1)			Lab File ID: J11221916.D		Analyzed: 11/22/19 19:40			
Nitrobenzene-d5 (Surr)	0.0250	59	44 - 120	6.931	7.1168	-0.1858	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	64	44 - 120	8.734	8.927444	-0.1934	+/-1.0	
Phenol-d6 (Surr)	0.0250	20	10 - 120	6.038	6.2088	-0.1708	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	80	50 - 133	12.66	12.9267	-0.2667	+/-1.0	
2-Fluorophenol (Surr)	0.0250	33	19 - 120	5.134	5.3054	-0.1714	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	75	43 - 140	10.226	10.42356	-0.1976	+/-1.0	
LCS Dup (9111111-BSD1)			Lab File ID: J11221917.D		Analyzed: 11/22/19 20:15			
Nitrobenzene-d5 (Surr)	0.0250	62	44 - 120	6.931	7.1168	-0.1858	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	70	44 - 120	8.734	8.927444	-0.1934	+/-1.0	
Phenol-d6 (Surr)	0.0250	19	10 - 120	6.044	6.2088	-0.1648	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	84	50 - 133	12.665	12.9267	-0.2617	+/-1.0	
2-Fluorophenol (Surr)	0.0250	31	19 - 120	5.145	5.3054	-0.1604	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	77	43 - 140	10.226	10.42356	-0.1976	+/-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:	9K26022	Instrument:	SV-GCMS10
Matrix:	Soil	Calibration:	A9I2405

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9K26022-CCV2)			Lab File ID: J11261905.D		Analyzed: 11/26/19 10:16			
Nitrobenzene-d5 (Surr)	1000	95	80 - 120	6.926	7.1168	-0.1908	+/-1.0	
2-Fluorobiphenyl (Surr)	1000	103	80 - 120	8.739	8.927444	-0.1884	+/-1.0	
Phenol-d6 (Surr)	1000	96	80 - 120	6.033	6.2088	-0.1758	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	109	80 - 120	12.665	12.9267	-0.2617	+/-1.0	
2-Fluorophenol (Surr)	1000	106	80 - 120	5.118	5.3054	-0.1874	+/-1.0	
2,4,6-Tribromophenol (Surr)	1000	97	80 - 120	10.226	10.42356	-0.1976	+/-1.0	
Calibration Blank (9K26022-CCB1)			Lab File ID: J11261906.D		Analyzed: 11/26/19 10:52			
Nitrobenzene-d5 (Surr)			44 - 120	6.878	7.1168	-0.2388	+/-1.0	
2-Fluorobiphenyl (Surr)			44 - 120	0	8.927444	-8.9274	+/-1.0	
Phenol-d6 (Surr)			10 - 120	0	6.2088	-6.2088	+/-1.0	
p-Terphenyl-d14 (Surr)			50 - 133	12.671	12.9267	-0.2557	+/-1.0	
2-Fluorophenol (Surr)			19 - 120	0	5.3054	-5.3054	+/-1.0	
2,4,6-Tribromophenol (Surr)			43 - 140	0	10.42356	-10.4236	+/-1.0	
PDI-140RAB-C-00-12.7-191108 (A9K0330-01RE1)			Lab File ID: J11261911.D		Analyzed: 11/26/19 13:51			
Nitrobenzene-d5 (Surr)	0.0250	64	44 - 120	6.931	7.1168	-0.1858	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	78	44 - 120	8.734	8.927444	-0.1934	+/-1.0	
Phenol-d6 (Surr)	0.0250	16	10 - 120	6.043	6.2088	-0.1658	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	86	50 - 133	12.665	12.9267	-0.2617	+/-1.0	
2-Fluorophenol (Surr)	0.0250	37	19 - 120	5.129	5.3054	-0.1764	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	81	43 - 140	10.226	10.42356	-0.1976	+/-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:	9K26022	Instrument:	SV-GCMS10
Matrix:	Soil	Calibration:	A9I2405

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (9K26022-CCV2)			Lab File ID: J11261905.D			Analyzed: 11/26/19 10:16			
1,4-Dichlorobenzene-d4 (ISTD)	361048	6.38	283511	6.568	127	50 - 200	-0.1880	+/-0.50	
Naphthalene-d8 (ISTD)	1385010	7.648	1143968	7.835	121	50 - 200	-0.1870	+/-0.50	
Acenaphthene-d10 (ISTD)	748930	9.424	583825	9.616	128	50 - 200	-0.1920	+/-0.50	
Phenanthrene-d10 (ISTD)	1388573	10.937	1065192	11.135	130	50 - 200	-0.1980	+/-0.50	
Chrysene-d12 (ISTD)	1350896	14.526	1048464	14.917	129	50 - 200	-0.3910	+/-0.50	
Calibration Blank (9K26022-CCB1)			Lab File ID: J11261906.D			Analyzed: 11/26/19 10:52			
1,4-Dichlorobenzene-d4 (ISTD)	419057	6.381	361048	6.38	116	50 - 200	0.0010	+/-0.50	
Naphthalene-d8 (ISTD)	1631497	7.648	1385010	7.648	118	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	883506	9.424	748930	9.424	118	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	1617278	10.932	1388573	10.937	116	50 - 200	-0.0050	+/-0.50	
Chrysene-d12 (ISTD)	1667447	14.521	1350896	14.526	123	50 - 200	-0.0050	+/-0.50	
PDI-140RAB-C-00-12.7-191108 (A9K0330-01RE1)			Lab File ID: J11261911.D			Analyzed: 11/26/19 13:51			
1,4-Dichlorobenzene-d4 (ISTD)	431997	6.386	361048	6.38	120	50 - 200	0.0060	+/-0.50	
Naphthalene-d8 (ISTD)	1598362	7.648	1385010	7.648	115	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	846322	9.424	748930	9.424	113	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	1533271	10.937	1388573	10.937	110	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	1574148	14.526	1350896	14.526	117	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-140RAB-C-00-12.7-191108	11/08/19 12:15	11/12/19 16:00	11/22/19 11:18	13.96	7.00	11/26/19 13:51	4.11	40.00	*

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: METALS

METHOD: 1311/6020A

ANALYSES DATA PACKAGE COVER PAGE

1311/6020A

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-140RAB-C-00-12.7-191108	A9K0330-01	Soil

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: 12/18/2019 12:01PM
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-140RAB-C-00-12.7-191108

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Soil
Laboratory ID: A9K0330-01
File ID: 9K21029-040
Sampled: 11/08/19 12:15
Prepared: 11/21/19 10:29
Analyzed: 11/21/19 14:27
Solids: N/A
Preparation: EPA 1311/3015
Initial/Final: 10 mL / 50 mL
Batch: 9111059
Sequence: 9K21029
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: 9111059 Batch Matrix: Soil Preparation: EPA 1311/3015

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9111059-BLK1	9K21029-038	11/21/19 10:29	
LCS	9111059-BS1	9K21029-039	11/21/19 10:29	
PDI-140RAB-C-00-12.7-191108 (M	9111059-MS1	9K21029-041	11/21/19 10:29	
PDI-140RAB-C-00-12.7-191108	A9K0330-01	9K21029-040	11/21/19 10:29	

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:	9111059-BLK1	File ID:	9K21029-038
Prepared:	11/21/19 10:29	Preparation:	EPA 1311/3015	Initial/Final:	10 mL / 50 mL
Analyzed:	11/21/19 14:18	Instrument:	ICPMS5		
Batch:	9111059	Sequence:	9K21029	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:	9111059	Laboratory ID:	9111059-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	5.04	101	80 - 120
Barium	10.0	10.4	104	80 - 120
Cadmium	1.00	1.02	102	80 - 120
Chromium	5.00	4.78	96	80 - 120
Lead	5.00	5.20	104	80 - 120
Mercury	0.100	0.103	103	80 - 120
Selenium	1.00	0.998	100	80 - 120
Silver	1.00	1.05	105	80 - 120

* = Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

1311/6020A

PDI-140RAB-C-00-12.7-191108

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil		
Batch:	9111059	Laboratory ID:	9111059-MS1
Preparation:	EPA 1311/3015	Initial/Final:	10 mL / 50 mL

Source Sample Name: PDI-140RAB-C-00-12.7-191108

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC. (*=Out)	QC LIMITS REC.
Arsenic	5.00	ND	5.05	101	50 - 150
Barium	10.0	ND	11.6	116	50 - 150
Cadmium	1.00	ND	1.01	101	50 - 150
Chromium	5.00	ND	4.82	96	50 - 150
Lead	5.00	ND	5.20	104	50 - 150
Mercury	0.100	ND	0.103	103	50 - 150
Selenium	1.00	ND	1.00	100	50 - 150
Silver	1.00	ND	1.05	105	50 - 150

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:	9K21029	Instrument:	ICPMS5
Matrix:	Soil	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	9K21029-ICV1	9K21029-013	11/21/19 12:10
Initial Cal Blank	9K21029-ICB1	9K21029-014	11/21/19 12:15
Instrument RL Check	9K21029-CRL1	9K21029-015	11/21/19 12:20
Instrument RL Check	9K21029-CRL2	9K21029-016	11/21/19 12:24
Instrument RL Check	9K21029-CRL3	9K21029-017	11/21/19 12:29
Calibration Check	9K21029-CCV1	9K21029-031	11/21/19 13:45
Calibration Blank	9K21029-CCB1	9K21029-032	11/21/19 13:49
Blank	9111059-BLK1	9K21029-038	11/21/19 14:18
LCS	9111059-BS1	9K21029-039	11/21/19 14:22
PDI-140RAB-C-00-12.7-191108	A9K0330-01	9K21029-040	11/21/19 14:27
PDI-140RAB-C-00-12.7-191108 (MS	9111059-MS1	9K21029-041	11/21/19 14:32
Calibration Check	9K21029-CCV2	9K21029-043	11/21/19 14:41
Calibration Blank	9K21029-CCB2	9K21029-044	11/21/19 14:46
Instrument RL Check	9K21029-CRL4	9K21029-045	11/21/19 14:50
Instrument RL Check	9K21029-CRL5	9K21029-046	11/21/19 14:55
Instrument RL Check	9K21029-CRL6	9K21029-047	11/21/19 15:00
Calibration Check	9K21029-CCV3	9K21029-058	11/21/19 15:52
Calibration Blank	9K21029-CCB3	9K21029-059	11/21/19 15:57
Calibration Check	9K21029-CCV4	9K21029-070	11/21/19 16:52
Calibration Blank	9K21029-CCB4	9K21029-071	11/21/19 16:56
Calibration Check	9K21029-CCV5	9K21029-082	11/21/19 17:47
Calibration Blank	9K21029-CCB5	9K21029-083	11/21/19 17:52
Calibration Check	9K21029-CCV6	9K21029-094	11/21/19 18:42
Calibration Blank	9K21029-CCB6	9K21029-095	11/21/19 18:47
Calibration Check	9K21029-CCV7	9K21029-106	11/21/19 19:37
Calibration Blank	9K21029-CCB7	9K21029-107	11/21/19 19:42
Calibration Check	9K21029-CCV8	9K21029-118	11/21/19 20:33
Calibration Blank	9K21029-CCB8	9K21029-119	11/21/19 20:38
Calibration Check	9K21029-CCV9	9K21029-127	11/21/19 21:15
Calibration Check	9K21029-CCVA	9K21029-128	11/21/19 21:19
Calibration Blank	9K21029-CCB9	9K21029-129	11/21/19 21:24
Instrument RL Check	9K21029-CRL7	9K21029-130	11/21/19 21:29
Instrument RL Check	9K21029-CRL8	9K21029-131	11/21/19 21:33

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:	9K21029	Instrument:	ICPMS5
Matrix:	Soil	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Instrument RL Check	9K21029-CRL9	9K21029-132	11/21/19 21:38
Instrument RL Check	9K21029-CRLA	9K21029-133	11/21/19 21:43

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: 9K21029

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9K21029-ICV1	Arsenic	100	99.0	99	ug/L	1311/6020A
	Barium	100	105	105	ug/L	1311/6020A
	Cadmium	100	100	100	ug/L	1311/6020A
	Chromium	100	97.8	98	ug/L	1311/6020A
	Lead	100	101	101	ug/L	1311/6020A
	Mercury	800	832	104	ng/L	1311/6020A
	Selenium	40.0	40.7	102	ug/L	1311/6020A
	Silver	40.0	41.1	103	ug/L	1311/6020A
9K21029-CCV1	Arsenic	100	99.9	100	ug/L	1311/6020A
	Barium	100	105	105	ug/L	1311/6020A
	Cadmium	100	100	100	ug/L	1311/6020A
	Chromium	100	96.7	97	ug/L	1311/6020A
	Lead	100	101	101	ug/L	1311/6020A
	Mercury	800	812	102	ng/L	1311/6020A
	Selenium	40.0	40.7	102	ug/L	1311/6020A
	Silver	40.0	41.2	103	ug/L	1311/6020A
9K21029-CCV2	Arsenic	100	100	100	ug/L	1311/6020A
	Barium	100	104	104	ug/L	1311/6020A
	Cadmium	100	99.9	100	ug/L	1311/6020A
	Chromium	100	97.5	97	ug/L	1311/6020A
	Lead	100	105	105	ug/L	1311/6020A
	Mercury	800	855	107	ng/L	1311/6020A
	Selenium	40.0	40.9	102	ug/L	1311/6020A
	Silver	40.0	40.8	102	ug/L	1311/6020A
9K21029-CCV3	Arsenic	100	99.8	100	ug/L	1311/6020A
	Barium	100	106	106	ug/L	1311/6020A
	Cadmium	100	99.8	100	ug/L	1311/6020A
	Chromium	100	97.4	97	ug/L	1311/6020A
	Lead	100	95.8	96	ug/L	1311/6020A
	Mercury	800	758	95	ng/L	1311/6020A
	Selenium	40.0	40.7	102	ug/L	1311/6020A
	Silver	40.0	41.1	103	ug/L	1311/6020A
9K21029-CCV4	Arsenic	100	101	101	ug/L	1311/6020A
	Barium	100	106	106	ug/L	1311/6020A
	Cadmium	100	100	100	ug/L	1311/6020A
	Chromium	100	97.4	97	ug/L	1311/6020A
	Lead	100	100	100	ug/L	1311/6020A
	Mercury	800	796	99	ng/L	1311/6020A
	Selenium	40.0	40.1	100	ug/L	1311/6020A
	Silver	40.0	41.5	104	ug/L	1311/6020A
9K21029-CCV5	Arsenic	100	100	100	ug/L	1311/6020A
	Barium	100	105	105	ug/L	1311/6020A
	Cadmium	100	100	100	ug/L	1311/6020A
	Chromium	100	97.1	97	ug/L	1311/6020A
	Lead	100	95.1	95	ug/L	1311/6020A
	Mercury	800	737	92	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: 9K21029

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9K21029-CCV5	Selenium	40.0	40.1	100	ug/L	1311/6020A
	Silver	40.0	41.1	103	ug/L	1311/6020A
9K21029-CCV6	Arsenic	100	101	101	ug/L	1311/6020A
	Barium	100	108	108	ug/L	1311/6020A
	Cadmium	100	99.5	99	ug/L	1311/6020A
	Chromium	100	97.4	97	ug/L	1311/6020A
	Lead	100	94.9	95	ug/L	1311/6020A
	Mercury	800	750	94	ng/L	1311/6020A
	Selenium	40.0	39.9	100	ug/L	1311/6020A
	Silver	40.0	41.0	103	ug/L	1311/6020A
9K21029-CCV7	Arsenic	100	101	101	ug/L	1311/6020A
	Barium	100	109	109	ug/L	1311/6020A
	Cadmium	100	99.7	100	ug/L	1311/6020A
	Chromium	100	97.7	98	ug/L	1311/6020A
	Lead	100	94.1	94	ug/L	1311/6020A
	Mercury	800	753	94	ng/L	1311/6020A
	Selenium	40.0	39.9	100	ug/L	1311/6020A
	Silver	40.0	41.0	103	ug/L	1311/6020A
9K21029-CCV8	Arsenic	100	101	101	ug/L	1311/6020A
	Barium	100	109	109	ug/L	1311/6020A
	Cadmium	100	99.8	100	ug/L	1311/6020A
	Chromium	100	97.9	98	ug/L	1311/6020A
	Lead	100	97.3	97	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	41.0	103	ug/L	1311/6020A
9K21029-CCV9	Arsenic	100	101	101	ug/L	1311/6020A
	Barium	100	107	107	ug/L	1311/6020A
	Cadmium	100	99.2	99	ug/L	1311/6020A
	Chromium	100	97.4	97	ug/L	1311/6020A
	Lead	100	94.2	94	ug/L	1311/6020A
	Mercury	800	742	93	ng/L	1311/6020A
	Selenium	40.0	40.5	101	ug/L	1311/6020A
	Silver	40.0	40.8	102	ug/L	1311/6020A
9K21029-CCVA	Arsenic	100	100	100	ug/L	1311/6020A
	Barium	100	107	107	ug/L	1311/6020A
	Cadmium	100	100	100	ug/L	1311/6020A
	Chromium	100	97.7	98	ug/L	1311/6020A
	Lead	100	96.5	97	ug/L	1311/6020A
	Mercury	800	748	93	ng/L	1311/6020A
	Selenium	40.0	40.1	100	ug/L	1311/6020A
	Silver	40.0	41.0	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: 9K21029
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K21029-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
9K21029-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
9K21029-CCB2	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	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
9K21029-CCB3	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
	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
9K21029-CCB4	Lead	ND	0.500 (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: 9K21029
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K21029-CCB4	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
	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
9K21029-CCB5	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Lead	ND	0.500 (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
9K21029-CCB6	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Chromium	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
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
9K21029-CCB7	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
9K21029-CCB8	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Barium	ND	50.0 (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: 9K21029
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K21029-CCB8	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
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
9K21029-CCB9	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

(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: 9K21029

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K21029-CRL1	Arsenic	0.180	0.206	115	ug/L	70 - 130
	Barium	0.180	0.201	112	ug/L	70 - 130
	Cadmium	0.180	0.216	120	ug/L	70 - 130
	Chromium	0.180	0.177	99	ug/L	70 - 130
	Lead	0.180	0.220	122	ug/L	70 - 130
	Mercury	7.20	7.86	109	ng/L	70 - 130
	Selenium	0.180	0.167	93	ug/L	70 - 130
	Silver	0.180	0.184	102	ug/L	70 - 130
9K21029-CRL2	Arsenic	0.900	0.915	102	ug/L	70 - 130
	Barium	0.900	0.910	101	ug/L	70 - 130
	Cadmium	0.900	0.921	102	ug/L	70 - 130
	Chromium	0.900	0.906	101	ug/L	70 - 130
	Lead	0.900	0.913	101	ug/L	70 - 130
	Mercury	36.0	44.0	122	ng/L	70 - 130
	Selenium	0.900	0.933	104	ug/L	70 - 130
	Silver	0.900	0.924	103	ug/L	70 - 130
9K21029-CRL3	Arsenic	1.80	1.92	107	ug/L	70 - 130
	Barium	1.80	1.85	103	ug/L	70 - 130
	Cadmium	1.80	1.82	101	ug/L	70 - 130
	Chromium	1.80	1.77	98	ug/L	70 - 130
	Lead	1.80	1.84	102	ug/L	70 - 130
	Mercury	72.0	69.1	96	ng/L	70 - 130
	Selenium	1.80	1.79	99	ug/L	70 - 130
	Silver	1.80	1.80	100	ug/L	70 - 130
9K21029-CRL4	Arsenic	0.180	0.170	94	ug/L	70 - 130
	Barium	0.180	0.199	110	ug/L	70 - 130
	Cadmium	0.180	0.174	97	ug/L	70 - 130
	Chromium	0.180	0.175	97	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: 9K21029

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K21029-CRL4	Lead	0.180	0.211	117	ug/L	70 - 130
	Selenium	0.180	0.204	113	ug/L	70 - 130
	Silver	0.180	0.179	99	ug/L	70 - 130
9K21029-CRL5	Arsenic	0.900	0.913	101	ug/L	70 - 130
	Barium	0.900	0.940	104	ug/L	70 - 130
	Cadmium	0.900	0.937	104	ug/L	70 - 130
	Chromium	0.900	0.891	99	ug/L	70 - 130
	Lead	0.900	0.969	108	ug/L	70 - 130
	Mercury	36.0	37.5	104	ng/L	70 - 130
	Selenium	0.900	0.920	102	ug/L	70 - 130
	Silver	0.900	0.871	97	ug/L	70 - 130
9K21029-CRL6	Arsenic	1.80	1.84	102	ug/L	70 - 130
	Barium	1.80	1.86	103	ug/L	70 - 130
	Cadmium	1.80	1.85	103	ug/L	70 - 130
	Chromium	1.80	1.65	92	ug/L	70 - 130
	Lead	1.80	1.90	106	ug/L	70 - 130
	Mercury	72.0	78.1	109	ng/L	70 - 130
	Selenium	1.80	1.92	107	ug/L	70 - 130
	Silver	1.80	1.81	101	ug/L	70 - 130
9K21029-CRL7	Arsenic	0.180	0.199	111	ug/L	70 - 130
	Barium	0.180	0.197	109	ug/L	70 - 130
	Cadmium	0.180	0.172	95	ug/L	70 - 130
	Chromium	0.180	0.170	95	ug/L	70 - 130
	Lead	0.180	0.196	109	ug/L	70 - 130
	Mercury	7.20	7.79	108	ng/L	70 - 130
	Selenium	0.180	0.162	90	ug/L	70 - 130
	Silver	0.180	0.183	102	ug/L	70 - 130
9K21029-CRL8	Arsenic	0.900	0.952	106	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: 9K21029

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K21029-CRL8	Barium	0.900	0.967	107	ug/L	70 - 130
	Cadmium	0.900	0.932	104	ug/L	70 - 130
	Chromium	0.900	0.836	93	ug/L	70 - 130
	Lead	0.900	0.868	96	ug/L	70 - 130
	Mercury	36.0	32.1	89	ng/L	70 - 130
	Selenium	0.900	0.886	98	ug/L	70 - 130
	Silver	0.900	0.906	101	ug/L	70 - 130
9K21029-CRL9	Arsenic	1.80	1.81	100	ug/L	70 - 130
	Barium	1.80	1.93	107	ug/L	70 - 130
	Cadmium	1.80	1.84	102	ug/L	70 - 130
	Chromium	1.80	1.72	96	ug/L	70 - 130
	Lead	1.80	1.75	97	ug/L	70 - 130
	Mercury	72.0	73.3	102	ng/L	70 - 130
	Selenium	1.80	1.73	96	ug/L	70 - 130
	Silver	1.80	1.81	100	ug/L	70 - 130
9K21029-CRLA	Arsenic	3.60	3.63	101	ug/L	70 - 130
	Barium	3.60	3.80	105	ug/L	70 - 130
	Cadmium	3.60	3.59	100	ug/L	70 - 130
	Chromium	3.60	3.46	96	ug/L	70 - 130
	Lead	3.60	3.37	94	ug/L	70 - 130
	Mercury	144	125	87	ng/L	70 - 130
	Selenium	3.60	3.57	99	ug/L	70 - 130
	Silver	3.60	3.63	101	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-140RAB-C-00-12.7-191108	11/08/19 12:15	11/12/19 16:00	11/21/19 10:29	12.93	28.00	11/21/19 14:27	13.09	28.00	
PDI-140RAB-C-00-12.7-191108	11/08/19 12:15	11/12/19 16:00	11/21/19 10:29	12.93	180.00	11/21/19 14:27	13.09	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-140RAB-C-00-12.7-191108	A9K0330-01	Soil

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: 12/18/2019 12:01PM
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-140RAB-C-00-12.7-191108

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Soil
Laboratory ID: A9K0330-01
Sampled: 11/08/19 12:15
Prepared: 11/13/19 13:41
Analyzed: 11/15/19 17:02
Solids: N/A
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9110767
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	81.6	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: 9110767 Batch Matrix: Sediment Preparation: Total Solids (SM2540G/PSEP)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PDI-140RAB-C-00-12.7-191108 (D	9110767-DUP1		11/13/19 13:41	
PDI-140RAB-C-00-12.7-191108	A9K0330-01		11/13/19 13:41	

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.

DUPLICATES

PDI-140RAB-C-00-12.7-191108

SM 2540 G

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Sediment
Batch: 9110767
Preparation: Total Solids (SM2540G/PSEP)
Source Sample Name: PDI-140RAB-C-00-12.7-191108

SDG: Gasco_PreRD_DG 2019
Project: Gasco_PreRD_DG 2019 - 4c. Waste Charact
Laboratory ID: 9110767-DUP1
Lab Source ID: A9K0330-01
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	81.6		81.3		0.4		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-140RAB-C-00-12.7-191108	11/08/19 12:15	11/12/19 16:00	11/13/19 13:41	5.06	180.00	11/15/19 17:02	2.14		

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GCMS

METHOD: EPA 1311 ZHE

ANALYSES DATA PACKAGE COVER PAGE

EPA 1311 ZHE

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-140RAB-C-00-12.7-191108	A9K0330-01	Soil

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: 12/18/2019 12:01PM
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-140RAB-C-00-12.7-191108

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil	Laboratory ID:	A9K0330-01	File ID:	
Sampled:	11/08/19 12:15	Prepared:	11/14/19 15:20	Analyzed:	11/14/19 15:20
		Preparation:	EPA 1311 TCLP/ZHE	Initial/Final:	25 g / 500 mL

Batch: 9110812 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: 9110812 Batch Matrix: Solid Preparation: EPA 1311 TCLP/ZHE

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PDI-140RAB-C-00-12.7-191108	A9K0330-01		11/14/19 15:20	

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-140RAB-C-00-12.7-191108	11/08/19 12:15	11/12/19 16:00	11/14/19 15:20	6.13	14.00	11/14/19 15:20	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-140RAB-C-00-12.7-191108	A9K0330-01	Soil

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: 12/18/2019 12:01PM
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-140RAB-C-00-12.7-191108

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Soil
Laboratory ID: A9K0330-01
Sampled: 11/08/19 12:15
Prepared: 11/20/19 17:27
Analyzed: 11/20/19 17:27
Solids: N/A
Preparation: EPA 1311 (TCLP)
Initial/Final: 100 g / 2000 mL
Batch: 9111023
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: 9111023 Batch Matrix: Soil
Preparation: EPA 1311 (TCLP)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9111023-BLK1		11/20/19 17:27	
PDI-140RAB-C-00-12.7-191108	A9K0330-01		11/20/19 17:27	

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:	9111023-BLK1	File ID:	
Prepared:	11/20/19 17:27	Preparation:	EPA 1311 (TCLP)	Initial/Final:	50 g / 1000 mL
Analyzed:	11/20/19 17:27	Instrument:	Inst		
Batch:	9111023	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-140RAB-C-00-12.7-191108	11/08/19 12:15	11/12/19 16:00	11/20/19 17:27	12.22	14.00	11/20/19 17:27	0.00		
PDI-140RAB-C-00-12.7-191108	11/08/19 12:15	11/12/19 16:00	11/20/19 17:27	12.22	28.00	11/20/19 17:27	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 & Analysis Sequence Data

Batch 9110893
Sequence 9K18032 (A9K0330-01)

PREPARATION BENCH SHEET

BATCH #: 9110893 (Water)

Apex Laboratories

NOV 2 6 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*
9110893-BLK1		QC	11/18/19 08:00	5	5						EXTRACTION BATCH 9110812	
9110893-BS1		QC	11/18/19 08:00	5	5	A19K194		250			@50X	
A9K0330-01	B	1311/8260C TCLP/ZHE VOC	11/18/19 11:41	5	5					PDI-140RAB-C-00-12.7-191108	matrix changed to soil / SO per clie	<2
9110893-DUP1		QC	11/18/19 11:41	5	5		A9K0330-01					<2
9110893-MS1		QC	11/18/19 11:41	5	5	A19K194	A9K0330-01	250			@50X	<2

*pH <2 verified N/A 11/19/19 bm

Standards/Reagents

Reagent(s)			Analyte Spike(s)			Surrogate(s)		
Std ID	Exp. Date	Description	Std ID	Exp. Date	Description	Std ID	Exp. Date	Description
			A19K194	12/10/19	8260 Cal. Std. B VOCR+OXY Spike (20-40ug/r			

GCMS9

Prepared By: 11/19/19 bm Date

Reviewed By: 11/20/19 Date

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	9K18032	Instrument:	VOA-GCMS9
Date:	11/18/19 08:32	Calibration:	A9J2503

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K18032-IBL1	Water	QC	QC			A19I040	
2	9K18032-IBL2	Water	QC	QC			A19I040	
3	9K18032-IBL3	Water	QC	QC			A19I040	
4	9K18032-IBL4	Water	QC	QC			A19I040	
5	9K18032-IBL5	Water	QC	QC			A19I040	
6	9K18032-TUN1	Water	QC	QC			A19I040	
7	9K18032-CCV1	Water	QC	QC			A19I040	
8	9110893-BS1	Water	QC	QC		9110893	A19I040	
9	9110893-BLK1	Water	QC	QC		9110893	A19I040	
10	A9K0330-01	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	11/25/19	9110893	A19I040	
11	9110893-DUP1	Water	QC	QC		9110893	A19I040	
12	9110893-MS1	Water	QC	QC		9110893	A19I040	
13	9K18032-IBL6	Water	QC	QC			A19I040	
14	9K18032-IBL7	Water	QC	QC			A19I040	

Data Entered By: 11/19/19 tnl

Data Reviewed By: DJ 11/25/19

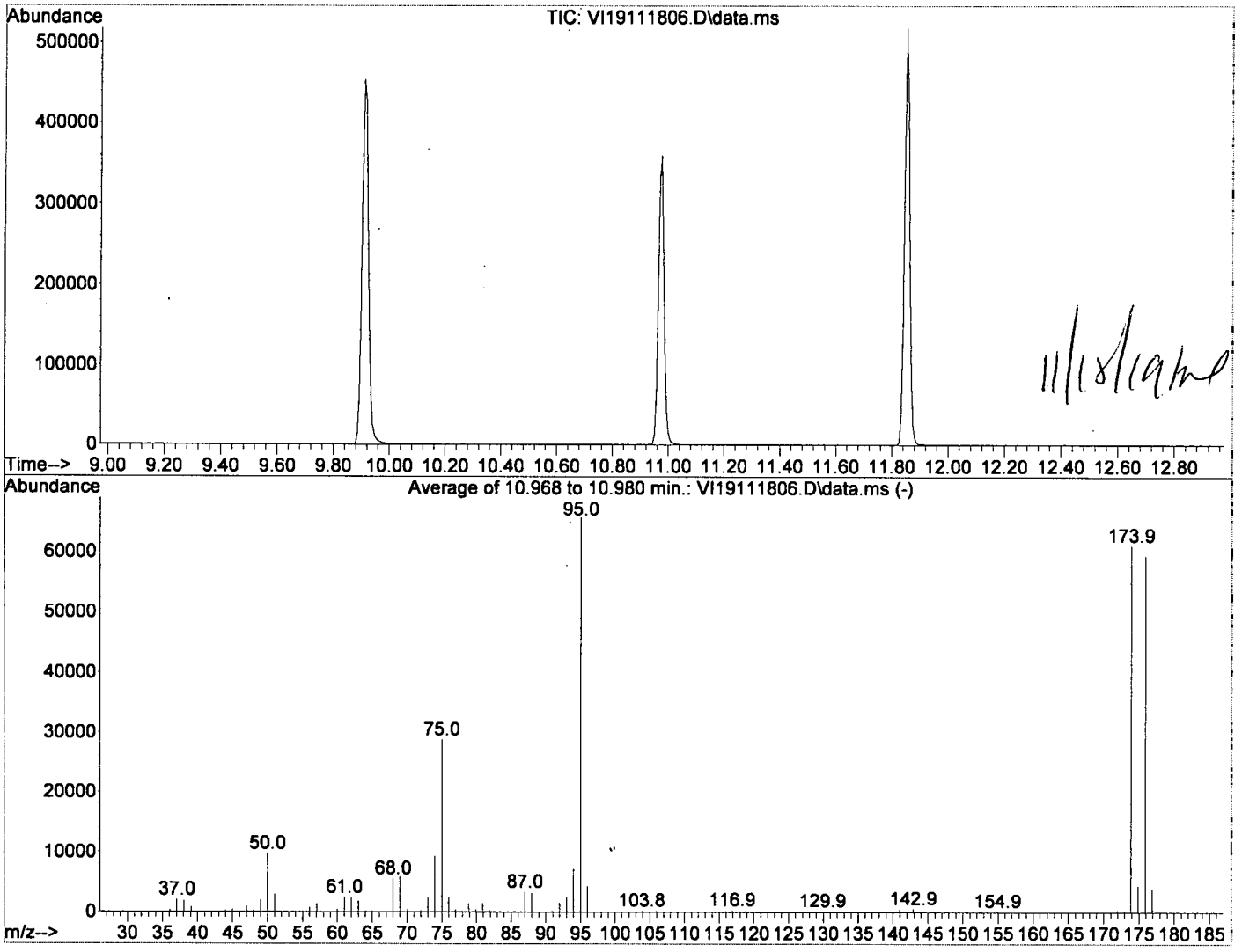
Comments:

BFB

Data Path : C:\msdchem\1\data\2019-11\9K18032\
Data File : VI19111806.D
Acq On : 18 Nov 2019 11:04 am
Operator : TNL
Sample : 9K18032-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



11/18/19 MP

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	107.4	65691	PASS
96	95	5	9	6.5	4253	PASS
173	174	0.00	2	0.4	260	PASS
174	95	50	200	93.1	61160	PASS
175	174	5	9	7.2	4422	PASS
176	174	95	105	97.3	59485	PASS
177	176	5	10	6.6	3951	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K18032\
Data File : VI19111806.D
Acq On : 18 Nov 2019 11:04 am
Operator : TNL
Sample : 9K18032-TUN1
Misc : A19I039 5mL BFB (IS/SURR)
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Nov 18 13:18:20 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

11/18/19 bd

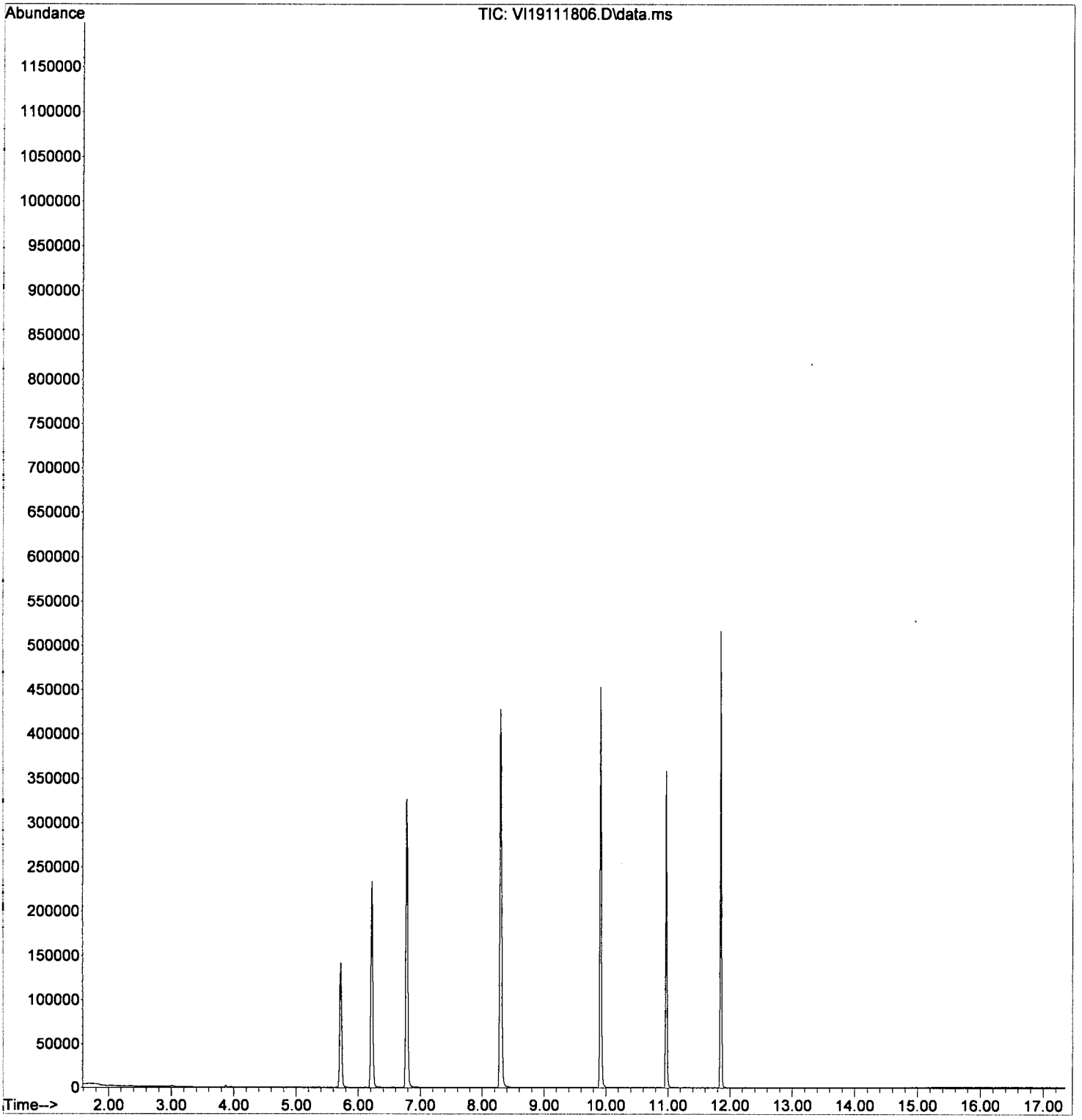
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	94424	50.00	ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.910	117	268762	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	120878	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.718	111	101598	54.76	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	327409	54.88	ug/L	0.00
48) Toluene-d8 (S)	8.297	98	356248	50.50	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	98493	50.43	ug/L	0.00
Target Compounds						Qvalue
5) Bromomethane	2.366	96	193	0.16	ug/L #	44
14) Methylene Chloride	3.875	84	1134	Below Cal		76
15) Acetone	3.954	43	962	1.16	ug/L	85
19) tert-Butanol (TBA)	4.313	59	247	0.68	ug/L	46

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K18032\
Data File : VI19111806.D
Acq On : 18 Nov 2019 11:04 am
Operator : TNL
Sample : 9K18032-TUN1
Misc : A19I039 5mL BFB (IS/SURR)
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Nov 18 13:18:20 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\2019-11\9K18032\
Data File : VI19111807.D
Acq On : 18 Nov 2019 11:31 am
Operator : TNL
Sample : 9110893-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K194
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Nov 18 13:18:23 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

11/18/19 mf

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	92	0.00	
2		Dichlorodifluoromethane	20.000	19.226	3.9	90	0.00	
3	P	Chloromethane	20.000	18.351	8.2	91	0.00	
4	C	Vinyl Chloride	20.000	20.336	-1.7	92	0.00	
5		Bromomethane	20.000	22.169	-10.8	106	0.00	
6		Chloroethane	20.000	14.643	26.8#	76	0.00	Q53
7		Trichlorofluoromethane	20.000	20.992	-5.0	92	0.00	
8		Ethanol	1250.000	1198.892	4.1	85	0.00	
9	C	1,1-Dichloroethene	20.000	20.643	-3.2	94	0.00	
10		Carbon Disulfide	20.000	21.140	-5.7	97	0.00	
11		Freon 113	20.000	22.065	-10.3	98	0.00	
12		Iodomethane	20.000	11.305	43.5#	52	0.00	NR
13		Acrolein	20.000	21.348	-6.7	96	0.00	
14		Methylene Chloride	20.000	21.575	-7.9	97	0.00	
15		Acetone	40.000	36.443	8.9	84	0.00	
16		t-1,2-Dichloroethene	20.000	21.088	-5.4	90	0.00	
17		n-Hexane	20.000	21.422	-7.1	94	0.00	
18		Methyl-tert-butyl-ether	20.000	18.115	9.4	82	0.00	
19		tert-Butanol (TBA)	1250.000	1136.652	9.1	74	0.00	
20		Diisopropyl ether (DIPE)	5.000	4.051	19.0	70	0.00	
21	P	1,1-Dichloroethane	20.000	20.440	-2.2	91	0.00	
22		Acrylonitrile	20.000	22.307	-11.5	97	0.00	
23		Ethyl-tert-butyl ether (ET	5.000	3.928	21.4#	68	0.00	NR
24		Vinyl Acetate	20.000	20.068	-0.3	90	0.00	
25		c-1,2-Dichloroethene	20.000	20.144	-0.7	89	0.00	
26		2,2-Dichloropropane	20.000	20.042	-0.2	90	0.00	
27		Bromochloromethane	20.000	23.764	-18.8	97	0.00	
28	C	Chloroform	20.000	21.552	-7.8	92	0.00	
29		Carbon Tetrachloride	20.000	23.351	-16.8	105	0.00	
30		Tetrahydrofuran	20.000	18.555	7.2	83	0.00	
31		1,1,1-Trichloroethane	20.000	20.313	-1.6	90	0.00	
32	S	Dibromofluoromethane (S)	50.000	54.068	-8.1	100	0.00	
33		1,1-Dichloropropene	20.000	20.181	-0.9	90	0.00	
34		2-Butanone (MEK)	40.000	38.978	2.6	87	0.00	
35		Benzene	20.000	21.141	-5.7	95	0.00	
36		tert-Amyl methyl ether (TA	5.000	4.017	19.7	71	0.00	
37		1,2-Dichloroethane (EDC)	20.000	19.071	4.6	84	0.00	
38		iso-Butyl Alcohol	500.000	508.738	-1.7	88	0.00	
39	S	1,4-Difluorobenzene (S)	50.000	53.360	-6.7	98	0.00	
40		Trichloroethene (TCE)	20.000	22.427	-12.1	96	0.00	
41		Tert-Amyl-Ethyl-Ether (TAEE	5.000	3.693	26.1#	63	0.00	NR
42		Dibromomethane	20.000	22.235	-11.2	96	0.00	
43	C	1,2-Dichloropropane	20.000	20.745	-3.7	92	0.00	
44		Bromodichloromethane	20.000	22.002	-10.0	97	0.00	
45		Chlorobenzene-d5 (I)	50.000	50.000	0.0	97	0.00	
46		2-Chloroethyl Vinyl Ether	20.000	15.191	24.0#	70	0.00	NR
47		c-1,3-Dichloropropene	20.000	19.872	0.6	91	0.00	
48	S	Toluene-d8 (S)	50.000	49.544	0.9	97	0.00	
49	C	Toluene	20.000	19.561	2.2	93	0.00	
50		Tetrachloroethene (PCE)	20.000	21.191	-6.0	95	0.00	

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-11\9K18032\
Data File : VI19111807.D
Acq On : 18 Nov 2019 11:31 am
Operator : TNL
Sample : 9110893-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K194
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Nov 18 13:18:23 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

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	37.935	5.2	84	0.00	
52		t-1,3-Dichloropropene	20.000	19.267	3.7	88	0.00	
53		1,1,2-Trichloroethane	20.000	21.134	-5.7	95	0.00	
54		Dibromochloromethane	20.000	25.881	-29.4#	110	0.00	0576
55		1,3-Dichloropropane	20.000	20.294	-1.5	92	0.00	
56		1,2-Dibromoethane (EDB)	20.000	20.221	-1.1	91	0.00	
57		2-Hexanone	40.000	36.868	7.8	82	0.00	
58	P	Chlorobenzene	20.000	20.506	-2.5	95	0.00	
59	C	Ethylbenzene	20.000	19.467	2.7	91	0.00	
60		1,1,1,2-Tetrachloroethane	20.000	23.255	-16.3	104	0.00	
61		m,p-Xylenes (2)	40.000	38.987	2.5	89	0.00	
62		o-Xylene	20.000	18.736	6.3	84	0.00	
63		Styrene	20.000	19.580	2.1	88	0.00	
64	P	Bromoform	20.000	26.155	-30.8#	129	0.00	0576
65		Isopropylbenzene	20.000	18.947	5.3	85	0.00	
66	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	95	0.00	
67	S	4-Bromofluorobenzene (S)	50.000	48.798	2.4	93	0.00	
68		Bromobenzene	20.000	20.783	-3.9	92	0.00	
69		n-Propylbenzene	20.000	19.524	2.4	88	0.00	
70	P	1,1,2,2-Tetrachloroethane	20.000	20.677	-3.4	93	0.00	
71		2-Chlorotoluene	20.000	19.977	0.1	90	0.00	
72		1,3,5-Trimethylbenzene	20.000	19.788	1.1	87	0.00	
73		1,2,3-Trichloropropane	20.000	20.420	-2.1	92	0.00	
74		t-1,4-Dichloro-2-butene	20.000	19.629	1.9	88	0.00	
75		4-Chlorotoluene	20.000	19.435	2.8	88	0.00	
76		tert-Butylbenzene	20.000	18.334	8.3	82	0.00	
77		1,2,4-Trimethylbenzene	20.000	19.921	0.4	86	0.00	
78		sec-Butylbenzene	20.000	19.377	3.1	86	0.00	
79		4-Isopropyltoluene	20.000	19.705	1.5	83	0.00	
80		1,3-Dichlorobenzene	20.000	20.220	-1.1	91	0.00	
81		1,4-Dichlorobenzene	20.000	20.218	-1.1	91	0.00	
82		n-Butylbenzene	20.000	20.500	-2.5	84	0.00	
83		1,2-Dichlorobenzene	20.000	20.166	-0.8	90	0.00	
84		1,2-Dibromo-3-Chloropropane	20.000	20.182	-0.9	93	0.00	
85		Hexachlorobutadiene	20.000	19.226	3.9	84	0.00	
86		1,2,4-Trichlorobenzene	20.000	18.887	5.6	80	0.00	
87		Naphthalene	20.000	17.741	11.3	76	0.00	
88		1,2,3-Trichlorobenzene	20.000	19.817	0.9	84	0.00	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K18032\
Data File : VI19111807.D
Acq On : 18 Nov 2019 11:31 am
Operator : TNL
Sample : 9110893-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K194
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Nov 18 13:18:23 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

11/18/19 hl

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	6.211	99	103421	50.00 ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.910	117	297816	50.00 ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	143383	50.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane (S)	5.712	111	109871	54.07 ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.777	114	348646	53.36 ug/L	0.00
48) Toluene-d8 (S)	8.297	98	387278	49.54 ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	113051	48.80 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.679	85	32502	19.23 ug/L	98
3) Chloromethane	1.891	50	41141	18.35 ug/L	96
4) Vinyl Chloride	1.995	62	45674	20.34 ug/L	95
5) Bromomethane	2.360	96	29354	22.17 ug/L	98
6) Chloroethane	2.494	64	15116	14.64 ug/L	80
7) Trichlorofluoromethane	2.658	101	53387	20.99 ug/L	95
8) Ethanol	3.230	45	59585	1198.89 ug/L	87
9) 1,1-Dichloroethene	3.230	61	50609	20.64 ug/L	87
10) Carbon Disulfide	3.248	76	95635	21.14 ug/L	98
11) Freon 113	3.279	101	38896	22.06 ug/L	96
12) Iodomethane	3.388	142	5974	11.30 ug/L	98
13) Acrolein	3.619	56	10031	21.35 ug/L	73
14) Methylene Chloride	3.869	84	42302	21.58 ug/L	85
15) Acetone	3.936	43	33028	36.44 ug/L	87
16) t-1,2-Dichloroethene	4.039	61	50601	21.09 ug/L	87
17) n-Hexane	4.118	86	7826	21.42 ug/L	95
18) Methyl-tert-butyl-ether	4.167	73	101034	18.11 ug/L	91
19) tert-Butanol (TBA)	4.288	59	455122	1136.65 ug/L	96
20) Diisopropyl ether (DIPE)	4.562	45	24314	4.05 ug/L	95
21) 1,1-Dichloroethane	4.684	63	68121	20.44 ug/L	96
22) Acrylonitrile	4.745	53	22377	22.31 ug/L	96
23) Ethyl-tert-butyl ether...	4.939	59	22655	3.93 ug/L	94
24) Vinyl Acetate	4.952	43	80780	20.07 ug/L	97
25) c-1,2-Dichloroethene	5.237	61	51826	20.14 ug/L	86
26) 2,2-Dichloropropane	5.353	77	43587	20.04 ug/L	94
27) Bromochloromethane	5.444	130	30000	23.76 ug/L	91
28) Chloroform	5.523	83	70222	21.55 ug/L	96
29) Carbon Tetrachloride	5.657	117	46276	23.35 ug/L	94
30) Tetrahydrofuran	5.694	42	17695	18.55 ug/L	86
31) 1,1,1-Trichloroethane	5.730	97	55867	20.31 ug/L	95
33) 1,1-Dichloropropene	5.858	75	53301	20.18 ug/L	94
34) 2-Butanone (MEK)	5.852	43	56003	38.98 ug/L	94
35) Benzene	6.120	78	167073	21.14 ug/L	95
36) tert-Amyl methyl ether...	6.247	73	21541	4.02 ug/L	91
37) 1,2-Dichloroethane (EDC)	6.339	62	49370	19.07 ug/L	89
38) iso-Butyl Alcohol	6.369	43	73230	508.74 ug/L	96
40) Trichloroethene (TCE)	6.740	130	45669	22.43 ug/L	92
41) Tert-Amyl-Ethyl-Ether ...	6.989	59	14298	3.69 ug/L	87
42) Dibromomethane	7.196	93	28201	22.24 ug/L	99
43) 1,2-Dichloropropane	7.306	63	40893	20.75 ug/L	91
44) Bromodichloromethane	7.379	83	50005	22.00 ug/L	95
46) 2-Chloroethyl Vinyl Ether	8.024	63	23224	15.19 ug/L #	100
47) c-1,3-Dichloropropene	8.085	75	58512	19.87 ug/L	82

DGS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K18032\
Data File : VI19111807.D
Acq On : 18 Nov 2019 11:31 am
Operator : TNL
Sample : 9110893-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K194
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Nov 18 13:18:23 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

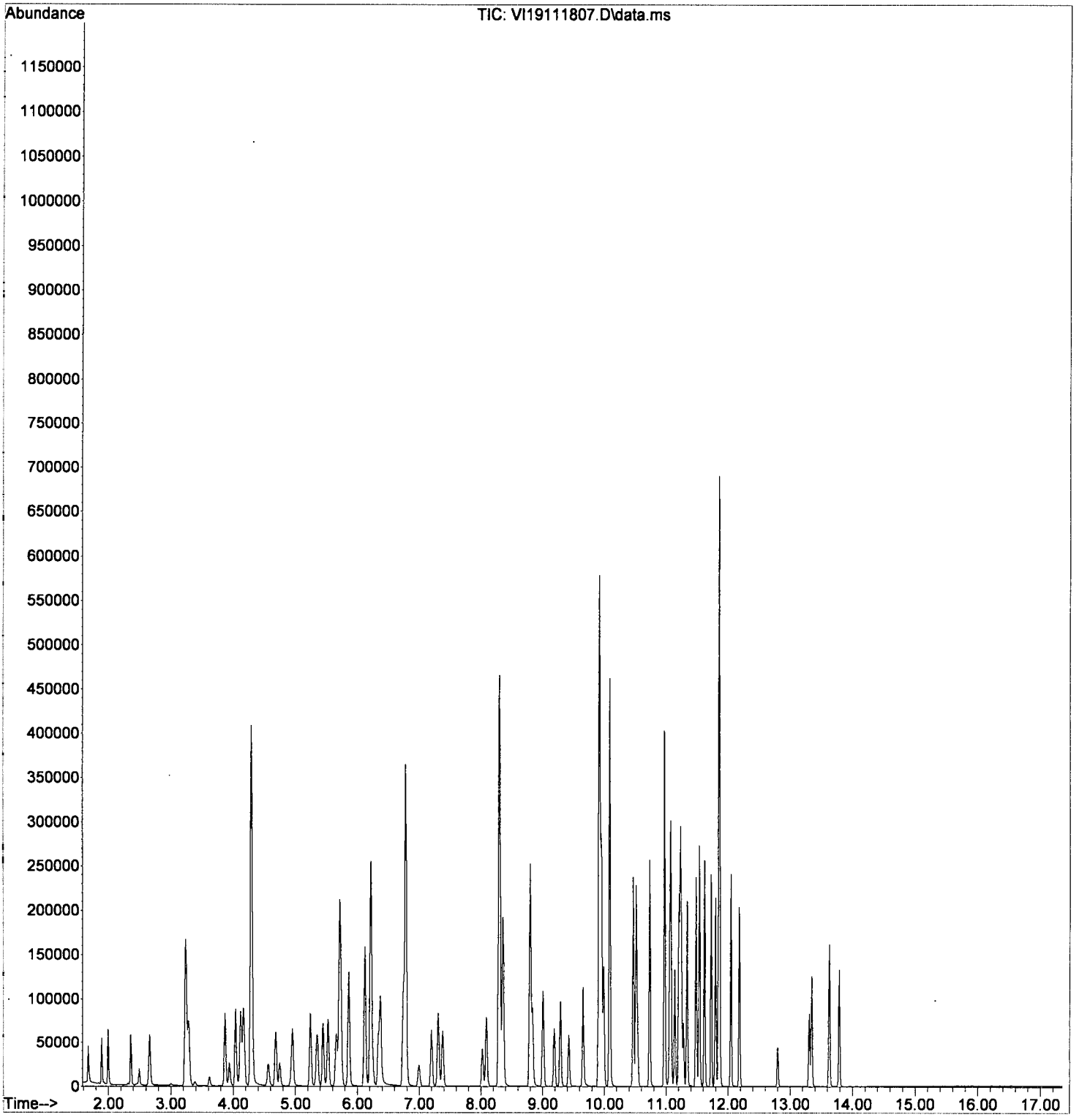
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
49) Toluene	8.352	91	171306	19.56 ug/L	99	
50) Tetrachloroethene (PCE)	8.796	166	43199	21.19 ug/L	94	
51) 4-Methyl-2-Pentanone (...	8.796	43	100859	37.94 ug/L	92	
52) t-1,3-Dichloropropene	8.833	75	50319	19.27 ug/L	98	
53) 1,1,2-Trichloroethane	9.003	97	41031	21.13 ug/L	91	
54) Dibromochloromethane	9.186	129	40621	25.88 ug/L	98	Q58
55) 1,3-Dichloropropane	9.289	76	67966	20.29 ug/L	86	
56) 1,2-Dibromoethane (EDB)	9.423	107	42743	20.22 ug/L	96	
57) 2-Hexanone	9.654	43	71825	36.87 ug/L	89	
58) Chlorobenzene	9.928	112	114634	20.51 ug/L	98	
59) Ethylbenzene	9.952	91	178788	19.47 ug/L	97	
60) 1,1,1,2-Tetrachloroethane	9.989	131	37912	23.26 ug/L	96	
61) m,p-Xylenes (2)	10.086	91	263677	38.99 ug/L	98	
62) o-Xylene	10.463	91	125624	18.74 ug/L	99	
63) Styrene	10.512	104	105524	19.58 ug/L	99	
64) Bromoform	10.536	173	30795	26.16 ug/L	97	Q56
65) Isopropylbenzene	10.731	105	154985	18.95 ug/L	98	
68) Bromobenzene	11.059	156	46185	20.78 ug/L	93	
69) n-Propylbenzene	11.072	91	186045	19.52 ug/L	99	
70) 1,1,2,2-Tetrachloroethane	11.139	85	38791	20.68 ug/L	94	
71) 2-Chlorotoluene	11.205	126	41019	19.98 ug/L	92	
72) 1,3,5-Trimethylbenzene	11.230	105	128853	19.79 ug/L	96	
73) 1,2,3-Trichloropropane	11.248	110	18630	20.42 ug/L	94	
74) t-1,4-Dichloro-2-butene	11.278	53	12815	19.63 ug/L	80	
75) 4-Chlorotoluene	11.333	91	113993	19.44 ug/L	97	
76) tert-Butylbenzene	11.479	91	66663	18.33 ug/L	100	
77) 1,2,4-Trimethylbenzene	11.534	105	130499	19.92 ug/L	98	
78) sec-Butylbenzene	11.619	105	155466	19.38 ug/L	98	
79) 4-Isopropyltoluene	11.723	119	125090	19.71 ug/L	99	
80) 1,3-Dichlorobenzene	11.796	146	78280	20.22 ug/L	99	
81) 1,4-Dichlorobenzene	11.862	146	81621	20.22 ug/L	96	
82) n-Butylbenzene	12.045	91	110593	20.50 ug/L	98	
83) 1,2-Dichlorobenzene	12.179	146	75819	20.17 ug/L	99	
84) 1,2-Dibromo-3-Chloropr...	12.799	157	12830	20.18 ug/L	89	
85) Hexachlorobutadiene	13.304	223	10100	19.23 ug/L	97	
86) 1,2,4-Trichlorobenzene	13.347	180	40924	18.89 ug/L	97	
87) Naphthalene	13.627	128	122223	17.74 ug/L	97	
88) 1,2,3-Trichlorobenzene	13.785	180	40769	19.82 ug/L	97	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K18032\
Data File : VI19111807.D
Acq On : 18 Nov 2019 11:31 am
Operator : TNL
Sample : 9110893-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K194
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Nov 18 13:18:23 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



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K18032\
Data File : VI19111808.D
Acq On : 18 Nov 2019 11:58 am
Operator : TNL
Sample : 9110893-BLK1@50
Misc : 50X 1mL/50mL TCLP/ZHE
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Nov 18 13:18:26 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)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	93963	50.00	ug/L	#	0.00
45) Chlorobenzene-d5 (I)	9.910	117	265537	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	117010	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	102149	55.33	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	323975	54.58	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	353463	50.71	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	95905	50.73	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.891	50	223	0.11	ug/L	#	47
5) Bromomethane	2.366	96	149	0.12	ug/L		71
6) Chloroethane	2.524	64	191	0.20	ug/L	#	36
10) Carbon Disulfide	3.248	76	503	0.12	ug/L		78
14) Methylene Chloride	3.875	84	1218	Below Cal		#	70
15) Acetone	3.942	43	542	0.66	ug/L		64
28) Chloroform	5.523	83	426	0.14	ug/L	#	28
82) n-Butylbenzene	12.045	91	402	0.09	ug/L		74
86) 1,2,4-Trichlorobenzene	13.347	180	418	0.24	ug/L	#	64
87) Naphthalene	13.627	128	1166	0.21	ug/L		81
88) 1,2,3-Trichlorobenzene	13.785	180	500	0.30	ug/L		85

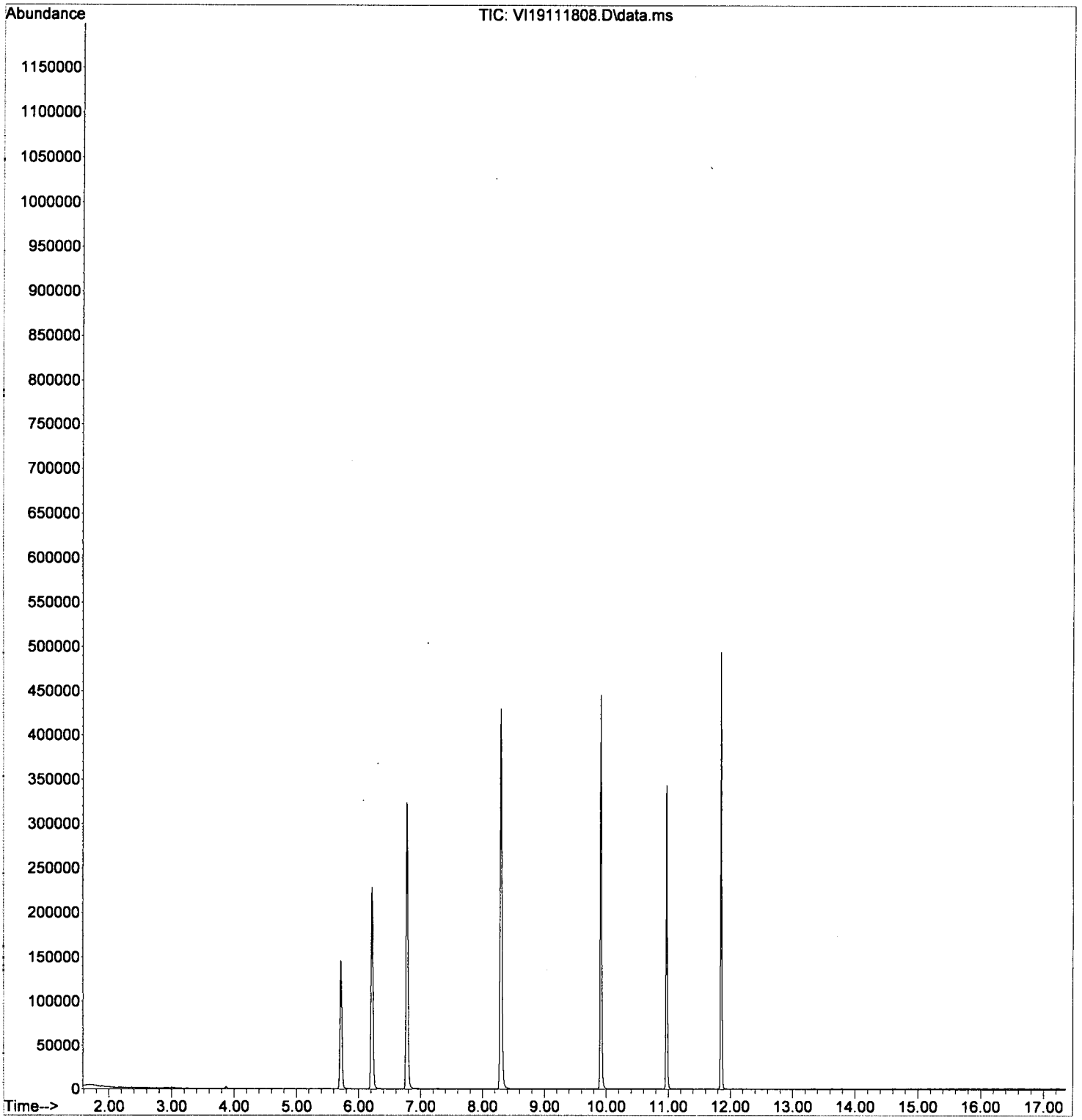
(#) = qualifier out of range (m) = manual integration (+) = signals summed

11/18/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K18032\
Data File : VI19111808.D
Acq On : 18 Nov 2019 11:58 am
Operator : TNL
Sample : 9110893-BLK1@50
Misc : 50X 1mL/50mL TCLP/ZHE
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Nov 18 13:18:26 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\2019-11\9K18032\
Data File : VI19111809.D
Acq On : 18 Nov 2019 12:25 pm
Operator : TNL
Sample : A9K0330-01@50
Misc : 50X 1mL/50mL TCLP/ZHE
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Nov 18 13:18:29 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	92752	50.00	ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.909	117	262950	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	116445	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.712	111	101453	55.67	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.776	114	319316	54.49	ug/L	0.00
48) Toluene-d8 (S)	8.297	98	347715	50.38	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	94212	50.07	ug/L	0.00
Target Compounds						Qvalue
5) Bromomethane	2.354	96	123	0.10	ug/L	# 15
6) Chloroethane	2.524	64	286	0.31	ug/L	# 36
14) Methylene Chloride	3.862	84	977	Below Cal		88
15) Acetone	3.948	43	613	0.75	ug/L	# 44
87) Naphthalene	13.627	128	1368	0.24	ug/L	81

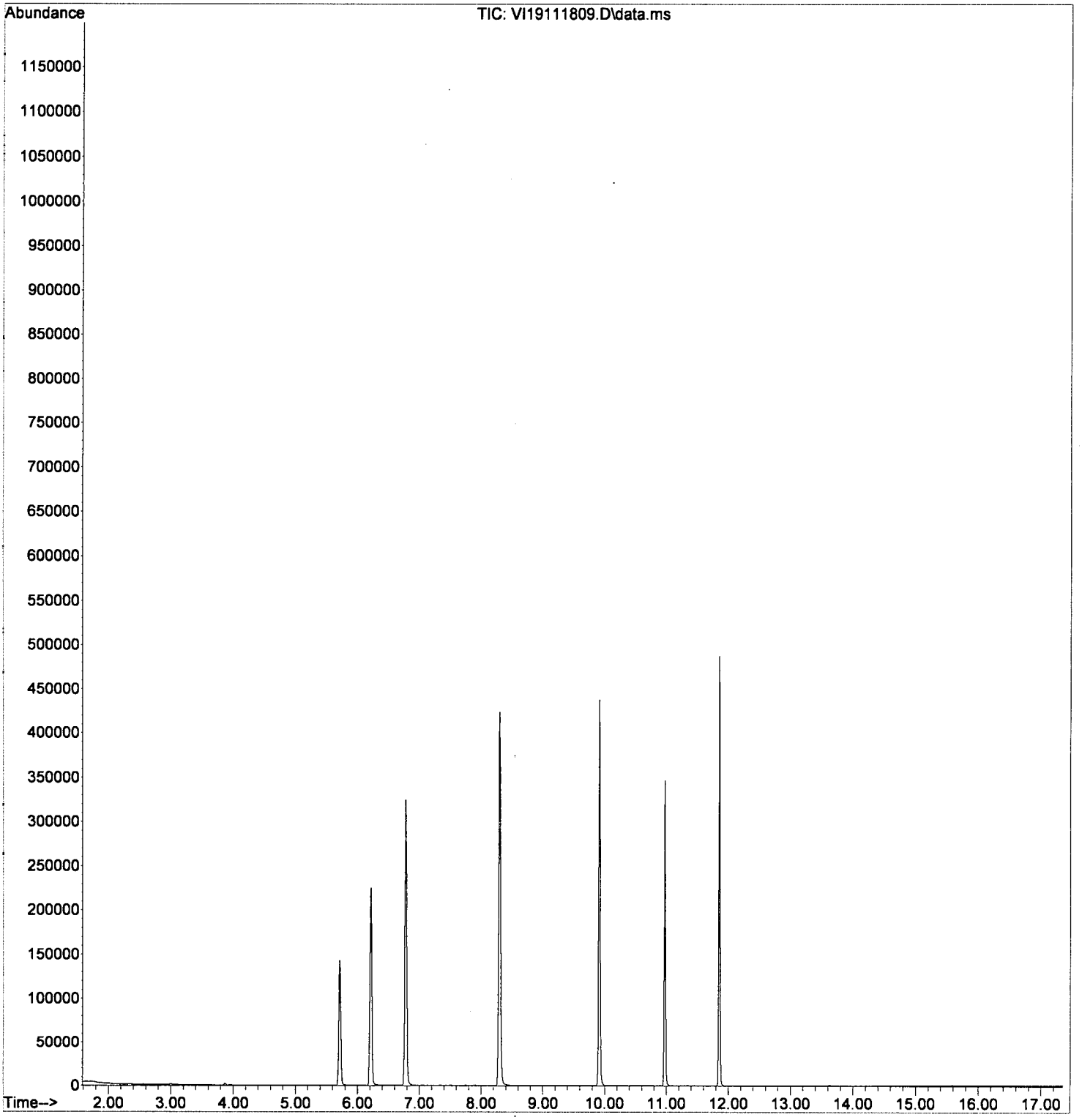
(#) = qualifier out of range (m) = manual integration (+) = signals summed

11/18/19 bmd

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K18032\
Data File : VI19111809.D
Acq On : 18 Nov 2019 12:25 pm
Operator : TNL
Sample : A9K0330-01@50
Misc : 50X 1mL/50mL TCLP/ZHE
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Nov 18 13:18:29 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\2019-11\9K18032\
Data File : VI19111810.D
Acq On : 18 Nov 2019 12:52 pm
Operator : TNL
Sample : 9110893-DUP1@50
Misc : 50X 1mL/50mL TCLP/ZHE
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Nov 18 13:18:32 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	91208	50.00 ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.910	117	259214	50.00 ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	115138	50.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane (S)	5.712	111	98618	55.03 ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	314630	54.60 ug/L	0.00
48) Toluene-d8 (S)	8.298	98	343264	50.45 ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	94648	50.88 ug/L	0.00
Target Compounds					Qvalue
14) Methylene Chloride	3.869	84	926	Below Cal	87
15) Acetone	3.948	43	386	0.48 ug/L	# 44
28) Chloroform	5.530	83	255	0.09 ug/L	# 28
87) Naphthalene	13.627	128	1223	0.22 ug/L	81

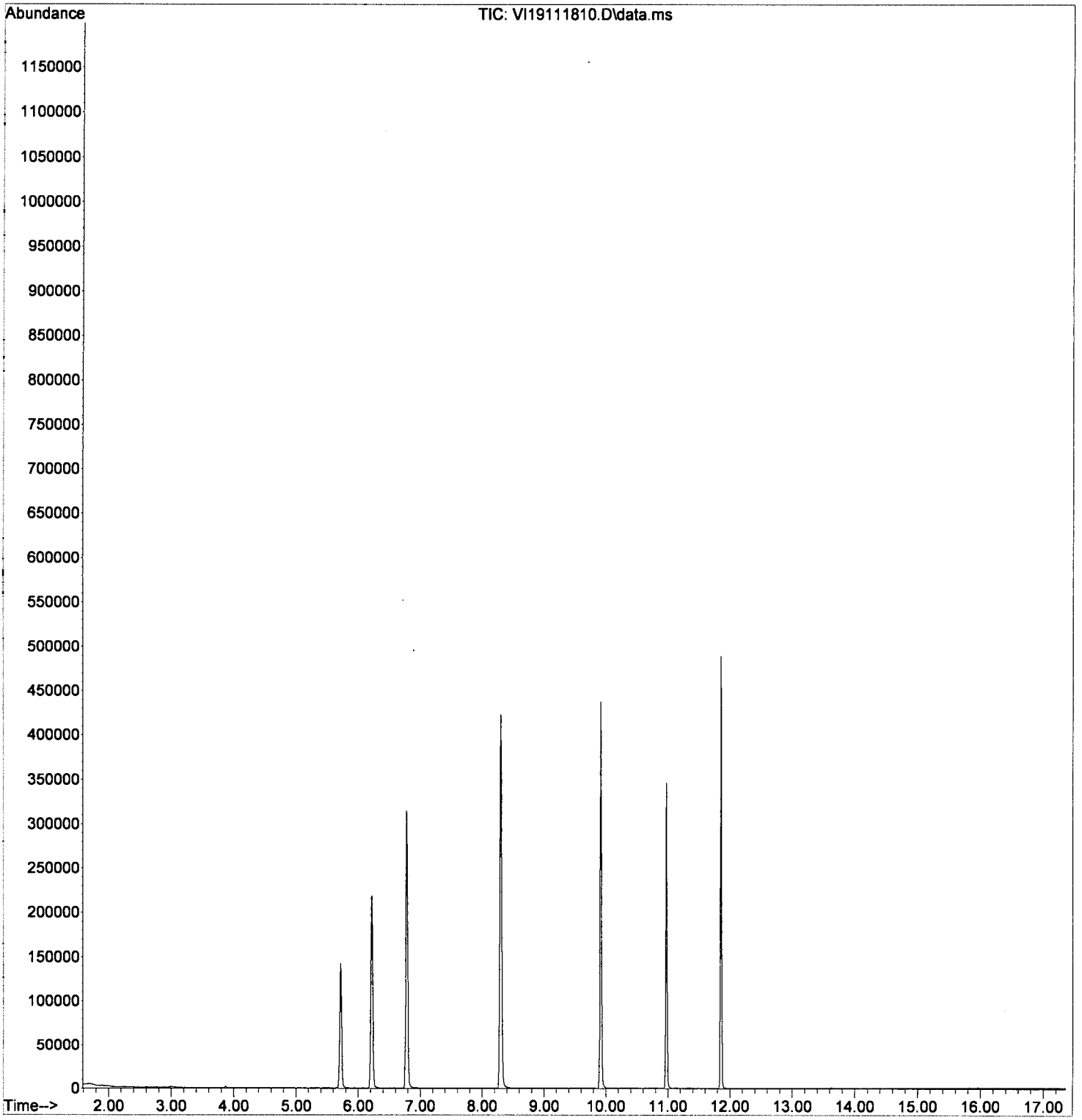
(#) = qualifier out of range (m) = manual integration (+) = signals summed

11/18/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K18032\
Data File : VI19111810.D
Acq On : 18 Nov 2019 12:52 pm
Operator : TNL
Sample : 9110893-DUP11@50
Misc : 50X 1mL/50mL TCLP/ZHE
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Nov 18 13:18:32 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\2019-11\9K18032\
Data File : VI19111811.D
Acq On : 18 Nov 2019 1:19 pm
Operator : TNL
Sample : 9110893-MS1@50
Misc : 50X 1mL/50mL TCLP/ZHE
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Nov 18 14:58:29 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	100290	50.00	ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.910	117	296267	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	144017	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.712	111	107395	54.50	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.777	114	343810	54.26	ug/L	0.00
48) Toluene-d8 (S)	8.298	98	381114	49.01	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	112347	48.28	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.679	85	30432	18.56	ug/L	97
3) Chloromethane	1.898	50	38586	17.75	ug/L	96
4) Vinyl Chloride	2.001	62	42549	19.54	ug/L	97
5) Bromomethane	2.360	96	28274	22.02	ug/L	98
6) Chloroethane	2.494	64	14482	14.47	ug/L	83
7) Trichlorofluoromethane	2.664	101	49562	20.10	ug/L	97
8) Ethanol	3.236	45	55659	1154.86	ug/L	87
9) 1,1-Dichloroethene	3.236	61	47291	19.89	ug/L	86
10) Carbon Disulfide	3.248	76	87337	19.91	ug/L	98
11) Freon 113	3.291	101	36382	21.28	ug/L	91
12) Iodomethane	3.388	142	7996	13.28	ug/L	94
13) Acrolein	3.619	56	10063	22.08	ug/L	77
14) Methylene Chloride	3.869	84	41074	21.60	ug/L	84
15) Acetone	3.942	43	31649	36.01	ug/L	86
16) t-1,2-Dichloroethene	4.039	61	47668	20.49	ug/L	86
17) n-Hexane	4.124	86	7238	20.43	ug/L	95
18) Methyl-tert-butyl-ether	4.167	73	96630	17.87	ug/L	91
19) tert-Butanol (TBA)	4.289	59	430932	1109.84	ug/L	95
20) Diisopropyl ether (DIPE)	4.562	45	23041	3.96	ug/L	95
21) 1,1-Dichloroethane	4.684	63	63968	19.79	ug/L	97
22) Acrylonitrile	4.745	53	21488	22.09	ug/L	99
23) Ethyl-tert-butyl ether...	4.939	59	21858	3.91	ug/L	93
24) Vinyl Acetate	4.958	43	78441	20.10	ug/L	96
25) c-1,2-Dichloroethene	5.244	61	48944	19.62	ug/L	87
26) 2,2-Dichloropropane	5.353	77	41226	19.55	ug/L	96
27) Bromochloromethane	5.444	130	29004	23.69	ug/L	94
28) Chloroform	5.523	83	67153	21.25	ug/L	97
29) Carbon Tetrachloride	5.663	117	43494	22.63	ug/L	96
30) Tetrahydrofuran	5.700	42	17052	18.44	ug/L	84
31) 1,1,1-Trichloroethane	5.736	97	52874	19.82	ug/L	96
33) 1,1-Dichloropropene	5.864	75	49911	19.49	ug/L	94
34) 2-Butanone (MEK)	5.852	43	53627	38.49	ug/L	95
35) Benzene	6.120	78	157378	20.54	ug/L	95
36) tert-Amyl methyl ether...	6.247	73	20808	4.00	ug/L	92
37) 1,2-Dichloroethane (EDC)	6.339	62	47554	18.94	ug/L	93
38) iso-Butyl Alcohol	6.369	43	68282	489.17	ug/L	98
40) Trichloroethene (TCE)	6.740	130	43096	21.82	ug/L	93
41) Tert-Amyl-Ethyl-Ether ...	6.996	59	14120	3.76	ug/L	78
42) Dibromomethane	7.196	93	27271	22.17	ug/L	97
43) 1,2-Dichloropropane	7.306	63	38780	20.29	ug/L	88
44) Bromodichloromethane	7.379	83	48119	21.83	ug/L	92
46) 2-Chloroethyl Vinyl Ether	8.024	63	23214	15.26	ug/L #	100
47) c-1,3-Dichloropropene	8.091	75	55653	19.00	ug/L	82

11/18/19 hv

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K18032\
Data File : VI19111811.D
Acq On : 18 Nov 2019 1:19 pm
Operator : TNL
Sample : 9110893-MS1@50
Misc : 50X 1mL/50mL TCLP/ZHE
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Nov 18 14:58:29 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

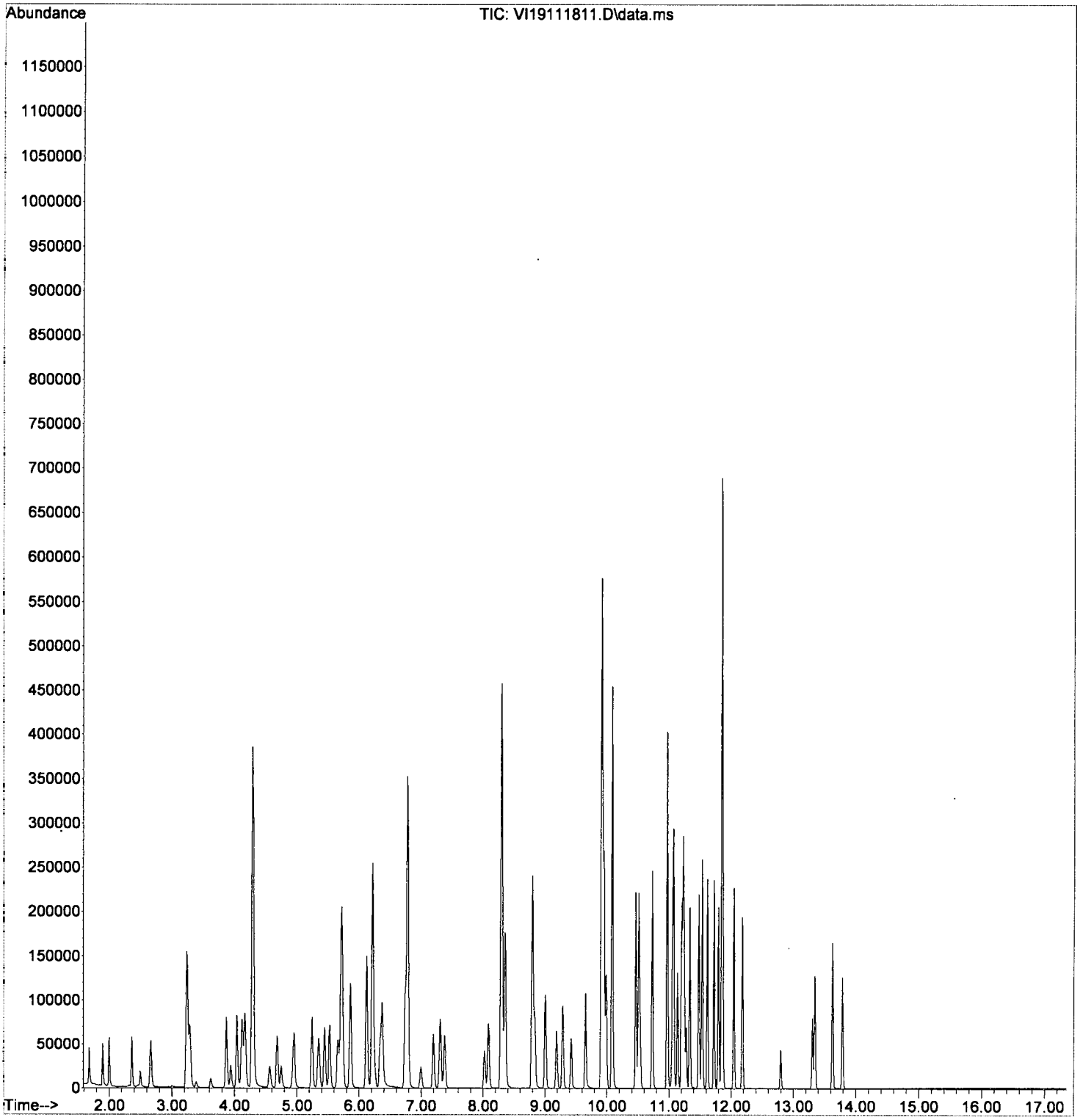
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Toluene	8.358	91	162841	18.69 ug/L	98
50) Tetrachloroethene (PCE)	8.796	166	40814	20.13 ug/L	92
51) 4-Methyl-2-Pentanone (...	8.796	43	96680	36.55 ug/L	91
52) t-1,3-Dichloropropene	8.833	75	48088	18.51 ug/L	98
53) 1,1,2-Trichloroethane	9.003	97	40316	20.87 ug/L	91
54) Dibromochloromethane	9.186	129	39159	25.08 ug/L	97
55) 1,3-Dichloropropane	9.289	76	64487	19.36 ug/L	86
56) 1,2-Dibromoethane (EDB)	9.423	107	41787	19.87 ug/L	96
57) 2-Hexanone	9.654	43	68772	35.49 ug/L	89
58) Chlorobenzene	9.928	112	110725	19.91 ug/L	96
59) Ethylbenzene	9.952	91	169746	18.58 ug/L	96
60) 1,1,1,2-Tetrachloroethane	9.989	131	35646	21.98 ug/L	95
61) m,p-Xylenes (2)	10.086	91	250672	37.26 ug/L	98
62) o-Xylene	10.463	91	120105	18.01 ug/L	99
63) Styrene	10.512	104	102345	19.09 ug/L	98
64) Bromoform	10.536	173	29124	24.99 ug/L	97
65) Isopropylbenzene	10.731	105	147776	18.16 ug/L	98
68) Bromobenzene	11.060	156	45138	20.22 ug/L	93
69) n-Propylbenzene	11.072	91	177497	18.55 ug/L	99
70) 1,1,2,2-Tetrachloroethane	11.139	85	37966	20.15 ug/L	95
71) 2-Chlorotoluene	11.206	126	38879	18.85 ug/L	89
72) 1,3,5-Trimethylbenzene	11.230	105	123253	18.84 ug/L	96
73) 1,2,3-Trichloropropane	11.248	110	18043	19.69 ug/L	95
74) t-1,4-Dichloro-2-butene	11.279	53	12294	18.75 ug/L	79
75) 4-Chlorotoluene	11.339	91	110185	18.70 ug/L	99
76) tert-Butylbenzene	11.479	91	62722	17.17 ug/L	99
77) 1,2,4-Trimethylbenzene	11.534	105	125174	19.02 ug/L	98
78) sec-Butylbenzene	11.619	105	146229	18.15 ug/L	98
79) 4-Isopropyltoluene	11.723	119	119502	18.74 ug/L	98
80) 1,3-Dichlorobenzene	11.796	146	76945	19.79 ug/L	99
81) 1,4-Dichlorobenzene	11.863	146	78205	19.29 ug/L	96
82) n-Butylbenzene	12.045	91	103920	19.18 ug/L	98
83) 1,2-Dichlorobenzene	12.179	146	73136	19.37 ug/L	99
84) 1,2-Dibromo-3-Chloropr...	12.799	157	12690	19.87 ug/L	90
85) Hexachlorobutadiene	13.304	223	9562	18.12 ug/L	95
86) 1,2,4-Trichlorobenzene	13.341	180	40089	18.42 ug/L	96
87) Naphthalene	13.627	128	124176	17.95 ug/L	98
88) 1,2,3-Trichlorobenzene	13.785	180	39383	19.06 ug/L	95

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K18032\
Data File : VI19111811.D
Acq On : 18 Nov 2019 1:19 pm
Operator : TNL
Sample : 9110893-MS1@50
Misc : 50X 1mL/50mL TCLP/ZHE
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Nov 18 14:58:29 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.

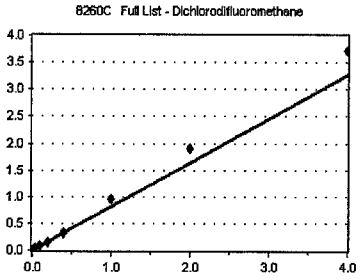
Element Calibration Review Sheet

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**

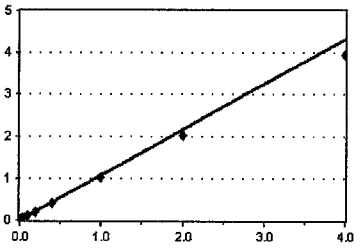


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	562	0.627	1.67
9J24043-CAL4	1	1583	0.682	1.68
9J24043-CAL5	2	3731	0.842	1.69
9J24043-CAL6	5	9010	0.812	1.68
9J24043-CAL7	10	18118	0.770	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**

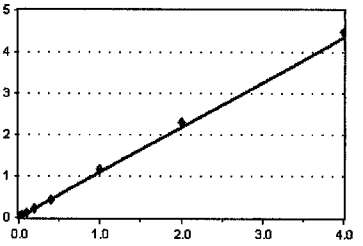


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~479~~	~~2.063~~	~~1.90~~
9J24043-CAL2	0.2	669	1.457	1.90
9J24043-CAL3	0.4	1136	1.268	1.89
9J24043-CAL4	1	2407	1.037	1.89
9J24043-CAL5	2	4743	1.070	1.90
9J24043-CAL6	5	11370	1.024	1.89
9J24043-CAL7	10	22449	0.954	1.90
9J24043-CAL8	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**

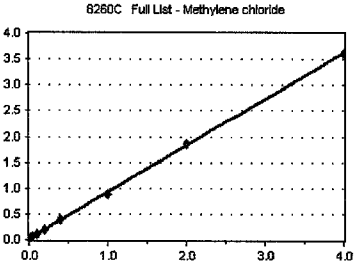


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	406	0.884	2.01
9J24043-CAL3	0.4	967	1.079	2.00
9J24043-CAL4	1	2351	1.013	2.00
9J24043-CAL5	2	5030	1.135	2.01
9J24043-CAL6	5	12653	1.140	2.00
9J24043-CAL7	10	25149	1.069	2.00
9J24043-CAL8	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**

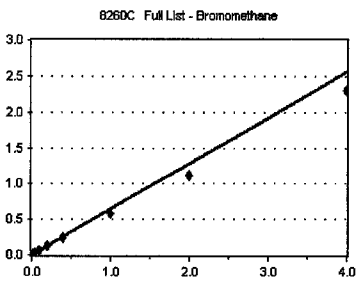
Element Calibration Review Sheet

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**

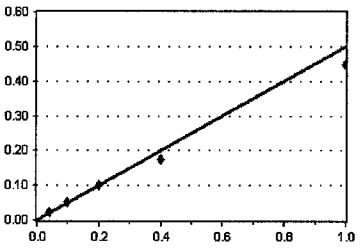


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~839~~	~~0.937~~	~~2.36~~
9J24043-CAL4	1	1763	0.760	2.36
9J24043-CAL5	2	3140	0.709	2.37
9J24043-CAL6	5	7782	0.701	2.36
9J24043-CAL7	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**

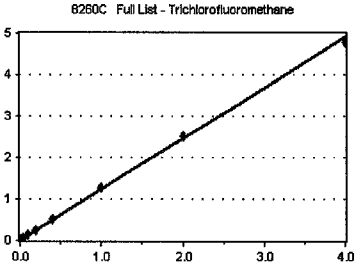


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL4~~	~~1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL5	2	2540	0.573	2.52
9J24043-CAL6	5	5899	0.531	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**

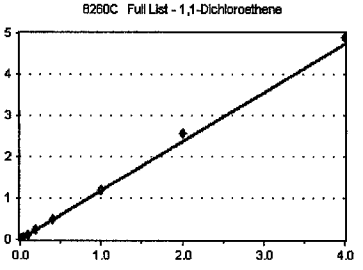


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	958	1.069	2.66
9J24043-CAL4	1	2784	1.200	2.66
9J24043-CAL5	2	5667	1.279	2.68
9J24043-CAL6	5	14236	1.282	2.66
9J24043-CAL7	10	29038	1.235	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**

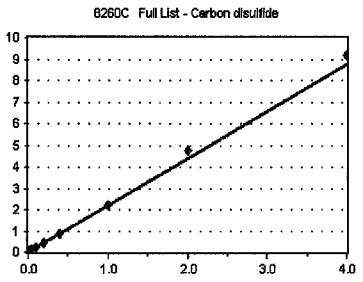
Element Calibration Review Sheet

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**

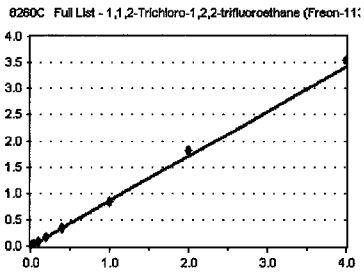


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	4573	1.970	3.25
9J24043-CAL5	2	9757	2.202	3.26
9J24043-CAL6	5	24060	2.167	3.25
9J24043-CAL7	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**

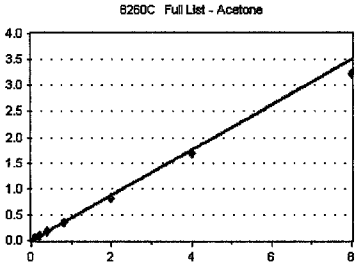


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	1717	0.740	3.29
9J24043-CAL5	2	3803	0.858	3.30
9J24043-CAL6	5	9544	0.860	3.29
9J24043-CAL7	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**

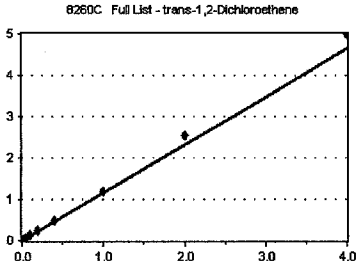


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.4~~	~~1168~~	~~1.272~~	~~3.95~~
~~9J24043-CAL3~~	~~0.8~~	~~1616~~	~~0.902~~	~~3.95~~
~~9J24043-CAL4~~	~~2~~	~~2940~~	~~0.633~~	~~3.95~~
9J24043-CAL5	4	4523	0.510	3.95
9J24043-CAL6	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**

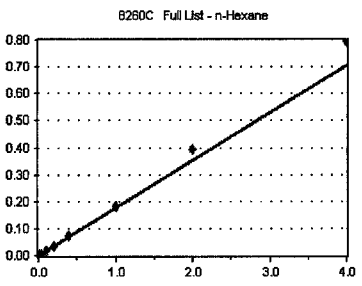
Element Calibration Review Sheet

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**

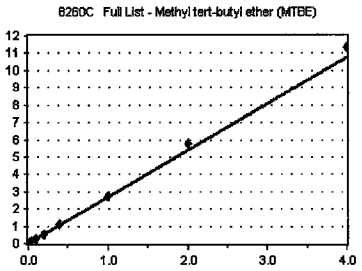


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	357	0.154	4.12
9J24043-CAL5	2	709	0.160	4.13
9J24043-CAL6	5	1836	0.165	4.12
9J24043-CAL7	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**

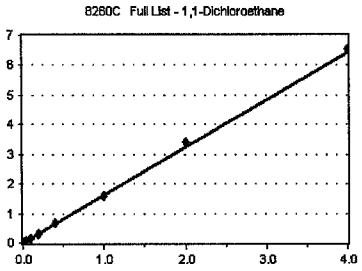


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	2309	2.577	4.17
9J24043-CAL4	1	5789	2.494	4.17
9J24043-CAL5	2	11957	2.698	4.17
9J24043-CAL6	5	29908	2.694	4.17
9J24043-CAL7	10	61557	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**

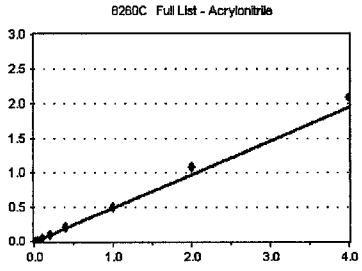


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	1323	1.477	4.68
9J24043-CAL4	1	3672	1.582	4.68
9J24043-CAL5	2	7227	1.631	4.69
9J24043-CAL6	5	18307	1.649	4.68
9J24043-CAL7	10	36999	1.573	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**

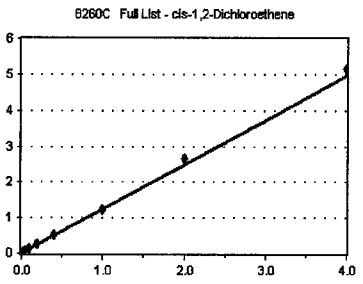
Element Calibration Review Sheet

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**

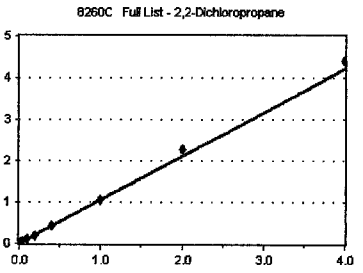


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	1008	1.125	5.24
9J24043-CAL4	1	2744	1.182	5.24
9J24043-CAL5	2	5568	1.256	5.25
9J24043-CAL6	5	13959	1.257	5.24
9J24043-CAL7	10	28723	1.221	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**

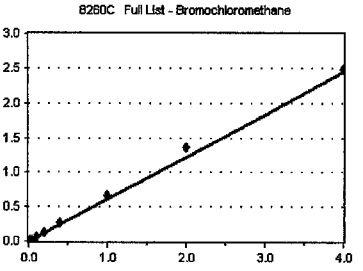


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	853	0.952	5.35
9J24043-CAL4	1	2316	0.998	5.35
9J24043-CAL5	2	4776	1.078	5.35
9J24043-CAL6	5	11793	1.062	5.35
9J24043-CAL7	10	23663	1.006	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**

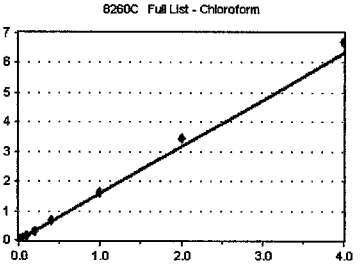


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	391	0.436	5.44
9J24043-CAL4	1	1188	0.512	5.45
9J24043-CAL5	2	2679	0.605	5.46
9J24043-CAL6	5	7172	0.646	5.44
9J24043-CAL7	10	14961	0.636	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**

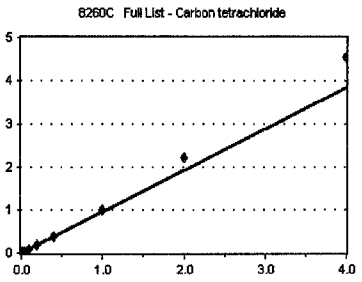
Element Calibration Review Sheet

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**

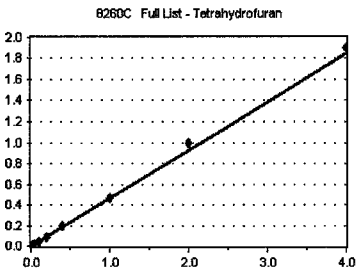


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~618~~	~~0.690~~	~~5.65~~
9J24043-CAL4	1	1791	0.772	5.66
9J24043-CAL5	2	4001	0.903	5.66
9J24043-CAL6	5	9957	0.897	5.66
9J24043-CAL7	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**

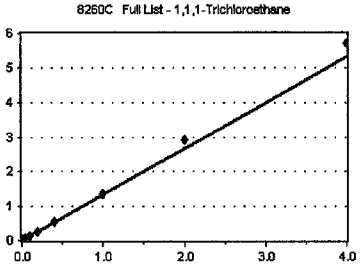


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	945	0.407	5.71
9J24043-CAL5	2	2045	0.461	5.71
9J24043-CAL6	5	5112	0.460	5.71
9J24043-CAL7	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**

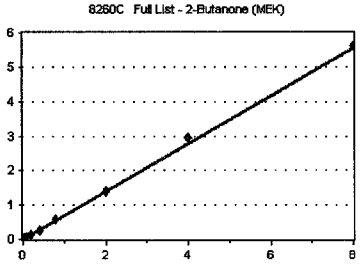


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	1012	1.130	5.73
9J24043-CAL4	1	2903	1.251	5.73
9J24043-CAL5	2	5937	1.340	5.74
9J24043-CAL6	5	14957	1.347	5.73
9J24043-CAL7	10	30210	1.284	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**

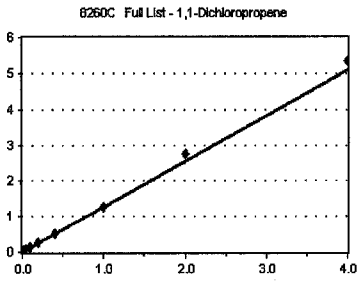
Element Calibration Review Sheet

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**

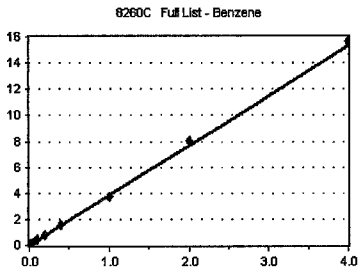


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	1049	1.171	5.87
9J24043-CAL4	1	2749	1.184	5.86
9J24043-CAL5	2	5724	1.292	5.87
9J24043-CAL6	5	14423	1.299	5.86
9J24043-CAL7	10	29295	1.245	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**

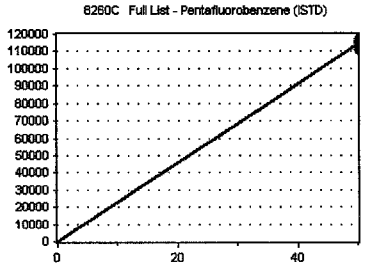


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	917	3.949	6.13
9J24043-CAL2	0.2	1584	3.450	6.13
9J24043-CAL3	0.4	3381	3.774	6.12
9J24043-CAL4	1	8314	3.582	6.13
9J24043-CAL5	2	17935	4.047	6.13
9J24043-CAL6	5	43404	3.910	6.12
9J24043-CAL7	10	87359	3.714	6.12
9J24043-CAL8	20	175817	3.910	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**

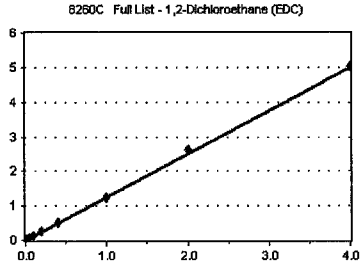


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	116102	2322.040	6.22
9J24043-CAL2	50	114788	2295.760	6.22
9J24043-CAL3	50	111985	2239.700	6.21
9J24043-CAL4	50	116043	2320.860	6.21
9J24043-CAL5	50	110790	2215.800	6.22
9J24043-CAL6	50	111010	2220.200	6.21
9J24043-CAL7	50	117608	2352.160	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**

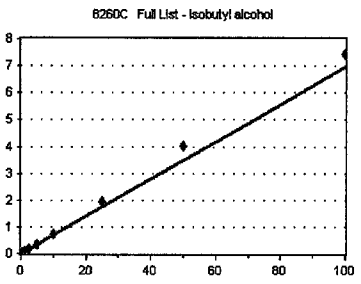
Element Calibration Review Sheet

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**

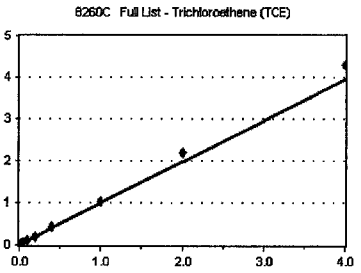


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~2.5~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~5~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	10	1172	5.233	6.39
9J24043-CAL4	25	3120	5.377	6.38
9J24043-CAL5	50	7968	7.192	6.38
9J24043-CAL6	125	20710	7.462	6.38
9J24043-CAL7	250	39286	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**

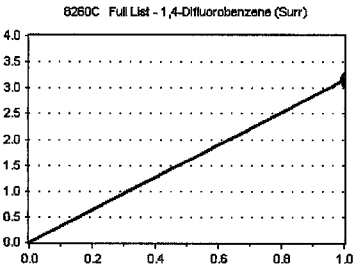


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	372	0.810	6.75
9J24043-CAL3	0.4	718	0.801	6.75
9J24043-CAL4	1	2166	0.933	6.74
9J24043-CAL5	2	4576	1.033	6.75
9J24043-CAL6	5	11340	1.022	6.74
9J24043-CAL7	10	23449	0.997	6.74
9J24043-CAL8	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**

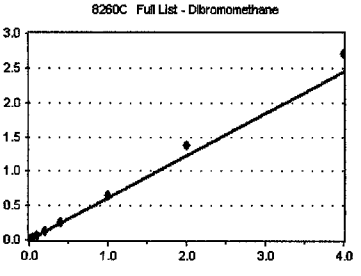


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	364447	3.139	6.78
9J24043-CAL2	50	359462	3.132	6.78
9J24043-CAL3	50	352302	3.146	6.78
9J24043-CAL4	50	366642	3.160	6.78
9J24043-CAL5	50	347212	3.134	6.78
9J24043-CAL6	50	353918	3.188	6.78
9J24043-CAL7	50	367409	3.124	6.78
9J24043-CAL8	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**

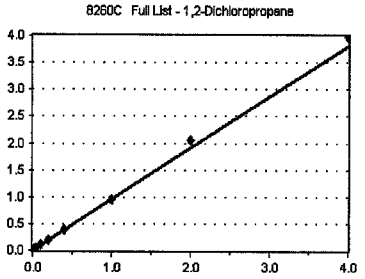
Element Calibration Review Sheet

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**

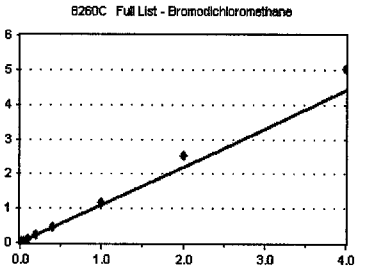


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	797	0.890	7.31
9J24043-CAL4	1	1944	0.838	7.31
9J24043-CAL5	2	4373	0.987	7.31
9J24043-CAL6	5	10897	0.982	7.31
9J24043-CAL7	10	21915	0.932	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**

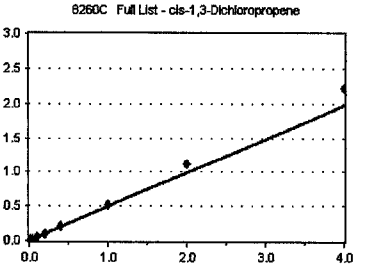


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	800	0.893	7.38
9J24043-CAL4	1	2259	0.973	7.38
9J24043-CAL5	2	4681	1.056	7.39
9J24043-CAL6	5	12021	1.083	7.38
9J24043-CAL7	10	25055	1.065	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**

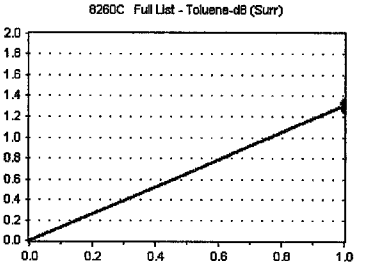


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	1014	0.431	8.09
9J24043-CAL4	1	2667	0.429	8.09
9J24043-CAL5	2	5578	0.468	8.09
9J24043-CAL6	5	14229	0.474	8.09
9J24043-CAL7	10	30482	0.487	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**

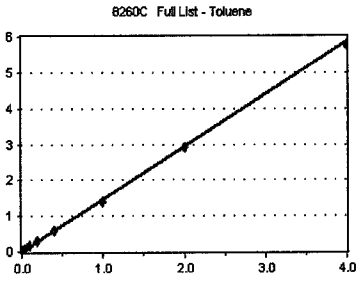
Element Calibration Review Sheet

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**

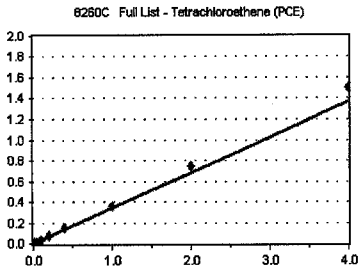


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	978	1.590	8.36
9J24043-CAL2	0.2	1744	1.439	8.35
9J24043-CAL3	0.4	3505	1.488	8.36
9J24043-CAL4	1	9040	1.454	8.35
9J24043-CAL5	2	17851	1.499	8.36
9J24043-CAL6	5	44272	1.474	8.36
9J24043-CAL7	10	90400	1.445	8.36
9J24043-CAL8	20	183309	1.492	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**

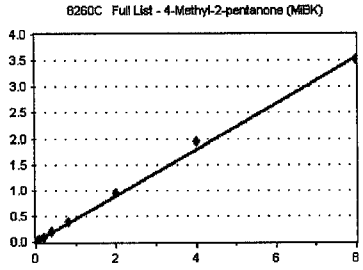


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	267	0.220	8.81
9J24043-CAL3	0.4	787	0.334	8.80
9J24043-CAL4	1	1994	0.321	8.80
9J24043-CAL5	2	4333	0.364	8.80
9J24043-CAL6	5	10847	0.361	8.80
9J24043-CAL7	10	22099	0.353	8.80
9J24043-CAL8	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**

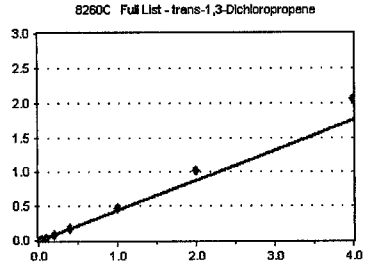


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.4	890	0.367	8.80
9J24043-CAL3	0.8	1912	0.406	8.81
9J24043-CAL4	2	5042	0.406	8.80
9J24043-CAL5	4	11029	0.463	8.81
9J24043-CAL6	10	28183	0.469	8.80
9J24043-CAL7	20	58009	0.464	8.80
9J24043-CAL8	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**

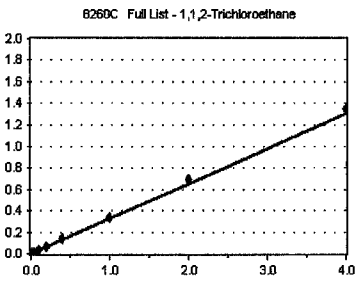
Element Calibration Review Sheet

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**

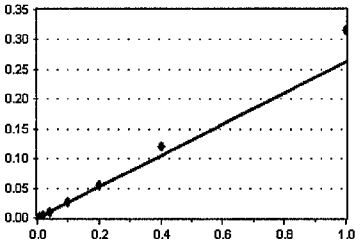


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	288	0.238	9.01
9J24043-CAL3	0.4	717	0.304	9.00
9J24043-CAL4	1	1944	0.313	9.00
9J24043-CAL5	2	4134	0.347	9.00
9J24043-CAL6	5	10336	0.344	9.00
9J24043-CAL7	10	21402	0.342	9.01
9J24043-CAL8	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**

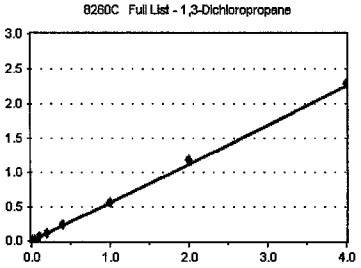


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	505	0.214	9.19
9J24043-CAL4	1	1349	0.217	9.19
9J24043-CAL5	2	3038	0.255	9.19
9J24043-CAL6	5	8016	0.267	9.19
9J24043-CAL7	10	17208	0.275	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**

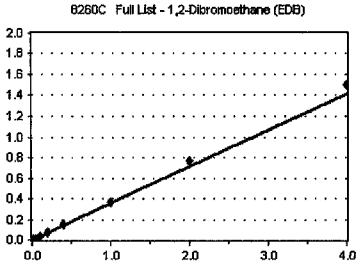


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	568	0.469	9.29
9J24043-CAL3	0.4	1253	0.532	9.29
9J24043-CAL4	1	3361	0.541	9.29
9J24043-CAL5	2	6889	0.578	9.29
9J24043-CAL6	5	17551	0.584	9.29
9J24043-CAL7	10	36354	0.581	9.29
9J24043-CAL8	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**

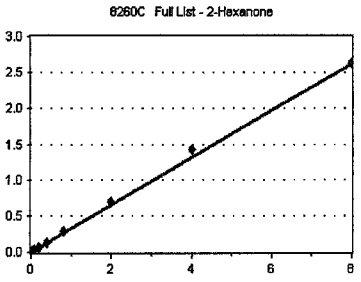
Element Calibration Review Sheet

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**

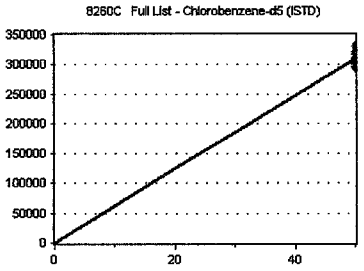


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.8	1346	0.286	9.66
9J24043-CAL4	2	3526	0.284	9.66
9J24043-CAL5	4	7610	0.319	9.66
9J24043-CAL6	10	19724	0.328	9.65
9J24043-CAL7	20	41881	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**

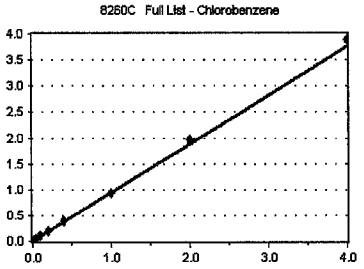


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	307577	6151.540	9.91
9J24043-CAL2	50	302974	6059.480	9.92
9J24043-CAL3	50	294372	5887.440	9.91
9J24043-CAL4	50	310797	6215.940	9.91
9J24043-CAL5	50	297754	5955.080	9.92
9J24043-CAL6	50	300317	6006.340	9.91
9J24043-CAL7	50	312833	6256.660	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**

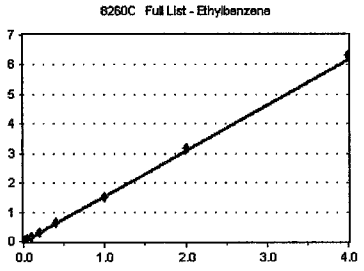


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	480	0.780	9.93
9J24043-CAL2	0.2	1045	0.862	9.93
9J24043-CAL3	0.4	2226	0.945	9.93
9J24043-CAL4	1	5770	0.928	9.93
9J24043-CAL5	2	11701	0.982	9.93
9J24043-CAL6	5	29555	0.984	9.93
9J24043-CAL7	10	60359	0.965	9.93
9J24043-CAL8	20	120984	0.985	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**

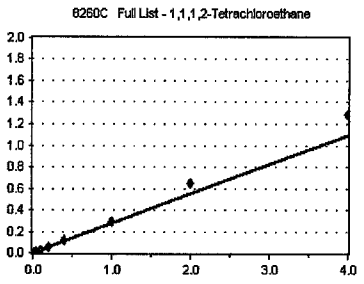
Element Calibration Review Sheet

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**

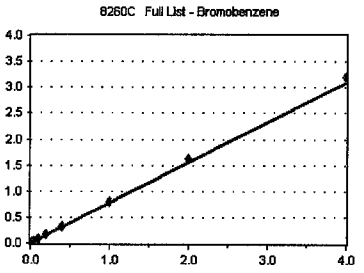


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~129~~	~~0.106~~	~~0.00~~
9J24043-CAL3	0.4	470	0.200	9.99
9J24043-CAL4	1	1476	0.237	9.99
9J24043-CAL5	2	2985	0.251	9.99
9J24043-CAL6	5	7981	0.266	9.99
9J24043-CAL7	10	16995	0.272	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**

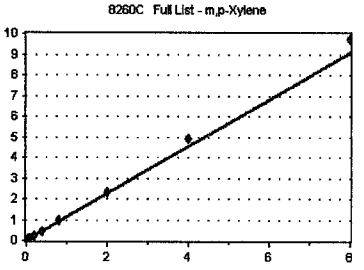


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	124	0.444	0.00
9J24043-CAL2	0.2	432	0.800	11.06
9J24043-CAL3	0.4	875	0.813	11.06
9J24043-CAL4	1	2220	0.771	11.06
9J24043-CAL5	2	4634	0.830	11.06
9J24043-CAL6	5	11623	0.819	11.06
9J24043-CAL7	10	24222	0.812	11.06
9J24043-CAL8	20	50013	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**

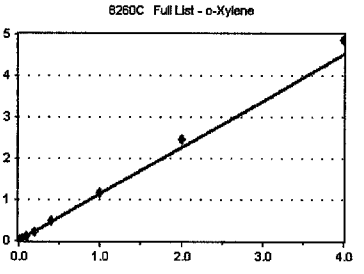


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.2	1368	1.112	10.09
9J24043-CAL2	0.4	2470	1.019	10.09
9J24043-CAL3	0.8	5197	1.103	10.09
9J24043-CAL4	2	12789	1.029	10.09
9J24043-CAL5	4	27092	1.137	10.09
9J24043-CAL6	10	68847	1.146	10.09
9J24043-CAL7	20	142004	1.135	10.09
9J24043-CAL8	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

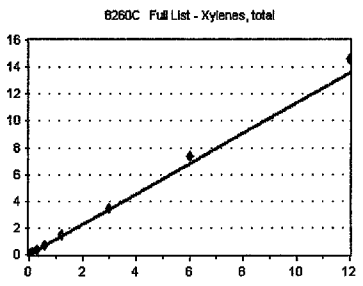
AVE RF **1.126** RF RSD **7.83** AVE RT **10.47**

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

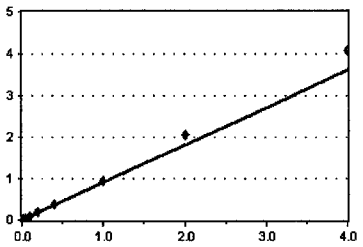


Curve Fit: **AVERAGE RF**

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

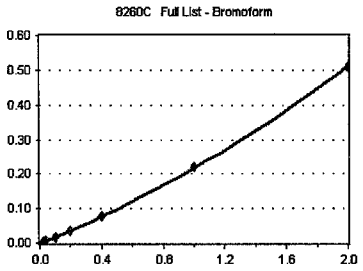


Curve Fit: **AVERAGE RF**

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

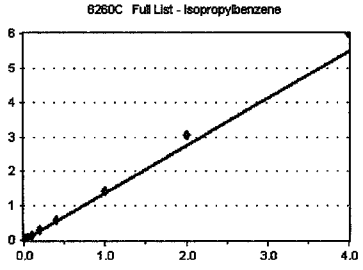


Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

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**

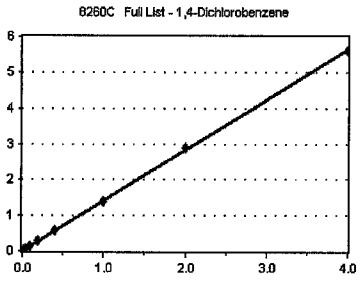
Element Calibration Review Sheet

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**

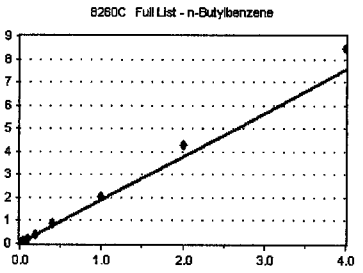


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	311	1.113	0.00
9J24043-CAL2	0.2	725	1.342	11.86
9J24043-CAL3	0.4	1564	1.454	11.86
9J24043-CAL4	1	4177	1.451	11.86
9J24043-CAL5	2	8550	1.531	11.86
9J24043-CAL6	5	20421	1.440	11.86
9J24043-CAL7	10	42771	1.433	11.86
9J24043-CAL8	20	89594	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**

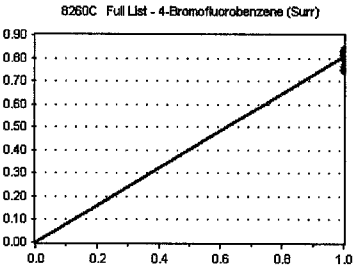


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	379	1.357	0.00
9J24043-CAL2	0.2	805	1.491	12.05
9J24043-CAL3	0.4	1867	1.735	12.05
9J24043-CAL4	1	4997	1.735	12.05
9J24043-CAL5	2	10626	1.903	12.05
9J24043-CAL6	5	28526	2.011	12.05
9J24043-CAL7	10	59515	1.994	12.05
9J24043-CAL8	20	130970	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**

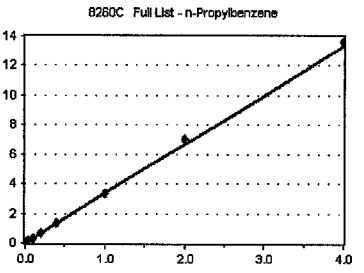


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	116090	0.831	10.97
9J24043-CAL2	50	113180	0.838	10.97
9J24043-CAL3	50	112304	0.835	10.97
9J24043-CAL4	50	118563	0.823	10.97
9J24043-CAL5	50	115163	0.825	10.97
9J24043-CAL6	50	115652	0.815	10.97
9J24043-CAL7	50	121121	0.812	10.97
9J24043-CAL8	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**

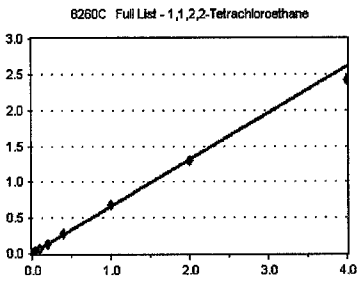
Element Calibration Review Sheet

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**

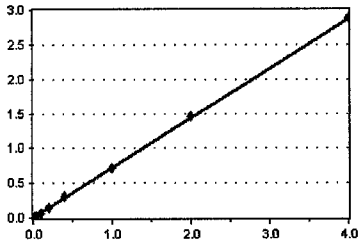


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	305	0.565	11.14
9J24043-CAL3	0.4	671	0.624	11.14
9J24043-CAL4	1	1876	0.651	11.14
9J24043-CAL5	2	4008	0.718	11.14
9J24043-CAL6	5	9843	0.694	11.14
9J24043-CAL7	10	20098	0.673	11.14
9J24043-CAL8	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**

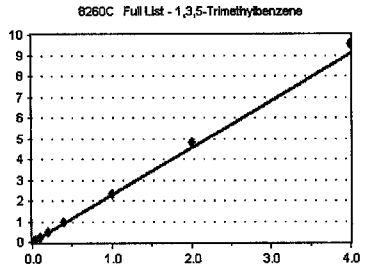


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	719	0.668	11.21
9J24043-CAL4	1	1910	0.663	11.21
9J24043-CAL5	2	4172	0.747	11.21
9J24043-CAL6	5	10150	0.716	11.21
9J24043-CAL7	10	21625	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**

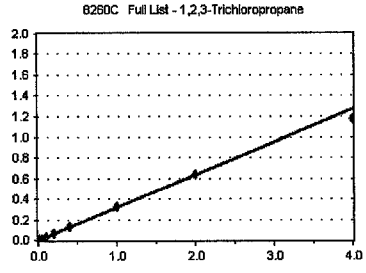


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	556	1.990	11.23
9J24043-CAL2	0.2	1127	2.087	11.23
9J24043-CAL3	0.4	2289	2.127	11.23
9J24043-CAL4	1	6197	2.152	11.23
9J24043-CAL5	2	13089	2.344	11.23
9J24043-CAL6	5	33314	2.349	11.23
9J24043-CAL7	10	69892	2.342	11.23
9J24043-CAL8	20	148694	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**

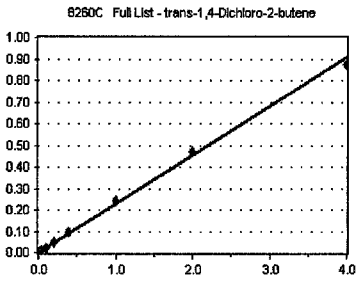
Element Calibration Review Sheet

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**

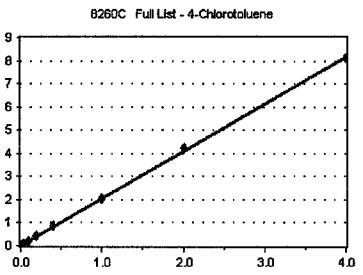


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	531	0.184	11.29
9J24043-CAL5	2	1313	0.235	11.28
9J24043-CAL6	5	3293	0.232	11.28
9J24043-CAL7	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**

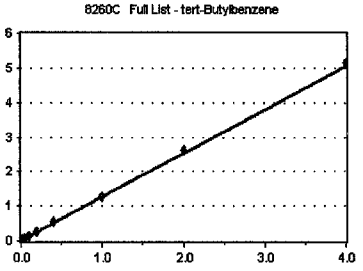


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	1020	1.889	11.34
9J24043-CAL3	0.4	2178	2.024	11.34
9J24043-CAL4	1	5461	1.896	11.34
9J24043-CAL5	2	11718	2.099	11.34
9J24043-CAL6	5	30239	2.132	11.34
9J24043-CAL7	10	61742	2.069	11.34
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**

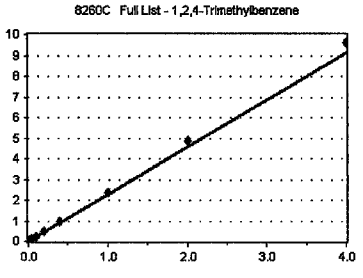


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	602	1.115	11.49
9J24043-CAL3	0.4	1248	1.160	11.49
9J24043-CAL4	1	3551	1.233	11.49
9J24043-CAL5	2	7395	1.324	11.49
9J24043-CAL6	5	18808	1.326	11.48
9J24043-CAL7	10	38411	1.287	11.48
9J24043-CAL8	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**

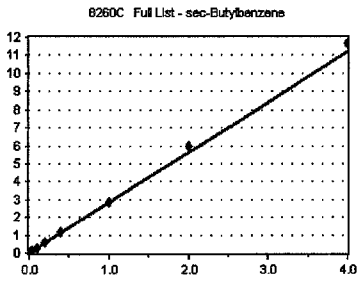
Element Calibration Review Sheet

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**

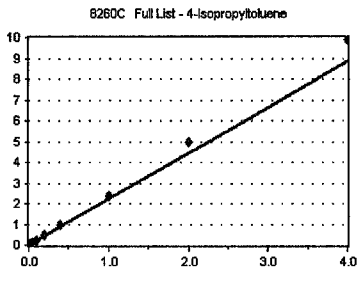


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	1301	2.409	11.62
9J24043-CAL3	0.4	2990	2.779	11.62
9J24043-CAL4	1	7450	2.587	11.62
9J24043-CAL5	2	15756	2.822	11.62
9J24043-CAL6	5	40240	2.837	11.62
9J24043-CAL7	10	83977	2.814	11.62
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**

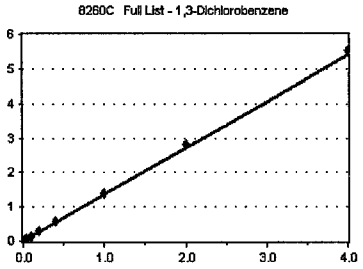


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	481	1.722	11.73
9J24043-CAL2	0.2	919	1.702	11.72
9J24043-CAL3	0.4	2236	2.078	11.73
9J24043-CAL4	1	6086	2.114	11.73
9J24043-CAL5	2	12523	2.243	11.73
9J24043-CAL6	5	33176	2.339	11.73
9J24043-CAL7	10	68628	2.300	11.73
9J24043-CAL8	20	151382	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**

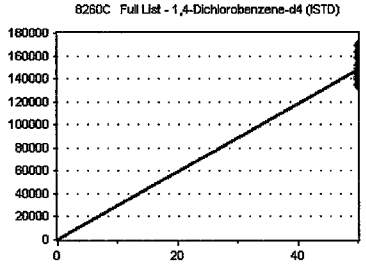


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	629	1.165	11.80
9J24043-CAL3	0.4	1412	1.312	11.80
9J24043-CAL4	1	3650	1.268	11.80
9J24043-CAL5	2	7718	1.382	11.80
9J24043-CAL6	5	19712	1.390	11.80
9J24043-CAL7	10	41299	1.384	11.80
9J24043-CAL8	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**

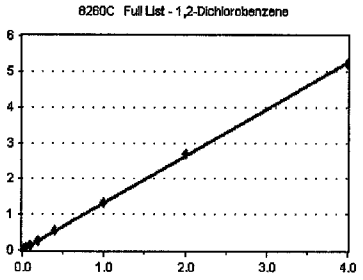
Element Calibration Review Sheet

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**

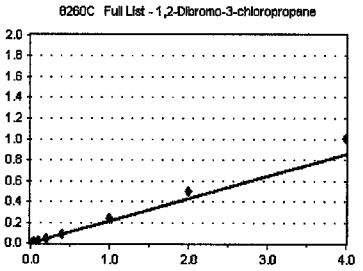


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	624	1.155	12.19
9J24043-CAL3	0.4	1284	1.193	12.19
9J24043-CAL4	1	3650	1.268	12.19
9J24043-CAL5	2	7854	1.407	12.19
9J24043-CAL6	5	19460	1.372	12.19
9J24043-CAL7	10	40125	1.345	12.18
9J24043-CAL8	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**

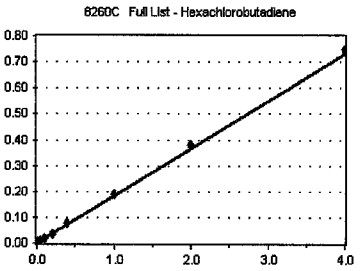


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL4~~	1	447	0.155	12.80
9J24043-CAL5	2	1006	0.180	12.80
9J24043-CAL6	5	2728	0.192	12.80
9J24043-CAL7	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**

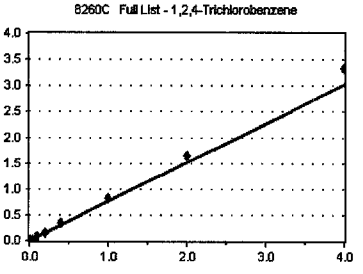


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	443	0.154	13.31
9J24043-CAL5	2	963	0.172	13.30
9J24043-CAL6	5	2715	0.191	13.30
9J24043-CAL7	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**

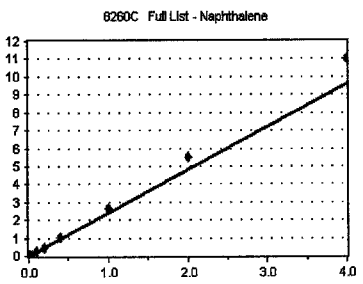
Element Calibration Review Sheet

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**

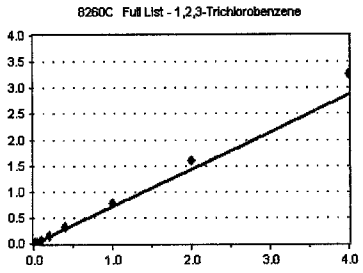


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~924~~	~~1.711~~	~~13.63~~
9J24043-CAL3	0.4	2009	1.867	13.63
9J24043-CAL4	1	5345	1.856	13.63
9J24043-CAL5	2	12724	2.279	13.63
9J24043-CAL6	5	32892	2.319	13.63
9J24043-CAL7	10	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**

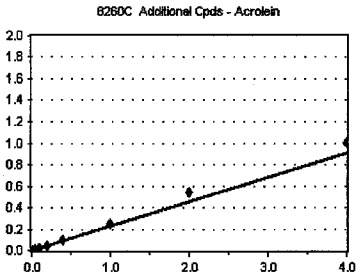
Element Calibration Review Sheet

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**

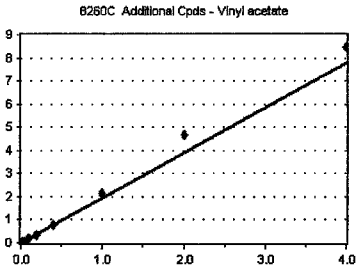


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	420	0.181	3.63
9J24043-CAL5	2	927	0.209	3.63
9J24043-CAL6	5	2465	0.222	3.62
9J24043-CAL7	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**

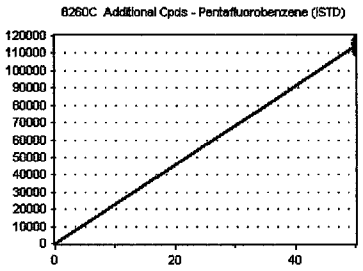


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	3620	1.560	4.96
9J24043-CAL5	2	7854	1.772	4.96
9J24043-CAL6	5	20467	1.844	4.96
9J24043-CAL7	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**

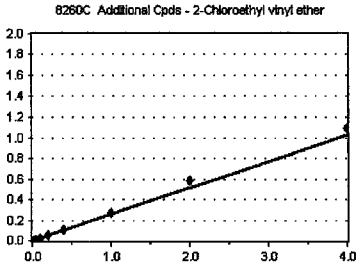


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	116102	2322.040	6.22
9J24043-CAL2	50	114788	2295.760	6.22
9J24043-CAL3	50	111985	2239.700	6.21
9J24043-CAL4	50	116043	2320.860	6.21
9J24043-CAL5	50	110790	2215.800	6.22
9J24043-CAL6	50	111010	2220.200	6.21
9J24043-CAL7	50	117608	2352.160	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**

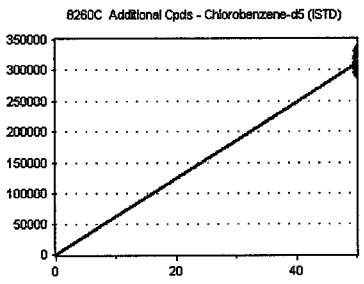
Element Calibration Review Sheet

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**

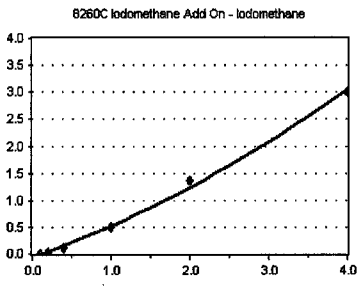
Element Calibration Review Sheet

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**

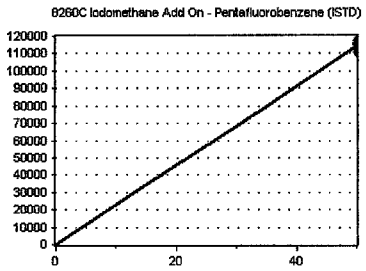


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL4~~	~~1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL5~~	~~2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL6	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**

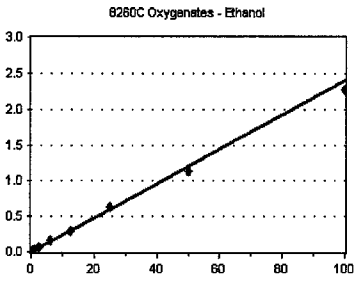
Element Calibration Review Sheet

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**

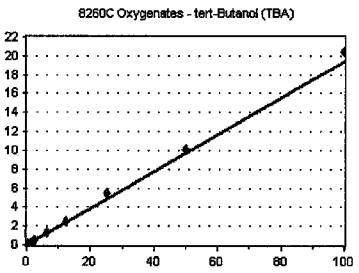


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~6.25~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~12.5~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	25	1315	2.349	3.23
9J24043-CAL4	62.5	3446	2.376	3.24
9J24043-CAL5	125	7229	2.610	3.24
9J24043-CAL6	312	17243	2.489	3.23
9J24043-CAL7	625	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**

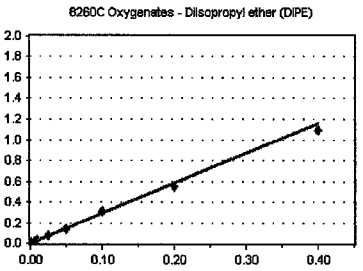


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	6.25	2472	0.170	4.30
9J24043-CAL2	12.5	4690	0.163	4.30
9J24043-CAL3	25	10086	0.180	4.29
9J24043-CAL4	62.5	25977	0.179	4.30
9J24043-CAL5	125	58093	0.210	4.30
9J24043-CAL6	312	143817	0.208	4.29
9J24043-CAL7	625	292252	0.199	4.29
9J24043-CAL8	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**

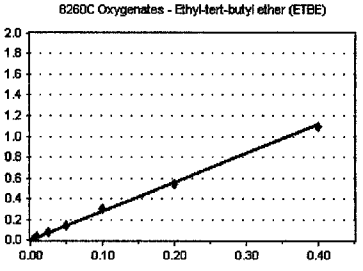


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.1	638	2.849	4.56
9J24043-CAL4	0.25	1604	2.764	4.56
9J24043-CAL5	0.5	3305	2.983	4.57
9J24043-CAL6	1.25	8576	3.090	4.57
9J24043-CAL7	2.5	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**

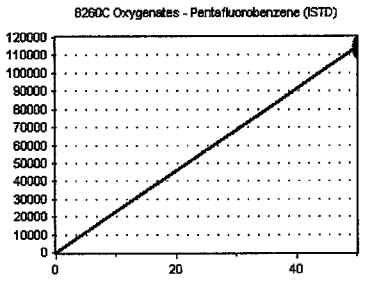
Element Calibration Review Sheet

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**

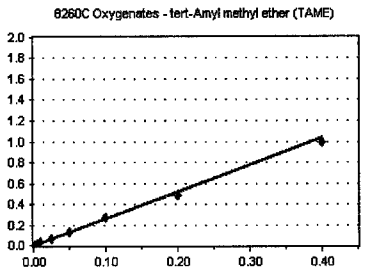


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	116102	2322.040	6.22
9J24043-CAL2	50	114788	2295.760	6.22
9J24043-CAL3	50	111985	2239.700	6.21
9J24043-CAL4	50	116043	2320.860	6.21
9J24043-CAL5	50	110790	2215.800	6.22
9J24043-CAL6	50	111010	2220.200	6.21
9J24043-CAL7	50	117608	2352.160	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**

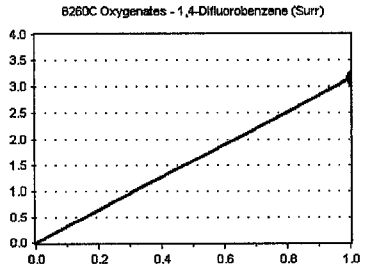


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.1	580	2.590	6.25
9J24043-CAL4	0.25	1462	2.520	6.25
9J24043-CAL5	0.5	2996	2.704	6.25
9J24043-CAL6	1.25	7445	2.683	6.25
9J24043-CAL7	2.5	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**

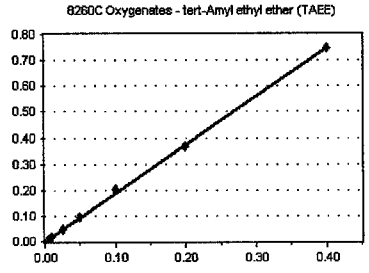


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	364447	3.139	6.78
9J24043-CAL2	50	359462	3.132	6.78
9J24043-CAL3	50	352302	3.146	6.78
9J24043-CAL4	50	366642	3.160	6.78
9J24043-CAL5	50	347212	3.134	6.78
9J24043-CAL6	50	353918	3.188	6.78
9J24043-CAL7	50	367409	3.124	6.78
9J24043-CAL8	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**

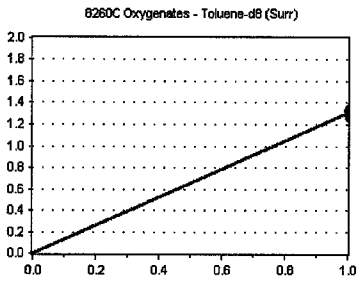
Element Calibration Review Sheet

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**

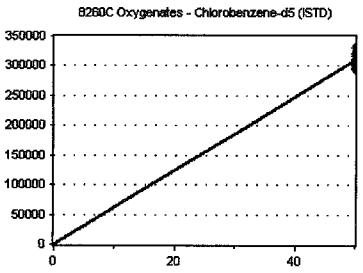


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	406288	1.321	8.30
9J24043-CAL2	50	403793	1.333	8.30
9J24043-CAL3	50	396027	1.345	8.30
9J24043-CAL4	50	410518	1.321	8.30
9J24043-CAL5	50	395017	1.327	8.30
9J24043-CAL6	50	397005	1.322	8.30
9J24043-CAL7	50	415174	1.327	8.30
9J24043-CAL8	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**

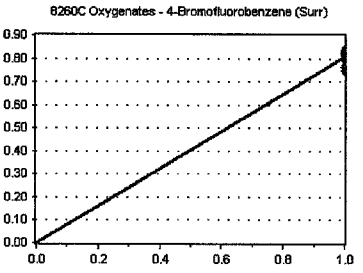


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	307577	6151.540	9.91
9J24043-CAL2	50	302974	6059.480	9.92
9J24043-CAL3	50	294372	5887.440	9.91
9J24043-CAL4	50	310797	6215.940	9.91
9J24043-CAL5	50	297754	5955.080	9.92
9J24043-CAL6	50	300317	6006.340	9.91
9J24043-CAL7	50	312833	6256.660	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**

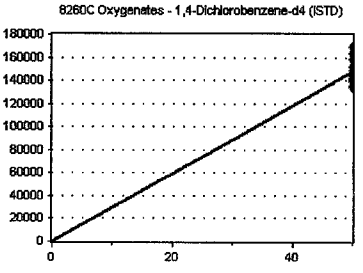


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	116090	0.831	10.97
9J24043-CAL2	50	113180	0.838	10.97
9J24043-CAL3	50	112304	0.835	10.97
9J24043-CAL4	50	118563	0.823	10.97
9J24043-CAL5	50	115163	0.825	10.97
9J24043-CAL6	50	115652	0.815	10.97
9J24043-CAL7	50	121121	0.812	10.97
9J24043-CAL8	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

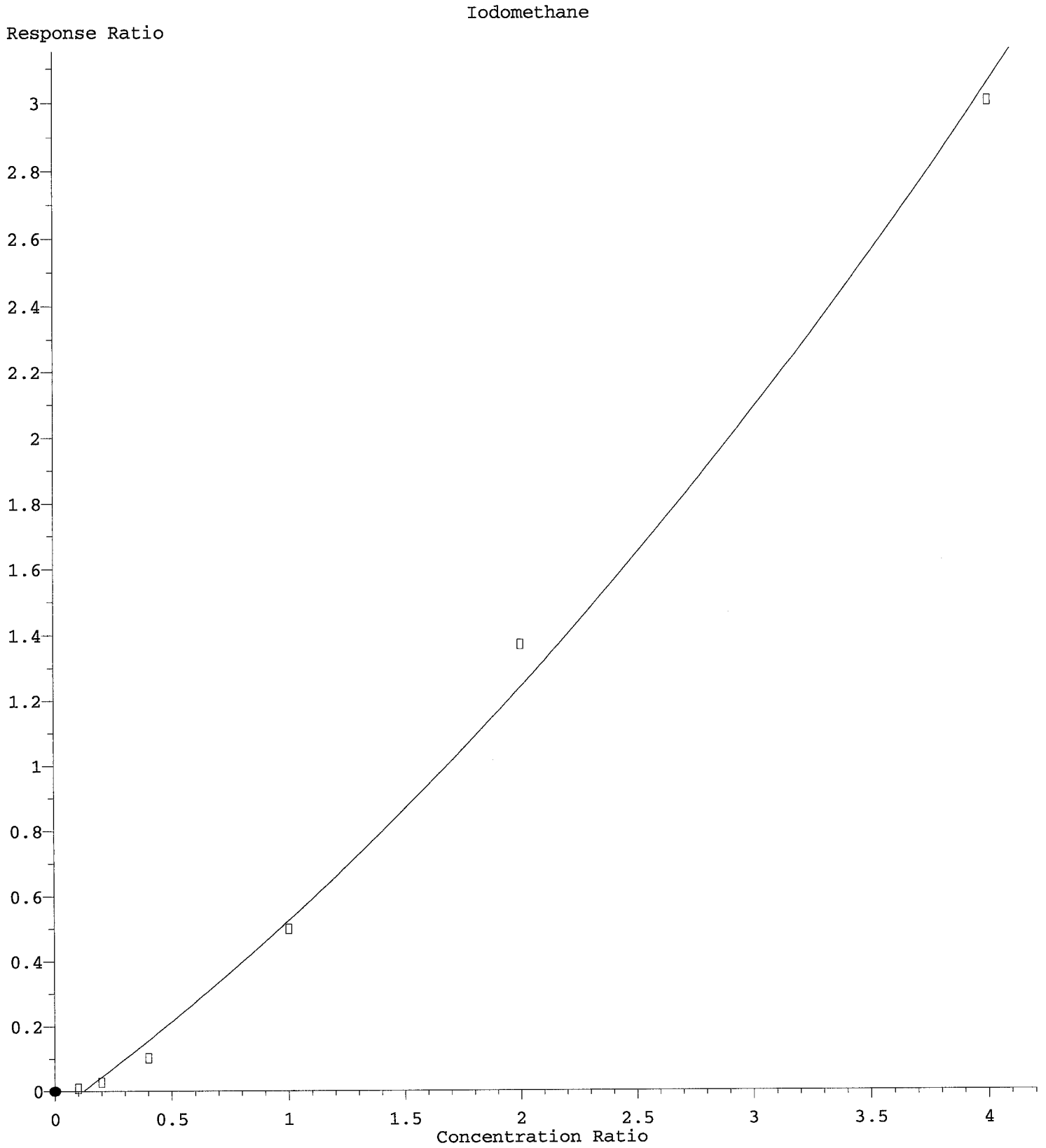
Total Cpnds : 88

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

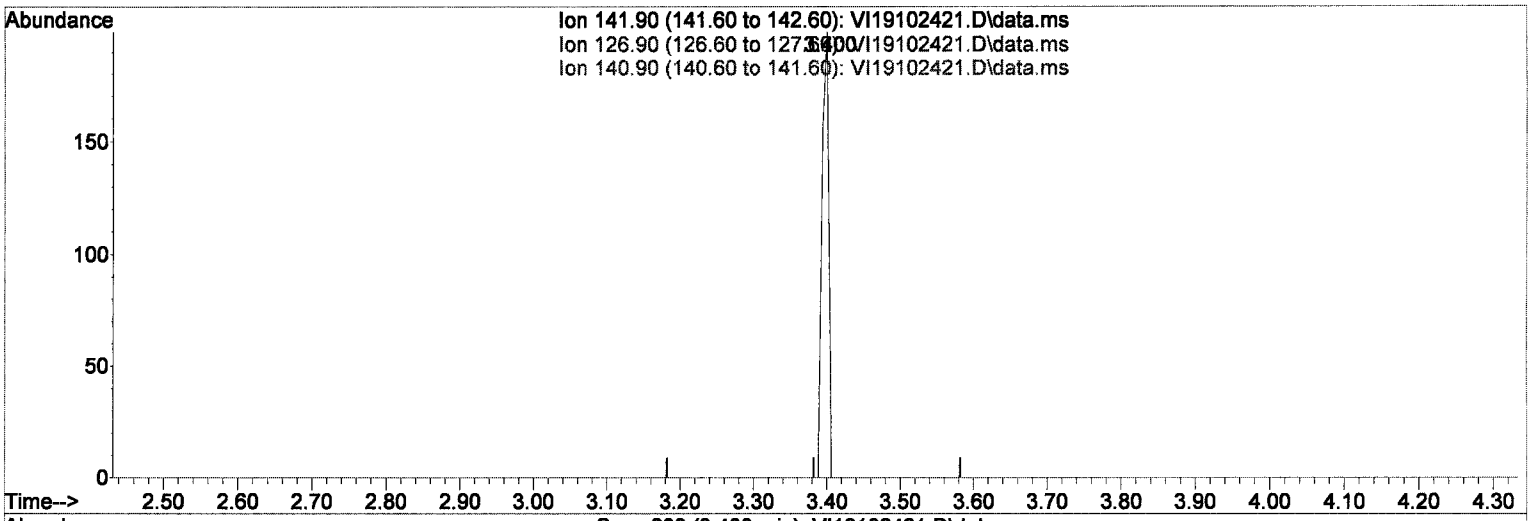


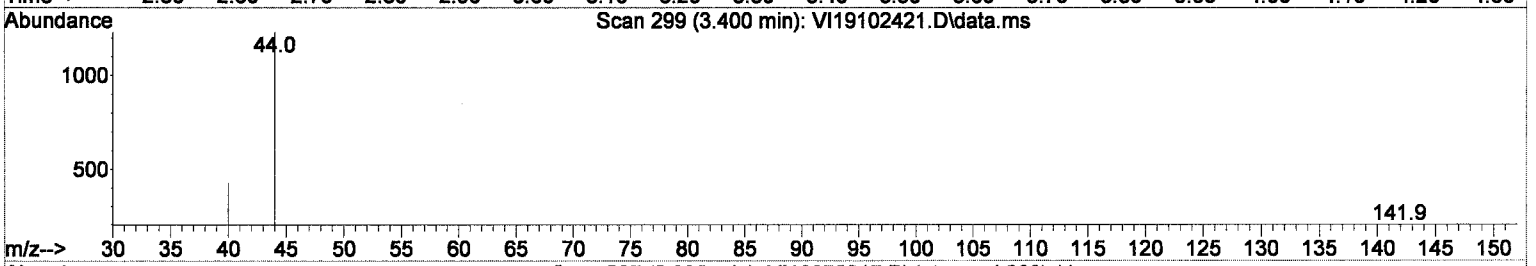
R = 6.36e-002 A*A + 5.25e-001 A - 6.41e-002
Coef of Det (r^2) = 0.993 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VI191025W.M
Calibration Table Last Updated: Fri Oct 25 08:33:22 2019

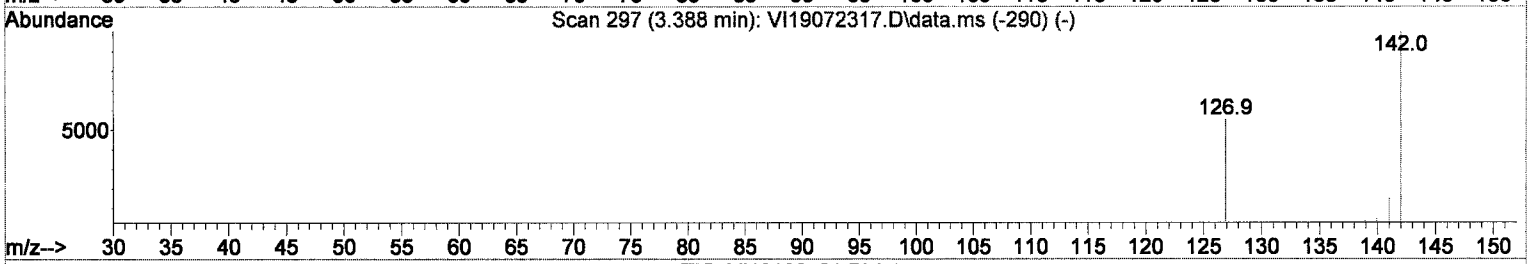
Quantitation Report (Qedit)

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







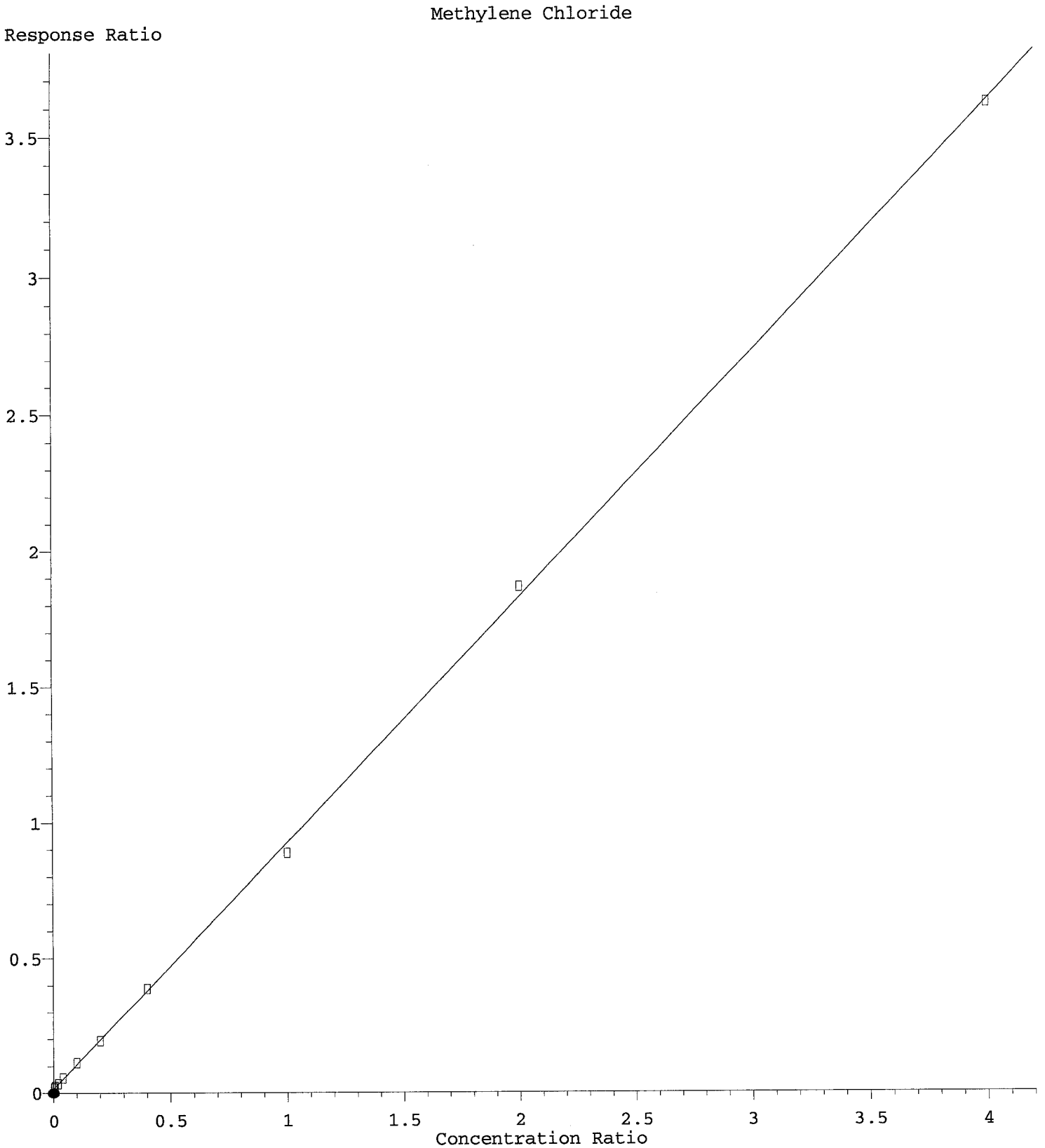
TIC: VI19102421.D\data.ms

(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

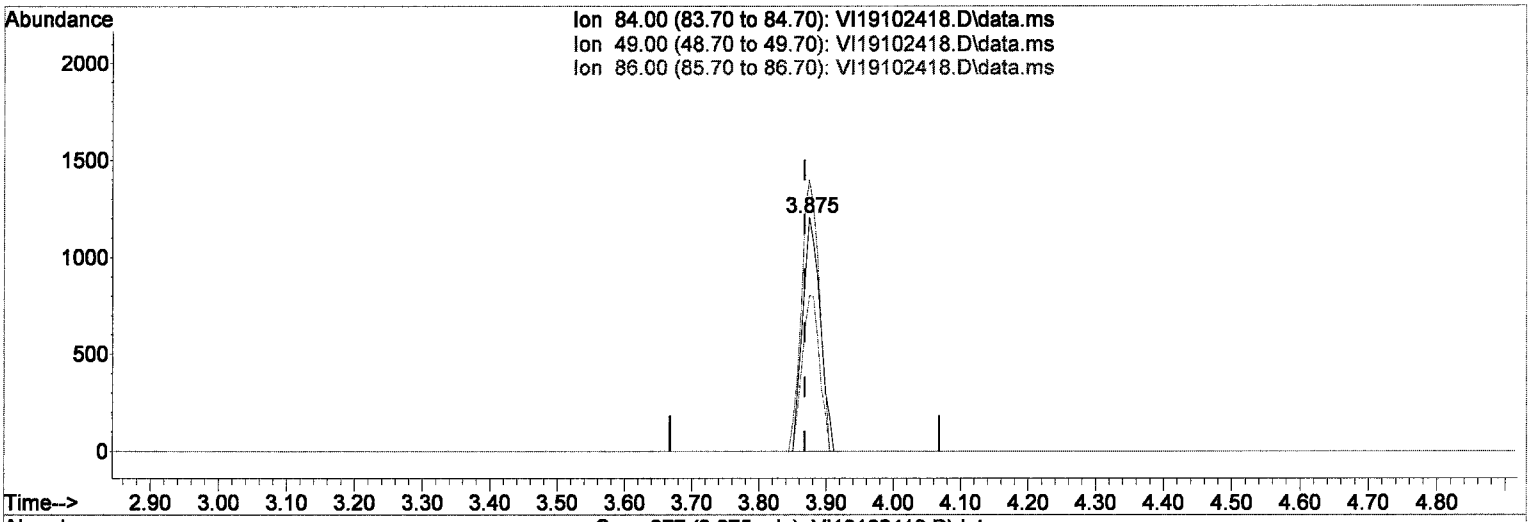


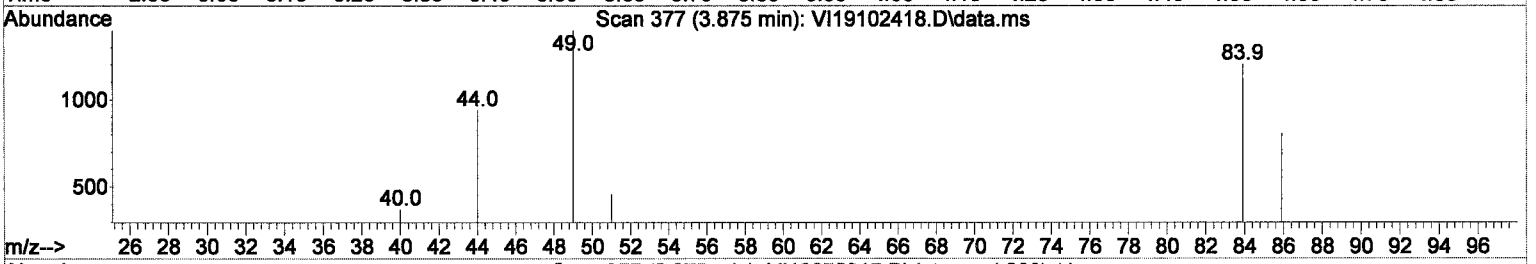
R = -2.46e-003 A*A + 9.12e-001 A + 1.58e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VI191025W.M
Calibration Table Last Updated: Fri Oct 25 08:34:03 2019

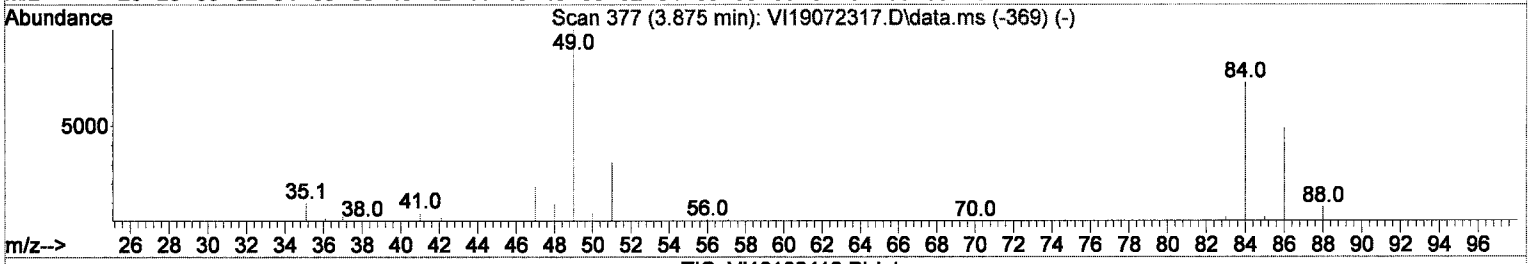
Quantitation Report (Qedit)

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







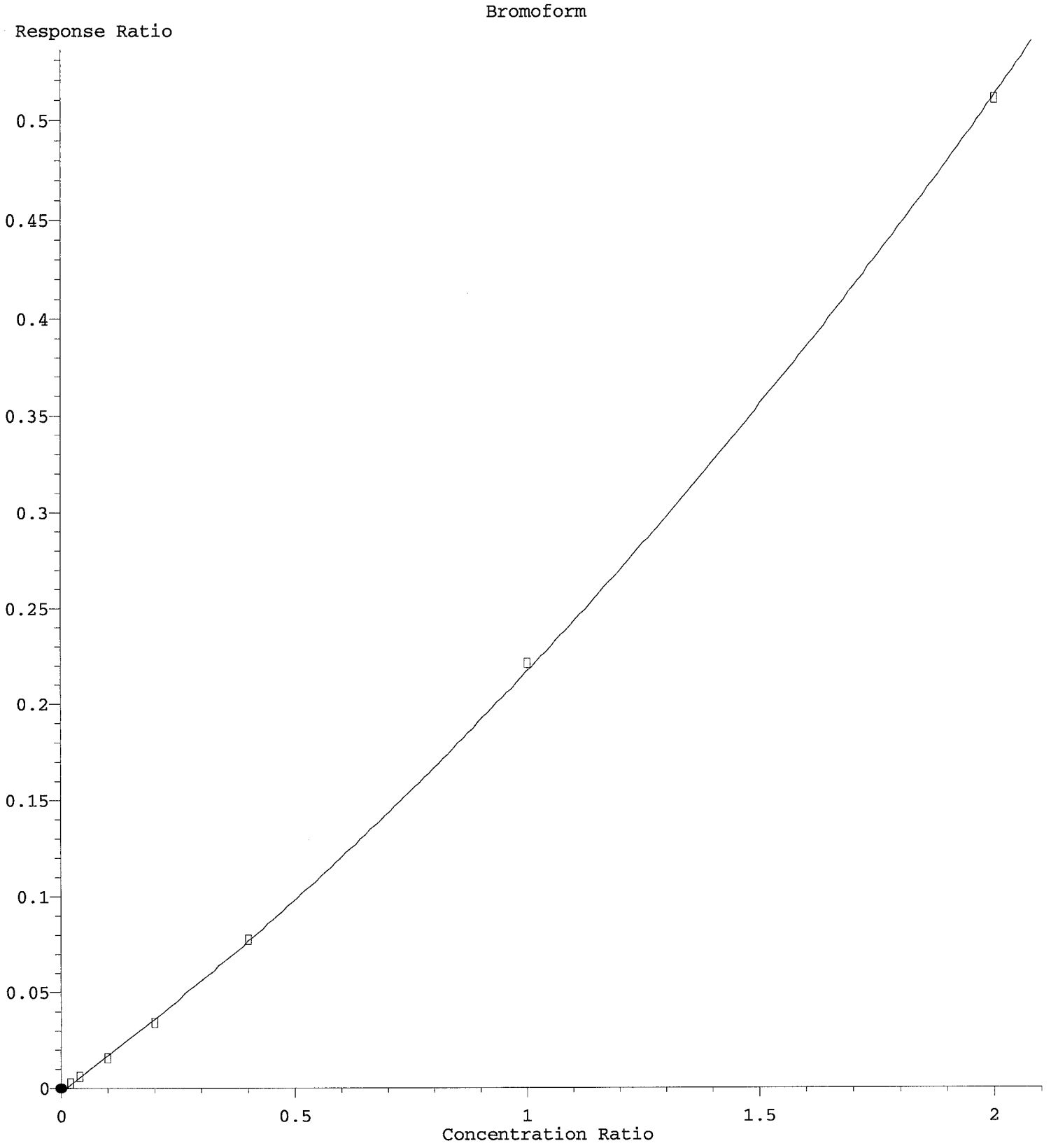
TIC: VI19102418.D\data.ms

(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

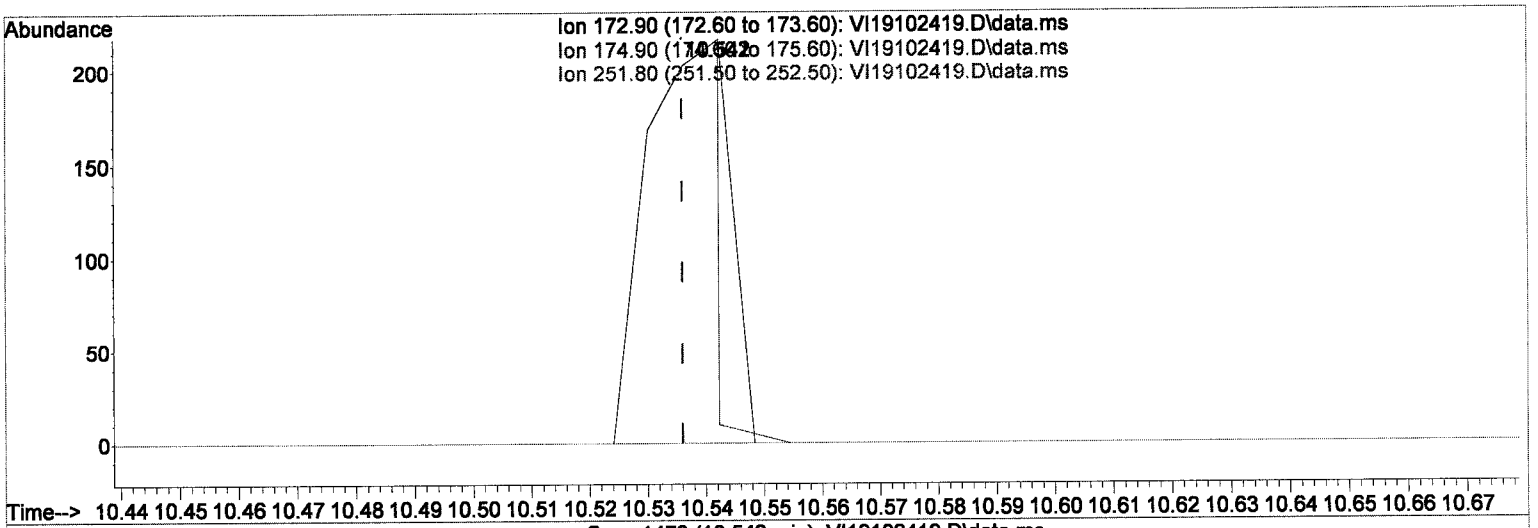


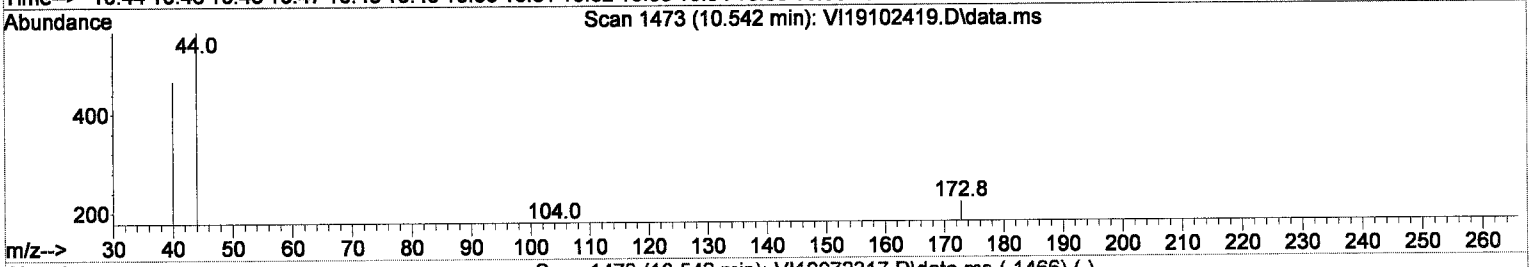
R = 3.82e-002 A*A + 1.80e-001 A - 1.40e-003
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VI191025W.M
Calibration Table Last Updated: Fri Oct 25 08:48:07 2019

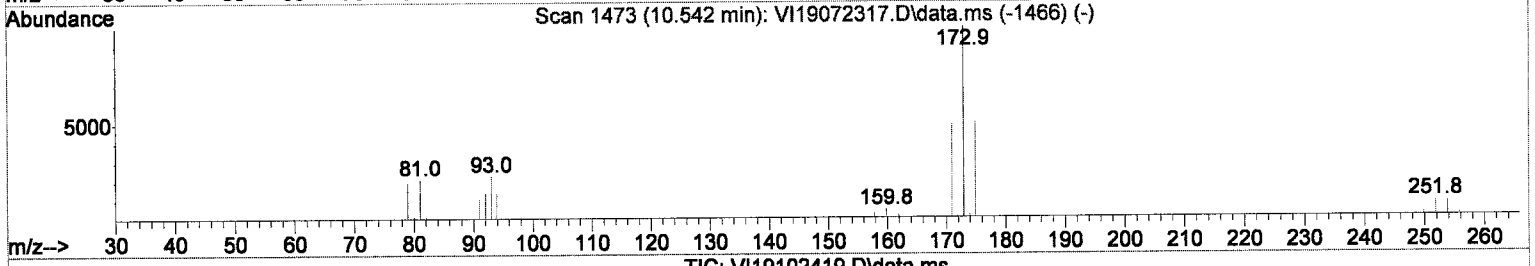
Quantitation Report (Qedit)

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

MM 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

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

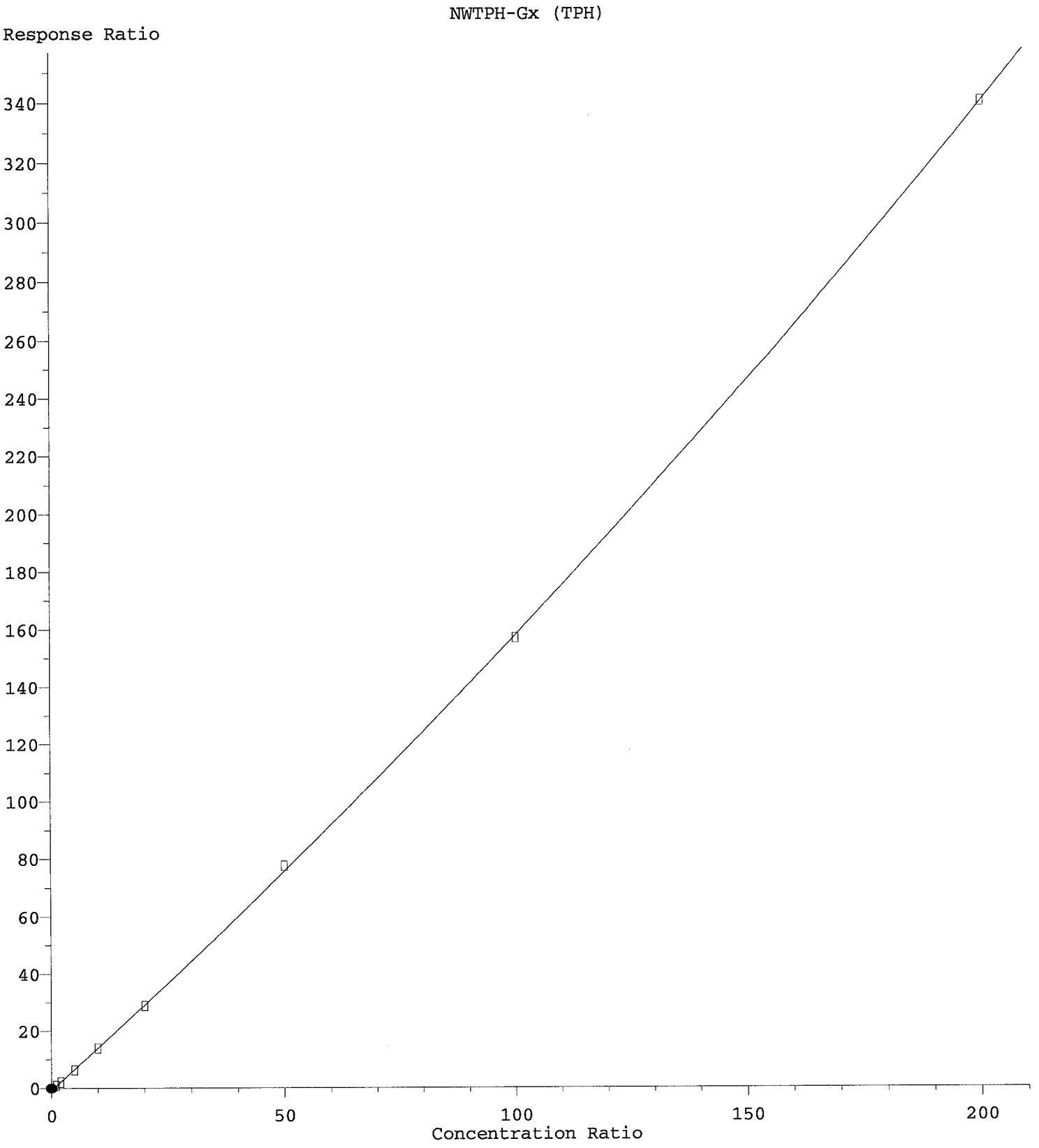
Method Path : C:\msdchem\1\methods\
Method File : VI191025G.M
Title : NWTPH-Gx by GC/MS
Last Update : Fri Oct 25 10:31:05 2019
Response Via : Initial Calibration

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

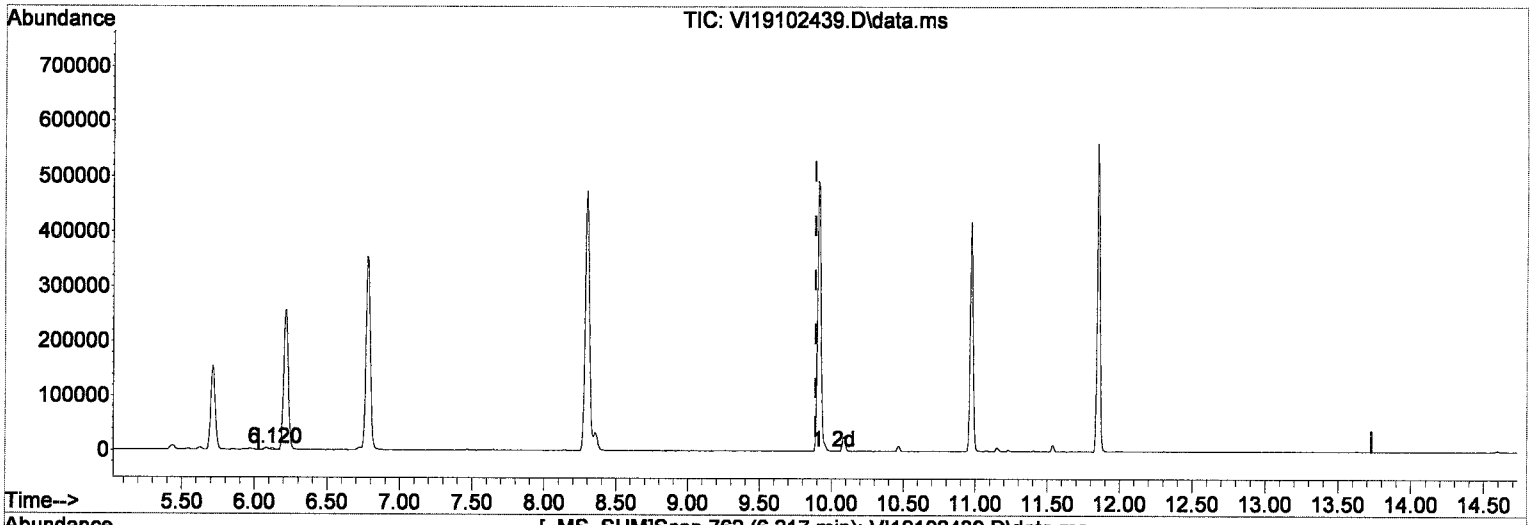


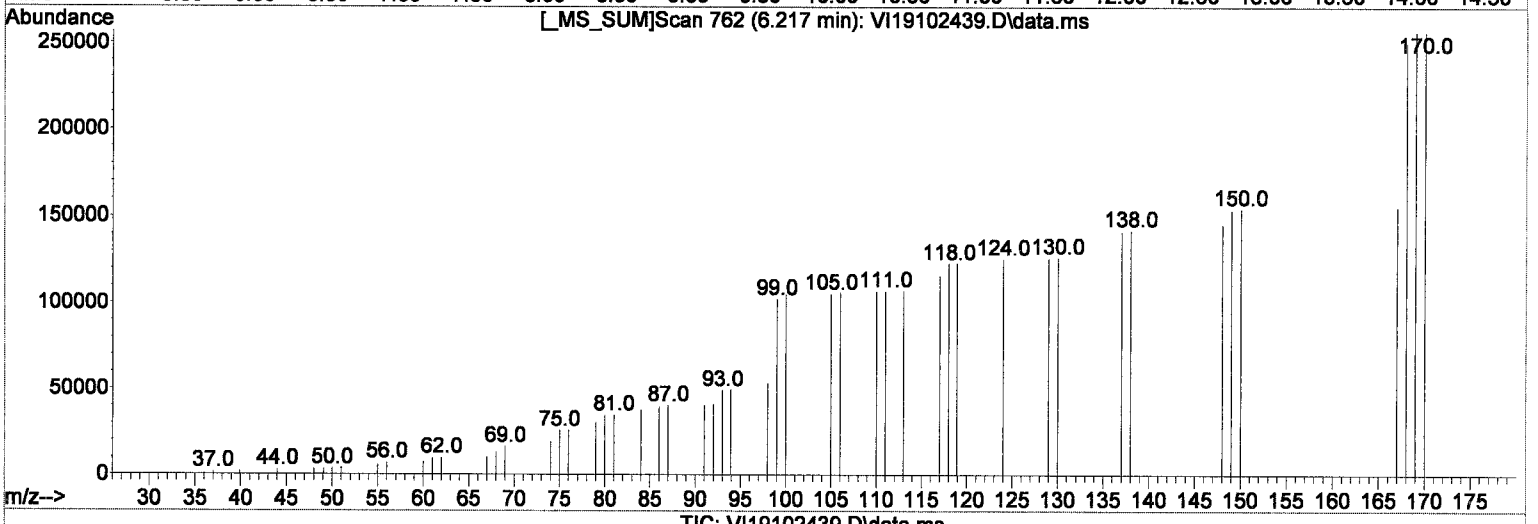
R = 1.17e-003 A*A + 1.47e+000 A - 7.24e-001
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VI191025G.M
Calibration Table Last Updated: Fri Oct 25 10:31:34 2019

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





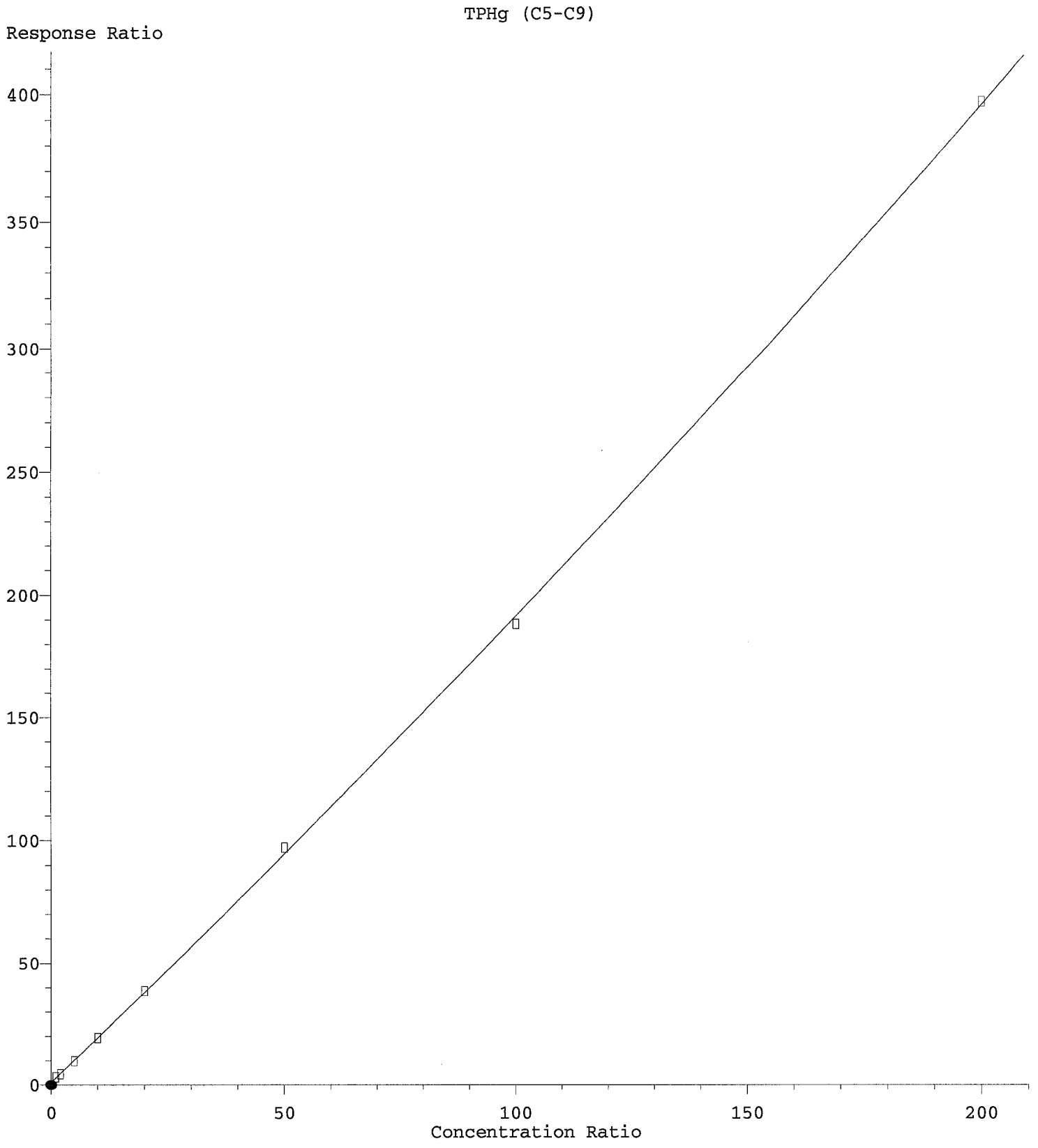
TIC: VI19102439.D\data.ms

(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

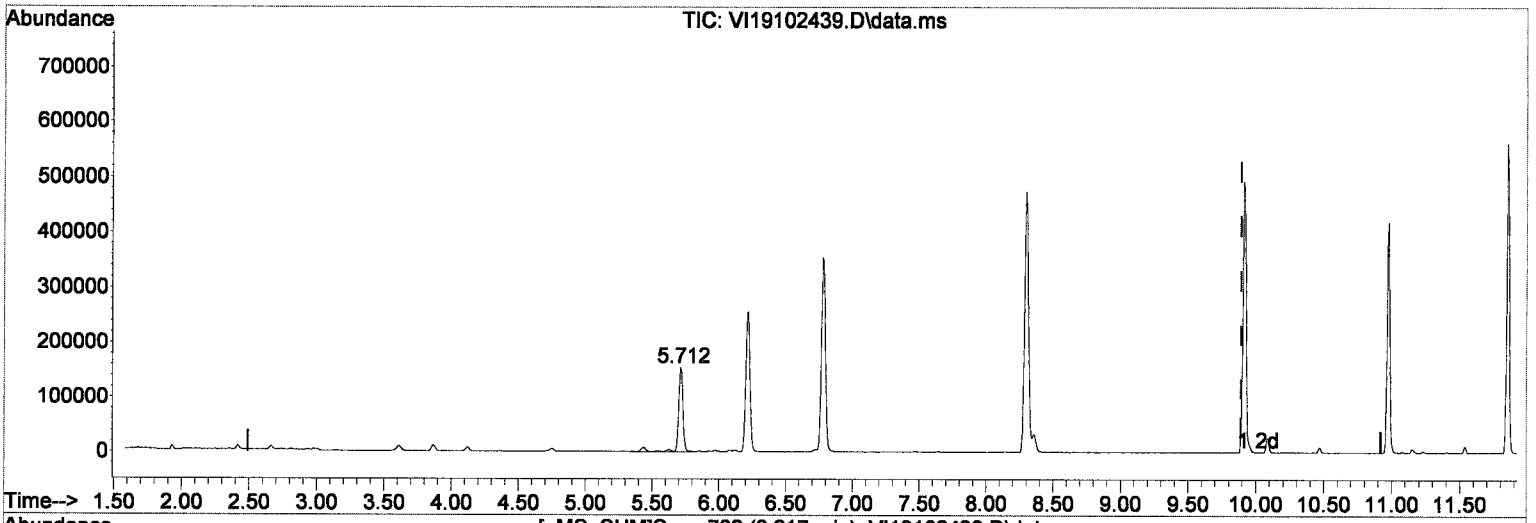


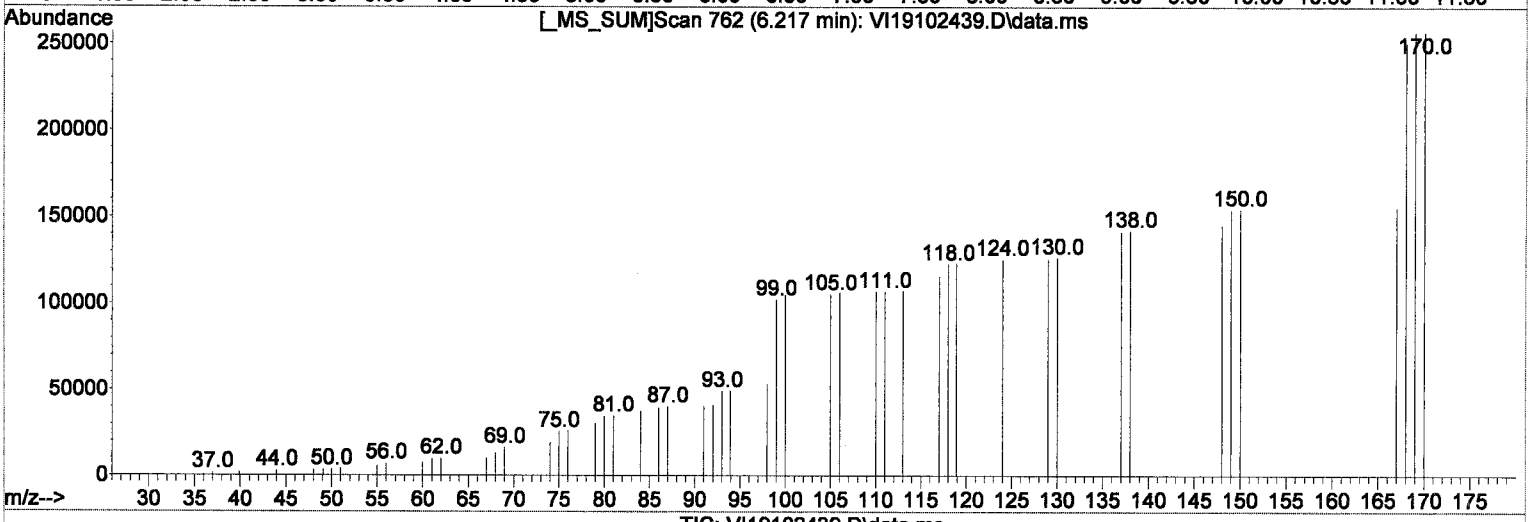
R = 6.91e-004 A*A + 1.84e+000 A + 1.03e+000
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w/(1/a)
Method Name: C:\msdchem\1\methods\VI191025G.M
Calibration Table Last Updated: Fri Oct 25 10:31:34 2019

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





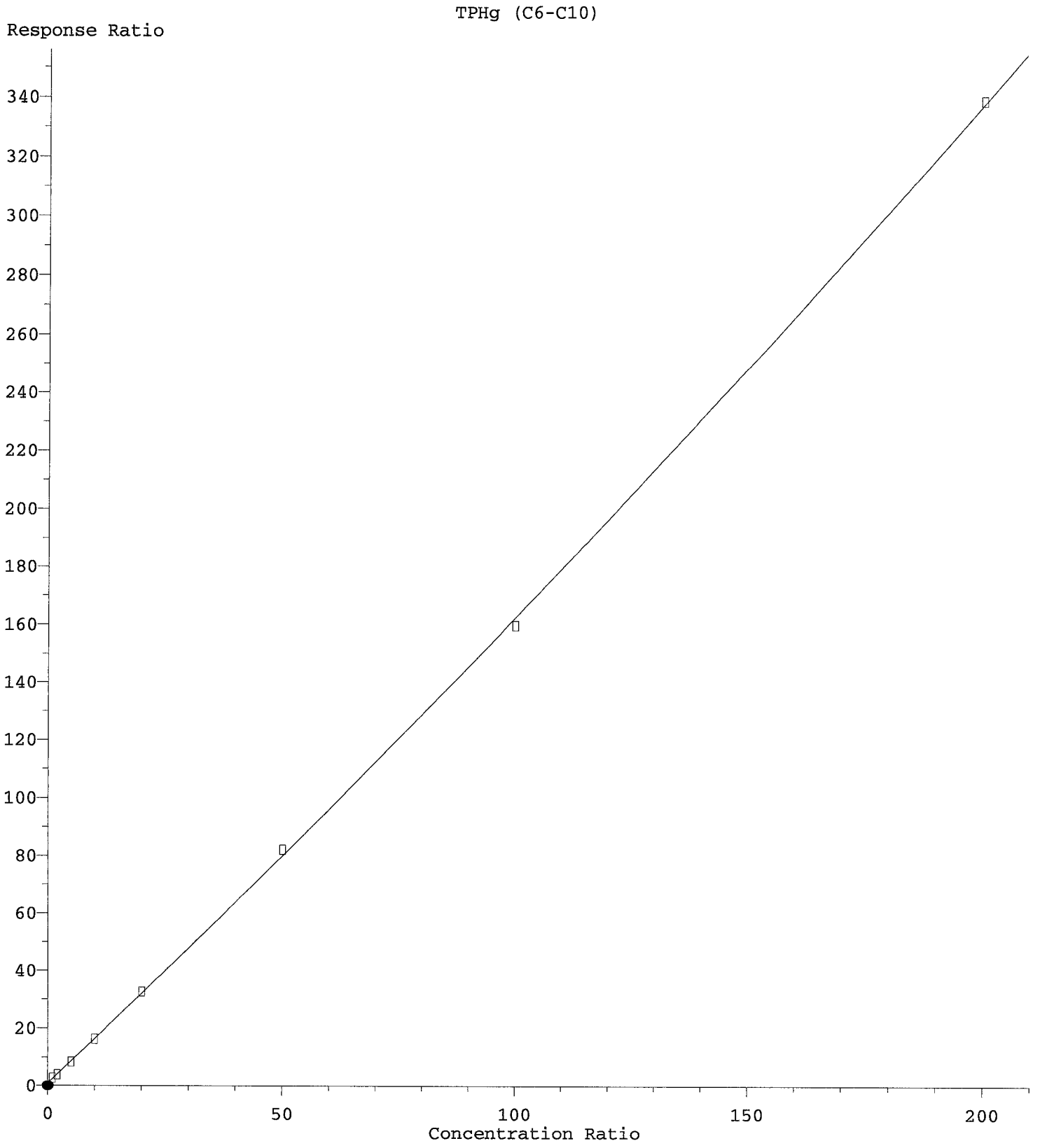
TIC: VI19102439.D\data.ms

(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

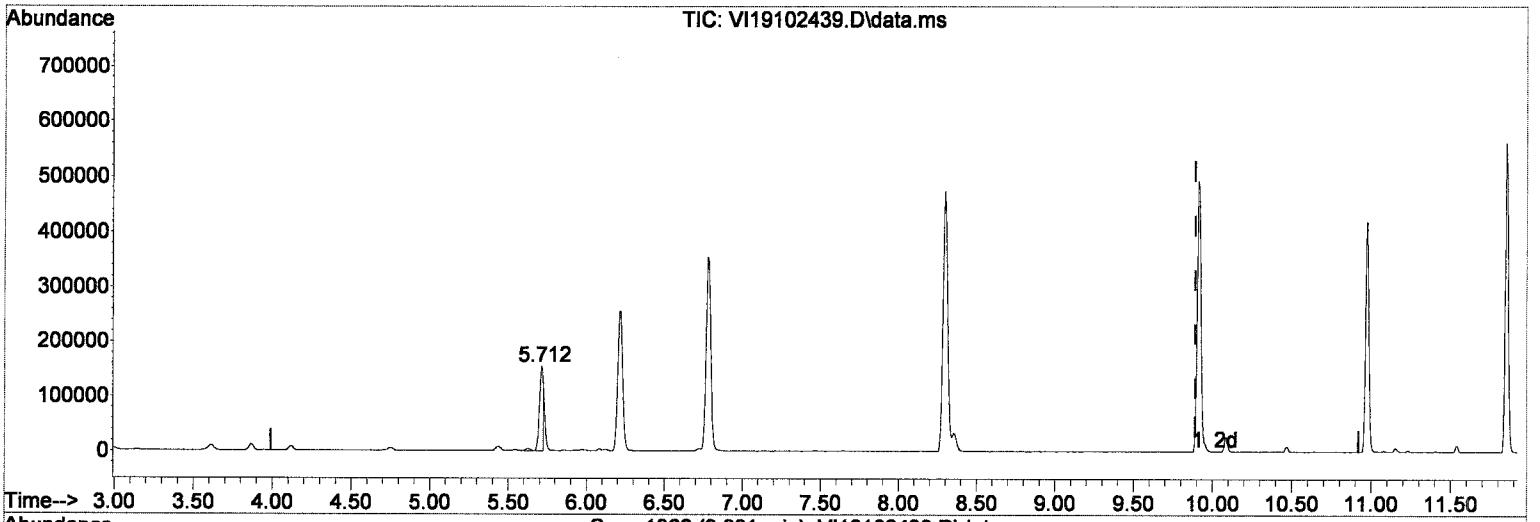


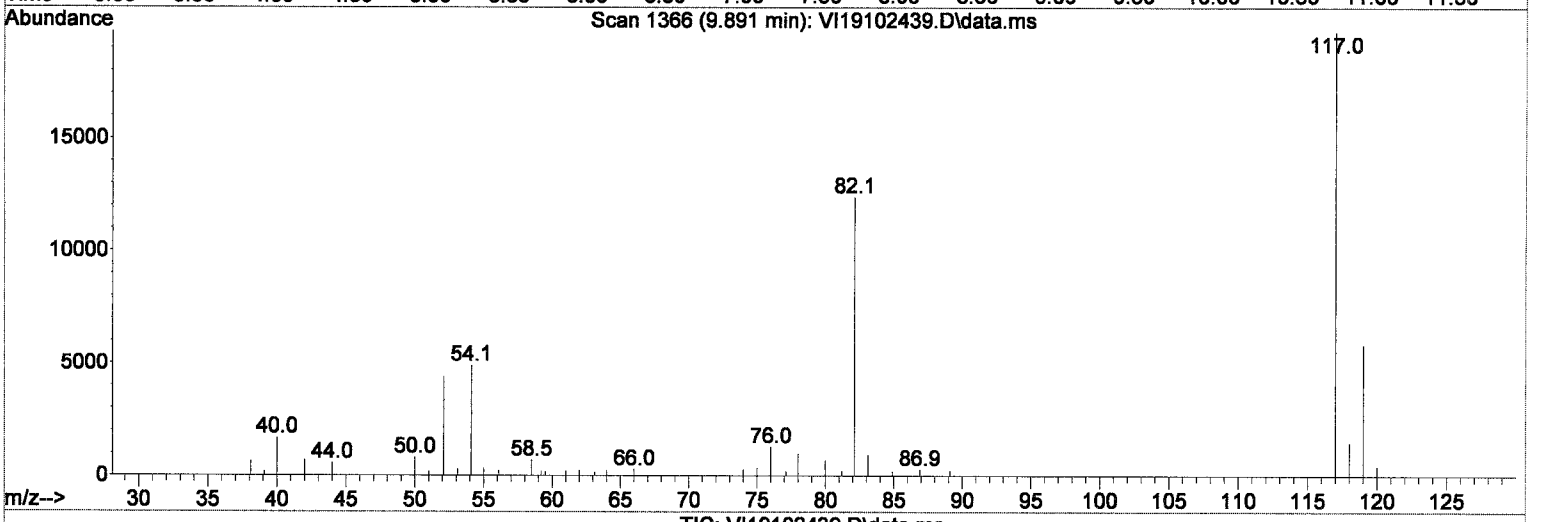
R = 6.87e-004 A*A + 1.55e+000 A + 9.51e-001
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VI191025G.M
Calibration Table Last Updated: Fri Oct 25 10:31:34 2019

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





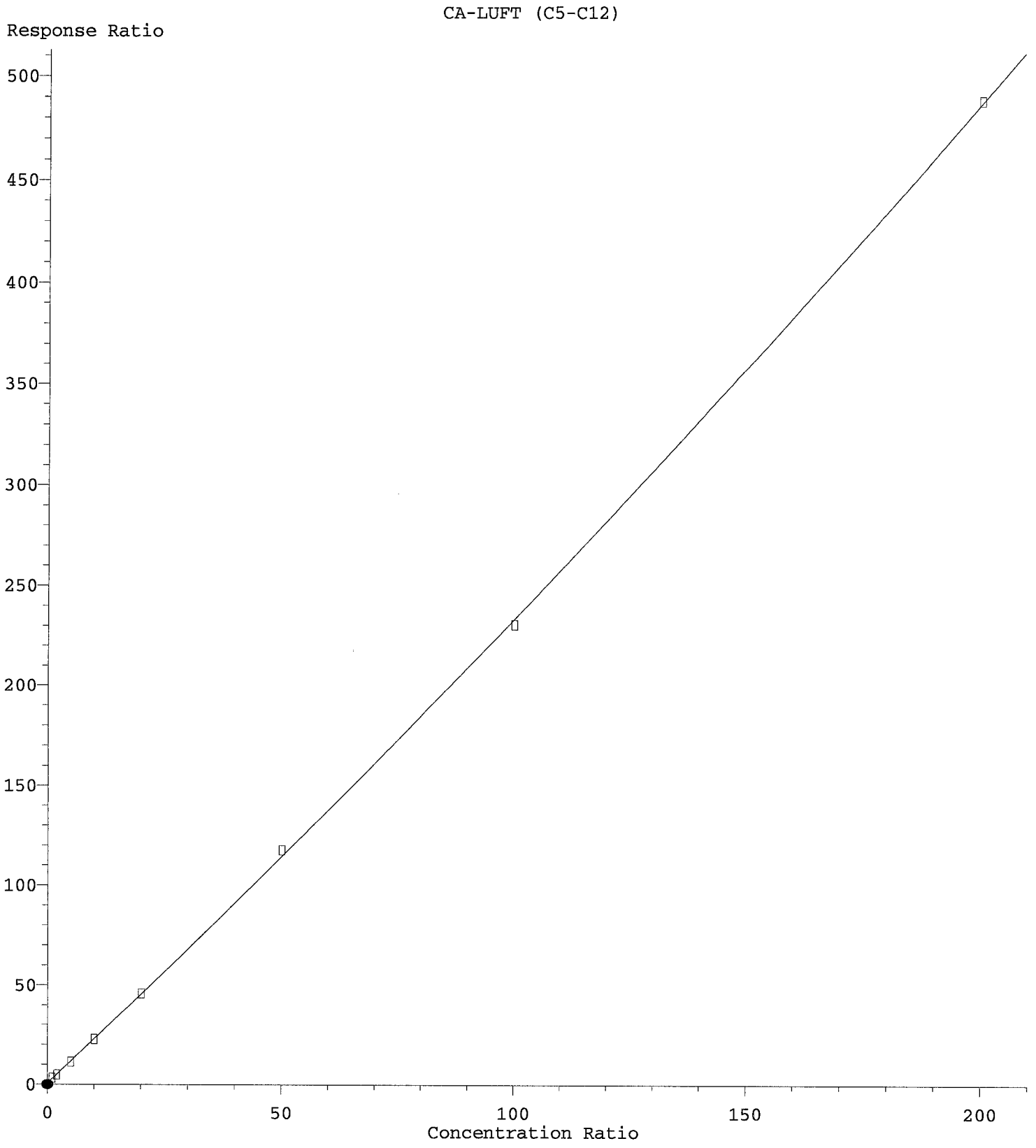
TIC: VI19102439.D\data.ms

(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

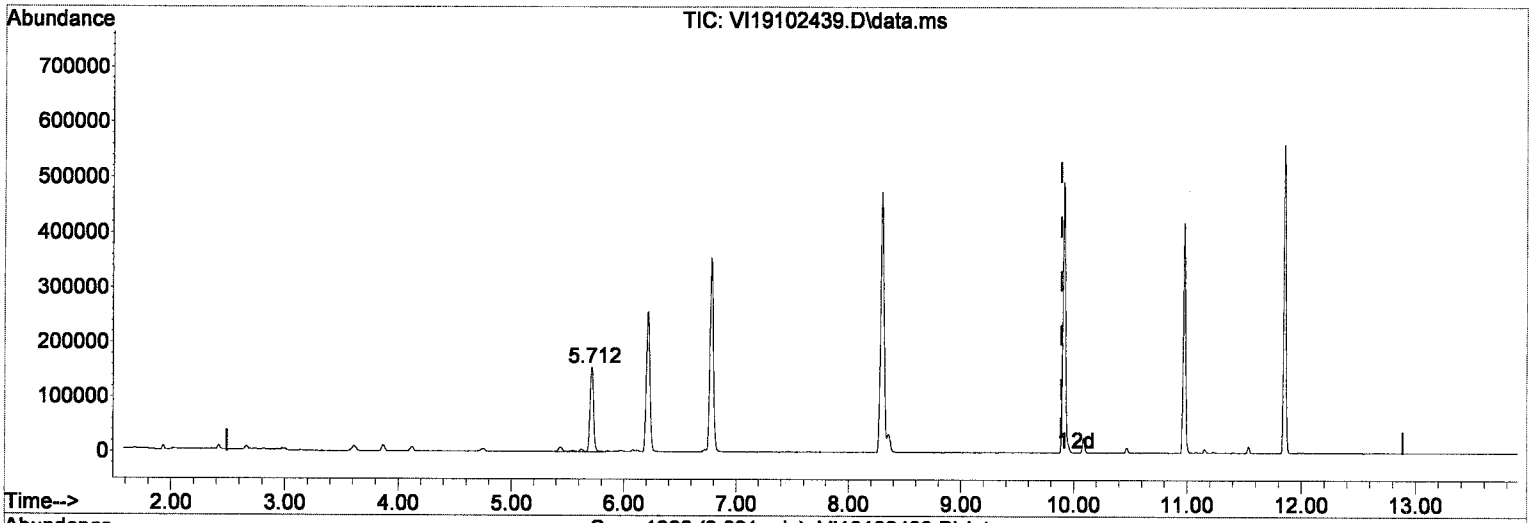


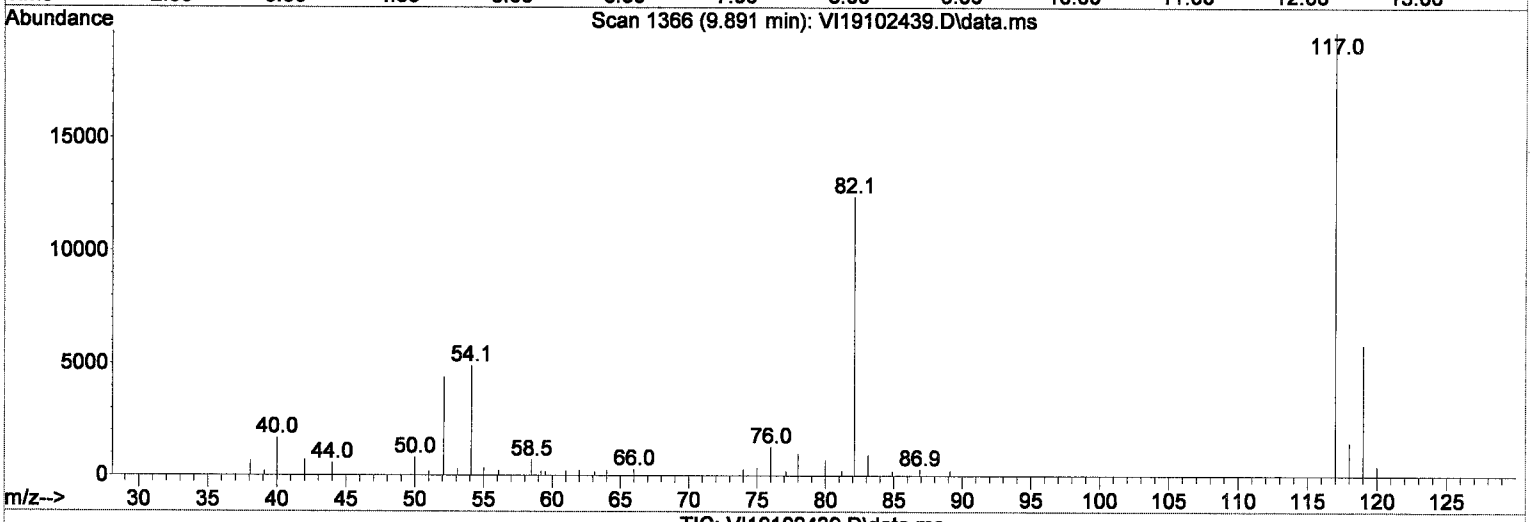
R = 1.05e-003 A*A + 2.22e+000 A + 7.45e-001
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\V1191025G.M
Calibration Table Last Updated: Fri Oct 25 10:31:34 2019

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.

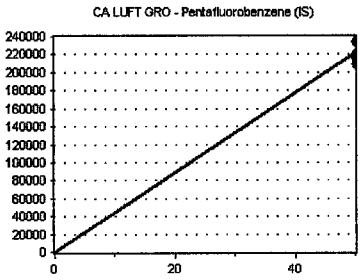
Element Calibration Review Sheet

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**

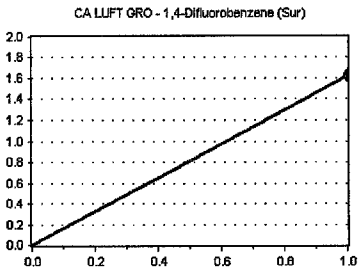


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	209290	4185.800	6.22
9J24043-CALD	50	209478	4189.560	6.22
9J24043-CALE	50	220921	4418.420	6.22
9J24043-CALF	50	214780	4295.600	6.22
9J24043-CALG	50	234293	4685.860	6.22
9J24043-CALH	50	216435	4328.700	6.22
9J24043-CALI	50	233849	4676.980	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**

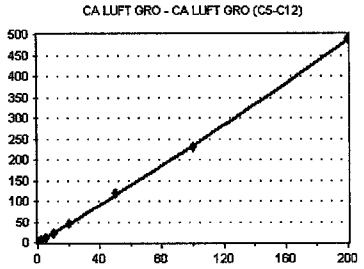


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	341977	1.634	6.78
9J24043-CALD	50	342473	1.635	6.78
9J24043-CALE	50	357958	1.620	6.78
9J24043-CALF	50	347086	1.616	6.78
9J24043-CALG	50	376297	1.606	6.78
9J24043-CALH	50	352248	1.628	6.78
9J24043-CALI	50	379658	1.624	6.78
9J24043-CALJ	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**

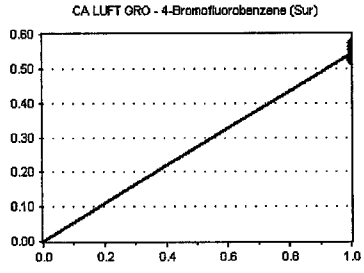


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	681991	3.259	9.89
9J24043-CALD	100	1014687	2.422	9.89
9J24043-CALE	250	2493143	2.257	9.89
9J24043-CALF	500	4877141	2.271	9.89
9J24043-CALG	1000	1.073362E+07	2.291	9.89
9J24043-CALH	2500	2.54612E+07	2.353	9.89
9J24043-CALI	5000	5.393736E+07	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**

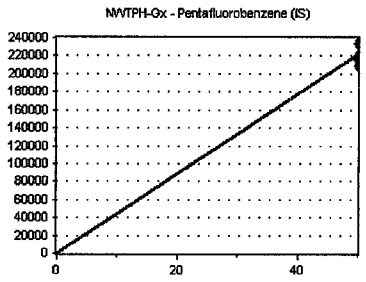
Element Calibration Review Sheet

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**

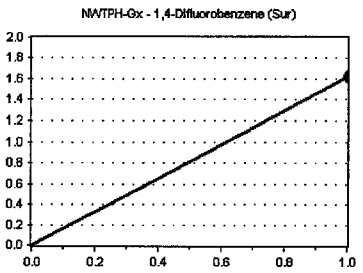


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	209290	4185.800	6.22
9J24043-CALD	50	209478	4189.560	6.22
9J24043-CALE	50	220921	4418.420	6.22
9J24043-CALF	50	214780	4295.600	6.22
9J24043-CALG	50	234293	4685.860	6.22
9J24043-CALH	50	216435	4328.700	6.22
9J24043-CALI	50	233849	4676.980	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**

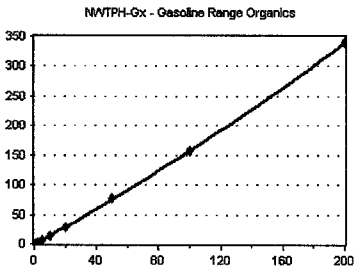


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	341977	1.634	6.78
9J24043-CALD	50	342473	1.635	6.78
9J24043-CALE	50	357958	1.620	6.78
9J24043-CALF	50	347086	1.616	6.78
9J24043-CALG	50	376297	1.606	6.78
9J24043-CALH	50	352248	1.628	6.78
9J24043-CALI	50	379658	1.624	6.78
9J24043-CALJ	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**

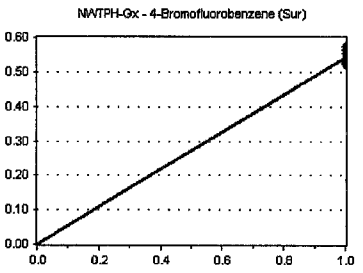


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	193702	0.926	9.89
9J24043-CALD	100	430822	1.028	9.89
9J24043-CALE	250	1374008	1.244	9.89
9J24043-CALF	500	2976997	1.386	9.89
9J24043-CALG	1000	6735895	1.437	9.89
9J24043-CALH	2500	1.67752E+07	1.550	9.89
9J24043-CALI	5000	3.669824E+07	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**

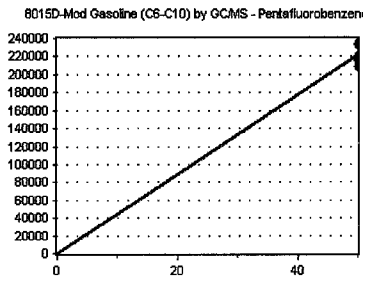
Element Calibration Review Sheet

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**

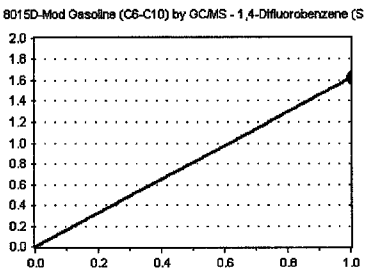


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	209290	4185.800	6.22
9J24043-CALD	50	209478	4189.560	6.22
9J24043-CALE	50	220921	4418.420	6.22
9J24043-CALF	50	214780	4295.600	6.22
9J24043-CALG	50	234293	4685.860	6.22
9J24043-CALH	50	216435	4328.700	6.22
9J24043-CALI	50	233849	4676.980	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**

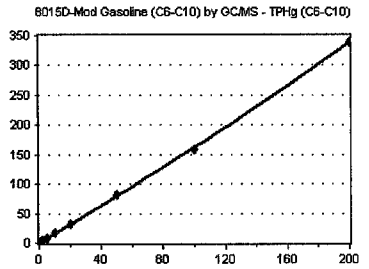


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	341977	1.634	6.78
9J24043-CALD	50	342473	1.635	6.78
9J24043-CALE	50	357958	1.620	6.78
9J24043-CALF	50	347086	1.616	6.78
9J24043-CALG	50	376297	1.606	6.78
9J24043-CALH	50	352248	1.628	6.78
9J24043-CALI	50	379658	1.624	6.78
9J24043-CALJ	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**

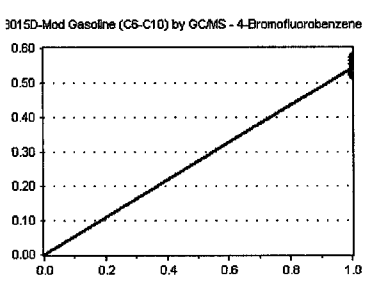


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	557886	2.666	9.89
9J24043-CALD	100	799328	1.908	9.89
9J24043-CALE	250	1839524	1.665	9.89
9J24043-CALF	500	3507779	1.633	9.89
9J24043-CALG	1000	7648071	1.632	9.89
9J24043-CALH	2500	1.778026E+07	1.643	9.89
9J24043-CALI	5000	3.735262E+07	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

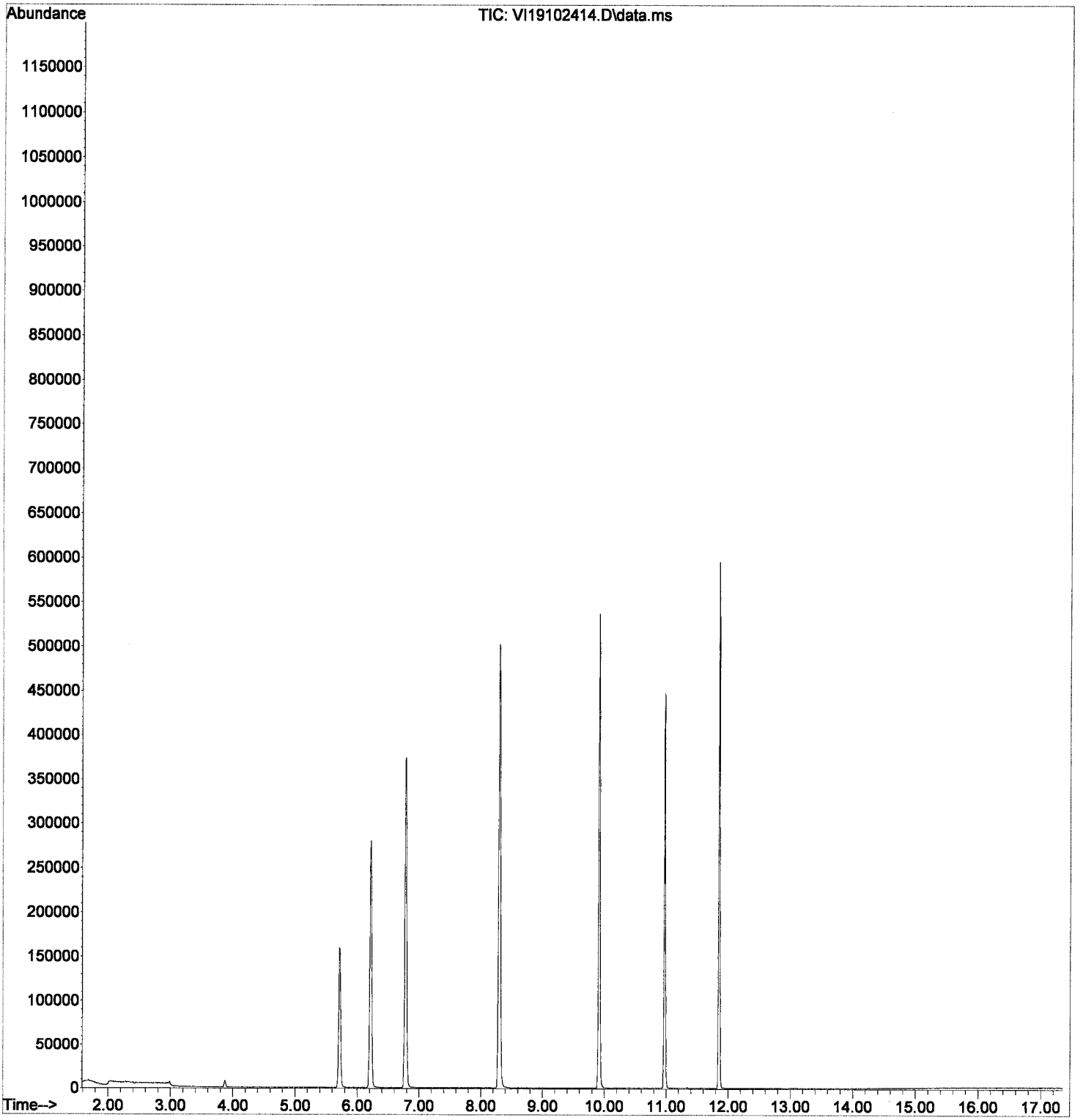
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	116268	50.00	ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.909	117	306026	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	138672	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (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

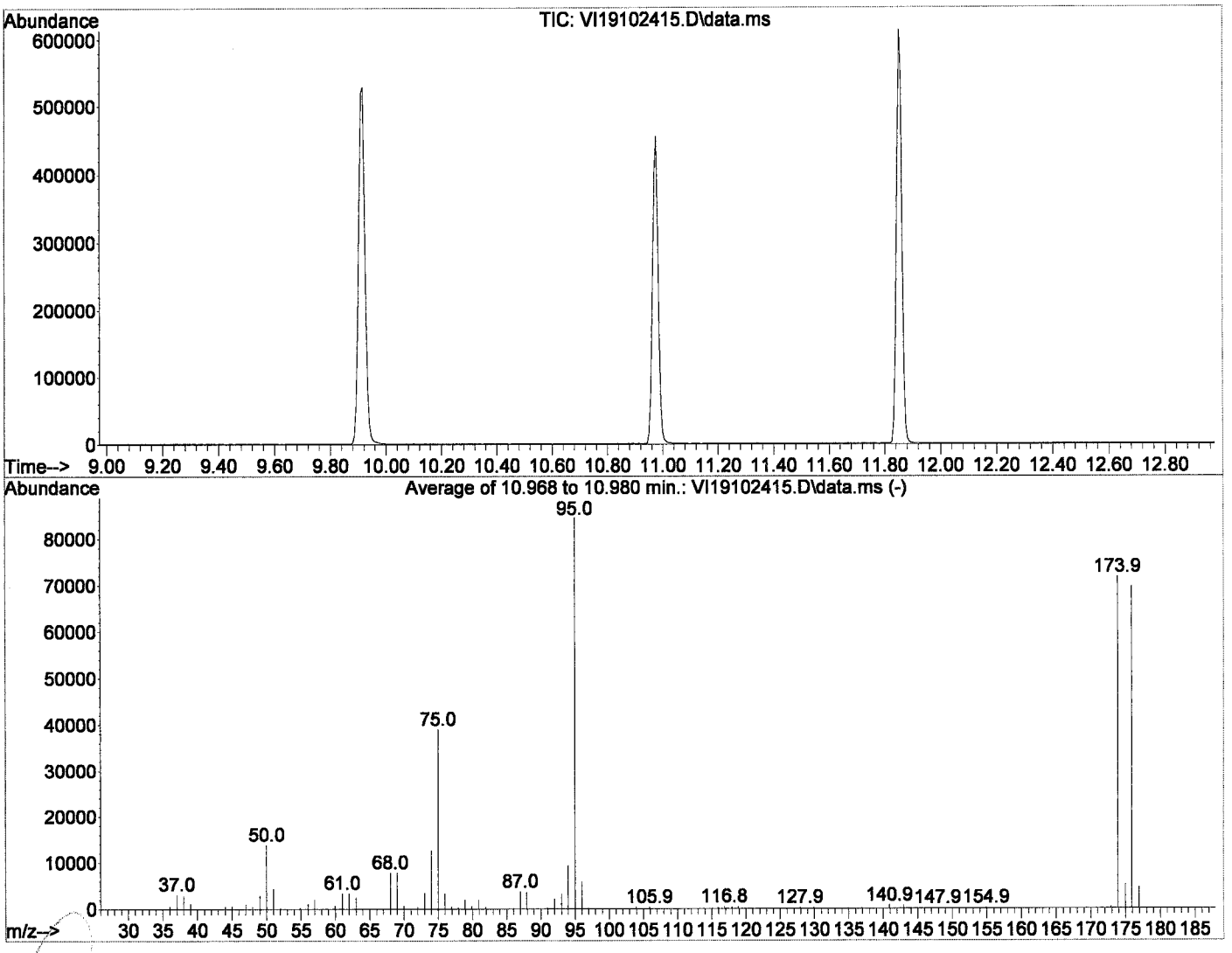


BFB

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

M 10/25/19

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

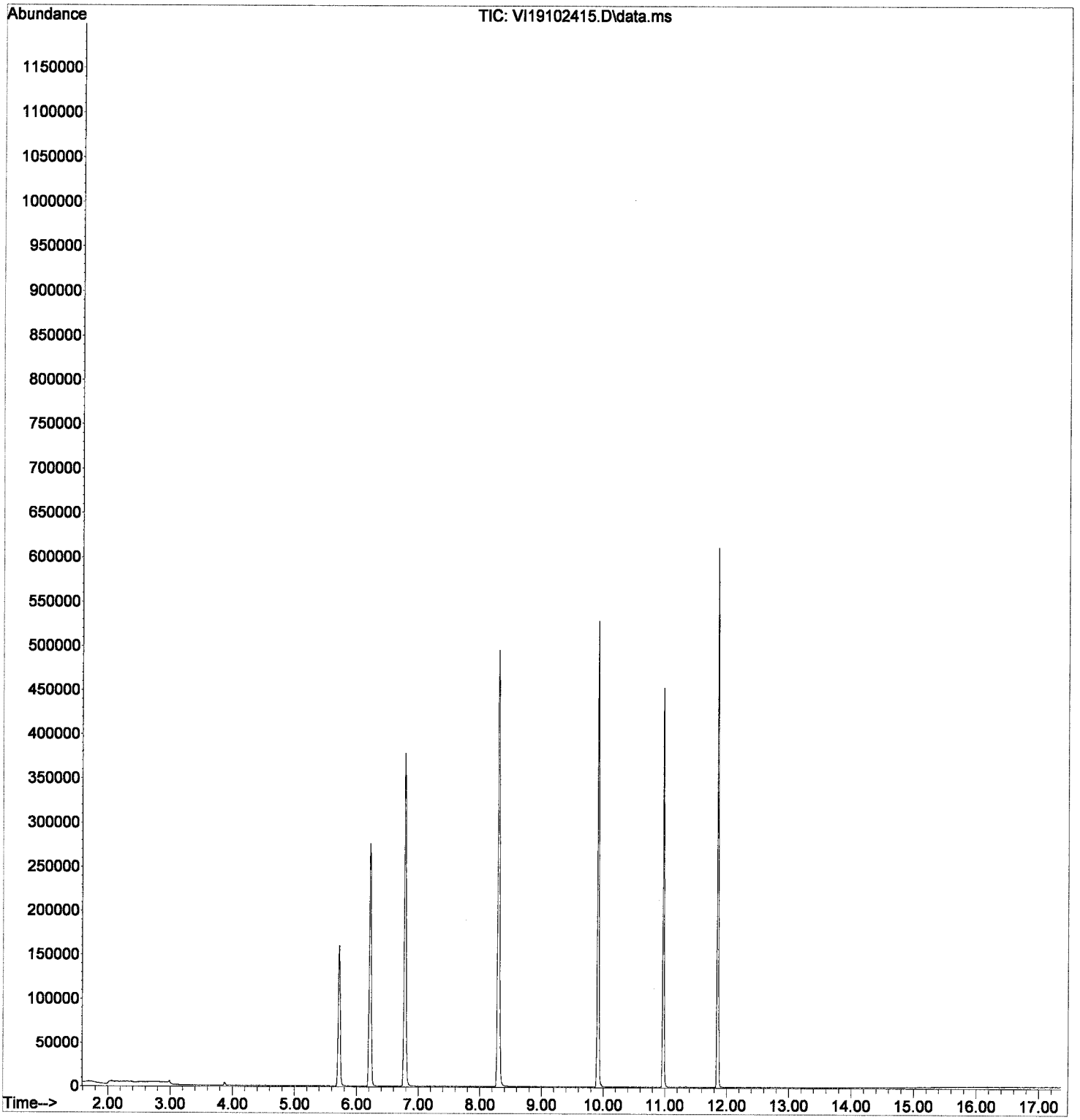
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	115135	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.916	117	306446	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	141323	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (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

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

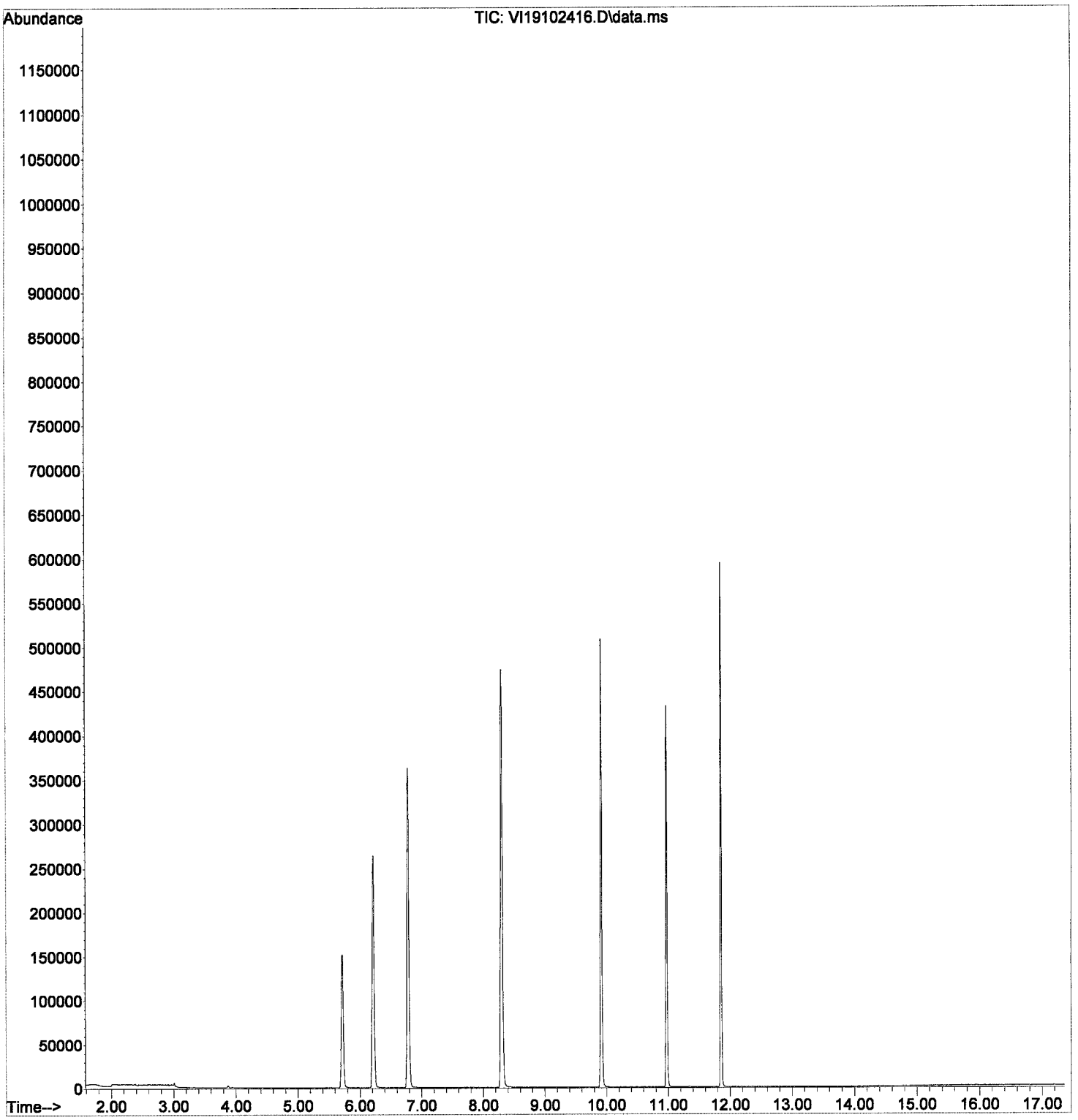
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	6.217	99	109157	50.00 ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.916	117	292802	50.00 ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	134268	50.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane (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

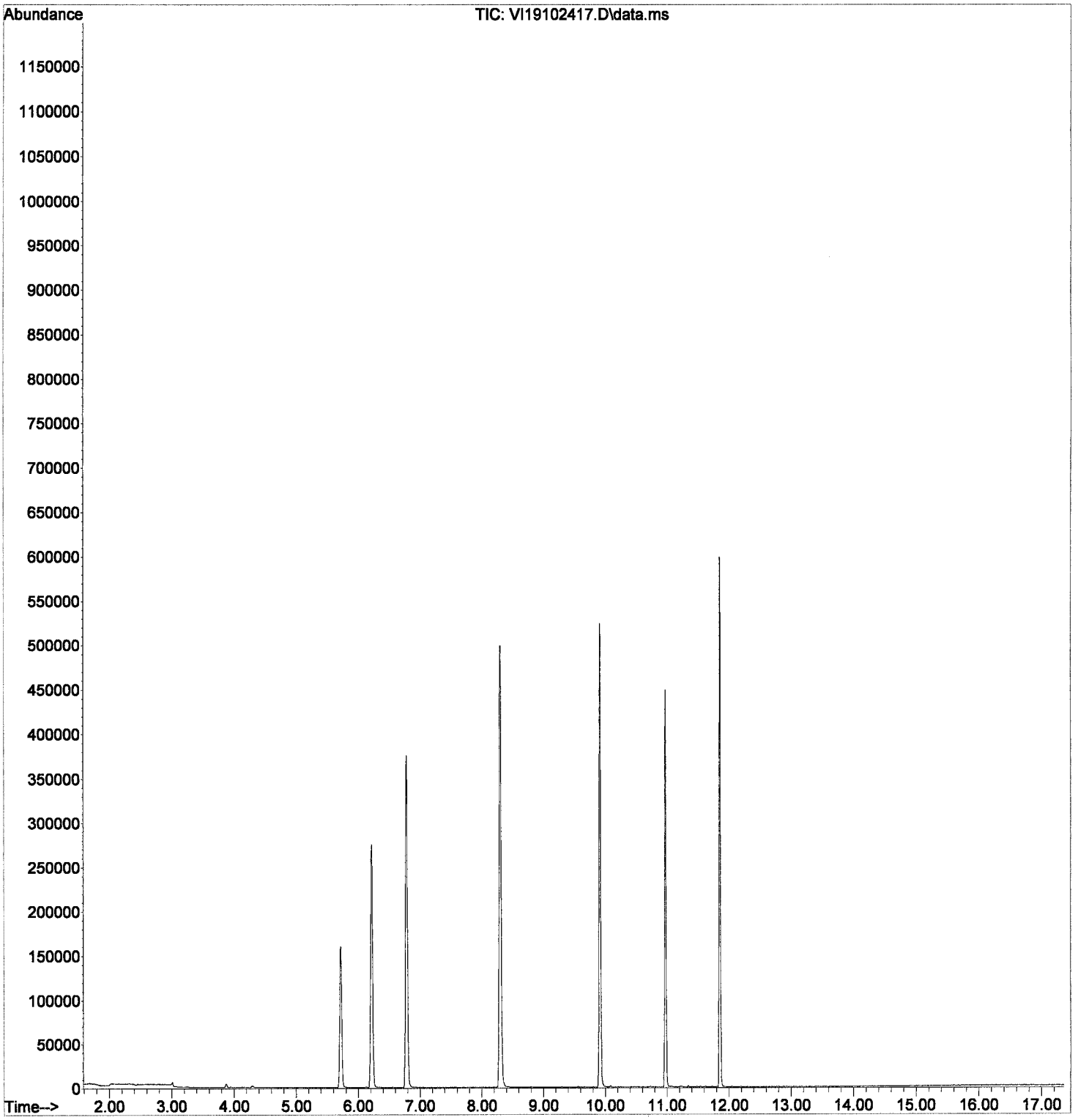
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	978	0.11	ug/L		85
50) Tetrachloroethene (PCE)	0.000		0	N.D.			
51) 4-Methyl-2-Pentanone (...	8.808	43	433	0.16	ug/L	#	43
52) t-1,3-Dichloropropene	0.000		0	N.D.			
53) 1,1,2-Trichloroethane	0.000		0	N.D.			
54) Dibromochloromethane	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

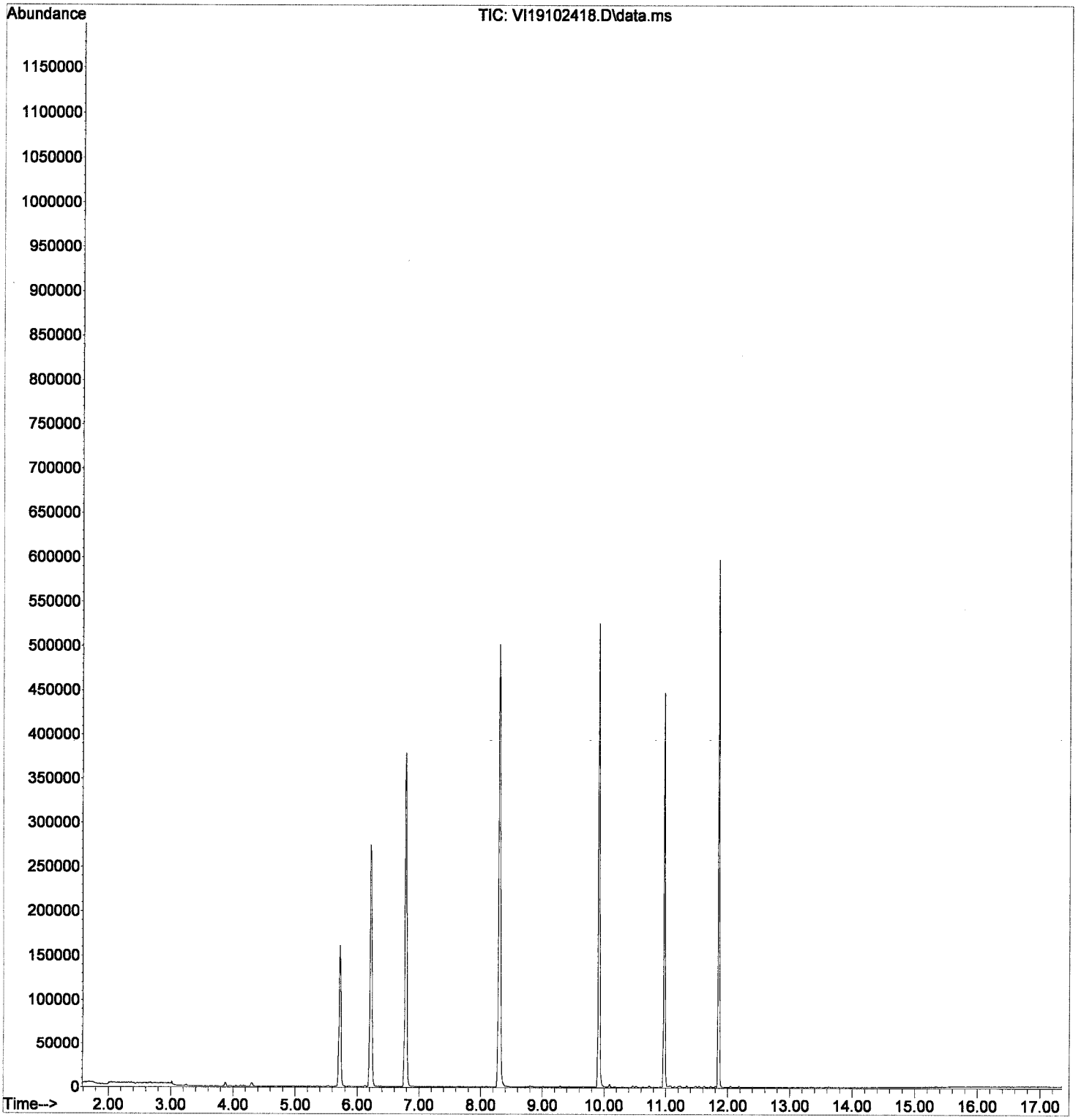
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.352	91	1744	0.21	ug/L		93
50) Tetrachloroethene (PCE)	8.808	166	267	0.14	ug/L	#	25
51) 4-Methyl-2-Pentanone (...	8.796	43	890	0.33	ug/L		85
52) t-1,3-Dichloropropene	8.839	75	300	0.11	ug/L	#	45
53) 1,1,2-Trichloroethane	9.009	97	288	0.14	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

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

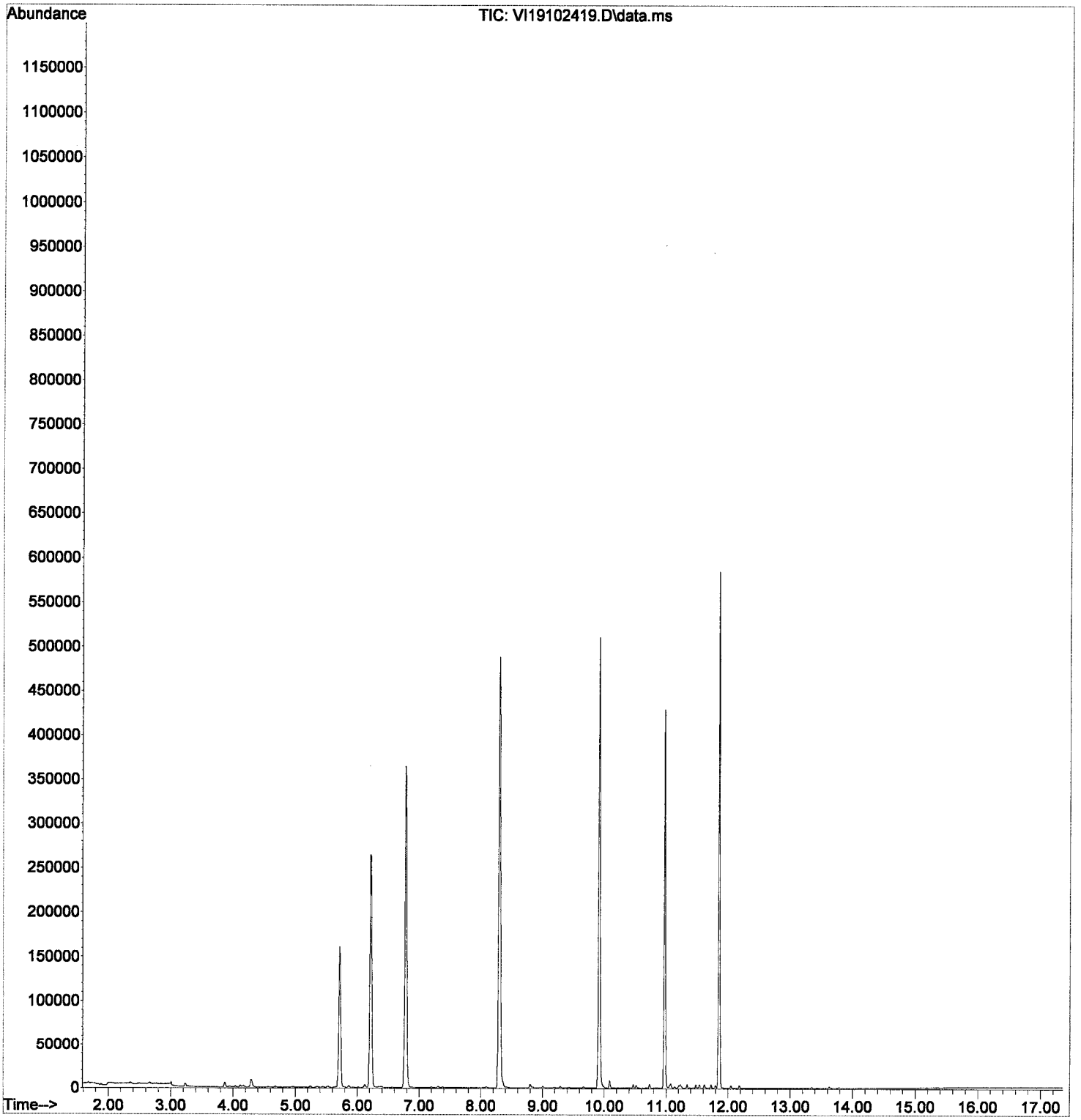
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	3505	0.43	ug/L		93
50) Tetrachloroethene (PCE)	8.796	166	787	0.42	ug/L		94
51) 4-Methyl-2-Pentanone (...	8.808	43	1912	0.73	ug/L		91
52) t-1,3-Dichloropropene	8.839	75	610	0.22	ug/L	#	45
53) 1,1,2-Trichloroethane	9.003	97	717	0.36	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

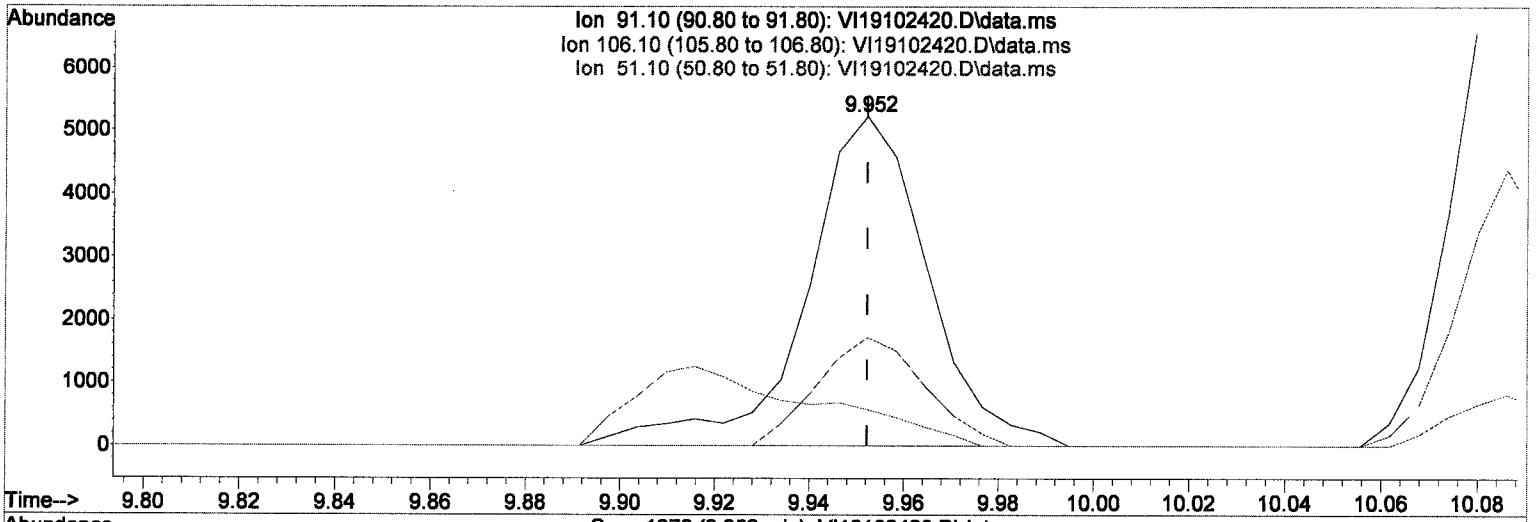
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.352	91	9040	1.04	ug/L		99
50) Tetrachloroethene (PCE)	8.796	166	1994	1.00	ug/L		91
51) 4-Methyl-2-Pentanone (...	8.802	43	5042	1.83	ug/L		93
52) t-1,3-Dichloropropene	8.839	75	2122	0.72	ug/L		95
53) 1,1,2-Trichloroethane	9.003	97	1944	0.93	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

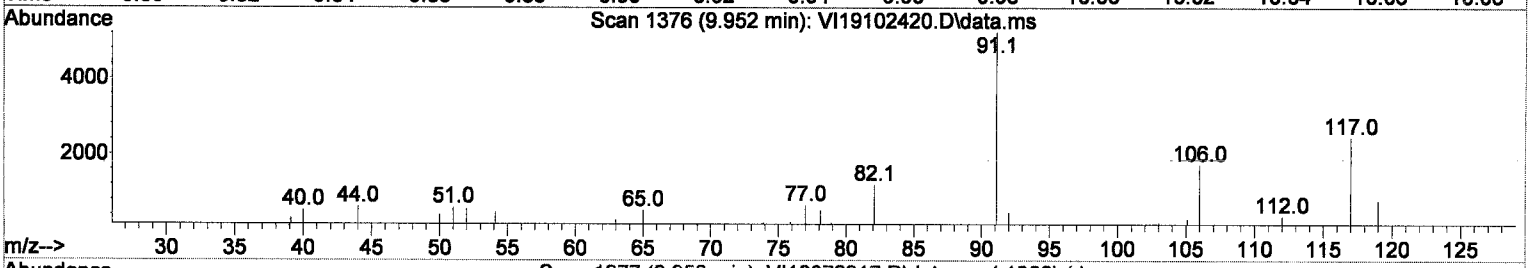
(#) = qualifier out of range (m) = manual integration (+) = signals summed

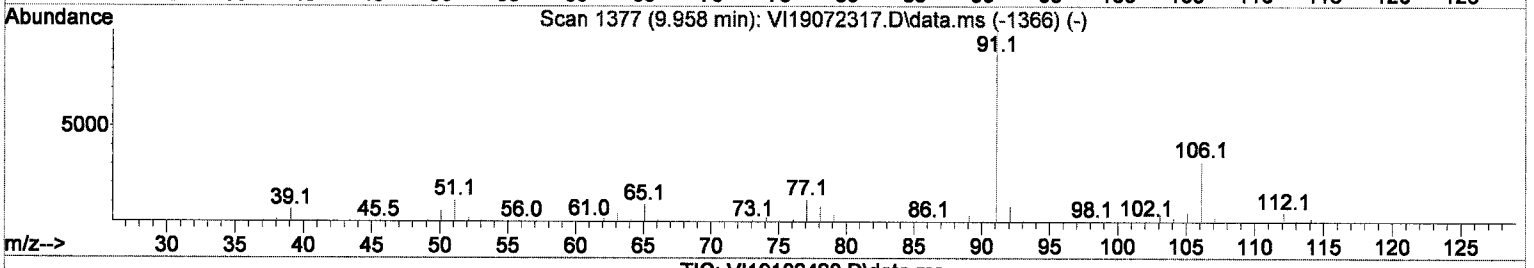
Quantitation Report (Qedit)

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

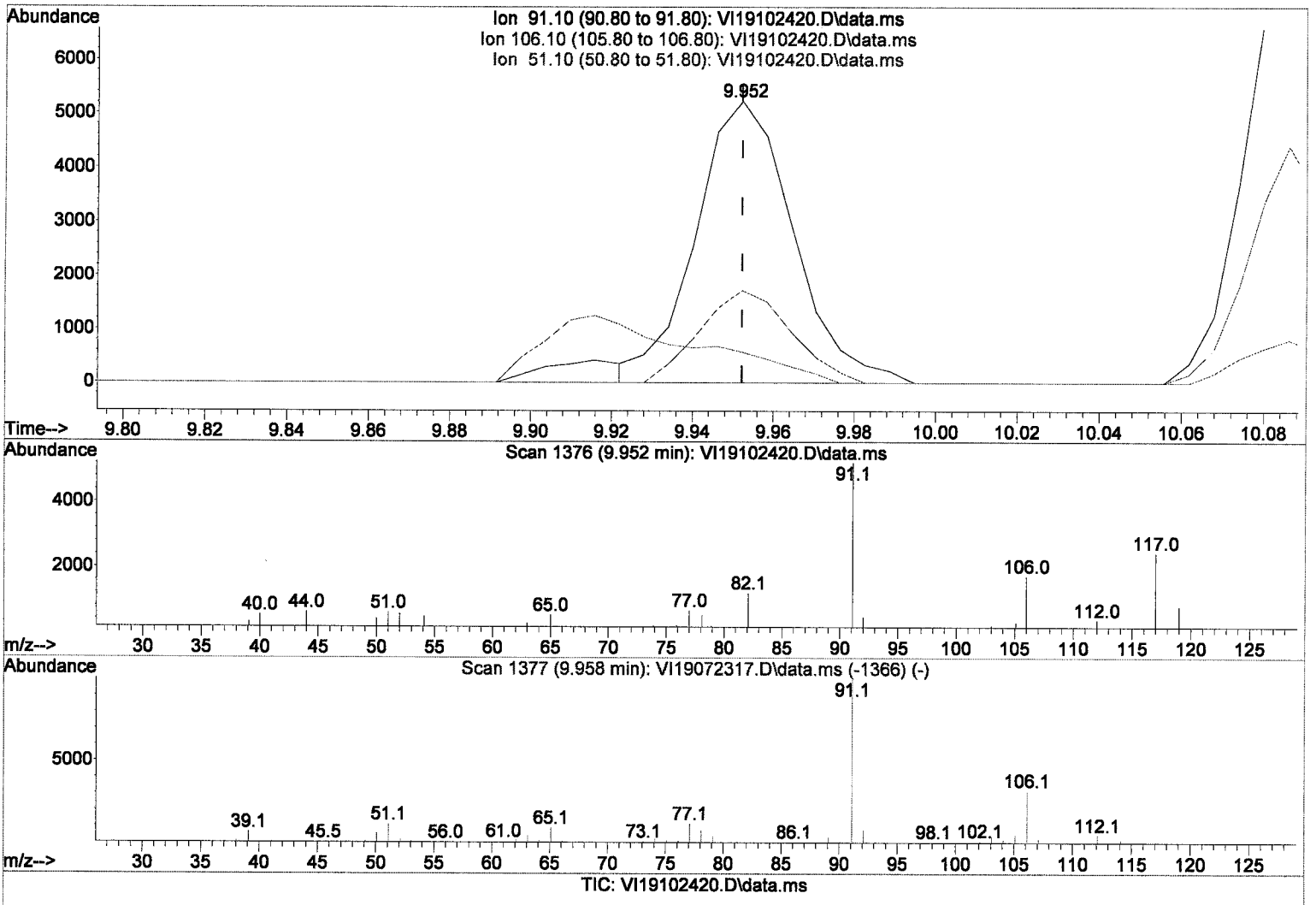
Ion	Exp%	Act%
91.10	100.00	100.00
106.10	30.80	32.98
51.10	10.40	11.11
0.00	0.00	0.00

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

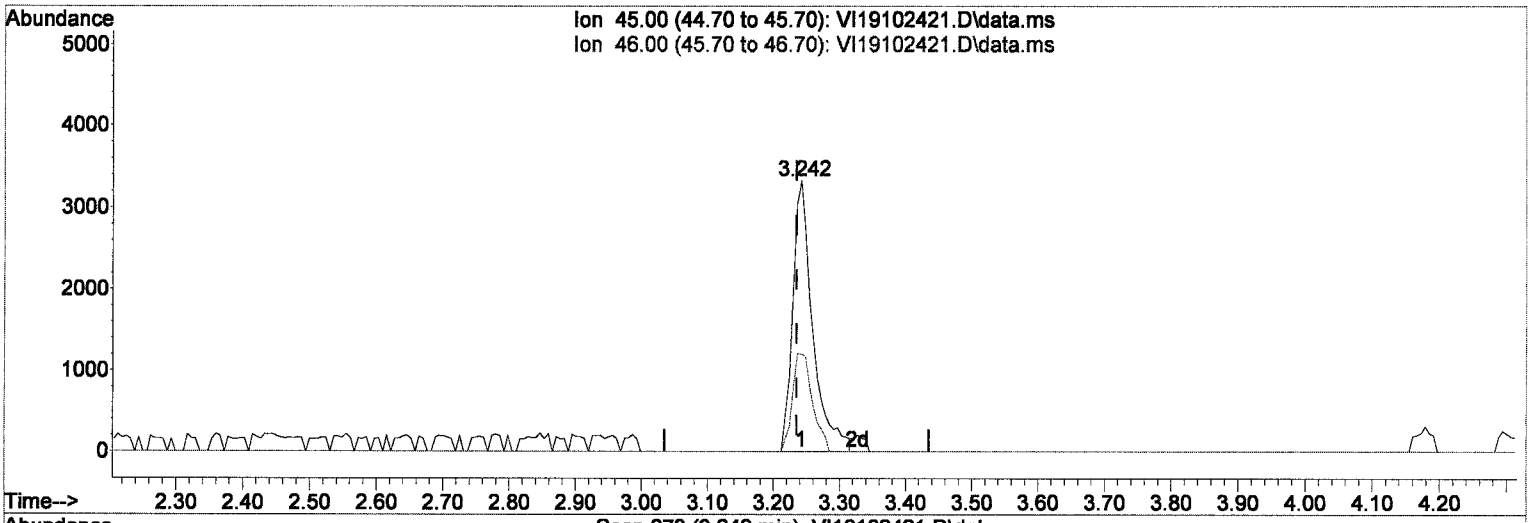
response 8761

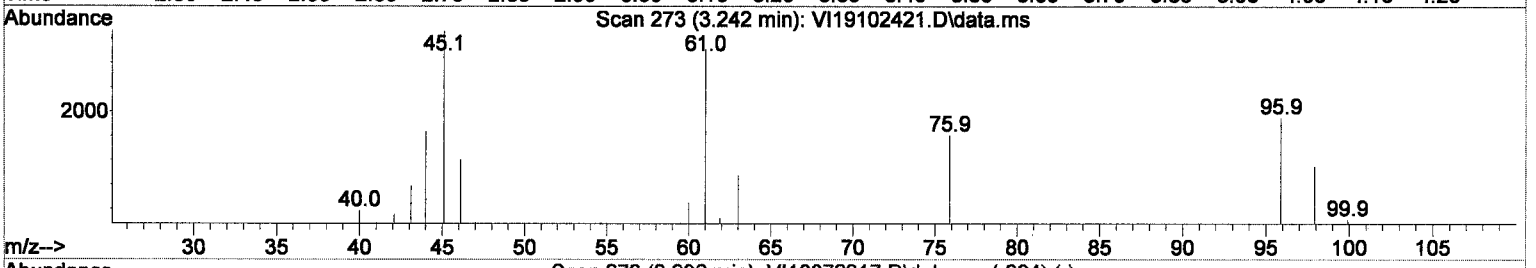
Ion	Exp%	Act%
91.10	100.00	100.00
106.10	30.80	32.98
51.10	10.40	11.11
0.00	0.00	0.00

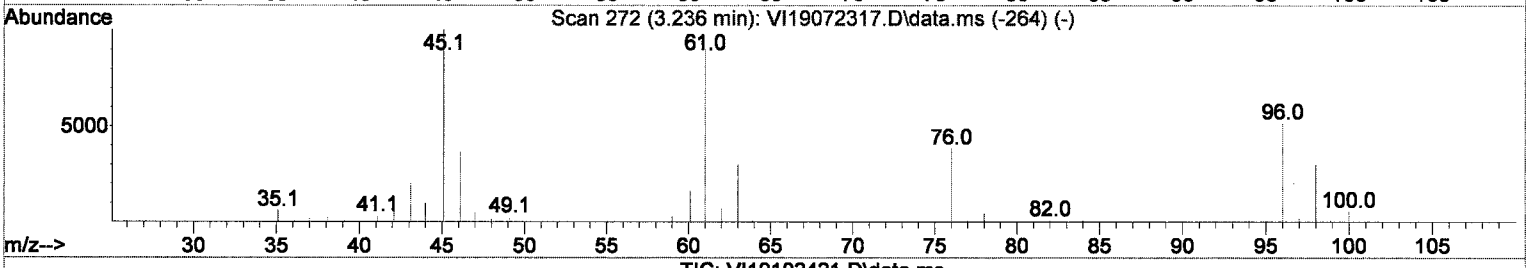
Quantitation Report (Qedit)

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

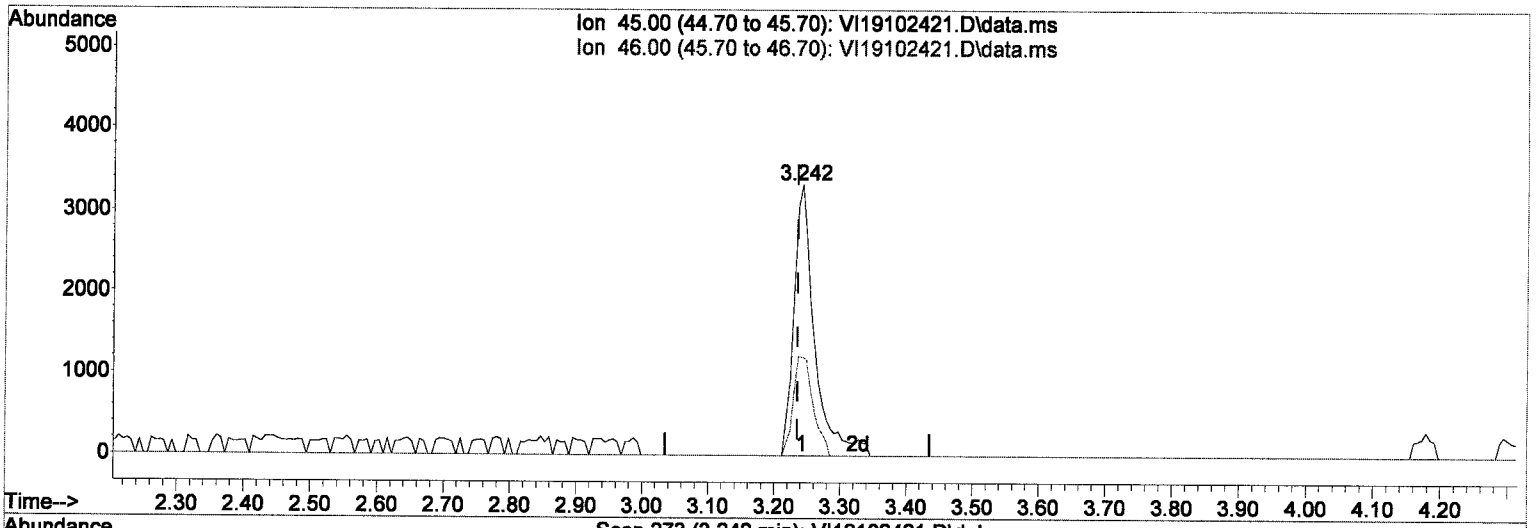
M.2.

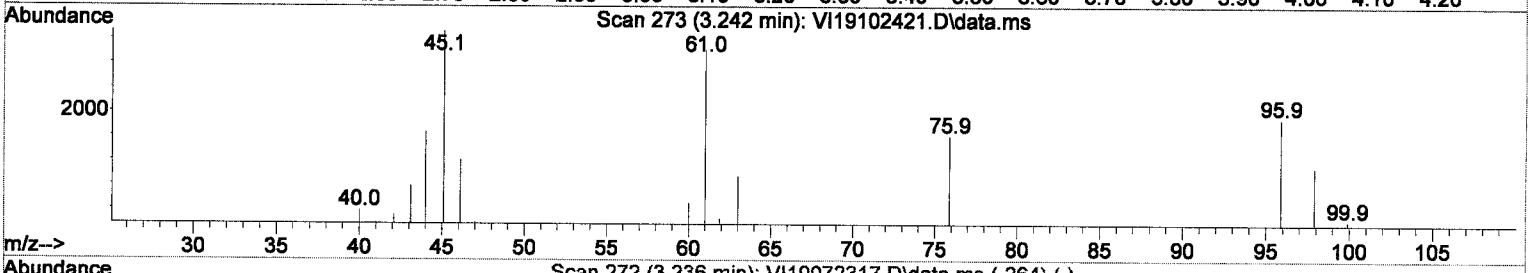
Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	36.12
0.00	0.00	0.00
0.00	0.00	0.00

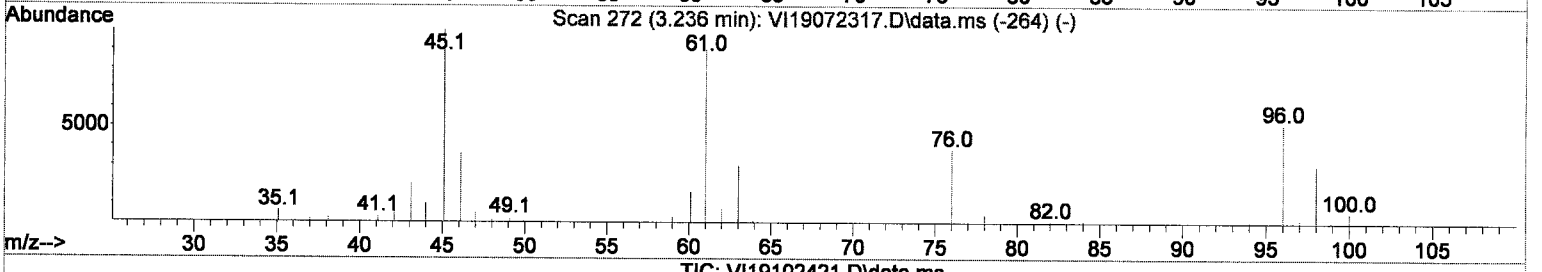
Quantitation Report (Qedit)

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

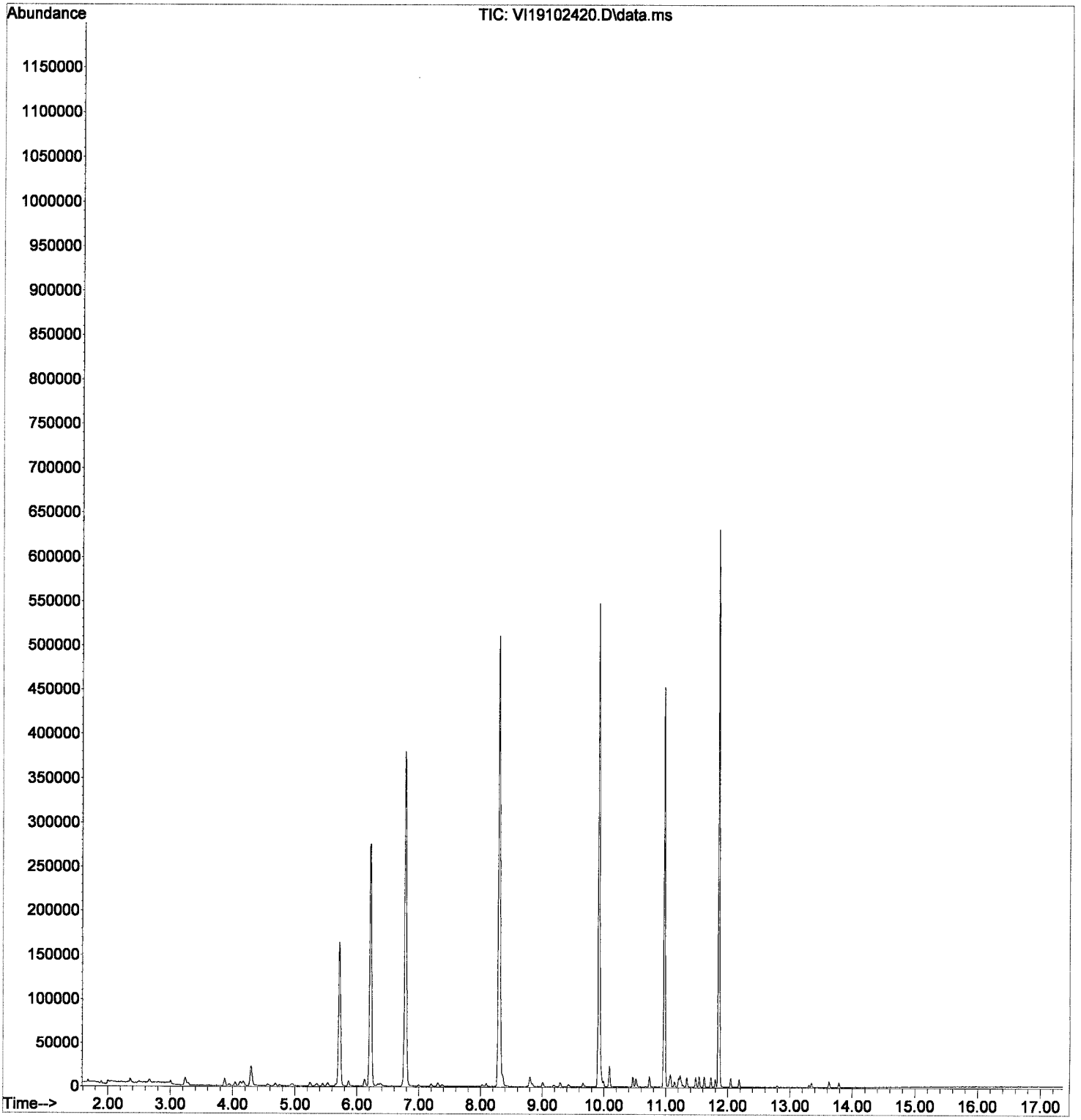
response 7229

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

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 Qdel
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

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

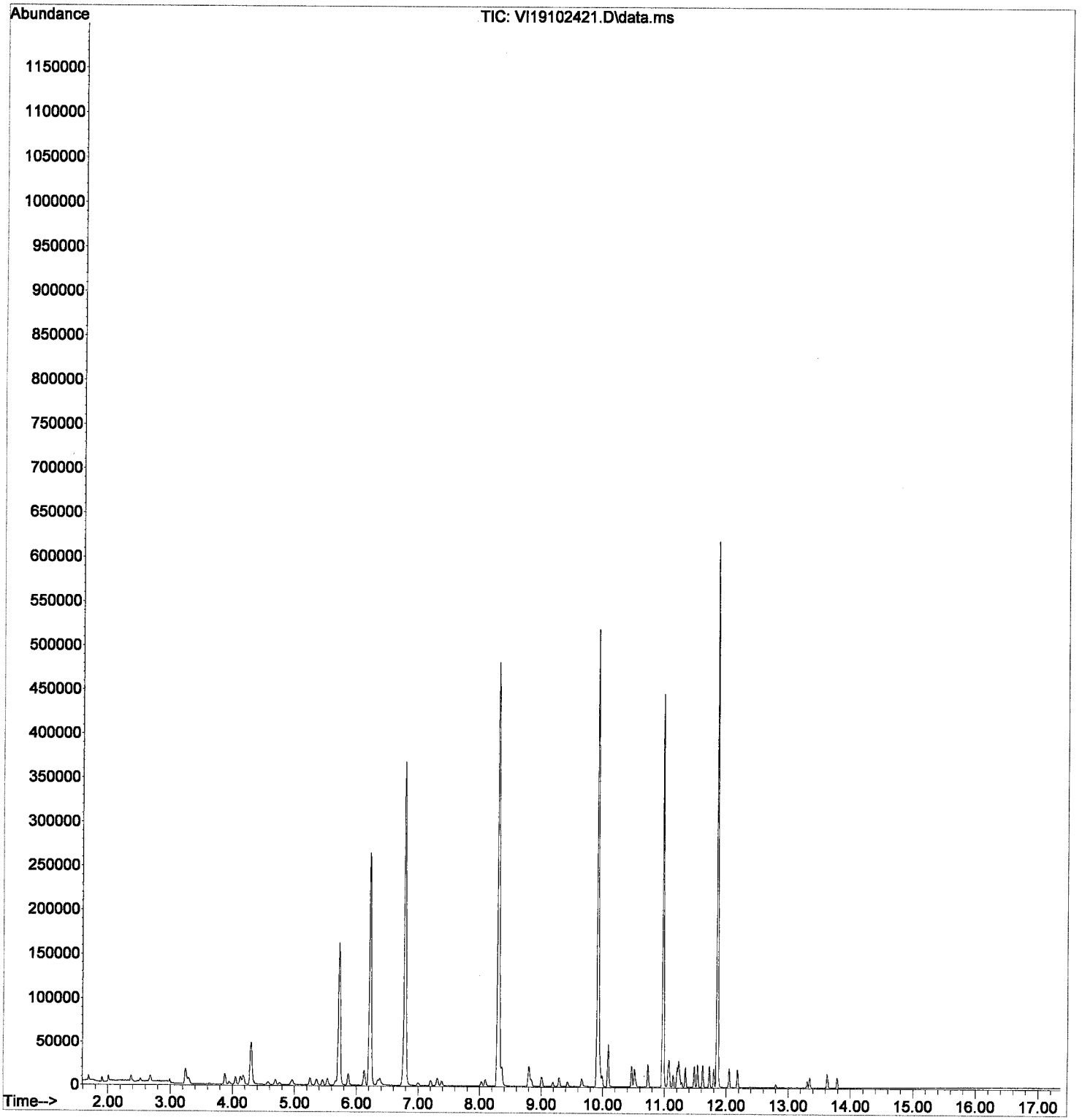
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	17851	2.14	ug/L		99
50) Tetrachloroethene (PCE)	8.796	166	4333	2.28	ug/L		92
51) 4-Methyl-2-Pentanone (...	8.809	43	11029	4.18	ug/L		98
52) t-1,3-Dichloropropene	8.839	75	4500	1.60	ug/L		95
53) 1,1,2-Trichloroethane	9.003	97	4134	2.06	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

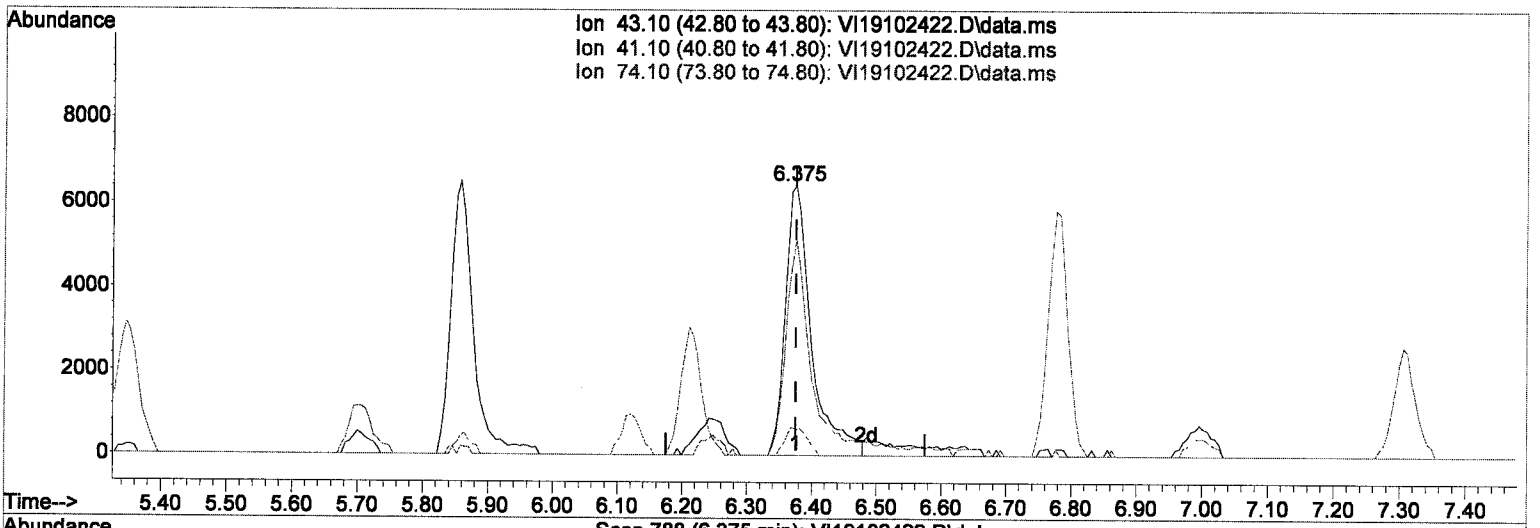
Quant Time: Oct 25 08:10:29 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

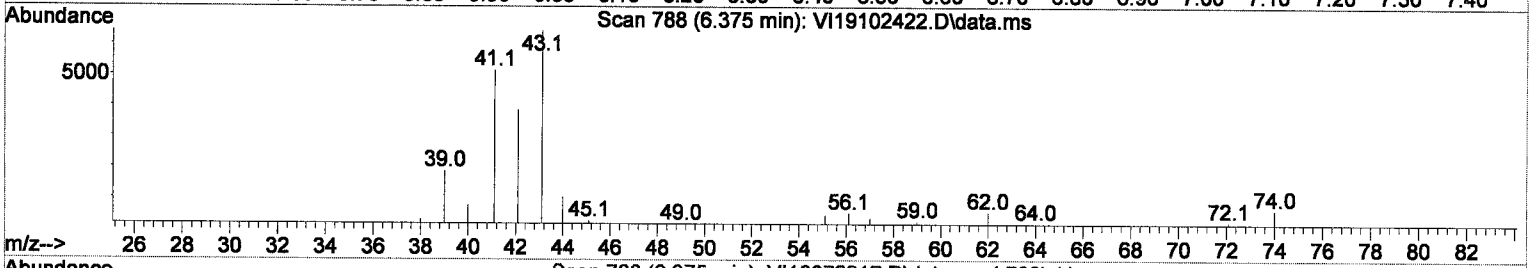
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.211	99	111010	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.910	117	300317	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	141843	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (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

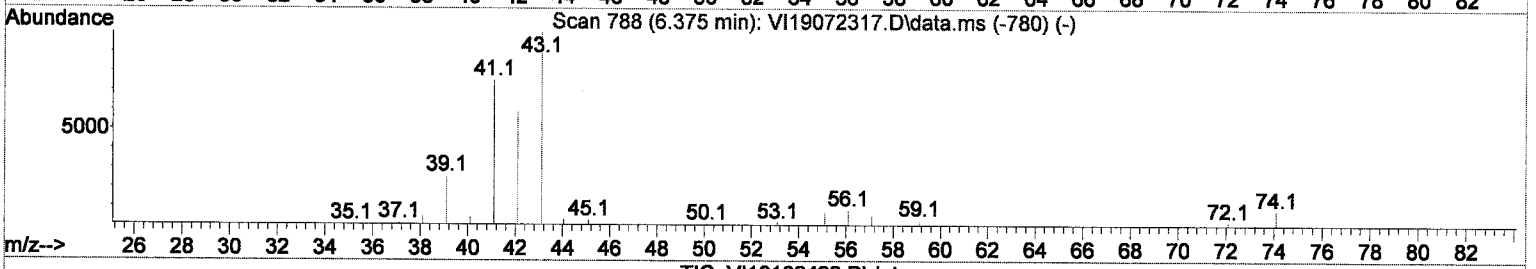
Quantitation Report (Qedit)

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

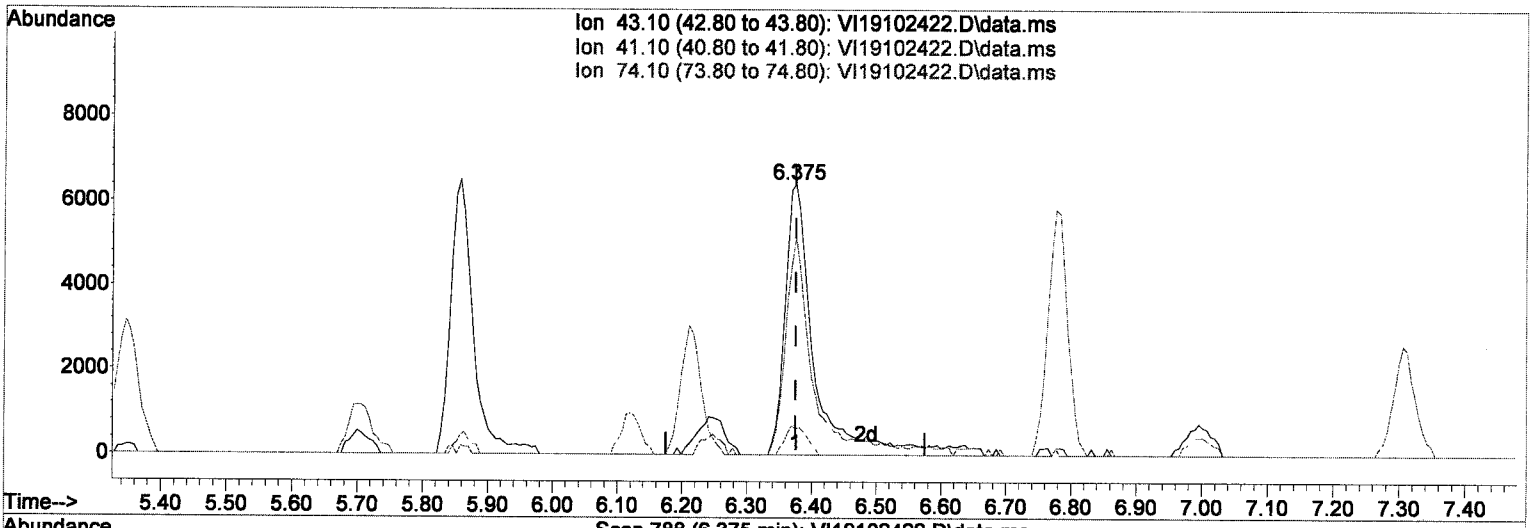
response 18074

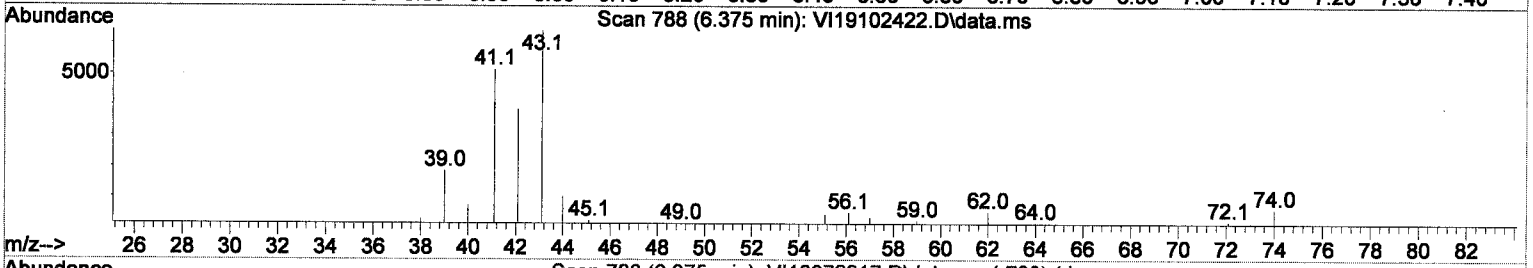
Ion	Exp%	Act%
43.10	100.00	100.00
41.10	78.60	80.03
74.10	11.20	9.63
0.00	0.00	0.00

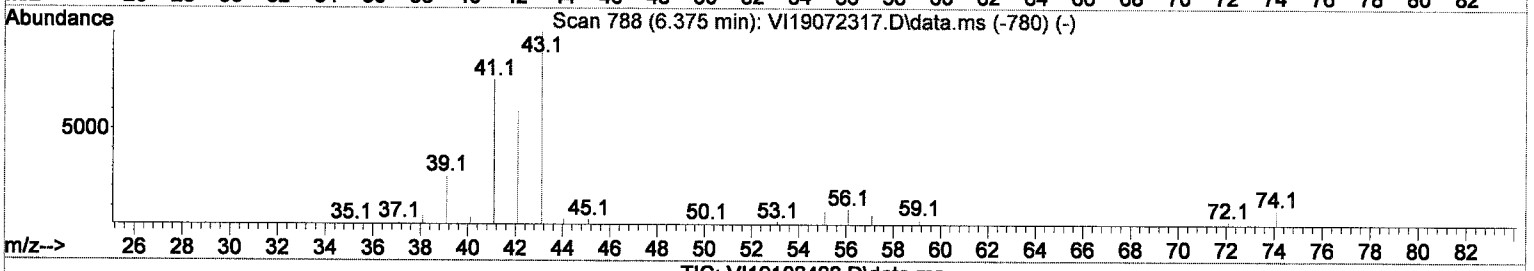
Quantitation Report (Qedit)

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

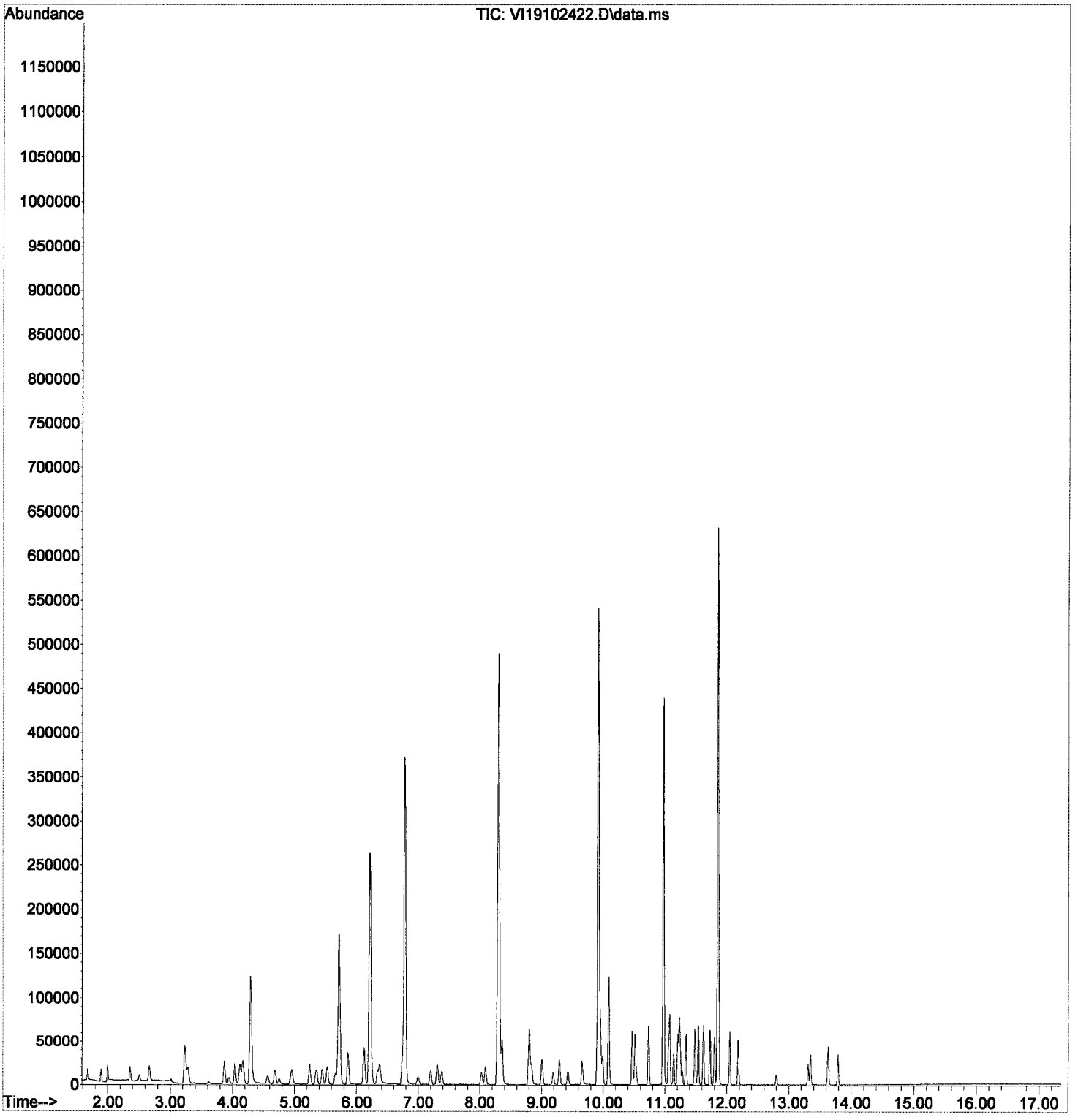
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	44272	5.27	ug/L		100
50) Tetrachloroethene (PCE)	8.796	166	10847	5.65	ug/L		90
51) 4-Methyl-2-Pentanone (...	8.796	43	28183	10.59	ug/L		97
52) t-1,3-Dichloropropene	8.839	75	12130	4.29	ug/L		98
53) 1,1,2-Trichloroethane	9.003	97	10336	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

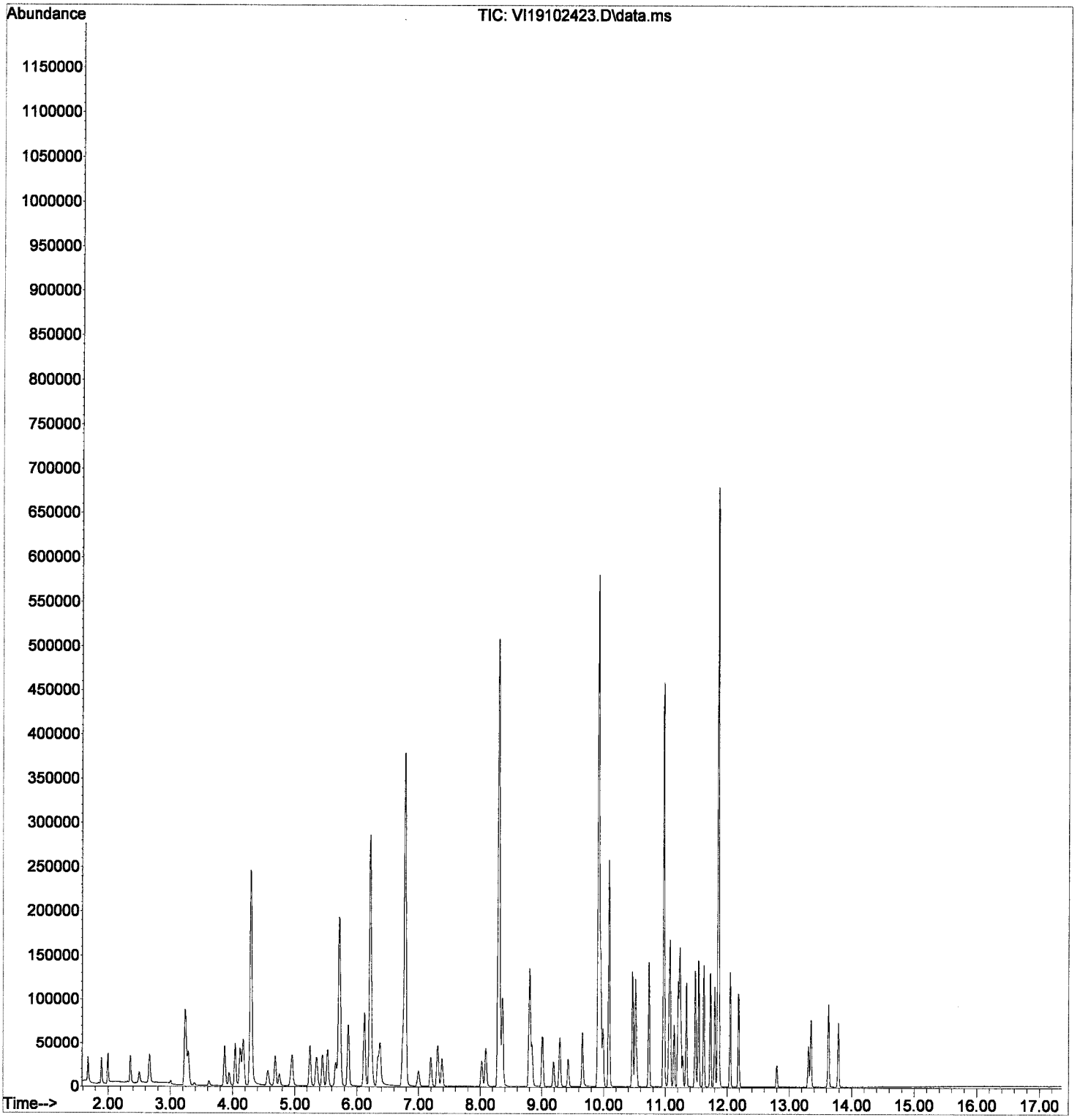
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	90400	10.33	ug/L		100
50) Tetrachloroethene (PCE)	8.796	166	22099	11.06	ug/L		92
51) 4-Methyl-2-Pentanone (...	8.802	43	58009	20.92	ug/L		92
52) t-1,3-Dichloropropene	8.839	75	26302	8.92	ug/L		96
53) 1,1,2-Trichloroethane	9.009	97	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

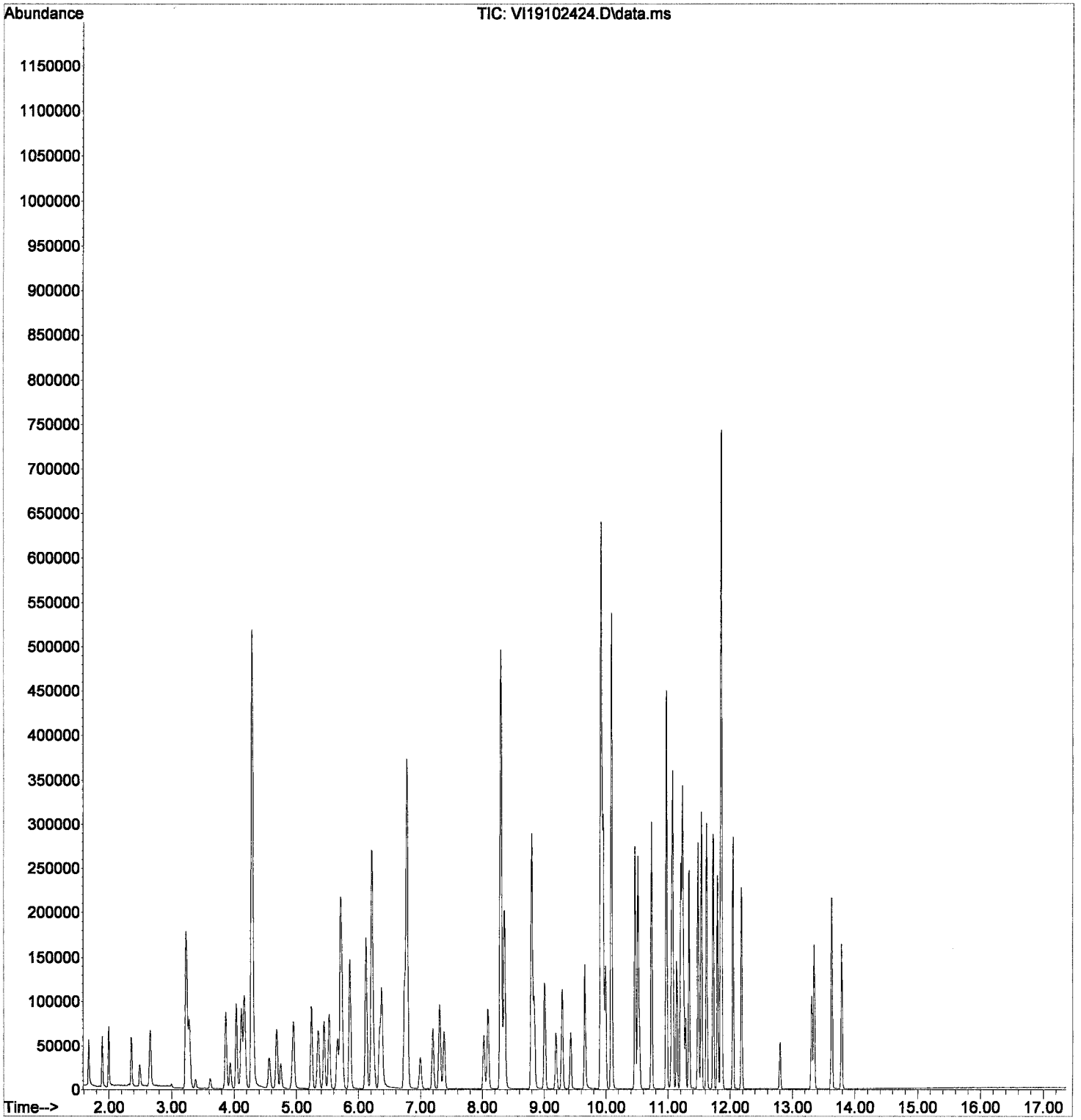
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	183309	21.33	ug/L		100
50) Tetrachloroethene (PCE)	8.796	166	45467	23.17	ug/L		91
51) 4-Methyl-2-Pentanone (...	8.796	43	120524	44.27	ug/L		94
52) t-1,3-Dichloropropene	8.833	75	57085	19.72	ug/L		96
53) 1,1,2-Trichloroethane	9.003	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

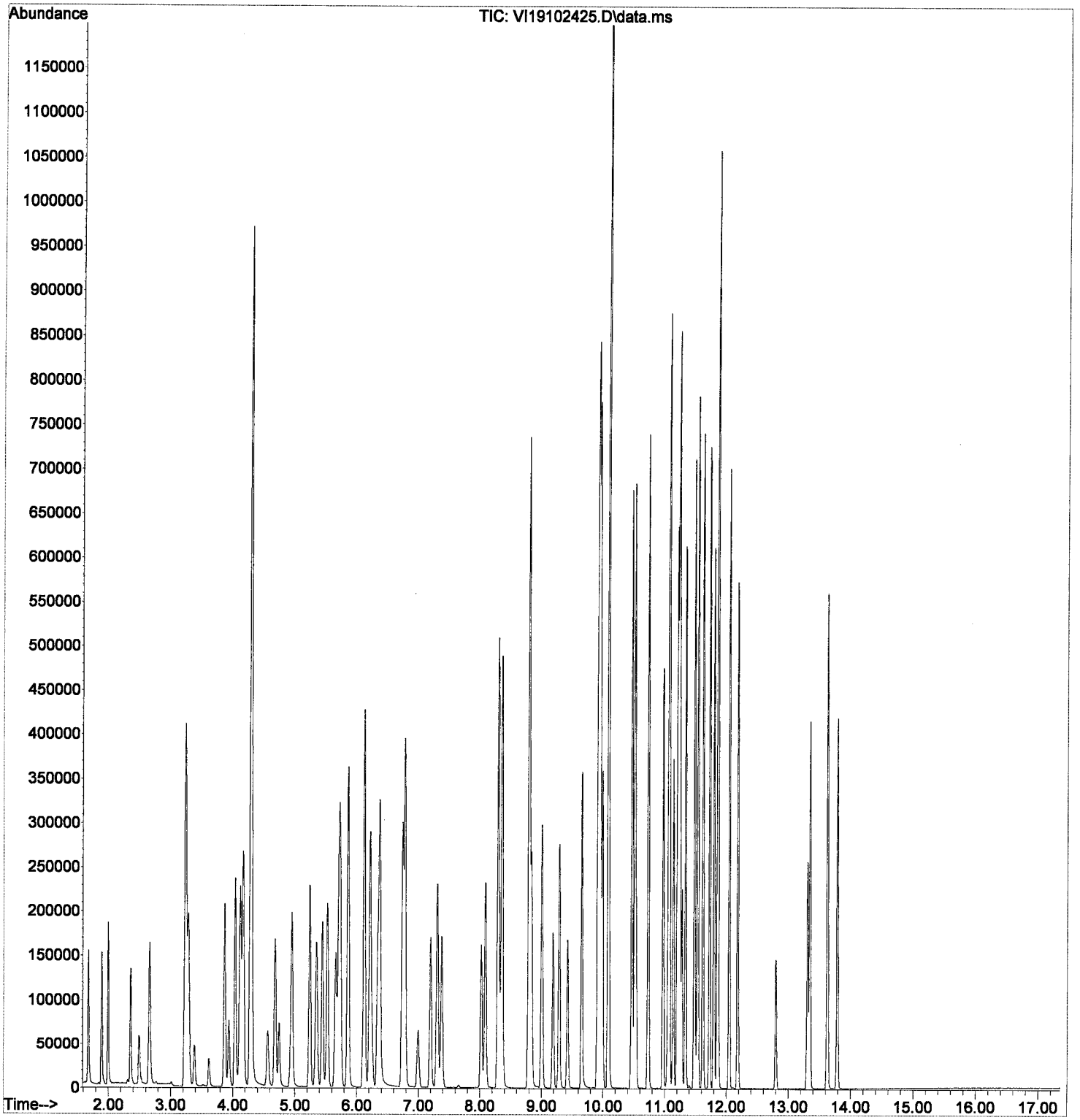
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	8.358	91	446611	49.69	ug/L	99
50) Tetrachloroethene (PCE)	8.796	166	113079	55.11	ug/L	92
51) 4-Methyl-2-Pentanone (...	8.796	43	304356	106.90	ug/L	94
52) t-1,3-Dichloropropene	8.833	75	151987	50.21	ug/L	97
53) 1,1,2-Trichloroethane	9.003	97	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

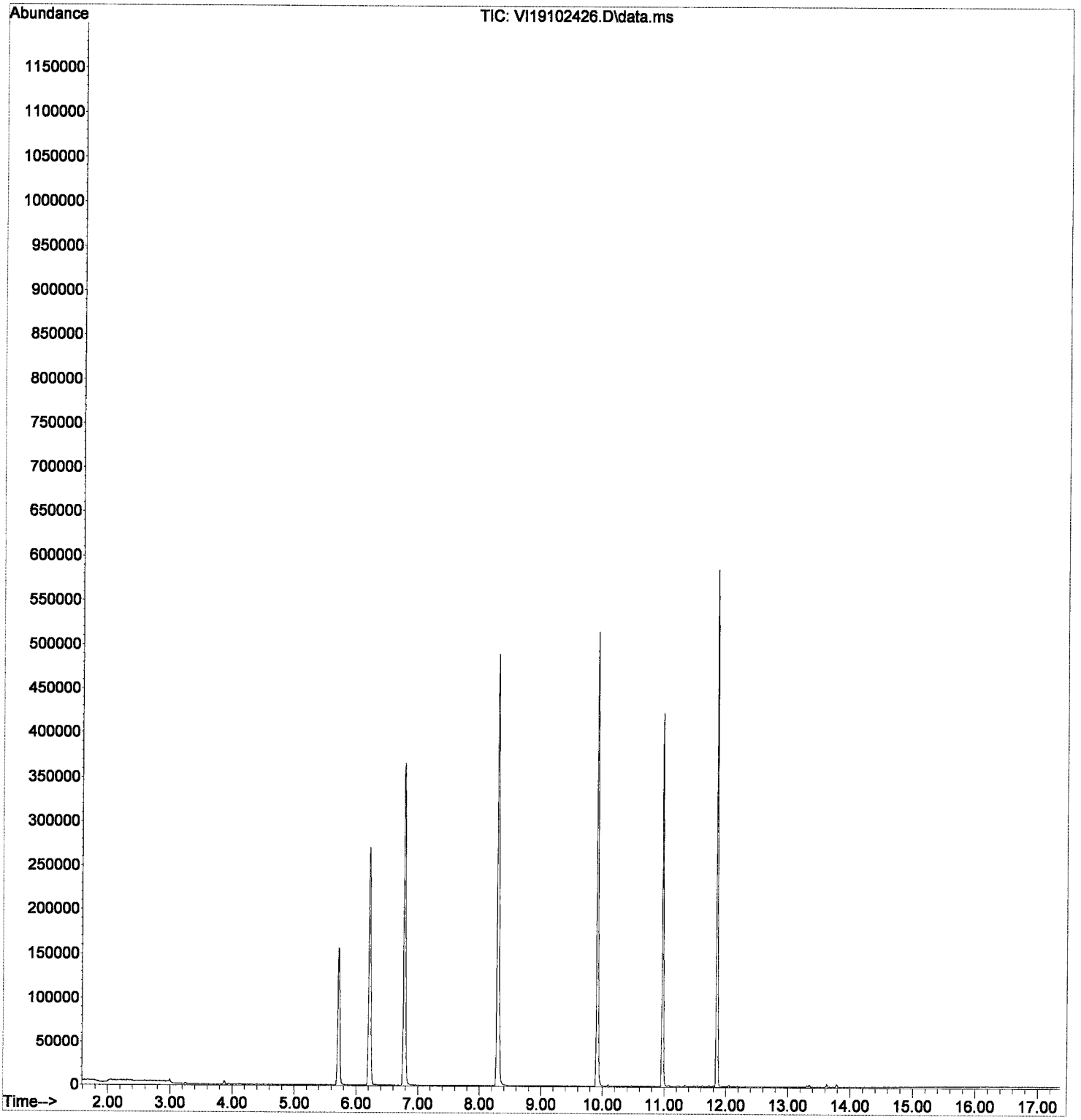
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	112457	50.00	ug/L	#	0.00
45) Chlorobenzene-d5 (I)	9.910	117	299558	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	136435	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (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

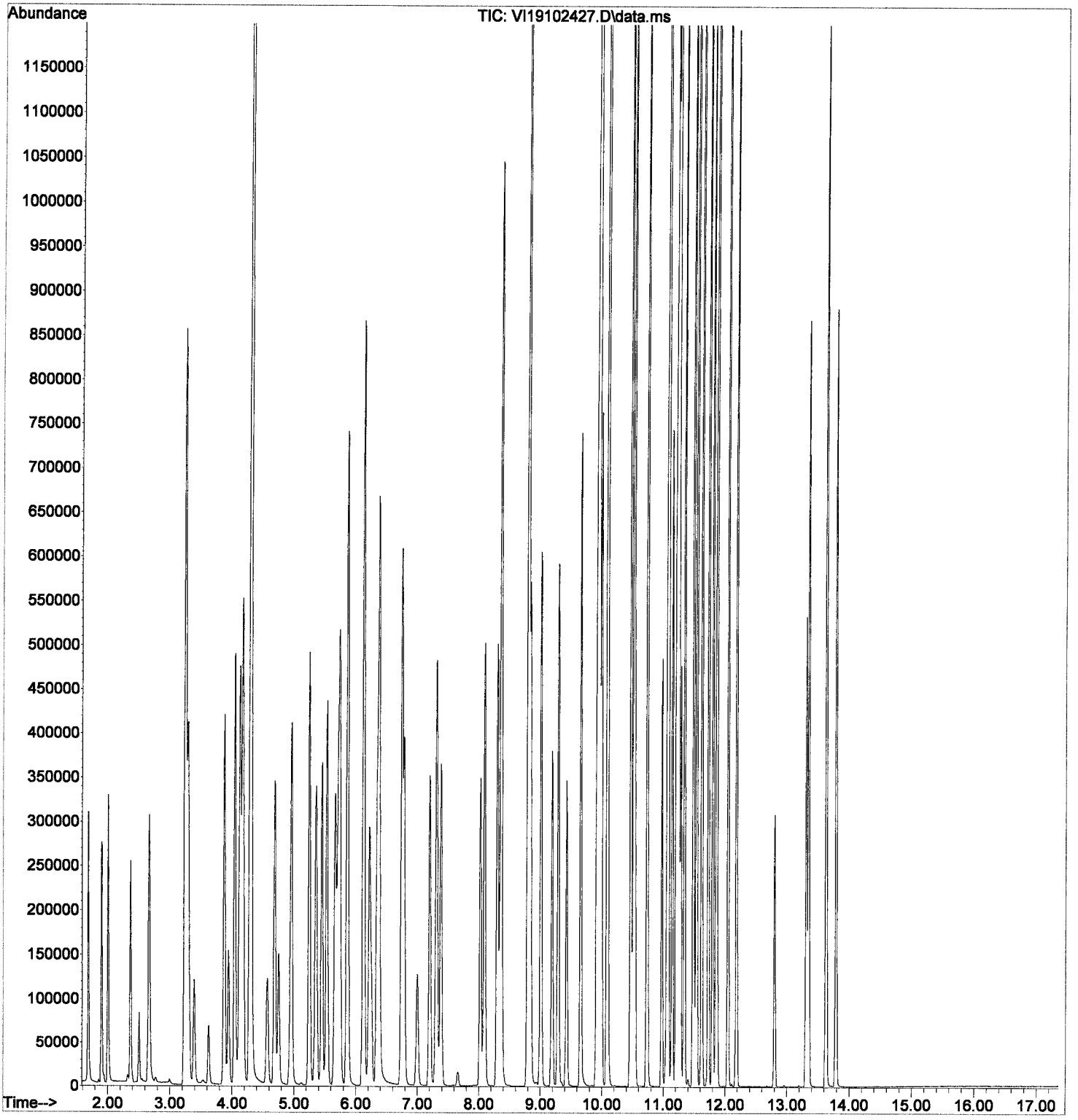
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	8.358	91	931584	104.48	ug/L	99
50) Tetrachloroethene (PCE)	8.796	166	236880	116.36	ug/L	92
51) 4-Methyl-2-Pentanone (...	8.796	43	616767	218.34	ug/L	92
52) t-1,3-Dichloropropene	8.839	75	327146	108.93	ug/L	98
53) 1,1,2-Trichloroethane	9.009	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

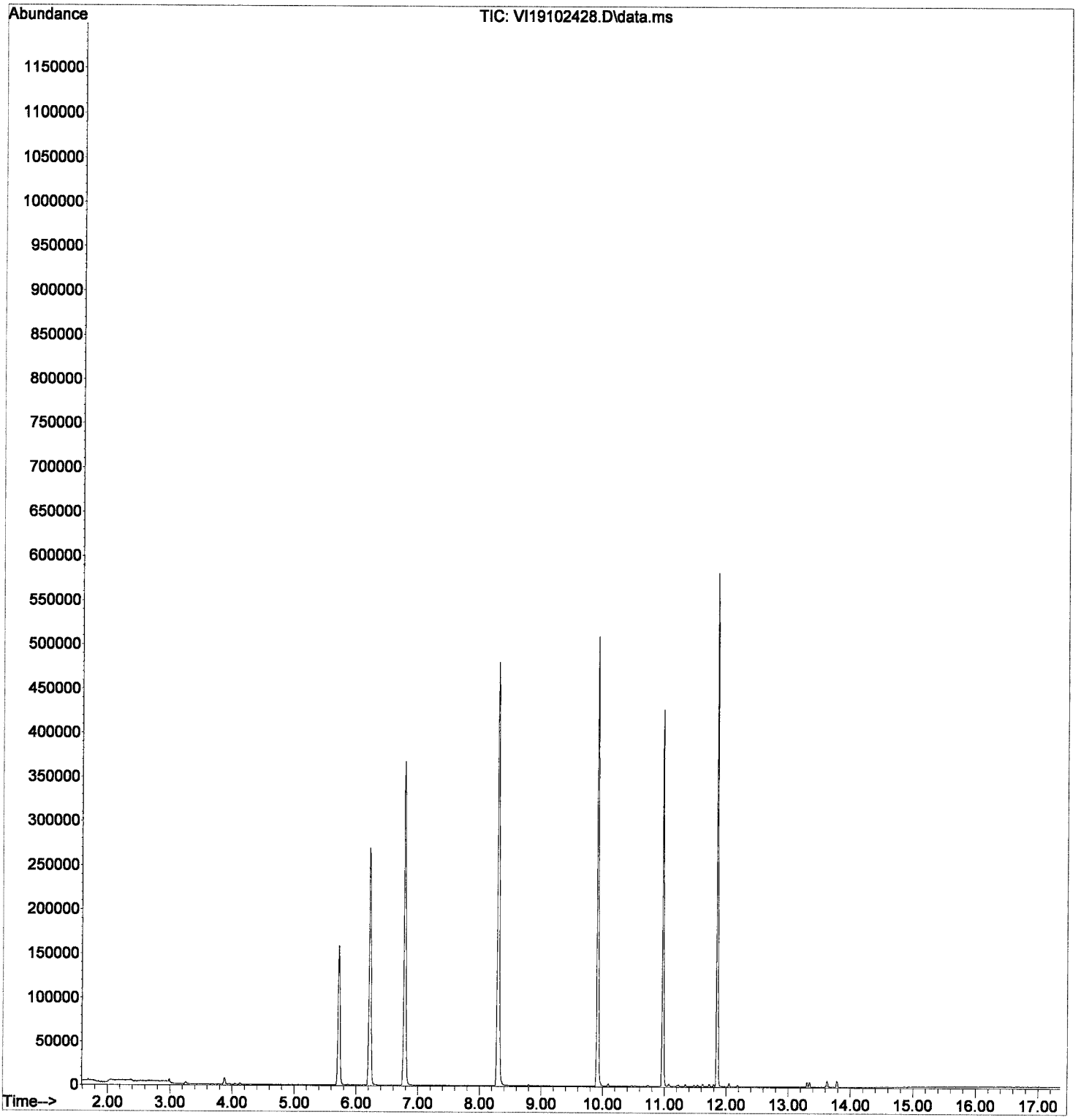
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = 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

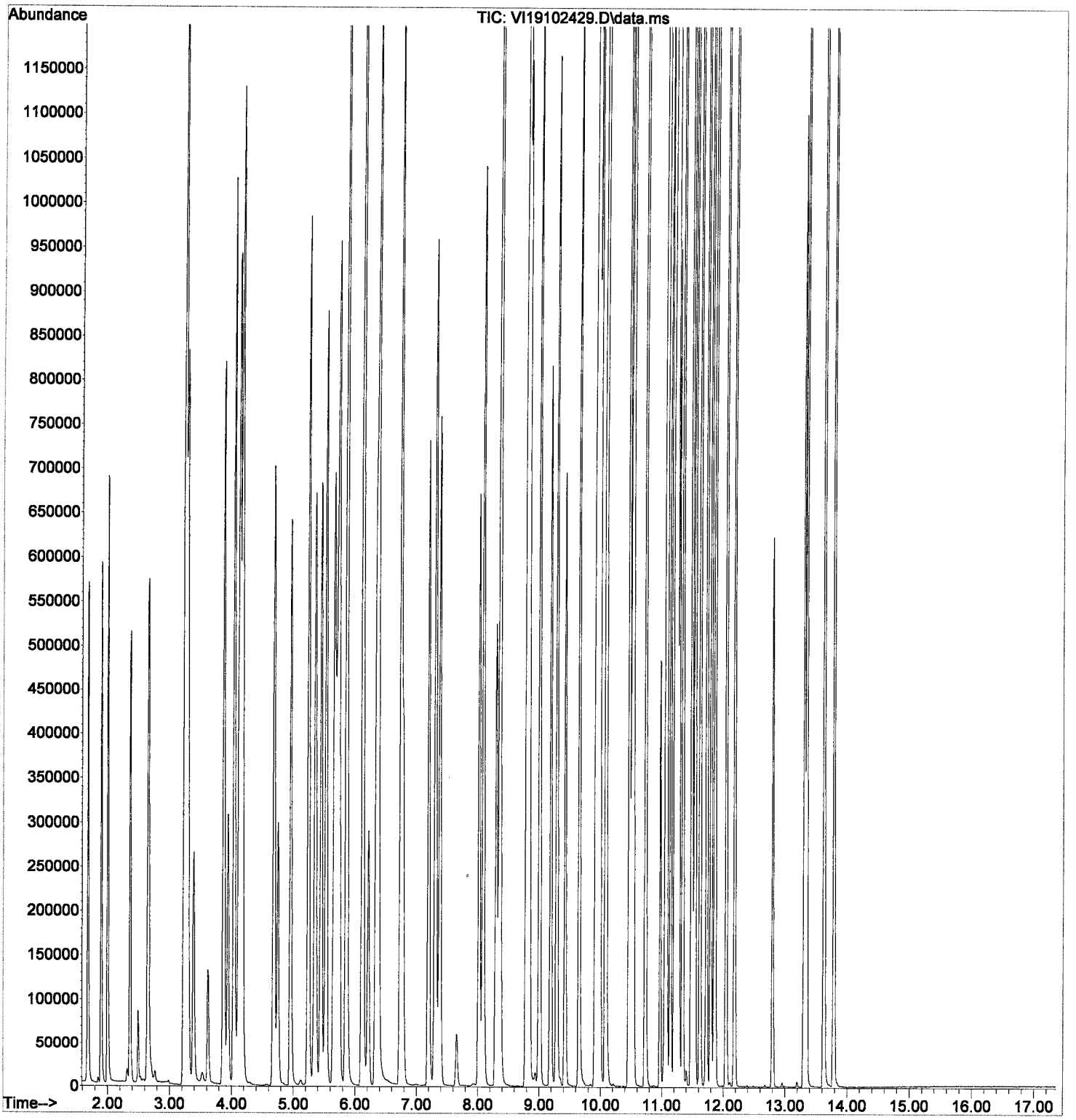
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	8.358	91	1905088	205.73	ug/L	100
50) Tetrachloroethene (PCE)	8.796	166	496433	234.81	ug/L	93
51) 4-Methyl-2-Pentanone (...	8.796	43	1166981	397.79	ug/L	90
52) t-1,3-Dichloropropene	8.839	75	678927	217.67	ug/L	98
53) 1,1,2-Trichloroethane	9.009	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

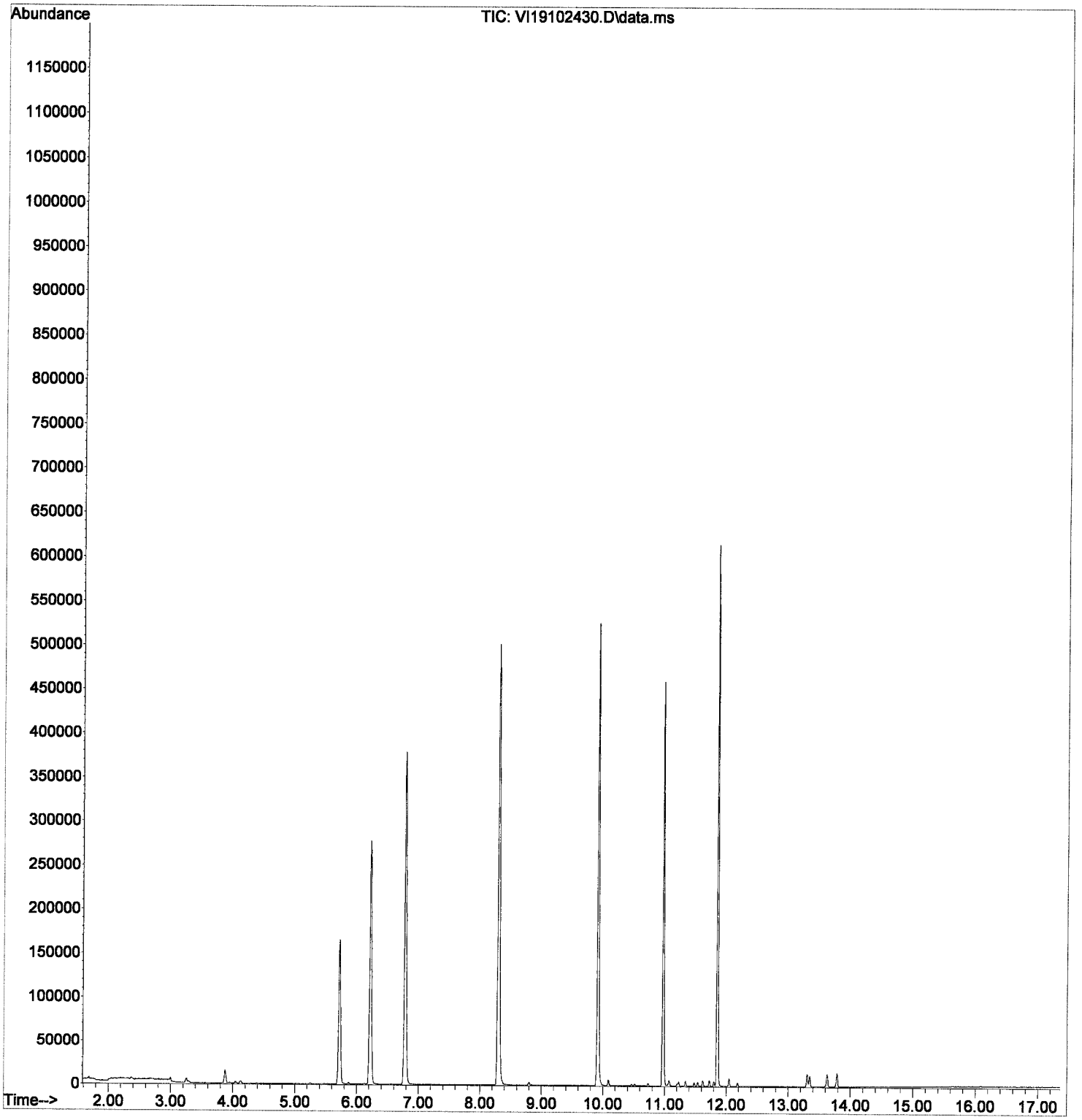
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
88) 1,2,3-Trichlorobenzene	13.785	180	5992	2.88	ug/L	97

(#) = 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

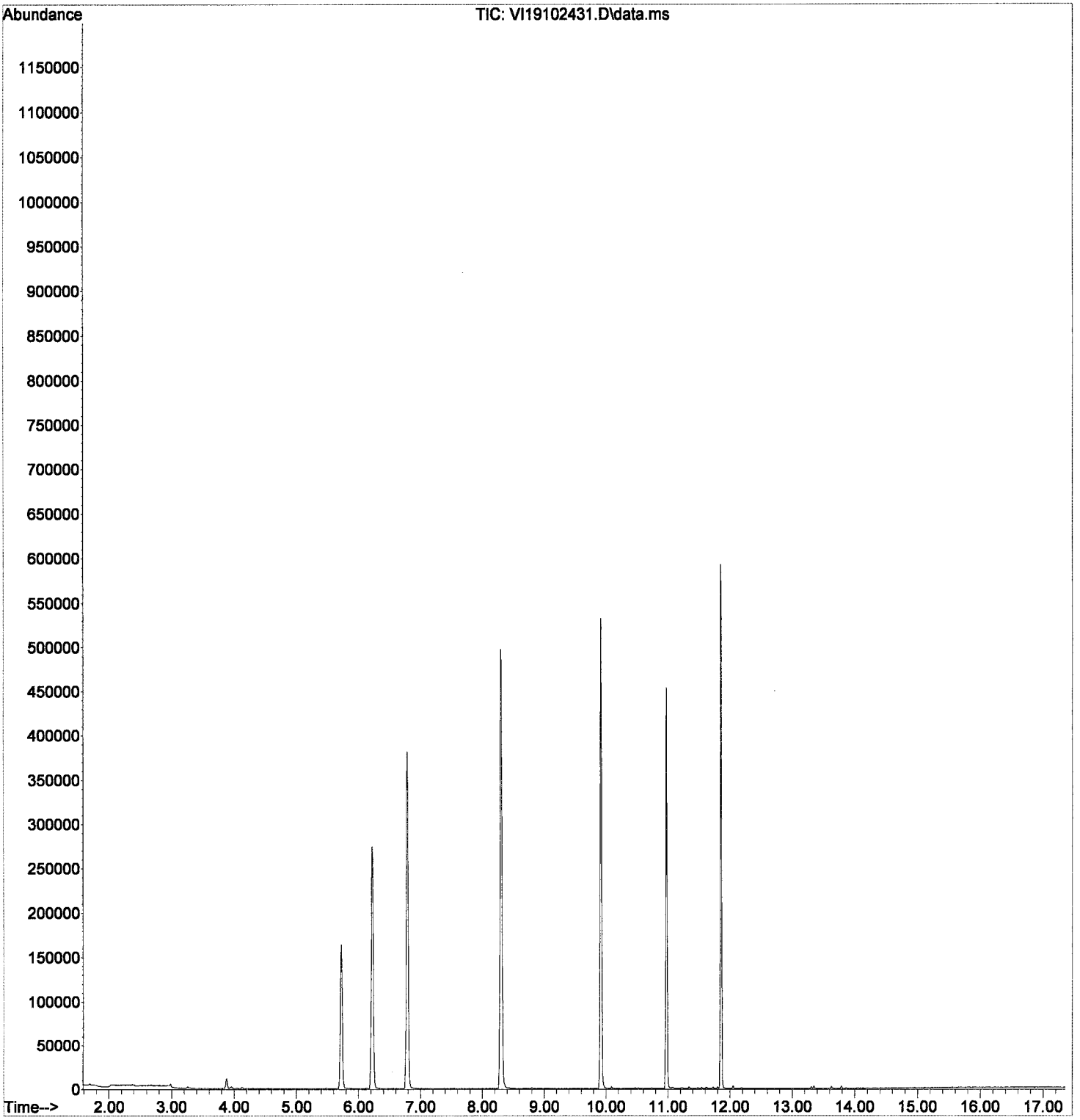
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	114296	50.00	ug/L	#	0.00
45) Chlorobenzene-d5 (I)	9.916	117	308297	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	139384	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (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

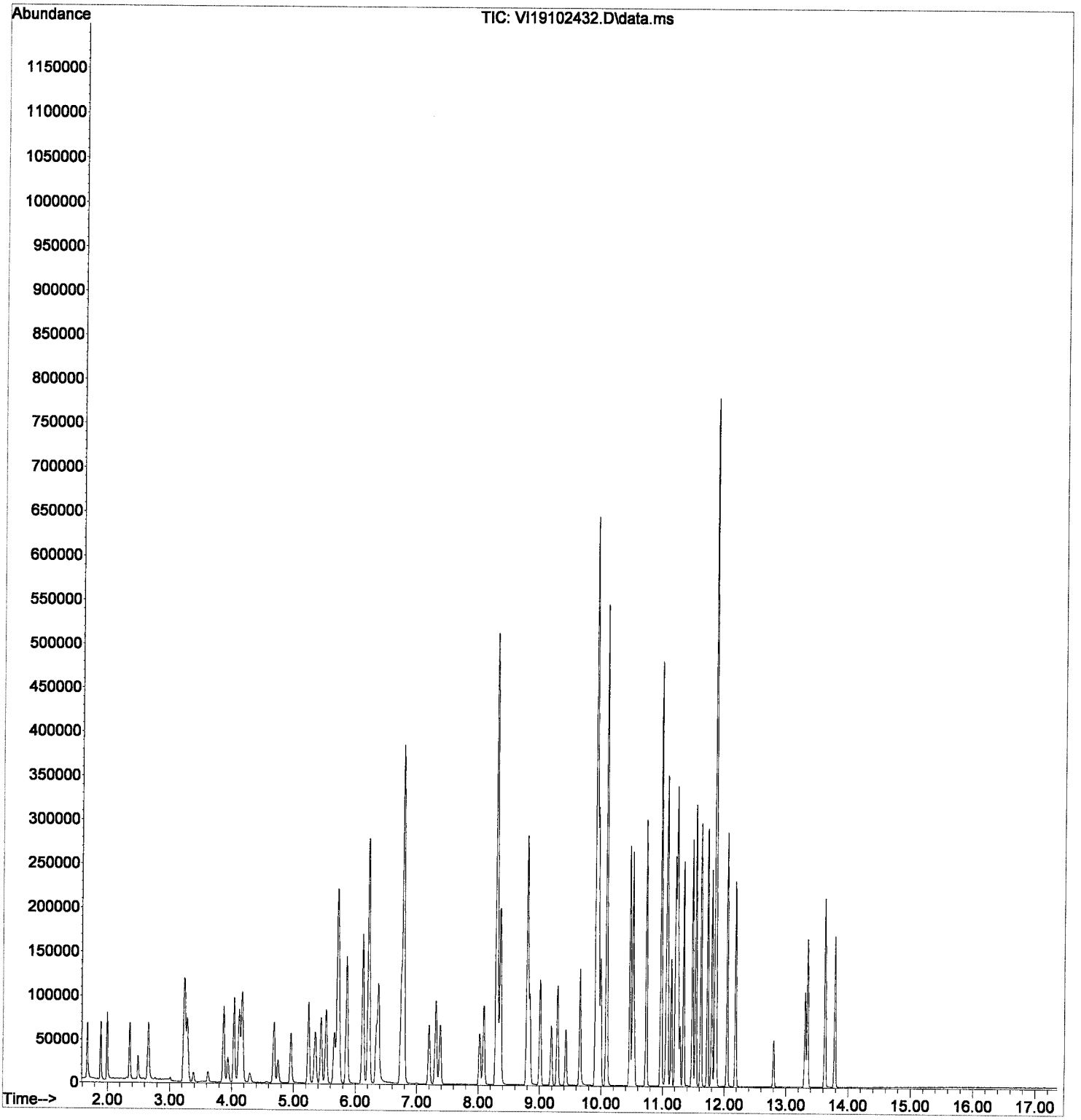
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	182339	19.39	ug/L		100
50) Tetrachloroethene (PCE)	8.796	166	45736	20.89	ug/L		91
51) 4-Methyl-2-Pentanone (...	8.796	43	117185	41.04	ug/L		94
52) t-1,3-Dichloropropene	8.839	75	58067	20.70	ug/L		99
53) 1,1,2-Trichloroethane	9.003	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

10/25/19

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

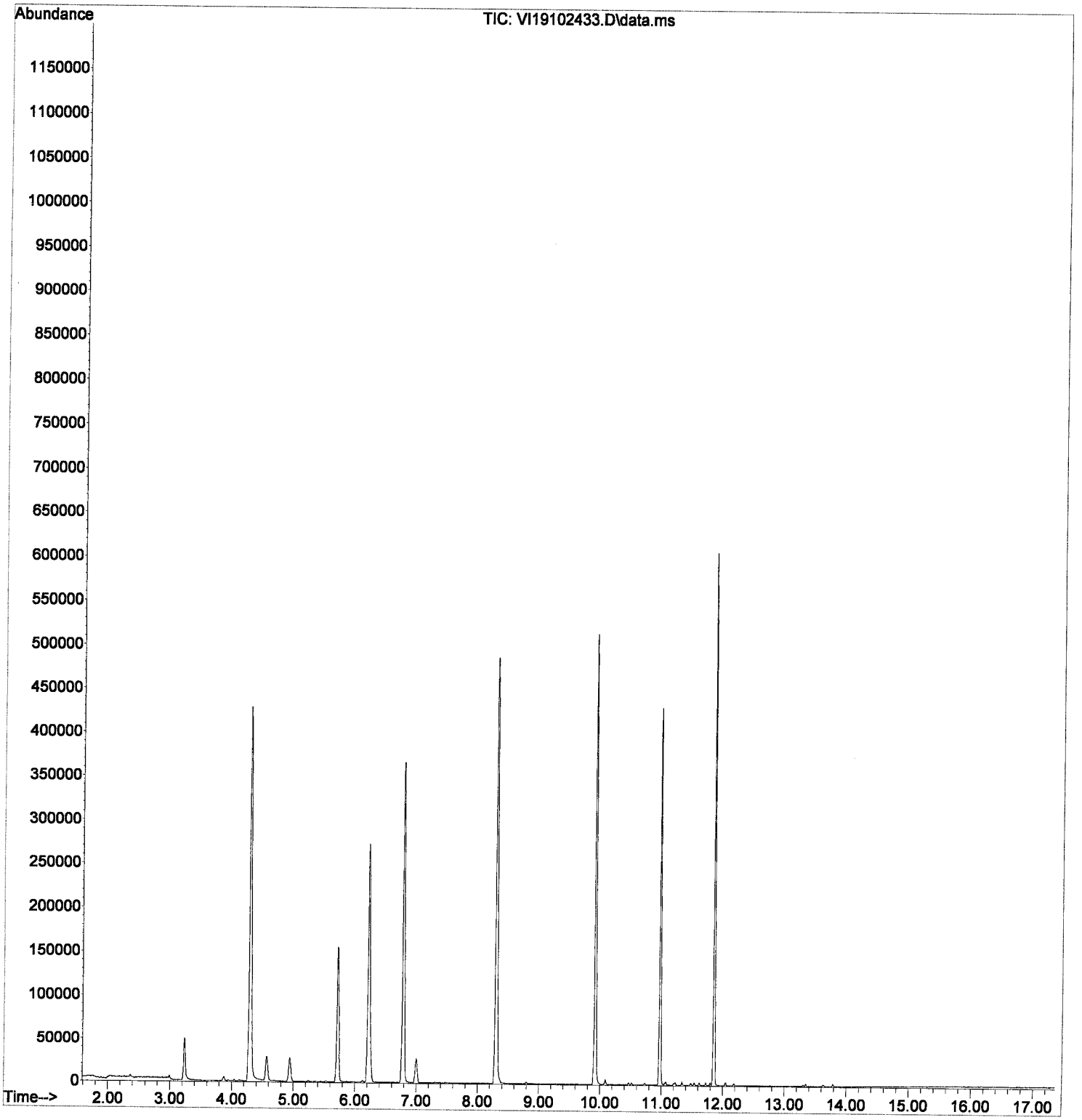
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
75) 4-Chlorotoluene	11.339	91	2029	0.36	ug/L		92
76) tert-Butylbenzene	11.479	91	857	0.24	ug/L		90
77) 1,2,4-Trimethylbenzene	11.540	105	1902	0.30	ug/L		99
78) sec-Butylbenzene	11.619	105	2140	0.28	ug/L		96
79) 4-Isopropyltoluene	11.729	119	1814	0.30	ug/L		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

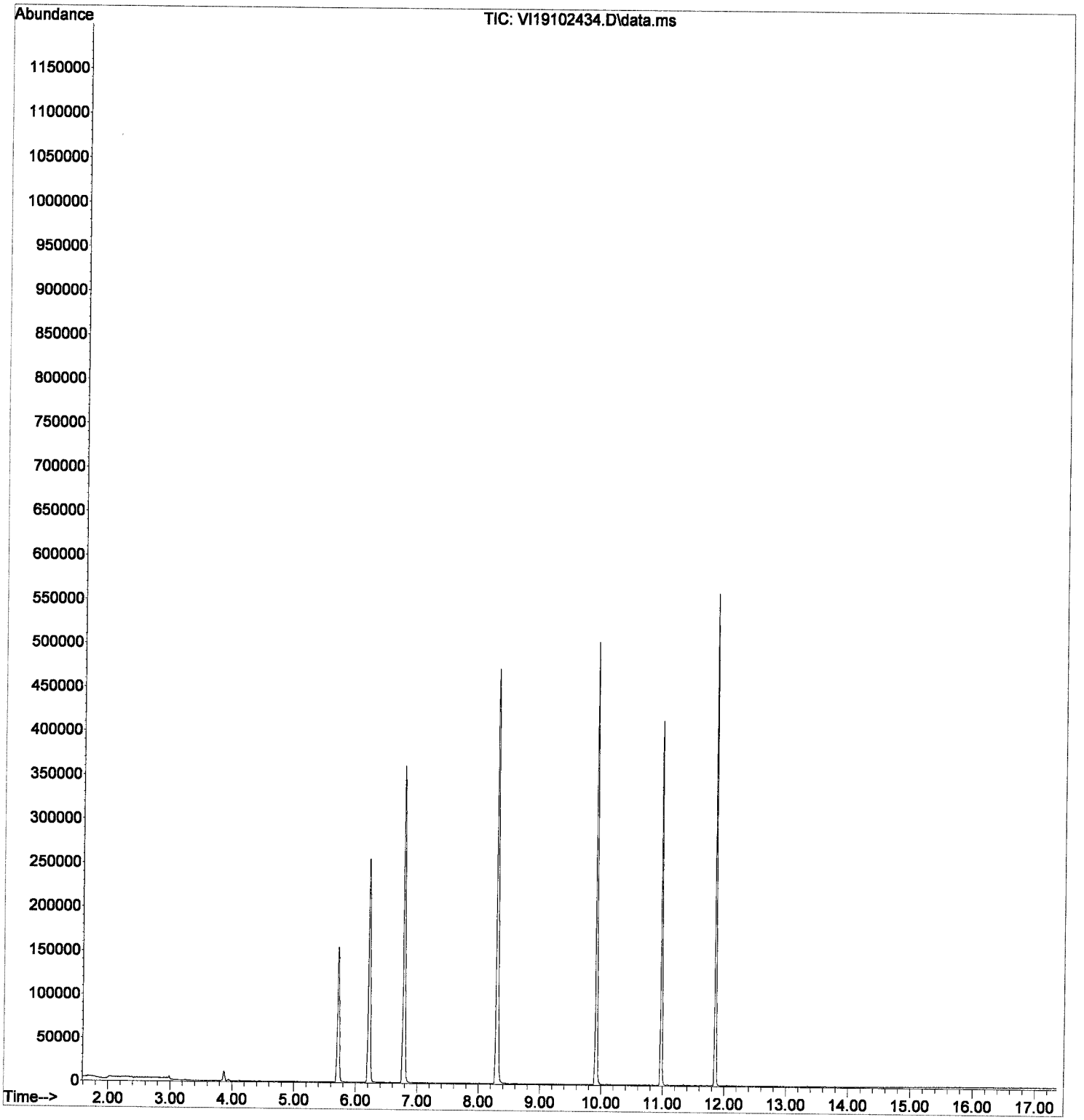
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.211	99	109647	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.910	117	290801	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	129266	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (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

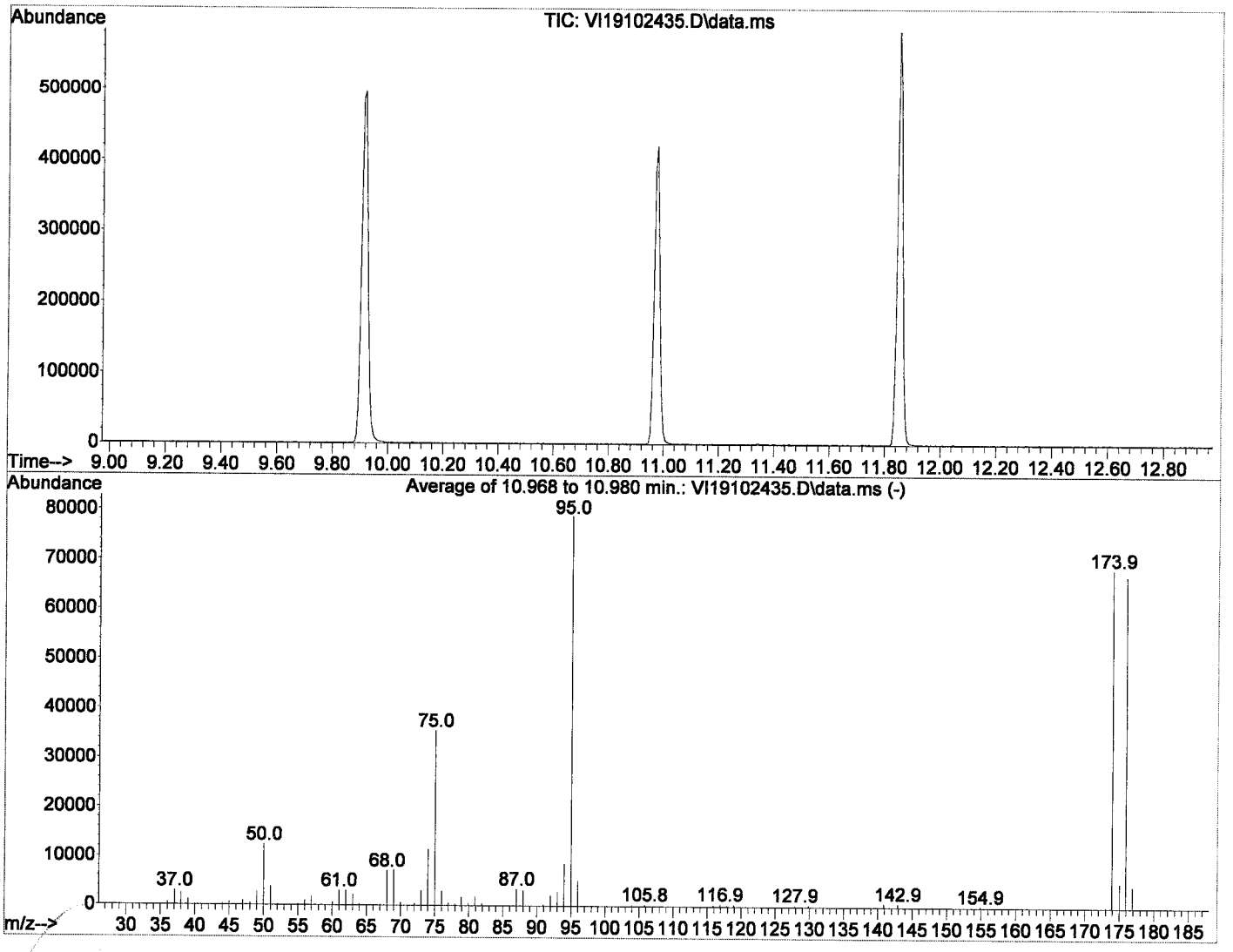


BFB

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

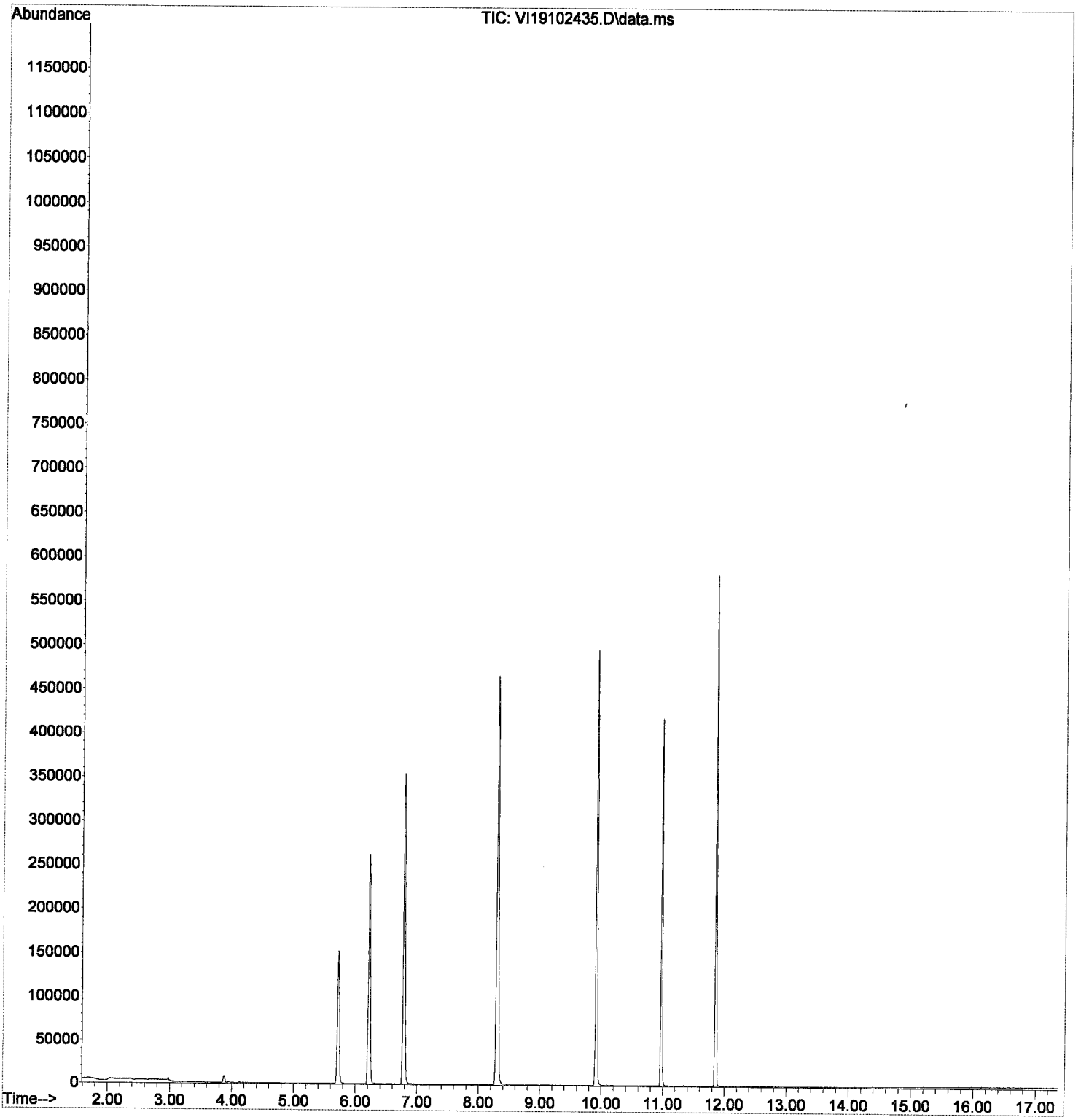
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	210406	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	342441	50.05	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	110054	48.18	ug/L	0.00
9) Toluene-d8 (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

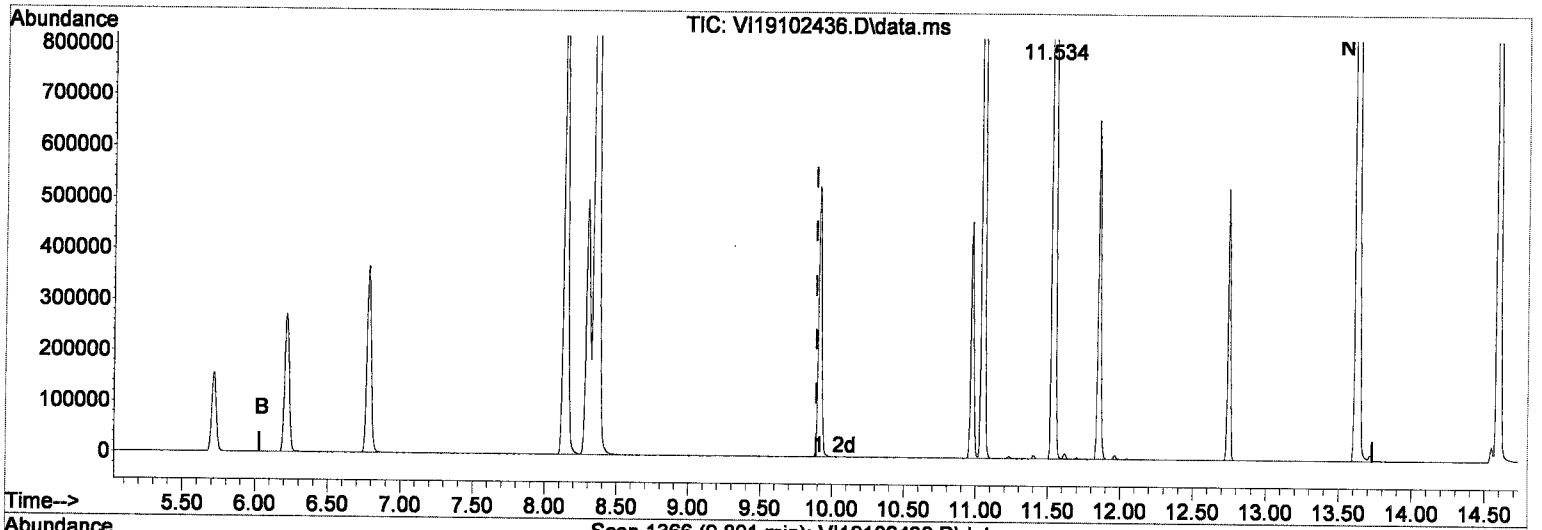
Quant Time: Oct 25 10:34:47 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

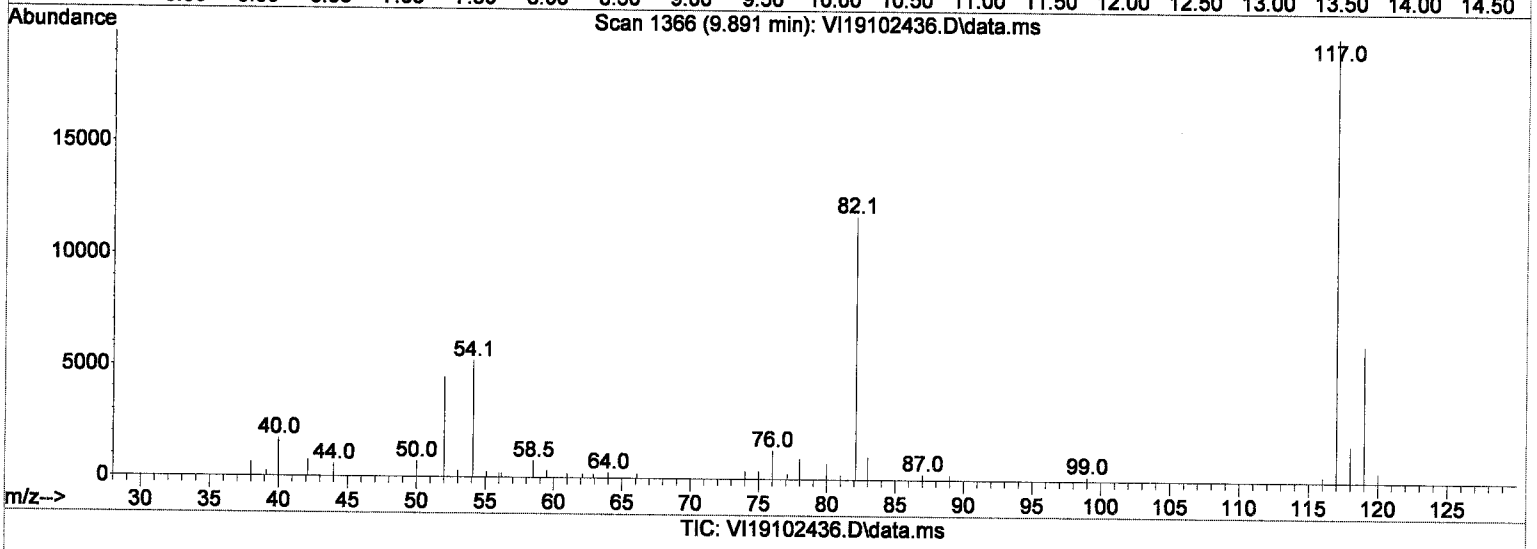


Quantitation Report (Qedit)

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

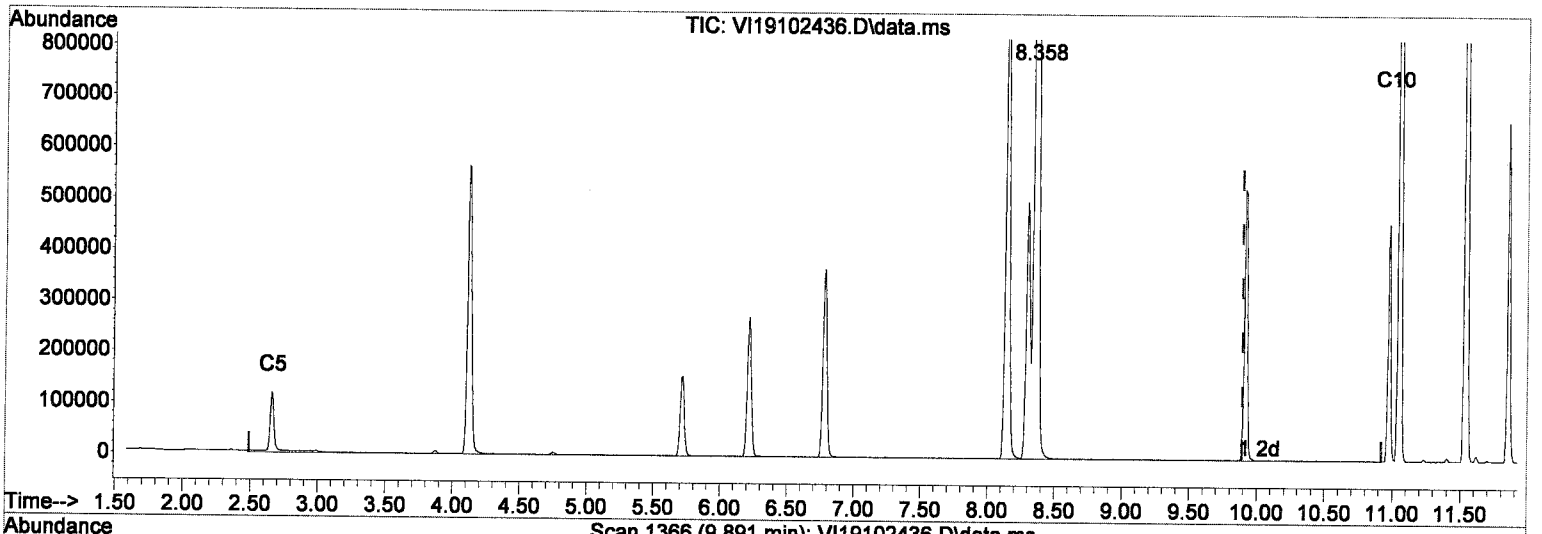
response 19501721

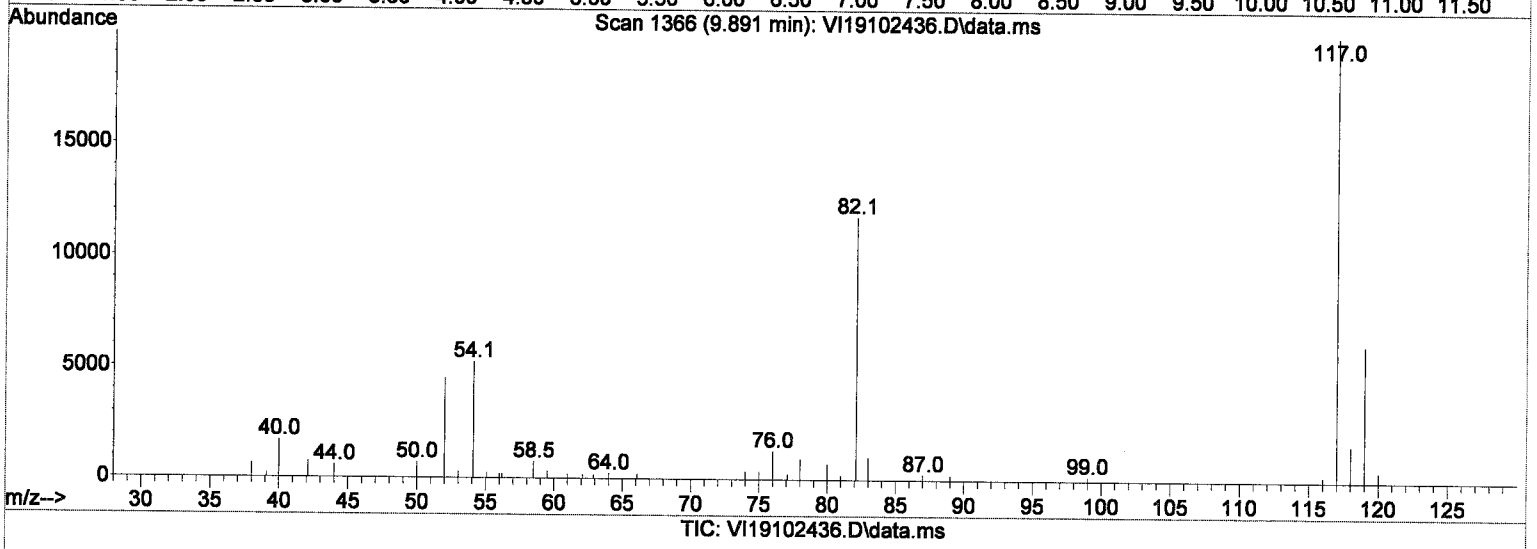
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	1.04#
0.00	0.00	0.76#
0.00	0.00	0.00

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

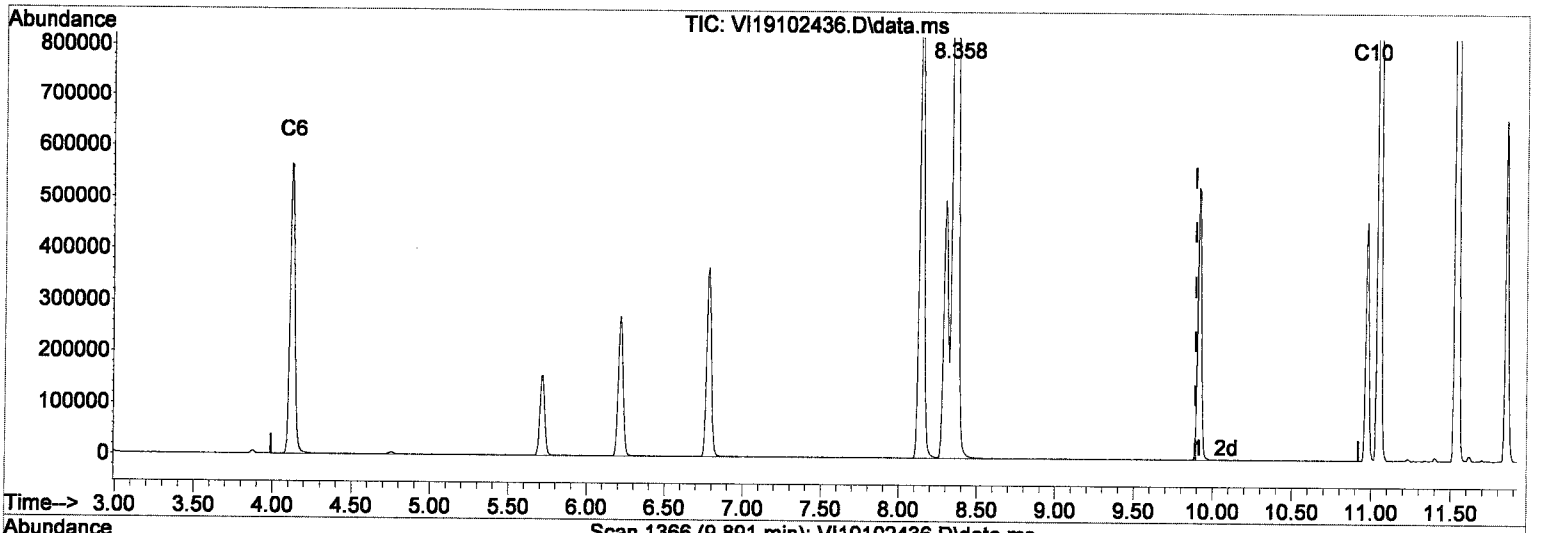
response 8083029

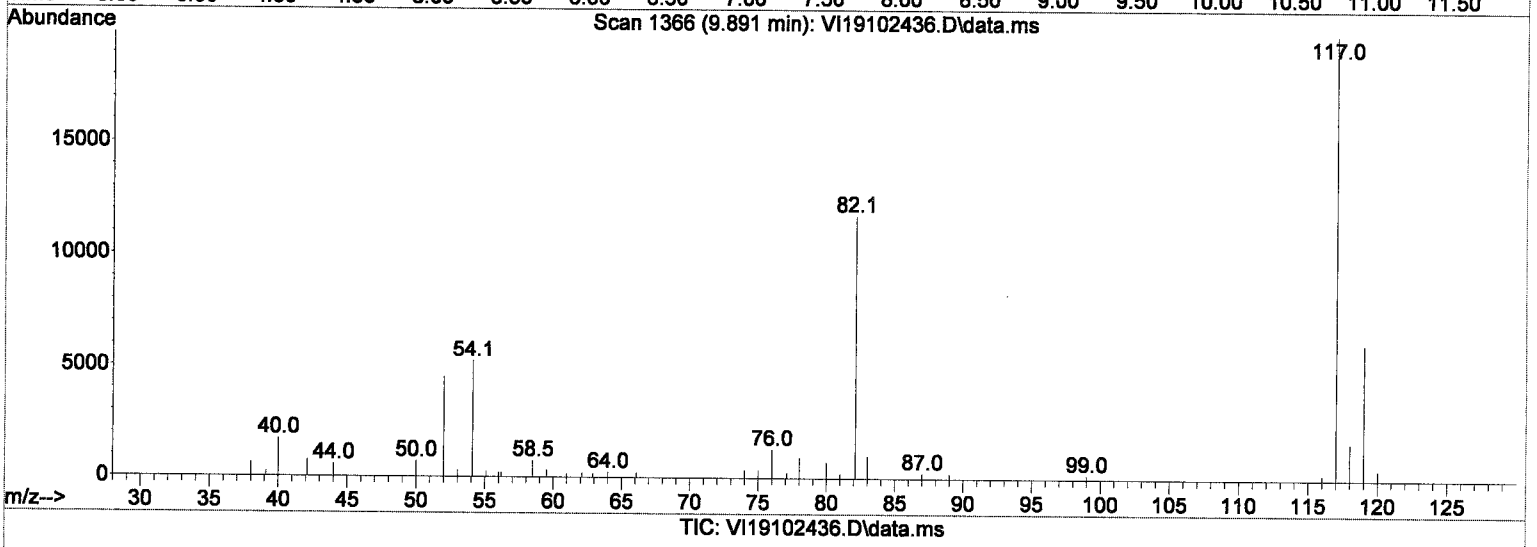
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.52#
0.00	0.00	1.83#
0.00	0.00	0.00

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

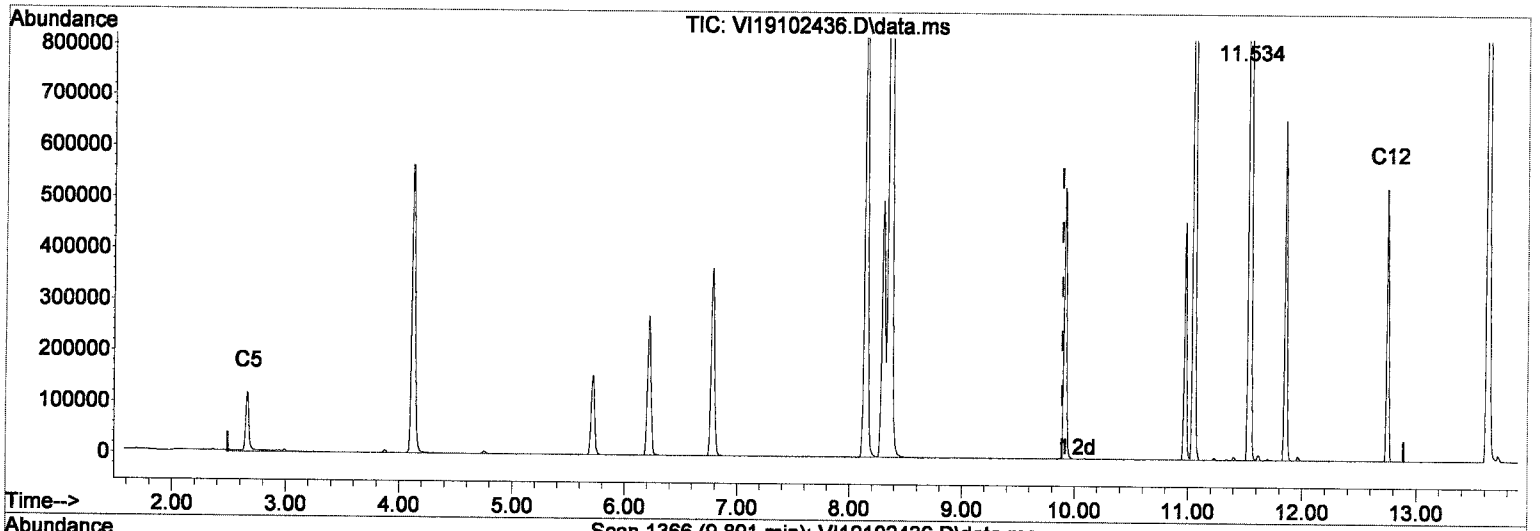
response 7845020

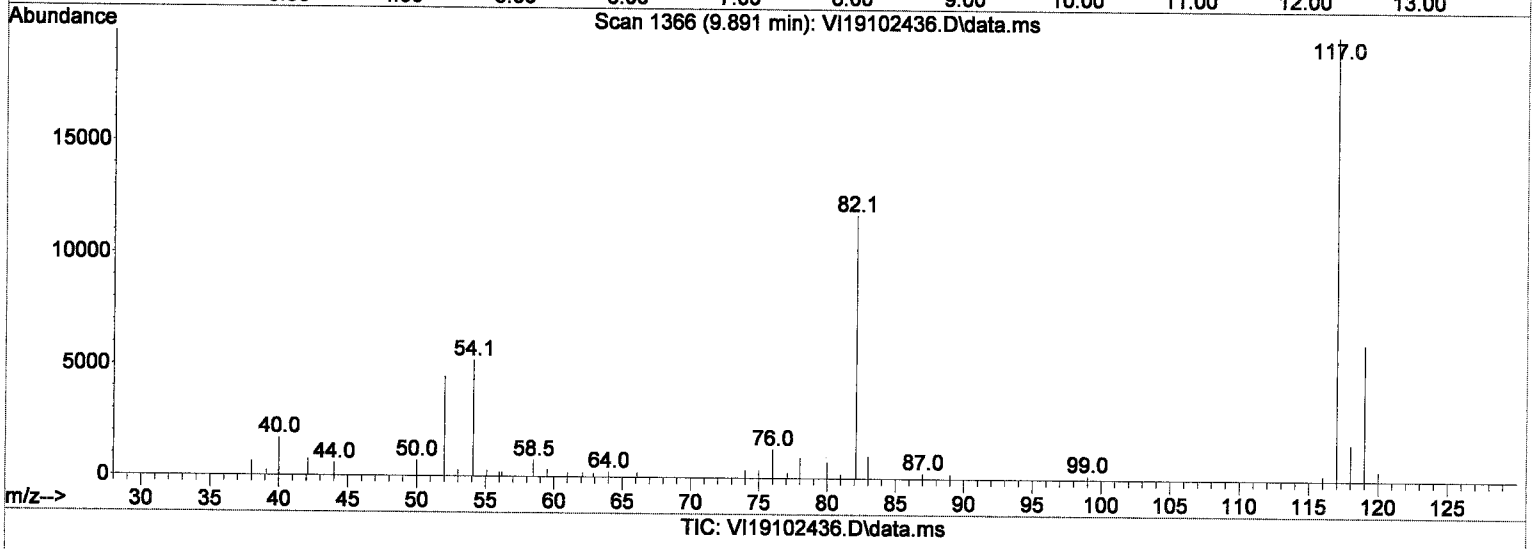
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.60#
0.00	0.00	1.88#
0.00	0.00	0.00

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

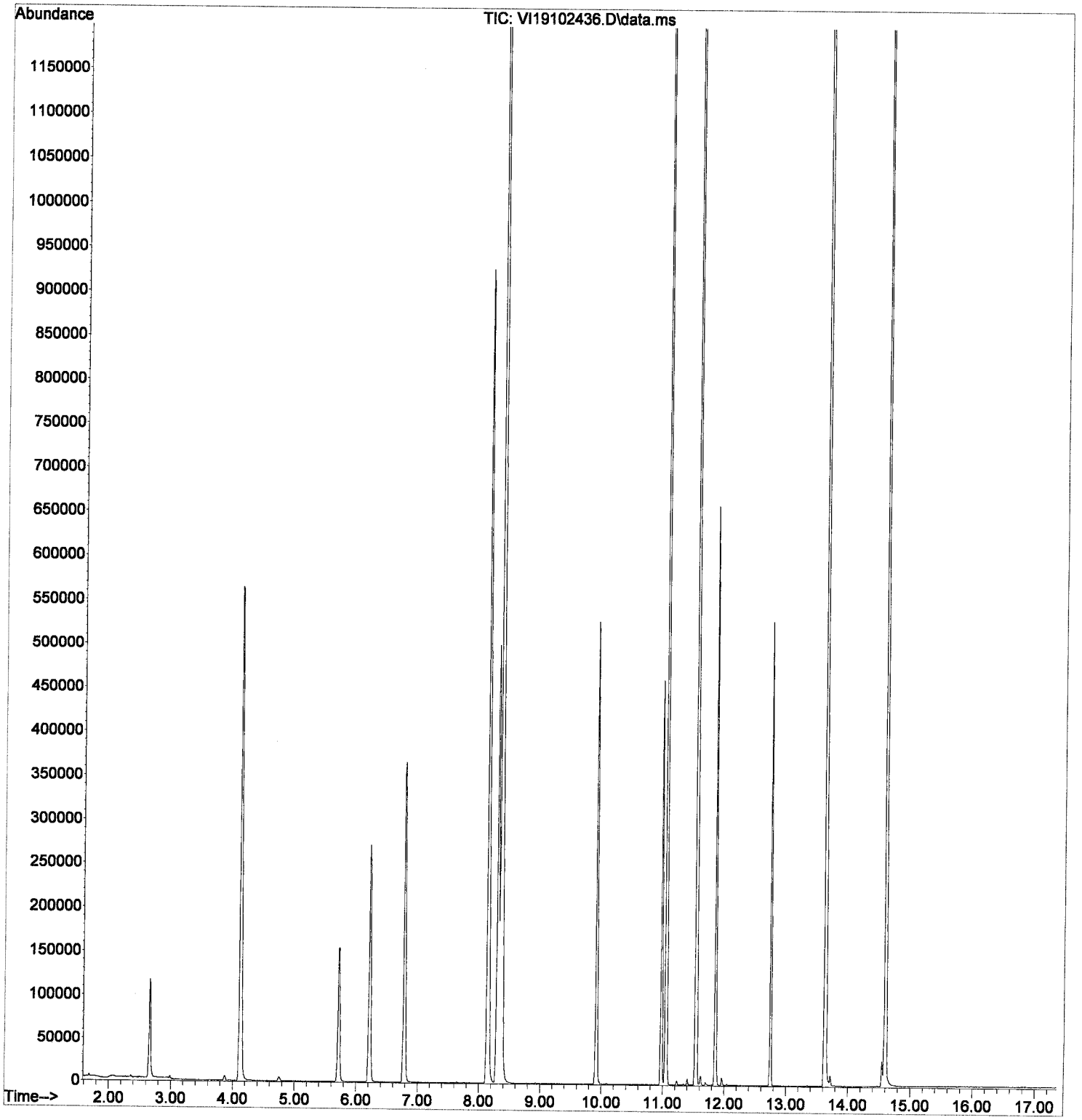
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	218196	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	354554	49.97	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	120603	50.92	ug/L	0.00
9) Toluene-d8 (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

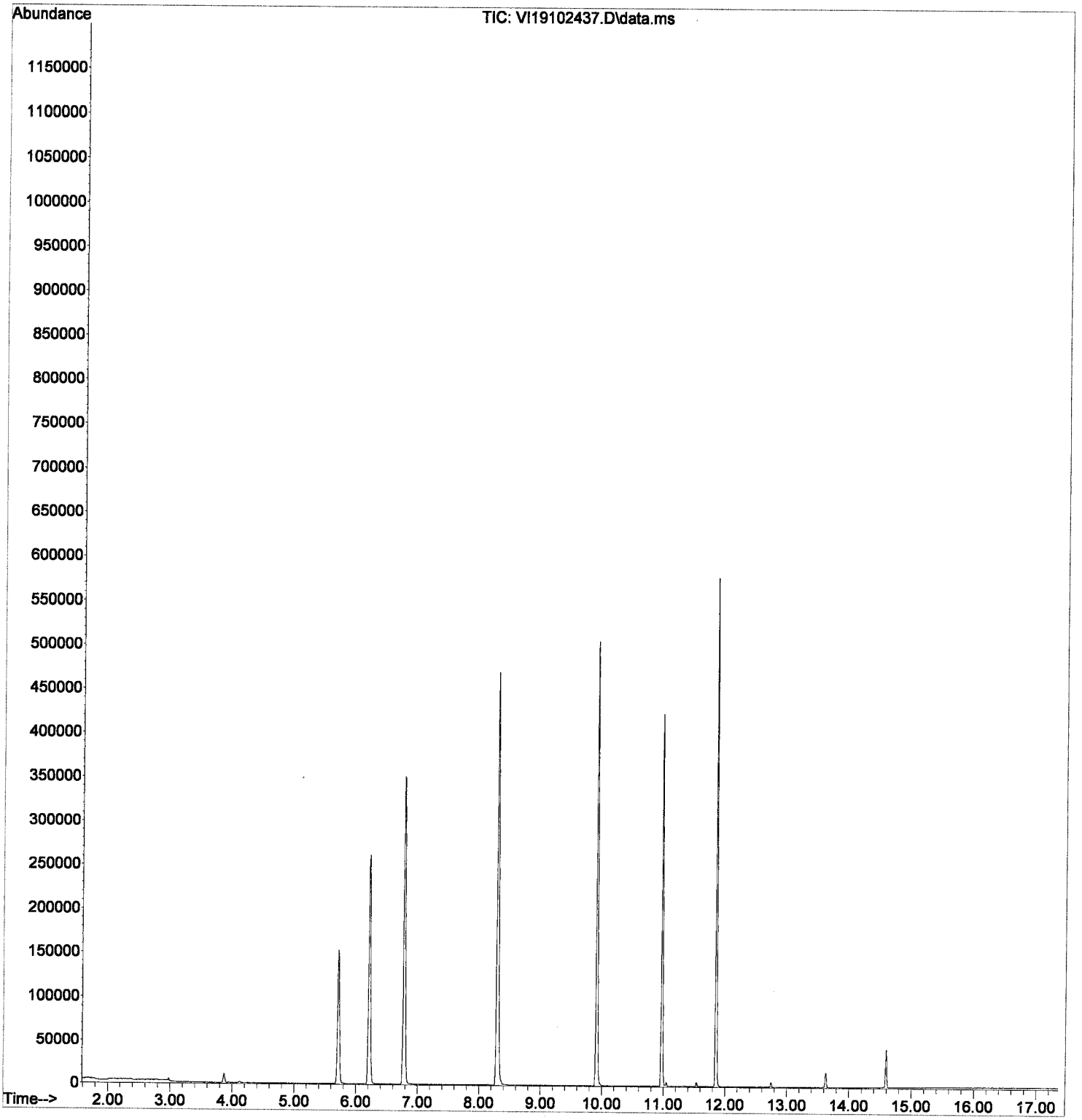
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	210247	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	345936	50.60	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	111405	48.81	ug/L	0.00
9) Toluene-d8 (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

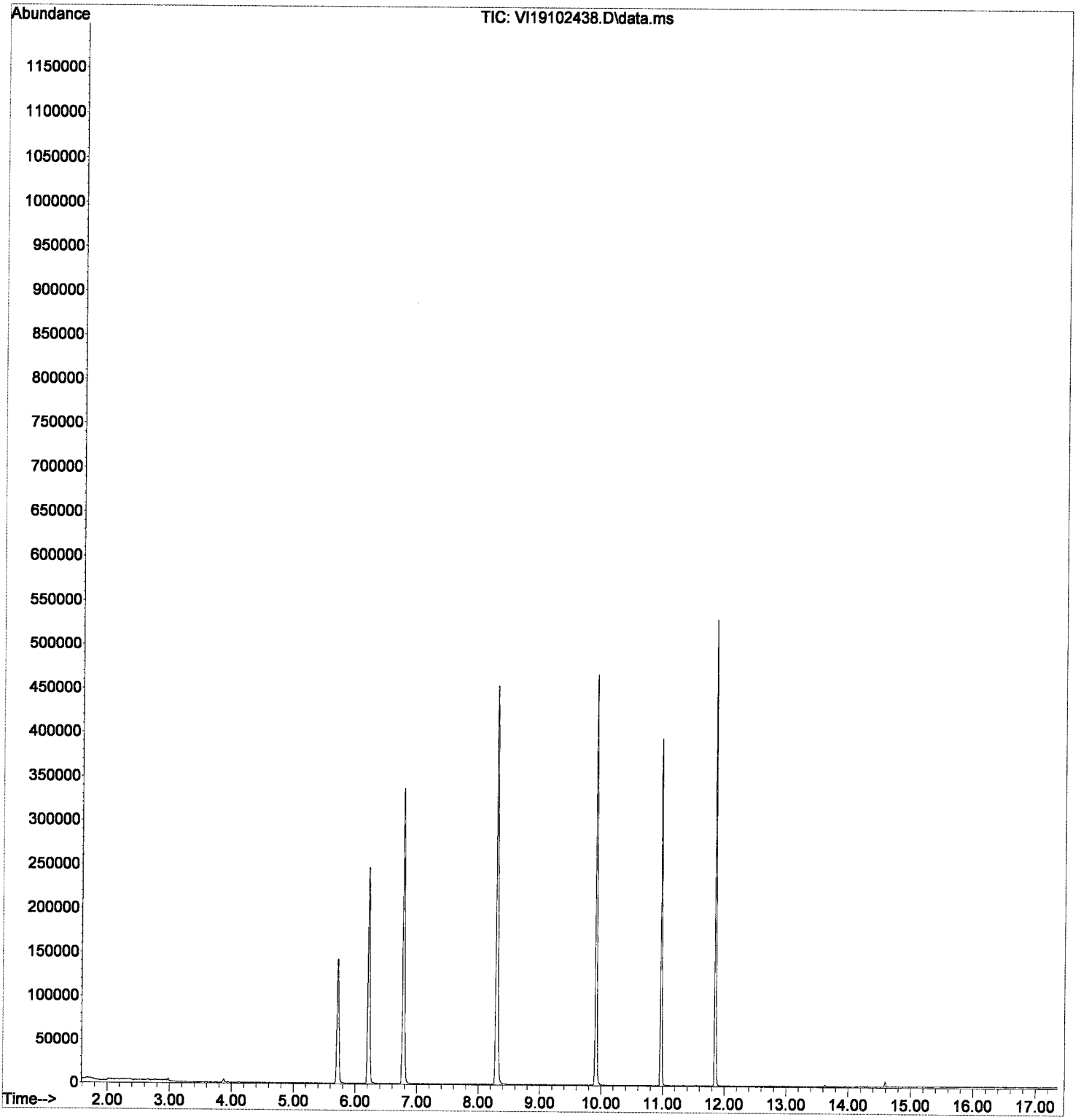
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	197519	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	324404	50.51	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	100113	46.69	ug/L	0.00
9) Toluene-d8 (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

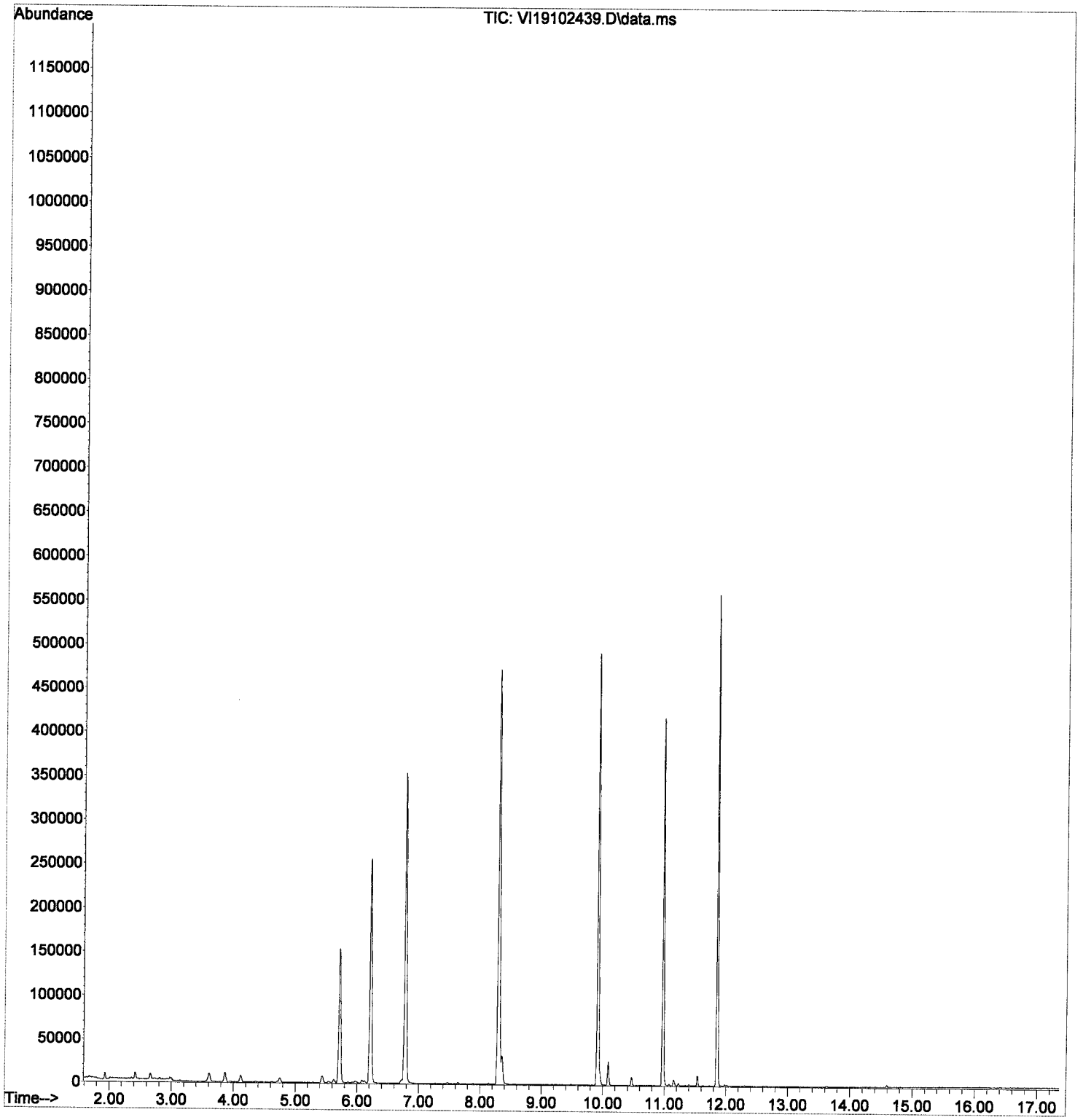
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	209290	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.777	114	341977	48.13	ug/L	-0.01
3) 4-Bromofluorobenzene (...	10.974	174	109139	43.97	ug/L	0.00
9) Toluene-d8 (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

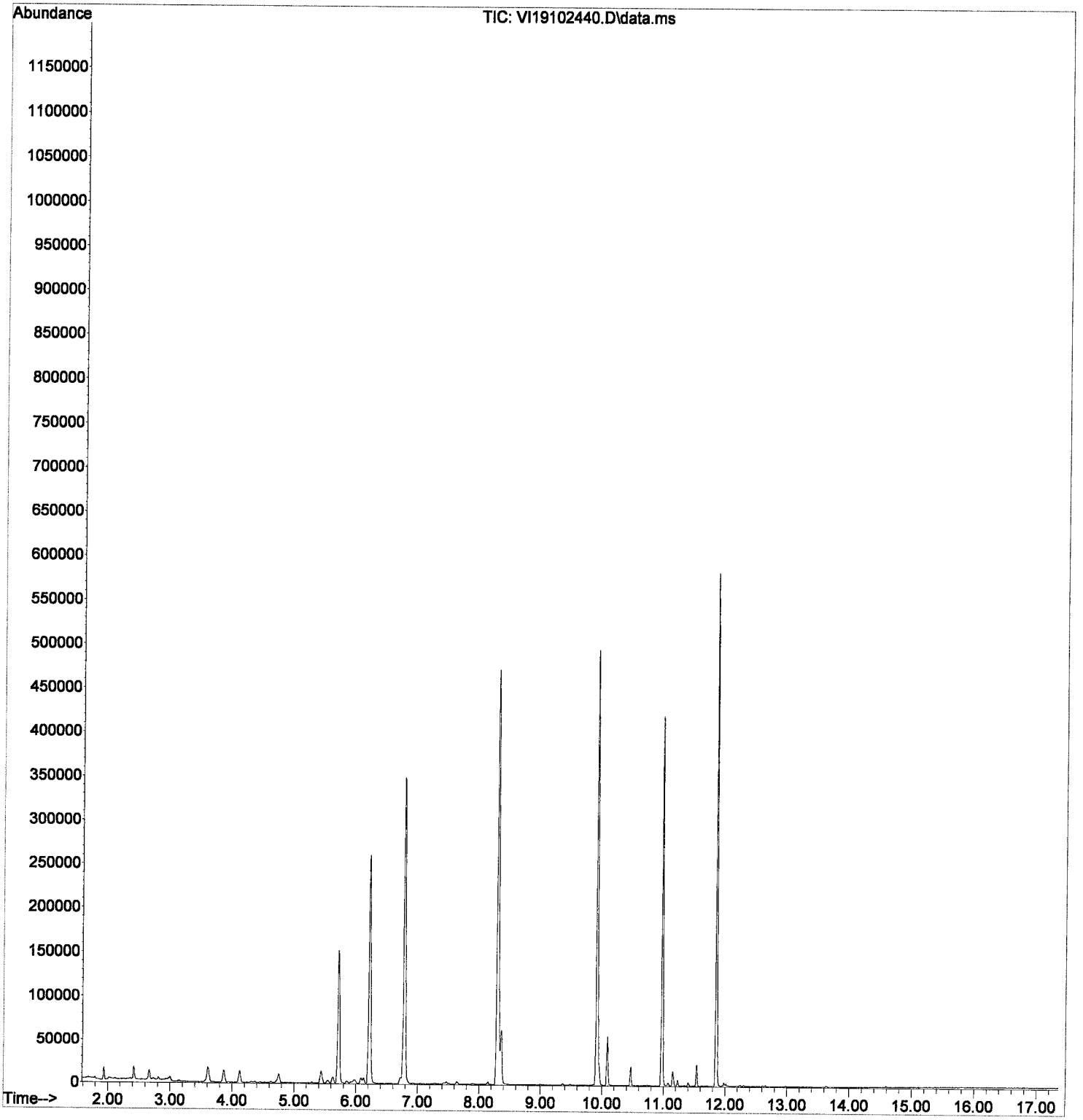
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	209478	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	342473	48.16	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	110020	44.29	ug/L	0.00
9) Toluene-d8 (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

CW 10/25/19

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

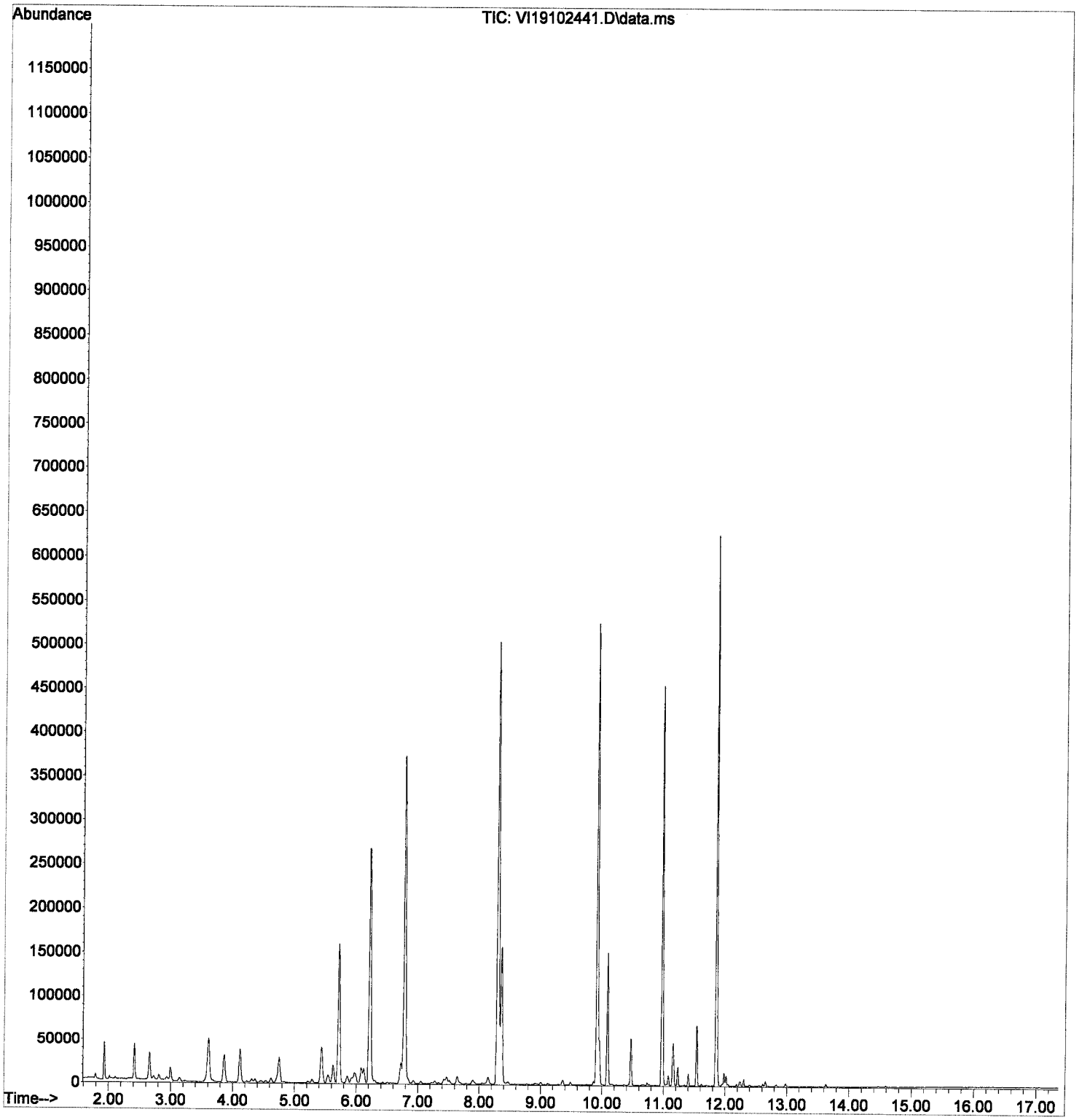
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	220921	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.777	114	357958	47.73	ug/L	-0.01
3) 4-Bromofluorobenzene (...	10.974	174	116770	44.57	ug/L	0.00
9) Toluene-d8 (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

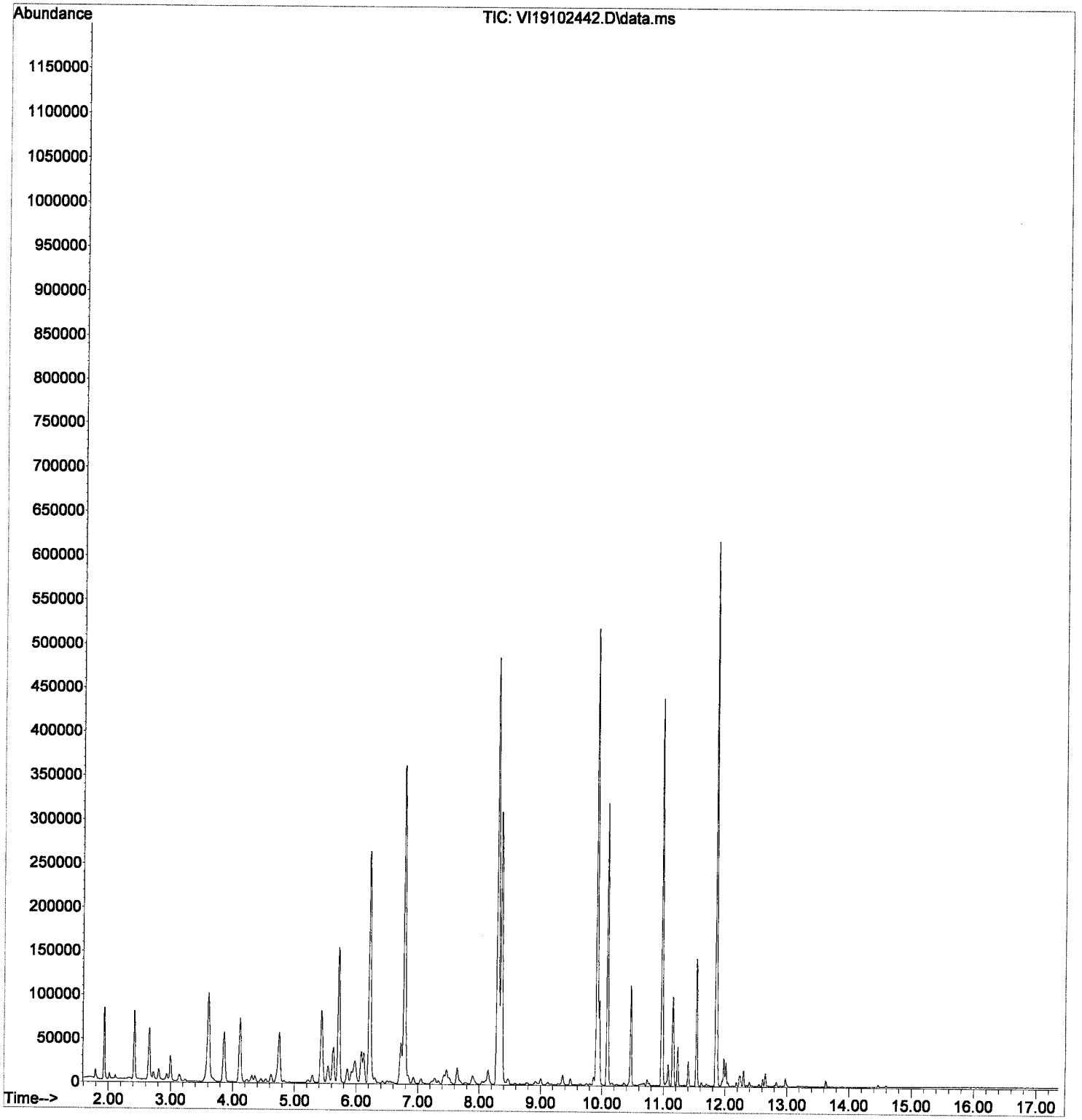
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	214780	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	347086	47.60	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	115043	45.16	ug/L	0.00
9) Toluene-d8 (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

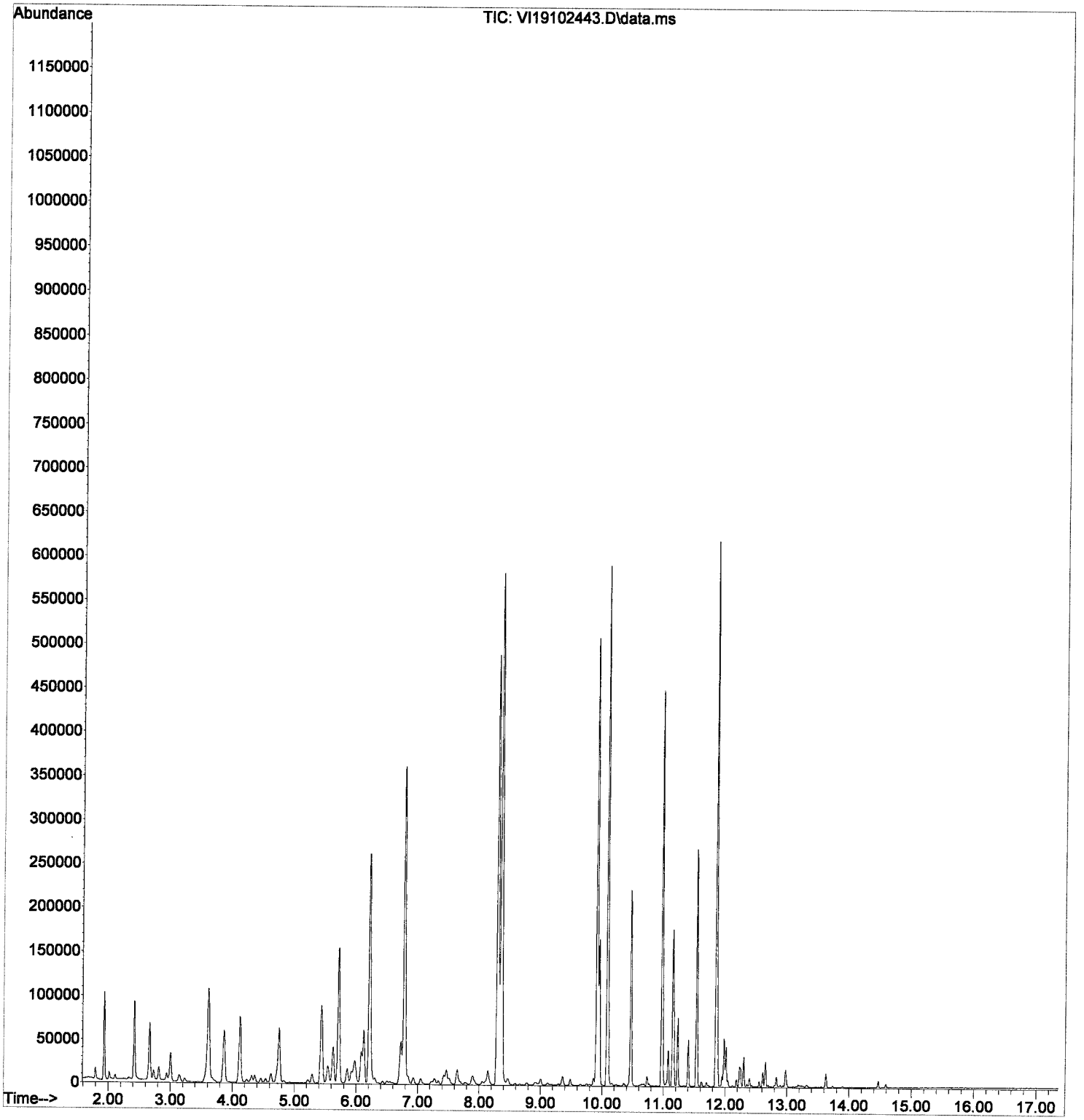
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	211453	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	348407	48.54	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	115114	45.90	ug/L	0.00
9) Toluene-d8 (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

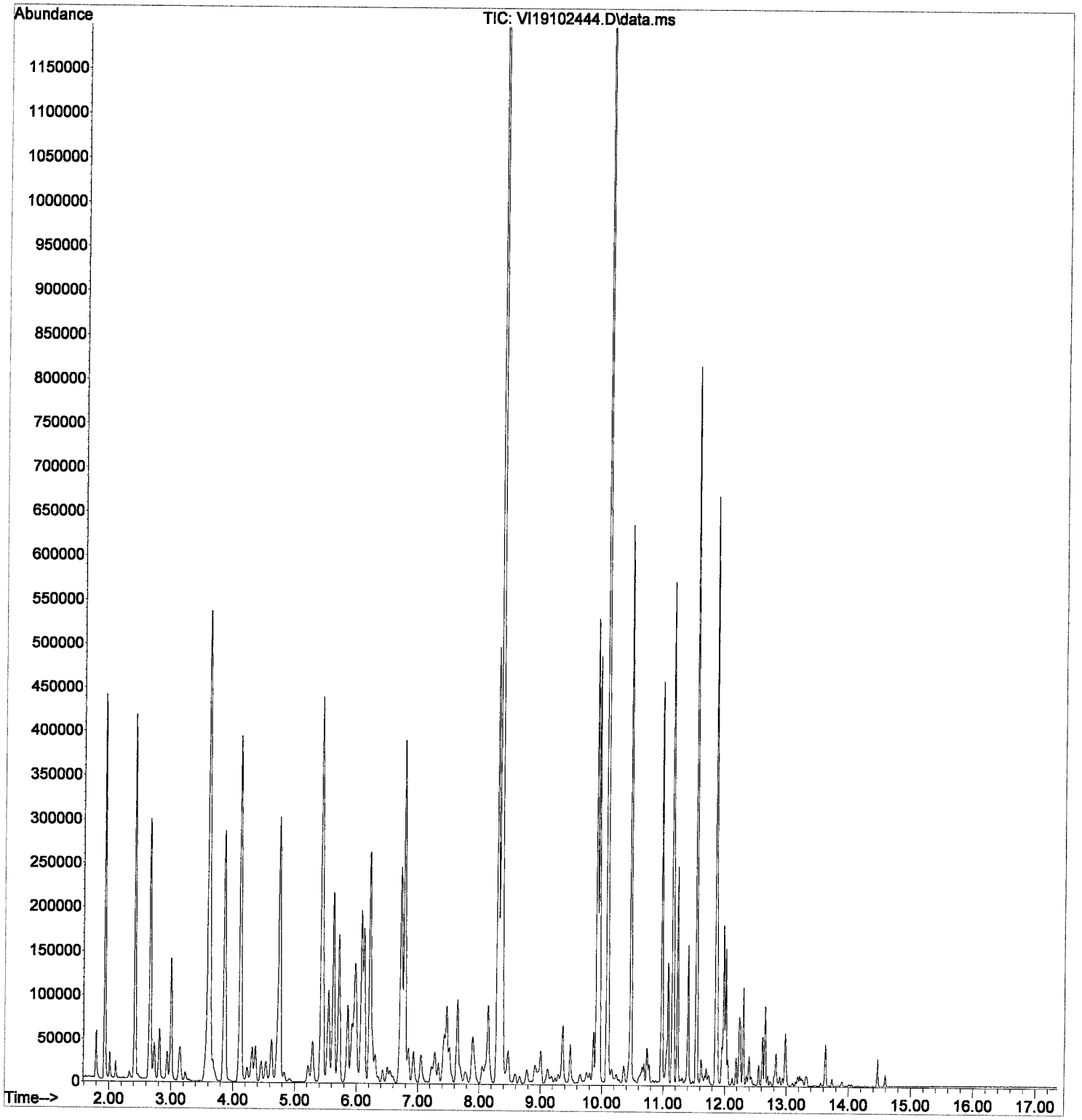
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	216435	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	352248	47.94	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	120135	46.80	ug/L	0.00
9) Toluene-d8 (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

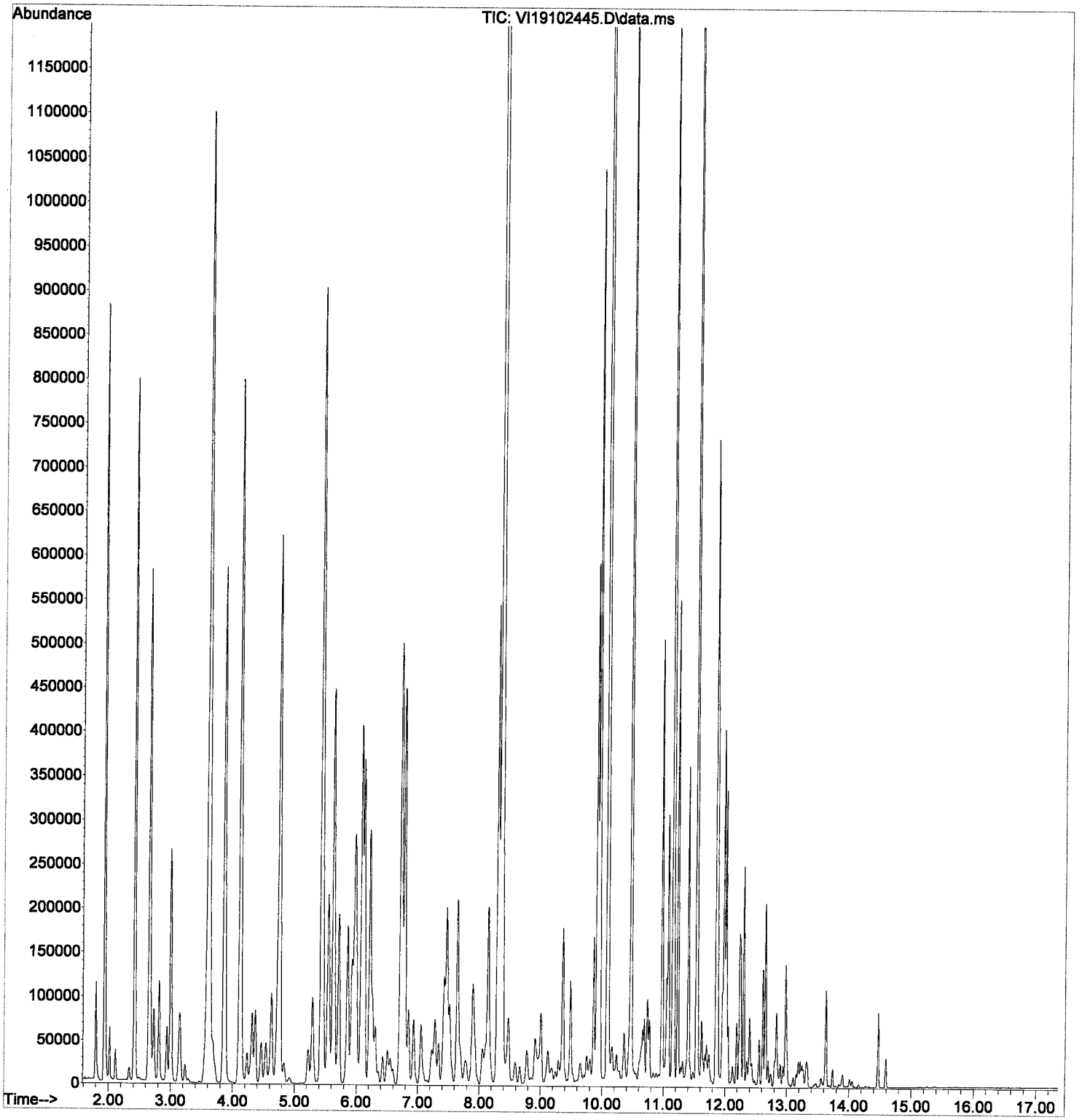
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	233849	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	379658	47.83	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	131653	47.47	ug/L	0.00
9) Toluene-d8 (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

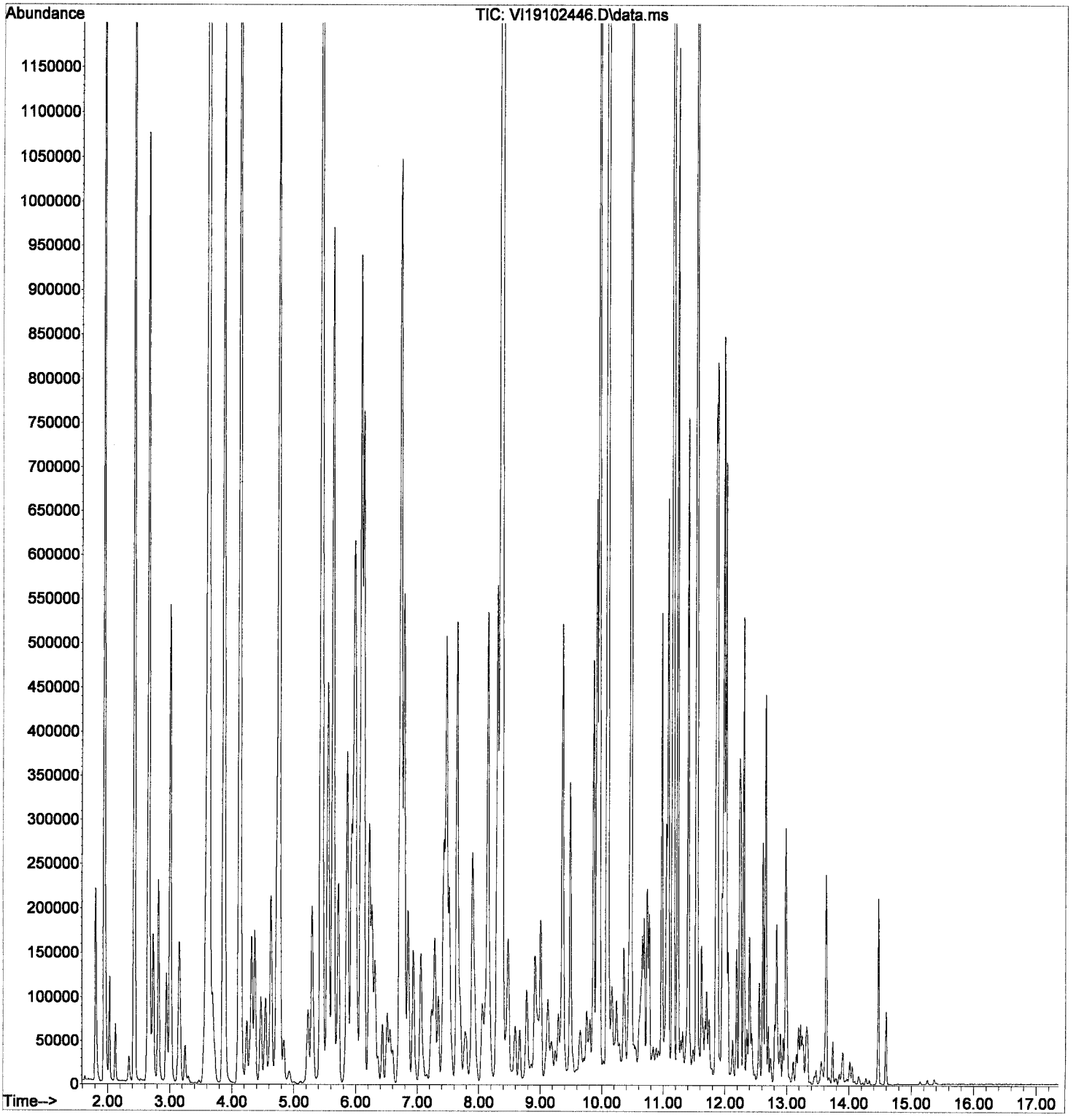
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	234183	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	384961	48.42	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	134509	48.43	ug/L	0.00
9) Toluene-d8 (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

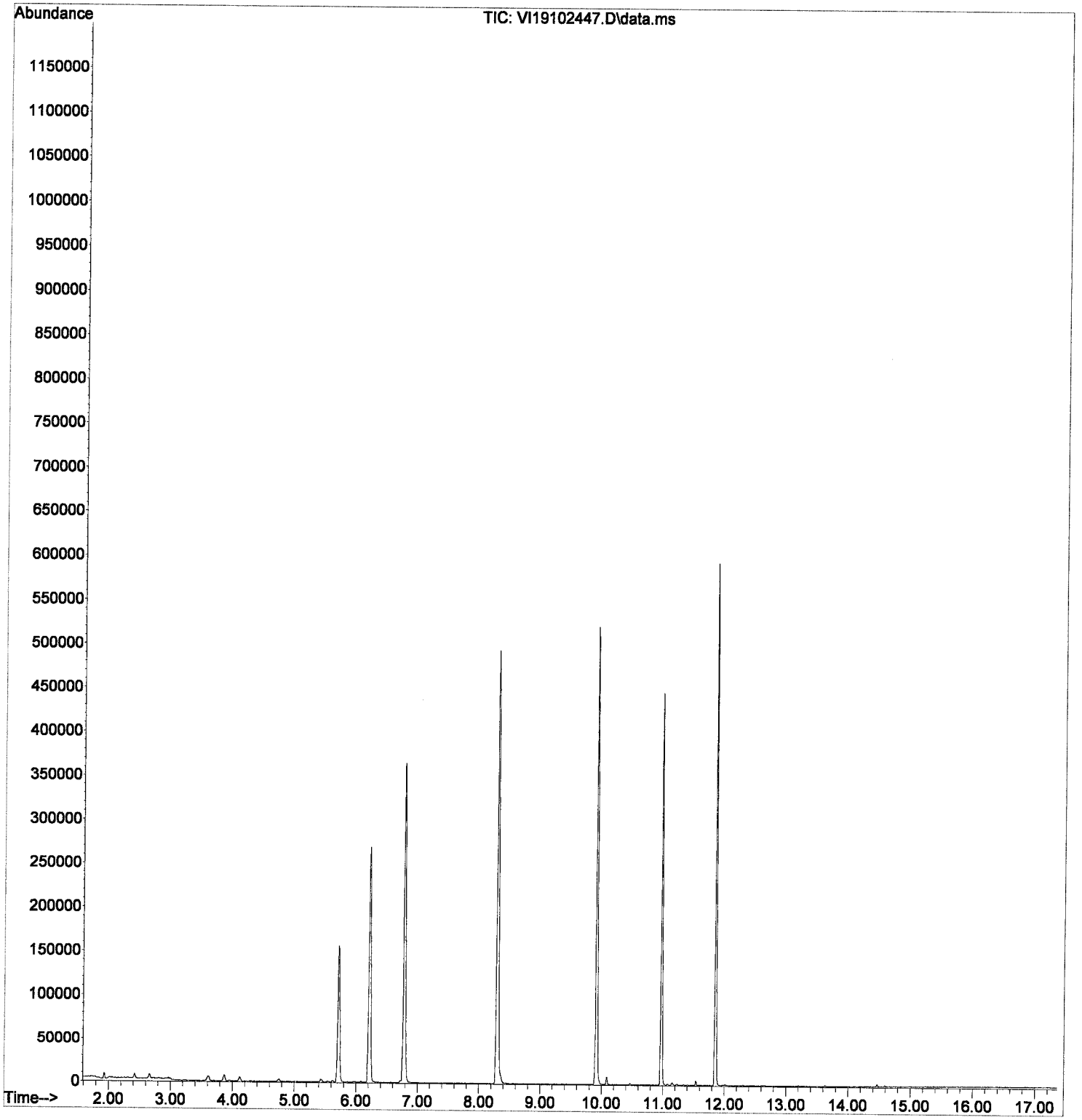
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	220300	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	358131	50.00	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	115759	48.41	ug/L	0.00
9) Toluene-d8 (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

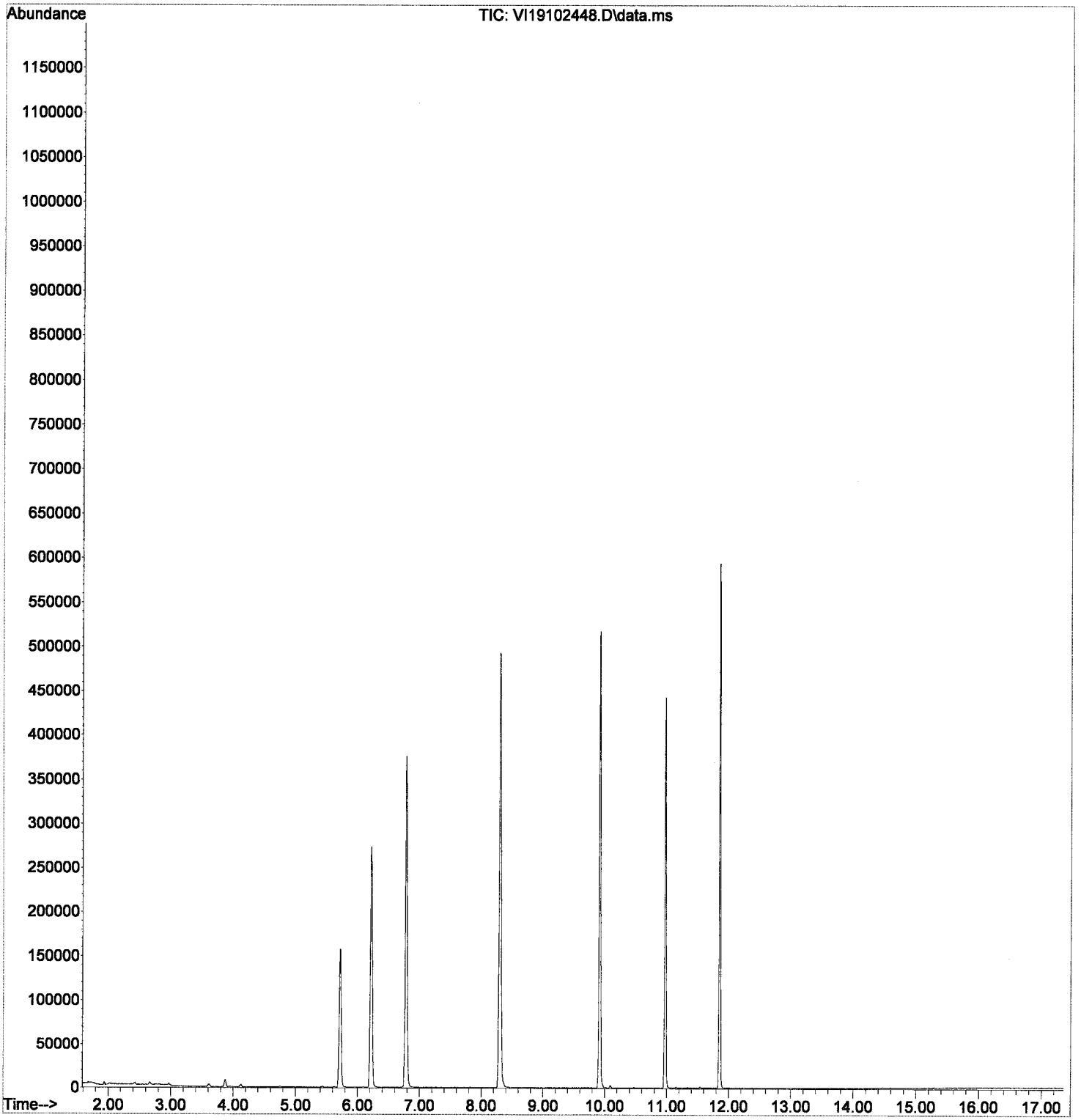
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	224165	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	364141	49.96	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	116148	47.73	ug/L	0.00
9) Toluene-d8 (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

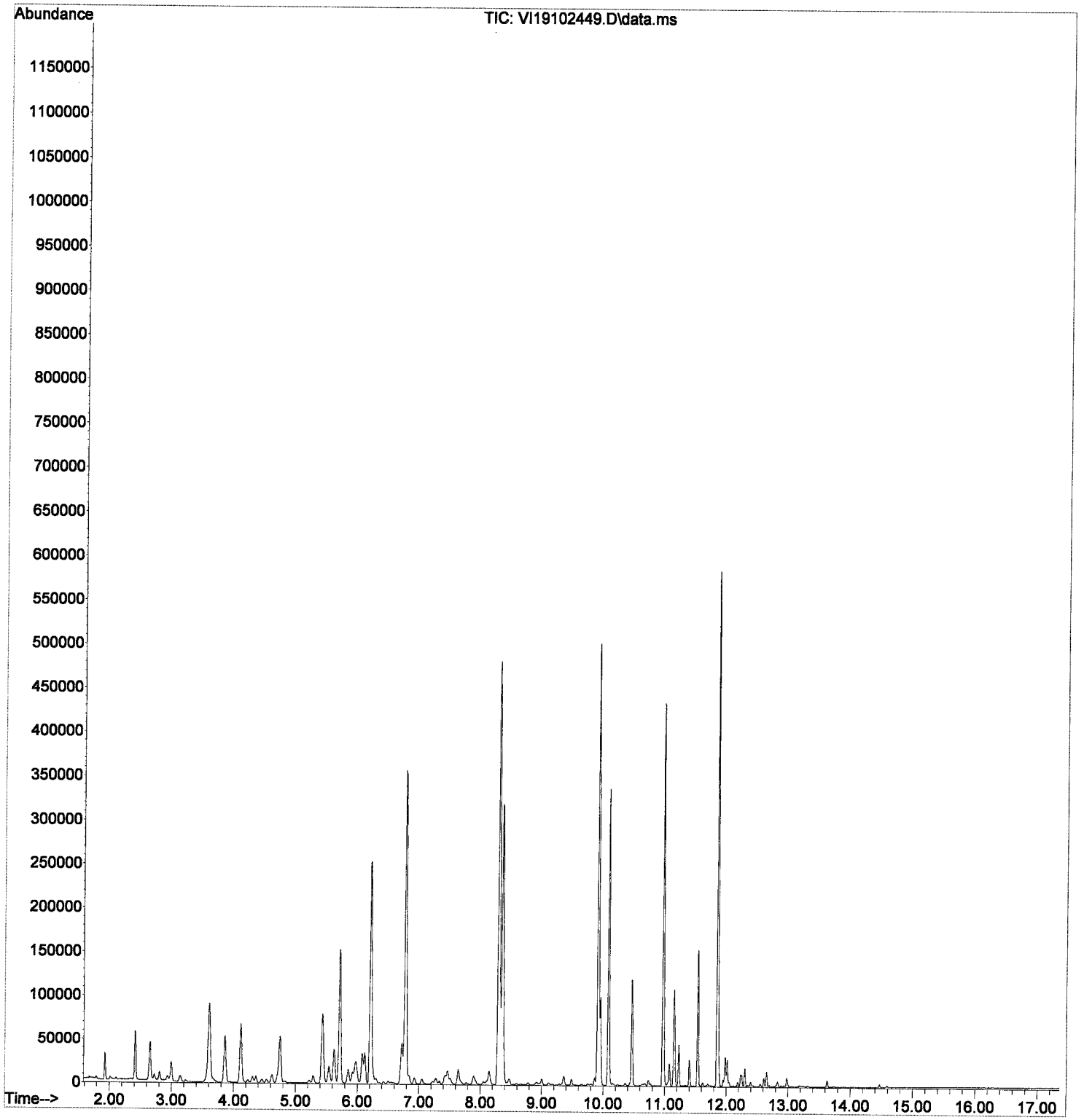
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	210169	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	342543	50.13	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	111447	48.85	ug/L	0.00
9) Toluene-d8 (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

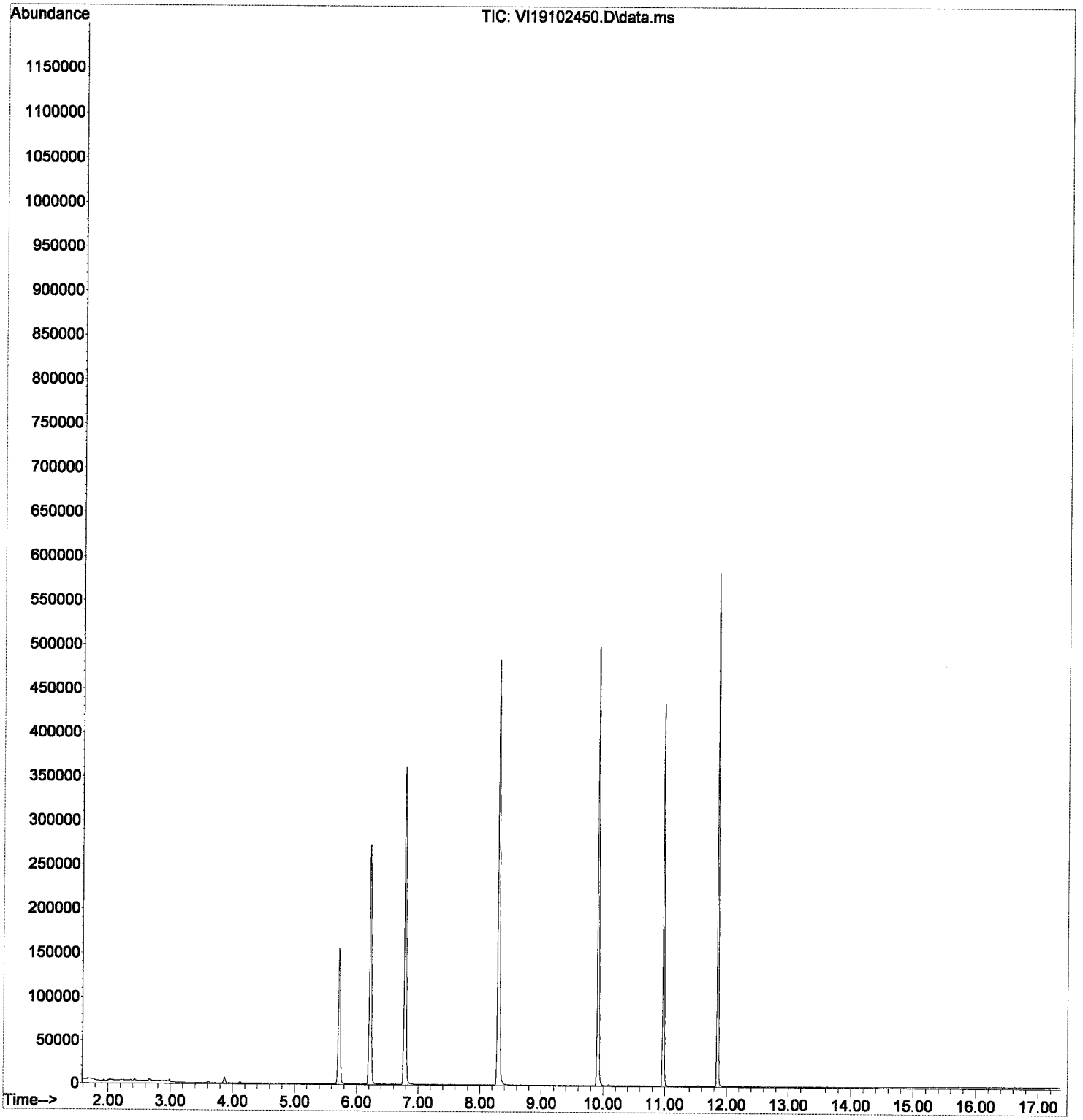
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	220005	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	355641	49.72	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	113694	47.61	ug/L	0.00
9) Toluene-d8 (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

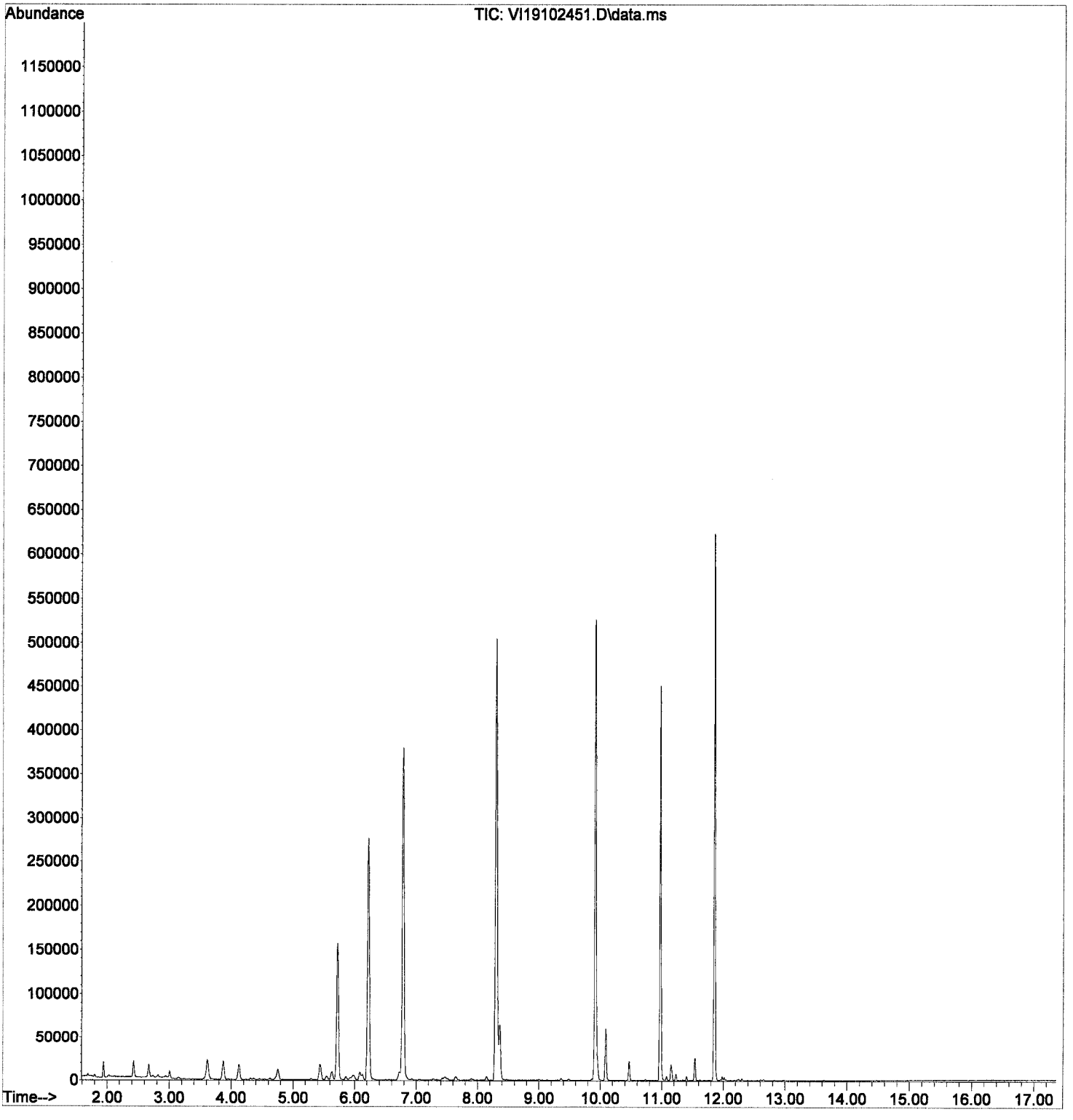
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	220874	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	362775	50.51	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	117808	49.14	ug/L	0.00
9) Toluene-d8 (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		

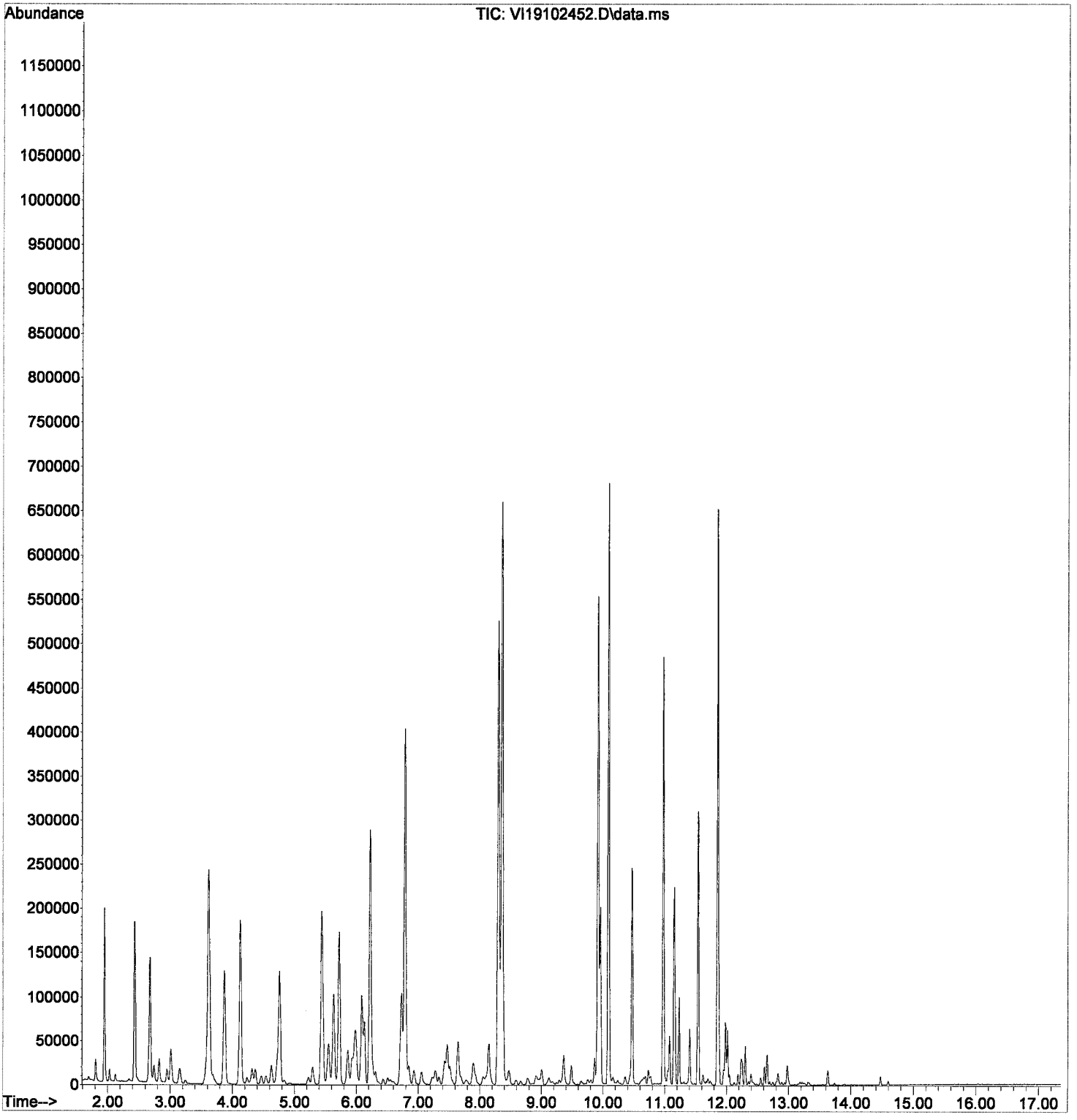
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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

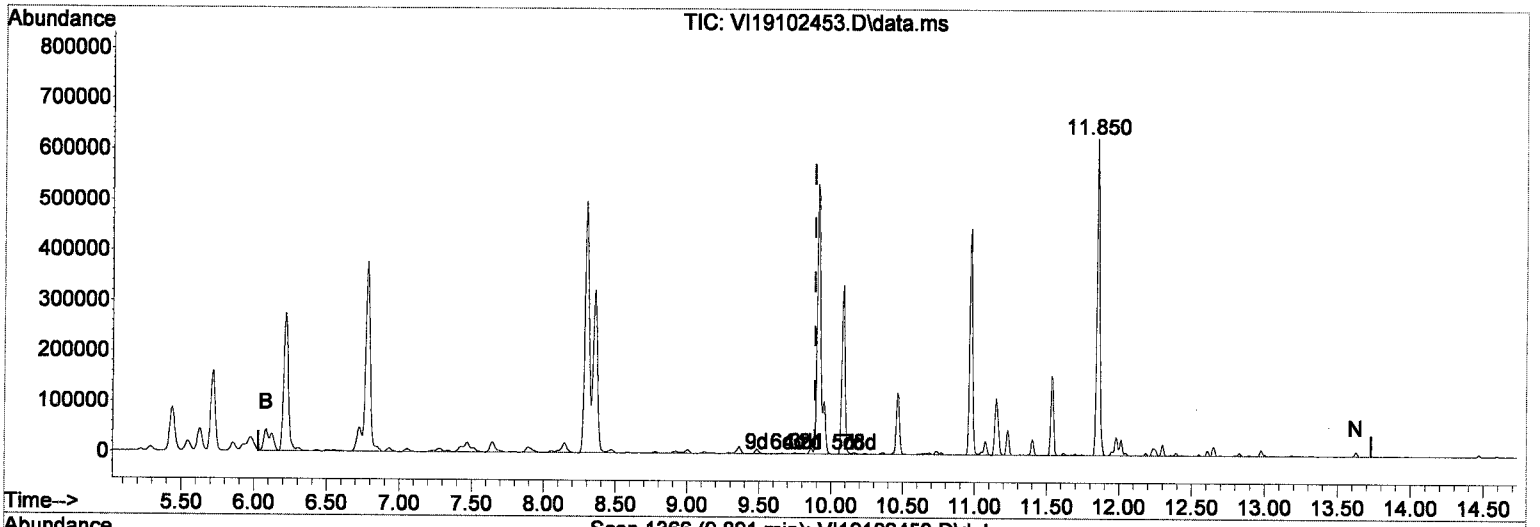
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	221958	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	358721	49.70	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	117543	48.79	ug/L	0.00
9) Toluene-d8 (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	

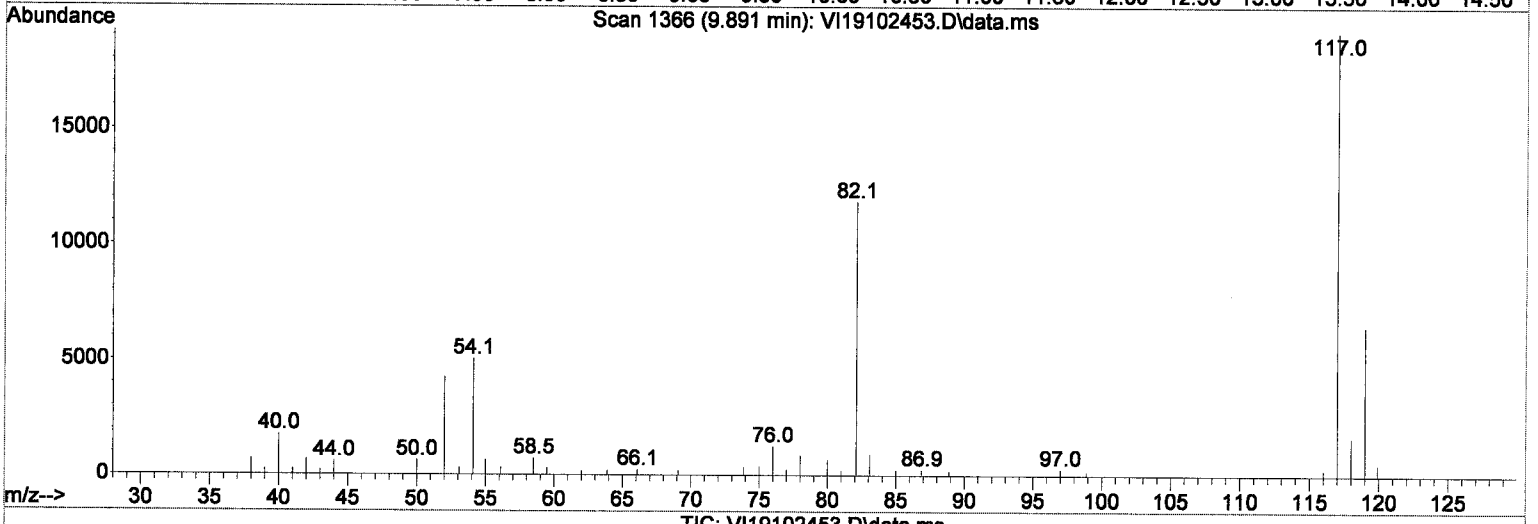
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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

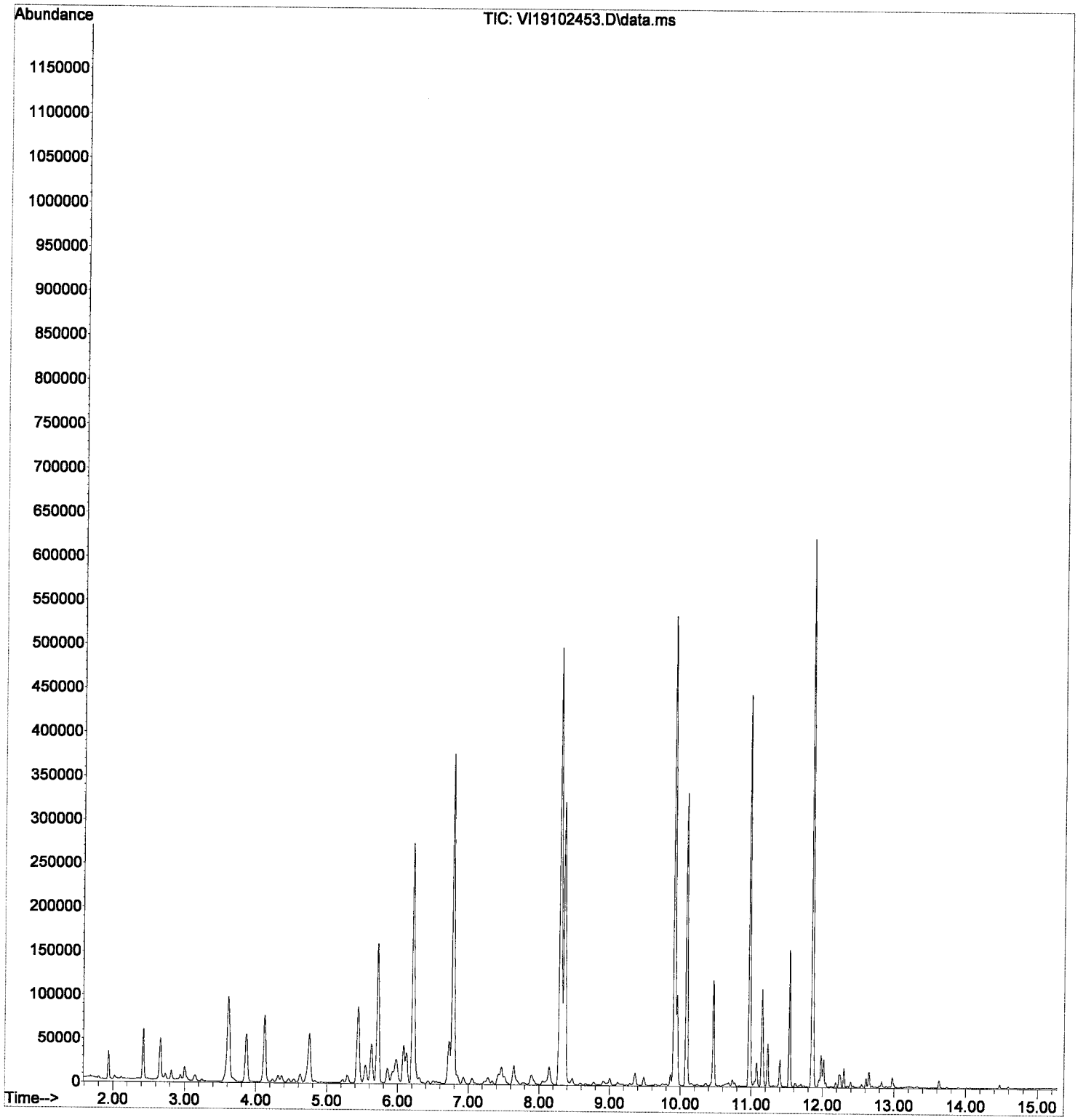
response 3205343

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 9111112
Sequence 9K25040 (A9K0330-01)

Apex Laboratories

PREPARATION BENCH SHEET

NOV 2 6 2019

BATCH #: 9111112 (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
	9111112-BLK1		QC	11/22/19 11:21	200	5				100					
	9111112-BSD1		QC	11/22/19 11:21	200	5	A19K227		100	100					
	9111112-BS1		QC	11/22/19 11:21	200	5	A19K227		100	100					
	A9K0330-01	B	1311/8081B TCLP Pest Reg List	11/22/19 11:21	200	5				100	PDI-140RAB-C-00-12.7-191108	matrix changed to soil / SO per client +11/14			

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
A19K052	04/17/20	8082 PCB Surrogate Spike

3x rinse

Witness: _____

Bottle Check: _____

Prepared By: _____ Date _____

Reviewed By: MJB Date 11/25/19

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9111112 (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 >12
	9111112-BLK1		QC	11/22/19 11:21	200	5 ✓				100		#		5	
	9111112-BSD1		QC	11/22/19 11:21	200	5 ✓	A19K227		100	100		#		7	
	9111112-BS1		QC	11/22/19 11:21	200	5 ✓	A19K227		100	100		#		7	
	A9K0330-01	B	1311/8081B TCLP Pest Reg List	11/22/19 11:21	200	5 ✓				100	PDI-140RAB-C-00-12.7-191108	matrix changed to soil / SO per client +11/14 #		5	

5 — am 11-22-19

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A18K311	12/31/20	Glass Wool
A19I263	03/18/20	DCM CHEM PROD. 194934
A19K010	10/29/25	Sodium Sulfate Lot # 188777
A19H411	8/30/21	N-Hexane Lot #192712 am 11-22-19

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	04/17/20	8082 PCB Surrogate Spike

3x rinse ✓ am 11-22-19

Witness: JAG 11/22/19

Bottle Check: N/A am 11-22-19

= 2mL exchanged with Hexane

am — 11-22-19
Prepared By: Date

CAM — 11-22-19
Reviewed By: Date

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9K25040**	Instrument:	**DUALECD5**
Date:	**11/25/19 10:57**	Calibration:	**A9H2608**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K25040-BKD1	Soil	QC	QC				A19J201
2	9K25040-CCV1	Soil	QC	QC				A19K133
3	9K25040-CCB1	Soil	QC	QC				A19K026
4	9111112-BLK1	Soil	QC	QC		9111112		
5	9111112-BS1	Soil	QC	QC		9111112		
6	9111112-BSD1	Soil	QC	QC		9111112		
7	A9K0330-01	Soil	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/25/19	9111112		
8	9K25040-CCV2	Soil	QC	QC				A19K134
9	9K25040-CCB2	Soil	QC	QC				A19K026

Comments:

Data Entered By: MB 11/25/19

Data Reviewed By: MM 11/25/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-11\9K25040\
Data File : ECD5-11251903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Nov 2019 11:42
Operator : MJB
Sample : 9K25040-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: Nov 25 11:56:40 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT8.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	7.414	870001	NoCal	ng/mL
2)	Endrin	7.775	67869943	NoCal	ng/mL
3)	4,4'-DDD	7.832	9597750	NoCal	ng/mL
4)	4,4'-DDT	8.028	111708399	NoCal	ng/mL
5)	Endrin Aldehyde	8.218	3309541	NoCal	ng/mL
6)	Endrin Ketone	8.709	6017221	NoCal	ng/mL
8)	4,4'-DDE [2C]	8.171	1699887	NoCal	ng/mL
9)	Endrin [2C]	8.531	97188162	NoCal	ng/mL
10)	4,4'-DDD [2C]	8.584	14879242	NoCal	ng/mL
11)	Endrin Aldehyde [2C]	8.915	4958075	NoCal	ng/mL
12)	4,4'-DDT [2C]	8.807	156898152	NoCal	ng/mL
13)	Endrin Ketone [2C]	9.498	8520657	NoCal	ng/mL

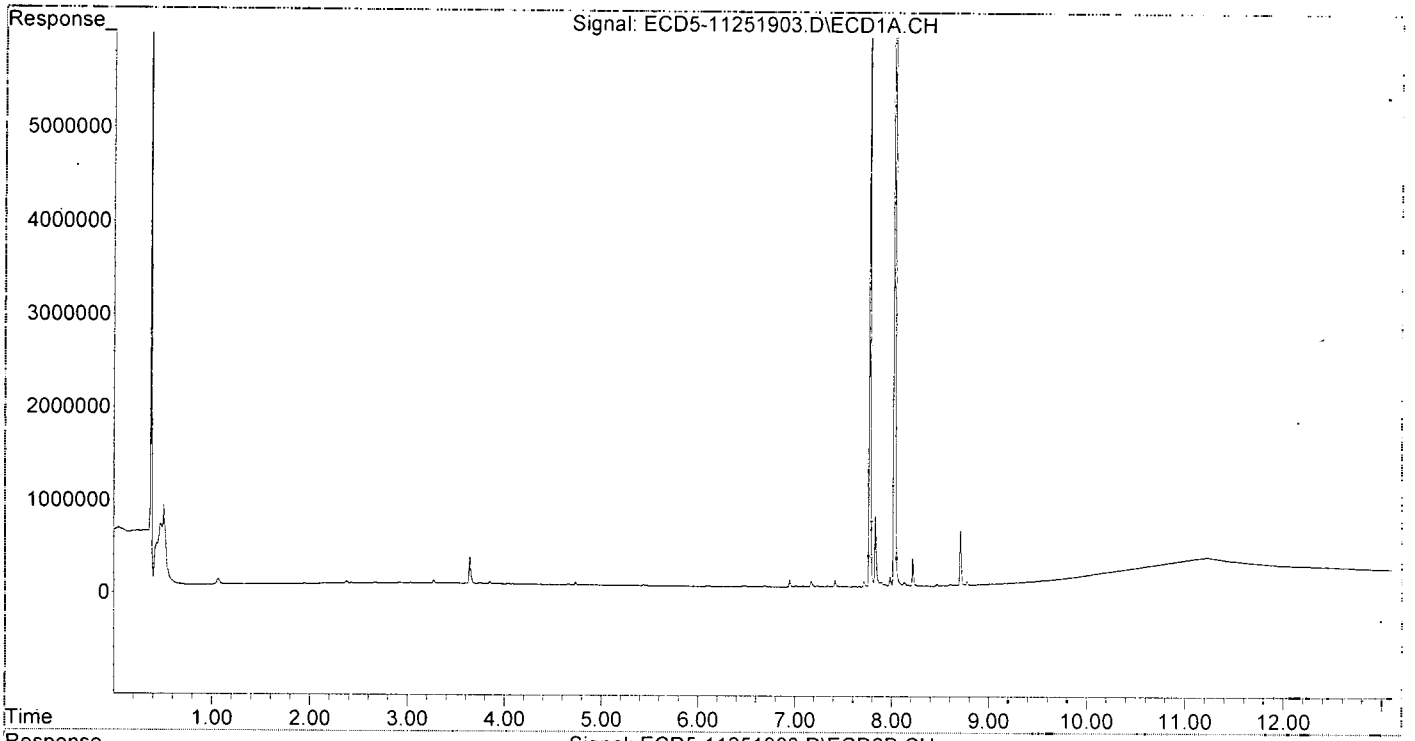
(f)=RT Delta > 1/2 Window (m)=manual int.

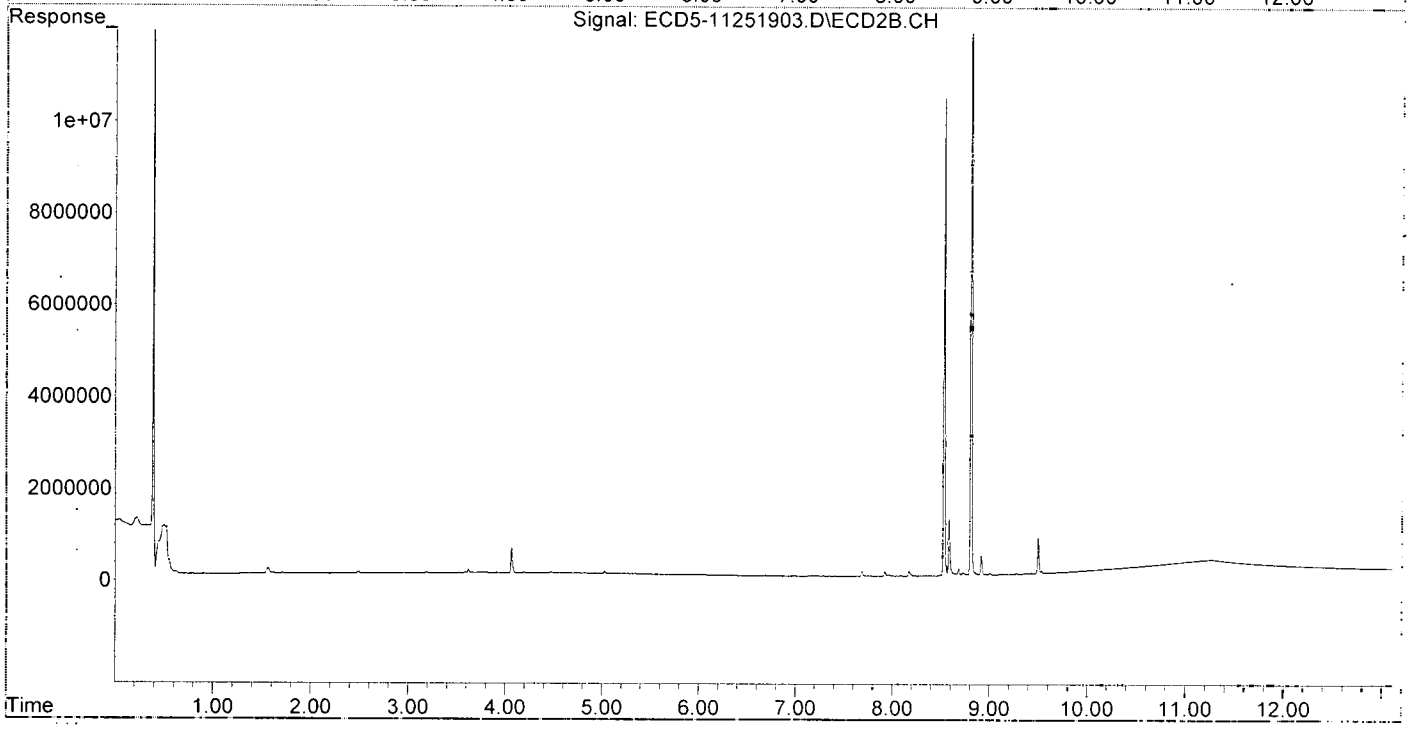
MJB 11/25/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-11\9K25040\
Data File : ECD5-11251903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Nov 2019 11:42
Operator : MJB
Sample : 9K25040-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: Nov 25 11:56:40 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT8.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\2019-11\9K25040\
Data File : ECD5-11251904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Nov 2019 12:00
Operator : MJB
Sample : 9K25040-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: Nov 25 15:13:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.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 11/25/19

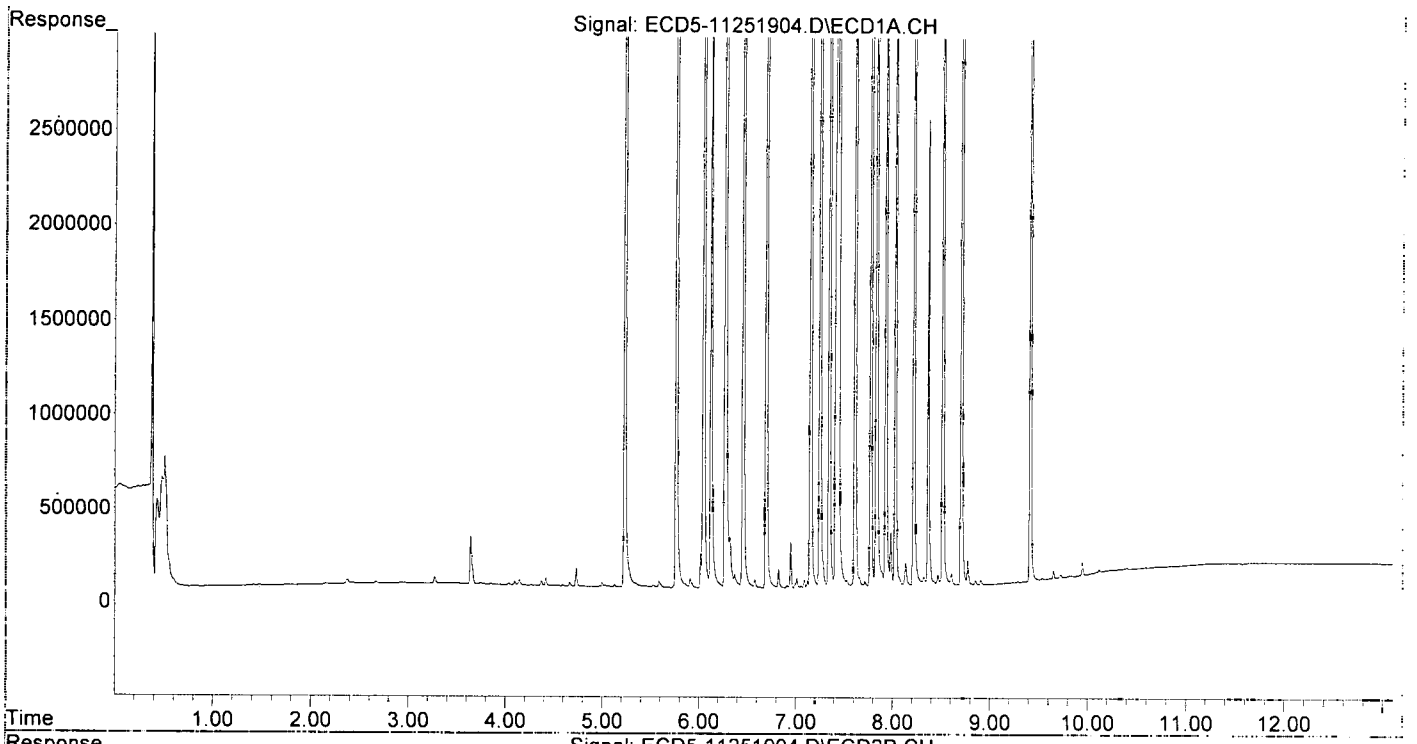
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.231	5.822	8066128	12945066	48.598	44.126	
22)	S	DCBP (S)	9.415	10.329	6375336	8322975	45.184	46.300	
		Target Compounds							
2)		a-BHC	5.765	6.426	11392500	19178163	49.678	46.737	
3)		g-BHC	6.046	6.743	9366895	15896689	46.422	44.566	
4)		b-BHC	6.122	6.809	3663579	6120231	40.534	38.671	
5)		Heptachlor	6.455	7.112	8358238	13897217	46.103	45.419	
6)		d-BHC	6.269	7.061	7912515	14488408	40.228	41.083	
7)		Aldrin	6.694	7.374	9360422	15901389	47.408	48.275	
8)		Heptachlo...	7.152	7.812	8302808	13234855	45.080	43.992	
9)		trans-Chl...	7.248	7.951	8624820	13791327	46.648	44.016	
10)		cis-Chlor...	7.345	8.058	8556071	13015063	46.993	44.687	
11)		Endosulfa...	7.439	8.107	8138699	12242552	47.824	44.490	
12)		4,4'-DDE	7.439f	8.170	8138699	13626653	43.169	43.861	
13)		Dieldrin	7.611	8.306	9003427	14228715	46.898	46.782	
14)		Endrin	7.774	8.530	6676596	9755569	45.411	43.199	
15)		4,4'-DDD	7.831	8.582	6516117	10293185	41.467	40.174	
16)		Endosulfa...	7.929	8.678	6641117	10578695	46.244	45.873	
17)		4,4'-DDT	8.028	8.806	5200011	7384282	43.493	39.967	
18)		Endrin Al...	8.217	8.914	5769729	9157958	47.036	46.687	
19)		Endosulfa...	8.517	9.104	6456272	10284164	41.659	41.287	
20)		Methoxychlor	8.366	9.285	2460016	3622021	41.998	41.089	
21)		Endrin Ke...	8.708	9.498	7685573	11216167	46.088	43.589	
23)		Hexachlor...	0.000	3.586f	0	3595	N.D.	0.010	#
24)		Hexachlor...	5.586f	6.335f	33441	26709	0.190	0.085	#
25)		Oxychlordane	7.089	7.775	42604	39654	0.259	0.145	#
26)		2,4'-DDE	7.152f	7.951	8302808	13791327	64.734	65.011	
27)		trans-Non...	7.345	8.058f	8556071	13015063	47.466	43.148	
28)		2,4'-DDD	0.000	8.306f	0	14228715	N.D.	75.339	#
29)		2,4'-DDT	7.715	8.582f	29227	10293185	0.266	57.717	#
30)		cis-Nonac...	7.831	8.582	6516117	10293185	31.386	30.685	
31)		Mirex	8.466	9.498	57906	11216167	0.462	60.278	#
32)		Chlordane...	7.248	7.951	8624820	13791327	438.039	381.138	
33)		Chlordane...	7.345	8.058	8556071	13015063	341.365	428.634	
34)		Chlordane...	7.929f	8.725	6641117	89942	1148.759	10.032	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	7.345	8.306	8556071	14228715	9552.945	5421.995	#
37)		Toxaphene...	7.611	8.678f	9003427	10578695	5575.089	3214.407	#
38)		Toxaphene...	7.929	8.678	6641117	10578695	1972.127	2087.221	
39)		Toxaphene...	8.135f	8.755	122918	58728	37.936	7.033	#
40)		Toxaphene...	8.366f	8.914	2460016	9157958	1026.229	1965.076	#
41)		Toxaphene...	8.466	9.285	57906	3622021	18.298	762.498	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

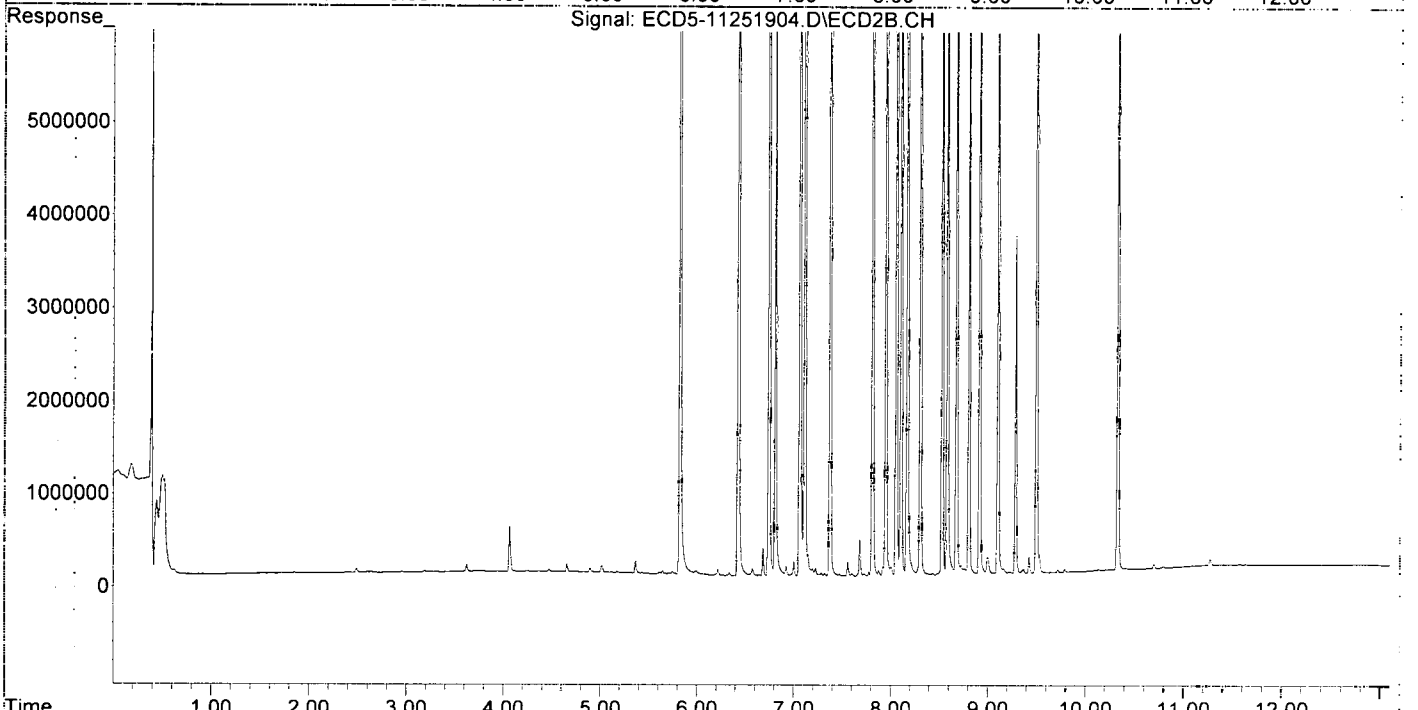
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K25040\
Data File : ECD5-11251904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Nov 2019 12:00
Operator : MJB
Sample : 9K25040-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: Nov 25 15:13:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.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\2019-11\9K25040\
Data File : ECD5-11251905.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Nov 2019 12:17
Operator : MJB
Sample : 9K25040-CCB1
Misc : A19K026
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: Nov 25 15:13:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.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 11/25/19

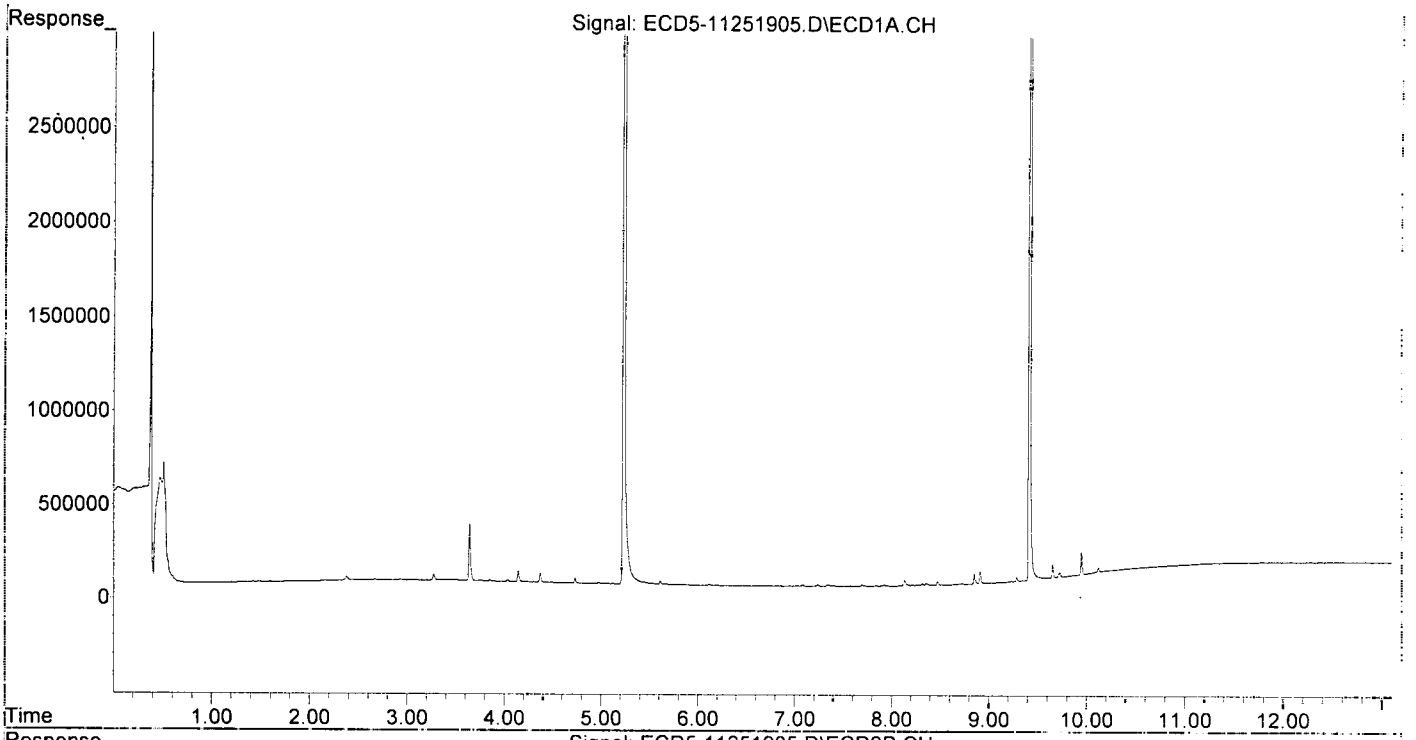
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.231	5.821	15169297	24800476	91.395	84.537	
22)	S	DCBP (S)	9.416	10.330	11436733	16106856	81.055	89.600	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.116	0.000	6253	0	0.069	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	7.405f	0	10136	N.D.	0.031	#
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	7.237	7.977f	10000	8814	0.054	0.028	#
10)		cis-Chlor...	7.339	0.000	9426	0	0.052	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	7.397	0.000	3830	0	0.020	N.D.	#
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	8.540	0	11277	N.D.	0.050	#
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	7.925	8.667	8775	11205	0.061	0.049	
17)		4,4'-DDT	0.000	8.825	0	10019	N.D.	0.020	#
18)		Endrin Al...	8.218	8.913	5489	6517	BelowCal	BelowCal	
19)		Endosulfa...	8.518	9.088	3516	9435	0.023	0.038	#
20)		Methoxychlor	8.356	0.000	11562	0	0.197	N.D.	#
21)		Endrin Ke...	8.727	9.500	4208	7941	0.025	0.031	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.610	0.000	17943	0	0.102	N.D.	#
25)		Oxychlordane	7.082	0.000	7729	0	0.047	N.D.	#
26)		2,4'-DDE	0.000	7.977	0	8814	N.D.	0.042	#
27)		trans-Non...	7.339	0.000	9426	0	87346.648	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	7.695f	8.540f	7366	11277	0.067	0.063	
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.474	9.500	20418	7941	0.163	0.043	#
32)		Chlordane...	7.237f	7.977	10000	8814	0.508	0.244	#
33)		Chlordane...	7.339	0.000	9426	0	0.376	N.D.	#
34)		Chlordane...	7.898	8.729	5275	49700	0.912	5.543	#
35)		Chlordane...	0.000	3.486	0	3719	N.D.	NoCal	
36)		Toxaphene...	7.339	0.000	9426	0	10.524	N.D.	#
37)		Toxaphene...	0.000	8.667	0	11205	N.D.	3.405	#
38)		Toxaphene...	7.925	8.692	8775	5316	2.606	1.049	#
39)		Toxaphene...	0.000	8.729f	0	49700	N.D.	5.952	#
40)		Toxaphene...	0.000	8.913	0	6517	N.D.	1.398	#
41)		Toxaphene...	8.474	0.000	20418	0	6.452	N.D.	#
42)		Toxaphene...	0.000	3.486	0	3719	N.D.	NoCal	

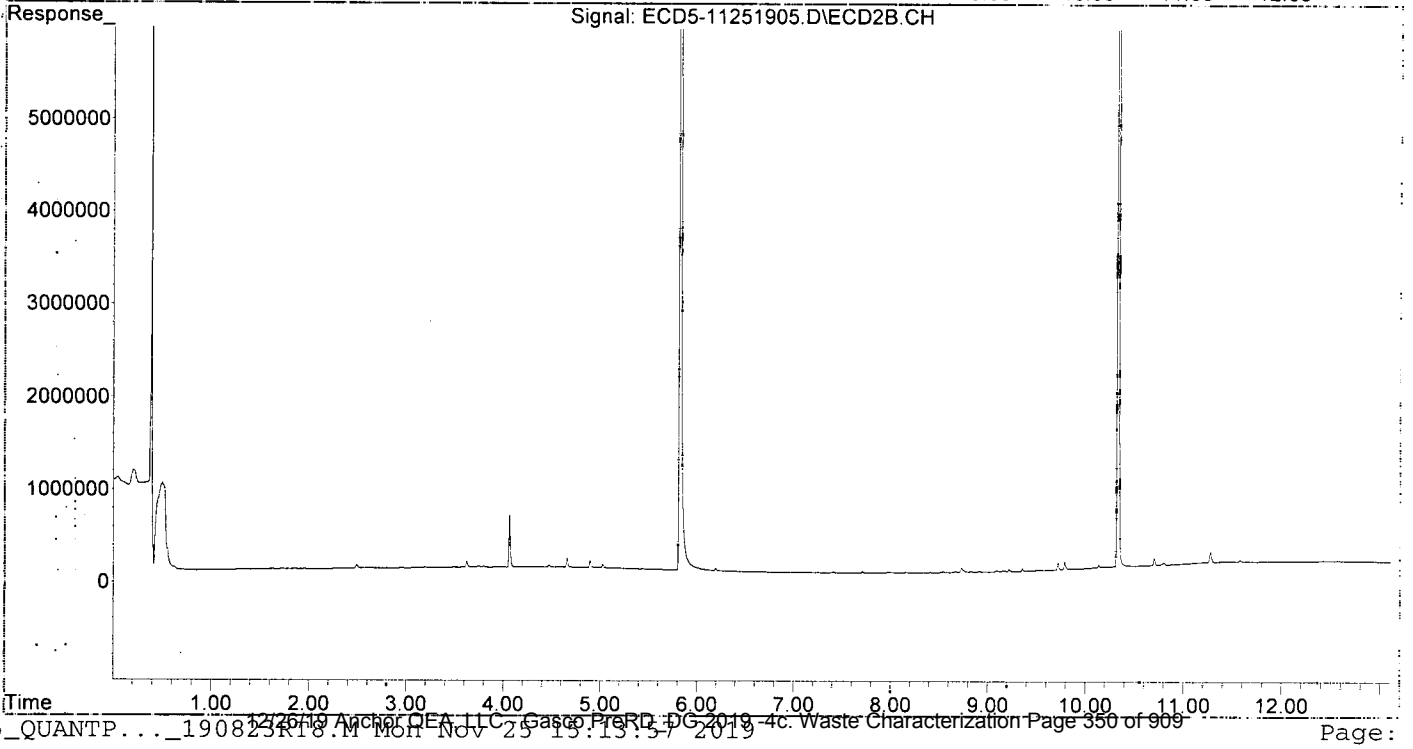
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K25040\
Data File : ECD5-11251905.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Nov 2019 12:17
Operator : MJB
Sample : 9K25040-CCB1
Misc : A19K026
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: Nov 25 15:13:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.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\2019-11\9K25040\
Data File : ECD5-11251906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Nov 2019 12:34
Operator : MJB MJB 11/25/19
Sample : 911112-BLK1
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 25 15:14:01 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.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 11/25/19

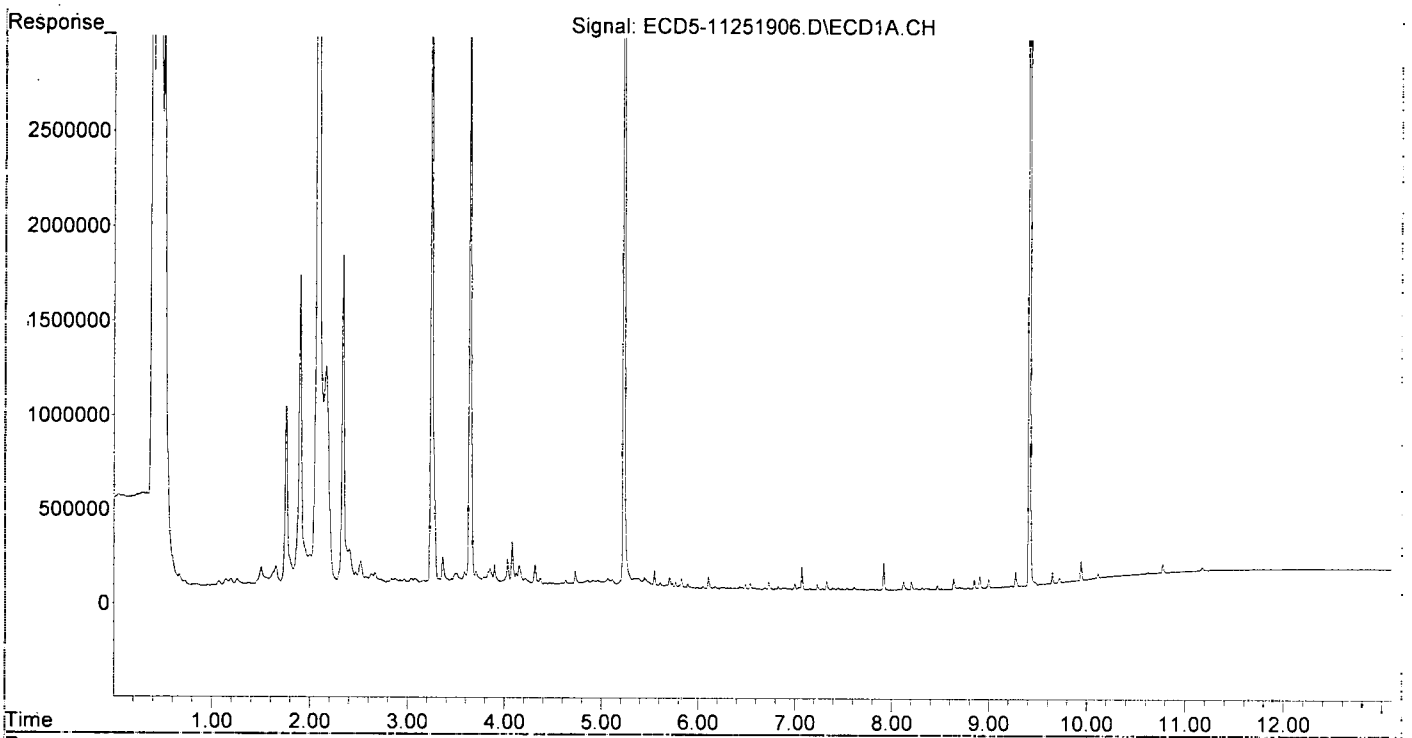
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.230	5.820	8796899	14907113	53.001	50.814	
22)	S	DCBP (S)	9.414	10.329	9679754	13279211	68.603	73.871	
		Target Compounds							
2)		a-BHC	5.767	0.000	34875	0	0.152	N.D.	#
3)		g-BHC	6.050	6.741	13073	11009	0.065	0.031	#
4)		b-BHC	6.108	6.801	64731	12371	0.716	0.078	#
5)		Heptachlor	6.453	7.116	9678	26105	0.053	0.085	#
6)		d-BHC	6.269	7.039f	8154	8730	0.041	0.025	#
7)		Aldrin	6.691	7.402f	7428	36132	0.038	0.110	#
8)		Heptachlo...	0.000	7.795	0	31951	N.D.	0.106	#
9)		trans-Chl...	7.233	7.954	27117	66798	0.147	0.213	#
10)		cis-Chlor...	7.330	8.024f	43577	8654	0.239	0.030	#
11)		Endosulfa...	7.445	8.106	9619	5875	0.057	0.021	#
12)		4,4'-DDE	7.388f	0.000	9767	0	0.052	N.D.	#
13)		Dieldrin	7.612	8.305	14168	9801	0.074	0.032	#
14)		Endrin	7.789	8.536	5257	8611	0.036	0.038	
15)		4,4'-DDD	0.000	8.582	0	7047	N.D.	0.028	#
16)		Endosulfa...	7.919	8.663	147800	188340	1.029	0.817	
17)		4,4'-DDT	0.000	8.827f	0	9963	N.D.	0.020	#
18)		Endrin Al...	8.203	8.898	42752	63699	BelowCal	BelowCal	
19)		Endosulfa...	8.515	9.084f	3694	10887	0.024	0.044	#
20)		Methoxychlor	8.364	0.000	8241	0	0.141	N.D.	#
21)		Endrin Ke...	8.700	9.501	9124	87145	0.055	0.339	#
23)		Hexachlor...	3.039	0.000	46200	0	0.253	N.D.	#
24)		Hexachlor...	5.608	6.311	32180	104830	0.183	0.334	#
25)		Oxychlordane	7.074f	7.738f	119394	13439	0.726	0.049	#
26)		2,4'-DDE	0.000	7.954	0	66798	N.D.	0.315	#
27)		trans-Non...	7.330f	8.024	43577	8654	87346.457	0.029	#
28)		2,4'-DDD	7.540	8.305f	8732	9801	0.077	0.052	
29)		2,4'-DDT	7.690f	8.582f	5489	7047	0.050	0.040	
30)		cis-Nonac...	7.789f	8.582	5257	7047	0.025	0.021	
31)		Mirex	8.470	9.501	19948	87145	0.159	0.468	#
32)		Chlordane...	7.282f	7.954	6186	66798	0.314	1.846	#
33)		Chlordane...	7.330f	8.106f	43577	5875	1.739	0.193	#
34)		Chlordane...	7.919f	8.723	147800	63719	25.566	7.107	#
35)		Chlordane...	3.501	3.448	73560	29747	NoCal	NoCal	
36)		Toxaphene...	7.330	8.305	43577	9801	48.654	3.735	#
37)		Toxaphene...	7.612	8.663	14168	188340	8.773	57.228	#
38)		Toxaphene...	7.919	8.663	147800	188340	43.890	37.160	
39)		Toxaphene...	8.203f	8.723f	42752	63719	13.194	7.631	#
40)		Toxaphene...	8.364f	8.898f	8241	63699	3.438	13.668	#
41)		Toxaphene...	8.470	0.000	19948	0	6.304	N.D.	#
42)		Toxaphene...	3.501	3.448f	73560	29747	NoCal	NoCal	

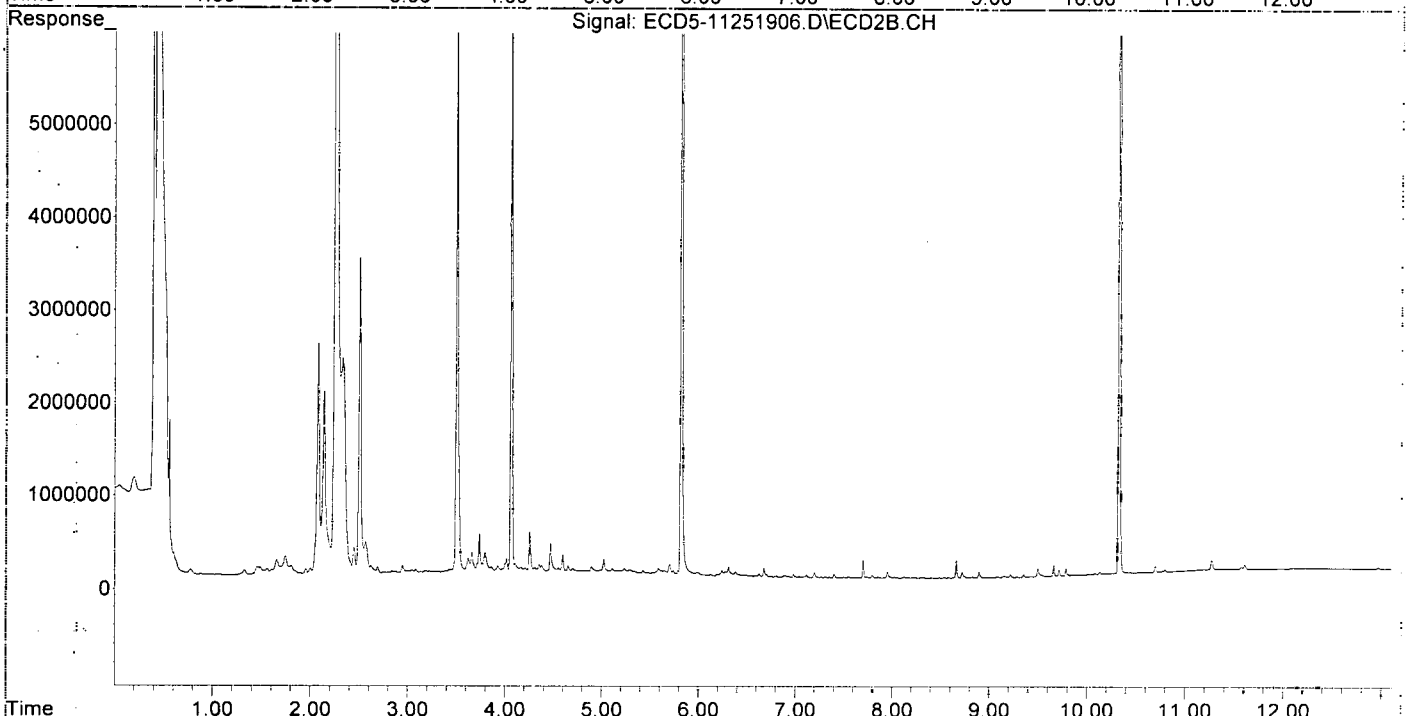
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K25040\
Data File : ECD5-11251906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Nov 2019 12:34
Operator : MJB MJB 11/25/19
Sample : 911112-BLK1
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 25 15:14:01 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.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\2019-11\9K25040\
Data File : ECD5-11251907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Nov 2019 12:51
Operator : MJB MJB 11/26/19
Sample : 911112-BS1
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 25 15:14:07 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.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 11/25/19

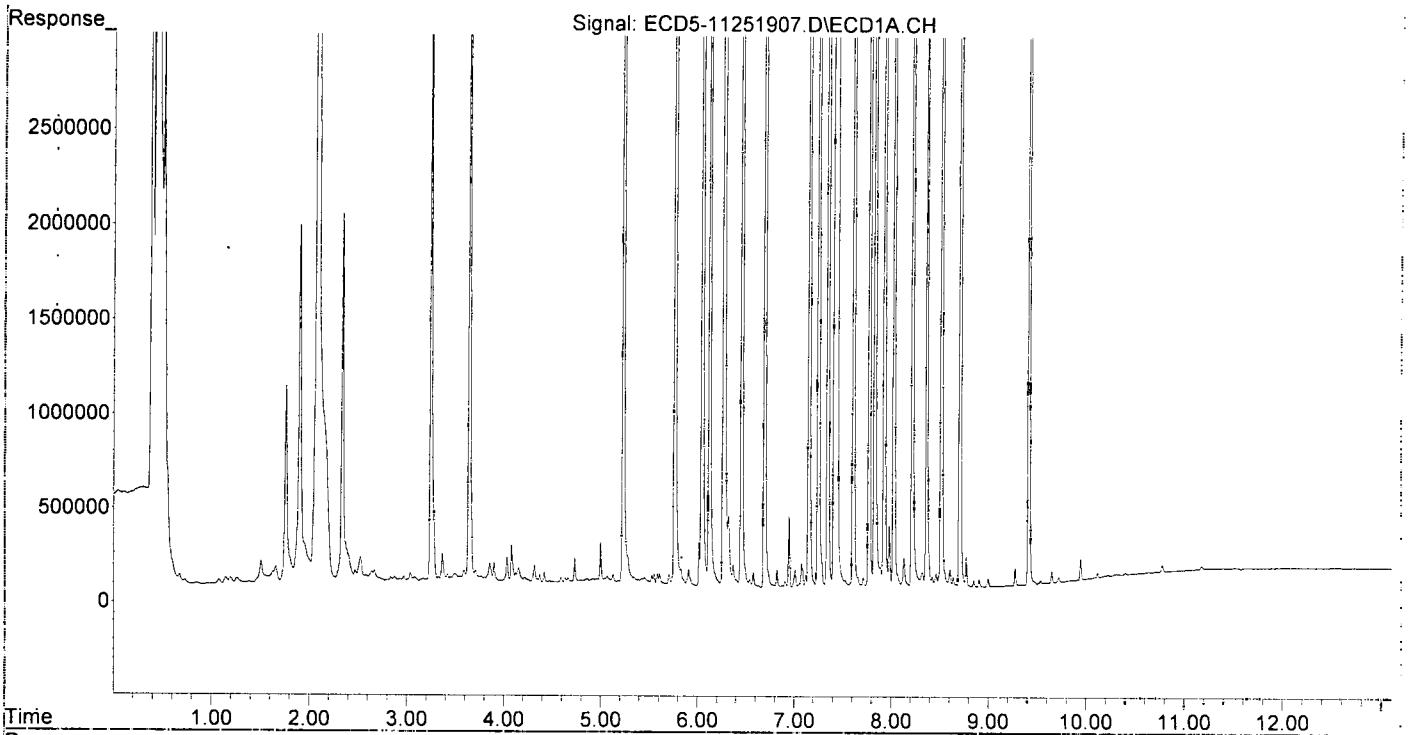
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.229	5.820	11194268	18127181	67.445	61.790	
22)	S DCBP (S)	9.413	10.329	9689048	13035906	68.669	72.517	
	Target Compounds							
2)	a-BHC	5.763	6.425	19839266	36274904	86.510	88.402	
3)	g-BHC	6.045	6.741	17544442	31166218	86.950	87.373	
4)	b-BHC	6.120	6.808	7013606	12372299	77.598	78.174	
5)	Heptachlor	6.453	7.111	14928043	25184028	82.340	82.307	
6)	d-BHC	6.267	7.060	16274817	30759007	82.743	87.219	
7)	Aldrin	6.692	7.373	14012665	24372829	70.970	73.993	
8)	Heptachlo...	7.151	7.811	15777993	25811295	85.667	85.795	
9)	trans-Chl...	7.246	7.949	15426717	25596212	83.437	81.692	
10)	cis-Chlor...	7.343	8.057	14933984	24367578	82.023	83.666	
11)	Endosulfa...	7.438	8.105	15228982	24183738	89.488	87.884	
12)	4,4'-DDE	7.410	8.168	14096539	23578650	74.771	75.894	
13)	Dieldrin	7.609	8.305	17207512	28654154	89.632	94.211	
14)	Endrin	7.772	8.529	14387882	22750043	97.859	100.741	
15)	4,4'-DDD	7.828	8.581	12666940	20873811	80.609	81.470	
16)	Endosulfa...	7.927	8.677	13518674	22774845	94.134	98.761	
17)	4,4'-DDT	8.025	8.805	11359830	17390256	95.014	86.882	
18)	Endrin Al...	8.215	8.913	11387209	18551059	91.106	90.857	
19)	Endosulfa...	8.515	9.104	13779858	21469419	88.915	86.192	
20)	Methoxychlor	8.364	9.284	5989210	9129888	102.250	93.784	
21)	Endrin Ke...	8.707	9.498	16202385	24655986	97.161	95.820	
23)	Hexachlor...	3.034	3.549	66176	143575	0.362	0.382	
24)	Hexachlor...	5.608	6.311	69016	74856	0.391	0.238	
25)	Oxychlordane	7.076f	7.773	127588	64683	0.775	0.236	#
26)	2,4'-DDE	7.151f	7.949	15777993	25596212	123.015	120.658	
27)	trans-Non...	7.343	8.057f	14933984	24367578	83.117	80.785	
28)	2,4'-DDD	7.525f	8.305f	36377	28654154	0.319	151.719	#
29)	2,4'-DDT	7.712	8.581	50136	20873811	0.457	117.045	#
30)	cis-Nonac...	7.828	8.581	12666940	20873811	61.012	62.226	
31)	Mirex	8.463	9.498	71634	24655986	0.571	132.507	#
32)	Chlordane...	7.246	7.949	15426717	25596212	783.495	707.379	
33)	Chlordane...	7.343	8.057	14933984	24367578	595.827	802.514	
34)	Chlordane...	7.927f	8.721	13518674	121297	2338.417	13.529	#
35)	Chlordane...	3.491	3.446f	61798	31303	NoCal	NoCal	
36)	Toxaphene...	7.343	8.305	14933984	28654154	16673.954	10918.954	
37)	Toxaphene...	7.609	8.677f	17207512	22774845	10655.212	6920.289	
38)	Toxaphene...	7.927	8.677	13518674	22774845	4014.467	4493.572	
39)	Toxaphene...	0.000	8.754	0	86901	N.D.	10.408	#
40)	Toxaphene...	8.423f	8.913	52973	18551059	22.098	3980.608	#
41)	Toxaphene...	8.463	9.284	71634	9129888	22.636	1922.000	#
42)	Toxaphene...	3.491	3.500f	61798	5849864	NoCal	NoCal	

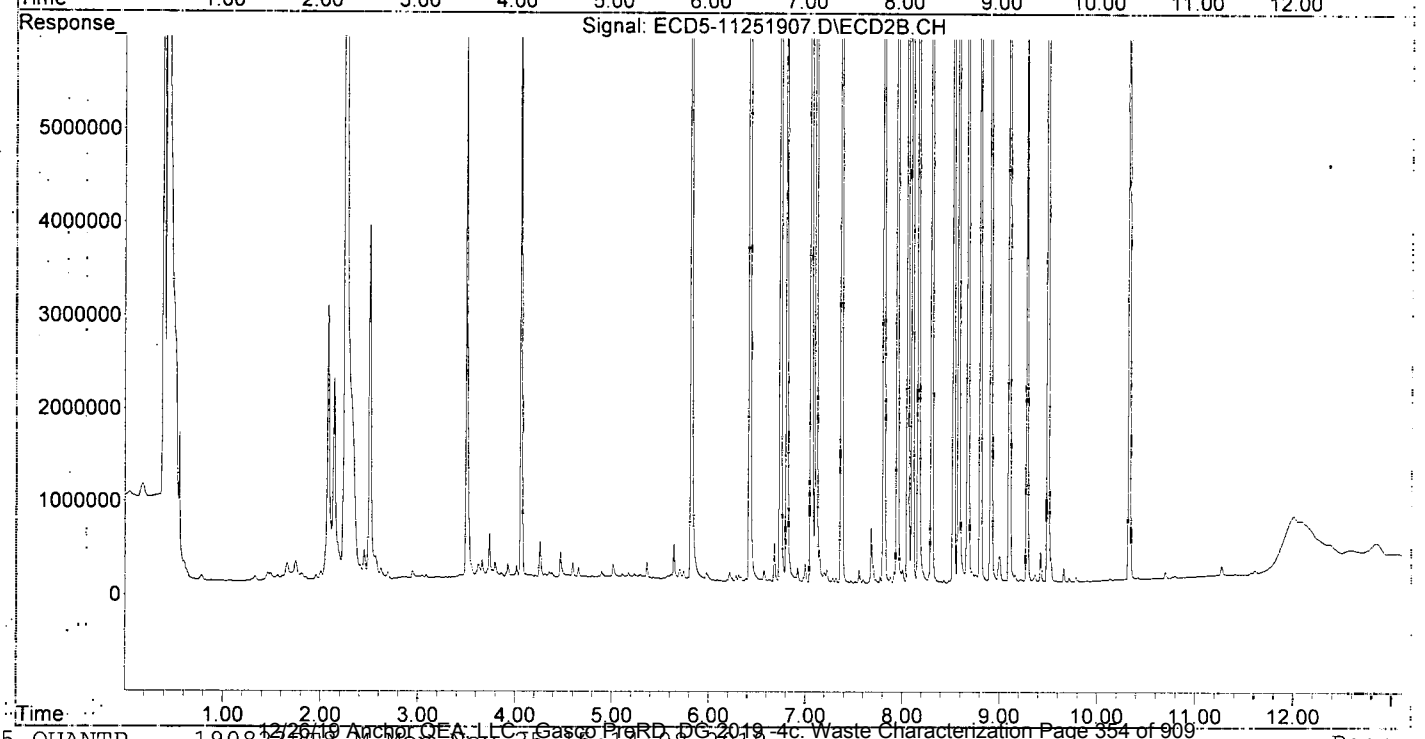
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K25040\
Data File : ECD5-11251907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Nov 2019 12:51
Operator : MJB MJB 11/25/19
Sample : 911112-BS1
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 25 15:14:07 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.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\2019-11\9K25040\
Data File : ECD5-11251908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Nov 2019 13:08
Operator : MJB MJB 11/25/19
Sample : 911112-BSD1
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 25 15:14:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.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-19 MJB 11/25/19

MJB 11/25/19

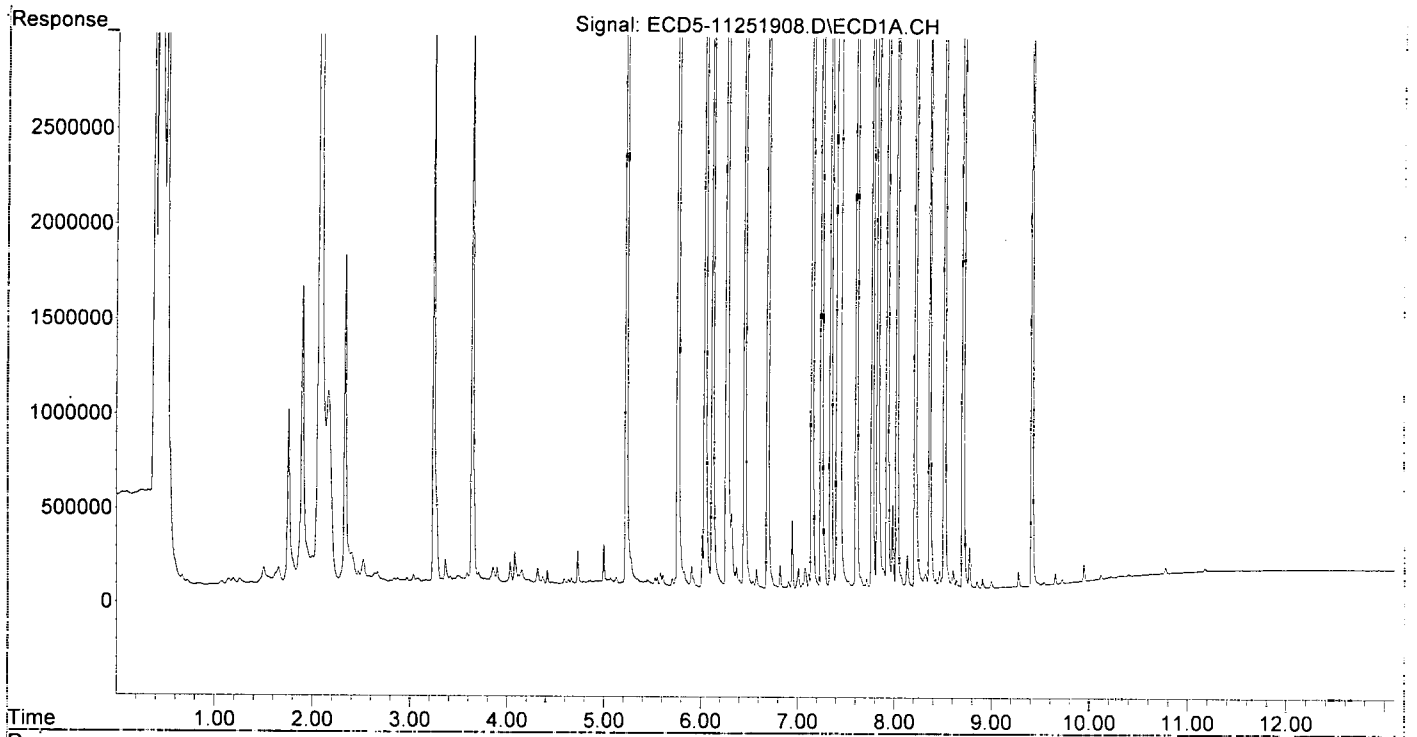
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.230	5.820	10944833	17740943	65.942	60.474	
22)	S DCBP (S)	9.414	10.329	8446956	11380326	59.866	63.307	
	Target Compounds							
2)	a-BHC	5.764	6.425	19014031	33437878	82.912	81.488	
3)	g-BHC	6.045	6.741	16167372	28379056	80.125	79.559	
4)	b-BHC	6.121	6.808	6705495	11514806	74.189	72.756	
5)	Heptachlor	6.453	7.111	13141989	22312745	72.489	72.923	
6)	d-BHC	6.268	7.060	15240244	27854533	77.483	78.983	
7)	Aldrin	6.692	7.373	13577507	23280568	68.766	70.677	
8)	Heptachlo...	7.151	7.811	14670182	24155493	79.652	80.291	
9)	trans-Chl...	7.246	7.950	14124968	23255267	76.396	74.221	
10)	cis-Chlor...	7.343	8.057	14118526	22708329	77.544	77.969	
11)	Endosulfa...	7.438	8.105	14198156	22483292	83.430	81.705	
12)	4,4'-DDE	7.411	8.169	12723531	21249272	67.488	68.397	
13)	Dieldrin	7.610	8.305	16029194	26573706	83.494	87.370	
14)	Endrin	7.773	8.530	12407529	19276245	84.389	85.358	
15)	4,4'-DDD	7.829	8.581	11574072	19040913	73.654	74.316	
16)	Endosulfa...	7.927	8.677	12977826	21392103	90.368	92.765	
17)	4,4'-DDT	8.026	8.805	9726379	14307214	81.351	73.132	
18)	Endrin Al...	8.216	8.914	10550792	17540898	84.696	86.292	
19)	Endosulfa...	8.516	9.104	12606452	19820075	81.344	79.571	
20)	Methoxychlor	8.364	9.284	5111153	7907291	87.259	82.866	
21)	Endrin Ke...	8.708	9.498	14602132	22901016	87.565	89.000	
23)	Hexachlor...	3.034	0.000	59534	0	0.326	N.D.	#
24)	Hexachlor...	5.608	6.312	65323	63852	0.371	0.203	#
25)	Oxychlordane	7.078	7.774	104848	78918	0.637	0.288	#
26)	2,4'-DDE	7.151f	7.984	14670182	129689	114.378	0.611	#
27)	trans-Non...	7.343	8.057f	14118526	22708329	78.557	75.284	
28)	2,4'-DDD	7.526	8.305f	38845	26573706	0.340	140.703	#
29)	2,4'-DDT	7.713	8.581	48393	19040913	0.441	106.768	#
30)	cis-Nonac...	7.829	8.581	11574072	19040913	55.748	56.762	
31)	Mirex	8.464	9.498	89774	22901016	0.716	123.075	#
32)	Chlordane...	7.246	7.984	14124968	129689	717.382	3.584	#
33)	Chlordane...	7.343	8.057	14118526	22708329	563.292	747.868	
34)	Chlordane...	7.927f	8.721	12977826	140882	2244.863	15.713	#
35)	Chlordane...	3.494	3.446f	55771	23544	NoCal	NoCal	
36)	Toxaphene...	7.343	8.305	14118526	26573706	15763.487	10126.179	
37)	Toxaphene...	7.610	8.677f	16029194	21392103	9925.575	6500.134	
38)	Toxaphene...	7.927	8.677	12977826	21392103	3853.859	4220.751	
39)	Toxaphene...	0.000	8.755	0	126556	N.D.	15.157	#
40)	Toxaphene...	8.424f	8.914	47989	17540898	20.019	3763.852	#
41)	Toxaphene...	8.464	9.284	89774	7907291	28.368	1664.622	#
42)	Toxaphene...	3.494	3.500f	55771	4848077	NoCal	NoCal	

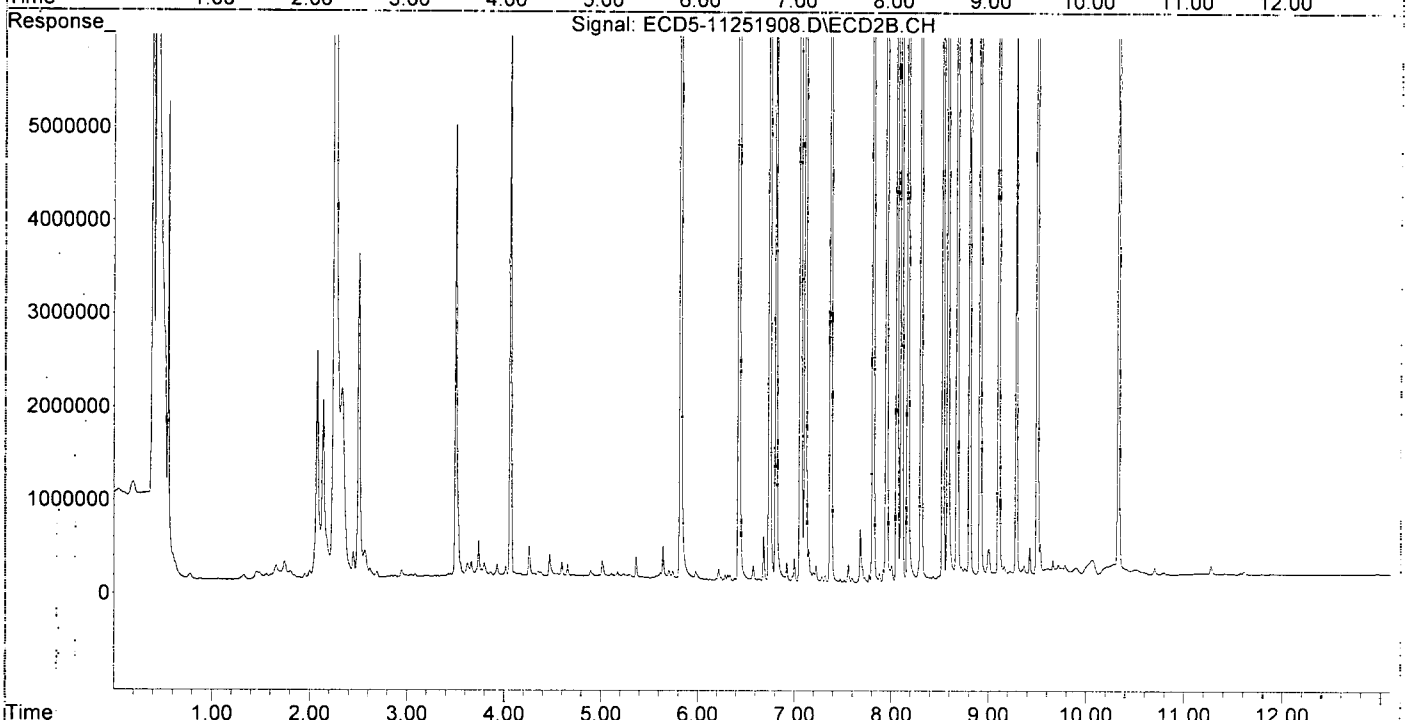
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K25040\
Data File : ECD5-11251908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Nov 2019 13:08
Operator : MJB MJB 11/25/19
Sample : 911112-BSD1
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 25 15:14:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.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\2019-11\9K25040\
Data File : ECD5-11251909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Nov 2019 13:26
Operator : MJB
Sample : A9K0330-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 25 15:14:21 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.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 11/25/19

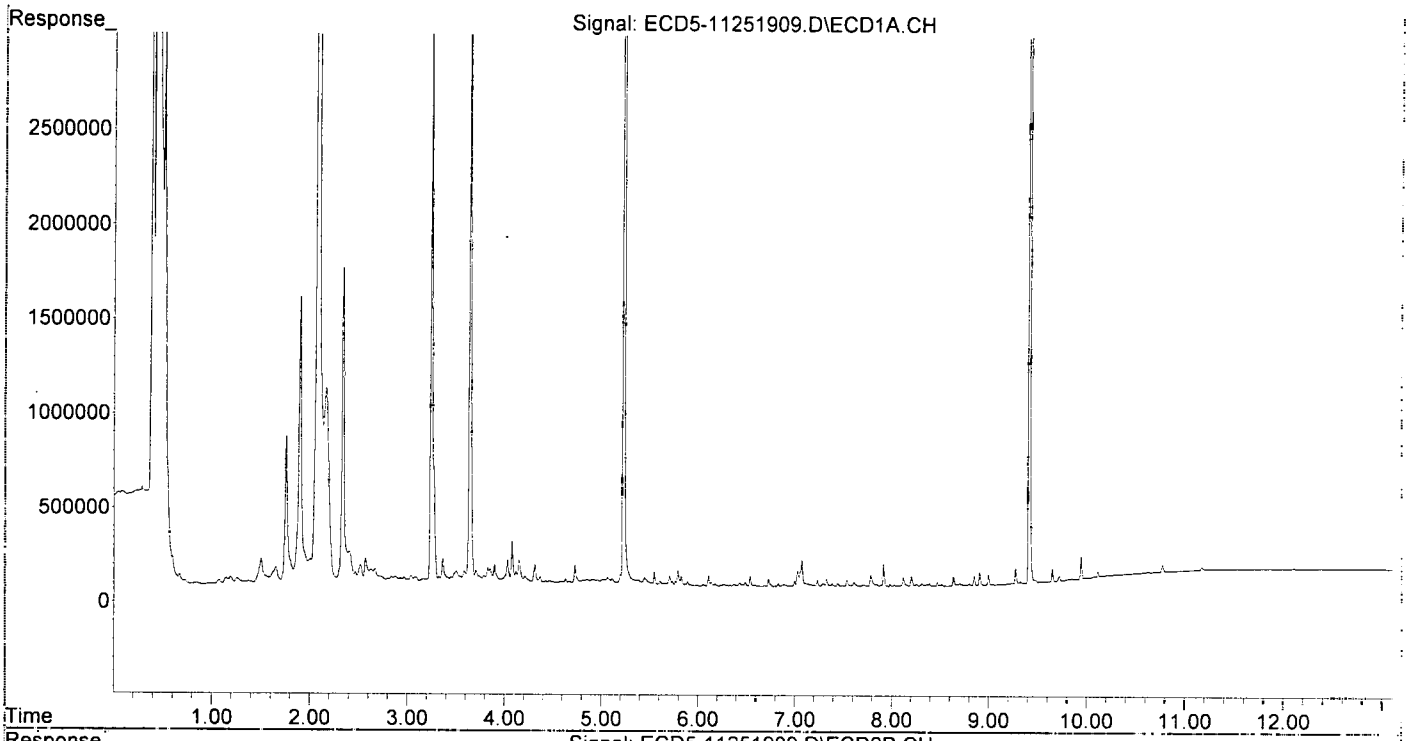
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.229	5.819	9069475	15643993	54.643	53.326	
22)	S DCBP (S)	9.413	10.328	10695865	14684837	75.804	81.690	
	Target Compounds							
2)	a-BHC	5.766	6.420	27383	74797	0.119	0.182	#
3)	g-BHC	6.050	6.729	9629	24724	0.048	0.069	#
4)	b-BHC	6.107	6.800	55739	7341	0.617	0.046	#
5)	Heptachlor	6.454	7.114	11782	26821	0.065	0.088	
6)	d-BHC	6.267	7.058	11935	14426	0.061	0.041	
7)	Aldrin	6.690	7.400f	5110	41747	0.026	0.127	#
8)	Heptachlo...	0.000	7.793	0	40253	N.D.	0.134	#
9)	trans-Chl...	7.232	7.954	34375	61814	0.186	0.197	
10)	cis-Chlor...	7.329	8.023f	40635	23834	0.223	0.082	#
11)	Endosulfa...	7.443	8.124	14881	17935	0.087	0.065	
12)	4,4'-DDE	7.385f	8.169	14810	8116	0.079	0.026	#
13)	Dieldrin	7.610	8.300	22764	77135	0.119	0.254	#
14)	Endrin	7.786	8.535	58493	11763	0.398	0.052	#
15)	4,4'-DDD	7.844	8.580	13229	23264	0.084	0.091	
16)	Endosulfa...	7.918	8.662	121146	161874	0.844	0.702	
17)	4,4'-DDT	8.026	8.827f	8021	18785	0.067	0.071	
18)	Endrin Al...	8.202	8.897	54619	84103	BelowCal	BelowCal	
19)	Endosulfa...	8.515	9.101	11208	17323	0.072	0.070	
20)	Methoxychlor	8.363	9.264f	11608	7053	0.198	BelowCal	#
21)	Endrin Ke...	8.701	9.499	11366	97089	0.068	0.377	#
23)	Hexachlor...	3.038	0.000	49893	0	0.273	N.D.	#
24)	Hexachlor...	5.608	6.310	27037	82088	0.153	0.261	#
25)	Oxychlordane	7.073f	7.736f	135700	139186	0.825	0.508	
26)	2,4'-DDE	0.000	7.980	0	16638	N.D.	0.078	#
27)	trans-Non...	7.329f	8.023	40635	23834	87346.474	0.079	#
28)	2,4'-DDD	7.538	8.300f	33684	77135	0.295	0.408	
29)	2,4'-DDT	7.710	8.580	10363	23264	0.094	0.130	
30)	cis-Nonac...	7.844f	8.580	13229	23264	0.064	0.069	
31)	Mirex	8.469	9.499	19802	97089	0.158	0.522	#
32)	Chlordane...	7.232f	7.980	34375	16638	1.746	0.460	#
33)	Chlordane...	7.329f	0.000	40635	0	1.621	N.D.	#
34)	Chlordane...	7.918f	8.720	121146	72167	20.955	8.049	#
35)	Chlordane...	3.504	3.447f	73450	31663	NoCal	NoCal	
36)	Toxaphene...	7.329	8.300	40635	77135	45.369	29.393	
37)	Toxaphene...	7.610	8.662	22764	161874	14.096	49.186	#
38)	Toxaphene...	7.918	8.662f	121146	161874	35.975	31.938	
39)	Toxaphene...	8.202f	8.720f	54619	72167	16.857	8.643	#
40)	Toxaphene...	8.388	8.897f	14682	84103	6.125	18.046	#
41)	Toxaphene...	8.469	9.264f	19802	7053	6.257	1.485	#
42)	Toxaphene...	3.504	3.500f	73450	4998836	NoCal	NoCal	

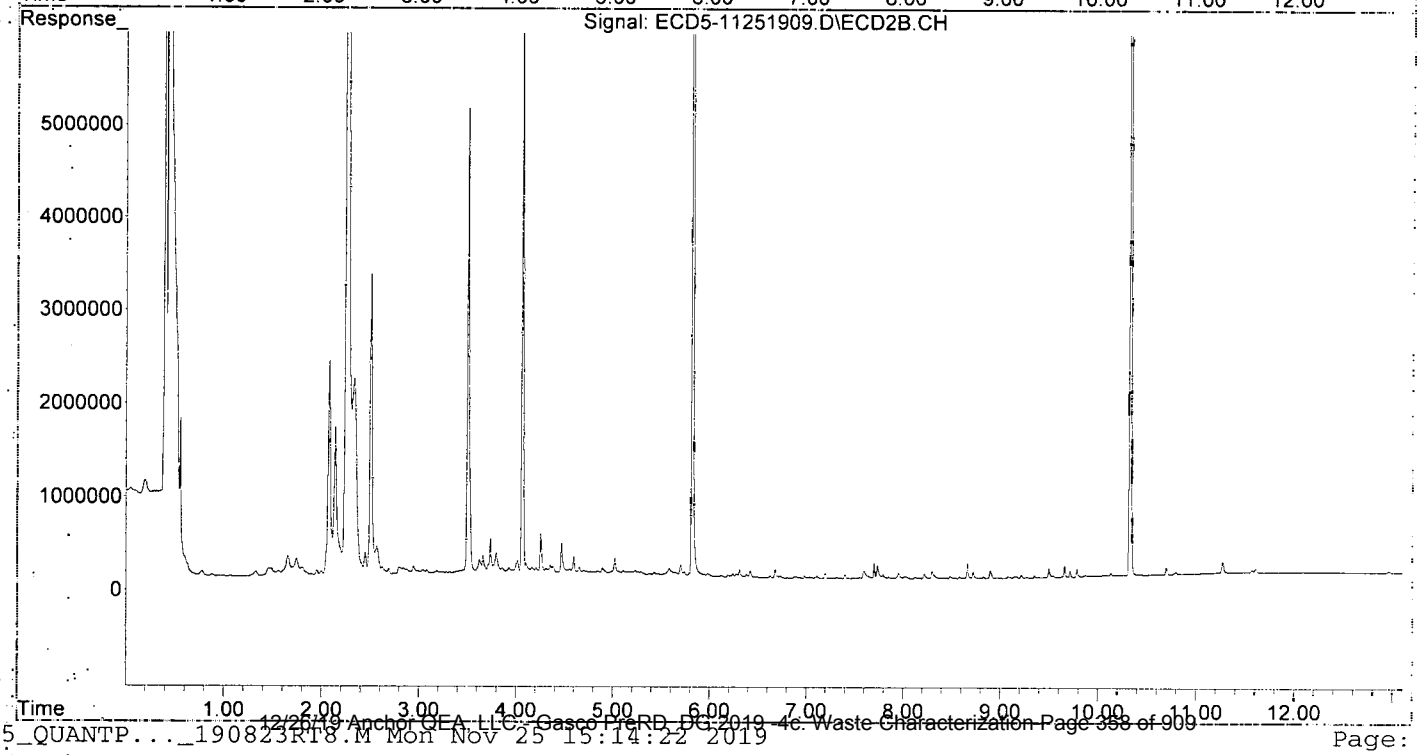
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K25040\
Data File : ECD5-11251909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Nov 2019 13:26
Operator : MJB
Sample : A9K0330-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 25 15:14:21 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.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\2019-11\9K25040\
Data File : ECD5-11251910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Nov 2019 13:43
Operator : MJB
Sample : 9K25040-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: Nov 25 15:14:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.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 11/25/19

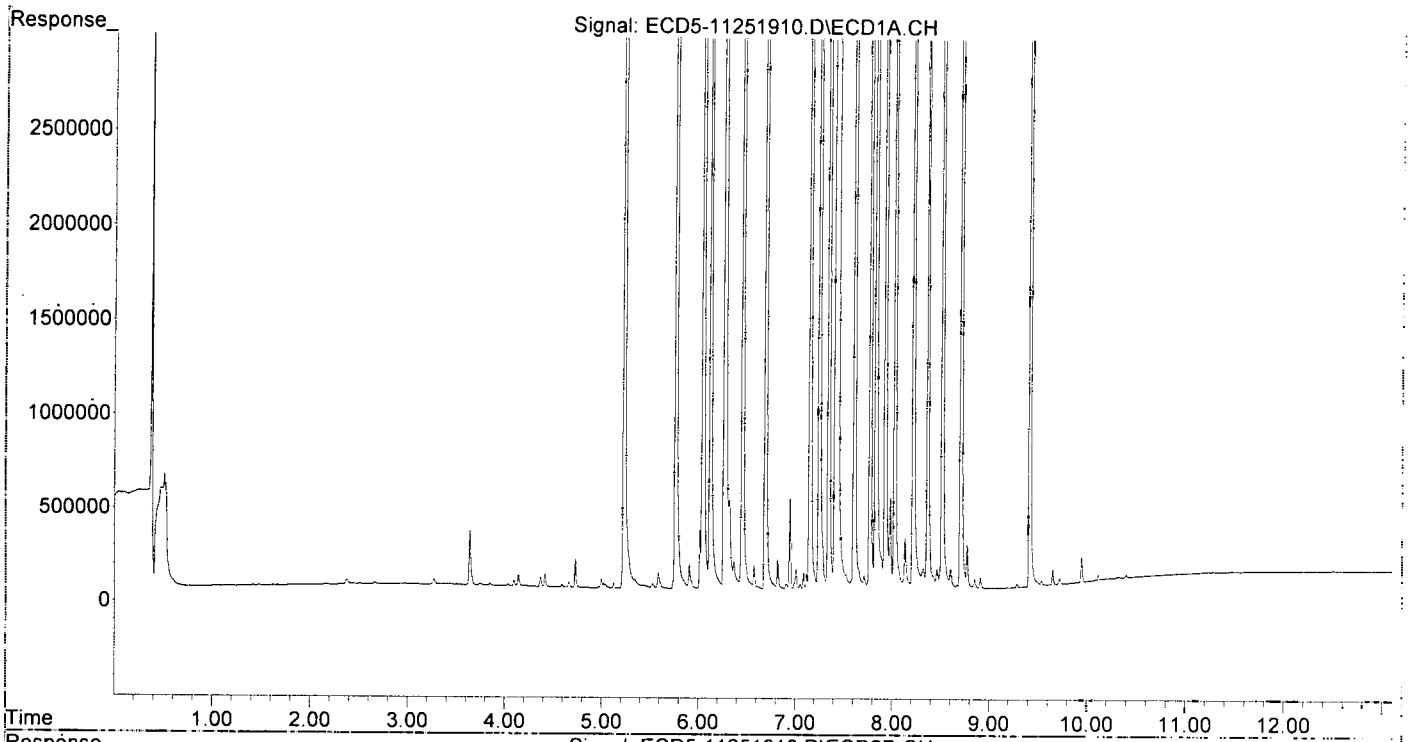
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.230	5.820	16599588	27659749	100.012	94.284	
22)	S DCBP (S)	9.415	10.329	12612226	17804321	89.386	99.043	
	Target Compounds							
2)	a-BHC	5.764	6.425	23254174	40617435	101.401	98.985	
3)	g-BHC	6.045	6.742	19672945	34343808	97.498	96.281	
4)	b-BHC	6.121	6.808	7408405	13039544	81.966	82.390	
5)	Heptachlor	6.453	7.111	18031692	30640298	99.460	100.139	
6)	d-BHC	6.268	7.060	16690627	31487894	84.857	89.285	
7)	Aldrin	6.692	7.373	19374668	32794559	98.127	99.561	
8)	Heptachlo...	7.151	7.811	17066104	27665538	92.661	91.958	
9)	trans-Chl...	7.246	7.950	17491327	29814772	94.603	95.156	
10)	cis-Chlor...	7.344	8.057	17077066	29177487	93.793	100.181	
11)	Endosulfa...	7.437	8.106	16836264	26698821	98.932	97.024	
12)	4,4'-DDE	7.437f	8.169	16836264	29036136	89.303	93.461	
13)	Dieldrin	7.610	8.305	18613390	31123573	96.955	102.330	
14)	Endrin	7.773	8.530	14146368	22079309	96.216	97.771	
15)	4,4'-DDD	7.830	8.582	13530062	22575222	86.102	88.111	
16)	Endosulfa...	7.928	8.677	13514146	22775233	94.102	98.762	
17)	4,4'-DDT	8.027	8.806	11433104	17554989	95.626	87.601	
18)	Endrin Al...	8.217	8.914	11845736	20171613	94.598	98.095	
19)	Endosulfa...	8.516	9.104	13588812	21213171	87.682	85.164	
20)	Methoxychlor	8.366	9.285	5168675	8290828	88.241	86.332	
21)	Endrin Ke...	8.708	9.498	16003722	25711024	95.970	99.920	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	0.000	6.333f	0	70477	N.D.	0.224	#
25)	Oxychlordane	0.000	7.773	0	87261	N.D.	0.319	#
26)	2,4'-DDE	7.151f	7.950	17066104	29814772	133.058	140.544	
27)	trans-Non...	7.344	8.057f	17077066	29177487	95.104	96.731	
28)	2,4'-DDD	0.000	8.305f	0	31123573	N.D.	164.794	#
29)	2,4'-DDT	7.713	8.582f	68957	22575222	0.629	126.586	#
30)	cis-Nonac...	7.830	8.582	13530062	22575222	65.169	67.298	
31)	Mirex	8.465	9.498	103657	25711024	0.827	138.177	#
32)	Chlordane...	7.246	7.950	17491327	29814772	888.353	823.963	
33)	Chlordane...	7.344	8.057	17077066	29177487	681.330	960.922	#
34)	Chlordane...	7.928f	8.755f	13514146	126334	2337.634	14.091	#
35)	Chlordane...	0.000	3.483	0	11932	N.D.	NoCal	
36)	Toxaphene...	7.344	8.305	17077066	31123573	19066.728	11859.951	
37)	Toxaphene...	7.610	8.677f	18613390	22775233	11525.758	6920.407	
38)	Toxaphene...	7.928	8.677	13514146	22775233	4013.122	4493.649	
39)	Toxaphene...	8.135f	8.755	267198	126334	82.464	15.130	#
40)	Toxaphene...	8.366f	8.914	5168675	20171613	2156.182	4328.340	#
41)	Toxaphene...	8.465	9.285	103657	8290828	32.755	1745.363	#
42)	Toxaphene...	0.000	3.483	0	11932	N.D.	NoCal	

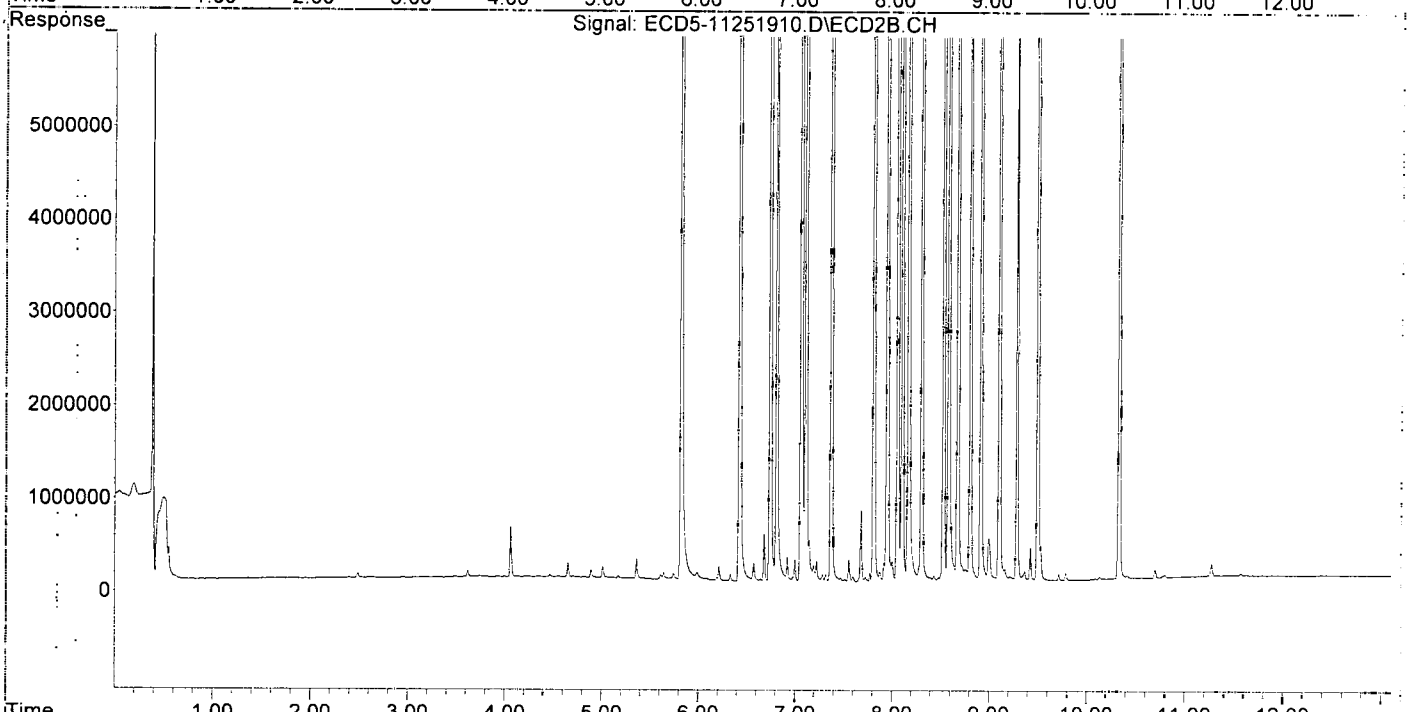
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K25040\
Data File : ECD5-11251910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Nov 2019 13:43
Operator : MJB
Sample : 9K25040-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: Nov 25 15:14:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.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\2019-11\9K25040\
Data File : ECD5-11251911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Nov 2019 14:00
Operator : MJB
Sample : 9K25040-CCB2
Misc : A19K026
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: Nov 25 15:14:34 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.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 11/26/19

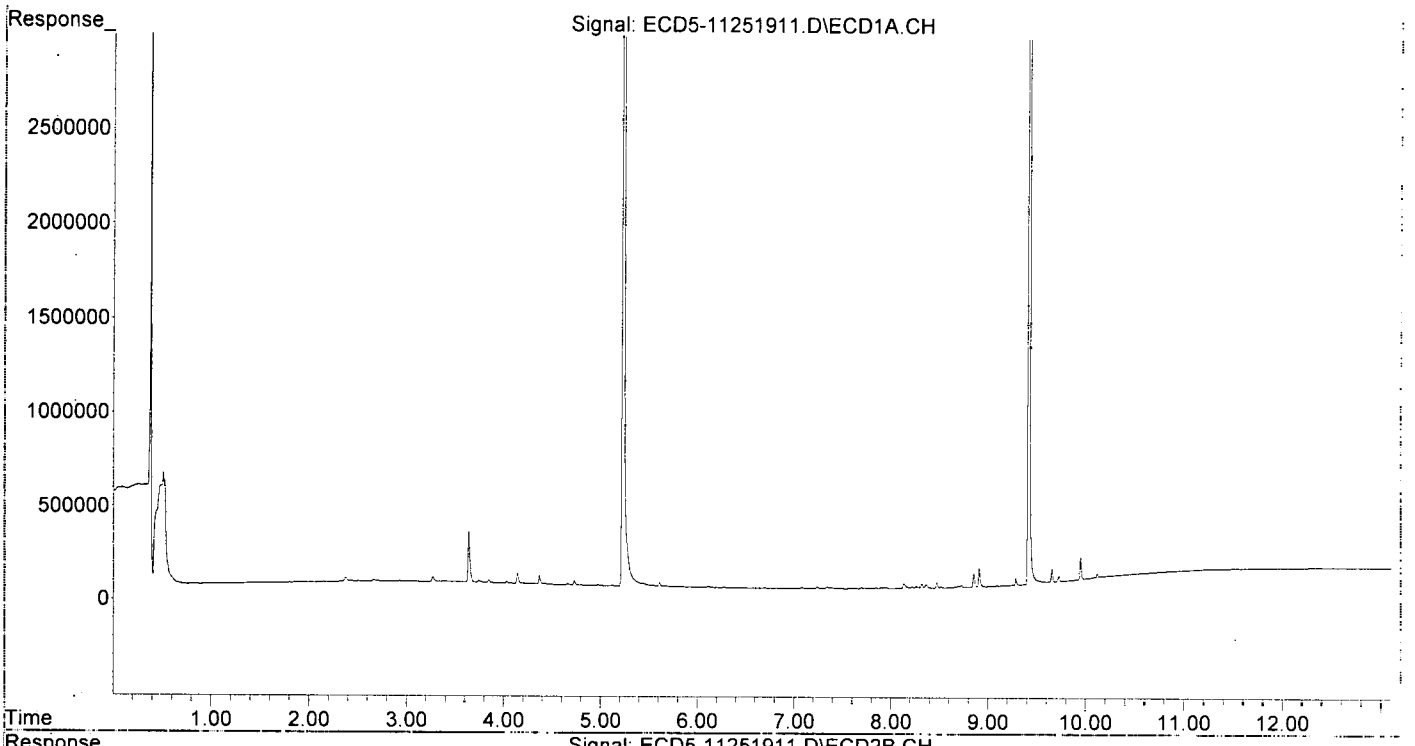
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.229	5.820	14841870	24836617	89.422	84.661	
22)	S	DCBP (S)	9.415	10.330	11472860	16044757	81.311	89.255	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.115	0.000	6966	0	0.077	N.D.	#
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.270	7.063	4894	10258	0.025	0.029	
7)		Aldrin	0.000	7.406f	0	9620	N.D.	0.029	#
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	7.237	7.979f	10223	6478	0.055	0.021	#
10)		cis-Chlor...	7.340	0.000	6160	0	0.034	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	8.543	0	10287	N.D.	0.046	#
15)		4,4'-DDD	7.846	8.543f	5275	10287	0.034	0.040	
16)		Endosulfa...	7.926	8.670	8362	11683	0.058	0.051	
17)		4,4'-DDT	0.000	8.824	0	12411	N.D.	0.034	#
18)		Endrin Al...	8.218	8.913	9899	14831	BelowCal	BelowCal	
19)		Endosulfa...	8.517	9.103	8207	14596	0.053	0.059	
20)		Methoxychlor	8.365	0.000	20046	0	0.342	N.D.	#
21)		Endrin Ke...	8.725	9.499	12763	16353	0.077	0.064	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.608	0.000	17756	0	0.101	N.D.	#
25)		Oxychlordane	7.081	0.000	7210	0	0.044	N.D.	#
26)		2,4'-DDE	0.000	7.979	0	6478	N.D.	0.031	#
27)		trans-Non...	7.340	0.000	6160	0	87346.666	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	7.724	8.543	4226	10287	0.039	0.058	#
30)		cis-Nonac...	7.846f	0.000	5275	0	0.025	N.D.	#
31)		Mirex	8.473	9.499	27194	16353	0.217	0.088	#
32)		Chlordane...	7.237f	7.979	10223	6478	0.519	0.179	#
33)		Chlordane...	7.340	0.000	6160	0	0.246	N.D.	#
34)		Chlordane...	7.897	8.732	8654	43761	1.497	4.881	#
35)		Chlordane...	0.000	3.483	0	4223	N.D.	NoCal	
36)		Toxaphene...	7.340	0.000	6160	0	6.877	N.D.	#
37)		Toxaphene...	0.000	8.670	0	11683	N.D.	3.550	#
38)		Toxaphene...	7.926	8.691	8362	8840	2.483	1.744	
39)		Toxaphene...	0.000	8.732	0	43761	N.D.	5.241	#
40)		Toxaphene...	8.365f	8.913	20046	14831	8.363	3.182	#
41)		Toxaphene...	8.473	0.000	27194	0	8.593	N.D.	#
42)		Toxaphene...	0.000	3.483	0	4223	N.D.	NoCal	

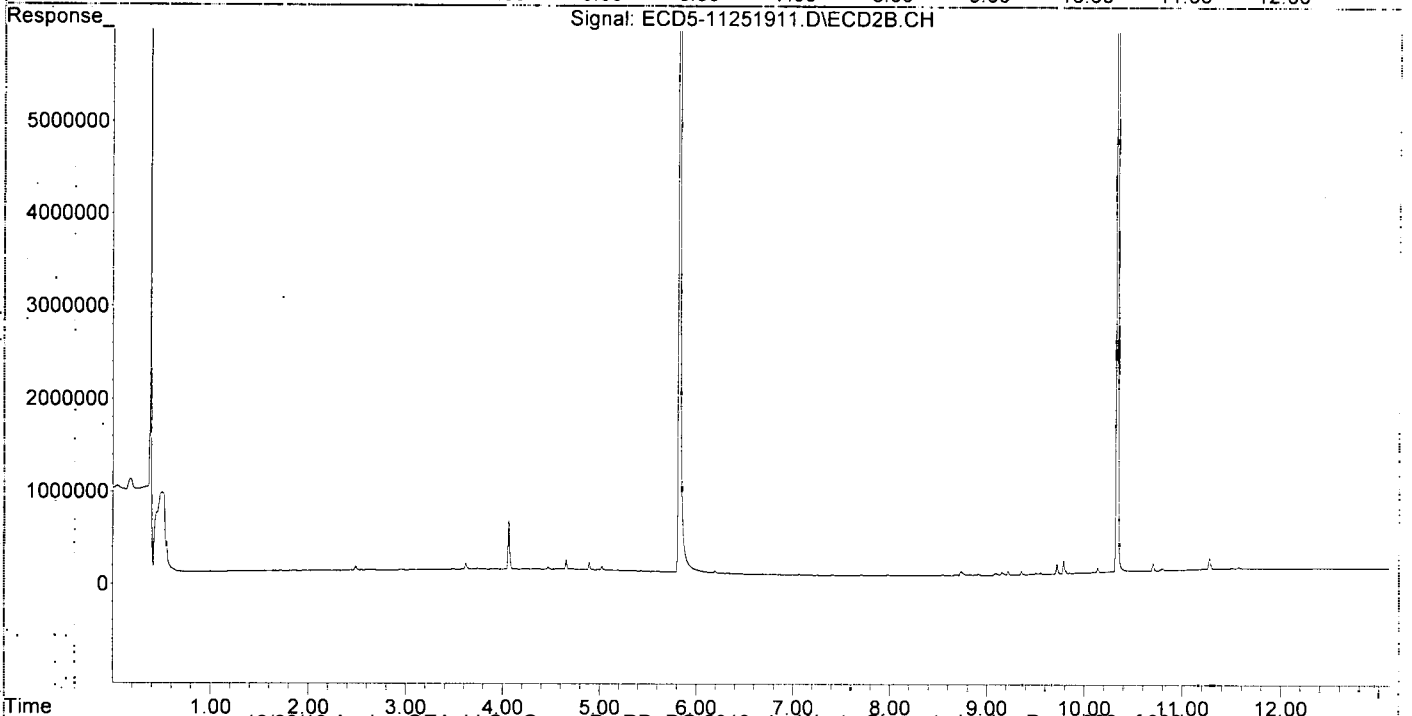
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K25040\
Data File : ECD5-11251911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Nov 2019 14:00
Operator : MJB
Sample : 9K25040-CCB2
Misc : A19K026
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: Nov 25 15:14:34 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT8.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 5/26/19

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

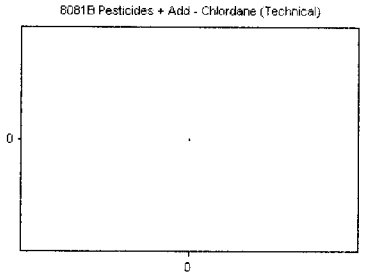
Element Calibration Review Sheet

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**

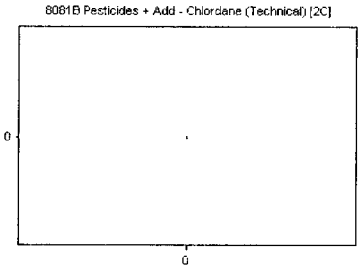


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALH~~	~~50~~	~~5365~~	~~107.300~~	~~3.45~~
~~9H23034-CALI~~	~~100~~	~~4938~~	~~49.380~~	~~3.45~~
~~9H23034-CALJ~~	~~200~~	~~4503~~	~~22.515~~	~~3.45~~
~~9H23034-CALK~~	~~500~~	~~4056~~	~~8.112~~	~~3.45~~
~~9H23034-CALL~~	~~1000~~	~~4825~~	~~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**

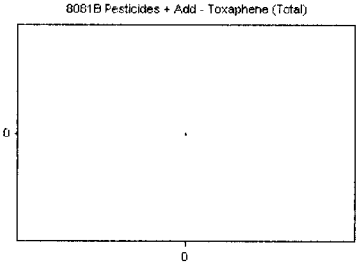


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALH~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALI~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALJ~~	~~200~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALK~~	~~500~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALL~~	~~1000~~	~~0~~	~~0.000~~	~~0.00~~
~~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**

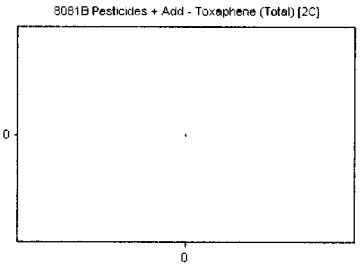


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALN~~	~~50~~	~~4023~~	~~80.460~~	~~3.45~~
~~9H23034-CALO~~	~~100~~	~~3536~~	~~35.360~~	~~3.45~~
~~9H23034-CALP~~	~~200~~	~~3919~~	~~19.595~~	~~3.45~~
~~9H23034-CALQ~~	~~500~~	~~4132~~	~~8.264~~	~~3.45~~
~~9H23034-CALR~~	~~1000~~	~~2687~~	~~2.687~~	~~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**

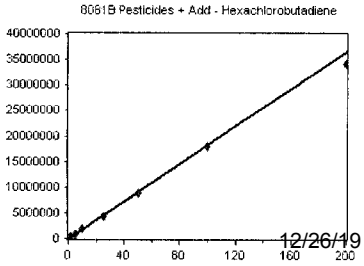


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALN~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALO~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALP~~	~~200~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALQ~~	~~500~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALR~~	~~1000~~	~~0~~	~~0.000~~	~~0.00~~
~~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**

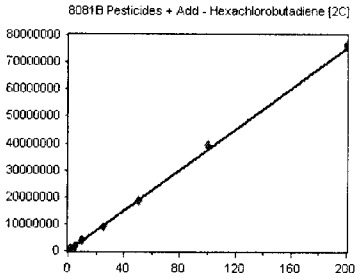
Element Calibration Review Sheet

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**

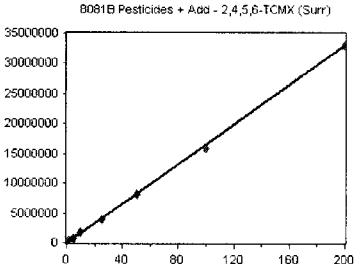


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	383198	383198.000	3.69
9H23034-CALA	2	754548	377274.000	3.69
9H23034-CALB	5	1877484	375496.800	3.69
9H23034-CALC	10	3701532	370153.200	3.69
9H23034-CALD	25	8892238	355689.500	3.69
9H23034-CALE	50	863562E+07	372712.400	3.69
9H23034-CALF	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**

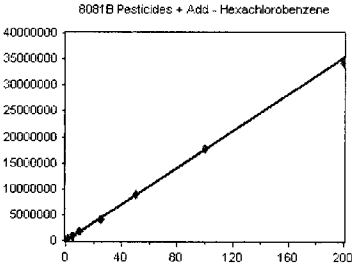


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176748	176748.000	5.40
9H23034-CAL2	2	349972	174986.000	5.40
9H23034-CAL3	5	834206	166841.200	5.40
9H23034-CAL4	10	1644447	164444.700	5.40
9H23034-CAL5	25	4015832	160633.300	5.39
9H23034-CAL6	50	8071481	161429.600	5.39
9H23034-CAL7	100	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**

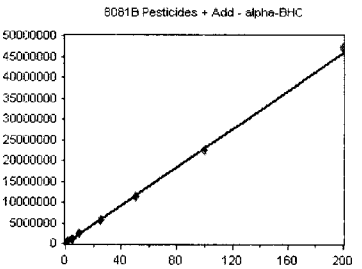


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	194679	194679.000	5.78
9H23034-CALA	2	362082	181041.000	5.78
9H23034-CALB	5	853793	170758.600	5.78
9H23034-CALC	10	1711884	171188.400	5.77
9H23034-CALD	25	4184551	167382.000	5.77
9H23034-CALE	50	8911624	178232.500	5.77
9H23034-CALF	100	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**

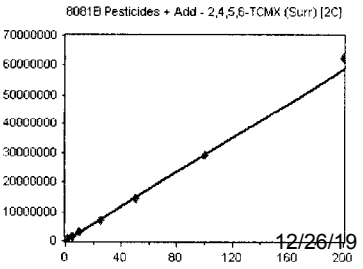


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	231994	231994.000	5.94
9H23034-CAL2	2	458365	229182.500	5.94
9H23034-CAL3	5	1147932	229586.400	5.94
9H23034-CAL4	10	2347065	234706.500	5.94
9H23034-CAL5	25	5553096	222123.800	5.94
9H23034-CAL6	50	136959E+07	227391.800	5.94
9H23034-CAL7	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**

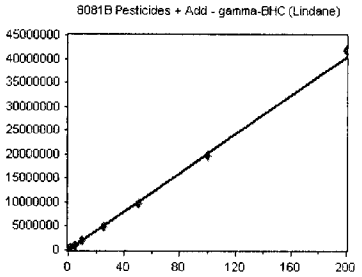
Element Calibration Review Sheet

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**

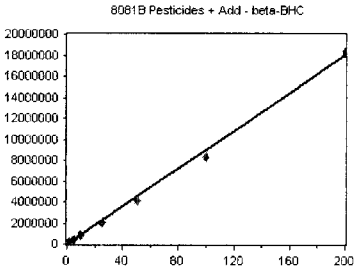


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	207427	207427.000	6.22
9H23034-CAL2	2	406027	203013.500	6.22
9H23034-CAL3	5	1020724	204144.800	6.22
9H23034-CAL4	10	2034859	203485.900	6.22
9H23034-CAL5	25	4875657	195026.300	6.22
9H23034-CAL6	50	9785999	195720.000	6.22
9H23034-CAL7	100	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**

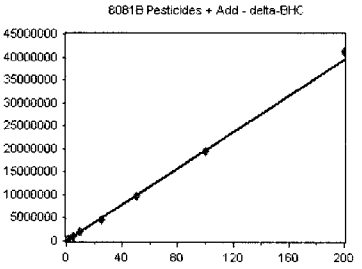


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	104326	104326.000	6.30
9H23034-CAL2	2	194168	97084.000	6.30
9H23034-CAL3	5	456954	91390.800	6.30
9H23034-CAL4	10	910875	91087.500	6.30
9H23034-CAL5	25	2060378	82415.120	6.30
9H23034-CAL6	50	4100858	82017.160	6.30
9H23034-CAL7	100	8355416	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**

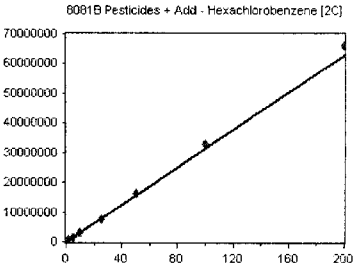


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	199840	199840.000	6.45
9H23034-CAL2	2	386980	193490.000	6.45
9H23034-CAL3	5	1004012	200802.400	6.45
9H23034-CAL4	10	2006493	200649.300	6.45
9H23034-CAL5	25	4667166	186686.600	6.45
9H23034-CAL6	50	9610742	192214.800	6.45
9H23034-CAL7	100	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**

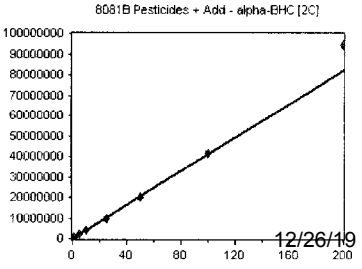


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	328025	328025.000	6.45
9H23034-CALA	2	632830	316415.000	6.45
9H23034-CALB	5	1485583	297116.600	6.45
9H23034-CALC	10	2936294	293629.400	6.45
9H23034-CALD	25	7416324	296653.000	6.45
9H23034-CALE	50	309416E+07	321883.200	6.45
9H23034-CALF	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**

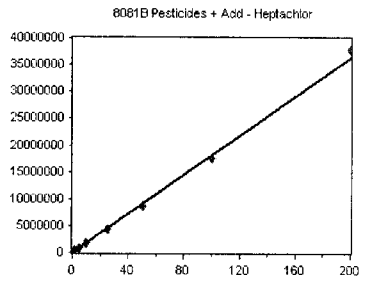
Element Calibration Review Sheet

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**

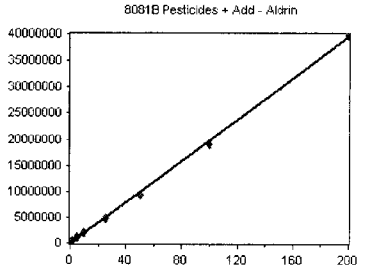


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	192066	192066.000	6.64
9H23034-CAL2	2	369615	184807.500	6.64
9H23034-CAL3	5	899091	179818.200	6.64
9H23034-CAL4	10	1819621	181962.100	6.63
9H23034-CAL5	25	4314306	172572.200	6.63
9H23034-CAL6	50	8735158	174703.200	6.63
9H23034-CAL7	100	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**

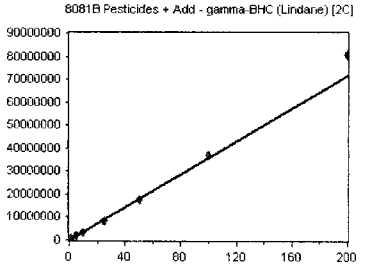


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	205523	205523.000	6.88
9H23034-CAL2	2	399550	199775.000	6.88
9H23034-CAL3	5	1012733	202546.600	6.88
9H23034-CAL4	10	2010802	201080.200	6.88
9H23034-CAL5	25	4845355	193814.200	6.87
9H23034-CAL6	50	9327672	186553.400	6.87
9H23034-CAL7	100	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**

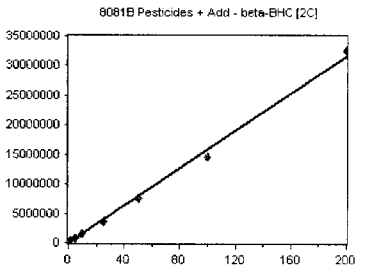


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	352286	352286.000	6.92
9H23034-CAL2	2	690922	345461.000	6.92
9H23034-CAL3	5	1742677	348535.400	6.92
9H23034-CAL4	10	3476733	347673.300	6.92
9H23034-CAL5	25	8508386	340335.400	6.91
9H23034-CAL6	50	738107E+07	347621.400	6.91
9H23034-CAL7	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**

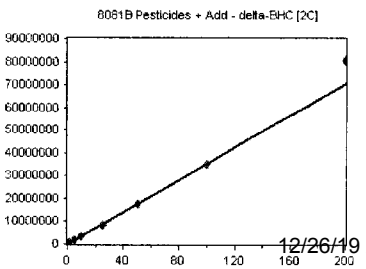


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176262	176262.000	6.98
9H23034-CAL2	2	335260	167630.000	6.98
9H23034-CAL3	5	788630	157726.000	6.98
9H23034-CAL4	10	1580847	158084.700	6.98
9H23034-CAL5	25	3677155	147086.200	6.98
9H23034-CAL6	50	7516011	150320.200	6.98
9H23034-CAL7	100	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

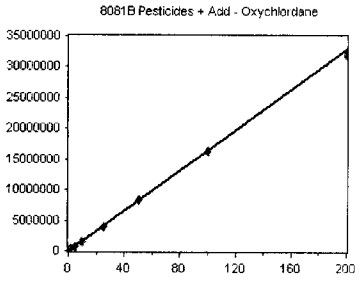
AVE RF **352665.900** RF RSD **6.60** AVE RT **7.23**

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

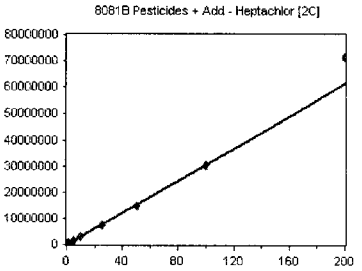


Curve Fit: **AVERAGE RF**

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]

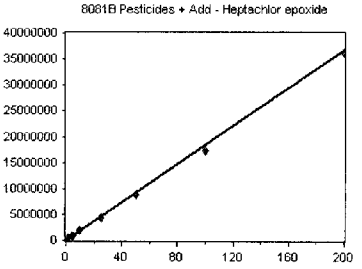


Curve Fit: **AVERAGE RF**

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

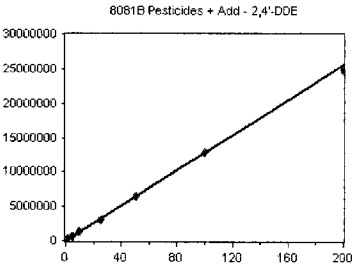


Curve Fit: **AVERAGE RF**

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

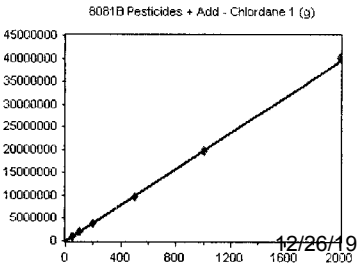


Curve Fit: **AVERAGE RF**

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	.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	.00365E+07	20018.250	7.43

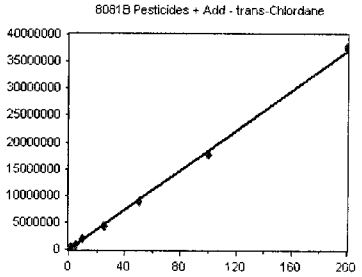
AVE RF **19689.810** RF RSD **1.96** AVE RT **7.43**

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

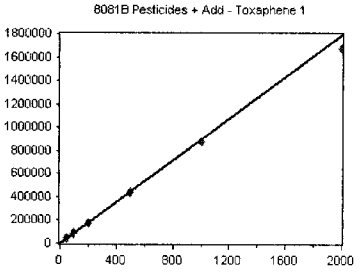


Curve Fit: **AVERAGE RF**

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

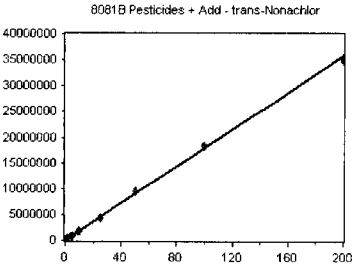


Curve Fit: **AVERAGE RF**

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

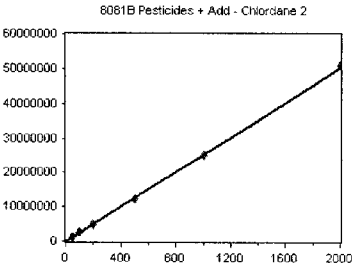


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

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

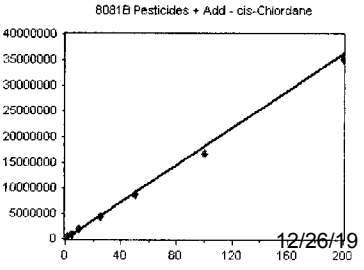


Curve Fit: **AVERAGE RF**

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**

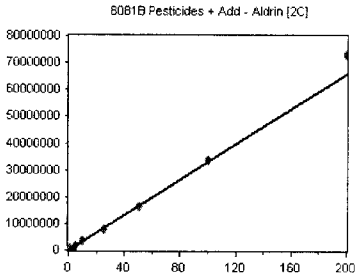
Element Calibration Review Sheet

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**

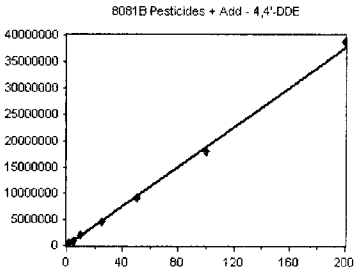


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	317466	317466.000	7.56
9H23034-CAL2	2	635458	317729.000	7.56
9H23034-CAL3	5	1600995	320199.000	7.56
9H23034-CAL4	10	3341093	334109.300	7.56
9H23034-CAL5	25	7878574	315143.000	7.56
9H23034-CAL6	50	526442E+07	325288.400	7.56
9H23034-CAL7	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**

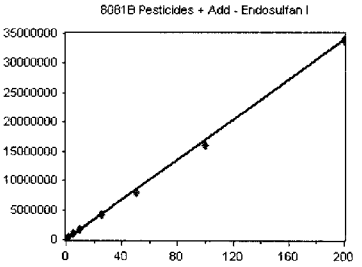


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	193435	193435.000	7.59
9H23034-CAL2	2	388618	194309.000	7.59
9H23034-CAL3	5	953351	190670.200	7.59
9H23034-CAL4	10	1890931	189093.100	7.59
9H23034-CAL5	25	4571066	182842.600	7.58
9H23034-CAL6	50	9177389	183547.800	7.58
9H23034-CAL7	100	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**

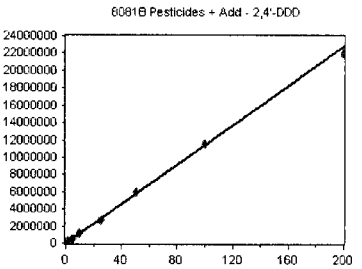


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	185217	185217.000	7.63
9H23034-CAL2	2	357368	178684.000	7.63
9H23034-CAL3	5	861509	172301.800	7.62
9H23034-CAL4	10	1709332	170933.200	7.62
9H23034-CAL5	25	4111285	164451.400	7.62
9H23034-CAL6	50	7984410	159688.200	7.62
9H23034-CAL7	100	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**

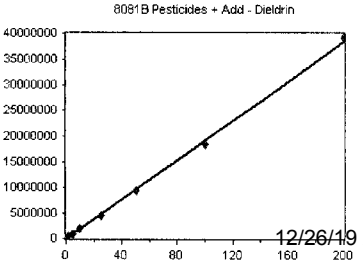


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	120240	120240.000	7.71
9H23034-CALA	2	233089	116544.500	7.71
9H23034-CALB	5	560942	112188.400	7.71
9H23034-CALC	10	1103587	110358.700	7.71
9H23034-CALD	25	2745178	109807.100	7.71
9H23034-CALE	50	5920095	118401.900	7.71
9H23034-CALF	100	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

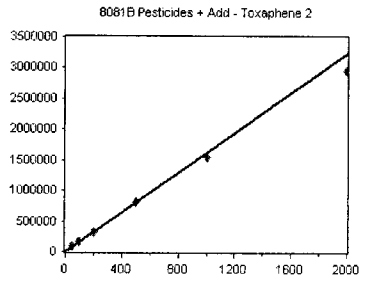
AVE RF **191979.300** RF RSD **3.25** AVE RT **7.79**

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

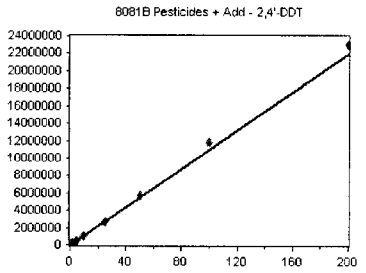


Curve Fit: **AVERAGE RF**

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

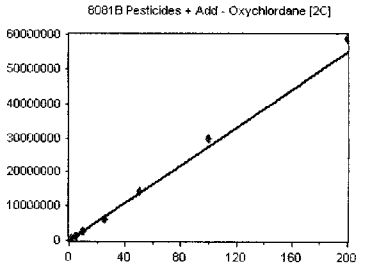


Curve Fit: **AVERAGE RF**

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]

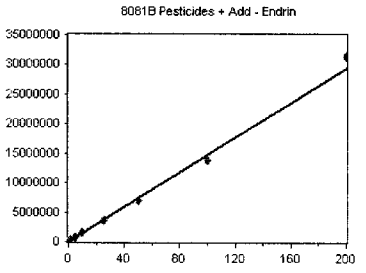


Curve Fit: **AVERAGE RF**

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

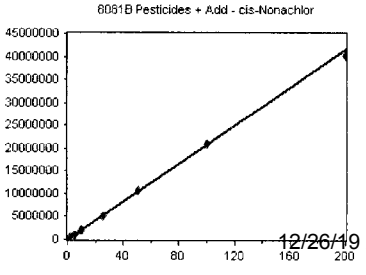


Curve Fit: **AVERAGE RF**

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**

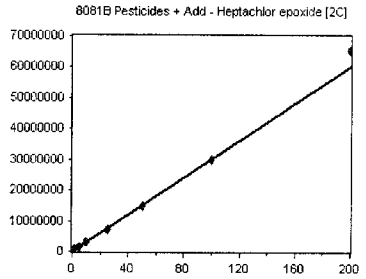
Element Calibration Review Sheet

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**

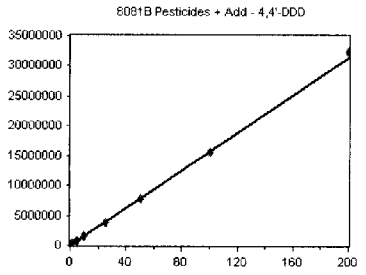


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	310098	310098.000	7.99
9H23034-CAL2	2	606240	303120.000	7.99
9H23034-CAL3	5	1455941	291188.200	7.99
9H23034-CAL4	10	2959301	295930.100	7.99
9H23034-CAL5	25	7064729	282589.200	7.99
9H23034-CAL6	50	483779E+07	296755.800	7.99
9H23034-CAL7	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**

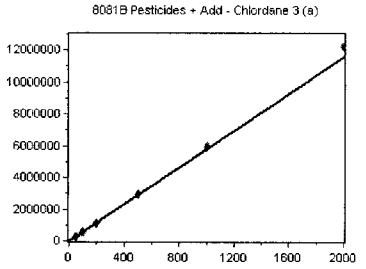


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	164956	164956.000	8.01
9H23034-CAL2	2	314622	157311.000	8.01
9H23034-CAL3	5	790498	158099.600	8.01
9H23034-CAL4	10	1565974	156597.400	8.01
9H23034-CAL5	25	3727035	149081.400	8.00
9H23034-CAL6	50	7726197	154523.900	8.00
9H23034-CAL7	100	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**

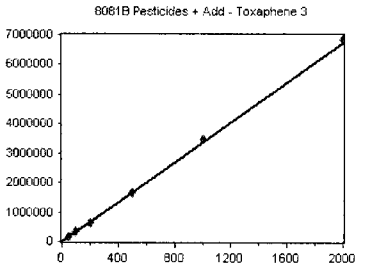


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	288087	5761.740	8.07
9H23034-CALI	100	548196	5481.960	8.07
9H23034-CALJ	200	1101677	5508.385	8.07
9H23034-CALK	500	2921278	5842.556	8.07
9H23034-CALL	1000	5987927	5987.927	8.07
9H23034-CALM	2000	220831E+07	6104.155	8.07

AVE RF **5781.121** RF RSD **4.34** AVE RT **8.07**

Toxaphene 3

Curve Fit: **AVERAGE RF**

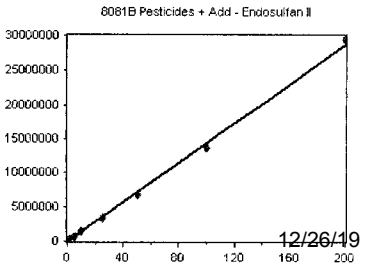


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	169381	3387.620	8.11
9H23034-CALO	100	332842	3328.420	8.11
9H23034-CALP	200	644464	3222.320	8.11
9H23034-CALQ	500	1677481	3354.962	8.11
9H23034-CALR	1000	3495877	3495.877	8.11
9H23034-CALS	2000	6831460	3415.730	8.10

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**

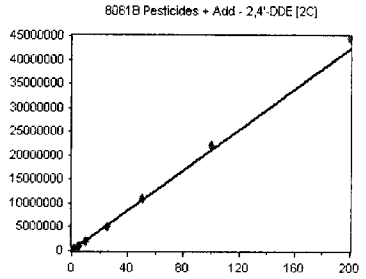
Element Calibration Review Sheet

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**

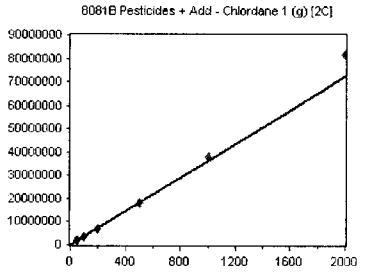


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	219164	219164.000	8.12
9H23034-CALA	2	411812	205906.000	8.12
9H23034-CALB	5	1029687	205937.400	8.12
9H23034-CALC	10	2018331	201833.100	8.12
9H23034-CALD	25	4999232	199969.300	8.12
9H23034-CALE	50	.10064E+07	220128.000	8.12
9H23034-CALF	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**

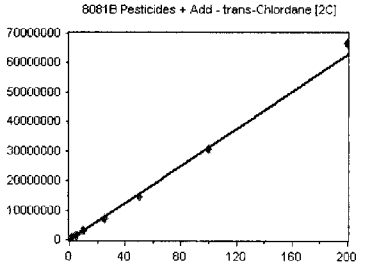


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1754707	35094.140	8.13
9H23034-CALI	100	3378388	33783.880	8.13
9H23034-CALJ	200	6751197	33755.980	8.13
9H23034-CALK	500	783043E+07	35660.860	8.13
9H23034-CALL	1000	796674E+07	37966.740	8.13
9H23034-CALM	2000	169171E+07	40845.860	8.13

AVE RF **36184.580** RF RSD **7.62** AVE RT **8.13**

trans-Chlordane [2C]

Curve Fit: **AVERAGE RF**

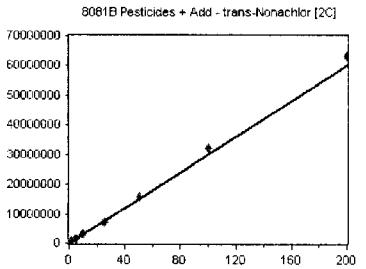


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	364142	364142.000	8.14
9H23034-CAL2	2	644454	322227.000	8.14
9H23034-CAL3	5	1502119	300423.800	8.13
9H23034-CAL4	10	3002782	300278.200	8.13
9H23034-CAL5	25	7157480	286299.200	8.13
9H23034-CAL6	50	467872E+07	293574.400	8.13
9H23034-CAL7	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**

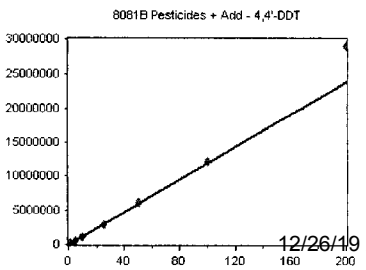


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	306202	306202.000	8.20
9H23034-CALA	2	587765	293882.500	8.19
9H23034-CALB	5	1467723	293544.600	8.19
9H23034-CALC	10	2844404	284440.400	8.19
9H23034-CALD	25	7092288	283691.500	8.19
9H23034-CALE	50	580771E+07	316154.200	8.19
9H23034-CALF	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**

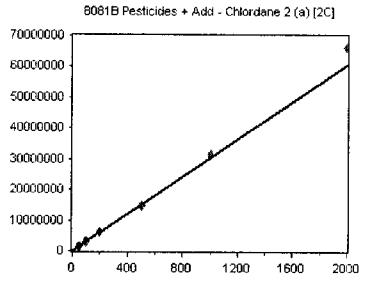
Element Calibration Review Sheet

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**

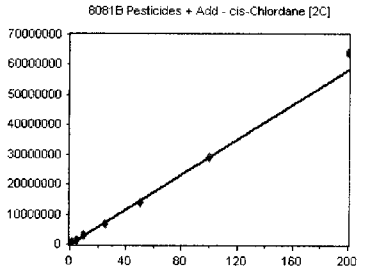


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1472400	29448.000	8.24
9H23034-CALI	100	2905941	29059.410	8.24
9H23034-CALJ	200	5883615	29418.070	8.24
9H23034-CALK	500	481227E+07	29624.540	8.24
9H23034-CALL	1000	149368E+07	31493.680	8.24
9H23034-CALM	2000	528139E+07	33140.700	8.24

AVE RF **30364.070** RF RSD **5.30** AVE RT **8.24**

cis-Chlordane [2C]

Curve Fit: **AVERAGE RF**

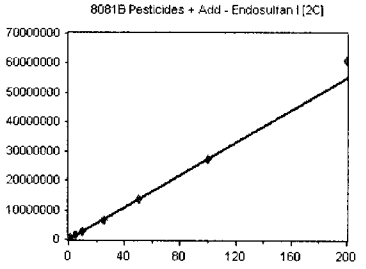


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	299422	299422.000	8.24
9H23034-CAL2	2	579667	289833.500	8.24
9H23034-CAL3	5	1434855	286971.000	8.24
9H23034-CAL4	10	2859573	285957.300	8.24
9H23034-CAL5	25	6935857	277434.300	8.24
9H23034-CAL6	50	400212E+07	280042.400	8.24
9H23034-CAL7	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**

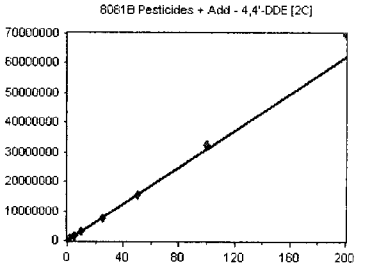


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	278874	278874.000	8.29
9H23034-CAL2	2	540442	270221.000	8.29
9H23034-CAL3	5	1327191	265438.200	8.29
9H23034-CAL4	10	2724272	272427.200	8.29
9H23034-CAL5	25	6571512	262860.500	8.29
9H23034-CAL6	50	371233E+07	274246.600	8.29
9H23034-CAL7	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**

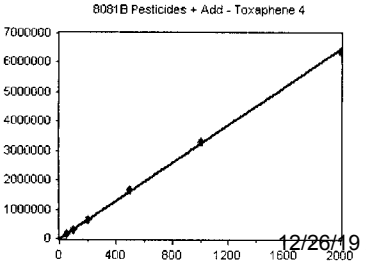


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	298463	298463.000	8.35
9H23034-CAL2	2	598066	299033.000	8.35
9H23034-CAL3	5	1487999	297599.800	8.35
9H23034-CAL4	10	3049792	304979.200	8.35
9H23034-CAL5	25	7501047	300041.900	8.34
9H23034-CAL6	50	555471E+07	311094.200	8.34
9H23034-CAL7	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**

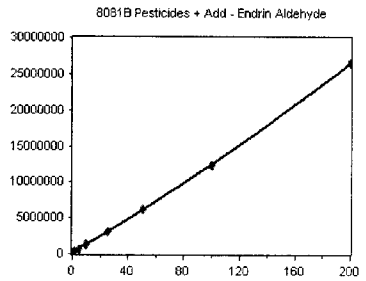
Element Calibration Review Sheet

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**

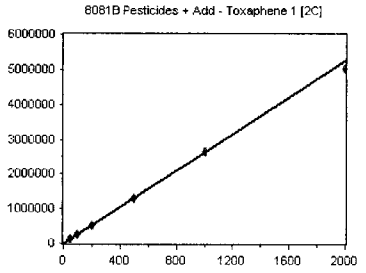


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	241285	241285.000	8.41
9H23034-CAL2	2	328182	164091.000	8.41
9H23034-CAL3	5	683393	136678.600	8.41
9H23034-CAL4	10	1375129	137512.900	8.41
9H23034-CAL5	25	3119767	124790.700	8.40
9H23034-CAL6	50	6224451	124489.000	8.40
9H23034-CAL7	100	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**

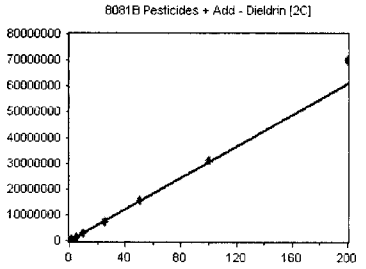


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	136848	2736.960	8.47
9H23034-CALO	100	267534	2675.340	8.47
9H23034-CALP	200	508983	2544.915	8.47
9H23034-CALQ	500	1308994	2617.988	8.47
9H23034-CALR	1000	2654886	2654.886	8.47
9H23034-CALS	2000	5030917	2515.458	8.47

AVE RF **2624.258** RF RSD **3.16** AVE RT **8.47**

Dieldrin [2C]

Curve Fit: **AVERAGE RF**

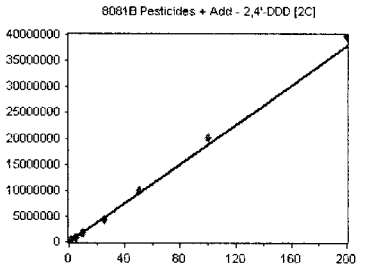


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	296684	296684.000	8.49
9H23034-CAL2	2	583812	291906.000	8.49
9H23034-CAL3	5	1462538	292507.600	8.49
9H23034-CAL4	10	2898866	289886.600	8.49
9H23034-CAL5	25	7333890	293355.600	8.49
9H23034-CAL6	50	543411E+07	308682.200	8.49
9H23034-CAL7	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**

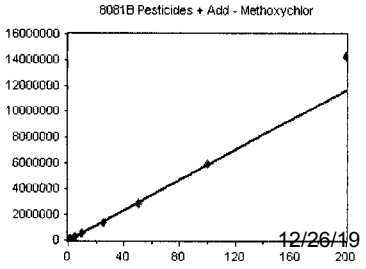


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	192040	192040.000	8.50
9H23034-CALA	2	373596	186798.000	8.50
9H23034-CALB	5	898697	179739.400	8.50
9H23034-CALC	10	1778790	177879.000	8.50
9H23034-CALD	25	4389185	175567.400	8.50
9H23034-CALE	50	9924934	198498.700	8.50
9H23034-CALF	100	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**

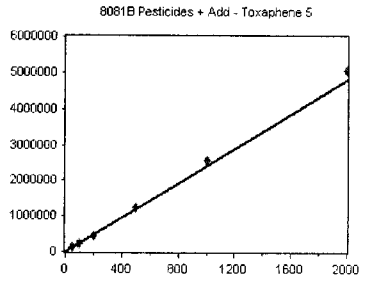
Element Calibration Review Sheet

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**

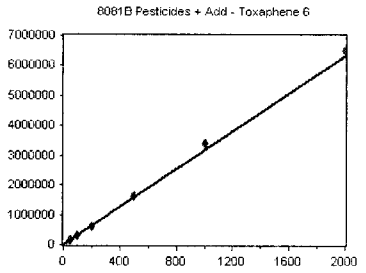


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	114720	2294.400	8.57
9H23034-CALO	100	228960	2289.600	8.57
9H23034-CALP	200	454431	2272.155	8.57
9H23034-CALQ	500	1221560	2443.120	8.57
9H23034-CALR	1000	2546293	2546.293	8.57
9H23034-CALS	2000	5074570	2537.285	8.57

AVE RF **2397.142** RF RSD **5.33** AVE RT **8.57**

Toxaphene 6

Curve Fit: **AVERAGE RF**

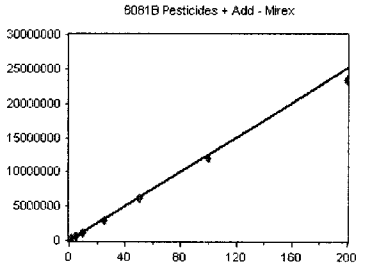


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	153138	3062.760	8.64
9H23034-CALO	100	302577	3025.770	8.64
9H23034-CALP	200	597991	2989.955	8.64
9H23034-CALQ	500	1623402	3246.804	8.64
9H23034-CALR	1000	3406737	3406.737	8.64
9H23034-CALS	2000	6510950	3255.475	8.64

AVE RF **3164.584** RF RSD **5.17** AVE RT **8.64**

Mirex

Curve Fit: **AVERAGE RF**

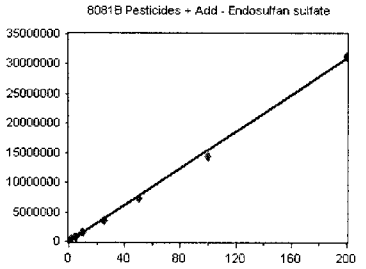


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	147356	147356.000	8.66
9H23034-CALA	2	266770	133385.000	8.66
9H23034-CALB	5	628618	125723.600	8.65
9H23034-CALC	10	1196365	119636.500	8.65
9H23034-CALD	25	2910818	116432.700	8.65
9H23034-CALE	50	6218341	124366.800	8.65
9H23034-CALF	100	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**

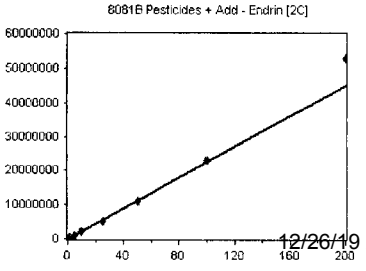


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176097	176097.000	8.71
9H23034-CAL2	2	322163	161081.500	8.71
9H23034-CAL3	5	768798	153759.600	8.71
9H23034-CAL4	10	1553540	155354.000	8.71
9H23034-CAL5	25	3645411	145816.400	8.71
9H23034-CAL6	50	7420576	148411.500	8.71
9H23034-CAL7	100	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**

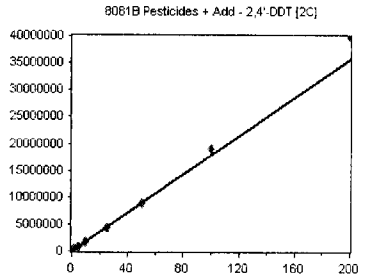
Element Calibration Review Sheet

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**

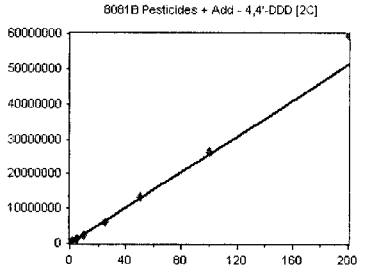


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	173338	173338.000	8.72
9H23034-CALA	2	332170	166085.000	8.72
9H23034-CALB	5	873074	174614.800	8.72
9H23034-CALC	10	1702568	170256.800	8.72
9H23034-CALD	25	4405554	176222.200	8.72
9H23034-CALE	50	8810591	176211.800	8.72
9H23034-CALF	100	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**

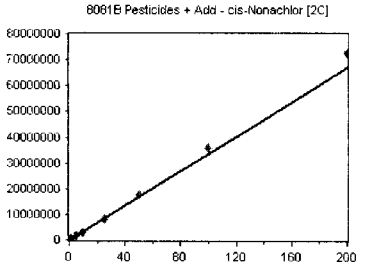


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	251549	251549.000	8.76
9H23034-CAL2	2	488120	244060.000	8.76
9H23034-CAL3	5	1208642	241728.400	8.76
9H23034-CAL4	10	2425496	242549.600	8.76
9H23034-CAL5	25	6146469	245858.800	8.76
9H23034-CAL6	50	315945E+07	263189.000	8.76
9H23034-CAL7	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**

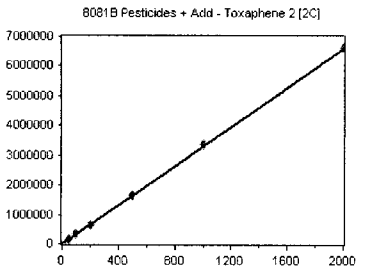


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	332745	332745.000	8.76
9H23034-CALA	2	624783	312391.500	8.76
9H23034-CALB	5	1587243	317448.600	8.76
9H23034-CALC	10	3148054	314805.400	8.76
9H23034-CALD	25	8219393	328775.700	8.76
9H23034-CALE	50	772123E+07	354424.600	8.76
9H23034-CALF	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**

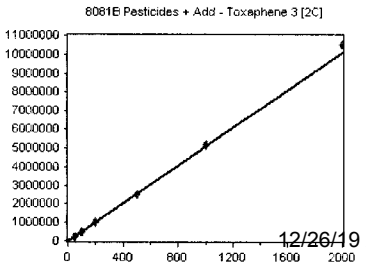


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	164706	3294.120	8.81
9H23034-CALO	100	324070	3240.700	8.81
9H23034-CALP	200	645322	3226.610	8.81
9H23034-CALQ	500	1647741	3295.482	8.81
9H23034-CALR	1000	3384036	3384.036	8.81
9H23034-CALS	2000	6610397	3305.198	8.81

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**

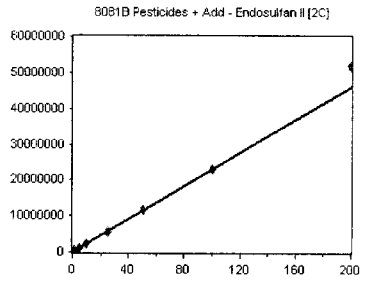
Element Calibration Review Sheet

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**

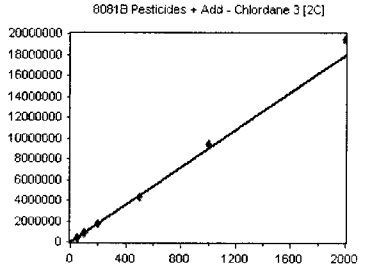


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	232156	232156.000	8.87
9H23034-CAL2	2	462256	231128.000	8.86
9H23034-CAL3	5	1096359	219271.800	8.87
9H23034-CAL4	10	2243610	224361.000	8.86
9H23034-CAL5	25	5447602	217904.100	8.86
9H23034-CAL6	50	153453E+07	230690.600	8.86
9H23034-CAL7	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**

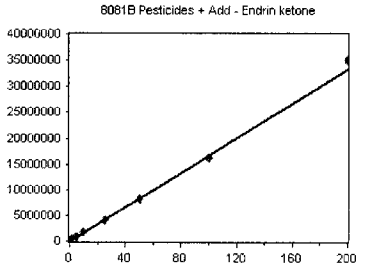


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	439020	8780.400	8.90
9H23034-CALI	100	874465	8744.650	8.90
9H23034-CALJ	200	1731727	8658.635	8.90
9H23034-CALK	500	4271709	8543.418	8.90
9H23034-CALL	1000	9358900	9358.900	8.90
9H23034-CALM	2000	941852E+07	9709.260	8.90

AVE RF **8965.877** RF RSD **5.14** AVE RT **8.90**

Endrin ketone

Curve Fit: **AVERAGE RF**

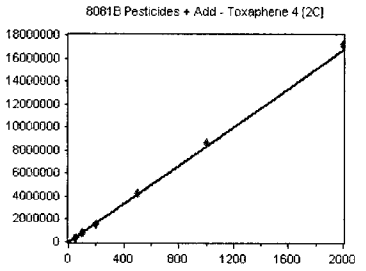


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	177552	177552.000	8.90
9H23034-CAL2	2	331269	165634.500	8.90
9H23034-CAL3	5	811384	162276.800	8.90
9H23034-CAL4	10	1664380	166438.000	8.90
9H23034-CAL5	25	4008958	160358.300	8.90
9H23034-CAL6	50	8190707	163814.100	8.90
9H23034-CAL7	100	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**

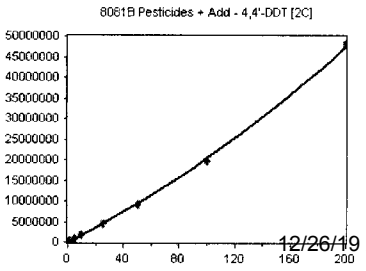


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	416348	8326.960	8.92
9H23034-CALO	100	811948	8119.480	8.92
9H23034-CALP	200	1580436	7902.180	8.91
9H23034-CALQ	500	4252640	8505.280	8.92
9H23034-CALR	1000	8650068	8650.068	8.92
9H23034-CALS	2000	719004E+07	8595.020	8.91

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**

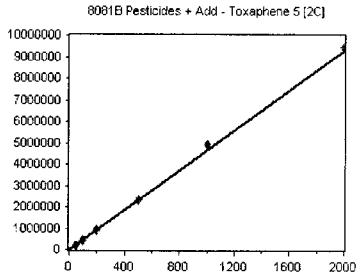
Element Calibration Review Sheet

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**

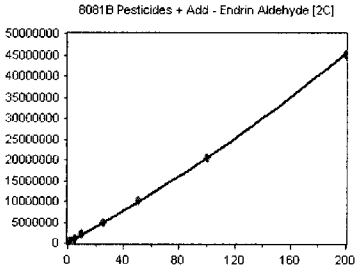


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	233185	4663.700	9.09
9H23034-CALO	100	452209	4522.090	9.09
9H23034-CALP	200	895397	4476.985	9.09
9H23034-CALQ	500	2340668	4681.336	9.09
9H23034-CALR	1000	4900430	4900.430	9.09
9H23034-CALS	2000	9435236	4717.618	9.09

AVE RF **4660.360** RF RSD **3.24** AVE RT **9.09**

Endrin Aldehyde [2C]

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

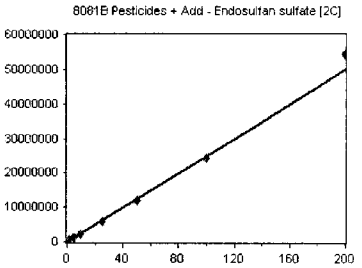


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	348624	348624.000	9.10
9H23034-CAL2	2	477694	238847.000	9.10
9H23034-CAL3	5	1045869	209173.800	9.10
9H23034-CAL4	10	2125028	212502.800	9.10
9H23034-CAL5	25	4848504	193940.200	9.10
9H23034-CAL6	50	020903E+07	204180.600	9.10
9H23034-CAL7	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**

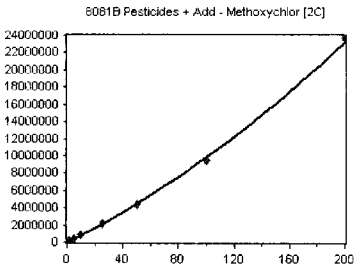


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	265797	265797.000	9.29
9H23034-CAL2	2	498767	249383.500	9.29
9H23034-CAL3	5	1175908	235181.600	9.29
9H23034-CAL4	10	2424584	242458.400	9.29
9H23034-CAL5	25	5978906	239156.200	9.29
9H23034-CAL6	50	214929E+07	242985.800	9.29
9H23034-CAL7	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**

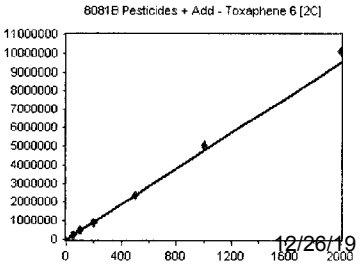


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	95155	95155.000	9.47
9H23034-CAL2	2	178074	89037.000	9.47
9H23034-CAL3	5	413802	82760.400	9.47
9H23034-CAL4	10	883069	88306.900	9.47
9H23034-CAL5	25	2166659	86666.360	9.46
9H23034-CAL6	50	4346199	86923.980	9.46
9H23034-CAL7	100	9444987	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**

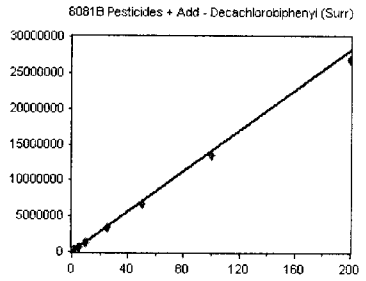
Element Calibration Review Sheet

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**

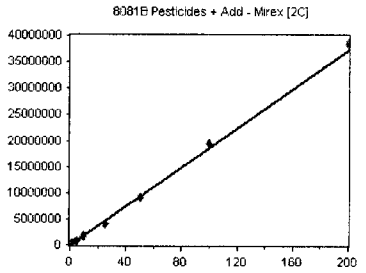


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	163865	163865.000	9.59
9H23034-CAL2	2	309904	154952.000	9.59
9H23034-CAL3	5	701050	140210.000	9.59
9H23034-CAL4	10	1335468	133546.800	9.59
9H23034-CAL5	25	3342634	133705.400	9.59
9H23034-CAL6	50	6678990	133579.800	9.59
9H23034-CAL7	100	.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**

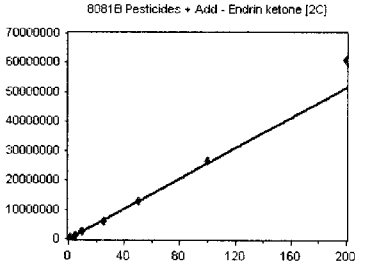


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	209783	209783.000	9.68
9H23034-CALA	2	388199	194099.500	9.68
9H23034-CALB	5	895523	179104.600	9.68
9H23034-CALC	10	1722960	172296.000	9.68
9H23034-CALD	25	4138115	165524.600	9.68
9H23034-CALE	50	9100959	182019.200	9.68
9H23034-CALF	100	.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**

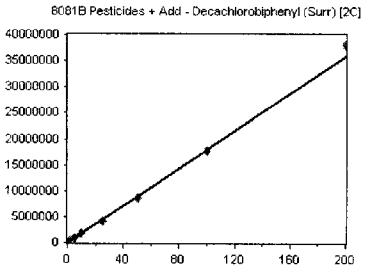


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	255763	255763.000	9.69
9H23034-CAL2	2	493110	246555.000	9.69
9H23034-CAL3	5	1205004	241000.800	9.69
9H23034-CAL4	10	2496985	249698.500	9.69
9H23034-CAL5	25	5893691	235747.600	9.69
9H23034-CAL6	50	295457E+07	259091.400	9.69
9H23034-CAL7	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).

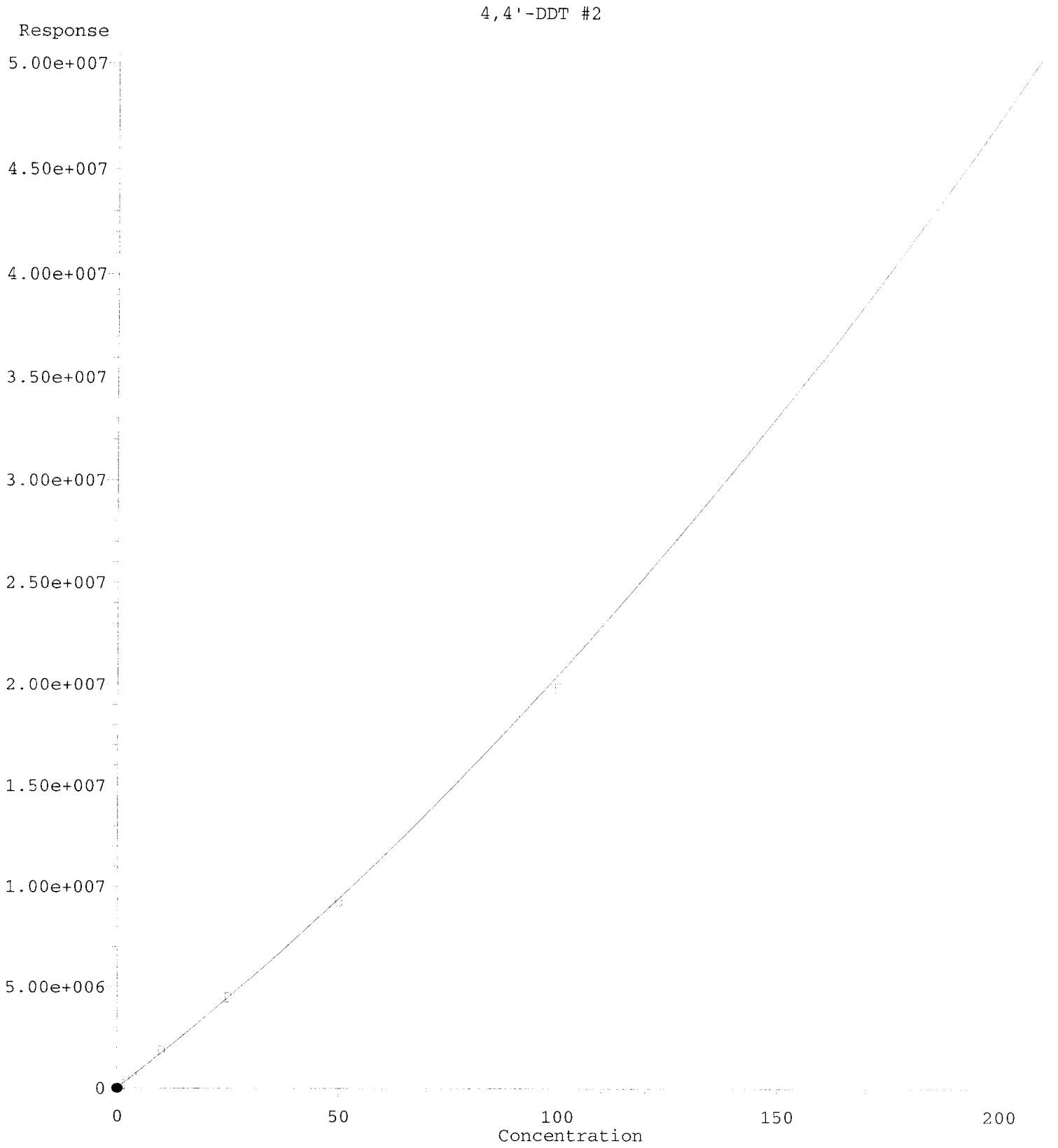
ICV RECOVERIES

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.

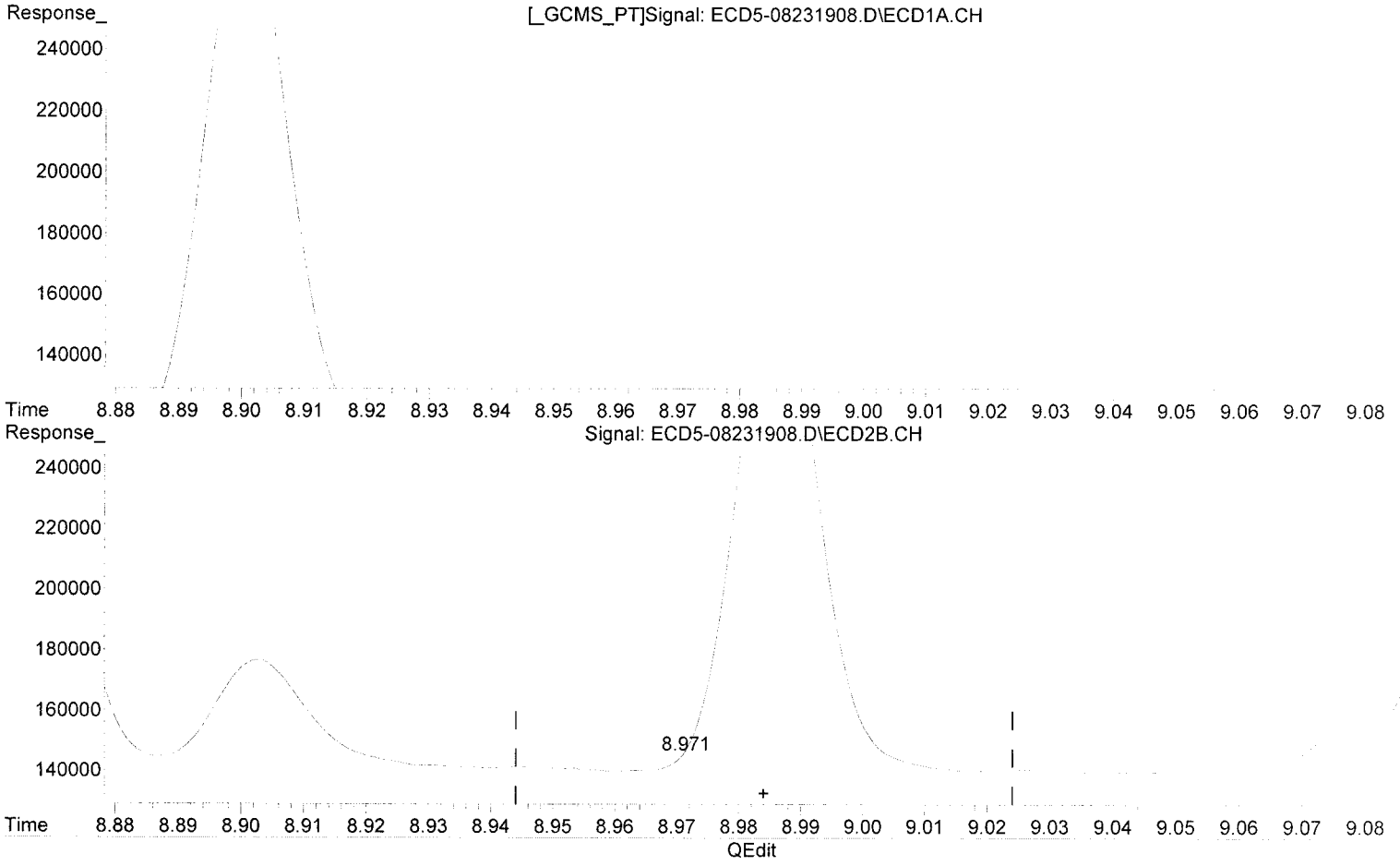


R = 3.30e+002 A*A + 1.71e+005 A + 6.57e+003
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

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

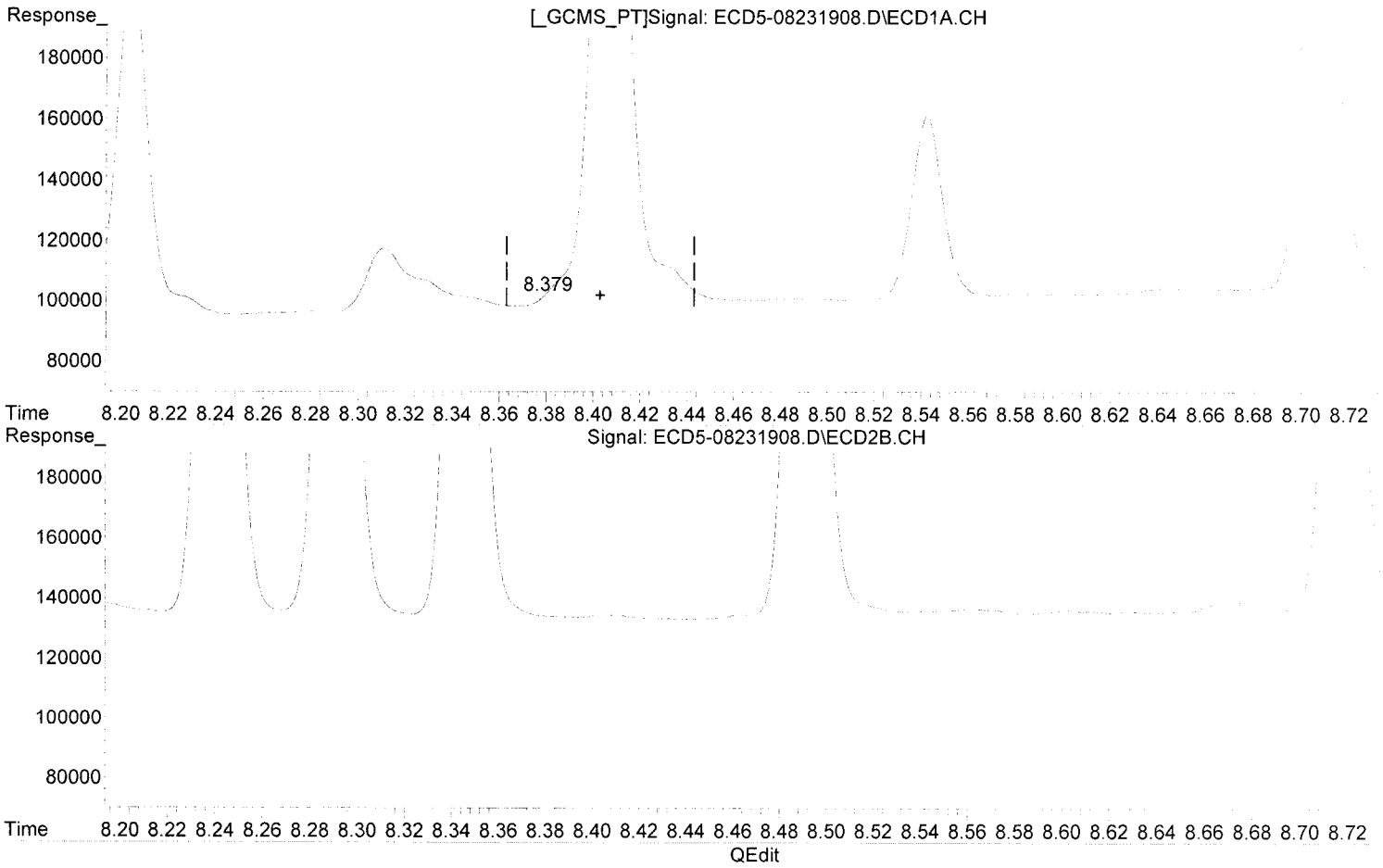
(+) = Expected Retention Time

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

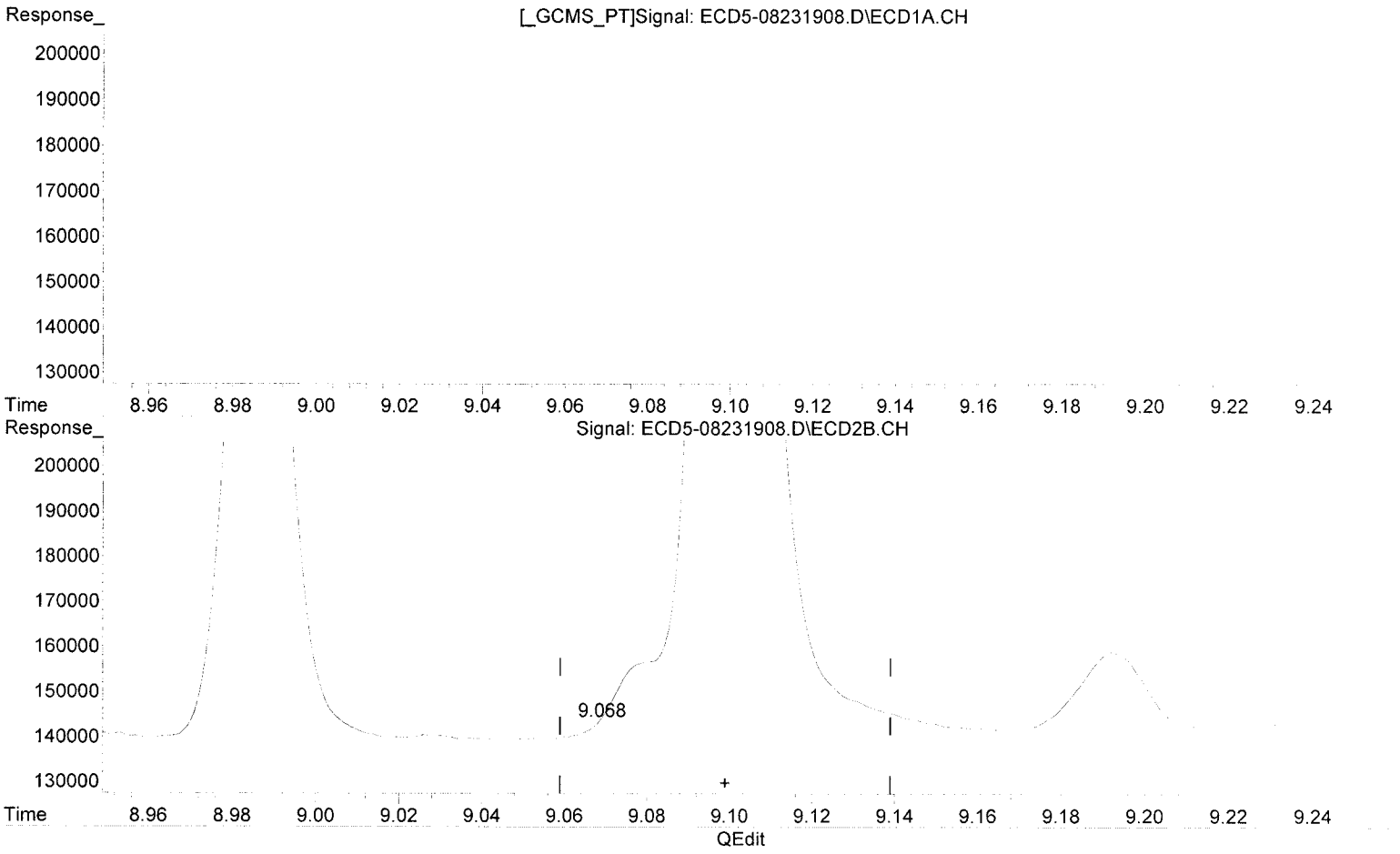
(+) = Expected Retention Time

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

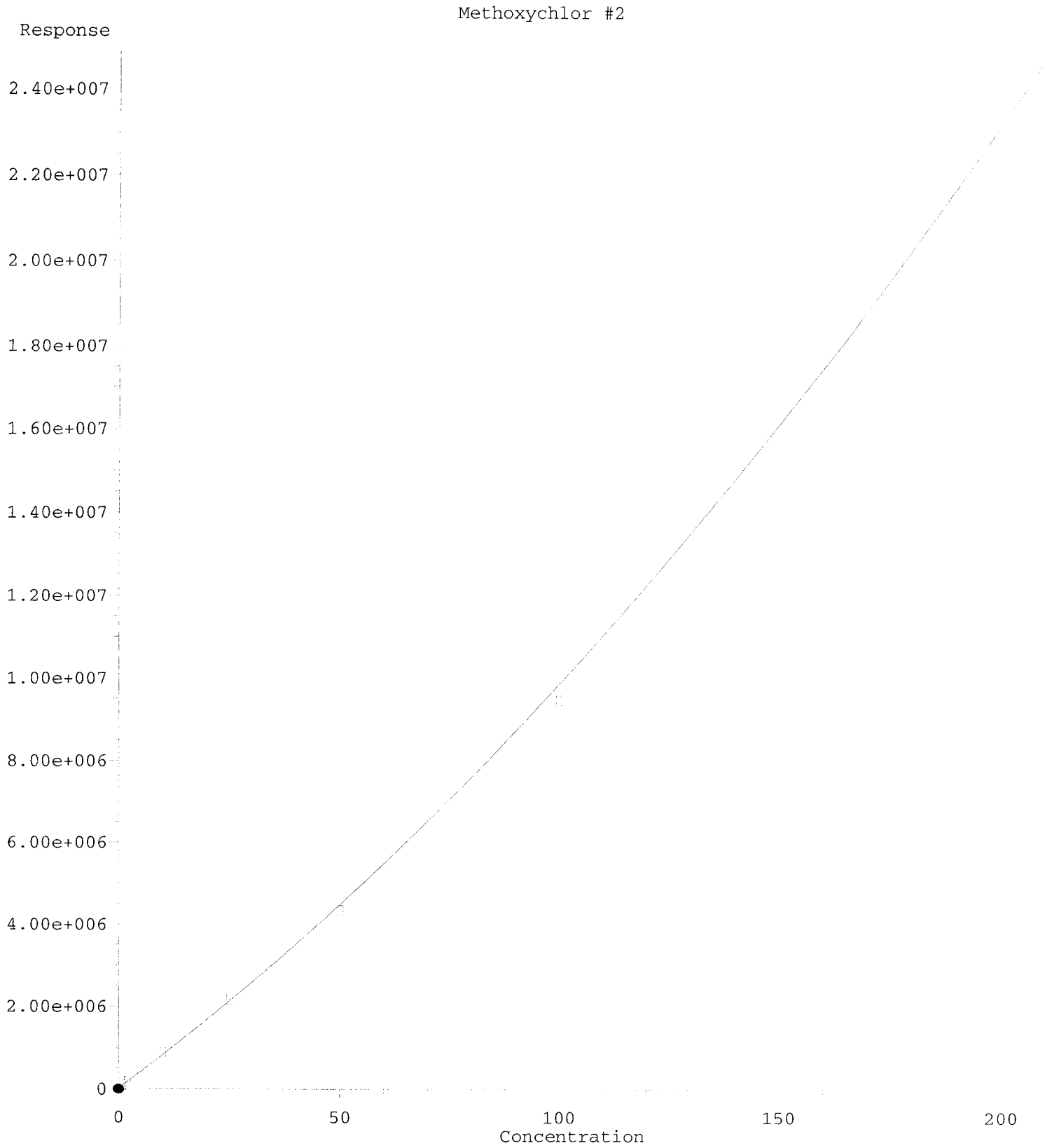
MJB 8/26/19

(18) Endrin Aldehyde #2

9.068min -0.831 ng/mL m

response 3374

(+) = Expected Retention Time

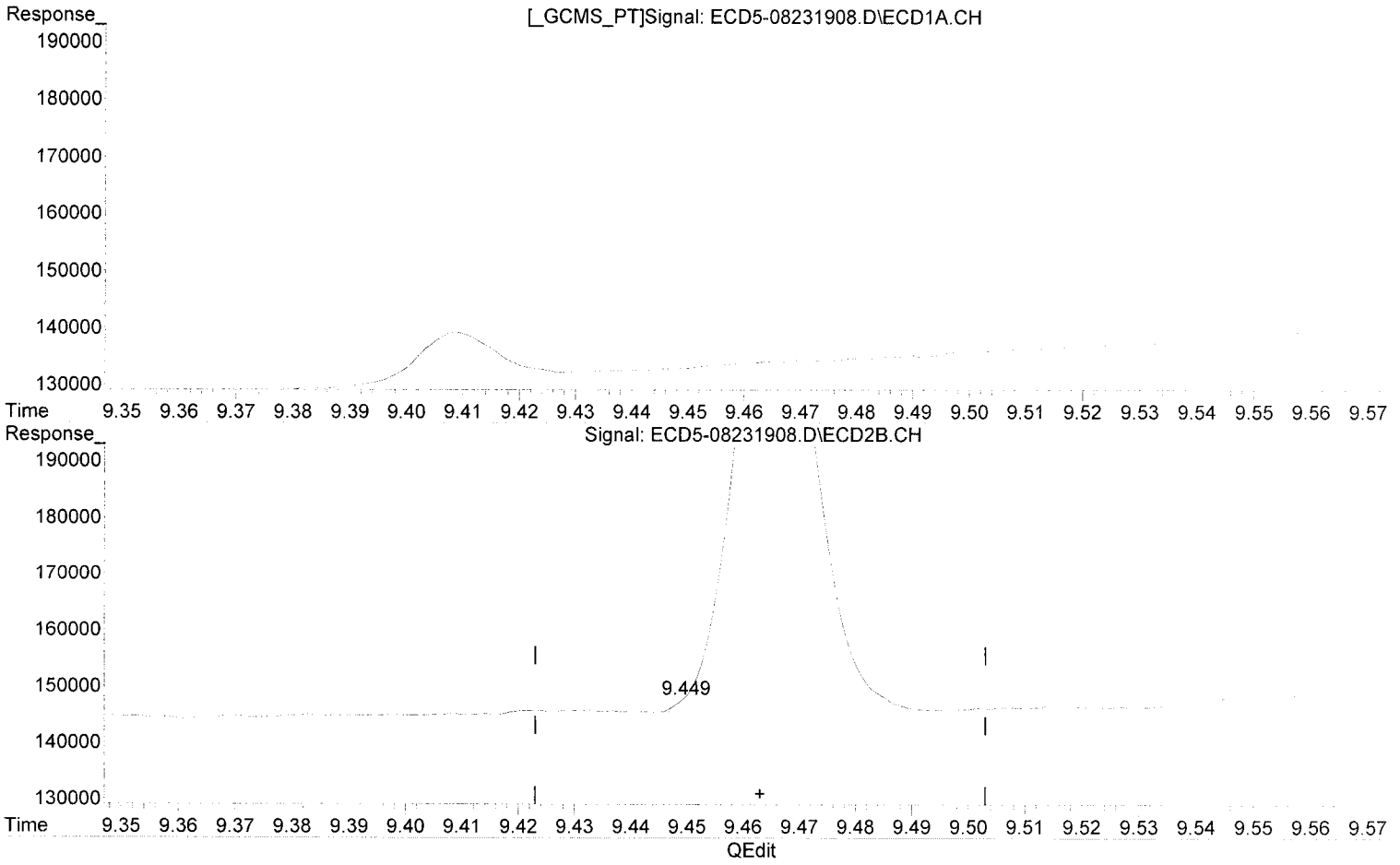


R = 1.78e+002 A*A + 8.05e+004 A + 1.50e+004
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

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 4/26/19

(20) Methoxychlor #2

9.449min -0.161 ng/mL (m)

response 2070

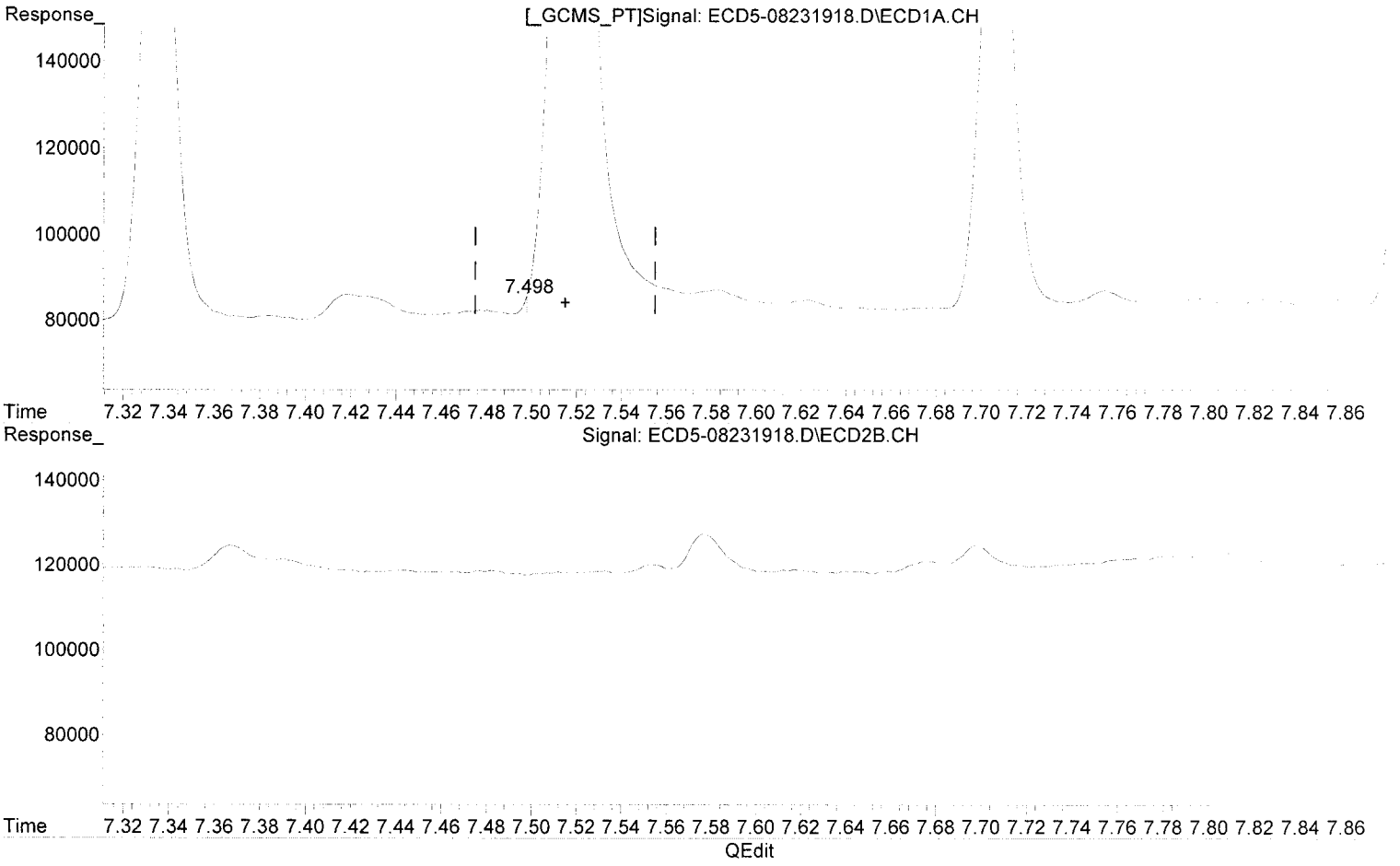
(+) = Expected Retention Time

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) Q-ou

response 4608

MJB 6/26/19

(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

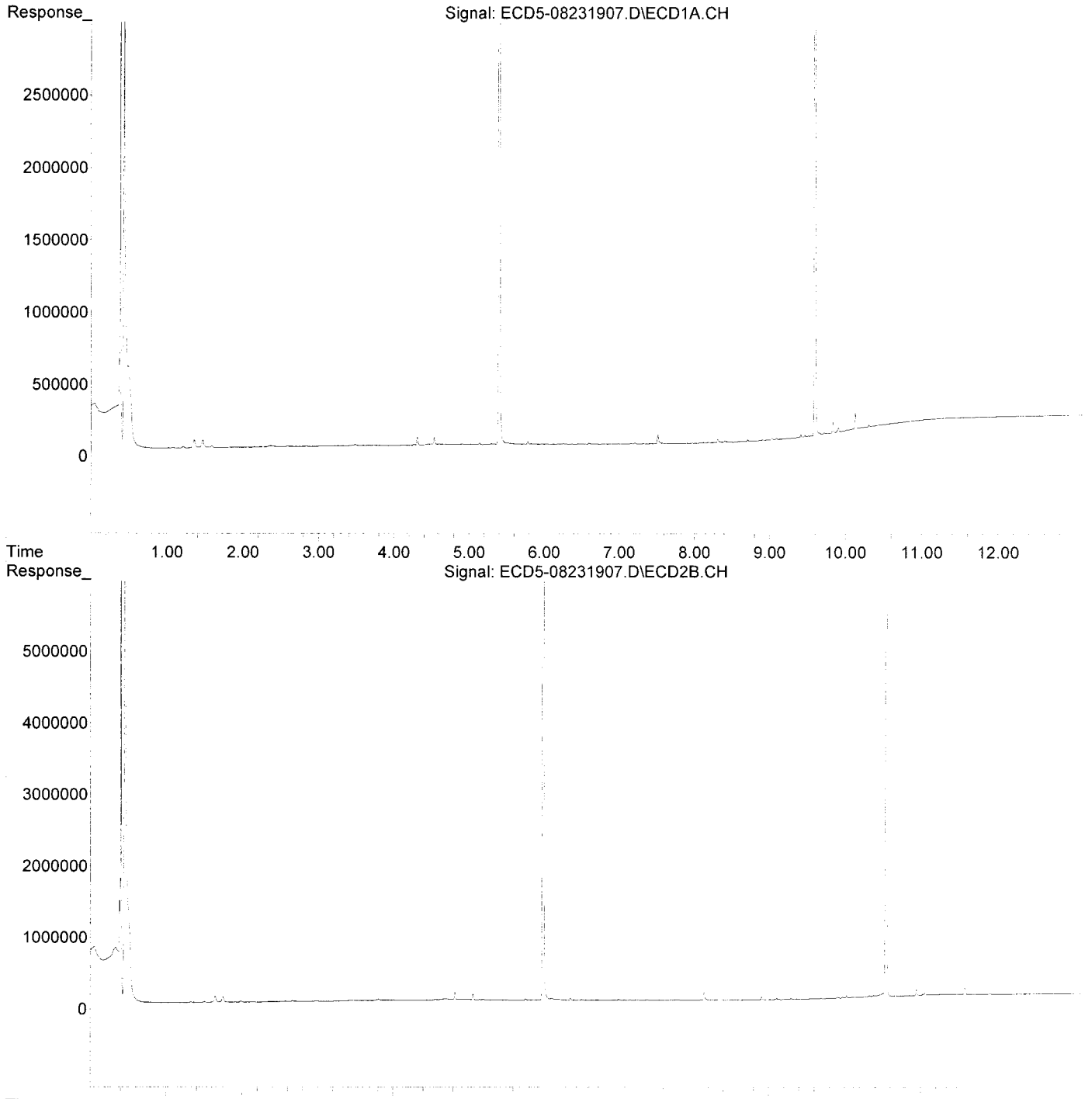
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.398	5.992	15096765	27637017	90.958	94.206	
22) S	DCBP (S)	9.594	10.543	12462090	16576085	88.322	92.211	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.253f	0.000	6973	0	0.035	N.D.	#
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

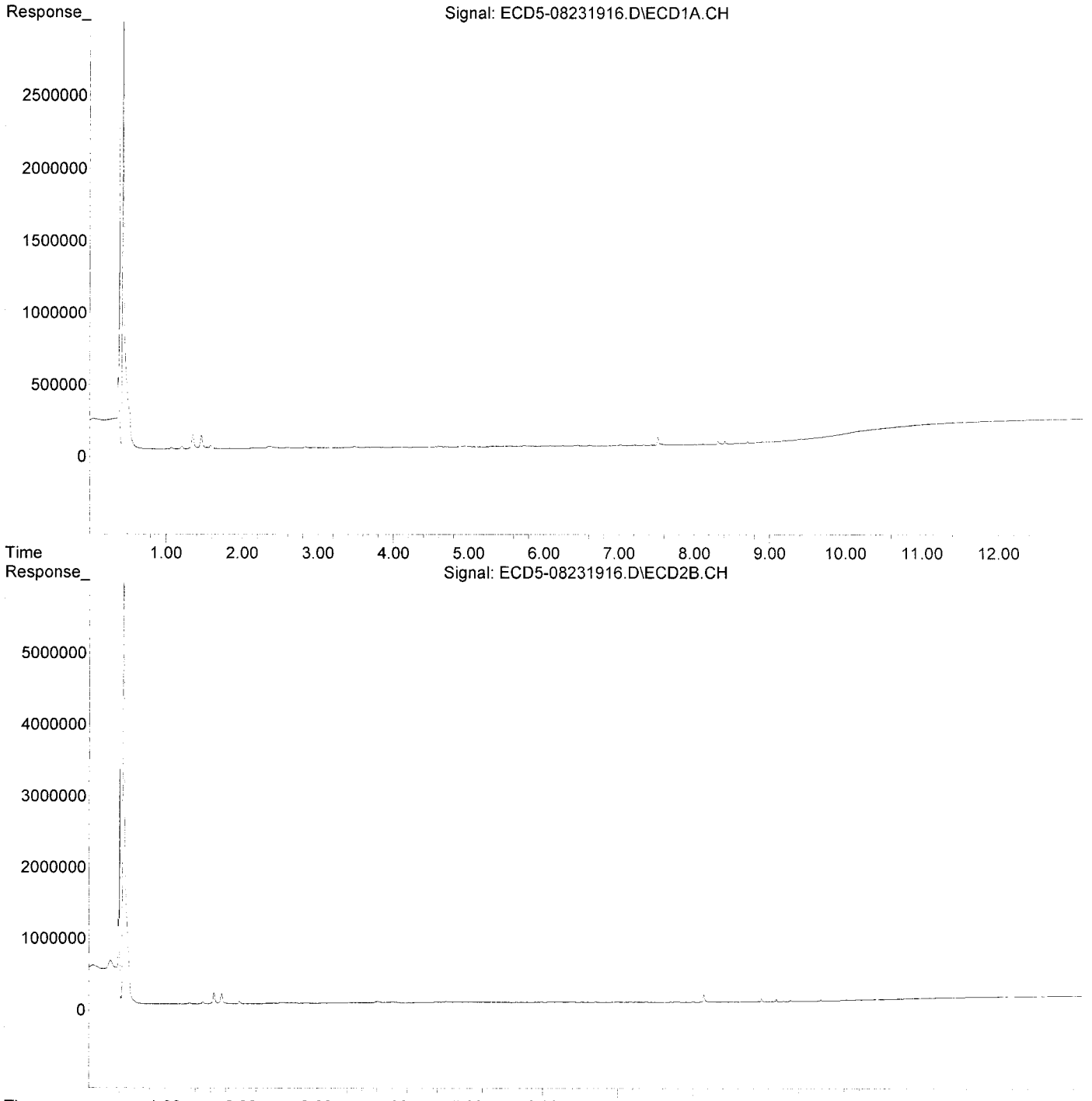
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	7755	N.D.	0.026	#
22)	S	DCBP (S)	9.595	10.540	5550	5660	0.039	0.031	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4370	0	0.022	N.D.	#
4)		b-BHC	0.000	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

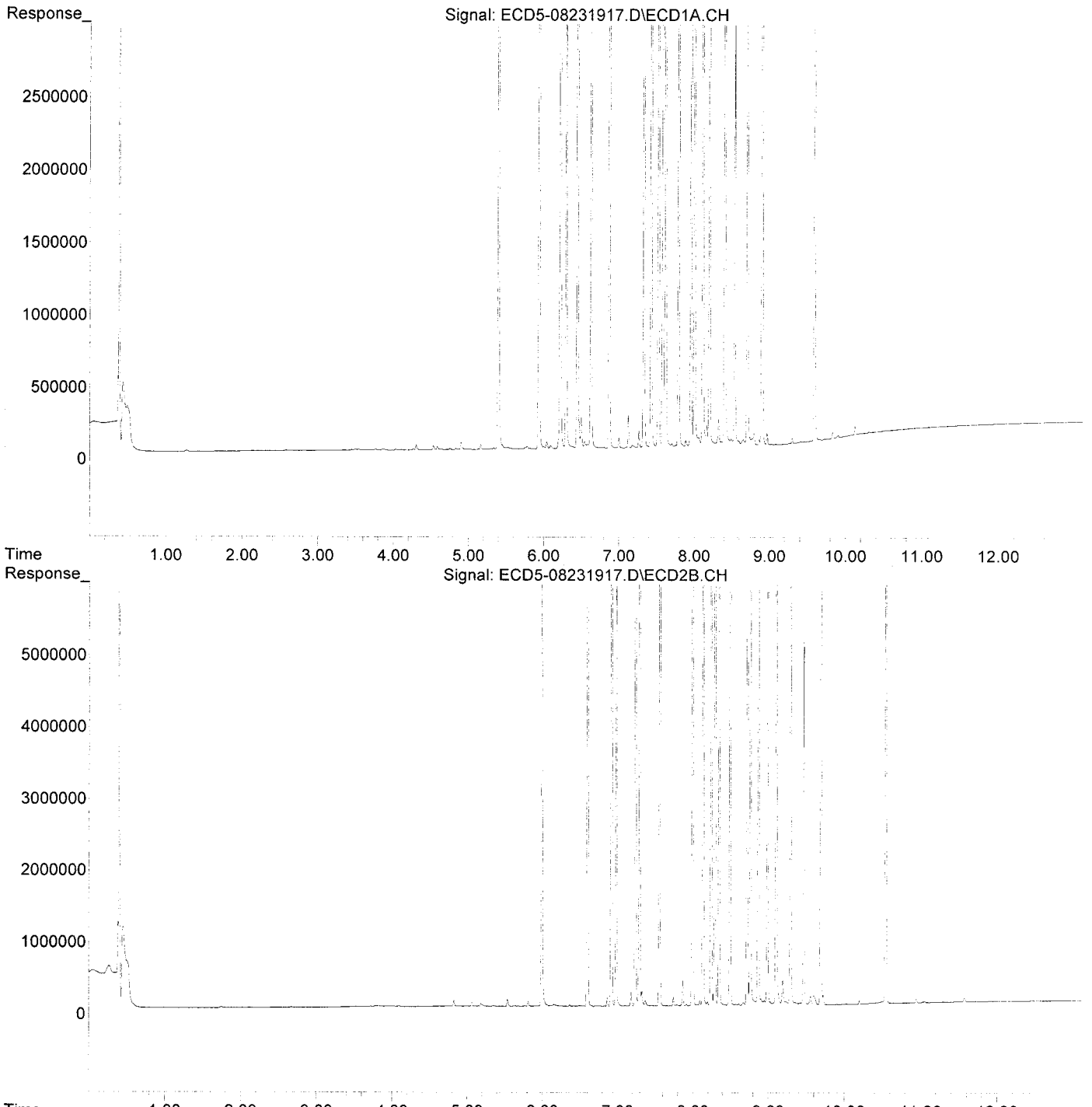
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.395	5.989	8209928	14467910	49.465	49.317	
22)	S	DCBP (S)	9.589	10.539	6928381	8667079	49.103	48.214	
		Target Compounds							
2)		a-BHC	5.935	6.596	11712240	21507667	51.072	52.414	
3)		g-BHC	6.218	6.913	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

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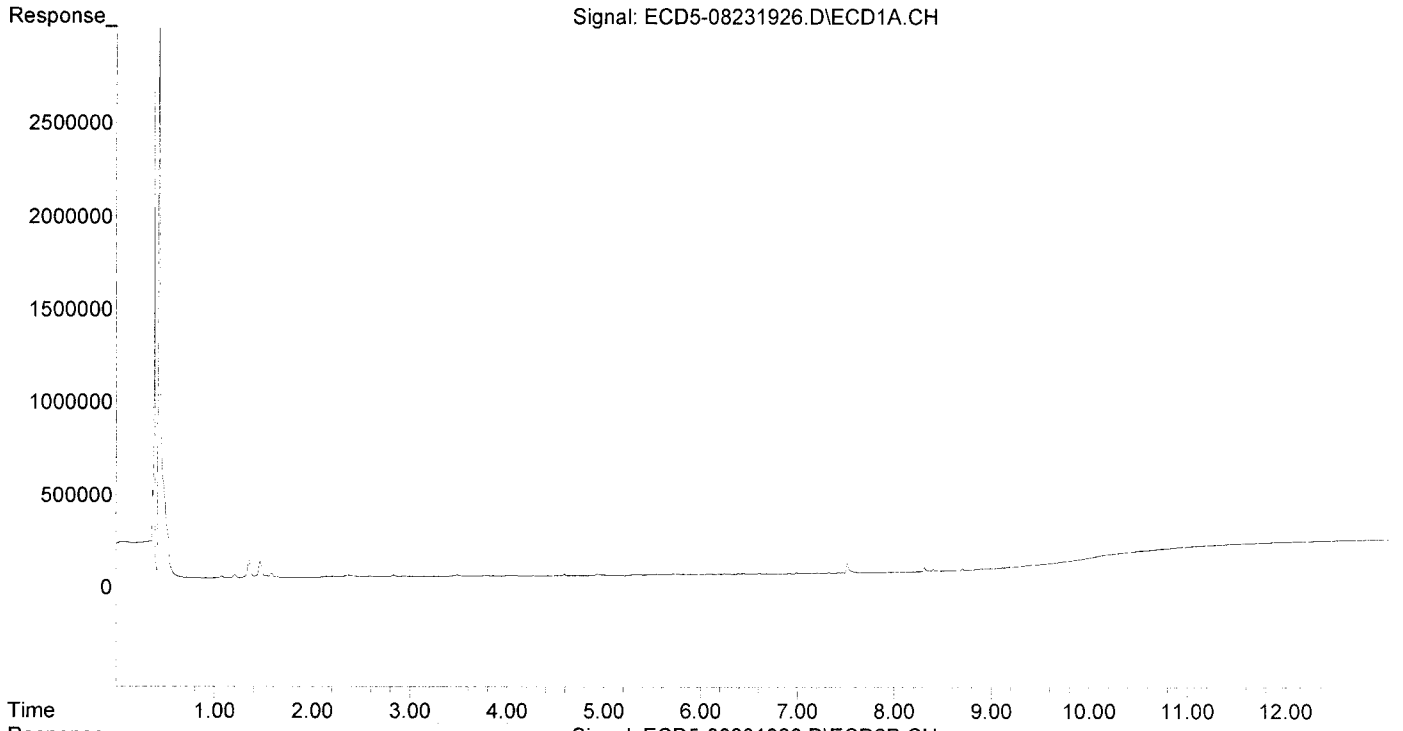
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.979	0	6612	N.D.	0.023	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.246f	0.000	5266	0	0.026	N.D.	#
4)		b-BHC	0.000	0.000	0	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.	

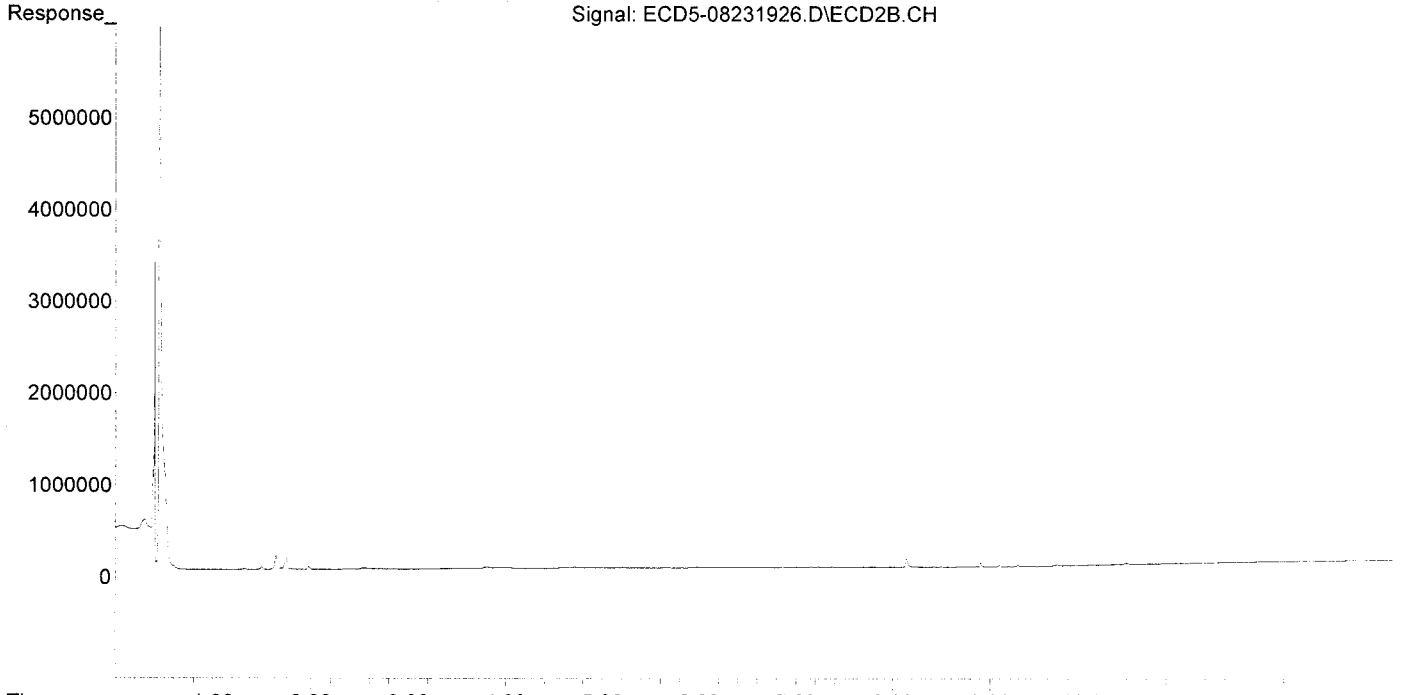
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

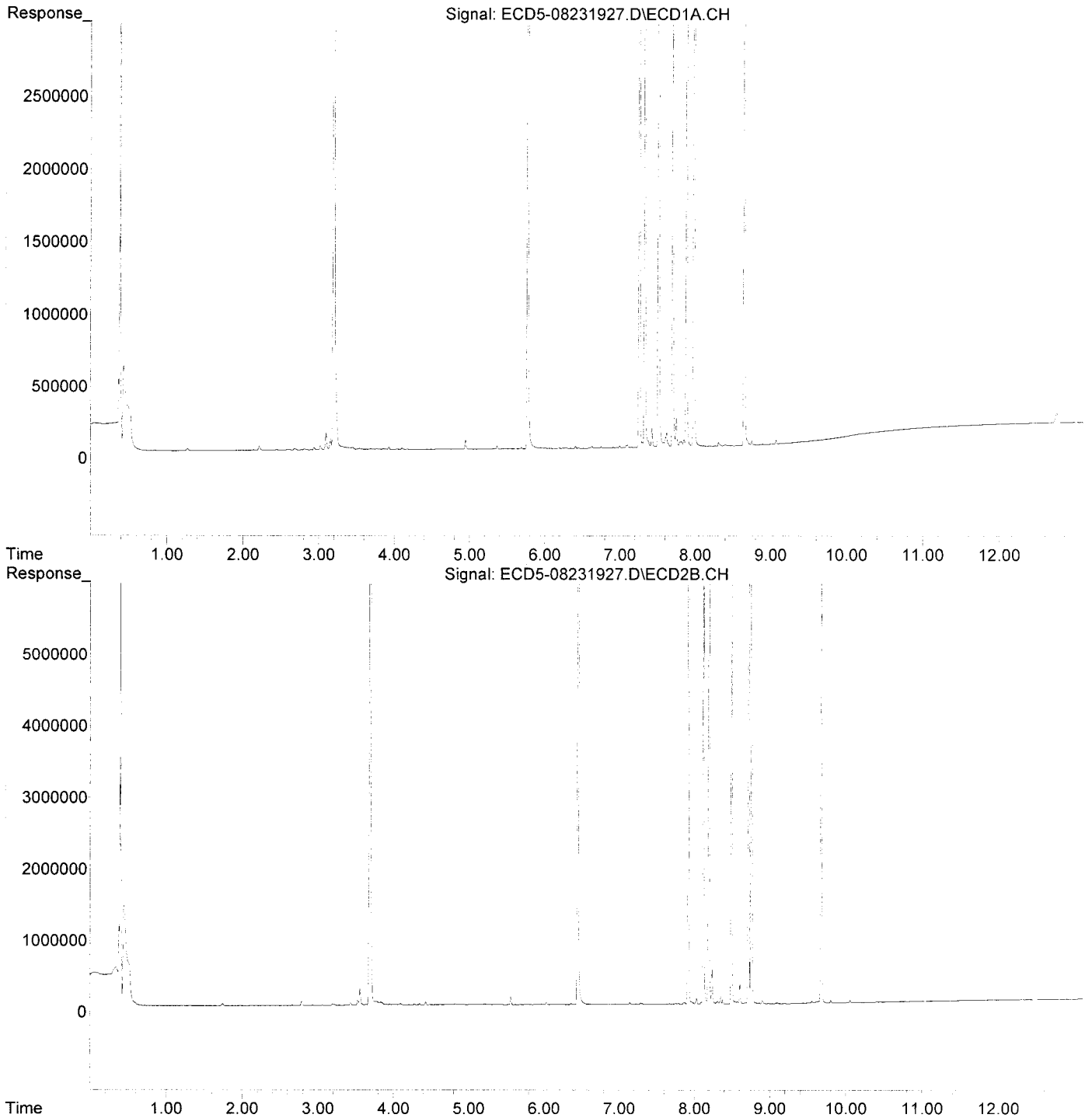
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.979	21795	7434	0.131	0.025	#
22)	S	DCBP (S)	9.593	0.000	5164	0	0.037	N.D.	#
		Target Compounds							
2)		a-BHC	5.944	0.000	7626	0	0.033	N.D.	#
3)		g-BHC	6.193f	6.950f	4309	4488	0.021	0.013	#
4)		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

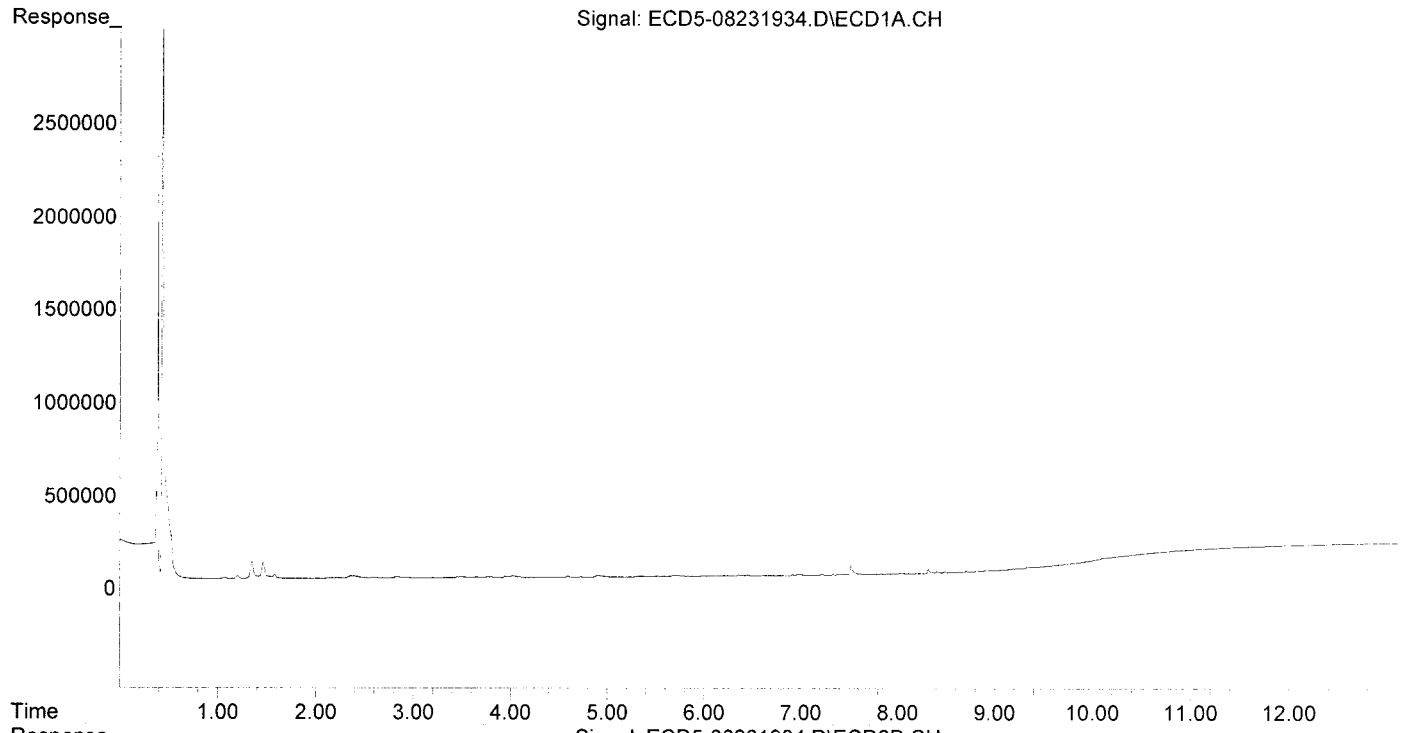
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.976	0	5923	N.D.	0.020	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.207	0.000	3774	0	0.019	N.D.	#
4)		b-BHC	0.000	0.000	0	0	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.	

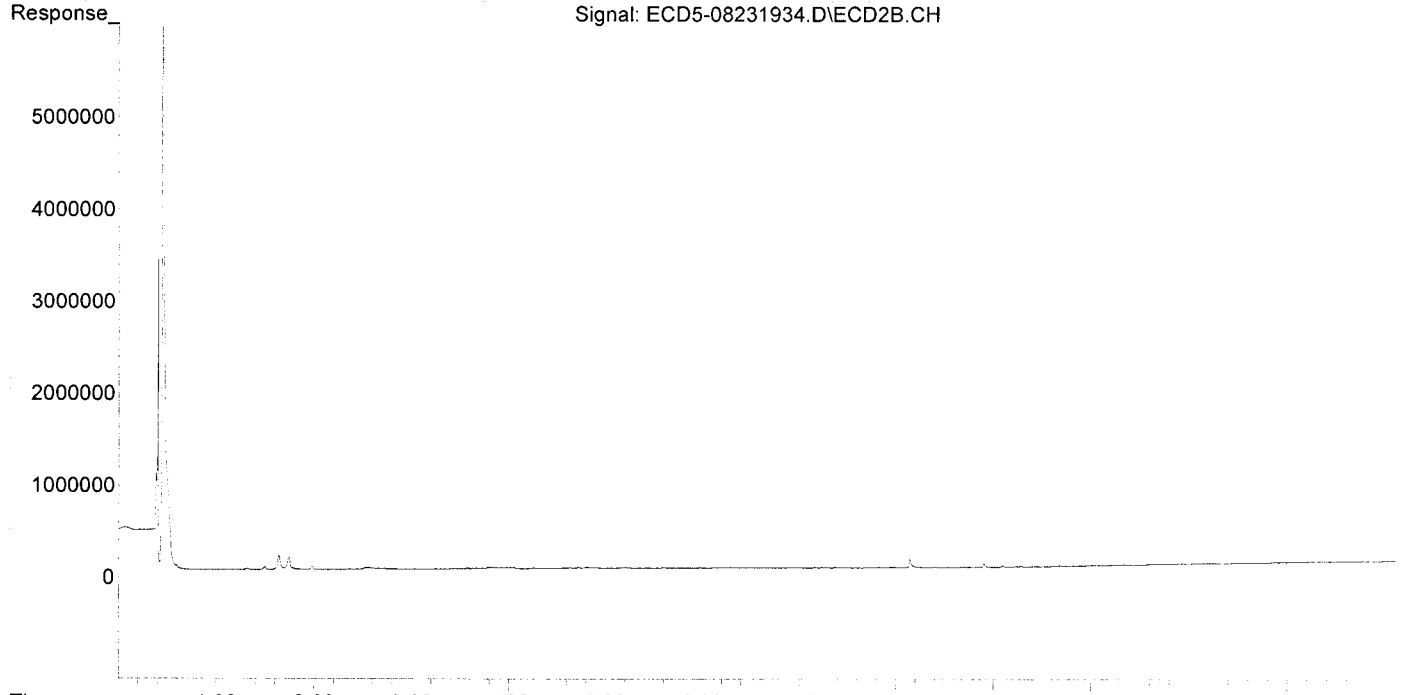
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

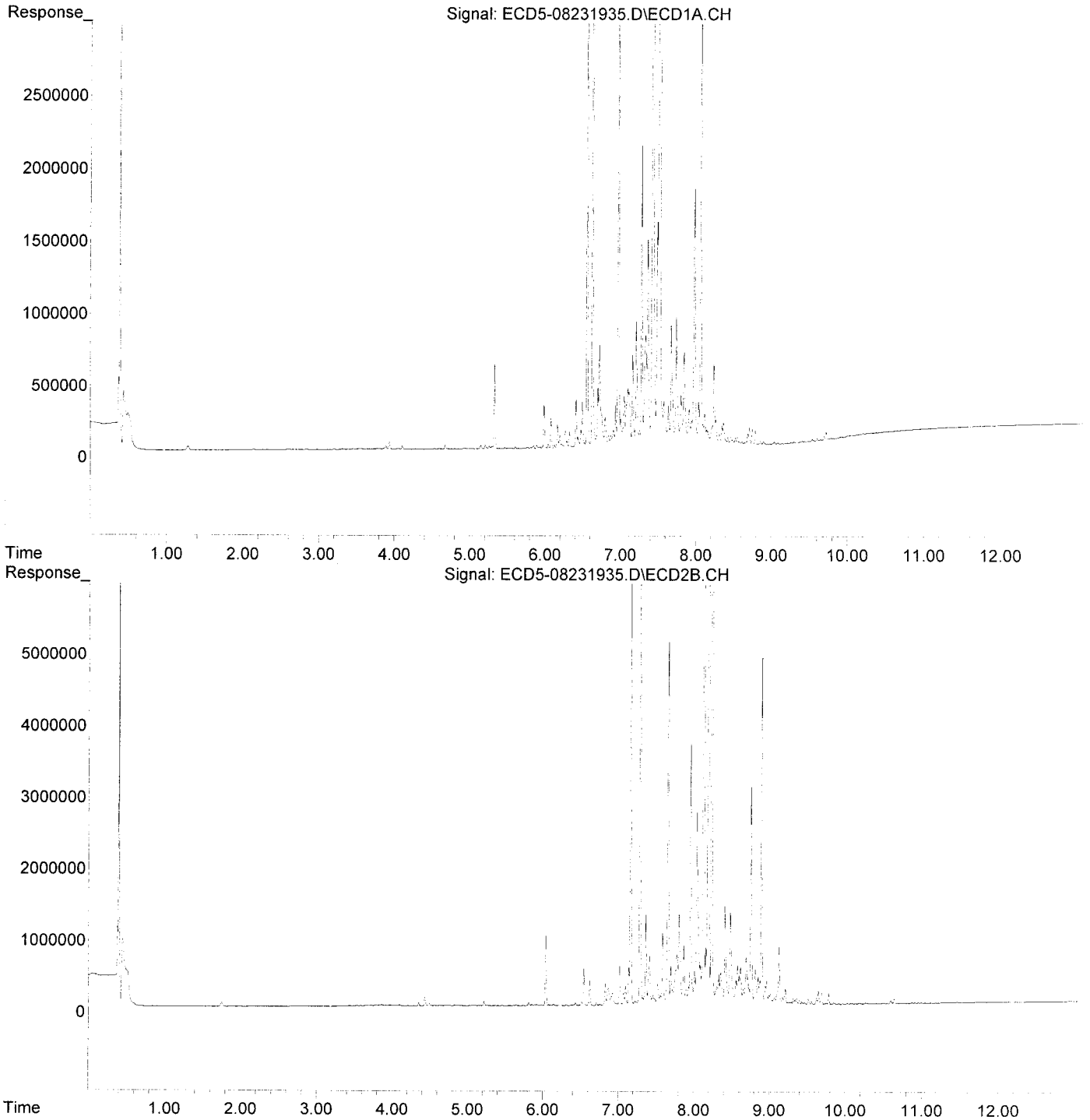
E 542.20

(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 9/12/19

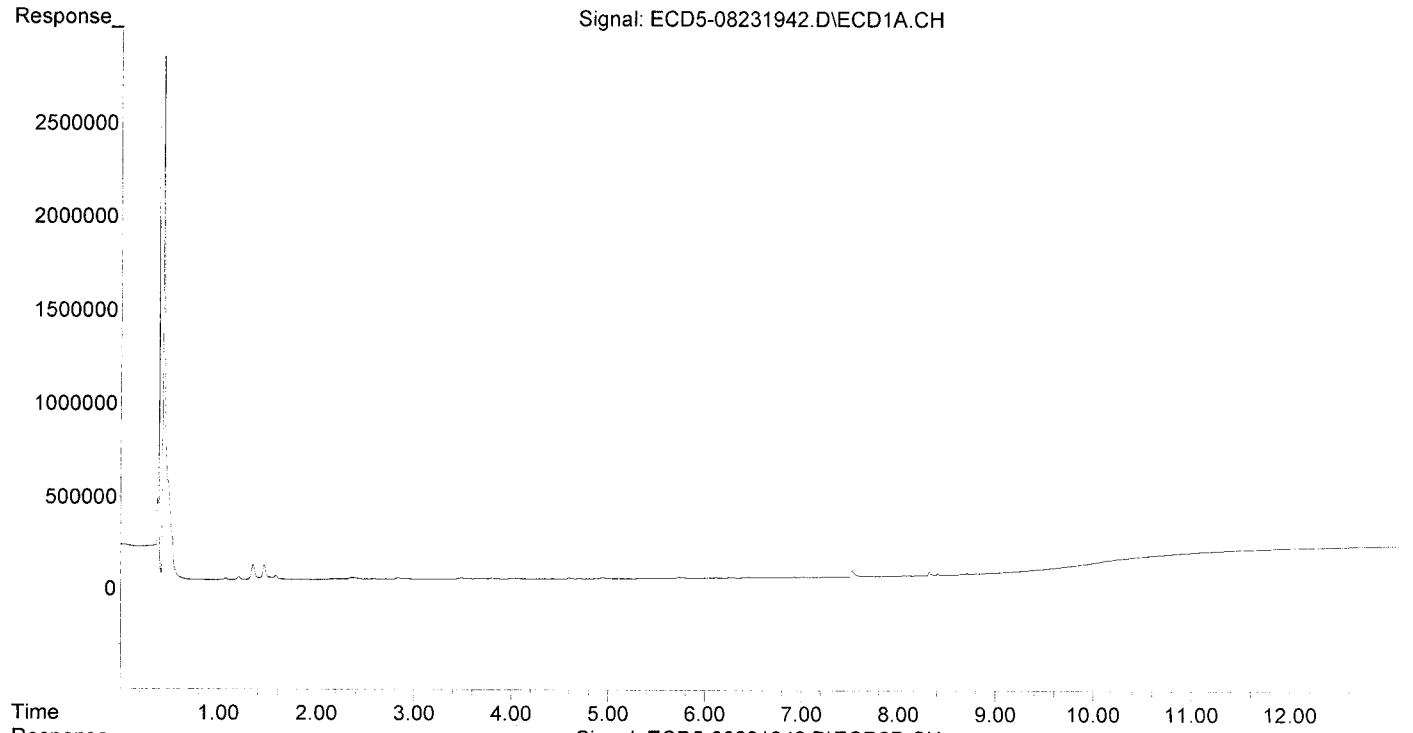
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.983	0	6142	N.D.	0.021	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.248f	0.000	4243	0	0.021	N.D.	#
4)		b-BHC	0.000	0.000	0	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 QDC	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.	

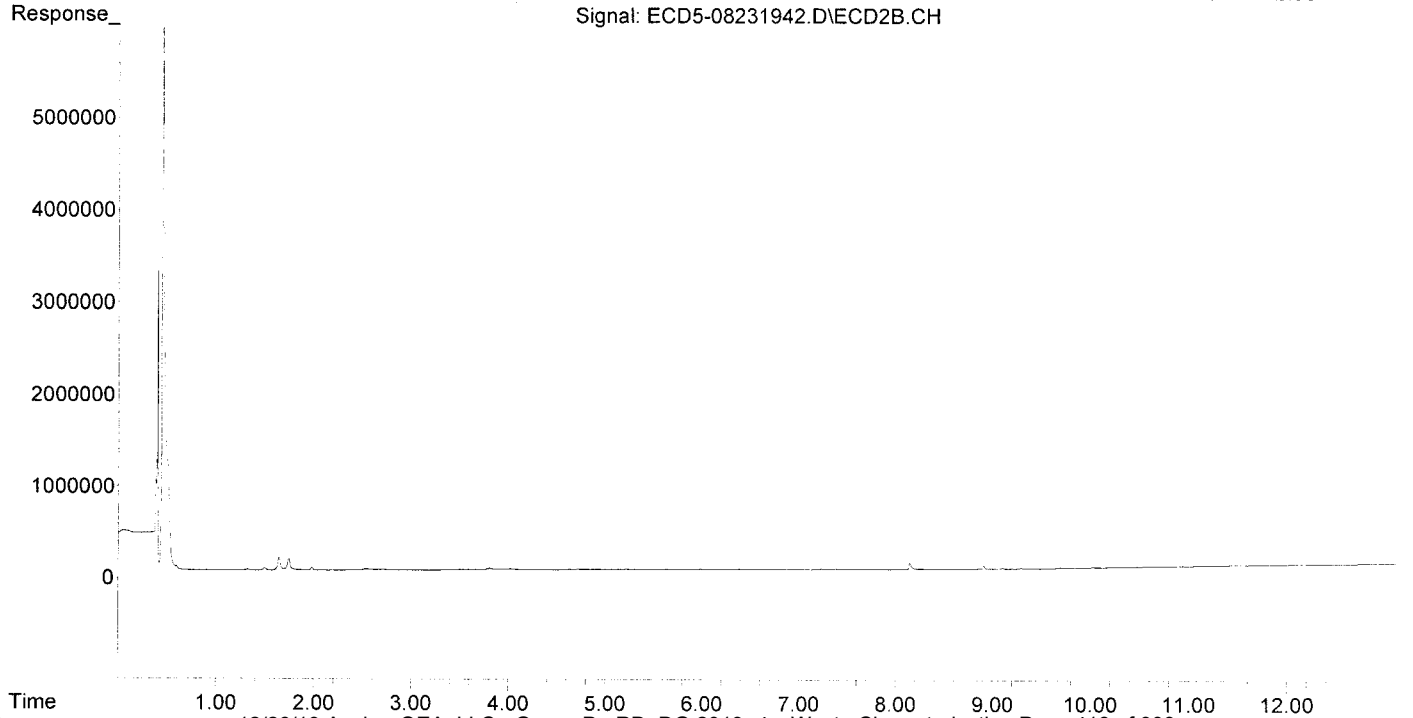
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

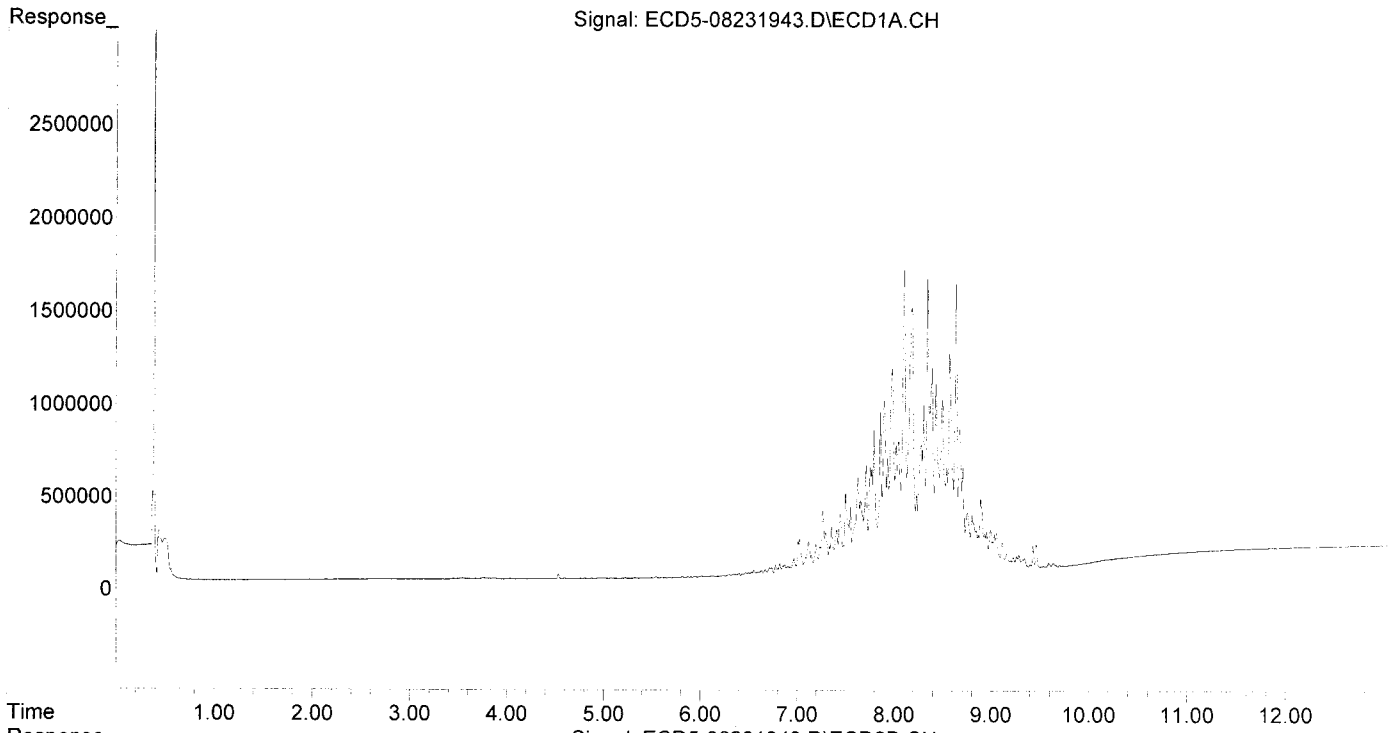
484.22 487.07

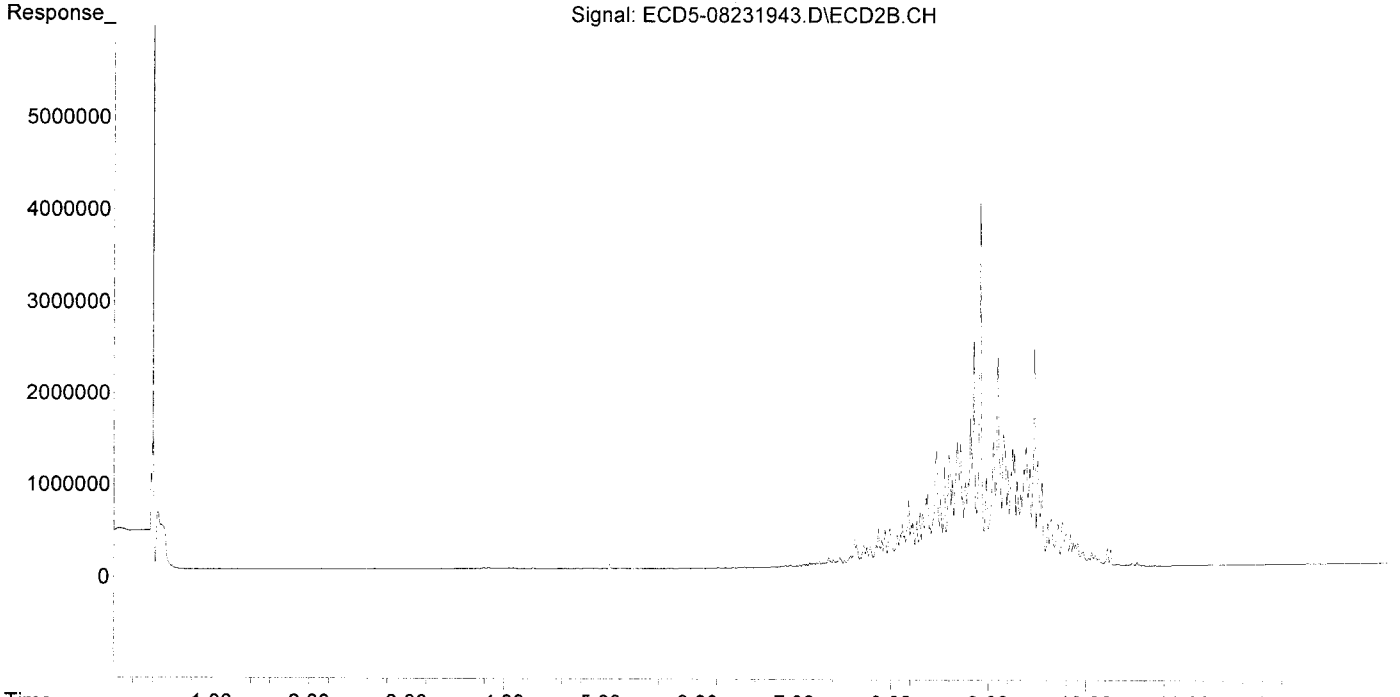
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

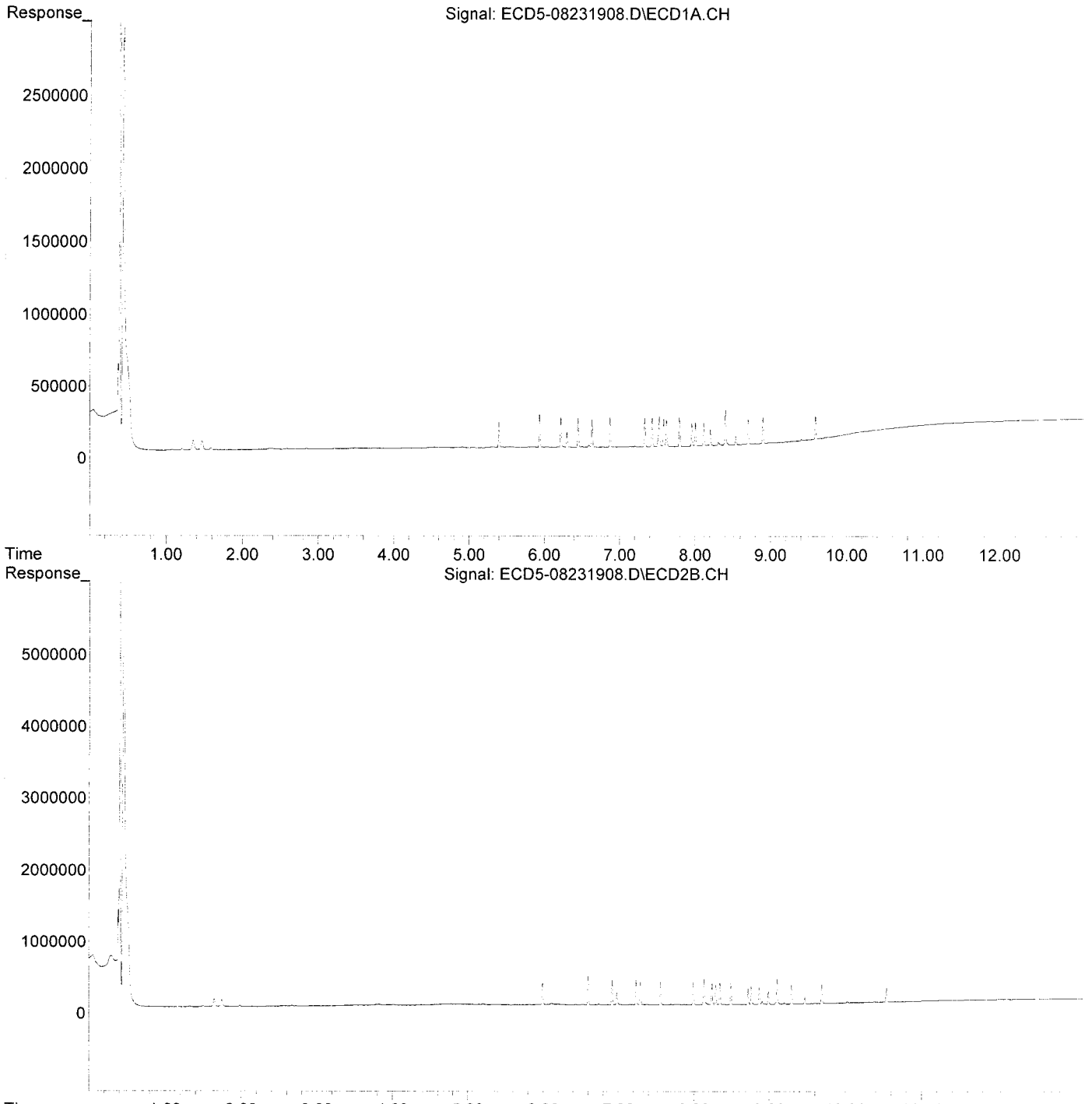
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.397	5.991	176748	300053	1.065	1.023	
22)	S	DCBP (S)	9.593	10.541	163865	191572	1.161	1.066	
		Target Compounds							
2)		a-BHC	5.937	6.597	231994	393119	1.012	0.958	
3)		g-BHC	6.221	6.915	207427	352286	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

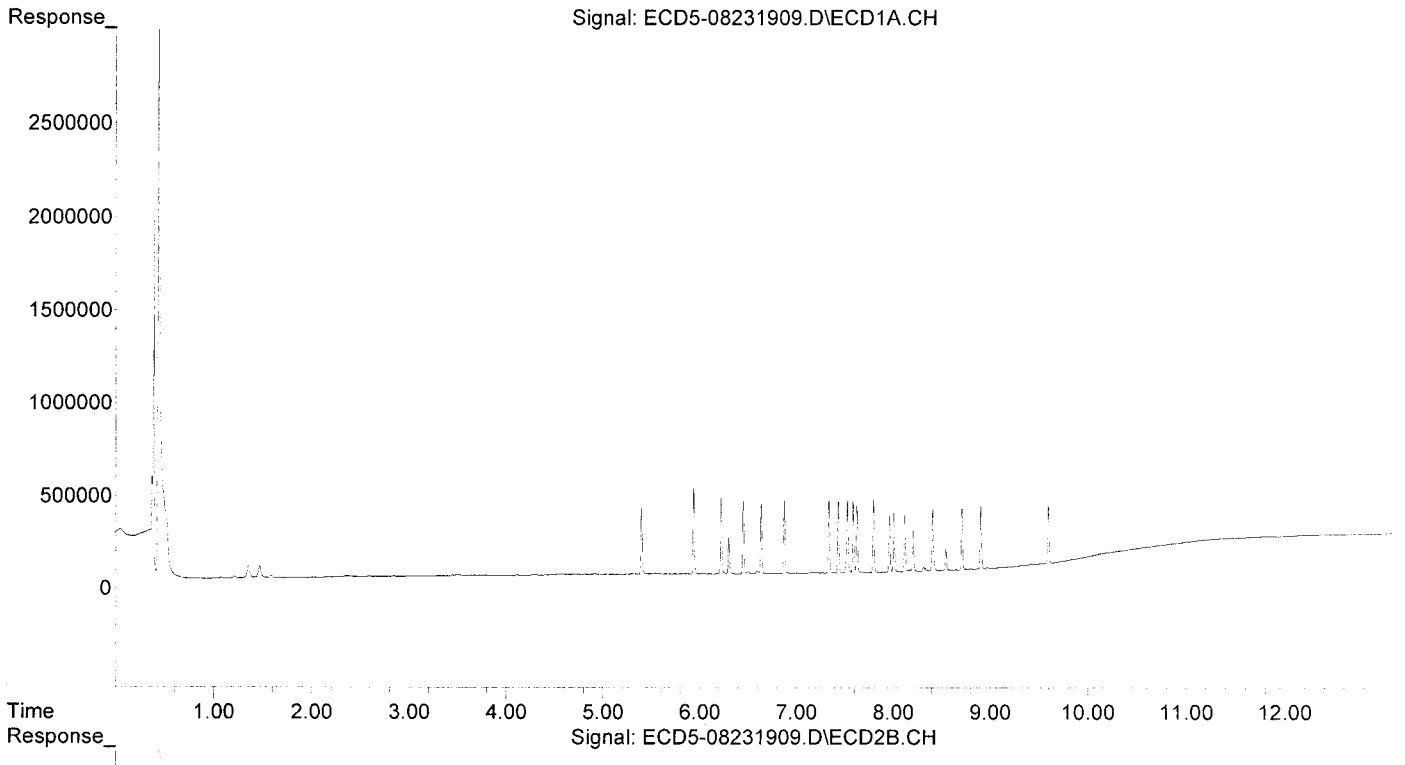
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.396	5.990	349972	600766	2.109	2.048	
22)	S	DCBP (S)	9.593	10.542	309904	390006	2.196	2.170	
		Target Compounds							
2)		a-BHC	5.936	6.597	458365	784586	1.999	1.912	
3)		g-BHC	6.220	6.915	406027	690922	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.	

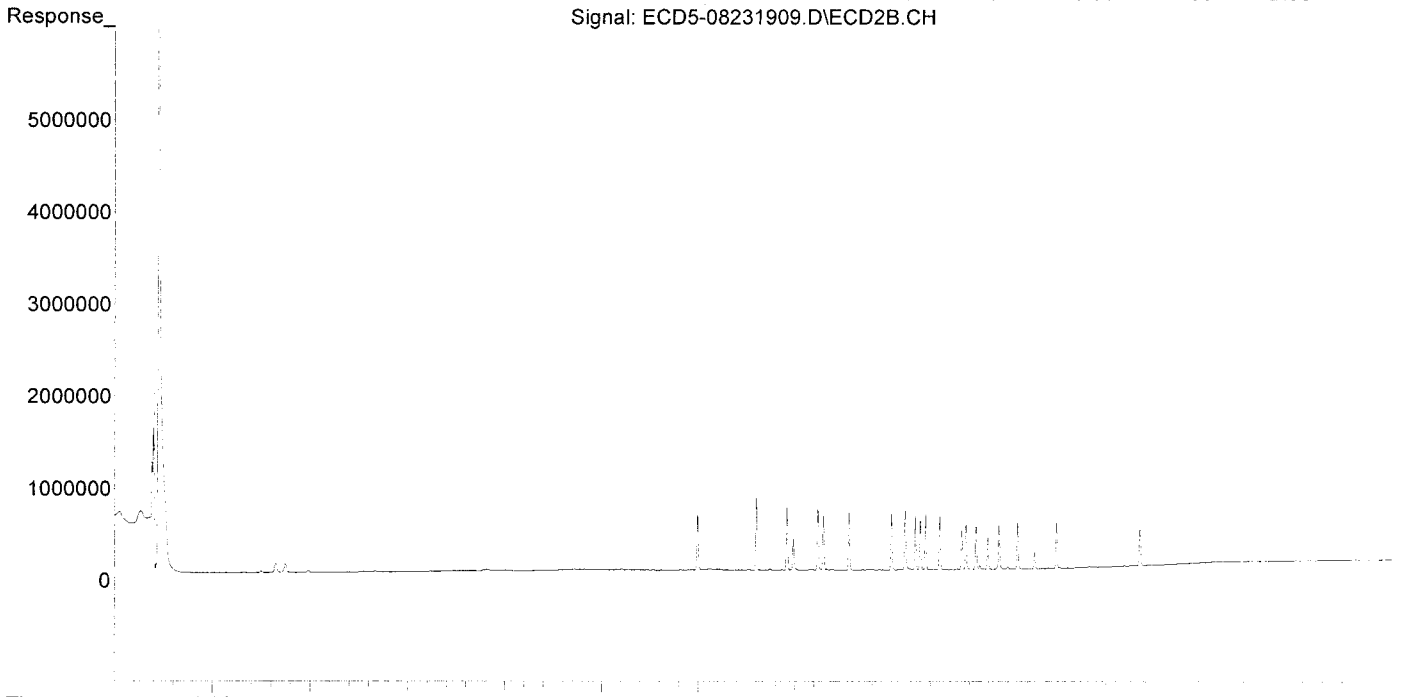
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

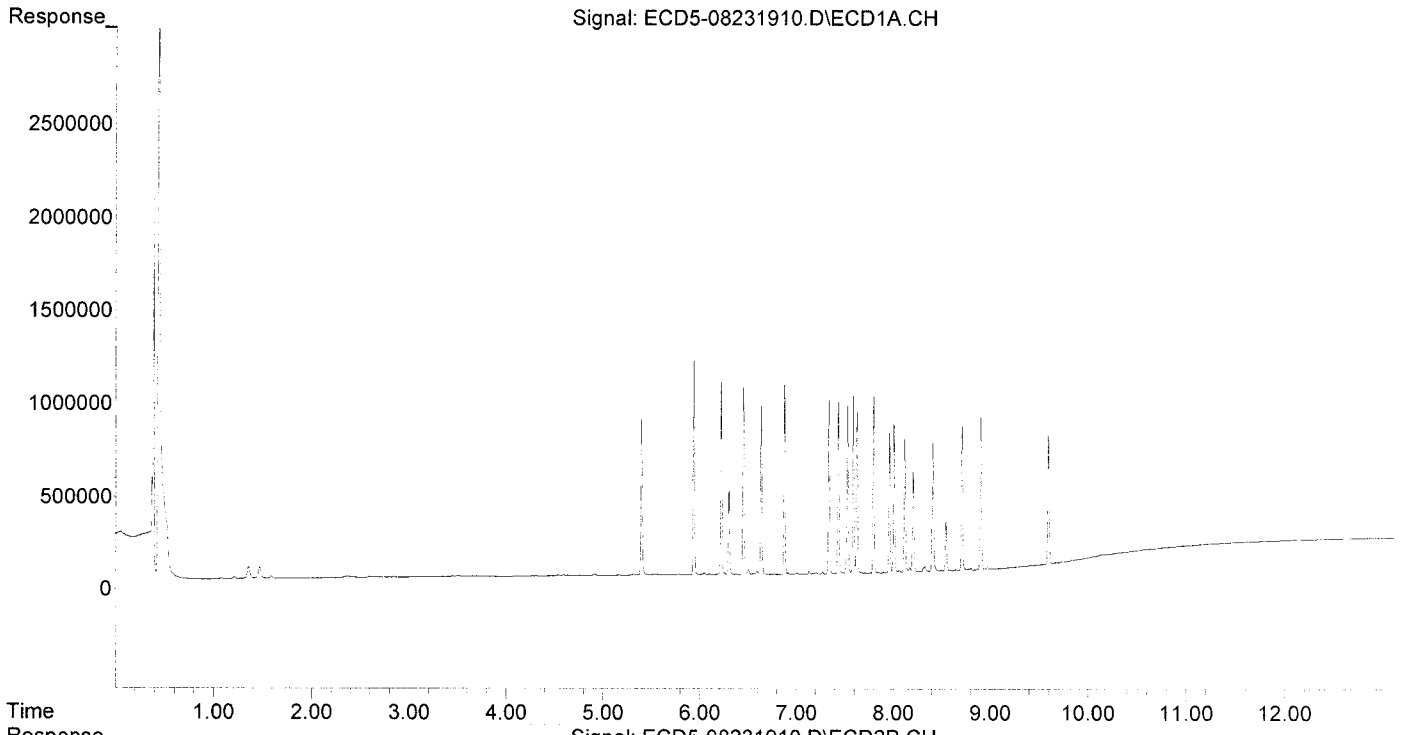
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.396	5.990	834206	1437876	5.026	4.901	
22)	S DCBP (S)	9.594	10.542	701050	870921	4.969	4.845	
	Target Compounds							
2)	a-BHC	5.937	6.597	1147932	1985438	5.006	4.839	
3)	g-BHC	6.220	6.915	1020724	1742677	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.	

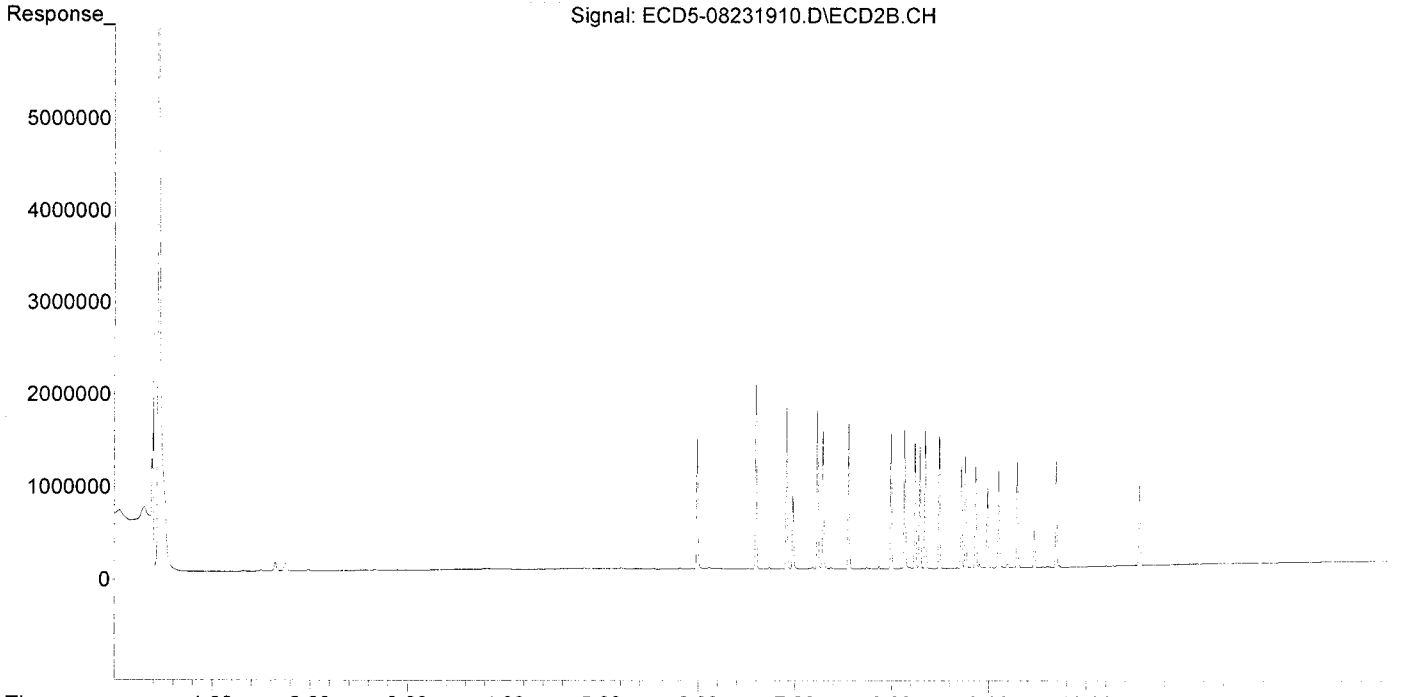
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

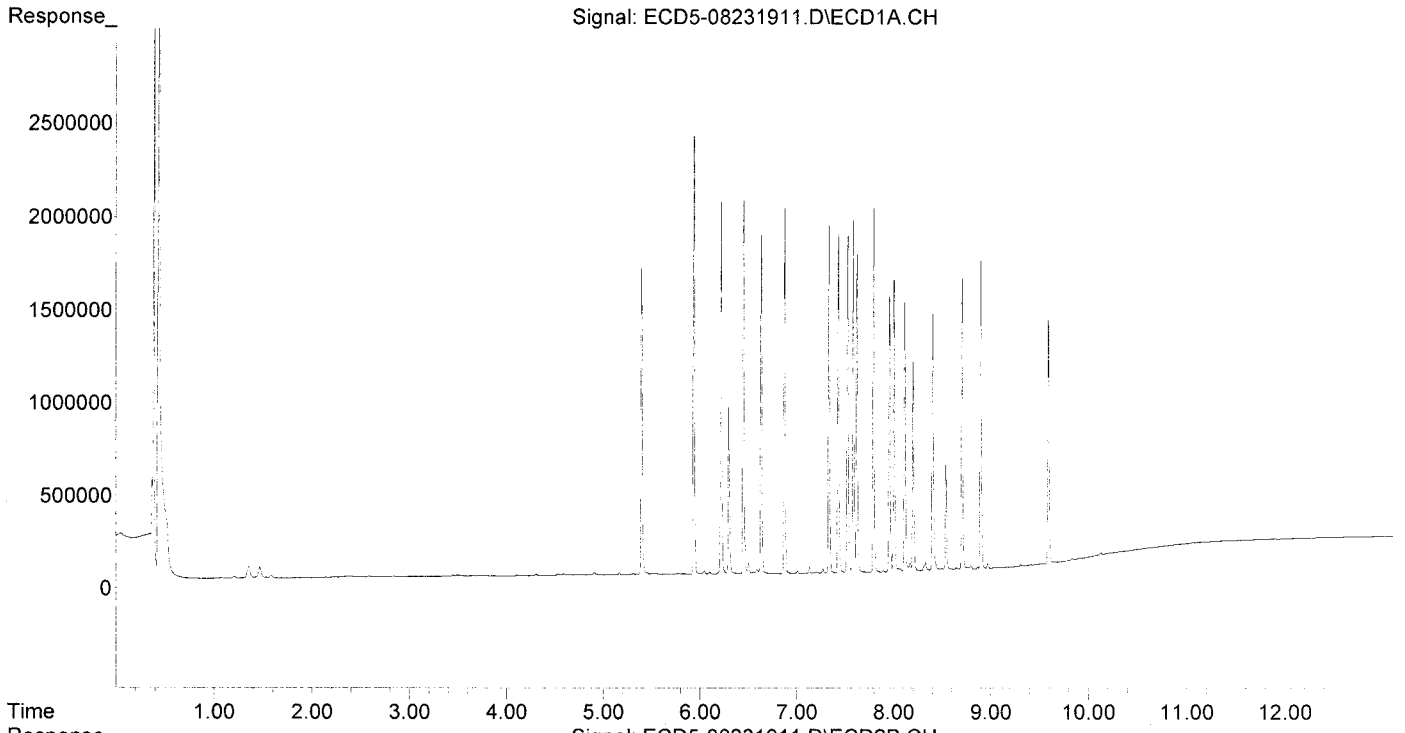
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.396	5.990	1644447	2865854	9.908	9.769	
22)	S	DCBP (S)	9.593	10.541	1335468	1678728	9.465	9.339	
		Target Compounds							
2)		a-BHC	5.936	6.597	2347065	4095890	10.234	9.982	
3)		g-BHC	6.220	6.915	2034859	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.	

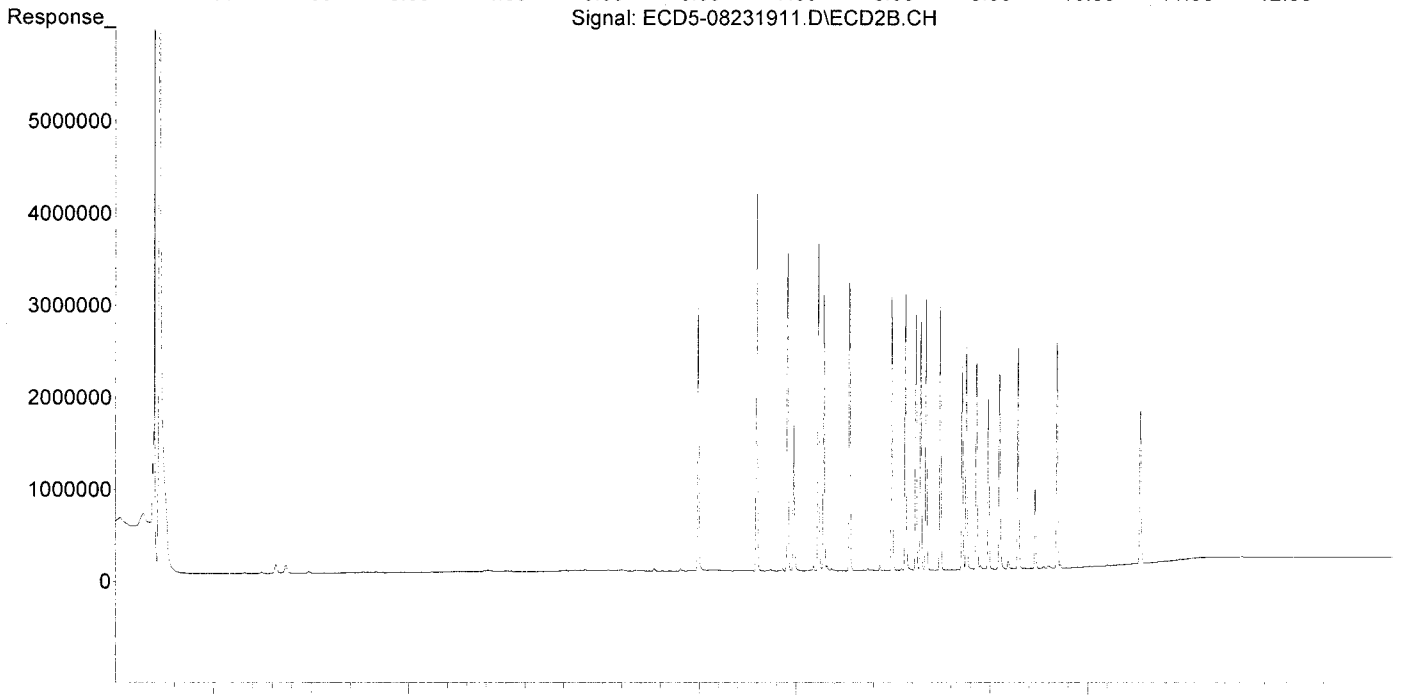
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

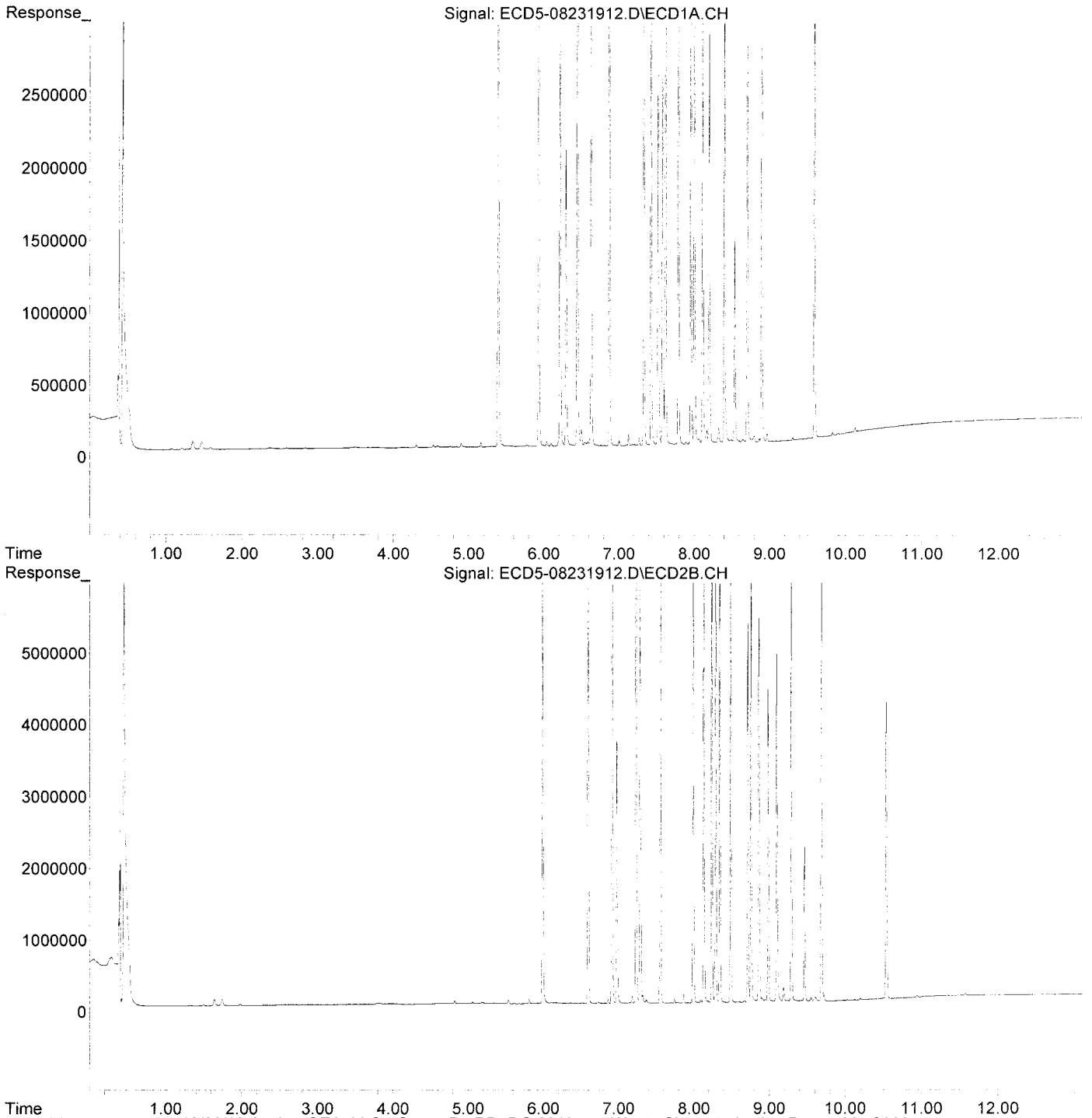
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.989	4015832	7072923	24.195	24.109	
22)	S	DCBP (S)	9.592	10.539	3342634	4163229	23.690	23.160	
		Target Compounds							
2)		a-BHC	5.935	6.596	5553096	9910863	24.215	24.153	
3)		g-BHC	6.218	6.913	4875657	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

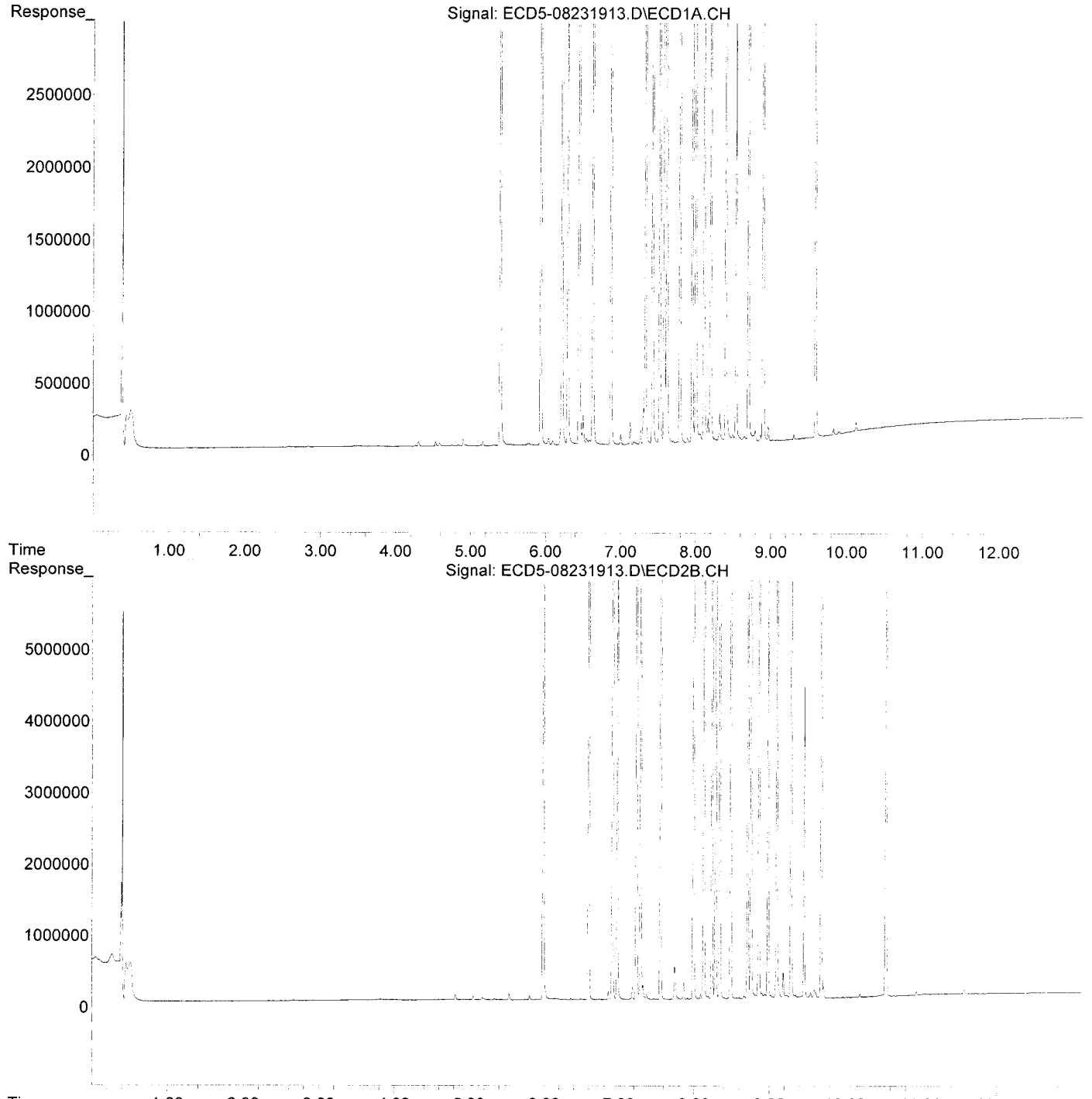
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.989	8071481	14196745	48.631	48.392	
22)	S	DCBP (S)	9.592	10.541	6678990	8730692	47.336	48.568	
		Target Compounds							
2)		a-BHC	5.935	6.596	11369592	20265817	49.578	49.388	
3)		g-BHC	6.218	6.914	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

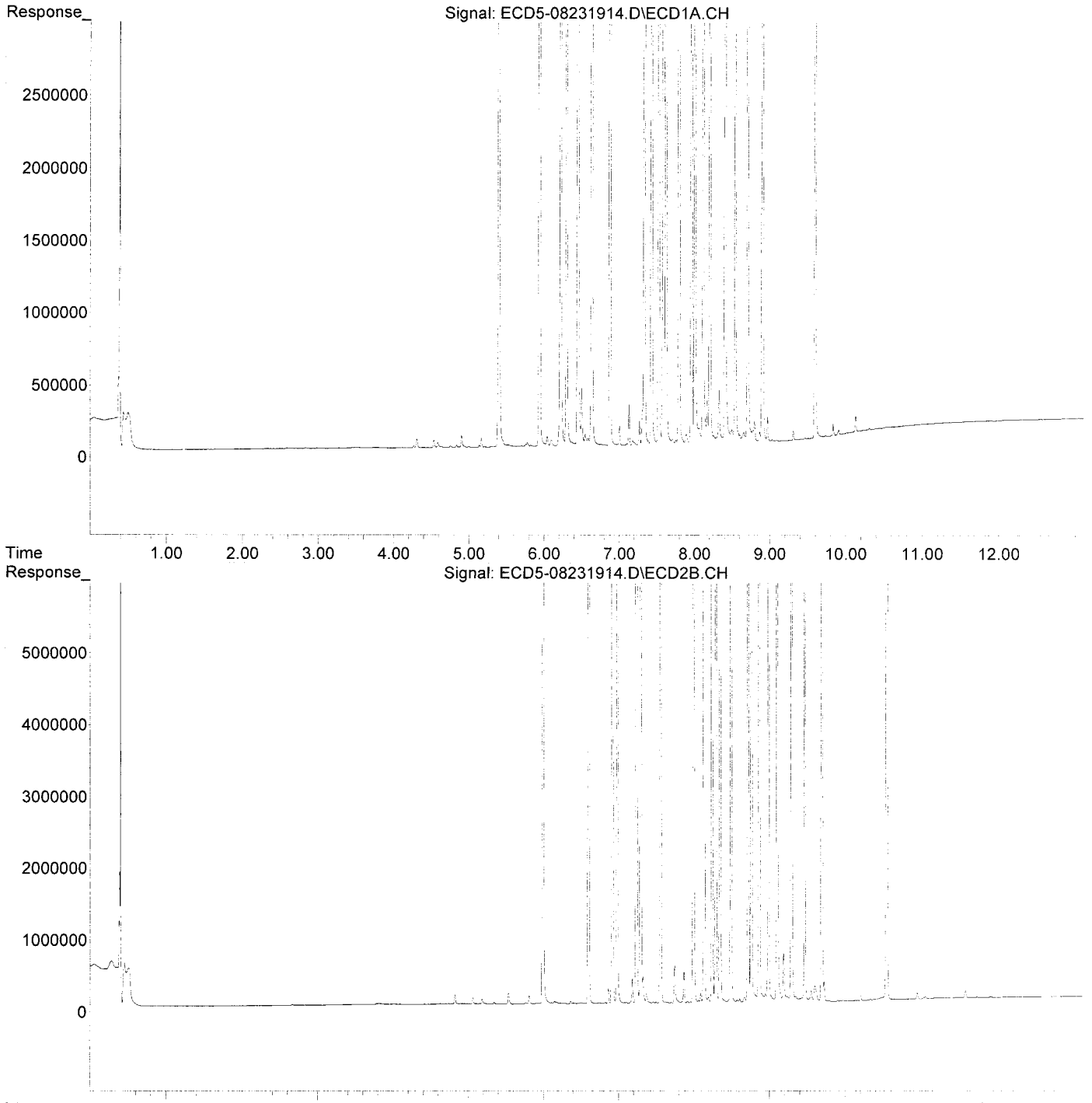
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.395	5.989	15850922	29256334	95.502	99.726	
22)	S	DCBP (S)	9.592	10.540	13405396	17784069	95.007	98.931	
		Target Compounds							
2)		a-BHC	5.935	6.596	22363584	41699210	97.517	101.621	
3)		g-BHC	6.218	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

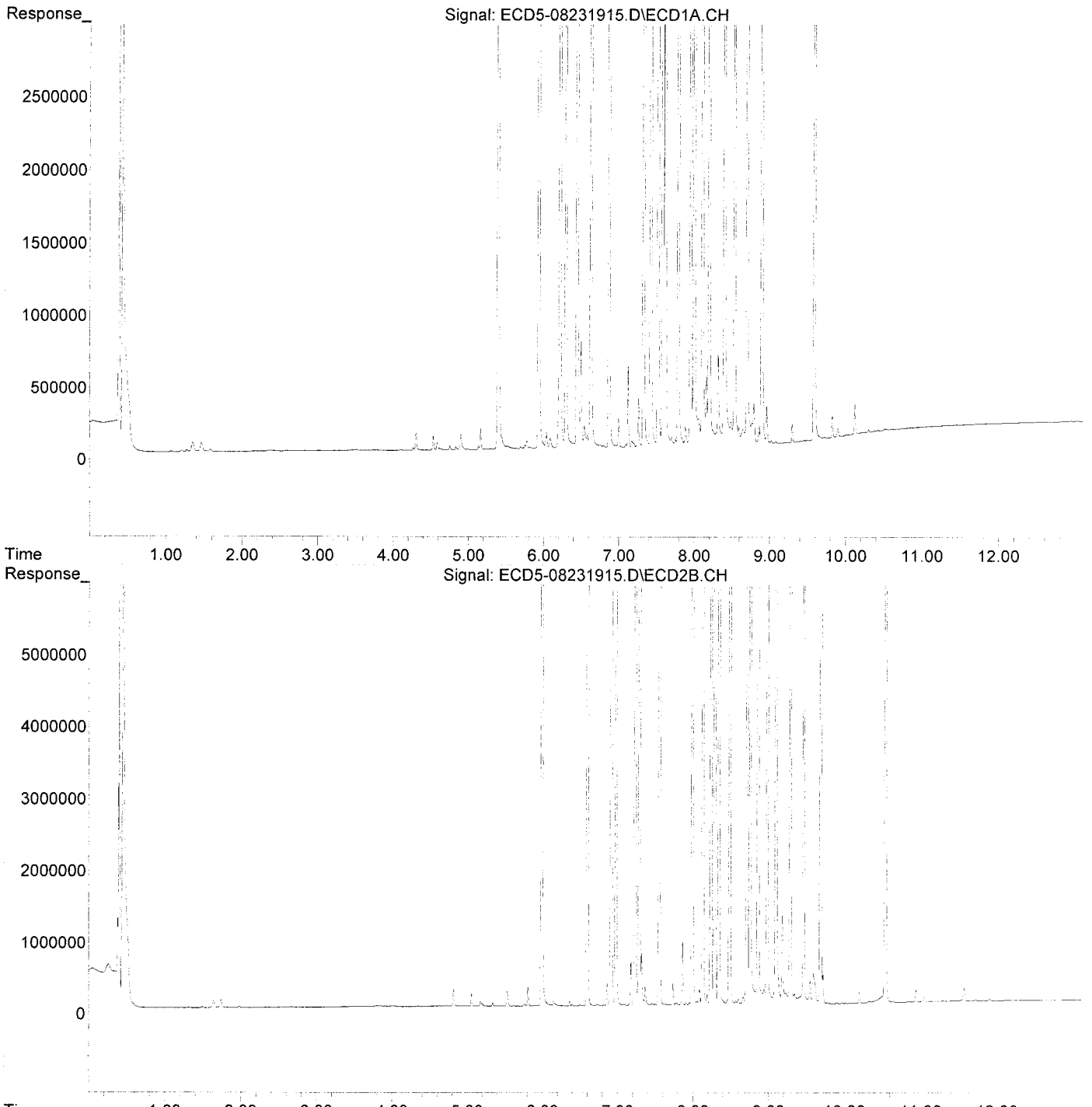
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.990	32842535	62584449	197.876	213.332	
22)	S	DCBP (S)	9.591	10.539	26975231	38097779	191.180	211.933	
		Target Compounds							
2)		a-BHC	5.935	6.597	47202252	94376748	205.828	229.997	
3)		g-BHC	6.218	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

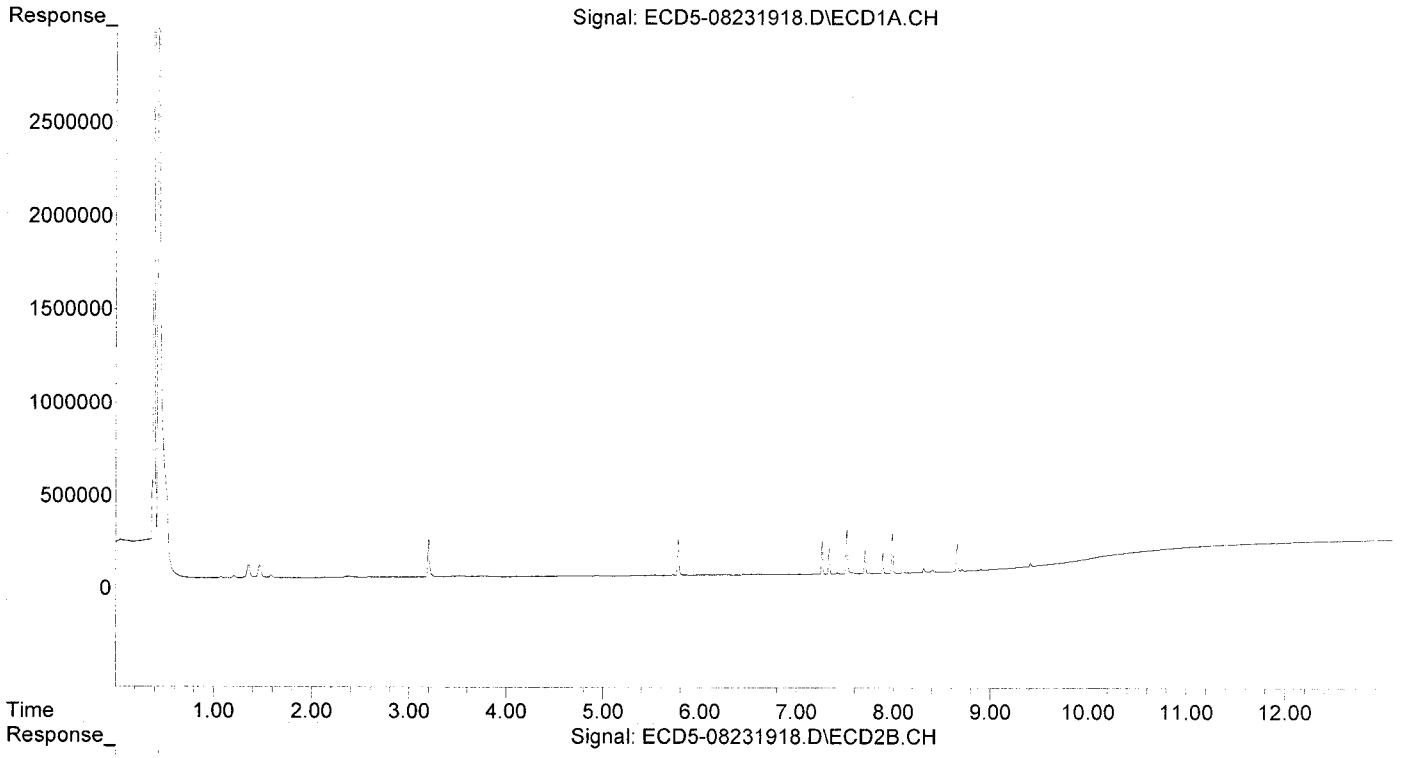
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6576	N.D.	0.022	#
22)	S	DCBP (S)	9.593	10.540	2255	5805	0.016	0.032	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4648	0	0.023	N.D.	#
4)		b-BHC	0.000	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.	

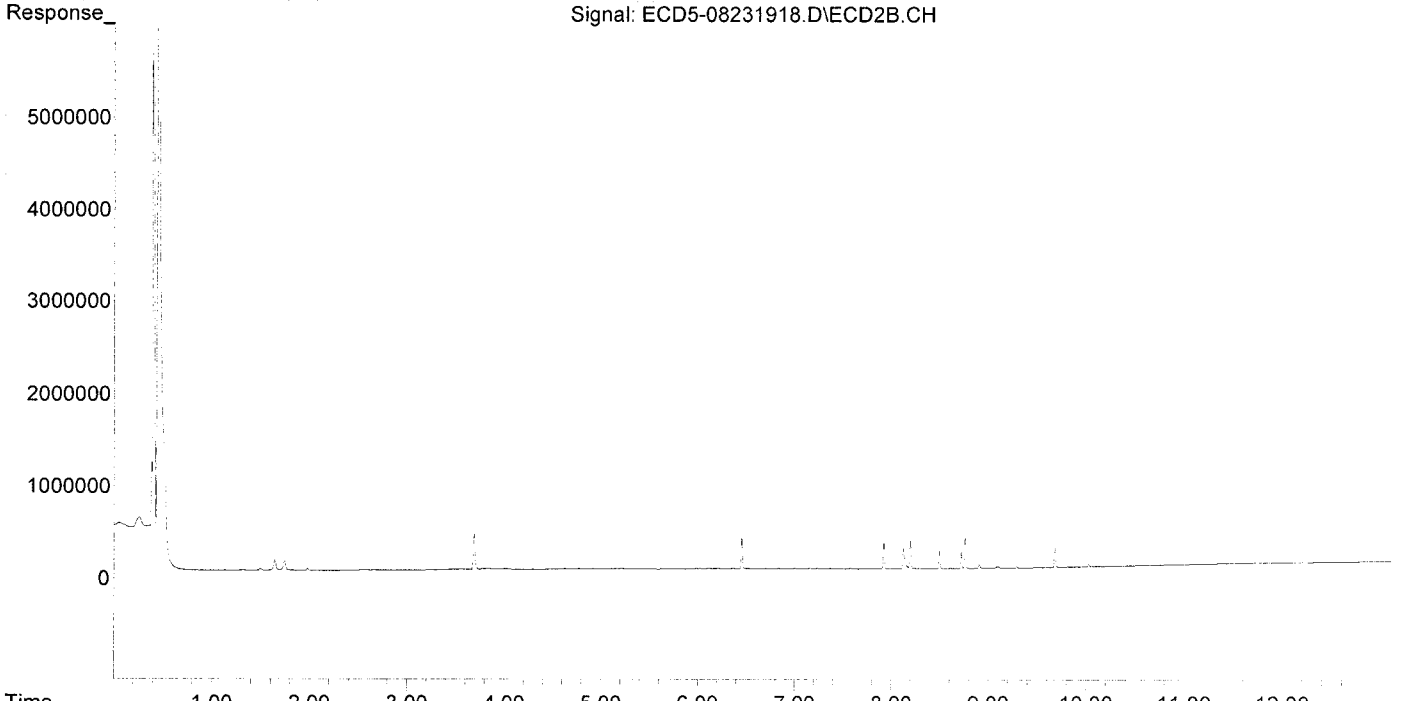
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

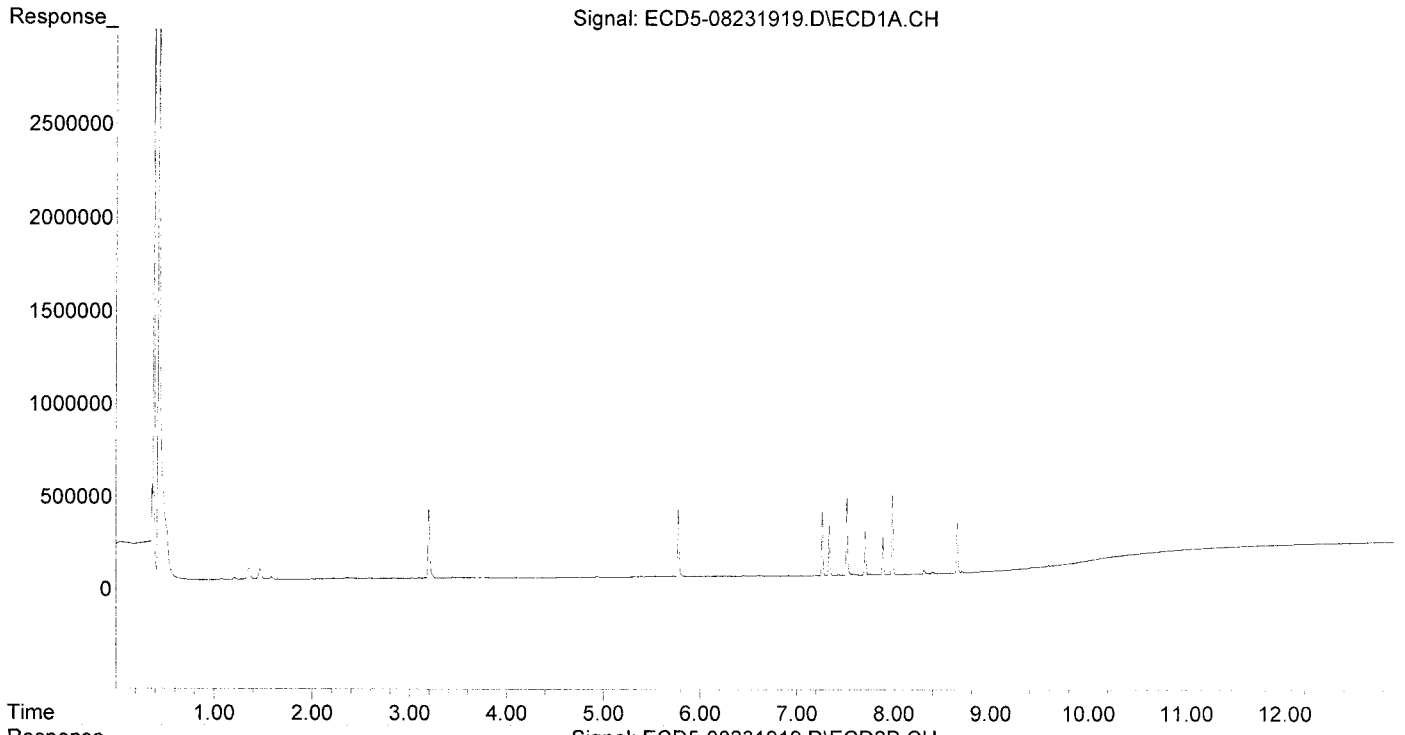
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.986	6323	13044	0.038	0.044	
22)	S	DCBP (S)	9.592	10.539	6116	7474	0.043	0.042	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.248f	0.000	3811	0	0.019	N.D.	#
4)		b-BHC	0.000	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.	

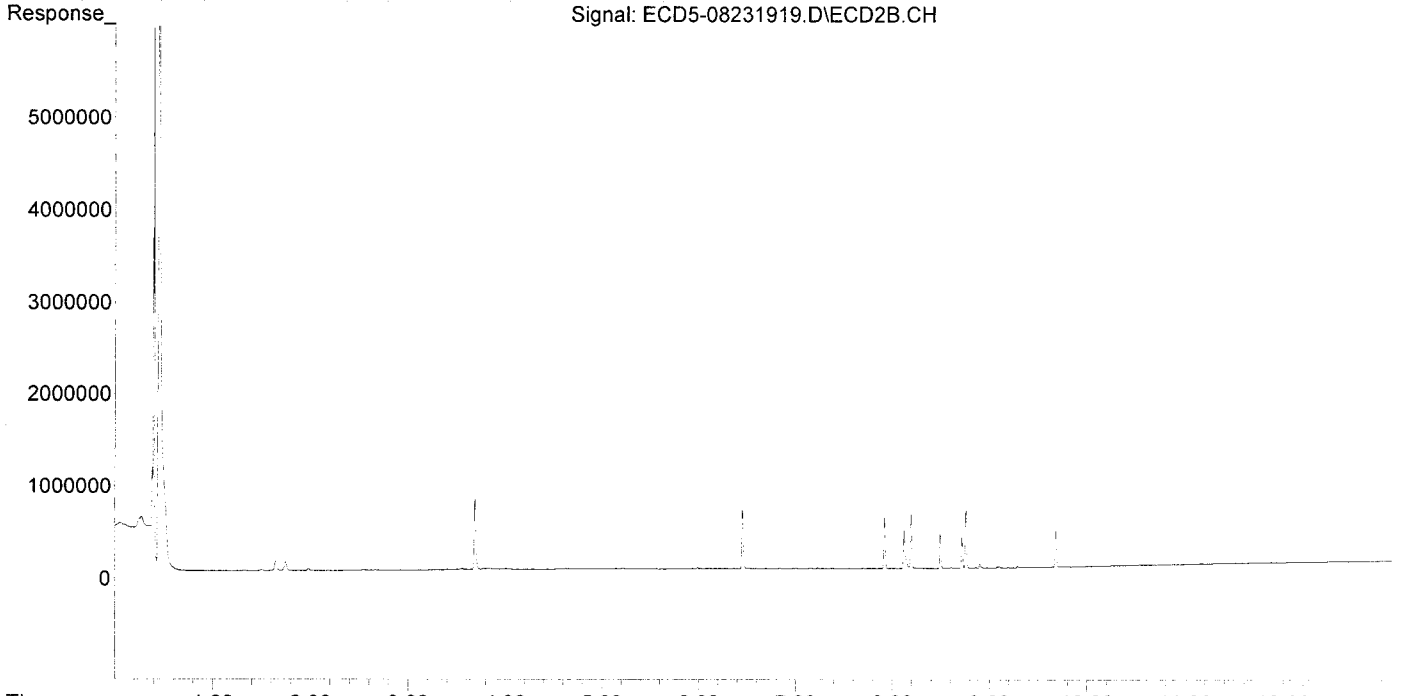
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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 12/26/19

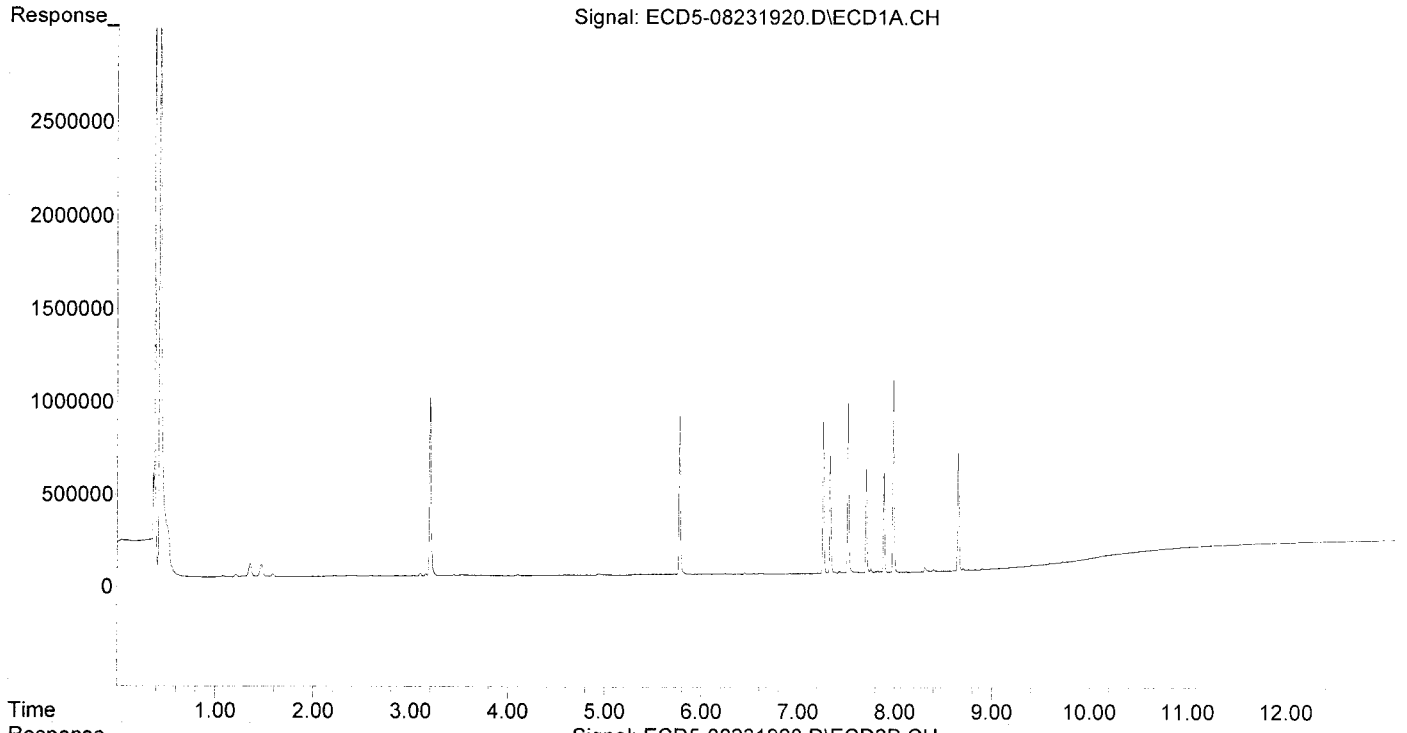
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.368f	5.982	4403	6341	0.027	0.022	
22)	S	DCBP (S)	9.592	10.539	7940	5412	0.056	0.030	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.247f	0.000	5412	0	0.027	N.D.	#
4)		b-BHC	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	

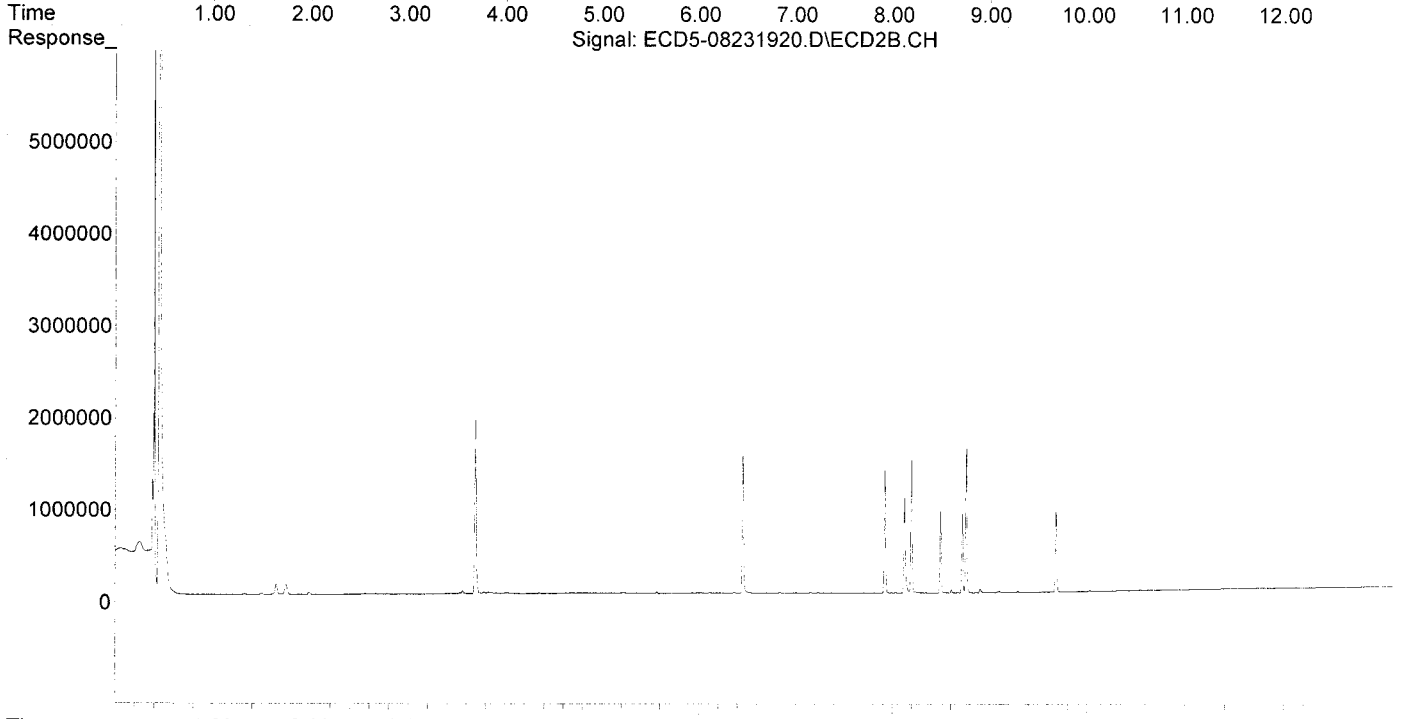
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

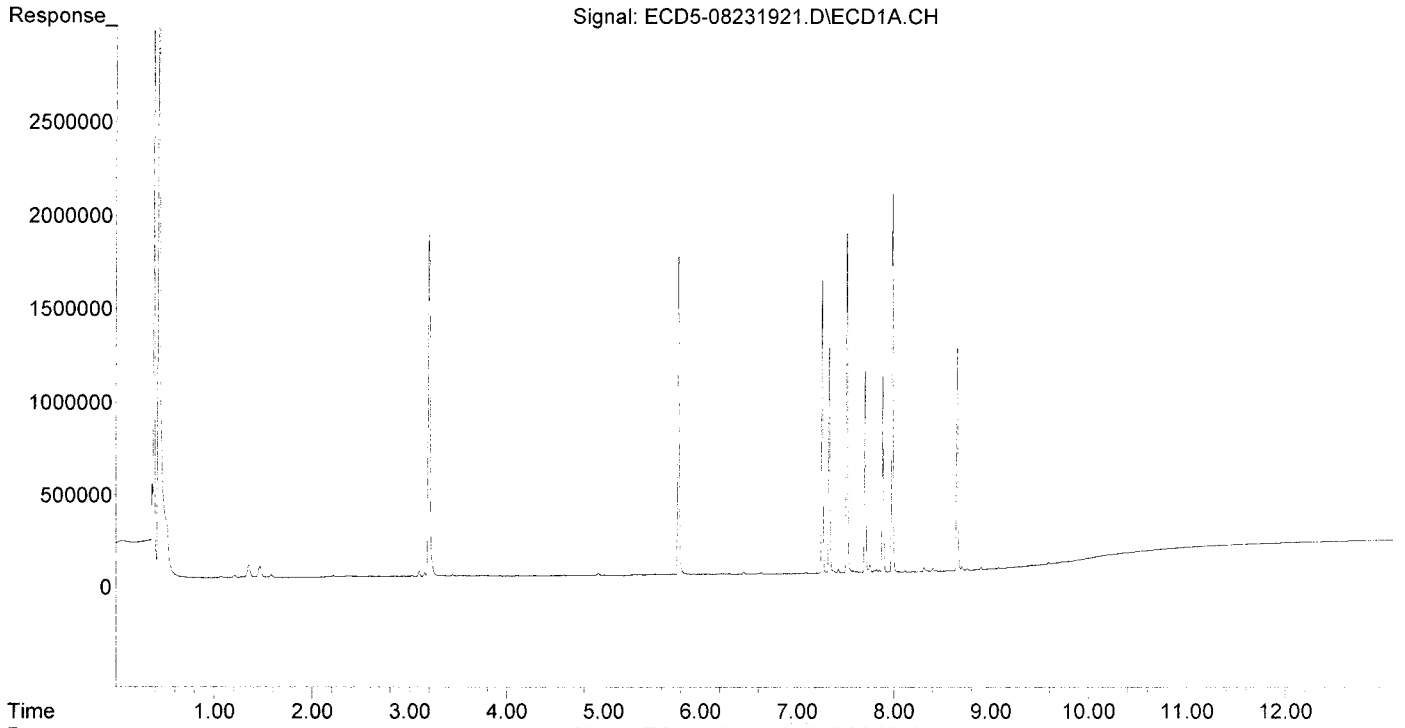
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.983	5244	8048	0.032	0.027	
22)	S	DCBP (S)	9.591	10.539	8426	10511	0.060	0.058	
		Target Compounds							
2)		a-BHC	5.934	6.594	5268	9085	0.023	0.022	
3)		g-BHC	6.219	6.912	5161	7308	0.026	0.020	
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	

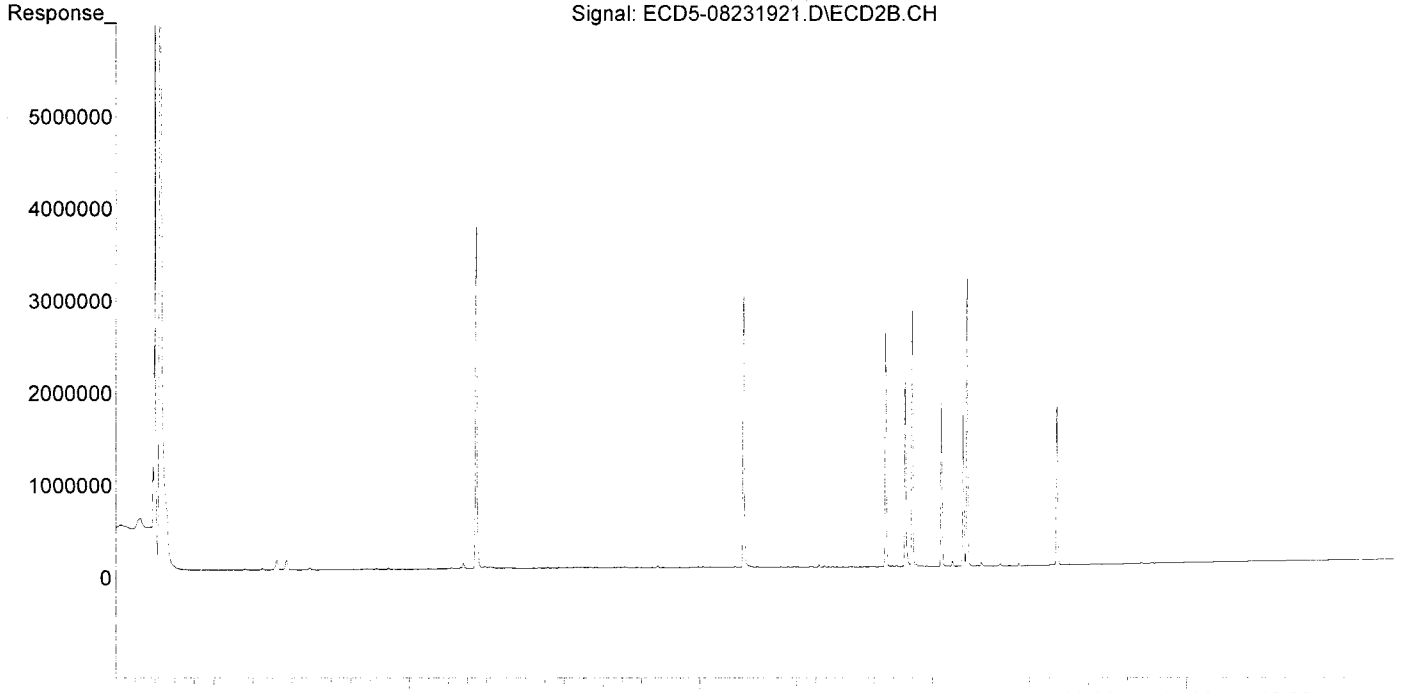
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

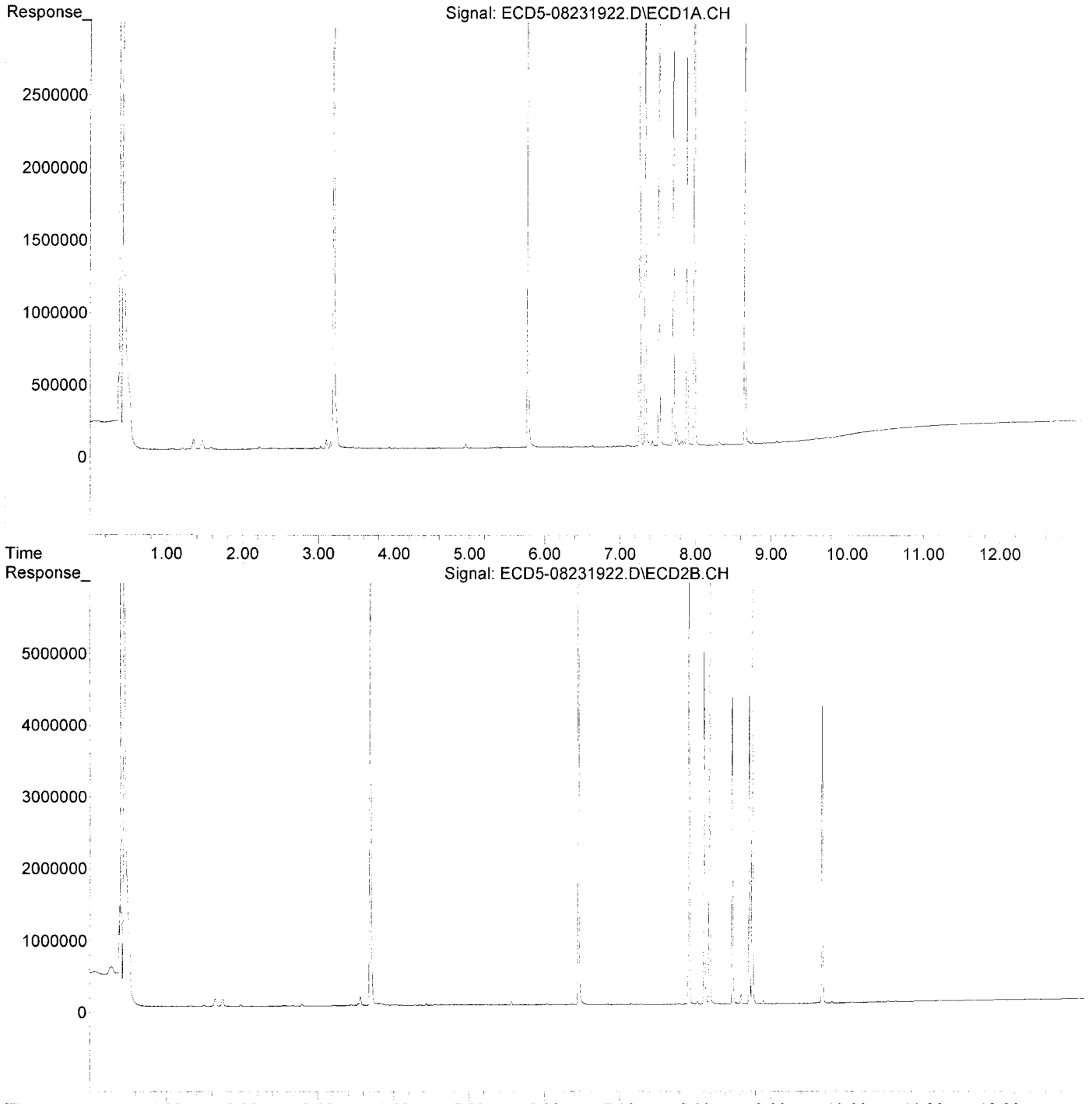
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.367f	5.981	10828	6833	0.065	0.023	#
22) S	DCBP (S)	9.592	10.539	20297	20262	0.144	0.113	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.248f	0.000	5786	0	0.029	N.D.	#
4)	b-BHC	0.000	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

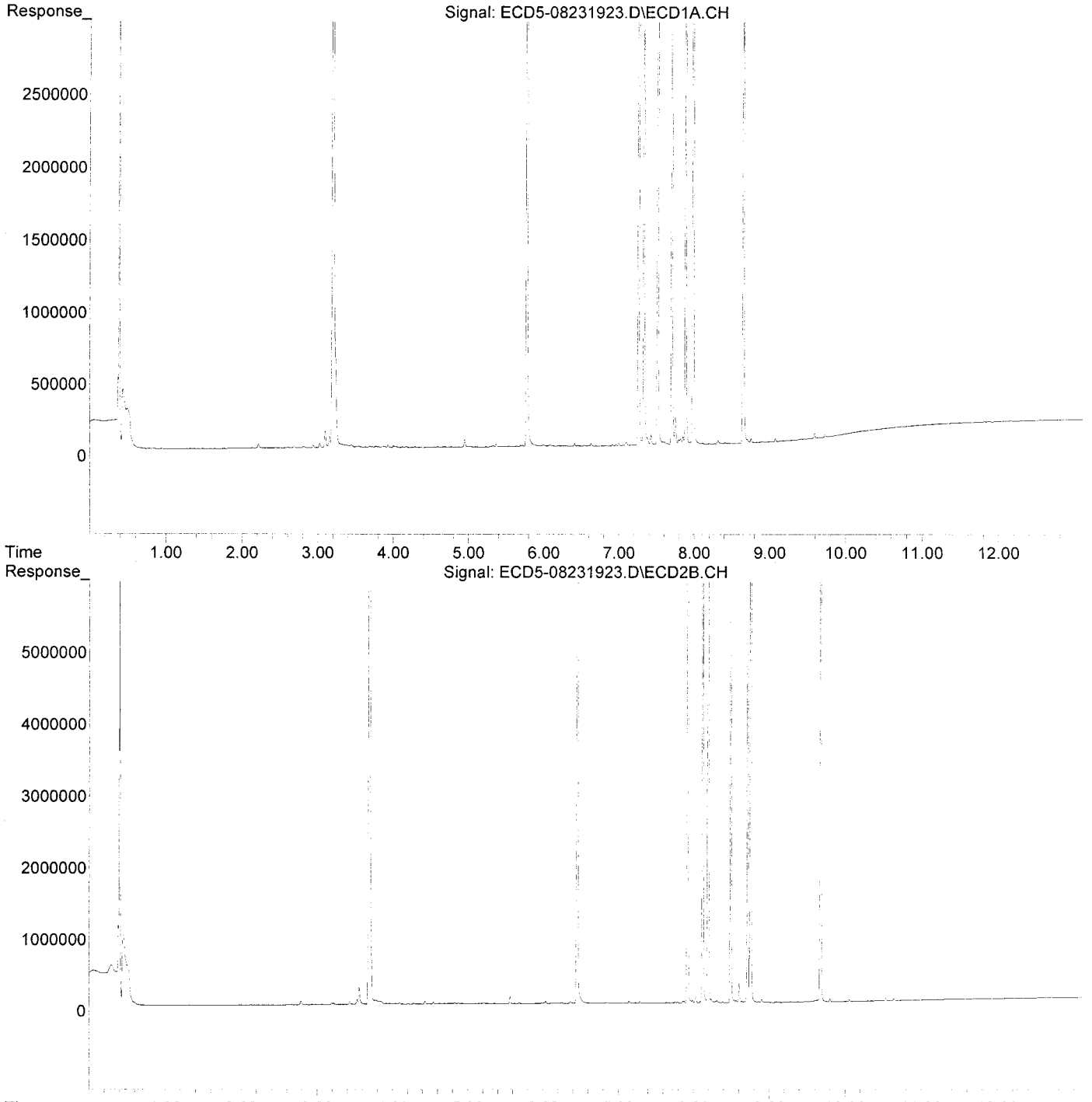
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.981	19019	8441	0.115	0.029	#
22)	S	DCBP (S)	9.591	10.538	35203	39503	0.249	0.220	
		Target Compounds							
2)		a-BHC	5.949	0.000	5252	0	0.023	N.D.	#
3)		g-BHC	6.196f	6.951f	4084	3735	0.020	0.010	#
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

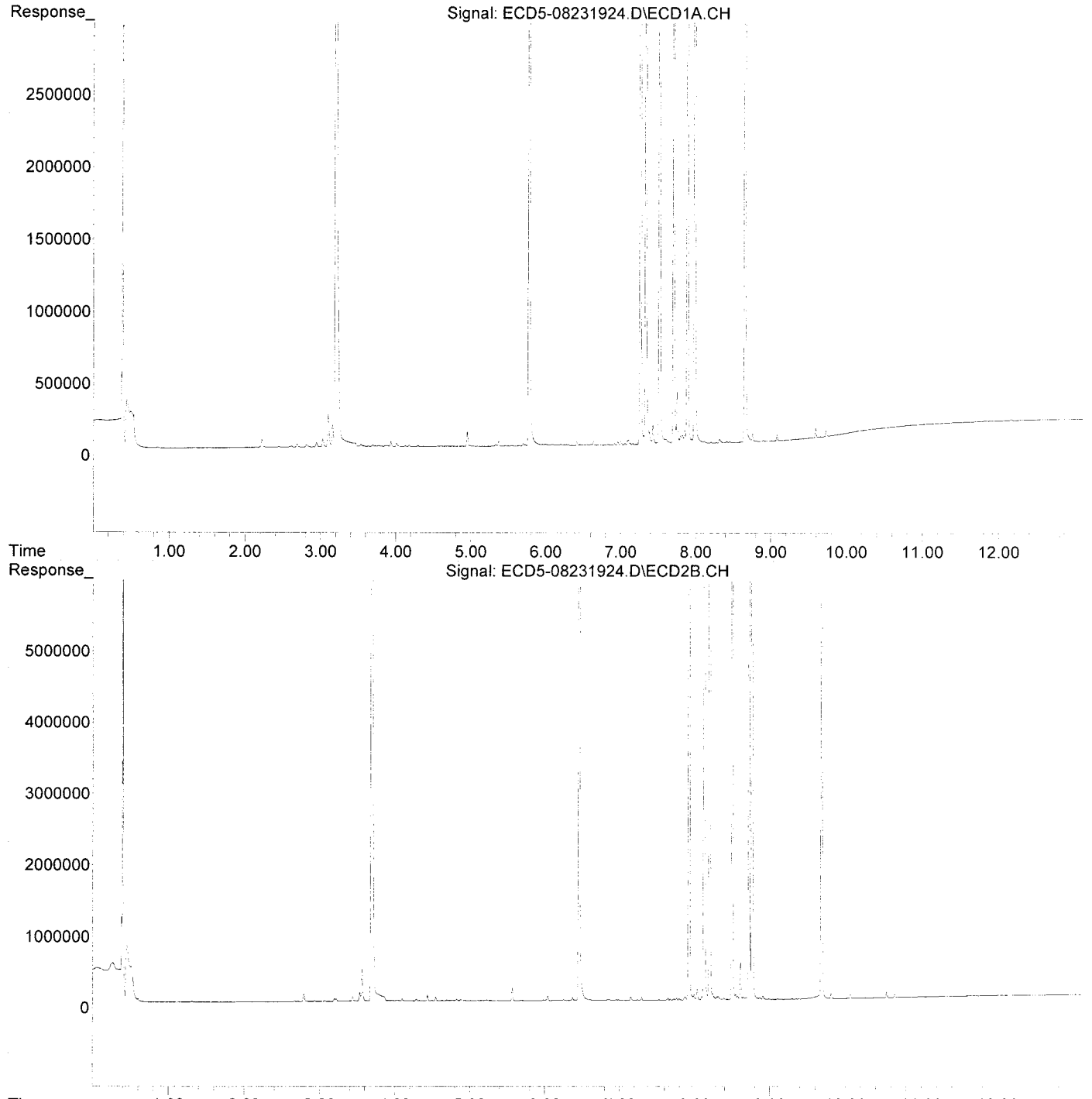
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.368f	5.981	33988	9402	0.205	0.032	#
22)	S	DCBP (S)	9.592	10.540	62236	73549	0.441	0.409	
		Target Compounds							
2)		a-BHC	5.950	0.000	8055	0	0.035	N.D.	#
3)		g-BHC	6.198	6.952f	8435	9250	0.042	0.026	
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

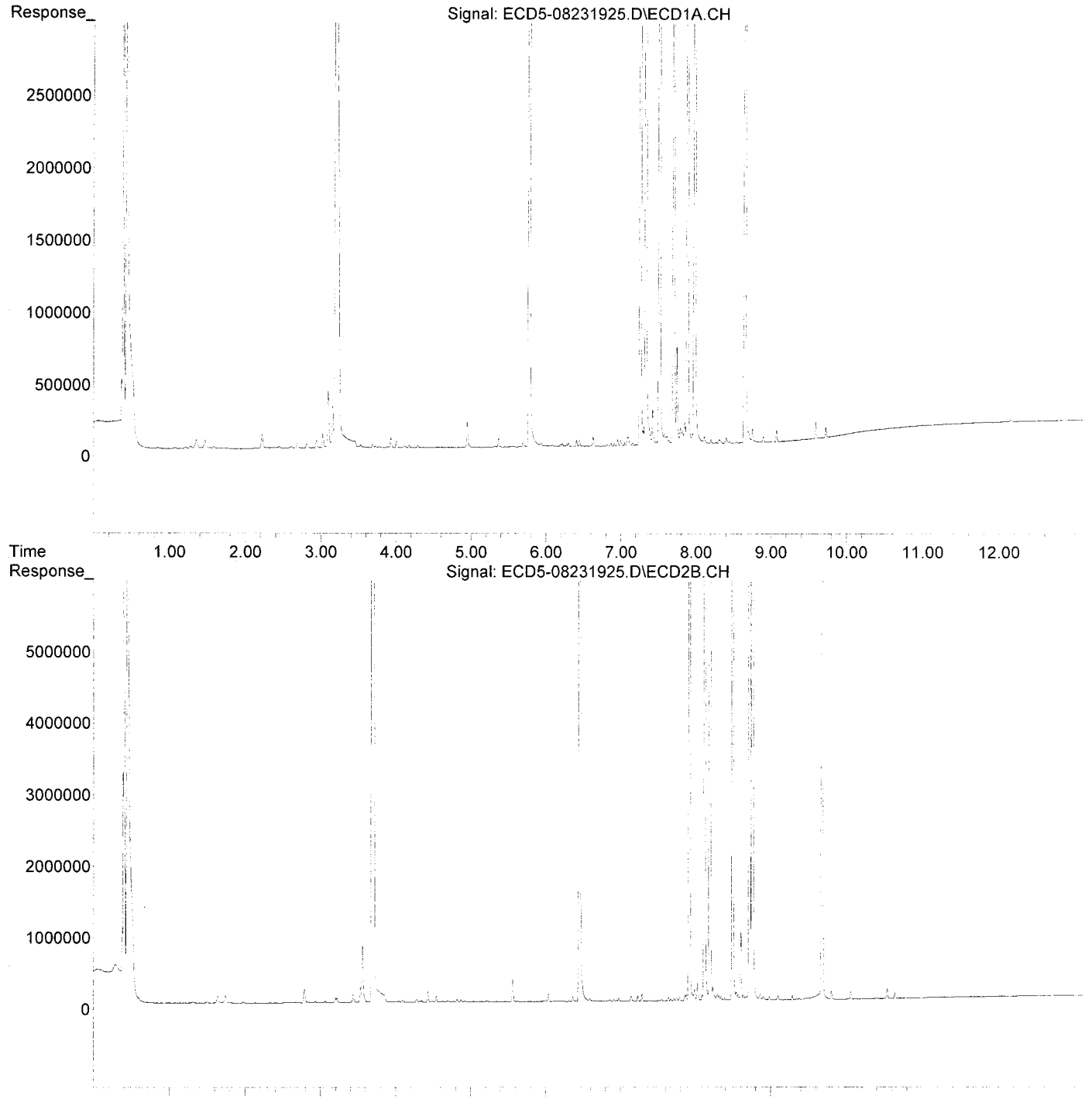
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.980	60549	10992	0.365	0.037	#
22)	S	DCBP (S)	9.590	10.538	118766	140925	0.842	0.784	
		Target Compounds							
2)		a-BHC	5.933	6.593	27118	40902	0.118	0.100	
3)		g-BHC	6.218	6.912	21255	30993	0.105	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

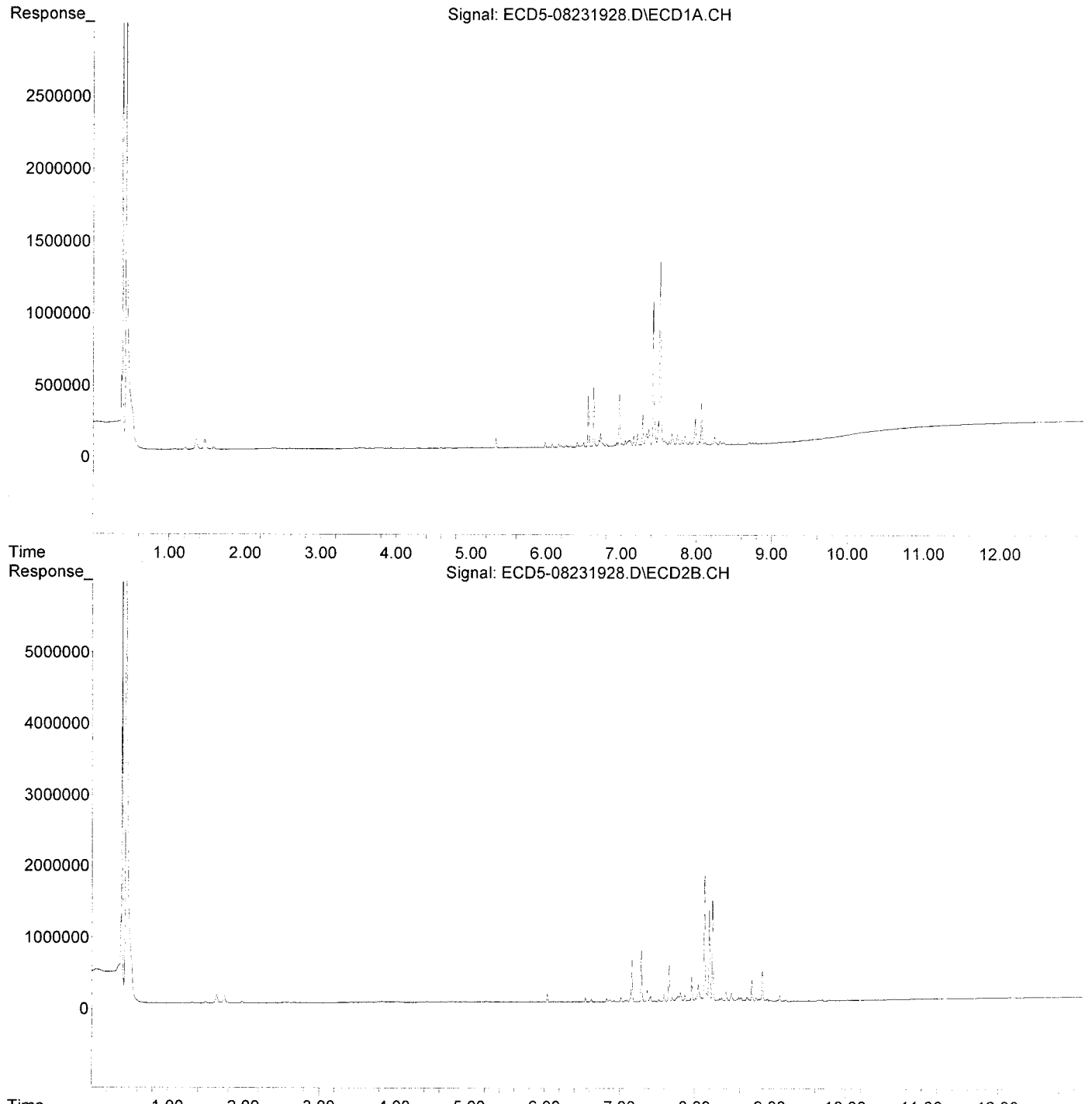
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	0.000	0	0	N.D.	N.D.	
22)	S	DCBP (S)	9.606	0.000	5901	0	0.042	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	41997	N.D.	0.102	#
3)		g-BHC	6.194f	6.924	13212	19652	0.065	0.055	
4)		b-BHC	6.323f	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

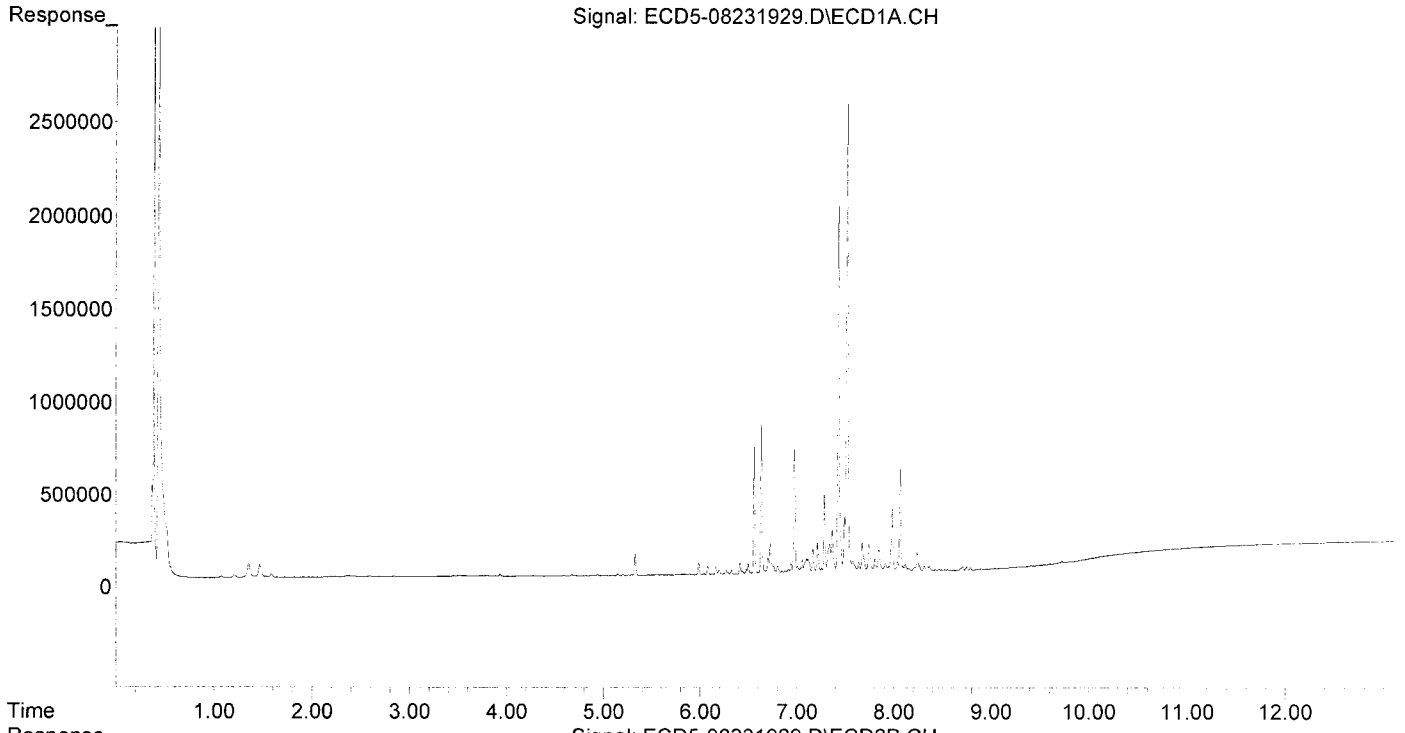
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	5943	N.D.	0.020	#
22)	S	DCBP (S)	9.606	0.000	7472	0	0.053	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	77932	N.D.	0.190	#
3)		g-BHC	6.194f	6.923	23514	36662	0.117	0.103	
4)		b-BHC	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.	

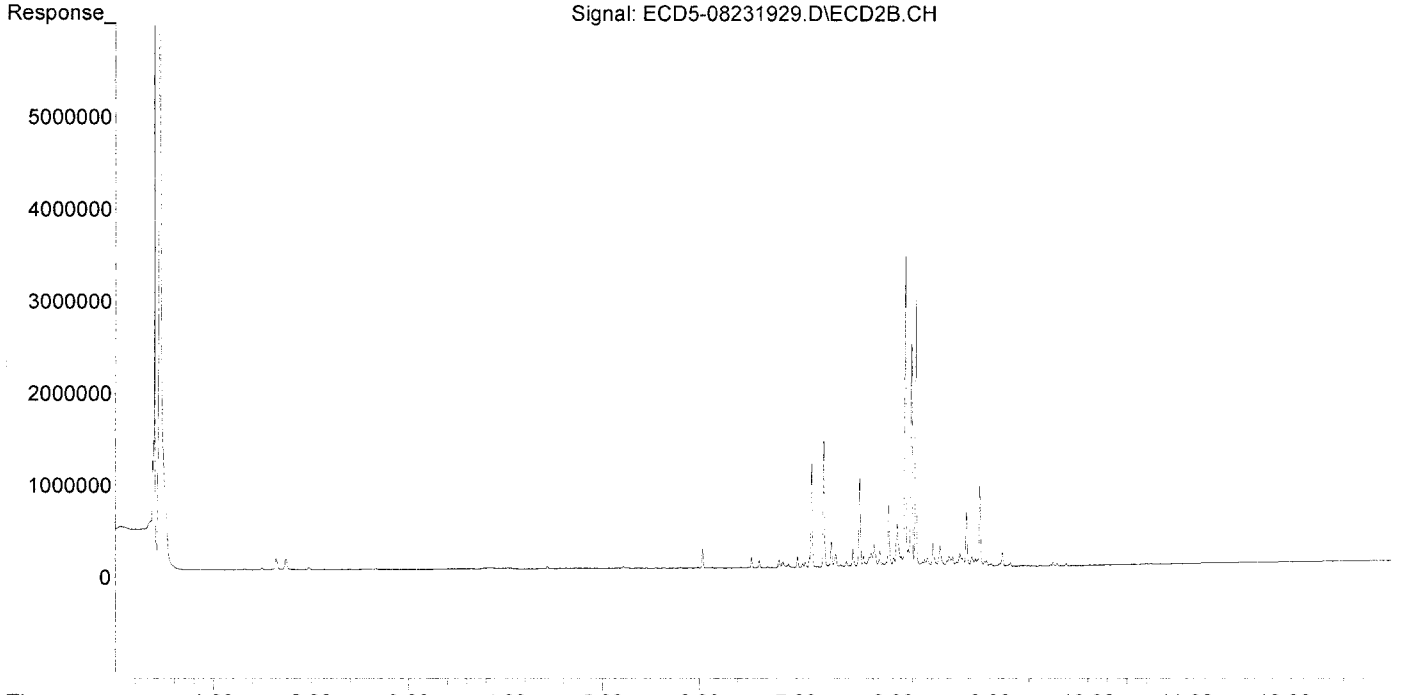
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

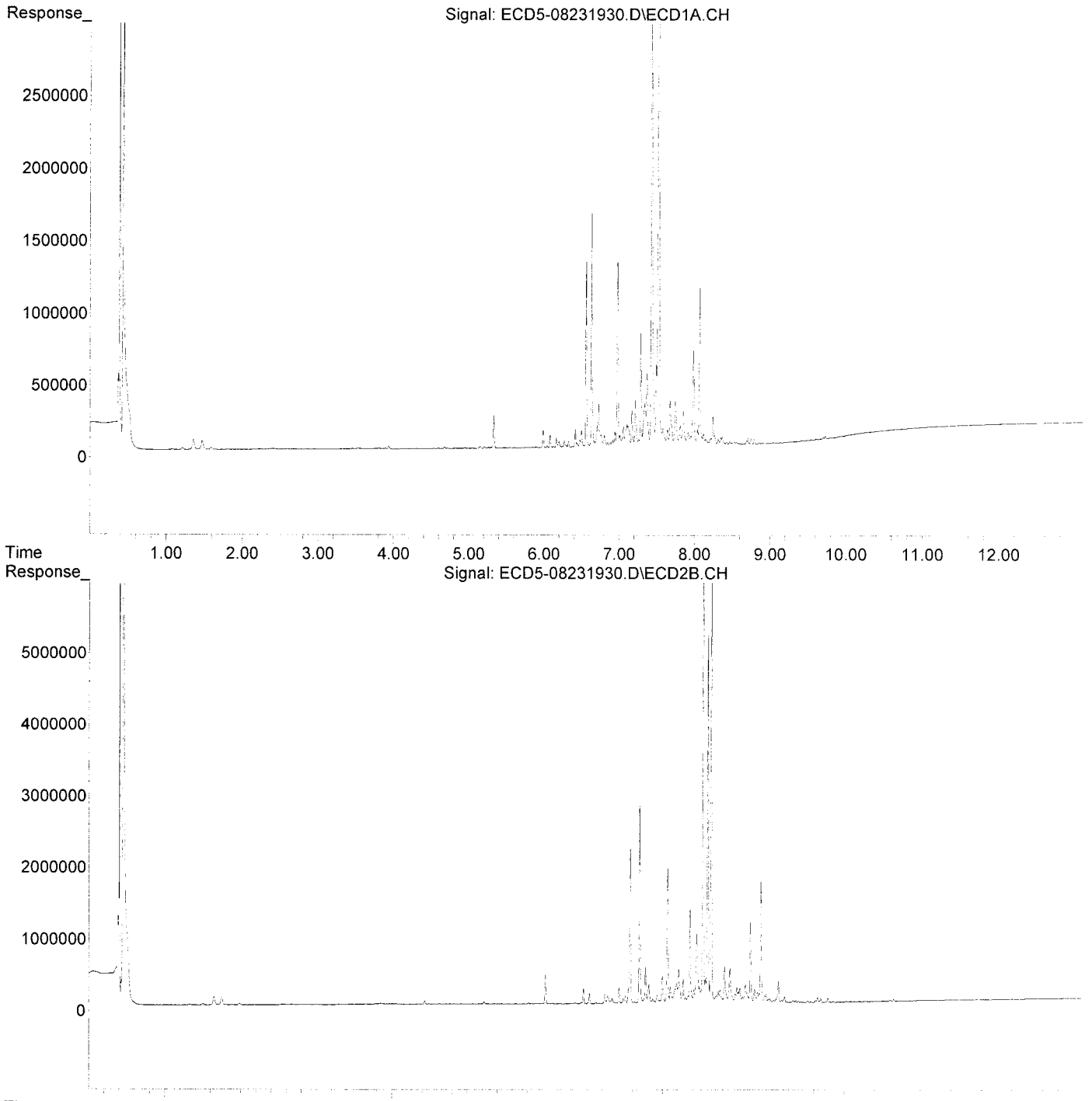
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	0.000	0	0	N.D.	N.D.	
22)	S	DCBP (S)	9.605	0.000	9631	0	0.068	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.623f	0	141009	N.D.	0.344	#
3)		g-BHC	6.197f	6.925	44236	70355	0.219	0.197	
4)		b-BHC	6.269f	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

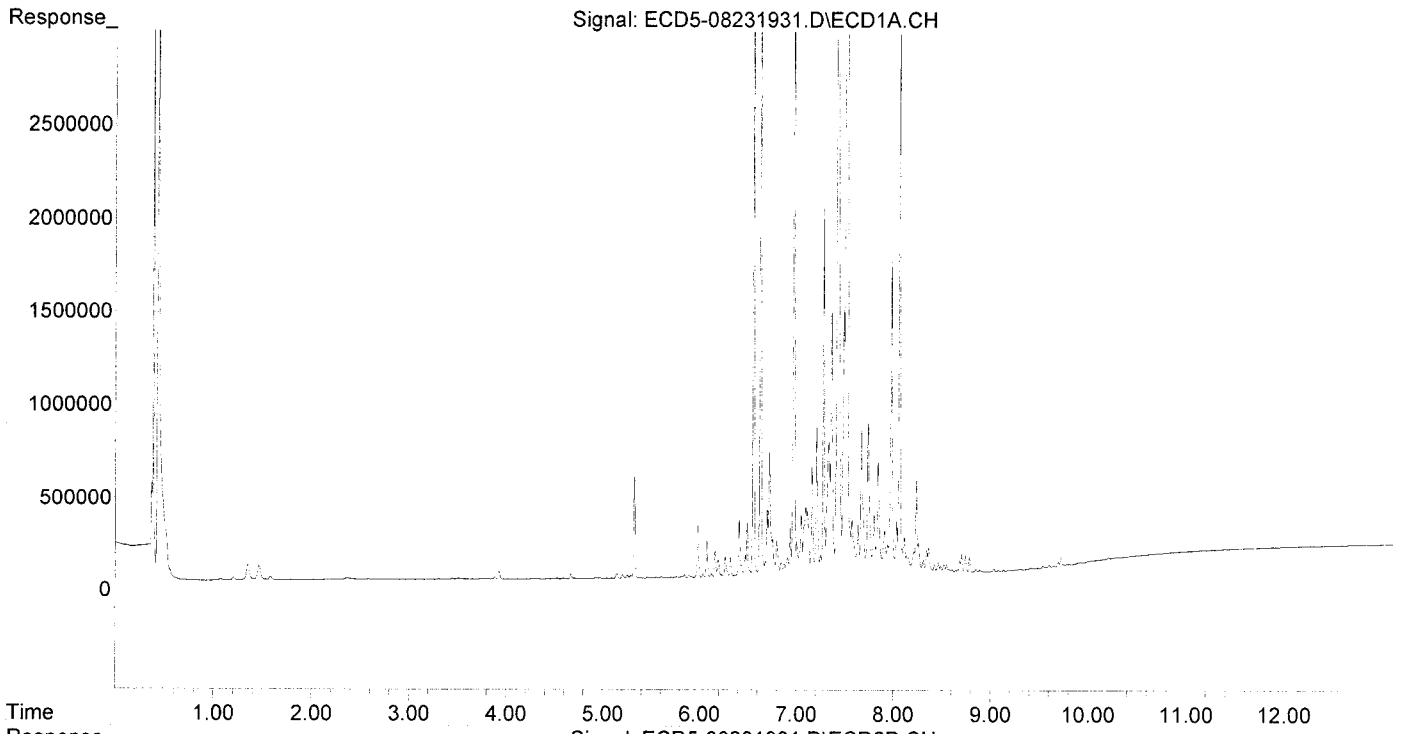
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.982	0	9372	N.D.	0.032	#
22)	S	DCBP (S)	9.605	10.512f	13871	6664	0.098	0.037	#
		Target Compounds							
2)		a-BHC	0.000	6.621f	0	314411	N.D.	0.766	#
3)		g-BHC	6.194f	6.923	92958	161395	0.461	0.452	
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.	

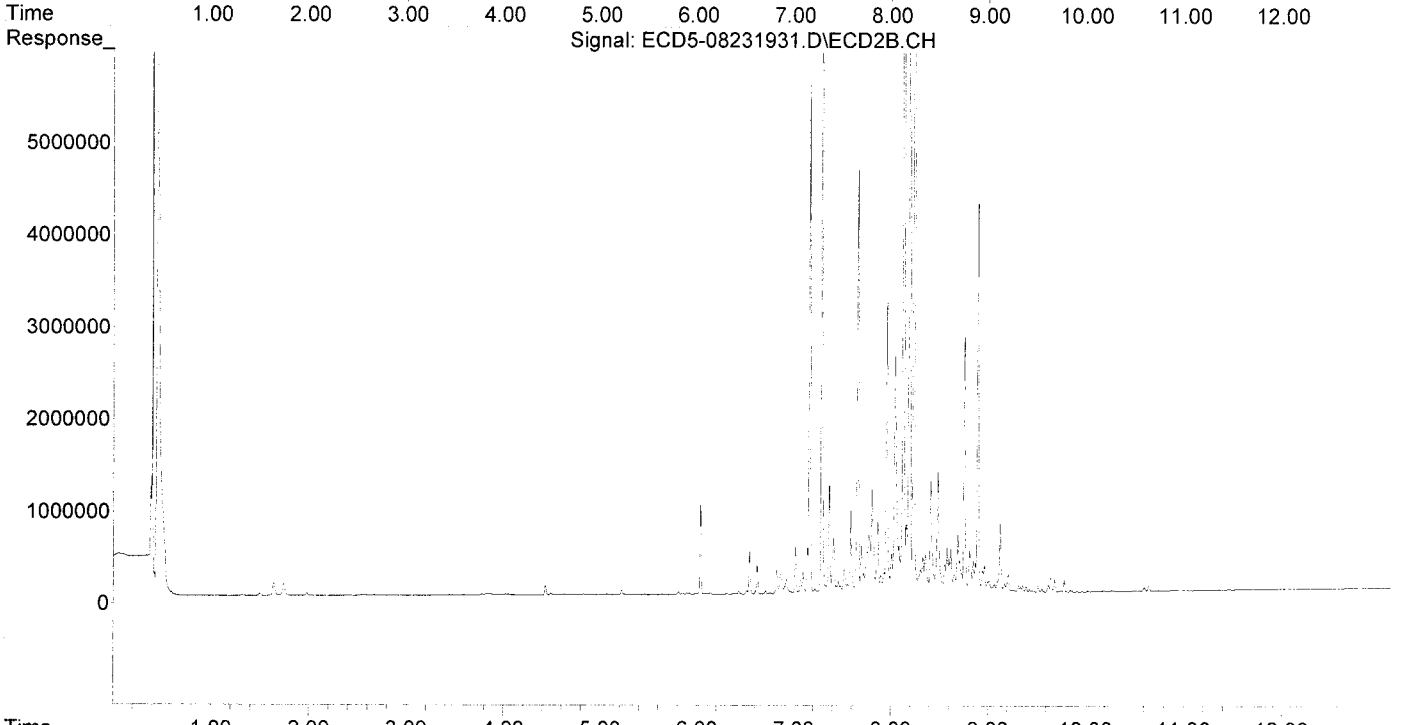
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

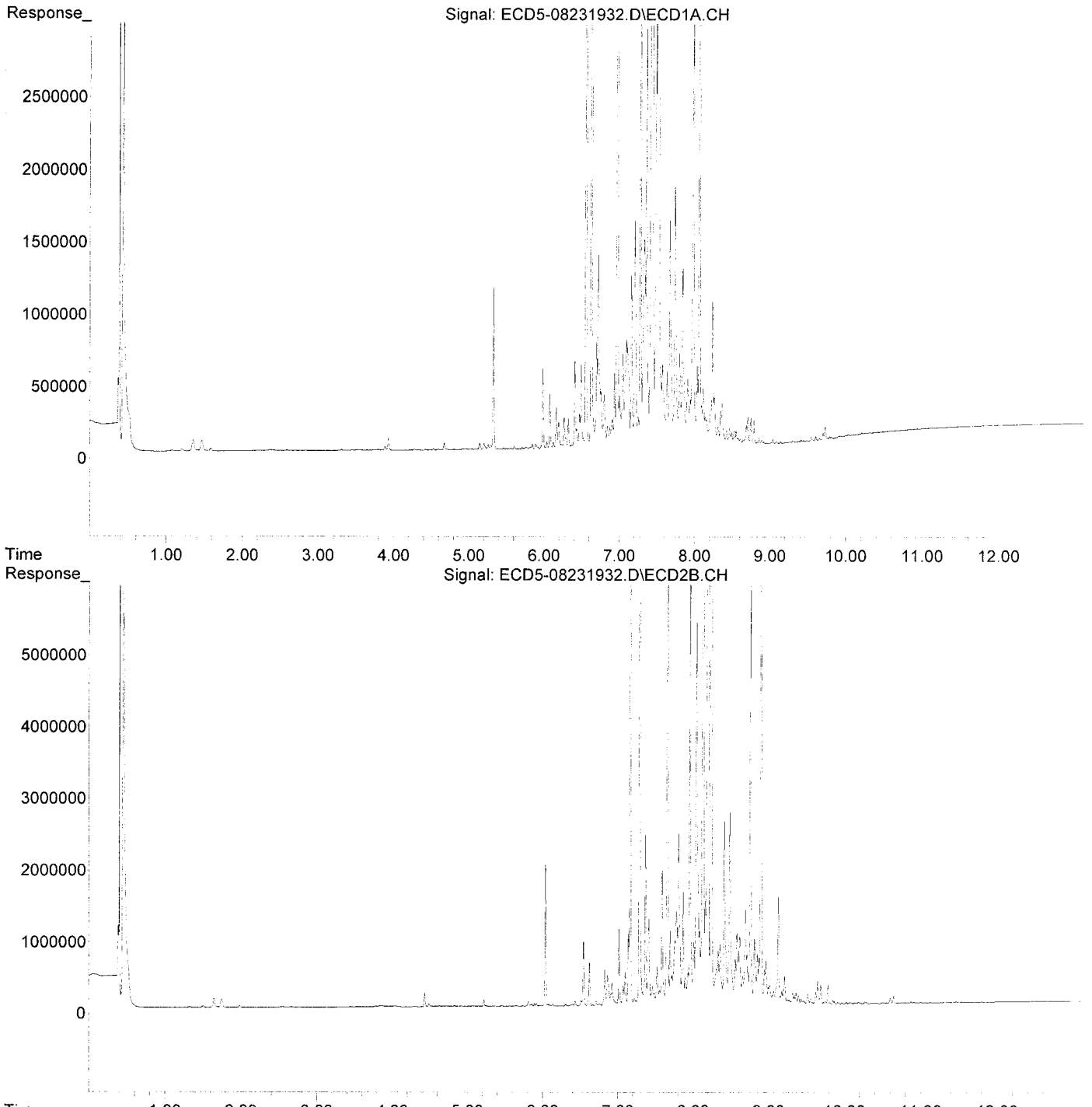
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.393	5.980	6433	11040	0.039	0.038	
22)	S	DCBP (S)	9.604	10.553	33011	8716	0.234	0.048	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	610263	N.D.	1.487	#
3)		g-BHC	6.194f	6.923	179715	319626	0.891	0.896	
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

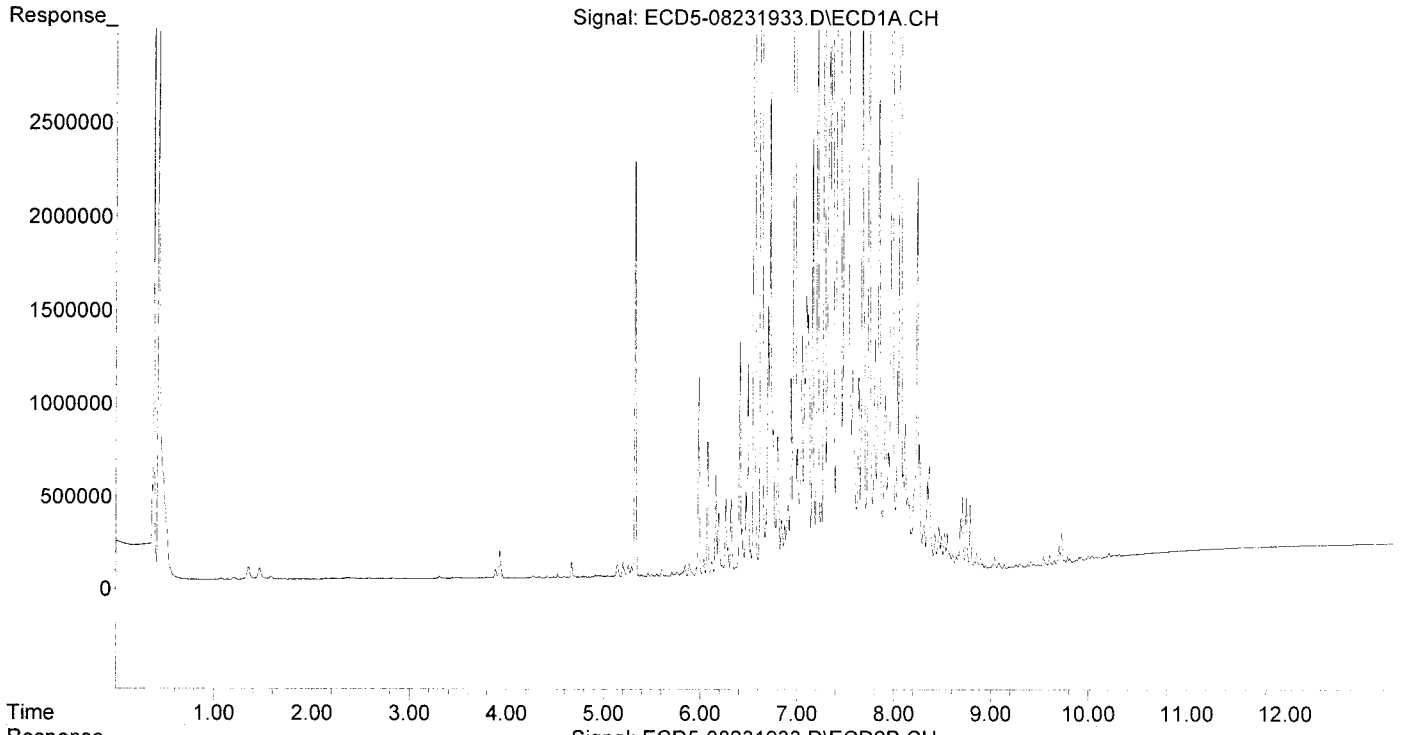
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.393	5.971	11655	15748	0.070	0.054	
22)	S	DCBP (S)	9.604	10.552	57777	17575	0.409	0.098	#
		Target Compounds							
2)		a-BHC	0.000	6.621f	0	1174704	N.D.	2.863	#
3)		g-BHC	6.193f	6.922	334417	594314	1.657	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.	

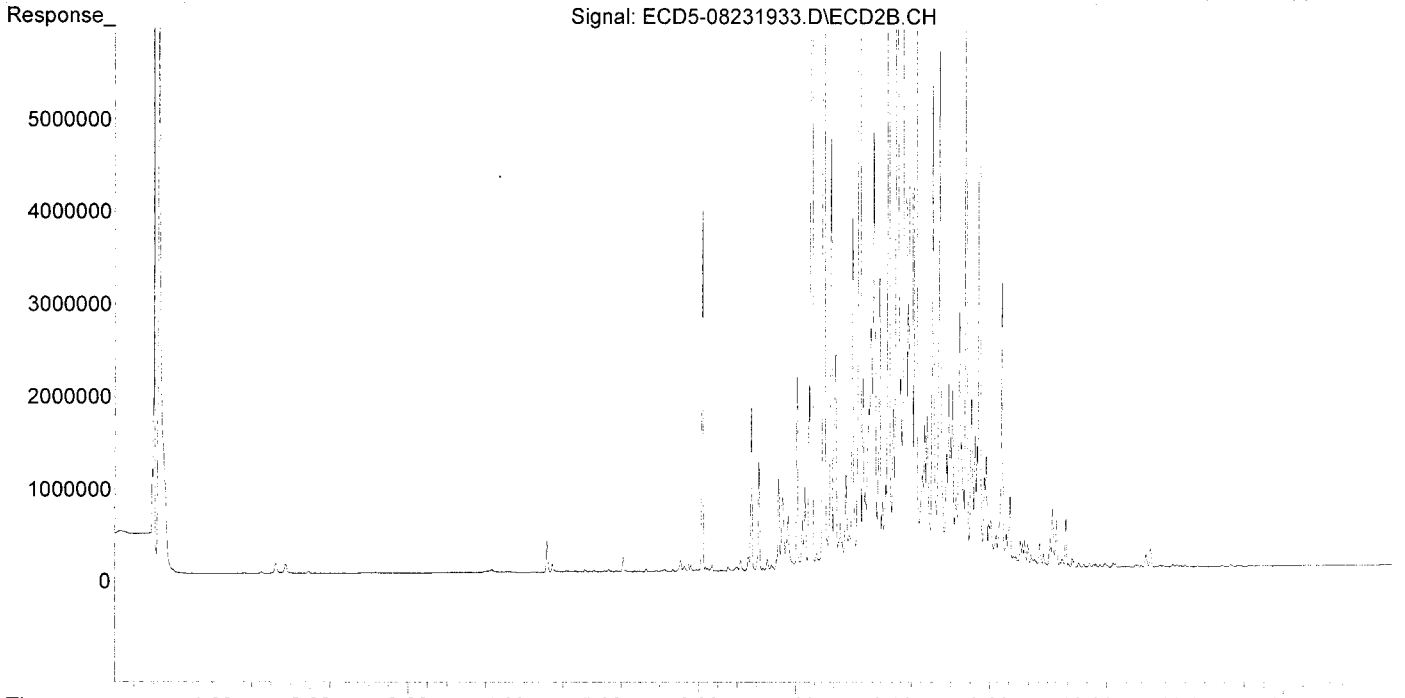
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

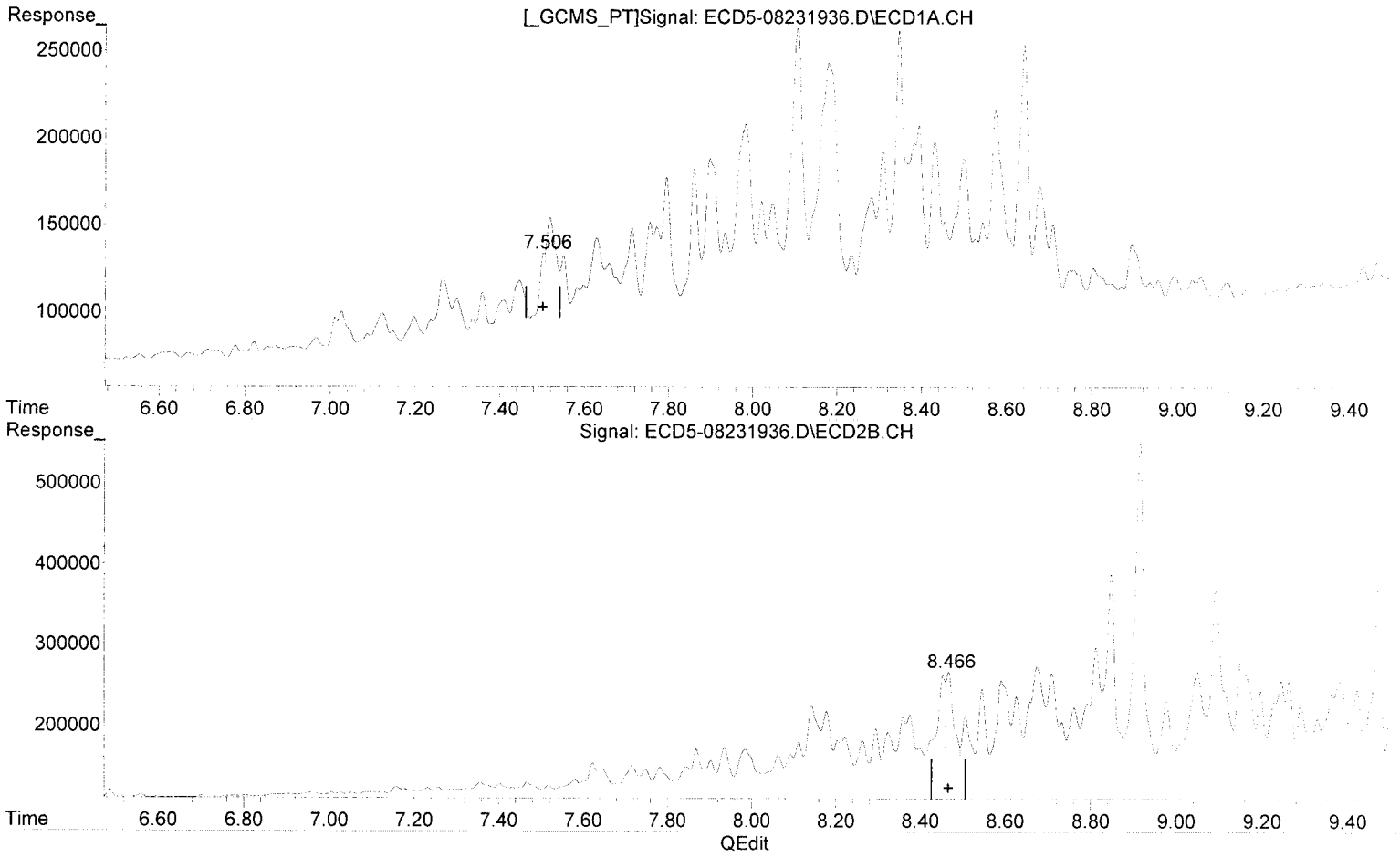
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6201	N.D.	0.021	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4430	0	0.022	N.D.	#
4)		b-BHC	6.297	0.000	3017	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

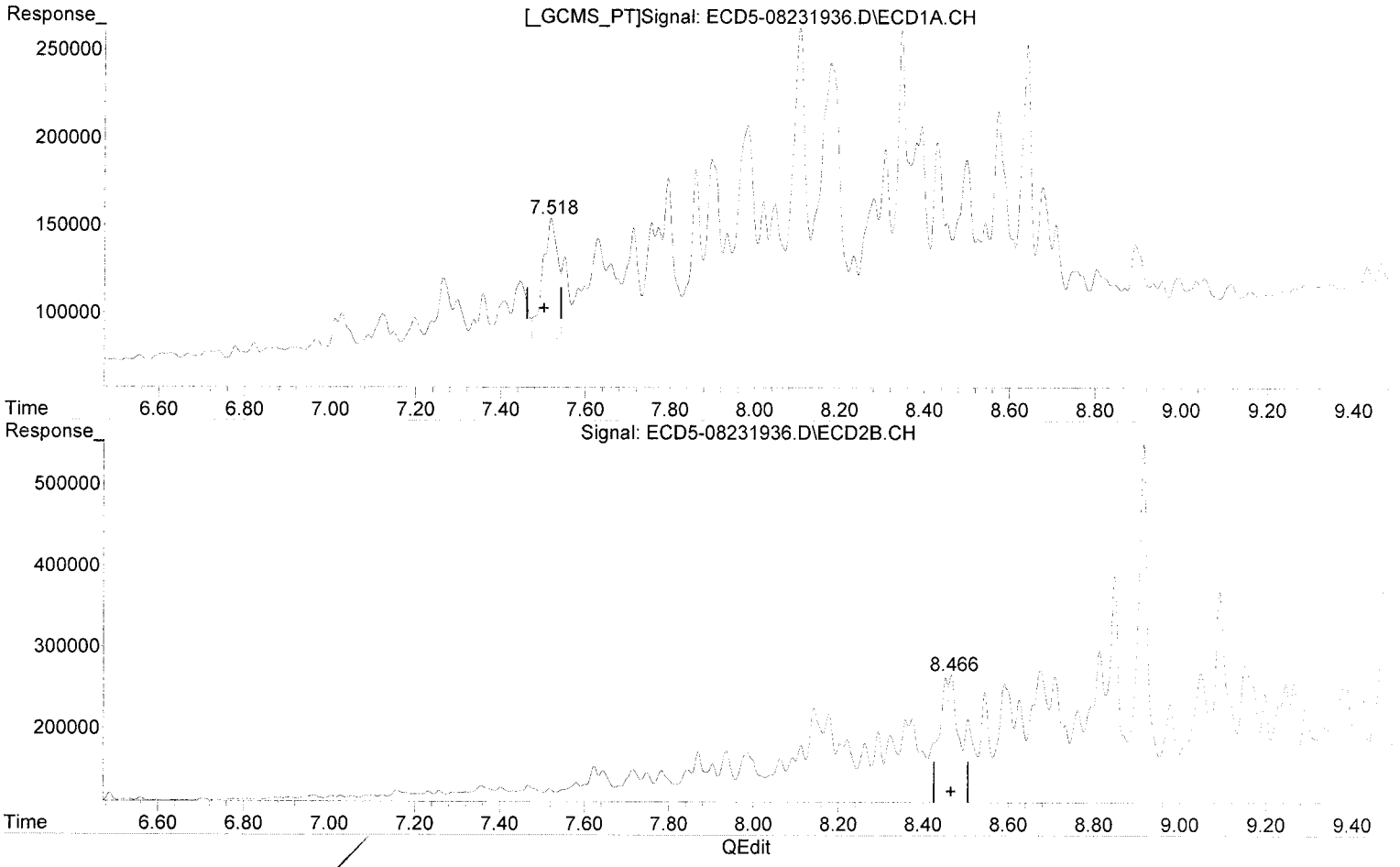
response 136848

(+) = 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

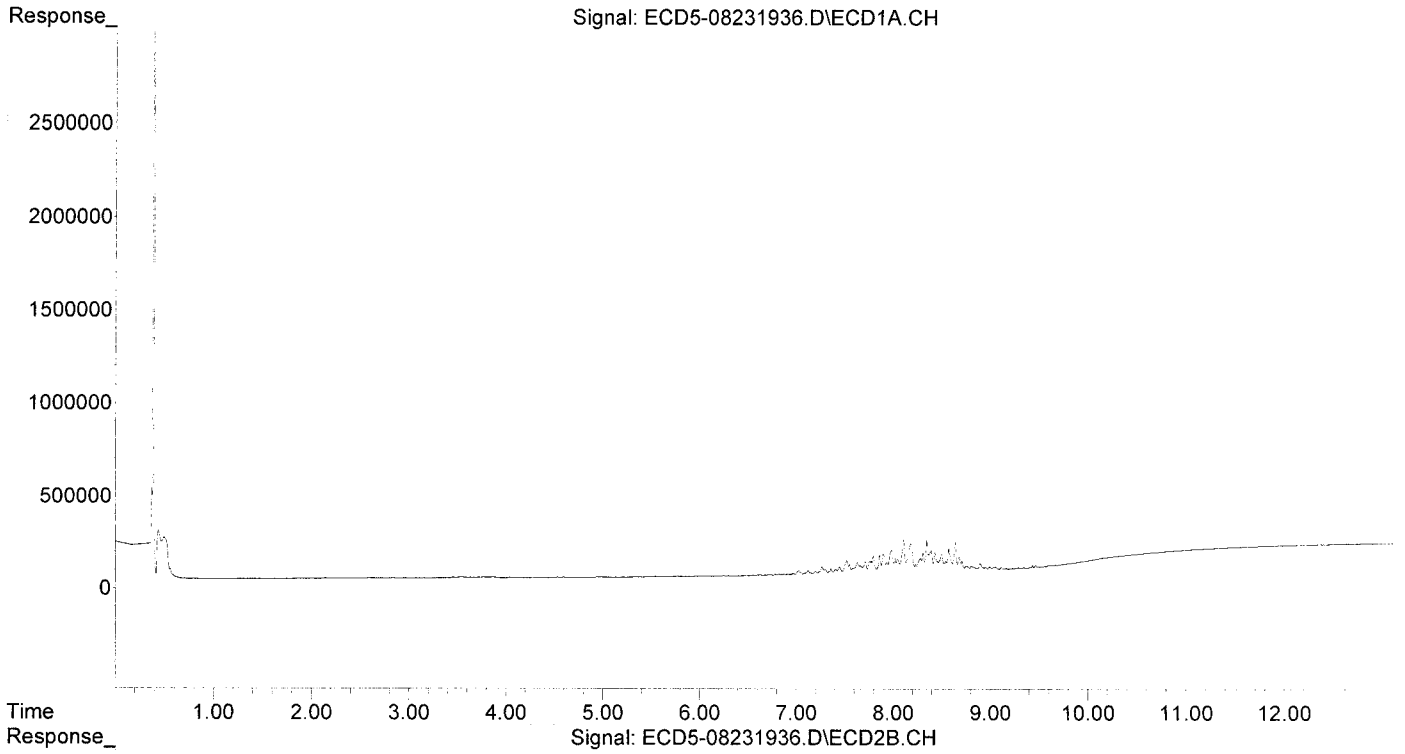
response 136848

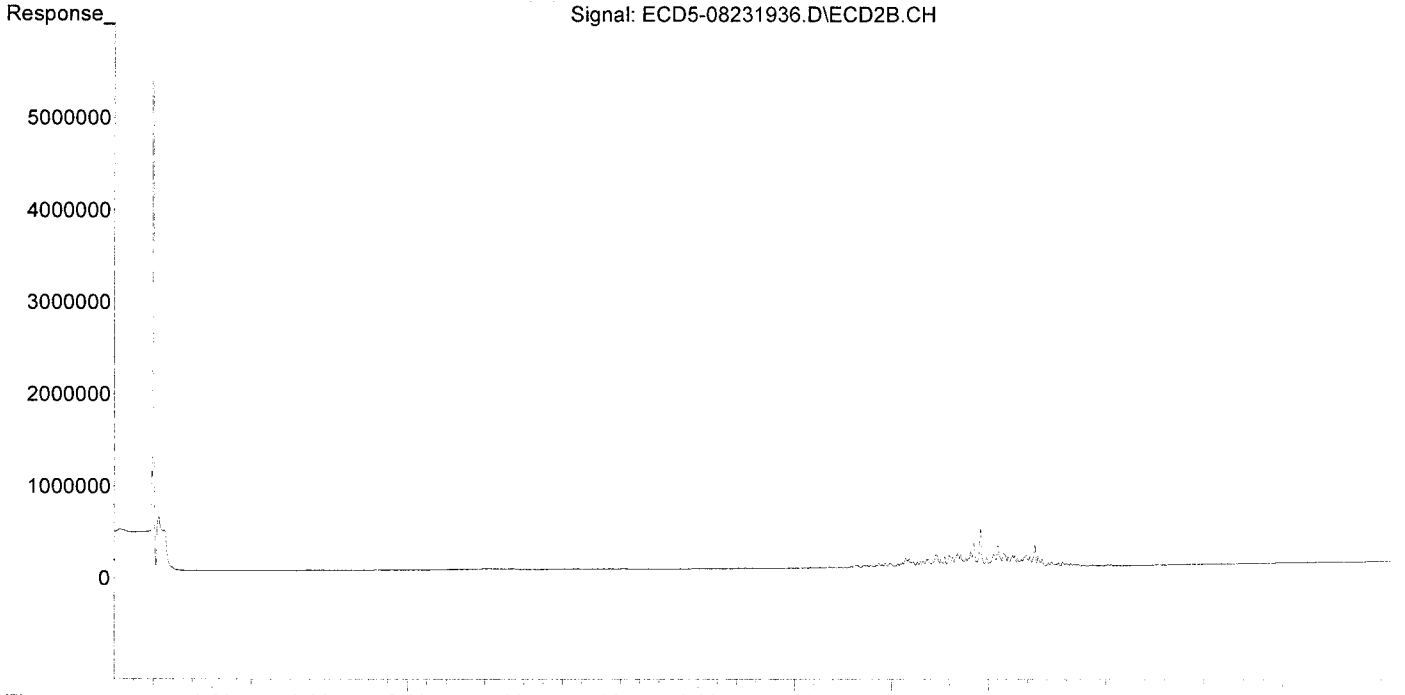
(+) = Expected Retention Time

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

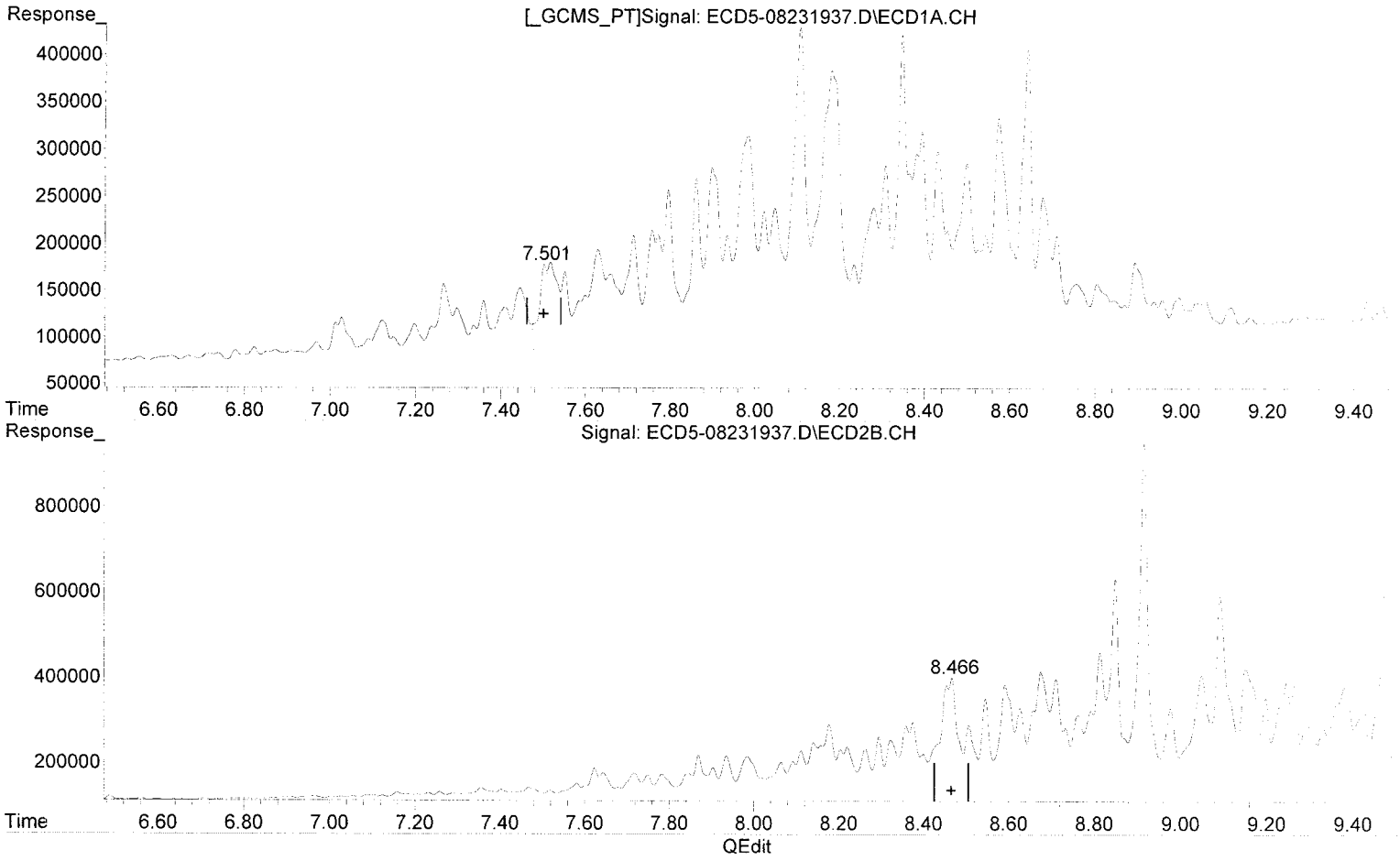
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.985	0	6562	N.D.	0.022	#
22)	S	DCBP (S)	9.592	0.000	4802	0	0.034	N.D.	#
		Target Compounds							
2)		a-BHC	5.952	0.000	2451	0	0.011	N.D.	#
3)		g-BHC	6.250f	0.000	4208	0	0.021	N.D.	#
4)		b-BHC	6.297	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

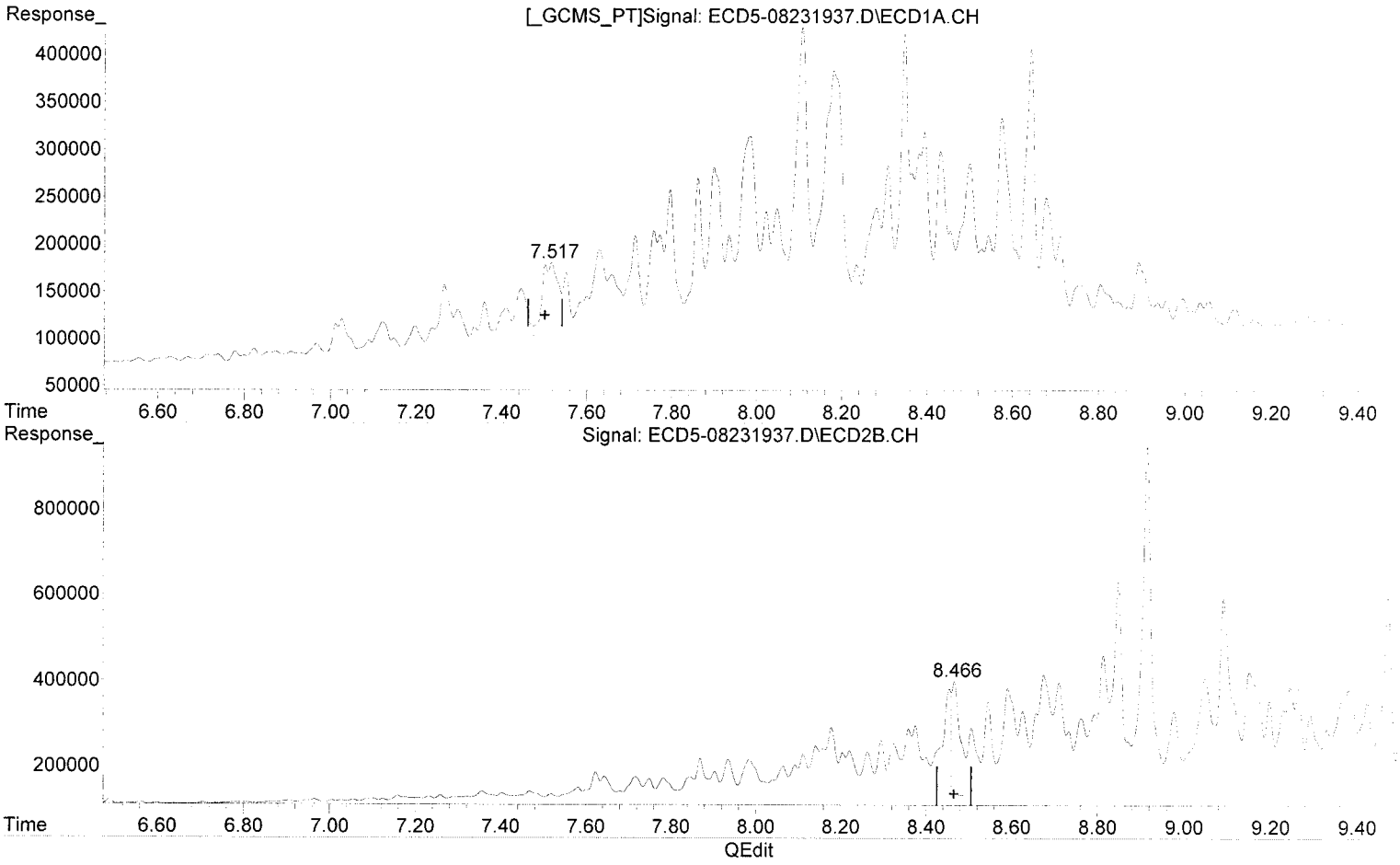
MJB 6/26/19
MJB 6/26/19

(+) = 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

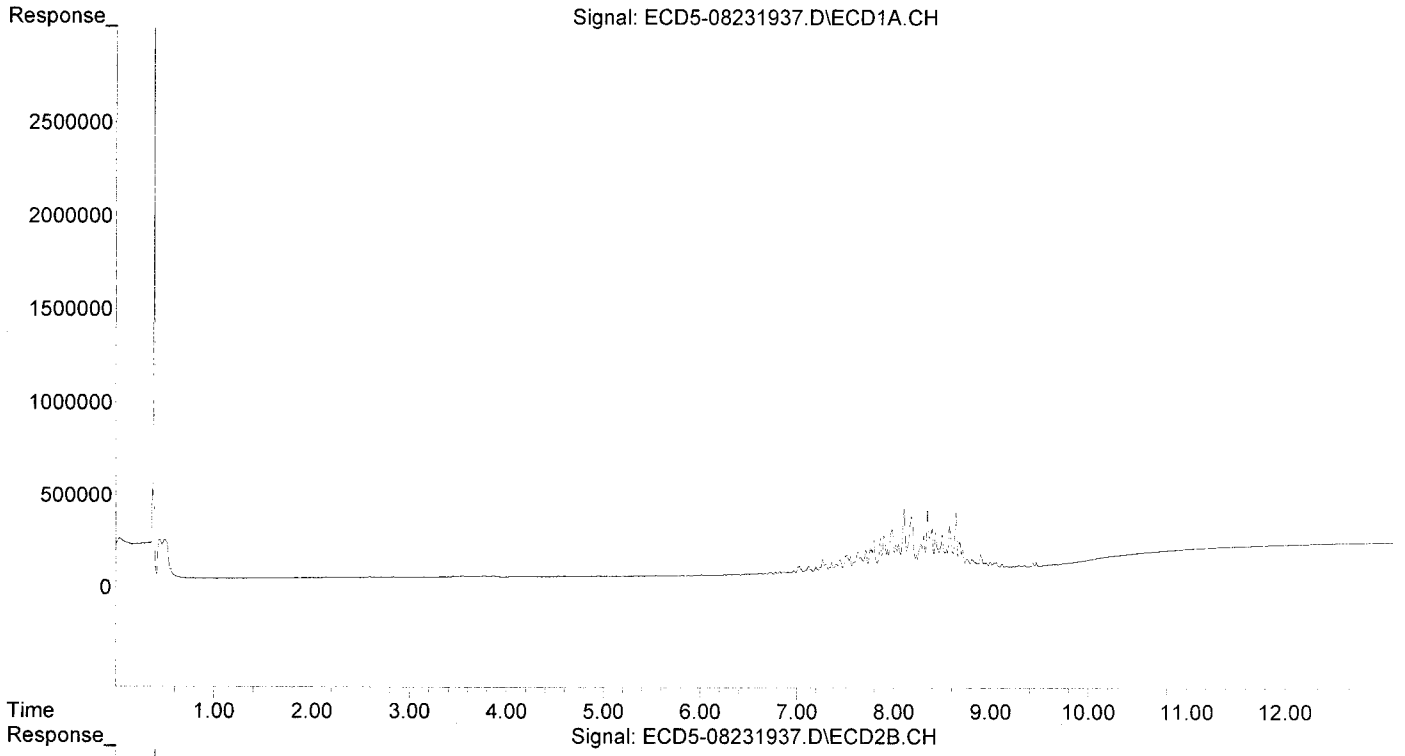
response 267534

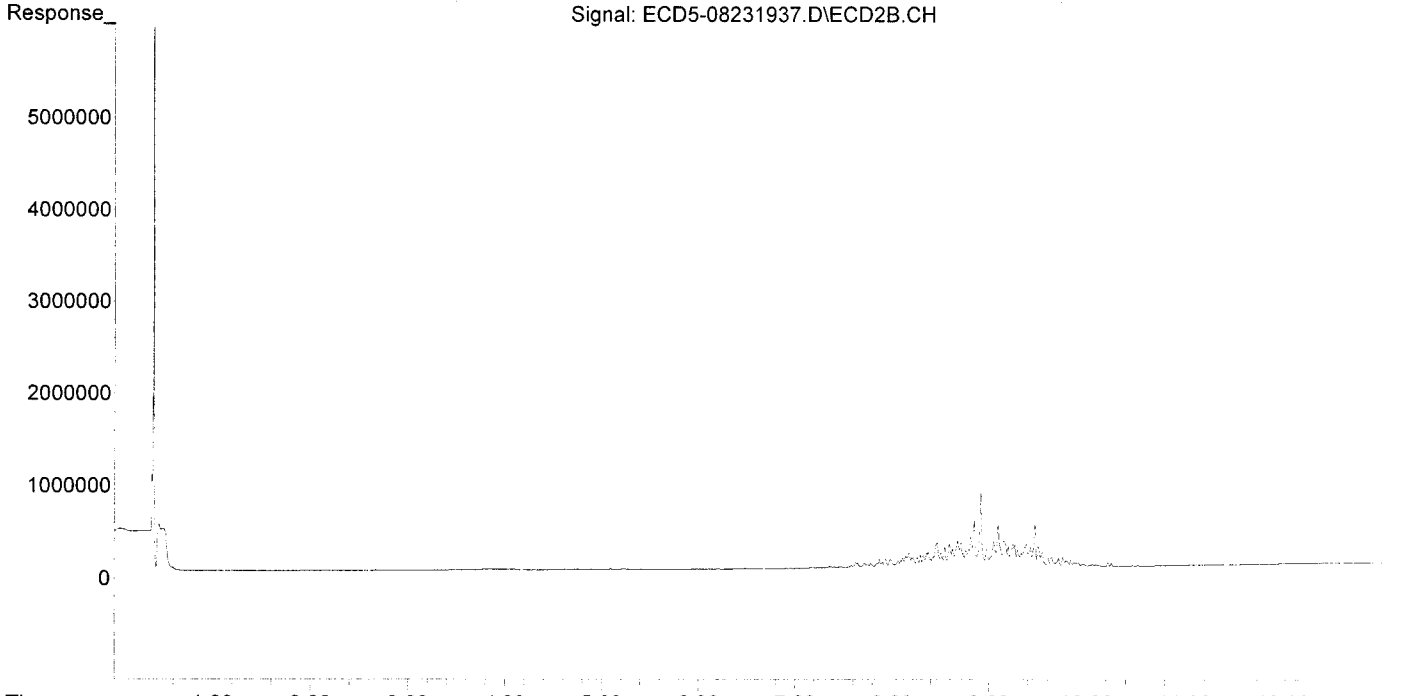
(+) = Expected Retention Time

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

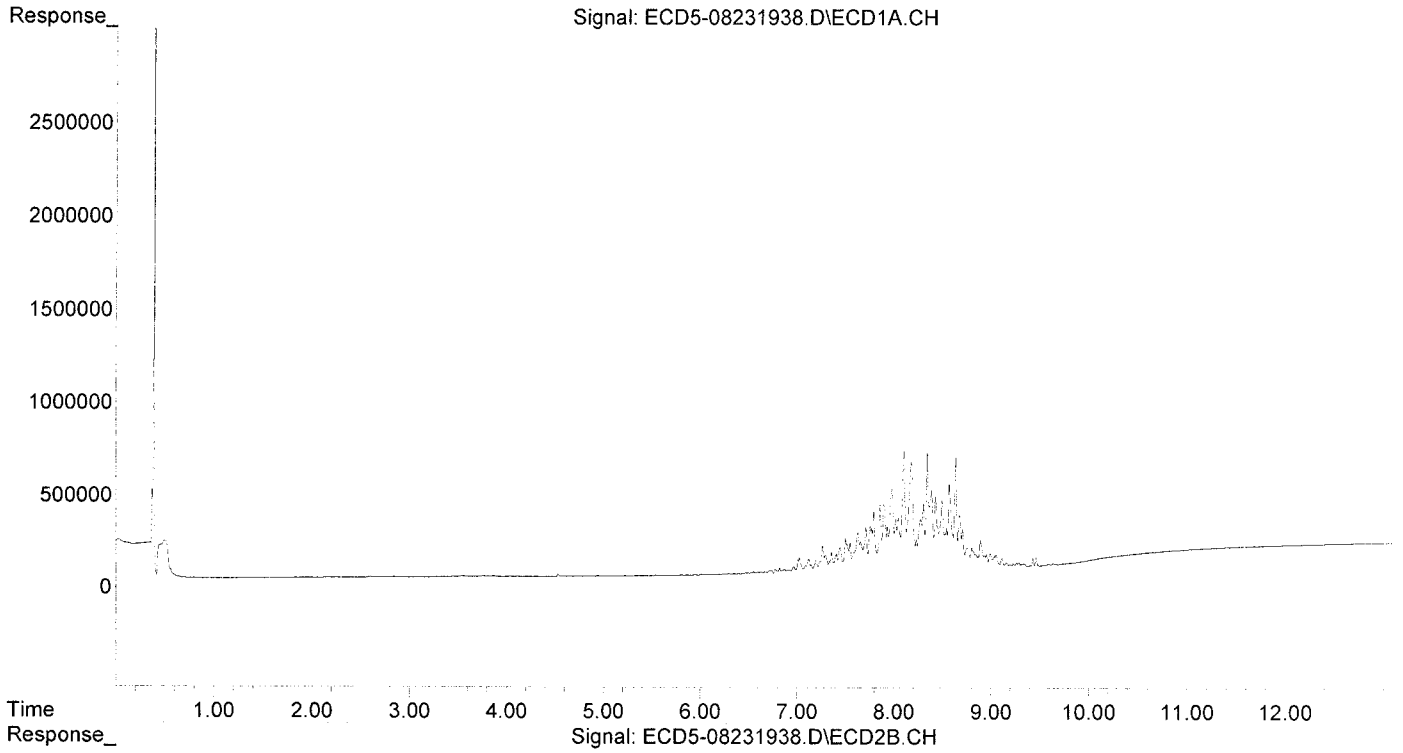
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6031	N.D.	0.021	#
22)	S	DCBP (S)	9.591	10.521	8317	11024	0.059	0.061	
		Target Compounds							
2)		a-BHC	5.950	0.000	2445	0	0.011	N.D.	#
3)		g-BHC	6.249f	6.906	4762	8484	0.024	0.024	
4)		b-BHC	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.	

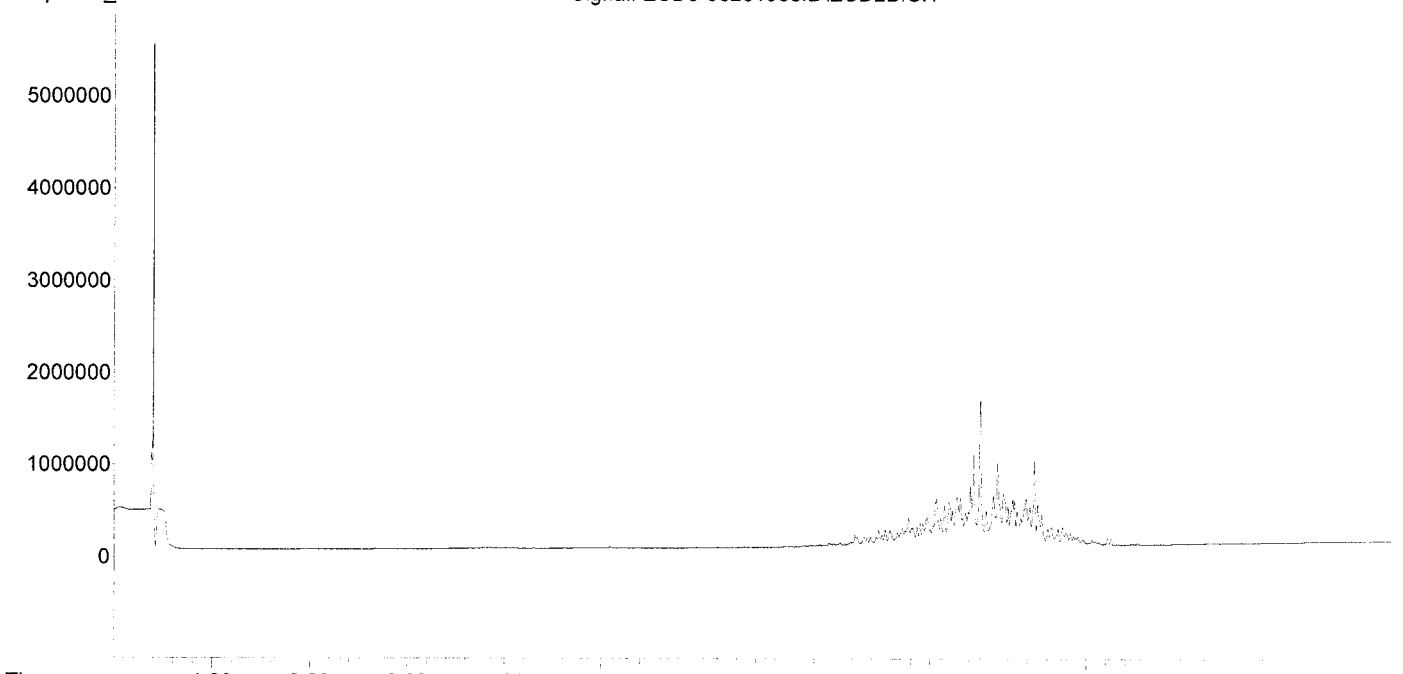
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

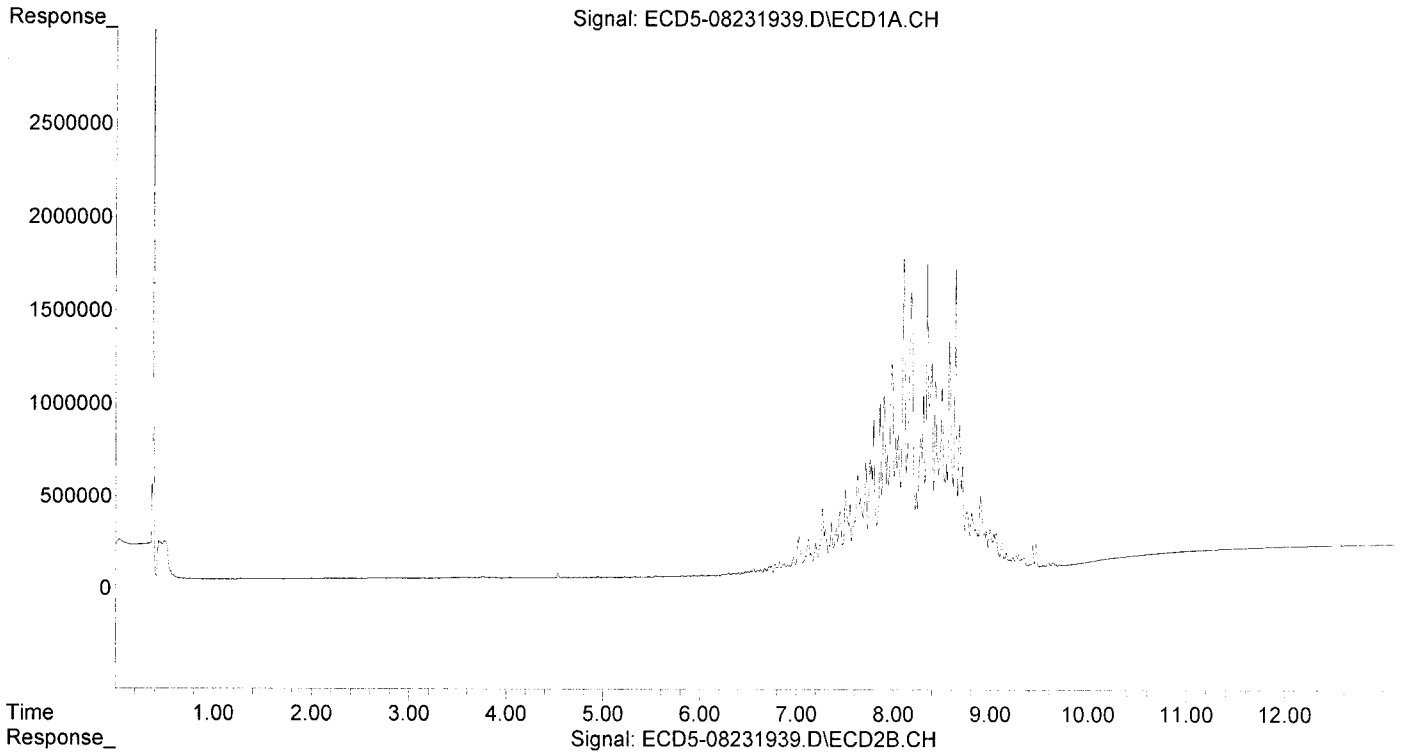
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.984	0	5601	N.D.	0.019	#
22) S	DCBP (S)	9.591	10.521	21035	39647	0.149	0.221	#
	Target Compounds							
2)	a-BHC	5.938	6.598	3646	8422	0.016	0.021	
3)	g-BHC	6.246f	6.908	6276	21315	0.031	0.060	#
4)	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.	

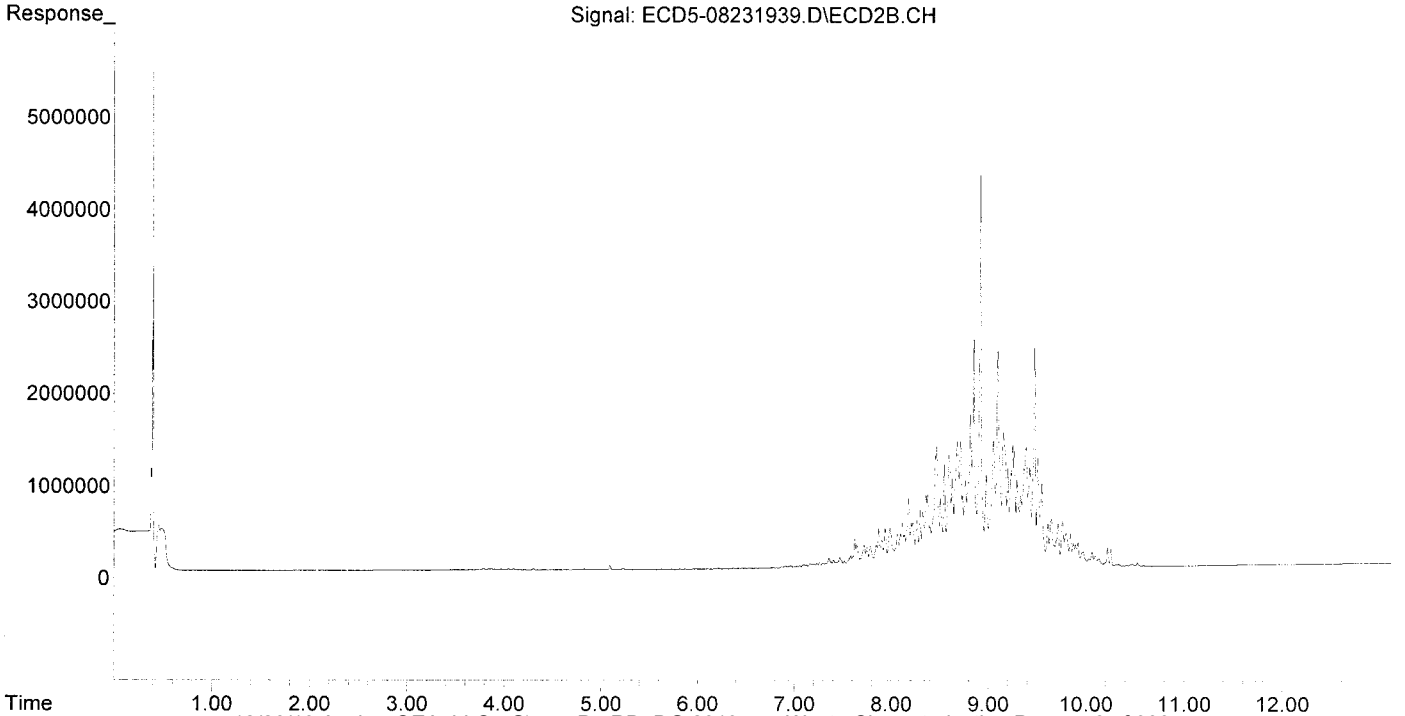
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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 12/26/19

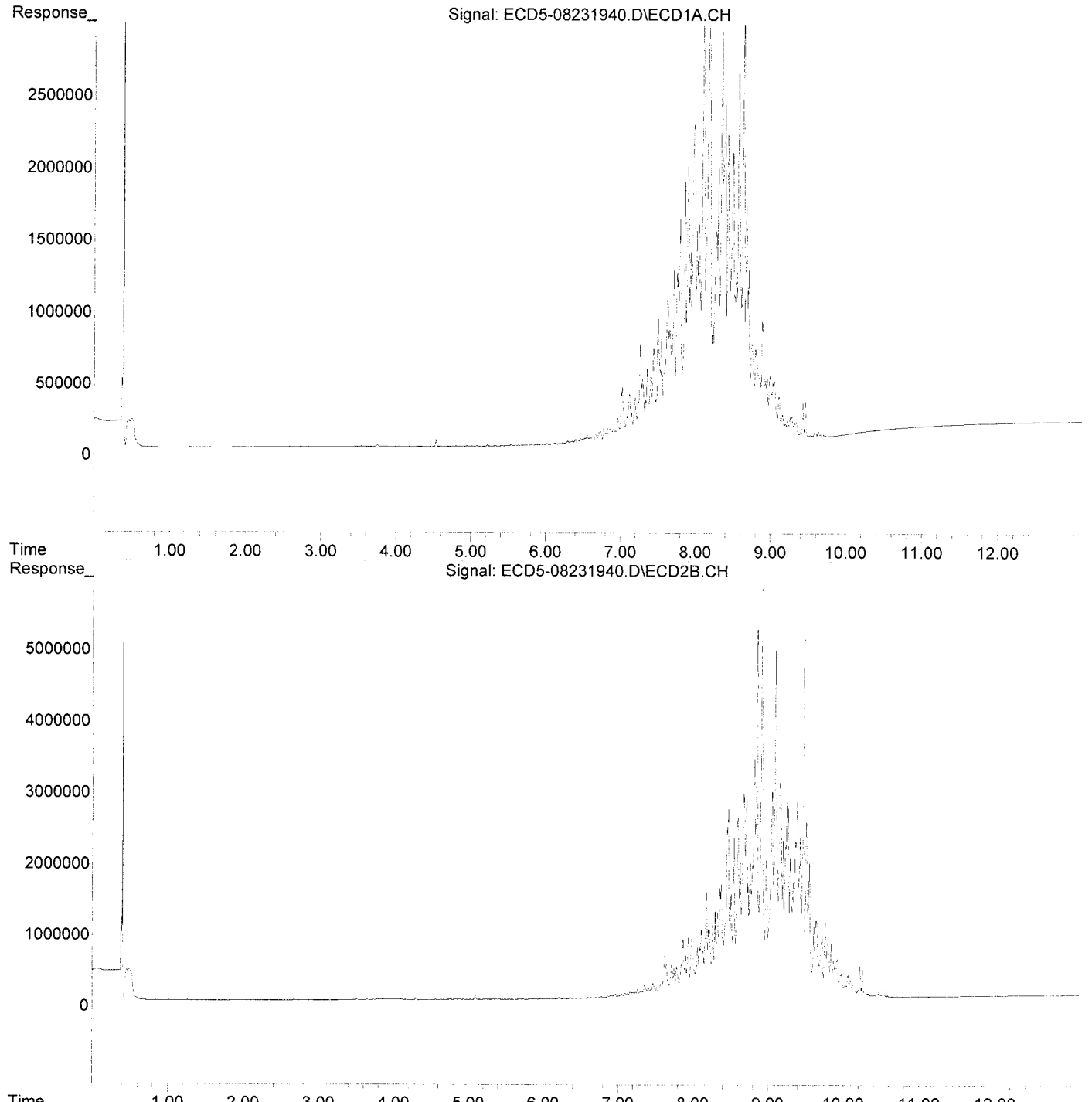
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.415f	5.982	2381	5264	0.014	0.018	
22)	S DCBP (S)	9.591	10.522	47060	86882	0.334	0.483	#
	Target Compounds							
2)	a-BHC	5.937	6.597	7133	14957	0.031	0.036	
3)	g-BHC	6.231	6.907	12268	49388	0.061	0.138	#
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

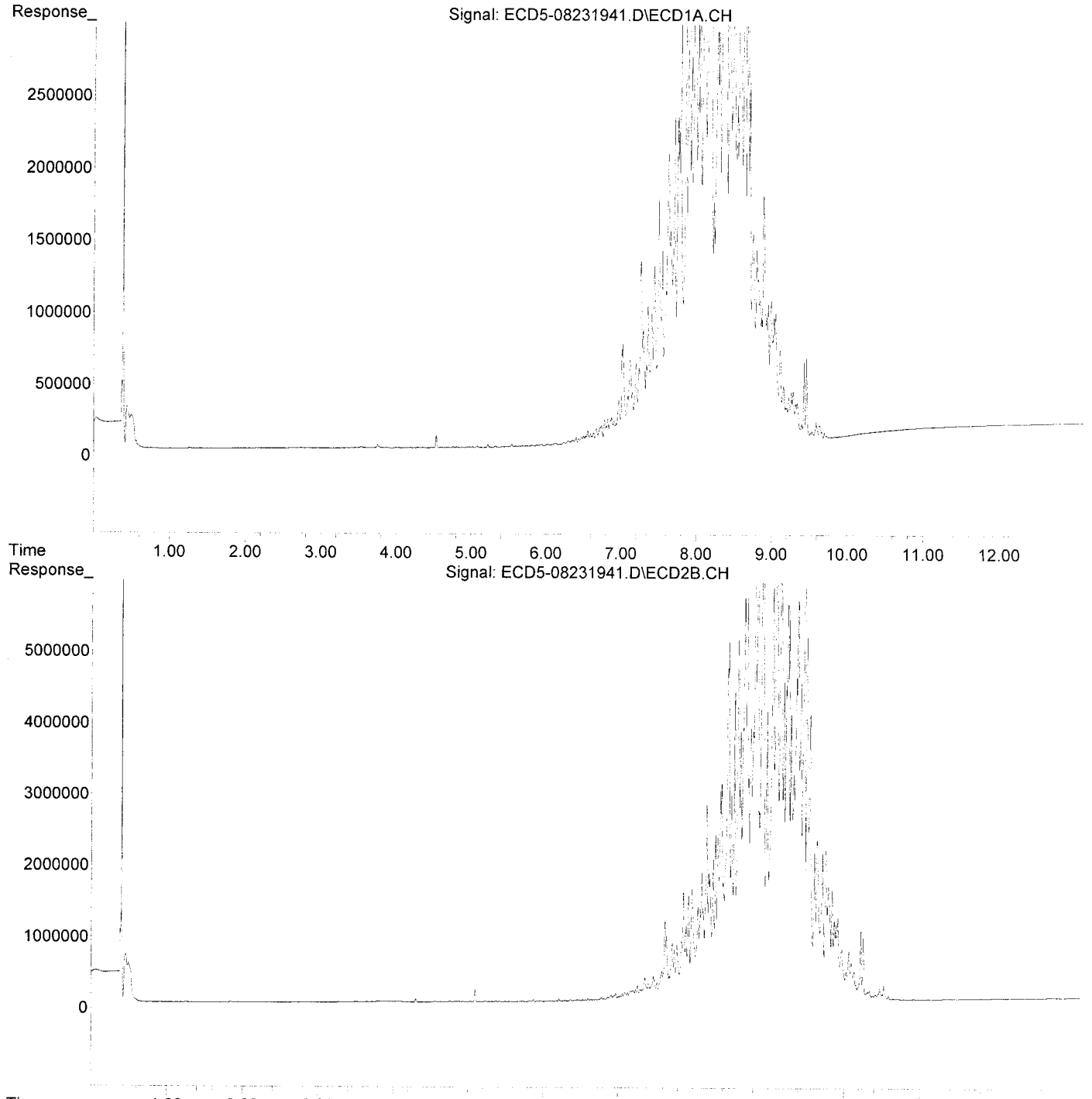
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.416f	5.979	3411	9459	0.021	0.032	#
22)	S	DCBP (S)	9.591	10.521	106938	194794	0.758	1.084	#
		Target Compounds							
2)		a-BHC	5.935	6.596	13246	39719	0.058	0.097	#
3)		g-BHC	6.231	6.908	20790	85564	0.103	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.

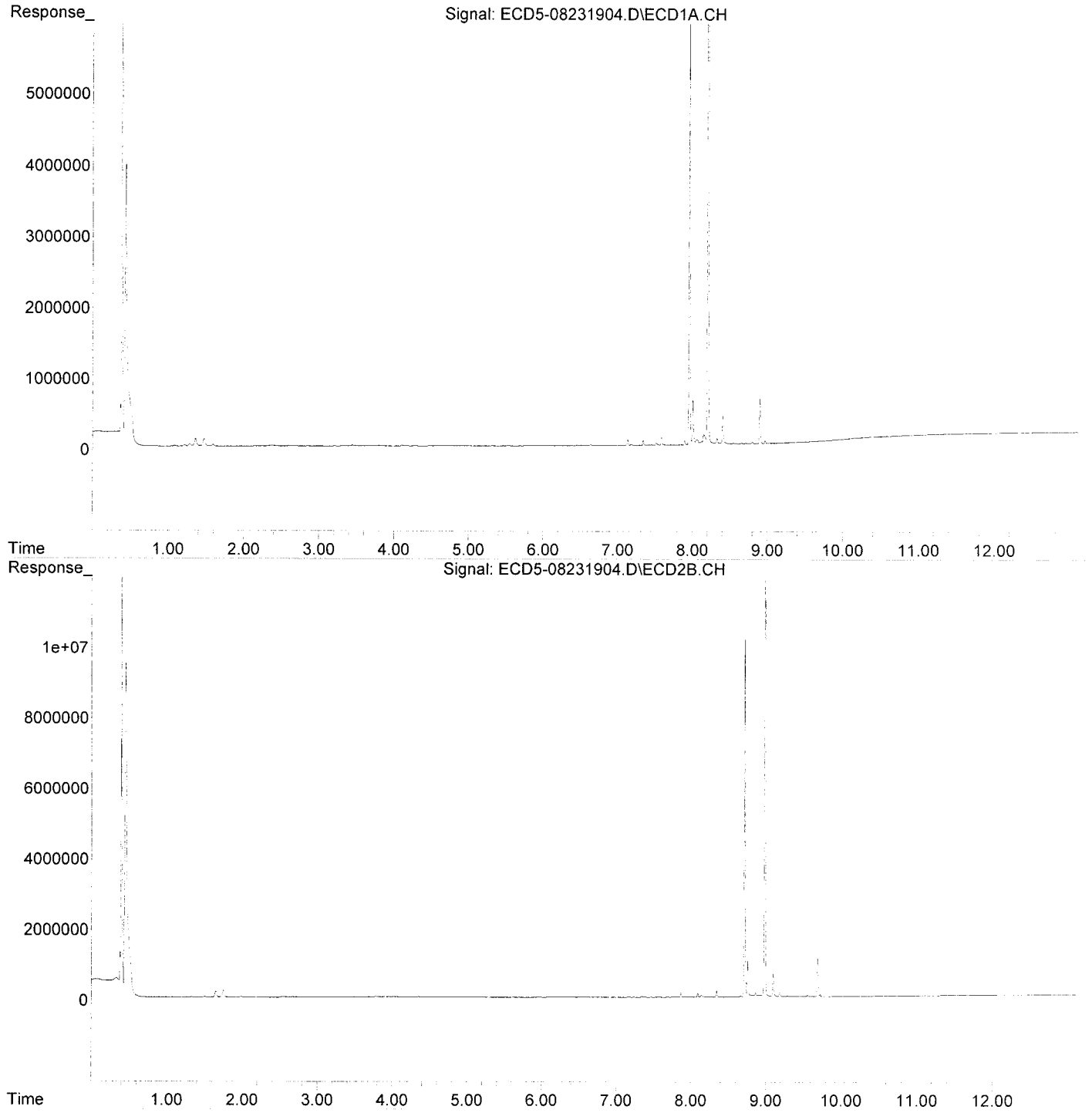
Breakdown passing, but ~~the~~ High. Maintenance performed
MJB 8/26/19

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 9/26/19

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

	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

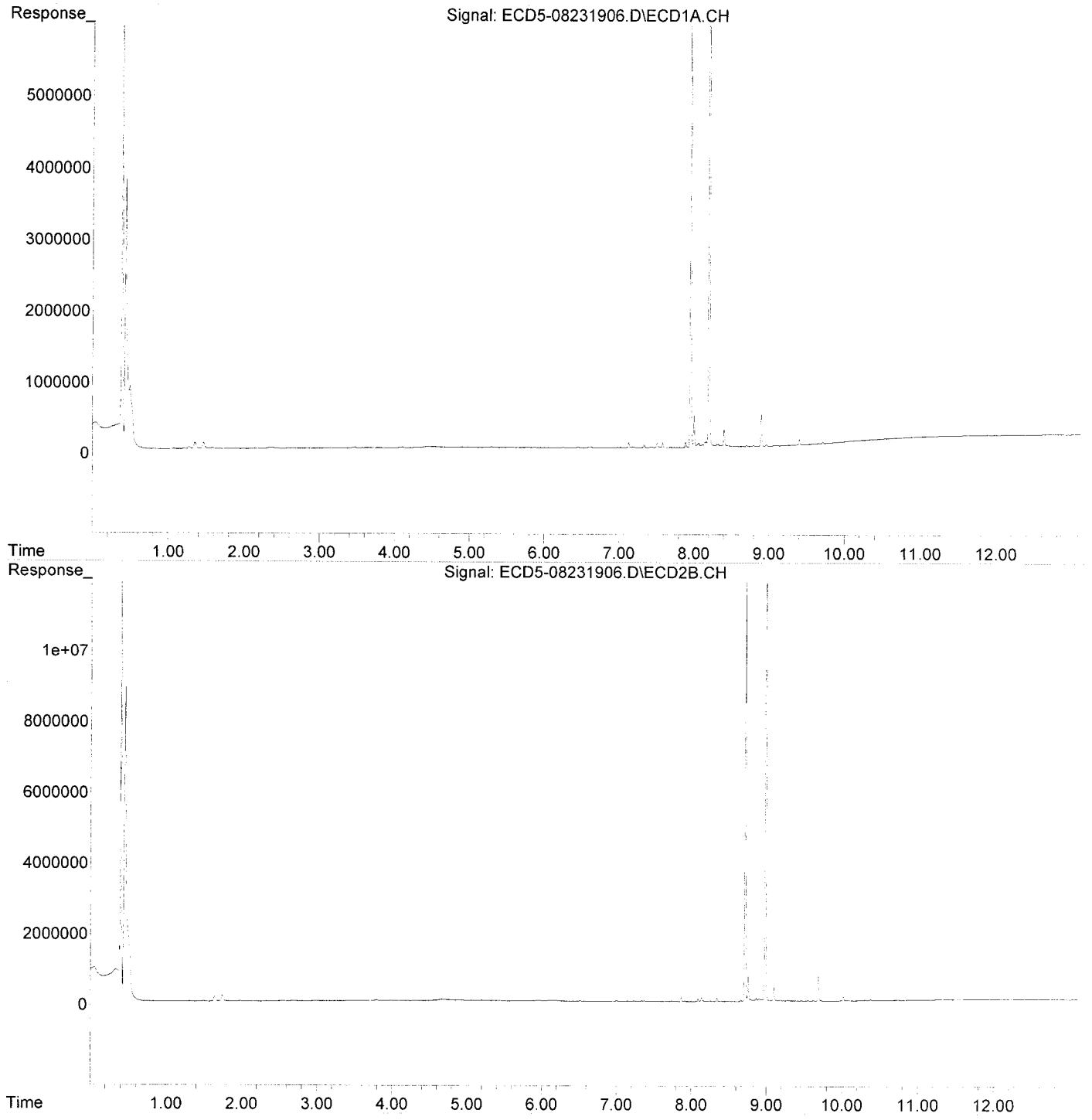
(f)=RT Delta > 1/2 Window (m)=manual int.

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

MJT 8/26/19

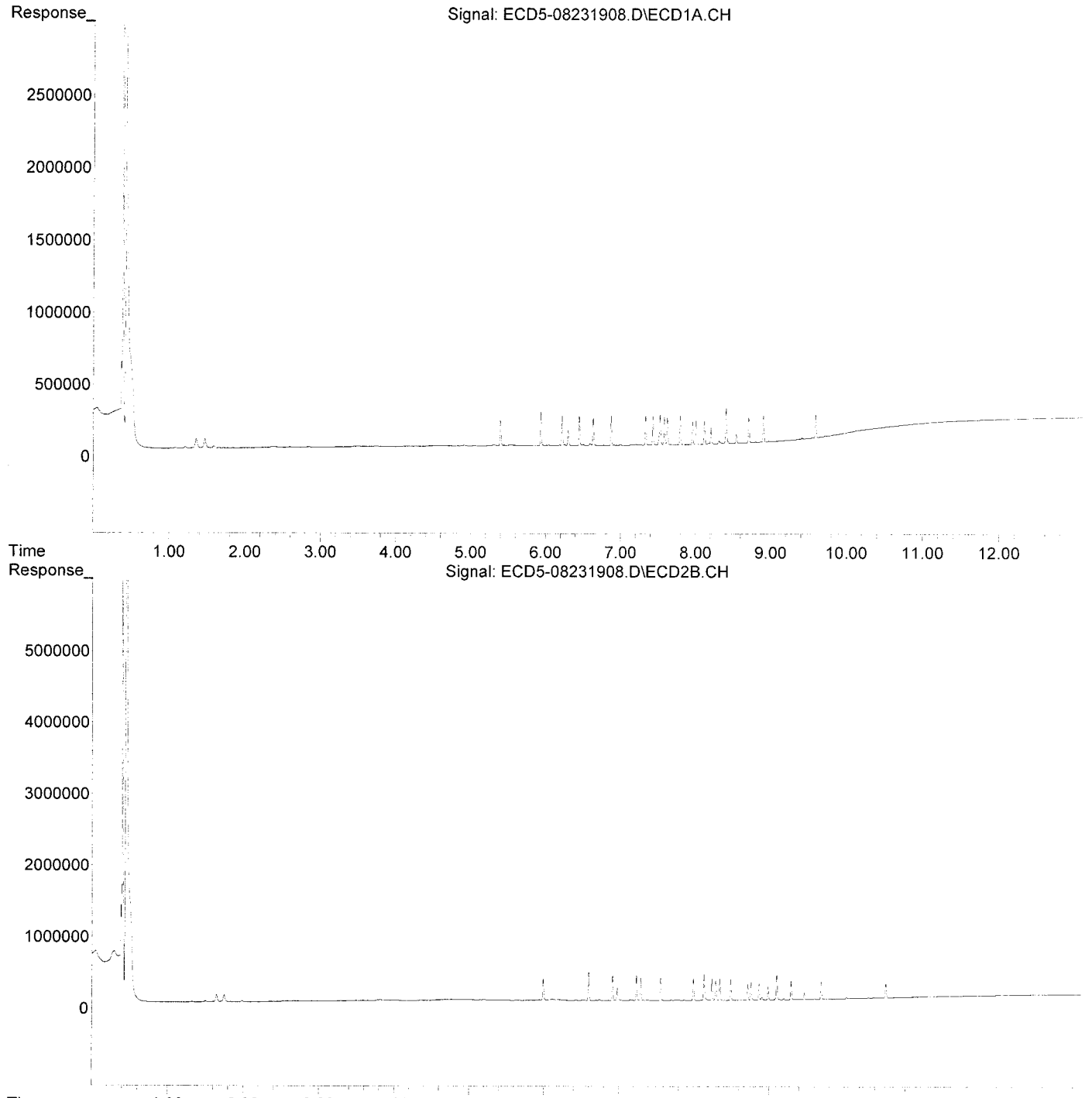
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.397	5.991	176748	300053	1.633	1.607
22)	S	DCBP (S)	9.593	10.541	163865	191572	1.202	1.206
		Target Compounds						
2)		a-BHC	5.937	6.597	231994	393119	1.665	1.296
3)		g-BHC	6.221	6.915	207427	352286	1.380	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

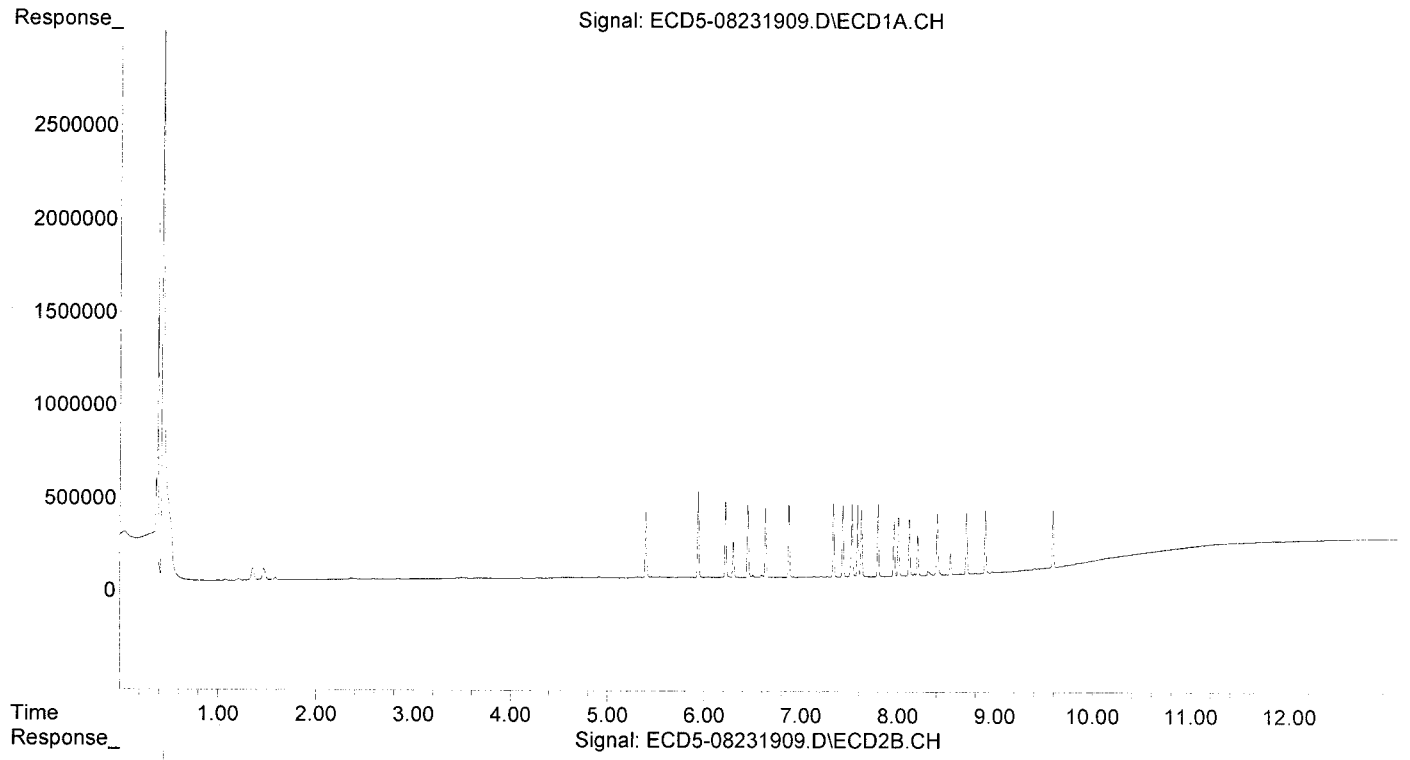
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	349972	600766	3.233	3.230
22)	S	DCBP (S)	9.593	10.542	309904	390006	2.547	2.456
		Target Compounds						
2)		a-BHC	5.936	6.597	458365	784586	3.177	2.540
3)		g-BHC	6.220	6.915	406027	690922	2.702	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

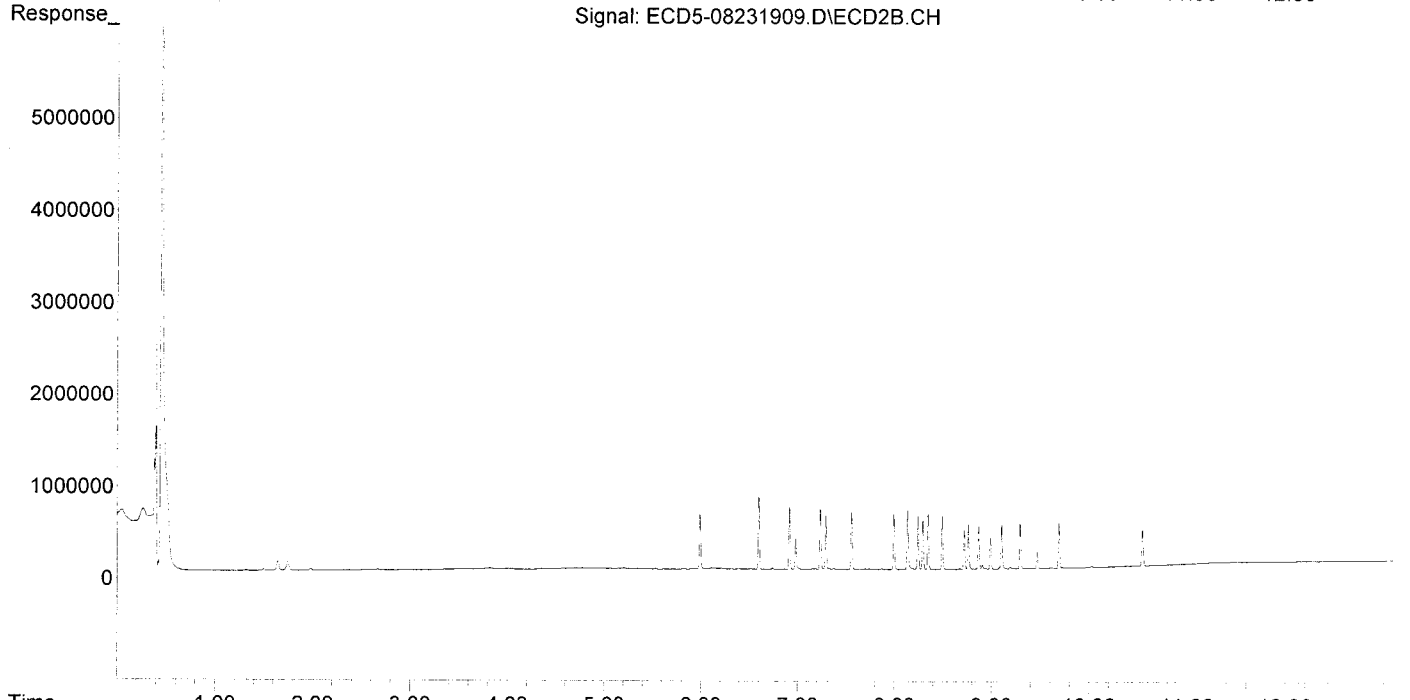
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

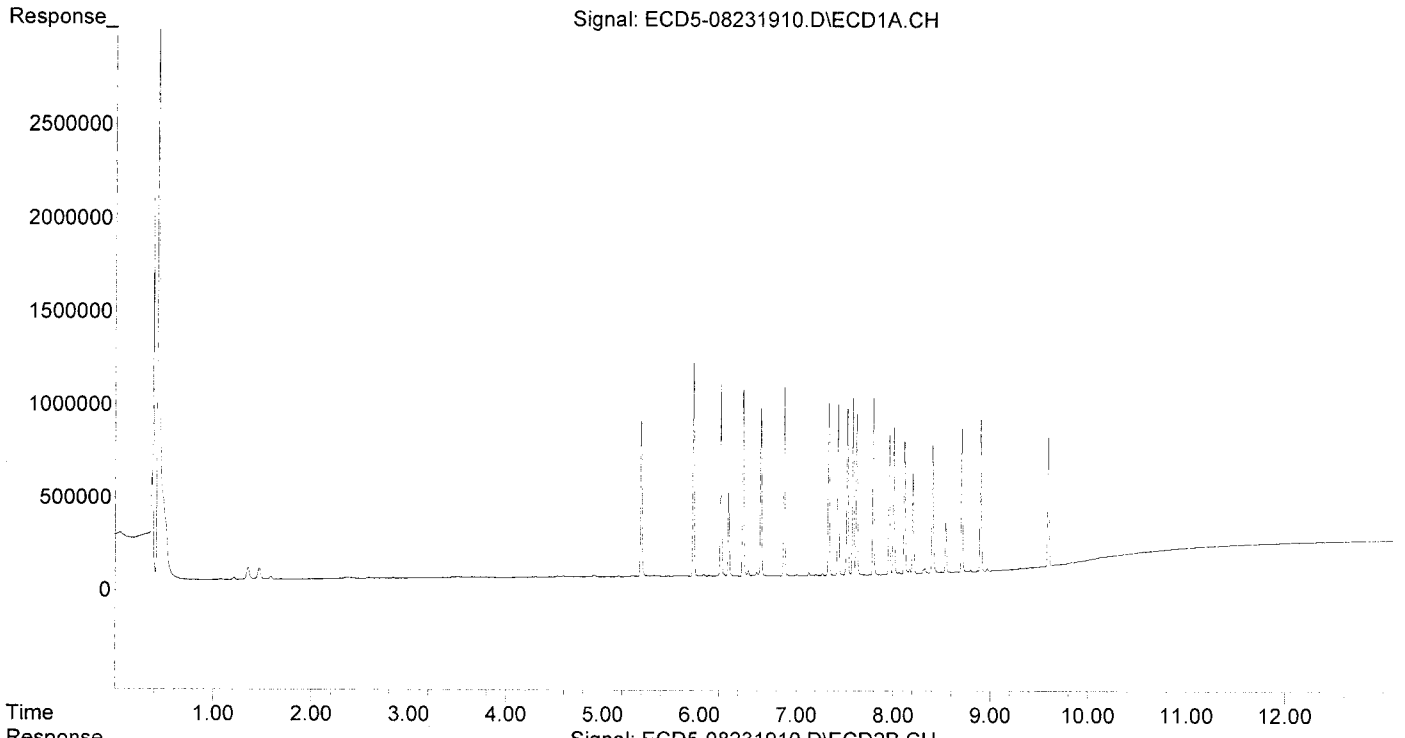
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	834206	1437876	7.707	7.700
22)	S	DCBP (S)	9.594	10.542	701050	870921	6.146	5.485
		Target Compounds						
2)		a-BHC	5.937	6.597	1147932	1985438	7.742	6.328
3)		g-BHC	6.220	6.915	1020724	1742677	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

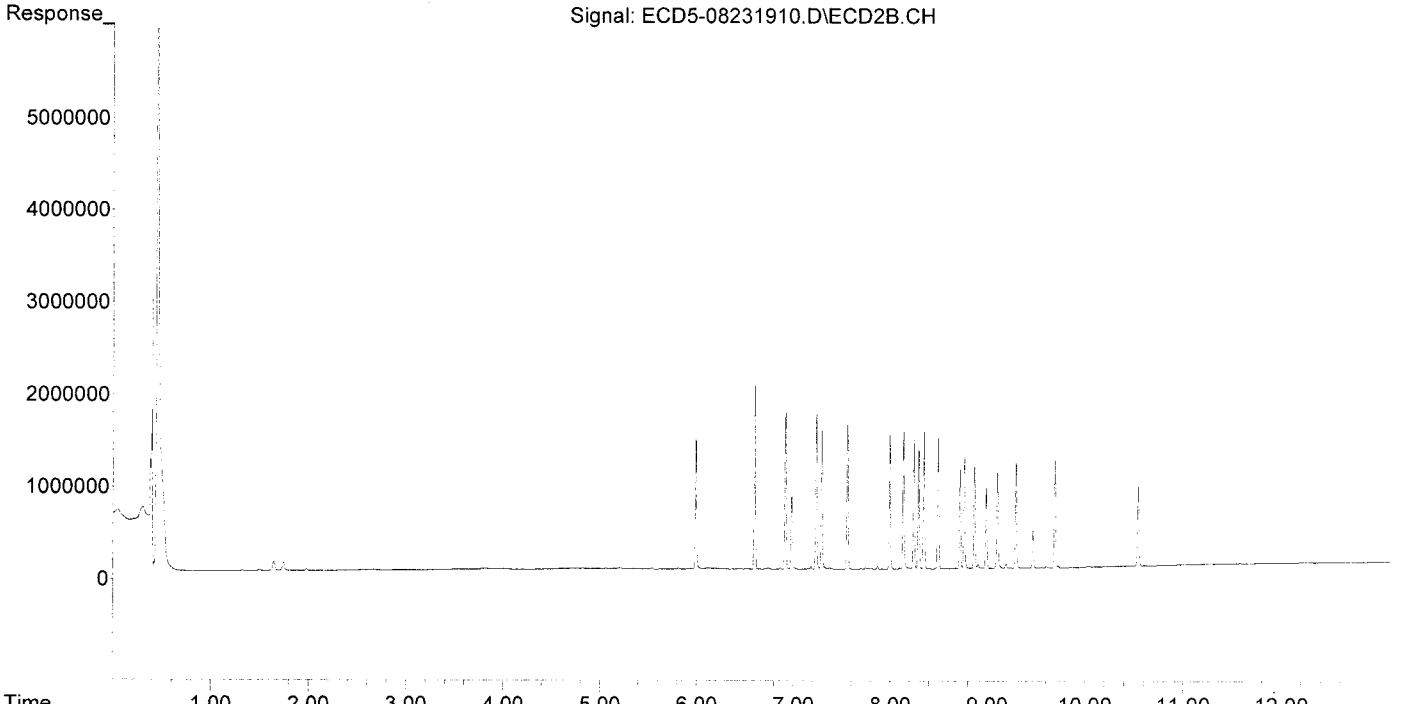
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

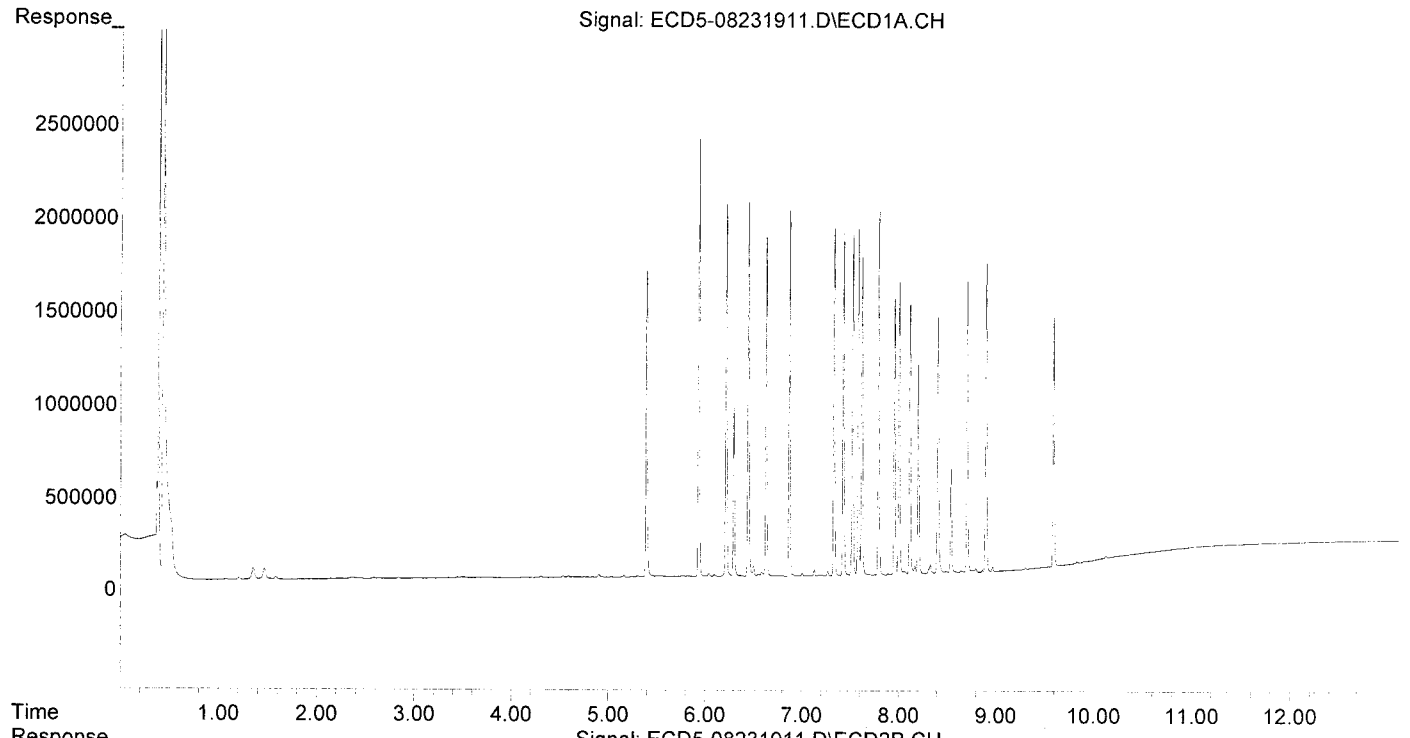
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	1644447	2865854	15.193	15.177
22)	S	DCBP (S)	9.593	10.541	1335468	1678728	11.976	10.572
		Target Compounds						
2)		a-BHC	5.936	6.597	2347065	4095890	15.530	12.883
3)		g-BHC	6.220	6.915	2034859	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

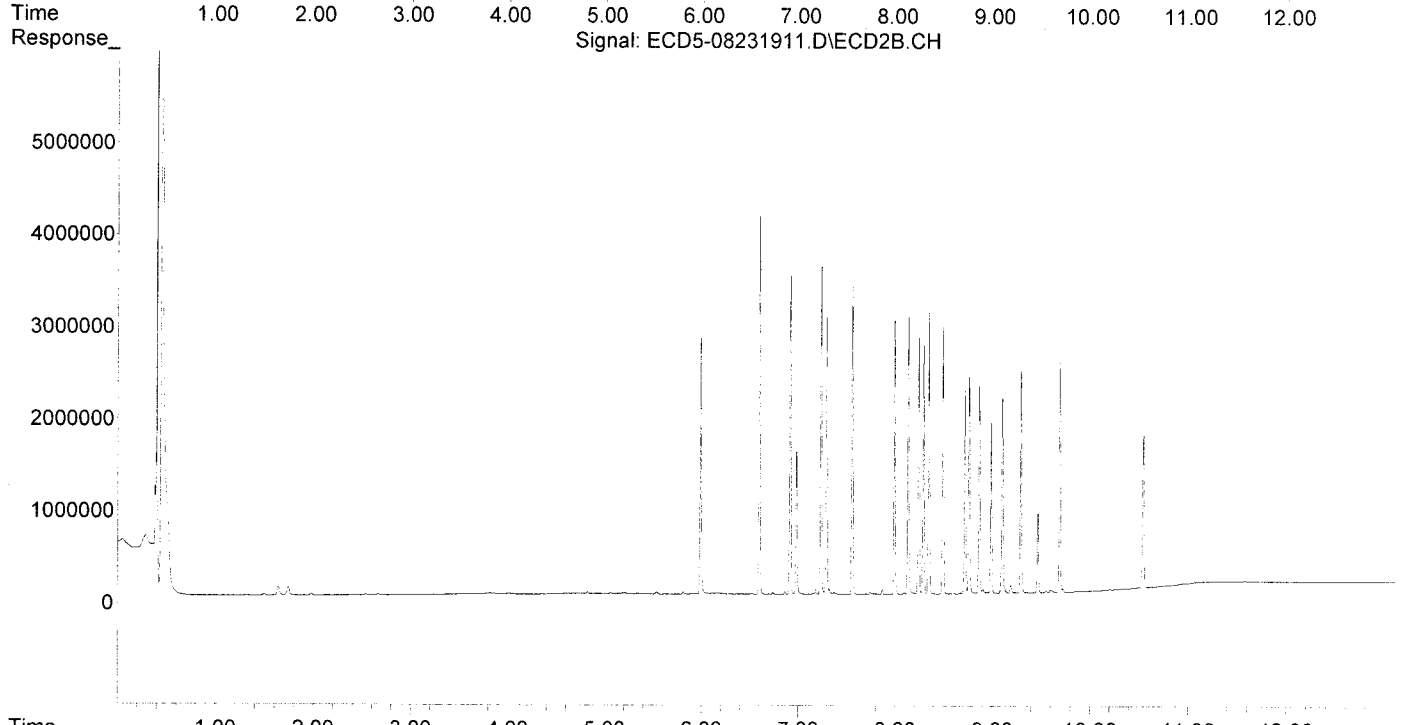
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

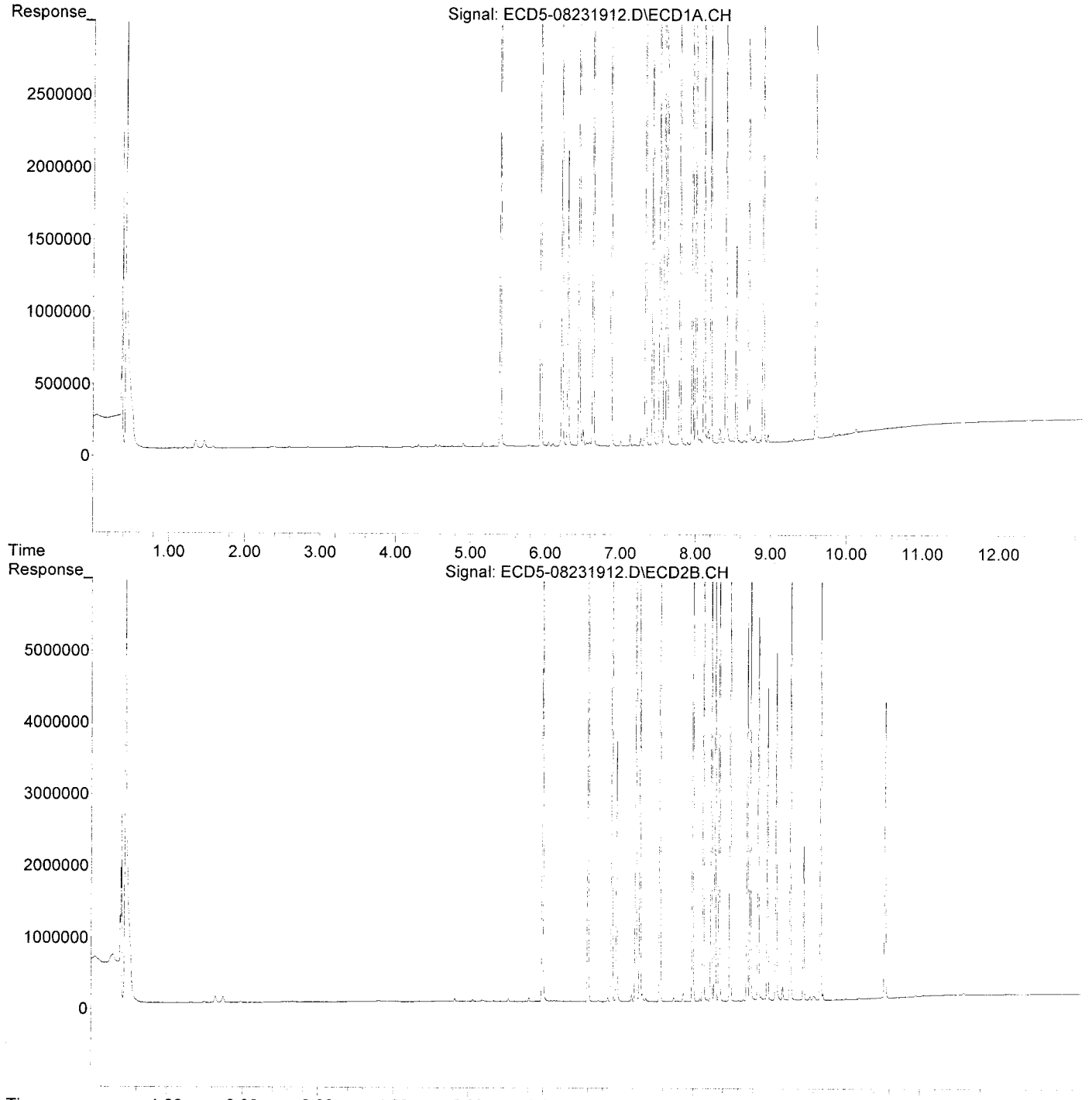
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.394	5.989	4015832	7072923	37.101	36.221
22)	S	DCBP (S)	9.592	10.539	3342634	4163229	30.365	26.219
		Target Compounds						
2)		a-BHC	5.935	6.596	5553096	9910863	35.515	30.324
3)		g-BHC	6.218	6.913	4875657	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

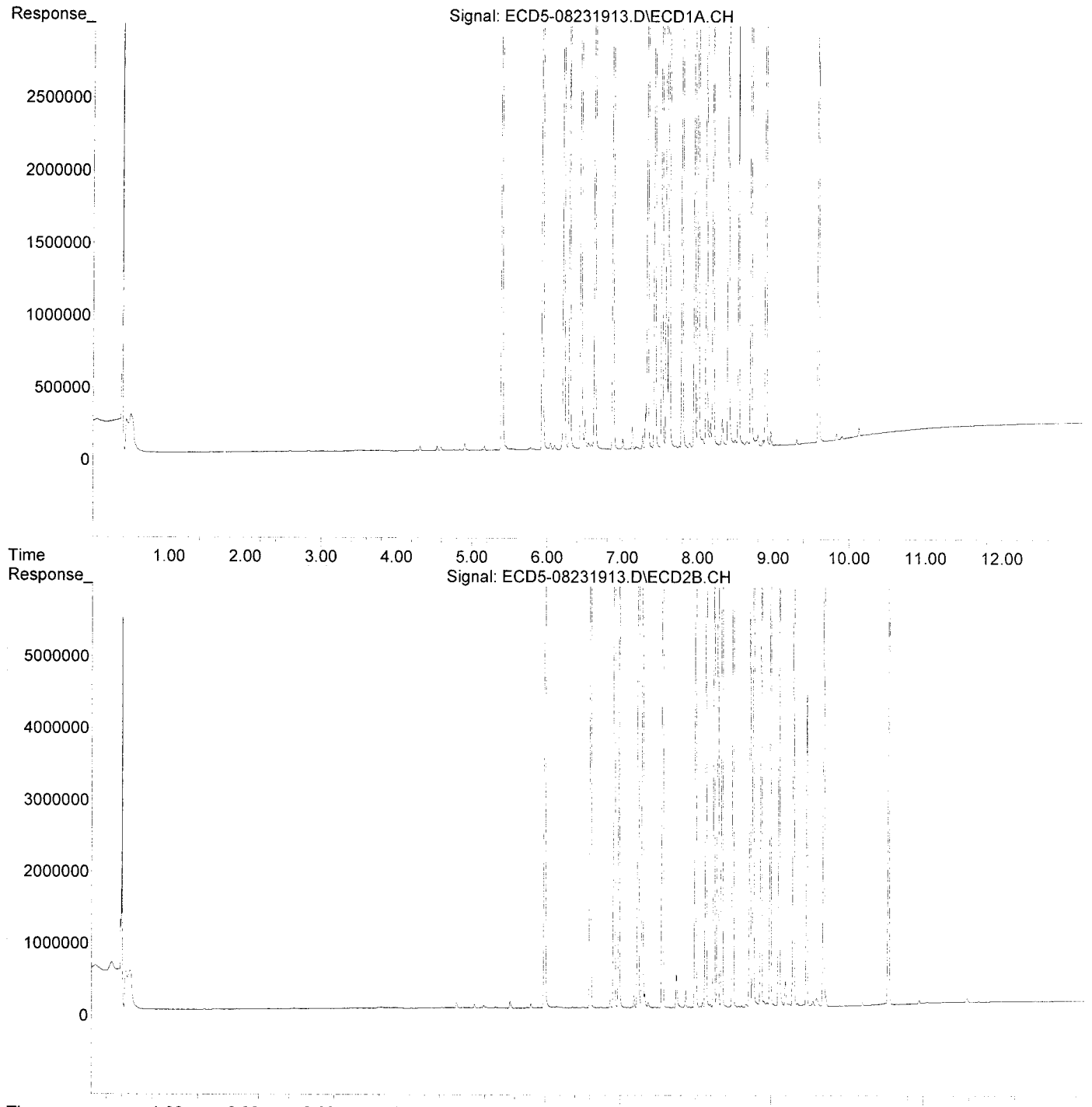
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.394	5.989	8071481	14196745	74.571	69.077
22) S	DCBP (S)	9.592	10.541	6678990	8730692	60.740	54.984
	Target Compounds						
2)	a-BHC	5.935	6.596	11369592	20265817	69.154	59.445
3)	g-BHC	6.218	6.914	9785999	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

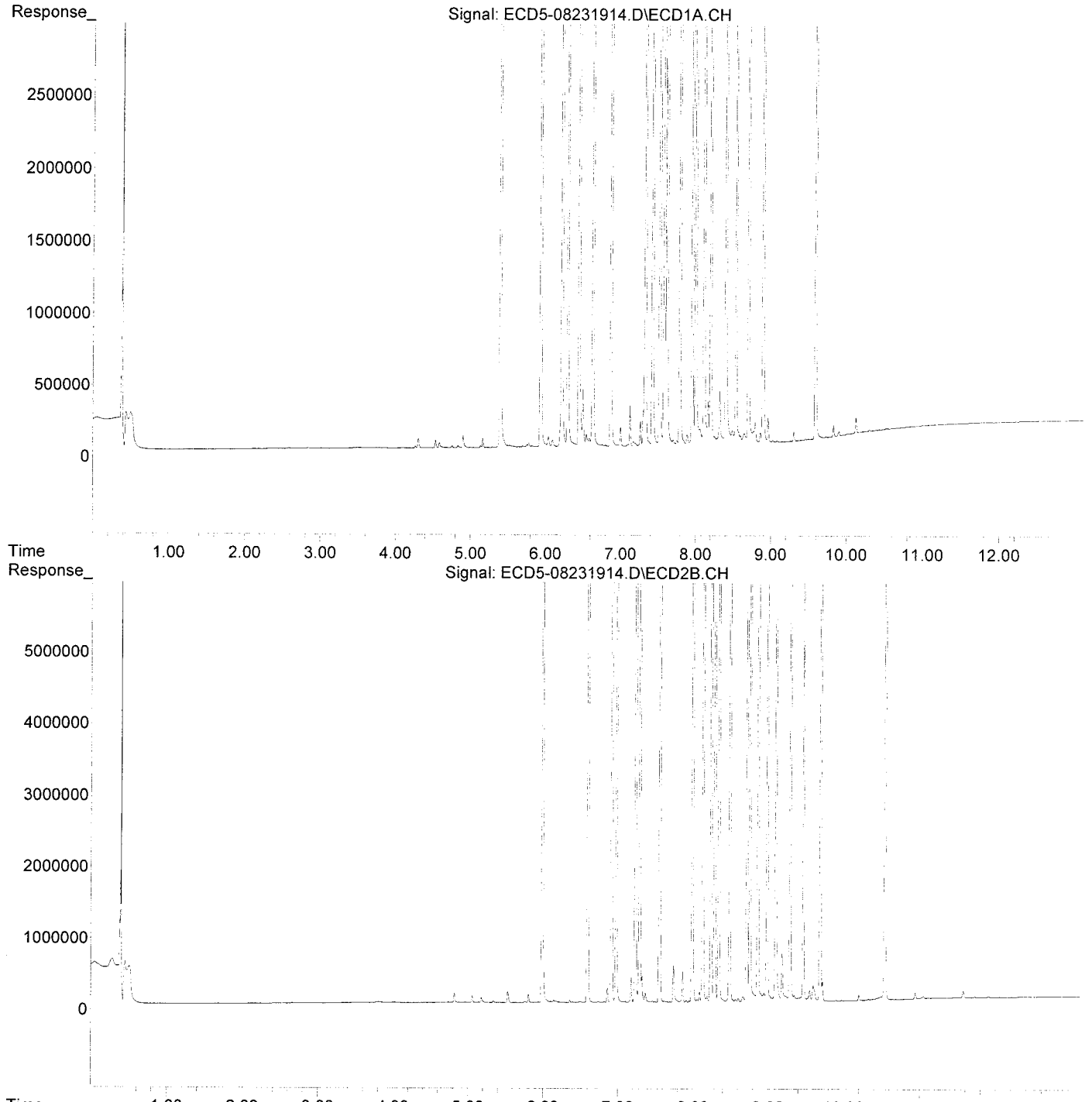
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.395	5.989	15850922	29256334	146.444	130.224
22)	S	DCBP (S)	9.592	10.540	13405396	17784069	121.277	111.999
		Target Compounds						
2)		a-BHC	5.935	6.596	22363584	41699210	125.842	113.668
3)		g-BHC	6.218	6.914	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

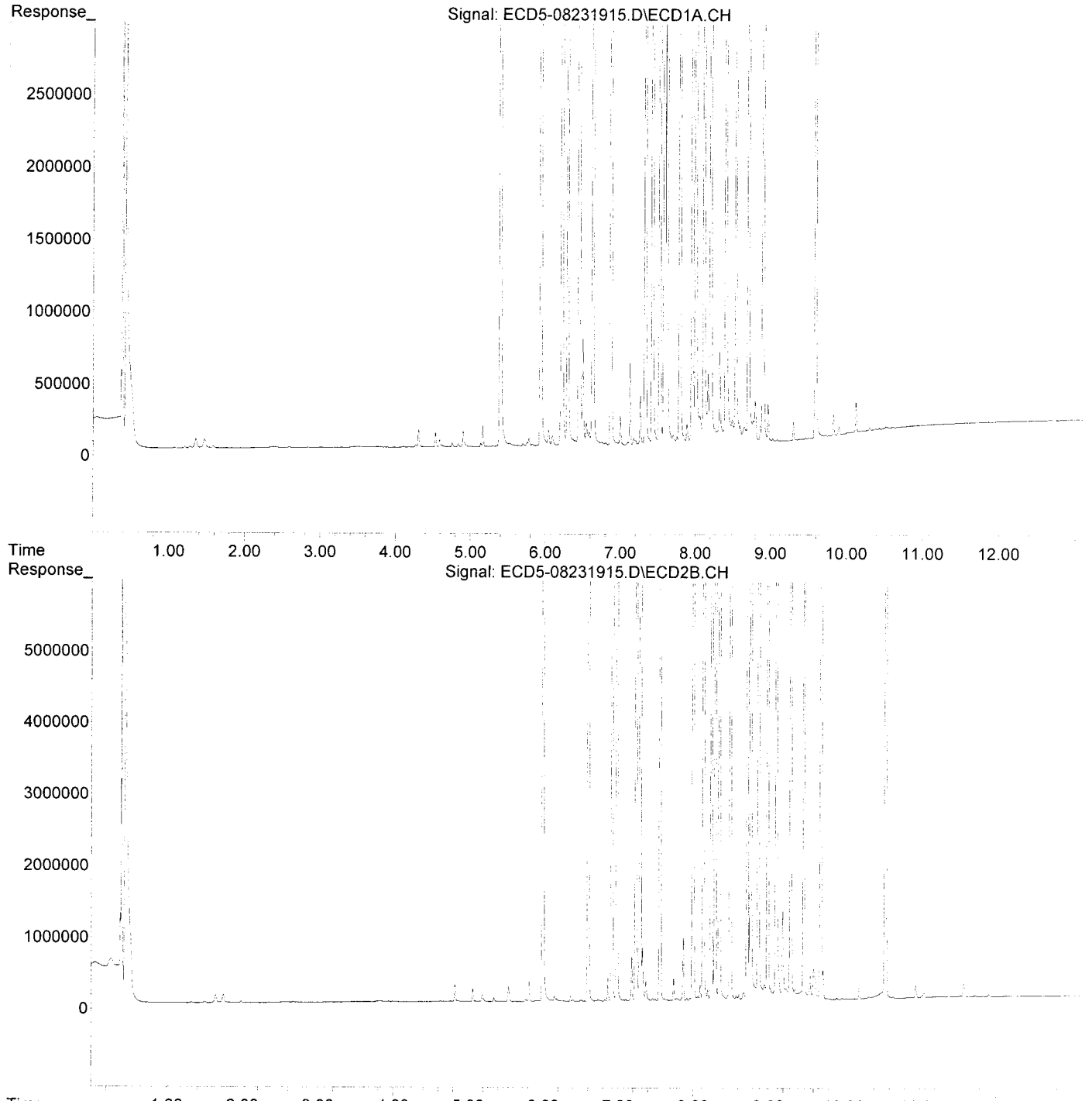
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.394	5.990	32842535	62584449	303.426	241.228
22)	S	DCBP (S)	9.591	10.539	26975231	38097779	240.687	239.929
		Target Compounds						
2)		a-BHC	5.935	6.597	47202252	94376748	232.879	224.790
3)		g-BHC	6.218	6.914	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

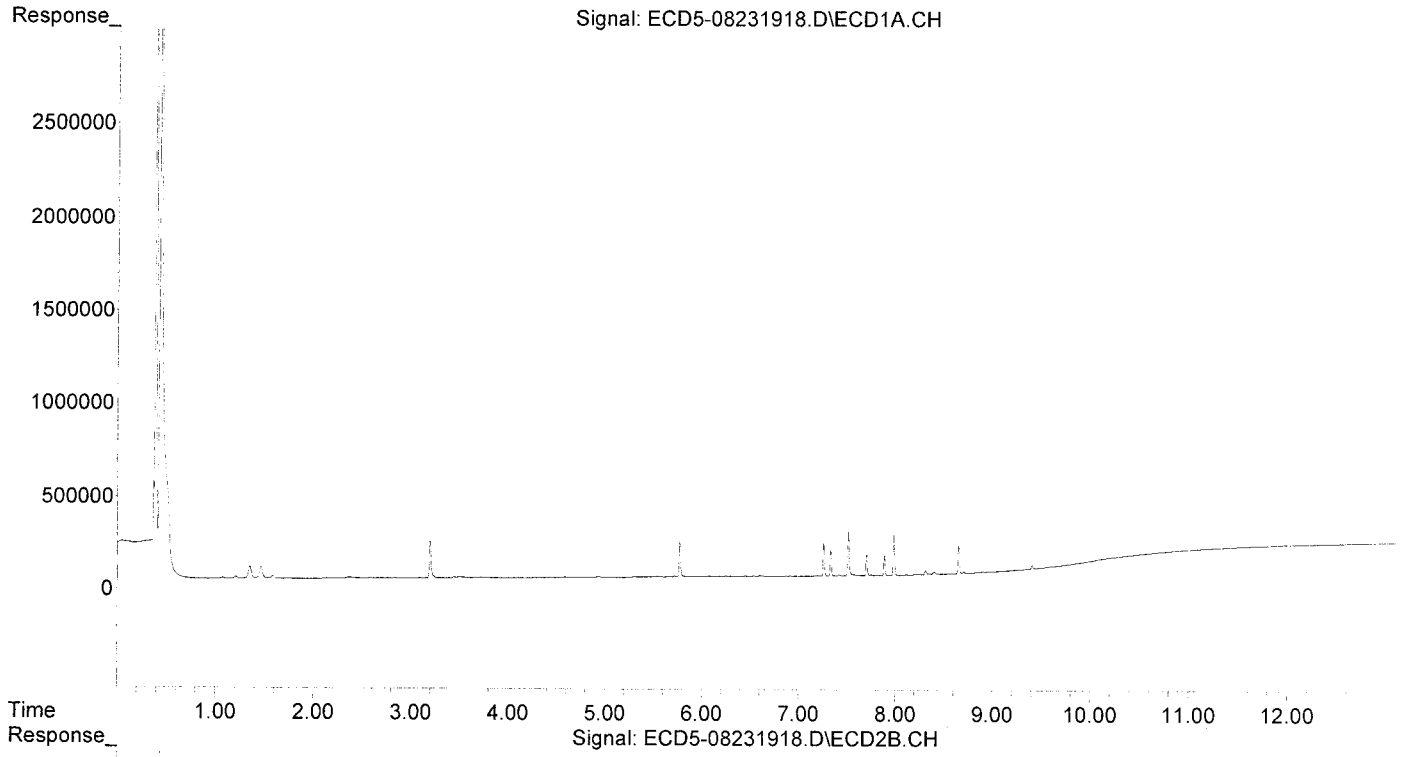
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

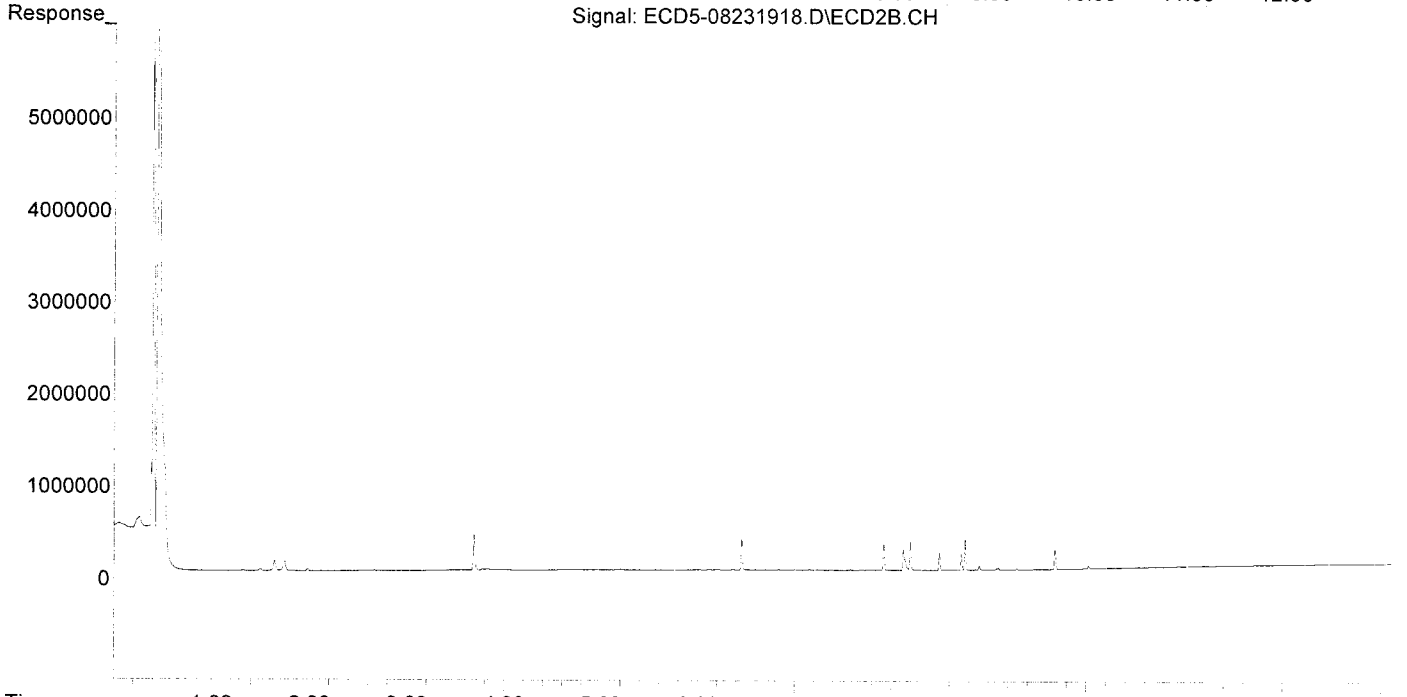
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

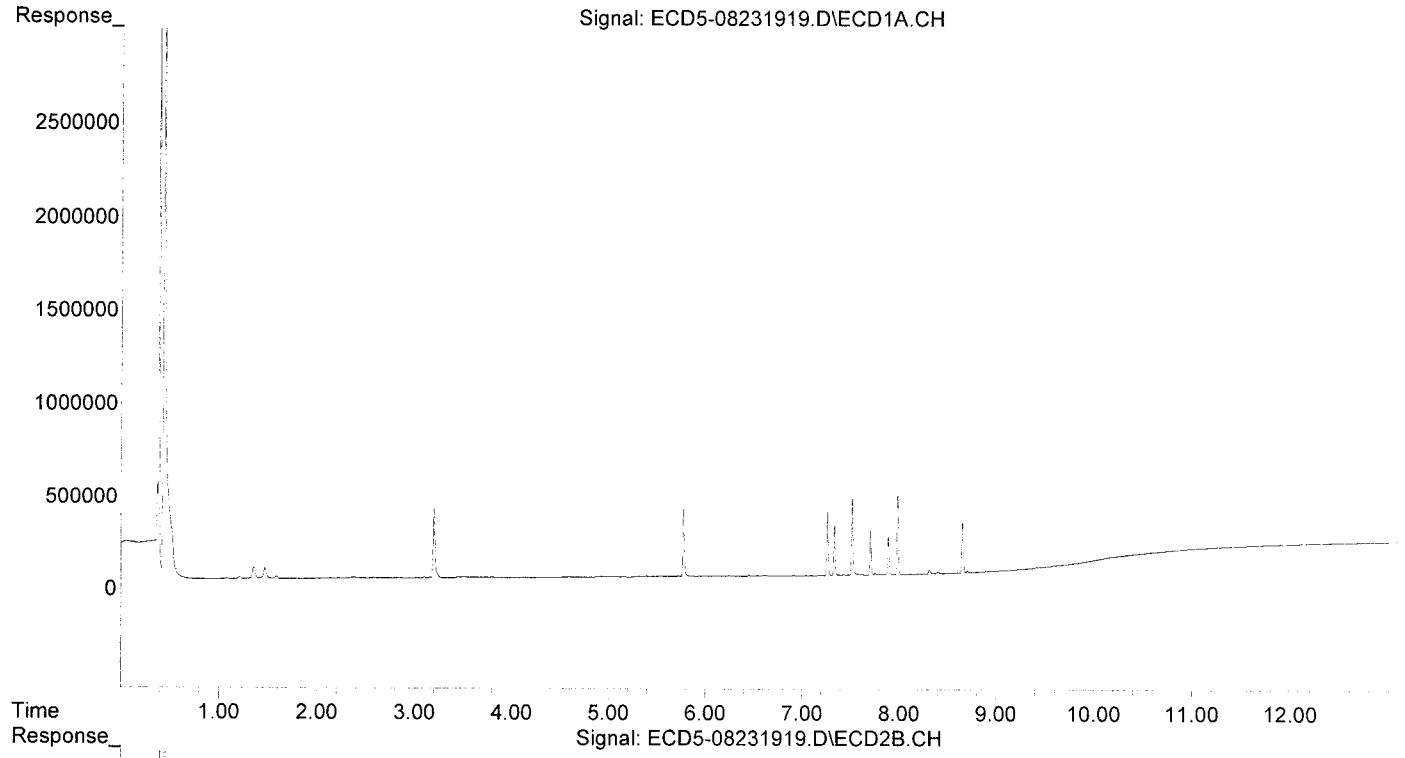
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

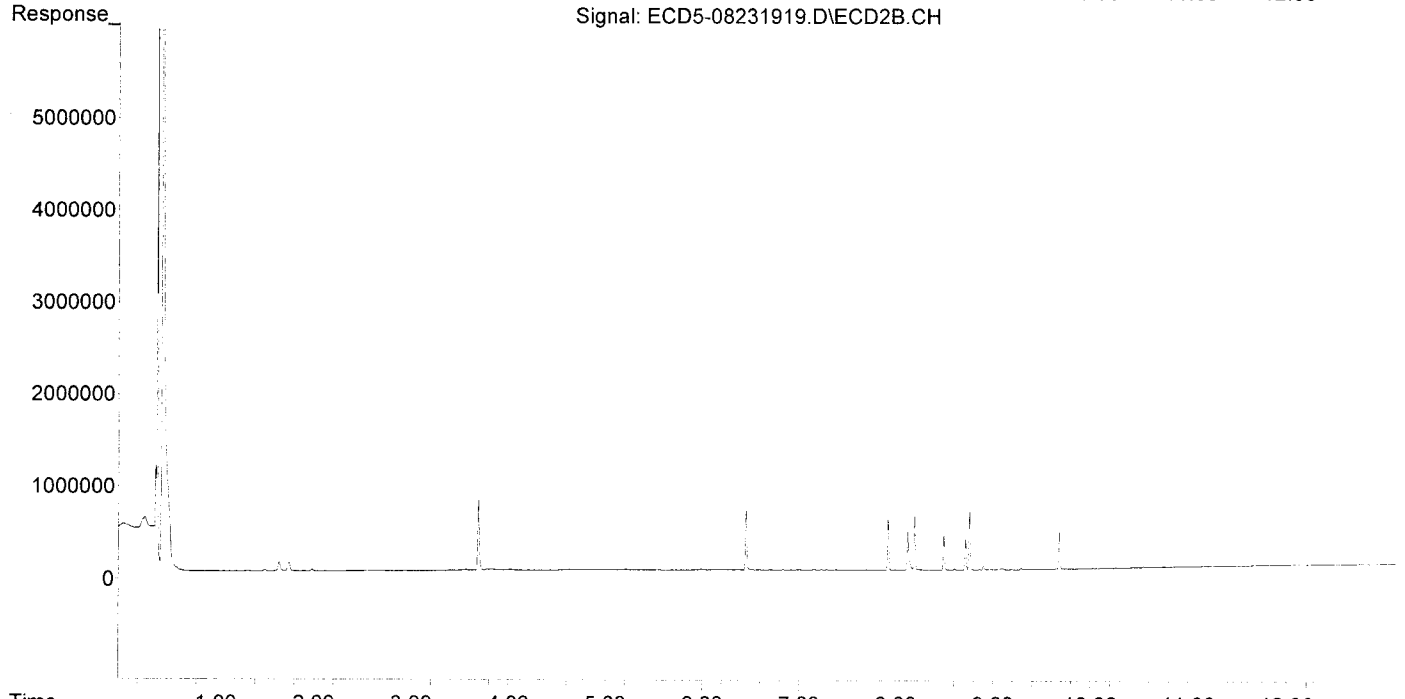
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

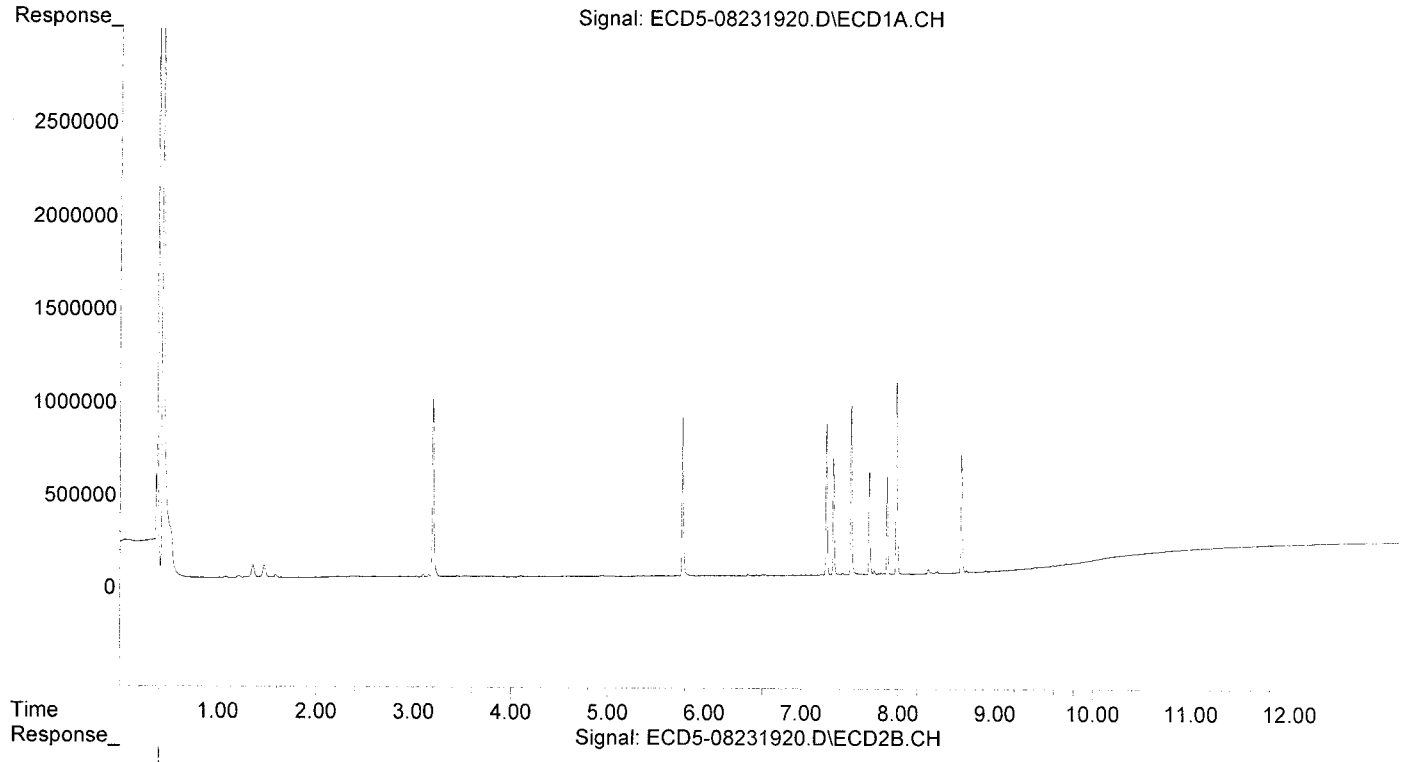
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

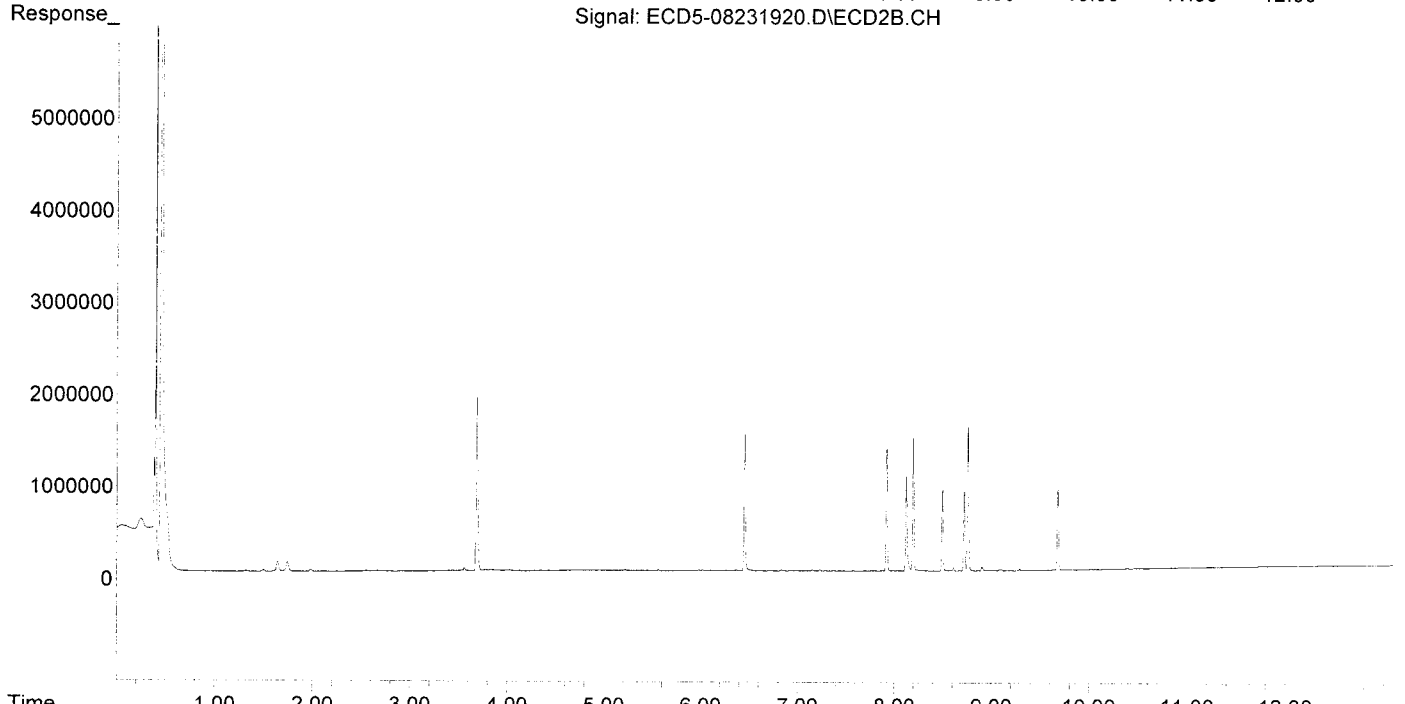
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

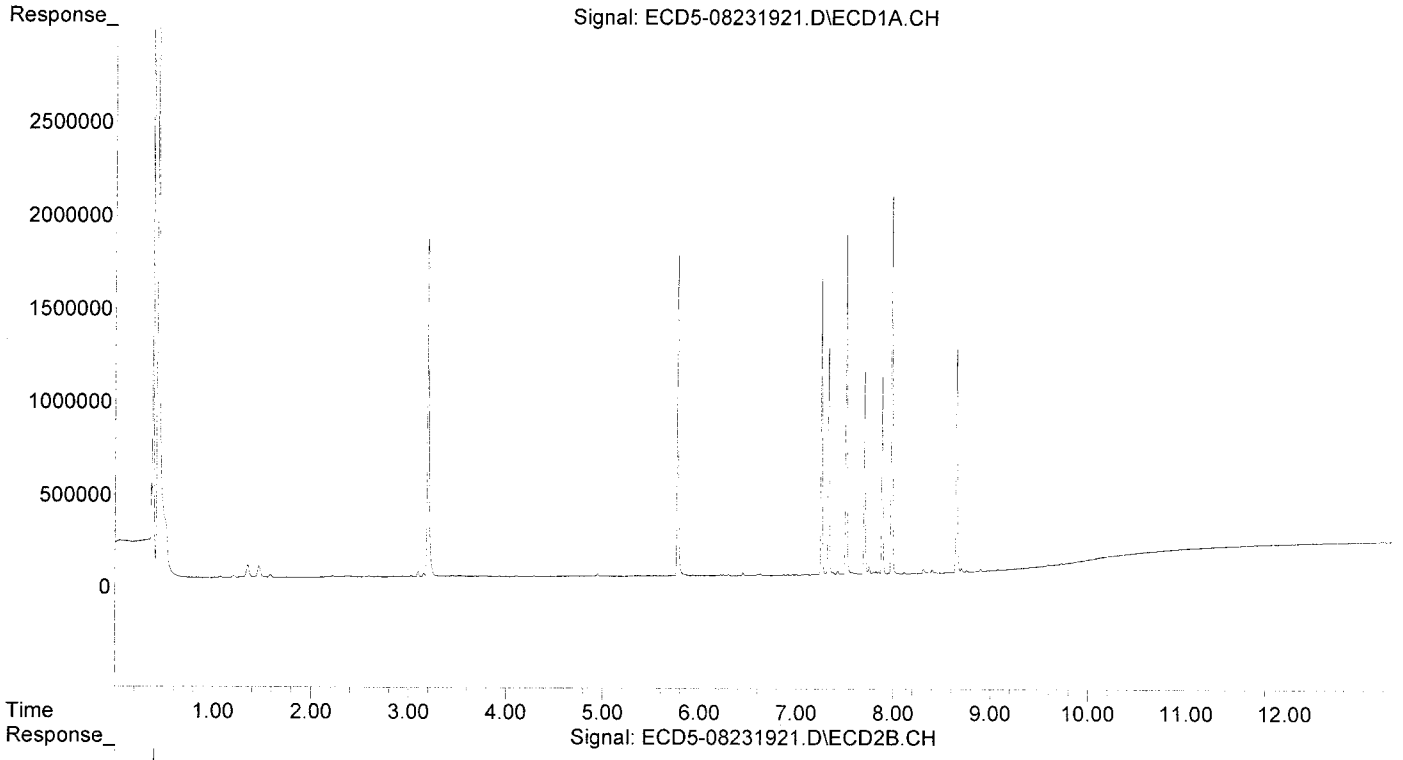
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

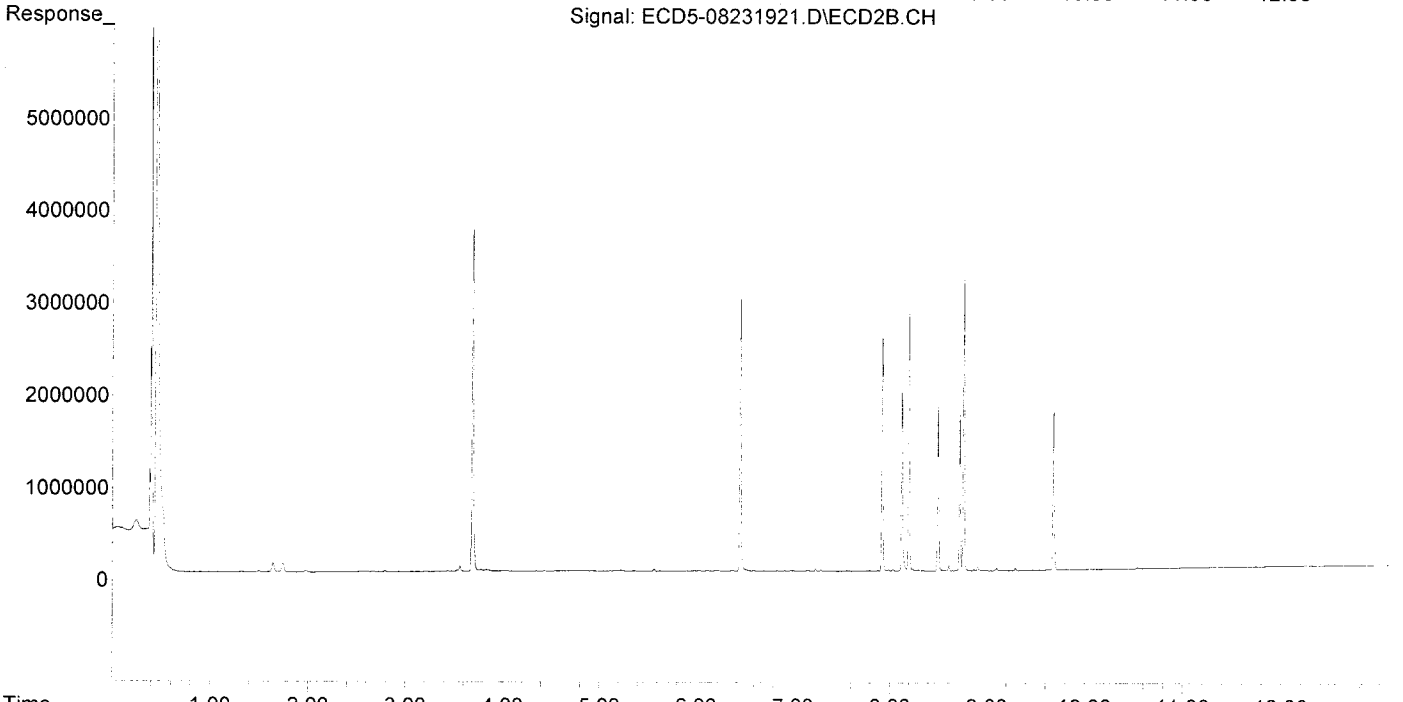
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

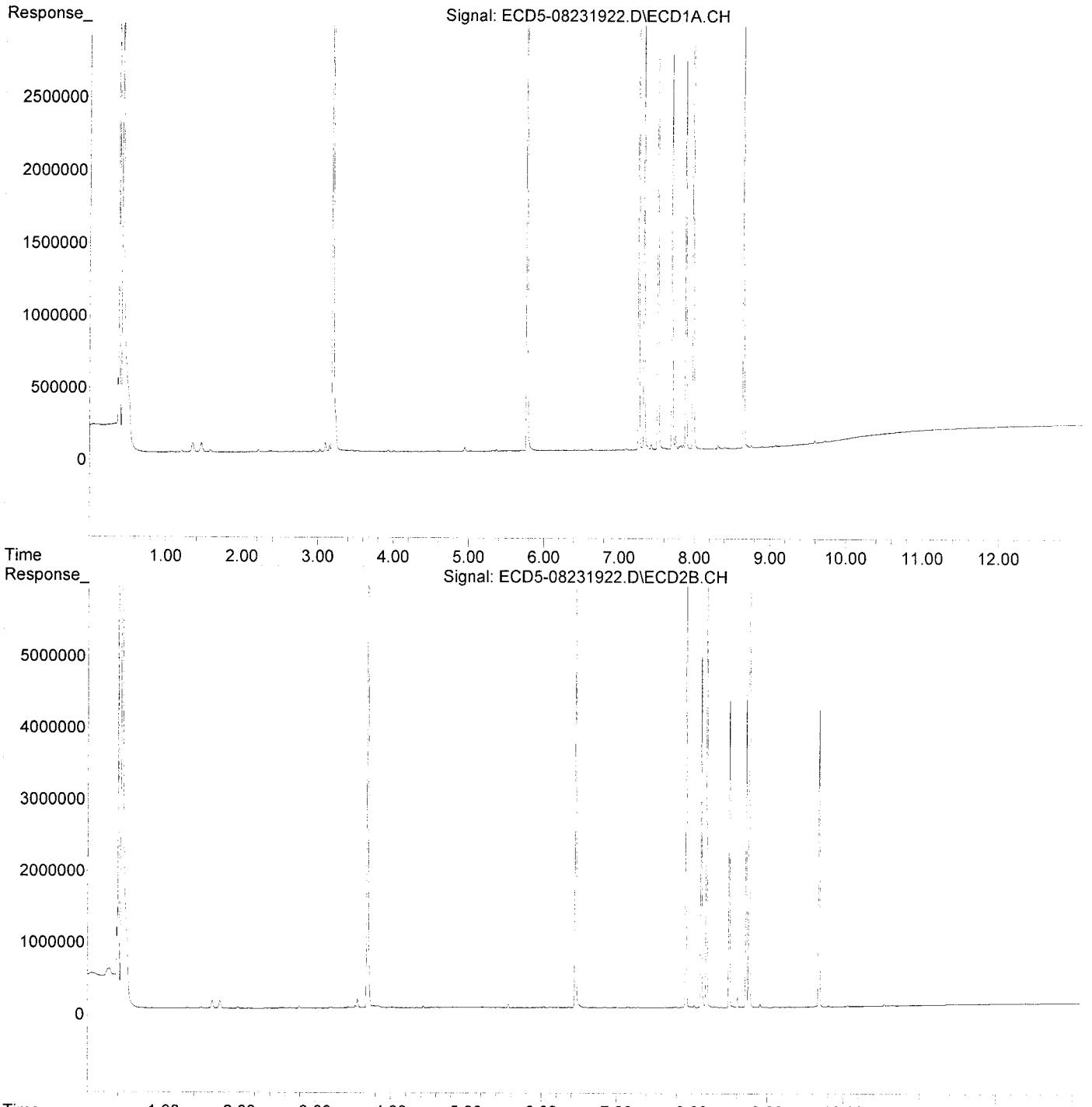
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

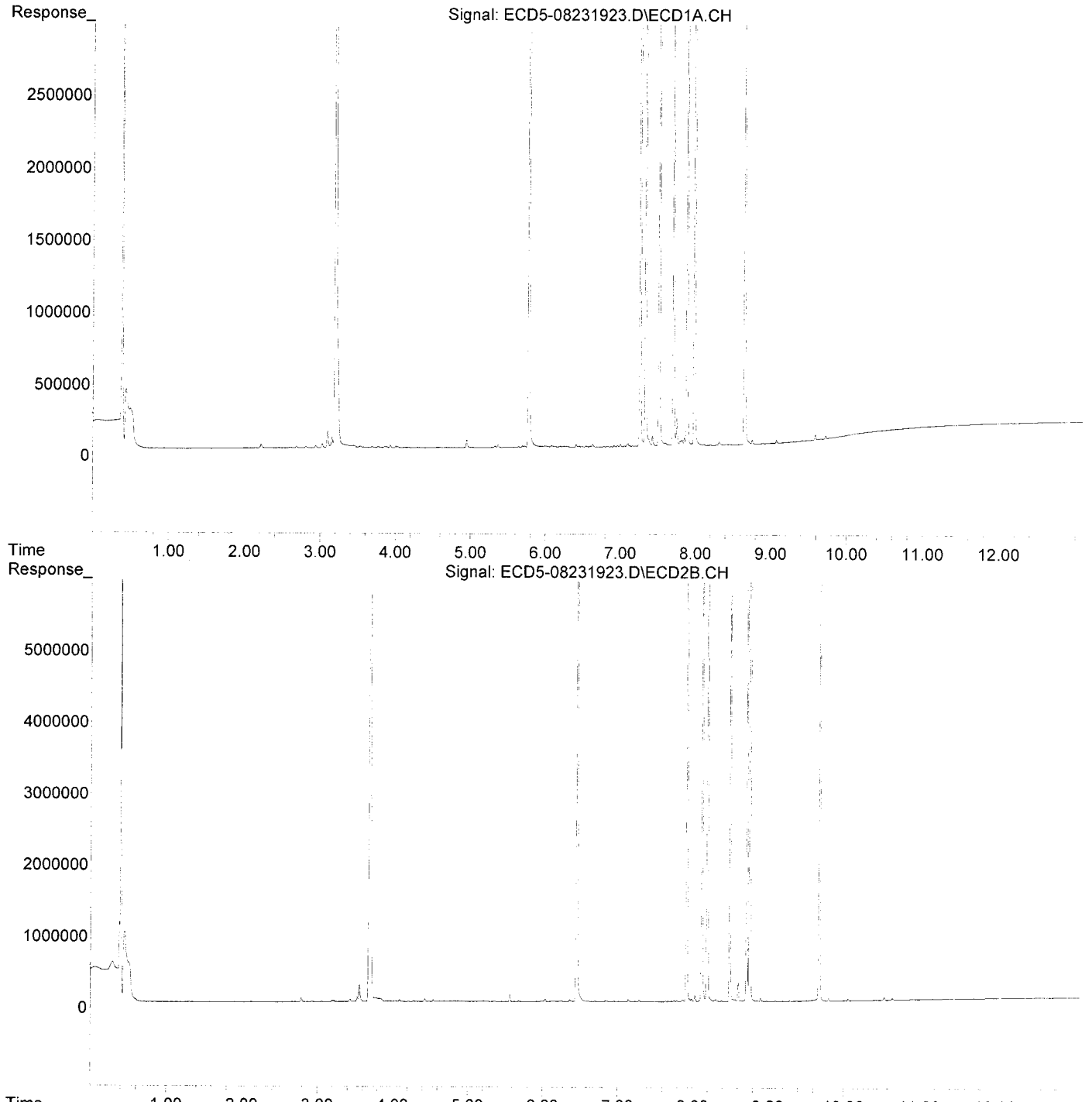
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

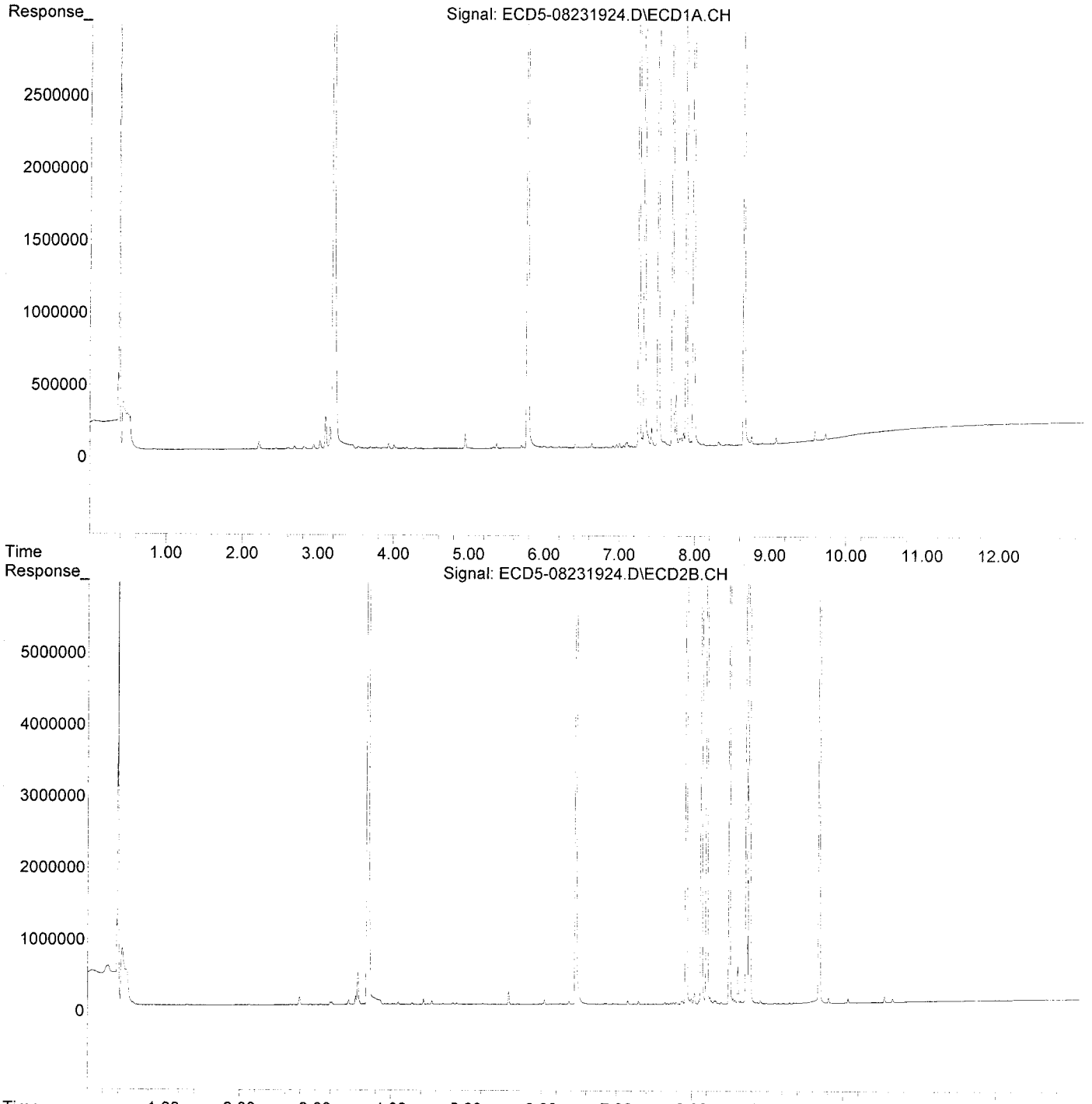
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	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

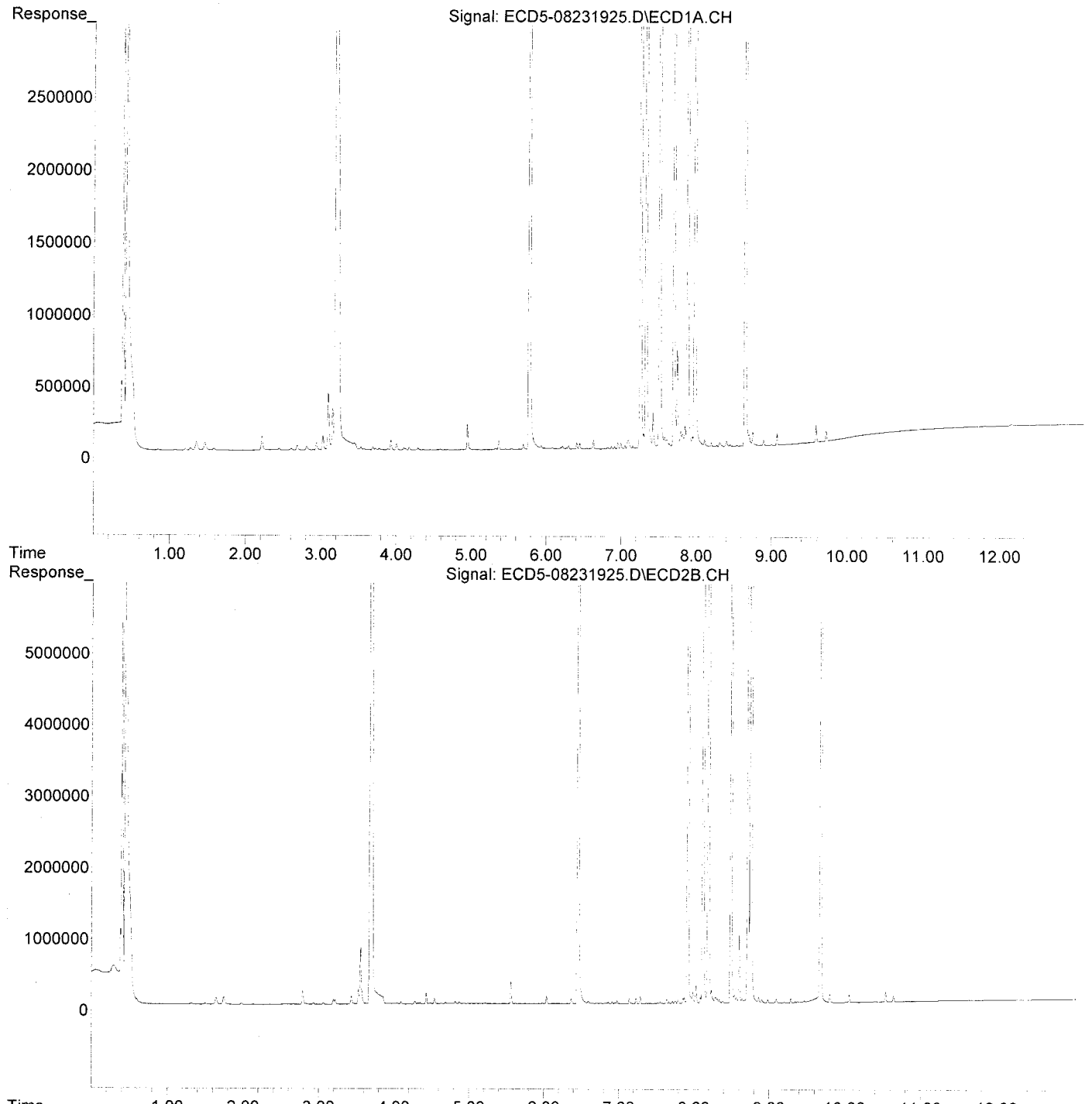
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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 12/26/19

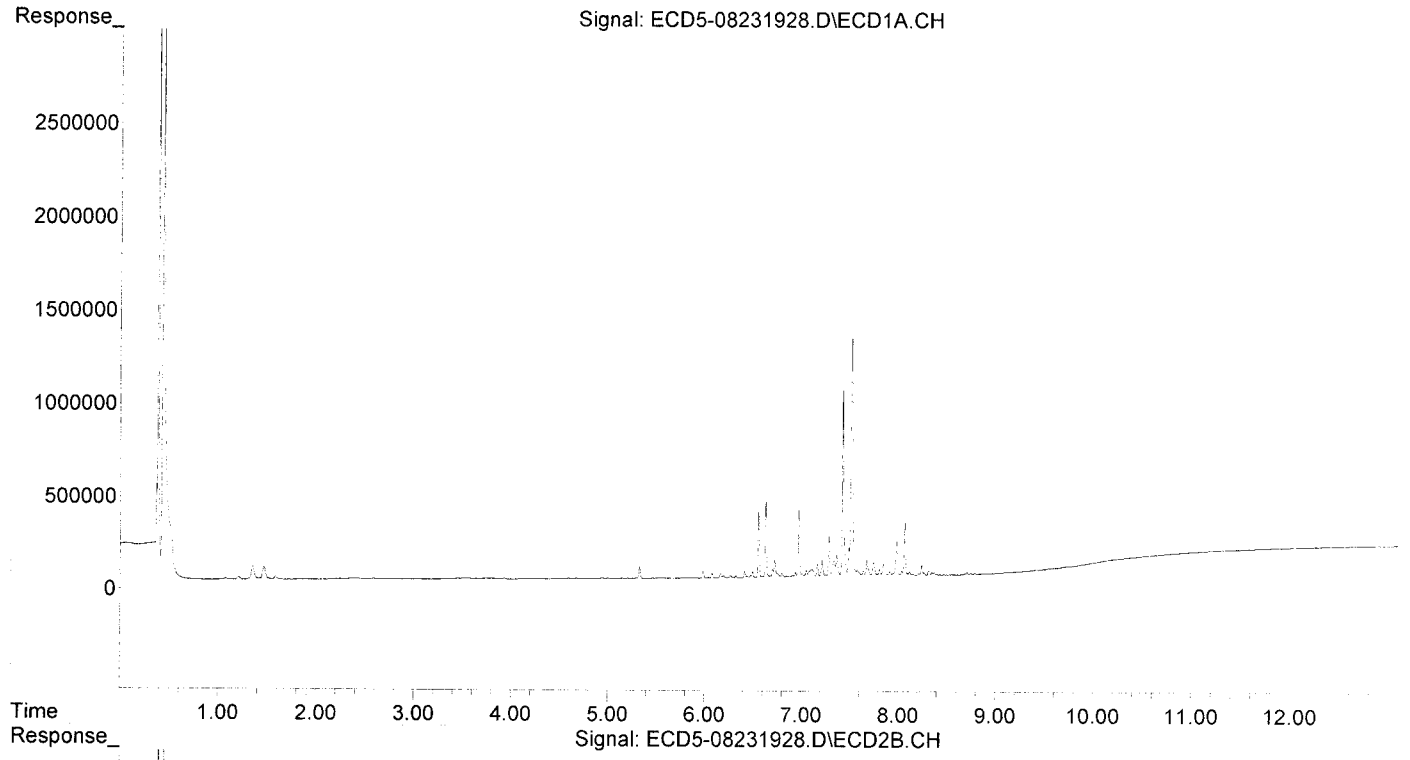
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

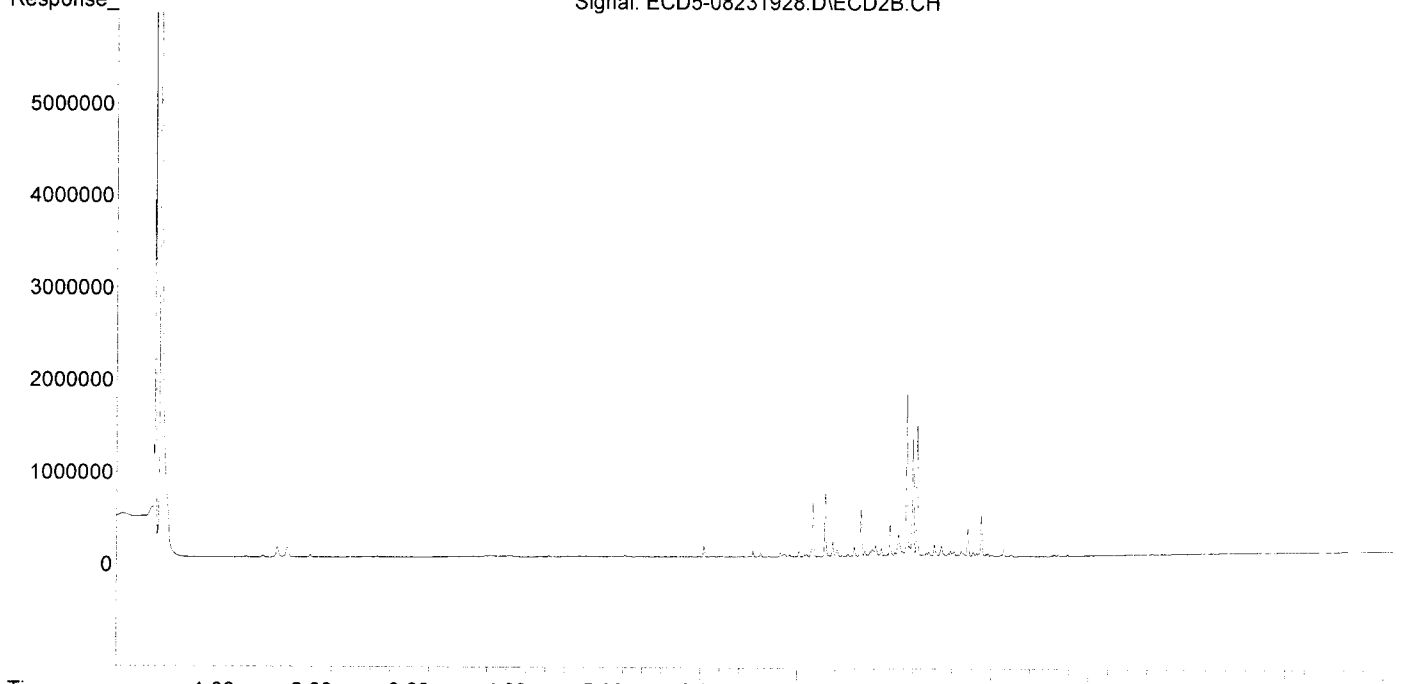
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

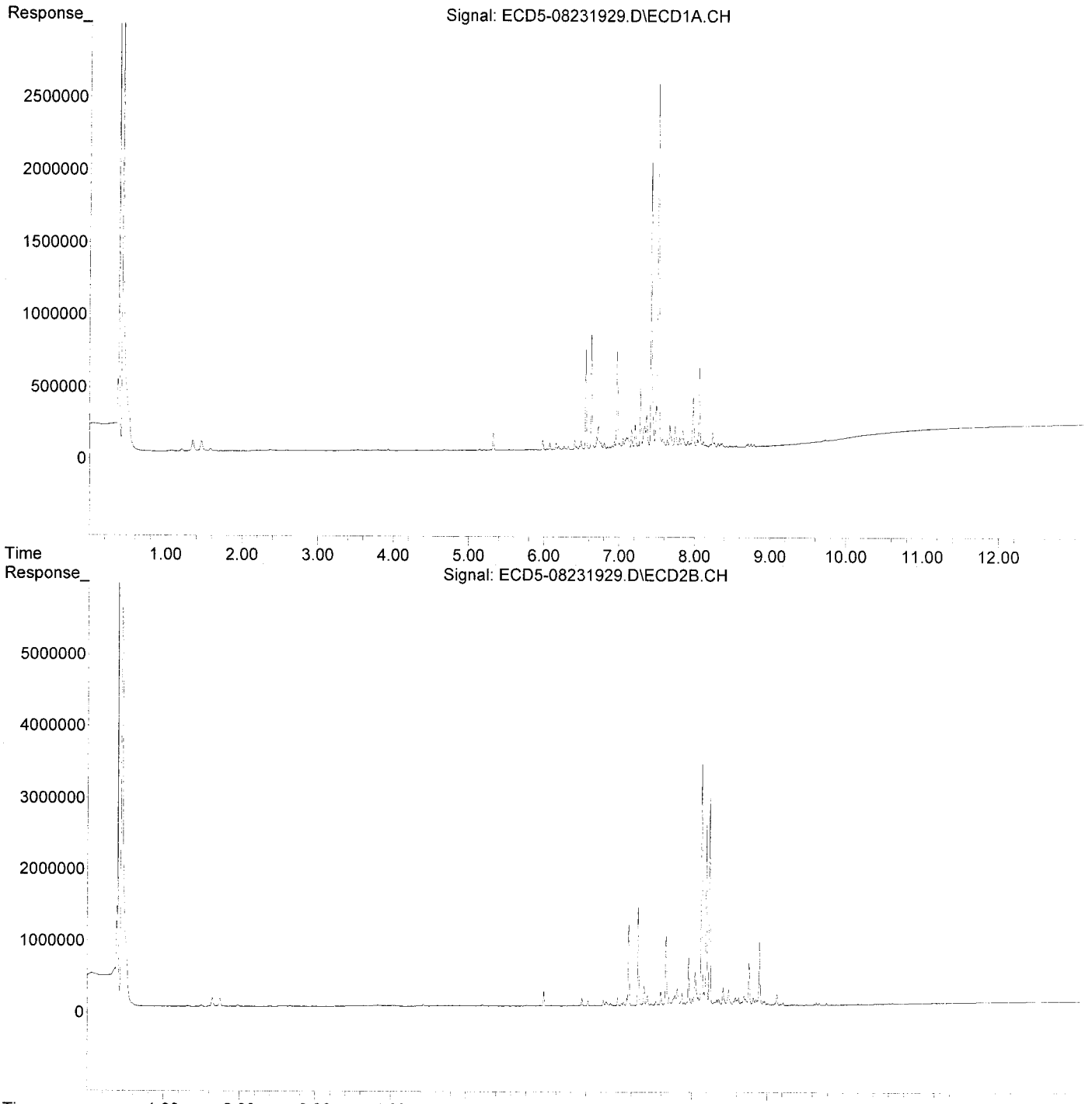
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

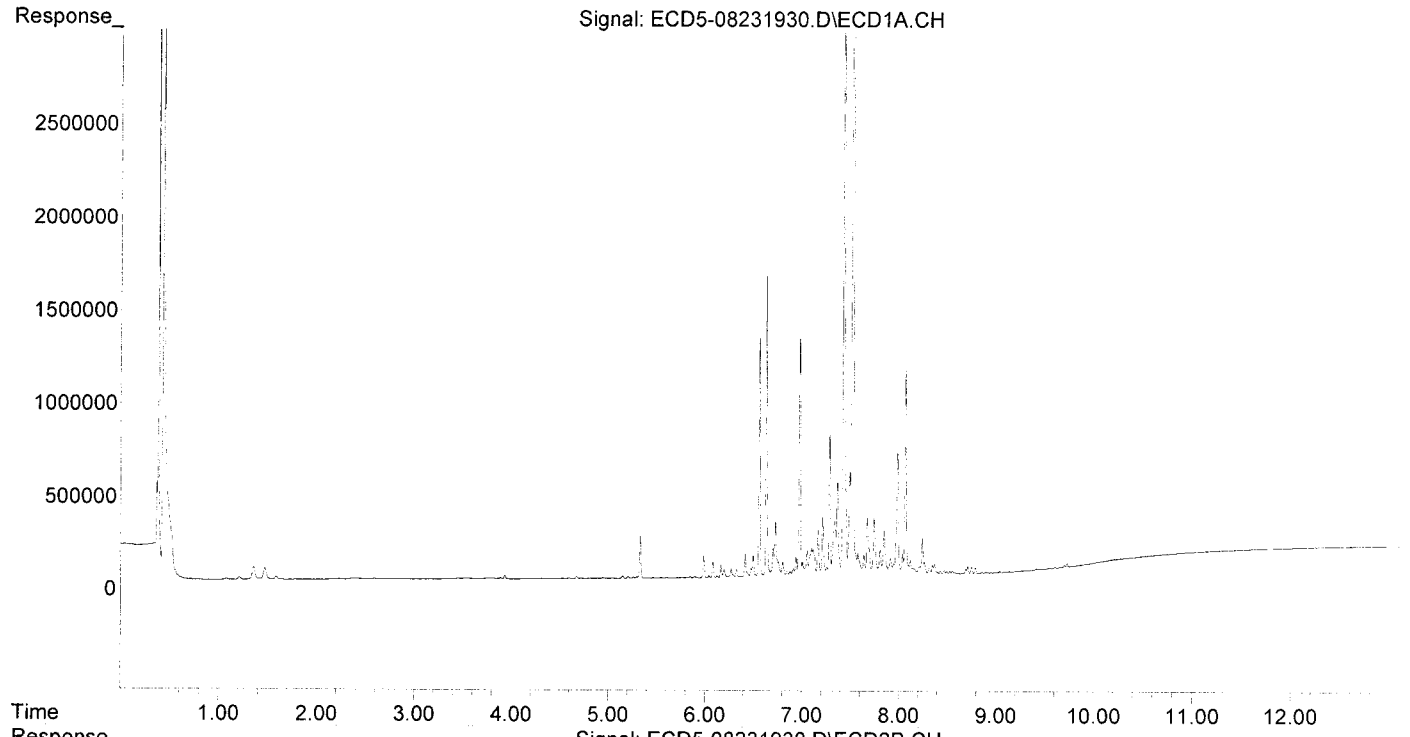
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

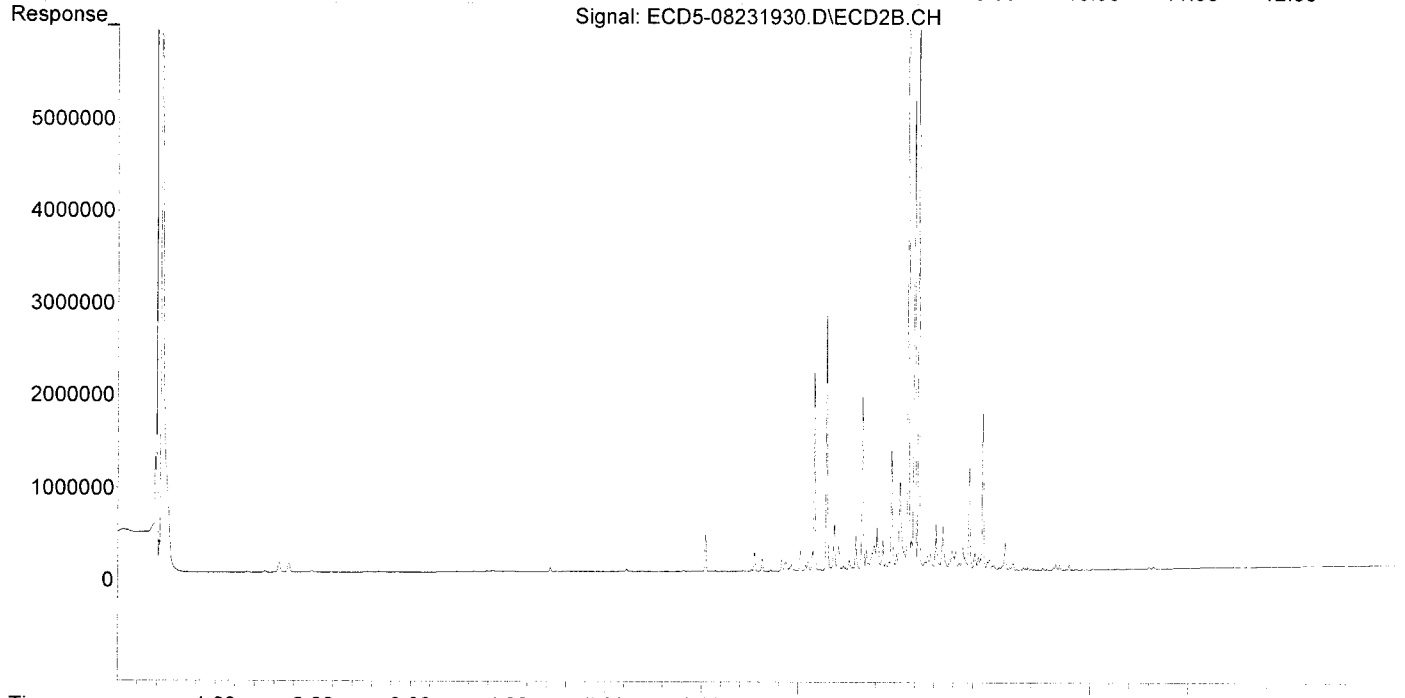
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

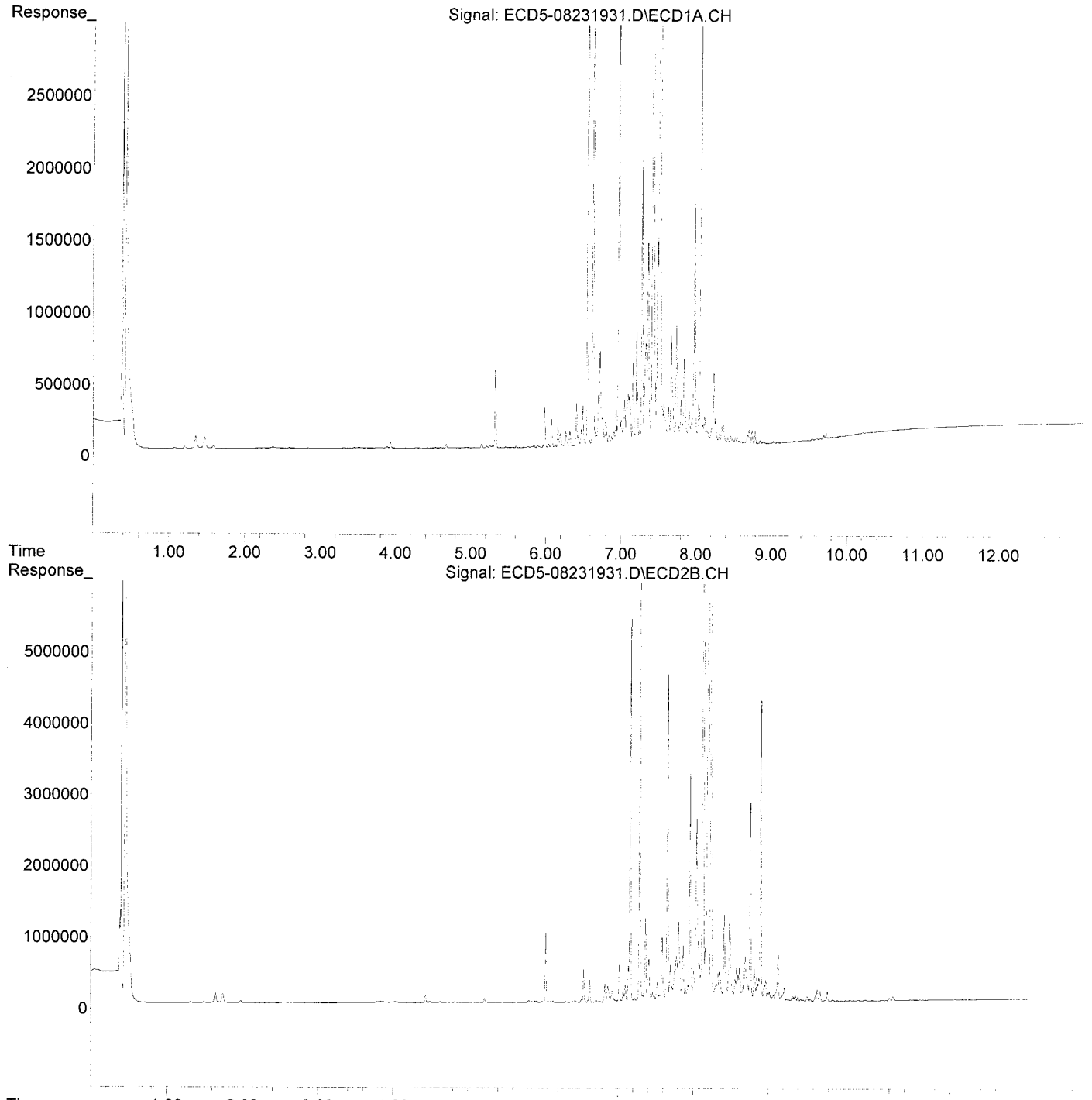
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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 8/26/19

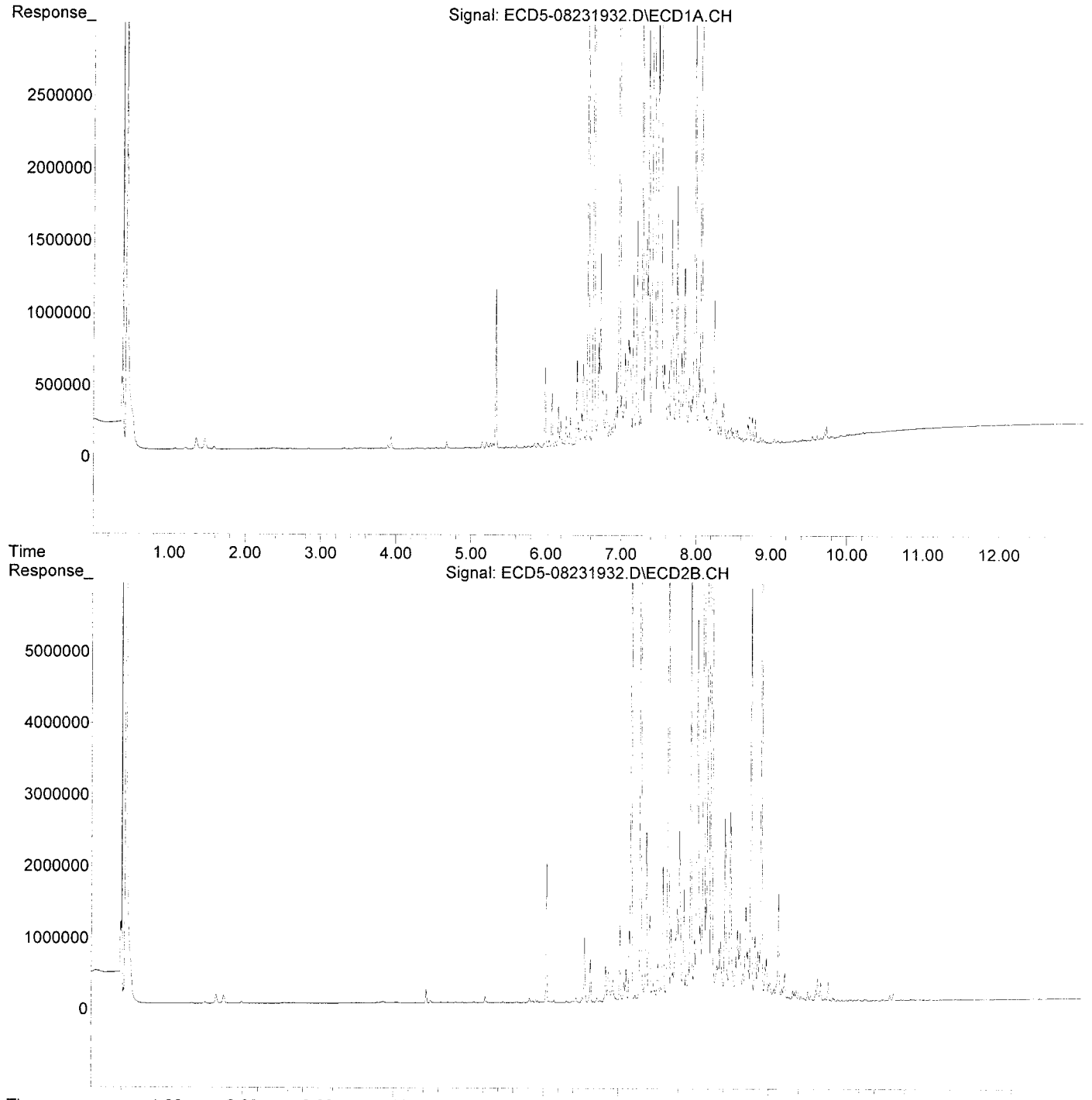
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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	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 12/26/19

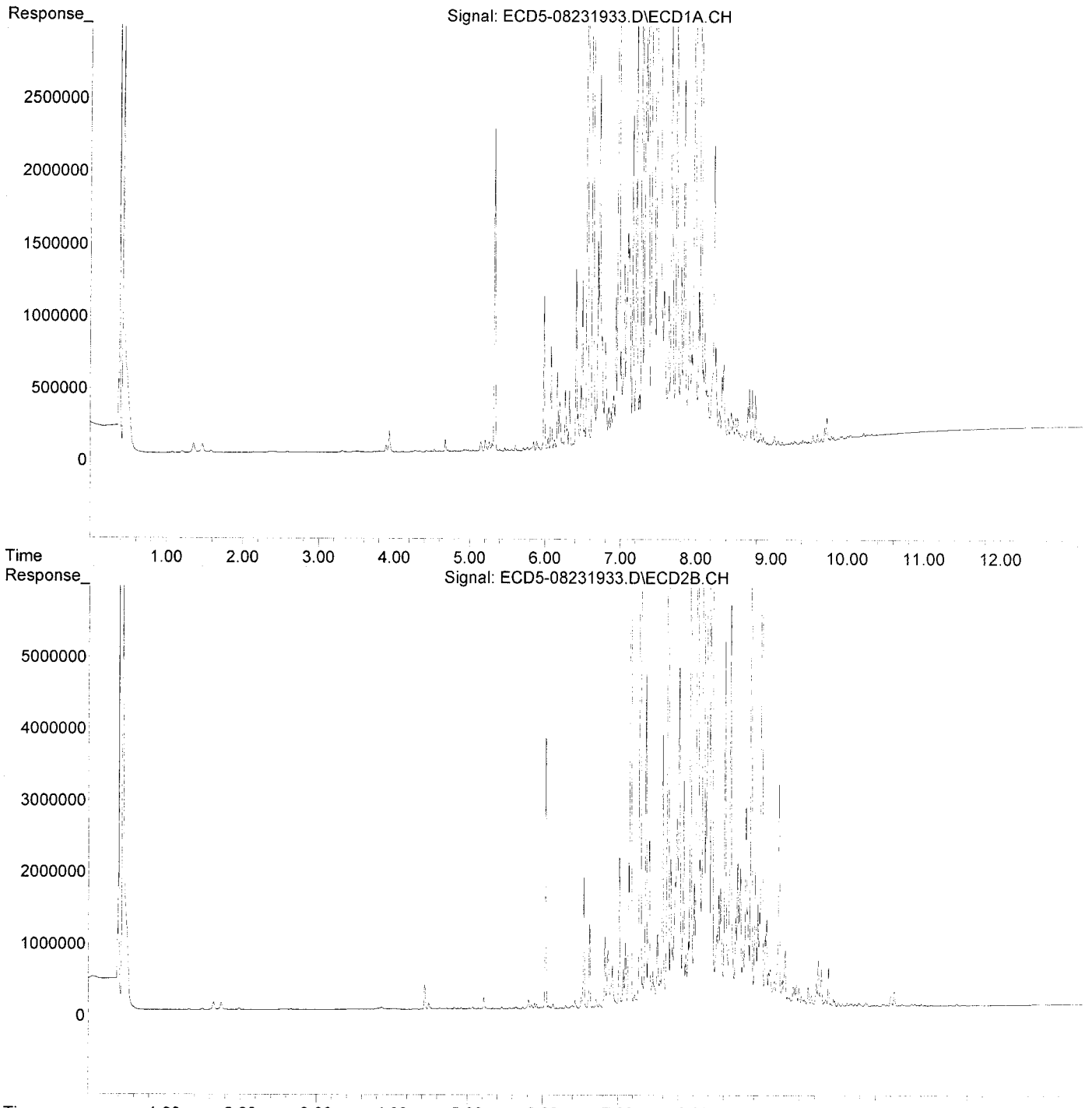
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	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 12/26/19

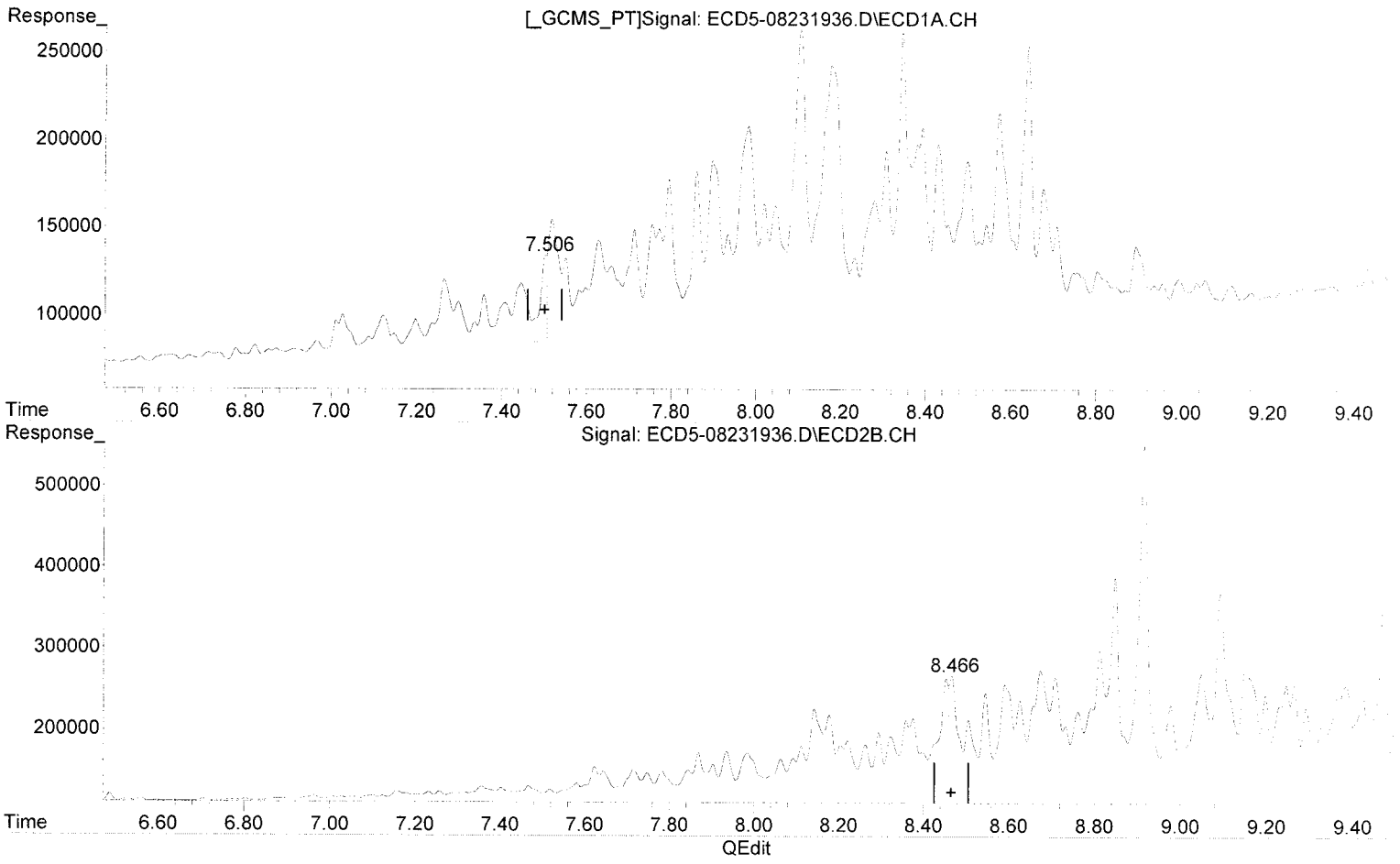
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

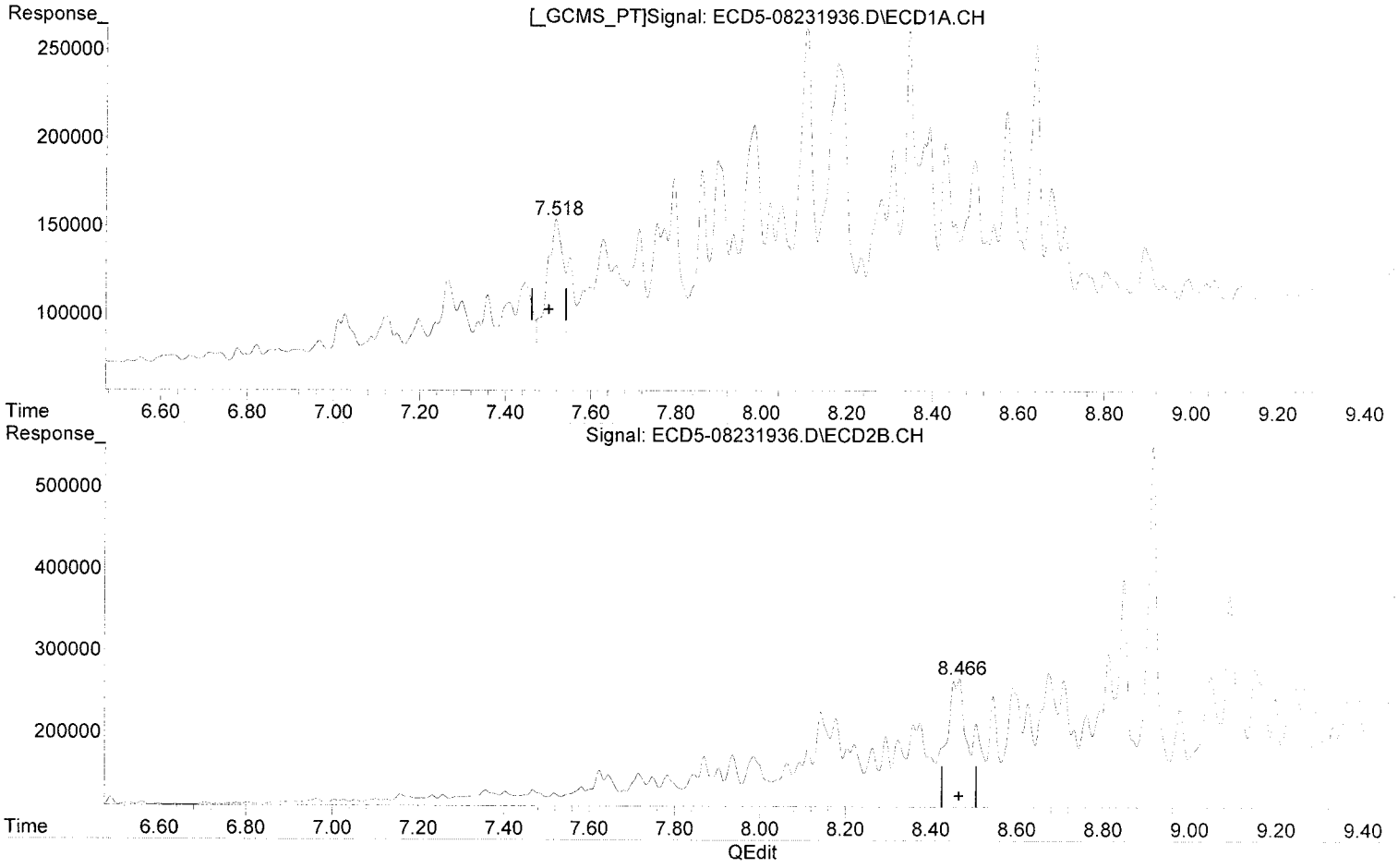
response 136848

(+) = 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

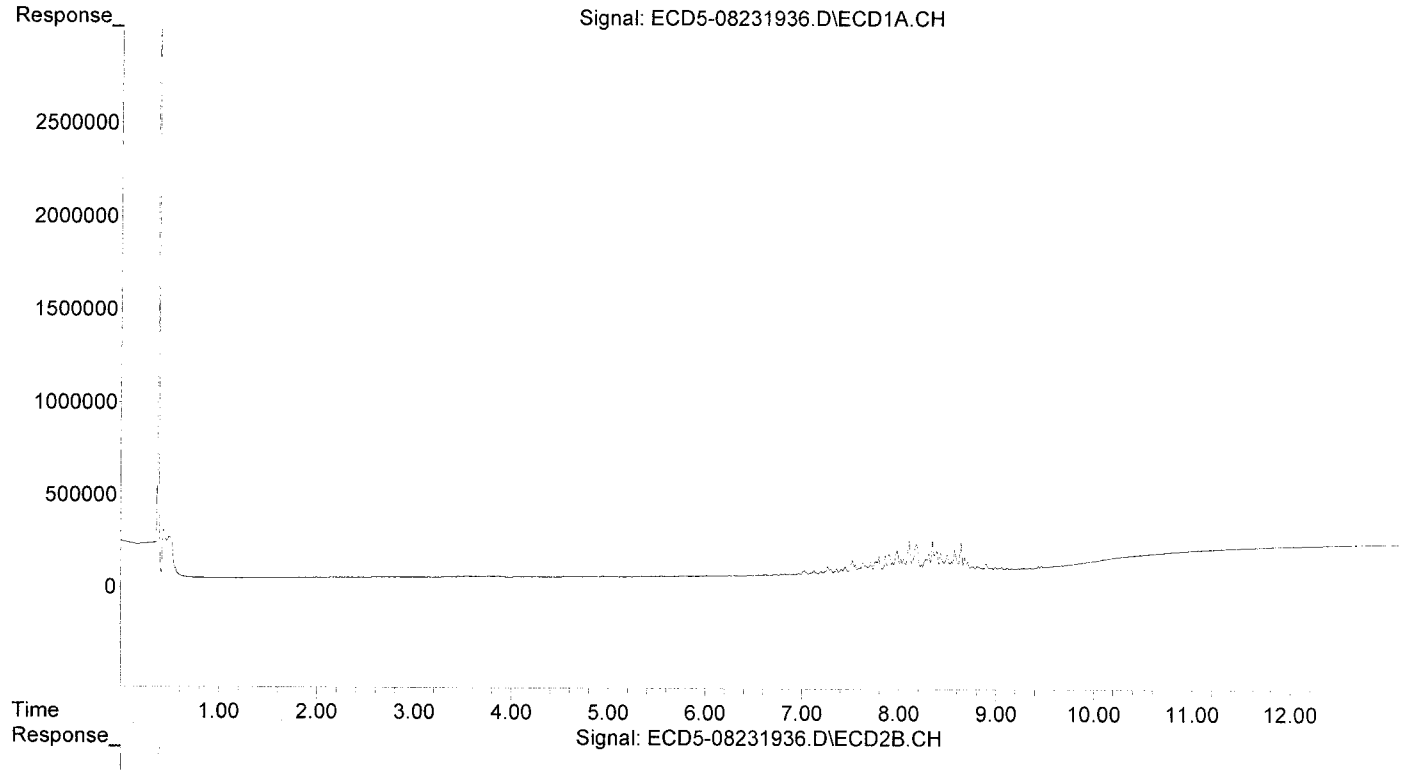
response 136848

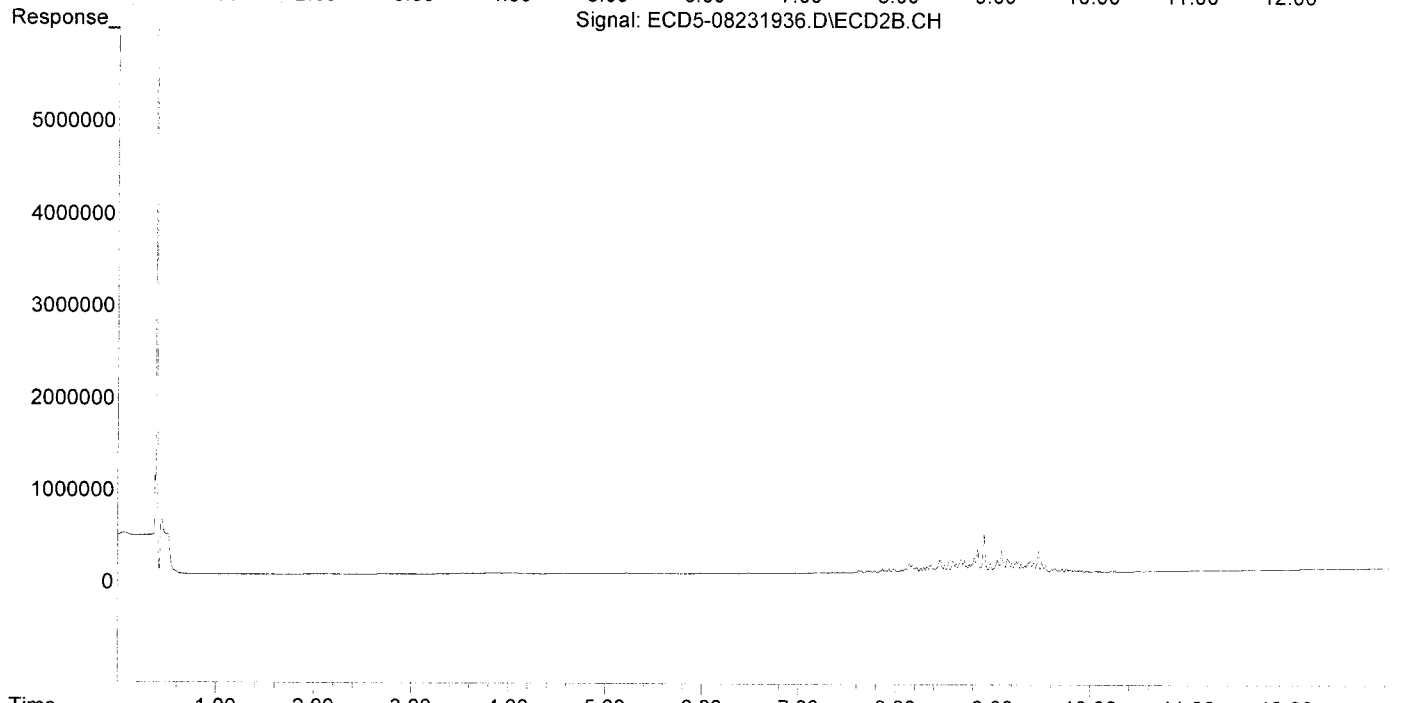
(+) = Expected Retention Time

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

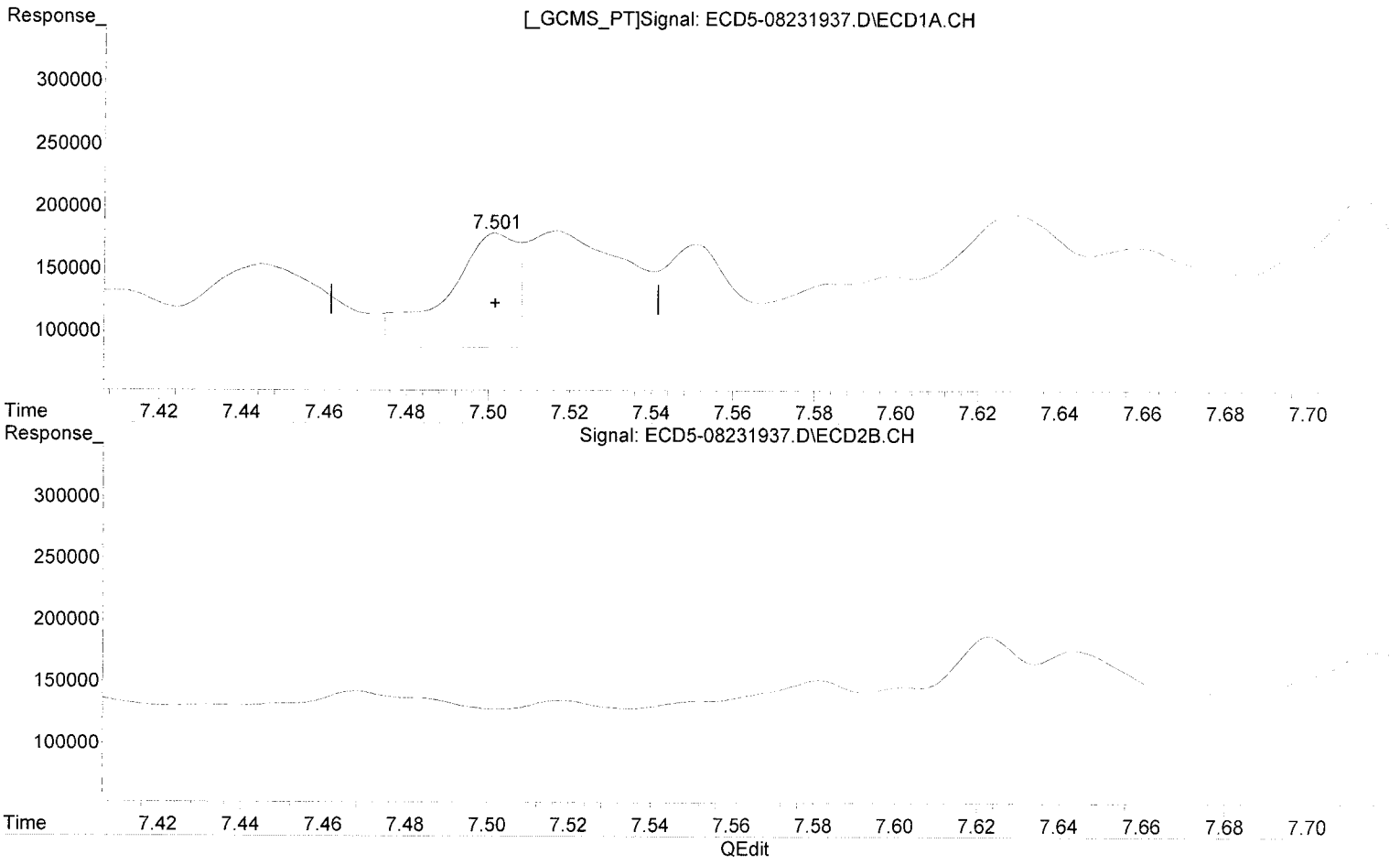
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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 8/26/19

(36) Toxaphene (1) #2

8.466min 128.761 ng/mL

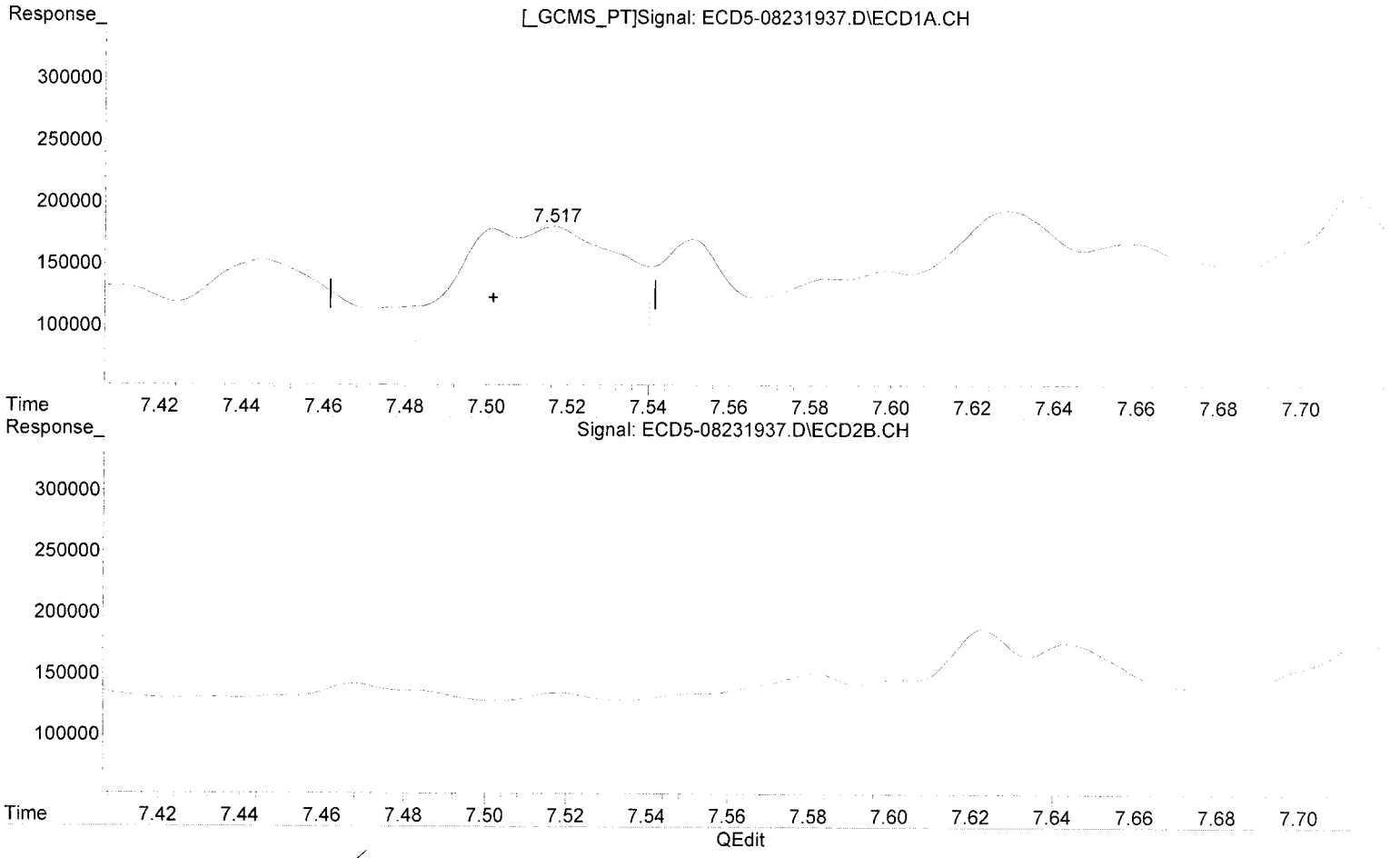
response 267534

(+) = 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

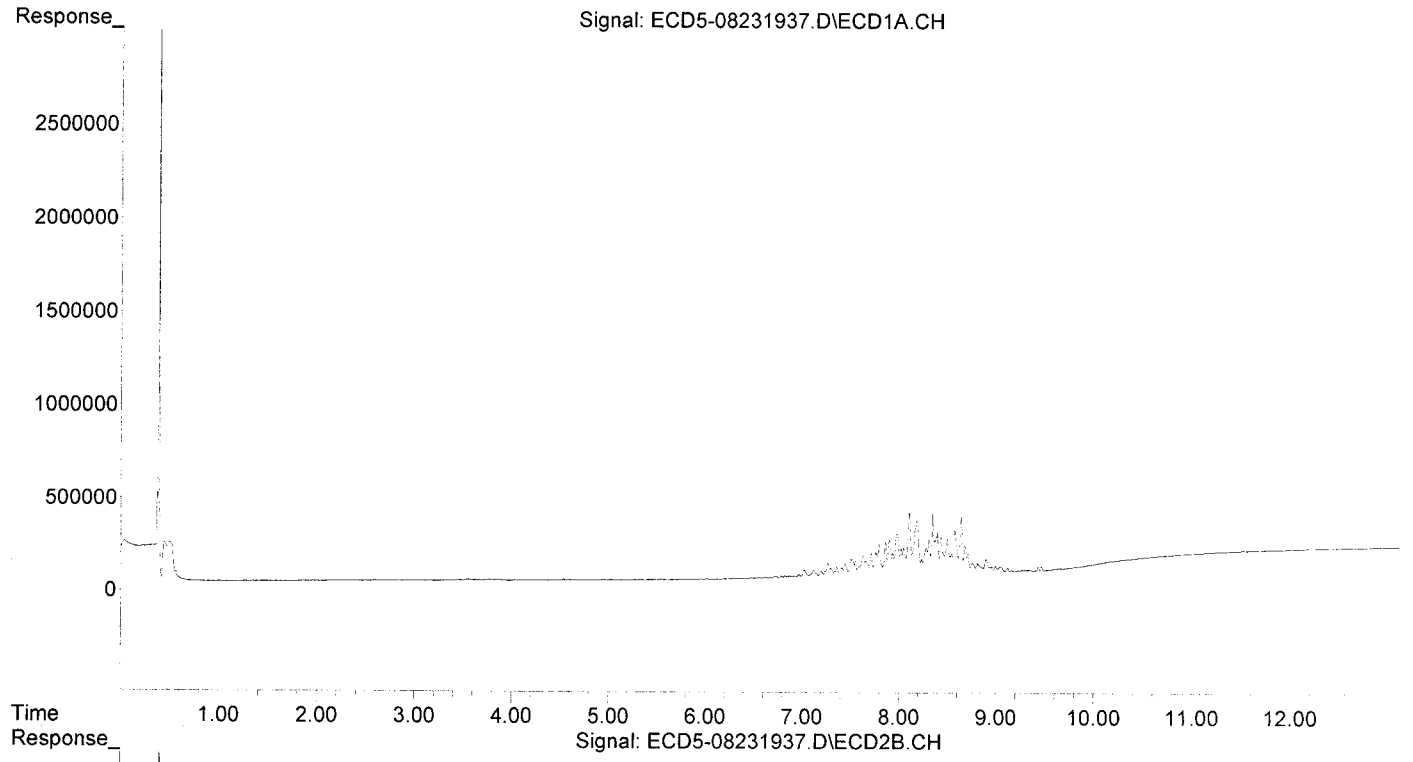
response 267534

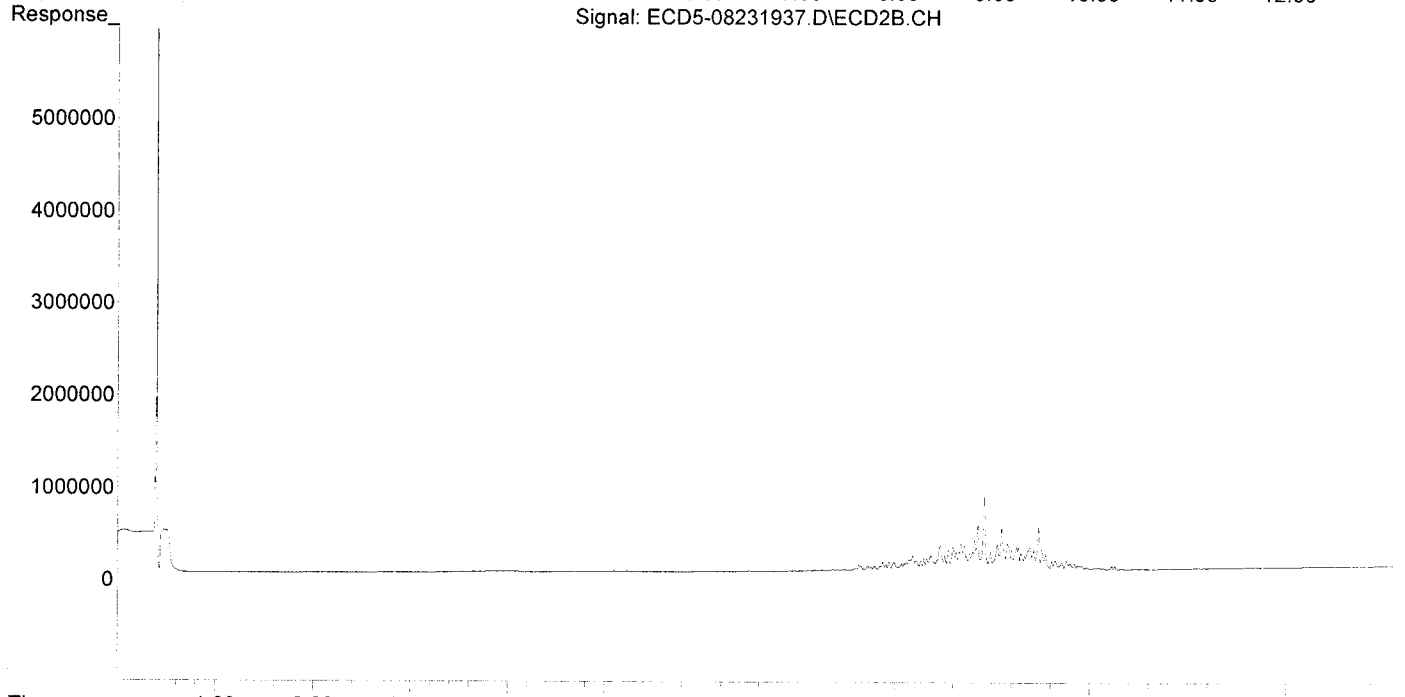
(+) = Expected Retention Time

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

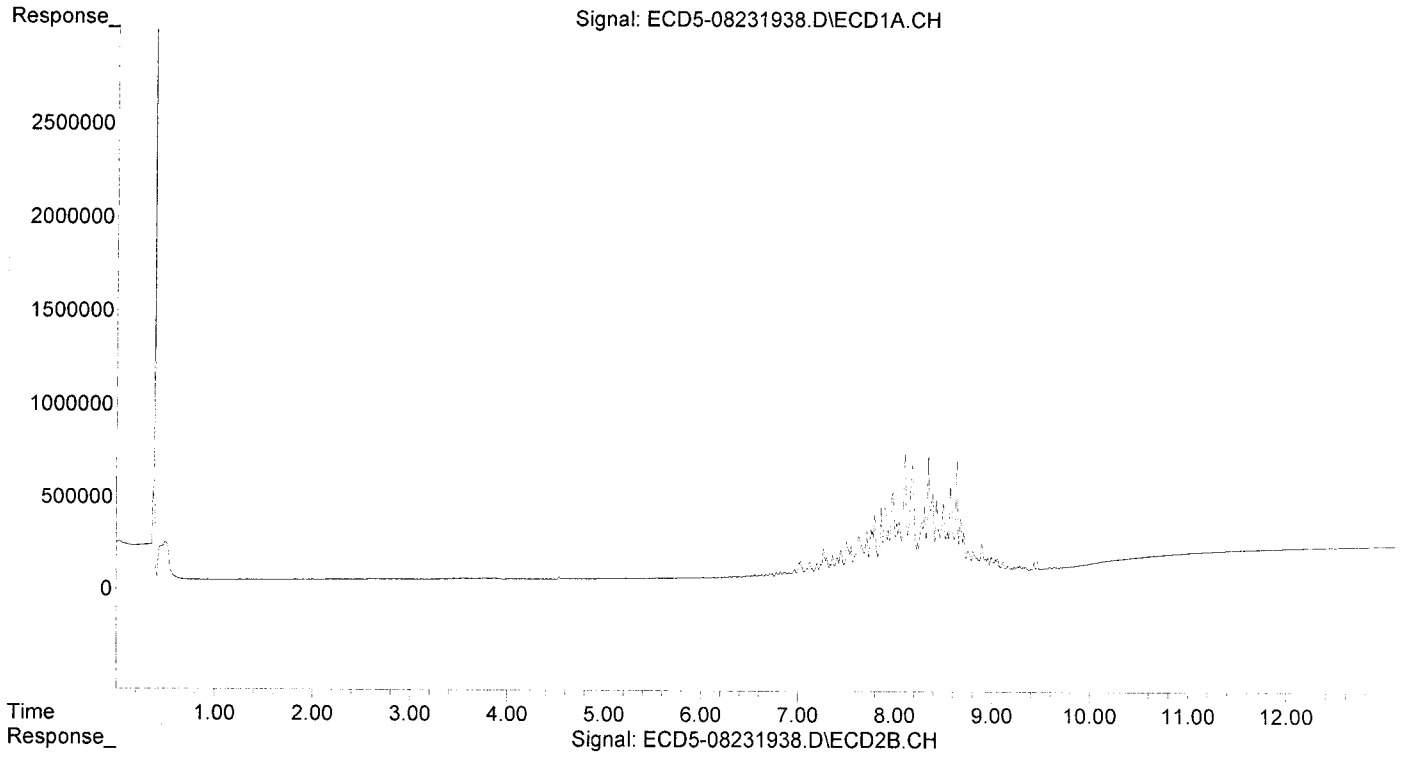
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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	223.740	263.952
42)	Toxaphene...	3.451	0.000	3919	0	NoCal	N.D.

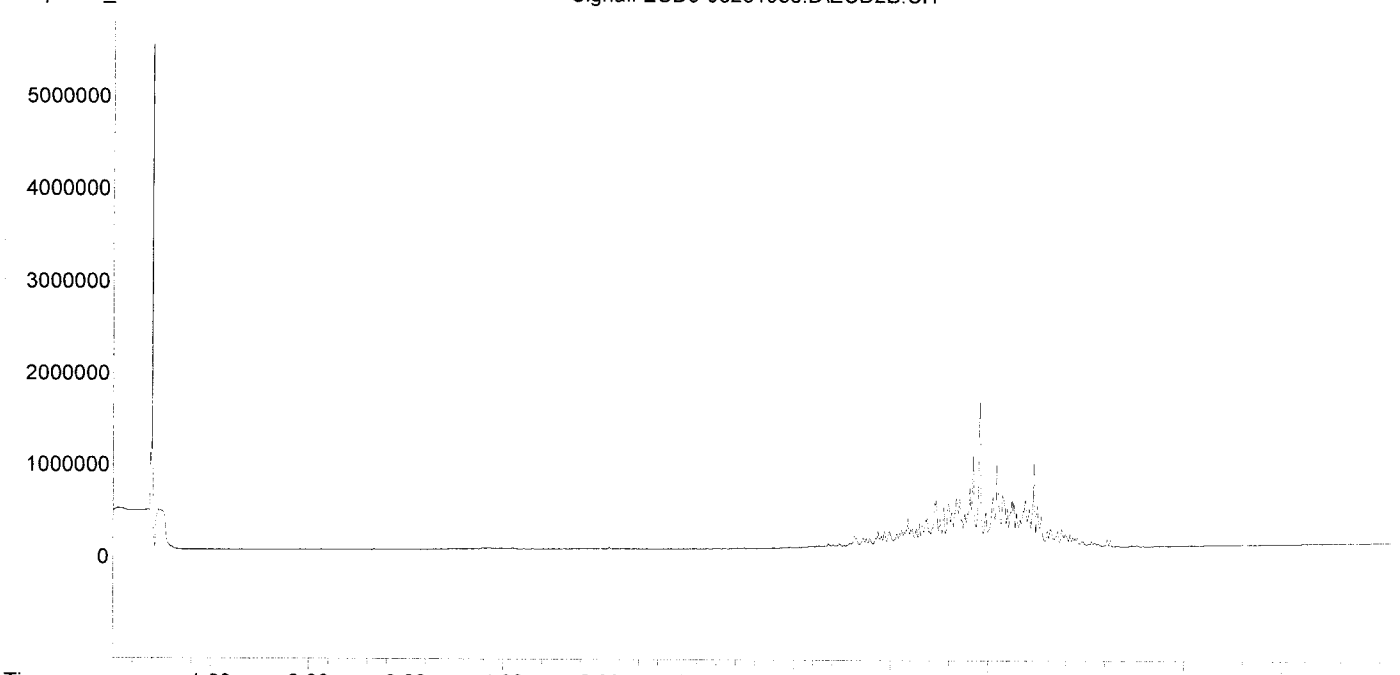
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

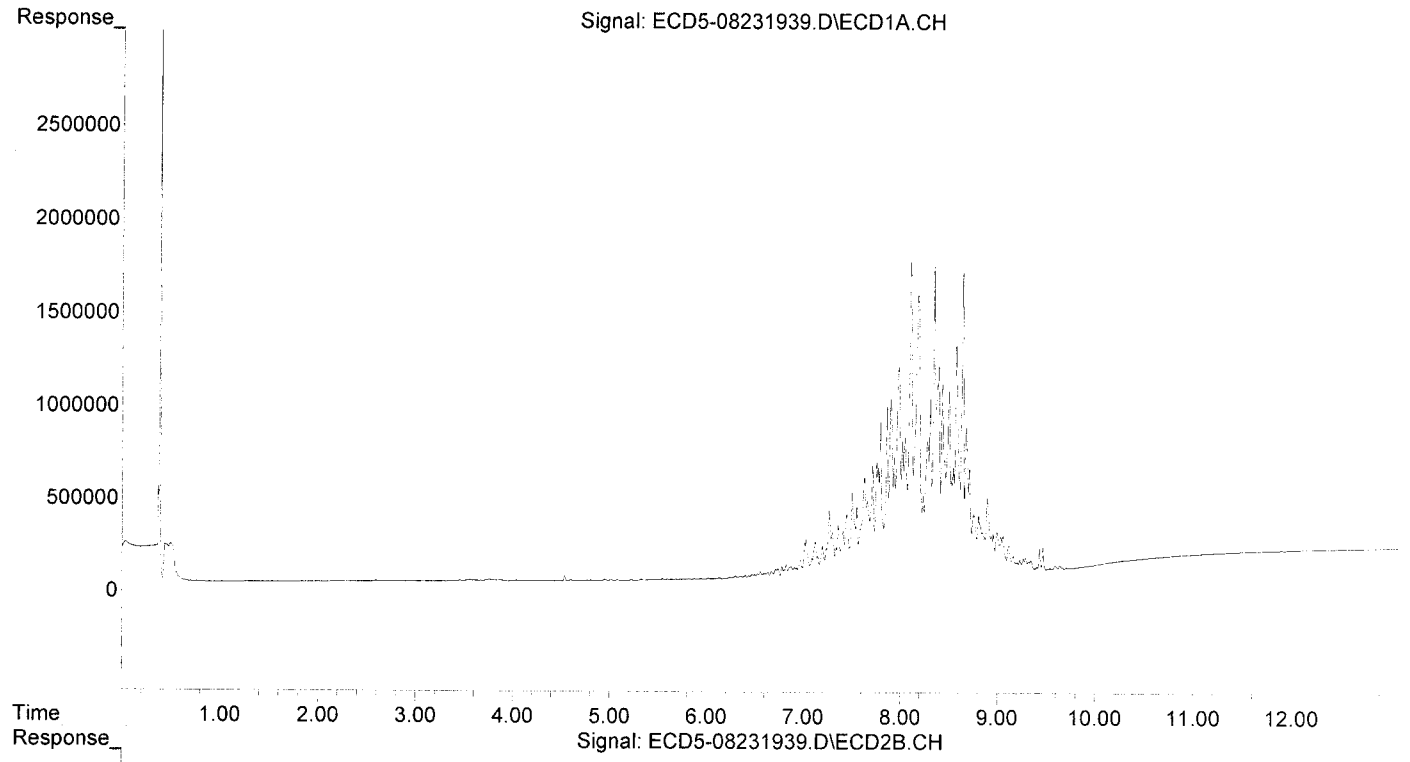
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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.

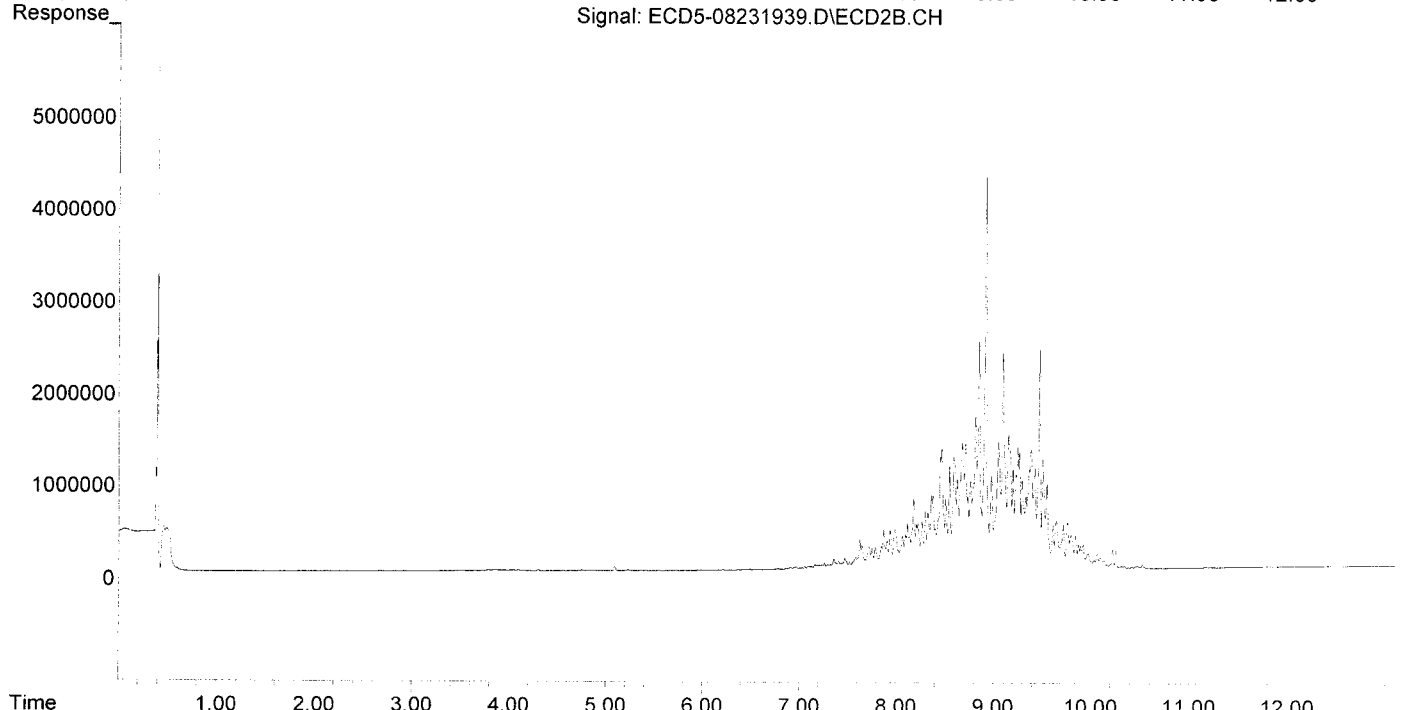
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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 12/26/19

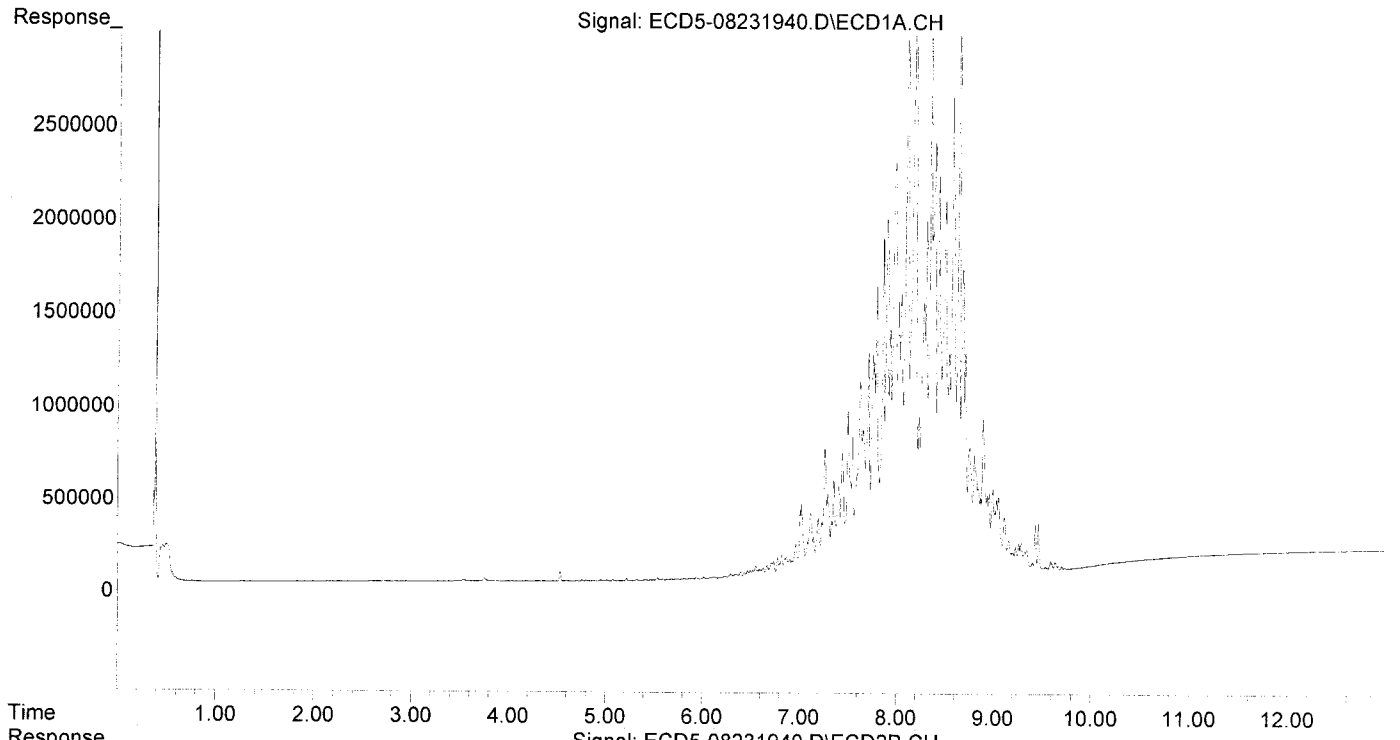
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	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.

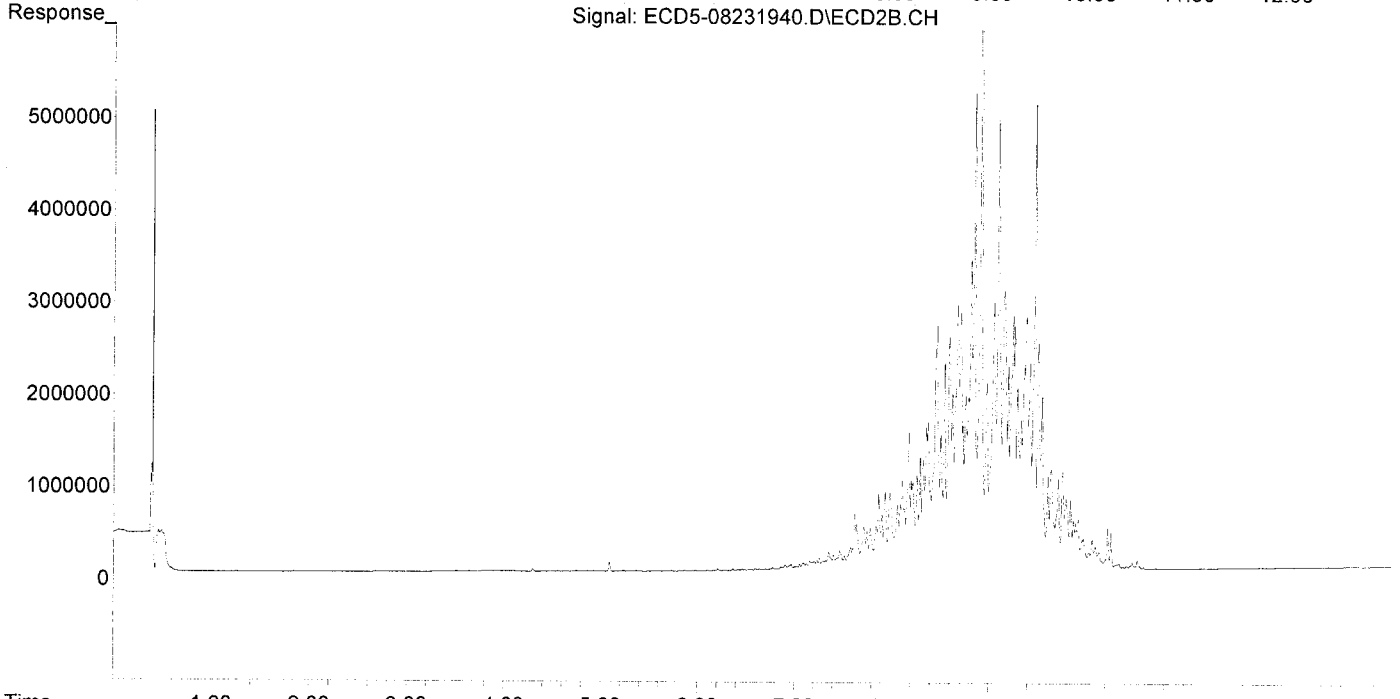
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

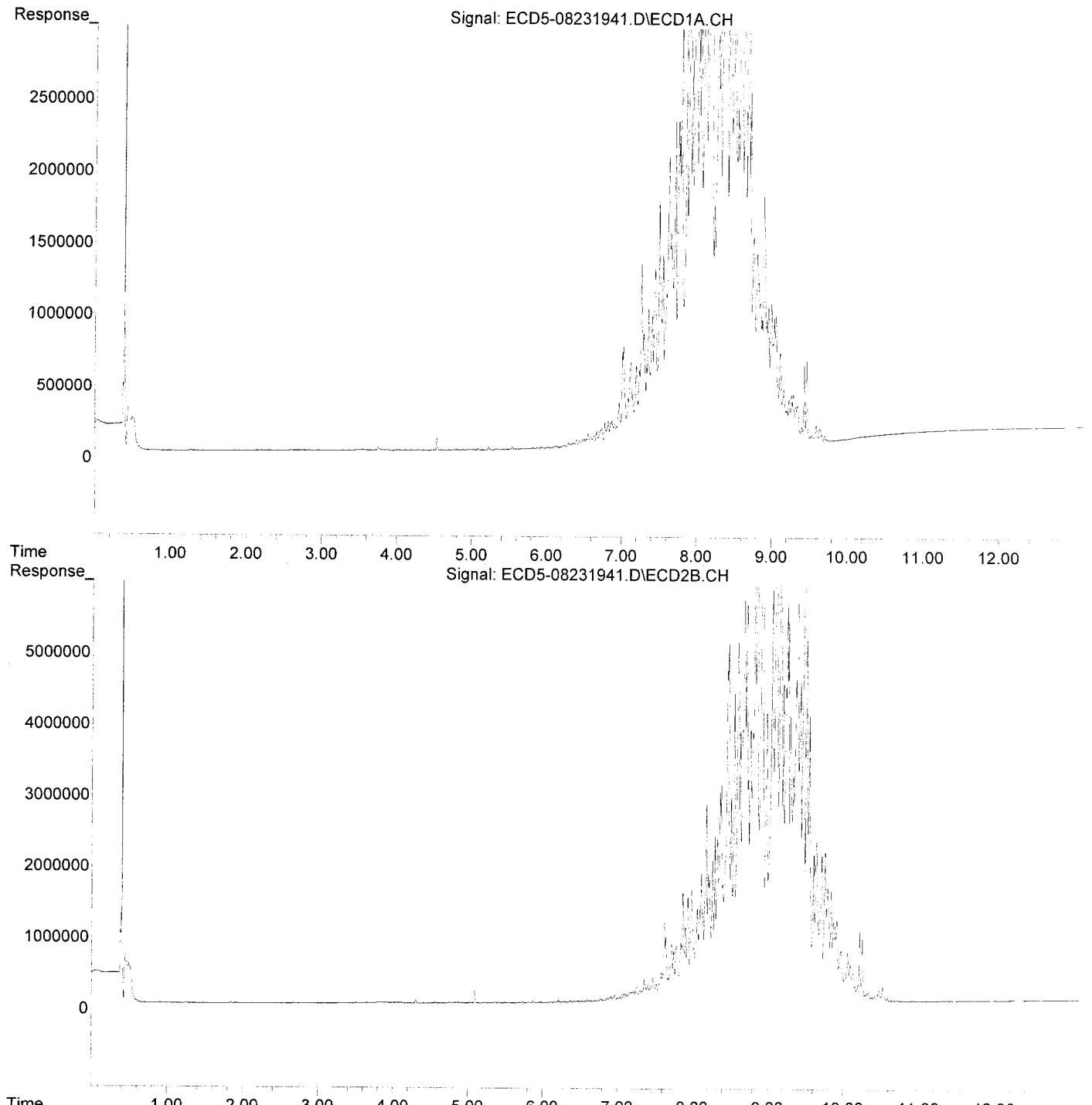
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	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 9111111
Sequence 9K26022 (A9K0330-01RE1)

APEX LABORATORIES

Apex Laboratories

PREPARATION BENCH SHEET

NOV 2 6 2019

BATCH #: 9111111 (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
	9111111-BLK1		QC	11/22/19 11:18	200	2				100					
	9111111-BSD1		QC	11/22/19 11:19	200	2	A19K302		100	100					
	9111111-BS1		QC	11/22/19 11:18	200	2	A19K302		100	100					
	A9K0330-01	B	1311/8270D TCLP SVOC Reg List	11/22/19 11:18	200	2				100	PDI-140RAB-C-00-12.7-191108	matrix changed to soil / SO per client +11/14			
	A9K0330-01RE1	B	1311/8270D TCLP SVOC Reg List	11/22/19 11:18	200	2				100	PDI-140RAB-C-00-12.7-191108	Added 11/25/2019 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
A19J495	04/28/20	PAH Soil and Water Surr. (50ppm)

3x rinse

Witness: _____

Bottle Check: _____

Prepared By: _____ Date _____

Reviewed By: AMS Date 11/26/19

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9111111 (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
	9111111-BLK1		QC	11/22/19 11:18	200	2 ✓				100			✓		✓
	9111111-BSD1		QC	11/22/19 11:19	200	2 ✓	A19K302		100	100			✓		✓
	9111111-BS1		QC	11/22/19 11:18	200	2 ✓	A19K302		100	100			✓		✓
	A9K0330-01	B	1311/8270D TCLP SVOC Reg List	11/22/19 11:18	200	2 ✓				100	PDI-140RAB-C-00-12.7-191108	matrix changed to soil / SO per client +11/14	✓		✓

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) cm

Std ID	Exp. Date	Description
A19K302	05/19/20	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s) cm

Std ID	Exp. Date	Description
A19J495	04/28/20	PAH Soil and Water Surr. (50ppm)

3x rinse ✓ cm 11-22-19

Witness: JAG 11/22/19

Bottle Check: N/A cm 11-22-19

cm 11/22/19
Prepared By: Date

CAH 11-22-19
Reviewed By: Date

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9K26022** Instrument: **SV-GCMS10**

Date: **11/26/19 07:56** Calibration: **A9I2405**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K26022-TUN1	Water	QC	QC			A19I086	A19K329
2	9K26022-CCV1	Water	QC	QC			A19I086	A19G243
3	9K26022-IBL1	Water	QC	QC			A19I086	
4	9K26022-TUN2	Water	QC	QC			A19I086	A19K329
5	9K26022-CCV2	Water	QC	QC			A19I086	A19G243
6	9K26022-CCB1	Water	QC	QC			A19I086	
7	9111196-BLK1	Water	QC	QC		9111196	A19I086	
8	9111196-BS1	Water	QC	QC		9111196	A19I086	
9	9111196-BSD1	Water	QC	QC		9111196	A19I086	
10	A9K0666-01RE1	Soil	8270D LL Full List		11/26/19	9111140	A19I086	
11	A9K0330-01RE1	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	11/25/19	9111111	A19I086	
12	A9K0692-05RE1	Soil	8270D LL PAH/PHTH/Phenols	Anchor QEA, LLC	12/06/19	9111141	A19I086	
13	A9K0692-06RE2	Soil	8270D LL PAH/PHTH/Phenols	Anchor QEA, LLC	12/06/19	9111141	A19I086	
14	9111141-MS2	Soil	QC	QC		9111141	A19I086	
15	9111141-MSD2	Soil	QC	QC		9111141	A19I086	
16	A9K0692-07RE1	Soil	8270D LL PAH/PHTH/Phenols	Anchor QEA, LLC	12/06/19	9111141	A19I086	
17	A9K0692-08RE1	Soil	8270D LL PAH/PHTH/Phenols	Anchor QEA, LLC	12/06/19	9111141	A19I086	
18	A9K0692-11RE1	Soil	8270D LL PAH/PHTH/Phenols	Anchor QEA, LLC	12/06/19	9111141	A19I086	
19	9111242-BLK1	Soil	QC	QC		9111242	A19I086	
20	9111242-BS1	Soil	QC	QC		9111242	A19I086	
21	9111242-BSD1	Soil	QC	QC		9111242	A19I086	
22	A9K0412-01	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	11/27/19	9111242	A19I086	
23	A9K0656-06	Soil	8270D LL Full List	(QC Source)		9111249	A19I086	
24	"	Soil	8270D LL PAH/PHTH/Phenols	"	12/09/19	9111249	A19I086	
25	A9K0808-13	Soil	8270D LL PAH/PHTH/Phenols		12/02/19	9111249	A19I086	
26	A9K0769-01	Water	625 LL Full List (All Compounds)		12/03/19	9111196	A19I086	
27	A9K0764-01	Water	625 LL Full List (All Compounds)		12/03/19	9111159	A19I086	
28	A9K0764-02	Water	625 LL Full List (All Compounds)		12/03/19	9111159	A19I086	
29	A9K0765-01	Water	625 LL Full List (All Compounds)		12/03/19	9111159	A19I086	
30	A9K0767-01	Water	625 LL Full List (All Compounds)		12/03/19	9111159	A19I086	
31	A9K0768-01	Water	625 LL Full List (All Compounds)		12/03/19	9111159	A19I086	
32	9K26022-IBL2	Water	QC	QC			A19I086	

Data Entered By: AMS 11/27/19

Data Reviewed By: 11/27/19

Comments:

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9K26022** Instrument: **SV-GCMS10**

Date: **11/26/19 07:56** Calibration: **A9I2405**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K26022-TUN1	Water	QC	QC			A19I086	A19K329
2	9K26022-CCV1	Water	QC	QC			A19I086	A19G243
3	9K26022-IBL1	Water	QC	QC			A19I086	
4	9K26022-TUN2	Water	QC	QC			A19I086	A19K329
5	9K26022-CCV2	Water	QC	QC			A19I086	A19G243
6	9K26022-CCB1	Water	QC	QC			A19I086	
7	9111196-BLK1	Water	QC	QC		9111196	A19I086	
8	9111196-BS1	Water	QC	QC		9111196	A19I086	
9	9111196-BSD1	Water	QC	QC		9111196	A19I086	
10	A9K0666-01RE1	Soil	8270D LL Full List		11/26/19	9111140	A19I086	
11	A9K0330-01RE1	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	11/25/19	9111111	A19I086	

Partial

Data Entered By: AMS 11/26/19

Data Reviewed By: JK 11/26/19

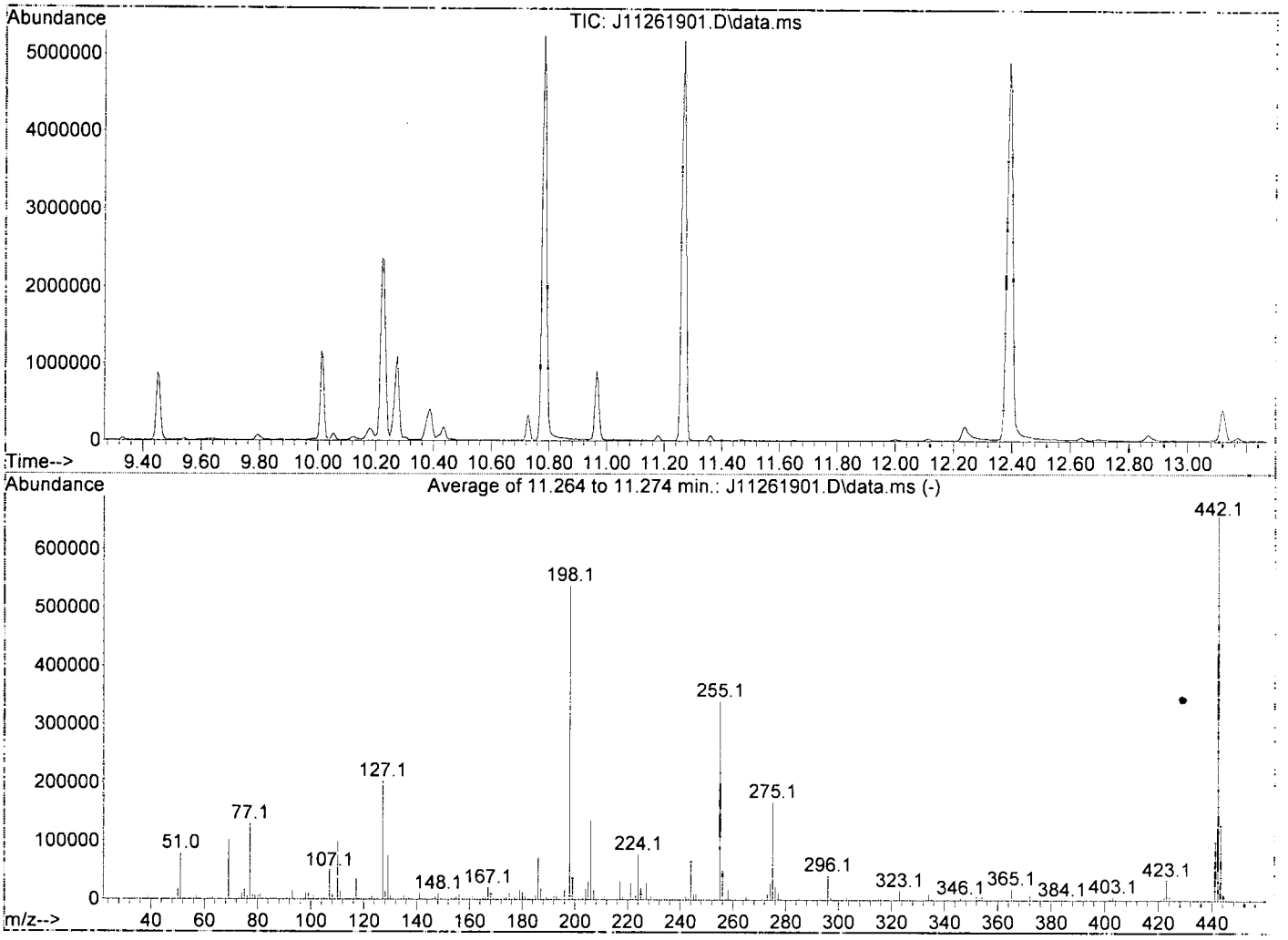
Comments:

Data Path : T:\data\2019-11\9K26022\
Data File : J11261901.D
Acq On : 26 Nov 2019 8:03 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

Q14
AMS 11/26/19

Integration File: rteint.p

Method : T:\methods\DFTPP.M
Title : 8270 DFTPP Tune Method
Last Update : Mon Nov 11 08:41:49 2019



AutoFind: Scans 1454, 1455, 1456; Background Corrected with Scan 1449

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.6	1609	PASS
69	198	0.01	100	19.2	103285	PASS
70	69	0.00	2	0.6	589	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	537963	PASS
199	198	5	9	6.9	37056	PASS
365	198	1	100	3.7	19845	PASS
441	443	0.01	150	77.2	99659	PASS
442	198	0.10	200	122.1	656725	PASS
443	442	15	24	19.7	129139	PASS

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261901.D
Acq On : 26 Nov 2019 8:03 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 26 12:45:29 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Mon Nov 11 08:41:49 2019
Response via : Initial Calibration
InstName : SV-GCMS10

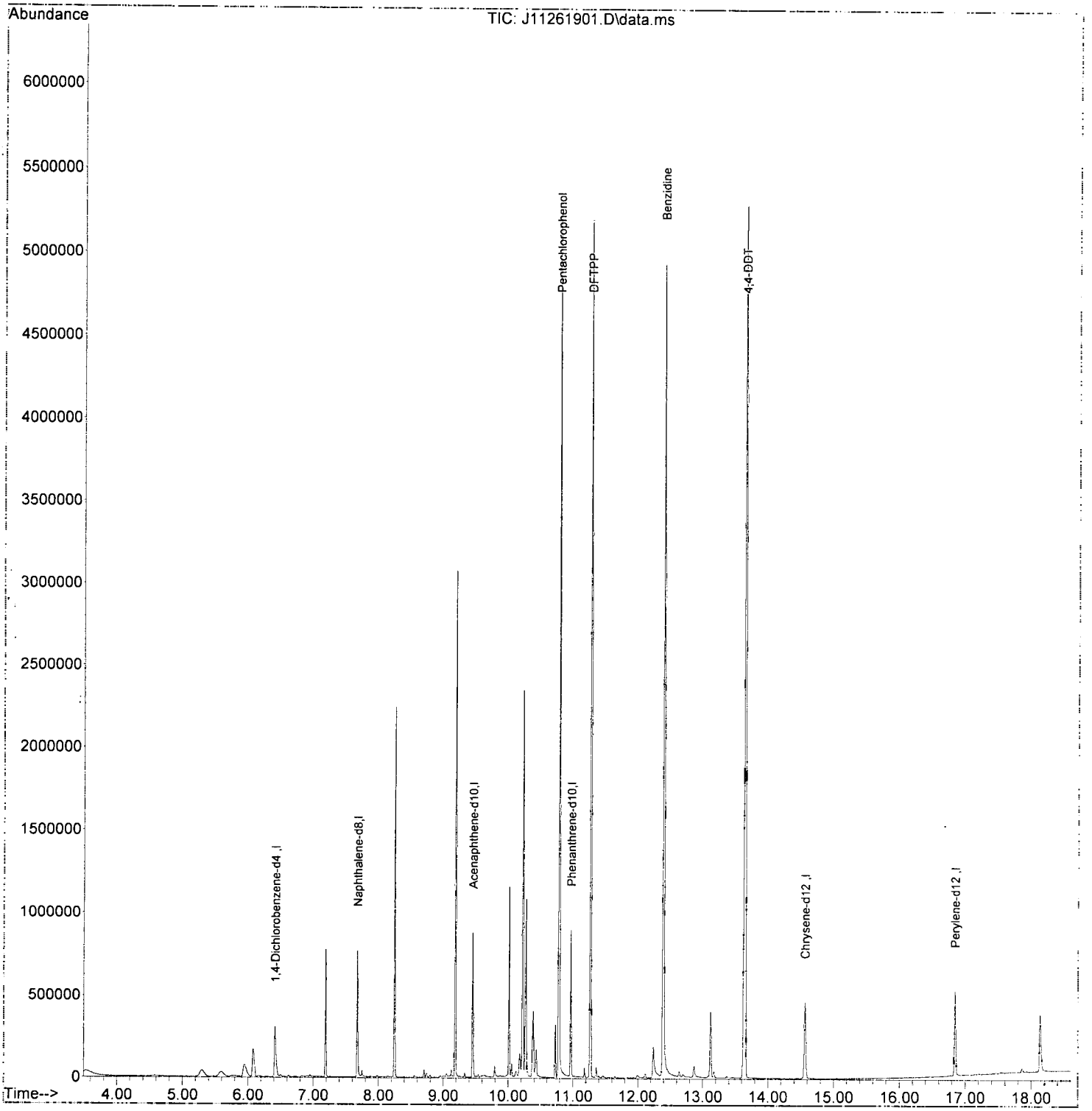
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.413	150	151907	2.00	ug/mL	0.00
2) Naphthalene-d8	7.675	136	417377	2.00	ug/mL	0.00
3) Acenaphthene-d10	9.451	162	209283	2.00	ug/mL	0.00
5) Phenanthrene-d10	10.964	188	368353	2.00	ug/mL	0.00
11) Chrysene-d12	14.564	240	278948	2.00	ug/mL	-0.02
12) Perylene-d12	16.842	264	269993	2.00	ug/mL	#-0.07
Target Compounds						Qvalue
4) Pentachlorophenol	10.782	266	798437	40.40	ug/mL	85
6) DFTPP	11.269	442	748623	25.17	ug/mL	83
7) Benzidine	12.392	184	2933900	22.39	ug/mL	97
8) 4,4-DDE	12.638	TIC	40828	No Calib		
9) 4,4-DDD	13.120	TIC	497051	No Calib		
10) 4,4-DDT	13.644	TIC	8965831	23.74	ug/mL	94

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

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261901.D
Acq On : 26 Nov 2019 8:03 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-TUN1
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 26 12:45:29 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Mon Nov 11 08:41:49 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261902.D
Acq On : 26 Nov 2019 8:31 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

AMS 11/26/19 Q-14

Quant Time: Nov 26 12:45:46 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.380	152	375653	2000.00	ng/ml	-0.01
21) Naphthalene-d8 (ISTD)	7.648	136	1386656	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	735483	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.932	188	1396742	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.532	240	1317715	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	17.971	264	1300844	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.362	292	1110306	2000.00	ng/ml	0.01
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.118	112	235015	1030.95	ng/ml	-0.03
5) Phenol-d6(Surr)	6.038	99	266242	912.47	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.926	82	202401	894.15	ng/ml	-0.01
40) 2-Fluorobiphenyl (Surr)	8.734	172	605736	1052.36	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	82737	983.16	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	661804	1089.83	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.701	74	124043m	866.89	ng/ml	
3) Pyridine	3.717	79	205152m	840.99	ng/ml	
6) Phenol	6.049	94	285860	890.98	ng/ml	98
7) Aniline	6.065	93	146005	527.46	ng/ml	92
8) Bis(2-chloroethyl) ether	6.124	93	295019	1018.87	ng/ml	97
9) 2-Chlorophenol	6.183	128	268664	1010.06	ng/ml	97
10) 1,3-Dichlorobenzene	6.327	146	303399	1014.80	ng/ml	98
11) 1,4-Dichlorobenzene	6.396	146	295937	1007.12	ng/ml	99
12) Benzyl alcohol	6.520	108	144213	917.65	ng/ml	95
13) 1,2-Dichlorobenzene	6.552	146	293073	1011.34	ng/ml	98
14) 2-Methylphenol	6.637	107	189930	981.61	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.653	45	185393	725.52	ng/ml	80
16) N-Nitrosodi-n-propylamine	6.782	70	141801	843.49	ng/ml	91
17) 3+4-Methylphenol	6.787	107	242984	1012.77	ng/ml	97
18) Hexachloroethane	6.883	201	105180	1164.97	ng/ml	93
20) Nitrobenzene	6.947	77	200629	874.80	ng/ml	92
22) Isophorone	7.183	82	414039	936.58	ng/ml	98
23) 2-Nitrophenol	7.263	139	175036	1323.76	ng/ml	91
24) 2,4-Dimethylphenol	7.311	122	218322	1174.31	ng/ml	96
25) Bis(2-chloroethoxy) me...	7.397	93	265383	987.45	ng/ml	99
26) Benzoic acid	7.413	105	196184	2472.42	ng/ml	94
27) 2,4-Dichlorophenol	7.509	162	223930	1076.97	ng/ml	96
28) 1,2,4-Trichlorobenzene	7.589	180	266794	1099.31	ng/ml	99
29) Naphthalene	7.669	128	755556	1035.77	ng/ml	100
30) 4-Chloroaniline	7.728	127	174605	763.79	ng/ml	97
31) Hexachlorobutadiene	7.798	225	141788	1081.16	ng/ml	98
32) 4-Chloro-3-methylphenol	8.215	107	196461	1067.74	ng/ml	91
33) 2-Methylnaphthalene	8.365	142	547082	1073.39	ng/ml	98
34) 1-Methylnaphthalene	8.466	142	517474	1048.80	ng/ml	98
36) Hexachlorocyclopentadiene	8.536	237	144244	1268.27	ng/ml	95
37) 2,4,6-Trichlorophenol	8.654	196	165182	1157.73	ng/ml	97
38) 2,4,5-Trichlorophenol	8.691	198	160864	1143.61	ng/ml	99
39) 1,1'-Biphenyl	8.835	154	633467	1002.07	ng/ml	98
41) 2-Chloronaphthalene	8.857	162	499631	1094.35	ng/ml	97
42) 2-Nitroaniline	8.958	138	161452	1178.28	ng/ml	87
43) 2,6-Dimethylnaphthalene	8.996	156	482865	1041.20	ng/ml	97

Data Path : T:\data\2019-11\9K26022\
Data File : J11261902.D
Acq On : 26 Nov 2019 8:31 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 26 12:45:46 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

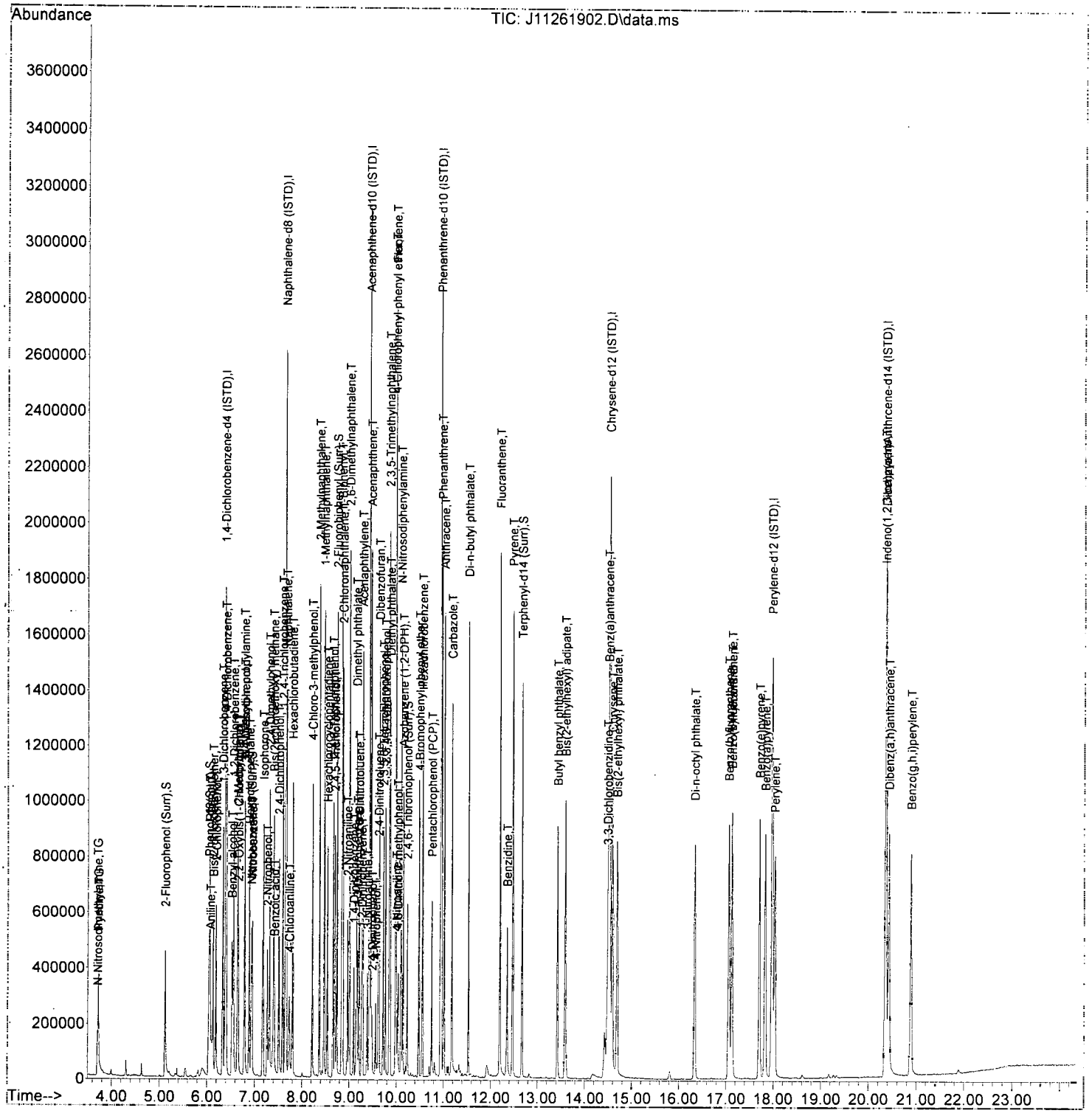
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.092	168	75405	1294.66	ng/ml	76
45) Dimethyl phthalate	9.146	163	566999	1067.50	ng/ml	98
46) 1,3-Dinitrobenzene	9.172	168	86707	1177.80	ng/ml	87
47) 2,6-Dinitrotoluene	9.205	165	130369	1089.58	ng/ml	88
48) 1,2-Dinitrobenzene	9.258	168	61093	1135.34	ng/ml	81
49) Acenaphthylene	9.279	152	789520	1055.99	ng/ml	100
50) 3-Nitroaniline	9.376	138	100432	1103.67	ng/ml	88
51) Acenaphthene	9.456	153	491869	1001.85	ng/ml	99
52) 2,4-Dinitrophenol	9.483	184	44632	1418.72	ng/ml	88
53) 4-Nitrophenol	9.558	139	78893	1083.29	ng/ml	92
54) 2,4-Dinitrotoluene	9.616	165	170877	1140.53	ng/ml	82
55) Dibenzofuran	9.632	168	703328	1074.66	ng/ml	97
56) 2,3,5,6-Tetrachlorophenol	9.718	232	131889	1164.63	ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	9.761	232	138919	1122.62	ng/ml	98
58) Diethyl phthalate	9.862	149	528033	1079.99	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	9.846	170	457749	1098.36	ng/ml	94
60) Fluorene	9.980	166	538936	1046.40	ng/ml	97
61) 4-Chlorophenyl phenyl ...	9.975	204	275085	1095.57	ng/ml	95
62) 4-Nitroaniline	9.996	138	106043	1341.67	ng/ml	92
63) 4,6-Dinitro-2-methylph...	10.028	198	72051	1309.99	ng/ml	96
65) N-Nitrosodiphenylamine	10.098	169	461764	1072.22	ng/ml	100
66) Azobenzene (1,2-DPH)	10.141	77	383878	880.82	ng/ml	85
68) 4-Bromophenyl phenyl e...	10.477	248	163215	1035.59	ng/ml	95
69) Hexachlorobenzene	10.552	284	190684	1008.52	ng/ml	96
70) Pentachlorophenol (PCP)	10.750	266	90227	957.35	ng/ml	99
71) Phenanthrene	10.959	178	782758	998.95	ng/ml	99
72) Anthracene	11.012	178	787242	1045.19	ng/ml	99
73) Carbazole	11.173	167	656644	1168.90	ng/ml	99
74) Di-n-butyl phthalate	11.526	149	878243	1063.22	ng/ml	99
75) Fluoranthene	12.194	202	870456	1083.86	ng/ml	98
76) Benzidine	12.350	184	325614	1695.82	ng/ml	96
77) Pyrene	12.467	202	874172	1069.61	ng/ml	99
80) Butyl benzyl phthalate	13.425	149	389511	1147.29	ng/ml	88
81) Bis(2-ethylhexyl) adipate	13.585	129	335565	1097.98	ng/ml	99
82) 3,3-Dichlorobenzidine	14.484	252	219284	2129.14	ng/ml	98
83) Benz(a)anthracene	14.505	228	777756	1057.15	ng/ml	98
84) Chrysene	14.585	228	735623	1066.96	ng/ml	97
85) Bis(2-ethylhexyl) phth...	14.687	149	537116	1133.16	ng/ml	98
87) Di-n-octyl phthalate	16.334	149	887370	1176.37	ng/ml	98
88) Benzo(b)fluoranthene	17.056	252	782625	1089.90	ng/ml	98
89) Benzo(k)fluoranthene	17.126	252	758777	1050.04	ng/ml	99
90) Benzo(b+k)fluoranthene	17.126	252	1569485	2129.89	ng/ml	99
91) Benzo(e)pyrene	17.709	252	745778	1115.43	ng/ml	99
92) Benzo(a)pyrene	17.827	252	723436	1109.66	ng/ml	99
93) Perylene	18.030	252	630156	1074.14	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.351	276	663411	1010.42	ng/ml	99
96) Dibenz(a,h)anthracene	20.426	278	653462	1084.02	ng/ml	99
97) Benzo(g,h,i)perylene	20.891	276	696906	1105.06	ng/ml	97

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

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261902.D
Acq On : 26 Nov 2019 8:31 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 26 12:45:46 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

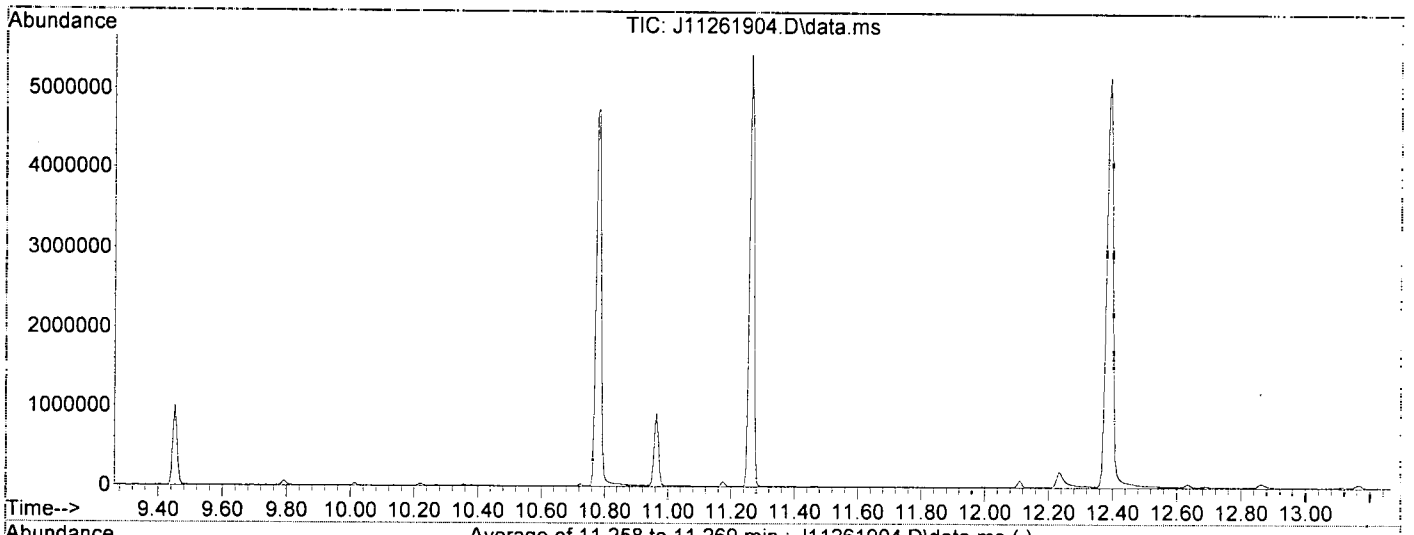


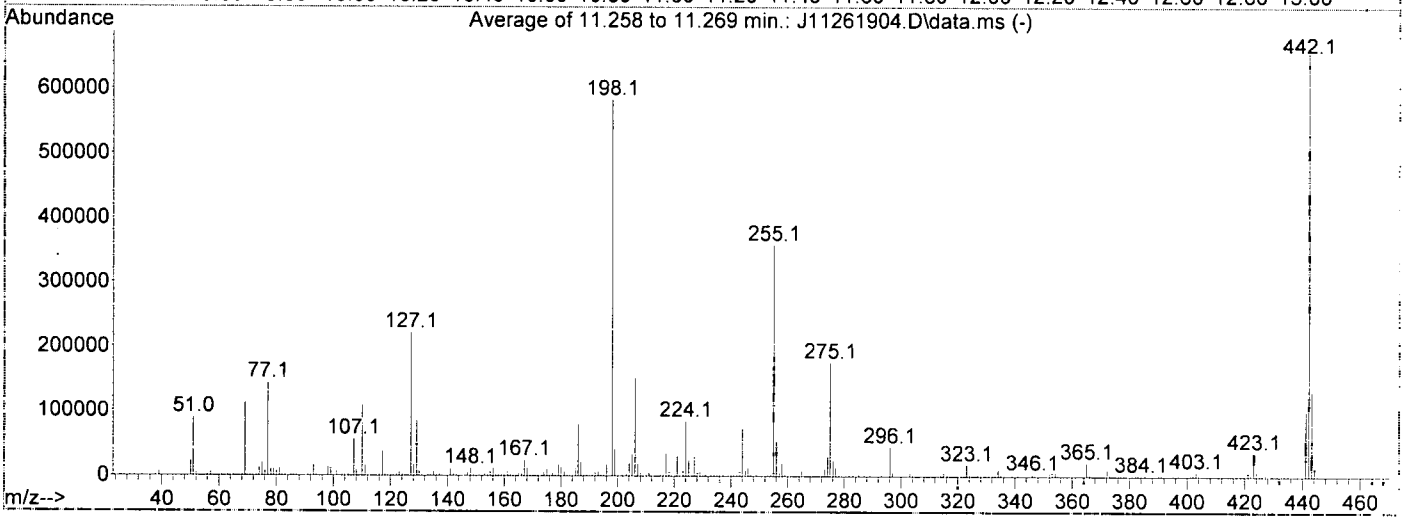
Data Path : T:\data\2019-11\9K26022\
Data File : J11261904.D
Acq On : 26 Nov 2019 9:49 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-TUN2
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : T:\methods\DFTPP.M
Title : 8270 DFTPP Tune Method
Last Update : Mon Nov 11 08:41:49 2019

AMS 11/26/19





AutoFind: Scans 1453, 1454, 1455; Background Corrected with Scan 1448

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.3	1505	PASS
69	198	0.01	100	19.5	113411	PASS
70	69	0.00	2	0.6	635	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	582251	PASS
199	198	5	9	7.1	41381	PASS
365	198	1	100	3.6	20731	PASS
441	443	0.01	150	76.4	100467	PASS
442	198	0.10	200	112.5	654869	PASS
443	442	15	24	20.1	131573	PASS

✓

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261904.D
Acq On : 26 Nov 2019 9:49 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-TUN2
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 26 12:46:19 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Mon Nov 11 08:41:49 2019
Response via : Initial Calibration
InstName : SV-GCMS10

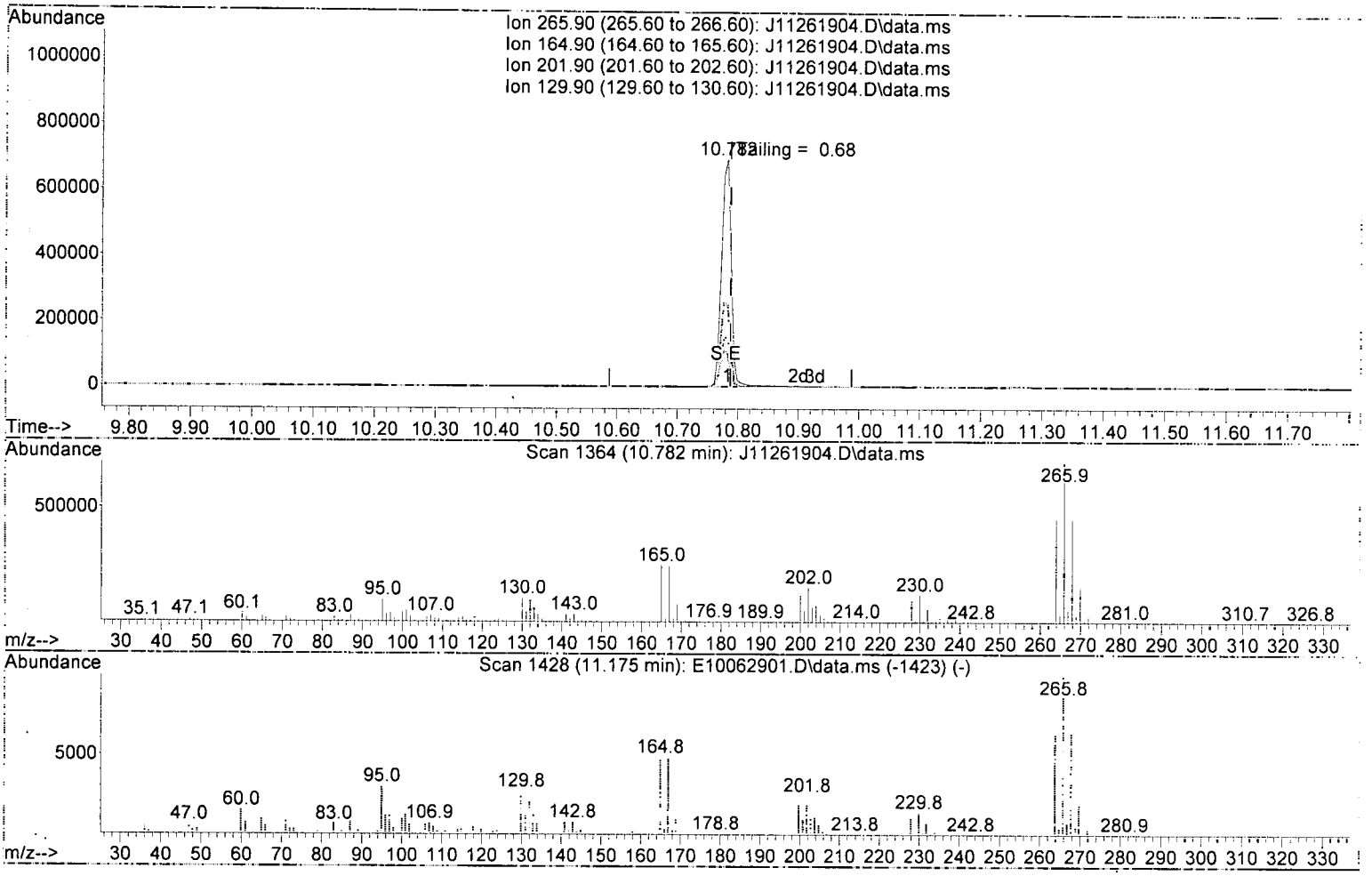
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.413	150	157228	2.00	ug/mL	0.00
2) Naphthalene-d8	7.675	136	422577	2.00	ug/mL	0.00
3) Acenaphthene-d10	9.451	162	221217	2.00	ug/mL	0.00
5) Phenanthrene-d10	10.964	188	375451	2.00	ug/mL	0.00
11) Chrysene-d12	14.559	240	298671	2.00	ug/mL	-0.02
12) Perylene-d12	16.971	264	441	2.00	ug/mL	# 0.06
Target Compounds						Qvalue
4) Pentachlorophenol	10.782	266	751961	36.00	ug/mL	81
6) DFTPP	11.269	442	757802	25.00	ug/mL#	68
7) Benzidine	12.392	184	3187313	23.86	ug/mL	96
8) 4,4-DDE	12.633	TIC	38705	No Calib		
9) 4,4-DDD	13.114	TIC	19179	No Calib		
10) 4,4-DDT	13.633	TIC	9750678	25.33	ug/mL	94

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

Quantitation Report (Qedit)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261904.D
Acq On : 26 Nov 2019 9:49 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-TUN2
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 26 12:46:19 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Mon Nov 11 08:41:49 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J11261904.D\data.ms

(4) Pentachlorophenol

10.782min (-0.005) 36.00 ug/mL

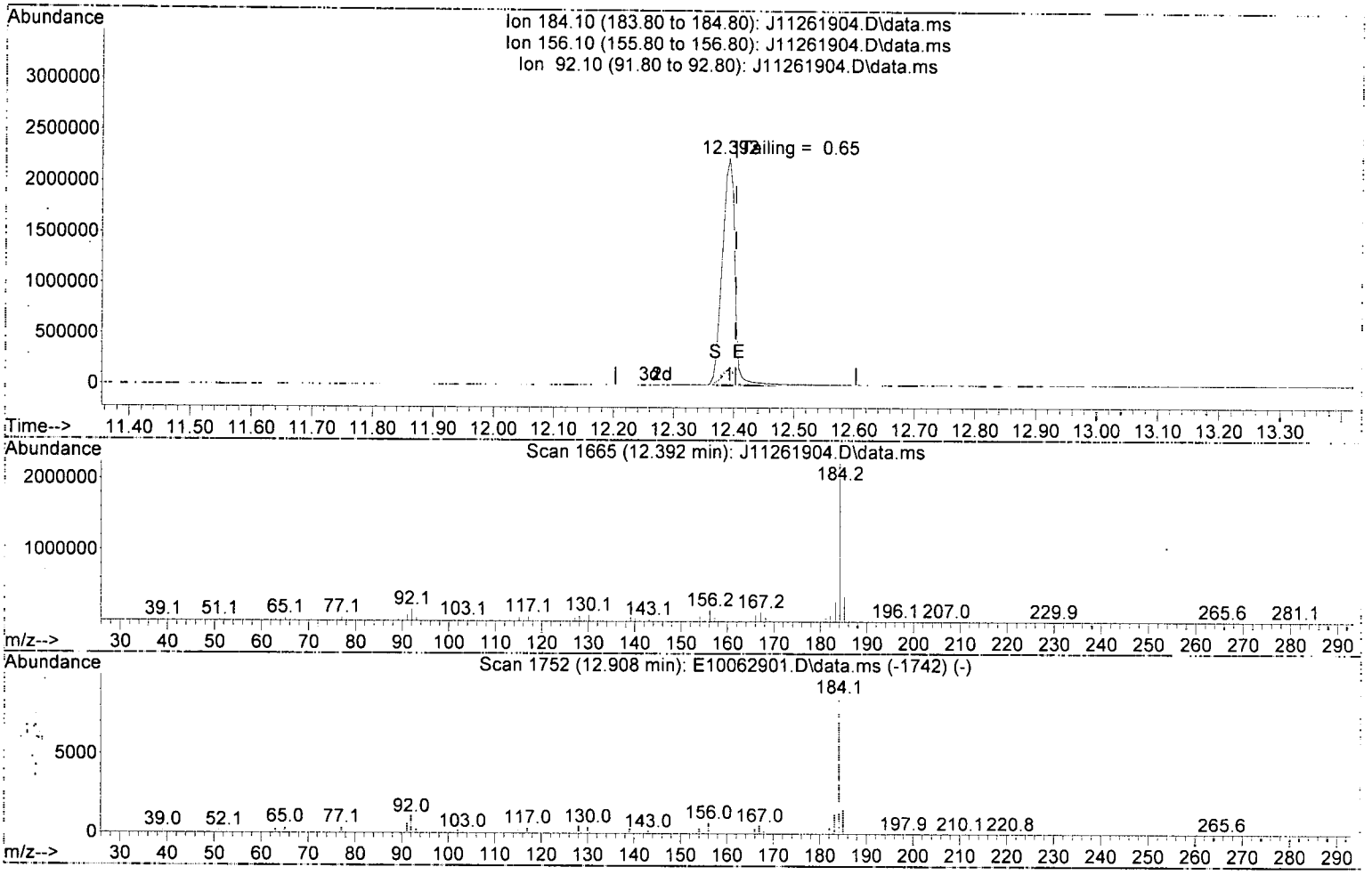
response 751961

Ion	Exp%	Act%
265.90	100.00	100.00
164.90	50.60	35.84
201.90	25.80	21.81
129.90	27.30	14.99

Quantitation Report (Qedit)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261904.D
Acq On : 26 Nov 2019 9:49 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-TUN2
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 26 12:46:19 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Mon Nov 11 08:41:49 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J11261904.D\data.ms

(7) Benzidine

12.392min (-0.011) 23.86 ug/mL

response 3187313

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	8.50	6.95
92.10	8.20	7.23
0.00	0.00	0.00

DDT Breakdown Check (Validated 5/1/2013)

From:
9K26022-TUN2
SV-GCMS10

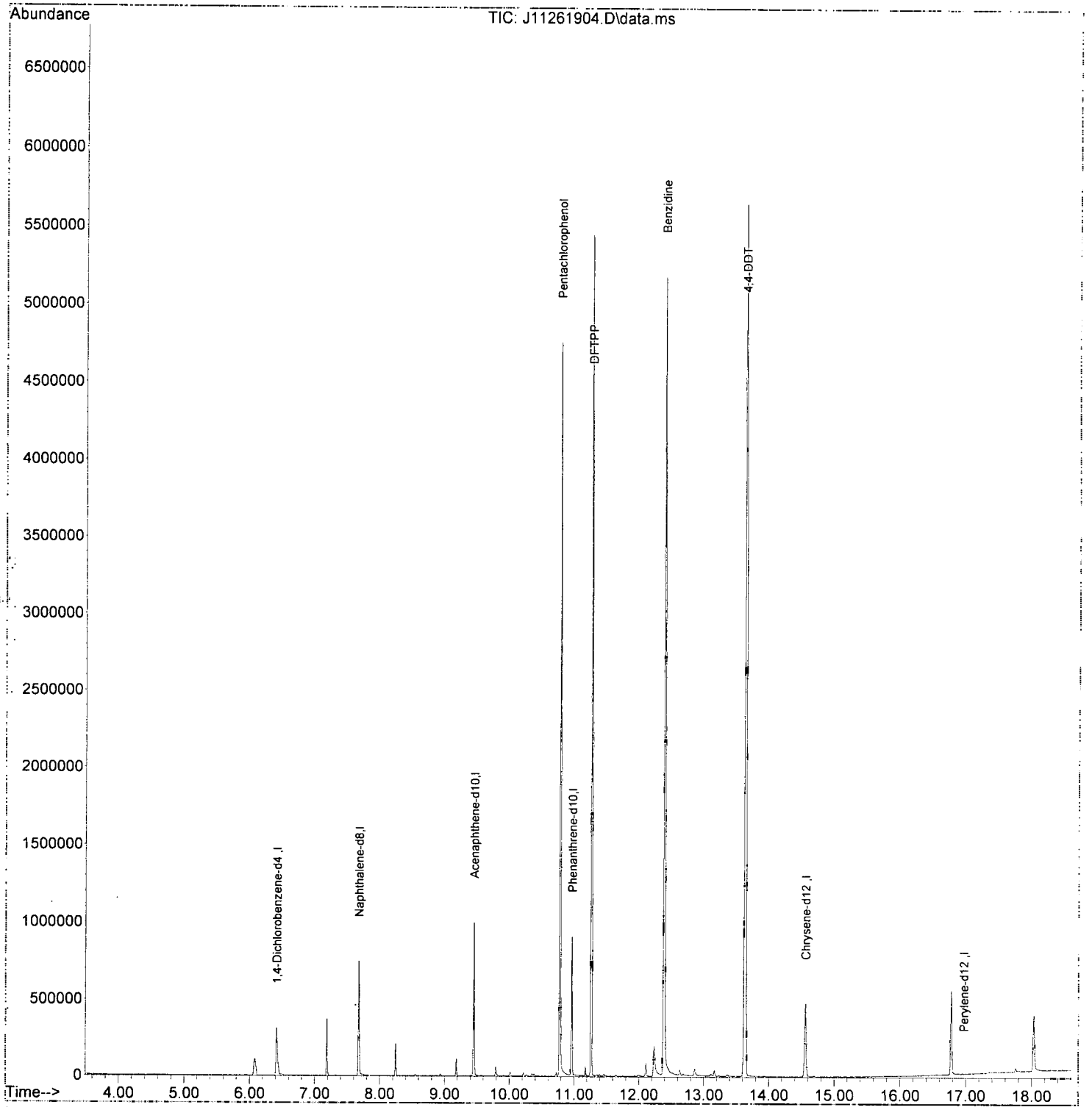
First Column Area Counts		Percent Breakdown	
DDE	38705		
DDD	19179		
DDT	9750678	0.59	PASS

Breakdown must be less than 20% to accept sample data.

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261904.D
Acq On : 26 Nov 2019 9:49 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-TUN2
Misc : 1x, A19K329 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 26 12:46:19 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Mon Nov 11 08:41:49 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Evaluate Continuing Calibration Report

Data Path : T:\data\2019-11\9K26022\
Data File : J11261905.D
Acq On : 26 Nov 2019 10:16 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-CCV2
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 26 12:47:30 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

AMS 11/26/19

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	127	-0.01
2	TG	N-Nitrosodimethylamine	1000.000	896.063	10.4	118	-0.04
3	TG	Pyridine	1000.000	891.192	10.9	115	-0.04
4	S	2-Fluorophenol (Surr)	1000.000	1055.222	-5.5	129	-0.03
5	S	Phenol-d6(Surr)	1000.000	964.140	3.6	113	-0.01
6	T	Phenol	1000.000	925.740	7.4	109	-0.01
7	T	Aniline	1000.000	731.584	26.8#	103	-0.02
8	T	Bis(2-chloroethyl) ether	1000.000	938.145	6.2	110	-0.01
9	T	2-Chlorophenol	1000.000	1038.329	-3.8	124	-0.01
10	T	1,3-Dichlorobenzene	1000.000	1007.512	-0.8	126	-0.02
11	T	1,4-Dichlorobenzene	1000.000	1009.007	-0.9	124	-0.02
12	T	Benzyl alcohol	1000.000	991.731	0.8	120	-0.01
13	T	1,2-Dichlorobenzene	1000.000	1029.009	-2.9	126	-0.01
14	T	2-Methylphenol	1000.000	1020.606	-2.1	117	0.00
15	T	2,2'-Oxybis(1-Chloropropane	1000.000	759.409	24.1#	91	0.00
16	T	N-Nitrosodi-n-propylamine	1000.000	894.905	10.5	106	0.00
17	T	3+4-Methylphenol	1000.000	1040.400	-4.0	116	0.00
18	T	Hexachloroethane	1000.000	1058.283	-5.8	134	-0.01
19	S	Nitrobenzene-d5 (Surr)	1000.000	945.386	5.5	110	-0.01
20	T	Nitrobenzene	1000.000	924.889	7.5	108	0.00
21	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	121	0.00
22	T	Isophorone	1000.000	944.606	5.5	110	0.00
23	T	2-Nitrophenol	1000.000	1384.332	-38.4#	159	0.00
24	T	2,4-Dimethylphenol	1000.000	1144.621	-14.5	129	0.00
25	T	Bis(2-chloroethoxy) methane	1000.000	996.383	0.4	113	0.00
26	T	Benzoic acid	2000.000	2177.133	-8.9	161	0.00
27	T	2,4-Dichlorophenol	1000.000	1068.359	-6.8	128	0.00
28	T	1,2,4-Trichlorobenzene	1000.000	1106.334	-10.6	130	0.00
29	T	Naphthalene	1000.000	1043.544	-4.4	119	0.00
30	T	4-Chloroaniline	1000.000	623.978	37.6#	71	-0.01
31	T	Hexachlorobutadiene	1000.000	1078.809	-7.9	124	0.00
32	T	4-Chloro-3-methylphenol	1000.000	1058.004	-5.8	120	0.00
33	T	2-Methylnaphthalene	1000.000	1085.228	-8.5	122	0.00
34	T	1-Methylnaphthalene	1000.000	1058.247	-5.8	121	0.00
35	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	128	0.00
36	T	Hexachlorocyclopentadiene	1000.000	1341.331	-34.1#	156	0.00
37	T	2,4,6-Trichlorophenol	1000.000	1141.902	-14.2	141	0.00
38	T	2,4,5-Trichlorophenol	1000.000	1124.327	-12.4	141	0.00
39	T	1,1'-Biphenyl	1000.000	1013.743	-1.4	122	0.00
40	S	2-Fluorobiphenyl (Surr)	1000.000	1032.017	-3.2	125	0.00
41	T	2-Chloronaphthalene	1000.000	1085.274	-8.5	130	0.00
42	T	2-Nitroaniline	1000.000	1167.582	-16.8	143	0.00
43	T	2,6-Dimethylnaphthalene	1000.000	1039.868	-4.0	126	0.00
44	T	1,4-Dinitrobenzene	1000.000	1304.479	-30.4#	175	0.00
45	T	Dimethyl phthalate	1000.000	1061.552	-6.2	128	0.00
46	T	1,3-Dinitrobenzene	1000.000	1180.361	-18.0	154	0.00
47	T	2,6-Dinitrotoluene	1000.000	1067.520	-6.8	134	0.00
48	T	1,2-Dinitrobenzene	1000.000	1133.756	-13.4	137	0.00

Evaluate Continuing Calibration Report

Data Path : T:\data\2019-11\9K26022\
Data File : J11261905.D
Acq On : 26 Nov 2019 10:16 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-CCV2
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 26 12:47:30 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

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	1043.647	-4.4	125	0.00
50	T	3-Nitroaniline	1000.000	1067.764	-6.8	131	0.00
51	T	Acenaphthene	1000.000	986.632	1.3	123	0.00
52	T	2,4-Dinitrophenol	1000.000	1369.966	-37.0#	240	0.00
53	T	4-Nitrophenol	1000.000	1036.598	-3.7	130	0.00
54	T	2,4-Dinitrotoluene	1000.000	1113.389	-11.3	146	0.00
55	T	Dibenzofuran	1000.000	1055.805	-5.6	128	0.00
56	T	2,3,5,6-Tetrachlorophenol	1000.000	1122.718	-12.3	141	0.00
57	T	2,3,4,6-Tetrachlorophenol	1000.000	1095.548	-9.6	136	0.00
58	T	Diethyl phthalate	1000.000	1065.658	-6.6	124	0.00
59	T	2,3,5-Trimethylnaphthalene	1000.000	1099.346	-9.9	131	0.00
60	T	Fluorene	1000.000	1041.745	-4.2	128	0.00
61	T	4-Chlorophenyl phenyl ether	1000.000	1060.133	-6.0	129	0.00
62	T	4-Nitroaniline	1000.000	1297.395	-29.7#	165	0.00
63	T	4,6-Dinitro-2-methylphenol	1000.000	1295.448	-29.5#	186	0.00
64	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	130	0.00
65	T	N-Nitrosodiphenylamine	1000.000	1080.166	-8.0	132	0.00
66	T	Azobenzene (1,2-DPH)	1000.000	897.614	10.2	109	0.00
67	S	2,4,6-Tribromophenol (Surr)	1000.000	972.857	2.7	125	0.00
68	T	4-Bromophenyl phenyl ether	1000.000	1073.251	-7.3	134	0.00
69	T	Hexachlorobenzene	1000.000	1019.619	-2.0	126	0.00
70	T	Pentachlorophenol (PCP)	1000.000	955.071	4.5	137	0.00
71	T	Phenanthrene	1000.000	1015.637	-1.6	130	0.00
72	T	Anthracene	1000.000	1056.953	-5.7	130	0.00
73	T	Carbazole	1000.000	1190.358	-19.0	144	0.00
74	T	Di-n-butyl phthalate	1000.000	1056.986	-5.7	127	0.00
75	T	Fluoranthene	1000.000	1098.614	-9.9	131	0.00
76	T	Benzidine	2000.000	1743.316	12.8	110	0.00
77	T	Pyrene	1000.000	1091.411	-9.1	130	0.00
78	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	129	0.00
79	S	Terphenyl-d14 (Surr)	1000.000	1087.739	-8.8	133	0.00
80	T	Butyl benzyl phthalate	1000.000	1068.454	-6.8	133	0.00
81	T	Bis(2-ethylhexyl) adipate	1000.000	1065.354	-6.5	135	0.00
82	T	3,3-Dichlorobenzidine	2000.000	1954.743	2.3	120	0.02
83	T	Benz(a)anthracene	1000.000	1031.248	-3.1	135	0.00
84	T	Chrysene	1000.000	1047.201	-4.7	133	0.00
85	T	Bis(2-ethylhexyl) phthalate	1000.000	1089.073	-8.9	136	0.00
86	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	127	0.00
87	T	Di-n-octyl phthalate	1000.000	1042.228	-4.2	134	0.00
88	T	Benzo(b)fluoranthene	1000.000	1082.008	-8.2	137	0.00
89	T	Benzo(k)fluoranthene	1000.000	1066.077	-6.6	135	0.00
90	T	Benzo(b+k)fluoranthene	2000.000	2131.342	-6.6	136	0.00
91	T	Benzo(e)pyrene	1000.000	1134.863	-13.5	134	0.00
92	T	Benzo(a)pyrene	1000.000	1109.126	-10.9	138	0.00
93	T	Perylene	1000.000	1111.583	-11.2	140	0.00
94	I	Dibenz(a,h)Anthrcene-d14 (I	2000.000	2000.000	0.0	128	0.01

Evaluate Continuing Calibration Report

Data Path : T:\data\2019-11\9K26022\
Data File : J11261905.D
Acq On : 26 Nov 2019 10:16 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-CCV2
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 26 12:47:30 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

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	1025.951	-2.6	135	0.00
96 T	Dibenz(a,h)anthracene	1000.000	1083.055	-8.3	136	0.01
97 T	Benzo(g,h,i)perylene	1000.000	1127.037	-12.7	135	0.01

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

Data Path : T:\data\2019-11\9K26022\
Data File : J11261905.D
Acq On : 26 Nov 2019 10:16 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-CCV2
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 26 12:47:30 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.380	152	361048	2000.00 ng/ml	-0.01
21) Naphthalene-d8 (ISTD)	7.648	136	1385010	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	748930	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.937	188	1388573	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.526	240	1350896	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	17.971	264	1328057	2000.00 ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.362	292	1134512	2000.00 ng/ml	0.01
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.118	112	231195	1055.22 ng/ml	-0.03
5) Phenol-d6(Surr)	6.033	99	270382	964.14 ng/ml	-0.01
19) Nitrobenzene-d5 (Surr)	6.926	82	205680	945.39 ng/ml	-0.01
40) 2-Fluorobiphenyl (Surr)	8.739	172	604885	1032.02 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	81376	972.86 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	677167	1087.74 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	3.701	74	123232m	896.06 ng/ml	
3) Pyridine	3.711	79	208947m	891.19 ng/ml	
6) Phenol	6.049	94	285466	925.74 ng/ml	94
7) Aniline	6.065	93	194636	731.58 ng/ml	96
8) Bis(2-chloroethyl) ether	6.124	93	261084	938.15 ng/ml	97
9) 2-Chlorophenol	6.183	128	265446	1038.33 ng/ml	97
10) 1,3-Dichlorobenzene	6.327	146	289508	1007.51 ng/ml	98
11) 1,4-Dichlorobenzene	6.396	146	284963	1009.01 ng/ml	97
12) Benzyl alcohol	6.519	108	150225	991.73 ng/ml	92
13) 1,2-Dichlorobenzene	6.552	146	286599	1029.01 ng/ml	97
14) 2-Methylphenol	6.637	107	189797	1020.61 ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.653	45	186509	759.41 ng/ml	85
16) N-Nitrosodi-n-propylamine	6.782	70	144595	894.90 ng/ml	91
17) 3+4-Methylphenol	6.787	107	239909	1040.40 ng/ml	97
18) Hexachloroethane	6.883	201	91833	1058.28 ng/ml	94
20) Nitrobenzene	6.947	77	203870	924.89 ng/ml	89
22) Isophorone	7.183	82	417093	944.61 ng/ml	97
23) 2-Nitrophenol	7.263	139	183121	1384.33 ng/ml	92
24) 2,4-Dimethylphenol	7.311	122	212550	1144.62 ng/ml	94
25) Bis(2-chloroethoxy) me...	7.397	93	267465	996.38 ng/ml	99
26) Benzoic acid	7.407	105	159975	2177.13 ng/ml	96
27) 2,4-Dichlorophenol	7.509	162	221856	1068.36 ng/ml	96
28) 1,2,4-Trichlorobenzene	7.589	180	268179	1106.33 ng/ml	99
29) Naphthalene	7.669	128	760321	1043.54 ng/ml	100
30) 4-Chloroaniline	7.728	127	142485	623.98 ng/ml	96
31) Hexachlorobutadiene	7.803	225	141312	1078.81 ng/ml	99
32) 4-Chloro-3-methylphenol	8.215	107	194439	1058.00 ng/ml	90
33) 2-Methylnaphthalene	8.365	142	552458	1085.23 ng/ml	99
34) 1-Methylnaphthalene	8.466	142	521518	1058.25 ng/ml	99
36) Hexachlorocyclopentadiene	8.536	237	155342	1341.33 ng/ml	98
37) 2,4,6-Trichlorophenol	8.654	196	165844	1141.90 ng/ml	98
38) 2,4,5-Trichlorophenol	8.691	198	160989	1124.33 ng/ml	99
39) 1,1'-Biphenyl	8.835	154	652563	1013.74 ng/ml	98
41) 2-Chloronaphthalene	8.857	162	504546	1085.27 ng/ml	96
42) 2-Nitroaniline	8.958	138	162843	1167.58 ng/ml	89
43) 2,6-Dimethylnaphthalene	8.996	156	491064	1039.87 ng/ml	98

Data Path : T:\data\2019-11\9K26022\
Data File : J11261905.D
Acq On : 26 Nov 2019 10:16 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-CCV2
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 26 12:47:30 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

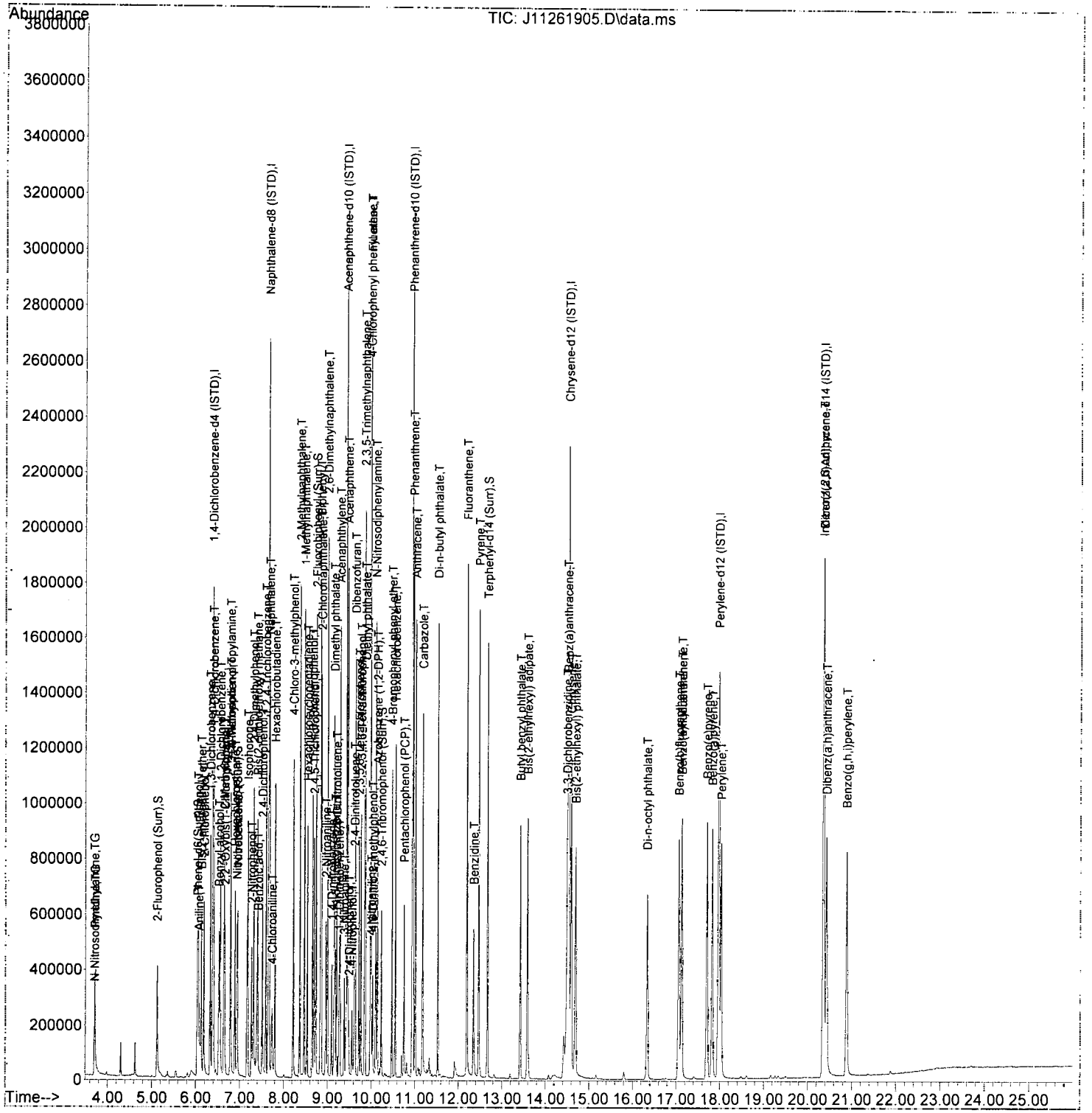
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.092	168	77434	1304.48	ng/ml	77
45) Dimethyl phthalate	9.146	163	574148	1061.55	ng/ml	99
46) 1,3-Dinitrobenzene	9.172	168	88498	1180.36	ng/ml	86
47) 2,6-Dinitrotoluene	9.204	165	130020	1067.52	ng/ml	89
48) 1,2-Dinitrobenzene	9.258	168	62123	1133.76	ng/ml	82
49) Acenaphthylene	9.279	152	794557	1043.65	ng/ml	99
50) 3-Nitroaniline	9.376	138	99617	1067.76	ng/ml	88
51) Acenaphthene	9.456	153	493252	986.63	ng/ml	99
52) 2,4-Dinitrophenol	9.483	184	43311	1369.97	ng/ml	88
53) 4-Nitrophenol	9.557	139	76390	1036.60	ng/ml	91
54) 2,4-Dinitrotoluene	9.616	165	169706	1113.39	ng/ml	81
55) Dibenzofuran	9.632	168	703620	1055.81	ng/ml	97
56) 2,3,5,6-Tetrachlorophenol	9.718	232	129256	1122.72	ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	9.761	232	137967	1095.55	ng/ml	95
58) Diethyl phthalate	9.862	149	530554	1065.66	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	9.846	170	466537	1099.35	ng/ml	91
60) Fluorene	9.980	166	546349	1041.75	ng/ml	98
61) 4-Chlorophenyl phenyl ...	9.975	204	271053	1060.13	ng/ml	96
62) 4-Nitroaniline	9.996	138	104418	1297.39	ng/ml	91
63) 4,6-Dinitro-2-methylph...	10.028	198	72386	1295.45	ng/ml	94
65) N-Nitrosodiphenylamine	10.098	169	462466	1080.17	ng/ml	99
66) Azobenzene (1,2-DPH)	10.135	77	388908	897.61	ng/ml	93
68) 4-Bromophenyl phenyl e...	10.472	248	168162	1073.25	ng/ml	95
69) Hexachlorobenzene	10.552	284	191656	1019.62	ng/ml	97
70) Pentachlorophenol (PCP)	10.750	266	89468	955.07	ng/ml	98
71) Phenanthrene	10.959	178	791178	1015.64	ng/ml	100
72) Anthracene	11.012	178	791449	1056.95	ng/ml	99
73) Carbazole	11.173	167	660701	1190.36	ng/ml	99
74) Di-n-butyl phthalate	11.526	149	867990	1056.99	ng/ml	99
75) Fluoranthene	12.194	202	877144	1098.61	ng/ml	99
76) Benzidine	12.349	184	333599	1743.32	ng/ml	96
77) Pyrene	12.467	202	886776	1091.41	ng/ml	98
80) Butyl benzyl phthalate	13.419	149	370571	1068.45	ng/ml	90
81) Bis(2-ethylhexyl) adipate	13.585	129	333794	1065.35	ng/ml	100
82) 3,3-Dichlorobenzidine	14.489	252	209207	1954.74	ng/ml	95
83) Benz(a)anthracene	14.505	228	777805	1031.25	ng/ml	98
84) Chrysene	14.585	228	740179	1047.20	ng/ml	100
85) Bis(2-ethylhexyl) phth...	14.687	149	529216	1089.07	ng/ml	98
87) Di-n-octyl phthalate	16.329	149	795912	1042.23	ng/ml	98
88) Benzo(b)fluoranthene	17.056	252	793115	1082.01	ng/ml	98
89) Benzo(k)fluoranthene	17.126	252	786228	1066.08	ng/ml	99
90) Benzo(b+k)fluoranthene	17.126	252	1603413	2131.34	ng/ml	99
91) Benzo(e)pyrene	17.703	252	774644	1134.86	ng/ml	99
92) Benzo(a)pyrene	17.821	252	738208	1109.13	ng/ml	99
93) Perylene	18.024	252	665765	1111.58	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.351	276	688290	1025.95	ng/ml	99
96) Dibenz(a,h)anthracene	20.426	278	667115	1083.05	ng/ml	98
97) Benzo(g,h,i)perylene	20.886	276	726261	1127.04	ng/ml	97

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

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261905.D
Acq On : 26 Nov 2019 10:16 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-CCV2
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 26 12:47:30 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261906.D
Acq On : 26 Nov 2019 10:52 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

AMS 11/26/19

Quant Time: Nov 26 12:47:53 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.381	152	419057	2000.00 ng/ml	-0.01
21) Naphthalene-d8 (ISTD)	7.648	136	1631497	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	883506	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.932	188	1617278	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.521	240	1667447	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	17.966	264	1651056	2000.00 ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.357	292	1416154	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)	6.878	82	80	0.32 ng/ml	-0.06
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)	12.671	244	171	0.22 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.	
3) Pyridine	3.685	79	810m	2.98 ng/ml#	
6) Phenol	6.118	94	130	N.D.	
7) Aniline	6.065	93	66	N.D.	
8) Bis(2-chloroethyl) ether	6.065	93	66	N.D.	
9) 2-Chlorophenol	6.225	128	59	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	6.760	70	106	N.D.	
17) 3+4-Methylphenol	6.798	107	78	N.D.	
18) Hexachloroethane	0.000		0	N.D.	
20) Nitrobenzene	6.910	77	121	N.D.	
22) Isophorone	7.156	82	85	N.D.	
23) 2-Nitrophenol	0.000		0	N.D.	
24) 2,4-Dimethylphenol	0.000		0	N.D.	
25) Bis(2-chloroethoxy) me...	7.450	93	64	N.D.	
26) Benzoic acid	7.391	105	54	806.44 ng/ml#	8
27) 2,4-Dichlorophenol	0.000		0	N.D.	
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
29) Naphthalene	7.670	128	162	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 : T:\data\2019-11\9K26022\
Data File : J11261906.D
Acq On : 26 Nov 2019 10:52 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

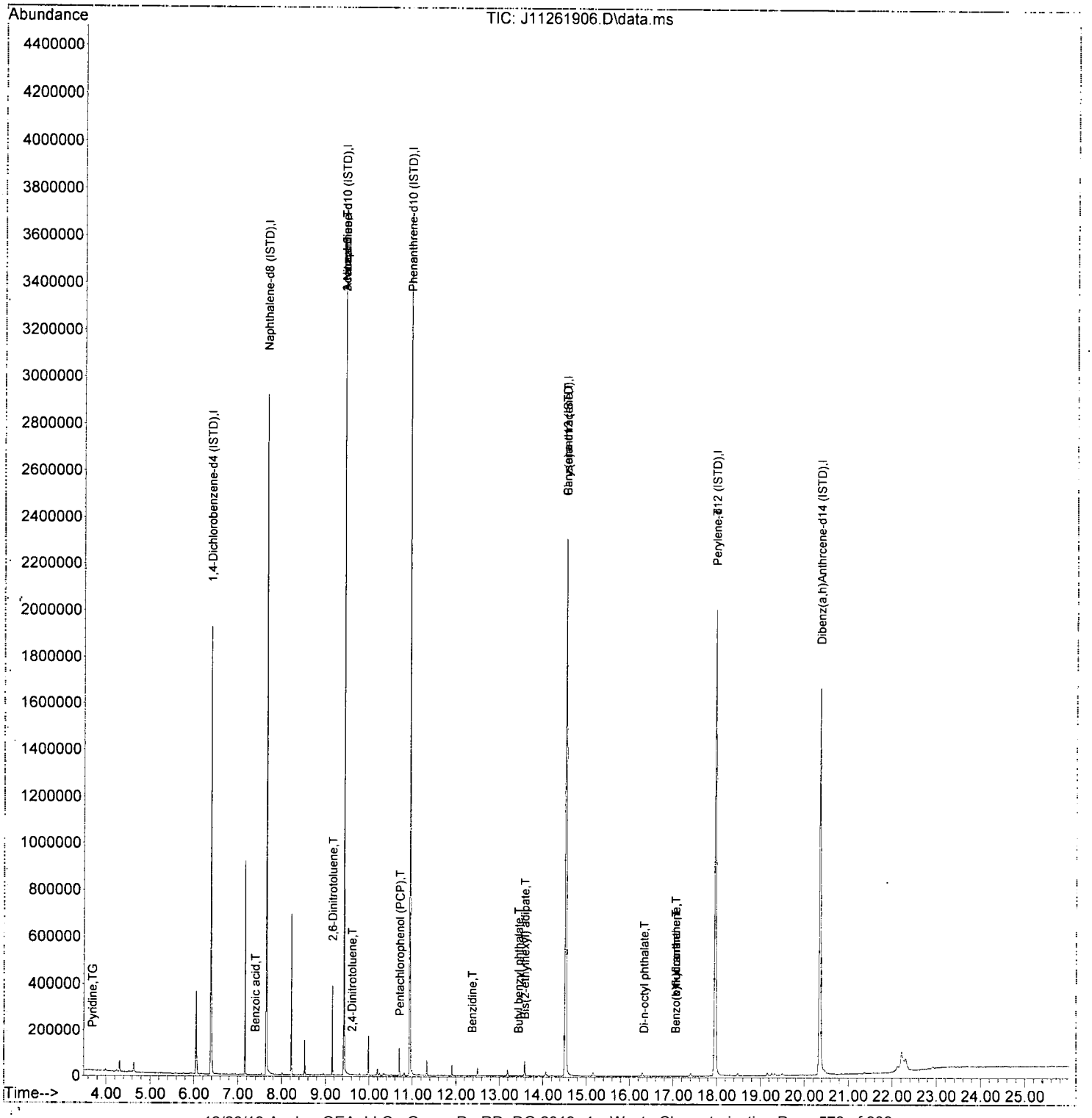
Quant Time: Nov 26 12:47:53 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	9.156	163	156	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	9.156	165	146	26.06 ng/ml#	51
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	0.000		0	N.D.	
50) 3-Nitroaniline	9.424	138	95	30.40 ng/ml#	1
51) Acenaphthene	9.424	153	297	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	9.606	165	108	54.31 ng/ml#	27
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	9.863	149	71	N.D.	
59) 2,3,5-Trimethylnaphtha...	9.948	170	174	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)	10.151	77	68	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	10.702	266	97	77.42 ng/ml#	1
71) Phenanthrene	10.938	178	911	N.D.	
72) Anthracene	11.012	178	50	N.D.	
73) Carbazole	0.000		0	N.D.	
74) Di-n-butyl phthalate	11.531	149	196	N.D.	
75) Fluoranthene	12.195	202	162	N.D.	
76) Benzidine	12.371	184	73	123.30 ng/ml	67
77) Pyrene	12.467	202	280	N.D.	
80) Butyl benzyl phthalate	13.435	149	90	29.56 ng/ml#	1
81) Bis(2-ethylhexyl) adipate	13.580	129	19630	50.76 ng/ml	93
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.527	228	3661	3.93 ng/ml	68
84) Chrysene	14.580	228	271	N.D.	
85) Bis(2-ethylhexyl) phth...	14.682	149	749	N.D.	
87) Di-n-octyl phthalate	16.324	149	85	58.03 ng/ml#	1
88) Benzo(b)fluoranthene	17.051	252	263	8.25 ng/ml	57
89) Benzo(k)fluoranthene	17.051	252	222	8.71 ng/ml	57
90) Benzo(b+k)fluoranthene	17.051	252	263	16.01 ng/ml	57
91) Benzo(e)pyrene	17.623	252	84	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	17.966	252	5355	7.19 ng/ml	71
95) Indeno(1,2,3-cd)pyrene	20.362	276	886	N.D.	
96) Dibenz(a,h)anthracene	20.405	278	208	N.D.	
97) Benzo(g,h,i)perylene	20.870	276	164	N.D.	

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

Data Path : T:\data\2019-11\9K26022\
Data File : J11261906.D
Acq On : 26 Nov 2019 10:52 am
Operator : JK/ AMS/ DTH
Sample : 9K26022-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 26 12:47:53 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261907.D
Acq On : 26 Nov 2019 11:28 am
Operator : JK/ AMS/ DTH
Sample : 9111196-BLK1
Misc : 1x, 625 B(a)P Only
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

AMS 11/26/19

Quant Time: Nov 26 12:48:06 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.386	152	453367	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	1636282	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	884708	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.932	188	1572664	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.526	240	1633391	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	17.971	264	1588995	2000.00 ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.357	292	1351282	2000.00 ng/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.129	112	120761	438.94 ng/ml	-0.02
5) Phenol-d6(Surr)	6.044	99	71703	203.62 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.926	82	180523	660.79 ng/ml	-0.01
40) 2-Fluorobiphenyl (Surr)	8.734	172	419162	605.39 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	69033	733.47 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	632333	840.05 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.	
3) Pyridine	3.754	79	955m	3.24 ng/ml#	
6) Phenol	6.054	94	2086	5.39 ng/ml#	48
7) Aniline	6.076	93	67	N.D.	
8) Bis(2-chloroethyl) ether	6.113	93	444	N.D.	
9) 2-Chlorophenol	6.183	128	222	N.D.	
10) 1,3-Dichlorobenzene	6.332	146	64	N.D.	
11) 1,4-Dichlorobenzene	6.402	146	191	N.D.	
12) Benzyl alcohol	6.536	108	158	25.30 ng/ml#	54
13) 1,2-Dichlorobenzene	0.000		0	N.D.	
14) 2-Methylphenol	6.648	107	148	N.D.	
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.	
16) N-Nitrosodi-n-propylamine	6.787	70	72	N.D.	
17) 3+4-Methylphenol	6.808	107	67	N.D.	
18) Hexachloroethane	0.000		0	N.D.	
20) Nitrobenzene	6.931	77	781	2.82 ng/ml#	30
22) Isophorone	7.188	82	207	N.D.	
23) 2-Nitrophenol	7.279	139	51	42.61 ng/ml#	42
24) 2,4-Dimethylphenol	0.000		0	N.D.	
25) Bis(2-chloroethoxy) me...	7.418	93	162	N.D.	
26) Benzoic acid	7.391	105	281	808.15 ng/ml#	42
27) 2,4-Dichlorophenol	0.000		0	N.D.	
28) 1,2,4-Trichlorobenzene	7.589	180	66	N.D.	
29) Naphthalene	7.664	128	2328	2.70 ng/ml	94
30) 4-Chloroaniline	7.664	127	247	14.14 ng/ml#	27
31) Hexachlorobutadiene	0.000		0	N.D.	
32) 4-Chloro-3-methylphenol	8.236	107	300	N.D.	
33) 2-Methylnaphthalene	8.365	142	418	N.D.	
34) 1-Methylnaphthalene	8.466	142	312	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	8.836	154	629	N.D.	
41) 2-Chloronaphthalene	8.862	162	122	N.D.	
42) 2-Nitroaniline	0.000		0	N.D.	
43) 2,6-Dimethylnaphthalene	8.996	156	78	N.D.	

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261907.D
Acq On : 26 Nov 2019 11:28 am
Operator : JK/ AMS/ DTH
Sample : 9111196-BLK1
Misc : 1x, 625 B(a)P Only
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 26 12:48:06 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

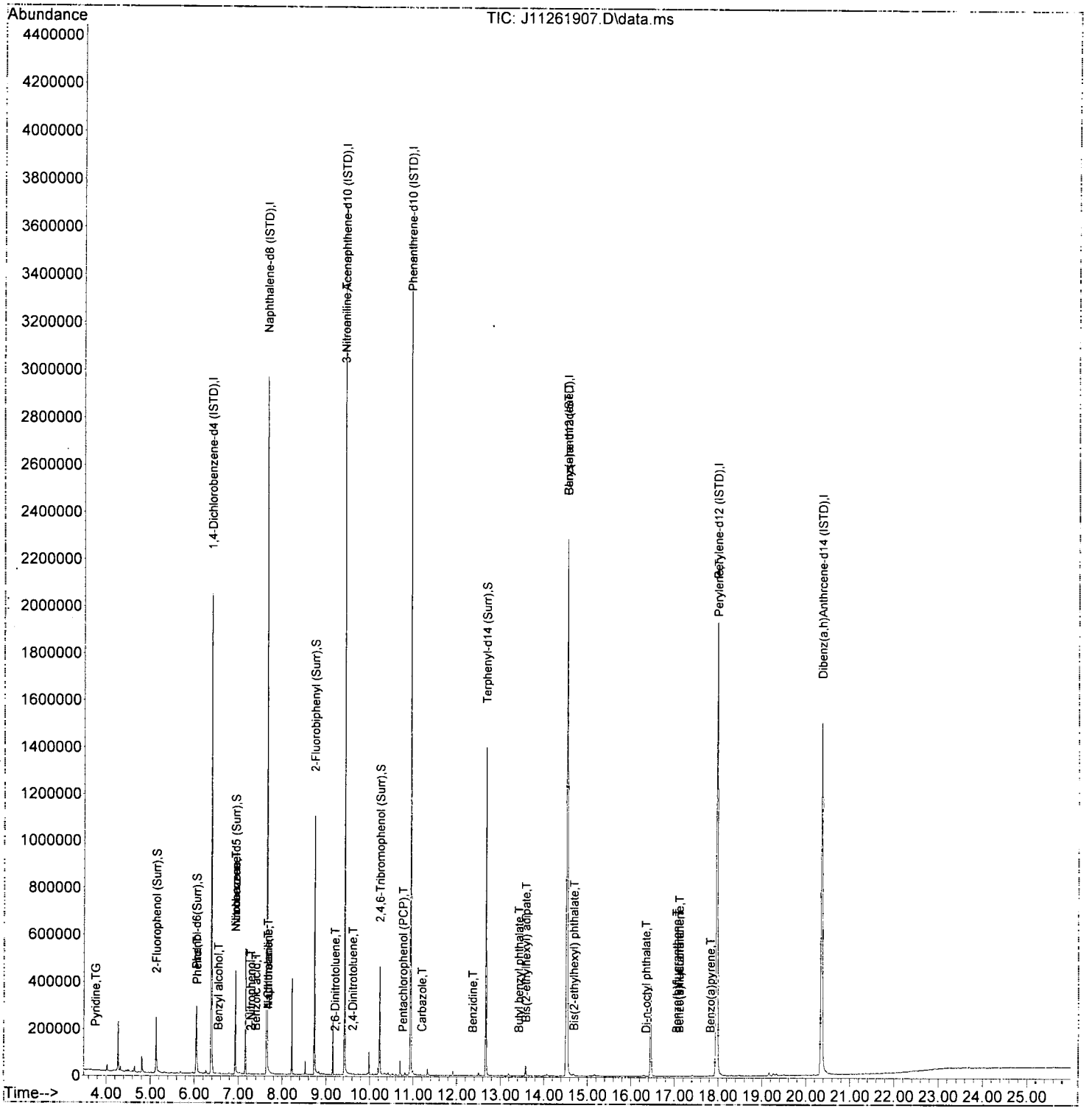
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44)	1,4-Dinitrobenzene	0.000		0	N.D.	
45)	Dimethyl phthalate	9.140	163	248	N.D.	
46)	1,3-Dinitrobenzene	0.000		0	N.D.	
47)	2,6-Dinitrotoluene	9.199	165	87	25.66 ng/ml#	62
48)	1,2-Dinitrobenzene	0.000		0	N.D.	
49)	Acenaphthylene	9.279	152	259	N.D.	
50)	3-Nitroaniline	9.419	138	87	30.34 ng/ml#	1
51)	Acenaphthene	9.456	153	397	N.D.	
52)	2,4-Dinitrophenol	0.000		0	N.D.	
53)	4-Nitrophenol	0.000		0	N.D.	
54)	2,4-Dinitrotoluene	9.606	165	148	54.52 ng/ml#	27
55)	Dibenzofuran	9.632	168	218	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	9.857	149	472	N.D.	
59)	2,3,5-Trimethylnaphtha...	9.873	170	55	N.D.	
60)	Fluorene	9.980	166	316	N.D.	
61)	4-Chlorophenyl phenyl ...	9.975	204	63	N.D.	
62)	4-Nitroaniline	0.000		0	N.D.	
63)	4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65)	N-Nitrosodiphenylamine	10.103	169	115	N.D.	
66)	Azobenzene (1,2-DPH)	10.146	77	488	N.D.	
68)	4-Bromophenyl phenyl e...	0.000		0	N.D.	
69)	Hexachlorobenzene	10.547	284	51	N.D.	
70)	Pentachlorophenol (PCP)	10.756	266	140	77.81 ng/ml#	37
71)	Phenanthrene	10.959	178	1915	N.D.	
72)	Anthracene	11.002	178	472	N.D.	
73)	Carbazole	11.189	167	233	5.87 ng/ml	60
74)	Di-n-butyl phthalate	11.526	149	1155	N.D.	
75)	Fluoranthene	12.200	202	991	N.D.	
76)	Benzidine	12.360	184	72	123.30 ng/ml	67
77)	Pyrene	12.467	202	919	N.D.	
80)	Butyl benzyl phthalate	13.419	149	116	29.63 ng/ml#	27
81)	Bis(2-ethylhexyl) adipate	13.580	129	14247	37.61 ng/ml	95
82)	3,3-Dichlorobenzidine	0.000		0	N.D.	
83)	Benz(a)anthracene	14.526	228	4051	4.44 ng/ml	63
84)	Chrysene	14.569	228	525	N.D.	
85)	Bis(2-ethylhexyl) phth...	14.682	149	4456	7.58 ng/ml	83
87)	Di-n-octyl phthalate	16.340	149	53	58.00 ng/ml	54
88)	Benzo(b)fluoranthene	17.046	252	57	8.02 ng/ml	57
89)	Benzo(k)fluoranthene	17.105	252	202	8.70 ng/ml	57
90)	Benzo(b+k)fluoranthene	17.105	252	420	16.20 ng/ml	57
91)	Benzo(e)pyrene	17.704	252	183	N.D.	
92)	Benzo(a)pyrene	17.816	252	234	10.13 ng/ml	59
93)	Perylene	17.976	252	5353	7.47 ng/ml	74
95)	Indeno(1,2,3-cd)pyrene	20.340	276	211	N.D.	
96)	Dibenz(a,h)anthracene	20.415	278	77	N.D.	
97)	Benzo(g,h,i)perylene	20.881	276	125	N.D.	

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

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261907.D
Acq On : 26 Nov 2019 11:28 am
Operator : JK/ AMS/ DTH
Sample : 9111196-BLK1
Misc : 1x, 625 B(a)P Only
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 26 12:48:06 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261908.D
Acq On : 26 Nov 2019 12:04 pm
Operator : JK/ AMS/ DTH
Sample : 9111196-BS1
Misc : 1x, 625 B(a)P Only
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

AMS 11/26/19

Quant Time: Nov 26 12:48:25 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.380	152	440697	2000.00	ng/ml	-0.01
21) Naphthalene-d8 (ISTD)	7.648	136	1581967	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	854856	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.938	188	1584035	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.532	240	1544885	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	17.976	264	1618769	2000.00	ng/ml	0.01
94) Dibenz(a,h)Anthrcene-d...	20.367	292	1398958	2000.00	ng/ml	0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.118	112	114242	427.19	ng/ml	-0.03
5) Phenol-d6(Surr)	6.038	99	83348	243.49	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.926	82	176246	663.68	ng/ml	-0.01
40) 2-Fluorobiphenyl (Surr)	8.734	172	456580	682.46	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	74570	785.16	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	587095	824.64	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.695	74	63418m	377.79	ng/ml	
3) Pyridine	3.706	79	671	N.D.		
6) Phenol	6.049	94	145532	386.65	ng/ml	95
7) Aniline	6.049	93	3790	11.67	ng/ml#	1
8) Bis(2-chloroethyl) ether	6.124	93	316858	932.78	ng/ml	98
9) 2-Chlorophenol	6.183	128	341507	1094.42	ng/ml	96
10) 1,3-Dichlorobenzene	6.327	146	203210	579.37	ng/ml	98
11) 1,4-Dichlorobenzene	6.397	146	201987	585.94	ng/ml	98
12) Benzyl alcohol	6.520	108	121588	668.14	ng/ml	93
13) 1,2-Dichlorobenzene	6.552	146	212583	625.31	ng/ml	97
14) 2-Methylphenol	6.637	107	226750	998.94	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.653	45	242938	810.39	ng/ml	88
16) N-Nitrosodi-n-propylamine	6.782	70	206379	1046.44	ng/ml	92
17) 3+4-Methylphenol	6.787	107	259278	921.18	ng/ml	98
18) Hexachloroethane	6.883	201	56334	531.86	ng/ml	96
20) Nitrobenzene	6.947	77	277889	1032.84	ng/ml	92
22) Isophorone	7.183	82	601382	1192.40	ng/ml	97
23) 2-Nitrophenol	7.268	139	203996	1351.30	ng/ml	84
24) 2,4-Dimethylphenol	7.311	122	297155	1401.00	ng/ml	93
25) Bis(2-chloroethoxy) me...	7.397	93	380792	1241.95	ng/ml	99
26) Benzoic acid	7.402	105	101370	1578.94	ng/ml	95
27) 2,4-Dichlorophenol	7.509	162	315363	1327.43	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.589	180	194692	703.18	ng/ml	99
29) Naphthalene	7.670	128	734394	882.47	ng/ml	99
30) 4-Chloroaniline	7.723	127	14378	66.36	ng/ml	98
31) Hexachlorobutadiene	7.798	225	82151	549.08	ng/ml	99
32) 4-Chloro-3-methylphenol	8.210	107	277177	1320.43	ng/ml	95
33) 2-Methylnaphthalene	8.365	142	520831	895.72	ng/ml	98
34) 1-Methylnaphthalene	8.466	142	516712	917.96	ng/ml	98
36) Hexachlorocyclopentadiene	8.536	237	94243	712.93	ng/ml	96
37) 2,4,6-Trichlorophenol	8.654	196	241706	1449.63	ng/ml	99
38) 2,4,5-Trichlorophenol	8.691	198	240506	1464.75	ng/ml	97
39) 1,1'-Biphenyl	8.841	154	1958	2.66	ng/ml	95
41) 2-Chloronaphthalene	8.857	162	542073	1021.51	ng/ml	96
42) 2-Nitroaniline	8.959	138	237774	1477.85	ng/ml	88
43) 2,6-Dimethylnaphthalene	9.001	156	445	N.D.		

Data Path : T:\data\2019-11\9K26022\
Data File : J11261908.D
Acq On : 26 Nov 2019 12:04 pm
Operator : JK/ AMS/ DTH
Sample : 9111196-BS1
Misc : 1x, 625 B(a)P Only
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 26 12:48:25 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

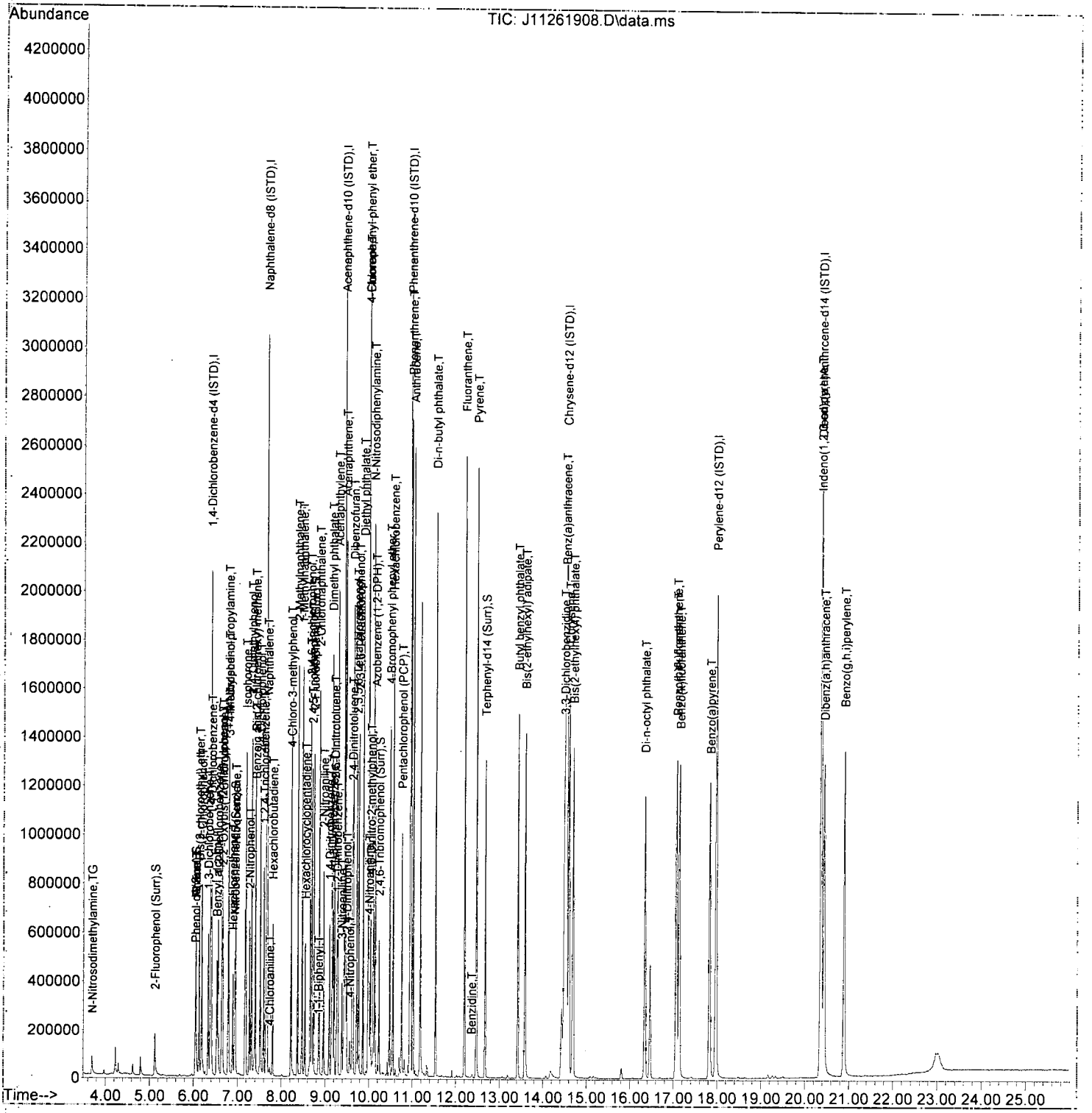
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.092	168	119421	1707.37	ng/ml	79
45)	Dimethyl phthalate	9.146	163	835530	1353.40	ng/ml	99
46)	1,3-Dinitrobenzene	9.172	168	131241	1508.54	ng/ml	87
47)	2,6-Dinitrotoluene	9.205	165	196599	1409.02	ng/ml	90
48)	1,2-Dinitrobenzene	9.263	168	91124	1456.96	ng/ml	75
49)	Acenaphthylene	9.279	152	977465	1124.81	ng/ml	99
50)	3-Nitroaniline	9.376	138	96554	876.38	ng/ml	92
51)	Acenaphthene	9.456	153	600805	1052.85	ng/ml	100
52)	2,4-Dinitrophenol	9.483	184	79433	1936.31	ng/ml	86
53)	4-Nitrophenol	9.558	139	41476	546.69	ng/ml	94
54)	2,4-Dinitrotoluene	9.616	165	252352	1439.14	ng/ml	81
55)	Dibenzofuran	9.632	168	908358	1194.13	ng/ml	98
56)	2,3,5,6-Tetrachlorophenol	9.718	232	194966	1466.84	ng/ml	95
57)	2,3,4,6-Tetrachlorophenol	9.761	232	198197	1372.30	ng/ml	97
58)	Diethyl phthalate	9.862	149	796563	1401.70	ng/ml	98
59)	2,3,5-Trimethylnaphtha...	9.857	170	438	N.D.		
60)	Fluorene	9.980	166	709913	1185.89	ng/ml	98
61)	4-Chlorophenyl phenyl ...	9.975	204	353265	1210.47	ng/ml	94
62)	4-Nitroaniline	9.996	138	141380	1538.98	ng/ml	93
63)	4,6-Dinitro-2-methylph...	10.034	198	132670	1925.38	ng/ml	87
65)	N-Nitrosodiphenylamine	10.098	169	650600	1332.08	ng/ml	99
66)	Azobenzene (1,2-DPH)	10.141	77	533415	1079.22	ng/ml	85
68)	4-Bromophenyl phenyl e...	10.478	248	235917	1319.89	ng/ml	95
69)	Hexachlorobenzene	10.552	284	271535	1266.33	ng/ml	98
70)	Pentachlorophenol (PCP)	10.750	266	145287	1328.79	ng/ml	98
71)	Phenanthrene	10.959	178	1098032	1235.62	ng/ml	99
72)	Anthracene	11.012	178	1118430	1309.32	ng/ml	99
73)	Carbazole	11.173	167	998568	Below Cal		99
74)	Di-n-butyl phthalate	11.526	149	1299187	1386.85	ng/ml	99
75)	Fluoranthene	12.194	202	1280065	1405.43	ng/ml	98
76)	Benzidine	12.355	184	180	123.77	ng/ml	58
77)	Pyrene	12.467	202	1323834	1428.27	ng/ml	99
80)	Butyl benzyl phthalate	13.419	149	578717	1437.85	ng/ml	89
81)	Bis(2-ethylhexyl) adipate	13.585	129	514622	1436.25	ng/ml	98
82)	3,3-Dichlorobenzidine	14.484	252	510574	4718.31	ng/ml	99
83)	Benz(a)anthracene	14.510	228	1208420	1400.99	ng/ml	97
84)	Chrysene	14.591	228	1116908	1381.77	ng/ml	99
85)	Bis(2-ethylhexyl) phth...	14.687	149	825401	1485.30	ng/ml	97
87)	Di-n-octyl phthalate	16.334	149	1348767	1419.79	ng/ml	98
88)	Benzo(b)fluoranthene	17.067	252	1215957	1355.62	ng/ml	96
89)	Benzo(k)fluoranthene	17.137	252	1191432	1333.06	ng/ml	98
90)	Benzo(b+k)fluoranthene	17.067	252	2443889	2665.35	ng/ml	96
91)	Benzo(e)pyrene	17.709	252	281	N.D.		
92)	Benzo(a)pyrene	17.832	252	1083239	1333.17	ng/ml	98
93)	Perylene	18.062	252	1444	N.D.		
95)	Indeno(1,2,3-cd)pyrene	20.357	276	1069379	1292.68	ng/ml	98
96)	Dibenz(a,h)anthracene	20.431	278	1040548	1369.99	ng/ml	99
97)	Benzo(g,h,i)perylene	20.897	276	1150216	1447.54	ng/ml	98

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

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261908.D
Acq On : 26 Nov 2019 12:04 pm
Operator : JK/ AMS/ DTH
Sample : 9111196-BS1
Misc : 1x, 625 B(a)P Only
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 26 12:48:25 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261909.D
Acq On : 26 Nov 2019 12:39 pm
Operator : JK/ AMS/ DTH
Sample : 9111196-BSD1
Misc : 1x, 625 B(a)P Only
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Q-19

AMS 11/26/19

Quant Time: Nov 26 13:50:33 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.381	152	445620	2000.00	ng/ml	-0.01
21) Naphthalene-d8 (ISTD)	7.648	136	1583440	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	855938	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.938	188	1587190	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.532	240	1507447	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	17.971	264	1549284	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.367	292	1336841	2000.00	ng/ml	0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.118	112	115679	427.78	ng/ml	-0.03
5) Phenol-d6(Surr)	6.038	99	85611	247.34	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.926	82	184541	687.24	ng/ml	-0.01
40) 2-Fluorobiphenyl (Surr)	8.734	172	505214	754.20	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	76122	799.54	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	577310	831.03	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.696	74	71297m	420.04	ng/ml	
3) Pyridine	3.738	79	481	N.D.		
6) Phenol	6.049	94	153287	402.75	ng/ml	92
7) Aniline	6.070	93	1790	5.45	ng/ml#	1
8) Bis(2-chloroethyl) ether	6.124	93	334698	974.41	ng/ml	97
9) 2-Chlorophenol	6.183	128	364453	1155.05	ng/ml	97
10) 1,3-Dichlorobenzene	6.327	146	315122	888.52	ng/ml	98
11) 1,4-Dichlorobenzene	6.397	146	309752	888.63	ng/ml	99
12) Benzyl alcohol	6.520	108	128634	697.70	ng/ml	93
13) 1,2-Dichlorobenzene	6.552	146	310283	902.62	ng/ml	97
14) 2-Methylphenol	6.637	107	231692	1009.44	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.653	45	257293	848.80	ng/ml	82
16) N-Nitrosodi-n-propylamine	6.782	70	213924	1072.71	ng/ml	92
17) 3+4-Methylphenol	6.787	107	270357	949.93	ng/ml	95
18) Hexachloroethane	6.883	201	100417	937.59	ng/ml	95
20) Nitrobenzene	6.948	77	294959	1084.17	ng/ml	88
22) Isophorone	7.183	82	620252	1228.68	ng/ml	98
23) 2-Nitrophenol	7.268	139	216898	1432.50	ng/ml	86
24) 2,4-Dimethylphenol	7.311	122	304281	1433.27	ng/ml	96
25) Bis(2-chloroethoxy) me...	7.397	93	386150	1258.25	ng/ml	99
26) Benzoic acid	7.402	105	107435	1623.44	ng/ml	94
27) 2,4-Dichlorophenol	7.509	162	327378	1376.57	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.595	180	291182	1050.70	ng/ml	98
29) Naphthalene	7.670	128	923409	1108.56	ng/ml	99
30) 4-Chloroaniline	7.728	127	18698	82.28	ng/ml	92
31) Hexachlorobutadiene	7.803	225	140794	940.16	ng/ml	99
32) 4-Chloro-3-methylphenol	8.215	107	277680	1321.60	ng/ml	88
33) 2-Methylnaphthalene	8.365	142	678803	1166.32	ng/ml	99
34) 1-Methylnaphthalene	8.467	142	647390	1149.04	ng/ml	99
36) Hexachlorocyclopentadiene	8.536	237	164018	1239.19	ng/ml	98
37) 2,4,6-Trichlorophenol	8.654	196	251020	1502.38	ng/ml	98
38) 2,4,5-Trichlorophenol	8.691	198	241443	1468.54	ng/ml	98
39) 1,1'-Biphenyl	8.836	154	2109	2.87	ng/ml	97
41) 2-Chloronaphthalene	8.857	162	675011	1270.42	ng/ml	96
42) 2-Nitroaniline	8.959	138	244645	1516.87	ng/ml	87
43) 2,6-Dimethylnaphthalene	9.007	156	376	N.D.		

Data Path : T:\data\2019-11\9K26022\
Data File : J11261909.D
Acq On : 26 Nov 2019 12:39 pm
Operator : JK/ AMS/ DTH
Sample : 9111196-BSD1
Misc : 1x, 625 B(a)P Only
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 26 13:50:33 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

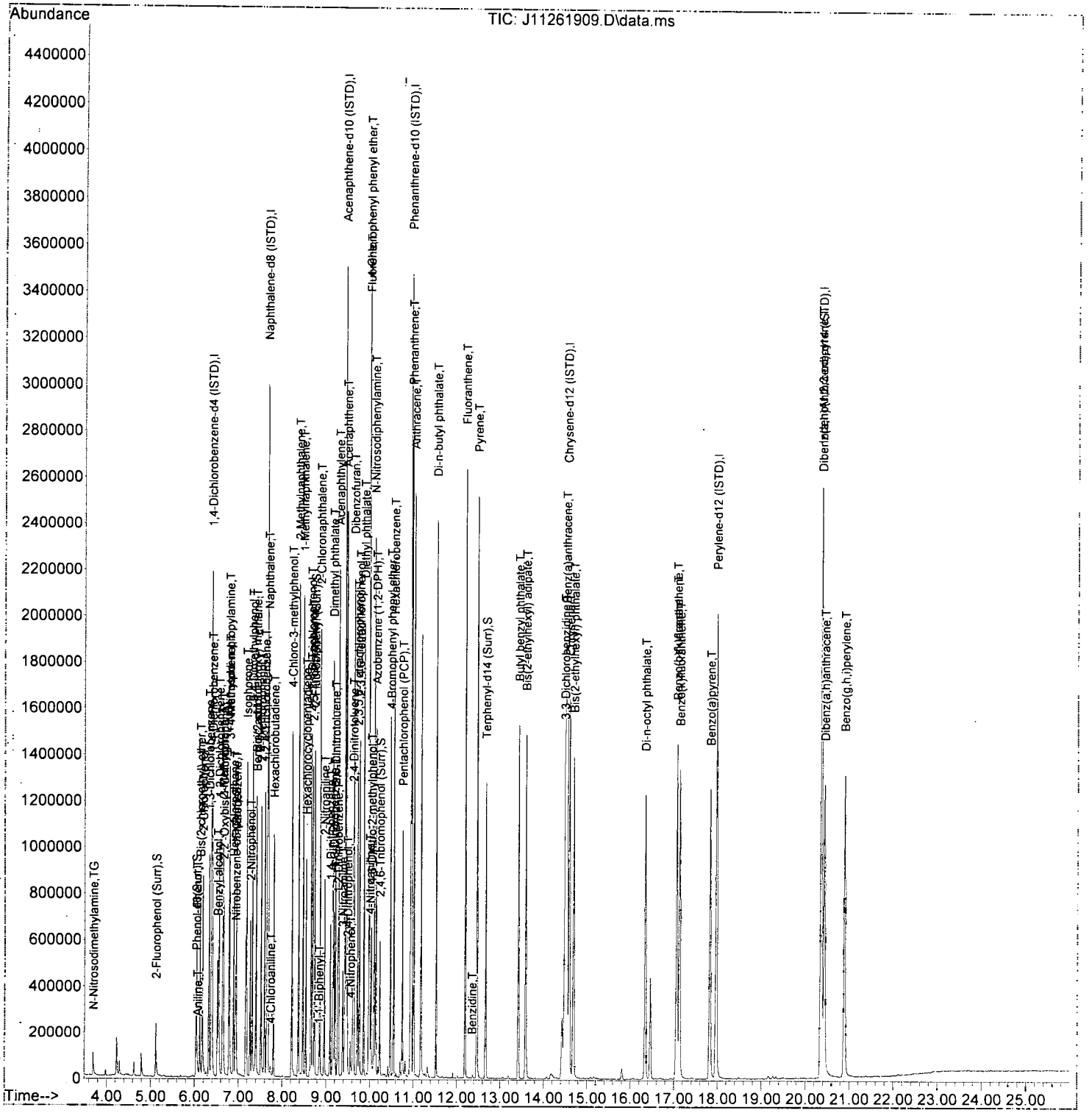
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.092	168	122938	1750.16	ng/ml	80
45) Dimethyl phthalate	9.151	163	864826	1399.09	ng/ml	99
46) 1,3-Dinitrobenzene	9.173	168	134804	1545.17	ng/ml	87
47) 2,6-Dinitrotoluene	9.205	165	203067	1453.14	ng/ml	91
48) 1,2-Dinitrobenzene	9.263	168	90263	1441.37	ng/ml	79
49) Acenaphthylene	9.280	152	1091596	1254.55	ng/ml	98
50) 3-Nitroaniline	9.376	138	112241	1048.98	ng/ml	88
51) Acenaphthene	9.456	153	679553	1189.35	ng/ml	99
52) 2,4-Dinitrophenol	9.483	184	82957	1996.81	ng/ml	87
53) 4-Nitrophenol	9.558	139	44251	576.69	ng/ml	92
54) 2,4-Dinitrotoluene	9.616	165	259142	1475.18	ng/ml	82
55) Dibenzofuran	9.633	168	991374	1301.61	ng/ml	99
56) 2,3,5,6-Tetrachlorophenol	9.718	232	203448	1526.25	ng/ml	95
57) 2,3,4,6-Tetrachlorophenol	9.761	232	206574	1427.51	ng/ml	95
58) Diethyl phthalate	9.863	149	809417	1422.52	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	9.857	170	346	N.D.		
60) Fluorene	9.980	166	750341	1251.84	ng/ml	97
61) 4-Chlorophenyl phenyl ...	9.975	204	384202	1314.81	ng/ml	95
62) 4-Nitroaniline	9.996	138	143803	1563.38	ng/ml	90
63) 4,6-Dinitro-2-methylph...	10.034	198	138910	1999.21	ng/ml	88
65) N-Nitrosodiphenylamine	10.098	169	669320	1367.68	ng/ml	99
66) Azobenzene (1,2-DPH)	10.141	77	558118	1126.96	ng/ml	84
68) 4-Bromophenyl phenyl e...	10.478	248	250518	1398.79	ng/ml	95
69) Hexachlorobenzene	10.553	284	288767	1344.01	ng/ml	98
70) Pentachlorophenol (PCP)	10.750	266	153024	1393.16	ng/ml	97
71) Phenanthrene	10.959	178	1137119	1277.06	ng/ml	99
72) Anthracene	11.012	178	1148091	1341.37	ng/ml	99
73) Carbazole	11.173	167	1014545	Below Cal		99
74) Di-n-butyl phthalate	11.526	149	1319961	1406.23	ng/ml	99
75) Fluoranthene	12.195	202	1300677	1425.22	ng/ml	99
76) Benzidine	12.355	184	58	123.24	ng/ml	67
77) Pyrene	12.467	202	1338267	1440.98	ng/ml	99
80) Butyl benzyl phthalate	13.419	149	583861	1484.31	ng/ml	91
81) Bis(2-ethylhexyl) adipate	13.585	129	513803	1469.58	ng/ml	99
82) 3,3-Dichlorobenzidine	14.478	252	574839	5567.89	ng/ml	97
83) Benz(a)anthracene	14.505	228	1217302	1446.34	ng/ml	97
84) Chrysene	14.585	228	1139043	1444.15	ng/ml	98
85) Bis(2-ethylhexyl) phth...	14.687	149	841066	1551.08	ng/ml	97
87) Di-n-octyl phthalate	16.334	149	1354718	1485.95	ng/ml	98
88) Benzo(b)fluoranthene	17.062	252	1214466	1413.61	ng/ml	97
89) Benzo(k)fluoranthene	17.126	252	1177491	1377.98	ng/ml	98
90) Benzo(b+k)fluoranthene	17.062	252	2430049	2769.35	ng/ml	97
91) Benzo(e)pyrene	17.693	252	262	N.D.		
92) Benzo(a)pyrene	17.827	252	1077706	1385.44	ng/ml	99
93) Perylene	18.030	252	1236	N.D.		
95) Indeno(1,2,3-cd)pyrene	20.362	276	1057636	1337.89	ng/ml	98
96) Dibenz(a,h)anthracene	20.437	278	1026799	1414.70	ng/ml	99
97) Benzo(g,h,i)perylene	20.897	276	1145867	1509.07	ng/ml	97

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

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261909.D
Acq On : 26 Nov 2019 12:39 pm
Operator : JK/ AMS/ DTH
Sample : 9111196-BSD1
Misc : 1x, 625 B(a)P Only
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 26 13:50:33 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261911.D
Acq On : 26 Nov 2019 1:51 pm
Operator : JK/ AMS/ DTH
Sample : A9K0330-01RE1@10
Misc : 10x, 8270D TCLP REG LIST
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

804

AMS 12/26/19

Quant Time: Nov 26 14:18:01 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.386	152	431997	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	1598362	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	846322	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.937	188	1533271	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.526	240	1574148	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	17.971	264	1532854	2000.00 ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.362	292	1287795	2000.00 ng/ml	0.01
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.129	112	24183	92.25 ng/ml	-0.02
5) Phenol-d6(Surr)	6.043	99	13649	40.68 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.931	82	41563	159.66 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.734	172	128866	194.56 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	17040	202.96 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	155908	214.92 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	3.770	74	156	N.D.	
3) Pyridine	3.760	79	996m	3.55 ng/ml#	
6) Phenol	6.054	94	153	N.D.	
7) Aniline	6.108	93	329	N.D.	
8) Bis(2-chloroethyl) ether	6.145	93	162	N.D.	
9) 2-Chlorophenol	6.204	128	133	N.D.	
10) 1,3-Dichlorobenzene	6.386	146	50	N.D.	
11) 1,4-Dichlorobenzene	6.386	146	50	N.D.	
12) Benzyl alcohol	6.541	108	125	25.16 ng/ml#	61
13) 1,2-Dichlorobenzene	0.000		0	N.D.	
14) 2-Methylphenol	6.642	107	340	N.D.	
15) 2,2'-Oxybis(1-Chloropr...	6.642	45	113	N.D.	
16) N-Nitrosodi-n-propylamine	6.787	70	173	N.D.	
17) 3+4-Methylphenol	6.771	107	113	N.D.	
18) Hexachloroethane	0.000		0	N.D.	
20) Nitrobenzene	6.931	77	296	N.D.	
22) Isophorone	7.188	82	270	N.D.	
23) 2-Nitrophenol	7.274	139	117	43.04 ng/ml#	47
24) 2,4-Dimethylphenol	7.343	122	281	N.D.	
25) Bis(2-chloroethoxy) me...	7.402	93	230	N.D.	
26) Benzoic acid	7.402	105	636	810.93 ng/ml#	64
27) 2,4-Dichlorophenol	0.000		0	N.D.	
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
29) Naphthalene	7.669	128	52009	61.85 ng/ml	98
30) 4-Chloroaniline	7.750	127	91	13.59 ng/ml	86
31) Hexachlorobutadiene	0.000		0	N.D.	
32) 4-Chloro-3-methylphenol	8.194	107	91	N.D.	
33) 2-Methylnaphthalene	8.365	142	9861	16.78 ng/ml	90
34) 1-Methylnaphthalene	8.466	142	6822	12.00 ng/ml	92
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	8.835	154	6356	8.74 ng/ml	93
41) 2-Chloronaphthalene	8.857	162	54	N.D.	
42) 2-Nitroaniline	8.937	138	66	30.88 ng/ml#	1
43) 2,6-Dimethylnaphthalene	9.001	156	2288	4.29 ng/ml	89

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261911.D
Acq On : 26 Nov 2019 1:51 pm
Operator : JK/ AMS/ DTH
Sample : A9K0330-01RE1@10
Misc : 10x, 8270D TCLP REG LIST
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 26 14:18:01 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

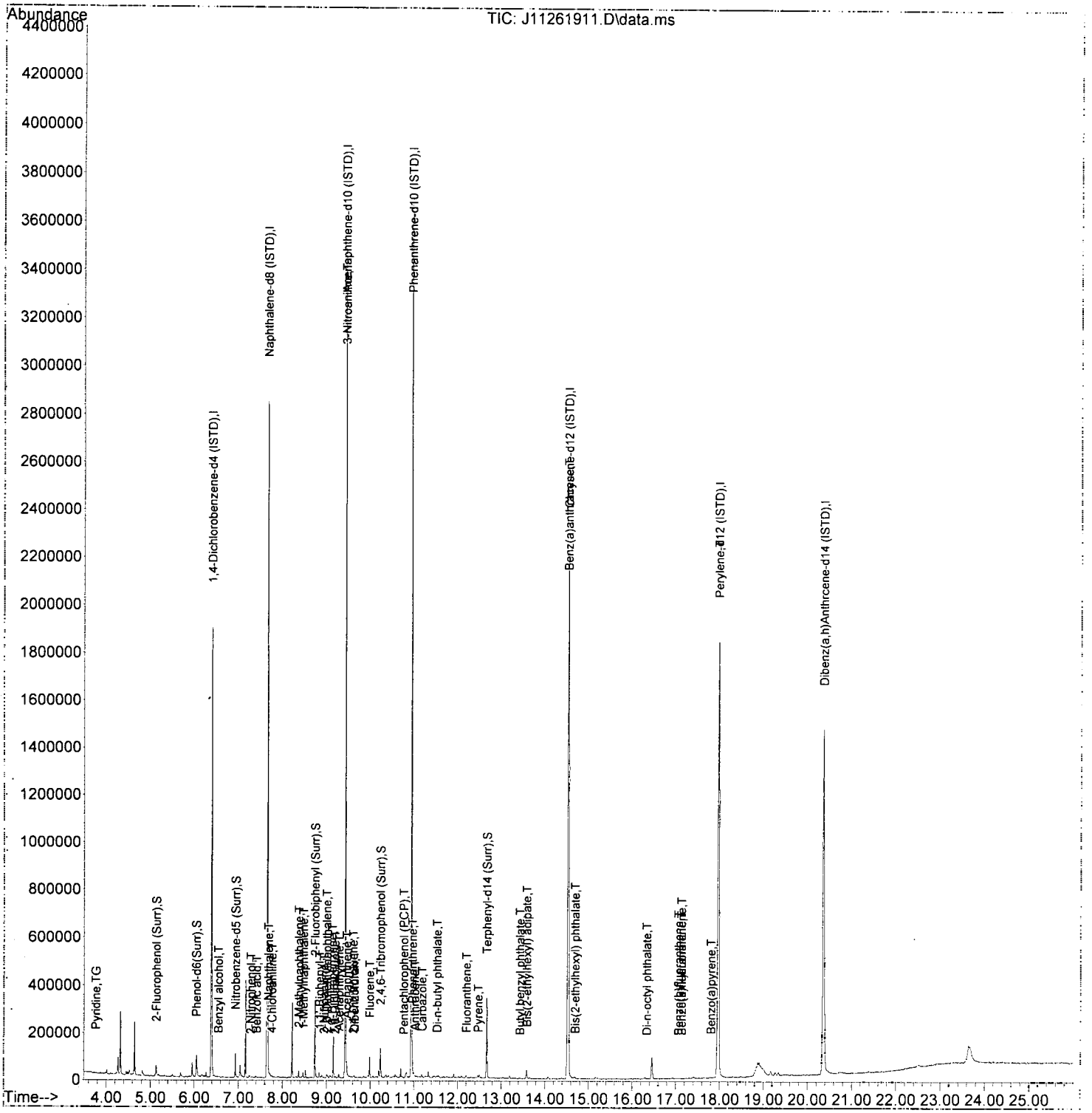
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.124	168	125	68.16 ng/ml#	9
45) Dimethyl phthalate	9.140	163	201	N.D.	
46) 1,3-Dinitrobenzene	9.124	168	125	59.31 ng/ml	59
47) 2,6-Dinitrotoluene	9.188	165	236	26.74 ng/ml#	34
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.279	152	6982	8.12 ng/ml	97
50) 3-Nitroaniline	9.429	138	205	31.26 ng/ml#	1
51) Acenaphthene	9.456	153	12156	21.52 ng/ml	95
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	9.606	165	98	54.28 ng/ml#	27
55) Dibenzofuran	9.632	168	1888	2.51 ng/ml#	68
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	9.857	149	488	N.D.	
59) 2,3,5-Trimethylnaphtha...	9.852	170	899	N.D.	
60) Fluorene	9.980	166	10513	17.74 ng/ml	95
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	9.975	138	130	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	10.103	169	195	N.D.	
66) Azobenzene (1,2-DPH)	10.151	77	589	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	10.761	266	120	77.67 ng/ml#	18
71) Phenanthrene	10.959	178	45426	52.81 ng/ml	99
72) Anthracene	11.012	178	3581	4.33 ng/ml	91
73) Carbazole	11.178	167	4469	11.00 ng/ml	85
74) Di-n-butyl phthalate	11.526	149	2373	2.62 ng/ml	92
75) Fluoranthene	12.200	202	4673	5.30 ng/ml	95
76) Benzidine	0.000		0	N.D.	
77) Pyrene	12.467	202	5391	6.01 ng/ml	81
80) Butyl benzyl phthalate	13.425	149	498	30.57 ng/ml	82
81) Bis(2-ethylhexyl) adipate	13.580	129	12998	35.60 ng/ml	93
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.521	228	3901	4.44 ng/ml	71
84) Chrysene	14.591	228	188	N.D.	
85) Bis(2-ethylhexyl) phth...	14.687	149	3445	6.08 ng/ml	86
87) Di-n-octyl phthalate	16.329	149	115	58.06 ng/ml#	1
88) Benzo(b)fluoranthene	17.056	252	84	8.06 ng/ml	48
89) Benzo(k)fluoranthene	17.126	252	138	8.63 ng/ml#	29
90) Benzo(b+k)fluoranthene	17.126	252	138	15.89 ng/ml#	29
91) Benzo(e)pyrene	17.687	252	133	N.D.	
92) Benzo(a)pyrene	17.800	252	95	9.96 ng/ml	59
93) Perylene	17.971	252	4719	6.83 ng/ml	70
95) Indeno(1,2,3-cd)pyrene	20.346	276	445	N.D.	
96) Dibenz(a,h)anthracene	20.367	278	446	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 : T:\data\2019-11\9K26022\
Data File : J11261911.D
Acq On : 26 Nov 2019 1:51 pm
Operator : JK/ AMS/ DTH
Sample : A9K0330-01RE1@10
Misc : 10x, 8270D TCLP REG LIST
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 26 14:18:01 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261919.D
Acq On : 26 Nov 2019 6:39 pm
Operator : JK/ AMS/ DTH
Sample : 9111242-BLK1
Misc : 1x, 8270D TCLP SVOC REG LIST
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

AMS 11/27/19

Quant Time: Nov 27 08:34:02 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.386	152	447964	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	1661730	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	889317	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.938	188	1567268	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.532	240	1665591	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	17.976	264	1619205	2000.00 ng/ml	0.01
94) Dibenz(a,h)Anthrcene-d...	20.362	292	1403400	2000.00 ng/ml	0.01
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.134	112	232455	855.12 ng/ml	-0.02
5) Phenol-d6(Surr)	6.043	99	158099	454.37 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.926	82	380617	1410.03 ng/ml	-0.01
40) 2-Fluorobiphenyl (Surr)	8.739	172	1042662	1498.11 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	180742	1904.03 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.670	244	1507233	1963.65 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	3.658	74	422	N.D.	
3) Pyridine	3.722	79	647	N.D.	
6) Phenol	6.054	94	19564	51.13 ng/ml	91
7) Aniline	6.060	93	610	N.D.	
8) Bis(2-chloroethyl) ether	6.150	93	214	N.D.	
9) 2-Chlorophenol	6.193	128	272	N.D.	
10) 1,3-Dichlorobenzene	6.332	146	84	N.D.	
11) 1,4-Dichlorobenzene	6.402	146	292	N.D.	
12) Benzyl alcohol	6.536	108	364	26.39 ng/ml#	81
13) 1,2-Dichlorobenzene	6.557	146	168	N.D.	
14) 2-Methylphenol	6.643	107	618	2.68 ng/ml	79
15) 2,2'-Oxybis(1-Chloropr...	6.669	45	258	N.D.	
16) N-Nitrosodi-n-propylamine	6.776	70	432	N.D.	
17) 3+4-Methylphenol	6.792	107	322	N.D.	
18) Hexachloroethane	0.000		0	N.D.	
20) Nitrobenzene	6.953	77	174	N.D.	
22) Isophorone	7.188	82	646	N.D.	
23) 2-Nitrophenol	7.274	139	191	43.47 ng/ml#	65
24) 2,4-Dimethylphenol	7.327	122	678	3.04 ng/ml#	55
25) Bis(2-chloroethoxy) me...	7.397	93	228	N.D.	
26) Benzoic acid	7.402	105	5946	850.06 ng/ml	80
27) 2,4-Dichlorophenol	7.493	162	56	25.13 ng/ml#	1
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
29) Naphthalene	7.669	128	13757	15.74 ng/ml	95
30) 4-Chloroaniline	7.739	127	155	13.80 ng/ml#	16
31) Hexachlorobutadiene	0.000		0	N.D.	
32) 4-Chloro-3-methylphenol	8.220	107	984	4.46 ng/ml	42
33) 2-Methylnaphthalene	8.365	142	6241	10.22 ng/ml	95
34) 1-Methylnaphthalene	8.466	142	3515	5.94 ng/ml	93
36) Hexachlorocyclopentadiene	0.000		0	N.D.	
37) 2,4,6-Trichlorophenol	8.573	196	59	24.08 ng/ml#	13
38) 2,4,5-Trichlorophenol	8.659	198	106	23.38 ng/ml#	66
39) 1,1'-Biphenyl	8.835	154	5077	6.64 ng/ml	91
41) 2-Chloronaphthalene	8.862	162	354	N.D.	
42) 2-Nitroaniline	8.948	138	163	31.44 ng/ml#	71
43) 2,6-Dimethylnaphthalene	9.007	156	4152	7.40 ng/ml	86

Data Path : T:\data\2019-11\9K26022\
Data File : J11261919.D
Acq On : 26 Nov 2019 6:39 pm
Operator : JK/ AMS/ DTH
Sample : 9111242-BLK1
Misc : 1x, 8270D TCLP SVOC REG LIST
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 27 08:34:02 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

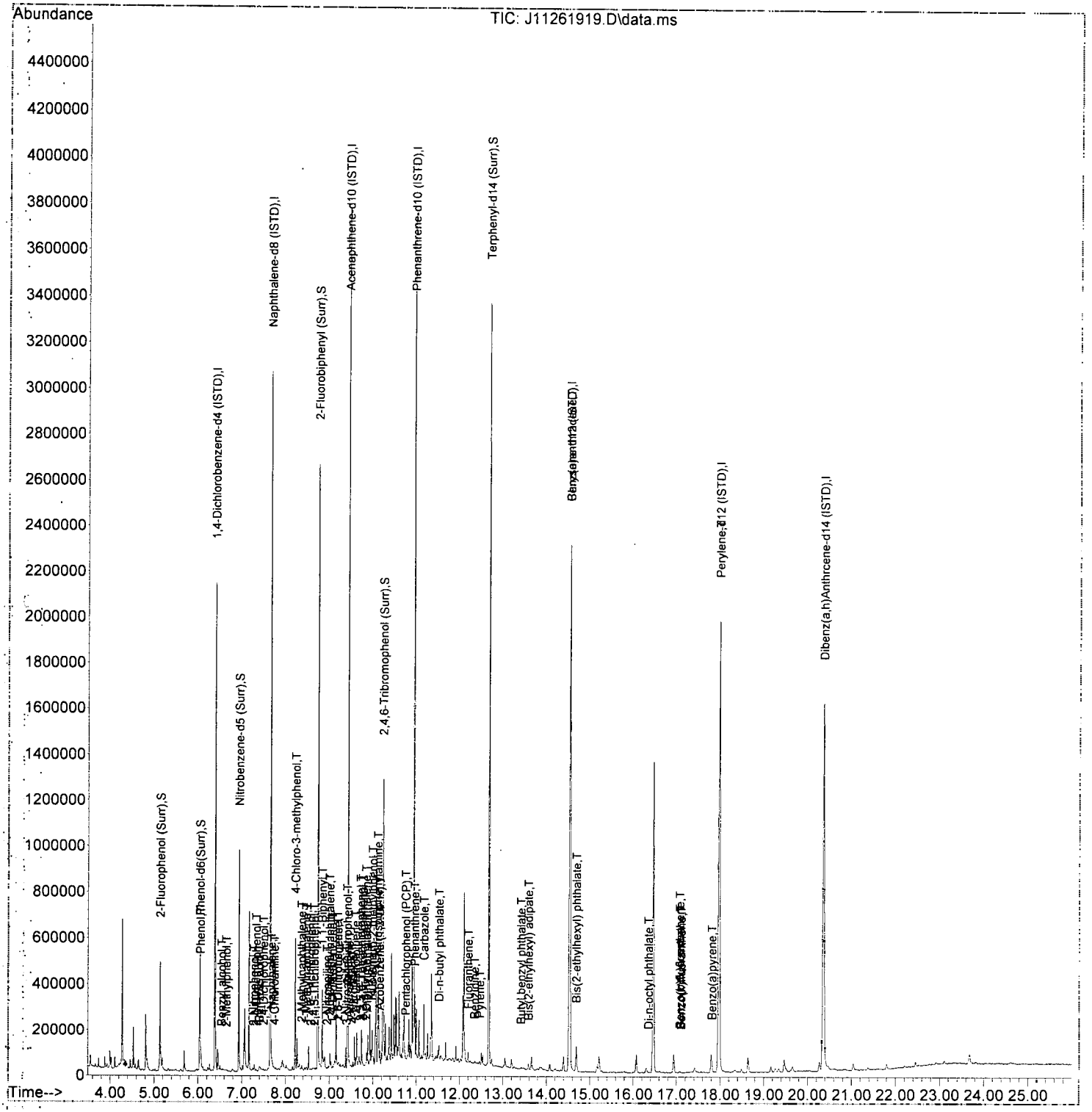
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.071	168	125	68.07 ng/ml#	32
45) Dimethyl phthalate	9.140	163	754	N.D.	
46) 1,3-Dinitrobenzene	9.188	168	161	59.63 ng/ml#	1
47) 2,6-Dinitrotoluene	9.199	165	855	30.81 ng/ml#	54
48) 1,2-Dinitrobenzene	9.269	168	64	N.D.	
49) Acenaphthylene	9.274	152	1354	N.D.	
50) 3-Nitroaniline	9.392	138	89	30.35 ng/ml#	47
51) Acenaphthene	9.456	153	2084	3.51 ng/ml	93
52) 2,4-Dinitrophenol	9.408	184	60	229.21 ng/ml#	1
53) 4-Nitrophenol	9.552	139	213	76.16 ng/ml#	1
54) 2,4-Dinitrotoluene	9.606	165	2949	69.08 ng/ml#	54
55) Dibenzofuran	9.632	168	1379	N.D.	
56) 2,3,5,6-Tetrachlorophenol	9.718	232	52	35.90 ng/ml#	1
57) 2,3,4,6-Tetrachlorophenol	9.766	232	164	29.46 ng/ml#	1
58) Diethyl phthalate	9.857	149	4249	7.19 ng/ml	96
59) 2,3,5-Trimethylnaphtha...	9.841	170	2544	5.05 ng/ml	85
60) Fluorene	9.980	166	3801	6.10 ng/ml#	84
61) 4-Chlorophenyl phenyl ...	9.980	204	233	N.D.	
62) 4-Nitroaniline	10.007	138	87	N.D.	
63) 4,6-Dinitro-2-methylph...	9.991	198	67	159.67 ng/ml#	1
65) N-Nitrosodiphenylamine	10.108	169	1813	3.75 ng/ml#	1
66) Azobenzene (1,2-DPH)	10.151	77	3164	6.47 ng/ml#	1
68) 4-Bromophenyl phenyl e...	10.494	248	75	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	10.756	266	173	78.10 ng/ml#	29
71) Phenanthrene	10.959	178	12352	14.05 ng/ml	71
72) Anthracene	11.007	178	1077	N.D.	
73) Carbazole	11.173	167	1129	6.93 ng/ml#	1
74) Di-n-butyl phthalate	11.526	149	24464	26.39 ng/ml	98
75) Fluoranthene	12.200	202	5744	6.37 ng/ml	81
76) Benzidine	12.344	184	90	123.38 ng/ml#	1
77) Pyrene	12.467	202	8513	9.28 ng/ml	97
80) Butyl benzyl phthalate	13.414	149	2188	34.43 ng/ml	88
81) Bis(2-ethylhexyl) adipate	13.585	129	8341	21.59 ng/ml	95
82) 3,3-Dichlorobenzidine	14.500	252	52	Below Cal #	1
83) Benz(a)anthracene	14.532	228	5742	6.17 ng/ml	70
84) Chrysene	14.585	228	1756	N.D.	
85) Bis(2-ethylhexyl) phth...	14.687	149	63675	106.28 ng/ml	95
87) Di-n-octyl phthalate	16.350	149	163	58.11 ng/ml#	1
88) Benzo(b)fluoranthene	17.072	252	1579	9.73 ng/ml	74
89) Benzo(k)fluoranthene	17.104	252	506	9.02 ng/ml	71
90) Benzo(b+k)fluoranthene	17.072	252	2381	18.30 ng/ml	74
91) Benzo(e)pyrene	17.704	252	899	N.D.	
92) Benzo(a)pyrene	17.811	252	1521	11.70 ng/ml#	1
93) Perylene	17.976	252	6093	8.34 ng/ml	69
95) Indeno(1,2,3-cd)pyrene	20.351	276	1740	N.D.	
96) Dibenz(a,h)anthracene	20.431	278	198	N.D.	
97) Benzo(g,h,i)perylene	20.875	276	1465	N.D.	

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

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261919.D
Acq On : 26 Nov 2019 6:39 pm
Operator : JK/ AMS/ DTH
Sample : 9111242-BLK1
Misc : 1x, 8270D TCLP SVOC REG LIST
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 27 08:34:02 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261920.D
Acq On : 26 Nov 2019 7:16 pm
Operator : JK/ AMS/ DTH
Sample : 9111242-BS1@4
Misc : 4x, 8270D TCLP SVOC REG LIST
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

AMS 11/27/19

Quant Time: Nov 27 08:34:08 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
11) 1,4-Dichlorobenzene-d4...	6.386	152	438453	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	1664129	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	892444	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.938	188	1630686	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.532	240	1668578	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	17.976	264	1655049	2000.00	ng/ml	0.01
94) Dibenz(a,h)Anthrcene-d...	20.367	292	1438024	2000.00	ng/ml	0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.134	112	73222	275.20	ng/ml	-0.02
5) Phenol-d6(Surr)	6.038	99	57263	168.14	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.931	82	119835	453.57	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.734	172	361536	517.64	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	50876	527.51	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	427706	556.22	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.738	74	75630	452.85	ng/ml	93
3) Pyridine	3.760	79	98624m	346.39	ng/ml	
6) Phenol	6.054	94	114280	305.17	ng/ml	98
7) Aniline	6.065	93	120141	371.86	ng/ml	99
8) Bis(2-chloroethyl) ether	6.124	93	226904	671.39	ng/ml	99
9) 2-Chlorophenol	6.188	128	227361	732.35	ng/ml	97
10) 1,3-Dichlorobenzene	6.332	146	252965	724.92	ng/ml	96
11) 1,4-Dichlorobenzene	6.402	146	244978	714.29	ng/ml	97
12) Benzyl alcohol	6.525	108	116195	642.91	ng/ml	94
13) 1,2-Dichlorobenzene	6.552	146	245565	726.03	ng/ml	99
14) 2-Methylphenol	6.637	107	155240	687.41	ng/ml	97
15) 2,2'-Oxybis(1-Chloropr...	6.653	45	172086	576.98	ng/ml	84
16) N-Nitrosodi-n-propylamine	6.782	70	135880	692.50	ng/ml	92
17) 3+4-Methylphenol	6.787	107	175254	625.84	ng/ml	95
18) Hexachloroethane	6.889	201	82709	784.87	ng/ml	89
20) Nitrobenzene	6.948	77	189838	709.19	ng/ml	92
22) Isophorone	7.183	82	410488	773.72	ng/ml	99
23) 2-Nitrophenol	7.268	139	162758	1035.96	ng/ml	85
24) 2,4-Dimethylphenol	7.311	122	186092	834.05	ng/ml	94
25) Bis(2-chloroethoxy) me...	7.397	93	255789	793.06	ng/ml	99
26) Benzoic acid	7.391	105	73867	1344.83	ng/ml	93
27) 2,4-Dichlorophenol	7.509	162	208694	839.65	ng/ml	96
28) 1,2,4-Trichlorobenzene	7.589	180	237365	814.97	ng/ml	99
29) Naphthalene	7.670	128	696227	795.30	ng/ml	99
30) 4-Chloroaniline	7.728	127	128637	470.12	ng/ml	97
31) Hexachlorobutadiene	7.803	225	123224	782.94	ng/ml	96
32) 4-Chloro-3-methylphenol	8.215	107	184850	837.12	ng/ml	91
33) 2-Methylnaphthalene	8.365	142	520719	851.32	ng/ml	99
34) 1-Methylnaphthalene	8.467	142	488973	825.79	ng/ml	99
36) Hexachlorocyclopentadiene	8.536	237	116774	846.16	ng/ml	97
37) 2,4,6-Trichlorophenol	8.654	196	159120	924.86	ng/ml	98
38) 2,4,5-Trichlorophenol	8.691	198	163448	961.23	ng/ml	99
39) 1,1'-Biphenyl	8.836	154	1858	N.D.		
41) 2-Chloronaphthalene	8.857	162	482520	870.99	ng/ml	97
42) 2-Nitroaniline	8.959	138	160560	974.28	ng/ml	90
43) 2,6-Dimethylnaphthalene	8.996	156	237	N.D.		

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261920.D
Acq On : 26 Nov 2019 7:16 pm
Operator : JK/ AMS/ DTH
Sample : 9111242-BS1@4
Misc : 4x, 8270D TCLP SVOC REG LIST
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 27 08:34:08 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

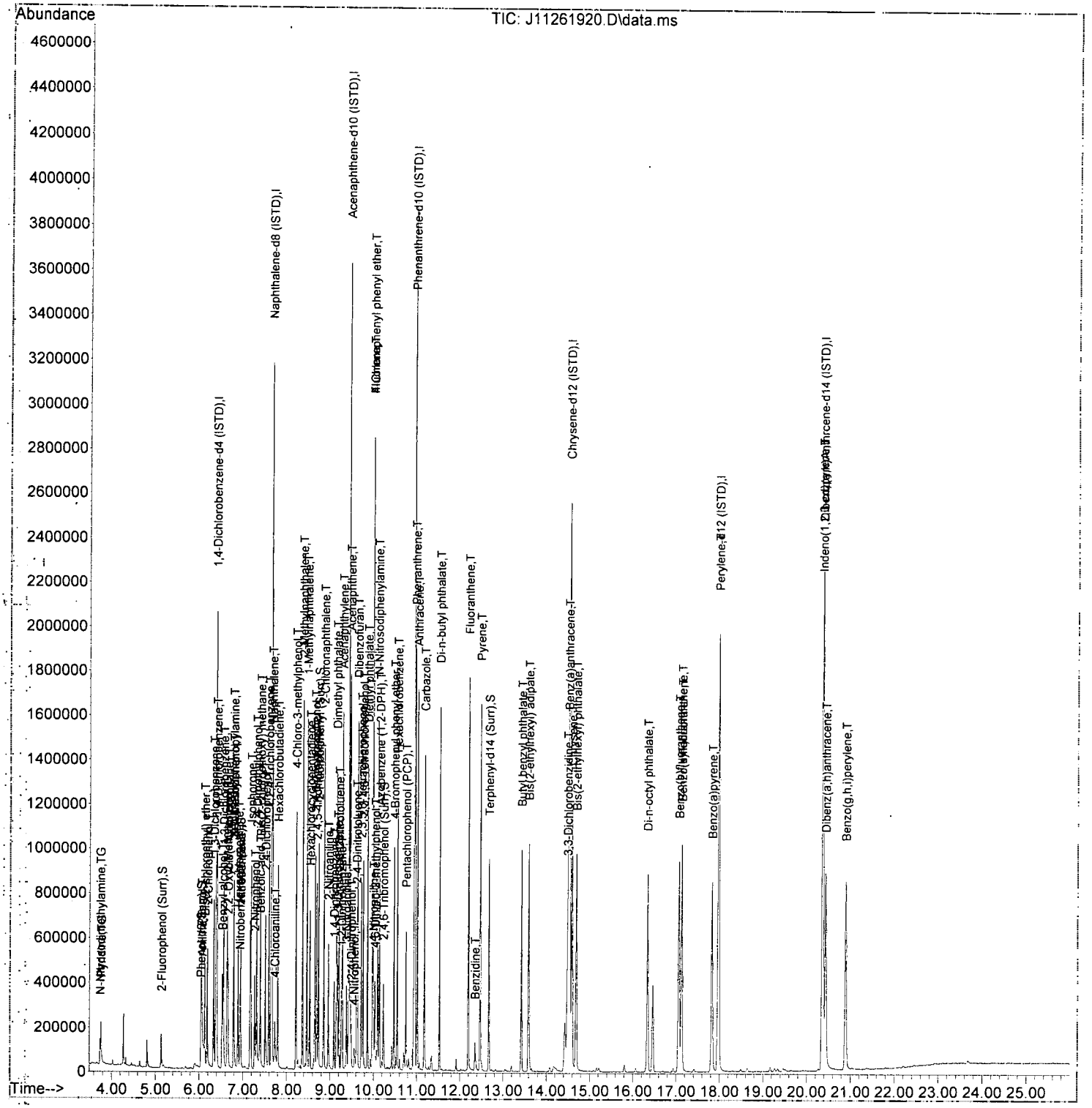
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.092	168	75470	1089.61	ng/ml	82
45)	Dimethyl phthalate	9.146	163	582552	903.88	ng/ml	99
46)	1,3-Dinitrobenzene	9.173	168	85556	971.62	ng/ml	86
47)	2,6-Dinitrotoluene	9.205	165	131629	909.82	ng/ml	87
48)	1,2-Dinitrobenzene	9.258	168	59900	917.39	ng/ml	87
49)	Acenaphthylene	9.280	152	763654	841.75	ng/ml	99
50)	3-Nitroaniline	9.376	138	97529	843.37	ng/ml	90
51)	Acenaphthene	9.456	153	472568	793.25	ng/ml	100
52)	2,4-Dinitrophenol	9.483	184	42678	1194.48	ng/ml	88
53)	4-Nitrophenol	9.558	139	30214	406.86	ng/ml	94
54)	2,4-Dinitrotoluene	9.611	165	165691	920.11	ng/ml	88
55)	Dibenzofuran	9.633	168	679281	855.37	ng/ml	98
56)	2,3,5,6-Tetrachlorophenol	9.718	232	129703	952.74	ng/ml	93
57)	2,3,4,6-Tetrachlorophenol	9.761	232	132732	889.56	ng/ml	98
58)	Diethyl phthalate	9.863	149	551367	929.37	ng/ml	97
59)	2,3,5-Trimethylnaphtha...	9.825	170	143	N.D.		
60)	Fluorene	9.980	166	526684	842.76	ng/ml	99
61)	4-Chlorophenyl phenyl ...	9.980	204	260142	853.84	ng/ml	93
62)	4-Nitroaniline	9.996	138	108492	1131.24	ng/ml	96
63)	4,6-Dinitro-2-methylph...	10.034	198	78445	1197.84	ng/ml	86
65)	N-Nitrosodiphenylamine	10.098	169	447237	889.50	ng/ml	99
66)	Azobenzene (1,2-DPH)	10.141	77	372825	732.73	ng/ml	83
68)	4-Bromophenyl phenyl e...	10.478	248	161849	879.59	ng/ml	95
69)	Hexachlorobenzene	10.553	284	185331	839.58	ng/ml	98
70)	Pentachlorophenol (PCP)	10.750	266	90236	830.73	ng/ml	99
71)	Phenanthrene	10.959	178	747957	817.60	ng/ml	99
72)	Anthracene	11.012	178	772510	878.49	ng/ml	99
73)	Carbazole	11.173	167	684311	993.67	ng/ml	98
74)	Di-n-butyl phthalate	11.526	149	905115	938.55	ng/ml	99
75)	Fluoranthene	12.195	202	870298	928.20	ng/ml	99
76)	Benzidine	12.350	184	87551	488.43	ng/ml	97
77)	Pyrene	12.467	202	895103	938.09	ng/ml	100
80)	Butyl benzyl phthalate	13.419	149	394882	928.35	ng/ml	91
81)	Bis(2-ethylhexyl) adipate	13.585	129	355350	918.22	ng/ml	98
82)	3,3-Dichlorobenzidine	14.484	252	282672	2174.56	ng/ml	95
83)	Benz(a)anthracene	14.505	228	824732	885.28	ng/ml	97
84)	Chrysene	14.585	228	764962	876.21	ng/ml	98
85)	Bis(2-ethylhexyl) phth...	14.687	149	572981	954.64	ng/ml	99
87)	Di-n-octyl phthalate	16.334	149	927112	978.70	ng/ml	99
88)	Benzo(b)fluoranthene	17.062	252	803002	882.11	ng/ml	98
89)	Benzo(k)fluoranthene	17.126	252	814006	882.69	ng/ml	99
90)	Benzo(b+k)fluoranthene	17.126	252	1644258	1754.68	ng/ml	99
91)	Benzo(e)pyrene	17.704	252	685	N.D.		
92)	Benzo(a)pyrene	17.827	252	719644	869.80	ng/ml	97
93)	Perylene	17.976	252	12430	16.65	ng/ml	74
95)	Indeno(1,2,3-cd)pyrene	20.357	276	704753	828.77	ng/ml	100
96)	Dibenz(a,h)anthracene	20.431	278	674668	864.14	ng/ml	100
97)	Benzo(g,h,i)perylene	20.897	276	733720	898.29	ng/ml	97

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

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261920.D
Acq On : 26 Nov 2019 7:16 pm
Operator : JK/ AMS/ DTH
Sample : 9111242-BS1@4
Misc : 4x, 8270D TCLP SVOC REG LIST
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 27 08:34:08 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K26022\
Data File : J11261921.D
Acq On : 26 Nov 2019 7:52 pm
Operator : JK/ AMS/ DTH
Sample : 9111242-BSD1@4
Misc : 4x, 8270D TCLP SVOC REG LIST
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Q-19
AMS
11/27/19

Quant Time: Nov 27 08:34:14 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
11) 1,4-Dichlorobenzene-d4...	6.386	152	423520	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	1639490	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	885845	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.937	188	1614446	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.537	240	1638936	2000.00	ng/ml	0.01
86) Perylene-d12 (ISTD)	17.976	264	1637848	2000.00	ng/ml	0.01
94) Dibenz(a,h)Anthrcene-d...	20.367	292	1412595	2000.00	ng/ml	0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.129	112	65383	254.40	ng/ml	-0.02
5) Phenol-d6(Surr)	6.038	99	48817	148.40	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.926	82	111266	435.98	ng/ml	-0.01
40) 2-Fluorobiphenyl (Surr)	8.734	172	352909	509.05	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	49605	519.85	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	427776	566.38	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.738	74	61565m	381.63	ng/ml	
3) Pyridine	3.760	79	85952m	312.52	ng/ml	
6) Phenol	6.054	94	100336	277.38	ng/ml	98
7) Aniline	6.065	93	97096	311.12	ng/ml	98
8) Bis(2-chloroethyl) ether	6.124	93	218778	670.17	ng/ml	99
9) 2-Chlorophenol	6.183	128	210454	701.79	ng/ml	99
10) 1,3-Dichlorobenzene	6.332	146	231586	687.06	ng/ml	97
11) 1,4-Dichlorobenzene	6.402	146	229423	692.52	ng/ml	98
12) Benzyl alcohol	6.525	108	108722	623.67	ng/ml	94
13) 1,2-Dichlorobenzene	6.552	146	235173	719.82	ng/ml	98
14) 2-Methylphenol	6.637	107	144037	660.29	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.653	45	164819	572.10	ng/ml	85
16) N-Nitrosodi-n-propylamine	6.782	70	135844	716.73	ng/ml	91
17) 3+4-Methylphenol	6.787	107	162438	600.53	ng/ml	95
18) Hexachloroethane	6.889	201	73950	726.49	ng/ml	88
20) Nitrobenzene	6.947	77	181509	701.98	ng/ml	89
22) Isophorone	7.183	82	396356	758.31	ng/ml	99
23) 2-Nitrophenol	7.268	139	155469	1005.80	ng/ml	86
24) 2,4-Dimethylphenol	7.311	122	175774	799.65	ng/ml	95
25) Bis(2-chloroethoxy) me...	7.397	93	245314	772.02	ng/ml	99
26) Benzoic acid	7.391	105	63500	1277.04	ng/ml	95
27) 2,4-Dichlorophenol	7.509	162	203317	830.50	ng/ml	96
28) 1,2,4-Trichlorobenzene	7.595	180	224859	783.64	ng/ml	99
29) Naphthalene	7.669	128	668272	774.84	ng/ml	100
30) 4-Chloroaniline	7.728	127	139031	515.10	ng/ml	94
31) Hexachlorobutadiene	7.803	225	118135	761.88	ng/ml	98
32) 4-Chloro-3-methylphenol	8.215	107	178972	822.68	ng/ml	91
33) 2-Methylnaphthalene	8.365	142	496184	823.40	ng/ml	99
34) 1-Methylnaphthalene	8.466	142	469675	805.12	ng/ml	99
36) Hexachlorocyclopentadiene	8.536	237	110048	803.36	ng/ml	97
37) 2,4,6-Trichlorophenol	8.654	196	157548	922.61	ng/ml	99
38) 2,4,5-Trichlorophenol	8.691	198	155263	920.85	ng/ml	99
39) 1,1'-Biphenyl	8.835	154	1842	N.D.		
41) 2-Chloronaphthalene	8.857	162	465483	846.50	ng/ml	96
42) 2-Nitroaniline	8.958	138	155269	950.33	ng/ml	88
43) 2,6-Dimethylnaphthalene	9.007	156	370	N.D.		

Data Path : T:\data\2019-11\9K26022\
Data File : J11261921.D
Acq On : 26 Nov 2019 7:52 pm
Operator : JK/ AMS/ DTH
Sample : 9111242-BSD1@4
Misc : 4x, 8270D TCLP SVOC REG LIST
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 27 08:34:14 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.092	168	74050	1078.39	ng/ml	80
45)	Dimethyl phthalate	9.146	163	566054	884.83	ng/ml	98
46)	1,3-Dinitrobenzene	9.172	168	85475	977.47	ng/ml	87
47)	2,6-Dinitrotoluene	9.204	165	127901	891.07	ng/ml	89
48)	1,2-Dinitrobenzene	9.258	168	57574	888.34	ng/ml	86
49)	Acenaphthylene	9.279	152	745520	827.89	ng/ml	100
50)	3-Nitroaniline	9.376	138	101181	887.97	ng/ml	92
51)	Acenaphthene	9.456	153	469701	794.31	ng/ml	98
52)	2,4-Dinitrophenol	9.483	184	44090	1229.24	ng/ml	88
53)	4-Nitrophenol	9.563	139	26735	371.41	ng/ml	90
54)	2,4-Dinitrotoluene	9.611	165	162055	907.29	ng/ml	88
55)	Dibenzofuran	9.632	168	671035	851.28	ng/ml	96
56)	2,3,5,6-Tetrachlorophenol	9.718	232	128103	948.22	ng/ml	95
57)	2,3,4,6-Tetrachlorophenol	9.761	232	131756	889.59	ng/ml	98
58)	Diethyl phthalate	9.862	149	544030	923.84	ng/ml	98
59)	2,3,5-Trimethylnaphtha...	9.852	170	158	N.D.		
60)	Fluorene	9.980	166	511460	824.49	ng/ml	98
61)	4-Chlorophenyl phenyl ...	9.975	204	258851	855.93	ng/ml	96
62)	4-Nitroaniline	9.996	138	106427	1117.97	ng/ml	92
63)	4,6-Dinitro-2-methylph...	10.028	198	80914	1236.33	ng/ml	94
65)	N-Nitrosodiphenylamine	10.098	169	433377	870.61	ng/ml	100
66)	Azobenzene (1,2-DPH)	10.135	77	365878	726.31	ng/ml	94
68)	4-Bromophenyl phenyl e...	10.477	248	156012	856.40	ng/ml	97
69)	Hexachlorobenzene	10.552	284	185915	850.70	ng/ml	97
70)	Pentachlorophenol (PCP)	10.750	266	90717	842.41	ng/ml	96
71)	Phenanthrene	10.959	178	745932	823.59	ng/ml	99
72)	Anthracene	11.012	178	762018	875.27	ng/ml	99
73)	Carbazole	11.173	167	681320	1001.37	ng/ml	99
74)	Di-n-butyl phthalate	11.526	149	890878	933.08	ng/ml	99
75)	Fluoranthene	12.194	202	874146	941.68	ng/ml	99
76)	Benzidine	12.350	184	140310	713.56	ng/ml	96
77)	Pyrene	12.467	202	901744	954.56	ng/ml	99
80)	Butyl benzyl phthalate	13.419	149	397127	949.42	ng/ml	90
81)	Bis(2-ethylhexyl) adipate	13.585	129	349495	919.43	ng/ml	97
82)	3,3-Dichlorobenzidine	14.489	252	259085	2003.22	ng/ml	98
83)	Benz(a)anthracene	14.505	228	838113	915.91	ng/ml	97
84)	Chrysene	14.591	228	759454	885.63	ng/ml	99
85)	Bis(2-ethylhexyl) phth...	14.687	149	577206	979.07	ng/ml	98
87)	Di-n-octyl phthalate	16.334	149	917376	978.61	ng/ml	98
88)	Benzo(b)fluoranthene	17.062	252	808399	897.10	ng/ml	100
89)	Benzo(k)fluoranthene	17.126	252	797484	873.73	ng/ml	99
90)	Benzo(b+k)fluoranthene	17.126	252	1630967	1758.76	ng/ml	99
91)	Benzo(e)pyrene	17.693	252	810	N.D.		
92)	Benzo(a)pyrene	17.821	252	727303	888.08	ng/ml	98
93)	Perylene	17.971	252	13783	18.66	ng/ml	73
95)	Indeno(1,2,3-cd)pyrene	20.351	276	710812	850.94	ng/ml	100
96)	Dibenz(a,h)anthracene	20.431	278	690298	900.07	ng/ml	99
97)	Benzo(g,h,i)perylene	20.891	276	750806	935.76	ng/ml	97

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

Data Path : T:\data\2019-11\9K26022\
Data File : J11261921.D
Acq On : 26 Nov 2019 7:52 pm
Operator : JK/ AMS/ DTH
Sample : 9111242-BSD1@4
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DataAcq Meth:SV10_AQUISITION.M

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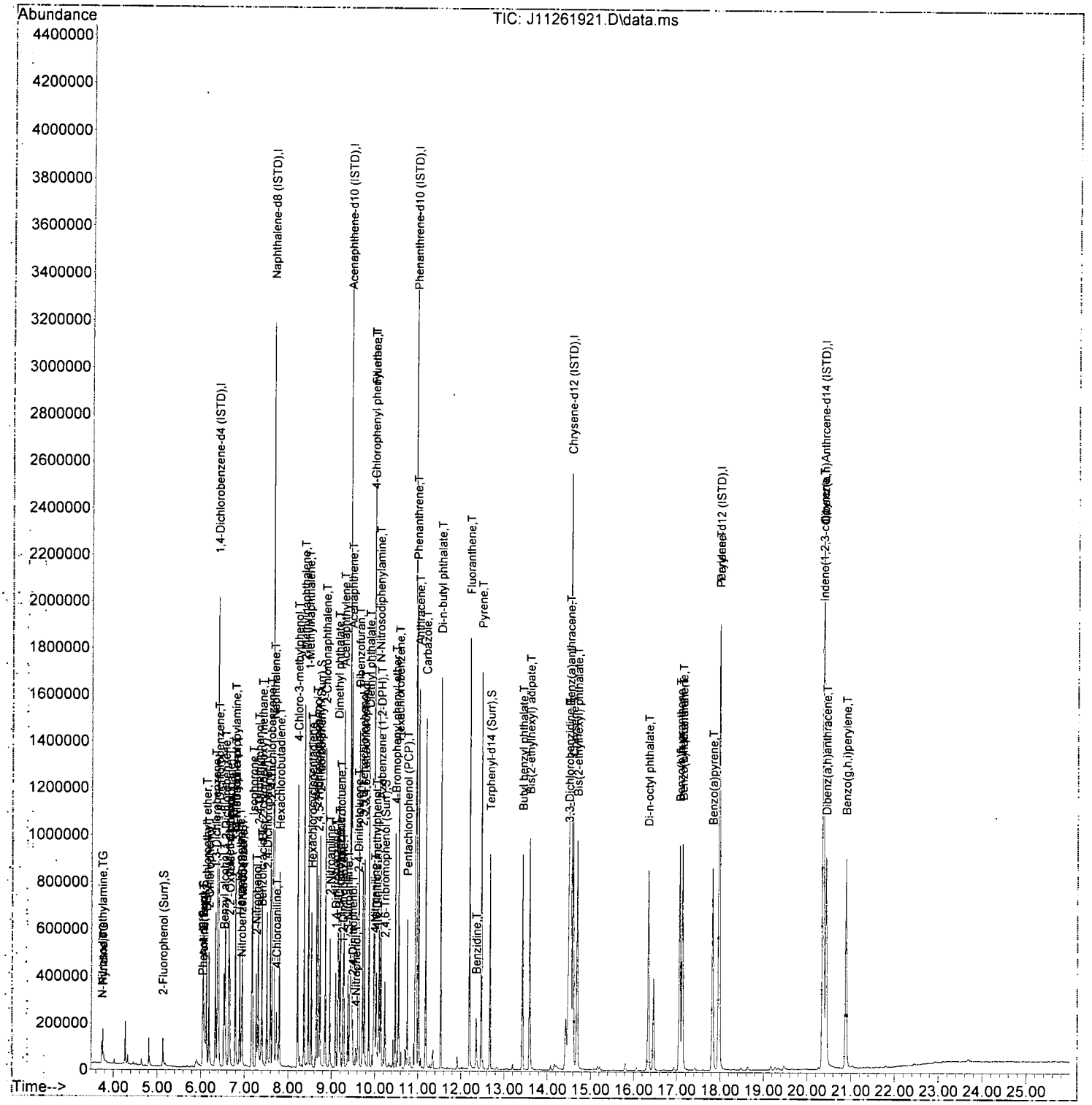
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



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 9K26026 (QC Only)

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9K26026**	Instrument:	**VOA-GCMS10**
Date:	**11/26/19 09:37**	Calibration:	**A9J2404**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K26026-IBL1	Soil	QC	QC			A19G118	
2	9K26026-TUN1	Soil	QC	QC			A19G118	
3	9K26026-CCV1	Soil	QC	QC			A19G118	
4	9111214-BS1	Soil	QC	QC		9111214	A19G118	
5	9K26026-CCV2	Soil	QC	QC			A19G118	
6	9111214-BS2	Soil	QC	QC		9111214	A19G118	
7	9111214-BLK1	Soil	QC	QC		9111214	A19G118	
8	A9K0774-01	Soil	8260C Full List		12/02/19	9111214	A19G118	
"	"	Soil	8260C BTEX	(QC Source)		9111214	A19G118	
"	"	Soil	8260C BTEX+N	(QC Source)		9111214	A19G118	
"	"	Soil	NWTPH-Gx	(QC Source)		9111214	A19G118	
9	9111214-DUP1	Soil	QC	QC		9111214	A19G118	
10	A9K0499-08	Soil	8260C BTEX+N		12/04/19	9111214	A19G118	
11	A9K0692-05	Soil	8260C Full List	Anchor QEA, LLC	12/06/19	9111214	A19G118	
12	A9K0776-01RE1	Soil	8260C Full List		11/27/19	9111214	A19G118	
"	"	Soil	NWTPH-Gx		11/27/19	9111214	A19G118	
13	9K26026-IBL2	Soil	QC	QC			A19G118	
14	9K26026-IBL3	Soil	QC	QC			A19G118	
15	A9K0739-01	Soil	8260C BTEX+N		12/02/19	9111214	A19G118	
16	A9K0786-01	Soil	8260C BTEX		12/05/19	9111214	A19G118	
17	A9K0692-03	Soil	8260C Full List	Anchor QEA, LLC	12/06/19	9111214	A19G118	
18	A9K0692-04	Soil	8260C Full List	Anchor QEA, LLC	12/06/19	9111214	A19G118	
19	A9K0692-02	Soil	8260C Full List	Anchor QEA, LLC	12/06/19	9111214	A19G118	
20	9K26026-IBL4	Soil	QC	QC			A19G118	
21	A9K0692-07	Soil	8260C Full List	Anchor QEA, LLC	12/06/19	9111214	A19G118	
22	9K26026-IBL5	Soil	QC	QC			A19G118	
23	A9K0692-08	Soil	8260C Full List	Anchor QEA, LLC	12/06/19	9111214	A19G118	
24	A9K0692-09	Soil	8260C Full List	Anchor QEA, LLC	12/06/19	9111214	A19G118	
25	A9K0692-06	Soil	8260C Full List	Anchor QEA, LLC	12/06/19	9111214	A19G118	
"	"	Soil	8260C BTEX	(QC Source)		9111214	A19G118	
"	"	Soil	8260C BTEX+N	(QC Source)		9111214	A19G118	
"	"	Soil	NWTPH-Gx	(QC Source)		9111214	A19G118	
26	9111214-MS1	Soil	QC	QC		9111214	A19G118	
27	9111214-MSD1	Soil	QC	QC		9111214	A19G118	
28	9K26026-IBL6	Soil	QC	QC			A19G118	

Data Entered By: 12/2/19

Data Reviewed By: 12/2/19

Comments: ↑ MDL = MRL for ~~12/2/19~~ CCl_2F_2C (Q55) & CS_2 (Q55)
↑ MDL/MRL for 12 DCPA to 1/2 ppb (LOD)

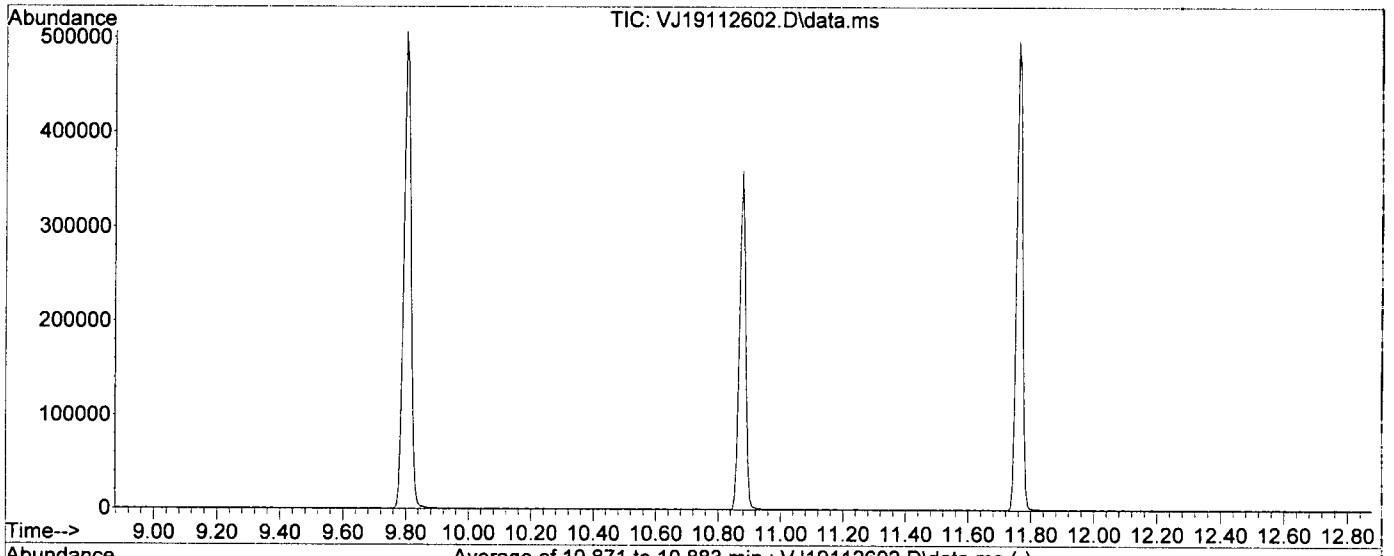
BFB

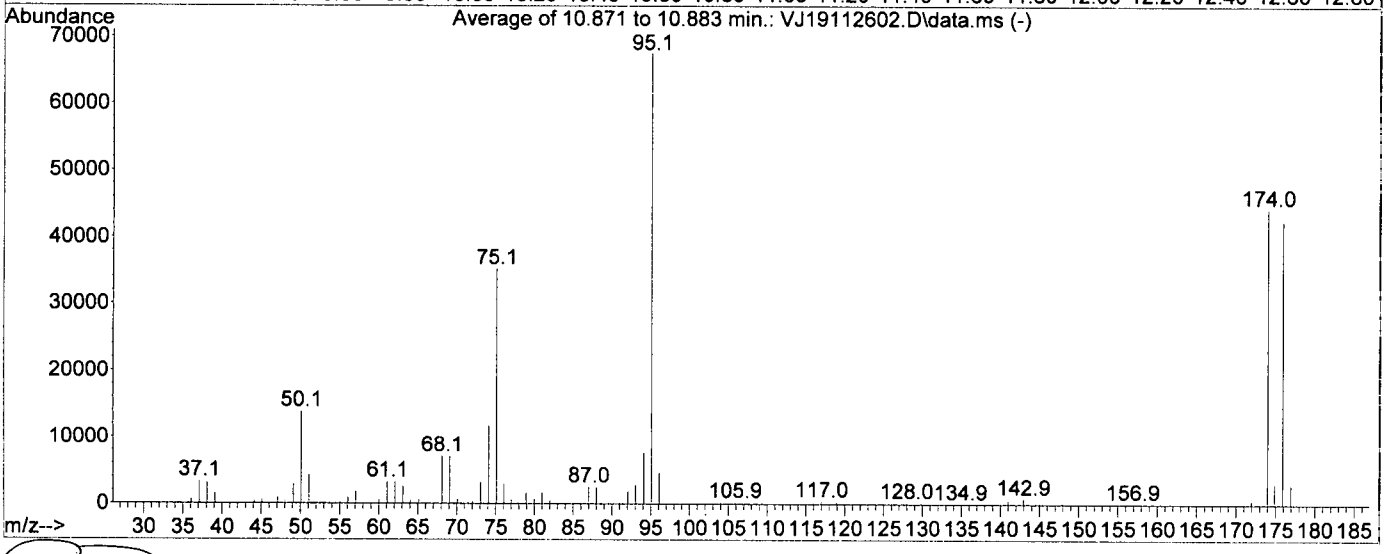
Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112602.D
Acq On : 26 Nov 2019 10:24 am
Operator : IMA
Sample : 9K26026-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

IMA
11/26/19

Integration File: RTEINT.P

Method : C:\msdchem\1\methods\VJ191024S.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Thu Oct 24 08:55:09 2019





AutoFind: Scans 1527, 1528, 1529; Background Corrected with Scan 1520

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	152.2	67589	PASS
96	95	5	9	6.9	4630	PASS
173	174	0.00	2	0.6	252	PASS
174	95	50	200	65.7	44397	PASS
175	174	5	9	7.1	3138	PASS
176	174	95	105	96.0	42605	PASS
177	176	5	10	6.8	2884	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112602.D
Acq On : 26 Nov 2019 10:24 am
Operator : IMA
Sample : 9K26026-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 26 16:03:50 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

12/2/19

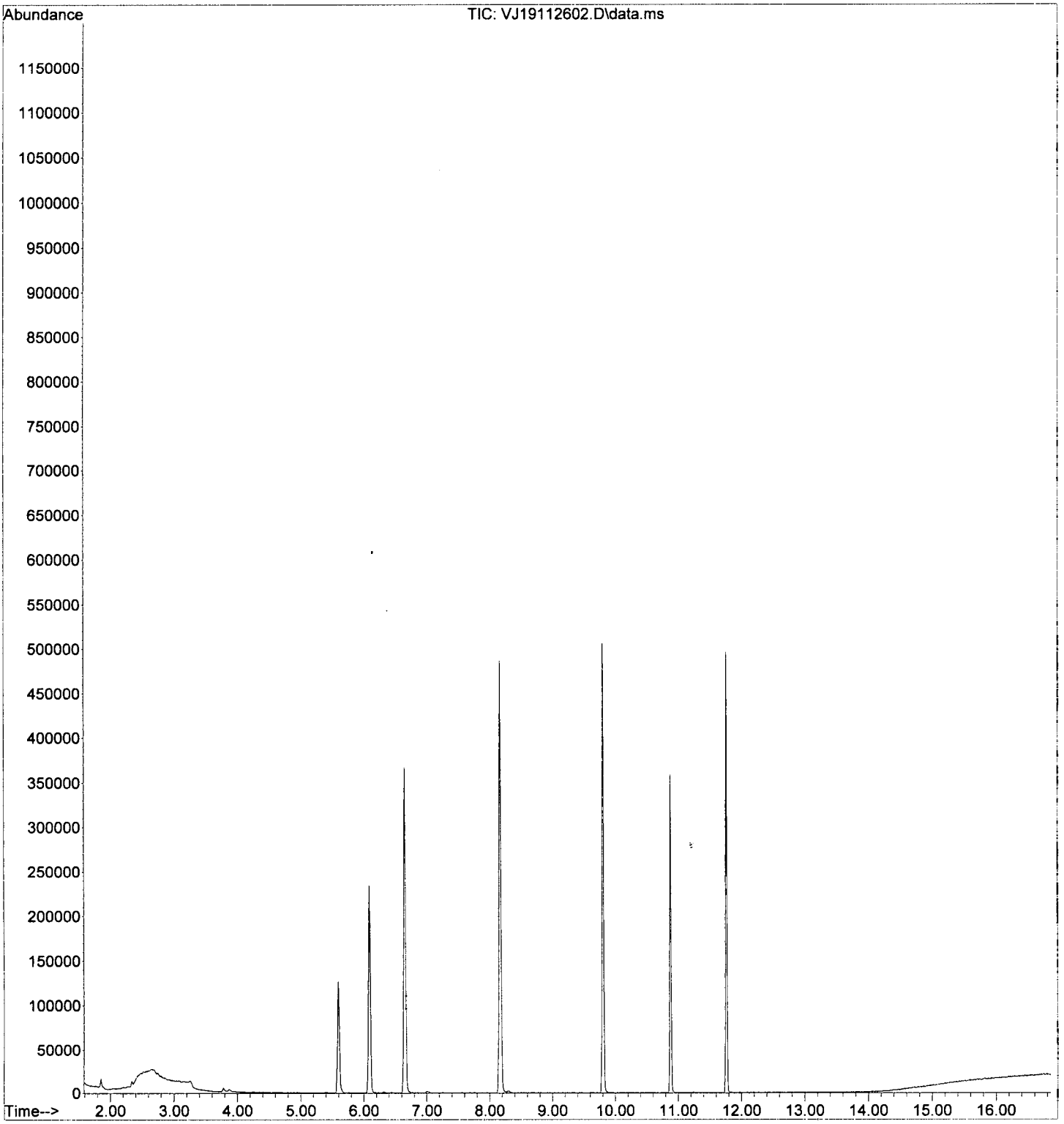
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	103474	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.800	117	249420	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	100562	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.597	111	87580	53.55	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.649	114	292637	45.97	ug/L		0.00
45) Toluene-d8 (S)	8.164	98	365779	52.59	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.877	174	71489	49.23	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.892	50	979	0.24	ug/L		88
5) Bromomethane	2.336	96	3643	0.43	ug/L		83
6) Chloroethane	2.470	64	177	1.64	ug/L	#	11
8) Ethanol	3.315	45	383	Below Cal			91
13) Methylene Chloride	3.778	84	1705	Below Cal			85
14) Acetone	3.863	43	3011	1.91	ug/L		96
18) tert-Butanol (TBA)	4.270	59	134	0.16	ug/L	#	46
28) Tetrahydrofuran	5.584	42	322	0.15	ug/L	#	46
32) 2-Butanone (MEK)	5.736	43	474	0.17	ug/L		52
36) iso-Butyl Alcohol	6.321	43	454	1.43	ug/L		90

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112602.D
Acq On : 26 Nov 2019 10:24 am
Operator : IMA
Sample : 9K26026-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 26 16:03:50 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112603.D
Acq On : 26 Nov 2019 10:51 am
Operator : IMA
Sample : 9111214-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOCR+MeOH A19K194
ALS Vial : 3 Sample Multiplier: 1

IMA
11/26/19

Quant Time: Nov 26 16:05:32 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 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)	
1	I	Pentafluorobenzene (I)	50.000	50.000	0.0	111	0.00	
2		Dichlorodifluoromethane	20.000	15.202	-24.0#	86	0.00	Q55
3	P	Chloromethane	20.000	16.356	18.2	92	0.00	
4	C	Vinyl Chloride	20.000	17.651	11.7	96	0.00	
5		Bromomethane	20.000	22.263	-11.3	117	0.00	
6		Chloroethane	20.000	25.393	-27.0#	168	0.00	Q5C
7		Trichlorofluoromethane	20.000	20.895	-4.5	116	0.00	
8		Ethanol	1250.000	1073.952	14.1	92	-0.05	
9	C	1,1-Dichloroethene	20.000	16.742	16.3	92	0.00	
10		Carbon Disulfide	20.000	15.876	NR 20.6#	95	0.00	Q55
11		Freon 113	20.000	18.517	7.4	101	0.00	
12		Iodomethane	20.000	6.194	NR 69.0#	34	0.00	
13		Methylene Chloride	20.000	18.770	6.2	100	0.00	
14		Acetone	40.000	39.043	2.4	101	0.00	
15		t-1,2-Dichloroethene	20.000	19.103	4.5	105	0.00	
16		n-Hexane	20.000	17.797	11.0	98	0.00	
17		Methyl-tert-butyl-ether	20.000	18.611	6.9	102	0.00	
18		tert-Butanol (TBA)	1250.000	1120.654	10.3	89	0.00	
19		Diisopropyl ether (DIPE)	5.000	4.975	0.5	106	0.00	
20	P	1,1-Dichloroethane	20.000	21.717	-8.6	116	0.00	
21		Acrylonitrile	20.000	20.281	-1.4	100	0.00	
22		Ethyl-tert-butyl ether (ETB	5.000	5.021	-0.4	108	0.00	
23		c-1,2-Dichloroethene	20.000	18.977	5.1	103	0.00	
24		2,2-Dichloropropane	20.000	21.205	-6.0	119	0.00	
25		Bromochloromethane	20.000	20.421	-2.1	108	0.00	
26	C	Chloroform	20.000	20.535	-2.7	109	0.00	
27		Carbon Tetrachloride	20.000	20.761	-3.8	106	0.00	
28		Tetrahydrofuran	20.000	15.982	OK 20.1#	91	0.00	
29		1,1,1-Trichloroethane	20.000	20.304	-1.5	107	0.00	
30	S	Dibromofluoromethane (S)	50.000	52.215	-4.4	116	0.00	
31		1,1-Dichloropropene	20.000	17.735	11.3	96	0.00	
32		2-Butanone (MEK)	40.000	34.021	14.9	94	0.00	
33		Benzene	20.000	17.121	14.4	95	0.00	
34		tert-Amyl methyl ether (TAM	5.000	4.224	15.5	95	0.00	
35		1,2-Dichloroethane (EDC)	20.000	20.565	-2.8	109	0.00	
36		iso-Butyl Alcohol	500.000	417.358	16.5	87	-0.01	
37	S	1,4-Difluorobenzene (S)	50.000	45.763	8.5	103	0.00	
38		Trichloroethene (TCE)	20.000	17.788	11.1	95	0.00	
39		tert-Amyl ethyl ether (TAEE	5.000	4.557	8.9	94	0.00	
40		Dibromomethane	20.000	19.457	2.7	103	0.00	
41	C	1,2-Dichloropropane	20.000	17.787	11.1	97	0.00	
42		Bromodichloromethane	20.000	20.058	-0.3	102	0.00	
43		Chlorobenzene-d5 (I)	50.000	50.000	0.0	101	0.00	
44		c-1,3-Dichloropropene	20.000	22.406	-12.0	106	0.00	
45	S	Toluene-d8 (S)	50.000	52.103	-4.2	106	0.00	
46	C	Toluene	20.000	18.493	7.5	93	0.00	
47		Tetrachloroethene (PCE)	20.000	18.867	5.7	90	0.00	
48		4-Methyl-2-Pentanone (MIBK)	40.000	38.309	4.2	88	0.00	
49		t-1,3-Dichloropropene	20.000	22.413	-12.1	102	0.00	
50		1,1,2-Trichloroethane	20.000	19.023	4.9	90	0.00	

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112603.D
Acq On : 26 Nov 2019 10:51 am
Operator : IMA
Sample : 9111214-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOCR+MeOH A19K194
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 26 16:05:32 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 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		Dibromochloromethane	20.000	19.551	2.2	96	0.00
52		1,3-Dichloropropane	20.000	19.104	4.5	91	0.00
53		1,2-Dibromoethane (EDB)	20.000	19.533	2.3	90	0.00
54		2-Hexanone	40.000	36.773	8.1	86	0.00
55	P	Chlorobenzene	20.000	18.608	7.0	92	0.00
56	C	Ethylbenzene	20.000	19.575	2.1	93	0.00
57		1,1,1,2-Tetrachloroethane	20.000	20.487	-2.4	98	0.00
58		m,p-Xylenes (2)	40.000	41.471	-3.7	96	0.00
59		o-Xylene	20.000	19.276	3.6	88	0.00
60		Styrene	20.000	17.225	13.9	90	0.00
61	P	Bromoform	20.000	17.344	13.3	91	0.00
62		Isopropylbenzene	20.000	19.606	2.0	88	0.00
63	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	98	0.00
64	S	4-Bromofluorobenzene (S)	50.000	47.692	4.6	94	0.00
65		Bromobenzene	20.000	18.309	8.5	87	0.00
66		n-Propylbenzene	20.000	19.809	1.0	92	0.00
67	P	1,1,2,2-Tetrachloroethane	20.000	18.160	9.2	84	0.00
68		2-Chlorotoluene	20.000	18.544	7.3	86	0.00
69		1,3,5-Trimethylbenzene	20.000	23.110	-15.5	101	0.00
70		1,2,3-Trichloropropane	20.000	19.380	3.1	90	0.00
71		t-1,4-Dichloro-2-butene	20.000	23.141	-15.7	105	0.00
72		4-Chlorotoluene	20.000	20.438	-2.2	94	0.00
73		tert-Butylbenzene	20.000	20.412	-2.1	93	0.00
74		1,2,4-Trimethylbenzene	20.000	22.681	-13.4	100	0.00
75		sec-Butylbenzene	20.000	20.326	-1.6	91	0.00
76		4-Isopropyltoluene	20.000	21.146	-5.7	94	0.00
77		1,3-Dichlorobenzene	20.000	18.934	5.3	89	0.00
78		1,4-Dichlorobenzene	20.000	18.043	9.8	90	0.00
79		n-Butylbenzene	20.000	21.011	-5.1	98	0.00
80		1,2-Dichlorobenzene	20.000	18.743	6.3	87	0.00
81		1,2-Dibromo-3-Chloropropane	20.000	17.306	13.5	85	0.00
82		Hexachlorobutadiene	20.000	19.921	0.4	92	0.00
83		1,2,4-Trichlorobenzene	20.000	17.315	13.4	80	0.00
84		Naphthalene	20.000	18.656	6.7	84	0.00
85		1,2,3-Trichlorobenzene	20.000	19.040	4.8	88	0.00

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112603.D
Acq On : 26 Nov 2019 10:51 am
Operator : IMA
Sample : 9111214-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOCR+MeOH A19K194
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 26 16:04:15 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

12/2/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)	
Internal Standards								
1) Pentafluorobenzene (I)	6.089	99	104226	50.00	ug/L	#	0.00	
43) Chlorobenzene-d5 (I)	9.800	117	256031	50.00	ug/L		0.00	
63) 1,4-Dichlorobenzene-d4...	11.765	152	109405	50.00	ug/L		0.00	
System Monitoring Compounds								
30) Dibromofluoromethane (S)	5.596	111	86021	52.22	ug/L		0.00	
37) 1,4-Difluorobenzene (S)	6.649	114	293428	45.76	ug/L		0.00	
45) Toluene-d8 (S)	8.164	98	372018	52.10	ug/L		0.00	
64) 4-Bromofluorobenzene (S)	10.877	174	75338	47.69	ug/L		0.00	
Target Compounds							Qvalue	
2) Dichlorodifluoromethane	1.697	85	36668	15.20	ug/L		99	
3) Chloromethane	1.898	50	66861	16.36	ug/L		98	
4) Vinyl Chloride	2.001	62	55650	17.65	ug/L		95	
5) Bromomethane	2.342	96	29922	22.26	ug/L		99	
6) Chloroethane	2.463	64	10413	25.39	ug/L		95	
7) Trichlorofluoromethane	2.597	101	14701	20.90	ug/L		97	
8) Ethanol	3.266	~~45~~	~~64749~~	~~576.22~~	~~ug/L~~		~~88~~	M.I.
9) 1,1-Dichloroethene	3.145	61	64926	16.74	ug/L		97	
10) Carbon Disulfide	3.157	76	114840	15.88	ug/L		97	
11) Freon 113	3.199	101	43627	18.52	ug/L		93	
12) Iodomethane	3.297	142	4891	6.19	ug/L		81	
13) Methylene Chloride	3.783	84	46407	18.77	ug/L		88	
14) Acetone	3.863	~~43~~	~~50338~~	~~31.65~~	~~ug/L~~		~~94~~	M.I.
15) t-1,2-Dichloroethene	3.948	61	77443	19.10	ug/L		87	
16) n-Hexane	4.045	86	10929	17.80	ug/L	#	64	
17) Methyl-tert-butyl-ether	4.106	73	180481	18.61	ug/L		95	
18) tert-Butanol (TBA)	4.258	~~59~~	~~475553~~	~~581.07~~	~~ug/L~~	#	~~93~~	M.I.
19) Diisopropyl ether (DIPE)	4.501	45	49521	4.97	ug/L		96	
20) 1,1-Dichloroethane	4.580	63	92911	21.72	ug/L		98	
21) Acrylonitrile	4.629	~~53~~	~~28496~~	~~15.83~~	~~ug/L~~		~~97~~	M.I.
22) Ethyl-tert-butyl ether...	4.872	59	45032	5.02	ug/L		92	
23) c-1,2-Dichloroethene	5.128	61	75889	18.98	ug/L		89	
24) 2,2-Dichloropropane	5.237	77	85879	21.21	ug/L		95	
25) Bromochloromethane	5.329	49	49724	20.42	ug/L		73	
26) Chloroform	5.414	83	93875	20.53	ug/L		97	
27) Carbon Tetrachloride	5.554	117	62699	20.76	ug/L		96	
28) Tetrahydrofuran	5.584	42	33800	15.98	ug/L		93	
29) 1,1,1-Trichloroethane	5.621	97	85309	20.30	ug/L		97	
31) 1,1-Dichloropropene	5.748	75	72436	17.74	ug/L		94	
32) 2-Butanone (MEK)	5.730	43	95309	34.02	ug/L		95	
33) Benzene	6.004	78	229158	17.12	ug/L		98	
34) tert-Amyl methyl ether...	6.150	73	36536	4.22	ug/L		95	
35) 1,2-Dichloroethane (EDC)	6.205	62	84780	20.57	ug/L		97	
36) iso-Butyl Alcohol	6.278	~~43~~	~~61466~~	~~191.79~~	~~ug/L~~		~~87~~	M.I.
38) Trichloroethene (TCE)	6.618	130	47306	17.79	ug/L		91	
39) tert-Amyl ethyl ether ...	6.898	59	27383	4.56	ug/L		85	
40) Dibromomethane	7.056	93	32685	19.46	ug/L	#	78	
41) 1,2-Dichloropropane	7.172	63	58918	17.79	ug/L		96	
42) Bromodichloromethane	7.245	83	64922	20.06	ug/L		96	
44) c-1,3-Dichloropropene	7.951	75	85482	22.41	ug/L		98	
46) Toluene	8.224	91	221274	18.49	ug/L		98	
47) Tetrachloroethene (PCE)	8.675	166	41890	18.87	ug/L		80	
48) 4-Methyl-2-Pentanone (...	8.669	43	142055	38.31	ug/L		97	

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112603.D
Acq On : 26 Nov 2019 10:51 am
Operator : IMA
Sample : 9111214-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOCR+MeOH A19K194
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 26 16:04:15 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

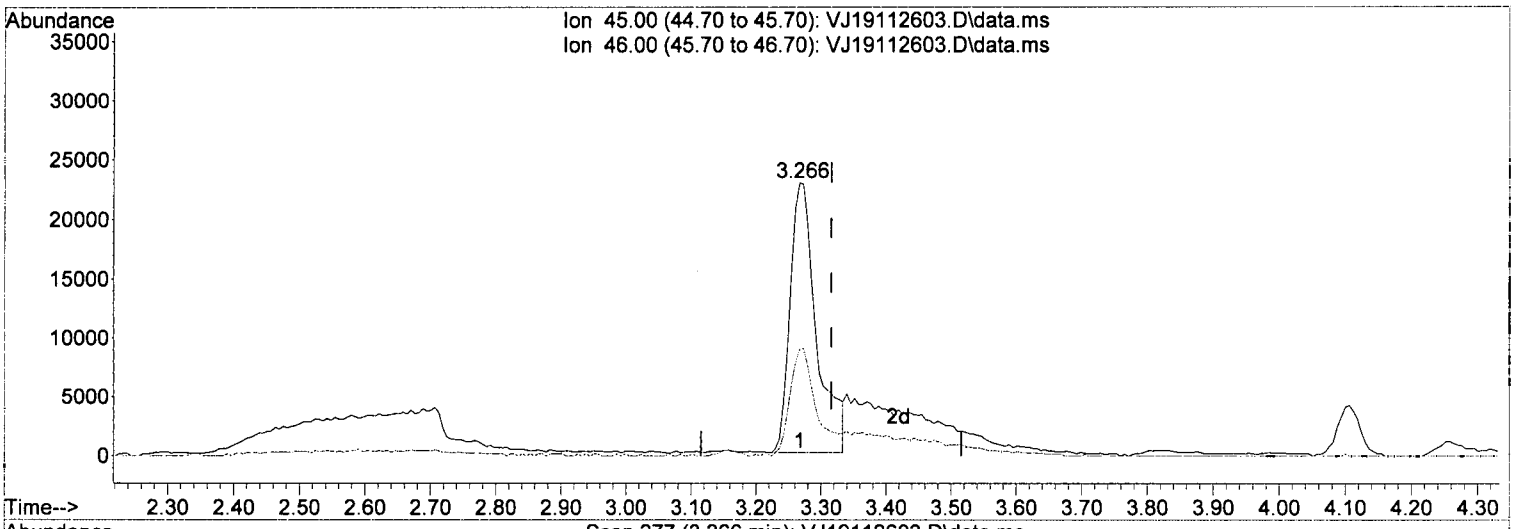
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49)	t-1,3-Dichloropropene	8.699	75	82921	22.41	ug/L		95
50)	1,1,2-Trichloroethane	8.875	97	46194	19.02	ug/L		90
51)	Dibromochloromethane	9.064	129	38321	19.55	ug/L		98
52)	1,3-Dichloropropane	9.155	76	87151	19.10	ug/L		91
53)	1,2-Dibromoethane (EDB)	9.295	107	45460	19.53	ug/L		100
54)	2-Hexanone	9.545	43	101475	36.77	ug/L		95
55)	Chlorobenzene	9.818	112	127002	18.61	ug/L		91
56)	Ethylbenzene	9.855	91	227614	19.58	ug/L		96
57)	1,1,1,2-Tetrachloroethane	9.879	131	43312	20.49	ug/L		97
58)	m,p-Xylenes (2)	9.989	91	343317	41.47	ug/L		93
59)	o-Xylene	10.372	91	152335	19.28	ug/L		94
60)	Styrene	10.421	104	104524	17.22	ug/L		95
61)	Bromoform	10.433	173	23891	17.34	ug/L		97
62)	Isopropylbenzene	10.652	105	186693	19.61	ug/L		96
65)	Bromobenzene	10.962	156	41447	18.31	ug/L	#	70
66)	n-Propylbenzene	10.993	91	236381	19.81	ug/L		93
67)	1,1,2,2-Tetrachloroethane	11.041	83	62744	18.16	ug/L		96
68)	2-Chlorotoluene	11.114	126	39484	18.54	ug/L	#	71
69)	1,3,5-Trimethylbenzene	11.151	105	168795	23.11	ug/L		92
70)	1,2,3-Trichloropropane	11.151	110	21501	19.38	ug/L		98
71)	t-1,4-Dichloro-2-butene	11.181	88	10300	23.14	ug/L	#	86
72)	4-Chlorotoluene	11.248	91	141289	20.44	ug/L		91
73)	tert-Butylbenzene	11.406	91	88399	20.41	ug/L		86
74)	1,2,4-Trimethylbenzene	11.455	105	167331	22.68	ug/L		93
75)	sec-Butylbenzene	11.540	105	189802	20.33	ug/L		93
76)	4-Isopropyltoluene	11.656	119	150510	21.15	ug/L		96
77)	1,3-Dichlorobenzene	11.704	146	77572	18.93	ug/L		95
78)	1,4-Dichlorobenzene	11.771	146	78585	18.04	ug/L		93
79)	n-Butylbenzene	11.972	91	145007	21.01	ug/L		96
80)	1,2-Dichlorobenzene	12.088	146	70357	18.74	ug/L		95
81)	1,2-Dibromo-3-Chloropr...	12.696	157	11324	17.31	ug/L	#	42
82)	Hexachlorobutadiene	13.213	223	9457	19.92	ug/L		94
83)	1,2,4-Trichlorobenzene	13.237	180	39256	17.32	ug/L		97
84)	Naphthalene	13.511	128	151768	18.66	ug/L		97
85)	1,2,3-Trichlorobenzene	13.675	180	42014	19.04	ug/L		95

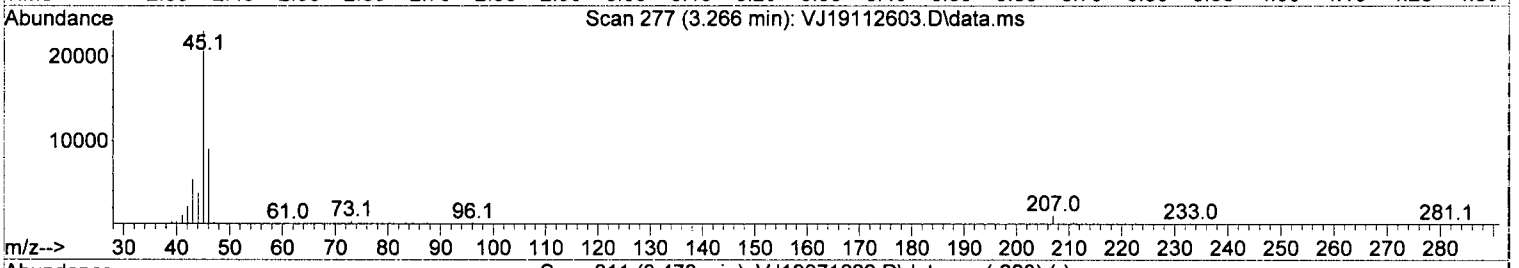
(#) = qualifier out of range (m) = manual integration (+) = signals summed

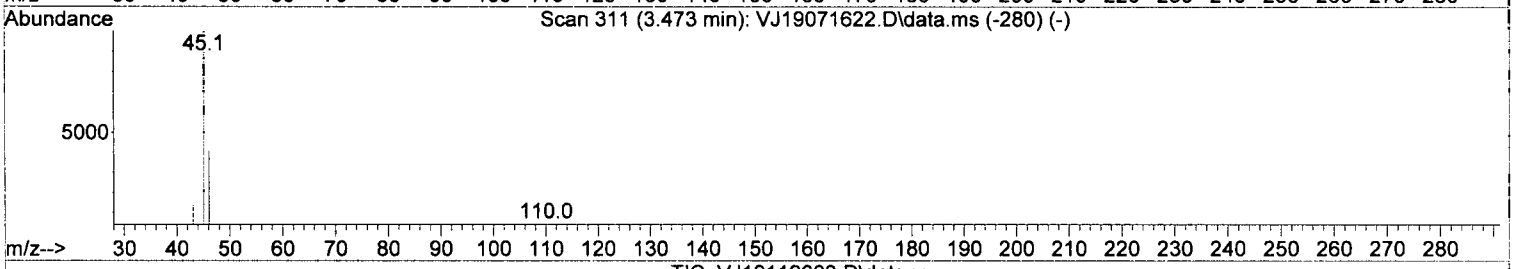
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112603.D
Acq On : 26 Nov 2019 10:51 am
Operator : IMA
Sample : 9111214-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOCR+MeOH A19K194
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 26 16:04:15 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







TIC: VJ19112603.D\data.ms

(8) Ethanol

3.266min (-0.049) 576.22 ug/L

response 64749

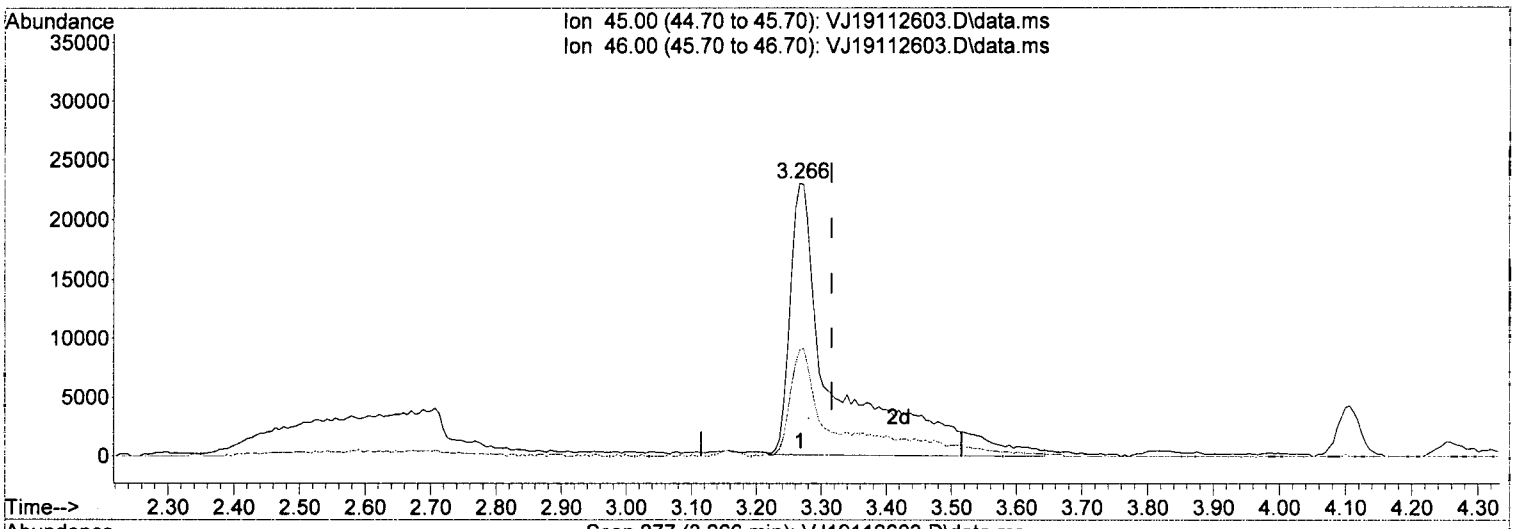
Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	39.14
0.00	0.00	0.00
0.00	0.00	0.00

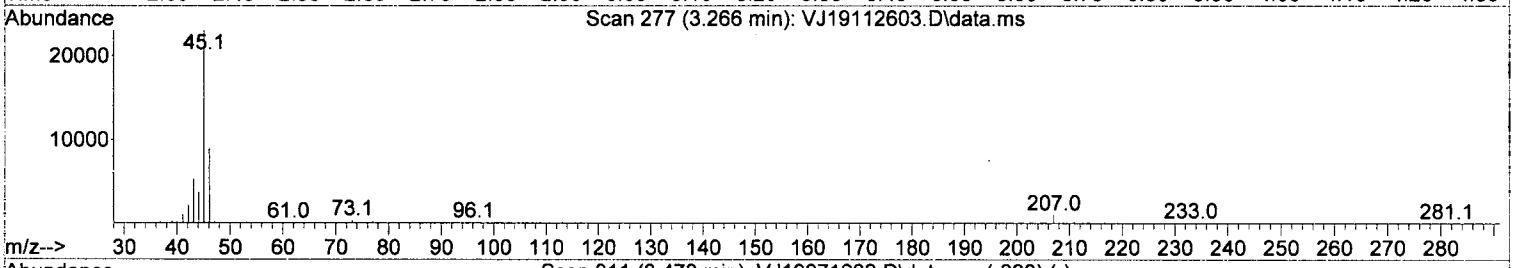
M.I

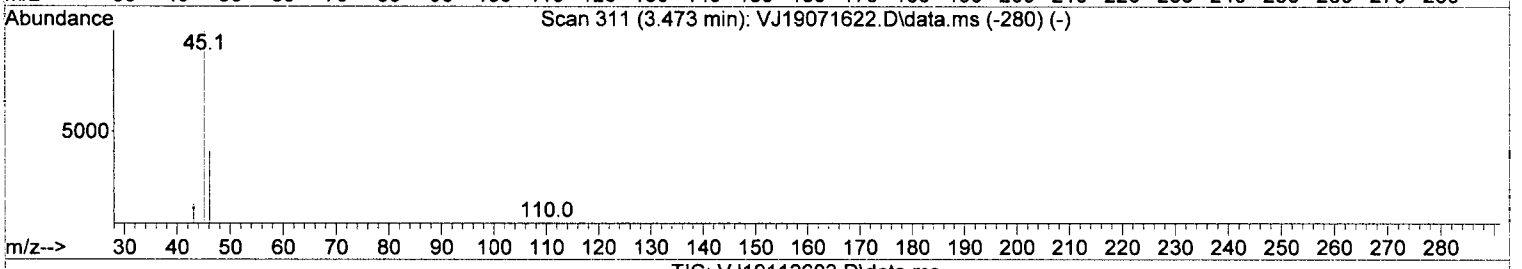
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112603.D
Acq On : 26 Nov 2019 10:51 am
Operator : IMA
Sample : 9111214-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOCR+MeOH A19K194
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 26 16:04:15 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







TIC: VJ19112603.D\data.ms

(8) Ethanol

3.266min (-0.049) 1073.95 ug/L (m)

IMA
11/26/19

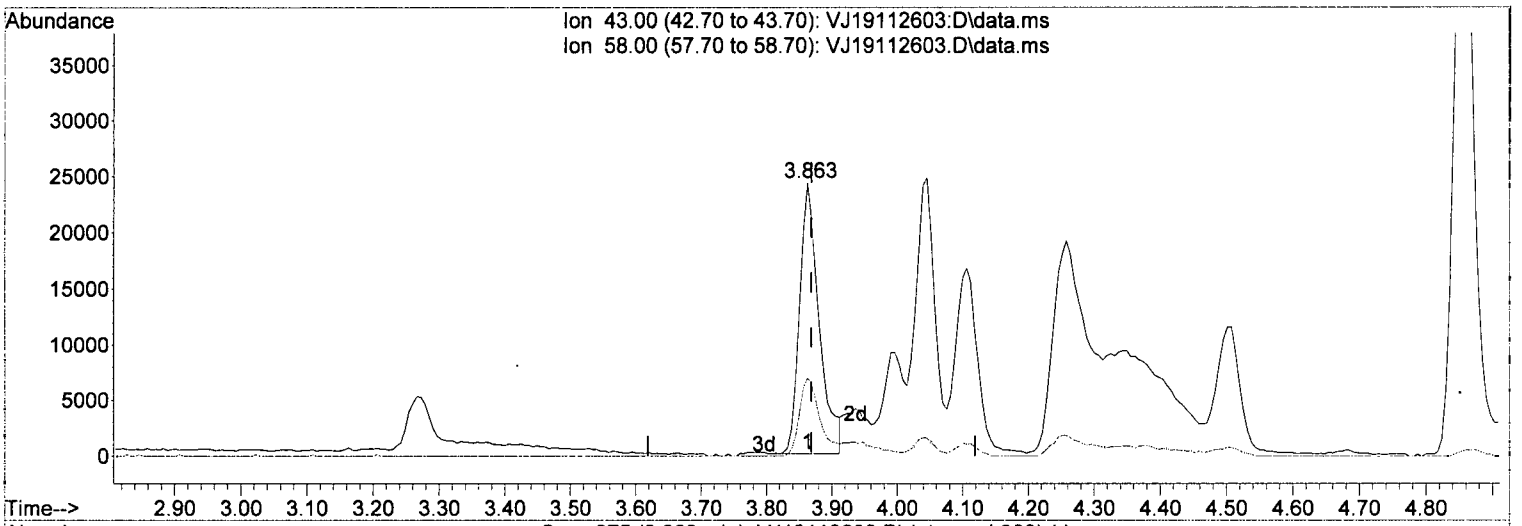
response 112286

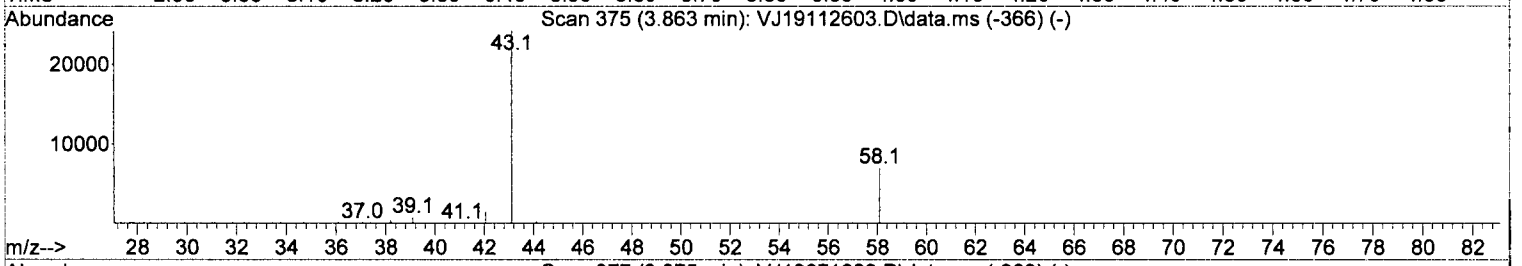
Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	39.14
0.00	0.00	0.00
0.00	0.00	0.00

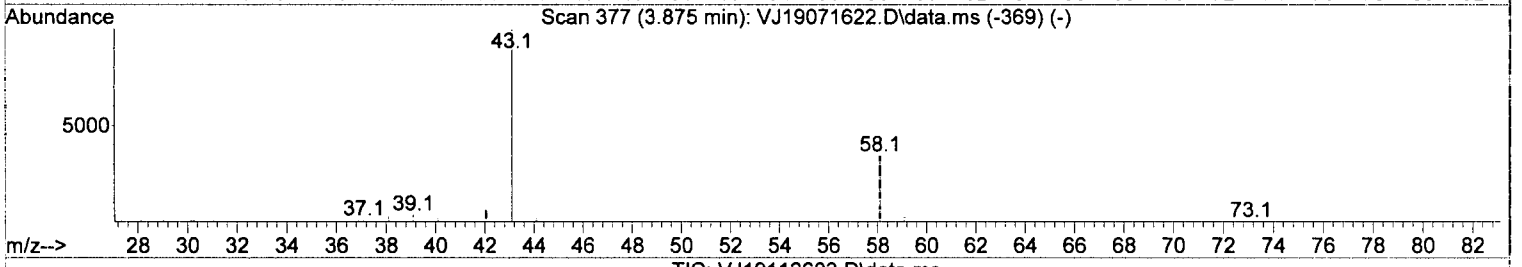
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112603.D
Acq On : 26 Nov 2019 10:51 am
Operator : IMA
Sample : 9111214-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOCR+MeOH A19K194
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 26 16:04:15 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







TIC: VJ19112603.D\data.ms

(14) Acetone

3.863min (-0.005) 31.65 ug/L

response 50338

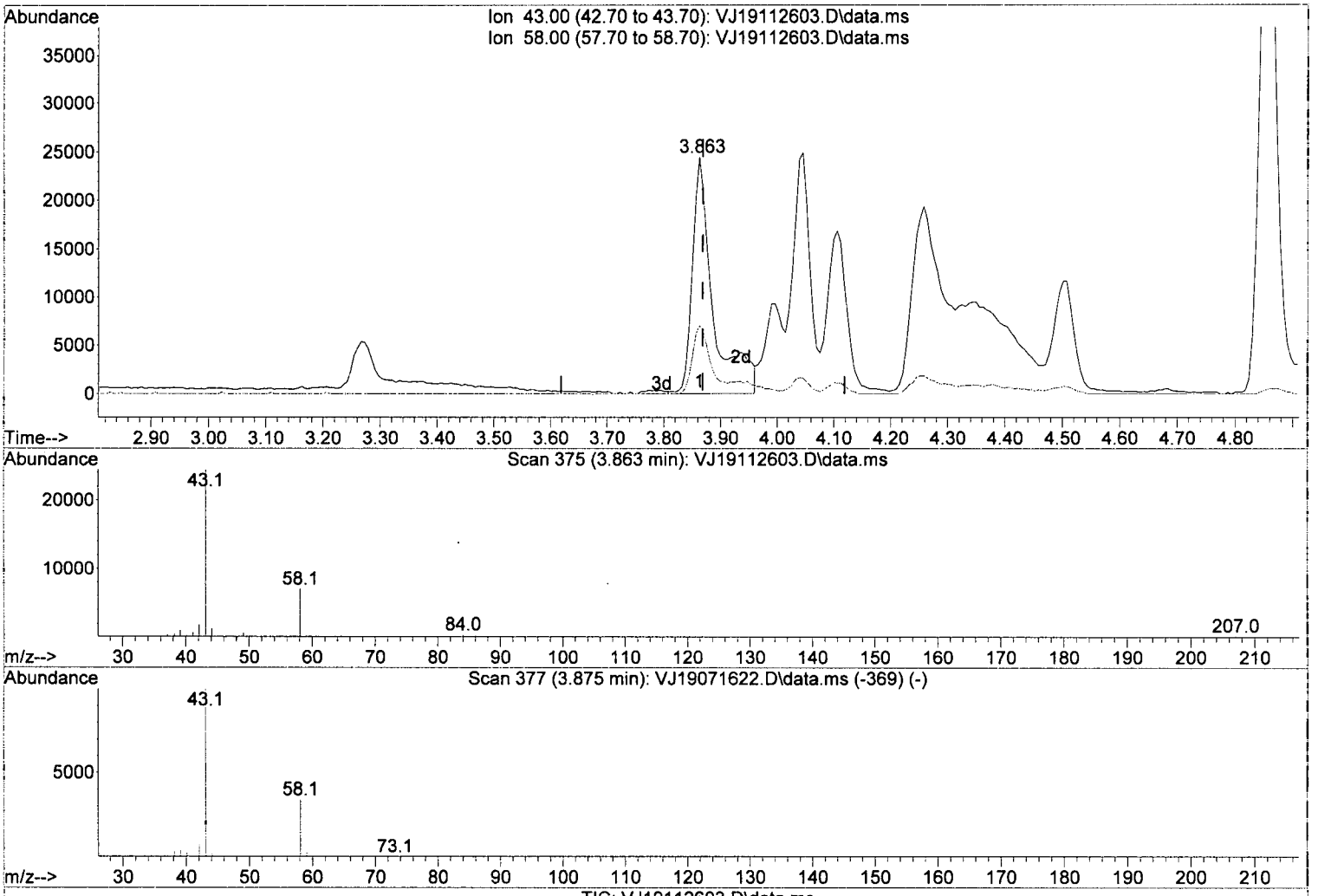
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	29.05
0.00	0.00	0.00
0.00	0.00	0.00

MI.

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112603.D
Acq On : 26 Nov 2019 10:51 am
Operator : IMA
Sample : 9111214-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOCR+MeOH A19K194
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 26 16:04:15 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



TIC: VJ19112603.D\data.ms

(14) Acetone

3.863min (-0.005) 39.04 ug/L (m)

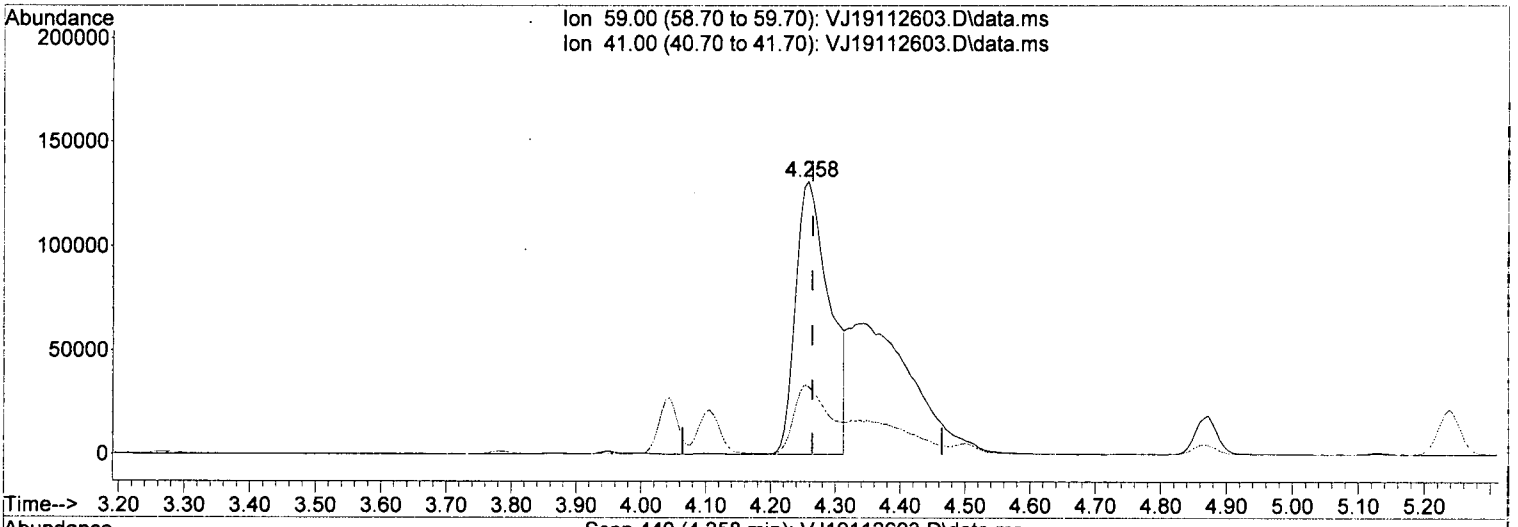
IMA
11/26/19

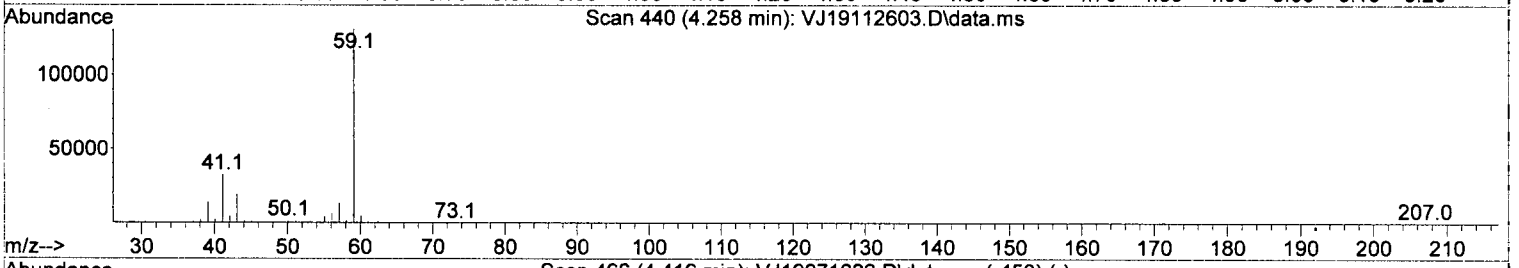
response	62101	
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	28.78
0.00	0.00	0.00
0.00	0.00	0.00

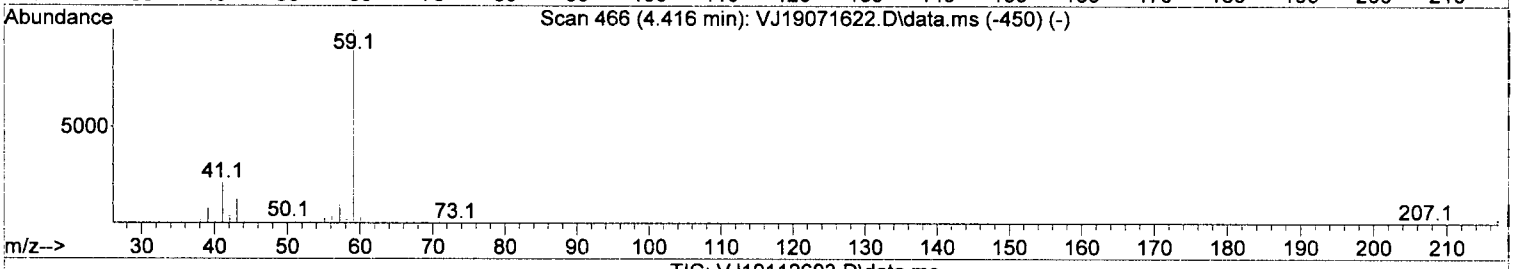
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112603.D
Acq On : 26 Nov 2019 10:51 am
Operator : IMA
Sample : 9111214-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOCR+MeOH A19K194
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 26 16:04:15 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







TIC: VJ19112603.D\data.ms

(18) tert-Butanol (TBA)

4.258min (-0.006) 581.07 ug/L

response 475553

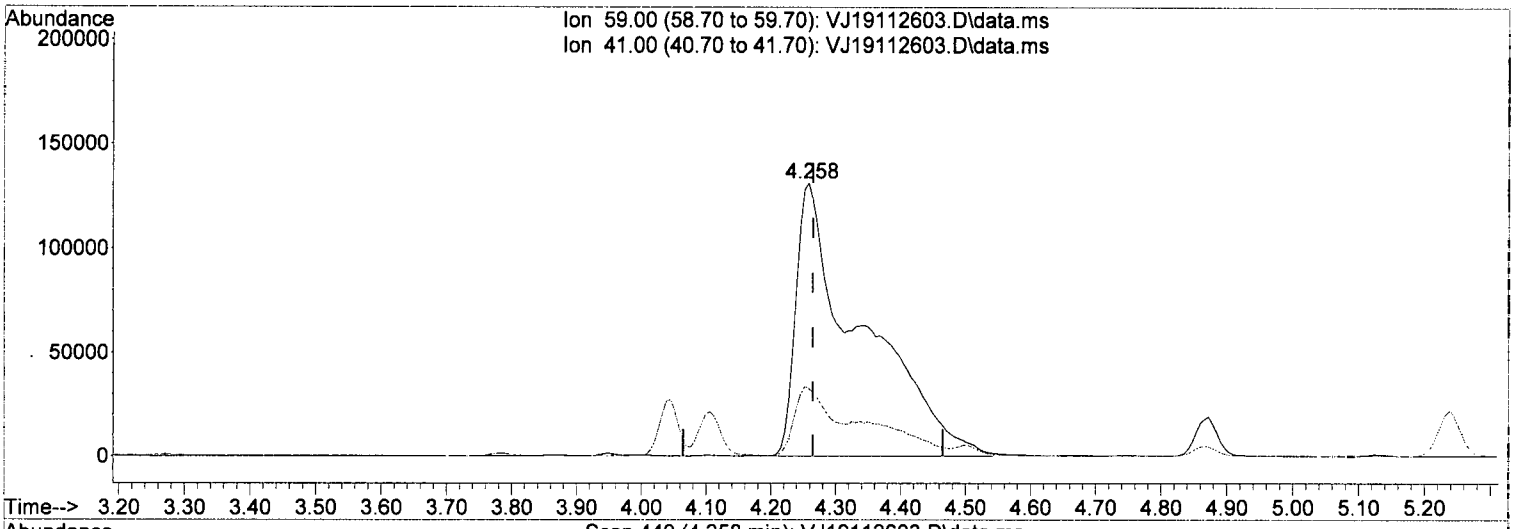
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	24.90#
0.00	0.00	0.00
0.00	0.00	0.00

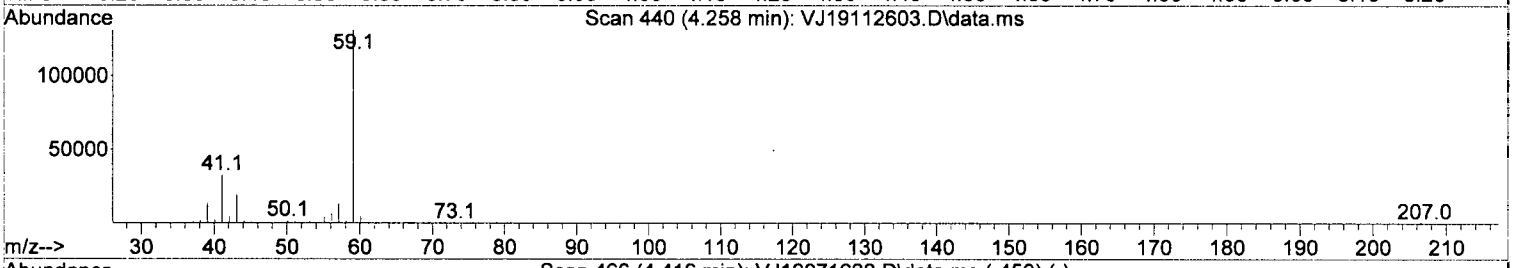
M.I.

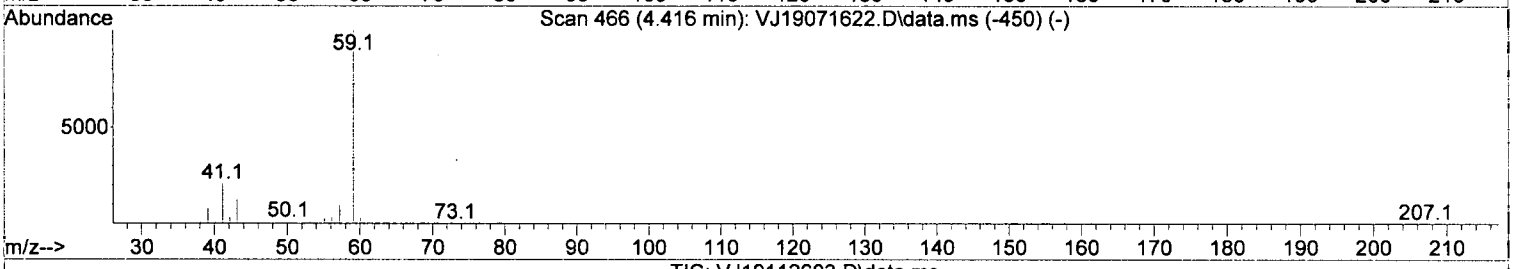
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112603.D
Acq On : 26 Nov 2019 10:51 am
Operator : IMA
Sample : 9111214-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOCR+MeOH A19K194
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 26 16:04:15 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







TIC: VJ19112603.D\data.ms

(18) tert-Butanol (TBA)

4.258min (-0.006) 1120.65 ug/L (m)

IMA 11/26/19

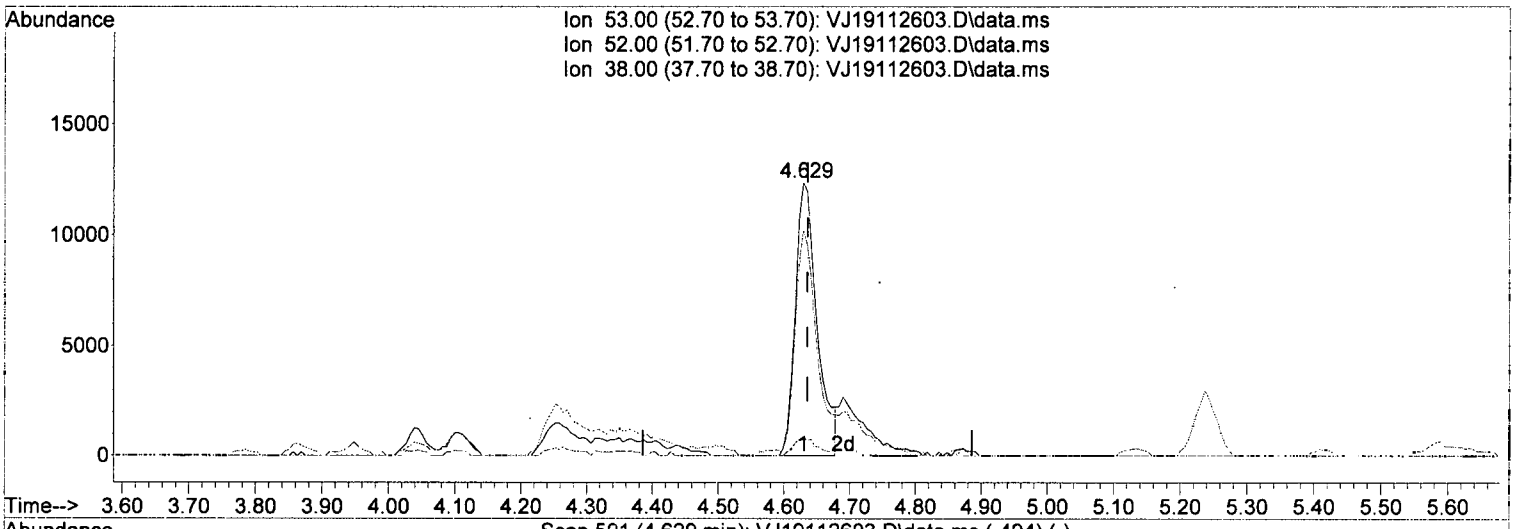
response 917160

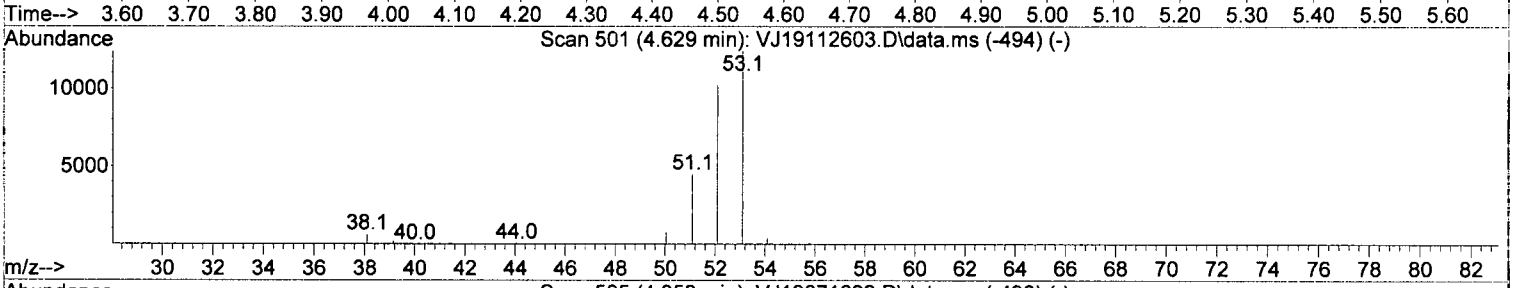
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	24.90#
0.00	0.00	0.00
0.00	0.00	0.00

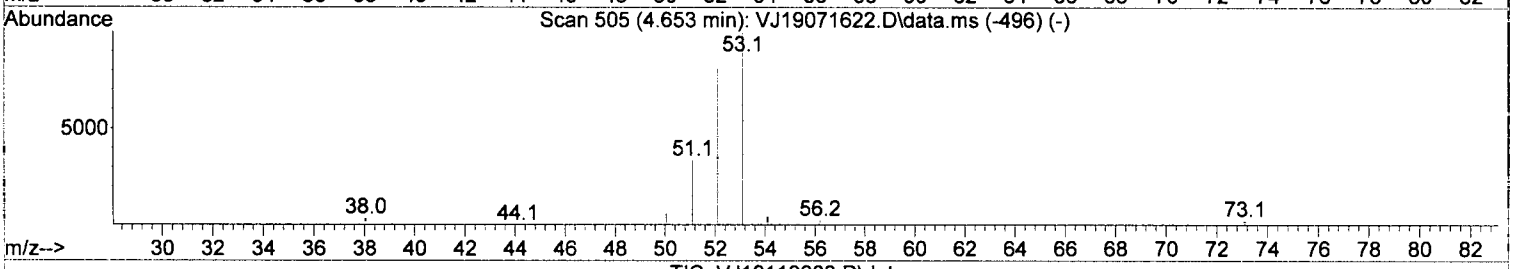
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112603.D
Acq On : 26 Nov 2019 10:51 am
Operator : IMA
Sample : 9111214-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOCR+MeOH A19K194
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 26 16:04:15 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







TIC: VJ19112603.D\data.ms

(21) Acrylonitrile

4.629min (-0.006) 15.83 ug/L

response 28496

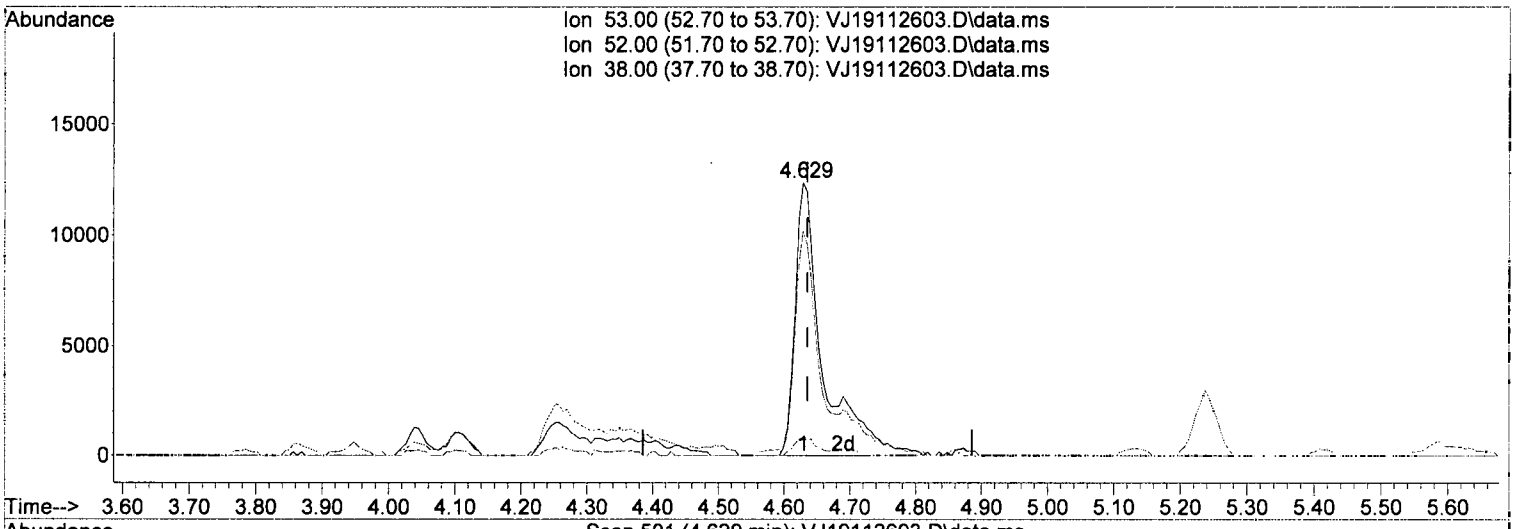
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	82.50
38.00	5.50	5.48
0.00	0.00	0.00

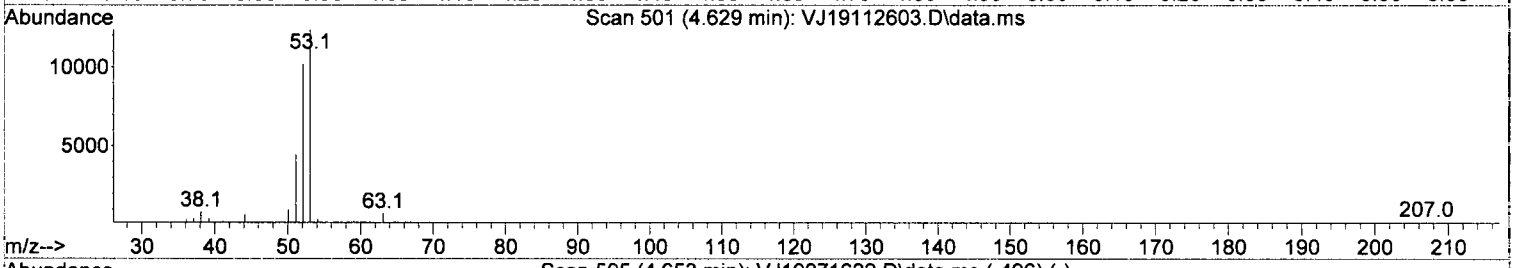
MI.

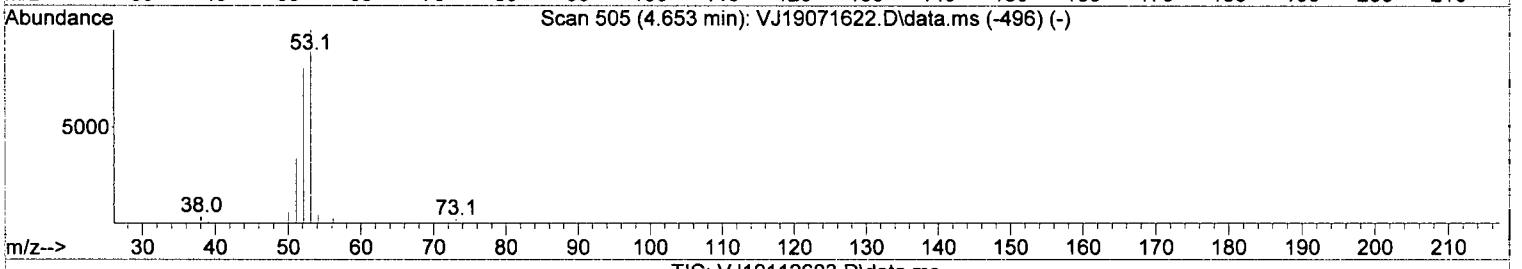
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112603.D
Acq On : 26 Nov 2019 10:51 am
Operator : IMA
Sample : 9111214-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOCR+MeOH A19K194
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 26 16:04:15 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







TIC: VJ19112603.D\data.ms

(21) Acrylonitrile

4.629min (-0.006) 20.28 ug/L (m)

IMA
11/26/19

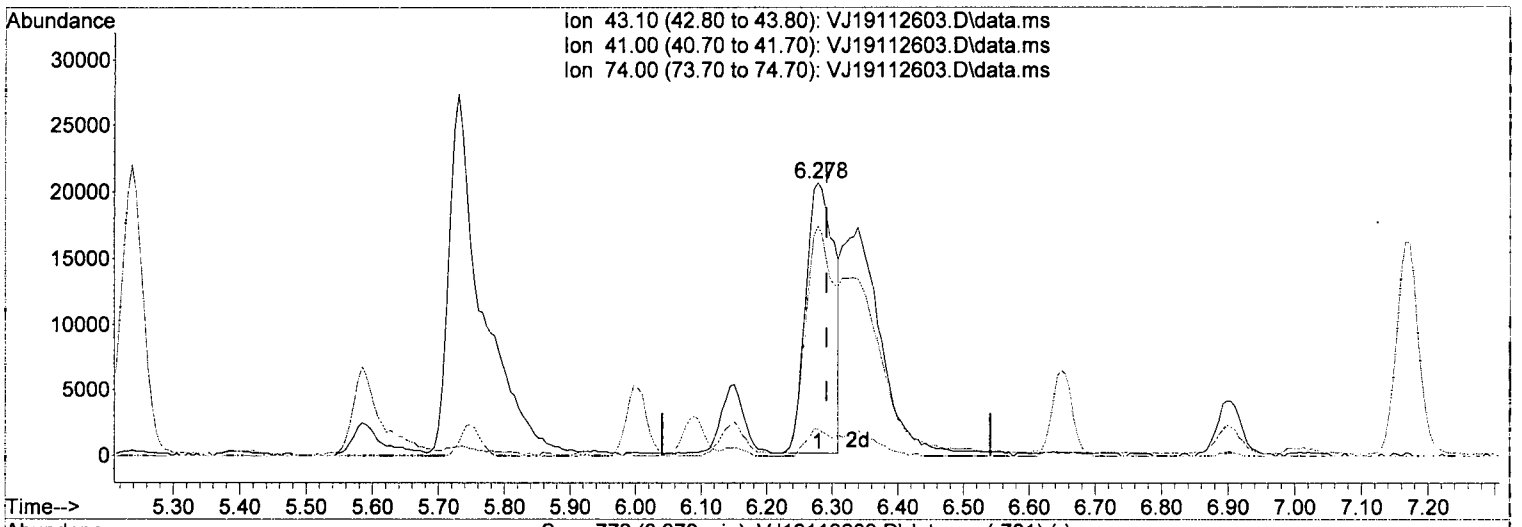
response 36516

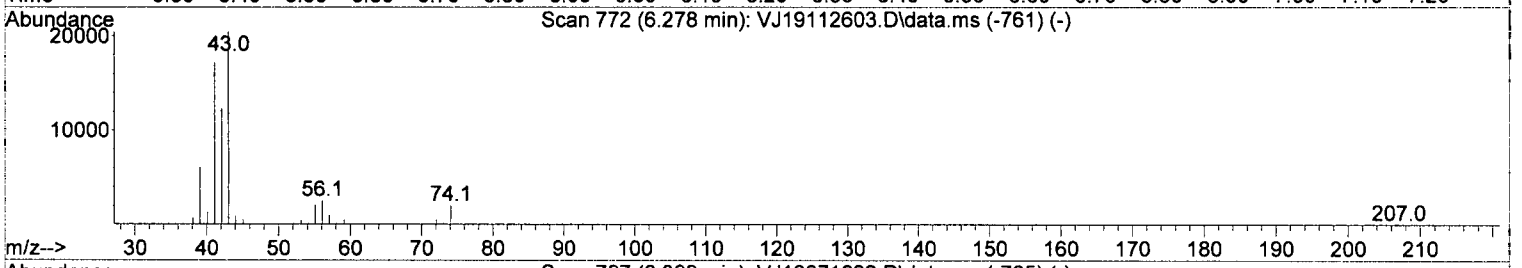
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	82.50
38.00	5.50	7.07
0.00	0.00	0.00

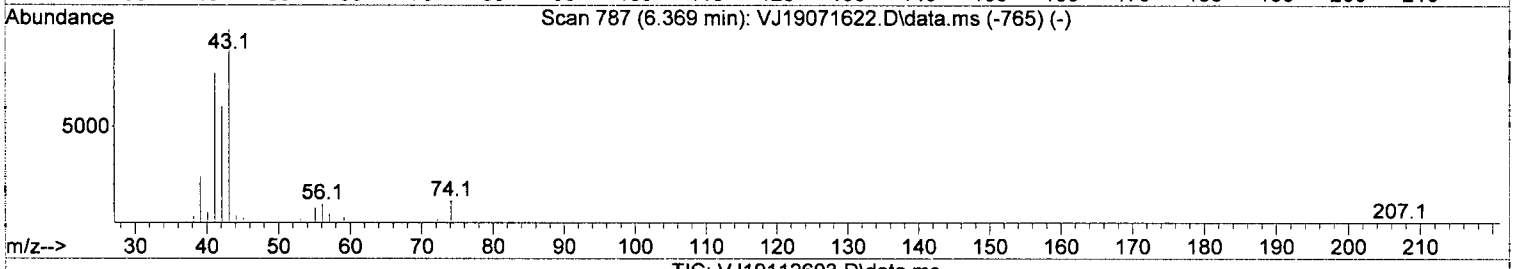
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112603.D
Acq On : 26 Nov 2019 10:51 am
Operator : IMA
Sample : 9111214-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOCR+MeOH A19K194
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 26 16:04:15 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







TIC: VJ19112603.D\data.ms

(36) iso-Butyl Alcohol

6.278min (-0.012) 191.79 ug/L

response 61466

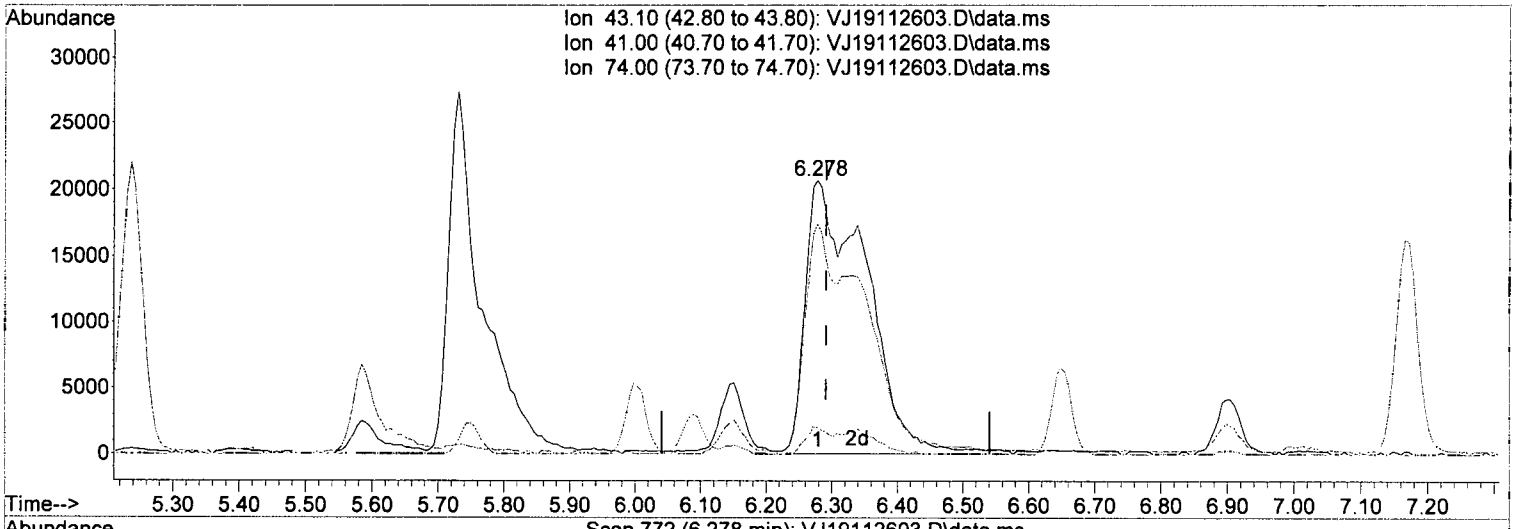
Ion	Exp%	Act%
43.10	100.00	100.00
41.00	71.80	84.19
74.00	11.60	9.83
0.00	0.00	0.00

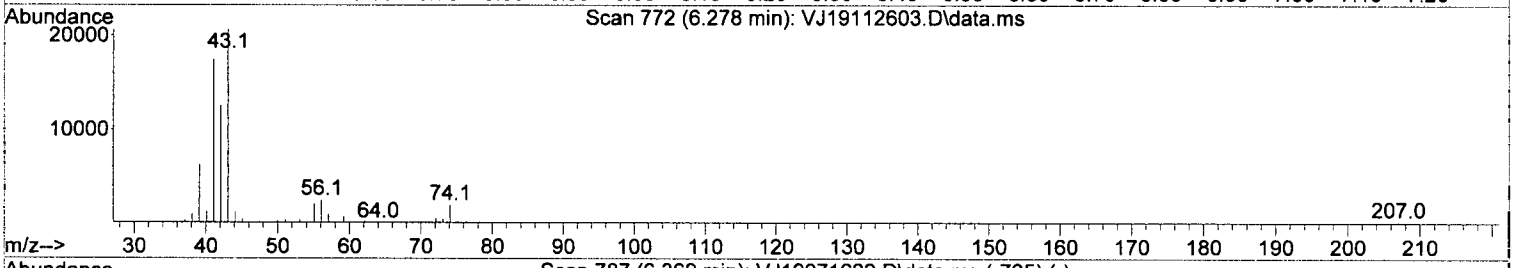
M.I.

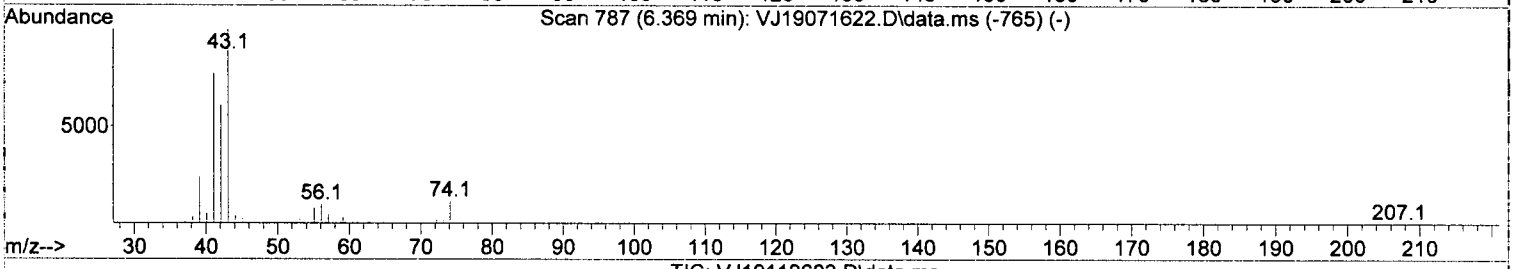
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112603.D
Acq On : 26 Nov 2019 10:51 am
Operator : IMA
Sample : 9111214-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOCR+MeOH A19K194
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 26 16:04:15 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration







TIC: VJ19112603.D\data.ms

(36) iso-Butyl Alcohol

6.278min (-0.012) 417.36 ug/L (m)

IMA
11/26/19

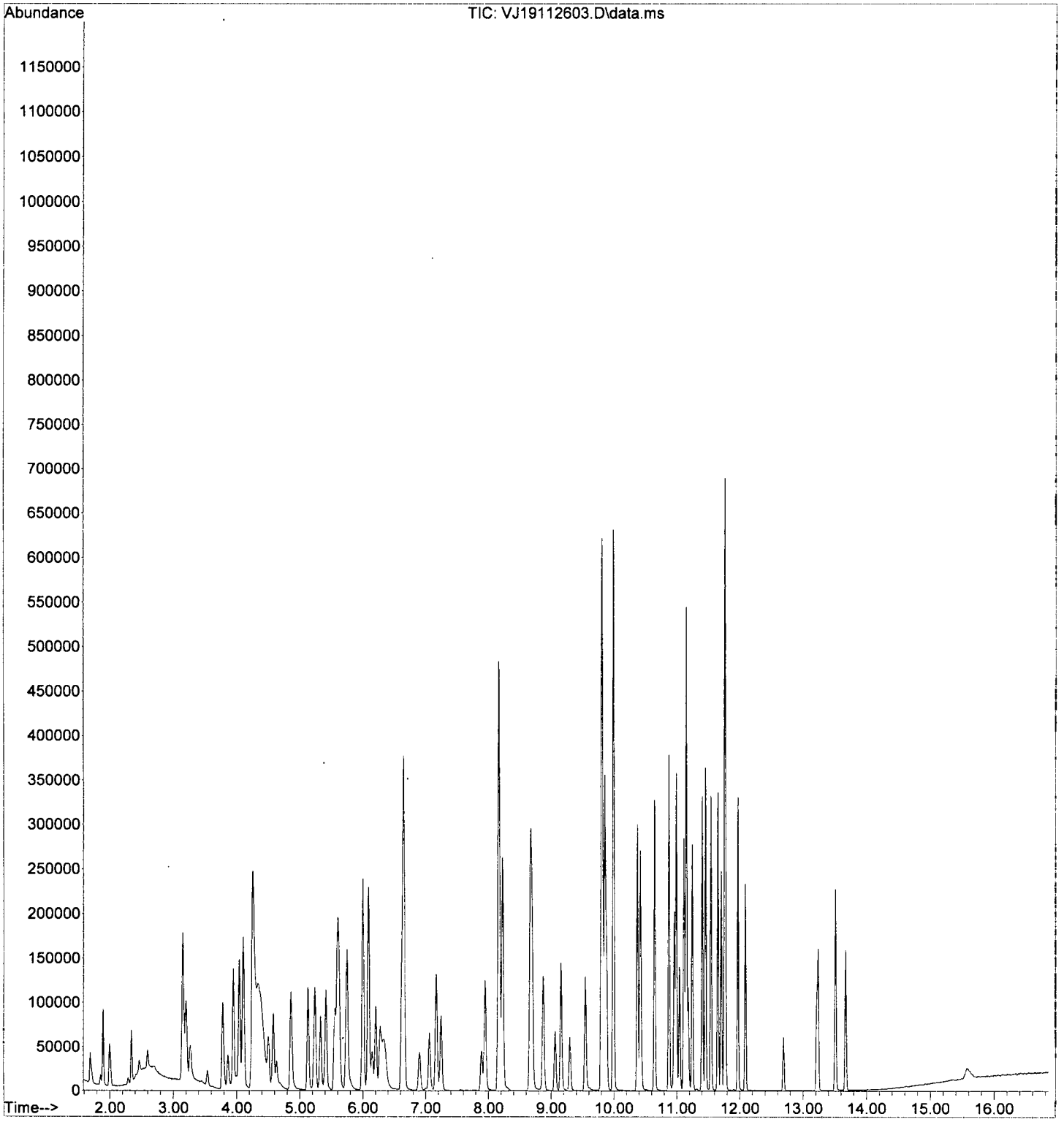
response 133758

Ion	Exp%	Act%
43.10	100.00	100.00
41.00	71.80	84.27
74.00	11.60	9.74
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112603.D
Acq On : 26 Nov 2019 10:51 am
Operator : IMA
Sample : 9111214-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOCR+MeOH A19K194
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 26 16:04:15 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112604.D
Acq On : 26 Nov 2019 11:18 am
Operator : IMA
Sample : 9111214-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19K086
ALS Vial : 4 Sample Multiplier: 1

IMA
11/26/19

Quant Time: Nov 26 16:06:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration

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	Pentafluorobenzene (IS)	50.000	50.000	0.0	93	0.00
2	S	1,4-Difluorobenzene (Sur)	50.000	51.810	-3.6	95	0.00
3	S	4-Bromofluorobenzene (Sur)	50.000	47.475	5.0	87	0.00
4	H	NWTPH-Gx (TPH)	500.000	523.435	-4.7	100	0.00
5	H	TPHg (C5-C9)	500.000	560.107	-12.0	104	0.00
6	H	TPHg (C6-C10)	500.000	550.201	-10.0	101	0.00
7	H	CA-LUFT (C5-C12)	500.000	548.833	-9.8	103	0.00
8		Benzene (NR)	-1.000	0.000	0.0	103	0.00
9	S	Toluene-d8 (NR)	-1.000	0.000	0.0	97	0.00
10		Toluene (NR)	-1.000	0.000	0.0	97	0.00
11	S	Chlorobenzene-d5 (NR)	-1.000	0.000	0.0	93	0.00
12	S	1,4-Dichlorobenzene-d4 (NR)	-1.000	0.000	0.0	92	0.00
13		Naphthalene (NR)	-1.000	0.000	0.0	85	0.00

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112604.D
Acq On : 26 Nov 2019 11:18 am
Operator : IMA
Sample : 9111214-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19K086
ALS Vial : 4 Sample Multiplier: 1

IMA
11/26/19

Quant Time: Nov 26 16:06:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration

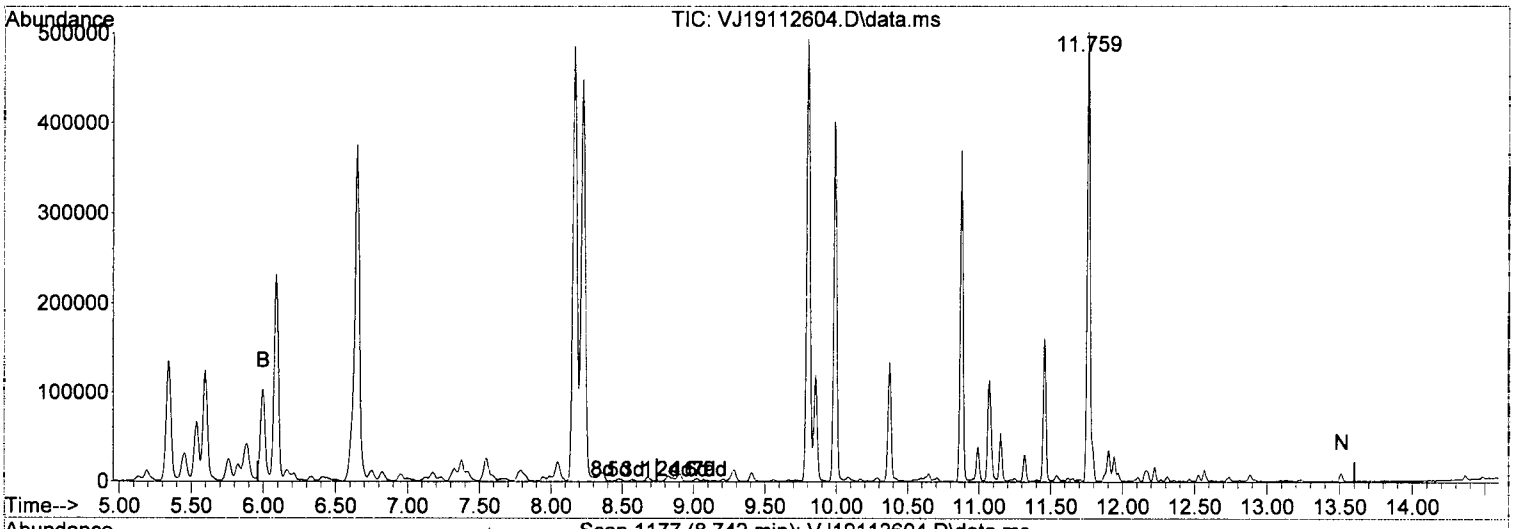
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	147286	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.649	114	290336	51.81	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.877	174	71670	47.48	ug/L	0.00
9) Toluene-d8 (NR)	8.164	98	363870	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.800	117	247536	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	161310	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	3857890m	523.44	ug/L	
5) TPHg (C5-C9)	9.239	TIC	5648353m	560.11	ug/L	
6) TPHg (C6-C10)	9.239	TIC	4720911m	550.20	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	6522635m	548.83	ug/L	

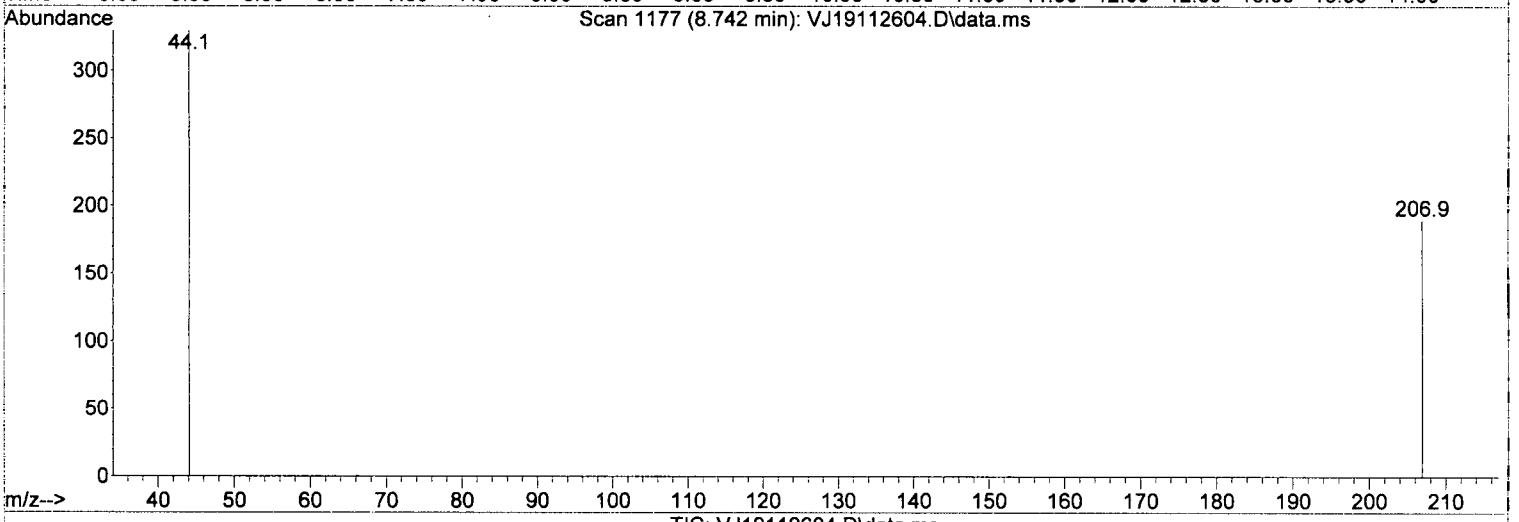
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112604.D
Acq On : 26 Nov 2019 11:18 am
Operator : IMA
Sample : 9111214-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19K086
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 26 16:06:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration





TIC: VJ19112604.D\data.ms

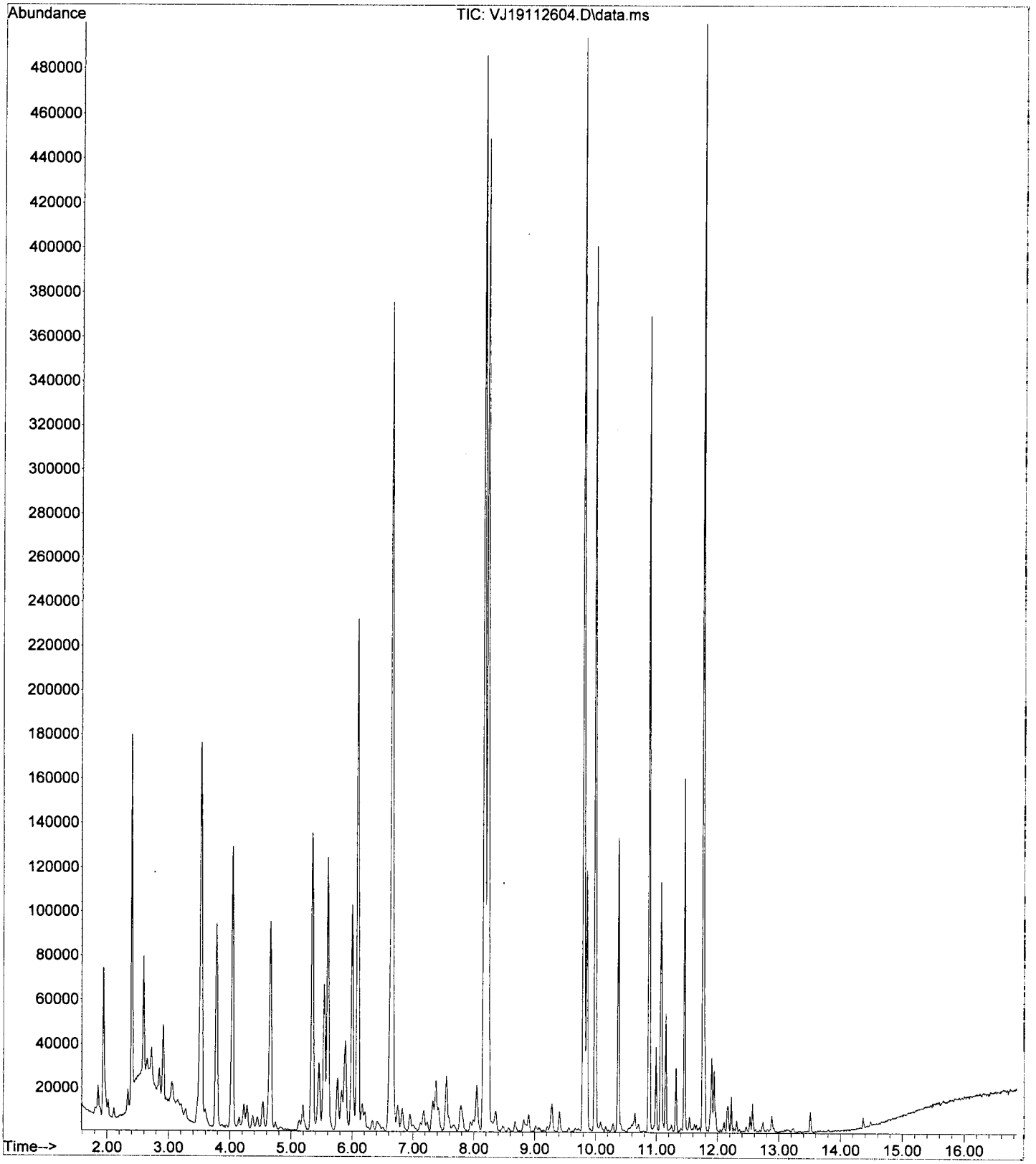
(4) NWTPH-Gx (TPH) (H)

8.739min (0.000) 523.44 ug/L m

response 3857890

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.01#
0.00	0.00	0.01#
0.00	0.00	0.00

File :C:\msdchem\1\data\2019-11\9K26026\VJ19112604.D
Operator : IMA
Acquired : 26 Nov 2019 11:18 am using AcqMethod VJ1907RUN.M
Instrument : VOA-GCMS10
Sample Name: 9111214-BS2
Misc Info : 50X 5g/5mLx1000uL/50mL GX+MeOH A19K086
Vial Number: 4



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112605.D
Acq On : 26 Nov 2019 11:45 am
Operator : IMA
Sample : 9111214-BLK1
Misc : 50X 7.5g/5mLx1000uL/50mL DI+MeOH
ALS Vial : 5 Sample Multiplier: 1

IMA
11/26/19

Quant Time: Nov 26 16:06:27 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	137779	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.649	114	278017	53.04	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.877	174	66848	47.34	ug/L	0.00
9) Toluene-d8 (NR)	8.164	98	353351	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	243234	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	151230	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	63484m	12.72	ug/L	<MDL
5) TPHg (C5-C9)	9.239	TIC	340238m	Below Cal		
6) TPHg (C6-C10)	9.239	TIC	321403m	16.35	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	349998m	0.86	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112605.D
Acq On : 26 Nov 2019 11:45 am
Operator : IMA
Sample : 9111214-BLK1
Misc : 50X 7.5g/5mLx1000uL/50mL DI+MeOH
ALS Vial : 5 Sample Multiplier: 1

IMA
11/26/19

Quant Time: Nov 26 16:06:34 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

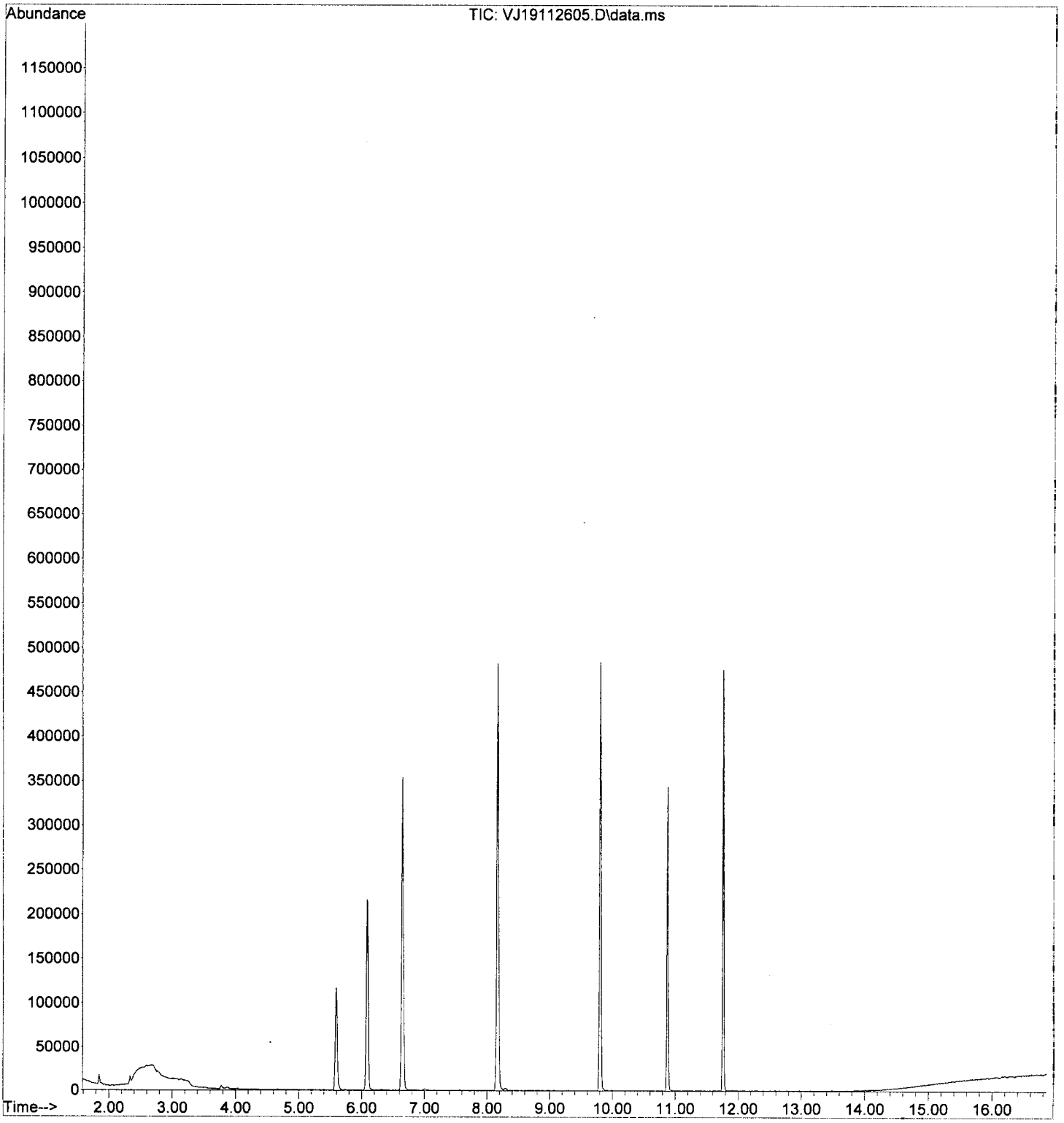
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.083	99	99201	50.00 ug/L	#	0.00
43) Chlorobenzene-d5 (I)	9.806	117	243234	50.00 ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	95304	50.00 ug/L		0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.596	111	82856	52.84 ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.649	114	278017	45.56 ug/L		0.00
45) Toluene-d8 (S)	8.164	98	353351	52.09 ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.877	174	66848	48.58 ug/L		0.00
Target Compounds						Qvalue
3) Chloromethane	1.885	50	1490	0.38 ug/L	<MDL	90
5) Bromomethane	2.336	96	4112	0.97 ug/L		99
6) Chloroethane	2.457	64	201	1.71 ug/L	#	1
8) Ethanol	3.333	45	272	Below Cal		95
12) Iodomethane	3.291	142	349	0.46 ug/L		61
13) Methylene Chloride	3.777	84	1625	Below Cal		95
14) Acetone	3.863	43	1547	1.02 ug/L		91
18) tert-Butanol (TBA)	4.252	59	132	0.17 ug/L	#	15
28) Tetrahydrofuran	5.590	42	197	0.10 ug/L	#	30
32) 2-Butanone (MEK)	5.742	43	663	0.25 ug/L		52
36) iso-Butyl Alcohol	6.314	43	477	1.56 ug/L		80

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K26026\
Data File : VJ19112605.D
Acq On : 26 Nov 2019 11:45 am
Operator : IMA
Sample : 9111214-BLK1
Misc : 50X 7.5g/5mLx1000uL/50mL DI+MeOH
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 26 16:06:34 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



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

TCLP Semivolatile Organic Compounds by EPA 8270D
Calibration Data

Sequence 9I19035 (Cal ID A9I2405) SV-GCMS10

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9I19035**	Instrument:	**SV-GCMS10**
Date:	**09/19/19 17:44**	Calibration:	**A9I2405**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9I19035-IBL1	Water	QC	QC			A19I086	
2	9I19035-TUN1	Water	QC	QC			A19I086	A19I165
3	9I19035-ICB1	Water	QC	QC			A19I086	
4	9I19035-CAL1	Water	QC	QC			A19I086	A19G238
5	9I19035-CAL2	Water	QC	QC			A19I086	A19G239
6	9I19035-CAL3	Water	QC	QC			A19I086	A19G240
7	9I19035-CAL4	Water	QC	QC			A19I086	A19G241
8	9I19035-CAL5	Water	QC	QC			A19I086	A19G242
9	9I19035-CAL6	Water	QC	QC			A19I086	A19G243
10	9I19035-CAL7	Water	QC	QC			A19I086	A19G244
11	9I19035-CAL8	Water	QC	QC			A19I086	A19G245
12	9I19035-CAL9	Water	QC	QC			A19I086	A19G246
13	9I19035-CALA	Water	QC	QC			A19I086	A19G247
14	9I19035-IBL2	Water	QC	QC			A19I086	
15	9I19035-ICV1	Water	QC	QC			A19I086	A19I254
16	9I19035-IBL3	Water	QC	QC			A19I086	

Data Entered By: 9/24/19

Data Reviewed By: 9/26/19

Comments:

Calibration Status Report SV-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : SV10_091919.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Fri Sep 20 10:41:03 2019
Response Via : Initial Calibration

A9I 2405

9/23/19

#	ID	Conc	ISTD Conc	Path\File
1	20	20	2000	C:\msdchem\1\data\2019-09\9I19035\J09191918.D
2	50	50	2000	C:\msdchem\1\data\2019-09\9I19035\J09191919.D
3	100	100	2000	C:\msdchem\1\data\2019-09\9I19035\J09191920.D
4	200	200	2000	C:\msdchem\1\data\2019-09\9I19035\J09191921.D
5	500	500	2000	C:\msdchem\1\data\2019-09\9I19035\J09191922.D
6	1000	1000	2000	C:\msdchem\1\data\2019-09\9I19035\J09191923.D
7	2000	2000	2000	C:\msdchem\1\data\2019-09\9I19035\J09191924.D
8	4000	4000	2000	C:\msdchem\1\data\2019-09\9I19035\J09191925.D
9	6000	6000	2000	C:\msdchem\1\data\2019-09\9I19035\J09191926.D
10	8000	8000	2000	C:\msdchem\1\data\2019-09\9I19035\J09191927.D

#	ID	Update Time	Quant Time	Acquisition Time
1	20	Sep 20 10:40 2019	Sep 20 10:14 2019	20 Sep 2019 1:24 am
2	50	Sep 20 10:40 2019	Sep 20 10:17 2019	20 Sep 2019 1:59 am
3	100	Sep 20 10:40 2019	Sep 20 10:18 2019	20 Sep 2019 2:34 am
4	200	Sep 20 10:40 2019	Sep 20 10:21 2019	20 Sep 2019 3:09 am
5	500	Sep 20 10:40 2019	Sep 20 10:22 2019	20 Sep 2019 3:44 am
6	1000	Sep 20 10:40 2019	Sep 20 09:46 2019	20 Sep 2019 4:19 am
7	2000	Sep 20 10:40 2019	Sep 20 09:46 2019	20 Sep 2019 4:54 am
8	4000	Sep 20 10:40 2019	Sep 20 10:28 2019	20 Sep 2019 5:29 am
9	6000	Sep 20 10:40 2019	Sep 20 10:29 2019	20 Sep 2019 6:04 am
10	8000	Sep 20 10:41 2019	Sep 20 10:30 2019	20 Sep 2019 6:39 am

SV10_091919.M Fri Sep 20 14:11:04 2019

Compound List Report SV-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : SV10_091919.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Fri Sep 20 10:41:03 2019
Response Via : Initial Calibration

9/20/19

Total Cpnds : 97

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-Dichlorobenzene-d4 (ISTD)	152	6.568	1.000	A	2	A	R
2	T	N-Nitrosodimethylamine	74	3.883	0.591	A	2	A	A
3	T	Pyridine	79	3.904	0.594	A	2	A	A
4	S	2-Fluorophenol (Surr)	112	5.289	0.805	A	1	A	R
5	S	Phenol-d6(Surr)	99	6.204	0.945	A	2	A	R
6	T	Phenol	94	6.215	0.946	A	2	A	R
7	T	Aniline	93	6.241	0.950	A	2	A	R
8	T	Bis(2-chloroethyl) ether	93	6.305	0.960	A	2	A	R
9	T	2-Chlorophenol	128	6.364	0.969	A	2	A	R
10	T	1,3-Dichlorobenzene	146	6.514	0.992	A	2	A	R
11	T	1,4-Dichlorobenzene	146	6.584	1.002	A	2	A	R
12	T	Benzyl alcohol	108	6.701	1.020	Q	2	A	R
13	T	1,2-Dichlorobenzene	146	6.739	1.026	A	2	A	R
14	T	2-Methylphenol	107	6.808	1.037	A	2	A	R
15	T	2,2'-Oxybis(1-Chloropropane)	45	6.835	1.041	A	2	A	R
16	T	N-Nitrosodi-n-propylamine	70	6.963	1.060	A	2	A	R
17	T	3+4-Methylphenol	107	6.958	1.059	A	3	A	R
18	T	Hexachloroethane	201	7.076	1.077	A	2	A	R
19	S	Nitrobenzene-d5 (Surr)	82	7.113	1.083	A	2	A	R
20	T	Nitrobenzene	77	7.129	1.085	A	2	A	R
21	I	Naphthalene-d8 (ISTD)	136	7.835	1.000	A	1	A	R
22	T	Isophorone	82	7.370	0.941	A	2	A	R
23	T	2-Nitrophenol	139	7.450	0.951	Q	2	A	R
24	T	2,4-Dimethylphenol	122	7.487	0.956	A	2	A	R
25	T	Bis(2-chloroethoxy) methane	93	7.579	0.967	A	2	A	R
26	T	Benzoic acid	105	7.578	0.967	Q	2	A	R
27	T	2,4-Dichlorophenol	162	7.690	0.981	Q	2	A	R
28	T	1,2,4-Trichlorobenzene	180	7.782	0.993	A	2	A	R
29	T	Naphthalene	128	7.857	1.003	A	1	A	R
30	T	4-Chloroaniline	127	7.904	1.009	Q	2	A	R
31	T	Hexachlorobutadiene	225	7.990	1.020	A	2	A	R
32	T	4-Chloro-3-methylphenol	107	8.386	1.070	A	2	A	R
33	T	2-Methylnaphthalene	142	8.557	1.092	A	2	A	R
34	T	1-Methylnaphthalene	142	8.659	1.105	A	2	A	R
35	I	Acenaphthene-d10 (ISTD)	162	9.616	1.000	A	2	A	R
36	T	Hexachlorocyclopentadiene	237	8.728	0.908	A	2	A	R
37	T	2,4,6-Trichlorophenol	196	8.840	0.919	Q	2	A	R
38	T	2,4,5-Trichlorophenol	198	8.872	0.923	Q	2	A	R
39	T	1,1'-Biphenyl	154	9.028	0.939	A	2	A	R
40	S	2-Fluorobiphenyl (Surr)	172	8.926	0.928	A	2	A	R
41	T	2-Chloronaphthalene	162	9.049	0.941	A	2	A	R
42	T	2-Nitroaniline	138	9.145	0.951	Q	2	A	R
43	T	2,6-Dimethylnaphthalene	156	9.188	0.955	A	2	A	R
44	T	1,4-Dinitrobenzene	168	9.274	0.964	Q	2	A	R
45	T	Dimethyl phthalate	163	9.333	0.971	A	2	A	R
46	T	1,3-Dinitrobenzene	168	9.354	0.973	Q	2	A	R
47	T	2,6-Dinitrotoluene	165	9.391	0.977	Q	2	A	R
48	T	1,2-Dinitrobenzene	168	9.445	0.982	A	2	A	R
49	T	Acenaphthylene	152	9.471	0.985	A	2	A	R
50	T	3-Nitroaniline	138	9.562	0.994	Q	2	A	R
51	T	Acenaphthene	153	9.648	1.003	A	2	A	R
52	T	2,4-Dinitrophenol	184	9.664	1.005	Q	2	A	R
53	T	4-Nitrophenol	139	9.723	1.011	Q	2	A	R
54	T	2,4-Dinitrotoluene	165	9.798	1.019	Q	2	A	R

55	T	Dibenzofuran	168	9.825	1.022	A		2	A	R
56	T	2,3,5,6-Tetrachlorophenol	232	9.905	1.030	Q	1/a²	2	A	R
57	T	2,3,4,6-Tetrachlorophenol	232	9.947	1.034	Q	1/a²	2	A	R
58	T	Diethyl phthalate	149	10.050	1.045	A		2	A	R
59	T	2,3,5-Trimethylnaphthalene	170	10.039	1.044	A		2	A	R
60	T	Fluorene	166	10.172	1.058	A		2	A	R
61	T	4-Chlorophenyl phenyl ether	204	10.167	1.057	A		2	A	R
62	T	4-Nitroaniline	138	10.183	1.059	A		2	A	R
63	T	4,6-Dinitro-2-methylphenol	198	10.215	1.062	Q	1/a²	2	A	R
64	I	Phenanthrene-d10 (ISTD)	188	11.135	1.000	A		2	A	R
65	T	N-Nitrosodiphenylamine	169	10.284	0.924	A		2	A	R
66	T	Azobenzene (1,2-DPH)	77	10.327	0.927	A		2	A	R
67	S	2,4,6-Tribromophenol (Surr)	330	10.418	0.936	Q	1/a²	2	A	R
68	T	4-Bromophenyl phenyl ether	248	10.670	0.958	A		2	A	R
69	T	Hexachlorobenzene	284	10.745	0.965	A		2	A	R
70	T	Pentachlorophenol (PCP)	266	10.942	0.983	Q	1/a	2	A	R
71	T	Phenanthrene	178	11.156	1.002	A		2	A	R
72	T	Anthracene	178	11.210	1.007	A		2	A	R
73	T	Carbazole	167	11.365	1.021	Q	1/a²	2	A	R
74	T	Di-n-butyl phthalate	149	11.718	1.052	A		2	A	R
75	T	Fluoranthene	202	12.424	1.116	A		2	A	R
76	T	Benzidine	184	12.579	1.130	Q	1/a²	2	A	R
77	T	Pyrene	202	12.713	1.142	A		2	A	R
78	I	Chrysene-d12 (ISTD)	240	14.917	1.000	A		2	A	R
79	S	Terphenyl-d14 (Surr)	244	12.922	0.866	A		2	A	R
80	T	Butyl benzyl phthalate	149	13.734	0.921	Q	1/a²	2	A	R
81	T	Bis(2-ethylhexyl) adipate	129	13.911	0.933	A		2	A	R
82	T	3,3-Dichlorobenzidine	252	14.863	0.996	Q	1/a²	2	A	R
83	T	Benz(a)anthracene	228	14.890	0.998	A		2	A	R
84	T	Chrysene	228	14.976	1.004	A		2	A	R
85	T	Bis(2-ethylhexyl) phthalate	149	15.071	1.010	A		2	A	R
86	I	Perylene-d12 (ISTD)	264	18.399	1.000	A		2	A	R
87	T	Di-n-octyl phthalate	149	16.746	0.910	Q	1/a²	2	A	R
88	T	Benzo(b)fluoranthene	252	17.478	0.950	Q	1/a²	2	A	R
89	T	Benzo(k)fluoranthene	252	17.548	0.954	Q	1/a²	2	A	R
90	T	Benzo(b+k)fluoranthene	252	17.548	0.954	Q	1/a²	2	A	R
91	T	Benzo(e)pyrene	252	18.137	0.986	A		2	A	R
92	T	Benzo(a)pyrene	252	18.254	0.992	Q	1/a²	2	A	R
93	T	Perylene	252	18.458	1.003	A		2	A	B
94	I	Dibenz(a,h)Anthrcene-d14 (I...	292	20.795	1.000	A		1	A	B
95	T	Indeno(1,2,3-cd)pyrene	276	20.790	1.000	A		1	A	R
96	T	Dibenz(a,h)anthracene	278	20.865	1.003	A		2	A	R
97	T	Benzo(g,h,i)perylene	276	21.325	1.025	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

SV10_091919.M Fri Sep 20 12:56:52 2019

Response Factor Report SV-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : SV10_091919.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Fri Sep 20 10:41:03 2019
Response Via : Initial Calibration

9/23/19

Calibration Files
20 =J09191918.D 50 =J09191919.D 100 =J09191920.D 200 =J09191921.D 500 =J09191922.D 1000=J09191923.D 2000=J09191924.D
4000=J09191925.D 6000=J09191926.D 8000=J09191927.D

		Compound	20	50	100	200	500	1000	2000	4000	6000	8000	Avg	%RSD
														3.51
1)	I	1,4-Dichlorobenzen...	----------ISTD----------											
2)	TG	N-Nitrosodimet...	0.759	0.758	0.808	0.697	0.702	0.739	0.762	0.786	0.804	0.804	0.762	5.28
3)	TG	Pyridine			1.053	1.277	1.346	1.118	1.285	1.376	1.417	1.443	1.375	1.299	10.27
4)	S	2-Fluorophenol...	0.940	1.045	0.952	1.217	1.280	1.263	1.333	1.381	1.371	1.354	1.214	14.15
5)	S	Phenol-d6(Surr)	1.197	1.305	1.446	1.602	1.667	1.682	1.674	1.705	1.659	1.598	1.553	11.41
6)	T	Phenol	1.542	1.562	1.608	1.797	1.827	1.843	1.776	1.794	1.708	1.625	1.708	6.71
7)	T	Aniline			1.505	1.592	1.714	1.671	1.336	1.129	1.375	1.569	1.374	1.474	12.65
8)	T	Bis(2-chloroet...	1.409	1.401	1.477	1.489	1.547	1.678	1.759	1.573				1.542	8.18
9)	T	2-Chlorophenol	1.231	1.299	1.339	1.474	1.520	1.505	1.485	1.475	1.445	1.389	1.416	6.89
10)	T	1,3-Dichlorobe...	1.526	1.590	1.641	1.679	1.688	1.625	1.631	1.578	1.503	1.457	1.592	4.80
11)	T	1,4-Dichlorobe...	1.540	1.656	1.606	1.633	1.652	1.622	1.590	1.515	1.433	1.397	1.564	5.83
12)	T	Benzyl alcohol		0.475	0.613	0.639	0.793	0.881	0.917	0.951	0.916	0.866	0.783	21.39
13)	T	1,2-Dichlorobe...	1.431	1.680	1.634	1.675	1.672	1.602	1.552	1.481	1.383	1.318	1.543	8.56
14)	T	2-Methylphenol	0.930	0.880	0.981	1.077	1.155	1.148	1.117	1.057	1.001	0.957	1.030	9.22
15)	T	2,2'-Oxybis(1-...	1.500	1.454	1.504	1.552	1.511	1.442	1.285	1.209	1.125	1.024	1.360	13.68
16)	T	N-Nitrosodi-n-...	0.922	0.898	0.938	0.991	0.999	0.963	0.901	0.825	0.768	0.745	0.895	9.91
17)	T	3+4-Methylphenol	1.065	1.133	1.160	1.345	1.441	1.458	1.401	1.305	1.189		1.277	11.32
18)	T	Hexachloroethane	0.434	0.455	0.452	0.472	0.494	0.484	0.503	0.510	0.500	0.503	0.481	5.45
19)	S	Nitrobenzene-d...	0.981	1.085	1.135	1.209	1.313	1.322	1.282	1.286	1.246	1.193	1.205	9.14
20)	T	Nitrobenzene	1.076	1.183	1.189	1.302	1.341	1.327	1.281	1.234	1.165	1.113	1.221	7.44
														4.83
21)	I	Naphthalene-d8 (ISTD)	----------ISTD----------											
22)	T	Isophorone	0.569	0.605	0.640	0.652	0.683	0.661	0.671	0.637	0.632	0.627	0.638	5.17
23)	T	2-Nitrophenol			0.122	0.135	0.180	0.201	0.189	0.201	0.201	0.195	0.178	17.69
24)	T	2,4-Dimethylph...		0.198	0.249	0.265	0.283	0.287	0.304	0.287	0.284	0.256	0.268	11.73
25)	T	Bis(2-chloroet...	0.388	0.385	0.394	0.408	0.432	0.413	0.411	0.376	0.348	0.321	0.388	8.46
26)	T	Benzoic acid					0.037	0.087	0.142	0.188	0.195	0.216	0.144	48.51
27)	T	2,4-Dichloroph...		0.170	0.214	0.252	0.295	0.303	0.320	0.305	0.287	0.272	0.269	18.30
28)	T	1,2,4-Trichlor...	0.357	0.371	0.359	0.374	0.372	0.362	0.355	0.336	0.317	0.297	0.350	7.29
29)	T	Naphthalene	1.146	1.151	1.167	1.173	1.186	1.117	1.076	0.925	0.826	0.754	1.052	15.05
30)	T	4-Chloroaniline	0.125	0.244	0.255	0.320	0.351	0.349	0.340	0.277	0.276	0.276	0.281	23.94
31)	T	Hexachlorobuta...	0.184	0.200	0.195	0.200	0.201	0.199	0.191	0.185	0.174	0.163	0.189	6.74
32)	T	4-Chloro-3-met...			0.197	0.220	0.278	0.284	0.309	0.291	0.278	0.266	0.265	14.24
33)	T	2-Methylnaphth...	0.706	0.774	0.776	0.819	0.833	0.793	0.783	0.679	0.620	0.570	0.735	12.00
34)	T	1-Methylnaphth...	0.737	0.770	0.777	0.793	0.804	0.752	0.740	0.635	0.577	0.532	0.712	13.43
														3.37
35)	I	Acenaphthene-d10 (...	----------ISTD----------											
36)	T	Hexachlorocycl...		0.218	0.261	0.286	0.327	0.342	0.363	0.328	0.338	0.320	0.309	14.82
37)	T	2,4,6-Trichlor...		0.237	0.257	0.307	0.384	0.402	0.423	0.419	0.401	0.389	0.358	19.99
38)	T	2,4,5-Trichlor...		0.237	0.270	0.301	0.381	0.390	0.418	0.406	0.393	0.366	0.351	18.51
39)	T	1,1'-Biphenyl	1.593	1.862	1.891	1.926	1.923	1.827	1.723	1.451	1.275		1.719	13.51

Method Path : C:\msdchem\1\methods\
Method File : SV10_091919.M
Title : EPA 8270D: Semivolatile Organics

40)	S	2-Fluorobiphen...	1.477	1.610	1.735	1.751	1.740	1.652	1.564	1.351	1.207		1.565	12.07
41)	T	2-Chloronaphth...	1.194	1.263	1.356	1.408	1.432	1.325	1.296	1.154	1.045	0.943	1.242	12.73
42)	T	2-Nitroaniline		0.177	0.224	0.264	0.357	0.389	0.424	0.415	0.416	0.398	0.340	27.55
43)	T	2,6-Dimethylna...	1.108	1.335	1.410	1.426	1.405	1.336	1.263	1.089	0.979		1.261	12.95
44)	T	1,4-Dinitroben...			0.065	0.084	0.127	0.151	0.184	0.203	0.205	0.206	0.153	36.62
45)	T	Dimethyl phtha...	1.435	1.460	1.596	1.570	1.600	1.540	1.481	1.346	1.249	1.166	1.444	10.30
46)	T	1,3-Dinitroben...			0.099	0.125	0.180	0.196	0.220	0.228	0.229	0.221	0.187	26.72
47)	T	2,6-Dinitrotol...		0.189	0.212	0.275	0.327	0.334	0.344	0.334	0.324	0.306	0.294	19.32
48)	T	1,2-Dinitroben...				0.119	0.146	0.155	0.160	0.159	0.150	0.136	0.146	10.12
49)	T	Acenaphthylene	1.944	2.090	2.211	2.226	2.309	2.184	2.067	1.748	1.519		2.033	12.60
50)	T	3-Nitroaniline		0.137	0.196	0.256	0.282	0.261	0.196				0.221	24.71
51)	T	Acenaphthene	1.387	1.465	1.444	1.458	1.436	1.370	1.314	1.127	1.013		1.335	12.00
52)	T	2,4-Dinitrophenol				0.013	0.029	0.062	0.100	0.137	0.153		0.082	69.44
53)	T	4-Nitrophenol			0.068	0.095	0.164	0.201	0.242	0.257	0.263		0.184	42.54
54)	T	2,4-Dinitrotol...			0.221	0.277	0.369	0.398	0.439	0.437	0.413	0.366	0.365	21.35
55)	T	Dibenzofuran	1.822	1.907	2.037	2.018	1.983	1.887	1.852	1.604	1.422	1.264	1.780	14.79
56)	T	2,3,5,6-Tetrac...		0.109	0.184	0.216	0.296	0.315	0.344	0.342	0.335	0.322	0.274	30.66
57)	T	2,3,4,6-Tetrac...		0.163	0.236	0.262	0.323	0.347	0.364	0.355	0.339	0.326	0.302	22.30
58)	T	Diethyl phthalate	1.254	1.388	1.556	1.505	1.488	1.460	1.384	1.206	1.077	0.976	1.330	14.62
59)	T	2,3,5-Trimethy...	1.191	1.238	1.255	1.278	1.274	1.217	1.168	1.004	0.895	0.813	1.133	14.83
60)	T	Fluorene	1.423	1.444	1.592	1.562	1.562	1.460	1.385	1.151	1.025		1.401	13.79
61)	T	4-Chlorophenyl...	0.710	0.743	0.775	0.749	0.750	0.718	0.704	0.618	0.558	0.502	0.683	13.46
62)	T	4-Nitroaniline			0.181	0.210	0.234	0.216	0.220	0.221	0.217	0.220	0.215	7.13
63)	T	4,6-Dinitro-2-...				0.041	0.091	0.133	0.174	0.203	0.212	0.212	0.152	43.85
														4.15
64)	I	Phenanthrene-d10 (...	----------	ISTD	----------									
65)	T	N-Nitrosodiphe...	0.518	0.605	0.660	0.703	0.703	0.658	0.604	0.483			0.617	13.21
66)	T	Azobenzene (1,...	0.596	0.640	0.676	0.698	0.710	0.667	0.627	0.537	0.465		0.624	12.85
67)	S	2,4,6-Tribromo...		0.071	0.086	0.099	0.120	0.122	0.130	0.125	0.118	0.112	0.109	18.24
68)	T	4-Bromophenyl ...	0.208	0.233	0.237	0.239	0.238	0.236	0.235	0.223	0.211	0.198	0.226	6.56
69)	T	Hexachlorobenzene	0.300	0.280	0.292	0.278	0.295	0.286	0.279	0.252	0.231	0.215	0.271	10.61
70)	T	Pentachlorophe...			0.078	0.070	0.108	0.122	0.142	0.148	0.145	0.138	0.119	26.11
71)	T	Phenanthrene	1.195	1.197	1.225	1.228	1.225	1.146	1.091	0.940	0.851		1.122	12.26
72)	T	Anthracene	0.995	1.126	1.166	1.205	1.196	1.143	1.088	0.944	0.844		1.079	11.55
73)	T	Carbazole	0.798	0.900	0.979	1.011	1.002	0.861	0.592				0.878	16.89
74)	T	Di-n-butyl pht...		1.071	1.257	1.259	1.318	1.283	1.235	1.082	0.958		1.183	10.85
75)	T	Fluoranthene	1.065	1.146	1.256	1.262	1.316	1.257	1.229	1.088	0.992	0.891	1.150	12.02
76)	T	Benzidine			0.114	0.197	0.271	0.284	0.275	0.307	0.320	0.323	0.261	27.45
77)	T	Pyrene	1.099	1.203	1.242	1.308	1.336	1.283	1.225	1.094	0.997	0.915	1.170	11.89
														4.74
78)	I	Chrysene-d12 (ISTD)	----------	ISTD	----------									
79)	S	Terphenyl-d14 ...	0.821	0.902	0.977	0.959	0.995	0.969	0.953	0.924	0.880	0.837	0.922	6.53
80)	T	Butyl benzyl p...		0.243	0.334	0.380	0.487	0.533	0.570	0.590	0.580	0.569	0.476	26.60
81)	T	Bis(2-ethylhex...				0.336	0.441	0.473	0.506	0.520	0.488	0.482	0.464	13.26
82)	T	3,3-Dichlorobe...				0.241	0.193	0.167	0.129	0.122	0.119	0.117	0.155	30.50
83)	T	Benz(a)anthracene	1.161	1.070	1.154	1.114	1.143	1.102	1.125	1.115	1.107	1.076	1.117	2.72
84)	T	Chrysene	0.995	1.051	1.094	1.080	1.094	1.062	1.054	1.041	1.009	0.985	1.046	3.74
85)	T	Bis(2-ethylhex...				0.521	0.706	0.743	0.776	0.790	0.763	0.737	0.719	12.78
														4.02
86)	I	Perylene-d12 (ISTD)	----------	ISTD	----------									
87)	T	Di-n-octyl pht...			0.597	0.694	0.979	1.136	1.337	1.352	1.295	1.229	1.077	27.27

Method Path : C:\msdchem\1\methods\
Method File : SV10_091919.M
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88)	T	Benzo(b)fluora...	0.716	0.795	1.016	1.038	1.109	1.109	1.178	1.183	1.177	1.128	1.045	15.65
89)	T	Benzo(k)fluora...	0.705	0.864	1.038	1.065	1.120	1.117	1.168	1.078	0.973	0.854	0.998	14.77
90)	T	Benzo(b+k)fluo...	0.734	0.871	1.068	1.079	1.136	1.134	1.191	1.148	1.113	1.060	1.053	13.45
91)	T	Benzo(e)pyrene	0.747	0.896	1.032	1.039	1.102	1.105	1.133	1.110	1.089	1.027	1.028	11.67
92)	T	Benzo(a)pyrene	0.574	0.677	0.889	0.917	1.028	1.027	1.091	1.049	1.010	0.968	0.923	18.38
93)	T	Perylene	0.801	0.900	0.892	0.920	0.951	0.914	0.954	0.913	0.908	0.867	0.902	4.87
94)	I	Dibenz(a,h)Anthrce...	----------ISTD----------											6.05
95)	T	Indeno(1,2,3-c...	1.102	1.169	1.176	1.156	1.171	1.152	1.205	1.224	1.230	1.241	1.183	3.60
96)	T	Dibenz(a,h)ant...	0.958	1.019	1.091	1.097	1.135	1.105	1.145	1.152	1.103	1.054	1.086	5.57
97)	T	Benzo(g,h,i)pe...	0.850	0.944	1.107	1.165	1.222	1.214	1.250	1.243	1.204	1.158	1.136	11.87

(#) = Out of Range

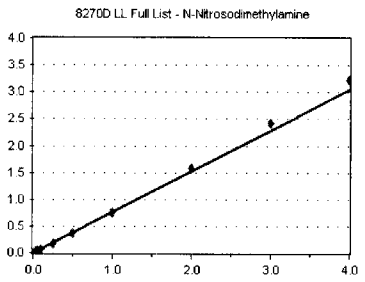
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

N-Nitrosodimethylamine

Curve Fit: **AVERAGE RF**

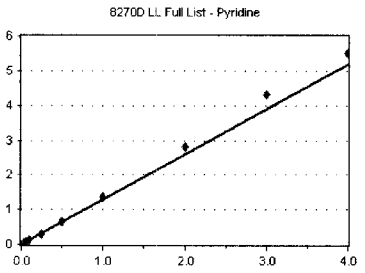


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2214	0.759	3.97
9I19035-CAL2	50	5516	0.758	3.95
9I19035-CAL3	100	11734	0.808	3.95
9I19035-CAL4	200	19941	0.697	3.92
9I19035-CAL5	500	52485	0.702	3.93
9I19035-CAL6	1000	104763	0.739	3.88
9I19035-CAL7	2000	217151	0.762	3.94
9I19035-CAL8	4000	480484	0.786	3.93
9I19035-CAL9	6000	674636	0.804	3.88
9I19035-CALA	8000	866525	0.804	3.96

AVE RF **0.762** RF RSD **5.28** AVE RT **3.93**

Pyridine

Curve Fit: **AVERAGE RF**

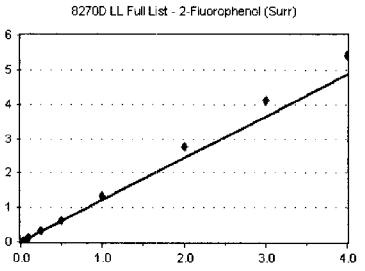


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~2206~~	~~0.756~~	~~4.05~~
9I19035-CAL2	50	7667	1.053	4.00
9I19035-CAL3	100	18548	1.277	3.99
9I19035-CAL4	200	38499	1.346	3.95
9I19035-CAL5	500	83583	1.118	3.96
9I19035-CAL6	1000	182180	1.285	3.90
9I19035-CAL7	2000	392152	1.376	3.96
9I19035-CAL8	4000	866960	1.417	3.94
9I19035-CAL9	6000	1210013	1.443	3.89
9I19035-CALA	8000	1480958	1.375	3.96

AVE RF **1.299** RF RSD **10.27** AVE RT **3.95**

2-Fluorophenol (Surr)

Curve Fit: **AVERAGE RF**

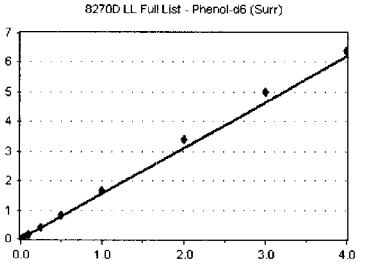


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2742	0.940	5.32
9I19035-CAL2	50	7611	1.045	5.31
9I19035-CAL3	100	13834	0.952	5.31
9I19035-CAL4	200	34817	1.217	5.30
9I19035-CAL5	500	95687	1.280	5.31
9I19035-CAL6	1000	179108	1.263	5.29
9I19035-CAL7	2000	379802	1.333	5.31
9I19035-CAL8	4000	844515	1.381	5.31
9I19035-CAL9	6000	1150405	1.371	5.30
9I19035-CALA	8000	1458990	1.354	5.32

AVE RF **1.214** RF RSD **14.15** AVE RT **5.31**

Phenol-d6 (Surr)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	3493	1.197	6.20
9I19035-CAL2	50	9501	1.305	6.20
9I19035-CAL3	100	21003	1.446	6.20
9I19035-CAL4	200	45844	1.602	6.20
9I19035-CAL5	500	124621	1.667	6.20
9I19035-CAL6	1000	238398	1.682	6.20
9I19035-CAL7	2000	477001	1.674	6.21
9I19035-CAL8	4000	1043086	1.705	6.22
9I19035-CAL9	6000	1391310	1.659	6.22
9I19035-CALA	8000	1721904	1.598	6.23

AVE RF **1.553** RF RSD **11.41** AVE RT **6.21**

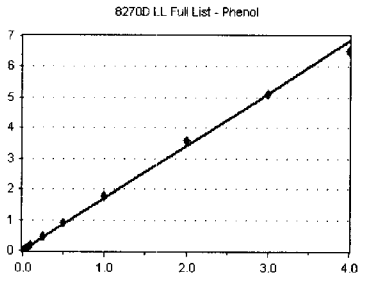
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Phenol

Curve Fit: **AVERAGE RF**

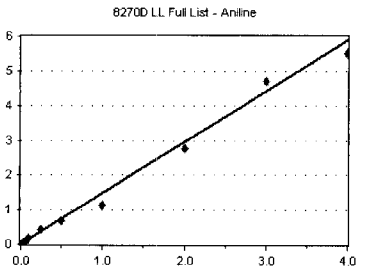


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4498	1.542	6.22
9I19035-CAL2	50	11373	1.562	6.22
9I19035-CAL3	100	23364	1.608	6.22
9I19035-CAL4	200	51417	1.797	6.22
9I19035-CAL5	500	136576	1.827	6.22
9I19035-CAL6	1000	261231	1.843	6.22
9I19035-CAL7	2000	506313	1.776	6.22
9I19035-CAL8	4000	1097096	1.794	6.23
9I19035-CAL9	6000	1432862	1.708	6.23
9I19035-CALA	8000	1750392	1.625	6.25

AVE RF **1.708** RF RSD **6.71** AVE RT **6.22**

Aniline

Curve Fit: **AVERAGE RF**

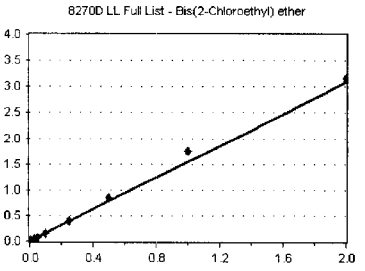


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~2038~~	~~0.699~~	~~6.25~~
9I19035-CAL2	50	10955	1.505	6.25
9I19035-CAL3	100	23125	1.592	6.25
9I19035-CAL4	200	49031	1.714	6.25
9I19035-CAL5	500	124901	1.671	6.25
9I19035-CAL6	1000	189393	1.336	6.24
9I19035-CAL7	2000	321662	1.129	6.25
9I19035-CAL8	4000	840844	1.375	6.25
9I19035-CAL9	6000	1316393	1.569	6.25
9I19035-CALA	8000	1480736	1.374	6.26

AVE RF **1.474** RF RSD **12.65** AVE RT **6.25**

Bis(2-Chloroethyl) ether

Curve Fit: **AVERAGE RF**

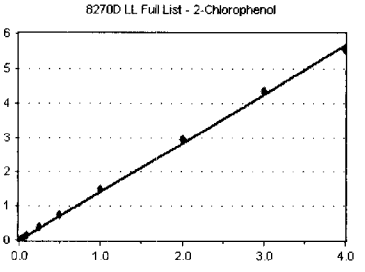


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4110	1.409	6.31
9I19035-CAL2	50	10198	1.401	6.31
9I19035-CAL3	100	21464	1.477	6.31
9I19035-CAL4	200	42595	1.489	6.31
9I19035-CAL5	500	115667	1.547	6.31
9I19035-CAL6	1000	237931	1.678	6.31
9I19035-CAL7	2000	501220	1.759	6.31
9I19035-CAL8	4000	962255	1.573	6.32
~~9I19035-CAL9~~	~~6000~~	~~1158478~~	~~1.381~~	~~6.32~~
~~9I19035-CALA~~	~~8000~~	~~1435010~~	~~1.332~~	~~6.32~~

AVE RF **1.542** RF RSD **8.18** AVE RT **6.31**

2-Chlorophenol

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	3591	1.231	6.37
9I19035-CAL2	50	9461	1.299	6.36
9I19035-CAL3	100	19462	1.339	6.37
9I19035-CAL4	200	42160	1.474	6.36
9I19035-CAL5	500	113634	1.520	6.37
9I19035-CAL6	1000	213396	1.505	6.36
9I19035-CAL7	2000	423147	1.485	6.37
9I19035-CAL8	4000	902056	1.475	6.37
9I19035-CAL9	6000	1211719	1.445	6.37
9I19035-CALA	8000	1496104	1.389	6.38

AVE RF **1.416** RF RSD **6.89** AVE RT **6.37**

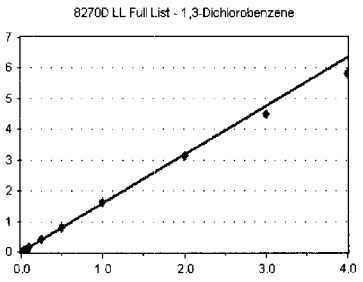
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

1,3-Dichlorobenzene

Curve Fit: **AVERAGE RF**

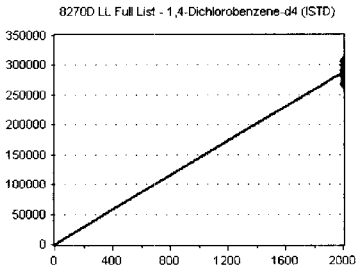


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4452	1.526	6.52
9I19035-CAL2	50	11576	1.590	6.52
9I19035-CAL3	100	23840	1.641	6.52
9I19035-CAL4	200	48050	1.679	6.51
9I19035-CAL5	500	126152	1.688	6.51
9I19035-CAL6	1000	230358	1.625	6.51
9I19035-CAL7	2000	464902	1.631	6.52
9I19035-CAL8	4000	965051	1.578	6.52
9I19035-CAL9	6000	1260484	1.503	6.52
9I19035-CALA	8000	1570022	1.457	6.53

AVE RF **1.592** RF RSD **4.80** AVE RT **6.52**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**

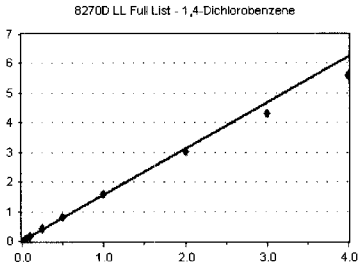


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	291746	145.873	6.57
9I19035-CAL2	2000	291253	145.626	6.57
9I19035-CAL3	2000	290594	145.297	6.57
9I19035-CAL4	2000	286105	143.053	6.57
9I19035-CAL5	2000	299020	149.510	6.57
9I19035-CAL6	2000	283511	141.755	6.57
9I19035-CAL7	2000	285023	142.511	6.57
9I19035-CAL8	2000	305814	152.907	6.57
9I19035-CAL9	2000	279602	139.801	6.57
9I19035-CALA	2000	269345	134.673	6.58

AVE RF **144.101** RF RSD **3.51** AVE RT **6.57**

1,4-Dichlorobenzene

Curve Fit: **AVERAGE RF**

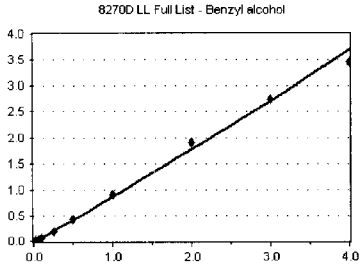


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4492	1.540	6.59
9I19035-CAL2	50	12059	1.656	6.59
9I19035-CAL3	100	23338	1.606	6.59
9I19035-CAL4	200	46724	1.633	6.58
9I19035-CAL5	500	123497	1.652	6.59
9I19035-CAL6	1000	229877	1.622	6.58
9I19035-CAL7	2000	453326	1.590	6.59
9I19035-CAL8	4000	926647	1.515	6.59
9I19035-CAL9	6000	1202300	1.433	6.59
9I19035-CALA	8000	1504749	1.397	6.59

AVE RF **1.564** RF RSD **5.83** AVE RT **6.59**

Benzyl alcohol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1506~~	~~0.516~~	~~6.72~~
9I19035-CAL2	50	3460	0.475	6.71
9I19035-CAL3	100	8907	0.613	6.71
9I19035-CAL4	200	18281	0.639	6.70
9I19035-CAL5	500	59263	0.793	6.70
9I19035-CAL6	1000	124850	0.881	6.70
9I19035-CAL7	2000	261354	0.917	6.71
9I19035-CAL8	4000	581465	0.951	6.71
9I19035-CAL9	6000	768204	0.916	6.71
9I19035-CALA	8000	932774	0.866	6.72

AVE RF **0.783** RF RSD **21.39** AVE RT **6.71**

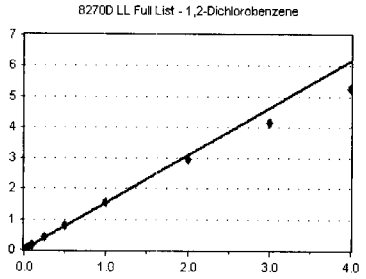
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

1,2-Dichlorobenzene

Curve Fit: **AVERAGE RF**

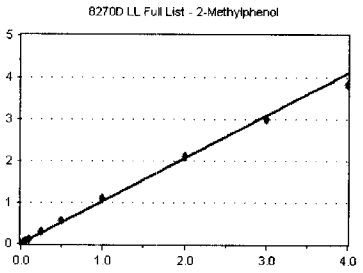


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4176	1.431	6.74
9I19035-CAL2	50	12229	1.680	6.74
9I19035-CAL3	100	23746	1.634	6.74
9I19035-CAL4	200	47924	1.675	6.74
9I19035-CAL5	500	124976	1.672	6.74
9I19035-CAL6	1000	227139	1.602	6.74
9I19035-CAL7	2000	442316	1.552	6.74
9I19035-CAL8	4000	906070	1.481	6.74
9I19035-CAL9	6000	1159865	1.383	6.74
9I19035-CALA	8000	1419977	1.318	6.74

AVE RF **1.543** RF RSD **8.56** AVE RT **6.74**

2-Methylphenol

Curve Fit: **AVERAGE RF**

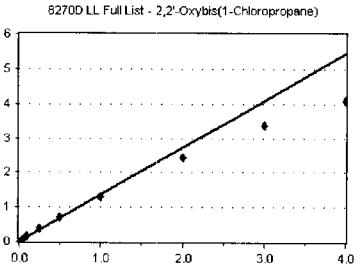


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2712	0.930	6.81
9I19035-CAL2	50	6405	0.880	6.81
9I19035-CAL3	100	14254	0.981	6.81
9I19035-CAL4	200	30801	1.077	6.81
9I19035-CAL5	500	86329	1.155	6.81
9I19035-CAL6	1000	162716	1.148	6.81
9I19035-CAL7	2000	318341	1.117	6.81
9I19035-CAL8	4000	646688	1.057	6.81
9I19035-CAL9	6000	839569	1.001	6.82
9I19035-CALA	8000	1030806	0.957	6.82

AVE RF **1.030** RF RSD **9.22** AVE RT **6.81**

2,2'-Oxybis(1-Chloropropane)

Curve Fit: **AVERAGE RF**

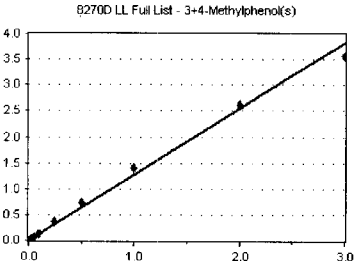


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4376	1.500	6.84
9I19035-CAL2	50	10585	1.454	6.84
9I19035-CAL3	100	21848	1.504	6.84
9I19035-CAL4	200	44401	1.552	6.84
9I19035-CAL5	500	112933	1.511	6.84
9I19035-CAL6	1000	204366	1.442	6.84
9I19035-CAL7	2000	366117	1.285	6.84
9I19035-CAL8	4000	739481	1.209	6.84
9I19035-CAL9	6000	943818	1.125	6.84
9I19035-CALA	8000	1103589	1.024	6.85

AVE RF **1.360** RF RSD **13.68** AVE RT **6.84**

3+4-Methylphenol(s)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	3108	1.065	6.96
9I19035-CAL2	50	8248	1.133	6.96
9I19035-CAL3	100	16854	1.160	6.96
9I19035-CAL4	200	38484	1.345	6.96
9I19035-CAL5	500	107685	1.441	6.96
9I19035-CAL6	1000	206745	1.458	6.96
9I19035-CAL7	2000	399183	1.401	6.96
9I19035-CAL8	4000	797964	1.305	6.97
9I19035-CAL9	6000	997248	1.189	6.97
~~9I19035-CALA~~	~~8000~~	~~1205305~~	~~1.119~~	~~6.99~~

AVE RF **1.277** RF RSD **11.32** AVE RT **6.96**

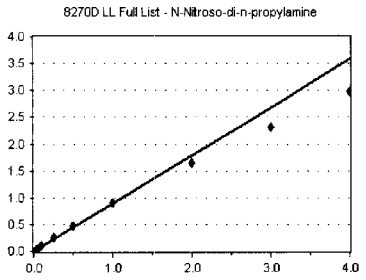
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

N-Nitroso-di-n-propylamine

Curve Fit: **AVERAGE RF**

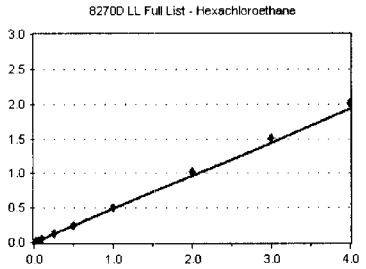


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2691	0.922	6.96
9I19035-CAL2	50	6538	0.898	6.96
9I19035-CAL3	100	13631	0.938	6.96
9I19035-CAL4	200	28365	0.991	6.96
9I19035-CAL5	500	74700	0.999	6.96
9I19035-CAL6	1000	136460	0.963	6.96
9I19035-CAL7	2000	256713	0.901	6.97
9I19035-CAL8	4000	504346	0.825	6.98
9I19035-CAL9	6000	644101	0.768	6.99
9I19035-CALA	8000	803148	0.745	7.00

AVE RF **0.895** RF RSD **9.91** AVE RT **6.97**

Hexachloroethane

Curve Fit: **AVERAGE RF**

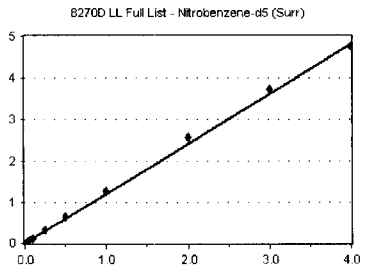


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	1267	0.434	7.08
9I19035-CAL2	50	3313	0.455	7.08
9I19035-CAL3	100	6562	0.452	7.08
9I19035-CAL4	200	13490	0.472	7.08
9I19035-CAL5	500	36961	0.494	7.08
9I19035-CAL6	1000	68545	0.484	7.08
9I19035-CAL7	2000	143490	0.503	7.08
9I19035-CAL8	4000	311702	0.510	7.08
9I19035-CAL9	6000	419784	0.500	7.08
9I19035-CALA	8000	541884	0.503	7.08

AVE RF **0.481** RF RSD **5.45** AVE RT **7.08**

Nitrobenzene-d5 (Surr)

Curve Fit: **AVERAGE RF**

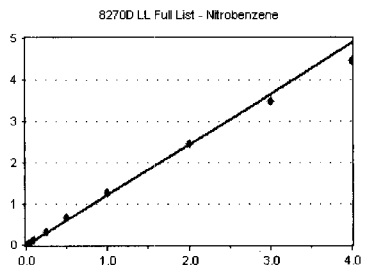


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2861	0.981	7.11
9I19035-CAL2	50	7903	1.085	7.11
9I19035-CAL3	100	16492	1.135	7.11
9I19035-CAL4	200	34591	1.209	7.11
9I19035-CAL5	500	98184	1.313	7.11
9I19035-CAL6	1000	187377	1.322	7.11
9I19035-CAL7	2000	365358	1.282	7.11
9I19035-CAL8	4000	786633	1.286	7.12
9I19035-CAL9	6000	1045001	1.246	7.12
9I19035-CALA	8000	1284804	1.193	7.13

AVE RF **1.205** RF RSD **9.14** AVE RT **7.12**

Nitrobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	3138	1.076	7.14
9I19035-CAL2	50	8614	1.183	7.14
9I19035-CAL3	100	17280	1.189	7.14
9I19035-CAL4	200	37240	1.302	7.13
9I19035-CAL5	500	100238	1.341	7.13
9I19035-CAL6	1000	188065	1.327	7.13
9I19035-CAL7	2000	365107	1.281	7.14
9I19035-CAL8	4000	754990	1.234	7.14
9I19035-CAL9	6000	977466	1.165	7.15
9I19035-CALA	8000	1198679	1.113	7.15

AVE RF **1.221** RF RSD **7.44** AVE RT **7.14**

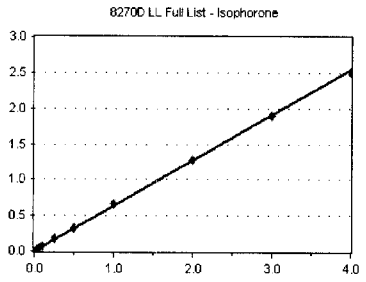
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Isophorone

Curve Fit: **AVERAGE RF**

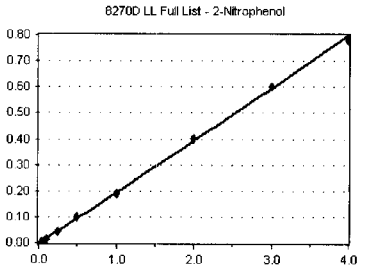


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	6954	0.569	7.37
9I19035-CAL2	50	18082	0.605	7.37
9I19035-CAL3	100	37997	0.640	7.37
9I19035-CAL4	200	78525	0.652	7.37
9I19035-CAL5	500	207804	0.683	7.37
9I19035-CAL6	1000	377941	0.661	7.37
9I19035-CAL7	2000	734609	0.671	7.38
9I19035-CAL8	4000	1524753	0.637	7.38
9I19035-CAL9	6000	2075603	0.632	7.39
9I19035-CALA	8000	2693969	0.627	7.40

AVE RF **0.638** RF RSD **5.17** AVE RT **7.38**

2-Nitrophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

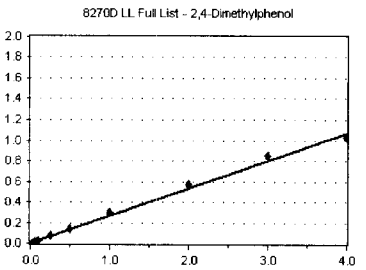


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1053~~	~~0.086~~	~~7.46~~
~~9I19035-CAL2~~	~~50~~	~~3400~~	~~0.114~~	~~7.46~~
9I19035-CAL3	100	7240	0.122	7.45
9I19035-CAL4	200	16298	0.135	7.45
9I19035-CAL5	500	54694	0.180	7.45
9I19035-CAL6	1000	114845	0.201	7.45
9I19035-CAL7	2000	207149	0.189	7.46
9I19035-CAL8	4000	481353	0.201	7.46
9I19035-CAL9	6000	659170	0.201	7.46
9I19035-CALA	8000	838038	0.195	7.46

AVE RF **0.178** RF RSD **17.69** AVE RT **7.45**

2,4-Dimethylphenol

Curve Fit: **AVERAGE RF**

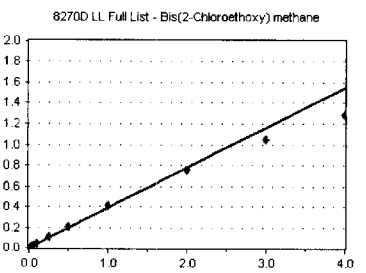


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~2375~~	~~0.194~~	~~7.49~~
9I19035-CAL2	50	5922	0.198	7.49
9I19035-CAL3	100	14806	0.249	7.49
9I19035-CAL4	200	31880	0.265	7.49
9I19035-CAL5	500	86093	0.283	7.49
9I19035-CAL6	1000	164250	0.287	7.49
9I19035-CAL7	2000	333523	0.304	7.49
9I19035-CAL8	4000	686286	0.287	7.50
9I19035-CAL9	6000	932922	0.284	7.50
9I19035-CALA	8000	1099526	0.256	7.51

AVE RF **0.268** RF RSD **11.73** AVE RT **7.49**

Bis(2-Chloroethoxy) methane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4738	0.388	7.58
9I19035-CAL2	50	11523	0.385	7.58
9I19035-CAL3	100	23395	0.394	7.58
9I19035-CAL4	200	49149	0.408	7.58
9I19035-CAL5	500	131344	0.432	7.58
9I19035-CAL6	1000	236290	0.413	7.58
9I19035-CAL7	2000	449978	0.411	7.58
9I19035-CAL8	4000	900203	0.376	7.59
9I19035-CAL9	6000	1142883	0.348	7.59
9I19035-CALA	8000	1380842	0.321	7.60

AVE RF **0.388** RF RSD **8.46** AVE RT **7.58**

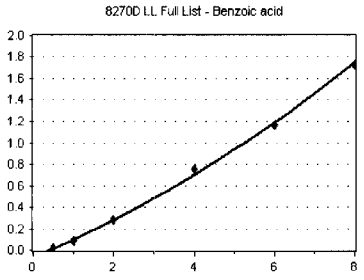
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Benzoic acid

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

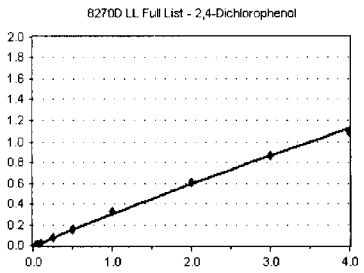


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~40~~	~~229~~	~~9.372~~	~~7.55~~
~~9I19035-CAL2~~	~~100~~	~~200~~	~~3.345~~	~~7.57~~
~~9I19035-CAL3~~	~~200~~	~~2086~~	~~0.018~~	~~7.54~~
~~9I19035-CAL4~~	~~400~~	~~3335~~	~~1.385~~	~~7.54~~
9I19035-CAL5	1000	22389	0.037	7.55
9I19035-CAL6	2000	99342	8.684	7.58
9I19035-CAL7	4000	311714	0.142	7.61
9I19035-CAL8	8000	902544	0.188	7.67
9I19035-CAL9	12000	1277463	0.195	7.69
9I19035-CALA	16000	1853462	0.216	7.73

AVE RF **0.144** RF RSD **48.51** AVE RT **7.64**

2,4-Dichlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

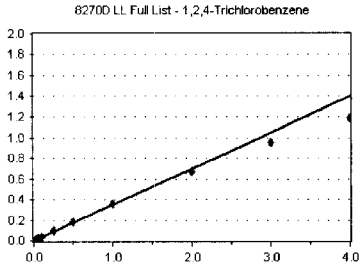


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1603~~	~~0.131~~	~~7.69~~
9I19035-CAL2	50	5068	0.170	7.69
9I19035-CAL3	100	12689	0.214	7.69
9I19035-CAL4	200	30346	0.252	7.69
9I19035-CAL5	500	89833	0.295	7.69
9I19035-CAL6	1000	173249	0.303	7.69
9I19035-CAL7	2000	350635	0.320	7.69
9I19035-CAL8	4000	731346	0.305	7.70
9I19035-CAL9	6000	943067	0.287	7.70
9I19035-CALA	8000	1167761	0.272	7.71

AVE RF **0.269** RF RSD **18.30** AVE RT **7.70**

1,2,4-Trichlorobenzene

Curve Fit: **AVERAGE RF**

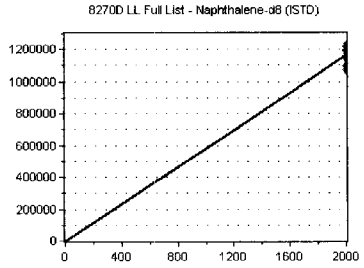


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4361	0.357	7.78
9I19035-CAL2	50	11103	0.371	7.78
9I19035-CAL3	100	21292	0.359	7.78
9I19035-CAL4	200	45007	0.374	7.78
9I19035-CAL5	500	113367	0.372	7.78
9I19035-CAL6	1000	206953	0.362	7.78
9I19035-CAL7	2000	388384	0.355	7.78
9I19035-CAL8	4000	805154	0.336	7.78
9I19035-CAL9	6000	1041502	0.317	7.79
9I19035-CALA	8000	1277566	0.297	7.79

AVE RF **0.350** RF RSD **7.29** AVE RT **7.78**

Naphthalene-d8 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	1221708	610.854	7.84
9I19035-CAL2	2000	1195757	597.878	7.84
9I19035-CAL3	2000	1186873	593.437	7.84
9I19035-CAL4	2000	1204364	602.182	7.84
9I19035-CAL5	2000	1217422	608.711	7.84
9I19035-CAL6	2000	1143968	571.984	7.84
9I19035-CAL7	2000	1095362	547.681	7.84
9I19035-CAL8	2000	1197569	598.784	7.84
9I19035-CAL9	2000	1094080	547.040	7.84
9I19035-CALA	2000	1074761	537.381	7.85

AVE RF **581.593** RF RSD **4.83** AVE RT **7.84**

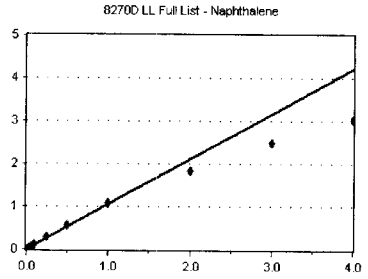
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Naphthalene

Curve Fit: **AVERAGE RF**

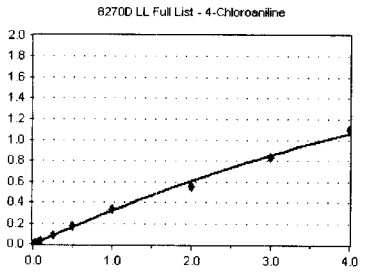


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	14004	1.146	7.86
9I19035-CAL2	50	34402	1.151	7.86
9I19035-CAL3	100	69263	1.167	7.86
9I19035-CAL4	200	141239	1.173	7.86
9I19035-CAL5	500	361018	1.186	7.86
9I19035-CAL6	1000	638989	1.117	7.86
9I19035-CAL7	2000	1178988	1.076	7.86
9I19035-CAL8	4000	2214900	0.925	7.86
9I19035-CAL9	6000	2711030	0.826	7.87
9I19035-CALA	8000	3240737	0.754	7.87

AVE RF **1.052** RF RSD **15.05** AVE RT **7.86**

4-Chloroaniline

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

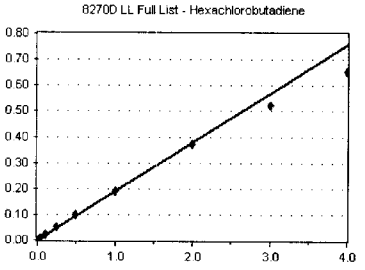


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	1531	0.125	7.91
9I19035-CAL2	50	7306	0.244	7.91
9I19035-CAL3	100	15139	0.255	7.91
9I19035-CAL4	200	38526	0.320	7.91
9I19035-CAL5	500	106945	0.351	7.91
9I19035-CAL6	1000	199585	0.349	7.91
9I19035-CAL7	2000	372183	0.340	7.92
9I19035-CAL8	4000	663200	0.277	7.93
9I19035-CAL9	6000	906180	0.276	7.93
9I19035-CALA	8000	1186251	0.276	7.93

AVE RF **0.281** RF RSD **23.94** AVE RT **7.91**

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**

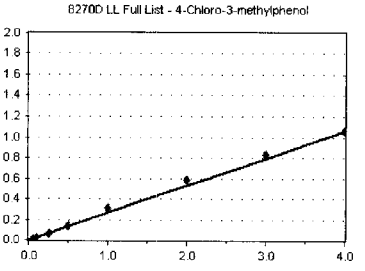


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2247	0.184	7.99
9I19035-CAL2	50	5972	0.200	7.99
9I19035-CAL3	100	11598	0.195	7.99
9I19035-CAL4	200	24136	0.200	7.99
9I19035-CAL5	500	61063	0.201	7.99
9I19035-CAL6	1000	113762	0.199	7.99
9I19035-CAL7	2000	208693	0.191	7.99
9I19035-CAL8	4000	442903	0.185	7.99
9I19035-CAL9	6000	570722	0.174	8.00
9I19035-CALA	8000	701350	0.163	8.00

AVE RF **0.189** RF RSD **6.74** AVE RT **7.99**

4-Chloro-3-methylphenol

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1917~~	~~0.157~~	~~8.39~~
~~9I19035-CAL2~~	~~50~~	~~5211~~	~~0.174~~	~~8.39~~
9I19035-CAL3	100	11698	0.197	8.39
9I19035-CAL4	200	26469	0.220	8.39
9I19035-CAL5	500	84667	0.278	8.39
9I19035-CAL6	1000	162469	0.284	8.39
9I19035-CAL7	2000	338452	0.309	8.39
9I19035-CAL8	4000	698064	0.291	8.39
9I19035-CAL9	6000	912303	0.278	8.40
9I19035-CALA	8000	1141605	0.266	8.40

AVE RF **0.265** RF RSD **14.24** AVE RT **8.39**

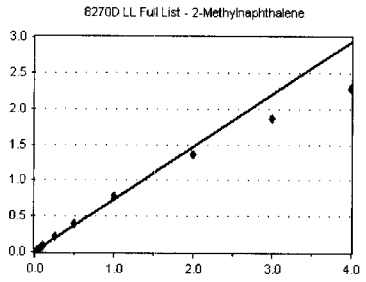
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

2-Methylnaphthalene

Curve Fit: **AVERAGE RF**

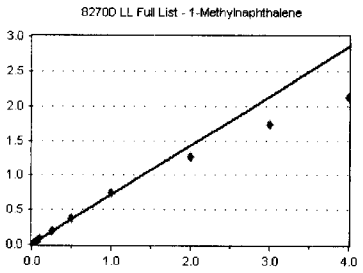


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8620	0.706	8.55
9I19035-CAL2	50	23135	0.774	8.56
9I19035-CAL3	100	46039	0.776	8.56
9I19035-CAL4	200	98607	0.819	8.56
9I19035-CAL5	500	253485	0.833	8.56
9I19035-CAL6	1000	453493	0.793	8.56
9I19035-CAL7	2000	857631	0.783	8.56
9I19035-CAL8	4000	1625949	0.679	8.56
9I19035-CAL9	6000	2034929	0.620	8.56
9I19035-CALA	8000	2448839	0.570	8.56

AVE RF **0.735** RF RSD **12.00** AVE RT **8.56**

1-Methylnaphthalene

Curve Fit: **AVERAGE RF**

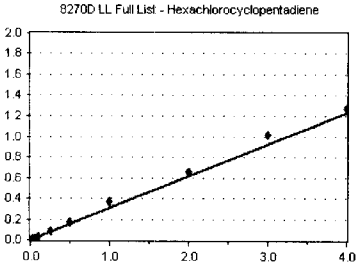


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9000	0.737	8.65
9I19035-CAL2	50	23006	0.770	8.65
9I19035-CAL3	100	46134	0.777	8.66
9I19035-CAL4	200	95459	0.793	8.65
9I19035-CAL5	500	244797	0.804	8.66
9I19035-CAL6	1000	430139	0.752	8.66
9I19035-CAL7	2000	810434	0.740	8.66
9I19035-CAL8	4000	1521185	0.635	8.66
9I19035-CAL9	6000	1893325	0.577	8.66
9I19035-CALA	8000	2286875	0.532	8.66

AVE RF **0.712** RF RSD **13.43** AVE RT **8.66**

Hexachlorocyclopentadiene

Curve Fit: **AVERAGE RF**

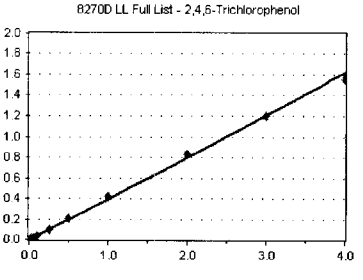


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1303~~	~~0.203~~	~~8.72~~
9I19035-CAL2	50	3356	0.218	8.72
9I19035-CAL3	100	8031	0.261	8.72
9I19035-CAL4	200	17504	0.286	8.73
9I19035-CAL5	500	51180	0.327	8.72
9I19035-CAL6	1000	99801	0.342	8.73
9I19035-CAL7	2000	213088	0.363	8.72
9I19035-CAL8	4000	417829	0.328	8.73
9I19035-CAL9	6000	601203	0.338	8.73
9I19035-CALA	8000	759063	0.320	8.73

AVE RF **0.309** RF RSD **14.82** AVE RT **8.73**

2,4,6-Trichlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1119~~	~~0.175~~	~~8.84~~
9I19035-CAL2	50	3644	0.237	8.84
9I19035-CAL3	100	7912	0.257	8.84
9I19035-CAL4	200	18771	0.307	8.84
9I19035-CAL5	500	59985	0.384	8.84
9I19035-CAL6	1000	117480	0.402	8.84
9I19035-CAL7	2000	248218	0.423	8.84
9I19035-CAL8	4000	532499	0.419	8.85
9I19035-CAL9	6000	713503	0.401	8.85
9I19035-CALA	8000	922776	0.389	8.85

AVE RF **0.358** RF RSD **19.99** AVE RT **8.84**

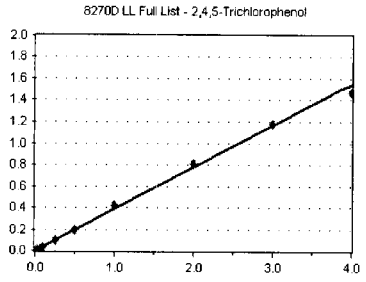
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

2,4,5-Trichlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

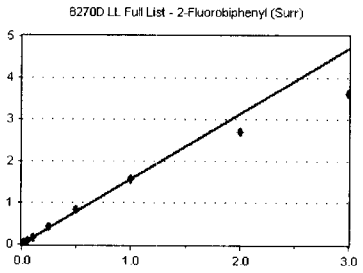


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1218~~	~~0.190~~	~~8.87~~
9I19035-CAL2	50	3657	0.237	8.87
9I19035-CAL3	100	8310	0.270	8.87
9I19035-CAL4	200	18422	0.301	8.87
9I19035-CAL5	500	59608	0.381	8.87
9I19035-CAL6	1000	113799	0.390	8.87
9I19035-CAL7	2000	245074	0.418	8.87
9I19035-CAL8	4000	516958	0.406	8.88
9I19035-CAL9	6000	699105	0.393	8.88
9I19035-CALA	8000	870124	0.366	8.88

AVE RF **0.351** RF RSD **18.51** AVE RT **8.88**

2-Fluorobiphenyl (Surr)

Curve Fit: **AVERAGE RF**

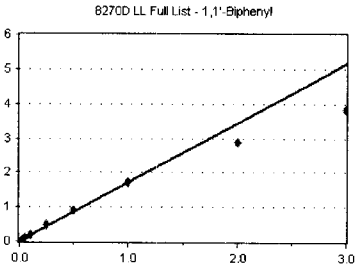


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9460	1.477	8.93
9I19035-CAL2	50	24802	1.610	8.93
9I19035-CAL3	100	53353	1.735	8.93
9I19035-CAL4	200	107137	1.751	8.93
9I19035-CAL5	500	272047	1.740	8.93
9I19035-CAL6	1000	482290	1.652	8.93
9I19035-CAL7	2000	917452	1.564	8.93
9I19035-CAL8	4000	1718307	1.351	8.93
9I19035-CAL9	6000	2148364	1.207	8.93
~~9I19035-CALA~~	~~8000~~	~~2595271~~	~~1.093~~	~~8.94~~

AVE RF **1.565** RF RSD **12.07** AVE RT **8.93**

1,1'-Biphenyl

Curve Fit: **AVERAGE RF**

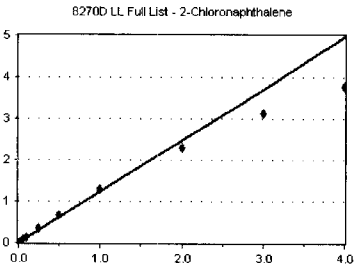


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	10205	1.593	9.03
9I19035-CAL2	50	28683	1.862	9.03
9I19035-CAL3	100	58168	1.891	9.03
9I19035-CAL4	200	117826	1.926	9.03
9I19035-CAL5	500	300735	1.923	9.03
9I19035-CAL6	1000	533233	1.827	9.03
9I19035-CAL7	2000	1010736	1.723	9.03
9I19035-CAL8	4000	1845876	1.451	9.03
9I19035-CAL9	6000	2268485	1.275	9.04
~~9I19035-CALA~~	~~8000~~	~~2706900~~	~~1.140~~	~~9.04~~

AVE RF **1.719** RF RSD **13.51** AVE RT **9.03**

2-Chloronaphthalene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	7646	1.194	9.05
9I19035-CAL2	50	19450	1.263	9.05
9I19035-CAL3	100	41705	1.356	9.05
9I19035-CAL4	200	86117	1.408	9.05
9I19035-CAL5	500	223930	1.432	9.05
9I19035-CAL6	1000	386877	1.325	9.05
9I19035-CAL7	2000	759926	1.296	9.05
9I19035-CAL8	4000	1467799	1.154	9.06
9I19035-CAL9	6000	1860060	1.045	9.06
9I19035-CALA	8000	2240055	0.943	9.06

AVE RF **1.242** RF RSD **12.73** AVE RT **9.05**

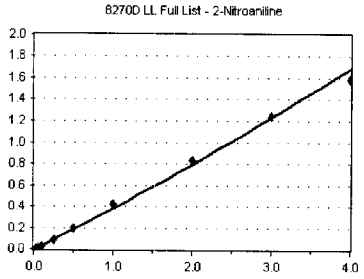
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

2-Nitroaniline

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

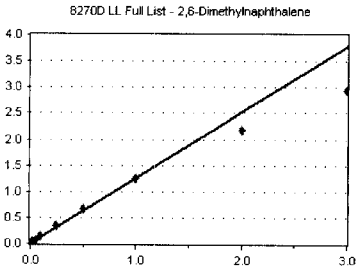


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~939~~	~~0.147~~	~~9.15~~
9I19035-CAL2	50	2728	0.177	9.15
9I19035-CAL3	100	6877	0.224	9.15
9I19035-CAL4	200	16161	0.264	9.15
9I19035-CAL5	500	55795	0.357	9.15
9I19035-CAL6	1000	113482	0.389	9.15
9I19035-CAL7	2000	248865	0.424	9.15
9I19035-CAL8	4000	528406	0.415	9.16
9I19035-CAL9	6000	739914	0.416	9.16
9I19035-CALA	8000	944974	0.398	9.17

AVE RF **0.340** RF RSD **27.55** AVE RT **9.15**

2,6-Dimethylnaphthalene

Curve Fit: **AVERAGE RF**

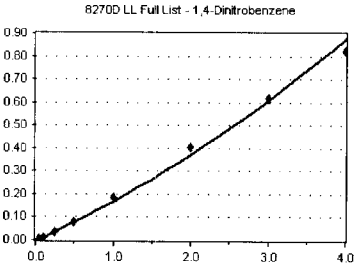


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	7097	1.108	9.19
9I19035-CAL2	50	20566	1.335	9.19
9I19035-CAL3	100	43362	1.410	9.19
9I19035-CAL4	200	87215	1.426	9.19
9I19035-CAL5	500	219677	1.405	9.19
9I19035-CAL6	1000	389863	1.336	9.19
9I19035-CAL7	2000	740663	1.263	9.19
9I19035-CAL8	4000	1385514	1.089	9.19
9I19035-CAL9	6000	1742370	0.979	9.20
~~9I19035-CALA~~	~~8000~~	~~2089018~~	~~0.880~~	~~9.20~~

AVE RF **1.261** RF RSD **12.95** AVE RT **9.19**

1,4-Dinitrobenzene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

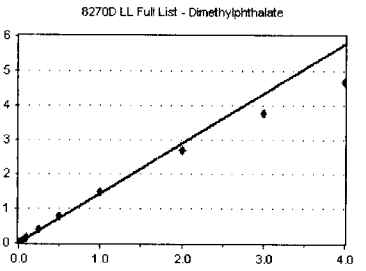


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~381~~	~~5.948~~	~~9.27~~
~~9I19035-CAL2~~	~~50~~	~~915~~	~~5.939~~	~~9.27~~
9I19035-CAL3	100	2006	0.065	9.27
9I19035-CAL4	200	5164	8.441	9.27
9I19035-CAL5	500	19841	0.127	9.27
9I19035-CAL6	1000	44207	0.151	9.27
9I19035-CAL7	2000	108019	0.184	9.28
9I19035-CAL8	4000	258106	0.203	9.29
9I19035-CAL9	6000	365105	0.205	9.29
9I19035-CALA	8000	488295	0.206	9.30

AVE RF **0.153** RF RSD **36.62** AVE RT **9.28**

Dimethylphthalate

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9190	1.435	9.33
9I19035-CAL2	50	22486	1.460	9.33
9I19035-CAL3	100	49089	1.596	9.33
9I19035-CAL4	200	96043	1.570	9.33
9I19035-CAL5	500	250192	1.600	9.33
9I19035-CAL6	1000	449574	1.540	9.33
9I19035-CAL7	2000	868820	1.481	9.34
9I19035-CAL8	4000	1712764	1.346	9.35
9I19035-CAL9	6000	2223667	1.249	9.35
9I19035-CALA	8000	2768841	1.166	9.36

AVE RF **1.444** RF RSD **10.30** AVE RT **9.34**

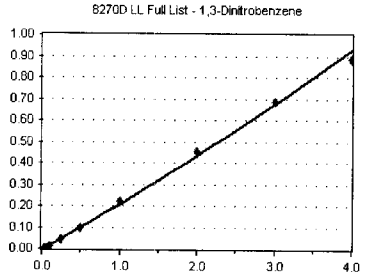
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

1,3-Dinitrobenzene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

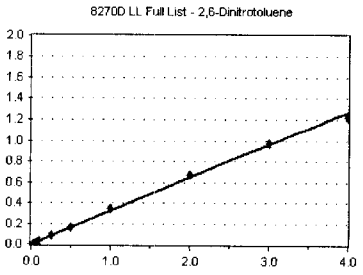


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~417~~	~~6.510~~	~~9.35~~
~~9I19035-CAL2~~	~~50~~	~~1390~~	~~9.023~~	~~9.35~~
9I19035-CAL3	100	3033	9.862	9.35
9I19035-CAL4	200	7621	0.125	9.35
9I19035-CAL5	500	28132	0.180	9.35
9I19035-CAL6	1000	57342	0.196	9.35
9I19035-CAL7	2000	128986	0.220	9.36
9I19035-CAL8	4000	289563	0.228	9.37
9I19035-CAL9	6000	407082	0.229	9.38
9I19035-CALA	8000	525829	0.221	9.39

AVE RF **0.187** RF RSD **26.72** AVE RT **9.36**

2,6-Dinitrotoluene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

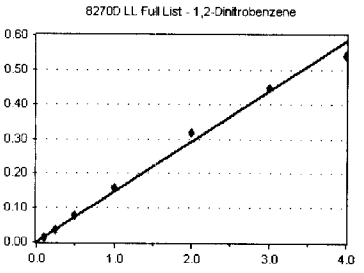


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1042~~	~~0.163~~	~~9.39~~
9I19035-CAL2	50	2915	0.189	9.39
9I19035-CAL3	100	6526	0.212	9.39
9I19035-CAL4	200	16812	0.275	9.39
9I19035-CAL5	500	51160	0.327	9.39
9I19035-CAL6	1000	97373	0.334	9.39
9I19035-CAL7	2000	201552	0.344	9.39
9I19035-CAL8	4000	424265	0.334	9.40
9I19035-CAL9	6000	575872	0.324	9.41
9I19035-CALA	8000	727325	0.306	9.41

AVE RF **0.294** RF RSD **19.32** AVE RT **9.39**

1,2-Dinitrobenzene

Curve Fit: **AVERAGE RF**

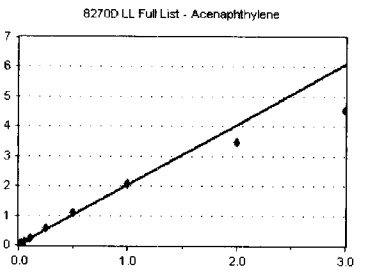


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~304~~	~~4.746~~	~~9.44~~
~~9I19035-CAL2~~	~~50~~	~~1349~~	~~8.757~~	~~9.44~~
~~9I19035-CAL3~~	~~100~~	~~2742~~	~~8.915~~	~~9.45~~
9I19035-CAL4	200	7269	0.119	9.44
9I19035-CAL5	500	22807	0.146	9.45
9I19035-CAL6	1000	45222	0.155	9.45
9I19035-CAL7	2000	94079	0.160	9.45
9I19035-CAL8	4000	202294	0.159	9.47
9I19035-CAL9	6000	266233	0.150	9.47
9I19035-CALA	8000	322227	0.136	9.48

AVE RF **0.146** RF RSD **10.12** AVE RT **9.46**

Acenaphthylene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	12450	1.944	9.47
9I19035-CAL2	50	32192	2.090	9.47
9I19035-CAL3	100	68008	2.211	9.47
9I19035-CAL4	200	136163	2.226	9.47
9I19035-CAL5	500	361152	2.309	9.47
9I19035-CAL6	1000	637470	2.184	9.47
9I19035-CAL7	2000	1211941	2.067	9.48
9I19035-CAL8	4000	2224222	1.748	9.48
9I19035-CAL9	6000	2704211	1.519	9.48
~~9I19035-CALA~~	~~8000~~	~~3146686~~	~~1.325~~	~~9.49~~

AVE RF **2.033** RF RSD **12.60** AVE RT **9.48**

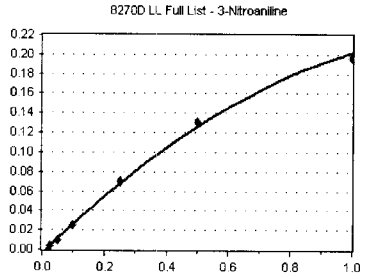
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

3-Nitroaniline

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

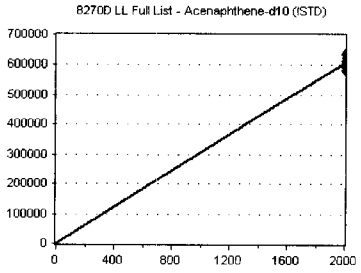


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~592~~	~~9.242~~	~~9.56~~
9I19035-CAL2	50	2106	0.137	9.56
9I19035-CAL3	100	6036	0.196	9.56
9I19035-CAL4	200	15637	0.256	9.56
9I19035-CAL5	500	44178	0.282	9.56
9I19035-CAL6	1000	76212	0.261	9.56
9I19035-CAL7	2000	114743	0.196	9.56
~~9I19035-CAL8~~	~~4000~~	~~123216~~	~~9.686~~	~~9.57~~
~~9I19035-CAL9~~	~~6000~~	~~180797~~	~~0.102~~	~~0.00~~
~~9I19035-CALA~~	~~8000~~	~~174843~~	~~7.362~~	~~0.00~~

AVE RF **0.221** RF RSD **24.71** AVE RT **9.56**

Acenaphthene-d10 (ISTD)

Curve Fit: **AVERAGE RF**

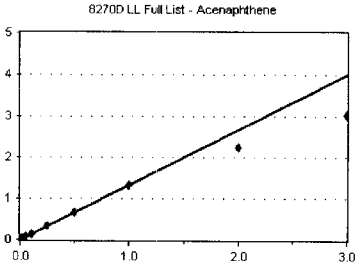


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	640527	320.263	9.62
9I19035-CAL2	2000	616226	308.113	9.62
9I19035-CAL3	2000	615111	307.555	9.62
9I19035-CAL4	2000	611745	305.873	9.62
9I19035-CAL5	2000	625555	312.778	9.62
9I19035-CAL6	2000	583825	291.913	9.62
9I19035-CAL7	2000	586466	293.233	9.62
9I19035-CAL8	2000	636039	318.020	9.62
9I19035-CAL9	2000	593235	296.618	9.62
9I19035-CALA	2000	593771	296.885	9.63

AVE RF **305.125** RF RSD **3.32** AVE RT **9.62**

Acenaphthene

Curve Fit: **AVERAGE RF**

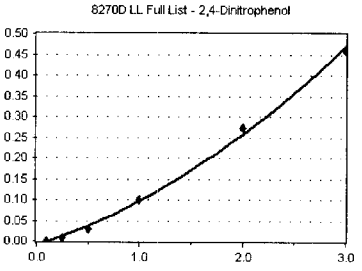


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8885	1.387	9.65
9I19035-CAL2	50	22572	1.465	9.65
9I19035-CAL3	100	44425	1.444	9.65
9I19035-CAL4	200	89211	1.458	9.65
9I19035-CAL5	500	224540	1.436	9.65
9I19035-CAL6	1000	399993	1.370	9.65
9I19035-CAL7	2000	770675	1.314	9.65
9I19035-CAL8	4000	1433796	1.127	9.66
9I19035-CAL9	6000	1803278	1.013	9.66
~~9I19035-CALA~~	~~8000~~	~~2204696~~	~~0.928~~	~~9.66~~

AVE RF **1.335** RF RSD **12.00** AVE RT **9.65**

2,4-Dinitrophenol

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



Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~0~~	~~0.000~~	~~0.00~~
~~9I19035-CAL2~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9I19035-CAL3~~	~~100~~	~~169~~	~~5.495~~	~~9.67~~
9I19035-CAL4	200	796	1.301	9.67
9I19035-CAL5	500	4568	2.921	9.67
9I19035-CAL6	1000	18042	6.181	9.66
9I19035-CAL7	2000	58400	9.958	9.67
9I19035-CAL8	4000	174238	0.137	9.68
9I19035-CAL9	6000	272053	0.153	9.68
~~9I19035-CALA~~	~~8000~~	~~388560~~	~~0.164~~	~~9.69~~

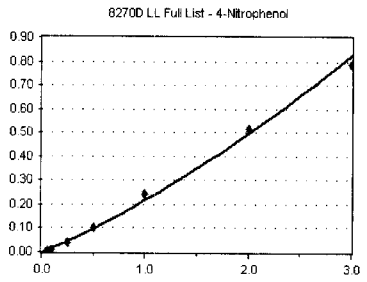
AVE RF **8.224** RF RSD **69.44** AVE RT **9.67**

Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

4-Nitrophenol

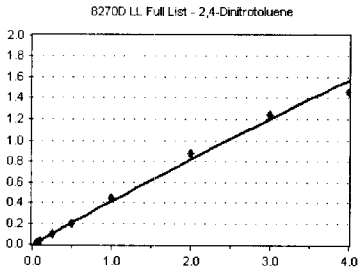


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~120~~	~~1.873~~	~~9.72~~
~~9I19035-CAL2~~	~~50~~	~~699~~	~~4.537~~	~~9.72~~
9I19035-CAL3	100	2106	6.848	9.72
9I19035-CAL4	200	5790	9.465	9.72
9I19035-CAL5	500	25654	0.164	9.72
9I19035-CAL6	1000	58727	0.201	9.72
9I19035-CAL7	2000	141903	0.242	9.73
9I19035-CAL8	4000	326661	0.257	9.74
9I19035-CAL9	6000	467183	0.263	9.75
~~9I19035-CALA~~	~~8000~~	~~610739~~	~~0.257~~	~~9.76~~

AVE RF **0.184** RF RSD **42.54** AVE RT **9.73**

2,4-Dinitrotoluene

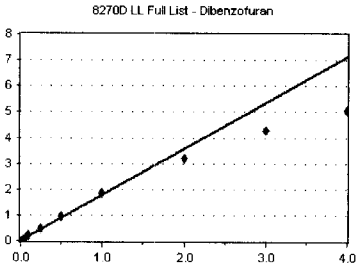


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1027~~	~~0.160~~	~~9.80~~
~~9I19035-CAL2~~	~~50~~	~~2508~~	~~0.163~~	~~9.80~~
9I19035-CAL3	100	6812	0.221	9.80
9I19035-CAL4	200	16915	0.277	9.80
9I19035-CAL5	500	57760	0.369	9.80
9I19035-CAL6	1000	116247	0.398	9.80
9I19035-CAL7	2000	257547	0.439	9.80
9I19035-CAL8	4000	555824	0.437	9.81
9I19035-CAL9	6000	734363	0.413	9.82
9I19035-CALA	8000	868405	0.366	9.83

AVE RF **0.365** RF RSD **21.35** AVE RT **9.81**

Dibenzofuran

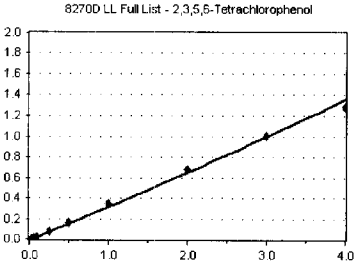


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	11668	1.822	9.83
9I19035-CAL2	50	29377	1.907	9.83
9I19035-CAL3	100	62656	2.037	9.83
9I19035-CAL4	200	123476	2.018	9.83
9I19035-CAL5	500	310051	1.983	9.83
9I19035-CAL6	1000	550893	1.887	9.83
9I19035-CAL7	2000	1086183	1.852	9.83
9I19035-CAL8	4000	2040744	1.604	9.83
9I19035-CAL9	6000	2531005	1.422	9.84
9I19035-CALA	8000	3003141	1.264	9.84

AVE RF **1.780** RF RSD **14.79** AVE RT **9.83**

2,3,5,6-Tetrachlorophenol



Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~774~~	~~0.121~~	~~9.91~~
9I19035-CAL2	50	1678	0.109	9.91
9I19035-CAL3	100	5673	0.184	9.91
9I19035-CAL4	200	13193	0.216	9.91
9I19035-CAL5	500	46260	0.296	9.91
9I19035-CAL6	1000	91879	0.315	9.91
9I19035-CAL7	2000	201504	0.344	9.91
9I19035-CAL8	4000	434819	0.342	9.91
9I19035-CAL9	6000	597064	0.335	9.92
9I19035-CALA	8000	763806	0.322	9.92

AVE RF **0.274** RF RSD **30.66** AVE RT **9.91**

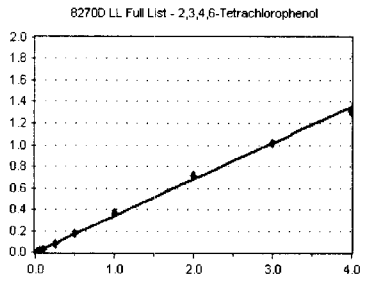
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

2,3,4,6-Tetrachlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

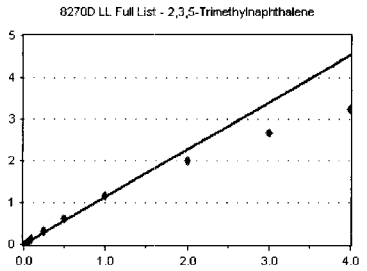


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~856~~	~~0.134~~	~~9.95~~
9I19035-CAL2	50	2513	0.163	9.95
9I19035-CAL3	100	7263	0.236	9.95
9I19035-CAL4	200	16040	0.262	9.95
9I19035-CAL5	500	50476	0.323	9.95
9I19035-CAL6	1000	101167	0.347	9.95
9I19035-CAL7	2000	213539	0.364	9.95
9I19035-CAL8	4000	451267	0.355	9.96
9I19035-CAL9	6000	603345	0.339	9.96
9I19035-CALA	8000	773723	0.326	9.96

AVE RF **0.302** RF RSD **22.30** AVE RT **9.95**

2,3,5-Trimethylnaphthalene

Curve Fit: **AVERAGE RF**

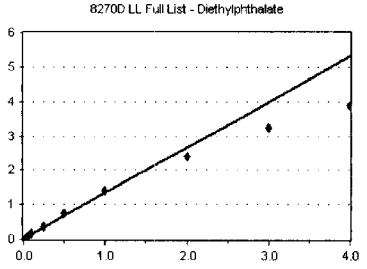


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	7629	1.191	10.03
9I19035-CAL2	50	19066	1.238	10.03
9I19035-CAL3	100	38608	1.255	10.03
9I19035-CAL4	200	78195	1.278	10.04
9I19035-CAL5	500	199252	1.274	10.03
9I19035-CAL6	1000	355247	1.217	10.04
9I19035-CAL7	2000	685050	1.168	10.04
9I19035-CAL8	4000	1276533	1.004	10.04
9I19035-CAL9	6000	1592300	0.895	10.05
9I19035-CALA	8000	1931750	0.813	10.05

AVE RF **1.133** RF RSD **14.83** AVE RT **10.04**

Diethylphthalate

Curve Fit: **AVERAGE RF**

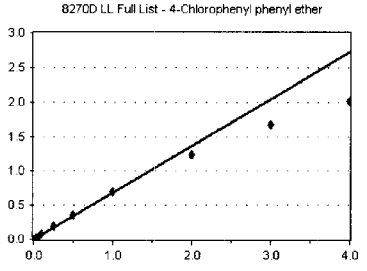


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8035	1.254	10.04
9I19035-CAL2	50	21378	1.388	10.04
9I19035-CAL3	100	47870	1.556	10.04
9I19035-CAL4	200	92047	1.505	10.04
9I19035-CAL5	500	232776	1.488	10.04
9I19035-CAL6	1000	426259	1.460	10.05
9I19035-CAL7	2000	811497	1.384	10.06
9I19035-CAL8	4000	1534521	1.206	10.06
9I19035-CAL9	6000	1916805	1.077	10.07
9I19035-CALA	8000	2319061	0.976	10.07

AVE RF **1.330** RF RSD **14.62** AVE RT **10.05**

4-Chlorophenyl phenyl ether

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4548	0.710	10.17
9I19035-CAL2	50	11449	0.743	10.17
9I19035-CAL3	100	23837	0.775	10.17
9I19035-CAL4	200	45790	0.749	10.17
9I19035-CAL5	500	117369	0.750	10.17
9I19035-CAL6	1000	209713	0.718	10.17
9I19035-CAL7	2000	412942	0.704	10.17
9I19035-CAL8	4000	786385	0.618	10.17
9I19035-CAL9	6000	992417	0.558	10.18
9I19035-CALA	8000	1192807	0.502	10.18

AVE RF **0.683** RF RSD **13.46** AVE RT **10.17**

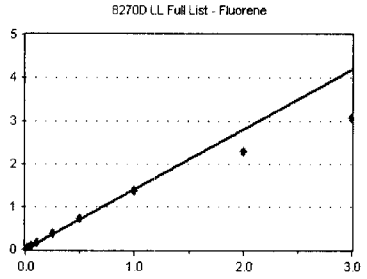
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Fluorene

Curve Fit: **AVERAGE RF**

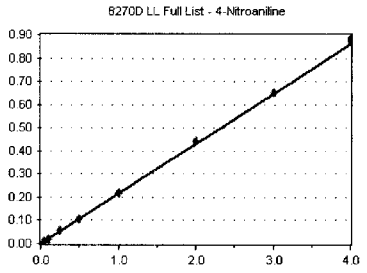


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9113	1.423	10.17
9I19035-CAL2	50	22247	1.444	10.17
9I19035-CAL3	100	48968	1.592	10.17
9I19035-CAL4	200	95574	1.562	10.17
9I19035-CAL5	500	244304	1.562	10.17
9I19035-CAL6	1000	426158	1.460	10.17
9I19035-CAL7	2000	812478	1.385	10.18
9I19035-CAL8	4000	1464263	1.151	10.18
9I19035-CAL9	6000	1824399	1.025	10.19
~~9I19035-CALA~~	~~8000~~	~~2171368~~	~~0.914~~	~~10.19~~

AVE RF **1.401** RF RSD **13.79** AVE RT **10.18**

4-Nitroaniline

Curve Fit: **AVERAGE RF**

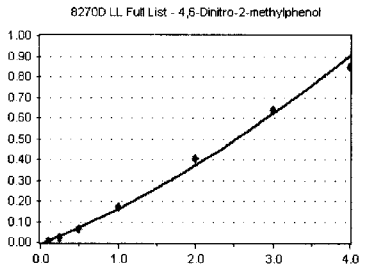


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~719~~	~~0.112~~	~~10.18~~
~~9I19035-CAL2~~	~~50~~	~~2192~~	~~0.142~~	~~10.18~~
9I19035-CAL3	100	5563	0.181	10.18
9I19035-CAL4	200	12832	0.210	10.18
9I19035-CAL5	500	36541	0.234	10.18
9I19035-CAL6	1000	63138	0.216	10.18
9I19035-CAL7	2000	129234	0.220	10.19
9I19035-CAL8	4000	281600	0.221	10.20
9I19035-CAL9	6000	385746	0.217	10.21
9I19035-CALA	8000	523369	0.220	10.21

AVE RF **0.215** RF RSD **7.13** AVE RT **10.19**

4,6-Dinitro-2-methylphenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

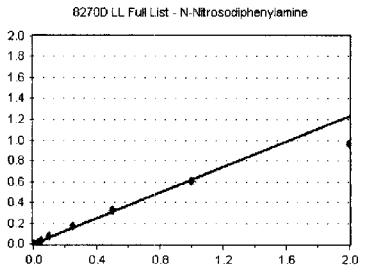


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~0~~	~~0.000~~	~~0.00~~
~~9I19035-CAL2~~	~~50~~	~~206~~	~~1.337~~	~~10.22~~
~~9I19035-CAL3~~	~~100~~	~~761~~	~~0.025~~	~~10.21~~
9I19035-CAL4	200	2504	4.093	10.22
9I19035-CAL5	500	14208	9.085	10.22
9I19035-CAL6	1000	38878	0.133	10.22
9I19035-CAL7	2000	101854	0.174	10.22
9I19035-CAL8	4000	258196	0.203	10.23
9I19035-CAL9	6000	377769	0.212	10.24
9I19035-CALA	8000	504056	0.212	10.24

AVE RF **0.152** RF RSD **43.85** AVE RT **10.23**

N-Nitrosodiphenylamine

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	5957	0.518	10.29
9I19035-CAL2	50	16461	0.605	10.29
9I19035-CAL3	100	36899	0.660	10.29
9I19035-CAL4	200	77183	0.703	10.29
9I19035-CAL5	500	197334	0.703	10.29
9I19035-CAL6	1000	350586	0.658	10.29
9I19035-CAL7	2000	659355	0.604	10.29
9I19035-CAL8	4000	1182676	0.483	10.30
~~9I19035-CAL9~~	~~6000~~	~~1569352~~	~~0.455~~	~~10.30~~
~~9I19035-CALA~~	~~8000~~	~~1760214~~	~~0.377~~	~~10.31~~

AVE RF **0.617** RF RSD **13.21** AVE RT **10.29**

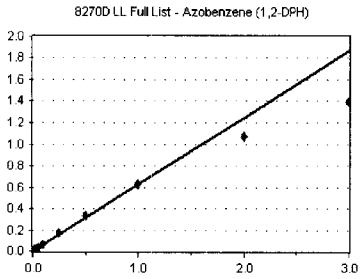
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Azobenzene (1,2-DPH)

Curve Fit: **AVERAGE RF**

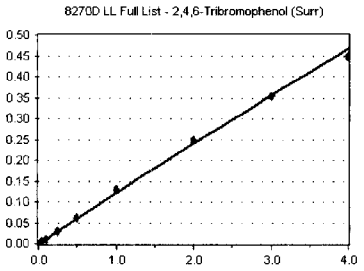


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	6853	0.596	10.33
9I19035-CAL2	50	17404	0.640	10.33
9I19035-CAL3	100	37821	0.676	10.33
9I19035-CAL4	200	76676	0.698	10.33
9I19035-CAL5	500	199437	0.710	10.33
9I19035-CAL6	1000	355316	0.667	10.33
9I19035-CAL7	2000	684303	0.627	10.33
9I19035-CAL8	4000	1316342	0.537	10.34
9I19035-CAL9	6000	1601806	0.465	10.34
~~9I19035-CALA~~	~~8000~~	~~1950077~~	~~0.418~~	~~10.34~~

AVE RF **0.624** RF RSD **12.85** AVE RT **10.33**

2,4,6-Tribromophenol (Surr)

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

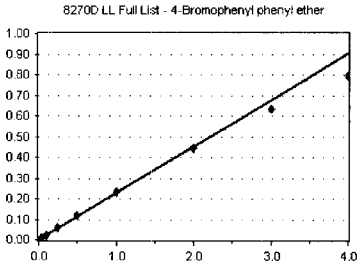


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~762~~	~~6.623~~	~~10.41~~
9I19035-CAL2	50	1929	7.093	10.42
9I19035-CAL3	100	4809	8.598	10.42
9I19035-CAL4	200	10829	9.862	10.42
9I19035-CAL5	500	33701	0.120	10.42
9I19035-CAL6	1000	65055	0.122	10.42
9I19035-CAL7	2000	142266	0.130	10.42
9I19035-CAL8	4000	305471	0.125	10.43
9I19035-CAL9	6000	407389	0.118	10.43
9I19035-CALA	8000	524653	0.112	10.44

AVE RF **0.109** RF RSD **18.24** AVE RT **10.42**

4-Bromophenyl phenyl ether

Curve Fit: **AVERAGE RF**

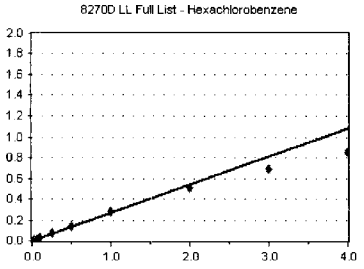


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2390	0.208	10.67
9I19035-CAL2	50	6326	0.233	10.67
9I19035-CAL3	100	13242	0.237	10.67
9I19035-CAL4	200	26212	0.239	10.67
9I19035-CAL5	500	66857	0.238	10.67
9I19035-CAL6	1000	125621	0.236	10.67
9I19035-CAL7	2000	256334	0.235	10.67
9I19035-CAL8	4000	546207	0.223	10.68
9I19035-CAL9	6000	726568	0.211	10.68
9I19035-CALA	8000	926306	0.198	10.68

AVE RF **0.226** RF RSD **6.56** AVE RT **10.67**

Hexachlorobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	3454	0.300	10.75
9I19035-CAL2	50	7615	0.280	10.75
9I19035-CAL3	100	16314	0.292	10.75
9I19035-CAL4	200	30519	0.278	10.75
9I19035-CAL5	500	82813	0.295	10.75
9I19035-CAL6	1000	152211	0.286	10.75
9I19035-CAL7	2000	304969	0.279	10.75
9I19035-CAL8	4000	617226	0.252	10.75
9I19035-CAL9	6000	795928	0.231	10.76
9I19035-CALA	8000	1001688	0.215	10.76

AVE RF **0.271** RF RSD **10.61** AVE RT **10.75**

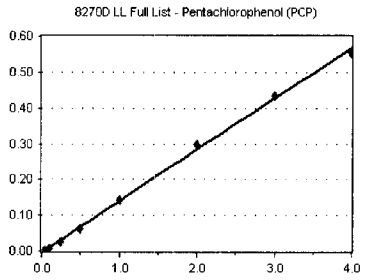
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Pentachlorophenol (PCP)

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

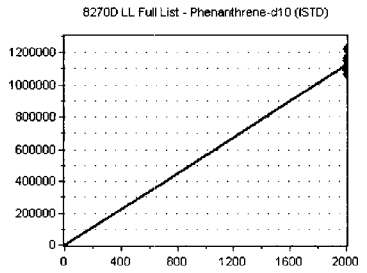


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1000~~	~~8.692~~	~~10.94~~
~~9I19035-CAL2~~	~~50~~	~~1392~~	~~5.118~~	~~10.94~~
9I19035-CAL3	100	4341	7.762	10.94
9I19035-CAL4	200	7638	6.956	10.94
9I19035-CAL5	500	30348	0.108	10.94
9I19035-CAL6	1000	65122	0.122	10.94
9I19035-CAL7	2000	154858	0.142	10.94
9I19035-CAL8	4000	363768	0.148	10.94
9I19035-CAL9	6000	500914	0.145	10.95
9I19035-CALA	8000	646595	0.138	10.95

AVE RF **0.119** RF RSD **26.11** AVE RT **10.94**

Phenanthrene-d10 (ISTD)

Curve Fit: **AVERAGE RF**

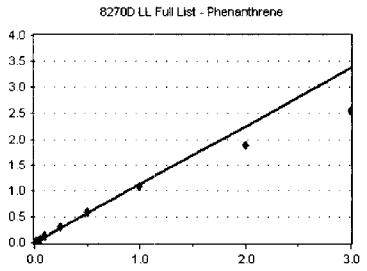


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	1150535	575.268	11.13
9I19035-CAL2	2000	1087898	543.949	11.13
9I19035-CAL3	2000	1118597	559.298	11.13
9I19035-CAL4	2000	1098102	549.051	11.13
9I19035-CAL5	2000	1123094	561.547	11.13
9I19035-CAL6	2000	1065192	532.596	11.14
9I19035-CAL7	2000	1091855	545.928	11.14
9I19035-CAL8	2000	1224924	612.462	11.14
9I19035-CAL9	2000	1148482	574.241	11.14
9I19035-CALA	2000	1167219	583.609	11.14

AVE RF **563.795** RF RSD **4.15** AVE RT **11.13**

Phenanthrene

Curve Fit: **AVERAGE RF**

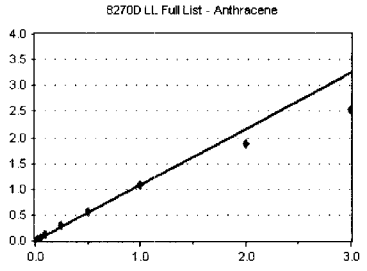


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	13749	1.195	11.16
9I19035-CAL2	50	32566	1.197	11.16
9I19035-CAL3	100	68493	1.225	11.15
9I19035-CAL4	200	134878	1.228	11.15
9I19035-CAL5	500	343840	1.225	11.16
9I19035-CAL6	1000	610421	1.146	11.16
9I19035-CAL7	2000	1191270	1.091	11.16
9I19035-CAL8	4000	2302690	0.940	11.16
9I19035-CAL9	6000	2932288	0.851	11.17
~~9I19035-CALA~~	~~8000~~	~~3584429~~	~~0.768~~	~~11.17~~

AVE RF **1.122** RF RSD **12.26** AVE RT **11.16**

Anthracene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	11450	0.995	11.21
9I19035-CAL2	50	30636	1.126	11.21
9I19035-CAL3	100	65192	1.166	11.21
9I19035-CAL4	200	132343	1.205	11.21
9I19035-CAL5	500	335865	1.196	11.21
9I19035-CAL6	1000	608748	1.143	11.21
9I19035-CAL7	2000	1187408	1.088	11.21
9I19035-CAL8	4000	2312152	0.944	11.22
9I19035-CAL9	6000	2907155	0.844	11.22
~~9I19035-CALA~~	~~8000~~	~~3477728~~	~~0.745~~	~~11.22~~

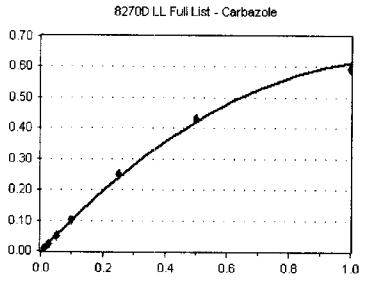
AVE RF **1.079** RF RSD **11.55** AVE RT **11.21**

Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Carbazole

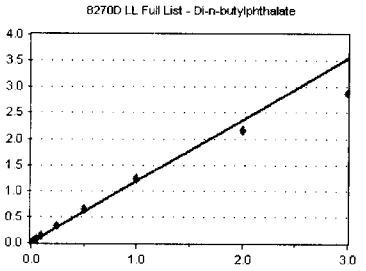


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9186	0.798	11.37
9I19035-CAL2	50	24489	0.900	11.37
9I19035-CAL3	100	54742	0.979	11.37
9I19035-CAL4	200	110985	1.011	11.37
9I19035-CAL5	500	281210	1.002	11.37
9I19035-CAL6	1000	458747	0.861	11.37
9I19035-CAL7	2000	646631	0.592	11.37
~~9I19035-CAL8~~	~~4000~~	~~858655~~	~~0.350~~	~~11.37~~
~~9I19035-CAL9~~	~~6000~~	~~1156567~~	~~0.336~~	~~11.37~~
~~9I19035-CALA~~	~~8000~~	~~1165062~~	~~0.250~~	~~11.37~~

AVE RF **0.878** RF RSD **16.89** AVE RT **11.37**

Di-n-butylphthalate

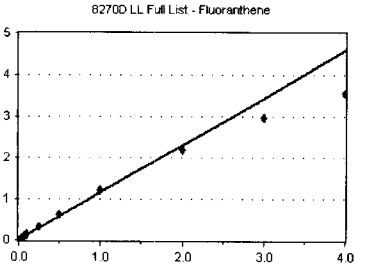


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~11697~~	~~1.017~~	~~11.72~~
9I19035-CAL2	50	29117	1.071	11.72
9I19035-CAL3	100	70280	1.257	11.72
9I19035-CAL4	200	138215	1.259	11.72
9I19035-CAL5	500	369981	1.318	11.72
9I19035-CAL6	1000	683398	1.283	11.72
9I19035-CAL7	2000	1348435	1.235	11.72
9I19035-CAL8	4000	2651399	1.082	11.72
9I19035-CAL9	6000	3301933	0.958	11.73
~~9I19035-CALA~~	~~8000~~	~~4037361~~	~~0.865~~	~~11.72~~

AVE RF **1.183** RF RSD **10.85** AVE RT **11.72**

Fluoranthene

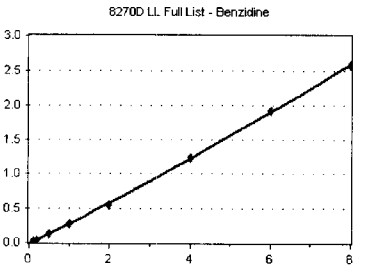


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	12248	1.065	12.43
9I19035-CAL2	50	31166	1.146	12.42
9I19035-CAL3	100	70234	1.256	12.42
9I19035-CAL4	200	138551	1.262	12.42
9I19035-CAL5	500	369455	1.316	12.43
9I19035-CAL6	1000	669325	1.257	12.42
9I19035-CAL7	2000	1341415	1.229	12.43
9I19035-CAL8	4000	2665095	1.088	12.44
9I19035-CAL9	6000	3417993	0.992	12.44
9I19035-CALA	8000	4158773	0.891	12.44

AVE RF **1.150** RF RSD **12.02** AVE RT **12.43**

Benzidine



Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~40~~	~~3398~~	~~0.148~~	~~12.58~~
~~9I19035-CAL2~~	~~100~~	~~5652~~	~~0.104~~	~~12.58~~
9I19035-CAL3	200	12748	0.114	12.58
9I19035-CAL4	400	43242	0.197	12.58
9I19035-CAL5	1000	152022	0.271	12.58
9I19035-CAL6	2000	302104	0.284	12.58
9I19035-CAL7	4000	601547	0.275	12.59
9I19035-CAL8	8000	1506619	0.307	12.60
9I19035-CAL9	12000	2204013	0.320	12.60
9I19035-CALA	16000	3017555	0.323	12.60

AVE RF **0.261** RF RSD **27.45** AVE RT **12.59**

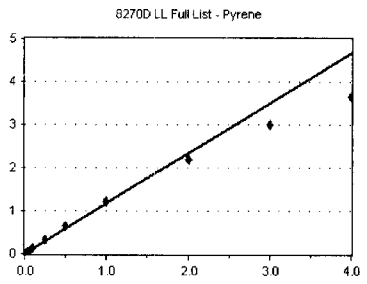
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Pyrene

Curve Fit: **AVERAGE RF**

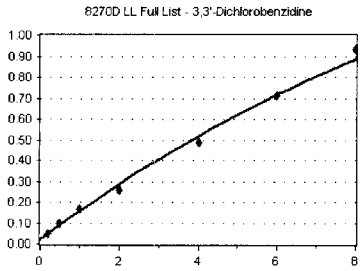


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	12641	1.099	12.71
9I19035-CAL2	50	32717	1.203	12.71
9I19035-CAL3	100	69474	1.242	12.71
9I19035-CAL4	200	143586	1.308	12.71
9I19035-CAL5	500	375136	1.336	12.71
9I19035-CAL6	1000	683508	1.283	12.71
9I19035-CAL7	2000	1337637	1.225	12.72
9I19035-CAL8	4000	2681088	1.094	12.73
9I19035-CAL9	6000	3436590	0.997	12.74
9I19035-CALA	8000	4271888	0.915	12.73

AVE RF **1.170** RF RSD **11.89** AVE RT **12.72**

3,3'-Dichlorobenzidine

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

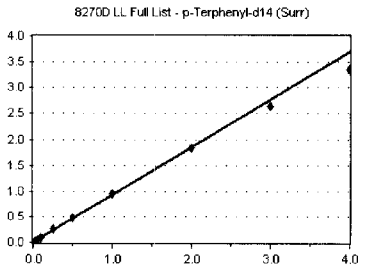


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~40~~	~~3617~~	~~0.156~~	~~0.00~~
~~9I19035-CAL2~~	~~100~~	~~11318~~	~~0.203~~	~~0.00~~
~~9I19035-CAL3~~	~~200~~	~~24584~~	~~0.219~~	~~14.85~~
9I19035-CAL4	400	53778	0.241	14.86
9I19035-CAL5	1000	110907	0.193	14.86
9I19035-CAL6	2000	174855	0.167	14.86
9I19035-CAL7	4000	281736	0.129	14.86
9I19035-CAL8	8000	555604	0.122	14.88
9I19035-CAL9	12000	730056	0.119	14.89
9I19035-CALA	16000	945543	0.117	0.00

AVE RF **0.155** RF RSD **30.50** AVE RT **12.74**

p-Terphenyl-d14 (Surr)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9512	0.821	12.92
9I19035-CAL2	50	25113	0.902	12.92
9I19035-CAL3	100	54871	0.977	12.92
9I19035-CAL4	200	107135	0.959	12.92
9I19035-CAL5	500	285146	0.995	12.92
9I19035-CAL6	1000	507926	0.969	12.92
9I19035-CAL7	2000	1038865	0.953	12.93
9I19035-CAL8	4000	2102593	0.924	12.94
9I19035-CAL9	6000	2699067	0.880	12.94
9I19035-CALA	8000	3392009	0.837	12.93

AVE RF **0.922** RF RSD **6.53** AVE RT **12.93**

Butyl benzyl phthalate

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~2535~~	~~0.219~~	~~13.73~~
9I19035-CAL2	50	6765	0.243	13.74
9I19035-CAL3	100	18774	0.334	13.74
9I19035-CAL4	200	42397	0.380	13.74
9I19035-CAL5	500	139695	0.487	13.74
9I19035-CAL6	1000	279356	0.533	13.74
9I19035-CAL7	2000	621242	0.570	13.74
9I19035-CAL8	4000	1344154	0.590	13.75
9I19035-CAL9	6000	1779167	0.580	13.76
9I19035-CALA	8000	2308181	0.569	13.75

AVE RF **0.476** RF RSD **26.60** AVE RT **13.74**

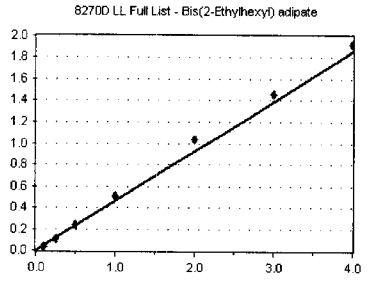
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Bis(2-Ethylhexyl) adipate

Curve Fit: **AVERAGE RF**

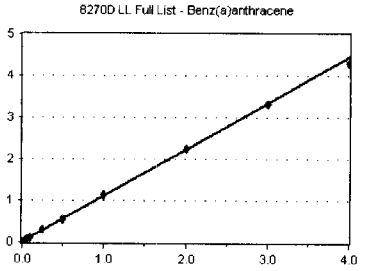


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~2762~~	~~0.238~~	~~13.91~~
~~9I19035-CAL2~~	~~50~~	~~6924~~	~~0.249~~	~~13.91~~
~~9I19035-CAL3~~	~~100~~	~~18358~~	~~0.327~~	~~13.91~~
9I19035-CAL4	200	37581	0.336	13.91
9I19035-CAL5	500	126449	0.441	13.91
9I19035-CAL6	1000	247877	0.473	13.91
9I19035-CAL7	2000	551677	0.506	13.92
9I19035-CAL8	4000	1183408	0.520	13.92
9I19035-CAL9	6000	1497303	0.488	13.93
9I19035-CALA	8000	1955106	0.482	13.92

AVE RF **0.464** RF RSD **13.26** AVE RT **13.92**

Benz(a)anthracene

Curve Fit: **AVERAGE RF**

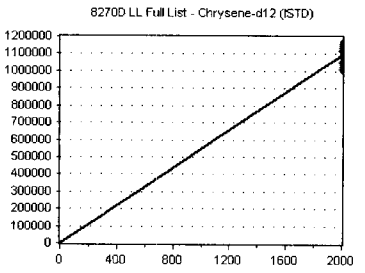


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	13459	1.161	14.89
9I19035-CAL2	50	29779	1.070	14.89
9I19035-CAL3	100	64818	1.154	14.89
9I19035-CAL4	200	124472	1.114	14.89
9I19035-CAL5	500	327557	1.143	14.89
9I19035-CAL6	1000	577553	1.102	14.89
9I19035-CAL7	2000	1225586	1.125	14.90
9I19035-CAL8	4000	2538581	1.115	14.91
9I19035-CAL9	6000	3394067	1.107	14.92
9I19035-CALA	8000	4360504	1.076	14.91

AVE RF **1.117** RF RSD **2.72** AVE RT **14.90**

Chrysene-d12 (ISTD)

Curve Fit: **AVERAGE RF**

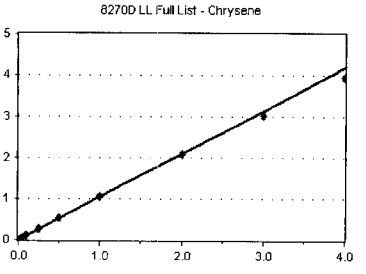


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	1159268	579.634	14.91
9I19035-CAL2	2000	1113286	556.643	14.91
9I19035-CAL3	2000	1122909	561.454	14.91
9I19035-CAL4	2000	1116848	558.424	14.91
9I19035-CAL5	2000	1146727	573.363	14.92
9I19035-CAL6	2000	1048464	524.232	14.92
9I19035-CAL7	2000	1089712	544.856	14.92
9I19035-CAL8	2000	1138264	569.132	14.94
9I19035-CAL9	2000	1022230	511.115	14.94
9I19035-CALA	2000	1013392	506.696	14.93

AVE RF **548.555** RF RSD **4.74** AVE RT **14.92**

Chrysene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	11530	0.995	14.97
9I19035-CAL2	50	29254	1.051	14.96
9I19035-CAL3	100	61418	1.094	14.97
9I19035-CAL4	200	120574	1.080	14.97
9I19035-CAL5	500	313539	1.094	14.97
9I19035-CAL6	1000	556735	1.062	14.98
9I19035-CAL7	2000	1148470	1.054	14.98
9I19035-CAL8	4000	2370714	1.041	15.00
9I19035-CAL9	6000	3095456	1.009	15.01
9I19035-CALA	8000	3992263	0.985	15.00

AVE RF **1.046** RF RSD **3.74** AVE RT **14.98**

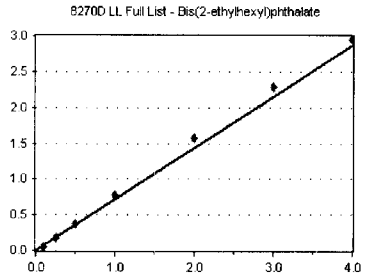
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Bis(2-ethylhexyl)phthalate

Curve Fit: **AVERAGE RF**

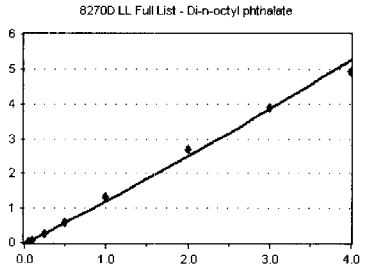


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~2659~~	~~0.229~~	~~15.08~~
~~9I19035-CAL2~~	~~50~~	~~8694~~	~~0.312~~	~~15.07~~
~~9I19035-CAL3~~	~~100~~	~~26668~~	~~0.475~~	~~15.07~~
9I19035-CAL4	200	58143	0.521	15.07
9I19035-CAL5	500	202494	0.706	15.08
9I19035-CAL6	1000	389483	0.743	15.07
9I19035-CAL7	2000	846014	0.776	15.08
9I19035-CAL8	4000	1799096	0.790	15.09
9I19035-CAL9	6000	2338505	0.763	15.09
9I19035-CALA	8000	2986931	0.737	15.08

AVE RF **0.719** RF RSD **12.78** AVE RT **15.08**

Di-n-octyl phthalate

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

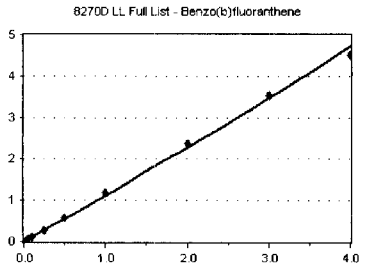


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~3334~~	~~0.288~~	~~16.74~~
~~9I19035-CAL2~~	~~50~~	~~9861~~	~~0.359~~	~~16.74~~
9I19035-CAL3	100	33665	0.597	16.74
9I19035-CAL4	200	75567	0.694	16.74
9I19035-CAL5	500	281414	0.979	16.75
9I19035-CAL6	1000	592055	1.136	16.75
9I19035-CAL7	2000	1439135	1.337	16.75
9I19035-CAL8	4000	3203842	1.352	16.76
9I19035-CAL9	6000	4149203	1.295	16.77
9I19035-CALA	8000	5450180	1.229	16.75

AVE RF **1.077** RF RSD **27.27** AVE RT **16.75**

Benzo(b)fluoranthene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

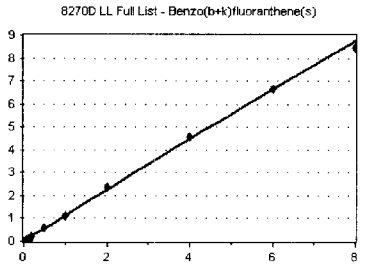


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8297	0.716	17.46
9I19035-CAL2	50	21819	0.795	17.47
9I19035-CAL3	100	57260	1.016	17.47
9I19035-CAL4	200	113080	1.038	17.48
9I19035-CAL5	500	318669	1.109	17.48
9I19035-CAL6	1000	578435	1.109	17.48
9I19035-CAL7	2000	1267321	1.178	17.49
9I19035-CAL8	4000	2803227	1.183	17.52
9I19035-CAL9	6000	3768759	1.177	17.52
9I19035-CALA	8000	5003892	1.128	17.52

AVE RF **1.045** RF RSD **15.65** AVE RT **17.49**

Benzo(b+k)fluoranthene(s)

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	40	17019	0.734	17.46
9I19035-CAL2	100	47809	0.871	17.47
9I19035-CAL3	200	120376	1.068	17.54
9I19035-CAL4	400	234995	1.079	17.48
9I19035-CAL5	1000	653019	1.136	17.54
9I19035-CAL6	2000	1182652	1.134	17.55
9I19035-CAL7	4000	2563432	1.191	17.55
9I19035-CAL8	8000	5439284	1.148	17.59
9I19035-CAL9	12000	7129046	1.113	17.60
9I19035-CALA	16000	9407940	1.060	17.59

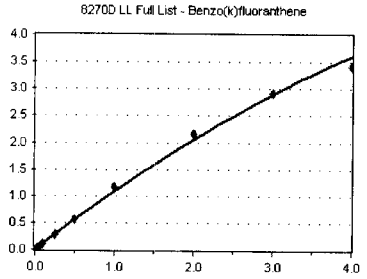
AVE RF **1.053** RF RSD **13.45** AVE RT **17.54**

Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Benzo(k)fluoranthene

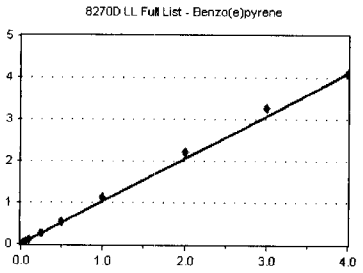


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8174	0.705	17.54
9I19035-CAL2	50	23687	0.864	17.54
9I19035-CAL3	100	58523	1.038	17.54
9I19035-CAL4	200	115987	1.065	17.54
9I19035-CAL5	500	321918	1.120	17.54
9I19035-CAL6	1000	582389	1.117	17.55
9I19035-CAL7	2000	1256906	1.168	17.55
9I19035-CAL8	4000	2555733	1.078	17.59
9I19035-CAL9	6000	3115398	0.973	17.60
9I19035-CALA	8000	3789489	0.854	17.59

AVE RF **0.998** RF RSD **14.77** AVE RT **17.56**

Benzo(e)pyrene

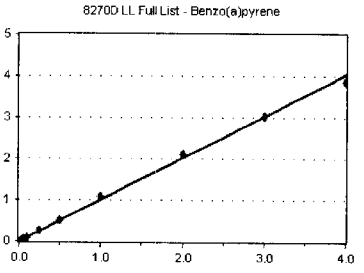


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8657	0.747	18.13
9I19035-CAL2	50	24570	0.896	18.12
9I19035-CAL3	100	58165	1.032	18.12
9I19035-CAL4	200	113143	1.039	18.13
9I19035-CAL5	500	316818	1.102	18.13
9I19035-CAL6	1000	576088	1.105	18.14
9I19035-CAL7	2000	1218818	1.133	18.14
9I19035-CAL8	4000	2630004	1.110	18.17
9I19035-CAL9	6000	3489142	1.089	18.19
9I19035-CALA	8000	4556103	1.027	18.17

AVE RF **1.028** RF RSD **11.67** AVE RT **18.14**

Benzo(a)pyrene

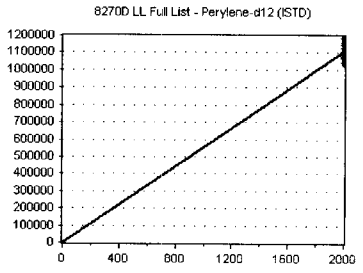


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	6648	0.574	18.24
9I19035-CAL2	50	18583	0.677	18.24
9I19035-CAL3	100	50114	0.889	18.24
9I19035-CAL4	200	99882	0.917	18.24
9I19035-CAL5	500	295305	1.028	18.25
9I19035-CAL6	1000	535317	1.027	18.25
9I19035-CAL7	2000	1174506	1.091	18.26
9I19035-CAL8	4000	2485829	1.049	18.29
9I19035-CAL9	6000	3235783	1.010	18.31
9I19035-CALA	8000	4292201	0.968	18.30

AVE RF **0.923** RF RSD **18.38** AVE RT **18.26**

Perylene-d12 (ISTD)



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	1158997	579.498	18.39
9I19035-CAL2	2000	1097209	548.604	18.39
9I19035-CAL3	2000	1127380	563.690	18.39
9I19035-CAL4	2000	1089238	544.619	18.40
9I19035-CAL5	2000	1149483	574.742	18.40
9I19035-CAL6	2000	1042709	521.354	18.40
9I19035-CAL7	2000	1076142	538.071	18.40
9I19035-CAL8	2000	1185024	592.512	18.42
9I19035-CAL9	2000	1067597	533.798	18.43
9I19035-CALA	2000	1108960	554.480	18.41

AVE RF **555.137** RF RSD **4.02** AVE RT **18.40**

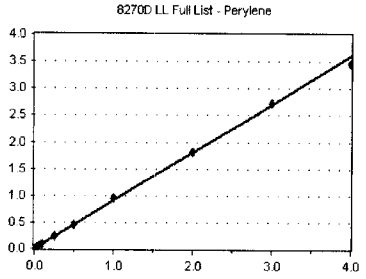
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Perylene

Curve Fit: **AVERAGE RF**

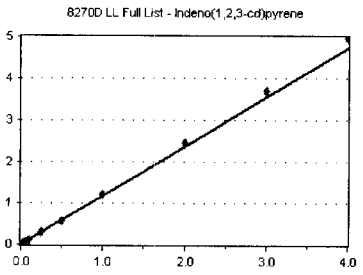


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9278	0.801	18.45
9I19035-CAL2	50	24689	0.900	18.45
9I19035-CAL3	100	50289	0.892	18.45
9I19035-CAL4	200	100217	0.920	18.45
9I19035-CAL5	500	273199	0.951	18.45
9I19035-CAL6	1000	476752	0.914	18.46
9I19035-CAL7	2000	1026574	0.954	18.47
9I19035-CAL8	4000	2164033	0.913	18.50
9I19035-CAL9	6000	2908580	0.908	18.51
9I19035-CALA	8000	3844220	0.867	18.50

AVE RF **0.902** RF RSD **4.87** AVE RT **18.47**

Indeno(1,2,3-cd)pyrene

Curve Fit: **AVERAGE RF**

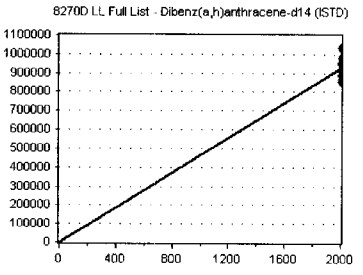


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	10072	1.102	20.77
9I19035-CAL2	50	25006	1.169	20.78
9I19035-CAL3	100	52504	1.176	20.78
9I19035-CAL4	200	100411	1.156	20.78
9I19035-CAL5	500	279363	1.171	20.78
9I19035-CAL6	1000	510691	1.152	20.79
9I19035-CAL7	2000	1143875	1.205	20.80
9I19035-CAL8	4000	2539375	1.224	20.84
9I19035-CAL9	6000	3489319	1.230	20.85
9I19035-CALA	8000	4879339	1.241	20.84

AVE RF **1.183** RF RSD **3.60** AVE RT **20.80**

Dibenz(a,h)anthracene-d14 (ISTD)

Curve Fit: **AVERAGE RF**

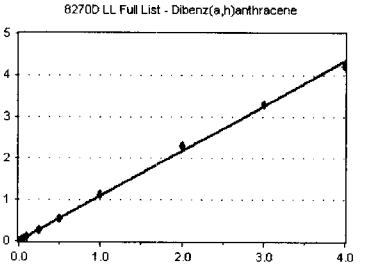


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	913932	456.966	20.80
9I19035-CAL2	2000	855339	427.669	20.79
9I19035-CAL3	2000	892958	446.479	20.79
9I19035-CAL4	2000	868590	434.295	20.80
9I19035-CAL5	2000	954508	477.254	20.80
9I19035-CAL6	2000	886236	443.118	20.80
9I19035-CAL7	2000	949148	474.574	20.80
9I19035-CAL8	2000	1037191	518.596	20.83
9I19035-CAL9	2000	945822	472.911	20.84
9I19035-CALA	2000	982889	491.444	20.82

AVE RF **464.331** RF RSD **6.05** AVE RT **20.80**

Dibenz(a,h)anthracene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8754	0.958	20.85
9I19035-CAL2	50	21791	1.019	20.85
9I19035-CAL3	100	48705	1.091	20.85
9I19035-CAL4	200	95316	1.097	20.85
9I19035-CAL5	500	270778	1.135	20.86
9I19035-CAL6	1000	489557	1.105	20.87
9I19035-CAL7	2000	1087002	1.145	20.88
9I19035-CAL8	4000	2389624	1.152	20.90
9I19035-CAL9	6000	3129173	1.103	20.91
9I19035-CALA	8000	4143300	1.054	20.90

AVE RF **1.086** RF RSD **5.57** AVE RT **20.87**

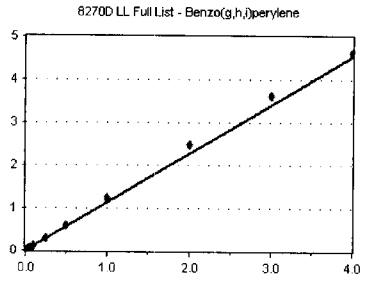
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

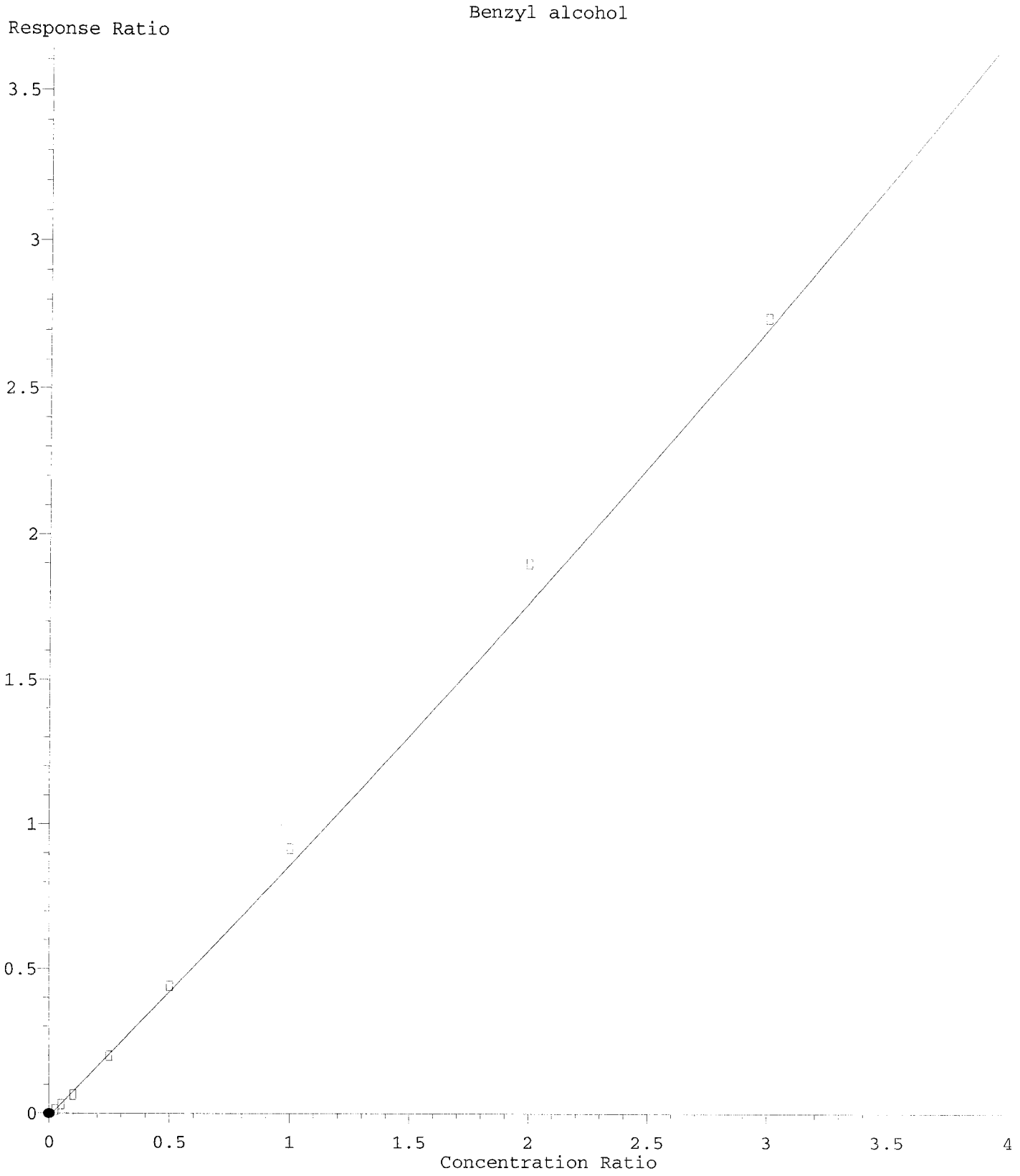
Benzo(g,h,i)perylene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	7772	0.850	21.32
9I19035-CAL2	50	20181	0.944	21.31
9I19035-CAL3	100	49447	1.107	21.31
9I19035-CAL4	200	101188	1.165	21.32
9I19035-CAL5	500	291609	1.222	21.33
9I19035-CAL6	1000	538150	1.214	21.33
9I19035-CAL7	2000	1186793	1.250	21.34
9I19035-CAL8	4000	2579448	1.243	21.38
9I19035-CAL9	6000	3417702	1.204	21.39
9I19035-CALA	8000	4554601	1.158	21.38

AVE RF **1.136** RF RSD **11.87** AVE RT **21.34**

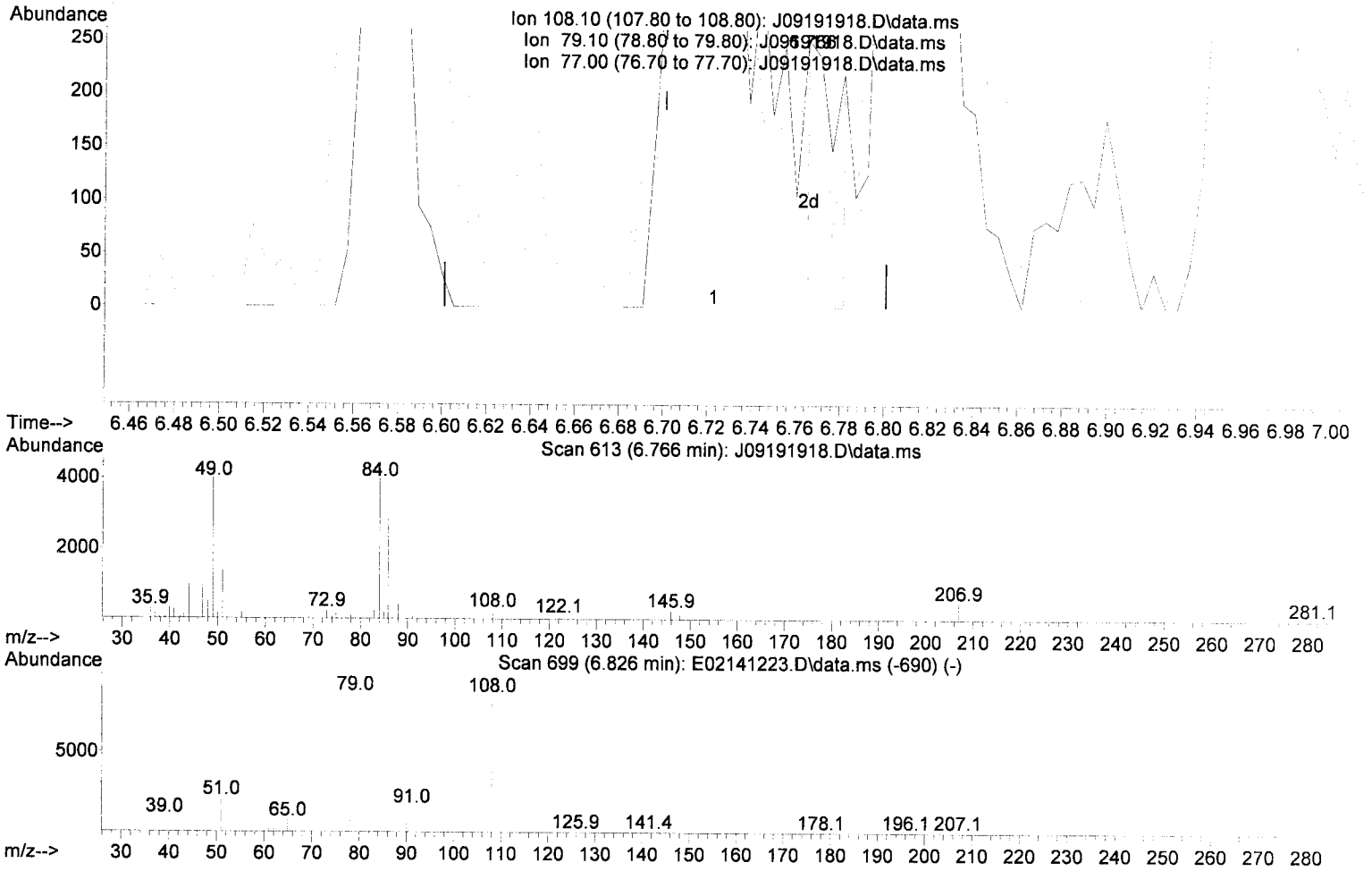


R = 1.89e-002 A*A + 8.51e-001 A - 1.04e-002
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



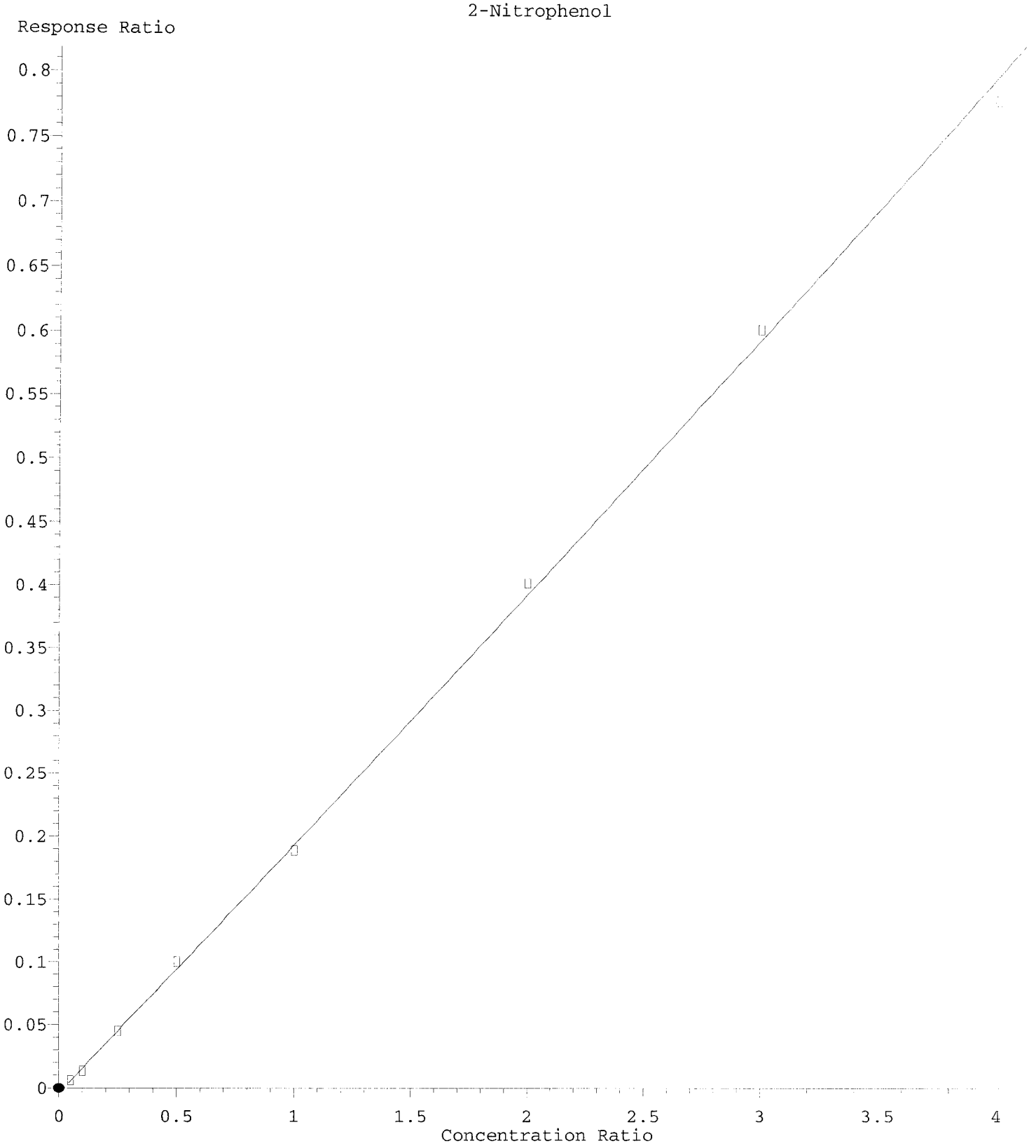
TIC: J09191918.D\data.ms

(12) Benzyl alcohol (T)

6.766min (+ 0.065) 26.03 ng/ml m

response 193

Ion	Exp%	Act%
108.10	100.00	100.00
79.10	108.60	31.35#
77.00	68.40	50.40
0.00	0.00	0.00

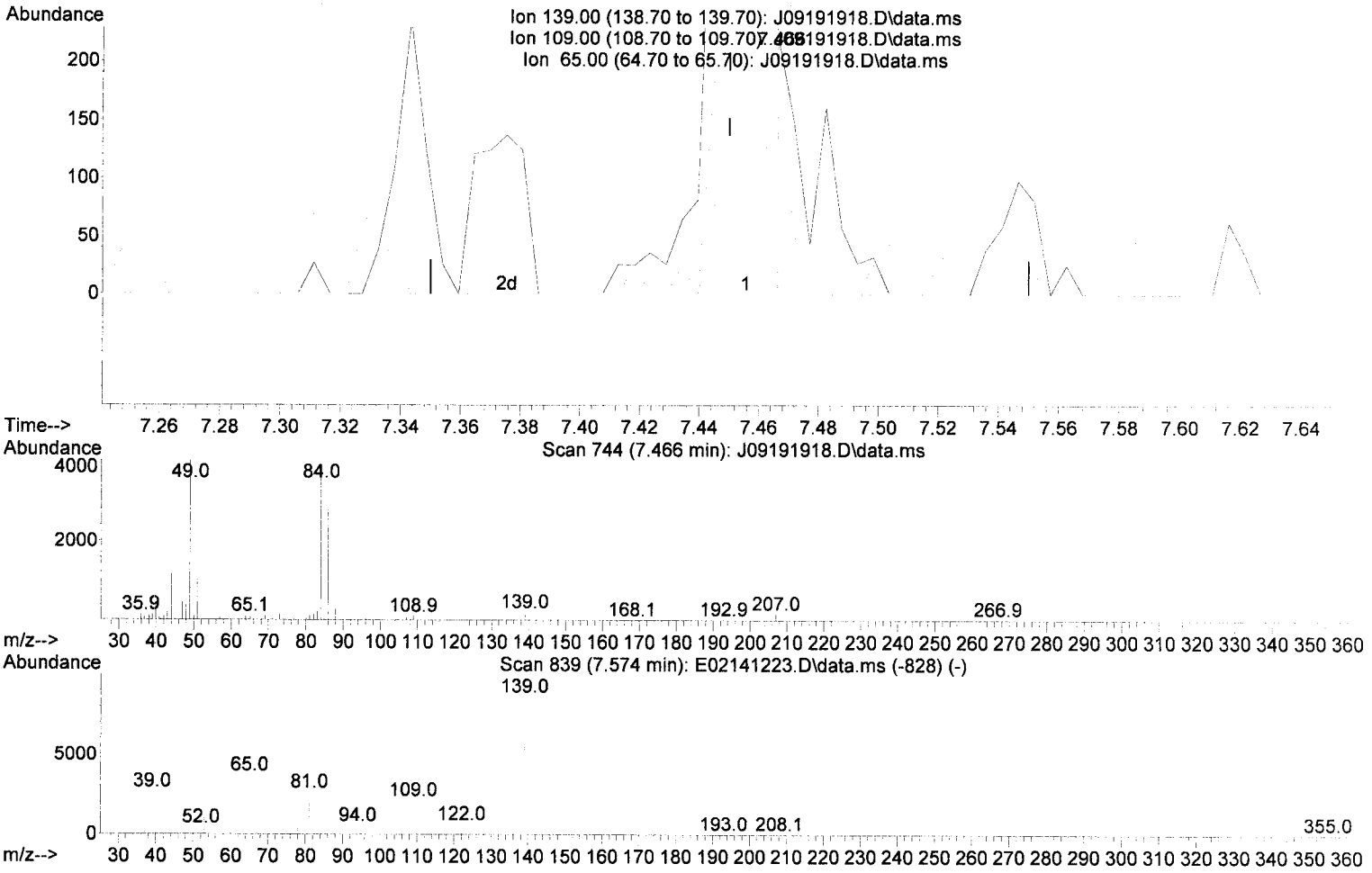


R = 1.05e-003 A*A + 1.96e-001 A - 4.15e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



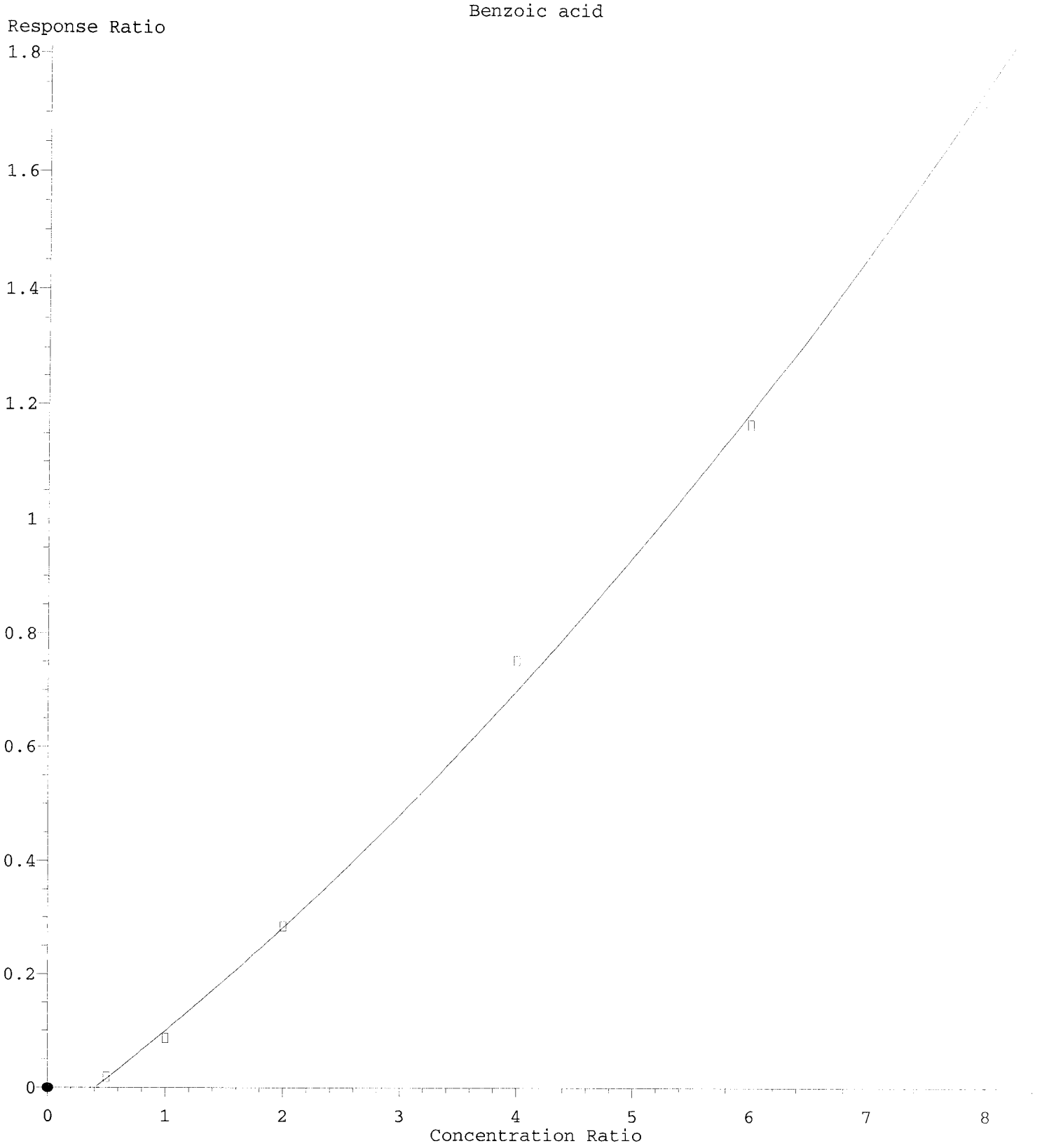
TIC: J09191918.D\data.ms

(23) 2-Nitrophenol (T)

7.466min (+ 0.016) 43.56 ng/ml m

response 151

Ion	Exp%	Act%
139.00	100.00	100.00
109.00	25.20	53.85
65.00	38.40	58.82
0.00	0.00	0.00

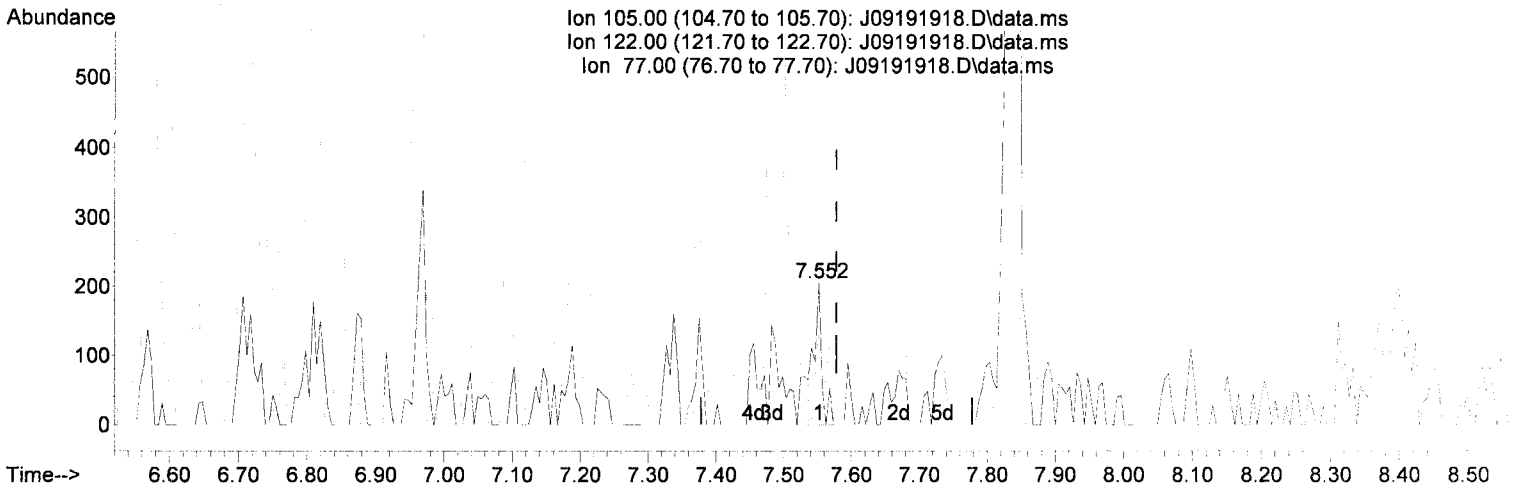


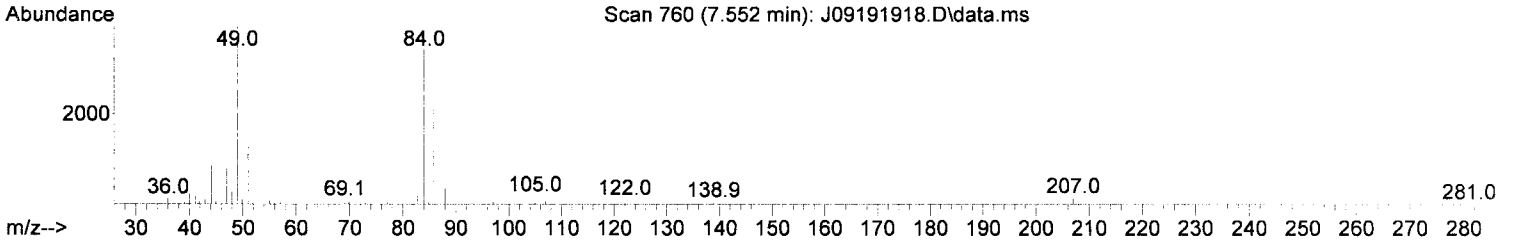
R = 8.94e-003 A*A + 1.55e-001 A - 6.40e-002
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w/(1/x^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

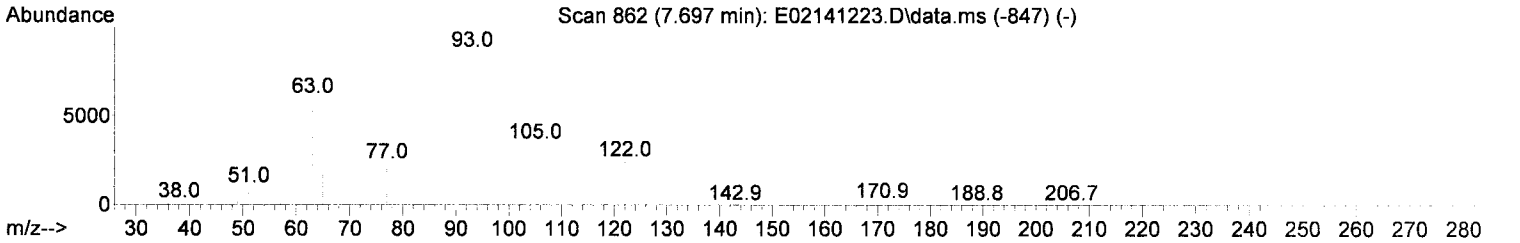
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







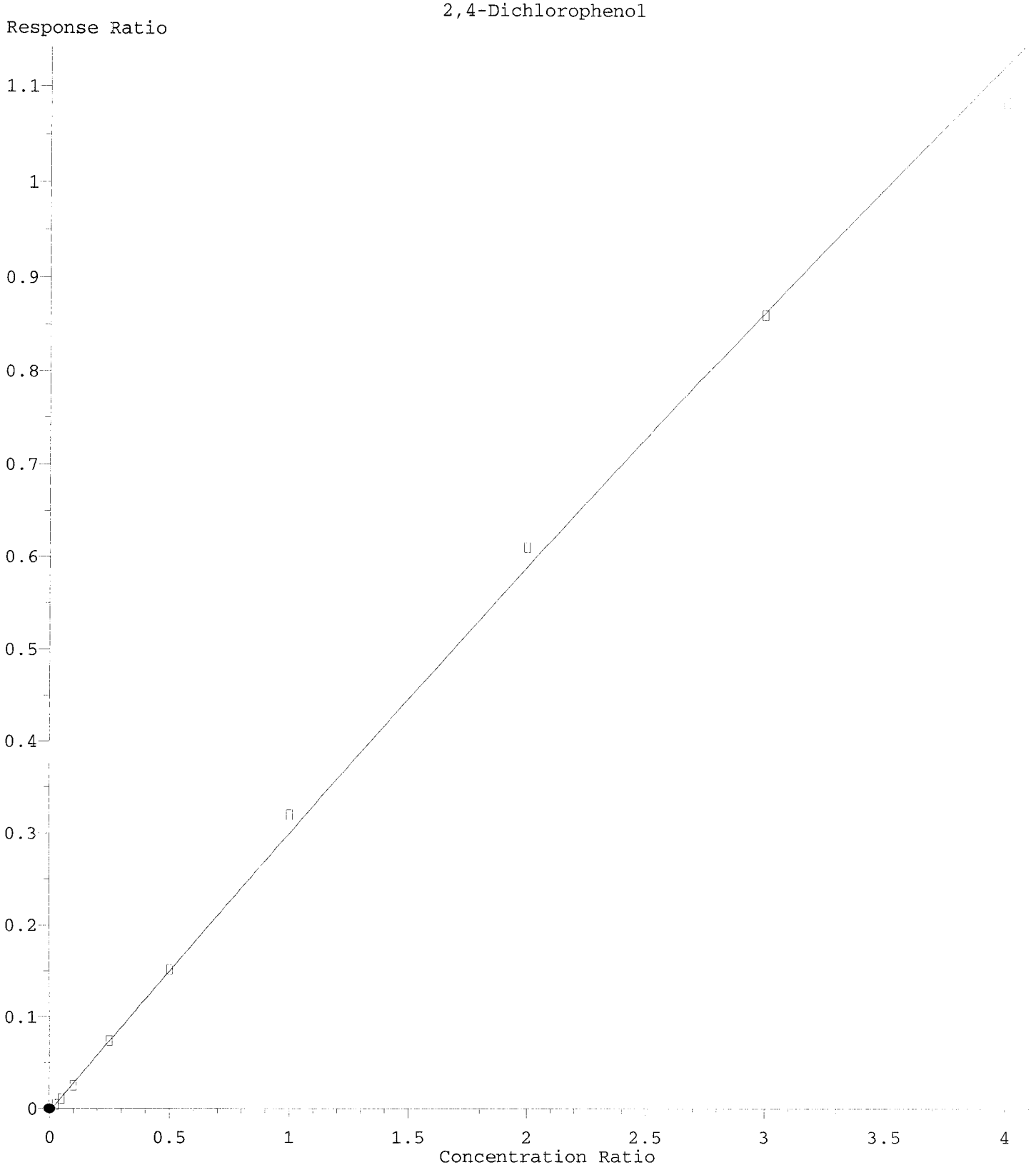
TIC: J09191918.D\data.ms

(26) Benzoic acid (T)

7.552min (-0.026) 807.68 ng/ml m

response 164

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	63.41
77.00	72.00	38.05#
0.00	0.00	0.00

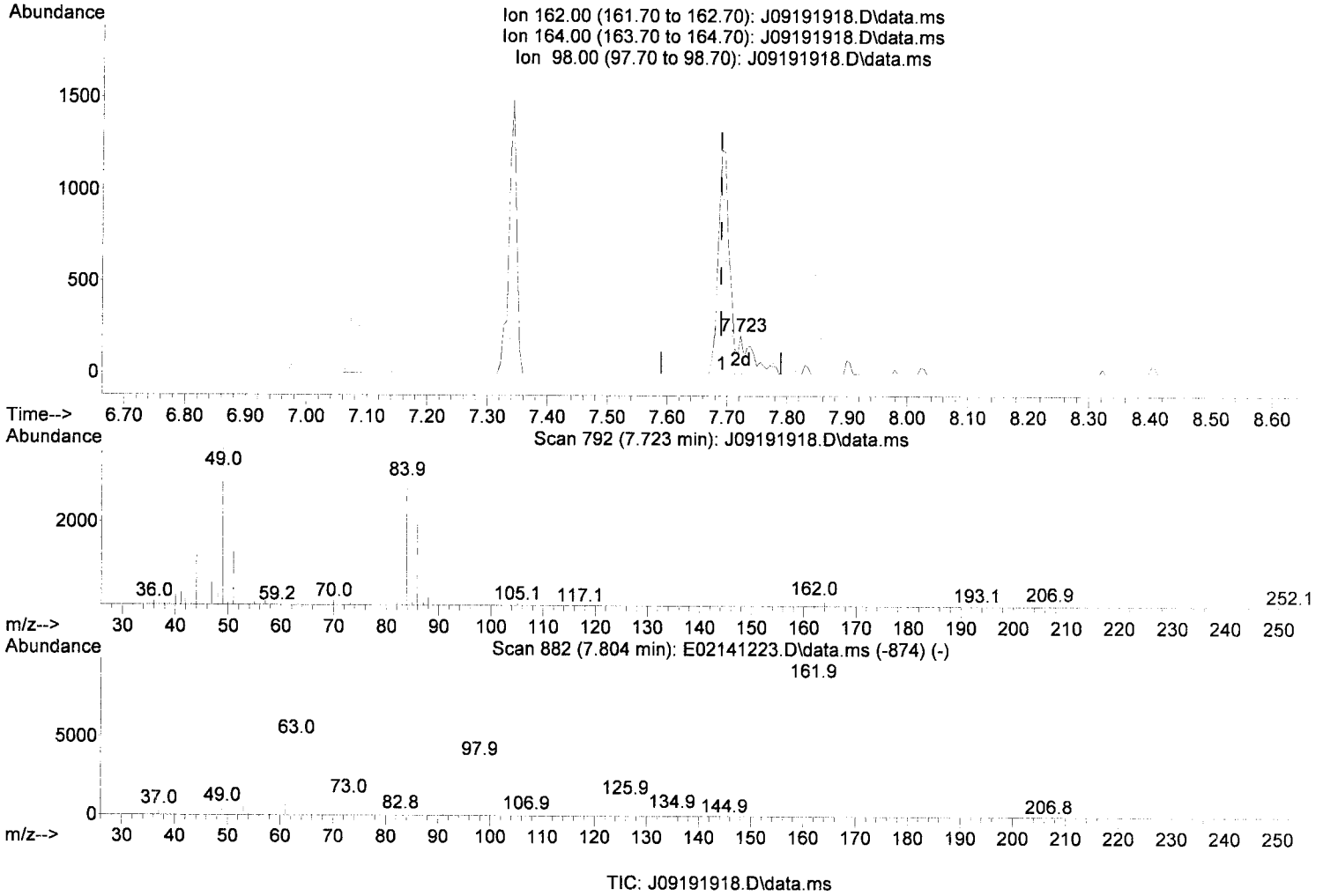


R = -7.18e-003 A*A + 3.11e-001 A - 3.87e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



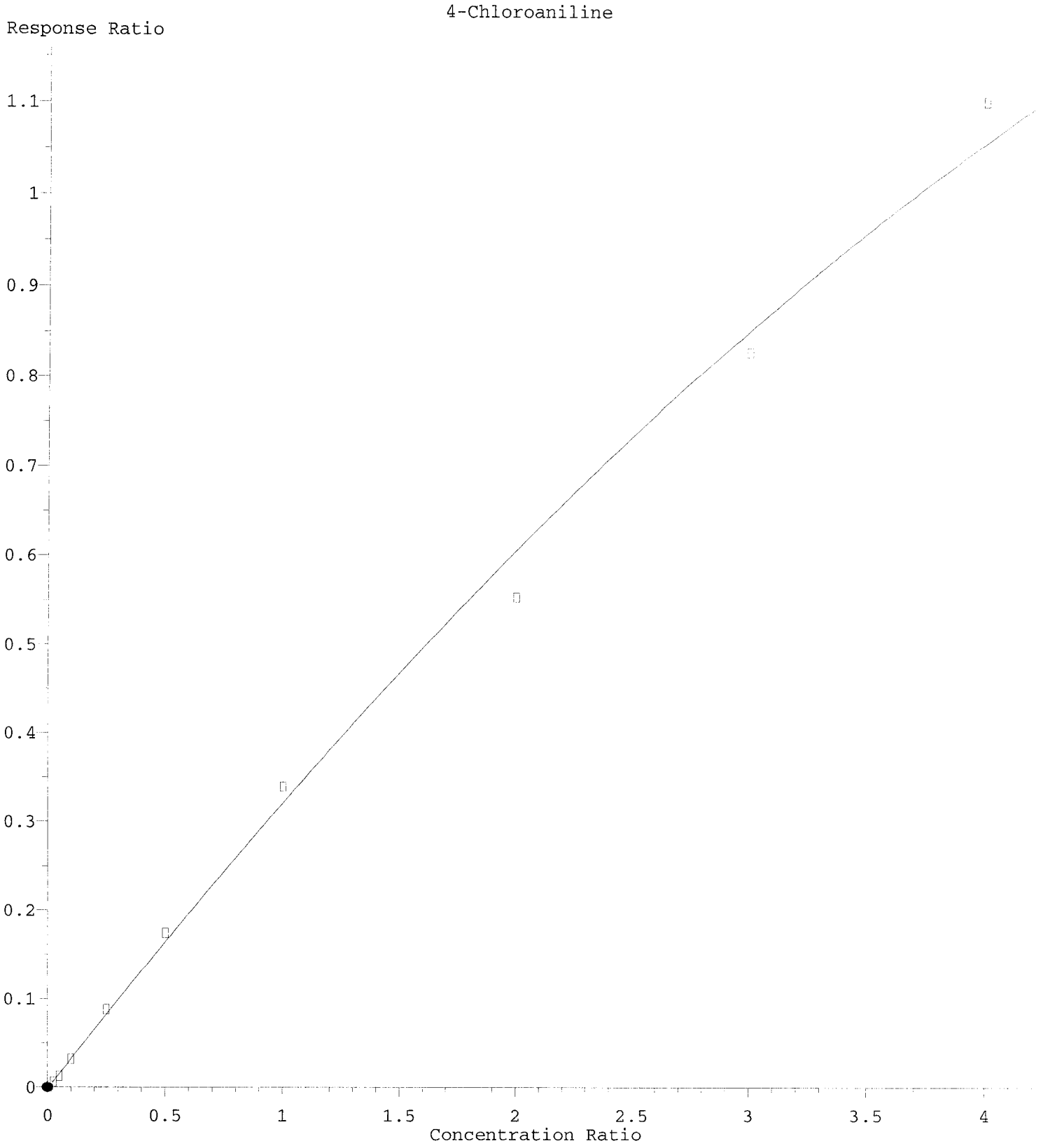
TIC: J09191918.D\data.ms

(27) 2,4-Dichlorophenol (T)

7.723min (+ 0.033) 25.85 ng/ml m

response 177

Ion	Exp%	Act%
162.00	100.00	100.00
164.00	64.50	62.20
98.00	33.60	0.00#
0.00	0.00	0.00

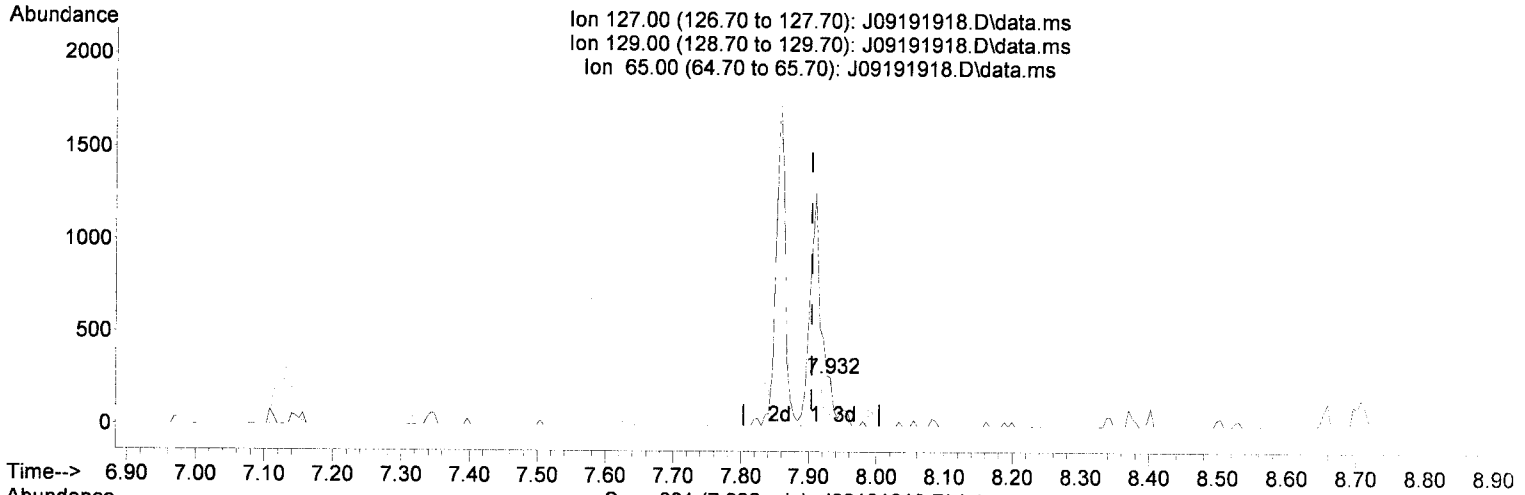


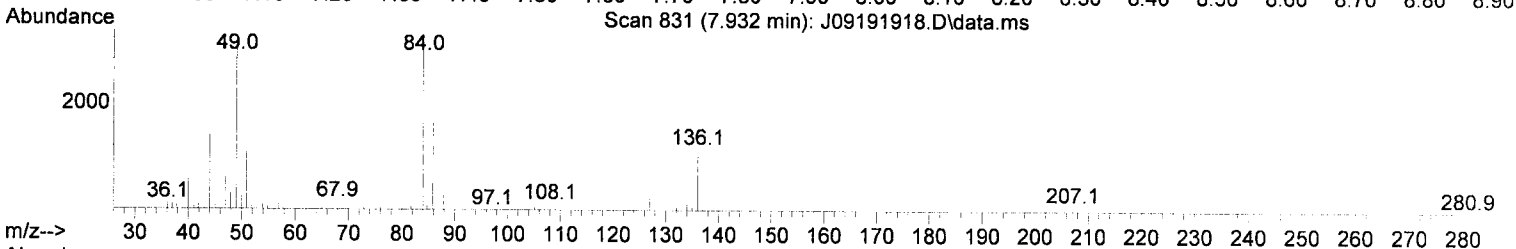
R = -1.94e-002 A*A + 3.43e-001 A - 2.27e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

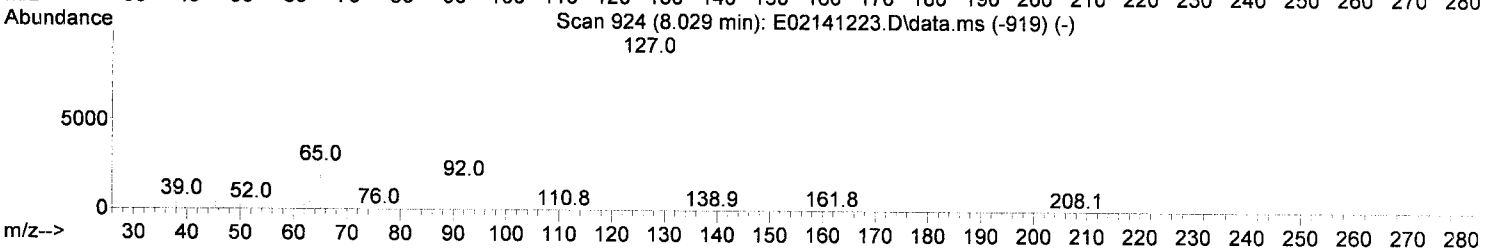
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







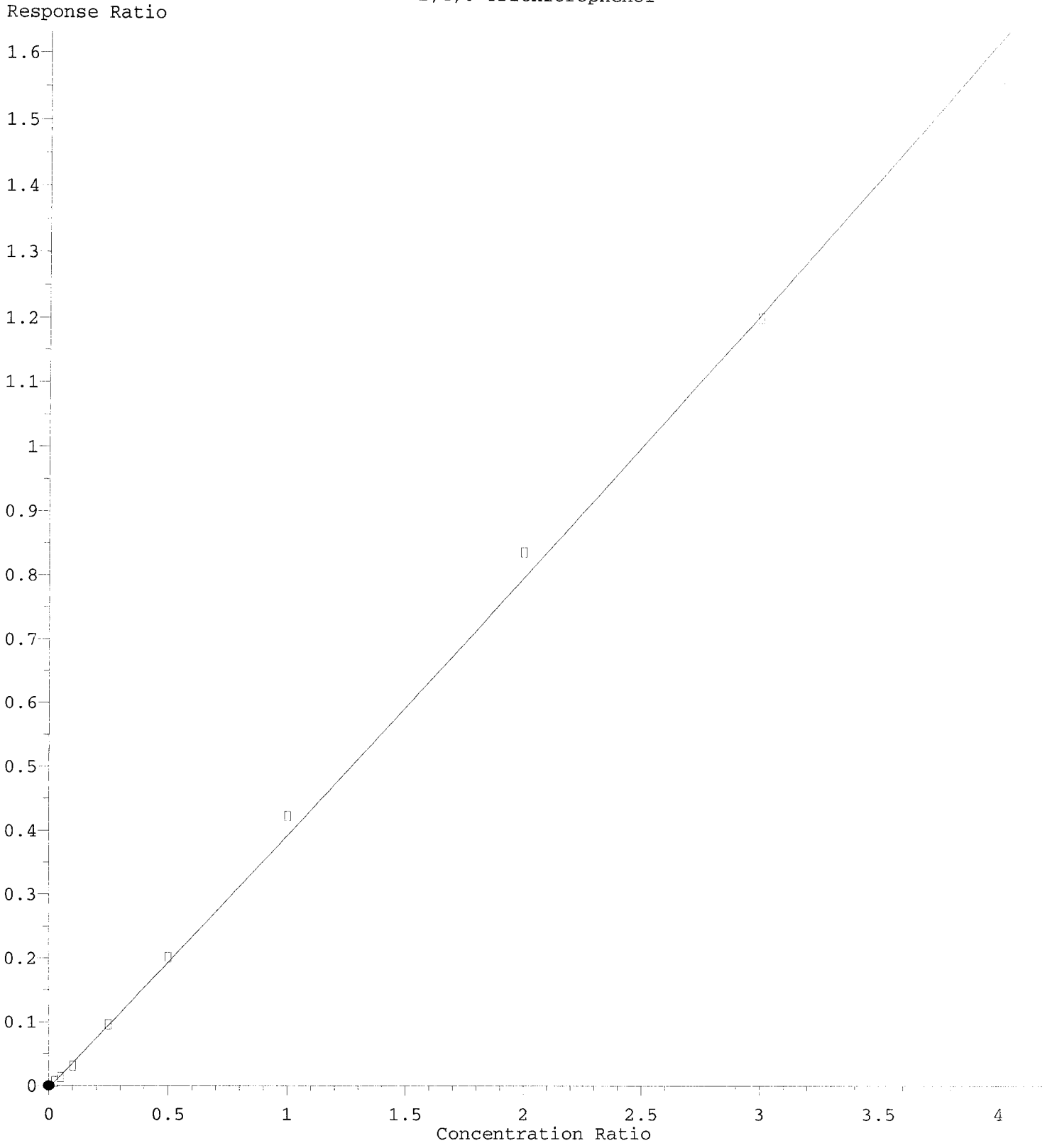
TIC: J09191918.D\data.ms

(30) 4-Chloroaniline (T)

7.932min (+ 0.028) 14.02 ng/ml m

response 160

Ion	Exp%	Act%
127.00	100.00	100.00
129.00	33.00	0.00#
65.00	23.50	18.01
0.00	0.00	0.00

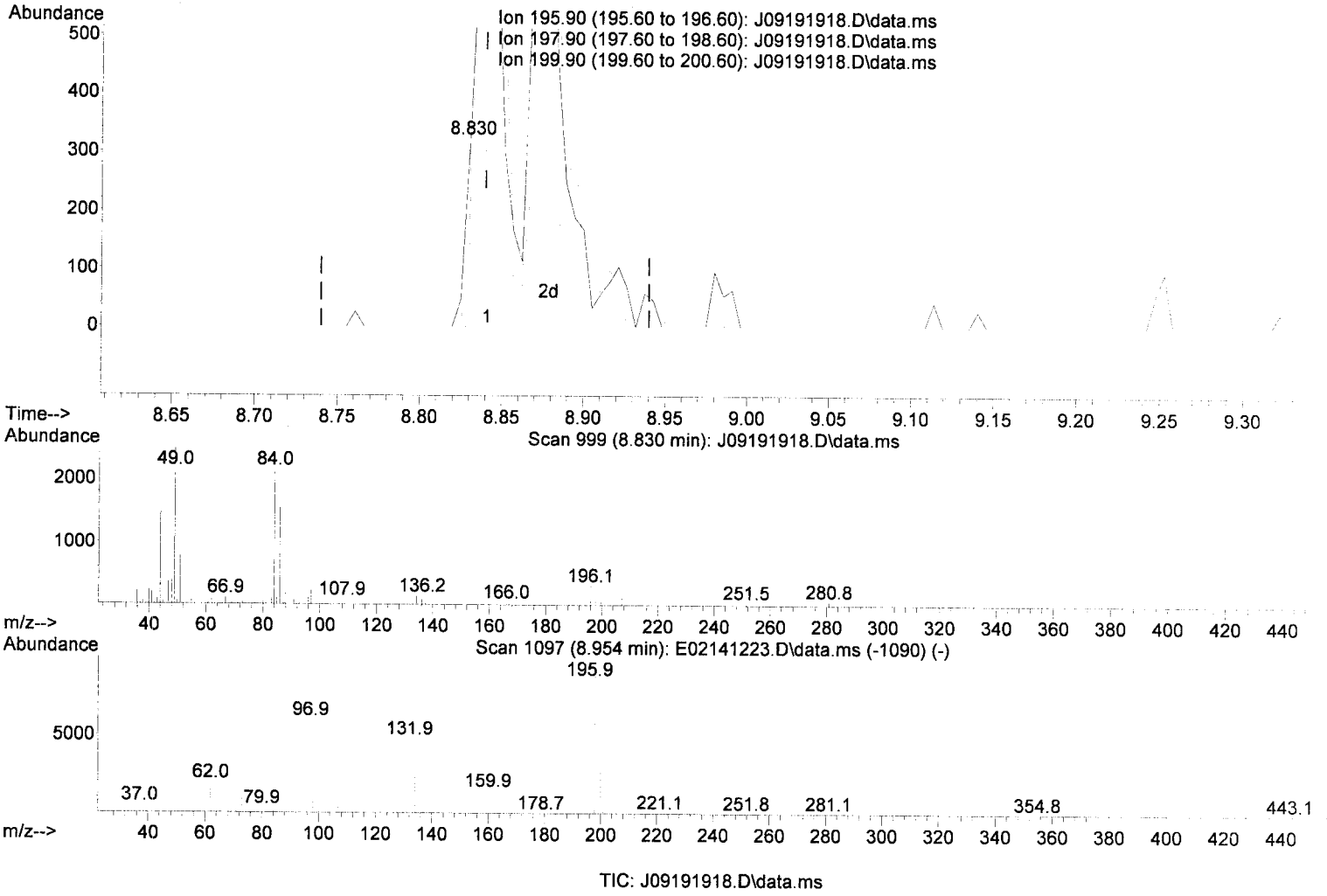


R = 3.29e-003 A*A + 3.94e-001 A - 4.68e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



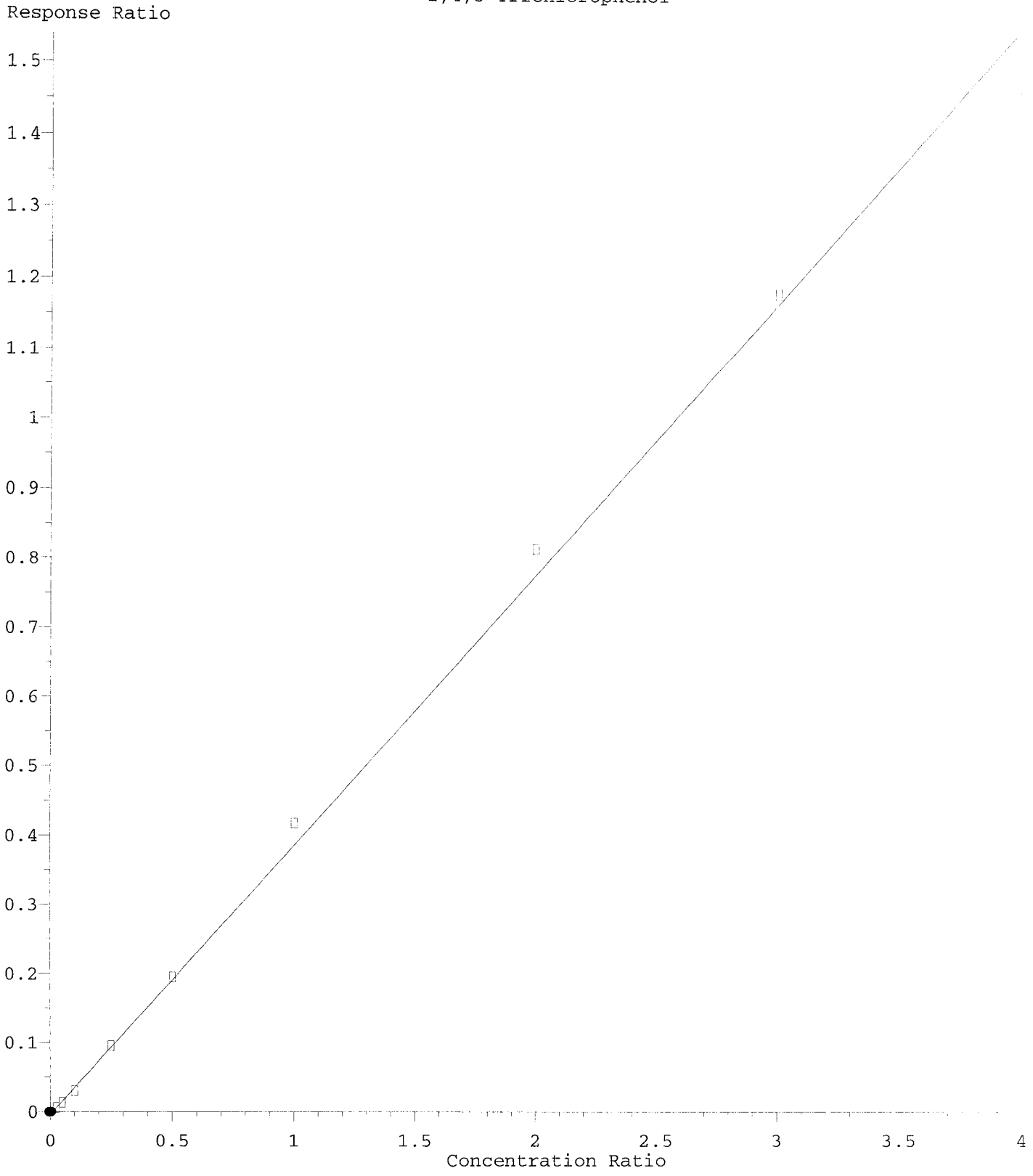
TIC: J09191918.D\data.ms

(37) 2,4,6-Trichlorophenol (T)

8.830min (-0.010) 24.69 ng/ml m

response 119

Ion	Exp%	Act%
195.90	100.00	100.00
197.90	94.40	61.61#
199.90	29.80	21.67
0.00	0.00	0.00

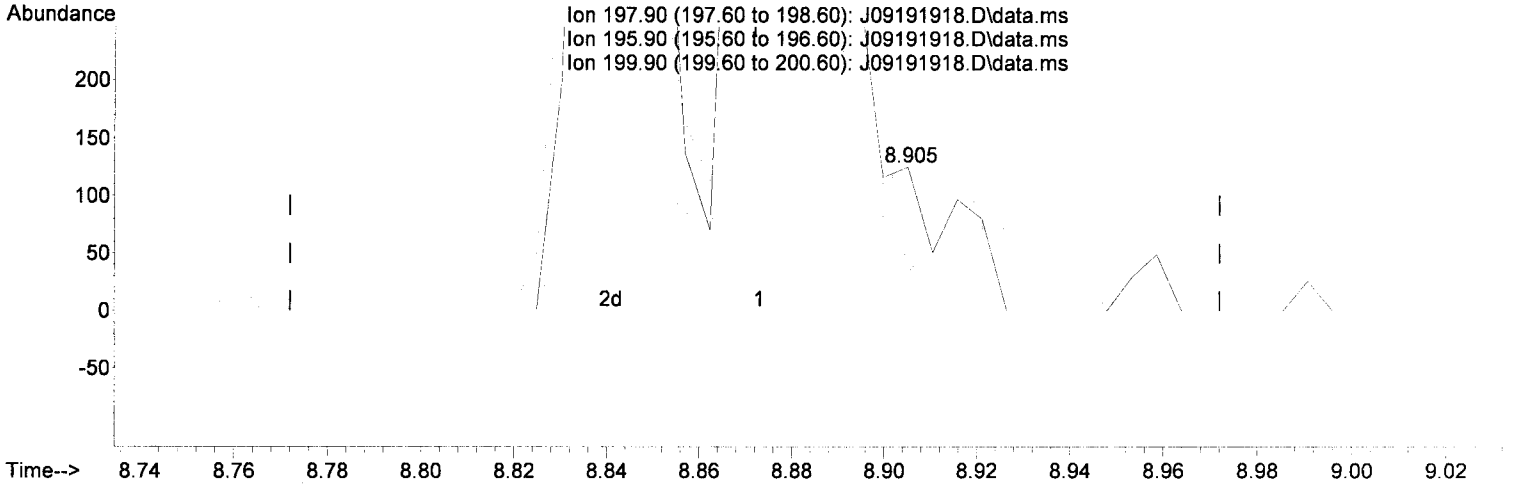


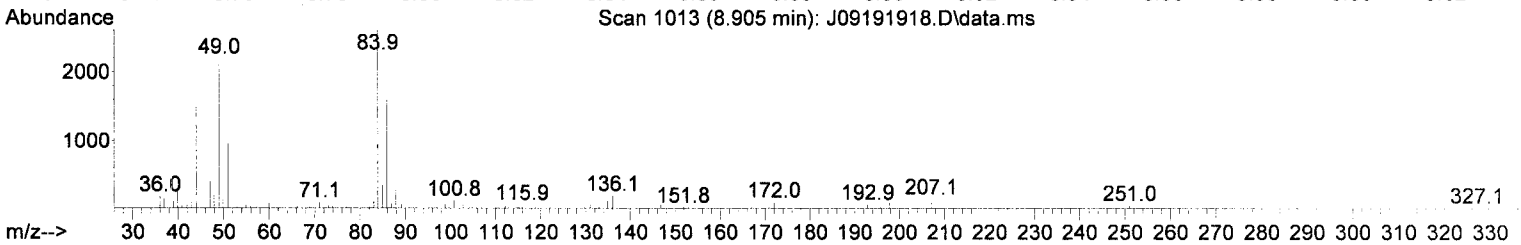
R = -3.95e-004 A*A + 3.91e-001 A - 4.45e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

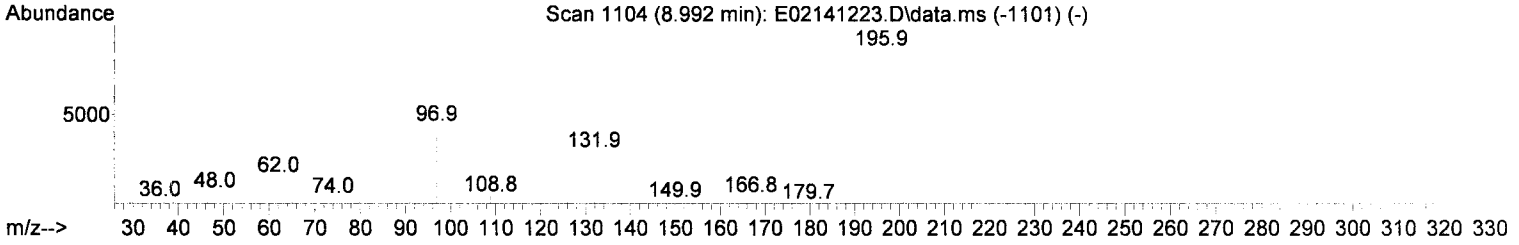
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







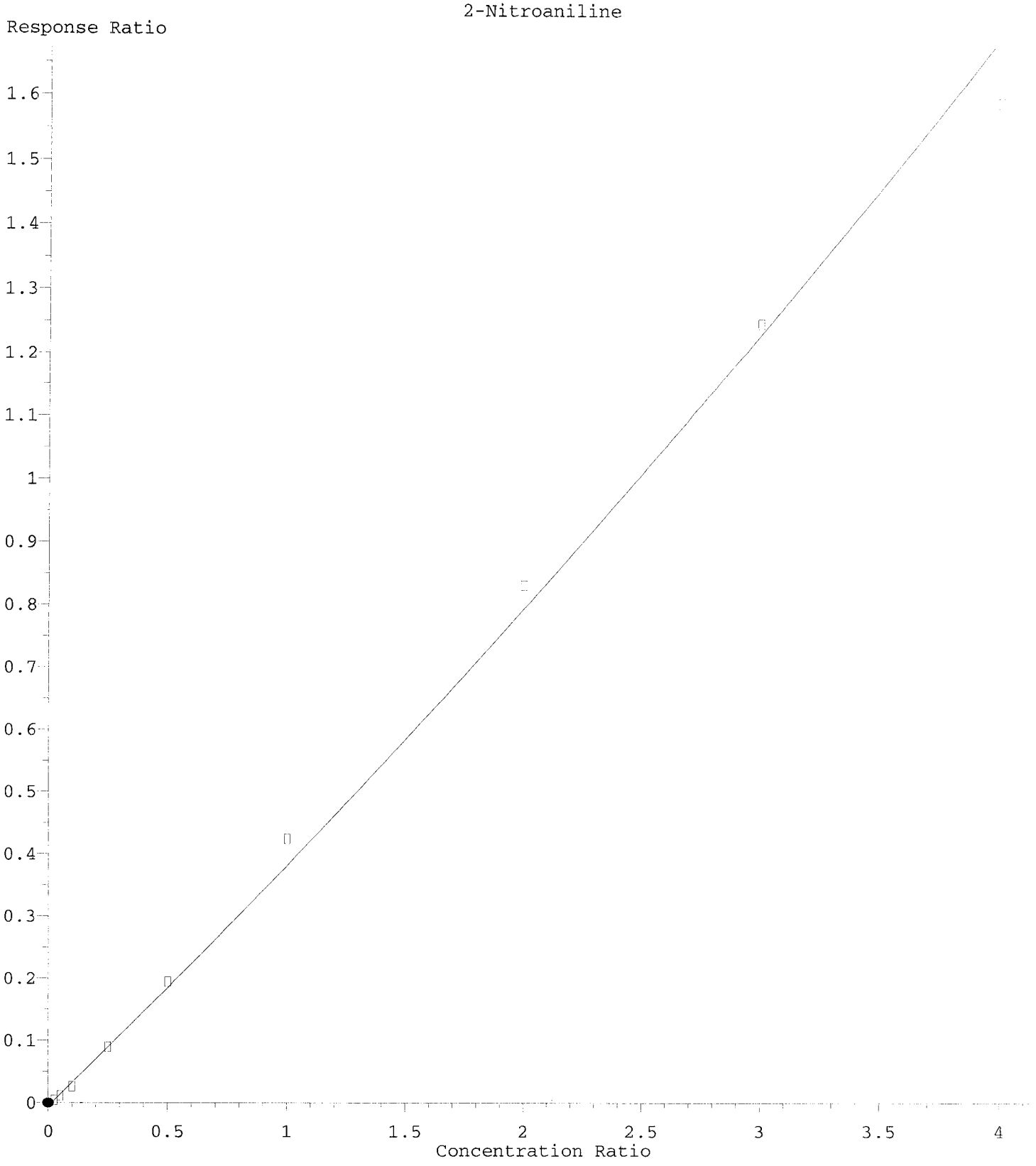
TIC: J09191918.D\data.ms

(38) 2,4,5-Trichlorophenol (T)

8.905min (+ 0.033) 23.67 ng/ml m

response 113

Ion	Exp%	Act%
197.90	100.00	100.00
195.90	103.40	26.40#
199.90	32.90	21.60
0.00	0.00	0.00

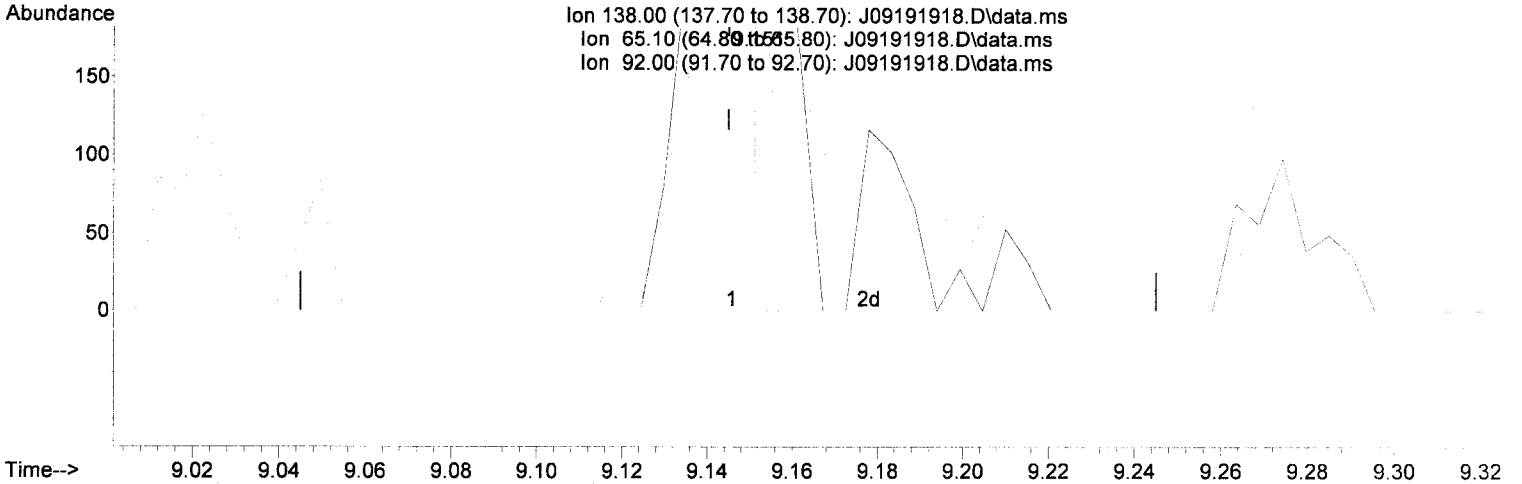


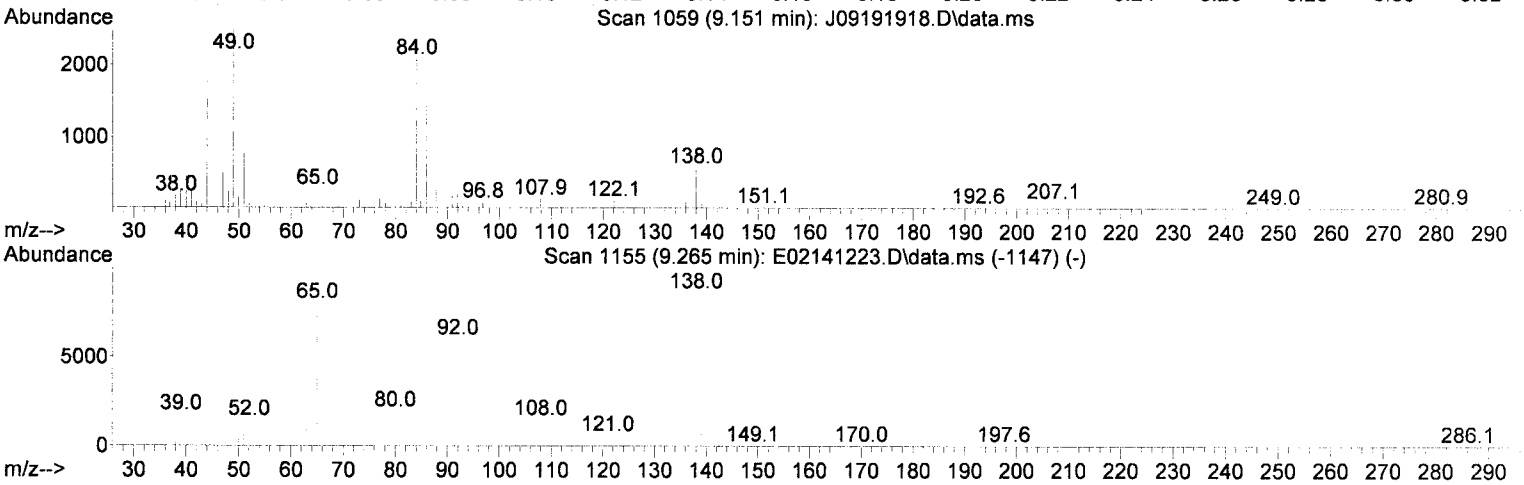
R = 1.23e-002 A*A + 3.75e-001 A - 5.72e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10





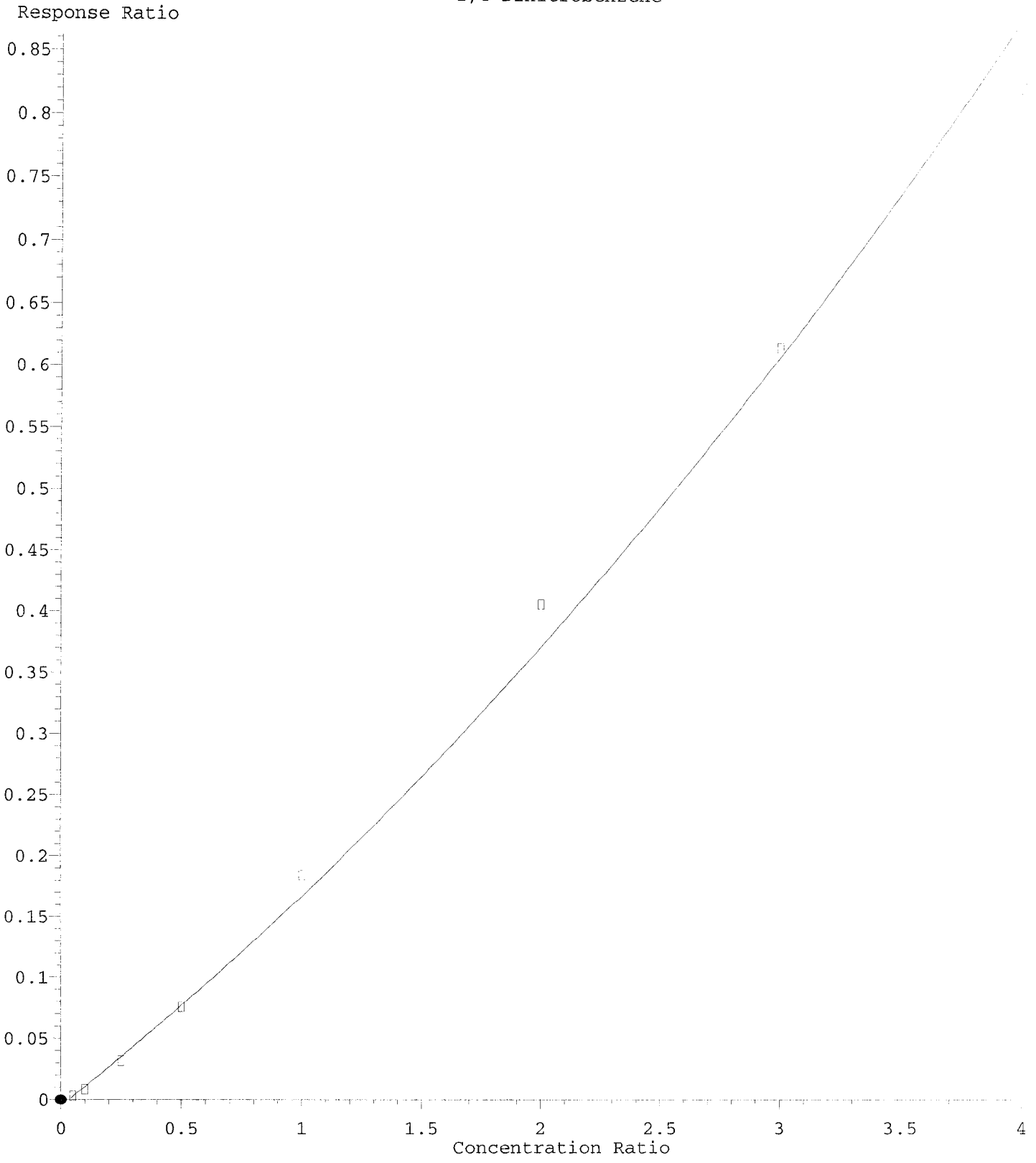
TIC: J09191918.D\data.ms

(42) 2-Nitroaniline (T)

9.151min (+ 0.006) 31.75 ng/ml m

response 155

Ion	Exp%	Act%
138.00	100.00	100.00
65.10	69.90	48.28
92.00	55.20	48.97
0.00	0.00	0.00

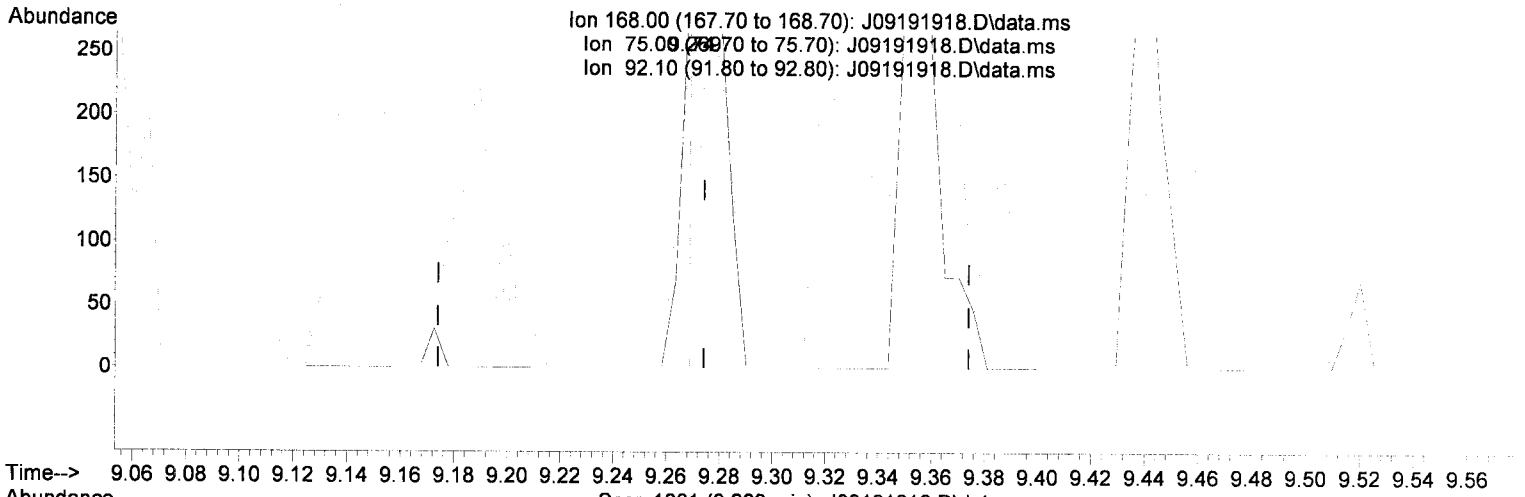


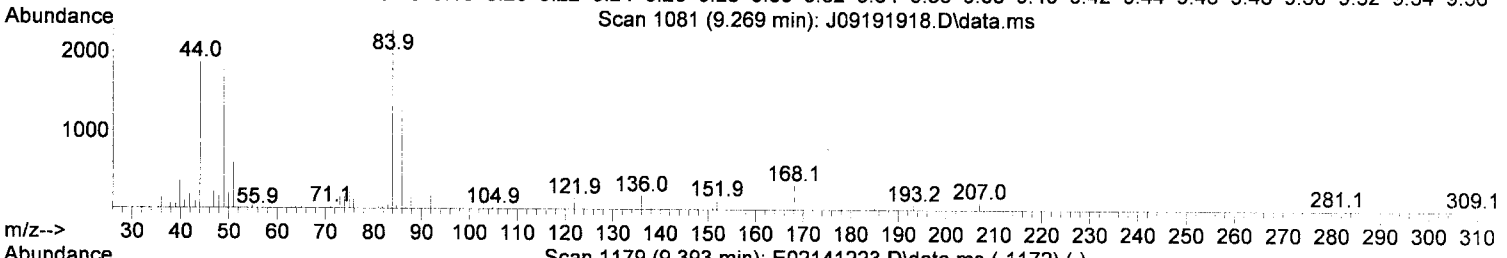
R = 1.61e-002 A*A + 1.56e-001 A - 5.19e-003
Coef of Det (r^2) = 0.993 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M

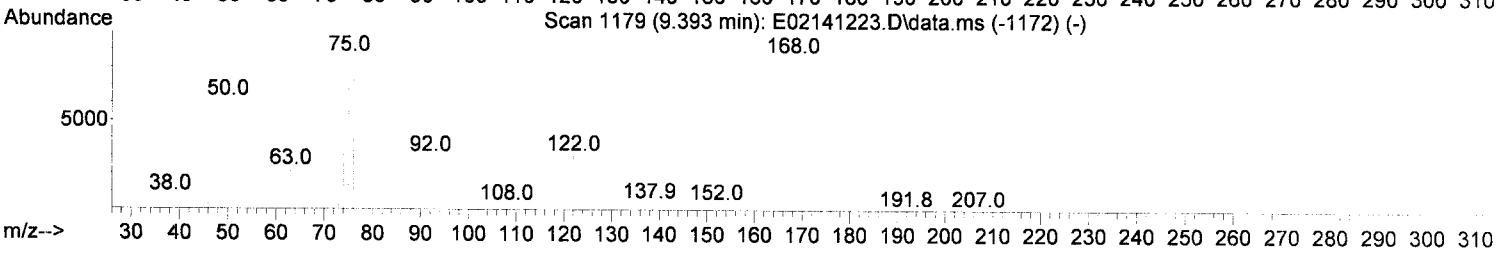
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







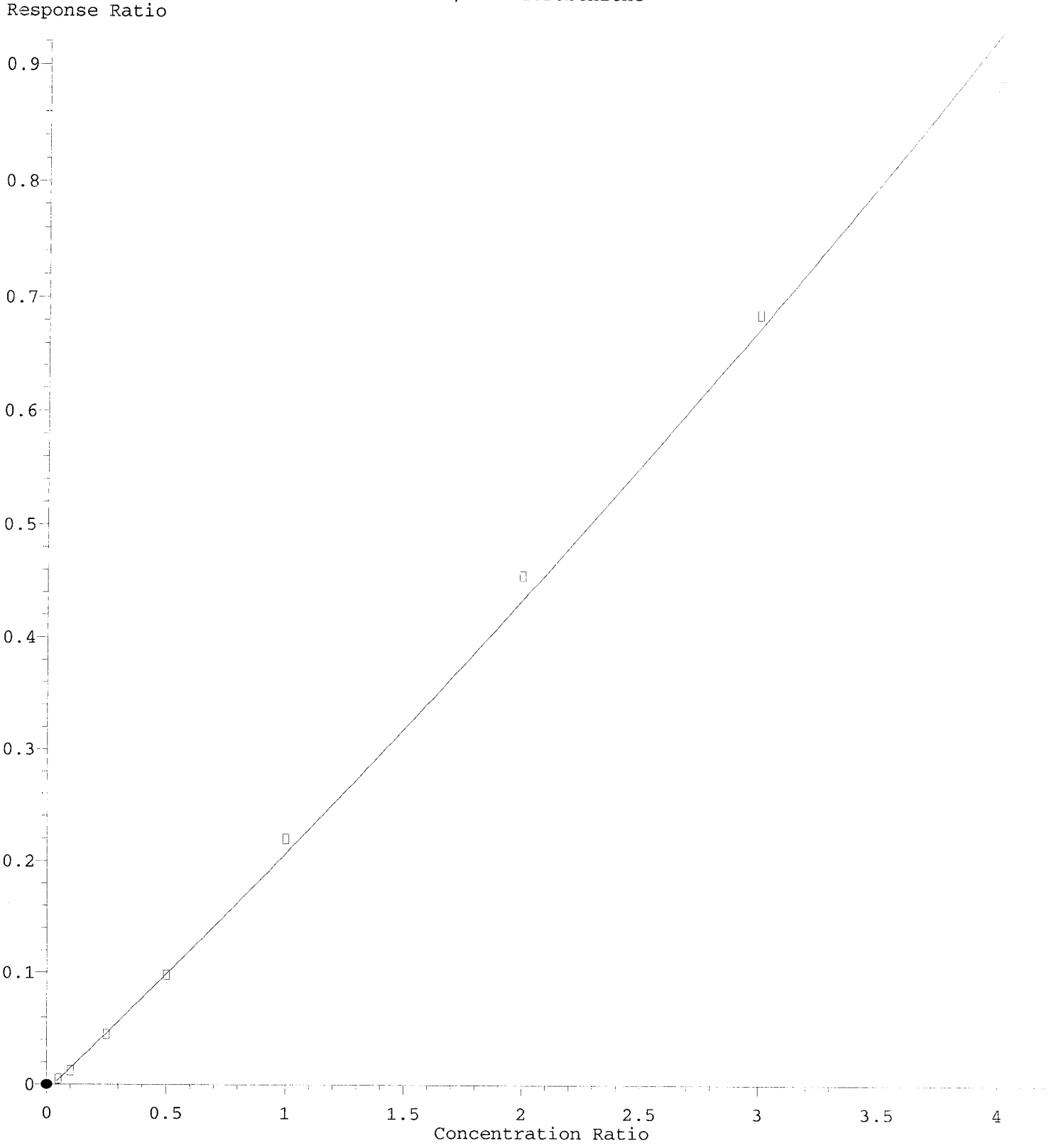
TIC: J09191918.D\data.ms

(44) 1,4-Dinitrobenzene (T)

9.269min (-0.005) 68.86 ng/ml m

response 130

Ion	Exp%	Act%
168.00	100.00	100.00
75.00	102.70	80.36
92.10	34.10	55.06
0.00	0.00	0.00

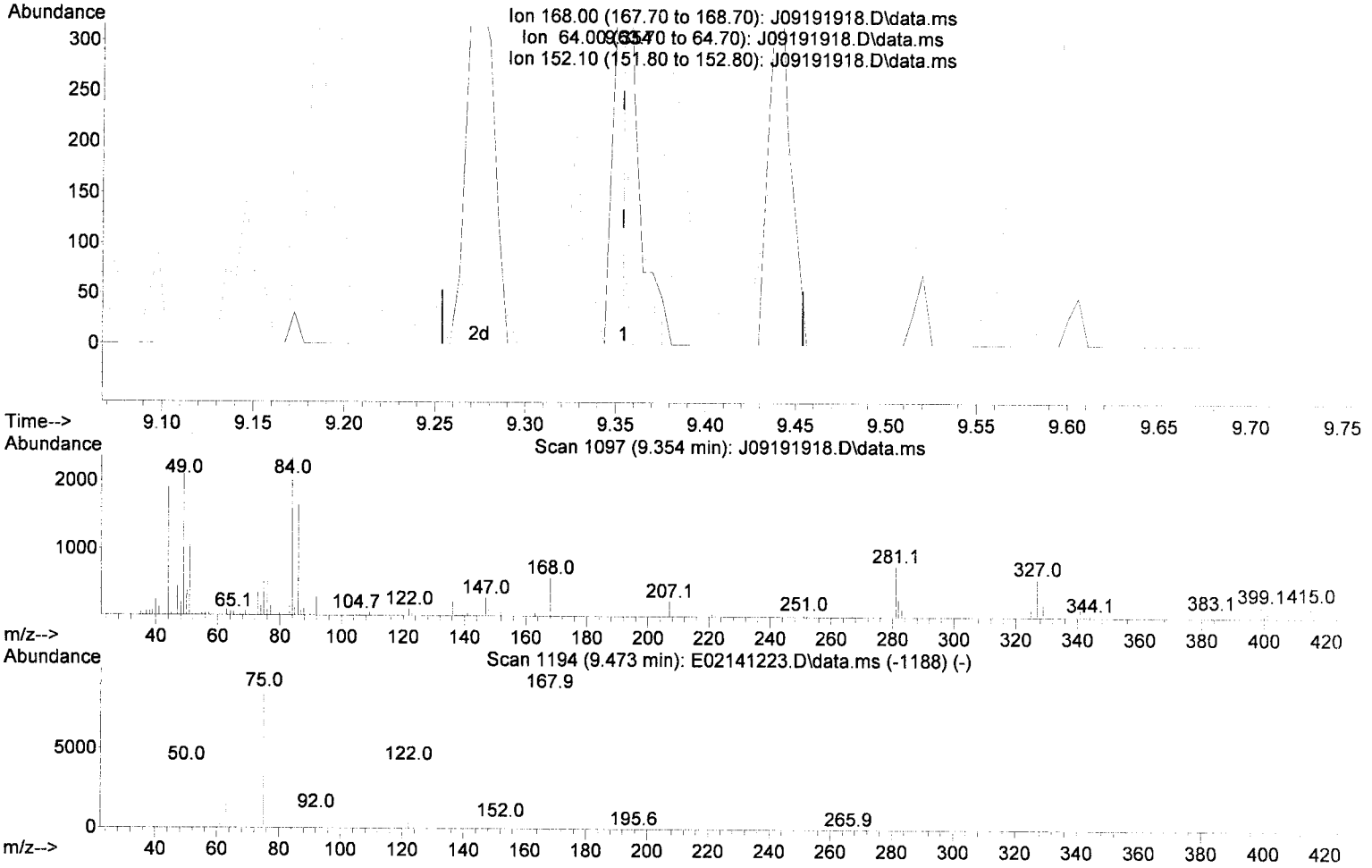


R = 6.81e-003 A*A + 2.06e-001 A - 5.98e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



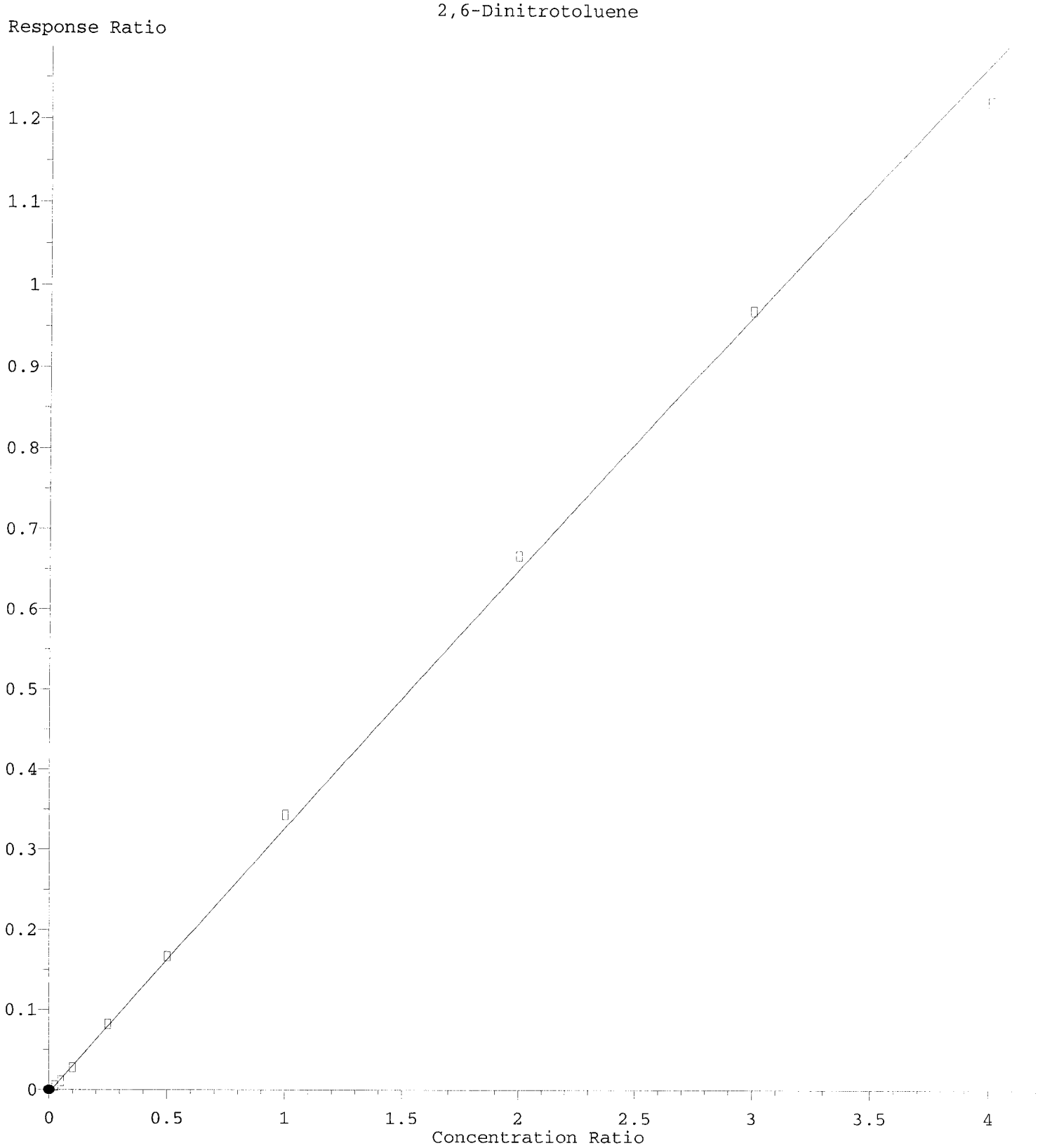
TIC: J09191918.D\data.ms

(46) 1,3-Dinitrobenzene (T)

9.354min (+ 0.000) 60.01 ng/ml m

response 141

Ion	Exp%	Act%
168.00	100.00	100.00
64.00	23.30	14.38
152.10	9.60	34.76
0.00	0.00	0.00

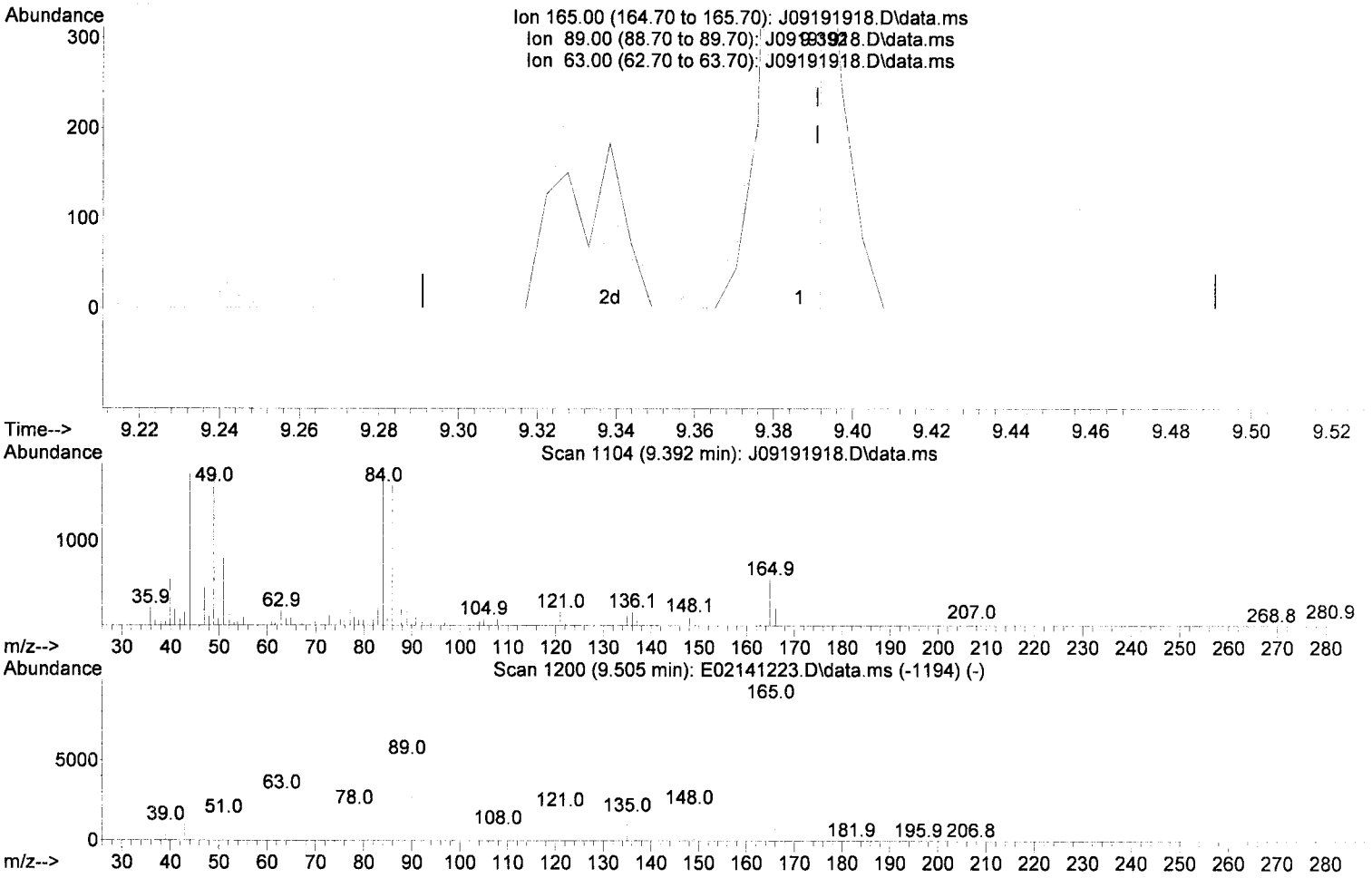


R = -4.24e-003 A*A + 3.35e-001 A - 4.20e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



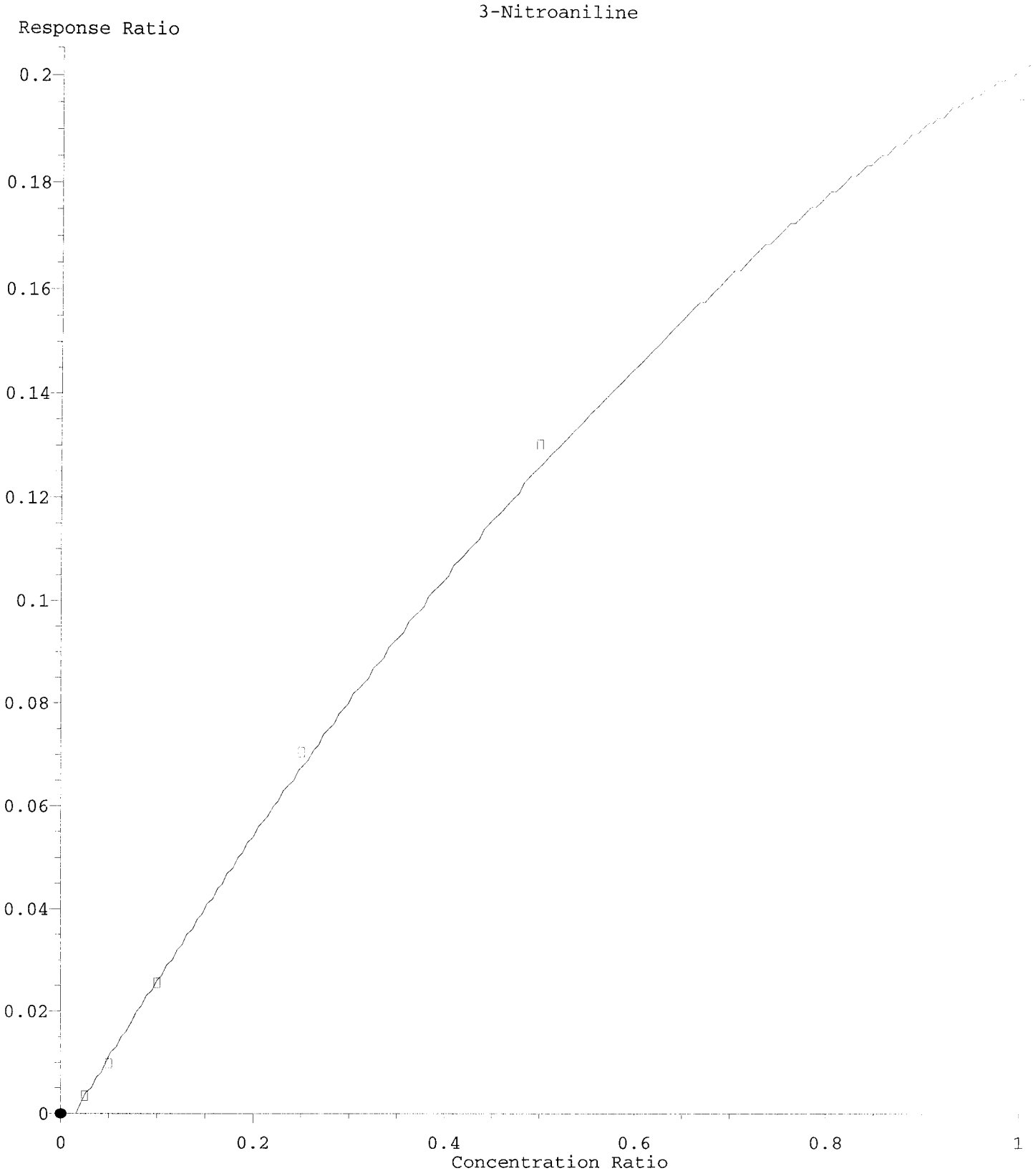
TIC: J09191918.D\data.ms

(47) 2,6-Dinitrotoluene (T)

9.392min (+ 0.001) 26.03 ng/ml m

response 103

Ion	Exp%	Act%
165.00	100.00	100.00
89.00	46.30	43.52
63.00	36.80	34.46
0.00	0.00	0.00

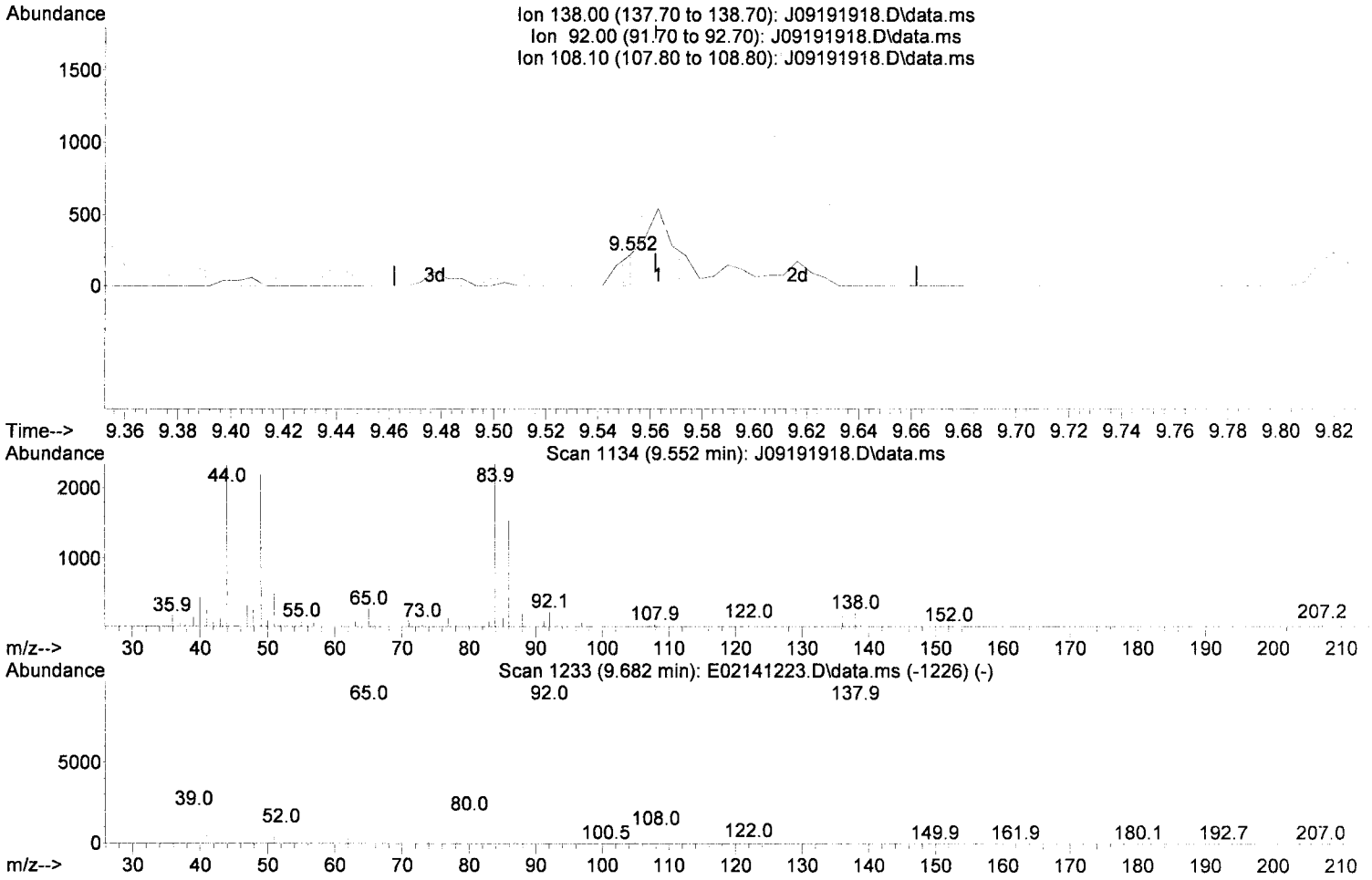


R = -1.10e-001 A*A + 3.17e-001 A - 4.68e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



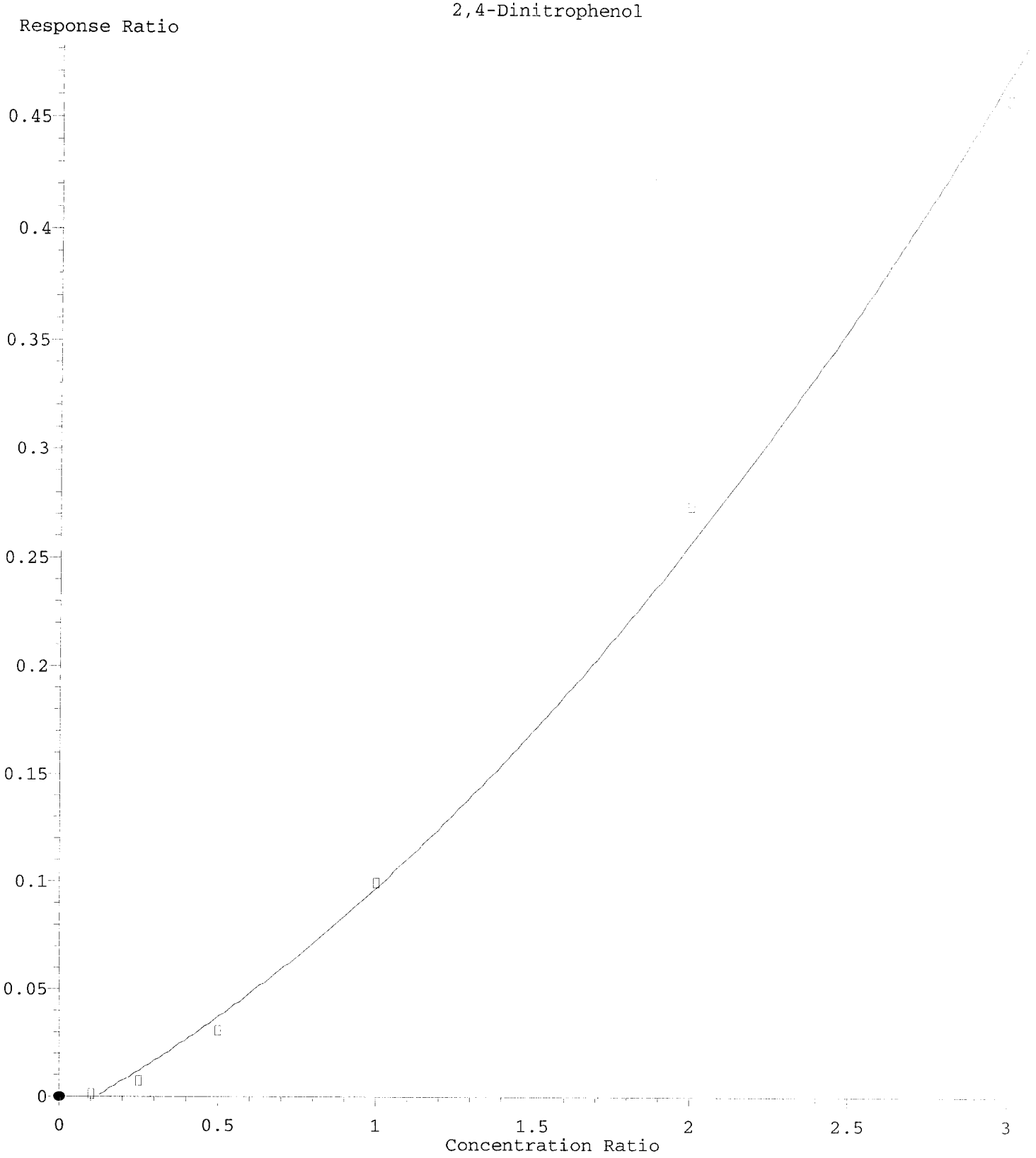
TIC: J09191918.D\data.ms

(50) 3-Nitroaniline (T)

9.552min (-0.010) 30.87 ng/ml m

response 116

Ion	Exp%	Act%
138.00	100.00	100.00
92.00	100.10	107.34
108.10	10.00	24.31
0.00	0.00	0.00

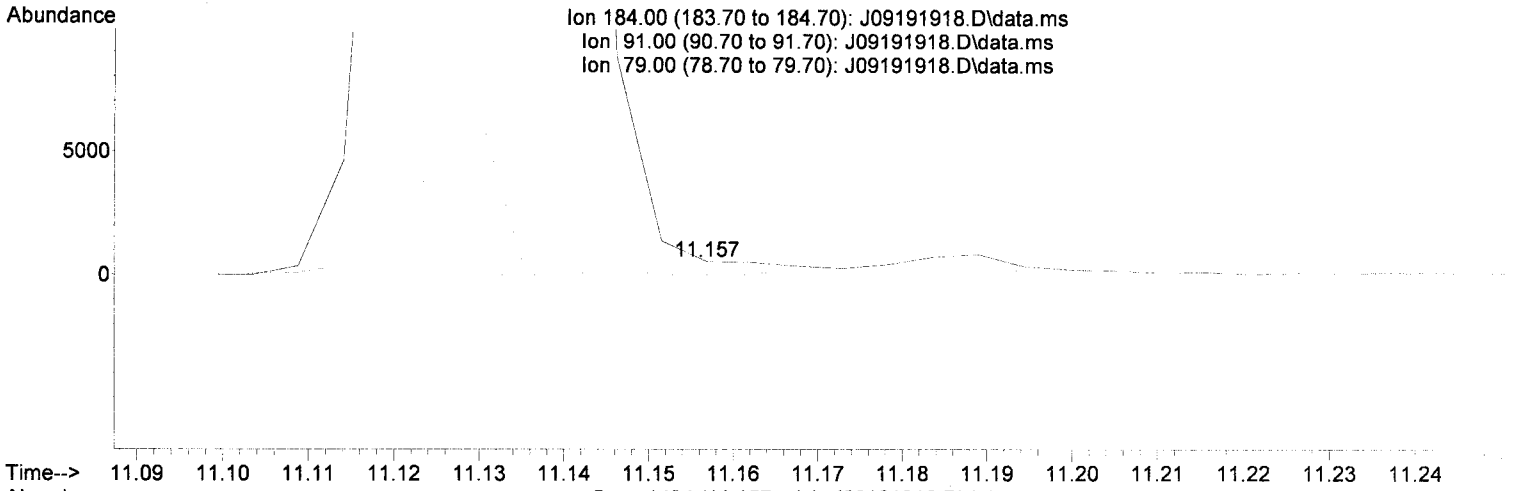


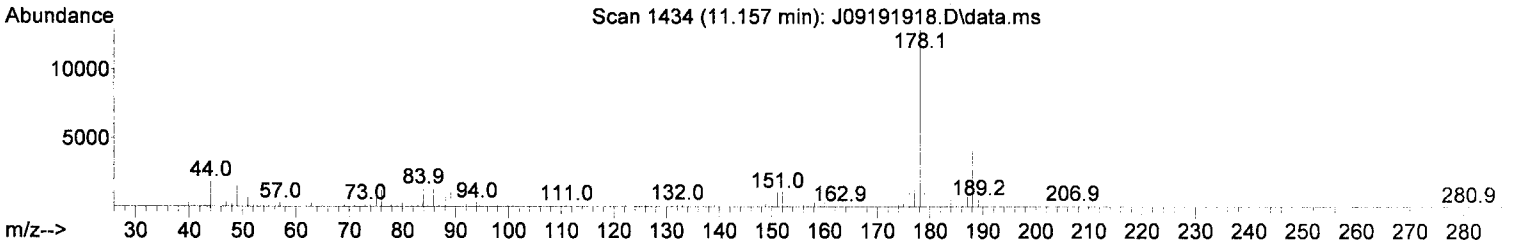
R = 2.65e-002 A*A + 8.01e-002 A - 9.46e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w/(1/a)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

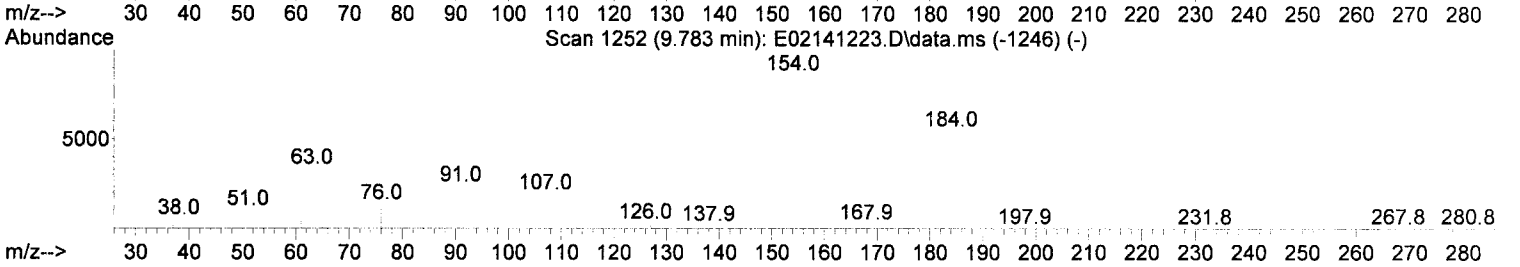
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







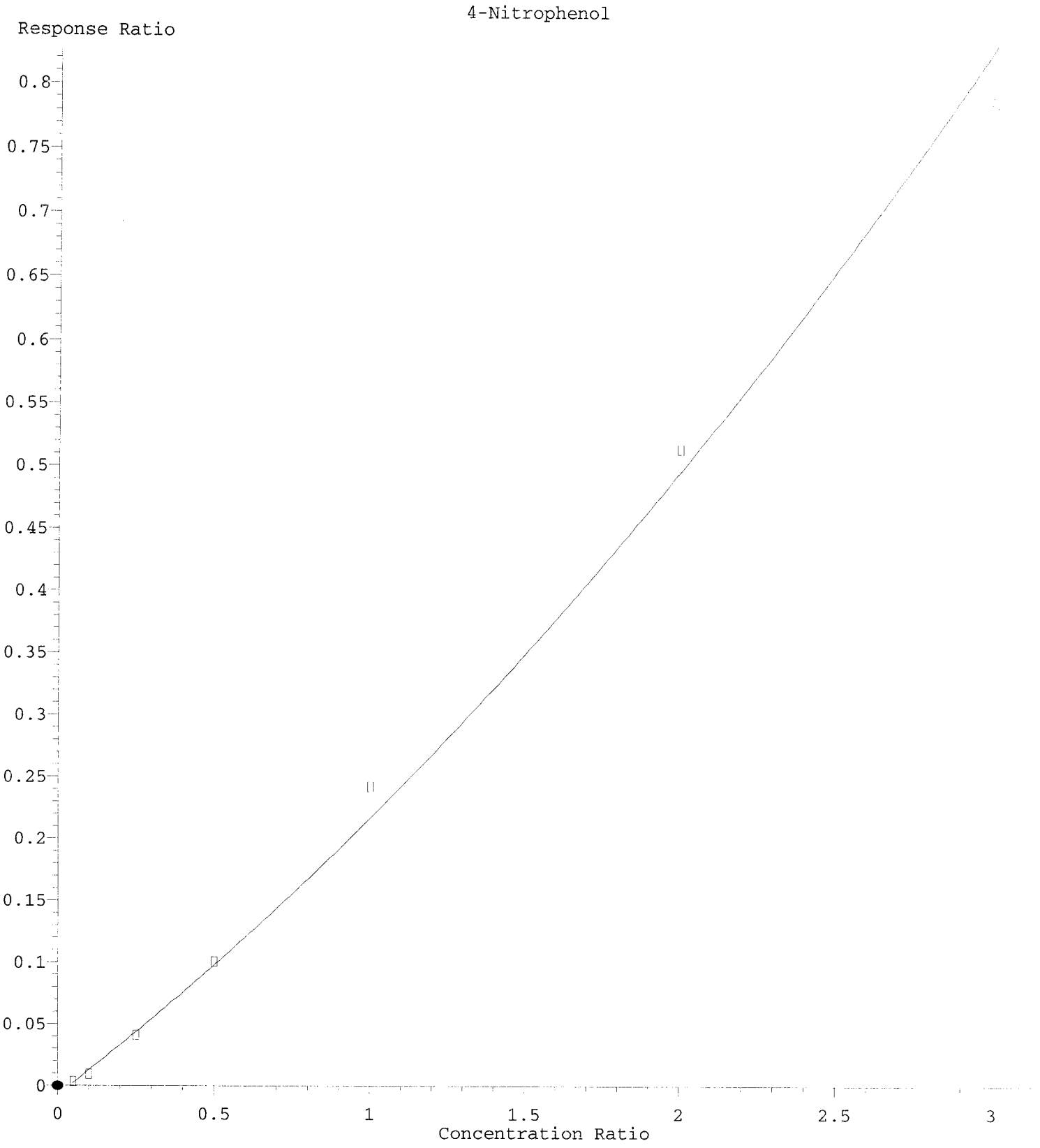
TIC: J09191918.D\data.ms

(52) 2,4-Dinitrophenol (T)

11.157min (+ 1.493) 233.65 ng/ml m

response 166

Ion	Exp%	Act%
184.00	100.00	100.00
91.00	42.80	6.68#
79.00	26.10	17.15
0.00	0.00	0.00

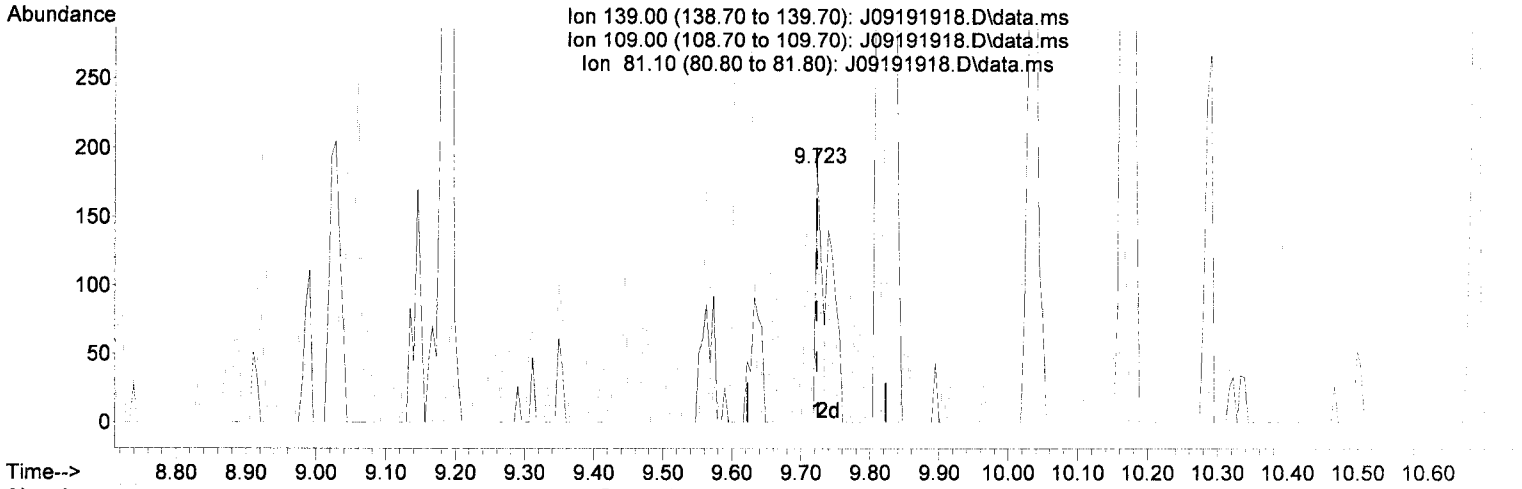


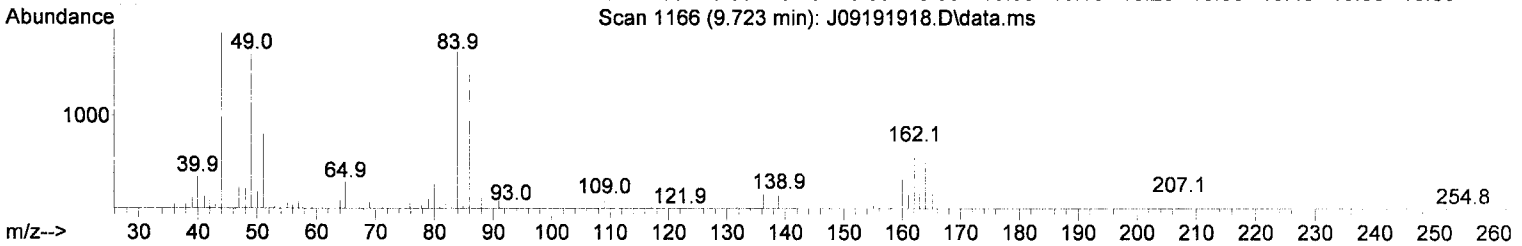
R = 2.73e-002 A*A + 1.97e-001 A - 7.29e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\Sv10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

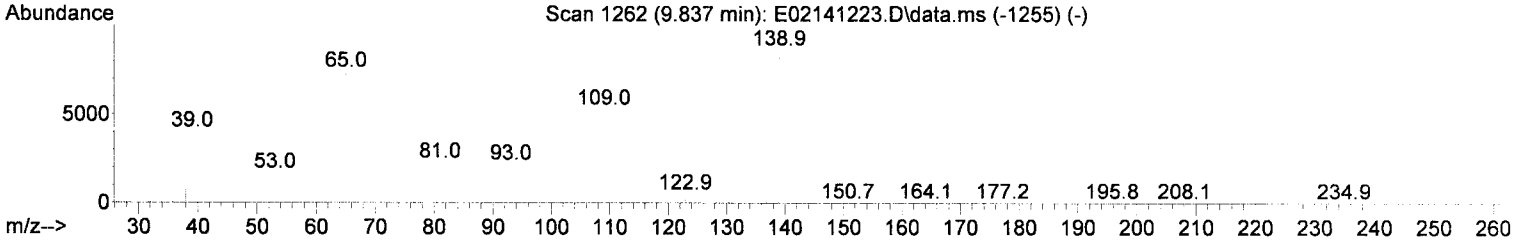
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







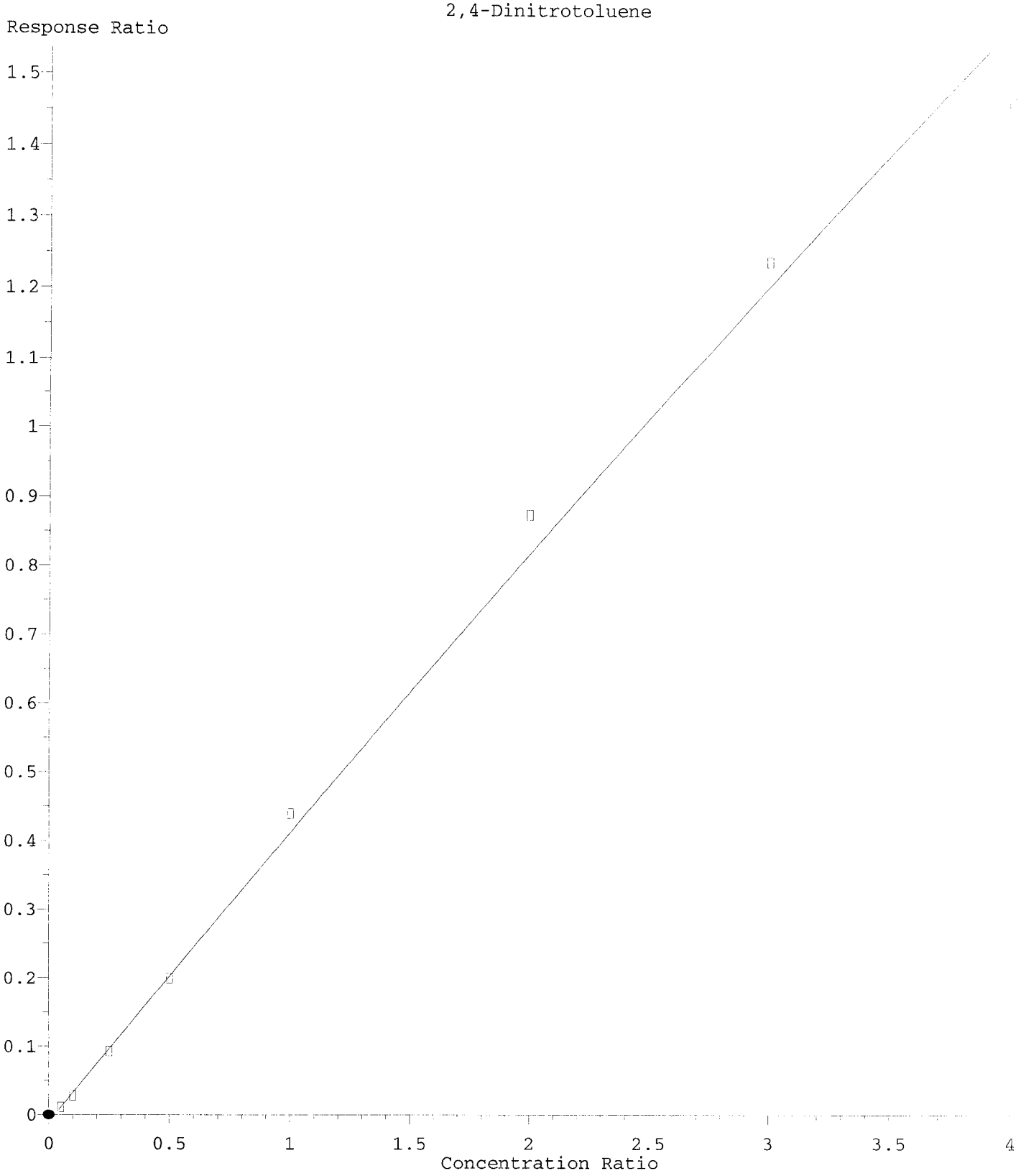
TIC: J09191918.D\data.ms

(53) 4-Nitrophenol (T)

9.723min (+ 0.000) 75.63 ng/ml

response 120

Ion	Exp%	Act%
139.00	100.00	100.00
109.00	58.50	72.04
81.10	23.90	27.42
0.00	0.00	0.00

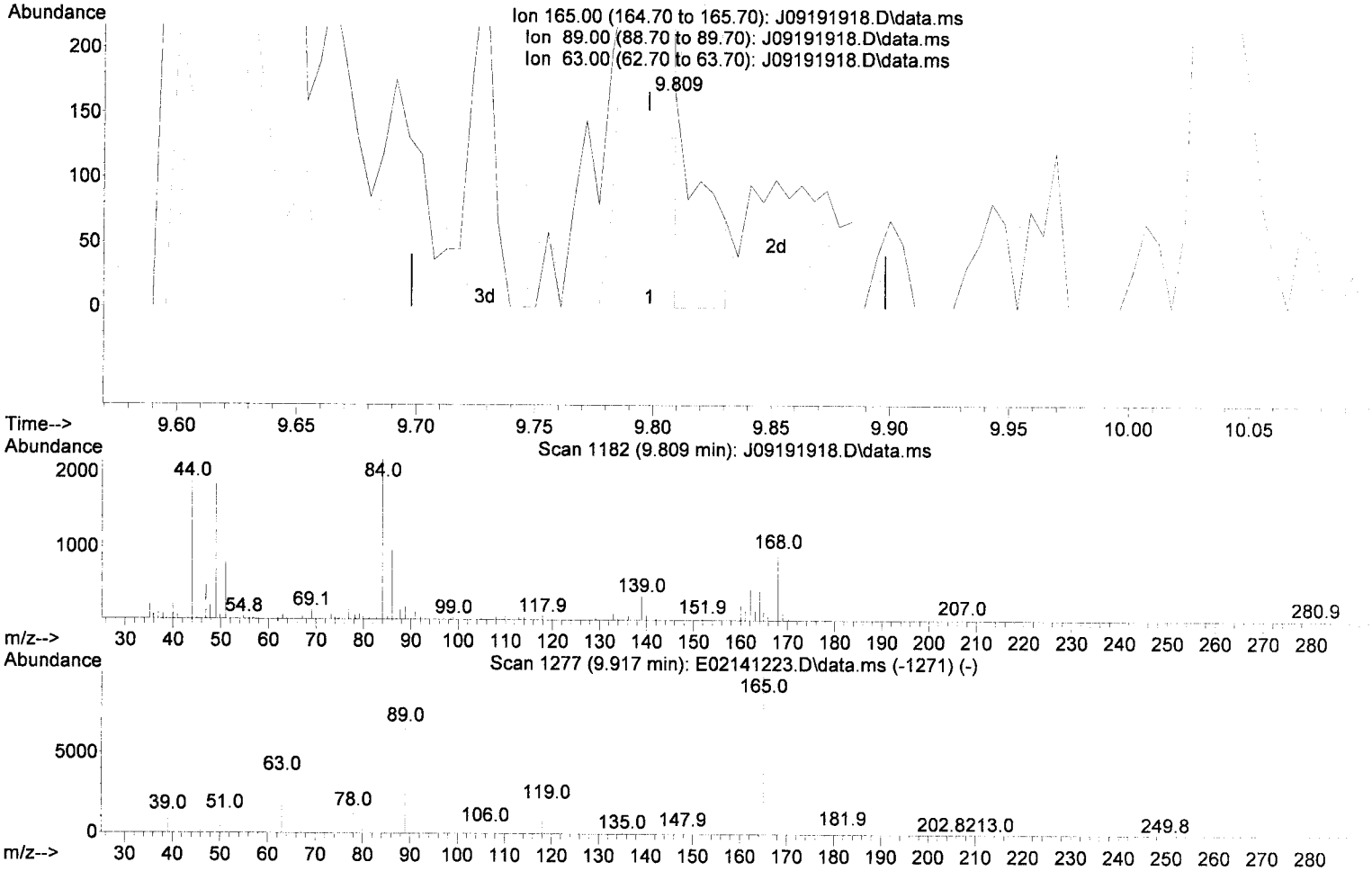


R = -9.39e-003 A*A + 4.33e-001 A - 1.16e-002
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



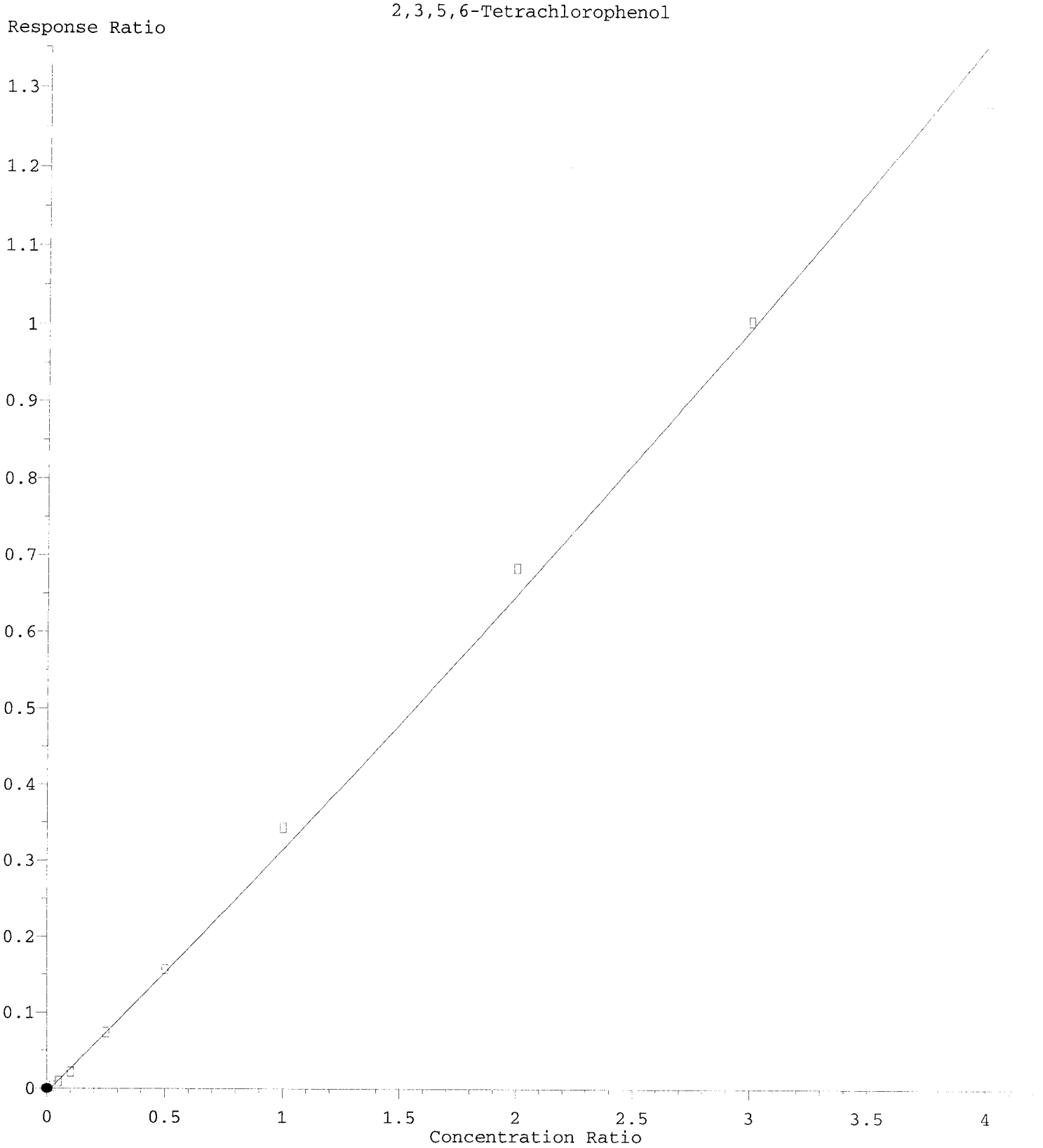
TIC: J09191918.D\data.ms

(54) 2,4-Dinitrotoluene (T)

9.809min (+ 0.011) 54.53 ng/ml m

response 109

Ion	Exp%	Act%
165.00	100.00	100.00
89.00	61.80	135.76#
63.00	32.90	55.76
0.00	0.00	0.00

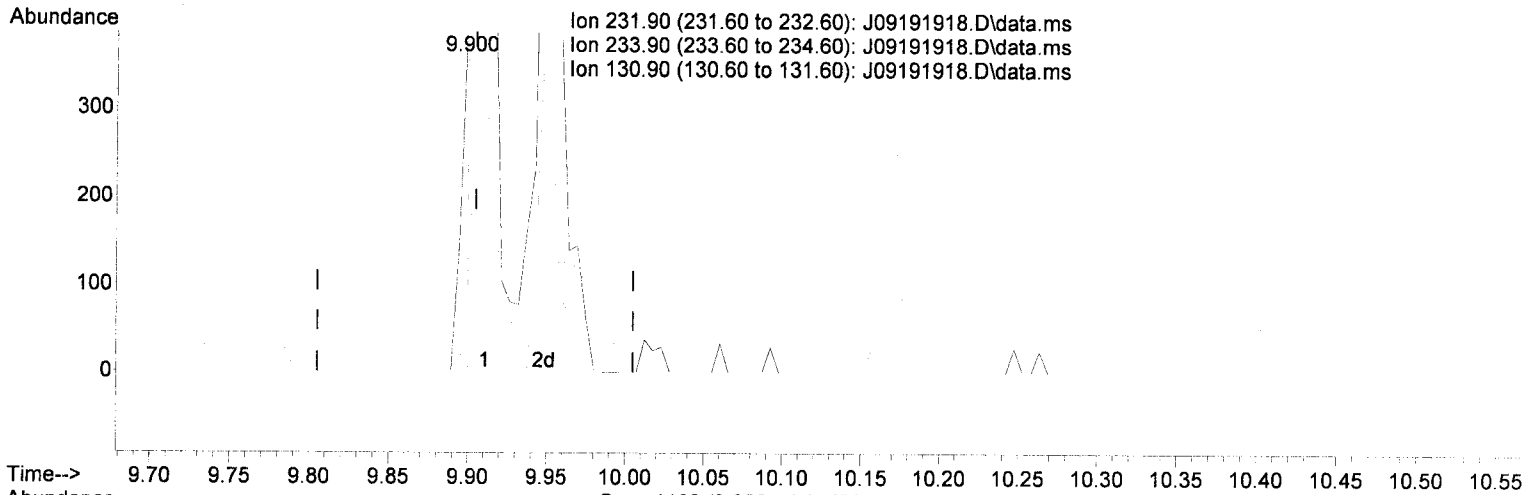


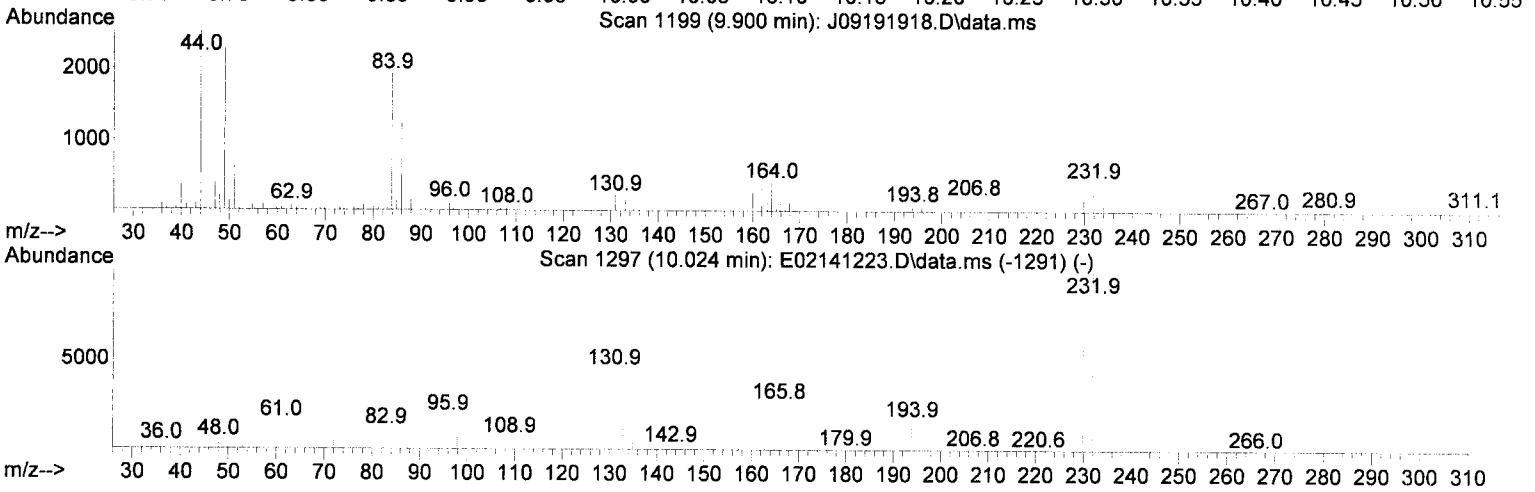
R = 6.93e-003 A*A + 3.13e-001 A - 5.57e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10





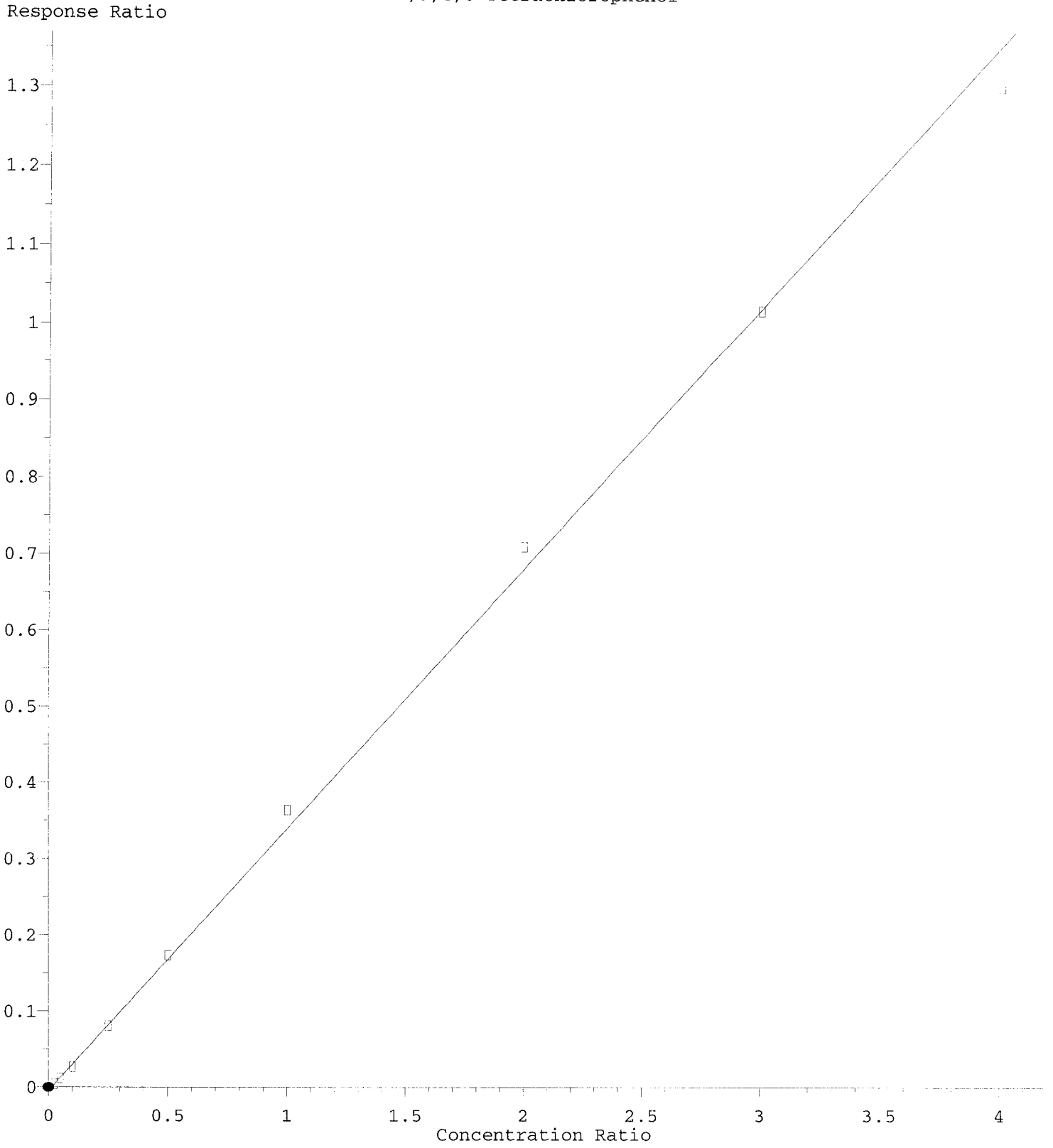
TIC: J09191918.D\data.ms

(56) 2,3,5,6-Tetrachlorophenol (T)

9.900min (-0.005) 37.40 ng/ml m

response 188

Ion	Exp%	Act%
231.90	100.00	100.00
233.90	48.30	24.72
130.90	40.60	55.10
0.00	0.00	0.00

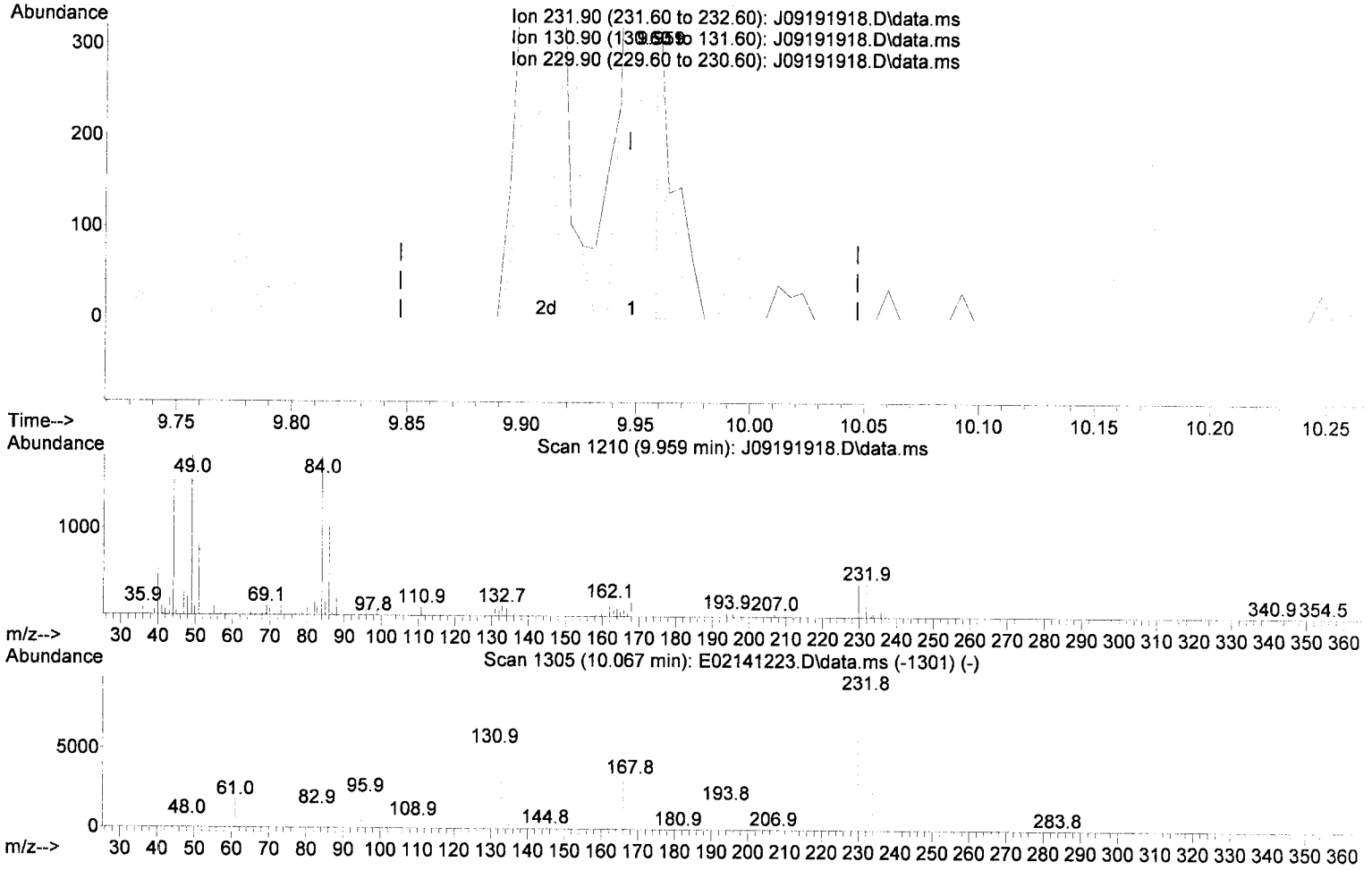


R = -1.57e-003 A*A + 3.46e-001 A - 4.91e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



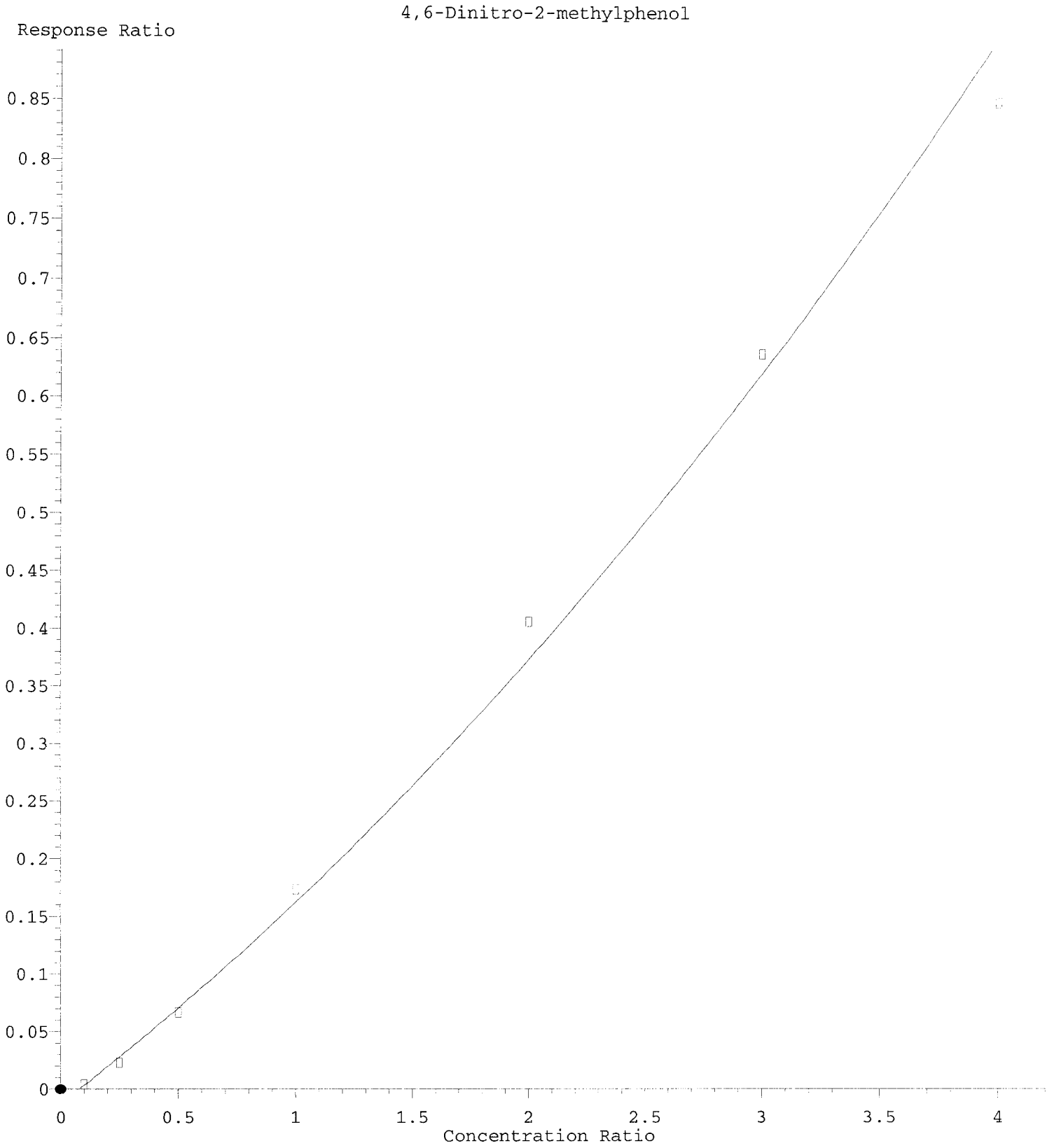
TIC: J09191918.D\data.ms

(57) 2,3,4,6-Tetrachlorophenol (T)

9.959min (+ 0.012) 29.40 ng/ml m

response 112

Ion	Exp%	Act%
231.90	100.00	100.00
130.90	45.50	28.97
229.90	77.80	98.74
0.00	0.00	0.00

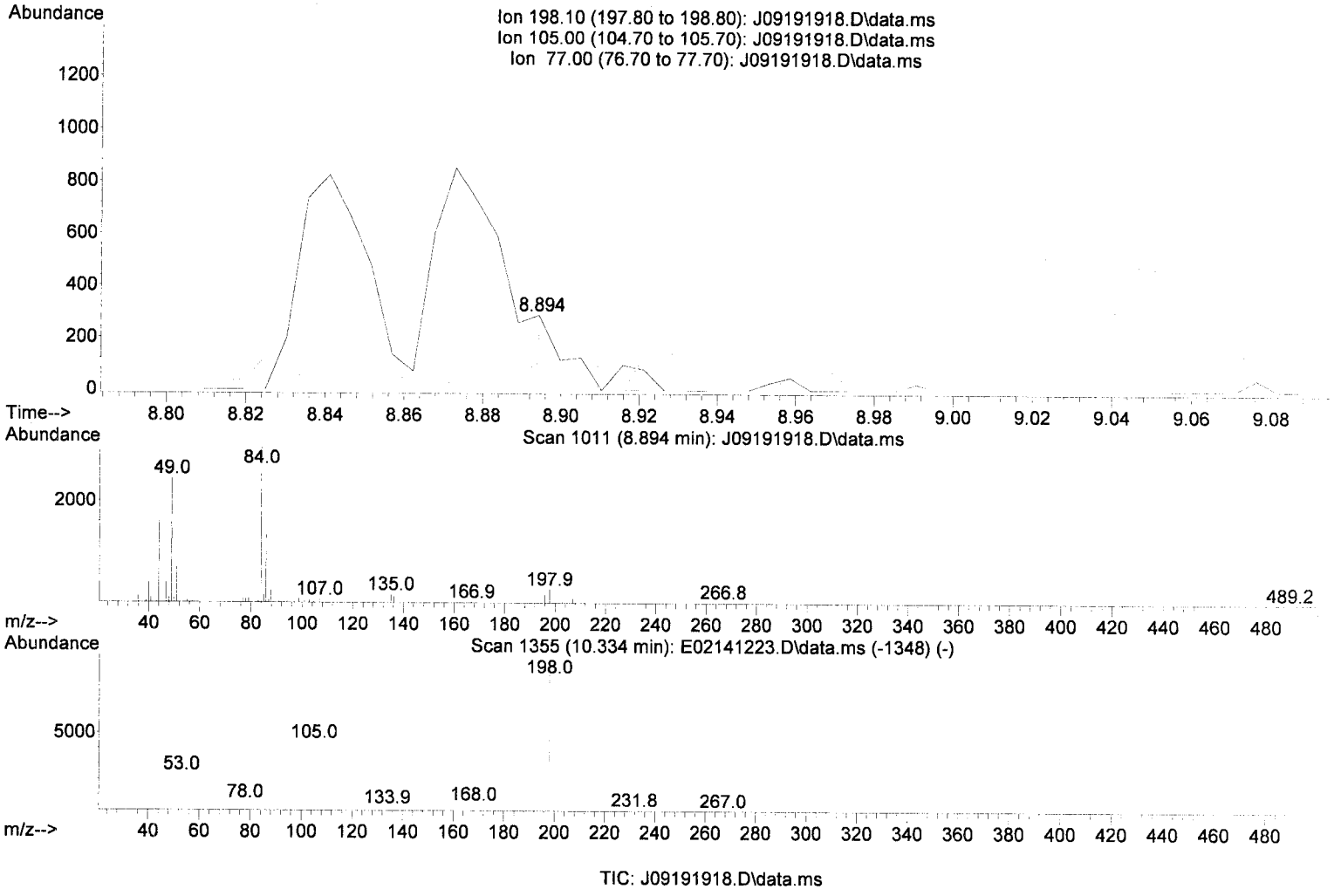


R = 1.79e-002 A*A + 1.57e-001 A - 1.26e-002
Coef of Det (r^2) = 0.993 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



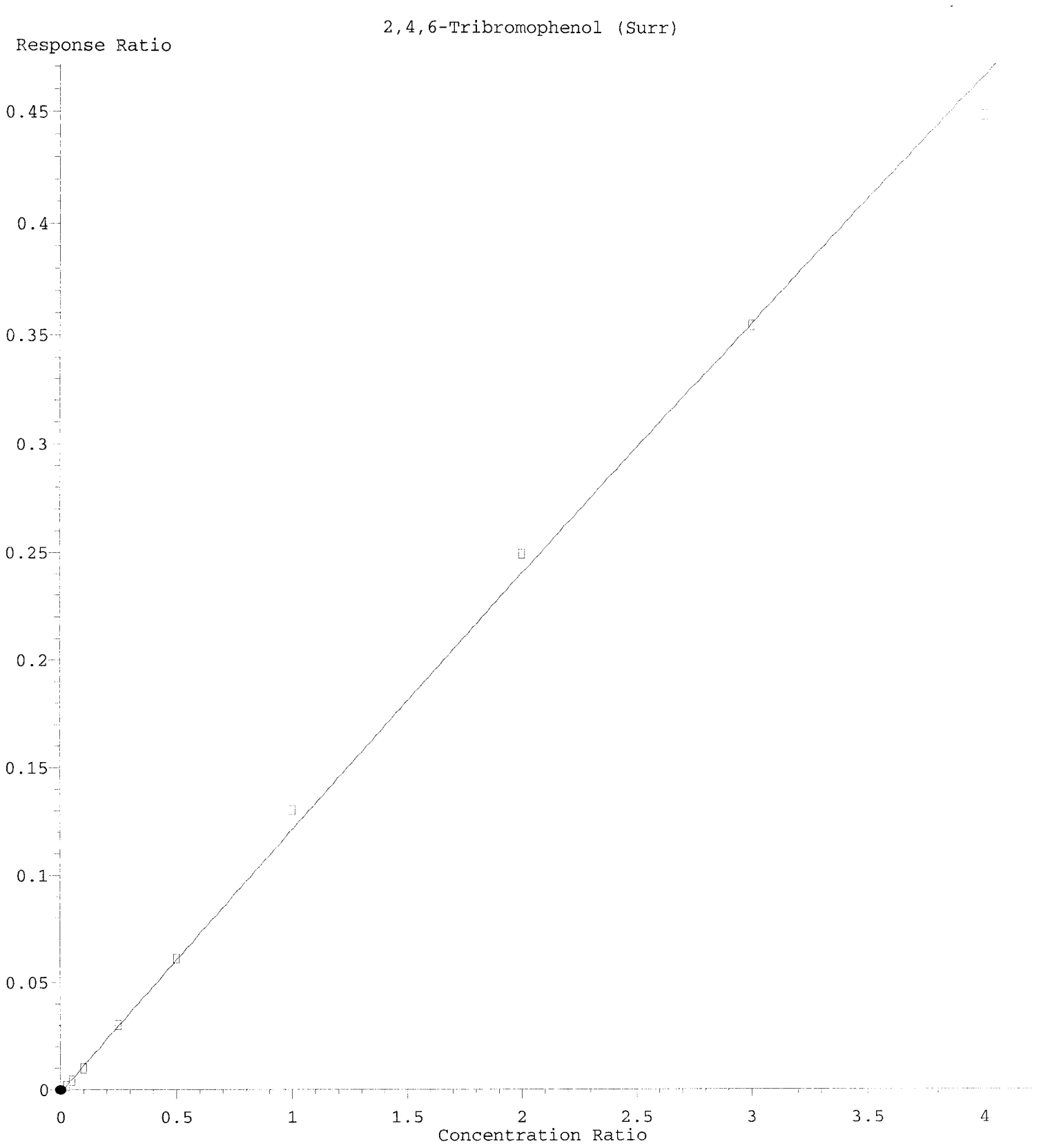
TIC: J09191918.D\data.ms

(63) 4,6-Dinitro-2-methylphenol (T)

8.894min (-1.321) 161.35 ng/ml m

response 134

Ion	Exp%	Act%
198.10	100.00	100.00
105.00	40.70	9.00#
77.00	20.00	37.37
0.00	0.00	0.00

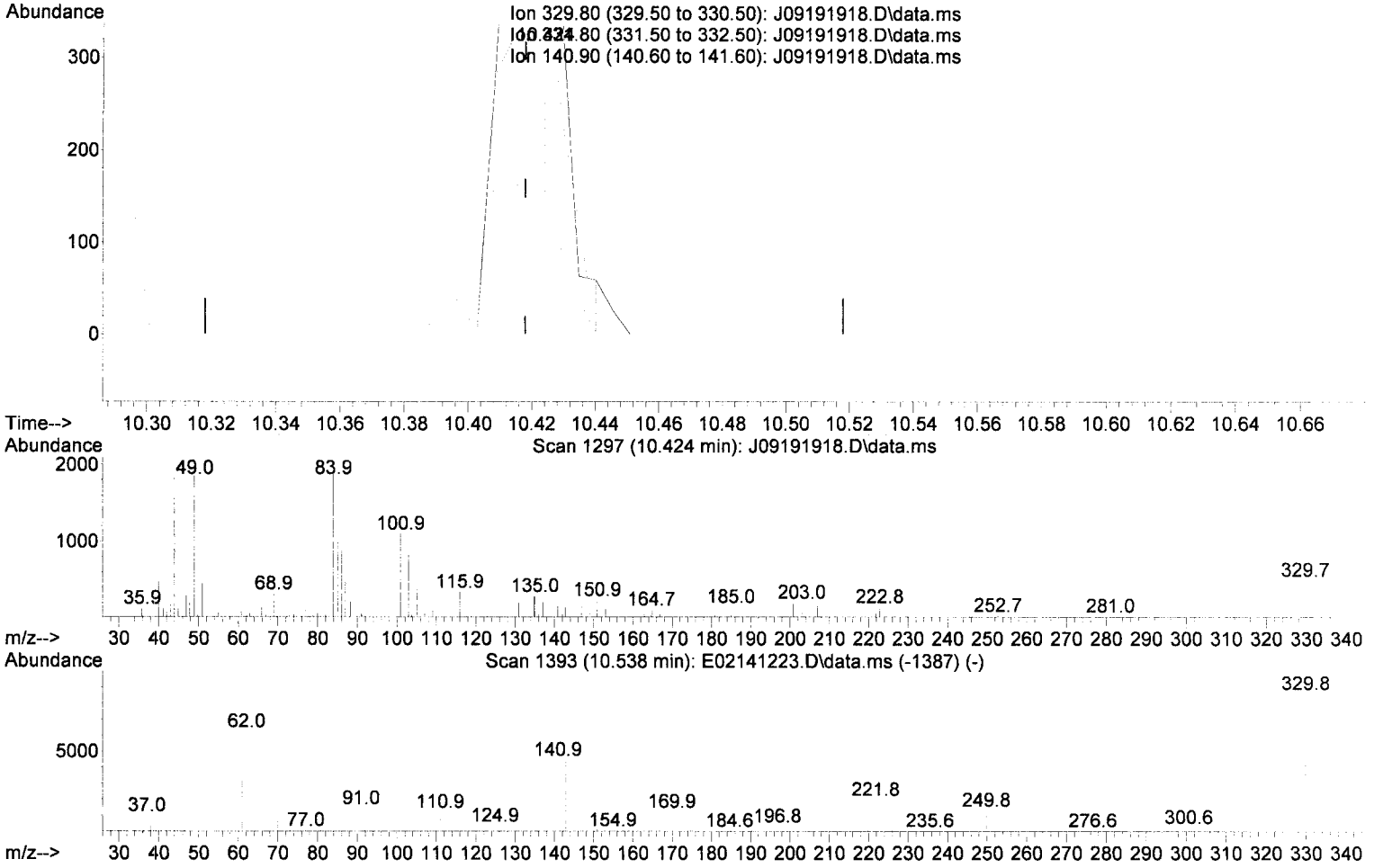


R = -1.82e-003 A*A + 1.24e-001 A - 1.50e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic,w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



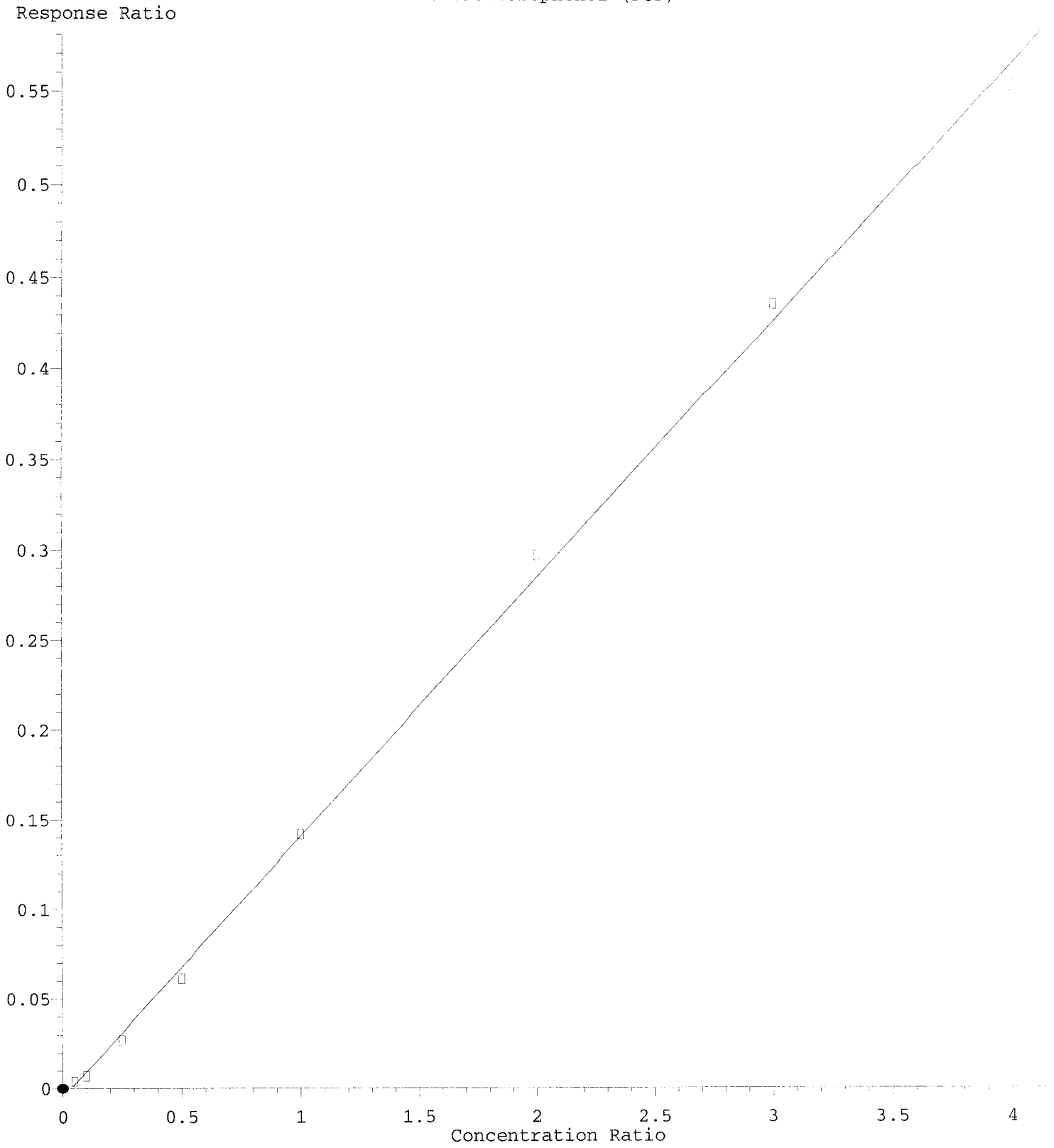
TIC: J09191918.D\data.ms

(67) 2,4,6-Tribromophenol (Surr) (S)

10.424min (+ 0.006) 26.15 ng/ml m

response 151

Ion	Exp%	Act%
329.80	100.00	100.00
331.80	97.00	81.25
140.90	32.90	37.90
0.00	0.00	0.00

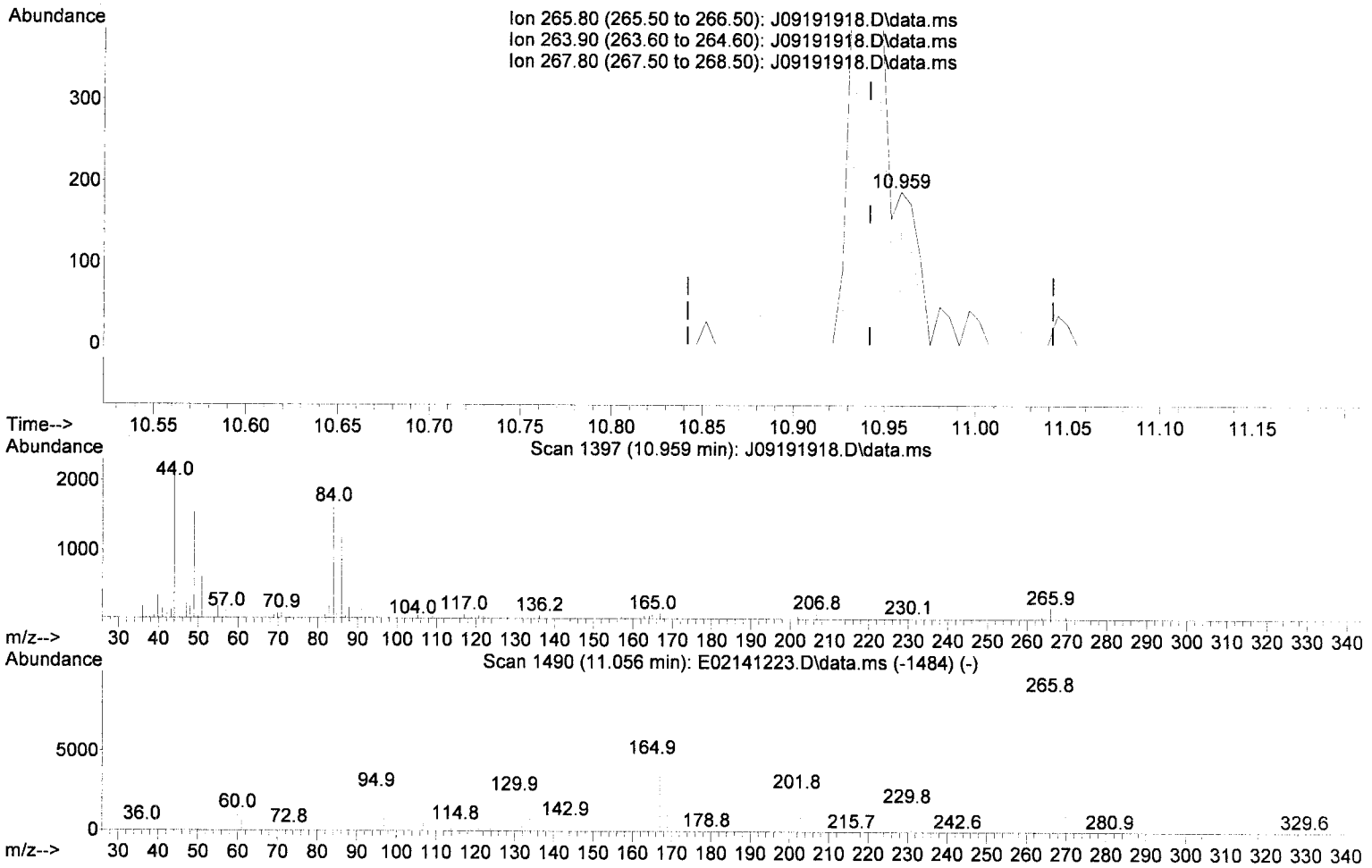


R = -1.05e-003 A*A + 1.47e-001 A - 5.64e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w/(1/a)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



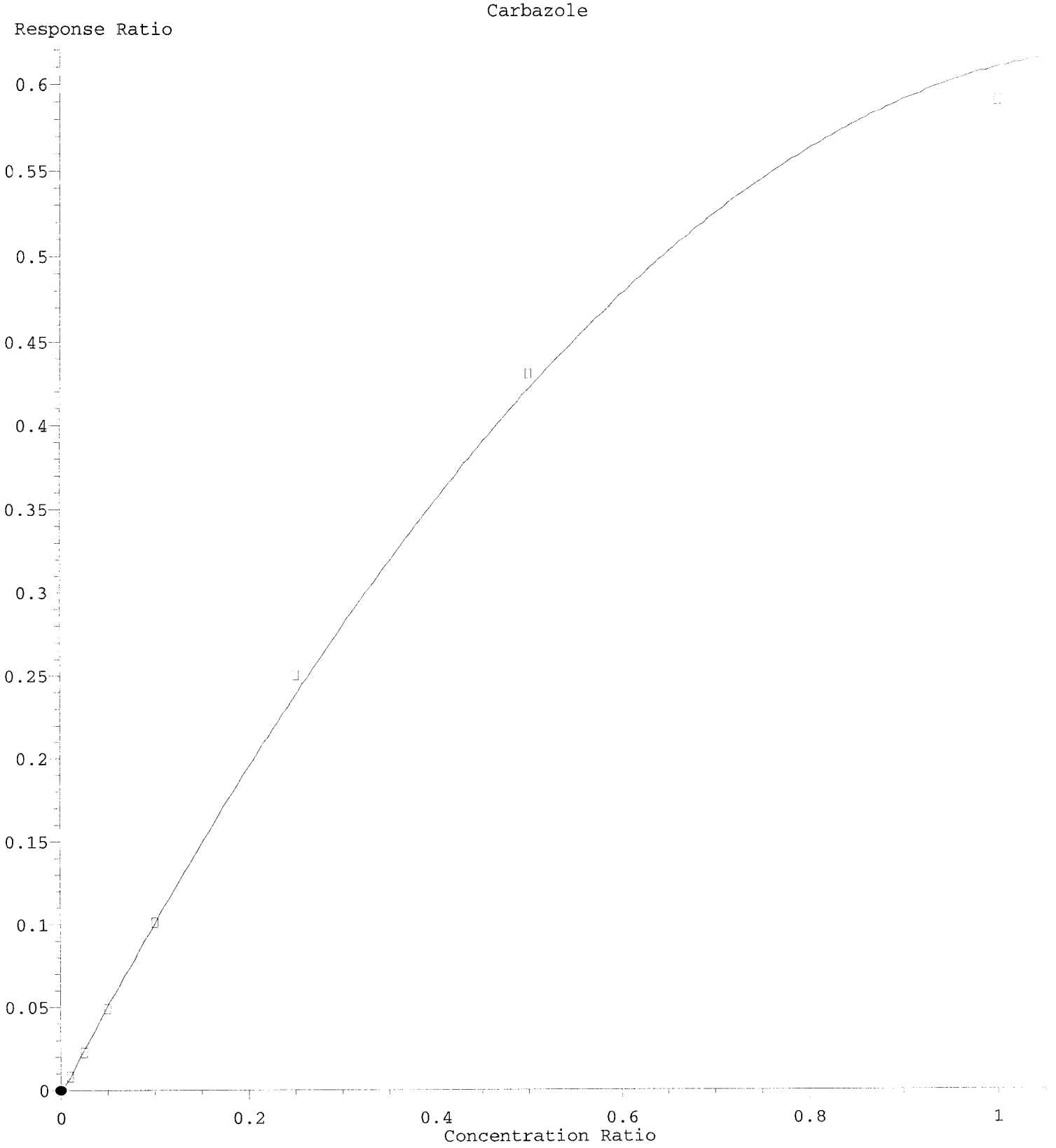
TIC: J09191918.D\data.ms

(70) Pentachlorophenol (PCP) (T)

10.959min (+ 0.017) 77.97 ng/ml m

response 116

Ion	Exp%	Act%
265.80	100.00	100.00
263.90	63.30	32.28#
267.80	64.70	0.00#
0.00	0.00	0.00

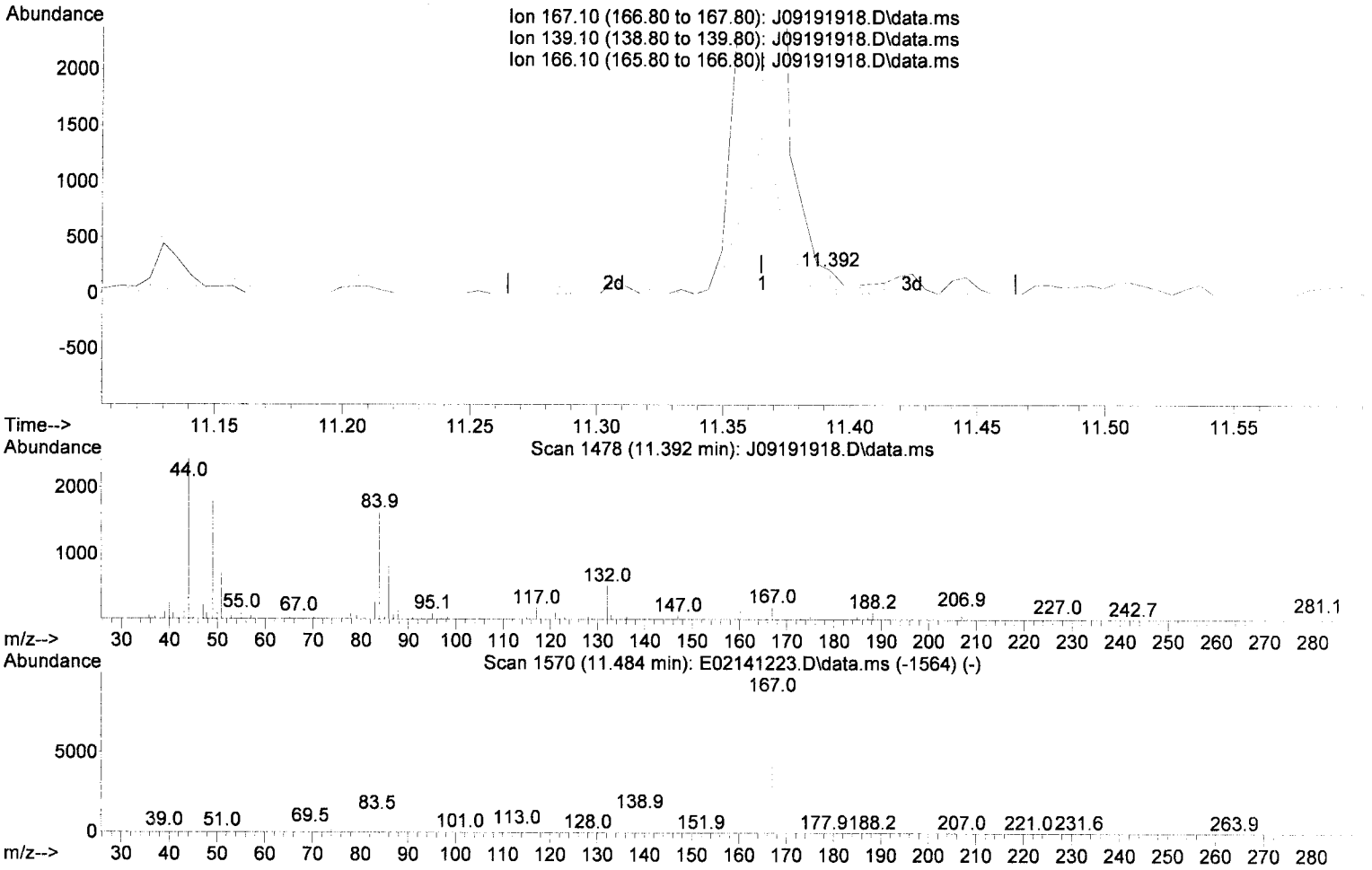


R = -4.70e-001 A*A + 1.08e+000 A - 3.03e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



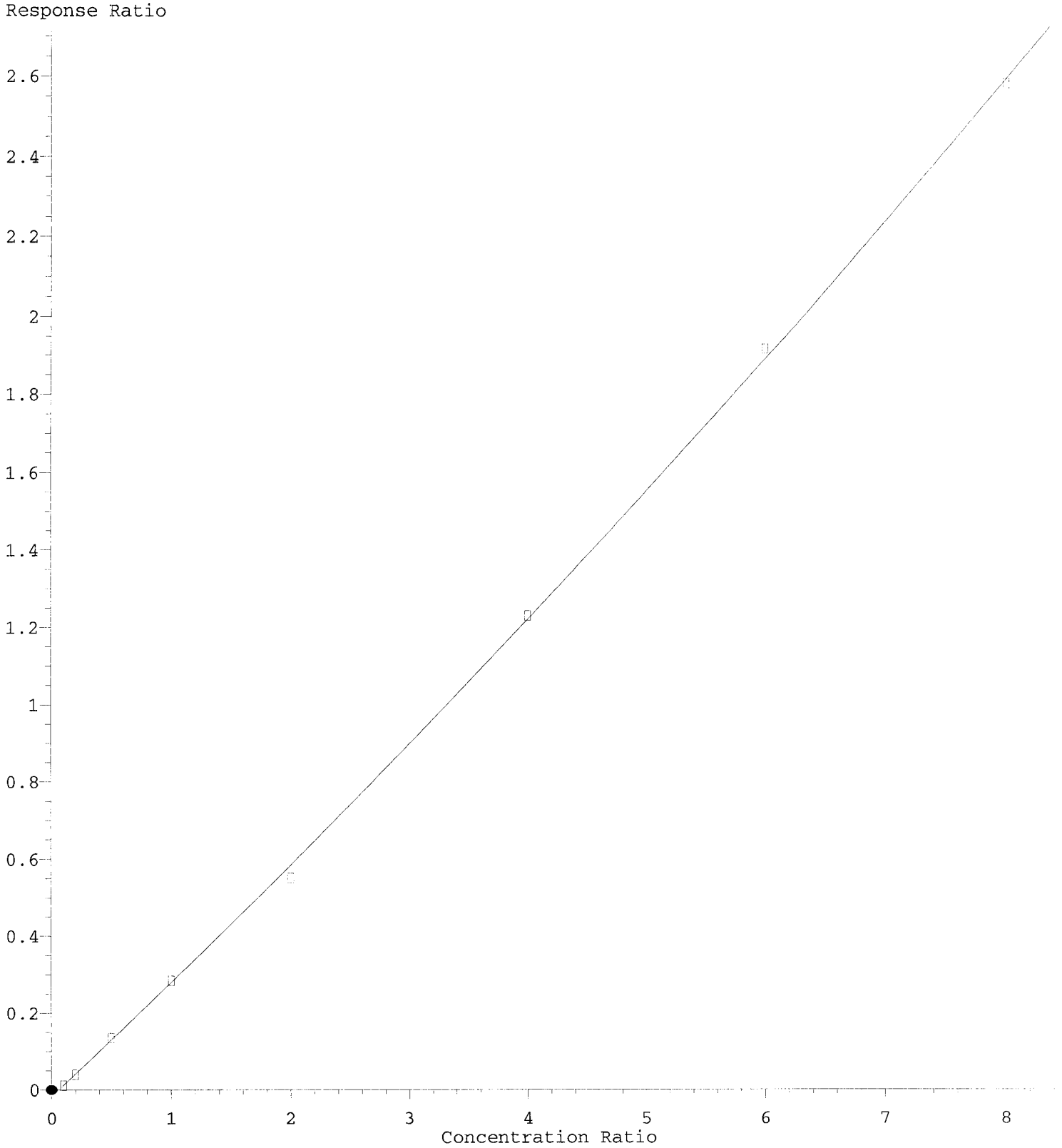
TIC: J09191918.D\data.ms

(73) Carbazole (T)

11.392min (+ 0.027) 5.78 ng/ml m

response 115

Ion	Exp%	Act%
167.10	100.00	100.00
139.10	12.90	18.22
166.10	20.90	15.42
0.00	0.00	0.00

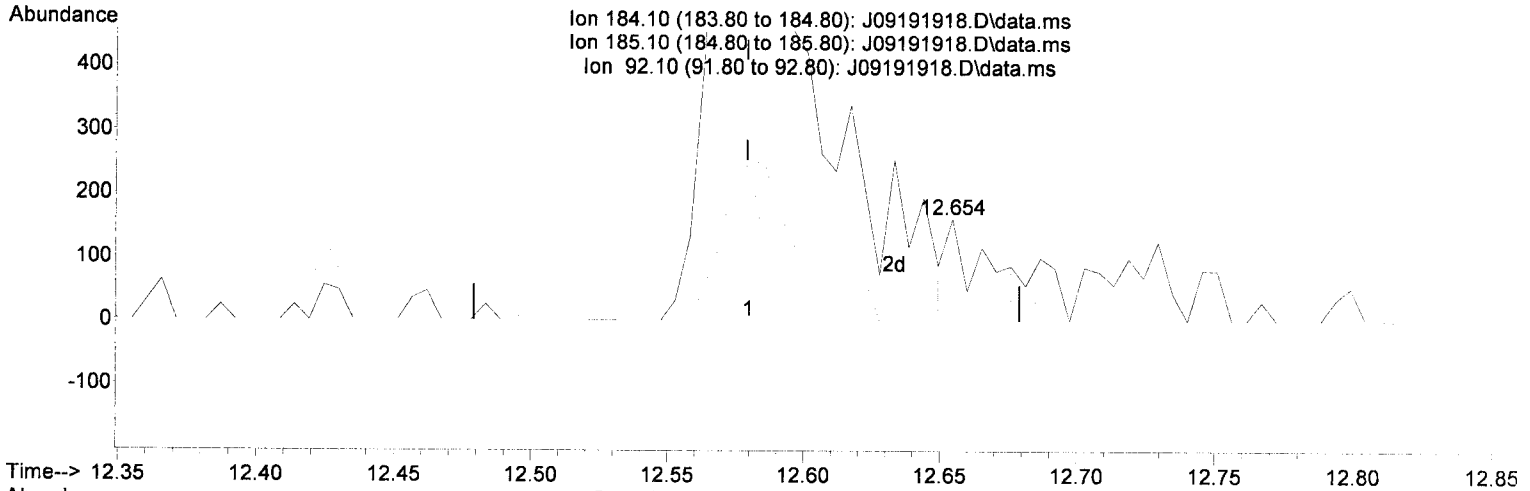


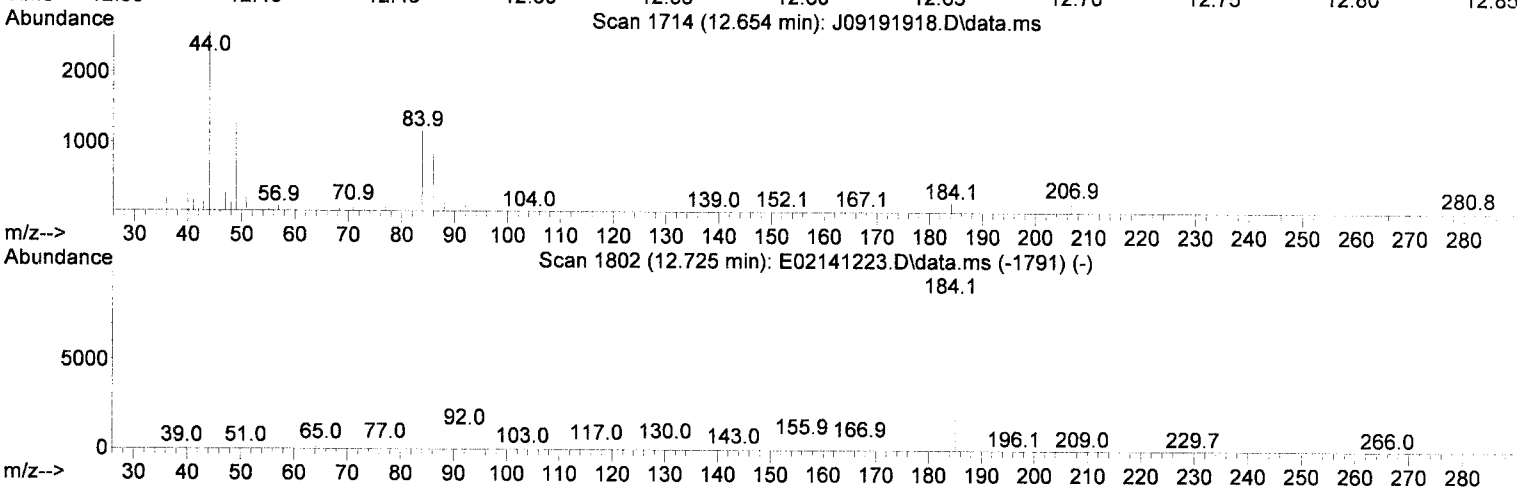
R = 4.30e-003 A*A + 2.93e-001 A - 1.80e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10





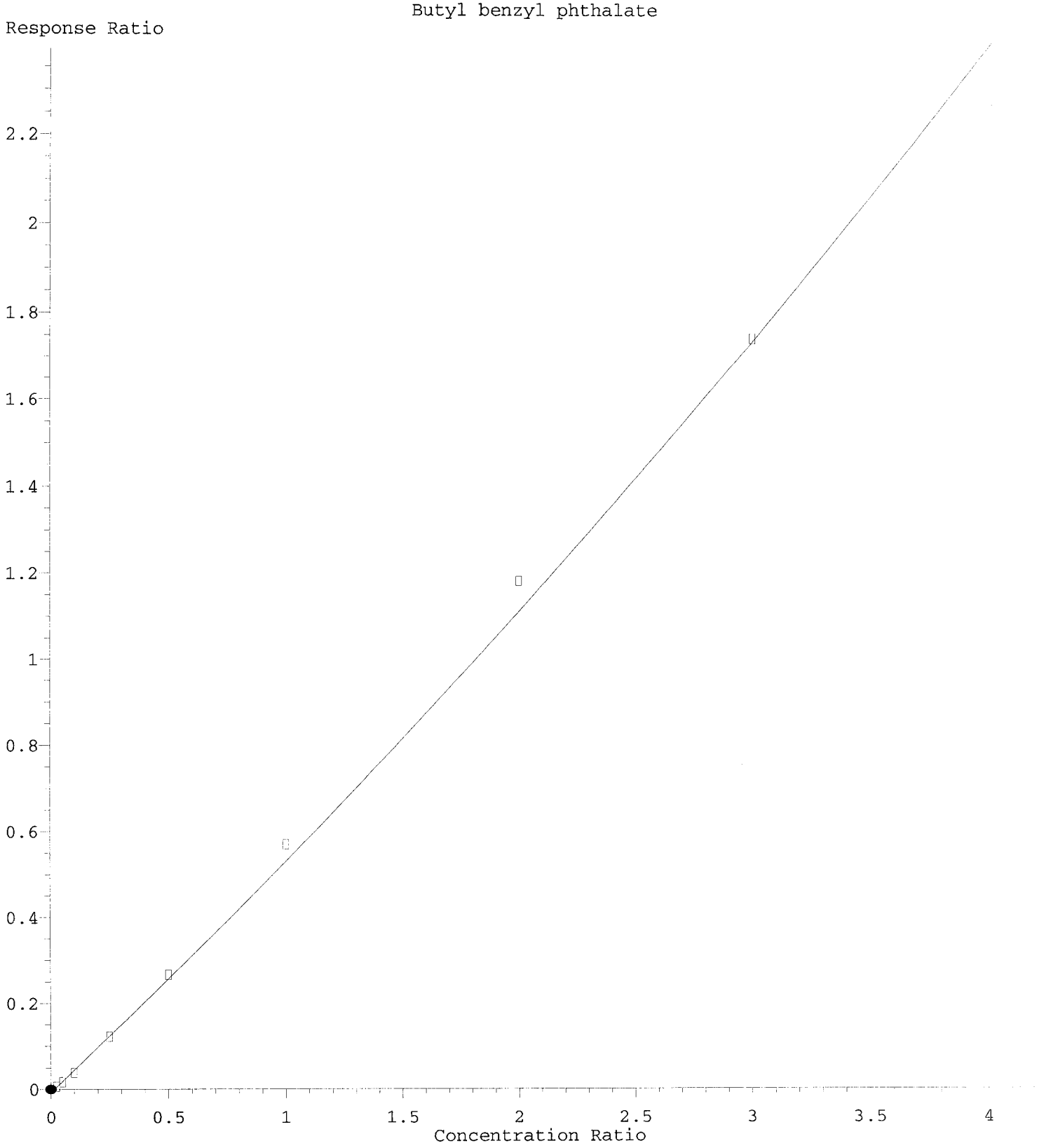
TIC: J09191918.D\data.ms

(76) Benzidine (T)

12.654min (+ 0.075) 123.93 ng/ml m

response 158

Ion	Exp%	Act%
184.10	100.00	100.00
185.10	15.50	0.00
92.10	9.10	70.99#
0.00	0.00	0.00

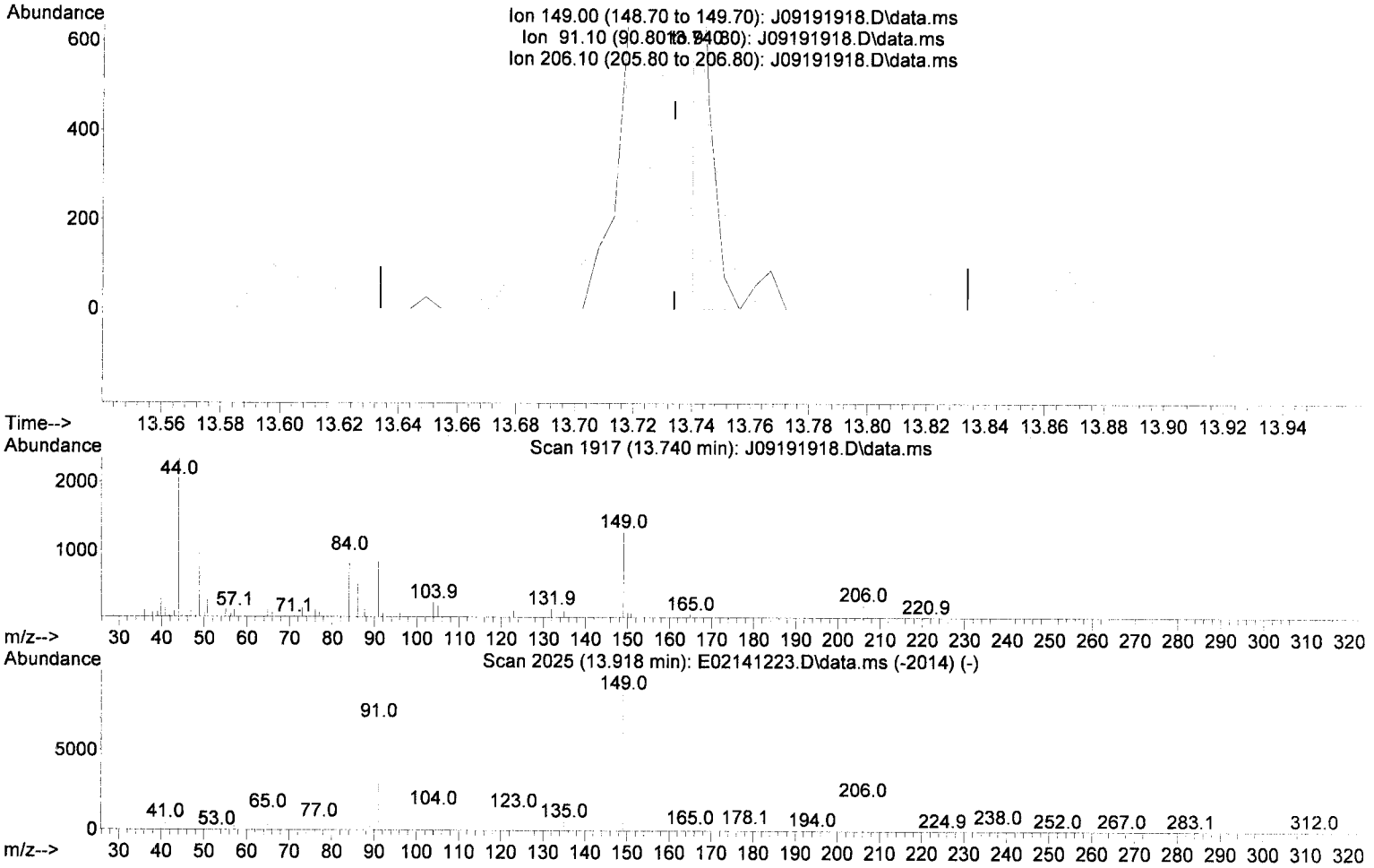


R = 2.13e-002 A*A + 5.16e-001 A - 7.58e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



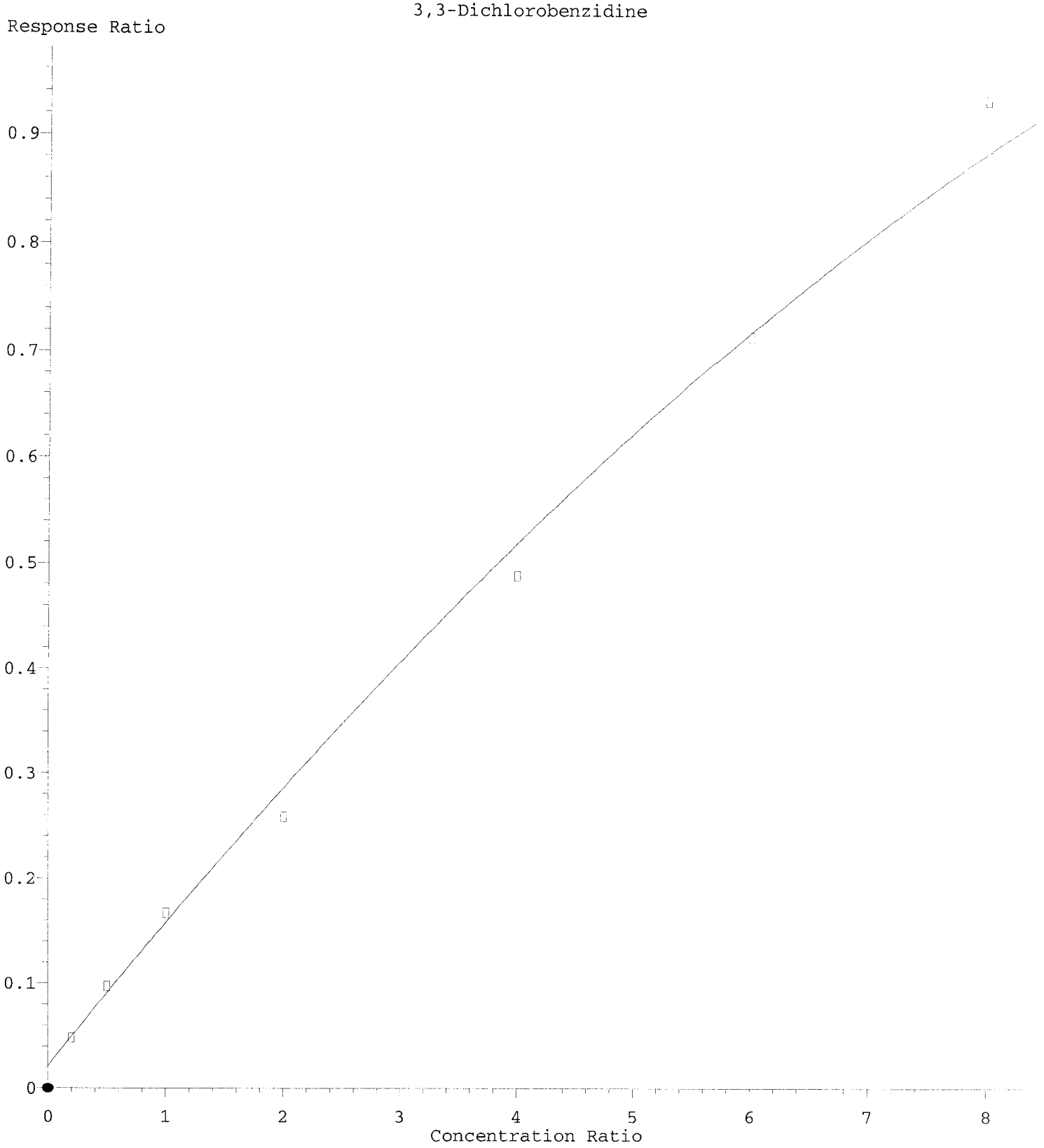
TIC: J09191918.D\data.ms

(80) Butyl benzyl phthalate (T)

13.740min (+ 0.006) 29.98 ng/ml m

response 188

Ion	Exp%	Act%
149.00	100.00	100.00
91.10	64.60	66.02
206.10	20.40	16.13
0.00	0.00	0.00

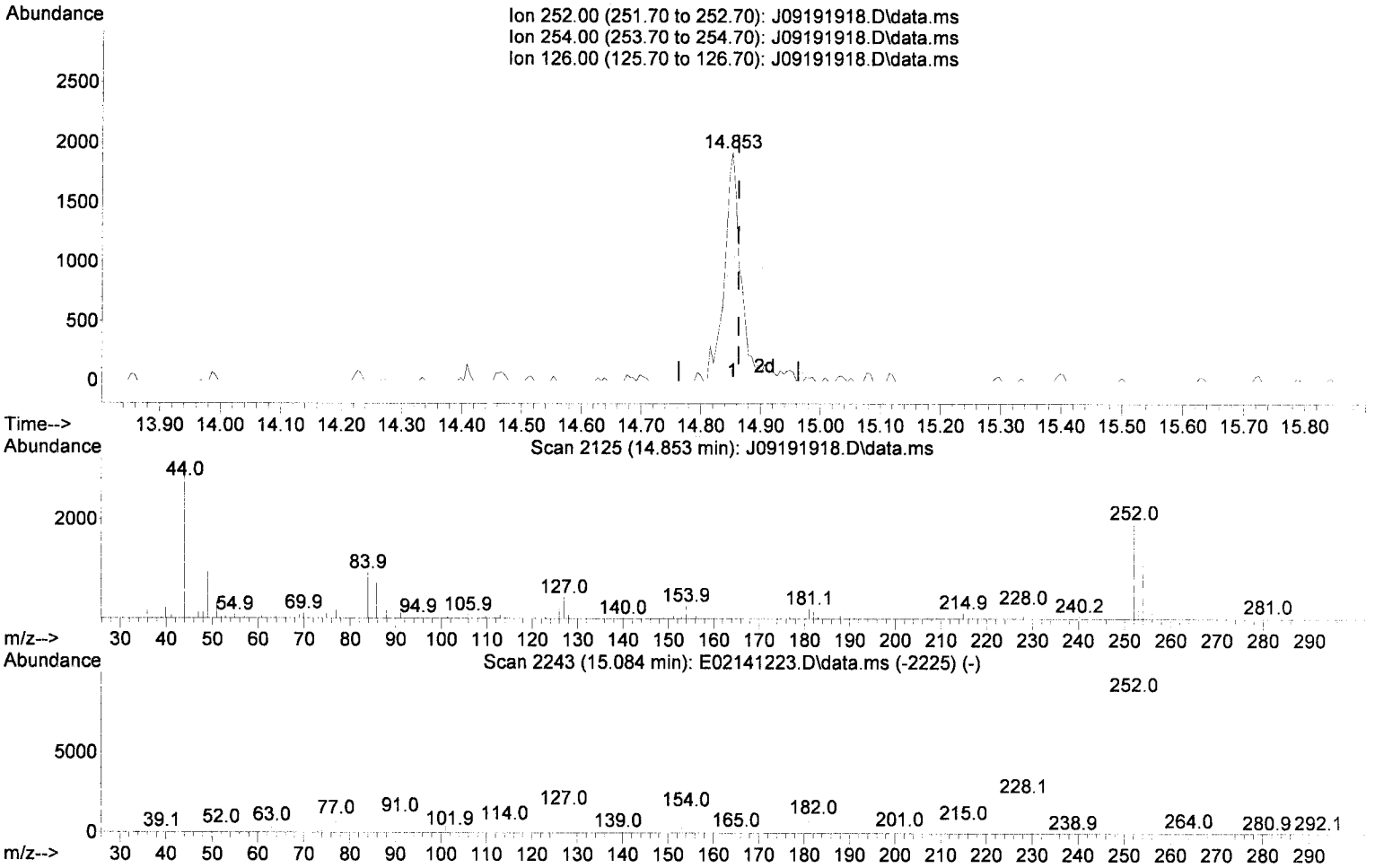


R = -4.11e-003 A*A + 1.41e-001 A + 2.12e-002
Coef of Det (r^2) = 0.992 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



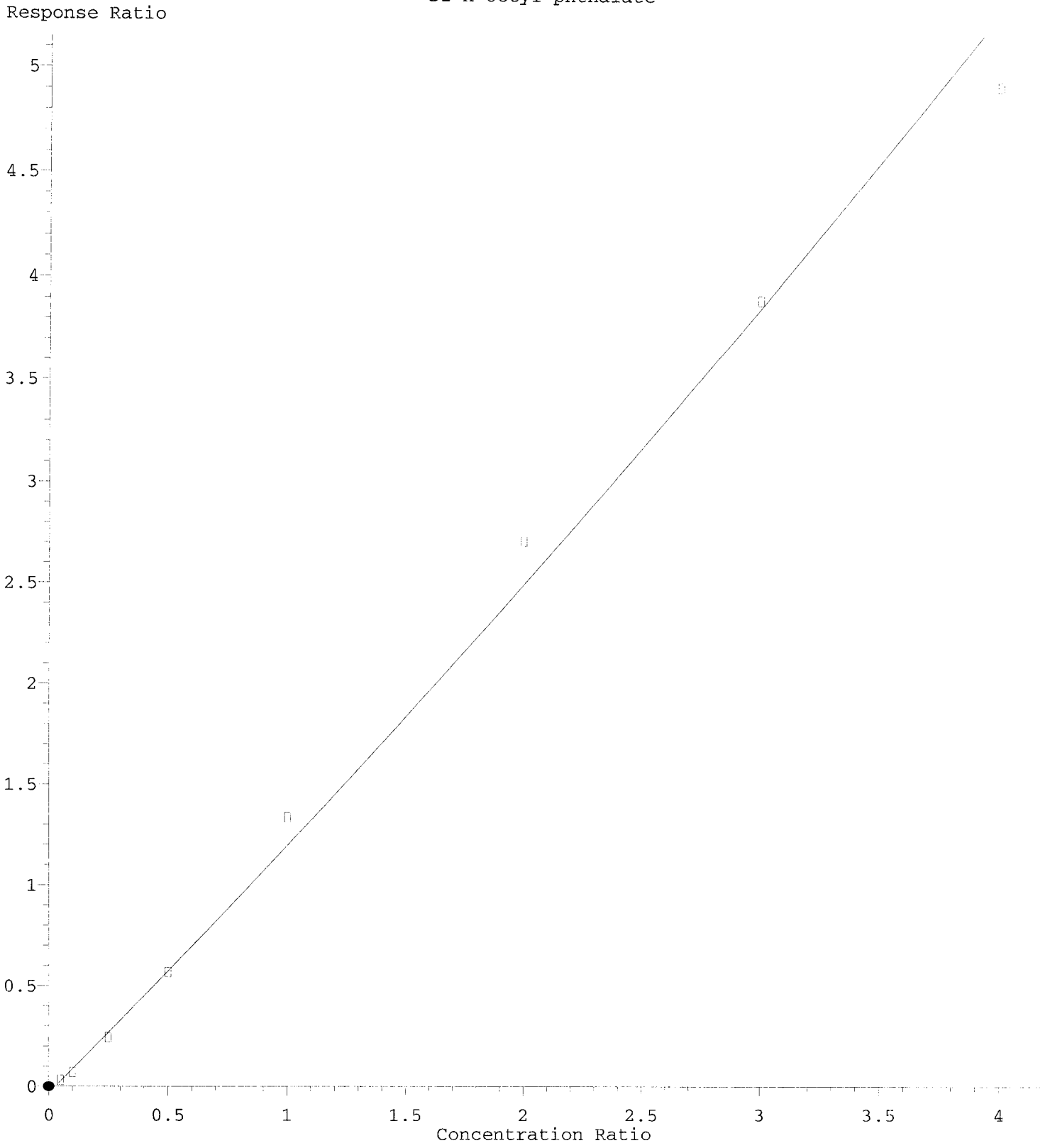
TIC: J09191918.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.853min (-0.010) -1.00 ng/ml m

response 3954

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	62.09
126.00	12.00	11.91
0.00	0.00	0.00

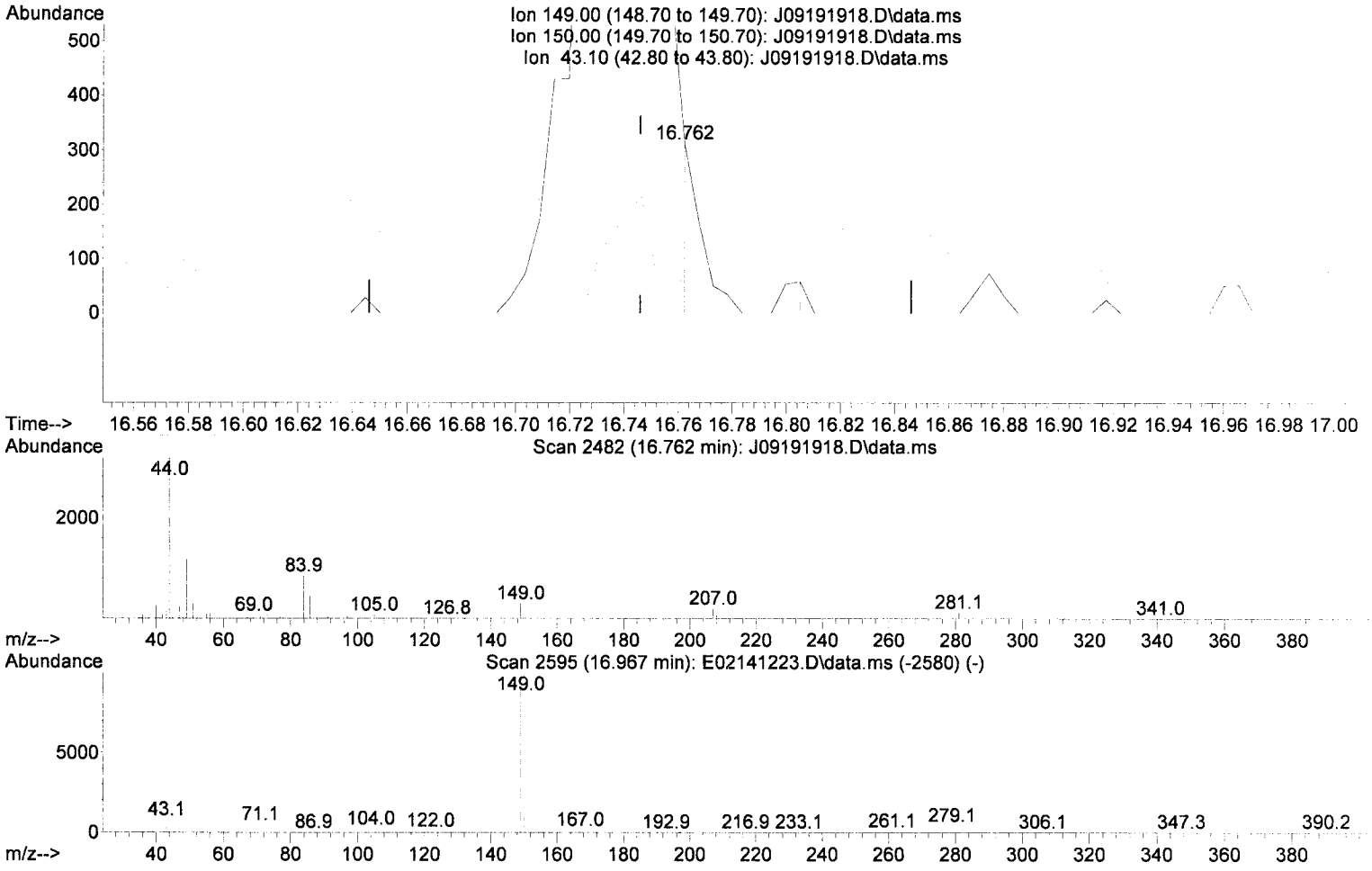


R = 3.12e-002 A*A + 1.20e+000 A - 3.48e-002
Coef of Det (r^2) = 0.990 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



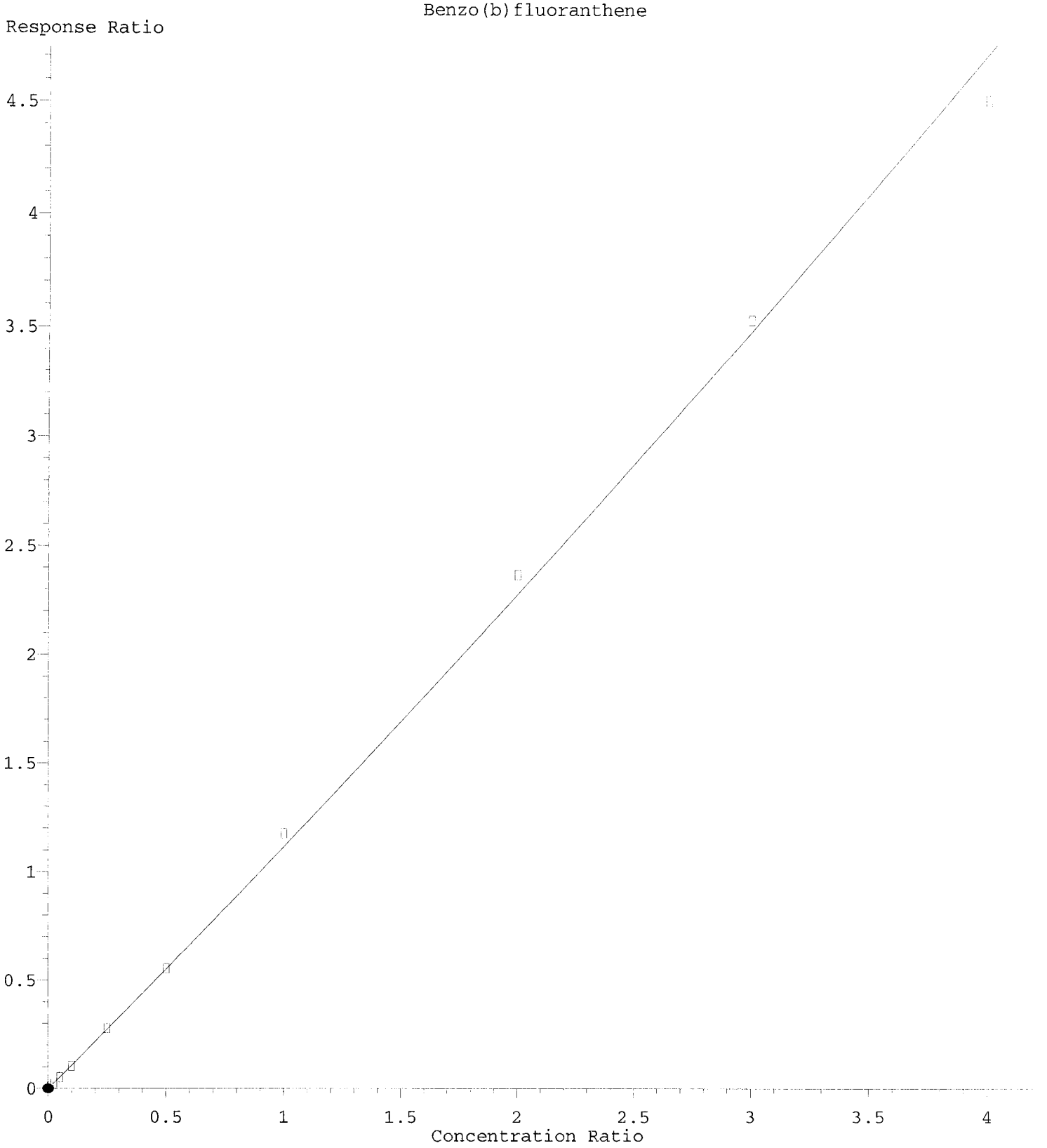
TIC: J09191918.D\data.ms

(87) Di-n-octyl phthalate (T)

16.762min (+ 0.016) 58.11 ng/ml m ✓

response 117

Ion	Exp%	Act%
149.00	100.00	100.00
150.00	9.90	19.81
43.10	5.60	52.08#
0.00	0.00	0.00

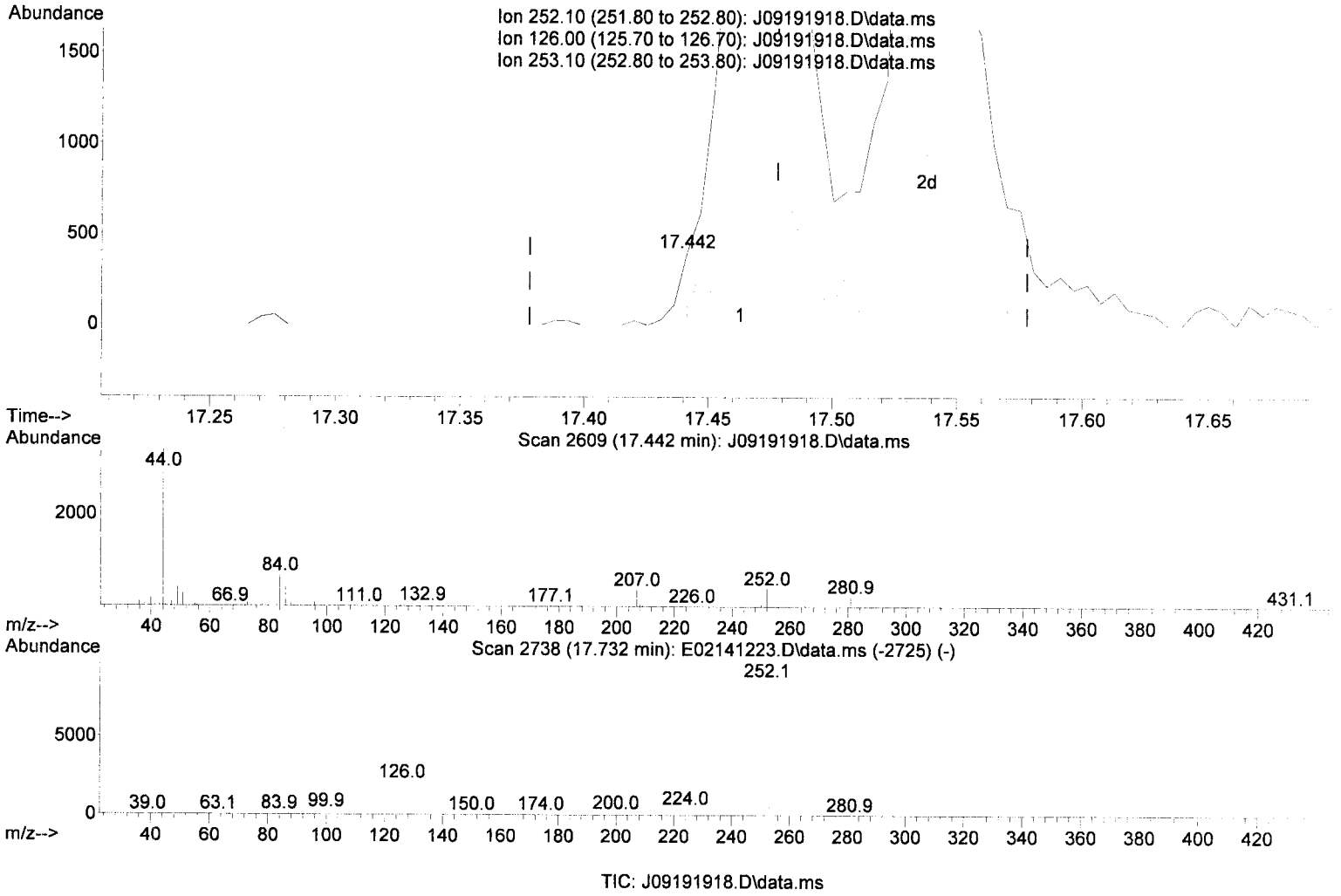


R = 1.98e-002 A*A + 1.10e+000 A - 4.38e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191918.D\data.ms

(88) Benzo(b)fluoranthene (T)

17.442min (-0.036) 8.23 ng/ml m

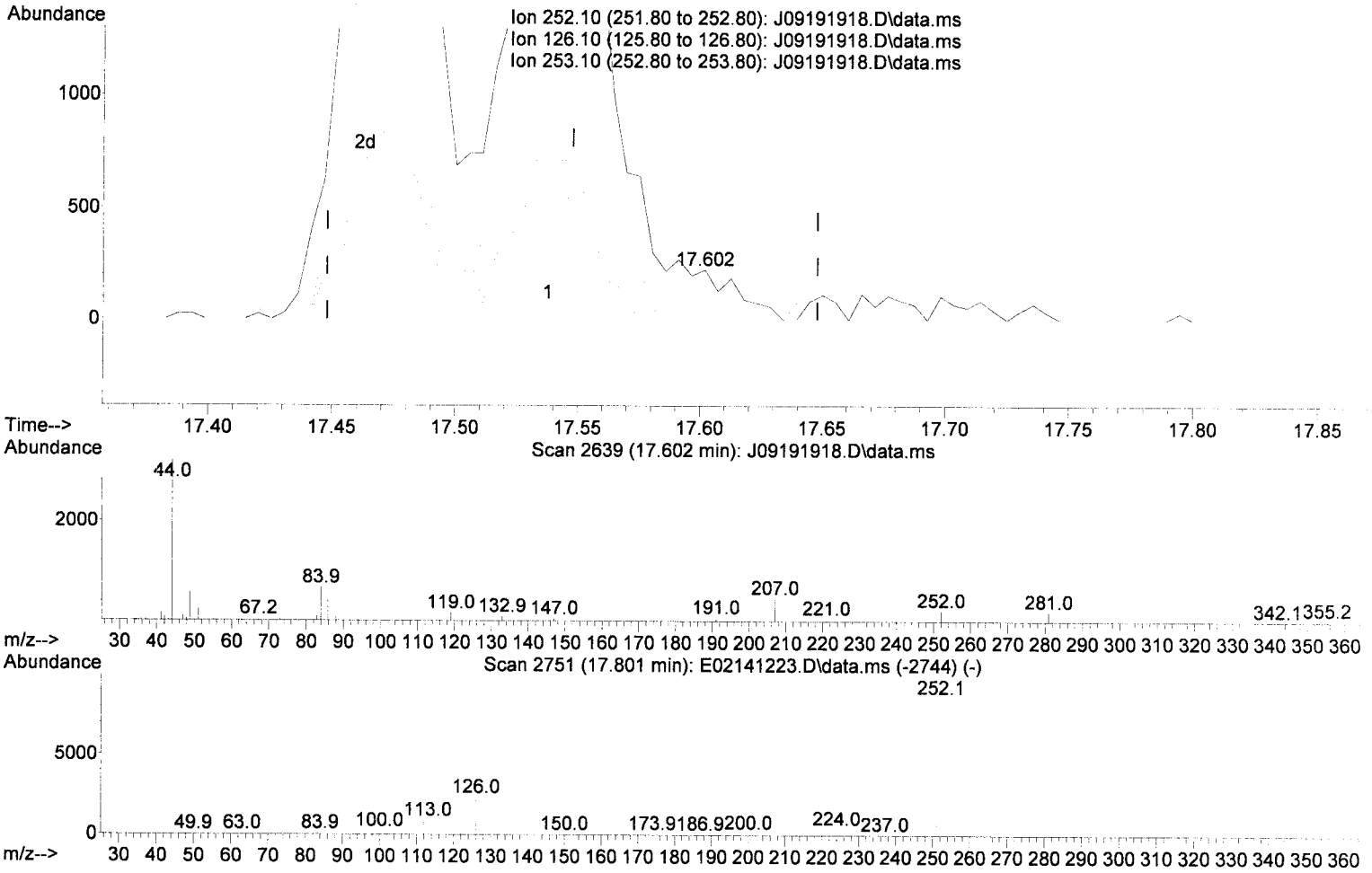
response 176

Ion	Exp%	Act%
252.10	100.00	100.00
126.00	16.50	12.07
253.10	21.90	8.37
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



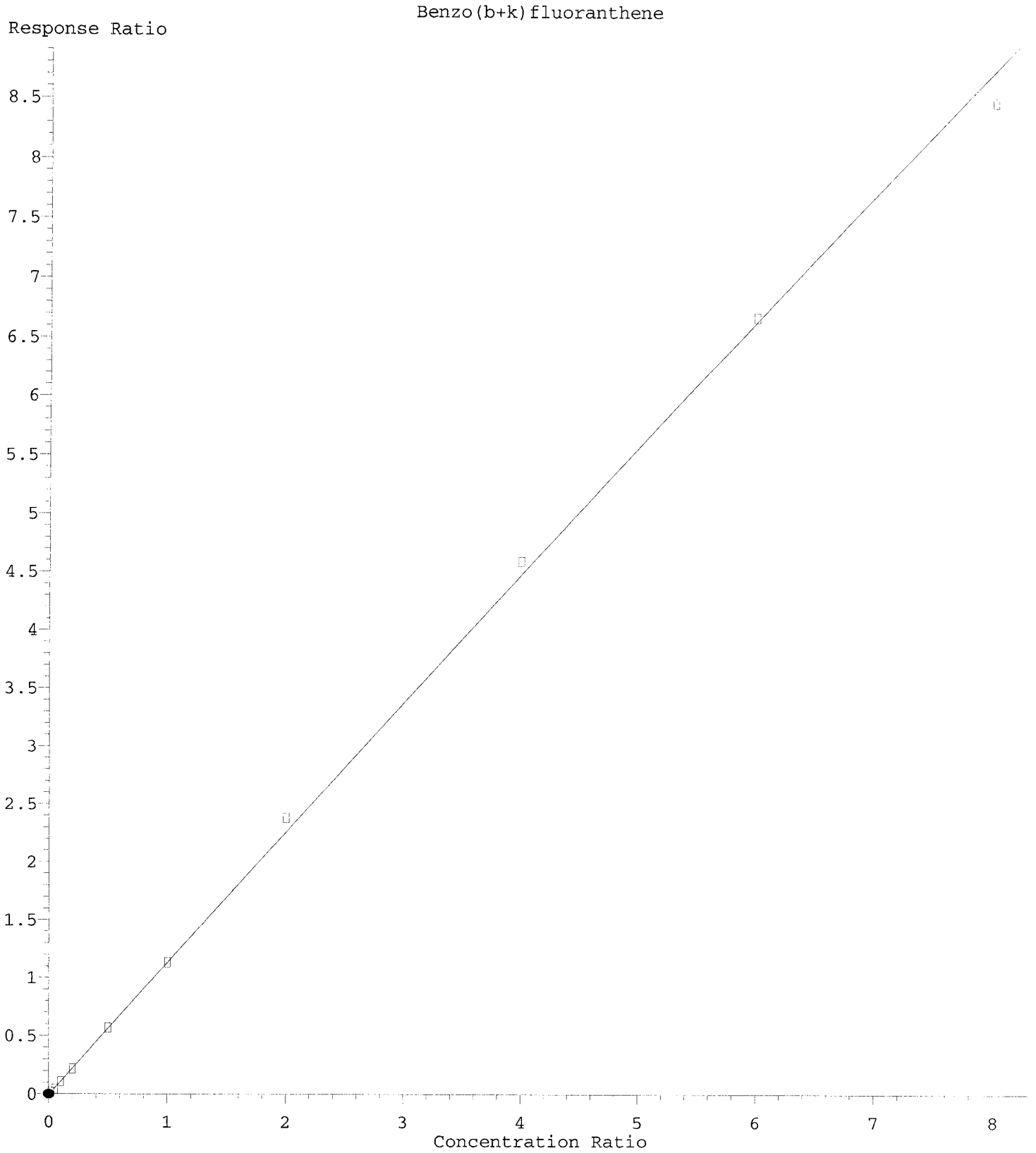
TIC: J09191918.D\data.ms

(89) Benzo(k)fluoranthene (T)

17.602min (+ 0.054) 8.71 ng/ml m J

response 154

Ion	Exp%	Act%
252.10	100.00	100.00
126.10	16.90	0.00
253.10	22.00	0.00
0.00	0.00	0.00

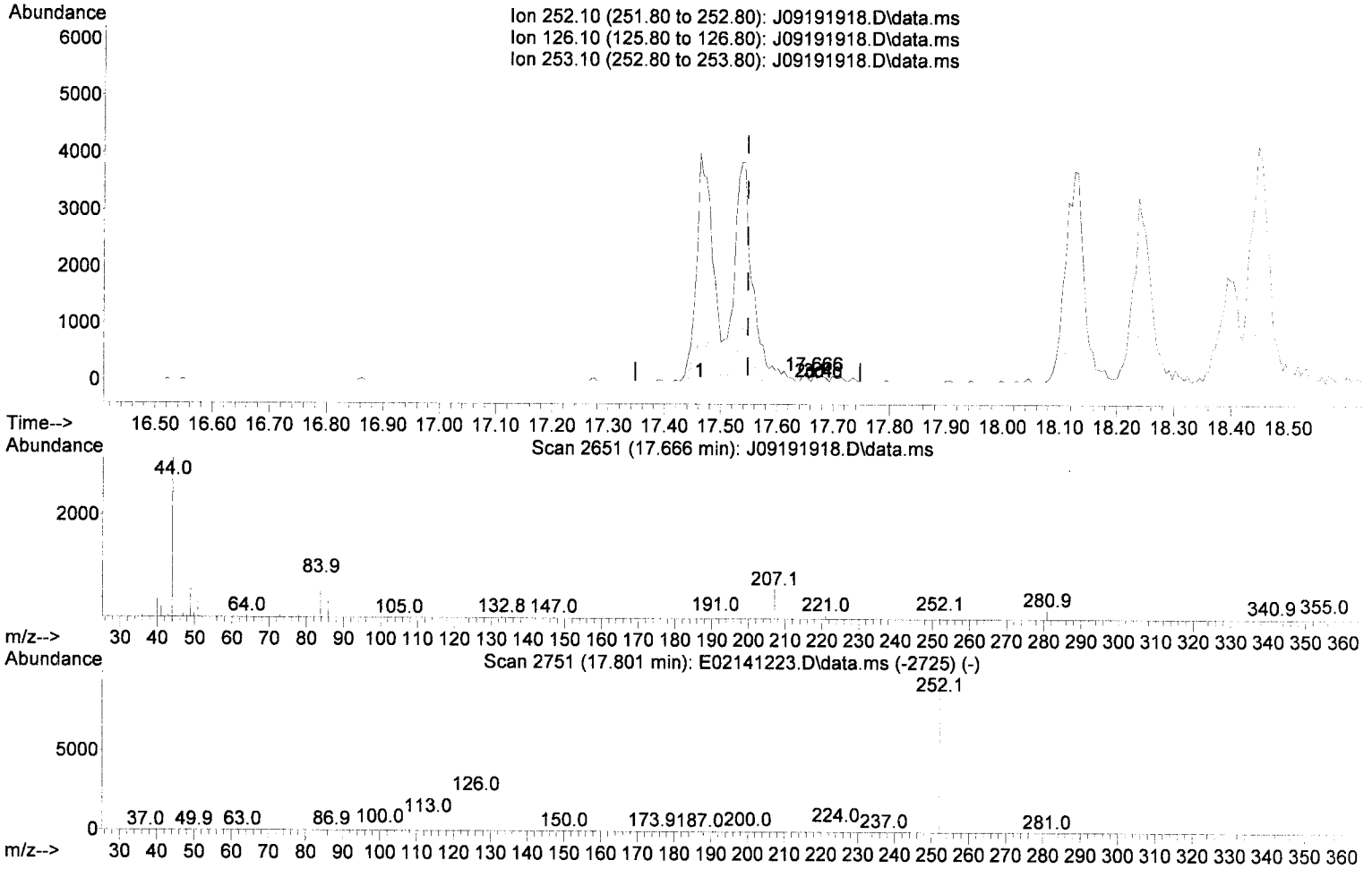


R = -6.69e-003 A*A + 1.15e+000 A - 9.04e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



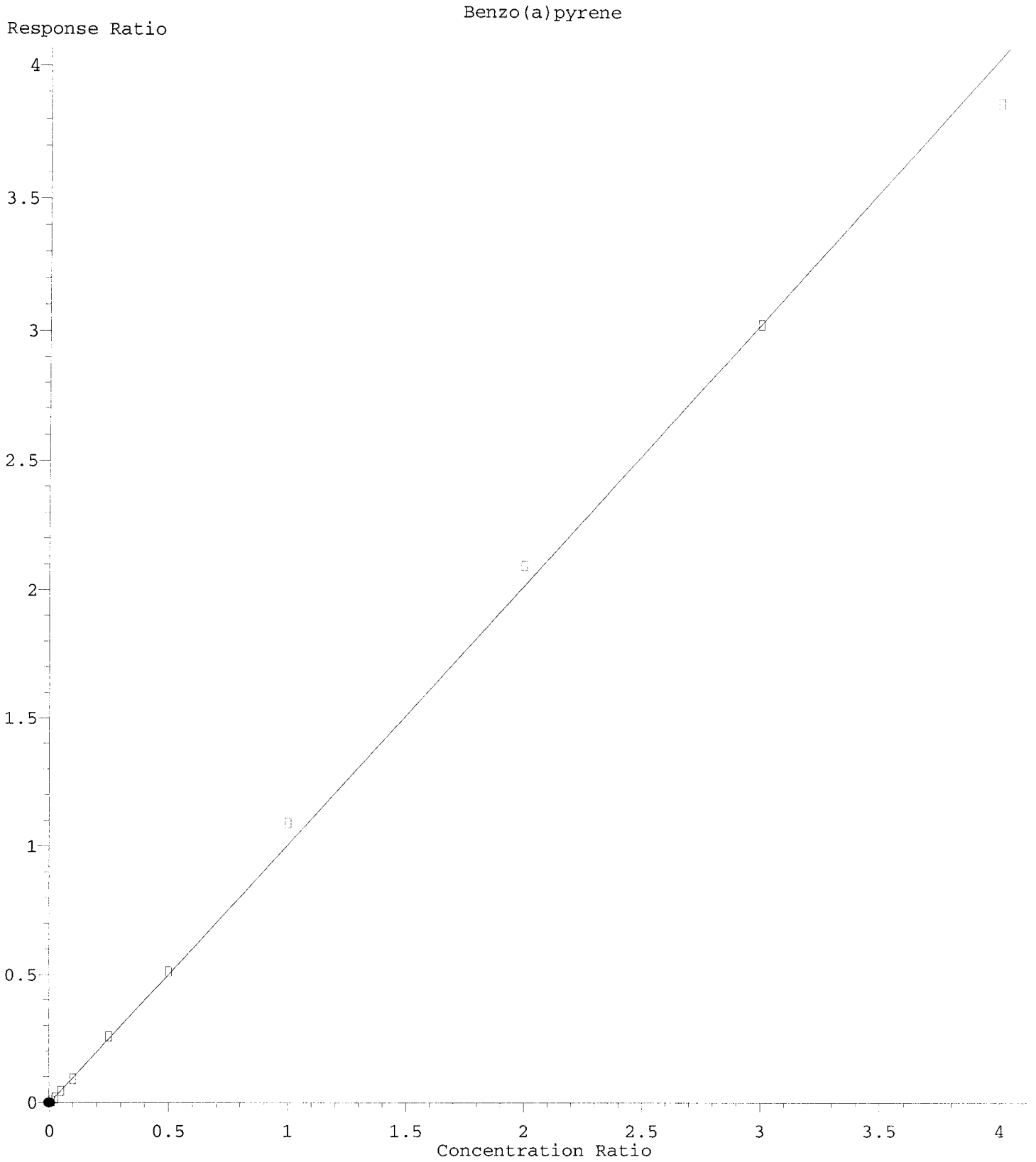
TIC: J09191918.D\data.ms

(90) Benzo(b+k)fluoranthene (T)

17.666min (+ 0.118) 15.95 ng/ml m

response 140

Ion	Exp%	Act%
252.10	100.00	100.00
126.10	16.90	0.00
253.10	22.00	0.00
0.00	0.00	0.00

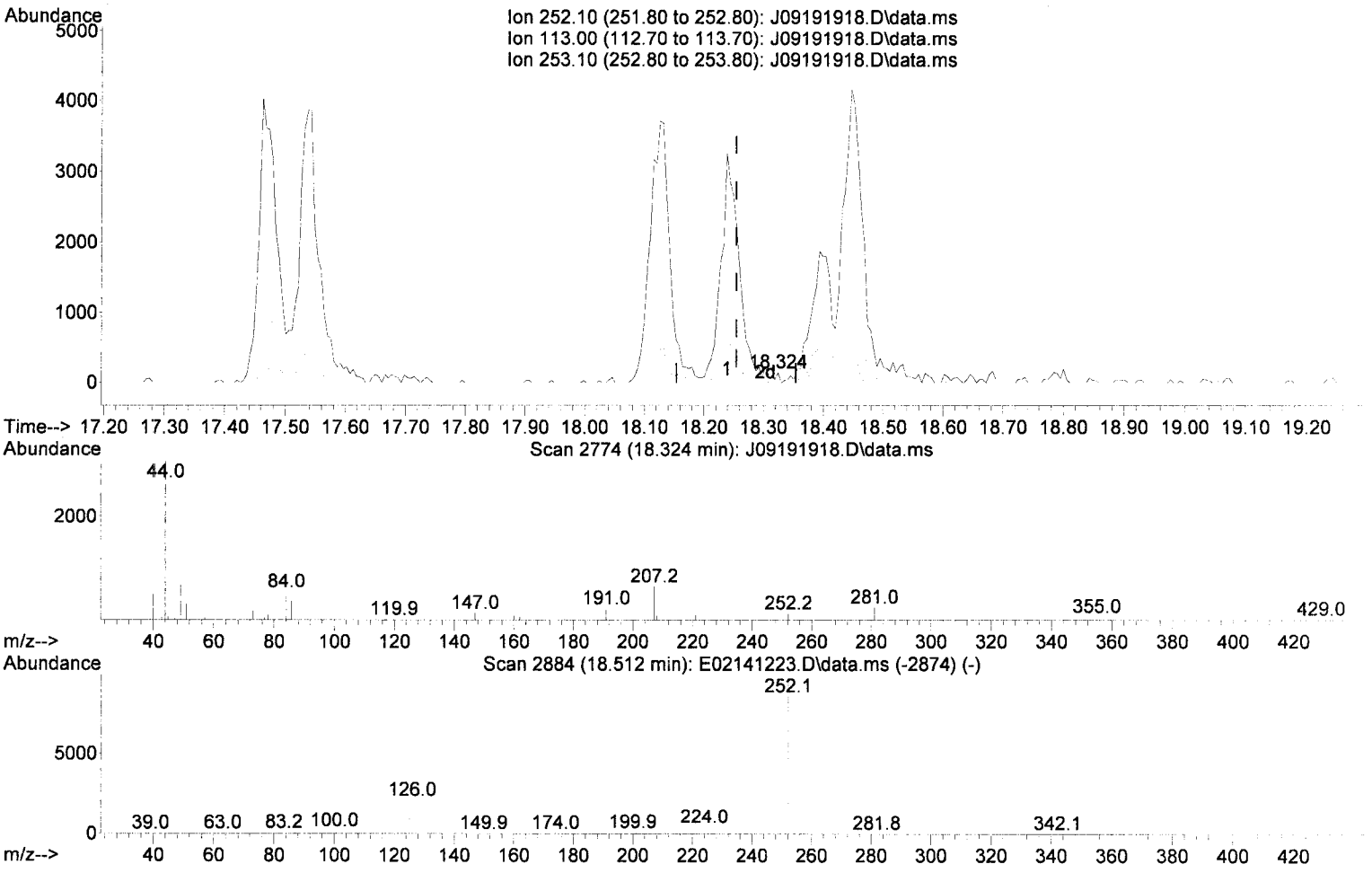


R = 4.44e-004 A*A + 1.01e+000 A - 4.97e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191918.D\data.ms

(92) Benzo(a)pyrene (T)

18.324min (+ 0.070) 10.04 ng/ml m ✓

response 116

Ion	Exp%	Act%
252.10	100.00	100.00
113.00	9.90	0.00
253.10	22.50	0.00
0.00	0.00	0.00

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9I19035

Analysis Included
8270D LL Full List

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed
9I19035-TUN1	MS Tune	Soil	A19I165	A19I086	9/20/2019 12:22:00AM
9I19035-ICB1	Initial Cal Blank	Soil		A19I086	9/20/2019 12:49:00AM
9I19035-CAL1	Cal Standard	Soil	A19G238	"	9/20/2019 1:24:00AM
9I19035-CAL2	Cal Standard	Soil	A19G239	"	9/20/2019 1:59:00AM
9I19035-CAL3	Cal Standard	Soil	A19G240	"	9/20/2019 2:34:00AM
9I19035-CAL4	Cal Standard	Soil	A19G241	"	9/20/2019 3:09:00AM
9I19035-CAL5	Cal Standard	Soil	A19G242	"	9/20/2019 3:44:00AM
9I19035-CAL6	Cal Standard	Soil	A19G243	"	9/20/2019 4:19:00AM
9I19035-CAL7	Cal Standard	Soil	A19G244	"	9/20/2019 4:54:00AM
9I19035-CAL8	Cal Standard	Soil	A19G245	"	9/20/2019 5:29:00AM
9I19035-CAL9	Cal Standard	Soil	A19G246	"	9/20/2019 6:04:00AM
9I19035-CALA	Cal Standard	Soil	A19G247	"	9/20/2019 6:39:00AM
9I19035-ICV1	Initial Cal Check	Soil	A19I254	"	9/20/2019 7:50:00AM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9I2405** Instrument: **SV-GCMS10**

8270D LL Full List Sequence: **9I19035** Matrix: **Soil**

9I19035-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-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: 9I19035

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: **A9I2405** Instrument: **SV-GCMS10**

8270D LL Full List Sequence: **9I19035** Matrix: **Soil**

9I19035-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: 9I19035

Analysis Included
8270D LL Full List

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed
9I19035-TUN1	MS Tune	Water	A19I165	A19I086	9/20/2019 12:22:00AM
9I19035-ICB1	Initial Cal Blank	Water		A19I086	9/20/2019 12:49:00AM
9I19035-CAL1	Cal Standard	Water	A19G238	"	9/20/2019 1:24:00AM
9I19035-CAL2	Cal Standard	Water	A19G239	"	9/20/2019 1:59:00AM
9I19035-CAL3	Cal Standard	Water	A19G240	"	9/20/2019 2:34:00AM
9I19035-CAL4	Cal Standard	Water	A19G241	"	9/20/2019 3:09:00AM
9I19035-CAL5	Cal Standard	Water	A19G242	"	9/20/2019 3:44:00AM
9I19035-CAL6	Cal Standard	Water	A19G243	"	9/20/2019 4:19:00AM
9I19035-CAL7	Cal Standard	Water	A19G244	"	9/20/2019 4:54:00AM
9I19035-CAL8	Cal Standard	Water	A19G245	"	9/20/2019 5:29:00AM
9I19035-CAL9	Cal Standard	Water	A19G246	"	9/20/2019 6:04:00AM
9I19035-CALA	Cal Standard	Water	A19G247	"	9/20/2019 6:39:00AM
9I19035-ICV1	Initial Cal Check	Water	A19I254	"	9/20/2019 7:50:00AM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9I2405** Instrument: **SV-GCMS10**

8270D LL Full List Sequence: **9I19035** Matrix: **Water**

9I19035-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-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: 9I19035

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: **A9I2405** Instrument: **SV-GCMS10**

8270D LL Full List Sequence: **9I19035** Matrix: **Water**

9I19035-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 : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:32:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

9/23/19

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	106	0.00
2	TG	N-Nitrosodimethylamine	1000.000	1045.350	-4.5	114	0.09
3	TG	Pyridine	1000.000	896.190	10.4	96	0.10
4	S	2-Fluorophenol (Surr)	1000.000	981.272	1.9	100	0.03
5	S	Phenol-d6(Surr)	1000.000	1015.692	-1.6	99	0.00
6	T	Phenol	1000.000	989.661	1.0	97	0.01
7	T	Aniline	1000.000	836.204	16.4	97	0.02
8	T	Bis(2-chloroethyl) ether	1000.000	1091.651	-9.2	106	0.00
9	T	2-Chlorophenol	1000.000	1008.898	-0.9	100	0.00
10	T	1,3-Dichlorobenzene	1000.000	1009.723	-1.0	105	0.00
11	T	1,4-Dichlorobenzene	1000.000	1002.987	-0.3	102	0.00
12	T	Benzyl alcohol	1000.000	910.785	8.9	91	0.00
13	T	1,2-Dichlorobenzene	1000.000	1024.110	-2.4	104	0.00
14	T	2-Methylphenol	1000.000	1052.523	-5.3	100	0.00
15	T	2,2'-Oxybis(1-Chloropropane	1000.000	970.278	3.0	97	0.00
16	T	N-Nitrosodi-n-propylamine	1000.000	1043.262	-4.3	102	0.00
17	T	3+4-Methylphenol	1000.000	1067.423	-6.7	99	0.00
18	T	Hexachloroethane	1000.000	1040.964	-4.1	109	0.00
19	S	Nitrobenzene-d5 (Surr)	1000.000	1065.680	-6.6	103	0.00
20	T	Nitrobenzene	1000.000	1058.009	-5.8	103	0.00
21	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	102	0.00
22	T	Isophorone	1000.000	1048.414	-4.8	103	0.00
23	T	2-Nitrophenol	1000.000	968.550	3.1	93	0.00
24	T	2,4-Dimethylphenol	1000.000	967.663	3.2	92	0.00
25	T	Bis(2-chloroethoxy) methane	1000.000	1057.133	-5.7	101	0.00
26	T	Benzoic acid	2000.000	1974.824	1.3	115	0.00
27	T	2,4-Dichlorophenol	1000.000	968.833	3.1	98	0.00
28	T	1,2,4-Trichlorobenzene	1000.000	999.393	0.1	99	0.00
29	T	Naphthalene	1000.000	1048.170	-4.8	101	0.00
30	T	4-Chloroaniline	1000.000	939.273	6.1	90	0.00
31	T	Hexachlorobutadiene	1000.000	1037.179	-3.7	101	0.00
32	T	4-Chloro-3-methylphenol	1000.000	1056.418	-5.6	101	0.00
33	T	2-Methylnaphthalene	1000.000	1097.134	-9.7	104	0.00
34	T	1-Methylnaphthalene	1000.000	1073.196	-7.3	104	0.00
35	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	105	0.00
36	T	Hexachlorocyclopentadiene	1000.000	1072.195	-7.2	102	0.00
37	T	2,4,6-Trichlorophenol	1000.000	1033.651	-3.4	105	0.00
38	T	2,4,5-Trichlorophenol	1000.000	1048.469	-4.8	108	0.00
39	T	1,1'-Biphenyl	1000.000	1032.434	-3.2	102	0.00
40	S	2-Fluorobiphenyl (Surr)	1000.000	1062.096	-6.2	106	0.00
41	T	2-Chloronaphthalene	1000.000	1056.535	-5.7	104	0.00
42	T	2-Nitroaniline	1000.000	1106.583	-10.7	111	0.00
43	T	2,6-Dimethylnaphthalene	1000.000	1034.190	-3.4	103	0.00
44	T	1,4-Dinitrobenzene	1000.000	1114.508	-11.5	121	0.00
45	T	Dimethyl phthalate	1000.000	1061.398	-6.1	105	0.00
46	T	1,3-Dinitrobenzene	1000.000	1081.705	-8.2	115	0.00
47	T	2,6-Dinitrotoluene	1000.000	1043.999	-4.4	107	0.00
48	T	1,2-Dinitrobenzene	1000.000	1063.484	-6.3	106	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:32:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

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	1059.382	-5.9	104	0.00
50	T	3-Nitroaniline	1000.000	1060.772	-6.1	107	0.00
51	T	Acenaphthene	1000.000	1001.616	-0.2	103	0.00
52	T	2,4-Dinitrophenol	1000.000	972.001	2.8	122	0.00
53	T	4-Nitrophenol	1000.000	1106.887	-10.7	115	0.00
54	T	2,4-Dinitrotoluene	1000.000	1048.405	-4.8	113	0.00
55	T	Dibenzofuran	1000.000	1071.222	-7.1	106	0.00
56	T	2,3,5,6-Tetrachlorophenol	1000.000	1077.305	-7.7	111	0.00
57	T	2,3,4,6-Tetrachlorophenol	1000.000	1013.999	-1.4	103	0.00
58	T	Diethyl phthalate	1000.000	1087.436	-8.7	104	0.00
59	T	2,3,5-Trimethylnaphthalene	1000.000	1037.334	-3.7	102	0.00
60	T	Fluorene	1000.000	1045.897	-4.6	106	0.00
61	T	4-Chlorophenyl phenyl ether	1000.000	1051.565	-5.2	105	0.00
62	T	4-Nitroaniline	1000.000	1080.738	-8.1	113	0.00
63	T	4,6-Dinitro-2-methylphenol	1000.000	1157.716	-15.8	133	0.00
64	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	108	0.00
65	T	N-Nitrosodiphenylamine	1000.000	1064.375	-6.4	108	0.00
66	T	Azobenzene (1,2-DPH)	1000.000	1037.259	-3.7	105	0.00
67	S	2,4,6-Tribromophenol (Surr)	1000.000	1040.672	-4.1	111	0.00
68	T	4-Bromophenyl phenyl ether	1000.000	1032.582	-3.3	107	0.00
69	T	Hexachlorobenzene	1000.000	1010.042	-1.0	104	0.00
70	T	Pentachlorophenol (PCP)	1000.000	975.756	2.4	117	0.00
71	T	Phenanthrene	1000.000	1015.497	-1.5	108	0.00
72	T	Anthracene	1000.000	1058.253	-5.8	108	0.00
73	T	Carbazole	1000.000	964.910	3.5	103	0.00
74	T	Di-n-butyl phthalate	1000.000	1057.534	-5.8	106	0.00
75	T	Fluoranthene	1000.000	1088.446	-8.8	108	0.00
76	T	Benzidine	2000.000	1842.776	7.9	97	0.00
77	T	Pyrene	1000.000	1070.616	-7.1	106	0.00
78	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	109	-0.01
79	S	Terphenyl-d14 (Surr)	1000.000	1060.782	-6.1	110	0.00
80	T	Butyl benzyl phthalate	1000.000	1003.995	-0.4	105	0.00
81	T	Bis(2-ethylhexyl) adipate	1000.000	1058.578	-5.9	113	-0.01
82	T	3,3-Dichlorobenzidine	2000.000	2062.773	-3.1	106	-0.01
83	T	Benz(a)anthracene	1000.000	1029.118	-2.9	114	-0.01
84	T	Chrysene	1000.000	1009.528	-1.0	108	-0.01
85	T	Bis(2-ethylhexyl) phthalate	1000.000	1039.182	-3.9	110	0.00
86	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	111	-0.01
87	T	Di-n-octyl phthalate	1000.000	1013.796	-1.4	114	-0.02
88	T	Benzo(b)fluoranthene	1000.000	1008.508	-0.9	112	-0.02
89	T	Benzo(k)fluoranthene	1000.000	992.118	0.8	110	-0.02
90	T	Benzo(b+k)fluoranthene	2000.000	1987.636	0.6	111	-0.02
91	T	Benzo(e)pyrene	1000.000	1042.799	-4.3	108	-0.02
92	T	Benzo(a)pyrene	1000.000	971.420	2.9	105	-0.02
93	T	Perylene	1000.000	1215.264	-21.5	134	-0.02
94	I	Dibenz(a,h)Anthrcene-d14 (I	2000.000	2000.000	0.0	113	-0.02

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:32:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

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	973.509	2.6	113	-0.02
96 T	Dibenz(a,h)anthracene	1000.000	1019.307	-1.9	113	-0.02
97 T	Benzo(g,h,i)perylene	1000.000	1054.879	-5.5	111	-0.02

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191916.D
Acq On : 20 Sep 2019 12:22 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-TUN1
Misc : 1x, A19I165 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Sep 20 09:40:00 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 19 15:09:10 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.600	150	134967	2.00	ug/mL	0.00
2) Naphthalene-d8	7.867	136	357596	2.00	ug/mL	0.00
3) Acenaphthene-d10	9.648	162	174398	2.00	ug/mL	0.00
5) Phenanthrene-d10	11.162	188	269663	2.00	ug/mL	0.00
11) Chrysene-d12	14.885	240	230198	2.00	ug/mL	0.00
12) Perylene-d12	17.126	264	213465	2.00	ug/mL	#-0.03
Target Compounds						Qvalue
4) Pentachlorophenol	10.975	266	684363	41.56	ug/mL	84
6) DFTPP	11.456	442	746382	34.29	ug/mL	85
7) Benzidine	12.628	184	2478643	25.84	ug/mL	98
8) 4,4-DDE	12.890	TIC	40067	No Calib		
9) 4,4-DDD	13.403	TIC	23267	No Calib		
10) 4,4-DDT	13.975	TIC	9144669	33.07	ug/mL	95

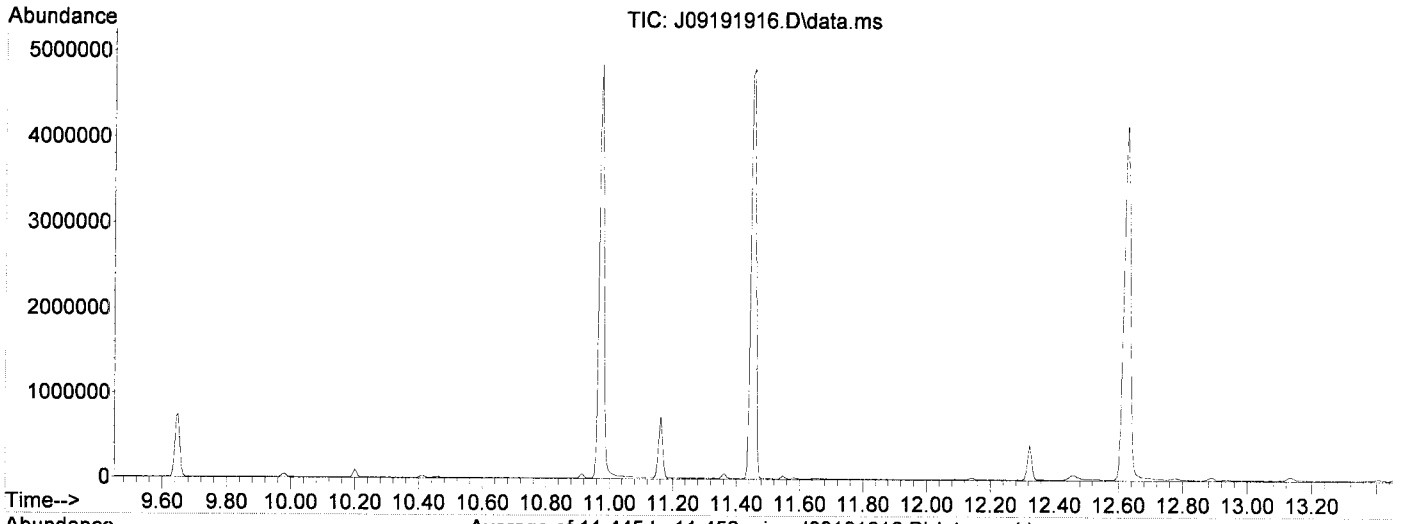
(#) = qualifier out of range (m) = manual integration (+) = signals summed

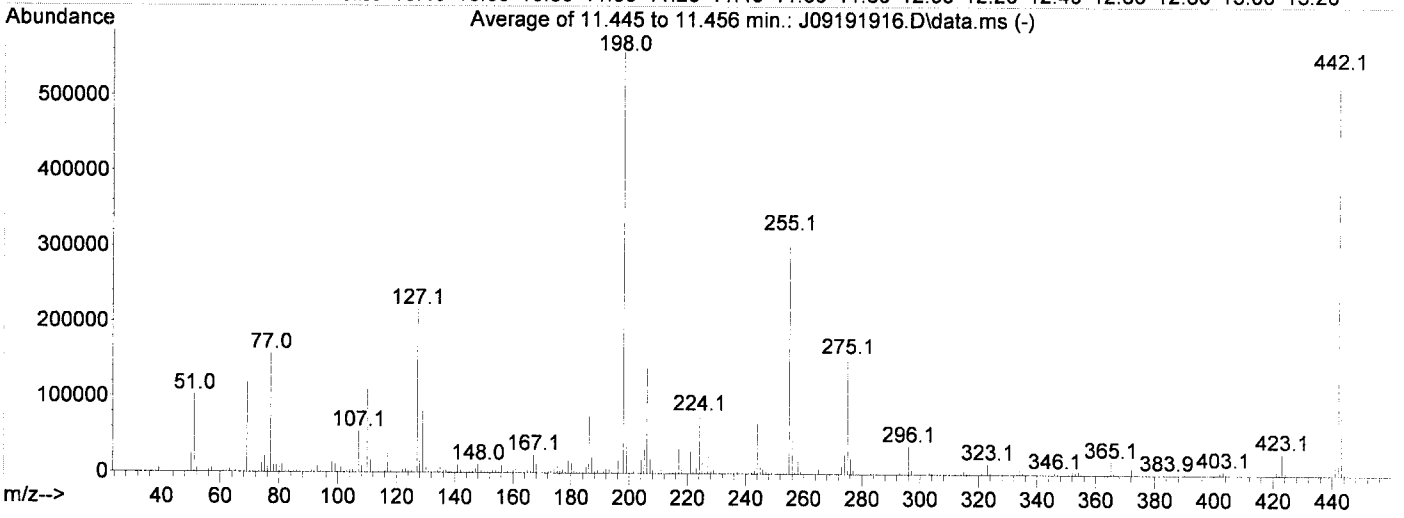
Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191916.D
Acq On : 20 Sep 2019 12:22 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-TUN1
Misc : 1x, A19I165 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\DFTPP.M
Title : 8270 DFTPP Tune Method
Last Update : Thu Sep 19 15:09:10 2019

JK 9/20/19





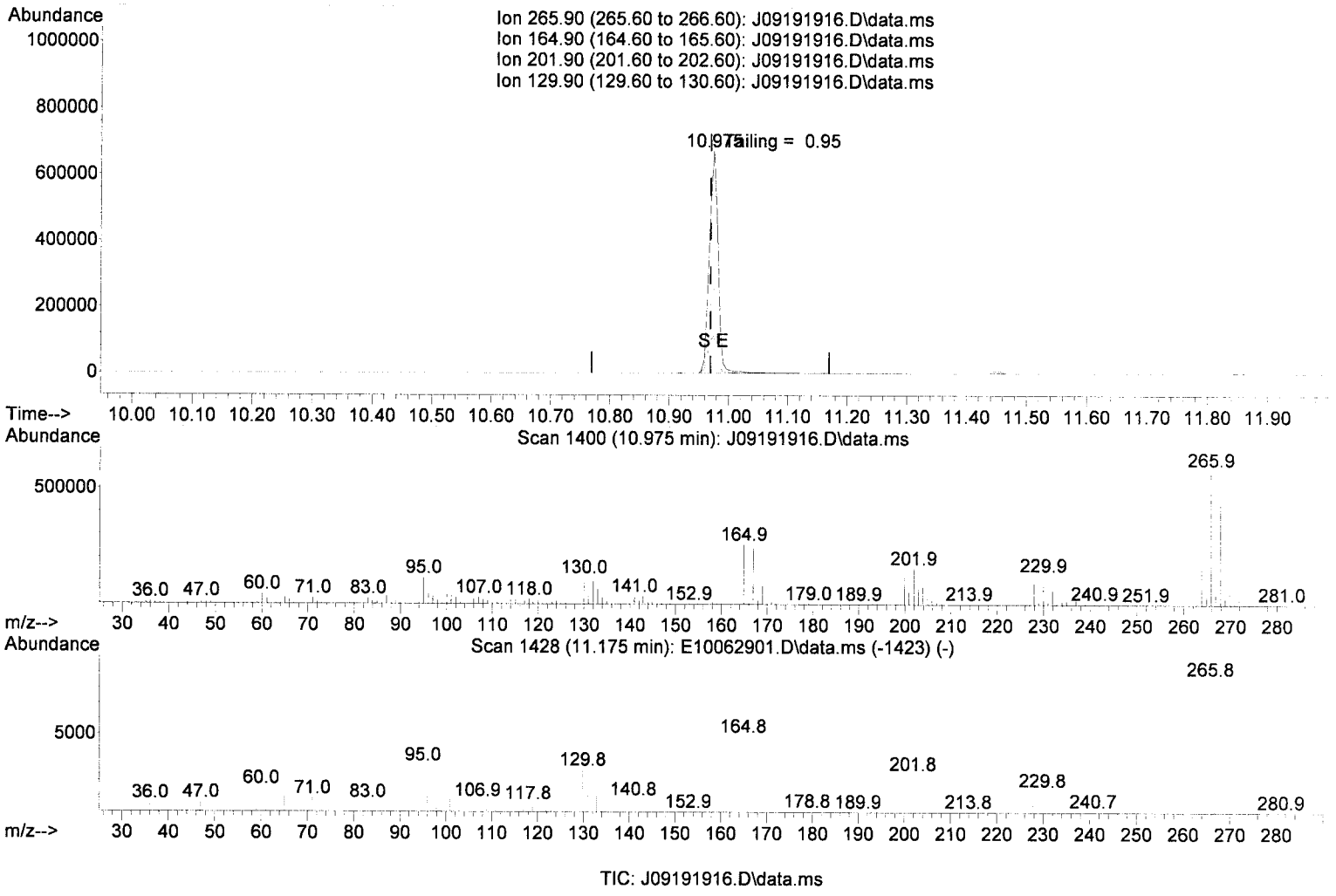
AutoFind: Scans 1488, 1489, 1490; Background Corrected with Scan 1483

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.6	1920	PASS
69	198	0.01	100	21.3	118967	PASS
70	69	0.00	2	0.5	611	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	557760	PASS
199	198	5	9	6.9	38464	PASS
365	198	1	100	3.2	17707	PASS
441	443	0.01	150	73.9	77592	PASS
442	198	0.10	200	95.5	532779	PASS
443	442	15	24	19.7	104995	PASS

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191916.D
Acq On : 20 Sep 2019 12:22 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-TUN1
Misc : 1x, A19I165 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Sep 20 09:40:00 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 19 15:09:10 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191916.D\data.ms

(4) Pentachlorophenol

10.975min (+ 0.005) 41.56 ug/mL

response 684363

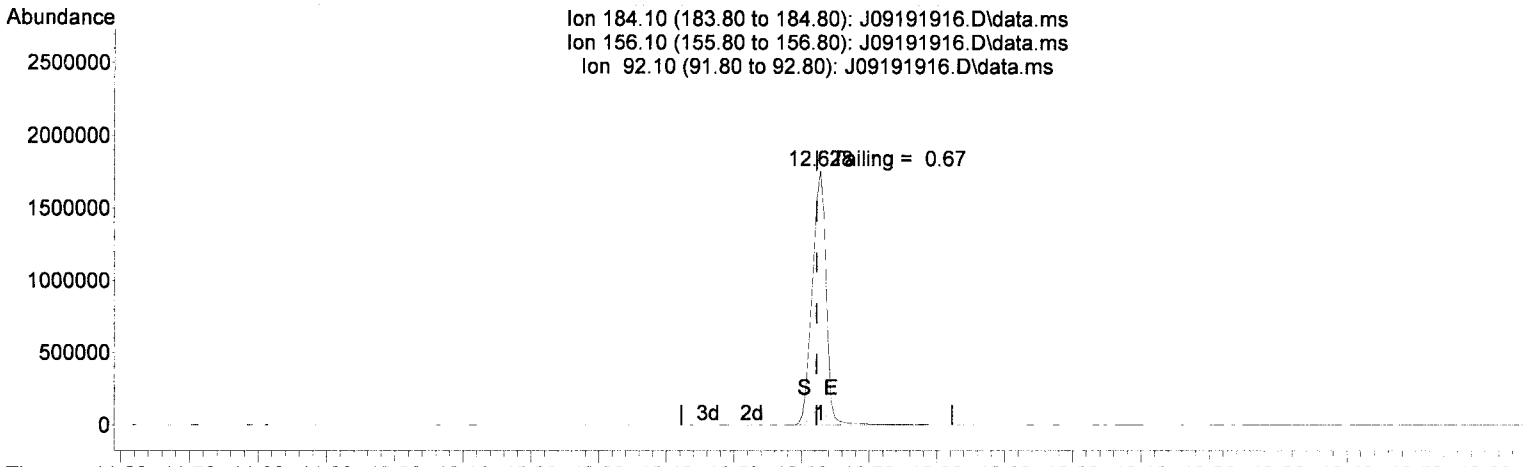
Ion	Exp%	Act%
265.90	100.00	100.00
164.90	50.60	38.07
201.90	25.80	22.85
129.90	27.30	16.90

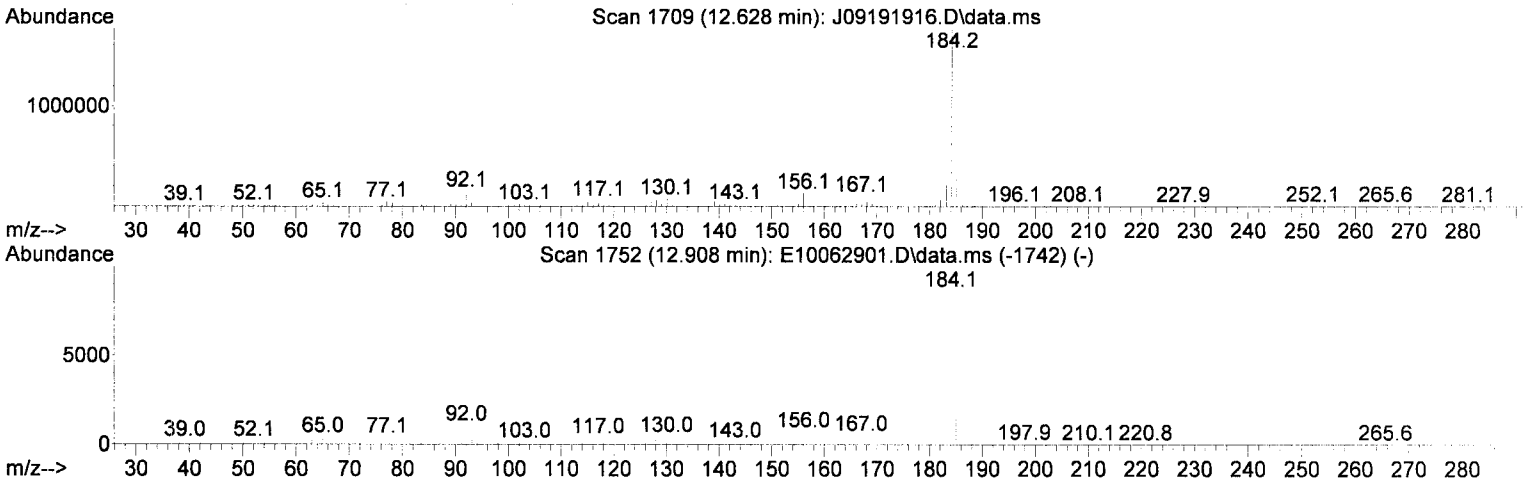
9/20/19

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191916.D
Acq On : 20 Sep 2019 12:22 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-TUN1
Misc : 1x, A19I165 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Sep 20 09:40:00 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 19 15:09:10 2019
Response via : Initial Calibration
InstName : SV-GCMS10





TIC: J09191916.D\data.ms

(7) Benzidine

12.628min (+ 0.005) 25.84 ug/mL

response 2478643

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	8.50	7.27
92.10	8.20	8.38
0.00	0.00	0.00

JK 9/20/19

DDT Breakdown Check (Validated 5/1/2013)

From:
9I19035-TUN1
SV-GCMS10

First Column Area Counts		Percent Breakdown	
DDE	40067		
DDD	23267		
DDT	9144669	**0.69**	**PASS**

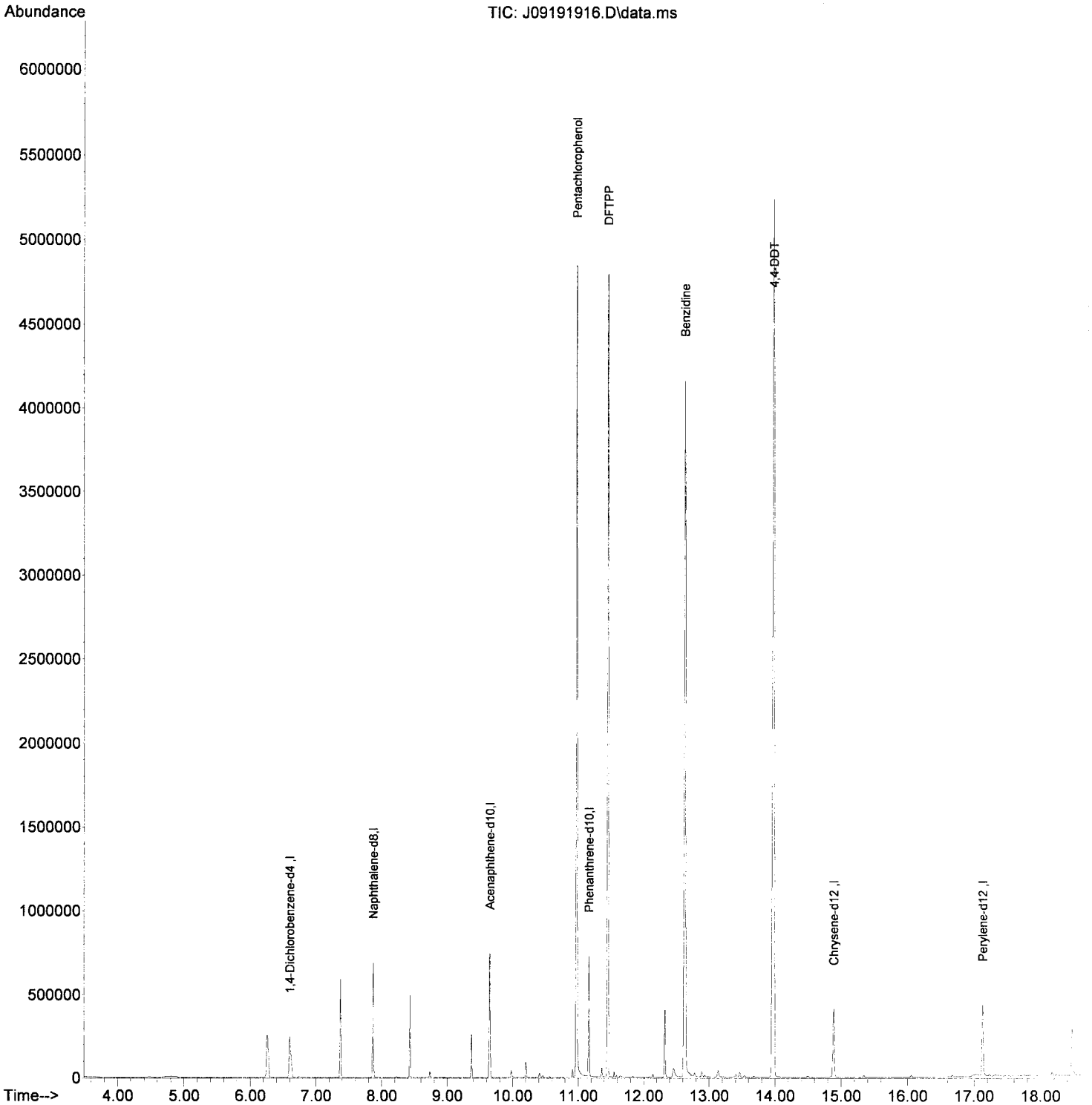
Breakdown must be less than 20% to accept sample data.

9/9/2019

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191916.D
Acq On : 20 Sep 2019 12:22 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-TUN1
Misc : 1x, A19I165 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Sep 20 09:40:00 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 19 15:09:10 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191917.D
Acq On : 20 Sep 2019 12:49 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:06 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.568	152	263426	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1245077	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	634026	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1140103	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.912	240	1131801	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.399	264	1099318	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.790	292	879454	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.402	112	67	0.37	ng/ml	0.11
5) Phenol-d6(Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	7.129	82	88	0.42	ng/ml	0.02
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	3.947	79	261	N.D.		
6) Phenol	6.215	94	79	N.D.		
7) Aniline	6.284	93	59	N.D.		
8) Bis(2-chloroethyl) ether	6.306	93	72	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	6.744	108	78	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	6.819	107	109	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	6.814	45	64	N.D.		
16) N-Nitrosodi-n-propylamine	7.028	70	172	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.086	77	108	N.D.		
22) Isophorone	7.370	82	96	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	7.563	105	152	305.02	ng/ml#	28
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	8.392	107	91	N.D.		
33) 2-Methylnaphthalene	8.557	142	100	N.D.		
34) 1-Methylnaphthalene	8.659	142	61	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 : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191917.D
Acq On : 20 Sep 2019 12:49 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:06 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

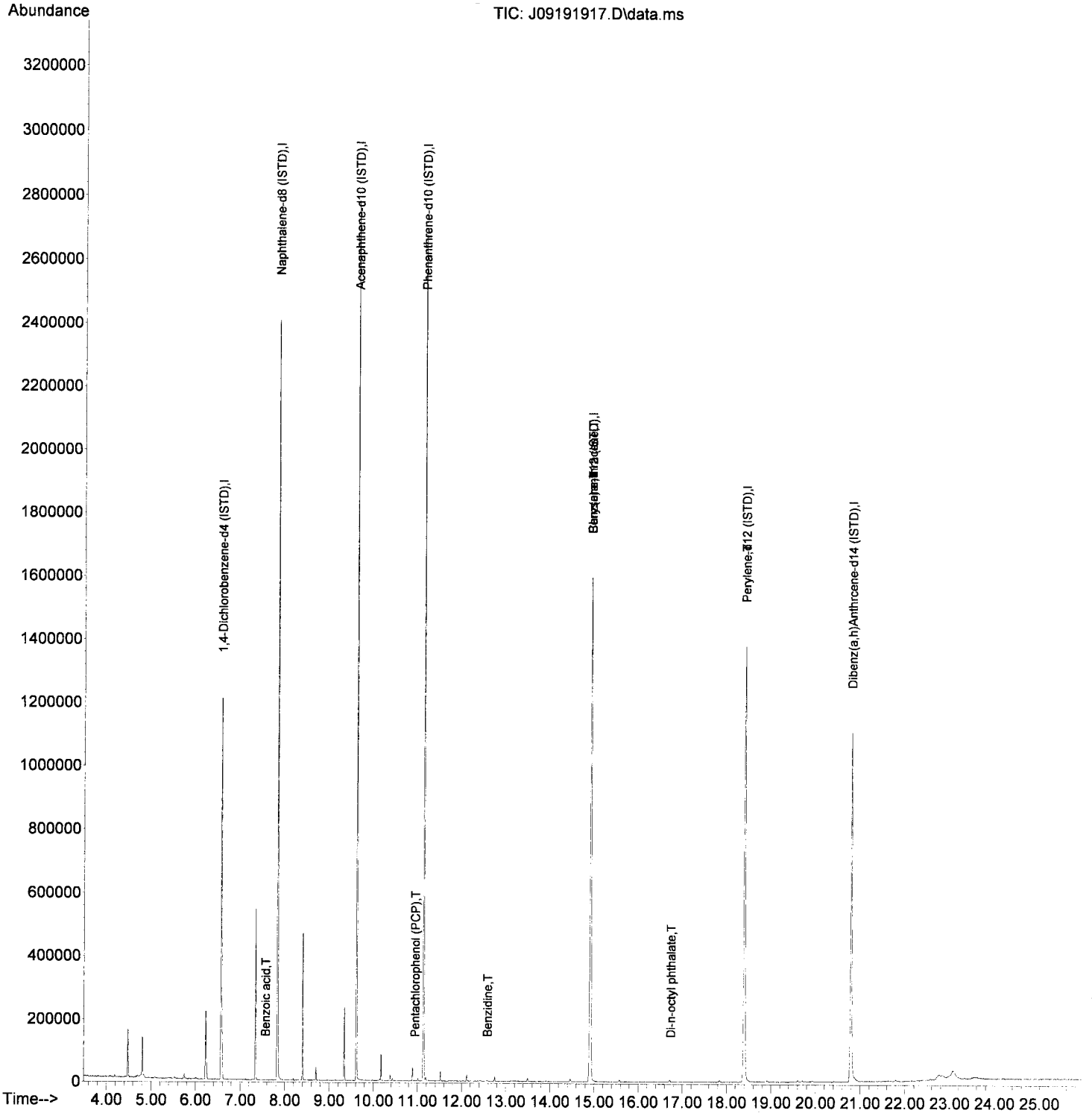
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	9.344	163	194	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.483	152	84	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	9.648	153	78	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	9.777	165	228	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	10.039	149	103	N.D.	
59) 2,3,5-Trimethylnaphtha...	10.146	170	164	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)	10.338	77	165	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	10.938	266	325	35.51 ng/ml	76
71) Phenanthrene	11.135	178	418	N.D.	
72) Anthracene	11.135	178	418	N.D.	
73) Carbazole	11.381	167	91	N.D.	
74) Di-n-butyl phthalate	11.718	149	81	N.D.	
75) Fluoranthene	12.414	202	105	N.D.	
76) Benzidine	12.580	184	2179	68.20 ng/ml	91
77) Pyrene	12.724	202	64	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	13.906	129	791	N.D.	
82) 3,3-Dichlorobenzidine	14.863	252	271	Below Cal #	25
83) Benz(a)anthracene	14.912	228	2854	4.80 ng/ml	67
84) Chrysene	14.912	228	2826	4.62 ng/ml	66
85) Bis(2-ethylhexyl) phth...	15.067	149	83	N.D.	
87) Di-n-octyl phthalate	16.735	149	81	30.90 ng/ml#	1
88) Benzo(b)fluoranthene	17.468	252	54	N.D.	
89) Benzo(k)fluoranthene	17.538	252	89	N.D.	
90) Benzo(b+k)fluoranthene	17.538	252	89	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.399	252	3568	6.28 ng/ml	70
95) Indeno(1,2,3-cd)pyrene	20.790	276	464	N.D.	
96) Dibenz(a,h)anthracene	20.790	278	242	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 : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191917.D
Acq On : 20 Sep 2019 12:49 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:06 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191917.D
Acq On : 20 Sep 2019 12:49 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Final Segment
9/27/19

Quant Time: Sep 20 14:22:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.568	152	263426	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1245077	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	634026	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1140103	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.912	240	1131801	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.399	264	1099318	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.790	292	879454	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.402	112	67	0.42	ng/ml	0.11
5) Phenol-d6(Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	7.129	82	88	0.55	ng/ml	0.02
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	3.947	79	261	N.D.		
6) Phenol	6.215	94	79	N.D.		
7) Aniline	6.284	93	59	N.D.		
8) Bis(2-chloroethyl) ether	6.306	93	72	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	6.744	108	78	25.17	ng/ml#	41
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	6.819	107	109	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	6.814	45	64	N.D.		
16) N-Nitrosodi-n-propylamine	7.028	70	172	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.086	77	108	N.D.		
22) Isophorone	7.370	82	96	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	7.563	105	152	807.53	ng/ml#	28
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	8.392	107	91	N.D.		
33) 2-Methylnaphthalene	8.557	142	100	N.D.		
34) 1-Methylnaphthalene	8.659	142	61	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 : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191917.D
Acq On : 20 Sep 2019 12:49 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:22:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

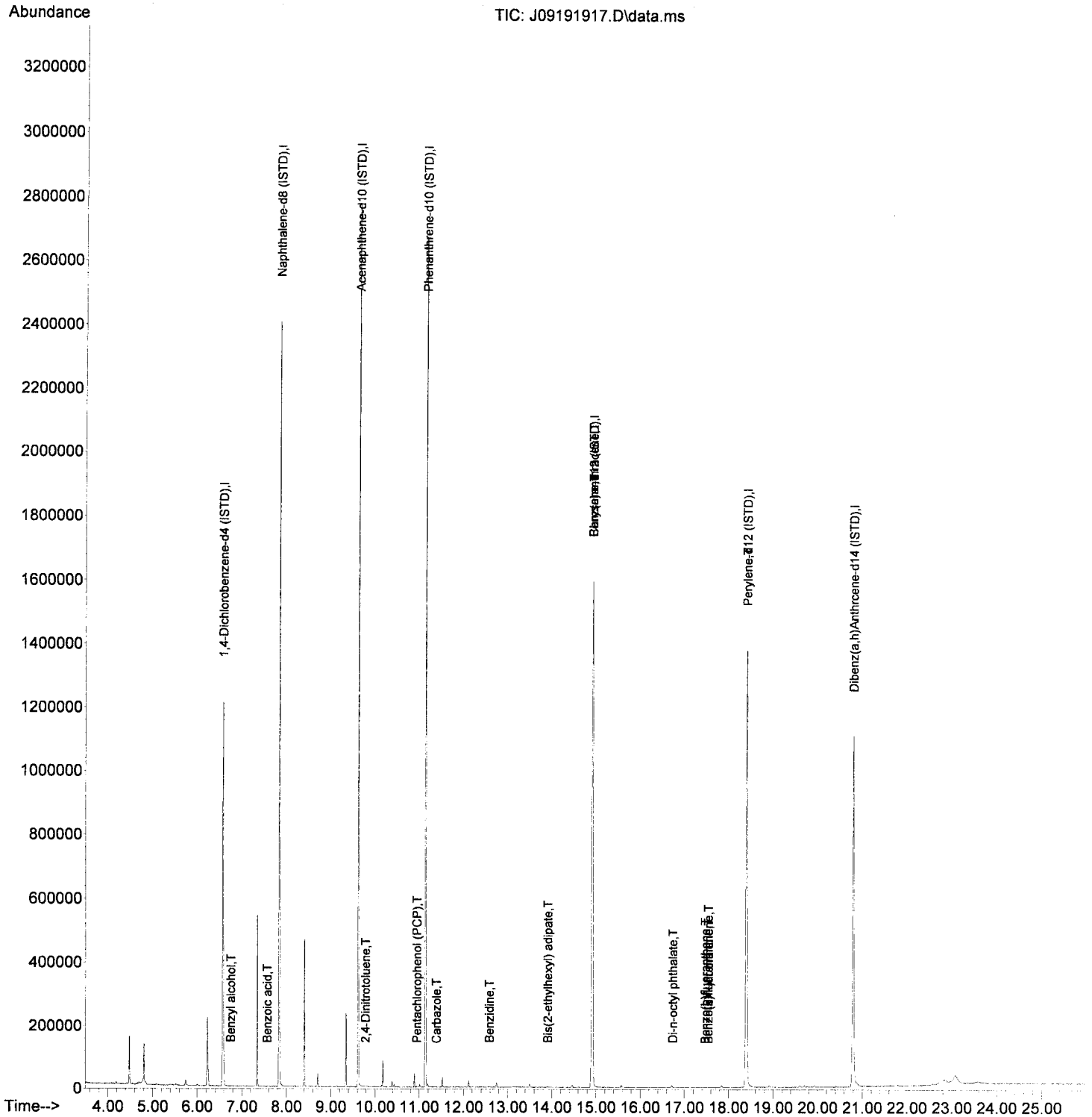
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	9.344	163	194	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.483	152	84	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	9.648	153	78	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	9.777	165	228	55.41 ng/ml#	54
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	10.039	149	103	N.D.	
59) 2,3,5-Trimethylnaphtha...	10.146	170	164	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)	10.338	77	165	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	10.938	266	325	80.48 ng/ml	76
71) Phenanthrene	11.135	178	418	N.D.	
72) Anthracene	11.135	178	418	N.D.	
73) Carbazole	11.381	167	91	5.75 ng/ml	60
74) Di-n-butyl phthalate	11.718	149	81	N.D.	
75) Fluoranthene	12.414	202	105	N.D.	
76) Benzidine	12.580	184	2179	136.03 ng/ml	91
77) Pyrene	12.724	202	64	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	13.906	129	791	3.01 ng/ml	88
82) 3,3-Dichlorobenzidine	14.863	252	271	Below Cal #	25
83) Benz(a)anthracene	14.912	228	2854	4.52 ng/ml	67
84) Chrysene	14.912	228	2826	4.77 ng/ml	66
85) Bis(2-ethylhexyl) phth...	15.067	149	83	N.D.	
87) Di-n-octyl phthalate	16.735	149	81	58.06 ng/ml#	1
88) Benzo(b)fluoranthene	17.468	252	54	8.05 ng/ml	57
89) Benzo(k)fluoranthene	17.538	252	89	8.62 ng/ml	57
90) Benzo(b+k)fluoranthene	17.538	252	89	15.88 ng/ml	57
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.399	252	3568	7.20 ng/ml	70
95) Indeno(1,2,3-cd)pyrene	20.790	276	464	N.D.	
96) Dibenz(a,h)anthracene	20.790	278	242	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 : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191917.D
Acq On : 20 Sep 2019 12:49 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:22:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	291746	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1221708	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	640527	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1150535	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.912	240	1159268	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.394	264	1158997	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.795	292	913932	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.316	112	2742	13.86	ng/ml	0.03
5) Phenol-d6(Surr)	6.204	99	3493	13.74	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	2861	12.28	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.926	172	9460	20.11	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.413	330	762	14.12	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.922	244	9512	16.78	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	3.840	79	55	N.D.		
6) Phenol	6.220	94	4498	15.57	ng/ml	89
7) Aniline	6.252	93	2038	7.89	ng/ml	96
8) Bis(2-chloroethyl) ether	6.311	93	4110	15.97	ng/ml	98
9) 2-Chlorophenol	6.370	128	3591	17.25	ng/ml	95
10) 1,3-Dichlorobenzene	6.520	146	4452	19.78	ng/ml	92
11) 1,4-Dichlorobenzene	6.589	146	4492	20.57	ng/ml	93
12) Benzyl alcohol	6.723	108	1506	11.29	ng/ml	96
13) 1,2-Dichlorobenzene	6.744	146	4176	19.02	ng/ml	90
14) 2-Methylphenol	6.808	107	2712	16.21	ng/ml	89
15) 2,2'-Oxybis(1-Chloropr...	6.835	45	4376	13.18	ng/ml	93
16) N-Nitrosodi-n-propylamine	6.964	70	2691	15.96	ng/ml	91
17) 3+4-Methylphenol	6.958	107	3108	15.07	ng/ml	89
18) Hexachloroethane	7.081	201	1267	21.07	ng/ml	89
20) Nitrobenzene	7.135	77	3138	13.45	ng/ml	95
22) Isophorone	7.370	82	6954	15.68	ng/ml	93
23) 2-Nitrophenol	7.456	139	1053	38.03	ng/ml	91
24) 2,4-Dimethylphenol	7.488	122	2375	14.05	ng/ml	83
25) Bis(2-chloroethoxy) me...	7.579	93	4738	19.18	ng/ml	96
26) Benzoic acid	7.552	105	229	305.92	ng/ml#	66
27) 2,4-Dichlorophenol	7.691	162	1603	10.94	ng/ml	76
28) 1,2,4-Trichlorobenzene	7.782	180	4361	24.59	ng/ml	82
29) Naphthalene	7.857	128	14004	22.32	ng/ml	100
30) 4-Chloroaniline	7.910	127	1531	18.26	ng/ml	90
31) Hexachlorobutadiene	7.990	225	2247	23.76	ng/ml	84
32) 4-Chloro-3-methylphenol	8.392	107	1917	10.87	ng/ml#	53
33) 2-Methylnaphthalene	8.552	142	8620	20.12	ng/ml	94
34) 1-Methylnaphthalene	8.654	142	9000	21.86	ng/ml	91
36) Hexachlorocyclopentadiene	8.723	237	1303	12.86	ng/ml	74
37) 2,4,6-Trichlorophenol	8.841	196	1119	20.94	ng/ml	79
38) 2,4,5-Trichlorophenol	8.873	198	1218	11.18	ng/ml	91
39) 1,1'-Biphenyl	9.028	154	10205	19.18	ng/ml	95
41) 2-Chloronaphthalene	9.050	162	7646	19.58	ng/ml	99
42) 2-Nitroaniline	9.146	138	939	7.22	ng/ml	82
43) 2,6-Dimethylnaphthalene	9.189	156	7097	17.82	ng/ml	96

See MJ
See MJ

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

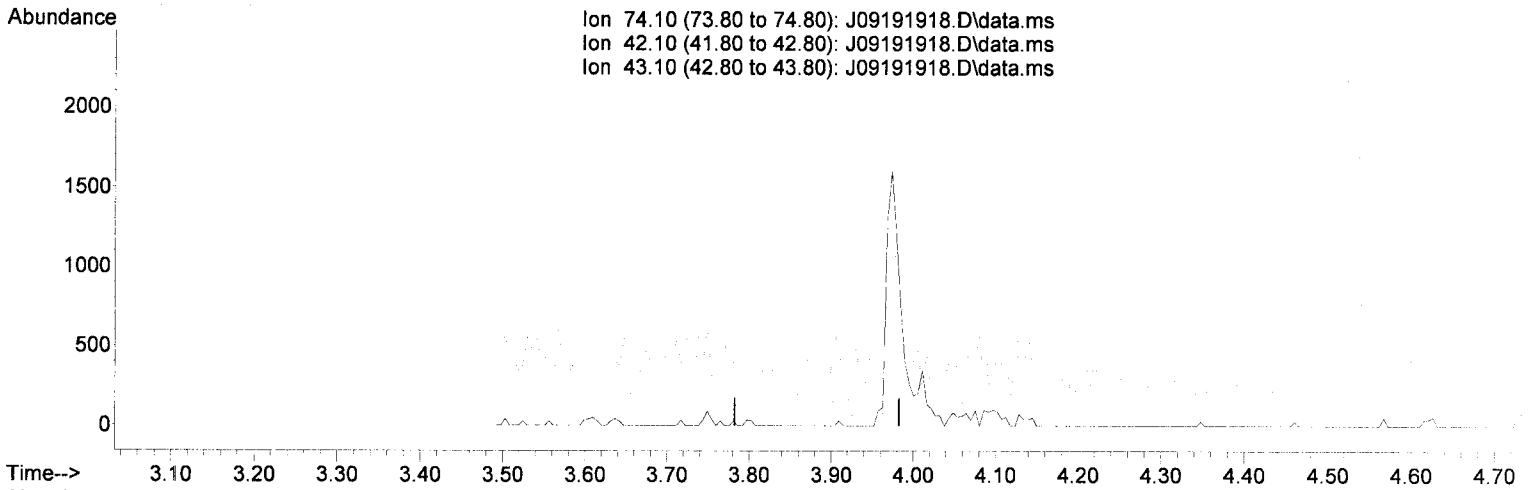
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	381	6.28	ng/ml#	63
45) Dimethyl phthalate	9.328	163	9190	20.06	ng/ml	91
46) 1,3-Dinitrobenzene	9.354	168	417	5.99	ng/ml	67
47) 2,6-Dinitrotoluene	9.386	165	1042	10.58	ng/ml	99
48) 1,2-Dinitrobenzene	9.440	168	304	6.59	ng/ml#	34
49) Acenaphthylene	9.472	152	12450	19.89	ng/ml	95
50) 3-Nitroaniline	9.563	138	592	27.61	ng/ml	93
51) Acenaphthene	9.649	153	8885	21.89	ng/ml	96
52) 2,4-Dinitrophenol	0.000		0	N.D.		
53) 4-Nitrophenol	9.723	139	120	34.89	ng/ml	85
54) 2,4-Dinitrotoluene	9.798	165	1027	8.10	ng/ml#	60
55) Dibenzofuran	9.825	168	11668	21.08	ng/ml	90
56) 2,3,5,6-Tetrachlorophenol	9.911	232	774	34.62	ng/ml	97
57) 2,3,4,6-Tetrachlorophenol	9.948	232	856	19.53	ng/ml	77
58) Diethyl phthalate	10.044	149	8035	18.39	ng/ml	97
59) 2,3,5-Trimethylnaphtha...	10.034	170	7629	21.57	ng/ml	95
60) Fluorene	10.173	166	9113	20.91	ng/ml	94
61) 4-Chlorophenyl phenyl ...	10.167	204	4548	22.45	ng/ml	95
62) 4-Nitroaniline	10.183	138	719	8.15	ng/ml	91
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.		
65) N-Nitrosodiphenylamine	10.285	169	5957	16.84	ng/ml	88
66) Azobenzene (1,2-DPH)	10.328	77	6853	14.60	ng/ml	95
68) 4-Bromophenyl phenyl e...	10.670	248	2390	20.18	ng/ml	86
69) Hexachlorobenzene	10.745	284	3454	25.35	ng/ml	83
70) Pentachlorophenol (PCP)	10.938	266	1000	46.06	ng/ml	93
71) Phenanthrene	11.157	178	13749	21.85	ng/ml	98
72) Anthracene	11.205	178	11450	18.50	ng/ml	96
73) Carbazole	11.365	167	9186	17.97	ng/ml	96
74) Di-n-butyl phthalate	11.718	149	11697	16.31	ng/ml	94
75) Fluoranthene	12.425	202	12248	18.61	ng/ml	96
76) Benzidine	12.580	184	3398	75.33	ng/ml	91
77) Pyrene	12.708	202	12641	19.23	ng/ml	93
80) Butyl benzyl phthalate	13.730	149	2535	6.98	ng/ml	75
81) Bis(2-ethylhexyl) adipate	13.906	129	2762	8.49	ng/ml	94
82) 3,3-Dichlorobenzidine	14.853	252	3617	Below	Cal	95
83) Benz(a)anthracene	14.890	228	13459	19.80	ng/ml	92
84) Chrysene	14.970	228	11530	18.39	ng/ml	96
85) Bis(2-ethylhexyl) phth...	15.077	149	2659	5.54	ng/ml	99
87) Di-n-octyl phthalate	16.741	149	3334	34.72	ng/ml	97
88) Benzo(b)fluoranthene	17.463	252	8297	11.82	ng/ml	98
89) Benzo(k)fluoranthene	17.538	252	8174	12.27	ng/ml	92
90) Benzo(b+k)fluoranthene	17.463	252	17019	24.40	ng/ml	98
91) Benzo(e)pyrene	18.126	252	8657	12.60	ng/ml	95
92) Benzo(a)pyrene	18.238	252	6648	10.53	ng/ml	84
93) Perylene	18.447	252	9278	15.50	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.774	276	10072	19.60	ng/ml	76
96) Dibenz(a,h)anthracene	20.854	278	8754	19.00	ng/ml	94
97) Benzo(g,h,i)perylene	21.319	276	7772	15.71	ng/ml	96

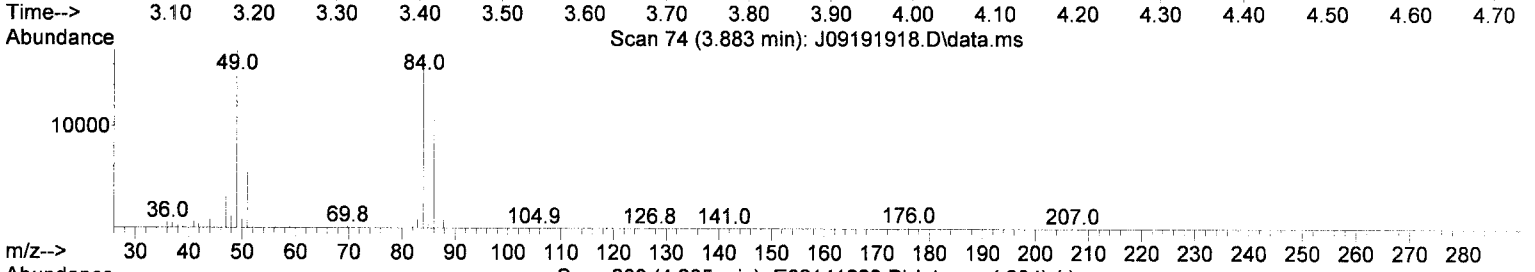
(#) = qualifier out of range (m) = manual integration (+) = signals summed

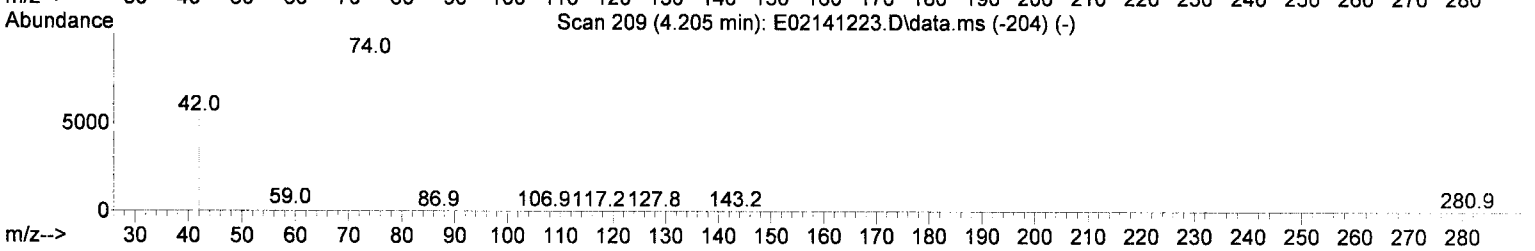
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191918.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.883min (-3.883) 0.00 ng/ml

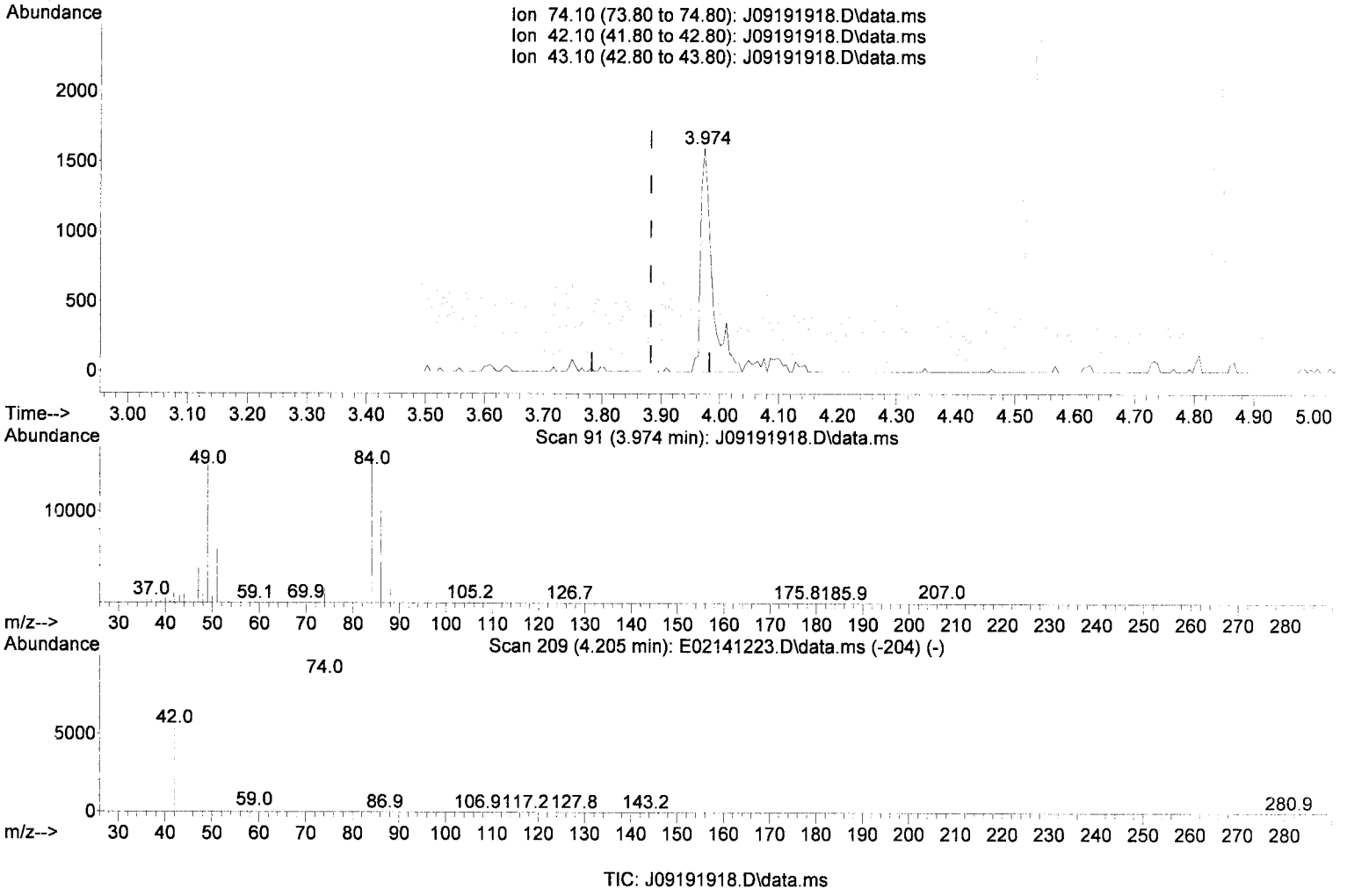
response 0

Ion	Exp%	Act%
74.10	100.00	0.00
42.10	49.40	0.00#
43.10	22.20	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191918.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.974min (+ 0.091) 16.33 ng/ml (m)

response 2214

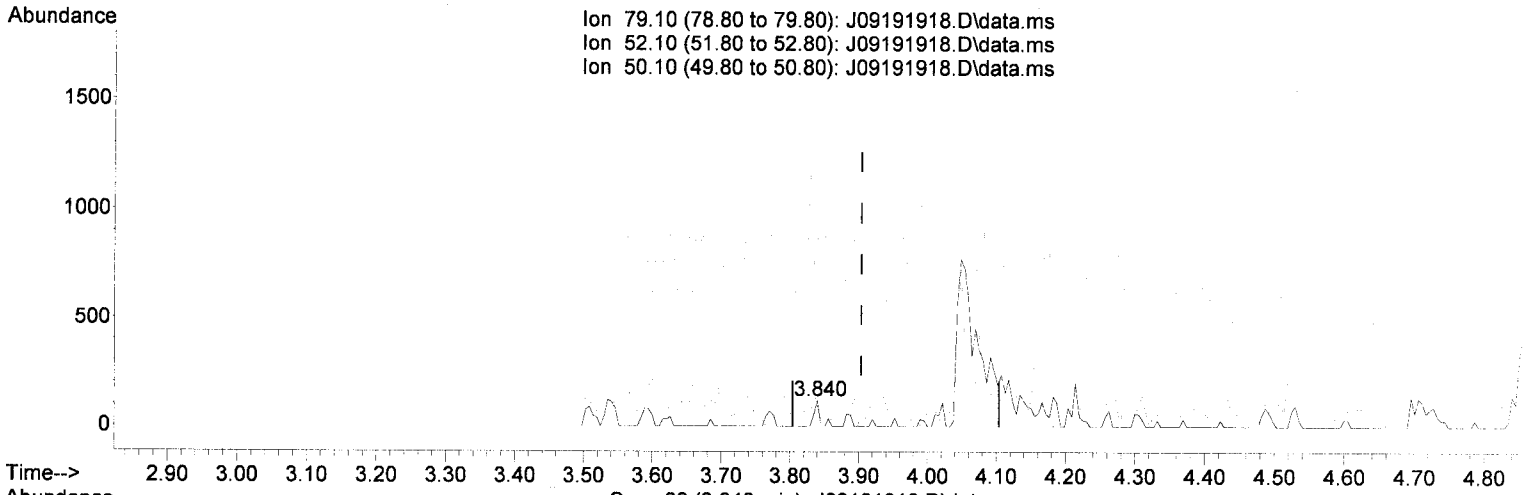
Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	66.21
43.10	22.20	47.47
0.00	0.00	0.00

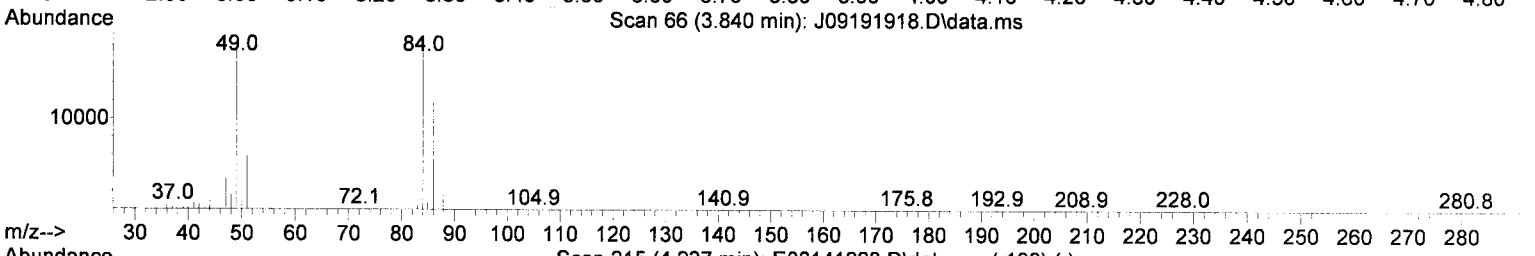
9/20/19

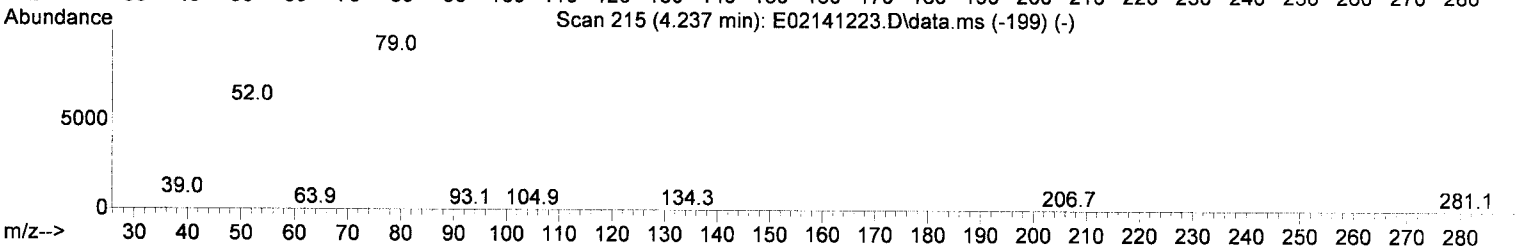
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191918.D\data.ms

(3) Pyridine (TG)

3.840min (-0.064) 0.24 ng/ml

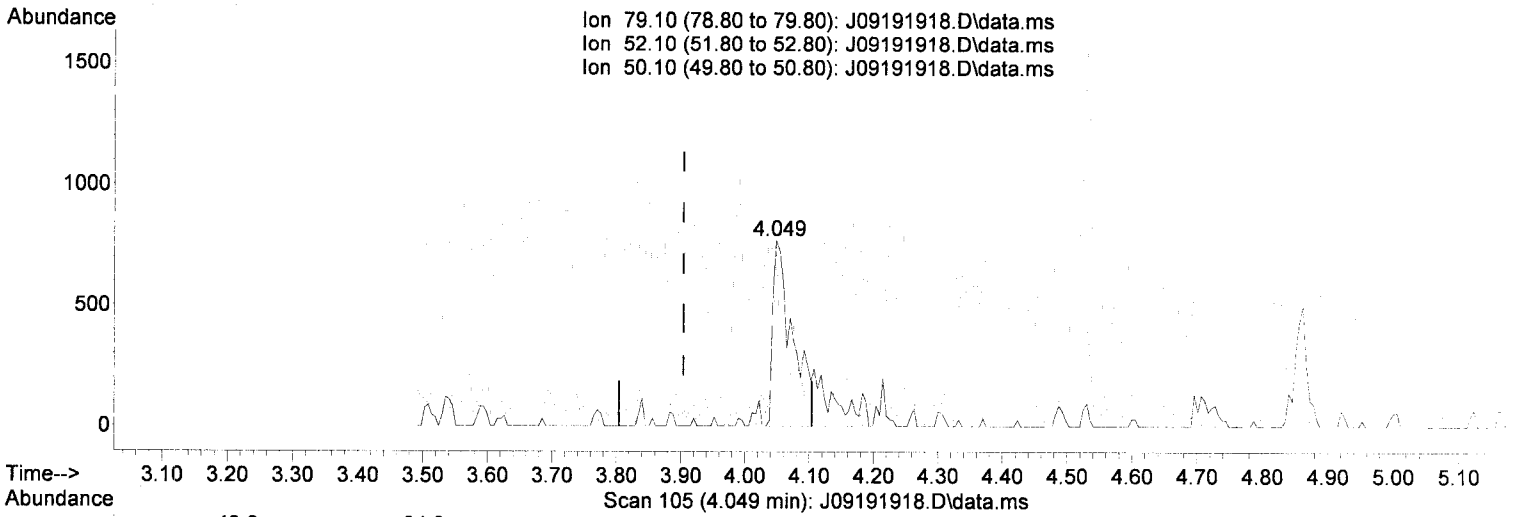
response 55

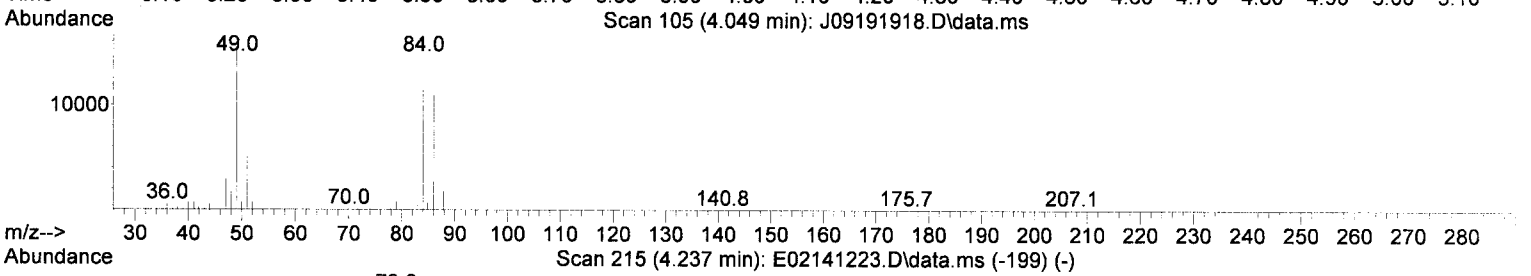
Ion	Exp%	Act%
79.10	100.00	100.00
52.10	50.80	81.20#
50.10	18.70	146.15#
0.00	0.00	0.00

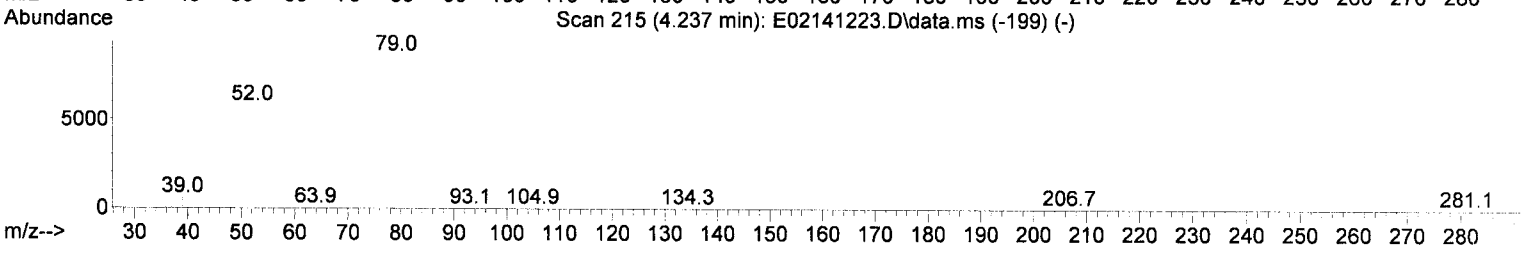
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191918.D\data.ms

(3) Pyridine (TG)

4.049min (+ 0.145) 9.55 ng/ml m

response 2206

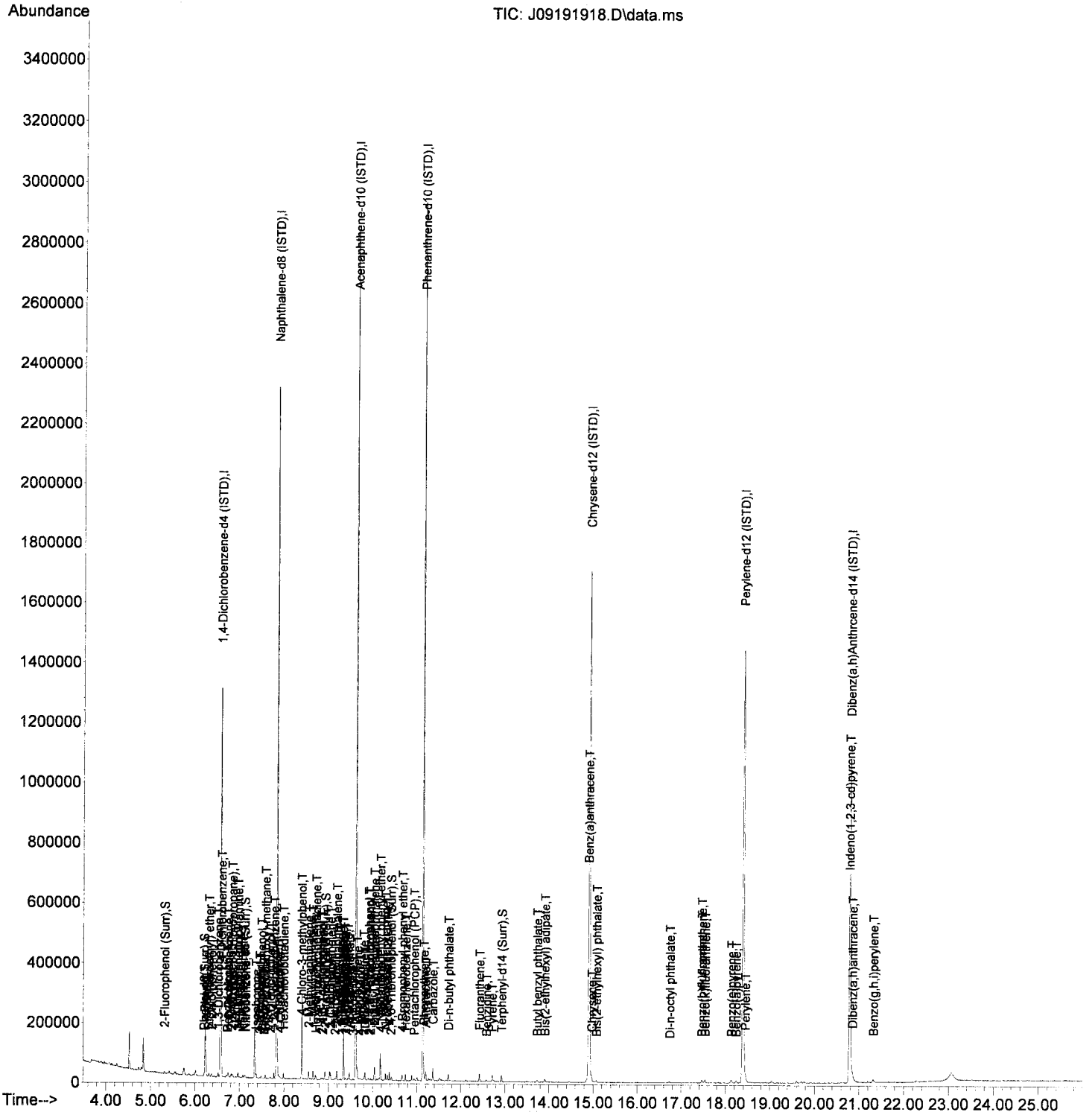
Ion	Exp%	Act%
79.10	100.00	100.00
52.10	50.80	96.24#
50.10	18.70	93.39#
0.00	0.00	0.00

9/20/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191919.D
Acq On : 20 Sep 2019 1:59 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL2
Misc : 1x, A19G239@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	291253	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1195757	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	616226	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1087898	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.906	240	1113286	2000.00	ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.393	264	1097209	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.790	292	855339	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.311	112	7611	38.53	ng/ml	0.02
5) Phenol-d6(Surr)	6.204	99	9501	37.44	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	7903	33.99	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.926	172	24802	54.81	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	1929	37.79	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.922	244	25113	46.14	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	~~3.952~~	~~74~~	~~4569~~	~~33.76~~	~~ng/ml~~	93
3) Pyridine	4.000	79	7667m	33.23	ng/ml#	
6) Phenol	6.215	94	11373	39.43	ng/ml	93
7) Aniline	6.252	93	10955	42.49	ng/ml	95
8) Bis(2-chloroethyl) ether	6.306	93	10198	39.70	ng/ml	95
9) 2-Chlorophenol	6.364	128	9461	45.54	ng/ml	88
10) 1,3-Dichlorobenzene	6.519	146	11576	51.52	ng/ml	97
11) 1,4-Dichlorobenzene	6.589	146	12059	55.30	ng/ml	94
12) Benzyl alcohol	6.707	108	3460	25.97	ng/ml	94
13) 1,2-Dichlorobenzene	6.739	146	12229	55.79	ng/ml	98
14) 2-Methylphenol	6.808	107	6405	38.35	ng/ml	90
15) 2,2'-Oxybis(1-Chloropr...	6.835	45	10585	31.94	ng/ml	90
16) N-Nitrosodi-n-propylamine	6.963	70	6538	38.84	ng/ml	98
17) 3+4-Methylphenol	6.958	107	8248	40.07	ng/ml	95
18) Hexachloroethane	7.076	201	3313	55.18	ng/ml	93
20) Nitrobenzene	7.135	77	8614	36.98	ng/ml	95
22) Isophorone	7.370	82	18082	41.67	ng/ml	97
23) 2-Nitrophenol	7.455	139	3400	54.77	ng/ml	93
24) 2,4-Dimethylphenol	7.488	122	5922	35.79	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.579	93	11523	47.66	ng/ml	92
26) Benzoic acid	7.573	105	200	305.64	ng/ml#	58
27) 2,4-Dichlorophenol	7.691	162	5068	35.35	ng/ml	91
28) 1,2,4-Trichlorobenzene	7.776	180	11103	63.97	ng/ml	92
29) Naphthalene	7.857	128	34402	56.01	ng/ml	99
30) 4-Chloroaniline	7.905	127	7306	53.73	ng/ml	92
31) Hexachlorobutadiene	7.990	225	5972	64.52	ng/ml	97
32) 4-Chloro-3-methylphenol	8.392	107	5211	30.18	ng/ml	82
33) 2-Methylnaphthalene	8.557	142	23135	55.17	ng/ml	94
34) 1-Methylnaphthalene	8.654	142	23006	57.09	ng/ml	92
36) Hexachlorocyclopentadiene	8.723	237	3356	34.42	ng/ml	95
37) 2,4,6-Trichlorophenol	8.835	196	3644	44.63	ng/ml	82
38) 2,4,5-Trichlorophenol	8.873	198	3657	34.90	ng/ml	96
39) 1,1'-Biphenyl	9.028	154	28683	56.03	ng/ml	96
41) 2-Chloronaphthalene	9.049	162	19450	51.76	ng/ml	98
42) 2-Nitroaniline	9.146	138	2728	21.81	ng/ml	70
43) 2,6-Dimethylnaphthalene	9.188	156	20566	53.66	ng/ml	99

See mJ

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191919.D
Acq On : 20 Sep 2019 1:59 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL2
Misc : 1x, A19G239@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

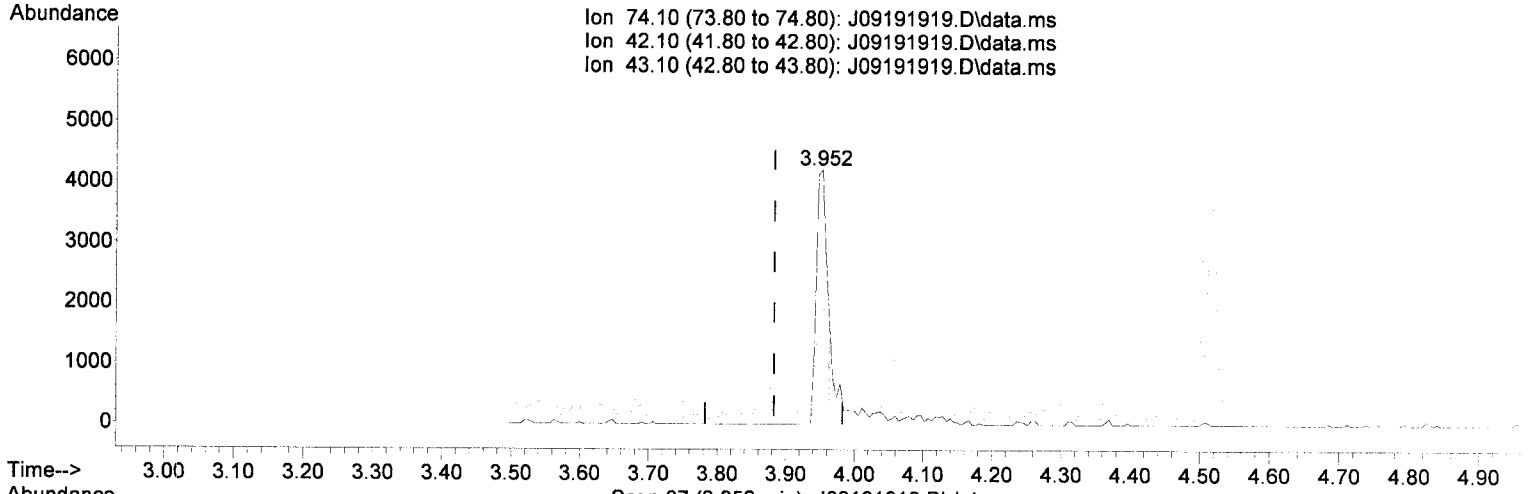
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	915	15.67	ng/ml#	75
45) Dimethyl phthalate	9.328	163	22486	51.02	ng/ml	99
46) 1,3-Dinitrobenzene	9.354	168	1390	20.76	ng/ml	79
47) 2,6-Dinitrotoluene	9.386	165	2915	30.76	ng/ml	88
48) 1,2-Dinitrobenzene	9.440	168	1349	30.38	ng/ml	98
49) Acenaphthylene	9.472	152	32192	53.45	ng/ml	98
50) 3-Nitroaniline	9.563	138	2106	41.58	ng/ml#	68
51) Acenaphthene	9.648	153	22572	57.81	ng/ml	99
52) 2,4-Dinitrophenol	0.000		0	N.D.		
53) 4-Nitrophenol	9.723	139	699	42.87	ng/ml	71
54) 2,4-Dinitrotoluene	9.798	165	2508	20.56	ng/ml	84
55) Dibenzofuran	9.825	168	29377	55.18	ng/ml	94
56) 2,3,5,6-Tetrachlorophenol	9.905	232	1678	45.25	ng/ml	83
57) 2,3,4,6-Tetrachlorophenol	9.948	232	2513	38.75	ng/ml	86
58) Diethyl phthalate	10.044	149	21378	50.87	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.034	170	19066	56.02	ng/ml	97
60) Fluorene	10.173	166	22247	53.06	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.167	204	11449	58.75	ng/ml	94
62) 4-Nitroaniline	10.178	138	2192	25.82	ng/ml	87
63) 4,6-Dinitro-2-methylph...	10.215	198	206	74.51	ng/ml#	65
65) N-Nitrosodiphenylamine	10.285	169	16461	49.20	ng/ml	97
66) Azobenzene (1,2-DPH)	10.328	77	17404	39.22	ng/ml	93
68) 4-Bromophenyl phenyl e...	10.665	248	6326	56.49	ng/ml	91
69) Hexachlorobenzene	10.745	284	7615	59.10	ng/ml	98
70) Pentachlorophenol (PCP)	10.937	266	1392	53.47	ng/ml#	61
71) Phenanthrene	11.157	178	32566	54.75	ng/ml	95
72) Anthracene	11.205	178	30636	52.34	ng/ml	98
73) Carbazole	11.365	167	24489	50.68	ng/ml	93
74) Di-n-butyl phthalate	11.718	149	29117	42.93	ng/ml	99
75) Fluoranthene	12.424	202	31166	50.09	ng/ml	93
76) Benzidine	12.579	184	5652	90.66	ng/ml	93
77) Pyrene	12.713	202	32717	52.64	ng/ml	98
80) Butyl benzyl phthalate	13.735	149	6765	19.40	ng/ml	97
81) Bis(2-ethylhexyl) adipate	13.911	129	6924	22.16	ng/ml	92
82) 3,3-Dichlorobenzidine	14.847	252	11318	Below Cal		86
83) Benz(a)anthracene	14.890	228	29779	45.62	ng/ml	97
84) Chrysene	14.960	228	29254	48.57	ng/ml	97
85) Bis(2-ethylhexyl) phth...	15.072	149	8694	18.85	ng/ml	93
87) Di-n-octyl phthalate	16.735	149	9861	43.05	ng/ml	94
88) Benzo(b)fluoranthene	17.468	252	21819	32.83	ng/ml	93
89) Benzo(k)fluoranthene	17.543	252	23687	37.57	ng/ml	95
90) Benzo(b+k)fluoranthene	17.468	252	47809	72.40	ng/ml	93
91) Benzo(e)pyrene	18.121	252	24570	37.78	ng/ml	95
92) Benzo(a)pyrene	18.238	252	18583	31.08	ng/ml	97
93) Perylene	18.447	252	24689	43.56	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.779	276	25006	52.00	ng/ml	88
96) Dibenz(a,h)anthracene	20.848	278	21791	50.52	ng/ml	94
97) Benzo(g,h,i)perylene	21.308	276	20181	43.59	ng/ml	97

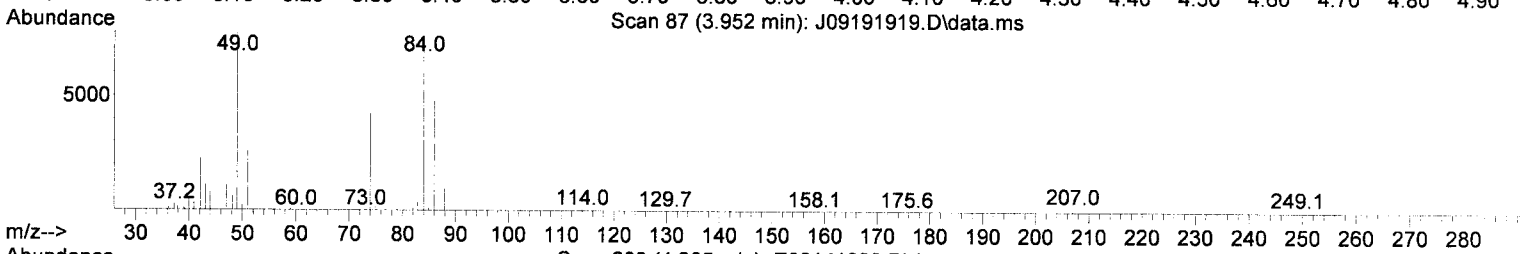
(#) = qualifier out of range (m) = manual integration (+) = signals summed

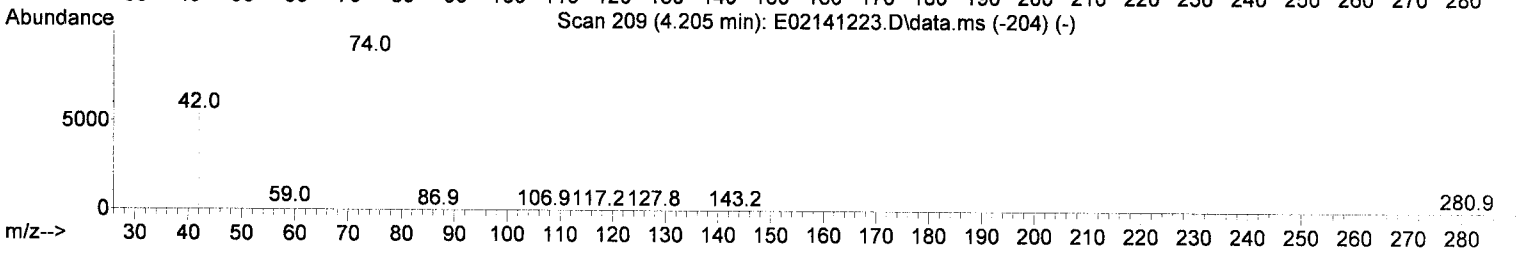
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191919.D
Acq On : 20 Sep 2019 1:59 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL2
Misc : 1x, A19G239@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191919.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.952min (+ 0.070) 33.76 ng/ml

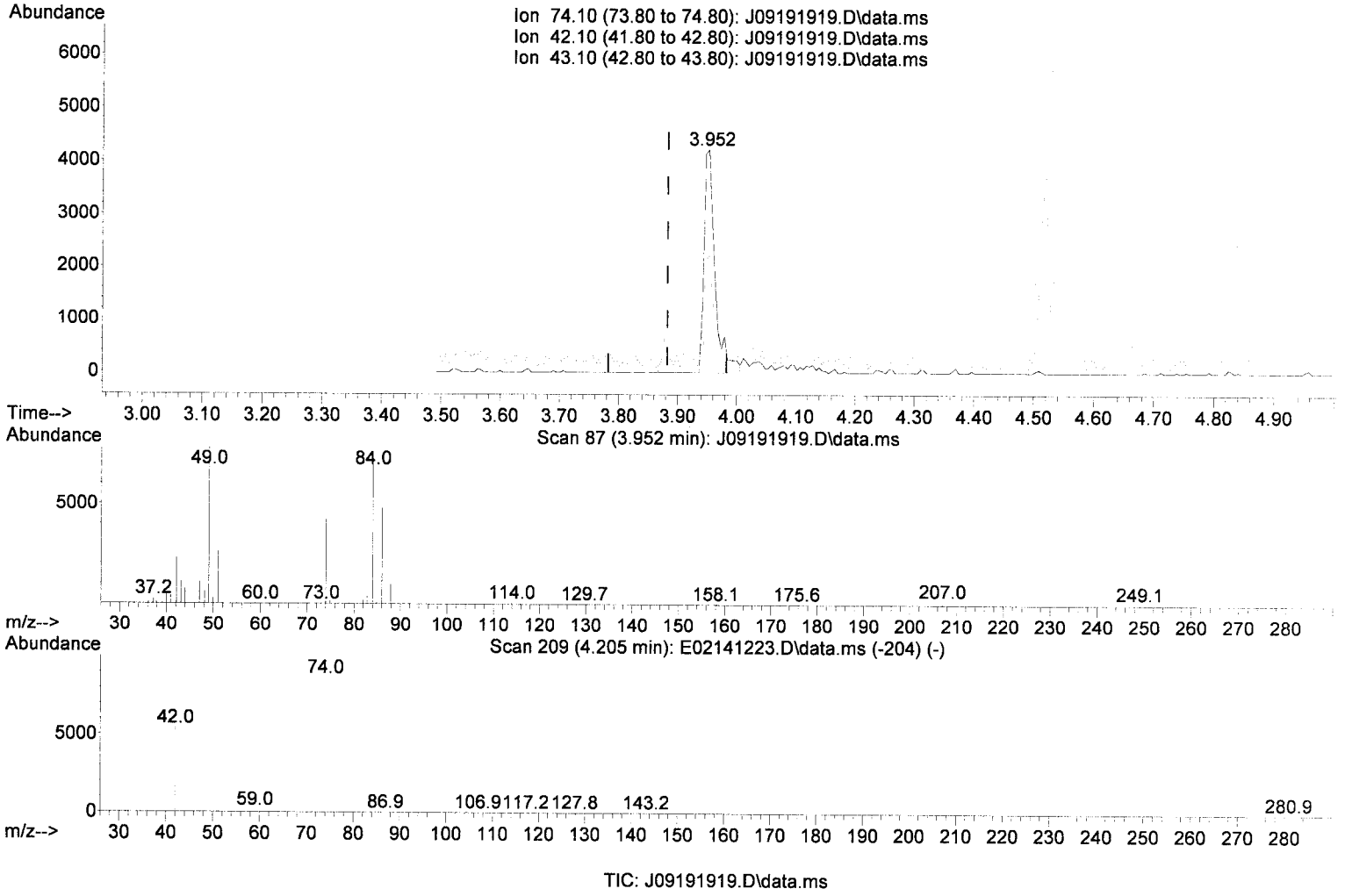
response 4569

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	53.59
43.10	22.20	26.52
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191919.D
Acq On : 20 Sep 2019 1:59 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL2
Misc : 1x, A19G239@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191919.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.952min (+ 0.070) 40.76 ng/ml m 9/20/19

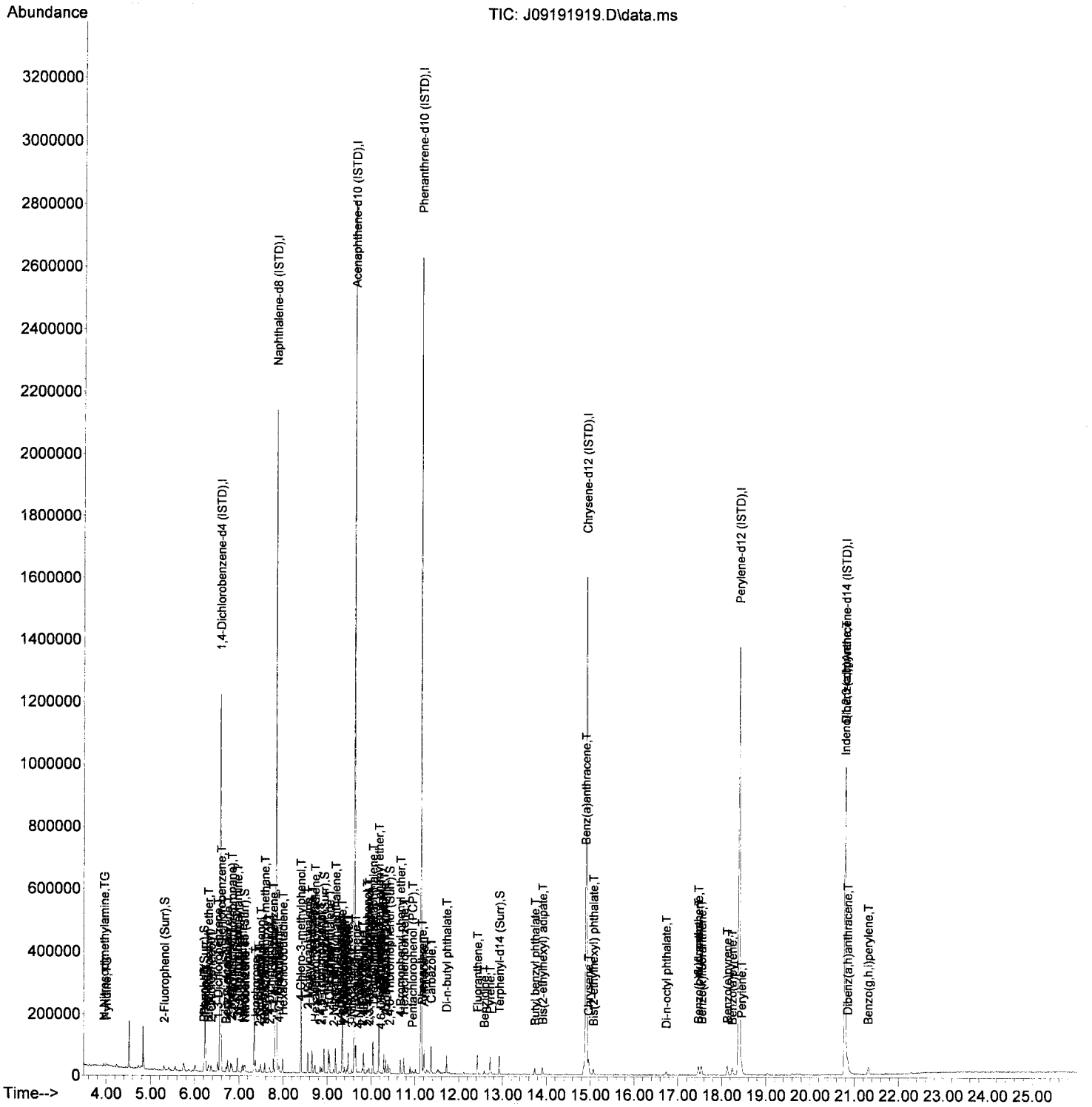
response 5516

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	53.59
43.10	22.20	26.52
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191919.D
Acq On : 20 Sep 2019 1:59 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL2
Misc : 1x, A19G239@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	290594	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1186873	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	615111	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1118597	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.912	240	1122909	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.394	264	1127380	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.790	292	892958	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.311	112	13834	70.19	ng/ml	0.02
5) Phenol-d6(Surr)	6.204	99	21003	82.96	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	16492	71.09	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.926	172	53353	118.12	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	4809	91.63	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.922	244	54871	99.96	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.952	74	9178	67.07	ng/ml	91
3) Pyridine	3.990	79	18548m	80.58	ng/ml#	
6) Phenol	6.220	94	23364	81.19	ng/ml	97
7) Aniline	6.252	93	23125	89.89	ng/ml	94
8) Bis(2-chloroethyl) ether	6.311	93	21464	83.74	ng/ml	93
9) 2-Chlorophenol	6.370	128	19462	93.88	ng/ml	97
10) 1,3-Dichlorobenzene	6.520	146	23840	106.35	ng/ml	98
11) 1,4-Dichlorobenzene	6.589	146	23338	107.27	ng/ml	92
12) Benzyl alcohol	6.707	108	8907	67.02	ng/ml	96
13) 1,2-Dichlorobenzene	6.739	146	23746	108.58	ng/ml	95
14) 2-Methylphenol	6.808	107	14254	85.54	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.835	45	21848	66.08	ng/ml	97
16) N-Nitrosodi-n-propylamine	6.963	70	13631	81.17	ng/ml	98
17) 3+4-Methylphenol	6.958	107	16854	82.07	ng/ml	89
18) Hexachloroethane	7.076	201	6562	109.55	ng/ml	86
20) Nitrobenzene	7.135	77	17280	74.35	ng/ml	100
22) Isophorone	7.370	82	37997	88.22	ng/ml	97
23) 2-Nitrophenol	7.450	139	7240	82.31	ng/ml	87
24) 2,4-Dimethylphenol	7.488	122	14806	90.15	ng/ml	90
25) Bis(2-chloroethoxy) me...	7.579	93	23395	97.49	ng/ml	95
26) Benzoic acid	7.605	105	129	304.84	ng/ml#	68
27) 2,4-Dichlorophenol	7.691	162	12689	89.17	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.776	180	21292	123.58	ng/ml	98
29) Naphthalene	7.857	128	69263	113.61	ng/ml	96
30) 4-Chloroaniline	7.905	127	15139	102.27	ng/ml	96
31) Hexachlorobutadiene	7.990	225	11598	126.23	ng/ml	93
32) 4-Chloro-3-methylphenol	8.386	107	11698	68.25	ng/ml	89
33) 2-Methylnaphthalene	8.557	142	46039	110.62	ng/ml	99
34) 1-Methylnaphthalene	8.659	142	46134	115.33	ng/ml	98
36) Hexachlorocyclopentadiene	8.723	237	8031	82.51	ng/ml	94
37) 2,4,6-Trichlorophenol	8.841	196	7912	84.10	ng/ml	95
38) 2,4,5-Trichlorophenol	8.873	198	8310	79.46	ng/ml	93
39) 1,1'-Biphenyl	9.028	154	58168	113.83	ng/ml	98
41) 2-Chloronaphthalene	9.049	162	41705	111.19	ng/ml	97
42) 2-Nitroaniline	9.146	138	6877	55.07	ng/ml	89
43) 2,6-Dimethylnaphthalene	9.189	156	43362	113.35	ng/ml	96

See MJ

See MJ

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

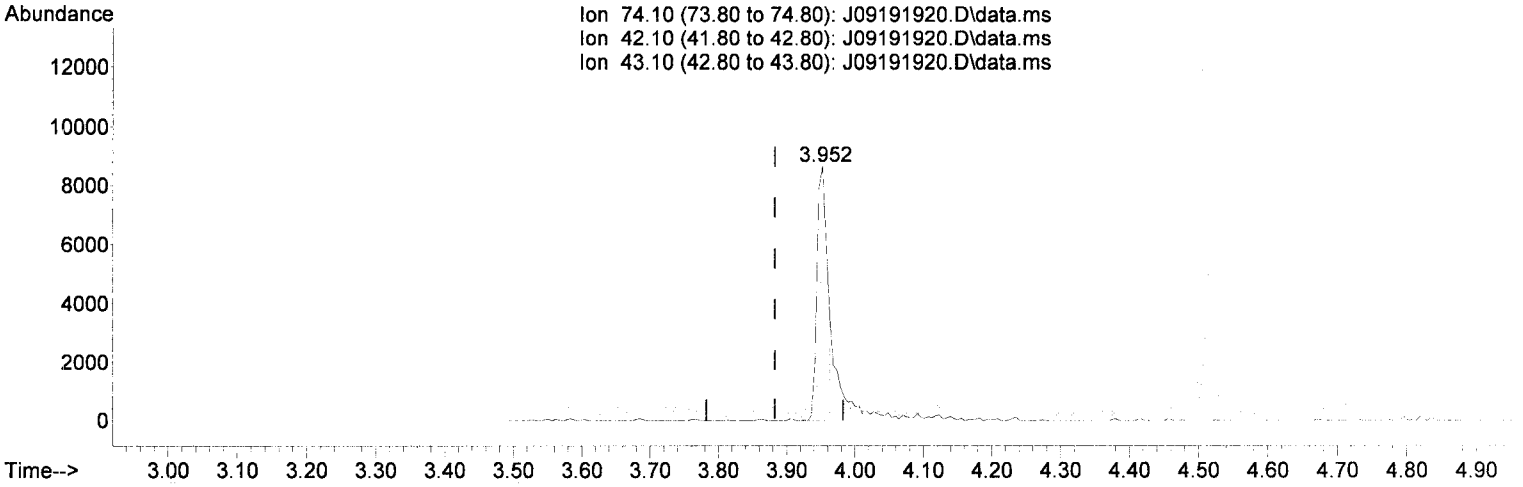
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	2006	34.41	ng/ml	84
45) Dimethyl phthalate	9.328	163	49089	111.58	ng/ml	99
46) 1,3-Dinitrobenzene	9.354	168	3033	45.87	ng/ml	81
47) 2,6-Dinitrotoluene	9.386	165	6526	68.97	ng/ml	84
48) 1,2-Dinitrobenzene	9.445	168	2742	61.87	ng/ml	83
49) Acenaphthylene	9.472	152	68008	113.12	ng/ml	97
50) 3-Nitroaniline	9.558	138	6036	77.71	ng/ml	97
51) Acenaphthene	9.649	153	44425	113.99	ng/ml	98
52) 2,4-Dinitrophenol	9.670	184	169	146.81	ng/ml	80
53) 4-Nitrophenol	9.723	139	2106	62.15	ng/ml	64
54) 2,4-Dinitrotoluene	9.798	165	6812	55.94	ng/ml	98
55) Dibenzofuran	9.825	168	62656	117.90	ng/ml	96
56) 2,3,5,6-Tetrachlorophenol	9.905	232	5673	90.84	ng/ml	95
57) 2,3,4,6-Tetrachlorophenol	9.948	232	7263	92.88	ng/ml	95
58) Diethyl phthalate	10.044	149	47870	114.11	ng/ml	99
59) 2,3,5-Trimethylnaphtha...	10.034	170	38608	113.65	ng/ml	97
60) Fluorene	10.173	166	48968	116.99	ng/ml	96
61) 4-Chlorophenyl phenyl ...	10.167	204	23837	122.54	ng/ml	99
62) 4-Nitroaniline	10.178	138	5563	65.64	ng/ml	90
63) 4,6-Dinitro-2-methylph...	10.210	198	761	84.48	ng/ml	74
65) N-Nitrosodiphenylamine	10.285	169	36899	107.27	ng/ml	97
66) Azobenzene (1,2-DPH)	10.328	77	37821	82.88	ng/ml	96
68) 4-Bromophenyl phenyl e...	10.665	248	13242	115.00	ng/ml	94
69) Hexachlorobenzene	10.745	284	16314	123.13	ng/ml	97
70) Pentachlorophenol (PCP)	10.938	266	4341	100.38	ng/ml	92
71) Phenanthrene	11.151	178	68493	111.98	ng/ml	98
72) Anthracene	11.205	178	65192	108.32	ng/ml	98
73) Carbazole	11.365	167	54742	110.17	ng/ml	98
74) Di-n-butyl phthalate	11.718	149	70280	100.78	ng/ml	99
75) Fluoranthene	12.424	202	70234	109.79	ng/ml	96
76) Benzidine	12.580	184	12748	133.02	ng/ml	98
77) Pyrene	12.713	202	69474	108.72	ng/ml	98
80) Butyl benzyl phthalate	13.735	149	18774	53.39	ng/ml	97
81) Bis(2-ethylhexyl) adipate	13.911	129	18358	58.24	ng/ml	95
82) 3,3-Dichlorobenzidine	14.853	252	24584	98.99	ng/ml	93
83) Benz(a)anthracene	14.885	228	64818	98.44	ng/ml	99
84) Chrysene	14.965	228	61418	101.11	ng/ml	98
85) Bis(2-ethylhexyl) phth...	15.072	149	26668	57.33	ng/ml	98
87) Di-n-octyl phthalate	16.741	149	33665	71.49	ng/ml	95
88) Benzo(b)fluoranthene	17.468	252	57260	83.86	ng/ml	95
89) Benzo(k)fluoranthene	17.538	252	58523	90.33	ng/ml	99
90) Benzo(b+k)fluoranthene	17.538	252	120376	177.42	ng/ml	99
91) Benzo(e)pyrene	18.121	252	58165	87.04	ng/ml	93
92) Benzo(a)pyrene	18.244	252	50114	81.58	ng/ml	96
93) Perylene	18.447	252	50289	86.35	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.779	276	52504	104.59	ng/ml	97
96) Dibenz(a,h)anthracene	20.854	278	48705	108.17	ng/ml	97
97) Benzo(g,h,i)perylene	21.309	276	49447	102.31	ng/ml	98

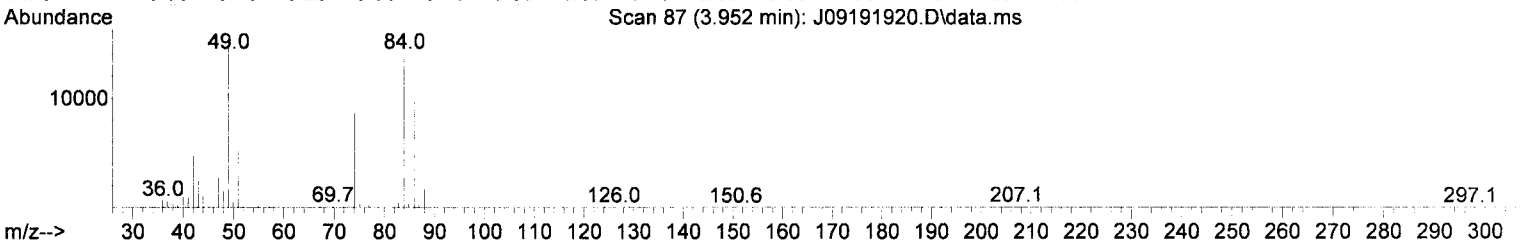
(#) = qualifier out of range (m) = manual integration (+) = signals summed

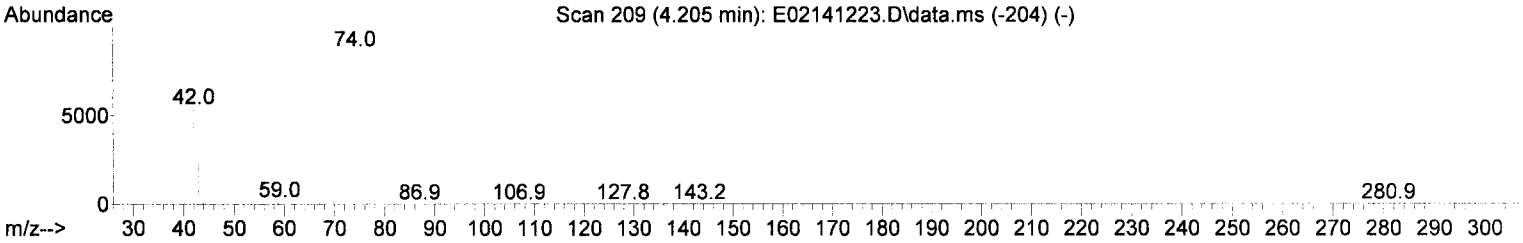
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191920.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.952min (+ 0.070) 67.97 ng/ml

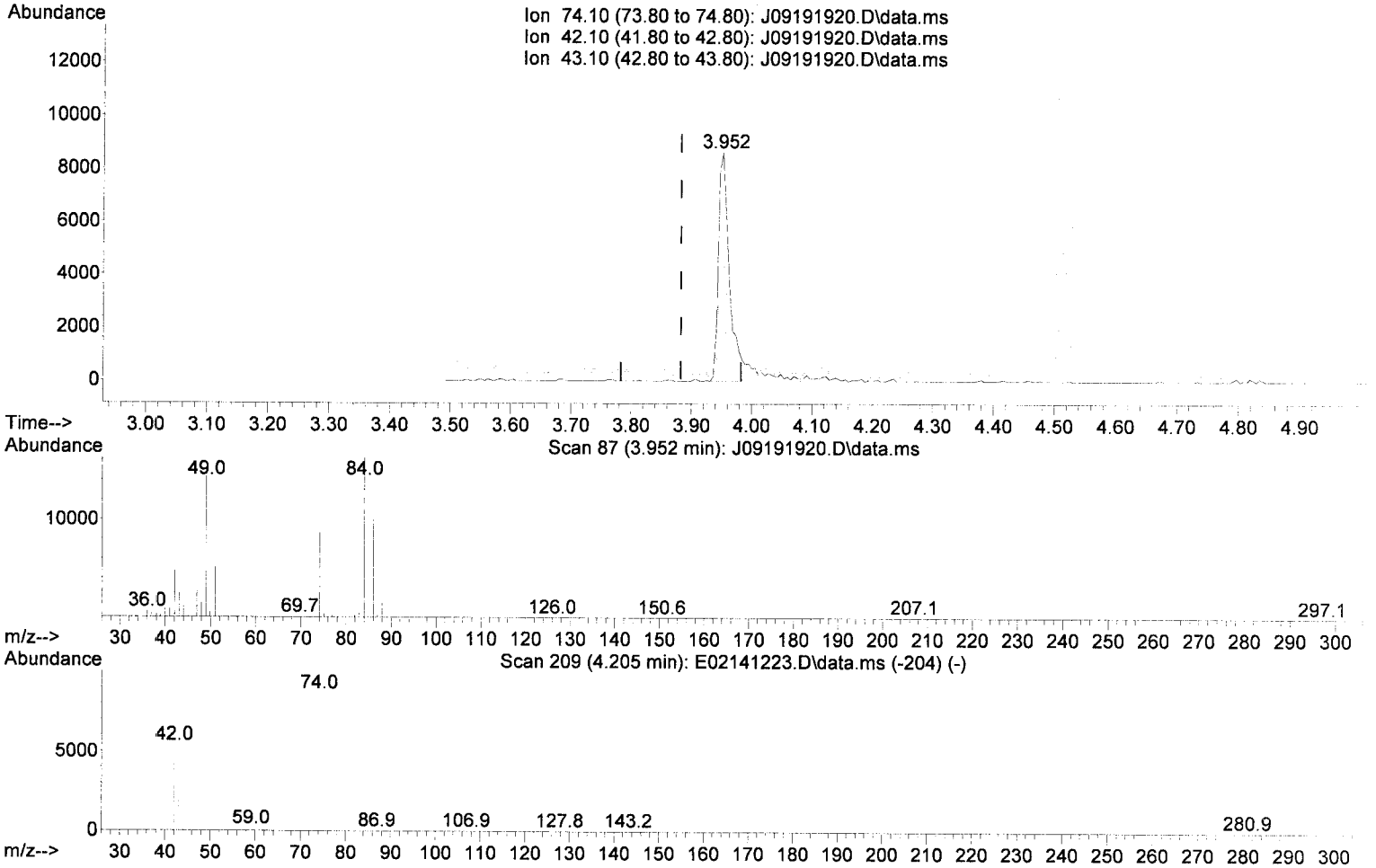
response 9178

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	55.00
43.10	22.20	27.95
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191920.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.952min (+ 0.070) 86.90 ng/ml (m)

response 11734

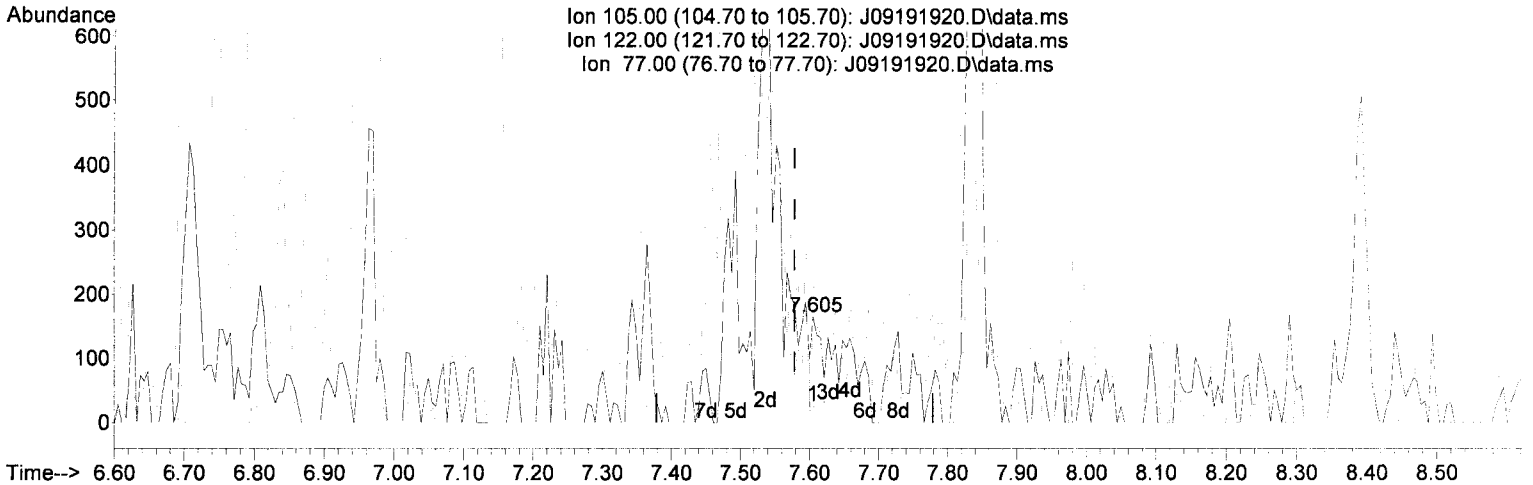
Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	55.00
43.10	22.20	27.95
0.00	0.00	0.00

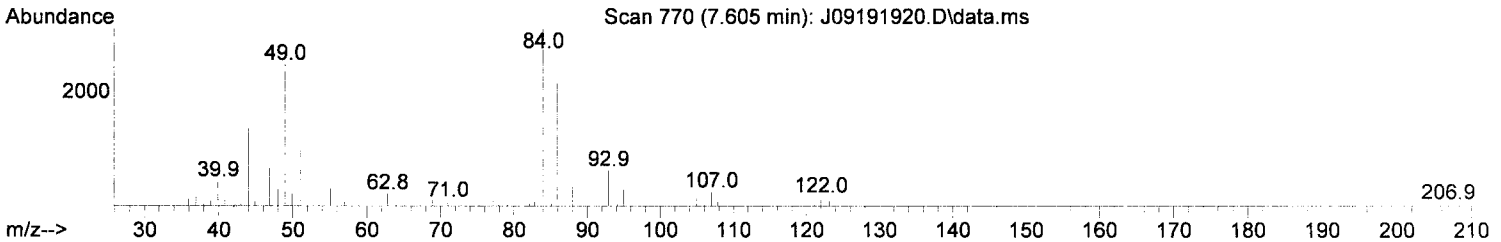
9/20/19

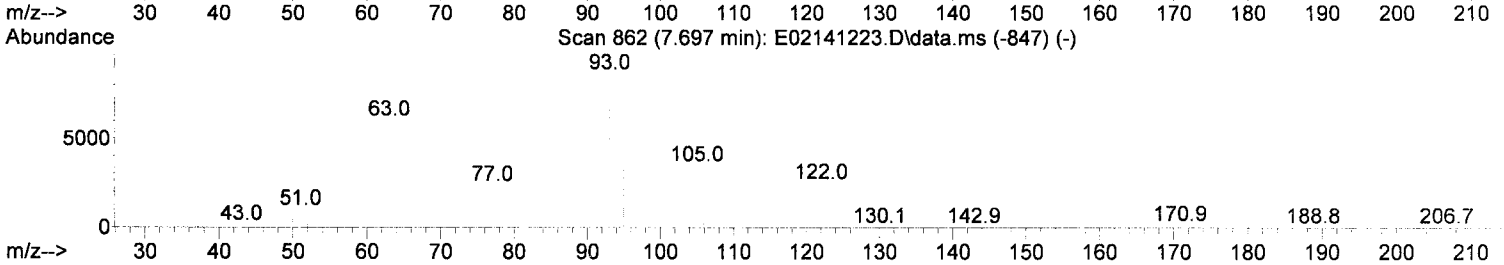
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191920.D\data.ms

(26) Benzoic acid (T)

7.605min (+ 0.027) 304.84 ng/ml

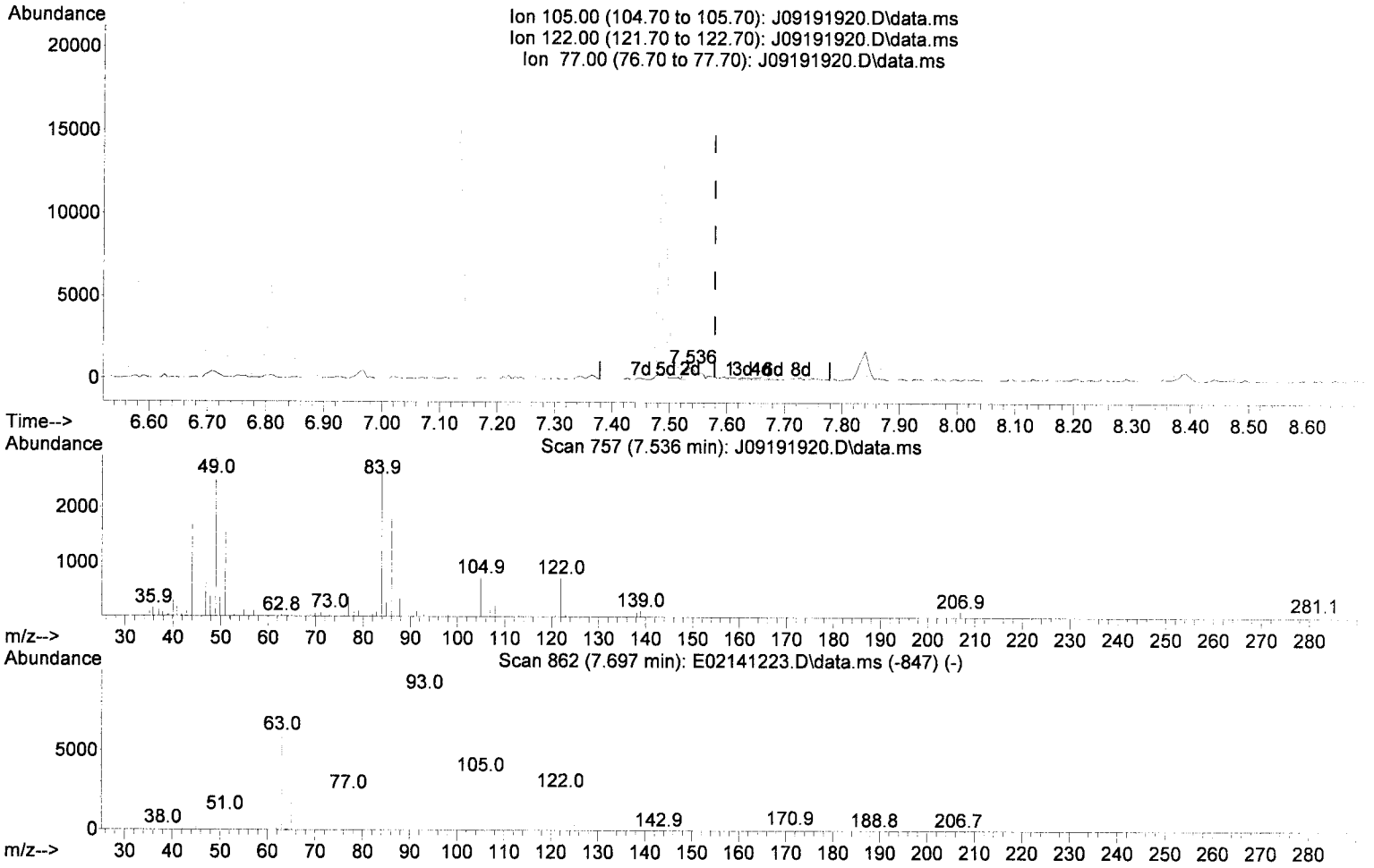
response 129

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	108.48
77.00	72.00	113.33#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191920.D\data.ms

(26) Benzoic acid (T)

7.536min (-0.043) 327.42 ng/ml m GL 9/20/19

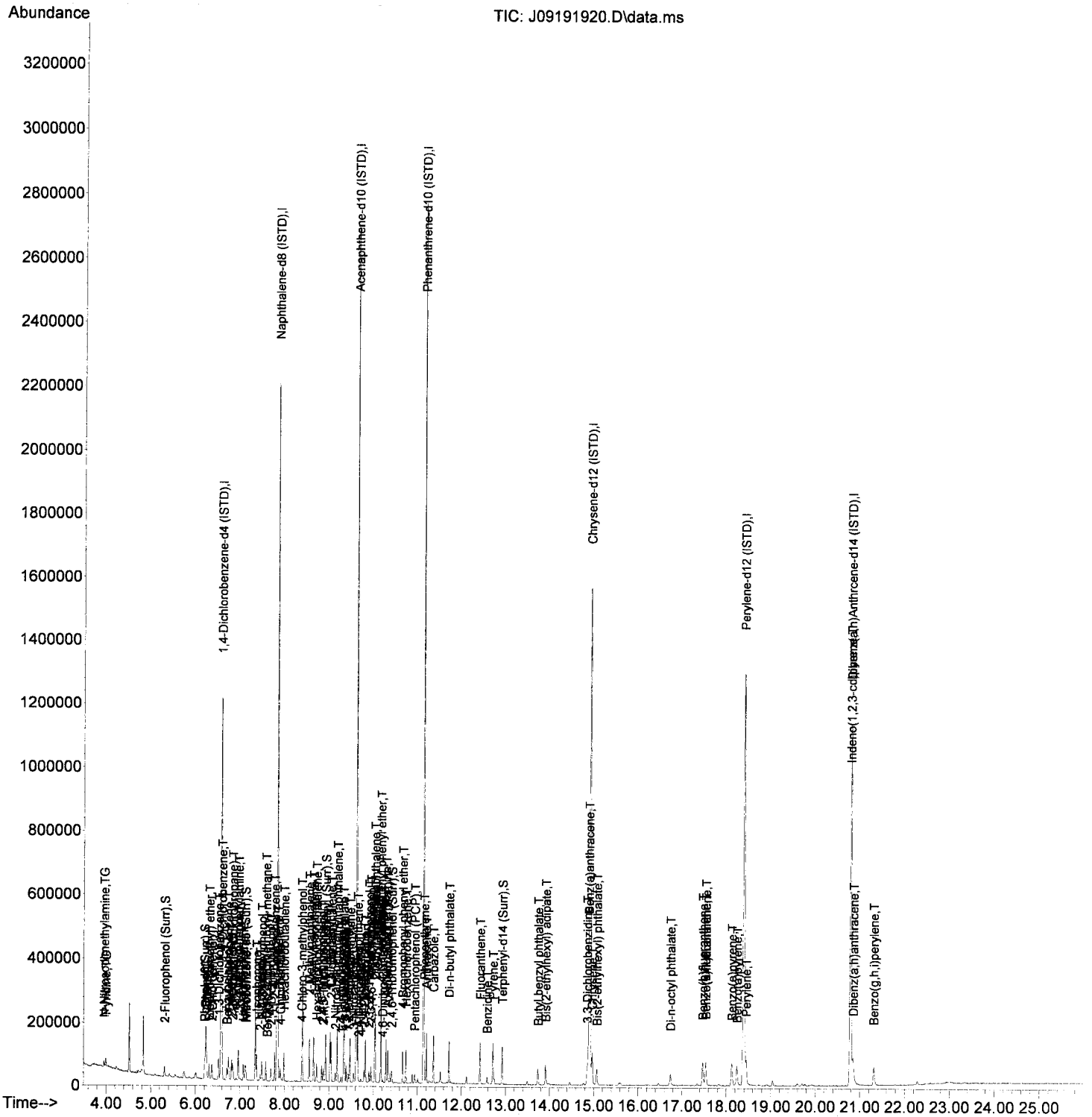
response 2086

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	99.19
77.00	72.00	54.47
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191921.D
Acq On : 20 Sep 2019 3:09 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL4
Misc : 1x, A19G241@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:34 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.568	152	286105	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1204364	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	611745	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1098102	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.912	240	1116848	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.399	264	1089238	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.795	292	868590	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.300	112	34817	179.42	ng/ml	0.01
5) Phenol-d6(Surr)	6.204	99	45844	183.93	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	34591	151.44	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.926	172	107137	238.50	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	10829	210.19	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.922	244	107135	196.23	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.915	74	19941	150.00	ng/ml	98
3) Pyridine	3.947	79	38499m	169.88	ng/ml#	
6) Phenol	6.215	94	51417	181.47	ng/ml	97
7) Aniline	6.247	93	49031	193.59	ng/ml	96
8) Bis(2-chloroethyl) ether	6.306	93	42595	168.79	ng/ml	93
9) 2-Chlorophenol	6.364	128	42160	206.57	ng/ml	96
10) 1,3-Dichlorobenzene	6.514	146	48050	217.71	ng/ml	98
11) 1,4-Dichlorobenzene	6.584	146	46724	218.13	ng/ml	96
12) Benzyl alcohol	6.701	108	18281	139.70	ng/ml	91
13) 1,2-Dichlorobenzene	6.739	146	47924	222.58	ng/ml	95
14) 2-Methylphenol	6.808	107	30801	187.74	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.835	45	44401	136.40	ng/ml	97
16) N-Nitrosodi-n-propylamine	6.963	70	28365	171.56	ng/ml	98
17) 3+4-Methylphenol	6.958	107	38484	190.34	ng/ml	97
18) Hexachloroethane	7.076	201	13490	228.75	ng/ml	98
20) Nitrobenzene	7.129	77	37240	162.74	ng/ml	98
22) Isophorone	7.365	82	78525	179.67	ng/ml	96
23) 2-Nitrophenol	7.450	139	16298	145.34	ng/ml	96
24) 2,4-Dimethylphenol	7.488	122	31880	191.29	ng/ml	96
25) Bis(2-chloroethoxy) me...	7.579	93	49149	201.85	ng/ml	96
26) Benzoic acid	7.573	105	338	307.20	ng/ml	78
27) 2,4-Dichlorophenol	7.691	162	30346	210.14	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.776	180	45007	257.44	ng/ml	95
29) Naphthalene	7.857	128	141239	228.31	ng/ml	99
30) 4-Chloroaniline	7.905	127	38526	242.70	ng/ml	98
31) Hexachlorobutadiene	7.990	225	24136	258.88	ng/ml	95
32) 4-Chloro-3-methylphenol	8.386	107	26469	152.19	ng/ml	98
33) 2-Methylnaphthalene	8.557	142	98607	233.48	ng/ml	98
34) 1-Methylnaphthalene	8.654	142	95459	235.18	ng/ml	99
36) Hexachlorocyclopentadiene	8.729	237	17504	180.83	ng/ml	95
37) 2,4,6-Trichlorophenol	8.841	196	18771	185.20	ng/ml	90
38) 2,4,5-Trichlorophenol	8.873	198	18422	177.11	ng/ml	88
39) 1,1'-Biphenyl	9.028	154	117826	231.84	ng/ml	99
41) 2-Chloronaphthalene	9.049	162	86117	230.86	ng/ml	100
42) 2-Nitroaniline	9.146	138	16161	130.13	ng/ml	94
43) 2,6-Dimethylnaphthalene	9.188	156	87215	229.24	ng/ml	96

See MI

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191921.D
Acq On : 20 Sep 2019 3:09 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL4
Misc : 1x, A19G241@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:34 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

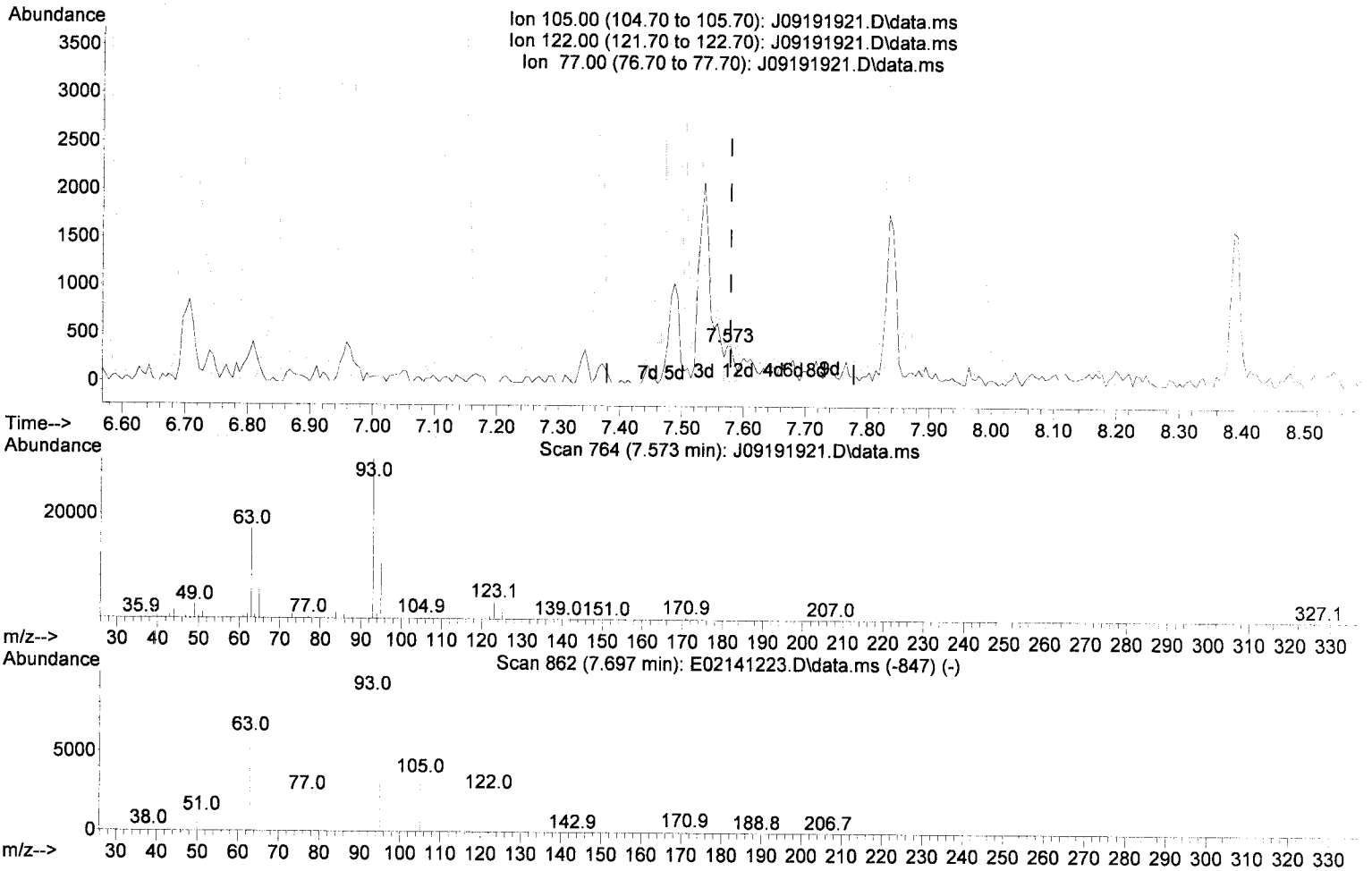
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	5164	89.07	ng/ml	88
45) Dimethyl phthalate	9.328	163	96043	219.51	ng/ml	99
46) 1,3-Dinitrobenzene	9.354	168	7621	114.64	ng/ml	85
47) 2,6-Dinitrotoluene	9.386	165	16812	178.66	ng/ml	87
48) 1,2-Dinitrobenzene	9.440	168	7269	164.92	ng/ml	83
49) Acenaphthylene	9.472	152	136163	227.72	ng/ml	99
50) 3-Nitroaniline	9.558	138	15637	168.60	ng/ml	93
51) Acenaphthene	9.648	153	89211	230.16	ng/ml	98
52) 2,4-Dinitrophenol	9.665	184	796	162.82	ng/ml	85
53) 4-Nitrophenol	9.723	139	5790	112.91	ng/ml	91
54) 2,4-Dinitrotoluene	9.798	165	16915	139.67	ng/ml	99
55) Dibenzofuran	9.825	168	123476	233.62	ng/ml	99
56) 2,3,5,6-Tetrachlorophenol	9.905	232	13193	177.32	ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	9.948	232	16040	193.66	ng/ml	99
58) Diethyl phthalate	10.044	149	92047	220.62	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.039	170	78195	231.45	ng/ml	96
60) Fluorene	10.173	166	95574	229.60	ng/ml	98
61) 4-Chlorophenyl phenyl ...	10.167	204	45790	236.70	ng/ml	98
62) 4-Nitroaniline	10.178	138	12832	152.25	ng/ml	96
63) 4,6-Dinitro-2-methylph...	10.215	198	2504	115.96	ng/ml	91
65) N-Nitrosodiphenylamine	10.285	169	77183	228.56	ng/ml	96
66) Azobenzene (1,2-DPH)	10.328	77	76676	171.16	ng/ml	99
68) 4-Bromophenyl phenyl e...	10.670	248	26212	231.88	ng/ml	97
69) Hexachlorobenzene	10.745	284	30519	234.65	ng/ml	96
70) Pentachlorophenol (PCP)	10.938	266	7638	155.67	ng/ml	93
71) Phenanthrene	11.151	178	134878	224.63	ng/ml	96
72) Anthracene	11.205	178	132343	224.01	ng/ml	97
73) Carbazole	11.365	167	110985	227.54	ng/ml	99
74) Di-n-butyl phthalate	11.718	149	138215	201.89	ng/ml	98
75) Fluoranthene	12.424	202	138551	220.63	ng/ml	99
76) Benzidine	12.580	184	43242	323.12	ng/ml	97
77) Pyrene	12.713	202	143586	228.88	ng/ml	99
80) Butyl benzyl phthalate	13.735	149	42397	121.22	ng/ml	99
81) Bis(2-ethylhexyl) adipate	13.911	129	37581	119.87	ng/ml	98
82) 3,3-Dichlorobenzidine	14.858	252	53778	529.15	ng/ml	97
83) Benz(a)anthracene	14.885	228	124472	190.07	ng/ml	97
84) Chrysene	14.965	228	120574	199.57	ng/ml	98
85) Bis(2-ethylhexyl) phth...	15.072	149	58143	125.67	ng/ml	100
87) Di-n-octyl phthalate	16.741	149	75567	125.21	ng/ml	98
88) Benzo(b)fluoranthene	17.479	252	113080	171.41	ng/ml	95
89) Benzo(k)fluoranthene	17.538	252	115987	185.29	ng/ml	97
90) Benzo(b+k)fluoranthene	17.479	252	234995	358.49	ng/ml	95
91) Benzo(e)pyrene	18.126	252	113143	175.23	ng/ml	91
92) Benzo(a)pyrene	18.244	252	99882	168.29	ng/ml	97
93) Perylene	18.447	252	100217	178.11	ng/ml	98
95) Indeno(1,2,3-cd)pyrene	20.784	276	100411	205.68	ng/ml	96
96) Dibenz(a,h)anthracene	20.854	278	95316	217.63	ng/ml	99
97) Benzo(g,h,i)perylene	21.319	276	101188	215.24	ng/ml	98

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

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191921.D
Acq On : 20 Sep 2019 3:09 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL4
Misc : 1x, A19G241@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:34 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191921.D\data.ms

(26) Benzoic acid (T)

7.573min (-0.005) 307.20 ng/ml

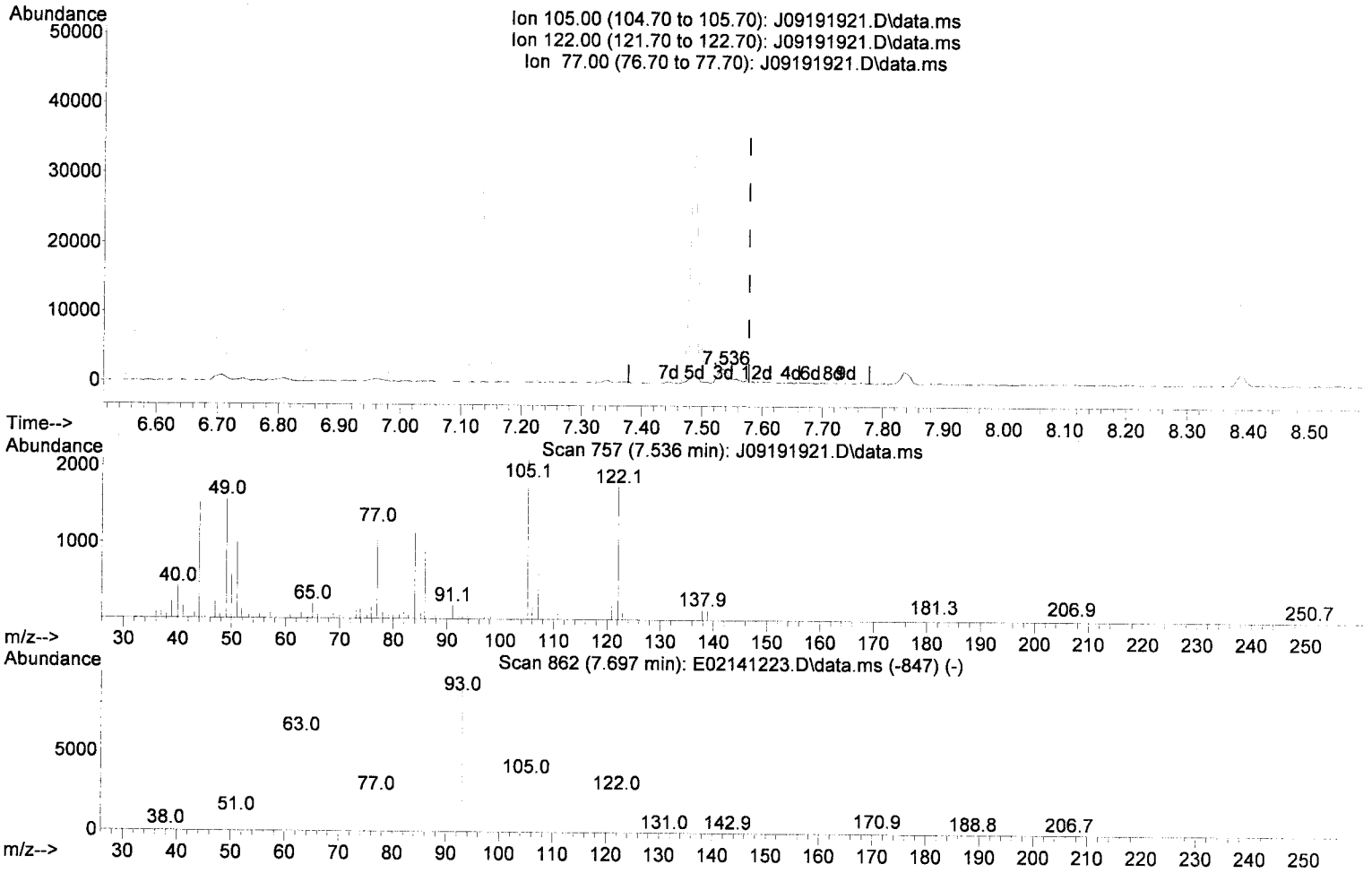
response 338

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	119.23
77.00	72.00	82.82
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191921.D
Acq On : 20 Sep 2019 3:09 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL4
Misc : 1x, A19G241@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:34 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191921.D\data.ms

(26) Benzoic acid (T)

7.536min (-0.043) 341.24 ng/ml m

response 3335

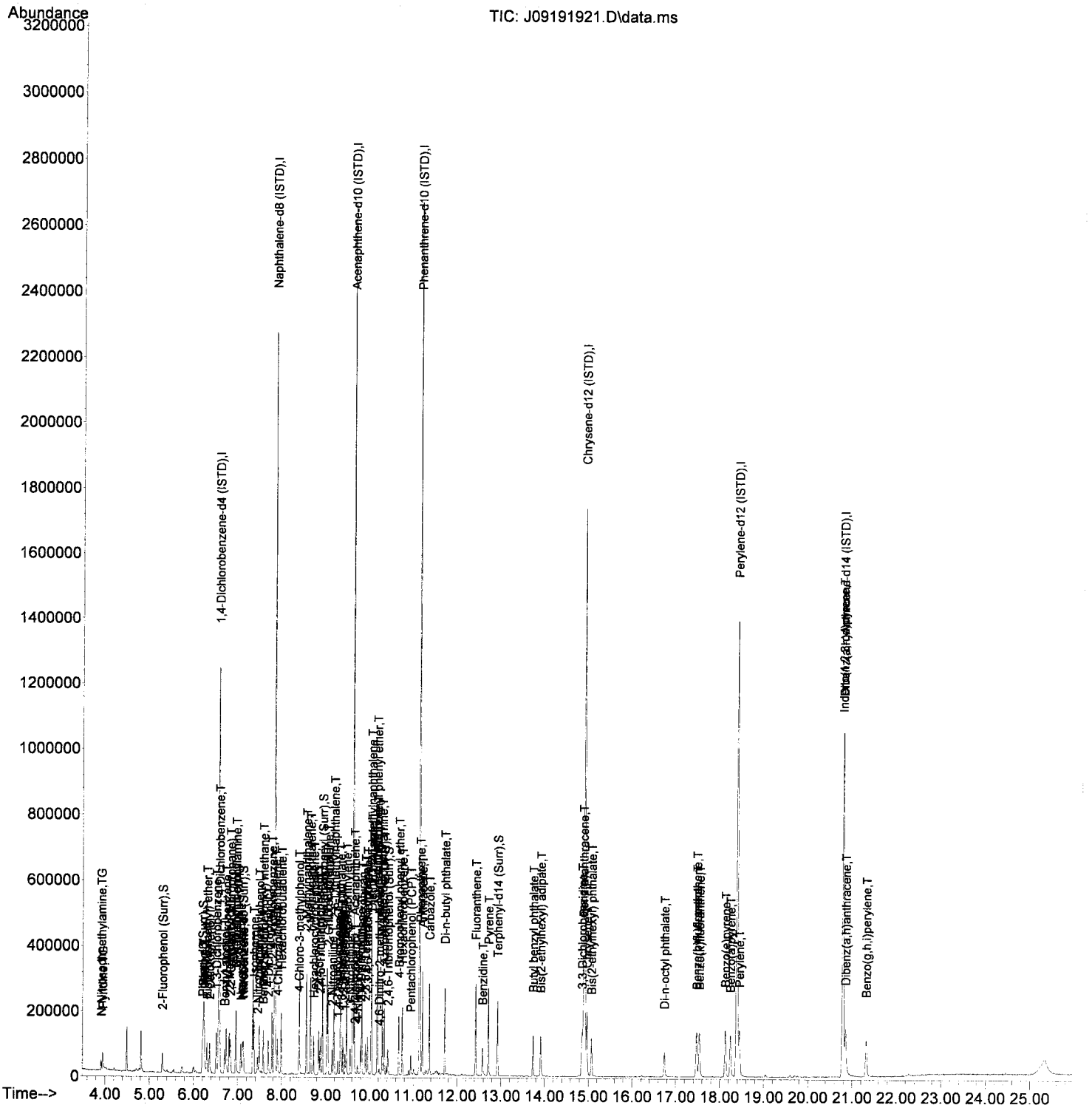
Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	83.48
77.00	72.00	58.50
0.00	0.00	0.00

9/20/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191921.D
Acq On : 20 Sep 2019 3:09 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL4
Misc : 1x, A19G241@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:34 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191922.D
Acq On : 20 Sep 2019 3:44 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL5
Misc : 1x, A19G242@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	299020	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1217422	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.617	162	625555	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1123094	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.917	240	1146727	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.399	264	1149483	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.795	292	954508	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.306	112	95687	471.80	ng/ml	0.02
5) Phenol-d6(Surr)	6.204	99	124621	478.38	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	98184	411.28	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.927	172	272047	592.23	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	33701	639.58	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.922	244	285146	508.67	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.931	74	52485m	377.75	ng/ml#	
3) Pyridine	3.958	79	83583	352.88	ng/ml	96
6) Phenol	6.215	94	136576	461.22	ng/ml	97
7) Aniline	6.247	93	124901	471.84	ng/ml	97
8) Bis(2-chloroethyl) ether	6.306	93	115667	438.55	ng/ml	97
9) 2-Chlorophenol	6.365	128	113634	532.72	ng/ml	95
10) 1,3-Dichlorobenzene	6.514	146	126152	546.89	ng/ml	98
11) 1,4-Dichlorobenzene	6.589	146	123497	551.64	ng/ml	99
12) Benzyl alcohol	6.702	108	59263	433.38	ng/ml	97
13) 1,2-Dichlorobenzene	6.739	146	124976	555.38	ng/ml	99
14) 2-Methylphenol	6.808	107	86329	503.48	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.835	45	112933	331.95	ng/ml	97
16) N-Nitrosodi-n-propylamine	6.964	70	74700	432.29	ng/ml	99
17) 3+4-Methylphenol	6.958	107	107685	509.59	ng/ml	99
18) Hexachloroethane	7.076	201	36961	599.67	ng/ml	99
20) Nitrobenzene	7.129	77	100238	419.13	ng/ml	95
22) Isophorone	7.370	82	207804	470.36	ng/ml	99
23) 2-Nitrophenol	7.450	139	54694	414.23	ng/ml	98
24) 2,4-Dimethylphenol	7.488	122	86093	511.06	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.579	93	131344	533.62	ng/ml	98
26) Benzoic acid	7.605	105	979	314.37	ng/ml#	66
27) 2,4-Dichlorophenol	7.691	162	89833	615.41	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.777	180	113367	641.50	ng/ml	99
29) Naphthalene	7.857	128	361018	577.32	ng/ml	99
30) 4-Chloroaniline	7.905	127	106945	650.30	ng/ml	98
31) Hexachlorobutadiene	7.991	225	61063	647.92	ng/ml	98
32) 4-Chloro-3-methylphenol	8.386	107	84667	481.59	ng/ml	100
33) 2-Methylnaphthalene	8.557	142	253485	593.76	ng/ml	98
34) 1-Methylnaphthalene	8.659	142	244797	596.63	ng/ml	99
36) Hexachlorocyclopentadiene	8.723	237	51180	517.04	ng/ml	98
37) 2,4,6-Trichlorophenol	8.841	196	59985	553.45	ng/ml	98
38) 2,4,5-Trichlorophenol	8.873	198	59608	560.44	ng/ml	98
39) 1,1'-Biphenyl	9.028	154	300735	578.68	ng/ml	99
41) 2-Chloronaphthalene	9.050	162	223930	587.06	ng/ml	97
42) 2-Nitroaniline	9.146	138	55795	439.35	ng/ml	98
43) 2,6-Dimethylnaphthalene	9.189	156	219677	564.67	ng/ml	99

See MJ

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191922.D
Acq On : 20 Sep 2019 3:44 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL5
Misc : 1x, A19G242@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

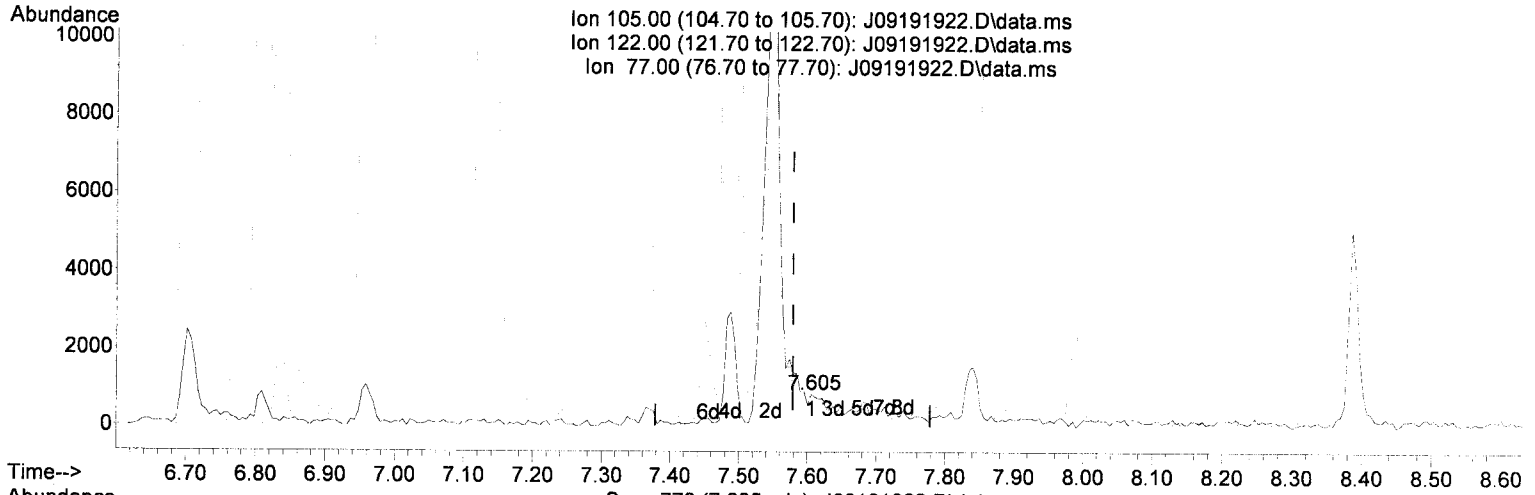
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	19841	334.66	ng/ml	93
45) Dimethyl phthalate	9.328	163	250192	559.21	ng/ml	100
46) 1,3-Dinitrobenzene	9.354	168	28132	413.82	ng/ml	96
47) 2,6-Dinitrotoluene	9.387	165	51160	531.66	ng/ml	94
48) 1,2-Dinitrobenzene	9.445	168	22807	506.03	ng/ml	94
49) Acenaphthylene	9.472	152	361152	590.67	ng/ml	99
50) 3-Nitroaniline	9.558	138	44178	446.02	ng/ml	100
51) Acenaphthene	9.649	153	224540	566.51	ng/ml	99
52) 2,4-Dinitrophenol	9.665	184	4568	255.77	ng/ml	95
53) 4-Nitrophenol	9.723	139	25654	375.44	ng/ml	94
54) 2,4-Dinitrotoluene	9.798	165	57760	466.41	ng/ml	98
55) Dibenzofuran	9.825	168	310051	573.66	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.905	232	46260	542.89	ng/ml	99
57) 2,3,4,6-Tetrachlorophenol	9.948	232	50476	572.73	ng/ml	99
58) Diethyl phthalate	10.044	149	232776	545.61	ng/ml	99
59) 2,3,5-Trimethylnaphtha...	10.034	170	199252	576.75	ng/ml	99
60) Fluorene	10.173	166	244304	573.93	ng/ml	97
61) 4-Chlorophenyl phenyl ...	10.167	204	117369	593.31	ng/ml	99
62) 4-Nitroaniline	10.178	138	36541	423.99	ng/ml	96
63) 4,6-Dinitro-2-methylph...	10.216	198	14208	319.68	ng/ml	90
65) N-Nitrosodiphenylamine	10.285	169	197334	571.35	ng/ml	99
66) Azobenzene (1,2-DPH)	10.328	77	199437	435.30	ng/ml	99
68) 4-Bromophenyl phenyl e...	10.670	248	66857	578.28	ng/ml	97
69) Hexachlorobenzene	10.745	284	82813	622.55	ng/ml	99
70) Pentachlorophenol (PCP)	10.938	266	30348	512.59	ng/ml	94
71) Phenanthrene	11.157	178	343840	559.91	ng/ml	98
72) Anthracene	11.205	178	335865	555.84	ng/ml	99
73) Carbazole	11.366	167	281210	563.69	ng/ml	99
74) Di-n-butyl phthalate	11.719	149	369981	528.41	ng/ml	99
75) Fluoranthene	12.425	202	369455	575.22	ng/ml	98
76) Benzidine	12.580	184	152022	962.70	ng/ml	100
77) Pyrene	12.713	202	375136	584.68	ng/ml	99
80) Butyl benzyl phthalate	13.735	149	139695	388.99	ng/ml	98
81) Bis(2-ethylhexyl) adipate	13.911	129	126449	392.82	ng/ml	98
82) 3,3-Dichlorobenzidine	14.858	252	110907	1341.90	ng/ml	97
83) Benz(a)anthracene	14.890	228	327557	487.16	ng/ml	98
84) Chrysene	14.970	228	313539	505.43	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.077	149	202494	426.28	ng/ml	96
87) Di-n-octyl phthalate	16.746	149	281414	361.89	ng/ml	98
88) Benzo(b)fluoranthene	17.479	252	318669	457.74	ng/ml	99
89) Benzo(k)fluoranthene	17.543	252	321918	487.31	ng/ml	99
90) Benzo(b+k)fluoranthene	17.543	252	653019	943.99	ng/ml	99
91) Benzo(e)pyrene	18.132	252	316818	464.95	ng/ml	99
92) Benzo(a)pyrene	18.249	252	295305	471.49	ng/ml	97
93) Perylene	18.452	252	273199	460.10	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.784	276	279363	520.62	ng/ml	99
96) Dibenz(a,h)anthracene	20.859	278	270778	562.60	ng/ml	97
97) Benzo(g,h,i)perylene	21.325	276	291609	564.45	ng/ml	96

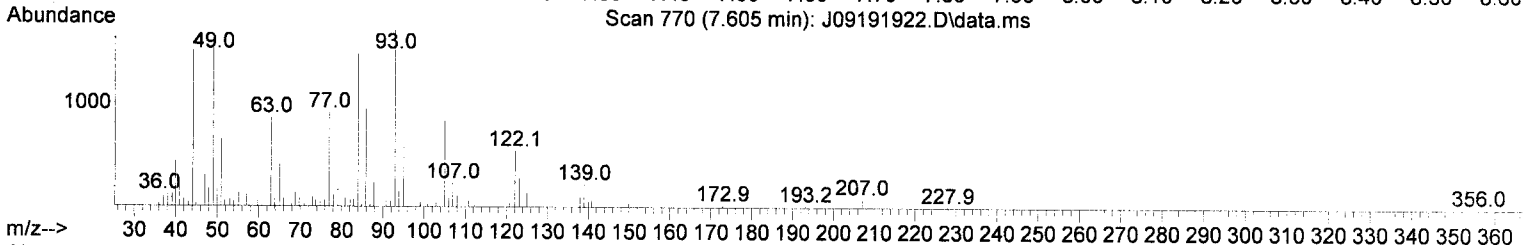
(#) = qualifier out of range (m) = manual integration (+) = signals summed

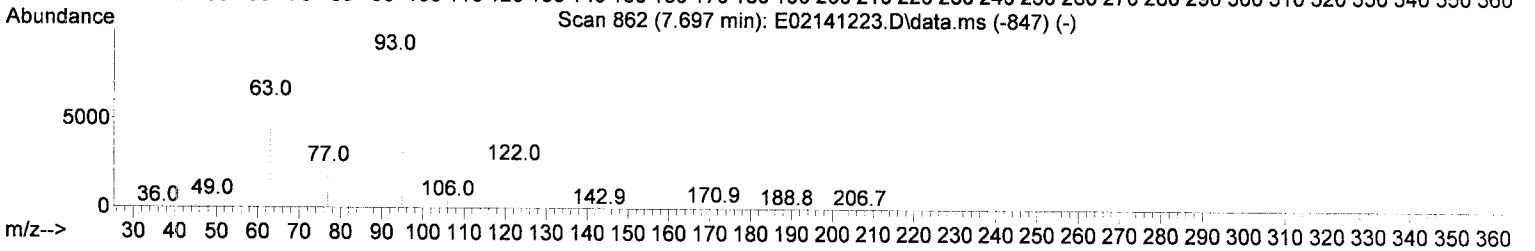
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191922.D
Acq On : 20 Sep 2019 3:44 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL5
Misc : 1x, A19G242@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191922.D\data.ms

(26) Benzoic acid (T)

7.605min (+ 0.027) 314.37 ng/ml

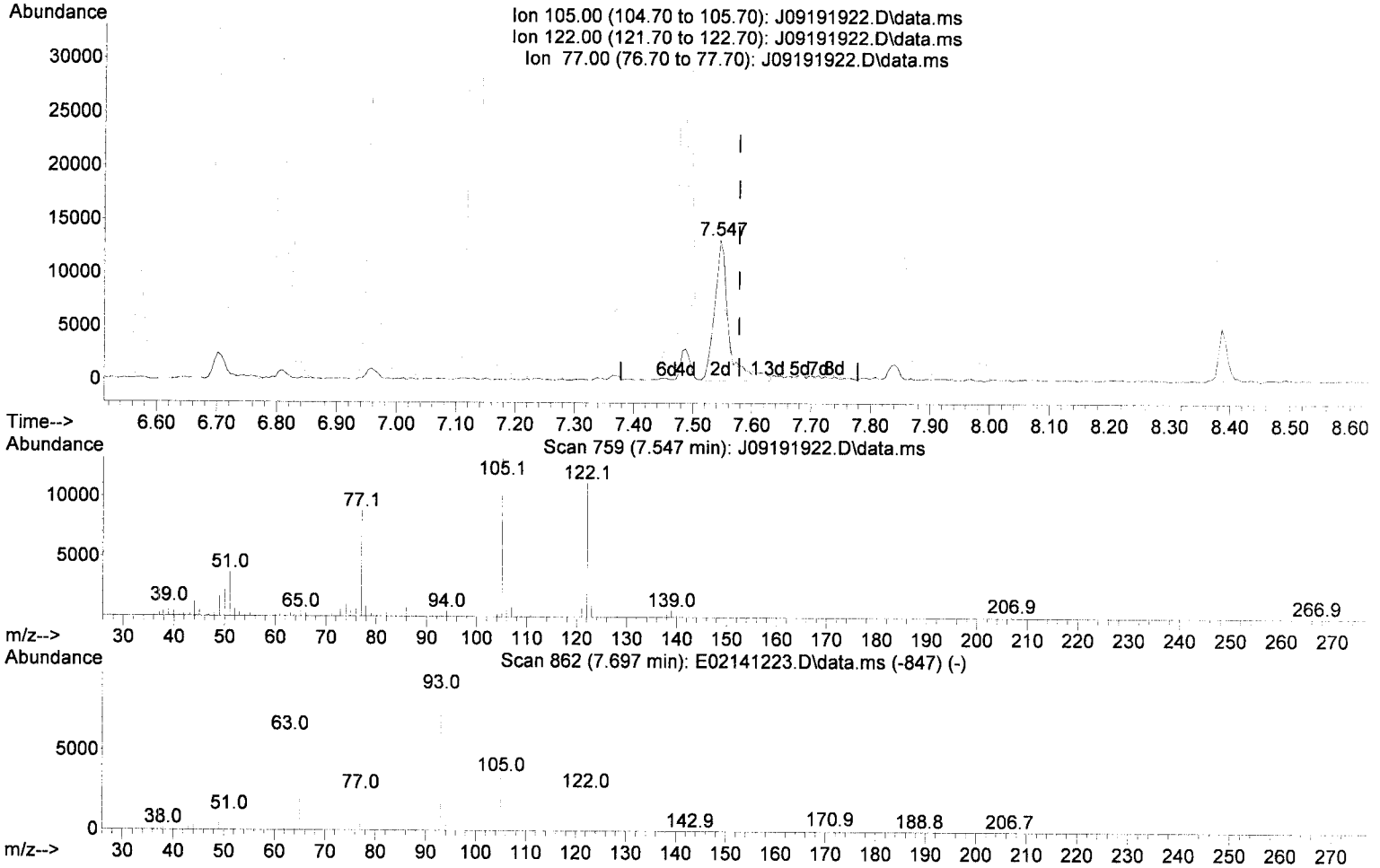
response 979

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	66.67
77.00	72.00	109.78#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191922.D
Acq On : 20 Sep 2019 3:44 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL5
Misc : 1x, A19G242@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191922.D\data.ms

(26) Benzoic acid (T)

7.547min (-0.032) 552.34 ng/ml m

response 22389

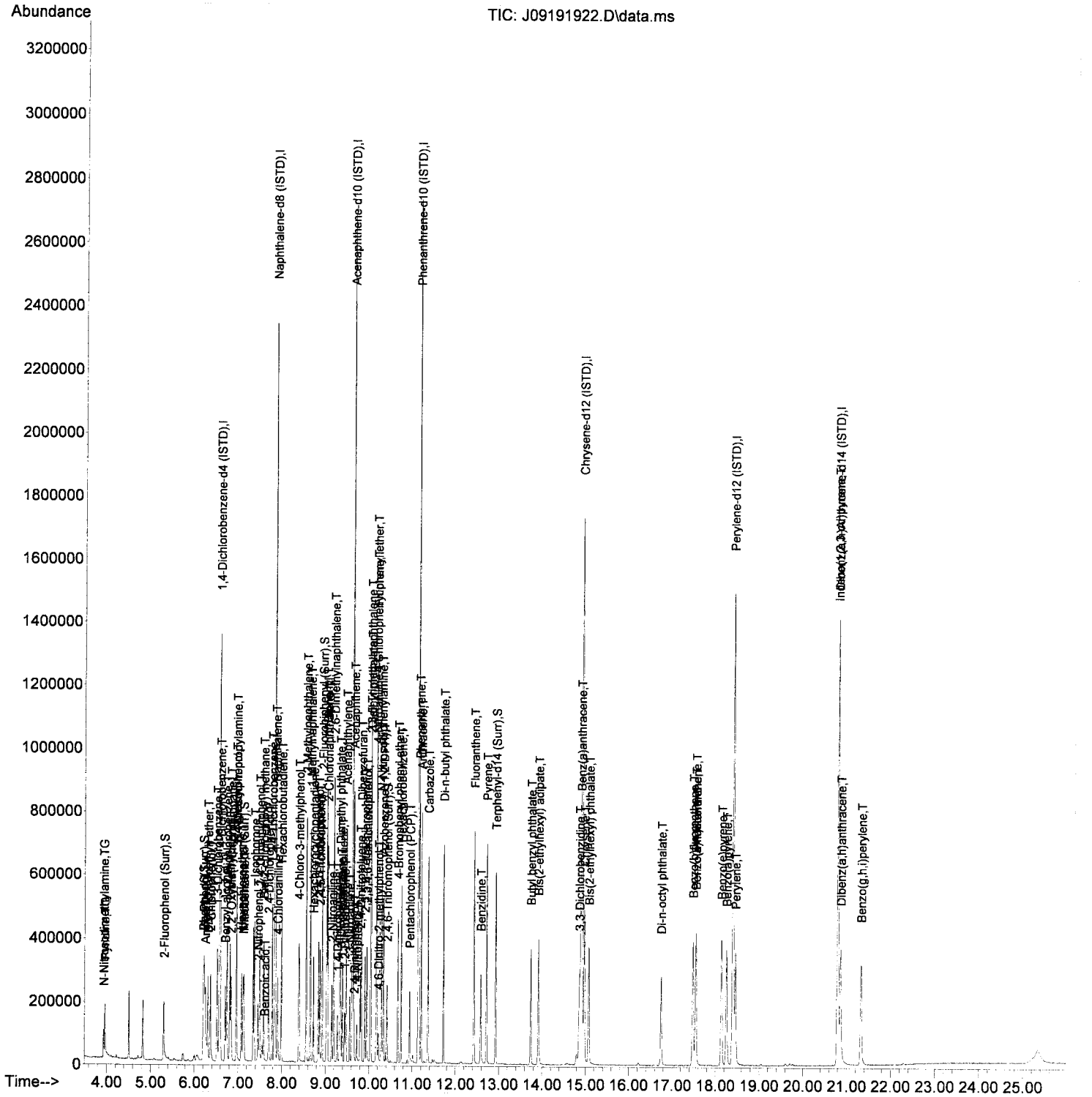
Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	83.94
77.00	72.00	66.43
0.00	0.00	0.00

9/20/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191922.D
Acq On : 20 Sep 2019 3:44 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL5
Misc : 1x, A19G242@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191923.D
Acq On : 20 Sep 2019 4:19 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL6
Misc : 1x, A19G243@1000
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:43 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.568	152	283511	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1143968	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	583825	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.135	188	1065192	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.917	240	1048464	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.399	264	1042709	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.795	292	886236	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.289	112	179108	931.44	ng/ml	0.00
5) Phenol-d6(Surr)	6.204	99	238398	965.20	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	187377	827.84	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.926	172	482290	1124.97	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	65055	1301.74	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.922	244	507926	991.00	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.883	74	104763m	795.26	ng/ml	
3) Pyridine	3.904	79	182180	811.23	ng/ml	100
6) Phenol	6.215	94	261231	930.43	ng/ml	100
7) Aniline	6.241	93	189393	754.62	ng/ml	100
8) Bis(2-chloroethyl) ether	6.306	93	237931	951.45	ng/ml	100
9) 2-Chlorophenol	6.364	128	213396	1055.12	ng/ml	100
10) 1,3-Dichlorobenzene	6.514	146	230358	1053.27	ng/ml	100
11) 1,4-Dichlorobenzene	6.584	146	229877	1082.99	ng/ml	100
12) Benzyl alcohol	6.701	108	124850	962.84	ng/ml	100
13) 1,2-Dichlorobenzene	6.739	146	227139	1064.59	ng/ml	100
14) 2-Methylphenol	6.808	107	162716	1000.89	ng/ml	100
15) 2,2'-Oxybis(1-Chloropr...	6.835	45	204366	633.56	ng/ml	100
16) N-Nitrosodi-n-propylamine	6.963	70	136460	832.90	ng/ml	100
17) 3+4-Methylphenol	6.958	107	206745	1031.88	ng/ml	100
18) Hexachloroethane	7.076	201	68545	1172.94	ng/ml	100
20) Nitrobenzene	7.129	77	188065	829.39	ng/ml	100
22) Isophorone	7.370	82	377941	910.39	ng/ml	100
23) 2-Nitrophenol	7.450	139	114845	900.33	ng/ml	100
24) 2,4-Dimethylphenol	7.488	122	164250	1037.61	ng/ml	100
25) Bis(2-chloroethoxy) me...	7.579	93	236290	1021.63	ng/ml	100
26) Benzoic acid	7.579	105	99342	1429.28	ng/ml	100
27) 2,4-Dichlorophenol	7.691	162	173249	1263.07	ng/ml	100
28) 1,2,4-Trichlorobenzene	7.782	180	206953	1246.26	ng/ml	100
29) Naphthalene	7.857	128	638989	1087.45	ng/ml	100
30) 4-Chloroaniline	7.905	127	199585	1281.62	ng/ml	100
31) Hexachlorobutadiene	7.990	225	113762	1284.60	ng/ml	100
32) 4-Chloro-3-methylphenol	8.386	107	162469	983.46	ng/ml	100
33) 2-Methylnaphthalene	8.557	142	453493	1130.47	ng/ml	100
34) 1-Methylnaphthalene	8.659	142	430139	1115.66	ng/ml	100
36) Hexachlorocyclopentadiene	8.728	237	99801	1080.30	ng/ml	100
37) 2,4,6-Trichlorophenol	8.841	196	117480	1142.89	ng/ml	100
38) 2,4,5-Trichlorophenol	8.873	198	113799	1146.42	ng/ml	100
39) 1,1'-Biphenyl	9.028	154	533233	1099.40	ng/ml	100
41) 2-Chloronaphthalene	9.049	162	386877	1086.74	ng/ml	100
42) 2-Nitroaniline	9.146	138	113482	957.47	ng/ml	100
43) 2,6-Dimethylnaphthalene	9.188	156	389863	1073.75	ng/ml	100

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191923.D
Acq On : 20 Sep 2019 4:19 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL6
Misc : 1x, A19G243@1000
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:43 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

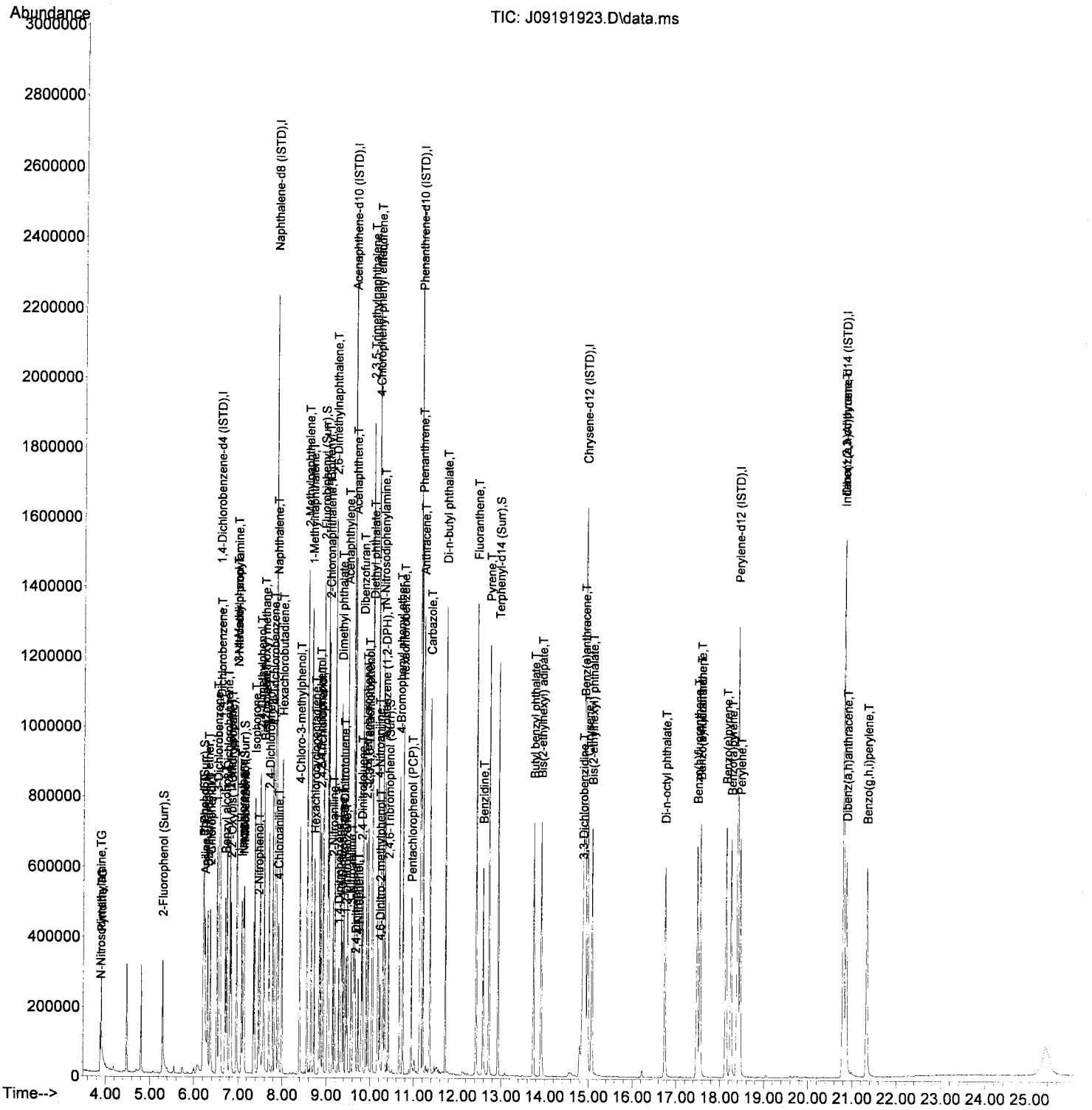
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	44207	798.94	ng/ml	100
45) Dimethyl phthalate	9.333	163	449574	1076.67	ng/ml	100
46) 1,3-Dinitrobenzene	9.354	168	57342	903.80	ng/ml	100
47) 2,6-Dinitrotoluene	9.392	165	97373	1084.24	ng/ml	100
48) 1,2-Dinitrobenzene	9.445	168	45222	1075.08	ng/ml	100
49) Acenaphthylene	9.472	152	637470	1117.11	ng/ml	100
50) 3-Nitroaniline	9.563	138	76212	868.39	ng/ml	100
51) Acenaphthene	9.648	153	399993	1081.31	ng/ml	100
52) 2,4-Dinitrophenol	9.664	184	18042	611.46	ng/ml	100
53) 4-Nitrophenol	9.723	139	58727	860.32	ng/ml	100
54) 2,4-Dinitrotoluene	9.798	165	116247	1005.79	ng/ml	100
55) Dibenzofuran	9.825	168	550893	1092.13	ng/ml	100
56) 2,3,5,6-Tetrachlorophenol	9.905	232	91879	1120.36	ng/ml	100
57) 2,3,4,6-Tetrachlorophenol	9.948	232	101167	1210.65	ng/ml	100
58) Diethyl phthalate	10.050	149	426259	1070.54	ng/ml	100
59) 2,3,5-Trimethylnaphtha...	10.039	170	355247	1101.79	ng/ml	100
60) Fluorene	10.173	166	426158	1072.71	ng/ml	100
61) 4-Chlorophenyl phenyl ...	10.167	204	209713	1135.90	ng/ml	100
62) 4-Nitroaniline	10.183	138	63138	784.97	ng/ml	100
63) 4,6-Dinitro-2-methylph...	10.215	198	38878	789.70	ng/ml	100
65) N-Nitrosodiphenylamine	10.285	169	350586	1070.25	ng/ml	100
66) Azobenzene (1,2-DPH)	10.328	77	355316	817.68	ng/ml	100
68) 4-Bromophenyl phenyl e...	10.670	248	125621	1145.62	ng/ml	100
69) Hexachlorobenzene	10.745	284	152211	1206.46	ng/ml	100
70) Pentachlorophenol (PCP)	10.943	266	65122	1104.57	ng/ml	100
71) Phenanthrene	11.157	178	610421	1048.04	ng/ml	100
72) Anthracene	11.210	178	608748	1062.21	ng/ml	100
73) Carbazole	11.365	167	458747	969.56	ng/ml	100
74) Di-n-butyl phthalate	11.718	149	683398	1029.09	ng/ml	100
75) Fluoranthene	12.424	202	669325	1098.75	ng/ml	100
76) Benzidine	12.579	184	302104	1915.60	ng/ml	100
77) Pyrene	12.713	202	683508	1123.21	ng/ml	100
80) Butyl benzyl phthalate	13.735	149	279356	850.79	ng/ml	100
81) Bis(2-ethylhexyl) adipate	13.911	129	247877	842.20	ng/ml	100
82) 3,3-Dichlorobenzidine	14.863	252	174855	2557.16	ng/ml	100
83) Benz(a)anthracene	14.890	228	577553	939.46	ng/ml	100
84) Chrysene	14.976	228	556735	981.53	ng/ml	100
85) Bis(2-ethylhexyl) phth...	15.072	149	389483	896.77	ng/ml	100
87) Di-n-octyl phthalate	16.746	149	592055	790.12	ng/ml	100
88) Benzo(b)fluoranthene	17.479	252	578435	915.96	ng/ml	100
89) Benzo(k)fluoranthene	17.548	252	582389	971.88	ng/ml	100
90) Benzo(b+k)fluoranthene	17.548	252	1182652	1884.67	ng/ml	100
91) Benzo(e)pyrene	18.137	252	576088	932.03	ng/ml	100
92) Benzo(a)pyrene	18.254	252	535317	942.21	ng/ml	100
93) Perylene	18.458	252	476752	885.12	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.790	276	510691	1025.03	ng/ml	100
96) Dibenz(a,h)anthracene	20.865	278	489557	1095.51	ng/ml	100
97) Benzo(g,h,i)perylene	21.325	276	538150	1121.91	ng/ml	100

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191923.D
Acq On : 20 Sep 2019 4:19 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL6
Misc : 1x, A19G243@1000
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:43 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191924.D
Acq On : 20 Sep 2019 4:54 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL7
Misc : 1x, A19G244@2000
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:48 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	285023	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.841	136	1095362	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.622	162	586466	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.135	188	1091855	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.922	240	1089712	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.404	264	1076142	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.800	292	949148	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.305	112	379802	1964.65	ng/ml	0.02
5) Phenol-d6(Surr)	6.209	99	477001	1920.99	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	365358	1605.60	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.926	172	917452	2130.37	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.424	330	142266	2777.20	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.927	244	1038865	1950.18	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.941	74	217151	1639.66	ng/ml	99
3) Pyridine	3.958	79	392152m	1736.94	ng/ml	
6) Phenol	6.220	94	506313	1793.78	ng/ml	98
7) Aniline	6.252	93	321662	1274.83	ng/ml	97
8) Bis(2-chloroethyl) ether	6.311	93	501220	1993.67	ng/ml	99
9) 2-Chlorophenol	6.370	128	423147	2081.13	ng/ml	99
10) 1,3-Dichlorobenzene	6.519	146	464902	2114.40	ng/ml	99
11) 1,4-Dichlorobenzene	6.589	146	453326	2124.37	ng/ml	99
12) Benzyl alcohol	6.707	108	261354	2004.87	ng/ml	98
13) 1,2-Dichlorobenzene	6.744	146	442316	2062.13	ng/ml	99
14) 2-Methylphenol	6.814	107	318341	1947.77	ng/ml	96
15) 2,2'-Oxybis(1-Chloropr...	6.840	45	366117	1128.98	ng/ml	97
16) N-Nitrosodi-n-propylamine	6.969	70	256713	1558.56	ng/ml	99
17) 3+4-Methylphenol	6.963	107	399183	1981.79	ng/ml	98
18) Hexachloroethane	7.076	201	143490	2442.36	ng/ml	97
20) Nitrobenzene	7.135	77	365107	1601.63	ng/ml	98
22) Isophorone	7.375	82	734609	1848.05	ng/ml	100
23) 2-Nitrophenol	7.456	139	207149	1710.18	ng/ml	94
24) 2,4-Dimethylphenol	7.493	122	333523	2200.44	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.584	93	449978	2031.87	ng/ml	99
26) Benzoic acid	7.611	105	311714	3637.31	ng/ml	96
27) 2,4-Dichlorophenol	7.691	162	350635	2669.74	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.782	180	388384	2442.61	ng/ml	100
29) Naphthalene	7.862	128	1178988	2095.46	ng/ml	99
30) 4-Chloroaniline	7.915	127	372183	2483.94	ng/ml	99
31) Hexachlorobutadiene	7.990	225	208693	2461.13	ng/ml	98
32) 4-Chloro-3-methylphenol	8.392	107	338452	2139.63	ng/ml	97
33) 2-Methylnaphthalene	8.557	142	857631	2232.77	ng/ml	98
34) 1-Methylnaphthalene	8.659	142	810434	2195.32	ng/ml	99
36) Hexachlorocyclopentadiene	8.723	237	213088	2296.19	ng/ml	97
37) 2,4,6-Trichlorophenol	8.841	196	248218	2364.26	ng/ml	100
38) 2,4,5-Trichlorophenol	8.873	198	245074	2457.78	ng/ml	99
39) 1,1'-Biphenyl	9.028	154	1010736	2074.51	ng/ml	98
41) 2-Chloronaphthalene	9.049	162	759926	2125.02	ng/ml	100
42) 2-Nitroaniline	9.151	138	248865	2090.27	ng/ml	95
43) 2,6-Dimethylnaphthalene	9.188	156	740663	2030.74	ng/ml	100

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191924.D
Acq On : 20 Sep 2019 4:54 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL7
Misc : 1x, A19G244@2000
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:48 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

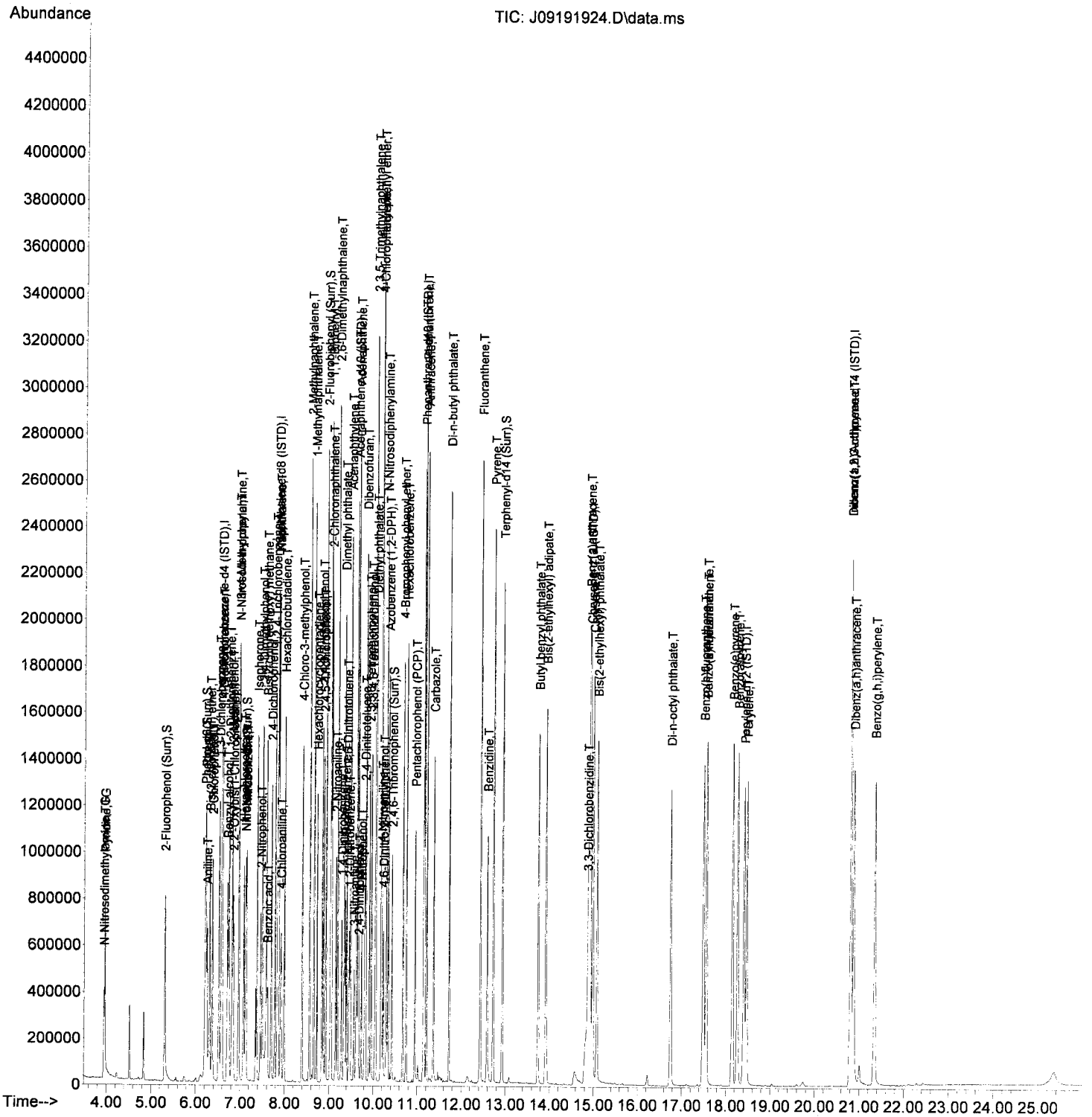
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.279	168	108019	1943.39	ng/ml	94
45) Dimethyl phthalate	9.338	163	868820	2071.34	ng/ml	99
46) 1,3-Dinitrobenzene	9.360	168	128986	2023.86	ng/ml	95
47) 2,6-Dinitrotoluene	9.392	165	201552	2234.16	ng/ml	96
48) 1,2-Dinitrobenzene	9.451	168	94079	2226.50	ng/ml	97
49) Acenaphthylene	9.477	152	1211941	2114.25	ng/ml	99
50) 3-Nitroaniline	9.563	138	114743	1447.64	ng/ml	96
51) Acenaphthene	9.654	153	770675	2074.00	ng/ml	99
52) 2,4-Dinitrophenol	9.670	184	58400	1570.56	ng/ml	93
53) 4-Nitrophenol	9.729	139	141903	1959.29	ng/ml	98
54) 2,4-Dinitrotoluene	9.804	165	257547	2218.31	ng/ml	97
55) Dibenzofuran	9.825	168	1086183	2143.62	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.905	232	201504	2389.21	ng/ml	99
57) 2,3,4,6-Tetrachlorophenol	9.953	232	213539	2500.78	ng/ml	97
58) Diethyl phthalate	10.055	149	811497	2028.87	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.039	170	685050	2115.10	ng/ml	99
60) Fluorene	10.178	166	812478	2035.94	ng/ml	100
61) 4-Chlorophenyl phenyl ...	10.173	204	412942	2226.61	ng/ml	94
62) 4-Nitroaniline	10.189	138	129234	1599.47	ng/ml	95
63) 4,6-Dinitro-2-methylph...	10.221	198	101854	1883.45	ng/ml	99
65) N-Nitrosodiphenylamine	10.290	169	659355	1963.69	ng/ml	97
66) Azobenzene (1,2-DPH)	10.333	77	684303	1536.31	ng/ml	93
68) 4-Bromophenyl phenyl e...	10.670	248	256334	2280.59	ng/ml	96
69) Hexachlorobenzene	10.750	284	304969	2358.22	ng/ml	98
70) Pentachlorophenol (PCP)	10.943	266	154858	2438.76	ng/ml	99
71) Phenanthrene	11.157	178	1191270	1995.35	ng/ml	99
72) Anthracene	11.210	178	1187408	2021.38	ng/ml	98
73) Carbazole	11.365	167	646631	1333.27	ng/ml	99
74) Di-n-butyl phthalate	11.718	149	1348435	1980.94	ng/ml	100
75) Fluoranthene	12.430	202	1341415	2148.26	ng/ml	98
76) Benzidine	12.585	184	601547	3540.61	ng/ml	100
77) Pyrene	12.719	202	1337637	2144.45	ng/ml	98
80) Butyl benzyl phthalate	13.740	149	621242	1820.39	ng/ml	96
81) Bis(2-ethylhexyl) adipate	13.917	129	551677	1803.46	ng/ml	99
82) 3,3-Dichlorobenzidine	14.863	252	281736	4236.61	ng/ml	94
83) Benz(a)anthracene	14.895	228	1225586	1918.11	ng/ml	99
84) Chrysene	14.981	228	1148470	1948.23	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.077	149	846014	1874.18	ng/ml	98
87) Di-n-octyl phthalate	16.746	149	1439135	1774.42	ng/ml	99
88) Benzo(b)fluoranthene	17.490	252	1267321	1944.46	ng/ml	99
89) Benzo(k)fluoranthene	17.554	252	1256906	2032.34	ng/ml	98
90) Benzo(b+k)fluoranthene	17.554	252	2563432	3958.17	ng/ml	98
91) Benzo(e)pyrene	18.142	252	1218818	1910.61	ng/ml	98
92) Benzo(a)pyrene	18.260	252	1174506	2003.02	ng/ml	99
93) Perylene	18.468	252	1026574	1846.69	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.800	276	1143875	2143.74	ng/ml	99
96) Dibenz(a,h)anthracene	20.875	278	1087002	2271.22	ng/ml	97
97) Benzo(g,h,i)perylene	21.341	276	1186793	2310.18	ng/ml	98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191924.D
Acq On : 20 Sep 2019 4:54 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL7
Misc : 1x, A19G244@2000
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:48 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	305814	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.841	136	1197569	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.622	162	636039	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.135	188	1224924	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.938	240	1138264	2000.00	ng/ml	0.02
86) Perylene-d12 (ISTD)	18.420	264	1185024	2000.00	ng/ml	0.02
94) Dibenz(a,h)Anthrcene-d...	20.827	292	1037191	2000.00	ng/ml	0.03
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.305	112	844515	4071.54	ng/ml	0.02
5) Phenol-d6(Surr)	6.215	99	1043086	3915.14	ng/ml	0.01
19) Nitrobenzene-d5 (Surr)	7.124	82	786633	3221.91	ng/ml	0.01
40) 2-Fluorobiphenyl (Surr)	8.932	172	1718307	3679.02	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.429	330	305471	5315.35	ng/ml	0.01
79) Terphenyl-d14 (Surr)	12.938	244	2102593	3778.67	ng/ml	0.02
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.925	74	480484	3381.37	ng/ml	99
3) Pyridine	3.942	79	866960	3578.93	ng/ml	99
6) Phenol	6.231	94	1097096	3622.58	ng/ml	98
7) Aniline	6.252	93	840844	3105.93	ng/ml	96
8) Bis(2-chloroethyl) ether	6.316	93	962255	3567.28	ng/ml	99
9) 2-Chlorophenol	6.370	128	902056	4134.88	ng/ml	98
10) 1,3-Dichlorobenzene	6.520	146	965051	4090.70	ng/ml	99
11) 1,4-Dichlorobenzene	6.589	146	926647	4047.22	ng/ml	99
12) Benzyl alcohol	6.712	108	581465	4157.22	ng/ml	99
13) 1,2-Dichlorobenzene	6.744	146	906070	3937.01	ng/ml	99
14) 2-Methylphenol	6.814	107	646688	3687.77	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.840	45	739481	2125.28	ng/ml	94
16) N-Nitrosodi-n-propylamine	6.980	70	504346	2853.83	ng/ml	95
17) 3+4-Methylphenol	6.969	107	797964	3692.25	ng/ml	97
18) Hexachloroethane	7.076	201	311702	4944.82	ng/ml	98
20) Nitrobenzene	7.140	77	754990	3086.77	ng/ml	95
22) Isophorone	7.381	82	1524753	3508.45	ng/ml	100
23) 2-Nitrophenol	7.456	139	481353	3856.12	ng/ml	95
24) 2,4-Dimethylphenol	7.498	122	686286	4141.39	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.589	93	900203	3717.94	ng/ml	99
26) Benzoic acid	~~7.498~~	~~105~~	~~22439~~	~~556.08~~	~~ng/ml#~~	1
27) 2,4-Dichlorophenol	7.702	162	731346	5093.24	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.782	180	805154	4631.57	ng/ml	99
29) Naphthalene	7.862	128	2214900	3600.66	ng/ml	97
30) 4-Chloroaniline	7.926	127	663200	4035.49	ng/ml	99
31) Hexachlorobutadiene	7.990	225	442903	4777.41	ng/ml	97
32) 4-Chloro-3-methylphenol	8.392	107	698064	4036.41	ng/ml	97
33) 2-Methylnaphthalene	8.563	142	1625949	3871.75	ng/ml	97
34) 1-Methylnaphthalene	8.664	142	1521185	3768.94	ng/ml	99
36) Hexachlorocyclopentadiene	8.729	237	417829	4151.52	ng/ml	96
37) 2,4,6-Trichlorophenol	8.846	196	532499	4570.85	ng/ml	99
38) 2,4,5-Trichlorophenol	8.878	198	516958	4780.35	ng/ml	99
39) 1,1'-Biphenyl	9.033	154	1845876	3493.33	ng/ml	96
41) 2-Chloronaphthalene	9.055	162	1467799	3784.57	ng/ml	99
42) 2-Nitroaniline	9.156	138	528406	4092.28	ng/ml	94
43) 2,6-Dimethylnaphthalene	9.194	156	1385514	3502.70	ng/ml	97

See MI

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.285	168	258106	4281.72	ng/ml	92
45) Dimethyl phthalate	9.349	163	1712764	3765.11	ng/ml	98
46) 1,3-Dinitrobenzene	9.370	168	289563	4189.29	ng/ml	93
47) 2,6-Dinitrotoluene	9.402	165	424265	4336.35	ng/ml	97
48) 1,2-Dinitrobenzene	9.467	168	202294	4414.41	ng/ml	92
49) Acenaphthylene	9.483	152	2224222	3577.77	ng/ml	97
50) 3-Nitroaniline	9.574	138	123216	1427.55	ng/ml	97
51) Acenaphthene	9.659	153	1433796	3557.81	ng/ml	99
52) 2,4-Dinitrophenol	9.675	184	174238	3652.38	ng/ml	99
53) 4-Nitrophenol	9.739	139	326661	3903.35	ng/ml	98
54) 2,4-Dinitrotoluene	9.814	165	555824	4414.31	ng/ml	93
55) Dibenzofuran	9.830	168	2040744	3713.59	ng/ml	95
56) 2,3,5,6-Tetrachlorophenol	9.911	232	434819	4639.23	ng/ml	97
57) 2,3,4,6-Tetrachlorophenol	9.959	232	451267	4758.24	ng/ml	95
58) Diethyl phthalate	10.060	149	1534521	3537.53	ng/ml	96
59) 2,3,5-Trimethylnaphtha...	10.044	170	1276533	3634.12	ng/ml	98
60) Fluorene	10.183	166	1464263	3383.22	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.173	204	786385	3909.75	ng/ml	95
62) 4-Nitroaniline	10.199	138	281600	3213.60	ng/ml	99
63) 4,6-Dinitro-2-methylph...	10.232	198	258196	4046.65	ng/ml	96
65) N-Nitrosodiphenylamine	10.296	169	1182676	3139.61	ng/ml	98
66) Azobenzene (1,2-DPH)	10.338	77	1316342	2634.24	ng/ml	87
68) 4-Bromophenyl phenyl e...	10.675	248	546207	4331.66	ng/ml	97
69) Hexachlorobenzene	10.750	284	617226	4254.30	ng/ml	98
70) Pentachlorophenol (PCP)	10.943	266	363768	4791.33	ng/ml	99
71) Phenanthrene	11.162	178	2302690	3437.96	ng/ml	97
72) Anthracene	11.216	178	2312152	3508.40	ng/ml	96
73) Carbazole	11.371	167	858655	1578.11	ng/ml	99
74) Di-n-butyl phthalate	11.724	149	2651399	3471.94	ng/ml	98
75) Fluoranthene	12.435	202	2665095	3804.46	ng/ml	97
76) Benzidine	12.596	184	1506619	7251.57	ng/ml	99
77) Pyrene	12.729	202	2681088	3831.29	ng/ml	95
80) Butyl benzyl phthalate	13.751	149	1344154	3770.70	ng/ml	94
81) Bis(2-ethylhexyl) adipate	13.922	129	1183408	3703.61	ng/ml	99
82) 3,3-Dichlorobenzidine	~~14.879~~	~~252~~	~~448650~~	6944.09	ng/ml	96
83) Benz(a)anthracene	14.912	228	2538581	3803.56	ng/ml	99
84) Chrysene	15.003	228	2370714	3850.07	ng/ml	96
85) Bis(2-ethylhexyl) phth...	15.088	149	1799096	3815.54	ng/ml	97
87) Di-n-octyl phthalate	16.762	149	3203842	3414.68	ng/ml	99
88) Benzo(b)fluoranthene	17.516	252	2803227	3905.83	ng/ml	98
89) Benzo(k)fluoranthene	17.586	252	2555733	3752.77	ng/ml	99
90) Benzo(b+k)fluoranthene	17.586	252	5439284	7627.06	ng/ml	99
91) Benzo(e)pyrene	18.174	252	2630004	3743.97	ng/ml	99
92) Benzo(a)pyrene	18.292	252	2485829	3849.85	ng/ml	99
93) Perylene	18.500	252	2164033	3535.17	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.838	276	2539375	4355.08	ng/ml	98
96) Dibenz(a,h)anthracene	20.902	278	2389624	4569.13	ng/ml	98
97) Benzo(g,h,i)perylene	21.378	276	2579448	4594.87	ng/ml	98

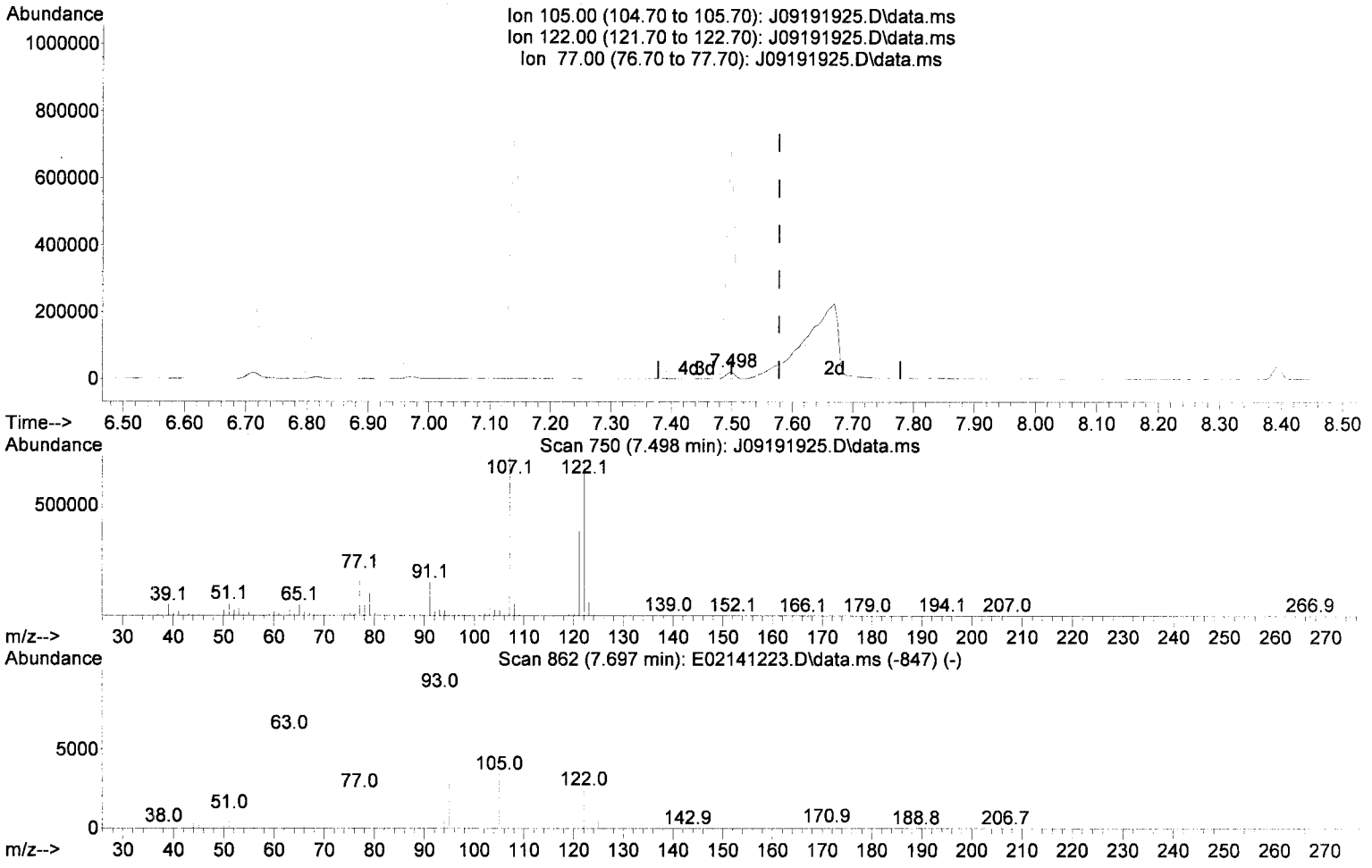
See MJ

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

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191925.D\data.ms

(26) Benzoic acid (T)

7.498min (-0.080) 556.98 ng/ml

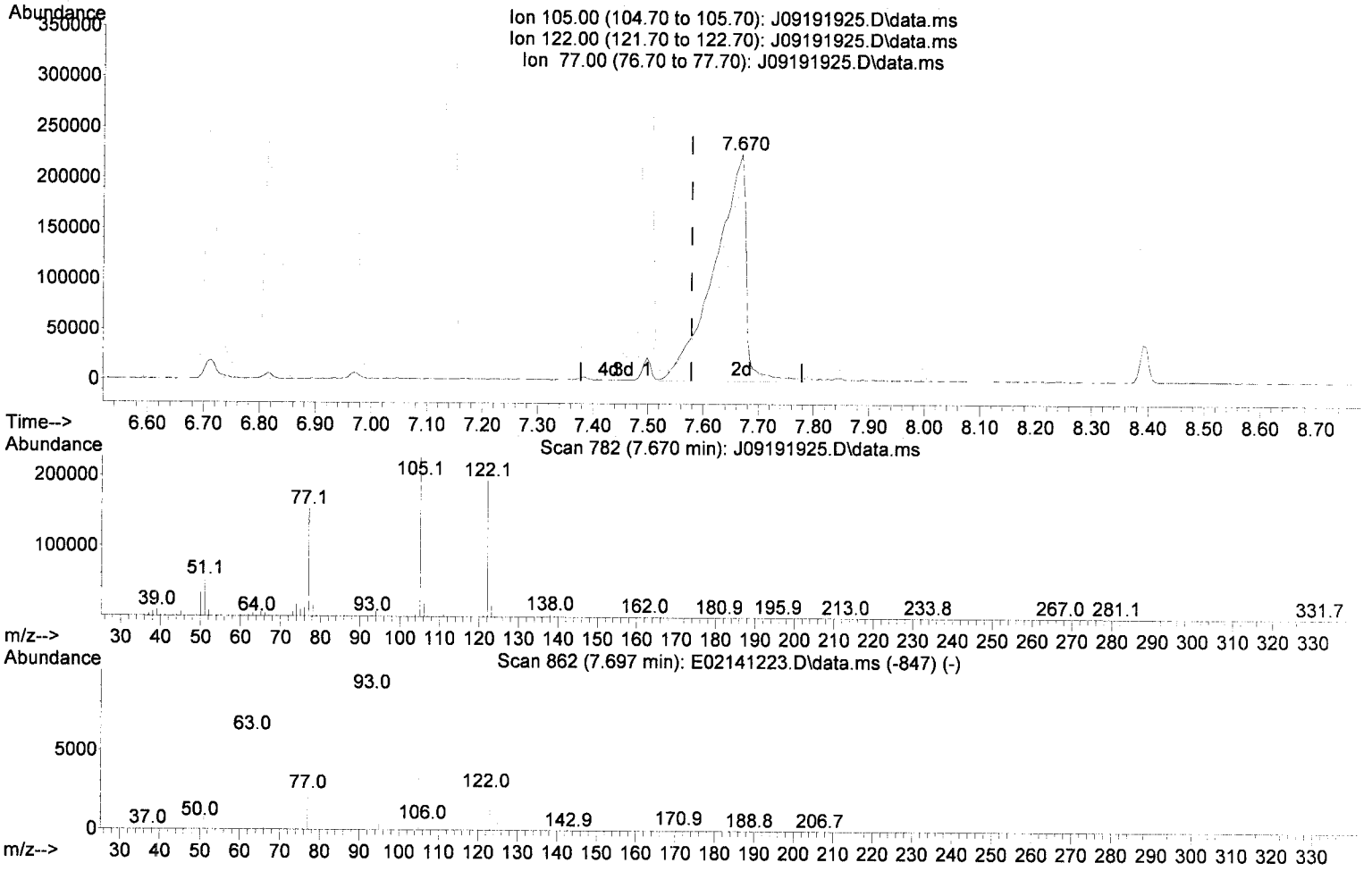
response 22439

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	2944.12#
77.00	72.00	841.49#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191925.D\data.ms

(26) Benzoic acid (T)

7.670min (+ 0.091) 7780.16 ng/ml m

response 902544

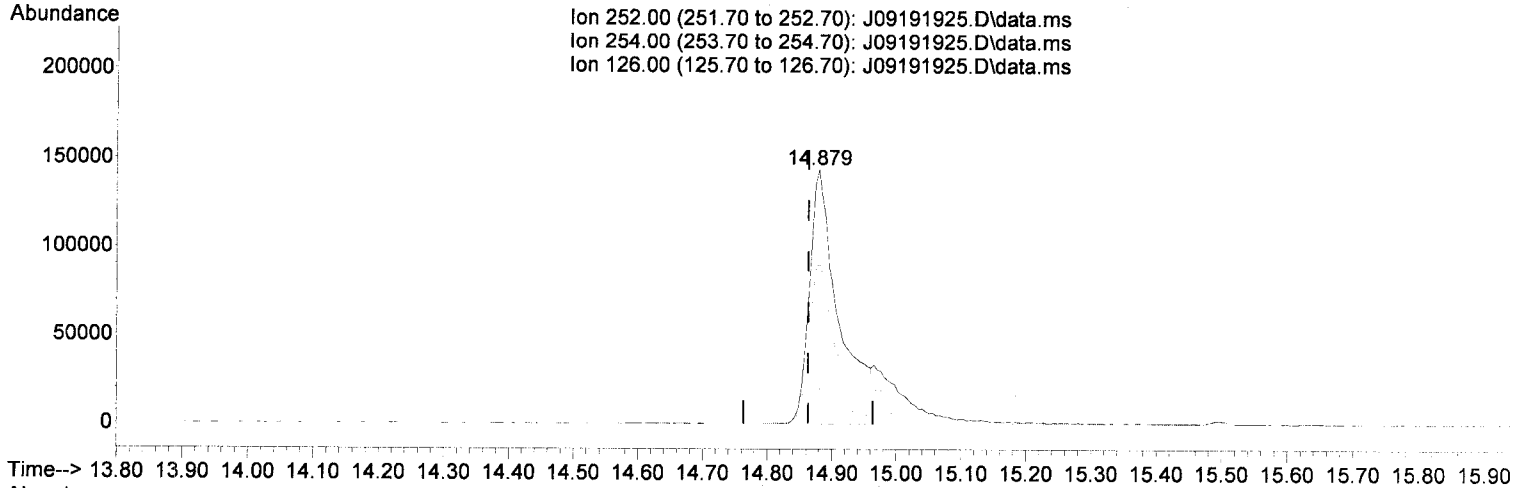
Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	85.67
77.00	72.00	68.01
0.00	0.00	0.00

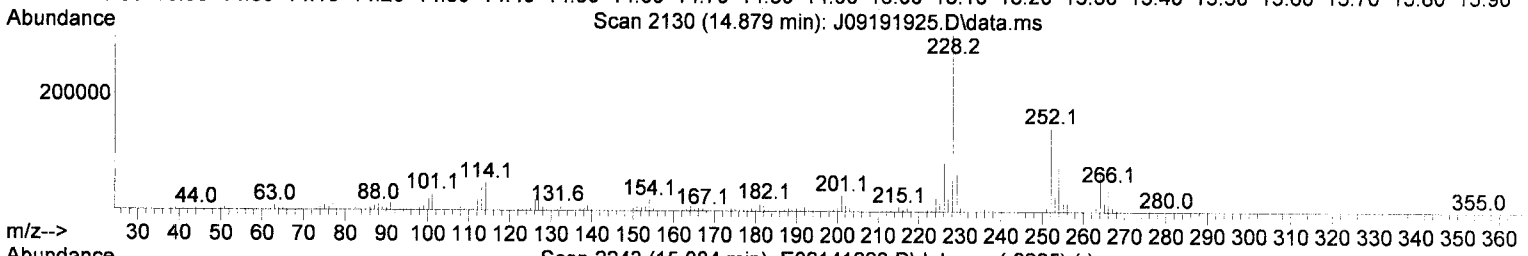
9/20/19

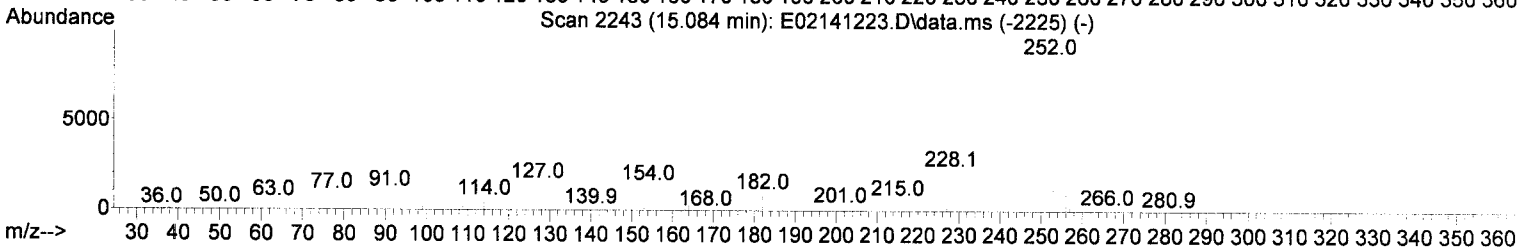
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191925.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.879min (+ 0.016) 6944.09 ng/ml

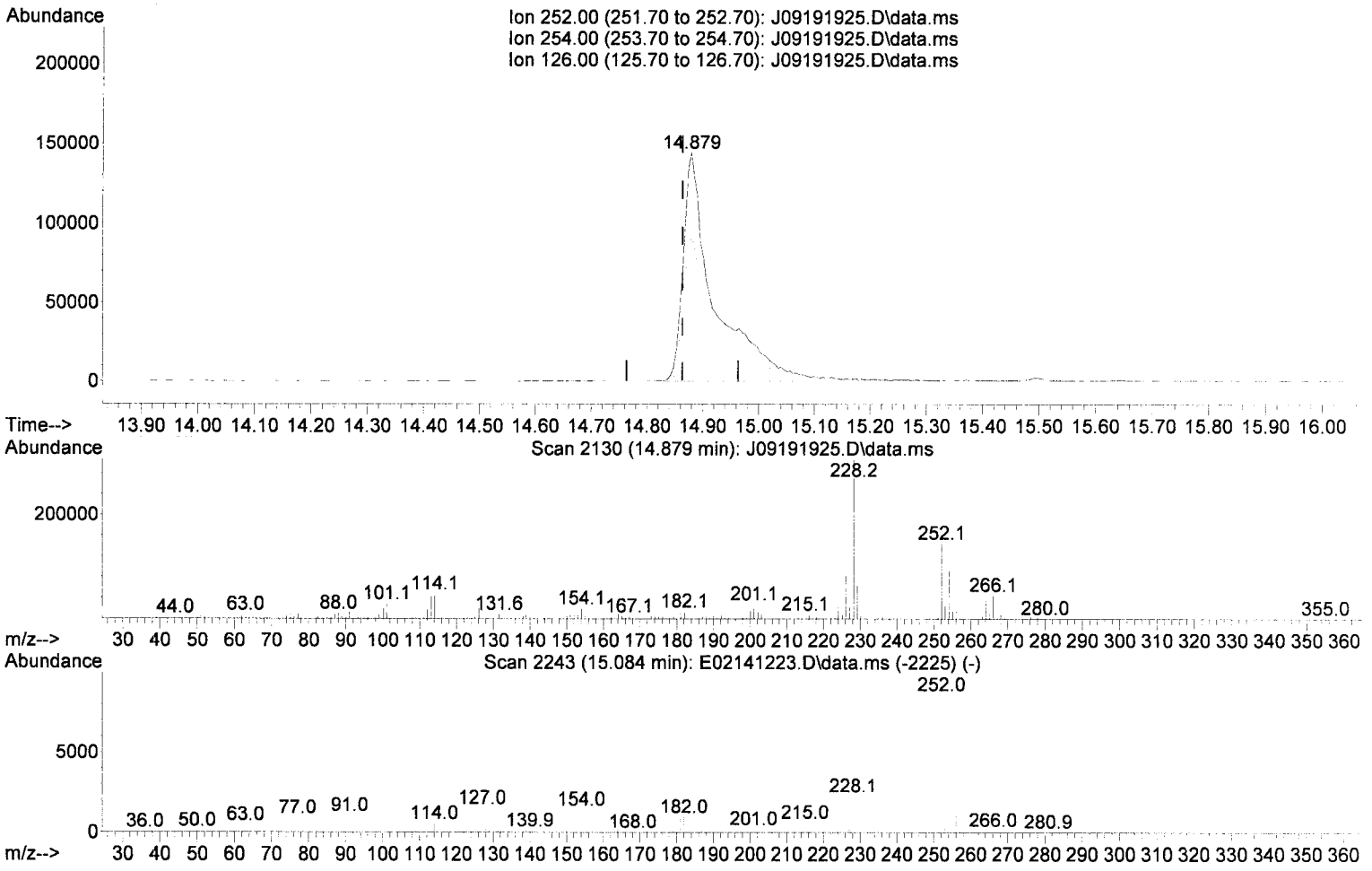
response 448650

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	63.38
126.00	12.00	13.81
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191925.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.879min (+ 0.016) 9026.86 ng/ml

response 555604

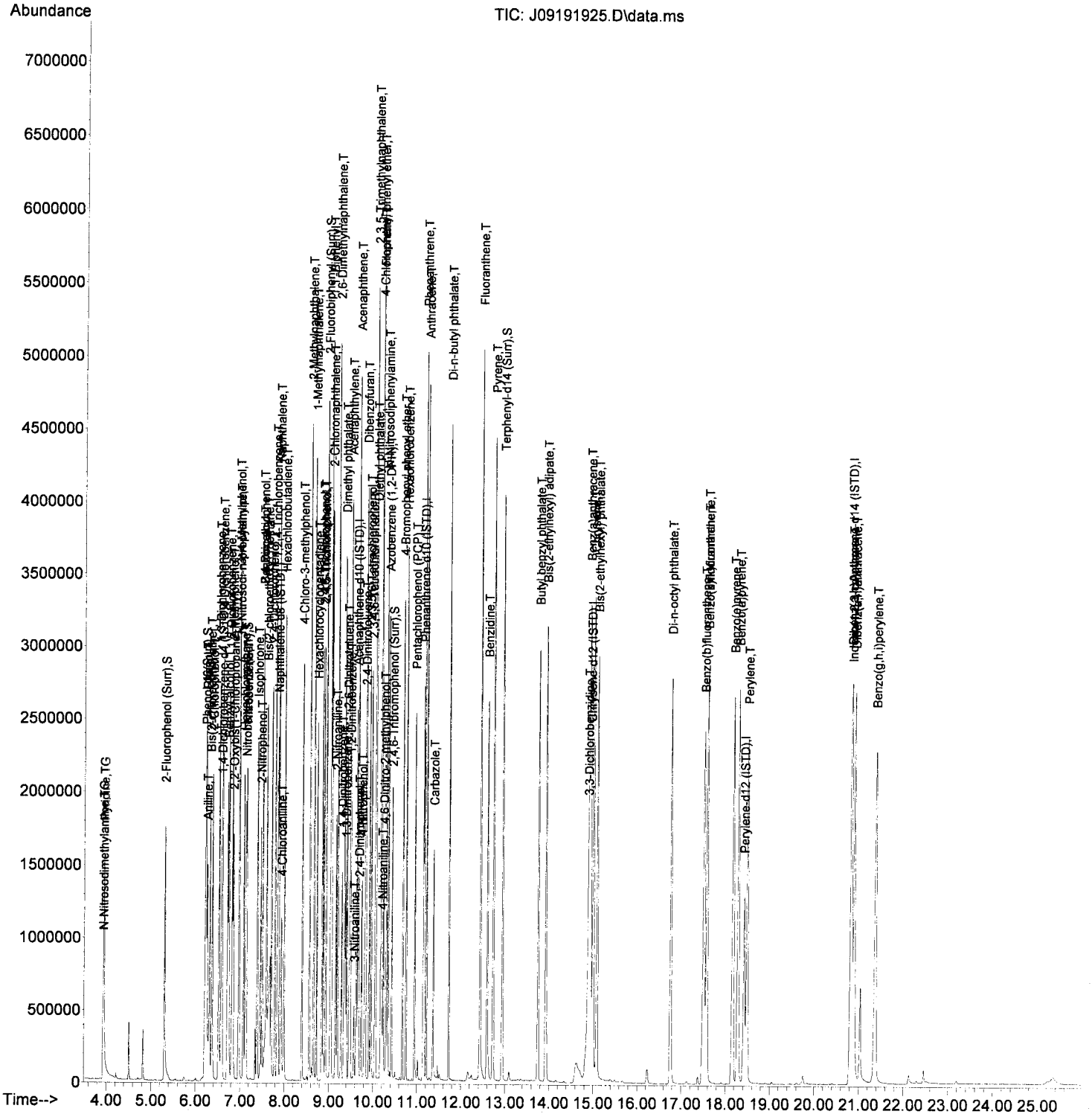
Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	63.38
126.00	12.00	13.81
0.00	0.00	0.00

9/20/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.568	152	279602	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.841	136	1094080	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.622	162	593235	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.141	188	1148482	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.944	240	1022230	2000.00	ng/ml	0.03
86) Perylene-d12 (ISTD)	18.426	264	1067597	2000.00	ng/ml	0.03
94) Dibenz(a,h)Anthrcene-d...	20.838	292	945822	2000.00	ng/ml	0.04
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.295	112	1150405	6066.23	ng/ml	0.00
5) Phenol-d6(Surr)	6.215	99	1391310	5711.74	ng/ml	0.01
19) Nitrobenzene-d5 (Surr)	7.124	82	1045001	4681.39	ng/ml	0.01
40) 2-Fluorobiphenyl (Surr)	8.932	172	2148364	4931.70	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.429	330	407389	7560.59	ng/ml	0.01
79) Terphenyl-d14 (Surr)	12.938	244	2699067	5401.22	ng/ml	0.02
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.883	74	674636m	5192.78	ng/ml	
3) Pyridine	3.893	79	1210013m	5463.38	ng/ml	
6) Phenol	6.231	94	1432862	5174.81	ng/ml	98
7) Aniline	6.252	93	1316393	5318.37	ng/ml	95
8) Bis(2-chloroethyl) ether	6.316	93	1158478	4697.35	ng/ml	99
9) 2-Chlorophenol	6.370	128	1211719	6075.04	ng/ml	99
10) 1,3-Dichlorobenzene	6.520	146	1260484	5843.89	ng/ml	100
11) 1,4-Dichlorobenzene	6.589	146	1202300	5743.45	ng/ml	99
12) Benzyl alcohol	6.712	108	768204	6007.21	ng/ml	98
13) 1,2-Dichlorobenzene	6.739	146	1159865	5512.26	ng/ml	99
14) 2-Methylphenol	6.819	107	839569	5236.51	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.841	45	943818	2966.84	ng/ml	91
16) N-Nitrosodi-n-propylamine	6.985	70	644101	3986.31	ng/ml	94
17) 3+4-Methylphenol	6.974	107	997248	5046.94	ng/ml	99
18) Hexachloroethane	7.076	201	419784	7283.73	ng/ml	95
20) Nitrobenzene	7.145	77	977466	4371.02	ng/ml	92
22) Isophorone	7.386	82	2075603	5227.70	ng/ml	100
23) 2-Nitrophenol	7.461	139	659170	6267.15	ng/ml	93
24) 2,4-Dimethylphenol	7.504	122	932922	6162.23	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.589	93	1142883	5166.72	ng/ml	98
26) Benzoic acid	7.579	105	96795	1449.32	ng/ml	96 See MJ
27) 2,4-Dichlorophenol	7.702	162	943067	7188.94	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.787	180	1041502	6557.84	ng/ml	100
29) Naphthalene	7.867	128	2711030	4824.07	ng/ml	95
30) 4-Chloroaniline	7.926	127	906180	6017.35	ng/ml	100
31) Hexachlorobutadiene	7.996	225	570722	6738.45	ng/ml	98
32) 4-Chloro-3-methylphenol	8.397	107	912303	5774.18	ng/ml	93
33) 2-Methylnaphthalene	8.563	142	2034929	5303.97	ng/ml	97
34) 1-Methylnaphthalene	8.664	142	1893325	5134.69	ng/ml	98
36) Hexachlorocyclopentadiene	8.729	237	601203	6404.52	ng/ml	95
37) 2,4,6-Trichlorophenol	8.846	196	713503	6449.67	ng/ml	99
38) 2,4,5-Trichlorophenol	8.884	198	699105	6931.12	ng/ml	99
39) 1,1'-Biphenyl	9.039	154	2268485	4602.89	ng/ml	95
41) 2-Chloronaphthalene	9.060	162	1860060	5142.02	ng/ml	98
42) 2-Nitroaniline	9.162	138	739914	6143.79	ng/ml	93
43) 2,6-Dimethylnaphthalene	9.199	156	1742370	4722.69	ng/ml	98

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.290	168	365105	6493.74 ng/ml	88
45) Dimethyl phthalate	9.354	163	2223667	5240.92 ng/ml	97
46) 1,3-Dinitrobenzene	9.381	168	407082	6314.46 ng/ml	91
47) 2,6-Dinitrotoluene	9.408	165	575872	6310.58 ng/ml	96
48) 1,2-Dinitrobenzene	9.472	168	266233	6228.85 ng/ml	93
49) Acenaphthylene	9.483	152	2704211	4663.72 ng/ml	95
50) 3-Nitroaniline	9.579	138	180797	Below Cal	97
51) Acenaphthene	9.659	153	1803278	4797.51 ng/ml	99
52) 2,4-Dinitrophenol	9.681	184	272053	5508.37 ng/ml	97
53) 4-Nitrophenol	9.745	139	467183	5690.24 ng/ml	97
54) 2,4-Dinitrotoluene	9.820	165	734363	6253.07 ng/ml	93
55) Dibenzofuran	9.836	168	2531005	4938.04 ng/ml	95
56) 2,3,5,6-Tetrachlorophenol	9.916	232	597064	6702.12 ng/ml	95
57) 2,3,4,6-Tetrachlorophenol	9.959	232	603345	6692.46 ng/ml	96
58) Diethyl phthalate	10.066	149	1916805	4737.64 ng/ml	94
59) 2,3,5-Trimethylnaphtha...	10.050	170	1592300	4860.15 ng/ml	97
60) Fluorene	10.189	166	1824399	4519.48 ng/ml	98
61) 4-Chlorophenyl phenyl ...	10.178	204	992417	5290.11 ng/ml	95
62) 4-Nitroaniline	10.205	138	385746	4719.73 ng/ml	97
63) 4,6-Dinitro-2-methylph...	10.237	198	377769	5981.86 ng/ml	95
65) N-Nitrosodiphenylamine	10.301	169	1569352	4443.39 ng/ml	97
66) Azobenzene (1,2-DPH)	10.339	77	1601806	3418.86 ng/ml	88
68) 4-Bromophenyl phenyl e...	10.681	248	726568	6145.51 ng/ml	92
69) Hexachlorobenzene	10.756	284	795928	5851.17 ng/ml	98
70) Pentachlorophenol (PCP)	10.948	266	500914	6716.78 ng/ml	99
71) Phenanthrene	11.168	178	2932288	4669.35 ng/ml	96
72) Anthracene	11.221	178	2907155	4704.86 ng/ml	96
73) Carbazole	11.371	167	1156567	2267.12 ng/ml	99
74) Di-n-butyl phthalate	11.729	149	3301933	4611.59 ng/ml	97
75) Fluoranthene	12.441	202	3417993	5203.99 ng/ml	96
76) Benzidine	12.601	184	2204013	10575.22 ng/ml	99
77) Pyrene	12.735	202	3436590	5237.78 ng/ml	95
80) Butyl benzyl phthalate	13.756	149	1779167	5557.56 ng/ml	93
81) Bis(2-ethylhexyl) adipate	13.933	129	1497303	5217.89 ng/ml	99
82) 3,3-Dichlorobenzidine	~~14.890~~	~~252~~	~~494238~~	~~8919.45 ng/ml~~	97
83) Benz(a)anthracene	14.917	228	3394067	5662.58 ng/ml	99
84) Chrysene	15.013	228	3095456	5597.68 ng/ml	97
85) Bis(2-ethylhexyl) phth...	15.093	149	2338505	5522.48 ng/ml	96
87) Di-n-octyl phthalate	16.773	149	4149203	4742.46 ng/ml	99
88) Benzo(b)fluoranthene	17.522	252	3768759	5828.72 ng/ml	99
89) Benzo(k)fluoranthene	17.602	252	3115398	5077.74 ng/ml	99
90) Benzo(b+k)fluoranthene	17.602	252	7129046	11096.00 ng/ml	99
91) Benzo(e)pyrene	18.185	252	3489142	5513.34 ng/ml	99
92) Benzo(a)pyrene	18.308	252	3235783	5562.53 ng/ml	100
93) Perylene	18.511	252	2908580	5274.09 ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.854	276	3489319	6562.35 ng/ml	97
96) Dibenz(a,h)anthracene	20.913	278	3129173	6561.19 ng/ml	99
97) Benzo(g,h,i)perylene	21.389	276	3417702	6676.22 ng/ml	97

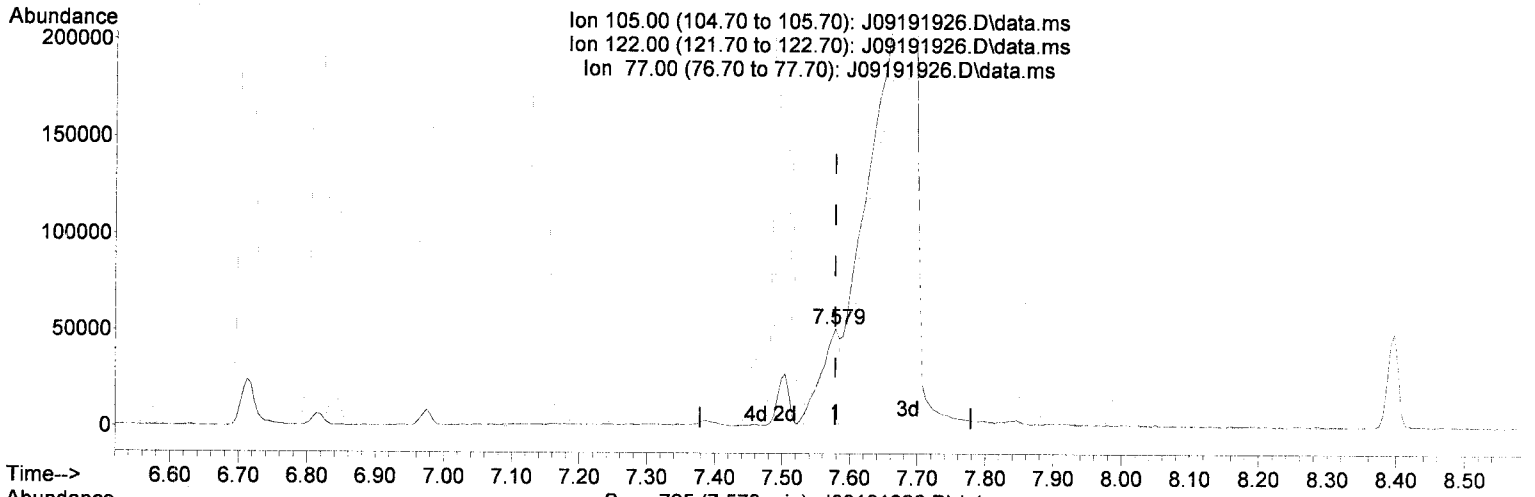
See MI

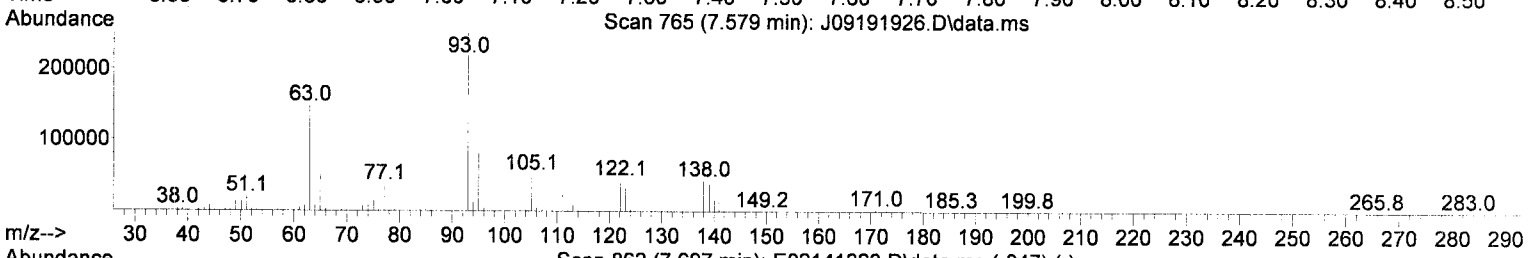
(#) = qualifier out of range (m) = manual integration (+) = signals summed

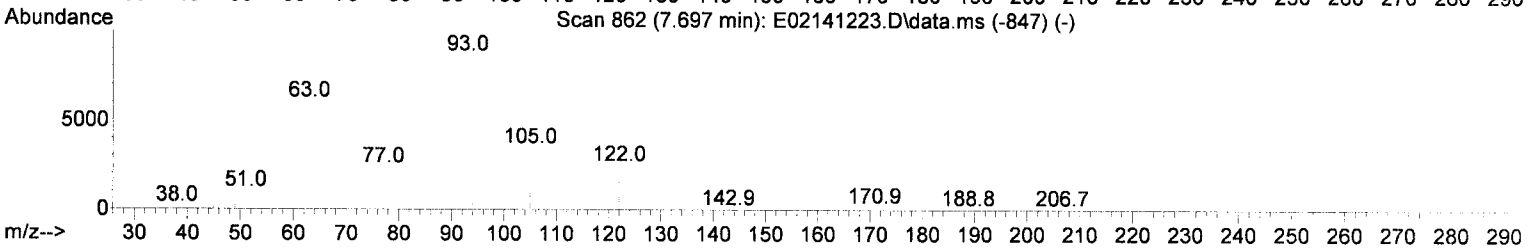
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191926.D\data.ms

(26) Benzoic acid (T)

7.579min (+ 0.000) 1449.32 ng/ml

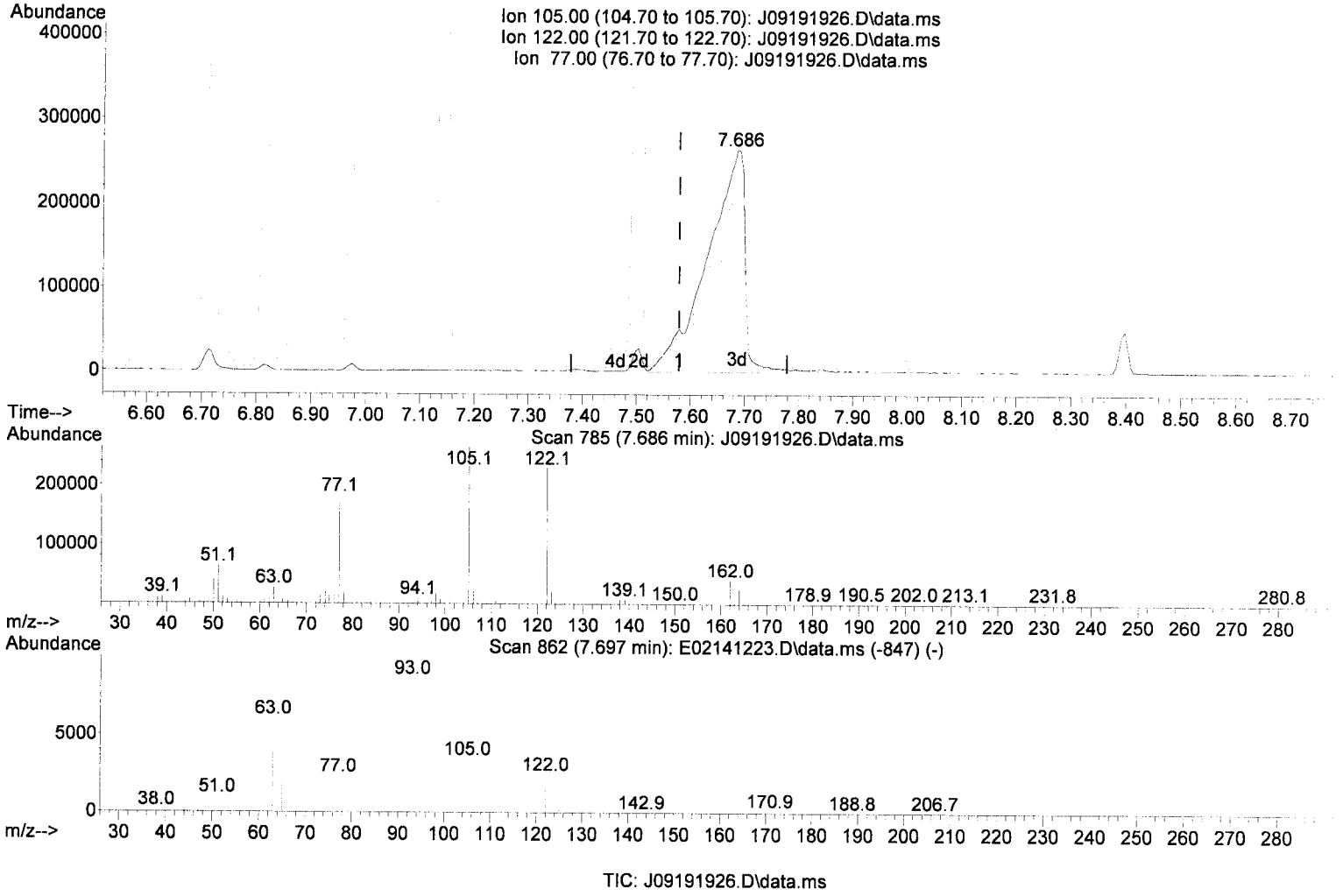
response 96795

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	84.66
77.00	72.00	72.18
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191926.D\data.ms

(26) Benzoic acid (T)

7.686min (+ 0.107) 10743.23 ng/ml m 9/20/19

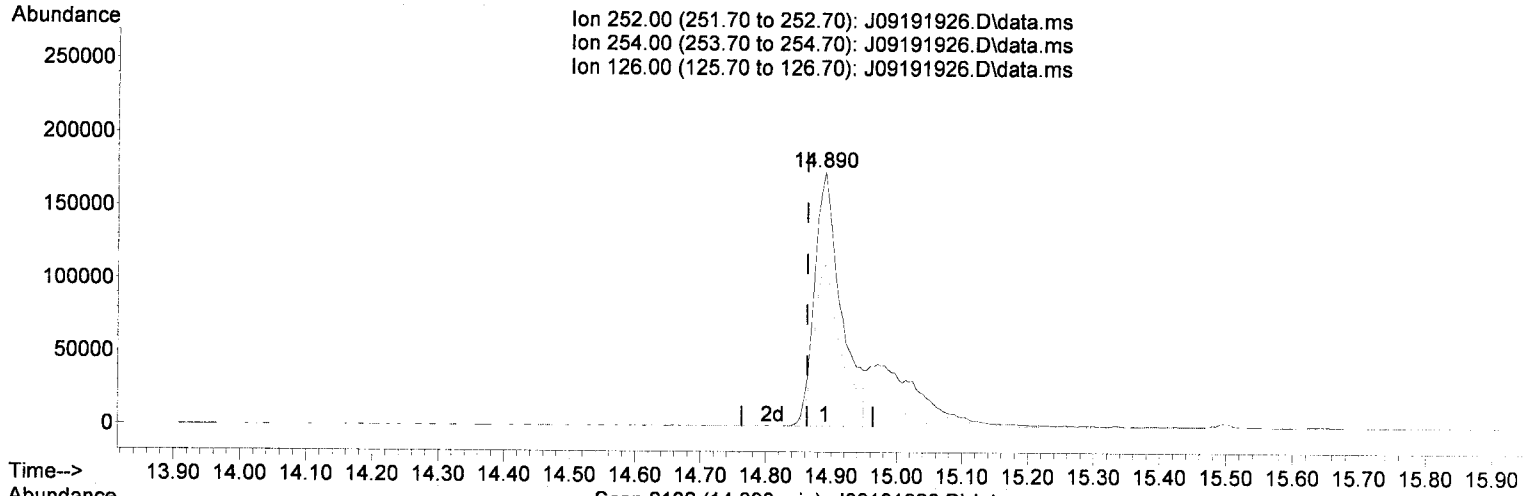
response 1277463

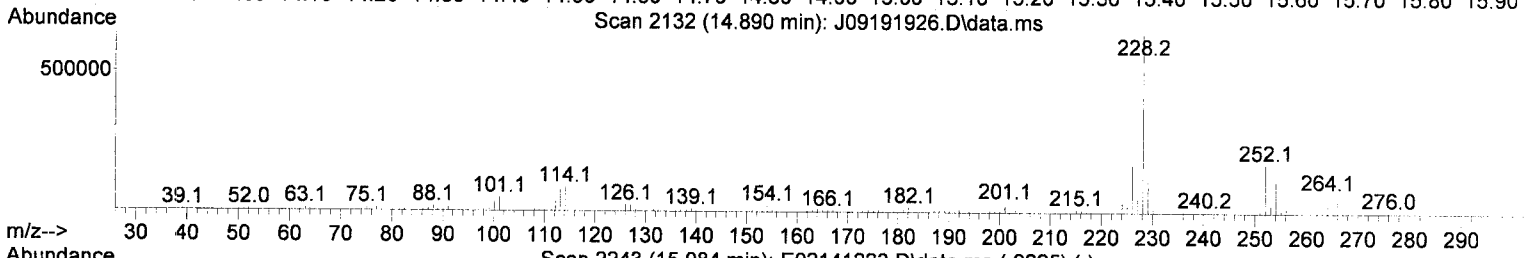
Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	87.13
77.00	72.00	68.78
0.00	0.00	0.00

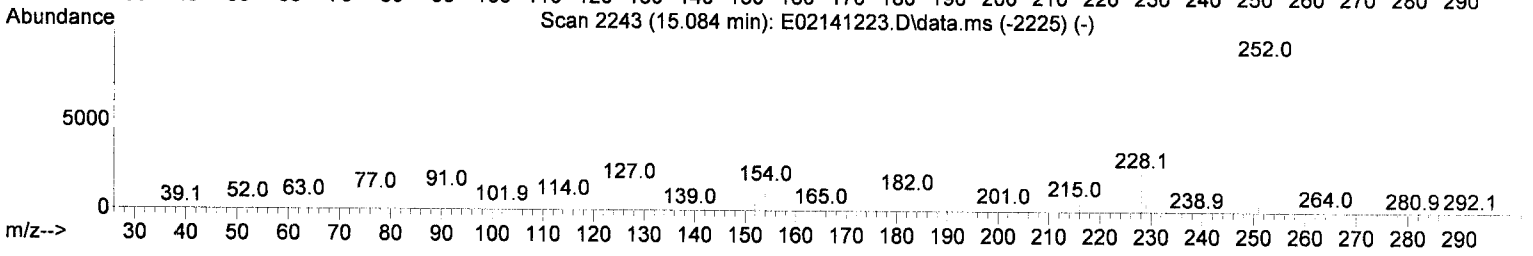
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191926.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.890min (+ 0.027) 8919.45 ng/ml

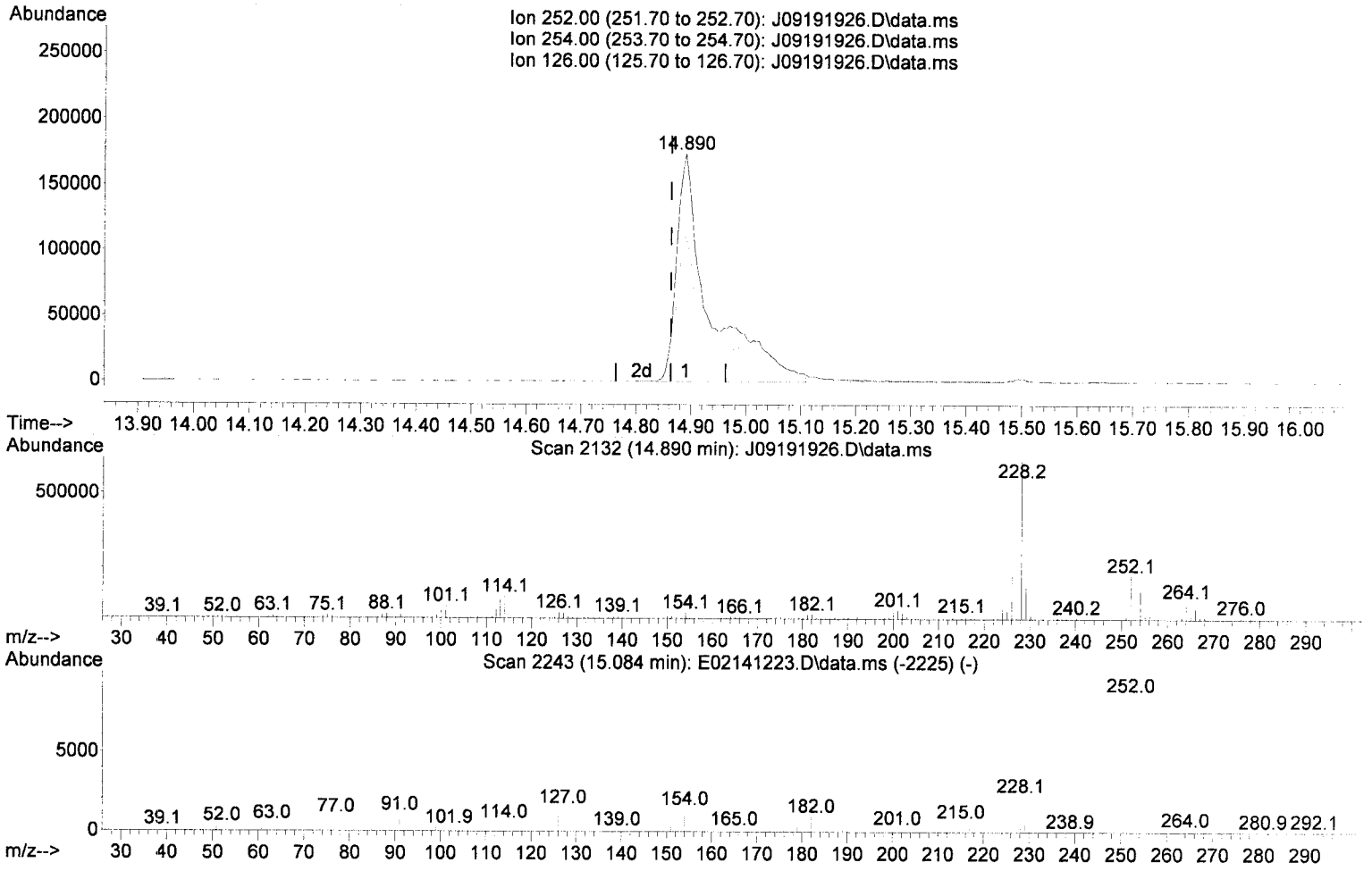
response 494238

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	63.96
126.00	12.00	13.33
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191926.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.890min (+ 0.027) 15215.95 ng/ml 9/20/19

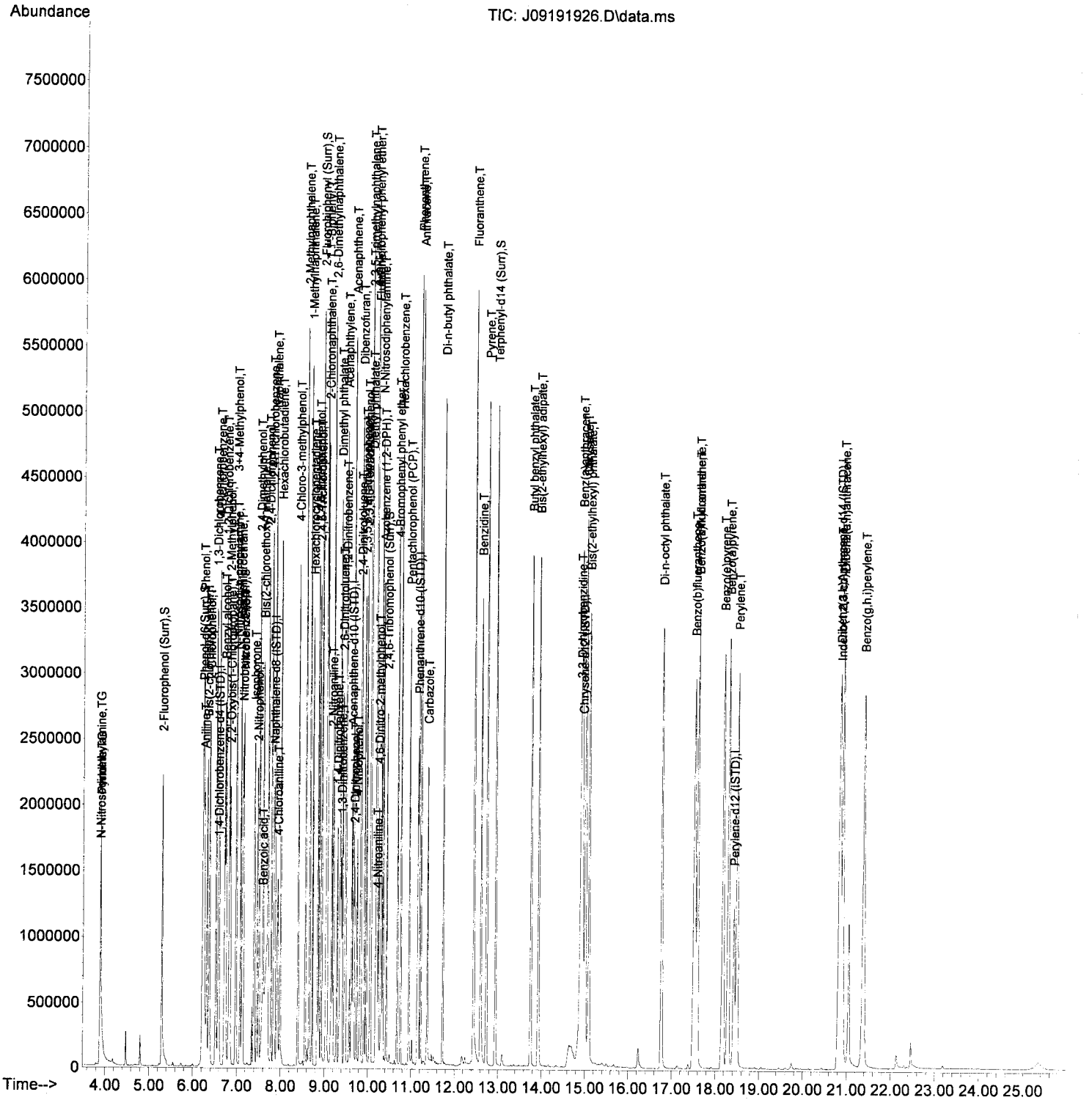
response 730056

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	63.96
126.00	12.00	13.33
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

GJL 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.578	152	269345	2000.00	ng/ml	0.01
21) Naphthalene-d8 (ISTD)	7.846	136	1074761	2000.00	ng/ml	0.01
35) Acenaphthene-d10 (ISTD)	9.627	162	593771	2000.00	ng/ml	0.01
64) Phenanthrene-d10 (ISTD)	11.135	188	1167219	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.933	240	1013392	2000.00	ng/ml	0.02
86) Perylene-d12 (ISTD)	18.409	264	1108960	2000.00	ng/ml	0.01
94) Dibenz(a,h)Anthrcene-d...	20.822	292	982889	2000.00	ng/ml	0.03
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.316	112	1458990	7986.41	ng/ml	0.03
5) Phenol-d6(Surr)	6.225	99	1721904	7338.12	ng/ml	0.02
19) Nitrobenzene-d5 (Surr)	7.129	82	1284804	5974.84	ng/ml	0.02
40) 2-Fluorobiphenyl (Surr)	8.937	172	2595271	5952.22	ng/ml	0.01
67) 2,4,6-Tribromophenol (...	10.435	330	524653	9580.55	ng/ml	0.02
79) Terphenyl-d14 (Surr)	12.932	244	3392009	6847.09	ng/ml	0.01
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.957	74	799031	6384.48	ng/ml	95
3) Pyridine	3.963	79	1480958m	6941.37	ng/ml#	
6) Phenol	6.247	94	1750392	6562.31	ng/ml	93
7) Aniline	6.263	93	1480736	6210.15	ng/ml	95
8) Bis(2-chloroethyl) ether	6.322	93	1435010	6040.20	ng/ml	98
9) 2-Chlorophenol	6.375	128	1496104	7786.46	ng/ml	98
10) 1,3-Dichlorobenzene	6.525	146	1570022	7556.17	ng/ml	99
11) 1,4-Dichlorobenzene	6.594	146	1504749	7462.00	ng/ml	99
12) Benzyl alcohol	6.723	108	932774	7571.89	ng/ml	99
13) 1,2-Dichlorobenzene	6.744	146	1419977	7005.43	ng/ml	100
14) 2-Methylphenol	6.824	107	1030806	6674.12	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.846	45	1103589	3601.18	ng/ml	87
16) N-Nitrosodi-n-propylamine	6.995	70	803148	5159.93	ng/ml	94
17) 3+4-Methylphenol	6.985	107	1205305	6332.18	ng/ml	99
18) Hexachloroethane	7.081	201	541884	9760.36	ng/ml	92
20) Nitrobenzene	7.151	77	1198679	5564.36	ng/ml	91
22) Isophorone	7.397	82	2693969	6907.11	ng/ml	99
23) 2-Nitrophenol	7.461	139	838038	8987.28	ng/ml	94
24) 2,4-Dimethylphenol	7.509	122	1099526	7393.25	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.595	93	1380842	6354.69	ng/ml	98
26) Benzoic acid	7.509	105	38011	776.83	ng/ml#	1
27) 2,4-Dichlorophenol	7.707	162	1167761	9061.78	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.787	180	1277566	8188.82	ng/ml	99
29) Naphthalene	7.867	128	3240737	5870.30	ng/ml	95
30) 4-Chloroaniline	7.931	127	1186251	7997.52	ng/ml	100
31) Hexachlorobutadiene	7.996	225	701350	8429.61	ng/ml	98
32) 4-Chloro-3-methylphenol	8.397	107	1141605	7355.36	ng/ml	93
33) 2-Methylnaphthalene	8.563	142	2448839	6497.55	ng/ml	98
34) 1-Methylnaphthalene	8.664	142	2286875	6313.48	ng/ml	98
36) Hexachlorocyclopentadiene	8.728	237	759063	8078.87	ng/ml	96
37) 2,4,6-Trichlorophenol	8.851	196	922776	8200.21	ng/ml	98
38) 2,4,5-Trichlorophenol	8.884	198	870124	8618.86	ng/ml	98
39) 1,1'-Biphenyl	9.039	154	2706900	5487.50	ng/ml	95
41) 2-Chloronaphthalene	9.060	162	2240055	6186.91	ng/ml	98
42) 2-Nitroaniline	9.167	138	944974	7839.40	ng/ml	90
43) 2,6-Dimethylnaphthalene	9.199	156	2089018	5657.17	ng/ml	98

See MI

See MI

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.295	168	488295	8676.95 ng/ml	84
45) Dimethyl phthalate	9.360	163	2768841	6519.94 ng/ml	96
46) 1,3-Dinitrobenzene	9.386	168	525829	8149.05 ng/ml	91
47) 2,6-Dinitrotoluene	9.413	165	727325	7963.06 ng/ml	93
48) 1,2-Dinitrobenzene	9.477	168	322227	7532.10 ng/ml	94
49) Acenaphthylene	9.488	152	3146686	5421.92 ng/ml	95
50) 3-Nitroaniline	9.584	138	174843	Below Cal	96
51) Acenaphthene	9.664	153	2204696	5860.16 ng/ml	99
52) 2,4-Dinitrophenol	9.686	184	388560	7229.26 ng/ml	93
53) 4-Nitrophenol	9.755	139	610739	7150.14 ng/ml	97
54) 2,4-Dinitrotoluene	9.825	165	868405	7387.76 ng/ml	92
55) Dibenzofuran	9.836	168	3003141	5853.90 ng/ml	93
56) 2,3,5,6-Tetrachlorophenol	9.916	232	763806	8438.44 ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	9.964	232	773723	8433.64 ng/ml	95
58) Diethyl phthalate	10.066	149	2319061	5726.69 ng/ml	94
59) 2,3,5-Trimethylnaphtha...	10.050	170	1931750	5890.92 ng/ml	99
60) Fluorene	10.189	166	2171368	5374.15 ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.178	204	1192807	6352.55 ng/ml	94
62) 4-Nitroaniline	10.210	138	523369	6397.82 ng/ml	97
63) 4,6-Dinitro-2-methylph...	10.242	198	504056	7617.61 ng/ml	93
65) N-Nitrosodiphenylamine	10.306	169	1760214	4903.79 ng/ml	97
66) Azobenzene (1,2-DPH)	10.344	77	1950077	4095.39 ng/ml	78
68) 4-Bromophenyl phenyl e...	10.681	248	926306	7709.18 ng/ml	93
69) Hexachlorobenzene	10.756	284	1001688	7245.58 ng/ml	98
70) Pentachlorophenol (PCP)	10.948	266	646595	8238.97 ng/ml	98
71) Phenanthrene	11.167	178	3584429	5616.19 ng/ml	96
72) Anthracene	11.221	178	3477728	5537.91 ng/ml	95
73) Carbazole	11.371	167	1165062	2247.11 ng/ml	99
74) Di-n-butyl phthalate	11.724	149	4037361	5548.19 ng/ml	96
75) Fluoranthene	12.435	202	4158773	6230.20 ng/ml	95
76) Benzidine	12.595	184	3017555	13485.44 ng/ml	99
77) Pyrene	12.729	202	4271888	6406.36 ng/ml	95
80) Butyl benzyl phthalate	13.745	149	2308181	7272.91 ng/ml	91
81) Bis(2-ethylhexyl) adipate	13.917	129	1955106	6872.69 ng/ml	99
82) 3,3-Dichlorobenzidine	14.874	252	572542	10901.24 ng/ml	98
83) Benz(a)anthracene	14.906	228	4360504	7338.40 ng/ml	98
84) Chrysene	15.002	228	3992263	7282.39 ng/ml	96
85) Bis(2-ethylhexyl) phth...	15.083	149	2986931	7115.28 ng/ml	95
87) Di-n-octyl phthalate	16.751	149	5450180	5838.44 ng/ml	98
88) Benzo(b)fluoranthene	17.522	252	5003892	7450.31 ng/ml	98
89) Benzo(k)fluoranthene	17.591	252	3789489	5946.05 ng/ml	98
90) Benzo(b+k)fluoranthene	17.591	252	9407940	14096.81 ng/ml	98
91) Benzo(e)pyrene	18.174	252	4556103	6930.76 ng/ml	96
92) Benzo(a)pyrene	18.302	252	4292201	7103.37 ng/ml	100
93) Perylene	18.500	252	3844220	6710.68 ng/ml	98
95) Indeno(1,2,3-cd)pyrene	20.838	276	4879339	8830.49 ng/ml	97
96) Dibenz(a,h)anthracene	20.902	278	4143300	8359.97 ng/ml	98
97) Benzo(g,h,i)perylene	21.383	276	4554601	8561.53 ng/ml	98

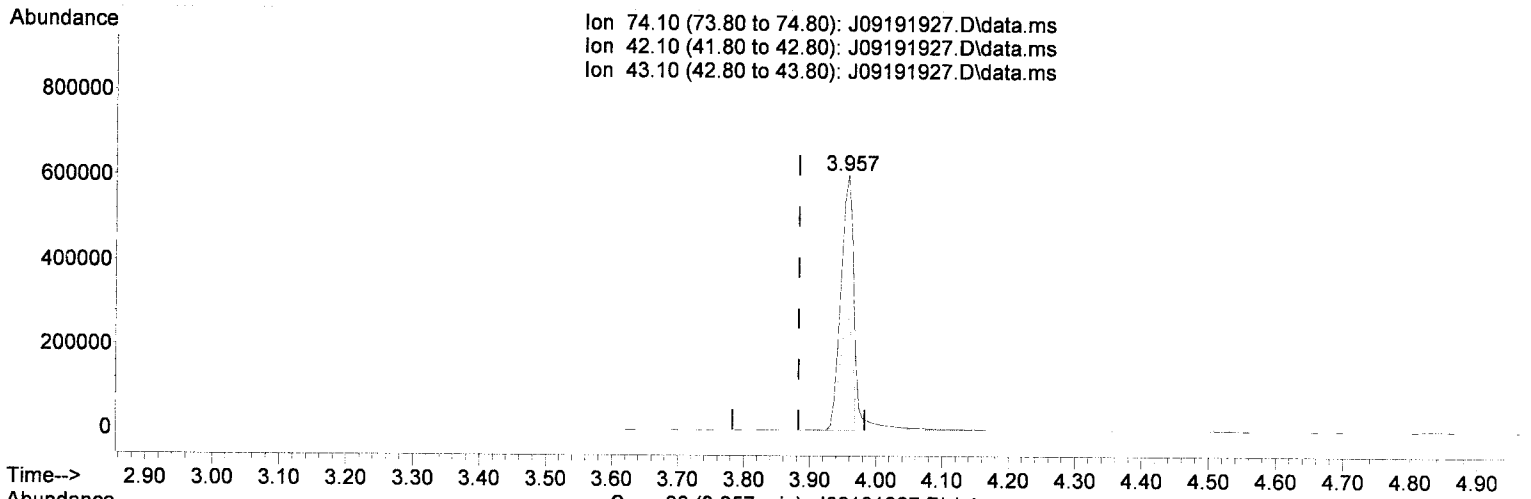
See MS

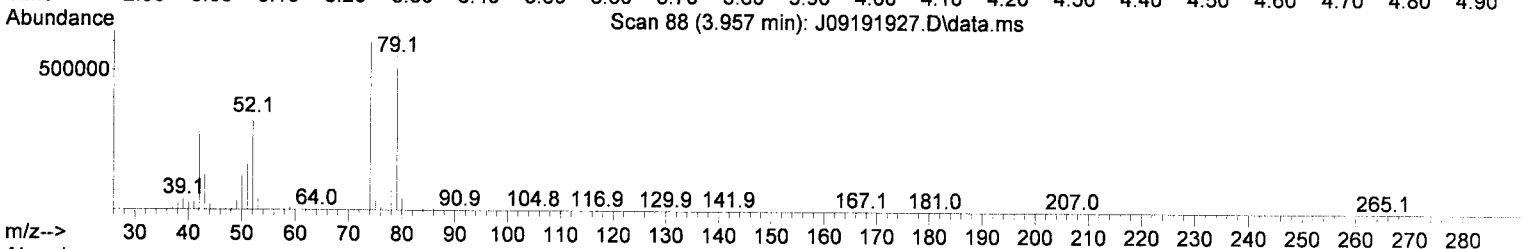
(#) = qualifier out of range (m) = manual integration (+) = signals summed

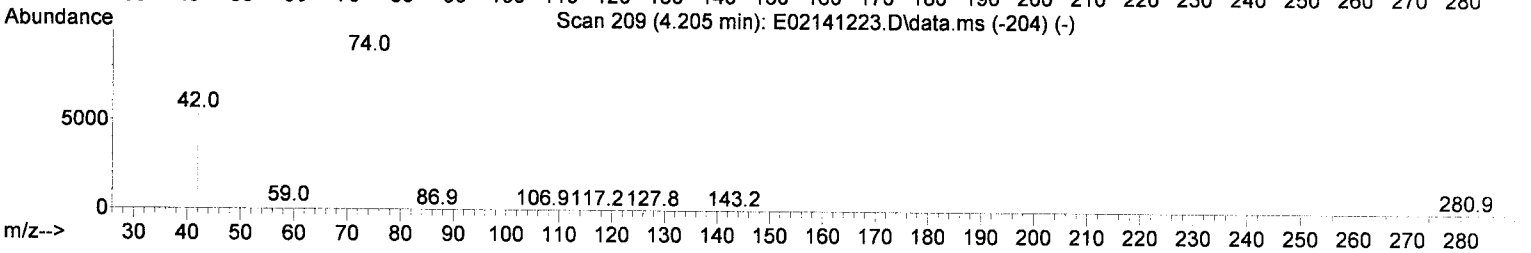
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191927.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.957min (+ 0.075) 6384.48 ng/ml

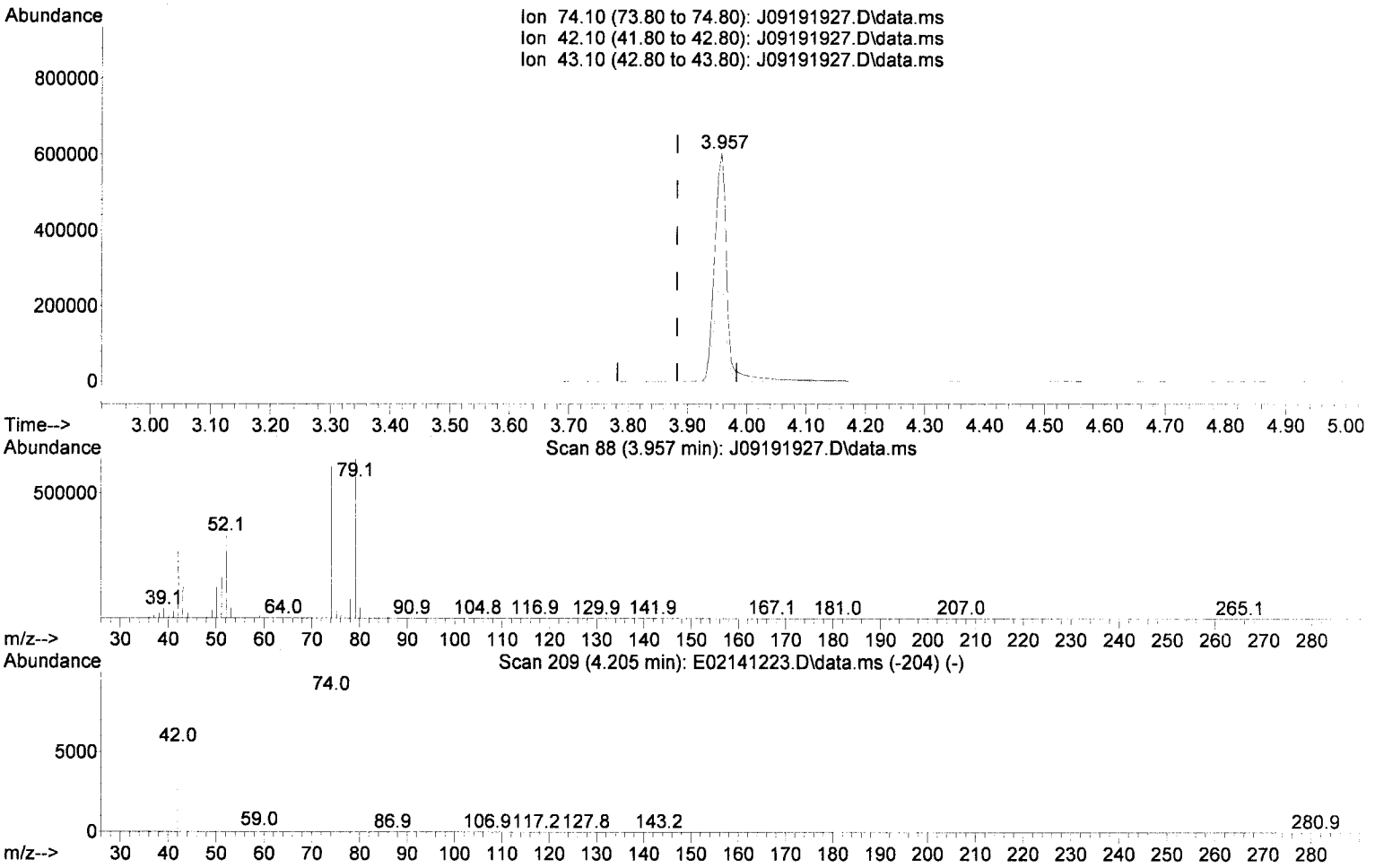
response 799081

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	45.78
43.10	22.20	20.07
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191927.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.957min (+ 0.075) 6923.78 ng/ml m 9/20/19

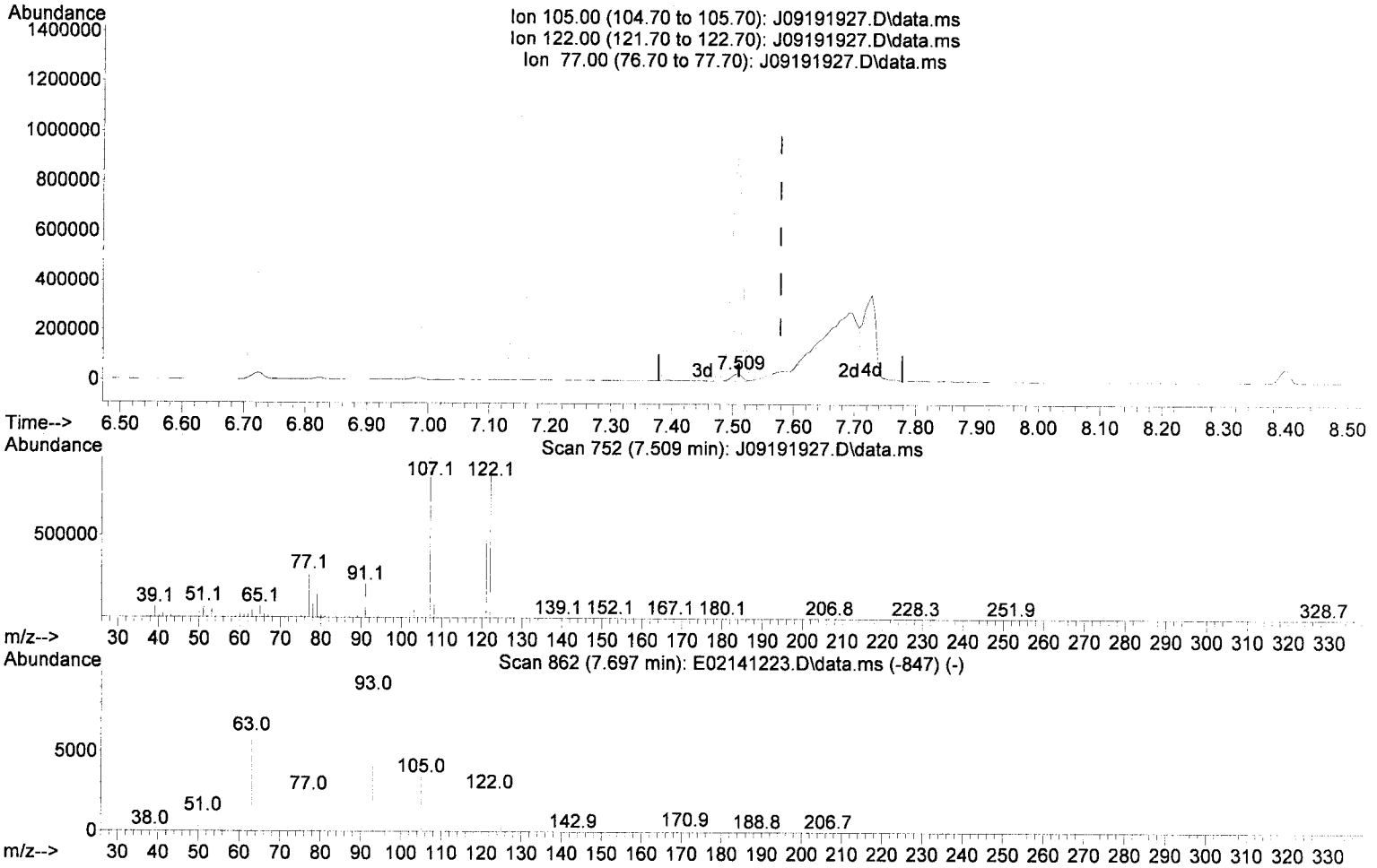
response 866525

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	45.78
43.10	22.20	20.07
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191927.D\data.ms

(26) Benzoic acid (T)

7.509min (-0.070) 776.83 ng/ml

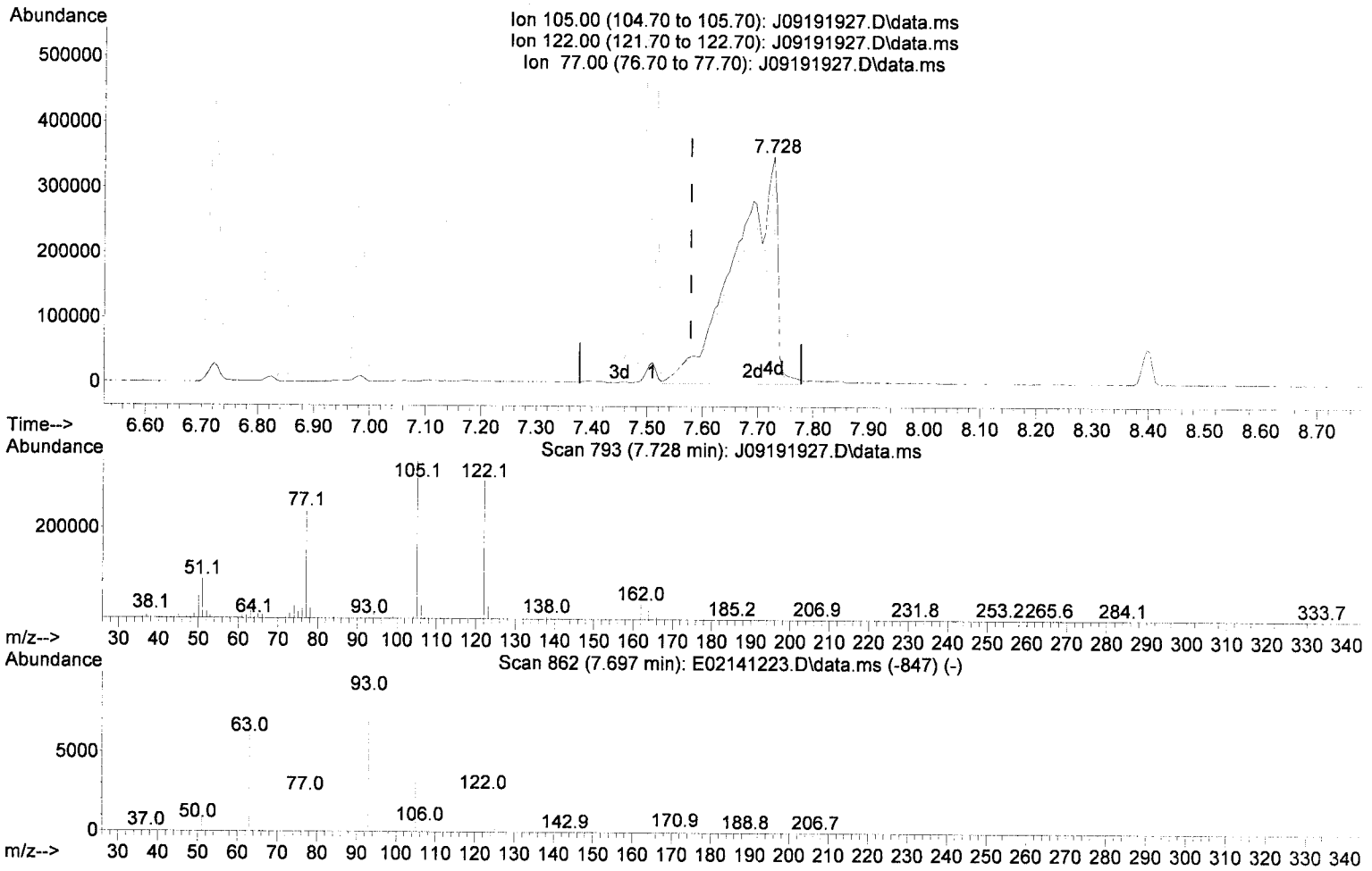
response 38011

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	2797.37#
77.00	72.00	828.09#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191927.D\data.ms

(26) Benzoic acid (T)

7.728min (+ 0.150) 14150.47 ng/ml m

9/20/19

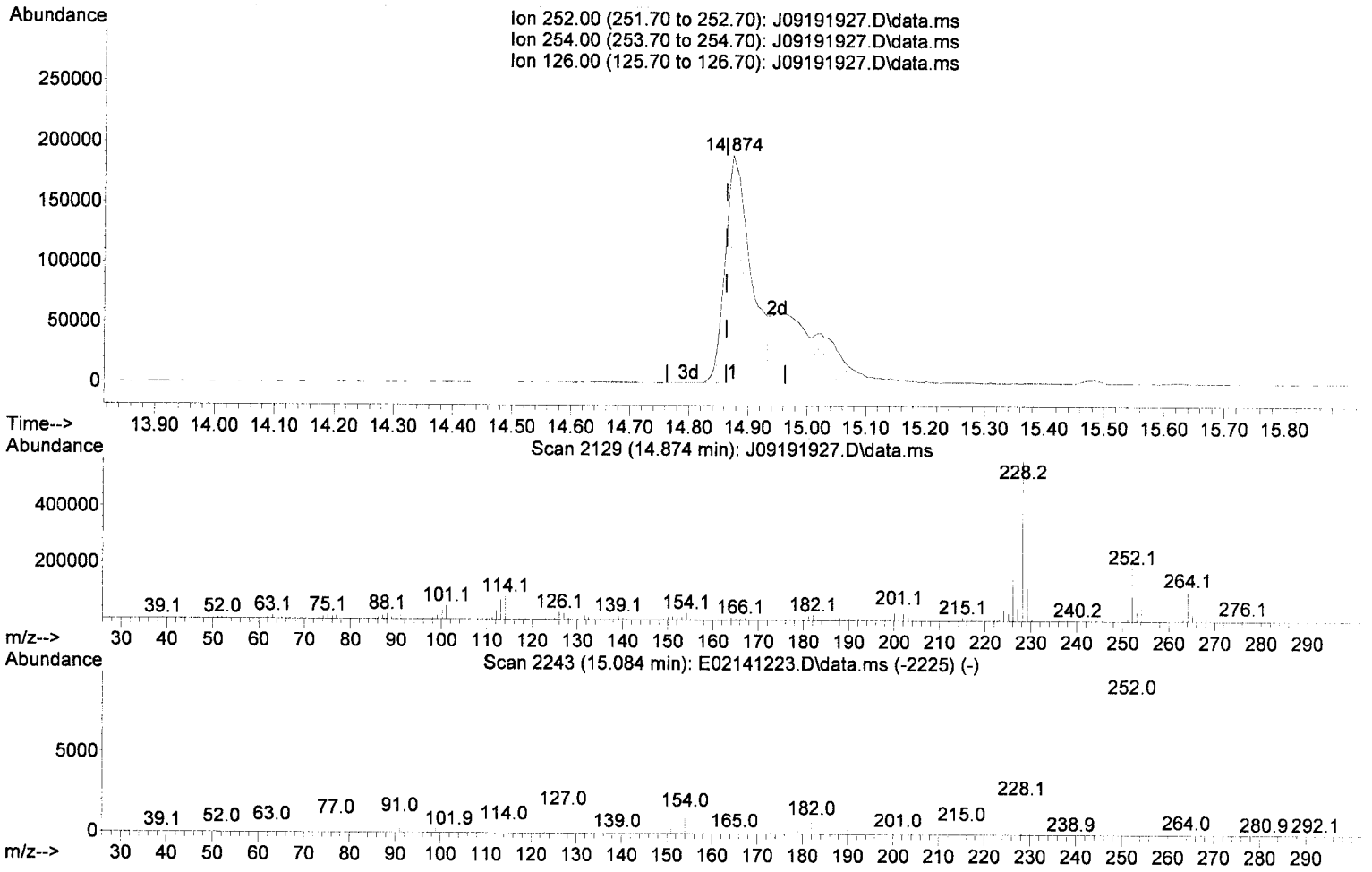
response 1853462

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	87.13
77.00	72.00	68.18
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191927.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.874min (+ 0.011) 10901.24 ng/ml

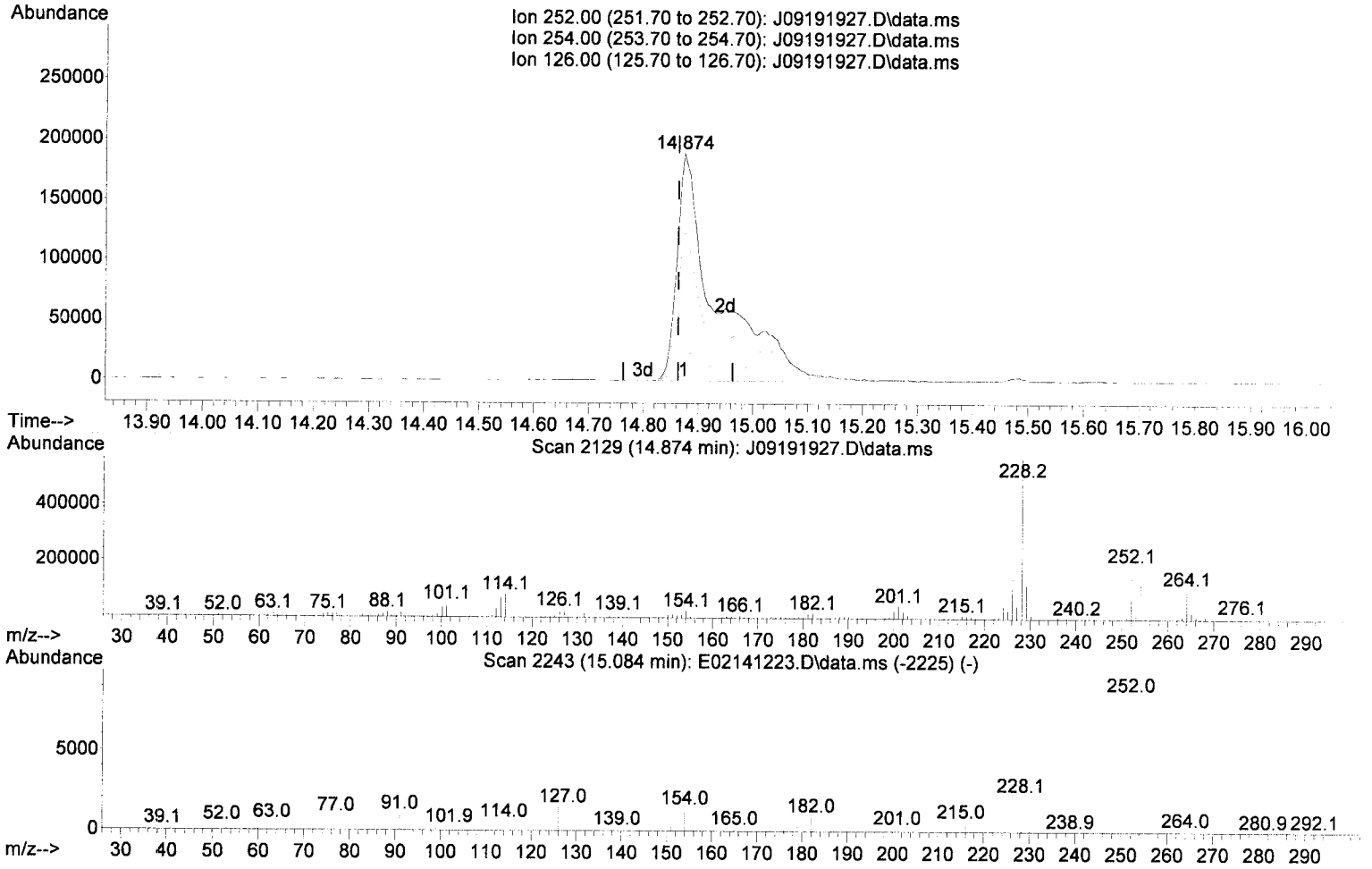
response 572542

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	64.83
126.00	12.00	13.82
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191927.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.874min (+ 0.011) -2000.00 ng/ml m

9/20/19

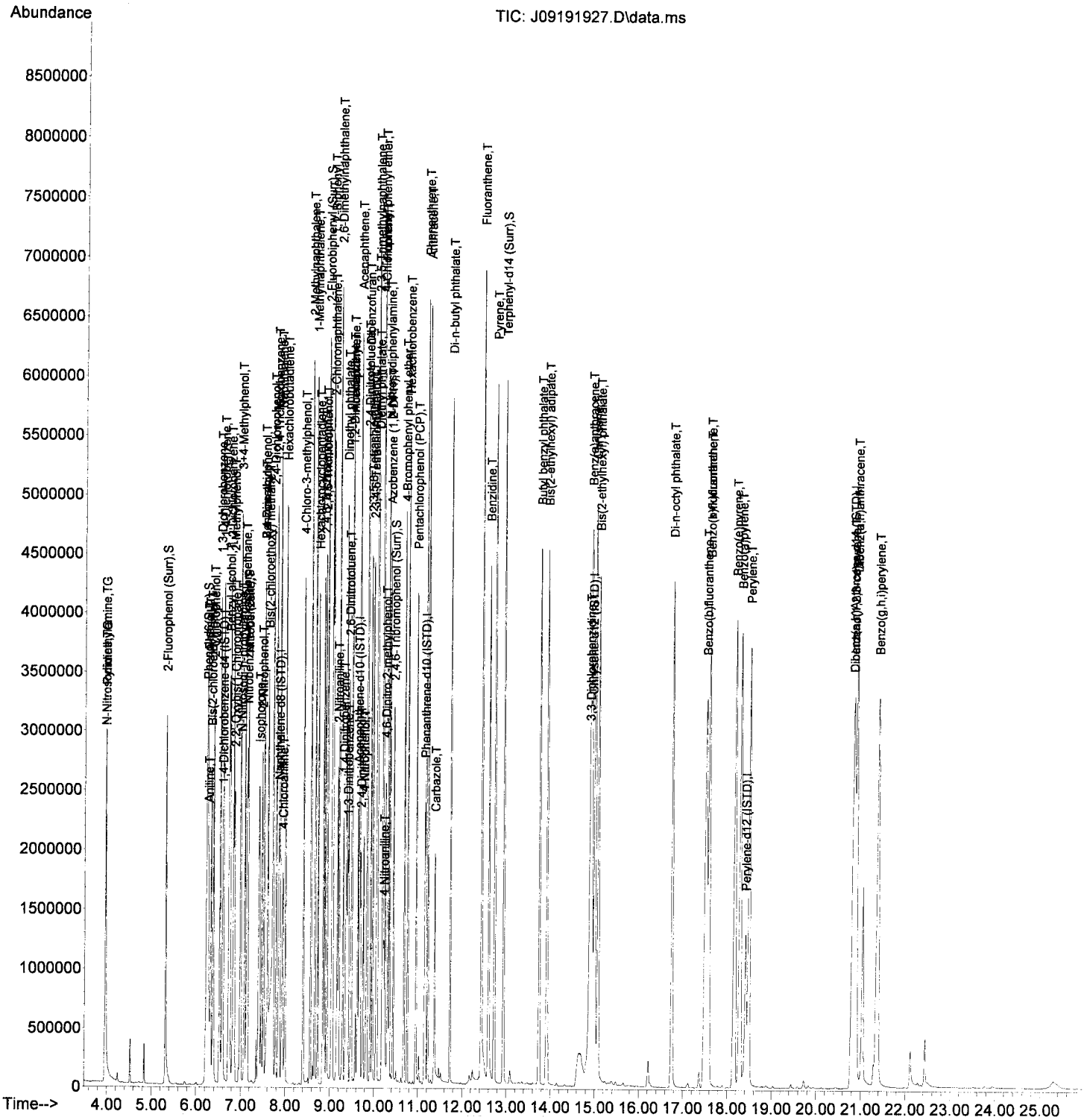
response 945543

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	64.83
126.00	12.00	13.82
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	299574	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.841	136	1168153	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.617	162	615222	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1152828	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.906	240	1141161	2000.00	ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.388	264	1161309	2000.00	ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.774	292	999067	2000.00	ng/ml	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.316	112	178387	877.95	ng/ml	0.03
5) Phenol-d6(Surr)	6.209	99	236341	905.57	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	192375	804.35	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.927	172	511376	1131.94	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	72353	1337.71	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.917	244	557856	1000.00	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	~~0.000~~		0	N.D.		See MS
3) Pyridine	4.000	79	174343m	734.70	ng/ml#	
6) Phenol	6.225	94	253216	853.53	ng/ml	99
7) Aniline	6.258	93	184591	696.05	ng/ml	95
8) Bis(2-chloroethyl) ether	6.311	93	252838	956.85	ng/ml	98
9) 2-Chlorophenol	6.370	128	214007	1001.41	ng/ml	96
10) 1,3-Dichlorobenzene	6.520	146	240742	1041.72	ng/ml	100
11) 1,4-Dichlorobenzene	6.589	146	235033	1047.91	ng/ml	99
12) Benzyl alcohol	6.707	108	114114	832.86	ng/ml	97
13) 1,2-Dichlorobenzene	6.744	146	236669	1049.78	ng/ml	100
14) 2-Methylphenol	6.814	107	162406	945.42	ng/ml	97
15) 2,2'-Oxybis(1-Chloropr...	6.841	45	197724	580.10	ng/ml	98
16) N-Nitrosodi-n-propylamine	6.969	70	139865	807.91	ng/ml	99
17) 3+4-Methylphenol	6.964	107	204231	964.68	ng/ml	99
18) Hexachloroethane	7.081	201	74950	1213.77	ng/ml	97
20) Nitrobenzene	7.135	77	193505	807.62	ng/ml	99
22) Isophorone	7.370	82	390447	921.04	ng/ml	96
23) 2-Nitrophenol	7.456	139	106480	818.33	ng/ml	95
24) 2,4-Dimethylphenol	7.488	122	151555	937.59	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.584	93	239341	1013.40	ng/ml	99
26) Benzoic acid	7.579	105	114401	1564.85	ng/ml	97
27) 2,4-Dichlorophenol	7.691	162	169468	1209.93	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.782	180	204325	1204.96	ng/ml	98
29) Naphthalene	7.857	128	644117	1073.48	ng/ml	100
30) 4-Chloroaniline	7.910	127	180562	1136.69	ng/ml	98
31) Hexachlorobutadiene	7.991	225	114587	1267.13	ng/ml	98
32) 4-Chloro-3-methylphenol	8.386	107	163749	970.69	ng/ml	98
33) 2-Methylnaphthalene	8.557	142	471069	1149.97	ng/ml	99
34) 1-Methylnaphthalene	8.659	142	446075	1133.04	ng/ml	100
36) Hexachlorocyclopentadiene	8.723	237	102004	1047.80	ng/ml	99
37) 2,4,6-Trichlorophenol	8.841	196	122991	1135.59	ng/ml	99
38) 2,4,5-Trichlorophenol	8.873	198	123145	1177.26	ng/ml	99
39) 1,1'-Biphenyl	9.028	154	545943	1068.16	ng/ml	99
41) 2-Chloronaphthalene	9.050	162	403493	1075.57	ng/ml	98
42) 2-Nitroaniline	9.146	138	126470	1012.60	ng/ml	98
43) 2,6-Dimethylnaphthalene	9.189	156	401191	1048.56	ng/ml	98

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

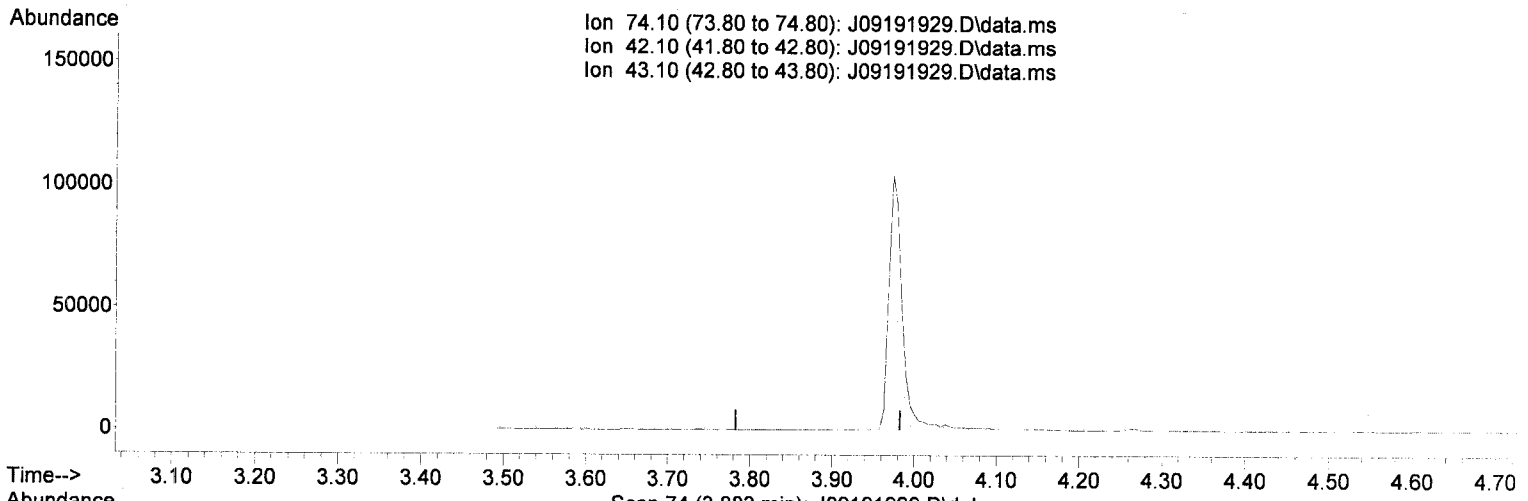
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	53357	915.09	ng/ml	94
45) Dimethyl phthalate	9.333	163	471576	1071.73	ng/ml	99
46) 1,3-Dinitrobenzene	9.354	168	66203	990.21	ng/ml	96
47) 2,6-Dinitrotoluene	9.392	165	104413	1103.30	ng/ml	94
48) 1,2-Dinitrobenzene	9.445	168	47869	1079.93	ng/ml	96
49) Acenaphthylene	9.472	152	662544	1101.80	ng/ml	98
50) 3-Nitroaniline	9.563	138	81403	882.15	ng/ml	95
51) Acenaphthene	9.649	153	411344	1055.24	ng/ml	99
52) 2,4-Dinitrophenol	9.665	184	21975	682.22	ng/ml	97
53) 4-Nitrophenol	9.723	139	67638	935.18	ng/ml	99
54) 2,4-Dinitrotoluene	9.798	165	130952	1075.20	ng/ml	96
55) Dibenzofuran	9.825	168	586441	1103.27	ng/ml	99
56) 2,3,5,6-Tetrachlorophenol	9.905	232	101694	1174.90	ng/ml	98
57) 2,3,4,6-Tetrachlorophenol	9.948	232	104694	1189.35	ng/ml	98
58) Diethyl phthalate	10.050	149	444740	1059.95	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.039	170	361627	1064.34	ng/ml	98
60) Fluorene	10.173	166	450597	1076.35	ng/ml	100
61) 4-Chlorophenyl phenyl ...	10.167	204	220862	1135.24	ng/ml	98
62) 4-Nitroaniline	10.183	138	71452	843.00	ng/ml	94
63) 4,6-Dinitro-2-methylph...	10.216	198	51879	975.85	ng/ml	99
65) N-Nitrosodiphenylamine	10.285	169	378338	1067.17	ng/ml	97
66) Azobenzene (1,2-DPH)	10.328	77	373113	793.36	ng/ml	97
68) 4-Bromophenyl phenyl e...	10.665	248	134322	1131.85	ng/ml	95
69) Hexachlorobenzene	10.745	284	157623	1154.38	ng/ml	96
70) Pentachlorophenol (PCP)	10.938	266	76022	1186.58	ng/ml	99
71) Phenanthrene	11.157	178	656765	1041.88	ng/ml	99
72) Anthracene	11.205	178	657889	1060.69	ng/ml	100
73) Carbazole	11.366	167	473433	924.53	ng/ml	100
74) Di-n-butyl phthalate	11.713	149	721001	1003.18	ng/ml	100
75) Fluoranthene	12.419	202	721487	1094.34	ng/ml	99
76) Benzidine	12.574	184	294532	1737.87	ng/ml	98
77) Pyrene	12.708	202	722196	1096.56	ng/ml	100
80) Butyl benzyl phthalate	13.724	149	293237	820.52	ng/ml	99
81) Bis(2-ethylhexyl) adipate	13.901	129	280177	874.62	ng/ml	98
82) 3,3-Dichlorobenzidine	14.853	252	184897	2473.10	ng/ml	97
83) Benz(a)anthracene	14.880	228	655689	979.93	ng/ml	98
84) Chrysene	14.965	228	602768	976.42	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.061	149	426572	902.38	ng/ml	98
87) Di-n-octyl phthalate	16.730	149	675629	808.44	ng/ml	100
88) Benzo(b)fluoranthene	17.463	252	645650	917.98	ng/ml	99
89) Benzo(k)fluoranthene	17.532	252	640735	960.05	ng/ml	99
90) Benzo(b+k)fluoranthene	17.532	252	1307403	1870.70	ng/ml	99
91) Benzo(e)pyrene	18.115	252	622430	904.16	ng/ml	100
92) Benzo(a)pyrene	18.238	252	564640	892.33	ng/ml	98
93) Perylene	18.442	252	636474	1060.98	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.774	276	575136	1024.01	ng/ml	100
96) Dibenz(a,h)anthracene	20.843	278	552893	1097.51	ng/ml	99
97) Benzo(g,h,i)perylene	21.309	276	598608	1107.02	ng/ml	98

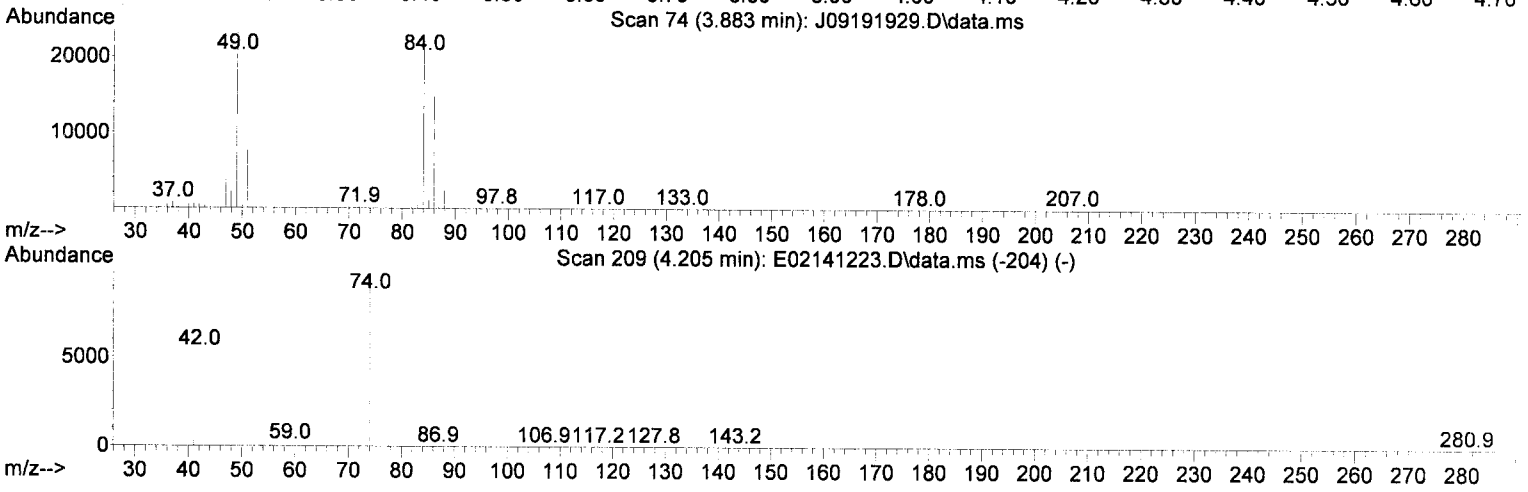
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10





TIC: J09191929.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.883min (-3.883) 0.00 ng/ml

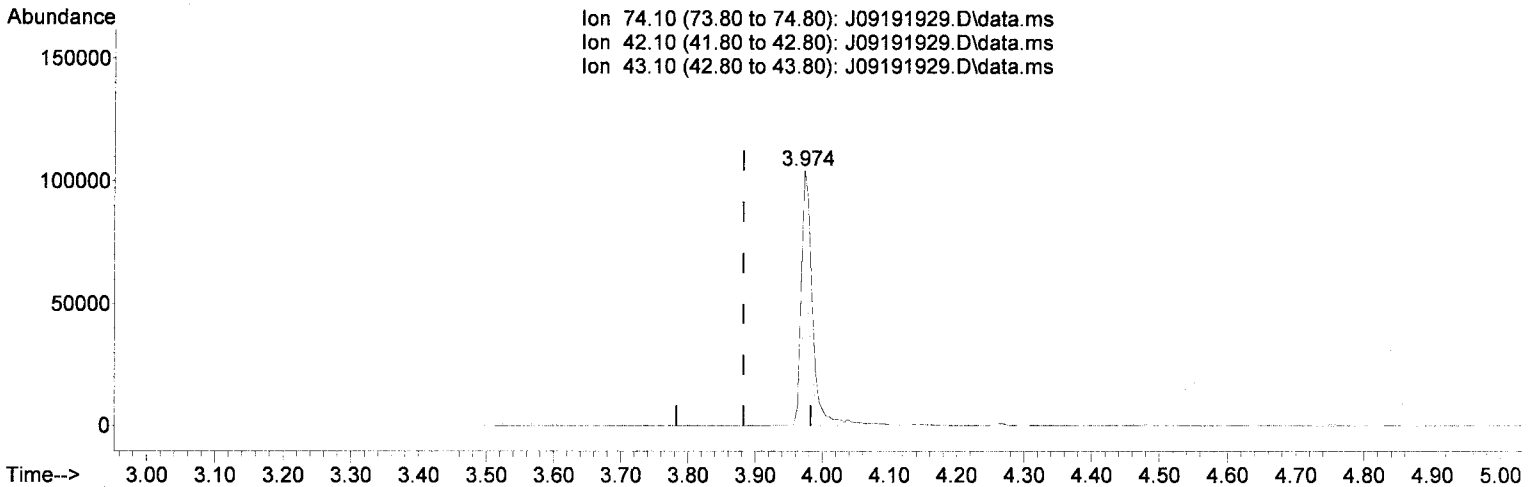
response 0

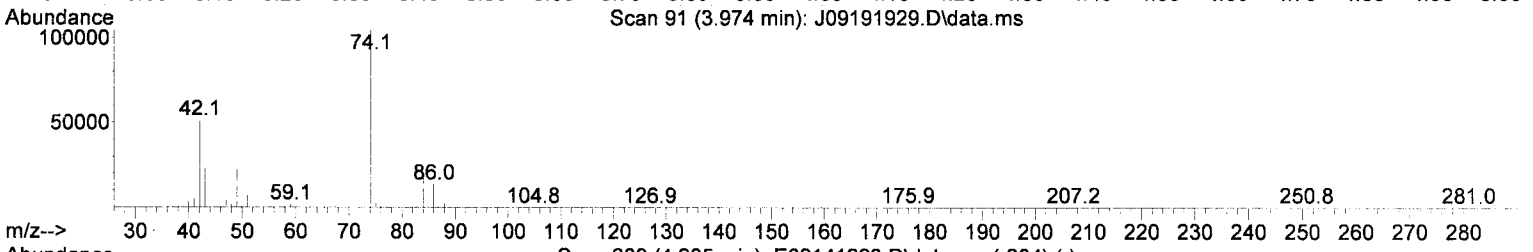
Ion	Exp%	Act%
74.10	100.00	0.00
42.10	49.40	0.00#
43.10	22.20	0.00
0.00	0.00	0.00

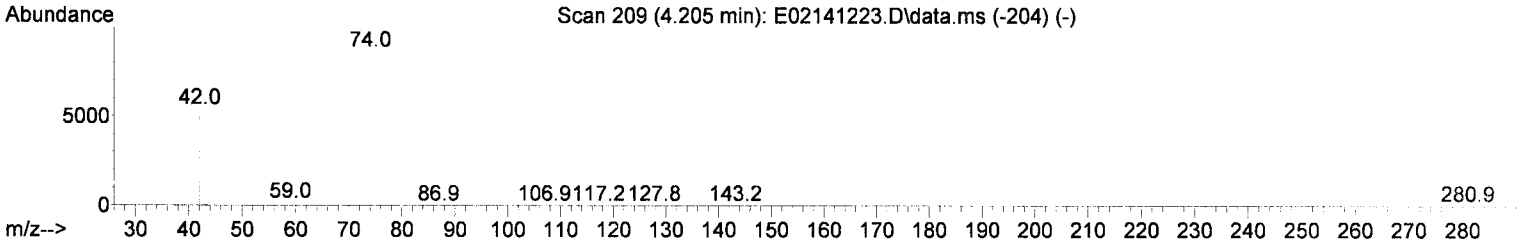
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191929.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.974min (+ 0.091) 856.94 ng/ml m 9/20/19

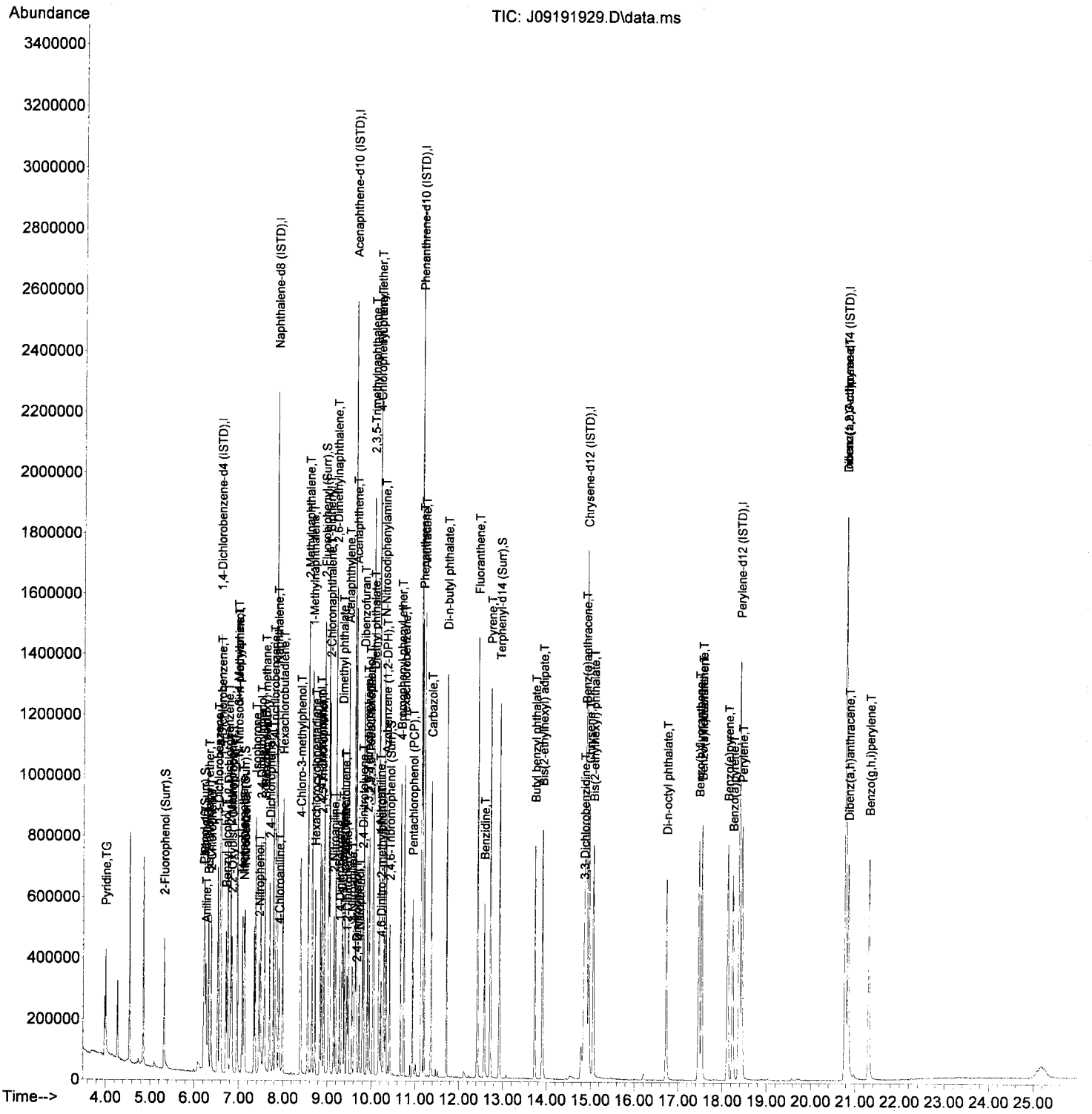
response 119285

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	49.08
43.10	22.20	22.06
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Final Reqmnt
9/23/19

Quant Time: Sep 20 14:32:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	299574	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.841	136	1168153	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.617	162	615222	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1152828	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.906	240	1141161	2000.00	ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.388	264	1161309	2000.00	ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.774	292	999067	2000.00	ng/ml	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.316	112	178387	981.27	ng/ml	0.03
5) Phenol-d6(Surr)	6.209	99	236341	1015.69	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	192375	1065.68	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.927	172	511376	1062.10	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	72353	1040.67	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.917	244	557856	1060.78	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.974	74	119285m	1045.35	ng/ml	
3) Pyridine	4.000	79	174343m	896.19	ng/ml#	
6) Phenol	6.225	94	253216	989.66	ng/ml	99
7) Aniline	6.258	93	184591	836.20	ng/ml	95
8) Bis(2-chloroethyl) ether	6.311	93	252077	1091.65	ng/ml	98
9) 2-Chlorophenol	6.370	128	214007	1008.90	ng/ml	96
10) 1,3-Dichlorobenzene	6.520	146	240742	1009.72	ng/ml	100
11) 1,4-Dichlorobenzene	6.589	146	235033	1002.99	ng/ml	99
12) Benzyl alcohol	6.707	108	114114	910.79	ng/ml	97
13) 1,2-Dichlorobenzene	6.744	146	236669	1024.11	ng/ml	100
14) 2-Methylphenol	6.814	107	162406	1052.52	ng/ml	97
15) 2,2'-Oxybis(1-Chloropr...	6.841	45	197724	970.28	ng/ml	98
16) N-Nitrosodi-n-propylamine	6.969	70	139865	1043.26	ng/ml	99
17) 3+4-Methylphenol	6.964	107	204231	1067.42	ng/ml	99
18) Hexachloroethane	7.081	201	74950	1040.96	ng/ml	97
20) Nitrobenzene	7.135	77	193505	1058.01	ng/ml	99
22) Isophorone	7.370	82	390447	1048.41	ng/ml	96
23) 2-Nitrophenol	7.456	139	106480	968.55	ng/ml	95
24) 2,4-Dimethylphenol	7.488	122	151555	967.66	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.584	93	239341	1057.13	ng/ml	99
26) Benzoic acid	7.579	105	114401	1974.82	ng/ml	97
27) 2,4-Dichlorophenol	7.691	162	169468	968.83	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.782	180	204325	999.39	ng/ml	98
29) Naphthalene	7.857	128	644117	1048.17	ng/ml	100
30) 4-Chloroaniline	7.910	127	180562	939.27	ng/ml	98
31) Hexachlorobutadiene	7.991	225	114587	1037.18	ng/ml	98
32) 4-Chloro-3-methylphenol	8.386	107	163749	1056.42	ng/ml	98
33) 2-Methylnaphthalene	8.557	142	471069	1097.13	ng/ml	99
34) 1-Methylnaphthalene	8.659	142	446075	1073.20	ng/ml	100
36) Hexachlorocyclopentadiene	8.723	237	102004	1072.19	ng/ml	99
37) 2,4,6-Trichlorophenol	8.841	196	122991	1033.65	ng/ml	99
38) 2,4,5-Trichlorophenol	8.873	198	123145	1048.47	ng/ml	99
39) 1,1'-Biphenyl	9.028	154	545943	1032.43	ng/ml	99
41) 2-Chloronaphthalene	9.050	162	403493	1056.54	ng/ml	98
42) 2-Nitroaniline	9.146	138	126470	1106.58	ng/ml	98
43) 2,6-Dimethylnaphthalene	9.189	156	401191	1034.19	ng/ml	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:32:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

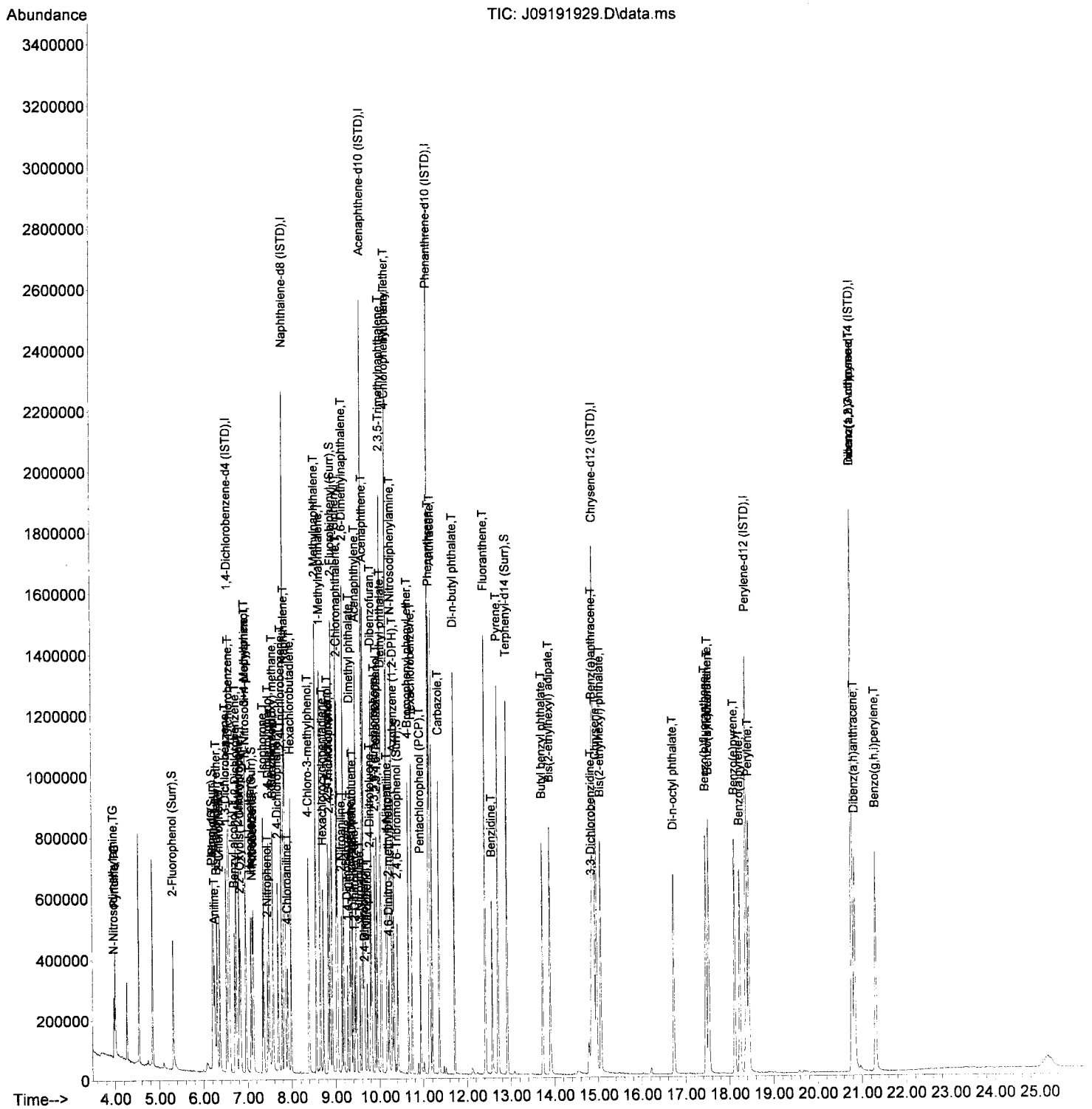
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	53357	1114.51	ng/ml	94
45) Dimethyl phthalate	9.333	163	471576	1061.40	ng/ml	99
46) 1,3-Dinitrobenzene	9.354	168	66203	1081.70	ng/ml	96
47) 2,6-Dinitrotoluene	9.392	165	104413	1044.00	ng/ml	94
48) 1,2-Dinitrobenzene	9.445	168	47869	1063.48	ng/ml	96
49) Acenaphthylene	9.472	152	662544	1059.38	ng/ml	98
50) 3-Nitroaniline	9.563	138	81403	1060.77	ng/ml	95
51) Acenaphthene	9.649	153	411344	1001.62	ng/ml	99
52) 2,4-Dinitrophenol	9.665	184	21975	972.00	ng/ml	97
53) 4-Nitrophenol	9.723	139	67638	1106.89	ng/ml	99
54) 2,4-Dinitrotoluene	9.798	165	130952	1048.40	ng/ml	96
55) Dibenzofuran	9.825	168	586441	1071.22	ng/ml	99
56) 2,3,5,6-Tetrachlorophenol	9.905	232	101694	1077.31	ng/ml	98
57) 2,3,4,6-Tetrachlorophenol	9.948	232	104694	1014.00	ng/ml	98
58) Diethyl phthalate	10.050	149	444740	1087.44	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.039	170	361627	1037.33	ng/ml	98
60) Fluorene	10.173	166	450597	1045.90	ng/ml	100
61) 4-Chlorophenyl phenyl ...	10.167	204	220862	1051.57	ng/ml	98
62) 4-Nitroaniline	10.183	138	71452	1080.74	ng/ml	94
63) 4,6-Dinitro-2-methylph...	10.216	198	51879	1157.72	ng/ml	99
65) N-Nitrosodiphenylamine	10.285	169	378338	1064.38	ng/ml	97
66) Azobenzene (1,2-DPH)	10.328	77	373113	1037.26	ng/ml	97
68) 4-Bromophenyl phenyl e...	10.665	248	134322	1032.58	ng/ml	95
69) Hexachlorobenzene	10.745	284	157623	1010.04	ng/ml	96
70) Pentachlorophenol (PCP)	10.938	266	76022	975.76	ng/ml	99
71) Phenanthrene	11.157	178	656765	1015.50	ng/ml	99
72) Anthracene	11.205	178	657889	1058.25	ng/ml	100
73) Carbazole	11.366	167	473433	964.91	ng/ml	100
74) Di-n-butyl phthalate	11.713	149	721001	1057.53	ng/ml	100
75) Fluoranthene	12.419	202	721487	1088.45	ng/ml	99
76) Benzidine	12.574	184	294175	1842.78	ng/ml	98
77) Pyrene	12.708	202	722196	1070.62	ng/ml	100
80) Butyl benzyl phthalate	13.724	149	293237	1004.00	ng/ml	99
81) Bis(2-ethylhexyl) adipate	13.901	129	280177	1058.58	ng/ml	98
82) 3,3-Dichlorobenzidine	14.853	252	184897	2062.77	ng/ml	97
83) Benz(a)anthracene	14.880	228	655689	1029.12	ng/ml	98
84) Chrysene	14.965	228	602768	1009.53	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.061	149	426572	1039.18	ng/ml	98
87) Di-n-octyl phthalate	16.730	149	675629	1013.80	ng/ml	100
88) Benzo(b)fluoranthene	17.463	252	645650	1008.51	ng/ml	99
89) Benzo(k)fluoranthene	17.532	252	640735	992.12	ng/ml	99
90) Benzo(b+k)fluoranthene	17.532	252	1307403	1987.64	ng/ml	99
91) Benzo(e)pyrene	18.115	252	622430	1042.80	ng/ml	100
92) Benzo(a)pyrene	18.238	252	564640	971.42	ng/ml	98
93) Perylene	18.442	252	636474	1215.26	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.774	276	575136	973.51	ng/ml	100
96) Dibenz(a,h)anthracene	20.843	278	552893	1019.31	ng/ml	99
97) Benzo(g,h,i)perylene	21.309	276	598608	1054.88	ng/ml	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:32:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



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 9111059
Sequence 9K21029

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

9111059

DEC 0 3 2019

Apex Laboratories
BATCH #: 9111059 (Soil)
Prep Method: EPA 1311/3015

Lab Number	Due	Prepared	Initial (mL)	Final (mL)	Client	ClientID / Sample	Extraction Comments
9111059-BLK1		11/21/19 10:29	10	50	QC Sample		
9111059-BS1		11/21/19 10:29	10	50	QC Sample		
	Spike 1: 250 uL of A19J064	Spike 2: 1000 uL of A19K228					
A9K0330-01	11/25/19	11/21/19 10:29	10	50	Anchor QEA, LLC	PDI-140RAB-C-00-12.7-191	matrix changed to soil// SO per client
							+bl/l4
☐ 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							
9111059-MS1		11/21/19 10:29	10	50	QC Sample		
	Source: A9K0330-01	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)

MJG 11/21/19

Std ID	Exp. Date	Description
A19J064	12/28/19	###TCLP 1 Spk
A19K228	01/30/20	Hg Sb TCLP Spk Standard

Fluid ID: A19K296
Extraction Batch: 9111023
Digestion time and temperature achieved?
Initials: MJG yes

MJG 11/21/19
Prepared By: Date

ESS 11/22/19
Reviewed By: Date

Batch #: 9111059

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: 11/21/19 Prepared by: MJG

#	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	511	9111059-BLK1	207.71	207.69	n/a
2	569	9111059-BS1	208.61	208.56	n/a
3	514	A9K0330-01	205.56	205.54	n/a
4	562	9111059-MS1	207.31	207.21	n/a
5					n/a
6					n/a
7					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: **9K21029** Instrument: **ICPMS5**

Date: **11/21/19 09:48** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K21029-CAL1	Water	QC	QC			A19J130	A19K144
2	9K21029-CAL2	Water	QC	QC			A19J130	A19K145
3	9K21029-CAL3	Water	QC	QC			A19J130	A19K146
4	9K21029-CAL4	Water	QC	QC			A19J130	A19K147
5	9K21029-CAL5	Water	QC	QC			A19J130	A19K148
6	9K21029-CAL6	Water	QC	QC			A19J130	A19K149
7	9K21029-CAL7	Water	QC	QC			A19J130	A19K150
8	9K21029-CAL8	Water	QC	QC			A19J130	A19K151
9	9K21029-CAL9	Water	QC	QC			A19J130	A19K152
10	9K21029-ICV1	Water	QC	QC			A19J130	A19J138
11	9K21029-ICB1	Water	QC	QC			A19J130	
12	9K21029-CRL1	Water	QC	QC			A19J130	A19K144
13	9K21029-CRL2	Water	QC	QC			A19J130	A19K145
14	9K21029-CRL3	Water	QC	QC			A19J130	A19K146
15	9K21029-IFA1	Water	QC	QC			A19J130	A19K233
16	9K21029-IFB1	Water	QC	QC			A19J130	A19K234
17	9111041-BLK1	Solid	QC	QC		9111041	A19J130	
18	9111041-BS1	Solid	QC	QC		9111041	A19J130	
19	A9K0642-01	Solid	Ag (Silver) - 6020 - Total		11/21/19	9111041	A19J130	
20	"	Solid	As (Arsenic) - 6020 - Tota		11/21/19	9111041	A19J130	
21	"	Solid	Ba (Barium) - 6020 - Total	"	11/21/19	9111041	A19J130	
22	"	Solid	Cd (Cadmium) - 6020 - Total	"	11/21/19	9111041	A19J130	
23	"	Solid	Cr (Chromium) - 6020 - Total	"	11/21/19	9111041	A19J130	
24	"	Solid	Hg (Mercury) - 6020 - Total	"	11/21/19	9111041	A19J130	
25	"	Solid	Pb (Lead) - 6020 - Total	"	11/21/19	9111041	A19J130	
26	"	Solid	Se (Selenium) - 6020 - Total	"	11/21/19	9111041	A19J130	
27	9111041-DUP1	Solid	QC	QC		9111041	A19J130	
28	9111041-MS1	Solid	QC	QC		9111041	A19J130	
29	9111041-MSD1	Solid	QC	QC		9111041	A19J130	
30	9111001-BLK2	Water	QC	QC		9111001	A19J130	
31	9111051-BLK1	Solid	QC	QC		9111051	A19J130	
32	9111051-BS1	Solid	QC	QC		9111051	A19J130	
33	A9K0266-05	Solid	Pb (Lead) - 6020 - TCLP		11/26/19	9111051	A19J130	
34	9K21029-CCV1	Water	QC	QC			A19J130	A19J138
35	9K21029-CCB1	Water	QC	QC			A19J130	
36	9111051-MS1	Solid	QC	QC		9111051	A19J130	
37	9111050-BLK1	Solid	QC	QC		9111050	A19J130	
38	9111050-BS1	Solid	QC	QC		9111050	A19J130	
39	A9K0583-02	Solid	Ag (Silver) - 6020 - TCLP		11/22/19	9111050	A19J130	
40	"	Solid	As (Arsenic) - 6020 - TCLP	"	11/22/19	9111050	A19J130	
41	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/22/19	9111050	A19J130	
42	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/22/19	9111050	A19J130	
43	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/22/19	9111050	A19J130	
44	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/22/19	9111050	A19J130	
45	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/22/19	9111050	A19J130	
46	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/22/19	9111050	A19J130	
47	9111050-MS1	Solid	QC	QC		9111050	A19J130	
48	9111059-BLK1	Soil	QC	QC		9111059	A19J130	
49	9111059-BS1	Soil	QC	QC		9111059	A19J130	
50	A9K0330-01	Soil	Ag (Silver) - 6020 - TCLP		11/25/19	9111059	A19J130	
51	"	Soil	As (Arsenic) - 6020 - TCLP	"	11/25/19	9111059	A19J130	

Sequence: **9K21029** Instrument: **ICPMS5**

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#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
52	"	Soil	Ba (Barium) - 6020 - TCLP	"	11/25/19	9111059	A19J130	
53	"	Soil	Cd (Cadmium) - 6020 - TCLP	"	11/25/19	9111059	A19J130	
54	"	Soil	Cr (Chromium) - 6020 - TCLP	"	11/25/19	9111059	A19J130	
55	"	Soil	Hg (Mercury) - 6020 - TCLP	"	11/25/19	9111059	A19J130	
56	"	Soil	Pb (Lead) - 6020 - TCLP	"	11/25/19	9111059	A19J130	
57	"	Soil	Se (Selenium) - 6020 - TCLP	"	11/25/19	9111059	A19J130	
58	9111059-MS1	Soil	QC	QC		9111059	A19J130	
59	9K21029-CCV2	Water	QC	QC			A19J130	A19J138
60	9K21029-CCB2	Water	QC	QC			A19J130	
61	9K21029-CRL4	Water	QC	QC			A19J130	A19K144
62	9K21029-CRL5	Water	QC	QC			A19J130	A19K145
63	9K21029-CRL6	Water	QC	QC			A19J130	A19K146
64	9111044-BLK1	Water	QC	QC		9111044	A19J130	
65	9111044-BS1	Water	QC	QC		9111044	A19J130	
66	A9K0436-01	Water	As (Arsenic) - 200.8 - Total		12/02/19	9111044	A19J130	
67	A9K0436-02	Water	As (Arsenic) - 200.8 - Total		12/02/19	9111044	A19J130	
68	A9K0436-03	Water	As (Arsenic) - 200.8 - Total		12/02/19	9111044	A19J130	
69	A9K0442-01	Water	Ag (Silver) - 200.8 - Total	(QC Source)		9111044	A19J130	
70	"	Water	Al (Aluminum) - 200.8 - Total	"	12/02/19	9111044	A19J130	
71	"	Water	As (Arsenic) - 200.8 - Total	(QC Source)		9111044	A19J130	
72	"	Water	Ca (Calcium) - 200.8 - Total	(QC Source)		9111044	A19J130	
73	"	Water	Cd (Cadmium) - 200.8 - Total	(QC Source)		9111044	A19J130	
74	"	Water	Cr (Chromium) - 200.8 - Total	(QC Source)		9111044	A19J130	
75	"	Water	Cu (Copper) - 200.8 - Total	(QC Source)		9111044	A19J130	
76	"	Water	Fe (Iron) - 200.8 - Total	"	12/02/19	9111044	A19J130	
77	"	Water	Mg (Magnesium) - 200.8 - Total	(QC Source)		9111044	A19J130	
78	"	Water	Ni (Nickel) - 200.8 - Total	(QC Source)		9111044	A19J130	
79	"	Water	Pb (Lead) - 200.8 - Total	(QC Source)		9111044	A19J130	
80	"	Water	Se (Selenium) - 200.8 - Total	(QC Source)		9111044	A19J130	
81	"	Water	Zn (Zinc) - 200.8 - Total	"	12/02/19	9111044	A19J130	
82	9111044-DUP1	Water	QC	QC		9111044	A19J130	
83	9111044-MS1	Water	QC	QC		9111044	A19J130	
84	A9K0456-01	Water	Zn (Zinc) - 200.8 - Total		12/02/19	9111044	A19J130	
85	A9K0458-03	Water	Zn (Zinc) - 200.8 - Total		12/02/19	9111044	A19J130	
86	9K21029-CCV3	Water	QC	QC			A19J130	A19J138
87	9K21029-CCB3	Water	QC	QC			A19J130	
88	A9K0458-04	Water	Zn (Zinc) - 200.8 - Total		12/02/19	9111044	A19J130	
89	A9K0458-05	Water	Zn (Zinc) - 200.8 - Total		12/02/19	9111044	A19J130	
90	A9K0581-01	Water	Cu (Copper) - 200.8 - Total		11/25/19	9111044	A19J130	
91	"	Water	Pb (Lead) - 200.8 - Total	"	11/25/19	9111044	A19J130	
92	"	Water	Zn (Zinc) - 200.8 - Total	"	11/25/19	9111044	A19J130	
93	A9K0601-01	Water	Fe (Iron) - 200.8 - Total		11/25/19	9111044	A19J130	
94	A9K0606-01	Water	Cu (Copper) - 200.8 - Total		11/27/19	9111044	A19J130	
95	"	Water	Pb (Lead) - 200.8 - Total	"	11/27/19	9111044	A19J130	
96	"	Water	Zn (Zinc) - 200.8 - Total	"	11/27/19	9111044	A19J130	
97	A9K0606-03	Water	Cu (Copper) - 200.8 - Total		11/27/19	9111044	A19J130	
98	"	Water	Pb (Lead) - 200.8 - Total	"	11/27/19	9111044	A19J130	
99	"	Water	Zn (Zinc) - 200.8 - Total	"	11/27/19	9111044	A19J130	
100	A9K0606-05	Water	Cu (Copper) - 200.8 - Total		11/27/19	9111044	A19J130	
101	"	Water	Pb (Lead) - 200.8 - Total	"	11/27/19	9111044	A19J130	
102	"	Water	Zn (Zinc) - 200.8 - Total	"	11/27/19	9111044	A19J130	
103	A9K0606-07	Water	Cu (Copper) - 200.8 - Total		11/27/19	9111044	A19J130	
104	"	Water	Pb (Lead) - 200.8 - Total	"	11/27/19	9111044	A19J130	
105	"	Water	Zn (Zinc) - 200.8 - Total	"	11/27/19	9111044	A19J130	
106	A9K0606-09	Water	Cu (Copper) - 200.8 - Total		11/27/19	9111044	A19J130	

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#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
107	"	Water	Pb (Lead) - 200.8 - Total	"	11/27/19	9111044	A19J130	
108	"	Water	Zn (Zinc) - 200.8 - Total	"	11/27/19	9111044	A19J130	
109	A9K0606-11	Water	Cu (Copper) - 200.8 - Total		11/27/19	9111044	A19J130	
110	"	Water	Pb (Lead) - 200.8 - Total	"	11/27/19	9111044	A19J130	
111	"	Water	Zn (Zinc) - 200.8 - Total	"	11/27/19	9111044	A19J130	
112	9K21029-CCV4	Water	QC	QC			A19J130	A19J138
113	9K21029-CCB4	Water	QC	QC			A19J130	
114	A9K0619-01	Water	Cu (Copper) - 200.8 - Total		11/25/19	9111044	A19J130	
115	A9K0620-01	Water	Ag (Silver) - 200.8 - Total		11/26/19	9111044	A19J130	
116	"	Water	Ca (Calcium) - 200.8 - Total	"	11/26/19	9111044	A19J130	
117	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/26/19	9111044	A19J130	
118	"	Water	Cr (Chromium) - 200.8 - Total	"	11/26/19	9111044	A19J130	
119	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/26/19	9111044	A19J130	
120	"	Water	Ni (Nickel) - 200.8 - Total	"	11/26/19	9111044	A19J130	
121	"	Water	Se (Selenium) - 200.8 - Total	"	11/26/19	9111044	A19J130	
122	"	Water	Zn (Zinc) - 200.8 - Total	"	11/26/19	9111044	A19J130	
123	A9K0628-01	Water	Ag (Silver) - 200.8 - Total	(QC Source)		9111044	A19J130	
124	"	Water	Al (Aluminum) - 200.8 - Total	(QC Source)		9111044	A19J130	
125	"	Water	As (Arsenic) - 200.8 - Total	"	11/25/19	9111044	A19J130	
126	"	Water	Ca (Calcium) - 200.8 - Total	(QC Source)		9111044	A19J130	
127	"	Water	Cd (Cadmium) - 200.8 - Total	(QC Source)		9111044	A19J130	
128	"	Water	Cr (Chromium) - 200.8 - Total	(QC Source)		9111044	A19J130	
129	"	Water	Cu (Copper) - 200.8 - Total	(QC Source)		9111044	A19J130	
130	"	Water	Fe (Iron) - 200.8 - Total	(QC Source)		9111044	A19J130	
131	"	Water	Mg (Magnesium) - 200.8 - Total	(QC Source)		9111044	A19J130	
132	"	Water	Ni (Nickel) - 200.8 - Total	(QC Source)		9111044	A19J130	
133	"	Water	Pb (Lead) - 200.8 - Total	(QC Source)		9111044	A19J130	
134	"	Water	Se (Selenium) - 200.8 - Total	(QC Source)		9111044	A19J130	
135	"	Water	Zn (Zinc) - 200.8 - Total	(QC Source)		9111044	A19J130	
136	9111044-MS2	Water	QC	QC		9111044	A19J130	
137	9111043-BLK1	Soil	QC	QC		9111043	A19J130	
138	9111043-BLK2	Soil	QC	QC		9111043	A19J130	
139	9111043-BLK3	Soil	QC	QC		9111043	A19J130	
140	9111043-BS1	Soil	QC	QC		9111043	A19J130	
141	A9K0383-02	Soil	Ag (Silver) - 6020 - Total		11/27/19	9111043	A19J130	
142	"	Soil	As (Arsenic) - 6020 - Total	"	11/27/19	9111043	A19J130	
143	"	Soil	Ba (Barium) - 6020 - Total	"	11/27/19	9111043	A19J130	
144	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/27/19	9111043	A19J130	
145	"	Soil	Cr (Chromium) - 6020 - Total	"	11/27/19	9111043	A19J130	
146	"	Soil	Hg (Mercury) - 6020 - Total	"	11/27/19	9111043	A19J130	
147	"	Soil	Pb (Lead) - 6020 - Total	"	11/27/19	9111043	A19J130	
148	"	Soil	Se (Selenium) - 6020 - Total	"	11/27/19	9111043	A19J130	
149	A9K0384-03	Soil	As (Arsenic) - 6020 - Total		11/26/19	9111043	A19J130	
150	"	Soil	Ba (Barium) - 6020 - Total	"	11/26/19	9111043	A19J130	
151	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/26/19	9111043	A19J130	
152	"	Soil	Cr (Chromium) - 6020 - Total	"	11/26/19	9111043	A19J130	
153	"	Soil	Cu (Copper) - 6020 - Total	"	11/26/19	9111043	A19J130	
154	"	Soil	Pb (Lead) - 6020 - Total	"	11/26/19	9111043	A19J130	
155	"	Soil	Zn (Zinc) - 6020 - Total	"	11/26/19	9111043	A19J130	
156	9K21029-CCV5	Water	QC	QC			A19J130	A19J138
157	9K21029-CCB5	Water	QC	QC			A19J130	
158	A9K0384-06	Soil	As (Arsenic) - 6020 - Total		11/26/19	9111043	A19J130	
159	"	Soil	Ba (Barium) - 6020 - Total	"	11/26/19	9111043	A19J130	
160	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/26/19	9111043	A19J130	
161	"	Soil	Cr (Chromium) - 6020 - Total	"	11/26/19	9111043	A19J130	

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#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
162	"	Soil	Cu (Copper) - 6020 - Total	"	11/26/19	9111043	A19J130	
163	"	Soil	Pb (Lead) - 6020 - Total	"	11/26/19	9111043	A19J130	
164	"	Soil	Zn (Zinc) - 6020 - Total	"	11/26/19	9111043	A19J130	
165	A9K0384-09	Soil	As (Arsenic) - 6020 - Total		11/26/19	9111043	A19J130	
166	"	Soil	Ba (Barium) - 6020 - Total	"	11/26/19	9111043	A19J130	
167	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/26/19	9111043	A19J130	
168	"	Soil	Cr (Chromium) - 6020 - Total	"	11/26/19	9111043	A19J130	
169	"	Soil	Cu (Copper) - 6020 - Total	"	11/26/19	9111043	A19J130	
170	"	Soil	Pb (Lead) - 6020 - Total	"	11/26/19	9111043	A19J130	
171	"	Soil	Zn (Zinc) - 6020 - Total	"	11/26/19	9111043	A19J130	
172	A9K0384-12	Soil	As (Arsenic) - 6020 - Total		11/26/19	9111043	A19J130	
173	"	Soil	Ba (Barium) - 6020 - Total	"	11/26/19	9111043	A19J130	
174	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/26/19	9111043	A19J130	
175	"	Soil	Cr (Chromium) - 6020 - Total	"	11/26/19	9111043	A19J130	
176	"	Soil	Cu (Copper) - 6020 - Total	"	11/26/19	9111043	A19J130	
177	"	Soil	Pb (Lead) - 6020 - Total	"	11/26/19	9111043	A19J130	
178	"	Soil	Zn (Zinc) - 6020 - Total	"	11/26/19	9111043	A19J130	
179	A9K0384-15	Soil	As (Arsenic) - 6020 - Total		11/26/19	9111043	A19J130	
180	"	Soil	Ba (Barium) - 6020 - Total	"	11/26/19	9111043	A19J130	
181	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/26/19	9111043	A19J130	
182	"	Soil	Cr (Chromium) - 6020 - Total	"	11/26/19	9111043	A19J130	
183	"	Soil	Cu (Copper) - 6020 - Total	"	11/26/19	9111043	A19J130	
184	"	Soil	Pb (Lead) - 6020 - Total	"	11/26/19	9111043	A19J130	
185	"	Soil	Zn (Zinc) - 6020 - Total	"	11/26/19	9111043	A19J130	
186	A9K0384-18	Soil	As (Arsenic) - 6020 - Total		11/26/19	9111043	A19J130	
187	"	Soil	Ba (Barium) - 6020 - Total	"	11/26/19	9111043	A19J130	
188	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/26/19	9111043	A19J130	
189	"	Soil	Cr (Chromium) - 6020 - Total	"	11/26/19	9111043	A19J130	
190	"	Soil	Cu (Copper) - 6020 - Total	"	11/26/19	9111043	A19J130	
191	"	Soil	Pb (Lead) - 6020 - Total	"	11/26/19	9111043	A19J130	
192	"	Soil	Zn (Zinc) - 6020 - Total	"	11/26/19	9111043	A19J130	
193	A9K0384-21	Soil	As (Arsenic) - 6020 - Total		11/26/19	9111043	A19J130	
194	"	Soil	Ba (Barium) - 6020 - Total	"	11/26/19	9111043	A19J130	
195	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/26/19	9111043	A19J130	
196	"	Soil	Cr (Chromium) - 6020 - Total	"	11/26/19	9111043	A19J130	
197	"	Soil	Cu (Copper) - 6020 - Total	"	11/26/19	9111043	A19J130	
198	"	Soil	Pb (Lead) - 6020 - Total	"	11/26/19	9111043	A19J130	
199	"	Soil	Zn (Zinc) - 6020 - Total	"	11/26/19	9111043	A19J130	
200	A9K0384-24	Soil	As (Arsenic) - 6020 - Total		11/26/19	9111043	A19J130	
201	"	Soil	Ba (Barium) - 6020 - Total	"	11/26/19	9111043	A19J130	
202	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/26/19	9111043	A19J130	
203	"	Soil	Cr (Chromium) - 6020 - Total	"	11/26/19	9111043	A19J130	
204	"	Soil	Cu (Copper) - 6020 - Total	"	11/26/19	9111043	A19J130	
205	"	Soil	Pb (Lead) - 6020 - Total	"	11/26/19	9111043	A19J130	
206	"	Soil	Zn (Zinc) - 6020 - Total	"	11/26/19	9111043	A19J130	
207	A9K0384-27	Soil	As (Arsenic) - 6020 - Total		11/26/19	9111043	A19J130	
208	"	Soil	Ba (Barium) - 6020 - Total	"	11/26/19	9111043	A19J130	
209	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/26/19	9111043	A19J130	
210	"	Soil	Cr (Chromium) - 6020 - Total	"	11/26/19	9111043	A19J130	
211	"	Soil	Cu (Copper) - 6020 - Total	"	11/26/19	9111043	A19J130	
212	"	Soil	Pb (Lead) - 6020 - Total	"	11/26/19	9111043	A19J130	
213	"	Soil	Zn (Zinc) - 6020 - Total	"	11/26/19	9111043	A19J130	
214	A9K0384-30	Soil	As (Arsenic) - 6020 - Total		11/26/19	9111043	A19J130	
215	"	Soil	Ba (Barium) - 6020 - Total	"	11/26/19	9111043	A19J130	
216	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/26/19	9111043	A19J130	

Sequence: **9K21029** Instrument: **ICPMS5**

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#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
217	"	Soil	Cr (Chromium) - 6020 - Total	"	11/26/19	9111043	A19J130	
218	"	Soil	Cu (Copper) - 6020 - Total	"	11/26/19	9111043	A19J130	
219	"	Soil	Pb (Lead) - 6020 - Total	"	11/26/19	9111043	A19J130	
220	"	Soil	Zn (Zinc) - 6020 - Total	"	11/26/19	9111043	A19J130	
221	A9K0463-02	Soil	Ag (Silver) - 6020 - Total		11/27/19	9111043	A19J130	
222	"	Soil	As (Arsenic) - 6020 - Total	"	11/27/19	9111043	A19J130	
223	"	Soil	Ba (Barium) - 6020 - Total	(QC Source)		9111043	A19J130	
224	"	Soil	Be (Beryllium) - 6020 - Total	"	11/27/19	9111043	A19J130	
225	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/27/19	9111043	A19J130	
226	"	Soil	Cr (Chromium) - 6020 - Total	"	11/27/19	9111043	A19J130	
227	"	Soil	Cu (Copper) - 6020 - Total	"	11/27/19	9111043	A19J130	
228	"	Soil	Hg (Mercury) - 6020 - Total	"	11/27/19	9111043	A19J130	
229	"	Soil	Ni (Nickel) - 6020 - Total	"	11/27/19	9111043	A19J130	
230	"	Soil	Pb (Lead) - 6020 - Total	"	11/27/19	9111043	A19J130	
231	"	Soil	Sb (Antimony) - 6020 - Total	"	11/27/19	9111043	A19J130	
232	"	Soil	Se (Selenium) - 6020 - Total	"	11/27/19	9111043	A19J130	
233	"	Soil	Tl (Thallium) - 6020 - Total	"	11/27/19	9111043	A19J130	
234	"	Soil	Zn (Zinc) - 6020 - Total	"	11/27/19	9111043	A19J130	
235	9K21029-CCV6	Water	QC	QC			A19J130	A19J138
236	9K21029-CCB6	Water	QC	QC			A19J130	
237	9111043-DUP1	Soil	QC	QC		9111043	A19J130	
238	9111043-DUP2	Soil	QC	QC		9111043	A19J130	
239	9111043-MS1	Soil	QC	QC		9111043	A19J130	
240	A9K0463-04	Soil	Ag (Silver) - 6020 - Total		11/27/19	9111043	A19J130	
241	"	Soil	As (Arsenic) - 6020 - Total	"	11/27/19	9111043	A19J130	
242	"	Soil	Be (Beryllium) - 6020 - Total	"	11/27/19	9111043	A19J130	
243	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/27/19	9111043	A19J130	
244	"	Soil	Cr (Chromium) - 6020 - Total	"	11/27/19	9111043	A19J130	
245	"	Soil	Cu (Copper) - 6020 - Total	"	11/27/19	9111043	A19J130	
246	"	Soil	Hg (Mercury) - 6020 - Total	"	11/27/19	9111043	A19J130	
247	"	Soil	Ni (Nickel) - 6020 - Total	"	11/27/19	9111043	A19J130	
248	"	Soil	Pb (Lead) - 6020 - Total	"	11/27/19	9111043	A19J130	
249	"	Soil	Sb (Antimony) - 6020 - Total	"	11/27/19	9111043	A19J130	
250	"	Soil	Se (Selenium) - 6020 - Total	"	11/27/19	9111043	A19J130	
251	"	Soil	Tl (Thallium) - 6020 - Total	"	11/27/19	9111043	A19J130	
252	"	Soil	Zn (Zinc) - 6020 - Total	"	11/27/19	9111043	A19J130	
253	A9K0481-01	Soil	Cr (Chromium) - 6020 - Total		11/25/19	9111043	A19J130	
254	A9K0481-02	Soil	Cr (Chromium) - 6020 - Total		11/25/19	9111043	A19J130	
255	A9K0481-03	Soil	Cr (Chromium) - 6020 - Total		11/25/19	9111043	A19J130	
256	A9K0644-01	Soil	Ag (Silver) - 6020 - Total		11/26/19	9111043	A19J130	
257	"	Soil	As (Arsenic) - 6020 - Total	"	11/26/19	9111043	A19J130	
258	"	Soil	Ba (Barium) - 6020 - Total	"	11/26/19	9111043	A19J130	
259	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/26/19	9111043	A19J130	
260	"	Soil	Cr (Chromium) - 6020 - Total	"	11/26/19	9111043	A19J130	
261	"	Soil	Hg (Mercury) - 6020 - Total	"	11/26/19	9111043	A19J130	
262	"	Soil	Pb (Lead) - 6020 - Total	"	11/26/19	9111043	A19J130	
263	"	Soil	Se (Selenium) - 6020 - Total	"	11/26/19	9111043	A19J130	
264	9111068-BLK1	Soil	QC	QC		9111068	A19J130	
265	9K21029-CCV7	Water	QC	QC			A19J130	A19J138
266	9K21029-CCB7	Water	QC	QC			A19J130	
267	9111068-BS1	Soil	QC	QC		9111068	A19J130	
268	A9K0475-01	Soil	Ag (Silver) - 6020 - Total		11/25/19	9111068	A19J130	
269	"	Soil	As (Arsenic) - 6020 - Total	"	11/25/19	9111068	A19J130	
270	"	Soil	Ba (Barium) - 6020 - Total	"	11/25/19	9111068	A19J130	
271	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/25/19	9111068	A19J130	

Sequence: **9K21029** Instrument: **ICPMS5**

Date: **11/21/19 09:48** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
272	"	Soil	Cr (Chromium) - 6020 - Total	"	11/25/19	9111068	A19J130	
273	"	Soil	Hg (Mercury) - 6020 - Total	"	11/25/19	9111068	A19J130	
274	"	Soil	Pb (Lead) - 6020 - Total	"	11/25/19	9111068	A19J130	
275	"	Soil	Se (Selenium) - 6020 - Total	"	11/25/19	9111068	A19J130	
276	A9K0475-03	Soil	Ag (Silver) - 6020 - Total		11/25/19	9111068	A19J130	
277	"	Soil	As (Arsenic) - 6020 - Total	"	11/25/19	9111068	A19J130	
278	"	Soil	Ba (Barium) - 6020 - Total	"	11/25/19	9111068	A19J130	
279	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/25/19	9111068	A19J130	
280	"	Soil	Cr (Chromium) - 6020 - Total	"	11/25/19	9111068	A19J130	
281	"	Soil	Hg (Mercury) - 6020 - Total	"	11/25/19	9111068	A19J130	
282	"	Soil	Pb (Lead) - 6020 - Total	"	11/25/19	9111068	A19J130	
283	"	Soil	Se (Selenium) - 6020 - Total	"	11/25/19	9111068	A19J130	
284	A9K0475-05	Soil	Ag (Silver) - 6020 - Total		11/25/19	9111068	A19J130	
285	"	Soil	As (Arsenic) - 6020 - Total	"	11/25/19	9111068	A19J130	
286	"	Soil	Ba (Barium) - 6020 - Total	"	11/25/19	9111068	A19J130	
287	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/25/19	9111068	A19J130	
288	"	Soil	Cr (Chromium) - 6020 - Total	"	11/25/19	9111068	A19J130	
289	"	Soil	Hg (Mercury) - 6020 - Total	"	11/25/19	9111068	A19J130	
290	"	Soil	Pb (Lead) - 6020 - Total	"	11/25/19	9111068	A19J130	
291	"	Soil	Se (Selenium) - 6020 - Total	"	11/25/19	9111068	A19J130	
292	9111068-DUP1	Soil	QC	QC		9111068	A19J130	
293	9111068-MS1	Soil	QC	QC		9111068	A19J130	
294	9111068-MSD1	Soil	QC	QC		9111068	A19J130	
295	9111082-BLK1	Water	QC	QC		9111082	A19J130	
296	9111082-BS1	Water	QC	QC		9111082	A19J130	
297	A9K0606-02	Water	Cu (Copper) - 200.8 - Dissolved		11/27/19	9111082	A19J130	
298	"	Water	Pb (Lead) - 200.8 - Dissolved	"	11/27/19	9111082	A19J130	
299	"	Water	Zn (Zinc) - 200.8 - Dissolved	"	11/27/19	9111082	A19J130	
300	9K21029-CCV8	Water	QC	QC			A19J130	A19J138
301	9K21029-CCB8	Water	QC	QC			A19J130	
302	A9K0606-04	Water	Cu (Copper) - 200.8 - Dissolved		11/27/19	9111082	A19J130	
303	"	Water	Pb (Lead) - 200.8 - Dissolved	"	11/27/19	9111082	A19J130	
304	"	Water	Zn (Zinc) - 200.8 - Dissolved	"	11/27/19	9111082	A19J130	
305	A9K0606-06	Water	Cu (Copper) - 200.8 - Dissolved		11/27/19	9111082	A19J130	
306	"	Water	Pb (Lead) - 200.8 - Dissolved	"	11/27/19	9111082	A19J130	
307	"	Water	Zn (Zinc) - 200.8 - Dissolved	"	11/27/19	9111082	A19J130	
308	9111082-DUP1	Water	QC	QC		9111082	A19J130	
309	A9K0606-08	Water	Cu (Copper) - 200.8 - Dissolved		11/27/19	9111082	A19J130	
310	"	Water	Pb (Lead) - 200.8 - Dissolved	"	11/27/19	9111082	A19J130	
311	"	Water	Zn (Zinc) - 200.8 - Dissolved	"	11/27/19	9111082	A19J130	
312	9111082-MS1	Water	QC	QC		9111082	A19J130	
313	A9K0606-10	Water	Cu (Copper) - 200.8 - Dissolved		11/27/19	9111082	A19J130	
314	"	Water	Pb (Lead) - 200.8 - Dissolved	"	11/27/19	9111082	A19J130	
315	"	Water	Zn (Zinc) - 200.8 - Dissolved	"	11/27/19	9111082	A19J130	
316	A9K0606-12	Water	Cu (Copper) - 200.8 - Dissolved		11/27/19	9111082	A19J130	
317	"	Water	Pb (Lead) - 200.8 - Dissolved	"	11/27/19	9111082	A19J130	
318	"	Water	Zn (Zinc) - 200.8 - Dissolved	"	11/27/19	9111082	A19J130	
319	9K21029-CCV9	Water	QC	QC			A19J130	A19J138
320	9K21029-CCVA	Water	QC	QC			A19J130	A19J138
321	9K21029-CCB9	Water	QC	QC			A19J130	
322	9K21029-CRL7	Water	QC	QC			A19J130	A19K144
323	9K21029-CRL8	Water	QC	QC			A19J130	A19K145
324	9K21029-CRL9	Water	QC	QC			A19J130	A19K146
325	9K21029-CRLA	Water	QC	QC			A19J130	A19K147

Sequence:	**9K21029**	Instrument:	**ICPMS5**
Date:	**11/21/19 09:48**	Calibration:	**UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID

Data Entered By: ESS 11/22/19

Comments:

Data Reviewed By: [signature] 11/22/19

Tune Report

Batch Folder	C:\Agilent\ICPMH\1\DATA\9K21029.b
Acq. Date-Time	11/21/2019 10:20
Report Comment	9K21029 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		3863	38626.01	1000.00	
89		17353	173530.60	1000.00	
78		10			

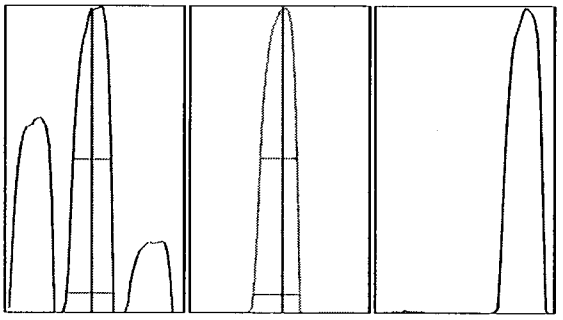
Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
78		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	2.10	5.00	
89	0.59	5.00	
78	23.66		

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	3790	3768	3876	3941	3938
89	17198	17361	17347	17481	17379
78	14	12	9	9	8

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	641.78	59.00	58.9 - 59.1		0.62	0.782	0.900	

Tune Report

89	3021.14	89.05	88.9 - 89.1	0.60	0.776	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		5051	50512.62	1000.00	
89		4947	49465.76	1000.00	
205		6089	60891.47	1000.00	
75		28			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	3.20	5.00	
89	1.71	5.00	
205	2.63	5.00	
75	21.06		

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	5013	4787	5120	5143	5194
89	4926	4809	5014	5007	4978
205	5954	5888	6188	6153	6262
75	27	29	26	37	21

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	835.46	59.00	58.9 - 59.1		0.63	0.780	0.900	
89	884.89	89.05	88.9 - 89.1		0.59	0.771	0.900	
205	1102.86	205.00	204.9 - 205.1		0.57	0.744	0.900	
75	5.25	74.90	-		0.58	0.742		

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		10287	102868.32	1000.00	
89		21355	213553.33	1000.00	
205		13350	133499.42	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	1.44	5.00	
89	1.08	5.00	
205	2.61	5.00	
102	53.35		

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	10507	10317	10311	10132	10167
89	21205	21101	21386	21379	21706
205	12971	13293	13507	13118	13861
102	1	3	2	5	4

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	1648.91	7.05	6.9 - 7.1		0.64	0.786	0.900	
89	3668.91	89.05	88.9 - 89.1		0.61	0.778	0.900	
205	2369.72	205.00	204.9 - 205.1		0.57	0.742	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

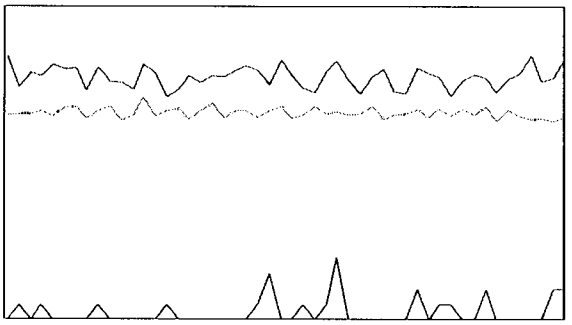
Tune Report

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\9K21029.b
Acq. Date-Time	11/21/2019 10:07
Report Comment	9K21029 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	784	7842.13	1000.00	
89	5000	3338	33378.80	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	4.33	5.00	
89	2.54	5.00	
78	184.62		

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	2000	999	9986.20	1000.00	
89	2000	1071	10714.10	1000.00	
205	2000	1277	12766.72	1000.00	
75	20	5			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	4.33	5.00	
89	4.13	5.00	
205	3.76	5.00	
75	57.11		

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	1763	17633.55	1000.00	
89	5000	3730	37304.98	1000.00	
205	5000	2467	24672.92	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	2.73	5.00	
89	2.86	5.00	
205	2.59	5.00	
102	342.56		

Mass	Background (Actual)	Background (Required)	Background (Flag)
7			
89			
205			
102			

Ratio (oxide)	156/140	1.312 %	
Ratio (2+)	69/138	2.211 %	

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: 9K21029-ICV1
Data File: 013_ICV.d
Acquired: 11/21/2019 12:10:40

========= Detector Parameters and P/A Factors =========
Discriminator: 4.5 mV
AnalogHV: 1868 V
PulseHV: 1705 V

Acquired: 11/20/2019 14:00:31

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: 1868 V
PulseHV: 1705 V

Acquired: 11/21/2019 11:47:31

Mass[u]	Element	P/A Factor
23	Na	0.108639
44	Ca	0.122677
45	Sc	0.121777
56	Fe	0.129092
57	Fe	0.127948
74	Ge	0.134072
78	Se	Signal too low

Tune Mode Name: He
Discriminator: 4.5 mV
AnalogHV: 1868 V
PulseHV: 1705 V

Acquired: 11/21/2019 12:02:46

Mass[u]	Element	P/A Factor
23	Na	0.108942
24	Mg	0.114184
27	Al	0.117182
39	K	0.121234
44	Ca	0.120862
51	V	0.123490
52	Cr	0.127300
55	Mn	0.127480
59	Co	0.129021
60	Ni	0.130223
65	Cu	0.132487
66	Zn	0.131152
111	Cd	0.136342

138	Ba	0.136895
159	Tb	0.142131
205	Tl	0.140610
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
121	Sb	Signal too low
209	Bi	Signal too low

Tune Mode Name: NoGas
Discriminator: 4.5 mV
AnalogHV: 1868 V
PulseHV: 1705 V

Acquired: 11/21/2019 12:04:07

Mass[u]	Element	P/A Factor
6	Li	0.085819
45	Sc	0.120875
47	Ti	0.119512
65	Cu	0.132381
74	Ge	0.133538
103	Rh	0.135881
111	Cd	0.136135
159	Tb	0.139854
182	W	0.138889
206	Pb	0.140773
207	Pb	0.142137
208	Pb	0.143023
209	Bi	0.145041
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: 11/22/2019 09:35:52

Quantitation Report - ICPMS5

Sample Name:	**Rinse**	Total Dilution:	**1.0000**
File Name:	001RINS.d	Vial:	3
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	Rinse
Acq Time:	11/21/2019 11:08:17	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		1,165	0.18	
Na	23	45	He		ppb		10,050	90	
Mg	24	45	He		ppb		1,016	90	
Al	27	45	He		ppb		1,159	45	
K	39	45	He		ppb		25,971	90	
Ca	44	45	H2		ppb		1,516	90	
[Ca]	44	45	He		ppb		317		
Ti	47	45	NoGas		ppb		300	0.9	
V	51	74	He		ppb		3,052	0.9	
Cr	52	74	He		ppb		1,912	0.9	
Mn	55	74	He		ppb		471	0.9	
Fe	56	74	H2		ppb		68,631	45	
Co	59	74	He		ppb		1,246	0.18	
Ni	60	74	He		ppb		738	0.9	
Cu	65	74	He		ppb		556	0.9	
Zn	66	74	He		ppb		296	3.6	
As	75	74	He		ppb		36	0.9	
Se	78	74	H2		ppb		3	0.9	
Mo	95	103	He		ppb		98	0.9	
Ag	107	103	He		ppb		17	0.18	
Cd	111	103	He		ppb		5		
[Cd]	111	103	NoGas		ppb		13	0.18	
Sb	121	103	He		ppb		72	0.9	
Ba	138	159	He		ppb		3,406	0.9	
W	182	159	NoGas		ppb		93		
Hg	201	159	NoGas		ppt		5	72	
Tl	205	159	He		ppb		1,430	0.18	
Pb	208	159	NoGas		ppb		1,037	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	5,547	0.8	0	Pulse		
Sc	45	H2	1,278	8.8	0	Pulse		
Sc	45	He	69	23.9	0	Pulse		Note RSD; OK < 20%
Sc	45	NoGas	1,258	3.6	0	Pulse		
Ge	74	H2	214	11.0	0	Pulse		
Ge	74	He	62	20.9	0	Pulse		Note RSD; OK < 20%
Ge	74	NoGas	358	39.0	0	Pulse		Note RSD; OK < 20%
Rh	103	He	453	12.9	0	Pulse		
Rh	103	NoGas	967	6.7	0	Pulse		
Tb	159	He	29	40.5	0	Pulse		Note RSD; OK < 20%
Tb	159	NoGas	74	27.0	0	Pulse		Note RSD; OK < 20%
Bi	209	He	203	25.2	0	Pulse		Note RSD; OK < 20%
Bi	209	NoGas	369	11.2	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\9K21029.b	Sample Type:	Rinse
Acq Time:	11/21/2019 11:13:02	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		42	0.18	
Na	23	45	He		ppb		3,464	90	
Mg	24	45	He		ppb		497	90	
Al	27	45	He		ppb		80	45	
K	39	45	He		ppb		26,440	90	
Ca	44	45	H2		ppb		472	90	
[Ca]	44	45	He		ppb		189		
Ti	47	45	NoGas		ppb		30	0.9	
V	51	74	He		ppb		2,417	0.9	
Cr	52	74	He		ppb		306	0.9	
Mn	55	74	He		ppb		46	0.9	
Fe	56	74	H2		ppb		5,922	45	
Co	59	74	He		ppb		9	0.18	
Ni	60	74	He		ppb		53	0.9	
Cu	65	74	He		ppb		42	0.9	
Zn	66	74	He		ppb		34	3.6	
As	75	74	He		ppb		35	0.9	
Se	78	74	H2		ppb		3	0.9	
Mo	95	103	He		ppb		7	0.9	
Ag	107	103	He		ppb		14	0.18	
Cd	111	103	He		ppb		2		
[Cd]	111	103	NoGas		ppb		11	0.18	
Sb	121	103	He		ppb		37	0.9	
Ba	138	159	He		ppb		72	0.9	
W	182	159	NoGas		ppb		27		
Hg	201	159	NoGas		ppt		3	72	
Tl	205	159	He		ppb		48	0.18	
Pb	208	159	NoGas		ppb		750	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,193,665	1.0	0	Analog		
Sc	45	H2	2,227,524	0.3	0	Analog		
Sc	45	He	342,051	1.2	0	Pulse		
Sc	45	NoGas	3,336,070	2.2	0	Analog		
Ge	74	H2	687,174	0.5	0	Pulse		
Ge	74	He	204,264	1.2	0	Pulse		
Ge	74	NoGas	864,424	0.7	0	Pulse		
Rh	103	He	471,349	1.1	0	Pulse		
Rh	103	NoGas	918,556	0.6	0	Pulse		
Tb	159	He	638,465	1.3	0	Pulse		
Tb	159	NoGas	1,616,943	2.1	0	Analog		
Bi	209	He	376,116	0.4	0	Pulse		
Bi	209	NoGas	893,848	1.2	0	Pulse		

Calibration Standard Report - ICPMS5

Sample Name:	**9K21029-CAL0**	Total Dilution:	**1.0000**
File Name:	003CALS.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CalBlk
Acq Time:	11/21/2019 11:17:44	I.S. Reference File:	003CALS.d
Comment:	**Cal Blk (3.5% HNO3 + 0.4% HCl)**	Last Calibration:	11/21/2019 12:08:56

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	14.3	
Na	23	45	He	0	ppb	N/A	3,516	4.2	
Mg	24	45	He	0	ppb	N/A	438	6.4	
Al	27	45	He	0	ppb	N/A	58	12.0	
K	39	45	He	0	ppb	N/A	26,832	1.2	
Ca	44	45	H2	0	ppb	N/A	470	6.8	
[Ca]	44	45	He	0	ppb	N/A	210	23.4	
Ti	47	45	NoGas	0	ppb	N/A	38	45.8	
V	51	74	He	0	ppb	N/A	2,355	2.4	
Cr	52	74	He	0	ppb	N/A	241	16.6	
Mn	55	74	He	0	ppb	N/A	40	14.4	
Fe	56	74	H2	0	ppb	N/A	5,786	2.0	
Co	59	74	He	0	ppb	N/A	13	90.2	
Ni	60	74	He	0	ppb	N/A	47	39.8	
Cu	65	74	He	0	ppb	N/A	28	54.1	
Zn	66	74	He	0	ppb	N/A	24	7.9	
As	75	74	He	0	ppb	N/A	32	8.3	
Se	78	74	H2	0	ppb	N/A	1	173.2	
Mo	95	103	He	0	ppb	N/A	4	114.6	
Ag	107	103	He	0	ppb	N/A	1	173.2	
Cd	111	103	He	0	ppb	N/A	3	57.3	
[Cd]	111	103	NoGas	0	ppb	N/A	-4	-310.1	
Sb	121	103	He	0	ppb	N/A	40	60.1	
Ba	138	159	He	0	ppb	N/A	88	13.3	
W	182	159	NoGas	0	ppb	N/A	21	92.5	
Hg	201	159	NoGas	0.458	ppt	193.6	3	31.2	
Tl	205	159	He	0	ppb	N/A	23	37.8	
Pb	208	159	NoGas	0	ppb	N/A	707	2.8	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,137,235	3.9	1137234.76333333	Analog	100.0	
Sc	45	H2	2,175,442	1.1	2175442.43333333	Analog	100.0	
Sc	45	He	346,512	0.5	346512.113333333	Pulse	100.0	
Sc	45	NoGas	3,249,380	0.8	3249380.29333333	Analog	100.0	
Ge	74	H2	689,414	0.9	689413.513333333	Pulse	100.0	
Ge	74	He	206,515	0.9	206515.04	Pulse	100.0	
Ge	74	NoGas	873,624	0.7	873623.596666667	Pulse	100.0	
Rh	103	He	470,247	0.6	470246.54	Pulse	100.0	
Rh	103	NoGas	915,358	0.7	915357.836666667	Pulse	100.0	
Tb	159	He	642,884	0.4	642883.506666667	Pulse	100.0	
Tb	159	NoGas	1,568,166	3.9	1568165.69	Analog	100.0	
Bi	209	He	377,339	0.3	377338.903333333	Pulse	100.0	
Bi	209	NoGas	893,370	0.4	893369.963333333	Pulse	100.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9K21029-CAL1**	Total Dilution:	**1.0000**
File Name:	004CALS.d	Vial:	1102
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CalStd
Acq Time:	11/21/2019 11:22:46	I.S. Reference File:	003CALS.d
Comment:	**A19K144 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.191	ppb	11.7	622	11.0	
Na	23	45	He	8.646	ppb	2.5	14,172	1.3	
Mg	24	45	He	8.877	ppb	3.1	6,568	3.0	
Al	27	45	He	9.172	ppb	2.6	3,430	2.0	
K	39	45	He	9.046	ppb	10.5	32,322	1.2	
Ca	44	45	H2	8.734	ppb	5.7	2,571	4.7	
[Ca]	44	45	He	9.116	ppb	8.6	487	5.4	
Ti	47	45	NoGas	0.192	ppb	44.2	287	38.3	
V	51	74	He	0.14	ppb	8.4	2,943	2.3	
Cr	52	74	He	0.185	ppb	5.0	1,140	3.6	
Mn	55	74	He	0.175	ppb	1.6	632	1.2	
Fe	56	74	H2	9.065	ppb	0.6	118,078	0.9	
Co	59	74	He	0.189	ppb	11.1	1,262	11.5	
Ni	60	74	He	0.181	ppb	15.3	333	13.1	
Cu	65	74	He	0.185	ppb	11.7	393	10.8	
Zn	66	74	He	0.145	ppb	22.2	137	17.6	
As	75	74	He	0.196	ppb	15.0	124	11.0	
Se	78	74	H2	0.184	ppb	16.7	61	16.1	
Mo	95	103	He	0.176	ppb	16.5	347	16.4	
Ag	107	103	He	0.175	ppb	11.9	989	11.9	
Cd	111	103	He	0.193	ppb	3.1	186	2.8	
[Cd]	111	103	NoGas	0.172	ppb	20.4	425	20.4	
Sb	121	103	He	0.16	ppb	2.0	434	2.3	
Ba	138	159	He	0.176	ppb	12.1	989	10.7	
W	182	159	NoGas	0	ppb	180.0	24	28.4	
Hg	201	159	NoGas	7.797	ppt	27.0	12	19.5	
Tl	205	159	He	0.185	ppb	5.1	1,672	5.4	
Pb	208	159	NoGas	0.18	ppb	3.8	5,455	3.8	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,165,020	1.1	1137234.76333333	Analog	102.4	
Sc	45	H2	2,196,521	0.9	2175442.43333333	Analog	101.0	
Sc	45	He	347,378	0.6	346512.113333333	Pulse	100.3	
Sc	45	NoGas	3,339,534	0.6	3249380.29333333	Analog	102.8	
Ge	74	H2	689,785	0.4	689413.513333333	Pulse	100.1	
Ge	74	He	207,697	0.7	206515.04	Pulse	100.6	
Ge	74	NoGas	874,882	0.7	873623.596666667	Pulse	100.1	
Rh	103	He	469,553	0.6	470246.54	Pulse	99.9	
Rh	103	NoGas	918,094	0.4	915357.836666667	Pulse	100.3	
Tb	159	He	641,030	0.4	642883.506666667	Pulse	99.7	
Tb	159	NoGas	1,567,039	1.4	1568165.69	Analog	99.9	
Bi	209	He	373,980	0.8	377338.903333333	Pulse	99.1	
Bi	209	NoGas	899,193	0.1	893369.963333333	Pulse	100.7	

Calibration Standard Report - ICPMS5

Sample Name:	**9K21029-CAL2**	Total Dilution:	**1.0000**
File Name:	005CALS.d	Vial:	1103
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CalStd
Acq Time:	11/21/2019 11:27:43	I.S. Reference File:	003CALS.d
Comment:	**A19K145 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.922	ppb	5.1	2,842	3.6	
Na	23	45	He	44.671	ppb	1.4	58,333	1.9	
Mg	24	45	He	45.295	ppb	2.6	31,595	2.7	
Al	27	45	He	46.541	ppb	0.3	17,111	0.9	
K	39	45	He	45.901	ppb	1.3	54,230	0.8	
Ca	44	45	H2	45.201	ppb	3.9	11,208	3.7	
[Ca]	44	45	He	42.927	ppb	3.8	1,505	3.1	
Ti	47	45	NoGas	0.986	ppb	3.6	1,289	3.7	
V	51	74	He	0.84	ppb	1.2	5,807	1.3	
Cr	52	74	He	0.921	ppb	4.2	4,711	4.1	
Mn	55	74	He	0.9	ppb	6.8	3,083	6.7	
Fe	56	74	H2	45.469	ppb	0.4	570,317	0.4	
Co	59	74	He	0.915	ppb	1.1	6,043	1.4	
Ni	60	74	He	0.949	ppb	3.3	1,548	3.5	
Cu	65	74	He	0.991	ppb	4.9	1,986	4.5	
Zn	66	74	He	0.906	ppb	2.5	723	2.0	
As	75	74	He	0.956	ppb	2.1	477	1.2	
Se	78	74	H2	0.883	ppb	9.5	288	9.5	
Mo	95	103	He	0.882	ppb	4.1	1,718	4.6	
Ag	107	103	He	0.896	ppb	0.2	5,058	0.5	
Cd	111	103	He	0.849	ppb	1.3	806	1.6	
[Cd]	111	103	NoGas	0.87	ppb	6.9	2,157	7.0	
Sb	121	103	He	0.882	ppb	1.7	2,211	2.3	
Ba	138	159	He	0.942	ppb	2.6	4,925	3.6	
W	182	159	NoGas	-0.001	ppb	N/A	14	74.2	
Hg	201	159	NoGas	38.193	ppt	13.0	47	11.9	
Tl	205	159	He	0.887	ppb	4.3	7,962	3.2	
Pb	208	159	NoGas	0.901	ppb	2.8	24,620	1.5	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,155,422	1.6	1137234.76333333	Analog	101.6	
Sc	45	H2	2,173,832	0.3	2175442.43333333	Analog	99.9	
Sc	45	He	346,112	0.8	346512.113333333	Pulse	99.9	
Sc	45	NoGas	3,298,587	0.6	3249380.29333333	Analog	101.5	
Ge	74	H2	691,379	0.0	689413.513333333	Pulse	100.3	
Ge	74	He	207,321	0.9	206515.04	Pulse	100.4	
Ge	74	NoGas	877,235	1.3	873623.596666667	Pulse	100.4	
Rh	103	He	468,691	0.6	470246.54	Pulse	99.7	
Rh	103	NoGas	914,554	0.1	915357.836666667	Pulse	99.9	
Tb	159	He	642,976	1.1	642883.506666667	Pulse	100.0	
Tb	159	NoGas	1,574,431	1.5	1568165.69	Analog	100.4	
Bi	209	He	375,819	1.5	377338.903333333	Pulse	99.6	
Bi	209	NoGas	893,785	0.4	893369.963333333	Pulse	100.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9K21029-CAL3**	Total Dilution:	**1.0000**
File Name:	006CALS.d	Vial:	1104
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CalStd
Acq Time:	11/21/2019 11:32:41	I.S. Reference File:	003CALS.d
Comment:	**A19K146 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	1.758	ppb	4.4	5,408	4.6	
Na	23	45	He	89.473	ppb	1.9	113,643	1.1	
Mg	24	45	He	91.008	ppb	1.0	63,229	0.6	
Al	27	45	He	91.486	ppb	1.5	33,681	1.8	
K	39	45	He	90.829	ppb	1.7	81,324	1.0	
Ca	44	45	H2	90.755	ppb	1.1	22,124	1.8	
[Ca]	44	45	He	83.782	ppb	5.5	2,745	4.5	
Ti	47	45	NoGas	1.797	ppb	11.3	2,341	11.2	
V	51	74	He	1.76	ppb	2.2	9,582	2.2	
Cr	52	74	He	1.782	ppb	1.7	8,890	2.1	
Mn	55	74	He	1.78	ppb	1.9	6,060	2.3	
Fe	56	74	H2	90.866	ppb	0.4	1,126,602	0.2	
Co	59	74	He	1.79	ppb	1.6	11,807	1.1	
Ni	60	74	He	1.941	ppb	1.1	3,119	1.8	
Cu	65	74	He	1.948	ppb	3.2	3,876	2.9	
Zn	66	74	He	1.97	ppb	6.2	1,543	5.8	
As	75	74	He	1.802	ppb	0.7	872	0.9	
Se	78	74	H2	1.824	ppb	1.2	590	1.0	
Mo	95	103	He	1.728	ppb	5.9	3,364	6.3	
Ag	107	103	He	1.809	ppb	0.5	10,214	0.6	
Cd	111	103	He	1.754	ppb	3.5	1,663	3.5	
[Cd]	111	103	NoGas	1.748	ppb	6.7	4,334	6.6	
Sb	121	103	He	1.819	ppb	3.7	4,516	3.1	
Ba	138	159	He	1.896	ppb	1.5	9,820	2.2	
W	182	159	NoGas	0.001	ppb	32.4	32	12.0	
Hg	201	159	NoGas	75.727	ppt	3.2	91	2.7	
Tl	205	159	He	1.796	ppb	3.3	16,112	2.9	
Pb	208	159	NoGas	1.782	ppb	1.1	48,113	0.4	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,159,394	0.2	1137234.76333333	Analog	101.9	
Sc	45	H2	2,182,914	0.8	2175442.43333333	Analog	100.3	
Sc	45	He	347,165	0.9	346512.113333333	Pulse	100.2	
Sc	45	NoGas	3,330,523	1.0	3249380.29333333	Analog	102.5	
Ge	74	H2	686,905	0.3	689413.513333333	Pulse	99.6	
Ge	74	He	207,372	0.8	206515.04	Pulse	100.4	
Ge	74	NoGas	878,299	1.0	873623.596666667	Pulse	100.5	
Rh	103	He	468,868	0.6	470246.54	Pulse	99.7	
Rh	103	NoGas	914,032	0.1	915357.836666667	Pulse	99.9	
Tb	159	He	643,058	0.9	642883.506666667	Pulse	100.0	
Tb	159	NoGas	1,578,401	0.7	1568165.69	Analog	100.7	
Bi	209	He	377,750	1.4	377338.903333333	Pulse	100.1	
Bi	209	NoGas	897,668	0.1	893369.963333333	Pulse	100.5	

Calibration Standard Report - ICPMS5

Sample Name:	**9K21029-CAL4**	Total Dilution:	**1.0000**
File Name:	007CALS.d	Vial:	1105
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CalStd
Acq Time:	11/21/2019 11:37:39	I.S. Reference File:	003CALS.d
Comment:	**A19K147 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	3.552	ppb	1.5	10,857	2.7	
Na	23	45	He	180.473	ppb	0.7	224,166	0.4	
Mg	24	45	He	182.817	ppb	0.9	125,734	0.2	
Al	27	45	He	183.854	ppb	0.9	67,179	1.0	
K	39	45	He	185.485	ppb	1.0	137,148	0.4	
Ca	44	45	H2	182.201	ppb	1.1	44,216	1.3	
[Ca]	44	45	He	187.342	ppb	1.6	5,840	2.3	
Ti	47	45	NoGas	3.725	ppb	4.9	4,797	3.9	
V	51	74	He	3.514	ppb	0.3	16,688	0.7	
Cr	52	74	He	3.574	ppb	1.0	17,499	1.7	
Mn	55	74	He	3.652	ppb	0.5	12,331	1.1	
Fe	56	74	H2	185.696	ppb	1.2	2,296,144	1.2	
Co	59	74	He	3.726	ppb	1.2	24,440	2.0	
Ni	60	74	He	3.843	ppb	0.6	6,099	0.3	
Cu	65	74	He	4.011	ppb	0.4	7,914	0.4	
Zn	66	74	He	3.81	ppb	4.3	2,949	5.0	
As	75	74	He	3.581	ppb	2.8	1,692	2.5	
Se	78	74	H2	3.669	ppb	2.5	1,187	2.5	
Mo	95	103	He	3.524	ppb	2.1	6,844	2.6	
Ag	107	103	He	3.569	ppb	0.5	20,119	1.3	
Cd	111	103	He	3.503	ppb	1.2	3,313	2.1	
[Cd]	111	103	NoGas	3.561	ppb	2.9	8,795	2.6	
Sb	121	103	He	3.535	ppb	2.7	8,725	2.0	
Ba	138	159	He	3.82	ppb	1.4	19,631	1.4	
W	182	159	NoGas	0.001	ppb	100.9	28	25.0	
Hg	201	159	NoGas	152.314	ppt	8.0	181	7.0	
Tl	205	159	He	3.596	ppb	1.0	32,122	1.6	
Pb	208	159	NoGas	3.608	ppb	1.1	96,779	1.2	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,156,117	1.2	1137234.76333333	Analog	101.7	
Sc	45	H2	2,196,678	0.5	2175442.43333333	Analog	101.0	
Sc	45	He	344,872	1.0	346512.113333333	Pulse	99.5	
Sc	45	NoGas	3,322,682	1.1	3249380.29333333	Analog	102.3	
Ge	74	H2	686,844	0.1	689413.513333333	Pulse	99.6	
Ge	74	He	206,339	0.7	206515.04	Pulse	99.9	
Ge	74	NoGas	872,571	0.8	873623.596666667	Pulse	99.9	
Rh	103	He	468,041	1.0	470246.54	Pulse	99.5	
Rh	103	NoGas	910,385	0.3	915357.836666667	Pulse	99.5	
Tb	159	He	640,956	1.5	642883.506666667	Pulse	99.7	
Tb	159	NoGas	1,580,251	1.1	1568165.69	Analog	100.8	
Bi	209	He	375,509	1.1	377338.903333333	Pulse	99.5	
Bi	209	NoGas	898,747	0.9	893369.963333333	Pulse	100.6	

Calibration Standard Report - ICPMS5

Sample Name:	**9K21029-CAL5**	Total Dilution:	**1.0000**
File Name:	008CALS.d	Vial:	1106
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CalStd
Acq Time:	11/21/2019 11:42:35	I.S. Reference File:	003CALS.d
Comment:	**A19K148 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	9.958	ppb	3.6	29,491	0.6	
Na	23	45	He	402.938	ppb	0.4	487,725	0.3	
Mg	24	45	He	406.609	ppb	0.7	274,363	0.4	
Al	27	45	He	406.229	ppb	0.5	145,833	0.2	
K	39	45	He	408.433	ppb	0.8	265,304	0.7	
Ca	44	45	H2	399.965	ppb	0.8	95,923	0.2	
[Ca]	44	45	He	410.165	ppb	2.8	12,322	2.7	
Ti	47	45	NoGas	20.349	ppb	5.5	25,201	0.7	
V	51	74	He	19.639	ppb	0.9	81,670	1.1	
Cr	52	74	He	19.745	ppb	0.7	94,641	1.0	
Mn	55	74	He	19.954	ppb	1.6	66,540	0.7	
Fe	56	74	H2	407.488	ppb	0.8	5,008,594	0.6	
Co	59	74	He	20.249	ppb	1.7	131,473	1.5	
Ni	60	74	He	21.686	ppb	1.2	33,864	1.0	
Cu	65	74	He	21.817	ppb	0.7	42,508	1.0	
Zn	66	74	He	20.741	ppb	1.7	15,785	0.9	
As	75	74	He	20.584	ppb	1.8	9,479	0.9	
Se	78	74	H2	9.813	ppb	0.7	3,156	1.0	
Mo	95	103	He	10.021	ppb	0.5	19,078	0.9	
Ag	107	103	He	10.1	ppb	1.6	55,849	2.5	
Cd	111	103	He	19.742	ppb	1.0	18,299	0.4	
[Cd]	111	103	NoGas	20.058	ppb	5.9	48,069	1.0	
Sb	121	103	He	10.027	ppb	1.5	24,204	1.0	
Ba	138	159	He	21.271	ppb	0.6	108,487	1.1	
W	182	159	NoGas	0.002	ppb	89.5	41	41.6	
Hg	201	159	NoGas	394.837	ppt	12.1	450	7.2	
Tl	205	159	He	10.011	ppb	0.7	89,025	1.0	
Pb	208	159	NoGas	20.233	ppb	5.4	523,049	0.1	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,123,643	3.1	1137234.76333333	Analog	98.8	
Sc	45	H2	2,183,739	0.7	2175442.43333333	Analog	100.4	
Sc	45	He	338,989	0.7	346512.113333333	Pulse	97.8	
Sc	45	NoGas	3,222,040	5.1	3249380.29333333	Analog	99.2	
Ge	74	H2	683,701	0.6	689413.513333333	Pulse	99.2	
Ge	74	He	204,339	1.0	206515.04	Pulse	98.9	
Ge	74	NoGas	850,446	3.2	873623.596666667	Pulse	97.3	
Rh	103	He	459,104	0.9	470246.54	Pulse	97.6	
Rh	103	NoGas	884,501	4.9	915357.836666667	Pulse	96.6	
Tb	159	He	638,332	0.5	642883.506666667	Pulse	99.3	
Tb	159	NoGas	1,535,105	5.3	1568165.69	Analog	97.9	
Bi	209	He	374,974	1.1	377338.903333333	Pulse	99.4	
Bi	209	NoGas	883,562	4.4	893369.963333333	Pulse	98.9	

Calibration Standard Report - ICPMS5

Sample Name:	**9K21029-CAL6**	Total Dilution:	**1.0000**
File Name:	009CALS.d	Vial:	1107
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CalStd
Acq Time:	11/21/2019 11:47:30	I.S. Reference File:	003CALS.d
Comment:	**A19K149**	Last Calibration:	11/21/2019 12:08:56

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	49.054	ppb	1.2	141,193	0.4	
Na	23	45	He	2522.084	ppb	0.7	2,932,331	0.1	
Mg	24	45	He	2567.897	ppb	1.4	1,672,119	1.5	
Al	27	45	He	2491.853	ppb	0.6	864,109	0.3	
K	39	45	He	2605.882	ppb	0.7	1,499,156	0.7	
Ca	44	45	H2	2485.78	ppb	1.1	575,889	0.5	
[Ca]	44	45	He	2515.863	ppb	0.7	72,014	0.4	
Ti	47	45	NoGas	50.326	ppb	2.0	60,387	1.9	
V	51	74	He	49.158	ppb	0.8	192,652	0.4	
Cr	52	74	He	48.689	ppb	1.1	223,427	0.3	
Mn	55	74	He	49.565	ppb	0.6	158,446	1.3	
Fe	56	74	H2	2525.995	ppb	1.0	29,999,805	1.2	
Co	59	74	He	50.053	ppb	0.7	311,607	1.0	
Ni	60	74	He	53.092	ppb	0.3	79,436	0.9	
Cu	65	74	He	53.549	ppb	0.8	100,010	1.4	
Zn	66	74	He	51.013	ppb	1.6	37,194	1.2	
As	75	74	He	50.452	ppb	0.4	22,236	1.2	
Se	78	74	H2	49.715	ppb	1.6	15,459	1.6	
Mo	95	103	He	49.814	ppb	0.9	90,973	0.8	
Ag	107	103	He	49.733	ppb	0.3	263,811	0.4	
Cd	111	103	He	49.396	ppb	0.3	43,925	0.3	
[Cd]	111	103	NoGas	48.362	ppb	0.4	110,970	0.1	
Sb	121	103	He	49.651	ppb	0.2	114,853	0.3	
Ba	138	159	He	52.632	ppb	0.3	262,820	0.6	
W	182	159	NoGas	0.013	ppb	34.7	133	28.4	
Hg	201	159	NoGas	1980.68	ppt	3.0	2,234	1.8	
Tl	205	159	He	49.449	ppb	0.3	430,678	0.7	
Pb	208	159	NoGas	49.165	ppb	1.5	1,261,026	0.5	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,092,356	0.8	1137234.76333333	Analog	96.1	
Sc	45	H2	2,118,375	1.5	2175442.43333333	Analog	97.4	
Sc	45	He	327,560	0.8	346512.113333333	Pulse	94.5	
Sc	45	NoGas	3,118,865	0.4	3249380.29333333	Analog	96.0	
Ge	74	H2	661,240	0.6	689413.513333333	Pulse	95.9	
Ge	74	He	195,932	0.8	206515.04	Pulse	94.9	
Ge	74	NoGas	818,215	0.6	873623.596666667	Pulse	93.7	
Rh	103	He	440,472	0.2	470246.54	Pulse	93.7	
Rh	103	NoGas	845,242	0.4	915357.836666667	Pulse	92.3	
Tb	159	He	625,284	0.6	642883.506666667	Pulse	97.3	
Tb	159	NoGas	1,521,608	1.7	1568165.69	Analog	97.0	
Bi	209	He	365,886	0.6	377338.903333333	Pulse	97.0	
Bi	209	NoGas	866,062	0.5	893369.963333333	Pulse	96.9	

Calibration Standard Report - ICPMS5

Sample Name:	**9K21029-CAL7**	Total Dilution:	**1.0000**
File Name:	010CALS.d	Vial:	1108
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CalStd
Acq Time:	11/21/2019 11:52:23	I.S. Reference File:	003CALS.d
Comment:	**A19K150**	Last Calibration:	11/21/2019 12:08:56

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	100.48	ppb	1.3	271,221	0.7	
Na	23	45	He	4040.753	ppb	1.4	4,377,782	1.2	
Mg	24	45	He	4103.116	ppb	1.5	2,490,431	1.4	
Al	27	45	He	4078.357	ppb	1.3	1,318,425	1.5	
K	39	45	He	4141.223	ppb	0.4	2,207,056	0.6	
Ca	44	45	H2	3988.682	ppb	0.2	871,050	0.2	
[Ca]	44	45	He	4028.136	ppb	0.6	107,376	0.4	
Ti	47	45	NoGas	203.45	ppb	1.1	225,739	0.2	
V	51	74	He	195.929	ppb	0.4	717,348	0.1	
Cr	52	74	He	194.016	ppb	0.3	838,434	0.3	
Mn	55	74	He	196.935	ppb	0.6	593,152	0.5	
Fe	56	74	H2	4023.96	ppb	0.8	45,369,075	0.5	
Co	59	74	He	198.548	ppb	0.2	1,164,834	0.7	
Ni	60	74	He	209.298	ppb	0.2	294,986	0.3	
Cu	65	74	He	208.917	ppb	0.6	367,616	0.3	
Zn	66	74	He	202.902	ppb	0.3	139,360	0.8	
As	75	74	He	200.425	ppb	0.3	83,160	0.4	
Se	78	74	H2	100.158	ppb	0.9	29,569	0.7	
Mo	95	103	He	100.095	ppb	0.9	172,743	0.9	
Ag	107	103	He	100.125	ppb	0.3	501,918	0.2	
Cd	111	103	He	200.267	ppb	0.4	168,286	0.5	
[Cd]	111	103	NoGas	200.008	ppb	0.2	428,154	0.4	
Sb	121	103	He	100.174	ppb	0.1	218,948	0.2	
Ba	138	159	He	207.758	ppb	0.3	1,002,880	0.6	
W	182	159	NoGas	0.022	ppb	9.9	196	7.1	
Hg	201	159	NoGas	4009.79	ppt	1.7	4,352	1.0	
Tl	205	159	He	100.275	ppb	0.4	844,414	0.4	
Pb	208	159	NoGas	201.181	ppb	1.7	4,965,580	0.8	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,024,593	1.6	1137234.76333333	Analog	90.1	
Sc	45	H2	1,997,223	0.1	2175442.43333333	Analog	91.8	
Sc	45	He	305,355	0.2	346512.113333333	Pulse	88.1	
Sc	45	NoGas	2,885,536	1.1	3249380.29333333	Analog	88.8	
Ge	74	H2	627,795	0.5	689413.513333333	Pulse	91.1	
Ge	74	He	184,646	0.5	206515.04	Pulse	89.4	
Ge	74	NoGas	766,435	0.2	873623.596666667	Pulse	87.7	
Rh	103	He	416,253	0.1	470246.54	Pulse	88.5	
Rh	103	NoGas	788,520	0.4	915357.836666667	Pulse	86.1	
Tb	159	He	604,602	0.8	642883.506666667	Pulse	94.0	
Tb	159	NoGas	1,464,905	1.9	1568165.69	Analog	93.4	
Bi	209	He	352,424	0.9	377338.903333333	Pulse	93.4	
Bi	209	NoGas	819,530	0.1	893369.963333333	Pulse	91.7	

Calibration Standard Report - ICPMS5

Sample Name:	**9K21029-CAL8**	Total Dilution:	**1.0000**
File Name:	.011CALS.d	Vial:	1109
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CalStd
Acq Time:	11/21/2019 11:57:12	I.S. Reference File:	003CALS.d
Comment:	**A19K151**	Last Calibration:	11/21/2019 12:08:56

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.026	ppb	25.2	97	17.9	
Na	23	45	He	9939.812	ppb	0.8	10,297,064	0.9	
Mg	24	45	He	10051.867	ppb	0.5	5,835,701	0.4	
Al	27	45	He	9951.99	ppb	1.0	3,077,281	0.3	
K	39	45	He	10095.664	ppb	0.7	5,114,243	0.6	
Ca	44	45	H2	10147.061	ppb	2.2	2,104,986	0.2	
[Ca]	44	45	He	9809.551	ppb	0.7	249,884	1.0	
Ti	47	45	NoGas	501.746	ppb	0.1	535,305	0.7	
V	51	74	He	501.728	ppb	1.7	1,731,028	2.0	
Cr	52	74	He	505.049	ppb	1.0	2,060,049	1.5	
Mn	55	74	He	504.733	ppb	0.6	1,434,994	0.2	
Fe	56	74	H2	9970.825	ppb	0.3	105,166,518	0.8	
Co	59	74	He	500.565	ppb	0.6	2,772,176	0.9	
Ni	60	74	He	511.544	ppb	0.3	680,538	0.7	
Cu	65	74	He	509.419	ppb	0.7	846,141	0.4	
Zn	66	74	He	507.014	ppb	0.3	328,691	0.5	
As	75	74	He	499.761	ppb	0.5	195,705	0.7	
Se	78	74	H2	0.146	ppb	11.1	41	10.9	
Mo	95	103	He	0.121	ppb	11.6	199	11.4	
Ag	107	103	He	0.023	ppb	22.4	107	22.5	
Cd	111	103	He	502.641	ppb	0.3	395,442	0.4	
[Cd]	111	103	NoGas	501.007	ppb	0.3	1,012,047	0.3	
Sb	121	103	He	0.185	ppb	11.7	412	10.4	
Ba	138	159	He	516.443	ppb	0.5	2,397,581	1.0	
W	182	159	NoGas	100	ppb	2.3	792,335	0.2	
Hg	201	159	NoGas	83.985	ppt	9.8	91	6.9	
Tl	205	159	He	0.036	ppb	11.0	309	10.2	
Pb	208	159	NoGas	499.602	ppb	2.3	11,921,816	0.2	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	978,597	0.9	1137234.76333333	Analog	86.1	
Sc	45	H2	1,898,353	2.0	2175442.43333333	Analog	87.3	
Sc	45	He	292,101	0.9	346512.113333333	Pulse	84.3	
Sc	45	NoGas	2,774,579	0.6	3249380.29333333	Analog	85.4	
Ge	74	H2	587,322	0.5	689413.513333333	Pulse	85.2	
Ge	74	He	174,302	0.5	206515.04	Pulse	84.4	
Ge	74	NoGas	718,643	0.5	873623.596666667	Pulse	82.3	
Rh	103	He	389,715	0.4	470246.54	Pulse	82.9	
Rh	103	NoGas	744,071	0.2	915357.836666667	Pulse	81.3	
Tb	159	He	581,483	0.6	642883.506666667	Pulse	90.4	
Tb	159	NoGas	1,416,641	2.5	1568165.69	Analog	90.3	
Bi	209	He	338,409	0.8	377338.903333333	Pulse	89.7	
Bi	209	NoGas	782,650	0.4	893369.963333333	Pulse	87.6	

Calibration Standard Report - ICPMS5

Sample Name:	**9K21029-CAL9**	Total Dilution:	**1.0000**
File Name:	012CALS.d	Vial:	1110
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CalStd
Acq Time:	11/21/2019 12:01:49	I.S. Reference File:	003CALS.d
Comment:	**A19K152**	Last Calibration:	11/21/2019 12:08:56

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.013	ppb	40.7	64	21.5	
Na	23	45	He	50007.649	ppb	0.9	50,206,805	0.7	
Mg	24	45	He	49977.917	ppb	0.9	28,124,892	0.4	
Al	27	45	He	50003.673	ppb	0.4	14,988,614	0.1	
K	39	45	He	49964.186	ppb	0.5	24,449,760	0.8	
Ca	44	45	H2	49972.195	ppb	0.5	9,786,214	0.5	
[Ca]	44	45	He	50034.951	ppb	2.6	1,234,742	2.1	
Ti	47	45	NoGas	2499.365	ppb	0.8	2,643,926	0.1	
V	51	74	He	-0.202	ppb	N/A	1,215	1.0	
Cr	52	74	He	998.743	ppb	0.2	3,835,781	0.4	
Mn	55	74	He	2499.307	ppb	0.5	6,691,233	1.0	
Fe	56	74	H2	50002.536	ppb	0.3	479,642,628	0.4	
Co	59	74	He	0.195	ppb	5.8	1,026	6.1	
Ni	60	74	He	992.179	ppb	0.2	1,242,896	0.3	
Cu	65	74	He	993.291	ppb	0.8	1,553,621	1.1	
Zn	66	74	He	2498.338	ppb	1.3	1,525,081	1.4	
As	75	74	He	0.158	ppb	19.4	84	13.1	
Se	78	74	H2	0.117	ppb	30.4	30	29.5	
Mo	95	103	He	0.109	ppb	11.7	166	11.1	
Ag	107	103	He	0.027	ppb	7.2	117	7.6	
Cd	111	103	He	998.662	ppb	0.1	721,572	0.4	
[Cd]	111	103	NoGas	999.576	ppb	1.0	1,874,311	0.6	
Sb	121	103	He	0.053	ppb	8.7	130	6.8	
Ba	138	159	He	2496.028	ppb	0.3	10,905,870	0.7	
W	182	159	NoGas	0.313	ppb	5.5	2,332	5.7	
Hg	201	159	NoGas	33.72	ppt	14.3	35	13.4	
Tl	205	159	He	0.005	ppb	28.4	56	18.3	
Pb	208	159	NoGas	0.169	ppb	4.0	4,360	3.5	

ISTD Table:

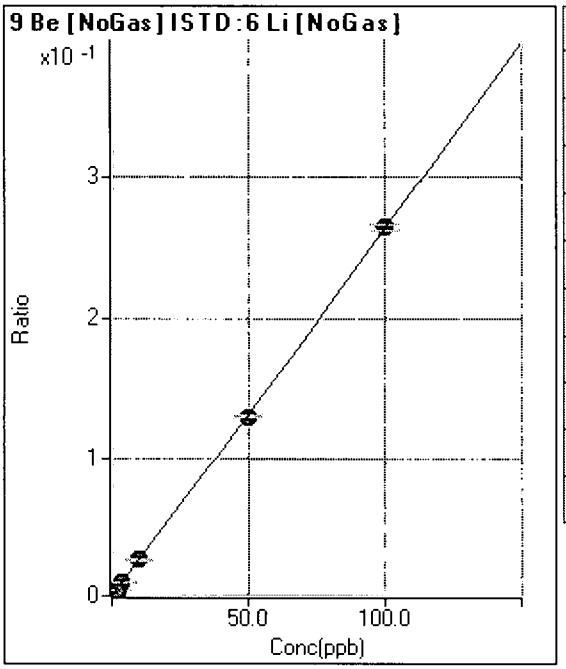
Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	998,089	0.5	1137234.76333333	Analog	87.8	
Sc	45	H2	1,791,830	0.2	2175442.43333333	Analog	82.4	
Sc	45	He	283,154	0.5	346512.113333333	Pulse	81.7	
Sc	45	NoGas	2,751,317	0.9	3249380.29333333	Analog	84.7	
Ge	74	H2	534,165	0.3	689413.513333333	Pulse	77.5	
Ge	74	He	164,133	0.5	206515.04	Pulse	79.5	
Ge	74	NoGas	690,015	0.7	873623.596666667	Pulse	79.0	
Rh	103	He	357,919	0.4	470246.54	Pulse	76.1	
Rh	103	NoGas	690,704	0.4	915357.836666667	Pulse	75.5	
Tb	159	He	547,284	0.5	642883.506666667	Pulse	85.1	
Tb	159	NoGas	1,320,245	0.4	1568165.69	Pulse	84.2	
Bi	209	He	304,227	0.3	377338.903333333	Pulse	80.6	
Bi	209	NoGas	724,667	0.4	893369.963333333	Pulse	81.1	

Calibration for 013_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\9K21029.b\
Analysis File: 9K21029.batch.bin
DA Date-Time: 11/21/2019 12:13:24
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALS.d	9K21029-CAL0	11/21/2019 11:17:44
2	004CALS.d	9K21029-CAL1	11/21/2019 11:22:46
3	005CALS.d	9K21029-CAL2	11/21/2019 11:27:43
4	006CALS.d	9K21029-CAL3	11/21/2019 11:32:41
5	007CALS.d	9K21029-CAL4	11/21/2019 11:37:39
6	008CALS.d	9K21029-CAL5	11/21/2019 11:42:35
7	009CALS.d	9K21029-CAL6	11/21/2019 11:47:30
8	010CALS.d	9K21029-CAL7	11/21/2019 11:52:23
9	011CALS.d	9K21029-CAL8	11/21/2019 11:57:12
10	012CALS.d	9K21029-CAL9	11/21/2019 12:01:49

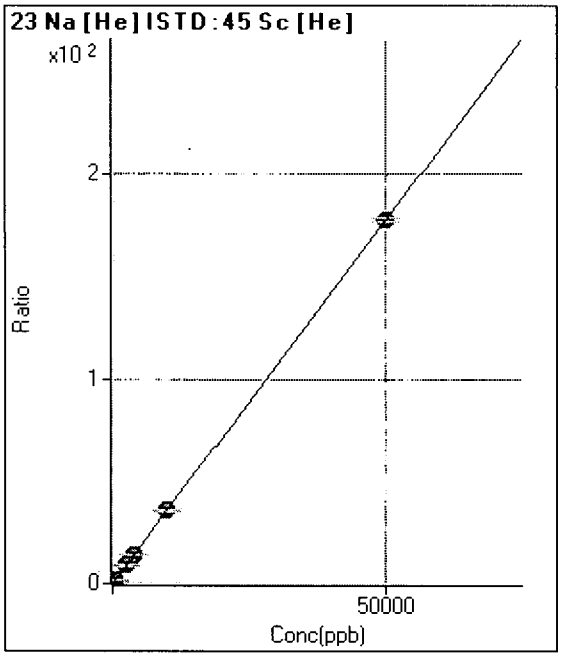
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	36	0.000	P	10.7
2	☐	0.180	0.191	622	0.001	P	11.0
3	☐	0.900	0.922	2,842	0.002	P	5.1
4	☐	1.800	1.758	5,408	0.005	P	4.4
5	☐	3.600	3.552	10,857	0.009	P	1.5
6	☐	10.000	9.958	29,491	0.026	P	3.6
7	☐	50.000	49.054	141,193	0.129	P	1.2
8	☐	100.000	100.480	271,221	0.265	P	1.3
9	☐			97	0.000	P	17.2
10	☐			64	0.000	P	21.0

y = 0.0026 * x + 3.1181E-005
R = 0.9999
DL = 0.003785
BEC = 0.01184

Weight: <None>
Min Conc: <None>

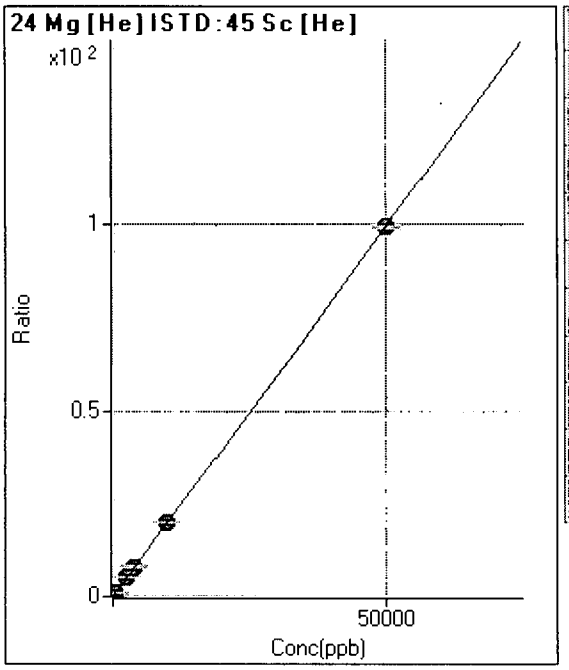


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3,516	0.010	P	3.7
2	☐			14,172	0.041	P	1.8
3	☐	45.000	44.671	58,333	0.169	P	1.3
4	☐	90.000	89.473	113,643	0.327	P	1.8
5	☐	180.000	180.473	224,166	0.650	P	0.7
6	☐	400.000	402.938	487,725	1.439	P	0.4
7	☐	2500.000	2522.084	2,932,331	8.952	A	0.7
8	☐	4000.000	4040.753	4,377,782	14.337	A	1.4
9	☐	10000.000	9939.812	10,297,064	35.252	A	0.8
10	☐	50000.000	50007.649	50,206,805	177.316	A	0.9

y = 0.0035 * x + 0.0101
R = 1.0000
DL = 0.3151
BEC = 2.861

Weight: <None>
Min Conc: <None>

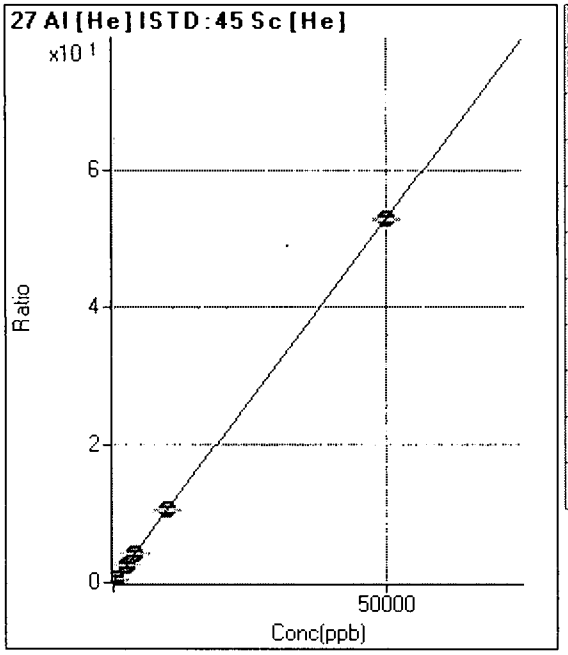
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	438	0.001	P	6.7
2	☐			6,568	0.019	P	2.9
3	☐	45.000	45.295	31,595	0.091	P	2.6
4	☐	90.000	91.008	63,229	0.182	P	1.0
5	☐	180.000	182.817	125,734	0.365	P	0.9
6	☐	400.000	406.609	274,363	0.809	P	0.7
7	☐	2500.000	2567.897	1,672,119	5.105	A	1.4
8	☐	4000.000	4103.116	2,490,431	8.156	A	1.5
9	☐	10000.000	10051.867	5,835,701	19.979	A	0.5
10	☐	50000.000	49977.917	28,124,892	99.330	A	0.9

y = 0.0020 * x + 0.0013
R = 1.0000
DL = 0.128
BEC = 0.6358

Weight: <None>
Min Conc: <None>

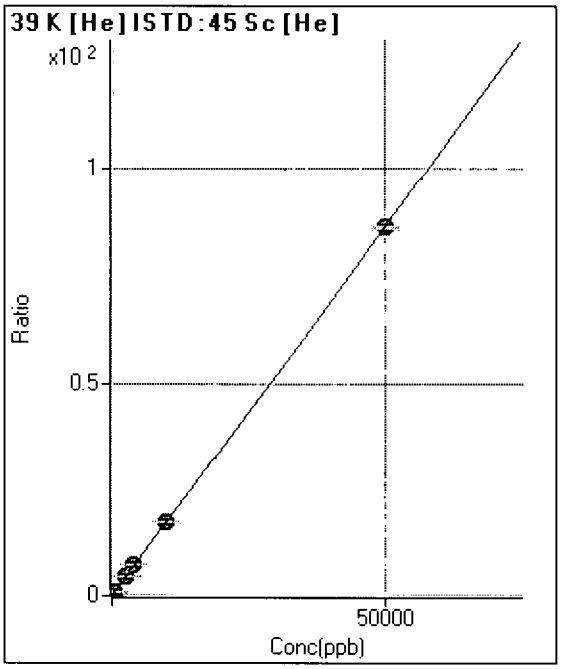


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	58	0.000	P	12.5
2	☐			3,430	0.010	P	2.6
3	☐	45.000	46.541	17,111	0.049	P	0.3
4	☐	90.000	91.486	33,681	0.097	P	1.5
5	☐	180.000	183.854	67,179	0.195	P	0.9
6	☐	400.000	406.229	145,833	0.430	P	0.5
7	☐	2500.000	2491.853	864,109	2.638	P	0.6
8	☐	4000.000	4078.357	1,318,425	4.318	A	1.3
9	☐	10000.000	9951.990	3,077,281	10.536	A	1.0
10	☐	50000.000	50003.673	14,988,614	52.935	A	0.4

y = 0.0011 * x + 1.6681E-004
R = 1.0000
DL = 0.05898
BEC = 0.1576

Weight: <None>
Min Conc: <None>

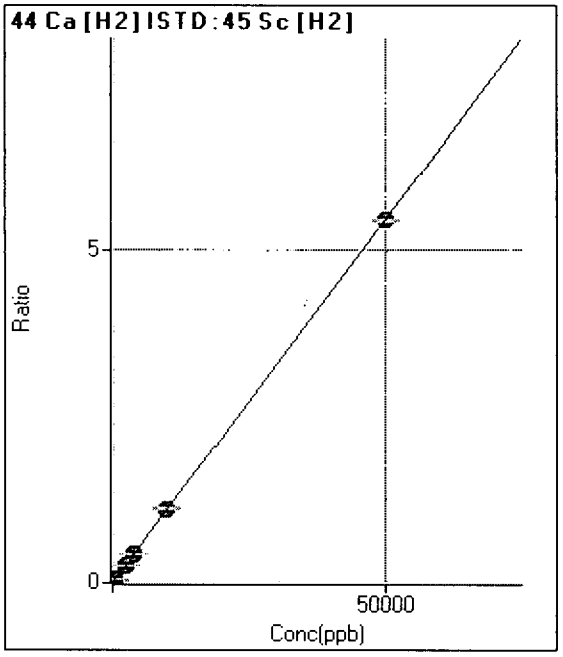
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	26,832	0.077	P	0.8
2	☐			32,322	0.093	P	1.8
3	☐	45.000	45.901	54,230	0.157	P	0.7
4	☐	90.000	90.829	81,324	0.234	P	1.1
5	☐	180.000	185.485	137,148	0.398	P	0.8
6	☐	400.000	408.433	265,304	0.783	P	0.7
7	☐	2500.000	2605.882	1,499,156	4.577	A	0.7
8	☐	4000.000	4141.223	2,207,056	7.228	A	0.4
9	☐	10000.000	10095.664	5,114,243	17.509	A	0.7
10	☐	50000.000	49964.186	24,449,760	86.347	A	0.5

y = 0.0017 * x + 0.0774
R = 1.0000
DL = 1.055
BEC = 44.85

Weight: <None>
Min Conc: <None>

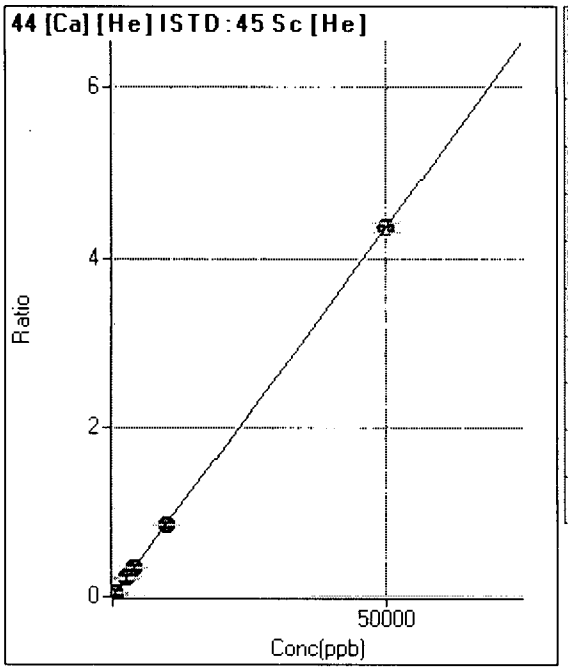


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	470	0.000	P	7.8
2	☐			2,571	0.001	P	4.7
3	☐	45.000	45.201	11,208	0.005	P	3.8
4	☐	90.000	90.755	22,124	0.010	P	1.1
5	☐	180.000	182.201	44,216	0.020	P	1.1
6	☐	400.000	399.965	95,923	0.044	P	0.8
7	☐	2500.000	2485.780	575,889	0.272	P	1.1
8	☐	4000.000	3988.682	871,050	0.436	P	0.2
9	☐	10000.000	10147.061	2,104,986	1.109	A	2.2
10	☐	50000.000	49972.195	9,786,214	5.462	A	0.5

y = 1.0929E-004 * x + 2.1617E-004
R = 1.0000
DL = 0.4612
BEC = 1.978

Weight: <None>
Min Conc: <None>

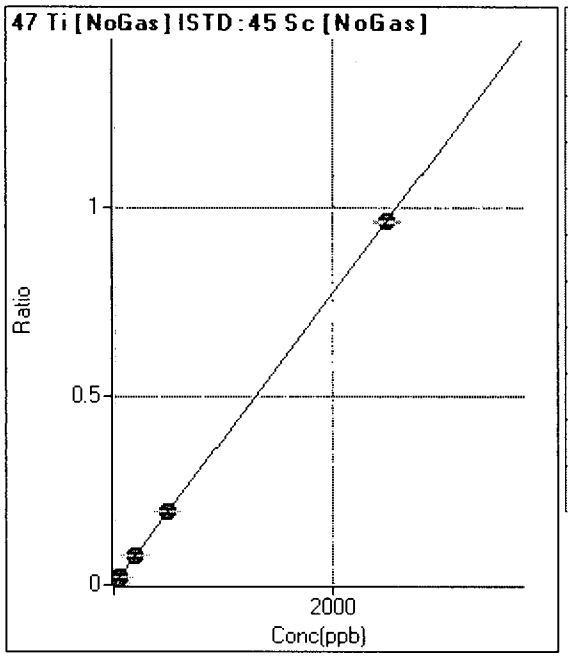
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	210	0.001	P	23.6
2	☐			487	0.001	P	4.9
3	☐	45.000	42.927	1,505	0.004	P	3.3
4	☐	90.000	83.782	2,745	0.008	P	5.1
5	☐	180.000	187.342	5,840	0.017	P	1.5
6	☐	400.000	410.165	12,322	0.036	P	2.8
7	☐	2500.000	2515.863	72,014	0.220	P	0.7
8	☐	4000.000	4028.136	107,376	0.352	P	0.6
9	☐	10000.000	9809.551	249,884	0.855	P	0.7
10	☐	50000.000	50034.951	1,234,742	4.361	A	2.6

y = 8.7147E-005 * x + 6.0629E-004
R = 1.0000
DL = 4.936
BEC = 6.957

Weight: <None>
Min Conc: <None>

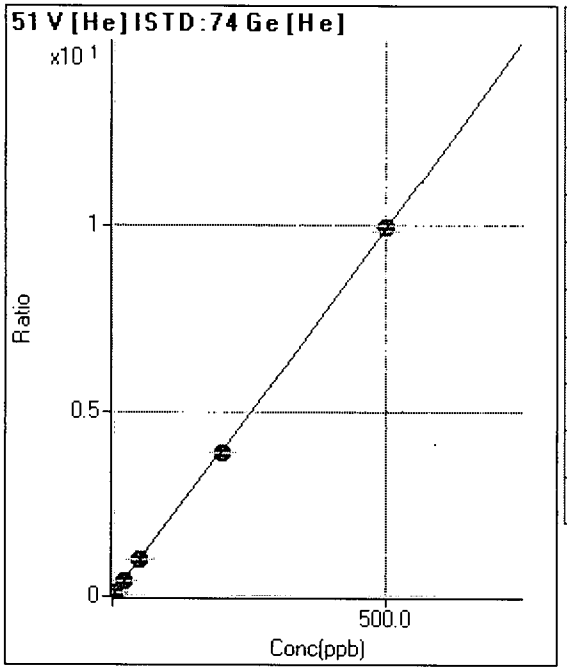


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38	0.000	P	45.3
2	☐	0.180	0.192	287	0.000	P	38.2
3	☐	0.900	0.986	1,289	0.000	P	3.5
4	☐	1.800	1.797	2,341	0.001	P	11.1
5	☐	3.600	3.725	4,797	0.001	P	4.9
6	☐	20.000	20.349	25,201	0.008	P	5.5
7	☐	50.000	50.326	60,387	0.019	P	2.0
8	☐	200.000	203.450	225,739	0.078	P	1.1
9	☐	500.000	501.746	535,305	0.193	P	0.1
10	☐	2500.000	2499.365	2,643,926	0.961	A	0.8

y = 3.8450E-004 * x + 1.1777E-005
R = 1.0000
DL = 0.04162
BEC = 0.03063

Weight: <None>
Min Conc: <None>

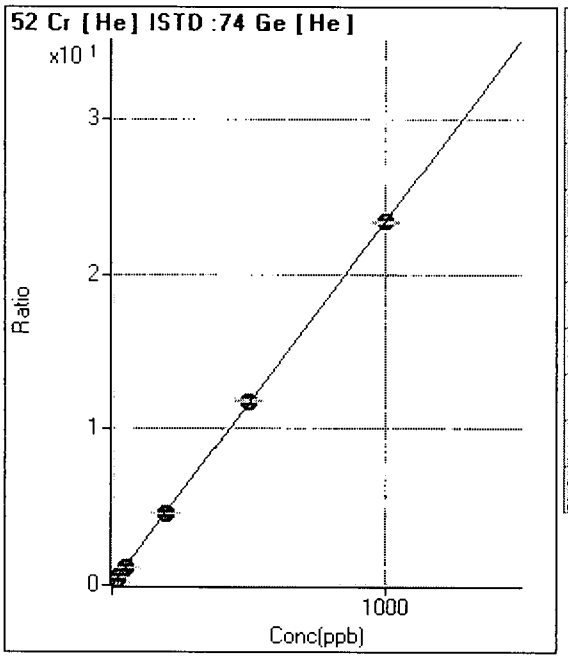
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2,355	0.011	P	3.2
2	☐	0.180	0.140	2,943	0.014	P	1.6
3	☐	0.900	0.840	5,807	0.028	P	0.7
4	☐	1.800	1.760	9,582	0.046	P	1.6
5	☐	3.600	3.514	16,688	0.081	P	0.2
6	☐	20.000	19.639	81,670	0.400	P	0.8
7	☐	50.000	49.158	192,652	0.983	P	0.8
8	☐	200.000	195.929	717,348	3.885	P	0.4
9	☐	500.000	501.728	1,731,028	9.931	A	1.7
10	☐			1,215	0.007	P	1.5

y = 0.0198 * x + 0.0114
R = 1.0000
DL = 0.05606
BEC = 0.5768

Weight: <None>
Min Conc: <None>

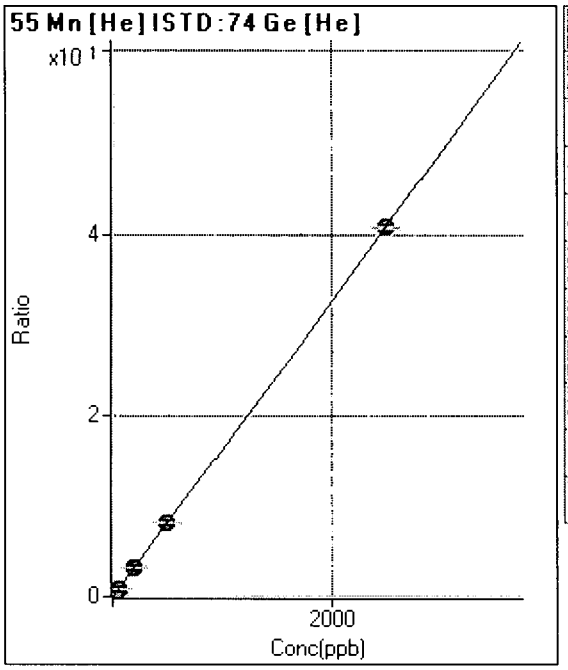


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	241	0.001	P	16.0
2	☐	0.180	0.185	1,140	0.005	P	3.9
3	☐	0.900	0.921	4,711	0.023	P	4.0
4	☐	1.800	1.782	8,890	0.043	P	1.6
5	☐	3.600	3.574	17,499	0.085	P	1.0
6	☐	20.000	19.745	94,641	0.463	P	0.7
7	☐	50.000	48.689	223,427	1.140	P	1.1
8	☐	200.000	194.016	838,434	4.541	P	0.3
9	☐	500.000	505.049	2,060,049	11.818	A	1.0
10	☐	1000.000	998.743	3,835,781	23.370	A	0.2

y = 0.0234 * x + 0.0012
R = 1.0000
DL = 0.02387
BEC = 0.04986

Weight: <None>
Min Conc: <None>

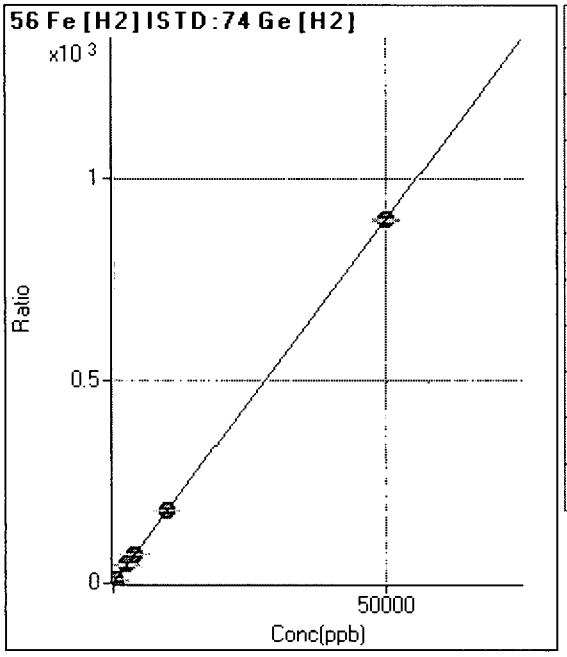
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	40	0.000	P	13.7
2	☐	0.180	0.175	632	0.003	P	1.5
3	☐	0.900	0.900	3,083	0.015	P	6.7
4	☐	1.800	1.780	6,060	0.029	P	1.9
5	☐	3.600	3.652	12,331	0.060	P	0.5
6	☐	20.000	19.954	66,540	0.326	P	1.6
7	☐	50.000	49.565	158,446	0.809	P	0.6
8	☐	200.000	196.935	593,152	3.212	P	0.6
9	☐	500.000	504.733	1,434,994	8.233	A	0.6
10	☐	2500.000	2499.307	6,691,233	40.767	A	0.5

y = 0.0163 * x + 1.9353E-004
R = 1.0000
DL = 0.004865
BEC = 0.01186

Weight: <None>
Min Conc: <None>

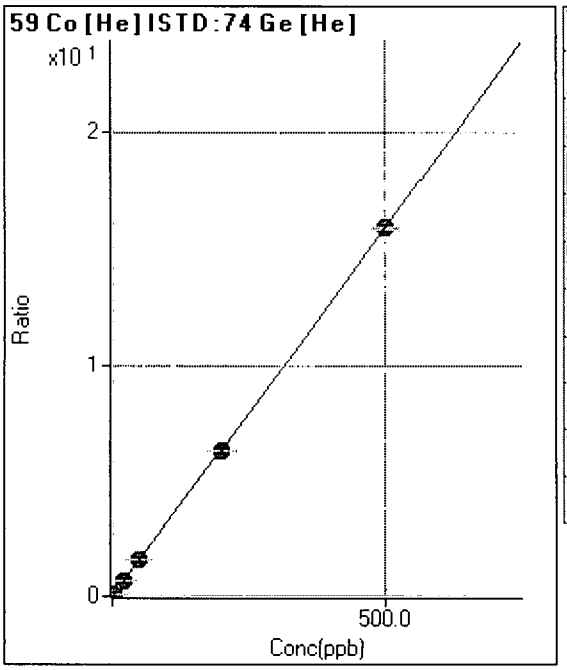


	Rjct	Conc.	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5,786	0.008	P	2.4
2	☐			118,078	0.171	P	0.6
3	☐	45.000	45.469	570,317	0.825	P	0.4
4	☐	90.000	90.866	1,126,602	1.640	P	0.4
5	☐	180.000	185.696	2,296,144	3.343	A	1.2
6	☐	400.000	407.488	5,008,594	7.326	A	0.8
7	☐	2500.000	2525.995	29,999,805	45.369	A	1.0
8	☐	4000.000	4023.960	45,369,075	72.269	A	0.8
9	☐	10000.000	9970.825	105,166,518	179.060	A	0.3
10	☐	50000.000	50002.536	479,642,628	897.930	A	0.3

y = 0.0180 * x + 0.0084
R = 1.0000
DL = 0.03368
BEC = 0.4674

Weight: <None>
Min Conc: <None>

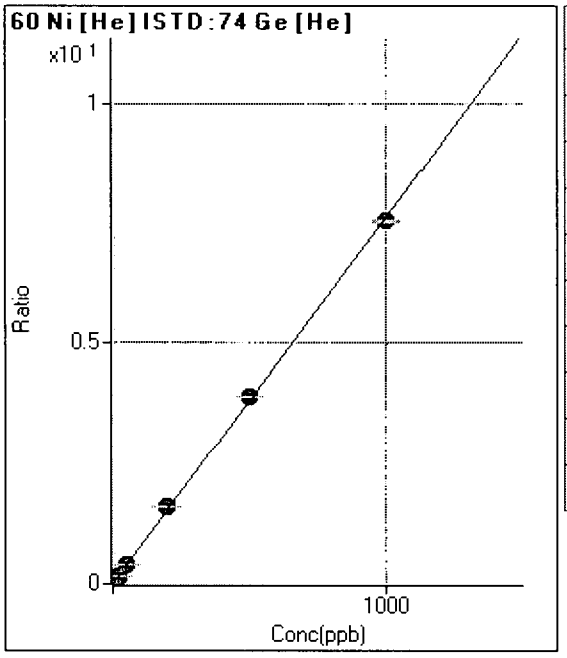
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13	0.000	P	90.0
2	☐	0.180	0.189	1,262	0.006	P	11.0
3	☐	0.900	0.915	6,043	0.029	P	1.1
4	☐	1.800	1.790	11,807	0.057	P	1.6
5	☐	3.600	3.726	24,440	0.118	P	1.2
6	☐	20.000	20.249	131,473	0.643	P	1.7
7	☐	50.000	50.053	311,607	1.590	P	0.7
8	☐	200.000	198.548	1,164,834	6.308	P	0.2
9	☐	500.000	500.565	2,772,176	15.904	A	0.6
10	☐			1,026	0.006	P	5.7

y = 0.0318 * x + 6.4350E-005
R = 1.0000
DL = 0.005466
BEC = 0.002025

Weight: <None>
Min Conc: <None>

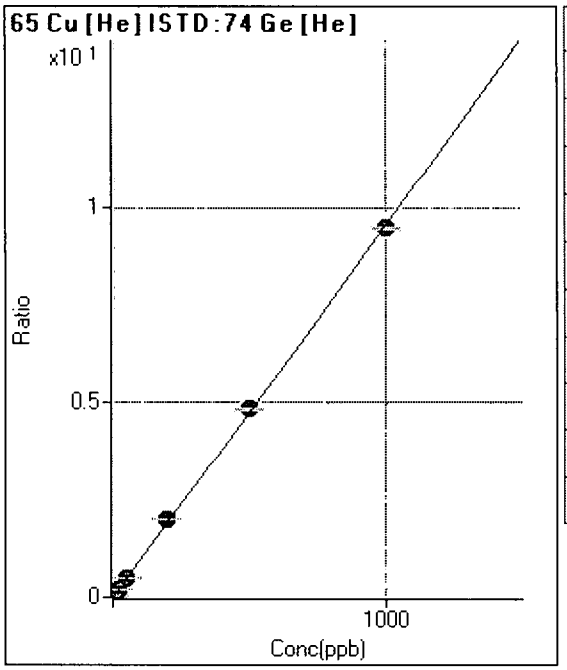


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47	0.000	P	39.4
2	☐	0.180	0.181	333	0.002	P	13.1
3	☐	0.900	0.949	1,548	0.007	P	3.2
4	☐	1.800	1.941	3,119	0.015	P	1.1
5	☐	3.600	3.843	6,099	0.030	P	0.6
6	☐	20.000	21.686	33,864	0.166	P	1.2
7	☐	50.000	53.092	79,436	0.405	P	0.3
8	☐	200.000	209.298	294,986	1.598	P	0.2
9	☐	500.000	511.544	680,538	3.904	P	0.3
10	☐	1000.000	992.179	1,242,896	7.573	P	0.2

y = 0.0076 * x + 2.2586E-004
R = 0.9999
DL = 0.03498
BEC = 0.02959

Weight: <None>
Min Conc: <None>

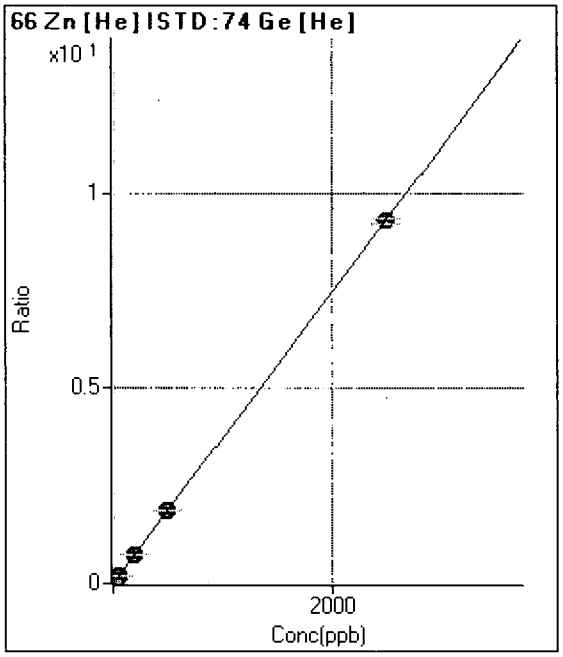
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	28	0.000	P	53.6
2	☐	0.180	0.185	393	0.002	P	10.9
3	☐	0.900	0.991	1,986	0.010	P	4.8
4	☐	1.800	1.948	3,876	0.019	P	3.2
5	☐	3.600	4.011	7,914	0.038	P	0.4
6	☐	20.000	21.817	42,508	0.208	P	0.7
7	☐	50.000	53.549	100,010	0.510	P	0.8
8	☐	200.000	208.917	367,616	1.991	P	0.6
9	☐	500.000	509.419	846,141	4.855	P	0.7
10	☐	1000.000	993.291	1,553,621	9.466	A	0.8

y = 0.0095 * x + 1.3414E-004
R = 0.9999
DL = 0.02263
BEC = 0.01408

Weight: <None>
Min Conc: <None>

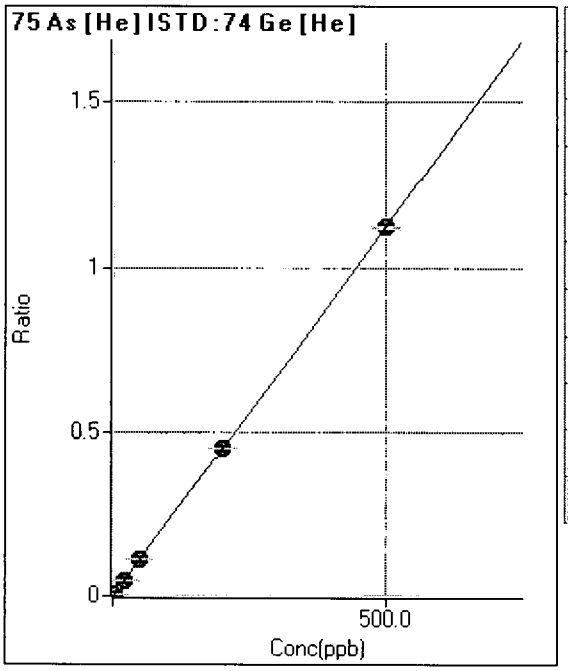


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	24	0.000	P	8.8
2	☐	0.180	0.145	137	0.001	P	18.2
3	☐	0.900	0.906	723	0.003	P	2.4
4	☐	1.800	1.970	1,543	0.007	P	6.1
5	☐	3.600	3.810	2,949	0.014	P	4.3
6	☐	20.000	20.741	15,785	0.077	P	1.7
7	☐	50.000	51.013	37,194	0.190	P	1.6
8	☐	200.000	202.902	139,360	0.755	P	0.3
9	☐	500.000	507.014	328,691	1.886	P	0.3
10	☐	2500.000	2498.338	1,525,081	9.292	A	1.3

y = 0.0037 * x + 1.1842E-004
R = 1.0000
DL = 0.008382
BEC = 0.03184

Weight: <None>
Min Conc: <None>

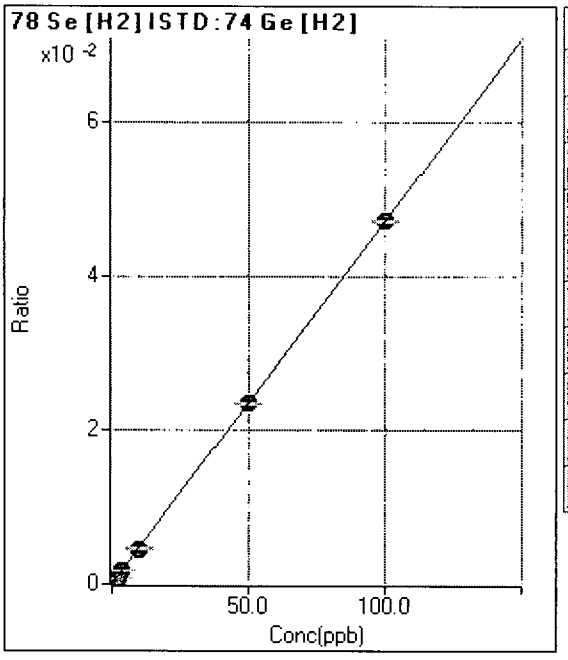
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	32	0.000	P	8.1
2	☐	0.180	0.196	124	0.001	P	11.1
3	☐	0.900	0.956	477	0.002	P	1.9
4	☐	1.800	1.802	872	0.004	P	0.6
5	☐	3.600	3.581	1,692	0.008	P	2.7
6	☐	20.000	20.584	9,479	0.046	P	1.8
7	☐	50.000	50.452	22,236	0.113	P	0.4
8	☐	200.000	200.425	83,160	0.450	P	0.3
9	☐	500.000	499.761	195,705	1.123	P	0.5
10	☐			84	0.001	P	13.5

y = 0.0022 * x + 1.5494E-004
R = 1.0000
DL = 0.01671
BEC = 0.06898

Weight: <None>
Min Conc: <None>

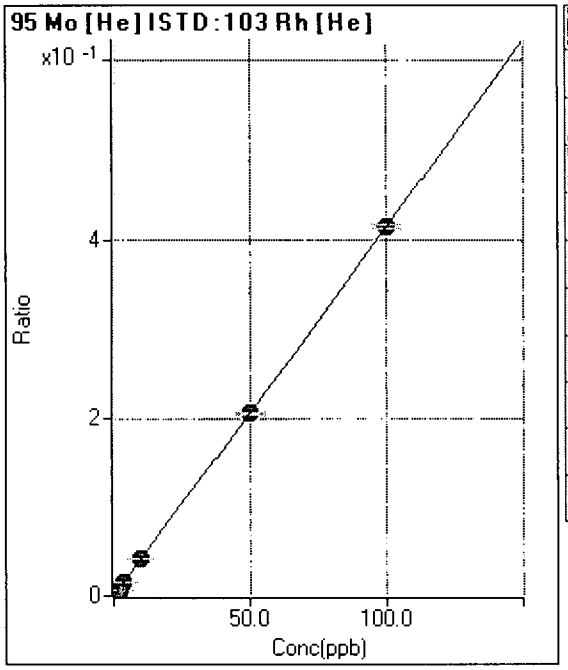


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1	0.000	P	173.2
2	☐	0.180	0.184	61	0.000	P	16.4
3	☐	0.900	0.883	288	0.000	P	9.5
4	☐	1.800	1.824	590	0.001	P	1.2
5	☐	3.600	3.669	1,187	0.002	P	2.5
6	☐	10.000	9.813	3,156	0.005	P	0.7
7	☐	50.000	49.715	15,459	0.023	P	1.6
8	☐	100.000	100.158	29,569	0.047	P	0.9
9	☐			41	0.000	P	10.8
10	☐			30	0.000	P	29.4

y = 4.7024E-004 * x + 1.9369E-006
R = 1.0000
DL = 0.0214
BEC = 0.004119

Weight: <None>
Min Conc: <None>

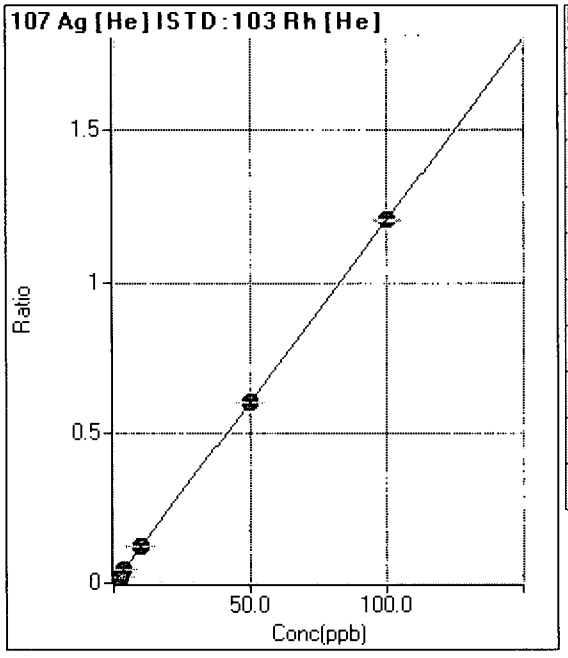
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4	0.000	P	114.4
2	☐	0.180	0.176	347	0.001	P	16.3
3	☐	0.900	0.882	1,718	0.004	P	4.1
4	☐	1.800	1.728	3,364	0.007	P	5.8
5	☐	3.600	3.524	6,844	0.015	P	2.1
6	☐	10.000	10.021	19,078	0.042	P	0.5
7	☐	50.000	49.814	90,973	0.207	P	0.9
8	☐	100.000	100.095	172,743	0.415	P	0.9
9	☐			199	0.001	P	11.3
10	☐			166	0.000	P	11.5

y = 0.0041 * x + 9.4044E-006
R = 1.0000
DL = 0.007785
BEC = 0.002268

Weight: <None>
Min Conc: <None>

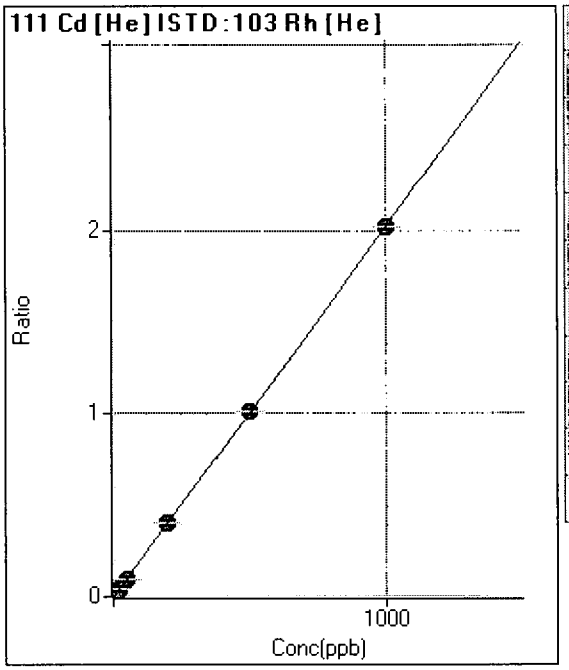


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1	0.000	P	173.2
2	☐	0.180	0.175	989	0.002	P	11.9
3	☐	0.900	0.896	5,058	0.011	P	0.2
4	☐	1.800	1.809	10,214	0.022	P	0.5
5	☐	3.600	3.569	20,119	0.043	P	0.5
6	☐	10.000	10.100	55,849	0.122	P	1.6
7	☐	50.000	49.733	263,811	0.599	P	0.3
8	☐	100.000	100.125	501,918	1.206	P	0.3
9	☐			107	0.000	P	22.2
10	☐			117	0.000	P	7.2

y = 0.0120 * x + 2.3587E-006
R = 1.0000
DL = 0.001018
BEC = 0.0001959

Weight: <None>
Min Conc: <None>

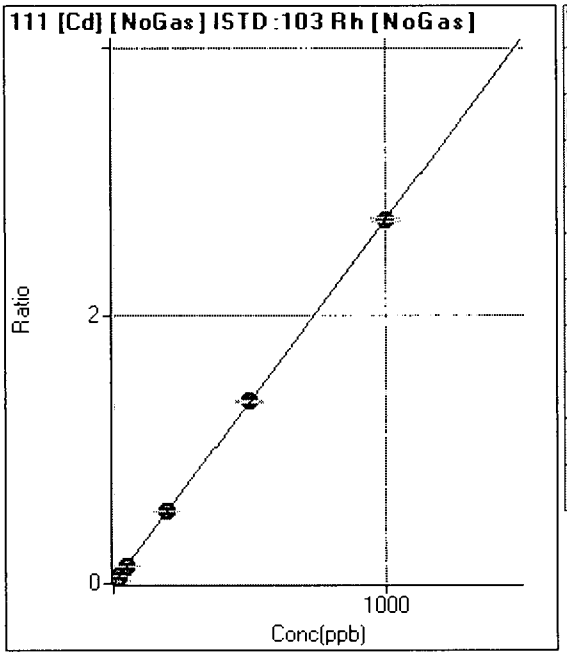
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3	0.000	P	57.6
2	☐	0.180	0.193	186	0.000	P	3.0
3	☐	0.900	0.849	806	0.002	P	1.3
4	☐	1.800	1.754	1,663	0.004	P	3.5
5	☐	3.600	3.503	3,313	0.007	P	1.2
6	☐	20.000	19.742	18,299	0.040	P	1.0
7	☐	50.000	49.396	43,925	0.100	P	0.3
8	☐	200.000	200.267	168,286	0.404	P	0.4
9	☐	500.000	502.641	395,442	1.015	P	0.3
10	☐	1000.000	998.662	721,572	2.016	P	0.1

y = 0.0020 * x + 5.6769E-006
R = 1.0000
DL = 0.004861
BEC = 0.002812

Weight: <None>
Min Conc: <None>

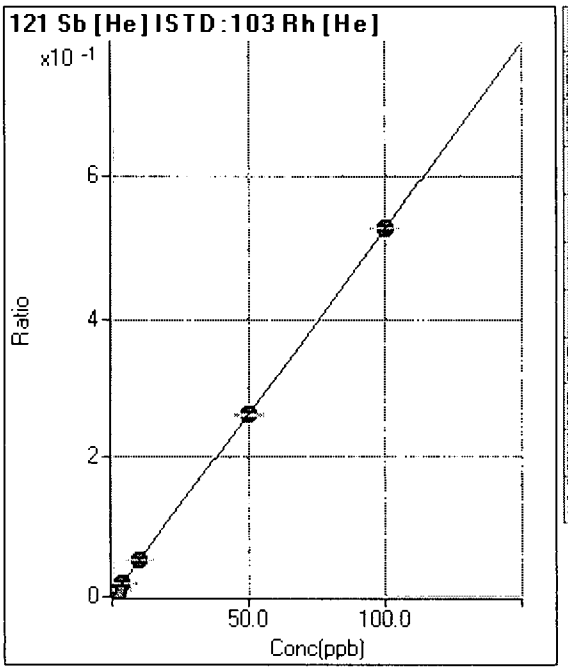


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-4	0.000	P	-312.5
2	☐	0.180	0.172	425	0.000	P	20.6
3	☐	0.900	0.870	2,157	0.002	P	6.9
4	☐	1.800	1.748	4,334	0.005	P	6.7
5	☐	3.600	3.561	8,795	0.010	P	2.9
6	☐	20.000	20.058	48,069	0.054	P	5.9
7	☐	50.000	48.362	110,970	0.131	P	0.4
8	☐	200.000	200.008	428,154	0.543	P	0.2
9	☐	500.000	501.007	1,012,047	1.360	P	0.3
10	☐	1000.000	999.576	1,874,311	2.714	A	1.0

y = 0.0027 * x - 4.7793E-006
R = 1.0000
DL = 0.0165
BEC = -0.00176

Weight: <None>
Min Conc: <None>

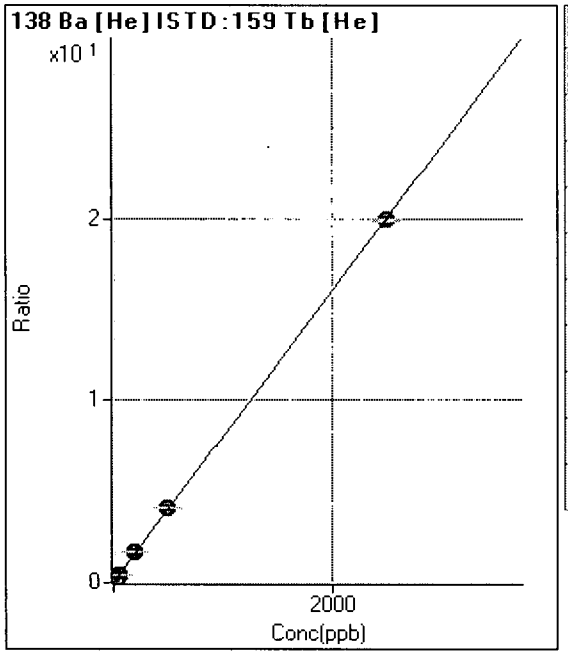
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40	0.000	P	59.6
2	☐	0.180	0.160	434	0.001	P	1.8
3	☐	0.900	0.882	2,211	0.005	P	1.7
4	☐	1.800	1.819	4,516	0.010	P	3.6
5	☐	3.600	3.535	8,725	0.019	P	2.7
6	☐	10.000	10.027	24,204	0.053	P	1.5
7	☐	50.000	49.651	114,853	0.261	P	0.2
8	☐	100.000	100.174	218,948	0.526	P	0.1
9	☐			412	0.001	P	10.7
10	☐			130	0.000	P	6.7

y = 0.0052 * x + 8.4928E-005
R = 1.0000
DL = 0.02891
BEC = 0.01618

Weight: <None>
Min Conc: <None>

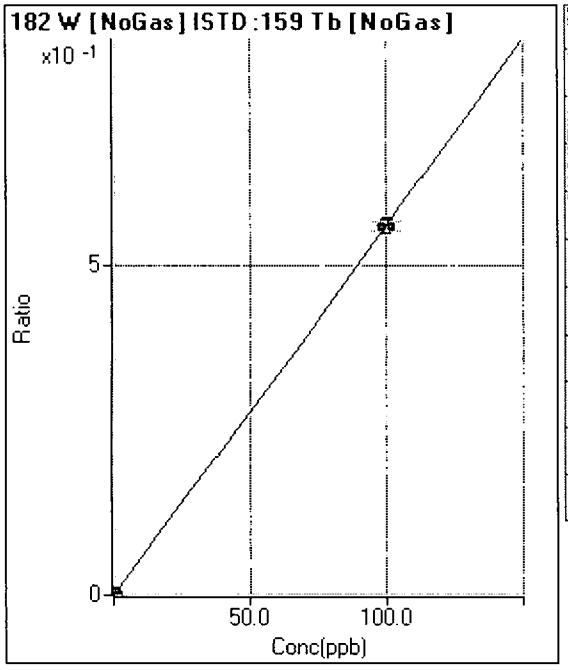


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	88	0.000	P	13.7
2	☐	0.180	0.176	989	0.002	P	11.0
3	☐	0.900	0.942	4,925	0.008	P	2.5
4	☐	1.800	1.896	9,820	0.015	P	1.4
5	☐	3.600	3.820	19,631	0.031	P	1.4
6	☐	20.000	21.271	108,487	0.170	P	0.6
7	☐	50.000	52.632	262,820	0.420	P	0.3
8	☐	200.000	207.758	1,002,880	1.659	P	0.3
9	☐	500.000	516.443	2,397,581	4.123	A	0.5
10	☐	2500.000	2496.028	10,905,870	19.927	A	0.3

y = 0.0080 * x + 1.3659E-004
R = 1.0000
DL = 0.007044
BEC = 0.01711

Weight: <None>
Min Conc: <None>

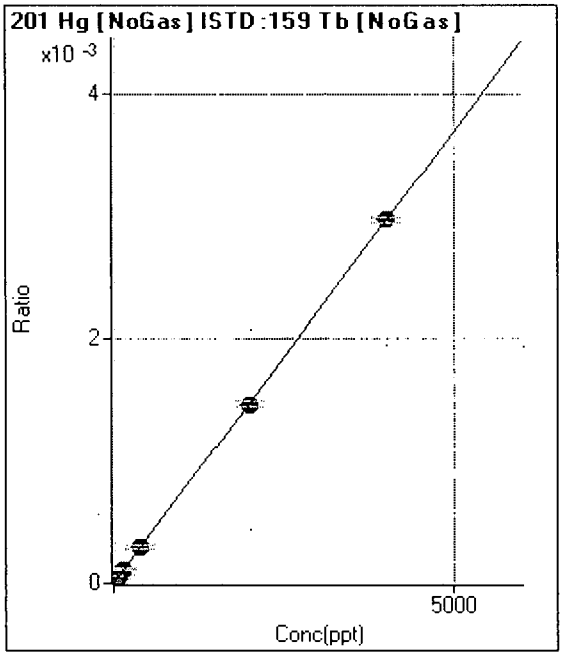
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	21	0.000	P	90.1
2	☐			24	0.000	P	27.3
3	☐			14	0.000	P	74.8
4	☐			32	0.000	P	11.5
5	☐			28	0.000	P	25.1
6	☐			41	0.000	P	45.8
7	☐			133	0.000	P	29.5
8	☐			196	0.000	P	8.9
9	☐	100.000	100.000	792,335	0.560	P	2.3
10	☐			2,332	0.002	P	5.5

y = 0.0056 * x + 1.3204E-005
R = 1.0000
DL = 0.006382
BEC = 0.00236

Weight: <None>
Min Conc: <None>

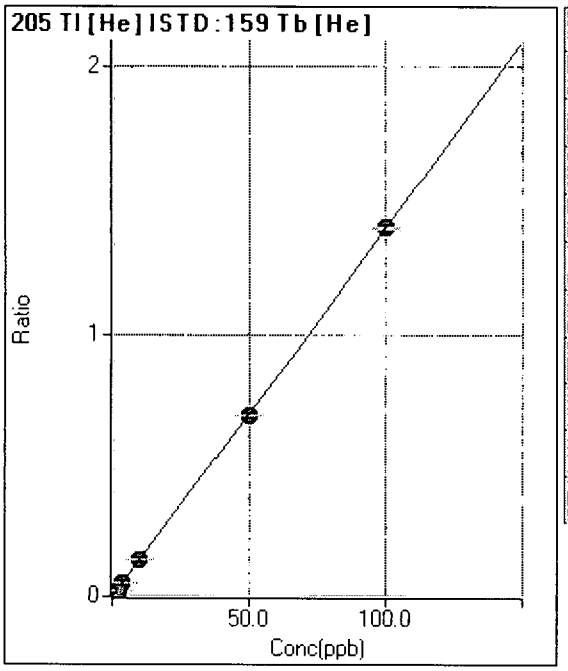


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.458	3	0.000	P	30.9
2	☐			12	0.000	P	20.6
3	☐	36.000	38.193	47	0.000	P	12.2
4	☐	72.000	75.727	91	0.000	P	3.1
5	☐	144.000	152.314	181	0.000	P	7.9
6	☐	400.000	394.837	450	0.000	P	12.0
7	☐	2000.000	1980.680	2,234	0.001	P	2.9
8	☐	4000.000	4009.790	4,352	0.003	P	1.7
9	☐			91	0.000	P	9.5
10	☐			35	0.000	P	13.4

y = 7.405709E-007 * x + 1.788087E-006
R = 1.0000
DL = 2.663
BEC = 2.414

Weight: <None>
Min Conc: <None>

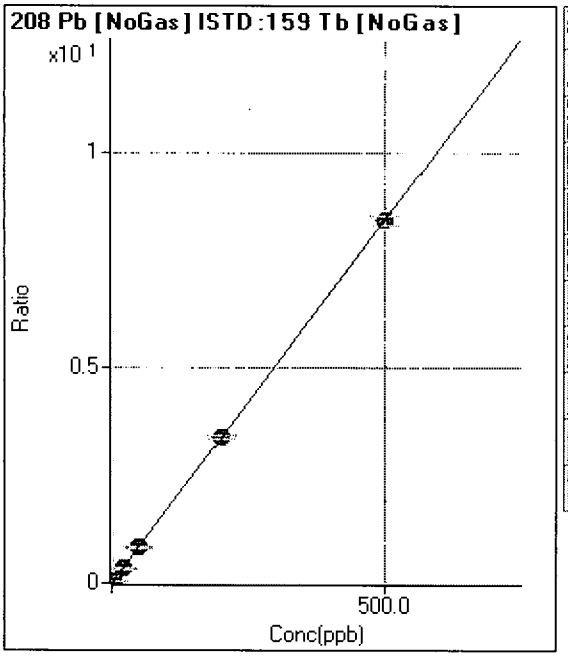
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23	0.000	P	38.0
2	☐	0.180	0.185	1,672	0.003	P	5.0
3	☐	0.900	0.887	7,962	0.012	P	4.3
4	☐	1.800	1.796	16,112	0.025	P	3.3
5	☐	3.600	3.596	32,122	0.050	P	1.0
6	☐	10.000	10.011	89,025	0.139	P	0.7
7	☐	50.000	49.449	430,678	0.689	P	0.3
8	☐	100.000	100.275	844,414	1.397	P	0.4
9	☐			309	0.001	P	10.2
10	☐			56	0.000	P	18.3

y = 0.0139 * x + 3.6317E-005
R = 1.0000
DL = 0.002974
BEC = 0.002607

Weight: <None>
Min Conc: <None>

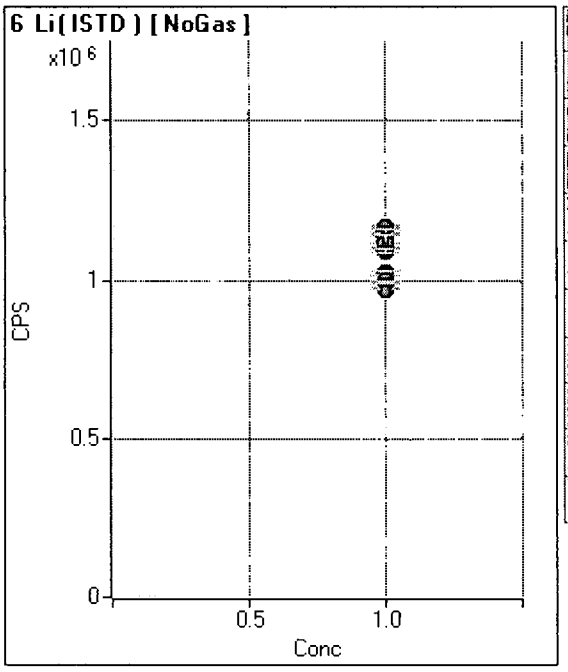


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	707	0.000	P	6.8
2	☐	0.180	0.180	5,455	0.003	P	3.3
3	☐	0.900	0.901	24,620	0.016	P	2.8
4	☐	1.800	1.782	48,113	0.030	P	1.1
5	☐	3.600	3.608	96,779	0.061	P	1.1
6	☐	20.000	20.233	523,049	0.341	P	5.4
7	☐	50.000	49.165	1,261,026	0.829	P	1.5
8	☐	200.000	201.181	4,965,580	3.390	A	1.7
9	☐	500.000	499.602	11,921,816	8.419	A	2.3
10	☐			4,360	0.003	P	3.5

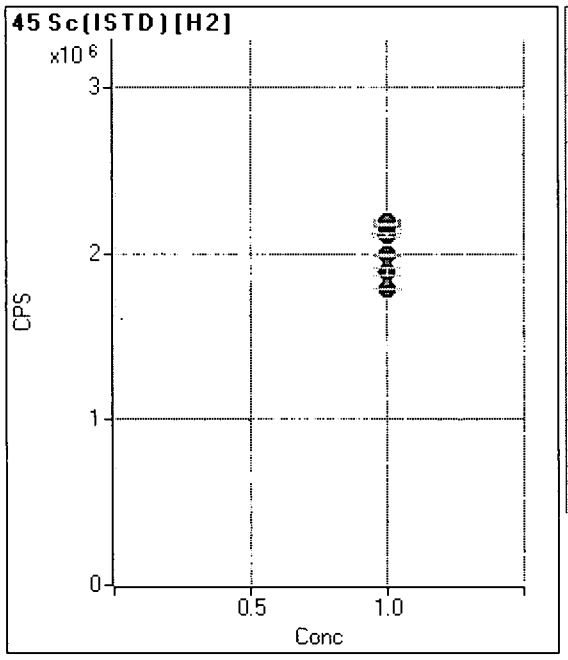
y = 0.0169 * x + 4.5144E-004
R = 1.0000
DL = 0.005436
BEC = 0.02679

Weight: <None>
Min Conc: <None>

Calibration for 013_ICV.d

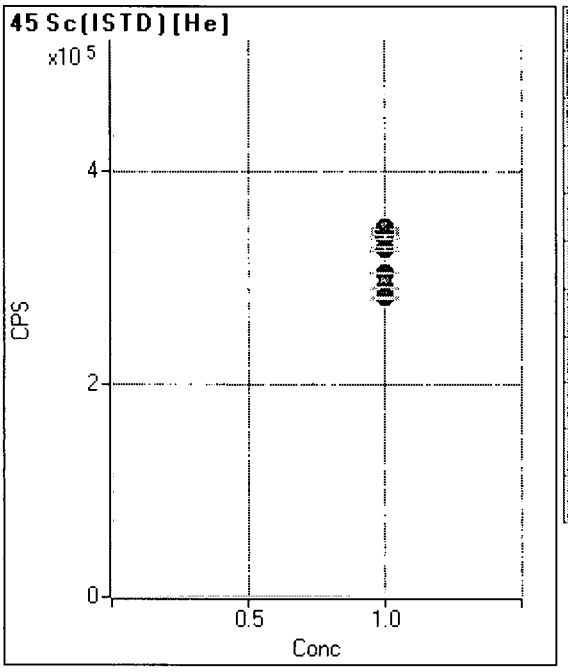


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		1,137,235		A	3.9
2	☐	1.000		1,165,020		A	1.1
3	☐	1.000		1,155,422		A	1.6
4	☐	1.000		1,159,394		A	0.2
5	☐	1.000		1,156,117		A	1.2
6	☐	1.000		1,123,643		A	3.1
7	☐	1.000		1,092,356		A	0.8
8	☐	1.000		1,024,593		A	1.6
9	☐	1.000		978,597		A	0.9
10	☐	1.000		998,089		A	0.5

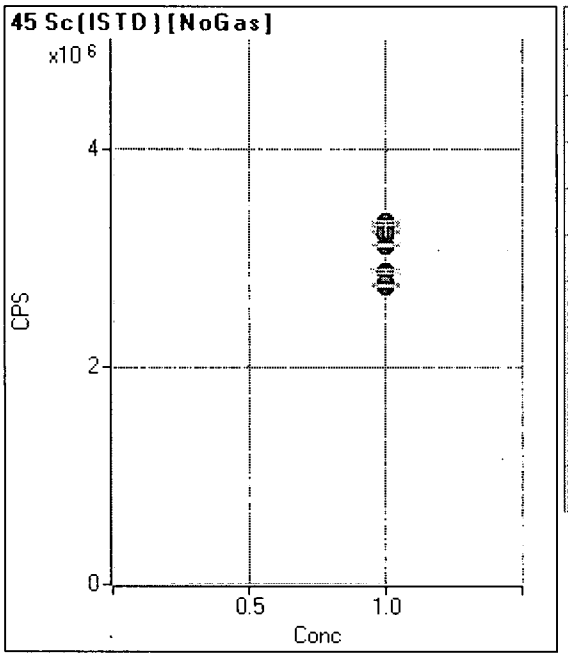


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		2,175,442		A	1.1
2	☐	1.000		2,196,521		A	0.9
3	☐	1.000		2,173,832		A	0.3
4	☐	1.000		2,182,914		A	0.8
5	☐	1.000		2,196,678		A	0.5
6	☐	1.000		2,183,739		A	0.7
7	☐	1.000		2,118,375		A	1.5
8	☐	1.000		1,997,223		A	0.1
9	☐	1.000		1,898,353		A	2.0
10	☐	1.000		1,791,830		A	0.2

Calibration for 013_ICV.d

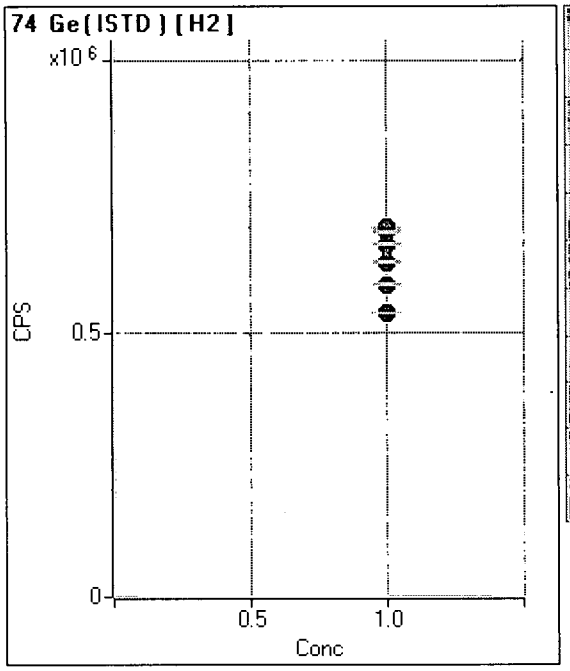


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		346,512		P	0.5
2	☐	1.000		347,378		P	0.6
3	☐	1.000		346,112		P	0.8
4	☐	1.000		347,165		P	0.9
5	☐	1.000		344,872		P	1.0
6	☐	1.000		338,989		P	0.7
7	☐	1.000		327,560		P	0.8
8	☐	1.000		305,355		P	0.2
9	☐	1.000		292,101		P	0.9
10	☐	1.000		283,154		P	0.5

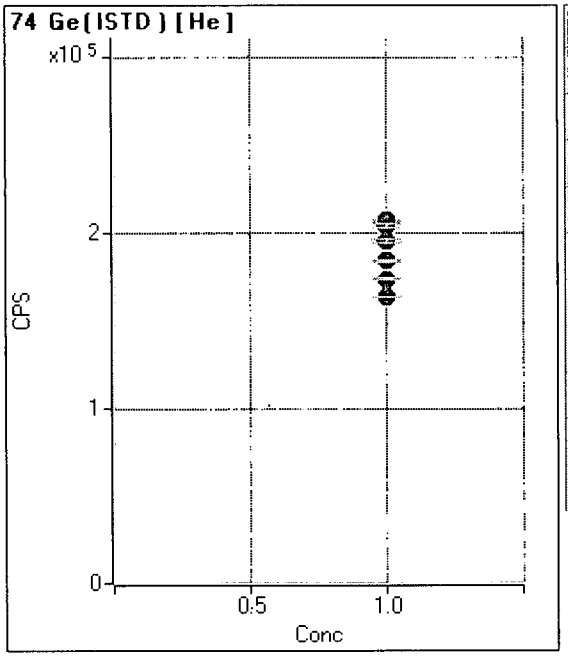


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		3,249,380		A	0.8
2	☐	1.000		3,339,534		A	0.6
3	☐	1.000		3,298,587		A	0.6
4	☐	1.000		3,330,523		A	1.0
5	☐	1.000		3,322,682		A	1.1
6	☐	1.000		3,222,040		A	5.1
7	☐	1.000		3,118,865		A	0.4
8	☐	1.000		2,885,536		A	1.1
9	☐	1.000		2,774,579		A	0.6
10	☐	1.000		2,751,317		A	0.9

Calibration for 013_ICV.d

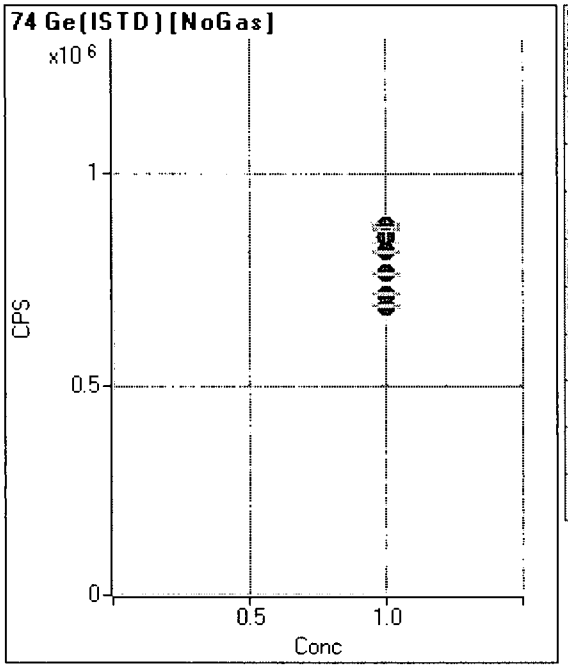


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		689,414		P	0.9
2	☐	1.000		689,785		P	0.4
3	☐	1.000		691,379		P	0.0
4	☐	1.000		686,905		P	0.3
5	☐	1.000		686,844		P	0.1
6	☐	1.000		683,701		P	0.6
7	☐	1.000		661,240		P	0.6
8	☐	1.000		627,795		P	0.5
9	☐	1.000		587,322		P	0.5
10	☐	1.000		534,165		P	0.3

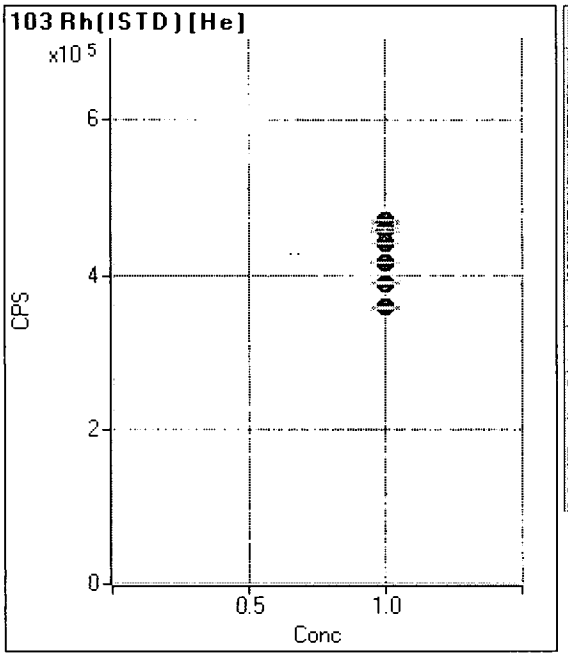


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		206,515		P	0.9
2	☐	1.000		207,697		P	0.7
3	☐	1.000		207,321		P	0.9
4	☐	1.000		207,372		P	0.8
5	☐	1.000		206,339		P	0.7
6	☐	1.000		204,339		P	1.0
7	☐	1.000		195,932		P	0.8
8	☐	1.000		184,646		P	0.5
9	☐	1.000		174,302		P	0.5
10	☐	1.000		164,133		P	0.5

Calibration for 013_ICV.d

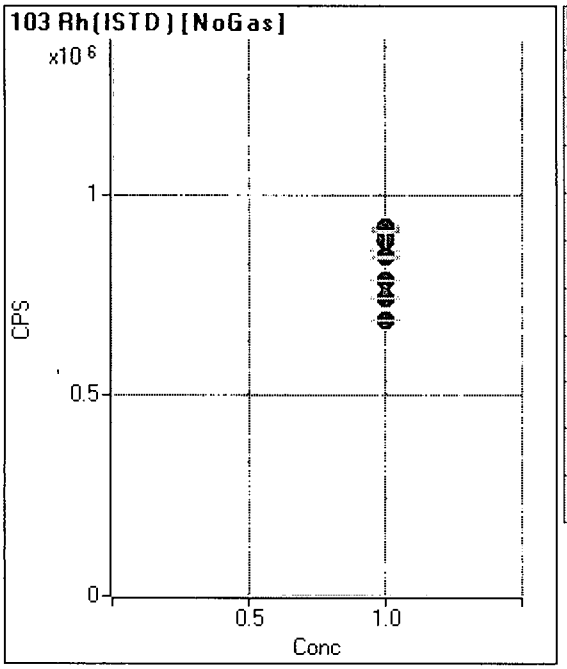


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		873,624		P	0.7
2*	☐	1.000		874,882		P	0.7
3*	☐	1.000		877,235		P	1.3
4	☐	1.000		878,299		P	1.0
5	☐	1.000		872,571		P	0.8
6	☐	1.000		850,446		P	3.2
7	☐	1.000		818,215		P	0.6
8	☐	1.000		766,435		P	0.2
9	☐	1.000		718,643		P	0.5
10	☐	1.000		690,015		P	0.7

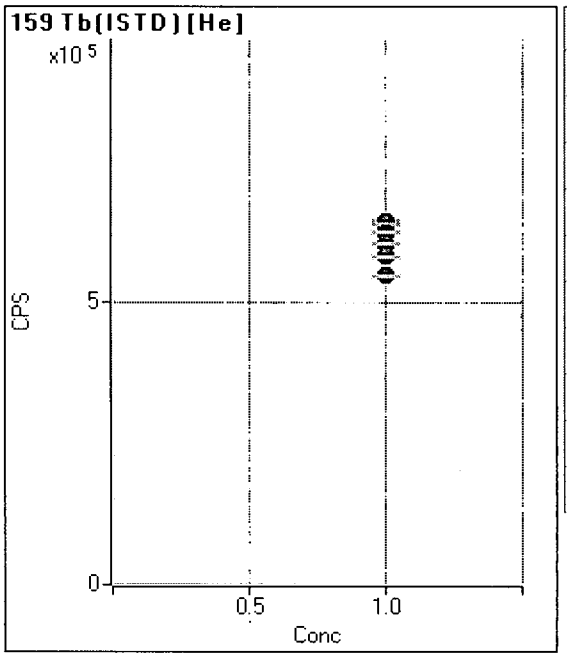


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		470,247		P	0.6
2	☐	1.000		469,553		P	0.6
3	☐	1.000		468,691		P	0.6
4	☐	1.000		468,868		P	0.6
5	☐	1.000		468,041		P	1.0
6	☐	1.000		459,104		P	0.9
7	☐	1.000		440,472		P	0.2
8	☐	1.000		416,253		P	0.1
9	☐	1.000		389,715		P	0.4
10	☐	1.000		357,919		P	0.4

Calibration for 013_ICV.d

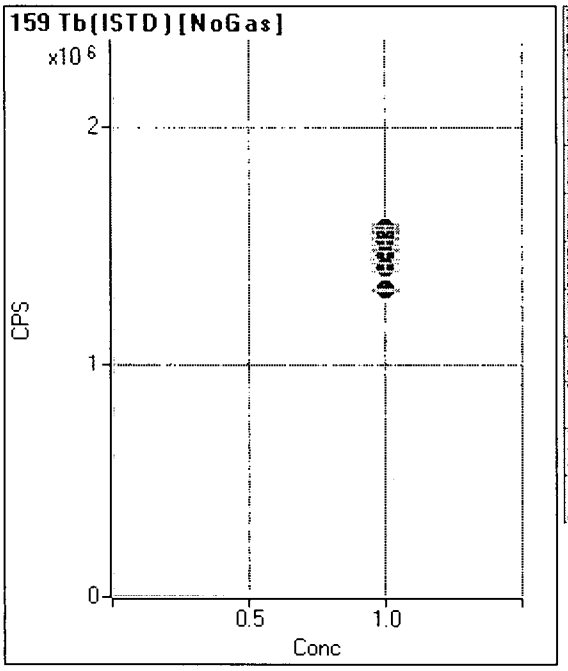


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		915,358		P	0.7
2	☐	1.000		918,094		P	0.4
3	☐	1.000		914,554		P	0.1
4	☐	1.000		914,032		P	0.1
5	☐	1.000		910,385		P	0.3
6	☐	1.000		884,501		P	4.9
7	☐	1.000		845,242		P	0.4
8	☐	1.000		788,520		P	0.4
9	☐	1.000		744,071		P	0.2
10	☐	1.000		690,704		P	0.4

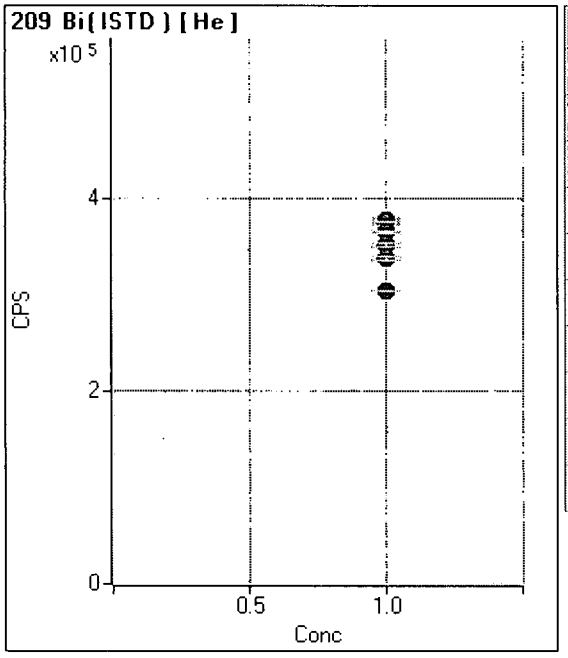


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		642,884		P	0.4
2	☐	1.000		641,030		P	0.4
3	☐	1.000		642,976		P	1.1
4	☐	1.000		643,058		P	0.9
5	☐	1.000		640,956		P	1.5
6	☐	1.000		638,332		P	0.5
7	☐	1.000		625,284		P	0.6
8	☐	1.000		604,602		P	0.8
9	☐	1.000		581,483		P	0.6
10	☐	1.000		547,284		P	0.5

Calibration for 013_ICV.d

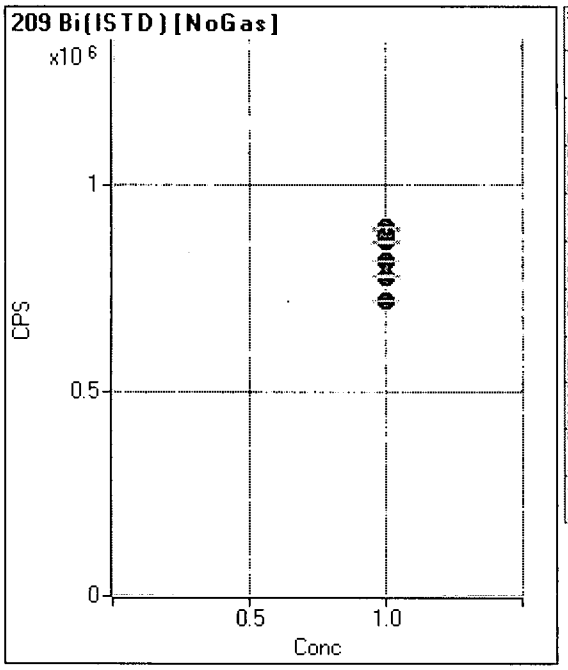


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		1,568,166		A	3.9
2	☐	1.000		1,567,039		A	1.4
3	☐	1.000		1,574,431		A	1.5
4	☐	1.000		1,578,401		A	0.7
5	☐	1.000		1,580,251		A	1.1
6	☐	1.000		1,535,105		A	5.3
7	☐	1.000		1,521,608		A	1.7
8	☐	1.000		1,464,905		A	1.9
9	☐	1.000		1,416,641		A	2.5
10	☐	1.000		1,320,245		P	0.4



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		377,339		P	0.3
2	☐	1.000		373,980		P	0.8
3	☐	1.000		375,819		P	1.5
4	☐	1.000		377,750		P	1.4
5	☐	1.000		375,509		P	1.1
6	☐	1.000		374,974		P	1.1
7	☐	1.000		365,886		P	0.6
8	☐	1.000		352,424		P	0.9
9	☐	1.000		338,409		P	0.8
10	☐	1.000		304,227		P	0.3

Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		893,370		P	0.4
2	☐	1.000		899,193		P	0.1
3	☐	1.000		893,785		P	0.4
4	☐	1.000		897,668		P	0.1
5	☐	1.000		898,747		P	0.9
6	☐	1.000		883,562		P	4.4
7	☐	1.000		866,062		P	0.5
8	☐	1.000		819,530		P	0.1
9	☐	1.000		782,650		P	0.4
10	☐	1.000		724,667		P	0.4

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K21029-ICV1**	Total Dilution:	**1.0000**
File Name:	013_ICV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	ICV
Acq Time:	11/21/2019 12:10:40	I.S. Reference File:	003CALS.d
Comment:	**A19J138 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.980	ppb	1.7	106,243	40	99.95	
Na	23	45	He	3984.373	ppb	1.1	4,226,609	4000	99.61	
Mg	24	45	He	4241.433	ppb	2.0	2,520,579	4000	106.04	
Al	27	45	He	4098.430	ppb	1.4	1,297,219	4000	102.46	
K	39	45	He	4211.454	ppb	0.9	2,197,177	4000	105.29	
Ca	44	45	H2	4091.378	ppb	0.3	854,227	4000	102.28	
[Ca]	44	45	He	4100.666	ppb	0.5	107,025	4000	102.52	
Ti	47	45	NoGas	100.860	ppb	0.6	109,721	100	100.86	
V	51	74	He	97.046	ppb	0.4	349,033	100	97.05	
Cr	52	74	He	97.844	ppb	0.4	414,229	100	97.84	
Mn	55	74	He	102.493	ppb	0.3	302,357	100	102.49	
Fe	56	74	H2	4123.664	ppb	0.2	44,917,554	4000	103.09	
Co	59	74	He	102.122	ppb	0.3	586,781	100	102.12	
Ni	60	74	He	107.417	ppb	0.5	148,294	100	107.42	
Cu	65	74	He	105.544	ppb	0.4	181,911	100	105.54	
Zn	66	74	He	101.562	ppb	0.9	68,326	100	101.56	
As	75	74	He	99.039	ppb	0.9	40,260	100	99.04	
Se	78	74	H2	40.747	ppb	1.6	11,622	40	101.87	
Mo	95	103	He	40.412	ppb	1.4	67,656	40	101.03	
Ag	107	103	He	41.149	ppb	1.0	200,102	40	102.87	
Cd	111	103	He	100.045	ppb	0.7	81,555	100	100.04	
[Cd]	111	103	NoGas	99.170	ppb	0.5	205,526	100	99.17	
Sb	121	103	He	40.827	ppb	1.4	86,585	40	102.07	
Ba	138	159	He	104.899	ppb	0.6	500,342	100	104.9	
Hg	201	159	NoGas	832.106	ppt	1.5	881	800	104.01	
Tl	205	159	He	40.594	ppb	0.3	337,763	40	101.48	
Pb	208	159	NoGas	101.488	ppb	1.7	2,439,545	100	101.49	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.7	1,008,574	1137234.76333333	88.7	
Sc	45	H2	Analog	1.2	1,909,557	2175442.43333333	87.8	
Sc	45	He	Pulse	0.4	298,979	346512.113333333	86.3	
Sc	45	NoGas	Analog	0.6	2,828,501	3249380.29333333	87.0	
Ge	74	H2	Pulse	0.5	606,506	689413.513333333	88.0	
Ge	74	He	Pulse	0.7	180,842	206515.04	87.6	
Ge	74	NoGas	Pulse	0.6	740,021	873623.596666667	84.7	
Rh	103	He	Pulse	0.6	403,809	470246.54	85.9	
Rh	103	NoGas	Pulse	0.7	763,405	915357.836666667	83.4	
Tb	159	He	Pulse	0.2	597,359	642883.506666667	92.9	
Tb	159	NoGas	Analog	1.4	1,426,414	1568165.69	91.0	
Bi	209	He	Pulse	0.3	348,930	377338.903333333	92.5	
Bi	209	NoGas	Pulse	0.8	813,590	893369.963333333	91.1	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K21029-ICB1**	Total Dilution:	**1.0000**
File Name:	014_ICB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	ICB
Acq Time:	11/21/2019 12:15:18	I.S. Reference File:	003CALS.d
Comment:	**CCB**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.013	ppb	37.8	69	
Na	23	45	He	1.861	ppb	11.8	5,019	
Mg	24	45	He	0.988	ppb	7.3	968	
Al	27	45	He	0.789	ppb	16.6	300	
K	39	45	He	3.651	ppb	31.2	25,102	
Ca	44	45	H2	0.722	ppb	28.9	568	
[Ca]	44	45	He	0.393	ppb	280.7	192	
Ti	47	45	NoGas	0.071	ppb	38.9	113	
V	51	74	He	-0.233	ppb	N/A	1,240	
Cr	52	74	He	0.022	ppb	28.0	308	
Mn	55	74	He	0.028	ppb	53.1	119	
Fe	56	74	H2	1.312	ppb	5.1	19,492	
Co	59	74	He	0.010	ppb	48.8	68	
Ni	60	74	He	0.020	ppb	72.2	69	
Cu	65	74	He	0.026	ppb	34.3	70	
Zn	66	74	He	0.088	ppb	50.0	81	
As	75	74	He	0.007	ppb	445.0	31	
Se	78	74	H2	0.051	ppb	38.5	16	
Mo	95	103	He	0.026	ppb	38.7	50	
Ag	107	103	He	0.008	ppb	41.6	39	
Cd	111	103	He	0.054	ppb	12.5	48	
[Cd]	111	103	NoGas	0.050	ppb	22.9	106	
Sb	121	103	He	0.276	ppb	9.3	641	
Ba	138	159	He	0.037	ppb	14.2	260	
Hg	201	159	NoGas	2.831	ppt	52.0	6	
Tl	205	159	He	0.005	ppb	22.6	63	
Pb	208	159	NoGas	0.058	ppb	10.7	2,073	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.9	1,032,801	1137234.76333333	90.8	
Sc	45	H2	Analog	1.2	1,924,663	2175442.43333333	88.5	
Sc	45	He	Pulse	1.6	299,847	346512.113333333	86.5	
Sc	45	NoGas	Analog	0.7	2,894,235	3249380.29333333	89.1	
Ge	74	H2	Pulse	0.5	610,067	689413.513333333	88.5	
Ge	74	He	Pulse	1.1	182,071	206515.04	88.2	
Ge	74	NoGas	Pulse	1.1	763,125	873623.596666667	87.4	
Rh	103	He	Pulse	1.6	418,460	470246.54	89.0	
Rh	103	NoGas	Pulse	0.7	798,812	915357.836666667	87.3	
Tb	159	He	Pulse	1.6	598,142	642883.506666667	93.0	
Tb	159	NoGas	Analog	0.5	1,457,888	1568165.69	93.0	
Bi	209	He	Pulse	1.8	352,211	377338.903333333	93.3	
Bi	209	NoGas	Pulse	0.4	835,211	893369.963333333	93.5	

CRL Verification Report - ICPMS5

Sample Name:	**9K21029-CRL1**	Total Dilution:	**1.0000**
File Name:	015CRL.d	Vial:	1102
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CRL1
Acq Time:	11/21/2019 12:20:00	I.S. Reference File:	003CALS.d
Comment:	**A19K144 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.185	ppb	16.8	554	102.78		
Na	23	45	He	10.154	ppb	0.3	14,243	112.82		
Mg	24	45	He	9.718	ppb	3.8	6,349	107.98		
Al	27	45	He	9.442	ppb	3.1	3,136	104.91		
K	39	45	He	11.308	ppb	8.0	29,921	125.64		
Ca	44	45	H2	9.696	ppb	2.5	2,485	107.73		
[Ca]	44	45	He	6.389	ppb	16.3	359	70.99		
Ti	47	45	NoGas	0.184	ppb	35.8	242	102.22		
V	51	74	He	-0.028	ppb	N/A	2,030	-15.56	R-11	< MRL
Cr	52	74	He	0.177	ppb	9.4	994	98.33		
Mn	55	74	He	0.177	ppb	9.9	578	98.33		
Fe	56	74	H2	9.187	ppb	0.9	106,871	102.08		
Co	59	74	He	0.181	ppb	6.2	1,085	100.56		
Ni	60	74	He	0.189	ppb	14.1	312	105		
Cu	65	74	He	0.205	ppb	19.3	391	113.89		
Zn	66	74	He	0.267	ppb	26.2	208	148.33	R-11	< MRL
As	75	74	He	0.206	ppb	11.5	116	114.44		
Se	78	74	H2	0.167	ppb	17.1	50	92.78		
Mo	95	103	He	0.186	ppb	13.6	333	103.33		
Ag	107	103	He	0.184	ppb	6.5	942	102.22		
Cd	111	103	He	0.216	ppb	0.5	188	120		
[Cd]	111	103	NoGas	0.204	ppb	10.6	450	113.33		
Sb	121	103	He	0.278	ppb	8.8	657	154.44	R-11	< MRL
Ba	138	159	He	0.201	ppb	3.7	1,053	111.67		
Hg	201	159	NoGas	7.858	ppt	32.5	11	109.14		
Tl	205	159	He	0.180	ppb	5.6	1,536	100		
Pb	208	159	NoGas	0.220	ppb	3.1	6,191	122.22		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.1	1,068,735	1137234.76333333	94.0	
Sc	45	H2	Analog	1.7	1,947,622	2175442.43333333	89.5	
Sc	45	He	Pulse	1.4	308,646	346512.113333333	89.1	
Sc	45	NoGas	Analog	1.0	2,937,847	3249380.29333333	90.4	
Ge	74	H2	Pulse	0.5	616,430	689413.513333333	89.4	
Ge	74	He	Pulse	1.0	186,973	206515.04	90.5	
Ge	74	NoGas	Pulse	1.0	783,202	873623.596666667	89.6	
Rh	103	He	Pulse	1.1	425,729	470246.54	90.5	
Rh	103	NoGas	Pulse	1.1	817,070	915357.836666667	89.3	
Tb	159	He	Pulse	1.3	605,353	642883.506666667	94.2	
Tb	159	NoGas	Analog	1.2	1,487,049	1568165.69	94.8	
Bi	209	He	Pulse	1.1	357,493	377338.903333333	94.7	
Bi	209	NoGas	Pulse	0.5	847,874	893369.963333333	94.9	

CRL Verification Report - ICPMS5

Sample Name:	**9K21029-CRL2**	Total Dilution:	**1.0000**
File Name:	016_CRL.d	Vial:	1103
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CRL2
Acq Time:	11/21/2019 12:24:40	I.S. Reference File:	003CALS.d
Comment:	**A19K145 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.904	ppb	4.2	2,595	100.44	
Na	23	45	He	46.319	ppb	1.1	54,558	102.93	
Mg	24	45	He	45.933	ppb	1.2	28,957	102.07	
Al	27	45	He	45.629	ppb	1.3	15,164	101.4	
K	39	45	He	48.416	ppb	2.7	50,382	107.59	
Ca	44	45	H2	45.022	ppb	3.9	10,289	100.05	
[Ca]	44	45	He	48.570	ppb	8.3	1,515	107.93	
Ti	47	45	NoGas	0.878	ppb	7.9	1,041	97.56	
V	51	74	He	0.713	ppb	5.5	4,808	79.22	
Cr	52	74	He	0.906	ppb	3.0	4,218	100.67	
Mn	55	74	He	0.896	ppb	5.2	2,791	99.56	
Fe	56	74	H2	44.969	ppb	0.5	510,624	99.93	
Co	59	74	He	0.898	ppb	0.4	5,392	99.78	
Ni	60	74	He	0.979	ppb	6.1	1,451	108.78	
Cu	65	74	He	1.010	ppb	12.8	1,840	112.22	
Zn	66	74	He	0.973	ppb	6.2	704	108.11	
As	75	74	He	0.915	ppb	8.7	417	101.67	
Se	78	74	H2	0.933	ppb	12.1	276	103.67	
Mo	95	103	He	0.870	ppb	4.1	1,550	96.67	
Ag	107	103	He	0.924	ppb	1.4	4,772	102.67	
Cd	111	103	He	0.921	ppb	5.2	799	102.33	
[Cd]	111	103	NoGas	0.880	ppb	3.9	1,974	97.78	
Sb	121	103	He	0.911	ppb	2.9	2,085	101.22	
Ba	138	159	He	0.910	ppb	1.0	4,523	101.11	
Hg	201	159	NoGas	44.008	ppt	3.2	52	122.24	
Tl	205	159	He	0.889	ppb	3.9	7,584	98.78	
Pb	208	159	NoGas	0.913	ppb	1.3	23,943	101.44	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.5	1,075,269	1137234.76333333	94.6	
Sc	45	H2	Analog	1.5	2,002,849	2175442.43333333	92.1	
Sc	45	He	Pulse	0.7	312,874	346512.113333333	90.3	
Sc	45	NoGas	Analog	0.7	2,980,206	3249380.29333333	91.7	
Ge	74	H2	Pulse	0.2	625,820	689413.513333333	90.8	
Ge	74	He	Pulse	0.8	188,598	206515.04	91.3	
Ge	74	NoGas	Pulse	0.6	794,457	873623.596666667	90.9	
Rh	103	He	Pulse	0.9	428,540	470246.54	91.1	
Rh	103	NoGas	Pulse	0.3	827,635	915357.836666667	90.4	
Tb	159	He	Pulse	0.7	610,817	642883.506666667	95.0	
Tb	159	NoGas	Analog	1.8	1,512,034	1568165.69	96.4	
Bi	209	He	Pulse	0.7	360,815	377338.903333333	95.6	
Bi	209	NoGas	Pulse	0.6	854,494	893369.963333333	95.6	

CRL Verification Report - ICPMS5

Sample Name:	**9K21029-CRL3**	Total Dilution:	**1.0000**
File Name:	017CRL_.d	Vial:	1104
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CRL3
Acq Time:	11/21/2019 12:29:19	I.S. Reference File:	003CALS.d
Comment:	**A19K146 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.754	ppb	4.1	4,987	97.44	
Na	23	45	He	90.579	ppb	0.5	104,409	100.64	
Mg	24	45	He	92.352	ppb	1.0	58,245	102.61	
Al	27	45	He	92.044	ppb	1.1	30,761	102.27	
K	39	45	He	93.829	ppb	1.5	75,460	104.25	
Ca	44	45	H2	89.955	ppb	2.1	20,244	99.95	
[Ca]	44	45	He	88.228	ppb	6.0	2,615	98.03	
Ti	47	45	NoGas	1.835	ppb	7.5	2,144	101.94	
V	51	74	He	1.625	ppb	1.7	8,248	90.28	
Cr	52	74	He	1.771	ppb	4.0	8,072	98.39	
Mn	55	74	He	1.784	ppb	1.9	5,549	99.11	
Fe	56	74	H2	89.870	ppb	0.2	1,022,752	99.86	
Co	59	74	He	1.770	ppb	2.4	10,667	98.33	
Ni	60	74	He	1.934	ppb	5.8	2,839	107.44	
Cu	65	74	He	1.941	ppb	2.0	3,529	107.83	
Zn	66	74	He	1.774	ppb	1.5	1,272	98.56	
As	75	74	He	1.922	ppb	3.4	847	106.78	
Se	78	74	H2	1.788	ppb	1.1	531	99.33	
Mo	95	103	He	1.776	ppb	1.4	3,164	98.67	
Ag	107	103	He	1.803	ppb	1.7	9,322	100.17	
Cd	111	103	He	1.818	ppb	1.7	1,578	101	
[Cd]	111	103	NoGas	1.825	ppb	5.2	4,040	101.39	
Sb	121	103	He	1.768	ppb	2.1	4,019	98.22	
Ba	138	159	He	1.851	ppb	0.9	9,120	102.83	
Hg	201	159	NoGas	69.099	ppt	13.7	78	95.97	
Tl	205	159	He	1.779	ppb	1.8	15,176	98.83	
Pb	208	159	NoGas	1.843	ppb	4.1	46,345	102.39	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.8	1,072,388	1137234.76333333	94.3	
Sc	45	H2	Analog	1.0	2,015,108	2175442.43333333	92.6	
Sc	45	He	Pulse	0.5	315,155	346512.113333333	91.0	
Sc	45	NoGas	Analog	3.1	2,990,573	3249380.29333333	92.0	
Ge	74	H2	Pulse	0.2	630,460	689413.513333333	91.4	
Ge	74	He	Pulse	0.9	189,444	206515.04	91.7	
Ge	74	NoGas	Pulse	2.7	786,360	873623.596666667	90.0	
Rh	103	He	Pulse	0.6	429,236	470246.54	91.3	
Rh	103	NoGas	Pulse	3.2	815,706	915357.836666667	89.1	
Tb	159	He	Pulse	1.8	611,627	642883.506666667	95.1	
Tb	159	NoGas	Analog	5.1	1,472,830	1568165.69	93.9	
Bi	209	He	Pulse	1.2	358,999	377338.903333333	95.1	
Bi	209	NoGas	Pulse	3.4	837,965	893369.963333333	93.8	

Quantitation Report ICPMS5

File Name	018ICSA.d		
File Path	C:\Agilent\ICPMH\1\DATA\9K21029.b		
Acq Time	11/21/2019 12:34:02	Sample Type	
Sample Name	**9K21029-IFA1**		ICSA
Comment	**A19K233**	Last Calib	11/21/2019 12:08:56
Prep Dilution			
Total Dilution	1.0000	Vial:	1111
	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	0.014	0.014	ppb	91.5		
Na	23	45	He	262511.873	262511.873	ppb	0.3		
Mg	24	45	He	104921.7	104921.700	ppb	0.3	100000	
Al	27	45	He	104288.895	104288.895	ppb	0.3	100000	
K	39	45	He	102130.852	102130.852	ppb	0.9	100000	
Ca	44	45	H2	293676.714	293676.714	ppb	0.3		
[Ca]	44	45	He	306416.456	306416.456	ppb	0.1		
Ti	47	45	NoGas	2173.838	2173.838	ppb	0.4		
V	51	74	He	0.013	0.013	ppb	82.4	2	
Cr	52	74	He	1.84	1.840	ppb	2.3	2	
Mn	55	74	He	3.155	3.155	ppb	4.6	2	> CRI
Fe	56	74	H2	258336.904	258336.904	ppb	0.7		
Co	59	74	He	0.852	0.852	ppb	2.4		
Ni	60	74	He	0.797	0.797	ppb	3.8	2	
Cu	65	74	He	0.97	0.970	ppb	6.1	2	
Zn	66	74	He	2.77	2.770	ppb	2.1	2	> CRI
As	75	74	He	0.223	0.223	ppb	24.8	0.9	
Se	78	74	H2	0.231	0.231	ppb	28.1	0.9	
Mo	95	103	He	2386.776	2386.776	ppb	0.9	2000	
Ag	107	103	He	0.327	0.327	ppb	6.2		
Cd	111	103	He	6.098	6.098	ppb	2.4		
[Cd]	111	103	NoGas	0.401	0.401	ppb	35.1		
Sb	121	103	He	0.237	0.237	ppb	11.6	0.9	
Ba	138	159	He	1.622	1.622	ppb	3.9	2	
W	182	159	NoGas	87.335	87.335	ppb	0.2		
Hg	201	159	NoGas	76.057	76.057	ppt	8.3		
Tl	205	159	He	0.003	0.003	ppb	57.8	0.9	
Pb	208	159	NoGas	0.82	0.820	ppb	2.4		

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	964,587	1.1	1137234.76333333	Analog	84.8	
Sc	45	H2	1,606,957	0.9	2175442.43333333	Analog	73.9	
Sc	45	He	254,006	0.5	346512.113333333	Pulse	73.3	
Sc	45	NoGas	2,595,398	2.0	3249380.29333333	Analog	79.9	
Ge	74	H2	443,547	0.6	689413.513333333	Pulse	64.3	IS Q-06
Ge	74	He	142,032	0.9	206515.04	Pulse	68.8	IS Q-06
Ge	74	NoGas	620,237	1.5	873623.596666667	Pulse	71.0	
Rh	103	He	292,554	1.0	470246.54	Pulse	62.2	IS Q-06
Rh	103	NoGas	592,077	1.0	915357.836666667	Pulse	64.7	IS Q-06
Tb	159	He	469,390	0.8	642883.506666667	Pulse	73.0	
Tb	159	NoGas	1,184,823	0.6	1568165.69	Pulse	75.6	
Bi	209	He	245,755	1.0	377338.903333333	Pulse	65.1	IS Q-06
Bi	209	NoGas	619,014	1.1	893369.963333333	Pulse	69.3	IS Q-06

Quantitation Report ICPMS5

File Name	019ICSB.d		
File Path	C:\Agilent\ICPMH\1\DATA\9K21029.b		
Acq Time	11/21/2019 12:38:34	Sample Type	
Sample Name	**9K21029-IFB1**		
Comment	**A19K234**	ICSB Last Calib	11/21/2019 12:08:56
Prep Dilution	1.0000	Vial: 1112	
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	0.007	0.007	ppb	19.9		
Na	23	45	He	265817.92	265817.920	ppb	1.0		
Mg	24	45	He	106241.866	106241.866	ppb	0.3	100000	
Al	27	45	He	104562.805	104562.805	ppb	0.7	100000	
K	39	45	He	101252.31	101252.310	ppb	0.3	100000	
Ca	44	45	H2	288472.82	288472.820	ppb	0.5		
[Ca]	44	45	He	306260.225	306260.225	ppb	0.3		
Ti	47	45	NoGas	2146.159	2146.159	ppb	0.7		
V	51	74	He	216.465	216.465	ppb	0.2	200	
Cr	52	74	He	206.418	206.418	ppb	0.4	200	
Mn	55	74	He	215.179	215.179	ppb	0.6	200	
Fe	56	74	H2	262392.308	262392.308	ppb	0.6		
Co	59	74	He	202.607	202.607	ppb	0.2		
Ni	60	74	He	202.203	202.203	ppb	0.4	200	
Cu	65	74	He	198.104	198.104	ppb	0.4	200	
Zn	66	74	He	97.336	97.336	ppb	0.5	100	
As	75	74	He	102.426	102.426	ppb	1.0	100	
Se	78	74	H2	104.882	104.882	ppb	1.0	100	
Mo	95	103	He	2336.934	2336.934	ppb	0.6	2000	
Ag	107	103	He	52.511	52.511	ppb	0.8	50	
Cd	111	103	He	107.726	107.726	ppb	0.3		
[Cd]	111	103	NoGas	103.515	103.515	ppb	1.2		
Sb	121	103	He	0.156	0.156	ppb	9.4	0.9	
Ba	138	159	He	1.747	1.747	ppb	1.6	2	> +/- 10%
W	182	159	NoGas	87.828	87.828	ppb	1.2		
Hg	201	159	NoGas	2125.371	2125.371	ppt	2.6		
Tl	205	159	He	0.003	0.003	ppb	39.6	0.9	
Pb	208	159	NoGas	0.827	0.827	ppb	2.8		

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	961,446	1.0	1137234.76333333	Analog	84.5	
Sc	45	H2	1,641,573	0.5	2175442.43333333	Analog	75.5	
Sc	45	He	250,975	0.7	346512.113333333	Pulse	72.4	
Sc	45	NoGas	2,593,440	1.2	3249380.29333333	Analog	79.8	
Ge	74	H2	444,925	0.8	689413.513333333	Pulse	64.5	IS Q-06
Ge	74	He	139,362	0.3	206515.04	Pulse	67.5	IS Q-06
Ge	74	NoGas	614,641	1.0	873623.596666667	Pulse	70.4	
Rh	103	He	288,154	0.3	470246.54	Pulse	61.3	IS Q-06
Rh	103	NoGas	587,252	0.6	915357.836666667	Pulse	64.2	IS Q-06
Tb	159	He	455,853	0.8	642883.506666667	Pulse	70.9	
Tb	159	NoGas	1,171,401	0.8	1568165.69	Pulse	74.7	
Bi	209	He	239,397	0.3	377338.903333333	Pulse	63.4	IS Q-06
Bi	209	NoGas	612,534	0.5	893369.963333333	Pulse	68.6	IS Q-06

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K21029-CCV1**	Total Dilution:	**1.0000**
File Name:	031_CCV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCV
Acq Time:	11/21/2019 13:45:03	I.S. Reference File:	003CALS.d
Comment:	**A19J138 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.036	ppb	0.8	102,531	40	100.09	
Na	23	45	He	4011.563	ppb	0.8	3,989,091	4000	100.29	
Mg	24	45	He	4291.177	ppb	1.0	2,390,614	4000	107.28	
Al	27	45	He	4101.782	ppb	1.2	1,216,998	4000	102.54	
K	39	45	He	4228.447	ppb	1.1	2,067,963	4000	105.71	
Ca	44	45	H2	4026.836	ppb	0.7	781,524	4000	100.67	
[Ca]	44	45	He	4048.257	ppb	0.7	99,048	4000	101.21	
Ti	47	45	NoGas	99.997	ppb	1.0	105,785	100	100	
V	51	74	He	96.519	ppb	0.4	326,979	100	96.52	
Cr	52	74	He	96.708	ppb	0.2	385,633	100	96.71	
Mn	55	74	He	102.305	ppb	0.8	284,271	100	102.3	
Fe	56	74	H2	4121.071	ppb	0.3	41,524,663	4000	103.03	
Co	59	74	He	101.958	ppb	0.7	551,804	100	101.96	
Ni	60	74	He	107.123	ppb	0.6	139,298	100	107.12	
Cu	65	74	He	104.802	ppb	0.6	170,132	100	104.8	
Zn	66	74	He	101.982	ppb	0.4	64,624	100	101.98	
As	75	74	He	99.898	ppb	0.8	38,252	100	99.9	
Se	78	74	H2	40.697	ppb	1.6	10,738	40	101.74	
Mo	95	103	He	40.190	ppb	0.1	64,415	40	100.48	
Ag	107	103	He	41.216	ppb	0.4	191,882	40	103.04	
Cd	111	103	He	99.957	ppb	0.7	78,007	100	99.96	
[Cd]	111	103	NoGas	99.337	ppb	0.1	198,619	100	99.34	
Sb	121	103	He	40.888	ppb	0.4	83,014	40	102.22	
Ba	138	159	He	105.186	ppb	1.1	480,926	100	105.19	
Hg	201	159	NoGas	812.162	ppt	6.8	840	800	101.52	
Tl	205	159	He	40.905	ppb	0.4	326,252	40	102.26	
Pb	208	159	NoGas	101.328	ppb	3.6	2,380,348	100	101.33	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.7	971,782	1137234.76333333	85.5	
Sc	45	H2	Analog	0.8	1,775,041	2175442.43333333	81.6	
Sc	45	He	Pulse	0.4	280,265	346512.113333333	80.9	
Sc	45	NoGas	Analog	1.1	2,750,677	3249380.29333333	84.7	
Ge	74	H2	Pulse	0.2	561,048	689413.513333333	81.4	
Ge	74	He	Pulse	0.7	170,335	206515.04	82.5	
Ge	74	NoGas	Pulse	0.7	716,507	873623.596666667	82.0	
Rh	103	He	Pulse	0.2	386,571	470246.54	82.2	
Rh	103	NoGas	Pulse	0.6	736,503	915357.836666667	80.5	
Tb	159	He	Pulse	0.2	572,605	642883.506666667	89.1	
Tb	159	NoGas	Mix	3.6	1,394,974	1568165.69	89.0	
Bi	209	He	Pulse	0.1	338,686	377338.903333333	89.8	
Bi	209	NoGas	Pulse	0.3	792,132	893369.963333333	88.7	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K21029-CCB1**	Total Dilution:	**1.0000**
File Name:	032_CCB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCB
Acq Time:	11/21/2019 13:49:40	I.S. Reference File:	003CALS.d
Comment:	**CCB**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.009	ppb	105.5	53	
Na	23	45	He	2.059	ppb	3.8	4,920	
Mg	24	45	He	0.720	ppb	13.5	760	
Al	27	45	He	0.520	ppb	9.6	202	
K	39	45	He	1.022	ppb	67.6	22,331	
Ca	44	45	H2	1.274	ppb	12.2	643	
[Ca]	44	45	He	-1.573	ppb	N/A	132	
Ti	47	45	NoGas	0.022	ppb	88.6	55	
V	51	74	He	-0.210	ppb	N/A	1,249	
Cr	52	74	He	0.009	ppb	148.8	236	
Mn	55	74	He	0.009	ppb	72.3	59	
Fe	56	74	H2	1.415	ppb	9.0	19,259	
Co	59	74	He	0.007	ppb	59.4	51	
Ni	60	74	He	0.006	ppb	85.8	47	
Cu	65	74	He	0.021	ppb	86.1	58	
Zn	66	74	He	0.058	ppb	28.6	58	
As	75	74	He	0.003	ppb	150.8	28	
Se	78	74	H2	0.043	ppb	22.0	13	
Mo	95	103	He	0.038	ppb	46.2	66	
Ag	107	103	He	0.006	ppb	7.1	29	
Cd	111	103	He	0.010	ppb	44.9	10	
[Cd]	111	103	NoGas	0.010	ppb	49.8	16	
Sb	121	103	He	0.174	ppb	13.3	397	
Ba	138	159	He	0.021	ppb	24.3	174	
Hg	201	159	NoGas	2.677	ppt	18.7	5	
Tl	205	159	He	0.008	ppb	19.8	88	
Pb	208	159	NoGas	0.031	ppb	20.8	1,322	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.9	964,515	1137234.76333333	84.8	
Sc	45	H2	Analog	0.7	1,809,738	2175442.43333333	83.2	
Sc	45	He	Pulse	0.5	281,980	346512.113333333	81.4	
Sc	45	NoGas	Analog	1.4	2,707,100	3249380.29333333	83.3	
Ge	74	H2	Pulse	0.3	569,912	689413.513333333	82.7	
Ge	74	He	Pulse	0.3	172,036	206515.04	83.3	
Ge	74	NoGas	Pulse	0.9	717,892	873623.596666667	82.2	
Rh	103	He	Pulse	0.8	397,128	470246.54	84.5	
Rh	103	NoGas	Pulse	0.3	752,008	915357.836666667	82.2	
Tb	159	He	Pulse	0.3	576,683	642883.506666667	89.7	
Tb	159	NoGas	Mix	4.3	1,369,621	1568165.69	87.3	
Bi	209	He	Pulse	1.1	345,096	377338.903333333	91.5	
Bi	209	NoGas	Pulse	0.1	801,470	893369.963333333	89.7	

Quantitation Report - ICPMS5

Sample Name:	**9111059-BLK1**	Total Dilution:	**10.0000**
File Name:	038SMPL.d	Vial:	3201
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	Sample
Acq Time:	11/21/2019 14:18:03	I.S. Reference File:	003CALS.d
Comment:	**9111059 TCLP RCRA**	Last Calibration:	11/21/2019 12:08:56

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.011	ppb	48.6	59	100	
Na	23	45	He	30601.181	ppb	0.6	30,023,056	50000	
Mg	24	45	He	2.89	ppb	10.6	1,938	50000	
Al	27	45	He	0.936	ppb	28.7	320	50000	
K	39	45	He	7.758	ppb	7.5	25,131	50000	
Ca	44	45	H2	22.315	ppb	1.1	4,698	50000	
[Ca]	44	45	He	22.327	ppb	20.5	706	50000	
Ti	47	45	NoGas	0.071	ppb	63.3	103	2500	
V	51	74	He	-0.268	ppb	N/A	1,017	500	
Cr	52	74	He	0.036	ppb	13.6	336	1000	
Mn	55	74	He	0.018	ppb	11.6	82	2500	
Fe	56	74	H2	0.851	ppb	5.0	13,082	50000	
Co	59	74	He	0.007	ppb	28.9	46	500	
Ni	60	74	He	0.688	ppb	6.2	912	1000	
Cu	65	74	He	0.12	ppb	22.4	212	1000	
Zn	66	74	He	1.003	ppb	11.9	640	2500	
As	75	74	He	0.039	ppb	104.7	40	500	
Se	78	74	H2	0.024	ppb	56.3	7	100	
Mo	95	103	He	0.006	ppb	57.7	12	100	
Ag	107	103	He	0.004	ppb	8.9	21	100	
Cd	111	103	He	0.004	ppb	80.4	5	1000	
[Cd]	111	103	NoGas	0.014	ppb	17.8	24	1000	
Sb	121	103	He	0.037	ppb	27.3	106	100	
Ba	138	159	He	1.999	ppb	4.7	9,112	2500	
W	182	159	NoGas	0.002	ppb	112.4	30	40	
Hg	201	159	NoGas	7.748	ppt	33.8	10	4000	
Tl	205	159	He	0.011	ppb	45.6	106	100	
Pb	208	159	NoGas	0.058	ppb	9.4	1,875	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	970,368	1.0	1137234.76333333	Analog	85.3	
Sc	45	H2	1,769,778	0.8	2175442.43333333	Analog	81.4	
Sc	45	He	276,692	0.8	346512.113333333	Pulse	79.9	
Sc	45	NoGas	2,672,470	2.4	3249380.29333333	Analog	82.2	
Ge	74	H2	552,414	0.2	689413.513333333	Pulse	80.1	
Ge	74	He	166,494	0.9	206515.04	Pulse	80.6	
Ge	74	NoGas	692,494	0.7	873623.596666667	Pulse	79.3	
Rh	103	He	376,958	1.0	470246.54	Pulse	80.2	
Rh	103	NoGas	708,353	0.4	915357.836666667	Pulse	77.4	
Tb	159	He	566,008	0.2	642883.506666667	Pulse	88.0	
Tb	159	NoGas	1,306,021	0.8	1568165.69	Pulse	83.3	
Bi	209	He	329,944	1.3	377338.903333333	Pulse	87.4	
Bi	209	NoGas	769,999	0.6	893369.963333333	Pulse	86.2	

Quantitation Report - ICPMS5

Sample Name:	**9111059-BS1**	Total Dilution:	**10.0000**
File Name:	039SMPL.d	Vial:	3202
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	Sample
Acq Time:	11/21/2019 14:22:53	I.S. Reference File:	003CALS.d
Comment:	**9111059 TCLP RCRA**	Last Calibration:	11/21/2019 12:08:56

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	49.09	ppb	0.4	124,661	100	
Na	23	45	He	29069.905	ppb	0.6	28,719,574	50000	
Mg	24	45	He	2.655	ppb	2.8	1,822	50000	
Al	27	45	He	0.83	ppb	36.1	291	50000	
K	39	45	He	6.59	ppb	1.9	24,744	50000	
Ca	44	45	H2	24.049	ppb	2.6	5,069	50000	
[Ca]	44	45	He	25.765	ppb	2.0	794	50000	
Ti	47	45	NoGas	0.064	ppb	75.8	98	2500	
V	51	74	He	47.574	ppb	0.1	159,892	500	
Cr	52	74	He	95.625	ppb	0.3	375,995	1000	
Mn	55	74	He	49.672	ppb	0.5	136,114	2500	
Fe	56	74	H2	0.426	ppb	2.0	8,882	50000	
Co	59	74	He	49.121	ppb	0.1	262,143	500	
Ni	60	74	He	51.626	ppb	0.5	66,214	1000	
Cu	65	74	He	51.636	ppb	0.8	82,664	1000	
Zn	66	74	He	104.018	ppb	1.0	64,995	2500	
As	75	74	He	100.87	ppb	0.3	38,084	500	
Se	78	74	H2	19.967	ppb	1.3	5,200	100	
Mo	95	103	He	0.001	ppb	568.9	4	100	
Ag	107	103	He	20.936	ppb	0.8	95,243	100	
Cd	111	103	He	20.373	ppb	1.2	15,538	1000	
[Cd]	111	103	NoGas	20.381	ppb	1.2	39,487	1000	
Sb	121	103	He	21.024	ppb	0.9	41,726	100	
Ba	138	159	He	208.009	ppb	0.4	937,453	2500	
W	182	159	NoGas	0.003	ppb	32.7	39	40	
Hg	201	159	NoGas	2069.178	ppt	1.0	2,014	4000	
Tl	205	159	He	50.807	ppb	0.2	399,466	100	
Pb	208	159	NoGas	104.028	ppb	0.8	2,301,202	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	963,707	0.8	1137234.76333333	Analog	84.7	
Sc	45	H2	1,781,960	0.4	2175442.43333333	Analog	81.9	
Sc	45	He	278,620	0.6	346512.113333333	Pulse	80.4	
Sc	45	NoGas	2,697,445	1.0	3249380.29333333	Analog	83.0	
Ge	74	H2	553,762	0.3	689413.513333333	Pulse	80.3	
Ge	74	He	167,958	0.6	206515.04	Pulse	81.3	
Ge	74	NoGas	697,650	0.9	873623.596666667	Pulse	79.9	
Rh	103	He	377,752	0.6	470246.54	Pulse	80.3	
Rh	103	NoGas	713,763	0.9	915357.836666667	Pulse	78.0	
Tb	159	He	564,477	0.9	642883.506666667	Pulse	87.8	
Tb	159	NoGas	1,312,531	0.9	1568165.69	Pulse	83.7	
Bi	209	He	331,539	1.7	377338.903333333	Pulse	87.9	
Bi	209	NoGas	768,792	0.9	893369.963333333	Pulse	86.1	

Quantitation Report - ICPMS5

Sample Name:	**A9K0330-01**	Total Dilution:	**10.0000**
File Name:	040SMPL.d	Vial:	3203
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	Sample
Acq Time:	11/21/2019 14:27:32	I.S. Reference File:	003CALS.d
Comment:	**9111059 TCLP RCRA**	Last Calibration:	11/21/2019 12:08:56

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.025	ppb	64.1	94	100	
Na	23	45	He	27491.647	ppb	0.7	27,266,908	50000	
Mg	24	45	He	337.796	ppb	0.8	188,138	50000	
Al	27	45	He	2.946	ppb	9.1	919	50000	
K	39	45	He	69.559	ppb	0.7	55,253	50000	
Ca	44	45	H2	1024.429	ppb	0.8	202,467	50000	
[Ca]	44	45	He	1051.1	ppb	0.4	25,792	50000	
Ti	47	45	NoGas	0.102	ppb	12.3	138	2500	
V	51	74	He	-0.25	ppb	N/A	1,090	500	
Cr	52	74	He	0.067	ppb	20.0	461	1000	
Mn	55	74	He	12.872	ppb	2.8	35,424	2500	
Fe	56	74	H2	0.942	ppb	3.7	14,110	50000	
Co	59	74	He	0.038	ppb	12.9	217	500	
Ni	60	74	He	0.421	ppb	6.4	580	1000	
Cu	65	74	He	0.104	ppb	9.5	190	1000	
Zn	66	74	He	2.441	ppb	2.7	1,550	2500	
As	75	74	He	0.022	ppb	95.1	34	500	
Se	78	74	H2	0.043	ppb	48.9	12	100	
Mo	95	103	He	0.004	ppb	52.8	10	100	
Ag	107	103	He	0.004	ppb	84.9	21	100	
Cd	111	103	He	0.018	ppb	16.3	16	1000	
[Cd]	111	103	NoGas	0.015	ppb	33.9	25	1000	
Sb	121	103	He	0.033	ppb	32.0	98	100	
Ba	138	159	He	25.711	ppb	1.1	116,015	2500	
W	182	159	NoGas	0.003	ppb	41.4	42	40	
Hg	201	159	NoGas	11.419	ppt	17.9	14	4000	
Tl	205	159	He	0.015	ppb	9.6	136	100	
Pb	208	159	NoGas	0.063	ppb	18.0	2,045	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	967,557	0.9	1137234.76333333	Analog	85.1	
Sc	45	H2	1,804,984	0.5	2175442.43333333	Analog	83.0	
Sc	45	He	279,717	0.7	346512.113333333	Pulse	80.7	
Sc	45	NoGas	2,710,461	1.3	3249380.29333333	Analog	83.4	
Ge	74	H2	557,531	0.2	689413.513333333	Pulse	80.9	
Ge	74	He	168,540	0.8	206515.04	Pulse	81.6	
Ge	74	NoGas	698,738	1.4	873623.596666667	Pulse	80.0	
Rh	103	He	380,020	1.2	470246.54	Pulse	80.8	
Rh	103	NoGas	711,460	0.6	915357.836666667	Pulse	77.7	
Tb	159	He	564,831	0.6	642883.506666667	Pulse	87.9	
Tb	159	NoGas	1,355,126	4.4	1568165.69	Mix	86.4	
Bi	209	He	330,317	1.2	377338.903333333	Pulse	87.5	
Bi	209	NoGas	768,609	0.7	893369.963333333	Pulse	86.0	

Quantitation Report - ICPMS5

Sample Name:	**9111059-MS1**	Total Dilution:	**10.0000**
File Name:	041SMPL.d	Vial:	3204
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	Sample
Acq Time:	11/21/2019 14:32:10	I.S. Reference File:	003CALS.d
Comment:	**9111059 TCLP RCRA**	Last Calibration:	11/21/2019 12:08:56

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	48.294	ppb	1.5	127,547	100	
Na	23	45	He	27722.996	ppb	1.2	27,576,883	50000	
Mg	24	45	He	338.643	ppb	0.9	189,160	50000	
Al	27	45	He	8.878	ppb	4.6	2,682	50000	
K	39	45	He	70.033	ppb	0.9	55,649	50000	
Ca	44	45	H2	1027.233	ppb	1.1	204,588	50000	
[Ca]	44	45	He	1085.205	ppb	2.4	26,699	50000	
Ti	47	45	NoGas	0.127	ppb	54.1	165	2500	
V	51	74	He	48.136	ppb	1.0	162,440	500	
Cr	52	74	He	96.314	ppb	0.6	380,316	1000	
Mn	55	74	He	63.215	ppb	1.5	173,942	2500	
Fe	56	74	H2	7.32	ppb	2.3	78,373	50000	
Co	59	74	He	49.406	ppb	1.0	264,780	500	
Ni	60	74	He	51.814	ppb	0.8	66,737	1000	
Cu	65	74	He	51.932	ppb	1.1	83,492	1000	
Zn	66	74	He	107.439	ppb	0.0	67,420	2500	
As	75	74	He	101.037	ppb	0.2	38,310	500	
Se	78	74	H2	20.01	ppb	0.1	5,275	100	
Mo	95	103	He	0.009	ppb	71.9	18	100	
Ag	107	103	He	20.937	ppb	1.4	95,883	100	
Cd	111	103	He	20.226	ppb	0.6	15,529	1000	
[Cd]	111	103	NoGas	20.329	ppb	2.8	39,547	1000	
Sb	121	103	He	21.177	ppb	1.6	42,310	100	
Ba	138	159	He	231.937	ppb	0.3	1,050,055	2500	
W	182	159	NoGas	0.004	ppb	32.6	48	40	
Hg	201	159	NoGas	2059.661	ppt	1.5	2,016	4000	
Tl	205	159	He	50.323	ppb	0.4	397,459	100	
Pb	208	159	NoGas	104.041	ppb	0.7	2,315,017	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,002,298	0.6	1137234.76333333	Analog	88.1	
Sc	45	H2	1,819,078	1.5	2175442.43333333	Analog	83.6	
Sc	45	He	280,546	1.2	346512.113333333	Pulse	81.0	
Sc	45	NoGas	2,708,275	1.2	3249380.29333333	Analog	83.3	
Ge	74	H2	560,448	0.3	689413.513333333	Pulse	81.3	
Ge	74	He	168,677	1.0	206515.04	Pulse	81.7	
Ge	74	NoGas	705,127	1.4	873623.596666667	Pulse	80.7	
Rh	103	He	380,262	0.3	470246.54	Pulse	80.9	
Rh	103	NoGas	716,650	0.3	915357.836666667	Pulse	78.3	
Tb	159	He	567,042	0.4	642883.506666667	Pulse	88.2	
Tb	159	NoGas	1,320,228	0.7	1568165.69	Pulse	84.2	
Bi	209	He	327,906	0.5	377338.903333333	Pulse	86.9	
Bi	209	NoGas	770,400	0.6	893369.963333333	Pulse	86.2	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K21029-CCV2**	Total Dilution:	**1.0000**
File Name:	043_CCV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCV
Acq Time:	11/21/2019 14:41:33	I.S. Reference File:	003CALS.d
Comment:	**A19J138 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.436	ppb	1.6	100,465	40	101.09	
Na	23	45	He	4064.977	ppb	0.9	3,922,028	4000	101.62	
Mg	24	45	He	4370.839	ppb	0.3	2,362,629	4000	109.27	
Al	27	45	He	4248.247	ppb	1.9	1,222,971	4000	106.21	
K	39	45	He	4315.373	ppb	1.0	2,047,237	4000	107.88	
Ca	44	45	H2	3982.888	ppb	1.2	770,661	4000	99.57	
[Ca]	44	45	He	4054.369	ppb	0.9	96,252	4000	101.36	
Ti	47	45	NoGas	99.433	ppb	1.8	100,737	100	99.43	
V	51	74	He	96.654	ppb	0.2	314,886	100	96.65	
Cr	52	74	He	97.494	ppb	0.4	373,866	100	97.49	
Mn	55	74	He	102.415	ppb	0.6	273,672	100	102.42	
Fe	56	74	H2	4180.558	ppb	0.6	40,974,055	4000	104.51	
Co	59	74	He	101.852	ppb	0.7	530,108	100	101.85	
Ni	60	74	He	106.583	ppb	1.2	133,287	100	106.58	
Cu	65	74	He	104.075	ppb	0.5	162,479	100	104.08	
Zn	66	74	He	101.767	ppb	1.3	62,019	100	101.77	
As	75	74	He	100.238	ppb	0.3	36,910	100	100.24	
Se	78	74	H2	40.942	ppb	0.6	10,508	40	102.35	
Mo	95	103	He	40.252	ppb	0.7	62,119	40	100.63	
Ag	107	103	He	40.782	ppb	0.5	182,805	40	101.96	
Cd	111	103	He	99.917	ppb	0.5	75,078	100	99.92	
[Cd]	111	103	NoGas	99.506	ppb	0.9	189,967	100	99.51	
Sb	121	103	He	40.861	ppb	0.7	79,882	40	102.15	
Ba	138	159	He	103.951	ppb	0.5	463,154	100	103.95	
Hg	201	159	NoGas	854.940	ppt	4.4	822	800	106.87	
Tl	205	159	He	40.876	ppb	0.8	317,704	40	102.19	
Pb	208	159	NoGas	104.586	ppb	0.3	2,281,768	100	104.59	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.2	942,817	1137234.76333333	82.9	
Sc	45	H2	Analog	1.1	1,769,746	2175442.43333333	81.4	
Sc	45	He	Pulse	0.6	271,941	346512.113333333	78.5	
Sc	45	NoGas	Analog	1.2	2,634,444	3249380.29333333	81.1	
Ge	74	H2	Pulse	0.3	545,738	689413.513333333	79.2	
Ge	74	He	Pulse	0.3	163,806	206515.04	79.3	
Ge	74	NoGas	Pulse	0.9	686,020	873623.596666667	78.5	
Rh	103	He	Pulse	0.9	372,213	470246.54	79.2	
Rh	103	NoGas	Pulse	0.6	703,210	915357.836666667	76.8	
Tb	159	He	Pulse	0.6	558,006	642883.506666667	86.8	
Tb	159	NoGas	Pulse	0.8	1,294,473	1568165.69	82.5	
Bi	209	He	Pulse	1.0	326,793	377338.903333333	86.6	
Bi	209	NoGas	Pulse	0.1	761,671	893369.963333333	85.3	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K21029-CCB2**	Total Dilution:	**1.0000**
File Name:	044_CCB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCB
Acq Time:	11/21/2019 14:46:10	I.S. Reference File:	003CALS.d
Comment:	**CCB**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.019	ppb	33.1	77	
Na	23	45	He	3.973	ppb	1.3	6,528	
Mg	24	45	He	0.572	ppb	38.1	647	
Al	27	45	He	0.509	ppb	28.8	190	
K	39	45	He	3.037	ppb	14.7	22,272	
Ca	44	45	H2	0.917	ppb	72.4	557	
[Ca]	44	45	He	-1.325	ppb	N/A	132	
Ti	47	45	NoGas	0.020	ppb	91.9	50	
V	51	74	He	-0.222	ppb	N/A	1,150	
Cr	52	74	He	0.020	ppb	46.5	268	
Mn	55	74	He	0.006	ppb	36.9	47	
Fe	56	74	H2	1.187	ppb	12.6	16,335	
Co	59	74	He	0.007	ppb	36.6	48	
Ni	60	74	He	0.007	ppb	164.7	46	
Cu	65	74	He	0.021	ppb	41.6	54	
Zn	66	74	He	0.043	ppb	44.4	46	
As	75	74	He	0.035	ppb	51.9	38	
Se	78	74	H2	0.058	ppb	35.7	16	
Mo	95	103	He	0.039	ppb	26.2	66	
Ag	107	103	He	0.006	ppb	22.3	27	
Cd	111	103	He	0.013	ppb	10.5	12	
[Cd]	111	103	NoGas	0.006	ppb	107.3	8	
Sb	121	103	He	0.255	ppb	6.5	541	
Ba	138	159	He	0.016	ppb	34.3	147	
Hg	201	159	NoGas	5.055	ppt	35.5	7	
Tl	205	159	He	0.007	ppb	44.9	73	
Pb	208	159	NoGas	0.037	ppb	13.1	1,385	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.7	944,058	1137234.76333333	83.0	
Sc	45	H2	Analog	0.6	1,758,847	2175442.43333333	80.9	
Sc	45	He	Pulse	0.1	269,391	346512.113333333	77.7	
Sc	45	NoGas	Analog	0.8	2,577,578	3249380.29333333	79.3	
Ge	74	H2	Pulse	0.3	549,924	689413.513333333	79.8	
Ge	74	He	Pulse	0.8	164,098	206515.04	79.5	
Ge	74	NoGas	Pulse	0.3	681,753	873623.596666667	78.0	
Rh	103	He	Pulse	0.7	379,896	470246.54	80.8	
Rh	103	NoGas	Pulse	0.4	709,794	915357.836666667	77.5	
Tb	159	He	Pulse	1.0	558,935	642883.506666667	86.9	
Tb	159	NoGas	Pulse	0.5	1,294,721	1568165.69	82.6	
Bi	209	He	Pulse	0.6	332,142	377338.903333333	88.0	
Bi	209	NoGas	Pulse	0.2	776,414	893369.963333333	86.9	

CRL Verification Report - ICPMS5

Sample Name:	**9K21029-CRL4**	Total Dilution:	**1.0000**
File Name:	045CRL.d	Vial:	1102
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CRL1
Acq Time:	11/21/2019 14:50:52	I.S. Reference File:	003CALS.d
Comment:	**A19K144 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.168	ppb	24.4	449	93.33		
Na	23	45	He	12.135	ppb	2.5	14,423	134.83	R-11	< MRL
Mg	24	45	He	9.799	ppb	1.6	5,624	108.88		
Al	27	45	He	9.783	ppb	5.2	2,854	108.7		
K	39	45	He	11.649	ppb	14.5	26,457	129.43		
Ca	44	45	H2	9.389	ppb	8.4	2,166	104.32		
[Ca]	44	45	He	8.237	ppb	19.6	359	91.52		
Ti	47	45	NoGas	0.197	ppb	20.9	228	109.44		
V	51	74	He	-0.052	ppb	N/A	1,713	-28.89	R-11	< MRL
Cr	52	74	He	0.175	ppb	4.5	868	97.22		
Mn	55	74	He	0.188	ppb	12.6	539	104.44		
Fe	56	74	H2	8.870	ppb	0.7	91,898	98.56		
Co	59	74	He	0.186	ppb	2.4	987	103.33		
Ni	60	74	He	0.172	ppb	33.4	253	95.56		
Cu	65	74	He	0.210	ppb	1.3	352	116.67		
Zn	66	74	He	0.198	ppb	14.2	141	110		
As	75	74	He	0.170	ppb	27.2	89	94.44		
Se	78	74	H2	0.204	ppb	18.9	54	113.33		
Mo	95	103	He	0.199	ppb	15.3	317	110.56		
Ag	107	103	He	0.179	ppb	3.5	821	99.44		
Cd	111	103	He	0.174	ppb	11.2	136	96.67		
[Cd]	111	103	NoGas	0.189	ppb	14.4	361	105		
Sb	121	103	He	0.267	ppb	16.7	566	148.33	R-11	< MRL
Ba	138	159	He	0.199	ppb	4.2	969	110.56		
Hg	201	159	NoGas	11.775	ppt	14.2	14	163.54	R-11	< MRL
Tl	205	159	He	0.189	ppb	3.9	1,498	105		
Pb	208	159	NoGas	0.211	ppb	2.3	5,210	117.22		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.4	949,750	1137234.76333333	83.5	
Sc	45	H2	Analog	2.2	1,745,156	2175442.43333333	80.2	
Sc	45	He	Pulse	0.9	271,220	346512.113333333	78.3	
Sc	45	NoGas	Analog	0.3	2,601,849	3249380.29333333	80.1	
Ge	74	H2	Pulse	0.5	548,065	689413.513333333	79.5	
Ge	74	He	Pulse	0.9	165,060	206515.04	79.9	
Ge	74	NoGas	Pulse	0.4	682,207	873623.596666667	78.1	
Rh	103	He	Pulse	0.8	380,488	470246.54	80.9	
Rh	103	NoGas	Pulse	0.4	710,800	915357.836666667	77.7	
Tb	159	He	Pulse	1.2	562,467	642883.506666667	87.5	
Tb	159	NoGas	Mix	1.1	1,300,533	1568165.69	82.9	
Bi	209	He	Pulse	1.5	332,426	377338.903333333	88.1	
Bi	209	NoGas	Pulse	0.4	773,480	893369.963333333	86.6	

CRL Verification Report - ICPMS5

Sample Name:	**9K21029-CRL5**	Total Dilution:	**1.0000**
File Name:	046_CRL.d	Vial:	1103
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CRL2
Acq Time:	11/21/2019 14:55:32	I.S. Reference File:	003CALS.d
Comment:	**A19K145 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.862	ppb	4.3	2,224	95.78	
Na	23	45	He	47.594	ppb	0.9	49,071	105.76	
Mg	24	45	He	46.523	ppb	0.5	25,710	103.38	
Al	27	45	He	46.455	ppb	1.9	13,535	103.23	
K	39	45	He	48.942	ppb	5.1	44,414	108.76	
Ca	44	45	H2	45.168	ppb	5.3	9,006	100.37	
[Ca]	44	45	He	43.441	ppb	7.1	1,205	96.54	
Ti	47	45	NoGas	0.872	ppb	12.8	910	96.89	
V	51	74	He	0.606	ppb	6.5	3,897	67.33	R-11
Cr	52	74	He	0.891	ppb	1.3	3,669	99	
Mn	55	74	He	0.901	ppb	1.0	2,481	100.11	
Fe	56	74	H2	44.399	ppb	0.6	442,588	98.66	
Co	59	74	He	0.866	ppb	1.2	4,593	96.22	
Ni	60	74	He	0.933	ppb	2.3	1,225	103.67	
Cu	65	74	He	0.970	ppb	3.9	1,563	107.78	
Zn	66	74	He	0.915	ppb	6.0	587	101.67	
As	75	74	He	0.913	ppb	6.8	367	101.44	
Se	78	74	H2	0.920	ppb	5.1	239	102.22	
Mo	95	103	He	0.860	ppb	4.8	1,369	95.56	
Ag	107	103	He	0.871	ppb	1.1	4,018	96.78	
Cd	111	103	He	0.937	ppb	2.9	726	104.11	
[Cd]	111	103	NoGas	0.898	ppb	7.1	1,751	99.78	
Sb	121	103	He	0.867	ppb	3.2	1,776	96.33	
Ba	138	159	He	0.940	ppb	1.3	4,317	104.44	
Hg	201	159	NoGas	37.544	ppt	25.2	39	104.29	
Tl	205	159	He	0.888	ppb	2.7	7,004	98.67	
Pb	208	159	NoGas	0.969	ppb	2.0	21,921	107.67	

V MRL ↑ 2 ppb
ESS 11/22/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.3	965,747	1137234.76333333	84.9	
Sc	45	H2	Analog	0.8	1,748,310	2175442.43333333	80.4	
Sc	45	He	Pulse	1.1	274,317	346512.113333333	79.2	
Sc	45	NoGas	Analog	0.8	2,620,700	3249380.29333333	80.7	
Ge	74	H2	Pulse	0.3	549,334	689413.513333333	79.7	
Ge	74	He	Pulse	0.9	166,617	206515.04	80.7	
Ge	74	NoGas	Pulse	1.1	687,613	873623.596666667	78.7	
Rh	103	He	Pulse	1.1	382,910	470246.54	81.4	
Rh	103	NoGas	Pulse	0.5	720,057	915357.836666667	78.7	
Tb	159	He	Pulse	0.4	564,891	642883.506666667	87.9	
Tb	159	NoGas	Pulse	0.5	1,306,006	1568165.69	83.3	
Bi	209	He	Pulse	0.6	335,225	377338.903333333	88.8	
Bi	209	NoGas	Pulse	0.5	781,707	893369.963333333	87.5	

CRL Verification Report - ICPMS5

Sample Name:	**9K21029-CRL6**	Total Dilution:	**1.0000**
File Name:	047CRL_.d	Vial:	1104
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CRL3
Acq Time:	11/21/2019 15:00:13	I.S. Reference File:	003CALS.d
Comment:	**A19K146 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.743	ppb	2.4	4,475	96.83	
Na	23	45	He	93.211	ppb	0.2	93,673	103.57	
Mg	24	45	He	91.686	ppb	1.2	50,460	101.87	
Al	27	45	He	92.564	ppb	1.2	26,993	102.85	
K	39	45	He	94.890	ppb	3.3	66,344	105.43	
Ca	44	45	H2	90.117	ppb	0.9	18,027	100.13	
[Ca]	44	45	He	94.469	ppb	7.4	2,430	104.97	
Ti	47	45	NoGas	1.634	ppb	3.5	1,694	90.78	
V	51	74	He	1.488	ppb	1.4	6,822	82.67	
Cr	52	74	He	1.654	ppb	4.1	6,662	91.89	
Mn	55	74	He	1.814	ppb	2.5	4,975	100.78	
Fe	56	74	H2	89.214	ppb	0.2	892,622	99.13	
Co	59	74	He	1.790	ppb	0.9	9,512	99.44	
Ni	60	74	He	1.777	ppb	0.3	2,304	98.72	
Cu	65	74	He	1.876	ppb	3.4	3,008	104.22	
Zn	66	74	He	1.812	ppb	10.0	1,146	100.67	
As	75	74	He	1.836	ppb	1.3	715	102	
Se	78	74	H2	1.919	ppb	8.2	501	106.61	
Mo	95	103	He	1.756	ppb	2.8	2,801	97.56	
Ag	107	103	He	1.810	ppb	1.8	8,378	100.56	
Cd	111	103	He	1.852	ppb	3.2	1,439	102.89	
[Cd]	111	103	NoGas	1.765	ppb	1.9	3,470	98.06	
Sb	121	103	He	1.850	ppb	3.5	3,765	102.78	
Ba	138	159	He	1.860	ppb	3.4	8,477	103.33	
Hg	201	159	NoGas	78.150	ppt	13.4	78	108.54	
Tl	205	159	He	1.826	ppb	1.4	14,407	101.44	
Pb	208	159	NoGas	1.900	ppb	0.6	42,419	105.56	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.6	968,046	1137234.76333333	85.1	
Sc	45	H2	Analog	0.5	1,791,055	2175442.43333333	82.3	
Sc	45	He	Pulse	0.9	275,000	346512.113333333	79.4	
Sc	45	NoGas	Analog	1.3	2,646,549	3249380.29333333	81.4	
Ge	74	H2	Pulse	0.3	554,263	689413.513333333	80.4	
Ge	74	He	Pulse	1.0	167,076	206515.04	80.9	
Ge	74	NoGas	Pulse	0.8	694,366	873623.596666667	79.5	
Rh	103	He	Pulse	0.5	384,309	470246.54	81.7	
Rh	103	NoGas	Pulse	0.4	724,858	915357.836666667	79.2	
Tb	159	He	Pulse	0.7	565,674	642883.506666667	88.0	
Tb	159	NoGas	Pulse	0.4	1,306,874	1568165.69	83.3	
Bi	209	He	Pulse	0.5	336,150	377338.903333333	89.1	
Bi	209	NoGas	Pulse	0.4	780,973	893369.963333333	87.4	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K21029-CCV3**	Total Dilution:	**1.0000**
File Name:	058_CCV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCV
Acq Time:	11/21/2019 15:52:39	I.S. Reference File:	003CALS.d
Comment:	**A19J138 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.408	ppb	2.6	108,031	40	98.52	
Na	23	45	He	4050.063	ppb	1.1	4,207,794	4000	101.25	
Mg	24	45	He	4308.581	ppb	1.4	2,507,744	4000	107.71	
Al	27	45	He	4171.137	ppb	0.5	1,293,092	4000	104.28	
K	39	45	He	4232.079	ppb	1.2	2,162,374	4000	105.8	
Ca	44	45	H2	4022.218	ppb	1.4	830,989	4000	100.56	
[Ca]	44	45	He	4095.661	ppb	0.6	104,694	4000	102.39	
Ti	47	45	NoGas	101.456	ppb	2.2	109,180	100	101.46	
V	51	74	He	97.277	ppb	0.4	337,860	100	97.28	
Cr	52	74	He	97.388	ppb	0.3	398,157	100	97.39	
Mn	55	74	He	102.991	ppb	0.2	293,413	100	102.99	
Fe	56	74	H2	4204.192	ppb	0.9	44,252,632	4000	105.1	
Co	59	74	He	102.010	ppb	0.5	566,039	100	102.01	
Ni	60	74	He	106.742	ppb	0.4	142,309	100	106.74	
Cu	65	74	He	104.513	ppb	0.6	173,954	100	104.51	
Zn	66	74	He	102.672	ppb	0.2	66,707	100	102.67	
As	75	74	He	99.775	ppb	0.9	39,168	100	99.78	
Se	78	74	H2	40.737	ppb	1.0	11,229	40	101.84	
Mo	95	103	He	40.780	ppb	1.6	66,064	40	101.95	
Ag	107	103	He	41.084	ppb	0.4	193,328	40	102.71	
Cd	111	103	He	99.766	ppb	1.1	78,697	100	99.77	
[Cd]	111	103	NoGas	98.925	ppb	0.8	202,831	100	98.92	
Sb	121	103	He	41.420	ppb	1.5	85,000	40	103.55	
Ba	138	159	He	105.731	ppb	0.7	487,548	100	105.73	
Hg	201	159	NoGas	758.145	ppt	1.3	838	800	94.77	
Tl	205	159	He	40.292	ppb	0.2	324,115	40	100.73	
Pb	208	159	NoGas	95.792	ppb	3.1	2,400,458	100	95.79	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.4	1,040,670	1137234.76333333	91.5	
Sc	45	H2	Analog	1.9	1,889,802	2175442.43333333	86.9	
Sc	45	He	Pulse	0.7	292,829	346512.113333333	84.5	
Sc	45	NoGas	Analog	1.9	2,798,571	3249380.29333333	86.1	
Ge	74	H2	Pulse	0.7	586,114	689413.513333333	85.0	
Ge	74	He	Pulse	0.8	174,641	206515.04	84.6	
Ge	74	NoGas	Pulse	0.8	736,176	873623.596666667	84.3	
Rh	103	He	Pulse	0.6	390,746	470246.54	83.1	
Rh	103	NoGas	Pulse	0.3	755,243	915357.836666667	82.5	
Tb	159	He	Pulse	0.7	577,508	642883.506666667	89.8	
Tb	159	NoGas	Analog	3.8	1,487,948	1568165.69	94.9	
Bi	209	He	Pulse	0.6	336,098	377338.903333333	89.1	
Bi	209	NoGas	Pulse	0.5	800,341	893369.963333333	89.6	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K21029-CCB3**	Total Dilution:	**1.0000**
File Name:	059_CCB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCB
Acq Time:	11/21/2019 15:57:17	I.S. Reference File:	003CALS.d
Comment:	**CCB**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.009	ppb	89.0	58	
Na	23	45	He	8.389	ppb	2.3	11,756	
Mg	24	45	He	0.612	ppb	28.2	730	
Al	27	45	He	0.608	ppb	20.0	239	
K	39	45	He	5.250	ppb	13.7	25,486	
Ca	44	45	H2	1.338	ppb	17.3	689	
[Ca]	44	45	He	-1.025	ppb	N/A	152	
Ti	47	45	NoGas	0.018	ppb	44.6	55	
V	51	74	He	-0.086	ppb	N/A	1,730	
Cr	52	74	He	0.023	ppb	27.4	302	
Mn	55	74	He	0.016	ppb	40.0	82	
Fe	56	74	H2	1.442	ppb	3.1	20,204	
Co	59	74	He	0.007	ppb	12.7	51	
Ni	60	74	He	0.003	ppb	130.3	44	
Cu	65	74	He	0.025	ppb	82.4	66	
Zn	66	74	He	0.156	ppb	15.4	124	
As	75	74	He	0.028	ppb	77.6	39	
Se	78	74	H2	0.034	ppb	52.2	11	
Mo	95	103	He	0.039	ppb	50.6	69	
Ag	107	103	He	0.005	ppb	29.5	23	
Cd	111	103	He	0.017	ppb	63.4	17	
[Cd]	111	103	NoGas	0.015	ppb	17.3	29	
Sb	121	103	He	0.255	ppb	11.2	579	
Ba	138	159	He	0.023	ppb	14.1	188	
Hg	201	159	NoGas	5.221	ppt	44.6	8	
Tl	205	159	He	0.004	ppb	18.2	57	
Pb	208	159	NoGas	0.025	ppb	5.6	1,291	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.3	1,058,748	1137234.76333333	93.1	
Sc	45	H2	Analog	0.8	1,900,062	2175442.43333333	87.3	
Sc	45	He	Pulse	1.3	294,688	346512.113333333	85.0	
Sc	45	NoGas	Analog	0.9	2,918,865	3249380.29333333	89.8	
Ge	74	H2	Pulse	0.7	589,124	689413.513333333	85.5	
Ge	74	He	Pulse	1.1	178,099	206515.04	86.2	
Ge	74	NoGas	Pulse	0.5	752,119	873623.596666667	86.1	
Rh	103	He	Pulse	1.2	407,027	470246.54	86.6	
Rh	103	NoGas	Pulse	0.5	783,699	915357.836666667	85.6	
Tb	159	He	Pulse	1.1	581,250	642883.506666667	90.4	
Tb	159	NoGas	Analog	0.3	1,472,603	1568165.69	93.9	
Bi	209	He	Pulse	0.6	341,251	377338.903333333	90.4	
Bi	209	NoGas	Pulse	0.6	812,060	893369.963333333	90.9	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K21029-CCV4**	Total Dilution:	**1.0000**
File Name:	070_CCV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCV
Acq Time:	11/21/2019 16:52:07	I.S. Reference File:	003CALS.d
Comment:	**A19J138 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.233	ppb	0.1	108,380	40	98.08	
Na	23	45	He	4068.380	ppb	0.6	4,156,663	4000	101.71	
Mg	24	45	He	4389.476	ppb	0.8	2,512,555	4000	109.74	
Al	27	45	He	4164.444	ppb	1.3	1,269,601	4000	104.11	
K	39	45	He	4316.645	ppb	0.9	2,168,587	4000	107.92	
Ca	44	45	H2	3996.981	ppb	0.8	832,377	4000	99.92	
[Ca]	44	45	He	4102.864	ppb	0.6	103,135	4000	102.57	
Ti	47	45	NoGas	98.675	ppb	1.2	106,986	100	98.68	
V	51	74	He	98.002	ppb	0.9	334,824	100	98	
Cr	52	74	He	97.425	ppb	0.4	391,835	100	97.42	
Mn	55	74	He	102.942	ppb	0.7	288,499	100	102.94	
Fe	56	74	H2	4217.344	ppb	0.5	44,328,945	4000	105.43	
Co	59	74	He	102.409	ppb	0.6	559,011	100	102.41	
Ni	60	74	He	106.671	ppb	0.8	139,902	100	106.67	
Cu	65	74	He	105.032	ppb	0.7	171,975	100	105.03	
Zn	66	74	He	101.872	ppb	1.3	65,109	100	101.87	
As	75	74	He	100.601	ppb	1.6	38,850	100	100.6	
Se	78	74	H2	40.113	ppb	1.6	11,041	40	100.28	
Mo	95	103	He	40.803	ppb	0.7	65,548	40	102.01	
Ag	107	103	He	41.468	ppb	0.5	193,488	40	103.67	
Cd	111	103	He	100.356	ppb	1.1	78,492	100	100.36	
[Cd]	111	103	NoGas	99.132	ppb	1.1	199,447	100	99.13	
Sb	121	103	He	41.736	ppb	1.1	84,926	40	104.34	
Ba	138	159	He	106.146	ppb	0.5	486,274	100	106.15	
Hg	201	159	NoGas	795.964	ppt	5.6	829	800	99.5	
Tl	205	159	He	40.662	ppb	0.4	324,961	40	101.66	
Pb	208	159	NoGas	100.233	ppb	1.9	2,368,747	100	100.23	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.7	1,048,257	1137234.76333333	92.2	
Sc	45	H2	Analog	1.0	1,904,659	2175442.43333333	87.6	
Sc	45	He	Pulse	0.7	287,965	346512.113333333	83.1	
Sc	45	NoGas	Analog	1.1	2,819,179	3249380.29333333	86.8	
Ge	74	H2	Pulse	0.6	585,271	689413.513333333	84.9	
Ge	74	He	Pulse	0.8	171,804	206515.04	83.2	
Ge	74	NoGas	Pulse	0.4	726,848	873623.596666667	83.2	
Rh	103	He	Pulse	0.7	387,447	470246.54	82.4	
Rh	103	NoGas	Pulse	0.7	741,134	915357.836666667	81.0	
Tb	159	He	Pulse	0.7	573,755	642883.506666667	89.2	
Tb	159	NoGas	Analog	2.3	1,402,546	1568165.69	89.4	
Bi	209	He	Pulse	0.9	335,242	377338.903333333	88.8	
Bi	209	NoGas	Pulse	0.7	791,006	893369.963333333	88.5	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K21029-CCB4**	Total Dilution:	**1.0000**
File Name:	071_CCB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCB
Acq Time:	11/21/2019 16:56:45	I.S. Reference File:	003CALS.d
Comment:	**CCB**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.011	ppb	38.4	64	
Na	23	45	He	4.870	ppb	3.0	8,044	
Mg	24	45	He	0.670	ppb	13.9	762	
Al	27	45	He	0.651	ppb	3.6	251	
K	39	45	He	4.300	ppb	4.9	24,903	
Ca	44	45	H2	1.427	ppb	3.2	714	
[Ca]	44	45	He	0.823	ppb	86.4	199	
Ti	47	45	NoGas	0.014	ppb	169.2	50	
V	51	74	He	0.049	ppb	35.4	2,191	
Cr	52	74	He	0.019	ppb	82.7	287	
Mn	55	74	He	0.026	ppb	41.1	110	
Fe	56	74	H2	1.618	ppb	3.5	22,104	
Co	59	74	He	0.011	ppb	23.4	74	
Ni	60	74	He	0.000	ppb	47530.7	40	
Cu	65	74	He	0.020	ppb	49.6	57	
Zn	66	74	He	0.089	ppb	23.9	80	
As	75	74	He	0.025	ppb	43.4	38	
Se	78	74	H2	0.027	ppb	19.8	9	
Mo	95	103	He	0.029	ppb	32.8	52	
Ag	107	103	He	0.011	ppb	23.4	53	
Cd	111	103	He	0.024	ppb	35.0	22	
[Cd]	111	103	NoGas	0.020	ppb	51.3	39	
Sb	121	103	He	0.226	ppb	9.6	510	
Ba	138	159	He	0.019	ppb	12.9	169	
Hg	201	159	NoGas	3.251	ppt	78.0	6	
Tl	205	159	He	0.002	ppb	74.6	37	
Pb	208	159	NoGas	0.027	ppb	7.6	1,334	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.3	1,071,937	1137234.76333333	94.3	
Sc	45	H2	Analog	0.5	1,919,943	2175442.43333333	88.3	
Sc	45	He	Pulse	1.8	293,491	346512.113333333	84.7	
Sc	45	NoGas	Analog	1.3	2,923,607	3249380.29333333	90.0	
Ge	74	H2	Pulse	0.5	590,171	689413.513333333	85.6	
Ge	74	He	Pulse	1.9	177,283	206515.04	85.8	
Ge	74	NoGas	Pulse	1.0	758,938	873623.596666667	86.9	
Rh	103	He	Pulse	1.9	401,817	470246.54	85.4	
Rh	103	NoGas	Pulse	0.4	787,198	915357.836666667	86.0	
Tb	159	He	Pulse	1.8	583,001	642883.506666667	90.7	
Tb	159	NoGas	Analog	2.2	1,460,522	1568165.69	93.1	
Bi	209	He	Pulse	1.8	341,468	377338.903333333	90.5	
Bi	209	NoGas	Pulse	0.5	814,336	893369.963333333	91.2	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K21029-CCV5**	Total Dilution:	**1.0000**
File Name:	082_CCV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCV
Acq Time:	11/21/2019 17:47:48	I.S. Reference File:	003CALS.d
Comment:	**A19J138 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.567	ppb	4.5	109,290	40	101.42	
Na	23	45	He	4076.190	ppb	0.4	4,170,906	4000	101.9	
Mg	24	45	He	4359.882	ppb	1.4	2,499,394	4000	109	
Al	27	45	He	4149.413	ppb	1.6	1,266,901	4000	103.74	
K	39	45	He	4297.672	ppb	1.0	2,162,393	4000	107.44	
Ca	44	45	H2	4003.194	ppb	0.6	824,320	4000	100.08	
[Ca]	44	45	He	4052.701	ppb	1.0	102,027	4000	101.32	
Ti	47	45	NoGas	100.991	ppb	0.3	109,611	100	100.99	
V	51	74	He	96.854	ppb	0.4	333,373	100	96.85	
Cr	52	74	He	97.131	ppb	0.3	393,533	100	97.13	
Mn	55	74	He	102.876	ppb	0.3	290,443	100	102.88	
Fe	56	74	H2	4200.596	ppb	0.6	43,970,171	4000	105.01	
Co	59	74	He	101.342	ppb	0.1	557,277	100	101.34	
Ni	60	74	He	105.736	ppb	0.4	139,703	100	105.74	
Cu	65	74	He	103.808	ppb	0.6	171,228	100	103.81	
Zn	66	74	He	100.932	ppb	1.0	64,988	100	100.93	
As	75	74	He	99.968	ppb	0.2	38,892	100	99.97	
Se	78	74	H2	40.114	ppb	0.8	10,995	40	100.28	
Mo	95	103	He	40.479	ppb	1.0	65,418	40	101.2	
Ag	107	103	He	41.090	ppb	0.5	192,889	40	102.72	
Cd	111	103	He	100.116	ppb	0.3	78,781	100	100.12	
[Cd]	111	103	NoGas	99.435	ppb	0.4	202,646	100	99.44	
Sb	121	103	He	41.098	ppb	1.2	84,137	40	102.74	
Ba	138	159	He	105.112	ppb	0.2	487,541	100	105.11	
Hg	201	159	NoGas	737.180	ppt	3.2	821	800	92.15	
Tl	205	159	He	40.363	ppb	0.4	326,583	40	100.91	
Pb	208	159	NoGas	95.097	ppb	3.1	2,402,995	100	95.1	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	4.7	1,023,794	1137234.76333333	90.0	
Sc	45	H2	Analog	0.6	1,883,272	2175442.43333333	86.6	
Sc	45	He	Pulse	0.5	288,391	346512.113333333	83.2	
Sc	45	NoGas	Analog	0.7	2,821,889	3249380.29333333	86.8	
Ge	74	H2	Pulse	0.6	582,842	689413.513333333	84.5	
Ge	74	He	Pulse	0.7	173,069	206515.04	83.8	
Ge	74	NoGas	Pulse	0.5	734,372	873623.596666667	84.1	
Rh	103	He	Pulse	0.3	389,791	470246.54	82.9	
Rh	103	NoGas	Pulse	0.6	750,706	915357.836666667	82.0	
Tb	159	He	Pulse	0.7	580,896	642883.506666667	90.4	
Tb	159	NoGas	Analog	3.2	1,500,205	1568165.69	95.7	
Bi	209	He	Pulse	0.5	338,230	377338.903333333	89.6	
Bi	209	NoGas	Pulse	0.1	800,440	893369.963333333	89.6	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K21029-CCB5**	Total Dilution:	**1.0000**
File Name:	083_CCB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCB
Acq Time:	11/21/2019 17:52:26	I.S. Reference File:	003CALS.d
Comment:	**CCB**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.012	ppb	30.5	67	
Na	23	45	He	7.519	ppb	8.0	10,846	
Mg	24	45	He	0.740	ppb	20.0	806	
Al	27	45	He	1.250	ppb	18.8	439	
K	39	45	He	5.799	ppb	9.7	25,770	
Ca	44	45	H2	2.188	ppb	4.0	878	
[Ca]	44	45	He	0.141	ppb	1027.0	182	
Ti	47	45	NoGas	0.136	ppb	8.2	188	
V	51	74	He	-0.195	ppb	N/A	1,345	
Cr	52	74	He	0.011	ppb	71.2	252	
Mn	55	74	He	0.040	ppb	24.5	150	
Fe	56	74	H2	2.476	ppb	3.3	31,244	
Co	59	74	He	0.016	ppb	12.1	101	
Ni	60	74	He	0.011	ppb	212.8	54	
Cu	65	74	He	0.021	ppb	41.4	60	
Zn	66	74	He	0.074	ppb	19.0	70	
As	75	74	He	0.018	ppb	158.6	35	
Se	78	74	H2	0.027	ppb	33.7	9	
Mo	95	103	He	0.030	ppb	57.5	54	
Ag	107	103	He	0.005	ppb	39.1	27	
Cd	111	103	He	0.023	ppb	35.0	21	
[Cd]	111	103	NoGas	0.022	ppb	56.5	44	
Sb	121	103	He	0.151	ppb	17.8	359	
Ba	138	159	He	0.026	ppb	52.6	203	
Hg	201	159	NoGas	0.528	ppt	182.0	3	
Tl	205	159	He	0.005	ppb	12.9	61	
Pb	208	159	NoGas	0.039	ppb	10.7	1,619	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.2	1,078,407	1137234.76333333	94.8	
Sc	45	H2	Analog	0.8	1,928,140	2175442.43333333	88.6	
Sc	45	He	Pulse	0.6	294,707	346512.113333333	85.0	
Sc	45	NoGas	Analog	1.7	2,931,457	3249380.29333333	90.2	
Ge	74	H2	Pulse	0.6	591,144	689413.513333333	85.7	
Ge	74	He	Pulse	0.7	178,131	206515.04	86.3	
Ge	74	NoGas	Pulse	0.8	764,067	873623.596666667	87.5	
Rh	103	He	Pulse	0.3	408,477	470246.54	86.9	
Rh	103	NoGas	Pulse	0.3	795,664	915357.836666667	86.9	
Tb	159	He	Pulse	0.3	587,657	642883.506666667	91.4	
Tb	159	NoGas	Analog	2.9	1,453,855	1568165.69	92.7	
Bi	209	He	Pulse	0.1	346,440	377338.903333333	91.8	
Bi	209	NoGas	Pulse	0.3	829,744	893369.963333333	92.9	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K21029-CCV6**	Total Dilution:	**1.0000**
File Name:	094_CCV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCV
Acq Time:	11/21/2019 18:42:47	I.S. Reference File:	003CALS.d
Comment:	**A19J138 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.368	ppb	0.1	115,330	40	100.92	
Na	23	45	He	4100.825	ppb	0.1	4,415,130	4000	102.52	
Mg	24	45	He	4344.405	ppb	0.5	2,620,487	4000	108.61	
Al	27	45	He	4197.917	ppb	1.0	1,348,527	4000	104.95	
K	39	45	He	4321.255	ppb	1.0	2,287,504	4000	108.03	
Ca	44	45	H2	3954.286	ppb	0.9	866,448	4000	98.86	
[Ca]	44	45	He	4128.710	ppb	1.2	109,365	4000	103.22	
Ti	47	45	NoGas	101.524	ppb	1.5	118,062	100	101.52	
V	51	74	He	98.272	ppb	0.3	351,837	100	98.27	
Cr	52	74	He	97.386	ppb	0.6	410,441	100	97.39	
Mn	55	74	He	102.410	ppb	0.3	300,762	100	102.41	
Fe	56	74	H2	4260.014	ppb	0.4	46,295,358	4000	106.5	
Co	59	74	He	102.052	ppb	0.1	583,754	100	102.05	
Ni	60	74	He	106.519	ppb	0.4	146,398	100	106.52	
Cu	65	74	He	103.809	ppb	0.4	178,114	100	103.81	
Zn	66	74	He	102.051	ppb	0.4	68,350	100	102.05	
As	75	74	He	100.824	ppb	0.3	40,803	100	100.82	
Se	78	74	H2	39.930	ppb	0.4	11,363	40	99.82	
Mo	95	103	He	40.747	ppb	1.1	67,914	40	101.87	
Ag	107	103	He	41.022	ppb	0.3	198,597	40	102.56	
Cd	111	103	He	99.450	ppb	0.5	80,709	100	99.45	
[Cd]	111	103	NoGas	98.052	ppb	0.3	211,195	100	98.05	
Sb	121	103	He	41.259	ppb	0.6	87,110	40	103.15	
Ba	138	159	He	108.268	ppb	0.5	503,677	100	108.27	
Hg	201	159	NoGas	750.269	ppt	5.3	853	800	93.78	
Tl	205	159	He	40.139	ppb	0.4	325,739	40	100.35	
Pb	208	159	NoGas	94.947	ppb	1.7	2,449,188	100	94.95	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.7	1,084,130	1137234.76333333	95.3	
Sc	45	H2	Analog	0.6	2,004,013	2175442.43333333	92.1	
Sc	45	He	Pulse	0.6	303,448	346512.113333333	87.6	
Sc	45	NoGas	Analog	1.4	3,023,973	3249380.29333333	93.1	
Ge	74	H2	Pulse	0.3	605,105	689413.513333333	87.8	
Ge	74	He	Pulse	0.5	180,031	206515.04	87.2	
Ge	74	NoGas	Pulse	0.8	775,030	873623.596666667	88.7	
Rh	103	He	Pulse	1.1	401,990	470246.54	85.5	
Rh	103	NoGas	Pulse	0.4	793,405	915357.836666667	86.7	
Tb	159	He	Pulse	0.6	582,620	642883.506666667	90.6	
Tb	159	NoGas	Analog	1.4	1,530,680	1568165.69	97.6	
Bi	209	He	Pulse	0.8	337,493	377338.903333333	89.4	
Bi	209	NoGas	Pulse	0.5	812,460	893369.963333333	90.9	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K21029-CCB6**	Total Dilution:	**1.0000**
File Name:	095_CCB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCB
Acq Time:	11/21/2019 18:47:24	I.S. Reference File:	003CALS.d
Comment:	**CCB**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.009	ppb	126.1	63	
Na	23	45	He	4.485	ppb	4.8	8,082	
Mg	24	45	He	0.784	ppb	10.6	876	
Al	27	45	He	1.969	ppb	6.7	699	
K	39	45	He	6.094	ppb	17.2	27,293	
Ca	44	45	H2	1.976	ppb	12.7	877	
[Ca]	44	45	He	-0.386	ppb	N/A	178	
Ti	47	45	NoGas	0.214	ppb	20.9	295	
V	51	74	He	-0.221	ppb	N/A	1,302	
Cr	52	74	He	0.006	ppb	176.7	243	
Mn	55	74	He	0.057	ppb	20.0	208	
Fe	56	74	H2	4.169	ppb	15.4	51,136	
Co	59	74	He	0.017	ppb	17.1	111	
Ni	60	74	He	0.024	ppb	57.9	76	
Cu	65	74	He	0.016	ppb	44.0	52	
Zn	66	74	He	0.057	ppb	23.4	61	
As	75	74	He	0.016	ppb	205.8	35	
Se	78	74	H2	0.042	ppb	20.5	13	
Mo	95	103	He	0.034	ppb	39.3	63	
Ag	107	103	He	0.007	ppb	43.7	38	
Cd	111	103	He	0.013	ppb	41.4	14	
[Cd]	111	103	NoGas	0.028	ppb	32.6	61	
Sb	121	103	He	0.231	ppb	11.5	544	
Ba	138	159	He	0.035	ppb	24.3	247	
Hg	201	159	NoGas	3.893	ppt	14.4	7	
Tl	205	159	He	0.006	ppb	72.6	70	
Pb	208	159	NoGas	0.058	ppb	4.0	2,192	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	3.1	1,138,352	1137234.76333333	100.1	
Sc	45	H2	Analog	0.6	2,029,083	2175442.43333333	93.3	
Sc	45	He	Pulse	0.7	310,330	346512.113333333	89.6	
Sc	45	NoGas	Analog	0.9	3,140,482	3249380.29333333	96.6	
Ge	74	H2	Pulse	0.4	614,376	689413.513333333	89.1	
Ge	74	He	Pulse	1.3	184,879	206515.04	89.5	
Ge	74	NoGas	Pulse	0.8	805,118	873623.596666667	92.2	
Rh	103	He	Pulse	1.2	419,344	470246.54	89.2	
Rh	103	NoGas	Pulse	0.5	841,021	915357.836666667	91.9	
Tb	159	He	Pulse	1.4	589,626	642883.506666667	91.7	
Tb	159	NoGas	Analog	2.4	1,535,294	1568165.69	97.9	
Bi	209	He	Pulse	0.8	343,045	377338.903333333	90.9	
Bi	209	NoGas	Pulse	0.2	839,921	893369.963333333	94.0	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K21029-CCV7**	Total Dilution:	**1.0000**
File Name:	106_CCV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCV
Acq Time:	11/21/2019 19:37:56	I.S. Reference File:	003CALS.d
Comment:	**A19J138 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.490	ppb	3.1	116,427	40	101.22	
Na	23	45	He	4086.519	ppb	0.5	4,433,672	4000	102.16	
Mg	24	45	He	4384.946	ppb	0.7	2,665,240	4000	109.62	
Al	27	45	He	4223.446	ppb	1.6	1,367,223	4000	105.59	
K	39	45	He	4395.152	ppb	1.1	2,344,245	4000	109.88	
Ca	44	45	H2	3972.388	ppb	0.6	888,807	4000	99.31	
[Ca]	44	45	He	4112.126	ppb	1.7	109,768	4000	102.8	
Ti	47	45	NoGas	99.535	ppb	0.8	117,446	100	99.54	
V	51	74	He	98.011	ppb	0.8	355,411	100	98.01	
Cr	52	74	He	97.652	ppb	1.0	416,840	100	97.65	
Mn	55	74	He	102.800	ppb	0.5	305,794	100	102.8	
Fe	56	74	H2	4248.963	ppb	0.9	46,872,319	4000	106.22	
Co	59	74	He	102.269	ppb	0.7	592,518	100	102.27	
Ni	60	74	He	106.582	ppb	0.4	148,367	100	106.58	
Cu	65	74	He	104.297	ppb	0.5	181,255	100	104.3	
Zn	66	74	He	100.544	ppb	0.3	68,208	100	100.54	
As	75	74	He	101.113	ppb	0.3	41,446	100	101.11	
Se	78	74	H2	39.904	ppb	1.2	11,528	40	99.76	
Mo	95	103	He	40.730	ppb	1.6	67,989	40	101.82	
Ag	107	103	He	41.028	ppb	1.3	198,937	40	102.57	
Cd	111	103	He	99.692	ppb	0.1	81,033	100	99.69	
[Cd]	111	103	NoGas	97.833	ppb	0.3	212,536	100	97.83	
Sb	121	103	He	41.053	ppb	0.9	86,812	40	102.63	
Ba	138	159	He	108.763	ppb	0.3	506,801	100	108.76	
Hg	201	159	NoGas	753.098	ppt	3.1	857	800	94.14	
Tl	205	159	He	39.780	ppb	0.7	323,354	40	99.45	
Pb	208	159	NoGas	94.148	ppb	0.5	2,429,837	100	94.15	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.9	1,091,801	1137234.76333333	96.0	
Sc	45	H2	Analog	0.9	2,046,359	2175442.43333333	94.1	
Sc	45	He	Pulse	0.2	305,785	346512.113333333	88.2	
Sc	45	NoGas	Analog	0.6	3,067,955	3249380.29333333	94.4	
Ge	74	H2	Pulse	0.4	614,252	689413.513333333	89.1	
Ge	74	He	Pulse	0.8	182,349	206515.04	88.3	
Ge	74	NoGas	Pulse	0.6	780,824	873623.596666667	89.4	
Rh	103	He	Pulse	0.7	402,639	470246.54	85.6	
Rh	103	NoGas	Pulse	0.6	800,231	915357.836666667	87.4	
Tb	159	He	Pulse	0.3	583,572	642883.506666667	90.8	
Tb	159	NoGas	Analog	1.0	1,531,269	1568165.69	97.6	
Bi	209	He	Pulse	0.7	334,820	377338.903333333	88.7	
Bi	209	NoGas	Pulse	0.4	808,743	893369.963333333	90.5	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K21029-CCB7**	Total Dilution:	**1.0000**
File Name:	107_CCB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCB
Acq Time:	11/21/2019 19:42:33	I.S. Reference File:	003CALS.d
Comment:	**CCB**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.006	ppb	98.3	53	
Na	23	45	He	2.722	ppb	11.3	6,203	
Mg	24	45	He	0.895	ppb	20.3	953	
Al	27	45	He	1.907	ppb	12.7	684	
K	39	45	He	6.627	ppb	15.2	27,851	
Ca	44	45	H2	1.683	ppb	7.5	811	
[Ca]	44	45	He	0.647	ppb	200.5	208	
Ti	47	45	NoGas	0.148	ppb	14.4	217	
V	51	74	He	-0.198	ppb	N/A	1,396	
Cr	52	74	He	0.011	ppb	89.7	267	
Mn	55	74	He	0.073	ppb	18.9	259	
Fe	56	74	H2	3.489	ppb	5.2	43,813	
Co	59	74	He	0.011	ppb	27.8	80	
Ni	60	74	He	0.004	ppb	198.1	48	
Cu	65	74	He	0.022	ppb	61.3	64	
Zn	66	74	He	0.040	ppb	60.1	50	
As	75	74	He	0.013	ppb	77.9	34	
Se	78	74	H2	0.056	ppb	18.9	17	
Mo	95	103	He	0.027	ppb	35.6	51	
Ag	107	103	He	0.007	ppb	25.8	39	
Cd	111	103	He	0.025	ppb	11.0	23	
[Cd]	111	103	NoGas	0.027	ppb	18.4	59	
Sb	121	103	He	0.155	ppb	14.3	378	
Ba	138	159	He	0.034	ppb	45.0	238	
Hg	201	159	NoGas	4.347	ppt	39.0	8	
Tl	205	159	He	0.009	ppb	19.0	92	
Pb	208	159	NoGas	0.040	ppb	4.5	1,757	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.4	1,120,405	1137234.76333333	98.5	
Sc	45	H2	Analog	0.4	2,027,721	2175442.43333333	93.2	
Sc	45	He	Pulse	0.6	313,376	346512.113333333	90.4	
Sc	45	NoGas	Analog	1.7	3,146,717	3249380.29333333	96.8	
Ge	74	H2	Pulse	0.1	616,610	689413.513333333	89.4	
Ge	74	He	Pulse	1.2	186,331	206515.04	90.2	
Ge	74	NoGas	Pulse	1.0	813,373	873623.596666667	93.1	
Rh	103	He	Pulse	0.9	421,299	470246.54	89.6	
Rh	103	NoGas	Pulse	0.6	844,910	915357.836666667	92.3	
Tb	159	He	Pulse	0.9	586,087	642883.506666667	91.2	
Tb	159	NoGas	Analog	1.2	1,562,092	1568165.69	99.6	
Bi	209	He	Pulse	1.3	343,120	377338.903333333	90.9	
Bi	209	NoGas	Pulse	0.5	833,229	893369.963333333	93.3	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K21029-CCV8**	Total Dilution:	**1.0000**
File Name:	118_CCV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCV
Acq Time:	11/21/2019 20:33:23	I.S. Reference File:	003CALS.d
Comment:	**A19J138 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.544	ppb	1.3	115,440	40	101.36	
Na	23	45	He	4102.366	ppb	0.6	4,488,991	4000	102.56	
Mg	24	45	He	4378.936	ppb	0.5	2,684,459	4000	109.47	
Al	27	45	He	4247.415	ppb	1.0	1,386,777	4000	106.19	
K	39	45	He	4355.492	ppb	0.8	2,343,210	4000	108.89	
Ca	44	45	H2	3927.758	ppb	1.3	890,721	4000	98.19	
[Ca]	44	45	He	4105.992	ppb	1.1	110,543	4000	102.65	
Ti	47	45	NoGas	98.979	ppb	0.3	117,539	100	98.98	
V	51	74	He	98.443	ppb	0.3	358,469	100	98.44	
Cr	52	74	He	97.853	ppb	0.1	419,460	100	97.85	
Mn	55	74	He	103.307	ppb	0.4	308,582	100	103.31	
Fe	56	74	H2	4269.654	ppb	0.1	47,373,166	4000	106.74	
Co	59	74	He	101.546	ppb	0.4	590,789	100	101.55	
Ni	60	74	He	105.934	ppb	0.3	148,083	100	105.93	
Cu	65	74	He	104.131	ppb	0.6	181,721	100	104.13	
Zn	66	74	He	101.460	ppb	1.2	69,117	100	101.46	
As	75	74	He	101.148	ppb	0.6	41,633	100	101.15	
Se	78	74	H2	40.401	ppb	1.1	11,739	40	101	
Mo	95	103	He	40.737	ppb	1.5	68,333	40	101.84	
Ag	107	103	He	41.002	ppb	1.2	199,784	40	102.5	
Cd	111	103	He	99.799	ppb	0.5	81,513	100	99.8	
[Cd]	111	103	NoGas	97.599	ppb	1.0	211,768	100	97.6	
Sb	121	103	He	41.409	ppb	1.0	87,989	40	103.52	
Ba	138	159	He	108.552	ppb	0.2	508,901	100	108.55	
Hg	201	159	NoGas	783.665	ppt	7.9	866	800	97.96	
Tl	205	159	He	39.851	ppb	0.1	325,914	40	99.63	
Pb	208	159	NoGas	97.339	ppb	5.3	2,442,603	100	97.34	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.6	1,080,569	1137234.76333333	95.0	
Sc	45	H2	Analog	1.5	2,074,259	2175442.43333333	95.3	
Sc	45	He	Pulse	0.2	308,410	346512.113333333	89.0	
Sc	45	NoGas	Analog	1.5	3,087,542	3249380.29333333	95.0	
Ge	74	H2	Pulse	0.2	617,797	689413.513333333	89.6	
Ge	74	He	Pulse	0.2	183,109	206515.04	88.7	
Ge	74	NoGas	Pulse	1.0	784,006	873623.596666667	89.7	
Rh	103	He	Pulse	0.6	404,592	470246.54	86.0	
Rh	103	NoGas	Pulse	0.5	799,270	915357.836666667	87.3	
Tb	159	He	Pulse	0.0	587,135	642883.506666667	91.3	
Tb	159	NoGas	Analog	4.8	1,491,347	1568165.69	95.1	
Bi	209	He	Pulse	0.5	337,444	377338.903333333	89.4	
Bi	209	NoGas	Pulse	0.5	810,524	893369.963333333	90.7	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K21029-CCB8**	Total Dilution:	**1.0000**
File Name:	119_CCB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCB
Acq Time:	11/21/2019 20:38:00	I.S. Reference File:	003CALS.d
Comment:	**CCB**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.012	ppb	33.3	72	
Na	23	45	He	1.709	ppb	5.2	5,065	
Mg	24	45	He	0.390	ppb	30.2	637	
Al	27	45	He	0.783	ppb	17.9	311	
K	39	45	He	7.208	ppb	8.3	28,089	
Ca	44	45	H2	0.972	ppb	30.4	659	
[Ca]	44	45	He	-1.241	ppb	N/A	156	
Ti	47	45	NoGas	0.043	ppb	67.5	88	
V	51	74	He	-0.103	ppb	N/A	1,733	
Cr	52	74	He	0.013	ppb	45.2	273	
Mn	55	74	He	0.020	ppb	45.4	97	
Fe	56	74	H2	1.272	ppb	5.8	19,245	
Co	59	74	He	0.009	ppb	40.7	64	
Ni	60	74	He	0.012	ppb	138.9	59	
Cu	65	74	He	0.017	ppb	68.9	54	
Zn	66	74	He	0.037	ppb	82.4	48	
As	75	74	He	0.037	ppb	53.6	44	
Se	78	74	H2	0.036	ppb	24.6	12	
Mo	95	103	He	0.027	ppb	30.9	50	
Ag	107	103	He	0.005	ppb	66.9	24	
Cd	111	103	He	0.028	ppb	7.9	26	
[Cd]	111	103	NoGas	0.025	ppb	19.0	52	
Sb	121	103	He	0.268	ppb	4.0	622	
Ba	138	159	He	0.018	ppb	47.3	164	
Hg	201	159	NoGas	1.784	ppt	123.1	5	
Tl	205	159	He	0.005	ppb	22.9	63	
Pb	208	159	NoGas	0.029	ppb	13.9	1,483	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.8	1,127,308	1137234.76333333	99.1	
Sc	45	H2	Analog	0.4	2,043,312	2175442.43333333	93.9	
Sc	45	He	Pulse	0.7	312,532	346512.113333333	90.2	
Sc	45	NoGas	Analog	2.6	3,140,831	3249380.29333333	96.7	
Ge	74	H2	Pulse	0.6	616,247	689413.513333333	89.4	
Ge	74	He	Pulse	0.8	185,094	206515.04	89.6	
Ge	74	NoGas	Pulse	0.7	805,927	873623.596666667	92.3	
Rh	103	He	Pulse	0.5	417,694	470246.54	88.8	
Rh	103	NoGas	Pulse	0.6	833,428	915357.836666667	91.0	
Tb	159	He	Pulse	1.2	586,854	642883.506666667	91.3	
Tb	159	NoGas	Analog	2.5	1,567,817	1568165.69	100.0	
Bi	209	He	Pulse	0.8	341,107	377338.903333333	90.4	
Bi	209	NoGas	Pulse	0.7	824,532	893369.963333333	92.3	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K21029-CCV9**	Total Dilution:	**1.0000**
File Name:	127_CCV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCV
Acq Time:	11/21/2019 21:15:14	I.S. Reference File:	003CALS.d
Comment:	**A19J138 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.226	ppb	2.8	110,932	40	98.06	
Na	23	45	He	4121.824	ppb	1.5	4,312,555	4000	103.05	
Mg	24	45	He	4390.307	ppb	2.1	2,573,362	4000	109.76	
Al	27	45	He	4253.427	ppb	2.4	1,327,821	4000	106.34	
K	39	45	He	4425.676	ppb	1.2	2,276,205	4000	110.64	> +/- 10%
Ca	44	45	H2	3977.860	ppb	1.6	854,213	4000	99.45	
[Ca]	44	45	He	4120.976	ppb	0.8	106,082	4000	103.02	
Ti	47	45	NoGas	98.705	ppb	1.9	110,553	100	98.7	
V	51	74	He	98.074	ppb	0.7	341,884	100	98.07	
Cr	52	74	He	97.394	ppb	0.8	399,665	100	97.39	
Mn	55	74	He	103.047	ppb	1.4	294,659	100	103.05	
Fe	56	74	H2	4280.349	ppb	0.5	45,392,752	4000	107.01	
Co	59	74	He	101.363	ppb	0.7	564,548	100	101.36	
Ni	60	74	He	106.052	ppb	1.2	141,916	100	106.05	
Cu	65	74	He	103.201	ppb	0.5	172,415	100	103.2	
Zn	66	74	He	101.294	ppb	1.0	66,059	100	101.29	
As	75	74	He	100.728	ppb	0.2	39,692	100	100.73	
Se	78	74	H2	40.450	ppb	1.4	11,233	40	101.12	
Mo	95	103	He	40.677	ppb	0.7	66,207	40	101.69	
Ag	107	103	He	40.836	ppb	0.8	193,041	40	102.09	
Cd	111	103	He	99.196	ppb	0.8	78,605	100	99.2	
[Cd]	111	103	NoGas	98.351	ppb	1.0	202,189	100	98.35	
Sb	121	103	He	41.157	ppb	0.5	84,854	40	102.89	
Ba	138	159	He	107.408	ppb	0.5	490,544	100	107.41	
Hg	201	159	NoGas	741.973	ppt	4.1	821	800	92.75	
Tl	205	159	He	40.004	ppb	0.4	318,718	40	100.01	
Pb	208	159	NoGas	94.190	ppb	1.4	2,364,814	100	94.19	

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ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	3.4	1,073,828	1137234.76333333	94.4	
Sc	45	H2	Analog	1.7	1,964,278	2175442.43333333	90.3	
Sc	45	He	Pulse	0.3	294,891	346512.113333333	85.1	
Sc	45	NoGas	Analog	1.7	2,912,673	3249380.29333333	89.6	
Ge	74	H2	Pulse	0.4	590,499	689413.513333333	85.7	
Ge	74	He	Pulse	0.8	175,297	206515.04	84.9	
Ge	74	NoGas	Pulse	0.7	743,178	873623.596666667	85.1	
Rh	103	He	Pulse	1.0	392,547	470246.54	83.5	
Rh	103	NoGas	Pulse	0.7	757,231	915357.836666667	82.7	
Tb	159	He	Pulse	1.0	571,999	642883.506666667	89.0	
Tb	159	NoGas	Analog	1.3	1,489,763	1568165.69	95.0	
Bi	209	He	Pulse	0.8	328,117	377338.903333333	87.0	
Bi	209	NoGas	Pulse	0.4	786,183	893369.963333333	88.0	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K21029-CCVA**	Total Dilution:	**1.0000**
File Name:	128_CCV.d	Vial:	2
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCV
Acq Time:	11/21/2019 21:19:49	I.S. Reference File:	003CALS.d
Comment:	**A19J138 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.570	ppb	2.3	108,924	40	98.92	
Na	23	45	He	4114.453	ppb	0.5	4,230,330	4000	102.86	
Mg	24	45	He	4385.036	ppb	1.3	2,525,793	4000	109.63	
Al	27	45	He	4235.014	ppb	0.2	1,299,242	4000	105.88	
K	39	45	He	4399.014	ppb	0.8	2,223,469	4000	109.98	
Ca	44	45	H2	3972.916	ppb	1.0	840,401	4000	99.32	
[Ca]	44	45	He	4137.537	ppb	1.2	104,663	4000	103.44	
Ti	47	45	NoGas	99.377	ppb	1.0	110,996	100	99.38	
V	51	74	He	97.743	ppb	0.3	335,690	100	97.74	
Cr	52	74	He	97.727	ppb	0.6	395,089	100	97.73	
Mn	55	74	He	102.566	ppb	0.5	288,943	100	102.57	
Fe	56	74	H2	4288.859	ppb	0.6	44,840,911	4000	107.22	
Co	59	74	He	101.485	ppb	0.2	556,861	100	101.48	
Ni	60	74	He	105.407	ppb	0.6	138,970	100	105.41	
Cu	65	74	He	103.563	ppb	0.5	170,456	100	103.56	
Zn	66	74	He	101.492	ppb	2.8	65,210	100	101.49	
As	75	74	He	100.425	ppb	0.7	38,986	100	100.42	
Se	78	74	H2	40.134	ppb	0.6	10,988	40	100.34	
Mo	95	103	He	41.092	ppb	0.4	65,333	40	102.73	
Ag	107	103	He	40.973	ppb	0.7	189,216	40	102.43	
Cd	111	103	He	100.256	ppb	0.6	77,612	100	100.26	
[Cd]	111	103	NoGas	98.703	ppb	1.0	201,332	100	98.7	
Sb	121	103	He	41.804	ppb	1.2	84,190	40	104.51	
Ba	138	159	He	106.982	ppb	0.4	482,450	100	106.98	
Hg	201	159	NoGas	747.941	ppt	6.6	800	800	93.49	
Tl	205	159	He	40.244	ppb	0.5	316,585	40	100.61	
Pb	208	159	NoGas	96.521	ppb	2.2	2,344,445	100	96.52	

K passes here - ok ESS 11/22/19

ISTD Table:

Name	Mass	Tune Mode	Del.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.6	1,044,807	1137234.76333333	91.9	
Sc	45	H2	Analog	1.1	1,934,719	2175442.43333333	88.9	
Sc	45	He	Pulse	0.4	289,788	346512.113333333	83.6	
Sc	45	NoGas	Analog	0.4	2,903,972	3249380.29333333	89.4	
Ge	74	H2	Pulse	0.1	582,156	689413.513333333	84.4	
Ge	74	He	Pulse	0.5	172,696	206515.04	83.6	
Ge	74	NoGas	Pulse	0.5	736,856	873623.596666667	84.3	
Rh	103	He	Pulse	0.6	383,474	470246.54	81.5	
Rh	103	NoGas	Pulse	0.5	751,384	915357.836666667	82.1	
Tb	159	He	Pulse	1.1	564,786	642883.506666667	87.9	
Tb	159	NoGas	Analog	2.2	1,441,571	1568165.69	91.9	
Bi	209	He	Pulse	0.8	326,387	377338.903333333	86.5	
Bi	209	NoGas	Pulse	0.2	780,641	893369.963333333	87.4	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K21029-CCB9**	Total Dilution:	**1.0000**
File Name:	129_CCB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CCB
Acq Time:	11/21/2019 21:24:27	I.S. Reference File:	003CALS.d
Comment:	**CCB**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.008	ppb	18.7	54	
Na	23	45	He	2.036	ppb	9.6	5,153	
Mg	24	45	He	0.360	ppb	17.2	588	
Al	27	45	He	0.801	ppb	16.1	301	
K	39	45	He	6.911	ppb	11.6	26,526	
Ca	44	45	H2	1.268	ppb	11.7	700	
[Ca]	44	45	He	-0.511	ppb	N/A	167	
Ti	47	45	NoGas	0.026	ppb	41.5	63	
V	51	74	He	-0.065	ppb	N/A	1,784	
Cr	52	74	He	0.013	ppb	76.3	258	
Mn	55	74	He	0.025	ppb	15.0	107	
Fe	56	74	H2	1.739	ppb	6.4	23,508	
Co	59	74	He	0.010	ppb	23.6	67	
Ni	60	74	He	0.001	ppb	552.6	41	
Cu	65	74	He	0.012	ppb	48.3	44	
Zn	66	74	He	0.070	ppb	11.6	67	
As	75	74	He	0.033	ppb	14.1	40	
Se	78	74	H2	0.047	ppb	12.2	14	
Mo	95	103	He	0.041	ppb	50.1	71	
Ag	107	103	He	0.006	ppb	34.4	31	
Cd	111	103	He	0.020	ppb	11.7	19	
[Cd]	111	103	NoGas	0.021	ppb	48.0	41	
Sb	121	103	He	0.275	ppb	8.8	612	
Ba	138	159	He	0.021	ppb	19.2	174	
Hg	201	159	NoGas	3.624	ppt	13.2	7	
Tl	205	159	He	0.006	ppb	17.7	71	
Pb	208	159	NoGas	0.038	ppb	6.1	1,663	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.5	1,047,674	1137234.76333333	92.1	
Sc	45	H2	Analog	0.8	1,972,781	2175442.43333333	90.7	
Sc	45	He	Pulse	0.8	296,844	346512.113333333	85.7	
Sc	45	NoGas	Analog	1.3	2,917,622	3249380.29333333	89.8	
Ge	74	H2	Pulse	0.9	593,497	689413.513333333	86.1	
Ge	74	He	Pulse	0.8	176,384	206515.04	85.4	
Ge	74	NoGas	Pulse	1.4	759,744	873623.596666667	87.0	
Rh	103	He	Pulse	0.8	399,785	470246.54	85.0	
Rh	103	NoGas	Pulse	0.5	785,451	915357.836666667	85.8	
Tb	159	He	Pulse	1.2	570,728	642883.506666667	88.8	
Tb	159	NoGas	Analog	3.9	1,531,062	1568165.69	97.6	
Bi	209	He	Pulse	0.6	332,460	377338.903333333	88.1	
Bi	209	NoGas	Pulse	0.1	801,419	893369.963333333	89.7	

CRL Verification Report - ICPMS5

Sample Name:	**9K21029-CRL7**	Total Dilution:	**1.0000**
File Name:	130CRL.d	Vial:	1102
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CRL1
Acq Time:	11/21/2019 21:29:09	I.S. Reference File:	003CALS.d
Comment:	**A19K144 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.188	ppb	15.5	560	104.44		
Na	23	45	He	10.767	ppb	1.3	14,408	119.63		
Mg	24	45	He	9.667	ppb	0.8	6,106	107.41		
Al	27	45	He	9.674	ppb	2.0	3,104	107.49		
K	39	45	He	14.781	ppb	4.7	30,699	164.23	R-11	<MRL
Ca	44	45	H2	9.427	ppb	7.9	2,478	104.74		
[Ca]	44	45	He	8.002	ppb	16.3	389	88.91		
Ti	47	45	NoGas	0.190	ppb	16.6	255	105.56		
V	51	74	He	0.134	ppb	4.8	2,505	74.44		
Cr	52	74	He	0.170	ppb	20.9	918	94.44		
Mn	55	74	He	0.212	ppb	3.7	652	117.78		
Fe	56	74	H2	9.519	ppb	1.1	106,559	105.77		
Co	59	74	He	0.184	ppb	11.7	1,057	102.22		
Ni	60	74	He	0.168	ppb	11.4	269	93.33		
Cu	65	74	He	0.184	ppb	26.2	337	102.22		
Zn	66	74	He	0.209	ppb	10.9	160	116.11		
As	75	74	He	0.199	ppb	7.6	107	110.56		
Se	78	74	H2	0.162	ppb	20.5	46	90		
Mo	95	103	He	0.171	ppb	7.6	290	95		
Ag	107	103	He	0.183	ppb	4.6	888	101.67		
Cd	111	103	He	0.172	ppb	2.7	142	95.56		
[Cd]	111	103	NoGas	0.199	ppb	18.5	424	110.56		
Sb	121	103	He	0.266	ppb	3.0	598	147.78	R-11	<MRL
Ba	138	159	He	0.197	ppb	6.5	979	109.44		
Hg	201	159	NoGas	7.795	ppt	22.3	11	108.26		
Tl	205	159	He	0.162	ppb	1.4	1,310	90		
Pb	208	159	NoGas	0.196	ppb	4.5	5,627	108.89		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	5.0	1,067,107	1137234.76333333	93.8	
Sc	45	H2	Analog	1.9	1,987,703	2175442.43333333	91.4	
Sc	45	He	Pulse	0.9	298,177	346512.113333333	86.1	
Sc	45	NoGas	Analog	1.5	3,002,021	3249380.29333333	92.4	
Ge	74	H2	Pulse	0.6	594,227	689413.513333333	86.2	
Ge	74	He	Pulse	1.0	178,275	206515.04	86.3	
Ge	74	NoGas	Pulse	1.5	764,400	873623.596666667	87.5	
Rh	103	He	Pulse	1.1	402,887	470246.54	85.7	
Rh	103	NoGas	Pulse	1.0	790,889	915357.836666667	86.4	
Tb	159	He	Pulse	0.7	572,630	642883.506666667	89.1	
Tb	159	NoGas	Analog	1.5	1,499,587	1568165.69	95.6	
Bi	209	He	Pulse	0.9	334,862	377338.903333333	88.7	
Bi	209	NoGas	Pulse	0.8	809,400	893369.963333333	90.6	

CRL Verification Report - ICPMS5

Sample Name:	**9K21029-CRL8**	Total Dilution:	**1.0000**
File Name:	131_CRL.d	Vial:	1103
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CRL2
Acq Time:	11/21/2019 21:33:49	I.S. Reference File:	003CALS.d
Comment:	**A19K145 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.856	ppb	0.5	2,506	95.11	
Na	23	45	He	46.754	ppb	1.1	52,255	103.9	
Mg	24	45	He	46.027	ppb	1.5	27,548	102.28	
Al	27	45	He	46.000	ppb	1.1	14,515	102.22	
K	39	45	He	52.371	ppb	2.1	49,861	116.38	
Ca	44	45	H2	43.564	ppb	2.6	9,915	96.81	
[Ca]	44	45	He	48.659	ppb	3.6	1,440	108.13	
Ti	47	45	NoGas	0.930	ppb	9.4	1,103	103.33	
V	51	74	He	0.821	ppb	3.3	4,915	91.22	
Cr	52	74	He	0.836	ppb	6.4	3,686	92.89	
Mn	55	74	He	0.851	ppb	4.9	2,504	94.56	
Fe	56	74	H2	44.974	ppb	0.6	488,192	99.94	
Co	59	74	He	0.907	ppb	3.6	5,136	100.78	
Ni	60	74	He	0.937	ppb	10.7	1,311	104.11	
Cu	65	74	He	0.945	ppb	2.9	1,626	105	
Zn	66	74	He	0.962	ppb	5.2	658	106.89	
As	75	74	He	0.952	ppb	4.8	408	105.78	
Se	78	74	H2	0.886	ppb	7.2	250	98.44	
Mo	95	103	He	0.900	ppb	3.7	1,510	100	
Ag	107	103	He	0.906	ppb	1.8	4,403	100.67	
Cd	111	103	He	0.932	ppb	3.5	762	103.56	
[Cd]	111	103	NoGas	0.872	ppb	3.5	1,873	96.89	
Sb	121	103	He	0.914	ppb	5.9	1,971	101.56	
Ba	138	159	He	0.967	ppb	2.5	4,513	107.44	
Hg	201	159	NoGas	32.063	ppt	14.3	38	89.06	
Tl	205	159	He	0.897	ppb	1.9	7,198	99.67	
Pb	208	159	NoGas	0.868	ppb	2.2	22,636	96.44	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	3.3	1,096,533	1137234.76333333	96.4	
Sc	45	H2	Analog	0.9	1,992,428	2175442.43333333	91.6	
Sc	45	He	Pulse	1.0	297,065	346512.113333333	85.7	
Sc	45	NoGas	Analog	1.5	2,986,695	3249380.29333333	91.9	
Ge	74	H2	Pulse	0.2	598,264	689413.513333333	86.8	
Ge	74	He	Pulse	0.9	177,853	206515.04	86.1	
Ge	74	NoGas	Pulse	0.9	762,017	873623.596666667	87.2	
Rh	103	He	Pulse	0.4	403,518	470246.54	85.8	
Rh	103	NoGas	Pulse	0.3	792,692	915357.836666667	86.6	
Tb	159	He	Pulse	0.8	574,601	642883.506666667	89.4	
Tb	159	NoGas	Analog	2.8	1,502,345	1568165.69	95.8	
Bi	209	He	Pulse	1.0	336,861	377338.903333333	89.3	
Bi	209	NoGas	Pulse	0.2	809,618	893369.963333333	90.6	

CRL Verification Report - ICPMS5

Sample Name:	**9K21029-CRL9**	Total Dilution:	**1.0000**
File Name:	132CRL_.d	Vial:	1104
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CRL3
Acq Time:	11/21/2019 21:38:30	I.S. Reference File:	003CALS.d
Comment:	**A19K146 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.745	ppb	1.6	5,034	96.94	
Na	23	45	He	92.041	ppb	1.4	99,997	102.27	
Mg	24	45	He	92.770	ppb	1.1	55,170	103.08	
Al	27	45	He	91.403	ppb	0.8	28,807	101.56	
K	39	45	He	99.002	ppb	1.3	73,814	110	
Ca	44	45	H2	89.147	ppb	0.4	19,708	99.05	
[Ca]	44	45	He	93.077	ppb	3.9	2,591	103.42	
Ti	47	45	NoGas	1.788	ppb	5.9	2,062	99.33	
V	51	74	He	1.704	ppb	1.7	8,030	94.67	
Cr	52	74	He	1.720	ppb	4.4	7,376	95.56	
Mn	55	74	He	1.765	ppb	5.0	5,162	98.06	
Fe	56	74	H2	89.551	ppb	0.5	964,402	99.5	
Co	59	74	He	1.746	ppb	1.1	9,893	97	
Ni	60	74	He	1.801	ppb	5.0	2,488	100.06	
Cu	65	74	He	1.893	ppb	1.0	3,237	105.17	
Zn	66	74	He	1.868	ppb	7.5	1,258	103.78	
As	75	74	He	1.806	ppb	8.4	750	100.33	
Se	78	74	H2	1.732	ppb	4.7	487	96.22	
Mo	95	103	He	1.805	ppb	5.8	3,010	100.28	
Ag	107	103	He	1.807	ppb	1.5	8,748	100.39	
Cd	111	103	He	1.835	ppb	1.5	1,492	101.94	
[Cd]	111	103	NoGas	1.724	ppb	2.6	3,668	95.78	
Sb	121	103	He	1.779	ppb	2.8	3,787	98.83	
Ba	138	159	He	1.935	ppb	3.2	8,924	107.5	
Hg	201	159	NoGas	73.338	ppt	5.4	82	101.86	
Tl	205	159	He	1.785	ppb	1.2	14,259	99.17	
Pb	208	159	NoGas	1.748	ppb	2.5	43,904	97.11	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.0	1,087,559	1137234.76333333	95.6	
Sc	45	H2	Analog	0.4	1,978,908	2175442.43333333	91.0	
Sc	45	He	Pulse	1.2	297,212	346512.113333333	85.8	
Sc	45	NoGas	Analog	1.4	2,949,775	3249380.29333333	90.8	
Ge	74	H2	Pulse	0.3	596,591	689413.513333333	86.5	
Ge	74	He	Pulse	0.6	178,104	206515.04	86.2	
Ge	74	NoGas	Pulse	1.0	754,494	873623.596666667	86.4	
Rh	103	He	Pulse	1.2	401,949	470246.54	85.5	
Rh	103	NoGas	Pulse	0.6	784,640	915357.836666667	85.7	
Tb	159	He	Pulse	0.7	572,598	642883.506666667	89.1	
Tb	159	NoGas	Analog	1.7	1,468,240	1568165.69	93.6	
Bi	209	He	Pulse	0.9	336,220	377338.903333333	89.1	
Bi	209	NoGas	Pulse	0.7	803,409	893369.963333333	89.9	

CRL Verification Report - ICPMS5

Sample Name:	**9K21029-CRLA**	Total Dilution:	**1.0000**
File Name:	133CRL4.d	Vial:	1105
File Path:	C:\Agilent\ICPMH\1\DATA\9K21029.b	Sample Type:	CRL4
Acq Time:	11/21/2019 21:43:10	I.S. Reference File:	003CALS.d
Comment:	**A19K147 - ESS 11/21**	Last Calibration:	11/21/2019 12:08:56

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.587	ppb	1.0	10,064	99.64	
Na	23	45	He	183.212	ppb	1.1	194,440	101.78	
Mg	24	45	He	185.310	ppb	0.5	108,920	102.95	
Al	27	45	He	186.021	ppb	1.2	58,088	103.34	
K	39	45	He	193.506	ppb	1.4	121,292	107.5	
Ca	44	45	H2	177.590	ppb	2.0	38,484	98.66	
[Ca]	44	45	He	184.938	ppb	2.2	4,929	102.74	
Ti	47	45	NoGas	3.640	ppb	3.3	4,180	101.11	
V	51	74	He	3.513	ppb	1.6	14,265	97.58	
Cr	52	74	He	3.458	ppb	3.0	14,482	96.06	
Mn	55	74	He	3.616	ppb	0.8	10,440	100.44	
Fe	56	74	H2	191.109	ppb	1.0	2,029,715	106.17	
Co	59	74	He	3.543	ppb	2.0	19,873	98.42	
Ni	60	74	He	3.525	ppb	0.8	4,786	97.92	
Cu	65	74	He	3.952	ppb	2.2	6,668	109.78	
Zn	66	74	He	3.721	ppb	4.9	2,462	103.36	
As	75	74	He	3.628	ppb	3.7	1,466	100.78	
Se	78	74	H2	3.567	ppb	7.4	991	99.08	
Mo	95	103	He	3.552	ppb	4.3	5,889	98.67	
Ag	107	103	He	3.627	ppb	1.6	17,456	100.75	
Cd	111	103	He	3.591	ppb	2.5	2,899	99.75	
[Cd]	111	103	NoGas	3.550	ppb	1.7	7,538	98.61	
Sb	121	103	He	3.730	ppb	3.5	7,860	103.61	
Ba	138	159	He	3.795	ppb	1.3	17,357	105.42	
Hg	201	159	NoGas	124.592	ppt	5.8	141	86.52	
Tl	205	159	He	3.578	ppb	1.7	28,445	99.39	
Pb	208	159	NoGas	3.373	ppb	0.8	86,173	93.69	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.3	1,061,548	1137234.76333333	93.3	
Sc	45	H2	Analog	0.6	1,961,074	2175442.43333333	90.1	
Sc	45	He	Pulse	0.9	294,739	346512.113333333	85.1	
Sc	45	NoGas	Analog	0.7	2,961,462	3249380.29333333	91.1	
Ge	74	H2	Pulse	0.2	590,000	689413.513333333	85.6	
Ge	74	He	Pulse	0.6	176,433	206515.04	85.4	
Ge	74	NoGas	Pulse	0.2	756,042	873623.596666667	86.5	
Rh	103	He	Pulse	0.1	399,614	470246.54	85.0	
Rh	103	NoGas	Pulse	0.5	782,382	915357.836666667	85.5	
Tb	159	He	Pulse	1.1	570,354	642883.506666667	88.7	
Tb	159	NoGas	Analog	0.3	1,504,326	1568165.69	95.9	
Bi	209	He	Pulse	0.6	334,850	377338.903333333	88.7	
Bi	209	NoGas	Pulse	0.2	804,815	893369.963333333	90.1	

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

Metals IFA/IFB Metals Internal Standards Recovery Summary

A19K233 IFA
A19K234 IFB
A9K0330 (I.S Tables)

Analytical Standard Record

Apex Laboratories

A19K233

Description:	ICSA working std	Expires:	12/03/19
Standard Type:	Calibration Standa	Prepared:	11/18/19
Solvent:	3.5% HNO3 + 0.4% HCl	Prepared By:	John P. Beck
Final Volume (mls):	50	Department:	Metals
Vials:	1	Last Edit:	11/19/19 16:12 by jsj

Analyte	CAS Number	Concentration	Units
Aluminum	7429-90-5	100	ug/mL
Calcium	7440-70-2	300	ug/mL
Carbon	7440-44-0	200	ug/mL
Chlorine	7782-50-5	2000	ug/mL
Iron	7439-89-6	250	ug/mL
Magnesium	7439-95-4	100	ug/mL
Molybdenum	7439-98-7	2	ug/mL
Phosphorus	7723-14-0	100	ug/mL
Potassium	7440-09-7	100	ug/mL
Sodium	7440-23-5	250	ug/mL
Sulfur	7704-34-9	100	ug/mL
Titanium	7440-32-6	2	ug/mL
Tungsten	7440-33-7	0.1	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
A18L138	6020A ICS Interferents A	12/11/18	John P. Beck	12/03/19	07/23/19 16:48 by arf	5
A19H398	Conc. HCl - Omnitrace	08/23/19	Kevin Taucher	08/23/21	08/29/19 11:38 by jsj	0.2
A19J277	Conc. HNO3 - Omnitrace	10/18/19	Kevin Taucher	04/15/20	10/28/19 13:30 by jsj	1.75
A19J281	1 W 10 ppm	10/18/19	Emily S. Stefansson	04/15/20	10/28/19 12:35 by jsj	0.5

Reviewed By Date

Analytical Standard Record

Apex Laboratories

A19K234

Description:	ICSA+B working std	Expires:	12/03/19
Standard Type:	Calibration Standa	Prepared:	11/18/19
Solvent:	3.5% HNO3 + 0.4% HCl	Prepared By:	John P. Beck
Final Volume (mls):	50	Department:	Metals
Vials:	1	Last Edit:	11/19/19 16:12 by jsj

Analyte	CAS Number	Concentration	Units
Aluminum	7429-90-5	100	ug/mL
Arsenic	7440-38-2	0.1	ug/mL
Cadmium	7440-43-9	0.1	ug/mL
Calcium	7440-70-2	300	ug/mL
Carbon	7440-44-0	200	ug/mL
Chlorine	7782-50-5	2000	ug/mL
Chromium	7440-47-3	0.2	ug/mL
Cobalt	7440-48-4	0.2	ug/mL
Copper	7440-50-8	0.2	ug/mL
Iron	7439-89-6	250	ug/mL
Magnesium	7439-95-4	100	ug/mL
Manganese	7439-96-5	0.2	ug/mL
Mercury	7439-97-6	0.002	ug/mL
Molybdenum	7439-98-7	2	ug/mL
Nickel	7440-02-0	0.2	ug/mL
Phosphorus	7723-14-0	100	ug/mL
Potassium	7440-09-7	100	ug/mL
Selenium	7782-49-2	0.1	ug/mL
Silver	7440-22-4	0.05	ug/mL
Sodium	7440-23-5	250	ug/mL
Sulfur	7704-34-9	100	ug/mL
Titanium	7440-32-6	2	ug/mL
Tungsten	7440-33-7	0.1	ug/mL
Vanadium	7440-62-2	0.2	ug/mL
Zinc	7440-66-6	0.1	ug/mL

Reviewed By Date

Analytical Standard Record

Apex Laboratories

A19K234

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
A18L138	6020A ICS Interferents A	12/11/18	John P. Beck	12/03/19	07/23/19 16:48 by arf	5
A18L139	6020A & CLP-M ICS Analytes B	12/11/18	John P. Beck	12/03/19	12/18/18 13:34 by jsj	0.5
A19H398	Conc. HCl - Omnitrace	08/23/19	Kevin Taucher	08/23/21	08/29/19 11:38 by jsj	0.2
A19J028	Hg Stock 1.00ppm Std Primary	10/02/19	Emily S. Stefansson	03/30/20	10/23/19 17:40 by jsj	0.1
A19J277	Conc. HNO3 - Omnitrace	10/18/19	Kevin Taucher	04/15/20	10/28/19 13:30 by jsj	1.75
A19J281	1 W 10 ppm	10/18/19	Emily S. Stefansson	04/15/20	10/28/19 12:35 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
11/21/2019 11:08 AM	Rinse													
11/21/2019 11:13 AM	Rinse													
11/21/2019 11:17 AM	9K21029-CAL0	100	100	100	100	100	100	100	100	100	100	100	100	100
11/21/2019 11:22 AM	9K21029-CAL1	102.4432012	100.9689175	100.2500201	102.7745044	100.0538965	100.5724523	100.1439895	99.852527	100.2989527	99.71166316	99.92812941	99.10974282	100.651827
11/21/2019 11:27 AM	9K21029-CAL2	101.5992177	99.92598318	99.88463703	101.5143428	100.2850611	100.3901653	100.4133344	99.66916503	99.9122285	100.0143727	100.3995014	99.59707485	100.046494
11/21/2019 11:32 AM	9K21029-CAL3	101.9485042	100.3434549	100.1884908	102.4971719	99.63606651	100.4151465	100.5351221	99.70680344	99.85511823	100.0271682	100.6526634	100.1089569	100.4811571
11/21/2019 11:37 AM	9K21029-CAL4	101.6603965	100.9761328	99.52664185	102.255853	99.62733783	99.91485527	99.87951638	99.53103536	99.45672867	99.70013852	100.770652	99.51499921	100.601832
11/21/2019 11:42 AM	9K21029-CAL5	98.80484659	100.3813958	97.82878201	99.15859351	99.17132559	98.94650772	97.34697223	97.63051243	96.62894858	99.29203659	97.89177571	99.37319476	98.90212188
11/21/2019 11:47 AM	9K21029-CAL6	96.05367088	97.37674128	94.53070587	95.98337565	95.9134381	94.87551125	93.65764804	93.66828515	92.34010527	97.26246205	97.03107776	96.96485752	96.94328355
11/21/2019 11:52 AM	9K21029-CAL7	90.09512691	91.8076683	88.12236906	88.80266306	91.0622248	89.41031769	87.7305592	88.51793926	86.14333926	94.0453582	93.41520219	93.39714429	91.73464898
11/21/2019 11:57 AM	9K21029-CAL8	86.05059057	87.26286973	84.29759656	85.38793748	85.19147633	84.40169136	82.26003732	82.87463068	81.2874809	90.44926657	90.3374866	89.68311254	87.60649699
11/21/2019 12:01 PM	9K21029-CAL9	87.76457763	82.36623821	81.71545306	84.67205226	77.48100808	79.47761093	78.9831108	76.11312497	75.45730704	85.12964339	84.19037808	80.62436552	81.11606983
11/21/2019 12:10 PM	9K21029-ICV1	88.68653356	87.77786704	86.28231987	87.04741237	87.9741749	87.56829688	84.7070412	85.87169899	83.39964213	92.91864034	90.96064056	92.47136997	91.06982513
11/21/2019 12:15 PM	9K21029-ICB1	90.81687352	88.47224594	86.53289215	89.07035913	88.49070041	88.16369662	87.3516649	88.98746177	87.26774033	93.04051623	92.96770951	93.34065926	93.4899647
11/21/2019 12:20 PM	9K21029-CRL1	93.97664092	89.527619	89.07213287	90.41252756	89.41373473	90.53720413	89.64982131	90.53309497	89.2623428	94.16222956	94.82728087	94.74050255	94.90732449
11/21/2019 12:24 PM	9K21029-CRL2	94.55118574	92.06628834	90.29224414	91.7161269	90.77569043	91.32420735	90.93812328	91.13094874	90.41654096	95.01208959	96.4205194	95.6209975	95.64842134
11/21/2019 12:29 PM	9K21029-CRL3	94.29788389	92.6298016	90.9505963	92.03516845	91.44877268	91.73388695	90.01134924	91.27898669	89.11334096	95.13810413	93.92056312	95.1396804	93.79824832
11/21/2019 12:34 PM	9K21029-IFA1	84.81860015	73.86806911	73.30368075	79.87361771	64.33684256	68.77562041	70.99589942	62.21281855	64.68253576	73.01330259	75.55472598	65.12847235	69.28974991
11/21/2019 12:38 PM	9K21029-IFB1	84.5424499	75.45928198	72.42895039	79.81337104	64.53667957	67.48258464	70.35530317	61.27716609	64.15542095	70.90759657	74.69880176	63.44346984	68.56448151
11/21/2019 12:52 PM	Rinse	139.2107227	118.5710137	124.912852	130.4387116	123.4010025	130.6974446	136.8266426	130.4984402	133.893939	146.4190288	148.320847	147.7946523	154.0348482
11/21/2019 12:57 PM	9111041-BLK1	75.90014227	74.45745588	74.78980966	74.39820474	75.78827557	76.5980983	74.20195827	78.86423152	75.75616758	86.96972015	81.90533723	88.64102457	86.41615773
11/21/2019 1:01 PM	9111041-BS1	81.68171603	77.38771621	79.11336029	80.45112577	78.21808773	80.46442364	79.80405627	81.48610018	79.3741807	89.19928946	85.00687705	90.04392082	88.3838181
11/21/2019 1:06 PM	A9K0642-01	80.09413647	81.97053479	79.36158345	80.14658288	77.17844415	77.58462531	75.99462887	77.06998404	75.75370224	87.72371731	83.90243721	86.86504371	85.91889977
11/21/2019 1:12 PM	9111041-DUP1	78.8296447	79.38399519	77.74985625	79.04647671	76.0702186	77.14583403	75.67029048	77.27974777	75.3165304	87.25866779	83.3280757	86.80918412	85.39715026
11/21/2019 1:17 PM	9111041-MS1	81.89887641	79.5928344	78.62830942	82.37046016	74.97237048	76.65595042	77.37533677	76.53036993	76.23349857	86.51444223	84.22313227	85.35680538	84.35142001
11/21/2019 1:21 PM	9111041-MSD1	81.05834284	79.65011378	78.42569987	80.62377993	79.20925145	80.10968919	79.49433211	80.56013838	78.71006993	88.65104446	85.52800735	90.13564473	88.35543381
11/21/2019 1:26 PM	9111001-BLK2	82.38199214	79.11933623	78.97594133	81.18298676	79.40799429	80.88461418	80.82093433	82.69947717	81.40496865	89.14913989	85.92751212	89.59512886	88.25276601
11/21/2019 1:31 PM	9111051-BLK1	83.6625574	81.81552648	80.92840891	82.75460582	83.09252511	82.8385203	82.43586629	84.17886286	82.5990372	90.42625929	87.3930928	91.4272087	90.28132947
11/21/2019 1:35 PM	9111051-BS1	82.83369571	82.26717054	80.01136545	81.88947275	82.1899212	82.58588333	81.43794185	83.88414724	81.62829479	88.99790927	87.05747265	90.85045308	89.90242225
11/21/2019 1:40 PM	A9K0266-05	82.57064096	77.60150184	77.52525131	81.1880149	77.46452886	79.50089737	79.6635213	79.78098042	78.21682967	87.92357726	84.36206785	89.64504508	88.57523823
11/21/2019 1:45 PM	9K21029-CCV1	85.45134872	81.59448899	80.88185835	84.6523605	81.38041768	82.48079978	82.01555369	82.2059871	80.46064215	89.0681641	88.95577461	89.75638884	88.6678822
11/21/2019 1:49 PM	9K21029-CCB1	84.81232088	83.18940471	81.3767588	83.31125596	82.66618688	83.30434109	82.1740968	84.45094141	82.1545491	89.70257245	87.33902155	91.45531076	89.7131606
11/21/2019 1:54 PM	9111051-MS1	83.71749006	81.07715085	79.17074645	81.38442445	80.56436221	81.19977928	80.00892978	80.92842746	78.26097489	88.93359799	84.2048283	90.14608627	88.41520375
11/21/2019 1:59 PM	9111050-BLK1	86.98555495	81.89079117	80.92492178	82.92768539	80.78054064	82.18853213	80.90676229	81.8400684	79.22300886	88.70280967	85.96425377	88.83976545	87.47324349
11/21/2019 2:03 PM	9111050-BS1	85.38911384	82.73444545	80.78072576	83.97018519	81.04338096	81.81434469	80.69809805	81.04357769	78.48798738	88.43526042	85.43421795	87.70174426	86.38492133
11/21/2019 2:08 PM	A9K0583-02	82.6942352	81.36740323	78.23232808	80.47106506	79.80474554	79.67603393	78.11325754	78.59236845	75.8445749	86.93288974	82.7336602	86.37275858	85.37021368
11/21/2019 2:13 PM	9111050-MS1	84.30395473	80.95580741	78.44811178	81.01123381	79.13770175	79.39513913	78.62235055	78.6156853	76.4389166	86.69485698	82.93316187	86.83157601	84.75025888
11/21/2019 2:18 PM	9111059-BLK1	85.32701291	81.35257467	79.85051201	82.24551654	80.12810444	80.62071411	79.26691724	80.16183596	77.38538689	88.04213788	83.28337465	87.43967746	86.19033304
11/21/2019 2:22 PM	9111059-BS1	84.74125669	81.91252927	80.40694085	83.01414741	80.32362135	81.3296649	79.85701424	80.33060842	77.97641622	87.80398276	83.69851828	87.86234348	86.05522216
11/21/2019 2:27 PM	A9K0330-01	85.07980127	82.97090907	80.72357528	83.41469189	80.87039576	81.61143776	79.98157628	80.81292138	77.72476637	87.8589528	86.41472573	87.53866451	86.03479874
11/21/2019 2:32 PM	9111059-MS1	88.13466099	83.6187612	80.96287812	83.34744184	81.29340749	81.67793171	80.71287292	80.8643079	78.29176503	88.20287514	84.1892938	86.89965628	86.23522597
11/21/2019 2:36 PM	9111001-BLK2	90.41916057	88.2014359	83.79433085	86.84647939	87.66412827	86.4326072	84.96373337	85.78905865	83.61941848	91.74688632	92.59902632	94.35069735	92.21529905
11/21/2019 2:41 PM	9K21029-CCV2	82.90436449	81.35108225	78.47960274	81.07527248	79.1596813	79.31928509	78.52586277	79.15264973	76.82354796	86.79743907	82.5469361	86.60463148	85.25820521
11/21/2019 2:46 PM	9K21029-CCB2	83.01343461	80.8501034	77.74373814	79.3252118	79.7669332	79.46074371	78.03736864	80.78649836	77.54280183	86.9418053	82.56277881	88.02211586	86.90845322
11/21/2019 2:50 PM	9K21029-CRL4	83.51395953	80.22074146	78.27153883	80.07216757	79.49733738	79.92647896	78.08930863	80.91241883	77.65274281	87.49121692	82.9333655	88.09744425	86.58006967
11/21/2019 2:55 PM	9K21029-CRL5	84.92061046	80.3657374	79.16526997	80.65230557	79.681374	80.68029492	78.70814952	81.42745151	78.66403402	87.86829923	83.282379	88.83917005	87.5009584
11/21/2019 3:00 PM	9K21029-CRL6	85.12275957	82.33060591	79.36223567	81.44779766	80.39637836	80.90270165	79.48111437	81.72503796	79.18853054	87.99015801	83.33772541	89.08425831	87.41880879
11/21/2019 3:06 PM	9111044-BLK1	84.63524868	80.98895929	79.53697319	81.53152973	79.31534453	80.84062384	78.80048219	81.62696317	79.04993956	88.16320647	84.21257812	89.54156074	88.33471116
11/21/2019 3:10 PM	9111044-BS1	86.20901813	81.61434043	80.18297561	83.04546066	80.09997619	81.32264362	79.73116485	81.34587657	78.67486111	88.08568335	84.02038903	87.34258349	86.4490437
11/21/2019 3:15 PM	A9K0436-01	88.56225051	86.14923542	83.55727035	87.82576468	81.50469191	83.29124762	82.42381342	80.89201323	79.76964207	89.3013572	90.20635908	87.47124236	86.7485941
11/21/2019 3:20 PM	A9K0436-02	90.70430163	86.8645552	84.80665717	88.83076893	85.26282151	86.03747698	85.91259663	84.9790495	84.22595177	91.21797867	94.47568027	91.08152299	91.64771822
11/21/2019 3:24 PM	A9K0436-03	100.6796149	82.99646847	87.09446752	95.52257661	75.17239315	80.79105522	82.94559267	71.85429867	74.90838583	79.70967856	80.04612616	70.01336403	73.39027319
11/21/2019 3:29 PM	A9K0442-01	111.6053645	107.9787393	101.6312782	106.0904199	100.1630623	97.33429423	97.84575721	94.73955796	94.76208632	96.04512175	100.6934099	93.55880356	96.78297407
11/21/2019 3:34 PM	9111044-DUP1	99.56874604	96.92506121	92.76663382	95.20963653	92.92116719	91.5689256	89.21635202	89.17224853	87.05848847	92.91463391	95.27413947	92.50195609	92.13785409
11/21/2019 3:38 PM	9111044-MS1	95.56794355	91.97697042	87.88884187	91.34838242	87.86757221	87.47718003	86.70732066	86.43725126	85.30145138	91.04352664	94.44829179	90.678324	91.16181949
11/21/2019 3:43 PM	A9K0456-01	92.30452707	89.25936889	86.02320723	88.70368172	84.87956483	85.49103897	84.61292974	85.66575028	83.6650367	90.15259022	92.44573108	90.01235503	89.70810633
11/21/2019 3:48 PM	A9K0458-03	85.62239695	83.83674735	81.1025654	83.14271182	81.68321369	81.32336996	80.14457744	80.5642979	77.91209602	87.81583249	84.97171388	86.22894975	85.55379795
11/21/2019 3:52 PM	9K21029-CCV3	91.5088271	86.86978004	84.50765944	86.12631017	85.016282	84.56587149	84.26696495	83.09396528	82.50796389	89.83082067	94.88459518	89.07052618	89.58669601
11/21/2019 3:57 PM	9K21029-CCB3	93.09848393	87.34141299	85.04415824	89.82834827	85.45289418	86.24019184	86.09185919	86.55610523	85.61672917	90.41294272	93.90608569	90.43620301	90.89851648
11/21/2019 4:02 PM	A9K0458-04	91.27242678	85.26747839	82.43909588	85.61351116	82.30116793	82.2846123	82.87663124	82.60417964	81.58741169	88.39274365	90.7635451	88.43601787	88.29416095
11/21/2019 4:06 PM	A9K0458-05	84.03900181	86.88785896	80.43400003	85.46392366	79.3338975	77.9717432	78.79043247	77.34070941	76.8364675	86.03412608	85.38482095	86.16518832	86.70783645
11/21/2019 4:11 PM	A9K0581-01	91.76986467	82.87244818	83.75724508	89.57449977	80.58428349	83.8031151	85.74611799	83.12001615	83.60815112	88.91068715	93.08106169	87.98833102	88.69004621
11/21/2019 4:15 PM	A9K0601-01	83.96150799	82.58539776	78.49736643	82.10846436	77.76474442	78.21020203	77.18553535	75.05692227	73.31027967	85.26100882	81.64111812	81.08518999	80.8647585
11/21/2019 4:20 PM	A9K0606-01	88.72641069	85.82299098	81.32461247	86.08238395	80.51588816	80.66114055	80.67903035	81.53861589	79.76652599	87.31413455	87.88821799	87.27948901	87.06364947
11/21/2019 4:25 PM	A9K0606-03	88.94407962	83.79936538	81.95592854	85.96073798	80.34798506	81.43154449	80.97865939	81.67724672	79.66595475	87.6639185	88.28839232	88.05654909	87.51160722
11/21/2019 4:29 PM	A9K0606-05	90.86937719	84.92610522	82.44796329	87.46403201	81.24261504	82.39600854	82.83584175	82.06305144	81.70538232	88.75210321	89.27025328	87.87286718	87.86816872
11/21/2019 4:38 PM	A9K0606-07	90.19734298	87.10040684	85.18570885	90.16040431	83.18842208	85.19329311	84.34427132	83.02451377	82.25963004	90.61250661	90.33458384	88.5739063	88.2483897
11/21/2019 4:42 PM	A9K0606-09	90.89557466	86.95054813	83.65089767	87.54480116	83.18464931	83.8888296	84.01318556	82.35023342	82.06454386	89.76299553	92.23701228	88.46121008	88.9097428
11/21/2019 4:47 PM	A9K0606-11	89.97612393	85.76405431	83.7143827	89.11585242	83.63494558	84.28223113	85.34671677	84.89450094	84.66368003	89.54907289	92.61546548	90.09614266	90.79693743
11/21/2019 4:52 PM	9K21029-CCV4	92.17592273	87.55271253	83.10390477	86.76051243	84.89403703	83.19196833	83.19916794	82.39228654	80.96657835	89.24710891	89.43860837	88.84380867	88.54182542
11/21/2019 4:56 PM	9K21029-CCB4	94.25818115	88.25529789	84.69873117	89.97430729	85.60478995	85.8450487	86.87236962	85.44826153	85.99889739	90.68527615	93.13569155	90.49384086	91.15326797
11/21/2019 5:01 PM	A9K0619-01	96.45762294	84.05120503	84.20438289	91.37895779	75.61196629	80.51765947	83.59587006	76.051816	78.25577073	85.43860243	87.42131983	79.0972105	81.37854377
11/21/2019 5:06 PM	A9K0620-01	93.95450829	81.03382878	79.91898677	86.86411106	73.51322105	76.9545921	79.15063527	72.11911083	73.21073499	81.30976523	81.50279345	75.54219849	77.27701531
11/21/2019 5:10 PM	A9K0628-01	86.90256505	80.69342063	77.84867242	81.56194497	76.71324197	76.90275407	77.06194513	73.8539618	72.8168475	83.55404016	81.48913971	81.01008862	81.18730273
11/21/2019 5:15 PM	9111044-MS2	85.39722591	78.9742957	75.43754266	79.57650762	74.03643244	74.88223779	75.39687258	72.1719597	71.588108	83.33488485	80.78062891	79.98804276	80.04958558
11/21/2019 5:19 PM	9111043-BLK1	86.25470644	79.92650215	77.24072157	80.86642209	77.46092676	77.76134852	77.69102612	79.81011124	78.17966206	86.6697052	83.98951198	87.91952197	87.15562779
11/21/2019 5:24 PM	9111043-BLK2	85.13020482	78.19514936	76.12114936	79.13169962	75.40590419	76.84267612	77.54540314	78.28491554	76.97681553	86.30805907	83.06286989	87.5461538	87.55224548
11/21/2019 5:29 PM	9111043-BLK3	86.91256357	78.3277797	76.27086226	79.47471375	76.56746009	76.92484124	77.17661617	78.22613077	76.9775391	86.39597028	85.94480919	87.92535138	87.73106464
11/21/2019 5:33 PM	9111043-BS1	82.82153346	77.95027028	75.11267571	78.3038945	75.71553935	75.76024649	75.25709537	76.68011763	75.25702981	85.77679745	84.08843923	86.45111961	85.47745406
11/21/2019 5:38 PM	A9K0383-02	88.42022179	84.38114022	82.79522869	88.45403053	75.96961522	78.15480655	79.66301498	77.34996129	78.38336964	87.31540953	91.9386654	85.24329822	86.58826635
11/21/2019 5:43 PM	A9K0384-03	89.25033564	87.35367915	84.48067626	90.86928214	78.83885933	80.02870558	82.50455872	79.75440004	80.72192685	88.09842024	94.25295019	85.9432976	87.75067316
11/21/2019 5:47 PM	9K21029-CCV5	90.0248761	86.56961351	83.22671721	86.84392731	84.54164185	83.80458392	84.06042558	82.89070878	82.01234424	90.3578778	95.6662375	89.63562738	89.59784481
11/21/2019 5:52 PM	9K21029-CCB5	94.82715924	88.63209404	85.04950678	90.21587027	85.74586977	86.25591305	87.45956759	86.86446688	86.92383985	91.40950119	92.71051709	91.81138059	92.87800471
11/21/2019 5:57 PM	A9K0384-06	90.98935301	88.81159684	84.89580749	91.20191972	80.66771914	81.16585924	83.02235342	81.17904848	81.7947419	88.76065426	95.50400273	86.96469065	88.74181499
11/21/2019 6:01 PM	A9K0384-09	93.28349439	88.23216237	85.53081271	91.66675195	81.53274038	82.89354616	84.26191205	81.87351965	82.6931971	89.49061699	94.77761541	87.46284584	89.40295765
11/21/2019 6:06 PM	A9K0384-12	93.97373504	89.58061022	86.36989064	92.76933419	81.85709047	83.4037027	84.35965475	82.81567296	83.42246963	89.93393941	96.22218619	87.69049266	89.35199594
11/21/2019 6:10 PM	A9K0384-15	93.49416124	91.27152495	86.96940792	93.42093156	82.36388162	83.36049197	85.14891114	82.47594903	83.77742991	90.09875309	96.94705772	87.59531739	89.29678626
11/21/2019 6:15 PM	A9K0384-18	92.77893747	90.06637822	87.26698867	93.5295614	81.25545687	82.42979139	84.93914002	81.16316886	83.44377897	89.0931173	96.65117636	86.56756577	88.19644295
11/21/2019 6:19 PM	A9K0384-21	92.11925164	90.15121414	87.25474763	93.89755342	81.91173015	82.71143997	85.18515825	81.82630328	83.54279635	89.66053528	97.01112196	87.13725613	89.5734141
11/21/2019 6:24 PM	A9K0384-24	92.04261281	89.5491383	86.89387521	93.77416845	82.17088666	83.04707008	85.05435211	81.84065887	84.04219886	89.78846982	96.56864448	87.09294053	88.85200674
11/21/2019 6:29 PM	A9K0384-27	93.28983404	87.99164455	87.25361924	95.10875668	78.72903652	81.7107348	84.3817684	80.53942725	82.93651615	88.70021356	95.44816403	85.58434884	87.90514258
11/21/2019 6:33 PM	A9K0384-30	93.26729486	91.62978296	88.35917848	95.43868112	81.40381728	82.99577277	85.7571605	81.30488247	83.87465309	89.34991395	97.98495443	86.00324107	87.85713074
11/21/2019 6:38 PM	A9K0463-02	91.90316433	91.97037789	88.33460791	96.02631522	80.19820606	81.69053289	84.72611578	80.26679013	83.00141681	88.70844729	96.20691612	85.26347902	88.1295233
11/21/2019 6:42 PM	9K21029-CCV6	95.33036259	92.11977754	87.57207083	93.06307502	87.77098577	87.17565397	88.71442686	85.48485226	86.67698484	90.62603421	97.60960973	89.44039262	90.94329897
11/21/2019 6:47 PM	9K21029-CCB6	100.0982729	93.27218036	89.55820342	96.64865235	89.11573216	89.52320535	92.15844746	89.17541566	91.87888528	91.71591181	97.90382524	90.91161561	94.01712442
11/21/2019 6:52 PM	9111043-DUP1	90.45875896	91.73838094	87.83489185	94.57938989	80.92110795	80.99005445	82.99809469	79.75826538	81.65222569	88.01617102	95.06517155	84.65271153	87.24392529
11/21/2019 6:56 PM	9111043-DUP2	90.24359846	89.5159259	87.87270583	95.87828956	79.38113717	81.01992475	84.3797744	79.50847159	82.16681206	87.8853552	95.16421571	85.31786514	87.70947597
11/21/2019 7:01 PM	9111043-MS1	92.35861353	90.96177876	88.98662263	96.91568676	78.95422454	81.21399617	84.25091036	79.12823133	82.29392738	87.67679849	96.0460494	84.04125678	86.47906411
11/21/2019 7:05 PM	A9K0463-04	91.06407959	92.61823308	88.24167321	96.76024604	80.57947215	81.97537413	84.65336134	80.3430239	83.25576543	88.12982562	95.39243501	84.95262495	87.26737619
11/21/2019 7:10 PM	A9K0481-01	94.76415232	91.20372755	88.0817673	95.23914503	83.90616693	85.05438313	87.40311116	83.56077219	85.60643338	89.71603575	94.92795815	86.40617416	88.64495888
11/21/2019 7:14 PM	A9K0481-02	94.74370682	92.91068546	88.89513569	96.84678182	83.82254319	85.02516814	87.87459492	82.85702999	85.88915742	89.67334683	98.33241006	86.84583993	89.16770424
11/21/2019 7:19 PM	A9K0481-03	94.11901698	92.53190152	88.31167845	95.62798799	84.55986701	84.88824672	88.13217267	83.51138249	86.1789552	90.14189828	97.1639723	86.90831428	89.19618292
11/21/2019 7:24 PM	A9K0644-01	93.85209232	95.90091046	92.64629941	100.3469825	83.23933105	84.97793349	88.24084456	82.66598977	86.20146844	90.14531777	99.99571963	86.13894931	89.82162258
11/21/2019 7:28 PM	9111043-MSD1	96.90795681	94.70011794	90.28608274	97.43260707	88.04067877	89.03436767	91.62354127	87.53915552	90.2826345	92.10560242	99.35305348	90.77903011	93.16060469
11/21/2019 7:33 PM	9111068-BLK1	96.69526488	93.26446576	91.04845724	97.7376401	88.90715632	90.28164567	93.21725395	89.83641148	92.81998864	92.33534803	99.10018947	90.45741825	92.92931157
11/21/2019 7:37 PM	9K21029-CCV7	96.00491284	94.06632119	88.24663696	94.4166166	89.09779759	88.29839706	89.37762285	85.62297201	87.42270377	90.77412065	97.647157	88.73186598	90.52718693
11/21/2019 7:42 PM	9K21029-CCB7	98.52009888	93.20960933	90.4372434	96.84052894	89.43978779	90.226389	93.10338645	89.59100121	92.30374208	91.16527809	99.61266657	90.93152874	93.26810924
11/21/2019 7:47 PM	9111068-BS1	92.85958104	93.30838066	87.47963251	94.12354369	87.22714187	87.2287978	88.90884506	86.21691223	87.36997612	90.10747318	97.03910624	88.66766463	90.74680927
11/21/2019 7:51 PM	A9K0475-01	93.21356688	77.9142655	87.66216677	94.2652979	69.68278216	83.68594042	85.92381046	82.09023789	84.46023501	88.84133244	97.03438778	86.72695123	88.76671135
11/21/2019 7:56 PM	A9K0475-03	91.30918905	94.39448003	90.51846615	97.49137017	82.98353005	83.92151971	87.16175894	82.14643465	85.19202605	89.2066096	97.74819054	85.69464756	88.77294953
11/21/2019 8:01 PM	A9K0475-05	91.93075787	90.08130668	86.77235564	94.92934164	83.2354843	83.88316415	86.7946756	82.45892463	85.0134864	89.53904049	97.47462591	86.68098194	88.7976862
11/21/2019 8:05 PM	9111068-DUP1	92.36836584	91.04400495	87.84342258	94.24749809	83.06099299	84.07300343	86.96500257	82.61989551	85.31088558	89.37110908	97.49558564	86.8560677	89.34383694
11/21/2019 8:10 PM	9111068-MS1	91.95780564	90.7445808	87.35442284	95.49636597	82.26398463	83.52612639	86.90261148	81.08804373	84.56738909	88.48073989	97.26558061	85.11472503	87.79120098
11/21/2019 8:14 PM	9111068-MSD1	96.79178614	92.43263298	89.13387193	95.21532551	88.10722325	88.2763228	90.46375117	86.84721494	89.08838606	91.05761266	99.74197199	90.21988995	92.44698619
11/21/2019 8:19 PM	9111082-BLK1	95.62002016	92.22041408	89.11864303	96.5190938	87.49143995	88.74201608	91.38670739	88.34289704	90.8965882	91.01227785	98.86318964	89.94501857	92.04409562
11/21/2019 8:24 PM	9111082-BS1	92.85639319	92.91814801	89.9187026	97.53389869	87.98062773	88.48067434	90.47790143	86.87601898	89.42571607	91.10027306	97.05660546	89.60180632	91.97289556
11/21/2019 8:28 PM	A9K0606-02	96.93481788	91.42316154	89.22551279	96.96794144	85.65630717	87.66553919	90.00218168	86.9200675	88.78596662	90.79425649	97.94191709	88.65737415	91.40654005
11/21/2019 8:33 PM	9K21029-CCV8	95.01721557	95.34884283	89.00411601	95.0194181	89.61193846	88.66615397	89.74190521	86.03823433	87.31774992	91.32834548	95.1013886	89.4273831	90.72655413
11/21/2019 8:38 PM	9K21029-CCB8	99.12714534	93.92625328	90.19356457	96.65936947	89.38718463	89.62723006	92.25106706	88.824521	91.04940057	91.28466986	99.97778275	90.39806577	92.29458647
11/21/2019 8:42 PM	A9K0606-04	97.39867959	90.06861516	87.44556155	93.28485813	84.47776776	86.05542886	87.28712834	85.01929222	86.54512639	89.52123115	96.50795021	87.67075709	90.21299235
11/21/2019 8:47 PM	A9K0606-06	97.26401815	90.87520082	87.14348264	92.60202608	86.24012611	86.37702449	87.72740491	85.74721677	86.34990219	89.49651957	97.55982588	88.34763137	89.61412399
11/21/2019 8:51 PM	9111082-DUP1	94.38509748	91.32650518	86.85903275	93.3024145	85.90811637	85.90445358	86.77454298	85.21928589	85.66959411	90.03542902	95.88852268	88.59399699	90.371406
11/21/2019 8:56 PM	A9K0606-08	92.68740316	89.72453695	84.04093598	90.50408892	84.09373457	83.71571065	84.32038765	82.31526665	82.90435095	88.10542099	92.74510888	86.7415102	87.85087503
11/21/2019 9:01 PM	9111082-MS1	91.38859189	88.04407664	83.05599398	90.08195345	81.57335848	82.16055031	83.05719375	80.17698192	80.91014942	87.02287909	92.0345747	85.09320856	86.40368922
11/21/2019 9:05 PM	A9K0606-10	89.76035962	86.99940087	83.35928208	88.63897974	82.45413708	82.77702518	84.22357975	83.46326801	83.88529046	88.14178787	94.16018979	87.25523672	87.94438537
11/21/2019 9:10 PM	A9K0606-12	90.20253657	87.67635987	83.89841956	89.06334928	83.39491063	83.56211732	83.97340031	84.0739172	84.07363902	87.95413593	94.76698069	87.6337488	88.1177555
11/21/2019 9:15 PM	9K21029-CCV9	94.42445728	90.29327643	85.10279496	89.6378024	85.65237388	84.88334151	85.06846764	83.4768864	82.72514344	88.97393396	95.0003355	86.95551323	88.00191622
11/21/2019 9:19 PM	9K21029-CCVA	91.87256144	88.93449965	83.62988734	89.37002201	84.44215633	83.62391104	84.34481579	81.54737655	82.08634954	87.85204071	91.92721997	86.49701735	87.38164315
11/21/2019 9:24 PM	9K21029-CCB9	92.12470756	90.68412612	85.66630773	89.79011411	86.08725124	85.40985845	86.96470038	85.01604924	85.80807438	88.77623925	97.63393816	88.10643263	89.70742875
11/21/2019 9:29 PM	9K21029-CRL7	93.83345061	91.37004345	86.05094652	92.38749379	86.19306921	86.32525424	87.49761792	85.6756139	86.40212985	89.07213112	95.62680863	88.74313967	90.60077607
11/21/2019 9:33 PM	9K21029-CRL8	96.4210128	91.58724234	85.7300929	91.91583042	86.7786597	86.12117548	87.22489711	85.80993139	86.59916755	89.37871803	95.80267844	89.27284298	90.62515194
11/21/2019 9:38 PM	9K21029-CRL9	95.6319236	90.96575711	85.77233769	90.77961264	86.53607767	86.24249998	86.36368297	85.47631632	85.7194726	89.06709807	93.6278855	89.10300273	89.9301976
11/21/2019 9:43 PM	9K21029-CRLA	93.34470192	90.14598854	85.0588927	91.13928111	85.58004477	85.43341282	86.54093665	84.97957476	85.47285211	88.71816549	95.92904136	88.73997717	90.08758667

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

Total Solids by SM 2540G
Benchsheet Data

Batch 9110767 (A9K0330-01)

APEX LABORATORIES

Apex Laboratories

PREPARATION BENCH SHEET

NOV 2 0 2019

Percent Solids + Dry Weight Worksheet

BATCH #: 9110767 (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
A9K0330-01	Solids, Total (SM 254		11/13/19 13:41		1.264	28.553	23.54	81.6	matrix changed to soil / SO per client +11/14
9110767-DUP1	QC	A9K0330-01	11/13/19 13:41		1.265	29.663	24.353	81.3	

NRP 11/15/19
Prepared By: Date

James A Johnson 11/18/19
Reviewed By: Date

Batch #: 9110767

Analyst: nrp

Total Solids Worksheet

Method: SM 2540 G

Date: 11/13/2019

Sample ID	Tare Wt. (g)	Vessel ID	Initial (wet) Wt. (g)	Final Weight (g)			Comments
				1st weighing	2nd Weighing	3rd Weighing	
A9K0330-01	1.264	330-01	28.553	23.553	23.540		
9110767-DUP1	1.265	330-01Dup	29.663	24.386	24.353		source: A9K0330-01

Date/time first in oven: 11/13/19@18:00	**Oven temp. (°C; in/out):**	**103.7/103.0**	**104/103.1**	/	
	Time of weighing:	11/14@10:17	11/14@16:20		

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

TCLP Extraction by EPA 1311
Benchsheet Data

Batch 9111023 (A9K0330-01)
Batch 9110812 (A9K0330-01) (ZHE)

DEC 0 3 2019

Apex Laboratories

BATCH #: 9111023 (Matrix: Soil)

TCLP Leachate Bench Sheet

#	Lab Number	Analysis	Initial (g)	Final (mL)	Start Time	Stop Time	Sample pH	TCLP Fluid	Client / Sample
	9111023-BLK1	QC	50	1000	11/20/19 17:27	11/21/19 09:30	4.90	#1	
	A9K0330-01	TCLP Extraction - Metals	100	2000	11/20/19 17:27	11/21/19 09:30	4.5	#1	Anchor QEA, LLC / PDI-140RAB-C-00-12.7-191108
	A9K0330-01	TCLP Extraction - Organics	100	2000	11/20/19 17:27	11/21/19 09:30	4.5	#1	Anchor QEA, LLC / PDI-140RAB-C-00-12.7-191108

Fluid ID: A19K296
Syringe Filter Lot: A19J375
% Solids Filter Lot: A19C193

MJG 11/21/19
Prepared By: Date

ESS 11/22/19
Reviewed By: Date

(TCLP) SPLP* (circle one) Batch # 9111023 Prepared By: MJG

*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")
A9K0330-01	5.0	96.5	4.5	NA	NA	NA	1	100	N
~~A9K0266-05~~									

**pH<5, FD is done, use fluid #1

MJG 11/20/19

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.)
9111023-BLK1	1158.8	50.0	1000	1	A19K296	4.90
A9K0330-01	1184.0	100.0	2000	1	↓	4.5
~~A9K0266-05~~						

MJG 11/20/19

Extraction Start/Stop

	Date	Time	Intl.
START	11/20/19	17:27	MJG
STOP	11/21/19	09:30	MJG

Stop time window:

RPM 31

Reset Min/Max Temp ☑

	Min Temp	Max Temp
As read:	21.9	22.8
Corr factor:	±0.0	±0.0
Actual:	21.9	~~21.9~~ 22.8 MJG

Thermometer ID: S/N RC-5-001 11/24/19

PREPARATION BENCH SHEET

BATCH #: 9110812 (Solid)

Apex Laboratories

NOV 2 6 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*
A9K0330-01	B	TCLP/ZHE Extraction	11/14/19 15:20	25	500					PDI-140RAB-C-00-12.7-191108	matrix changed to soil / SO per clie	

*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: A19K224
Start: 11/14/19 1520
Stop: 11/15/19 0955
Temp: 21.5 to 22.5 C
A19F218 Metals Balance

Prepared By: _____ Date 11/15/19

Reviewed By: _____ Date 11/20/19

APEX LABS ZHE WORKSHEET

Batch # 9110812 **Analyst** TB

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
A9K0330-01	1	Soil	NA	NA	25.0	500	10	8	

*Re-extract if pressure reads 0 PSI

Start

Date/Initals 11/14/19 TB

Time (18+/- 2h) 1520

RPM (30) 30

Stop

Date/Initials 11/15/19 TB

Time 0955

Temp (23+/- 2°C) Min: 21.5 **Max:** 22.5 **(For thermometer SN _EU6200919)** _____ **C.F.** 0

Comments: TCLP Fluid # 1 Lot # _____ **Temp before C.F.** NA

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

Balance Checksheets

Extractions November 2019
Dry Weight November 2019
Wet Chem November 2019
Metals November 2019
Sample Rec. November 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.

Alternate Weight/ID used:

Date Range:

Month: November
Year: 2019

Day/Time	Initials	Weight One	Observed	Weight Two	Observed
1 07:40	JAG		.48		299.98
2					
3					
4 07:25	JAG		.51		300.00
5 07:25	JAG		.50		299.98
6 07:55	JAG		.51		299.99
7 07:20	JAG		.49		299.95
8 0734	AJJ		0.51		299.98
9					
10					
11 07:15	JAG		.50		299.98
12 10:20	CmA		0.49		299.99
13					
14 07:20	JAG		.50		299.97
15 0710	AJJ		0.50		299.97
16		0.50g		300.00g	
17					
18 0720	AJJ		0.49		299.95
19 9/15	~~xc~~		0.50		299.96
20 0718	AJJ		0.50		299.98
21 0724	AJJ		0.51		299.96
22 0733	AJJ		0.50		299.97
23 ~~0~~					
24					
25 07:20	JAG		~~JAG 11/25/19 49.99~~ .49		299.95
26 08:05	JAG		.49		299.97
27 07:05	JAG		.49		300.00
28					
29					
30					
31					

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: November
Year: 2019

KT 11/4/19

Alternate Weight/ID used:

Date Range:

	Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1	750	KT		9.9		200.0		3002.1
2	~~800~~	~~KT~~						~~3002.3~~
3								
4	800	KT		9.9		200.1		3002.3
5	807	MJG		10.0		200.1		3002.1
6	750	MJG		10.0		200.1		3002.2
7	759	MJG		10.0		200.0		3002.2
8	806	MJG		10.0		200.1		3002.1
9								
10								
11	750	MJG		10.0		200.1		3002.2
12	815	MJG		10.0		200.1		3002.3
13	750	KT		10.0		200.1		3002.3
14	815	MJG		10.0		200.1		3002.2
15	720	KT		10.0		200.1		3002.3
16			10.0 g		200.0 g		3000.0 g	
17								
18	800	KT		9.9		200.1		3002.3
19	945	MJG		9.9		200.1	11/19/19 MJG	~~3002.4~~ 3002.4
20	812	MJG		9.9		200.1		3002.3
21	800	~~KT~~		10.0		200.1		3002.3
22	817	MJG		10.0		200.1		3002.1
23								
24								
25	800	KT		10.0		200.1		3002.3
26	740	MJG		9.9		200.2		3002.2
27	835	MJG		9.9		199.9		2999.9
28								
29								
30								
31								

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: November
Year: 2019

~~[illegible]~~ ict 11/4/19

Alternate Weight/ID used:	

Date Range:	

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1 750	ict		599.990		9.998		0.097
2 ~~8~~							
3							
4 800	ict		599.985		10.000		0.099
5 805	MJG		599.980		9.999		0.100
6 748	MJG		599.985		9.998		0.099
7 757	MJG		599.985		10.000		0.100
8 805	MJG		599.980		9.997		0.098
9							
10							
11 748	MJG		599.990		9.999		0.099
12 813	MJG		599.990		10.004		0.103
13 750	ict		599.995		10.001		0.100
14 813	MJG		599.990		9.999		0.099
15 720	ict		599.990		10.000		0.099
16		600.000g		10.000g		0.100g	
17							
18 800	ict		600.000		9.999		0.098
19 942	MJG		600.000		10.000		0.101
20 810	MJG		600.000		10.001		0.101
21 800	ict		599.995		10.001		0.101
22 815	MJG		599.990		9.999		0.100
23							
24							
25 800	ict		599.990		10.000		0.100
26 737	MJG		599.990		10.001		0.101
27 834	MJG		599.985		10.000		0.100
28							
29							
30							
31							

Balance Challenge Log

Wet Chem Balance 3
Mettler AE160
ID# C82939

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: November
Year: 2019

Alternate Weight/ID used:

Date Range:

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1							
2							
3							
4							
5							
6							
7							
8 1235	MK		99.9992		0.1000		0.0050
9							
10							
11 1046	MK		99.9980		0.1000		0.0050
12 0935	CMZ		100.0003		0.1001		0.0051
13 0626	JKP		100.0003		0.1001		0.0050
14 0821	CMZ		100.0004		0.1001		0.0051
15 0915	JKP		100.0004		0.1001		0.0050
16		100.0000g		0.1000g		0.0050g	
17							
18							
19 0653	JKP		100.0009		0.1002		0.0051
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							

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 07:20	MRF		99.9989		0.1000		0.0050
6 0710	MRF		99.9986		0.0999		0.0050
7 0749	MRF		99.9981		0.1001		0.0051
8 0845	MRF		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	MRF		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

Wet Chem Balance 4
Ohaus Pioneer PA124C
ID# B549799185

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: November
Year: 2019

Alternate Weight/ID used:

Date Range:

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1 0319	CMZ		99.9999		0.0998		0.0048
2 0950	CMZ		100.0005		0.1001		0.0051
3							
4 0824	CMZ		100.0004		0.1000		0.0051
5 0804	CMZ		100.0003		0.0998		0.0050
6 0915	CMZ		100.0002		0.0998		0.0050
7 1024	WD		100.0002		0.1000		0.0049
8 0933	CMZ		100.0001		0.1000		0.0051
9 1405	CMZ		100.0000		0.0999		0.0050
10 15:53	CMZ		100.0007		0.1000		0.0050
11 1246	CMZ		100.0006		0.1000		0.0050
12 0737	CMZ		100.0002		0.1000		0.0051
13 0747	CMZ		100.0002		0.1001		0.0051
14 0826	CMZ		100.0003		0.1000		0.0049
15 0616	JKP		99.9996		0.1000		0.0050
16		100.0000g		0.1000g		.0050g	
17							
18 0840	CMZ		100.0001		0.1000		0.0049
19 1053	WD		100.0008		0.1000		0.0050
20 0636	JKP		100.0012		0.1000		0.0050
21 0641	JKP		100.0023		0.0998		0.0048
22 0635	JKP		99.9998		0.0999		0.0050
23 1059	CMZ		100.0000		0.0999		0.0051
24 1027	CMZ		100.0000		0.1001		0.0052
25 0707	JKP		99.9998		0.1000		0.0050
26 0627	JKP		100.0003		0.1000		0.0051
27 0605	JKP		100.0005		0.1000		0.0050
28							
29							
30							
31							

Balance Challenge Log

BalanceName
Lady Justice
S/N 593312

Weight ID	weight (g) =/<1g >1g	acceptance range (g) ± 0.02g ± 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: ~~October~~ November
Year: 2019

Alternate Weight/ID used:

Date Range:

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1 8:20	[illegible]		0.10		49.99	ONLY	
2							
3						NEEDED	
4 7:35	[illegible]		0.10		49.99	WHEN	
5 8:25	[illegible]		0.08		49.97		
6 8:05	[illegible]		0.10		49.99	WEIGHING	
7 9:25	[illegible]		0.09		49.99	OVER	
8 7:45	[illegible]		4998		0.10	50 g	499.76
9 9:00	[illegible]		0.10		4998	KEPT	
10						IN METALS	
11 13:40	[illegible]		0.09		4997	DEPT.	
12 8:42	[illegible]		0.09		4997		
13 7:40	[illegible]		0.09		49.97		
14 7:45	[illegible]		0.10		49.98	500.00g	
15 8:00	[illegible]		0.09		49.97		1199.78
16 10:30	[illegible]	0.10g	0.09	50.00g	49.98		
17							
18 7:43	[illegible]		0.09		49.98		
19 7:46	[illegible]		0.10		49.97		499.70
20 8:45	[illegible]		0.09		49.97		
21 7:40	[illegible]		0.09		49.98		499.72
22 7:35	[illegible]		0.09		49.97		
23 10:59	[illegible]		0.09		49.97		
24							
25 ~~4994~~	[illegible]		0.10		4997		
26 7:40	[illegible]		0.09		49.97		
27 9:50	[illegible]		0.09		49.99		
28							
29							
30							
31							

11/8/19 14:13

+49.99 = 549.77

11/12/19 12:50