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 #:

A9J0950

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

Table of Contents
A9J0950

Analytical Case Narrative
Analytical Report
Sample Receipt Documentation
(Work orders, Chain of Custody & Cooler Receipt Forms)
CLP-Like Forms
Raw Data

Volatile Organic Compounds by EPA 5035A/8260C
Benchsheet & Analysis Sequence Data
Batch 9101588
Sequence 9J25029 (A9J0950-01,02,03,04)

Calibration Data
Sequence 9J23072 (Cal ID A9J2404) VOA-GCMS10

TCLP Volatile Organic Compounds by EPA 1311/8260C
Benchsheet & Analysis Sequence Data
Batch 9101791
Sequence 9J31024 (A9J0950-01RE1,02RE1,03,04)

Calibration Data
Sequence 9J25051 (Cal ID A9J2806) VOA-GCMS7

Organochloride Pesticides by EPA 8081B
Benchsheet & Analysis Sequence Data
Batch 9110391
Sequence 9K05039 (A9J0950-01RE1,02RE1,03RE1,04RE1)

Calibration Data
Sequence 9H23034 (Cal ID A9H2608) DualECD5R/F

TCLP Organochloride Pesticides by EPA 8081B
Benchsheet & Analysis Sequence Data
Batch 9110516
Sequence 9K07024 (A9J0950-01,02,03,04)

Calibration Data
Sequence 9H23034 (Cal ID A9H2608) DualECD5R

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Table of Contents
A9J0950

Semivolatile Organic Compounds by EPA 8270D
Benchsheet & Analysis Sequence Data
Batch 9110357
Sequence 9K01021 (A9J0950-01,02,03,04)

Calibration Data
Sequence 9J16053 (Cal ID A9J1803) SV-GCMS9

TCLP Semivolatile Organic Compounds by EPA 8270D
Benchsheet & Analysis Sequence Data
Batch 9110499
Sequence 9K06033 (A9J0950-01,02,03,04)

Calibration Data
Sequence 9J16053 (Cal ID A9J1803) SV-GCMS9

Total Metals by EPA 6020A (ICPMS)
Benchsheet Data and Analysis (Including Calibration)
Batch 9101805
Sequence 9K01022

TCLP Metals by EPA 6020A (ICPMS)
Benchsheet Data and Analysis (Including Calibration)
Batch 9110482
Sequence 9K05034

Metals IFA/IFB Metals Internal Standards Recovery Summary
A19J465 IFA
A19J466 IFB
A9J0950 (I.S Tables)

Total Solids by SM 2540G
Benchsheet Data
Batch 9101616 (A9J0950-01,02,03,04)

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Table of Contents
A9J0950
(page 3 of 3)

TCLP Extraction by EPA 1311

Benchsheet Data

Batch 9101776 (A9J0950-01,02,03,04) (ZHE)
Batch 9110414 (A9J0950-01,02,03,04)

Balance Checksheets

Extractions October 2019
Extractions November 2019
Dry Weight October 2019
Wet Chem October 2019
Metals October 2019
Sample Rec. October 2019

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

Analytical Case Narrative

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

Analytical Case Narrative

Client: Anchor QEA, LLC Date: 12/23/2019
Project: Gasco PreRD_DG 2019 -4c. Waste Characterization
Apex Work Order Number: A9J0950

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

AMENDED REPORT

Friday, November 15, 2019

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

RE: A9J0950 - 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 A9J0950, which was received by the laboratory on 10/25/2019 at 2:40:00PM.

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	3.9 degC	Cooler #2	2.6 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

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PDI-015SC-C-00-8.1-191024	A9J0950-01	Sediment	10/24/19 13:17	10/25/19 14:40
PDI-026SC-C-00-3.9-191024	A9J0950-02	Sediment	10/24/19 09:58	10/25/19 14:40
PDI-037SC-C-00-12.4-191024	A9J0950-03	Sediment	10/24/19 11:36	10/25/19 14:40
PDI-073SC-C-00-13.7-191024	A9J0950-04	Sediment	10/24/19 14:31	10/25/19 14:40

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Darwin Thomas, Business Development Director

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-015SC-C-00-8.1-191024 (A9J0950-01)				**Matrix: Sediment**		**Batch: 9101588**		
Benzene	ND	770	1540	ug/kg dry	5000	10/25/19 21:03	5035A/8260C	
2-Butanone (MEK)	ND	38500	77000	ug/kg dry	5000	10/25/19 21:03	5035A/8260C	
Carbon tetrachloride	ND	3850	7700	ug/kg dry	5000	10/25/19 21:03	5035A/8260C	
Chlorobenzene	ND	1930	3850	ug/kg dry	5000	10/25/19 21:03	5035A/8260C	
Chloroform	ND	3850	7700	ug/kg dry	5000	10/25/19 21:03	5035A/8260C	
1,4-Dichlorobenzene	ND	1930	3850	ug/kg dry	5000	10/25/19 21:03	5035A/8260C	
1,2-Dichloroethane (EDC)	ND	1930	3850	ug/kg dry	5000	10/25/19 21:03	5035A/8260C	
1,1-Dichloroethene	ND	1930	3850	ug/kg dry	5000	10/25/19 21:03	5035A/8260C	
cis-1,2-Dichloroethene	ND	1930	3850	ug/kg dry	5000	10/25/19 21:03	5035A/8260C	
trans-1,2-Dichloroethene	ND	1930	3850	ug/kg dry	5000	10/25/19 21:03	5035A/8260C	
Ethylbenzene	**6670**	1930	3850	ug/kg dry	5000	10/25/19 21:03	5035A/8260C	
Tetrachloroethene (PCE)	ND	1930	3850	ug/kg dry	5000	10/25/19 21:03	5035A/8260C	
Toluene	ND	3850	7700	ug/kg dry	5000	10/25/19 21:03	5035A/8260C	
Trichloroethene (TCE)	ND	1930	3850	ug/kg dry	5000	10/25/19 21:03	5035A/8260C	
Vinyl chloride	ND	1930	3850	ug/kg dry	5000	10/25/19 21:03	5035A/8260C	
m,p-Xylene	ND	3850	7700	ug/kg dry	5000	10/25/19 21:03	5035A/8260C	
o-Xylene	ND	1930	3850	ug/kg dry	5000	10/25/19 21:03	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits: 80-120 %*	*1*	*10/25/19 21:03*	*5035A/8260C*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*10/25/19 21:03*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*10/25/19 21:03*	*5035A/8260C*	
PDI-026SC-C-00-3.9-191024 (A9J0950-02)				**Matrix: Sediment**		**Batch: 9101588**		
Benzene	**55200**	716	1430	ug/kg dry	5000	10/25/19 21:30	5035A/8260C	
2-Butanone (MEK)	ND	35800	71600	ug/kg dry	5000	10/25/19 21:30	5035A/8260C	
Carbon tetrachloride	ND	3580	7160	ug/kg dry	5000	10/25/19 21:30	5035A/8260C	
Chlorobenzene	ND	1790	3580	ug/kg dry	5000	10/25/19 21:30	5035A/8260C	
Chloroform	ND	3580	7160	ug/kg dry	5000	10/25/19 21:30	5035A/8260C	
1,4-Dichlorobenzene	ND	1790	3580	ug/kg dry	5000	10/25/19 21:30	5035A/8260C	
1,2-Dichloroethane (EDC)	ND	1790	3580	ug/kg dry	5000	10/25/19 21:30	5035A/8260C	
1,1-Dichloroethene	ND	1790	3580	ug/kg dry	5000	10/25/19 21:30	5035A/8260C	
cis-1,2-Dichloroethene	ND	1790	3580	ug/kg dry	5000	10/25/19 21:30	5035A/8260C	
trans-1,2-Dichloroethene	ND	1790	3580	ug/kg dry	5000	10/25/19 21:30	5035A/8260C	
Ethylbenzene	**34900**	1790	3580	ug/kg dry	5000	10/25/19 21:30	5035A/8260C	
Tetrachloroethene (PCE)	ND	1790	3580	ug/kg dry	5000	10/25/19 21:30	5035A/8260C	

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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

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-026SC-C-00-3.9-191024 (A9J0950-02)				**Matrix: Sediment**		**Batch: 9101588**		
Toluene	**22900**	3580	7160	ug/kg dry	5000	10/25/19 21:30	5035A/8260C	
Trichloroethene (TCE)	ND	1790	3580	ug/kg dry	5000	10/25/19 21:30	5035A/8260C	
Vinyl chloride	ND	1790	3580	ug/kg dry	5000	10/25/19 21:30	5035A/8260C	
m,p-Xylene	**61600**	3580	7160	ug/kg dry	5000	10/25/19 21:30	5035A/8260C	
o-Xylene	**22800**	1790	3580	ug/kg dry	5000	10/25/19 21:30	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits: 80-120 %*	*1*	*10/25/19 21:30*	*5035A/8260C*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*10/25/19 21:30*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*103 %*	*80-120 %*	*1*	*10/25/19 21:30*	*5035A/8260C*	
PDI-037SC-C-00-12.4-191024 (A9J0950-03)				**Matrix: Sediment**		**Batch: 9101588**		
Benzene	**2360**	702	1400	ug/kg dry	5000	10/25/19 21:57	5035A/8260C	
2-Butanone (MEK)	ND	35100	70200	ug/kg dry	5000	10/25/19 21:57	5035A/8260C	
Carbon tetrachloride	ND	3510	7020	ug/kg dry	5000	10/25/19 21:57	5035A/8260C	
Chlorobenzene	ND	1750	3510	ug/kg dry	5000	10/25/19 21:57	5035A/8260C	
Chloroform	ND	3510	7020	ug/kg dry	5000	10/25/19 21:57	5035A/8260C	
1,4-Dichlorobenzene	ND	1750	3510	ug/kg dry	5000	10/25/19 21:57	5035A/8260C	
1,2-Dichloroethane (EDC)	ND	1750	3510	ug/kg dry	5000	10/25/19 21:57	5035A/8260C	
1,1-Dichloroethene	ND	1750	3510	ug/kg dry	5000	10/25/19 21:57	5035A/8260C	
cis-1,2-Dichloroethene	ND	1750	3510	ug/kg dry	5000	10/25/19 21:57	5035A/8260C	
trans-1,2-Dichloroethene	ND	1750	3510	ug/kg dry	5000	10/25/19 21:57	5035A/8260C	
Ethylbenzene	**25000**	1750	3510	ug/kg dry	5000	10/25/19 21:57	5035A/8260C	
Tetrachloroethene (PCE)	ND	1750	3510	ug/kg dry	5000	10/25/19 21:57	5035A/8260C	
Toluene	ND	3510	7020	ug/kg dry	5000	10/25/19 21:57	5035A/8260C	
Trichloroethene (TCE)	ND	1750	3510	ug/kg dry	5000	10/25/19 21:57	5035A/8260C	
Vinyl chloride	ND	1750	3510	ug/kg dry	5000	10/25/19 21:57	5035A/8260C	
m,p-Xylene	**18200**	3510	7020	ug/kg dry	5000	10/25/19 21:57	5035A/8260C	
o-Xylene	**9050**	1750	3510	ug/kg dry	5000	10/25/19 21:57	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits: 80-120 %*	*1*	*10/25/19 21:57*	*5035A/8260C*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*10/25/19 21:57*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*102 %*	*80-120 %*	*1*	*10/25/19 21:57*	*5035A/8260C*	
PDI-073SC-C-00-13.7-191024 (A9J0950-04)				**Matrix: Sediment**		**Batch: 9101588**		
Benzene	**643000**	875	1750	ug/kg dry	5000	10/25/19 22:23	5035A/8260C	
2-Butanone (MEK)	ND	43700	87500	ug/kg dry	5000	10/25/19 22:23	5035A/8260C	

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-073SC-C-00-13.7-191024 (A9J0950-04)				**Matrix: Sediment**		**Batch: 9101588**		
Carbon tetrachloride	ND	4370	8750	ug/kg dry	5000	10/25/19 22:23	5035A/8260C	
Chlorobenzene	ND	2190	4370	ug/kg dry	5000	10/25/19 22:23	5035A/8260C	
Chloroform	ND	4370	8750	ug/kg dry	5000	10/25/19 22:23	5035A/8260C	
1,4-Dichlorobenzene	ND	2190	4370	ug/kg dry	5000	10/25/19 22:23	5035A/8260C	
1,2-Dichloroethane (EDC)	ND	2190	4370	ug/kg dry	5000	10/25/19 22:23	5035A/8260C	
1,1-Dichloroethene	ND	2190	4370	ug/kg dry	5000	10/25/19 22:23	5035A/8260C	
cis-1,2-Dichloroethene	ND	2190	4370	ug/kg dry	5000	10/25/19 22:23	5035A/8260C	
trans-1,2-Dichloroethene	ND	2190	4370	ug/kg dry	5000	10/25/19 22:23	5035A/8260C	
Ethylbenzene	**112000**	2190	4370	ug/kg dry	5000	10/25/19 22:23	5035A/8260C	
Tetrachloroethene (PCE)	ND	2190	4370	ug/kg dry	5000	10/25/19 22:23	5035A/8260C	
Toluene	**390000**	4370	8750	ug/kg dry	5000	10/25/19 22:23	5035A/8260C	
Trichloroethene (TCE)	ND	2190	4370	ug/kg dry	5000	10/25/19 22:23	5035A/8260C	
Vinyl chloride	ND	2190	4370	ug/kg dry	5000	10/25/19 22:23	5035A/8260C	
m,p-Xylene	**235000**	4370	8750	ug/kg dry	5000	10/25/19 22:23	5035A/8260C	
o-Xylene	**89400**	2190	4370	ug/kg dry	5000	10/25/19 22:23	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*	*Limits: 80-120 %*	*1*	*10/25/19 22:23*	*5035A/8260C*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*10/25/19 22:23*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*10/25/19 22:23*	*5035A/8260C*	

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

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-015SC-C-00-8.1-191024 (A9J0950-01RE1)				**Matrix: Sediment**		**Batch: 9101791**		
Benzene	ND	0.00625	0.0125	mg/L	50	10/31/19 12:21	1311/8260C	
2-Butanone (MEK)	ND	0.250	0.500	mg/L	50	10/31/19 12:21	1311/8260C	
Carbon tetrachloride	ND	0.0250	0.0500	mg/L	50	10/31/19 12:21	1311/8260C	
Chlorobenzene	ND	0.0125	0.0250	mg/L	50	10/31/19 12:21	1311/8260C	
Chloroform	ND	0.0250	0.0500	mg/L	50	10/31/19 12:21	1311/8260C	
1,4-Dichlorobenzene	ND	0.0125	0.0250	mg/L	50	10/31/19 12:21	1311/8260C	
1,2-Dichloroethane (EDC)	ND	0.0125	0.0250	mg/L	50	10/31/19 12:21	1311/8260C	
1,1-Dichloroethene	ND	0.0125	0.0250	mg/L	50	10/31/19 12:21	1311/8260C	
Tetrachloroethene (PCE)	ND	0.0125	0.0250	mg/L	50	10/31/19 12:21	1311/8260C	
Trichloroethene (TCE)	ND	0.0125	0.0250	mg/L	50	10/31/19 12:21	1311/8260C	
Vinyl chloride	ND	0.0125	0.0250	mg/L	50	10/31/19 12:21	1311/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*	*1*	*10/31/19 12:21*	*1311/8260C*	
Toluene-d8 (Surr)			*98 %*		*80-120 %*	*1*	*10/31/19 12:21*	*1311/8260C*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*10/31/19 12:21*	*1311/8260C*	
PDI-026SC-C-00-3.9-191024 (A9J0950-02RE1)				**Matrix: Sediment**		**Batch: 9101791**		
Benzene	**0.562**	0.00625	0.0125	mg/L	50	10/31/19 13:15	1311/8260C	
2-Butanone (MEK)	ND	0.250	0.500	mg/L	50	10/31/19 13:15	1311/8260C	
Carbon tetrachloride	ND	0.0250	0.0500	mg/L	50	10/31/19 13:15	1311/8260C	
Chlorobenzene	ND	0.0125	0.0250	mg/L	50	10/31/19 13:15	1311/8260C	
Chloroform	ND	0.0250	0.0500	mg/L	50	10/31/19 13:15	1311/8260C	
1,4-Dichlorobenzene	ND	0.0125	0.0250	mg/L	50	10/31/19 13:15	1311/8260C	
1,2-Dichloroethane (EDC)	ND	0.0125	0.0250	mg/L	50	10/31/19 13:15	1311/8260C	
1,1-Dichloroethene	ND	0.0125	0.0250	mg/L	50	10/31/19 13:15	1311/8260C	
Tetrachloroethene (PCE)	ND	0.0125	0.0250	mg/L	50	10/31/19 13:15	1311/8260C	
Trichloroethene (TCE)	ND	0.0125	0.0250	mg/L	50	10/31/19 13:15	1311/8260C	
Vinyl chloride	ND	0.0125	0.0250	mg/L	50	10/31/19 13:15	1311/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits:*	*80-120 %*	*1*	*10/31/19 13:15*	*1311/8260C*	
Toluene-d8 (Surr)			*100 %*		*80-120 %*	*1*	*10/31/19 13:15*	*1311/8260C*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*10/31/19 13:15*	*1311/8260C*	
PDI-037SC-C-00-12.4-191024 (A9J0950-03)				**Matrix: Sediment**		**Batch: 9101791**		
Benzene	**0.0735**	0.00625	0.0125	mg/L	50	10/31/19 13:42	1311/8260C	
2-Butanone (MEK)	ND	0.250	0.500	mg/L	50	10/31/19 13:42	1311/8260C	

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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

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

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-037SC-C-00-12.4-191024 (A9J0950-03)				**Matrix: Sediment**		**Batch: 9101791**		
Carbon tetrachloride	ND	0.0250	0.0500	mg/L	50	10/31/19 13:42	1311/8260C	
Chlorobenzene	ND	0.0125	0.0250	mg/L	50	10/31/19 13:42	1311/8260C	
Chloroform	ND	0.0250	0.0500	mg/L	50	10/31/19 13:42	1311/8260C	
1,4-Dichlorobenzene	ND	0.0125	0.0250	mg/L	50	10/31/19 13:42	1311/8260C	
1,2-Dichloroethane (EDC)	ND	0.0125	0.0250	mg/L	50	10/31/19 13:42	1311/8260C	
1,1-Dichloroethene	ND	0.0125	0.0250	mg/L	50	10/31/19 13:42	1311/8260C	
Tetrachloroethene (PCE)	ND	0.0125	0.0250	mg/L	50	10/31/19 13:42	1311/8260C	
Trichloroethene (TCE)	ND	0.0125	0.0250	mg/L	50	10/31/19 13:42	1311/8260C	
Vinyl chloride	ND	0.0250	0.0250	mg/L	50	10/31/19 13:42	1311/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*	*1*	*10/31/19 13:42*	*1311/8260C*
Toluene-d8 (Surr)			*100 %*		*80-120 %*	*1*	*10/31/19 13:42*	*1311/8260C*
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*10/31/19 13:42*	*1311/8260C*
PDI-073SC-C-00-13.7-191024 (A9J0950-04)				**Matrix: Sediment**		**Batch: 9101791**		
Benzene	**4.28**	0.00625	0.0125	mg/L	50	10/31/19 14:09	1311/8260C	
2-Butanone (MEK)	ND	0.250	0.500	mg/L	50	10/31/19 14:09	1311/8260C	
Carbon tetrachloride	ND	0.0250	0.0500	mg/L	50	10/31/19 14:09	1311/8260C	
Chlorobenzene	ND	0.0125	0.0250	mg/L	50	10/31/19 14:09	1311/8260C	
Chloroform	ND	0.0250	0.0500	mg/L	50	10/31/19 14:09	1311/8260C	
1,4-Dichlorobenzene	ND	0.0125	0.0250	mg/L	50	10/31/19 14:09	1311/8260C	
1,2-Dichloroethane (EDC)	ND	0.0125	0.0250	mg/L	50	10/31/19 14:09	1311/8260C	
1,1-Dichloroethene	ND	0.0125	0.0250	mg/L	50	10/31/19 14:09	1311/8260C	
Tetrachloroethene (PCE)	ND	0.0125	0.0250	mg/L	50	10/31/19 14:09	1311/8260C	
Trichloroethene (TCE)	ND	0.0125	0.0250	mg/L	50	10/31/19 14:09	1311/8260C	
Vinyl chloride	ND	0.0125	0.0250	mg/L	50	10/31/19 14:09	1311/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*96 %*	*Limits:*	*80-120 %*	*1*	*10/31/19 14:09*	*1311/8260C*
Toluene-d8 (Surr)			*99 %*		*80-120 %*	*1*	*10/31/19 14:09*	*1311/8260C*
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*10/31/19 14:09*	*1311/8260C*

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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

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-015SC-C-00-8.1-191024 (A9J0950-01RE1)				**Matrix: Sediment**		**Batch: 9110391**		**C-05, R-04**
gamma-BHC (Lindane)	ND	11.4	22.9	ug/kg dry	10	11/05/19 12:56	EPA 8081B	
Endrin	ND	22.9	22.9	ug/kg dry	10	11/05/19 12:56	EPA 8081B	
Heptachlor	ND	22.9	22.9	ug/kg dry	10	11/05/19 12:56	EPA 8081B	
Heptachlor epoxide	ND	11.4	22.9	ug/kg dry	10	11/05/19 12:56	EPA 8081B	
Methoxychlor	ND	172	172	ug/kg dry	10	11/05/19 12:56	EPA 8081B	R-02
Chlordane (Technical)	ND	343	687	ug/kg dry	10	11/05/19 12:56	EPA 8081B	
Toxaphene (Total)	ND	343	687	ug/kg dry	10	11/05/19 12:56	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 96 %*	*Limits: 42-129 %*	*10*	*11/05/19 12:56*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*114 %*	*55-130 %*	*10*	*11/05/19 12:56*	*EPA 8081B*	
PDI-026SC-C-00-3.9-191024 (A9J0950-02RE1)				**Matrix: Sediment**		**Batch: 9110391**		**C-05, R-04**
gamma-BHC (Lindane)	ND	25.6	25.6	ug/kg dry	10	11/05/19 14:05	EPA 8081B	
Endrin	ND	34.5	34.5	ug/kg dry	10	11/05/19 14:05	EPA 8081B	R-02
Heptachlor	ND	30.7	30.7	ug/kg dry	10	11/05/19 14:05	EPA 8081B	R-02
Heptachlor epoxide	ND	28.1	28.1	ug/kg dry	10	11/05/19 14:05	EPA 8081B	R-02
Methoxychlor	ND	310	310	ug/kg dry	10	11/05/19 14:05	EPA 8081B	R-02
Chlordane (Technical)	ND	384	768	ug/kg dry	10	11/05/19 14:05	EPA 8081B	
Toxaphene (Total)	ND	384	768	ug/kg dry	10	11/05/19 14:05	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 106 %*	*Limits: 42-129 %*	*10*	*11/05/19 14:05*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*268 %*	*55-130 %*	*10*	*11/05/19 14:05*	*EPA 8081B*	*S-04*
PDI-037SC-C-00-12.4-191024 (A9J0950-03RE1)				**Matrix: Sediment**		**Batch: 9110391**		**C-05, R-04**
gamma-BHC (Lindane)	ND	12.4	24.7	ug/kg dry	10	11/05/19 14:40	EPA 8081B	
Endrin	ND	12.4	24.7	ug/kg dry	10	11/05/19 14:40	EPA 8081B	
Heptachlor	ND	24.7	24.7	ug/kg dry	10	11/05/19 14:40	EPA 8081B	
Heptachlor epoxide	ND	12.4	24.7	ug/kg dry	10	11/05/19 14:40	EPA 8081B	
Methoxychlor	ND	177	177	ug/kg dry	10	11/05/19 14:40	EPA 8081B	R-02
Chlordane (Technical)	ND	371	742	ug/kg dry	10	11/05/19 14:40	EPA 8081B	
Toxaphene (Total)	ND	371	742	ug/kg dry	10	11/05/19 14:40	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 93 %*	*Limits: 42-129 %*	*10*	*11/05/19 14:40*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*127 %*	*55-130 %*	*10*	*11/05/19 14:40*	*EPA 8081B*	
PDI-073SC-C-00-13.7-191024 (A9J0950-04RE1)				**Matrix: Sediment**		**Batch: 9110391**		**C-05, R-04**
gamma-BHC (Lindane)	ND	14.6	29.1	ug/kg dry	10	11/05/19 15:14	EPA 8081B	

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-073SC-C-00-13.7-191024 (A9J0950-04RE1)				**Matrix: Sediment**		**Batch: 9110391**		**C-05, R-04**
Endrin	ND	29.1	29.1	ug/kg dry	10	11/05/19 15:14	EPA 8081B	
Heptachlor	ND	29.1	29.1	ug/kg dry	10	11/05/19 15:14	EPA 8081B	R-02
Heptachlor epoxide	ND	14.6	29.1	ug/kg dry	10	11/05/19 15:14	EPA 8081B	
Methoxychlor	ND	271	271	ug/kg dry	10	11/05/19 15:14	EPA 8081B	R-02
Chlordane (Technical)	ND	437	874	ug/kg dry	10	11/05/19 15:14	EPA 8081B	
Toxaphene (Total)	ND	437	874	ug/kg dry	10	11/05/19 15:14	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery: 94 %*		*Limits: 42-129 %*	*10*	*11/05/19 15:14*	*EPA 8081B*	
Decachlorobiphenyl (Surr)		*233 %*		*55-130 %*	*10*	*11/05/19 15:14*	*EPA 8081B*	*S-04*

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

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-015SC-C-00-8.1-191024 (A9J0950-01)				**Matrix: Sediment**		**Batch: 9110516**		
gamma-BHC (Lindane)	ND	0.0000750	0.000150	mg/L	1	11/07/19 13:58	1311/8081B	
Endrin	ND	0.0000750	0.000150	mg/L	1	11/07/19 13:58	1311/8081B	
Heptachlor	ND	0.0000750	0.000150	mg/L	1	11/07/19 13:58	1311/8081B	
Heptachlor epoxide	ND	0.0000750	0.000150	mg/L	1	11/07/19 13:58	1311/8081B	
Methoxychlor	ND	0.000200	0.000400	mg/L	1	11/07/19 13:58	1311/8081B	
Chlordane (Technical)	ND	0.000940	0.00188	mg/L	1	11/07/19 13:58	1311/8081B	
Toxaphene (Total)	ND	0.00250	0.00500	mg/L	1	11/07/19 13:58	1311/8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 80 %*	*Limits: 25-140 %*	*1*	*11/07/19 13:58*	*1311/8081B*	
Decachlorobiphenyl (Surr)			*104 %*	*30-135 %*	*1*	*11/07/19 13:58*	*1311/8081B*	
PDI-026SC-C-00-3.9-191024 (A9J0950-02)				**Matrix: Sediment**		**Batch: 9110516**		
gamma-BHC (Lindane)	ND	0.0000750	0.000150	mg/L	1	11/07/19 14:15	1311/8081B	
Endrin	ND	0.0000750	0.000150	mg/L	1	11/07/19 14:15	1311/8081B	
Heptachlor	ND	0.0000750	0.000150	mg/L	1	11/07/19 14:15	1311/8081B	
Heptachlor epoxide	ND	0.0000750	0.000150	mg/L	1	11/07/19 14:15	1311/8081B	
Methoxychlor	ND	0.000200	0.000400	mg/L	1	11/07/19 14:15	1311/8081B	
Chlordane (Technical)	ND	0.000940	0.00188	mg/L	1	11/07/19 14:15	1311/8081B	
Toxaphene (Total)	ND	0.00250	0.00500	mg/L	1	11/07/19 14:15	1311/8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 74 %*	*Limits: 25-140 %*	*1*	*11/07/19 14:15*	*1311/8081B*	
Decachlorobiphenyl (Surr)			*91 %*	*30-135 %*	*1*	*11/07/19 14:15*	*1311/8081B*	
PDI-037SC-C-00-12.4-191024 (A9J0950-03)				**Matrix: Sediment**		**Batch: 9110516**		
gamma-BHC (Lindane)	ND	0.0000750	0.000150	mg/L	1	11/07/19 14:33	1311/8081B	
Endrin	ND	0.0000750	0.000150	mg/L	1	11/07/19 14:33	1311/8081B	
Heptachlor	ND	0.0000750	0.000150	mg/L	1	11/07/19 14:33	1311/8081B	
Heptachlor epoxide	ND	0.0000750	0.000150	mg/L	1	11/07/19 14:33	1311/8081B	
Methoxychlor	ND	0.000200	0.000400	mg/L	1	11/07/19 14:33	1311/8081B	
Chlordane (Technical)	ND	0.000940	0.00188	mg/L	1	11/07/19 14:33	1311/8081B	
Toxaphene (Total)	ND	0.00250	0.00500	mg/L	1	11/07/19 14:33	1311/8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 80 %*	*Limits: 25-140 %*	*1*	*11/07/19 14:33*	*1311/8081B*	
Decachlorobiphenyl (Surr)			*104 %*	*30-135 %*	*1*	*11/07/19 14:33*	*1311/8081B*	
PDI-073SC-C-00-13.7-191024 (A9J0950-04)				**Matrix: Sediment**		**Batch: 9110516**		
gamma-BHC (Lindane)	ND	0.0000750	0.000150	mg/L	1	11/07/19 14:50	1311/8081B	

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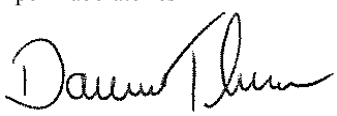

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Darwin Thomas, Business Development Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

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-073SC-C-00-13.7-191024 (A9J0950-04)				**Matrix: Sediment**		**Batch: 9110516**		
Endrin	ND	0.0000750	0.000150	mg/L	1	11/07/19 14:50	1311/8081B	
Heptachlor	ND	0.0000750	0.000150	mg/L	1	11/07/19 14:50	1311/8081B	
Heptachlor epoxide	ND	0.0000750	0.000150	mg/L	1	11/07/19 14:50	1311/8081B	
Methoxychlor	ND	0.000200	0.000400	mg/L	1	11/07/19 14:50	1311/8081B	
Chlordane (Technical)	ND	0.000940	0.00188	mg/L	1	11/07/19 14:50	1311/8081B	
Toxaphene (Total)	ND	0.00250	0.00500	mg/L	1	11/07/19 14:50	1311/8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 84 %*	*Limits: 25-140 %*	*1*	*11/07/19 14:50*	*1311/8081B*	
Decachlorobiphenyl (Surr)			*102 %*	*30-135 %*	*1*	*11/07/19 14:50*	*1311/8081B*	

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-015SC-C-00-8.1-191024 (A9J0950-01)				**Matrix: Sediment**		**Batch: 9110357**		**R-04**
2-Methylphenol	ND	4080	8180	ug/kg dry	1000	11/01/19 12:19	EPA 8270D	
3+4-Methylphenol(s)	ND	4080	8180	ug/kg dry	1000	11/01/19 12:19	EPA 8270D	
Pentachlorophenol (PCP)	ND	16300	32700	ug/kg dry	1000	11/01/19 12:19	EPA 8270D	
Phenol	ND	3270	6530	ug/kg dry	1000	11/01/19 12:19	EPA 8270D	
2,4,5-Trichlorophenol	ND	8180	16300	ug/kg dry	1000	11/01/19 12:19	EPA 8270D	
2,4,6-Trichlorophenol	ND	8180	16300	ug/kg dry	1000	11/01/19 12:19	EPA 8270D	
Hexachlorobenzene	ND	1630	3270	ug/kg dry	1000	11/01/19 12:19	EPA 8270D	
Hexachlorobutadiene	ND	4080	8180	ug/kg dry	1000	11/01/19 12:19	EPA 8270D	
Hexachloroethane	ND	4080	8180	ug/kg dry	1000	11/01/19 12:19	EPA 8270D	
Nitrobenzene	ND	16300	32700	ug/kg dry	1000	11/01/19 12:19	EPA 8270D	
2,4-Dinitrotoluene	ND	16300	32700	ug/kg dry	1000	11/01/19 12:19	EPA 8270D	
Pyridine	ND	8180	16300	ug/kg dry	1000	11/01/19 12:19	EPA 8270D	
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*146 %*	*Limits: 37-122 %*	*1000*	*11/01/19 12:19*	*EPA 8270D*	*S-05*
2-Fluorobiphenyl (Surr)			*171 %*	*44-115 %*	*1000*	*11/01/19 12:19*	*EPA 8270D*	*S-05*
Phenol-d6 (Surr)			*59 %*	*33-122 %*	*1000*	*11/01/19 12:19*	*EPA 8270D*	*S-05*
p-Terphenyl-d14 (Surr)			*146 %*	*54-127 %*	*1000*	*11/01/19 12:19*	*EPA 8270D*	*S-05*
2-Fluorophenol (Surr)			*27 %*	*35-115 %*	*1000*	*11/01/19 12:19*	*EPA 8270D*	*S-05*
2,4,6-Tribromophenol (Surr)			*%*	*39-132 %*	*1000*	*11/01/19 12:19*	*EPA 8270D*	*S-01*
PDI-026SC-C-00-3.9-191024 (A9J0950-02)				**Matrix: Sediment**		**Batch: 9110357**		**R-04**
2-Methylphenol	ND	4290	8590	ug/kg dry	1000	11/01/19 13:29	EPA 8270D	
3+4-Methylphenol(s)	ND	4290	8590	ug/kg dry	1000	11/01/19 13:29	EPA 8270D	
Pentachlorophenol (PCP)	ND	17100	34400	ug/kg dry	1000	11/01/19 13:29	EPA 8270D	
Phenol	ND	3440	6870	ug/kg dry	1000	11/01/19 13:29	EPA 8270D	
2,4,5-Trichlorophenol	ND	8590	17100	ug/kg dry	1000	11/01/19 13:29	EPA 8270D	
2,4,6-Trichlorophenol	ND	8590	17100	ug/kg dry	1000	11/01/19 13:29	EPA 8270D	
Hexachlorobenzene	ND	1710	3440	ug/kg dry	1000	11/01/19 13:29	EPA 8270D	
Hexachlorobutadiene	ND	4290	8590	ug/kg dry	1000	11/01/19 13:29	EPA 8270D	
Hexachloroethane	ND	4290	8590	ug/kg dry	1000	11/01/19 13:29	EPA 8270D	
Nitrobenzene	ND	17100	34400	ug/kg dry	1000	11/01/19 13:29	EPA 8270D	
2,4-Dinitrotoluene	ND	17100	34400	ug/kg dry	1000	11/01/19 13:29	EPA 8270D	
Pyridine	ND	8590	17100	ug/kg dry	1000	11/01/19 13:29	EPA 8270D	
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*141 %*	*Limits: 37-122 %*	*1000*	*11/01/19 13:29*	*EPA 8270D*	*S-05*
2-Fluorobiphenyl (Surr)			*114 %*	*44-115 %*	*1000*	*11/01/19 13:29*	*EPA 8270D*	*S-05*

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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

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-026SC-C-00-3.9-191024 (A9J0950-02)				**Matrix: Sediment**		**Batch: 9110357**		**R-04**
Surrogate: Phenol-d6 (Surr)			*Recovery: 35 %*	*Limits: 33-122 %*	*1000*	*11/01/19 13:29*	*EPA 8270D*	*S-05*
p-Terphenyl-d14 (Surr)			*106 %*	*54-127 %*	*1000*	*11/01/19 13:29*	*EPA 8270D*	*S-05*
2-Fluorophenol (Surr)			*44 %*	*35-115 %*	*1000*	*11/01/19 13:29*	*EPA 8270D*	*S-05*
2,4,6-Tribromophenol (Surr)			*%*	*39-132 %*	*1000*	*11/01/19 13:29*	*EPA 8270D*	*S-01*
PDI-037SC-C-00-12.4-191024 (A9J0950-03)				**Matrix: Sediment**		**Batch: 9110357**		**R-04**
2-Methylphenol	ND	4340	8690	ug/kg dry	1000	11/01/19 14:05	EPA 8270D	
3+4-Methylphenol(s)	ND	4340	8690	ug/kg dry	1000	11/01/19 14:05	EPA 8270D	
Pentachlorophenol (PCP)	ND	17300	34800	ug/kg dry	1000	11/01/19 14:05	EPA 8270D	
Phenol	ND	3480	6950	ug/kg dry	1000	11/01/19 14:05	EPA 8270D	
2,4,5-Trichlorophenol	ND	8690	17300	ug/kg dry	1000	11/01/19 14:05	EPA 8270D	
2,4,6-Trichlorophenol	ND	8690	17300	ug/kg dry	1000	11/01/19 14:05	EPA 8270D	
Hexachlorobenzene	ND	1730	3480	ug/kg dry	1000	11/01/19 14:05	EPA 8270D	
Hexachlorobutadiene	ND	4340	8690	ug/kg dry	1000	11/01/19 14:05	EPA 8270D	
Hexachloroethane	ND	4340	8690	ug/kg dry	1000	11/01/19 14:05	EPA 8270D	
Nitrobenzene	ND	17300	34800	ug/kg dry	1000	11/01/19 14:05	EPA 8270D	
2,4-Dinitrotoluene	ND	17300	34800	ug/kg dry	1000	11/01/19 14:05	EPA 8270D	
Pyridine	ND	8690	17300	ug/kg dry	1000	11/01/19 14:05	EPA 8270D	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 77 %*	*Limits: 37-122 %*	*1000*	*11/01/19 14:05*	*EPA 8270D*	*S-05*
2-Fluorobiphenyl (Surr)			*113 %*	*44-115 %*	*1000*	*11/01/19 14:05*	*EPA 8270D*	*S-05*
Phenol-d6 (Surr)			*42 %*	*33-122 %*	*1000*	*11/01/19 14:05*	*EPA 8270D*	*S-05*
p-Terphenyl-d14 (Surr)			*114 %*	*54-127 %*	*1000*	*11/01/19 14:05*	*EPA 8270D*	*S-05*
2-Fluorophenol (Surr)			*%*	*35-115 %*	*1000*	*11/01/19 14:05*	*EPA 8270D*	*S-01*
2,4,6-Tribromophenol (Surr)			*%*	*39-132 %*	*1000*	*11/01/19 14:05*	*EPA 8270D*	*S-01*
PDI-073SC-C-00-13.7-191024 (A9J0950-04)				**Matrix: Sediment**		**Batch: 9110357**		**R-04**
2-Methylphenol	ND	4810	9630	ug/kg dry	1000	11/01/19 14:40	EPA 8270D	
3+4-Methylphenol(s)	ND	4810	9630	ug/kg dry	1000	11/01/19 14:40	EPA 8270D	
Pentachlorophenol (PCP)	ND	19200	38500	ug/kg dry	1000	11/01/19 14:40	EPA 8270D	
Phenol	ND	3850	7690	ug/kg dry	1000	11/01/19 14:40	EPA 8270D	
2,4,5-Trichlorophenol	ND	9630	19200	ug/kg dry	1000	11/01/19 14:40	EPA 8270D	
2,4,6-Trichlorophenol	ND	9630	19200	ug/kg dry	1000	11/01/19 14:40	EPA 8270D	
Hexachlorobenzene	ND	1920	3850	ug/kg dry	1000	11/01/19 14:40	EPA 8270D	
Hexachlorobutadiene	ND	4810	9630	ug/kg dry	1000	11/01/19 14:40	EPA 8270D	
Hexachloroethane	ND	4810	9630	ug/kg dry	1000	11/01/19 14:40	EPA 8270D	

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Darwin Thomas, Business Development Director

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EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-073SC-C-00-13.7-191024 (A9J0950-04)				**Matrix: Sediment**		**Batch: 9110357**		**R-04**
Nitrobenzene	ND	19200	38500	ug/kg dry	1000	11/01/19 14:40	EPA 8270D	
2,4-Dinitrotoluene	ND	19200	38500	ug/kg dry	1000	11/01/19 14:40	EPA 8270D	
Pyridine	ND	9630	19200	ug/kg dry	1000	11/01/19 14:40	EPA 8270D	
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*149 %*	*Limits: 37-122 %*	*1000*	*11/01/19 14:40*	*EPA 8270D*	*S-05*
2-Fluorobiphenyl (Surr)			*114 %*	*44-115 %*	*1000*	*11/01/19 14:40*	*EPA 8270D*	*S-05*
Phenol-d6 (Surr)			*41 %*	*33-122 %*	*1000*	*11/01/19 14:40*	*EPA 8270D*	*S-05*
p-Terphenyl-d14 (Surr)			*105 %*	*54-127 %*	*1000*	*11/01/19 14:40*	*EPA 8270D*	*S-05*
2-Fluorophenol (Surr)			*42 %*	*35-115 %*	*1000*	*11/01/19 14:40*	*EPA 8270D*	*S-05*
2,4,6-Tribromophenol (Surr)			*%*	*39-132 %*	*1000*	*11/01/19 14:40*	*EPA 8270D*	*S-01*

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

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-015SC-C-00-8.1-191024 (A9J0950-01)				**Matrix: Sediment**		**Batch: 9110499**		
2,4-Dinitrotoluene	ND	0.0500	0.100	mg/L	50	11/06/19 13:46	1311/8270D	
Hexachlorobenzene	ND	0.0500	0.100	mg/L	50	11/06/19 13:46	1311/8270D	
Hexachlorobutadiene	ND	0.125	0.250	mg/L	50	11/06/19 13:46	1311/8270D	
Hexachloroethane	ND	0.125	0.250	mg/L	50	11/06/19 13:46	1311/8270D	
2-Methylphenol	ND	0.125	0.250	mg/L	50	11/06/19 13:46	1311/8270D	
3+4-Methylphenol(s)	ND	0.125	0.250	mg/L	50	11/06/19 13:46	1311/8270D	
Nitrobenzene	ND	0.125	0.250	mg/L	50	11/06/19 13:46	1311/8270D	
Pentachlorophenol (PCP)	ND	0.250	0.500	mg/L	50	11/06/19 13:46	1311/8270D	
Pyridine	ND	0.250	0.500	mg/L	50	11/06/19 13:46	1311/8270D	
2,4,5-Trichlorophenol	ND	0.125	0.250	mg/L	50	11/06/19 13:46	1311/8270D	
2,4,6-Trichlorophenol	ND	0.125	0.250	mg/L	50	11/06/19 13:46	1311/8270D	
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*85 %*	*Limits:* *44-120 %*	*50*	*11/06/19 13:46*	*1311/8270D*	*S-05*
2-Fluorobiphenyl (Surr)			*91 %*	*44-120 %*	*50*	*11/06/19 13:46*	*1311/8270D*	*S-05*
Phenol-d6 (Surr)			*11 %*	*10-120 %*	*50*	*11/06/19 13:46*	*1311/8270D*	*S-05*
p-Terphenyl-d14 (Surr)			*92 %*	*50-133 %*	*50*	*11/06/19 13:46*	*1311/8270D*	*S-05*
2-Fluorophenol (Surr)			*27 %*	*19-120 %*	*50*	*11/06/19 13:46*	*1311/8270D*	*S-05*
2,4,6-Tribromophenol (Surr)			*128 %*	*43-140 %*	*50*	*11/06/19 13:46*	*1311/8270D*	*S-05*
PDI-026SC-C-00-3.9-191024 (A9J0950-02)				**Matrix: Sediment**		**Batch: 9110499**		
2,4-Dinitrotoluene	ND	0.0500	0.100	mg/L	50	11/06/19 14:22	1311/8270D	
Hexachlorobenzene	ND	0.0500	0.100	mg/L	50	11/06/19 14:22	1311/8270D	
Hexachlorobutadiene	ND	0.125	0.250	mg/L	50	11/06/19 14:22	1311/8270D	
Hexachloroethane	ND	0.125	0.250	mg/L	50	11/06/19 14:22	1311/8270D	
2-Methylphenol	ND	0.125	0.250	mg/L	50	11/06/19 14:22	1311/8270D	
3+4-Methylphenol(s)	ND	0.125	0.250	mg/L	50	11/06/19 14:22	1311/8270D	
Nitrobenzene	ND	0.125	0.250	mg/L	50	11/06/19 14:22	1311/8270D	
Pentachlorophenol (PCP)	ND	0.250	0.500	mg/L	50	11/06/19 14:22	1311/8270D	
Pyridine	ND	0.250	0.500	mg/L	50	11/06/19 14:22	1311/8270D	
2,4,5-Trichlorophenol	ND	0.125	0.250	mg/L	50	11/06/19 14:22	1311/8270D	
2,4,6-Trichlorophenol	ND	0.125	0.250	mg/L	50	11/06/19 14:22	1311/8270D	
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*77 %*	*Limits:* *44-120 %*	*50*	*11/06/19 14:22*	*1311/8270D*	*S-05*
2-Fluorobiphenyl (Surr)			*87 %*	*44-120 %*	*50*	*11/06/19 14:22*	*1311/8270D*	*S-05*
Phenol-d6 (Surr)			*9 %*	*10-120 %*	*50*	*11/06/19 14:22*	*1311/8270D*	*S-05*
p-Terphenyl-d14 (Surr)			*82 %*	*50-133 %*	*50*	*11/06/19 14:22*	*1311/8270D*	*S-05*

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

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-026SC-C-00-3.9-191024 (A9J0950-02)				**Matrix: Sediment**		**Batch: 9110499**		
Surrogate: 2-Fluorophenol (Surr)			*Recovery: 25 %*	*Limits: 19-120 %*	*50*	*11/06/19 14:22*	*1311/8270D*	*S-05*
2,4,6-Tribromophenol (Surr)			*115 %*	*43-140 %*	*50*	*11/06/19 14:22*	*1311/8270D*	*S-05*
PDI-037SC-C-00-12.4-191024 (A9J0950-03)				**Matrix: Sediment**		**Batch: 9110499**		
2,4-Dinitrotoluene	ND	0.0500	0.100	mg/L	50	11/06/19 14:57	1311/8270D	
Hexachlorobenzene	ND	0.0500	0.100	mg/L	50	11/06/19 14:57	1311/8270D	
Hexachlorobutadiene	ND	0.125	0.250	mg/L	50	11/06/19 14:57	1311/8270D	
Hexachloroethane	ND	0.125	0.250	mg/L	50	11/06/19 14:57	1311/8270D	
2-Methylphenol	ND	0.125	0.250	mg/L	50	11/06/19 14:57	1311/8270D	
3+4-Methylphenol(s)	ND	0.125	0.250	mg/L	50	11/06/19 14:57	1311/8270D	
Nitrobenzene	ND	0.125	0.250	mg/L	50	11/06/19 14:57	1311/8270D	
Pentachlorophenol (PCP)	ND	0.250	0.500	mg/L	50	11/06/19 14:57	1311/8270D	
Pyridine	ND	0.250	0.500	mg/L	50	11/06/19 14:57	1311/8270D	
2,4,5-Trichlorophenol	ND	0.125	0.250	mg/L	50	11/06/19 14:57	1311/8270D	
2,4,6-Trichlorophenol	ND	0.125	0.250	mg/L	50	11/06/19 14:57	1311/8270D	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 73 %*	*Limits: 44-120 %*	*50*	*11/06/19 14:57*	*1311/8270D*	*S-05*
2-Fluorobiphenyl (Surr)			*89 %*	*44-120 %*	*50*	*11/06/19 14:57*	*1311/8270D*	*S-05*
Phenol-d6 (Surr)			*7 %*	*10-120 %*	*50*	*11/06/19 14:57*	*1311/8270D*	*S-05*
p-Terphenyl-d14 (Surr)			*86 %*	*50-133 %*	*50*	*11/06/19 14:57*	*1311/8270D*	*S-05*
2-Fluorophenol (Surr)			*26 %*	*19-120 %*	*50*	*11/06/19 14:57*	*1311/8270D*	*S-05*
2,4,6-Tribromophenol (Surr)			*117 %*	*43-140 %*	*50*	*11/06/19 14:57*	*1311/8270D*	*S-05*
PDI-073SC-C-00-13.7-191024 (A9J0950-04)				**Matrix: Sediment**		**Batch: 9110499**		
2,4-Dinitrotoluene	ND	0.0500	0.100	mg/L	50	11/06/19 15:32	1311/8270D	
Hexachlorobenzene	ND	0.0500	0.100	mg/L	50	11/06/19 15:32	1311/8270D	
Hexachlorobutadiene	ND	0.125	0.250	mg/L	50	11/06/19 15:32	1311/8270D	
Hexachloroethane	ND	0.125	0.250	mg/L	50	11/06/19 15:32	1311/8270D	
2-Methylphenol	ND	0.125	0.250	mg/L	50	11/06/19 15:32	1311/8270D	
3+4-Methylphenol(s)	ND	0.125	0.250	mg/L	50	11/06/19 15:32	1311/8270D	
Nitrobenzene	ND	0.125	0.250	mg/L	50	11/06/19 15:32	1311/8270D	
Pentachlorophenol (PCP)	ND	0.250	0.500	mg/L	50	11/06/19 15:32	1311/8270D	
Pyridine	ND	0.250	0.500	mg/L	50	11/06/19 15:32	1311/8270D	
2,4,5-Trichlorophenol	ND	0.125	0.250	mg/L	50	11/06/19 15:32	1311/8270D	
2,4,6-Trichlorophenol	ND	0.125	0.250	mg/L	50	11/06/19 15:32	1311/8270D	

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Darwin Thomas, Business Development Director

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EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

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-073SC-C-00-13.7-191024 (A9J0950-04)				**Matrix: Sediment**		**Batch: 9110499**		
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 78 %*	*Limits: 44-120 %*	*50*	*11/06/19 15:32*	*1311/8270D*	*S-05*
2-Fluorobiphenyl (Surr)			*87 %*	*44-120 %*	*50*	*11/06/19 15:32*	*1311/8270D*	*S-05*
Phenol-d6 (Surr)			*9 %*	*10-120 %*	*50*	*11/06/19 15:32*	*1311/8270D*	*S-05*
p-Terphenyl-d14 (Surr)			*84 %*	*50-133 %*	*50*	*11/06/19 15:32*	*1311/8270D*	*S-05*
2-Fluorophenol (Surr)			*29 %*	*19-120 %*	*50*	*11/06/19 15:32*	*1311/8270D*	*S-05*
2,4,6-Tribromophenol (Surr)			*127 %*	*43-140 %*	*50*	*11/06/19 15:32*	*1311/8270D*	*S-05*

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-015SC-C-00-8.1-191024 (A9J0950-01)				**Matrix: Sediment**				
Batch: 9101805								
Arsenic	**2.83**	0.338	0.676	mg/kg dry	5	11/01/19 18:19	EPA 6020A	
Barium	**114**	0.338	0.676	mg/kg dry	5	11/01/19 18:19	EPA 6020A	
Cadmium	**0.0687**	0.0676	0.135	mg/kg dry	5	11/01/19 18:19	EPA 6020A	**J**
Chromium	**14.4**	0.338	0.676	mg/kg dry	5	11/01/19 18:19	EPA 6020A	
Lead	**4.13**	0.0676	0.135	mg/kg dry	5	11/01/19 18:19	EPA 6020A	
Mercury	**0.160**	0.0271	0.0541	mg/kg dry	5	11/01/19 18:19	EPA 6020A	
Selenium	ND	0.338	0.676	mg/kg dry	5	11/01/19 18:19	EPA 6020A	
Silver	ND	0.0676	0.135	mg/kg dry	5	11/01/19 18:19	EPA 6020A	
PDI-026SC-C-00-3.9-191024 (A9J0950-02)				**Matrix: Sediment**				
Batch: 9101805								
Arsenic	**2.95**	0.344	0.687	mg/kg dry	5	11/01/19 18:24	EPA 6020A	
Barium	**112**	0.344	0.687	mg/kg dry	5	11/01/19 18:24	EPA 6020A	
Cadmium	**0.129**	0.0687	0.137	mg/kg dry	5	11/01/19 18:24	EPA 6020A	**J**
Chromium	**16.6**	0.344	0.687	mg/kg dry	5	11/01/19 18:24	EPA 6020A	
Lead	**9.18**	0.0687	0.137	mg/kg dry	5	11/01/19 18:24	EPA 6020A	
Mercury	**0.0444**	0.0275	0.0550	mg/kg dry	5	11/01/19 18:24	EPA 6020A	**J**
Selenium	ND	0.344	0.687	mg/kg dry	5	11/01/19 18:24	EPA 6020A	
Silver	**0.0995**	0.0687	0.137	mg/kg dry	5	11/01/19 18:24	EPA 6020A	**J**
PDI-037SC-C-00-12.4-191024 (A9J0950-03)				**Matrix: Sediment**				
Batch: 9101805								
Arsenic	**2.39**	0.356	0.712	mg/kg dry	5	11/01/19 18:28	EPA 6020A	
Barium	**116**	0.356	0.712	mg/kg dry	5	11/01/19 18:28	EPA 6020A	
Cadmium	**0.0902**	0.0712	0.142	mg/kg dry	5	11/01/19 18:28	EPA 6020A	**J**
Chromium	**17.7**	0.356	0.712	mg/kg dry	5	11/01/19 18:28	EPA 6020A	
Lead	**7.80**	0.0712	0.142	mg/kg dry	5	11/01/19 18:28	EPA 6020A	
Mercury	**0.186**	0.0285	0.0570	mg/kg dry	5	11/01/19 18:28	EPA 6020A	
Selenium	ND	0.356	0.712	mg/kg dry	5	11/01/19 18:28	EPA 6020A	
Silver	**0.100**	0.0712	0.142	mg/kg dry	5	11/01/19 18:28	EPA 6020A	**J**
PDI-073SC-C-00-13.7-191024 (A9J0950-04)				**Matrix: Sediment**				
Batch: 9101805								

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

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-073SC-C-00-13.7-191024 (A9J0950-04)				**Matrix: Sediment**				
Arsenic	**4.66**	0.402	0.803	mg/kg dry	5	11/01/19 18:33	EPA 6020A	
Barium	**156**	0.402	0.803	mg/kg dry	5	11/01/19 18:33	EPA 6020A	**Q-42**
Cadmium	**0.189**	0.0803	0.161	mg/kg dry	5	11/01/19 18:33	EPA 6020A	
Chromium	**27.6**	0.402	0.803	mg/kg dry	5	11/01/19 18:33	EPA 6020A	
Lead	**16.1**	0.0803	0.161	mg/kg dry	5	11/01/19 18:33	EPA 6020A	
Mercury	**0.127**	0.0321	0.0642	mg/kg dry	5	11/01/19 18:33	EPA 6020A	
Selenium	ND	0.402	0.803	mg/kg dry	5	11/01/19 18:33	EPA 6020A	
Silver	**0.251**	0.0803	0.161	mg/kg dry	5	11/01/19 18:33	EPA 6020A	

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EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-015SC-C-00-8.1-191024 (A9J0950-01)				**Matrix: Sediment**				
Batch: 9110482								
Arsenic	ND	0.0500	0.100	mg/L	10	11/05/19 18:13	1311/6020A	
Barium	ND	2.50	5.00	mg/L	10	11/05/19 18:13	1311/6020A	
Cadmium	ND	0.0500	0.100	mg/L	10	11/05/19 18:13	1311/6020A	
Chromium	ND	0.0500	0.100	mg/L	10	11/05/19 18:13	1311/6020A	
Lead	ND	0.0250	0.0500	mg/L	10	11/05/19 18:13	1311/6020A	
Mercury	ND	0.00350	0.00700	mg/L	10	11/05/19 18:13	1311/6020A	
Selenium	ND	0.0500	0.100	mg/L	10	11/05/19 18:13	1311/6020A	
Silver	ND	0.0500	0.100	mg/L	10	11/05/19 18:13	1311/6020A	
PDI-026SC-C-00-3.9-191024 (A9J0950-02)				**Matrix: Sediment**				
Batch: 9110482								
Arsenic	ND	0.0500	0.100	mg/L	10	11/05/19 18:18	1311/6020A	
Barium	ND	2.50	5.00	mg/L	10	11/05/19 18:18	1311/6020A	
Cadmium	ND	0.0500	0.100	mg/L	10	11/05/19 18:18	1311/6020A	
Chromium	ND	0.0500	0.100	mg/L	10	11/05/19 18:18	1311/6020A	
Lead	ND	0.0250	0.0500	mg/L	10	11/05/19 18:18	1311/6020A	
Mercury	ND	0.00350	0.00700	mg/L	10	11/05/19 18:18	1311/6020A	
Selenium	ND	0.0500	0.100	mg/L	10	11/05/19 18:18	1311/6020A	
Silver	ND	0.0500	0.100	mg/L	10	11/05/19 18:18	1311/6020A	
PDI-037SC-C-00-12.4-191024 (A9J0950-03)				**Matrix: Sediment**				
Batch: 9110482								
Arsenic	ND	0.0500	0.100	mg/L	10	11/05/19 18:23	1311/6020A	
Barium	ND	2.50	5.00	mg/L	10	11/05/19 18:23	1311/6020A	
Cadmium	ND	0.0500	0.100	mg/L	10	11/05/19 18:23	1311/6020A	
Chromium	ND	0.0500	0.100	mg/L	10	11/05/19 18:23	1311/6020A	
Lead	ND	0.0250	0.0500	mg/L	10	11/05/19 18:23	1311/6020A	
Mercury	ND	0.00350	0.00700	mg/L	10	11/05/19 18:23	1311/6020A	
Selenium	ND	0.0500	0.100	mg/L	10	11/05/19 18:23	1311/6020A	
Silver	ND	0.0500	0.100	mg/L	10	11/05/19 18:23	1311/6020A	
PDI-073SC-C-00-13.7-191024 (A9J0950-04)				**Matrix: Sediment**				
Batch: 9110482								

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EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-073SC-C-00-13.7-191024 (A9J0950-04)				**Matrix: Sediment**				
Arsenic	ND	0.0500	0.100	mg/L	10	11/05/19 18:37	1311/6020A	
Barium	ND	2.50	5.00	mg/L	10	11/05/19 18:37	1311/6020A	
Cadmium	ND	0.0500	0.100	mg/L	10	11/05/19 18:37	1311/6020A	
Chromium	ND	0.0500	0.100	mg/L	10	11/05/19 18:37	1311/6020A	
Lead	ND	0.0250	0.0500	mg/L	10	11/05/19 18:37	1311/6020A	
Mercury	ND	0.00350	0.00700	mg/L	10	11/05/19 18:37	1311/6020A	
Selenium	ND	0.0500	0.100	mg/L	10	11/05/19 18:37	1311/6020A	
Silver	ND	0.0500	0.100	mg/L	10	11/05/19 18:37	1311/6020A	

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

ANALYTICAL SAMPLE RESULTS

Solid and Moisture Determinations

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-015SC-C-00-8.1-191024 (A9J0950-01)				**Matrix: Sediment**				
Batch: 9101616								
Total Solids	**81.4**	1.00	1.00	% by Weight	1	10/28/19 16:20	SM 2540 G	
PDI-026SC-C-00-3.9-191024 (A9J0950-02)				**Matrix: Sediment**				
Batch: 9101616								
Total Solids	**76.1**	1.00	1.00	% by Weight	1	10/28/19 16:20	SM 2540 G	
PDI-037SC-C-00-12.4-191024 (A9J0950-03)				**Matrix: Sediment**				
Batch: 9101616								
Total Solids	**75.8**	1.00	1.00	% by Weight	1	10/28/19 16:20	SM 2540 G	
PDI-073SC-C-00-13.7-191024 (A9J0950-04)				**Matrix: Sediment**				
Batch: 9101616								
Total Solids	**67.8**	1.00	1.00	% by Weight	1	10/28/19 16:20	SM 2540 G	

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

ANALYTICAL SAMPLE RESULTS

TCLP Extraction by EPA 1311 (ZHE)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-015SC-C-00-8.1-191024 (A9J0950-01)				**Matrix: Sediment**		**Batch: 9101776**		
TCLP ZHE Extraction	PREP			N/A	1	10/30/19 16:40	EPA 1311 ZHE	
TCLP Extraction	PREP			N/A	1	11/04/19 16:50	EPA 1311	
TCLP Extraction	PREP			N/A	1	11/04/19 16:50	EPA 1311	
PDI-026SC-C-00-3.9-191024 (A9J0950-02)				**Matrix: Sediment**		**Batch: 9101776**		
TCLP ZHE Extraction	PREP			N/A	1	10/30/19 16:40	EPA 1311 ZHE	
TCLP Extraction	PREP			N/A	1	11/04/19 16:50	EPA 1311	
TCLP Extraction	PREP			N/A	1	11/04/19 16:50	EPA 1311	
PDI-037SC-C-00-12.4-191024 (A9J0950-03)				**Matrix: Sediment**		**Batch: 9101776**		
TCLP ZHE Extraction	PREP			N/A	1	10/30/19 16:40	EPA 1311 ZHE	
TCLP Extraction	PREP			N/A	1	11/04/19 16:50	EPA 1311	
TCLP Extraction	PREP			N/A	1	11/04/19 16:50	EPA 1311	
PDI-073SC-C-00-13.7-191024 (A9J0950-04)				**Matrix: Sediment**		**Batch: 9101776**		
TCLP ZHE Extraction	PREP			N/A	1	10/30/19 16:40	EPA 1311 ZHE	
TCLP Extraction	PREP			N/A	1	11/04/19 16:50	EPA 1311	
TCLP Extraction	PREP			N/A	1	11/04/19 16:50	EPA 1311	

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101588 - EPA 5035A							**Soil**					
Blank (9101588-BLK1)			Prepared: 10/25/19 09:30 Analyzed: 10/25/19 11:37									
5035A/8260C												
Acetone	ND	333	667	ug/kg wet	50	---	---	---	---	---	---	
Acrylonitrile	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
Benzene	ND	3.33	6.67	ug/kg wet	50	---	---	---	---	---	---	
Bromobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Bromochloromethane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Bromodichloromethane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Bromoform	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
Bromomethane	ND	333	333	ug/kg wet	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	167	333	ug/kg wet	50	---	---	---	---	---	---	
n-Butylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
sec-Butylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
tert-Butylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Carbon disulfide	ND	167	333	ug/kg wet	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Chlorobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Chloroethane	ND	167	333	ug/kg wet	50	---	---	---	---	---	---	
Chloroform	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Chloromethane	ND	83.3	167	ug/kg wet	50	---	---	---	---	---	---	
2-Chlorotoluene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
4-Chlorotoluene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Dibromochloromethane	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	83.3	167	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Dibromomethane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethane	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101588 - EPA 5035A							**Soil**					
Blank (9101588-BLK1)			Prepared: 10/25/19 09:30 Analyzed: 10/25/19 11:37									
1,2-Dichloropropane	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,3-Dichloropropane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
2,2-Dichloropropane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloropropene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Hexachlorobutadiene	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
2-Hexanone	ND	167	333	ug/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
4-Isopropyltoluene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Methylene chloride	ND	83.3	167	ug/kg wet	50	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	167	333	ug/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
n-Propylbenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Styrene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	83.3	167	ug/kg wet	50	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	83.3	167	ug/kg wet	50	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Trichlorofluoromethane	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Vinyl chloride	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
m,p-Xylene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
o-Xylene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	

Surr: 1,4-Difluorobenzene (Surr) *Recovery: 98 %* *Limits: 80-120 %* *Dilution: 1x*
Toluene-d8 (Surr) *102 %* *80-120 %* *"*

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101588 - EPA 5035A							**Soil**					
Blank (9101588-BLK1)				Prepared: 10/25/19 09:30 Analyzed: 10/25/19 11:37								
Surr: 4-Bromofluorobenzene (Surr)				*Recovery: 99 %*	*Limits: 80-120 %*		*Dilution: 1x*					
LCS (9101588-BS1)				Prepared: 10/25/19 09:30 Analyzed: 10/25/19 10:43								
5035A/8260C												
Acetone	2210	500	1000	ug/kg wet	50	2000	---	110	80-120%	---	---	
Acrylonitrile	1130	50.0	100	ug/kg wet	50	1000	---	113	80-120%	---	---	
Benzene	949	5.00	10.0	ug/kg wet	50	1000	---	95	80-120%	---	---	
Bromobenzene	973	12.5	25.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
Bromochloromethane	1040	25.0	50.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
Bromodichloromethane	1010	25.0	50.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
Bromoform	906	50.0	100	ug/kg wet	50	1000	---	91	80-120%	---	---	
Bromomethane	1170	500	500	ug/kg wet	50	1000	---	117	80-120%	---	---	
2-Butanone (MEK)	1970	250	500	ug/kg wet	50	2000	---	98	80-120%	---	---	
n-Butylbenzene	1070	25.0	50.0	ug/kg wet	50	1000	---	107	80-120%	---	---	
sec-Butylbenzene	1050	25.0	50.0	ug/kg wet	50	1000	---	105	80-120%	---	---	
tert-Butylbenzene	1020	25.0	50.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
Carbon disulfide	908	250	500	ug/kg wet	50	1000	---	91	80-120%	---	---	
Carbon tetrachloride	1010	25.0	50.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
Chlorobenzene	981	12.5	25.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
Chloroethane	899	250	500	ug/kg wet	50	1000	---	90	80-120%	---	---	
Chloroform	994	25.0	50.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
Chloromethane	897	125	250	ug/kg wet	50	1000	---	90	80-120%	---	---	
2-Chlorotoluene	987	25.0	50.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
4-Chlorotoluene	1020	25.0	50.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
Dibromochloromethane	964	50.0	100	ug/kg wet	50	1000	---	96	80-120%	---	---	
1,2-Dibromo-3-chloropropane	977	125	250	ug/kg wet	50	1000	---	98	80-120%	---	---	
1,2-Dibromoethane (EDB)	1030	25.0	50.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
Dibromomethane	1020	25.0	50.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
1,2-Dichlorobenzene	1010	12.5	25.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
1,3-Dichlorobenzene	1000	12.5	25.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
1,4-Dichlorobenzene	946	12.5	25.0	ug/kg wet	50	1000	---	95	80-120%	---	---	
Dichlorodifluoromethane	937	50.0	100	ug/kg wet	50	1000	---	94	80-120%	---	---	
1,1-Dichloroethane	999	12.5	25.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
1,2-Dichloroethane (EDC)	1050	12.5	25.0	ug/kg wet	50	1000	---	105	80-120%	---	---	

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101588 - EPA 5035A							**Soil**					
LCS (9101588-BS1)			Prepared: 10/25/19 09:30 Analyzed: 10/25/19 10:43									
1,1-Dichloroethene	915	12.5	25.0	ug/kg wet	50	1000	---	91	80-120%	---	---	
cis-1,2-Dichloroethene	965	12.5	25.0	ug/kg wet	50	1000	---	96	80-120%	---	---	
trans-1,2-Dichloroethene	994	12.5	25.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
1,2-Dichloropropane	981	50.0	100	ug/kg wet	50	1000	---	98	80-120%	---	---	
1,3-Dichloropropane	1000	25.0	50.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
2,2-Dichloropropane	1070	25.0	50.0	ug/kg wet	50	1000	---	107	80-120%	---	---	
1,1-Dichloropropene	958	25.0	50.0	ug/kg wet	50	1000	---	96	80-120%	---	---	
cis-1,3-Dichloropropene	1020	25.0	50.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
Ethylbenzene	1020	12.5	25.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
Hexachlorobutadiene	1070	50.0	100	ug/kg wet	50	1000	---	107	80-120%	---	---	
2-Hexanone	2100	250	500	ug/kg wet	50	2000	---	105	80-120%	---	---	
Isopropylbenzene	1040	25.0	50.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
4-Isopropyltoluene	1060	25.0	50.0	ug/kg wet	50	1000	---	106	80-120%	---	---	
Methylene chloride	1120	125	250	ug/kg wet	50	1000	---	112	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	2120	250	500	ug/kg wet	50	2000	---	106	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	978	25.0	50.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
Naphthalene	1040	50.0	100	ug/kg wet	50	1000	---	104	80-120%	---	---	
n-Propylbenzene	1010	12.5	25.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
Styrene	919	25.0	50.0	ug/kg wet	50	1000	---	92	80-120%	---	---	
1,1,1,2-Tetrachloroethane	1030	12.5	25.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
1,1,2,2-Tetrachloroethane	1000	25.0	50.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
Tetrachloroethene (PCE)	1020	12.5	25.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
Toluene	966	25.0	50.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
1,2,3-Trichlorobenzene	1030	125	250	ug/kg wet	50	1000	---	103	80-120%	---	---	
1,2,4-Trichlorobenzene	991	125	250	ug/kg wet	50	1000	---	99	80-120%	---	---	
1,1,1-Trichloroethane	1020	12.5	25.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
1,1,2-Trichloroethane	1030	12.5	25.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
Trichloroethene (TCE)	979	12.5	25.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
Trichlorofluoromethane	963	50.0	100	ug/kg wet	50	1000	---	96	80-120%	---	---	
1,2,3-Trichloropropane	1020	25.0	50.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
1,2,4-Trimethylbenzene	1110	25.0	50.0	ug/kg wet	50	1000	---	111	80-120%	---	---	
1,3,5-Trimethylbenzene	1110	25.0	50.0	ug/kg wet	50	1000	---	111	80-120%	---	---	
Vinyl chloride	1000	12.5	25.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
m,p-Xylene	2140	25.0	50.0	ug/kg wet	50	2000	---	107	80-120%	---	---	

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Darwin Thomas, Business Development Director

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EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101588 - EPA 5035A							**Soil**					
LCS (9101588-BS1)			Prepared: 10/25/19 09:30 Analyzed: 10/25/19 10:43									
o-Xylene	1020	12.5	25.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*	*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)			*102 %*	*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*			*"*					
Matrix Spike (9101588-MS1)			Prepared: 10/23/19 12:46 Analyzed: 10/25/19 14:46									
QC Source Sample: Non-SDG (A9J0893-08)												
5035A/8260C												
Acetone	4200	879	1760	ug/kg dry	50	3520	ND	119	36-164%	---	---	
Acrylonitrile	2040	87.9	176	ug/kg dry	50	1760	ND	116	65-134%	---	---	
Benzene	1710	8.79	17.6	ug/kg dry	50	1760	ND	97	77-121%	---	---	
Bromobenzene	1710	22.0	44.0	ug/kg dry	50	1760	ND	97	78-121%	---	---	
Bromochloromethane	1900	44.0	87.9	ug/kg dry	50	1760	ND	108	78-125%	---	---	
Bromodichloromethane	1850	44.0	87.9	ug/kg dry	50	1760	ND	105	75-127%	---	---	
Bromoform	1560	87.9	176	ug/kg dry	50	1760	ND	89	67-132%	---	---	
Bromomethane	2280	879	879	ug/kg dry	50	1760	ND	130	53-143%	---	---	
2-Butanone (MEK)	3500	440	879	ug/kg dry	50	3520	ND	99	51-148%	---	---	
n-Butylbenzene	1940	44.0	87.9	ug/kg dry	50	1760	ND	110	70-128%	---	---	
sec-Butylbenzene	1880	44.0	87.9	ug/kg dry	50	1760	ND	106	73-126%	---	---	
tert-Butylbenzene	1830	44.0	87.9	ug/kg dry	50	1760	ND	104	73-125%	---	---	
Carbon disulfide	1660	440	879	ug/kg dry	50	1760	ND	94	63-132%	---	---	
Carbon tetrachloride	1850	44.0	87.9	ug/kg dry	50	1760	ND	105	70-135%	---	---	
Chlorobenzene	1730	22.0	44.0	ug/kg dry	50	1760	ND	98	79-120%	---	---	
Chloroethane	1870	440	879	ug/kg dry	50	1760	ND	106	59-139%	---	---	
Chloroform	1990	44.0	87.9	ug/kg dry	50	1760	ND	113	78-123%	---	---	
Chloromethane	1620	220	440	ug/kg dry	50	1760	ND	92	50-136%	---	---	
2-Chlorotoluene	1770	44.0	87.9	ug/kg dry	50	1760	ND	101	75-122%	---	---	
4-Chlorotoluene	1830	44.0	87.9	ug/kg dry	50	1760	ND	104	72-124%	---	---	
Dibromochloromethane	1740	87.9	176	ug/kg dry	50	1760	ND	99	74-126%	---	---	
1,2-Dibromo-3-chloropropane	1800	220	440	ug/kg dry	50	1760	ND	102	61-132%	---	---	
1,2-Dibromoethane (EDB)	1860	44.0	87.9	ug/kg dry	50	1760	ND	105	78-122%	---	---	
Dibromomethane	1910	44.0	87.9	ug/kg dry	50	1760	ND	108	78-125%	---	---	
1,2-Dichlorobenzene	1780	22.0	44.0	ug/kg dry	50	1760	ND	101	78-121%	---	---	
1,3-Dichlorobenzene	1780	22.0	44.0	ug/kg dry	50	1760	ND	101	77-121%	---	---	

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Darwin Thomas, Business Development Director

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101588 - EPA 5035A							**Soil**					
Matrix Spike (9101588-MS1)			Prepared: 10/23/19 12:46 Analyzed: 10/25/19 14:46									
QC Source Sample: Non-SDG (A9J0893-08)												
1,4-Dichlorobenzene	1690	22.0	44.0	ug/kg dry	50	1760	ND	96	75-120%	---	---	
Dichlorodifluoromethane	1700	87.9	176	ug/kg dry	50	1760	ND	96	29-149%	---	---	
1,1-Dichloroethane	1920	22.0	44.0	ug/kg dry	50	1760	ND	109	76-125%	---	---	
1,2-Dichloroethane (EDC)	1870	22.0	44.0	ug/kg dry	50	1760	ND	106	73-128%	---	---	
1,1-Dichloroethene	1660	22.0	44.0	ug/kg dry	50	1760	ND	94	70-131%	---	---	
cis-1,2-Dichloroethene	1770	22.0	44.0	ug/kg dry	50	1760	ND	100	77-123%	---	---	
trans-1,2-Dichloroethene	1800	22.0	44.0	ug/kg dry	50	1760	ND	102	74-125%	---	---	
1,2-Dichloropropane	1750	87.9	176	ug/kg dry	50	1760	ND	99	76-123%	---	---	
1,3-Dichloropropane	1780	44.0	87.9	ug/kg dry	50	1760	ND	101	77-121%	---	---	
2,2-Dichloropropane	1720	44.0	87.9	ug/kg dry	50	1760	ND	98	67-133%	---	---	
1,1-Dichloropropene	1730	44.0	87.9	ug/kg dry	50	1760	ND	98	76-125%	---	---	
cis-1,3-Dichloropropene	1760	44.0	87.9	ug/kg dry	50	1760	ND	100	74-126%	---	---	
Ethylbenzene	1820	22.0	44.0	ug/kg dry	50	1760	ND	103	76-122%	---	---	
Hexachlorobutadiene	2000	87.9	176	ug/kg dry	50	1760	ND	114	61-135%	---	---	
2-Hexanone	3580	440	879	ug/kg dry	50	3520	ND	101	53-145%	---	---	
Isopropylbenzene	1830	44.0	87.9	ug/kg dry	50	1760	ND	104	68-134%	---	---	
4-Isopropyltoluene	1880	44.0	87.9	ug/kg dry	50	1760	ND	107	73-127%	---	---	
Methylene chloride	2000	220	440	ug/kg dry	50	1760	ND	113	70-128%	---	---	
4-Methyl-2-pentanone (MiBK)	3690	440	879	ug/kg dry	50	3520	ND	105	65-135%	---	---	
Methyl tert-butyl ether (MTBE)	1730	44.0	87.9	ug/kg dry	50	1760	ND	98	73-125%	---	---	
Naphthalene	2020	87.9	176	ug/kg dry	50	1760	ND	115	62-129%	---	---	
n-Propylbenzene	1810	22.0	44.0	ug/kg dry	50	1760	ND	103	73-125%	---	---	
Styrene	1620	44.0	87.9	ug/kg dry	50	1760	ND	92	76-124%	---	---	
1,1,1,2-Tetrachloroethane	1810	22.0	44.0	ug/kg dry	50	1760	ND	103	78-125%	---	---	
1,1,2,2-Tetrachloroethane	1760	44.0	87.9	ug/kg dry	50	1760	ND	100	70-124%	---	---	
Tetrachloroethene (PCE)	1800	22.0	44.0	ug/kg dry	50	1760	ND	102	73-128%	---	---	
Toluene	1740	44.0	87.9	ug/kg dry	50	1760	ND	99	77-121%	---	---	
1,2,3-Trichlorobenzene	1850	220	440	ug/kg dry	50	1760	ND	105	66-130%	---	---	
1,2,4-Trichlorobenzene	1810	220	440	ug/kg dry	50	1760	ND	102	67-129%	---	---	
1,1,1-Trichloroethane	1850	22.0	44.0	ug/kg dry	50	1760	ND	105	73-130%	---	---	
1,1,2-Trichloroethane	1840	22.0	44.0	ug/kg dry	50	1760	ND	104	78-121%	---	---	
Trichloroethene (TCE)	1770	22.0	44.0	ug/kg dry	50	1760	ND	100	77-123%	---	---	
Trichlorofluoromethane	1880	87.9	176	ug/kg dry	50	1760	ND	107	62-140%	---	---	

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Darwin Thomas, Business Development Director

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101588 - EPA 5035A							**Soil**					
Matrix Spike (9101588-MS1)			Prepared: 10/23/19 12:46 Analyzed: 10/25/19 14:46									
QC Source Sample: Non-SDG (A9J0893-08)												
1,2,3-Trichloropropane	1800	44.0	87.9	ug/kg dry	50	1760	ND	102	73-125%	---	---	
1,2,4-Trimethylbenzene	1980	44.0	87.9	ug/kg dry	50	1760	ND	112	75-123%	---	---	
1,3,5-Trimethylbenzene	1970	44.0	87.9	ug/kg dry	50	1760	ND	112	73-124%	---	---	
Vinyl chloride	1840	22.0	44.0	ug/kg dry	50	1760	ND	104	56-135%	---	---	
m,p-Xylene	3730	44.0	87.9	ug/kg dry	50	3520	ND	106	77-124%	---	---	
o-Xylene	1810	22.0	44.0	ug/kg dry	50	1760	ND	103	77-123%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*			*"*				
Matrix Spike Dup (9101588-MSD1)			Prepared: 10/23/19 12:46 Analyzed: 10/25/19 15:13									
QC Source Sample: Non-SDG (A9J0893-08)												
Acetone	4260	879	1760	ug/kg dry	50	3520	ND	121	36-164%	1	35%	
Acrylonitrile	2120	87.9	176	ug/kg dry	50	1760	ND	120	65-134%	4	35%	
Benzene	1680	8.79	17.6	ug/kg dry	50	1760	ND	96	77-121%	1	35%	
Bromobenzene	1730	22.0	44.0	ug/kg dry	50	1760	ND	98	78-121%	1	35%	
Bromochloromethane	1910	44.0	87.9	ug/kg dry	50	1760	ND	108	78-125%	0.1	35%	
Bromodichloromethane	1850	44.0	87.9	ug/kg dry	50	1760	ND	105	75-127%	0.07	35%	
Bromoform	1640	87.9	176	ug/kg dry	50	1760	ND	93	67-132%	4	35%	
Bromomethane	2360	879	879	ug/kg dry	50	1760	ND	134	53-143%	3	35%	
2-Butanone (MEK)	3590	440	879	ug/kg dry	50	3520	ND	102	51-148%	3	35%	
n-Butylbenzene	1920	44.0	87.9	ug/kg dry	50	1760	ND	109	70-128%	1	35%	
sec-Butylbenzene	1870	44.0	87.9	ug/kg dry	50	1760	ND	106	73-126%	0.5	35%	
tert-Butylbenzene	1830	44.0	87.9	ug/kg dry	50	1760	ND	104	73-125%	0.2	35%	
Carbon disulfide	1630	440	879	ug/kg dry	50	1760	ND	93	63-132%	2	35%	
Carbon tetrachloride	1800	44.0	87.9	ug/kg dry	50	1760	ND	102	70-135%	3	35%	
Chlorobenzene	1720	22.0	44.0	ug/kg dry	50	1760	ND	97	79-120%	0.8	35%	
Chloroethane	1990	440	879	ug/kg dry	50	1760	ND	113	59-139%	7	35%	
Chloroform	1980	44.0	87.9	ug/kg dry	50	1760	ND	112	78-123%	0.6	35%	
Chloromethane	1670	220	440	ug/kg dry	50	1760	ND	95	50-136%	4	35%	
2-Chlorotoluene	1740	44.0	87.9	ug/kg dry	50	1760	ND	99	75-122%	2	35%	
4-Chlorotoluene	1820	44.0	87.9	ug/kg dry	50	1760	ND	103	72-124%	0.3	35%	
Dibromochloromethane	1770	87.9	176	ug/kg dry	50	1760	ND	101	74-126%	2	35%	

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Tigard, OR 97223
503-718-2323
EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101588 - EPA 5035A							**Soil**					
Matrix Spike Dup (9101588-MSD1)			Prepared: 10/23/19 12:46		Analyzed: 10/25/19 15:13							
QC Source Sample: Non-SDG (A9J0893-08)												
1,2-Dibromo-3-chloropropane	1840	220	440	ug/kg dry	50	1760	ND	104	61-132%	2	35%	
1,2-Dibromoethane (EDB)	1890	44.0	87.9	ug/kg dry	50	1760	ND	107	78-122%	2	35%	
Dibromomethane	1910	44.0	87.9	ug/kg dry	50	1760	ND	108	78-125%	0.06	35%	
1,2-Dichlorobenzene	1770	22.0	44.0	ug/kg dry	50	1760	ND	101	78-121%	0.2	35%	
1,3-Dichlorobenzene	1770	22.0	44.0	ug/kg dry	50	1760	ND	101	77-121%	0.4	35%	
1,4-Dichlorobenzene	1690	22.0	44.0	ug/kg dry	50	1760	ND	96	75-120%	0.3	35%	
Dichlorodifluoromethane	1680	87.9	176	ug/kg dry	50	1760	ND	96	29-149%	0.9	35%	
1,1-Dichloroethane	1920	22.0	44.0	ug/kg dry	50	1760	ND	109	76-125%	0.1	35%	
1,2-Dichloroethane (EDC)	1870	22.0	44.0	ug/kg dry	50	1760	ND	106	73-128%	0.3	35%	
1,1-Dichloroethene	1630	22.0	44.0	ug/kg dry	50	1760	ND	93	70-131%	1	35%	
cis-1,2-Dichloroethene	1740	22.0	44.0	ug/kg dry	50	1760	ND	99	77-123%	2	35%	
trans-1,2-Dichloroethene	1770	22.0	44.0	ug/kg dry	50	1760	ND	101	74-125%	1	35%	
1,2-Dichloropropane	1750	87.9	176	ug/kg dry	50	1760	ND	99	76-123%	0.3	35%	
1,3-Dichloropropane	1810	44.0	87.9	ug/kg dry	50	1760	ND	102	77-121%	2	35%	
2,2-Dichloropropane	1690	44.0	87.9	ug/kg dry	50	1760	ND	96	67-133%	2	35%	
1,1-Dichloropropene	1710	44.0	87.9	ug/kg dry	50	1760	ND	97	76-125%	1	35%	
cis-1,3-Dichloropropene	1780	44.0	87.9	ug/kg dry	50	1760	ND	101	74-126%	1	35%	
Ethylbenzene	1800	22.0	44.0	ug/kg dry	50	1760	ND	102	76-122%	1	35%	
Hexachlorobutadiene	1920	87.9	176	ug/kg dry	50	1760	ND	109	61-135%	4	35%	
2-Hexanone	3660	440	879	ug/kg dry	50	3520	ND	104	53-145%	2	35%	
Isopropylbenzene	1860	44.0	87.9	ug/kg dry	50	1760	ND	106	68-134%	2	35%	
4-Isopropyltoluene	1900	44.0	87.9	ug/kg dry	50	1760	ND	108	73-127%	0.8	35%	
Methylene chloride	1970	220	440	ug/kg dry	50	1760	ND	112	70-128%	1	35%	
4-Methyl-2-pentanone (MiBK)	3770	440	879	ug/kg dry	50	3520	ND	107	65-135%	2	35%	
Methyl tert-butyl ether (MTBE)	1760	44.0	87.9	ug/kg dry	50	1760	ND	100	73-125%	2	35%	
Naphthalene	2040	87.9	176	ug/kg dry	50	1760	ND	116	62-129%	1	35%	
n-Propylbenzene	1810	22.0	44.0	ug/kg dry	50	1760	ND	103	73-125%	0.3	35%	
Styrene	1650	44.0	87.9	ug/kg dry	50	1760	ND	94	76-124%	2	35%	
1,1,1,2-Tetrachloroethane	1840	22.0	44.0	ug/kg dry	50	1760	ND	104	78-125%	1	35%	
1,1,2,2-Tetrachloroethane	1780	44.0	87.9	ug/kg dry	50	1760	ND	101	70-124%	1	35%	
Tetrachloroethene (PCE)	1800	22.0	44.0	ug/kg dry	50	1760	ND	102	73-128%	0.2	35%	
Toluene	1730	44.0	87.9	ug/kg dry	50	1760	ND	98	77-121%	0.8	35%	
1,2,3-Trichlorobenzene	1850	220	440	ug/kg dry	50	1760	ND	105	66-130%	0.2	35%	

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Darwin Thomas, Business Development Director

Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101588 - EPA 5035A							**Soil**					
Matrix Spike Dup (9101588-MSD1)				Prepared: 10/23/19 12:46		Analyzed: 10/25/19 15:13						
QC Source Sample: Non-SDG (A9J0893-08)												
1,2,4-Trichlorobenzene	1780	220	440	ug/kg dry	50	1760	ND	101	67-129%	1	35%	
1,1,1-Trichloroethane	1810	22.0	44.0	ug/kg dry	50	1760	ND	103	73-130%	2	35%	
1,1,2-Trichloroethane	1850	22.0	44.0	ug/kg dry	50	1760	ND	105	78-121%	0.6	35%	
Trichloroethene (TCE)	1750	22.0	44.0	ug/kg dry	50	1760	ND	99	77-123%	0.9	35%	
Trichlorofluoromethane	1820	87.9	176	ug/kg dry	50	1760	ND	103	62-140%	3	35%	
1,2,3-Trichloropropane	1800	44.0	87.9	ug/kg dry	50	1760	ND	102	73-125%	0.1	35%	
1,2,4-Trimethylbenzene	1970	44.0	87.9	ug/kg dry	50	1760	ND	112	75-123%	0.4	35%	
1,3,5-Trimethylbenzene	1950	44.0	87.9	ug/kg dry	50	1760	ND	111	73-124%	0.9	35%	
Vinyl chloride	1870	22.0	44.0	ug/kg dry	50	1760	ND	106	56-135%	2	35%	
m,p-Xylene	3760	44.0	87.9	ug/kg dry	50	3520	ND	107	77-124%	0.8	35%	
o-Xylene	1830	22.0	44.0	ug/kg dry	50	1760	ND	104	77-123%	2	35%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

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 9101791 - EPA 1311/5030B TCLP Volatiles							**Water**					
Blank (9101791-BLK1)			Prepared: 10/31/19 08:48		Analyzed: 10/31/19 10:58							**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: 104 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
LCS (9101791-BS1)			Prepared: 10/31/19 08:48		Analyzed: 10/31/19 10:31							**TCLP**
1311/8260C												
Benzene	1.11	0.00625	0.0125	mg/L	50	1.00	---	111	80-120%	---	---	
2-Butanone (MEK)	2.14	0.250	0.500	mg/L	50	2.00	---	107	80-120%	---	---	
Carbon tetrachloride	1.27	0.0250	0.0500	mg/L	50	1.00	---	**127**	**80-120%**	---	---	Q-56
Chlorobenzene	1.07	0.0125	0.0250	mg/L	50	1.00	---	107	80-120%	---	---	
Chloroform	1.10	0.0250	0.0500	mg/L	50	1.00	---	110	80-120%	---	---	
1,4-Dichlorobenzene	1.01	0.0125	0.0250	mg/L	50	1.00	---	101	80-120%	---	---	
1,2-Dichloroethane (EDC)	1.07	0.0125	0.0250	mg/L	50	1.00	---	107	80-120%	---	---	
1,1-Dichloroethene	1.13	0.0125	0.0250	mg/L	50	1.00	---	113	80-120%	---	---	
Tetrachloroethene (PCE)	1.12	0.0125	0.0250	mg/L	50	1.00	---	112	80-120%	---	---	
Trichloroethene (TCE)	1.06	0.0125	0.0250	mg/L	50	1.00	---	106	80-120%	---	---	
Vinyl chloride	1.10	0.0125	0.0250	mg/L	50	1.00	---	110	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 97 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
Duplicate (9101791-DUP1)			Prepared: 10/31/19 10:58		Analyzed: 10/31/19 12:48							

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Darwin Thomas, Business Development Director

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Tigard, OR 97223
503-718-2323
EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

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 9101791 - EPA 1311/5030B TCLP Volatiles							**Water**					
Duplicate (9101791-DUP1)			Prepared: 10/31/19 10:58 Analyzed: 10/31/19 12:48									
QC Source Sample: PDI-015SC-C-00-8.1-191024 (A9J0950-01RE1)												
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: 103 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
Matrix Spike (9101791-MS1)			Prepared: 10/31/19 10:58 Analyzed: 10/31/19 15:30									
QC Source Sample: Non-SDG (A9J1006-02RE1)												
1311/8260C												
Benzene	1.10	0.00625	0.0125	mg/L	50	1.00	0.0270	107	70-130%	---	---	
2-Butanone (MEK)	2.19	0.250	0.500	mg/L	50	2.00	ND	110	70-130%	---	---	
Carbon tetrachloride	1.13	0.0250	0.0500	mg/L	50	1.00	ND	113	70-130%	---	---	Q-54
Chlorobenzene	1.02	0.0125	0.0250	mg/L	50	1.00	ND	102	70-130%	---	---	
Chloroform	1.04	0.0250	0.0500	mg/L	50	1.00	ND	104	70-130%	---	---	
1,4-Dichlorobenzene	0.978	0.0125	0.0250	mg/L	50	1.00	ND	98	70-130%	---	---	
1,2-Dichloroethane (EDC)	1.02	0.0125	0.0250	mg/L	50	1.00	ND	102	70-130%	---	---	
1,1-Dichloroethene	1.07	0.0125	0.0250	mg/L	50	1.00	ND	107	70-130%	---	---	
Tetrachloroethene (PCE)	1.03	0.0125	0.0250	mg/L	50	1.00	ND	103	70-130%	---	---	
Trichloroethene (TCE)	1.00	0.0125	0.0250	mg/L	50	1.00	ND	100	70-130%	---	---	
Vinyl chloride	1.05	0.0125	0.0250	mg/L	50	1.00	ND	105	70-130%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				

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Darwin Thomas, Business Development Director

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Tigard, OR 97223
503-718-2323
EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

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 9101791 - EPA 1311/5030B TCLP Volatiles												**Water**
Matrix Spike (9101791-MS1)					Prepared: 10/31/19 10:58 Analyzed: 10/31/19 15:30							
QC Source Sample: Non-SDG (A9J1006-02RE1)												
Surr: 4-Bromofluorobenzene (Surr)					*Recovery: 101 %*	*Limits: 80-120 %*						*Dilution: 1x*

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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

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9110391 - EPA 3546/3640A (GPC)							**Sediment**					
Blank (9110391-BLK1)			Prepared: 10/31/19 15:10 Analyzed: 11/05/19 12:22									**C-05**
EPA 8081B												
gamma-BHC (Lindane)	ND	0.909	1.82	ug/kg wet	1	---	---	---	---	---	---	
Endrin	ND	0.909	1.82	ug/kg wet	1	---	---	---	---	---	---	
Heptachlor	ND	0.909	1.82	ug/kg wet	1	---	---	---	---	---	---	
Heptachlor epoxide	ND	0.909	1.82	ug/kg wet	1	---	---	---	---	---	---	
Methoxychlor	ND	2.73	5.45	ug/kg wet	1	---	---	---	---	---	---	
Chlordane (Technical)	ND	27.3	54.5	ug/kg wet	1	---	---	---	---	---	---	
Toxaphene (Total)	ND	27.3	54.5	ug/kg wet	1	---	---	---	---	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 65 %*		*Limits: 42-129 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*100 %*		*55-130 %*			*"*				
LCS (9110391-BS1)			Prepared: 10/31/19 15:10 Analyzed: 11/05/19 12:39									**C-05**
EPA 8081B												
gamma-BHC (Lindane)	27.2	1.00	2.00	ug/kg wet	1	50.0	---	54	49-135%	---	---	
Endrin	47.2	1.00	2.00	ug/kg wet	1	50.0	---	94	56-140%	---	---	Q-41
Heptachlor	30.5	1.00	2.00	ug/kg wet	1	50.0	---	61	47-136%	---	---	Q-41
Heptachlor epoxide	33.6	1.00	2.00	ug/kg wet	1	50.0	---	67	52-136%	---	---	
Methoxychlor	59.8	3.00	6.00	ug/kg wet	1	50.0	---	120	52-143%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 50 %*		*Limits: 42-129 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*98 %*		*55-130 %*			*"*				
Duplicate (9110391-DUP1)			Prepared: 10/31/19 15:10 Analyzed: 11/05/19 13:31									**C-05, R-04**
QC Source Sample: PDI-015SC-C-00-8.1-191024 (A9J0950-01RE1)												
EPA 8081B												
gamma-BHC (Lindane)	ND	22.6	22.6	ug/kg dry	10	---	ND	---	---	---	30%	
Endrin	ND	22.6	22.6	ug/kg dry	10	---	ND	---	---	---	30%	
Heptachlor	ND	22.6	22.6	ug/kg dry	10	---	ND	---	---	---	30%	
Heptachlor epoxide	ND	11.3	22.6	ug/kg dry	10	---	ND	---	---	---	30%	
Methoxychlor	ND	170	170	ug/kg dry	10	---	ND	---	---	---	30%	R-02
Chlordane (Technical)	ND	339	679	ug/kg dry	10	---	ND	---	---	---	30%	
Toxaphene (Total)	ND	339	679	ug/kg dry	10	---	ND	---	---	---	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 101 %*		*Limits: 42-129 %*			*Dilution: 10x*				
Decachlorobiphenyl (Surr)			*124 %*		*55-130 %*			*"*				

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Darwin Thomas, Business Development Director

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9110391 - EPA 3546/3640A (GPC)							**Sediment**					
Matrix Spike (9110391-MS1)			Prepared: 10/31/19 15:10		Analyzed: 11/05/19 19:15							**C-05, R-04**
QC Source Sample: Non-SDG (A9J1007-01RE1)												
EPA 8081B												
gamma-BHC (Lindane)	62.0	8.61	17.2	ug/kg dry	5	86.1	ND	72	49-135%	---	---	
Endrin	88.8	17.2	17.2	ug/kg dry	5	86.1	ND	103	56-140%	---	---	Q-41
Heptachlor	61.6	8.61	17.2	ug/kg dry	5	86.1	ND	71	47-136%	---	---	Q-41
Heptachlor epoxide	73.3	8.61	17.2	ug/kg dry	5	86.1	ND	85	52-136%	---	---	
Methoxychlor	ND	141	141	ug/kg dry	5	86.1	ND		**52-143%**	---	---	R-02, Q-02
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 99 %*		*Limits: 42-129 %*				*Dilution: 5x*			
Decachlorobiphenyl (Surr)			*98 %*		*55-130 %*				*"*			

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Darwin Thomas, Business Development Director

Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

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 9110516 - EPA 1311/3510C (Neutral Ext.)							**Sediment**					
Blank (9110516-BLK1)			Prepared: 11/06/19 10:25		Analyzed: 11/07/19 13:07							
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: 84 %*		*Limits: 25-140 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*103 %*		*30-135 %*			*"*				
LCS (9110516-BS1)			Prepared: 11/06/19 10:25		Analyzed: 11/07/19 13:24							
1311/8081B												
gamma-BHC (Lindane)	0.00251	0.0000750	0.000150	mg/L	1	0.00250	---	101	59-134%	---	---	
Endrin	0.00299	0.0000750	0.000150	mg/L	1	0.00250	---	119	60-138%	---	---	Q-41
Heptachlor	0.00261	0.0000750	0.000150	mg/L	1	0.00250	---	104	54-130%	---	---	
Heptachlor epoxide	0.00258	0.0000750	0.000150	mg/L	1	0.00250	---	103	61-133%	---	---	
Methoxychlor	0.00290	0.000200	0.000400	mg/L	1	0.00250	---	116	54-144%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 71 %*		*Limits: 25-140 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*89 %*		*30-135 %*			*"*				
LCS Dup (9110516-BSD1)			Prepared: 11/06/19 10:26		Analyzed: 11/07/19 13:41							**Q-19**
1311/8081B												
gamma-BHC (Lindane)	0.00262	0.0000750	0.000150	mg/L	1	0.00250	---	105	59-134%	4	30%	
Endrin	0.00333	0.0000750	0.000150	mg/L	1	0.00250	---	133	60-138%	11	30%	Q-41
Heptachlor	0.00277	0.0000750	0.000150	mg/L	1	0.00250	---	111	54-130%	6	30%	
Heptachlor epoxide	0.00268	0.0000750	0.000150	mg/L	1	0.00250	---	107	61-133%	4	30%	
Methoxychlor	0.00305	0.000200	0.000400	mg/L	1	0.00250	---	122	54-144%	5	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 75 %*		*Limits: 25-140 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*95 %*		*30-135 %*			*"*				

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9110357 - EPA 3546							**Sediment**					
Blank (9110357-BLK2)			Prepared: 11/01/19 07:18		Analyzed: 11/01/19 11:09							
EPA 8270D												
2-Methylphenol	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
Phenol	ND	2.50	5.00	ug/kg wet	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
Hexachloroethane	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
Nitrobenzene	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
Pyridine	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)		*Recovery:*	*76 %*	*Limits:*	*37-122 %*		*Dilution:*	*1x*				
2-Fluorobiphenyl (Surr)			*76 %*		*44-115 %*			*"*				
Phenol-d6 (Surr)			*66 %*		*33-122 %*			*"*				
p-Terphenyl-d14 (Surr)			*87 %*		*54-127 %*			*"*				
2-Fluorophenol (Surr)			*60 %*		*35-115 %*			*"*				
2,4,6-Tribromophenol (Surr)			*85 %*		*39-132 %*			*"*				
LCS (9110357-BS2)			Prepared: 11/01/19 07:18		Analyzed: 11/01/19 11:44							**Q-18**
EPA 8270D												
2-Methylphenol	529	13.3	26.7	ug/kg wet	4	533	---	99	32-122%	---	---	
3+4-Methylphenol(s)	535	13.3	26.7	ug/kg wet	4	533	---	100	34-120%	---	---	
Pentachlorophenol (PCP)	594	53.2	107	ug/kg wet	4	533	---	111	25-133%	---	---	
Phenol	511	10.7	21.3	ug/kg wet	4	533	---	96	34-120%	---	---	
2,4,5-Trichlorophenol	573	26.7	53.2	ug/kg wet	4	533	---	108	41-124%	---	---	
2,4,6-Trichlorophenol	568	26.7	53.2	ug/kg wet	4	533	---	107	39-126%	---	---	
Hexachlorobenzene	565	5.32	10.7	ug/kg wet	4	533	---	106	44-122%	---	---	
Hexachlorobutadiene	506	13.3	26.7	ug/kg wet	4	533	---	95	32-123%	---	---	
Hexachloroethane	472	13.3	26.7	ug/kg wet	4	533	---	89	28-120%	---	---	
Nitrobenzene	481	53.2	107	ug/kg wet	4	533	---	90	34-122%	---	---	
2,4-Dinitrotoluene	611	53.2	107	ug/kg wet	4	533	---	115	48-126%	---	---	
Pyridine	261	26.7	53.2	ug/kg wet	4	533	---	49	5-120%	---	---	

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Darwin Thomas, Business Development Director

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9110357 - EPA 3546							**Sediment**					
LCS (9110357-BS2)			Prepared: 11/01/19 07:18 Analyzed: 11/01/19 11:44									**Q-18**
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 93 %*	*Limits: 37-122 %*			*Dilution: 4x*					
2-Fluorobiphenyl (Surr)			*101 %*	*44-115 %*			*"*					
Phenol-d6 (Surr)			*90 %*	*33-122 %*			*"*					
p-Terphenyl-d14 (Surr)			*102 %*	*54-127 %*			*"*					
2-Fluorophenol (Surr)			*79 %*	*35-115 %*			*"*					
2,4,6-Tribromophenol (Surr)			*108 %*	*39-132 %*			*"*					
Duplicate (9110357-DUP2)			Prepared: 11/01/19 09:07 Analyzed: 11/01/19 12:54									
QC Source Sample: PDI-015SC-C-00-8.1-191024 (A9J0950-01)												
EPA 8270D												
2-Methylphenol	ND	4070	8150	ug/kg dry	1000	---	ND	---	---	---	30%	
3+4-Methylphenol(s)	ND	4070	8150	ug/kg dry	1000	---	ND	---	---	---	30%	
Pentachlorophenol (PCP)	ND	16300	32600	ug/kg dry	1000	---	ND	---	---	---	30%	
Phenol	ND	3260	6520	ug/kg dry	1000	---	ND	---	---	---	30%	
2,4,5-Trichlorophenol	ND	8150	16300	ug/kg dry	1000	---	ND	---	---	---	30%	
2,4,6-Trichlorophenol	ND	8150	16300	ug/kg dry	1000	---	ND	---	---	---	30%	
Hexachlorobenzene	ND	1630	3260	ug/kg dry	1000	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	4070	8150	ug/kg dry	1000	---	ND	---	---	---	30%	
Hexachloroethane	ND	4070	8150	ug/kg dry	1000	---	ND	---	---	---	30%	
Nitrobenzene	ND	16300	32600	ug/kg dry	1000	---	ND	---	---	---	30%	
2,4-Dinitrotoluene	ND	16300	32600	ug/kg dry	1000	---	ND	---	---	---	30%	
Pyridine	ND	8150	16300	ug/kg dry	1000	---	ND	---	---	---	30%	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 79 %*	*Limits: 37-122 %*			*Dilution: 1000x*					S-05
2-Fluorobiphenyl (Surr)			*131 %*	*44-115 %*			*"*					S-05
Phenol-d6 (Surr)			*59 %*	*33-122 %*			*"*					S-05
p-Terphenyl-d14 (Surr)			*99 %*	*54-127 %*			*"*					S-05
2-Fluorophenol (Surr)			*31 %*	*35-115 %*			*"*					S-05
2,4,6-Tribromophenol (Surr)			*%*	*39-132 %*			*"*					S-01

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EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

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 9110499 - EPA 1311/3510C (BNA Extraction)							**Sediment**					
Blank (9110499-BLK1)			Prepared: 11/06/19 07:15		Analyzed: 11/06/19 12:00							
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: 86 %*		*Limits: 44-120 %*		*Dilution: 1x*					
2-Fluorobiphenyl (Surr)			*74 %*		*44-120 %*		*"*					
Phenol-d6 (Surr)			*24 %*		*10-120 %*		*"*					
p-Terphenyl-d14 (Surr)			*91 %*		*50-133 %*		*"*					
2-Fluorophenol (Surr)			*34 %*		*19-120 %*		*"*					
2,4,6-Tribromophenol (Surr)			*110 %*		*43-140 %*		*"*					Q-41
LCS (9110499-BS1)			Prepared: 11/06/19 07:15		Analyzed: 11/06/19 12:36							
1311/8270D												
2,4-Dinitrotoluene	0.0417	0.00400	0.00800	mg/L	4	0.0400	---	104	57-128%	---	---	Q-41
Hexachlorobenzene	0.0408	0.00400	0.00800	mg/L	4	0.0400	---	102	52-125%	---	---	
Hexachlorobutadiene	0.0132	0.0100	0.0100	mg/L	4	0.0400	---	33	22-124%	---	---	
Hexachloroethane	0.0121	0.0100	0.0100	mg/L	4	0.0400	---	30	21-120%	---	---	
2-Methylphenol	0.0285	0.0100	0.0200	mg/L	4	0.0400	---	71	30-120%	---	---	
3+4-Methylphenol(s)	0.0262	0.0100	0.0200	mg/L	4	0.0400	---	66	29-120%	---	---	
Nitrobenzene	0.0340	0.0100	0.0200	mg/L	4	0.0400	---	85	45-121%	---	---	
Pentachlorophenol (PCP)	0.0358	0.0200	0.0200	mg/L	4	0.0400	---	89	35-138%	---	---	Q-41
Pyridine	0.0122	0.00400	0.00400	mg/L	4	0.0400	---	31	5-120%	---	---	
2,4,5-Trichlorophenol	0.0368	0.0100	0.0200	mg/L	4	0.0400	---	92	53-123%	---	---	
2,4,6-Trichlorophenol	0.0364	0.0100	0.0200	mg/L	4	0.0400	---	91	50-125%	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 92 %*		*Limits: 44-120 %*		*Dilution: 4x*					
2-Fluorobiphenyl (Surr)			*81 %*		*44-120 %*		*"*					

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EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

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 9110499 - EPA 1311/3510C (BNA Extraction)							**Sediment**					
LCS (9110499-BS1)				Prepared: 11/06/19 07:15 Analyzed: 11/06/19 12:36								
Surr: Phenol-d6 (Surr)			*Recovery: 24 %*	*Limits: 10-120 %*			*Dilution: 4x*					
p-Terphenyl-d14 (Surr)			*96 %*	*50-133 %*			*"*					
2-Fluorophenol (Surr)			*32 %*	*19-120 %*			*"*					
2,4,6-Tribromophenol (Surr)			*107 %*	*43-140 %*			*"*					Q-41
LCS Dup (9110499-BSD1)				Prepared: 11/06/19 07:15 Analyzed: 11/06/19 13:11								**Q-19**
1311/8270D												
2,4-Dinitrotoluene	0.0402	0.00400	0.00800	mg/L	4	0.0400	---	101	57-128%	4	30%	Q-41
Hexachlorobenzene	0.0438	0.00400	0.00800	mg/L	4	0.0400	---	110	52-125%	7	30%	
Hexachlorobutadiene	0.0320	0.0100	0.0200	mg/L	4	0.0400	---	80	22-124%	**83**	**30%**	Q-24
Hexachloroethane	0.0282	0.0100	0.0200	mg/L	4	0.0400	---	70	21-120%	**80**	**30%**	Q-24
2-Methylphenol	0.0265	0.0100	0.0200	mg/L	4	0.0400	---	66	30-120%	7	30%	
3+4-Methylphenol(s)	0.0255	0.0100	0.0200	mg/L	4	0.0400	---	64	29-120%	3	30%	
Nitrobenzene	0.0305	0.0100	0.0200	mg/L	4	0.0400	---	76	45-121%	11	30%	
Pentachlorophenol (PCP)	0.0347	0.0200	0.0200	mg/L	4	0.0400	---	87	35-138%	3	30%	Q-41
Pyridine	0.0134	0.00400	0.00400	mg/L	4	0.0400	---	34	5-120%	9	30%	
2,4,5-Trichlorophenol	0.0370	0.0100	0.0200	mg/L	4	0.0400	---	92	53-123%	0.6	30%	
2,4,6-Trichlorophenol	0.0374	0.0100	0.0200	mg/L	4	0.0400	---	94	50-125%	3	30%	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 81 %*	*Limits: 44-120 %*			*Dilution: 4x*					
2-Fluorobiphenyl (Surr)			*93 %*	*44-120 %*			*"*					
Phenol-d6 (Surr)			*28 %*	*10-120 %*			*"*					
p-Terphenyl-d14 (Surr)			*106 %*	*50-133 %*			*"*					
2-Fluorophenol (Surr)			*39 %*	*19-120 %*			*"*					
2,4,6-Tribromophenol (Surr)			*114 %*	*43-140 %*			*"*					Q-41

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total 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 9101805 - EPA 3051A							**Sediment**					
Blank (9101805-BLK1)			Prepared: 10/31/19 10:10 Analyzed: 11/01/19 18:10									
EPA 6020A												
Arsenic	ND	0.240	0.481	mg/kg wet	5	---	---	---	---	---	---	
Barium	ND	0.240	0.481	mg/kg wet	5	---	---	---	---	---	---	
Cadmium	ND	0.0481	0.0962	mg/kg wet	5	---	---	---	---	---	---	
Chromium	ND	0.240	0.481	mg/kg wet	5	---	---	---	---	---	---	
Lead	ND	0.0481	0.0962	mg/kg wet	5	---	---	---	---	---	---	
Mercury	ND	0.0192	0.0385	mg/kg wet	5	---	---	---	---	---	---	
Selenium	ND	0.240	0.481	mg/kg wet	5	---	---	---	---	---	---	
Silver	ND	0.0481	0.0962	mg/kg wet	5	---	---	---	---	---	---	
LCS (9101805-BS1)			Prepared: 10/31/19 10:10 Analyzed: 11/01/19 18:15									
EPA 6020A												
Arsenic	26.5	0.250	0.500	mg/kg wet	5	25.0	---	106	80-120%	---	---	
Barium	28.8	0.250	0.500	mg/kg wet	5	25.0	---	115	80-120%	---	---	
Cadmium	27.1	0.0500	0.100	mg/kg wet	5	25.0	---	109	80-120%	---	---	
Chromium	27.0	0.250	0.500	mg/kg wet	5	25.0	---	108	80-120%	---	---	
Lead	27.1	0.0500	0.100	mg/kg wet	5	25.0	---	108	80-120%	---	---	
Mercury	0.522	0.0200	0.0400	mg/kg wet	5	0.500	---	104	80-120%	---	---	
Selenium	12.8	0.250	0.500	mg/kg wet	5	12.5	---	102	80-120%	---	---	
Silver	14.3	0.0500	0.100	mg/kg wet	5	12.5	---	115	80-120%	---	---	
Duplicate (9101805-DUP1)			Prepared: 10/31/19 10:10 Analyzed: 11/01/19 18:38									
QC Source Sample: PDI-073SC-C-00-13.7-191024 (A9J0950-04)												
EPA 6020A												
Arsenic	**4.24**	0.373	0.746	mg/kg dry	5	---	4.66	---	---	9	40%	
Barium	**152**	0.373	0.746	mg/kg dry	5	---	156	---	---	3	40%	
Cadmium	**0.188**	0.0746	0.149	mg/kg dry	5	---	0.189	---	---	0.5	40%	
Chromium	**24.8**	0.373	0.746	mg/kg dry	5	---	27.6	---	---	11	40%	
Lead	**16.8**	0.0746	0.149	mg/kg dry	5	---	16.1	---	---	4	40%	
Mercury	**0.111**	0.0298	0.0597	mg/kg dry	5	---	0.127	---	---	14	40%	
Selenium	ND	0.373	0.746	mg/kg dry	5	---	ND	---	---	---	40%	
Silver	**0.214**	0.0746	0.149	mg/kg dry	5	---	0.251	---	---	16	40%	
Matrix Spike (9101805-MS1)			Prepared: 10/31/19 10:10 Analyzed: 11/01/19 18:42									

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total 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 9101805 - EPA 3051A							**Sediment**					
Matrix Spike (9101805-MS1)			Prepared: 10/31/19 10:10		Analyzed: 11/01/19 18:42							
QC Source Sample: PDI-073SC-C-00-13.7-191024 (A9J0950-04)												
EPA 6020A												
Arsenic	44.2	0.382	0.765	mg/kg dry	5	38.2	4.66	103	75-125%	---	---	
Barium	184	0.382	0.765	mg/kg dry	5	38.2	156	**74**	**75-125%**	---	---	Q-04
Cadmium	41.3	0.0765	0.153	mg/kg dry	5	38.2	0.189	108	75-125%	---	---	
Chromium	67.2	0.382	0.765	mg/kg dry	5	38.2	27.6	104	75-125%	---	---	
Lead	54.2	0.0765	0.153	mg/kg dry	5	38.2	16.1	100	75-125%	---	---	
Mercury	0.863	0.0306	0.0612	mg/kg dry	5	0.765	0.127	96	75-125%	---	---	
Selenium	19.3	0.382	0.765	mg/kg dry	5	19.1	ND	101	75-125%	---	---	
Silver	22.0	0.0765	0.153	mg/kg dry	5	19.1	0.251	114	75-125%	---	---	

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

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 9110482 - EPA 1311/3015							**Sediment**					
Blank (9110482-BLK1)			Prepared: 11/05/19 11:32 Analyzed: 11/05/19 18:04									
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 (9110482-BS1)			Prepared: 11/05/19 11:32 Analyzed: 11/05/19 18:08									
1311/6020A												
Arsenic	5.20	0.0500	0.100	mg/L	10	5.00	---	104	80-120%	---	---	TCLPa
Barium	10.6	2.50	5.00	mg/L	10	10.0	---	106	80-120%	---	---	TCLPa
Cadmium	1.03	0.0500	0.100	mg/L	10	1.00	---	103	80-120%	---	---	TCLPa
Chromium	5.05	0.0500	0.100	mg/L	10	5.00	---	101	80-120%	---	---	TCLPa
Lead	5.43	0.0250	0.0500	mg/L	10	5.00	---	109	80-120%	---	---	TCLPa
Mercury	0.108	0.00350	0.00700	mg/L	10	0.100	---	108	80-120%	---	---	TCLPa
Selenium	1.03	0.0500	0.100	mg/L	10	1.00	---	103	80-120%	---	---	TCLPa
Silver	1.08	0.0500	0.100	mg/L	10	1.00	---	108	80-120%	---	---	TCLPa
Matrix Spike (9110482-MS1)			Prepared: 11/05/19 11:32 Analyzed: 11/05/19 18:41									
QC Source Sample: PDI-073SC-C-00-13.7-191024 (A9J0950-04)												
1311/6020A												
Arsenic	5.31	0.0500	0.100	mg/L	10	5.00	ND	106	50-150%	---	---	
Barium	11.2	2.50	5.00	mg/L	10	10.0	ND	112	50-150%	---	---	
Cadmium	1.07	0.0500	0.100	mg/L	10	1.00	ND	107	50-150%	---	---	
Chromium	5.14	0.0500	0.100	mg/L	10	5.00	ND	103	50-150%	---	---	
Lead	5.52	0.0250	0.0500	mg/L	10	5.00	ND	110	50-150%	---	---	
Mercury	0.112	0.00350	0.00700	mg/L	10	0.100	ND	112	50-150%	---	---	
Selenium	1.02	0.0500	0.100	mg/L	10	1.00	ND	102	50-150%	---	---	
Silver	1.11	0.0500	0.100	mg/L	10	1.00	ND	111	50-150%	---	---	

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

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 9101616 - Total Solids (SM2540G/PSEP)							**Sediment**					
Duplicate (9101616-DUP1)			Prepared: 10/25/19 17:22		Analyzed: 10/28/19 16:20							
QC Source Sample: PDI-015SC-C-00-8.1-191024 (A9J0950-01)												
SM 2540 G												
Total Solids	**81.1**	1.00	1.00	% by Weight	1	---	81.4	---	---	0.4	10%	

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0950 - 11 15 19 0836**

SAMPLE PREPARATION INFORMATION

Volatile Organic Compounds by EPA 5035A/8260C

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9101588							
A9J0950-01	Sediment	5035A/8260C	10/24/19 13:17	10/24/19 13:17	4.68g/5mL	5g/5mL	1.07
A9J0950-02	Sediment	5035A/8260C	10/24/19 09:58	10/24/19 09:58	5.88g/5mL	5g/5mL	0.85
A9J0950-03	Sediment	5035A/8260C	10/24/19 11:36	10/24/19 11:36	6.08g/5mL	5g/5mL	0.82
A9J0950-04	Sediment	5035A/8260C	10/24/19 14:31	10/24/19 14:31	5.78g/5mL	5g/5mL	0.87

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: 9101791							
A9J0950-01RE1	Sediment	1311/8260C	10/24/19 13:17	10/31/19 10:58	5mL/5mL	5mL/5mL	1.00
A9J0950-02RE1	Sediment	1311/8260C	10/24/19 09:58	10/31/19 10:58	5mL/5mL	5mL/5mL	1.00
A9J0950-03	Sediment	1311/8260C	10/24/19 11:36	10/31/19 10:58	5mL/5mL	5mL/5mL	1.00
A9J0950-04	Sediment	1311/8260C	10/24/19 14:31	10/31/19 10:58	5mL/5mL	5mL/5mL	1.00

Organochlorine Pesticides by EPA 8081B

Prep: EPA 3546/3640A (GPC)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9110391							
A9J0950-01RE1	Sediment	EPA 8081B	10/24/19 13:17	10/31/19 15:11	10.73g/10mL	10g/5mL	1.86
A9J0950-02RE1	Sediment	EPA 8081B	10/24/19 09:58	10/31/19 15:11	10.27g/10mL	10g/5mL	1.95
A9J0950-03RE1	Sediment	EPA 8081B	10/24/19 11:36	10/31/19 15:11	10.66g/10mL	10g/5mL	1.88
A9J0950-04RE1	Sediment	EPA 8081B	10/24/19 14:31	10/31/19 15:11	10.12g/10mL	10g/5mL	1.98

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: 9110516							
A9J0950-01	Sediment	1311/8081B	10/24/19 13:17	11/06/19 10:25	200g/5ml	200g/5ml	1.00
A9J0950-02	Sediment	1311/8081B	10/24/19 09:58	11/06/19 10:25	200g/5ml	200g/5ml	1.00
A9J0950-03	Sediment	1311/8081B	10/24/19 11:36	11/06/19 10:25	200g/5ml	200g/5ml	1.00
A9J0950-04	Sediment	1311/8081B	10/24/19 14:31	11/06/19 10:25	200g/5ml	200g/5ml	1.00

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EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

SAMPLE PREPARATION INFORMATION

Semivolatile Organic Compounds by EPA 8270D

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9110357							
A9J0950-01	Sediment	EPA 8270D	10/24/19 13:17	11/01/19 07:18	15.03g/2mL	15g/2mL	1.00
A9J0950-02	Sediment	EPA 8270D	10/24/19 09:58	11/01/19 07:18	15.3g/2mL	15g/2mL	0.98
A9J0950-03	Sediment	EPA 8270D	10/24/19 11:36	11/01/19 07:18	15.18g/2mL	15g/2mL	0.99
A9J0950-04	Sediment	EPA 8270D	10/24/19 14:31	11/01/19 07:18	15.32g/2mL	15g/2mL	0.98

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: 9110499							
A9J0950-01	Sediment	1311/8270D	10/24/19 13:17	11/06/19 07:15	200g/2ml	200g/2ml	1.00
A9J0950-02	Sediment	1311/8270D	10/24/19 09:58	11/06/19 07:15	200g/2ml	200g/2ml	1.00
A9J0950-03	Sediment	1311/8270D	10/24/19 11:36	11/06/19 07:15	200g/2ml	200g/2ml	1.00
A9J0950-04	Sediment	1311/8270D	10/24/19 14:31	11/06/19 07:15	200g/2ml	200g/2ml	1.00

Total Metals by EPA 6020A (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9101805							
A9J0950-01	Sediment	EPA 6020A	10/24/19 13:17	10/31/19 10:10	0.454g/50mL	0.5g/50mL	1.10
A9J0950-02	Sediment	EPA 6020A	10/24/19 09:58	10/31/19 10:10	0.478g/50mL	0.5g/50mL	1.05
A9J0950-03	Sediment	EPA 6020A	10/24/19 11:36	10/31/19 10:10	0.463g/50mL	0.5g/50mL	1.08
A9J0950-04	Sediment	EPA 6020A	10/24/19 14:31	10/31/19 10:10	0.459g/50mL	0.5g/50mL	1.09

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: 9110482							
A9J0950-01	Sediment	1311/6020A	10/24/19 13:17	11/05/19 11:32	10mL/50mL	10mL/50mL	1.00
A9J0950-02	Sediment	1311/6020A	10/24/19 09:58	11/05/19 11:32	10mL/50mL	10mL/50mL	1.00
A9J0950-03	Sediment	1311/6020A	10/24/19 11:36	11/05/19 11:32	10mL/50mL	10mL/50mL	1.00
A9J0950-04	Sediment	1311/6020A	10/24/19 14:31	11/05/19 11:32	10mL/50mL	10mL/50mL	1.00

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

SAMPLE PREPARATION INFORMATION

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: 9101616							
A9J0950-01	Sediment	SM 2540 G	10/24/19 13:17	10/25/19 17:22			NA
A9J0950-02	Sediment	SM 2540 G	10/24/19 09:58	10/25/19 17:22			NA
A9J0950-03	Sediment	SM 2540 G	10/24/19 11:36	10/25/19 17:22			NA
A9J0950-04	Sediment	SM 2540 G	10/24/19 14:31	10/25/19 17:22			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: 9110414							
A9J0950-01	Sediment	EPA 1311	10/24/19 13:17	11/04/19 16:50	100g/2000mL	100g/2000mL	NA
A9J0950-02	Sediment	EPA 1311	10/24/19 09:58	11/04/19 16:50	100g/2000mL	100g/2000mL	NA
A9J0950-03	Sediment	EPA 1311	10/24/19 11:36	11/04/19 16:50	100.5g/2010mL	100g/2000mL	NA
A9J0950-04	Sediment	EPA 1311	10/24/19 14:31	11/04/19 16:50	100g/2000mL	100g/2000mL	NA

Prep: EPA 1311 TCLP/ZHE

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9101776							
A9J0950-01	Sediment	EPA 1311 ZHE	10/24/19 13:17	10/30/19 16:40	25.2g/500mL	25g/500mL	NA
A9J0950-02	Sediment	EPA 1311 ZHE	10/24/19 09:58	10/30/19 16:40	20.2g/400mL	25g/500mL	NA
A9J0950-03	Sediment	EPA 1311 ZHE	10/24/19 11:36	10/30/19 16:40	20g/400mL	25g/500mL	NA
A9J0950-04	Sediment	EPA 1311 ZHE	10/24/19 14:31	10/30/19 16:40	20.3g/400mL	25g/500mL	NA

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

QUALIFIER DEFINITIONS

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

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C-05	Extract has undergone a GPC (Gel-Permeation Chromatography) cleanup per EPA 3640A. Reporting levels may be raised due to dilution necessary for cleanup. Sample Final Volume includes the GPC dilution factor, see the Prep page for details.
J	Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
Q-02	Spike recovery is outside of established control limits due to matrix interference.
Q-04	Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
Q-18	Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source sample.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
Q-24	The RPD for this spike and spike duplicate is above established control limits. Recoveries for both the spike and spike duplicate are within control limits.
Q-41	Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
Q-42	Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by +6.5%. The results are reported as Estimated Values.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260C
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
R-04	Reporting levels elevated due to preparation and/or analytical dilution necessary for analysis.
S-01	Surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference.
S-04	Surrogate recovery is outside of established control limits due to a sample matrix effect.
S-05	Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
TCLP	This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 9101776.
TCLPa	This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 9110414.

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AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

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

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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

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

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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Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

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
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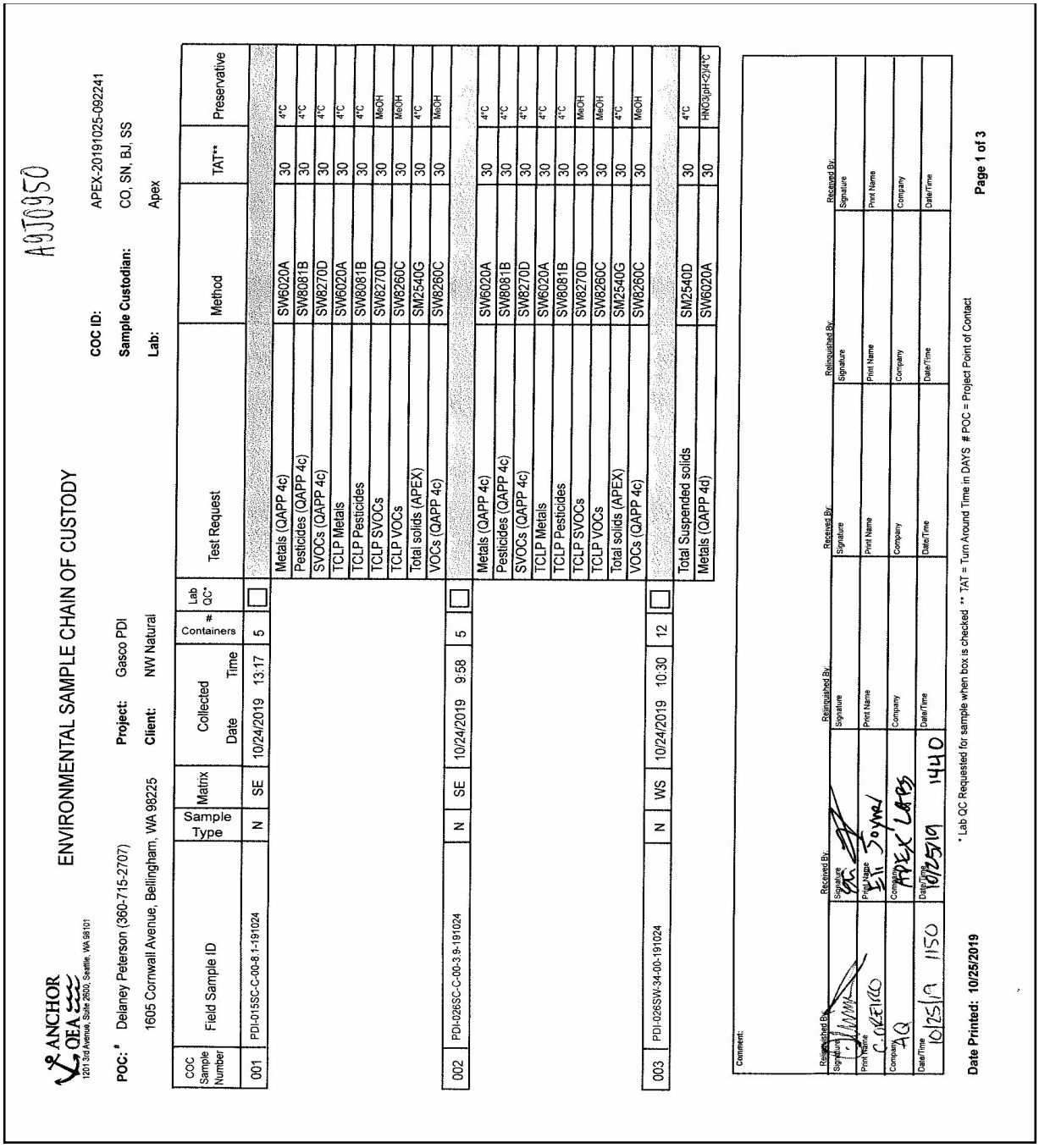
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**



ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J0950

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

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

Project: Gasco PDI
Client: NW Natural

COC ID: APEX-20191025-092241
Sample Custodian: CO, SN, BJ, SS
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	# Containers	Lab QC*	Test Request	Method	TAT**	Preservative
001	PDI-015SC-C-00-8.1-191024	N	SE	10/24/2019	13:17	5	☐	Metals (QAPP 4c)	SW6020A	30	4°C
								Pesticides (QAPP 4c)	SW8081B	30	4°C
								SVOCs (QAPP 4c)	SW8270D	30	4°C
								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
								VOCs (QAPP 4c)	SW8260C	30	MeOH
002	PDI-026SC-C-00-3.9-191024	N	SE	10/24/2019	9:58	5	☐	Metals (QAPP 4c)	SW6020A	30	4°C
								Pesticides (QAPP 4c)	SW8081B	30	4°C
								SVOCs (QAPP 4c)	SW8270D	30	4°C
								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
								VOCs (QAPP 4c)	SW8260C	30	MeOH
003	PDI-026SW-34.00-191024	N	WS	10/24/2019	10:30	12	☐	Total Suspended solids	SM2540D	30	4°C
								Metals (QAPP 4d)	SW6020A	30	HNO3(pH<2)/4°C

Comment:

Relinquished By: Signature / Print Name / Company / Date/Time 10/25/19 1150
Received By: Signature / Print Name Lin Joyner / Company APEX Labs / Date/Time 10/25/19 1440
Relinquished By: Signature / Print Name / Company / Date/Time
Received By: Signature / Print Name / Company / Date/Time
Relinquished By: Signature / Print Name / Company / Date/Time
Received By: Signature / Print Name / Company / Date/Time

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

Date Printed: 10/25/2019

Page 1 of 3

Apex Laboratories

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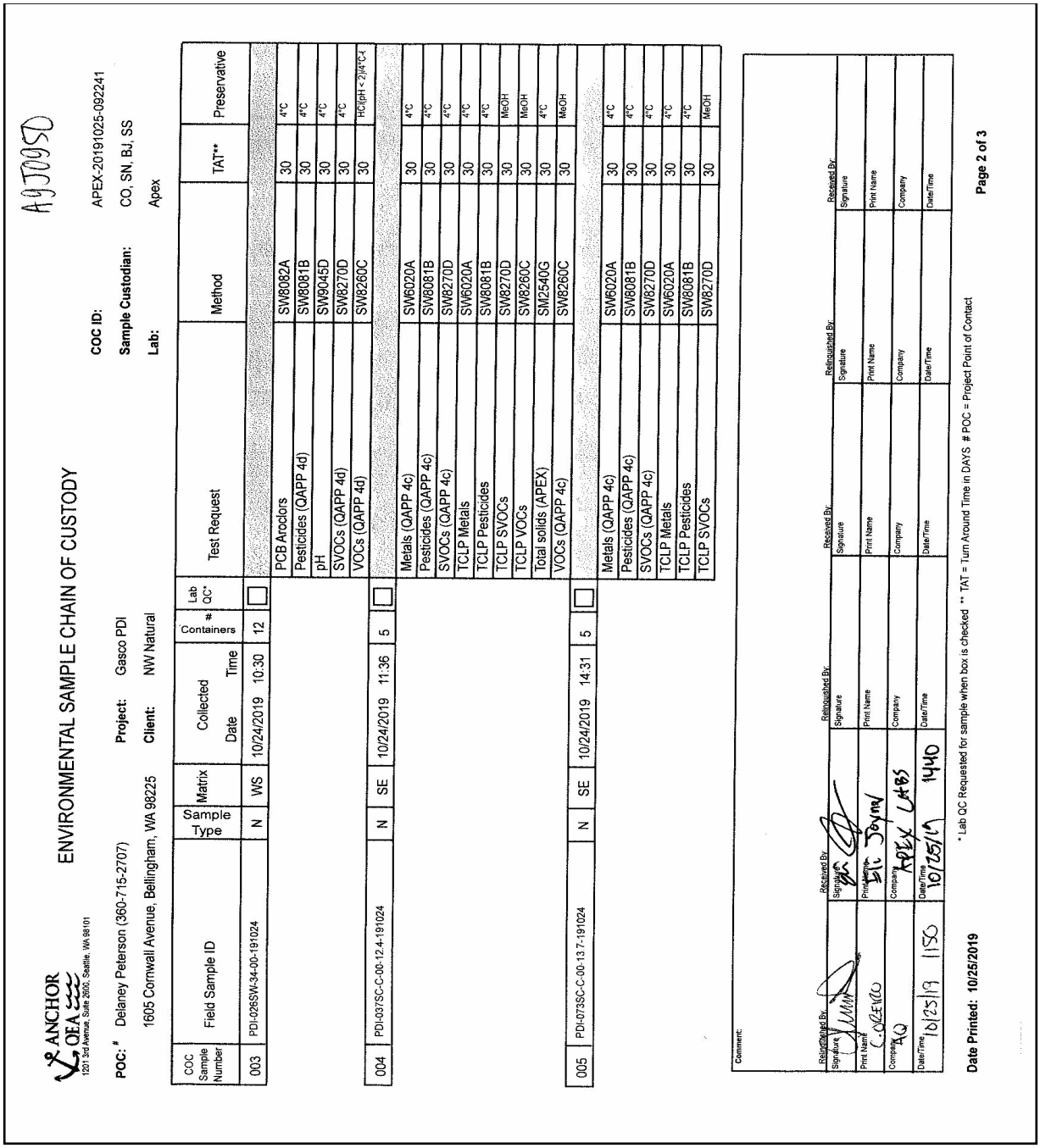
Darwin Thomas, Business Development Director

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

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**



ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

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

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

COC ID: APEX-20191025-092241
Sample Custodian: CO, SN, BJ, SS
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	# Containers	Lab QC*	Test Request	Method	TAT**	Preservative
003	PDI-026SW-34-00-191024	N	WS	10/24/2019	10:30	12	☐	PCB Aroclors	SW8082A	30	4°C
								Pesticides (QAPP 4d)	SW8081B	30	4°C
								pH	SW9045D	30	4°C
								SVOCs (QAPP 4d)	SW8270D	30	4°C
								VOCs (QAPP 4d)	SW8260C	30	HCl(pH < 2)/4°C-f
004	PDI-037SC-C-00-12.4-191024	N	SE	10/24/2019	11:36	5	☐	Metals (QAPP 4c)	SW6020A	30	4°C
								Pesticides (QAPP 4c)	SW8081B	30	4°C
								SVOCs (QAPP 4c)	SW8270D	30	4°C
								TCLP Metals	SW6020A	30	4°C
								TCLP Pesticides	SW8081B	30	4°C
								TCLP SVOCs	SW8270D	30	4°C
								TCLP VOCs	SW8260C	30	MeOH
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 4c)	SW8260C	30	MeOH
005	PDI-073SC-C-00-13.7-191024	N	SE	10/24/2019	14:31	5	☐	Metals (QAPP 4c)	SW6020A	30	4°C
								Pesticides (QAPP 4c)	SW8081B	30	4°C
								SVOCs (QAPP 4c)	SW8270D	30	4°C
								TCLP Metals	SW6020A	30	4°C
								TCLP Pesticides	SW8081B	30	4°C
								TCLP SVOCs	SW8270D	30	MeOH

Comment:

Relinquished By: Signature / Print Name: C. OLSEN / Company: AQ / Date/Time: 10/25/19 1150
Received By: Signature / Print Name: Eric Joyce / Company: APEX LABS / Date/Time: 10/25/19 1440
Relinquished By: Signature / Print Name / Company / Date/Time
Received By: Signature / Print Name / Company / Date/Time
Relinquished By: Signature / Print Name / Company / Date/Time
Received By: Signature / Print Name / Company / Date/Time

Date Printed: 10/25/2019

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

Page 2 of 3

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**	**A9J0950 - 11 15 19 0836**

A9J0950

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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

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

Project: Gasco PDI
Client: NW Natural

COC ID: APEX-20191025-092241
Sample Custodian: CO
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-073SC-C-00-13.7-191024	N	SE	10/24/2019	14:31	5	☐				
								TCLP VOCs	SW8260C	30	MeOH
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 4c)	SW8260C	30	MeOH

Comment:

	Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	[signature]	[signature]				
Print Name	C. ORFICO	Eli Joyner				
Company	AQ	APEX LABS				
Date/Time	10/25/19 1150	10/25/19 1440				

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

Date Printed: 10/25/2019

Page 3 of 3

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

AMENDED REPORT

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**	**A9J0950 - 11 15 19 0836**

APEX LABS COOLER RECEIPT FORM

Client: Anchor QEA Element WO#: A9J0950

Project/Project #: Gasco PDI

Delivery Info:

Date/time received: 10/25/19 @ 1440 By: EJ

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

Cooler Inspection Date/time inspected: 10/25/19 @ 1530 By: EJ

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

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)	3.9	2.6					
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: 10/25/19 @ 1554 By: EJ

All samples intact? Yes X No ___ Comments: ___

Bottle labels/COCs agree? Yes X No ___ Comments: PDI-GSSC-C-00-8.1-191024 no T on 2/2 MeOH VOAs

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: RT Witness: JP Cooler Inspected by: EJ See Project Contact Form: Y

Apex Laboratories

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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)

A9J0950

Apex Laboratories

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

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

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

Date Due: 12/06/19 17:00 (28 day TAT)
Received By: Eli S. Joyner
Date Received: 10/25/19 14:40
Logged In By: Susan L. Treat
Date Logged In: 10/25/19 13:58

Cooler #1 received at 3.9°C

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

Cooler #2 received at 2.6°C

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

Analysis	Due	TAT	Expires	Comments
A9J0950-01 PDI-015SC-C-00-8.1-191024 [Sediment] Sampled 10/24/19 13:17 (GMT-08:00) Pacific Time (US & Canada) 10 Containers				**No T on 2/2 MeOH voas**
Dry Weight				
Dry Weight	10/30/19 17:00	3	04/21/20 13:17	Use Results from TS. Make NR once completed.
Metals				
Metals, Select 1	11/08/19 17:00	10	04/21/20 13:17	
Metals, TCLP 8	11/08/19 17:00	10	04/21/20 13:17	
TCLP Extraction - Metals	10/29/19 17:00	2	11/21/19 13:17	
TCLP Extraction - Organics	10/29/19 17:00	2	11/07/19 13:17	Pest + SVOC
Project Mgmt				
Data Package	12/23/19 17:00	20	01/31/20 13:17	
Sample Control				
Archive Samples - Frozen	12/05/19 17:00	28	10/25/19 13:17	3 months
Semivols (ECD)				
1311/8081B TCLP Pest Reg List	11/08/19 17:00	10	10/31/19 13:17	
8081B Pesticides	11/08/19 17:00	10	11/07/19 13:17	
Semivols (Scan)				
1311/8270D TCLP SVOC Reg List	11/08/19 17:00	10	10/31/19 13:17	
8270D LL Full List	11/08/19 17:00	10	11/07/19 13:17	custom
Volatiles				
1311/8260C TCLP/ZHE VOC Reg List	11/08/19 17:00	10	11/07/19 13:17	
8260C Full List	11/08/19 17:00	10	10/26/19 13:17	
TCLP/ZHE Extraction	10/29/19 17:00	2	11/07/19 13:17	
Wet Chem				
Solids, Total (SM 2540 G,B)	11/08/19 17:00	10	04/21/20 13:17	Use Result for Dry Weight.

A9J0950

Apex Laboratories

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

Analysis	Due	TAT	Expires	Comments
Analysis	**Due**	**TAT**	**Expires**	**Comments**
A9J0950-01 PDI-015SC-C-00-8.1-191024 [Sediment] Sampled 10/24/19 13:17 (GMT-08:00) Pacific Time (US & Canada) 10 Containers				**No T on 2/2 MeOH voas**
A9J0950-02 PDI-026SC-C-00-3.9-191024 [Sediment] Sampled 10/24/19 09:58 (GMT-08:00) Pacific Time (US & Canada) 10 Containers				
Dry Weight				
Dry Weight	10/30/19 17:00	3	04/21/20 09:58	Use Results from TS. Make NR once completed.
Metals				
Metals, Select 1	11/08/19 17:00	10	04/21/20 09:58	
Metals, TCLP 8	11/08/19 17:00	10	04/21/20 09:58	
TCLP Extraction - Metals	10/29/19 17:00	2	11/21/19 09:58	
TCLP Extraction - Organics	10/29/19 17:00	2	11/07/19 09:58	SVOC and Pest
Sample Control				
Archive Samples - Frozen	12/05/19 17:00	28	10/25/19 09:58	3 months
Semivols (ECD)				
1311/8081B TCLP Pest Reg List	11/08/19 17:00	10	10/31/19 09:58	
8081B Pesticides	11/08/19 17:00	10	11/07/19 09:58	
Semivols (Scan)				
1311/8270D TCLP SVOC Reg List	11/08/19 17:00	10	10/31/19 09:58	
8270D LL Full List	11/08/19 17:00	10	11/07/19 09:58	custom
Volatiles				
1311/8260C TCLP/ZHE VOC Reg List	11/08/19 17:00	10	11/07/19 09:58	
8260C Full List	11/08/19 17:00	10	10/26/19 09:58	
TCLP/ZHE Extraction	10/29/19 17:00	2	11/07/19 09:58	
Wet Chem				
Solids, Total (SM 2540 G,B)	11/08/19 17:00	10	04/21/20 09:58	Use Result for Dry Weight.

A9J0950

Apex Laboratories

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

Analysis	Due	TAT	Expires	Comments
Analysis	Due	TAT	Expires	Comments
A9J0950-03 PDI-037SC-C-00-12.4-191024 [Sediment] Sampled 10/24/19 11:36 (GMT-08:00) Pacific Time (US & Canada) 10 Containers				
Dry Weight				
Dry Weight	10/30/19 17:00	3	04/21/20 11:36	Use Results from TS. Make NR once completed.
Metals				
Metals, Select 1	11/08/19 17:00	10	04/21/20 11:36	
Metals, TCLP 8	11/08/19 17:00	10	04/21/20 11:36	
TCLP Extraction - Metals	10/29/19 17:00	2	11/21/19 11:36	
TCLP Extraction - Organics	10/29/19 17:00	2	11/07/19 11:36	SVOC and Pest
Sample Control				
Archive Samples - Frozen	12/05/19 17:00	28	10/25/19 11:36	3 months
Semivols (ECD)				
1311/8081B TCLP Pest Reg List	11/08/19 17:00	10	10/31/19 11:36	
8081B Pesticides	11/08/19 17:00	10	11/07/19 11:36	
Semivols (Scan)				
1311/8270D TCLP SVOC Reg List	11/08/19 17:00	10	10/31/19 11:36	
8270D LL Full List	11/08/19 17:00	10	11/07/19 11:36	custom
Volatiles				
1311/8260C TCLP/ZHE VOC Reg List	11/08/19 17:00	10	11/07/19 11:36	
8260C Full List	11/08/19 17:00	10	10/26/19 11:36	
TCLP/ZHE Extraction	10/29/19 17:00	2	11/07/19 11:36	
Wet Chem				
~~1010M Flashpoint of Liquids/Soils~~	11/08/19 17:00	10	11/07/19 11:36	cancelled 11/13; not on COC, mislog
Solids, Total (SM 2540 G,B)	11/08/19 17:00	10	04/21/20 11:36	Use Result for Dry Weight.

A9J0950

Apex Laboratories

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

Analysis	Due	TAT	Expires	Comments
Analysis	**Due**	**TAT**	**Expires**	**Comments**
A9J0950-04 PDI-073SC-C-00-13.7-191024 [Sediment] Sampled 10/24/19 14:31 (GMT-08:00) Pacific Time (US & Canada) 10 Containers				
Dry Weight				
Dry Weight	10/30/19 17:00	3	04/21/20 14:31	Use Results from TS. Make NR once completed.
Metals				
Metals, Select 1	11/08/19 17:00	10	04/21/20 14:31	
Metals, TCLP 8	11/08/19 17:00	10	04/21/20 14:31	
TCLP Extraction - Metals	10/29/19 17:00	2	11/21/19 14:31	
TCLP Extraction - Organics	10/29/19 17:00	2	11/07/19 14:31	SVOC and Pest
Sample Control				
Archive Samples - Frozen	12/05/19 17:00	28	10/25/19 14:31	3 months
Semivols (ECD)				
1311/8081B TCLP Pest Reg List	11/08/19 17:00	10	10/31/19 14:31	
8081B Pesticides	11/08/19 17:00	10	11/07/19 14:31	
Semivols (Scan)				
1311/8270D TCLP SVOC Reg List	11/08/19 17:00	10	10/31/19 14:31	
8270D LL Full List	11/08/19 17:00	10	11/07/19 14:31	custom
Volatiles				
1311/8260C TCLP/ZHE VOC Reg List	11/08/19 17:00	10	11/07/19 14:31	
8260C Full List	11/08/19 17:00	10	10/26/19 14:31	
TCLP/ZHE Extraction	10/29/19 17:00	2	11/07/19 14:31	
Wet Chem				
Solids, Total (SM 2540 G,B)	11/08/19 17:00	10	04/21/20 14:31	Use Result for Dry Weight.

Analysis groups included in this work order

Metals, Select 1

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

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

A9J0950

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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: APEX-20191025-092241

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

Project: Gasco PDI
Client: NW Natural

Sample Custodian: CO, SN, BJ, SS
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	PDI-015SC-C-00-8.1-191024	N	SE	10/24/2019	13:17	5	☐				
								Metals (QAPP 4c)	SW6020A	30	4°C
								Pesticides (QAPP 4c)	SW8081B	30	4°C
								SVOCs (QAPP 4c)	SW8270D	30	4°C
								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
								VOCs (QAPP 4c)	SW8260C	30	MeOH
002	PDI-026SC-C-00-3.9-191024	N	SE	10/24/2019	9:58	5	☐				
								Metals (QAPP 4c)	SW6020A	30	4°C
								Pesticides (QAPP 4c)	SW8081B	30	4°C
								SVOCs (QAPP 4c)	SW8270D	30	4°C
								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
								VOCs (QAPP 4c)	SW8260C	30	MeOH
003	PDI-026SW-34-00-191024	N	WS	10/24/2019	10:30	12	☐				
								Total Suspended solids	SM2540D	30	4°C
								Metals (QAPP 4d)	SW6020A	30	HNO3(pH<2)/4°C

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature:	Signature:	Signature	Signature	Signature	Signature
Print Name: C. OREIRO	Print Name: Eli Joyner	Print Name	Print Name	Print Name	Print Name
Company: AQ	Company: APEX LABS	Company	Company	Company	Company
Date/Time: 10/25/19 1150	Date/Time: 10/25/19 1440	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 10/25/2019

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

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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J095D

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

Project: Gasco PDI
Client: NW Natural

COC ID: APEX-20191025-092241
Sample Custodian: CO, SN, BJ, SS
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
003	PDI-026SW-34-00-191024	N	WS	10/24/2019	10:30	12	☐				
								PCB Aroclors	SW8082A	30	4°C
								Pesticides (QAPP 4d)	SW8081B	30	4°C
								pH	SW9045D	30	4°C
								SVOCs (QAPP 4d)	SW8270D	30	4°C
								VOCs (QAPP 4d)	SW8260C	30	HCl(pH < 2)/4°C-(
004	PDI-037SC-C-00-12.4-191024	N	SE	10/24/2019	11:36	5	☐				
								Metals (QAPP 4c)	SW6020A	30	4°C
								Pesticides (QAPP 4c)	SW8081B	30	4°C
								SVOCs (QAPP 4c)	SW8270D	30	4°C
								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
								VOCs (QAPP 4c)	SW8260C	30	MeOH
005	PDI-073SC-C-00-13.7-191024	N	SE	10/24/2019	14:31	5	☐				
								Metals (QAPP 4c)	SW6020A	30	4°C
								Pesticides (QAPP 4c)	SW8081B	30	4°C
								SVOCs (QAPP 4c)	SW8270D	30	4°C
								TCLP Metals	SW6020A	30	4°C
								TCLP Pesticides	SW8081B	30	4°C
								TCLP SVOCs	SW8270D	30	MeOH

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Print Name C. OREJEL	Print Name Eli Joyner	Print Name	Print Name	Print Name	Print Name
Company AQ	Company APEX LABS	Company	Company	Company	Company
Date/Time 10/25/19 1150	Date/Time 10/25/19 1440	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 10/25/2019

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

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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J0950

COC ID: APEX-20191025-092241

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

Project: Gasco PDI
Client: NW Natural

Sample Custodian: CO
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-073SC-C-00-13.7-191024	N	SE	10/24/2019	14:31	5	☐				
								TCLP VOCs	SW8260C	30	MeOH
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 4c)	SW8260C	30	MeOH

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Print Name C. OREICO	Print Name Eli Joyner	Print Name	Print Name	Print Name	Print Name
Company AQ	Company APEX LABS	Company	Company	Company	Company
Date/Time 10/25/19 1150	Date/Time 10/25/19 1440	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 10/25/2019

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

APEX LABS COOLER RECEIPT FORM

Client: Anchor QEA Element WO#: A9J0950

Project/Project #: Gasco PDI

Delivery Info:

Date/time received: 10/25/19 @ 1440 By: EJ

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

Cooler Inspection Date/time inspected: 10/25/19 @ 1530 By: EJ

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

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)	3.9	2.6					
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: 10/25/19 @ 1554 By: 8

All samples intact? Yes X No ___ Comments: ___

Bottle labels/COCs agree? Yes X No ___ Comments: PDI-USSC-C-00-8.1-191024 no T on 2/2 MeOH VOAs

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

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

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

Comments ___

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

Comments: ___

Additional information: ___

Labeled by: Witness: Cooler Inspected by: 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: 5035A/8260C

ANALYSES DATA PACKAGE COVER PAGE

5035A/8260C

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-015SC-C-00-8.1-191024	A9J0950-01	Sediment
PDI-026SC-C-00-3.9-191024	A9J0950-02	Sediment
PDI-037SC-C-00-12.4-191024	A9J0950-03	Sediment
PDI-073SC-C-00-13.7-191024	A9J0950-04	Sediment

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: 12/17/2019 3:37PM

Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

5035A/8260C

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
Acetone	500	1000	ug/kg
Acrylonitrile	50.0	100	ug/kg
Benzene	5.00	10.0	ug/kg
Bromobenzene	12.5	25.0	ug/kg
Bromochloromethane	25.0	50.0	ug/kg
Bromodichloromethane	25.0	50.0	ug/kg
Bromoform	50.0	100	ug/kg
Bromomethane	500	500	ug/kg
2-Butanone (MEK)	250	500	ug/kg
n-Butylbenzene	25.0	50.0	ug/kg
sec-Butylbenzene	25.0	50.0	ug/kg
tert-Butylbenzene	25.0	50.0	ug/kg
Carbon tetrachloride	25.0	50.0	ug/kg
Chlorobenzene	12.5	25.0	ug/kg
Chloroethane	250	500	ug/kg
Chloroform	25.0	50.0	ug/kg
Chloromethane	125	250	ug/kg
2-Chlorotoluene	25.0	50.0	ug/kg
4-Chlorotoluene	25.0	50.0	ug/kg
Dibromochloromethane	50.0	100	ug/kg
1,2-Dibromo-3-chloropropane	125	250	ug/kg
1,2-Dibromoethane (EDB)	25.0	50.0	ug/kg
Dibromomethane	25.0	50.0	ug/kg
1,2-Dichlorobenzene	12.5	25.0	ug/kg
1,3-Dichlorobenzene	12.5	25.0	ug/kg
1,4-Dichlorobenzene	12.5	25.0	ug/kg
Dichlorodifluoromethane	50.0	100	ug/kg
1,1-Dichloroethane	12.5	25.0	ug/kg
1,2-Dichloroethane (EDC)	12.5	25.0	ug/kg
1,1-Dichloroethene	12.5	25.0	ug/kg
cis-1,2-Dichloroethene	12.5	25.0	ug/kg
trans-1,2-Dichloroethene	12.5	25.0	ug/kg
1,2-Dichloropropane	12.5	25.0	ug/kg
1,3-Dichloropropane	25.0	50.0	ug/kg
2,2-Dichloropropane	25.0	50.0	ug/kg
1,1-Dichloropropene	25.0	50.0	ug/kg
Ethylbenzene	12.5	25.0	ug/kg

METHOD DETECTION AND REPORTING LIMITS

5035A/8260C

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
Hexachlorobutadiene	50.0	100	ug/kg
2-Hexanone	250	500	ug/kg
Methylene chloride	125	250	ug/kg
4-Methyl-2-pentanone (MiBK)	250	500	ug/kg
Methyl tert-butyl ether (MTBE)	25.0	50.0	ug/kg
Naphthalene	50.0	100	ug/kg
n-Propylbenzene	12.5	25.0	ug/kg
Styrene	25.0	50.0	ug/kg
1,1,1,2-Tetrachloroethane	12.5	25.0	ug/kg
1,1,2,2-Tetrachloroethane	25.0	50.0	ug/kg
Tetrachloroethene (PCE)	12.5	25.0	ug/kg
Toluene	25.0	50.0	ug/kg
1,2,3-Trichlorobenzene	125	250	ug/kg
1,2,4-Trichlorobenzene	125	250	ug/kg
1,1,1-Trichloroethane	12.5	25.0	ug/kg
1,1,2-Trichloroethane	12.5	25.0	ug/kg
Trichloroethene (TCE)	12.5	25.0	ug/kg
Trichlorofluoromethane	50.0	100	ug/kg
1,2,3-Trichloropropane	25.0	50.0	ug/kg
1,2,4-Trimethylbenzene	25.0	50.0	ug/kg
1,3,5-Trimethylbenzene	25.0	50.0	ug/kg
Vinyl chloride	12.5	25.0	ug/kg
m,p-Xylene	25.0	50.0	ug/kg
o-Xylene	12.5	25.0	ug/kg

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

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-015SC-C-00-8.1-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-01	File ID:	VJ19102526.D
Sampled:	10/24/19 13:17	Prepared:	10/24/19 13:17	Analyzed:	10/25/19 21:03
Solids:	81.42	Preparation:	EPA 5035A	Initial/Final:	4.68 g / 5 mL
Batch:	9101588	Sequence:	9J25029	Calibration:	A9J2404
Instrument:	VOA-GCMS10				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	5000	770	U
78-93-3	2-Butanone (MEK)	5000	38500	U
56-23-5	Carbon tetrachloride	5000	3850	U
108-90-7	Chlorobenzene	5000	1930	U
67-66-3	Chloroform	5000	3850	U
106-46-7	1,4-Dichlorobenzene	5000	1930	U
107-06-2	1,2-Dichloroethane (EDC)	5000	1930	U
75-35-4	1,1-Dichloroethene	5000	1930	U
156-59-2	cis-1,2-Dichloroethene	5000	1930	U
156-60-5	trans-1,2-Dichloroethene	5000	1930	U
100-41-4	Ethylbenzene	5000	6670	D
127-18-4	Tetrachloroethene (PCE)	5000	1930	U
108-88-3	Toluene	5000	3850	U
79-01-6	Trichloroethene (TCE)	5000	1930	U
75-01-4	Vinyl chloride	5000	1930	U
179601-23-1	m,p-Xylene	5000	3850	U
95-47-6	o-Xylene	5000	1930	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	51.1	102	80 - 120	
Toluene-d8 (Surr)	50.0	49.7	99	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	50.7	101	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	114988	6.095	92842	6.089	
Chlorobenzene-d5 (ISTD)	319813	9.806	245079	9.806	
1,4-Dichlorobenzene-d4 (ISTD)	136384	11.765	107292	11.765	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-026SC-C-00-3.9-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-02	File ID:	VJ19102527.D
Sampled:	10/24/19 09:58	Prepared:	10/24/19 09:58	Analyzed:	10/25/19 21:30
Solids:	76.10	Preparation:	EPA 5035A	Initial/Final:	5.88 g / 5 mL
Batch:	9101588	Sequence:	9J25029	Calibration:	A9J2404 Instrument: VOA-GCMS10

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	5000	55200	D
78-93-3	2-Butanone (MEK)	5000	35800	U
56-23-5	Carbon tetrachloride	5000	3580	U
108-90-7	Chlorobenzene	5000	1790	U
67-66-3	Chloroform	5000	3580	U
106-46-7	1,4-Dichlorobenzene	5000	1790	U
107-06-2	1,2-Dichloroethane (EDC)	5000	1790	U
75-35-4	1,1-Dichloroethene	5000	1790	U
156-59-2	cis-1,2-Dichloroethene	5000	1790	U
156-60-5	trans-1,2-Dichloroethene	5000	1790	U
100-41-4	Ethylbenzene	5000	34900	D
127-18-4	Tetrachloroethene (PCE)	5000	1790	U
108-88-3	Toluene	5000	22900	D
79-01-6	Trichloroethene (TCE)	5000	1790	U
75-01-4	Vinyl chloride	5000	1790	U
179601-23-1	m,p-Xylene	5000	61600	D
95-47-6	o-Xylene	5000	22800	D

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	49.8	100	80 - 120	
Toluene-d8 (Surr)	50.0	50.7	101	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	51.3	103	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	114063	6.095	92842	6.089	
Chlorobenzene-d5 (ISTD)	305221	9.806	245079	9.806	
1,4-Dichlorobenzene-d4 (ISTD)	127088	11.765	107292	11.765	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-037SC-C-00-12.4-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-03	File ID:	VJ19102528.D
Sampled:	10/24/19 11:36	Prepared:	10/24/19 11:36	Analyzed:	10/25/19 21:57
Solids:	75.83	Preparation:	EPA 5035A	Initial/Final:	6.08 g / 5 mL
Batch:	9101588	Sequence:	9J25029	Calibration:	A9J2404
Instrument:	VOA-GCMS10				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	5000	2360	D
78-93-3	2-Butanone (MEK)	5000	35100	U
56-23-5	Carbon tetrachloride	5000	3510	U
108-90-7	Chlorobenzene	5000	1750	U
67-66-3	Chloroform	5000	3510	U
106-46-7	1,4-Dichlorobenzene	5000	1750	U
107-06-2	1,2-Dichloroethane (EDC)	5000	1750	U
75-35-4	1,1-Dichloroethene	5000	1750	U
156-59-2	cis-1,2-Dichloroethene	5000	1750	U
156-60-5	trans-1,2-Dichloroethene	5000	1750	U
100-41-4	Ethylbenzene	5000	25000	D
127-18-4	Tetrachloroethene (PCE)	5000	1750	U
108-88-3	Toluene	5000	3510	U
79-01-6	Trichloroethene (TCE)	5000	1750	U
75-01-4	Vinyl chloride	5000	1750	U
179601-23-1	m,p-Xylene	5000	18200	D
95-47-6	o-Xylene	5000	9050	D

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	50.5	101	80 - 120	
Toluene-d8 (Surr)	50.0	51.0	102	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	51.0	102	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	114800	6.089	92842	6.089	
Chlorobenzene-d5 (ISTD)	310394	9.806	245079	9.806	
1,4-Dichlorobenzene-d4 (ISTD)	129019	11.765	107292	11.765	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-073SC-C-00-13.7-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-04	File ID:	VJ19102529.D
Sampled:	10/24/19 14:31	Prepared:	10/24/19 14:31	Analyzed:	10/25/19 22:23
Solids:	67.83	Preparation:	EPA 5035A	Initial/Final:	5.78 g / 5 mL
Batch:	9101588	Sequence:	9J25029	Calibration:	A9J2404
Instrument:	VOA-GCMS10				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	5000	643000	D
78-93-3	2-Butanone (MEK)	5000	43700	U
56-23-5	Carbon tetrachloride	5000	4370	U
108-90-7	Chlorobenzene	5000	2190	U
67-66-3	Chloroform	5000	4370	U
106-46-7	1,4-Dichlorobenzene	5000	2190	U
107-06-2	1,2-Dichloroethane (EDC)	5000	2190	U
75-35-4	1,1-Dichloroethene	5000	2190	U
156-59-2	cis-1,2-Dichloroethene	5000	2190	U
156-60-5	trans-1,2-Dichloroethene	5000	2190	U
100-41-4	Ethylbenzene	5000	112000	D
127-18-4	Tetrachloroethene (PCE)	5000	2190	U
108-88-3	Toluene	5000	390000	D
79-01-6	Trichloroethene (TCE)	5000	2190	U
75-01-4	Vinyl chloride	5000	2190	U
179601-23-1	m,p-Xylene	5000	235000	D
95-47-6	o-Xylene	5000	89400	D

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	49.0	98	80 - 120	
Toluene-d8 (Surr)	50.0	51.1	102	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	50.3	101	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	119760	6.095	92842	6.089	
Chlorobenzene-d5 (ISTD)	310261	9.806	245079	9.806	
1,4-Dichlorobenzene-d4 (ISTD)	131480	11.765	107292	11.765	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

5035A/8260C

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9101588 Batch Matrix: Soil Preparation: EPA 5035A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9101588-BLK1	VJ19102505.D	10/25/19 09:30	
LCS	9101588-BS1	VJ19102503.D	10/25/19 09:30	
PDI-015SC-C-00-8.1-191024	A9J0950-01	VJ19102526.D	10/24/19 13:17	
PDI-026SC-C-00-3.9-191024	A9J0950-02	VJ19102527.D	10/24/19 09:58	
PDI-037SC-C-00-12.4-191024	A9J0950-03	VJ19102528.D	10/24/19 11:36	
PDI-073SC-C-00-13.7-191024	A9J0950-04	VJ19102529.D	10/24/19 14:31	

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

METHOD BLANK DATA SHEET
5035A/8260C

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil	Laboratory ID:	9101588-BLK1	File ID:	VJ19102505.D
Prepared:	10/25/19 09:30	Preparation:	EPA 5035A	Initial/Final:	7.5 g / 5 mL
Analyzed:	10/25/19 11:37	Instrument:	VOA-GCMS10		
Batch:	9101588	Sequence:	9J25029	Calibration:	A9J2404

CAS NO.	COMPOUND	CONC. (ug/kg wet)	Q
67-64-1	Acetone	333	U
107-13-1	Acrylonitrile	33.3	U
71-43-2	Benzene	3.33	U
108-86-1	Bromobenzene	8.33	U
74-97-5	Bromochloromethane	16.7	U
75-27-4	Bromodichloromethane	16.7	U
75-25-2	Bromoform	33.3	U
74-83-9	Bromomethane	333	U
78-93-3	2-Butanone (MEK)	167	U
104-51-8	n-Butylbenzene	16.7	U
135-98-8	sec-Butylbenzene	16.7	U
98-06-6	tert-Butylbenzene	16.7	U
75-15-0	Carbon disulfide	167	U
56-23-5	Carbon tetrachloride	16.7	U
108-90-7	Chlorobenzene	8.33	U
75-00-3	Chloroethane	167	U
67-66-3	Chloroform	16.7	U
74-87-3	Chloromethane	83.3	U
95-49-8	2-Chlorotoluene	16.7	U
106-43-4	4-Chlorotoluene	16.7	U
124-48-1	Dibromochloromethane	33.3	U
96-12-8	1,2-Dibromo-3-chloropropane	83.3	U
106-93-4	1,2-Dibromoethane (EDB)	16.7	U
74-95-3	Dibromomethane	16.7	U
95-50-1	1,2-Dichlorobenzene	8.33	U
541-73-1	1,3-Dichlorobenzene	8.33	U
106-46-7	1,4-Dichlorobenzene	8.33	U
75-71-8	Dichlorodifluoromethane	33.3	U
75-34-3	1,1-Dichloroethane	8.33	U
107-06-2	1,2-Dichloroethane (EDC)	8.33	U
75-35-4	1,1-Dichloroethene	8.33	U
156-59-2	cis-1,2-Dichloroethene	8.33	U
156-60-5	trans-1,2-Dichloroethene	8.33	U
78-87-5	1,2-Dichloropropane	33.3	U
142-28-9	1,3-Dichloropropane	16.7	U

METHOD BLANK DATA SHEET

5035A/8260C

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil	Laboratory ID:	9101588-BLK1	File ID:	VJ19102505.D
Prepared:	10/25/19 09:30	Preparation:	EPA 5035A	Initial/Final:	7.5 g / 5 mL
Analyzed:	10/25/19 11:37	Instrument:	VOA-GCMS10		
Batch:	9101588	Sequence:	9J25029	Calibration:	A9J2404

CAS NO.	COMPOUND	CONC. (ug/kg wet)	Q
594-20-7	2,2-Dichloropropane	16.7	U
563-58-6	1,1-Dichloropropene	16.7	U
10061-01-5	cis-1,3-Dichloropropene	16.7	U
100-41-4	Ethylbenzene	8.33	U
87-68-3	Hexachlorobutadiene	33.3	U
591-78-6	2-Hexanone	167	U
98-82-8	Isopropylbenzene	16.7	U
99-87-6	4-Isopropyltoluene	16.7	U
75-09-2	Methylene chloride	83.3	U
108-10-1	4-Methyl-2-pentanone (MiBK)	167	U
1634-04-4	Methyl tert-butyl ether (MTBE)	16.7	U
91-20-3	Naphthalene	33.3	U
103-65-1	n-Propylbenzene	8.33	U
100-42-5	Styrene	16.7	U
630-20-6	1,1,1,2-Tetrachloroethane	8.33	U
79-34-5	1,1,2,2-Tetrachloroethane	16.7	U
127-18-4	Tetrachloroethene (PCE)	8.33	U
108-88-3	Toluene	16.7	U
87-61-6	1,2,3-Trichlorobenzene	83.3	U
120-82-1	1,2,4-Trichlorobenzene	83.3	U
71-55-6	1,1,1-Trichloroethane	8.33	U
79-00-5	1,1,2-Trichloroethane	8.33	U
79-01-6	Trichloroethene (TCE)	8.33	U
75-69-4	Trichlorofluoromethane	33.3	U
96-18-4	1,2,3-Trichloropropane	16.7	U
95-63-6	1,2,4-Trimethylbenzene	16.7	U
108-67-8	1,3,5-Trimethylbenzene	16.7	U
75-01-4	Vinyl chloride	8.33	U
179601-23-1	m,p-Xylene	16.7	U
95-47-6	o-Xylene	8.33	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	49.1	98	80 - 120	
Toluene-d8 (Surr)	50.0	50.9	102	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	49.7	99	80 - 120	

METHOD BLANK DATA SHEET

5035A/8260C

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil	Laboratory ID:	9101588-BLK1	File ID:	VJ19102505.D
Prepared:	10/25/19 09:30	Preparation:	EPA 5035A	Initial/Final:	7.5 g / 5 mL
Analyzed:	10/25/19 11:37	Instrument:	VOA-GCMS10		
Batch:	9101588	Sequence:	9J25029	Calibration:	A9J2404

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	93295	6.095	92842	6.089	
Chlorobenzene-d5 (ISTD)	247439	9.806	245079	9.806	
1,4-Dichlorobenzene-d4 (ISTD)	97646	11.765	107292	11.765	

LCS / LCS DUPLICATE RECOVERY

5035A/8260C

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Soil
Batch: 9101588
Laboratory ID: 9101588-BS1
Preparation: EPA 5035A
Initial/Final: 5 g / 5 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	LCS % REC. (*=Out)	QC LIMITS REC.
Acetone	2000	2210	110	80 - 120
Acrylonitrile	1000	1130	113	80 - 120
Benzene	1000	949	95	80 - 120
Bromobenzene	1000	973	97	80 - 120
Bromochloromethane	1000	1040	104	80 - 120
Bromodichloromethane	1000	1010	101	80 - 120
Bromoform	1000	906	91	80 - 120
Bromomethane	1000	1170	117	80 - 120
2-Butanone (MEK)	2000	1970	98	80 - 120
n-Butylbenzene	1000	1070	107	80 - 120
sec-Butylbenzene	1000	1050	105	80 - 120
tert-Butylbenzene	1000	1020	102	80 - 120
Carbon disulfide	1000	908	91	80 - 120
Carbon tetrachloride	1000	1010	101	80 - 120
Chlorobenzene	1000	981	98	80 - 120
Chloroethane	1000	899	90	80 - 120
Chloroform	1000	994	99	80 - 120
Chloromethane	1000	897	90	80 - 120
2-Chlorotoluene	1000	987	99	80 - 120
4-Chlorotoluene	1000	1020	102	80 - 120
Dibromochloromethane	1000	964	96	80 - 120
1,2-Dibromo-3-chloropropane	1000	977	98	80 - 120
1,2-Dibromoethane (EDB)	1000	1030	103	80 - 120
Dibromomethane	1000	1020	102	80 - 120
1,2-Dichlorobenzene	1000	1010	101	80 - 120
1,3-Dichlorobenzene	1000	1000	100	80 - 120
1,4-Dichlorobenzene	1000	946	95	80 - 120
Dichlorodifluoromethane	1000	937	94	80 - 120
1,1-Dichloroethane	1000	999	100	80 - 120
1,2-Dichloroethane (EDC)	1000	1050	105	80 - 120

LCS / LCS DUPLICATE RECOVERY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil		
Batch:	9101588	Laboratory ID:	9101588-BS1
Preparation:	EPA 5035A	Initial/Final:	5 g / 5 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	LCS % REC. (*=Out)	QC LIMITS REC.
1,1-Dichloroethene	1000	915	91	80 - 120
cis-1,2-Dichloroethene	1000	965	96	80 - 120
trans-1,2-Dichloroethene	1000	994	99	80 - 120
1,2-Dichloropropane	1000	981	98	80 - 120
1,3-Dichloropropane	1000	1000	100	80 - 120
2,2-Dichloropropane	1000	1070	107	80 - 120
1,1-Dichloropropene	1000	958	96	80 - 120
cis-1,3-Dichloropropene	1000	1020	102	80 - 120
Ethylbenzene	1000	1020	102	80 - 120
Hexachlorobutadiene	1000	1070	107	80 - 120
2-Hexanone	2000	2100	105	80 - 120
Isopropylbenzene	1000	1040	104	80 - 120
4-Isopropyltoluene	1000	1060	106	80 - 120
Methylene chloride	1000	1120	112	80 - 120
4-Methyl-2-pentanone (MiBK)	2000	2120	106	80 - 120
Methyl tert-butyl ether (MTBE)	1000	978	98	80 - 120
Naphthalene	1000	1040	104	80 - 120
n-Propylbenzene	1000	1010	101	80 - 120
Styrene	1000	919	92	80 - 120
1,1,1,2-Tetrachloroethane	1000	1030	103	80 - 120
1,1,2,2-Tetrachloroethane	1000	1000	100	80 - 120
Tetrachloroethene (PCE)	1000	1020	102	80 - 120
Toluene	1000	966	97	80 - 120
1,2,3-Trichlorobenzene	1000	1030	103	80 - 120
1,2,4-Trichlorobenzene	1000	991	99	80 - 120
1,1,1-Trichloroethane	1000	1020	102	80 - 120
1,1,2-Trichloroethane	1000	1030	103	80 - 120
Trichloroethene (TCE)	1000	979	98	80 - 120
Trichlorofluoromethane	1000	963	96	80 - 120
1,2,3-Trichloropropane	1000	1020	102	80 - 120

LCS / LCS DUPLICATE RECOVERY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil		
Batch:	9101588	Laboratory ID:	9101588-BS1
Preparation:	EPA 5035A	Initial/Final:	5 g / 5 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	LCS % REC. (*=Out)	QC LIMITS REC.
1,2,4-Trimethylbenzene	1000	1110	111	80 - 120
1,3,5-Trimethylbenzene	1000	1110	111	80 - 120
Vinyl chloride	1000	1000	100	80 - 120
m,p-Xylene	2000	2140	107	80 - 120
o-Xylene	1000	1020	102	80 - 120

* = Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J23072	Instrument:	VOA-GCMS10
Matrix:	Soil	Calibration:	A9J2404

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J23072-TUN1	VJ19102321.D	10/23/19 21:24
Initial Cal Blank	9J23072-ICB1	VJ19102322.D	10/23/19 21:51
Cal Standard	9J23072-CAL1	VJ19102323.D	10/23/19 22:18
Cal Standard	9J23072-CAL2	VJ19102324.D	10/23/19 22:45
Cal Standard	9J23072-CAL3	VJ19102325.D	10/23/19 23:12
Cal Standard	9J23072-CAL4	VJ19102326.D	10/23/19 23:38
Cal Standard	9J23072-CAL5	VJ19102327.D	10/24/19 00:05
Cal Standard	9J23072-CAL6	VJ19102328.D	10/24/19 00:32
Cal Standard	9J23072-CAL7	VJ19102329.D	10/24/19 00:59
Cal Standard	9J23072-CAL8	VJ19102330.D	10/24/19 01:26
Cal Standard	9J23072-CAL9	VJ19102331.D	10/24/19 01:53
Cal Standard	9J23072-CALA	VJ19102333.D	10/24/19 02:46
Cal Standard	9J23072-CALB	VJ19102335.D	10/24/19 03:40
Initial Cal Check	9J23072-ICV1	VJ19102338.D	10/24/19 05:00

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.

ANALYSIS BATCH (SEQUENCE) SUMMARY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J25029	Instrument:	VOA-GCMS10
Matrix:	Soil	Calibration:	A9J2404

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J25029-TUN1	VJ19102502.D	10/25/19 10:16
Calibration Check	9J25029-CCV1	VJ19102503.D	10/25/19 10:43
Blank	9101588-BLK1	VJ19102505.D	10/25/19 11:37
PDI-015SC-C-00-8.1-191024	A9J0950-01	VJ19102526.D	10/25/19 21:03
PDI-026SC-C-00-3.9-191024	A9J0950-02	VJ19102527.D	10/25/19 21:30
PDI-037SC-C-00-12.4-191024	A9J0950-03	VJ19102528.D	10/25/19 21:57
PDI-073SC-C-00-13.7-191024	A9J0950-04	VJ19102529.D	10/25/19 22:23

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

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	VJ19102321.D	Injection Date:	10/23/19
Instrument ID:	VOA-GCMS10	Injection Time:	21:24
Sequence:	9J23072	Lab Sample ID:	9J23072-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 95	50 - 200% of m/z 174	147.78	PASS
m/z 96	5 - 9% of m/z 95	7.15	PASS
m/z 173	Less than 2% of m/z 174	0.74	PASS
m/z 174	50 - 200% of m/z 95	67.67	PASS
m/z 175	5 - 9% of m/z 174	7.13	PASS
m/z 176	95 - 105% of m/z 174	95.30	PASS
m/z 177	5 - 10% of m/z 176	6.81	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	VJ19102502.D	Injection Date:	10/25/19
Instrument ID:	VOA-GCMS10	Injection Time:	10:16
Sequence:	9J25029	Lab Sample ID:	9J25029-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 95	50 - 200% of m/z 174	152.55	PASS
m/z 96	5 - 9% of m/z 95	7.37	PASS
m/z 173	Less than 2% of m/z 174	0.29	PASS
m/z 174	50 - 200% of m/z 95	65.55	PASS
m/z 175	5 - 9% of m/z 174	7.05	PASS
m/z 176	95 - 105% of m/z 174	97.33	PASS
m/z 177	5 - 10% of m/z 176	6.55	PASS

INITIAL CALIBRATION DATA (Summary)

5035A/8260C

Laboratory: Apex Laboratories SDG: Gasco_PreRD_DG 2019

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

Calibration: A9J2404 Date: 10/24/19 13:40 Instrument: VOA-GCMS10

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Acetone	0.7630346	Ave	7.780488	3.87	0.1174603			20	
Acrylonitrile	0.8637499	Ave	14.08609	4.636333	0.1079403			20	
Benzene	6.42084	Ave	5.626462	6.003455	3.501531E-02			20	
Bromobenzene	1.034598	Ave	5.113731	10.9638	2.955328E-02			20	
Bromochloromethane	1.16812	Ave	5.545978	5.329667	6.725774E-02			20	
Bromodichloromethane	1.552772	Ave	14.23023	7.2486	4.352734E-02			20	
Bromoform	0.2352265	XXX	23.91278	10.43833	2.183329E-02				
Bromomethane	3.24174	XXX	139.3167	2.343636	0.2584869				
2-Butanone (MEK)	1.343962	Ave	9.587451	5.73475	5.073369E-02			20	
n-Butylbenzene	3.154063	Ave	6.836626	11.972	2.119512E-02			20	
sec-Butylbenzene	4.267558	Ave	10.9799	11.546	7.675565E-03			20	
tert-Butylbenzene	1.979189	Ave	8.928197	11.4054	1.578147E-02			20	
Carbon disulfide	3.47021	Ave	14.56079	3.154273	0.1780623			20	
Carbon tetrachloride	1.448803	Ave	14.03004	5.5552	6.695901E-02			20	
Chlorobenzene	1.332881	Ave	3.799445	9.823545	3.088718E-02			20	
Chloroethane	0.1761344	XXX	20.51192	2.476714	0.4375376				
Chloroform	2.193058	Ave	5.725423	5.417	0.0557908			20	
Chloromethane	1.96101	Ave	9.832503	1.897143	0.2846326			20	
2-Chlorotoluene	0.9730858	Ave	5.990234	11.1164	0.0275477			20	
4-Chlorotoluene	3.159392	Ave	6.281659	11.2486	2.183889E-02			20	
Dibromochloromethane	0.3827769	Ave	12.60893	9.0655	2.783921E-02			20	
1,2-Dibromo-3-chloropropane	0.29905	Ave	13.90432	12.696	1.471367E-02			20	
1,2-Dibromoethane (EDB)	0.4544982	Ave	8.564783	9.3011	1.969881E-02			20	
Dibromomethane	0.8058568	Ave	3.431989	7.062889	4.081123E-02			20	
1,2-Dichlorobenzene	1.715567	Ave	5.398752	12.094	9.240268E-03			20	
1,3-Dichlorobenzene	1.872399	Ave	6.378968	11.71091	1.892805E-02			20	
1,4-Dichlorobenzene	1.990469	Ave	5.960029	11.77655	1.616477E-02			20	
Dichlorodifluoromethane	1.157153	Ave	4.195397	1.6925	0.3142671			20	
1,1-Dichloroethane	2.052362	Ave	5.505869	4.5817	5.918088E-02			20	
1,2-Dichloroethane (EDC)	1.977653	Ave	4.926241	6.208	5.092493E-02			20	
1,1-Dichloroethene	1.860368	Ave	5.025398	3.143	0.1662785			20	
cis-1,2-Dichloroethene	1.918395	Ave	4.009481	5.131333	6.008354E-02			20	
trans-1,2-Dichloroethene	1.944826	Ave	4.048457	3.9486	0.1115212			20	

INITIAL CALIBRATION DATA (Summary)

5035A/8260C

Laboratory: Apex Laboratories SDG: Gasco_PreRD_DG 2019

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

Calibration: A9J2404 Date: 10/24/19 13:40 Instrument: VOA-GCMS10

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
1,2-Dichloropropane	1.589063	Ave	2.168724	7.172667	0.0316026			20	
1,3-Dichloropropane	0.8908941	Ave	5.289103	9.162	2.645202E-02			20	
2,2-Dichloropropane	1.942855	Ave	5.980428	5.24	6.162833E-02			20	
1,1-Dichloropropene	1.959344	Ave	3.5152	5.749222	3.222457E-02			20	
cis-1,3-Dichloropropene	0.7450675	Ave	12.78409	7.9522	2.889974E-02			20	
Ethylbenzene	2.270775	Ave	5.558898	9.861	0.0194846			20	
Hexachlorobutadiene	0.2169599	Ave	11.77189	13.21833	1.673503E-02			20	
2-Hexanone	0.5388921	Ave	13.20295	9.545857	2.121464E-02			20	
Isopropylbenzene	1.859592	Ave	13.30658	9.683637	33.16624			20	
4-Isopropyltoluene	3.252949	Ave	13.6313	11.656	1.807841E-02			20	
Methylene chloride	2.908984	XXX	109.5029	2.749455	64.22624				
4-Methyl-2-pentanone (MiBK)	0.7241524	Ave	10.14834	8.671	3.957963E-02			20	
Methyl tert-butyl ether (MTBE)	4.652114	Ave	3.100733	4.10675	0.1452521			20	
Naphthalene	3.717873	Ave	11.6002	13.5158	1.410608E-02			20	
n-Propylbenzene	5.453597	Ave	4.607677	10.99682	2.197048E-02			20	
Styrene	1.02724	XXX	22.42696	10.421	1.478796E-02				
1,1,1,2-Tetrachloroethane	0.4128544	Ave	8.288025	9.886	1.505389E-02			20	
1,1,2,2-Tetrachloroethane	1.579054	Ave	6.865902	11.0464	2.011701E-02			20	
Tetrachloroethene (PCE)	0.4335888	Ave	9.463738	8.6792	3.437289E-02			20	
Toluene	2.336687	Ave	4.658904	8.231455	1.982802E-02			20	
1,2,3-Trichlorobenzene	1.008478	Ave	8.02173	13.6754	1.213214E-02			20	
1,2,4-Trichlorobenzene	1.036127	Ave	6.021869	13.243	1.607057E-02			20	
1,1,1-Trichloroethane	2.015569	Ave	6.578792	5.6222	4.343642E-02			20	
1,1,2-Trichloroethane	0.474218	Ave	6.909803	8.8762	0.0257095			20	
Trichloroethene (TCE)	1.275798	Ave	8.060541	6.623	6.264117E-02			20	
Trichlorofluoromethane	0.3375145	Ave	7.881205	2.604625	0.2428395			20	
1,2,3-Trichloropropane	0.5070411	Ave	6.919488	11.151	1.103529E-02			20	
1,2,4-Trimethylbenzene	3.371687	Ave	11.05569	11.461	2.389959E-02			20	
1,3,5-Trimethylbenzene	3.338074	Ave	12.70043	10.14273	33.16624			20	
Vinyl chloride	1.512511	Ave	5.395119	1.993	0.425789			20	
m,p-Xylene	1.616709	Ave	9.72333	9.995	1.368862E-02			20	
o-Xylene	1.543364	Ave	10.87211	9.434546	33.16624			20	
1,4-Difluorobenzene (Surr)	3.07597	Ave	1.030422	6.655	9.65307E-03			20	

INITIAL CALIBRATION DATA (Summary)

5035A/8260C

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterizatic
Calibration: A9J2404
Date: 10/24/19 13:40
Instrument: VOA-GCMS10

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Toluene-d8 (Surr)	1.394366	Ave	0.6353862	8.17	4.457054E-03			20	
4-Bromofluorobenzene (Surr)	0.7219473	Ave	2.275187	10.883	3.456173E-03			20	

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

5035A/8260C

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Calibration: A9J2404

SDG: Gasco_PreRD_DG 2019
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Instrument: VOA-GCMS10
Calibration Date: 10/24/19 13:40

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
Acetone	0.2	~~0~~	0.4	~~0~~	0.8	~~0~~	2	~~1.393237~~	4	~~0~~	10	0.8460466
Acrylonitrile	0.1	~~0~~	0.2	~~0~~	0.4	0.5484338	1	0.8692497	2	0.9222922	5	0.8895916
Benzene	0.1	7.293099	0.2	6.723948	0.4	6.327773	1	6.33767	2	6.676794	5	6.285538
Bromobenzene	0.1	~~0~~	0.2	0.9505703	0.4	1.003151	1	1.030487	2	1.143625	5	1.043803
Bromochloromethane	0.1	~~0~~	0.2	~~0~~	0.4	1.082118	1	1.253236	2	1.261723	5	1.17612
Bromodichloromethane	0.1	~~0~~	0.2	1.148247	0.4	1.346278	1	1.406506	2	1.52889	5	1.504779
Bromoform	0.1	~~0~~	0.2	~~0~~	0.4	0.1517548	1	0.1766516	2	0.2035704	5	0.2059341
Bromomethane	0.1	14.76445	0.2	8.366178	0.4	4.529607	1	2.498348	2	1.37012	5	0.9456647
2-Butanone (MEK)	0.2	~~0~~	0.4	~~0~~	0.8	~~0~~	2	1.620704	4	1.438823	10	1.273313
n-Butylbenzene	0.1	~~0~~	0.2	2.998823	0.4	2.871048	1	2.856318	2	3.056434	5	3.02701
sec-Butylbenzene	0.1	~~0~~	0.2	3.686855	0.4	3.573727	1	3.668494	2	4.164478	5	4.270418
tert-Butylbenzene	0.1	~~0~~	0.2	1.799294	0.4	1.641951	1	1.803712	2	1.951733	5	1.986955
Carbon disulfide	0.1	4.82302	0.2	3.938725	0.4	3.346921	1	3.249532	2	3.389826	5	3.078361
Carbon tetrachloride	0.1	~~0~~	0.2	0.9643176	0.4	1.252414	1	1.476912	2	1.510692	5	1.44911
Chlorobenzene	0.1	1.321464	0.2	1.354265	0.4	1.367771	1	1.311498	2	1.445458	5	1.325432
Chloroethane	0.1	~~0~~	0.2	~~0~~	0.4	~~0~~	1	~~0~~	2	0.1471659	5	0.1398291
Chloroform	0.1	~~0~~	0.2	1.944401	0.4	2.034167	1	2.275214	2	2.367313	5	2.24171
Chloromethane	0.1	~~12.13649~~	0.2	~~7.288875~~	0.4	~~4.404902~~	1	~~2.874211~~	2	2.358874	5	2.024389
2-Chlorotoluene	0.1	~~0~~	0.2	0.8283542	0.4	0.952284	1	0.9679746	2	0.9867321	5	0.9443121
4-Chlorotoluene	0.1	~~0~~	0.2	2.998823	0.4	2.7563	1	2.951529	2	3.283057	5	3.136226
Dibromochloromethane	0.1	~~0~~	0.2	~~0~~	0.4	~~0.2580326~~	1	0.3037449	2	0.3557808	5	0.352008
1,2-Dibromo-3-chloropropane	0.1	~~0~~	0.2	~~0~~	0.4	~~8.280731E-02~~	1	~~0.2389883~~	2	0.2739065	5	0.2419894
1,2-Dibromoethane (EDB)	0.1	~~0~~	0.2	0.4057081	0.4	0.3895205	1	0.4116542	2	0.4621412	5	0.4533185
Dibromomethane	0.1	~~0~~	0.2	~~0~~	0.4	0.7576164	1	0.779346	2	0.845017	5	0.8095738
1,2-Dichlorobenzene	0.1	1.516905	0.2	1.640865	0.4	1.680988	1	1.702731	2	1.867675	5	1.743716
1,3-Dichlorobenzene	0.1	1.580678	0.2	1.82419	0.4	1.860798	1	1.881131	2	2.057045	5	1.912627
1,4-Dichlorobenzene	0.1	2.177419	0.2	1.959985	0.4	2.113952	1	2.018657	2	2.170238	5	1.942519
Dichlorodifluoromethane	0.1	~~0~~	0.2	~~0~~	0.4	~~0~~	1	1.102133	2	1.175217	5	1.126008
1,1-Dichloroethane	0.1	~~0~~	0.2	1.891849	0.4	1.955053	1	2.172853	2	2.237027	5	2.13401
1,2-Dichloroethane (EDC)	0.1	~~0~~	0.2	1.862946	0.4	1.812916	1	2.037456	2	2.150521	5	1.992059
1,1-Dichloroethene	0.1	~~0~~	0.2	~~0~~	0.4	2.02478	1	1.926972	2	1.951662	5	1.828386

INITIAL CALIBRATION DATA

5035A/8260C

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9J2404

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: VOA-GCMS10

Calibration Date: 10/24/19 13:40

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
cis-1,2-Dichloroethene	0.1	~~0~~	0.2	~~0~~	0.4	2.01003	1	1.993046	2	2.01786	5	1.896684
trans-1,2-Dichloroethene	0.1	~~0~~	0.2	1.876084	0.4	1.991257	1	2.014168	2	2.086432	5	1.969326
1,2-Dichloropropane	0.1	~~0~~	0.2	~~0~~	0.4	1.576915	1	1.560317	2	1.644935	5	1.5753
1,3-Dichloropropane	0.1	~~0~~	0.2	0.8104638	0.4	0.8492338	1	0.8776628	2	0.9797748	5	0.905244
2,2-Dichloropropane	0.1	~~0~~	0.2	1.99958	0.4	2.199099	1	1.997379	2	2.031311	5	1.873144
1,1-Dichloropropene	0.1	~~0~~	0.2	~~0~~	0.4	1.86253	1	1.950261	2	2.038432	5	1.88941
cis-1,3-Dichloropropene	0.1	~~0~~	0.2	0.5676104	0.4	0.6653485	1	0.667839	2	0.7395046	5	0.7286
trans-1,3-Dichloropropene	0.1	~~0~~	0.2	0.5523725	0.4	0.688087	1	0.6176811	2	0.6948352	5	0.6966369
Ethylbenzene	0.1	2.101032	0.2	2.083778	0.4	2.174493	1	2.151793	2	2.318676	5	2.255298
Hexachlorobutadiene	0.1	~~0~~	0.2	~~0~~	0.4	0.1644317	1	0.18417	2	0.2173103	5	0.2393126
n-Hexane	0.1	~~0~~	0.2	~~0~~	0.4	~~0~~	1	0.2410069	2	0.3003977	5	0.2818808
2-Hexanone	0.2	~~0~~	0.4	~~0~~	0.8	~~0.3732081~~	2	~~0.3828784~~	4	0.4649453	10	0.4417417
Isopropylbenzene	0.1	1.515405	0.2	1.607594	0.4	1.581809	1	1.67839	2	1.795729	5	1.800812
4-Isopropyltoluene	0.1	~~0~~	0.2	2.786076	0.4	2.6522	1	2.651471	2	3.100135	5	3.135423
Methylene chloride	0.1	11.2605	0.2	6.24573	0.4	3.644604	1	2.051538	2	1.638341	5	1.313221
4-Methyl-2-pentanone (MiBK)	0.2	~~0~~	0.4	~~0~~	0.8	0.7261493	2	0.5882059	4	0.6757475	10	0.6615114
Methyl tert-butyl ether (MTBE)	0.1	~~0~~	0.2	~~0~~	0.4	~~0~~	1	4.762188	2	4.807946	5	4.601932
Naphthalene	0.1	~~0~~	0.2	3.526163	0.4	3.367892	1	3.115022	2	3.558158	5	3.259809
n-Propylbenzene	0.1	5.038128	0.2	5.253033	0.4	5.136419	1	5.237065	2	5.606606	5	5.39533
Styrene	0.1	~~0~~	0.2	0.8495108	0.4	0.7760751	1	0.770153	2	0.8546218	5	0.9128865
1,1,1,2-Tetrachloroethane	0.1	~~0~~	0.2	~~0~~	0.4	0.3519526	1	0.3772831	2	0.3987776	5	0.4050915
1,1,2,2-Tetrachloroethane	0.1	~~1.389357~~	0.2	1.514123	0.4	1.406541	1	1.543566	2	1.794601	5	1.602823
Tetrachloroethene (PCE)	0.1	~~0~~	0.2	0.3333282	0.4	0.3979239	1	0.4312378	2	0.4579104	5	0.4398782
Toluene	0.1	2.570675	0.2	2.42282	0.4	2.355907	1	2.325646	2	2.441172	5	2.246488
1,2,3-Trichlorobenzene	0.1	~~0~~	0.2	0.9845193	0.4	0.8706597	1	0.8929602	2	1.118312	5	0.9561796
1,2,4-Trichlorobenzene	0.1	~~0~~	0.2	0.9415173	0.4	0.9511011	1	0.9920177	2	1.093954	5	0.9825022
1,1,1-Trichloroethane	0.1	~~0~~	0.2	1.802512	0.4	1.788779	1	1.984381	2	2.166873	5	2.025096
1,1,2-Trichloroethane	0.1	~~0~~	0.2	0.3971368	0.4	0.4611962	1	0.4604132	2	0.5133044	5	0.4911546
Trichloroethene (TCE)	0.1	~~0~~	0.2	1.001104	0.4	1.265823	1	1.291689	2	1.347965	5	1.294126
Trichlorofluoromethane	0.1	~~0~~	0.2	~~0~~	0.4	~~0~~	1	0.2794597	2	0.3299364	5	0.3437127
1,2,3-Trichloropropane	0.1	~~0~~	0.2	~~0.3010139~~	0.4	0.4459765	1	0.4890364	2	0.5685889	5	0.4963818

INITIAL CALIBRATION DATA

5035A/8260C

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9J2404

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: VOA-GCMS10

Calibration Date: 10/24/19 13:40

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
1,1,2-Trichloro-1,2,2-trifluoroethan	0.1	0	0.2	0	0.4	1.020436	1	1.16604	2	1.216888	5	1.119441
1,2,4-Trimethylbenzene	0.1	3.161357	0.2	2.824552	0.4	2.809534	1	2.978938	2	3.419175	5	3.360459
1,3,5-Trimethylbenzene	0.1	2.560061	0.2	2.937715	0.4	2.906537	1	3.005867	2	3.371653	5	3.353678
Vinyl chloride	0.1	0	0.2	0	0.4	1.488415	1	1.643721	2	1.6481	5	1.476692
m,p-Xylene	0.2	1.455511	0.4	1.462359	0.8	1.401878	2	1.456876	4	1.581532	10	1.60094
o-Xylene	0.1	1.374702	0.2	1.371408	0.4	1.298566	1	1.423804	2	1.515611	5	1.494735
Xylenes, total	0.3	1.428575	0.6	1.432042	1.2	1.367441	3	1.445852	6	1.559559	15	1.565538
trans-1,4-Dichloro-2-butene	0.1	0	0.2	0	0.4	0	1	0.1610887	2	0.1745647	5	0.1941626
1,4-Difluorobenzene (Surr)	50	3.053547	50	3.111787	50	3.060223	50	3.077198	50	3.052157	50	3.067298
Toluene-d8 (Surr)	50	1.398268	50	1.384592	50	1.394982	50	1.399337	50	1.41034	50	1.391583
4-Bromofluorobenzene (Surr)	50	0.7394386	50	0.7276299	50	0.7292248	50	0.7295153	50	0.7296469	50	0.7284757

INITIAL CALIBRATION DATA (Continued)

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration:	A9J2404	Instrument:	VOA-GCMS10
Matrix:		Calibration Date:	10/24/19 13:40

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
Acetone	20	0.7704426	40	0.8196669	100	0.7179921	200	0.7011265	400	0.722933		
Acrylonitrile	10	0.8846229	20	0.9676948	50	0.8921181	100	0.8893462	200	0.9104001		
Benzene	10	6.268415	20	6.398041	50	5.96031	100	6.18341	200	6.17424		
Bromobenzene	10	1.084041	20	1.062417	50	1.0065	100	1.011853	200	1.009528		
Bromochloromethane	10	1.160219	20	1.220333	50	1.113129	100	1.134116	200	1.112087		
Bromodichloromethane	10	1.535414	20	1.690776	50	1.671574	100	1.81995	200	1.875309		
Bromoform	10	0.2257765	20	0.2605292	50	0.2767994	100	0.3078937	200	0.3081286		
Bromomethane	10	0.7557151	20	0.6771658	50	0.6031349	100	0.5619599	200	0.5867984		
2-Butanone (MEK)	20	1.246483	40	1.348087	100	1.248917	200	1.268235	400	1.307138		
n-Butylbenzene	10	3.275568	20	3.327664	50	3.310543	100	3.430676	200	3.386545		
sec-Butylbenzene	10	4.712718	20	4.655265	50	4.592545	100	4.696977	200	4.654103		
tert-Butylbenzene	10	2.106716	20	2.13866	50	2.092078	100	2.141971	200	2.128824		
Carbon disulfide	10	3.114498	20	3.206447	50	3.192014	100	3.402267	200	3.430695		
Carbon tetrachloride	10	1.477335	20	1.564802	50	1.509346	100	1.612337	200	1.670761		
Chlorobenzene	10	1.324865	20	1.36281	50	1.253518	100	1.318105	200	1.276507		
Chloroethane	10	0.140338	20	0.1644223	50	0.2162399	100	0.214263	200	0.2106827		
Chloroform	10	2.254298	20	2.29046	50	2.159513	100	2.20067	200	2.162838		
Chloromethane	10	1.891999	20	1.940225	50	1.91641	100	1.806484	200	1.788688		
2-Chlorotoluene	10	1.018519	20	1.024009	50	0.979414	100	1.016897	200	1.012362		
4-Chlorotoluene	10	3.337416	20	3.376022	50	3.209198	100	3.287084	200	3.258265		
Dibromochloromethane	10	0.3637582	20	0.3967142	50	0.4040584	100	0.435874	200	0.4502767		
1,2-Dibromo-3-chloropropane	10	0.2722788	20	0.2983265	50	0.3067301	100	0.3341598	200	0.3659589		
1,2-Dibromoethane (EDB)	10	0.4647707	20	0.4972282	50	0.4811634	100	0.4923362	200	0.4871409		
Dibromomethane	10	0.8028038	20	0.8431292	50	0.7975679	100	0.8141702	200	0.8034864		
1,2-Dichlorobenzene	10	1.796471	20	1.803673	50	1.682297	100	1.714781	200	1.721131		
1,3-Dichlorobenzene	10	1.971429	20	1.959346	50	1.836262	100	1.864453	200	1.848432		
1,4-Dichlorobenzene	10	1.977422	20	1.958226	50	1.837155	100	1.883156	200	1.856428		
Dichlorodifluoromethane	10	1.115866	20	1.135359	50	1.253988	100	1.178053	200	1.1706		
1,1-Dichloroethane	10	2.067116	20	2.135231	50	1.97587	100	1.987307	200	1.967308		
1,2-Dichloroethane (EDC)	10	1.990133	20	2.070344	50	1.93098	100	1.974405	200	1.954766		
1,1-Dichloroethene	10	1.836411	20	1.871459	50	1.728738	100	1.802328	200	1.772576		

INITIAL CALIBRATION DATA (Continued)

5035A/8260C

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration: A9J2404
Instrument: VOA-GCMS10
Matrix:
Calibration Date: 10/24/19 13:40

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
cis-1,2-Dichloroethene	10	1.883988	20	1.948542	50	1.807081	100	1.865584	200	1.84274		
trans-1,2-Dichloroethene	10	1.960092	20	1.962625	50	1.822384	100	1.894149	200	1.871744		
1,2-Dichloropropane	10	1.584164	20	1.621265	50	1.530049	100	1.594122	200	1.6145		
1,3-Dichloropropane	10	0.904238	20	0.9434526	50	0.8778929	100	0.8897502	200	0.8712284		
2,2-Dichloropropane	10	1.8877	20	1.917321	50	1.804996	100	1.86919	200	1.848827		
1,1-Dichloropropene	10	1.925606	20	2.004421	50	1.899489	100	2.027169	200	2.036775		
cis-1,3-Dichloropropene	10	0.7415738	20	0.798058	50	0.8007985	100	0.8651065	200	0.8762361		
trans-1,3-Dichloropropene	10	0.7500995	20	0.8076237	50	0.7871404	100	0.8171114	200	0.8133689		
Ethylbenzene	10	2.331868	20	2.430161	50	2.319054	100	2.433189	200	2.379186		
Hexachlorobutadiene	10	0.2365435	20	0.2298232	50	0.2314252	100	0.2259866	200	0.2236363		
n-Hexane	10	0.3032435	20	0.2950195	50	0.2994201	100	0.316144	200	0.3196709		
2-Hexanone	20	0.4898732	40	0.584645	100	0.5736532	200	0.6117288	400	0.6056573		
Isopropylbenzene	10	1.958032	20	2.092879	50	2.071861	100	2.213732	200	2.139271		
4-Isopropyltoluene	10	3.510712	20	3.595201	50	3.61704	100	3.740005	200	3.741223		
Methylene chloride	10	1.220545	20	1.23617	50	1.130679	100	1.136281	200	1.12121		
4-Methyl-2-pentanone (MiBK)	20	0.7051341	40	0.7978057	100	0.7748014	200	0.8070795	400	0.7809366		
Methyl tert-butyl ether (MTBE)	10	4.432151	20	4.699507	50	4.468885	100	4.642389	200	4.801916		
Naphthalene	10	3.645298	20	4.050344	50	4.08639	100	4.18105	200	4.388605		
n-Propylbenzene	10	5.736137	20	5.728057	50	5.557824	100	5.66991	200	5.631053		
Styrene	10	1.022192	20	1.147616	50	1.215335	100	1.36181	200	1.362199		
1,1,1,2-Tetrachloroethane	10	0.409819	20	0.4363619	50	0.4296797	100	0.4552636	200	0.451461		
1,1,2,2-Tetrachloroethane	10	1.658823	20	1.67572	50	1.55644	100	1.525316	200	1.512583		
Tetrachloroethene (PCE)	10	0.4475002	20	0.458728	50	0.4333921	100	0.4678521	200	0.468137		
Toluene	10	2.27918	20	2.348898	50	2.193585	100	2.281718	200	2.237469		
1,2,3-Trichlorobenzene	10	1.036234	20	1.067952	50	1.038823	100	1.040333	200	1.078803		
1,2,4-Trichlorobenzene	10	1.05911	20	1.095291	50	1.072908	100	1.075275	200	1.09759		
1,1,1-Trichloroethane	10	2.019734	20	2.124789	50	1.989601	100	2.123597	200	2.130331		
1,1,2-Trichloroethane	10	0.4877737	20	0.5101671	50	0.4722353	100	0.4801892	200	0.4686095		
Trichloroethene (TCE)	10	1.281311	20	1.325077	50	1.255292	100	1.330793	200	1.364798		
Trichlorofluoromethane	10	0.35551	20	0.3355405	50	0.3682497	100	0.3520402	200	0.3356668		
1,2,3-Trichloropropane	10	0.5348473	20	0.5360824	50	0.497828	100	0.496329	200	0.4982992		

INITIAL CALIBRATION DATA (Continued)

5035A/8260C

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration: A9J2404
Instrument: VOA-GCMS10
Matrix:
Calibration Date: 10/24/19 13:40

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
1,1,2-Trichloro-1,2,2-trifluoroethan	10	1.139947	20	1.148007	50	1.080838	100	1.141179	200	1.139769		
1,2,4-Trimethylbenzene	10	3.739688	20	3.757664	50	3.620708	100	3.721132	200	3.695345		
1,3,5-Trimethylbenzene	10	3.668043	20	3.762482	50	3.628045	100	3.744308	200	3.780424		
Vinyl chloride	10	1.46312	20	1.537673	50	1.483016	100	1.427716	200	1.444146		
m,p-Xylene	20	1.692649	40	1.77691	100	1.715154	200	1.83315	400	1.806838		
o-Xylene	10	1.585402	20	1.703732	50	1.673018	100	1.789868	200	1.746158		
Xylenes, total	30	1.656899	60	1.752517	150	1.701109	300	1.818722	600	1.786612		
trans-1,4-Dichloro-2-butene	10	0.1997148	20	0.218955	50	0.2227853	100	0.2280774	200	0.2279923		
1,4-Difluorobenzene (Surr)	50	3.060766	50	3.037965	50	3.082637	50	3.081134	50	3.150953		
Toluene-d8 (Surr)	50	1.399	50	1.384472	50	1.399445	50	1.396945	50	1.379057		
4-Bromofluorobenzene (Surr)	50	0.7404932	50	0.7164049	50	0.7152718	50	0.6951936	50	0.6901251		

SECOND-SOURCE CALIBRATION VERIFICATION

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	VOA-GCMS10	Calibration:	A9J2404
Lab File ID:	VJ19102338.D		
Sequence:	9J23072	Inject Date:	10/24/19
Lab Sample ID:	9J23072-ICV1	Inject Time:	05:00

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Acetone	40.0	41.3	3.3	70 - 130
Acrylonitrile	20.0	20.9	4.4	70 - 130
Benzene	20.0	19.9	-0.5	70 - 130
Bromobenzene	20.0	21.5	7.7	70 - 130
Bromochloromethane	20.0	20.5	2.6	70 - 130
Bromodichloromethane	20.0	21.4	7.0	70 - 130
Bromoform	20.0	19.7	-1.4	70 - 130
Bromomethane	20.0	25.7	28.7	70 - 130
2-Butanone (MEK)	40.0	38.0	-5.0	70 - 130
n-Butylbenzene	20.0	22.4	12.0	70 - 130
sec-Butylbenzene	20.0	22.6	13.0	70 - 130
tert-Butylbenzene	20.0	22.3	11.3	70 - 130
Carbon disulfide	20.0	18.1	-9.4	70 - 130
Carbon tetrachloride	20.0	21.5	7.7	70 - 130
Chlorobenzene	20.0	20.8	4.1	70 - 130
Chloroethane	20.0	18.1	-9.7	70 - 130
Chloroform	20.0	21.4	6.9	70 - 130
Chloromethane	20.0	21.9	9.5	70 - 130
2-Chlorotoluene	20.0	21.8	9.1	70 - 130
4-Chlorotoluene	20.0	22.0	10.0	70 - 130
Dibromochloromethane	20.0	21.6	8.0	70 - 130
1,2-Dibromo-3-chloropropane	20.0	19.7	-1.6	70 - 130
1,2-Dibromoethane (EDB)	20.0	22.1	10.3	70 - 130
Dibromomethane	20.0	20.8	4.2	70 - 130
1,2-Dichlorobenzene	20.0	22.1	10.7	70 - 130
1,3-Dichlorobenzene	20.0	21.7	8.5	70 - 130
1,4-Dichlorobenzene	20.0	20.6	3.2	70 - 130
Dichlorodifluoromethane	20.0	24.2	21.1	70 - 130
1,1-Dichloroethane	20.0	21.5	7.7	70 - 130
1,2-Dichloroethane (EDC)	20.0	20.8	3.9	70 - 130
1,1-Dichloroethene	20.0	18.9	-5.5	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	VOA-GCMS10	Calibration:	A9J2404
Lab File ID:	VJ19102338.D		
Sequence:	9J23072	Inject Date:	10/24/19
Lab Sample ID:	9J23072-ICV1	Inject Time:	05:00

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
cis-1,2-Dichloroethene	20.0	20.2	1.1	70 - 130
trans-1,2-Dichloroethene	20.0	20.8	4.1	70 - 130
1,2-Dichloropropane	20.0	20.5	2.6	70 - 130
1,3-Dichloropropane	20.0	21.4	6.9	70 - 130
2,2-Dichloropropane	20.0	18.2	-9.2	70 - 130
1,1-Dichloropropene	20.0	20.2	0.9	70 - 130
cis-1,3-Dichloropropene	20.0	21.2	6.0	70 - 130
trans-1,3-Dichloropropene	20.0	22.8	13.9	70 - 130
Ethylbenzene	20.0	21.7	8.3	70 - 130
Hexachlorobutadiene	20.0	23.1	15.6	70 - 130
2-Hexanone	40.0	42.2	5.5	70 - 130
Isopropylbenzene	20.0	22.7	13.4	70 - 130
4-Isopropyltoluene	20.0	23.5	17.3	70 - 130
Methylene chloride	20.0	21.8	9.1	70 - 130
4-Methyl-2-pentanone (MiBK)	40.0	42.8	6.9	70 - 130
Methyl tert-butyl ether (MTBE)	20.0	20.4	2.1	70 - 130
Naphthalene	20.0	22.6	12.8	70 - 130
n-Propylbenzene	20.0	21.6	7.9	70 - 130
Styrene	20.0	19.4	-2.8	70 - 130
1,1,1,2-Tetrachloroethane	20.0	22.0	10.1	70 - 130
1,1,2,2-Tetrachloroethane	20.0	21.4	7.0	70 - 130
Tetrachloroethene (PCE)	20.0	21.8	9.2	70 - 130
Toluene	20.0	20.2	1.1	70 - 130
1,2,3-Trichlorobenzene	20.0	23.1	15.5	70 - 130
1,2,4-Trichlorobenzene	20.0	22.7	13.4	70 - 130
1,1,1-Trichloroethane	20.0	21.0	4.9	70 - 130
1,1,2-Trichloroethane	20.0	21.9	9.3	70 - 130
Trichloroethene (TCE)	20.0	21.7	8.7	70 - 130
Trichlorofluoromethane	20.0	19.8	-0.8	70 - 130
1,2,3-Trichloropropane	20.0	21.8	9.0	70 - 130
1,2,4-Trimethylbenzene	20.0	23.2	16.1	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	VOA-GCMS10	Calibration:	A9J2404
Lab File ID:	VJ19102338.D		
Sequence:	9J23072	Inject Date:	10/24/19
Lab Sample ID:	9J23072-ICV1	Inject Time:	05:00

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
1,3,5-Trimethylbenzene	20.0	23.5	17.3	70 - 130
Vinyl chloride	20.0	22.5	12.7	70 - 130
m,p-Xylene	40.0	44.4	10.9	70 - 130
o-Xylene	20.0	22.4	12.2	70 - 130

SURROGATE STANDARD RECOVERY AND RT SUMMARY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J23072	Instrument:	VOA-GCMS10
Matrix:	Soil	Calibration:	A9J2404

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9J23072-ICV1)				Lab File ID: VJ19102338.D		Analyzed: 10/24/19 05:00		
1,4-Difluorobenzene (Surr)	50.0	101	70 - 130	6.655	6.655	0.0000	+/-1.0	
Toluene-d8 (Surr)	50.0	101	70 - 130	8.17	8.17	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	100	70 - 130	10.883	10.883	0.0000	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J25029	Instrument:	VOA-GCMS10
Matrix:	Soil	Calibration:	A9J2404

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
LCS (9101588-BS1)			Lab File ID: VJ19102503.D		Analyzed: 10/25/19 10:43			
1,4-Difluorobenzene (Surr)	50.0	98	80 - 120	6.649	6.655	-0.0060	+/-1.0	
Toluene-d8 (Surr)	50.0	102	80 - 120	8.17	8.17	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	97	80 - 120	10.883	10.883	0.0000	+/-1.0	
Blank (9101588-BLK1)			Lab File ID: VJ19102505.D		Analyzed: 10/25/19 11:37			
1,4-Difluorobenzene (Surr)	50.0	98	80 - 120	6.655	6.655	0.0000	+/-1.0	
Toluene-d8 (Surr)	50.0	102	80 - 120	8.17	8.17	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	99	80 - 120	10.883	10.883	0.0000	+/-1.0	
PDI-015SC-C-00-8.1-191024 (A9J0950-01)			Lab File ID: VJ19102526.D		Analyzed: 10/25/19 21:03			
1,4-Difluorobenzene (Surr)	50.0	102	80 - 120	6.655	6.655	0.0000	+/-1.0	
Toluene-d8 (Surr)	50.0	99	80 - 120	8.17	8.17	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	101	80 - 120	10.877	10.883	-0.0060	+/-1.0	
PDI-026SC-C-00-3.9-191024 (A9J0950-02)			Lab File ID: VJ19102527.D		Analyzed: 10/25/19 21:30			
1,4-Difluorobenzene (Surr)	50.0	100	80 - 120	6.655	6.655	0.0000	+/-1.0	
Toluene-d8 (Surr)	50.0	101	80 - 120	8.17	8.17	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	103	80 - 120	10.883	10.883	0.0000	+/-1.0	
PDI-037SC-C-00-12.4-191024 (A9J0950-03)			Lab File ID: VJ19102528.D		Analyzed: 10/25/19 21:57			
1,4-Difluorobenzene (Surr)	50.0	101	80 - 120	6.649	6.655	-0.0060	+/-1.0	
Toluene-d8 (Surr)	50.0	102	80 - 120	8.17	8.17	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	102	80 - 120	10.877	10.883	-0.0060	+/-1.0	
PDI-073SC-C-00-13.7-191024 (A9J0950-04)			Lab File ID: VJ19102529.D		Analyzed: 10/25/19 22:23			
1,4-Difluorobenzene (Surr)	50.0	98	80 - 120	6.655	6.655	0.0000	+/-1.0	
Toluene-d8 (Surr)	50.0	102	80 - 120	8.17	8.17	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	101	80 - 120	10.883	10.883	0.0000	+/-1.0	

INTERNAL STANDARD AREA AND RT SUMMARY
5035A/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J25029	Instrument:	VOA-GCMS10
Matrix:	Soil	Calibration:	A9J2404

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (9101588-BS1)			Lab File ID: VJ19102503.D			Analyzed: 10/25/19 10:43			
Pentafluorobenzene (ISTD)	92842	6.089	92842	6.089	100	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	245079	9.806	245079	9.806	100	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	107292	11.765	107292	11.765	100	50 - 200	0.0000	+/-0.50	
Calibration Check (9J25029-CCV1)			Lab File ID: VJ19102503.D			Analyzed: 10/25/19 10:43			
Pentafluorobenzene (ISTD)	92842	6.089	94087	6.089	99	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	245079	9.806	252726	9.806	97	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	107292	11.765	111564	11.765	96	50 - 200	0.0000	+/-0.50	
Blank (9101588-BLK1)			Lab File ID: VJ19102505.D			Analyzed: 10/25/19 11:37			
Pentafluorobenzene (ISTD)	93295	6.095	92842	6.089	100	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	247439	9.806	245079	9.806	101	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	97646	11.765	107292	11.765	91	50 - 200	0.0000	+/-0.50	
Matrix Spike (9101588-MS1)			Lab File ID: VJ19102512.D			Analyzed: 10/25/19 14:46			
Pentafluorobenzene (ISTD)	91713	6.089	92842	6.089	99	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	247416	9.806	245079	9.806	101	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	106374	11.765	107292	11.765	99	50 - 200	0.0000	+/-0.50	
Matrix Spike Dup (9101588-MSD1)			Lab File ID: VJ19102513.D			Analyzed: 10/25/19 15:13			
Pentafluorobenzene (ISTD)	93271	6.095	92842	6.089	100	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	250130	9.806	245079	9.806	102	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	108704	11.765	107292	11.765	101	50 - 200	0.0000	+/-0.50	
PDI-015SC-C-00-8.1-191024 (A9J0950-01)			Lab File ID: VJ19102526.D			Analyzed: 10/25/19 21:03			
Pentafluorobenzene (ISTD)	114988	6.095	92842	6.089	124	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	319813	9.806	245079	9.806	130	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	136384	11.765	107292	11.765	127	50 - 200	0.0000	+/-0.50	
PDI-026SC-C-00-3.9-191024 (A9J0950-02)			Lab File ID: VJ19102527.D			Analyzed: 10/25/19 21:30			
Pentafluorobenzene (ISTD)	114063	6.095	92842	6.089	123	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	305221	9.806	245079	9.806	125	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	127088	11.765	107292	11.765	118	50 - 200	0.0000	+/-0.50	
PDI-037SC-C-00-12.4-191024 (A9J0950-03)			Lab File ID: VJ19102528.D			Analyzed: 10/25/19 21:57			
Pentafluorobenzene (ISTD)	114800	6.089	92842	6.089	124	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	310394	9.806	245079	9.806	127	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	129019	11.765	107292	11.765	120	50 - 200	0.0000	+/-0.50	
PDI-073SC-C-00-13.7-191024 (A9J0950-04)			Lab File ID: VJ19102529.D			Analyzed: 10/25/19 22:23			
Pentafluorobenzene (ISTD)	119760	6.095	92842	6.089	129	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	310261	9.806	245079	9.806	127	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	131480	11.765	107292	11.765	123	50 - 200	0.0000	+/-0.50	

HOLDING TIME SUMMARY

5035A/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-015SC-C-00-8.1-191024	10/24/19 13:17	10/25/19 14:40	10/24/19 13:17	0.00	2.00	10/25/19 21:03	1.32	14.00	
PDI-026SC-C-00-3.9-191024	10/24/19 09:58	10/25/19 14:40	10/24/19 09:58	0.00	2.00	10/25/19 21:30	1.48	14.00	
PDI-037SC-C-00-12.4-191024	10/24/19 11:36	10/25/19 14:40	10/24/19 11:36	0.00	2.00	10/25/19 21:57	1.43	14.00	
PDI-073SC-C-00-13.7-191024	10/24/19 14:31	10/25/19 14:40	10/24/19 14:31	0.00	2.00	10/25/19 22:23	1.33	14.00	

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-015SC-C-00-8.1-191024	A9J0950-01	Sediment
PDI-026SC-C-00-3.9-191024	A9J0950-02	Sediment
PDI-037SC-C-00-12.4-191024	A9J0950-03	Sediment
PDI-073SC-C-00-13.7-191024	A9J0950-04	Sediment

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: 12/17/2019 3:37PM
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-015SC-C-00-8.1-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-01RE1	File ID:	VG19103108.D
Sampled:	10/24/19 13:17	Prepared:	10/31/19 10:58	Analyzed:	10/31/19 12:21
Solids:	81.42	Preparation:	EPA 1311/5030B TCLP Vola	Initial/Final:	5 mL / 5 mL
Batch:	9101791	Sequence:	9J31024	Calibration:	A9J2806
Instrument:	VOA-GCMS7				

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	52.1	104	80 - 120	
Toluene-d8 (Surr)	50.0	49.1	98	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	50.4	101	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	85384	6.855	87110	6.855	
Chlorobenzene-d5 (ISTD)	268156	10.452	253385	10.452	
1,4-Dichlorobenzene-d4 (ISTD)	137259	12.287	130177	12.287	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

1311/8260C

PDI-026SC-C-00-3.9-191024

Laboratory:	Apex Laboratories		SDG:	Gasco_PreRD_DG 2019	
Client:	Anchor QEA, LLC		Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization	
Matrix:	Sediment	Laboratory ID:	A9J0950-02RE1	File ID:	VG19103110.D
Sampled:	10/24/19 09:58	Prepared:	10/31/19 10:58	Analyzed:	10/31/19 13:15
Solids:	76.10	Preparation:	EPA 1311/5030B TCLP Vola	Initial/Final:	5 mL / 5 mL
Batch:	9101791	Sequence:	9J31024	Calibration:	A9J2806
Instrument:	VOA-GCMS7				

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
71-43-2	Benzene	50	0.562	
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	49.2	98	80 - 120	
Toluene-d8 (Surr)	50.0	49.8	100	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	49.8	100	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	88414	6.855	87110	6.855	
Chlorobenzene-d5 (ISTD)	259635	10.446	253385	10.452	
1,4-Dichlorobenzene-d4 (ISTD)	133723	12.287	130177	12.287	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

1311/8260C

PDI-037SC-C-00-12.4-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-03	File ID:	VG19103111.D
Sampled:	10/24/19 11:36	Prepared:	10/31/19 10:58	Analyzed:	10/31/19 13:42
Solids:	75.83	Preparation:	EPA 1311/5030B TCLP Vola	Initial/Final:	5 mL / 5 mL
Batch:	9101791	Sequence:	9J31024	Calibration:	A9J2806
Instrument:	VOA-GCMS7				

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
71-43-2	Benzene	50	0.0735	
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	0.0250	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	50.2	100	80 - 120	
Toluene-d8 (Surr)	50.0	49.8	100	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	50.4	101	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	91459	6.855	87110	6.855	
Chlorobenzene-d5 (ISTD)	271400	10.446	253385	10.452	
1,4-Dichlorobenzene-d4 (ISTD)	138421	12.287	130177	12.287	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

1311/8260C

PDI-073SC-C-00-13.7-191024

Laboratory:	Apex Laboratories		SDG:	Gasco_PreRD_DG 2019	
Client:	Anchor QEA, LLC		Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization	
Matrix:	Sediment	Laboratory ID:	A9J0950-04	File ID:	VG19103112.D
Sampled:	10/24/19 14:31	Prepared:	10/31/19 10:58	Analyzed:	10/31/19 14:09
Solids:	67.83	Preparation:	EPA 1311/5030B TCLP Vola	Initial/Final:	5 mL / 5 mL
Batch:	9101791	Sequence:	9J31024	Calibration:	A9J2806
Instrument:	VOA-GCMS7				

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
71-43-2	Benzene	50	4.28	
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	47.8	96	80 - 120	
Toluene-d8 (Surr)	50.0	49.6	99	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	50.4	101	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	94103	6.855	87110	6.855	
Chlorobenzene-d5 (ISTD)	266286	10.446	253385	10.452	
1,4-Dichlorobenzene-d4 (ISTD)	136069	12.287	130177	12.287	

* 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: 9101791 Batch Matrix: Water
Preparation: EPA 1311/5030B TCLP Volatiles

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9101791-BLK1	VG19103105.D	10/31/19 08:48	
LCS	9101791-BS1	VG19103104.D	10/31/19 08:48	
PDI-015SC-C-00-8.1-191024 (Dup)	9101791-DUP1	VG19103109.D	10/31/19 10:58	
PDI-015SC-C-00-8.1-191024	A9J0950-01RE1	VG19103108.D	10/31/19 10:58	
PDI-026SC-C-00-3.9-191024	A9J0950-02RE1	VG19103110.D	10/31/19 10:58	
PDI-037SC-C-00-12.4-191024	A9J0950-03	VG19103111.D	10/31/19 10:58	
PDI-073SC-C-00-13.7-191024	A9J0950-04	VG19103112.D	10/31/19 10:58	

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:	9101791-BLK1	File ID:	VG19103105.D
Prepared:	10/31/19 08:48	Preparation:	EPA 1311/5030B TCLP Vola	Initial/Final:	5 mL / 5 mL
Analyzed:	10/31/19 10:58	Instrument:	VOA-GCMS7		
Batch:	9101791	Sequence:	9J31024	Calibration:	A9J2806

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	51.8	104	80 - 120	
Toluene-d8 (Surr)	50.0	49.5	99	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	50.0	100	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	81589	6.861	87110	6.855	
Chlorobenzene-d5 (ISTD)	251794	10.446	253385	10.452	
1,4-Dichlorobenzene-d4 (ISTD)	124120	12.287	130177	12.287	

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:	9101791	Laboratory ID:	9101791-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	1.11	111	80 - 120
2-Butanone (MEK)	2.00	2.14	107	80 - 120
Carbon tetrachloride	1.00	1.27	127 *	80 - 120
Chlorobenzene	1.00	1.07	107	80 - 120
Chloroform	1.00	1.10	110	80 - 120
1,4-Dichlorobenzene	1.00	1.01	101	80 - 120
1,2-Dichloroethane (EDC)	1.00	1.07	107	80 - 120
1,1-Dichloroethene	1.00	1.13	113	80 - 120
Tetrachloroethene (PCE)	1.00	1.12	112	80 - 120
Trichloroethene (TCE)	1.00	1.06	106	80 - 120
Vinyl chloride	1.00	1.10	110	80 - 120

* = Values outside of QC limits

DUPLICATES

1311/8260C

PDI-015SC-C-00-8.1-191024

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Water
Batch: 9101791
Preparation: EPA 1311/5030B TCLP Volatiles
Source Sample Name: PDI-015SC-C-00-8.1-191024

SDG: Gasco_PreRD_DG 2019
Project: Gasco_PreRD_DG 2019 - 4c. Waste Charact
Laboratory ID: 9101791-DUP1
Lab Source ID: A9J0950-01RE1
Initial/Final: 5 mL / 5 mL
% Solids: 81.42

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	0.00500		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

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:	9J25051	Instrument:	VOA-GCMS7
Matrix:	Water	Calibration:	A9J2806

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J25051-TUN1	VG19102512.D	10/25/19 15:58
Initial Cal Blank	9J25051-ICB1	VG19102513.D	10/25/19 16:25
Cal Standard	9J25051-CAL1	VG19102514.D	10/25/19 16:53
Cal Standard	9J25051-CAL2	VG19102515.D	10/25/19 17:20
Cal Standard	9J25051-CAL3	VG19102516.D	10/25/19 17:47
Cal Standard	9J25051-CAL4	VG19102517.D	10/25/19 18:14
Cal Standard	9J25051-CAL5	VG19102518.D	10/25/19 18:41
Cal Standard	9J25051-CAL6	VG19102519.D	10/25/19 19:08
Cal Standard	9J25051-CAL7	VG19102520.D	10/25/19 19:35
Cal Standard	9J25051-CAL8	VG19102521.D	10/25/19 20:02
Cal Standard	9J25051-CAL9	VG19102522.D	10/25/19 20:29
Cal Standard	9J25051-CALA	VG19102524.D	10/25/19 21:22
Cal Standard	9J25051-CALB	VG19102526.D	10/25/19 22:16
Initial Cal Check	9J25051-ICV1	VG19102529.D	10/25/19 23:37

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

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:	9J31024	Instrument:	VOA-GCMS7
Matrix:	Water	Calibration:	A9J2806

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J31024-TUN1	VG19103103.D	10/31/19 10:04
Calibration Check	9J31024-CCV1	VG19103104.D	10/31/19 10:31
Blank	9101791-BLK1	VG19103105.D	10/31/19 10:58
PDI-015SC-C-00-8.1-191024	A9J0950-01RE1	VG19103108.D	10/31/19 12:21
PDI-015SC-C-00-8.1-191024 (Dup)	9101791-DUP1	VG19103109.D	10/31/19 12:48
PDI-026SC-C-00-3.9-191024	A9J0950-02RE1	VG19103110.D	10/31/19 13:15
PDI-037SC-C-00-12.4-191024	A9J0950-03	VG19103111.D	10/31/19 13:42
PDI-073SC-C-00-13.7-191024	A9J0950-04	VG19103112.D	10/31/19 14:09

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

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	VG19102512.D	Injection Date:	10/25/19
Instrument ID:	VOA-GCMS7	Injection Time:	15:58
Sequence:	9J25051	Lab Sample ID:	9J25051-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 95	50 - 200% of m/z 174	102.51	PASS
m/z 96	5 - 9% of m/z 95	6.72	PASS
m/z 173	Less than 2% of m/z 174	0.57	PASS
m/z 174	50 - 200% of m/z 95	97.55	PASS
m/z 175	5 - 9% of m/z 174	7.02	PASS
m/z 176	95 - 105% of m/z 174	97.45	PASS
m/z 177	5 - 10% of m/z 176	6.60	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:	VG19103103.D	Injection Date:	10/31/19
Instrument ID:	VOA-GCMS7	Injection Time:	10:04
Sequence:	9J31024	Lab Sample ID:	9J31024-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 95	50 - 200% of m/z 174	106.92	PASS
m/z 96	5 - 9% of m/z 95	6.54	PASS
m/z 173	Less than 2% of m/z 174	0.59	PASS
m/z 174	50 - 200% of m/z 95	93.53	PASS
m/z 175	5 - 9% of m/z 174	7.30	PASS
m/z 176	95 - 105% of m/z 174	98.40	PASS
m/z 177	5 - 10% of m/z 176	6.48	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: A9J2806
Date: 10/28/19 15:00
Instrument: VOA-GCMS7

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Benzene	3.868793	Ave	4.48288	6.753636	3.804909E-02				***
2-Butanone (MEK)	0.7376484	Ave	11.50974	6.477667	8.502402E-02				***
Carbon tetrachloride	0.9094392	Ave	14.58477	6.263333	2.588236E-02				***
Chlorobenzene	0.9753339	Ave	4.881342	10.46909	2.274811E-02				***
Chloroform	1.653334	Ave	4.809425	6.135455	2.677078E-02				
1,4-Dichlorobenzene	1.46702	Ave	9.268635	12.30491	1.623973E-02				***
1,2-Dichloroethane (EDC)	1.320497	Ave	5.825746	6.9836	3.045285E-02				***
1,1-Dichloroethene	1.164311	Ave	3.691381	3.586091	8.459877E-02				
Tetrachloroethene (PCE)	0.3972145	Ave	4.493883	9.435636	3.398277E-02				***
Trichloroethene (TCE)	1.129911	Ave	3.802178	7.407273	0.0412526				***
Vinyl chloride	0.9721377	Ave	6.774546	2.112	1.971954E-02				***
1,4-Difluorobenzene (Surr)	3.434838	Ave	2.39639	7.452455	2.666068E-02				***
Toluene-d8 (Surr)	1.303604	Ave	1.324623	8.989546	1.052868E-02				***
4-Bromofluorobenzene (Surr)	0.8443165	Ave	1.917845	11.446	2.428221E-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	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration:	A9J2806	Instrument:	VOA-GCMS7
		Calibration Date:	10/28/19 15:00

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	3.648532	0.2	3.788669	0.4	3.688943	1	3.70402	2	4.042758	5	4.102439
2-Butanone (MEK)	0.2	0	0.4	0	0.8	0.5428198	2	0.6614525	4	0.7473759	10	0.7766667
Carbon tetrachloride	0.1	0	0.2	0.7362595	0.4	0.7126004	1	0.7895306	2	0.9055437	5	0.9561076
Chlorobenzene	0.1	1.051419	0.2	0.9843234	0.4	0.9535335	1	0.998601	2	1.026842	5	1.008311
Chloroform	0.1	1.545398	0.2	1.687261	0.4	1.568677	1	1.659893	2	1.782656	5	1.738475
1,4-Dichlorobenzene	0.1	1.746298	0.2	1.64475	0.4	1.490221	1	1.449496	2	1.517934	5	1.495713
1,2-Dichloroethane (EDC)	0.1	0	0.2	1.251641	0.4	1.281724	1	1.321766	2	1.474491	5	1.400494
1,1-Dichloroethene	0.1	1.208431	0.2	1.082915	0.4	1.147813	1	1.139042	2	1.19639	5	1.182339
Tetrachloroethene (PCE)	0.1	0.4087794	0.2	0.4312082	0.4	0.3822581	1	0.3803123	2	0.4111083	5	0.4093443
Trichloroethene (TCE)	0.1	1.179382	0.2	1.174948	0.4	1.178102	1	1.116272	2	1.150639	5	1.134836
Vinyl chloride	0.1	0.8366062	0.2	0.9602052	0.4	0.8704247	1	0.9574553	2	1.024823	5	1.021067
1,4-Difluorobenzene (Surr)	50	3.554949	50	3.532303	50	3.513582	50	3.523948	50	3.452805	50	3.389735
Toluene-d8 (Surr)	50	1.296584	50	1.291106	50	1.307175	50	1.305784	50	1.295163	50	1.291052
4-Bromofluorobenzene (Surr)	50	0.8541958	50	0.8431869	50	0.8326677	50	0.8324829	50	0.8219324	50	0.8368039

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: A9J2806
Instrument: VOA-GCMS7
Matrix:
Calibration Date: 10/28/19 15:00

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	4.046922	20	4.040493	50	3.702856	100	3.820292	200	3.9708		
2-Butanone (MEK)	20	0.7819228	40	0.8100795	100	0.7542591	200	0.7615709	400	0.8026888		
Carbon tetrachloride	10	0.9830819	20	1.013194	50	1.006465	100	1.08217	200	~~1.181908~~		
Chlorobenzene	10	0.9799901	20	0.9770285	50	0.8921065	100	0.9101455	200	0.9463727		
Chloroform	10	1.682757	20	1.702189	50	1.545665	100	1.59295	200	1.680757		
1,4-Dichlorobenzene	10	1.421286	20	1.396459	50	1.288965	100	1.315406	200	1.370687		
1,2-Dichloroethane (EDC)	10	1.341815	20	1.340565	50	1.212785	100	1.254037	200	1.325653		
1,1-Dichloroethene	10	1.138998	20	1.167653	50	1.124781	100	1.183727	200	1.235331		
Tetrachloroethene (PCE)	10	0.403159	20	0.3979547	50	0.3713887	100	0.3787743	200	0.3950724		
Trichloroethene (TCE)	10	1.134892	20	1.095253	50	1.038084	100	1.093193	200	1.133417		
Vinyl chloride	10	0.9795551	20	0.9760282	50	1.049403	100	0.9952516	200	1.022696		
1,4-Difluorobenzene (Surr)	50	3.391032	50	3.361232	50	3.353739	50	3.372958	50	3.336935		
Toluene-d8 (Surr)	50	1.295394	50	1.301669	50	1.294086	50	1.309748	50	1.351879		
4-Bromofluorobenzene (Surr)	50	0.8421702	50	0.8369897	50	0.8460535	50	0.8591534	50	0.8818453		

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-GCMS7	Calibration:	A9J2806
Lab File ID:	VG19102529.D		
Sequence:	9J25051	Inject Date:	10/25/19
Lab Sample ID:	9J25051-ICV1	Inject Time:	23:37

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Benzene	20.0	20.4	2.0	70 - 130
2-Butanone (MEK)	40.0	42.4	6.1	70 - 130
Carbon tetrachloride	20.0	21.7	8.6	70 - 130
Chlorobenzene	20.0	19.9	-0.7	70 - 130
Chloroform	20.0	20.1	0.4	70 - 130
1,4-Dichlorobenzene	20.0	19.2	-4.0	70 - 130
1,2-Dichloroethane (EDC)	20.0	20.0	0.05	70 - 130
1,1-Dichloroethene	20.0	20.2	1.0	70 - 130
Tetrachloroethene (PCE)	20.0	20.0	0.2	70 - 130
Trichloroethene (TCE)	20.0	19.8	-0.8	70 - 130
Vinyl chloride	20.0	22.3	11.7	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:	9J25051	Instrument:	VOA-GCMS7
Matrix:	Water	Calibration:	A9J2806

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9J25051-ICV1)				Lab File ID: VG19102529.D		Analyzed: 10/25/19 23:37		
1,4-Difluorobenzene (Surr)	50.0	98	70 - 130	7.453	7.452455	0.0005	+/-1.0	
Toluene-d8 (Surr)	50.0	99	70 - 130	8.995	8.989546	0.0055	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	98	70 - 130	11.446	11.446	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:	9J31024	Instrument:	VOA-GCMS7
Matrix:	Water	Calibration:	A9J2806

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
LCS (9101791-BS1)			Lab File ID: VG19103104.D		Analyzed: 10/31/19 10:31			
1,4-Difluorobenzene (Surr)	50.0	97	80 - 120	7.447	7.452455	-0.0055	+/-1.0	
Toluene-d8 (Surr)	50.0	99	80 - 120	8.989	8.989546	-0.0005	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	100	80 - 120	11.446	11.446	0.0000	+/-1.0	
Blank (9101791-BLK1)			Lab File ID: VG19103105.D		Analyzed: 10/31/19 10:58			
1,4-Difluorobenzene (Surr)	50.0	104	80 - 120	7.447	7.452455	-0.0055	+/-1.0	
Toluene-d8 (Surr)	50.0	99	80 - 120	8.989	8.989546	-0.0005	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	100	80 - 120	11.446	11.446	0.0000	+/-1.0	
PDI-015SC-C-00-8.1-191024 (A9J0950-01RE1)			Lab File ID: VG19103108.D		Analyzed: 10/31/19 12:21			
1,4-Difluorobenzene (Surr)	50.0	104	80 - 120	7.447	7.452455	-0.0055	+/-1.0	
Toluene-d8 (Surr)	50.0	98	80 - 120	8.989	8.989546	-0.0005	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	101	80 - 120	11.446	11.446	0.0000	+/-1.0	
Duplicate (9101791-DUP1)			Lab File ID: VG19103109.D		Analyzed: 10/31/19 12:48			
1,4-Difluorobenzene (Surr)	50.0	103	80 - 120	7.447	7.452455	-0.0055	+/-1.0	
Toluene-d8 (Surr)	50.0	99	80 - 120	8.989	8.989546	-0.0005	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	100	80 - 120	11.446	11.446	0.0000	+/-1.0	
PDI-026SC-C-00-3.9-191024 (A9J0950-02RE1)			Lab File ID: VG19103110.D		Analyzed: 10/31/19 13:15			
1,4-Difluorobenzene (Surr)	50.0	98	80 - 120	7.447	7.452455	-0.0055	+/-1.0	
Toluene-d8 (Surr)	50.0	100	80 - 120	8.989	8.989546	-0.0005	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	100	80 - 120	11.44	11.446	-0.0060	+/-1.0	
PDI-037SC-C-00-12.4-191024 (A9J0950-03)			Lab File ID: VG19103111.D		Analyzed: 10/31/19 13:42			
1,4-Difluorobenzene (Surr)	50.0	100	80 - 120	7.447	7.452455	-0.0055	+/-1.0	
Toluene-d8 (Surr)	50.0	100	80 - 120	8.989	8.989546	-0.0005	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	101	80 - 120	11.446	11.446	0.0000	+/-1.0	
PDI-073SC-C-00-13.7-191024 (A9J0950-04)			Lab File ID: VG19103112.D		Analyzed: 10/31/19 14:09			
1,4-Difluorobenzene (Surr)	50.0	96	80 - 120	7.447	7.452455	-0.0055	+/-1.0	
Toluene-d8 (Surr)	50.0	99	80 - 120	8.989	8.989546	-0.0005	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	101	80 - 120	11.446	11.446	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:	9J31024	Instrument:	VOA-GCMS7
Matrix:	Water	Calibration:	A9J2806

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (9101791-BS1)			Lab File ID: VG19103104.D			Analyzed: 10/31/19 10:31			
Pentafluorobenzene (ISTD)	87110	6.855	87110	6.855	100	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	253385	10.452	253385	10.452	100	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	130177	12.287	130177	12.287	100	50 - 200	0.0000	+/-0.50	
Calibration Check (9J31024-CCV1)			Lab File ID: VG19103104.D			Analyzed: 10/31/19 10:31			
Pentafluorobenzene (ISTD)	87110	6.855	86706	6.861	100	50 - 200	-0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	253385	10.452	253314	10.452	100	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	130177	12.287	128679	12.293	101	50 - 200	-0.0060	+/-0.50	
Blank (9101791-BLK1)			Lab File ID: VG19103105.D			Analyzed: 10/31/19 10:58			
Pentafluorobenzene (ISTD)	81589	6.861	87110	6.855	94	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	251794	10.446	253385	10.452	99	50 - 200	-0.0060	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	124120	12.287	130177	12.287	95	50 - 200	0.0000	+/-0.50	
PDI-015SC-C-00-8.1-191024 (A9J0950-01RE1)			Lab File ID: VG19103108.D			Analyzed: 10/31/19 12:21			
Pentafluorobenzene (ISTD)	85384	6.855	87110	6.855	98	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	268156	10.452	253385	10.452	106	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	137259	12.287	130177	12.287	105	50 - 200	0.0000	+/-0.50	
Duplicate (9101791-DUP1)			Lab File ID: VG19103109.D			Analyzed: 10/31/19 12:48			
Pentafluorobenzene (ISTD)	89196	6.855	87110	6.855	102	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	274382	10.446	253385	10.452	108	50 - 200	-0.0060	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	142527	12.287	130177	12.287	109	50 - 200	0.0000	+/-0.50	
PDI-026SC-C-00-3.9-191024 (A9J0950-02RE1)			Lab File ID: VG19103110.D			Analyzed: 10/31/19 13:15			
Pentafluorobenzene (ISTD)	88414	6.855	87110	6.855	101	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	259635	10.446	253385	10.452	102	50 - 200	-0.0060	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	133723	12.287	130177	12.287	103	50 - 200	0.0000	+/-0.50	
PDI-037SC-C-00-12.4-191024 (A9J0950-03)			Lab File ID: VG19103111.D			Analyzed: 10/31/19 13:42			
Pentafluorobenzene (ISTD)	91459	6.855	87110	6.855	105	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	271400	10.446	253385	10.452	107	50 - 200	-0.0060	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	138421	12.287	130177	12.287	106	50 - 200	0.0000	+/-0.50	
PDI-073SC-C-00-13.7-191024 (A9J0950-04)			Lab File ID: VG19103112.D			Analyzed: 10/31/19 14:09			
Pentafluorobenzene (ISTD)	94103	6.855	87110	6.855	108	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	266286	10.446	253385	10.452	105	50 - 200	-0.0060	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	136069	12.287	130177	12.287	105	50 - 200	0.0000	+/-0.50	
Matrix Spike (9101791-MS1)			Lab File ID: VG19103115.D			Analyzed: 10/31/19 15:30			
Pentafluorobenzene (ISTD)	96054	6.855	87110	6.855	110	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	281273	10.446	253385	10.452	111	50 - 200	-0.0060	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	143088	12.287	130177	12.287	110	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-015SC-C-00-8.1-191024	10/24/19 13:17	10/25/19 14:40	10/31/19 10:58	6.90	14.00	10/31/19 12:21	6.96	14.00	
PDI-026SC-C-00-3.9-191024	10/24/19 09:58	10/25/19 14:40	10/31/19 10:58	7.04	14.00	10/31/19 13:15	7.14	14.00	
PDI-037SC-C-00-12.4-191024	10/24/19 11:36	10/25/19 14:40	10/31/19 10:58	6.97	14.00	10/31/19 13:42	7.09	14.00	
PDI-073SC-C-00-13.7-191024	10/24/19 14:31	10/25/19 14:40	10/31/19 10:58	6.85	14.00	10/31/19 14:09	6.98	14.00	

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GC

METHOD: EPA 8081B

ANALYSES DATA PACKAGE COVER PAGE

EPA 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-015SC-C-00-8.1-191024	A9J0950-01	Sediment
PDI-026SC-C-00-3.9-191024	A9J0950-02	Sediment
PDI-037SC-C-00-12.4-191024	A9J0950-03	Sediment
PDI-073SC-C-00-13.7-191024	A9J0950-04	Sediment

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: 12/17/2019 3:37PM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

EPA 8081B

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
gamma-BHC (Lindane)	0.500	1.00	ug/kg
gamma-BHC (Lindane) [2C]	0.500	1.00	ug/kg
Endrin [2C]	0.500	1.00	ug/kg
Heptachlor	0.500	1.00	ug/kg
Heptachlor [2C]	0.500	1.00	ug/kg
Heptachlor epoxide [2C]	0.500	1.00	ug/kg
Methoxychlor	1.50	3.00	ug/kg
Methoxychlor [2C]	1.50	3.00	ug/kg
Chlordane (Technical) [2C]	15.0	30.0	ug/kg
Toxaphene (Total) [2C]	15.0	30.0	ug/kg

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

ORGANIC ANALYSIS DATA SHEET

EPA 8081B

PDI-015SC-C-00-8.1-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-01RE1	File ID:	ECD5-11051908.D
Sampled:	10/24/19 13:17	Prepared:	10/31/19 15:11	Analyzed:	11/05/19 12:56
Solids:	81.42	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.73 g / 10 mL
Batch:	9110391	Sequence:	9K05039	Calibration:	A9H2608
Instrument:	DUALECD5				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
58-89-9	gamma-BHC (Lindane)	10	11.4	U
72-20-8	Endrin [2C]	10	22.9	U
76-44-8	Heptachlor	10	22.9	U
1024-57-3	Heptachlor epoxide [2C]	10	11.4	U
72-43-5	Methoxychlor [2C]	10	172	U
12789-03-6	Chlordane (Technical) [2C]	10	343	U
8001-35-2	Toxaphene (Total) [2C]	10	343	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	57.2	54.7	96	42 - 129	
Decachlorobiphenyl (Surr)	57.2	65.5	114	55 - 130	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8081B

PDI-026SC-C-00-3.9-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-02RE1	File ID:	ECD5-11051912.D
Sampled:	10/24/19 09:58	Prepared:	10/31/19 15:11	Analyzed:	11/05/19 14:05
Solids:	76.10	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.27 g / 10 mL
Batch:	9110391	Sequence:	9K05039	Calibration:	A9H2608
Instrument:	DUALECD5				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
58-89-9	gamma-BHC (Lindane) [2C]	10	25.6	U
72-20-8	Endrin [2C]	10	34.5	U
76-44-8	Heptachlor	10	30.7	U
1024-57-3	Heptachlor epoxide [2C]	10	28.1	U
72-43-5	Methoxychlor [2C]	10	310	U
12789-03-6	Chlordane (Technical) [2C]	10	384	U
8001-35-2	Toxaphene (Total) [2C]	10	384	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	64.0	67.8	106	42 - 129	
Decachlorobiphenyl (Surr) [2C]	64.0	172	268	55 - 130	*

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8081B

PDI-037SC-C-00-12.4-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-03RE1	File ID:	ECD5-11051914.D
Sampled:	10/24/19 11:36	Prepared:	10/31/19 15:11	Analyzed:	11/05/19 14:40
Solids:	75.83	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.66 g / 10 mL
Batch:	9110391	Sequence:	9K05039	Calibration:	A9H2608
Instrument:	DUALECD5				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
58-89-9	gamma-BHC (Lindane) [2C]	10	12.4	U
72-20-8	Endrin [2C]	10	12.4	U
76-44-8	Heptachlor [2C]	10	24.7	U
1024-57-3	Heptachlor epoxide [2C]	10	12.4	U
72-43-5	Methoxychlor	10	177	U
12789-03-6	Chlordane (Technical) [2C]	10	371	U
8001-35-2	Toxaphene (Total) [2C]	10	371	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	61.9	57.8	93	42 - 129	
Decachlorobiphenyl (Surr)	61.9	78.8	127	55 - 130	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8081B

PDI-073SC-C-00-13.7-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-04RE1	File ID:	ECD5-11051916.D
Sampled:	10/24/19 14:31	Prepared:	10/31/19 15:11	Analyzed:	11/05/19 15:14
Solids:	67.83	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.12 g / 10 mL
Batch:	9110391	Sequence:	9K05039	Calibration:	A9H2608
Instrument:	DUALECD5				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
58-89-9	gamma-BHC (Lindane) [2C]	10	14.6	U
72-20-8	Endrin [2C]	10	29.1	U
76-44-8	Heptachlor	10	29.1	U
1024-57-3	Heptachlor epoxide [2C]	10	14.6	U
72-43-5	Methoxychlor [2C]	10	271	U
12789-03-6	Chlordane (Technical) [2C]	10	437	U
8001-35-2	Toxaphene (Total) [2C]	10	437	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	72.8	68.5	94	42 - 129	
Decachlorobiphenyl (Surr) [2C]	72.8	170	233	55 - 130	*

* Values outside of QC limits

PREPARATION BATCH SUMMARY

EPA 8081B

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9110391 Batch Matrix: Sediment Preparation: EPA 3546/3640A (GPC)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110391-BLK1	ECD5-11051906.D	10/31/19 15:10	
LCS	9110391-BS1	ECD5-11051907.D	10/31/19 15:10	
PDI-015SC-C-00-8.1-191024 (Dup)	9110391-DUP1	ECD5-11051910.D	10/31/19 15:10	
PDI-015SC-C-00-8.1-191024	A9J0950-01RE1	ECD5-11051908.D	10/31/19 15:11	
PDI-026SC-C-00-3.9-191024	A9J0950-02RE1	ECD5-11051912.D	10/31/19 15:11	
PDI-037SC-C-00-12.4-191024	A9J0950-03RE1	ECD5-11051914.D	10/31/19 15:11	
PDI-073SC-C-00-13.7-191024	A9J0950-04RE1	ECD5-11051916.D	10/31/19 15:11	

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 8081B

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	9110391-BLK1	File ID:	ECD5-11051906.D
Prepared:	10/31/19 15:10	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	11 g / 10 mL
Analyzed:	11/05/19 12:22	Instrument:	DUALECD5		
Batch:	9110391	Sequence:	9K05039	Calibration:	A9H2608

CAS NO.	COMPOUND	CONC. (ug/kg wet)	Q
58-89-9	gamma-BHC (Lindane) [2C]	0.909	U
72-20-8	Endrin [2C]	0.909	U
76-44-8	Heptachlor [2C]	0.909	U
1024-57-3	Heptachlor epoxide [2C]	0.909	U
72-43-5	Methoxychlor [2C]	2.73	U
12789-03-6	Chlordane (Technical) [2C]	27.3	U
8001-35-2	Toxaphene (Total) [2C]	27.3	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg wet)	CONC (ug/kg wet)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	45.5	29.5	65	42 - 129	
Decachlorobiphenyl (Surr) [2C]	45.5	45.3	100	55 - 130	

LCS / LCS DUPLICATE RECOVERY

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment		
Batch:	9110391	Laboratory ID:	9110391-BS1
Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10 g / 10 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	LCS % REC. (*=Out)	QC LIMITS REC.
gamma-BHC (Lindane) [2C]	50.0	27.2	54	49 - 135
Endrin [2C]	50.0	47.2	94	56 - 140
Heptachlor [2C]	50.0	30.5	61	47 - 136
Heptachlor epoxide [2C]	50.0	33.6	67	52 - 136
Methoxychlor [2C]	50.0	59.8	120	52 - 143

* = Values outside of QC limits

PDI-015SC-C-00-8.1-191024

DUPLICATES

EPA 8081B

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Sediment
Batch: 9110391
Preparation: EPA 3546/3640A (GPC)
Source Sample Name: PDI-015SC-C-00-8.1-191024

SDG: Gasco_PreRD_DG 2019
Project: Gasco_PreRD_DG 2019 - 4c. Waste Charact
Laboratory ID: 9110391-DUP1
Lab Source ID: A9J0950-01RE1
Initial/Final: 10.86 g / 10 mL
% Solids: 81.42

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (ug/kg dry)	C	DUPLICATE CONCENTRATION (ug/kg dry)	C	RPD %	Q	METHOD
gamma-BHC (Lindane)	30	9.57		ND				EPA 8081B
Endrin [2C]	30	12.7		ND				EPA 8081B
Heptachlor	30	16.1		ND				EPA 8081B
Heptachlor epoxide [2C]	30	6.97		ND				EPA 8081B
Methoxychlor [2C]	30	171		ND				EPA 8081B
Chlordane (Technical) [2C]	30	0.00		ND				EPA 8081B
Toxaphene (Total) [2C]	30	0.00		ND				EPA 8081B

* Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 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:	Sediment	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

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K05039	Instrument:	DUALECD5
Matrix:	Sediment	Calibration:	A9H2608

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	9K05039-CCV1	ECD5-11051904.D	11/05/19 11:48
Calibration Blank	9K05039-CCB1	ECD5-11051905.D	11/05/19 12:05
Blank	9110391-BLK1	ECD5-11051906.D	11/05/19 12:22
LCS	9110391-BS1	ECD5-11051907.D	11/05/19 12:39
PDI-015SC-C-00-8.1-191024	A9J0950-01RE1	ECD5-11051908.D	11/05/19 12:56
PDI-015SC-C-00-8.1-191024 (Dup)	9110391-DUP1	ECD5-11051910.D	11/05/19 13:31
PDI-026SC-C-00-3.9-191024	A9J0950-02RE1	ECD5-11051912.D	11/05/19 14:05
PDI-037SC-C-00-12.4-191024	A9J0950-03RE1	ECD5-11051914.D	11/05/19 14:40
PDI-073SC-C-00-13.7-191024	A9J0950-04RE1	ECD5-11051916.D	11/05/19 15:14
Calibration Check	9K05039-CCV2	ECD5-11051918.D	11/05/19 15:49
Calibration Blank	9K05039-CCB2	ECD5-11051919.D	11/05/19 16:06
Calibration Check	9K05039-CCV3	ECD5-11051932.D	11/05/19 19:49
Calibration Blank	9K05039-CCB3	ECD5-11051933.D	11/05/19 20:06

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 (Summary)

EPA 8081B

Laboratory: Apex Laboratories SDG: Gasco_PreRD_DG 2019

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

Calibration: A9H2608 Date: 08/26/19 15:54 Instrument: DUALECD5

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
gamma-BHC (Lindane)	201777.1	Ave	2.759589	6.219125	2.289669E-02			20	
gamma-BHC (Lindane) [2C]	356703.9	Ave	5.794449	6.914375	4.626364E-03			20	
Endrin [2C]	225826.9	Ave	7.319878	8.71675	1.794047E-02			20	
Heptachlor	181296.6	Ave	3.856527	6.63325	2.886962E-02			20	
Heptachlor [2C]	305977.1	Ave	6.975914	7.29025	0.0138367			20	
Heptachlor epoxide [2C]	300848.3	Ave	4.39584	7.992625	1.285247E-02			20	
Methoxychlor	58574.27	Ave	9.334908	8.540625	2.187408E-02			20	
Methoxychlor [2C]	92733.75	XXX	12.08833	9.464375	0.0181623				
2,4,5,6-TCMX (Surr) [2C]	293366.8	Ave	3.539338	5.98975	1.128579E-02			20	
Decachlorobiphenyl (Surr)	141098.6	Ave	8.332442	9.5925	1.576214E-03			20	

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

EPA 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
Aldrin	1	205523	2	199775	5	202546.6	10	201080.2	25	193814.2	50	186553.4
Aldrin [2C]	1	317466	2	317729	5	320199	10	334109.3	25	315143	50	325288.4
alpha-BHC	1	231994	2	229182.5	5	229586.4	10	234706.5	25	222123.8	50	227391.8
alpha-BHC [2C]	1	393119	2	392293	5	397087.6	10	409589	25	396434.5	50	405316.4
beta-BHC	1	104326	2	97084	5	91390.8	10	91087.5	25	82415.12	50	82017.16
beta-BHC [2C]	1	176262	2	167630	5	157726	10	158084.7	25	147086.2	50	150320.2
delta-BHC	1	199840	2	193490	5	200802.4	10	200649.3	25	186686.6	50	192214.8
delta-BHC [2C]	1	349123	2	334561	5	343490	10	361351.7	25	329911	50	346225.2
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
cis-Chlordane	1	209780	2	194999.5	5	181759	10	184334.6	25	169776.5	50	172453.5
cis-Chlordane [2C]	1	299422	2	289833.5	5	286971	10	285957.3	25	277434.3	50	280042.4
trans-Chlordane	1	197202	2	191135.5	5	185315.4	10	184799.6	25	176058.2	50	179186.1
trans-Chlordane [2C]	1	364142	2	322227	5	300423.8	10	300278.2	25	286299.2	50	293574.4
4,4'-DDD	1	164956	2	157311	5	158099.6	10	156597.4	25	149081.4	50	154523.9
4,4'-DDD [2C]	1	251549	2	244060	5	241728.4	10	242549.6	25	245858.8	50	263189
4,4'-DDE	1	193435	2	194309	5	190670.2	10	189093.1	25	182842.6	50	183547.8

INITIAL CALIBRATION DATA

EPA 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
4,4'-DDE [2C]	1	298463	2	299033	5	297599.8	10	304979.2	25	300041.9	50	311094.2
4,4'-DDT	1	113897	2	109095	5	110601.8	10	114655.6	25	116978.7	50	124107.4
4,4'-DDT [2C]	1	179700	2	170891	5	174730.6	10	184111.9	25	179215.5	50	185709.8
Dieldrin	1	197721	2	197864	5	194401.8	10	195489	25	183292.2	50	187733.3
Dieldrin [2C]	1	296684	2	291906	5	292507.6	10	289886.6	25	293355.6	50	308682.2
Endosulfan I	1	185217	2	178684	5	172301.8	10	170933.2	25	164451.4	50	159688.2
Endosulfan I [2C]	1	278874	2	270221	5	265438.2	10	272427.2	25	262860.5	50	274246.6
Endosulfan II	1	158139	2	149553	5	141908.8	10	144808	25	134874.6	50	136818.4
Endosulfan II [2C]	1	232156	2	231128	5	219271.8	10	224361	25	217904.1	50	230690.6
Endosulfan sulfate	1	176097	2	161081.5	5	153759.6	10	155354	25	145816.4	50	148411.5
Endosulfan sulfate [2C]	1	265797	2	249383.5	5	235181.6	10	242458.4	25	239156.2	50	242985.8
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
Endrin Aldehyde	1	241285	2	164091	5	136678.6	10	137512.9	25	124790.7	50	124489
Endrin Aldehyde [2C]	1	348624	2	238847	5	209173.8	10	212502.8	25	193940.2	50	204180.6
Endrin ketone	1	177552	2	165634.5	5	162276.8	10	166438	25	160358.3	50	163814.1
Endrin ketone [2C]	1	255763	2	246555	5	241000.8	10	249698.5	25	235747.6	50	259091.4
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)

EPA 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								
Aldrin	100	191080.7	200	199192								
Aldrin [2C]	100	339064.2	200	366140.9								
alpha-BHC	100	223635.8	200	236011.2								
alpha-BHC [2C]	100	416992.1	200	471883.8								
beta-BHC	100	83554.16	200	91193.5								
beta-BHC [2C]	100	146251.8	200	162767.2								
delta-BHC	100	194755.8	200	205083								
delta-BHC [2C]	100	351766.3	200	404898.8								
gamma-BHC (Lindane)	100	195950.9	200	209448.6								
gamma-BHC (Lindane) [2C]	100	367889.9	200	403828.4								
cis-Chlordane	100	167425.8	200	176039.7								
cis-Chlordane [2C]	100	290428.6	200	319885.3								
trans-Chlordane	100	177327.9	200	188107								
trans-Chlordane [2C]	100	307422.7	200	332239.8								
4,4'-DDD	100	154371.5	200	162184								
4,4'-DDD [2C]	100	262974.8	200	297801.4								
4,4'-DDE	100	180525.5	200	193815.4								

INITIAL CALIBRATION DATA (Continued)

EPA 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
4,4'-DDE [2C]	100	324996	200	349211.8								
4,4'-DDT	100	121769.6	200	145376.1								
4,4'-DDT [2C]	100	197895	200	241017.2								
Dieldrin	100	183244.2	200	196088.8								
Dieldrin [2C]	100	310019.6	200	350158.9								
Endosulfan I	100	160900	200	169263								
Endosulfan I [2C]	100	272127.1	200	305217.6								
Endosulfan II	100	135435	200	147355.2								
Endosulfan II [2C]	100	230163.7	200	259174.4								
Endosulfan sulfate	100	143667.9	200	155632.6								
Endosulfan sulfate [2C]	100	244773.2	200	272964								
Endrin	100	138127.1	200	157131.5								
Endrin [2C]	100	231024.1	200	263897.9								
Endrin Aldehyde	100	123638.1	200	133138.3								
Endrin Aldehyde [2C]	100	205027.4	200	225422.7								
Endrin ketone	100	162519.4	200	175473.6								
Endrin ketone [2C]	100	266365.6	200	304306.9								
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)

EPA 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~~
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

EPA 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
Aldrin	50.0	52.8	5.5	70 - 130
Aldrin [2C]	50.0	53.9	7.7	70 - 130
alpha-BHC	50.0	51.1	2.1	70 - 130
alpha-BHC [2C]	50.0	52.4	4.8	70 - 130
beta-BHC	50.0	48.8	-2.4	70 - 130
beta-BHC [2C]	50.0	50.1	0.2	70 - 130
delta-BHC	50.0	51.7	3.3	70 - 130
delta-BHC [2C]	50.0	52.6	5.3	70 - 130
gamma-BHC (Lindane)	50.0	51.4	2.8	70 - 130
gamma-BHC (Lindane) [2C]	50.0	52.7	5.5	70 - 130
cis-Chlordane	50.0	48.8	-2.3	70 - 130
cis-Chlordane [2C]	50.0	51.6	3.3	70 - 130
trans-Chlordane	50.0	51.1	2.2	70 - 130
trans-Chlordane [2C]	50.0	50.7	1.4	70 - 130
4,4'-DDD	50.0	51.2	2.4	70 - 130
4,4'-DDD [2C]	50.0	55.1	10.2	70 - 130
4,4'-DDE	50.0	51.3	2.6	70 - 130
4,4'-DDE [2C]	50.0	52.7	5.3	70 - 130
4,4'-DDT	50.0	53.8	7.5	70 - 130
4,4'-DDT [2C]	50.0	54.1	8.2	70 - 130
Dieldrin	50.0	49.8	-0.3	70 - 130
Dieldrin [2C]	50.0	51.8	3.6	70 - 130
Endosulfan I	50.0	49.7	-0.6	70 - 130
Endosulfan I [2C]	50.0	51.0	2.1	70 - 130
Endosulfan II	50.0	53.2	6.4	70 - 130
Endosulfan II [2C]	50.0	53.4	6.7	70 - 130
Endosulfan sulfate	50.0	51.8	3.5	70 - 130
Endosulfan sulfate [2C]	50.0	52.0	3.9	70 - 130
Endrin	50.0	52.7	5.4	70 - 130
Endrin [2C]	50.0	53.1	6.3	70 - 130
Endrin Aldehyde	50.0	60.7	21.3	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 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
Endrin Aldehyde [2C]	50.0	61.1	22.3	70 - 130
Endrin ketone	50.0	53.4	6.7	70 - 130
Endrin ketone [2C]	50.0	54.2	8.5	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

EPA 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

EPA 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

EPA 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:	ECD5-11051904.D	Calibration Date:	08/26/19 15:54
Sequence:	9K05039	Injection Date:	11/05/19
Lab Sample ID:	9K05039-CCV1	Injection Time:	11:48

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Aldrin	Ave	50.0	54.2		197445.6	213943.4	8.4	20
Aldrin [2C]	Ave	50.0	56.2		329392.5	370541.6	12.5	20
alpha-BHC	Ave	50.0	50.8		229329	233223.8	1.7	20
alpha-BHC [2C]	Ave	50.0	52.1		410339.4	427749.2	4.2	20
beta-BHC	Ave	50.0	39.6		90383.53	71511.74	-20.9*	20
beta-BHC [2C]	Ave	50.0	43.4		158266	137336.8	-13.2	20
delta-BHC	Ave	50.0	40.5		196690.2	159270.6	-19.0	20
delta-BHC [2C]	Ave	50.0	46.3		352665.9	326506.8	-7.4	20
gamma-BHC (Lindane)	Ave	50.0	47.7		201777.1	192366	-4.7	20
gamma-BHC (Lindane) [2C]	Ave	50.0	51.8		356703.9	369369	3.6	20
cis-Chlordane	Ave	50.0	50.7		182071.1	184659.2	1.4	20
cis-Chlordane [2C]	Ave	50.0	54.1		291246.8	315148.4	8.2	20
trans-Chlordane	Ave	50.0	49.8		184891.5	184227.8	-0.4	20
trans-Chlordane [2C]	Ave	50.0	52.5		313325.9	329115.2	5.0	20
4,4'-DDD	Ave	50.0	42.1		157140.6	132449.8	-15.7	20
4,4'-DDD [2C]	Ave	50.0	46.6		256213.9	239026.8	-6.7	20
4,4'-DDE	Ave	50.0	43.7		188529.8	164599.9	-12.7	20
4,4'-DDE [2C]	Ave	50.0	44.3		310677.4	275070.4	-11.5	20
4,4'-DDT	Ave	50.0	48.0		119560.1	114665.6	-4.1	20
4,4'-DDT [2C]	XXX	50.0	50.4	0.8				20
Dieldrin	Ave	50.0	53.0		191979.3	203413.2	6.0	20
Dieldrin [2C]	Ave	50.0	55.1		304150.1	335045.2	10.2	20
Endosulfan I	Ave	50.0	55.5		170179.8	188844.6	11.0	20
Endosulfan I [2C]	Ave	50.0	53.4		275176.5	293648.4	6.7	20
Endosulfan II	Ave	50.0	50.1		143611.5	143982.4	0.3	20
Endosulfan II [2C]	Ave	50.0	53.3		230606.2	245665.4	6.5	20
Endosulfan sulfate	Ave	50.0	50.0		154977.6	154966.8	-0.007	20
Endosulfan sulfate [2C]	Ave	50.0	51.1		249087.5	254378.8	2.1	20
Endrin	Ave	50.0	54.1		147027.1	158941.7	8.1	20
Endrin [2C]	Ave	50.0	56.3		225826.9	254245.2	12.6	20

CONTINUING CALIBRATION CHECK

EPA 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:	ECD5-11051904.D	Calibration Date:	08/26/19 15:54
Sequence:	9K05039	Injection Date:	11/05/19
Lab Sample ID:	9K05039-CCV1	Injection Time:	11:48

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Endrin Aldehyde	XXX	50.0	51.2	2.5				20
Endrin Aldehyde [2C]	XXX	50.0	53.4	6.8				20
Endrin ketone	Ave	50.0	50.7		166758.3	168951.4	1.3	20
Endrin ketone [2C]	Ave	50.0	53.5		257316.1	275214.2	7.0	20
Heptachlor	Ave	50.0	54.7		181296.6	198254.6	9.4	20
Heptachlor [2C]	Ave	50.0	58.3		305977.1	356743.8	16.6	20
Heptachlor epoxide	Ave	50.0	49.1		184178.6	180699.7	-1.9	20
Heptachlor epoxide [2C]	Ave	50.0	53.6		300848.3	322380.6	7.2	20
Methoxychlor	Ave	50.0	47.3		58574.27	55379.28	-5.5	20
Methoxychlor [2C]	XXX	50.0	50.9	1.8				20

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

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA 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:	ECD5-11051918.D	Calibration Date:	08/26/19 15:54
Sequence:	9K05039	Injection Date:	11/05/19
Lab Sample ID:	9K05039-CCV2	Injection Time:	15:49

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Aldrin	Ave	100	106		197445.6	208925.4	5.8	20
Aldrin [2C]	Ave	100	115		329392.5	379592.4	15.2	20
alpha-BHC	Ave	100	106		229329	242924.3	5.9	20
alpha-BHC [2C]	Ave	100	110		410339.4	450616.4	9.8	20
beta-BHC	Ave	100	73.4		90383.53	66301.86	-26.6*	20
beta-BHC [2C]	Ave	100	90.4		158266	142995.6	-9.6	20
delta-BHC	Ave	100	84.6		196690.2	166403.4	-15.4	20
delta-BHC [2C]	Ave	100	98.2		352665.9	346305	-1.8	20
gamma-BHC (Lindane)	Ave	100	99.2		201777.1	200185.5	-0.8	20
gamma-BHC (Lindane) [2C]	Ave	100	109		356703.9	390321.9	9.4	20
cis-Chlordane	Ave	100	102		182071.1	185415.8	1.8	20
cis-Chlordane [2C]	Ave	100	108		291246.8	313860.3	7.8	20
trans-Chlordane	Ave	100	95.8		184891.5	177207.2	-4.2	20
trans-Chlordane [2C]	Ave	100	106		313325.9	331425.1	5.8	20
4,4'-DDD	Ave	100	83.5		157140.6	131145.1	-16.5	20
4,4'-DDD [2C]	Ave	100	99.9		256213.9	255968.3	-0.1	20
4,4'-DDE	Ave	100	87.4		188529.8	164772.5	-12.6	20
4,4'-DDE [2C]	Ave	100	97.4		310677.4	302619.7	-2.6	20
4,4'-DDT	Ave	100	112		119560.1	134436.2	12.4	20
4,4'-DDT [2C]	XXX	100	114	13.8				20
Dieldrin	Ave	100	106		191979.3	204092.8	6.3	20
Dieldrin [2C]	Ave	100	115		304150.1	348324.8	14.5	20
Endosulfan I	Ave	100	110		170179.8	187085.4	9.9	20
Endosulfan I [2C]	Ave	100	106		275176.5	292668	6.4	20
Endosulfan II	Ave	100	103		143611.5	147601	2.8	20
Endosulfan II [2C]	Ave	100	110		230606.2	254505.6	10.4	20
Endosulfan sulfate	Ave	100	102		154977.6	157923.3	1.9	20
Endosulfan sulfate [2C]	Ave	100	109		249087.5	271844.4	9.1	20
Endrin	Ave	100	115		147027.1	169699.9	15.4	20
Endrin [2C]	Ave	100	122		225826.9	275344.9	21.9*	20

CONTINUING CALIBRATION CHECK

EPA 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:	ECD5-11051918.D	Calibration Date:	08/26/19 15:54
Sequence:	9K05039	Injection Date:	11/05/19
Lab Sample ID:	9K05039-CCV2	Injection Time:	15:49

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Endrin Aldehyde	XXX	100	100	0.3				20
Endrin Aldehyde [2C]	XXX	100	105	5.5				20
Endrin ketone	Ave	100	107		166758.3	177809.4	6.6	20
Endrin ketone [2C]	Ave	100	116		257316.1	299229.7	16.3	20
Heptachlor	Ave	100	116		181296.6	209932.4	15.8	20
Heptachlor [2C]	Ave	100	125		305977.1	383832.8	25.4*	20
Heptachlor epoxide	Ave	100	99.1		184178.6	182543.4	-0.9	20
Heptachlor epoxide [2C]	Ave	100	109		300848.3	327209.4	8.8	20
Methoxychlor	Ave	100	113		58574.27	66084.43	12.8	20
Methoxychlor [2C]	XXX	100	113	12.9				20

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

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA 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:	ECD5-11051932.D	Calibration Date:	08/26/19 15:54
Sequence:	9K05039	Injection Date:	11/05/19
Lab Sample ID:	9K05039-CCV3	Injection Time:	19:49

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Aldrin	Ave	50.0	53.7		197445.6	211891	7.3	20
Aldrin [2C]	Ave	50.0	54.5		329392.5	359085	9.0	20
alpha-BHC	Ave	50.0	51.5		229329	236334	3.1	20
alpha-BHC [2C]	Ave	50.0	50.2		410339.4	411850.4	0.4	20
beta-BHC	Ave	50.0	38.6		90383.53	69764.54	-22.8*	20
beta-BHC [2C]	Ave	50.0	42.4		158266	134075.9	-15.3	20
delta-BHC	Ave	50.0	39.1		196690.2	153758.8	-21.8*	20
delta-BHC [2C]	Ave	50.0	44.5		352665.9	314064	-10.9	20
gamma-BHC (Lindane)	Ave	50.0	48.6		201777.1	196107.6	-2.8	20
gamma-BHC (Lindane) [2C]	Ave	50.0	51.7		356703.9	368530.4	3.3	20
cis-Chlordane	Ave	50.0	50.1		182071.1	182549.2	0.3	20
cis-Chlordane [2C]	Ave	50.0	51.9		291246.8	302074.8	3.7	20
trans-Chlordane	Ave	50.0	48.6		184891.5	179589	-2.9	20
trans-Chlordane [2C]	Ave	50.0	49.7		313325.9	311182.4	-0.7	20
4,4'-DDD	Ave	50.0	38.6		157140.6	121276.3	-22.8*	20
4,4'-DDD [2C]	Ave	50.0	44.9		256213.9	230330.2	-10.1	20
4,4'-DDE	Ave	50.0	40.8		188529.8	153879.8	-18.4	20
4,4'-DDE [2C]	Ave	50.0	44.3		310677.4	275207.6	-11.4	20
4,4'-DDT	Ave	50.0	50.3		119560.1	120192.8	0.5	20
4,4'-DDT [2C]	XXX	50.0	53.5	7.1				20
Dieldrin	Ave	50.0	52.0		191979.3	199614.4	4.0	20
Dieldrin [2C]	Ave	50.0	54.8		304150.1	333422	9.6	20
Endosulfan I	Ave	50.0	55.8		170179.8	189899.6	11.6	20
Endosulfan I [2C]	Ave	50.0	50.5		275176.5	277797.2	1.0	20
Endosulfan II	Ave	50.0	49.1		143611.5	141029.4	-1.8	20
Endosulfan II [2C]	Ave	50.0	50.4		230606.2	232404.6	0.8	20
Endosulfan sulfate	Ave	50.0	48.2		154977.6	149551.4	-3.5	20
Endosulfan sulfate [2C]	Ave	50.0	50.8		249087.5	252977.8	1.6	20
Endrin	Ave	50.0	54.9		147027.1	161505.6	9.8	20
Endrin [2C]	Ave	50.0	56.6		225826.9	255408.2	13.1	20

CONTINUING CALIBRATION CHECK

EPA 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:	ECD5-11051932.D	Calibration Date:	08/26/19 15:54
Sequence:	9K05039	Injection Date:	11/05/19
Lab Sample ID:	9K05039-CCV3	Injection Time:	19:49

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Endrin Aldehyde	XXX	50.0	50.1	0.1				20
Endrin Aldehyde [2C]	XXX	50.0	52.7	5.4				20
Endrin ketone	Ave	50.0	49.7		166758.3	165661.1	-0.7	20
Endrin ketone [2C]	Ave	50.0	54.2		257316.1	279048.2	8.4	20
Heptachlor	Ave	50.0	55.5		181296.6	201147.6	10.9	20
Heptachlor [2C]	Ave	50.0	59.5		305977.1	363959.6	18.9	20
Heptachlor epoxide	Ave	50.0	49.5		184178.6	182472.7	-0.9	20
Heptachlor epoxide [2C]	Ave	50.0	51.2		300848.3	307896.2	2.3	20
Methoxychlor	Ave	50.0	47.7		58574.27	55912.48	-4.5	20
Methoxychlor [2C]	XXX	50.0	53.5	6.9				20

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

* = Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 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:	Sediment	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

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K05039	Instrument:	DUALECD5
Matrix:	Sediment	Calibration:	A9H2608

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9K05039-CCV1)				Lab File ID: ECD5-11051904.D		Analyzed: 11/05/19 11:48		
2,4,5,6-TCMX (Surr)	50.0	100	80 - 120	5.13	5.39525	-0.2653	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	50.0	88	80 - 120	5.727	5.98975	-0.2628	+/-1.0	
Decachlorobiphenyl (Surr)	50.0	95	80 - 120	9.319	9.5925	-0.2735	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	50.0	112	80 - 120	10.236	10.54062	-0.3046	+/-1.0	
Calibration Blank (9K05039-CCB1)				Lab File ID: ECD5-11051905.D		Analyzed: 11/05/19 12:05		
2,4,5,6-TCMX (Surr) [2C]	100	82	42 - 129	5.726	5.98975	-0.2638	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	101	55 - 130	10.236	10.54062	-0.3046	+/-1.0	
Blank (9110391-BLK1)				Lab File ID: ECD5-11051906.D		Analyzed: 11/05/19 12:22		
2,4,5,6-TCMX (Surr) [2C]	45.5	65	42 - 129	5.725	5.98975	-0.2648	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	45.5	100	55 - 130	10.234	10.54062	-0.3066	+/-1.0	
LCS (9110391-BS1)				Lab File ID: ECD5-11051907.D		Analyzed: 11/05/19 12:39		
2,4,5,6-TCMX (Surr) [2C]	50.0	50	42 - 129	5.725	5.98975	-0.2648	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	50.0	98	55 - 130	10.233	10.54062	-0.3076	+/-1.0	
PDI-015SC-C-00-8.1-191024 (A9J0950-01RE1)				Lab File ID: ECD5-11051908.D		Analyzed: 11/05/19 12:56		
2,4,5,6-TCMX (Surr) [2C]	57.2	96	42 - 129	5.725	5.98975	-0.2648	+/-1.0	
Decachlorobiphenyl (Surr)	57.2	114	55 - 130	9.314	9.5925	-0.2785	+/-1.0	
Duplicate (9110391-DUP1)				Lab File ID: ECD5-11051910.D		Analyzed: 11/05/19 13:31		
2,4,5,6-TCMX (Surr) [2C]	56.5	101	42 - 129	5.726	5.98975	-0.2638	+/-1.0	
Decachlorobiphenyl (Surr)	56.5	124	55 - 130	9.314	9.5925	-0.2785	+/-1.0	
PDI-026SC-C-00-3.9-191024 (A9J0950-02RE1)				Lab File ID: ECD5-11051912.D		Analyzed: 11/05/19 14:05		
2,4,5,6-TCMX (Surr) [2C]	64.0	106	42 - 129	5.725	5.98975	-0.2648	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	64.0	268	55 - 130	10.231	10.54062	-0.3096	+/-1.0	*
PDI-037SC-C-00-12.4-191024 (A9J0950-03RE1)				Lab File ID: ECD5-11051914.D		Analyzed: 11/05/19 14:40		
2,4,5,6-TCMX (Surr) [2C]	61.9	93	42 - 129	5.724	5.98975	-0.2658	+/-1.0	
Decachlorobiphenyl (Surr)	61.9	127	55 - 130	9.313	9.5925	-0.2795	+/-1.0	
PDI-073SC-C-00-13.7-191024 (A9J0950-04RE1)				Lab File ID: ECD5-11051916.D		Analyzed: 11/05/19 15:14		
2,4,5,6-TCMX (Surr) [2C]	72.8	94	42 - 129	5.727	5.98975	-0.2628	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	72.8	233	55 - 130	10.232	10.54062	-0.3086	+/-1.0	*
Calibration Check (9K05039-CCV2)				Lab File ID: ECD5-11051918.D		Analyzed: 11/05/19 15:49		
2,4,5,6-TCMX (Surr)	100	99	80 - 120	5.128	5.39525	-0.2673	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	100	91	80 - 120	5.726	5.98975	-0.2638	+/-1.0	
Decachlorobiphenyl (Surr)	100	98	80 - 120	9.317	9.5925	-0.2755	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	115	80 - 120	10.234	10.54062	-0.3066	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K05039	Instrument:	DUALECD5
Matrix:	Sediment	Calibration:	A9H2608

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Blank (9K05039-CCB2)			Lab File ID: ECD5-11051919.D		Analyzed: 11/05/19 16:06			
2,4,5,6-TCMX (Surr) [2C]	100	81	42 - 129	5.725	5.98975	-0.2648	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	97	55 - 130	10.235	10.54062	-0.3056	+/-1.0	
Calibration Check (9K05039-CCV3)			Lab File ID: ECD5-11051932.D		Analyzed: 11/05/19 19:49			
2,4,5,6-TCMX (Surr)	50.0	100	80 - 120	5.128	5.39525	-0.2673	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	50.0	86	80 - 120	5.725	5.98975	-0.2648	+/-1.0	
Decachlorobiphenyl (Surr)	50.0	94	80 - 120	9.318	9.5925	-0.2745	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	50.0	112	80 - 120	10.235	10.54062	-0.3056	+/-1.0	
Calibration Blank (9K05039-CCB3)			Lab File ID: ECD5-11051933.D		Analyzed: 11/05/19 20:06			
2,4,5,6-TCMX (Surr) [2C]	100	86	42 - 129	5.724	5.98975	-0.2658	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	107	55 - 130	10.235	10.54062	-0.3056	+/-1.0	

HOLDING TIME SUMMARY

EPA 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-015SC-C-00-8.1-191024	10/24/19 13:17	10/25/19 14:40	10/31/19 15:11	7.08	14.00	11/05/19 12:56	4.91	40.00	
PDI-026SC-C-00-3.9-191024	10/24/19 09:58	10/25/19 14:40	10/31/19 15:11	7.22	14.00	11/05/19 14:05	4.95	40.00	
PDI-037SC-C-00-12.4-191024	10/24/19 11:36	10/25/19 14:40	10/31/19 15:11	7.15	14.00	11/05/19 14:40	4.98	40.00	
PDI-073SC-C-00-13.7-191024	10/24/19 14:31	10/25/19 14:40	10/31/19 15:11	7.03	14.00	11/05/19 15:14	5.00	40.00	

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GC

METHOD: 1311/8081B

ANALYSES DATA PACKAGE COVER PAGE

1311/8081B

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

Client Sample Id:	Lab Sample Id:	Matrix
PDI-015SC-C-00-8.1-191024	A9J0950-01	Sediment
PDI-026SC-C-00-3.9-191024	A9J0950-02	Sediment
PDI-037SC-C-00-12.4-191024	A9J0950-03	Sediment
PDI-073SC-C-00-13.7-191024	A9J0950-04	Sediment

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: 12/17/2019 3:37PM
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: Sediment

Analyte	MDL	MRL	Units
gamma-BHC (Lindane)	0.0000750	0.000150	mg/L
gamma-BHC (Lindane) [2C]	0.0000750	0.000150	mg/L
Endrin [2C]	0.0000750	0.000150	mg/L
Heptachlor	0.0000750	0.000150	mg/L
Heptachlor [2C]	0.0000750	0.000150	mg/L
Heptachlor epoxide [2C]	0.0000750	0.000150	mg/L
Methoxychlor	0.000200	0.000400	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-015SC-C-00-8.1-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-01	File ID:	ECD5-11071910.D
Sampled:	10/24/19 13:17	Prepared:	11/06/19 10:25	Analyzed:	11/07/19 13:58
Solids:	81.42	Preparation:	EPA 1311/3510C (Neutral E	Initial/Final:	200 mL / 5 mL
Batch:	9110516	Sequence:	9K07024	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	0.00201	80	25 - 140	
Decachlorobiphenyl (Surr) [2C]	0.00250	0.00259	104	30 - 135	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

1311/8081B

PDI-026SC-C-00-3.9-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-02	File ID:	ECD5-11071911.D
Sampled:	10/24/19 09:58	Prepared:	11/06/19 10:25	Analyzed:	11/07/19 14:15
Solids:	76.10	Preparation:	EPA 1311/3510C (Neutral E	Initial/Final:	200 mL / 5 mL
Batch:	9110516	Sequence:	9K07024	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	0.00186	74	25 - 140	
Decachlorobiphenyl (Surr) [2C]	0.00250	0.00227	91	30 - 135	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

1311/8081B

PDI-037SC-C-00-12.4-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-03	File ID:	ECD5-11071912.D
Sampled:	10/24/19 11:36	Prepared:	11/06/19 10:25	Analyzed:	11/07/19 14:33
Solids:	75.83	Preparation:	EPA 1311/3510C (Neutral E	Initial/Final:	200 mL / 5 mL
Batch:	9110516	Sequence:	9K07024	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	0.00200	80	25 - 140	
Decachlorobiphenyl (Surr) [2C]	0.00250	0.00261	104	30 - 135	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

1311/8081B

PDI-073SC-C-00-13.7-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-04	File ID:	ECD5-11071913.D
Sampled:	10/24/19 14:31	Prepared:	11/06/19 10:25	Analyzed:	11/07/19 14:50
Solids:	67.83	Preparation:	EPA 1311/3510C (Neutral E	Initial/Final:	200 mL / 5 mL
Batch:	9110516	Sequence:	9K07024	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	0.00211	84	25 - 140	
Decachlorobiphenyl (Surr) [2C]	0.00250	0.00256	102	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: 9110516 Batch Matrix: Sediment Preparation: EPA 1311/3510C (Neutral Ext.)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110516-BLK1	ECD5-11071907.D	11/06/19 10:25	
LCS	9110516-BS1	ECD5-11071908.D	11/06/19 10:25	
LCS Dup	9110516-BSD1	ECD5-11071909.D	11/06/19 10:26	
PDI-015SC-C-00-8.1-191024	A9J0950-01	ECD5-11071910.D	11/06/19 10:25	
PDI-026SC-C-00-3.9-191024	A9J0950-02	ECD5-11071911.D	11/06/19 10:25	
PDI-037SC-C-00-12.4-191024	A9J0950-03	ECD5-11071912.D	11/06/19 10:25	
PDI-073SC-C-00-13.7-191024	A9J0950-04	ECD5-11071913.D	11/06/19 10:25	

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:	Sediment	Laboratory ID:	9110516-BLK1	File ID:	ECD5-11071907.D
Prepared:	11/06/19 10:25	Preparation:	EPA 1311/3510C (Neutral E	Initial/Final:	200 mL / 5 mL
Analyzed:	11/07/19 13:07	Instrument:	DUALECD5		
Batch:	9110516	Sequence:	9K07024	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	0.00209	84	25 - 140	
Decachlorobiphenyl (Surr) [2C]	0.00250	0.00257	103	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:	Sediment		
Batch:	9110516	Laboratory ID:	9110516-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	0.00251	101	59 - 134
Endrin [2C]	0.00250	0.00299	119	60 - 138
Heptachlor [2C]	0.00250	0.00261	104	54 - 130
Heptachlor epoxide [2C]	0.00250	0.00258	103	61 - 133
Methoxychlor [2C]	0.00250	0.00290	116	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:	Sediment		
Batch:	9110516	Laboratory ID:	9110516-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	0.00262	105	4	30	59 - 134
Endrin [2C]	0.00250	0.00333	133	11	30	60 - 138
Heptachlor [2C]	0.00250	0.00277	111	6	30	54 - 130
Heptachlor epoxide [2C]	0.00250	0.00268	107	4	30	61 - 133
Methoxychlor [2C]	0.00250	0.00305	122	5	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:	Sediment	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:	9K07024	Instrument:	DUALECD5
Matrix:	Sediment	Calibration:	A9H2608

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	9K07024-CCV1	ECD5-11071904.D	11/07/19 12:15
Calibration Blank	9K07024-CCB1	ECD5-11071906.D	11/07/19 12:49
Blank	9110516-BLK1	ECD5-11071907.D	11/07/19 13:07
LCS	9110516-BS1	ECD5-11071908.D	11/07/19 13:24
LCS Dup	9110516-BSD1	ECD5-11071909.D	11/07/19 13:41
PDI-015SC-C-00-8.1-191024	A9J0950-01	ECD5-11071910.D	11/07/19 13:58
PDI-026SC-C-00-3.9-191024	A9J0950-02	ECD5-11071911.D	11/07/19 14:15
PDI-037SC-C-00-12.4-191024	A9J0950-03	ECD5-11071912.D	11/07/19 14:33
PDI-073SC-C-00-13.7-191024	A9J0950-04	ECD5-11071913.D	11/07/19 14:50
Calibration Check	9K07024-CCV3	ECD5-11071914.D	11/07/19 15:07
Calibration Blank	9K07024-CCB2	ECD5-11071915.D	11/07/19 15:24
Calibration Check	9K07024-CCV4	ECD5-11071921.D	11/07/19 17:07
Calibration Blank	9K07024-CCB3	ECD5-11071923.D	11/07/19 17:42

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 (Summary)

1311/8081B

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

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
gamma-BHC (Lindane)	201777.1	Ave	2.759589	6.219125	2.289669E-02			20	
gamma-BHC (Lindane) [2C]	356703.9	Ave	5.794449	6.914375	4.626364E-03			20	
Endrin [2C]	225826.9	Ave	7.319878	8.71675	1.794047E-02			20	
Heptachlor	181296.6	Ave	3.856527	6.63325	2.886962E-02			20	
Heptachlor [2C]	305977.1	Ave	6.975914	7.29025	0.0138367			20	
Heptachlor epoxide [2C]	300848.3	Ave	4.39584	7.992625	1.285247E-02			20	
Methoxychlor	58574.27	Ave	9.334908	8.540625	2.187408E-02			20	
Methoxychlor [2C]	92733.75	XXX	12.08833	9.464375	0.0181623				
2,4,5,6-TCMX (Surr) [2C]	293366.8	Ave	3.539338	5.98975	1.128579E-02			20	
Decachlorobiphenyl (Surr)	141098.6	Ave	8.332442	9.5925	1.576214E-03			20	

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

1311/8081B

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
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								
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~~
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:	ECD5-11071904.D	Calibration Date:	08/26/19 15:54
Sequence:	9K07024	Injection Date:	11/07/19
Lab Sample ID:	9K07024-CCV1	Injection Time:	12:15

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	49.9		201777.1	201536.2	-0.1	20
gamma-BHC (Lindane) [2C]	Ave	50.0	52.6		356703.9	375604.2	5.3	20
Endrin	Ave	50.0	59.0		147027.1	173458.4	18.0	20
Endrin [2C]	Ave	50.0	60.9		225826.9	275019.8	21.8*	20
Heptachlor	Ave	50.0	54.9		181296.6	199090.9	9.8	20
Heptachlor [2C]	Ave	50.0	56.9		305977.1	348024	13.7	20
Heptachlor epoxide	Ave	50.0	50.5		184178.6	186017.2	1.0	20
Heptachlor epoxide [2C]	Ave	50.0	53.0		300848.3	318745.6	5.9	20
Methoxychlor	Ave	50.0	55.3		58574.27	64819.4	10.7	20
Methoxychlor [2C]	XXX	50.0	55.8	11.7				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:	ECD5-11071914.D	Calibration Date:	08/26/19 15:54
Sequence:	9K07024	Injection Date:	11/07/19
Lab Sample ID:	9K07024-CCV3	Injection Time:	15:07

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	101		201777.1	203997.2	1.1	20
gamma-BHC (Lindane) [2C]	Ave	100	109		356703.9	390090.3	9.4	20
Endrin	Ave	100	115		147027.1	169303	15.2	20
Endrin [2C]	Ave	100	124		225826.9	280607.3	24.3*	20
Heptachlor	Ave	100	110		181296.6	199991.6	10.3	20
Heptachlor [2C]	Ave	100	120		305977.1	366324.7	19.7	20
Heptachlor epoxide	Ave	100	101		184178.6	186612.9	1.3	20
Heptachlor epoxide [2C]	Ave	100	112		300848.3	335552.9	11.5	20
Methoxychlor	Ave	100	110		58574.27	64327.36	9.8	20
Methoxychlor [2C]	XXX	100	109	8.9				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:	ECD5-11071921.D	Calibration Date:	08/26/19 15:54
Sequence:	9K07024	Injection Date:	11/07/19
Lab Sample ID:	9K07024-CCV4	Injection Time:	17:07

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
gamma-BHC (Lindane)	Ave	50.0	50.9		201777.1	205250.6	1.7	20
gamma-BHC (Lindane) [2C]	Ave	50.0	53.4		356703.9	381308.8	6.9	20
Endrin	Ave	50.0	59.4		147027.1	174553.4	18.7	20
Endrin [2C]	Ave	50.0	60.2		225826.9	271860.2	20.4*	20
Heptachlor	Ave	50.0	56.6		181296.6	205223.6	13.2	20
Heptachlor [2C]	Ave	50.0	61.2		305977.1	374637.6	22.4*	20
Heptachlor epoxide	Ave	50.0	52.1		184178.6	192037.4	4.3	20
Heptachlor epoxide [2C]	Ave	50.0	55.2		300848.3	332365.2	10.5	20
Methoxychlor	Ave	50.0	54.8		58574.27	64240	9.7	20
Methoxychlor [2C]	XXX	50.0	56.6	13.3				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:	Sediment	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:	9K07024	Instrument:	DUALECD5
Matrix:	Sediment	Calibration:	A9H2608

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9K07024-CCV1)				Lab File ID: ECD5-11071904.D		Analyzed: 11/07/19 12:15		
2,4,5,6-TCMX (Surr)	50.0	102	80 - 120	5.117	5.39525	-0.2783	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	50.0	92	80 - 120	5.714	5.98975	-0.2758	+/-1.0	
Decachlorobiphenyl (Surr)	50.0	98	80 - 120	9.306	9.5925	-0.2865	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	50.0	112	80 - 120	10.221	10.54062	-0.3196	+/-1.0	
Calibration Blank (9K07024-CCB1)				Lab File ID: ECD5-11071906.D		Analyzed: 11/07/19 12:49		
2,4,5,6-TCMX (Surr) [2C]	100	84	25 - 140	5.712	5.98975	-0.2778	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	107	30 - 135	10.22	10.54062	-0.3206	+/-1.0	
Blank (9110516-BLK1)				Lab File ID: ECD5-11071907.D		Analyzed: 11/07/19 13:07		
2,4,5,6-TCMX (Surr) [2C]	0.00250	84	25 - 140	5.711	5.98975	-0.2788	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	103	30 - 135	10.218	10.54062	-0.3226	+/-1.0	
LCS (9110516-BS1)				Lab File ID: ECD5-11071908.D		Analyzed: 11/07/19 13:24		
2,4,5,6-TCMX (Surr) [2C]	0.00250	71	25 - 140	5.712	5.98975	-0.2778	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	89	30 - 135	10.219	10.54062	-0.3216	+/-1.0	
LCS Dup (9110516-BSD1)				Lab File ID: ECD5-11071909.D		Analyzed: 11/07/19 13:41		
2,4,5,6-TCMX (Surr) [2C]	0.00250	75	25 - 140	5.711	5.98975	-0.2788	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	95	30 - 135	10.219	10.54062	-0.3216	+/-1.0	
PDI-015SC-C-00-8.1-191024 (A9J0950-01)				Lab File ID: ECD5-11071910.D		Analyzed: 11/07/19 13:58		
2,4,5,6-TCMX (Surr) [2C]	0.00250	80	25 - 140	5.71	5.98975	-0.2798	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	104	30 - 135	10.218	10.54062	-0.3226	+/-1.0	
PDI-026SC-C-00-3.9-191024 (A9J0950-02)				Lab File ID: ECD5-11071911.D		Analyzed: 11/07/19 14:15		
2,4,5,6-TCMX (Surr) [2C]	0.00250	74	25 - 140	5.71	5.98975	-0.2798	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	91	30 - 135	10.219	10.54062	-0.3216	+/-1.0	
PDI-037SC-C-00-12.4-191024 (A9J0950-03)				Lab File ID: ECD5-11071912.D		Analyzed: 11/07/19 14:33		
2,4,5,6-TCMX (Surr) [2C]	0.00250	80	25 - 140	5.71	5.98975	-0.2798	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	104	30 - 135	10.218	10.54062	-0.3226	+/-1.0	
PDI-073SC-C-00-13.7-191024 (A9J0950-04)				Lab File ID: ECD5-11071913.D		Analyzed: 11/07/19 14:50		
2,4,5,6-TCMX (Surr) [2C]	0.00250	84	25 - 140	5.71	5.98975	-0.2798	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	102	30 - 135	10.218	10.54062	-0.3226	+/-1.0	
Calibration Check (9K07024-CCV3)				Lab File ID: ECD5-11071914.D		Analyzed: 11/07/19 15:07		
2,4,5,6-TCMX (Surr)	100	104	80 - 120	5.114	5.39525	-0.2813	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	100	95	80 - 120	5.71	5.98975	-0.2798	+/-1.0	
Decachlorobiphenyl (Surr)	100	100	80 - 120	9.305	9.5925	-0.2875	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	117	80 - 120	10.219	10.54062	-0.3216	+/-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:	9K07024	Instrument:	DUALECD5
Matrix:	Sediment	Calibration:	A9H2608

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Blank (9K07024-CCB2)			Lab File ID: ECD5-11071915.D		Analyzed: 11/07/19 15:24			
2,4,5,6-TCMX (Surr) [2C]	100	85	25 - 140	5.711	5.98975	-0.2788	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	104	30 - 135	10.22	10.54062	-0.3206	+/-1.0	
Calibration Check (9K07024-CCV4)			Lab File ID: ECD5-11071921.D		Analyzed: 11/07/19 17:07			
2,4,5,6-TCMX (Surr)	50.0	106	80 - 120	5.115	5.39525	-0.2803	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	50.0	93	80 - 120	5.711	5.98975	-0.2788	+/-1.0	
Decachlorobiphenyl (Surr)	50.0	99	80 - 120	9.304	9.5925	-0.2885	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	50.0	115	80 - 120	10.219	10.54062	-0.3216	+/-1.0	
Calibration Blank (9K07024-CCB3)			Lab File ID: ECD5-11071923.D		Analyzed: 11/07/19 17:42			
2,4,5,6-TCMX (Surr) [2C]	100	85	25 - 140	5.711	5.98975	-0.2788	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	105	30 - 135	10.219	10.54062	-0.3216	+/-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-015SC-C-00-8.1-191024	10/24/19 13:17	10/25/19 14:40	11/06/19 10:25	12.88	7.00	11/07/19 13:58	1.15	40.00	*
PDI-026SC-C-00-3.9-191024	10/24/19 09:58	10/25/19 14:40	11/06/19 10:25	13.02	7.00	11/07/19 14:15	1.16	40.00	*
PDI-037SC-C-00-12.4-191024	10/24/19 11:36	10/25/19 14:40	11/06/19 10:25	12.95	7.00	11/07/19 14:33	1.17	40.00	*
PDI-073SC-C-00-13.7-191024	10/24/19 14:31	10/25/19 14:40	11/06/19 10:25	12.83	7.00	11/07/19 14:50	1.18	40.00	*

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GCMS

METHOD: EPA 8270D

ANALYSES DATA PACKAGE COVER PAGE

EPA 8270D

Laboratory: Apex Laboratories

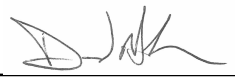
Client: Anchor QEA, LLC

SDG: Gasco PreRD_DG 2019

Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-015SC-C-00-8.1-191024	A9J0950-01	Sediment
PDI-026SC-C-00-3.9-191024	A9J0950-02	Sediment
PDI-037SC-C-00-12.4-191024	A9J0950-03	Sediment
PDI-073SC-C-00-13.7-191024	A9J0950-04	Sediment

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: 12/17/2019 3:37PM

Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D

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
Naphthalene	2.67	5.33	ug/kg
2-Methylphenol	3.33	6.67	ug/kg
3+4-Methylphenol(s)	3.33	6.67	ug/kg
Pentachlorophenol (PCP)	13.3	26.7	ug/kg
Phenol	2.67	5.33	ug/kg
2,4,5-Trichlorophenol	6.67	13.3	ug/kg
2,4,6-Trichlorophenol	6.67	13.3	ug/kg
Hexachlorobenzene	1.33	2.67	ug/kg
Hexachlorobutadiene	3.33	6.67	ug/kg
Hexachloroethane	3.33	6.67	ug/kg
1,2-Dichlorobenzene	3.33	6.67	ug/kg
1,3-Dichlorobenzene	3.33	6.67	ug/kg
1,4-Dichlorobenzene	3.33	6.67	ug/kg
1,2,4-Trichlorobenzene	3.33	6.67	ug/kg
Nitrobenzene	13.3	26.7	ug/kg
2,4-Dinitrotoluene	13.3	26.7	ug/kg
Pyridine	6.67	13.3	ug/kg

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

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-015SC-C-00-8.1-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-01	File ID:	I11011906.D
Sampled:	10/24/19 13:17	Prepared:	11/01/19 07:18	Analyzed:	11/01/19 12:19
Solids:	81.42	Preparation:	EPA 3546	Initial/Final:	15.03 g / 2 mL
Batch:	9110357	Sequence:	9K01021	Calibration:	A9J1803
Instrument:	SV-GCMS9				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
95-48-7	2-Methylphenol	1000	4080	U
NA	3+4-Methylphenol(s)	1000	4080	U
87-86-5	Pentachlorophenol (PCP)	1000	16300	U
108-95-2	Phenol	1000	3270	U
95-95-4	2,4,5-Trichlorophenol	1000	8180	U
88-06-2	2,4,6-Trichlorophenol	1000	8180	U
118-74-1	Hexachlorobenzene	1000	1630	U
87-68-3	Hexachlorobutadiene	1000	4080	U
67-72-1	Hexachloroethane	1000	4080	U
98-95-3	Nitrobenzene	1000	16300	U
121-14-2	2,4-Dinitrotoluene	1000	16300	U
110-86-1	Pyridine	1000	8180	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	409	598	146	37 - 122	D
2-Fluorobiphenyl (Surr)	409	700	171	44 - 115	D
Phenol-d6 (Surr)	409	241	59	33 - 122	D
p-Terphenyl-d14 (Surr)	409	598	146	54 - 127	D
2-Fluorophenol (Surr)	409	111	27	35 - 115	D
2,4,6-Tribromophenol (Surr)	409	0.00		39 - 132	D

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	118140	6.6	100905	6.605	
Naphthalene-d8 (ISTD)	440847	7.867	384962	7.862	
Acenaphthene-d10 (ISTD)	210652	9.638	197971	9.643	
Phenanthrene-d10 (ISTD)	384511	11.152	376095	11.151	
Chrysene-d12 (ISTD)	413609	14.928	404706	14.933	
Perylene-d12 (ISTD)	424620	18.415	405313	18.42	
Dibenz(a,h)anthracene-d14 (ISTD)	384243	20.811	362980	20.811	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-026SC-C-00-3.9-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-02	File ID:	I11011908.D
Sampled:	10/24/19 09:58	Prepared:	11/01/19 07:18	Analyzed:	11/01/19 13:29
Solids:	76.10	Preparation:	EPA 3546	Initial/Final:	15.3 g / 2 mL
Batch:	9110357	Sequence:	9K01021	Calibration:	A9J1803
Instrument:	SV-GCMS9				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
95-48-7	2-Methylphenol	1000	4290	U
NA	3+4-Methylphenol(s)	1000	4290	U
87-86-5	Pentachlorophenol (PCP)	1000	17100	U
108-95-2	Phenol	1000	3440	U
95-95-4	2,4,5-Trichlorophenol	1000	8590	U
88-06-2	2,4,6-Trichlorophenol	1000	8590	U
118-74-1	Hexachlorobenzene	1000	1710	U
87-68-3	Hexachlorobutadiene	1000	4290	U
67-72-1	Hexachloroethane	1000	4290	U
98-95-3	Nitrobenzene	1000	17100	U
121-14-2	2,4-Dinitrotoluene	1000	17100	U
110-86-1	Pyridine	1000	8590	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	429	604	141	37 - 122	D
2-Fluorobiphenyl (Surr)	429	488	114	44 - 115	D
Phenol-d6 (Surr)	429	152	35	33 - 122	D
p-Terphenyl-d14 (Surr)	429	457	106	54 - 127	D
2-Fluorophenol (Surr)	429	188	44	35 - 115	D
2,4,6-Tribromophenol (Surr)	429	0.00		39 - 132	D

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	118044	6.605	100905	6.605	
Naphthalene-d8 (ISTD)	441502	7.867	384962	7.862	
Acenaphthene-d10 (ISTD)	212282	9.638	197971	9.643	
Phenanthrene-d10 (ISTD)	392896	11.151	376095	11.151	
Chrysene-d12 (ISTD)	422311	14.927	404706	14.933	
Perylene-d12 (ISTD)	430391	18.42	405313	18.42	
Dibenz(a,h)anthracene-d14 (ISTD)	394467	20.811	362980	20.811	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-037SC-C-00-12.4-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-03	File ID:	I11011909.D
Sampled:	10/24/19 11:36	Prepared:	11/01/19 07:18	Analyzed:	11/01/19 14:05
Solids:	75.83	Preparation:	EPA 3546	Initial/Final:	15.18 g / 2 mL
Batch:	9110357	Sequence:	9K01021	Calibration:	A9J1803
Instrument:	SV-GCMS9				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
95-48-7	2-Methylphenol	1000	4340	U
NA	3+4-Methylphenol(s)	1000	4340	U
87-86-5	Pentachlorophenol (PCP)	1000	17300	U
108-95-2	Phenol	1000	3480	U
95-95-4	2,4,5-Trichlorophenol	1000	8690	U
88-06-2	2,4,6-Trichlorophenol	1000	8690	U
118-74-1	Hexachlorobenzene	1000	1730	U
87-68-3	Hexachlorobutadiene	1000	4340	U
67-72-1	Hexachloroethane	1000	4340	U
98-95-3	Nitrobenzene	1000	17300	U
121-14-2	2,4-Dinitrotoluene	1000	17300	U
110-86-1	Pyridine	1000	8690	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	434	337	77	37 - 122	D
2-Fluorobiphenyl (Surr)	434	491	113	44 - 115	D
Phenol-d6 (Surr)	434	183	42	33 - 122	D
p-Terphenyl-d14 (Surr)	434	497	114	54 - 127	D
2-Fluorophenol (Surr)	434	0.00		35 - 115	D
2,4,6-Tribromophenol (Surr)	434	0.00		39 - 132	D

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	111950	6.605	100905	6.605	
Naphthalene-d8 (ISTD)	435658	7.862	384962	7.862	
Acenaphthene-d10 (ISTD)	213056	9.638	197971	9.643	
Phenanthrene-d10 (ISTD)	386419	11.151	376095	11.151	
Chrysene-d12 (ISTD)	416633	14.928	404706	14.933	
Perylene-d12 (ISTD)	416125	18.415	405313	18.42	
Dibenz(a,h)anthracene-d14 (ISTD)	373529	20.811	362980	20.811	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-073SC-C-00-13.7-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-04	File ID:	I11011910.D
Sampled:	10/24/19 14:31	Prepared:	11/01/19 07:18	Analyzed:	11/01/19 14:40
Solids:	67.83	Preparation:	EPA 3546	Initial/Final:	15.32 g / 2 mL
Batch:	9110357	Sequence:	9K01021	Calibration:	A9J1803
Instrument:	SV-GCMS9				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
95-48-7	2-Methylphenol	1000	4810	U
NA	3+4-Methylphenol(s)	1000	4810	U
87-86-5	Pentachlorophenol (PCP)	1000	19200	U
108-95-2	Phenol	1000	3850	U
95-95-4	2,4,5-Trichlorophenol	1000	9630	U
88-06-2	2,4,6-Trichlorophenol	1000	9630	U
118-74-1	Hexachlorobenzene	1000	1920	U
87-68-3	Hexachlorobutadiene	1000	4810	U
67-72-1	Hexachloroethane	1000	4810	U
98-95-3	Nitrobenzene	1000	19200	U
121-14-2	2,4-Dinitrotoluene	1000	19200	U
110-86-1	Pyridine	1000	9630	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	481	719	149	37 - 122	D
2-Fluorobiphenyl (Surr)	481	548	114	44 - 115	D
Phenol-d6 (Surr)	481	196	41	33 - 122	D
p-Terphenyl-d14 (Surr)	481	508	105	54 - 127	D
2-Fluorophenol (Surr)	481	200	42	35 - 115	D
2,4,6-Tribromophenol (Surr)	481	0.00		39 - 132	D

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	114826	6.605	100905	6.605	
Naphthalene-d8 (ISTD)	446228	7.867	384962	7.862	
Acenaphthene-d10 (ISTD)	212697	9.638	197971	9.643	
Phenanthrene-d10 (ISTD)	403918	11.151	376095	11.151	
Chrysene-d12 (ISTD)	436162	14.933	404706	14.933	
Perylene-d12 (ISTD)	448201	18.42	405313	18.42	
Dibenz(a,h)anthracene-d14 (ISTD)	406780	20.816	362980	20.811	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

EPA 8270D

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9110357 Batch Matrix: Sediment Preparation: EPA 3546

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110357-BLK2	I11011904.D	11/01/19 07:18	
LCS	9110357-BS2	I11011905.D	11/01/19 07:18	
PDI-015SC-C-00-8.1-191024 (Dup)	9110357-DUP2	I11011907.D	11/01/19 09:07	
PDI-015SC-C-00-8.1-191024	A9J0950-01	I11011906.D	11/01/19 07:18	
PDI-026SC-C-00-3.9-191024	A9J0950-02	I11011908.D	11/01/19 07:18	
PDI-037SC-C-00-12.4-191024	A9J0950-03	I11011909.D	11/01/19 07:18	
PDI-073SC-C-00-13.7-191024	A9J0950-04	I11011910.D	11/01/19 07:18	

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

EPA 8270D

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	9110357-BLK2	File ID:	I11011904.D
Prepared:	11/01/19 07:18	Preparation:	EPA 3546	Initial/Final:	16 g / 2 mL
Analyzed:	11/01/19 11:09	Instrument:	SV-GCMS9		
Batch:	9110357	Sequence:	9K01021	Calibration:	A9J1803

CAS NO.	COMPOUND	CONC. (ug/kg wet)	Q
95-48-7	2-Methylphenol	3.12	U
NA	3+4-Methylphenol(s)	3.12	U
87-86-5	Pentachlorophenol (PCP)	12.5	U
108-95-2	Phenol	2.50	U
95-95-4	2,4,5-Trichlorophenol	6.25	U
88-06-2	2,4,6-Trichlorophenol	6.25	U
118-74-1	Hexachlorobenzene	1.25	U
87-68-3	Hexachlorobutadiene	3.12	U
67-72-1	Hexachloroethane	3.12	U
98-95-3	Nitrobenzene	12.5	U
121-14-2	2,4-Dinitrotoluene	12.5	U
110-86-1	Pyridine	6.25	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg wet)	CONC (ug/kg wet)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	312	236	76	37 - 122	
2-Fluorobiphenyl (Surr)	312	239	76	44 - 115	
Phenol-d6 (Surr)	312	206	66	33 - 122	
p-Terphenyl-d14 (Surr)	312	271	87	54 - 127	
2-Fluorophenol (Surr)	312	188	60	35 - 115	
2,4,6-Tribromophenol (Surr)	312	264	85	39 - 132	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	114442	6.605	100905	6.605	
Naphthalene-d8 (ISTD)	439250	7.862	384962	7.862	
Acenaphthene-d10 (ISTD)	225356	9.638	197971	9.643	
Phenanthrene-d10 (ISTD)	418613	11.152	376095	11.151	
Chrysene-d12 (ISTD)	449358	14.922	404706	14.933	
Perylene-d12 (ISTD)	448066	18.41	405313	18.42	
Dibenz(a,h)anthracene-d14 (ISTD)	371409	20.8	362980	20.811	

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment		
Batch:	9110357	Laboratory ID:	9110357-BS2
Preparation:	EPA 3546	Initial/Final:	15 g / 2 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	LCS % REC. (*=Out)	QC LIMITS REC.
2-Methylphenol	533	529	99	32 - 122
3+4-Methylphenol(s)	533	535	100	34 - 120
Pentachlorophenol (PCP)	533	594	111	25 - 133
Phenol	533	511	96	34 - 120
2,4,5-Trichlorophenol	533	573	108	41 - 124
2,4,6-Trichlorophenol	533	568	107	39 - 126
Hexachlorobenzene	533	565	106	44 - 122
Hexachlorobutadiene	533	506	95	32 - 123
Hexachloroethane	533	472	89	28 - 120
Nitrobenzene	533	481	90	34 - 122
2,4-Dinitrotoluene	533	611	115	48 - 126
Pyridine	533	261	49	5 - 120

* = Values outside of QC limits

DUPLICATES

EPA 8270D

PDI-015SC-C-00-8.1-191024

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Sediment
Batch: 9110357
Preparation: EPA 3546
Source Sample Name: PDI-015SC-C-00-8.1-191024

SDG: Gasco_PreRD_DG 2019
Project: Gasco_PreRD_DG 2019 - 4c. Waste Charact
Laboratory ID: 9110357-DUP2
Lab Source ID: A9J0950-01
Initial/Final: 15.07 g / 2 mL
% Solids: 81.42

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (ug/kg dry)	C	DUPLICATE CONCENTRATION (ug/kg dry)	C	RPD %	Q	METHOD
2-Methylphenol	30	0.00		ND				EPA 8270D
3+4-Methylphenol(s)	30	0.00		ND				EPA 8270D
Pentachlorophenol (PCP)	30	0.00		ND				EPA 8270D
Phenol	30	0.00		ND				EPA 8270D
2,4,5-Trichlorophenol	30	0.00		ND				EPA 8270D
2,4,6-Trichlorophenol	30	0.00		ND				EPA 8270D
Hexachlorobenzene	30	0.00		ND				EPA 8270D
Hexachlorobutadiene	30	0.00		ND				EPA 8270D
Hexachloroethane	30	0.00		ND				EPA 8270D
Nitrobenzene	30	490		ND				EPA 8270D
2,4-Dinitrotoluene	30	15800		ND				EPA 8270D
Pyridine	30	0.00		ND				EPA 8270D
1,4-Dichlorobenzene-d4 (ISTD)		2000		2000				EPA 8270D

* Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J16053	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J16053-TUN1	I10161910.D	10/16/19 16:07
Initial Cal Blank	9J16053-ICB1	I10161911.D	10/16/19 16:34
Cal Standard	9J16053-CAL1	I10161912.D	10/16/19 17:09
Cal Standard	9J16053-CAL2	I10161913.D	10/16/19 17:44
Cal Standard	9J16053-CAL3	I10161914.D	10/16/19 18:19
Cal Standard	9J16053-CAL4	I10161915.D	10/16/19 18:54
Cal Standard	9J16053-CAL5	I10161916.D	10/16/19 19:30
Cal Standard	9J16053-CAL6	I10161917.D	10/16/19 20:05
Cal Standard	9J16053-CAL7	I10161918.D	10/16/19 20:40
Cal Standard	9J16053-CAL8	I10161919.D	10/16/19 21:14
Cal Standard	9J16053-CAL9	I10161920.D	10/16/19 21:49
Cal Standard	9J16053-CALA	I10161921.D	10/16/19 22:24
Initial Cal Check	9J16053-ICV1	I10161923.D	10/16/19 23:33

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

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K01021	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9K01021-TUN1	I11011901.D	11/01/19 09:33
Calibration Check	9K01021-CCV1	I11011902.D	11/01/19 10:01
Calibration Blank	9K01021-CCB1	I11011903.D	11/01/19 10:35
Blank	9110357-BLK2	I11011904.D	11/01/19 11:09
LCS	9110357-BS2	I11011905.D	11/01/19 11:44
PDI-015SC-C-00-8.1-191024	A9J0950-01	I11011906.D	11/01/19 12:19
PDI-015SC-C-00-8.1-191024 (Dup)	9110357-DUP2	I11011907.D	11/01/19 12:54
PDI-026SC-C-00-3.9-191024	A9J0950-02	I11011908.D	11/01/19 13:29
PDI-037SC-C-00-12.4-191024	A9J0950-03	I11011909.D	11/01/19 14:05
PDI-073SC-C-00-13.7-191024	A9J0950-04	I11011910.D	11/01/19 14:40

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

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	I10161910.D	Injection Date:	10/16/19
Instrument ID:	SV-GCMS9	Injection Time:	16:07
Sequence:	9J16053	Lab Sample ID:	9J16053-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	0.00	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.49	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	7.24	PASS
m/z 365	1 - 100% of m/z 198	4.51	PASS
m/z 441	Less than 150% of m/z 443	16.35	PASS
m/z 442	0.1 - 200% of m/z 198	159.87	PASS
m/z 443	15 - 24% of m/z 442	20.35	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	I11011901.D	Injection Date:	11/01/19
Instrument ID:	SV-GCMS9	Injection Time:	09:33
Sequence:	9K01021	Lab Sample ID:	9K01021-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	0.02	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.54	PASS
m/z 197	Less than 2% of m/z 198	0.00	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.96	PASS
m/z 365	1 - 100% of m/z 198	4.62	PASS
m/z 441	Less than 150% of m/z 443	10.49	PASS
m/z 442	0.1 - 200% of m/z 198	174.36	PASS
m/z 443	15 - 24% of m/z 442	20.14	PASS

INITIAL CALIBRATION DATA (Summary)

EPA 8270D

Laboratory: Apex Laboratories SDG: Gasco_PreRD_DG 2019

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

Calibration: A9J1803 Date: 10/18/19 14:37 Instrument: SV-GCMS9

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
2,4-Dinitrotoluene	0.3301329	XXX	30.90523	9.887125	0.1129094				
Hexachlorobenzene	0.2772973	Ave	7.01503	10.8293	5.546932E-02			20	
Hexachlorobutadiene	0.1859475	Ave	5.065064	8.073	3.448972E-02			20	
Hexachloroethane	0.4895762	Ave	3.804138	7.1652	4.173269E-02			20	
2-Methylphenol	1.099165	Ave	7.789134	6.8961	7.314507E-02			20	
3+4-Methylphenol(s)	1.341624	Ave	10.74992	7.044889	0.1081421			20	
Nitrobenzene	1.377218	Ave	7.938123	7.220778	6.836454E-02			20	
Pentachlorophenol (PCP)	0.1259349	XXX	25.12494	11.02237	3.824211E-02				
Pyridine	1.836599	Ave	6.454497	4.099333	0.4911306			20	
2,4,5-Trichlorophenol	0.3525281	XXX	18.08522	8.956111	5.635937E-02				
2,4,6-Trichlorophenol	0.3570852	XXX	22.06597	8.923333	4.703718E-02				
Nitrobenzene-d5 (Surr)	1.300669	Ave	10.50682	7.2032	9.179795E-02			20	
2-Fluorobiphenyl (Surr)	1.469509	Ave	13.1077	9.0078	5.187103E-02			20	
Phenol-d6 (Surr)	1.782102	Ave	10.17121	6.2976	0.13622			20	
p-Terphenyl-d14 (Surr)	0.9704079	Ave	5.838011	13.0243	5.545816E-02			20	
2-Fluorophenol (Surr)	1.47269	Ave	7.135994	5.4102	0.1230205			20	
2,4,6-Tribromophenol (Surr)	0.1140922	XXX	19.74819	10.50367	6.062349E-02				
2-Methylphenol	1.099165	Ave	7.789134	6.8961	7.314507E-02			20	
3+4-Methylphenol(s)	1.341624	Ave	10.74992	7.044889	0.1081421			20	
Pentachlorophenol (PCP)	0.1259349	XXX	25.12494	11.02237	3.824211E-02				
Phenol	1.88751	Ave	5.379272	6.311	0.1491452			20	
2,4,5-Trichlorophenol	0.3525281	XXX	18.08522	8.956111	5.635937E-02				
2,4,6-Trichlorophenol	0.3570852	XXX	22.06597	8.923333	4.703718E-02				
Hexachlorobenzene	0.2772973	Ave	7.01503	10.8293	5.546932E-02			20	
Hexachlorobutadiene	0.1859475	Ave	5.065064	8.073	3.448972E-02			20	
Hexachloroethane	0.4895762	Ave	3.804138	7.1652	4.173269E-02			20	
Nitrobenzene	1.377218	Ave	7.938123	7.220778	6.836454E-02			20	
2,4-Dinitrotoluene	0.3301329	XXX	30.90523	9.887125	0.1129094				
Pyridine	1.836599	Ave	6.454497	4.099333	0.4911306			20	
Nitrobenzene-d5 (Surr)	1.300669	Ave	10.50682	7.2032	9.179795E-02			20	
2-Fluorobiphenyl (Surr)	1.469509	Ave	13.1077	9.0078	5.187103E-02			20	
Phenol-d6 (Surr)	1.782102	Ave	10.17121	6.2976	0.13622			20	
p-Terphenyl-d14 (Surr)	0.9704079	Ave	5.838011	13.0243	5.545816E-02			20	

INITIAL CALIBRATION DATA (Summary)

EPA 8270D

Laboratory: Apex Laboratories SDG: Gasco_PreRD_DG 2019

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

Calibration: A9J1803 Date: 10/18/19 14:37 Instrument: SV-GCMS9

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
2-Fluorophenol (Surr)	1.47269	Ave	7.135994	5.4102	0.1230205			20	
2,4,6-Tribromophenol (Surr)	0.1140922	XXX	19.74819	10.50367	6.062349E-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

EPA 8270D

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9J1803

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: SV-GCMS9

Calibration Date: 10/18/19 14:37

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	~~0.1342775~~	50	~~0.1234279~~	100	0.1573569	200	0.1944772	500	0.3087048	1000	0.3622799
Hexachlorobenzene	20	0.2897639	50	0.2784634	100	0.2952355	200	0.3020187	500	0.2928269	1000	0.2795559
Hexachlorobutadiene	20	0.1733145	50	0.1901605	100	0.193509	200	0.2011891	500	0.1925226	1000	0.187227
Hexachloroethane	20	0.4571439	50	0.4578904	100	0.4841835	200	0.4954434	500	0.5008838	1000	0.4965959
2-Methylphenol	20	1.101834	50	0.9707556	100	1.133049	200	1.092755	500	1.223238	1000	1.177676
3+4-Methylphenol(s)	20	1.135196	50	1.156208	100	1.310941	200	1.254213	500	1.520781	1000	1.481195
Nitrobenzene	20	1.352497	50	1.243541	100	1.256693	200	1.303899	500	1.539708	1000	1.50287
Pentachlorophenol (PCP)	20	~~0.2139868~~	50	~~7.782719E-02~~	100	7.890978E-02	200	8.370261E-02	500	0.1108285	1000	0.1263173
Pyridine	20	~~0.7709231~~	50	1.638802	100	1.724672	200	1.714036	500	1.83939	1000	1.851875
2,4,5-Trichlorophenol	20	~~0.1456495~~	50	0.2616115	100	0.2517538	200	0.3003015	500	0.3767462	1000	0.4005824
2,4,6-Trichlorophenol	20	~~0.1561468~~	50	0.2048451	100	0.2604528	200	0.3132783	500	0.3851577	1000	0.4010757
Nitrobenzene-d5 (Surr)	20	1.200115	50	1.108192	100	1.172855	200	1.120553	500	1.404462	1000	1.399717
2-Fluorobiphenyl (Surr)	20	1.393512	50	1.494154	100	1.665382	200	1.659326	500	1.690304	1000	1.58961
Phenol-d6 (Surr)	20	1.458893	50	1.601921	100	1.654396	200	1.625983	500	1.875722	1000	1.881426
p-Terphenyl-d14 (Surr)	20	0.8618512	50	0.9039252	100	0.9599334	200	1.002361	500	1.041212	1000	1.000571
2-Fluorophenol (Surr)	20	1.352497	50	1.350359	100	1.341764	200	1.381382	500	1.497176	1000	1.500368
2,4,6-Tribromophenol (Surr)	20	~~7.958975E-02~~	50	7.031417E-02	100	8.906414E-02	200	0.1011571	500	0.1165657	1000	0.1223403
Acenaphthene	20	1.348024	50	1.368122	100	1.420777	200	1.374623	500	1.36458	1000	1.306021
Acenaphthylene	20	1.894319	50	2.09133	100	2.220481	200	2.214576	500	2.24394	1000	2.117469
Anthracene	20	1.029901	50	1.136585	100	1.176434	200	1.167405	500	1.163478	1000	1.094853
Benz(a)anthracene	20	1.240287	50	1.141585	100	1.153208	200	1.171386	500	1.208394	1000	1.164429
Benzo(a)pyrene	20	0.6605372	50	0.7900506	100	0.9014438	200	1.023675	500	1.073483	1000	1.091986
Benzo(b)fluoranthene	20	0.8086366	50	0.8872934	100	1.013216	200	1.139208	500	1.175368	1000	1.200896
Benzo(k)fluoranthene	20	0.7947305	50	0.8993068	100	1.031266	200	1.123132	500	1.185756	1000	1.178863
Benzo(b+k)fluoranthene(s)	40	0.8015677	100	0.9304757	200	1.060563	400	1.161498	1000	1.206076	2000	1.217101
Benzo(g,h,i)perylene	20	0.8993165	50	1.029782	100	1.134226	200	1.205434	500	1.258114	1000	1.226717
Chrysene	20	1.004836	50	1.055864	100	1.062939	200	1.068909	500	1.096782	1000	1.055785
Dibenz(a,h)anthracene	20	0.9992406	50	1.012221	100	1.059179	200	1.09878	500	1.112885	1000	1.070652
Fluoranthene	20	1.112589	50	1.206321	100	1.289271	200	1.31775	500	1.362013	1000	1.335171
Fluorene	20	1.388701	50	1.47419	100	1.57822	200	1.508717	500	1.523522	1000	1.427787
Indeno(1,2,3-cd)pyrene	20	1.155693	50	1.175648	100	1.170037	200	1.201141	500	1.227099	1000	1.174735

INITIAL CALIBRATION DATA

EPA 8270D

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9J1803

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: SV-GCMS9

Calibration Date: 10/18/19 14:37

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
1-Methylnaphthalene	20	0.6775022	50	0.7370515	100	0.7733677	200	0.7639427	500	0.7810577	1000	0.7448339
2-Methylnaphthalene	20	0.6811035	50	0.7244937	100	0.7815215	200	0.8088201	500	0.8222188	1000	0.7920122
Naphthalene	20	1.135098	50	1.123024	100	1.148489	200	1.135465	500	1.129272	1000	1.071215
Phenanthrene	20	1.148809	50	1.168756	100	1.169649	200	1.162457	500	1.130058	1000	1.082055
Pyrene	20	1.102342	50	1.236181	100	1.312332	200	1.367553	500	1.378337	1000	1.316204
Carbazole	20	0.8964571	50	0.9703356	100	1.004997	200	1.024052	500	1.007109	1000	0.8542514
Dibenzofuran	20	1.735985	50	1.893602	100	1.980096	200	1.91458	500	1.92252	1000	1.809066
4-Chloro-3-methylphenol	20	~~0.1174937~~	50	0.1746427	100	0.2070542	200	0.2407304	500	0.3058227	1000	0.3214361
2-Chlorophenol	20	1.274052	50	1.432473	100	1.431239	200	1.451791	500	1.546235	1000	1.520498
2,4-Dichlorophenol	20	0.1291981	50	0.1695299	100	0.196227	200	0.232648	500	0.2621911	1000	0.2785966
2,4-Dimethylphenol	20	0.2435407	50	0.2476572	100	0.2716166	200	0.2944716	500	0.2984019	1000	0.3080494
2,4-Dinitrophenol	20	~~0~~	50	~~0~~	100	~~8.871242E-03~~	200	1.354481E-02	500	0.0277345	1000	4.826226E-02
4,6-Dinitro-2-methylphenol	20	~~0~~	50	~~1.805415E-02~~	100	~~2.936984E-02~~	200	4.019749E-02	500	7.122033E-02	1000	0.1062377
2-Methylphenol	20	1.101834	50	0.9707556	100	1.133049	200	1.092755	500	1.223238	1000	1.177676
3+4-Methylphenol(s)	20	1.135196	50	1.156208	100	1.310941	200	1.254213	500	1.520781	1000	1.481195
2-Nitrophenol	20	~~8.305592E-02~~	50	~~8.297099E-02~~	100	0.1029256	200	0.1182888	500	0.1592929	1000	0.1868278
4-Nitrophenol	20	~~6.517051E-02~~	50	~~6.579347E-02~~	100	7.811861E-02	200	0.1047319	500	0.1747827	1000	0.2144009
Pentachlorophenol (PCP)	20	~~0.2139868~~	50	~~7.782719E-02~~	100	7.890978E-02	200	8.370261E-02	500	0.1108285	1000	0.1263173
Phenol	20	1.830379	50	1.906021	100	1.821016	200	1.723857	500	2.000526	1000	1.949177
2,3,4,6-Tetrachlorophenol	20	0.1771413	50	0.2024147	100	0.2690656	200	0.2694543	500	0.3394395	1000	0.351438
2,3,5,6-Tetrachlorophenol	20	~~0.111096~~	50	0.1364477	100	0.1987847	200	0.219688	500	0.2901318	1000	0.3130027
2,4,5-Trichlorophenol	20	~~0.1456495~~	50	0.2616115	100	0.2517538	200	0.3003015	500	0.3767462	1000	0.4005824
2,4,6-Trichlorophenol	20	~~0.1561468~~	50	0.2048451	100	0.2604528	200	0.3132783	500	0.3851577	1000	0.4010757
Bis(2-ethylhexyl)phthalate	20	~~0.3160971~~	50	~~0.3804649~~	100	~~0.4839904~~	200	0.6057346	500	0.7390758	1000	0.7693364
Butyl benzyl phthalate	20	~~0.2827261~~	50	0.3195753	100	0.3815821	200	0.4384383	500	0.5487677	1000	0.5851562
Diethylphthalate	20	1.411445	50	1.464295	100	1.536878	200	1.537904	500	1.530862	1000	1.443514
Dimethylphthalate	20	1.422817	50	1.542241	100	1.609312	200	1.600122	500	1.603618	1000	1.536443
Di-n-butylphthalate	20	~~1.015365~~	50	1.218554	100	1.255297	200	1.341113	500	1.387555	1000	1.357923
Di-n-octyl phthalate	20	~~0.4146319~~	50	~~0.4614304~~	100	0.6313393	200	0.8512331	500	1.102486	1000	1.277898
N-Nitrosodimethylamine	20	1.106342	50	1.22684	100	1.169156	200	1.119138	500	1.195972	1000	1.172211
N-Nitroso-di-n-propylamine	20	1.228067	50	1.243541	100	1.270607	200	1.223503	500	1.324401	1000	1.224911

INITIAL CALIBRATION DATA

EPA 8270D

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9J1803

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: SV-GCMS9

Calibration Date: 10/18/19 14:37

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
N-Nitrosodiphenylamine	20	0.5475966	50	0.6378363	100	0.6990372	200	0.7114968	500	0.6943802	1000	0.6438628
Bis(2-Chloroethoxy) methane	20	0.4308104	50	0.4428408	100	0.455546	200	0.4609645	500	0.4848529	1000	0.4696525
Bis(2-Chloroethyl) ether	20	1.531026	50	1.689254	100	1.802522	200	1.712288	500	1.843234	1000	1.78854
2,2'-Oxybis(1-Chloropropane)	20	2.558924	50	2.66662	100	2.627519	200	2.539553	500	2.564863	1000	2.370644
Hexachlorobenzene	20	0.2897639	50	0.2784634	100	0.2952355	200	0.3020187	500	0.2928269	1000	0.2795559
Hexachlorobutadiene	20	0.1733145	50	0.1901605	100	0.193509	200	0.2011891	500	0.1925226	1000	0.187227
Hexachlorocyclopentadiene	20	0.2759906	50	0.2831376	100	0.3029142	200	0.3403679	500	0.3556016	1000	0.3794297
Hexachloroethane	20	0.4571439	50	0.4578904	100	0.4841835	200	0.4954434	500	0.5008838	1000	0.4965959
2-Chloronaphthalene	20	1.053226	50	1.267436	100	1.34128	200	1.364967	500	1.384992	1000	1.311741
1,2-Dichlorobenzene	20	1.578814	50	1.578609	100	1.574433	200	1.58437	500	1.613568	1000	1.514684
1,3-Dichlorobenzene	20	1.588733	50	1.665594	100	1.673947	200	1.703799	500	1.68605	1000	1.61896
1,4-Dichlorobenzene	20	1.580618	50	1.601225	100	1.607369	200	1.614415	500	1.627709	1000	1.539193
1,2,4-Trichlorobenzene	20	0.3416772	50	0.3531425	100	0.3561403	200	0.3629487	500	0.3555077	1000	0.3459489
4-Bromophenyl phenyl ether	20	0.2351949	50	0.2267391	100	0.2334553	200	0.2448055	500	0.246862	1000	0.2384005
4-Chlorophenyl phenyl ether	20	0.663952	50	0.7037645	100	0.7459595	200	0.7224625	500	0.7408664	1000	0.7155961
Aniline	20	~~0.9205994~~	50	2.063986	100	2.173454	200	2.088386	500	2.159232	1000	1.926508
4-Chloroaniline	20	0.1373011	50	0.2580622	100	0.2699235	200	0.3195226	500	0.352554	1000	0.3607065
2-Nitroaniline	20	~~0.1159073~~	50	~~0.1393988~~	100	0.1747549	200	0.2223096	500	0.3246704	1000	0.3748482
3-Nitroaniline	20	~~8.878936E-02~~	50	0.1418292	100	0.180181	200	0.2234893	500	0.2942214	1000	0.2736474
4-Nitroaniline	20	~~0.107597~~	50	~~0.1421764~~	100	0.1780277	200	0.1971862	500	0.2639867	1000	0.2449727
Nitrobenzene	20	1.352497	50	1.243541	100	1.256693	200	1.303899	500	1.539708	1000	1.50287
2,4-Dinitrotoluene	20	~~0.1342775~~	50	~~0.1234279~~	100	0.1573569	200	0.1944772	500	0.3087048	1000	0.3622799
2,6-Dinitrotoluene	20	~~9.316322E-02~~	50	0.1374893	100	0.1702762	200	0.2211736	500	0.2957572	1000	0.3140082
Benzoic acid	40	~~7.202681E-03~~	100	~~6.009791E-03~~	200	~~1.156242E-02~~	400	~~2.108791E-02~~	1000	4.552789E-02	2000	0.1030198
Benzyl alcohol	20	0.8565812	50	0.6332527	100	0.6629562	200	0.6831176	500	0.8312771	1000	0.8904795
Isophorone	20	0.7114899	50	0.7695223	100	0.8070079	200	0.8496786	500	0.861201	1000	0.8319945
Azobenzene (1,2-DPH)	20	0.8061441	50	0.9023331	100	0.8941053	200	0.9132201	500	0.8922208	1000	0.8120053
Benzidine	40	~~0.4303566~~	100	~~0.1632156~~	200	0.2385325	400	0.2756031	1000	0.4359378	2000	0.4309328
Bis(2-Ethylhexyl) adipate	20	~~0.2947767~~	50	~~0.2877034~~	100	~~0.3297572~~	200	0.3893734	500	0.4906088	1000	0.51746
3,3'-Dichlorobenzidine	40	~~0.1844672~~	100	~~0.2436536~~	200	0.2841403	400	0.2807724	1000	0.2367345	2000	0.1801298
1,2-Dinitrobenzene	20	~~0~~	50	~~5.364164E-02~~	100	7.105607E-02	200	9.258531E-02	500	0.1282073	1000	0.1435157

INITIAL CALIBRATION DATA

EPA 8270D

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9J1803

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: SV-GCMS9

Calibration Date: 10/18/19 14:37

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
1,3-Dinitrobenzene	20	~~2.274407E-02~~	50	~~6.093274E-02~~	100	~~6.640512E-02~~	200	8.253594E-02	500	0.140119	1000	0.1709478
1,4-Dinitrobenzene	20	~~0~~	50	~~4.513536E-02~~	100	~~4.719845E-02~~	200	5.579587E-02	500	9.072198E-02	1000	0.1185119
Pyridine	20	~~0.7709231~~	50	1.638802	100	1.724672	200	1.714036	500	1.83939	1000	1.851875
2,3,5-Trimethylnaphthalene	20	1.138516	50	1.208933	100	1.268846	200	1.242714	500	1.289252	1000	1.226429
2,6-Dimethylnaphthalene	20	1.177006	50	1.305627	100	1.369616	200	1.365054	500	1.388546	1000	1.323864
Benzo(e)pyrene	20	0.8264827	50	0.9703471	100	1.032377	200	1.119723	500	1.164733	1000	1.172233
1,1'-Biphenyl	20	1.44075	50	1.643274	100	1.821878	200	1.860445	500	1.872123	1000	1.77876
Perylene	20	0.8515136	50	0.8628881	100	0.8889475	200	0.9230576	500	0.9536409	1000	0.9503091
Nitrobenzene-d5 (Surr)	20	1.200115	50	1.108192	100	1.172855	200	1.120553	500	1.404462	1000	1.399717
2-Fluorobiphenyl (Surr)	20	1.393512	50	1.494154	100	1.665382	200	1.659326	500	1.690304	1000	1.58961
Phenol-d6 (Surr)	20	1.458893	50	1.601921	100	1.654396	200	1.625983	500	1.875722	1000	1.881426
p-Terphenyl-d14 (Surr)	20	0.8618512	50	0.9039252	100	0.9599334	200	1.002361	500	1.041212	1000	1.000571
2-Fluorophenol (Surr)	20	1.352497	50	1.350359	100	1.341764	200	1.381382	500	1.497176	1000	1.500368
2,4,6-Tribromophenol (Surr)	20	~~7.958975E-02~~	50	7.031417E-02	100	8.906414E-02	200	0.1011571	500	0.1165657	1000	0.1223403

INITIAL CALIBRATION DATA (Continued)

EPA 8270D

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration: A9J1803
Instrument: SV-GCMS9
Matrix:
Calibration Date: 10/18/19 14:37

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	0.4101378	4000	0.4223418	6000	0.4059896	8000	0.3797755				
Hexachlorobenzene	2000	0.2754968	4000	0.2661266	6000	0.2528429	8000	0.2406424				
Hexachlorobutadiene	2000	0.1877888	4000	0.1846128	6000	0.1779547	8000	0.1711964				
Hexachloroethane	2000	0.508406	4000	0.5023034	6000	0.5068014	8000	0.4861106				
2-Methylphenol	2000	1.178545	4000	1.094775	6000	1.05605	8000	0.9629765				
3+4-Methylphenol(s)	2000	1.506152	4000	1.385189	6000	1.324741	8000	~~1.207034~~				
Nitrobenzene	2000	1.486522	4000	1.386811	6000	1.322422	8000	~~1.197805~~				
Pentachlorophenol (PCP)	2000	0.144815	4000	0.1553731	6000	0.156272	8000	0.1512611				
Pyridine	2000	1.93958	4000	1.970311	6000	1.900232	8000	1.950497				
2,4,5-Trichlorophenol	2000	0.4162262	4000	0.4035457	6000	0.3908094	8000	0.3711759				
2,4,6-Trichlorophenol	2000	0.4209246	4000	0.4217126	6000	0.4057378	8000	0.4005818				
Nitrobenzene-d5 (Surr)	2000	1.455077	4000	1.433906	6000	1.399863	8000	1.31195				
2-Fluorobiphenyl (Surr)	2000	1.504082	4000	1.337329	6000	1.227974	8000	1.133417				
Phenol-d6 (Surr)	2000	1.966987	4000	1.985867	6000	1.921086	8000	1.848738				
p-Terphenyl-d14 (Surr)	2000	1.028803	4000	1.002033	6000	0.9677689	8000	0.9356206				
2-Fluorophenol (Surr)	2000	1.579486	4000	1.593877	6000	1.567146	8000	1.562846				
2,4,6-Tribromophenol (Surr)	2000	0.1290112	4000	0.133301	6000	0.1340835	8000	0.1309928				
Acenaphthene	2000	1.262216	4000	1.12837	6000	1.044155	8000	0.9754524				
Acenaphthylene	2000	1.966573	4000	1.72159	6000	1.553506	8000	~~1.389081~~				
Anthracene	2000	1.038701	4000	0.9071059	6000	0.8223905	8000	0.7517352				
Benz(a)anthracene	2000	1.174929	4000	1.13591	6000	1.120902	8000	1.070336				
Benzo(a)pyrene	2000	1.106492	4000	1.053211	6000	1.007048	8000	0.9723904				
Benzo(b)fluoranthene	2000	1.257817	4000	1.232516	6000	1.216883	8000	1.236308				
Benzo(k)fluoranthene	2000	1.156639	4000	1.083754	6000	0.9930956	8000	0.9372229				
Benzo(b+k)fluoranthene(s)	4000	1.230317	8000	1.181897	12000	1.130451	16000	1.113979				
Benzo(g,h,i)perylene	2000	1.21608	4000	1.140558	6000	1.102552	8000	1.048816				
Chrysene	2000	1.083197	4000	1.047747	6000	1.020032	8000	0.9783019				
Dibenz(a,h)anthracene	2000	1.06579	4000	1.007416	6000	0.9710271	8000	0.9310457				
Fluoranthene	2000	1.2606	4000	1.136817	6000	1.046115	8000	~~0.9636008~~				
Fluorene	2000	1.345569	4000	1.172242	6000	1.063949	8000	~~0.9874251~~				
Indeno(1,2,3-cd)pyrene	2000	1.183298	4000	1.191923	6000	1.183455	8000	1.149961				

INITIAL CALIBRATION DATA (Continued)

EPA 8270D

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration: A9J1803
Instrument: SV-GCMS9
Matrix:
Calibration Date: 10/18/19 14:37

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
1-Methylnaphthalene	2000	0.7172449	4000	0.6602146	6000	0.6129864	8000	0.566073				
2-Methylnaphthalene	2000	0.7751795	4000	0.7185898	6000	0.6677423	8000	0.616983				
Naphthalene	2000	1.010474	4000	0.9111305	6000	0.8395099	8000	0.7693983				
Phenanthrene	2000	1.036609	4000	0.9087333	6000	0.8467551	8000	0.777969				
Pyrene	2000	1.235503	4000	1.093965	6000	1.01797	8000	0.9311508				
Carbazole	2000	0.6444017	4000	~~0.4523411~~	6000	~~0.376204~~	8000	~~0.3849147~~				
Dibenzofuran	2000	1.745003	4000	1.538178	6000	1.406759	8000	1.296001				
4-Chloro-3-methylphenol	2000	0.3343176	4000	0.3346253	6000	0.3176341	8000	0.3023566				
2-Chlorophenol	2000	1.51838	4000	1.457597	6000	1.435797	8000	1.350092				
2,4-Dichlorophenol	2000	0.295869	4000	0.2860752	6000	0.2696074	8000	0.2574342				
2,4-Dimethylphenol	2000	0.3140946	4000	0.2991469	6000	0.2806716	8000	0.2667603				
2,4-Dinitrophenol	2000	0.0740148	4000	0.1124359	6000	0.1268895	8000	~~0.1329418~~				
4,6-Dinitro-2-methylphenol	2000	0.1419412	4000	0.1799418	6000	0.1852602	8000	0.1911006				
2-Methylphenol	2000	1.178545	4000	1.094775	6000	1.05605	8000	0.9629765				
3+4-Methylphenol(s)	2000	1.506152	4000	1.385189	6000	1.324741	8000	~~1.207034~~				
2-Nitrophenol	2000	0.1819452	4000	0.1975186	6000	0.1932634	8000	0.1884848				
4-Nitrophenol	2000	0.2474795	4000	0.2682337	6000	0.2714787	8000	~~0.2562546~~				
Pentachlorophenol (PCP)	2000	0.144815	4000	0.1553731	6000	0.156272	8000	0.1512611				
Phenol	2000	1.956176	4000	2.046919	6000	1.854384	8000	1.786646				
2,3,4,6-Tetrachlorophenol	2000	0.3602122	4000	0.3677027	6000	0.3592527	8000	0.3521752				
2,3,5,6-Tetrachlorophenol	2000	0.3391036	4000	0.3512111	6000	0.3497742	8000	0.341807				
2,4,5-Trichlorophenol	2000	0.4162262	4000	0.4035457	6000	0.3908094	8000	0.3711759				
2,4,6-Trichlorophenol	2000	0.4209246	4000	0.4217126	6000	0.4057378	8000	0.4005818				
Bis(2-ethylhexyl)phthalate	2000	0.8132417	4000	0.7740551	6000	0.7380275	8000	0.7057213				
Butyl benzyl phthalate	2000	0.6424573	4000	0.650034	6000	0.6305064	8000	0.6178051				
Diethylphthalate	2000	1.332903	4000	1.15571	6000	1.034341	8000	~~0.9555838~~				
Dimethylphthalate	2000	1.487006	4000	1.348961	6000	1.255734	8000	1.187945				
Di-n-butylphthalate	2000	1.2916	4000	1.121337	6000	1.009695	8000	~~0.9118865~~				
Di-n-octyl phthalate	2000	1.433328	4000	1.433627	6000	1.335146	8000	1.327822				
N-Nitrosodimethylamine	2000	1.225796	4000	1.224093	6000	1.191745	8000	1.181233				
N-Nitroso-di-n-propylamine	2000	1.149908	4000	1.025219	6000	0.980519	8000	0.9067643				

INITIAL CALIBRATION DATA (Continued)

EPA 8270D

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration: A9J1803
Instrument: SV-GCMS9
Matrix:
Calibration Date: 10/18/19 14:37

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
N-Nitrosodiphenylamine	2000	0.5896081	4000	0.4983187	6000	~~0.4416175~~	8000	~~0.4137926~~				
Bis(2-Chloroethoxy) methane	2000	0.4562662	4000	0.4227209	6000	0.3917115	8000	0.3626439				
Bis(2-Chloroethyl) ether	2000	1.971316	4000	1.774451	6000	1.478082	8000	1.397753				
2,2'-Oxybis(1-Chloropropane)	2000	2.179334	4000	1.89874	6000	1.753674	8000	~~1.510488~~				
Hexachlorobenzene	2000	0.2754968	4000	0.2661266	6000	0.2528429	8000	0.2406424				
Hexachlorobutadiene	2000	0.1877888	4000	0.1846128	6000	0.1779547	8000	0.1711964				
Hexachlorocyclopentadiene	2000	0.4072307	4000	0.3986078	6000	0.3833113	8000	0.3635606				
Hexachloroethane	2000	0.508406	4000	0.5023034	6000	0.5068014	8000	0.4861106				
2-Chloronaphthalene	2000	1.227497	4000	1.081102	6000	1.004457	8000	0.9232991				
1,2-Dichlorobenzene	2000	1.485414	4000	1.371142	6000	1.324918	8000	1.223473				
1,3-Dichlorobenzene	2000	1.614584	4000	1.528535	6000	1.501961	8000	1.415573				
1,4-Dichlorobenzene	2000	1.516718	4000	1.431711	6000	1.40731	8000	1.310726				
1,2,4-Trichlorobenzene	2000	0.3387443	4000	0.322795	6000	0.305903	8000	0.2880484				
4-Bromophenyl phenyl ether	2000	0.2383221	4000	0.23609	6000	0.2268098	8000	0.2188491				
4-Chlorophenyl phenyl ether	2000	0.705272	4000	0.6630593	6000	0.6230779	8000	0.586883				
Aniline	2000	1.815078	4000	1.784572	6000	1.886541	8000	1.784424				
4-Chloroaniline	2000	0.393282	4000	0.3922367	6000	0.3578092	8000	0.3382095				
2-Nitroaniline	2000	0.4055715	4000	0.4135884	6000	0.4040878	8000	0.4015496				
3-Nitroaniline	2000	0.2309323	4000	~~0.1717698~~	6000	~~0.1397608~~	8000	~~0.1604668~~				
4-Nitroaniline	2000	0.2443227	4000	0.2610937	6000	0.2592235	8000	0.2420753				
Nitrobenzene	2000	1.486522	4000	1.386811	6000	1.322422	8000	~~1.197805~~				
2,4-Dinitrotoluene	2000	0.4101378	4000	0.4223418	6000	0.4059896	8000	0.3797755				
2,6-Dinitrotoluene	2000	0.3312337	4000	0.3230539	6000	0.3109711	8000	0.2966667				
Benzoic acid	4000	0.1326233	8000	0.2005641	12000	0.217593	16000	0.2075313				
Benzyl alcohol	2000	0.9487846	4000	0.9562684	6000	0.9452642	8000	0.8929416				
Isophorone	2000	0.8105835	4000	0.7851367	6000	0.7497189	8000	0.7320915				
Azobenzene (1,2-DPH)	2000	0.7401068	4000	0.6076975	6000	~~0.5390385~~	8000	~~0.4858888~~				
Benzidine	4000	0.4457108	8000	0.4401225	12000	0.4093505	16000	0.3759457				
Bis(2-Ethylhexyl) adipate	2000	0.557048	4000	0.5474977	6000	0.5247413	8000	0.5031472				
3,3'-Dichlorobenzidine	4000	0.1544715	8000	0.1374539	12000	~~0.1378669~~	16000	~~0.1317219~~				
1,2-Dinitrobenzene	2000	0.1529336	4000	0.1554308	6000	0.150991	8000	0.1423422				

INITIAL CALIBRATION DATA (Continued)

EPA 8270D

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration: A9J1803
Instrument: SV-GCMS9
Matrix:
Calibration Date: 10/18/19 14:37

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
1,3-Dinitrobenzene	2000	0.2050175	4000	0.2172552	6000	0.2144045	8000	0.2092211				
1,4-Dinitrobenzene	2000	0.1562714	4000	0.1838025	6000	0.192694	8000	0.1934428				
Pyridine	2000	1.93958	4000	1.970311	6000	1.900232	8000	1.950497				
2,3,5-Trimethylnaphthalene	2000	1.169662	4000	1.034713	6000	0.956238	8000	0.8827995				
2,6-Dimethylnaphthalene	2000	1.249931	4000	1.107462	6000	1.003877	8000	0.9404066				
Benzo(e)pyrene	2000	1.193816	4000	1.161045	6000	1.110688	8000	1.093838				
1,1'-Biphenyl	2000	1.69128	4000	1.485529	6000	1.350438	8000	1.239661				
Perylene	2000	0.9539474	4000	0.9204651	6000	0.894342	8000	0.8762402				
Nitrobenzene-d5 (Surr)	2000	1.455077	4000	1.433906	6000	1.399863	8000	1.31195				
2-Fluorobiphenyl (Surr)	2000	1.504082	4000	1.337329	6000	1.227974	8000	1.133417				
Phenol-d6 (Surr)	2000	1.966987	4000	1.985867	6000	1.921086	8000	1.848738				
p-Terphenyl-d14 (Surr)	2000	1.028803	4000	1.002033	6000	0.9677689	8000	0.9356206				
2-Fluorophenol (Surr)	2000	1.579486	4000	1.593877	6000	1.567146	8000	1.562846				
2,4,6-Tribromophenol (Surr)	2000	0.1290112	4000	0.133301	6000	0.1340835	8000	0.1309928				

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	SV-GCMS9	Calibration:	A9J1803
Lab File ID:	I10161923.D		
Sequence:	9J16053	Inject Date:	10/16/19
Lab Sample ID:	9J16053-ICV1	Inject Time:	23:33

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Acenaphthene	1000	1020	2.4	70 - 130
Acenaphthylene	1000	1040	4.0	70 - 130
Anthracene	1000	1030	2.6	70 - 130
Benz(a)anthracene	1000	1030	2.7	70 - 130
Benzo(a)pyrene	1000	951	-4.9	70 - 130
Benzo(b)fluoranthene	1000	1050	4.8	70 - 130
Benzo(k)fluoranthene	1000	1120	12.1	70 - 130
Benzo(g,h,i)perylene	1000	1070	6.5	70 - 130
Chrysene	1000	999	-0.1	70 - 130
Dibenz(a,h)anthracene	1000	1000	0.3	70 - 130
Fluoranthene	1000	1050	5.2	70 - 130
Fluorene	1000	1000	0.5	70 - 130
Indeno(1,2,3-cd)pyrene	1000	981	-1.9	70 - 130
1-Methylnaphthalene	1000	1060	5.9	70 - 130
2-Methylnaphthalene	1000	1070	6.6	70 - 130
Naphthalene	1000	1030	2.9	70 - 130
Phenanthrene	1000	1020	2.1	70 - 130
Pyrene	1000	1070	6.7	70 - 130
Carbazole	1000	833	-16.7	70 - 130
Dibenzofuran	1000	1030	2.8	70 - 130
4-Chloro-3-methylphenol	1000	995	-0.5	70 - 130
2-Chlorophenol	1000	1060	6.4	70 - 130
2,4-Dichlorophenol	1000	1050	5.4	70 - 130
2,4-Dimethylphenol	1000	1040	4.0	70 - 130
2,4-Dinitrophenol	1000	966	-3.4	70 - 130
4,6-Dinitro-2-methylphenol	1000	1020	1.5	70 - 130
2-Methylphenol	1000	1100	10.3	70 - 130
3+4-Methylphenol(s)	1000	1060	6.1	70 - 130
2-Nitrophenol	1000	1120	12.2	70 - 130
4-Nitrophenol	1000	980	-2.0	70 - 130
Pentachlorophenol (PCP)	1000	976	-2.4	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	SV-GCMS9	Calibration:	A9J1803
Lab File ID:	I10161923.D		
Sequence:	9J16053	Inject Date:	10/16/19
Lab Sample ID:	9J16053-ICV1	Inject Time:	23:33

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Phenol	1000	1020	1.8	70 - 130
2,3,4,6-Tetrachlorophenol	1000	1000	0.4	70 - 130
2,3,5,6-Tetrachlorophenol	1000	1000	0.3	70 - 130
2,4,5-Trichlorophenol	1000	1030	3.3	70 - 130
2,4,6-Trichlorophenol	1000	1020	1.5	70 - 130
Bis(2-ethylhexyl)phthalate	1000	1030	2.9	70 - 130
Butyl benzyl phthalate	1000	996	-0.4	70 - 130
Diethylphthalate	1000	1020	2.0	70 - 130
Dimethylphthalate	1000	1040	3.7	70 - 130
Di-n-butylphthalate	1000	1060	6.2	70 - 130
Di-n-octyl phthalate	1000	966	-3.4	70 - 130
N-Nitrosodimethylamine	1000	962	-3.8	70 - 130
N-Nitroso-di-n-propylamine	1000	1020	2.2	70 - 130
N-Nitrosodiphenylamine	1000	984	-1.6	70 - 130
Bis(2-Chloroethoxy) methane	1000	1040	4.1	70 - 130
Bis(2-Chloroethyl) ether	1000	1050	5.5	70 - 130
2,2'-Oxybis(1-Chloropropane)	1000	942	-5.8	70 - 130
Hexachlorobenzene	1000	1060	6.2	70 - 130
Hexachlorobutadiene	1000	1020	1.7	70 - 130
Hexachlorocyclopentadiene	1000	994	-0.6	70 - 130
Hexachloroethane	1000	1020	2.2	70 - 130
2-Chloronaphthalene	1000	1070	6.6	70 - 130
1,2-Dichlorobenzene	1000	1010	1.5	70 - 130
1,3-Dichlorobenzene	1000	1010	0.8	70 - 130
1,4-Dichlorobenzene	1000	997	-0.3	70 - 130
1,2,4-Trichlorobenzene	1000	1030	2.9	70 - 130
4-Bromophenyl phenyl ether	1000	1010	0.8	70 - 130
4-Chlorophenyl phenyl ether	1000	1030	2.8	70 - 130
Aniline	1000	920	-8.0	70 - 130
4-Chloroaniline	1000	927	-7.3	70 - 130
2-Nitroaniline	1000	1030	2.9	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	SV-GCMS9	Calibration:	A9J1803
Lab File ID:	I10161923.D		
Sequence:	9J16053	Inject Date:	10/16/19
Lab Sample ID:	9J16053-ICV1	Inject Time:	23:33

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
3-Nitroaniline	1000	869	-13.1	70 - 130
4-Nitroaniline	1000	934	-6.6	70 - 130
Nitrobenzene	1000	1090	8.6	70 - 130
2,4-Dinitrotoluene	1000	994	-0.6	70 - 130
2,6-Dinitrotoluene	1000	1050	4.6	70 - 130
Benzoic acid	2000	1750	-12.6	70 - 130
Benzyl alcohol	1000	972	-2.8	70 - 130
Isophorone	1000	1030	2.7	70 - 130
Azobenzene (1,2-DPH)	1000	949	-5.1	70 - 130
Bis(2-Ethylhexyl) adipate	1000	1010	1.0	70 - 130
3,3'-Dichlorobenzidine	2000	1770	-11.7	70 - 130
1,2-Dinitrobenzene	1000	991	-0.9	70 - 130
1,3-Dinitrobenzene	1000	999	-0.1	70 - 130
1,4-Dinitrobenzene	1000	1000	0.4	70 - 130
Pyridine	1000	870	-13.0	70 - 130
Nitrobenzene-d5 (Surr)	1000	1120	12.4	70 - 130
2-Fluorobiphenyl (Surr)	1000	1070	7.4	70 - 130
Phenol-d6 (Surr)	1000	1030	3.4	70 - 130
p-Terphenyl-d14 (Surr)	1000	1040	4.2	70 - 130
2-Fluorophenol (Surr)	1000	980	-2.0	70 - 130
2,4,6-Tribromophenol (Surr)	1000	992	-0.8	70 - 130

CONTINUING CALIBRATION CHECK

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID:	SV-GCMS9	Calibration:	A9J1803
Lab File ID:	I11011902.D	Calibration Date:	10/18/19 14:37
Sequence:	9K01021	Injection Date:	11/01/19
Lab Sample ID:	9K01021-CCV1	Injection Time:	10:01

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
2-Methylphenol	Ave	1000	1050		1.099165	1.159586	5.5	20
3+4-Methylphenol(s)	Ave	1000	1100		1.341624	1.474952	9.9	20
Pentachlorophenol (PCP)	XXX	1000	1110	11.3				20
Phenol	Ave	1000	1060		1.88751	2.007849	6.4	20
2,4,5-Trichlorophenol	XXX	1000	1110	10.7				20
2,4,6-Trichlorophenol	XXX	1000	1090	9.0				20
Hexachlorobenzene	Ave	1000	1090		0.2772973	0.3021258	9.0	20
Hexachlorobutadiene	Ave	1000	1090		0.1859475	0.2020719	8.7	20
Hexachloroethane	Ave	1000	1060		0.4895762	0.5209454	6.4	20
Nitrobenzene	Ave	1000	1030		1.377218	1.419196	3.0	20
2,4-Dinitrotoluene	XXX	1000	1120	12.4				20
Pyridine	Ave	1000	871		1.836599	1.600377	-12.9	20

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

* = Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J16053	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9J16053-ICV1)			Lab File ID: I10161923.D		Analyzed: 10/16/19 23:33			
Nitrobenzene-d5 (Surr)	1000	112	70 - 130	7.199	7.2032	-0.0042	+/-1.0	
2-Fluorobiphenyl (Surr)	1000	107	70 - 130	9.007	9.0078	-0.0008	+/-1.0	
Phenol-d6 (Surr)	1000	103	70 - 130	6.295	6.2976	-0.0026	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	104	70 - 130	13.023	13.0243	-0.0013	+/-1.0	
2-Fluorophenol (Surr)	1000	98	70 - 130	5.407	5.4102	-0.0032	+/-1.0	
2,4,6-Tribromophenol (Surr)	1000	99	70 - 130	10.499	10.50367	-0.0047	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K01021	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9K01021-CCV1)			Lab File ID: I11011902.D		Analyzed: 11/01/19 10:01			
Nitrobenzene-d5 (Surr)	1000	107	80 - 120	7.145	7.2032	-0.0582	+/-1.0	
2-Fluorobiphenyl (Surr)	1000	109	80 - 120	8.948	9.0078	-0.0598	+/-1.0	
Phenol-d6 (Surr)	1000	104	80 - 120	6.247	6.2976	-0.0506	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	105	80 - 120	12.938	13.0243	-0.0863	+/-1.0	
2-Fluorophenol (Surr)	1000	96	80 - 120	5.364	5.4102	-0.0462	+/-1.0	
2,4,6-Tribromophenol (Surr)	1000	115	80 - 120	10.44	10.50367	-0.0637	+/-1.0	
Calibration Blank (9K01021-CCB1)			Lab File ID: I11011903.D		Analyzed: 11/01/19 10:35			
Nitrobenzene-d5 (Surr)			37 - 122	0	7.2032	-7.2032	+/-1.0	
2-Fluorobiphenyl (Surr)			44 - 115	0	9.0078	-9.0078	+/-1.0	
Phenol-d6 (Surr)			33 - 122	0	6.2976	-6.2976	+/-1.0	
p-Terphenyl-d14 (Surr)			54 - 127	0	13.0243	-13.0243	+/-1.0	
2-Fluorophenol (Surr)			35 - 115	0	5.4102	-5.4102	+/-1.0	
2,4,6-Tribromophenol (Surr)			39 - 132	0	10.50367	-10.5037	+/-1.0	
Blank (9110357-BLK2)			Lab File ID: I11011904.D		Analyzed: 11/01/19 11:09			
Nitrobenzene-d5 (Surr)	312	76	37 - 122	7.145	7.2032	-0.0582	+/-1.0	
2-Fluorobiphenyl (Surr)	312	76	44 - 115	8.948	9.0078	-0.0598	+/-1.0	
Phenol-d6 (Surr)	312	66	33 - 122	6.252	6.2976	-0.0456	+/-1.0	
p-Terphenyl-d14 (Surr)	312	87	54 - 127	12.938	13.0243	-0.0863	+/-1.0	
2-Fluorophenol (Surr)	312	60	35 - 115	5.37	5.4102	-0.0402	+/-1.0	
2,4,6-Tribromophenol (Surr)	312	85	39 - 132	10.44	10.50367	-0.0637	+/-1.0	
LCS (9110357-BS2)			Lab File ID: I11011905.D		Analyzed: 11/01/19 11:44			
Nitrobenzene-d5 (Surr)	333	93	37 - 122	7.145	7.2032	-0.0582	+/-1.0	
2-Fluorobiphenyl (Surr)	333	101	44 - 115	8.948	9.0078	-0.0598	+/-1.0	
Phenol-d6 (Surr)	333	90	33 - 122	6.252	6.2976	-0.0456	+/-1.0	
p-Terphenyl-d14 (Surr)	333	102	54 - 127	12.938	13.0243	-0.0863	+/-1.0	
2-Fluorophenol (Surr)	333	79	35 - 115	5.37	5.4102	-0.0402	+/-1.0	
2,4,6-Tribromophenol (Surr)	333	108	39 - 132	10.44	10.50367	-0.0637	+/-1.0	
PDI-015SC-C-00-8.1-191024 (A9J0950-01)			Lab File ID: I11011906.D		Analyzed: 11/01/19 12:19			
Nitrobenzene-d5 (Surr)	409	146	37 - 122	7.14	7.2032	-0.0632	+/-1.0	*
2-Fluorobiphenyl (Surr)	409	171	44 - 115	8.948	9.0078	-0.0598	+/-1.0	*
Phenol-d6 (Surr)	409	59	33 - 122	6.247	6.2976	-0.0506	+/-1.0	
p-Terphenyl-d14 (Surr)	409	146	54 - 127	12.933	13.0243	-0.0913	+/-1.0	*
2-Fluorophenol (Surr)	409	27	35 - 115	5.359	5.4102	-0.0512	+/-1.0	*
2,4,6-Tribromophenol (Surr)	409		39 - 132	0	10.50367	-10.5037	+/-1.0	*

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K01021	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Duplicate (9110357-DUP2)			Lab File ID: I11011907.D		Analyzed: 11/01/19 12:54			
Nitrobenzene-d5 (Surr)	407	79	37 - 122	7.145	7.2032	-0.0582	+/-1.0	
2-Fluorobiphenyl (Surr)	407	131	44 - 115	8.948	9.0078	-0.0598	+/-1.0	*
Phenol-d6 (Surr)	407	59	33 - 122	6.252	6.2976	-0.0456	+/-1.0	
p-Terphenyl-d14 (Surr)	407	99	54 - 127	12.938	13.0243	-0.0863	+/-1.0	
2-Fluorophenol (Surr)	407	31	35 - 115	5.364	5.4102	-0.0462	+/-1.0	*
2,4,6-Tribromophenol (Surr)	407		39 - 132	0	10.50367	-10.5037	+/-1.0	*
PDI-026SC-C-00-3.9-191024 (A9J0950-02)			Lab File ID: I11011908.D		Analyzed: 11/01/19 13:29			
Nitrobenzene-d5 (Surr)	429	141	37 - 122	7.14	7.2032	-0.0632	+/-1.0	*
2-Fluorobiphenyl (Surr)	429	114	44 - 115	8.942	9.0078	-0.0658	+/-1.0	
Phenol-d6 (Surr)	429	35	33 - 122	6.252	6.2976	-0.0456	+/-1.0	
p-Terphenyl-d14 (Surr)	429	106	54 - 127	12.938	13.0243	-0.0863	+/-1.0	
2-Fluorophenol (Surr)	429	44	35 - 115	5.364	5.4102	-0.0462	+/-1.0	
2,4,6-Tribromophenol (Surr)	429		39 - 132	0	10.50367	-10.5037	+/-1.0	*
PDI-037SC-C-00-12.4-191024 (A9J0950-03)			Lab File ID: I11011909.D		Analyzed: 11/01/19 14:05			
Nitrobenzene-d5 (Surr)	434	77	37 - 122	7.151	7.2032	-0.0522	+/-1.0	
2-Fluorobiphenyl (Surr)	434	113	44 - 115	8.942	9.0078	-0.0658	+/-1.0	
Phenol-d6 (Surr)	434	42	33 - 122	6.247	6.2976	-0.0506	+/-1.0	
p-Terphenyl-d14 (Surr)	434	114	54 - 127	12.938	13.0243	-0.0863	+/-1.0	
2-Fluorophenol (Surr)	434		35 - 115	0	5.4102	-5.4102	+/-1.0	*
2,4,6-Tribromophenol (Surr)	434		39 - 132	0	10.50367	-10.5037	+/-1.0	*
PDI-073SC-C-00-13.7-191024 (A9J0950-04)			Lab File ID: I11011910.D		Analyzed: 11/01/19 14:40			
Nitrobenzene-d5 (Surr)	481	149	37 - 122	7.145	7.2032	-0.0582	+/-1.0	*
2-Fluorobiphenyl (Surr)	481	114	44 - 115	8.948	9.0078	-0.0598	+/-1.0	
Phenol-d6 (Surr)	481	41	33 - 122	6.257	6.2976	-0.0406	+/-1.0	
p-Terphenyl-d14 (Surr)	481	105	54 - 127	12.938	13.0243	-0.0863	+/-1.0	
2-Fluorophenol (Surr)	481	42	35 - 115	5.37	5.4102	-0.0402	+/-1.0	
2,4,6-Tribromophenol (Surr)	481		39 - 132	0	10.50367	-10.5037	+/-1.0	*

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K01021	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (9K01021-CCV1)			Lab File ID: I11011902.D			Analyzed: 11/01/19 10:01			
1,4-Dichlorobenzene-d4 (ISTD)	100905	6.605	108692	6.659	93	50 - 200	-0.0540	+/-0.50	
Naphthalene-d8 (ISTD)	384962	7.862	415784	7.921	93	50 - 200	-0.0590	+/-0.50	
Acenaphthene-d10 (ISTD)	197971	9.643	210848	9.702	94	50 - 200	-0.0590	+/-0.50	
Phenanthrene-d10 (ISTD)	376095	11.151	394261	11.216	95	50 - 200	-0.0650	+/-0.50	
Chrysene-d12 (ISTD)	404706	14.933	404897	15.051	100	50 - 200	-0.1180	+/-0.50	
Perylene-d12 (ISTD)	405313	18.42	409934	18.554	99	50 - 200	-0.1340	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	362980	20.811	363670	20.95	100	50 - 200	-0.1390	+/-0.50	
Calibration Blank (9K01021-CCB1)			Lab File ID: I11011903.D			Analyzed: 11/01/19 10:35			
1,4-Dichlorobenzene-d4 (ISTD)	109644	6.605	100905	6.605	109	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	424668	7.862	384962	7.862	110	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	218592	9.638	197971	9.643	110	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	392156	11.151	376095	11.151	104	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	407371	14.922	404706	14.933	101	50 - 200	-0.0110	+/-0.50	
Perylene-d12 (ISTD)	391878	18.409	405313	18.42	97	50 - 200	-0.0110	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	314017	20.8	362980	20.811	87	50 - 200	-0.0110	+/-0.50	
Blank (9110357-BLK2)			Lab File ID: I11011904.D			Analyzed: 11/01/19 11:09			
1,4-Dichlorobenzene-d4 (ISTD)	114442	6.605	100905	6.605	113	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	439250	7.862	384962	7.862	114	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	225356	9.638	197971	9.643	114	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	418613	11.152	376095	11.151	111	50 - 200	0.0010	+/-0.50	
Chrysene-d12 (ISTD)	449358	14.922	404706	14.933	111	50 - 200	-0.0110	+/-0.50	
Perylene-d12 (ISTD)	448066	18.41	405313	18.42	111	50 - 200	-0.0100	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	371409	20.8	362980	20.811	102	50 - 200	-0.0110	+/-0.50	
LCS (9110357-BS2)			Lab File ID: I11011905.D			Analyzed: 11/01/19 11:44			
1,4-Dichlorobenzene-d4 (ISTD)	109240	6.605	100905	6.605	108	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	408681	7.862	384962	7.862	106	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	209161	9.638	197971	9.643	106	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	403657	11.152	376095	11.151	107	50 - 200	0.0010	+/-0.50	
Chrysene-d12 (ISTD)	432360	14.928	404706	14.933	107	50 - 200	-0.0050	+/-0.50	
Perylene-d12 (ISTD)	439300	18.415	405313	18.42	108	50 - 200	-0.0050	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	397565	20.806	362980	20.811	110	50 - 200	-0.0050	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K01021	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
PDI-015SC-C-00-8.1-191024 (A9J0950-01)			Lab File ID: I11011906.D			Analyzed: 11/01/19 12:19			
1,4-Dichlorobenzene-d4 (ISTD)	118140	6.6	100905	6.605	117	50 - 200	-0.0050	+/-0.50	
Naphthalene-d8 (ISTD)	440847	7.867	384962	7.862	115	50 - 200	0.0050	+/-0.50	
Acenaphthene-d10 (ISTD)	210652	9.638	197971	9.643	106	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	384511	11.152	376095	11.151	102	50 - 200	0.0010	+/-0.50	
Chrysene-d12 (ISTD)	413609	14.928	404706	14.933	102	50 - 200	-0.0050	+/-0.50	
Perylene-d12 (ISTD)	424620	18.415	405313	18.42	105	50 - 200	-0.0050	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	384243	20.811	362980	20.811	106	50 - 200	0.0000	+/-0.50	
Duplicate (9110357-DUP2)			Lab File ID: I11011907.D			Analyzed: 11/01/19 12:54			
1,4-Dichlorobenzene-d4 (ISTD)	117262	6.605	100905	6.605	116	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	440101	7.867	384962	7.862	114	50 - 200	0.0050	+/-0.50	
Acenaphthene-d10 (ISTD)	210970	9.638	197971	9.643	107	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	395641	11.152	376095	11.151	105	50 - 200	0.0010	+/-0.50	
Chrysene-d12 (ISTD)	430642	14.928	404706	14.933	106	50 - 200	-0.0050	+/-0.50	
Perylene-d12 (ISTD)	437113	18.42	405313	18.42	108	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	391900	20.811	362980	20.811	108	50 - 200	0.0000	+/-0.50	
PDI-026SC-C-00-3.9-191024 (A9J0950-02)			Lab File ID: I11011908.D			Analyzed: 11/01/19 13:29			
1,4-Dichlorobenzene-d4 (ISTD)	118044	6.605	100905	6.605	117	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	441502	7.867	384962	7.862	115	50 - 200	0.0050	+/-0.50	
Acenaphthene-d10 (ISTD)	212282	9.638	197971	9.643	107	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	392896	11.151	376095	11.151	104	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	422311	14.927	404706	14.933	104	50 - 200	-0.0060	+/-0.50	
Perylene-d12 (ISTD)	430391	18.42	405313	18.42	106	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	394467	20.811	362980	20.811	109	50 - 200	0.0000	+/-0.50	
PDI-037SC-C-00-12.4-191024 (A9J0950-03)			Lab File ID: I11011909.D			Analyzed: 11/01/19 14:05			
1,4-Dichlorobenzene-d4 (ISTD)	111950	6.605	100905	6.605	111	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	435658	7.862	384962	7.862	113	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	213056	9.638	197971	9.643	108	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	386419	11.151	376095	11.151	103	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	416633	14.928	404706	14.933	103	50 - 200	-0.0050	+/-0.50	
Perylene-d12 (ISTD)	416125	18.415	405313	18.42	103	50 - 200	-0.0050	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	373529	20.811	362980	20.811	103	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K01021	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
PDI-073SC-C-00-13.7-191024 (A9J0950-04)			Lab File ID: I11011910.D			Analyzed: 11/01/19 14:40			
1,4-Dichlorobenzene-d4 (ISTD)	114826	6.605	100905	6.605	114	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	446228	7.867	384962	7.862	116	50 - 200	0.0050	+/-0.50	
Acenaphthene-d10 (ISTD)	212697	9.638	197971	9.643	107	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	403918	11.151	376095	11.151	107	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	436162	14.933	404706	14.933	108	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	448201	18.42	405313	18.42	111	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	406780	20.816	362980	20.811	112	50 - 200	0.0050	+/-0.50	

HOLDING TIME SUMMARY

EPA 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-015SC-C-00-8.1-191024	10/24/19 13:17	10/25/19 14:40	11/01/19 07:18	7.75	14.00	11/01/19 12:19	0.21	40.00	
PDI-026SC-C-00-3.9-191024	10/24/19 09:58	10/25/19 14:40	11/01/19 07:18	7.89	14.00	11/01/19 13:29	0.26	40.00	
PDI-037SC-C-00-12.4-191024	10/24/19 11:36	10/25/19 14:40	11/01/19 07:18	7.82	14.00	11/01/19 14:05	0.28	40.00	
PDI-073SC-C-00-13.7-191024	10/24/19 14:31	10/25/19 14:40	11/01/19 07:18	7.70	14.00	11/01/19 14:40	0.31	40.00	

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GCMS

METHOD: 1311/8270D

ANALYSES DATA PACKAGE COVER PAGE

1311/8270D

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

Client Sample Id:	Lab Sample Id:	Matrix
PDI-015SC-C-00-8.1-191024	A9J0950-01	Sediment
PDI-026SC-C-00-3.9-191024	A9J0950-02	Sediment
PDI-037SC-C-00-12.4-191024	A9J0950-03	Sediment
PDI-073SC-C-00-13.7-191024	A9J0950-04	Sediment

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: 12/17/2019 3:37PM
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: Sediment

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-015SC-C-00-8.1-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-01	File ID:	I11061910.D
Sampled:	10/24/19 13:17	Prepared:	11/06/19 07:15	Analyzed:	11/06/19 13:46
Solids:	81.42	Preparation:	EPA 1311/3510C (BNA Extr	Initial/Final:	200 mL / 2 mL
Batch:	9110499	Sequence:	9K06033	Calibration:	A9J1803
Instrument:	SV-GCMS9				

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
121-14-2	2,4-Dinitrotoluene	50	0.0500	U
118-74-1	Hexachlorobenzene	50	0.0500	U
87-68-3	Hexachlorobutadiene	50	0.125	U
67-72-1	Hexachloroethane	50	0.125	U
95-48-7	2-Methylphenol	50	0.125	U
NA	3+4-Methylphenol(s)	50	0.125	U
98-95-3	Nitrobenzene	50	0.125	U
87-86-5	Pentachlorophenol (PCP)	50	0.250	U
110-86-1	Pyridine	50	0.250	U
95-95-4	2,4,5-Trichlorophenol	50	0.125	U
88-06-2	2,4,6-Trichlorophenol	50	0.125	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	0.0250	0.0212	85	44 - 120	D
2-Fluorobiphenyl (Surr)	0.0250	0.0228	91	44 - 120	D
Phenol-d6 (Surr)	0.0250	0.00286	11	10 - 120	D
p-Terphenyl-d14 (Surr)	0.0250	0.0230	92	50 - 133	D
2-Fluorophenol (Surr)	0.0250	0.00674	27	19 - 120	D
2,4,6-Tribromophenol (Surr)	0.0250	0.0321	128	43 - 140	D

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	92757	6.525	85577	6.52	
Naphthalene-d8 (ISTD)	336801	7.776	340138	7.771	
Acenaphthene-d10 (ISTD)	188358	9.547	182719	9.547	
Phenanthrene-d10 (ISTD)	372409	11.055	361511	11.055	
Chrysene-d12 (ISTD)	416745	14.751	395486	14.751	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

1311/8270D

PDI-026SC-C-00-3.9-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-02	File ID:	I11061911.D
Sampled:	10/24/19 09:58	Prepared:	11/06/19 07:15	Analyzed:	11/06/19 14:22
Solids:	76.10	Preparation:	EPA 1311/3510C (BNA Extr	Initial/Final:	200 mL / 2 mL
Batch:	9110499	Sequence:	9K06033	Calibration:	A9J1803
Instrument:	SV-GCMS9				

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
121-14-2	2,4-Dinitrotoluene	50	0.0500	U
118-74-1	Hexachlorobenzene	50	0.0500	U
87-68-3	Hexachlorobutadiene	50	0.125	U
67-72-1	Hexachloroethane	50	0.125	U
95-48-7	2-Methylphenol	50	0.125	U
NA	3+4-Methylphenol(s)	50	0.125	U
98-95-3	Nitrobenzene	50	0.125	U
87-86-5	Pentachlorophenol (PCP)	50	0.250	U
110-86-1	Pyridine	50	0.250	U
95-95-4	2,4,5-Trichlorophenol	50	0.125	U
88-06-2	2,4,6-Trichlorophenol	50	0.125	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	0.0250	0.0192	77	44 - 120	D
2-Fluorobiphenyl (Surr)	0.0250	0.0217	87	44 - 120	D
Phenol-d6 (Surr)	0.0250	0.00228	9	10 - 120	D
p-Terphenyl-d14 (Surr)	0.0250	0.0206	82	50 - 133	D
2-Fluorophenol (Surr)	0.0250	0.00618	25	19 - 120	D
2,4,6-Tribromophenol (Surr)	0.0250	0.0287	115	43 - 140	D

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	92042	6.52	85577	6.52	
Naphthalene-d8 (ISTD)	357946	7.776	340138	7.771	
Acenaphthene-d10 (ISTD)	195071	9.547	182719	9.547	
Phenanthrene-d10 (ISTD)	379430	11.055	361511	11.055	
Chrysene-d12 (ISTD)	431166	14.746	395486	14.751	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

1311/8270D

PDI-037SC-C-00-12.4-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-03	File ID:	I11061912.D
Sampled:	10/24/19 11:36	Prepared:	11/06/19 07:15	Analyzed:	11/06/19 14:57
Solids:	75.83	Preparation:	EPA 1311/3510C (BNA Extr	Initial/Final:	200 mL / 2 mL
Batch:	9110499	Sequence:	9K06033	Calibration:	A9J1803
Instrument:	SV-GCMS9				

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
121-14-2	2,4-Dinitrotoluene	50	0.0500	U
118-74-1	Hexachlorobenzene	50	0.0500	U
87-68-3	Hexachlorobutadiene	50	0.125	U
67-72-1	Hexachloroethane	50	0.125	U
95-48-7	2-Methylphenol	50	0.125	U
NA	3+4-Methylphenol(s)	50	0.125	U
98-95-3	Nitrobenzene	50	0.125	U
87-86-5	Pentachlorophenol (PCP)	50	0.250	U
110-86-1	Pyridine	50	0.250	U
95-95-4	2,4,5-Trichlorophenol	50	0.125	U
88-06-2	2,4,6-Trichlorophenol	50	0.125	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	0.0250	0.0183	73	44 - 120	D
2-Fluorobiphenyl (Surr)	0.0250	0.0222	89	44 - 120	D
Phenol-d6 (Surr)	0.0250	0.00182	7	10 - 120	D
p-Terphenyl-d14 (Surr)	0.0250	0.0215	86	50 - 133	D
2-Fluorophenol (Surr)	0.0250	0.00661	26	19 - 120	D
2,4,6-Tribromophenol (Surr)	0.0250	0.0292	117	43 - 140	D

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	95585	6.52	85577	6.52	
Naphthalene-d8 (ISTD)	359606	7.776	340138	7.771	
Acenaphthene-d10 (ISTD)	191798	9.547	182719	9.547	
Phenanthrene-d10 (ISTD)	379605	11.055	361511	11.055	
Chrysene-d12 (ISTD)	431567	14.746	395486	14.751	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

1311/8270D

PDI-073SC-C-00-13.7-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-04	File ID:	I11061913.D
Sampled:	10/24/19 14:31	Prepared:	11/06/19 07:15	Analyzed:	11/06/19 15:32
Solids:	67.83	Preparation:	EPA 1311/3510C (BNA Extr	Initial/Final:	200 mL / 2 mL
Batch:	9110499	Sequence:	9K06033	Calibration:	A9J1803
Instrument:	SV-GCMS9				

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
121-14-2	2,4-Dinitrotoluene	50	0.0500	U
118-74-1	Hexachlorobenzene	50	0.0500	U
87-68-3	Hexachlorobutadiene	50	0.125	U
67-72-1	Hexachloroethane	50	0.125	U
95-48-7	2-Methylphenol	50	0.125	U
NA	3+4-Methylphenol(s)	50	0.125	U
98-95-3	Nitrobenzene	50	0.125	U
87-86-5	Pentachlorophenol (PCP)	50	0.250	U
110-86-1	Pyridine	50	0.250	U
95-95-4	2,4,5-Trichlorophenol	50	0.125	U
88-06-2	2,4,6-Trichlorophenol	50	0.125	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	0.0250	0.0195	78	44 - 120	D
2-Fluorobiphenyl (Surr)	0.0250	0.0216	87	44 - 120	D
Phenol-d6 (Surr)	0.0250	0.00215	9	10 - 120	D
p-Terphenyl-d14 (Surr)	0.0250	0.0210	84	50 - 133	D
2-Fluorophenol (Surr)	0.0250	0.00737	29	19 - 120	D
2,4,6-Tribromophenol (Surr)	0.0250	0.0316	127	43 - 140	D

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	94860	6.519	85577	6.52	
Naphthalene-d8 (ISTD)	350725	7.776	340138	7.771	
Acenaphthene-d10 (ISTD)	189548	9.547	182719	9.547	
Phenanthrene-d10 (ISTD)	378254	11.055	361511	11.055	
Chrysene-d12 (ISTD)	429393	14.746	395486	14.751	

* 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: 9110499 Batch Matrix: Sediment Preparation: EPA 1311/3510C (BNA Extraction)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110499-BLK1	I11061907.D	11/06/19 07:15	
LCS	9110499-BS1	I11061908.D	11/06/19 07:15	
LCS Dup	9110499-BSD1	I11061909.D	11/06/19 07:15	
PDI-015SC-C-00-8.1-191024	A9J0950-01	I11061910.D	11/06/19 07:15	
PDI-026SC-C-00-3.9-191024	A9J0950-02	I11061911.D	11/06/19 07:15	
PDI-037SC-C-00-12.4-191024	A9J0950-03	I11061912.D	11/06/19 07:15	
PDI-073SC-C-00-13.7-191024	A9J0950-04	I11061913.D	11/06/19 07:15	

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.

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:	Sediment	Laboratory ID:	9110499-BLK1	File ID:	I11061907.D
Prepared:	11/06/19 07:15	Preparation:	EPA 1311/3510C (BNA Extr	Initial/Final:	200 mL / 2 mL
Analyzed:	11/06/19 12:00	Instrument:	SV-GCMS9		
Batch:	9110499	Sequence:	9K06033	Calibration:	A9J1803

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	0.0214	86	44 - 120	
2-Fluorobiphenyl (Surr)	0.0250	0.0185	74	44 - 120	
Phenol-d6 (Surr)	0.0250	0.00591	24	10 - 120	
p-Terphenyl-d14 (Surr)	0.0250	0.0227	91	50 - 133	
2-Fluorophenol (Surr)	0.0250	0.00861	34	19 - 120	
2,4,6-Tribromophenol (Surr)	0.0250	0.0275	110	43 - 140	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	93908	6.519	85577	6.52	
Naphthalene-d8 (ISTD)	365340	7.771	340138	7.771	
Acenaphthene-d10 (ISTD)	196781	9.547	182719	9.547	
Phenanthrene-d10 (ISTD)	373671	11.06	361511	11.055	
Chrysene-d12 (ISTD)	427463	14.751	395486	14.751	

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:	Sediment		
Batch:	9110499	Laboratory ID:	9110499-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	0.0417	104	57 - 128
Hexachlorobenzene	0.0400	0.0408	102	52 - 125
Hexachlorobutadiene	0.0400	0.0132	33	22 - 124
Hexachloroethane	0.0400	0.0121	30	21 - 120
2-Methylphenol	0.0400	0.0285	71	30 - 120
3+4-Methylphenol(s)	0.0400	0.0262	66	29 - 120
Nitrobenzene	0.0400	0.0340	85	45 - 121
Pentachlorophenol (PCP)	0.0400	0.0358	89	35 - 138
Pyridine	0.0400	0.0122	31	5 - 120
2,4,5-Trichlorophenol	0.0400	0.0368	92	53 - 123
2,4,6-Trichlorophenol	0.0400	0.0364	91	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:	Sediment		
Batch:	9110499	Laboratory ID:	9110499-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	0.0402	101	4	30	57 - 128
Hexachlorobenzene	0.0400	0.0438	110	7	30	52 - 125
Hexachlorobutadiene	0.0400	0.0320	80	83 *	30	22 - 124
Hexachloroethane	0.0400	0.0282	70	80 *	30	21 - 120
2-Methylphenol	0.0400	0.0265	66	7	30	30 - 120
3+4-Methylphenol(s)	0.0400	0.0255	64	3	30	29 - 120
Nitrobenzene	0.0400	0.0305	76	11	30	45 - 121
Pentachlorophenol (PCP)	0.0400	0.0347	87	3	30	35 - 138
Pyridine	0.0400	0.0134	34	9	30	5 - 120
2,4,5-Trichlorophenol	0.0400	0.0370	92	0.6	30	53 - 123
2,4,6-Trichlorophenol	0.0400	0.0374	94	3	30	50 - 125

* = Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J16053	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J16053-TUN1	I10161910.D	10/16/19 16:07
Initial Cal Blank	9J16053-ICB1	I10161911.D	10/16/19 16:34
Cal Standard	9J16053-CAL1	I10161912.D	10/16/19 17:09
Cal Standard	9J16053-CAL2	I10161913.D	10/16/19 17:44
Cal Standard	9J16053-CAL3	I10161914.D	10/16/19 18:19
Cal Standard	9J16053-CAL4	I10161915.D	10/16/19 18:54
Cal Standard	9J16053-CAL5	I10161916.D	10/16/19 19:30
Cal Standard	9J16053-CAL6	I10161917.D	10/16/19 20:05
Cal Standard	9J16053-CAL7	I10161918.D	10/16/19 20:40
Cal Standard	9J16053-CAL8	I10161919.D	10/16/19 21:14
Cal Standard	9J16053-CAL9	I10161920.D	10/16/19 21:49
Cal Standard	9J16053-CALA	I10161921.D	10/16/19 22:24
Initial Cal Check	9J16053-ICV1	I10161923.D	10/16/19 23:33

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:	9K06033	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9K06033-TUN2	I11061904.D	11/06/19 10:23
Calibration Check	9K06033-CCV2	I11061905.D	11/06/19 10:50
Calibration Blank	9K06033-CCB1	I11061906.D	11/06/19 11:25
Blank	9110499-BLK1	I11061907.D	11/06/19 12:00
LCS	9110499-BS1	I11061908.D	11/06/19 12:36
LCS Dup	9110499-BSD1	I11061909.D	11/06/19 13:11
PDI-015SC-C-00-8.1-191024	A9J0950-01	I11061910.D	11/06/19 13:46
PDI-026SC-C-00-3.9-191024	A9J0950-02	I11061911.D	11/06/19 14:22
PDI-037SC-C-00-12.4-191024	A9J0950-03	I11061912.D	11/06/19 14:57
PDI-073SC-C-00-13.7-191024	A9J0950-04	I11061913.D	11/06/19 15:32

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:	I10161910.D	Injection Date:	10/16/19
Instrument ID:	SV-GCMS9	Injection Time:	16:07
Sequence:	9J16053	Lab Sample ID:	9J16053-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	0.00	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.49	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	7.24	PASS
m/z 365	1 - 100% of m/z 198	4.51	PASS
m/z 441	Less than 150% of m/z 443	16.35	PASS
m/z 442	0.1 - 200% of m/z 198	159.87	PASS
m/z 443	15 - 24% of m/z 442	20.35	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:	I11061904.D	Injection Date:	11/06/19
Instrument ID:	SV-GCMS9	Injection Time:	10:23
Sequence:	9K06033	Lab Sample ID:	9K06033-TUN2

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	0.10	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.50	PASS
m/z 197	Less than 2% of m/z 198	0.00	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	7.09	PASS
m/z 365	1 - 100% of m/z 198	4.61	PASS
m/z 441	Less than 150% of m/z 443	5.24	PASS
m/z 442	0.1 - 200% of m/z 198	186.68	PASS
m/z 443	15 - 24% of m/z 442	20.28	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: A9J1803 Date: 10/18/19 14:37 Instrument: SV-GCMS9

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
2,4-Dinitrotoluene	0.3301329	XXX	30.90523	9.887125	0.1129094				
Hexachlorobenzene	0.2772973	Ave	7.01503	10.8293	5.546932E-02			20	
Hexachlorobutadiene	0.1859475	Ave	5.065064	8.073	3.448972E-02			20	
Hexachloroethane	0.4895762	Ave	3.804138	7.1652	4.173269E-02			20	
2-Methylphenol	1.099165	Ave	7.789134	6.8961	7.314507E-02			20	
3+4-Methylphenol(s)	1.341624	Ave	10.74992	7.044889	0.1081421			20	
Nitrobenzene	1.377218	Ave	7.938123	7.220778	6.836454E-02			20	
Pentachlorophenol (PCP)	0.1259349	XXX	25.12494	11.02237	3.824211E-02				
Pyridine	1.836599	Ave	6.454497	4.099333	0.4911306			20	
2,4,5-Trichlorophenol	0.3525281	XXX	18.08522	8.956111	5.635937E-02				
2,4,6-Trichlorophenol	0.3570852	XXX	22.06597	8.923333	4.703718E-02				
Nitrobenzene-d5 (Surr)	1.300669	Ave	10.50682	7.2032	9.179795E-02			20	
2-Fluorobiphenyl (Surr)	1.469509	Ave	13.1077	9.0078	5.187103E-02			20	
Phenol-d6 (Surr)	1.782102	Ave	10.17121	6.2976	0.13622			20	
p-Terphenyl-d14 (Surr)	0.9704079	Ave	5.838011	13.0243	5.545816E-02			20	
2-Fluorophenol (Surr)	1.47269	Ave	7.135994	5.4102	0.1230205			20	
2,4,6-Tribromophenol (Surr)	0.1140922	XXX	19.74819	10.50367	6.062349E-02				
2-Methylphenol	1.099165	Ave	7.789134	6.8961	7.314507E-02			20	
3+4-Methylphenol(s)	1.341624	Ave	10.74992	7.044889	0.1081421			20	
Pentachlorophenol (PCP)	0.1259349	XXX	25.12494	11.02237	3.824211E-02				
2,4,5-Trichlorophenol	0.3525281	XXX	18.08522	8.956111	5.635937E-02				
2,4,6-Trichlorophenol	0.3570852	XXX	22.06597	8.923333	4.703718E-02				
Hexachlorobenzene	0.2772973	Ave	7.01503	10.8293	5.546932E-02			20	
Hexachlorobutadiene	0.1859475	Ave	5.065064	8.073	3.448972E-02			20	
Hexachloroethane	0.4895762	Ave	3.804138	7.1652	4.173269E-02			20	
Nitrobenzene	1.377218	Ave	7.938123	7.220778	6.836454E-02			20	
2,4-Dinitrotoluene	0.3301329	XXX	30.90523	9.887125	0.1129094				
Pyridine	1.836599	Ave	6.454497	4.099333	0.4911306			20	
Nitrobenzene-d5 (Surr)	1.300669	Ave	10.50682	7.2032	9.179795E-02			20	
2-Fluorobiphenyl (Surr)	1.469509	Ave	13.1077	9.0078	5.187103E-02			20	
Phenol-d6 (Surr)	1.782102	Ave	10.17121	6.2976	0.13622			20	
p-Terphenyl-d14 (Surr)	0.9704079	Ave	5.838011	13.0243	5.545816E-02			20	
2-Fluorophenol (Surr)	1.47269	Ave	7.135994	5.4102	0.1230205			20	

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: A9J1803 Date: 10/18/19 14:37 Instrument: SV-GCMS9

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
2,4,6-Tribromophenol (Surr)	0.1140922	XXX	19.74819	10.50367	6.062349E-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: A9J1803

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: SV-GCMS9

Calibration Date: 10/18/19 14:37

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	~~0.1342775~~	50	~~0.1234279~~	100	0.1573569	200	0.1944772	500	0.3087048	1000	0.3622799
Hexachlorobenzene	20	0.2897639	50	0.2784634	100	0.2952355	200	0.3020187	500	0.2928269	1000	0.2795559
Hexachlorobutadiene	20	0.1733145	50	0.1901605	100	0.193509	200	0.2011891	500	0.1925226	1000	0.187227
Hexachloroethane	20	0.4571439	50	0.4578904	100	0.4841835	200	0.4954434	500	0.5008838	1000	0.4965959
2-Methylphenol	20	1.101834	50	0.9707556	100	1.133049	200	1.092755	500	1.223238	1000	1.177676
3+4-Methylphenol(s)	20	1.135196	50	1.156208	100	1.310941	200	1.254213	500	1.520781	1000	1.481195
Nitrobenzene	20	1.352497	50	1.243541	100	1.256693	200	1.303899	500	1.539708	1000	1.50287
Pentachlorophenol (PCP)	20	~~0.2139868~~	50	~~7.782719E-02~~	100	7.890978E-02	200	8.370261E-02	500	0.1108285	1000	0.1263173
Pyridine	20	~~0.7709231~~	50	1.638802	100	1.724672	200	1.714036	500	1.83939	1000	1.851875
2,4,5-Trichlorophenol	20	~~0.1456495~~	50	0.2616115	100	0.2517538	200	0.3003015	500	0.3767462	1000	0.4005824
2,4,6-Trichlorophenol	20	~~0.1561468~~	50	0.2048451	100	0.2604528	200	0.3132783	500	0.3851577	1000	0.4010757
Nitrobenzene-d5 (Surr)	20	1.200115	50	1.108192	100	1.172855	200	1.120553	500	1.404462	1000	1.399717
2-Fluorobiphenyl (Surr)	20	1.393512	50	1.494154	100	1.665382	200	1.659326	500	1.690304	1000	1.58961
Phenol-d6 (Surr)	20	1.458893	50	1.601921	100	1.654396	200	1.625983	500	1.875722	1000	1.881426
p-Terphenyl-d14 (Surr)	20	0.8618512	50	0.9039252	100	0.9599334	200	1.002361	500	1.041212	1000	1.000571
2-Fluorophenol (Surr)	20	1.352497	50	1.350359	100	1.341764	200	1.381382	500	1.497176	1000	1.500368
2,4,6-Tribromophenol (Surr)	20	~~7.958975E-02~~	50	7.031417E-02	100	8.906414E-02	200	0.1011571	500	0.1165657	1000	0.1223403
2-Methylphenol	20	1.101834	50	0.9707556	100	1.133049	200	1.092755	500	1.223238	1000	1.177676
3+4-Methylphenol(s)	20	1.135196	50	1.156208	100	1.310941	200	1.254213	500	1.520781	1000	1.481195
Pentachlorophenol (PCP)	20	~~0.2139868~~	50	~~7.782719E-02~~	100	7.890978E-02	200	8.370261E-02	500	0.1108285	1000	0.1263173
2,4,5-Trichlorophenol	20	~~0.1456495~~	50	0.2616115	100	0.2517538	200	0.3003015	500	0.3767462	1000	0.4005824
2,4,6-Trichlorophenol	20	~~0.1561468~~	50	0.2048451	100	0.2604528	200	0.3132783	500	0.3851577	1000	0.4010757
Hexachlorobenzene	20	0.2897639	50	0.2784634	100	0.2952355	200	0.3020187	500	0.2928269	1000	0.2795559
Hexachlorobutadiene	20	0.1733145	50	0.1901605	100	0.193509	200	0.2011891	500	0.1925226	1000	0.187227
Hexachloroethane	20	0.4571439	50	0.4578904	100	0.4841835	200	0.4954434	500	0.5008838	1000	0.4965959
Nitrobenzene	20	1.352497	50	1.243541	100	1.256693	200	1.303899	500	1.539708	1000	1.50287
2,4-Dinitrotoluene	20	~~0.1342775~~	50	~~0.1234279~~	100	0.1573569	200	0.1944772	500	0.3087048	1000	0.3622799
Pyridine	20	~~0.7709231~~	50	1.638802	100	1.724672	200	1.714036	500	1.83939	1000	1.851875
Nitrobenzene-d5 (Surr)	20	1.200115	50	1.108192	100	1.172855	200	1.120553	500	1.404462	1000	1.399717
2-Fluorobiphenyl (Surr)	20	1.393512	50	1.494154	100	1.665382	200	1.659326	500	1.690304	1000	1.58961
Phenol-d6 (Surr)	20	1.458893	50	1.601921	100	1.654396	200	1.625983	500	1.875722	1000	1.881426

INITIAL CALIBRATION DATA

1311/8270D

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9J1803

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: SV-GCMS9

Calibration Date: 10/18/19 14:37

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
p-Terphenyl-d14 (Surr)	20	0.8618512	50	0.9039252	100	0.9599334	200	1.002361	500	1.041212	1000	1.000571
2-Fluorophenol (Surr)	20	1.352497	50	1.350359	100	1.341764	200	1.381382	500	1.497176	1000	1.500368
2,4,6-Tribromophenol (Surr)	20	~~7.958975E-02~~	50	7.031417E-02	100	8.906414E-02	200	0.1011571	500	0.1165657	1000	0.1223403

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:	A9J1803	Instrument:	SV-GCMS9
Matrix:		Calibration Date:	10/18/19 14:37

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	0.4101378	4000	0.4223418	6000	0.4059896	8000	0.3797755				
Hexachlorobenzene	2000	0.2754968	4000	0.2661266	6000	0.2528429	8000	0.2406424				
Hexachlorobutadiene	2000	0.1877888	4000	0.1846128	6000	0.1779547	8000	0.1711964				
Hexachloroethane	2000	0.508406	4000	0.5023034	6000	0.5068014	8000	0.4861106				
2-Methylphenol	2000	1.178545	4000	1.094775	6000	1.05605	8000	0.9629765				
3+4-Methylphenol(s)	2000	1.506152	4000	1.385189	6000	1.324741	8000	~~1.207034~~				
Nitrobenzene	2000	1.486522	4000	1.386811	6000	1.322422	8000	~~1.197805~~				
Pentachlorophenol (PCP)	2000	0.144815	4000	0.1553731	6000	0.156272	8000	0.1512611				
Pyridine	2000	1.93958	4000	1.970311	6000	1.900232	8000	1.950497				
2,4,5-Trichlorophenol	2000	0.4162262	4000	0.4035457	6000	0.3908094	8000	0.3711759				
2,4,6-Trichlorophenol	2000	0.4209246	4000	0.4217126	6000	0.4057378	8000	0.4005818				
Nitrobenzene-d5 (Surr)	2000	1.455077	4000	1.433906	6000	1.399863	8000	1.31195				
2-Fluorobiphenyl (Surr)	2000	1.504082	4000	1.337329	6000	1.227974	8000	1.133417				
Phenol-d6 (Surr)	2000	1.966987	4000	1.985867	6000	1.921086	8000	1.848738				
p-Terphenyl-d14 (Surr)	2000	1.028803	4000	1.002033	6000	0.9677689	8000	0.9356206				
2-Fluorophenol (Surr)	2000	1.579486	4000	1.593877	6000	1.567146	8000	1.562846				
2,4,6-Tribromophenol (Surr)	2000	0.1290112	4000	0.133301	6000	0.1340835	8000	0.1309928				
2-Methylphenol	2000	1.178545	4000	1.094775	6000	1.05605	8000	0.9629765				
3+4-Methylphenol(s)	2000	1.506152	4000	1.385189	6000	1.324741	8000	~~1.207034~~				
Pentachlorophenol (PCP)	2000	0.144815	4000	0.1553731	6000	0.156272	8000	0.1512611				
2,4,5-Trichlorophenol	2000	0.4162262	4000	0.4035457	6000	0.3908094	8000	0.3711759				
2,4,6-Trichlorophenol	2000	0.4209246	4000	0.4217126	6000	0.4057378	8000	0.4005818				
Hexachlorobenzene	2000	0.2754968	4000	0.2661266	6000	0.2528429	8000	0.2406424				
Hexachlorobutadiene	2000	0.1877888	4000	0.1846128	6000	0.1779547	8000	0.1711964				
Hexachloroethane	2000	0.508406	4000	0.5023034	6000	0.5068014	8000	0.4861106				
Nitrobenzene	2000	1.486522	4000	1.386811	6000	1.322422	8000	~~1.197805~~				
2,4-Dinitrotoluene	2000	0.4101378	4000	0.4223418	6000	0.4059896	8000	0.3797755				
Pyridine	2000	1.93958	4000	1.970311	6000	1.900232	8000	1.950497				
Nitrobenzene-d5 (Surr)	2000	1.455077	4000	1.433906	6000	1.399863	8000	1.31195				
2-Fluorobiphenyl (Surr)	2000	1.504082	4000	1.337329	6000	1.227974	8000	1.133417				
Phenol-d6 (Surr)	2000	1.966987	4000	1.985867	6000	1.921086	8000	1.848738				

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:	A9J1803	Instrument:	SV-GCMS9
Matrix:		Calibration Date:	10/18/19 14:37

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
p-Terphenyl-d14 (Surr)	2000	1.028803	4000	1.002033	6000	0.9677689	8000	0.9356206				
2-Fluorophenol (Surr)	2000	1.579486	4000	1.593877	6000	1.567146	8000	1.562846				
2,4,6-Tribromophenol (Surr)	2000	0.1290112	4000	0.133301	6000	0.1340835	8000	0.1309928				

SECOND-SOURCE CALIBRATION VERIFICATION

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	SV-GCMS9	Calibration:	A9J1803
Lab File ID:	I10161923.D		
Sequence:	9J16053	Inject Date:	10/16/19
Lab Sample ID:	9J16053-ICV1	Inject Time:	23:33

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
2,4-Dinitrotoluene	1000	994	-0.6	70 - 130
Hexachlorobenzene	1000	1060	6.2	70 - 130
Hexachlorobutadiene	1000	1020	1.7	70 - 130
Hexachloroethane	1000	1020	2.2	70 - 130
2-Methylphenol	1000	1100	10.3	70 - 130
3+4-Methylphenol(s)	1000	1060	6.1	70 - 130
Nitrobenzene	1000	1090	8.6	70 - 130
Pentachlorophenol (PCP)	1000	976	-2.4	70 - 130
Pyridine	1000	870	-13.0	70 - 130
2,4,5-Trichlorophenol	1000	1030	3.3	70 - 130
2,4,6-Trichlorophenol	1000	1020	1.5	70 - 130
Nitrobenzene-d5 (Surr)	1000	1120	12.4	70 - 130
2-Fluorobiphenyl (Surr)	1000	1070	7.4	70 - 130
Phenol-d6 (Surr)	1000	1030	3.4	70 - 130
p-Terphenyl-d14 (Surr)	1000	1040	4.2	70 - 130
2-Fluorophenol (Surr)	1000	980	-2.0	70 - 130
2,4,6-Tribromophenol (Surr)	1000	992	-0.8	70 - 130

CONTINUING CALIBRATION CHECK

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID:	SV-GCMS9	Calibration:	A9J1803
Lab File ID:	I11061905.D	Calibration Date:	10/18/19 14:37
Sequence:	9K06033	Injection Date:	11/06/19
Lab Sample ID:	9K06033-CCV2	Injection Time:	10:50

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	1230	23.2 *				20
Hexachlorobenzene	Ave	1000	1140		0.2772973	0.3150333	13.6	20
Hexachlorobutadiene	Ave	1000	1140		0.1859475	0.2115318	13.8	20
Hexachloroethane	Ave	1000	1080		0.4895762	0.5282027	7.9	20
2-Methylphenol	Ave	1000	1040		1.099165	1.139932	3.7	20
3+4-Methylphenol(s)	Ave	1000	1070		1.341624	1.439218	7.3	20
Nitrobenzene	Ave	1000	1050		1.377218	1.451138	5.4	20
Pentachlorophenol (PCP)	XXX	1000	1340	33.7 *				20
Pyridine	Ave	1000	802		1.836599	1.472475	-19.8	20
2,4,5-Trichlorophenol	XXX	1000	1100	10.4				20
2,4,6-Trichlorophenol	XXX	1000	1100	10.3				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:	9J16053	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9J16053-ICV1)			Lab File ID: I10161923.D		Analyzed: 10/16/19 23:33			
Nitrobenzene-d5 (Surr)	1000	112	70 - 130	7.199	7.2032	-0.0042	+/-1.0	
2-Fluorobiphenyl (Surr)	1000	107	70 - 130	9.007	9.0078	-0.0008	+/-1.0	
Phenol-d6 (Surr)	1000	103	70 - 130	6.295	6.2976	-0.0026	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	104	70 - 130	13.023	13.0243	-0.0013	+/-1.0	
2-Fluorophenol (Surr)	1000	98	70 - 130	5.407	5.4102	-0.0032	+/-1.0	
2,4,6-Tribromophenol (Surr)	1000	99	70 - 130	10.499	10.50367	-0.0047	+/-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:	9K06033	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9K06033-CCV2)			Lab File ID: I11061905.D		Analyzed: 11/06/19 10:50			
Nitrobenzene-d5 (Surr)	1000	111	80 - 120	7.054	7.2032	-0.1492	+/-1.0	
2-Fluorobiphenyl (Surr)	1000	110	80 - 120	8.857	9.0078	-0.1508	+/-1.0	
Phenol-d6 (Surr)	1000	99	80 - 120	6.161	6.2976	-0.1366	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	104	80 - 120	12.815	13.0243	-0.2093	+/-1.0	
2-Fluorophenol (Surr)	1000	86	80 - 120	5.284	5.4102	-0.1262	+/-1.0	
2,4,6-Tribromophenol (Surr)	1000	124	80 - 120	10.344	10.50367	-0.1597	+/-1.0	*
Calibration Blank (9K06033-CCB1)			Lab File ID: I11061906.D		Analyzed: 11/06/19 11:25			
Nitrobenzene-d5 (Surr)			44 - 120	0	7.2032	-7.2032	+/-1.0	
2-Fluorobiphenyl (Surr)			44 - 120	0	9.0078	-9.0078	+/-1.0	
Phenol-d6 (Surr)			10 - 120	0	6.2976	-6.2976	+/-1.0	
p-Terphenyl-d14 (Surr)			50 - 133	0	13.0243	-13.0243	+/-1.0	
2-Fluorophenol (Surr)			19 - 120	0	5.4102	-5.4102	+/-1.0	
2,4,6-Tribromophenol (Surr)			43 - 140	0	10.50367	-10.5037	+/-1.0	
Blank (9110499-BLK1)			Lab File ID: I11061907.D		Analyzed: 11/06/19 12:00			
Nitrobenzene-d5 (Surr)	0.0250	86	44 - 120	7.054	7.2032	-0.1492	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	74	44 - 120	8.857	9.0078	-0.1508	+/-1.0	
Phenol-d6 (Surr)	0.0250	24	10 - 120	6.166	6.2976	-0.1316	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	91	50 - 133	12.82	13.0243	-0.2043	+/-1.0	
2-Fluorophenol (Surr)	0.0250	34	19 - 120	5.284	5.4102	-0.1262	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	110	43 - 140	10.349	10.50367	-0.1547	+/-1.0	
LCS (9110499-BS1)			Lab File ID: I11061908.D		Analyzed: 11/06/19 12:36			
Nitrobenzene-d5 (Surr)	0.0250	92	44 - 120	7.054	7.2032	-0.1492	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	81	44 - 120	8.857	9.0078	-0.1508	+/-1.0	
Phenol-d6 (Surr)	0.0250	24	10 - 120	6.167	6.2976	-0.1306	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	96	50 - 133	12.815	13.0243	-0.2093	+/-1.0	
2-Fluorophenol (Surr)	0.0250	32	19 - 120	5.284	5.4102	-0.1262	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	107	43 - 140	10.349	10.50367	-0.1547	+/-1.0	
LCS Dup (9110499-BSD1)			Lab File ID: I11061909.D		Analyzed: 11/06/19 13:11			
Nitrobenzene-d5 (Surr)	0.0250	81	44 - 120	7.055	7.2032	-0.1482	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	93	44 - 120	8.857	9.0078	-0.1508	+/-1.0	
Phenol-d6 (Surr)	0.0250	28	10 - 120	6.161	6.2976	-0.1366	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	106	50 - 133	12.815	13.0243	-0.2093	+/-1.0	
2-Fluorophenol (Surr)	0.0250	39	19 - 120	5.284	5.4102	-0.1262	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	114	43 - 140	10.349	10.50367	-0.1547	+/-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:	9K06033	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Surrogate Compound	Spike Level mg/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
PDI-015SC-C-00-8.1-191024 (A9J0950-01)			Lab File ID: I11061910.D		Analyzed: 11/06/19 13:46			
Nitrobenzene-d5 (Surr)	0.0250	85	44 - 120	7.06	7.2032	-0.1432	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	91	44 - 120	8.857	9.0078	-0.1508	+/-1.0	
Phenol-d6 (Surr)	0.0250	11	10 - 120	6.172	6.2976	-0.1256	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	92	50 - 133	12.815	13.0243	-0.2093	+/-1.0	
2-Fluorophenol (Surr)	0.0250	27	19 - 120	5.305	5.4102	-0.1052	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	128	43 - 140	10.349	10.50367	-0.1547	+/-1.0	
PDI-026SC-C-00-3.9-191024 (A9J0950-02)			Lab File ID: I11061911.D		Analyzed: 11/06/19 14:22			
Nitrobenzene-d5 (Surr)	0.0250	77	44 - 120	7.06	7.2032	-0.1432	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	87	44 - 120	8.857	9.0078	-0.1508	+/-1.0	
Phenol-d6 (Surr)	0.0250	9	10 - 120	6.167	6.2976	-0.1306	+/-1.0	*
p-Terphenyl-d14 (Surr)	0.0250	82	50 - 133	12.815	13.0243	-0.2093	+/-1.0	
2-Fluorophenol (Surr)	0.0250	25	19 - 120	5.279	5.4102	-0.1312	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	115	43 - 140	10.349	10.50367	-0.1547	+/-1.0	
PDI-037SC-C-00-12.4-191024 (A9J0950-03)			Lab File ID: I11061912.D		Analyzed: 11/06/19 14:57			
Nitrobenzene-d5 (Surr)	0.0250	73	44 - 120	7.06	7.2032	-0.1432	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	89	44 - 120	8.857	9.0078	-0.1508	+/-1.0	
Phenol-d6 (Surr)	0.0250	7	10 - 120	6.167	6.2976	-0.1306	+/-1.0	*
p-Terphenyl-d14 (Surr)	0.0250	86	50 - 133	12.815	13.0243	-0.2093	+/-1.0	
2-Fluorophenol (Surr)	0.0250	26	19 - 120	5.289	5.4102	-0.1212	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	117	43 - 140	10.344	10.50367	-0.1597	+/-1.0	
PDI-073SC-C-00-13.7-191024 (A9J0950-04)			Lab File ID: I11061913.D		Analyzed: 11/06/19 15:32			
Nitrobenzene-d5 (Surr)	0.0250	78	44 - 120	7.06	7.2032	-0.1432	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	87	44 - 120	8.857	9.0078	-0.1508	+/-1.0	
Phenol-d6 (Surr)	0.0250	9	10 - 120	6.172	6.2976	-0.1256	+/-1.0	*
p-Terphenyl-d14 (Surr)	0.0250	84	50 - 133	12.815	13.0243	-0.2093	+/-1.0	
2-Fluorophenol (Surr)	0.0250	29	19 - 120	5.295	5.4102	-0.1152	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	127	43 - 140	10.349	10.50367	-0.1547	+/-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:	9K06033	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (9K06033-CCV2)			Lab File ID: I11061905.D			Analyzed: 11/06/19 10:50			
1,4-Dichlorobenzene-d4 (ISTD)	85577	6.52	108692	6.659	79	50 - 200	-0.1390	+/-0.50	
Naphthalene-d8 (ISTD)	340138	7.771	415784	7.921	82	50 - 200	-0.1500	+/-0.50	
Acenaphthene-d10 (ISTD)	182719	9.547	210848	9.702	87	50 - 200	-0.1550	+/-0.50	
Phenanthrene-d10 (ISTD)	361511	11.055	394261	11.216	92	50 - 200	-0.1610	+/-0.50	
Chrysene-d12 (ISTD)	395486	14.751	404897	15.051	98	50 - 200	-0.3000	+/-0.50	
Calibration Blank (9K06033-CCB1)			Lab File ID: I11061906.D			Analyzed: 11/06/19 11:25			
1,4-Dichlorobenzene-d4 (ISTD)	100019	6.514	85577	6.52	117	50 - 200	-0.0060	+/-0.50	
Naphthalene-d8 (ISTD)	395754	7.771	340138	7.771	116	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	212091	9.547	182719	9.547	116	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	389983	11.055	361511	11.055	108	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	416375	14.746	395486	14.751	105	50 - 200	-0.0050	+/-0.50	
Blank (9110499-BLK1)			Lab File ID: I11061907.D			Analyzed: 11/06/19 12:00			
1,4-Dichlorobenzene-d4 (ISTD)	93908	6.519	85577	6.52	110	50 - 200	-0.0010	+/-0.50	
Naphthalene-d8 (ISTD)	365340	7.771	340138	7.771	107	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	196781	9.547	182719	9.547	108	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	373671	11.06	361511	11.055	103	50 - 200	0.0050	+/-0.50	
Chrysene-d12 (ISTD)	427463	14.751	395486	14.751	108	50 - 200	0.0000	+/-0.50	
LCS (9110499-BS1)			Lab File ID: I11061908.D			Analyzed: 11/06/19 12:36			
1,4-Dichlorobenzene-d4 (ISTD)	55457	6.52	85577	6.52	65	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	225682	7.771	340138	7.771	66	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	120702	9.547	182719	9.547	66	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	232905	11.055	361511	11.055	64	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	252628	14.746	395486	14.751	64	50 - 200	-0.0050	+/-0.50	
LCS Dup (9110499-BSD1)			Lab File ID: I11061909.D			Analyzed: 11/06/19 13:11			
1,4-Dichlorobenzene-d4 (ISTD)	99174	6.52	85577	6.52	116	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	351775	7.771	340138	7.771	103	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	181935	9.547	182719	9.547	100	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	337219	11.055	361511	11.055	93	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	303617	14.746	395486	14.751	77	50 - 200	-0.0050	+/-0.50	
PDI-015SC-C-00-8.1-191024 (A9J0950-01)			Lab File ID: I11061910.D			Analyzed: 11/06/19 13:46			
1,4-Dichlorobenzene-d4 (ISTD)	92757	6.525	85577	6.52	108	50 - 200	0.0050	+/-0.50	
Naphthalene-d8 (ISTD)	336801	7.776	340138	7.771	99	50 - 200	0.0050	+/-0.50	
Acenaphthene-d10 (ISTD)	188358	9.547	182719	9.547	103	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	372409	11.055	361511	11.055	103	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	416745	14.751	395486	14.751	105	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K06033	Instrument:	SV-GCMS9
Matrix:	Sediment	Calibration:	A9J1803

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
PDI-026SC-C-00-3.9-191024 (A9J0950-02)			Lab File ID: I11061911.D			Analyzed: 11/06/19 14:22			
1,4-Dichlorobenzene-d4 (ISTD)	92042	6.52	85577	6.52	108	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	357946	7.776	340138	7.771	105	50 - 200	0.0050	+/-0.50	
Acenaphthene-d10 (ISTD)	195071	9.547	182719	9.547	107	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	379430	11.055	361511	11.055	105	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	431166	14.746	395486	14.751	109	50 - 200	-0.0050	+/-0.50	
PDI-037SC-C-00-12.4-191024 (A9J0950-03)			Lab File ID: I11061912.D			Analyzed: 11/06/19 14:57			
1,4-Dichlorobenzene-d4 (ISTD)	95585	6.52	85577	6.52	112	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	359606	7.776	340138	7.771	106	50 - 200	0.0050	+/-0.50	
Acenaphthene-d10 (ISTD)	191798	9.547	182719	9.547	105	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	379605	11.055	361511	11.055	105	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	431567	14.746	395486	14.751	109	50 - 200	-0.0050	+/-0.50	
PDI-073SC-C-00-13.7-191024 (A9J0950-04)			Lab File ID: I11061913.D			Analyzed: 11/06/19 15:32			
1,4-Dichlorobenzene-d4 (ISTD)	94860	6.519	85577	6.52	111	50 - 200	-0.0010	+/-0.50	
Naphthalene-d8 (ISTD)	350725	7.776	340138	7.771	103	50 - 200	0.0050	+/-0.50	
Acenaphthene-d10 (ISTD)	189548	9.547	182719	9.547	104	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	378254	11.055	361511	11.055	105	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	429393	14.746	395486	14.751	109	50 - 200	-0.0050	+/-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-015SC-C-00-8.1-191024	10/24/19 13:17	10/25/19 14:40	11/06/19 07:15	12.75	7.00	11/06/19 13:46	0.27	40.00	*
PDI-026SC-C-00-3.9-191024	10/24/19 09:58	10/25/19 14:40	11/06/19 07:15	12.89	7.00	11/06/19 14:22	0.30	40.00	*
PDI-037SC-C-00-12.4-191024	10/24/19 11:36	10/25/19 14:40	11/06/19 07:15	12.82	7.00	11/06/19 14:57	0.32	40.00	*
PDI-073SC-C-00-13.7-191024	10/24/19 14:31	10/25/19 14:40	11/06/19 07:15	12.70	7.00	11/06/19 15:32	0.35	40.00	*

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: METALS

METHOD: EPA 6020A

ANALYSES DATA PACKAGE COVER PAGE

EPA 6020A

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

Client Sample Id:	Lab Sample Id:	Matrix
PDI-015SC-C-00-8.1-191024	A9J0950-01	Sediment
PDI-026SC-C-00-3.9-191024	A9J0950-02	Sediment
PDI-037SC-C-00-12.4-191024	A9J0950-03	Sediment
PDI-073SC-C-00-13.7-191024	A9J0950-04	Sediment

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: 12/17/2019 3:37PM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

EPA 6020A

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
Arsenic	0.250	0.500	mg/kg
Barium	0.250	0.500	mg/kg
Cadmium	0.0500	0.100	mg/kg
Chromium	0.250	0.500	mg/kg
Lead	0.0500	0.100	mg/kg
Mercury	0.0200	0.0400	mg/kg
Selenium	0.250	0.500	mg/kg
Silver	0.0500	0.100	mg/kg

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

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-015SC-C-00-8.1-191024

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0950-01
File ID: 9K01022-086
Sampled: 10/24/19 13:17
Prepared: 10/31/19 10:10
Analyzed: 11/01/19 18:19
Solids: 81.42
Preparation: EPA 3051A
Initial/Final: 0.454 g / 50 mL
Batch: 9101805
Sequence: 9K01022
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	2.83	5		EPA 6020A
7440-39-3	Barium	114	5		EPA 6020A
7440-43-9	Cadmium	0.0687	5	J	EPA 6020A
7440-47-3	Chromium	14.4	5		EPA 6020A
7439-92-1	Lead	4.13	5		EPA 6020A
7439-97-6	Mercury	0.160	5		EPA 6020A
7782-49-2	Selenium	0.338	5	U	EPA 6020A
7440-22-4	Silver	0.0676	5	U	EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-026SC-C-00-3.9-191024

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0950-02
File ID: 9K01022-087
Sampled: 10/24/19 09:58
Prepared: 10/31/19 10:10
Analyzed: 11/01/19 18:24
Solids: 76.10
Preparation: EPA 3051A
Initial/Final: 0.478 g / 50 mL
Batch: 9101805
Sequence: 9K01022
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	2.95	5		EPA 6020A
7440-39-3	Barium	112	5		EPA 6020A
7440-43-9	Cadmium	0.129	5	J	EPA 6020A
7440-47-3	Chromium	16.6	5		EPA 6020A
7439-92-1	Lead	9.18	5		EPA 6020A
7439-97-6	Mercury	0.0444	5	J	EPA 6020A
7782-49-2	Selenium	0.344	5	U	EPA 6020A
7440-22-4	Silver	0.0995	5	J	EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-037SC-C-00-12.4-191024

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0950-03
File ID: 9K01022-088
Sampled: 10/24/19 11:36
Prepared: 10/31/19 10:10
Analyzed: 11/01/19 18:28
Solids: 75.83
Preparation: EPA 3051A
Initial/Final: 0.463 g / 50 mL
Batch: 9101805
Sequence: 9K01022
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	2.39	5		EPA 6020A
7440-39-3	Barium	116	5		EPA 6020A
7440-43-9	Cadmium	0.0902	5	J	EPA 6020A
7440-47-3	Chromium	17.7	5		EPA 6020A
7439-92-1	Lead	7.80	5		EPA 6020A
7439-97-6	Mercury	0.186	5		EPA 6020A
7782-49-2	Selenium	0.356	5	U	EPA 6020A
7440-22-4	Silver	0.100	5	J	EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-073SC-C-00-13.7-191024

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0950-04
File ID: 9K01022-089
Sampled: 10/24/19 14:31
Prepared: 10/31/19 10:10
Analyzed: 11/01/19 18:33
Solids: 67.83
Preparation: EPA 3051A
Initial/Final: 0.459 g / 50 mL
Batch: 9101805
Sequence: 9K01022
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	4.66	5		EPA 6020A
7440-39-3	Barium	156	5		EPA 6020A
7440-43-9	Cadmium	0.189	5		EPA 6020A
7440-47-3	Chromium	27.6	5		EPA 6020A
7439-92-1	Lead	16.1	5		EPA 6020A
7439-97-6	Mercury	0.127	5		EPA 6020A
7782-49-2	Selenium	0.402	5	U	EPA 6020A
7440-22-4	Silver	0.251	5		EPA 6020A

PREPARATION BATCH SUMMARY

EPA 6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9101805 Batch Matrix: Sediment Preparation: EPA 3051A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9101805-BLK1	9K01022-084	10/31/19 10:10	
LCS	9101805-BS1	9K01022-085	10/31/19 10:10	
PDI-073SC-C-00-13.7-191024 (Dup	9101805-DUP1	9K01022-090	10/31/19 10:10	
PDI-073SC-C-00-13.7-191024 (MS)	9101805-MS1	9K01022-091	10/31/19 10:10	
PDI-015SC-C-00-8.1-191024	A9J0950-01	9K01022-086	10/31/19 10:10	
PDI-026SC-C-00-3.9-191024	A9J0950-02	9K01022-087	10/31/19 10:10	
PDI-037SC-C-00-12.4-191024	A9J0950-03	9K01022-088	10/31/19 10:10	
PDI-073SC-C-00-13.7-191024	A9J0950-04	9K01022-089	10/31/19 10:10	

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

METHOD BLANK DATA SHEET

EPA 6020A

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	9101805-BLK1	File ID:	9K01022-084
Prepared:	10/31/19 10:10	Preparation:	EPA 3051A	Initial/Final:	0.52 g / 50 mL
Analyzed:	11/01/19 18:10	Instrument:	ICPMS5		
Batch:	9101805	Sequence:	9K01022	Calibration:	UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
7440-38-2	Arsenic	0.240	U
7440-39-3	Barium	0.240	U
7440-43-9	Cadmium	0.0481	U
7440-47-3	Chromium	0.240	U
7439-92-1	Lead	0.0481	U
7439-97-6	Mercury	0.0192	U
7782-49-2	Selenium	0.240	U
7440-22-4	Silver	0.0481	U

LCS / LCS DUPLICATE RECOVERY

EPA 6020A

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment		
Batch:	9101805	Laboratory ID:	9101805-BS1
Preparation:	EPA 3051A	Initial/Final:	0.5 g / 50 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. (*=Out)	QC LIMITS REC.
Arsenic	25.0	26.5	106	80 - 120
Barium	25.0	28.8	115	80 - 120
Cadmium	25.0	27.1	109	80 - 120
Chromium	25.0	27.0	108	80 - 120
Lead	25.0	27.1	108	80 - 120
Mercury	0.500	0.522	104	80 - 120
Selenium	12.5	12.8	102	80 - 120
Silver	12.5	14.3	115	80 - 120

* = Values outside of QC limits

PDI-073SC-C-00-13.7-191024

DUPLICATES

EPA 6020A

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Sediment
Batch: 9101805
Preparation: EPA 3051A
Source Sample Name: PDI-073SC-C-00-13.7-191024

SDG: Gasco_PreRD_DG 2019
Project: Gasco_PreRD_DG 2019 - 4c. Waste Charact
Laboratory ID: 9101805-DUP1
Lab Source ID: A9J0950-04
Initial/Final: 0.494 g / 50 mL
% Solids: 67.83

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (mg/kg dry)	C	DUPLICATE CONCENTRATION (mg/kg dry)	C	RPD %	Q	METHOD
Arsenic	40	4.66		4.24		9		EPA 6020A
Barium	40	156		152		3		EPA 6020A
Cadmium	40	0.189		0.188		0.5		EPA 6020A
Chromium	40	27.6		24.8		11		EPA 6020A
Lead	40	16.1		16.8		4		EPA 6020A
Mercury	40	0.127		0.111		14		EPA 6020A
Selenium	40	0.239		ND				EPA 6020A
Silver	40	0.251		0.214		16		EPA 6020A

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 6020A

PDI-073SC-C-00-13.7-191024

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment		
Batch:	9101805	Laboratory ID:	9101805-MS1
Preparation:	EPA 3051A	Initial/Final:	0.482 g / 50 mL

Source Sample Name: PDI-073SC-C-00-13.7-191024

COMPOUND	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	MS CONCENTRATION (mg/kg dry)	MS % REC. (*=Out)	QC LIMITS REC.
Arsenic	38.2	4.66	44.2	103	75 - 125
Barium	38.2	156	184	74 *	75 - 125
Cadmium	38.2	0.189	41.3	108	75 - 125
Chromium	38.2	27.6	67.2	104	75 - 125
Lead	38.2	16.1	54.2	100	75 - 125
Mercury	0.765	0.127	0.863	96	75 - 125
Selenium	19.1	ND	19.3	101	75 - 125
Silver	19.1	0.251	22.0	114	75 - 125

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K01022	Instrument:	ICPMS5
Matrix:	Sediment	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	9K01022-ICV1	9K01022-013	11/01/19 11:59
Initial Cal Blank	9K01022-ICB1	9K01022-014	11/01/19 12:04
Instrument RL Check	9K01022-CRL1	9K01022-015	11/01/19 12:09
Instrument RL Check	9K01022-CRL2	9K01022-016	11/01/19 12:13
Instrument RL Check	9K01022-CRL3	9K01022-017	11/01/19 12:19
Calibration Check	9K01022-CCV1	9K01022-033	11/01/19 13:33
Calibration Check	9K01022-CCV2	9K01022-034	11/01/19 13:38
Calibration Blank	9K01022-CCB1	9K01022-035	11/01/19 13:43
Calibration Check	9K01022-CCV3	9K01022-046	11/01/19 14:55
Calibration Check	9K01022-CCV4	9K01022-047	11/01/19 14:59
Calibration Blank	9K01022-CCB2	9K01022-048	11/01/19 15:04
Calibration Blank	9K01022-CCB3	9K01022-049	11/01/19 15:09
Instrument RL Check	9K01022-CRL4	9K01022-050	11/01/19 15:13
Instrument RL Check	9K01022-CRL5	9K01022-051	11/01/19 15:18
Instrument RL Check	9K01022-CRL6	9K01022-052	11/01/19 15:23
Instrument RL Check	9K01022-CRL7	9K01022-053	11/01/19 15:28
Calibration Check	9K01022-CCV5	9K01022-064	11/01/19 16:19
Calibration Blank	9K01022-CCB4	9K01022-065	11/01/19 16:23
Calibration Check	9K01022-CCV6	9K01022-076	11/01/19 17:33
Calibration Blank	9K01022-CCB5	9K01022-077	11/01/19 17:37
Instrument RL Check	9K01022-CRL8	9K01022-078	11/01/19 17:42
Instrument RL Check	9K01022-CRL9	9K01022-079	11/01/19 17:47
Instrument RL Check	9K01022-CRLA	9K01022-080	11/01/19 17:51
Instrument RL Check	9K01022-CRLB	9K01022-081	11/01/19 17:56
Blank	9101805-BLK1	9K01022-084	11/01/19 18:10
LCS	9101805-BS1	9K01022-085	11/01/19 18:15
PDI-015SC-C-00-8.1-191024	A9J0950-01	9K01022-086	11/01/19 18:19
PDI-026SC-C-00-3.9-191024	A9J0950-02	9K01022-087	11/01/19 18:24
PDI-037SC-C-00-12.4-191024	A9J0950-03	9K01022-088	11/01/19 18:28
PDI-073SC-C-00-13.7-191024	A9J0950-04	9K01022-089	11/01/19 18:33
PDI-073SC-C-00-13.7-191024 (Dup)	9101805-DUP1	9K01022-090	11/01/19 18:38
PDI-073SC-C-00-13.7-191024 (MS)	9101805-MS1	9K01022-091	11/01/19 18:42
Calibration Check	9K01022-CCV7	9K01022-092	11/01/19 18:47

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K01022	Instrument:	ICPMS5
Matrix:	Sediment	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Blank	9K01022-CCB6	9K01022-093	11/01/19 18:51
Calibration Check	9K01022-CCV8	9K01022-104	11/01/19 19:42
Calibration Blank	9K01022-CCB7	9K01022-105	11/01/19 19:47
Calibration Check	9K01022-CCV9	9K01022-113	11/01/19 20:30
Calibration Blank	9K01022-CCB8	9K01022-114	11/01/19 20:35
Instrument RL Check	9K01022-CRLC	9K01022-115	11/01/19 20:39
Instrument RL Check	9K01022-CRLD	9K01022-116	11/01/19 20:44
Instrument RL Check	9K01022-CRLE	9K01022-117	11/01/19 20:49
Instrument RL Check	9K01022-CRLF	9K01022-118	11/01/19 20:53

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

EPA 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: 9K01022

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9K01022-ICV1	Arsenic	100	99.9	100	ug/L	EPA 6020A
	Barium	100	105	105	ug/L	EPA 6020A
	Cadmium	100	98.7	99	ug/L	EPA 6020A
	Chromium	100	99.5	100	ug/L	EPA 6020A
	Lead	100	101	101	ug/L	EPA 6020A
	Mercury	800	829	104	ng/L	EPA 6020A
	Selenium	40.0	40.2	100	ug/L	EPA 6020A
	Silver	40.0	40.9	102	ug/L	EPA 6020A
9K01022-CCV1	Arsenic	100	99.6	100	ug/L	EPA 6020A
	Barium	100	105	105	ug/L	EPA 6020A
	Cadmium	100	100	100	ug/L	EPA 6020A
	Chromium	100	98.8	99	ug/L	EPA 6020A
	Lead	100	104	104	ug/L	EPA 6020A
	Mercury	800	828	103	ng/L	EPA 6020A
	Selenium	40.0	40.5	101	ug/L	EPA 6020A
	Silver	40.0	41.1	103	ug/L	EPA 6020A
9K01022-CCV2	Arsenic	100	100	100	ug/L	EPA 6020A
	Barium	100	105	105	ug/L	EPA 6020A
	Cadmium	100	99.8	100	ug/L	EPA 6020A
	Chromium	100	98.5	99	ug/L	EPA 6020A
	Lead	100	103	103	ug/L	EPA 6020A
	Mercury	800	808	101	ng/L	EPA 6020A
	Selenium	40.0	41.0	103	ug/L	EPA 6020A
	Silver	40.0	41.1	103	ug/L	EPA 6020A
9K01022-CCV3	Arsenic	100	101	101	ug/L	EPA 6020A
	Barium	100	106	106	ug/L	EPA 6020A
	Cadmium	100	99.2	99	ug/L	EPA 6020A
	Chromium	100	102	102	ug/L	EPA 6020A
	Lead	100	101	101	ug/L	EPA 6020A
	Mercury	800	788	99	ng/L	EPA 6020A
	Selenium	40.0	40.1	100	ug/L	EPA 6020A
	Silver	40.0	41.2	103	ug/L	EPA 6020A
9K01022-CCV4	Arsenic	100	99.4	99	ug/L	EPA 6020A
	Barium	100	107	107	ug/L	EPA 6020A
	Cadmium	100	100	100	ug/L	EPA 6020A
	Chromium	100	101	101	ug/L	EPA 6020A
	Lead	100	102	102	ug/L	EPA 6020A
	Mercury	800	823	103	ng/L	EPA 6020A
	Selenium	40.0	40.2	101	ug/L	EPA 6020A
	Silver	40.0	41.3	103	ug/L	EPA 6020A
9K01022-CCV5	Arsenic	100	99.8	100	ug/L	EPA 6020A
	Barium	100	106	106	ug/L	EPA 6020A
	Cadmium	100	101	101	ug/L	EPA 6020A
	Chromium	100	98.7	99	ug/L	EPA 6020A
	Lead	100	101	101	ug/L	EPA 6020A
	Mercury	800	803	100	ng/L	EPA 6020A

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 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: 9K01022

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9K01022-CCV5	Selenium	40.0	40.5	101	ug/L	EPA 6020A
	Silver	40.0	41.3	103	ug/L	EPA 6020A
9K01022-CCV6	Arsenic	100	100	100	ug/L	EPA 6020A
	Barium	100	107	107	ug/L	EPA 6020A
	Cadmium	100	101	101	ug/L	EPA 6020A
	Chromium	100	99.4	99	ug/L	EPA 6020A
	Lead	100	99.5	100	ug/L	EPA 6020A
	Mercury	800	800	100	ng/L	EPA 6020A
	Selenium	40.0	40.5	101	ug/L	EPA 6020A
	Silver	40.0	40.9	102	ug/L	EPA 6020A
9K01022-CCV7	Arsenic	100	103	103	ug/L	EPA 6020A
	Barium	100	108	108	ug/L	EPA 6020A
	Cadmium	100	99.4	99	ug/L	EPA 6020A
	Chromium	100	101	101	ug/L	EPA 6020A
	Lead	100	94.2	94	ug/L	EPA 6020A
	Mercury	800	766	96	ng/L	EPA 6020A
	Selenium	40.0	40.6	101	ug/L	EPA 6020A
	Silver	40.0	41.3	103	ug/L	EPA 6020A
9K01022-CCV8	Arsenic	100	100	100	ug/L	EPA 6020A
	Barium	100	109	109	ug/L	EPA 6020A
	Cadmium	100	99.4	99	ug/L	EPA 6020A
	Chromium	100	101	101	ug/L	EPA 6020A
	Lead	100	93.0	93	ug/L	EPA 6020A
	Mercury	800	707	88 *	ng/L	EPA 6020A
	Selenium	40.0	40.2	100	ug/L	EPA 6020A
	Silver	40.0	41.1	103	ug/L	EPA 6020A
9K01022-CCV9	Arsenic	100	101	101	ug/L	EPA 6020A
	Barium	100	110	110	ug/L	EPA 6020A
	Cadmium	100	100	100	ug/L	EPA 6020A
	Chromium	100	102	102	ug/L	EPA 6020A
	Lead	100	93.6	94	ug/L	EPA 6020A
	Mercury	800	757	95	ng/L	EPA 6020A
	Selenium	40.0	40.4	101	ug/L	EPA 6020A
	Silver	40.0	41.2	103	ug/L	EPA 6020A

* Values outside of QC limits

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
SDG: Gasco_PreRD_DG 2019
Instrument ID: ICPMS5
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence: 9K01022
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K01022-ICB1	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
9K01022-CCB1	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
9K01022-CCB2	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
9K01022-CCB3	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
9K01022-CCB4	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A

INSTRUMENT BLANKS
EPA 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: 9K01022
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K01022-CCB4	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
9K01022-CCB5	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
9K01022-CCB6	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
9K01022-CCB7	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
9K01022-CCB8	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A

INSTRUMENT BLANKS
EPA 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: 9K01022
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K01022-CCB8	Lead	ND	0.100 (Inst)	ug/L		EPA 6020A
	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Selenium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Barium	ND	0.500 (Inst)	ug/L		EPA 6020A

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

CRDL STANDARD

EPA 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: 9K01022

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K01022-CRL1	Arsenic	0.180	0.209	116	ug/L	70 - 130
	Barium	0.180	0.210	116	ug/L	70 - 130
	Cadmium	0.180	0.230	128	ug/L	70 - 130
	Chromium	0.180	0.192	107	ug/L	70 - 130
	Lead	0.180	0.232	129	ug/L	70 - 130
	Mercury	7.20	8.20	114	ng/L	70 - 130
	Silver	0.180	0.167	93	ug/L	70 - 130
9K01022-CRL2	Arsenic	0.900	0.952	106	ug/L	70 - 130
	Barium	0.900	0.956	106	ug/L	70 - 130
	Cadmium	0.900	0.923	103	ug/L	70 - 130
	Chromium	0.900	0.879	98	ug/L	70 - 130
	Lead	0.900	0.972	108	ug/L	70 - 130
	Mercury	36.0	37.2	103	ng/L	70 - 130
	Selenium	0.900	0.856	95	ug/L	70 - 130
	Silver	0.900	0.926	103	ug/L	70 - 130
9K01022-CRL3	Arsenic	1.80	1.81	101	ug/L	70 - 130
	Barium	1.80	1.93	107	ug/L	70 - 130
	Cadmium	1.80	1.80	100	ug/L	70 - 130
	Chromium	1.80	1.78	99	ug/L	70 - 130
	Lead	1.80	1.85	103	ug/L	70 - 130
	Mercury	72.0	73.3	102	ng/L	70 - 130
	Selenium	1.80	1.87	104	ug/L	70 - 130
	Silver	1.80	1.82	101	ug/L	70 - 130
9K01022-CRL4	Arsenic	0.180	0.179	99	ug/L	70 - 130
	Barium	0.180	0.188	104	ug/L	70 - 130
	Cadmium	0.180	0.194	108	ug/L	70 - 130
	Chromium	0.180	0.199	110	ug/L	70 - 130
	Lead	0.180	0.188	105	ug/L	70 - 130

CRDL STANDARD

EPA 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: 9K01022

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K01022-CRL4	Mercury	7.20	6.73	94	ng/L	70 - 130
	Selenium	0.180	0.178	99	ug/L	70 - 130
	Silver	0.180	0.184	102	ug/L	70 - 130
9K01022-CRL5	Arsenic	0.900	0.984	109	ug/L	70 - 130
	Barium	0.900	0.967	107	ug/L	70 - 130
	Cadmium	0.900	0.978	109	ug/L	70 - 130
	Chromium	0.900	0.894	99	ug/L	70 - 130
	Lead	0.900	0.936	104	ug/L	70 - 130
	Mercury	36.0	42.3	117	ng/L	70 - 130
	Selenium	0.900	0.856	95	ug/L	70 - 130
	Silver	0.900	0.913	101	ug/L	70 - 130
9K01022-CRL6	Arsenic	1.80	1.87	104	ug/L	70 - 130
	Barium	1.80	1.88	104	ug/L	70 - 130
	Cadmium	1.80	1.91	106	ug/L	70 - 130
	Chromium	1.80	1.81	101	ug/L	70 - 130
	Lead	1.80	1.90	105	ug/L	70 - 130
	Mercury	72.0	87.4	121	ng/L	70 - 130
	Selenium	1.80	1.83	102	ug/L	70 - 130
	Silver	1.80	1.91	106	ug/L	70 - 130
9K01022-CRL7	Arsenic	3.60	3.60	100	ug/L	70 - 130
	Barium	3.60	3.86	107	ug/L	70 - 130
	Cadmium	3.60	3.72	103	ug/L	70 - 130
	Chromium	3.60	3.59	100	ug/L	70 - 130
	Lead	3.60	3.76	105	ug/L	70 - 130
	Mercury	144	158	110	ng/L	70 - 130
	Selenium	3.60	3.79	105	ug/L	70 - 130
	Silver	3.60	3.67	102	ug/L	70 - 130
9K01022-CRL8	Arsenic	0.180	0.204	114	ug/L	70 - 130

CRDL STANDARD

EPA 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: 9K01022

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K01022-CRL8	Barium	0.180	0.184	102	ug/L	70 - 130
	Cadmium	0.180	0.181	101	ug/L	70 - 130
	Chromium	0.180	0.184	102	ug/L	70 - 130
	Lead	0.180	0.191	106	ug/L	70 - 130
	Mercury	7.20	5.17	72	ng/L	70 - 130
	Selenium	0.180	0.194	108	ug/L	70 - 130
	Silver	0.180	0.205	114	ug/L	70 - 130
9K01022-CRL9	Arsenic	0.900	0.891	99	ug/L	70 - 130
	Barium	0.900	1.00	111	ug/L	70 - 130
	Cadmium	0.900	0.910	101	ug/L	70 - 130
	Chromium	0.900	0.895	99	ug/L	70 - 130
	Lead	0.900	0.948	105	ug/L	70 - 130
	Mercury	36.0	40.9	114	ng/L	70 - 130
	Selenium	0.900	0.932	104	ug/L	70 - 130
	Silver	0.900	0.927	103	ug/L	70 - 130
9K01022-CRLA	Arsenic	1.80	1.81	101	ug/L	70 - 130
	Barium	1.80	1.96	109	ug/L	70 - 130
	Cadmium	1.80	1.88	104	ug/L	70 - 130
	Chromium	1.80	1.76	98	ug/L	70 - 130
	Lead	1.80	1.90	106	ug/L	70 - 130
	Mercury	72.0	76.3	106	ng/L	70 - 130
	Selenium	1.80	1.94	108	ug/L	70 - 130
	Silver	1.80	1.83	102	ug/L	70 - 130
9K01022-CRLB	Arsenic	3.60	3.80	106	ug/L	70 - 130
	Barium	3.60	3.98	110	ug/L	70 - 130
	Cadmium	3.60	3.74	104	ug/L	70 - 130
	Chromium	3.60	3.50	97	ug/L	70 - 130
	Lead	3.60	3.75	104	ug/L	70 - 130

CRDL STANDARD

EPA 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: 9K01022

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K01022-CRLB	Mercury	144	140	97	ng/L	70 - 130
	Selenium	3.60	3.64	101	ug/L	70 - 130
	Silver	3.60	3.64	101	ug/L	70 - 130
9K01022-CRLC	Arsenic	0.180	0.223	124	ug/L	70 - 130
	Barium	0.180	0.230	128	ug/L	70 - 130
	Cadmium	0.180	0.171	95	ug/L	70 - 130
	Chromium	0.180	0.183	102	ug/L	70 - 130
	Lead	0.180	0.211	117	ug/L	70 - 130
	Mercury	7.20	6.96	97	ng/L	70 - 130
	Selenium	0.180	0.219	121	ug/L	70 - 130
	Silver	0.180	0.204	113	ug/L	70 - 130
9K01022-CRLD	Arsenic	0.900	0.987	110	ug/L	70 - 130
	Barium	0.900	1.03	114	ug/L	70 - 130
	Cadmium	0.900	0.914	102	ug/L	70 - 130
	Chromium	0.900	0.938	104	ug/L	70 - 130
	Lead	0.900	0.875	97	ug/L	70 - 130
	Mercury	36.0	32.3	90	ng/L	70 - 130
	Selenium	0.900	0.942	105	ug/L	70 - 130
	Silver	0.900	0.930	103	ug/L	70 - 130
9K01022-CRLE	Arsenic	1.80	1.84	102	ug/L	70 - 130
	Barium	1.80	2.01	112	ug/L	70 - 130
	Cadmium	1.80	1.91	106	ug/L	70 - 130
	Chromium	1.80	1.83	102	ug/L	70 - 130
	Lead	1.80	1.74	97	ug/L	70 - 130
	Mercury	72.0	75.9	105	ng/L	70 - 130
	Selenium	1.80	1.81	101	ug/L	70 - 130
	Silver	1.80	1.84	102	ug/L	70 - 130
9K01022-CRLF	Arsenic	3.60	3.86	107	ug/L	70 - 130

CRDL STANDARD

EPA 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: 9K01022

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K01022-CRLF	Barium	3.60	4.09	114	ug/L	70 - 130
	Cadmium	3.60	3.71	103	ug/L	70 - 130
	Chromium	3.60	3.66	102	ug/L	70 - 130
	Lead	3.60	3.49	97	ug/L	70 - 130
	Mercury	144	133	92	ng/L	70 - 130
	Selenium	3.60	3.70	103	ug/L	70 - 130
	Silver	3.60	3.62	101	ug/L	70 - 130

* Values outside of QC limits

HOLDING TIME SUMMARY

EPA 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-015SC-C-00-8.1-191024	10/24/19 13:17	10/25/19 14:40	10/31/19 10:10	6.87	56.00	11/01/19 18:19	8.21	56.00	
PDI-015SC-C-00-8.1-191024	10/24/19 13:17	10/25/19 14:40	10/31/19 10:10	6.87	180.00	11/01/19 18:19	8.21	180.00	
PDI-026SC-C-00-3.9-191024	10/24/19 09:58	10/25/19 14:40	10/31/19 10:10	7.01	56.00	11/01/19 18:24	8.35	56.00	
PDI-026SC-C-00-3.9-191024	10/24/19 09:58	10/25/19 14:40	10/31/19 10:10	7.01	180.00	11/01/19 18:24	8.35	180.00	
PDI-037SC-C-00-12.4-191024	10/24/19 11:36	10/25/19 14:40	10/31/19 10:10	6.94	56.00	11/01/19 18:28	8.29	56.00	
PDI-037SC-C-00-12.4-191024	10/24/19 11:36	10/25/19 14:40	10/31/19 10:10	6.94	180.00	11/01/19 18:28	8.29	180.00	
PDI-073SC-C-00-13.7-191024	10/24/19 14:31	10/25/19 14:40	10/31/19 10:10	6.82	56.00	11/01/19 18:33	8.17	56.00	
PDI-073SC-C-00-13.7-191024	10/24/19 14:31	10/25/19 14:40	10/31/19 10:10	6.82	180.00	11/01/19 18:33	8.17	180.00	

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: METALS

METHOD: 1311/6020A

ANALYSES DATA PACKAGE COVER PAGE

1311/6020A

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

SDG: Gasco PreRD_DG 2019

Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-015SC-C-00-8.1-191024	A9J0950-01	Sediment
PDI-026SC-C-00-3.9-191024	A9J0950-02	Sediment
PDI-037SC-C-00-12.4-191024	A9J0950-03	Sediment
PDI-073SC-C-00-13.7-191024	A9J0950-04	Sediment

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: 12/17/2019 3:37PM

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: Sediment

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-015SC-C-00-8.1-191024

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0950-01
File ID: 9K05034-085
Sampled: 10/24/19 13:17
Prepared: 11/05/19 11:32
Analyzed: 11/05/19 18:13
Solids: 81.42
Preparation: EPA 1311/3015
Initial/Final: 10 mL / 50 mL
Batch: 9110482
Sequence: 9K05034
Instrument: ICPMS5

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

INORGANIC ANALYSIS DATA SHEET

1311/6020A

PDI-026SC-C-00-3.9-191024

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0950-02
File ID: 9K05034-086
Sampled: 10/24/19 09:58
Prepared: 11/05/19 11:32
Analyzed: 11/05/19 18:18
Solids: 76.10
Preparation: EPA 1311/3015
Initial/Final: 10 mL / 50 mL
Batch: 9110482
Sequence: 9K05034
Instrument: ICPMS5

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

INORGANIC ANALYSIS DATA SHEET

1311/6020A

PDI-037SC-C-00-12.4-191024

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0950-03
File ID: 9K05034-087
Sampled: 10/24/19 11:36
Prepared: 11/05/19 11:32
Analyzed: 11/05/19 18:23
Solids: 75.83
Preparation: EPA 1311/3015
Initial/Final: 10 mL / 50 mL
Batch: 9110482
Sequence: 9K05034
Instrument: ICPMS5

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

INORGANIC ANALYSIS DATA SHEET

1311/6020A

PDI-073SC-C-00-13.7-191024

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0950-04
File ID: 9K05034-090
Sampled: 10/24/19 14:31
Prepared: 11/05/19 11:32
Analyzed: 11/05/19 18:37
Solids: 67.83
Preparation: EPA 1311/3015
Initial/Final: 10 mL / 50 mL
Batch: 9110482
Sequence: 9K05034
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: 9110482 Batch Matrix: Sediment Preparation: EPA 1311/3015

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110482-BLK1	9K05034-083	11/05/19 11:32	
LCS	9110482-BS1	9K05034-084	11/05/19 11:32	
PDI-073SC-C-00-13.7-191024 (MS)	9110482-MS1	9K05034-091	11/05/19 11:32	
PDI-015SC-C-00-8.1-191024	A9J0950-01	9K05034-085	11/05/19 11:32	
PDI-026SC-C-00-3.9-191024	A9J0950-02	9K05034-086	11/05/19 11:32	
PDI-037SC-C-00-12.4-191024	A9J0950-03	9K05034-087	11/05/19 11:32	
PDI-073SC-C-00-13.7-191024	A9J0950-04	9K05034-090	11/05/19 11:32	

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:	Sediment	Laboratory ID:	9110482-BLK1	File ID:	9K05034-083
Prepared:	11/05/19 11:32	Preparation:	EPA 1311/3015	Initial/Final:	10 mL / 50 mL
Analyzed:	11/05/19 18:04	Instrument:	ICPMS5		
Batch:	9110482	Sequence:	9K05034	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:	Sediment		
Batch:	9110482	Laboratory ID:	9110482-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	5.20	104	80 - 120
Barium	10.0	10.6	106	80 - 120
Cadmium	1.00	1.03	103	80 - 120
Chromium	5.00	5.05	101	80 - 120
Lead	5.00	5.43	109	80 - 120
Mercury	0.100	0.108	108	80 - 120
Selenium	1.00	1.03	103	80 - 120
Silver	1.00	1.08	108	80 - 120

* = Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

1311/6020A

PDI-073SC-C-00-13.7-191024

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment		
Batch:	9110482	Laboratory ID:	9110482-MS1
Preparation:	EPA 1311/3015	Initial/Final:	10 mL / 50 mL

Source Sample Name: PDI-073SC-C-00-13.7-191024

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC. (*=Out)	QC LIMITS REC.
Arsenic	5.00	ND	5.31	106	50 - 150
Barium	10.0	ND	11.2	112	50 - 150
Cadmium	1.00	ND	1.07	107	50 - 150
Chromium	5.00	ND	5.14	103	50 - 150
Lead	5.00	ND	5.52	110	50 - 150
Mercury	0.100	ND	0.112	112	50 - 150
Selenium	1.00	ND	1.02	102	50 - 150
Silver	1.00	ND	1.11	111	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:	9K05034	Instrument:	ICPMS5
Matrix:	Sediment	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	9K05034-ICV1	9K05034-013	11/05/19 12:20
Initial Cal Blank	9K05034-ICB1	9K05034-014	11/05/19 12:24
Instrument RL Check	9K05034-CRL1	9K05034-015	11/05/19 12:29
Instrument RL Check	9K05034-CRL2	9K05034-016	11/05/19 12:34
Instrument RL Check	9K05034-CRL3	9K05034-017	11/05/19 12:38
Instrument RL Check	9K05034-CRL4	9K05034-018	11/05/19 12:43
Calibration Check	9K05034-CCV1	9K05034-032	11/05/19 13:56
Calibration Blank	9K05034-CCB1	9K05034-033	11/05/19 14:01
Calibration Check	9K05034-CCV2	9K05034-044	11/05/19 14:52
Calibration Blank	9K05034-CCB2	9K05034-045	11/05/19 14:56
Instrument RL Check	9K05034-CRL5	9K05034-046	11/05/19 15:01
Instrument RL Check	9K05034-CRL6	9K05034-047	11/05/19 15:06
Instrument RL Check	9K05034-CRL7	9K05034-048	11/05/19 15:10
Instrument RL Check	9K05034-CRL8	9K05034-049	11/05/19 15:22
Calibration Check	9K05034-CCV3	9K05034-060	11/05/19 16:13
Calibration Blank	9K05034-CCB3	9K05034-061	11/05/19 16:17
Calibration Check	9K05034-CCV4	9K05034-072	11/05/19 17:11
Calibration Blank	9K05034-CCB4	9K05034-073	11/05/19 17:16
Instrument RL Check	9K05034-CRL9	9K05034-074	11/05/19 17:21
Instrument RL Check	9K05034-CRLA	9K05034-075	11/05/19 17:26
Instrument RL Check	9K05034-CRLB	9K05034-076	11/05/19 17:31
Instrument RL Check	9K05034-CRLC	9K05034-077	11/05/19 17:36
Blank	9110482-BLK1	9K05034-083	11/05/19 18:04
LCS	9110482-BS1	9K05034-084	11/05/19 18:08
PDI-015SC-C-00-8.1-191024	A9J0950-01	9K05034-085	11/05/19 18:13
PDI-026SC-C-00-3.9-191024	A9J0950-02	9K05034-086	11/05/19 18:18
PDI-037SC-C-00-12.4-191024	A9J0950-03	9K05034-087	11/05/19 18:23
Calibration Check	9K05034-CCV5	9K05034-088	11/05/19 18:27
Calibration Blank	9K05034-CCB5	9K05034-089	11/05/19 18:32
PDI-073SC-C-00-13.7-191024	A9J0950-04	9K05034-090	11/05/19 18:37
PDI-073SC-C-00-13.7-191024 (MS)	9110482-MS1	9K05034-091	11/05/19 18:41
Calibration Check	9K05034-CCV6	9K05034-100	11/05/19 19:24
Calibration Blank	9K05034-CCB6	9K05034-101	11/05/19 19:28

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:	9K05034	Instrument:	ICPMS5
Matrix:	Sediment	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	9K05034-CCV7	9K05034-112	11/05/19 20:19
Calibration Check	9K05034-CCV8	9K05034-113	11/05/19 20:24
Calibration Blank	9K05034-CCB7	9K05034-114	11/05/19 20:29
Calibration Check	9K05034-CCV9	9K05034-120	11/05/19 20:56
Calibration Blank	9K05034-CCB8	9K05034-121	11/05/19 21:01
Instrument RL Check	9K05034-CRLD	9K05034-122	11/05/19 21:06
Instrument RL Check	9K05034-CRLE	9K05034-123	11/05/19 21:11
Instrument RL Check	9K05034-CRLF	9K05034-124	11/05/19 21:15
Instrument RL Check	9K05034-CRLG	9K05034-125	11/05/19 21:20

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.

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: 9K05034

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9K05034-ICV1	Arsenic	100	97.3	97	ug/L	1311/6020A
	Barium	100	101	101	ug/L	1311/6020A
	Cadmium	100	96.8	97	ug/L	1311/6020A
	Chromium	100	95.9	96	ug/L	1311/6020A
	Lead	100	97.6	98	ug/L	1311/6020A
	Mercury	800	822	103	ng/L	1311/6020A
	Selenium	40.0	40.1	100	ug/L	1311/6020A
	Silver	40.0	40.4	101	ug/L	1311/6020A
9K05034-CCV1	Arsenic	100	98.5	99	ug/L	1311/6020A
	Barium	100	100	100	ug/L	1311/6020A
	Cadmium	100	98.6	99	ug/L	1311/6020A
	Chromium	100	94.8	95	ug/L	1311/6020A
	Lead	100	104	104	ug/L	1311/6020A
	Mercury	800	854	107	ng/L	1311/6020A
	Selenium	40.0	40.1	100	ug/L	1311/6020A
	Silver	40.0	40.8	102	ug/L	1311/6020A
9K05034-CCV2	Arsenic	100	97.6	98	ug/L	1311/6020A
	Barium	100	101	101	ug/L	1311/6020A
	Cadmium	100	97.0	97	ug/L	1311/6020A
	Chromium	100	95.7	96	ug/L	1311/6020A
	Lead	100	98.3	98	ug/L	1311/6020A
	Mercury	800	833	104	ng/L	1311/6020A
	Selenium	40.0	40.3	101	ug/L	1311/6020A
	Silver	40.0	40.7	102	ug/L	1311/6020A
9K05034-CCV3	Arsenic	100	97.3	97	ug/L	1311/6020A
	Barium	100	101	101	ug/L	1311/6020A
	Cadmium	100	97.9	98	ug/L	1311/6020A
	Chromium	100	96.3	96	ug/L	1311/6020A
	Lead	100	98.0	98	ug/L	1311/6020A
	Mercury	800	821	103	ng/L	1311/6020A
	Selenium	40.0	40.2	101	ug/L	1311/6020A
	Silver	40.0	40.9	102	ug/L	1311/6020A
9K05034-CCV4	Arsenic	100	99.1	99	ug/L	1311/6020A
	Barium	100	101	101	ug/L	1311/6020A
	Cadmium	100	97.4	97	ug/L	1311/6020A
	Chromium	100	96.3	96	ug/L	1311/6020A
	Lead	100	101	101	ug/L	1311/6020A
	Mercury	800	828	103	ng/L	1311/6020A
	Selenium	40.0	40.1	100	ug/L	1311/6020A
	Silver	40.0	40.5	101	ug/L	1311/6020A
9K05034-CCV5	Arsenic	100	97.8	98	ug/L	1311/6020A
	Barium	100	100	100	ug/L	1311/6020A
	Cadmium	100	97.6	98	ug/L	1311/6020A
	Chromium	100	96.5	96	ug/L	1311/6020A
	Lead	100	98.0	98	ug/L	1311/6020A
	Mercury	800	837	105	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: 9K05034

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9K05034-CCV5	Selenium	40.0	40.8	102	ug/L	1311/6020A
	Silver	40.0	40.9	102	ug/L	1311/6020A
9K05034-CCV6	Arsenic	100	97.9	98	ug/L	1311/6020A
	Barium	100	101	101	ug/L	1311/6020A
	Cadmium	100	97.3	97	ug/L	1311/6020A
	Chromium	100	96.0	96	ug/L	1311/6020A
	Lead	100	98.1	98	ug/L	1311/6020A
	Mercury	800	834	104	ng/L	1311/6020A
	Selenium	40.0	40.4	101	ug/L	1311/6020A
	Silver	40.0	40.8	102	ug/L	1311/6020A
9K05034-CCV7	Arsenic	100	104	104	ug/L	1311/6020A
	Barium	100	107	107	ug/L	1311/6020A
	Cadmium	100	104	104	ug/L	1311/6020A
	Chromium	100	102	102	ug/L	1311/6020A
	Lead	100	100	100	ug/L	1311/6020A
	Mercury	800	870	109	ng/L	1311/6020A
	Selenium	40.0	40.2	101	ug/L	1311/6020A
	Silver	40.0	43.4	108	ug/L	1311/6020A
9K05034-CCV8	Arsenic	100	98.4	98	ug/L	1311/6020A
	Barium	100	102	102	ug/L	1311/6020A
	Cadmium	100	97.9	98	ug/L	1311/6020A
	Chromium	100	95.9	96	ug/L	1311/6020A
	Lead	100	104	104	ug/L	1311/6020A
	Mercury	800	855	107	ng/L	1311/6020A
	Selenium	40.0	40.4	101	ug/L	1311/6020A
	Silver	40.0	40.8	102	ug/L	1311/6020A
9K05034-CCV9	Arsenic	100	98.5	98	ug/L	1311/6020A
	Barium	100	101	101	ug/L	1311/6020A
	Cadmium	100	98.1	98	ug/L	1311/6020A
	Chromium	100	96.0	96	ug/L	1311/6020A
	Lead	100	102	102	ug/L	1311/6020A
	Mercury	800	850	106	ng/L	1311/6020A
	Selenium	40.0	40.3	101	ug/L	1311/6020A
	Silver	40.0	40.7	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: 9K05034
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K05034-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
9K05034-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
9K05034-CCB2	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
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
9K05034-CCB3	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
	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
9K05034-CCB4	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A

INSTRUMENT BLANKS
1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Instrument ID: ICPMS5
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence: 9K05034
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K05034-CCB4	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
	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
9K05034-CCB5	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
9K05034-CCB6	Mercury	ND	70.0 (Inst)	ng/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
	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
9K05034-CCB7	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	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
	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
9K05034-CCB8	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A

INSTRUMENT BLANKS
1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Instrument ID: ICPMS5
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence: 9K05034
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K05034-CCB8	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

(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: 9K05034

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K05034-CRL1	Arsenic	0.180	0.184	102	ug/L	70 - 130
	Cadmium	0.180	0.231	128	ug/L	70 - 130
	Chromium	0.180	0.233	129	ug/L	70 - 130
	Lead	0.180	0.235	130	ug/L	70 - 130
	Mercury	7.20	8.86	123	ng/L	70 - 130
	Selenium	0.180	0.163	90	ug/L	70 - 130
	Silver	0.180	0.182	101	ug/L	70 - 130
9K05034-CRL2	Arsenic	0.900	0.962	107	ug/L	70 - 130
	Barium	0.900	0.992	110	ug/L	70 - 130
	Cadmium	0.900	0.933	104	ug/L	70 - 130
	Chromium	0.900	0.897	100	ug/L	70 - 130
	Lead	0.900	0.952	106	ug/L	70 - 130
	Selenium	0.900	0.970	108	ug/L	70 - 130
	Silver	0.900	0.881	98	ug/L	70 - 130
9K05034-CRL3	Arsenic	1.80	1.84	102	ug/L	70 - 130
	Barium	1.80	1.89	105	ug/L	70 - 130
	Cadmium	1.80	1.80	100	ug/L	70 - 130
	Chromium	1.80	1.78	99	ug/L	70 - 130
	Lead	1.80	1.84	102	ug/L	70 - 130
	Mercury	72.0	81.6	113	ng/L	70 - 130
	Selenium	1.80	1.86	103	ug/L	70 - 130
	Silver	1.80	1.77	98	ug/L	70 - 130
9K05034-CRL4	Arsenic	0.180	0.186	103	ug/L	70 - 130
	Barium	0.180	0.213	118	ug/L	70 - 130
	Cadmium	0.180	0.194	108	ug/L	70 - 130
	Chromium	0.180	0.197	110	ug/L	70 - 130
	Lead	0.180	0.211	117	ug/L	70 - 130
	Mercury	7.20	9.34	130	ng/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: 9K05034

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K05034-CRL4	Selenium	0.180	0.207	115	ug/L	70 - 130
	Silver	0.180	0.181	101	ug/L	70 - 130
9K05034-CRL5	Arsenic	0.180	0.172	95	ug/L	70 - 130
	Barium	0.180	0.198	110	ug/L	70 - 130
	Cadmium	0.180	0.163	90	ug/L	70 - 130
	Chromium	0.180	0.186	104	ug/L	70 - 130
	Lead	0.180	0.204	113	ug/L	70 - 130
	Selenium	0.180	0.214	119	ug/L	70 - 130
	Silver	0.180	0.188	104	ug/L	70 - 130
9K05034-CRL6	Arsenic	0.900	0.884	98	ug/L	70 - 130
	Barium	0.900	0.975	108	ug/L	70 - 130
	Cadmium	0.900	0.895	99	ug/L	70 - 130
	Chromium	0.900	0.867	96	ug/L	70 - 130
	Lead	0.900	0.917	102	ug/L	70 - 130
	Mercury	36.0	40.3	112	ng/L	70 - 130
	Selenium	0.900	0.880	98	ug/L	70 - 130
	Silver	0.900	0.918	102	ug/L	70 - 130
9K05034-CRL7	Arsenic	1.80	1.81	101	ug/L	70 - 130
	Barium	1.80	1.91	106	ug/L	70 - 130
	Cadmium	1.80	1.76	98	ug/L	70 - 130
	Chromium	1.80	1.76	98	ug/L	70 - 130
	Lead	1.80	1.80	100	ug/L	70 - 130
	Mercury	72.0	77.4	107	ng/L	70 - 130
	Selenium	1.80	1.71	95	ug/L	70 - 130
	Silver	1.80	1.83	102	ug/L	70 - 130
9K05034-CRL8	Arsenic	3.60	3.52	98	ug/L	70 - 130
	Barium	3.60	3.74	104	ug/L	70 - 130
	Cadmium	3.60	3.55	98	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: 9K05034

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K05034-CRL8	Chromium	3.60	3.47	96	ug/L	70 - 130
	Lead	3.60	3.54	98	ug/L	70 - 130
	Mercury	144	140	97	ng/L	70 - 130
	Selenium	3.60	3.77	105	ug/L	70 - 130
	Silver	3.60	3.55	99	ug/L	70 - 130
9K05034-CRL9	Arsenic	0.180	0.226	126	ug/L	70 - 130
	Barium	0.180	0.175	97	ug/L	70 - 130
	Cadmium	0.180	0.162	90	ug/L	70 - 130
	Chromium	0.180	0.180	100	ug/L	70 - 130
	Lead	0.180	0.193	107	ug/L	70 - 130
	Selenium	0.180	0.190	106	ug/L	70 - 130
	Silver	0.180	0.168	93	ug/L	70 - 130
9K05034-CRLA	Arsenic	0.900	0.859	95	ug/L	70 - 130
	Barium	0.900	0.827	92	ug/L	70 - 130
	Cadmium	0.900	0.805	89	ug/L	70 - 130
	Chromium	0.900	0.873	97	ug/L	70 - 130
	Lead	0.900	0.916	102	ug/L	70 - 130
	Mercury	36.0	37.2	103	ng/L	70 - 130
	Selenium	0.900	0.825	92	ug/L	70 - 130
	Silver	0.900	0.834	93	ug/L	70 - 130
9K05034-CRLB	Arsenic	1.80	1.79	99	ug/L	70 - 130
	Barium	1.80	1.69	94	ug/L	70 - 130
	Cadmium	1.80	1.55	86	ug/L	70 - 130
	Chromium	1.80	1.56	87	ug/L	70 - 130
	Lead	1.80	1.66	92	ug/L	70 - 130
	Mercury	72.0	63.1	88	ng/L	70 - 130
	Selenium	1.80	1.73	96	ug/L	70 - 130
	Silver	1.80	1.61	90	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: 9K05034

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K05034-CRLC	Arsenic	3.60	3.57	99	ug/L	70 - 130
	Barium	3.60	3.56	99	ug/L	70 - 130
	Cadmium	3.60	3.53	98	ug/L	70 - 130
	Chromium	3.60	3.34	93	ug/L	70 - 130
	Lead	3.60	3.47	96	ug/L	70 - 130
	Mercury	144	138	96	ng/L	70 - 130
	Selenium	3.60	3.46	96	ug/L	70 - 130
	Silver	3.60	3.46	96	ug/L	70 - 130
9K05034-CRLD	Arsenic	0.180	0.173	96	ug/L	70 - 130
	Barium	0.180	0.202	112	ug/L	70 - 130
	Cadmium	0.180	0.172	95	ug/L	70 - 130
	Chromium	0.180	0.173	96	ug/L	70 - 130
	Lead	0.180	0.211	117	ug/L	70 - 130
	Selenium	0.180	0.164	91	ug/L	70 - 130
	Silver	0.180	0.178	99	ug/L	70 - 130
9K05034-CRLE	Arsenic	0.900	0.817	91	ug/L	70 - 130
	Barium	0.900	0.911	101	ug/L	70 - 130
	Cadmium	0.900	0.856	95	ug/L	70 - 130
	Chromium	0.900	0.812	90	ug/L	70 - 130
	Lead	0.900	0.872	97	ug/L	70 - 130
	Mercury	36.0	43.4	120	ng/L	70 - 130
	Selenium	0.900	0.870	97	ug/L	70 - 130
	Silver	0.900	0.855	95	ug/L	70 - 130
9K05034-CRLF	Arsenic	1.80	1.59	89	ug/L	70 - 130
	Barium	1.80	1.68	93	ug/L	70 - 130
	Cadmium	1.80	1.64	91	ug/L	70 - 130
	Chromium	1.80	1.60	89	ug/L	70 - 130
	Lead	1.80	1.58	88	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: 9K05034

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K05034-CRLF	Mercury	72.0	66.5	92	ng/L	70 - 130
	Selenium	1.80	1.61	90	ug/L	70 - 130
	Silver	1.80	1.63	91	ug/L	70 - 130
9K05034-CRLG	Arsenic	3.60	3.49	97	ug/L	70 - 130
	Barium	3.60	3.60	100	ug/L	70 - 130
	Cadmium	3.60	3.51	97	ug/L	70 - 130
	Chromium	3.60	3.37	94	ug/L	70 - 130
	Lead	3.60	3.48	97	ug/L	70 - 130
	Mercury	144	136	94	ng/L	70 - 130
	Selenium	3.60	3.30	92	ug/L	70 - 130
	Silver	3.60	3.40	94	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-015SC-C-00-8.1-191024	10/24/19 13:17	10/25/19 14:40	11/05/19 11:32	11.93	28.00	11/05/19 18:13	12.21	28.00	
PDI-015SC-C-00-8.1-191024	10/24/19 13:17	10/25/19 14:40	11/05/19 11:32	11.93	180.00	11/05/19 18:13	12.21	180.00	
PDI-026SC-C-00-3.9-191024	10/24/19 09:58	10/25/19 14:40	11/05/19 11:32	12.07	28.00	11/05/19 18:18	12.35	28.00	
PDI-026SC-C-00-3.9-191024	10/24/19 09:58	10/25/19 14:40	11/05/19 11:32	12.07	180.00	11/05/19 18:18	12.35	180.00	
PDI-037SC-C-00-12.4-191024	10/24/19 11:36	10/25/19 14:40	11/05/19 11:32	12.00	28.00	11/05/19 18:23	12.28	28.00	
PDI-037SC-C-00-12.4-191024	10/24/19 11:36	10/25/19 14:40	11/05/19 11:32	12.00	180.00	11/05/19 18:23	12.28	180.00	
PDI-073SC-C-00-13.7-191024	10/24/19 14:31	10/25/19 14:40	11/05/19 11:32	11.88	28.00	11/05/19 18:37	12.17	28.00	
PDI-073SC-C-00-13.7-191024	10/24/19 14:31	10/25/19 14:40	11/05/19 11:32	11.88	180.00	11/05/19 18:37	12.17	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

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-015SC-C-00-8.1-191024	A9J0950-01	Sediment
PDI-026SC-C-00-3.9-191024	A9J0950-02	Sediment
PDI-037SC-C-00-12.4-191024	A9J0950-03	Sediment
PDI-073SC-C-00-13.7-191024	A9J0950-04	Sediment

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: 12/17/2019 3:37PM

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-015SC-C-00-8.1-191024

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0950-01
Sampled: 10/24/19 13:17
Prepared: 10/25/19 17:22
Analyzed: 10/28/19 16:20
Solids: 81.42
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9101616
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	81.4	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-026SC-C-00-3.9-191024

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0950-02
Sampled: 10/24/19 09:58
Prepared: 10/25/19 17:22
Analyzed: 10/28/19 16:20
Solids: 76.10
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9101616
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	76.1	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-037SC-C-00-12.4-191024

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0950-03
Sampled: 10/24/19 11:36
Prepared: 10/25/19 17:22
Analyzed: 10/28/19 16:20
Solids: 75.83
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9101616
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	75.8	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-073SC-C-00-13.7-191024

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0950-04
Sampled: 10/24/19 14:31
Prepared: 10/25/19 17:22
Analyzed: 10/28/19 16:20
Solids: 67.83
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9101616
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	67.8	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: 9101616 Batch Matrix: Sediment Preparation: Total Solids (SM2540G/PSEP)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PDI-015SC-C-00-8.1-191024 (Dup)	9101616-DUP1		10/25/19 17:22	
PDI-015SC-C-00-8.1-191024	A9J0950-01		10/25/19 17:22	
PDI-026SC-C-00-3.9-191024	A9J0950-02		10/25/19 17:22	
PDI-037SC-C-00-12.4-191024	A9J0950-03		10/25/19 17:22	
PDI-073SC-C-00-13.7-191024	A9J0950-04		10/25/19 17:22	

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

PDI-015SC-C-00-8.1-191024

DUPLICATES

SM 2540 G

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Sediment
Batch: 9101616
Preparation: Total Solids (SM2540G/PSEP)
Source Sample Name: PDI-015SC-C-00-8.1-191024

SDG: Gasco_PreRD_DG 2019
Project: Gasco_PreRD_DG 2019 - 4c. Waste Charact
Laboratory ID: 9101616-DUP1
Lab Source ID: A9J0950-01
Initial/Final: 1 N/A / 1 N/A
% Solids: 81.42

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Solids	10	81.4		81.1		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-015SC-C-00-8.1-191024	10/24/19 13:17	10/25/19 14:40	10/25/19 17:22	1.17	180.00	10/28/19 16:20	2.96		
PDI-026SC-C-00-3.9-191024	10/24/19 09:58	10/25/19 14:40	10/25/19 17:22	1.31	180.00	10/28/19 16:20	2.96		
PDI-037SC-C-00-12.4-191024	10/24/19 11:36	10/25/19 14:40	10/25/19 17:22	1.24	180.00	10/28/19 16:20	2.96		
PDI-073SC-C-00-13.7-191024	10/24/19 14:31	10/25/19 14:40	10/25/19 17:22	1.12	180.00	10/28/19 16:20	2.96		

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-015SC-C-00-8.1-191024	A9J0950-01	Sediment
PDI-026SC-C-00-3.9-191024	A9J0950-02	Sediment
PDI-037SC-C-00-12.4-191024	A9J0950-03	Sediment
PDI-073SC-C-00-13.7-191024	A9J0950-04	Sediment

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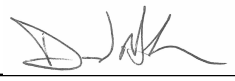
Signature: 
Name: David G. Jack

Forms Created: 12/17/2019 3:38PM
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-015SC-C-00-8.1-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-01	File ID:	
Sampled:	10/24/19 13:17	Prepared:	10/30/19 16:40	Analyzed:	10/30/19 16:40
Solids:	81.42	Preparation:	EPA 1311 TCLP/ZHE	Initial/Final:	25.2 g / 500 mL
Batch:	9101776	Sequence:		Calibration:	Instrument: Inst

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

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 1311 ZHE

PDI-026SC-C-00-3.9-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-02	File ID:	
Sampled:	10/24/19 09:58	Prepared:	10/30/19 16:40	Analyzed:	10/30/19 16:40
Solids:	76.10	Preparation:	EPA 1311 TCLP/ZHE	Initial/Final:	20.2 g / 400 mL
Batch:	9101776	Sequence:		Calibration:	Instrument: Inst

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

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 1311 ZHE

PDI-037SC-C-00-12.4-191024

Laboratory:	Apex Laboratories		SDG:	Gasco_PreRD_DG 2019	
Client:	Anchor QEA, LLC		Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization	
Matrix:	Sediment	Laboratory ID:	A9J0950-03	File ID:	
Sampled:	10/24/19 11:36	Prepared:	10/30/19 16:40	Analyzed:	10/30/19 16:40
Solids:	75.83	Preparation:	EPA 1311 TCLP/ZHE	Initial/Final:	20 g / 400 mL
Batch:	9101776	Sequence:		Calibration:	Instrument: Inst

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

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 1311 ZHE

PDI-073SC-C-00-13.7-191024

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0950-04	File ID:	
Sampled:	10/24/19 14:31	Prepared:	10/30/19 16:40	Analyzed:	10/30/19 16:40
Solids:	67.83	Preparation:	EPA 1311 TCLP/ZHE	Initial/Final:	20.3 g / 400 mL
Batch:	9101776	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: 9101776 Batch Matrix: Solid Preparation: EPA 1311 TCLP/ZHE

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PDI-015SC-C-00-8.1-191024	A9J0950-01		10/30/19 16:40	
PDI-026SC-C-00-3.9-191024	A9J0950-02		10/30/19 16:40	
PDI-037SC-C-00-12.4-191024	A9J0950-03		10/30/19 16:40	
PDI-073SC-C-00-13.7-191024	A9J0950-04		10/30/19 16:40	

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-015SC-C-00-8.1-191024	10/24/19 13:17	10/25/19 14:40	10/30/19 16:40	6.14	14.00	10/30/19 16:40	0.00		
PDI-026SC-C-00-3.9-191024	10/24/19 09:58	10/25/19 14:40	10/30/19 16:40	6.28	14.00	10/30/19 16:40	0.00		
PDI-037SC-C-00-12.4-191024	10/24/19 11:36	10/25/19 14:40	10/30/19 16:40	6.21	14.00	10/30/19 16:40	0.00		
PDI-073SC-C-00-13.7-191024	10/24/19 14:31	10/25/19 14:40	10/30/19 16:40	6.09	14.00	10/30/19 16:40	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-015SC-C-00-8.1-191024	A9J0950-01	Sediment
PDI-026SC-C-00-3.9-191024	A9J0950-02	Sediment
PDI-037SC-C-00-12.4-191024	A9J0950-03	Sediment
PDI-073SC-C-00-13.7-191024	A9J0950-04	Sediment

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: 12/17/2019 3:38PM
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: Solid

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-015SC-C-00-8.1-191024

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0950-01
Sampled: 10/24/19 13:17
Prepared: 11/04/19 16:50
Analyzed: 11/04/19 16:50
Solids: 81.42
Preparation: EPA 1311 (TCLP)
Initial/Final: 100 g / 2000 mL
Batch: 9110414
Calibration:
Instrument: Inst

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

INORGANIC ANALYSIS DATA SHEET

EPA 1311

PDI-026SC-C-00-3.9-191024

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0950-02
Sampled: 10/24/19 09:58
Prepared: 11/04/19 16:50
Analyzed: 11/04/19 16:50
Solids: 76.10
Preparation: EPA 1311 (TCLP)
Initial/Final: 100 g / 2000 mL
Batch: 9110414
Calibration:
Instrument: Inst

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

INORGANIC ANALYSIS DATA SHEET

EPA 1311

PDI-037SC-C-00-12.4-191024

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0950-03
Sampled: 10/24/19 11:36
Prepared: 11/04/19 16:50
Analyzed: 11/04/19 16:50
Solids: 75.83
Preparation: EPA 1311 (TCLP)
Initial/Final: 100.5 g / 2010 mL
Batch: 9110414
Calibration:
Instrument: Inst

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

INORGANIC ANALYSIS DATA SHEET

EPA 1311

PDI-073SC-C-00-13.7-191024

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0950-04
Sampled: 10/24/19 14:31
Prepared: 11/04/19 16:50
Analyzed: 11/04/19 16:50
Solids: 67.83
Preparation: EPA 1311 (TCLP)
Initial/Final: 100 g / 2000 mL
Batch: 9110414
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: 9110414 Batch Matrix: Solid Preparation: EPA 1311 (TCLP)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110414-BLK1		11/04/19 16:50	
PDI-015SC-C-00-8.1-191024	A9J0950-01		11/04/19 16:50	
PDI-026SC-C-00-3.9-191024	A9J0950-02		11/04/19 16:50	
PDI-037SC-C-00-12.4-191024	A9J0950-03		11/04/19 16:50	
PDI-073SC-C-00-13.7-191024	A9J0950-04		11/04/19 16:50	

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.

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:	Solid	Laboratory ID:	9110414-BLK1	File ID:	
Prepared:	11/04/19 16:50	Preparation:	EPA 1311 (TCLP)	Initial/Final:	50 g / 1000 mL
Analyzed:	11/04/19 16:50	Instrument:	Inst		
Batch:	9110414	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-015SC-C-00-8.1-191024	10/24/19 13:17	10/25/19 14:40	11/04/19 16:50	11.15	14.00	11/04/19 16:50	0.00		
PDI-015SC-C-00-8.1-191024	10/24/19 13:17	10/25/19 14:40	11/04/19 16:50	11.15	28.00	11/04/19 16:50	0.00		
PDI-026SC-C-00-3.9-191024	10/24/19 09:58	10/25/19 14:40	11/04/19 16:50	11.29	14.00	11/04/19 16:50	0.00		
PDI-026SC-C-00-3.9-191024	10/24/19 09:58	10/25/19 14:40	11/04/19 16:50	11.29	28.00	11/04/19 16:50	0.00		
PDI-037SC-C-00-12.4-191024	10/24/19 11:36	10/25/19 14:40	11/04/19 16:50	11.22	14.00	11/04/19 16:50	0.00		
PDI-037SC-C-00-12.4-191024	10/24/19 11:36	10/25/19 14:40	11/04/19 16:50	11.22	28.00	11/04/19 16:50	0.00		
PDI-073SC-C-00-13.7-191024	10/24/19 14:31	10/25/19 14:40	11/04/19 16:50	11.10	14.00	11/04/19 16:50	0.00		
PDI-073SC-C-00-13.7-191024	10/24/19 14:31	10/25/19 14:40	11/04/19 16:50	11.10	28.00	11/04/19 16:50	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

Volatile Organic Compounds by EPA 5035A/8260C
Benchsheet & Analysis Sequence Data

Batch 9101588
Sequence 9J25029 (A9J0950-01,02,03,04)

PREPARATION BENCH SHEET

Apex Laboratories

BATCH #: 9101588 (Soil)

OCT 2 0 2019

Prep Method: EPA 5035A

Lab Number	Cont.	Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH*
9101588-BLK1		QC	10/25/19 09:30	7.5	5							
9101588-BS1		QC	10/25/19 09:30	5	5	A19J290		250				
9101588-BS2		QC	10/25/19 09:30	5	5	A19J354		250				
A9J0841-08RE1	B	8260C BTEX+Halo6	(Date Sampled)	5.03	5					PDI-034SC-B-6.3-8.3-191022	FP 50X RR1	
A9J0841-14RE1	B	8260C BTEX+Halo6	(Date Sampled)	5.29	5					PDI-083SC-B-02-04-191022	FP 100X RR1	
A9J0841-16RE1	B	8260C BTEX+Halo6	(Date Sampled)	5.12	5					PDI-083SC-B-06-08-191022	FP 2000X RR1	
A9J0841-28	B	8260C BTEX+Halo6	(Date Sampled)	6.29	5					PDI-099SC-B-14-15.6-191022	FP CAP TESTING/Waters	
A9J0841-29	B	8260C BTEX+Halo6	(Date Sampled)	5.77	5					PDI-1099SC-B-10-12-191022	FP CAP TESTING/Waters	
A9J0893-08	C	8260C Full List	(Date Sampled)	5.43	5					PDI-057SC-B-08-10-191023	FP Added for BatchQC in: 9101588	
A9J0893-08	C	8260C Halogenated VOCs	(Date Sampled)	5.43	5					PDI-057SC-B-08-10-191023	FP Added for BatchQC in: 9101588	
A9J0893-08	C	8260C BTEX+Halo6	(Date Sampled)	5.43	5					PDI-057SC-B-08-10-191023	FP MS/MSD, CAP TESTING/Wate	
9101588-MS1		QC	10/23/19 12:46	5.43	5	A19J290	A9J0893-08	333			DW = 69.6% @50X	
9101588-MSD1		QC	10/23/19 12:46	5.43	5	A19J290	A9J0893-08	333			DW = 69.6% @50X	
A9J0893-09	B	8260C BTEX+Halo6	(Date Sampled)	5.61	5					PDI-057SC-B-10-12-191023	FP CAP TESTING/Waters	
A9J0893-10	B	8260C BTEX+Halo6	(Date Sampled)	4.52	5					PDI-057SC-B-12-14-191023	FP CAP TESTING/Waters	
A9J0893-11	B	8260C BTEX+Halo6	(Date Sampled)	6.47	5					PDI-057SC-B-14-15.3-191023	FP CAP TESTING/Waters	
A9J0950-01	D	8260C Full List	(Date Sampled)	4.68	5					PDI-015SC-C-00-8.1-191024	FP	
A9J0950-02	D	8260C Full List	(Date Sampled)	5.88	5					PDI-026SC-C-00-3.9-191024	FP	
A9J0950-03	D	8260C Full List	(Date Sampled)	6.08	5					PDI-037SC-C-00-12.4-191024	FP	
A9J0950-04	D	8260C Full List	(Date Sampled)	5.78	5					PDI-073SC-C-00-13.7-191024	FP	
A9J0951-01	B	8260C ~~Halogenated VOCs~~	(Date Sampled)	5.4	5					FB-1-8-12	FP Full list	
A9J0951-02	B	8260C ~~Halogenated VOCs~~	(Date Sampled)	6.56	5					FB-2-8-12	FP ↓	

IMA 10/28/19
Prepared By: Date

Reviewed By: 10/28/19
Date

PREPARATION BENCH SHEET

BATCH #: 9101588 (Soil)

Apex Laboratories

Prep Method: EPA 5035A

Lab Number	Cont.	Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH*
A9J0951-03	B	8260C ~~Halogenated~~ VOCs	(Date Sampled)	6.47	5					FB-3-8-12	FP Full list	
A9J0953-01	B	8260C Full List	10/25/19 14:32	5.87	5					#1-Solid	MOD	
A9J0954-01	D	8260C Full List	(Date Sampled)	5.85	5					PDI-019SC-C-00-3.2-191025	FP	
A9J0954-02	D	8260C Full List	(Date Sampled)	4.74	5					PDI-095SC-C-00-8.8-191025	FP	

*pH <2 verified_____

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A18J327	11/30/23	Balance s/n 593312
A19I219	09/16/20	Methanol - Fisher (P/T) #191546
A19I220	09/16/20	Methanol - B&J (P/T) #DX075-US

Analyte Spike(s)

Std ID	Exp. Date	Description
A19J290	04/09/20	8260 Cal. Std. B VOC+OXY Spike (20-40ug/mL
A19J354	04/21/20	Prim NWTPH-Gx Spike (500 ug/mL)

Surrogate(s)

Std ID	Exp. Date	Description

SOIL MS10

Prepared By: Date

Reviewed By: Date

Volatile Soils Matrix Spike Volume Calculation (Validated 5/3/2013)
Enter the Spike Amount value into the Bench Sheet to ensure correct MS/MSD recoveries.

Batch: 9101588

Matrix Spike

Sample Weight	Final Volume	Dilution	Dry Weight
g ✓	mL ✓	✓	% ✓
5.430	5	50	69.6
			0.696

Final Spike Level	**Spike Amount**
ug/kg	**ul**
1759.78	**333**

Assumptions:
Spiking Solution = 20ug/mL
Spike Amount into 50mL = 50ul
Dilution = 1mL of MeOH to 50mL of water
Initial Spike Concentration = 20ug/L

A9J0893-08

IMA
10/28/19

Worksheet

5035 Field Prep Worksheet (Validated 7/11/16)

Sample ID	Container	Tare Weight (g)	Gross Weight (g)	Net Sample Weight (g)	Sample Check
A9J0841-28	B	40.01	33.72	6.29	
A9J0893-08	C	39.07	33.64	5.43	
10	B	37.96	33.44	4.52	
A9J0950-01	D	38.68	34	4.68	
3	D	39.42	33.34	6.08	
A9J0951-01	B	39.26	33.86	5.4	
3	B	39.68	33.21	6.47	
2	D	38.25	33.51	4.74	
				0	
				0	
				0	
				0	
				0	
				0	

IMA
10/28/19

A9J0953

5035 Container Prep Worksheet
~Soil Jar Extraction~

A9J0953-01	#1-Solid	Sampled: 10/24/19 14:35

		Container Used	Sample Weight (g)	Volume MeOH (mL)	Prepared By:	Prepared date/time	Within 48 hours?	Notes:
B Solid	40 mL VOA - In House Prep - 5035 (MeOH)	A	5.87	(5) 10 15	AKK @	10/25/19 1432	(Y) N	Mud, HS, odor, oj

8260C Full List Expires: 10/26/19 14:35 Due: 10/29/19 17:00

Comments: Possibly HOT

A9J0841

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J0841-28 **PDI-099SC-B-14-15.6-191022** Sampled: **10/22/19 10:48**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Sediment	40 mL VOA - 5035 (MeOH)	40.01	33.72	(5) 10 15 Other	
C Sediment	40 mL VOA - 5035 (MeOH)	40.04	33.76	(5) 10 15 Other	

BTEX + HALOG Due: TAT:

A9J0841-29 **PDI-1099SC-B-10-12-191022** Sampled: **10/22/19 10:48**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Sediment	40 mL VOA - 5035 (MeOH)	39.16	33.39	(5) 10 15 Other	
C Sediment	40 mL VOA - 5035 (MeOH)	38.52	33.23	(5) 10 15 Other	

Due: TAT:

Weighed by: @ 10/23/19 1721

Methanol Reagent ID: A191219~ Balance ID: A18J327~

Print Date: 10/23/2019 1:47:25PM

A9J0893

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J0893-08 — **PDI-057SC-B-08-10-191023** — Sampled: **10/23/19 12:46**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
C Sediment	40 mL VOA - 5035 (MeOH)	39.07	33.64	(5) 10 15 Other	MS MSD
D Sediment	40 mL VOA - 5035 (MeOH)	38.68	32.89	(5) 10 15 Other	
E Sediment	40 mL VOA - 5035 (MeOH)	39.35	33.52	(5) 10 15 Other	
F Sediment	40 mL VOA - 5035 (MeOH)	38.10	33.83	(5) 10 15 Other	
G Sediment	40 mL VOA - 5035 (MeOH)	39.13	33.33	(5) 10 15 Other	

BTEX + HALO6 — Due: — TAT:

A9J0893-09 — **PDI-057SC-B-10-12-191023** — Sampled: **10/23/19 12:46**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Sediment	40 mL VOA - 5035 (MeOH)	39.26	33.65	(5) 10 15 Other	
C Sediment	40 mL VOA - 5035 (MeOH)	39.54	33.72	(5) 10 15 Other	

Due: TAT:

A9J0893-10 — **PDI-057SC-B-12-14-191023** — Sampled: **10/23/19 12:46**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Sediment	40 mL VOA - 5035 (MeOH)	37.96	33.44	(5) 10 15 Other	
C Sediment	40 mL VOA - 5035 (MeOH)	38.68	33.23	(5) 10 15 Other	?

Due: TAT:

A9J0893-11 — **PDI-057SC-B-14-15.3-191023** — Sampled: **10/23/19 12:46**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Sediment	40 mL VOA - 5035 (MeOH)	40.17	33.70	(5) 10 15 Other	
C Sediment	40 mL VOA - 5035 (MeOH)	39.71	33.29	(5) 10 15 Other	

Due: TAT:

Weighed by: (SR) @ 10/24/19 1414 (SR 10/24/19)

Methanol Reagent ID: A19I219~ Balance ID: A18J327~

A9J0950

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J0950-01 — **PDI-015SC-C-00-8.1-191024** — Sampled: **10/24/19 13:17**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
D Sediment	40 mL VOA - 5035 (MeOH)	38.68	34.00	(5) 10 15 Other	
E Sediment	40 mL VOA - 5035 (MeOH)	38.57	33.43	(5) 10 15 Other	

Due: TAT:

A9J0950-02 — **PDI-026SC-C-00-3.9-191024** — Sampled: **10/24/19 09:58**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
D Sediment	40 mL VOA - 5035 (MeOH)	39.82	33.94	(5) 10 15 Other	
E Sediment	40 mL VOA - 5035 (MeOH)	39.44	33.39	(5) 10 15 Other	

Due: TAT:

A9J0950-03 — **PDI-037SC-C-00-12.4-191024** — Sampled: **10/24/19 11:36**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
D Sediment	40 mL VOA - 5035 (MeOH)	39.42	33.34	(5) 10 15 Other	
E Sediment	40 mL VOA - 5035 (MeOH)	39.31	33.82	(5) 10 15 Other	

Due: TAT:

A9J0950-04 — **PDI-073SC-C-00-13.7-191024** — Sampled: **10/24/19 14:31**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
D Sediment	40 mL VOA - 5035 (MeOH)	39.17	33.39	(5) 10 15 Other	
E Sediment	40 mL VOA - 5035 (MeOH)	39.32	33.84	(5) 10 15 Other	

Due: TAT:

Weighed by: (8) @ 10/25/19 1613

Methanol Reagent ID: A191219 Balance ID: A16J327

A9J0951

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J0951-01		**FB-1-8-12**			Sampled: **10/25/19 10:05**
B Soil	40 mL VOA - 5035 (MeOH)	Container Weight (g): 39.26	Tare Weight (g): 33.86	Volume MeOH (mL): (5) 10 15 Other	Notes:
HALO		Due:	TAT:		
A9J0951-02		**FB-2-8-12**			Sampled: **10/25/19 10:25**
B Soil	40 mL VOA - 5035 (MeOH)	Container Weight (g): 40.40	Tare Weight (g): 33.84	Volume MeOH (mL): (5) 10 15 Other	Notes:
		Due:	TAT:		
A9J0951-03		**FB-3-8-12**			Sampled: **10/25/19 10:44**
B Soil	40 mL VOA - 5035 (MeOH)	Container Weight (g): 39.68	Tare Weight (g): 33.21	Volume MeOH (mL): (5) 10 15 Other	Notes:
		Due:	TAT:		

Weighed by: AKK @ 1410 10/25/19

Methanol Reagent ID: A19I219 Balance ID: A18J327

A9J0954

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J0954-01		PDI-019SC-C-00-3.2-191025			Sampled: 10/25/19 11:06
D Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 39.43	Tare Weight (g): 33.58	Volume MeOH (mL): (5) 10 15 Other	Notes:
E Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 39.70	Tare Weight (g): 33.59	Volume MeOH (mL): (5) 10 15 Other	Notes:
		Due:	TAT:		

A9J0954-02		PDI-095SC-C-00-8.8-191025			Sampled: 10/25/19 09:51
D Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 38.25	Tare Weight (g): 33.5	Volume MeOH (mL): (5) 10 15 Other	Notes:
E Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 38.20	Tare Weight (g): 33.52	Volume MeOH (mL): (5) 10 15 Other	Notes:
		Due:	TAT:		

Weighed by: (8) @ 10/25/19 1614

Methanol Reagent ID: A19I219~ Balance ID: A18J327

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	9J25029	Instrument:	VOA-GCMS10
Date:	10/25/19 09:29	Calibration:	A9J2404

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J25029-IBL1	Soil	QC	QC			A19G118	
2	9J25029-TUN1	Soil	QC	QC			A19G118	
3	9J25029-CCV1	Soil	QC	QC			A19G118	
4	9101588-BS1	Soil	QC	QC		9101588	A19G118	
5	9J25029-CCV2	Soil	QC	QC			A19G118	
6	9101588-BS2	Soil	QC	QC		9101588	A19G118	
7	9101588-BLK1	Soil	QC	QC		9101588	A19G118	
8	A9J0841-28	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	11/05/19	9101588	A19G118	
9	A9J0841-29	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	11/05/19	9101588	A19G118	
10	A9J0893-09	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	11/06/19	9101588	A19G118	
11	A9J0893-10	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	11/06/19	9101588	A19G118	
12	A9J0893-11	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	11/06/19	9101588	A19G118	
13	A9J0893-08	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	11/06/19	9101588	A19G118	
"	"	Soil	8260C Full List	(QC Source)		9101588	A19G118	
"	"	Soil	8260C Halogenated VOCs	(QC Source)		9101588	A19G118	
14	9101588-MS1	Soil	QC	QC		9101588	A19G118	
15	9101588-MSD1	Soil	QC	QC		9101588	A19G118	
16	9J25029-IBL2	Soil	QC	QC			A19G118	
17	A9J0841-08RE1	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	11/05/19	9101588	A19G118	
18	A9J0841-14RE1	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	11/05/19	9101588	A19G118	
19	A9J0841-16RE1	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	11/05/19	9101588	A19G118	
20	9J25029-IBL3	Soil	QC	QC			A19G118	
21	A9J0951-01	Soil	8260C Full List		10/29/19	9101588	A19G118	
22	A9J0951-02	Soil	8260C Full List		10/29/19	9101588	A19G118	
23	A9J0951-03	Soil	8260C Full List		10/29/19	9101588	A19G118	
24	A9J0953-01	Soil	8260C Full List		10/29/19	9101588	A19G118	
25	9J25029-IBL4	Soil	QC	QC			A19G118	
26	A9J0954-01	Soil	8260C Full List	Anchor QEA, LLC	11/07/19	9101588	A19G118	
27	A9J0954-02	Soil	8260C Full List	Anchor QEA, LLC	11/07/19	9101588	A19G118	
28	A9J0950-01	Soil	8260C Full List	Anchor QEA, LLC	11/07/19	9101588	A19G118	
29	A9J0950-02	Soil	8260C Full List	Anchor QEA, LLC	11/07/19	9101588	A19G118	
30	A9J0950-03	Soil	8260C Full List	Anchor QEA, LLC	11/07/19	9101588	A19G118	
31	A9J0950-04	Soil	8260C Full List	Anchor QEA, LLC	11/07/19	9101588	A19G118	
32	9J25029-IBL5	Soil	QC	QC			A19G118	
33	9J25029-IBL6	Soil	QC	QC			A19G118	
34	9J25029-IBL7	Soil	QC	QC			A19G118	
35	9J25029-IBL8	Soil	QC	QC			A19G118	
36	9J25029-IBL9	Soil	QC	QC			A19G118	

Data Entered By: 10/28/19

Data Reviewed By: 10/29/19

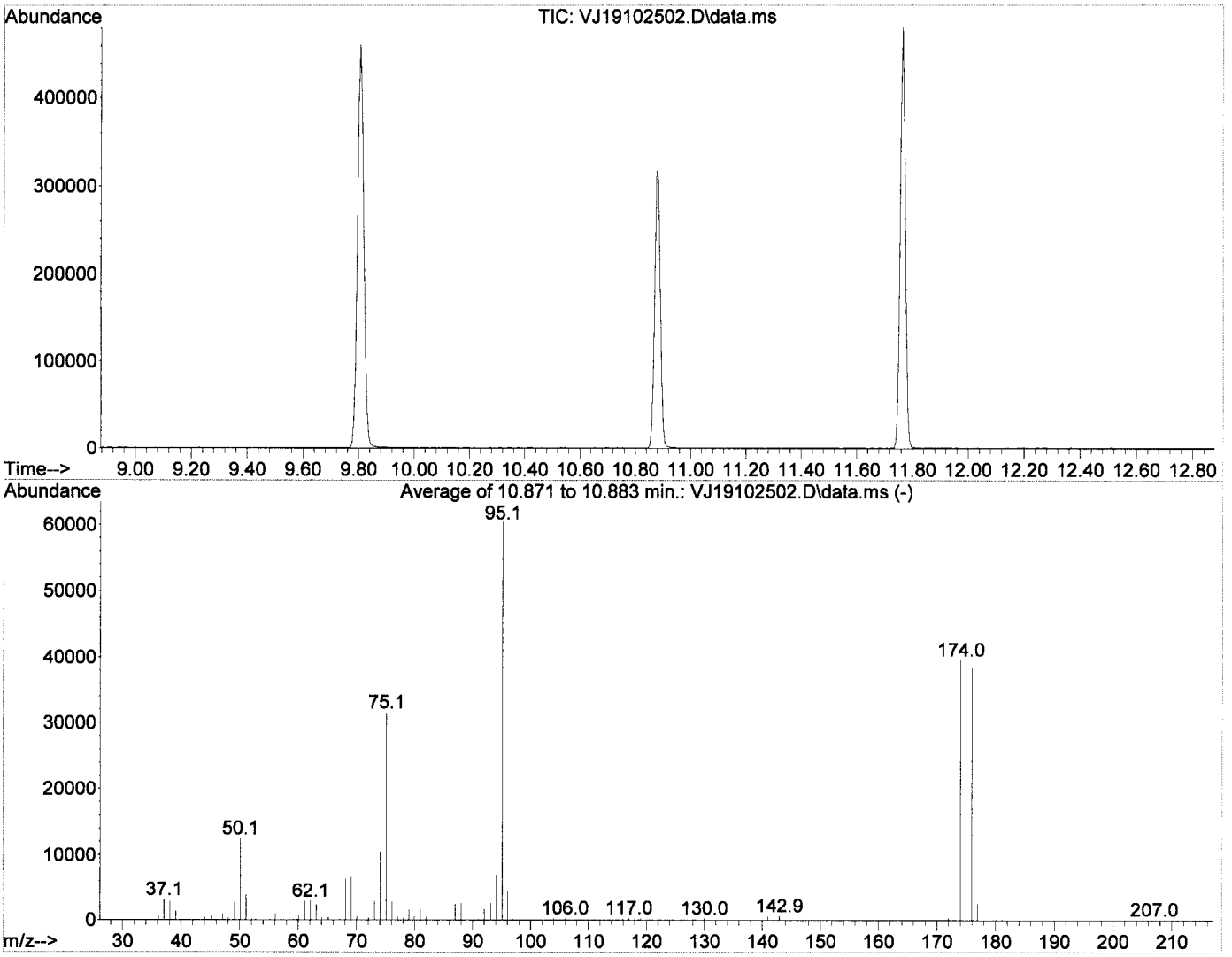
Comments: 12DCP ↑ 1/2 ppb (MDL)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102502.D
Acq On : 25 Oct 2019 10:16 am
Operator : MM/IMA
Sample : 9J25029-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

IMA
10/25/19

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 1521

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	152.5	60437	PASS
96	95	5	9	7.4	4453	PASS
173	174	0.00	2	0.3	113	PASS
174	95	50	200	65.6	39619	PASS
175	174	5	9	7.1	2794	PASS
176	174	95	105	97.3	38560	PASS
177	176	5	10	6.5	2525	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102502.D
Acq On : 25 Oct 2019 10:16 am
Operator : MM/IMA
Sample : 9J25029-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 25 14:38:59 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

JW 10/29/19

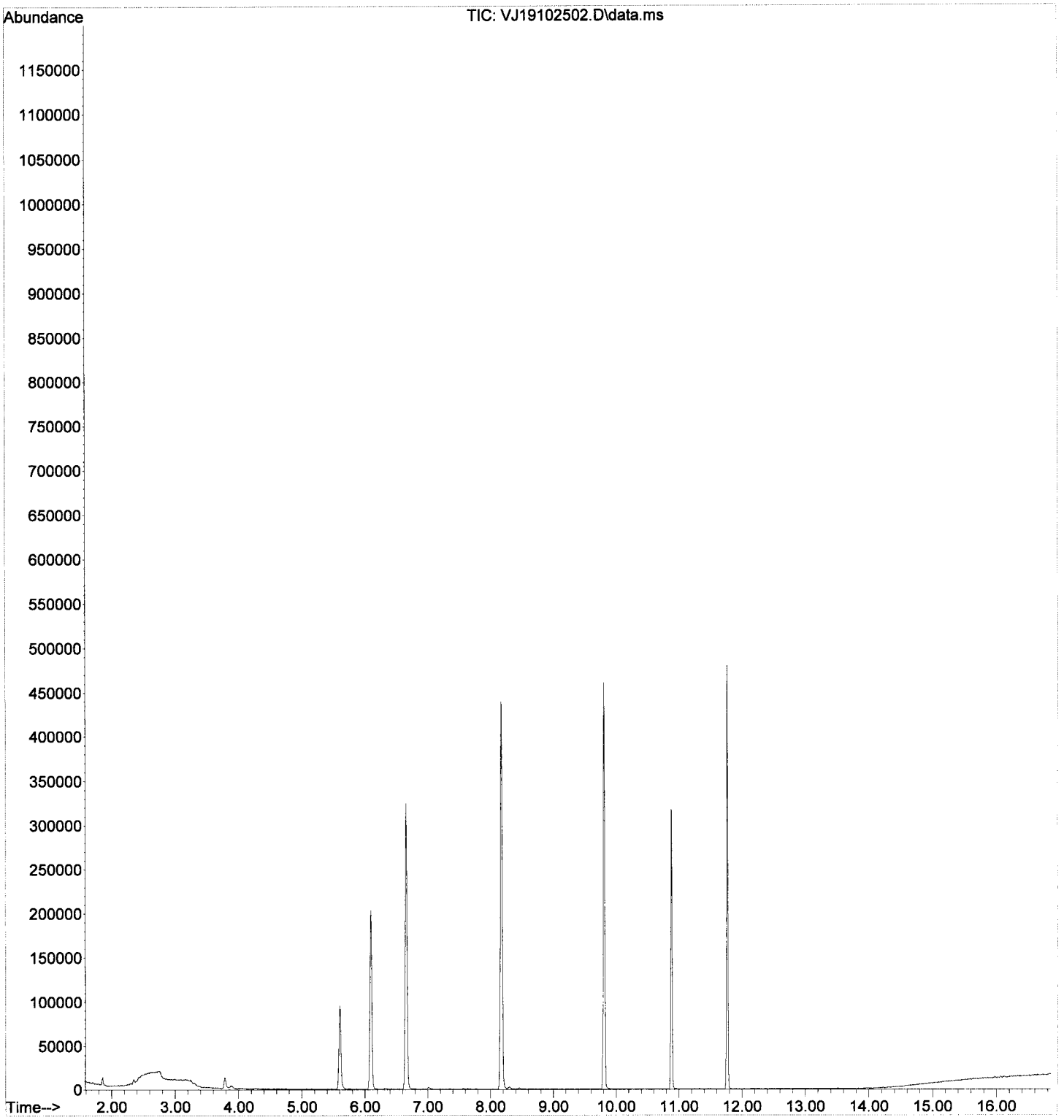
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	88493	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	233453	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	95848	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	68016	48.63	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	265534	48.78	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	332672	51.10	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	68019	49.15	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.904	50	1070	0.31	ug/L		90
5) Bromomethane	2.348	96	2675	Below Cal			95
6) Chloroethane	2.488	64	55	1.37	ug/L	#	47
8) Ethanol	3.309	45	7958	18.04	ug/L		99
12) Iodomethane	3.297	142	294	0.44	ug/L	#	47
13) Methylene Chloride	3.790	84	6057	2.13	ug/L		96
14) Acetone	3.863	43	3096	2.29	ug/L		84
18) tert-Butanol (TBA)	4.276	59	301	0.43	ug/L	#	20
28) Tetrahydrofuran	5.609	42	385	0.21	ug/L	#	41
32) 2-Butanone (MEK)	5.749	43	815	0.34	ug/L		52
36) iso-Butyl Alcohol	6.327	43	560	2.06	ug/L		86

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102502.D
Acq On : 25 Oct 2019 10:16 am
Operator : MM/IMA
Sample : 9J25029-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 25 14:38:59 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\2019-10\9J25029\
Data File : VJ19102503.D
Acq On : 25 Oct 2019 10:43 am
Operator : MM/IMA
Sample : 9101588-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 25 14:39:41 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	99	0.00
2		Dichlorodifluoromethane	20.000	18.745	6.3	94	0.00
3	P	Chloromethane	20.000	17.940	10.3	89	0.00
4	C	Vinyl Chloride	20.000	19.992	0.0	97	0.00
5		Bromomethane	20.000	23.438	-17.2	110	-0.01
6		Chloroethane	20.000	17.980	10.1	104	-0.01
7		Trichlorofluoromethane	20.000	19.255	3.7	96	0.00
8		Ethanol	1250.000	1361.841	-8.9	101	0.00
9	C	1,1-Dichloroethene	20.000	18.297	8.5	90	0.00
10		Carbon Disulfide	20.000	18.167	9.2	97	0.00
11		Freon 113	20.000	21.970	-9.8	107	-0.01
12		Iodomethane	20.000	14.062	NR 29.7#	69	0.00
13		Methylene Chloride	20.000	22.478	-12.4	106	0.00
14		Acetone	40.000	44.144	-10.4	101	0.00
15		t-1,2-Dichloroethene	20.000	19.880	0.6	97	0.00
16		n-Hexane	20.000	22.734	-13.7	112	-0.01
17		Methyl-tert-butyl-ether	20.000	19.553	2.2	95	0.00
18		tert-Butanol (TBA)	1250.000	1365.146	-9.2	97	0.00
19		Diisopropyl ether (DIPE)	5.000	4.750	5.0	90	0.00
20	P	1,1-Dichloroethane	20.000	19.976	0.1	95	0.00
21		Acrylonitrile	20.000	22.528	-12.6	99	0.00
22		Ethyl-tert-butyl ether (ETB	5.000	4.705	5.9	90	0.00
23		c-1,2-Dichloroethene	20.000	19.299	3.5	94	0.00
24		2,2-Dichloropropane	20.000	21.492	-7.5	107	0.00
25		Bromochloromethane	20.000	20.867	-4.3	99	0.00
26	C	Chloroform	20.000	19.878	0.6	94	0.00
27		Carbon Tetrachloride	20.000	20.197	-1.0	92	0.00
28		Tetrahydrofuran	20.000	18.630	6.9	95	0.00
29		1,1,1-Trichloroethane	20.000	20.366	-1.8	95	0.00
30	S	Dibromofluoromethane (S)	50.000	48.708	2.6	96	0.00
31		1,1-Dichloropropene	20.000	19.151	4.2	92	0.00
32		2-Butanone (MEK)	40.000	39.391	1.5	97	0.00
33		Benzene	20.000	18.974	5.1	94	0.00
34		tert-Amyl methyl ether (TAM	5.000	4.348	13.0	87	0.00
35		1,2-Dichloroethane (EDC)	20.000	21.029	-5.1	99	0.00
36		iso-Butyl Alcohol	500.000	530.673	-6.1	98	0.00
37	S	1,4-Difluorobenzene (S)	50.000	49.003	2.0	98	0.00
38		Trichloroethene (TCE)	20.000	19.571	2.1	93	0.00
39		tert-Amyl ethyl ether (TAEE	5.000	4.822	3.6	88	0.00
40		Dibromomethane	20.000	20.441	-2.2	96	0.00
41	C	1,2-Dichloropropane	20.000	19.626	1.9	95	0.00
42		Bromodichloromethane	20.000	20.227	-1.1	92	0.00
43		Chlorobenzene-d5 (I)	50.000	50.000	0.0	97	0.00
44		c-1,3-Dichloropropene	20.000	20.424	-2.1	92	0.00
45	S	Toluene-d8 (S)	50.000	50.803	-1.6	99	0.00
46	C	Toluene	20.000	19.328	3.4	93	0.00
47		Tetrachloroethene (PCE)	20.000	20.460	-2.3	94	0.00
48		4-Methyl-2-Pentanone (MIBK)	40.000	42.432	-6.1	93	0.00
49		t-1,3-Dichloropropene	20.000	21.901	-9.5	95	0.00
50		1,1,2-Trichloroethane	20.000	20.508	-2.5	92	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102503.D
Acq On : 25 Oct 2019 10:43 am
Operator : MM/IMA
Sample : 9101588-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 25 14:39:41 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	19.270	3.7	90	0.00
52		1,3-Dichloropropane	20.000	20.040	-0.2	92	0.00
53		1,2-Dibromoethane (EDB)	20.000	20.658	-3.3	92	0.00
54		2-Hexanone	40.000	42.015	-5.0	94	0.00
55	P	Chlorobenzene	20.000	19.612	1.9	93	0.00
56	C	Ethylbenzene	20.000	20.338	-1.7	92	0.00
57		1,1,1,2-Tetrachloroethane	20.000	20.529	-2.6	94	0.00
58		m,p-Xylenes (2)	40.000	42.780	-7.0	94	0.00
59		o-Xylene	20.000	20.452	-2.3	90	0.00
60		Styrene	20.000	18.377	8.1	92	0.00
61	P	Bromoform	20.000	18.118	9.4	91	0.00
62		Isopropylbenzene	20.000	20.823	-4.1	90	0.00
63	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	96	0.00
64	S	4-Bromofluorobenzene (S)	50.000	48.369	3.3	94	0.00
65		Bromobenzene	20.000	19.455	2.7	91	0.00
66		n-Propylbenzene	20.000	20.190	-1.0	92	0.00
67	P	1,1,2,2-Tetrachloroethane	20.000	20.059	-0.3	91	0.00
68		2-Chlorotoluene	20.000	19.735	1.3	90	0.00
69		1,3,5-Trimethylbenzene	20.000	22.240	-11.2	95	0.00
70		1,2,3-Trichloropropane	20.000	20.481	-2.4	93	0.00
71		t-1,4-Dichloro-2-butene	20.000	21.995	-10.0	98	0.00
72		4-Chlorotoluene	20.000	20.310	-1.5	91	0.00
73		tert-Butylbenzene	20.000	20.492	-2.5	91	0.00
74		1,2,4-Trimethylbenzene	20.000	22.243	-11.2	96	0.00
75		sec-Butylbenzene	20.000	21.036	-5.2	93	0.00
76		4-Isopropyltoluene	20.000	21.131	-5.7	92	0.00
77		1,3-Dichlorobenzene	20.000	20.085	-0.4	92	0.00
78		1,4-Dichlorobenzene	20.000	18.914	5.4	92	0.00
79		n-Butylbenzene	20.000	21.428	-7.1	98	0.00
80		1,2-Dichlorobenzene	20.000	20.256	-1.3	93	0.00
81		1,2-Dibromo-3-Chloropropane	20.000	19.541	2.3	94	0.00
82		Hexachlorobutadiene	20.000	21.400	-7.0	97	0.00
83		1,2,4-Trichlorobenzene	20.000	19.811	0.9	90	0.00
84		Naphthalene	20.000	20.726	-3.6	91	0.00
85		1,2,3-Trichlorobenzene	20.000	20.554	-2.8	93	0.00

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102503.D
Acq On : 25 Oct 2019 10:43 am
Operator : MM/IMA
Sample : 9101588-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 25 14:39:08 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

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	92842	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	245079	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	107292	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	71478	48.71	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.649	114	279883	49.00	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	347218	50.80	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	74932	48.37	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.685	85	~~22045~~	~~10.26~~	~~ug/L~~		~~99~~ MI same as curve
3) Chloromethane	1.892	50	65324	17.94	ug/L		99
4) Vinyl Chloride	1.989	62	56148	19.99	ug/L		95
5) Bromomethane	2.336	96	27911	23.44	ug/L		98
6) Chloroethane	2.457	64	6421	17.98	ug/L		95
7) Trichlorofluoromethane	2.591	101	12067	19.25	ug/L		94
8) Ethanol	3.309	45	123808	1361.84	ug/L		90
9) 1,1-Dichloroethene	3.133	61	63206	18.30	ug/L		96
10) Carbon Disulfide	3.145	76	117062	18.17	ug/L		98
11) Freon 113	3.187	101	46109	21.97	ug/L		95
12) Iodomethane	3.285	142	9891	14.06	ug/L		92
13) Methylene Chloride	3.771	84	49121	22.48	ug/L		87
14) Acetone	3.869	43	62545	44.14	ug/L		97
15) t-1,2-Dichloroethene	3.942	61	71793	19.88	ug/L		94
16) n-Hexane	4.033	86	12436	22.73	ug/L	#	73
17) Methyl-tert-butyl-ether	4.106	73	168904	19.55	ug/L		96
18) tert-Butanol (TBA)	4.264	59	995225	1365.15	ug/L	#	90
19) Diisopropyl ether (DIPE)	4.501	45	42119	4.75	ug/L		95
20) 1,1-Dichloroethane	4.574	63	76127	19.98	ug/L		98
21) Acrylonitrile	4.635	53	36132	22.53	ug/L		99
22) Ethyl-tert-butyl ether...	4.872	59	37593	4.71	ug/L		92
23) c-1,2-Dichloroethene	5.128	61	68746	19.30	ug/L		96
24) 2,2-Dichloropropane	5.237	77	77533	21.49	ug/L		98
25) Bromochloromethane	5.329	49	45260	20.87	ug/L		77
26) Chloroform	5.414	83	80945	19.88	ug/L		99
27) Carbon Tetrachloride	5.554	117	54335	20.20	ug/L		93
28) Tetrahydrofuran	5.590	42	35096	18.63	ug/L		97
29) 1,1,1-Trichloroethane	5.621	97	76220	20.37	ug/L		95
31) 1,1-Dichloropropene	5.748	75	69675	19.15	ug/L		93
32) 2-Butanone (MEK)	5.730	43	98301	39.39	ug/L		95
33) Benzene	5.998	78	226218	18.97	ug/L		98
34) tert-Amyl methyl ether...	6.150	73	33500	4.35	ug/L		94
35) 1,2-Dichloroethane (EDC)	6.205	62	77221	21.03	ug/L		98
36) iso-Butyl Alcohol	6.296	43	151498	530.67	ug/L		96
38) Trichloroethene (TCE)	6.625	130	46363	19.57	ug/L		94
39) tert-Amyl ethyl ether ...	6.904	59	25807	4.82	ug/L		89
40) Dibromomethane	7.063	93	30587	20.44	ug/L	#	82
41) 1,2-Dichloropropane	7.172	63	57909	19.63	ug/L		96
42) Bromodichloromethane	7.251	83	58320	20.23	ug/L		98
44) c-1,3-Dichloropropene	7.951	75	74588	20.42	ug/L		98
46) Toluene	8.231	91	221376	19.33	ug/L		100
47) Tetrachloroethene (PCE)	8.675	166	43482	20.46	ug/L		82
48) 4-Methyl-2-Pentanone (...	8.669	43	150612	42.43	ug/L		99

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102503.D
Acq On : 25 Oct 2019 10:43 am
Operator : MM/IMA
Sample : 9101588-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 25 14:39:08 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

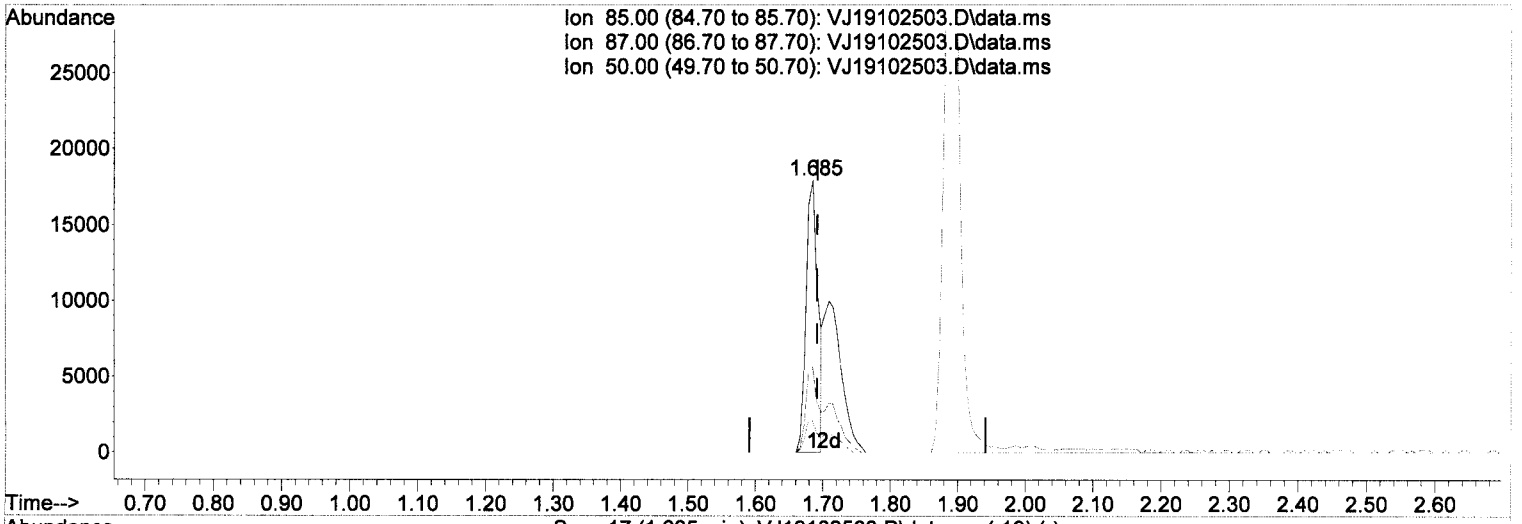
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49)	t-1,3-Dichloropropene	8.699	75	77558	21.90	ug/L		98
50)	1,1,2-Trichloroethane	8.875	97	47668	20.51	ug/L		95
51)	Dibromochloromethane	9.064	129	36155	19.27	ug/L		98
52)	1,3-Dichloropropane	9.161	76	87511	20.04	ug/L		96
53)	1,2-Dibromoethane (EDB)	9.301	107	46020	20.66	ug/L		98
54)	2-Hexanone	9.545	43	110980	42.02	ug/L		99
55)	Chlorobenzene	9.825	112	128130	19.61	ug/L		94
56)	Ethylbenzene	9.855	91	226375	20.34	ug/L		96
57)	1,1,1,2-Tetrachloroethane	9.885	131	41544	20.53	ug/L		98
58)	m,p-Xylenes (2)	9.995	91	339005	42.78	ug/L		96
59)	o-Xylene	10.378	91	154721	20.45	ug/L		95
60)	Styrene	10.421	104	106917	18.38	ug/L		95
61)	Bromoform	10.439	173	23923	18.12	ug/L		97
62)	Isopropylbenzene	10.652	105	189796	20.82	ug/L		97
65)	Bromobenzene	10.962	156	43192	19.46	ug/L	#	68
66)	n-Propylbenzene	10.993	91	236269	20.19	ug/L		94
67)	1,1,2,2-Tetrachloroethane	11.047	83	67969	20.06	ug/L		97
68)	2-Chlorotoluene	11.120	126	41209	19.74	ug/L		86
69)	1,3,5-Trimethylbenzene	11.157	105	159306	22.24	ug/L		95
70)	1,2,3-Trichloropropane	11.151	110	22284	20.48	ug/L		96
71)	t-1,4-Dichloro-2-butene	11.187	88	9601	22.00	ug/L	#	78
72)	4-Chlorotoluene	11.248	91	137691	20.31	ug/L		91
73)	tert-Butylbenzene	11.406	91	87031	20.49	ug/L		84
74)	1,2,4-Trimethylbenzene	11.461	105	160930	22.24	ug/L		96
75)	sec-Butylbenzene	11.546	105	192640	21.04	ug/L		95
76)	4-Isopropyltoluene	11.656	119	147499	21.13	ug/L		96
77)	1,3-Dichlorobenzene	11.710	146	80699	20.09	ug/L		95
78)	1,4-Dichlorobenzene	11.777	146	80784	18.91	ug/L		94
79)	n-Butylbenzene	11.972	91	145025	21.43	ug/L		95
80)	1,2-Dichlorobenzene	12.094	146	74568	20.26	ug/L		97
81)	1,2-Dibromo-3-Chloropr...	12.696	157	12540	19.54	ug/L	#	53
82)	Hexachlorobutadiene	13.219	223	9963	21.40	ug/L		93
83)	1,2,4-Trichlorobenzene	13.243	180	44047	19.81	ug/L		92
84)	Naphthalene	13.511	128	165352	20.73	ug/L		97
85)	1,2,3-Trichlorobenzene	13.675	180	44480	20.55	ug/L		98

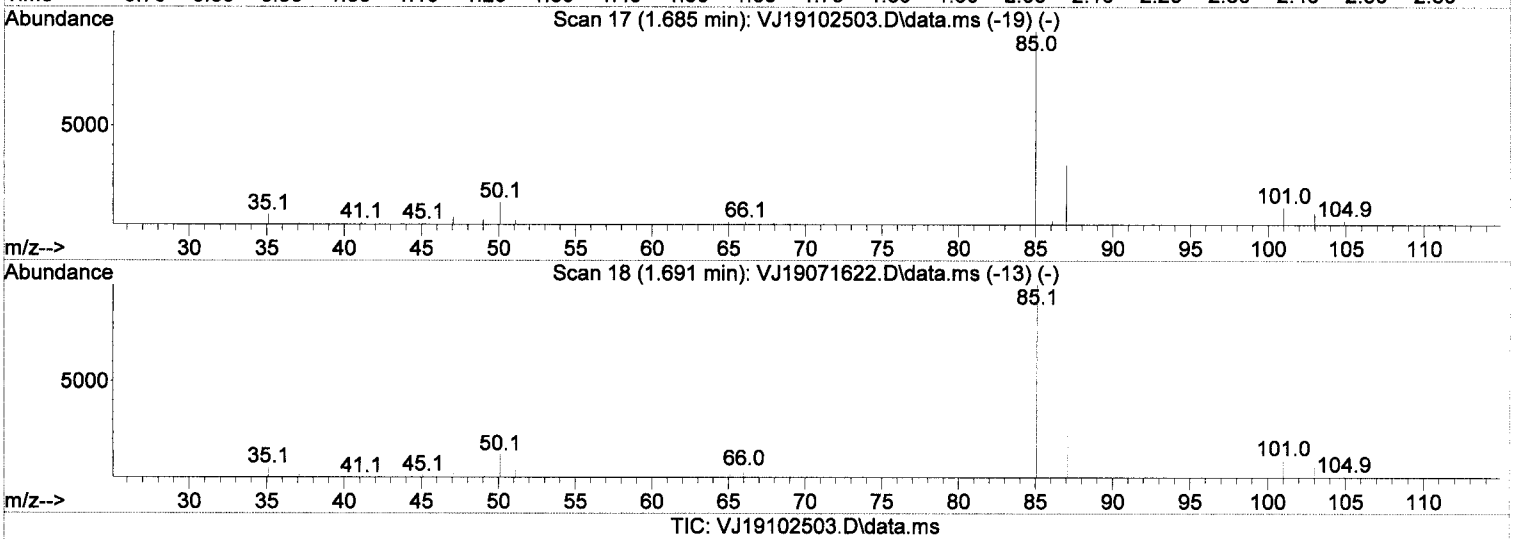
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102503.D
Acq On : 25 Oct 2019 10:43 am
Operator : MM/IMA
Sample : 9101588-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 25 14:39:08 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: VJ19102503.D\data.ms

(2) Dichlorodifluoromethane

1.685min (-0.006) 10.26 ug/L

response 22045

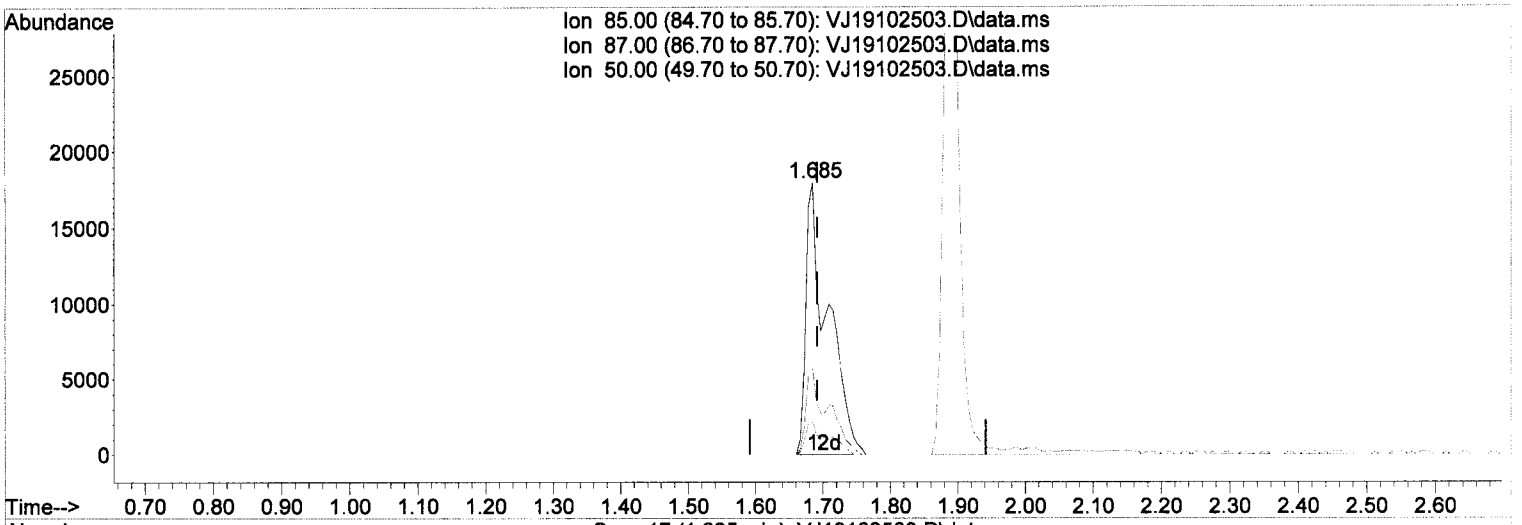
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	31.55
50.00	11.20	11.95
0.00	0.00	0.00

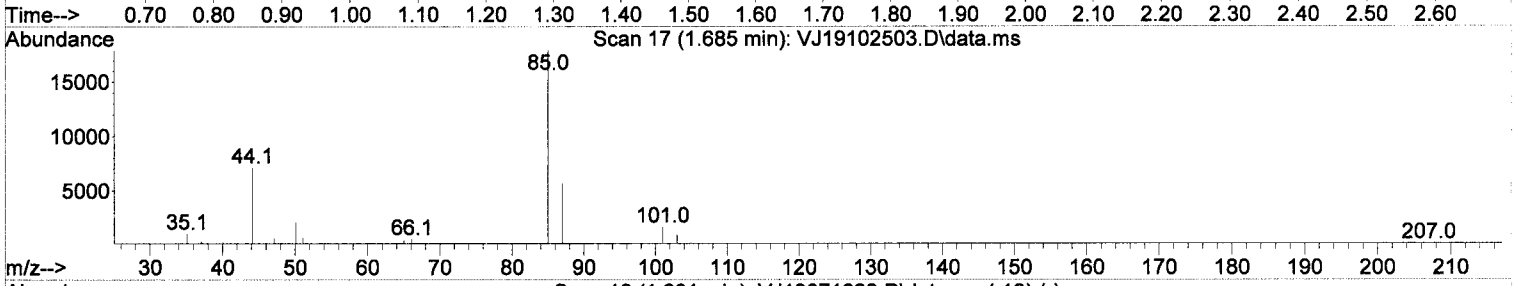
MI

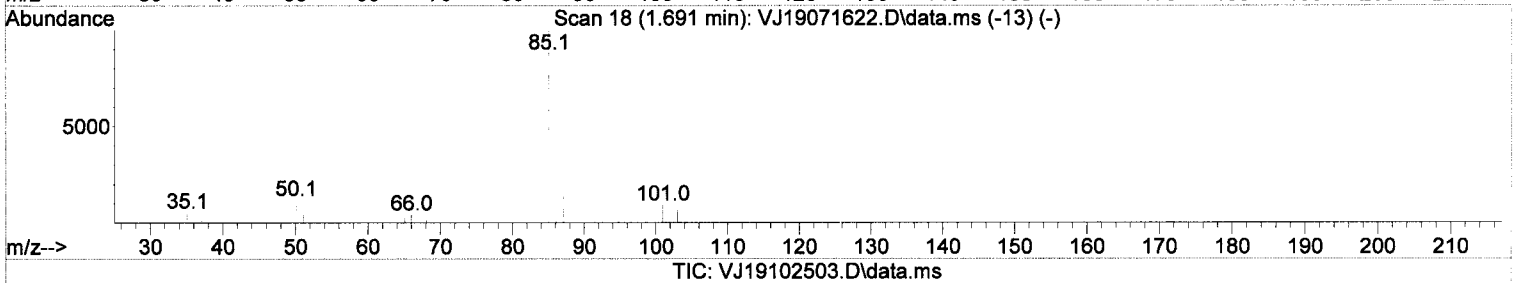
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102503.D
Acq On : 25 Oct 2019 10:43 am
Operator : MM/IMA
Sample : 9101588-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 25 14:39:08 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: VJ19102503.D\data.ms

(2) Dichlorodifluoromethane

1.685min (-0.006) 18.75 ug/L m

10/28/19

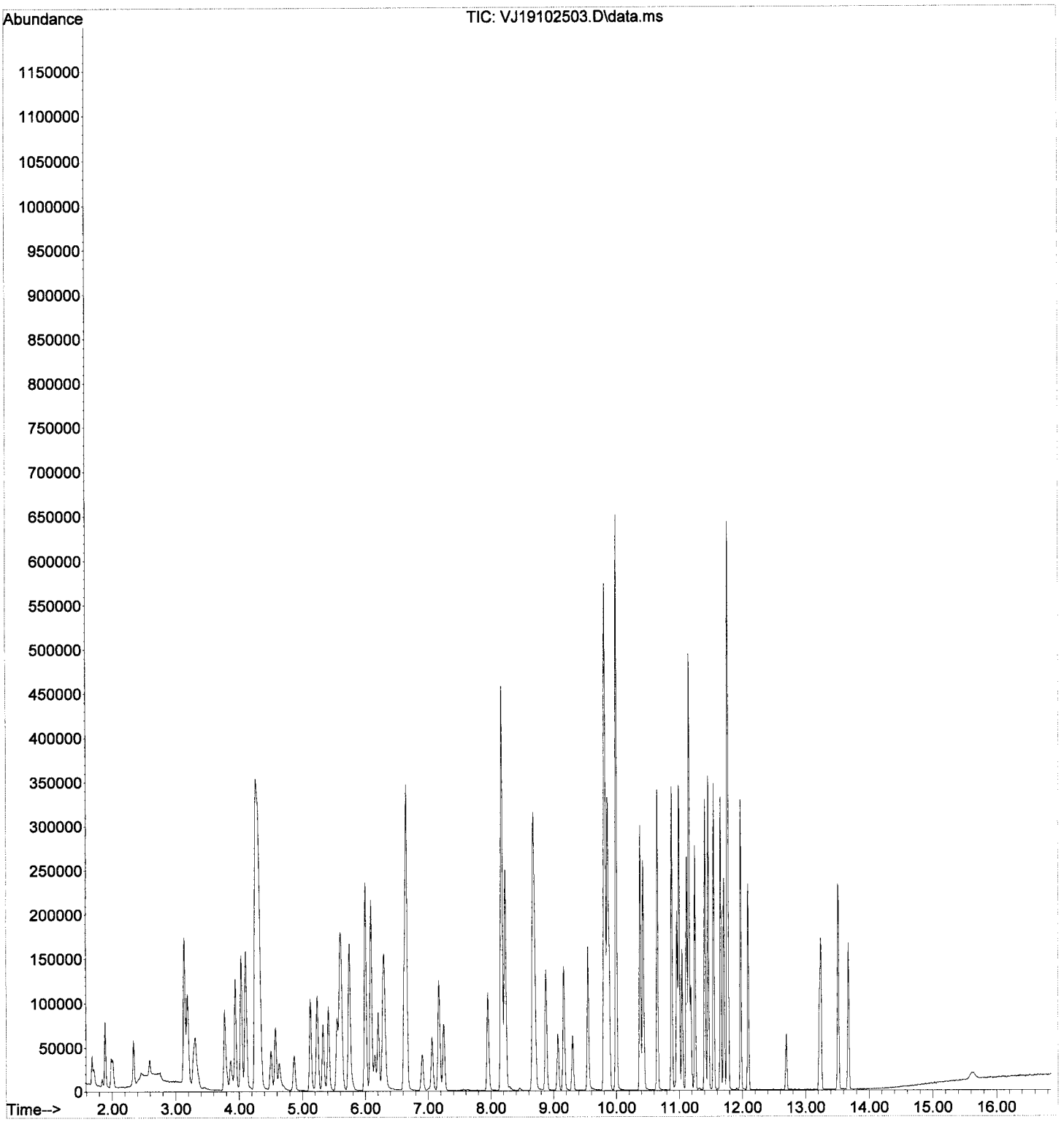
response 40277

Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	31.55
50.00	11.20	11.95
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102503.D
Acq On : 25 Oct 2019 10:43 am
Operator : MM/IMA
Sample : 9101588-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 25 14:39:08 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\2019-10\9J25029\
Data File : VJ19102504.D
Acq On : 25 Oct 2019 11:10 am
Operator : MM/IMA
Sample : 9101588-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19J354
ALS Vial : 4 Sample Multiplier: 1

IMA
10/25/19

Quant Time: Oct 25 14:40:26 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%

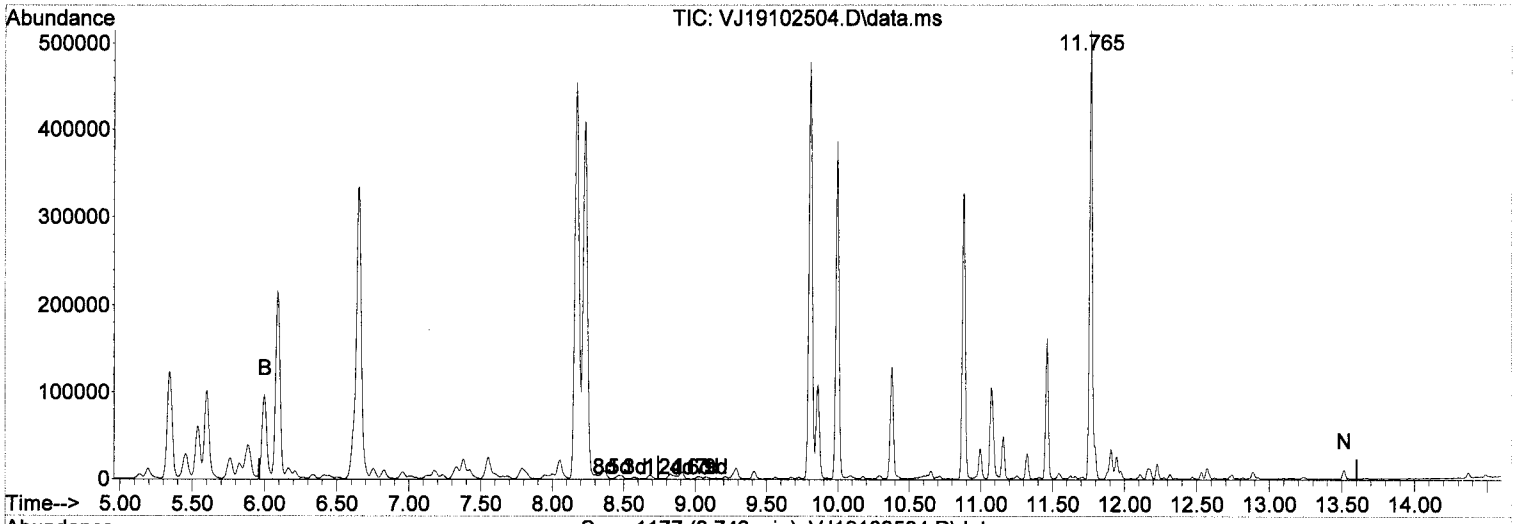
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (IS)	50.000	50.000	0.0	93	0.00
2	S	1,4-Difluorobenzene (Sur)	50.000	50.404	-0.8	93	0.00
3	S	4-Bromofluorobenzene (Sur)	50.000	47.655	4.7	87	0.00
4	H	NWTPH-Gx (TPH)	500.000	501.362	-0.3	96	0.00
5	H	TPHg (C5-C9)	500.000	524.026	-4.8	98	0.00
6	H	TPHg (C6-C10)	500.000	517.738	-3.5	96	0.00
7	H	CA-LUFT (C5-C12)	500.000	517.132	-3.4	98	0.00
8		Benzene (NR)	-1.000	0.000	0.0	98	0.00
9	S	Toluene-d8 (NR)	-1.000	0.000	0.0	93	0.00
10		Toluene (NR)	-1.000	0.000	0.0	93	0.00
11	S	Chlorobenzene-d5 (NR)	-1.000	0.000	0.0	91	0.00
12	S	1,4-Dichlorobenzene-d4 (NR)	-1.000	0.000	0.0	90	0.00
13		Naphthalene (NR)	-1.000	0.000	0.0	100	0.00

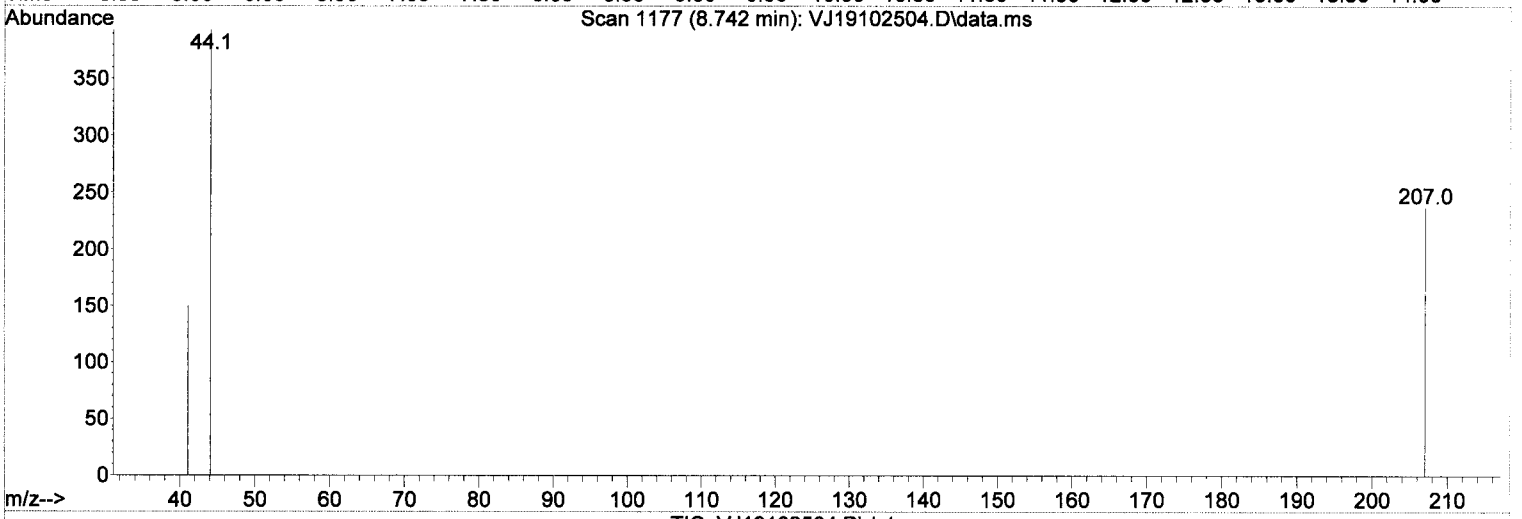
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102504.D
Acq On : 25 Oct 2019 11:10 am
Operator : MM/IMA
Sample : 9101588-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19J354
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 25 14:40:26 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: VJ19102504.D\data.ms

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

8.739min (0.000) 501.36 ug/L m

response 3705206

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.01#
0.00	0.00	0.02#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

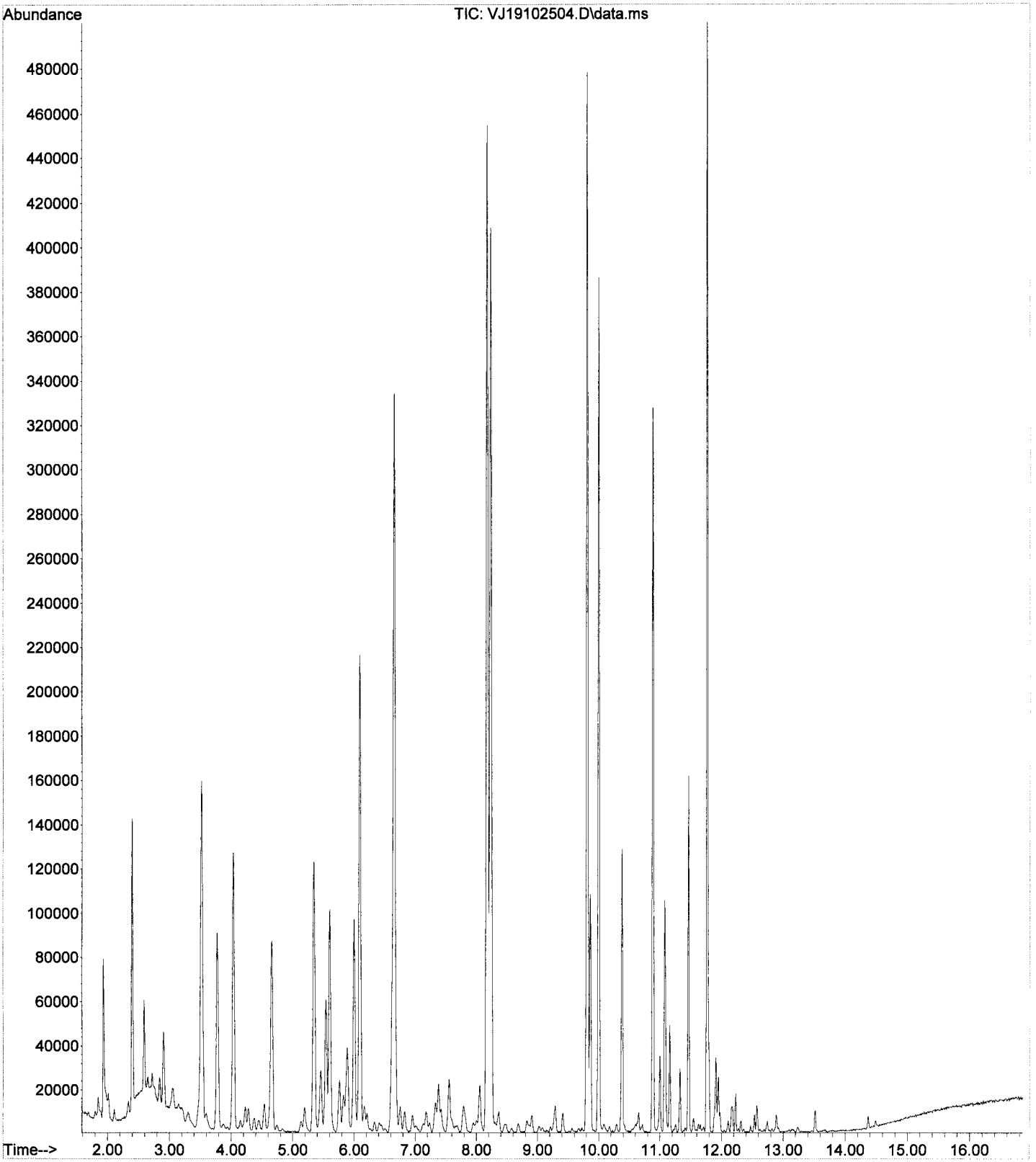
Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102504.D
Acq On : 25 Oct 2019 11:10 am
Operator : MM/IMA
Sample : 9101588-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19J354
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 25 14:40:26 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	147787	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	283417	50.40	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	72186	47.65	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	350415	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	242178	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	158225	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	3705206m	501.36	ug/L	
5) TPHg (C5-C9)	9.239	TIC	5324663m	524.03	ug/L	
6) TPHg (C6-C10)	9.239	TIC	4468646m	517.74	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	6185786m	517.13	ug/L	

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

File :C:\msdchem\1\data\2019-10\9J25029\VJ19102504.D
Operator : MM/IMA
Acquired : 25 Oct 2019 11:10 am using AcqMethod VJ1907RUN.M
Instrument : VOA-GCMS10
Sample Name: 9101588-BS2
Misc Info : 50X 5g/5mLx1000uL/50mL GX+MeOH A19J354
Vial Number: 4



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102505.D
Acq On : 25 Oct 2019 11:37 am
Operator : MM/IMA
Sample : 9101588-BLK1
Misc : 50X 7.5g/5mLx1000uL/50mL DI+MeOH
ALS Vial : 5 Sample Multiplier: 1

IMA
10/25/19

Quant Time: Oct 25 14:41:02 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)	6.095	168	144803	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	281692	51.13	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	70035	47.19	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	351768	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	247439	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	153991	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	81063m	14.71	ug/L	<MDL
5) TPHg (C5-C9)	9.239	TIC	350108m	Below Cal		
6) TPHg (C6-C10)	9.239	TIC	294764m	10.98	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	391786m	3.05	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102505.D
Acq On : 25 Oct 2019 11:37 am
Operator : MM/IMA
Sample : 9101588-BLK1
Misc : 50X 7.5g/5mLx1000uL/50mL DI+MeOH
ALS Vial : 5 Sample Multiplier: 1

IMA
10/25/19

Quant Time: Oct 25 14:41:09 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

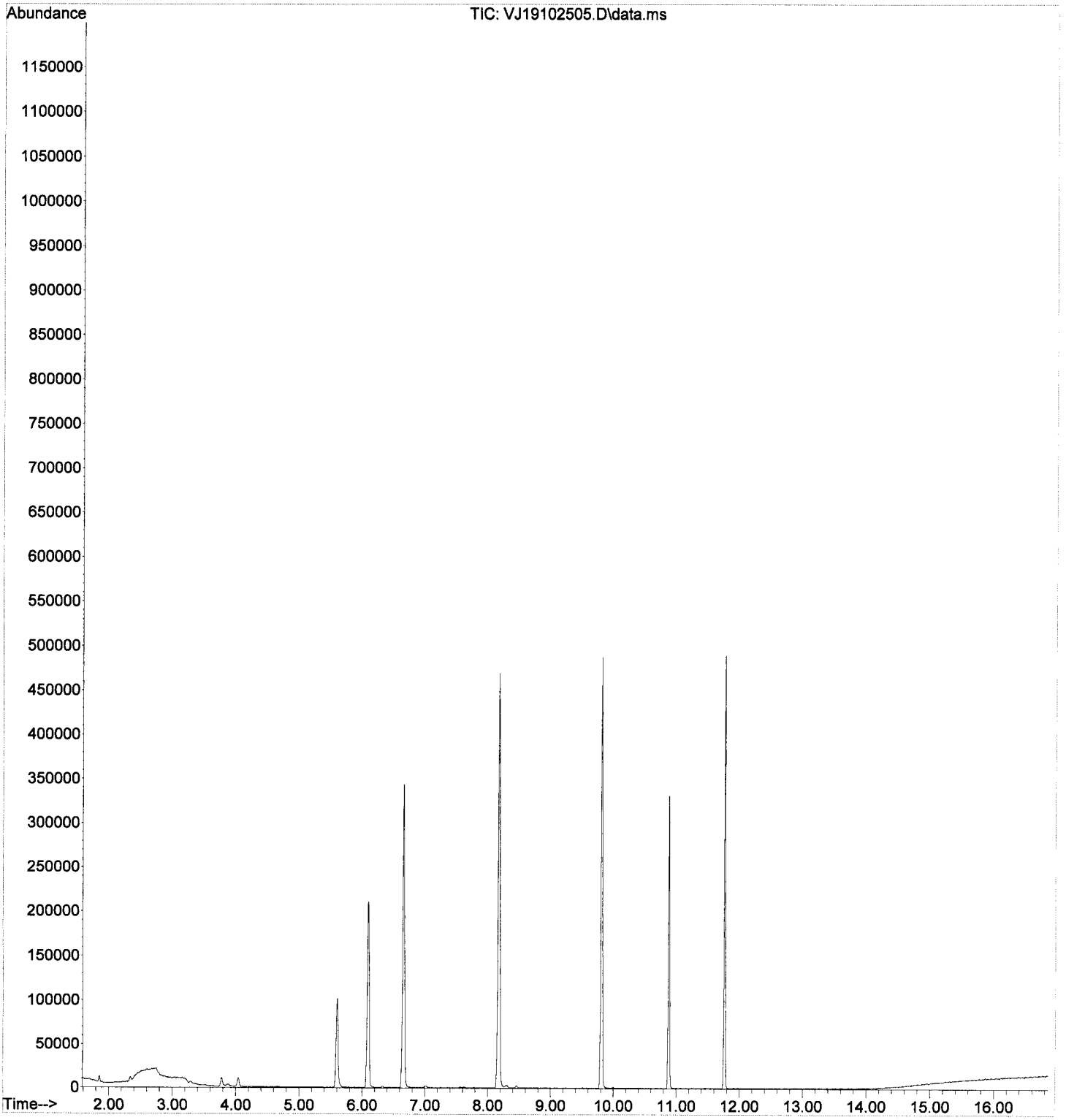
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	93295	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	247439	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	97646	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	72958	49.47	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	281692	49.08	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	351419	50.93	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	70035	49.67	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.892	50	1155	0.32	ug/L	<MDL	90
5) Bromomethane	2.342	96	3130	0.29	ug/L		88
6) Chloroethane	2.463	64	130	1.56	ug/L	#	47
8) Ethanol	3.346	45	1726	Below Cal			73
12) Iodomethane	3.285	142	678	0.96	ug/L		63
13) Methylene Chloride	3.784	84	4996	1.47	ug/L		97
14) Acetone	3.869	43	2957	2.08	ug/L		91
16) n-Hexane	4.039	86	665	1.21	ug/L	#	52
28) Tetrahydrofuran	5.609	42	219	0.12	ug/L	#	30
32) 2-Butanone (MEK)	5.742	43	595	0.24	ug/L		52
36) iso-Butyl Alcohol	6.326	43	497	1.73	ug/L		85
58) m,p-Xylenes (2)	9.995	91	809	0.10	ug/L		74

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102505.D
Acq On : 25 Oct 2019 11:37 am
Operator : MM/IMA
Sample : 9101588-BLK1
Misc : 50X 7.5g/5mLx1000uL/50mL DI+MeOH
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 25 14:41:09 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



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102526.D
Acq On : 25 Oct 2019 9:03 pm
Operator : MM/IMA
Sample : A9J0950-01@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 26 Sample Multiplier: 1

IMA
10/28/19

Quant Time: Oct 28 10:27:52 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

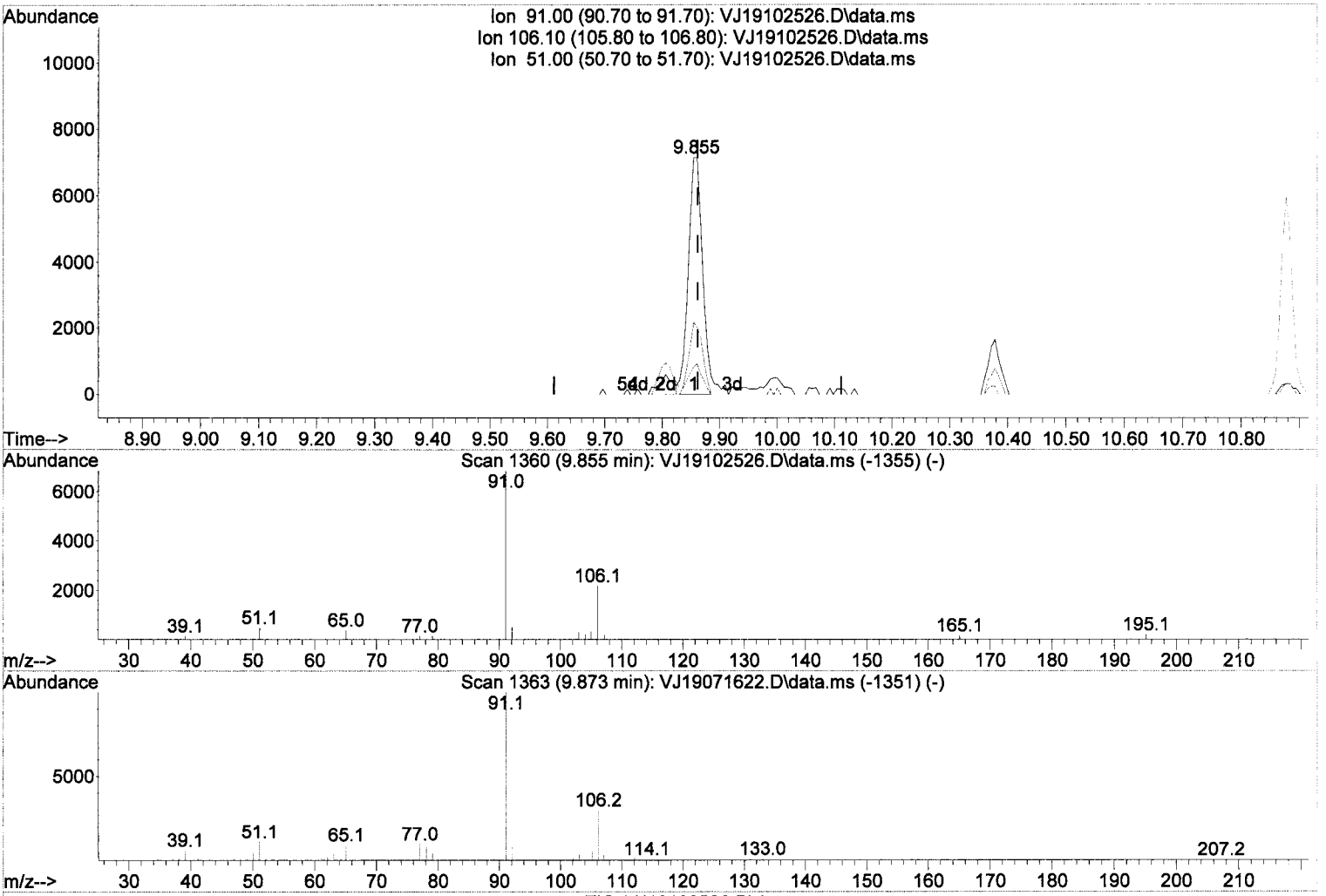
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	114988	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	319813	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	136384	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.602	111	88797	48.86	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	361350	51.08	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	443602	49.74	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.877	174	99885	50.72	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.898	50	1383	0.31	ug/L	<MDL	78
5) Bromomethane	2.342	96	2671	Below Cal			95
6) Chloroethane	2.469	64	200	1.65	ug/L	#	1
8) Ethanol	3.297	45	7633	Below Cal			87
12) Iodomethane	3.291	142	380	0.44	ug/L	#	47
13) Methylene Chloride	3.783	84	3432	0.43	ug/L		96
14) Acetone	3.875	43	1393	0.79	ug/L		79
28) Tetrahydrofuran	5.590	42	423	0.18	ug/L	#	38
32) 2-Butanone (MEK)	5.742	43	1135	0.37	ug/L		52
36) iso-Butyl Alcohol	6.320	43	664	1.88	ug/L	#	53
56) Ethylbenzene	9.855	91	12581	0.87	ug/L		97
58) m,p-Xylenes (2)	9.995	91	1140	0.11	ug/L	#<MDL	34
59) o-Xylene	10.378	91	2379	0.24	ug/L		95
69) 1,3,5-Trimethylbenzene	11.157	105	1755	0.19	ug/L		99
73) tert-Butylbenzene	11.455	91	685	0.13	ug/L	#	46
74) 1,2,4-Trimethylbenzene	11.461	105	5336	0.58	ug/L		94
75) sec-Butylbenzene	11.546	105	1019	0.09	ug/L	<MDL	80
76) 4-Isopropyltoluene	11.650	119	844	0.10	ug/L		70
79) n-Butylbenzene	11.972	91	752	0.09	ug/L		72
83) 1,2,4-Trichlorobenzene	13.262	180	814	0.29	ug/L	#	11
84) Naphthalene	13.511	128	1401253	138.17	ug/L		98
85) 1,2,3-Trichlorobenzene	13.633	180	5800	2.11	ug/L	#<MDL	12

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

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102526.D
Acq On : 25 Oct 2019 9:03 pm
Operator : MM/IMA
Sample : A9J0950-01@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 28 10:27:52 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: VJ19102526.D\data.ms

(56) Ethylbenzene (C)

9.855min (-0.006) 0.87 ug/L

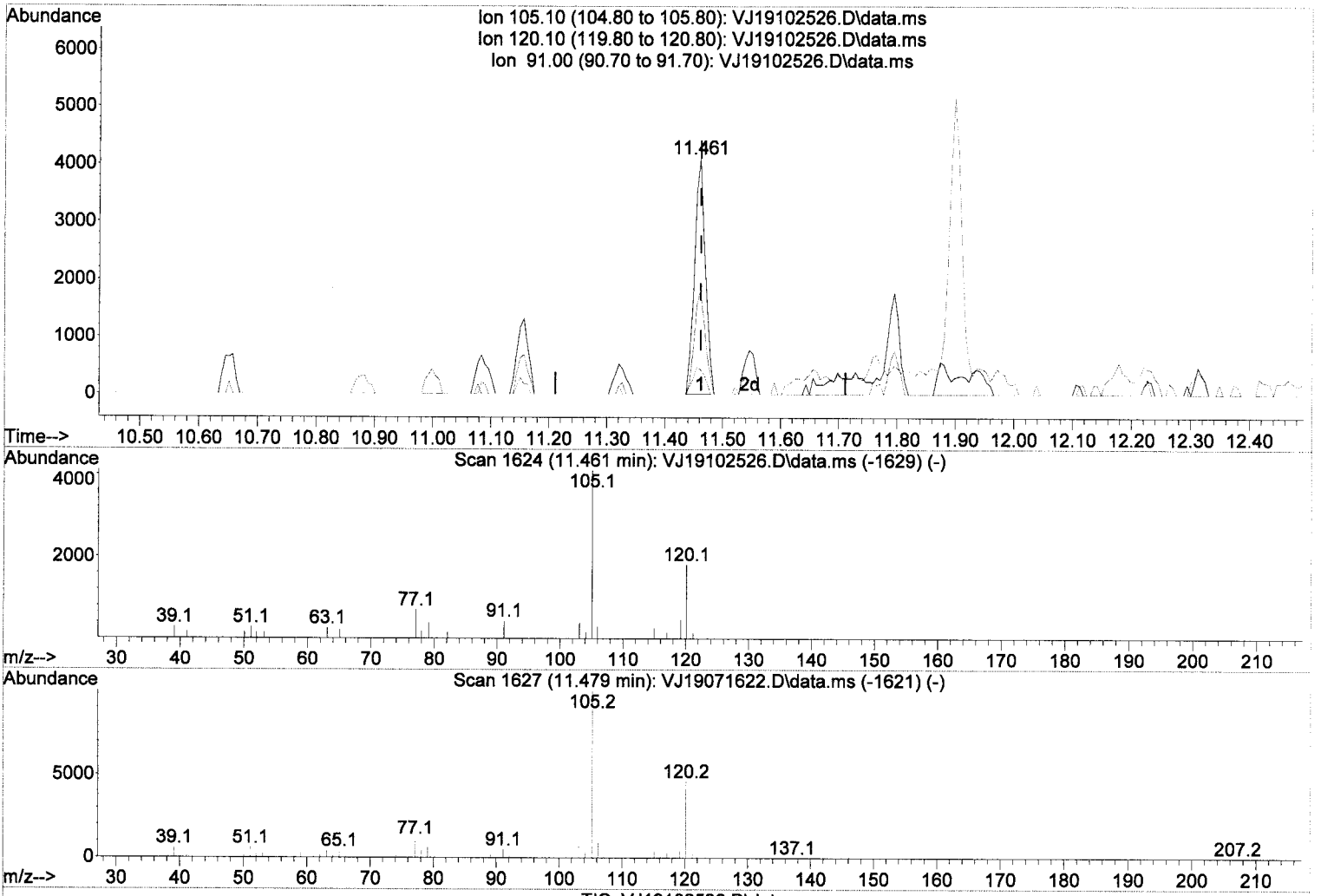
response 12581

Ion	Exp%	Act%
91.00	100.00	100.00
106.10	31.80	30.50
51.00	9.80	11.76
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102526.D
Acq On : 25 Oct 2019 9:03 pm
Operator : MM/IMA
Sample : A9J0950-01@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 28 10:27:52 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: VJ19102526.D\data.ms

(74) 1,2,4-Trimethylbenzene

11.461min (-0.000) 0.58 ug/L

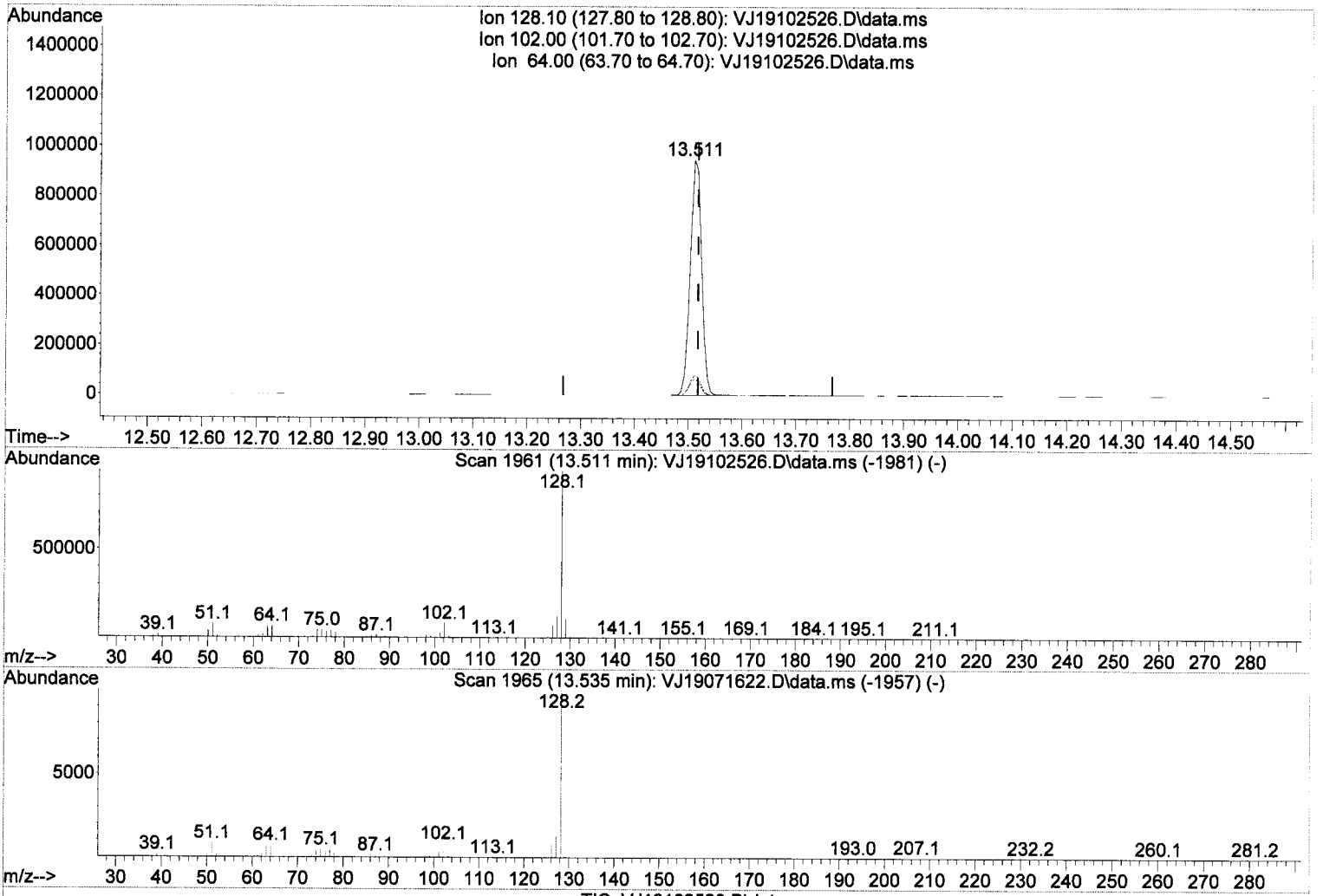
response 5336

Ion	Exp%	Act%
105.10	100.00	100.00
120.10	48.60	44.26
91.00	9.80	10.65
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102526.D
Acq On : 25 Oct 2019 9:03 pm
Operator : MM/IMA
Sample : A9J0950-01@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 28 10:27:52 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: VJ19102526.D\data.ms

(84) Naphthalene

13.511min (-0.006) 138.17 ug/L

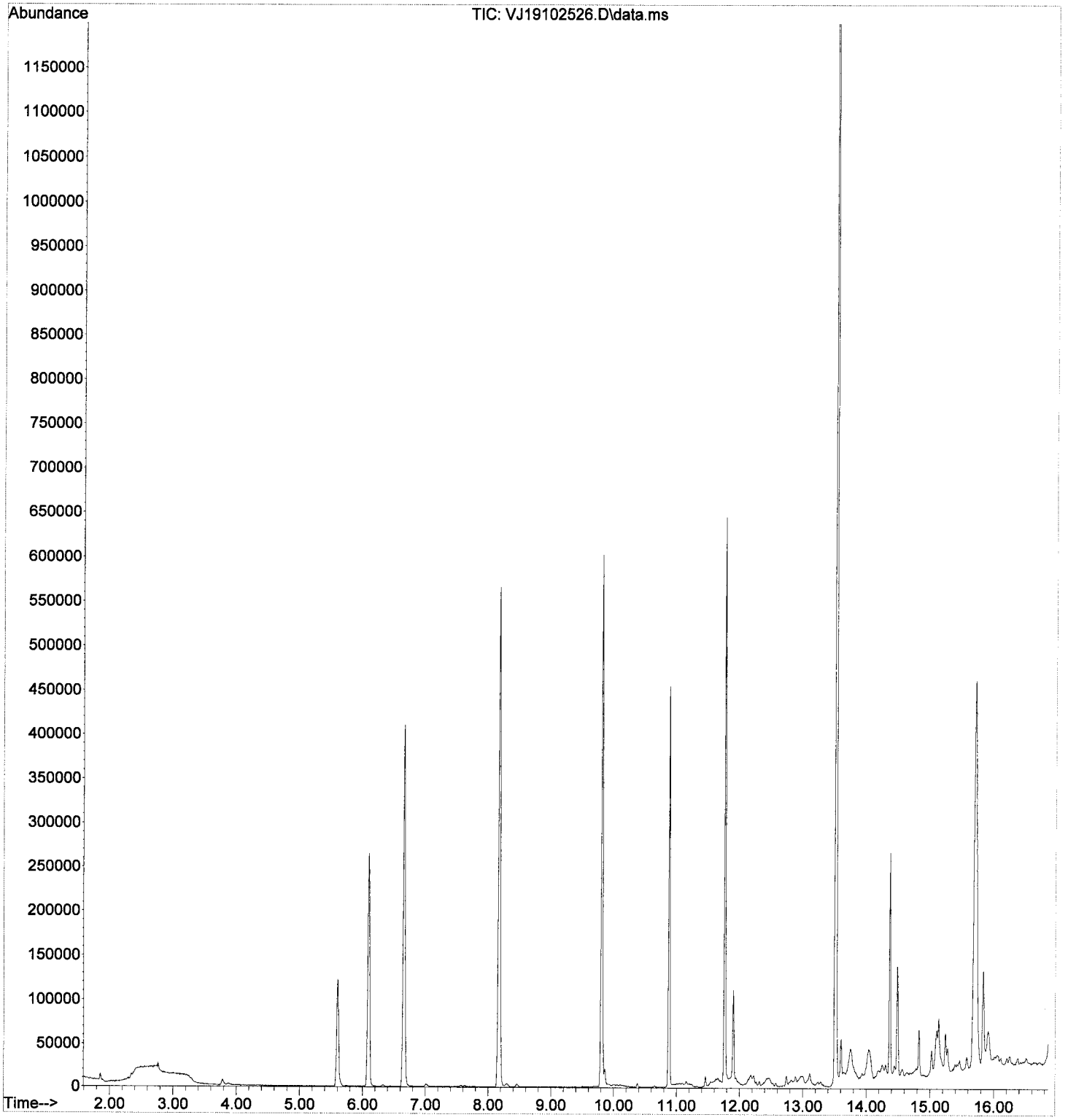
response 1401253

Ion	Exp%	Act%
128.10	100.00	100.00
102.00	7.90	8.69
64.00	6.30	7.10
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102526.D
Acq On : 25 Oct 2019 9:03 pm
Operator : MM/IMA
Sample : A9J0950-01@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 28 10:27:52 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



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102527.D
Acq On : 25 Oct 2019 9:30 pm
Operator : MM/IMA
Sample : A9J0950-02@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 27 Sample Multiplier: 1

IMA
10/28/19

Quant Time: Oct 28 10:27:55 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)	6.095	99	114063	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	305221	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	127088	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	85960	47.68	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	349476	49.80	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	431192	50.66	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	94162	51.31	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.904	50	1217	0.27	ug/L	<MDL	91
5) Bromomethane	2.348	96	3283	Below Cal			89
6) Chloroethane	2.488	64	60	1.35	ug/L	#	47
8) Ethanol	3.285	45	7737	Below Cal			85
12) Iodomethane	3.291	142	413	0.48	ug/L	#	47
13) Methylene Chloride	3.784	84	3250	0.37	ug/L		96
14) Acetone	3.875	43	2364	1.36	ug/L		98
28) Tetrahydrofuran	5.603	42	531	0.23	ug/L	#	60
32) 2-Butanone (MEK)	5.749	43	1009	0.33	ug/L		52
33) Benzene	6.004	78	113014	7.72	ug/L		99
36) iso-Butyl Alcohol	6.314	43	839	2.39	ug/L		81
46) Toluene	8.231	91	45725	3.21	ug/L		98
56) Ethylbenzene	9.861	91	67624	4.88	ug/L		99
58) m,p-Xylenes (2)	9.995	91	84984	8.61	ug/L		98
59) o-Xylene	10.378	91	30041	3.19	ug/L		96
60) Styrene	10.427	104	324	0.22	ug/L		59
62) Isopropylbenzene	10.652	105	8480	0.75	ug/L		95
66) n-Propylbenzene	10.993	91	2337	0.17	ug/L		94
69) 1,3,5-Trimethylbenzene	11.157	105	9115	1.07	ug/L		96
72) 4-Chlorotoluene	11.327	91	717	0.09	ug/L	#	1
73) tert-Butylbenzene	11.406	91	1374	0.27	ug/L	#	70
74) 1,2,4-Trimethylbenzene	11.461	105	23927	2.79	ug/L		98
75) sec-Butylbenzene	11.546	105	28824	2.66	ug/L		95
76) 4-Isopropyltoluene	11.656	119	1292	0.16	ug/L		90
79) n-Butylbenzene	11.978	91	947	0.12	ug/L		90
84) Naphthalene	13.511	128	6549329	693.06	ug/L		97
85) 1,2,3-Trichlorobenzene	13.657	180	299	0.12	ug/L	#	12

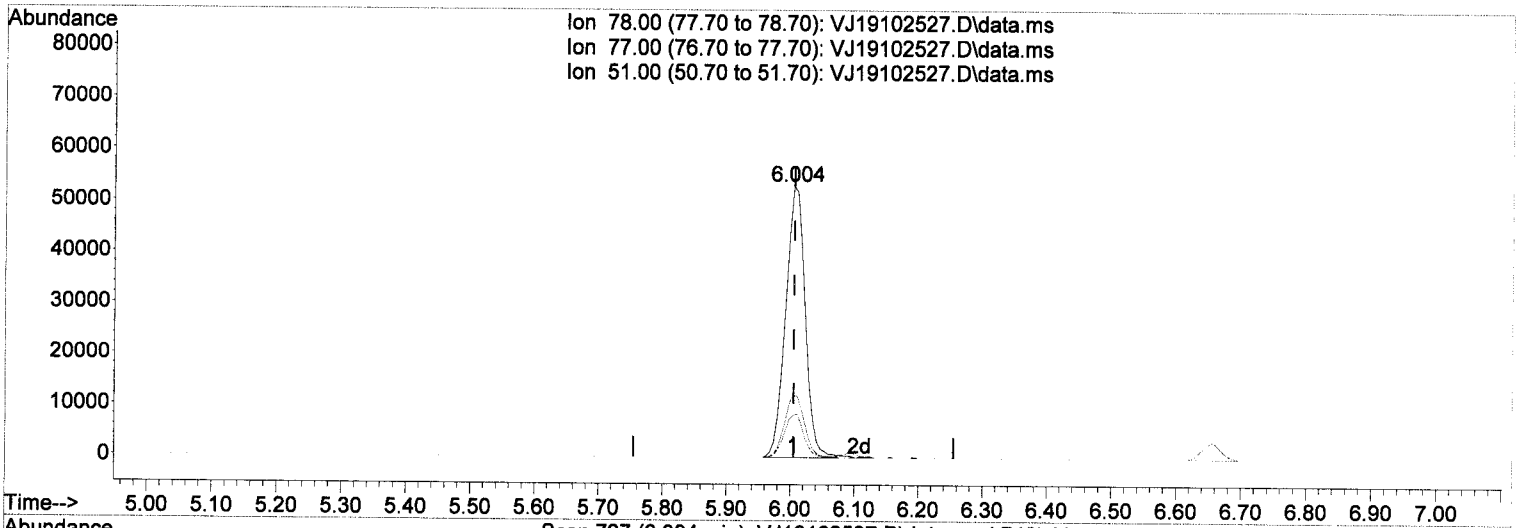
RR2

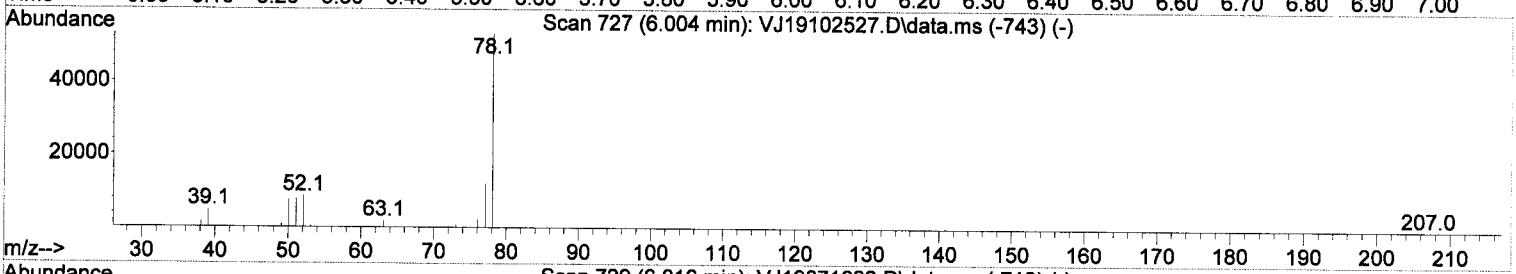
(#) = qualifier out of range (m) = manual integration (+) = signals summed

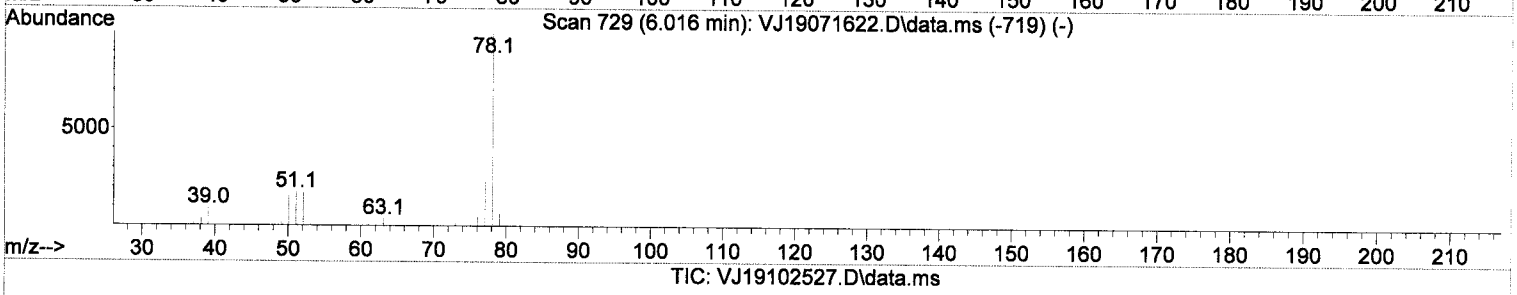
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102527.D
Acq On : 25 Oct 2019 9:30 pm
Operator : MM/IMA
Sample : A9J0950-02@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 28 10:27:55 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: VJ19102527.D\data.ms

(33) Benzene

6.004min (0.000) 7.72 ug/L

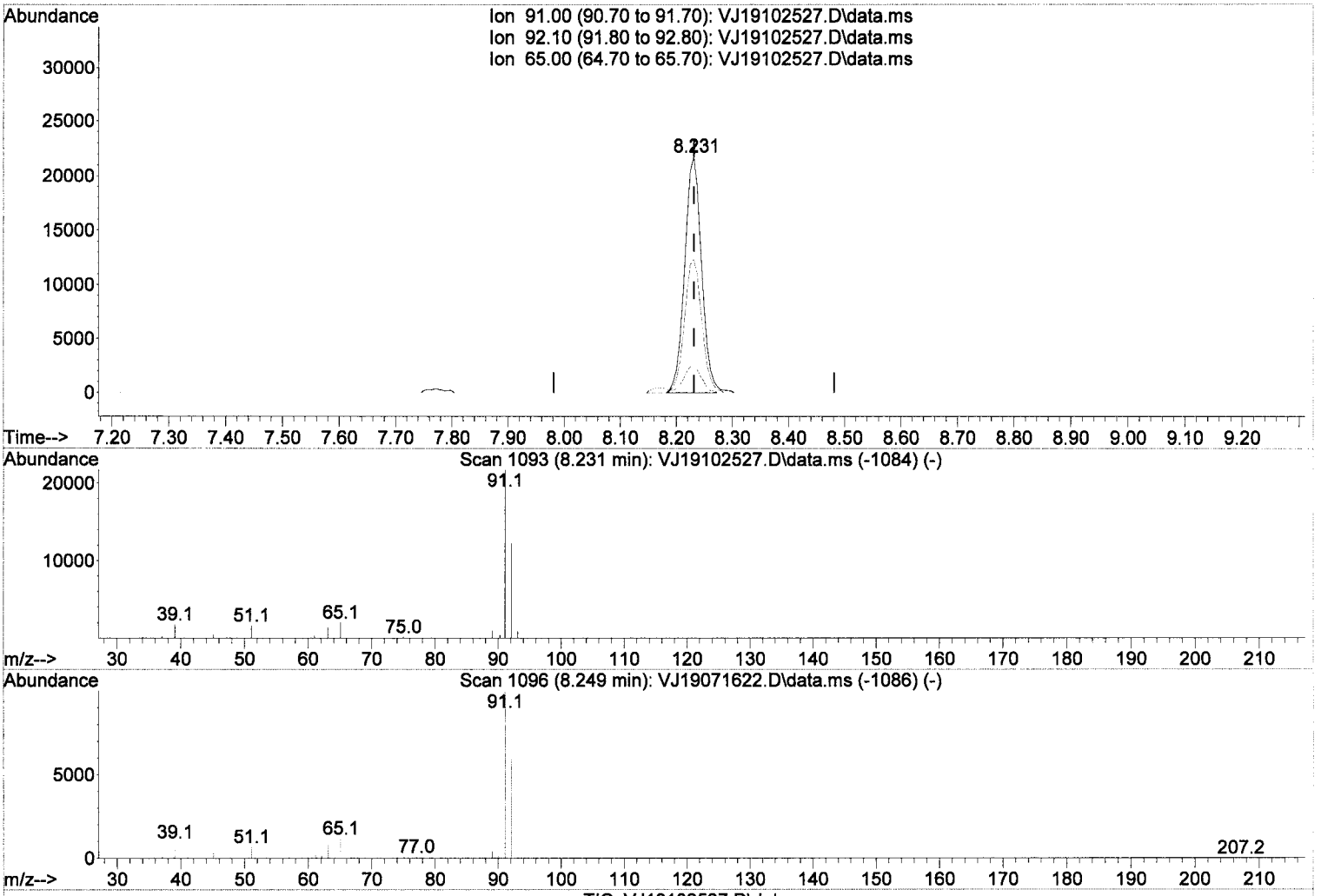
response 113014

Ion	Exp%	Act%
78.00	100.00	100.00
77.00	23.60	22.80
51.00	16.20	15.72
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102527.D
Acq On : 25 Oct 2019 9:30 pm
Operator : MM/IMA
Sample : A9J0950-02@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 28 10:27:55 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: VJ19102527.D\data.ms

(46) Toluene (C)

8.231min (-0.000) 3.21 ug/L

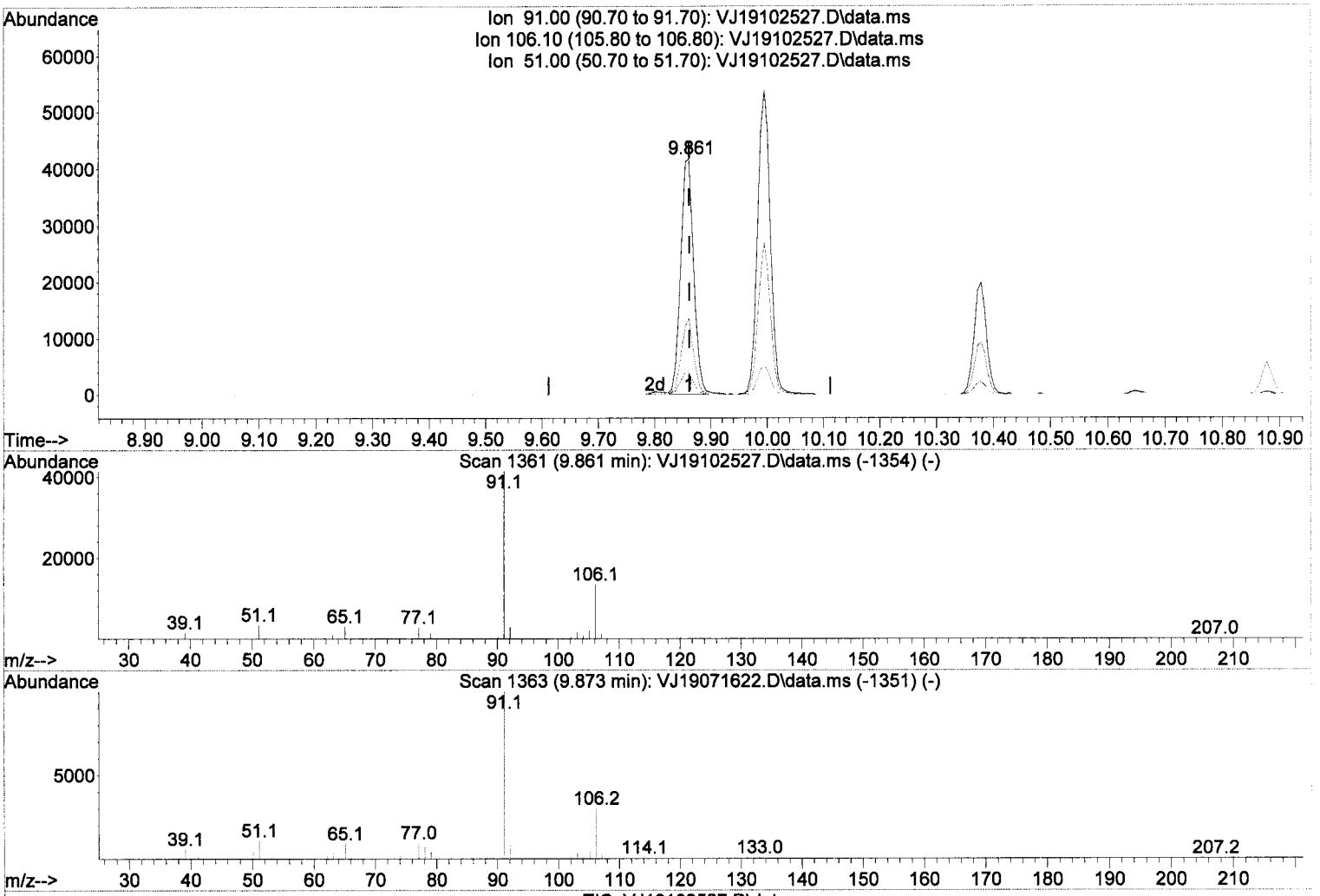
response 45725

Ion	Exp%	Act%
91.00	100.00	100.00
92.10	58.30	56.59
65.00	11.00	11.37
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102527.D
Acq On : 25 Oct 2019 9:30 pm
Operator : MM/IMA
Sample : A9J0950-02@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 28 10:27:55 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: VJ19102527.D\data.ms

(56) Ethylbenzene (C)

9.861min (0.000) 4.88 ug/L

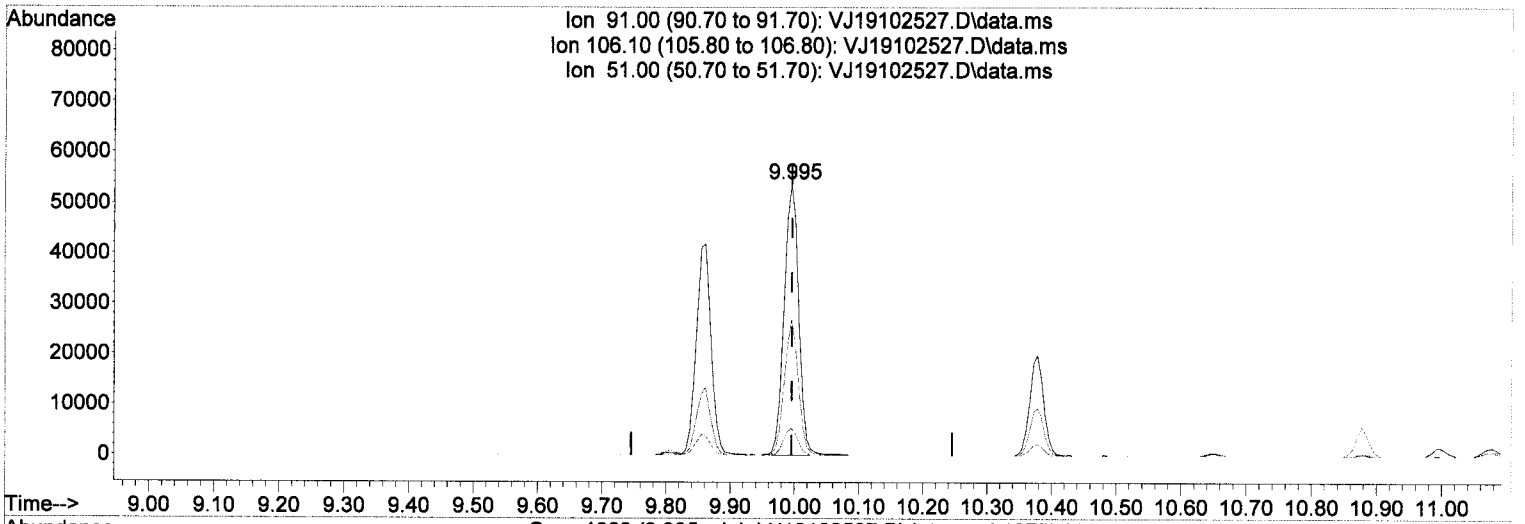
response 67624

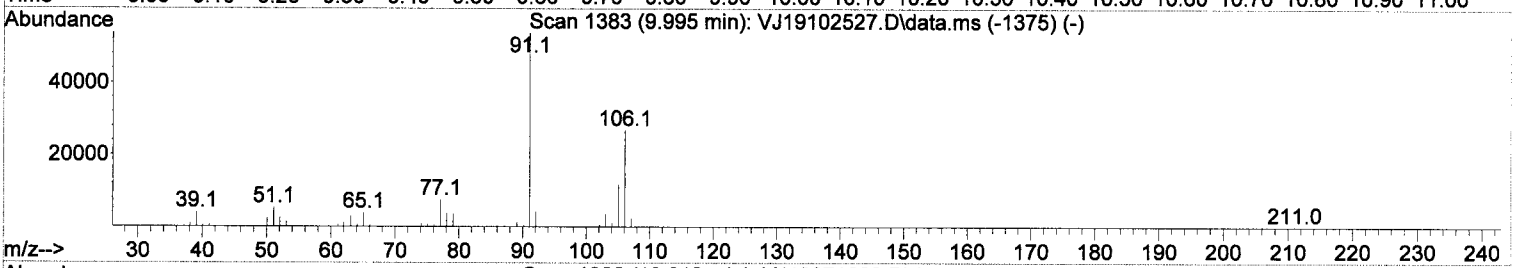
Ion	Exp%	Act%
91.00	100.00	100.00
106.10	31.80	32.28
51.00	9.80	9.31
0.00	0.00	0.00

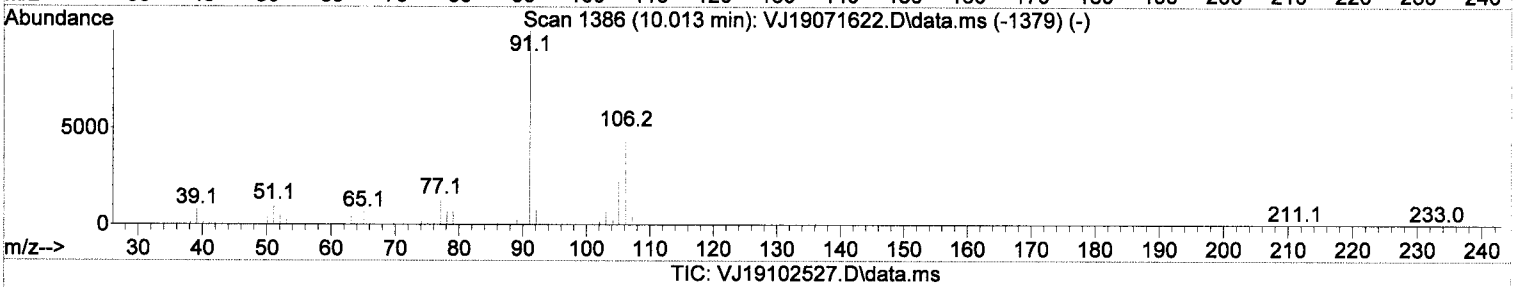
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102527.D
Acq On : 25 Oct 2019 9:30 pm
Operator : MM/IMA
Sample : A9J0950-02@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 28 10:27:55 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: VJ19102527.D\data.ms

(58) m,p-Xylenes (2)

9.995min (-0.000) 8.61 ug/L

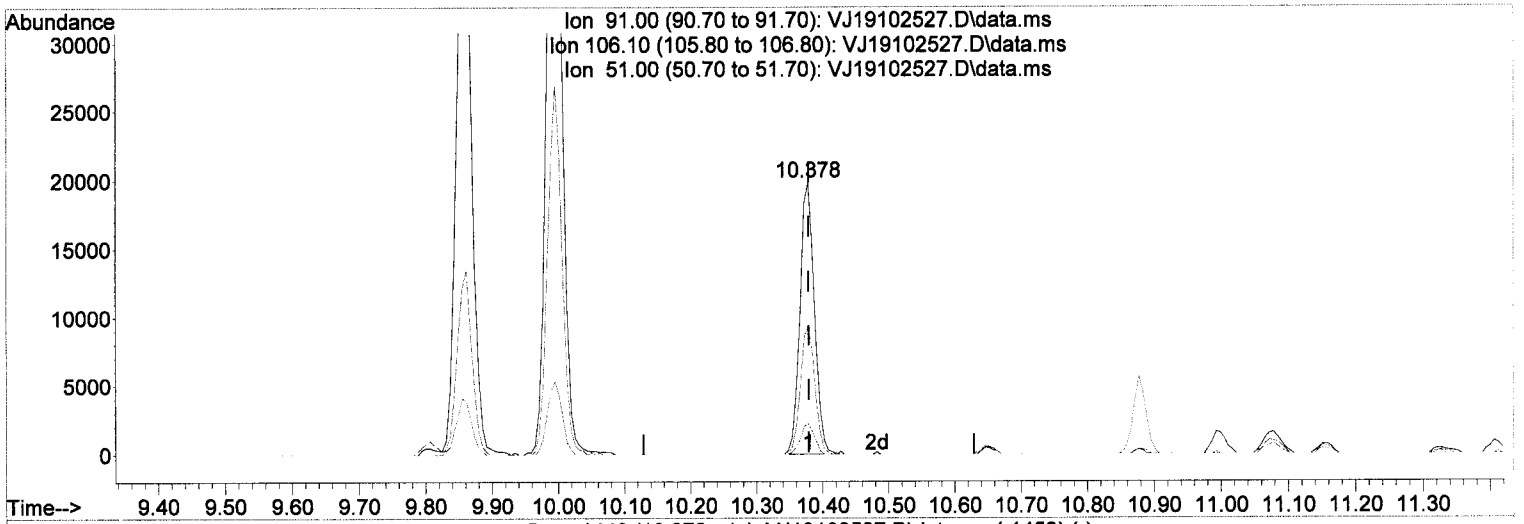
response 84984

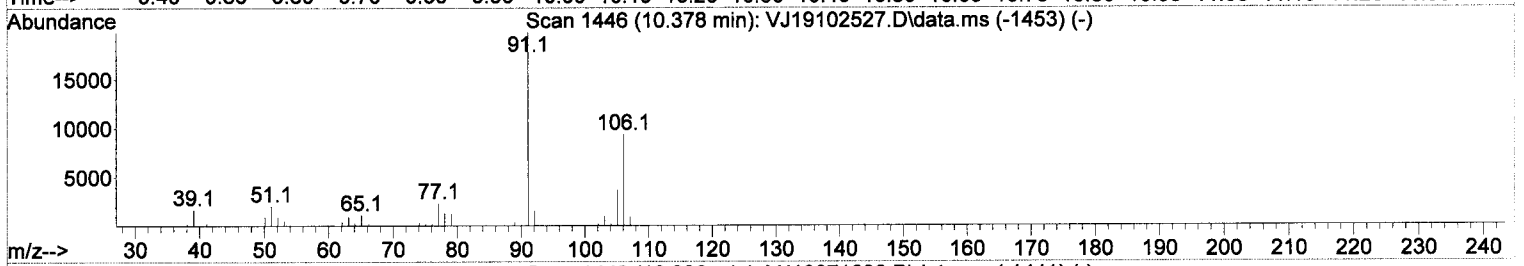
Ion	Exp%	Act%
91.00	100.00	100.00
106.10	51.80	50.02
51.00	9.80	9.92
0.00	0.00	0.00

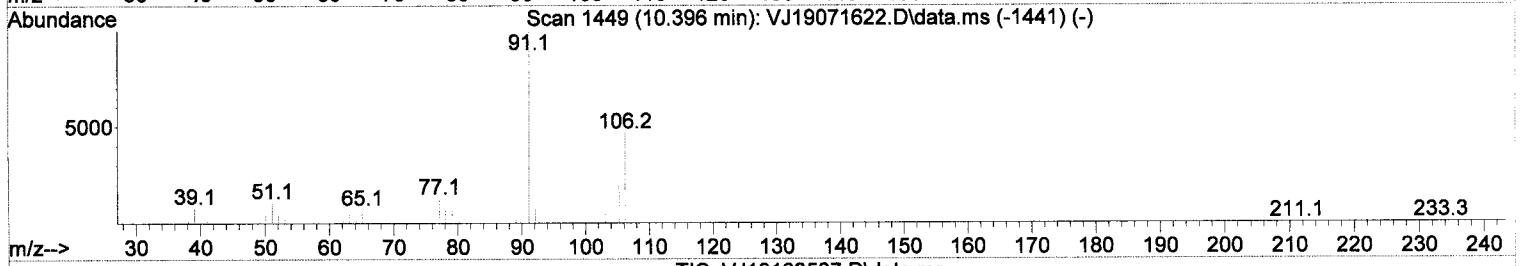
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102527.D
Acq On : 25 Oct 2019 9:30 pm
Operator : MM/IMA
Sample : A9J0950-02@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 28 10:27:55 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: VJ19102527.D\data.ms

(59) o-Xylene

10.378min (-0.000) 3.19 ug/L

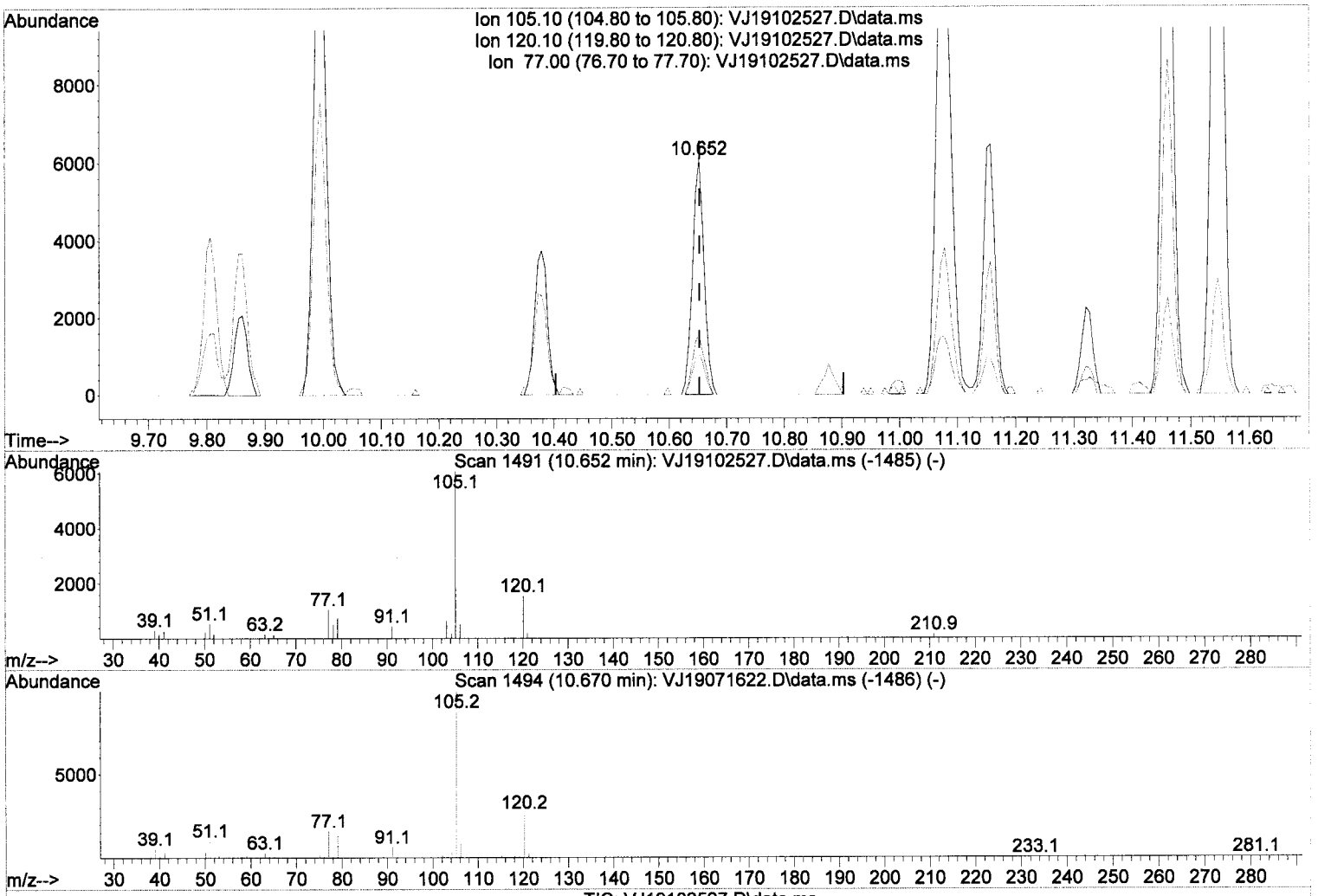
response 30041

Ion	Exp%	Act%
91.00	100.00	100.00
106.10	49.80	47.18
51.00	9.70	11.22
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102527.D
Acq On : 25 Oct 2019 9:30 pm
Operator : MM/IMA
Sample : A9J0950-02@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 28 10:27:55 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: VJ19102527.D\data.ms

(62) Isopropylbenzene

10.652min (0.000) 0.75 ug/L

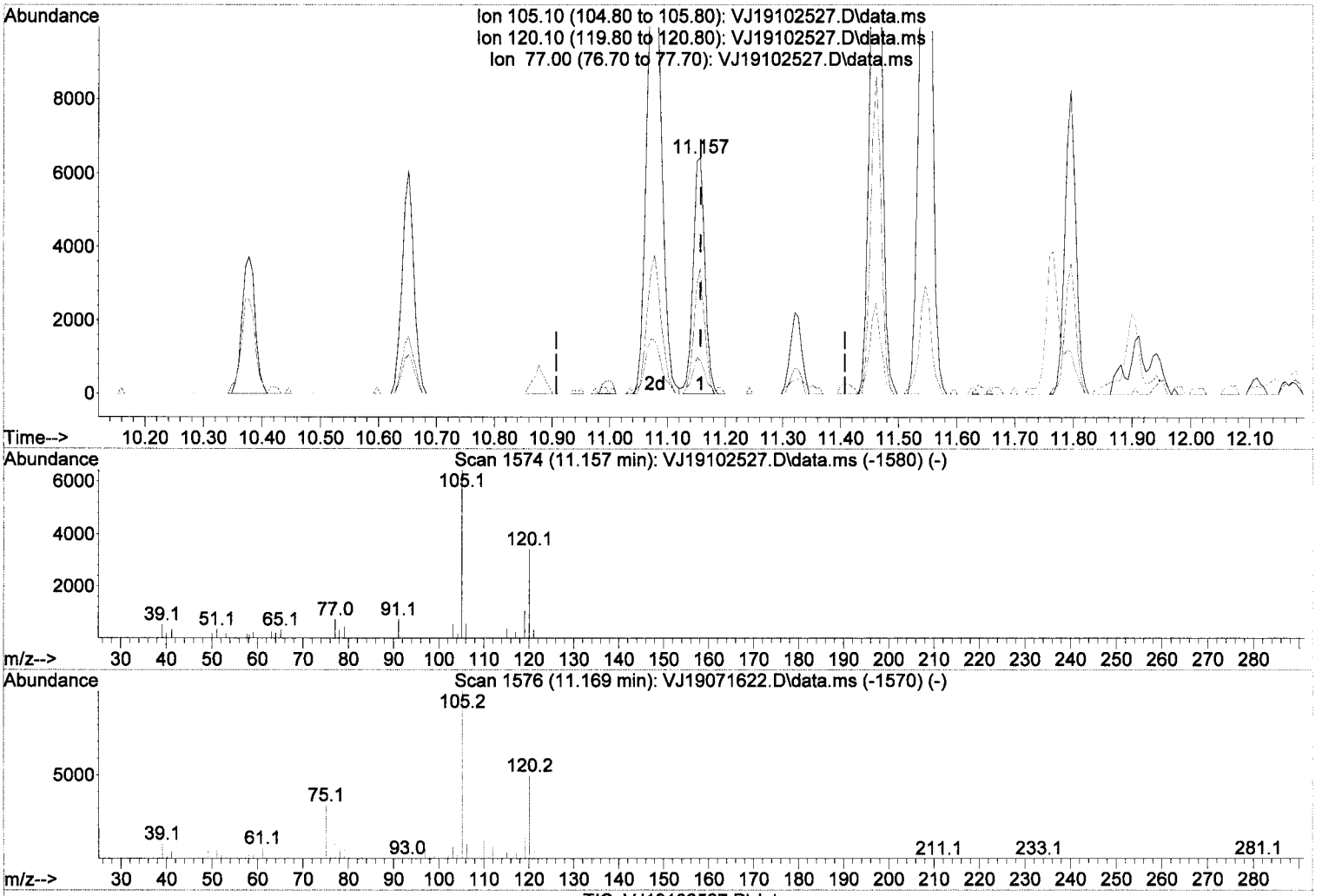
response 8480

Ion	Exp%	Act%
105.10	100.00	100.00
120.10	27.80	25.54
77.00	14.50	17.40
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102527.D
Acq On : 25 Oct 2019 9:30 pm
Operator : MM/IMA
Sample : A9J0950-02@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 28 10:27:55 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: VJ19102527.D\data.ms

(69) 1,3,5-Trimethylbenzene

11.157min (-0.000) 1.07 ug/L

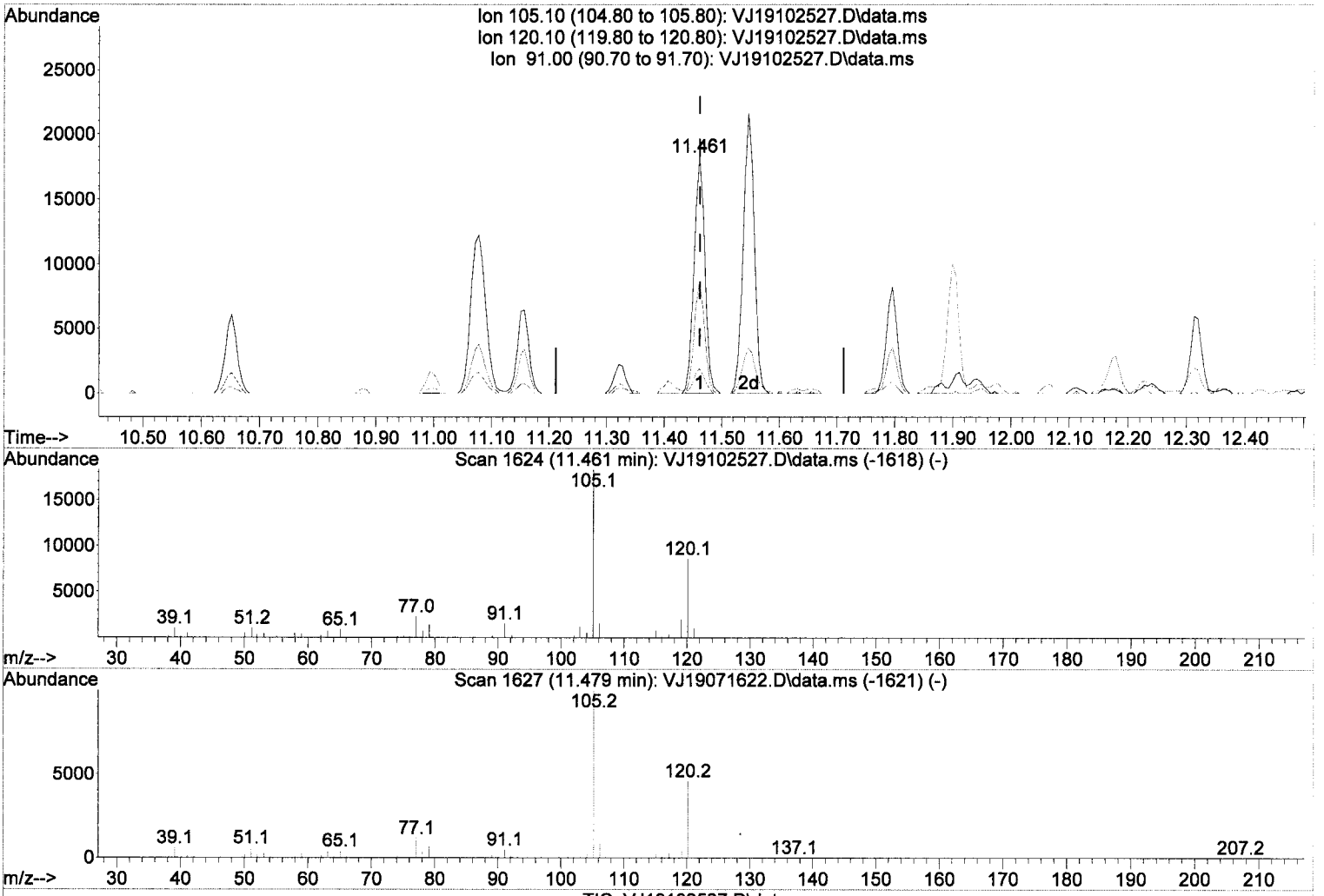
response 9115

Ion	Exp%	Act%
105.10	100.00	100.00
120.10	52.80	53.27
77.00	19.20	14.09
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102527.D
Acq On : 25 Oct 2019 9:30 pm
Operator : MM/IMA
Sample : A9J0950-02@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 28 10:27:55 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: VJ19102527.D\data.ms

(74) 1,2,4-Trimethylbenzene

11.461min (0.000) 2.79 ug/L

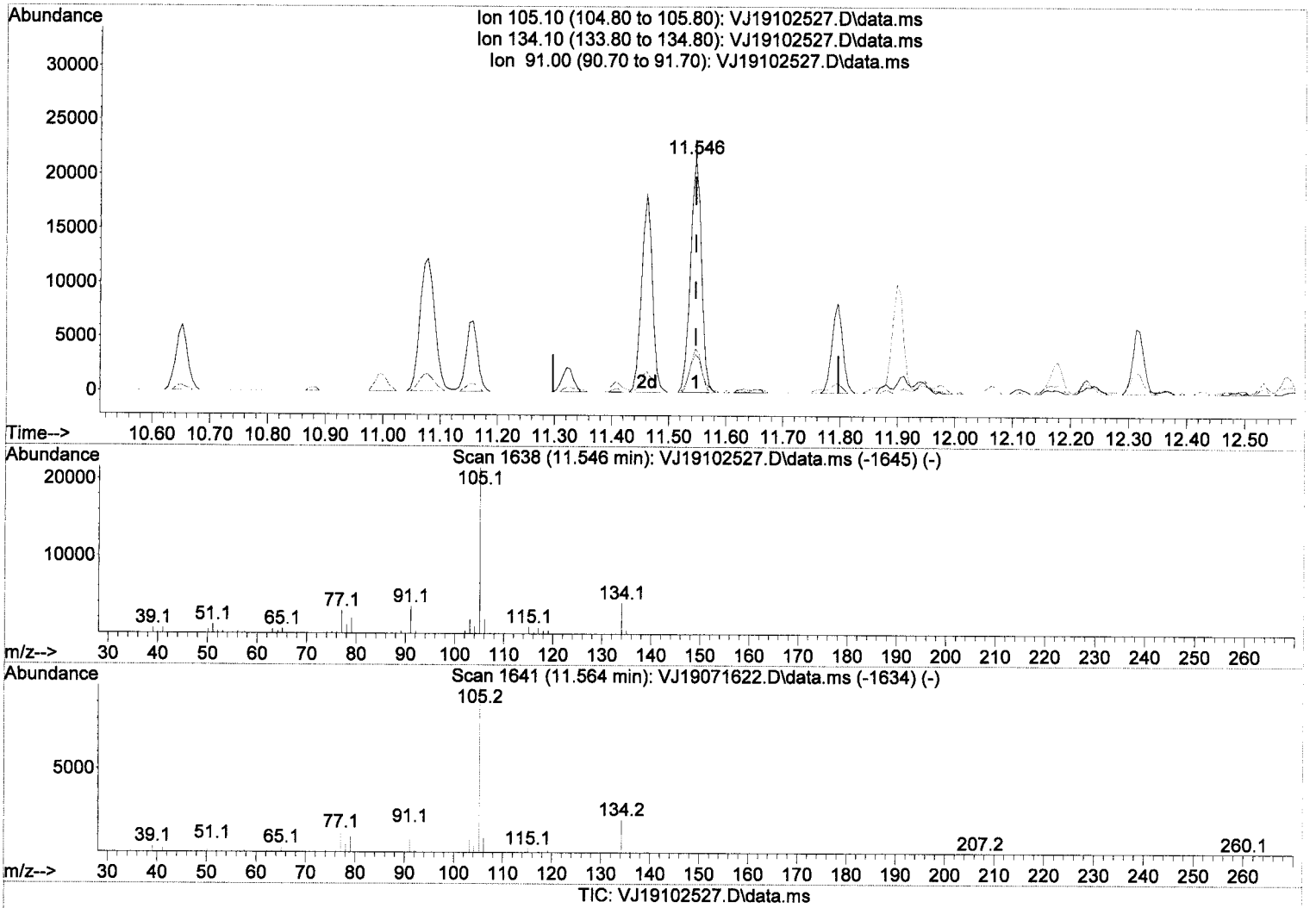
response 23927

Ion	Exp%	Act%
105.10	100.00	100.00
120.10	48.60	47.18
91.00	9.80	10.27
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102527.D
Acq On : 25 Oct 2019 9:30 pm
Operator : MM/IMA
Sample : A9J0950-02@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 28 10:27:55 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: VJ19102527.D\data.ms

(75) sec-Butylbenzene

11.546min (-0.000) 2.66 ug/L

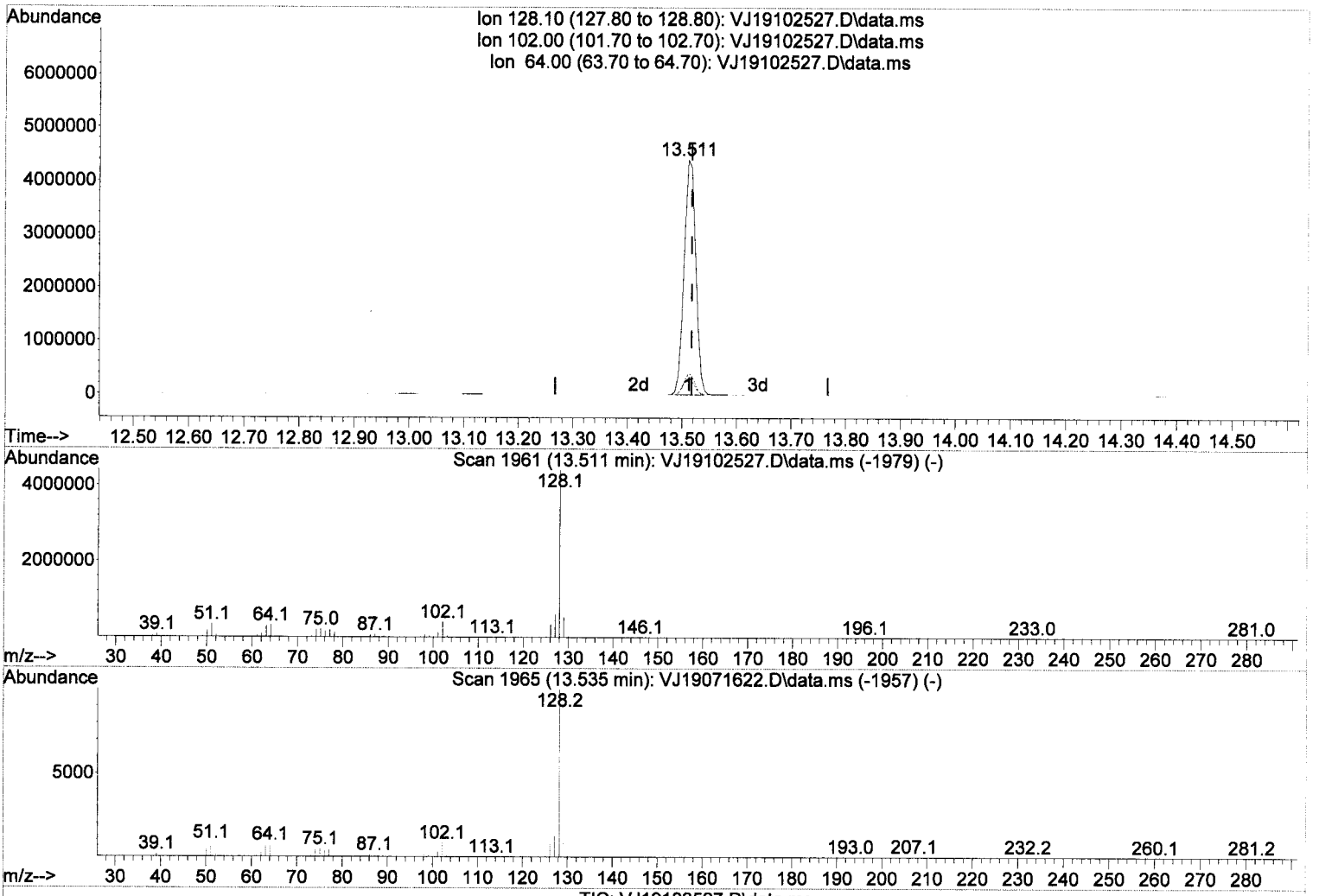
response 28824

Ion	Exp%	Act%
105.10	100.00	100.00
134.10	21.70	18.56
91.00	14.90	16.17
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102527.D
Acq On : 25 Oct 2019 9:30 pm
Operator : MM/IMA
Sample : A9J0950-02@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 28 10:27:55 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: VJ19102527.D\data.ms

(84) Naphthalene

13.511min (-0.006) 693.06 ug/L

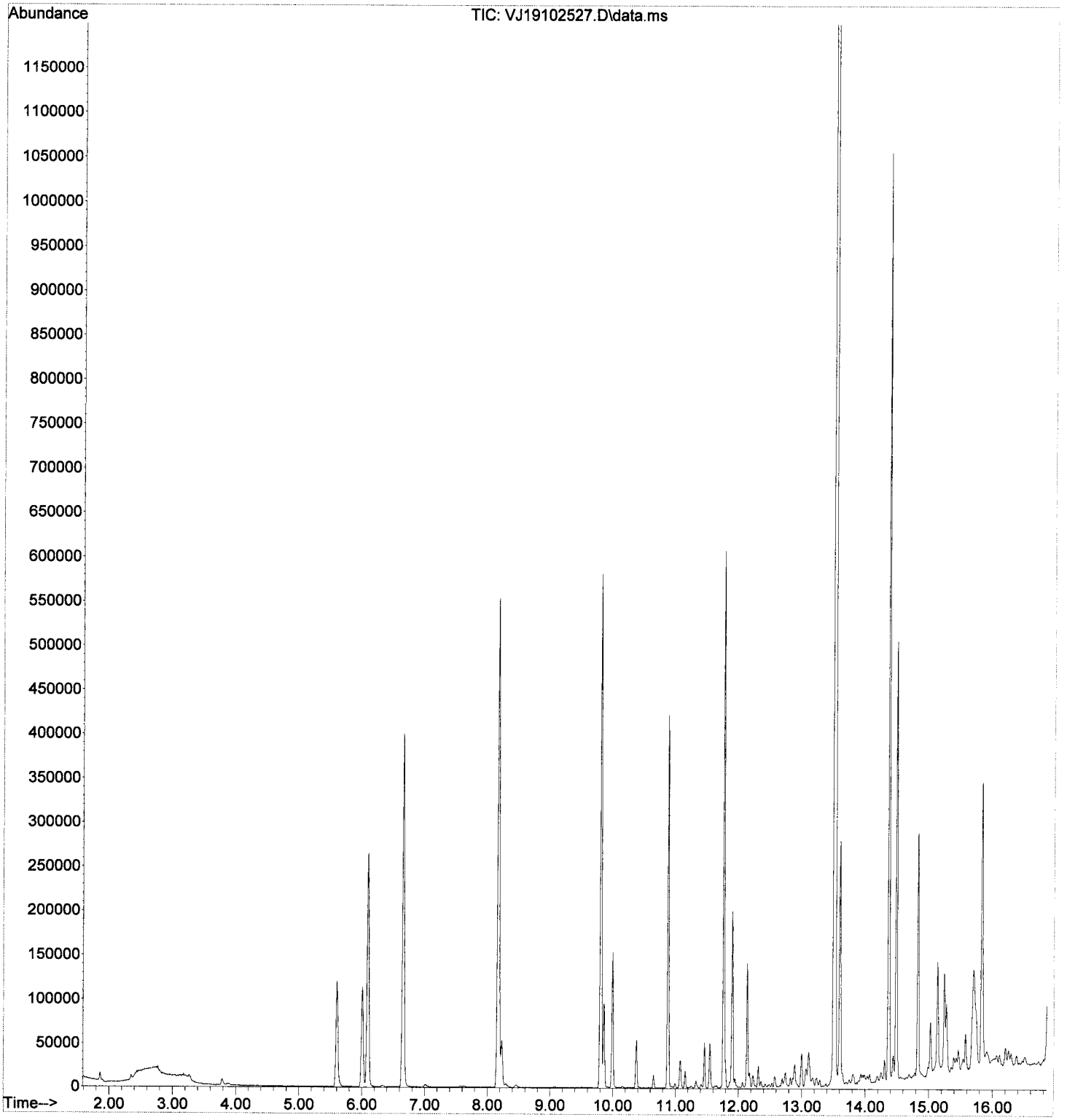
response 6549329

Ion	Exp%	Act%
128.10	100.00	100.00
102.00	7.90	8.96
64.00	6.30	7.12
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102527.D
Acq On : 25 Oct 2019 9:30 pm
Operator : MM/IMA
Sample : A9J0950-02@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 28 10:27:55 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



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102528.D
Acq On : 25 Oct 2019 9:57 pm
Operator : MM/IMA
Sample : A9J0950-03@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 28 Sample Multiplier: 1

IMA
10/28/19

Quant Time: Oct 28 10:27:58 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

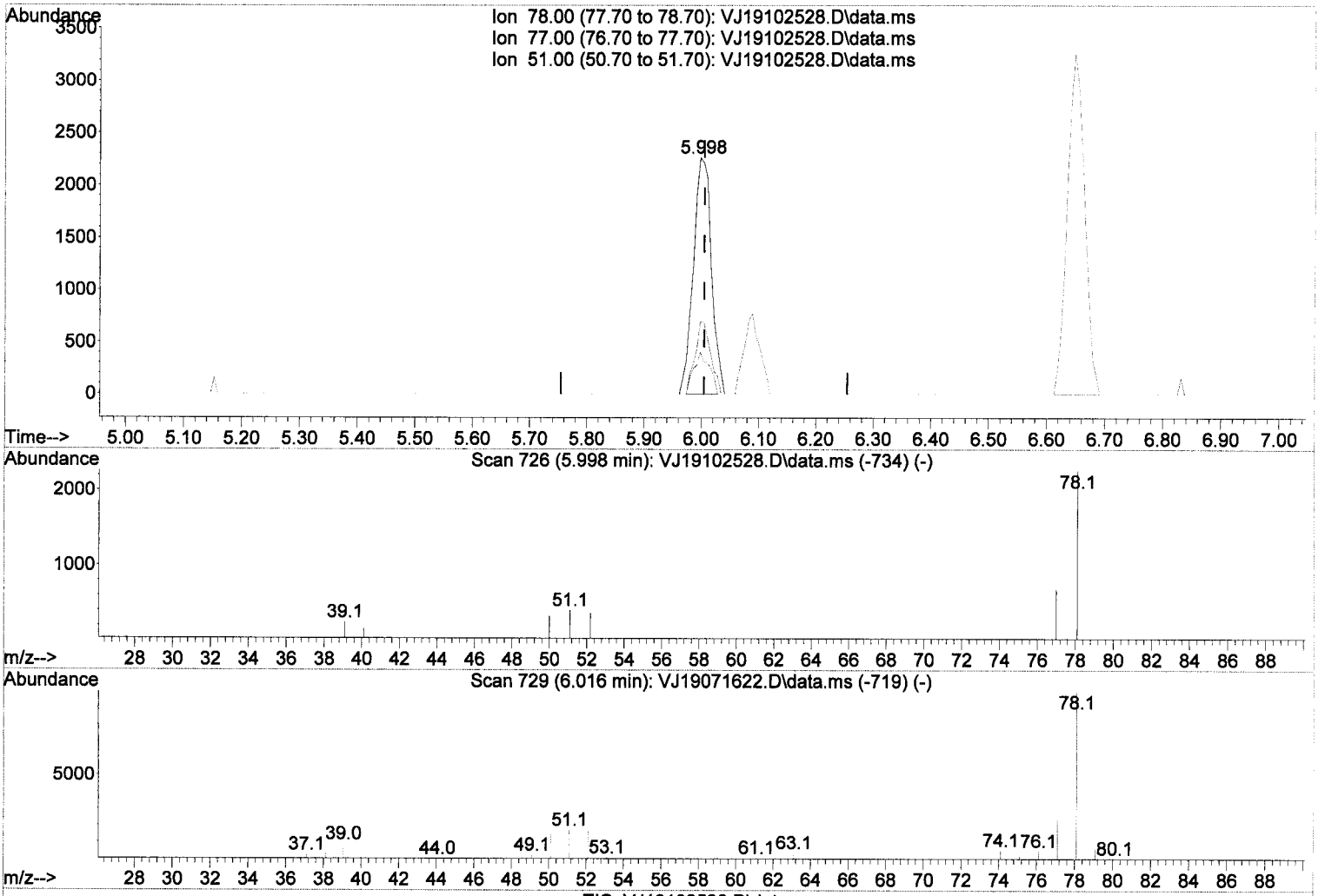
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	114800	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	310394	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	129019	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.597	111	85702	47.23	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.649	114	356549	50.49	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	441043	50.95	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.877	174	95061	51.03	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.892	50	1103	0.24	ug/L	<MDL	91
5) Bromomethane	2.336	96	2917	Below Cal			98
6) Chloroethane	2.451	64	62	1.35	ug/L	#	56
8) Ethanol	3.285	45	8178	Below Cal			93
12) Iodomethane	3.285	142	535	0.62	ug/L		62
13) Methylene Chloride	3.778	84	3252	0.36	ug/L		91
14) Acetone	3.863	43	2291	1.31	ug/L		99
28) Tetrahydrofuran	5.597	42	534	0.23	ug/L	#	54
32) 2-Butanone (MEK)	5.743	43	873	0.28	ug/L		52
33) Benzene	5.998	78	4963	0.34	ug/L		90
36) iso-Butyl Alcohol	6.327	43	814	2.31	ug/L	<MDL	90
46) Toluene	8.225	91	2530	0.17	ug/L		99
56) Ethylbenzene	9.855	91	50139	3.56	ug/L		99
58) m,p-Xylenes (2)	9.995	91	26027	2.59	ug/L		98
59) o-Xylene	10.378	91	12356	1.29	ug/L		95
60) Styrene	10.378	104	245	0.21	ug/L	#<MDL	1
62) Isopropylbenzene	10.652	105	4491	0.39	ug/L		97
66) n-Propylbenzene	10.999	91	1668	0.12	ug/L		86
69) 1,3,5-Trimethylbenzene	11.157	105	6537	0.76	ug/L		98
74) 1,2,4-Trimethylbenzene	11.461	105	17770	2.04	ug/L		93
75) sec-Butylbenzene	11.546	105	6953	0.63	ug/L		94
76) 4-Isopropyltoluene	11.656	119	1250	0.15	ug/L	<MDL	92
84) Naphthalene	13.511	128	5174629	539.39	ug/L		97
85) 1,2,3-Trichlorobenzene	13.663	180	241	0.09	ug/L	#<MDL	1

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

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102528.D
Acq On : 25 Oct 2019 9:57 pm
Operator : MM/IMA
Sample : A9J0950-03@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 28 10:27:58 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: VJ19102528.D\data.ms

(33) Benzene

5.998min (-0.006) 0.34 ug/L

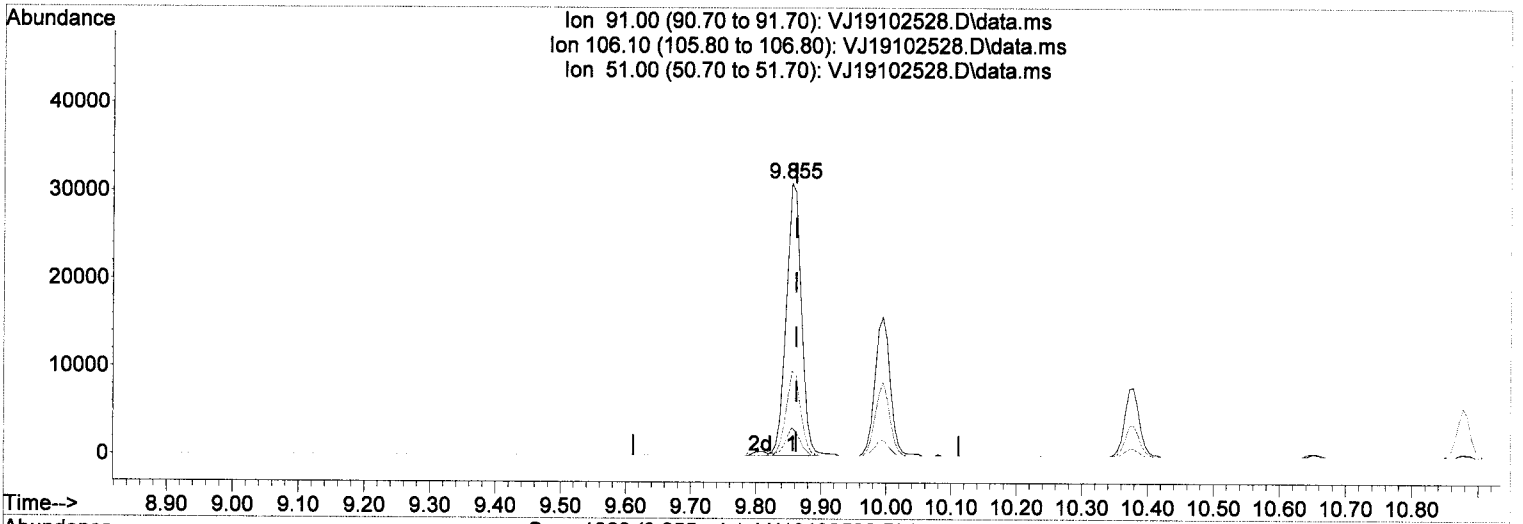
response 4963

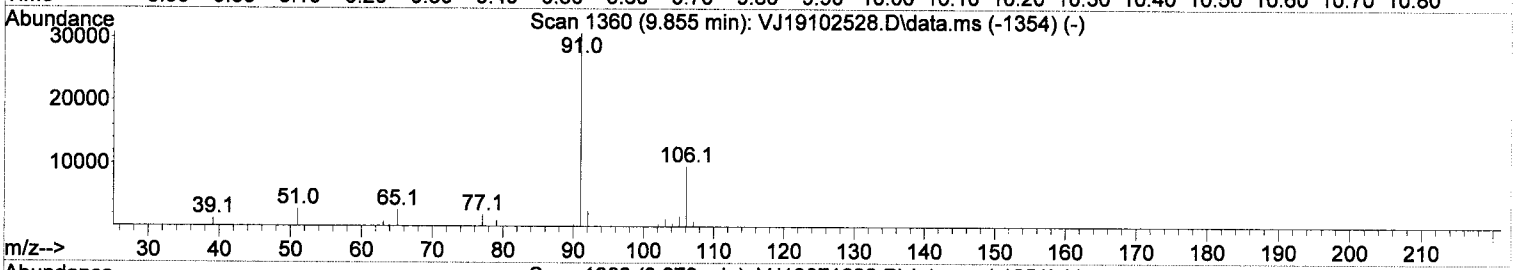
Ion	Exp%	Act%
78.00	100.00	100.00
77.00	23.60	30.71
51.00	16.20	17.94
0.00	0.00	0.00

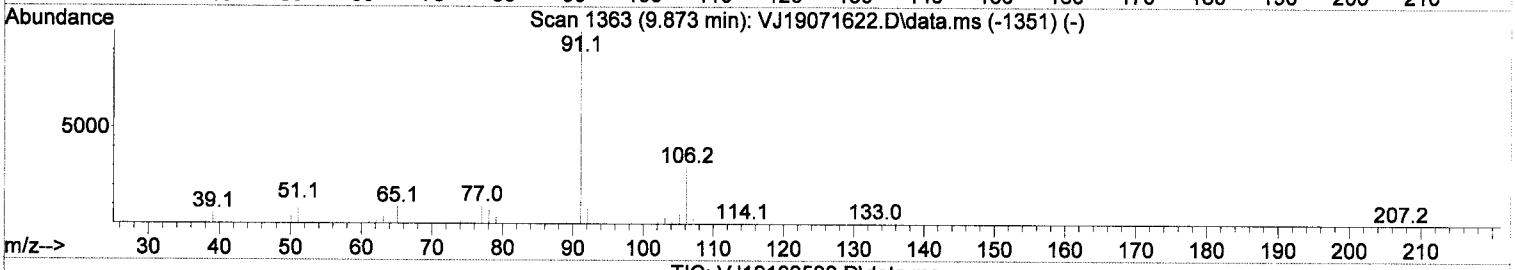
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102528.D
Acq On : 25 Oct 2019 9:57 pm
Operator : MM/IMA
Sample : A9J0950-03@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 28 10:27:58 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: VJ19102528.D\data.ms

(56) Ethylbenzene (C)

9.855min (-0.006) 3.56 ug/L

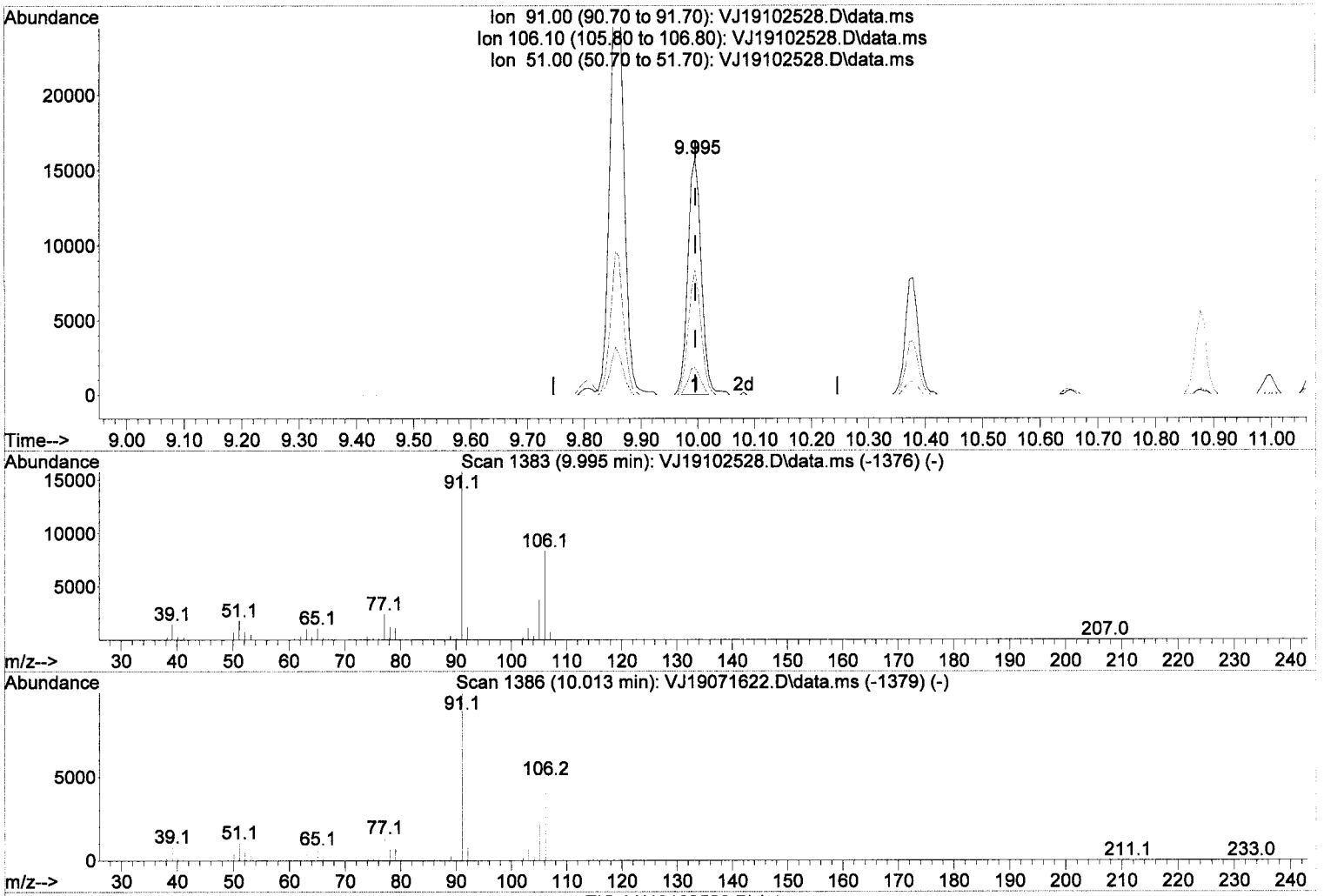
response 50139

Ion	Exp%	Act%
91.00	100.00	100.00
106.10	31.80	31.03
51.00	9.80	10.33
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102528.D
Acq On : 25 Oct 2019 9:57 pm
Operator : MM/IMA
Sample : A9J0950-03@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 28 10:27:58 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: VJ19102528.D\data.ms

(58) m,p-Xylenes (2)

9.995min (-0.000) 2.59 ug/L

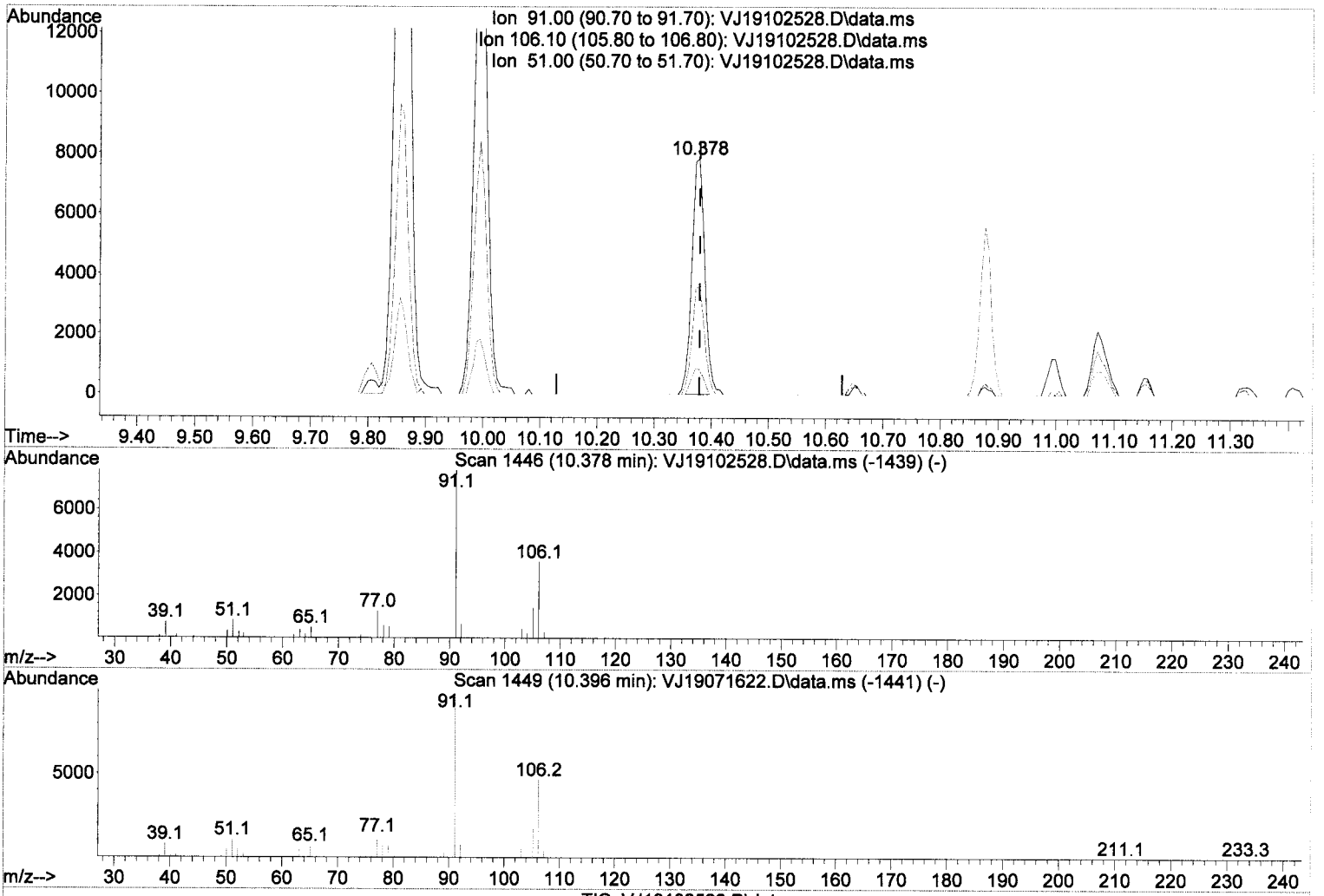
response 26027

Ion	Exp%	Act%
91.00	100.00	100.00
106.10	51.80	52.97
51.00	9.80	11.53
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102528.D
Acq On : 25 Oct 2019 9:57 pm
Operator : MM/IMA
Sample : A9J0950-03@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 28 10:27:58 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: VJ19102528.D\data.ms

(59) o-Xylene

10.378min (-0.000) 1.29 ug/L

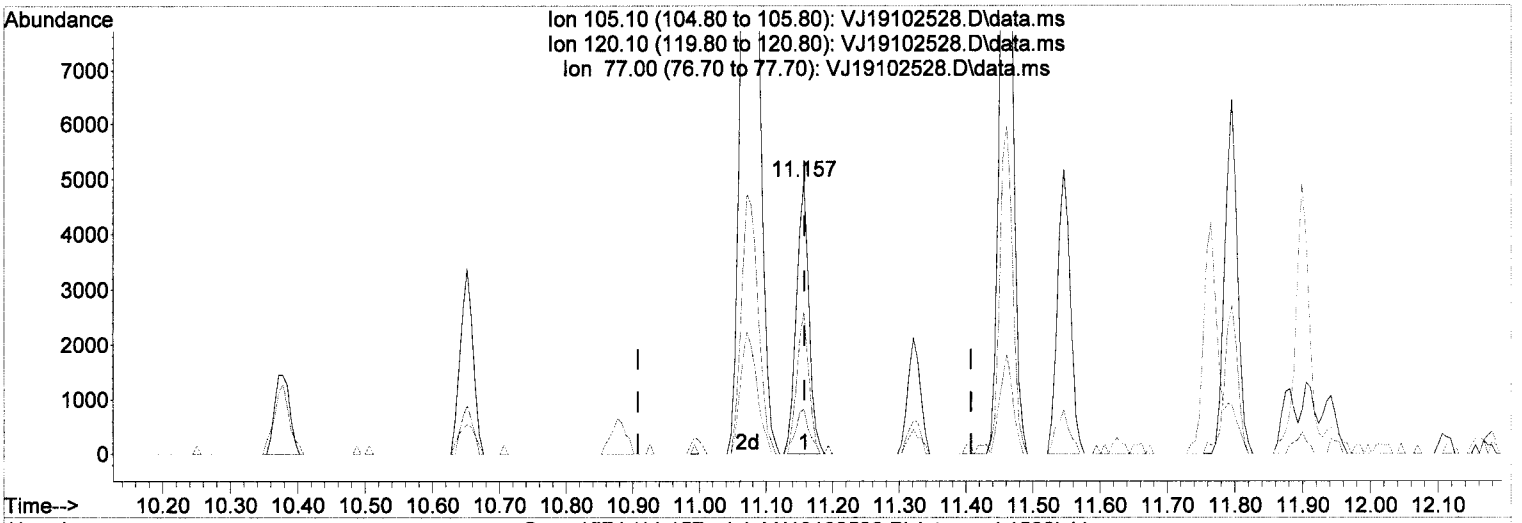
response 12356

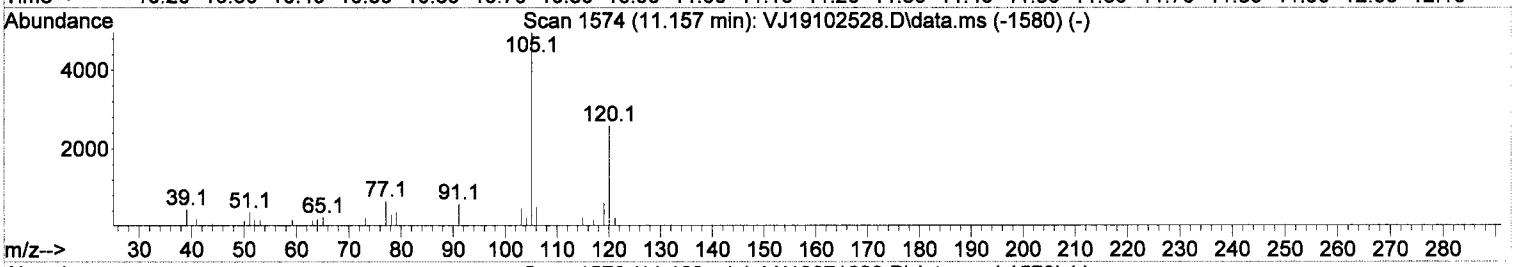
Ion	Exp%	Act%
91.00	100.00	100.00
106.10	49.80	45.80
51.00	9.70	10.75
0.00	0.00	0.00

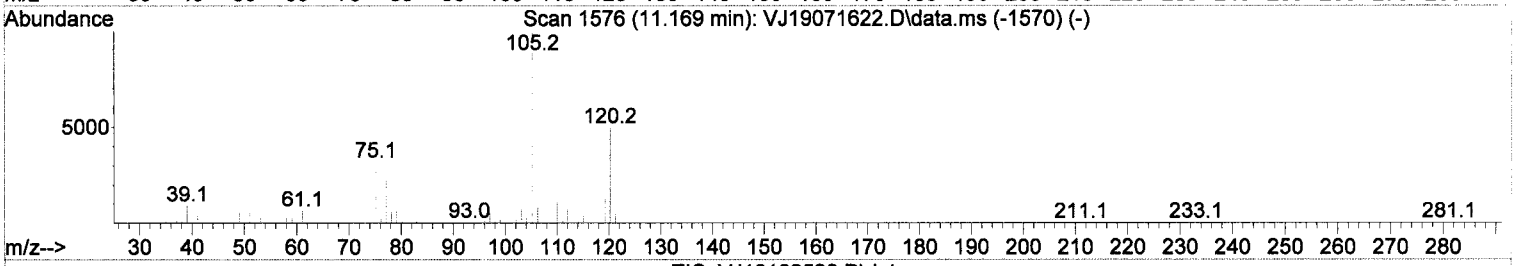
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102528.D
Acq On : 25 Oct 2019 9:57 pm
Operator : MM/IMA
Sample : A9J0950-03@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 28 10:27:58 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: VJ19102528.D\data.ms

(69) 1,3,5-Trimethylbenzene

11.157min (-0.000) 0.76 ug/L

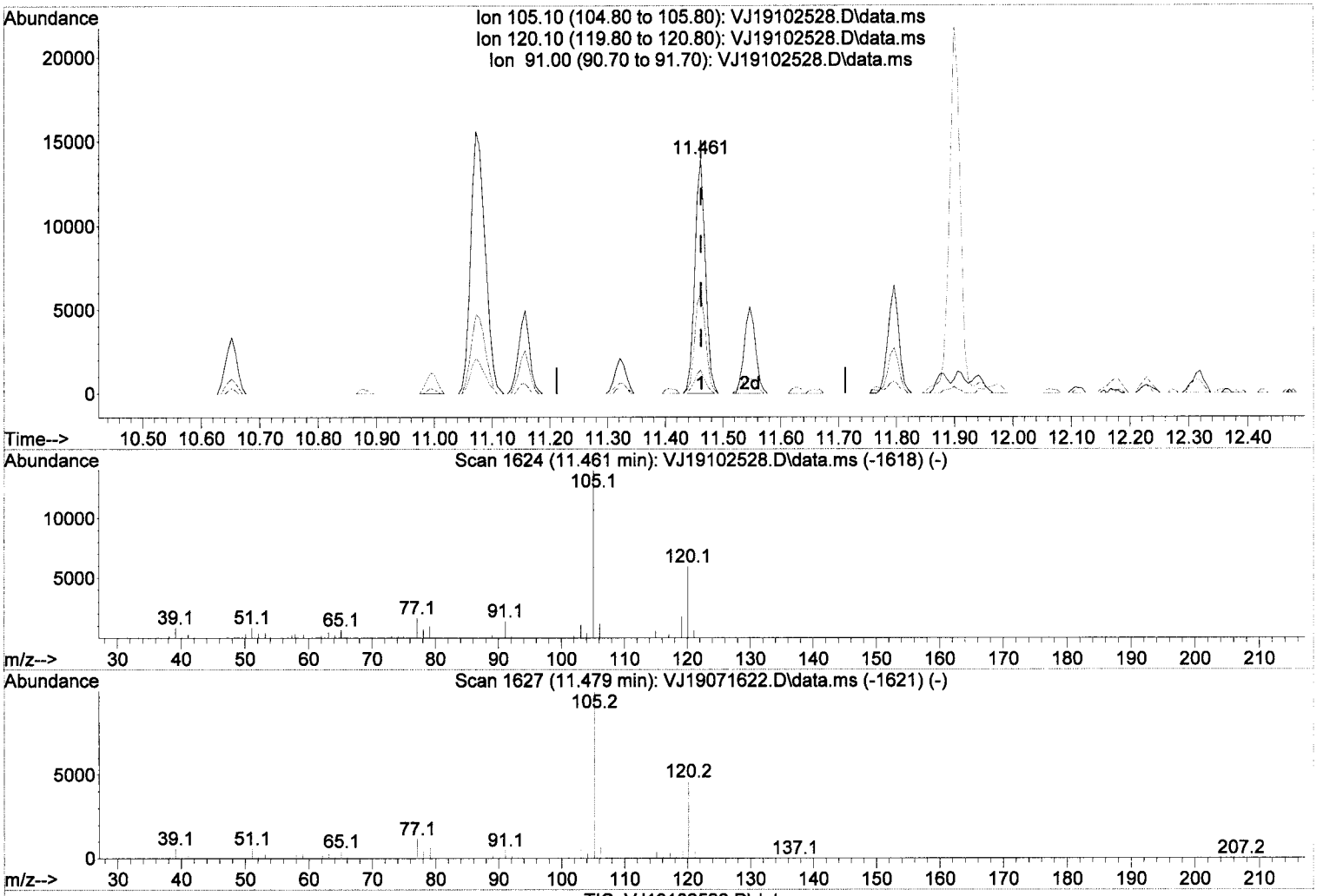
response 6537

Ion	Exp%	Act%
105.10	100.00	100.00
120.10	52.80	52.20
77.00	19.20	16.57
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102528.D
Acq On : 25 Oct 2019 9:57 pm
Operator : MM/IMA
Sample : A9J0950-03@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 28 10:27:58 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: VJ19102528.D\data.ms

(74) 1,2,4-Trimethylbenzene

11.461min (0.000) 2.04 ug/L

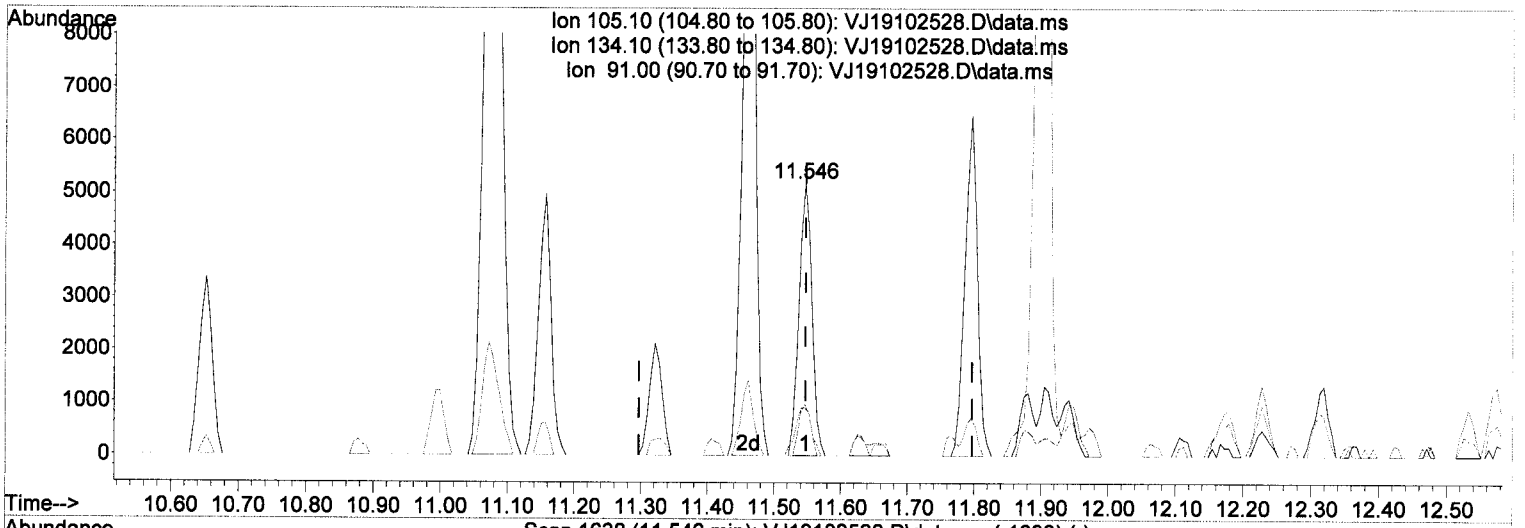
response 17770

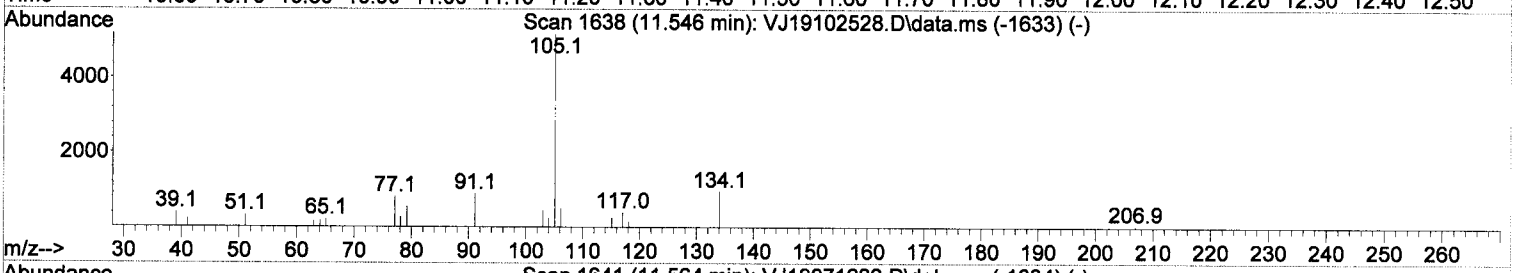
Ion	Exp%	Act%
105.10	100.00	100.00
120.10	48.60	42.70
91.00	9.80	10.13
0.00	0.00	0.00

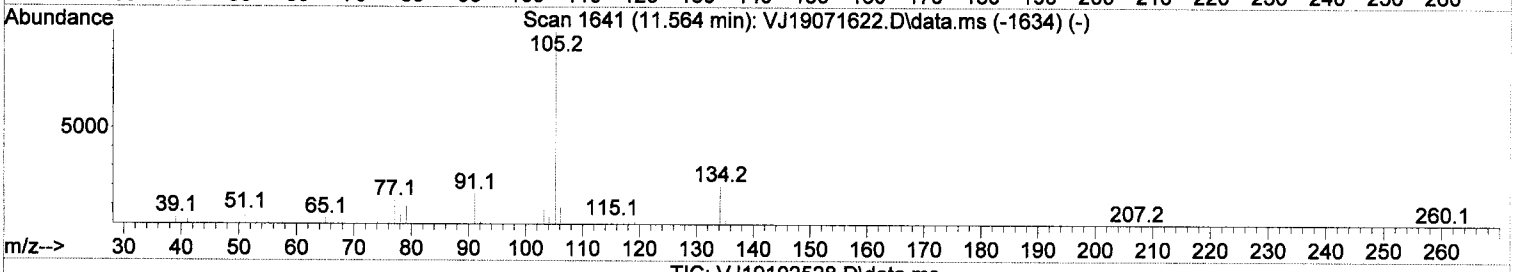
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102528.D
Acq On : 25 Oct 2019 9:57 pm
Operator : MM/IMA
Sample : A9J0950-03@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 28 10:27:58 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: VJ19102528.D\data.ms

(75) sec-Butylbenzene

11.546min (-0.000) 0.63 ug/L

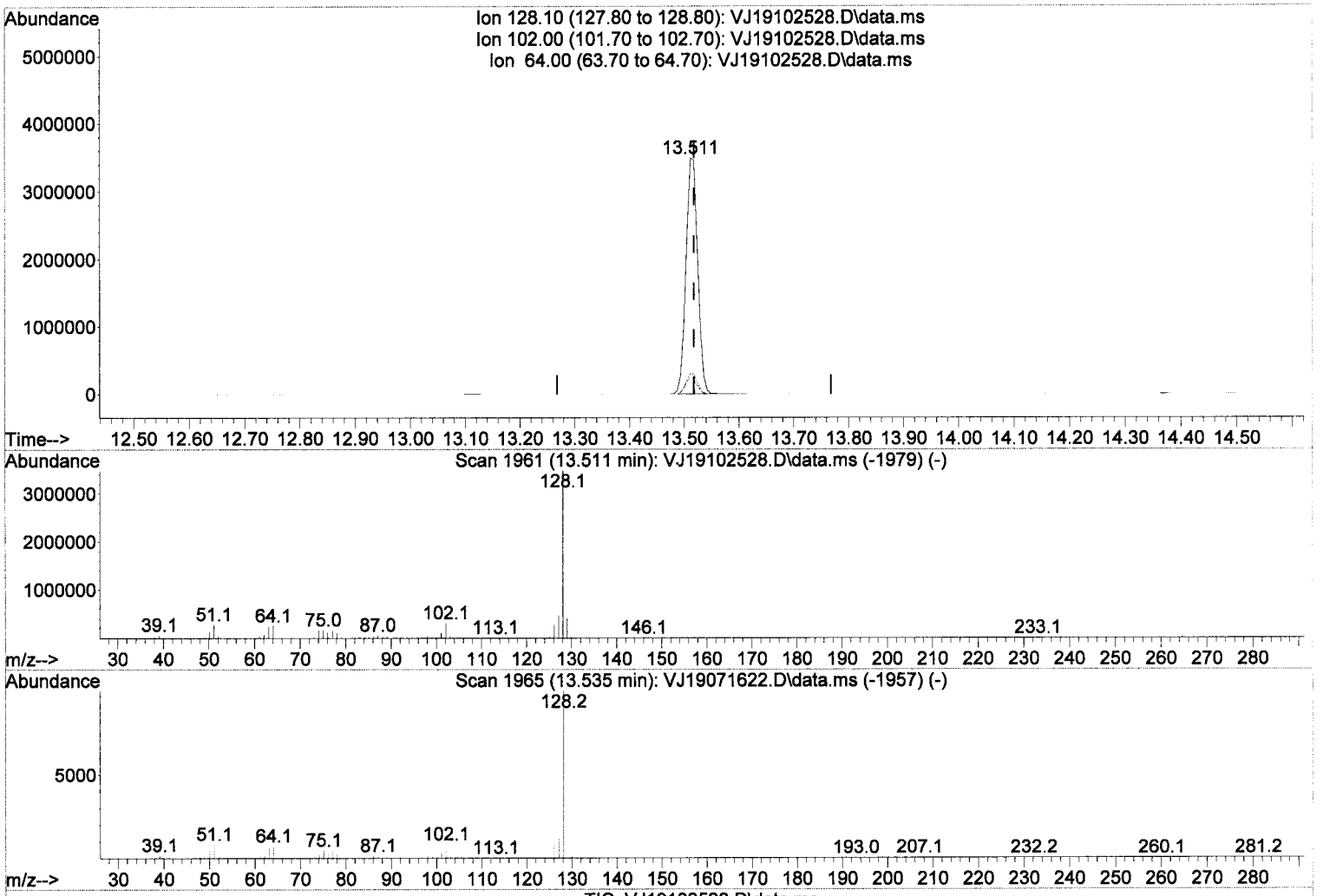
response 6953

Ion	Exp%	Act%
105.10	100.00	100.00
134.10	21.70	18.52
91.00	14.90	17.26
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102528.D
Acq On : 25 Oct 2019 9:57 pm
Operator : MM/IMA
Sample : A9J0950-03@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 28 10:27:58 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: VJ19102528.D\data.ms

(84) Naphthalene

13.511min (-0.006) 539.39 ug/L

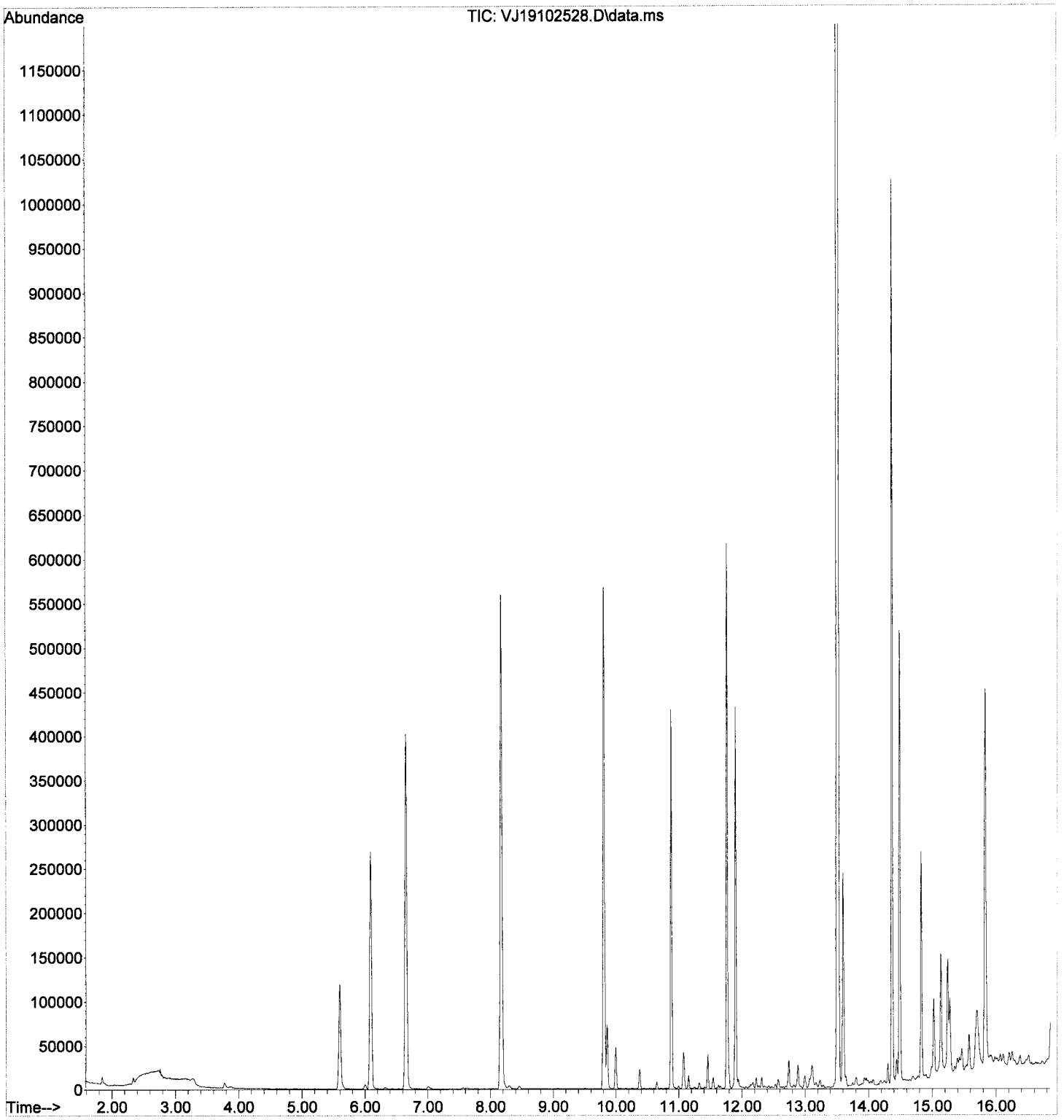
response 5174629

Ion	Exp%	Act%
128.10	100.00	100.00
102.00	7.90	8.83
64.00	6.30	7.16
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102528.D
Acq On : 25 Oct 2019 9:57 pm
Operator : MM/IMA
Sample : A9J0950-03@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 28 10:27:58 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



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102529.D
Acq On : 25 Oct 2019 10:23 pm
Operator : MM/IMA
Sample : A9J0950-04@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 29 Sample Multiplier: 1

IMA
10/28/19

Quant Time: Oct 28 10:28:01 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

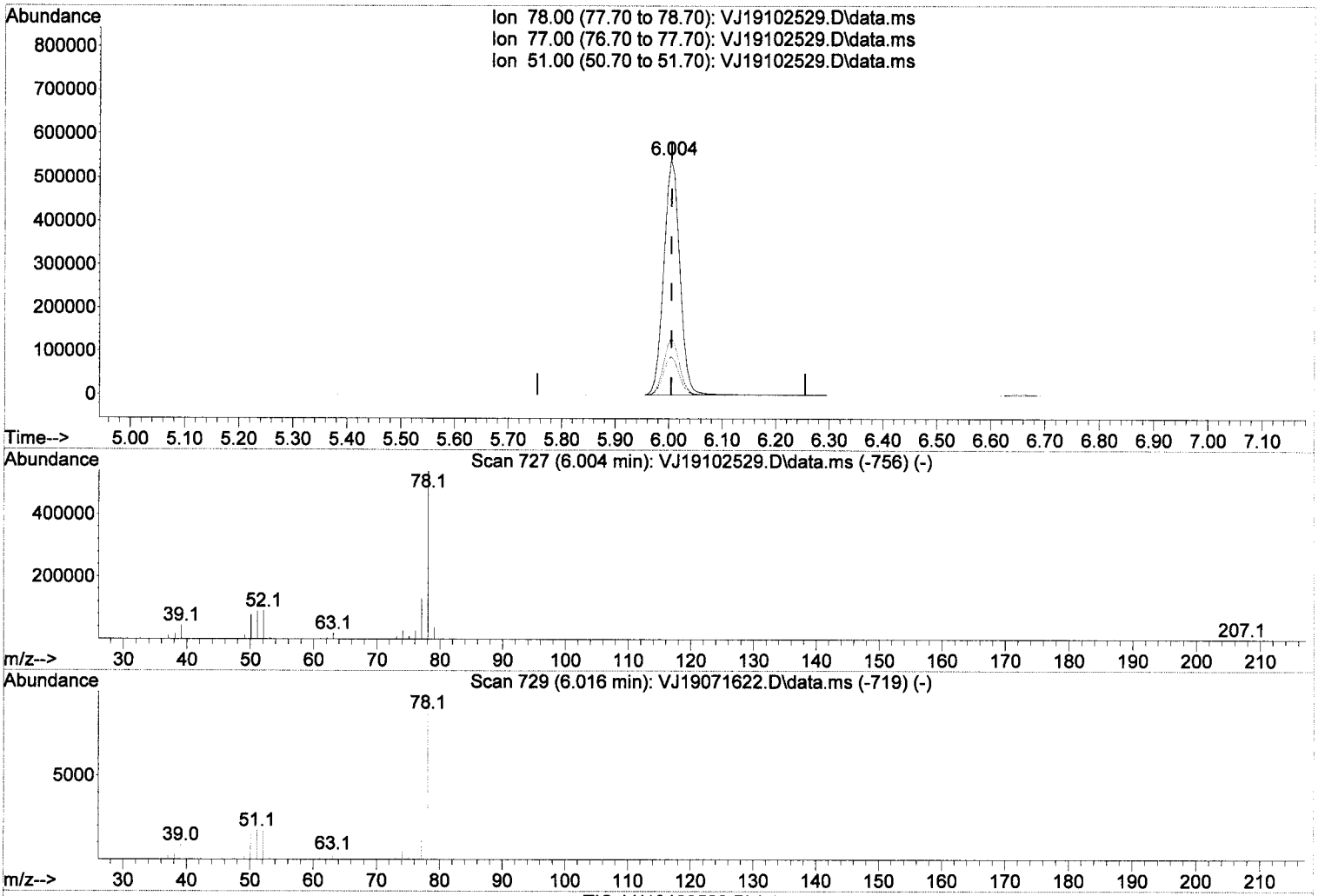
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	119760	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	310261	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	131480	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.602	111	88337	46.67	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	360714	48.96	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	442251	51.11	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	95457	50.28	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.904	50	1076	0.23	ug/L	<MDL	92
5) Bromomethane	2.348	96	3561	Below Cal			99
6) Chloroethane	2.463	64	146	1.52	ug/L	#	47
8) Ethanol	3.297	45	7654	Below Cal			90
12) Iodomethane	3.297	142	471	0.52	ug/L	#	47
13) Methylene Chloride	3.783	84	3483	0.39	ug/L		88
14) Acetone	3.869	43	2103	1.15	ug/L		96
28) Tetrahydrofuran	5.602	42	479	0.20	ug/L	#	52
32) 2-Butanone (MEK)	5.748	43	784	0.24	ug/L		52
33) Benzene	6.004	78	1130510	73.51	ug/L		100
36) iso-Butyl Alcohol	6.320	43	700	1.90	ug/L	<MDL	90
46) Toluene	8.230	91	646646	44.60	ug/L		99
56) Ethylbenzene	9.861	91	180882	12.84	ug/L		99
58) m,p-Xylenes (2)	9.995	91	269160	26.83	ug/L		98
59) o-Xylene	10.378	91	97857	10.22	ug/L		96
60) Styrene	10.421	104	14354	2.13	ug/L		99
62) Isopropylbenzene	10.652	105	29695	2.57	ug/L		98
66) n-Propylbenzene	10.992	91	6312	0.44	ug/L		97
68) 2-Chlorotoluene	11.059	126	283	0.11	ug/L	#<MDL	1
69) 1,3,5-Trimethylbenzene	11.157	105	26688	3.04	ug/L		91
73) tert-Butylbenzene	11.406	91	3746	0.72	ug/L		95
74) 1,2,4-Trimethylbenzene	11.461	105	71655	8.08	ug/L		97
75) sec-Butylbenzene	11.546	105	80826	7.20	ug/L		94
76) 4-Isopropyltoluene	11.656	119	2709	0.32	ug/L	<MDL	96
79) n-Butylbenzene	11.972	91	1624	0.20	ug/L		93
84) Naphthalene	13.511	128	14365465	1469.38	ug/L		91 — AR2
85) 1,2,3-Trichlorobenzene	13.675	180	443	0.17	ug/L	#<MDL	23

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

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102529.D
Acq On : 25 Oct 2019 10:23 pm
Operator : MM/IMA
Sample : A9J0950-04@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 28 10:28:01 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: VJ19102529.D\data.ms

(33) Benzene

6.004min (-0.000) 73.51 ug/L

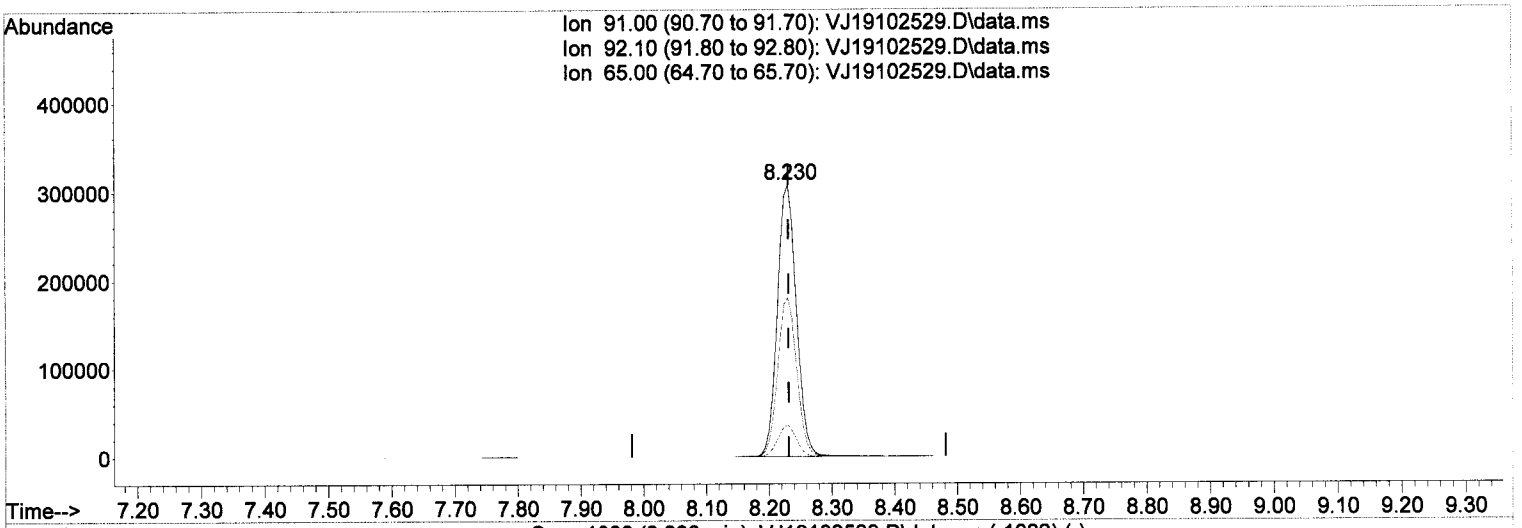
response 1130510

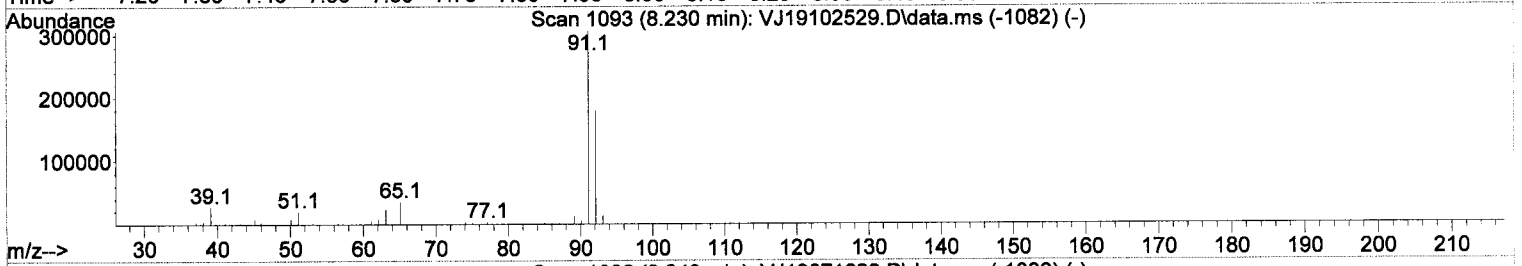
Ion	Exp%	Act%
78.00	100.00	100.00
77.00	23.60	23.96
51.00	16.20	16.16
0.00	0.00	0.00

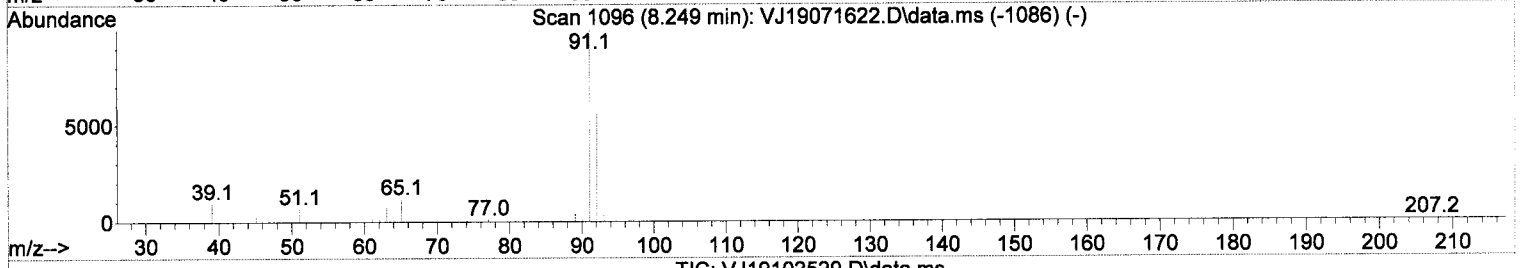
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102529.D
Acq On : 25 Oct 2019 10:23 pm
Operator : MM/IMA
Sample : A9J0950-04@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 28 10:28:01 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: VJ19102529.D\data.ms

(46) Toluene (C)

8.230min (-0.000) 44.60 ug/L

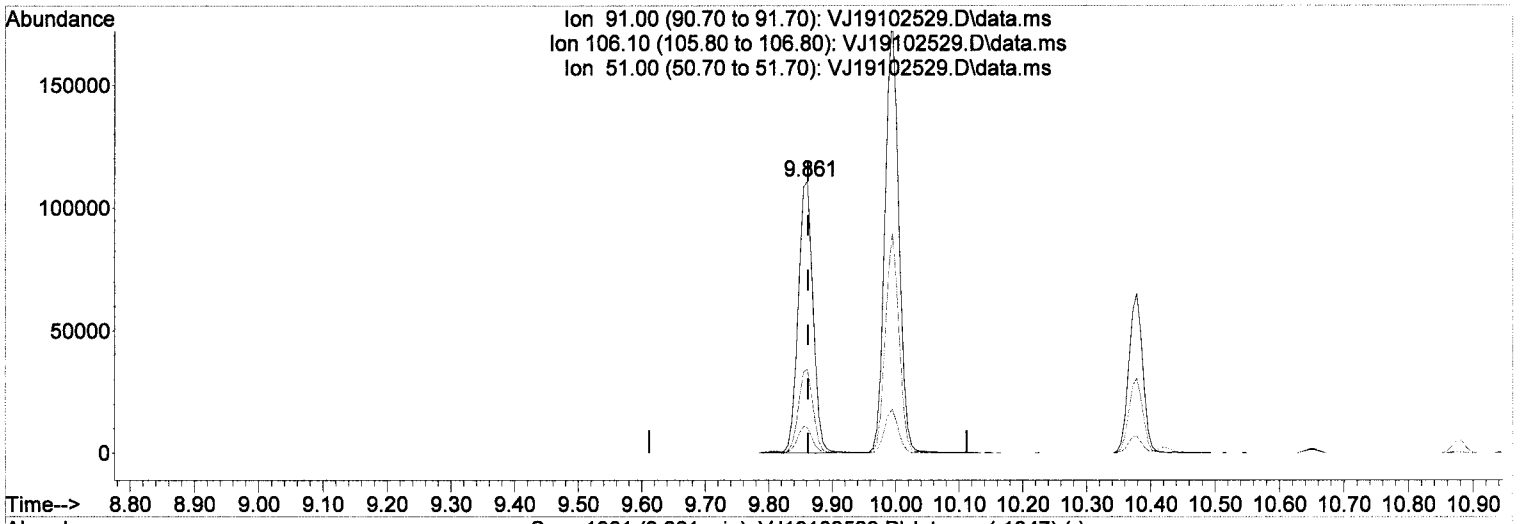
response 646646

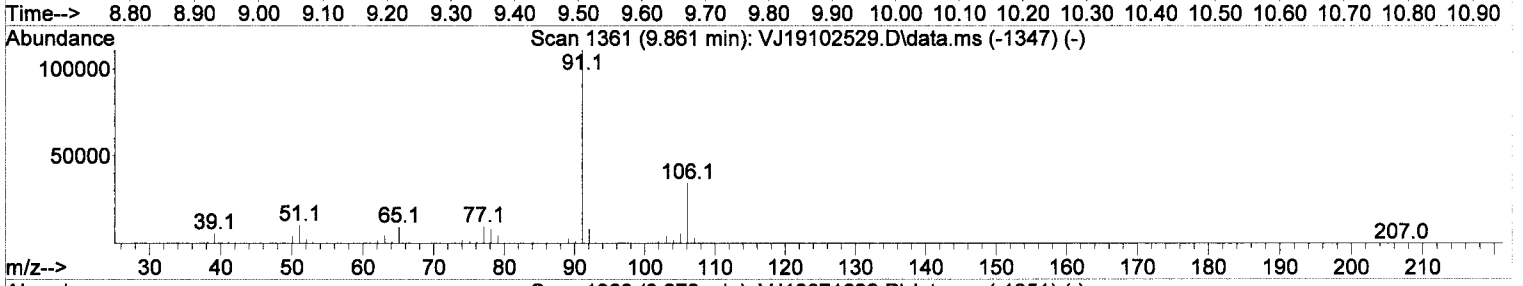
Ion	Exp%	Act%
91.00	100.00	100.00
92.10	58.30	58.58
65.00	11.00	11.68
0.00	0.00	0.00

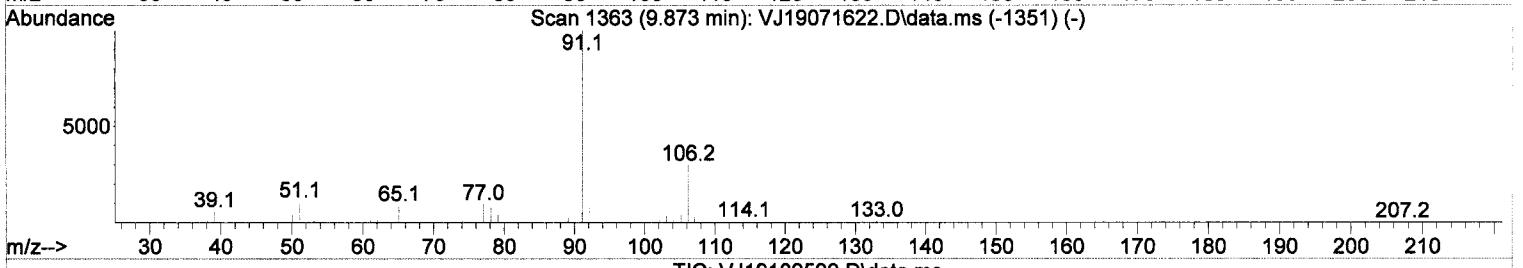
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102529.D
Acq On : 25 Oct 2019 10:23 pm
Operator : MM/IMA
Sample : A9J0950-04@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 28 10:28:01 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: VJ19102529.D\data.ms

(56) Ethylbenzene (C)

9.861min (-0.000) 12.84 ug/L

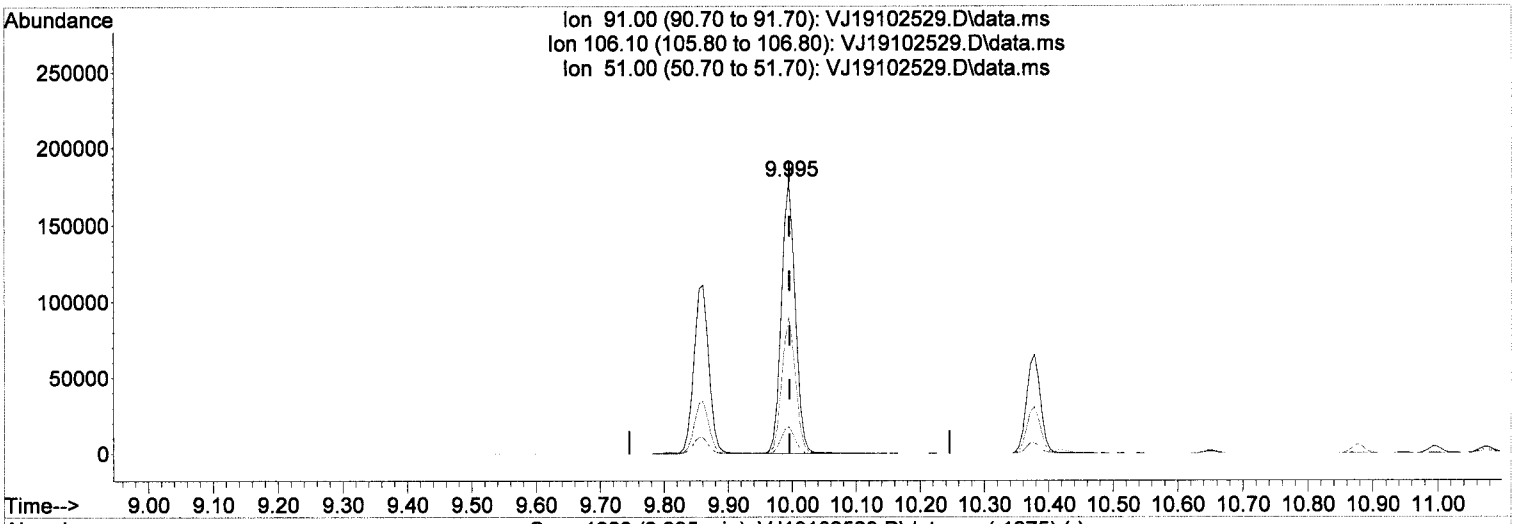
response 180882

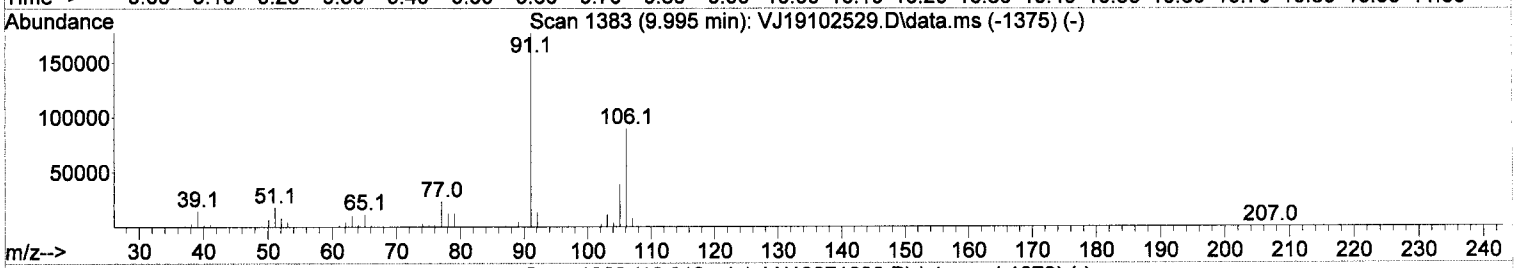
Ion	Exp%	Act%
91.00	100.00	100.00
106.10	31.80	31.02
51.00	9.80	9.48
0.00	0.00	0.00

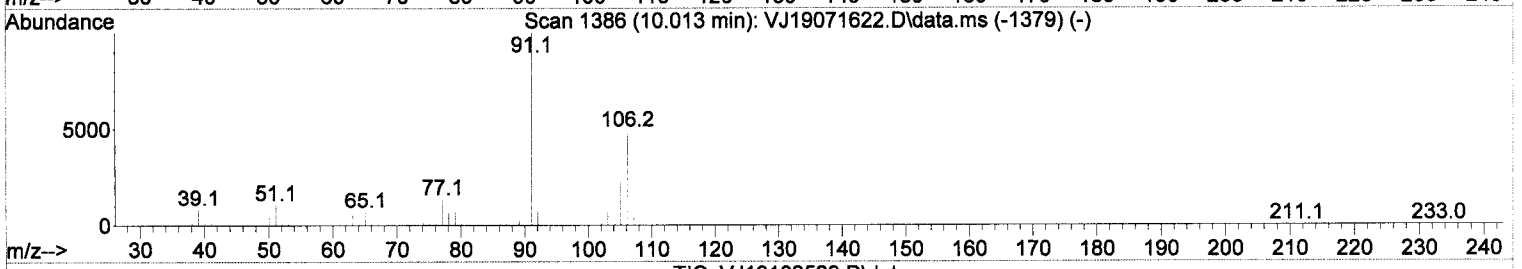
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102529.D
Acq On : 25 Oct 2019 10:23 pm
Operator : MM/IMA
Sample : A9J0950-04@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 28 10:28:01 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: VJ19102529.D\data.ms

(58) m,p-Xylenes (2)

9.995min (-0.000) 26.83 ug/L

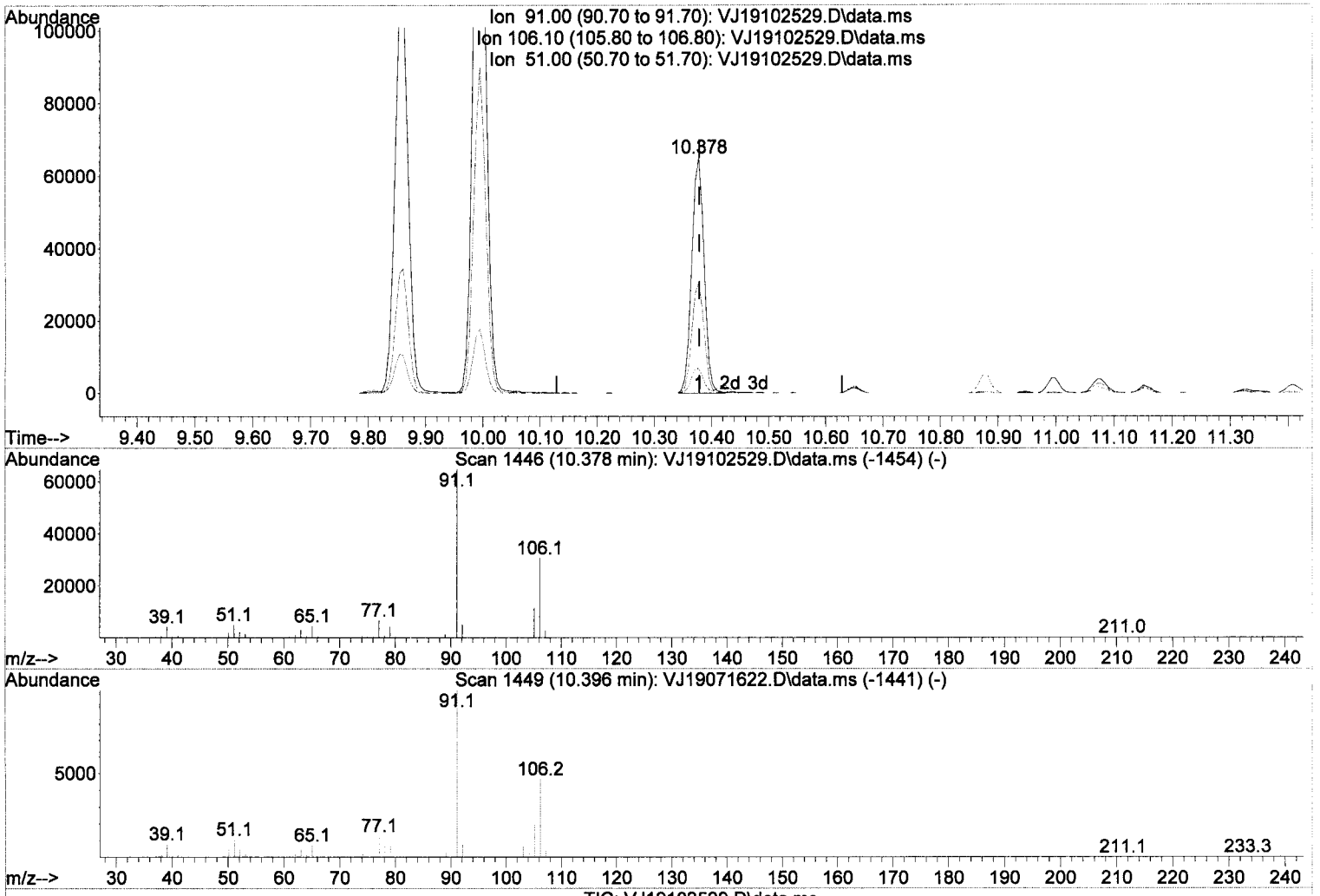
response 269160

Ion	Exp%	Act%
91.00	100.00	100.00
106.10	51.80	50.52
51.00	9.80	10.05
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102529.D
Acq On : 25 Oct 2019 10:23 pm
Operator : MM/IMA
Sample : A9J0950-04@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 28 10:28:01 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: VJ19102529.D\data.ms

(59) o-Xylene

10.378min (-0.000) 10.22 ug/L

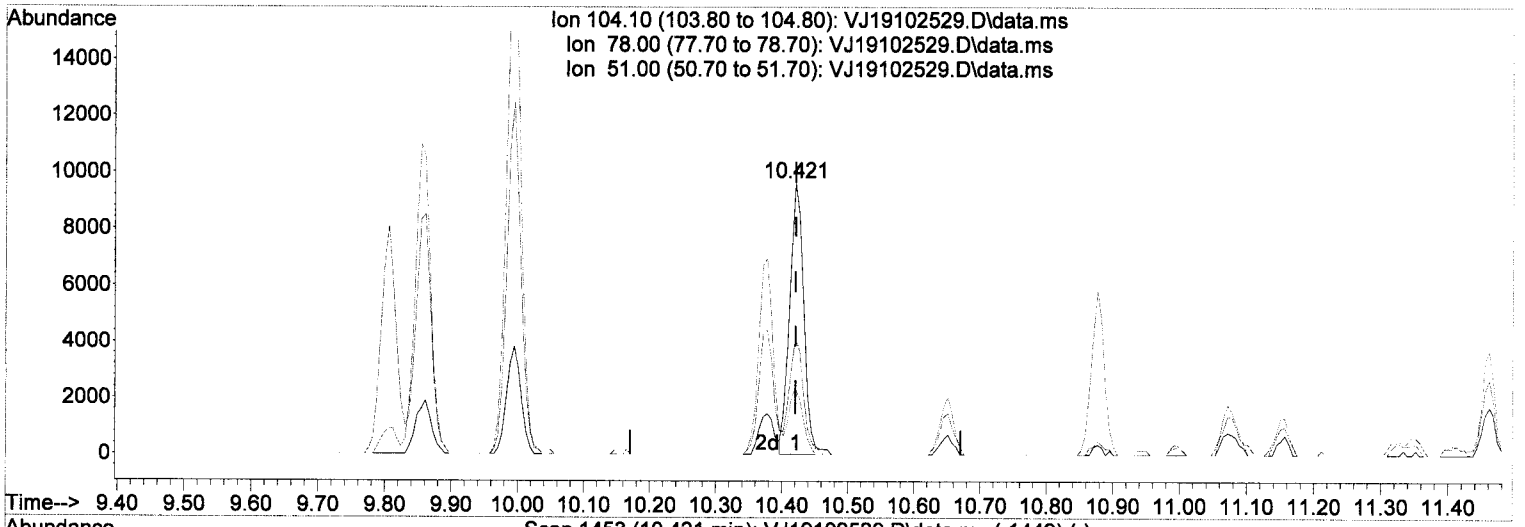
response 97857

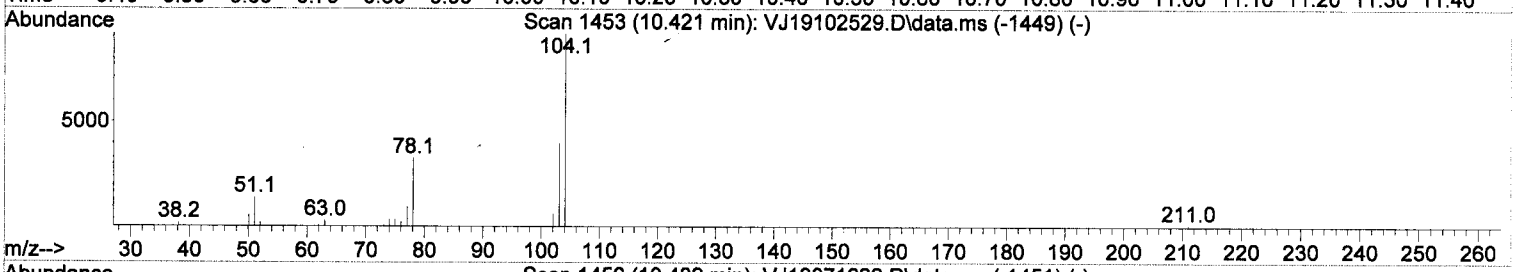
Ion	Exp%	Act%
91.00	100.00	100.00
106.10	49.80	47.13
51.00	9.70	10.66
0.00	0.00	0.00

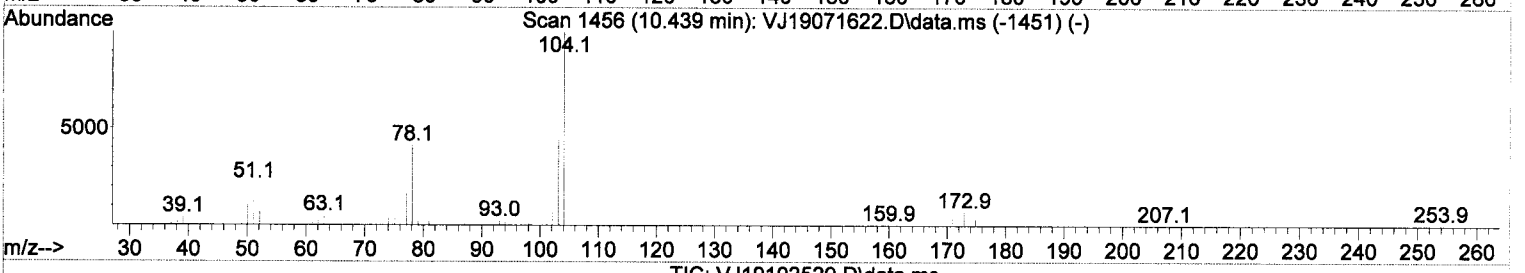
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102529.D
Acq On : 25 Oct 2019 10:23 pm
Operator : MM/IMA
Sample : A9J0950-04@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 28 10:28:01 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: VJ19102529.D\data.ms

(60) Styrene

10.421min (+ 0.001) 2.13 ug/L

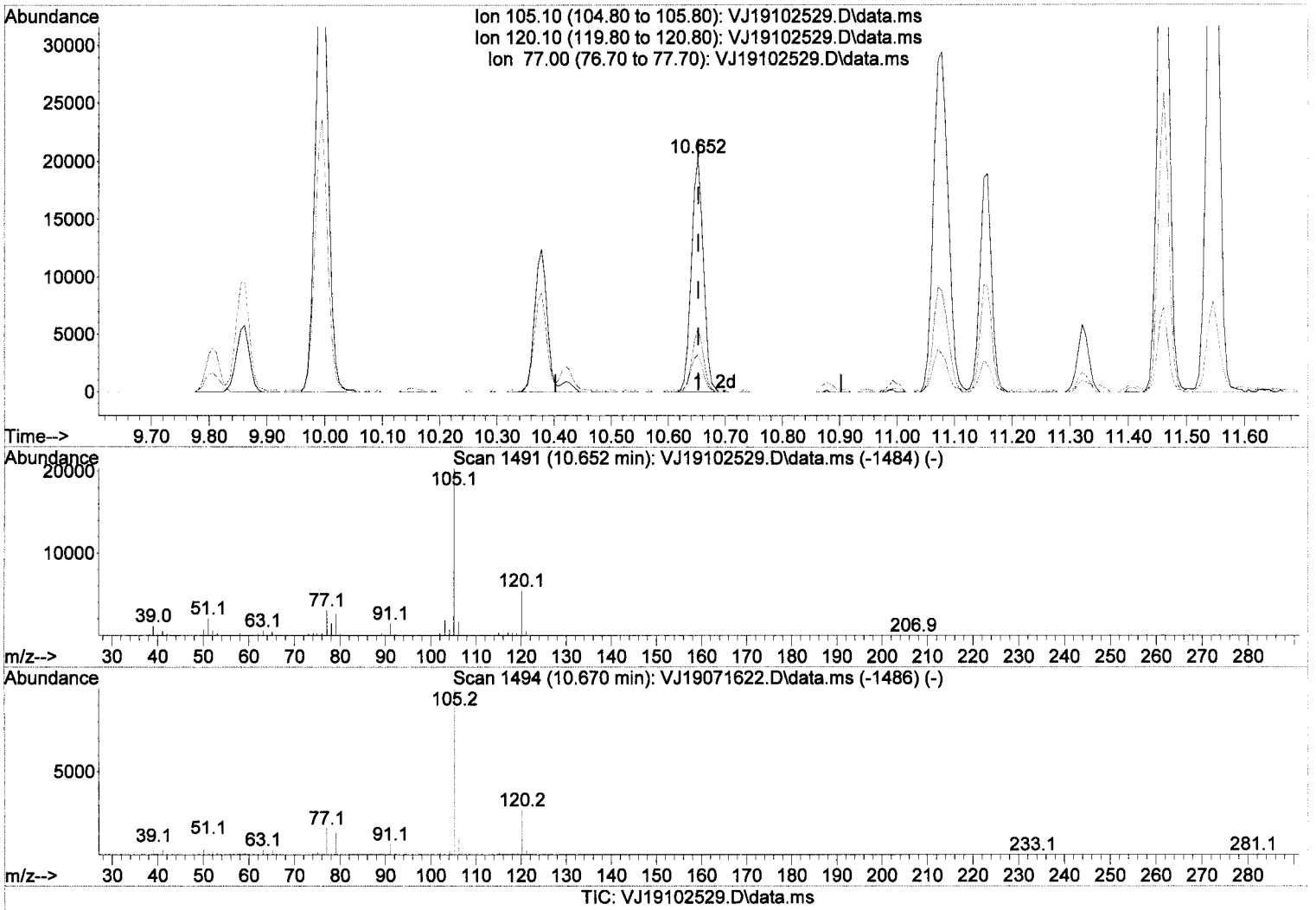
response 14354

Ion	Exp%	Act%
104.10	100.00	100.00
78.00	42.20	42.96
51.00	24.70	24.42
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102529.D
Acq On : 25 Oct 2019 10:23 pm
Operator : MM/IMA
Sample : A9J0950-04@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 28 10:28:01 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: VJ19102529.D\data.ms

(62) Isopropylbenzene

10.652min (-0.000) 2.57 ug/L

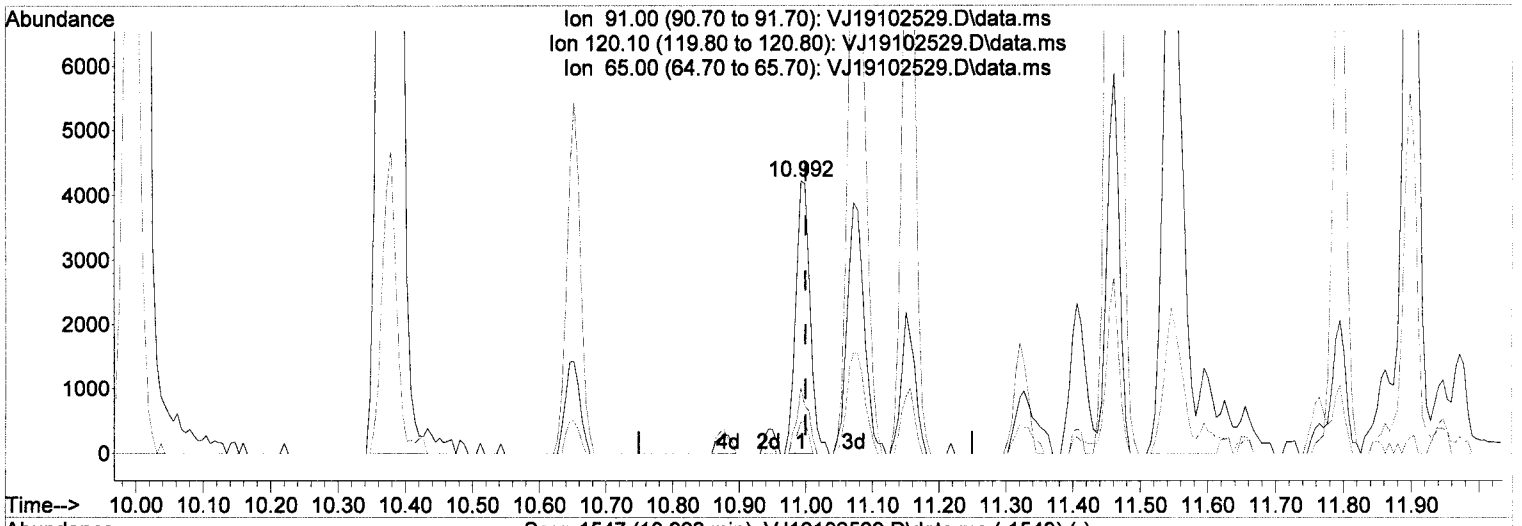
response 29695

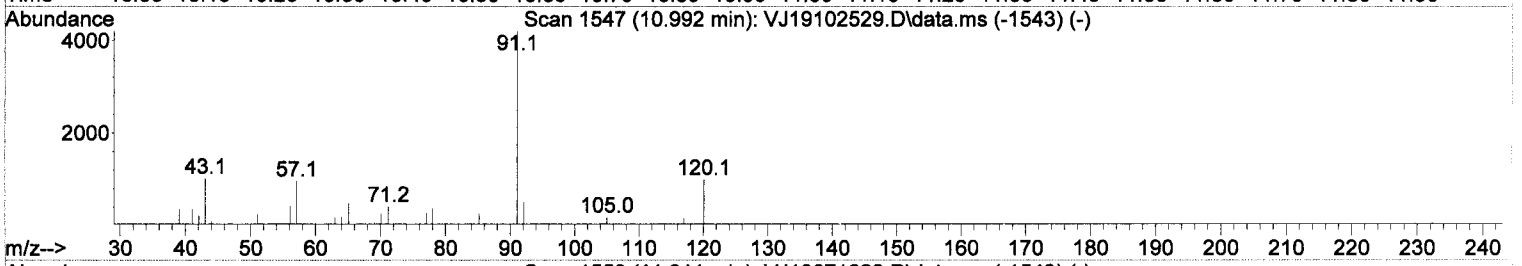
Ion	Exp%	Act%
105.10	100.00	100.00
120.10	27.80	26.68
77.00	14.50	15.00
0.00	0.00	0.00

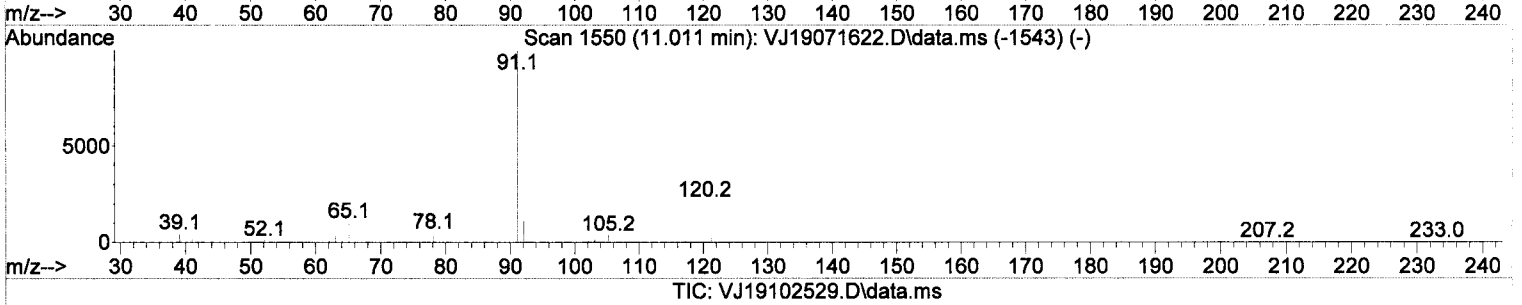
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102529.D
Acq On : 25 Oct 2019 10:23 pm
Operator : MM/IMA
Sample : A9J0950-04@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 28 10:28:01 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: VJ19102529.D\data.ms

(66) n-Propylbenzene

10.992min (-0.006) 0.44 ug/L

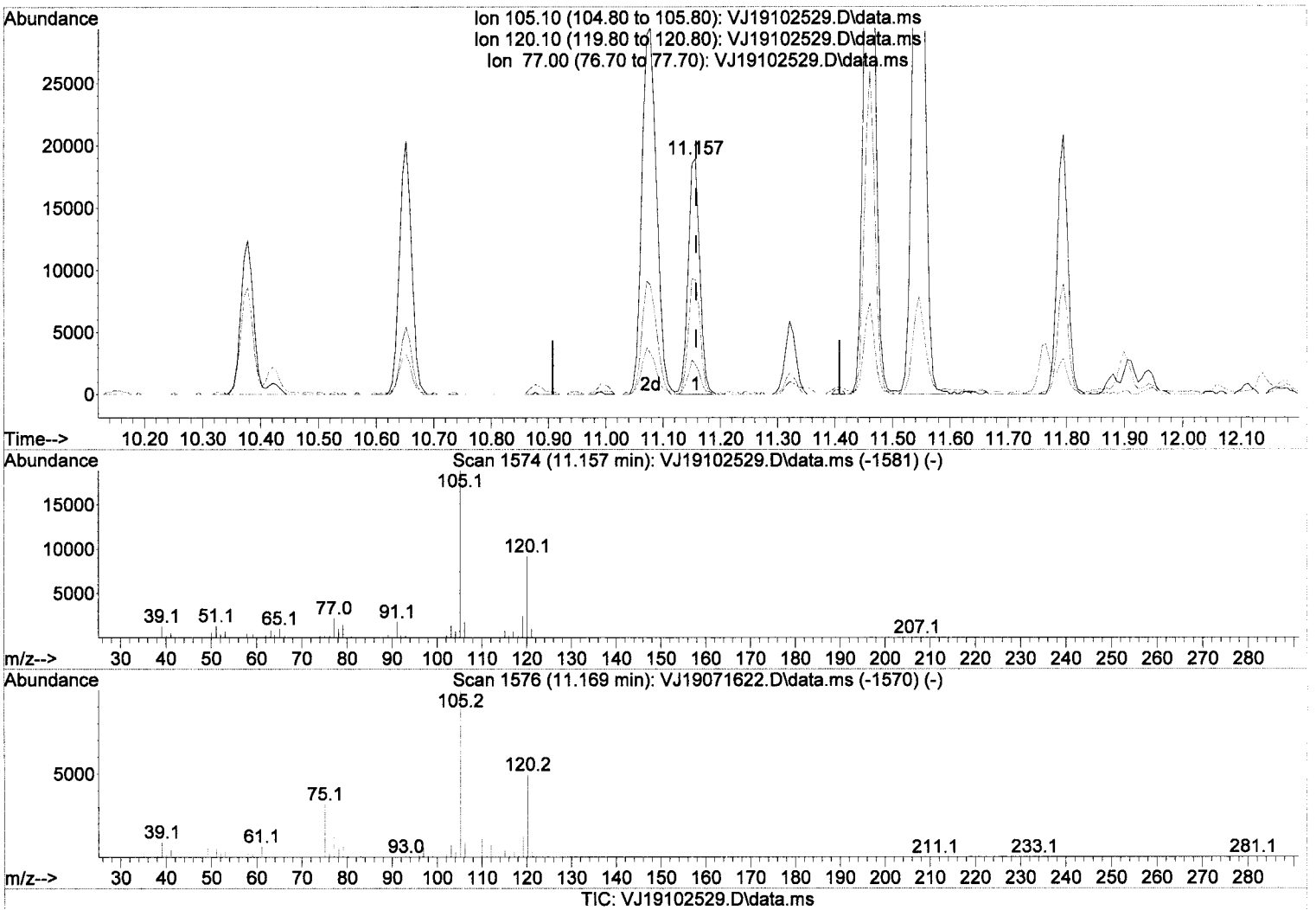
response 6312

Ion	Exp%	Act%
91.00	100.00	100.00
120.10	25.20	23.71
65.00	10.10	11.48
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102529.D
Acq On : 25 Oct 2019 10:23 pm
Operator : MM/IMA
Sample : A9J0950-04@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 28 10:28:01 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: VJ19102529.D\data.ms

(69) 1,3,5-Trimethylbenzene

11.157min (-0.000) 3.04 ug/L

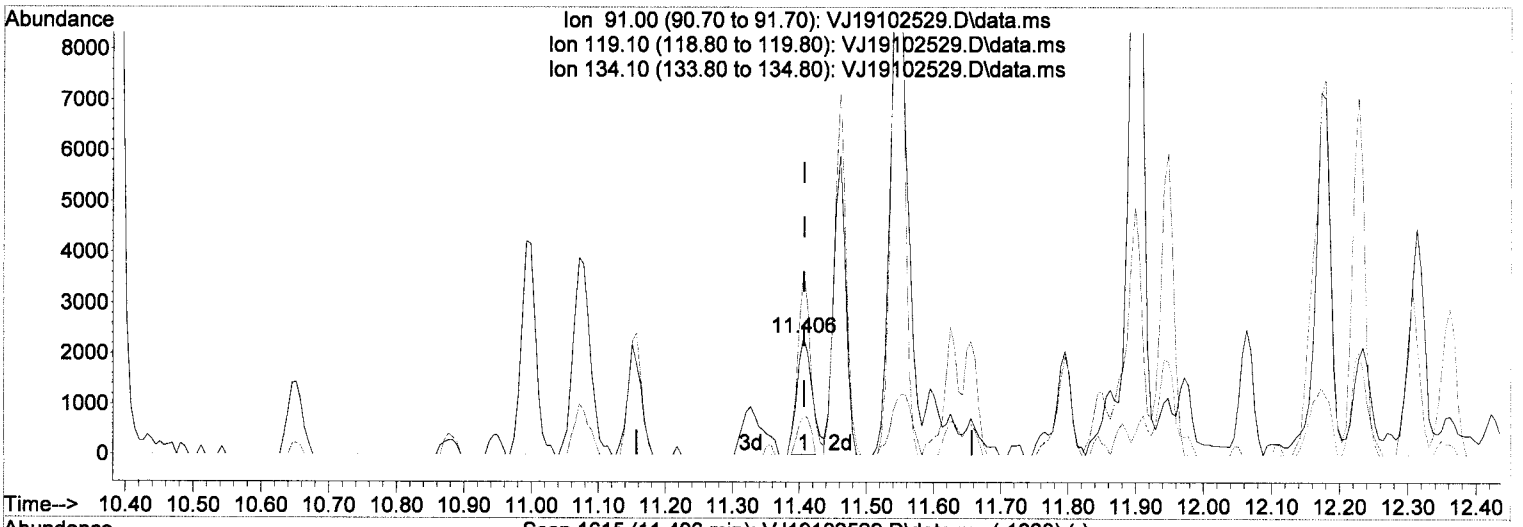
response 26688

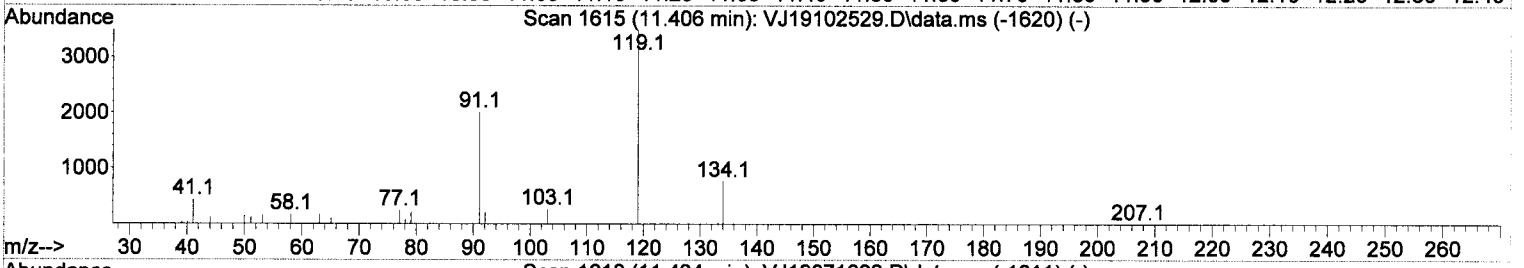
Ion	Exp%	Act%
105.10	100.00	100.00
120.10	52.80	48.59
77.00	19.20	11.64
0.00	0.00	0.00

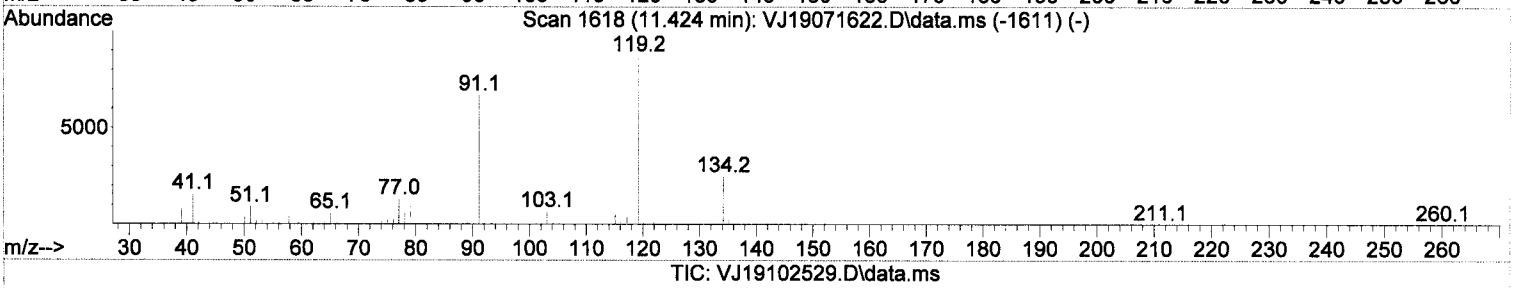
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102529.D
Acq On : 25 Oct 2019 10:23 pm
Operator : MM/IMA
Sample : A9J0950-04@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 28 10:28:01 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: VJ19102529.D\data.ms

(73) tert-Butylbenzene

11.406min (-0.000) 0.72 ug/L

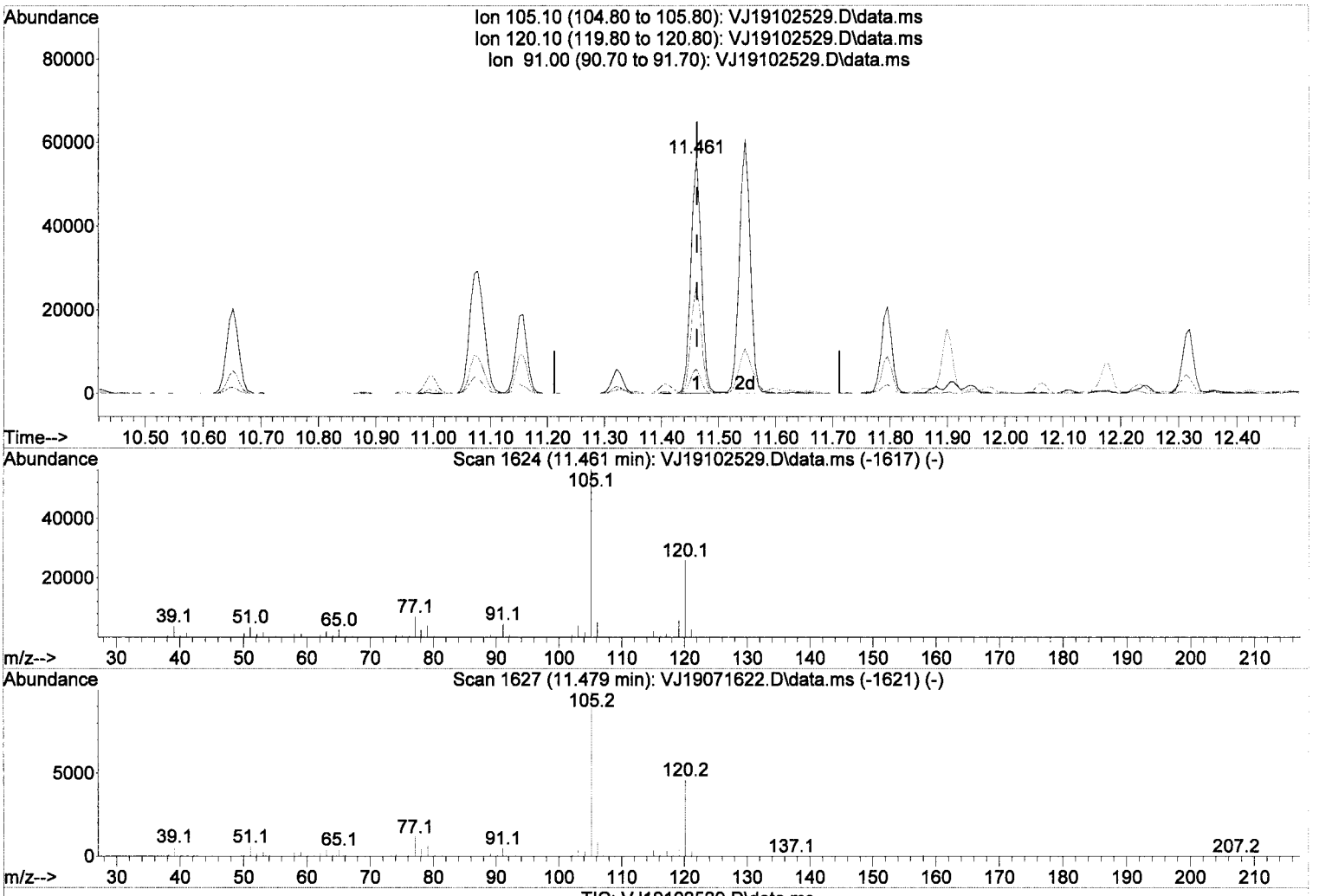
response 3746

Ion	Exp%	Act%
91.00	100.00	100.00
119.10	159.70	156.65
134.10	41.40	33.15
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102529.D
Acq On : 25 Oct 2019 10:23 pm
Operator : MM/IMA
Sample : A9J0950-04@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 28 10:28:01 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: VJ19102529.D\data.ms

(74) 1,2,4-Trimethylbenzene

11.461min (-0.000) 8.08 ug/L

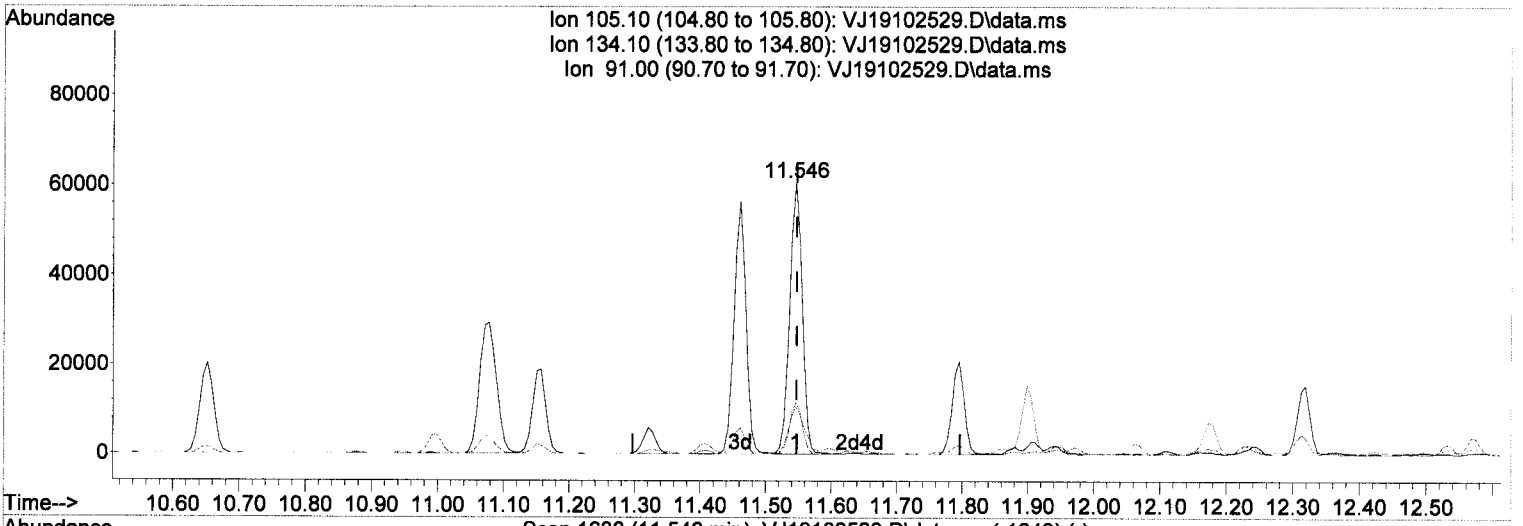
response 71655

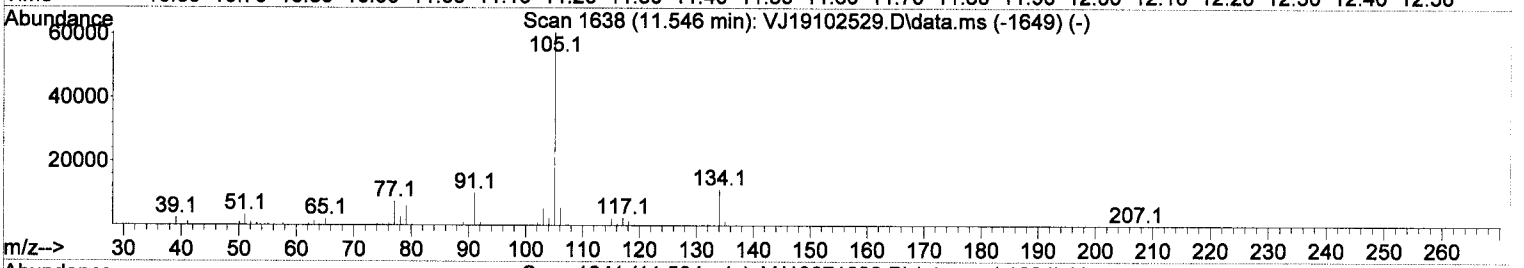
Ion	Exp%	Act%
105.10	100.00	100.00
120.10	48.60	46.01
91.00	9.80	10.45
0.00	0.00	0.00

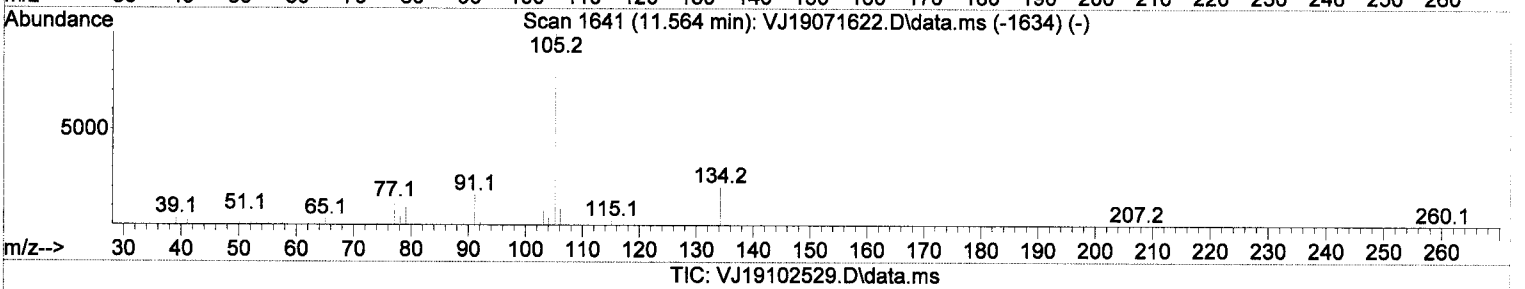
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102529.D
Acq On : 25 Oct 2019 10:23 pm
Operator : MM/IMA
Sample : A9J0950-04@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 28 10:28:01 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: VJ19102529.D\data.ms

(75) sec-Butylbenzene

11.546min (-0.000) 7.20 ug/L

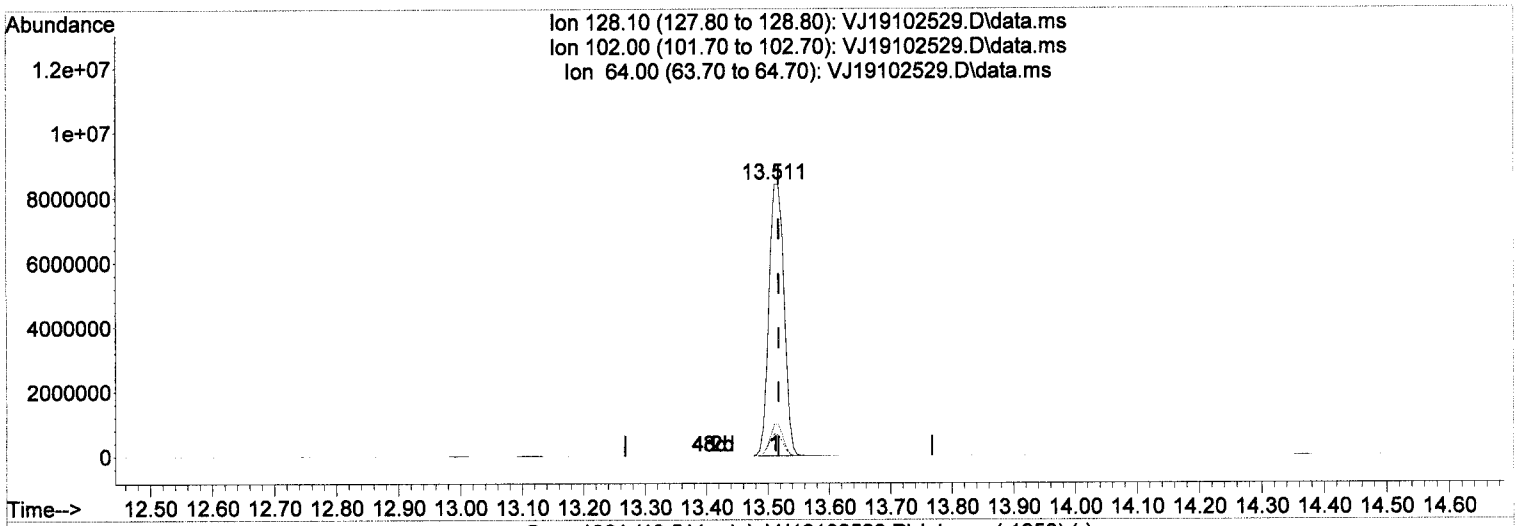
response 80826

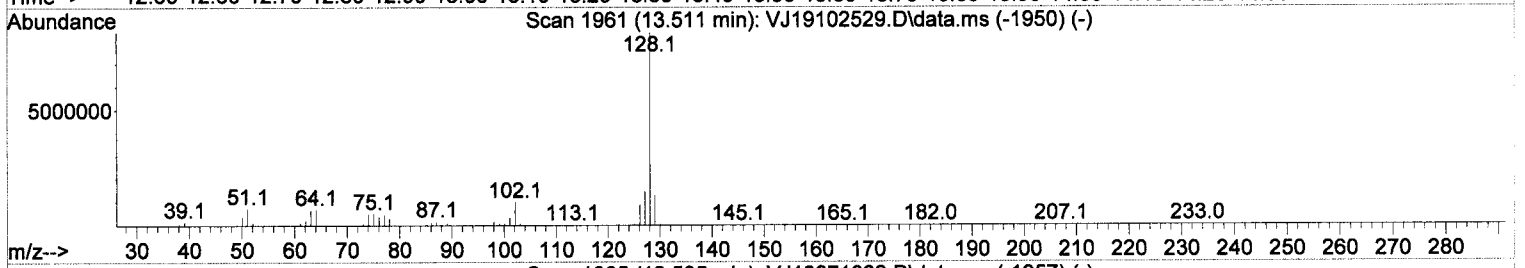
Ion	Exp%	Act%
105.10	100.00	100.00
134.10	21.70	19.10
91.00	14.90	17.60
0.00	0.00	0.00

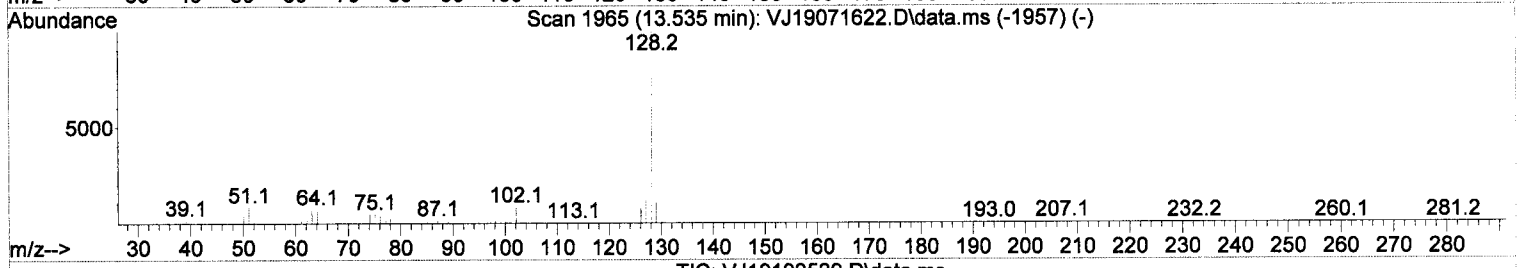
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102529.D
Acq On : 25 Oct 2019 10:23 pm
Operator : MM/IMA
Sample : A9J0950-04@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 28 10:28:01 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: VJ19102529.D\data.ms

(84) Naphthalene

13.511min (-0.006) 1469.38 ug/L

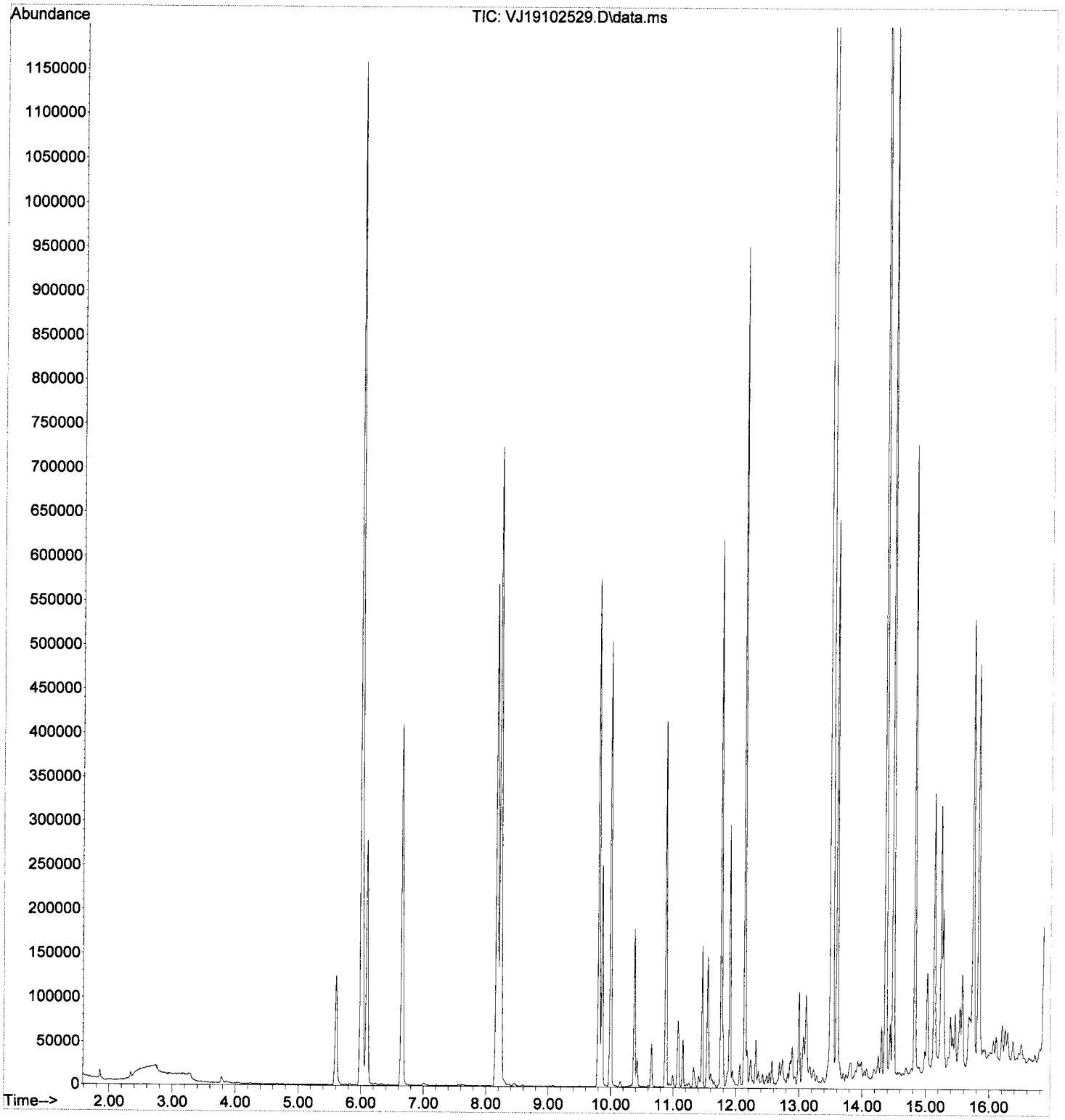
response 14365465

Ion	Exp%	Act%
128.10	100.00	100.00
102.00	7.90	11.85
64.00	6.30	8.10
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102529.D
Acq On : 25 Oct 2019 10:23 pm
Operator : MM/IMA
Sample : A9J0950-04@5000
Misc : 5000X ~5g/5mLx10uL/50mL 8260
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 28 10:28:01 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

Volatile Organic Compounds by EPA 5035A/8260C
Calibration Data

Sequence 9J23072 (Cal ID A9J2404) VOA-GCMS10

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9J23072**	Instrument:	**VOA-GCMS10**
Date:	**10/23/19 18:38**	Calibration:	**A9J2404**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J23072-IBL1	Soil	QC	QC			A19G118	
2	9J23072-TUN1	Soil	QC	QC			A19G118	
3	9J23072-ICB1	Soil	QC	QC			A19G118	
4	9J23072-CAL1	Soil	QC	QC			A19G118	A19J339
5	9J23072-CAL2	Soil	QC	QC			A19G118	A19J340
6	9J23072-CAL3	Soil	QC	QC			A19G118	A19J341
7	9J23072-CAL4	Soil	QC	QC			A19G118	A19J342
8	9J23072-CAL5	Soil	QC	QC			A19G118	A19J343
9	9J23072-CAL6	Soil	QC	QC			A19G118	A19J344
10	9J23072-CAL7	Soil	QC	QC			A19G118	A19J345
11	9J23072-CAL8	Soil	QC	QC			A19G118	A19J346
12	9J23072-CAL9	Soil	QC	QC			A19G118	A19J347
13	9J23072-IBL2	Soil	QC	QC			A19G118	
14	9J23072-CALA	Soil	QC	QC			A19G118	A19J348
15	9J23072-IBL3	Soil	QC	QC			A19G118	
16	9J23072-CALB	Soil	QC	QC			A19G118	A19J349
17	9J23072-IBL4	Soil	QC	QC			A19G118	
18	9J23072-IBL5	Soil	QC	QC			A19G118	
19	9J23072-ICV1	Soil	QC	QC			A19G118	A19J131
20	9J23072-ICV2	Soil	QC	QC			A19G118	A19E195
21	9J23072-IBL6	Soil	QC	QC			A19G118	
22	9J23072-TUN2	Soil	QC	QC			A19G118	
23	9J23072-IBL7	Soil	QC	QC			A19G118	
24	9J23072-ICB2	Soil	QC	QC			A19G118	
25	9J23072-CALC	Soil	QC	QC			A19G118	A19J269
26	9J23072-CALD	Soil	QC	QC			A19G118	A19J270
27	9J23072-CALE	Soil	QC	QC			A19G118	A19J271
28	9J23072-CALF	Soil	QC	QC			A19G118	A19J272
29	9J23072-CALG	Soil	QC	QC			A19G118	A19J273
30	9J23072-CALH	Soil	QC	QC			A19G118	A19J274
31	9J23072-CALI	Soil	QC	QC			A19G118	A19J275
32	9J23072-CALJ	Soil	QC	QC			A19G118	A19J276
33	9J23072-IBL8	Soil	QC	QC			A19G118	
34	9J23072-IBL9	Soil	QC	QC			A19G118	
35	9J23072-ICV3	Soil	QC	QC			A19G118	A19G350

Data Entered By: 10/24/19

Data Reviewed By: 10/24/19

Comments: Iodomethane EOS

Calibration Status Report VOA-GCMS10

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

#	ID	Conc	ISTD Conc	Path\File
1	1	0	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102323.D
2	2	0	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102324.D
3	3	0	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102325.D
4	4	1	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102326.D
5	5	2	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102327.D
6	6	5	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102328.D
7	7	10	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102329.D
8	8	20	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102330.D
9	9	50	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102331.D
10	10	100	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102333.D
11	1a	200	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102335.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Oct 24 08:55 2019	Oct 24 08:19 2019	23 Oct 2019 10:18 pm
2	2	Oct 24 08:55 2019	Oct 24 08:22 2019	23 Oct 2019 10:45 pm
3	3	Oct 24 08:55 2019	Oct 24 08:24 2019	23 Oct 2019 11:12 pm
4	4	Oct 24 08:55 2019	Oct 24 08:25 2019	23 Oct 2019 11:38 pm
5	5	Oct 24 08:55 2019	Oct 24 08:27 2019	24 Oct 2019 12:05 am
6	6	Oct 24 08:55 2019	Oct 24 08:29 2019	24 Oct 2019 12:32 am
7	7	Oct 24 08:55 2019	Oct 24 08:31 2019	24 Oct 2019 12:59 am
8	8	Oct 24 08:55 2019	Oct 24 08:33 2019	24 Oct 2019 1:26 am
9	9	Oct 24 08:55 2019	Oct 24 08:42 2019	24 Oct 2019 1:53 am
10	10	Oct 24 08:55 2019	Oct 24 08:51 2019	24 Oct 2019 2:46 am
11	1a	Oct 24 08:55 2019	Oct 24 08:54 2019	24 Oct 2019 3:40 am

VJ191024S.M Thu Oct 24 09:44:02 2019

A9J2404

Response Factor Report VOA-GCMS10

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Calibration Files
1 =VJ19102323.D 2 =VJ19102324.D 3 =VJ19102325.D 4 =VJ19102326.D 5 =VJ19102327.D 6 =VJ19102328.D
7 =VJ19102329.D 8 =VJ19102330.D 9 =VJ19102331.D 10 =VJ19102333.D 1a =VJ19102335.D

		Compound	1	2	3	4	5	6	7	8	9	10	1a	Avg	%RSD
1)	I	Pentafluorobenzene...	ISTD												
2)		Dichlorodifluo...				1.102	1.175	1.126	1.116	1.135	1.254	1.178	1.171	1.157	4.20
3)	P	Chloromethane					2.359	2.024	1.892	1.940	1.916	1.806	1.789	1.961	9.83
4)	C	Vinyl Chloride			1.488	1.644	1.648	1.477	1.463	1.538	1.483	1.428	1.444	1.513	5.40
5)		Bromomethane	1.476	0.837	0.453	0.250	0.137	0.095	0.076	0.068	0.060	0.056	0.059	0.324	E1 139.32
6)		Chloroethane					0.147	0.140	0.140	0.164	0.216	0.214	0.211	0.176	20.51
7)		Trichlorofluor...				0.279	0.330	0.344	0.356	0.336	0.368	0.352	0.336	0.338	7.88
8)		Ethanol				0.106	0.081	0.058	0.050	0.052	0.046	0.041		0.062	37.93
9)	C	1,1-Dichloroet...			2.025	1.927	1.952	1.828	1.836	1.871	1.729	1.802	1.773	1.860	5.03
10)		Carbon Disulfide	4.823	3.939	3.347	3.250	3.390	3.078	3.114	3.206	3.192	3.402	3.431	3.470	14.56
11)		Freon 113			1.020	1.166	1.217	1.119	1.140	1.148	1.081	1.141	1.140	1.130	4.85
12)		Iodomethane					0.411	0.324	0.331	0.381	0.448			0.379	13.91
13)		Methylene Chlo...	1.126	0.625	0.364	0.205	0.164	0.131	0.122	0.124	0.113	0.114	0.112	0.291	E1 109.50
14)		Acetone						0.846	0.770	0.820	0.718	0.701	0.723	0.763	7.78
15)		t-1,2-Dichloro...		1.876	1.991	2.014	2.086	1.969	1.960	1.963	1.822	1.894	1.872	1.945	4.05
16)		n-Hexane				0.241	0.300	0.282	0.303	0.295	0.299	0.316	0.320	0.295	8.37
17)		Methyl-tert-bu...				4.762	4.808	4.602	4.432	4.700	4.469	4.642	4.802	4.652	3.10
18)		tert-Butanol (...			0.384	0.378	0.410	0.370	0.381	0.436	0.403	0.377		0.393	5.68
19)		Diisopropyl et...			4.795	4.870	4.832	4.621	4.683	4.975	4.866	4.564		4.776	2.93
20)	P	1,1-Dichloroet...		1.892	1.955	2.173	2.237	2.134	2.067	2.135	1.976	1.987	1.967	2.052	5.51
21)		Acrylonitrile			0.548	0.869	0.922	0.890	0.885	0.968	0.892	0.889	0.910	0.864	14.09
22)		Ethyl-tert-but...				4.506	4.401	4.129	4.224	4.434	4.321	4.103		4.303	3.61
23)		c-1,2-Dichloro...			2.010	1.993	2.018	1.897	1.884	1.949	1.807	1.866	1.843	1.918	4.01
24)		2,2-Dichloropr...		2.000	2.199	1.997	2.031	1.873	1.888	1.917	1.805	1.869	1.849	1.943	5.98
25)		Bromochloromet...			1.082	1.253	1.262	1.176	1.160	1.220	1.113	1.134	1.112	1.168	5.55
26)	C	Chloroform		1.944	2.034	2.275	2.367	2.242	2.254	2.290	2.160	2.201	2.163	2.193	5.73
27)		Carbon Tetrach...		0.964	1.252	1.477	1.511	1.449	1.477	1.565	1.509	1.612	1.671	1.449	14.03
28)		Tetrahydrofuran				1.298	1.149	0.966	0.925	0.987	0.906	0.928	0.958	1.015	13.52
29)		1,1,1-Trichlor...		1.803	1.789	1.984	2.167	2.025	2.020	2.125	1.990	2.124	2.130	2.016	6.58
30)	S	Dibromofluorom...	0.774	0.782	0.789	0.789	0.771	0.779	0.791	0.790	0.810	0.800	0.816	0.790	1.79
31)		1,1-Dichloropr...			1.863	1.950	2.038	1.889	1.926	2.004	1.899	2.027	2.037	1.959	3.52
32)		2-Butanone (MEK)				1.621	1.439	1.273	1.246	1.348	1.249	1.268	1.307	1.344	9.59
33)		Benzene	7.293	6.724	6.328	6.338	6.677	6.286	6.268	6.398	5.960	6.183	6.174	6.421	5.63
34)		tert-Amyl meth...				4.666	4.529	4.116	3.928	4.070	3.921	3.816		4.150	7.81
35)		1,2-Dichloroet...		1.863	1.813	2.037	2.151	1.992	1.990	2.070	1.931	1.974	1.955	1.978	4.93
36)		iso-Butyl Alcohol				0.135	0.157	0.137	0.142	0.164	0.157	0.165	0.172	0.154	9.10
37)	S	1,4-Difluorobe...	3.054	3.112	3.060	3.077	3.052	3.067	3.061	3.038	3.083	3.081	3.151	3.076	1.03
38)		Trichloroethen...		1.001	1.266	1.292	1.348	1.294	1.281	1.325	1.255	1.331	1.365	1.276	8.06
39)		tert-Amyl ethy...			2.124	2.682	3.174	2.894	2.921	3.107	3.130	3.026		2.882	11.98
40)		Dibromomethane			0.758	0.779	0.845	0.810	0.803	0.843	0.798	0.814	0.803	0.806	3.43

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41)	C	1,2-Dichloropr...			1.577	1.560	1.645	1.575	1.584	1.621	1.530	1.594	1.615	1.589	2.17
42)		Bromodichlorom...		1.148	1.346	1.407	1.529	1.505	1.535	1.691	1.672	1.820	1.875	1.553	14.23
43)		Chlorobenzene-d5 (I)	----------	ISTD	----------										
44)		c-1,3-Dichloro...		0.568	0.665	0.668	0.740	0.729	0.742	0.798	0.801	0.865	0.876	0.745	12.78
45)	S	Toluene-d8 (S)	1.398	1.385	1.395	1.399	1.410	1.392	1.399	1.384	1.399	1.397	1.379	1.394	0.64
46)	C	Toluene	2.571	2.423	2.356	2.326	2.441	2.246	2.279	2.349	2.194	2.282	2.237	2.337	4.66
47)		Tetrachloroeth...		0.333	0.398	0.431	0.458	0.440	0.448	0.459	0.433	0.468	0.468	0.434	9.46
48)		4-Methyl-2-Pen...			0.726	0.588	0.676	0.662	0.705	0.798	0.775	0.807	0.781	0.724	10.15
49)		t-1,3-Dichloro...		0.552	0.688	0.618	0.695	0.697	0.750	0.808	0.787	0.817	0.813	0.722	12.37
50)		1,1,2-Trichlor...		0.397	0.461	0.460	0.513	0.491	0.488	0.510	0.472	0.480	0.469	0.474	6.91
51)		Dibromochlorom...				0.304	0.356	0.352	0.364	0.397	0.404	0.436	0.450	0.383	12.61
52)		1,3-Dichloropr...		0.810	0.849	0.878	0.980	0.905	0.904	0.943	0.878	0.890	0.871	0.891	5.29
53)		1,2-Dibromoeth...		0.406	0.390	0.412	0.462	0.453	0.465	0.497	0.481	0.492	0.487	0.454	8.56
54)		2-Hexanone					0.465	0.442	0.490	0.585	0.574	0.612	0.606	0.539	13.20
55)	P	Chlorobenzene	1.321	1.354	1.368	1.311	1.445	1.325	1.325	1.363	1.254	1.318	1.277	1.333	3.80
56)	C	Ethylbenzene	2.101	2.084	2.174	2.152	2.319	2.255	2.332	2.430	2.319	2.433	2.379	2.271	5.56
57)		1,1,1,2-Tetrac...			0.352	0.377	0.399	0.405	0.410	0.436	0.430	0.455	0.451	0.413	8.29
58)		m,p-Xylenes (2)	1.456	1.462	1.402	1.457	1.582	1.601	1.693	1.777	1.715	1.833	1.807	1.617	9.72
59)		o-Xylene	1.375	1.371	1.299	1.424	1.516	1.495	1.585	1.704	1.673	1.790	1.746	1.543	10.87
60)		Styrene		0.850	0.776	0.770	0.855	0.913	1.022	1.148	1.215	1.362	1.362	1.027	22.43
61)	P	Bromoform			0.152	0.177	0.204	0.206	0.226	0.261	0.277	0.308	0.308	0.235	23.91
62)		Isopropylbenzene	1.515	1.608	1.582	1.678	1.796	1.801	1.958	2.093	2.072	2.214	2.139	1.860	13.31
63)	I	1,4-Dichlorobenzen...	----------	ISTD	----------										
64)	S	4-Bromofluorob...	0.739	0.728	0.729	0.730	0.730	0.728	0.740	0.716	0.715	0.695	0.690	0.722	2.28
65)		Bromobenzene		0.951	1.003	1.030	1.144	1.044	1.084	1.062	1.006	1.012	1.010	1.035	5.11
66)		n-Propylbenzene	5.038	5.253	5.136	5.237	5.607	5.395	5.736	5.728	5.558	5.670	5.631	5.454	4.61
67)	P	1,1,2,2-Tetrac...		1.514	1.407	1.544	1.795	1.603	1.659	1.676	1.556	1.525	1.513	1.579	6.87
68)		2-Chlorotoluene		0.828	0.952	0.968	0.987	0.944	1.019	1.024	0.979	1.017	1.012	0.973	5.99
69)		1,3,5-Trimethy...	2.560	2.938	2.907	3.006	3.372	3.354	3.668	3.762	3.628	3.744	3.780	3.338	12.70
70)		1,2,3-Trichlor...			0.446	0.489	0.569	0.496	0.535	0.536	0.498	0.496	0.498	0.507	6.92
71)		t-1,4-Dichloro...				0.161	0.175	0.194	0.200	0.219	0.223	0.228	0.228	0.203	12.54
72)		4-Chlorotoluene		2.999	2.756	2.952	3.283	3.136	3.337	3.376	3.209	3.287	3.258	3.159	6.28
73)		tert-Butylbenzene		1.799	1.642	1.804	1.952	1.987	2.107	2.139	2.092	2.142	2.129	1.979	8.93
74)		1,2,4-Trimethy...	3.161	2.825	2.810	2.979	3.419	3.360	3.740	3.758	3.621	3.721	3.695	3.372	11.06
75)		sec-Butylbenzene		3.687	3.574	3.668	4.164	4.270	4.713	4.655	4.593	4.697	4.654	4.268	10.98
76)		4-Isopropyltol...		2.786	2.652	2.651	3.100	3.135	3.511	3.595	3.617	3.740	3.741	3.253	13.63
77)		1,3-Dichlorobe...	1.581	1.824	1.861	1.881	2.057	1.913	1.971	1.959	1.836	1.864	1.848	1.872	6.38
78)		1,4-Dichlorobe...	2.177	1.960	2.114	2.019	2.170	1.943	1.977	1.958	1.837	1.883	1.856	1.990	5.96
79)		n-Butylbenzene		2.999	2.871	2.856	3.056	3.027	3.276	3.328	3.311	3.431	3.387	3.154	6.84
80)		1,2-Dichlorobe...	1.517	1.641	1.681	1.703	1.868	1.744	1.796	1.804	1.682	1.715	1.721	1.716	5.40
81)		1,2-Dibromo-3-...					0.274	0.242	0.272	0.298	0.307	0.334	0.366	0.299	13.90
82)		Hexachlorobuta...			0.164	0.184	0.217	0.239	0.237	0.230	0.231	0.226	0.224	0.217	11.77
83)		1,2,4-Trichlor...		0.942	0.951	0.992	1.094	0.983	1.059	1.095	1.073	1.075	1.098	1.036	6.02
84)		Naphthalene		3.526	3.368	3.115	3.558	3.260	3.645	4.050	4.086	4.181	4.389	3.718	11.60
85)		1,2,3-Trichlor...		0.985	0.871	0.893	1.118	0.956	1.036	1.068	1.039	1.040	1.079	1.008	8.02

(#) = Out of Range

Compound List Report VOA-GCMS10

Method Path : C:\msdchem\1\methods\
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Last Update : Thu Oct 24 08:55:09 2019
Response Via : Initial Calibration

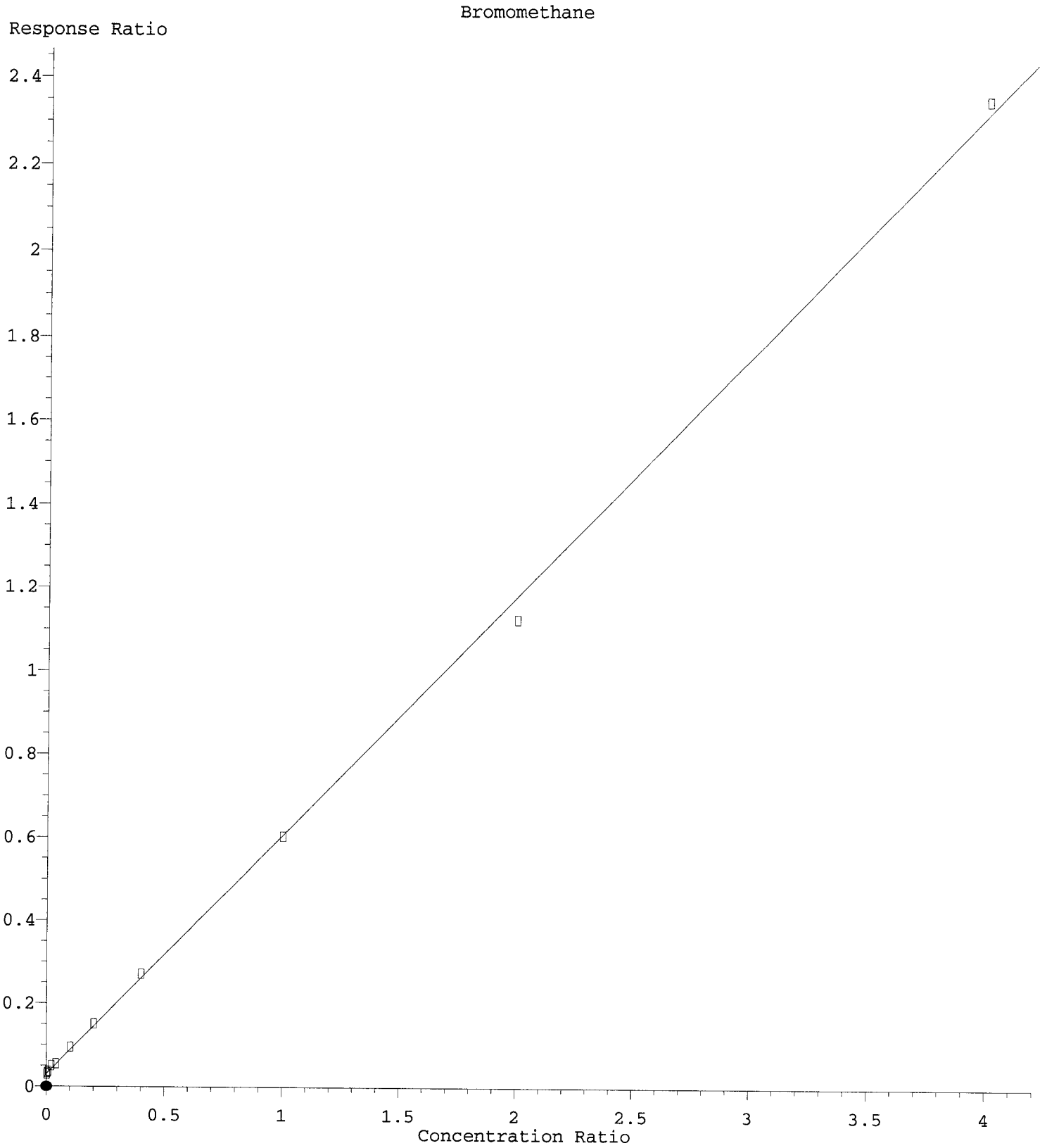
Total Cpnds : 85

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene (I)	99	6.089	1.000	A	2	A	R
2		Dichlorodifluoromethane	85	1.691	0.278	A	2	A	R
3	P	Chloromethane	50	1.897	0.312	A	2	A	R
4	C	Vinyl Chloride	62	1.995	0.328	A	2	A	R
5		Bromomethane	96	2.347	0.385	Q	2	A	R
6		Chloroethane	64	2.469	0.405	Q	2	A	R
7		Trichlorofluoromethane	101	2.597	0.427	A	2	A	R
8		Ethanol	45	3.315	0.544	Q	1	A	R
9	C	1,1-Dichloroethene	61	3.139	0.515	A	2	A	R
10		Carbon Disulfide	76	3.150	0.517	A	2	A	R
11		Freon 113	101	3.200	0.525	A	2	A	R
12		Iodomethane	142	3.290	0.540	A	2	A	R
13		Methylene Chloride	84	3.777	0.620	Q	2	A	R
14		Acetone	43	3.868	0.635	A	1	A	R
15		t-1,2-Dichloroethene	61	3.948	0.648	A	2	A	R
16		n-Hexane	86	4.045	0.664	A	3	A	R
17		Methyl-tert-butyl-ether	73	4.106	0.674	A	3	A	R
18		tert-Butanol (TBA)	59	4.264	0.700	A	1	A	R
19		Diisopropyl ether (DIPE)	45	4.507	0.740	A	2	A	R
20	P	1,1-Dichloroethane	63	4.580	0.752	A	2	A	R
21		Acrylonitrile	53	4.635	0.761	A	2	A	R
22		Ethyl-tert-butyl ether (ETBE)	59	4.872	0.800	A	2	A	R
23		c-1,2-Dichloroethene	61	5.128	0.842	A	2	A	R
24		2,2-Dichloropropane	77	5.243	0.861	A	2	A	R
25		Bromochloromethane	49	5.328	0.875	A	2	A	R
26	C	Chloroform	83	5.414	0.889	A	2	A	R
27		Carbon Tetrachloride	117	5.554	0.912	A	2	A	R
28		Tetrahydrofuran	42	5.590	0.918	A	2	A	R
29		1,1,1-Trichloroethane	97	5.621	0.923	A	2	A	R
30	S	Dibromofluoromethane (S)	111	5.597	0.919	A	2	A	R
31		1,1-Dichloropropene	75	5.749	0.944	A	2	A	R
32		2-Butanone (MEK)	43	5.736	0.942	A	2	A	R
33		Benzene	78	6.004	0.986	A	2	A	R
34		tert-Amyl methyl ether (TAME)	73	6.156	1.011	A	2	A	R
35		1,2-Dichloroethane (EDC)	62	6.205	1.019	A	2	A	R
36		iso-Butyl Alcohol	43	6.290	1.033	A	2	A	R
37	S	1,4-Difluorobenzene (S)	114	6.655	1.093	A	2	A	R
38		Trichloroethene (TCE)	130	6.624	1.088	A	2	A	R
39		tert-Amyl ethyl ether (TAEE)	59	6.904	1.134	A	2	A	R
40		Dibromomethane	93	7.062	1.160	A	2	A	R
41	C	1,2-Dichloropropane	63	7.172	1.178	A	2	A	R
42		Bromodichloromethane	83	7.251	1.191	A	2	A	R
43	I	Chlorobenzene-d5 (I)	117	9.806	1.000	A	2	A	R
44		c-1,3-Dichloropropene	75	7.950	0.811	A	2	A	R
45	S	Toluene-d8 (S)	98	8.170	0.833	A	2	A	R
46	C	Toluene	91	8.231	0.839	A	2	A	R
47		Tetrachloroethene (PCE)	166	8.680	0.885	A	2	A	R
48		4-Methyl-2-Pentanone (MIBK)	43	8.669	0.884	A	2	A	R
49		t-1,3-Dichloropropene	75	8.699	0.887	A	2	A	R
50		1,1,2-Trichloroethane	97	8.875	0.905	A	2	A	R
51		Dibromochloromethane	129	9.064	0.924	A	2	A	R
52		1,3-Dichloropropane	76	9.162	0.934	A	2	A	R
53		1,2-Dibromoethane (EDB)	107	9.301	0.948	A	2	A	R
54		2-Hexanone	43	9.309	0.949	A	2	A	R

55	P	Chlorobenzene	112	9.825	1.002	A	2	A	R
56	C	Ethylbenzene	91	9.861	1.006	A	2	A	R
57		1,1,1,2-Tetrachloroethane	131	9.886	1.008	A	2	A	R
58		m,p-Xylenes (2)	91	9.995	1.019	A	2	A	R
59		o-Xylene	91	10.378	1.058	A	2	A	R
60		Styrene	104	10.420	1.063	Q	2	A	R
61	P	Bromoform	173	10.439	1.065	Q	2	A	R
62		Isopropylbenzene	105	10.652	1.086	A	2	A	R
63	I	1,4-Dichlorobenzene-d4 (I)	152	11.765	1.000	A	2	A	R
64	S	4-Bromofluorobenzene (S)	174	10.883	0.925	A	2	A	R
65		Bromobenzene	156	10.962	0.932	A	2	A	R
66		n-Propylbenzene	91	10.999	0.935	A	2	A	R
67	P	1,1,2,2-Tetrachloroethane	83	11.047	0.939	A	2	A	R
68		2-Chlorotoluene	126	11.120	0.945	A	2	A	R
69		1,3,5-Trimethylbenzene	105	11.157	0.948	A	2	A	R
70		1,2,3-Trichloropropane	110	11.150	0.948	A	2	A	R
71		t-1,4-Dichloro-2-butene	88	11.187	0.951	A	3	A	R
72		4-Chlorotoluene	91	11.248	0.956	A	2	A	R
73		tert-Butylbenzene	91	11.406	0.969	A	2	A	R
74		1,2,4-Trimethylbenzene	105	11.461	0.974	A	2	A	R
75		sec-Butylbenzene	105	11.546	0.981	A	2	A	R
76		4-Isopropyltoluene	119	11.656	0.991	A	2	A	R
77		1,3-Dichlorobenzene	146	11.710	0.995	A	2	A	R
78		1,4-Dichlorobenzene	146	11.778	1.001	A	2	A	R
79		n-Butylbenzene	91	11.972	1.018	A	2	A	R
80		1,2-Dichlorobenzene	146	12.093	1.028	A	2	A	R
81		1,2-Dibromo-3-Chloropropane	157	12.696	1.079	A	2	A	R
82		Hexachlorobutadiene	223	13.219	1.124	A	3	A	R
83		1,2,4-Trichlorobenzene	180	13.243	1.126	A	2	A	R
84		Naphthalene	128	13.517	1.149	A	2	A	R
85		1,2,3-Trichlorobenzene	180	13.675	1.162	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

VJ191024S.M Thu Oct 24 09:43:58 2019

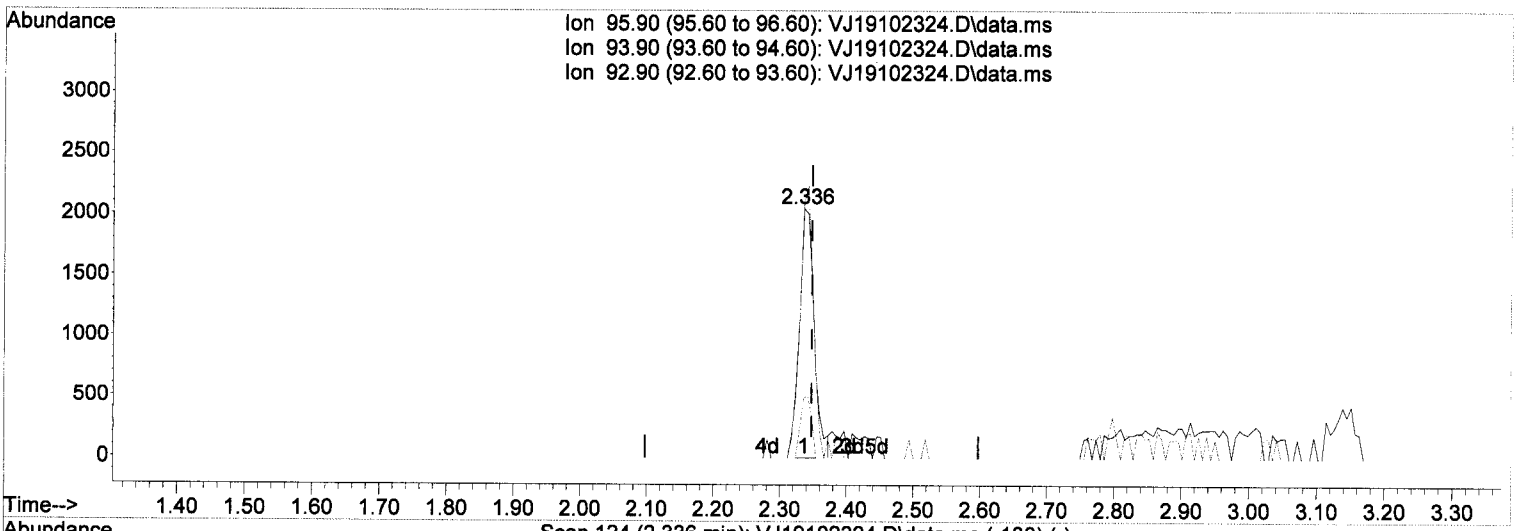


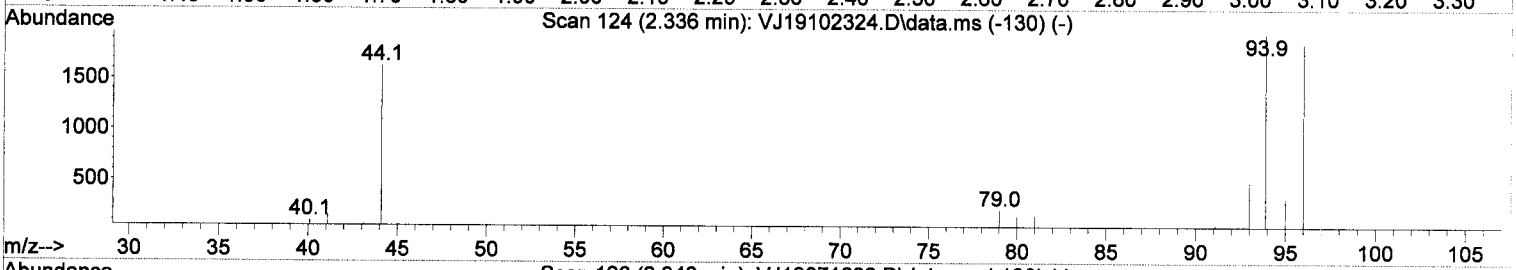
R = -1.25e-003 A*A + 5.77e-001 A + 3.02e-002
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\v191024s.M
Calibration Table Last Updated: Thu Oct 24 08:55:53 2019

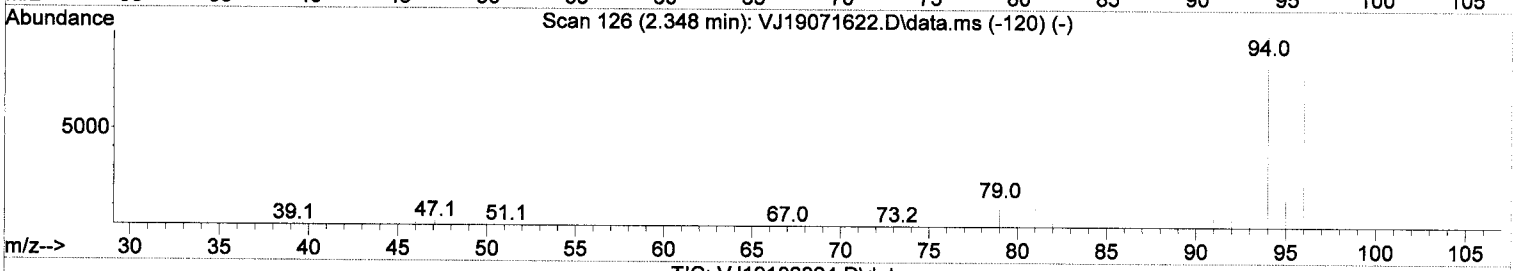
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 09:33:05 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







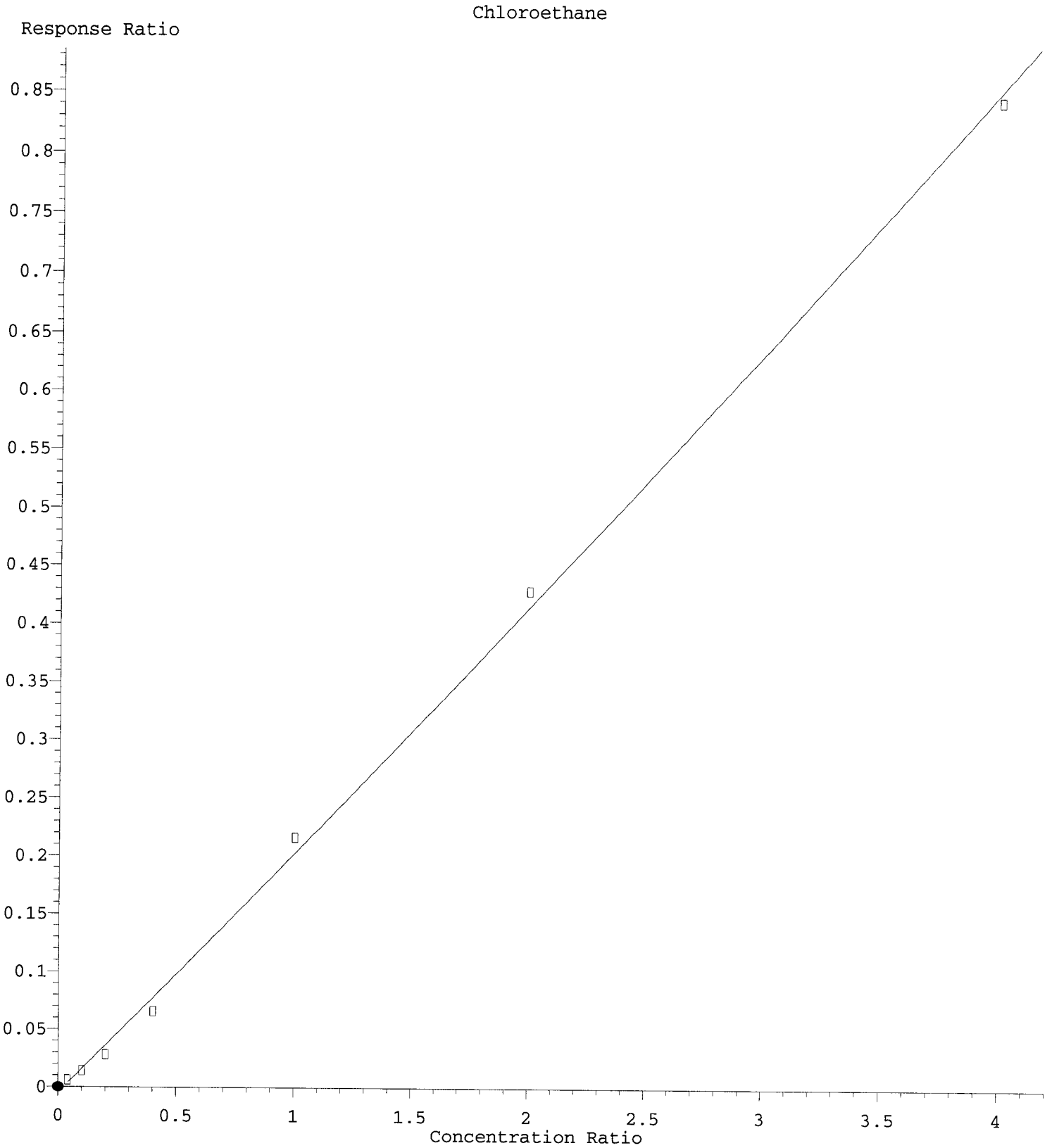
TIC: VJ19102324.D\data.ms

(5) Bromomethane

2.336min (-0.011) 0.28 ug/L

response 3184

Ion	Exp%	Act%
95.90	100.00	100.00
93.90	106.80	103.03
92.90	22.80	24.01
0.00	0.00	0.00

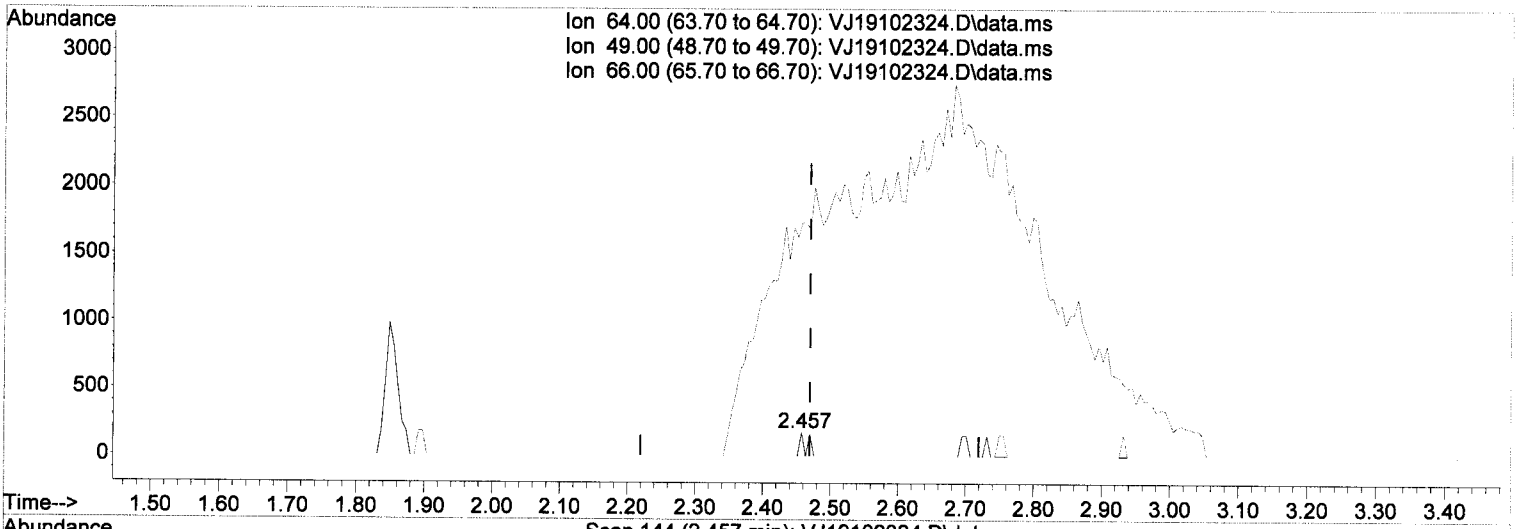


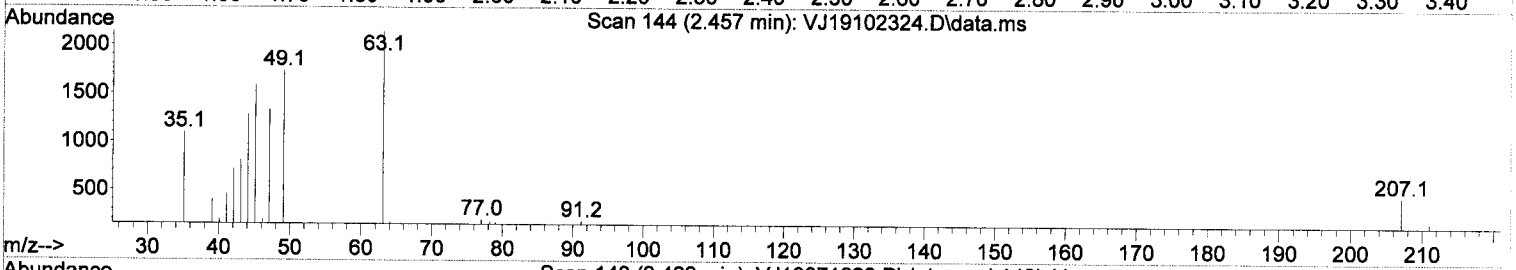
R = 2.15e-003 A*A + 2.06e-001 A - 5.03e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\v191024s.M
Calibration Table Last Updated: Thu Oct 24 08:56:18 2019

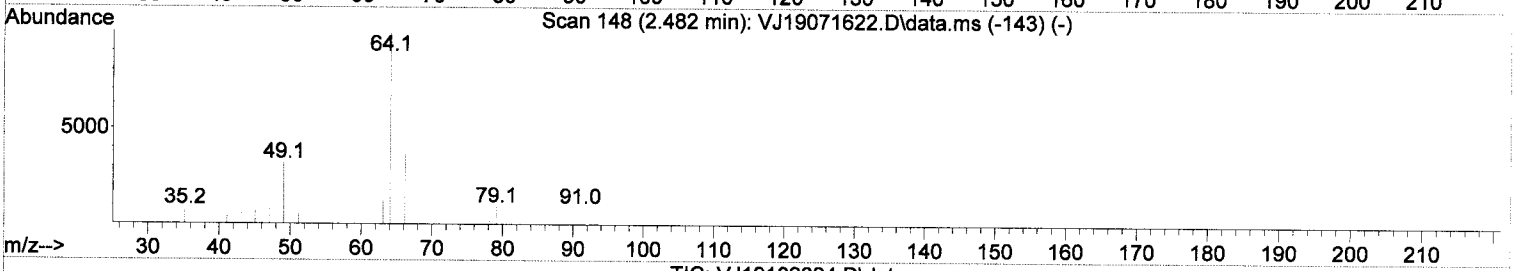
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 09:33:05 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







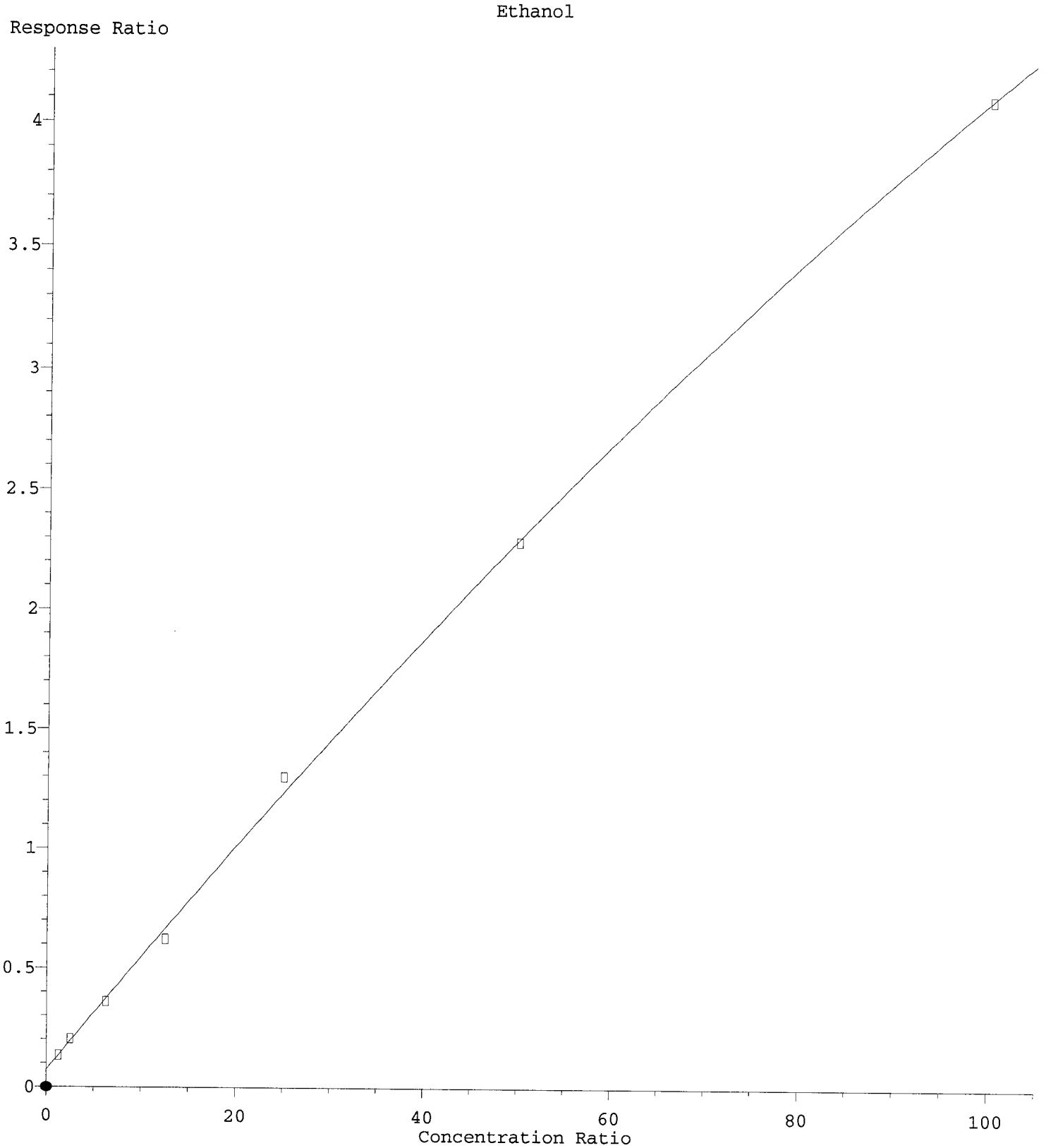
TIC: VJ19102324.D\data.ms

(6) Chloroethane

2.457min (-0.012) 1.53 ug/L m

response 122

Ion	Exp%	Act%
64.00	100.00	100.00
49.00	24.30	995.98#
66.00	31.30	0.00#
0.00	0.00	0.00

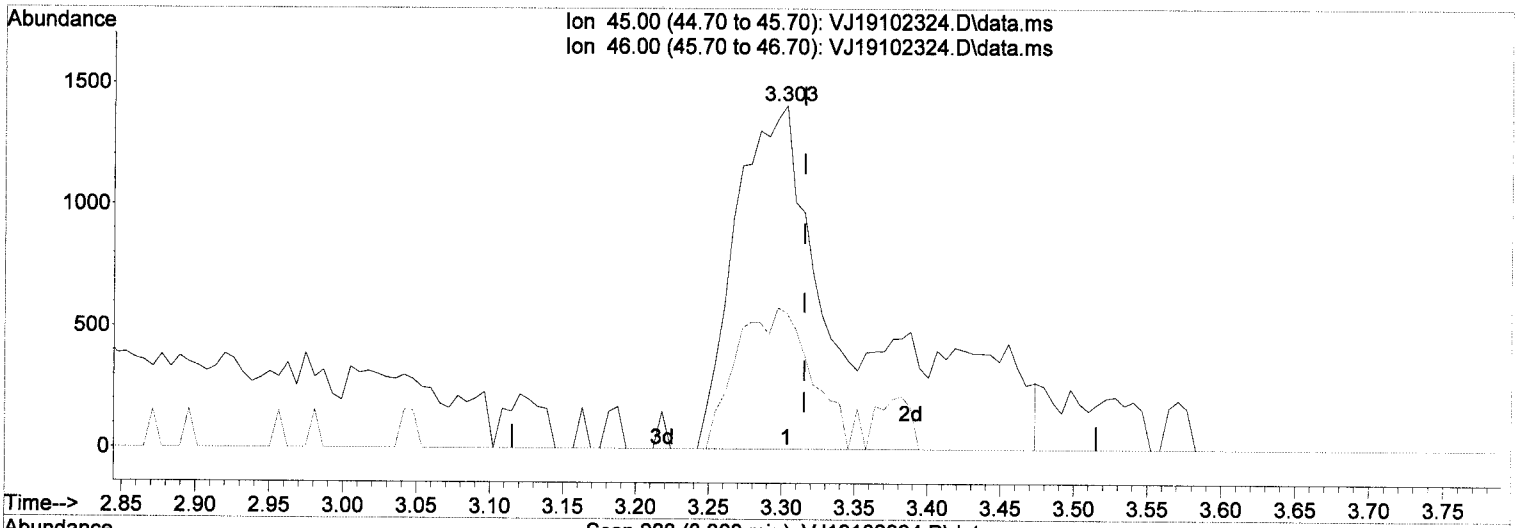


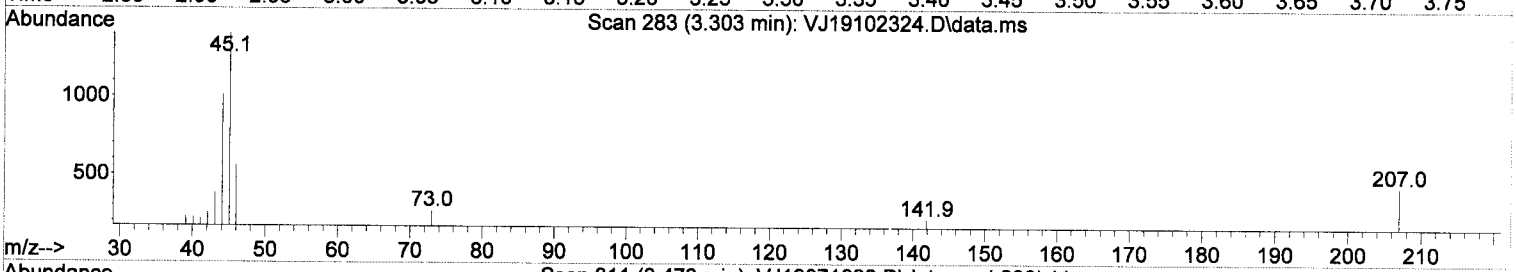
R = -8.41e-005 A*A + 4.86e-002 A + 7.24e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\Va1910245.M 12/26/19 Anchor QEA Ltr - Gasoline RD DG 2019 -4c. Waste Characterization Page 419 of 1938
Calibration Table Last Updated: Thu Oct 24 08:56:39 2019

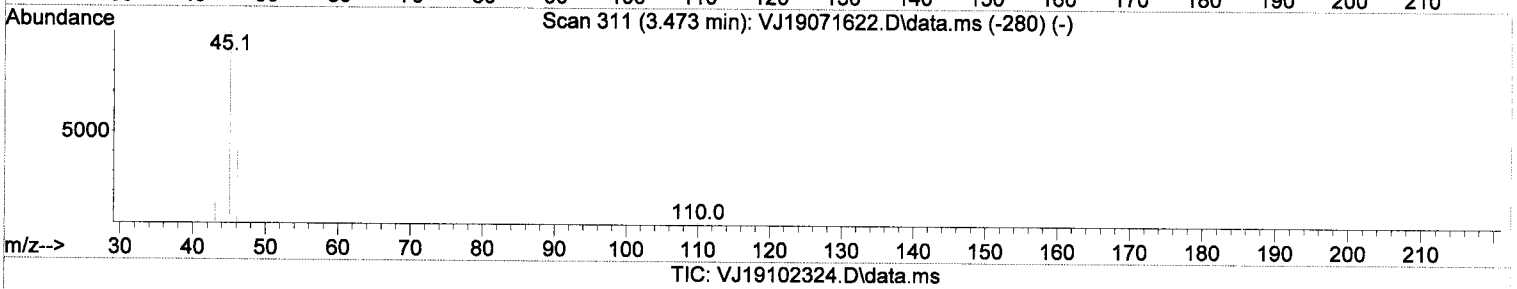
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 09:33:05 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







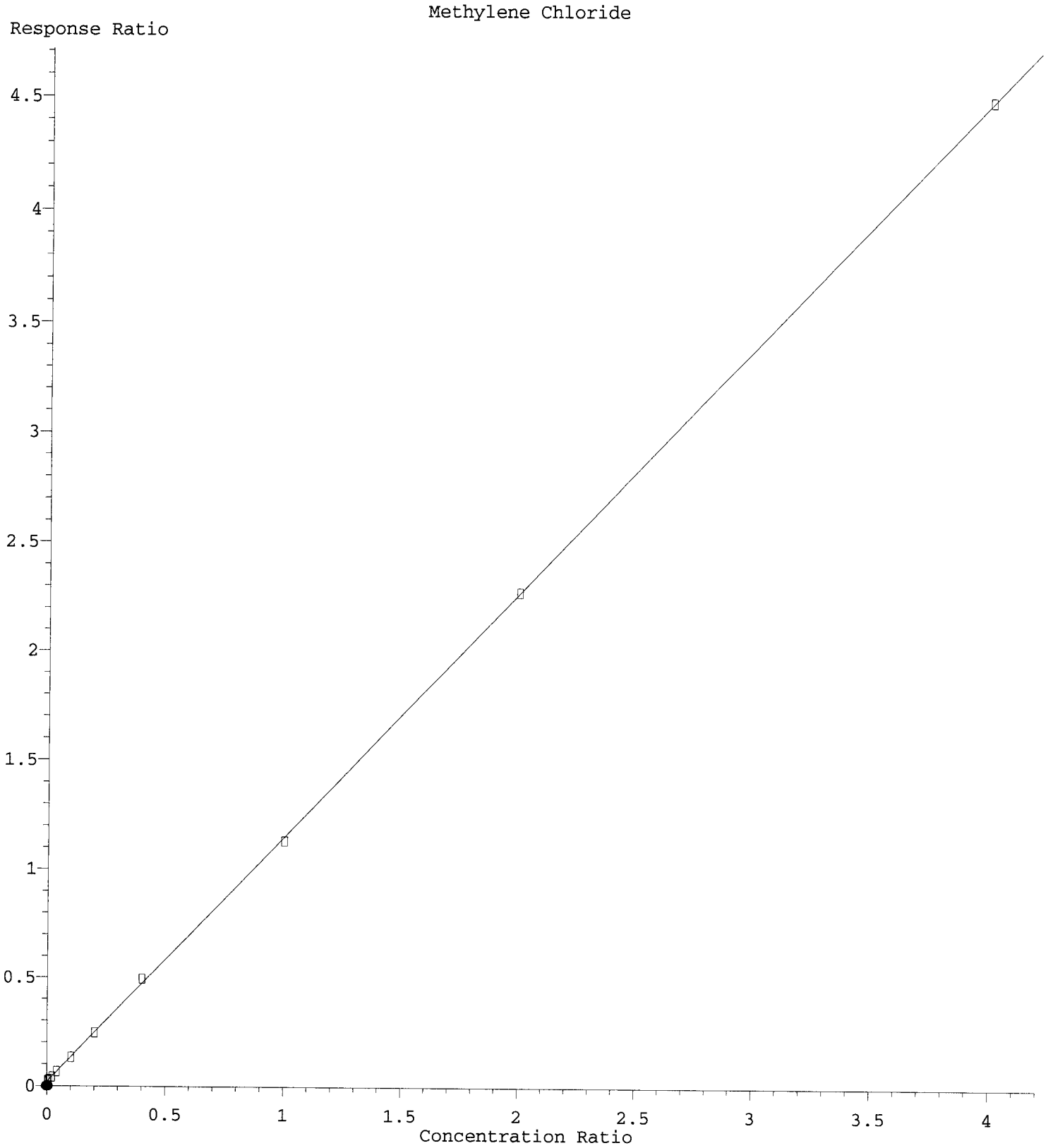
TIC: VJ19102324.D\data.ms

(8) Ethanol

3.303min (-0.012) 13.26 ug/L m

response 8114

Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	39.74
0.00	0.00	0.00
0.00	0.00	0.00

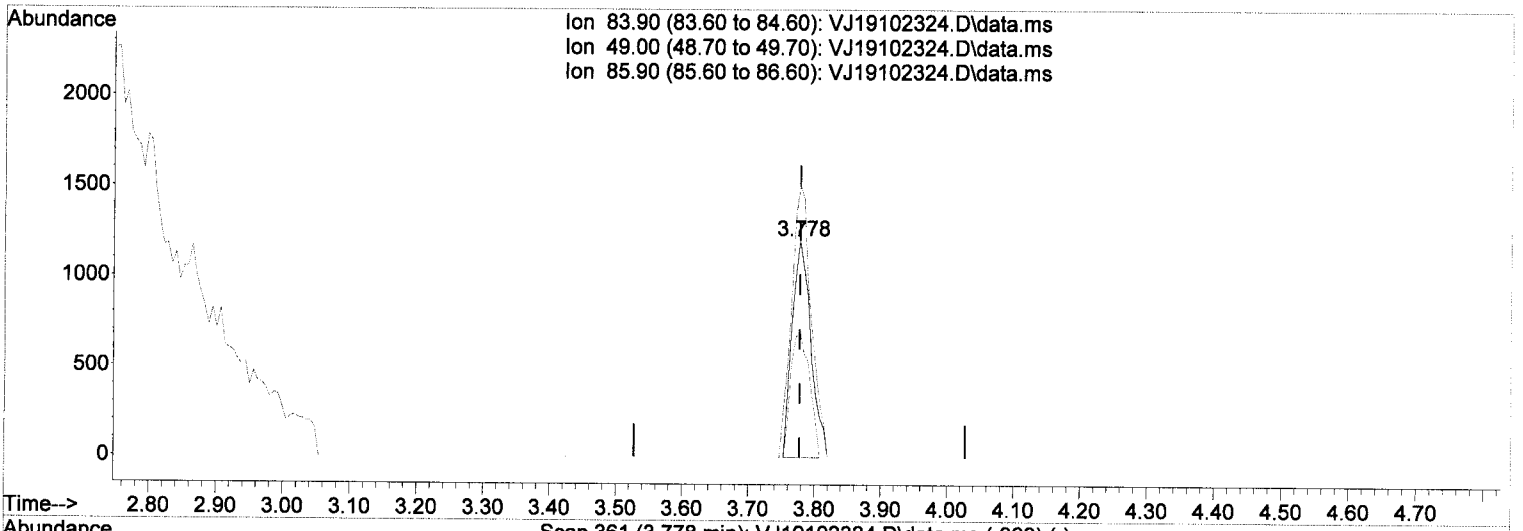


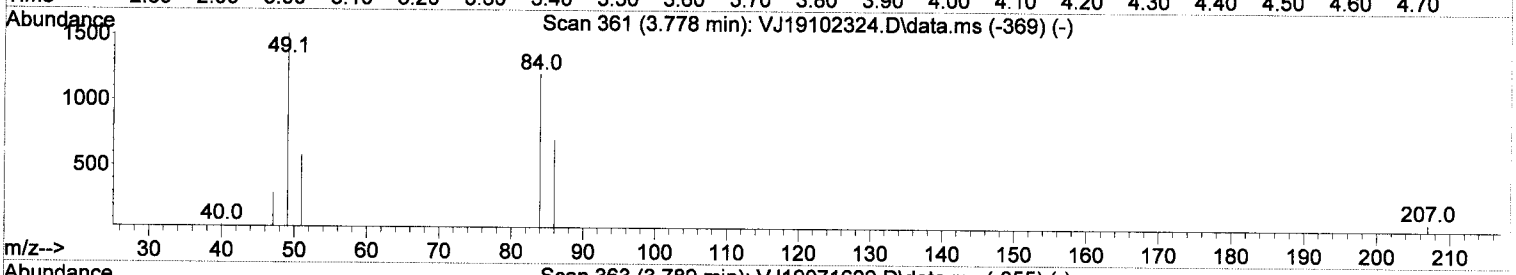
R = -4.57e-003 A*A + 1.13e+000 A + 2.02e-002
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VC191024R.M
Calibration Table Last Updated: Thu Oct 24 08:58:11 2019

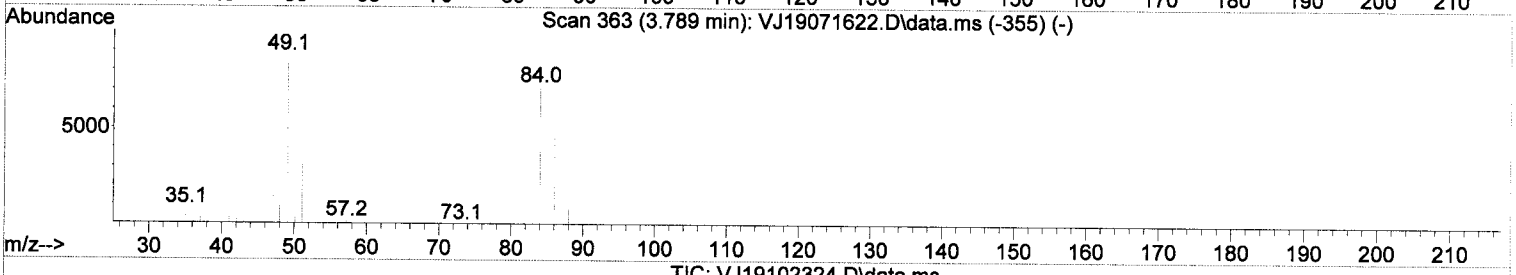
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 09:33:05 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







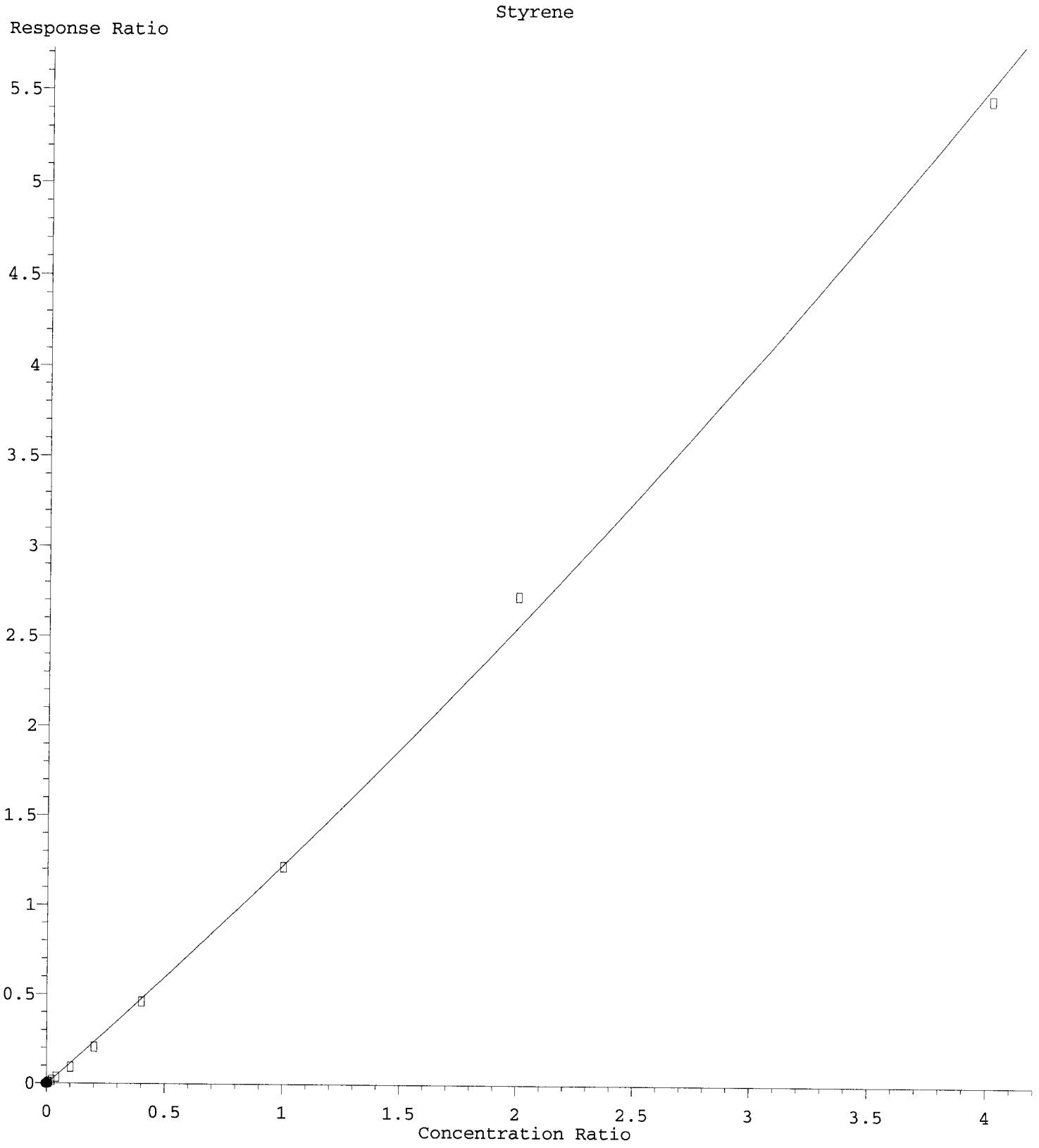
TIC: VJ19102324.D\data.ms

(13) Methylene Chloride

3.778min (+ 0.001) 0.21 ug/L

response 2377

Ion	Exp%	Act%
83.90	100.00	100.00
49.00	123.30	125.15
85.90	63.90	58.51
0.00	0.00	0.00

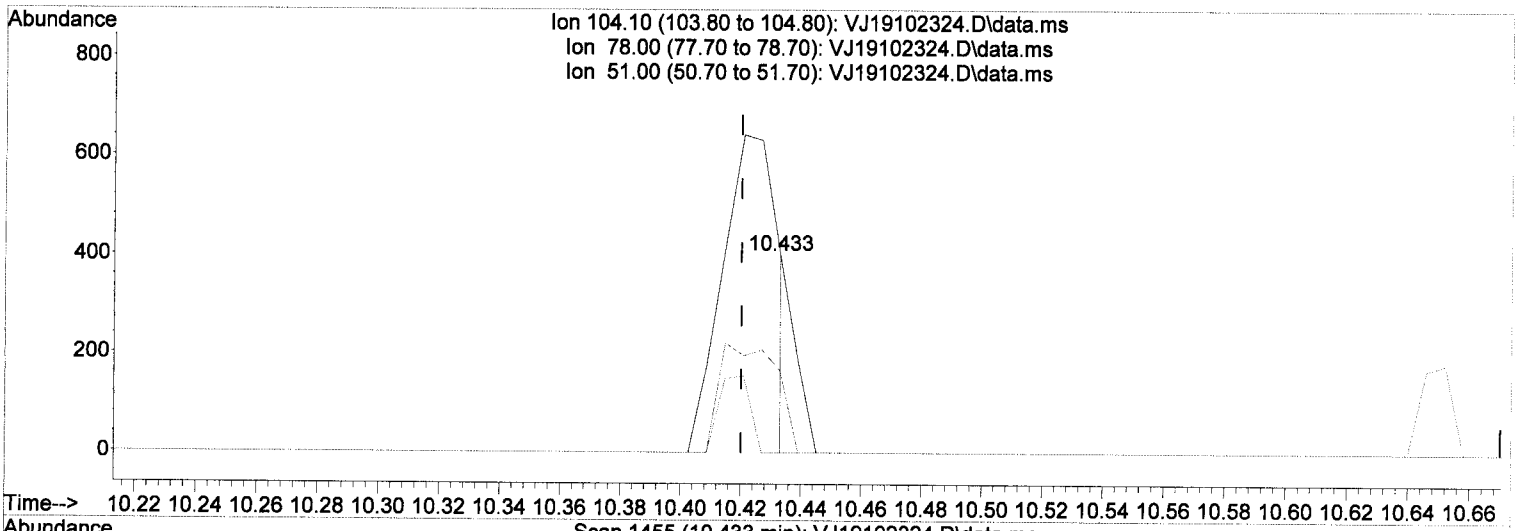


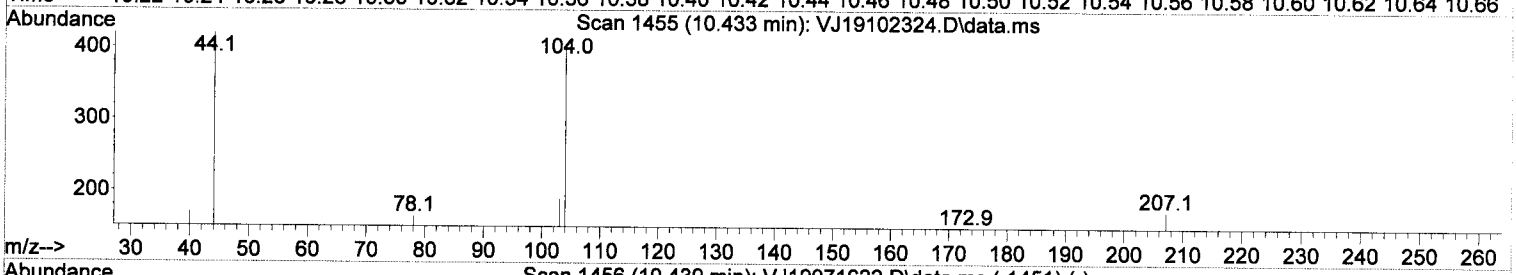
R = 5.07e-002 A*A + 1.18e+000 A - 4.08e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VOA_10-24-2019_DG 2019 -4c. Waste Characterization Page 423 of 1938
Calibration Table Last Updated: Thu Oct 24 09:02:33 2019

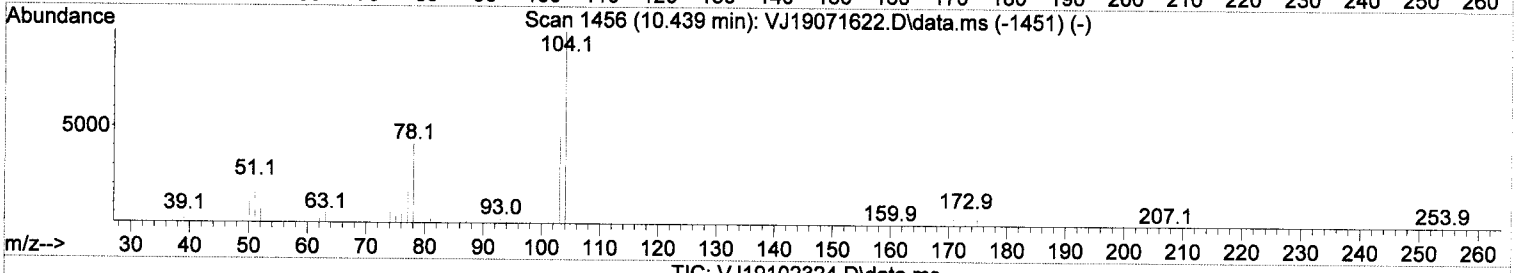
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 09:33:05 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







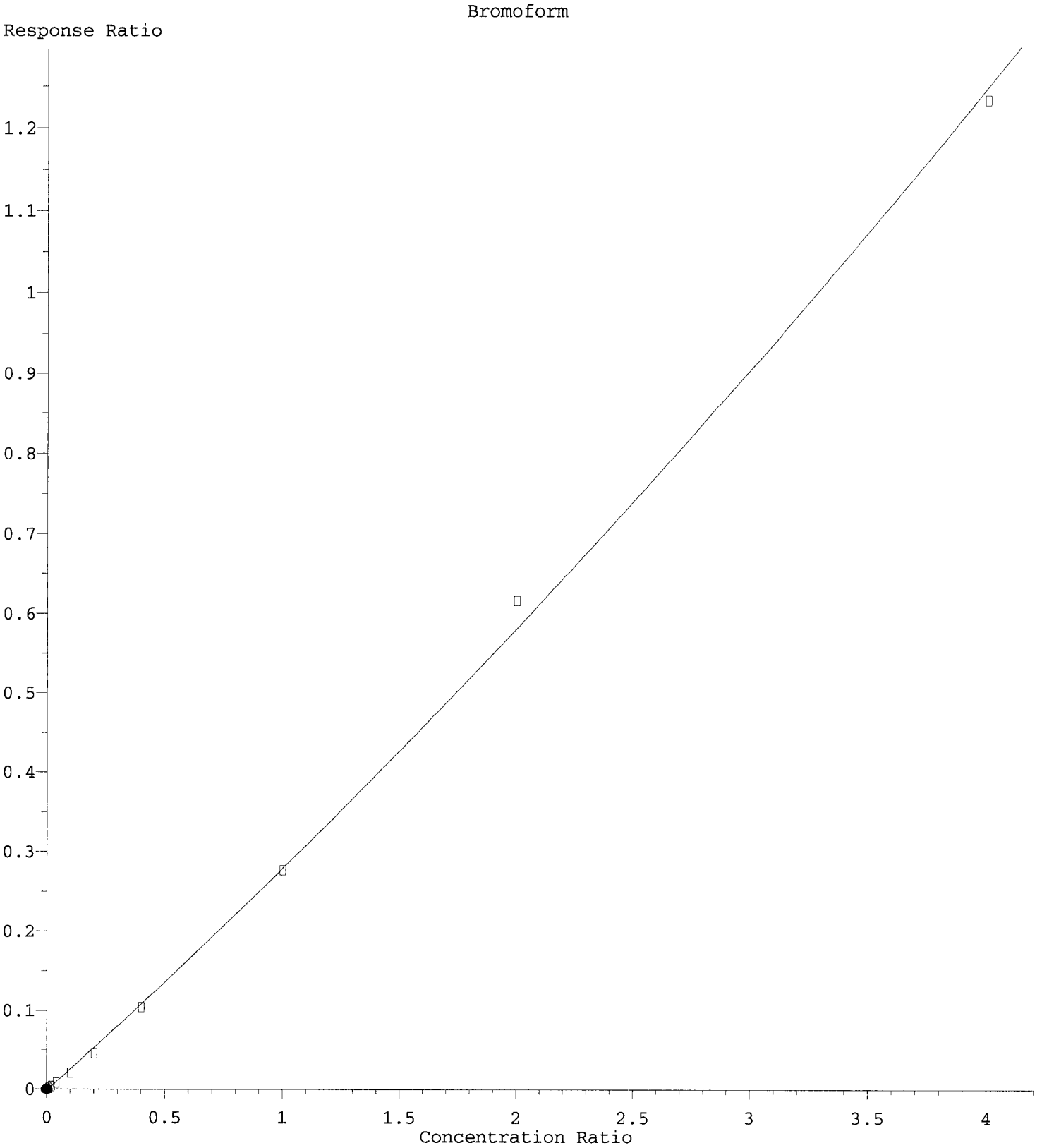
TIC: VJ19102324.D\data.ms

(60) Styrene

10.433min (+ 0.013) 0.18 ug/L m

response 66

Ion	Exp%	Act%
104.10	100.00	100.00
78.00	42.20	41.25
51.00	24.70	0.00
0.00	0.00	0.00

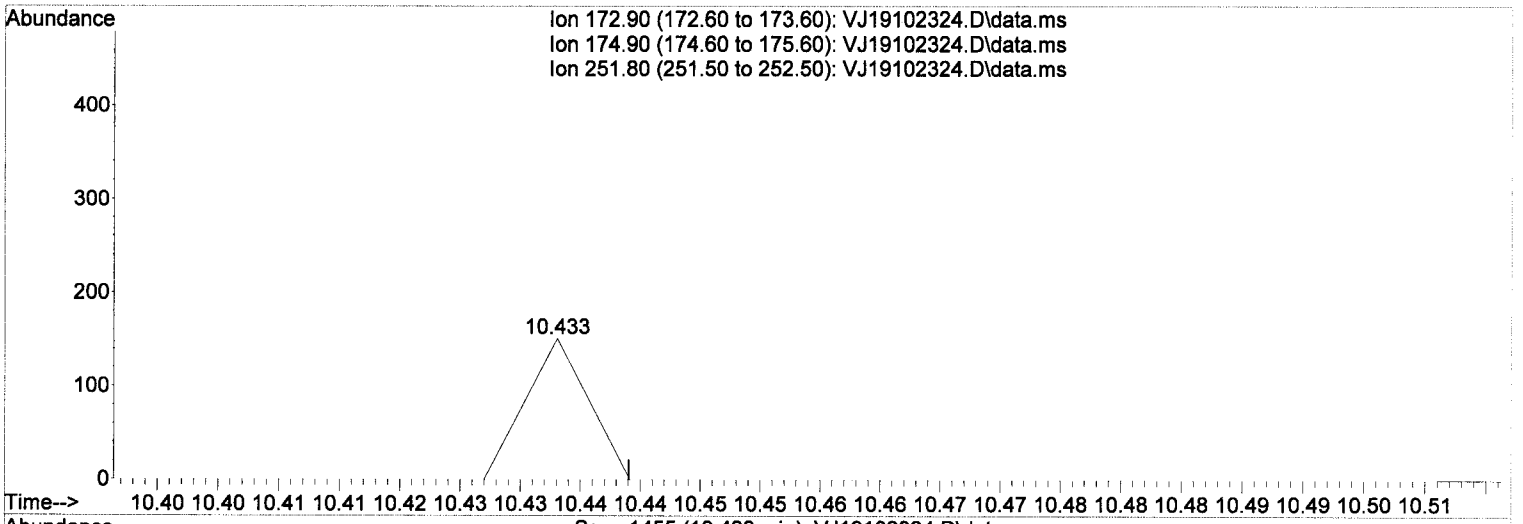


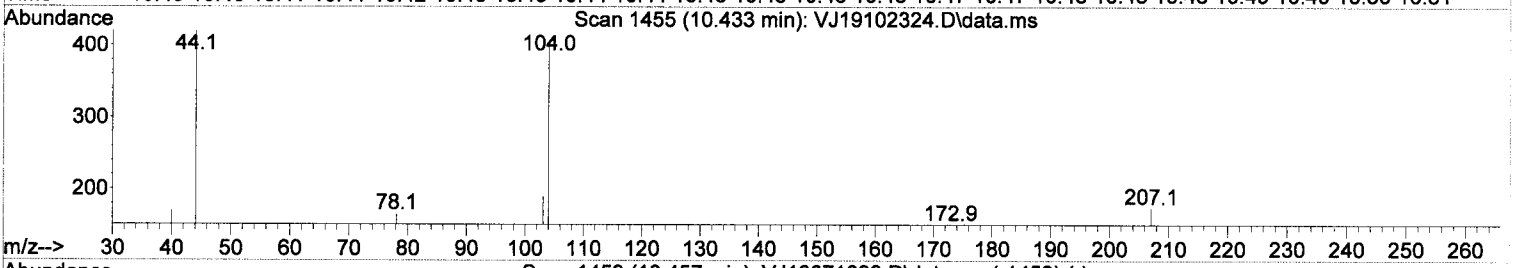
R = 1.05e-002 A*A + 2.71e-001 A - 1.82e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VJ191024S.M
Calibration Table Last Updated: Thu Oct 24 09:03:19 2019

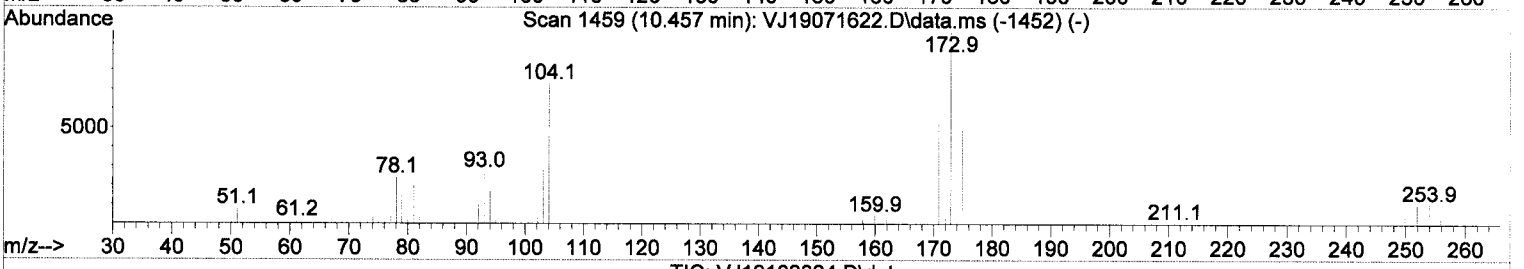
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 09:33:05 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: VJ19102324.D\data.ms

(61) Bromoform (P)

10.433min (-0.006) 0.38 ug/L (m)

response 55

Ion	Exp%	Act%
172.90	100.00	100.00
174.90	48.50	0.00#
251.80	13.90	0.00
0.00	0.00	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102338.D
Acq On : 24 Oct 2019 5:00 am
Operator : MM
Sample : 9J23072-ICV1
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 24 09:42:15 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

VM 10/24/19

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	106	0.00
2		Dichlorodifluoromethane	20.000	24.222	-21.1#	131	0.00
3	P	Chloromethane	20.000	21.897	-9.5	117	0.00
4	C	Vinyl Chloride	20.000	22.532	-12.7	118	-0.01
5		Bromomethane	20.000	25.749	-28.7#	128	0.00
6		Chloroethane	20.000	18.062	9.7	112	0.00
7		Trichlorofluoromethane	20.000	19.846	0.8	106	0.00
8		Ethanol	1250.000	32.817	97.4#	9	0.01
9	C	1,1-Dichloroethene	20.000	18.892	5.5	100	0.00
10		Carbon Disulfide	20.000	18.116	9.4	104	0.00
11		Freon 113	20.000	19.495	2.5	102	0.00
12		Iodomethane	20.000	27.678	-38.4#	146	0.00
13		Methylene Chloride	20.000	21.825	-9.1	110	0.00
14		Acetone	40.000	41.334	-3.3	102	0.00
15		t-1,2-Dichloroethene	20.000	20.825	-4.1	110	0.00
16		n-Hexane	20.000	19.050	4.7	101	0.00
17		Methyl-tert-butyl-ether	20.000	20.415	-2.1	107	0.00
18		tert-Butanol (TBA)	1250.000	4.337	99.7#	0	0.00
19		Diisopropyl ether (DIPE)	5.000	0.109	97.8#	2	0.00
20	P	1,1-Dichloroethane	20.000	21.543	-7.7	110	0.00
21		Acrylonitrile	20.000	20.875	-4.4	99	0.00
22		Ethyl-tert-butyl ether (ETB	5.000	0.095	98.1#	2	0.00
23		c-1,2-Dichloroethene	20.000	20.215	-1.1	106	0.00
24		2,2-Dichloropropane	20.000	18.159	9.2	98	0.00
25		Bromochloromethane	20.000	20.515	-2.6	104	0.00
26	C	Chloroform	20.000	21.386	-6.9	109	0.00
27		Carbon Tetrachloride	20.000	21.544	-7.7	106	0.00
28		Tetrahydrofuran	20.000	18.683	6.6	102	0.00
29		1,1,1-Trichloroethane	20.000	20.975	-4.9	106	0.00
30	S	Dibromofluoromethane (S)	50.000	49.967	0.1	106	0.00
31		1,1-Dichloropropene	20.000	20.186	-0.9	105	0.00
32		2-Butanone (MEK)	40.000	37.986	5.0	101	0.00
33		Benzene	20.000	19.904	0.5	106	0.00
34		tert-Amyl methyl ether (TAM	5.000	0.139	97.2#	3	0.00
35		1,2-Dichloroethane (EDC)	20.000	20.788	-3.9	105	0.00
36		iso-Butyl Alcohol	500.000	551.010	-10.2	110	0.01
37	S	1,4-Difluorobenzene (S)	50.000	50.430	-0.9	108	0.00
38		Trichloroethene (TCE)	20.000	21.735	-8.7	111	0.00
39		tert-Amyl ethyl ether (TAEE	5.000	0.073	98.5#	1	0.00
40		Dibromomethane	20.000	20.843	-4.2	106	0.00
41	C	1,2-Dichloropropane	20.000	20.511	-2.6	107	0.00
42		Bromodichloromethane	20.000	21.397	-7.0	104	0.00
43		Chlorobenzene-d5 (I)	50.000	50.000	0.0	106	0.00
44		c-1,3-Dichloropropene	20.000	21.194	-6.0	104	0.00
45	S	Toluene-d8 (S)	50.000	50.320	-0.6	107	0.00
46	C	Toluene	20.000	20.223	-1.1	106	0.00
47		Tetrachloroethene (PCE)	20.000	21.835	-9.2	109	0.00
48		4-Methyl-2-Pentanone (MIBK)	40.000	42.772	-6.9	103	0.00
49		t-1,3-Dichloropropene	20.000	22.780	-13.9	108	0.00
50		1,1,2-Trichloroethane	20.000	21.854	-9.3	107	0.00

EOS

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102338.D
Acq On : 24 Oct 2019 5:00 am
Operator : MM
Sample : 9J23072-ICV1
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 24 09:42:15 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

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	21.602	-8.0	110	0.00
52		1,3-Dichloropropane	20.000	21.388	-6.9	107	0.00
53		1,2-Dibromoethane (EDB)	20.000	22.051	-10.3	106	0.00
54		2-Hexanone	40.000	42.181	-5.5	103	0.00
55	P	Chlorobenzene	20.000	20.823	-4.1	108	0.00
56	C	Ethylbenzene	20.000	21.659	-8.3	107	0.00
57		1,1,1,2-Tetrachloroethane	20.000	22.014	-10.1	110	0.00
58		m,p-Xylenes (2)	40.000	44.355	-10.9	107	0.00
59		o-Xylene	20.000	22.438	-12.2	107	0.00
60		Styrene	20.000	19.442	2.8	106	0.00
61	P	Bromoform	20.000	19.721	1.4	108	0.00
62		Isopropylbenzene	20.000	22.684	-13.4	106	0.00
63	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	103	0.00
64	S	4-Bromofluorobenzene (S)	50.000	49.980	0.0	104	0.00
65		Bromobenzene	20.000	21.539	-7.7	108	0.00
66		n-Propylbenzene	20.000	21.587	-7.9	106	0.00
67	P	1,1,2,2-Tetrachloroethane	20.000	21.406	-7.0	104	0.00
68		2-Chlorotoluene	20.000	21.826	-9.1	107	0.00
69		1,3,5-Trimethylbenzene	20.000	23.462	-17.3	107	0.00
70		1,2,3-Trichloropropane	20.000	21.798	-9.0	106	0.00
71		t-1,4-Dichloro-2-butene	20.000	19.798	1.0	95	0.00
72		4-Chlorotoluene	20.000	21.990	-9.9	106	0.00
73		tert-Butylbenzene	20.000	22.261	-11.3	106	0.00
74		1,2,4-Trimethylbenzene	20.000	23.213	-16.1	107	0.00
75		sec-Butylbenzene	20.000	22.606	-13.0	107	0.00
76		4-Isopropyltoluene	20.000	23.461	-17.3	110	0.00
77		1,3-Dichlorobenzene	20.000	21.701	-8.5	107	0.00
78		1,4-Dichlorobenzene	20.000	20.648	-3.2	108	0.00
79		n-Butylbenzene	20.000	22.405	-12.0	110	0.00
80		1,2-Dichlorobenzene	20.000	22.134	-10.7	109	0.00
81		1,2-Dibromo-3-Chloropropane	20.000	19.683	1.6	102	0.00
82		Hexachlorobutadiene	20.000	23.125	-15.6	113	0.00
83		1,2,4-Trichlorobenzene	20.000	22.682	-13.4	111	0.00
84		Naphthalene	20.000	22.568	-12.8	107	0.00
85		1,2,3-Trichlorobenzene	20.000	23.094	-15.5	113	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\9J23072\
Data File : VJ19102339.D
Acq On : 24 Oct 2019 5:27 am
Operator : MM
Sample : 9J23072-ICV2
Misc : 1X 5mL 5/1250PPB OXY+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 24 09:43:37 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	109	0.00
2		Dichlorodifluoromethane	20.000	0.152	99.2#	1	0.00
3	P	Chloromethane	20.000	0.823	95.9#	5	0.00
4	C	Vinyl Chloride	20.000	0.086	99.6#	0	-0.01
5		Bromomethane	20.000	1.087	94.6#	17	0.00
6		Chloroethane	20.000	1.685	91.6#	3	0.00
7		Trichlorofluoromethane	20.000	0.000	100.0#	0	-2.60#
8		Ethanol	1250.000	1319.114	-5.5	109	0.00
9	C	1,1-Dichloroethene	20.000	0.230	98.8#	1	0.00
10		Carbon Disulfide	20.000	0.517	97.4#	3	0.00
11		Freon 113	20.000	0.163	99.2#	1	0.00
12		Iodomethane	20.000	3.629	81.9#	20	0.00
13		Methylene Chloride	20.000	0.246	98.8#	6	0.00
14		Acetone	40.000	1.459	96.4#	4	0.00
15		t-1,2-Dichloroethene	20.000	0.330	98.4#	2	0.00
16		n-Hexane	20.000	0.000	100.0#	0	-4.04#
17		Methyl-tert-butyl-ether	20.000	0.122	99.4#	1	0.00
18		tert-Butanol (TBA)	1250.000	1428.859	-14.3	112	0.00
19		Diisopropyl ether (DIPE)	5.000	5.264	-5.3	110	0.00
20	P	1,1-Dichloroethane	20.000	0.226	98.9#	1	0.00
21		Acrylonitrile	20.000	0.000	100.0#	0	-4.63#
22		Ethyl-tert-butyl ether (ETB	5.000	5.361	-7.2	113	0.00
23		c-1,2-Dichloroethene	20.000	0.259	98.7#	1	0.00
24		2,2-Dichloropropane	20.000	0.189	99.1#	1	0.00
25		Bromochloromethane	20.000	0.153	99.2#	1	0.00
26	C	Chloroform	20.000	0.227	98.9#	1	0.00
27		Carbon Tetrachloride	20.000	0.137	99.3#	1	0.00
28		Tetrahydrofuran	20.000	0.175	99.1#	1	0.00
29		1,1,1-Trichloroethane	20.000	0.134	99.3#	1	0.00
30	S	Dibromofluoromethane (S)	50.000	50.009	-0.0	109	0.00
31		1,1-Dichloropropene	20.000	0.297	98.5#	2	0.00
32		2-Butanone (MEK)	40.000	0.435	98.9#	1	0.00
33		Benzene	20.000	0.261	98.7#	1	0.00
34		tert-Amyl methyl ether (TAM	5.000	4.956	0.9	110	0.00
35		1,2-Dichloroethane (EDC)	20.000	0.125	99.4#	1	0.00
36		iso-Butyl Alcohol	500.000	3.187	99.4#	1	0.03
37	S	1,4-Difluorobenzene (S)	50.000	50.468	-0.9	111	0.00
38		Trichloroethene (TCE)	20.000	0.304	98.5#	2	0.00
39		tert-Amyl ethyl ether (TAEE	5.000	5.390	-7.8	109	0.00
40		Dibromomethane	20.000	0.070	99.6#	0	0.00
41	C	1,2-Dichloropropane	20.000	0.199	99.0#	1	0.00
42		Bromodichloromethane	20.000	0.142	99.3#	1	0.00
43		Chlorobenzene-d5 (I)	50.000	50.000	0.0	111	0.00
44		c-1,3-Dichloropropene	20.000	0.149	99.3#	1	0.01
45	S	Toluene-d8 (S)	50.000	50.233	-0.5	112	0.00
46	C	Toluene	20.000	0.267	98.7#	1	0.00
47		Tetrachloroethene (PCE)	20.000	0.355	98.2#	2	0.00
48		4-Methyl-2-Pentanone (MIBK)	40.000	0.014	100.0#	0	0.00
49		t-1,3-Dichloropropene	20.000	0.110	99.5#	1	0.00
50		1,1,2-Trichloroethane	20.000	0.044	99.8#	0	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102339.D
Acq On : 24 Oct 2019 5:27 am
Operator : MM
Sample : 9J23072-ICV2
Misc : 1X 5mL 5/1250PPB OXY+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 24 09:43:37 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	0.000	100.0#	0	-9.06#
52		1,3-Dichloropropane	20.000	0.085	99.6#	0	0.00
53		1,2-Dibromoethane (EDB)	20.000	0.000	100.0#	0	-9.30#
54		2-Hexanone	40.000	0.000	100.0#	0	-9.54#
55	P	Chlorobenzene	20.000	0.286	98.6#	2	0.00
56	C	Ethylbenzene	20.000	0.270	98.7#	1	0.00
57		1,1,1,2-Tetrachloroethane	20.000	0.158	99.2#	1	0.00
58		m,p-Xylenes (2)	40.000	0.538	98.7#	1	0.00
59		o-Xylene	20.000	0.247	98.8#	1	0.00
60		Styrene	20.000	0.344	98.3#	1	0.00
61	P	Bromoform	20.000	0.000	100.0#	0	-10.44#
62		Isopropylbenzene	20.000	0.231	98.8#	1	0.00
63	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	104	0.00
64	S	4-Bromofluorobenzene (S)	50.000	51.065	-2.1	107	0.00
65		Bromobenzene	20.000	0.252	98.7#	1	0.00
66		n-Propylbenzene	20.000	0.318	98.4#	2	0.00
67	P	1,1,2,2-Tetrachloroethane	20.000	0.037	99.8#	0	0.00
68		2-Chlorotoluene	20.000	0.306	98.5#	2	0.00
69		1,3,5-Trimethylbenzene	20.000	0.290	98.6#	1	0.00
70		1,2,3-Trichloropropane	20.000	0.000	100.0#	0	-11.15#
71		t-1,4-Dichloro-2-butene	20.000	0.000	100.0#	0	-11.19#
72		4-Chlorotoluene	20.000	0.339	98.3#	2	0.00
73		tert-Butylbenzene	20.000	0.221	98.9#	1	0.00
74		1,2,4-Trimethylbenzene	20.000	0.295	98.5#	1	0.00
75		sec-Butylbenzene	20.000	0.284	98.6#	1	0.00
76		4-Isopropyltoluene	20.000	0.328	98.4#	2	0.00
77		1,3-Dichlorobenzene	20.000	0.412	97.9#	2	0.00
78		1,4-Dichlorobenzene	20.000	0.394	98.0#	2	0.00
79		n-Butylbenzene	20.000	0.496	97.5#	2	0.00
80		1,2-Dichlorobenzene	20.000	0.266	98.7#	1	0.00
81		1,2-Dibromo-3-Chloropropane	20.000	0.000	100.0#	0	-12.70#
82		Hexachlorobutadiene	20.000	0.597	97.0#	3	0.00
83		1,2,4-Trichlorobenzene	20.000	0.633	96.8#	3	0.00
84		Naphthalene	20.000	0.536	97.3#	3	0.00
85		1,2,3-Trichlorobenzene	20.000	0.539	97.3#	3	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J23072

Analysis Included
8260C Full List
8260C Iodomethane Add On
8260C Oxygenates

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed
9J23072-TUN1	MS Tune	Soil		A19G118	10/23/2019 9:24:00PM
9J23072-ICB1	Initial Cal Blank	Soil		A19G118	10/23/2019 9:51:00PM
9J23072-CAL1	Cal Standard	Soil	A19J339	"	10/23/2019 10:18:00PM
9J23072-CAL2	Cal Standard	Soil	A19J340	"	10/23/2019 10:45:00PM
9J23072-CAL3	Cal Standard	Soil	A19J341	"	10/23/2019 11:12:00PM
9J23072-CAL4	Cal Standard	Soil	A19J342	"	10/23/2019 11:38:00PM
9J23072-CAL5	Cal Standard	Soil	A19J343	"	10/24/2019 12:05:00AM
9J23072-CAL6	Cal Standard	Soil	A19J344	"	10/24/2019 12:32:00AM
9J23072-CAL7	Cal Standard	Soil	A19J345	"	10/24/2019 12:59:00AM
9J23072-CAL8	Cal Standard	Soil	A19J346	"	10/24/2019 1:26:00AM
9J23072-CAL9	Cal Standard	Soil	A19J347	"	10/24/2019 1:53:00AM
9J23072-CALA	Cal Standard	Soil	A19J348	"	10/24/2019 2:46:00AM
9J23072-CALB	Cal Standard	Soil	A19J349	"	10/24/2019 3:40:00AM
9J23072-ICV1	Initial Cal Check	Soil	A19J131	"	10/24/2019 5:00:00AM
9J23072-ICV2	Initial Cal Check	Soil	A19E195	"	10/24/2019 5:27:00AM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9J2404** Instrument: **VOA-GCMS10**

8260C Full List Sequence: **9J23072** Matrix: **Soil**

9J23072-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CALB	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J23072

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: **A9J2404** Instrument: **VOA-GCMS10**

8260C Full List Sequence: **9J23072** Matrix: **Soil**

9J23072-ICV1	Inst. MRL	ICV Level	Result	%Rec.	Qual
Iodomethane	20	20.0	27.68	138	E05

9J23072-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.

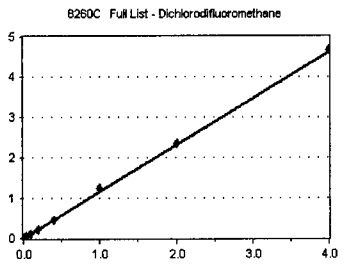
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

Dichlorodifluoromethane

Curve Fit: **AVERAGE RF**

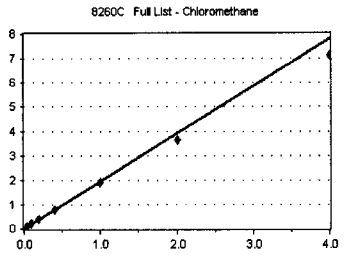


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	1	2035	1.102	1.70
9J23072-CAL5	2	4456	1.175	1.69
9J23072-CAL6	5	11145	1.126	1.70
9J23072-CAL7	10	22844	1.116	1.70
9J23072-CAL8	20	42729	1.135	1.69
9J23072-CAL9	50	131685	1.254	1.69
9J23072-CALA	100	259035	1.178	1.70
9J23072-CALB	200	515195	1.171	1.69

AVE RF **1.157** RF RSD **4.20** AVE RT **1.69**

Chloromethane

Curve Fit: **AVERAGE RF**

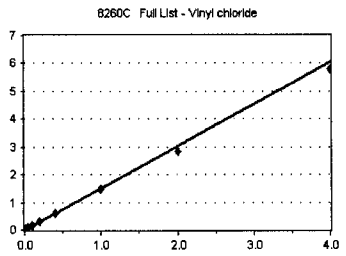


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~2383~~	~~12.136~~	~~1.89~~
~~9J23072-CAL2~~	~~0.2~~	~~2774~~	~~7.289~~	~~1.90~~
~~9J23072-CAL3~~	~~0.4~~	~~3285~~	~~4.405~~	~~1.90~~
~~9J23072-CAL4~~	~~1~~	~~5307~~	~~2.874~~	~~1.90~~
9J23072-CAL5	2	8944	2.359	1.89
9J23072-CAL6	5	20037	2.024	1.90
9J23072-CAL7	10	38733	1.892	1.90
9J23072-CAL8	20	73020	1.940	1.90
9J23072-CAL9	50	201248	1.916	1.89
9J23072-CALA	100	397217	1.806	1.90
9J23072-CALB	200	787223	1.789	1.89

AVE RF **1.961** RF RSD **9.83** AVE RT **1.90**

Vinyl chloride

Curve Fit: **AVERAGE RF**

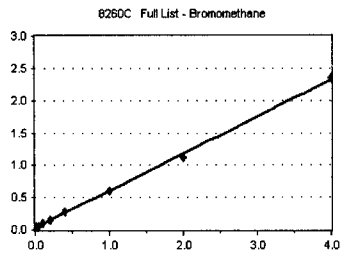


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	1110	1.488	2.01
9J23072-CAL4	1	3035	1.644	2.00
9J23072-CAL5	2	6249	1.648	1.98
9J23072-CAL6	5	14616	1.477	2.00
9J23072-CAL7	10	29953	1.463	2.00
9J23072-CAL8	20	57870	1.538	2.00
9J23072-CAL9	50	155736	1.483	1.98
9J23072-CALA	100	313932	1.428	2.00
9J23072-CALB	200	635586	1.444	1.98

AVE RF **1.513** RF RSD **5.40** AVE RT **1.99**

Bromomethane

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



Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	2899	14.764	2.34
9J23072-CAL2	0.2	3184	8.366	2.34
9J23072-CAL3	0.4	3378	4.530	2.34
9J23072-CAL4	1	4613	2.498	2.35
9J23072-CAL5	2	5195	1.370	2.34
9J23072-CAL6	5	9360	0.946	2.35
9J23072-CAL7	10	15471	0.756	2.35
9J23072-CAL8	20	25485	0.677	2.35
9J23072-CAL9	50	63337	0.603	2.34
9J23072-CALA	100	123566	0.562	2.35
9J23072-CALB	200	258257	0.587	2.34

AVE RF **3.242** RF RSD **139.32** AVE RT **2.34**

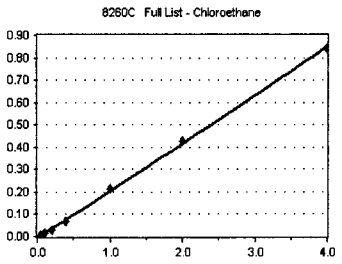
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

Chloroethane

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

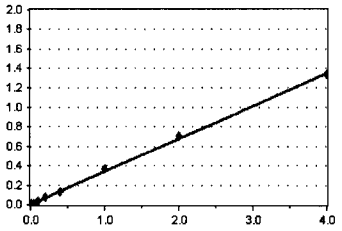


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL4~~	~~1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL5	2	558	0.147	2.46
9J23072-CAL6	5	1384	0.140	2.48
9J23072-CAL7	10	2873	0.140	2.48
9J23072-CAL8	20	6188	0.164	2.47
9J23072-CAL9	50	22708	0.216	2.47
9J23072-CALA	100	47113	0.214	2.49
9J23072-CALB	200	92724	0.211	2.49

AVE RF **0.176** RF RSD **20.51** AVE RT **2.48**

Trichlorofluoromethane

Curve Fit: **AVERAGE RF**

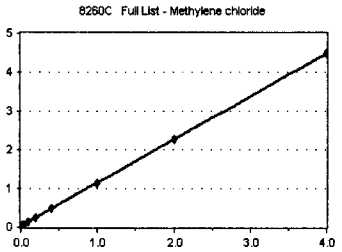


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	1	516	0.279	2.60
9J23072-CAL5	2	1251	0.330	2.60
9J23072-CAL6	5	3402	0.344	2.62
9J23072-CAL7	10	7278	0.356	2.61
9J23072-CAL8	20	12628	0.336	2.60
9J23072-CAL9	50	38671	0.368	2.60
9J23072-CALA	100	77408	0.352	2.61
9J23072-CALB	200	147731	0.336	2.60

AVE RF **0.338** RF RSD **7.88** AVE RT **2.60**

Methylene chloride

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

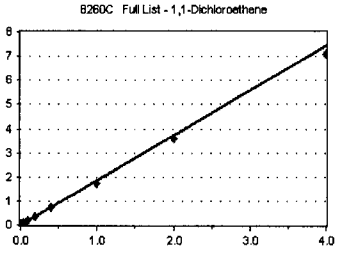


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	2211	11.260	0.00
9J23072-CAL2	0.2	2377	6.246	0.00
9J23072-CAL3	0.4	2718	3.645	0.00
9J23072-CAL4	1	3788	2.052	3.78
9J23072-CAL5	2	6212	1.638	3.78
9J23072-CAL6	5	12998	1.313	3.78
9J23072-CAL7	10	24987	1.221	3.78
9J23072-CAL8	20	46523	1.236	3.78
9J23072-CAL9	50	118736	1.131	3.78
9J23072-CALA	100	249850	1.136	3.78
9J23072-CALB	200	493458	1.121	3.78

AVE RF **2.909** RF RSD **109.50** AVE RT **2.75**

1,1-Dichloroethene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	1510	2.025	3.14
9J23072-CAL4	1	3558	1.927	3.14
9J23072-CAL5	2	7400	1.952	3.14
9J23072-CAL6	5	18097	1.828	3.15
9J23072-CAL7	10	37595	1.836	3.15
9J23072-CAL8	20	70432	1.871	3.14
9J23072-CAL9	50	181540	1.729	3.15
9J23072-CALA	100	396303	1.802	3.15
9J23072-CALB	200	780132	1.773	3.14

AVE RF **1.860** RF RSD **5.03** AVE RT **3.14**

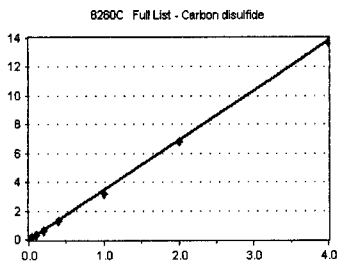
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

Carbon disulfide

Curve Fit: **AVERAGE RF**

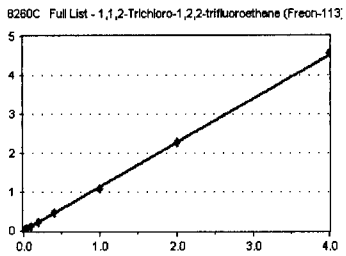


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	947	4.823	3.15
9J23072-CAL2	0.2	1499	3.939	3.15
9J23072-CAL3	0.4	2496	3.347	3.15
9J23072-CAL4	1	6000	3.250	3.16
9J23072-CAL5	2	12853	3.390	3.15
9J23072-CAL6	5	30469	3.078	3.16
9J23072-CAL7	10	63760	3.114	3.16
9J23072-CAL8	20	120674	3.206	3.15
9J23072-CAL9	50	335203	3.192	3.16
9J23072-CALA	100	748104	3.402	3.16
9J23072-CALB	200	1509890	3.431	3.15

AVE RF **3.470** RF RSD **14.56** AVE RT **3.15**

1,1,2-Trichloro-1,2,2-trifluoroetha

Curve Fit: **AVERAGE RF**

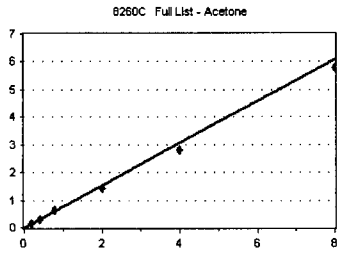


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	761	1.020	3.19
9J23072-CAL4	1	2153	1.166	3.21
9J23072-CAL5	2	4614	1.217	3.19
9J23072-CAL6	5	11080	1.119	3.21
9J23072-CAL7	10	23337	1.140	3.21
9J23072-CAL8	20	43205	1.148	3.20
9J23072-CAL9	50	113502	1.081	3.20
9J23072-CALA	100	250927	1.141	3.21
9J23072-CALB	200	501626	1.140	3.19

AVE RF **1.130** RF RSD **4.85** AVE RT **3.20**

Acetone

Curve Fit: **AVERAGE RF**

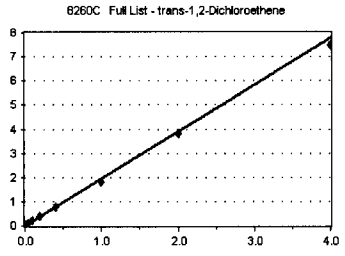


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.8~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL4~~	~~2~~	~~5145~~	~~1.393~~	~~3.88~~
~~9J23072-CAL5~~	~~4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL6	10	16748	0.846	3.88
9J23072-CAL7	20	31545	0.770	3.88
9J23072-CAL8	40	61696	0.820	3.87
9J23072-CAL9	100	150797	0.718	3.87
9J23072-CALA	200	308333	0.701	3.87
9J23072-CALB	400	636343	0.723	3.86

AVE RF **0.763** RF RSD **7.78** AVE RT **3.87**

trans-1,2-Dichloroethene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	714	1.876	3.94
9J23072-CAL3	0.4	1485	1.991	3.95
9J23072-CAL4	1	3719	2.014	3.95
9J23072-CAL5	2	7911	2.086	3.95
9J23072-CAL6	5	19492	1.969	3.95
9J23072-CAL7	10	40127	1.960	3.95
9J23072-CAL8	20	73863	1.963	3.95
9J23072-CAL9	50	191374	1.822	3.95
9J23072-CALA	100	416493	1.894	3.95
9J23072-CALB	200	823777	1.872	3.94

AVE RF **1.945** RF RSD **4.05** AVE RT **3.95**

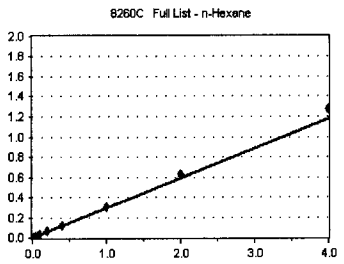
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

n-Hexane

Curve Fit: **AVERAGE RF**

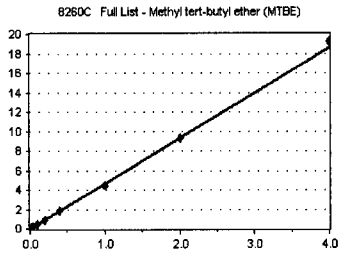


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	1	445	0.241	4.04
9J23072-CAL5	2	1139	0.300	4.04
9J23072-CAL6	5	2790	0.282	4.05
9J23072-CAL7	10	6208	0.303	4.05
9J23072-CAL8	20	11103	0.295	4.05
9J23072-CAL9	50	31443	0.299	4.05
9J23072-CALA	100	69515	0.316	4.05
9J23072-CALB	200	140691	0.320	4.04

AVE RF **0.295** RF RSD **8.37** AVE RT **4.04**

Methyl tert-butyl ether (MTBE)

Curve Fit: **AVERAGE RF**

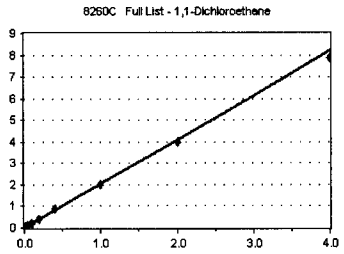


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	1	8793	4.762	4.12
9J23072-CAL5	2	18230	4.808	4.10
9J23072-CAL6	5	45549	4.602	4.11
9J23072-CAL7	10	90735	4.432	4.11
9J23072-CAL8	20	176865	4.700	4.11
9J23072-CAL9	50	469291	4.469	4.11
9J23072-CALA	100	1020787	4.642	4.11
9J23072-CALB	200	2113381	4.802	4.10

AVE RF **4.652** RF RSD **3.10** AVE RT **4.11**

1,1-Dichloroethane

Curve Fit: **AVERAGE RF**

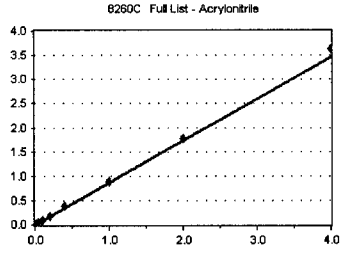


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	720	1.892	4.58
9J23072-CAL3	0.4	1458	1.955	4.58
9J23072-CAL4	1	4012	2.173	4.58
9J23072-CAL5	2	8482	2.237	4.58
9J23072-CAL6	5	21122	2.134	4.59
9J23072-CAL7	10	42318	2.067	4.59
9J23072-CAL8	20	80359	2.135	4.58
9J23072-CAL9	50	207492	1.976	4.58
9J23072-CALA	100	436977	1.987	4.58
9J23072-CALB	200	865836	1.967	4.58

AVE RF **2.052** RF RSD **5.51** AVE RT **4.58**

Acrylonitrile

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	409	0.548	4.64
9J23072-CAL4	1	1605	0.869	4.64
9J23072-CAL5	2	3497	0.922	4.64
9J23072-CAL6	5	8805	0.890	4.64
9J23072-CAL7	10	18110	0.885	4.64
9J23072-CAL8	20	36419	0.968	4.64
9J23072-CAL9	50	93684	0.892	4.63
9J23072-CALA	100	195553	0.889	4.64
9J23072-CALB	200	400678	0.910	4.63

AVE RF **0.864** RF RSD **14.09** AVE RT **4.64**

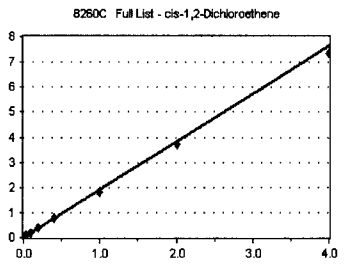
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

cis-1,2-Dichloroethene

Curve Fit: **AVERAGE RF**

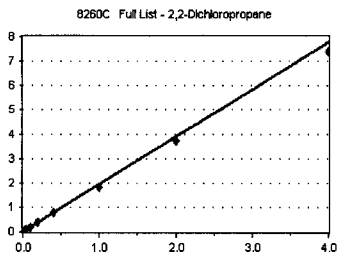


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	1499	2.010	5.13
9J23072-CAL4	1	3680	1.993	5.13
9J23072-CAL5	2	7651	2.018	5.13
9J23072-CAL6	5	18773	1.897	5.13
9J23072-CAL7	10	38569	1.884	5.13
9J23072-CAL8	20	73333	1.949	5.13
9J23072-CAL9	50	189767	1.807	5.13
9J23072-CALA	100	410212	1.866	5.13
9J23072-CALB	200	811012	1.843	5.13

AVE RF **1.918** RF RSD **4.01** AVE RT **5.13**

2,2-Dichloropropane

Curve Fit: **AVERAGE RF**

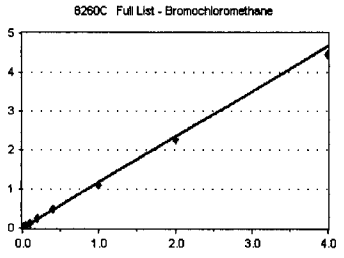


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	761	2.000	5.24
9J23072-CAL3	0.4	1640	2.199	5.24
9J23072-CAL4	1	3688	1.997	5.24
9J23072-CAL5	2	7702	2.031	5.24
9J23072-CAL6	5	18540	1.873	5.24
9J23072-CAL7	10	38645	1.888	5.24
9J23072-CAL8	20	72158	1.917	5.24
9J23072-CAL9	50	189548	1.805	5.24
9J23072-CALA	100	411005	1.869	5.24
9J23072-CALB	200	813691	1.849	5.24

AVE RF **1.943** RF RSD **5.98** AVE RT **5.24**

Bromochloromethane

Curve Fit: **AVERAGE RF**

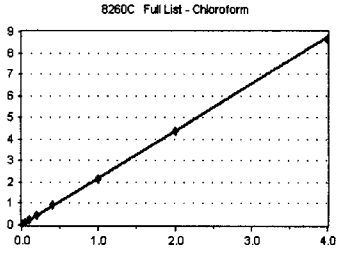


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	807	1.082	5.33
9J23072-CAL4	1	2314	1.253	5.34
9J23072-CAL5	2	4784	1.262	5.32
9J23072-CAL6	5	11641	1.176	5.34
9J23072-CAL7	10	23752	1.160	5.33
9J23072-CAL8	20	45927	1.220	5.33
9J23072-CAL9	50	116893	1.113	5.33
9J23072-CALA	100	249374	1.134	5.33
9J23072-CALB	200	489443	1.112	5.33

AVE RF **1.168** RF RSD **5.55** AVE RT **5.33**

Chloroform

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	740	1.944	5.41
9J23072-CAL3	0.4	1517	2.034	5.42
9J23072-CAL4	1	4201	2.275	5.42
9J23072-CAL5	2	8976	2.367	5.41
9J23072-CAL6	5	22188	2.242	5.42
9J23072-CAL7	10	46150	2.254	5.42
9J23072-CAL8	20	86201	2.290	5.41
9J23072-CAL9	50	226777	2.160	5.41
9J23072-CALA	100	483892	2.201	5.42
9J23072-CALB	200	951891	2.163	5.41

AVE RF **2.193** RF RSD **5.73** AVE RT **5.42**

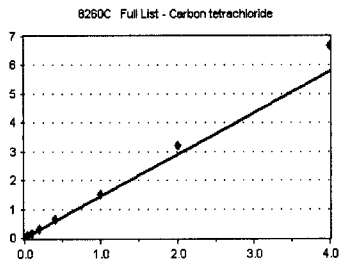
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

Carbon tetrachloride

Curve Fit: **AVERAGE RF**

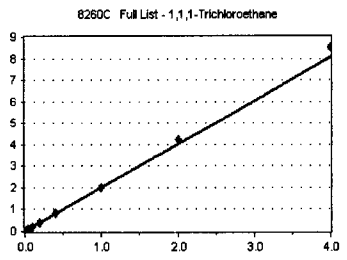


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	367	0.964	5.55
9J23072-CAL3	0.4	934	1.252	5.55
9J23072-CAL4	1	2727	1.477	5.56
9J23072-CAL5	2	5728	1.511	5.55
9J23072-CAL6	5	14343	1.449	5.55
9J23072-CAL7	10	30244	1.477	5.56
9J23072-CAL8	20	58891	1.565	5.55
9J23072-CAL9	50	158501	1.509	5.55
9J23072-CALA	100	354527	1.612	5.56
9J23072-CALB	200	735322	1.671	5.55

AVE RF **1.449** RF RSD **14.03** AVE RT **5.56**

1,1,1-Trichloroethane

Curve Fit: **AVERAGE RF**

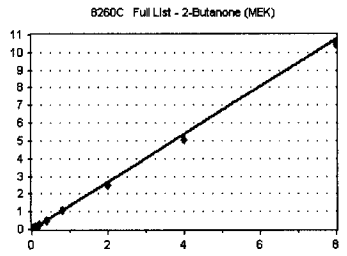


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	686	1.803	5.63
9J23072-CAL3	0.4	1334	1.789	5.62
9J23072-CAL4	1	3664	1.984	5.62
9J23072-CAL5	2	8216	2.167	5.62
9J23072-CAL6	5	20044	2.025	5.62
9J23072-CAL7	10	41348	2.020	5.63
9J23072-CAL8	20	79966	2.125	5.62
9J23072-CAL9	50	208934	1.990	5.62
9J23072-CALA	100	466945	2.124	5.62
9J23072-CALB	200	937584	2.130	5.62

AVE RF **2.016** RF RSD **6.58** AVE RT **5.62**

2-Butanone (MEK)

Curve Fit: **AVERAGE RF**

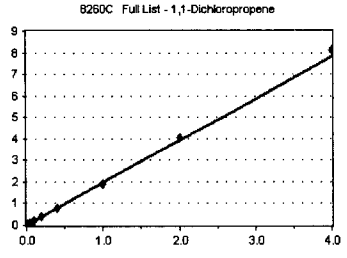


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.8~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	2	5985	1.621	5.74
9J23072-CAL5	4	10911	1.439	5.74
9J23072-CAL6	10	25206	1.273	5.74
9J23072-CAL7	20	51036	1.246	5.74
9J23072-CAL8	40	101470	1.348	5.74
9J23072-CAL9	100	262305	1.249	5.73
9J23072-CALA	200	557729	1.268	5.74
9J23072-CALB	400	1150574	1.307	5.73

AVE RF **1.344** RF RSD **9.59** AVE RT **5.73**

1,1-Dichloropropene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	1389	1.863	5.75
9J23072-CAL4	1	3601	1.950	5.75
9J23072-CAL5	2	7729	2.038	5.75
9J23072-CAL6	5	18701	1.889	5.75
9J23072-CAL7	10	39421	1.926	5.75
9J23072-CAL8	20	75436	2.004	5.75
9J23072-CAL9	50	199471	1.899	5.75
9J23072-CALA	100	445742	2.027	5.75
9J23072-CALB	200	896409	2.037	5.75

AVE RF **1.959** RF RSD **3.52** AVE RT **5.75**

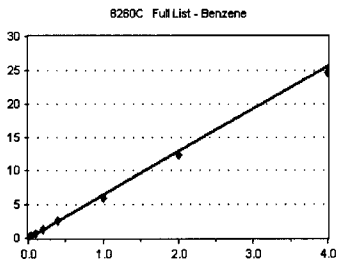
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

Benzene

Curve Fit: **AVERAGE RF**

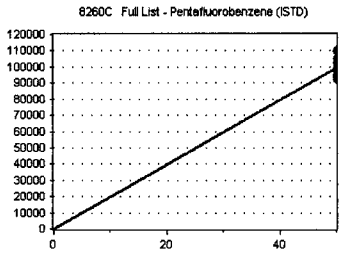


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	1432	7.293	6.00
9J23072-CAL2	0.2	2559	6.724	6.00
9J23072-CAL3	0.4	4719	6.328	6.00
9J23072-CAL4	1	11702	6.338	6.00
9J23072-CAL5	2	25316	6.677	6.00
9J23072-CAL6	5	62213	6.286	6.00
9J23072-CAL7	10	128327	6.268	6.00
9J23072-CAL8	20	240789	6.398	6.00
9J23072-CAL9	50	625910	5.960	6.00
9J23072-CALA	100	1359633	6.183	6.00
9J23072-CALB	200	2717357	6.174	6.00

AVE RF **6.421** RF RSD **5.63** AVE RT **6.00**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

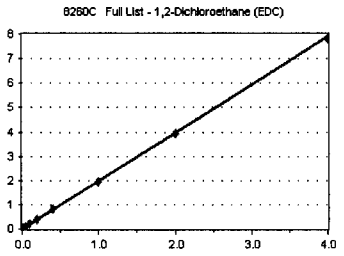


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	98175	1963.500	6.09
9J23072-CAL2	50	95145	1902.900	6.09
9J23072-CAL3	50	93220	1864.400	6.09
9J23072-CAL4	50	92321	1846.420	6.10
9J23072-CAL5	50	94791	1895.820	6.09
9J23072-CAL6	50	98978	1979.560	6.09
9J23072-CAL7	50	102360	2047.200	6.10
9J23072-CAL8	50	94087	1881.740	6.09
9J23072-CAL9	50	105013	2100.260	6.09
9J23072-CALA	50	109942	2198.840	6.09
9J23072-CALB	50	110028	2200.560	6.09

AVE RF **1989.200** RF RSD **6.53** AVE RT **6.09**

1,2-Dichloroethane (EDC)

Curve Fit: **AVERAGE RF**

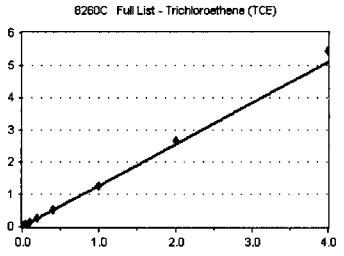


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	709	1.863	6.21
9J23072-CAL3	0.4	1352	1.813	6.21
9J23072-CAL4	1	3762	2.037	6.21
9J23072-CAL5	2	8154	2.151	6.21
9J23072-CAL6	5	19717	1.992	6.21
9J23072-CAL7	10	40742	1.990	6.21
9J23072-CAL8	20	77917	2.070	6.21
9J23072-CAL9	50	202778	1.931	6.21
9J23072-CALA	100	434140	1.974	6.21
9J23072-CALB	200	860316	1.955	6.21

AVE RF **1.978** RF RSD **4.93** AVE RT **6.21**

Trichloroethene (TCE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	381	1.001	6.62
9J23072-CAL3	0.4	944	1.266	6.62
9J23072-CAL4	1	2385	1.292	6.63
9J23072-CAL5	2	5111	1.348	6.62
9J23072-CAL6	5	12809	1.294	6.63
9J23072-CAL7	10	26231	1.281	6.63
9J23072-CAL8	20	49869	1.325	6.63
9J23072-CAL9	50	131822	1.255	6.62
9J23072-CALA	100	292620	1.331	6.62
9J23072-CALB	200	600664	1.365	6.63

AVE RF **1.276** RF RSD **8.06** AVE RT **6.62**

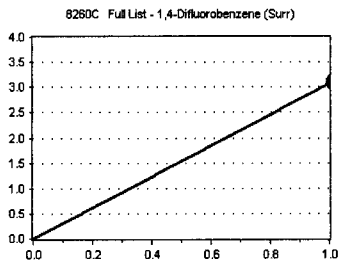
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

1,4-Difluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

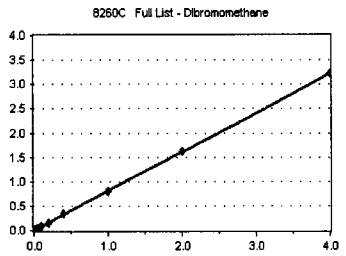


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	299782	3.054	6.66
9J23072-CAL2	50	296071	3.112	6.66
9J23072-CAL3	50	285274	3.060	6.66
9J23072-CAL4	50	284090	3.077	6.66
9J23072-CAL5	50	289317	3.052	6.66
9J23072-CAL6	50	303595	3.067	6.66
9J23072-CAL7	50	313300	3.061	6.66
9J23072-CAL8	50	285833	3.038	6.66
9J23072-CAL9	50	323717	3.083	6.66
9J23072-CALA	50	338746	3.081	6.66
9J23072-CALB	50	346693	3.151	6.66

AVE RF **3.076** RF RSD **1.03** AVE RT **6.66**

Dibromomethane

Curve Fit: **AVERAGE RF**

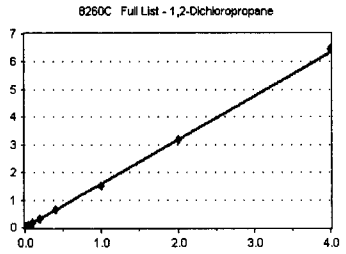


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	565	0.758	7.06
9J23072-CAL4	1	1439	0.779	7.07
9J23072-CAL5	2	3204	0.845	7.06
9J23072-CAL6	5	8013	0.810	7.06
9J23072-CAL7	10	16435	0.803	7.06
9J23072-CAL8	20	31731	0.843	7.06
9J23072-CAL9	50	83755	0.798	7.06
9J23072-CALA	100	179023	0.814	7.06
9J23072-CALB	200	353624	0.803	7.06

AVE RF **0.806** RF RSD **3.43** AVE RT **7.06**

1,2-Dichloropropane

Curve Fit: **AVERAGE RF**

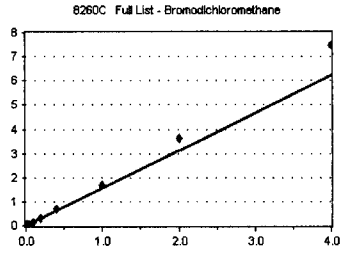


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	1176	1.577	7.17
9J23072-CAL4	1	2881	1.560	7.17
9J23072-CAL5	2	6237	1.645	7.17
9J23072-CAL6	5	15592	1.575	7.18
9J23072-CAL7	10	32431	1.584	7.17
9J23072-CAL8	20	61016	1.621	7.17
9J23072-CAL9	50	160675	1.530	7.17
9J23072-CALA	100	350522	1.594	7.17
9J23072-CALB	200	710561	1.614	7.17

AVE RF **1.589** RF RSD **2.17** AVE RT **7.17**

Bromodichloromethane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	437	1.148	7.25
9J23072-CAL3	0.4	1004	1.346	7.25
9J23072-CAL4	1	2597	1.407	7.25
9J23072-CAL5	2	5797	1.529	7.25
9J23072-CAL6	5	14894	1.505	7.25
9J23072-CAL7	10	31433	1.535	7.25
9J23072-CAL8	20	63632	1.691	7.25
9J23072-CAL9	50	175537	1.672	7.25
9J23072-CALA	100	400178	1.820	7.25
9J23072-CALB	200	825346	1.875	7.25

AVE RF **1.553** RF RSD **14.23** AVE RT **7.25**

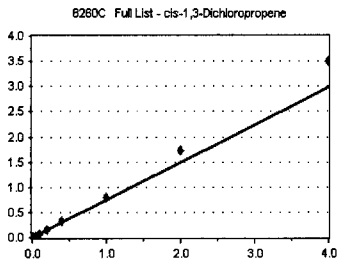
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

cis-1,3-Dichloropropene

Curve Fit: **AVERAGE RF**

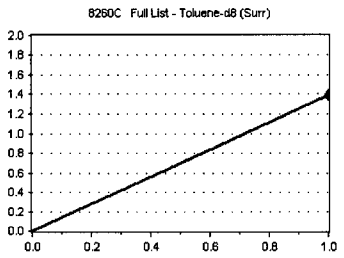


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	596	0.568	7.95
9J23072-CAL3	0.4	1346	0.665	7.96
9J23072-CAL4	1	3342	0.668	7.96
9J23072-CAL5	2	7516	0.740	7.95
9J23072-CAL6	5	19353	0.729	7.95
9J23072-CAL7	10	40620	0.742	7.95
9J23072-CAL8	20	80676	0.798	7.95
9J23072-CAL9	50	225850	0.801	7.95
9J23072-CALA	100	509437	0.865	7.95
9J23072-CALB	200	1055097	0.876	7.95

AVE RF **0.745** RF RSD **12.78** AVE RT **7.95**

Toluene-d8 (Surr)

Curve Fit: **AVERAGE RF**

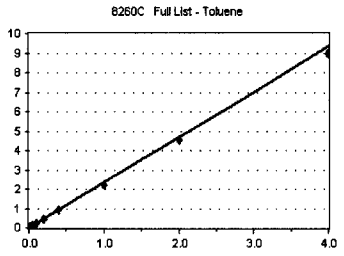


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	367697	1.398	8.17
9J23072-CAL2	50	363461	1.385	8.17
9J23072-CAL3	50	352756	1.395	8.17
9J23072-CAL4	50	350128	1.399	8.17
9J23072-CAL5	50	358352	1.410	8.17
9J23072-CAL6	50	369631	1.392	8.17
9J23072-CAL7	50	383154	1.399	8.17
9J23072-CAL8	50	349892	1.384	8.17
9J23072-CAL9	50	394687	1.399	8.17
9J23072-CALA	50	411311	1.397	8.17
9J23072-CALB	50	415139	1.379	8.17

AVE RF **1.394** RF RSD **0.64** AVE RT **8.17**

Toluene

Curve Fit: **AVERAGE RF**

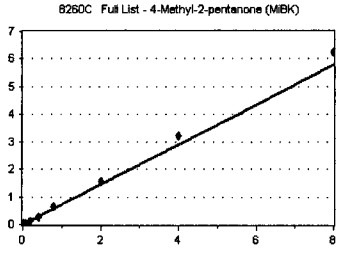


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	1352	2.571	8.23
9J23072-CAL2	0.2	2544	2.423	8.24
9J23072-CAL3	0.4	4766	2.356	8.23
9J23072-CAL4	1	11638	2.326	8.23
9J23072-CAL5	2	24811	2.441	8.23
9J23072-CAL6	5	59671	2.246	8.23
9J23072-CAL7	10	124843	2.279	8.23
9J23072-CAL8	20	237451	2.349	8.23
9J23072-CAL9	50	618659	2.194	8.23
9J23072-CALA	100	1343640	2.282	8.23
9J23072-CALB	200	2694190	2.237	8.23

AVE RF **2.337** RF RSD **4.66** AVE RT **8.23**

4-Methyl-2-pentanone (MiBK)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.8	2938	0.726	8.67
9J23072-CAL4	2	5887	0.588	8.67
9J23072-CAL5	4	13736	0.676	8.67
9J23072-CAL6	10	35142	0.662	8.68
9J23072-CAL7	20	77248	0.705	8.67
9J23072-CAL8	40	161301	0.798	8.67
9J23072-CAL9	100	437036	0.775	8.67
9J23072-CALA	200	950533	0.807	8.68
9J23072-CALB	400	1880689	0.781	8.68

AVE RF **0.724** RF RSD **10.15** AVE RT **8.67**

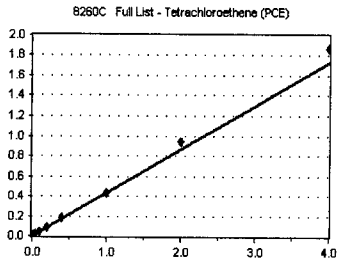
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

Tetrachloroethene (PCE)

Curve Fit: **AVERAGE RF**

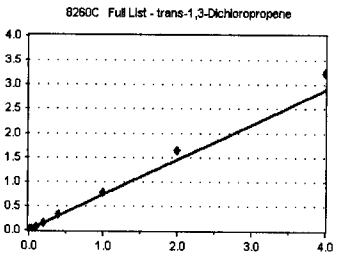


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	350	0.333	8.68
9J23072-CAL3	0.4	805	0.398	8.68
9J23072-CAL4	1	2158	0.431	8.68
9J23072-CAL5	2	4654	0.458	8.68
9J23072-CAL6	5	11684	0.440	8.68
9J23072-CAL7	10	24512	0.448	8.68
9J23072-CAL8	20	46373	0.459	8.68
9J23072-CAL9	50	122230	0.433	8.68
9J23072-CALA	100	275505	0.468	8.68
9J23072-CALB	200	563695	0.468	8.68

AVE RF **0.434** RF RSD **9.46** AVE RT **8.68**

trans-1,3-Dichloropropene

Curve Fit: **AVERAGE RF**

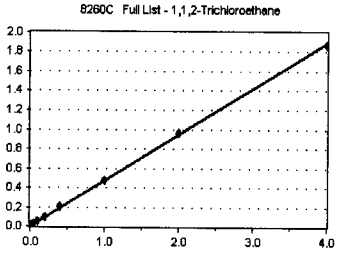


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	580	0.552	8.71
9J23072-CAL3	0.4	1392	0.688	8.70
9J23072-CAL4	1	3091	0.618	8.71
9J23072-CAL5	2	7062	0.695	8.70
9J23072-CAL6	5	18504	0.697	8.71
9J23072-CAL7	10	41087	0.750	8.71
9J23072-CAL8	20	81643	0.808	8.70
9J23072-CAL9	50	221998	0.787	8.70
9J23072-CALA	100	481174	0.817	8.71
9J23072-CALB	200	979397	0.813	8.71

AVE RF **0.722** RF RSD **12.37** AVE RT **8.70**

1,1,2-Trichloroethane

Curve Fit: **AVERAGE RF**

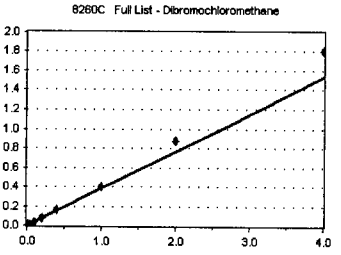


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	417	0.397	8.88
9J23072-CAL3	0.4	933	0.461	8.88
9J23072-CAL4	1	2304	0.460	8.88
9J23072-CAL5	2	5217	0.513	8.88
9J23072-CAL6	5	13046	0.491	8.88
9J23072-CAL7	10	26718	0.488	8.88
9J23072-CAL8	20	51573	0.510	8.88
9J23072-CAL9	50	133185	0.472	8.88
9J23072-CALA	100	282770	0.480	8.88
9J23072-CALB	200	564264	0.469	8.88

AVE RF **0.474** RF RSD **6.91** AVE RT **8.88**

Dibromochloromethane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~522~~	~~0.258~~	~~9.06~~
9J23072-CAL4	1	1520	0.304	9.07
9J23072-CAL5	2	3616	0.356	9.06
9J23072-CAL6	5	9350	0.352	9.06
9J23072-CAL7	10	19925	0.364	9.06
9J23072-CAL8	20	40104	0.397	9.06
9J23072-CAL9	50	113957	0.404	9.06
9J23072-CALA	100	256674	0.436	9.07
9J23072-CALB	200	542189	0.450	9.06

AVE RF **0.383** RF RSD **12.61** AVE RT **9.07**

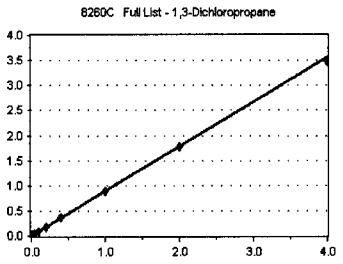
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

1,3-Dichloropropane

Curve Fit: **AVERAGE RF**

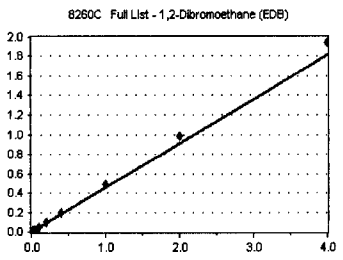


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	851	0.810	9.16
9J23072-CAL3	0.4	1718	0.849	9.17
9J23072-CAL4	1	4392	0.878	9.16
9J23072-CAL5	2	9958	0.980	9.16
9J23072-CAL6	5	24045	0.905	9.16
9J23072-CAL7	10	49530	0.904	9.16
9J23072-CAL8	20	95374	0.943	9.16
9J23072-CAL9	50	247593	0.878	9.16
9J23072-CALA	100	523949	0.890	9.16
9J23072-CALB	200	1049067	0.871	9.16

AVE RF **0.891** RF RSD **5.29** AVE RT **9.16**

1,2-Dibromoethane (EDB)

Curve Fit: **AVERAGE RF**

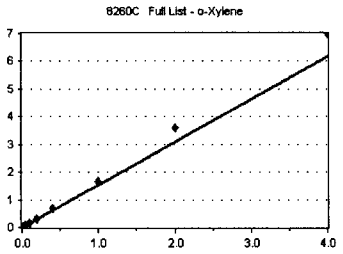


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	426	0.406	9.30
9J23072-CAL3	0.4	788	0.390	9.30
9J23072-CAL4	1	2060	0.412	9.30
9J23072-CAL5	2	4697	0.462	9.30
9J23072-CAL6	5	12041	0.453	9.30
9J23072-CAL7	10	25458	0.465	9.30
9J23072-CAL8	20	50265	0.497	9.30
9J23072-CAL9	50	135703	0.481	9.30
9J23072-CALA	100	289923	0.492	9.30
9J23072-CALB	200	586578	0.487	9.30

AVE RF **0.454** RF RSD **8.56** AVE RT **9.30**

o-Xylene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	723	1.375	0.00
9J23072-CAL2	0.2	1440	1.371	10.38
9J23072-CAL3	0.4	2627	1.299	10.38
9J23072-CAL4	1	7125	1.424	10.38
9J23072-CAL5	2	15404	1.516	10.38
9J23072-CAL6	5	39703	1.495	10.38
9J23072-CAL7	10	86841	1.585	10.38
9J23072-CAL8	20	172231	1.704	10.38
9J23072-CAL9	50	471843	1.673	10.38
9J23072-CALA	100	1054003	1.790	10.38
9J23072-CALB	200	2102591	1.746	10.38

AVE RF **1.543** RF RSD **10.87** AVE RT **9.43**

2-Hexanone

Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.8~~	~~1510~~	~~0.373~~	~~9.55~~
~~9J23072-CAL4~~	~~2~~	~~3832~~	~~0.383~~	~~9.55~~
9J23072-CAL5	4	9451	0.465	9.55
9J23072-CAL6	10	23467	0.442	9.55
9J23072-CAL7	20	53666	0.490	9.55
9J23072-CAL8	40	118204	0.585	9.55
9J23072-CAL9	100	323576	0.574	9.55
9J23072-CALA	200	720460	0.612	9.55
9J23072-CALB	400	1458573	0.606	9.55

AVE RF **0.539** RF RSD **13.20** AVE RT **9.55**

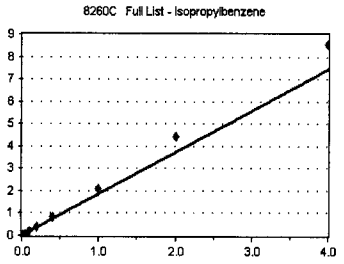
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

Isopropylbenzene

Curve Fit: **AVERAGE RF**

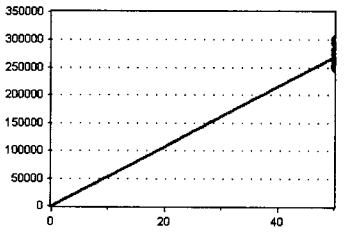


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	797	1.515	0.00
9J23072-CAL2	0.2	1688	1.608	10.65
9J23072-CAL3	0.4	3200	1.582	10.65
9J23072-CAL4	1	8399	1.678	10.65
9J23072-CAL5	2	18251	1.796	10.65
9J23072-CAL6	5	47833	1.801	10.65
9J23072-CAL7	10	107252	1.958	10.65
9J23072-CAL8	20	211570	2.093	10.65
9J23072-CAL9	50	584329	2.072	10.65
9J23072-CALA	100	1303605	2.214	10.65
9J23072-CALB	200	2575948	2.139	10.65

AVE RF **1.860** RF RSD **13.31** AVE RT **9.68**

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**

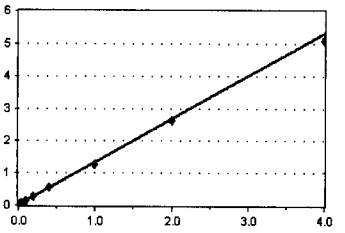


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	262966	5259.320	9.81
9J23072-CAL2	50	262504	5250.080	9.81
9J23072-CAL3	50	252875	5057.500	9.81
9J23072-CAL4	50	250210	5004.200	9.81
9J23072-CAL5	50	254089	5081.780	9.81
9J23072-CAL6	50	265619	5312.380	9.81
9J23072-CAL7	50	273877	5477.540	9.81
9J23072-CAL8	50	252726	5054.520	9.81
9J23072-CAL9	50	282031	5640.620	9.81
9J23072-CALA	50	294436	5888.720	9.81
9J23072-CALB	50	301031	6020.620	9.81

AVE RF **5367.935** RF RSD **6.51** AVE RT **9.81**

Chlorobenzene

Curve Fit: **AVERAGE RF**

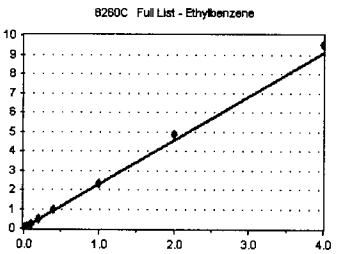


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	695	1.321	9.82
9J23072-CAL2	0.2	1422	1.354	9.83
9J23072-CAL3	0.4	2767	1.368	9.83
9J23072-CAL4	1	6563	1.311	9.82
9J23072-CAL5	2	14691	1.445	9.82
9J23072-CAL6	5	35206	1.325	9.83
9J23072-CAL7	10	72570	1.325	9.82
9J23072-CAL8	20	137767	1.363	9.83
9J23072-CAL9	50	353531	1.254	9.83
9J23072-CALA	100	776195	1.318	9.82
9J23072-CALB	200	1537073	1.277	9.83

AVE RF **1.333** RF RSD **3.80** AVE RT **9.82**

Ethylbenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	1105	2.101	9.86
9J23072-CAL2	0.2	2188	2.084	9.86
9J23072-CAL3	0.4	4399	2.174	9.86
9J23072-CAL4	1	10768	2.152	9.86
9J23072-CAL5	2	23566	2.319	9.86
9J23072-CAL6	5	59905	2.255	9.86
9J23072-CAL7	10	127729	2.332	9.86
9J23072-CAL8	20	245666	2.430	9.86
9J23072-CAL9	50	654045	2.319	9.86
9J23072-CALA	100	1432837	2.433	9.86
9J23072-CALB	200	2864835	2.379	9.86

AVE RF **2.271** RF RSD **5.56** AVE RT **9.86**

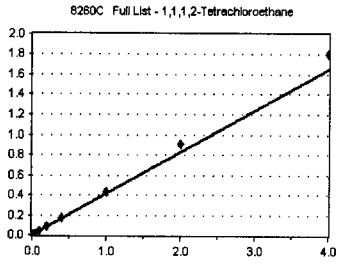
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

1,1,1,2-Tetrachloroethane

Curve Fit: **AVERAGE RF**

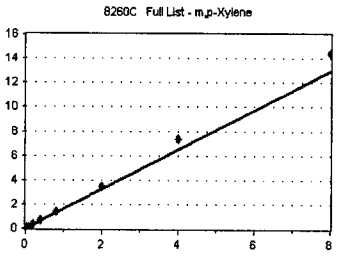


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	712	0.352	9.89
9J23072-CAL4	1	1888	0.377	9.89
9J23072-CAL5	2	4053	0.399	9.89
9J23072-CAL6	5	10760	0.405	9.89
9J23072-CAL7	10	22448	0.410	9.89
9J23072-CAL8	20	44112	0.436	9.89
9J23072-CAL9	50	121183	0.430	9.89
9J23072-CALA	100	268092	0.455	9.89
9J23072-CALB	200	543615	0.451	9.89

AVE RF **0.413** RF RSD **8.29** AVE RT **9.89**

m,p-Xylene

Curve Fit: **AVERAGE RF**

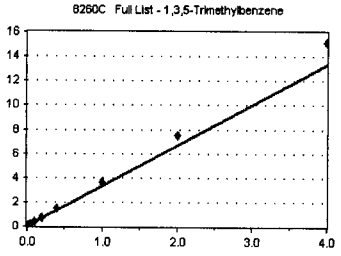


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.2	1531	1.456	10.00
9J23072-CAL2	0.4	3071	1.462	10.00
9J23072-CAL3	0.8	5672	1.402	10.00
9J23072-CAL4	2	14581	1.457	10.00
9J23072-CAL5	4	32148	1.582	10.00
9J23072-CAL6	10	85048	1.601	10.00
9J23072-CAL7	20	185431	1.693	10.00
9J23072-CAL8	40	359257	1.777	10.00
9J23072-CAL9	100	967453	1.715	10.00
9J23072-CALA	200	2158981	1.833	10.00
9J23072-CALB	400	4351315	1.807	10.00

AVE RF **1.617** RF RSD **9.72** AVE RT **10.00**

1,3,5-Trimethylbenzene

Curve Fit: **AVERAGE RF**

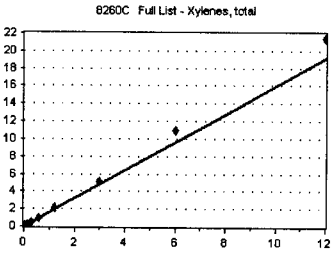


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	562	2.560	0.00
9J23072-CAL2	0.2	1298	2.938	11.16
9J23072-CAL3	0.4	2457	2.907	11.16
9J23072-CAL4	1	6251	3.006	11.16
9J23072-CAL5	2	14119	3.372	11.16
9J23072-CAL6	5	37585	3.354	11.16
9J23072-CAL7	10	83861	3.668	11.16
9J23072-CAL8	20	167903	3.762	11.16
9J23072-CAL9	50	450995	3.628	11.16
9J23072-CALA	100	1011802	3.744	11.16
9J23072-CALB	200	2020440	3.780	11.16

AVE RF **3.338** RF RSD **12.70** AVE RT **10.14**

Xylenes, total

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.3	2254	1.429	10.00
9J23072-CAL2	0.6	4511	1.432	10.38
9J23072-CAL3	1.2	8299	1.367	10.38
9J23072-CAL4	3	21706	1.446	10.38
9J23072-CAL5	6	47552	1.560	10.38
9J23072-CAL6	15	124751	1.566	10.38
9J23072-CAL7	30	272272	1.657	10.38
9J23072-CAL8	60	531488	1.753	10.38
9J23072-CAL9	150	1439296	1.701	10.38
9J23072-CALA	300	3212984	1.819	10.38
9J23072-CALB	600	6453906	1.787	10.38

AVE RF **1.592** RF RSD **10.07** AVE RT **10.34**

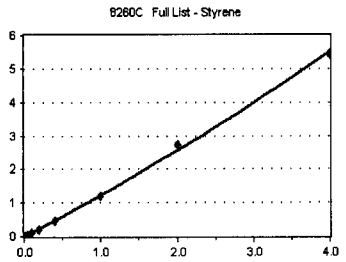
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

Styrene

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

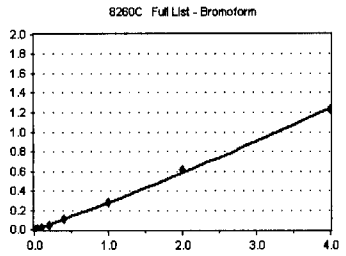


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	892	0.850	10.42
9J23072-CAL3	0.4	1570	0.776	10.42
9J23072-CAL4	1	3854	0.770	10.42
9J23072-CAL5	2	8686	0.855	10.42
9J23072-CAL6	5	24248	0.913	10.42
9J23072-CAL7	10	55991	1.022	10.42
9J23072-CAL8	20	116013	1.148	10.42
9J23072-CAL9	50	342762	1.215	10.42
9J23072-CALA	100	801932	1.362	10.42
9J23072-CALB	200	1640257	1.362	10.42

AVE RF **1.027** RF RSD **22.43** AVE RT **10.42**

Bromoform

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

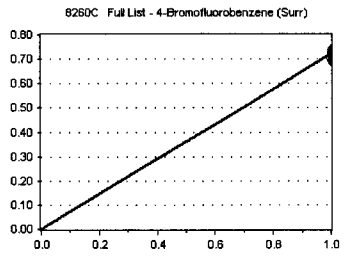


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	307	0.152	10.43
9J23072-CAL4	1	884	0.177	10.44
9J23072-CAL5	2	2069	0.204	10.44
9J23072-CAL6	5	5470	0.206	10.44
9J23072-CAL7	10	12367	0.226	10.44
9J23072-CAL8	20	26337	0.261	10.44
9J23072-CAL9	50	78066	0.277	10.44
9J23072-CALA	100	181310	0.308	10.44
9J23072-CALB	200	371025	0.308	10.44

AVE RF **0.235** RF RSD **23.91** AVE RT **10.44**

4-Bromofluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

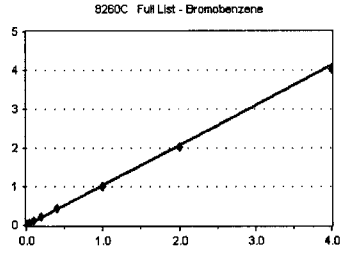


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	81163	0.739	10.88
9J23072-CAL2	50	80374	0.728	10.88
9J23072-CAL3	50	77055	0.729	10.88
9J23072-CAL4	50	75855	0.730	10.88
9J23072-CAL5	50	76386	0.730	10.88
9J23072-CAL6	50	81641	0.728	10.88
9J23072-CAL7	50	84648	0.740	10.88
9J23072-CAL8	50	79925	0.716	10.88
9J23072-CAL9	50	88914	0.715	10.88
9J23072-CALA	50	93929	0.695	10.88
9J23072-CALB	50	92209	0.690	10.88

AVE RF **0.722** RF RSD **2.28** AVE RT **10.88**

Bromobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	420	0.951	10.97
9J23072-CAL3	0.4	848	1.003	10.96
9J23072-CAL4	1	2143	1.030	10.96
9J23072-CAL5	2	4789	1.144	10.96
9J23072-CAL6	5	11698	1.044	10.96
9J23072-CAL7	10	24784	1.084	10.96
9J23072-CAL8	20	47411	1.062	10.96
9J23072-CAL9	50	125116	1.007	10.96
9J23072-CALA	100	273427	1.012	10.97
9J23072-CALB	200	539540	1.010	10.97

AVE RF **1.035** RF RSD **5.11** AVE RT **10.96**

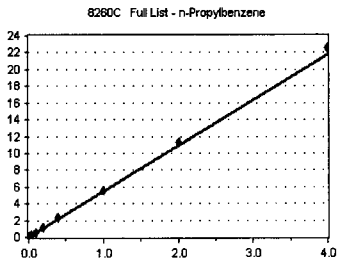
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

n-Propylbenzene

Curve Fit: **AVERAGE RF**

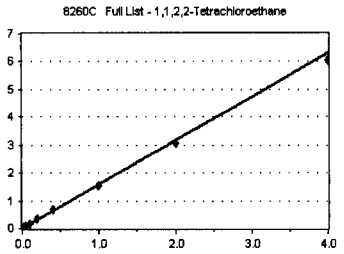


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	1106	5.038	10.99
9J23072-CAL2	0.2	2321	5.253	10.99
9J23072-CAL3	0.4	4342	5.136	11.00
9J23072-CAL4	1	10891	5.237	11.00
9J23072-CAL5	2	23478	5.607	10.99
9J23072-CAL6	5	60466	5.395	11.00
9J23072-CAL7	10	131143	5.736	11.00
9J23072-CAL8	20	255618	5.728	11.00
9J23072-CAL9	50	690882	5.558	10.99
9J23072-CALA	100	1532146	5.670	11.00
9J23072-CALB	200	3009505	5.631	11.00

AVE RF **5.454** RF RSD **4.61** AVE RT **11.00**

1,1,2,2-Tetrachloroethane

Curve Fit: **AVERAGE RF**

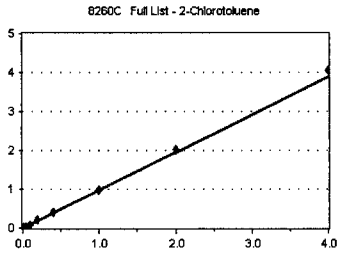


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~305~~	~~1.389~~	~~11.04~~
9J23072-CAL2	0.2	669	1.514	11.04
9J23072-CAL3	0.4	1189	1.407	11.05
9J23072-CAL4	1	3210	1.544	11.05
9J23072-CAL5	2	7515	1.795	11.05
9J23072-CAL6	5	17963	1.603	11.05
9J23072-CAL7	10	37925	1.659	11.05
9J23072-CAL8	20	74780	1.676	11.05
9J23072-CAL9	50	193478	1.556	11.05
9J23072-CALA	100	412177	1.525	11.05
9J23072-CALB	200	808397	1.513	11.05

AVE RF **1.579** RF RSD **6.87** AVE RT **11.05**

2-Chlorotoluene

Curve Fit: **AVERAGE RF**

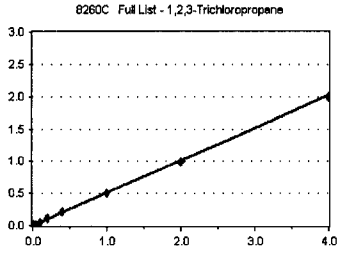


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	366	0.828	11.11
9J23072-CAL3	0.4	805	0.952	11.11
9J23072-CAL4	1	2013	0.968	11.11
9J23072-CAL5	2	4132	0.987	11.11
9J23072-CAL6	5	10583	0.944	11.11
9J23072-CAL7	10	23286	1.019	11.12
9J23072-CAL8	20	45697	1.024	11.12
9J23072-CAL9	50	121749	0.979	11.11
9J23072-CALA	100	274790	1.017	11.12
9J23072-CALB	200	541055	1.012	11.12

AVE RF **0.973** RF RSD **5.99** AVE RT **11.12**

1,2,3-Trichloropropane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~133~~	~~0.301~~	~~11.15~~
9J23072-CAL3	0.4	377	0.446	11.15
9J23072-CAL4	1	1017	0.489	11.15
9J23072-CAL5	2	2381	0.569	11.15
9J23072-CAL6	5	5563	0.496	11.15
9J23072-CAL7	10	12228	0.535	11.15
9J23072-CAL8	20	23923	0.536	11.15
9J23072-CAL9	50	61884	0.498	11.15
9J23072-CALA	100	134120	0.496	11.15
9J23072-CALB	200	266315	0.498	11.15

AVE RF **0.507** RF RSD **6.92** AVE RT **11.15**

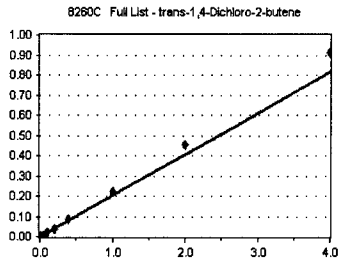
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

trans-1,4-Dichloro-2-butene

Curve Fit: **AVERAGE RF**

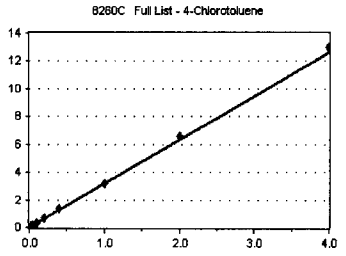


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	1	335	0.161	11.19
9J23072-CAL5	2	731	0.175	11.19
9J23072-CAL6	5	2176	0.194	11.19
9J23072-CAL7	10	4566	0.200	11.19
9J23072-CAL8	20	9771	0.219	11.19
9J23072-CAL9	50	27694	0.223	11.19
9J23072-CALA	100	61632	0.228	11.19
9J23072-CALB	200	121850	0.228	11.19

AVE RF **0.203** RF RSD **12.54** AVE RT **11.19**

4-Chlorotoluene

Curve Fit: **AVERAGE RF**

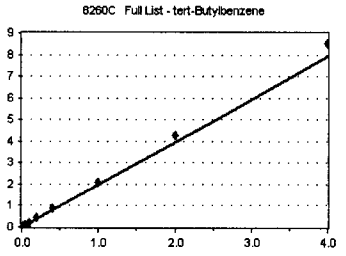


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	1325	2.999	11.25
9J23072-CAL3	0.4	2330	2.756	11.25
9J23072-CAL4	1	6138	2.952	11.25
9J23072-CAL5	2	13748	3.283	11.25
9J23072-CAL6	5	35148	3.136	11.25
9J23072-CAL7	10	76302	3.337	11.25
9J23072-CAL8	20	150657	3.376	11.25
9J23072-CAL9	50	398929	3.209	11.25
9J23072-CALA	100	888249	3.287	11.25
9J23072-CALB	200	1741373	3.258	11.25

AVE RF **3.159** RF RSD **6.28** AVE RT **11.25**

tert-Butylbenzene

Curve Fit: **AVERAGE RF**

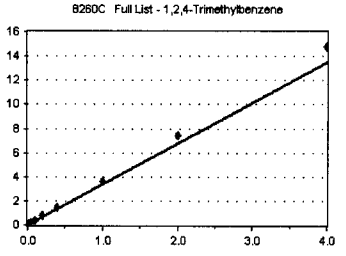


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	795	1.799	11.40
9J23072-CAL3	0.4	1388	1.642	11.41
9J23072-CAL4	1	3751	1.804	11.41
9J23072-CAL5	2	8173	1.952	11.41
9J23072-CAL6	5	22268	1.987	11.41
9J23072-CAL7	10	48165	2.107	11.41
9J23072-CAL8	20	95439	2.139	11.41
9J23072-CAL9	50	260062	2.092	11.41
9J23072-CALA	100	578812	2.142	11.41
9J23072-CALB	200	1137746	2.129	11.41

AVE RF **1.979** RF RSD **8.93** AVE RT **11.41**

1,2,4-Trimethylbenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	694	3.161	11.46
9J23072-CAL2	0.2	1248	2.825	11.46
9J23072-CAL3	0.4	2375	2.810	11.46
9J23072-CAL4	1	6195	2.979	11.46
9J23072-CAL5	2	14318	3.419	11.46
9J23072-CAL6	5	37661	3.360	11.46
9J23072-CAL7	10	85499	3.740	11.46
9J23072-CAL8	20	167688	3.758	11.46
9J23072-CAL9	50	450083	3.621	11.46
9J23072-CALA	100	1005539	3.721	11.46
9J23072-CALB	200	1974970	3.695	11.46

AVE RF **3.372** RF RSD **11.06** AVE RT **11.46**

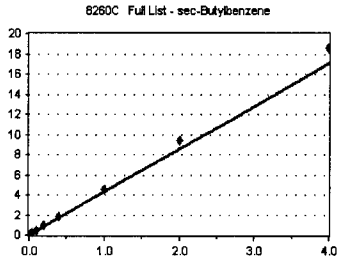
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

sec-Butylbenzene

Curve Fit: **AVERAGE RF**

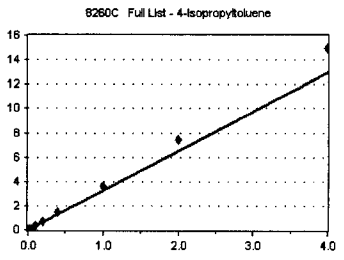


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	1629	3.687	11.55
9J23072-CAL3	0.4	3021	3.574	11.55
9J23072-CAL4	1	7629	3.668	11.55
9J23072-CAL5	2	17439	4.164	11.55
9J23072-CAL6	5	47859	4.270	11.55
9J23072-CAL7	10	107745	4.713	11.55
9J23072-CAL8	20	207744	4.655	11.55
9J23072-CAL9	50	570890	4.593	11.55
9J23072-CALA	100	1269236	4.697	11.55
9J23072-CALB	200	2487376	4.654	11.55

AVE RF **4.268** RF RSD **10.98** AVE RT **11.55**

4-Isopropyltoluene

Curve Fit: **AVERAGE RF**

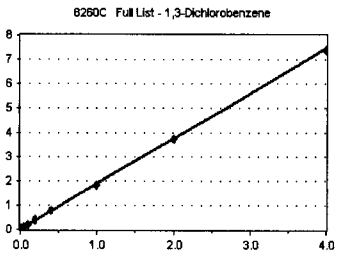


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	1231	2.786	11.66
9J23072-CAL3	0.4	2242	2.652	11.66
9J23072-CAL4	1	5514	2.651	11.66
9J23072-CAL5	2	12982	3.100	11.66
9J23072-CAL6	5	35139	3.135	11.66
9J23072-CAL7	10	80264	3.511	11.66
9J23072-CAL8	20	160438	3.595	11.66
9J23072-CAL9	50	449627	3.617	11.66
9J23072-CALA	100	1010639	3.740	11.66
9J23072-CALB	200	1999489	3.741	11.66

AVE RF **3.253** RF RSD **13.63** AVE RT **11.66**

1,3-Dichlorobenzene

Curve Fit: **AVERAGE RF**

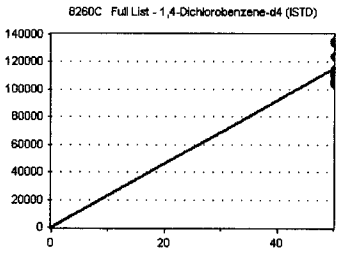


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	347	1.581	11.72
9J23072-CAL2	0.2	806	1.824	11.71
9J23072-CAL3	0.4	1573	1.861	11.71
9J23072-CAL4	1	3912	1.881	11.71
9J23072-CAL5	2	8614	2.057	11.71
9J23072-CAL6	5	21435	1.913	11.71
9J23072-CAL7	10	45072	1.971	11.71
9J23072-CAL8	20	87437	1.959	11.71
9J23072-CAL9	50	228262	1.836	11.71
9J23072-CALA	100	503820	1.864	11.71
9J23072-CALB	200	987891	1.848	11.71

AVE RF **1.872** RF RSD **6.38** AVE RT **11.71**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	109763	2195.260	11.77
9J23072-CAL2	50	110460	2209.200	11.77
9J23072-CAL3	50	105667	2113.340	11.77
9J23072-CAL4	50	103980	2079.600	11.77
9J23072-CAL5	50	104689	2093.780	11.77
9J23072-CAL6	50	112071	2241.420	11.77
9J23072-CAL7	50	114313	2286.260	11.77
9J23072-CAL8	50	111564	2231.280	11.77
9J23072-CAL9	50	124308	2486.160	11.77
9J23072-CALA	50	135112	2702.240	11.77
9J23072-CALB	50	133612	2672.240	11.77

AVE RF **2300.980** RF RSD **9.61** AVE RT **11.77**

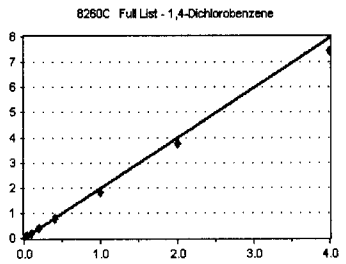
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

1,4-Dichlorobenzene

Curve Fit: **AVERAGE RF**

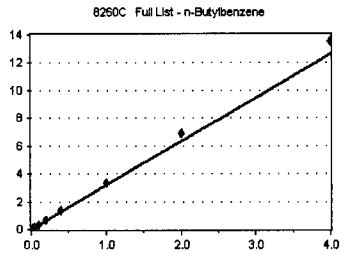


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	478	2.177	11.78
9J23072-CAL2	0.2	866	1.960	11.77
9J23072-CAL3	0.4	1787	2.114	11.78
9J23072-CAL4	1	4198	2.019	11.78
9J23072-CAL5	2	9088	2.170	11.78
9J23072-CAL6	5	21770	1.943	11.78
9J23072-CAL7	10	45209	1.977	11.78
9J23072-CAL8	20	87387	1.958	11.78
9J23072-CAL9	50	228373	1.837	11.78
9J23072-CALA	100	508874	1.883	11.78
9J23072-CALB	200	992164	1.856	11.78

AVE RF **1.990** RF RSD **5.96** AVE RT **11.78**

n-Butylbenzene

Curve Fit: **AVERAGE RF**

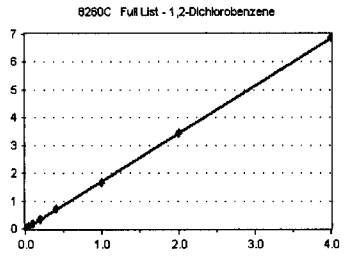


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	1325	2.999	11.97
9J23072-CAL3	0.4	2427	2.871	11.97
9J23072-CAL4	1	5940	2.856	11.97
9J23072-CAL5	2	12799	3.056	11.97
9J23072-CAL6	5	33924	3.027	11.97
9J23072-CAL7	10	74888	3.276	11.97
9J23072-CAL8	20	148499	3.328	11.97
9J23072-CAL9	50	411527	3.311	11.97
9J23072-CALA	100	927051	3.431	11.97
9J23072-CALB	200	1809932	3.387	11.97

AVE RF **3.154** RF RSD **6.84** AVE RT **11.97**

1,2-Dichlorobenzene

Curve Fit: **AVERAGE RF**

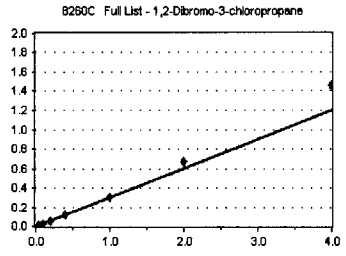


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	333	1.517	12.09
9J23072-CAL2	0.2	725	1.641	12.09
9J23072-CAL3	0.4	1421	1.681	12.09
9J23072-CAL4	1	3541	1.703	12.09
9J23072-CAL5	2	7821	1.868	12.09
9J23072-CAL6	5	19542	1.744	12.09
9J23072-CAL7	10	41072	1.796	12.09
9J23072-CAL8	20	80490	1.804	12.09
9J23072-CAL9	50	209123	1.682	12.09
9J23072-CALA	100	463375	1.715	12.09
9J23072-CALB	200	919855	1.721	12.09

AVE RF **1.716** RF RSD **5.40** AVE RT **12.09**

1,2-Dibromo-3-chloropropane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~70~~	~~8.281~~	~~12.69~~
~~9J23072-CAL4~~	~~1~~	~~497~~	~~0.239~~	~~12.70~~
9J23072-CAL5	2	1147	0.274	12.70
9J23072-CAL6	5	2712	0.242	12.70
9J23072-CAL7	10	6225	0.272	12.70
9J23072-CAL8	20	13313	0.298	12.70
9J23072-CAL9	50	38129	0.307	12.70
9J23072-CALA	100	90298	0.334	12.70
9J23072-CALB	200	195586	0.366	12.70

AVE RF **0.299** RF RSD **13.90** AVE RT **12.70**

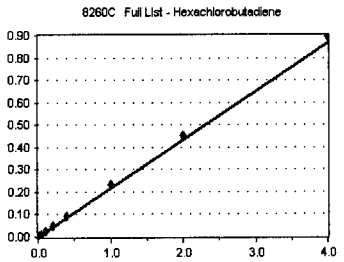
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ191024S VJ191024G**

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**

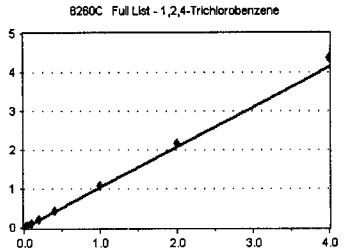


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	139	0.164	13.22
9J23072-CAL4	1	383	0.184	13.22
9J23072-CAL5	2	910	0.217	13.22
9J23072-CAL6	5	2682	0.239	13.21
9J23072-CAL7	10	5408	0.237	13.22
9J23072-CAL8	20	10256	0.230	13.22
9J23072-CAL9	50	28768	0.231	13.22
9J23072-CALA	100	61067	0.226	13.22
9J23072-CALB	200	119522	0.224	13.22

AVE RF **0.217** RF RSD **11.77** AVE RT **13.22**

1,2,4-Trichlorobenzene

Curve Fit: **AVERAGE RF**

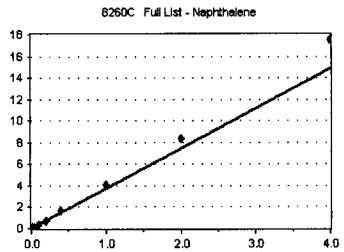


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	416	0.942	13.24
9J23072-CAL3	0.4	804	0.951	13.24
9J23072-CAL4	1	2063	0.992	13.24
9J23072-CAL5	2	4581	1.094	13.24
9J23072-CAL6	5	11011	0.983	13.24
9J23072-CAL7	10	24214	1.059	13.24
9J23072-CAL8	20	48878	1.095	13.24
9J23072-CAL9	50	133371	1.073	13.24
9J23072-CALA	100	290565	1.075	13.24
9J23072-CALB	200	586605	1.098	13.24

AVE RF **1.036** RF RSD **6.02** AVE RT **13.24**

Naphthalene

Curve Fit: **AVERAGE RF**

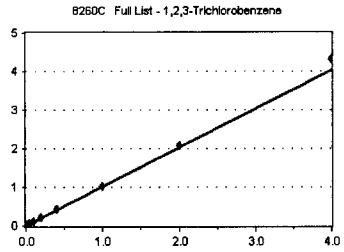


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	1558	3.526	13.52
9J23072-CAL3	0.4	2847	3.368	13.52
9J23072-CAL4	1	6478	3.115	13.52
9J23072-CAL5	2	14900	3.558	13.52
9J23072-CAL6	5	36533	3.260	13.52
9J23072-CAL7	10	83341	3.645	13.52
9J23072-CAL8	20	180749	4.050	13.52
9J23072-CAL9	50	507971	4.086	13.51
9J23072-CALA	100	1129820	4.181	13.52
9J23072-CALB	200	2345481	4.389	13.51

AVE RF **3.718** RF RSD **11.60** AVE RT **13.52**

1,2,3-Trichlorobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	435	0.985	13.68
9J23072-CAL3	0.4	736	0.871	13.68
9J23072-CAL4	1	1857	0.893	13.68
9J23072-CAL5	2	4683	1.118	13.68
9J23072-CAL6	5	10716	0.956	13.68
9J23072-CAL7	10	23691	1.036	13.68
9J23072-CAL8	20	47658	1.068	13.68
9J23072-CAL9	50	129134	1.039	13.68
9J23072-CALA	100	281123	1.040	13.68
9J23072-CALB	200	576564	1.079	13.68

AVE RF **1.008** RF RSD **8.02** AVE RT **13.68**

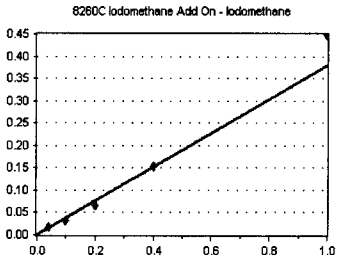
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Iodomethane Add On** Instrument Cal ID: **VJ191024S VJ191024G**

Iodomethane

Curve Fit: **AVERAGE RF**

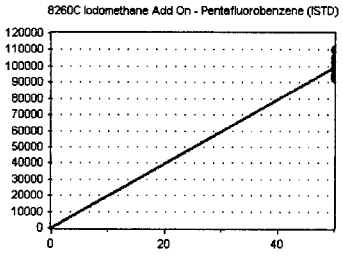


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~851~~	~~4.334~~	~~3.29~~
~~9J23072-CAL2~~	~~0.2~~	~~823~~	~~2.162~~	~~3.29~~
~~9J23072-CAL3~~	~~0.4~~	~~849~~	~~1.138~~	~~3.30~~
~~9J23072-CAL4~~	~~1~~	~~1059~~	~~0.574~~	~~3.30~~
9J23072-CAL5	2	1558	0.411	3.29
9J23072-CAL6	5	3207	0.324	3.30
9J23072-CAL7	10	6769	0.331	3.30
9J23072-CAL8	20	14327	0.381	3.29
9J23072-CAL9	50	47020	0.448	3.29
~~9J23072-CALA~~	~~100~~	~~117106~~	~~0.533~~	~~3.30~~
~~9J23072-CALB~~	~~200~~	~~265396~~	~~0.603~~	~~3.29~~

AVE RF **0.379** RF RSD **13.91** AVE RT **3.29**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	98175	1963.500	6.09
9J23072-CAL2	50	95145	1902.900	6.09
9J23072-CAL3	50	93220	1864.400	6.09
9J23072-CAL4	50	92321	1846.420	6.10
9J23072-CAL5	50	94791	1895.820	6.09
9J23072-CAL6	50	98978	1979.560	6.09
9J23072-CAL7	50	102360	2047.200	6.10
9J23072-CAL8	50	94087	1881.740	6.09
9J23072-CAL9	50	105013	2100.260	6.09
9J23072-CALA	50	109942	2198.840	6.09
9J23072-CALB	50	110028	2200.560	6.09

AVE RF **1989.200** RF RSD **6.53** AVE RT **6.09**

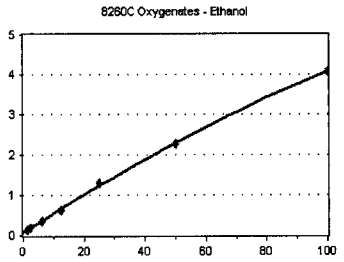
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VJ191024S VJ191024G**

Ethanol

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

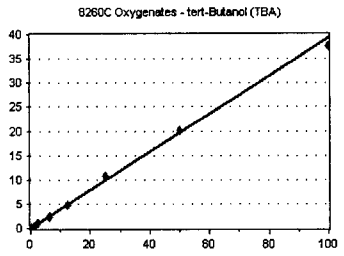


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~6.25~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~12.5~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~25~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	62.5	12276	0.106	3.33
9J23072-CAL5	125	19108	8.063	3.35
9J23072-CAL6	312	35634	5.770	3.38
9J23072-CAL7	625	63621	4.972	3.35
9J23072-CAL8	1250	122288	5.199	3.32
9J23072-CAL9	2500	239469	0.046	3.35
9J23072-CALA	5000	449287	4.087	3.35

AVE RF **6.184** RF RSD **37.93** AVE RT **3.35**

tert-Butanol (TBA)

Curve Fit: **AVERAGE RF**

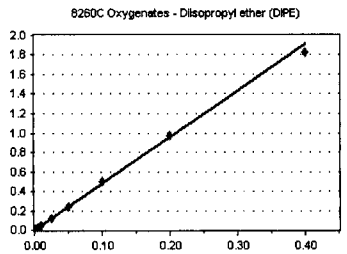


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~6.25~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~12.5~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	25	17903	0.384	4.26
9J23072-CAL4	62.5	43663	0.378	4.28
9J23072-CAL5	125	97251	0.410	4.32
9J23072-CAL6	312	228821	0.370	4.34
9J23072-CAL7	625	487639	0.381	4.26
9J23072-CAL8	1250	1026400	0.436	4.26
9J23072-CAL9	2500	2117115	0.403	4.32
9J23072-CALA	5000	4143802	0.377	4.33

AVE RF **0.393** RF RSD **5.68** AVE RT **4.30**

Diisopropyl ether (DIPE)

Curve Fit: **AVERAGE RF**

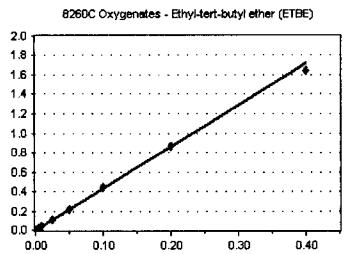


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.1	894	4.795	4.51
9J23072-CAL4	0.25	2248	4.870	4.51
9J23072-CAL5	0.5	4580	4.832	4.51
9J23072-CAL6	1.25	11435	4.621	4.51
9J23072-CAL7	2.5	23966	4.683	4.51
9J23072-CAL8	5	46804	4.975	4.51
9J23072-CAL9	10	102191	4.866	4.50
9J23072-CALA	20	200708	4.564	4.51

AVE RF **4.776** RF RSD **2.93** AVE RT **4.51**

Ethyl-tert-butyl ether (ETBE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	0.25	2080	4.506	4.88
9J23072-CAL5	0.5	4172	4.401	4.87
9J23072-CAL6	1.25	10218	4.129	4.87
9J23072-CAL7	2.5	21616	4.224	4.88
9J23072-CAL8	5	41722	4.434	4.87
9J23072-CAL9	10	90750	4.321	4.87
9J23072-CALA	20	180440	4.103	4.87

AVE RF **4.303** RF RSD **3.61** AVE RT **4.87**

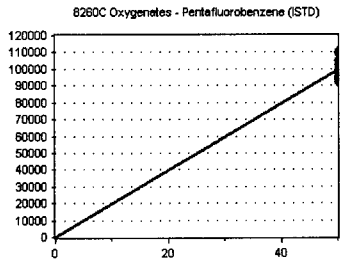
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VJ191024S VJ191024G**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

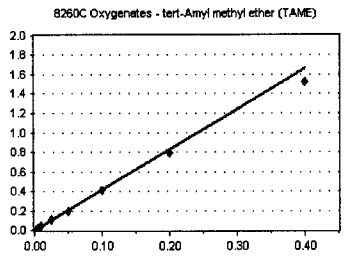


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	98175	1963.500	6.09
9J23072-CAL2	50	95145	1902.900	6.09
9J23072-CAL3	50	93220	1864.400	6.09
9J23072-CAL4	50	92321	1846.420	6.10
9J23072-CAL5	50	94791	1895.820	6.09
9J23072-CAL6	50	98978	1979.560	6.09
9J23072-CAL7	50	102360	2047.200	6.10
9J23072-CAL8	50	94087	1881.740	6.09
9J23072-CAL9	50	105013	2100.260	6.09
9J23072-CALA	50	109942	2198.840	6.09
9J23072-CALB	50	110028	2200.560	6.09

AVE RF **1989.200** RF RSD **6.53** AVE RT **6.09**

tert-Amyl methyl ether (TAME)

Curve Fit: **AVERAGE RF**

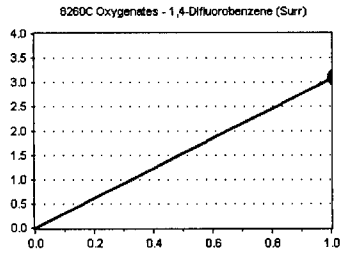


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	0.25	2154	4.666	6.16
9J23072-CAL5	0.5	4293	4.529	6.15
9J23072-CAL6	1.25	10184	4.116	6.16
9J23072-CAL7	2.5	20102	3.928	6.16
9J23072-CAL8	5	38296	4.070	6.16
9J23072-CAL9	10	82359	3.921	6.15
9J23072-CALA	20	167834	3.816	6.16

AVE RF **4.150** RF RSD **7.81** AVE RT **6.15**

1,4-Difluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

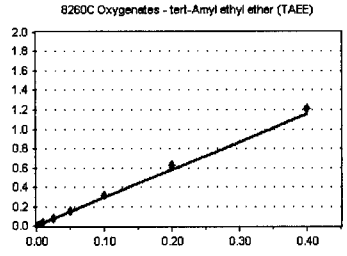


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	299782	3.054	6.66
9J23072-CAL2	50	296071	3.112	6.66
9J23072-CAL3	50	285274	3.060	6.66
9J23072-CAL4	50	284090	3.077	6.66
9J23072-CAL5	50	289317	3.052	6.66
9J23072-CAL6	50	303595	3.067	6.66
9J23072-CAL7	50	313300	3.061	6.66
9J23072-CAL8	50	285833	3.038	6.66
9J23072-CAL9	50	323717	3.083	6.66
9J23072-CALA	50	338746	3.081	6.66
9J23072-CALB	50	346693	3.151	6.66

AVE RF **3.076** RF RSD **1.03** AVE RT **6.66**

tert-Amyl ethyl ether (TAEE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.1	396	2.124	6.91
9J23072-CAL4	0.25	1238	2.682	6.91
9J23072-CAL5	0.5	3009	3.174	6.90
9J23072-CAL6	1.25	7162	2.894	6.91
9J23072-CAL7	2.5	14950	2.921	6.91
9J23072-CAL8	5	29237	3.107	6.91
9J23072-CAL9	10	65747	3.130	6.90
9J23072-CALA	20	133080	3.026	6.90

AVE RF **2.882** RF RSD **11.98** AVE RT **6.91**

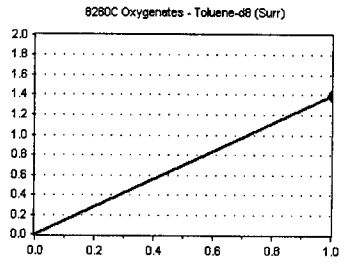
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VJ191024S VJ191024G**

Toluene-d8 (Surr)

Curve Fit: **AVERAGE RF**

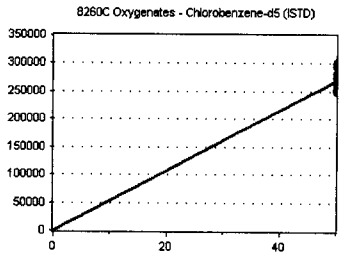


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	367697	1.398	8.17
9J23072-CAL2	50	363461	1.385	8.17
9J23072-CAL3	50	352756	1.395	8.17
9J23072-CAL4	50	350128	1.399	8.17
9J23072-CAL5	50	358352	1.410	8.17
9J23072-CAL6	50	369631	1.392	8.17
9J23072-CAL7	50	383154	1.399	8.17
9J23072-CAL8	50	349892	1.384	8.17
9J23072-CAL9	50	394687	1.399	8.17
9J23072-CALA	50	411311	1.397	8.17
9J23072-CALB	50	415139	1.379	8.17

AVE RF **1.394** RF RSD **0.64** AVE RT **8.17**

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**

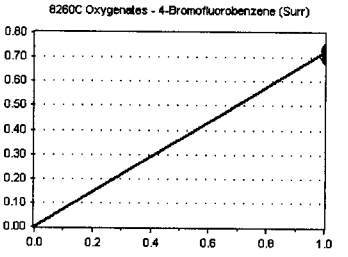


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	262966	5259.320	9.81
9J23072-CAL2	50	262504	5250.080	9.81
9J23072-CAL3	50	252875	5057.500	9.81
9J23072-CAL4	50	250210	5004.200	9.81
9J23072-CAL5	50	254089	5081.780	9.81
9J23072-CAL6	50	265619	5312.380	9.81
9J23072-CAL7	50	273877	5477.540	9.81
9J23072-CAL8	50	252726	5054.520	9.81
9J23072-CAL9	50	282031	5640.620	9.81
9J23072-CALA	50	294436	5888.720	9.81
9J23072-CALB	50	301031	6020.620	9.81

AVE RF **5367.935** RF RSD **6.51** AVE RT **9.81**

4-Bromofluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

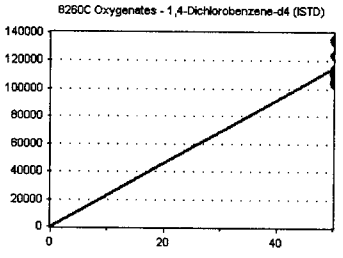


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	81163	0.739	10.88
9J23072-CAL2	50	80374	0.728	10.88
9J23072-CAL3	50	77055	0.729	10.88
9J23072-CAL4	50	75855	0.730	10.88
9J23072-CAL5	50	76386	0.730	10.88
9J23072-CAL6	50	81641	0.728	10.88
9J23072-CAL7	50	84648	0.740	10.88
9J23072-CAL8	50	79925	0.716	10.88
9J23072-CAL9	50	88914	0.715	10.88
9J23072-CALA	50	93929	0.695	10.88
9J23072-CALB	50	92209	0.690	10.88

AVE RF **0.722** RF RSD **2.28** AVE RT **10.88**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	109763	2195.260	11.77
9J23072-CAL2	50	110460	2209.200	11.77
9J23072-CAL3	50	105667	2113.340	11.77
9J23072-CAL4	50	103980	2079.600	11.77
9J23072-CAL5	50	104689	2093.780	11.77
9J23072-CAL6	50	112071	2241.420	11.77
9J23072-CAL7	50	114313	2286.260	11.77
9J23072-CAL8	50	111564	2231.280	11.77
9J23072-CAL9	50	124308	2486.160	11.77
9J23072-CALA	50	135112	2702.240	11.77
9J23072-CALB	50	133612	2672.240	11.77

AVE RF **2300.980** RF RSD **9.61** AVE RT **11.77**

Calibration Status Report VOA-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : VJ191024G.M
Title : NWTPH-Gx by GC/MS
Last Update : Thu Oct 24 12:01:51 2019
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	50	50	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102345.D
2	100	100	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102346.D
3	250	250	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102347.D
4	500	500	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102348.D
5	1000	1000	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102349.D
6	2500	2500	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102350.D
7	5000	5000	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102351.D
8	10K	10000	50	C:\msdchem\1\data\2019-10\9J23072\VJ19102352.D

#	ID	Update Time	Quant Time	Acquisition Time
1	50	Oct 24 12:01 2019	Oct 24 11:56 2019	24 Oct 2019 8:08 am
2	100	Oct 24 12:01 2019	Oct 24 11:56 2019	24 Oct 2019 8:35 am
3	250	Oct 24 12:01 2019	Oct 24 11:56 2019	24 Oct 2019 9:02 am
4	500	Oct 24 12:01 2019	Oct 24 11:56 2019	24 Oct 2019 9:29 am
5	1000	Oct 24 12:01 2019	Oct 24 11:56 2019	24 Oct 2019 9:56 am
6	2500	Oct 24 12:01 2019	Oct 24 11:56 2019	24 Oct 2019 10:23 am
7	5000	Oct 24 12:01 2019	Oct 24 11:56 2019	24 Oct 2019 10:50 am
8	10K	Oct 24 12:01 2019	Oct 24 11:56 2019	24 Oct 2019 11:16 am

VJ191024G.M Thu Oct 24 13:08:01 2019

Response Factor Report VOA-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : VJ191024G.M
Title : NWTPH-Gx by GC/MS
Last Update : Thu Oct 24 12:01:51 2019
Response Via : Initial Calibration

Calibration Files
50 =VJ19102345.D 100 =VJ19102346.D 250 =VJ19102347.D 500 =VJ19102348.D 1000=VJ19102349.D 2500=VJ19102350.D
5000=VJ19102351.D 10K =VJ19102352.D

		Compound	50	100	250	500	1000	2500	5000	10K	Avg	%RSD
1)	I	Pentafluorobenzene...	ISTD									
2)	S	1,4-Difluorobe...	1.899	1.904	1.904	1.922	1.905	1.925	1.900	1.860	1.902	1.04
3)	S	4-Bromofluorob...	0.509	0.508	0.513	0.520	0.513	0.534	0.506	0.496	0.512	2.12
4)	H	NWTPH-Gx (TPH)	2.460	2.371	2.382	2.428	2.537	2.727	2.647	2.958	2.564	7.93
5)	H	TPHg (C5-C9)	5.532	4.652	3.604	3.420	3.367	3.453	3.261	3.535	3.853	20.93
6)	H	TPHg (C6-C10)	4.141	3.503	3.007	2.939	2.904	2.990	2.805	3.052	3.168	14.03
7)	H	CA-LUFT (C5-C12)	6.201	5.202	4.158	3.981	3.974	4.105	3.923	4.254	4.475	18.10
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-GCMS10

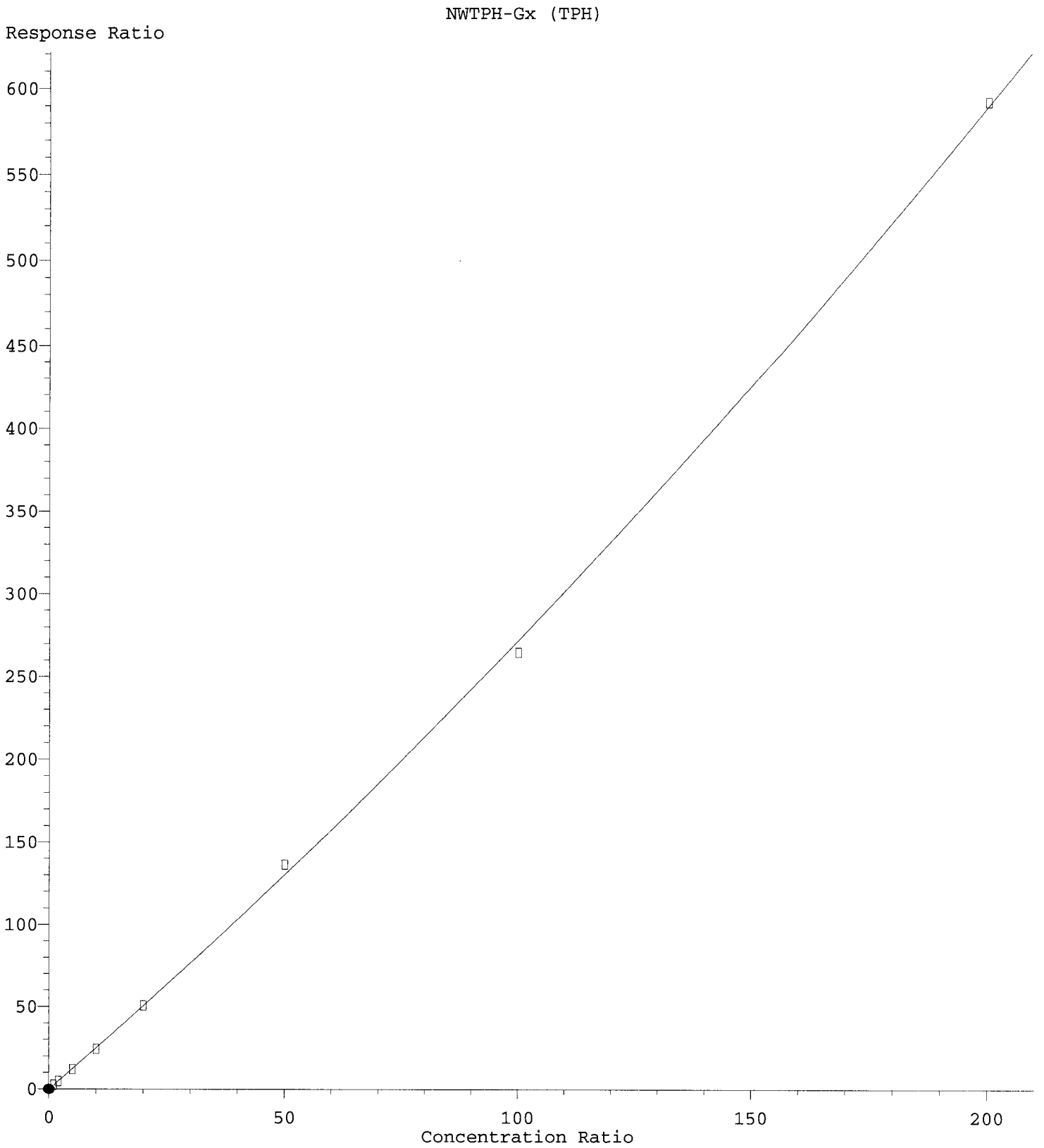
Method Path : C:\msdchem\1\methods\
Method File : VJ191024G.M
Title : NWTPH-Gx by GC/MS
Last Update : Thu Oct 24 12:01:51 2019
Response Via : Initial Calibration

Total Cpnds : 13

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene (IS)	168	6.095	1.000	A	2	A	B
2	S	1,4-Difluorobenzene (Sur)	114	6.655	1.092	A	2	A	B
3	S	4-Bromofluorobenzene (Sur)	174	10.883	1.785	A	2	A	B
4	H	NWTPH-Gx (TPH)	TIC	8.739	1.434	Q	0	A	B
5	H	TPHg (C5-C9)	TIC	9.239	1.516	Q	0	A	B
6	H	TPHg (C6-C10)	TIC	9.239	1.516	Q	0	A	B
7	H	CA-LUFT (C5-C12)	TIC	9.239	1.516	Q	0	A	B
8		Benzene (NR)	78	6.004	0.985	A	2	A	B
9	S	Toluene-d8 (NR)	98	8.170	1.340	A	2	A	B
10		Toluene (NR)	91	8.231	1.350	A	2	A	B
11	S	Chlorobenzene-d5 (NR)	117	9.806	1.609	A	2	A	B
12	S	1,4-Dichlorobenzene-d4 (NR)	150	11.765	1.930	A	2	A	B
13		Naphthalene (NR)	128	13.517	2.218	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

VJ191024G.M Thu Oct 24 13:07:57 2019

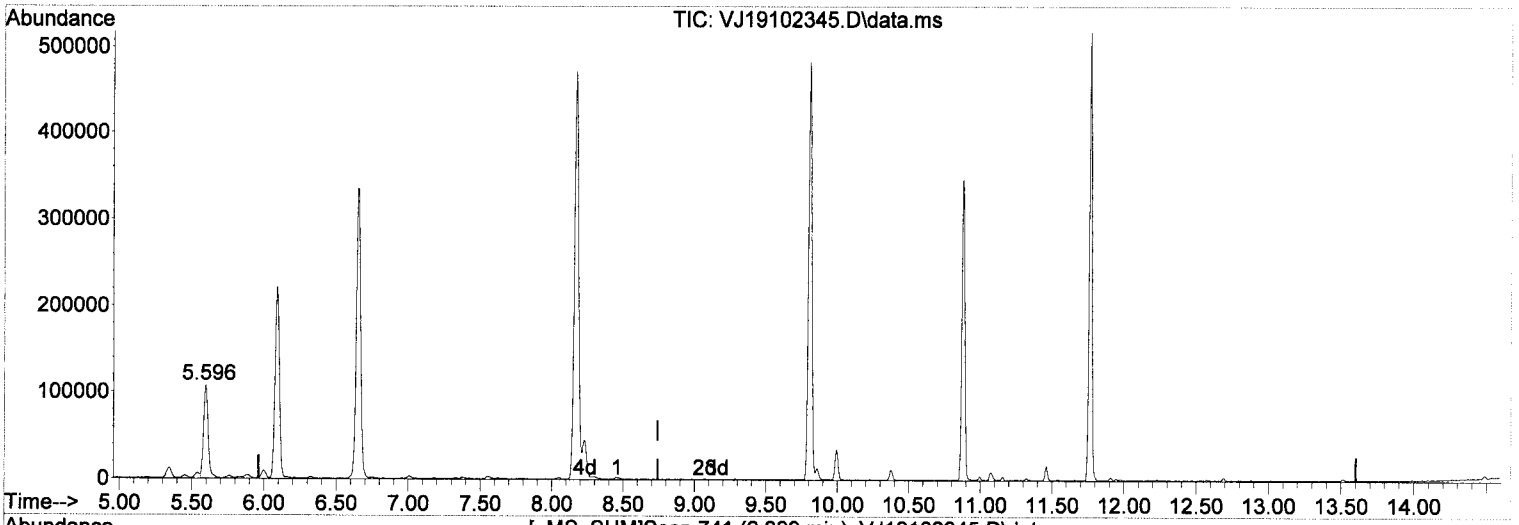


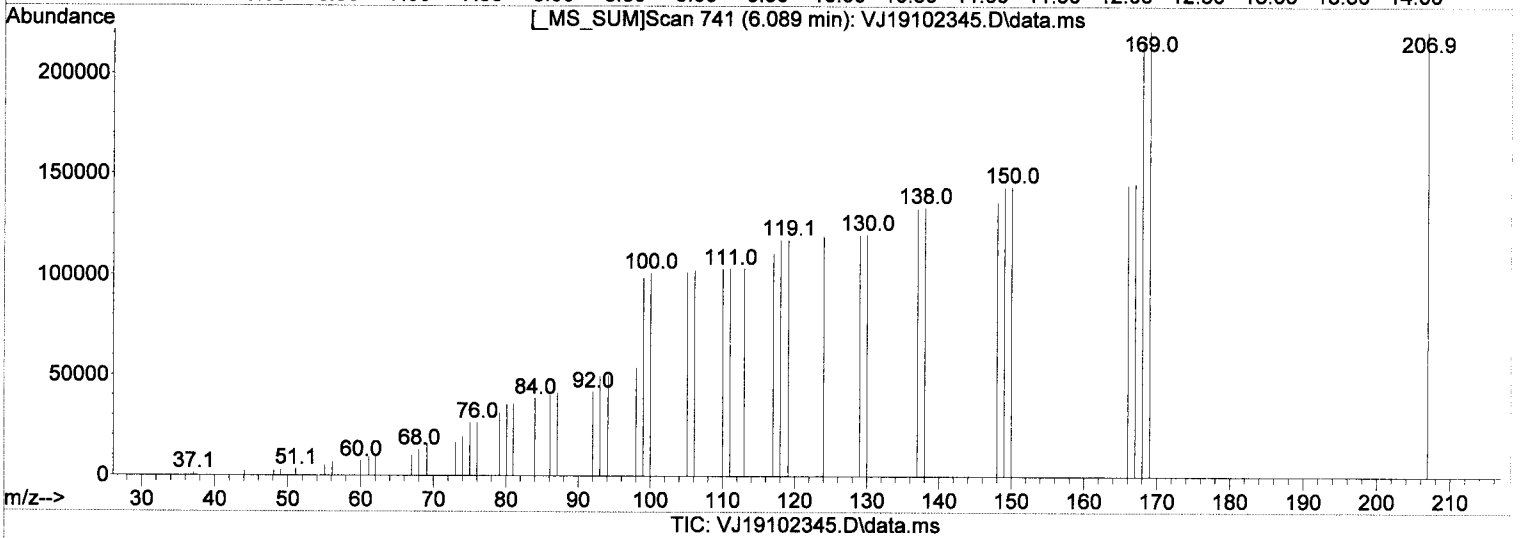
R = 2.27e-003 A*A + 2.49e+000 A - 1.74e-001
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VJ191024G.M
Calibration Table Last Updated: Thu Oct 24 12:02:16 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102345.D
Acq On : 24 Oct 2019 8:08 am
Operator : MM
Sample : 9J23072-CALC
Misc : 1X 5mL 50PPB GX+MeOH
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 24 12:05:02 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





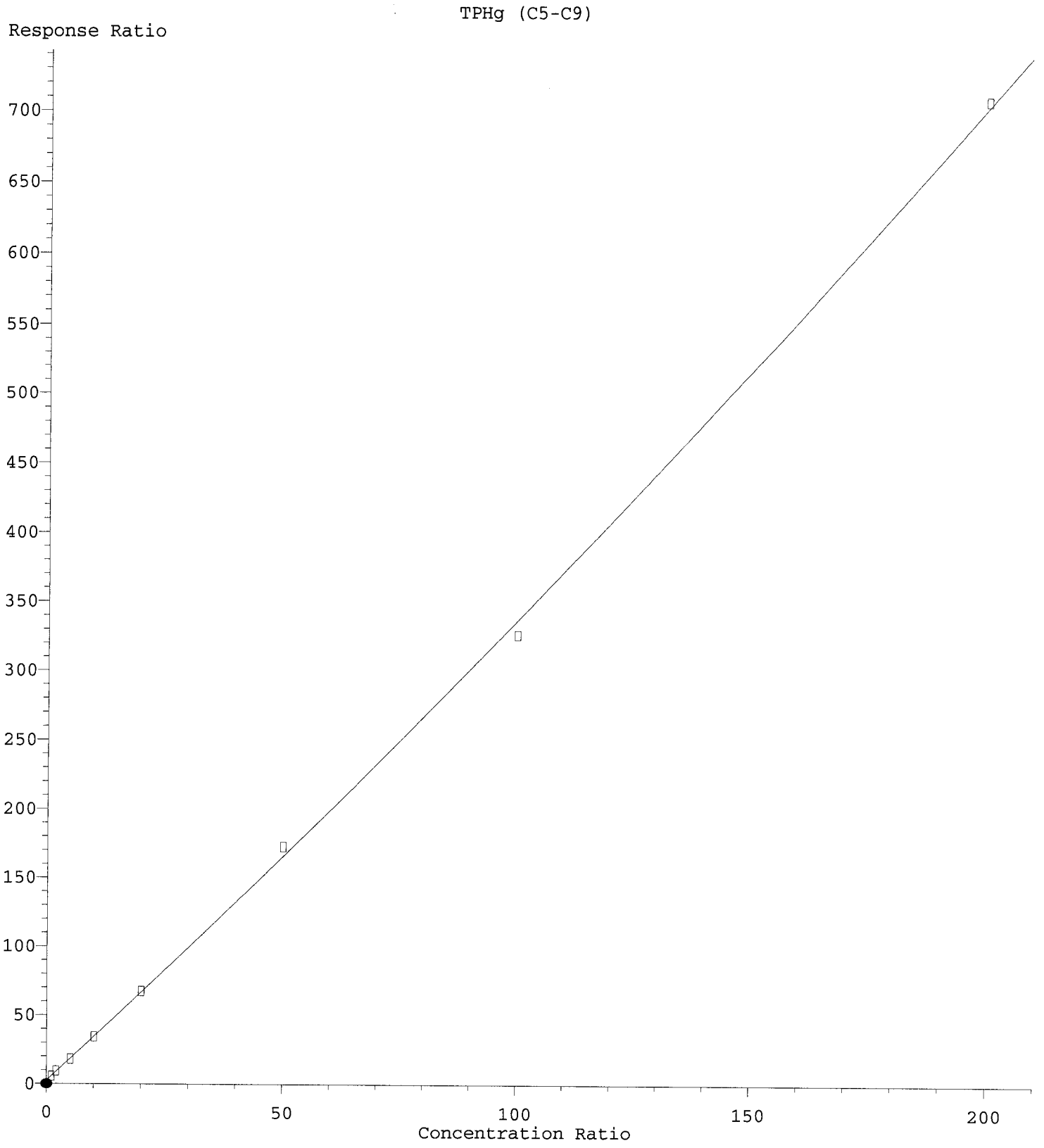
TIC: VJ19102345.D\data.ms

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

8.739min (0.000) 37.80 ug/L m

response 261399

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	7.24#
0.00	0.00	6.00#
0.00	0.00	0.00

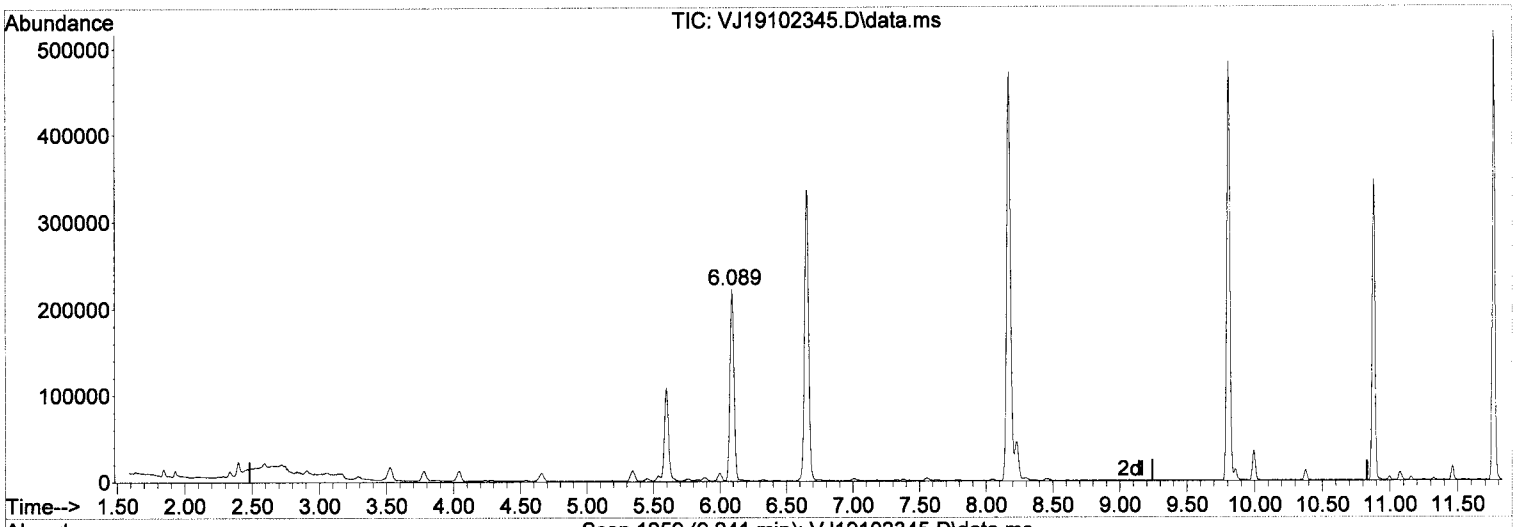


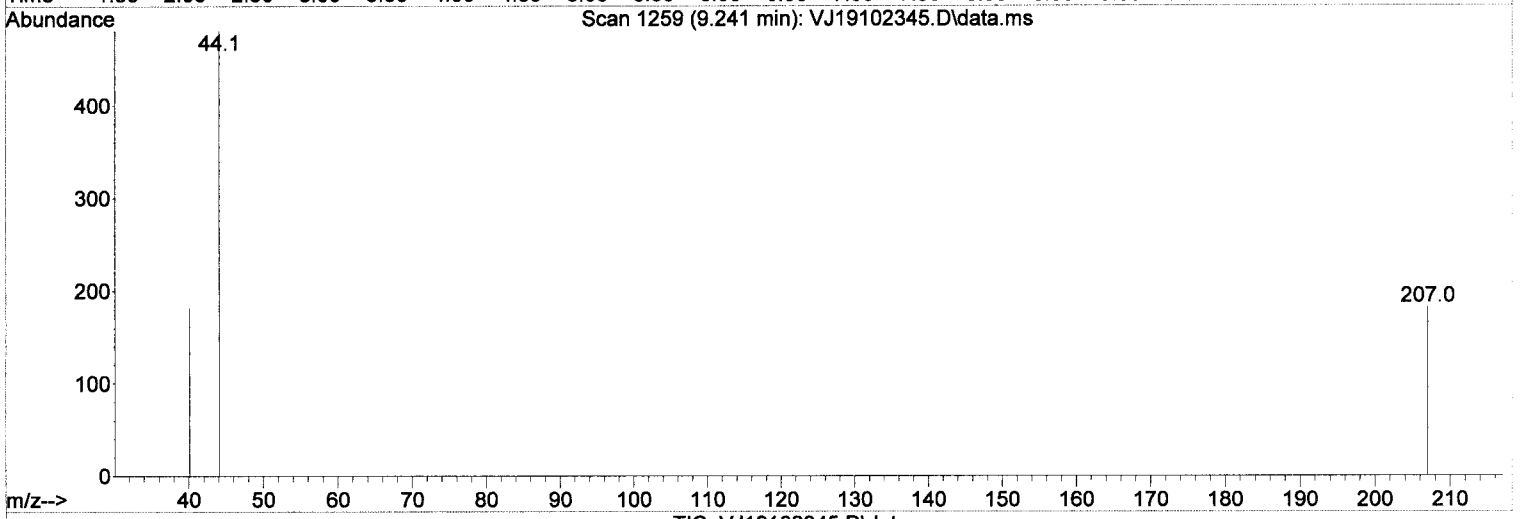
R = 1.62e-003 A*A + 3.18e+000 A + 2.52e+000
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VJ191024ERM
Calibration Table Last Updated: Thu Oct 24 12:02:25 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102345.D
Acq On : 24 Oct 2019 8:08 am
Operator : MM
Sample : 9J23072-CALC
Misc : 1X 5mL 50PPB GX+MeOH
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 24 12:05:02 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





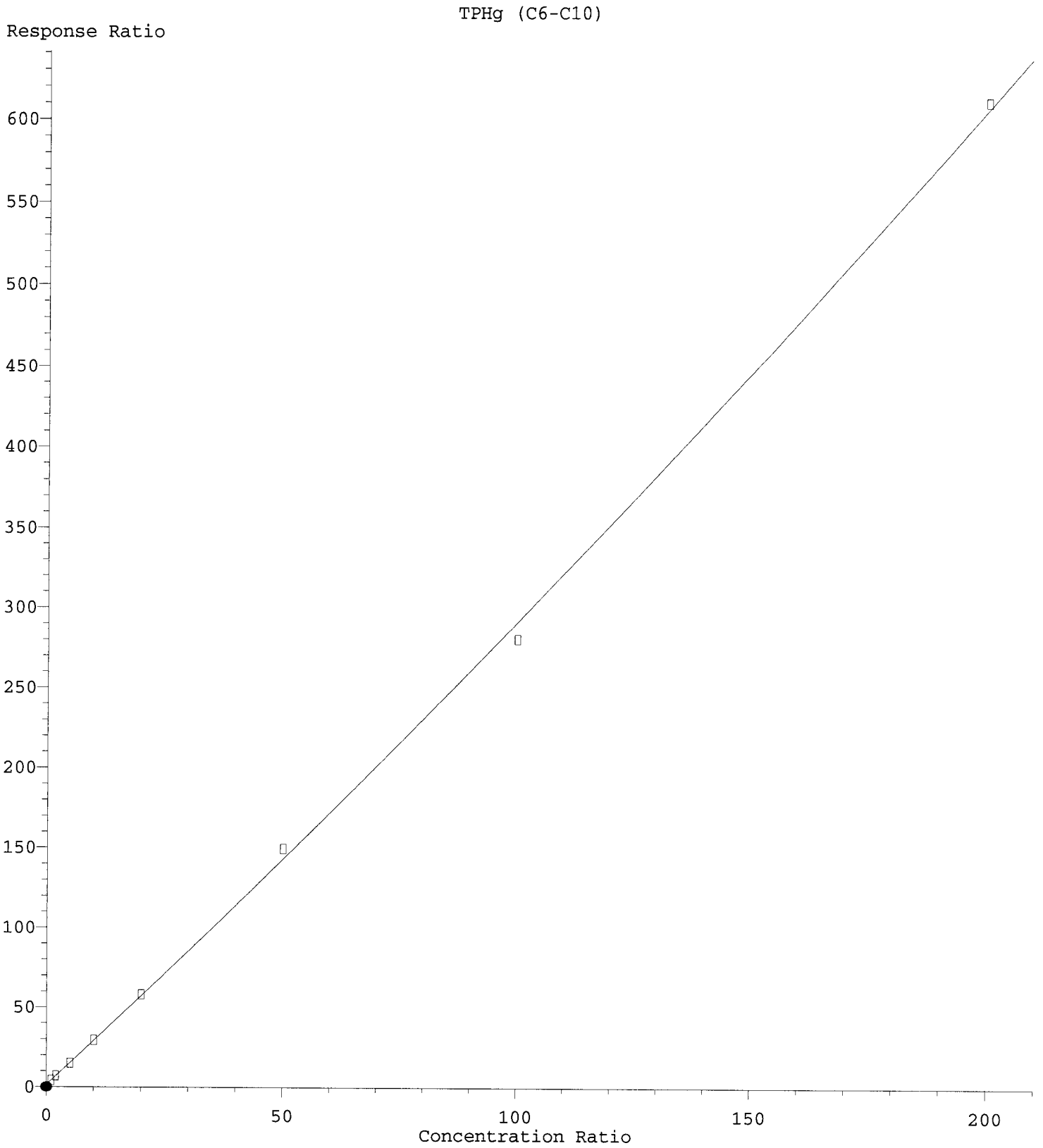
TIC: VJ19102345.D\data.ms

(5) TPHg (C5-C9) (H)

9.239min (0.000) 40.57 ug/L m

response 778590

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.43#
0.00	0.00	2.01#
0.00	0.00	0.00

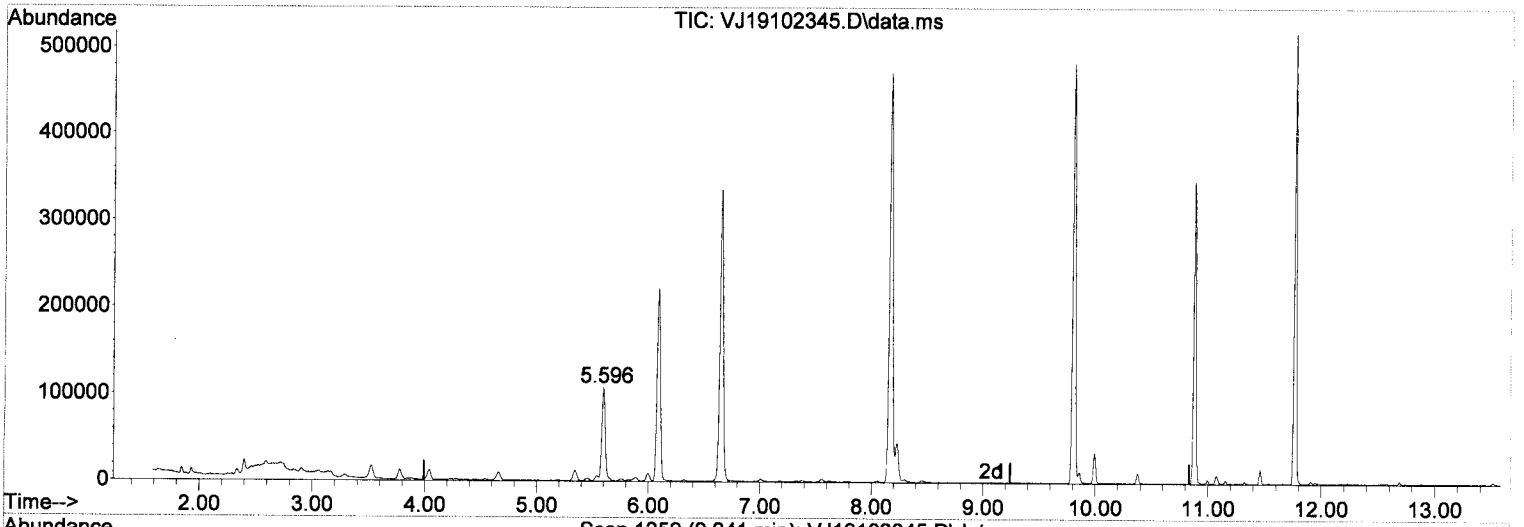


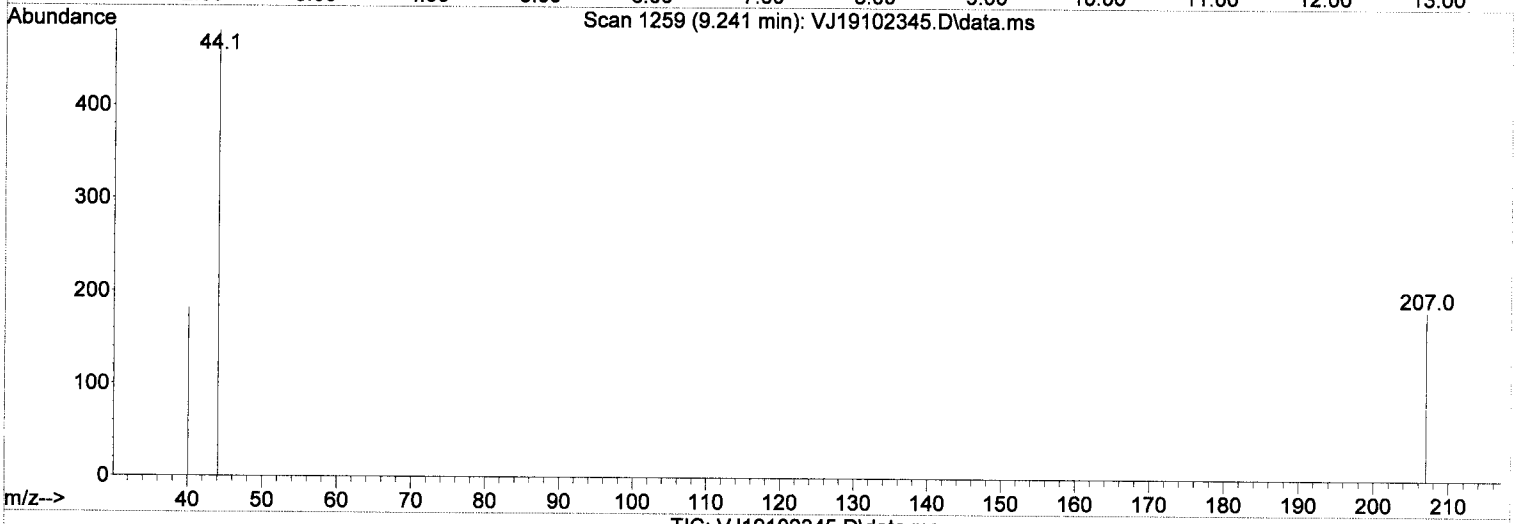
R = 1.29e-003 A*A + 2.77e+000 A + 1.43e+000
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\v191024e.M
Calibration Table Last Updated: Thu Oct 24 12:02:34 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102345.D
Acq On : 24 Oct 2019 8:08 am
Operator : MM
Sample : 9J23072-CALC
Misc : 1X 5mL 50PPB GX+MeOH
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 24 12:05:02 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





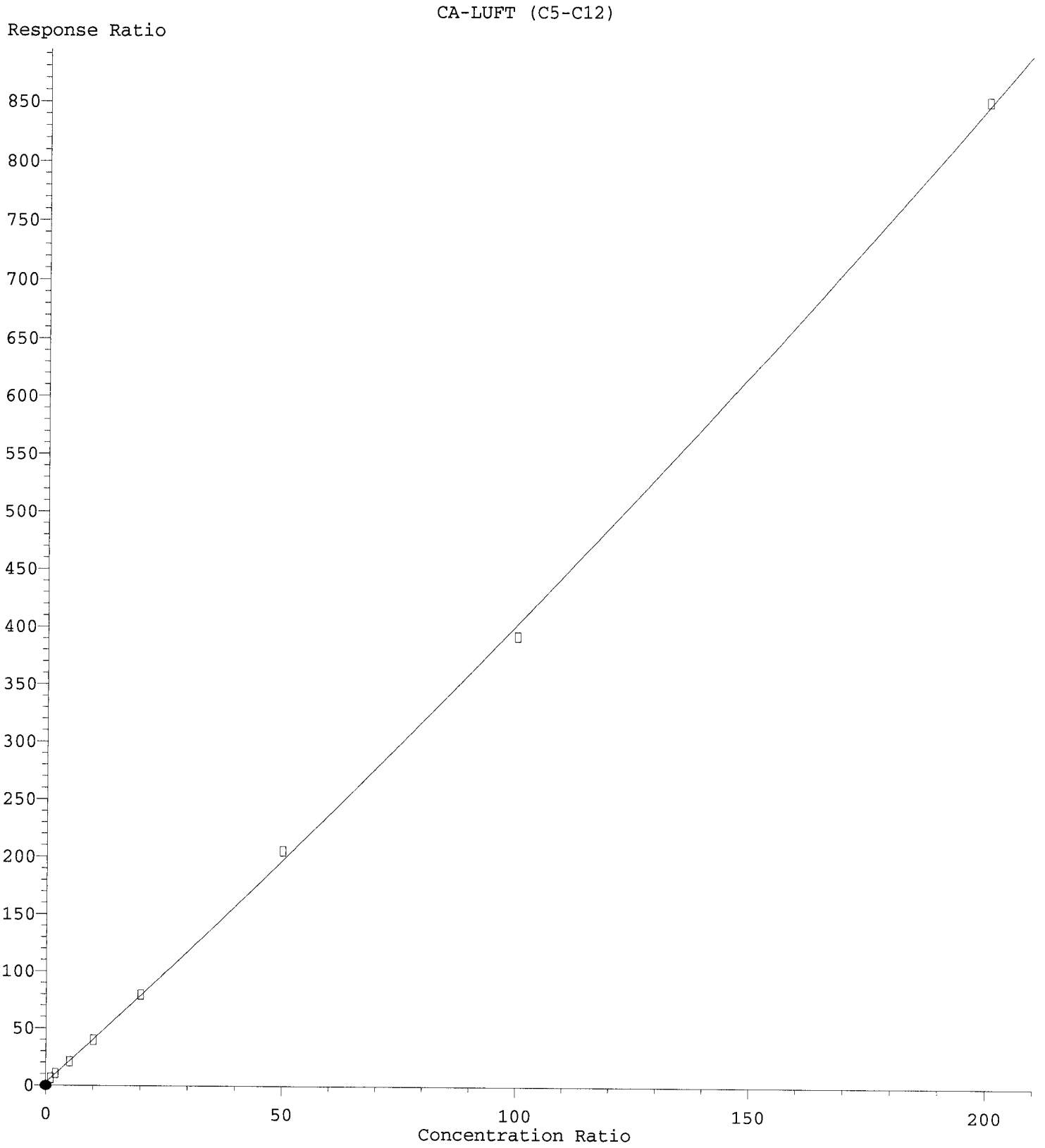
TIC: VJ19102345.D\data.ms

(6) TPHg (C6-C10) (H)

9.239min (0.000) 12.37 ug/L m

response 322302

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	5.87#
0.00	0.00	4.87#
0.00	0.00	0.00

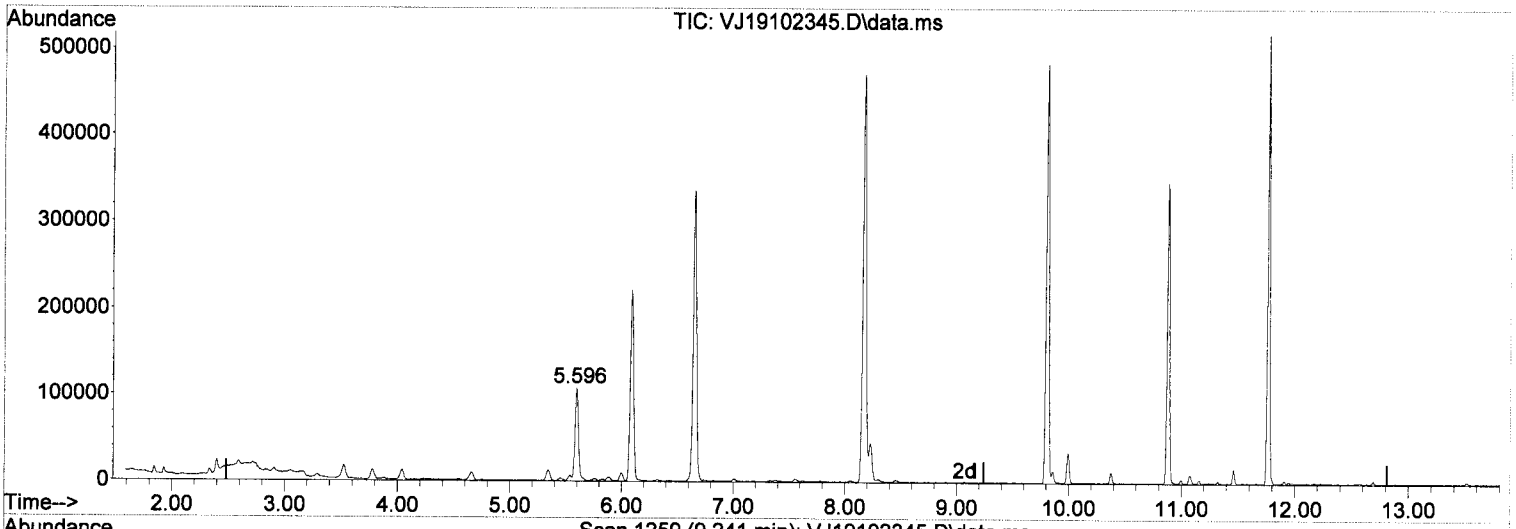


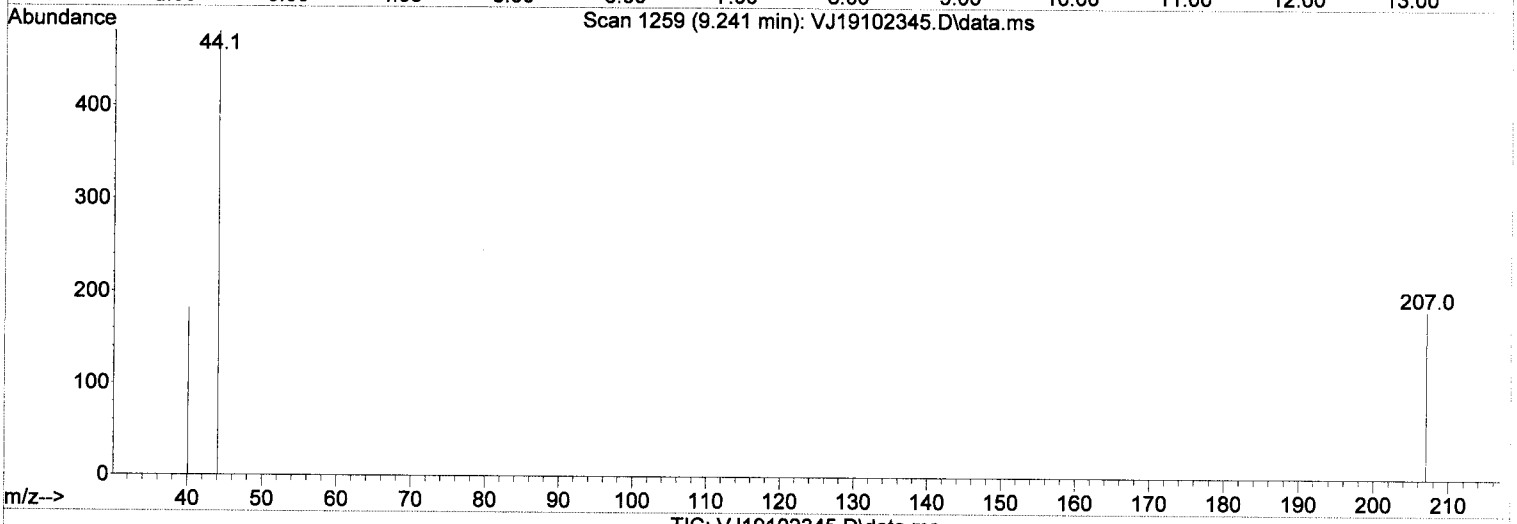
R = 2.20e-003 A*A + 3.78e+000 A + 2.48e+000
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VC-19102RD
Calibration Table Last Updated: Thu Oct 24 12:02:34 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\REQUANT\
Data File : VJ19102345.D
Acq On : 24 Oct 2019 8:08 am
Operator : MM
Sample : 9J23072-CALC
Misc : 1X 5mL 50PPB GX+MeOH
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 24 12:05:02 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





(7) CA-LUFT (C5-C12) (H)

9.239min (0.000) 3.21 ug/L m

response 414726

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	4.56#
0.00	0.00	3.78#
0.00	0.00	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102355.D
Acq On : 24 Oct 2019 12:37 pm
Operator : MM
Sample : 9J23072-ICV3
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 24 13:07:28 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	111	0.00
2	S	1,4-Difluorobenzene (Sur)	50.000	49.403	1.2	109	0.00
3	S	4-Bromofluorobenzene (Sur)	50.000	47.916	4.2	105	0.00
4	H	NWTPH-Gx (TPH)	500.000	488.493	2.3	112	0.00
5	H	TPHg (C5-C9)	500.000	470.459	5.9	106	0.00
6	H	TPHg (C6-C10)	500.000	483.247	3.4	107	0.00
7	H	CA-LUFT (C5-C12)	500.000	474.172	5.2	108	0.00
8		Benzene (NR)	-1.000	0.000	0.0	111	0.00
9	S	Toluene-d8 (NR)	-1.000	0.000	0.0	108	0.00
10		Toluene (NR)	-1.000	0.000	0.0	112	0.00
11	S	Chlorobenzene-d5 (NR)	-1.000	0.000	0.0	107	0.00
12	S	1,4-Dichlorobenzene-d4 (NR)	-1.000	0.000	0.0	108	0.00
13		Naphthalene (NR)	-1.000	0.000	0.0	124	0.00

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

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J23072

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
9J23072-TUN2	MS Tune	Soil		A19G118	10/24/2019 6:21:00AM
9J23072-ICB2	Initial Cal Blank	Soil		A19G118	10/24/2019 7:41:00AM
9J23072-CALC	Cal Standard	Soil	A19J269	"	10/24/2019 8:08:00AM
9J23072-CALD	Cal Standard	Soil	A19J270	"	10/24/2019 8:35:00AM
9J23072-CALE	Cal Standard	Soil	A19J271	"	10/24/2019 9:02:00AM
9J23072-CALF	Cal Standard	Soil	A19J272	"	10/24/2019 9:29:00AM
9J23072-CALG	Cal Standard	Soil	A19J273	"	10/24/2019 9:56:00AM
9J23072-CALH	Cal Standard	Soil	A19J274	"	10/24/2019 10:23:00AM
9J23072-CALI	Cal Standard	Soil	A19J275	"	10/24/2019 10:50:00AM
9J23072-CALJ	Cal Standard	Soil	A19J276	"	10/24/2019 11:16:00AM
9J23072-ICV3	Initial Cal Check	Soil	A19G350	"	10/24/2019 12:37:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9J2404** Instrument: **VOA-GCMS10**

8015D-Mod Gasoline (C6-C1(Sequence: **9J23072** Matrix: **Soil**

9J23072-CALC	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CALD	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CALE	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CALF	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CALG	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CALH	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-CALI	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J23072-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: 9J23072

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: **A9J2404** Instrument: **VOA-GCMS10**

NWTPH-Gx Sequence: **9J23072** Matrix: **Soil**

9J23072-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.

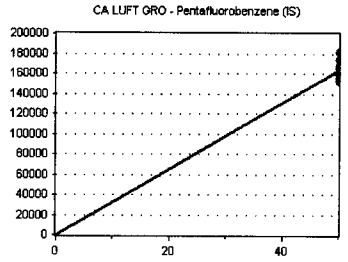
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **CA LUFT GRO** Instrument Cal ID: **VJ191024S VJ191024G**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

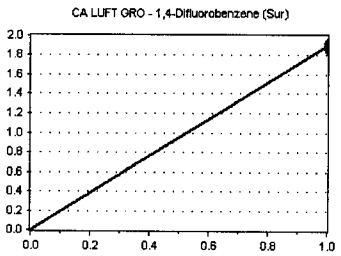


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	152567	3051.340	6.09
9J23072-CALD	50	153392	3067.840	6.09
9J23072-CALE	50	155593	3111.860	6.10
9J23072-CALF	50	159177	3183.540	6.10
9J23072-CALG	50	167155	3343.100	6.09
9J23072-CALH	50	165305	3306.100	6.10
9J23072-CALI	50	174020	3480.400	6.10
9J23072-CALJ	50	181337	3626.740	6.09

AVE RF **3271.365** RF RSD **6.32** AVE RT **6.09**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

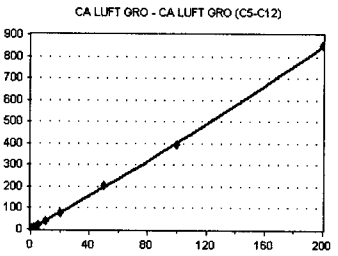


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	289686	1.899	6.66
9J23072-CALD	50	292121	1.904	6.66
9J23072-CALE	50	296265	1.904	6.66
9J23072-CALF	50	305907	1.922	6.66
9J23072-CALG	50	318452	1.905	6.66
9J23072-CALH	50	318152	1.925	6.66
9J23072-CALI	50	330721	1.900	6.66
9J23072-CALJ	50	337220	1.860	6.66

AVE RF **1.902** RF RSD **1.04** AVE RT **6.66**

CA LUFT GRO (C5-C12)

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

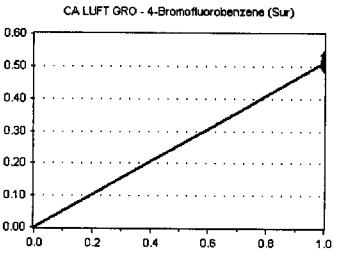


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	946025	6.201	0.00
9J23072-CALD	100	1596035	5.202	9.24
9J23072-CALE	250	3235032	4.158	9.24
9J23072-CALF	500	6336737	3.981	9.24
9J23072-CALG	1000	1.328617E+07	3.974	9.24
9J23072-CALH	2500	3.392865E+07	4.105	9.24
9J23072-CALI	5000	6.826362E+07	3.923	9.24
9J23072-CALJ	10000	1.542917E+08	4.254	9.24

AVE RF **4.475** RF RSD **18.10** AVE RT **8.08**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	77731	0.509	10.88
9J23072-CALD	50	77996	0.508	10.88
9J23072-CALE	50	79823	0.513	10.88
9J23072-CALF	50	82765	0.520	10.88
9J23072-CALG	50	85756	0.513	10.88
9J23072-CALH	50	88206	0.534	10.88
9J23072-CALI	50	88041	0.506	10.88
9J23072-CALJ	50	90011	0.496	10.88

AVE RF **0.512** RF RSD **2.12** AVE RT **10.88**

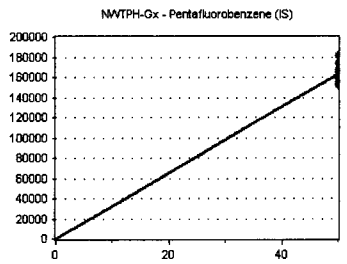
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **NWTPH-Gx** Instrument Cal ID: **VJ191024S VJ191024G**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

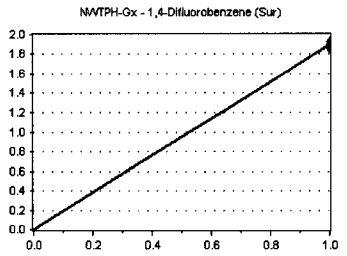


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	152567	3051.340	6.09
9J23072-CALD	50	153392	3067.840	6.09
9J23072-CALE	50	155593	3111.860	6.10
9J23072-CALF	50	159177	3183.540	6.10
9J23072-CALG	50	167155	3343.100	6.09
9J23072-CALH	50	165305	3306.100	6.10
9J23072-CALI	50	174020	3480.400	6.10
9J23072-CALJ	50	181337	3626.740	6.09

AVE RF **3271.365** RF RSD **6.32** AVE RT **6.09**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

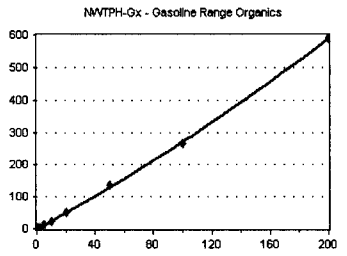


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	289686	1.899	6.66
9J23072-CALD	50	292121	1.904	6.66
9J23072-CALE	50	296265	1.904	6.66
9J23072-CALF	50	305907	1.922	6.66
9J23072-CALG	50	318452	1.905	6.66
9J23072-CALH	50	318152	1.925	6.66
9J23072-CALI	50	330721	1.900	6.66
9J23072-CALJ	50	337220	1.860	6.66

AVE RF **1.902** RF RSD **1.04** AVE RT **6.66**

Gasoline Range Organics

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

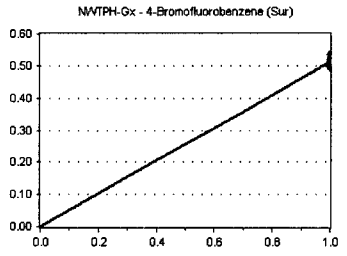


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	375320	2.460	8.74
9J23072-CALD	100	727259	2.371	8.74
9J23072-CALE	250	1852913	2.382	8.74
9J23072-CALF	500	3865293	2.428	8.74
9J23072-CALG	1000	8482501	2.537	8.74
9J23072-CALH	2500	2.254156E+07	2.727	8.74
9J23072-CALI	5000	4.606917E+07	2.647	8.74
9J23072-CALJ	10000	1.072841E+08	2.958	8.74

AVE RF **2.564** RF RSD **7.93** AVE RT **8.74**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	77731	0.509	10.88
9J23072-CALD	50	77996	0.508	10.88
9J23072-CALE	50	79823	0.513	10.88
9J23072-CALF	50	82765	0.520	10.88
9J23072-CALG	50	85756	0.513	10.88
9J23072-CALH	50	88206	0.534	10.88
9J23072-CALI	50	88041	0.506	10.88
9J23072-CALJ	50	90011	0.496	10.88

AVE RF **0.512** RF RSD **2.12** AVE RT **10.88**

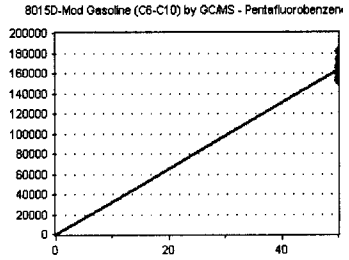
Element Calibration Review Sheet

Calibration ID: **A9J2404** Instrument: **VOA-GCMS10** Calibration Date: **10/24/2019**

Analysis: **8015D-Mod Gasoline (C6-C1** Instrument Cal ID: **VJ191024S VJ191024G**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

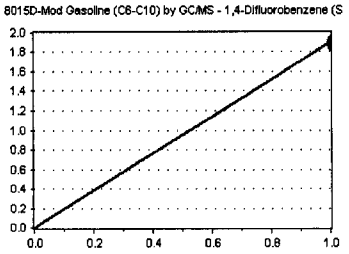


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	152567	3051.340	6.09
9J23072-CALD	50	153392	3067.840	6.09
9J23072-CALE	50	155593	3111.860	6.10
9J23072-CALF	50	159177	3183.540	6.10
9J23072-CALG	50	167155	3343.100	6.09
9J23072-CALH	50	165305	3306.100	6.10
9J23072-CALI	50	174020	3480.400	6.10
9J23072-CALJ	50	181337	3626.740	6.09

AVE RF **3271.365** RF RSD **6.32** AVE RT **6.09**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

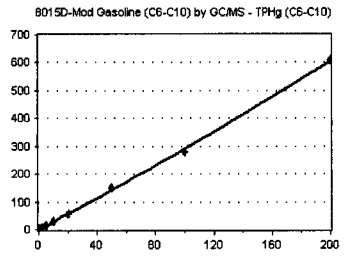


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	289686	1.899	6.66
9J23072-CALD	50	292121	1.904	6.66
9J23072-CALE	50	296265	1.904	6.66
9J23072-CALF	50	305907	1.922	6.66
9J23072-CALG	50	318452	1.905	6.66
9J23072-CALH	50	318152	1.925	6.66
9J23072-CALI	50	330721	1.900	6.66
9J23072-CALJ	50	337220	1.860	6.66

AVE RF **1.902** RF RSD **1.04** AVE RT **6.66**

TPHg (C6-C10)

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

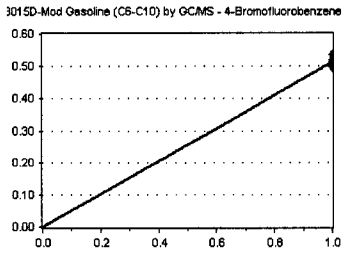


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	631711	4.141	9.24
9J23072-CALD	100	1074809	3.503	9.24
9J23072-CALE	250	2339645	3.007	9.24
9J23072-CALF	500	4678414	2.939	9.24
9J23072-CALG	1000	9708618	2.904	9.24
9J23072-CALH	2500	2.471193E+07	2.990	9.24
9J23072-CALI	5000	4.881578E+07	2.805	9.24
9J23072-CALJ	10000	1.106875E+08	3.052	9.24

AVE RF **3.168** RF RSD **14.03** AVE RT **9.24**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	77731	0.509	10.88
9J23072-CALD	50	77996	0.508	10.88
9J23072-CALE	50	79823	0.513	10.88
9J23072-CALF	50	82765	0.520	10.88
9J23072-CALG	50	85756	0.513	10.88
9J23072-CALH	50	88206	0.534	10.88
9J23072-CALI	50	88041	0.506	10.88
9J23072-CALJ	50	90011	0.496	10.88

AVE RF **0.512** RF RSD **2.12** AVE RT **10.88**

Injection Log

Directory: w:\data\2019-10\9J23072

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	Vj19102315.d	1.	BLK	1X 5mL DI+MeOH	23 Oct 2019 18:43
2	2	Vj19102316.d	1.	BLK	1X 5mL DI+MeOH	23 Oct 2019 19:10
3	3	Vj19102317.d	1.	BLK	1X 5mL DI+MeOH	23 Oct 2019 19:37
4	4	Vj19102318.d	1.	BLK	1X 5mL DI+MeOH	23 Oct 2019 20:04
5	5	Vj19102319.d	1.	BLK	1X 5mL DI+MeOH	23 Oct 2019 20:31
6	6	Vj19102320.d	1.	9J23072-IBL1	1X 5mL DI+MeOH	23 Oct 2019 20:57
7	7	Vj19102321.d	1.	9J23072-TUN1	A19G118 BFB (IS/...	23 Oct 2019 21:24
8	8	Vj19102322.d	1.	9J23072-ICB1	1X 5mL DI+MeOH	23 Oct 2019 21:51
9	9	Vj19102323.d	1.	9J23072-CAL1	1X 5mL 0.1/0....	23 Oct 2019 22:18
10	10	Vj19102324.d	1.	9J23072-CAL2	1X 5mL 0.2/0....	23 Oct 2019 22:45
11	11	Vj19102325.d	1.	9J23072-CAL3	1X 5mL 0.4/0....	23 Oct 2019 23:12
12	12	Vj19102326.d	1.	9J23072-CAL4	1X 5mL 1/2PPB...	23 Oct 2019 23:38
13	13	Vj19102327.d	1.	9J23072-CAL5	1X 5mL 2/4PPB...	24 Oct 2019 00:05
14	14	Vj19102328.d	1.	9J23072-CAL6	1X 5mL 5/10PP...	24 Oct 2019 00:32
15	15	Vj19102329.d	1.	9J23072-CAL7	1X 5mL 10/20P...	24 Oct 2019 00:59
16	16	Vj19102330.d	1.	9J23072-CAL8	1X 5mL 20/40P...	24 Oct 2019 01:26
17	17	Vj19102331.d	1.	9J23072-CAL9	1X 5mL 50/100...	24 Oct 2019 01:53
18	18	Vj19102332.d	1.	9J23072-IBL2	1X 5mL DI+MeOH	24 Oct 2019 02:19
19	19	Vj19102333.d	1.	9J23072-CALA	1X 5mL 100/20...	24 Oct 2019 02:46
20	20	Vj19102334.d	1.	9J23072-IBL3	1X 5mL DI+MeOH	24 Oct 2019 03:13
21	21	Vj19102335.d	1.	9J23072-CALB	1X 5mL 200/40...	24 Oct 2019 03:40
22	22	Vj19102336.d	1.	9J23072-IBL4	1X 5mL DI+MeOH	24 Oct 2019 04:07
23	23	Vj19102337.d	1.	9J23072-IBL5	1X 5mL DI+MeOH	24 Oct 2019 04:34
24	24	Vj19102338.d	1.	9J23072-ICV1	1X 5mL 20/40P...	24 Oct 2019 05:00
25	25	Vj19102339.d	1.	9J23072-ICV2	1X 5mL 5/1250...	24 Oct 2019 05:27
26	26	Vj19102340.d	1.	9J23072-IBL6	1X 5mL DI+MeOH	24 Oct 2019 05:54
27	27	Vj19102341.d	1.	9J23072-TUN2	A19G118 BFB (IS/...	24 Oct 2019 06:21
28	28	Vj19102342.d	1.	9J23072-RT1	A19A167 VPH RT STD	24 Oct 2019 06:48
29	29	Vj19102343.d	1.	9J23072-IBL7	1X 5mL DI+MeOH	24 Oct 2019 07:14
30	30	Vj19102344.d	1.	9J23072-ICB2	1X 5mL DI+MeOH	24 Oct 2019 07:41
31	31	Vj19102345.d	1.	9J23072-CALC	1X 5mL 50PPB ...	24 Oct 2019 08:08
32	32	Vj19102346.d	1.	9J23072-CALD	1X 5mL 100PPB...	24 Oct 2019 08:35
33	33	Vj19102347.d	1.	9J23072-CALE	1X 5mL 250PPB...	24 Oct 2019 09:02
34	34	Vj19102348.d	1.	9J23072-CALF	1X 5mL 500PPB...	24 Oct 2019 09:29
35	35	Vj19102349.d	1.	9J23072-CALG	1X 5mL 1000PP...	24 Oct 2019 09:56
36	36	Vj19102350.d	1.	9J23072-CALH	1X 5mL 2500PP...	24 Oct 2019 10:23
37	37	Vj19102351.d	1.	9J23072-CALI	1X 5mL 5000PP...	24 Oct 2019 10:50
38	38	Vj19102352.d	1.	9J23072-CALJ	1X 5mL 10000P...	24 Oct 2019 11:16
39	39	Vj19102353.d	1.	9J23072-IBL8	1X 5mL DI+MeOH	24 Oct 2019 11:43
40	40	Vj19102354.d	1.	9J23072-IBL9	1X 5mL DI+MeOH	24 Oct 2019 12:10
41	41	Vj19102355.d	1.	9J23072-ICV3	1X 5mL 500PPB...	24 Oct 2019 12:37
42		Vj19102356.d	1.	No MS or GC data present		

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102320.D
Acq On : 23 Oct 2019 8:57 pm
Operator : MM
Sample : 9J23072-IBL1
Misc : 1X 5mL DI+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 24 09:40:43 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

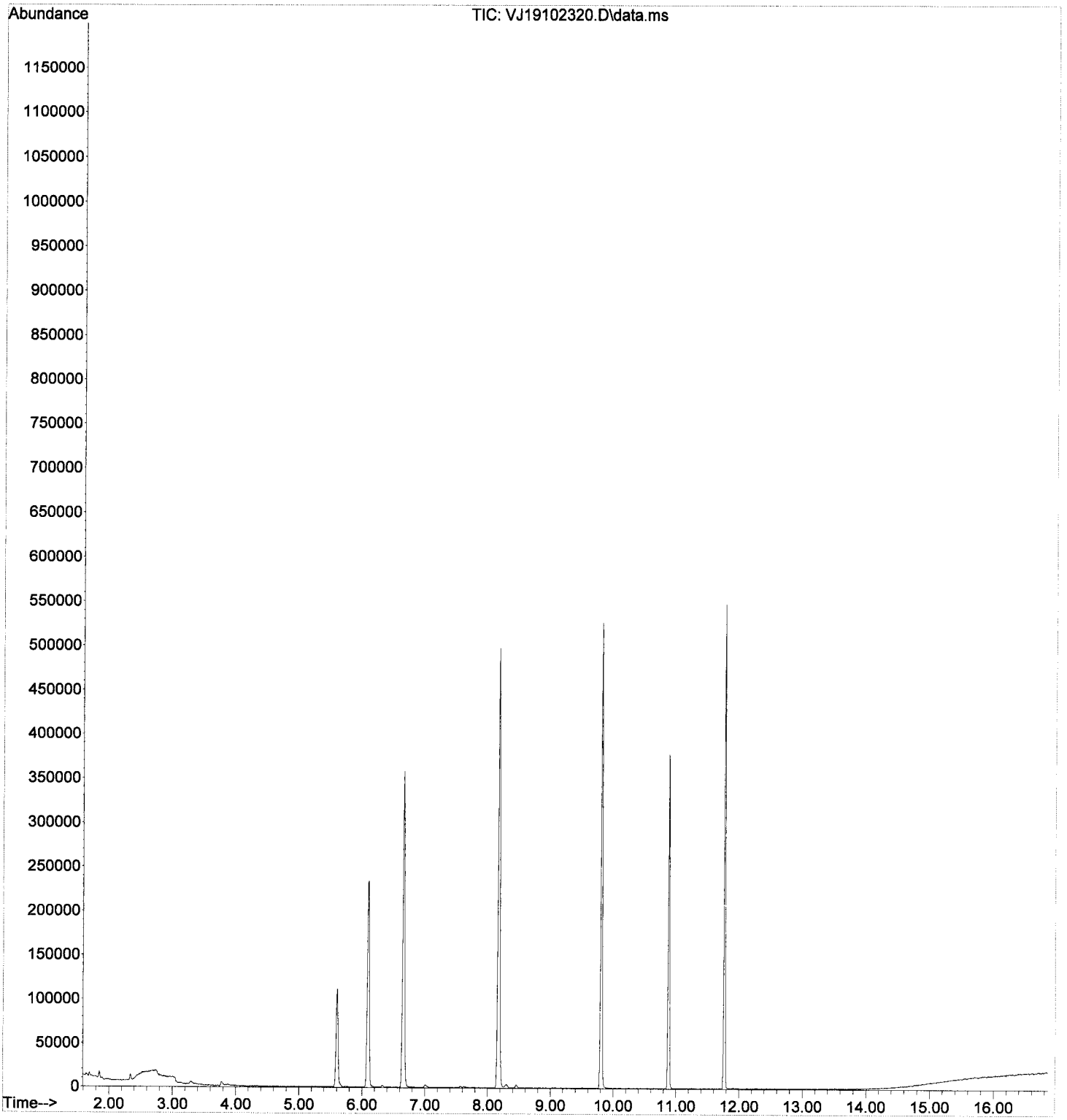
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.089	99	101329	50.00	ug/L	0.00
43) Chlorobenzene-d5 (I)	9.806	117	279302	50.00	ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	115194	50.00	ug/L	0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.602	111	78729	49.16	ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.655	114	312975	50.21	ug/L	0.00
45) Toluene-d8 (S)	8.170	98	386001	49.56	ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.883	174	85642	51.49	ug/L	0.00
Target Compounds						Qvalue
3) Chloromethane	1.898	50	2352	0.59	ug/L	96
5) Bromomethane	2.342	96	2897	Below Cal		98
6) Chloroethane	2.463	64	112	1.49	ug/L #	47
8) Ethanol	3.303	45	6241	Below Cal		91
12) Iodomethane	3.291	142	1333	1.74	ug/L	80
13) Methylene Chloride	3.777	84	2244	0.09	ug/L	93
14) Acetone	3.875	43	1706	1.10	ug/L	100
18) tert-Butanol (TBA)	4.258	59	142	0.18	ug/L #	13
28) Tetrahydrofuran	5.596	42	323	0.16	ug/L #	56
32) 2-Butanone (MEK)	5.736	43	1116	0.41	ug/L	52
36) iso-Butyl Alcohol	6.326	43	748	2.40	ug/L	69

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102320.D
Acq On : 23 Oct 2019 8:57 pm
Operator : MM
Sample : 9J23072-IBL1
Misc : 1X 5mL DI+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 24 09:40:43 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

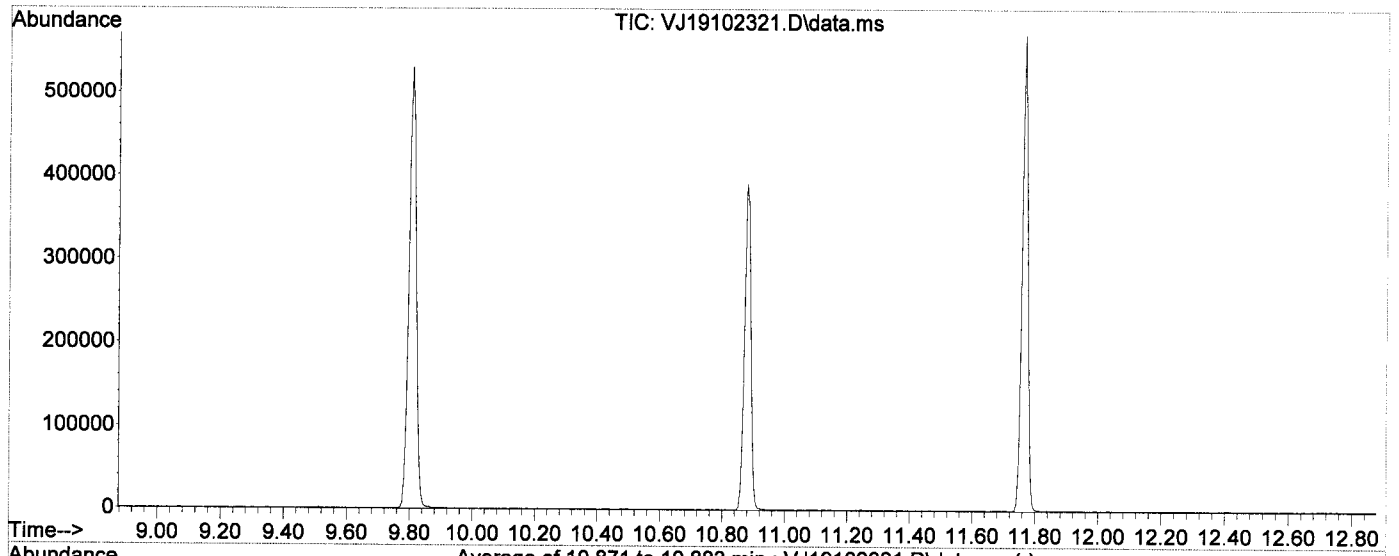


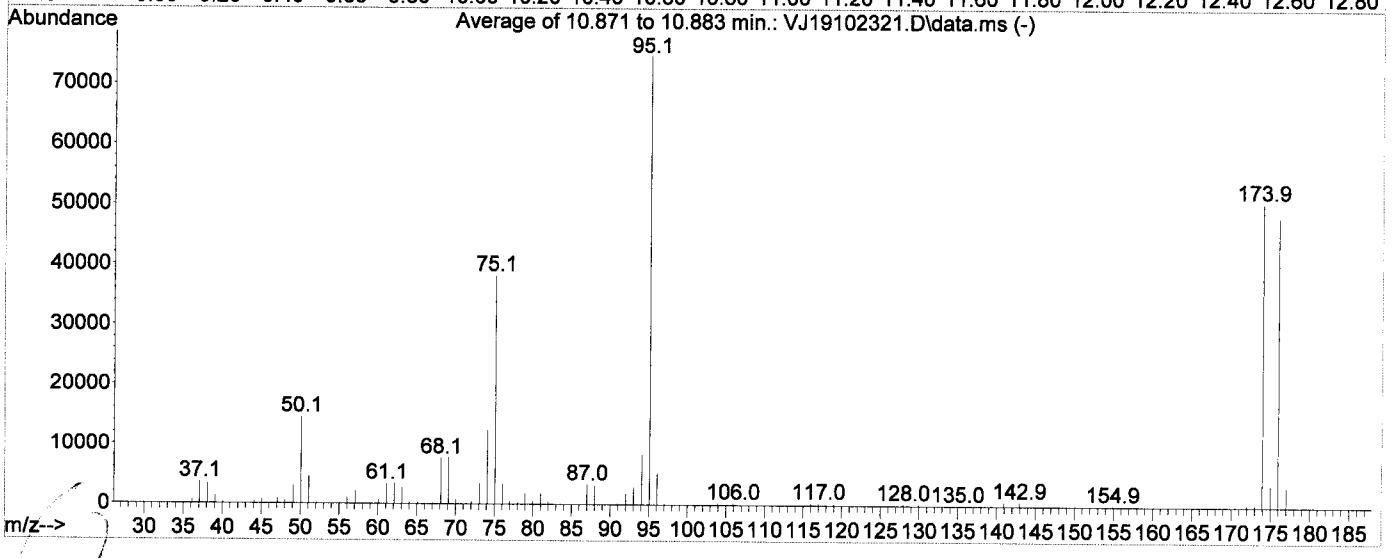
BFB

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102321.D
Acq On : 23 Oct 2019 9:24 pm
Operator : MM
Sample : 9J23072-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 7 Sample Multiplier: 1

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 1521

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	147.8	74819	PASS
96	95	5	9	7.2	5353	PASS
173	174	0.00	2	0.7	373	PASS
174	95	50	200	67.7	50627	PASS
175	174	5	9	7.1	3612	PASS
176	174	95	105	95.3	48248	PASS
177	176	5	10	6.8	3284	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102321.D
Acq On : 23 Oct 2019 9:24 pm
Operator : MM
Sample : 9J23072-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 24 09:40:47 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

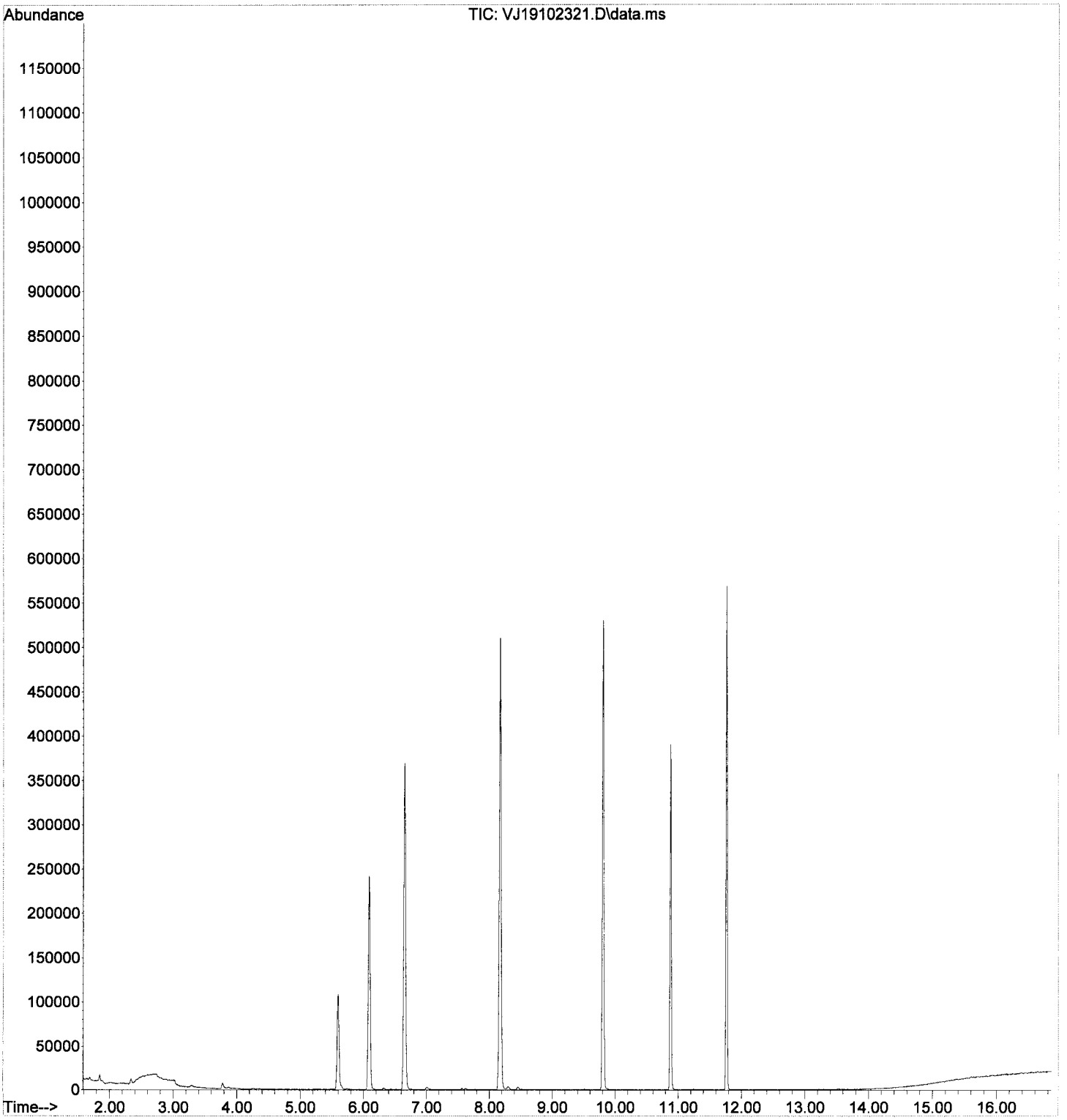
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.089	99	102916	50.00	ug/L	0.00
43) Chlorobenzene-d5 (I)	9.806	117	281718	50.00	ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	115749	50.00	ug/L	0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.597	111	77404	47.58	ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.655	114	318896	50.37	ug/L	0.00
45) Toluene-d8 (S)	8.170	98	393275	50.06	ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.883	174	86338	51.66	ug/L	0.00
Target Compounds						Qvalue
3) Chloromethane	1.892	50	2074	0.51	ug/L	82
5) Bromomethane	2.342	96	2659	Below Cal		98
6) Chloroethane	2.530	64	57	1.36	ug/L #	47
8) Ethanol	3.303	45	4154	Below Cal		98
12) Iodomethane	3.291	142	916	1.17	ug/L	74
13) Methylene Chloride	3.778	84	3230	0.49	ug/L	90
14) Acetone	3.869	43	1979	1.26	ug/L	99
18) tert-Butanol (TBA)	4.252	59	718	0.89	ug/L #	61
28) Tetrahydrofuran	5.584	42	367	0.18	ug/L #	30
32) 2-Butanone (MEK)	5.743	43	1068	0.39	ug/L	52
36) iso-Butyl Alcohol	6.320	43	727	2.30	ug/L	83

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102321.D
Acq On : 23 Oct 2019 9:24 pm
Operator : MM
Sample : 9J23072-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 24 09:40:47 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



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102322.D
Acq On : 23 Oct 2019 9:51 pm
Operator : MM
Sample : 9J23072-ICB1
Misc : 1X 5mL DI+MeOH
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 24 09:40:58 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

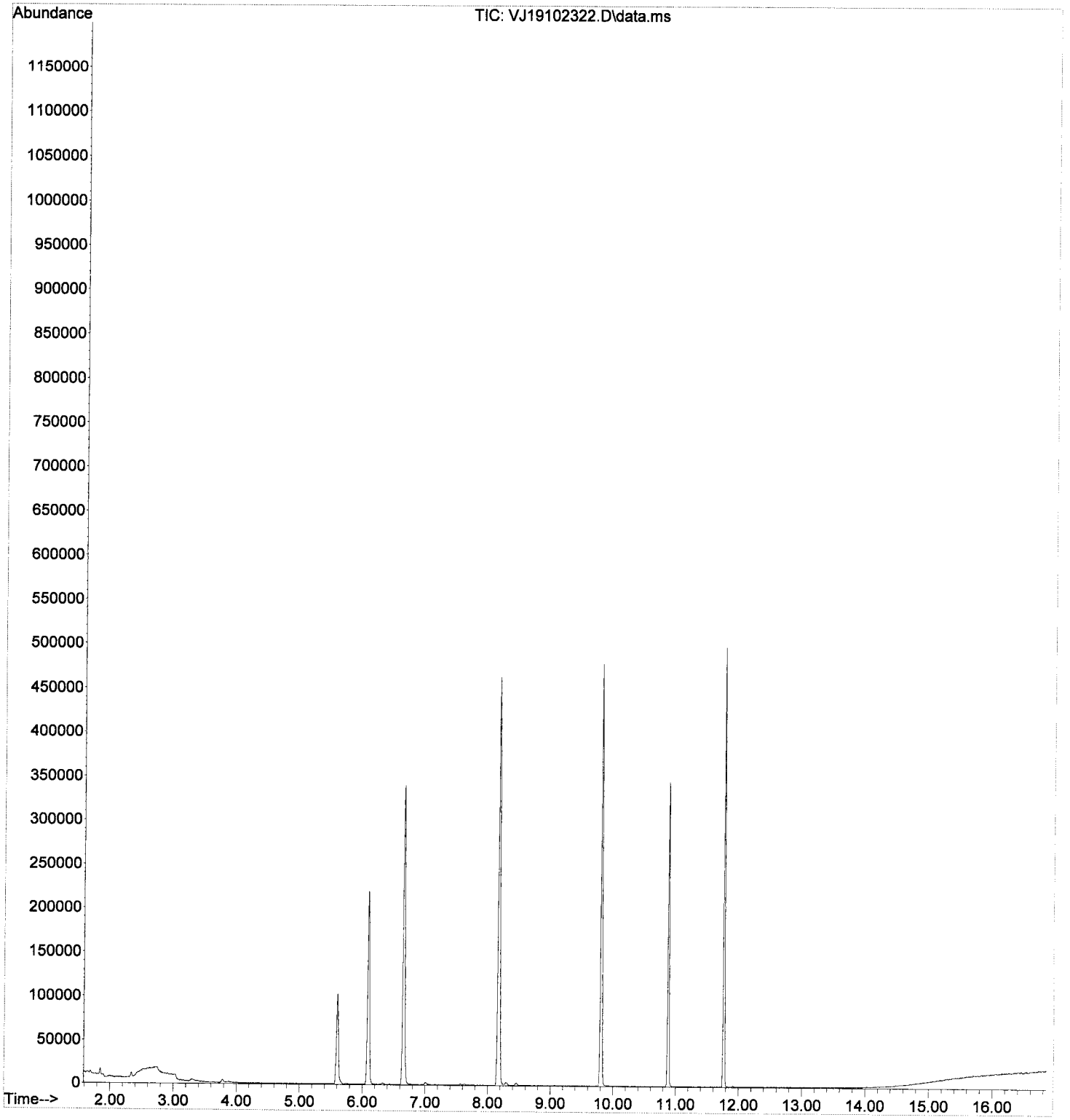
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	96423	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	253840	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	104143	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.597	111	75130	49.29	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	294467	49.64	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	358880	50.70	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	79007	52.54	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.898	50	2050	0.54	ug/L		91
5) Bromomethane	2.342	96	3056	0.13	ug/L		98
6) Chloroethane	2.543	64	59	1.37	ug/L	#	47
8) Ethanol	3.315	45	4637	Below Cal			80
12) Iodomethane	3.285	142	957	1.31	ug/L		80
14) Acetone	3.869	43	1766	1.20	ug/L	#	42
18) tert-Butanol (TBA)	4.258	59	117	0.15	ug/L	#	1
28) Tetrahydrofuran	5.609	42	384	0.20	ug/L	#	40
32) 2-Butanone (MEK)	5.743	43	1018	0.39	ug/L		52
36) iso-Butyl Alcohol	6.320	43	626	2.11	ug/L	#	65

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102322.D
Acq On : 23 Oct 2019 9:51 pm
Operator : MM
Sample : 9J23072-ICB1
Misc : 1X 5mL DI+MeOH
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 24 09:40:58 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



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102323.D
Acq On : 23 Oct 2019 10:18 pm
Operator : MM
Sample : 9J23072-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOC+MeOH
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 24 08:19:44 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	6.089	99	98175	50.00 ug/L	0.00
43) Chlorobenzene-d5 (I)	9.806	117	262966	50.00 ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	109763	50.00 ug/L	0.00
System Monitoring Compounds					
30) Dibromofluoromethane (S)	5.596	111	76023	57.28 ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.655	114	299782	70.51 ug/L	0.00
45) Toluene-d8 (S)	8.170	98	367697	51.50 ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.883	174	81163	48.19 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	1.891	50	2383	0.91 ug/L	98
4) Vinyl Chloride	0.000		0	N.D. d	
5) Bromomethane	2.336	96	2899	0.34 ug/L	96
6) Chloroethane	0.000		0	N.D. d	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethanol	0.000		0	N.D. d	
9) 1,1-Dichloroethene	0.000		0	N.D. d	
10) Carbon Disulfide	3.145	76	947	0.25 ug/L	64
11) Freon 113	0.000		0	N.D.	
12) Iodomethane	3.285	142	851	0.28 ug/L	82
13) Methylene Chloride	3.771	84	2211	Below Cal	94
14) Acetone	0.000		0	N.D. d	
15) t-1,2-Dichloroethene	0.000		0	N.D. d	
16) n-Hexane	0.000		0	N.D.	
17) Methyl-tert-butyl-ether	0.000		0	N.D. d	
18) tert-Butanol (TBA)	0.000		0	N.D. d	
19) Diisopropyl ether (DIPE)	0.000		0	N.D. d	
20) 1,1-Dichloroethane	0.000		0	N.D. d	
21) Acrylonitrile	0.000		0	N.D.	
22) Ethyl-tert-butyl ether...	0.000		0	N.D.	
23) c-1,2-Dichloroethene	0.000		0	N.D. d	
24) 2,2-Dichloropropane	0.000		0	N.D. d	
25) Bromochloromethane	0.000		0	N.D.	
26) Chloroform	0.000		0	N.D. d	
27) Carbon Tetrachloride	0.000		0	N.D. d	
28) Tetrahydrofuran	0.000		0	N.D. d	
29) 1,1,1-Trichloroethane	0.000		0	N.D. d	
31) 1,1-Dichloropropene	0.000		0	N.D. d	
32) 2-Butanone (MEK)	0.000		0	N.D. d	
33) Benzene	6.004	78	1432	0.19 ug/L	82
34) tert-Amyl methyl ether...	0.000		0	N.D. d	
35) 1,2-Dichloroethane (EDC)	0.000		0	N.D. d	
36) iso-Butyl Alcohol	0.000		0	N.D. d	
38) Trichloroethene (TCE)	0.000		0	N.D.	
39) tert-Amyl ethyl ether ...	0.000		0	N.D.	
40) Dibromomethane	0.000		0	N.D.	
41) 1,2-Dichloropropane	0.000		0	N.D. d	
42) Bromodichloromethane	0.000		0	N.D.	
44) c-1,3-Dichloropropene	0.000		0	N.D. d	
46) Toluene	8.231	91	1352	0.12 ug/L	87
47) Tetrachloroethene (PCE)	0.000		0	N.D.	
48) 4-Methyl-2-Pentanone (...	0.000		0	N.D. d	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102323.D
Acq On : 23 Oct 2019 10:18 pm
Operator : MM
Sample : 9J23072-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOC+MeOH
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 24 08:19:44 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
49) t-1,3-Dichloropropene	0.000		0	N.D. d	
50) 1,1,2-Trichloroethane	0.000		0	N.D. d	
51) Dibromochloromethane	0.000		0	N.D.	
52) 1,3-Dichloropropane	0.000		0	N.D. d	
53) 1,2-Dibromoethane (EDB)	0.000		0	N.D.	
54) 2-Hexanone	0.000		0	N.D. d	
55) Chlorobenzene	9.818	112	695	0.11 ug/L #	1
56) Ethylbenzene	9.861	91	1105	0.09 ug/L	84
57) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
58) m,p-Xylenes (2)	9.995	91	1531	0.16 ug/L	86
59) o-Xylene	10.378	91	723	0.08 ug/L	87
60) Styrene	0.000		0	N.D. d	
61) Bromoform	0.000		0	N.D.	
62) Isopropylbenzene	10.646	105	797	0.07 ug/L	86
65) Bromobenzene	0.000		0	N.D. d	
66) n-Propylbenzene	10.993	91	1106	0.09 ug/L	84
67) 1,1,2,2-Tetrachloroethane	11.041	83	305	0.12 ug/L	91
68) 2-Chlorotoluene	0.000		0	N.D. d	
69) 1,3,5-Trimethylbenzene	11.157	105	562	0.07 ug/L	73
70) 1,2,3-Trichloropropane	0.000		0	N.D.	
71) t-1,4-Dichloro-2-butene	0.000		0	N.D.	
72) 4-Chlorotoluene	0.000		0	N.D. d	
73) tert-Butylbenzene	0.000		0	N.D. d	
74) 1,2,4-Trimethylbenzene	11.461	105	694	0.08 ug/L	90
75) sec-Butylbenzene	0.000		0	N.D. d	
76) 4-Isopropyltoluene	0.000		0	N.D. d	
77) 1,3-Dichlorobenzene	11.716	146	347	0.09 ug/L #	25
78) 1,4-Dichlorobenzene	11.777	146	478	0.12 ug/L #	1
79) n-Butylbenzene	0.000		0	N.D. d	
80) 1,2-Dichlorobenzene	12.094	146	333	0.09 ug/L	87
81) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.	
82) Hexachlorobutadiene	0.000		0	N.D.	
83) 1,2,4-Trichlorobenzene	0.000		0	N.D. d	
84) Naphthalene	0.000		0	N.D. d	
85) 1,2,3-Trichlorobenzene	0.000		0	N.D. d	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102323.D
Acq On : 23 Oct 2019 10:18 pm
Operator : MM
Sample : 9J23072-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOC+MeOH
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 24 08:13:42 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	98175	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	262966	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	109763	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	76023	57.28	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	299782	70.51	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	367697	51.50	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	81163	48.19	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.			
3) Chloromethane	1.891	50	2383	0.91	ug/L		98
4) Vinyl Chloride	2.007	62	73	0.14	ug/L	#	46
5) Bromomethane	2.336	96	2899	0.34	ug/L		96
6) Chloroethane	2.482	64	59	0.06	ug/L	#	27
7) Trichlorofluoromethane	0.000		0	N.D.			
8) Ethanol	3.449	45	392	7.26	ug/L	#	29
9) 1,1-Dichloroethene	3.133	61	330	0.11	ug/L	#	25
10) Carbon Disulfide	3.145	76	947	0.25	ug/L		64
11) Freon 113	0.000		0	N.D.			
12) Iodomethane	3.285	142	851	0.28	ug/L		82
13) Methylene Chloride	3.771	84	2211	Below Cal			94
14) Acetone	3.863	43	1911	1.76	ug/L		97
15) t-1,2-Dichloroethene	3.942	61	294	0.11	ug/L	#	53
16) n-Hexane	0.000		0	N.D.			
17) Methyl-tert-butyl-ether	4.112	73	1500	0.21	ug/L		91
18) tert-Butanol (TBA)	4.307	59	141	6.76	ug/L	#	58
19) Diisopropyl ether (DIPE)	4.507	45	64	0.01	ug/L	#	33
20) 1,1-Dichloroethane	4.580	63	197	0.06	ug/L	#	50
21) Acrylonitrile	0.000		0	N.D.			
22) Ethyl-tert-butyl ether...	0.000		0	N.D.			
23) c-1,2-Dichloroethene	5.128	61	295	0.10	ug/L	#	70
24) 2,2-Dichloropropane	5.237	77	361	0.11	ug/L	#	53
25) Bromochloromethane	0.000		0	N.D.			
26) Chloroform	5.414	83	325	0.09	ug/L	#	25
27) Carbon Tetrachloride	5.554	117	56	0.02	ug/L	#	13
28) Tetrahydrofuran	5.584	42	484	0.47	ug/L	#	41
29) 1,1,1-Trichloroethane	5.615	97	320	0.09	ug/L	#	25
31) 1,1-Dichloropropene	5.755	75	137	0.05	ug/L	#	39
32) 2-Butanone (MEK)	5.736	43	1371	0.88	ug/L		52
33) Benzene	6.004	78	1432	0.19	ug/L		82
34) tert-Amyl methyl ether...	6.150	73	135	0.02	ug/L	#	46
35) 1,2-Dichloroethane (EDC)	6.199	62	184	0.04	ug/L	#	49
36) iso-Butyl Alcohol	6.314	43	1117	6.95	ug/L		94
38) Trichloroethene (TCE)	0.000		0	N.D.			
39) tert-Amyl ethyl ether ...	0.000		0	N.D.			
40) Dibromomethane	0.000		0	N.D.			
41) 1,2-Dichloropropane	7.178	63	189	0.10	ug/L	#	40
42) Bromodichloromethane	0.000		0	N.D.			
44) c-1,3-Dichloropropene	7.951	75	194	0.05	ug/L	#	46
46) Toluene	8.231	91	1352	0.12	ug/L		87
47) Tetrachloroethene (PCE)	0.000		0	N.D.			
48) 4-Methyl-2-Pentanone (...	8.675	43	484	0.14	ug/L	#	43

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102323.D
Acq On : 23 Oct 2019 10:18 pm
Operator : MM
Sample : 9J23072-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOC+MeOH
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 24 08:13:42 2019
Quant Method : C:\msdchem\1\methods\V~~J191024~~S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

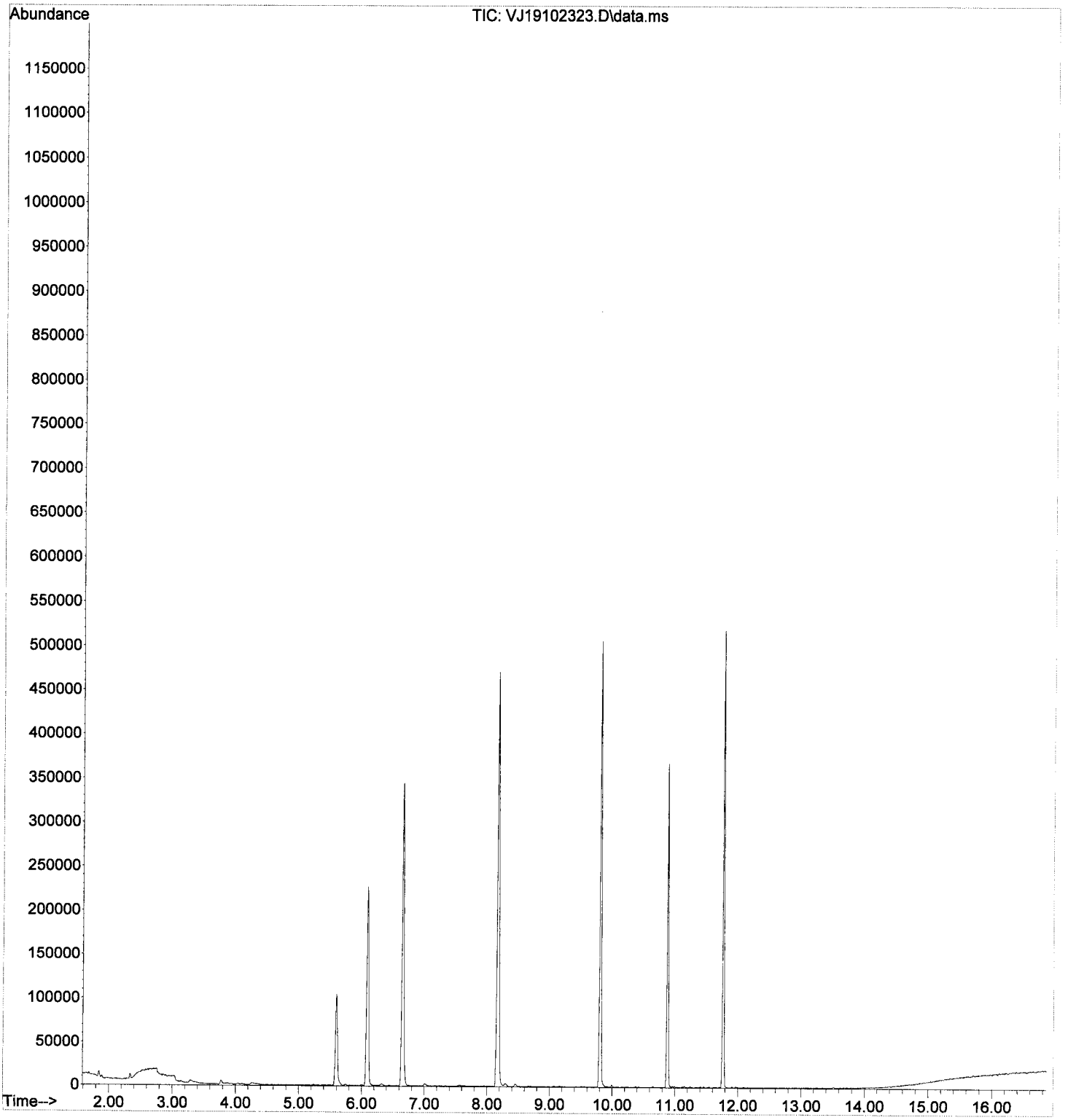
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	149	0.03	ug/L #	45
50) 1,1,2-Trichloroethane	8.869	97	69	0.14	ug/L #	64
51) Dibromochloromethane	0.000		0	N.D.		
52) 1,3-Dichloropropane	9.161	76	315	0.07	ug/L #	56
53) 1,2-Dibromoethane (EDB)	0.000		0	N.D.		
54) 2-Hexanone	9.551	43	303	0.11	ug/L #	32
55) Chlorobenzene	9.818	112	695	0.11	ug/L #	1
56) Ethylbenzene	9.861	91	1105	0.09	ug/L	84
57) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
58) m,p-Xylenes (2)	9.995	91	1531	0.16	ug/L	86
59) o-Xylene	10.378	91	723	0.08	ug/L	87
60) Styrene	10.427	104	335	0.06	ug/L #	40
61) Bromoform	0.000		0	N.D.		
62) Isopropylbenzene	10.646	105	797	0.07	ug/L	86
65) Bromobenzene	10.968	156	143	0.07	ug/L #	42
66) n-Propylbenzene	10.993	91	1106	0.09	ug/L	84
67) 1,1,2,2-Tetrachloroethane	11.041	83	305	0.12	ug/L	91
68) 2-Chlorotoluene	11.120	126	58	0.03	ug/L #	89
69) 1,3,5-Trimethylbenzene	11.157	105	562	0.07	ug/L	73
70) 1,2,3-Trichloropropane	0.000		0	N.D.		
71) t-1,4-Dichloro-2-butene	0.000		0	N.D.		
72) 4-Chlorotoluene	11.254	91	697	0.09	ug/L #	46
73) tert-Butylbenzene	11.406	91	324	0.06	ug/L #	59
74) 1,2,4-Trimethylbenzene	11.461	105	694	0.08	ug/L	90
75) sec-Butylbenzene	11.546	105	799	0.08	ug/L	58
76) 4-Isopropyltoluene	11.656	119	616	0.08	ug/L	51
77) 1,3-Dichlorobenzene	11.716	146	347	0.09	ug/L #	25
78) 1,4-Dichlorobenzene	11.777	146	478	0.12	ug/L #	1
79) n-Butylbenzene	11.972	91	741	0.10	ug/L	68
80) 1,2-Dichlorobenzene	12.094	146	333	0.09	ug/L	87
81) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.		
82) Hexachlorobutadiene	0.000		0	N.D		
83) 1,2,4-Trichlorobenzene	13.243	180	141	0.06	ug/L	87
84) Naphthalene	13.517	128	1002	0.13	ug/L	79
85) 1,2,3-Trichlorobenzene	13.675	180	88	0.04	ug/L	78

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102323.D
Acq On : 23 Oct 2019 10:18 pm
Operator : MM
Sample : 9J23072-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOC+MeOH
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 24 08:13:42 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 08:22:17 2019
Quant Method : C:\msdchem\1\methods\~~VJ191024S.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.089	99	95145	50.00	ug/L	0.00
43) Chlorobenzene-d5 (I)	9.806	117	262504	50.00	ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	110460	50.00	ug/L	0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.597	111	74426	57.87	ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.655	114	296071	71.86	ug/L	0.00
45) Toluene-d8 (S)	8.170	98	363461	50.99	ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.883	174	80374	47.42	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	d	
3) Chloromethane	1.898	50	2774	1.09	ug/L	96
4) Vinyl Chloride	0.000		0	N.D.	d	
5) Bromomethane	2.336	96	3184	0.76	ug/L	97
6) Chloroethane	0.000		0	N.D.	d	
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethanol	0.000		0	N.D.	d	
9) 1,1-Dichloroethene	0.000		0	N.D.	d	
10) Carbon Disulfide	3.151	76	1499	0.42	ug/L	57
11) Freon 113	0.000		0	N.D.	d	
12) Iodomethane	3.285	142	823	0.27	ug/L	86
13) Methylene Chloride	3.778	84	2377	Below Cal		97
14) Acetone	0.000		0	N.D.	d	
15) t-1,2-Dichloroethene	3.942	61	714	0.27	ug/L	90
16) n-Hexane	0.000		0	N.D.	d	
17) Methyl-tert-butyl-ether	0.000		0	N.D.	d	
18) tert-Butanol (TBA)	0.000		0	N.D.	d	
19) Diisopropyl ether (DIPE)	0.000		0	N.D.	d	
20) 1,1-Dichloroethane	4.581	63	720	0.24	ug/L #	50
21) Acrylonitrile	0.000		0	N.D.	d	
22) Ethyl-tert-butyl ether...	0.000		0	N.D.	d	
23) c-1,2-Dichloroethene	0.000		0	N.D.	d	
24) 2,2-Dichloropropane	5.238	77	761	0.23	ug/L	60
25) Bromochloromethane	0.000		0	N.D.	d	
26) Chloroform	5.414	83	740	0.20	ug/L	81
27) Carbon Tetrachloride	5.554	117	367	0.12	ug/L	69
28) Tetrahydrofuran	0.000		0	N.D.	d	
29) 1,1,1-Trichloroethane	5.627	97	686	0.19	ug/L	86
31) 1,1-Dichloropropene	0.000		0	N.D.	d	
32) 2-Butanone (MEK)	0.000		0	N.D.	d	
33) Benzene	6.004	78	2559	0.35	ug/L	95
34) tert-Amyl methyl ether...	0.000		0	N.D.	d	
35) 1,2-Dichloroethane (EDC)	6.205	62	709	0.17	ug/L	83
36) iso-Butyl Alcohol	0.000		0	N.D.	d	
38) Trichloroethene (TCE)	6.619	130	381	0.37	ug/L #	71
39) tert-Amyl ethyl ether ...	0.000		0	N.D.	d	
40) Dibromomethane	0.000		0	N.D.	d	
41) 1,2-Dichloropropane	0.000		0	N.D.	d	
42) Bromodichloromethane	7.251	83	437	0.16	ug/L	94
44) c-1,3-Dichloropropene	7.951	75	596	0.15	ug/L	81
46) Toluene	8.237	91	2544	0.24	ug/L	80
47) Tetrachloroethene (PCE)	8.681	166	350	0.16	ug/L	75
48) 4-Methyl-2-Pentanone (...	0.000		0	N.D.	d	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 08:22:17 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	580	0.13	ug/L		70
50) 1,1,2-Trichloroethane	8.876	97	417	0.29	ug/L	#	63
51) Dibromochloromethane	0.000		0	N.D.	d		
52) 1,3-Dichloropropane	9.162	76	851	0.18	ug/L		69
53) 1,2-Dibromoethane (EDB)	9.302	107	426	0.18	ug/L		87
54) 2-Hexanone	0.000		0	N.D.	d		
55) Chlorobenzene	9.825	112	1422	0.22	ug/L		80
56) Ethylbenzene	9.861	91	2188	0.18	ug/L		90
57) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	d		
58) m,p-Xylenes (2)	9.995	91	3071	0.32	ug/L		96
59) o-Xylene	10.378	91	1440	0.15	ug/L		72
60) Styrene	10.421	104	892	0.15	ug/L		88
61) Bromoform	0.000		0	N.D.	d		
62) Isopropylbenzene	10.652	105	1688	0.16	ug/L		90
65) Bromobenzene	10.968	156	420	0.20	ug/L		85
66) n-Propylbenzene	10.993	91	2321	0.19	ug/L		84
67) 1,1,2,2-Tetrachloroethane	11.041	83	669	0.26	ug/L		80
68) 2-Chlorotoluene	11.114	126	366	0.18	ug/L	#	92
69) 1,3,5-Trimethylbenzene	11.157	105	1298	0.16	ug/L		84
70) 1,2,3-Trichloropropane	11.151	110	133	0.12	ug/L	#	81
71) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
72) 4-Chlorotoluene	11.254	91	1325	0.18	ug/L		80
73) tert-Butylbenzene	11.400	91	795	0.15	ug/L	#	60
74) 1,2,4-Trimethylbenzene	11.461	105	1248	0.15	ug/L		94
75) sec-Butylbenzene	11.546	105	1629	0.17	ug/L		97
76) 4-Isopropyltoluene	11.656	119	1231	0.15	ug/L		98
77) 1,3-Dichlorobenzene	11.711	146	806	0.20	ug/L		95
78) 1,4-Dichlorobenzene	11.771	146	866	0.22	ug/L	#	16
79) n-Butylbenzene	11.972	91	1325	0.18	ug/L		87
80) 1,2-Dichlorobenzene	12.094	146	725	0.19	ug/L		90
81) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
82) Hexachlorobutadiene	0.000		0	N.D.			
83) 1,2,4-Trichlorobenzene	13.244	180	416	0.18	ug/L		87
84) Naphthalene	13.517	128	1558	0.20	ug/L		85
85) 1,2,3-Trichlorobenzene	13.676	180	435	0.19	ug/L		79

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 08:13:45 2019
Quant Method : C:\msdchem\1\methods\~~VJ191024S~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	95145	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	262504	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	110460	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.597	111	74426	57.87	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	296071	71.86	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	363461	50.99	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	80374	47.42	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	391	0.17	ug/L	#	51
3) Chloromethane	1.898	50	2774	1.09	ug/L		96
4) Vinyl Chloride	2.013	62	623	0.39	ug/L	#	46
5) Bromomethane	2.336	96	3184	0.76	ug/L		97
6) Chloroethane	2.457	64	122	0.12	ug/L	#	66
7) Trichlorofluoromethane	0.000		0	N.D.			
8) Ethanol	3.388	45	1179	22.53	ug/L		83
9) 1,1-Dichloroethene	3.139	61	739	0.26	ug/L	#	56
10) Carbon Disulfide	3.151	76	1499	0.42	ug/L		57
11) Freon 113	3.194	101	296	0.23	ug/L	#	64
12) Iodomethane	3.285	142	823	0.27	ug/L		86
13) Methylene Chloride	3.778	84	2377	Below Cal			97
14) Acetone	3.863	43	1997	1.90	ug/L		99
15) t-1,2-Dichloroethene	3.942	61	714	0.27	ug/L		90
16) n-Hexane	0.000		0	N.D.			
17) Methyl-tert-butyl-ether	4.106	73	2159	0.30	ug/L		97
18) tert-Butanol (TBA)	4.343	59	3209	13.15	ug/L	#	42
19) Diisopropyl ether (DIPE)	4.508	45	436	0.06	ug/L		59
20) 1,1-Dichloroethane	4.581	63	720	0.24	ug/L	#	50
21) Acrylonitrile	4.629	53	116	0.14	ug/L	#	14
22) Ethyl-tert-butyl ether...	4.867	59	322	0.05	ug/L	#	38
23) c-1,2-Dichloroethene	5.134	61	1002	0.36	ug/L		92
24) 2,2-Dichloropropane	5.238	77	761	0.23	ug/L		60
25) Bromochloromethane	5.335	49	345	0.22	ug/L	#	57
26) Chloroform	5.414	83	740	0.20	ug/L		81
27) Carbon Tetrachloride	5.554	117	367	0.12	ug/L		69
28) Tetrahydrofuran	5.597	42	719	0.72	ug/L	#	55
29) 1,1,1-Trichloroethane	5.627	97	686	0.19	ug/L		86
31) 1,1-Dichloropropene	5.749	75	827	0.30	ug/L	#	60
32) 2-Butanone (MEK)	5.730	43	1859	1.24	ug/L		93
33) Benzene	6.004	78	2559	0.35	ug/L		95
34) tert-Amyl methyl ether...	6.144	73	653	0.10	ug/L	#	46
35) 1,2-Dichloroethane (EDC)	6.205	62	709	0.17	ug/L		83
36) iso-Butyl Alcohol	6.321	43	1986	12.74	ug/L		96
38) Trichloroethene (TCE)	6.619	130	381	0.37	ug/L	#	71
39) tert-Amyl ethyl ether ...	6.917	59	71	0.01	ug/L	#	19
40) Dibromomethane	7.063	93	69	0.06	ug/L	#	38
41) 1,2-Dichloropropane	7.172	63	579	0.31	ug/L	#	40
42) Bromodichloromethane	7.251	83	437	0.16	ug/L		94
44) c-1,3-Dichloropropene	7.951	75	596	0.15	ug/L		81
46) Toluene	8.237	91	2544	0.24	ug/L		80
47) Tetrachloroethene (PCE)	8.681	166	350	0.16	ug/L		75
48) 4-Methyl-2-Pentanone (...	8.669	43	1391	0.40	ug/L		88

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 08:13:45 2019
Quant Method : C:\msdchem\1\methods\~~VJ191024~~S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

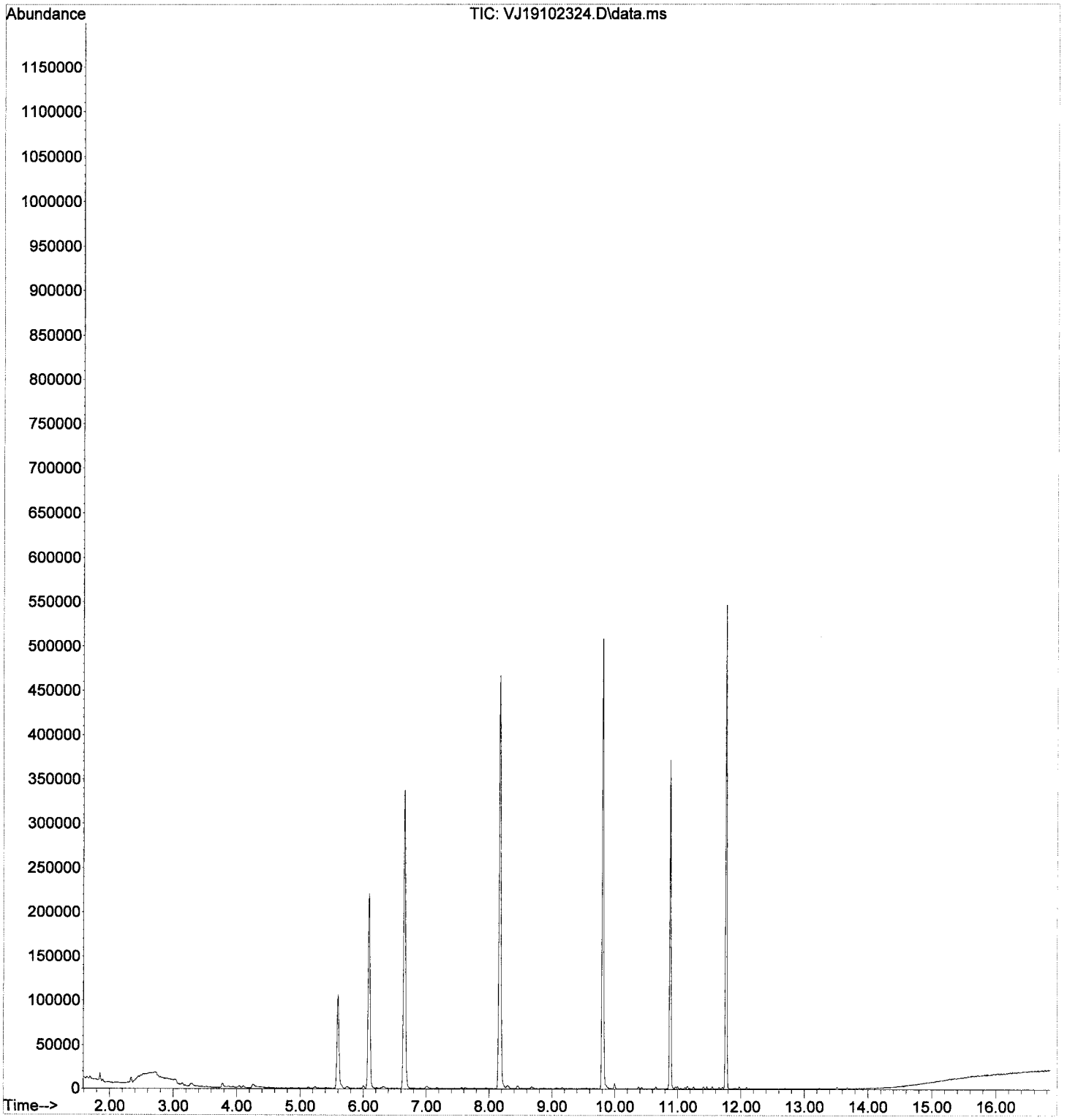
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	580	0.13	ug/L		70
50) 1,1,2-Trichloroethane	8.876	97	417	0.29	ug/L	#	63
51) Dibromochloromethane	9.058	129	61	0.03	ug/L	#	17
52) 1,3-Dichloropropane	9.162	76	851	0.18	ug/L		69
53) 1,2-Dibromoethane (EDB)	9.302	107	426	0.18	ug/L		87
54) 2-Hexanone	9.551	43	725	0.27	ug/L		86
55) Chlorobenzene	9.825	112	1422	0.22	ug/L		80
56) Ethylbenzene	9.861	91	2188	0.18	ug/L		90
57) 1,1,1,2-Tetrachloroethane	9.886	131	216	0.09	ug/L	#	79
58) m,p-Xylenes (2)	9.995	91	3071	0.32	ug/L		96
59) o-Xylene	10.378	91	1440	0.15	ug/L		72
60) Styrene	10.421	104	892	0.15	ug/L		88
61) Bromoform	10.433	173	55	0.59	ug/L	#	37
62) Isopropylbenzene	10.652	105	1688	0.15	ug/L		90
65) Bromobenzene	10.968	156	420	0.20	ug/L		85
66) n-Propylbenzene	10.993	91	2321	0.19	ug/L		84
67) 1,1,2,2-Tetrachloroethane	11.041	83	669	0.26	ug/L		80
68) 2-Chlorotoluene	11.114	126	366	0.18	ug/L	#	92
69) 1,3,5-Trimethylbenzene	11.157	105	1298	0.16	ug/L		84
70) 1,2,3-Trichloropropane	11.151	110	133	0.12	ug/L	#	81
71) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
72) 4-Chlorotoluene	11.254	91	1325	0.18	ug/L		80
73) tert-Butylbenzene	11.400	91	795	0.15	ug/L	#	60
74) 1,2,4-Trimethylbenzene	11.461	105	1248	0.15	ug/L		94
75) sec-Butylbenzene	11.546	105	1629	0.17	ug/L		97
76) 4-Isopropyltoluene	11.656	119	1231	0.15	ug/L		98
77) 1,3-Dichlorobenzene	11.711	146	806	0.20	ug/L		95
78) 1,4-Dichlorobenzene	11.771	146	866	0.22	ug/L	#	16
79) n-Butylbenzene	11.972	91	1325	0.18	ug/L		87
80) 1,2-Dichlorobenzene	12.094	146	725	0.19	ug/L		90
81) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
82) Hexachlorobutadiene	0.000		0	N.D.			
83) 1,2,4-Trichlorobenzene	13.244	180	416	0.18	ug/L		87
84) Naphthalene	13.517	128	1558	0.20	ug/L		85
85) 1,2,3-Trichlorobenzene	13.676	180	435	0.19	ug/L		79

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102324.D
Acq On : 23 Oct 2019 10:45 pm
Operator : MM
Sample : 9J23072-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 08:13:45 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102325.D
Acq On : 23 Oct 2019 11:12 pm
Operator : MM
Sample : 9J23072-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOC+MeOH
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 24 08:24:41 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	93220	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	252875	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	105667	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	73589	58.40	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	285274	70.67	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	352756	51.38	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	77055	47.52	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	d		
3) Chloromethane	1.898	50	3285	1.32	ug/L		97
4) Vinyl Chloride	2.007	62	1110	0.62	ug/L		94
5) Bromomethane	2.342	96	3378	1.05	ug/L		91
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	3.139	61	1510	0.53	ug/L		81
10) Carbon Disulfide	3.151	76	2496	0.71	ug/L		76
11) Freon 113	3.194	101	761	0.60	ug/L	#	66
12) Iodomethane	3.297	142	849	0.52	ug/L		82
13) Methylene Chloride	3.778	84	2718	Below Cal			86
14) Acetone	0.000		0	N.D.	d		
15) t-1,2-Dichloroethene	3.954	61	1485	0.58	ug/L		87
16) n-Hexane	0.000		0	N.D.	d		
17) Methyl-tert-butyl-ether	0.000		0	N.D.	d		
18) tert-Butanol (TBA)	4.258	59	17903	44.38	ug/L	#	87
19) Diisopropyl ether (DIPE)	4.508	45	894	0.13	ug/L		80
20) 1,1-Dichloroethane	4.581	63	1458	0.50	ug/L		89
21) Acrylonitrile	4.641	53	409	0.51	ug/L		86
22) Ethyl-tert-butyl ether...	0.000		0	N.D.	d		
23) c-1,2-Dichloroethene	5.134	61	1499	0.54	ug/L		92
24) 2,2-Dichloropropane	5.238	77	1640	0.51	ug/L		69
25) Bromochloromethane	5.329	49	807	0.53	ug/L		80
26) Chloroform	5.420	83	1517	0.42	ug/L		91
27) Carbon Tetrachloride	5.554	117	934	0.31	ug/L		88
28) Tetrahydrofuran	0.000		0	N.D.	d		
29) 1,1,1-Trichloroethane	5.621	97	1334	0.38	ug/L		92
31) 1,1-Dichloropropene	5.749	75	1389	0.51	ug/L		94
32) 2-Butanone (MEK)	0.000		0	N.D.	d		
33) Benzene	6.004	78	4719	0.67	ug/L		98
34) tert-Amyl methyl ether...	0.000		0	N.D.	d		
35) 1,2-Dichloroethane (EDC)	6.211	62	1352	0.38	ug/L		80
36) iso-Butyl Alcohol	0.000		0	N.D.	d		
38) Trichloroethene (TCE)	6.619	130	944	0.70	ug/L		82
39) tert-Amyl ethyl ether ...	6.911	59	396	0.08	ug/L	#	30
40) Dibromomethane	7.057	93	565	0.47	ug/L	#	62
41) 1,2-Dichloropropane	7.172	63	1176	0.64	ug/L		94
42) Bromodichloromethane	7.251	83	1004	0.37	ug/L		95
44) c-1,3-Dichloropropene	7.957	75	1346	0.35	ug/L		91
46) Toluene	8.231	91	4766	0.46	ug/L		92
47) Tetrachloroethene (PCE)	8.675	166	805	0.38	ug/L		77
48) 4-Methyl-2-Pentanone (...	8.669	43	2938	0.87	ug/L		88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102325.D
Acq On : 23 Oct 2019 11:12 pm
Operator : MM
Sample : 9J23072-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOC+MeOH
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 24 08:24:41 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	1392	0.33	ug/L	70
50) 1,1,2-Trichloroethane	8.876	97	933	0.53	ug/L	94
51) Dibromochloromethane	9.064	129	522	0.22	ug/L	88
52) 1,3-Dichloropropane	9.168	76	1718	0.38	ug/L	91
53) 1,2-Dibromoethane (EDB)	9.301	107	788	0.34	ug/L	90
54) 2-Hexanone	9.545	43	1510	0.59	ug/L	82
55) Chlorobenzene	9.825	112	2767	0.44	ug/L	94
56) Ethylbenzene	9.861	91	4399	0.37	ug/L	98
57) 1,1,1,2-Tetrachloroethane	9.892	131	712	0.30	ug/L	85
58) m,p-Xylenes (2)	9.995	91	5672	0.62	ug/L	90
59) o-Xylene	10.378	91	2627	0.29	ug/L	90
60) Styrene	10.421	104	1570	0.27	ug/L	92
61) Bromoform	10.433	173	307	0.75	ug/L #	37
62) Isopropylbenzene	10.652	105	3200	0.30	ug/L	95
65) Bromobenzene	10.962	156	848	0.42	ug/L #	75
66) n-Propylbenzene	10.999	91	4342	0.37	ug/L	92
67) 1,1,2,2-Tetrachloroethane	11.047	83	1189	0.49	ug/L	81
68) 2-Chlorotoluene	11.114	126	805	0.41	ug/L	99
69) 1,3,5-Trimethylbenzene	11.157	105	2457	0.31	ug/L	87
70) 1,2,3-Trichloropropane	11.151	110	377	0.36	ug/L #	82
71) t-1,4-Dichloro-2-butene	0.000		0	N.D.	d	
72) 4-Chlorotoluene	11.248	91	2330	0.33	ug/L	99
73) tert-Butylbenzene	11.406	91	1388	0.27	ug/L	92
74) 1,2,4-Trimethylbenzene	11.461	105	2375	0.30	ug/L	87
75) sec-Butylbenzene	11.546	105	3021	0.33	ug/L	92
76) 4-Isopropyltoluene	11.656	119	2242	0.29	ug/L	93
77) 1,3-Dichlorobenzene	11.711	146	1573	0.40	ug/L	96
78) 1,4-Dichlorobenzene	11.777	146	1787	0.47	ug/L	82
79) n-Butylbenzene	11.972	91	2427	0.34	ug/L	92
80) 1,2-Dichlorobenzene	12.094	146	1421	0.39	ug/L	93
81) 1,2-Dibromo-3-Chloropr...	12.690	157	70	0.12	ug/L #	38
82) Hexachlorobutadiene	13.219	223	139	0.25	ug/L #	76
83) 1,2,4-Trichlorobenzene	13.244	180	804	0.35	ug/L	82
84) Naphthalene	13.517	128	2847	0.38	ug/L	94
85) 1,2,3-Trichlorobenzene	13.676	180	736	0.34	ug/L	88

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102325.D
Acq On : 23 Oct 2019 11:12 pm
Operator : MM
Sample : 9J23072-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOC+MeOH
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 24 08:13:48 2019
Quant Method : C:\msdchem\1\methods\VJ~~191024S~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	93220	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	252875	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	105667	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	73589	58.40	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	285274	70.67	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	352756	51.38	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	77055	47.52	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	707	0.31	ug/L	#	51
3) Chloromethane	1.898	50	3285	1.32	ug/L		97
4) Vinyl Chloride	2.007	62	1110	0.62	ug/L		94
5) Bromomethane	2.342	96	3378	1.05	ug/L		91
6) Chloroethane	2.463	64	144	0.14	ug/L	#	47
7) Trichlorofluoromethane	2.603	101	57	0.02	ug/L	#	35
8) Ethanol	3.388	45	906	17.67	ug/L	#	29
9) 1,1-Dichloroethene	3.139	61	1510	0.53	ug/L		81
10) Carbon Disulfide	3.151	76	2496	0.71	ug/L		76
11) Freon 113	3.194	101	761	0.60	ug/L	#	66
12) Iodomethane	3.297	142	849	0.52	ug/L		82
13) Methylene Chloride	3.778	84	2718	Below Cal			86
14) Acetone	3.869	43	2417	2.35	ug/L		100
15) t-1,2-Dichloroethene	3.954	61	1485	0.58	ug/L		87
16) n-Hexane	4.051	86	65	1.09	ug/L	#	1
17) Methyl-tert-butyl-ether	4.100	73	4119	0.59	ug/L		86
18) tert-Butanol (TBA)	4.258	59	17903	44.38	ug/L	#	87
19) Diisopropyl ether (DIPE)	4.508	45	894	0.13	ug/L		80
20) 1,1-Dichloroethane	4.581	63	1458	0.50	ug/L		89
21) Acrylonitrile	4.641	53	409	0.51	ug/L		86
22) Ethyl-tert-butyl ether...	4.879	59	826	0.12	ug/L	#	55
23) c-1,2-Dichloroethene	5.134	61	1499	0.54	ug/L		92
24) 2,2-Dichloropropane	5.238	77	1640	0.51	ug/L		69
25) Bromochloromethane	5.329	49	807	0.53	ug/L		80
26) Chloroform	5.420	83	1517	0.42	ug/L		91
27) Carbon Tetrachloride	5.554	117	934	0.31	ug/L		88
28) Tetrahydrofuran	5.597	42	990	1.01	ug/L	#	65
29) 1,1,1-Trichloroethane	5.621	97	1334	0.38	ug/L		92
31) 1,1-Dichloropropene	5.749	75	1389	0.51	ug/L		94
32) 2-Butanone (MEK)	5.736	43	2181	1.48	ug/L		88
33) Benzene	6.004	78	4719	0.67	ug/L		98
34) tert-Amyl methyl ether...	6.150	73	1028	0.16	ug/L	#	46
35) 1,2-Dichloroethane (EDC)	6.211	62	1352	0.33	ug/L		80
36) iso-Butyl Alcohol	6.327	43	2217	14.52	ug/L		74
38) Trichloroethene (TCE)	6.619	130	944	0.70	ug/L		82
39) tert-Amyl ethyl ether ...	6.911	59	396	0.08	ug/L	#	30
40) Dibromomethane	7.057	93	565	0.47	ug/L	#	62
41) 1,2-Dichloropropane	7.172	63	1176	0.64	ug/L		94
42) Bromodichloromethane	7.251	83	1004	0.37	ug/L		95
44) c-1,3-Dichloropropene	7.957	75	1346	0.35	ug/L		91
46) Toluene	8.231	91	4766	0.45	ug/L		92
47) Tetrachloroethene (PCE)	8.675	166	805	0.38	ug/L		77
48) 4-Methyl-2-Pentanone (...	8.669	43	2938	0.87	ug/L		88

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102325.D
Acq On : 23 Oct 2019 11:12 pm
Operator : MM
Sample : 9J23072-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOC+MeOH
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 24 08:13:48 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

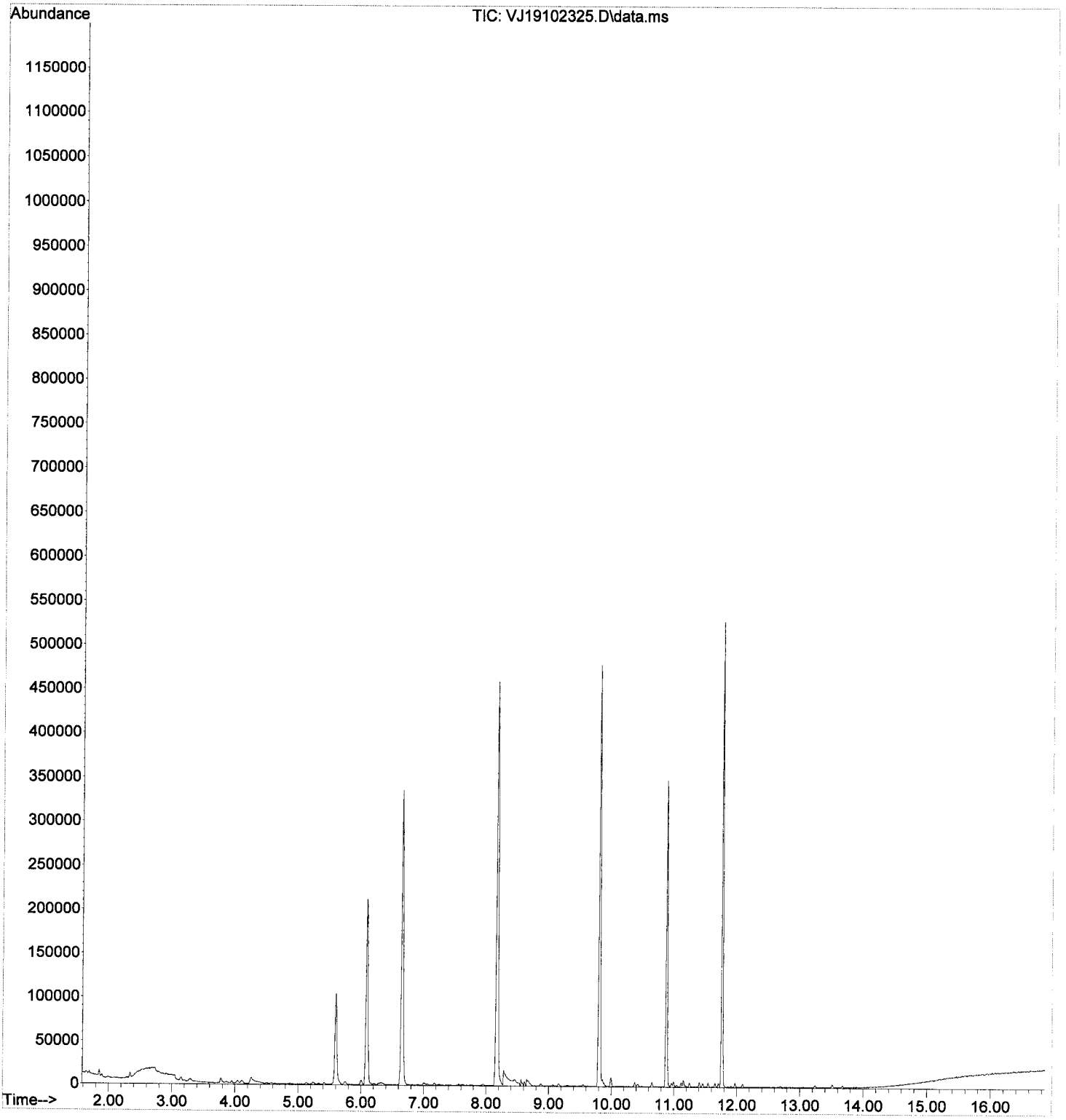
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	1392	0.33	ug/L	70
50) 1,1,2-Trichloroethane	8.876	97	933	0.53	ug/L	94
51) Dibromochloromethane	9.064	129	522	0.22	ug/L	88
52) 1,3-Dichloropropane	9.168	76	1718	0.38	ug/L	91
53) 1,2-Dibromoethane (EDB)	9.301	107	788	0.34	ug/L	90
54) 2-Hexanone	9.545	43	1510	0.59	ug/L	82
55) Chlorobenzene	9.825	112	2767	0.44	ug/L	94
56) Ethylbenzene	9.861	91	4399	0.37	ug/L	98
57) 1,1,1,2-Tetrachloroethane	9.892	131	712	0.30	ug/L	85
58) m,p-Xylenes (2)	9.995	91	5672	0.62	ug/L	90
59) o-Xylene	10.378	91	2627	0.29	ug/L	90
60) Styrene	10.421	104	1570	0.27	ug/L	92
61) Bromoform	10.433	173	307	0.75	ug/L #	37
62) Isopropylbenzene	10.652	105	3200	0.30	ug/L	95
65) Bromobenzene	10.962	156	848	0.42	ug/L #	75
66) n-Propylbenzene	10.999	91	4342	0.37	ug/L	92
67) 1,1,2,2-Tetrachloroethane	11.047	83	1189	0.49	ug/L	81
68) 2-Chlorotoluene	11.114	126	805	0.41	ug/L	99
69) 1,3,5-Trimethylbenzene	11.157	105	2457	0.31	ug/L	87
70) 1,2,3-Trichloropropane	11.151	110	377	0.36	ug/L #	82
71) t-1,4-Dichloro-2-butene	11.187	88	62	0.12	ug/L #	63
72) 4-Chlorotoluene	11.248	91	2330	0.33	ug/L	99
73) tert-Butylbenzene	11.406	91	1388	0.27	ug/L	92
74) 1,2,4-Trimethylbenzene	11.461	105	2375	0.30	ug/L	87
75) sec-Butylbenzene	11.546	105	3021	0.33	ug/L	92
76) 4-Isopropyltoluene	11.656	119	2242	0.29	ug/L	93
77) 1,3-Dichlorobenzene	11.711	146	1573	0.40	ug/L	96
78) 1,4-Dichlorobenzene	11.777	146	1787	0.47	ug/L	82
79) n-Butylbenzene	11.972	91	2427	0.34	ug/L	92
80) 1,2-Dichlorobenzene	12.094	146	1421	0.39	ug/L	93
81) 1,2-Dibromo-3-Chloropr...	12.690	157	70	0.12	ug/L #	38
82) Hexachlorobutadiene	13.219	223	139	0.25	ug/L #	76
83) 1,2,4-Trichlorobenzene	13.244	180	804	0.35	ug/L	82
84) Naphthalene	13.517	128	2847	0.38	ug/L	94
85) 1,2,3-Trichlorobenzene	13.676	180	736	0.34	ug/L	88

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102325.D
Acq On : 23 Oct 2019 11:12 pm
Operator : MM
Sample : 9J23072-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOC+MeOH
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 24 08:13:48 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102326.D
Acq On : 23 Oct 2019 11:38 pm
Operator : MM
Sample : 9J23072-CAL4
Misc : 1X 5mL 1/2PPB VOC+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 24 08:25:31 2019
Quant Method : C:\msdchem\1\methods\~~VJ191024S~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	92321	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	250210	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	103980	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.602	111	72858	58.38	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	284090	71.06	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	350128	51.54	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	75855	47.54	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	2035	0.90	ug/L		89
3) Chloromethane	1.904	50	5307	2.15	ug/L		96
4) Vinyl Chloride	2.001	62	3035	1.53	ug/L		90
5) Bromomethane	2.348	96	4613	2.49	ug/L		89
6) Chloroethane	0.000		0	N.D.	d		
7) Trichlorofluoromethane	2.603	101	516	0.16	ug/L	#	62
8) Ethanol	3.327	45	12276m	241.79	ug/L		
9) 1,1-Dichloroethene	3.139	61	3558	1.27	ug/L		89
10) Carbon Disulfide	3.157	76	6000	1.72	ug/L		94
11) Freon 113	3.206	101	2153	1.71	ug/L		95
12) Iodomethane	3.297	142	1059	1.79	ug/L		87
13) Methylene Chloride	3.784	84	3788	0.62	ug/L		87
14) Acetone	3.875	43	5145	5.04	ug/L		93
15) t-1,2-Dichloroethene	3.948	61	3719	1.47	ug/L		95
16) n-Hexane	4.039	86	445	2.47	ug/L	#	84
17) Methyl-tert-butyl-ether	4.118	73	8793	1.28	ug/L		99
18) tert-Butanol (TBA)	4.276	59	43663	99.44	ug/L	#	98
19) Diisopropyl ether (DIPE)	4.507	45	2248	0.34	ug/L		97
20) 1,1-Dichloroethane	4.580	63	4012	1.38	ug/L		93
21) Acrylonitrile	4.641	53	1605	2.00	ug/L		95
22) Ethyl-tert-butyl ether...	4.879	59	2080	0.32	ug/L		90
23) c-1,2-Dichloroethene	5.134	61	3680	1.34	ug/L		97
24) 2,2-Dichloropropane	5.237	77	3688	1.15	ug/L		89
25) Bromochloromethane	5.335	49	2314	1.52	ug/L		76
26) Chloroform	5.420	83	4201	1.18	ug/L		92
27) Carbon Tetrachloride	5.560	117	2727	0.93	ug/L		92
28) Tetrahydrofuran	5.596	42	2396	2.47	ug/L		91
29) 1,1,1-Trichloroethane	5.621	97	3664	1.05	ug/L		91
31) 1,1-Dichloropropene	5.748	75	3601	1.32	ug/L		90
32) 2-Butanone (MEK)	5.736	43	5985	4.11	ug/L		88
33) Benzene	6.004	78	11702	1.67	ug/L		97
34) tert-Amyl methyl ether...	6.156	73	2154	0.33	ug/L		97
35) 1,2-Dichloroethane (EDC)	6.211	62	3762	0.94	ug/L		96
36) iso-Butyl Alcohol	6.296	43	6214	41.09	ug/L		88
38) Trichloroethene (TCE)	6.631	130	2385	1.55	ug/L		90
39) tert-Amyl ethyl ether ...	6.910	59	1238	0.26	ug/L		86
40) Dibromomethane	7.069	93	1439	1.22	ug/L	#	78
41) 1,2-Dichloropropane	7.172	63	2881	1.57	ug/L		98
42) Bromodichloromethane	7.251	83	2597	0.97	ug/L		96
44) c-1,3-Dichloropropene	7.957	75	3342	0.87	ug/L		99
46) Toluene	8.231	91	11638	1.13	ug/L		98
47) Tetrachloroethene (PCE)	8.675	166	2158	1.04	ug/L		91
48) 4-Methyl-2-Pentanone (...	8.669	43	5887	1.76	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102326.D
Acq On : 23 Oct 2019 11:38 pm
Operator : MM
Sample : 9J23072-CAL4
Misc : 1X 5mL 1/2PPB VOC+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 24 08:25:31 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	3091	0.75	ug/L		91
50) 1,1,2-Trichloroethane	8.875	97	2304	1.16	ug/L		94
51) Dibromochloromethane	9.070	129	1520	0.65	ug/L		87
52) 1,3-Dichloropropane	9.161	76	4392	0.99	ug/L		95
53) 1,2-Dibromoethane (EDB)	9.301	107	2060	0.89	ug/L		98
54) 2-Hexanone	9.545	43	3832	1.52	ug/L		95
55) Chlorobenzene	9.824	112	6563	1.06	ug/L		88
56) Ethylbenzene	9.861	91	10768	0.91	ug/L		96
57) 1,1,1,2-Tetrachloroethane	9.885	131	1888	0.80	ug/L		88
58) m,p-Xylenes (2)	9.995	91	14581	1.61	ug/L		98
59) o-Xylene	10.378	91	7125	0.79	ug/L		93
60) Styrene	10.421	104	3854	0.68	ug/L		95
61) Bromoform	10.439	173	884	1.11	ug/L		75
62) Isopropylbenzene	10.652	105	8399	0.81	ug/L		94
65) Bromobenzene	10.962	156	2143	1.08	ug/L	#	65
66) n-Propylbenzene	10.999	91	10891	0.95	ug/L		94
67) 1,1,2,2-Tetrachloroethane	11.047	83	3210	1.33	ug/L		90
68) 2-Chlorotoluene	11.114	126	2013	1.03	ug/L		94
69) 1,3,5-Trimethylbenzene	11.157	105	6251	0.81	ug/L		86
70) 1,2,3-Trichloropropane	11.151	110	1017	0.98	ug/L	#	80
71) t-1,4-Dichloro-2-butene	11.187	88	335	0.67	ug/L	#	73
72) 4-Chlorotoluene	11.248	91	6138	0.87	ug/L		86
73) tert-Butylbenzene	11.406	91	3751	0.74	ug/L		87
74) 1,2,4-Trimethylbenzene	11.461	105	6195	0.79	ug/L		98
75) sec-Butylbenzene	11.546	105	7629	0.84	ug/L		90
76) 4-Isopropyltoluene	11.656	119	5514	0.72	ug/L		96
77) 1,3-Dichlorobenzene	11.710	146	3912	1.02	ug/L		93
78) 1,4-Dichlorobenzene	11.777	146	4198	1.13	ug/L		88
79) n-Butylbenzene	11.972	91	5940	0.84	ug/L		92
80) 1,2-Dichlorobenzene	12.094	146	3541	1.00	ug/L		93
81) 1,2-Dibromo-3-Chloropr...	12.696	157	497	0.88	ug/L	#	45
82) Hexachlorobutadiene	13.219	223	383	0.69	ug/L		92
83) 1,2,4-Trichlorobenzene	13.237	180	2063	0.93	ug/L		94
84) Naphthalene	13.517	128	6478	0.88	ug/L		96
85) 1,2,3-Trichlorobenzene	13.675	180	1857	0.87	ug/L		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102326.D
Acq On : 23 Oct 2019 11:38 pm
Operator : MM
Sample : 9J23072-CAL4
Misc : 1X 5mL 1/2PPB VOC+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 24 08:13:51 2019
Quant Method : C:\msdchem\1\methods\~~VJ191024S~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	92321	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	250210	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	103980	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.602	111	72858	58.38	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	284090	71.06	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	350128	51.54	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	75855	47.54	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	2035	0.90	ug/L		89
3) Chloromethane	1.904	50	5307	2.15	ug/L		96
4) Vinyl Chloride	2.001	62	3035	1.53	ug/L		90
5) Bromomethane	2.348	96	4613	2.49	ug/L		89
6) Chloroethane	2.463	64	266	0.27	ug/L	#	32
7) Trichlorofluoromethane	2.603	101	516	0.16	ug/L	#	62
8) Ethanol	3.455	45	~~369~~	7.27	ug/L	#	29
9) 1,1-Dichloroethene	3.139	61	3558	1.27	ug/L		89
10) Carbon Disulfide	3.157	76	6000	1.72	ug/L		94
11) Freon 113	3.206	101	2153	1.71	ug/L		95
12) Iodomethane	3.297	142	1059	1.79	ug/L		87
13) Methylene Chloride	3.784	84	3788	0.62	ug/L		87
14) Acetone	3.875	43	5145	5.04	ug/L		93
15) t-1,2-Dichloroethene	3.948	61	3719	1.47	ug/L		95
16) n-Hexane	4.039	86	445	2.47	ug/L	#	84
17) Methyl-tert-butyl-ether	4.118	73	8793	1.28	ug/L		99
18) tert-Butanol (TBA)	4.276	59	43663	99.44	ug/L	#	98
19) Diisopropyl ether (DIPE)	4.507	45	2248	0.34	ug/L		97
20) 1,1-Dichloroethane	4.580	63	4012	1.38	ug/L		93
21) Acrylonitrile	4.641	53	1605	2.00	ug/L		95
22) Ethyl-tert-butyl ether...	4.879	59	2080	0.32	ug/L		90
23) c-1,2-Dichloroethene	5.134	61	3680	1.34	ug/L		97
24) 2,2-Dichloropropane	5.237	77	3688	1.15	ug/L		89
25) Bromochloromethane	5.335	49	2314	1.52	ug/L		76
26) Chloroform	5.420	83	4201	1.18	ug/L		92
27) Carbon Tetrachloride	5.560	117	2727	0.93	ug/L		92
28) Tetrahydrofuran	5.596	42	2396	2.47	ug/L		91
29) 1,1,1-Trichloroethane	5.621	97	3664	1.05	ug/L		91
31) 1,1-Dichloropropene	5.748	75	3601	1.32	ug/L		90
32) 2-Butanone (MEK)	5.736	43	5985	4.11	ug/L		88
33) Benzene	6.004	78	11702	1.67	ug/L		97
34) tert-Amyl methyl ether...	6.156	73	2154	0.33	ug/L		97
35) 1,2-Dichloroethane (EDC)	6.211	62	3762	0.94	ug/L		96
36) iso-Butyl Alcohol	6.296	43	6214	41.09	ug/L		88
38) Trichloroethene (TCE)	6.631	130	2385	1.55	ug/L		90
39) tert-Amyl ethyl ether ...	6.910	59	1238	0.26	ug/L		86
40) Dibromomethane	7.069	93	1439	1.22	ug/L	#	78
41) 1,2-Dichloropropane	7.172	63	2881	1.57	ug/L		98
42) Bromodichloromethane	7.251	83	2597	0.97	ug/L		96
44) c-1,3-Dichloropropene	7.957	75	3342	0.87	ug/L		99
46) Toluene	8.231	91	11638	1.13	ug/L		98
47) Tetrachloroethene (PCE)	8.675	166	2158	1.04	ug/L		91
48) 4-Methyl-2-Pentanone (...	8.669	43	5887	1.76	ug/L		92

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102326.D
Acq On : 23 Oct 2019 11:38 pm
Operator : MM
Sample : 9J23072-CAL4
Misc : 1X 5mL 1/2PPB VOC+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 24 08:13:51 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

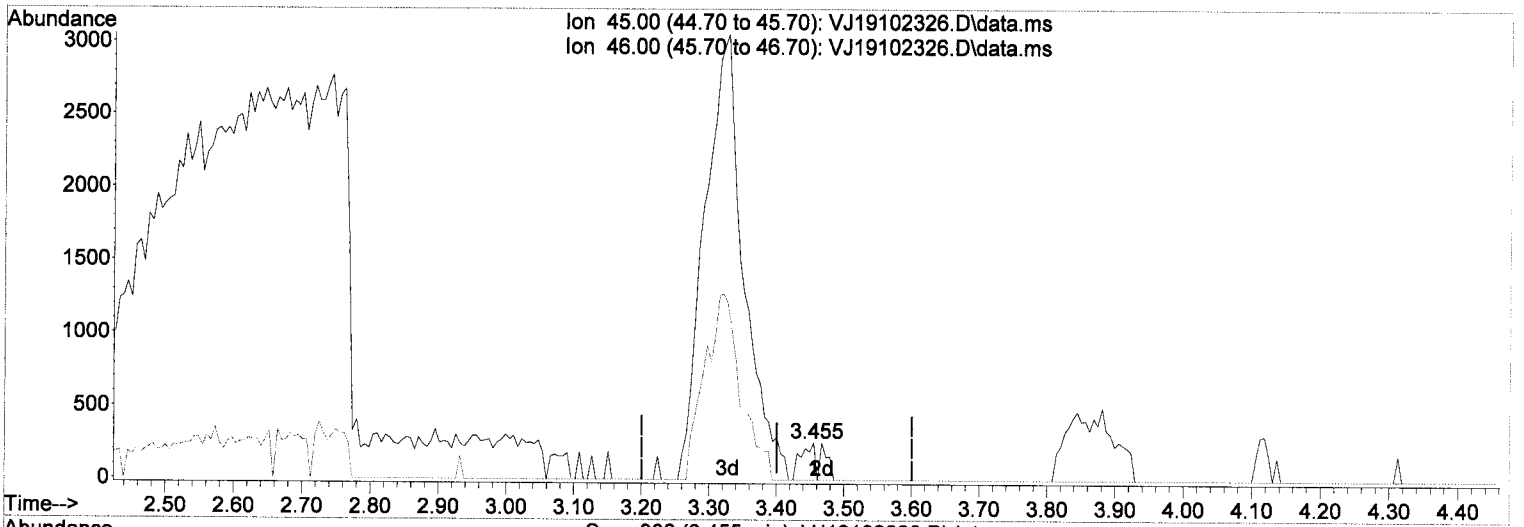
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	3091	0.75	ug/L	91
50) 1,1,2-Trichloroethane	8.875	97	2304	1.16	ug/L	94
51) Dibromochloromethane	9.070	129	1520	0.65	ug/L	87
52) 1,3-Dichloropropane	9.161	76	4392	0.99	ug/L	95
53) 1,2-Dibromoethane (EDB)	9.301	107	2060	0.89	ug/L	98
54) 2-Hexanone	9.545	43	3832	1.52	ug/L	95
55) Chlorobenzene	9.824	112	6563	1.06	ug/L	88
56) Ethylbenzene	9.861	91	10768	0.91	ug/L	96
57) 1,1,1,2-Tetrachloroethane	9.885	131	1888	0.80	ug/L	88
58) m,p-Xylenes (2)	9.995	91	14581	1.61	ug/L	98
59) o-Xylene	10.378	91	7125	0.79	ug/L	93
60) Styrene	10.421	104	3854	0.68	ug/L	95
61) Bromoform	10.439	173	884	1.11	ug/L	75
62) Isopropylbenzene	10.652	105	8399	0.81	ug/L	94
65) Bromobenzene	10.962	156	2143	1.08	ug/L #	65
66) n-Propylbenzene	10.999	91	10891	0.95	ug/L	94
67) 1,1,2,2-Tetrachloroethane	11.047	83	3210	1.33	ug/L	90
68) 2-Chlorotoluene	11.114	126	2013	1.03	ug/L	94
69) 1,3,5-Trimethylbenzene	11.157	105	6251	0.81	ug/L	86
70) 1,2,3-Trichloropropane	11.151	110	1017	0.98	ug/L #	80
71) t-1,4-Dichloro-2-butene	11.187	88	335	0.67	ug/L #	73
72) 4-Chlorotoluene	11.248	91	6138	0.87	ug/L	86
73) tert-Butylbenzene	11.406	91	3751	0.74	ug/L	87
74) 1,2,4-Trimethylbenzene	11.461	105	6195	0.79	ug/L	98
75) sec-Butylbenzene	11.546	105	7629	0.84	ug/L	90
76) 4-Isopropyltoluene	11.656	119	5514	0.72	ug/L	96
77) 1,3-Dichlorobenzene	11.710	146	3912	1.02	ug/L	93
78) 1,4-Dichlorobenzene	11.777	146	4198	1.13	ug/L	88
79) n-Butylbenzene	11.972	91	5940	0.84	ug/L	92
80) 1,2-Dichlorobenzene	12.094	146	3541	1.00	ug/L	93
81) 1,2-Dibromo-3-Chloropr...	12.696	157	497	0.88	ug/L #	45
82) Hexachlorobutadiene	13.219	223	383	0.69	ug/L	92
83) 1,2,4-Trichlorobenzene	13.237	180	2063	0.93	ug/L	94
84) Naphthalene	13.517	128	6478	0.88	ug/L	96
85) 1,2,3-Trichlorobenzene	13.675	180	1857	0.87	ug/L	98

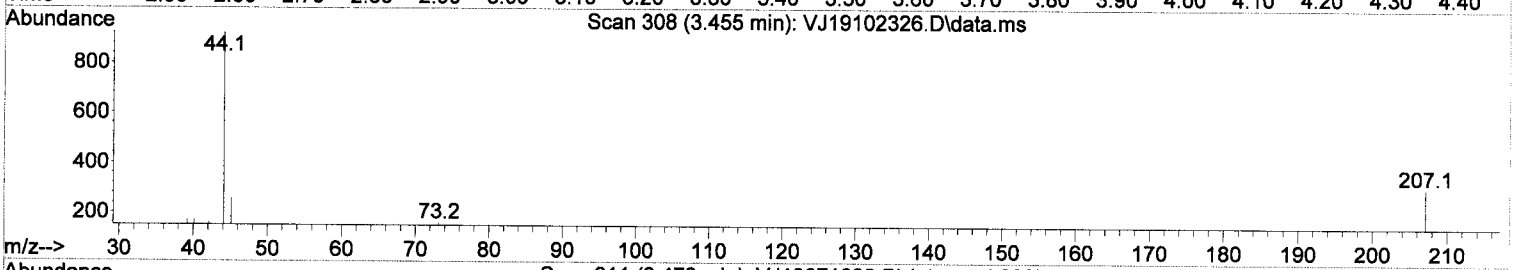
(#) = qualifier out of range (m) = manual integration (+) = signals summed

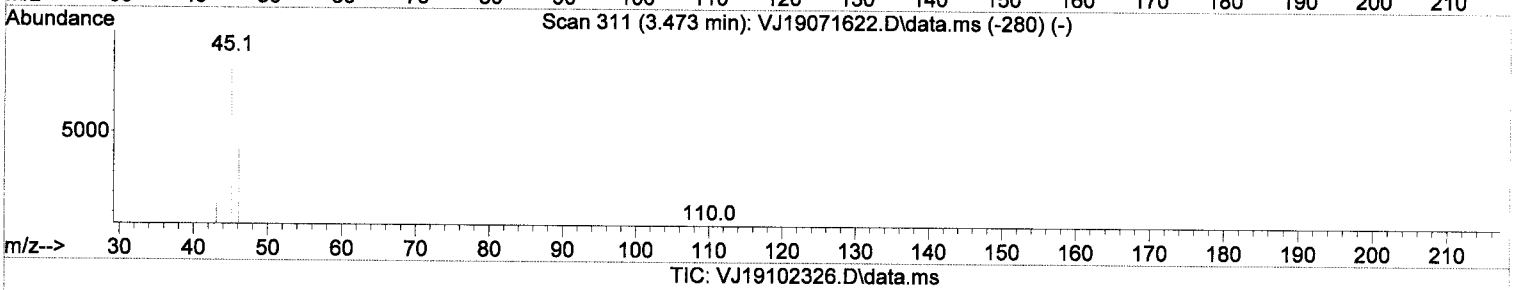
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102326.D
Acq On : 23 Oct 2019 11:38 pm
Operator : MM
Sample : 9J23072-CAL4
Misc : 1X 5mL 1/2PPB VOC+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 24 08:13:51 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102326.D\data.ms

(8) Ethanol

3.455min (+ 0.055) 7.27 ug/L

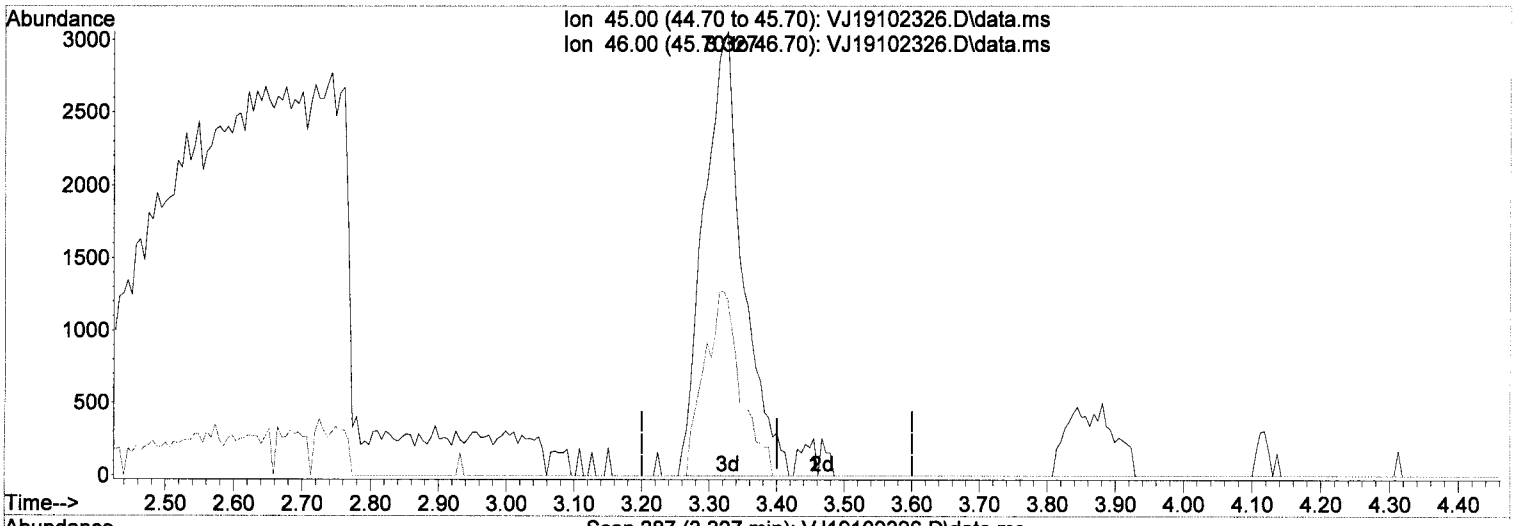
response 369

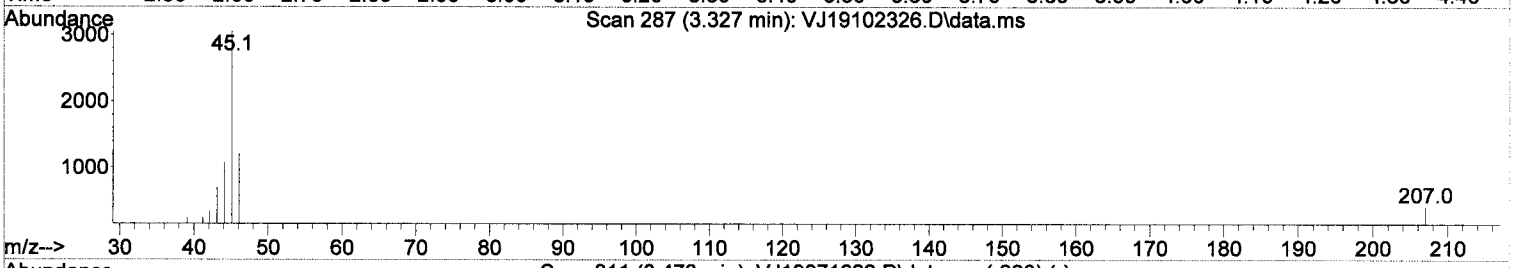
Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

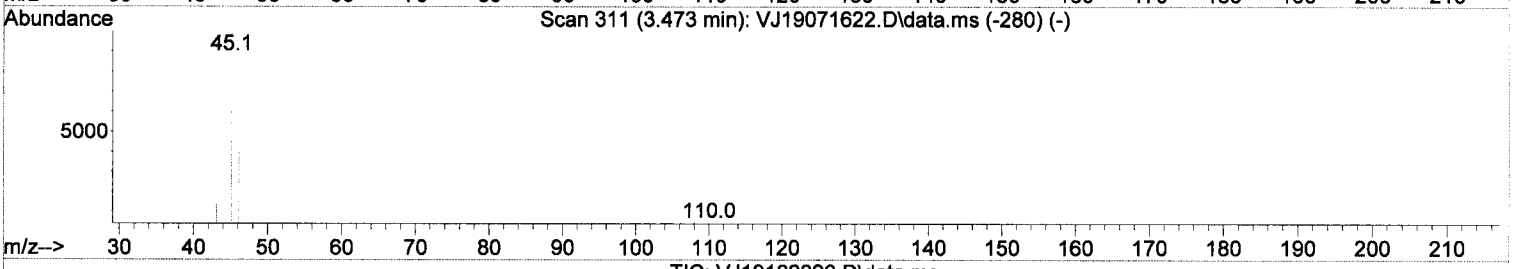
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102326.D
Acq On : 23 Oct 2019 11:38 pm
Operator : MM
Sample : 9J23072-CAL4
Misc : 1X 5mL 1/2PPB VOC+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 24 08:13:51 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102326.D\data.ms

(8) Ethanol

3.327min (-0.073) 241.79 ug/L m

response 12276

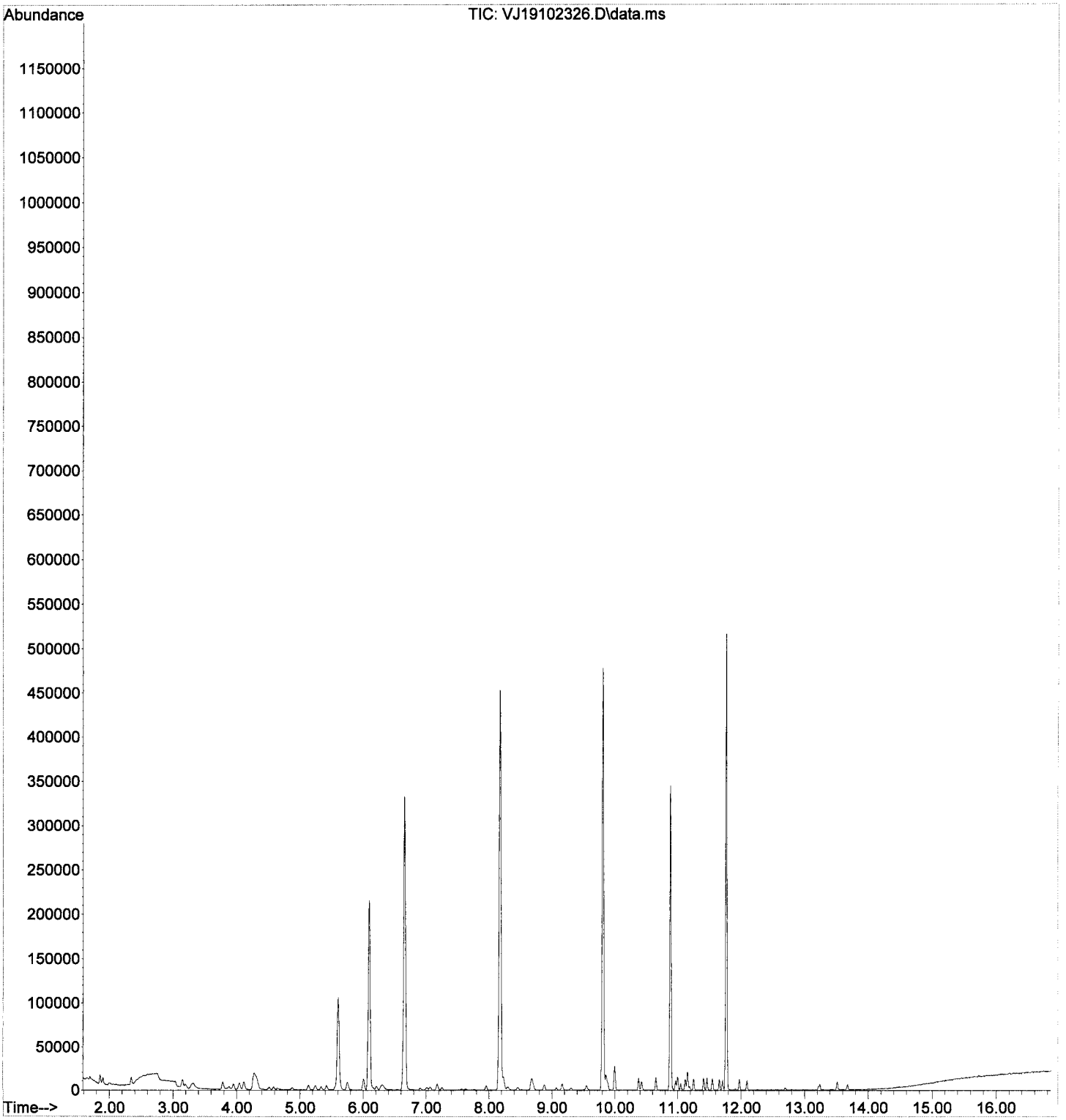
Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	39.72
0.00	0.00	0.00
0.00	0.00	0.00

10/24/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102326.D
Acq On : 23 Oct 2019 11:38 pm
Operator : MM
Sample : 9J23072-CAL4
Misc : 1X 5mL 1/2PPB VOC+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 24 08:13:51 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:27:45 2019
Quant Method : C:\msdchem\1\methods\~~VJ191024~~S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	94791	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	254089	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	104689	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	73108	57.05	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	289317	70.48	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	358352	51.94	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	76386	47.55	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.685	85	4456m	1.91	ug/L		
3) Chloromethane	1.892	50	8944	3.53	ug/L		99
4) Vinyl Chloride	1.983	62	6249	2.96	ug/L		98
5) Bromomethane	2.336	96	5195	3.00	ug/L		94
6) Chloroethane	2.463	64	558	0.54	ug/L	#	14
7) Trichlorofluoromethane	2.603	101	1251	0.39	ug/L		72
8) Ethanol	3.352	45	19108	366.54	ug/L		97
9) 1,1-Dichloroethene	3.139	61	7400	2.57	ug/L		93
10) Carbon Disulfide	3.151	76	12853	3.58	ug/L		97
11) Freon 113	3.193	101	4614	3.57	ug/L		81
12) Iodomethane	3.285	142	1558	4.27	ug/L		78
13) Methylene Chloride	3.777	84	6212	2.37	ug/L		90
14) Acetone	0.000		0	N.D.	d		
15) t-1,2-Dichloroethene	3.948	61	7911	3.05	ug/L		95
16) n-Hexane	4.039	86	1139	4.87	ug/L	#	83
17) Methyl-tert-butyl-ether	4.100	73	18230	2.58	ug/L		96
18) tert-Butanol (TBA)	4.319	59	97251m	206.57	ug/L		
19) Diisopropyl ether (DIPE)	4.507	45	4580	0.68	ug/L		98
20) 1,1-Dichloroethane	4.580	63	8482	2.85	ug/L		97
21) Acrylonitrile	4.635	53	3497m	4.25	ug/L		
22) Ethyl-tert-butyl ether...	4.872	59	4172	0.62	ug/L		98
23) c-1,2-Dichloroethene	5.128	61	7651	2.72	ug/L		94
24) 2,2-Dichloropropane	5.237	77	7702	2.34	ug/L		92
25) Bromochloromethane	5.323	49	4784	3.06	ug/L		78
26) Chloroform	5.414	83	8976	2.46	ug/L		93
27) Carbon Tetrachloride	5.548	117	5728	1.90	ug/L		95
28) Tetrahydrofuran	5.596	42	4355	4.38	ug/L		91
29) 1,1,1-Trichloroethane	5.621	97	8216	2.29	ug/L		97
31) 1,1-Dichloropropene	5.748	75	7729	2.77	ug/L		93
32) 2-Butanone (MEK)	5.736	43	10911	7.29	ug/L		98
33) Benzene	5.998	78	25316	3.51	ug/L		97
34) tert-Amyl methyl ether...	6.150	73	4293	0.64	ug/L		90
35) 1,2-Dichloroethane (EDC)	6.205	62	8154	1.98	ug/L		96
36) iso-Butyl Alcohol	6.308	43	14927	96.13	ug/L		91
38) Trichloroethene (TCE)	6.618	130	5111	3.06	ug/L		88
39) tert-Amyl ethyl ether ...	6.898	59	3009	0.61	ug/L		77
40) Dibromomethane	7.063	93	3204	2.64	ug/L	#	75
41) 1,2-Dichloropropane	7.172	63	6237	3.32	ug/L		94
42) Bromodichloromethane	7.245	83	5797	2.10	ug/L		98
44) c-1,3-Dichloropropene	7.951	75	7516	1.92	ug/L		98
46) Toluene	8.231	91	24811	2.37	ug/L		96
47) Tetrachloroethene (PCE)	8.681	166	4654	2.20	ug/L		91
48) 4-Methyl-2-Pentanone (...	8.669	43	13736	4.04	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:27:45 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	7062	1.69	ug/L		91
50) 1,1,2-Trichloroethane	8.875	97	5217	2.44	ug/L		94
51) Dibromochloromethane	9.064	129	3616	1.58	ug/L		96
52) 1,3-Dichloropropane	9.161	76	9958	2.22	ug/L		95
53) 1,2-Dibromoethane (EDB)	9.301	107	4697	2.00	ug/L		92
54) 2-Hexanone	9.545	43	9451	3.69	ug/L		90
55) Chlorobenzene	9.824	112	14691	2.38	ug/L		97
56) Ethylbenzene	9.861	91	23566	1.96	ug/L		95
57) 1,1,1,2-Tetrachloroethane	9.885	131	4053	1.69	ug/L		96
58) m,p-Xylenes (2)	9.995	91	32148	3.49	ug/L		99
59) o-Xylene	10.378	91	15404	1.68	ug/L		94
60) Styrene	10.421	104	8686	1.51	ug/L		91
61) Bromoform	10.439	173	2069	1.83	ug/L		90
62) Isopropylbenzene	10.652	105	18251	1.72	ug/L		96
65) Bromobenzene	10.962	156	4789	2.40	ug/L	#	62
66) n-Propylbenzene	10.993	91	23478	2.04	ug/L		92
67) 1,1,2,2-Tetrachloroethane	11.047	83	7515	3.10	ug/L		99
68) 2-Chlorotoluene	11.114	126	4132	2.11	ug/L		90
69) 1,3,5-Trimethylbenzene	11.157	105	14119	1.81	ug/L		91
70) 1,2,3-Trichloropropane	11.151	110	2381	2.28	ug/L		96
71) t-1,4-Dichloro-2-butene	11.187	88	731	1.44	ug/L	#	62
72) 4-Chlorotoluene	11.248	91	13748	1.94	ug/L		95
73) tert-Butylbenzene	11.406	91	8173	1.61	ug/L		85
74) 1,2,4-Trimethylbenzene	11.461	105	14318	1.81	ug/L		97
75) sec-Butylbenzene	11.546	105	17439	1.90	ug/L		96
76) 4-Isopropyltoluene	11.656	119	12982	1.68	ug/L		93
77) 1,3-Dichlorobenzene	11.710	146	8614	2.22	ug/L		95
78) 1,4-Dichlorobenzene	11.777	146	9088	2.48	ug/L		95
79) n-Butylbenzene	11.972	91	12799	1.79	ug/L		93
80) 1,2-Dichlorobenzene	12.094	146	7821	2.19	ug/L		96
81) 1,2-Dibromo-3-Chloropr...	12.696	157	1147	2.02	ug/L	#	45
82) Hexachlorobutadiene	13.219	223	910	1.62	ug/L		85
83) 1,2,4-Trichlorobenzene	13.243	180	4581	2.04	ug/L		91
84) Naphthalene	13.517	128	14900	2.01	ug/L		98
85) 1,2,3-Trichlorobenzene	13.675	180	4683	2.18	ug/L		91

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:13:54 2019
Quant Method : C:\msdchem\1\methods\VJ191024S_M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	94791	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	254089	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	104689	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	73108	57.05	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	289317	70.48	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	358352	51.94	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	76386	47.55	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.685	85	2909	1.25	ug/L		91
3) Chloromethane	1.892	50	8944	3.53	ug/L		99
4) Vinyl Chloride	1.983	62	6249	2.96	ug/L		98
5) Bromomethane	2.336	96	5195	3.00	ug/L		94
6) Chloroethane	2.463	64	558	0.54	ug/L	#	14
7) Trichlorofluoromethane	2.603	101	1251	0.39	ug/L		72
8) Ethanol	3.352	45	19108	366.54	ug/L		97
9) 1,1-Dichloroethene	3.139	61	7400	2.57	ug/L		93
10) Carbon Disulfide	3.151	76	12853	3.58	ug/L		97
11) Freon 113	3.193	101	4614	3.57	ug/L		81
12) Iodomethane	3.285	142	1558	4.27	ug/L		78
13) Methylene Chloride	3.777	84	6212	2.37	ug/L		90
14) Acetone	3.869	43	6940	6.63	ug/L		95
15) t-1,2-Dichloroethene	3.948	61	7911	3.05	ug/L		95
16) n-Hexane	4.039	86	1139	4.87	ug/L	#	83
17) Methyl-tert-butyl-ether	4.100	73	18230	2.58	ug/L		96
18) tert-Butanol (TBA)	4.319	59	63582	137.95	ug/L	#	100
19) Diisopropyl ether (DIPE)	4.507	45	4580	0.68	ug/L		98
20) 1,1-Dichloroethane	4.580	63	8482	2.85	ug/L		97
21) Acrylonitrile	4.635	53	29805	3.63	ug/L		97
22) Ethyl-tert-butyl ether...	4.872	59	4172	0.62	ug/L		98
23) c-1,2-Dichloroethene	5.128	61	7651	2.72	ug/L		94
24) 2,2-Dichloropropane	5.237	77	7702	2.34	ug/L		92
25) Bromochloromethane	5.323	49	4784	3.06	ug/L		78
26) Chloroform	5.414	83	8976	2.46	ug/L		93
27) Carbon Tetrachloride	5.548	117	5728	1.90	ug/L		95
28) Tetrahydrofuran	5.596	42	4355	4.38	ug/L		91
29) 1,1,1-Trichloroethane	5.621	97	8216	2.29	ug/L		97
31) 1,1-Dichloropropene	5.748	75	7729	2.77	ug/L		93
32) 2-Butanone (MEK)	5.736	43	10911	7.29	ug/L		98
33) Benzene	5.998	78	25316	3.51	ug/L		97
34) tert-Amyl methyl ether...	6.150	73	4293	0.64	ug/L		90
35) 1,2-Dichloroethane (EDC)	6.205	62	8154	1.98	ug/L		96
36) iso-Butyl Alcohol	6.308	43	14927	96.13	ug/L		91
38) Trichloroethene (TCE)	6.618	130	5111	3.06	ug/L		88
39) tert-Amyl ethyl ether ...	6.898	59	3009	0.61	ug/L		77
40) Dibromomethane	7.063	93	3204	2.64	ug/L	#	75
41) 1,2-Dichloropropane	7.172	63	6237	3.32	ug/L		94
42) Bromodichloromethane	7.245	83	5797	2.10	ug/L		98
44) c-1,3-Dichloropropene	7.951	75	7516	1.92	ug/L		98
46) Toluene	8.231	91	24811	2.37	ug/L		96
47) Tetrachloroethene (PCE)	8.681	166	4654	2.20	ug/L		91
48) 4-Methyl-2-Pentanone (...	8.669	43	13736	4.04	ug/L		96

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:13:54 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

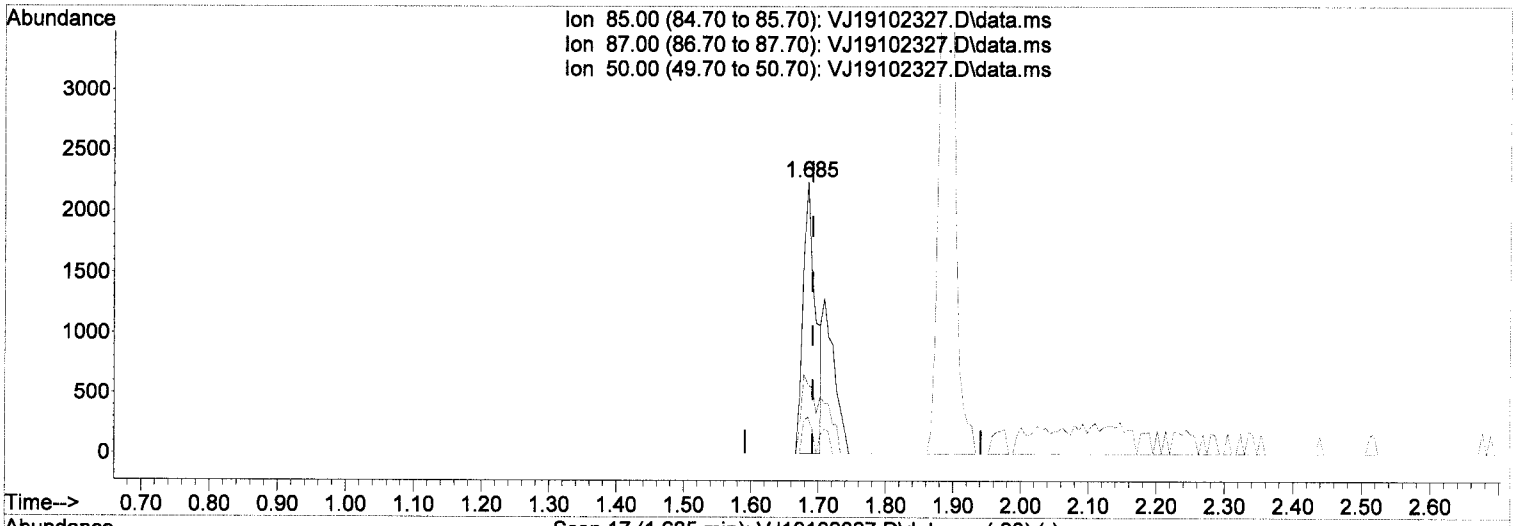
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	7062	1.69	ug/L		91
50) 1,1,2-Trichloroethane	8.875	97	5217	2.44	ug/L		94
51) Dibromochloromethane	9.064	129	3616	1.53	ug/L		96
52) 1,3-Dichloropropane	9.161	76	9958	2.22	ug/L		95
53) 1,2-Dibromoethane (EDB)	9.301	107	4697	2.00	ug/L		92
54) 2-Hexanone	9.545	43	9451	3.69	ug/L		90
55) Chlorobenzene	9.824	112	14691	2.33	ug/L		97
56) Ethylbenzene	9.861	91	23566	1.96	ug/L		95
57) 1,1,1,2-Tetrachloroethane	9.885	131	4053	1.69	ug/L		96
58) m,p-Xylenes (2)	9.995	91	32148	3.49	ug/L		99
59) o-Xylene	10.378	91	15404	1.68	ug/L		94
60) Styrene	10.421	104	8686	1.51	ug/L		91
61) Bromoform	10.439	173	2069	1.83	ug/L		90
62) Isopropylbenzene	10.652	105	18251	1.72	ug/L		96
65) Bromobenzene	10.962	156	4789	2.40	ug/L	#	62
66) n-Propylbenzene	10.993	91	23478	2.04	ug/L		92
67) 1,1,2,2-Tetrachloroethane	11.047	83	7515	3.10	ug/L		99
68) 2-Chlorotoluene	11.114	126	4132	2.11	ug/L		90
69) 1,3,5-Trimethylbenzene	11.157	105	14119	1.81	ug/L		91
70) 1,2,3-Trichloropropane	11.151	110	2381	2.28	ug/L		96
71) t-1,4-Dichloro-2-butene	11.187	88	731	1.44	ug/L	#	62
72) 4-Chlorotoluene	11.248	91	13748	1.94	ug/L		95
73) tert-Butylbenzene	11.406	91	8173	1.61	ug/L		85
74) 1,2,4-Trimethylbenzene	11.461	105	14318	1.81	ug/L		97
75) sec-Butylbenzene	11.546	105	17439	1.90	ug/L		96
76) 4-Isopropyltoluene	11.656	119	12982	1.68	ug/L		93
77) 1,3-Dichlorobenzene	11.710	146	8614	2.22	ug/L		95
78) 1,4-Dichlorobenzene	11.777	146	9088	2.43	ug/L		95
79) n-Butylbenzene	11.972	91	12799	1.79	ug/L		93
80) 1,2-Dichlorobenzene	12.094	146	7821	2.19	ug/L		96
81) 1,2-Dibromo-3-Chloropr...	12.696	157	1147	2.02	ug/L	#	45
82) Hexachlorobutadiene	13.219	223	910	1.62	ug/L		85
83) 1,2,4-Trichlorobenzene	13.243	180	4581	2.04	ug/L		91
84) Naphthalene	13.517	128	14900	2.01	ug/L		98
85) 1,2,3-Trichlorobenzene	13.675	180	4683	2.18	ug/L		91

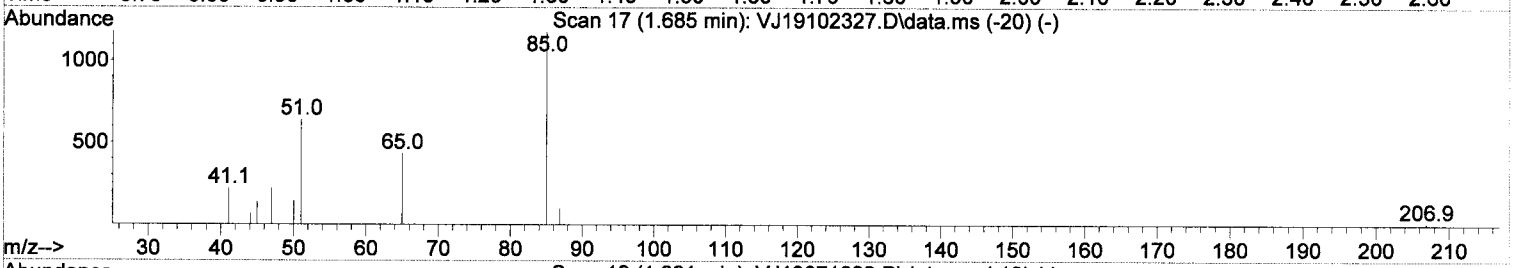
(#) = qualifier out of range (m) = manual integration (+) = signals summed

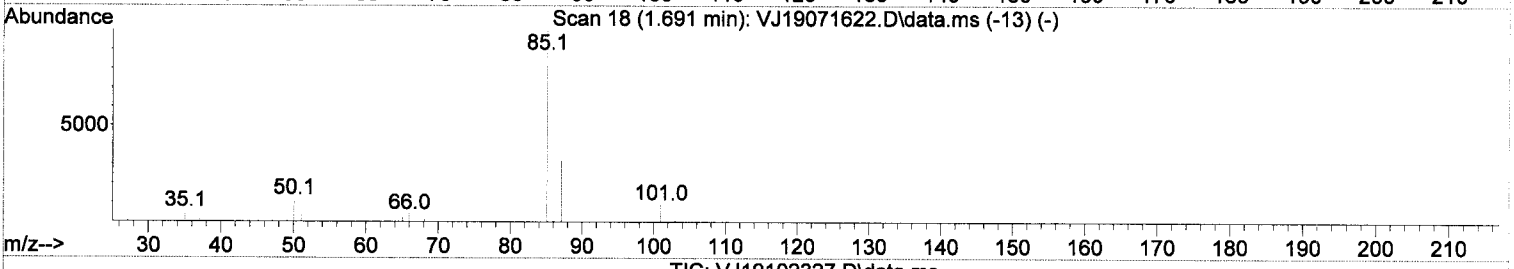
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:13:54 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102327.D\data.ms

(2) Dichlorodifluoromethane

1.685min (-0.006) 1.25 ug/L

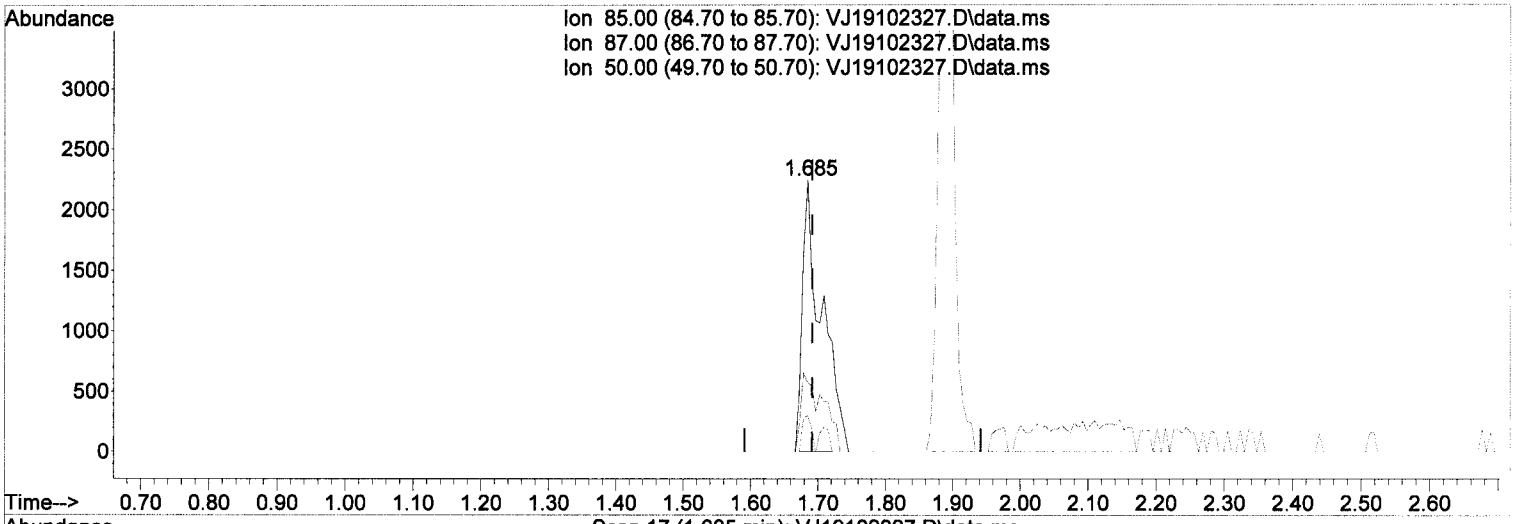
response 2909

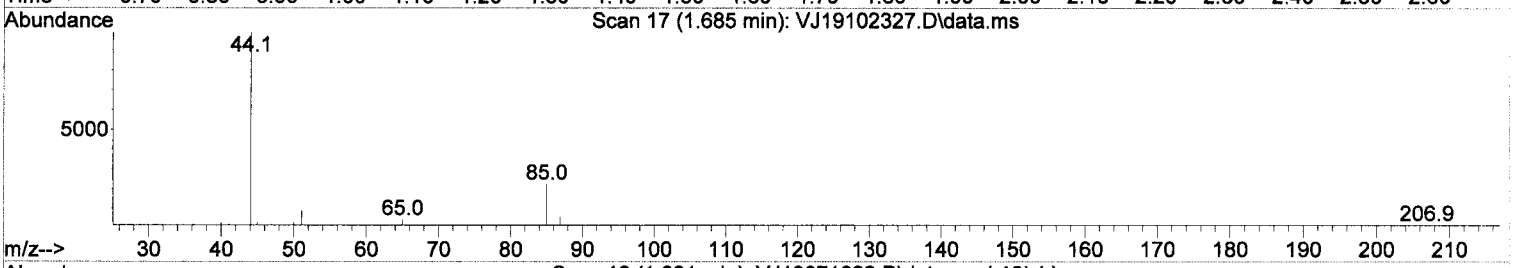
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	25.45
50.00	11.20	13.41
0.00	0.00	0.00

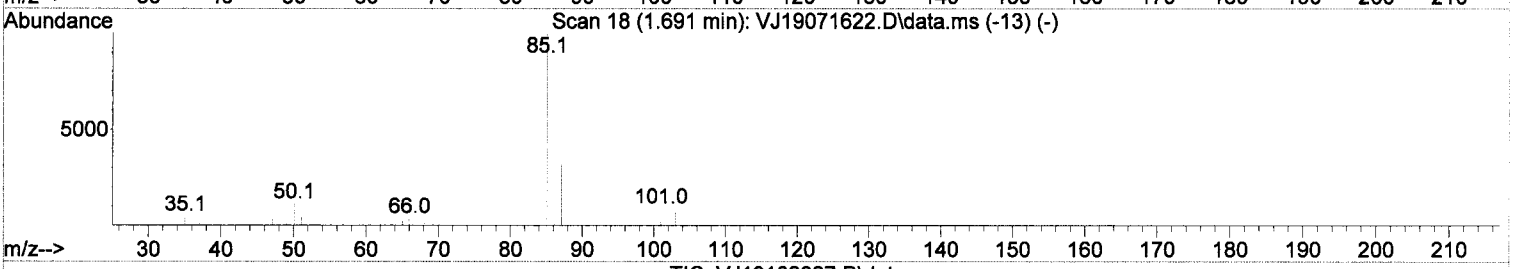
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:13:54 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102327.D\data.ms

(2) Dichlorodifluoromethane

1.685min (-0.006) 1.91 ug/L m

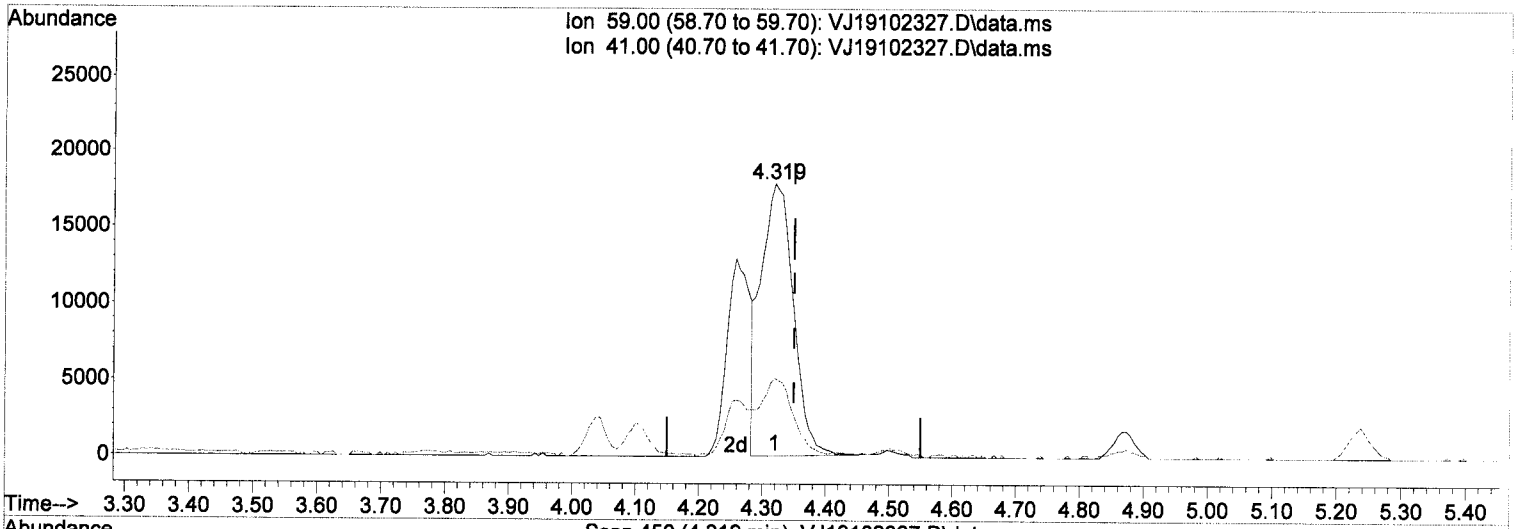
response 4456

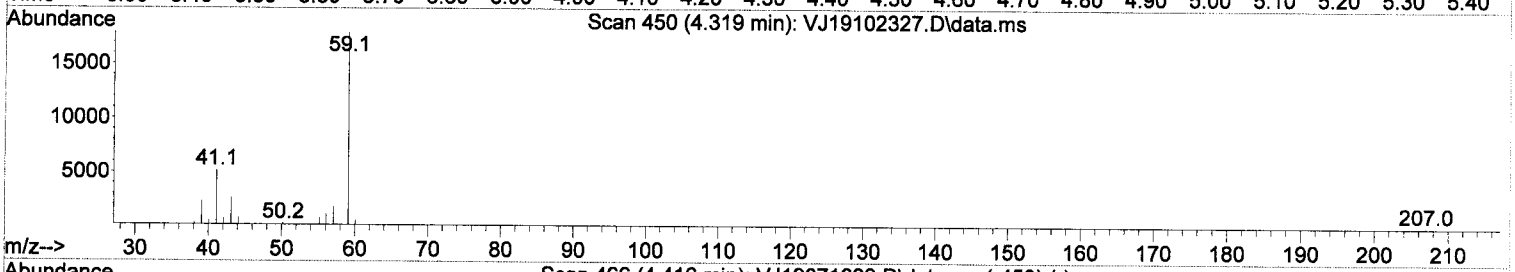
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	25.45
50.00	11.20	13.41
0.00	0.00	0.00

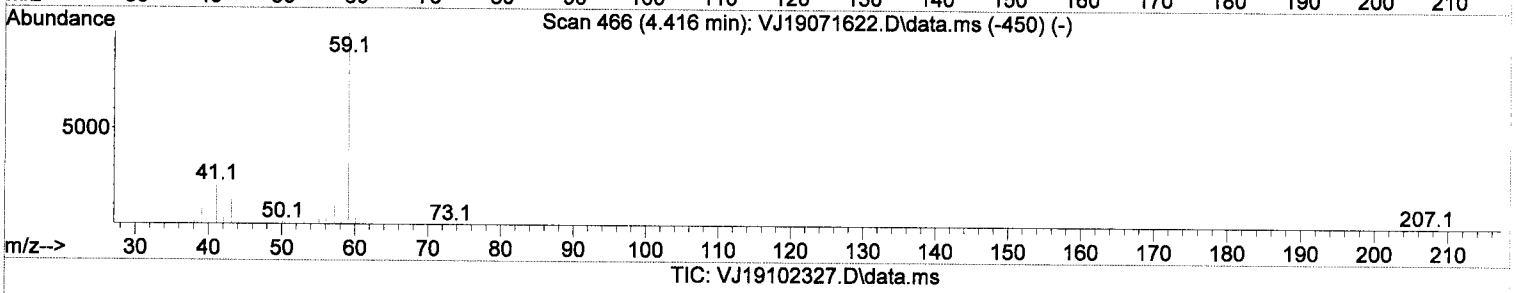
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:13:54 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102327.D\data.ms

(18) tert-Butanol (TBA)

4.319min (-0.030) 137.95 ug/L

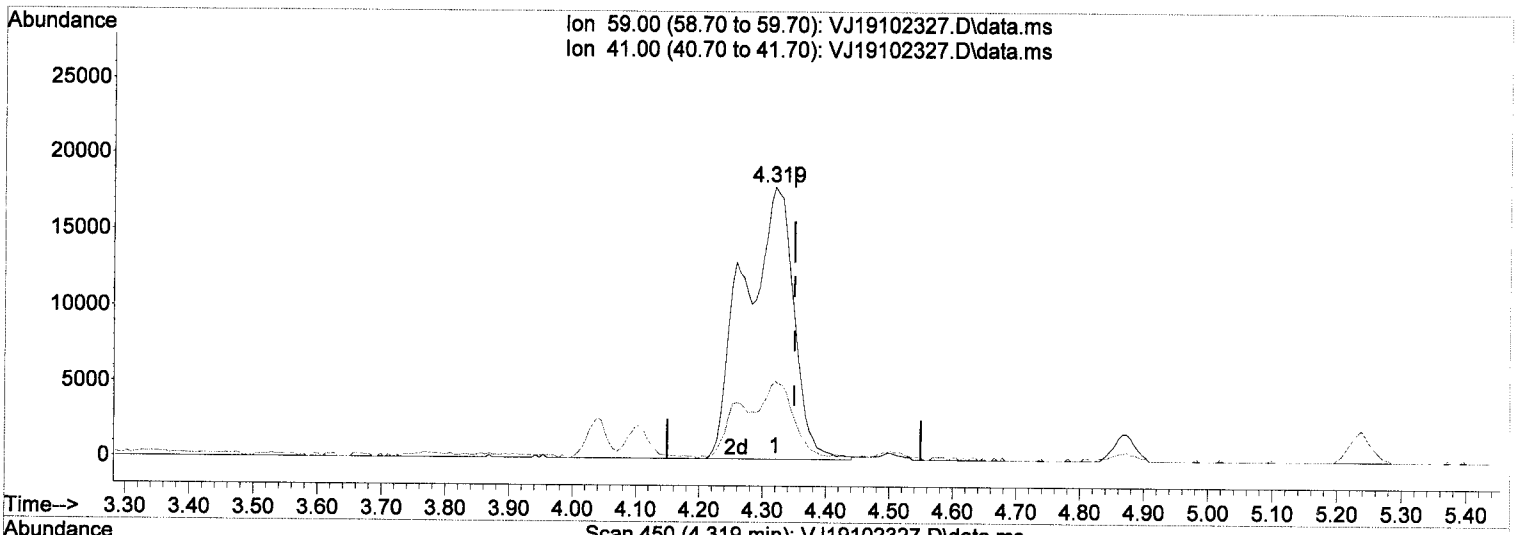
response 63582

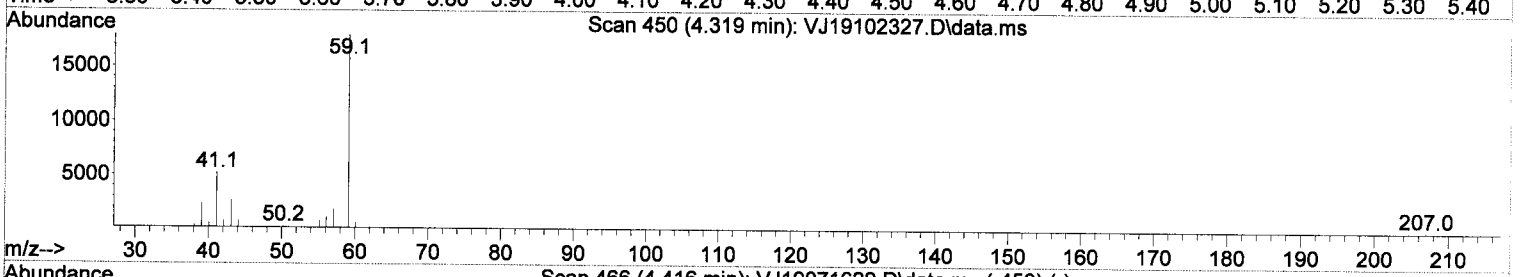
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	28.95#
0.00	0.00	0.00
0.00	0.00	0.00

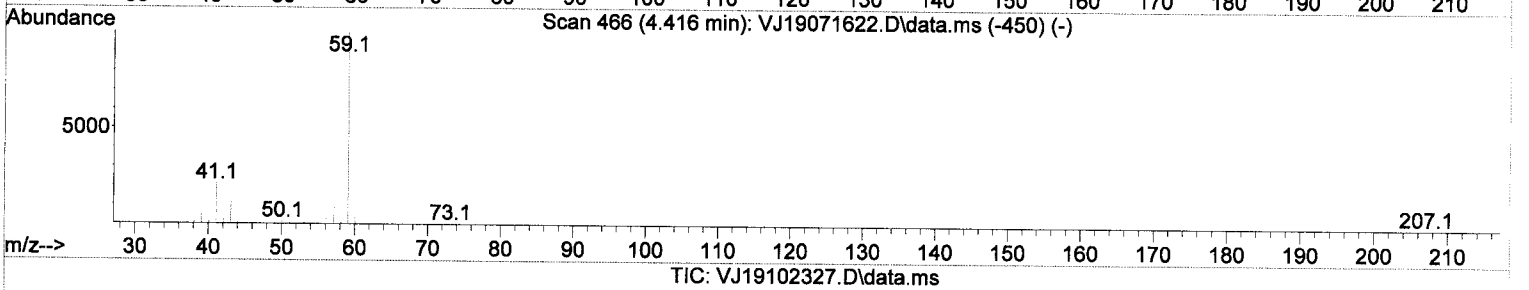
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:13:54 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102327.D\data.ms

(18) tert-Butanol (TBA)

4.319min (-0.030) 206.57 ug/L m

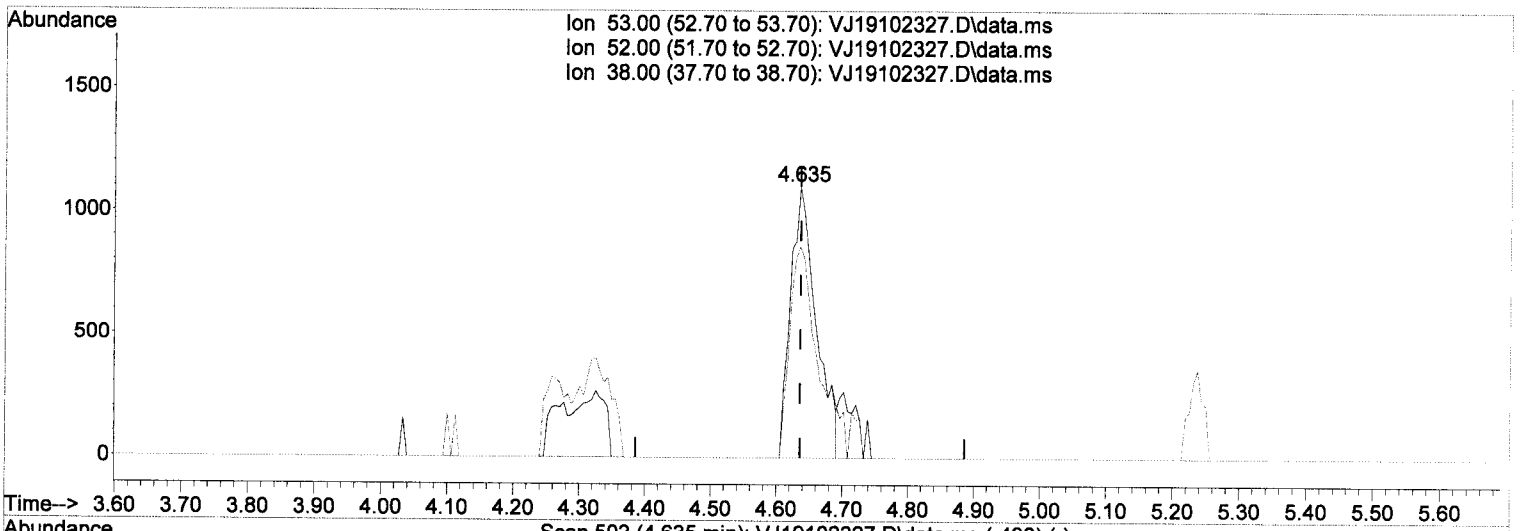
response 97251

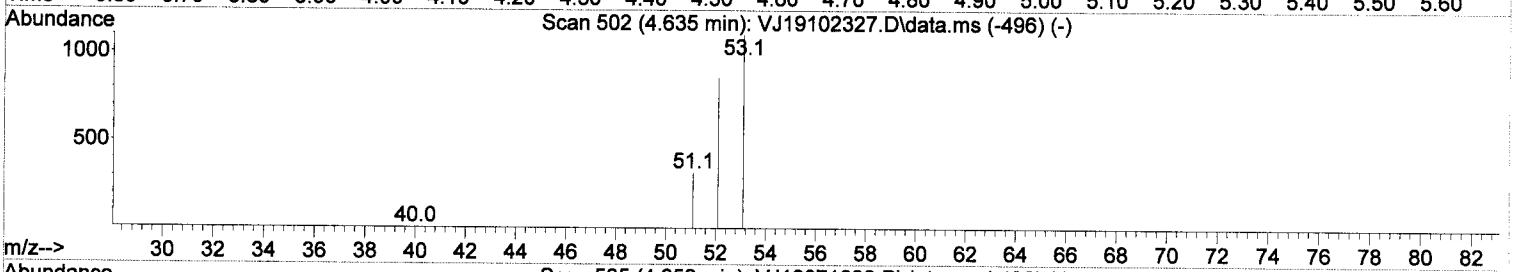
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	28.95#
0.00	0.00	0.00
0.00	0.00	0.00

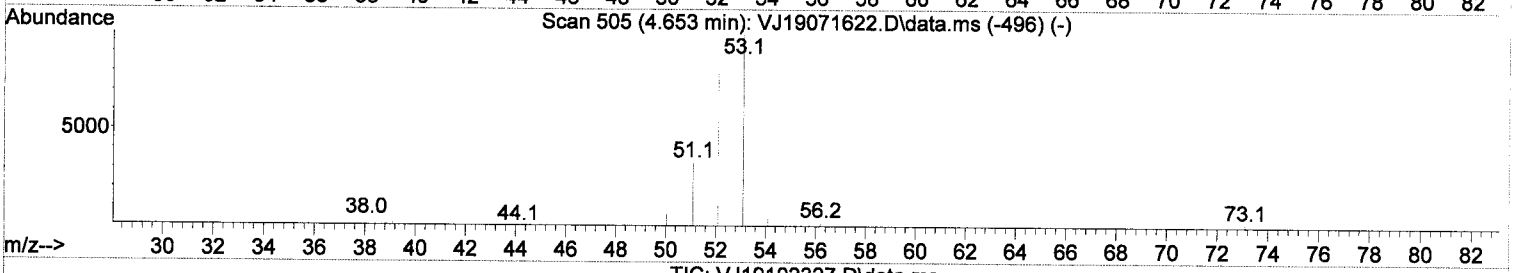
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:13:54 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102327.D\data.ms

(21) Acrylonitrile

4.635min (+ 0.000) 3.63 ug/L

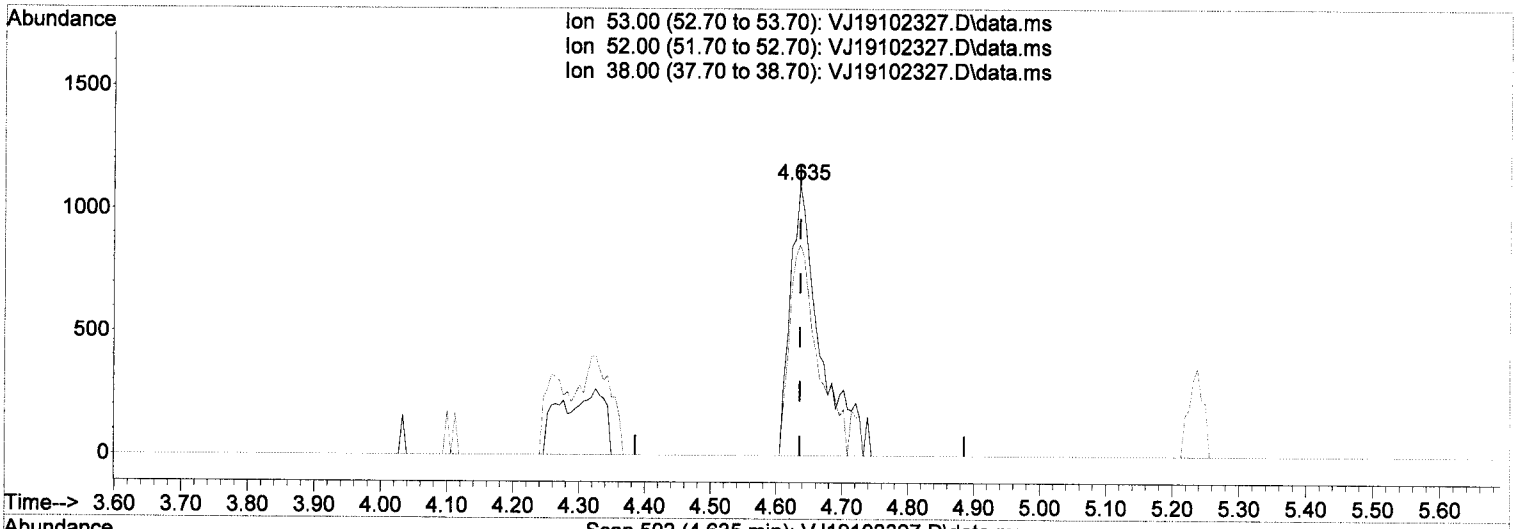
response 2980

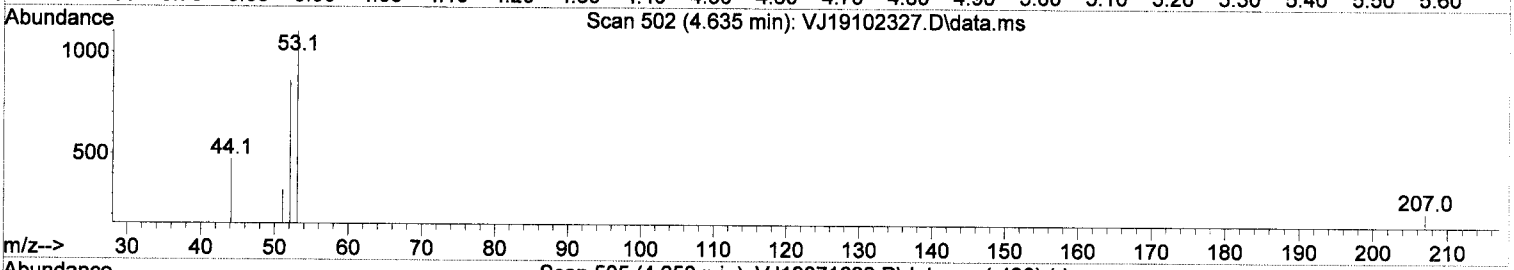
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	77.79
38.00	5.50	0.00
0.00	0.00	0.00

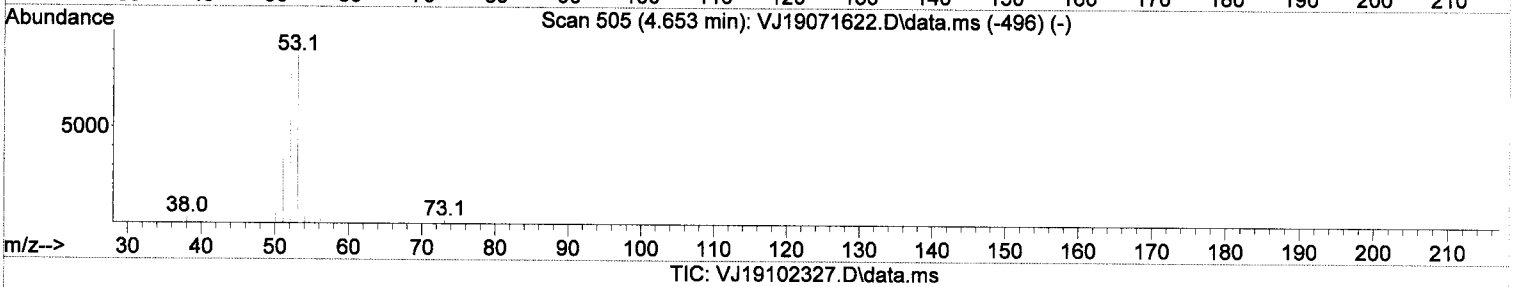
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:13:54 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102327.D\data.ms

(21) Acrylonitrile

4.635min (+ 0.000) 4.25 ug/L m

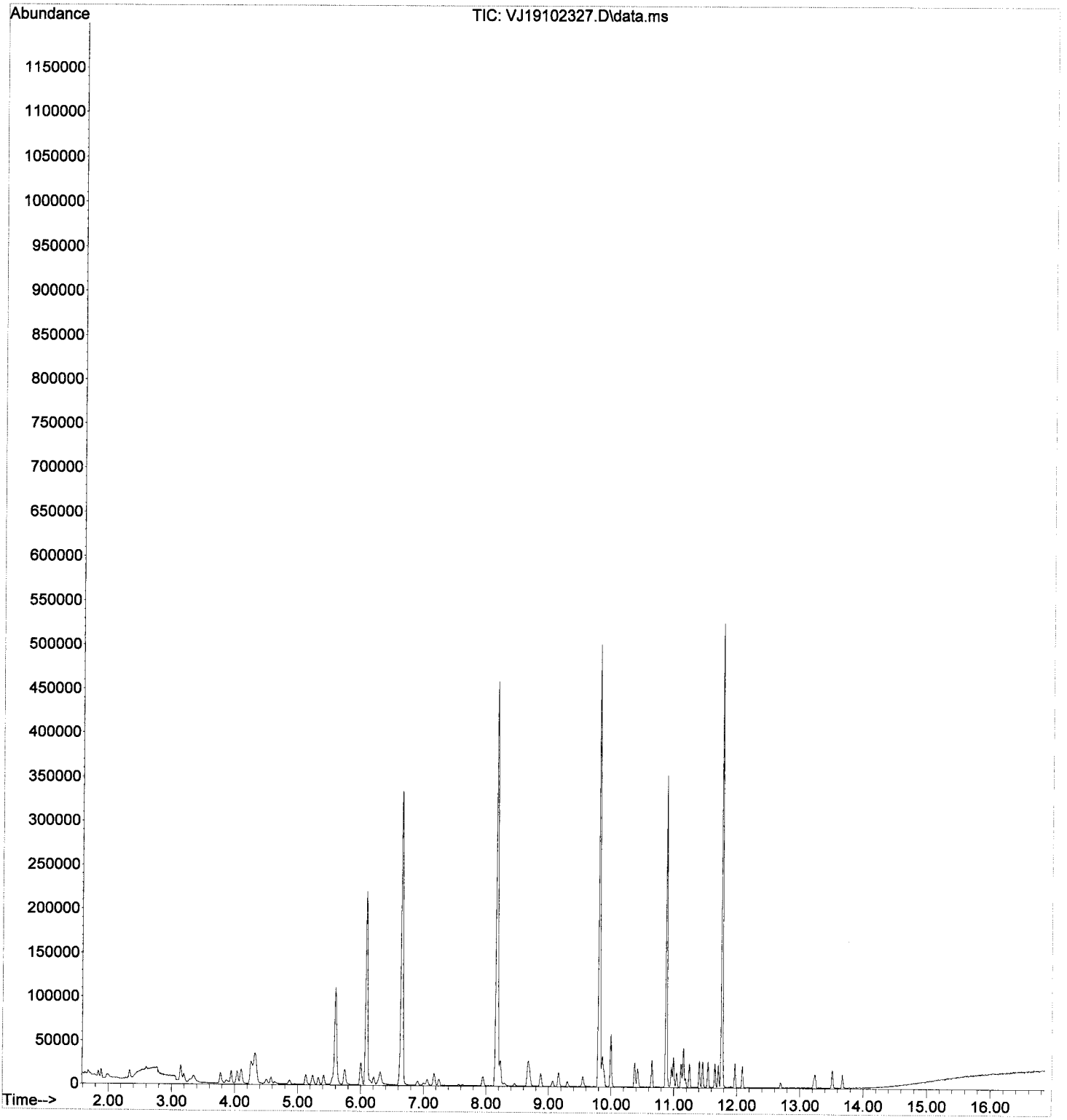
response 3497

Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	77.79
38.00	5.50	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102327.D
Acq On : 24 Oct 2019 12:05 am
Operator : MM
Sample : 9J23072-CAL5
Misc : 1X 5mL 2/4PPB VOC+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 24 08:13:54 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\~~VJ191024S~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	98978	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	265619	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	112071	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	77095	57.62	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	303595	70.83	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	369631	51.25	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	81641	47.47	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	11145	4.57	ug/L		96
3) Chloromethane	1.904	50	20037	7.57	ug/L		100
4) Vinyl Chloride	1.995	62	14616	6.49	ug/L		95
5) Bromomethane	2.348	96	9360	7.17	ug/L		95
6) Chloroethane	2.476	64	1384	1.29	ug/L	#	54
7) Trichlorofluoromethane	2.615	101	3402	1.01	ug/L		94
8) Ethanol	3.376	45	35634	654.64	ug/L		88
9) 1,1-Dichloroethene	3.151	61	18097	6.02	ug/L		93
10) Carbon Disulfide	3.163	76	30469	8.14	ug/L		99
11) Freon 113	3.206	101	11080	8.22	ug/L		87
12) Iodomethane	3.297	142	3207	11.14	ug/L		86
13) Methylene Chloride	3.784	84	12998	7.07	ug/L		90
14) Acetone	3.875	43	~~13457~~ 16748	12.31	ug/L		100
15) t-1,2-Dichloroethene	3.948	61	19492	7.19	ug/L		93
16) n-Hexane	4.045	86	2790	10.24	ug/L	#	54
17) Methyl-tert-butyl-ether	4.106	73	45549	6.18	ug/L		89
18) tert-Butanol (TBA)	4.343	59	~~154829~~ 28821	309.30	ug/L	#	93
19) Diisopropyl ether (DIPE)	4.507	45	11435	1.61	ug/L		96
20) 1,1-Dichloroethane	4.587	63	21122	6.79	ug/L		98
21) Acrylonitrile	4.641	53	~~7128~~ 8805	8.30	ug/L		98
22) Ethyl-tert-butyl ether...	4.872	59	10218	1.45	ug/L		89
23) c-1,2-Dichloroethene	5.134	61	18773	6.40	ug/L		99
24) 2,2-Dichloropropane	5.244	77	18540	5.39	ug/L		92
25) Bromochloromethane	5.335	49	11641	7.14	ug/L		83
26) Chloroform	5.420	83	22188	5.83	ug/L		97
27) Carbon Tetrachloride	5.554	117	14343	4.56	ug/L		95
28) Tetrahydrofuran	5.596	42	9562	9.21	ug/L		94
29) 1,1,1-Trichloroethane	5.621	97	20044	5.35	ug/L		98
31) 1,1-Dichloropropene	5.749	75	18701	6.41	ug/L		95
32) 2-Butanone (MEK)	5.736	43	~~19029~~ 25302	12.17	ug/L		97
33) Benzene	6.004	78	62213	8.27	ug/L		99
34) tert-Amyl methyl ether...	6.156	73	10184	1.46	ug/L		91
35) 1,2-Dichloroethane (EDC)	6.211	62	19717	4.58	ug/L		96
36) iso-Butyl Alcohol	6.314	43	33987	209.61	ug/L		93
38) Trichloroethene (TCE)	6.625	130	12809	7.12	ug/L		93
39) tert-Amyl ethyl ether ...	6.910	59	7162	1.39	ug/L		89
40) Dibromomethane	7.063	93	8013	6.32	ug/L	#	81
41) 1,2-Dichloropropane	7.178	63	15592	7.94	ug/L		99
42) Bromodichloromethane	7.245	83	14894	5.16	ug/L		97
44) c-1,3-Dichloropropene	7.951	75	19353	4.74	ug/L		98
46) Toluene	8.231	91	59671	5.46	ug/L		98
47) Tetrachloroethene (PCE)	8.681	166	11684	5.29	ug/L		88
48) 4-Methyl-2-Pentanone (...	8.675	43	35142	9.89	ug/L		99

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

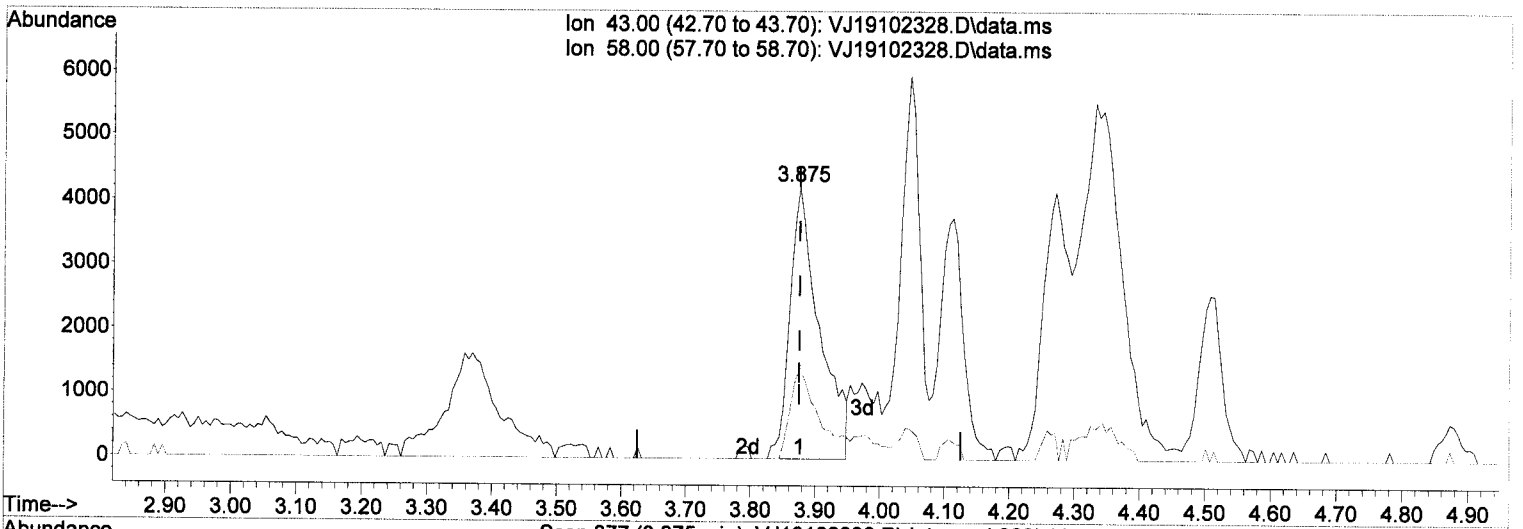
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	18504	4.24	ug/L		97
50) 1,1,2-Trichloroethane	8.876	97	13046	5.68	ug/L		95
51) Dibromochloromethane	9.064	129	9350	3.79	ug/L		90
52) 1,3-Dichloropropane	9.161	76	24045	5.12	ug/L		96
53) 1,2-Dibromoethane (EDB)	9.301	107	12041	4.89	ug/L		95
54) 2-Hexanone	9.551	43	23467	8.77	ug/L		99
55) Chlorobenzene	9.825	112	35206	5.34	ug/L		92
56) Ethylbenzene	9.861	91	59905	4.76	ug/L		99
57) 1,1,1,2-Tetrachloroethane	9.885	131	10760	4.30	ug/L		98
58) m,p-Xylenes (2)	9.995	91	85048	8.82	ug/L		96
59) o-Xylene	10.378	91	39703	4.14	ug/L		97
60) Styrene	10.421	104	24248	4.04	ug/L		95
61) Bromoform	10.439	173	5470	3.78	ug/L		96
62) Isopropylbenzene	10.652	105	47833	4.32	ug/L		96
65) Bromobenzene	10.962	156	11698	5.48	ug/L	#	69
66) n-Propylbenzene	10.999	91	60466	4.92	ug/L		94
67) 1,1,2,2-Tetrachloroethane	11.047	83	17963	6.92	ug/L		96
68) 2-Chlorotoluene	11.114	126	10583	5.04	ug/L	#	80
69) 1,3,5-Trimethylbenzene	11.157	105	37585	4.49	ug/L		94
70) 1,2,3-Trichloropropane	11.151	110	5563	4.98	ug/L		91
71) t-1,4-Dichloro-2-butene	11.187	88	2176	4.02	ug/L	#	81
72) 4-Chlorotoluene	11.248	91	35148	4.63	ug/L		92
73) tert-Butylbenzene	11.406	91	22268	4.09	ug/L		84
74) 1,2,4-Trimethylbenzene	11.461	105	37661	4.45	ug/L		99
75) sec-Butylbenzene	11.546	105	47859	4.87	ug/L		95
76) 4-Isopropyltoluene	11.656	119	35139	4.25	ug/L		96
77) 1,3-Dichlorobenzene	11.710	146	21435	5.17	ug/L		95
78) 1,4-Dichlorobenzene	11.777	146	21770	5.43	ug/L		96
79) n-Butylbenzene	11.972	91	33924	4.44	ug/L		96
80) 1,2-Dichlorobenzene	12.094	146	19542	5.10	ug/L		97
81) 1,2-Dibromo-3-Chloropr...	12.696	157	2712	4.46	ug/L	#	38
82) Hexachlorobutadiene	13.213	223	2682	4.47	ug/L		80
83) 1,2,4-Trichlorobenzene	13.244	180	11011	4.58	ug/L		97
84) Naphthalene	13.517	128	36533	4.60	ug/L		99
85) 1,2,3-Trichlorobenzene	13.675	180	10716	4.66	ug/L		99

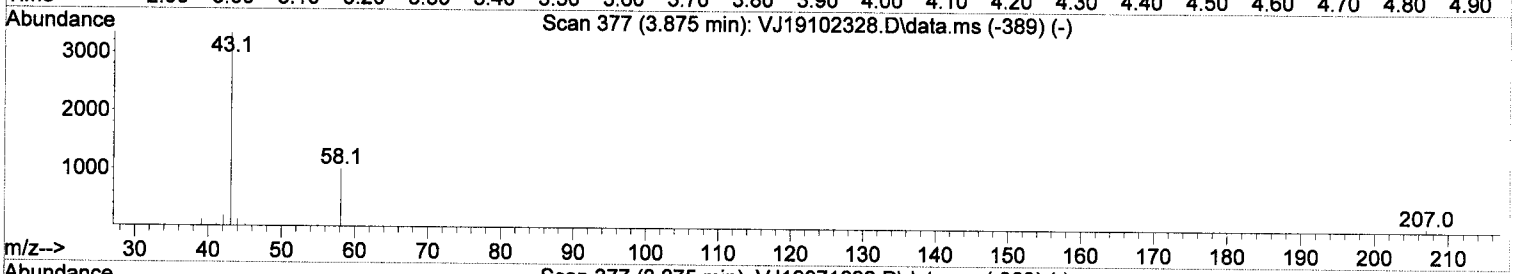
(#) = qualifier out of range (m) = manual integration (+) = signals summed

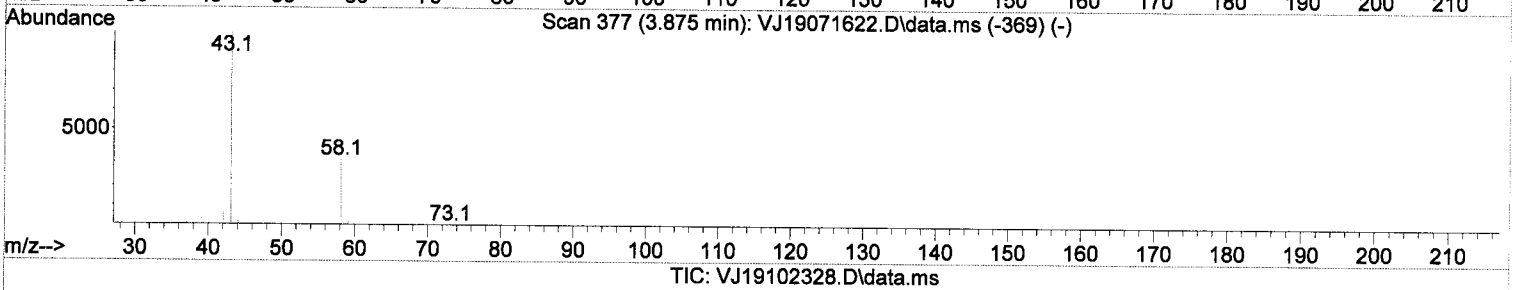
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102328.D\data.ms

(14) Acetone

3.875min (+ 0.001) 12.31 ug/L

response 13457

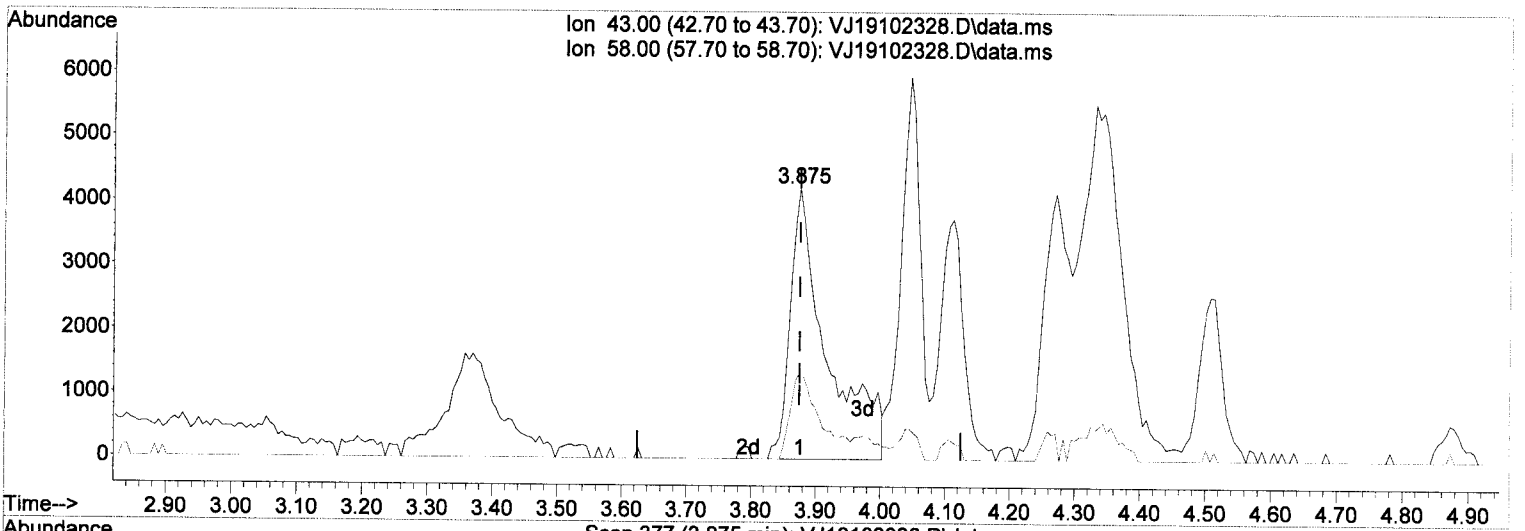
M.2.

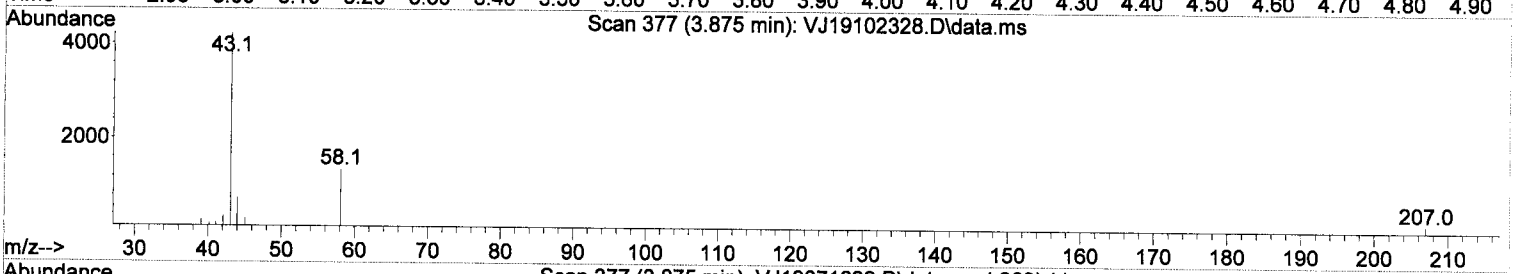
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	31.99
0.00	0.00	0.00
0.00	0.00	0.00

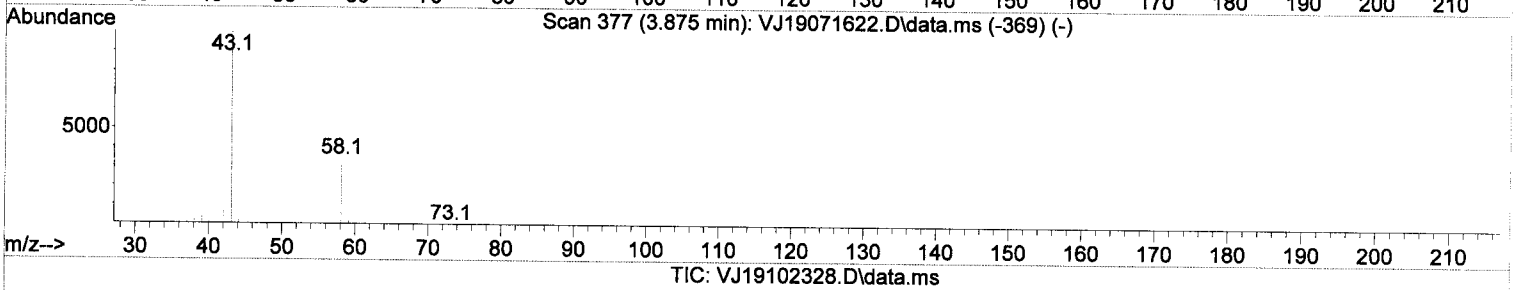
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102328.D\data.ms

(14) Acetone

3.875min (+ 0.001) 15.31 ug/L m

response 16748

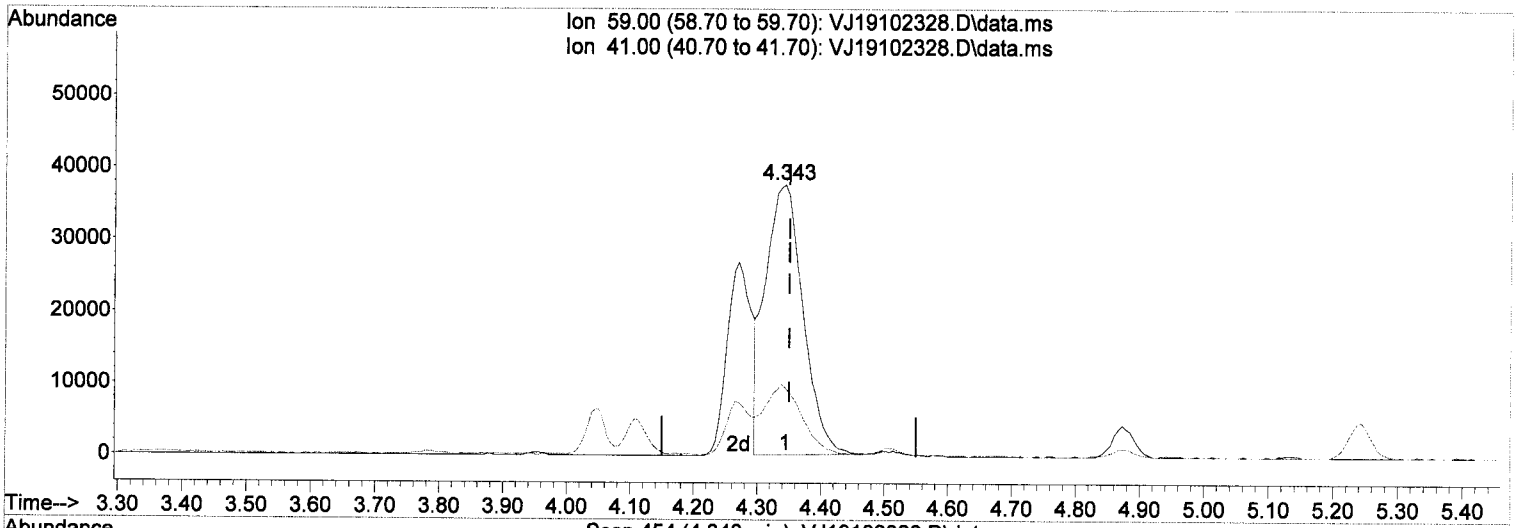
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	31.99
0.00	0.00	0.00
0.00	0.00	0.00

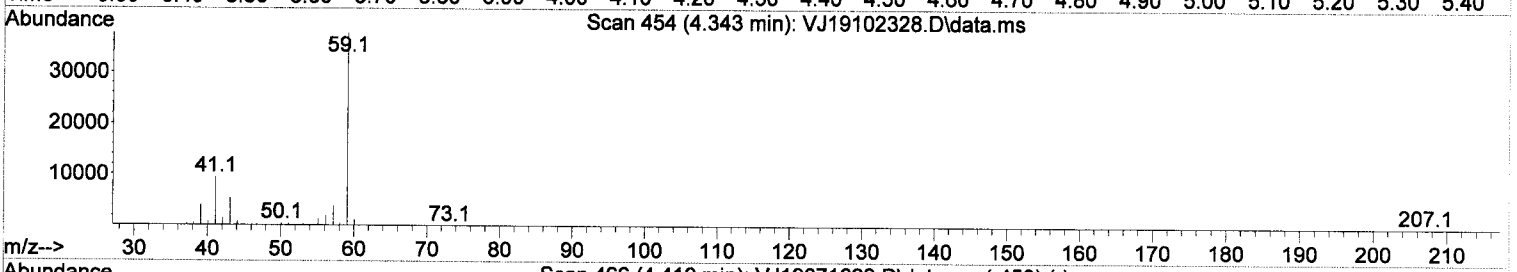
M
10/24/19

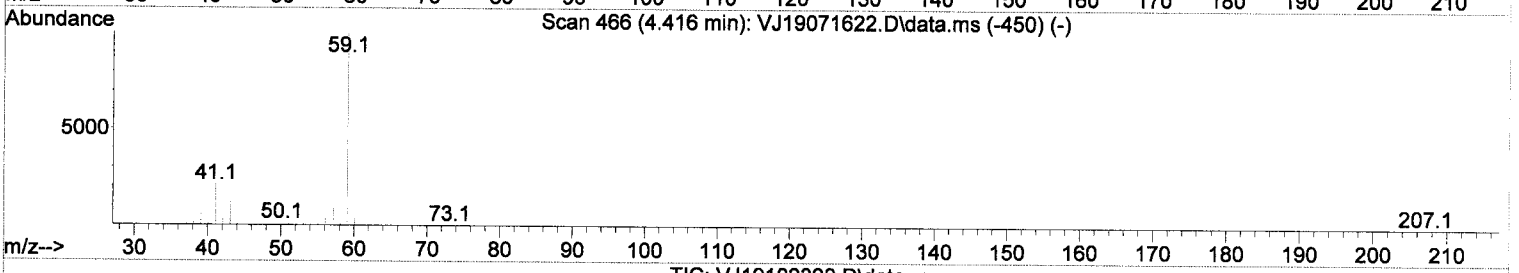
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102328.D\data.ms

(18) tert-Butanol (TBA)

4.343min (-0.006) 309.30 ug/L

response 154829

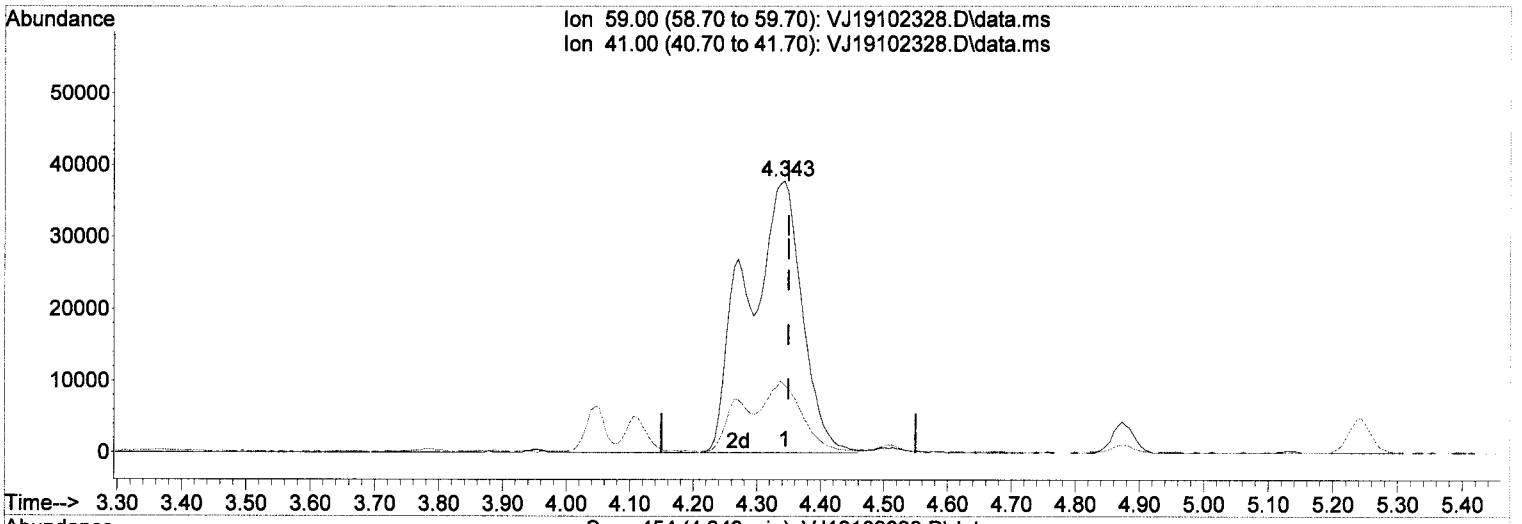
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	25.04#
0.00	0.00	0.00
0.00	0.00	0.00

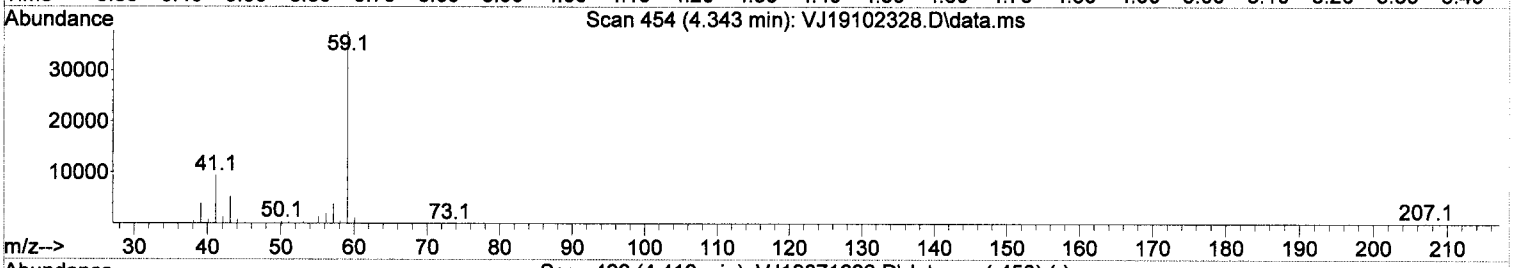
M2

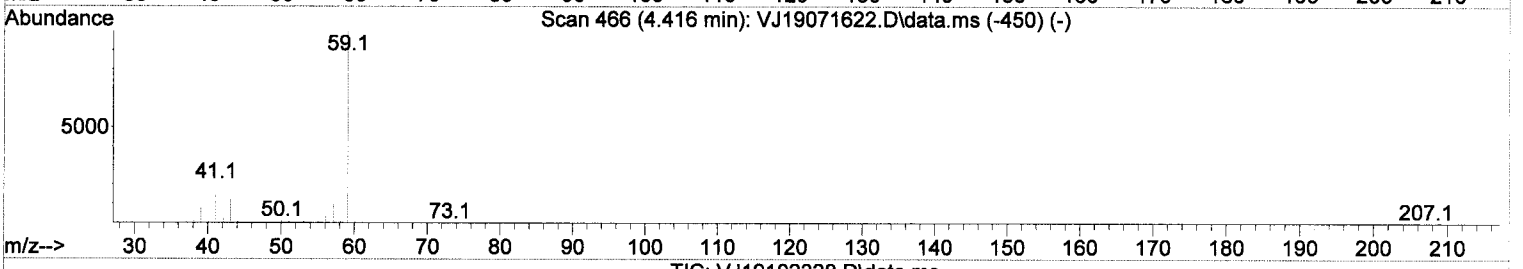
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102328.D\data.ms

(18) tert-Butanol (TBA)

4.343min (-0.006) 449.53 ug/L m

response 228821

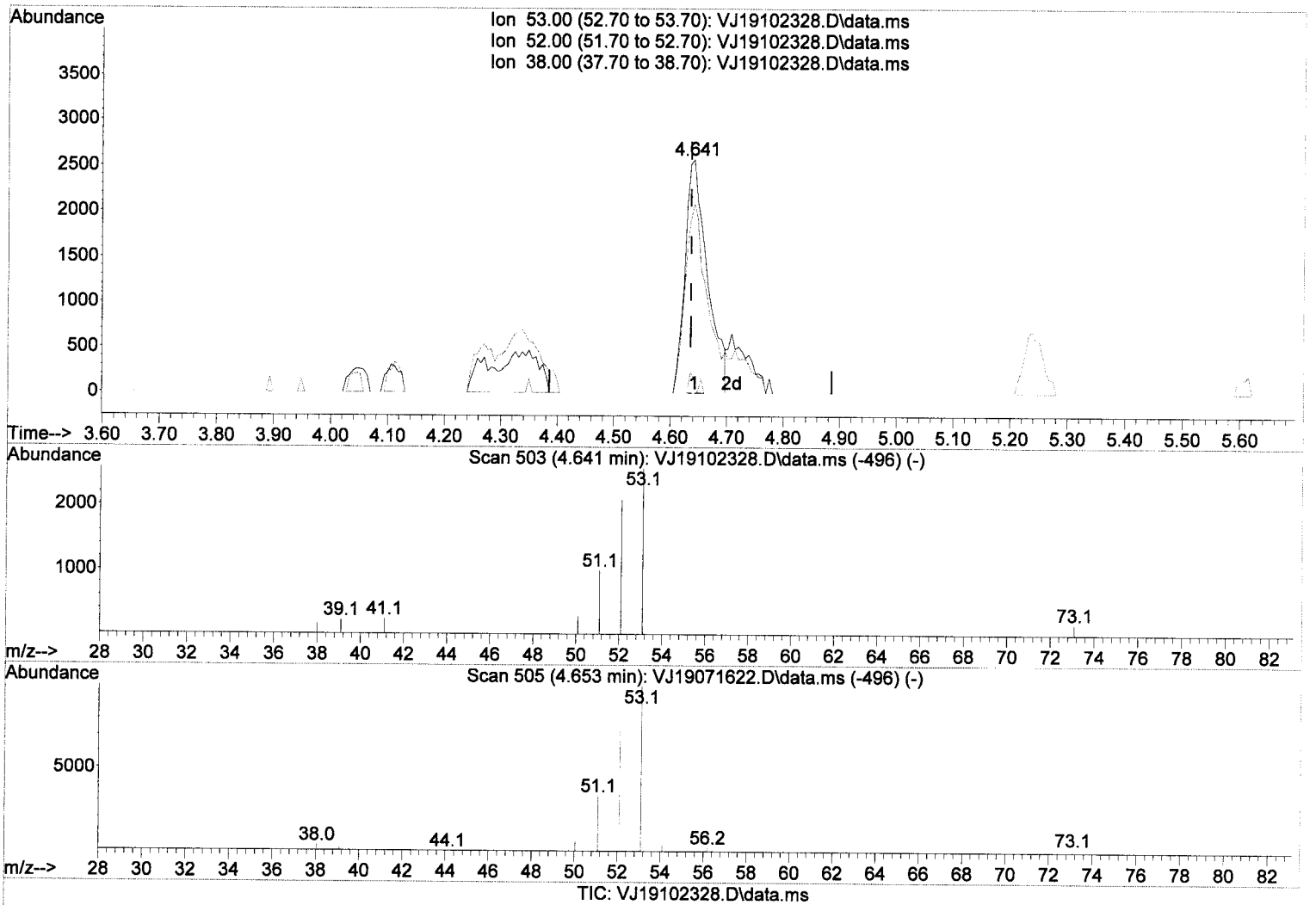
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	25.04#
0.00	0.00	0.00
0.00	0.00	0.00

M 10/24/19

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



(21) Acrylonitrile

4.641min (+ 0.006) 8.30 ug/L

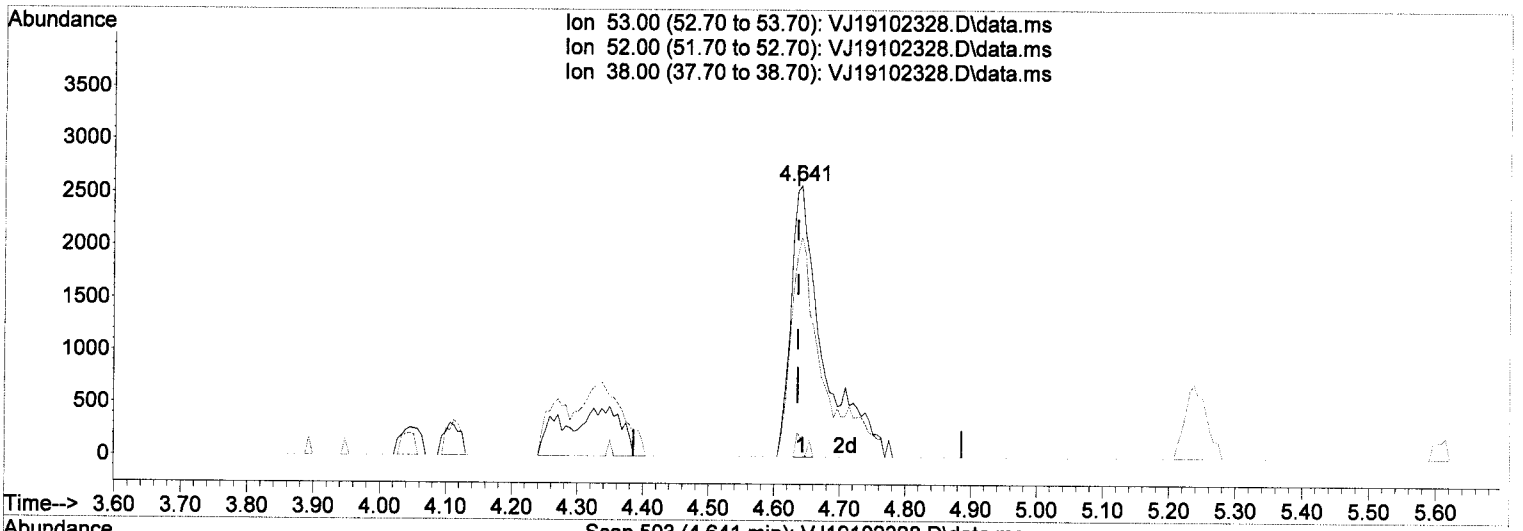
response 7128

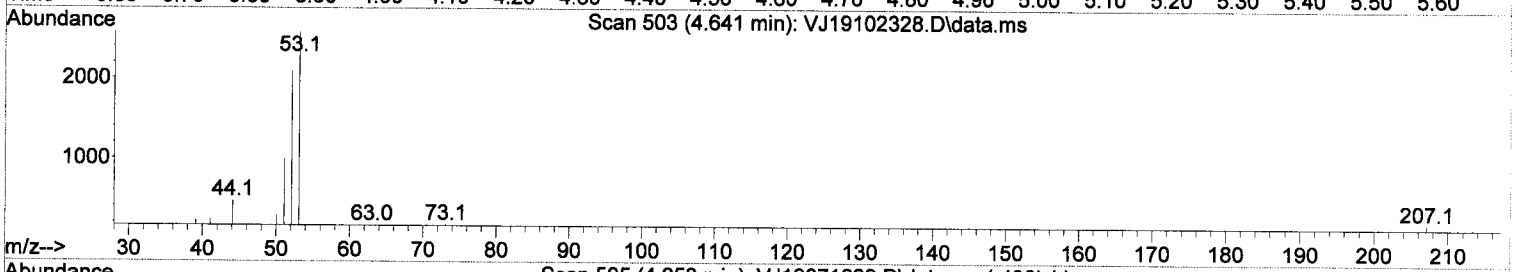
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	80.98
38.00	5.50	6.25
0.00	0.00	0.00

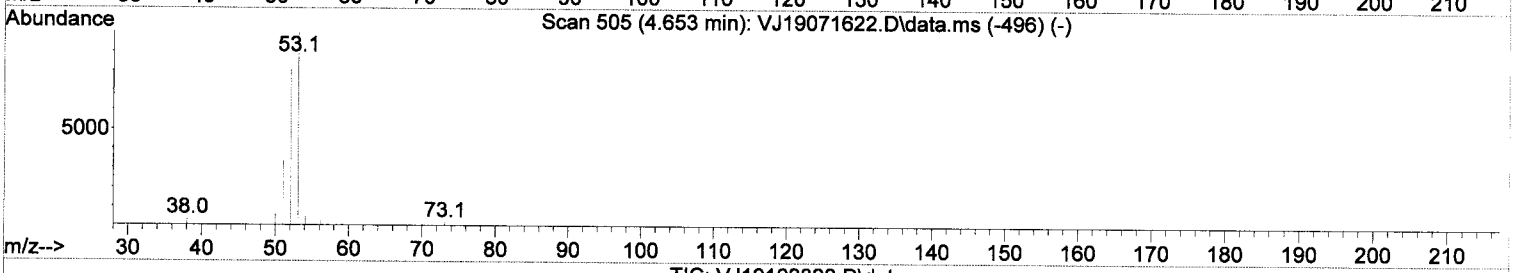
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102328.D\data.ms

(21) Acrylonitrile

4.641min (+ 0.006) 10.26 ug/L m

response 8805

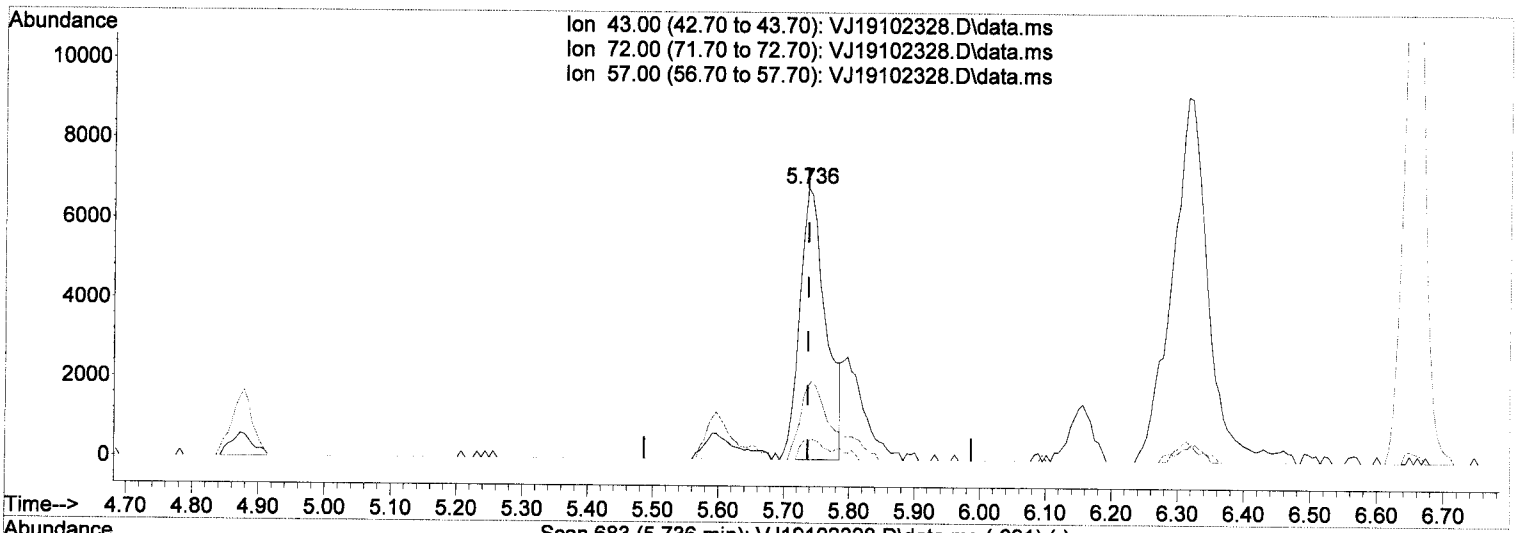
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	80.98
38.00	5.50	6.25
0.00	0.00	0.00

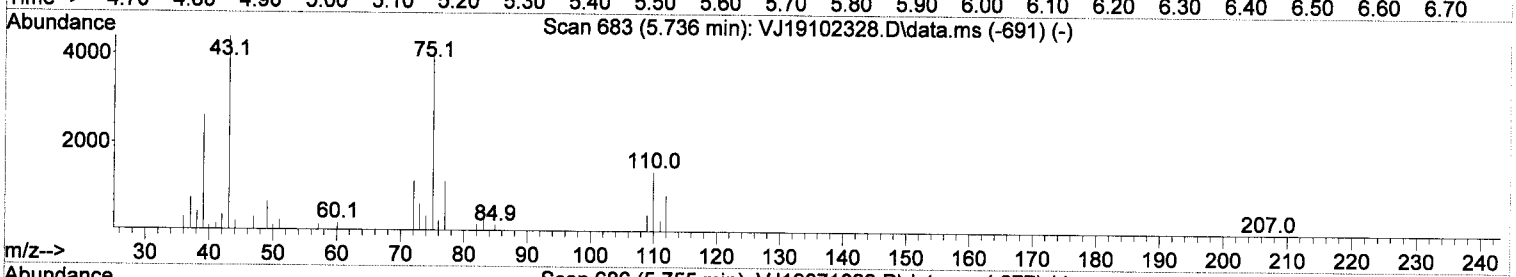
M
12/26/19

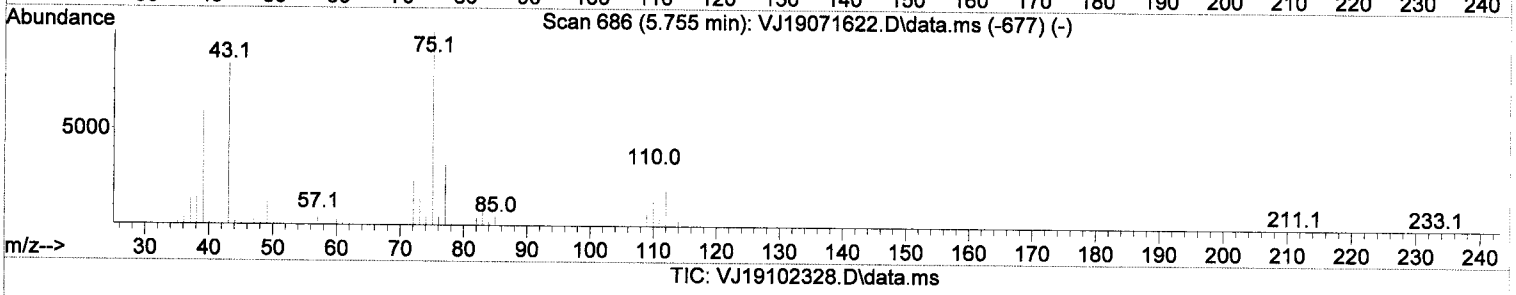
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102328.D\data.ms

(32) 2-Butanone (MEK)

5.736min (+ 0.000) 12.17 ug/L

response 19029

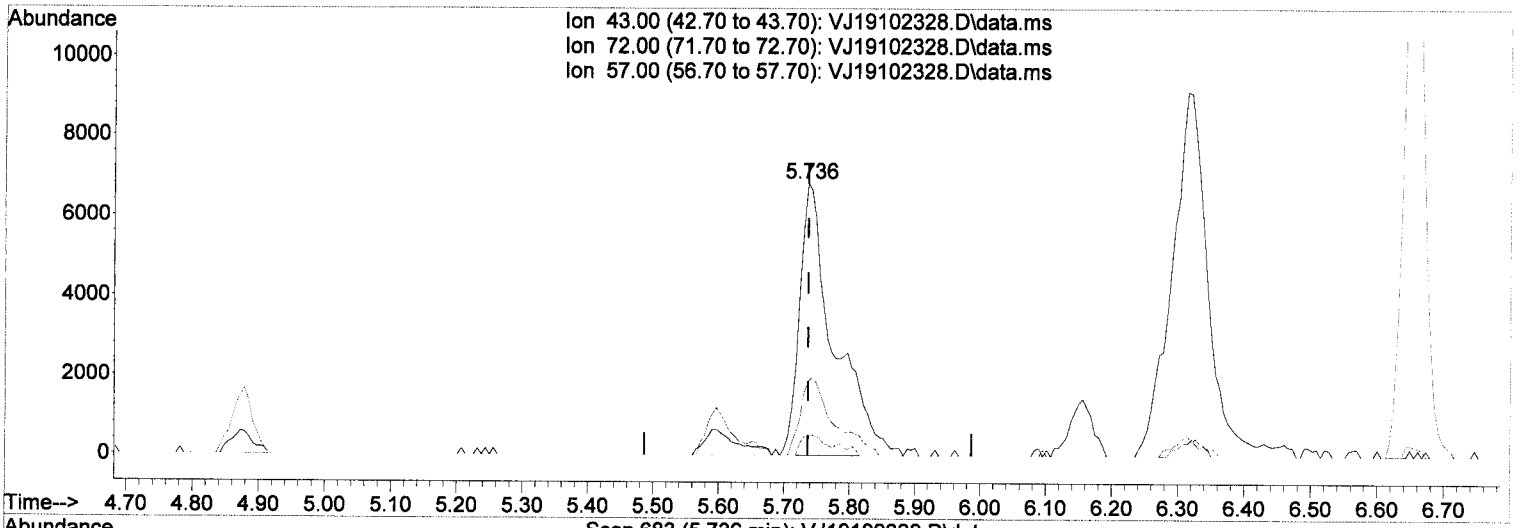
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	27.10
57.00	7.20	6.96
0.00	0.00	0.00

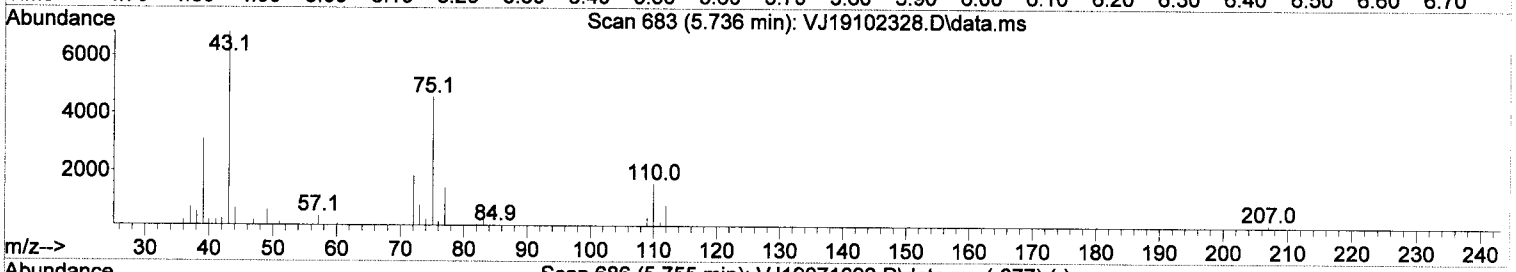
M.2.

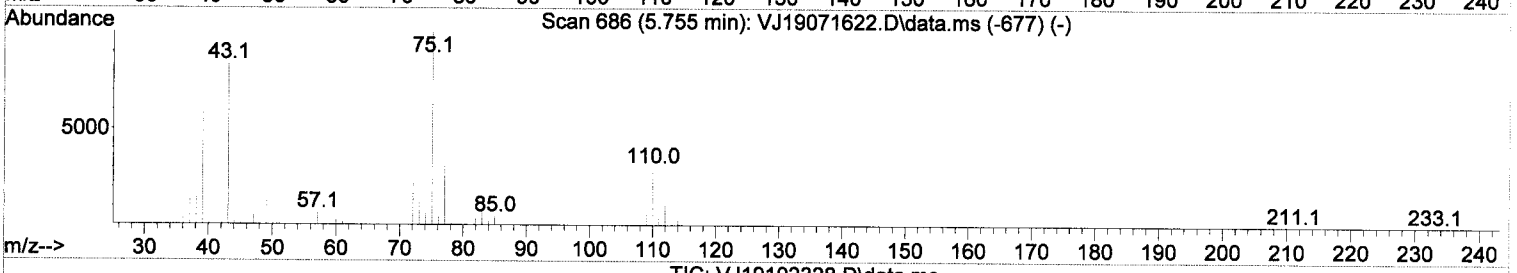
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102328.D\data.ms

(32) 2-Butanone (MEK)

5.736min (+ 0.000) 16.13 ug/L (m)

response 25206

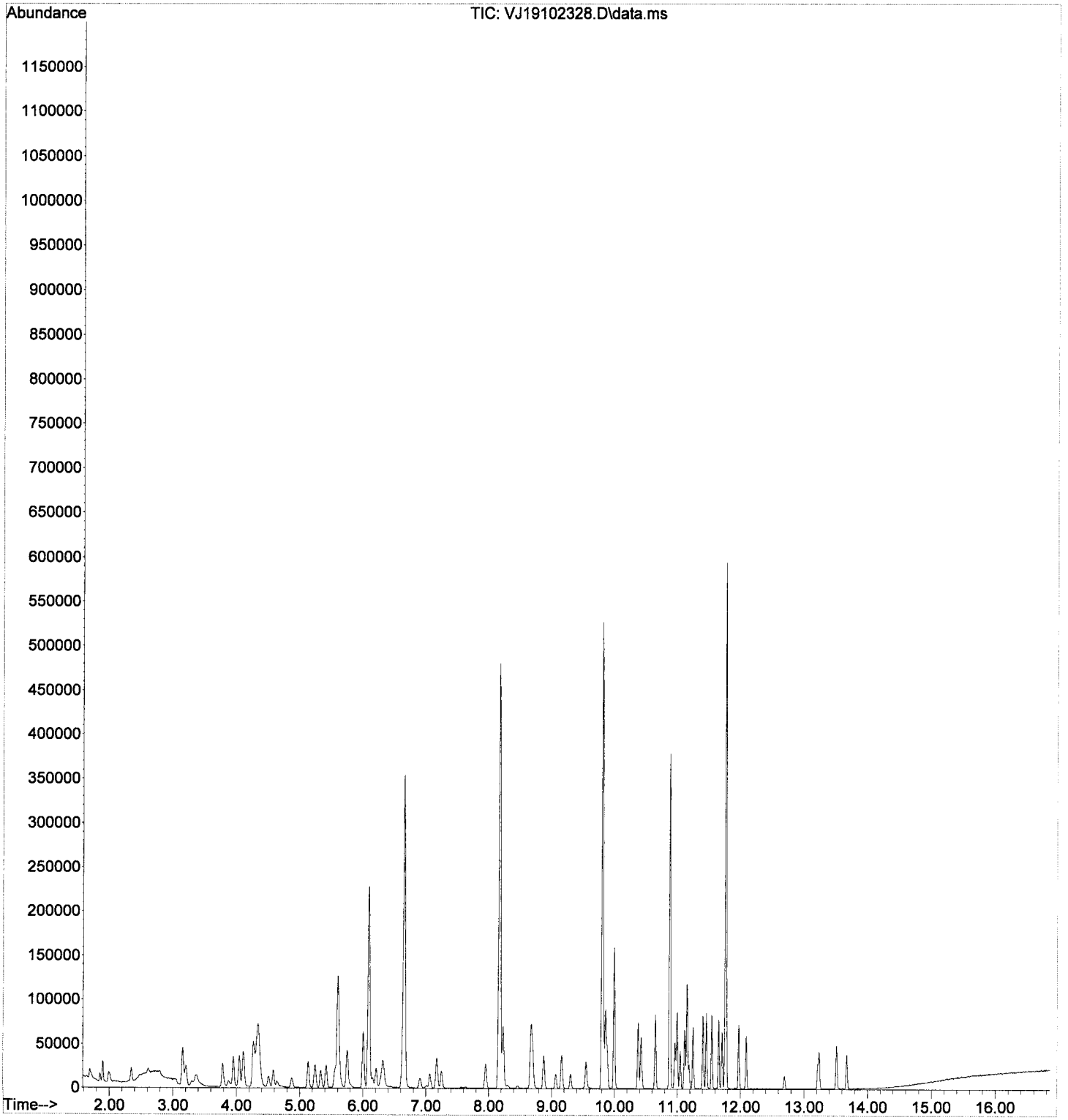
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	27.10
57.00	7.20	6.96
0.00	0.00	0.00

M 10/24/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102328.D
Acq On : 24 Oct 2019 12:32 am
Operator : MM
Sample : 9J23072-CAL6
Misc : 1X 5mL 5/10PPB VOC+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 24 08:13:57 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\V~~J191024S~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	102360	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	273877	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	114313	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	80977	58.52	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	313300	70.68	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	383154	51.52	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	84648	48.26	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	22844	9.07	ug/L		98
3) Chloromethane	1.904	50	38733	14.14	ug/L		99
4) Vinyl Chloride	1.995	62	29953	12.73	ug/L		97
5) Bromomethane	2.354	96	15471	13.11	ug/L		94
6) Chloroethane	2.476	64	2873	2.58	ug/L		89
7) Trichlorofluoromethane	2.610	101	7278	2.09	ug/L		94
8) Ethanol	3.352	45	63621	1130.18	ug/L		92
9) 1,1-Dichloroethene	3.151	61	37595	12.09	ug/L		92
10) Carbon Disulfide	3.163	76	63760	16.46	ug/L		99
11) Freon 113	3.212	101	23337	16.73	ug/L		83
12) Iodomethane	3.297	142	6769	22.54	ug/L		98
13) Methylene Chloride	3.784	84	24987	15.10	ug/L		89
14) Acetone	3.875	43	~~23103~~	20.43	ug/L		98
15) t-1,2-Dichloroethene	3.954	61	40127	14.31	ug/L		97
16) n-Hexane	4.051	86	6208	20.93	ug/L	#	78
17) Methyl-tert-butyl-ether	4.112	73	90735	11.90	ug/L		97
18) tert-Butanol (TBA)	4.319	59	~~30102~~	66.45	ug/L	#	92
19) Diisopropyl ether (DIPE)	4.508	45	23966	3.27	ug/L		95
20) 1,1-Dichloroethane	4.587	63	42318	13.14	ug/L		96
21) Acrylonitrile	4.641	53	~~13627~~	15.35	ug/L		98
22) Ethyl-tert-butyl ether...	4.879	59	21616	2.97	ug/L		91
23) c-1,2-Dichloroethene	5.134	61	38569	12.71	ug/L		98
24) 2,2-Dichloropropane	5.244	77	38645	10.87	ug/L		97
25) Bromochloromethane	5.329	49	23752	14.09	ug/L		77
26) Chloroform	5.420	83	46150	11.73	ug/L		97
27) Carbon Tetrachloride	5.560	117	30244	9.29	ug/L		97
28) Tetrahydrofuran	5.590	42	18946	17.65	ug/L		99
29) 1,1,1-Trichloroethane	5.627	97	41348	10.67	ug/L		91
31) 1,1-Dichloropropene	5.749	75	39421	13.07	ug/L		91
32) 2-Butanone (MEK)	5.737	43	~~37992~~	23.50	ug/L		98
33) Benzene	6.004	78	128327	16.49	ug/L		98
34) tert-Amyl methyl ether...	6.156	73	20102	2.79	ug/L		98
35) 1,2-Dichloroethane (EDC)	6.211	62	40742	9.16	ug/L		98
36) iso-Butyl Alcohol	6.308	43	72797	434.13	ug/L		88
38) Trichloroethene (TCE)	6.625	130	26231	13.92	ug/L		92
39) tert-Amyl ethyl ether ...	6.905	59	14950	2.81	ug/L		88
40) Dibromomethane	7.063	93	16435	12.53	ug/L	#	82
41) 1,2-Dichloropropane	7.172	63	32431	15.97	ug/L		98
42) Bromodichloromethane	7.251	83	31433	10.53	ug/L		100
44) c-1,3-Dichloropropene	7.951	75	40620	9.65	ug/L		97
46) Toluene	8.231	91	124843	11.07	ug/L		96
47) Tetrachloroethene (PCE)	8.681	166	24512	10.76	ug/L		88
48) 4-Methyl-2-Pentanone (...	8.669	43	77248	21.09	ug/L		100

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

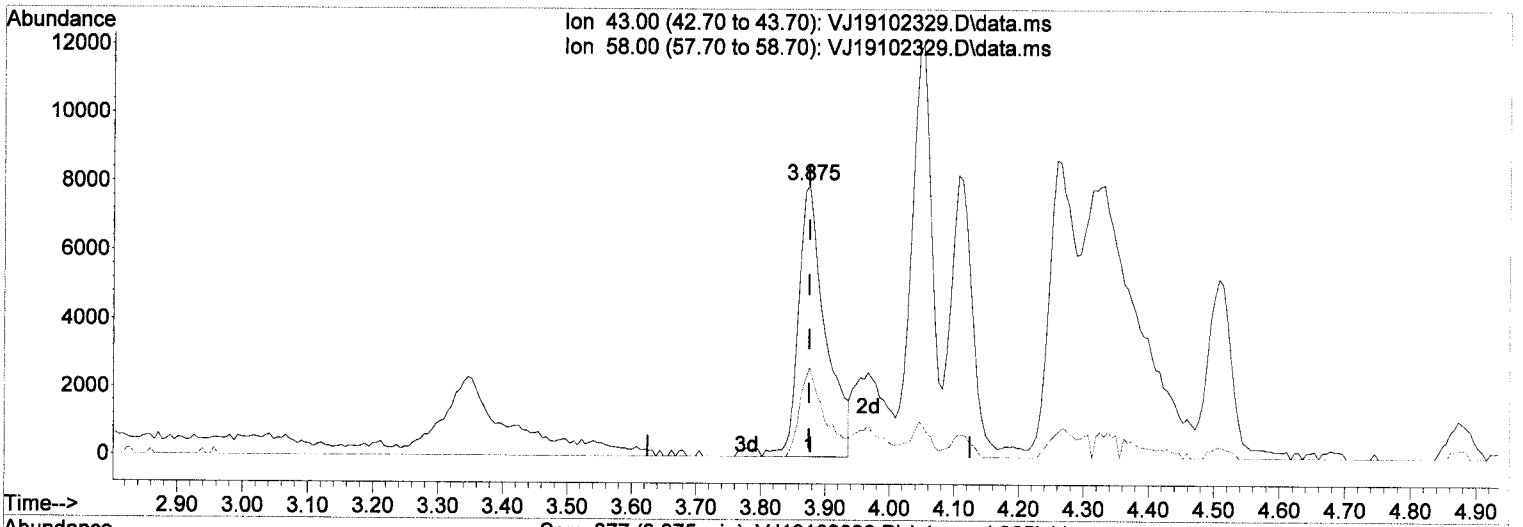
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	41087	9.13	ug/L		94
50) 1,1,2-Trichloroethane	8.876	97	26718	11.18	ug/L		95
51) Dibromochloromethane	9.064	129	19925	7.84	ug/L		98
52) 1,3-Dichloropropane	9.162	76	49530	10.23	ug/L		98
53) 1,2-Dibromoethane (EDB)	9.301	107	25458	10.03	ug/L		99
54) 2-Hexanone	9.545	43	53666	19.46	ug/L		100
55) Chlorobenzene	9.819	112	72570	10.67	ug/L		93
56) Ethylbenzene	9.861	91	127729	9.84	ug/L		98
57) 1,1,1,2-Tetrachloroethane	9.886	131	22448	8.70	ug/L		97
58) m,p-Xylenes (2)	9.995	91	185431	18.65	ug/L		96
59) o-Xylene	10.378	91	86841	8.79	ug/L		95
60) Styrene	10.421	104	55991	9.04	ug/L		95
61) Bromoform	10.439	173	12367	7.61	ug/L		98
62) Isopropylbenzene	10.652	105	107252	9.40	ug/L		98
65) Bromobenzene	10.962	156	24784	11.39	ug/L	#	71
66) n-Propylbenzene	10.999	91	131143	10.46	ug/L		96
67) 1,1,2,2-Tetrachloroethane	11.047	83	37925	14.32	ug/L		95
68) 2-Chlorotoluene	11.120	126	23286	10.88	ug/L		92
69) 1,3,5-Trimethylbenzene	11.157	105	83861	9.83	ug/L		95
70) 1,2,3-Trichloropropane	11.151	110	12228	10.73	ug/L		98
71) t-1,4-Dichloro-2-butene	11.187	88	4566	8.26	ug/L	#	78
72) 4-Chlorotoluene	11.248	91	76302	9.85	ug/L		92
73) tert-Butylbenzene	11.406	91	48165	8.67	ug/L		91
74) 1,2,4-Trimethylbenzene	11.461	105	85499	9.91	ug/L		95
75) sec-Butylbenzene	11.546	105	107745	10.74	ug/L		95
76) 4-Isopropyltoluene	11.656	119	80264	9.51	ug/L		97
77) 1,3-Dichlorobenzene	11.711	146	45072	10.66	ug/L		96
78) 1,4-Dichlorobenzene	11.777	146	45209	11.06	ug/L		92
79) n-Butylbenzene	11.972	91	74888	9.62	ug/L		94
80) 1,2-Dichlorobenzene	12.094	146	41072	10.52	ug/L		95
81) 1,2-Dibromo-3-Chloropr...	12.696	157	6225	10.03	ug/L	#	50
82) Hexachlorobutadiene	13.219	223	5408	8.83	ug/L		95
83) 1,2,4-Trichlorobenzene	13.244	180	24214	9.88	ug/L		95
84) Naphthalene	13.517	128	83341	10.29	ug/L		99
85) 1,2,3-Trichlorobenzene	13.676	180	23691	10.11	ug/L		96

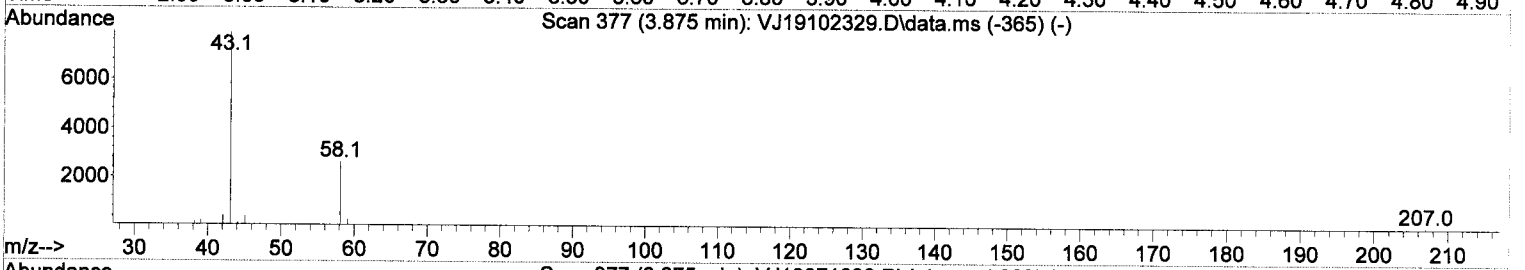
(#) = qualifier out of range (m) = manual integration (+) = signals summed

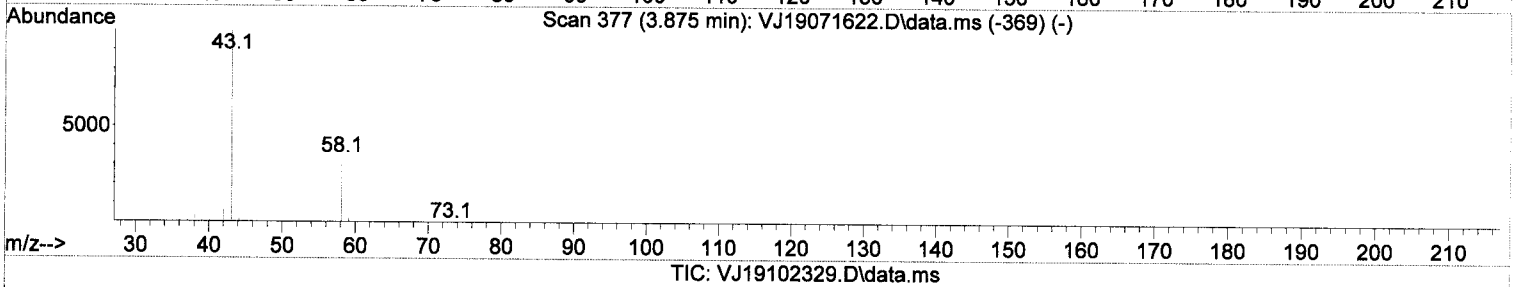
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102329.D\data.ms

(14) Acetone

3.875min (+ 0.001) 20.43 ug/L

response 23103

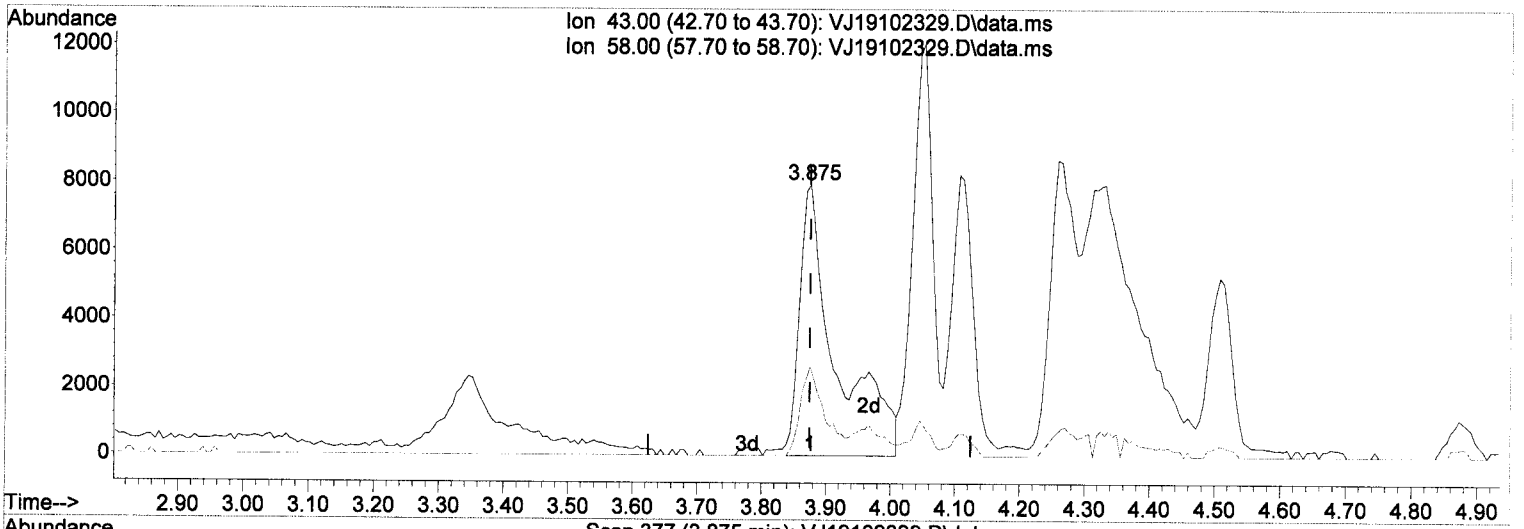
M.2.

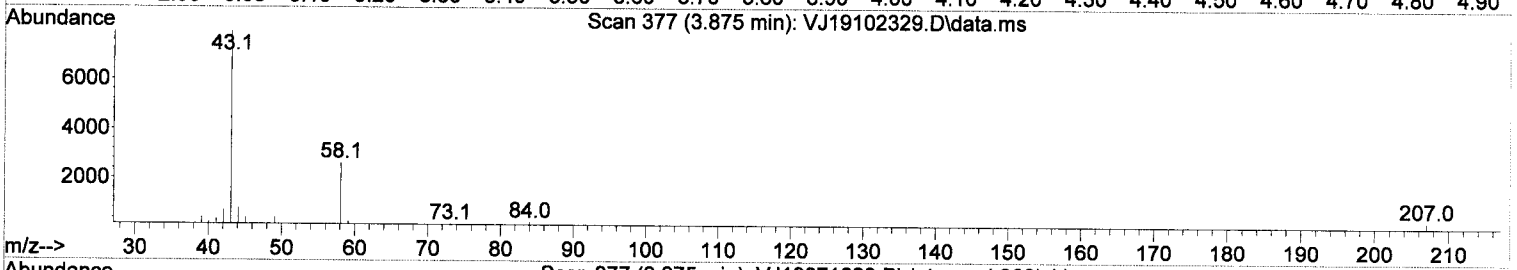
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.15
0.00	0.00	0.00
0.00	0.00	0.00

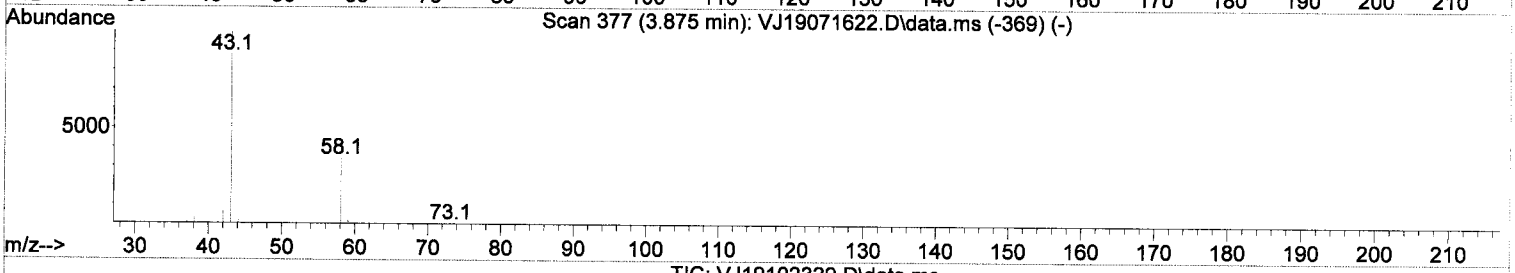
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102329.D\data.ms

(14) Acetone

3.875min (+ 0.001) 27.89 ug/L m

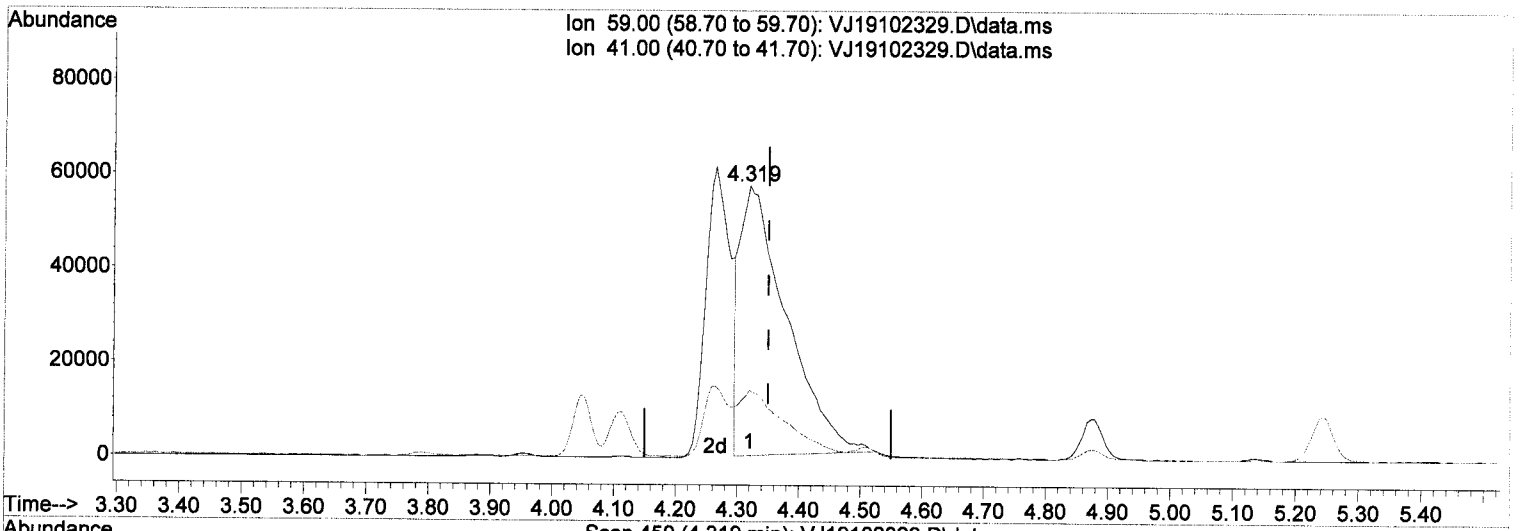
response 31545

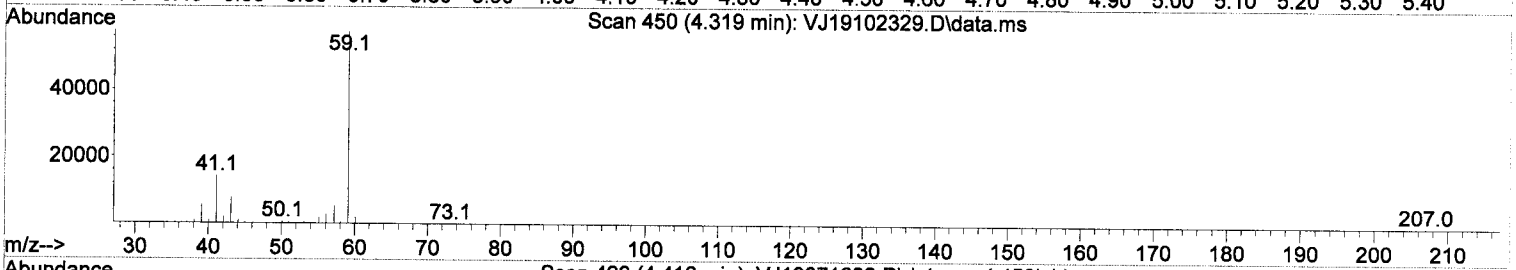
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.15
0.00	0.00	0.00
0.00	0.00	0.00

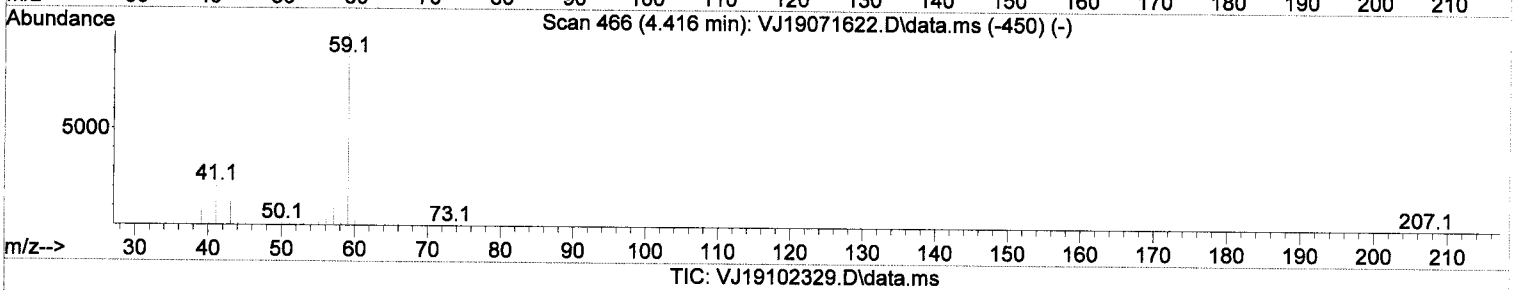
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102329.D\data.ms

(18) tert-Butanol (TBA)

4.319min (-0.030) 565.45 ug/L

response 301023

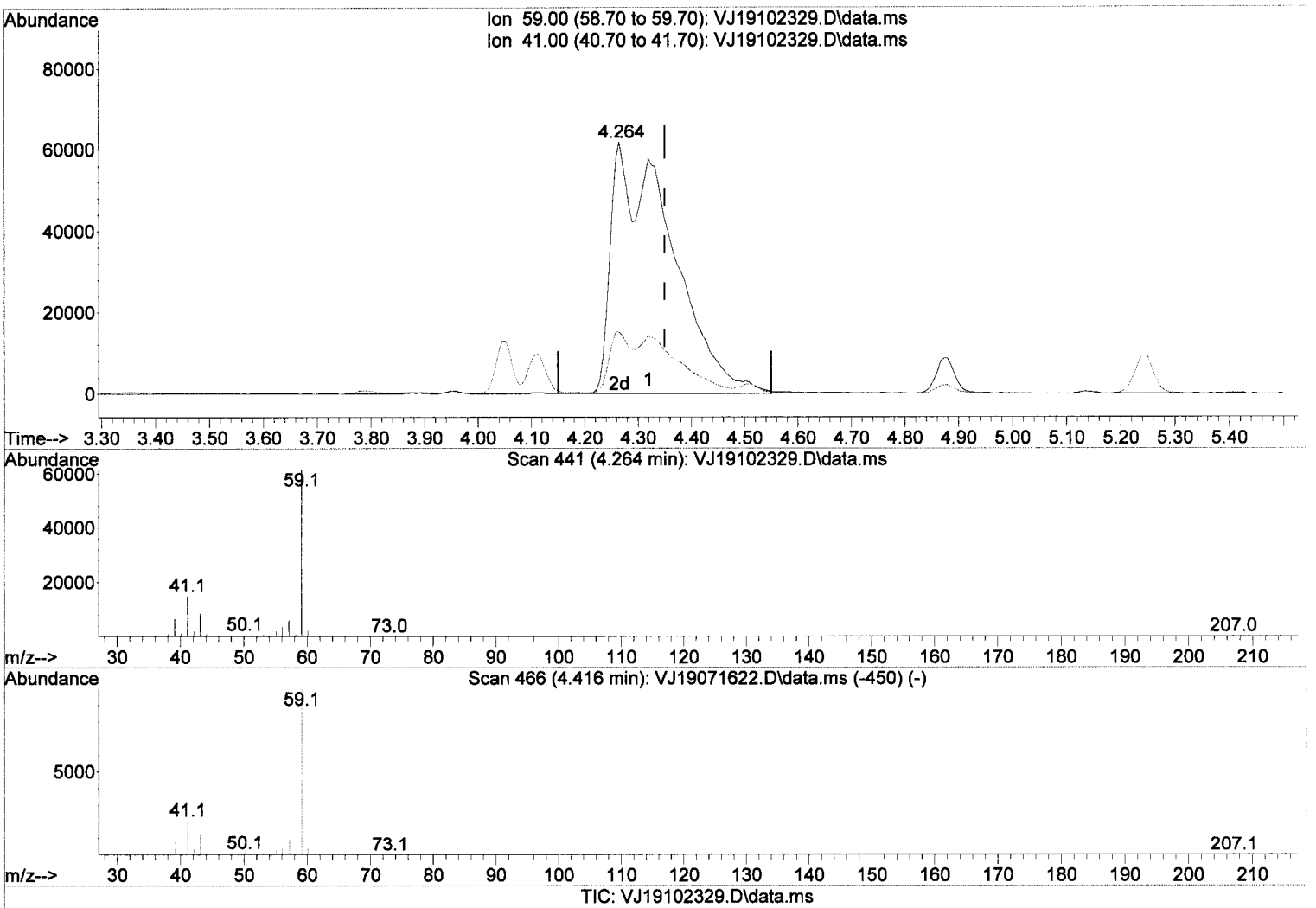
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	24.77#
0.00	0.00	0.00
0.00	0.00	0.00

M.2.

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



TIC: VJ19102329.D\data.ms

(18) tert-Butanol (TBA)

4.264min (-0.085) 891.56 ug/L m

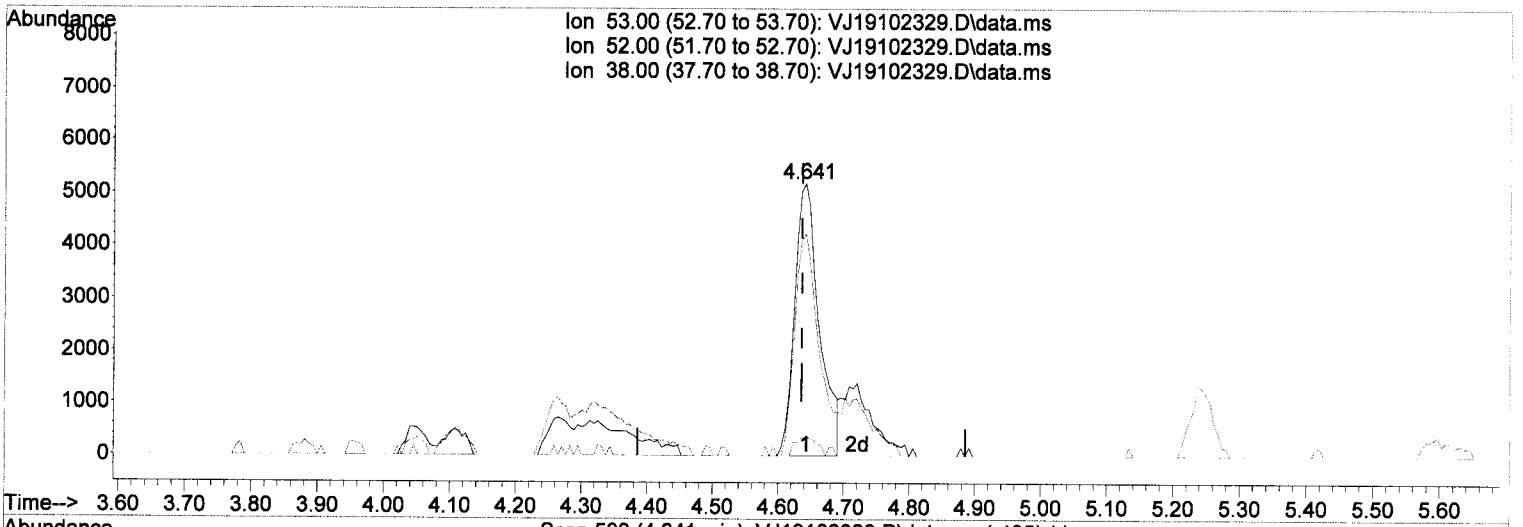
response 487639

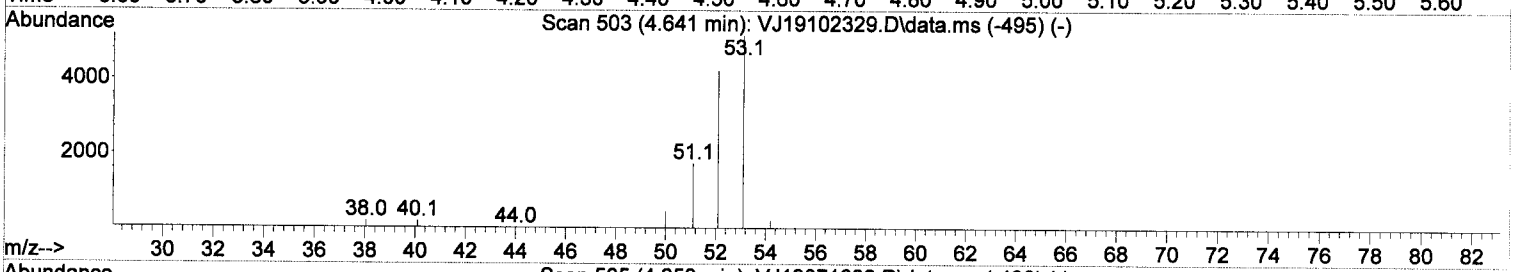
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	24.53#
0.00	0.00	0.00
0.00	0.00	0.00

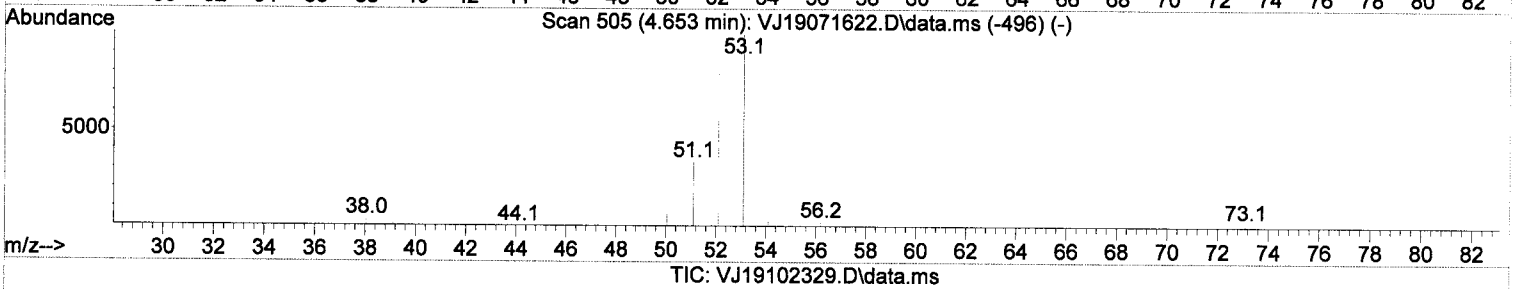
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102329.D\data.ms

(21) Acrylonitrile

4.641min (+ 0.006) 15.35 ug/L

response 13627

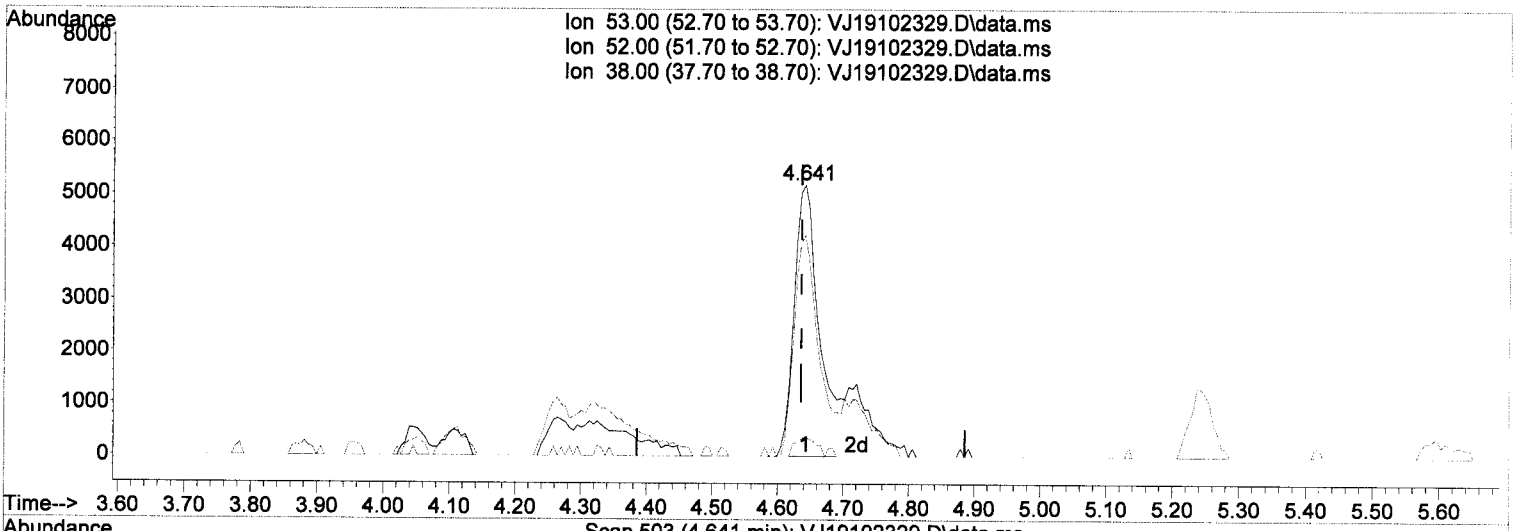
M.2.

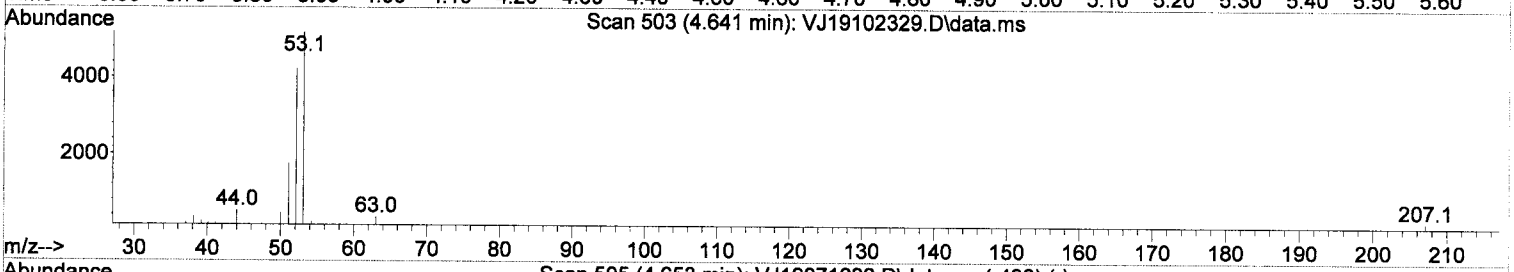
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	81.49
38.00	5.50	7.06
0.00	0.00	0.00

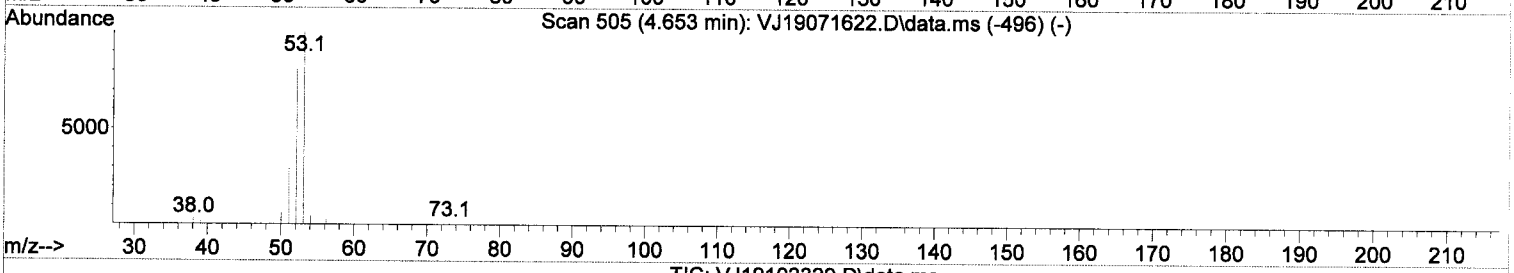
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102329.D\data.ms

(21) Acrylonitrile

4.641min (+ 0.006) 20.40 ug/L (m)

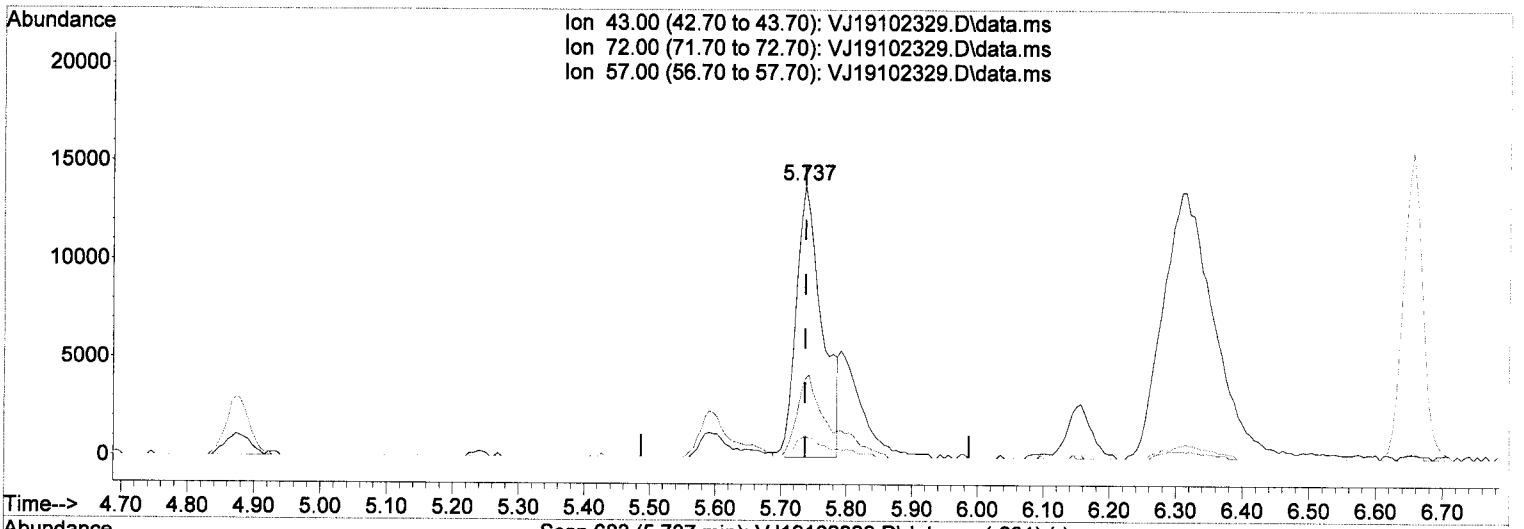
response 18110

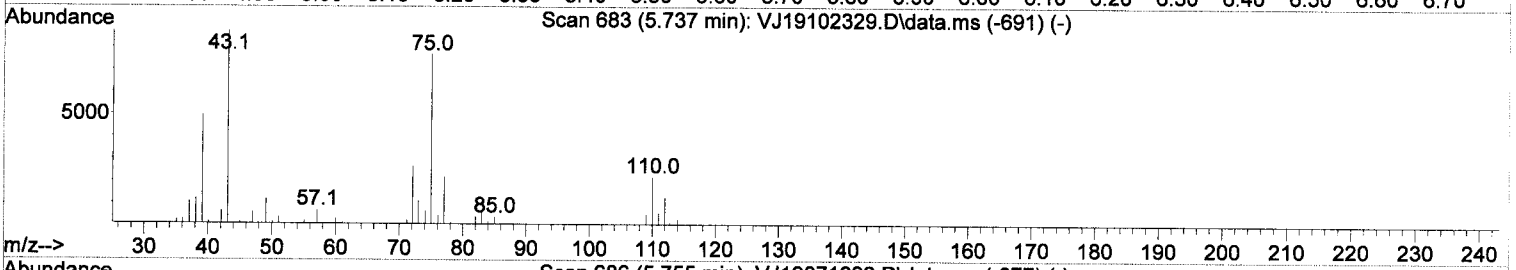
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	81.49
38.00	5.50	7.06
0.00	0.00	0.00

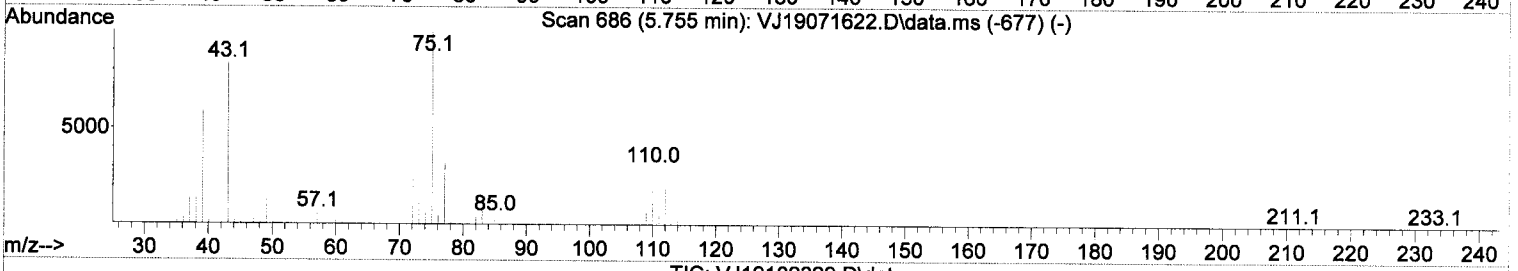
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102329.D\data.ms

(32) 2-Butanone (MEK)

5.737min (+ 0.001) 23.50 ug/L

response 37992

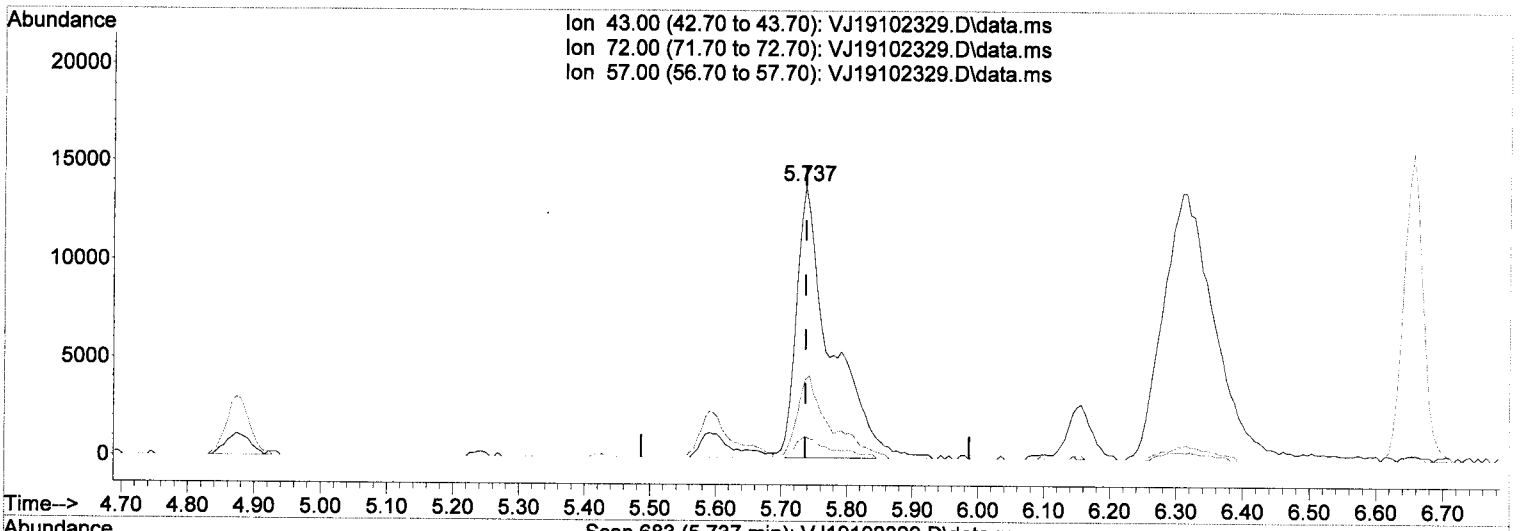
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	28.02
57.00	7.20	8.14
0.00	0.00	0.00

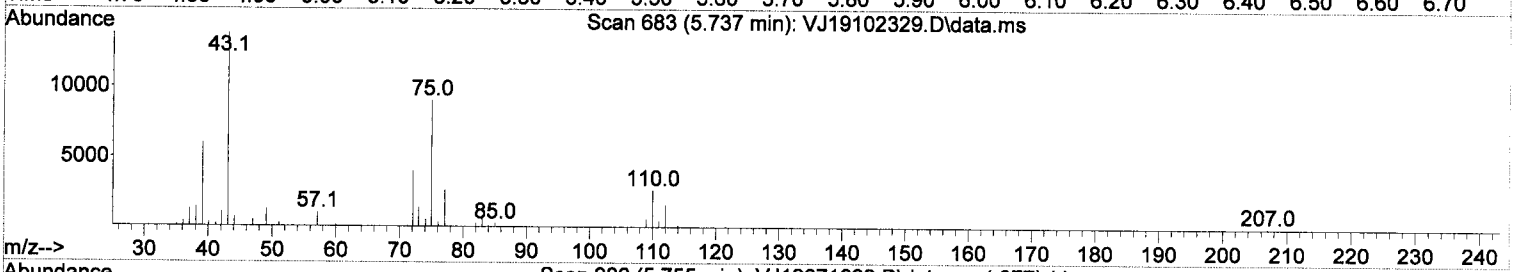
M.2

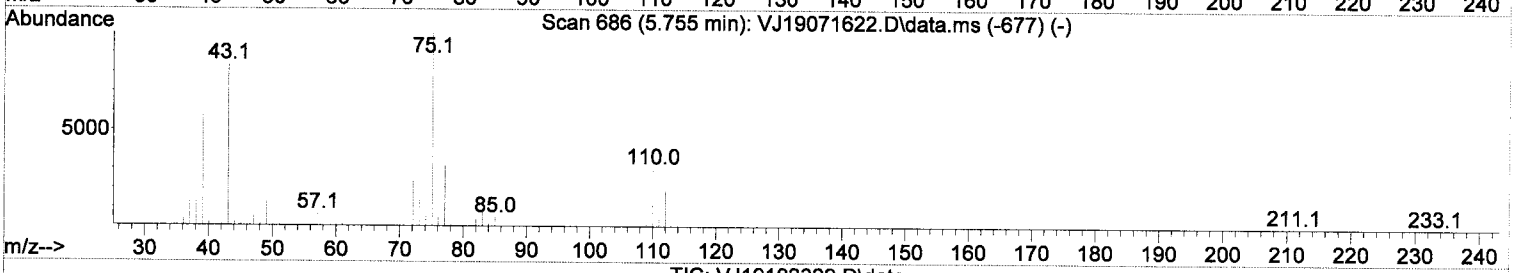
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102329.D\data.ms

(32) 2-Butanone (MEK)

5.737min (+ 0.001) 31.57 ug/L m

response 51036

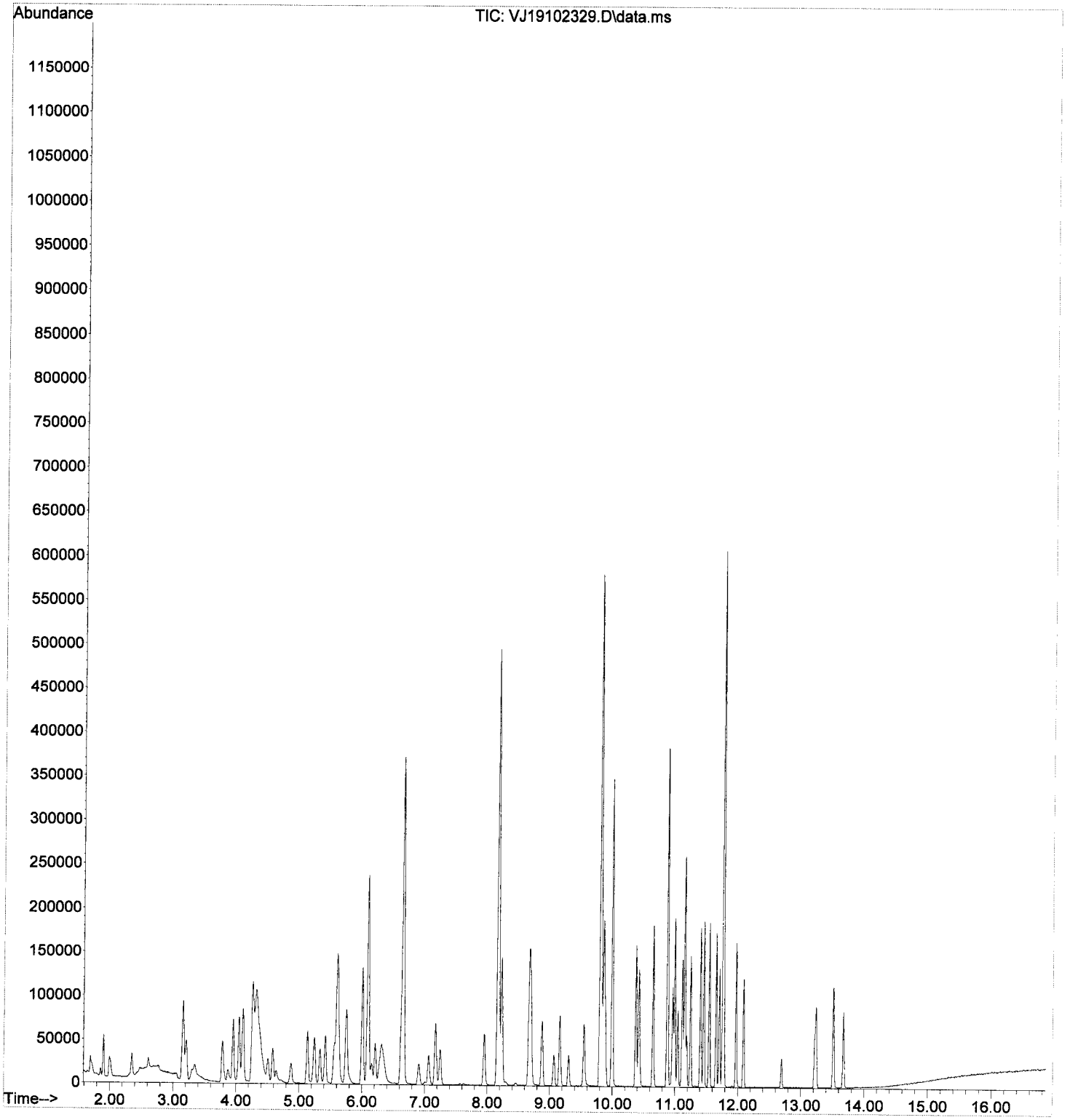
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	28.89
57.00	7.20	8.00
0.00	0.00	0.00

10/24/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102329.D
Acq On : 24 Oct 2019 12:59 am
Operator : MM
Sample : 9J23072-CAL7
Misc : 1X 5mL 10/20PPB VOC+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 24 08:14:00 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102330.D
Acq On : 24 Oct 2019 1:26 am
Operator : MM
Sample : 9J23072-CAL8
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 24 08:14:03 2019
Quant Method : C:\msdchem\1\methods\~~VJ191024S~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	94087	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	252726	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	111564	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.597	111	74311	58.43	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	285833	70.15	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	349892	50.99	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	79925	46.69	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	42729	18.45	ug/L		97
3) Chloromethane	1.898	50	73020	29.00	ug/L		99
4) Vinyl Chloride	1.995	62	57870	26.53	ug/L		94
5) Bromomethane	2.348	96	25485	25.66	ug/L		96
6) Chloroethane	2.470	64	6188	6.06	ug/L		84
7) Trichlorofluoromethane	2.597	101	12628	3.95	ug/L		98
8) Ethanol	3.315	45	122288	2363.38	ug/L		90
9) 1,1-Dichloroethene	3.139	61	70432	24.64	ug/L		89
10) Carbon Disulfide	3.151	76	120674	33.90	ug/L		99
11) Freon 113	3.200	101	43205	33.70	ug/L		85
12) Iodomethane	3.291	142	14327	43.60	ug/L		93
13) Methylene Chloride	3.778	84	46523	32.83	ug/L		91
14) Acetone	3.869	43	~~45862~~	44.12	ug/L		98
15) t-1,2-Dichloroethene	3.948	61	73863	28.66	ug/L		97
16) n-Hexane	4.045	86	11103	39.59	ug/L	#	76
17) Methyl-tert-butyl-ether	4.106	73	176865	25.24	ug/L		99
18) tert-Butanol (TBA)	4.264	59	1026400	1900.95	ug/L	#	90
19) Diisopropyl ether (DIPE)	4.508	45	46804	6.95	ug/L		90
20) 1,1-Dichloroethane	4.581	63	80359	27.16	ug/L		99
21) Acrylonitrile	4.635	53	~~28427~~	24.84	ug/L		97
22) Ethyl-tert-butyl ether...	4.873	59	41722	6.25	ug/L		94
23) c-1,2-Dichloroethene	5.128	61	73333	26.29	ug/L		95
24) 2,2-Dichloropropane	5.244	77	72158	22.08	ug/L		99
25) Bromochloromethane	5.329	49	45927	29.64	ug/L		79
26) Chloroform	5.414	83	86201	23.83	ug/L		96
27) Carbon Tetrachloride	5.554	117	58891	19.68	ug/L		94
28) Tetrahydrofuran	5.590	42	37130	37.63	ug/L		100
29) 1,1,1-Trichloroethane	5.621	97	79966	22.45	ug/L		95
31) 1,1-Dichloropropene	5.749	75	75436	27.22	ug/L		93
32) 2-Butanone (MEK)	5.737	43	101470	68.29	ug/L		99
33) Benzene	6.004	78	240789	33.67	ug/L		99
34) tert-Amyl methyl ether...	6.156	73	38296	5.78	ug/L		98
35) 1,2-Dichloroethane (EDC)	6.205	62	77917	19.05	ug/L		97
36) iso-Butyl Alcohol	6.290	43	154175	1000.29	ug/L		95
38) Trichloroethene (TCE)	6.625	130	49869	28.48	ug/L		92
39) tert-Amyl ethyl ether ...	6.905	59	29237	5.97	ug/L		87
40) Dibromomethane	7.063	93	31731	26.33	ug/L		86
41) 1,2-Dichloropropane	7.172	63	61016	32.69	ug/L		98
42) Bromodichloromethane	7.251	83	63632	23.20	ug/L		95
44) c-1,3-Dichloropropene	7.951	75	80676	20.76	ug/L		98
46) Toluene	8.231	91	237451	22.82	ug/L		99
47) Tetrachloroethene (PCE)	8.681	166	46373	22.07	ug/L		89
48) 4-Methyl-2-Pentanone (...	8.669	43	161301	47.73	ug/L		99

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102330.D
Acq On : 24 Oct 2019 1:26 am
Operator : MM
Sample : 9J23072-CAL8
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 24 08:14:03 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

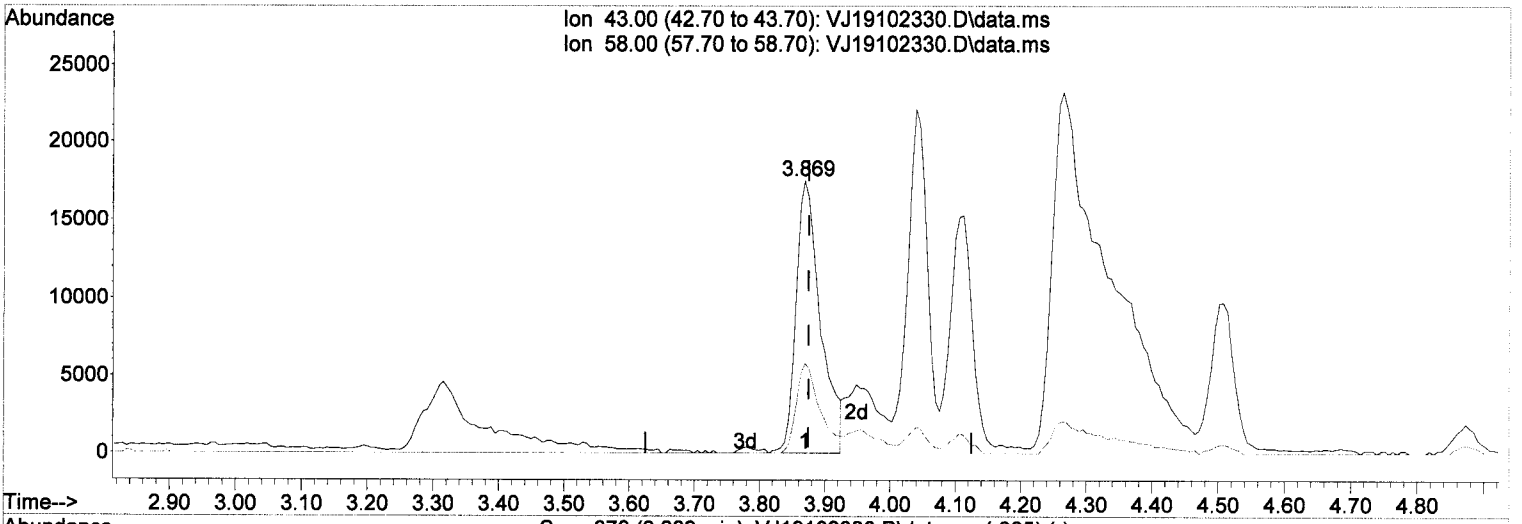
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	81643	19.65	ug/L		94
50) 1,1,2-Trichloroethane	8.876	97	51573	23.28	ug/L		95
51) Dibromochloromethane	9.064	129	40104	17.09	ug/L		99
52) 1,3-Dichloropropane	9.162	76	95374	21.36	ug/L		99
53) 1,2-Dibromoethane (EDB)	9.301	107	50265	21.47	ug/L		96
54) 2-Hexanone	9.545	43	118204	46.44	ug/L		99
55) Chlorobenzene	9.825	112	137767	21.94	ug/L		95
56) Ethylbenzene	9.861	91	245666	20.51	ug/L		98
57) 1,1,1,2-Tetrachloroethane	9.886	131	44112	18.53	ug/L		97
58) m,p-Xylenes (2)	9.995	91	359257	39.16	ug/L		97
59) o-Xylene	10.378	91	172231	18.89	ug/L		95
60) Styrene	10.421	104	116013	20.30	ug/L		95
61) Bromoform	10.439	173	26337	16.76	ug/L		97
62) Isopropylbenzene	10.652	105	211570	20.10	ug/L		97
65) Bromobenzene	10.962	156	47411	22.32	ug/L	#	69
66) n-Propylbenzene	10.999	91	255618	20.89	ug/L		95
67) 1,1,2,2-Tetrachloroethane	11.047	83	74780	28.94	ug/L		97
68) 2-Chlorotoluene	11.120	126	45697	21.88	ug/L		87
69) 1,3,5-Trimethylbenzene	11.157	105	167903	20.16	ug/L		96
70) 1,2,3-Trichloropropane	11.151	110	23923	21.50	ug/L		93
71) t-1,4-Dichloro-2-butene	11.187	88	9771	18.12	ug/L	#	85
72) 4-Chlorotoluene	11.248	91	150657	19.93	ug/L		93
73) tert-Butylbenzene	11.406	91	95439	17.61	ug/L		89
74) 1,2,4-Trimethylbenzene	11.461	105	167688	19.91	ug/L		97
75) sec-Butylbenzene	11.546	105	207744	21.23	ug/L		96
76) 4-Isopropyltoluene	11.656	119	160438	19.48	ug/L		97
77) 1,3-Dichlorobenzene	11.711	146	87437	21.18	ug/L		96
78) 1,4-Dichlorobenzene	11.778	146	87387	21.91	ug/L		95
79) n-Butylbenzene	11.972	91	148499	19.54	ug/L		95
80) 1,2-Dichlorobenzene	12.094	146	80490	21.12	ug/L		98
81) 1,2-Dibromo-3-Chloropr...	12.696	157	13313	21.98	ug/L	#	58
82) Hexachlorobutadiene	13.219	223	10256	17.15	ug/L		94
83) 1,2,4-Trichlorobenzene	13.244	180	48878	20.43	ug/L		95
84) Naphthalene	13.517	128	180749	22.85	ug/L		98
85) 1,2,3-Trichlorobenzene	13.676	180	47658	20.84	ug/L		97

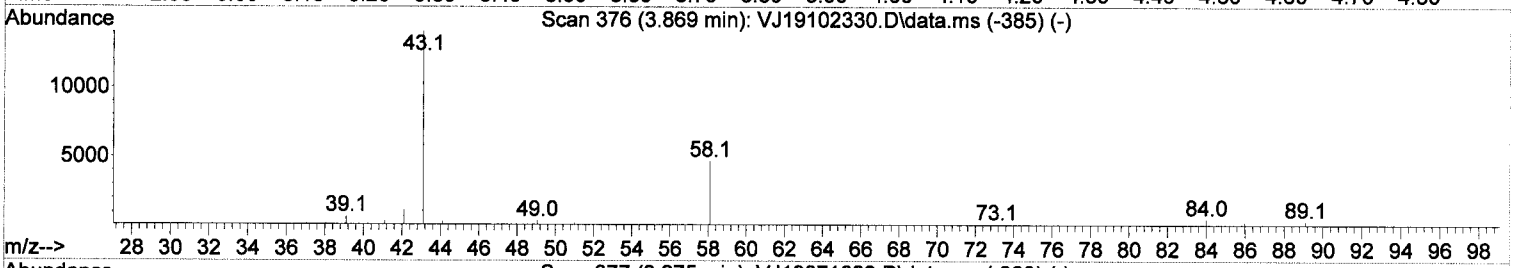
(#) = qualifier out of range (m) = manual integration (+) = signals summed

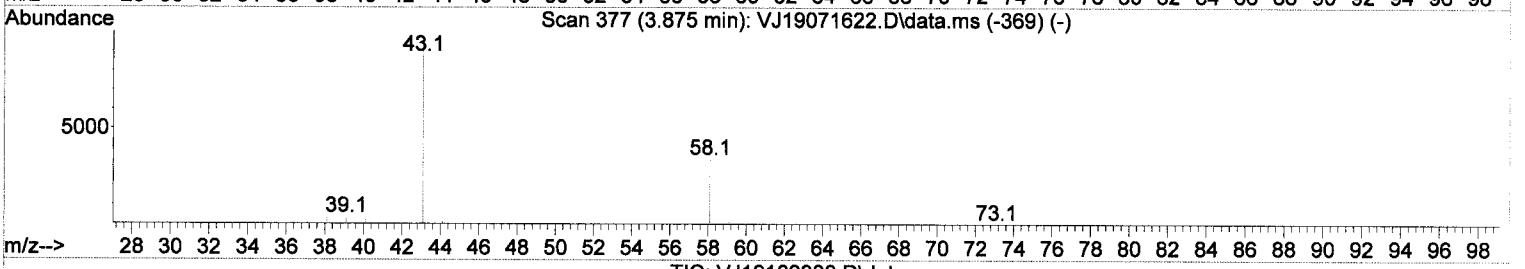
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102330.D
Acq On : 24 Oct 2019 1:26 am
Operator : MM
Sample : 9J23072-CAL8
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 24 08:14:03 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102330.D\data.ms

(14) Acetone

3.869min (-0.005) 44.12 ug/L

response 45862

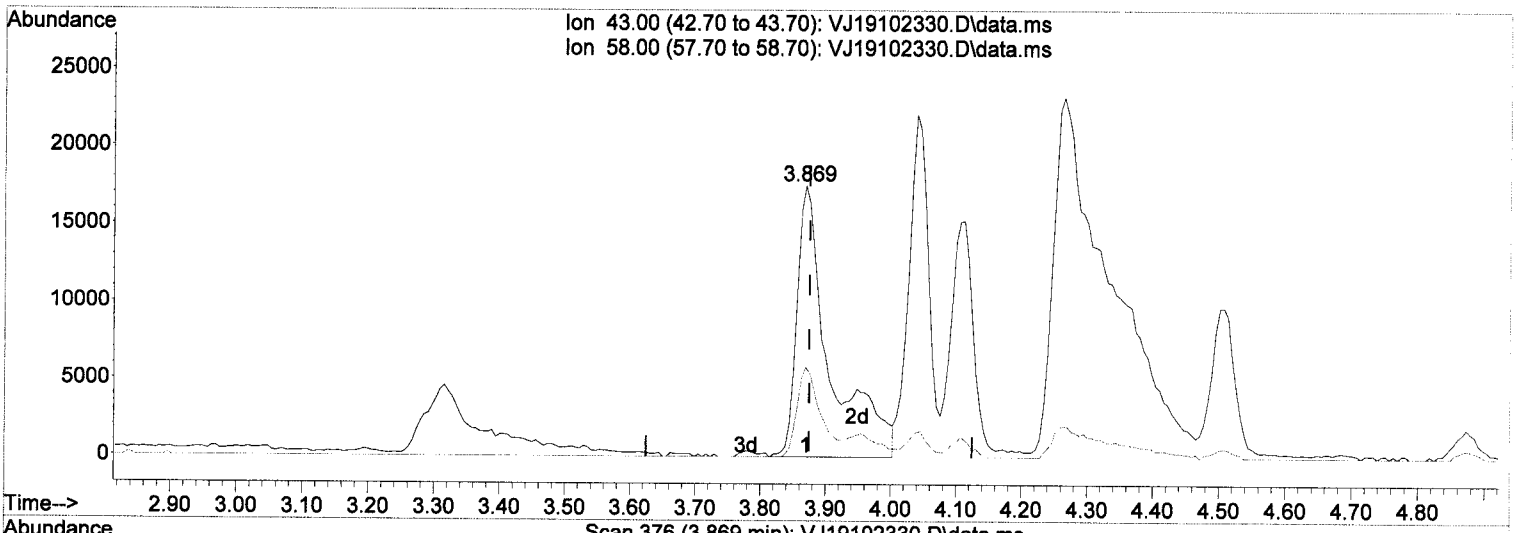
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.04
0.00	0.00	0.00
0.00	0.00	0.00

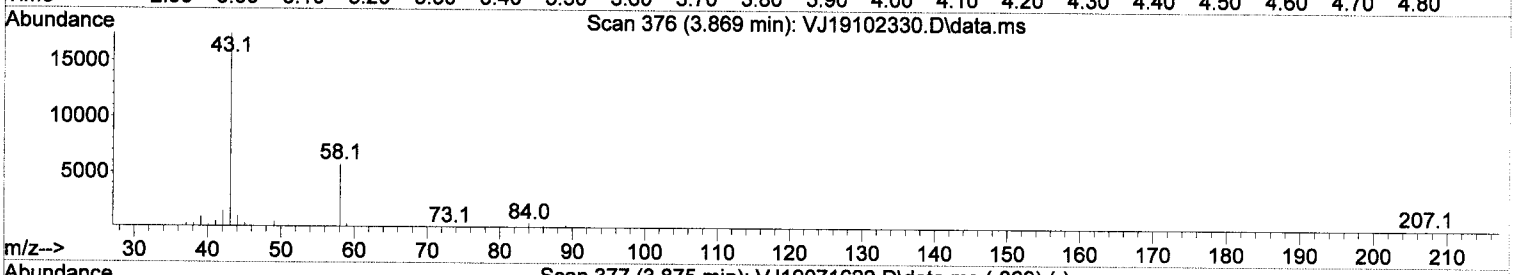
MJ.

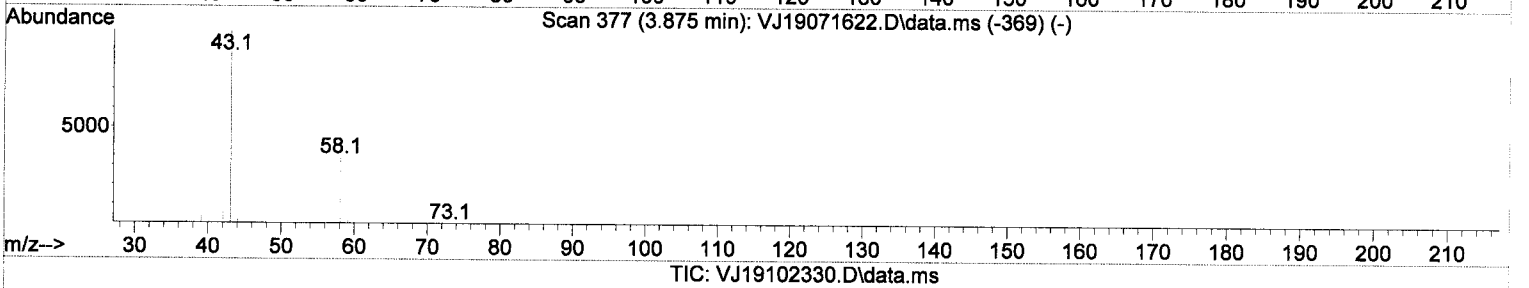
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102330.D
Acq On : 24 Oct 2019 1:26 am
Operator : MM
Sample : 9J23072-CAL8
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 24 08:14:03 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102330.D\data.ms

(14) Acetone

3.869min (-0.005) 59.35 ug/L (m)

response 61696

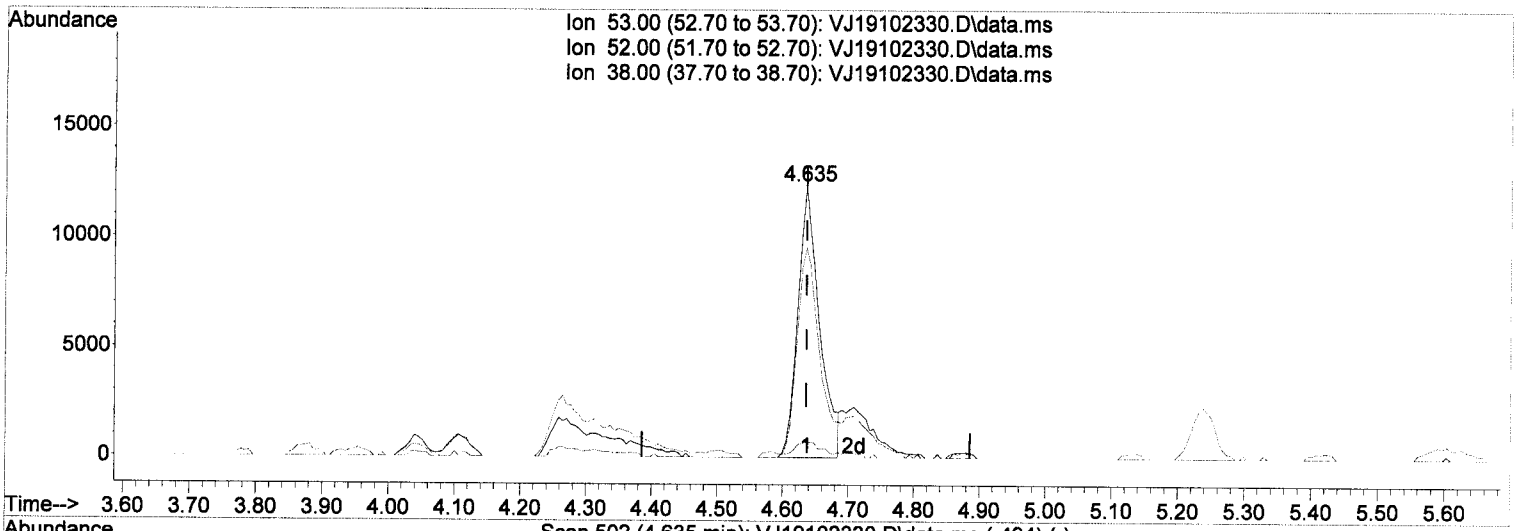
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.04
0.00	0.00	0.00
0.00	0.00	0.00

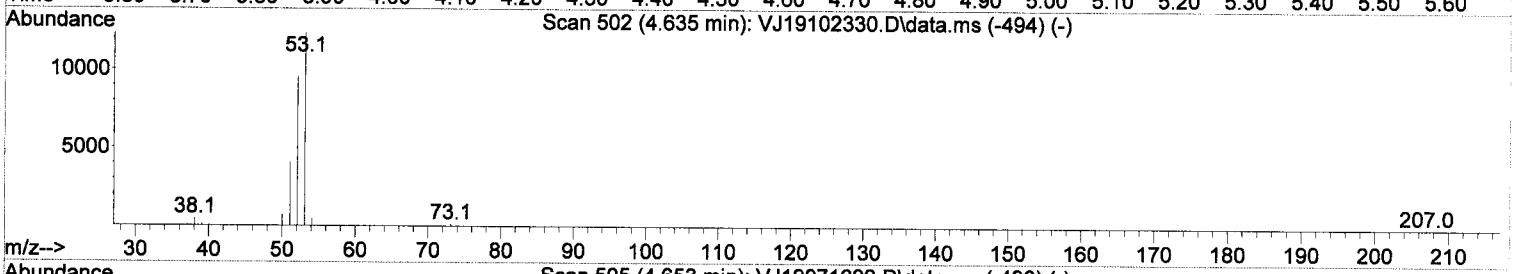
M 12/24/19

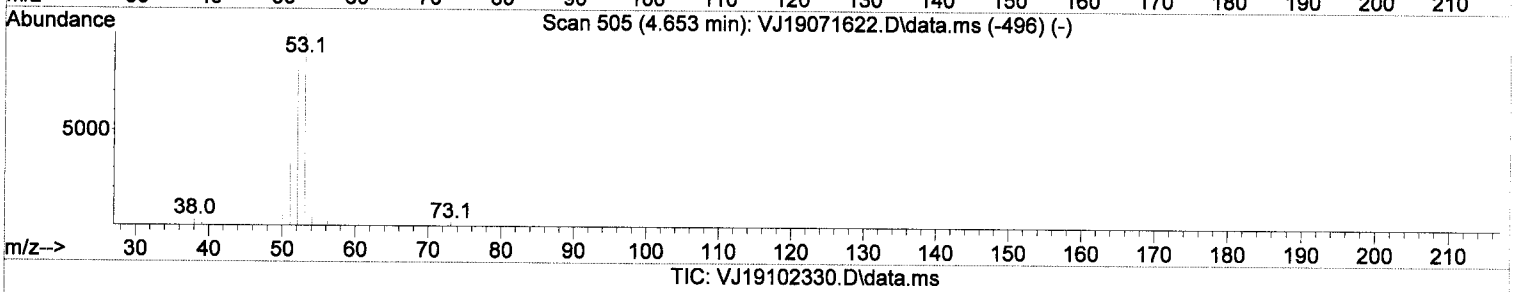
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102330.D
Acq On : 24 Oct 2019 1:26 am
Operator : MM
Sample : 9J23072-CAL8
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 24 08:14:03 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102330.D\data.ms

(21) Acrylonitrile

4.635min (+ 0.000) 34.84 ug/L

response 28427

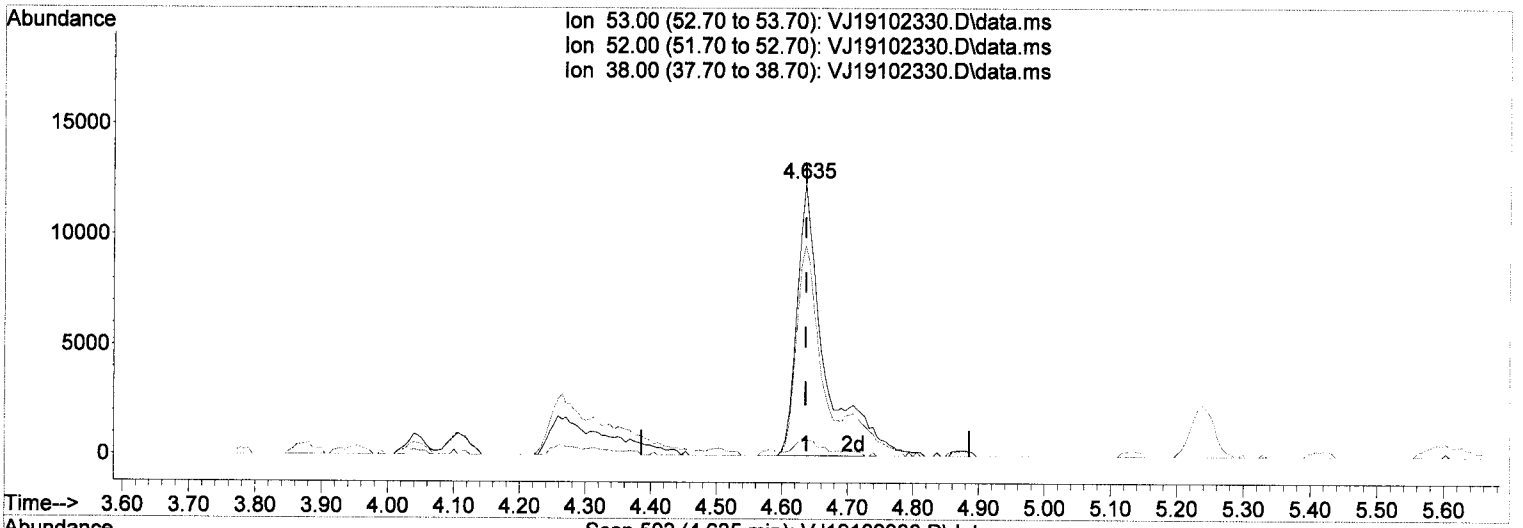
M.2.

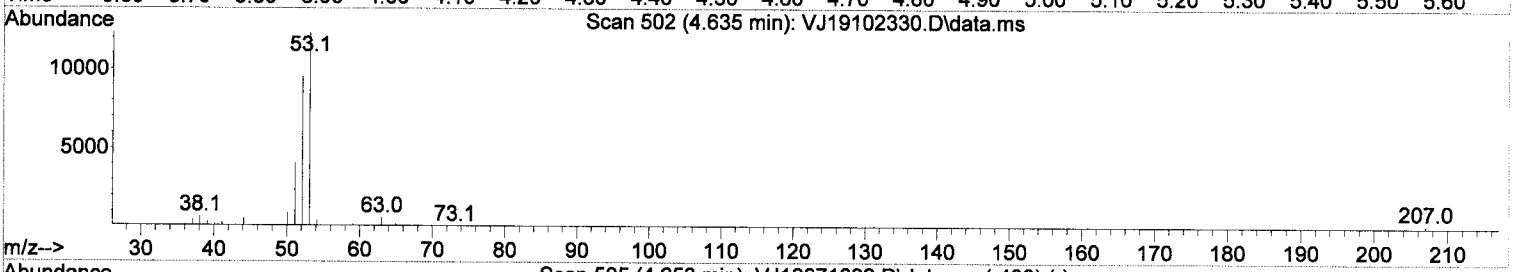
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	77.16
38.00	5.50	3.70
0.00	0.00	0.00

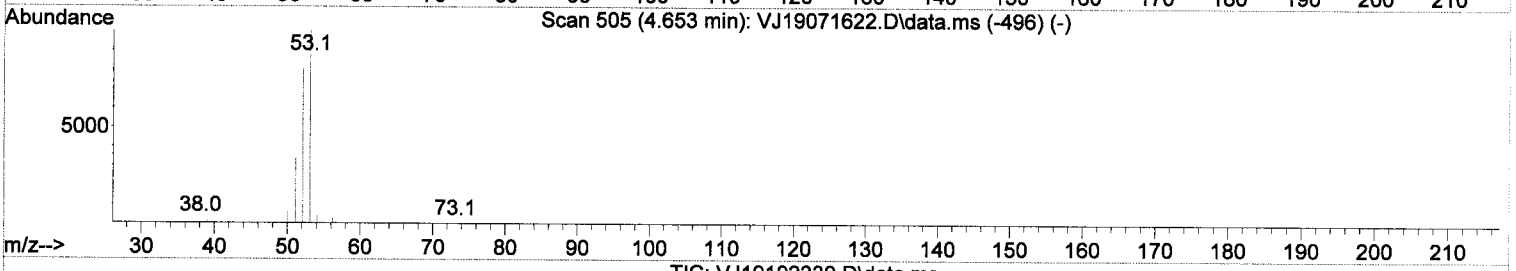
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102330.D
Acq On : 24 Oct 2019 1:26 am
Operator : MM
Sample : 9J23072-CAL8
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 24 08:14:03 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102330.D\data.ms

(21) Acrylonitrile

4.635min (+ 0.000) 44.64 ug/L

response 36419

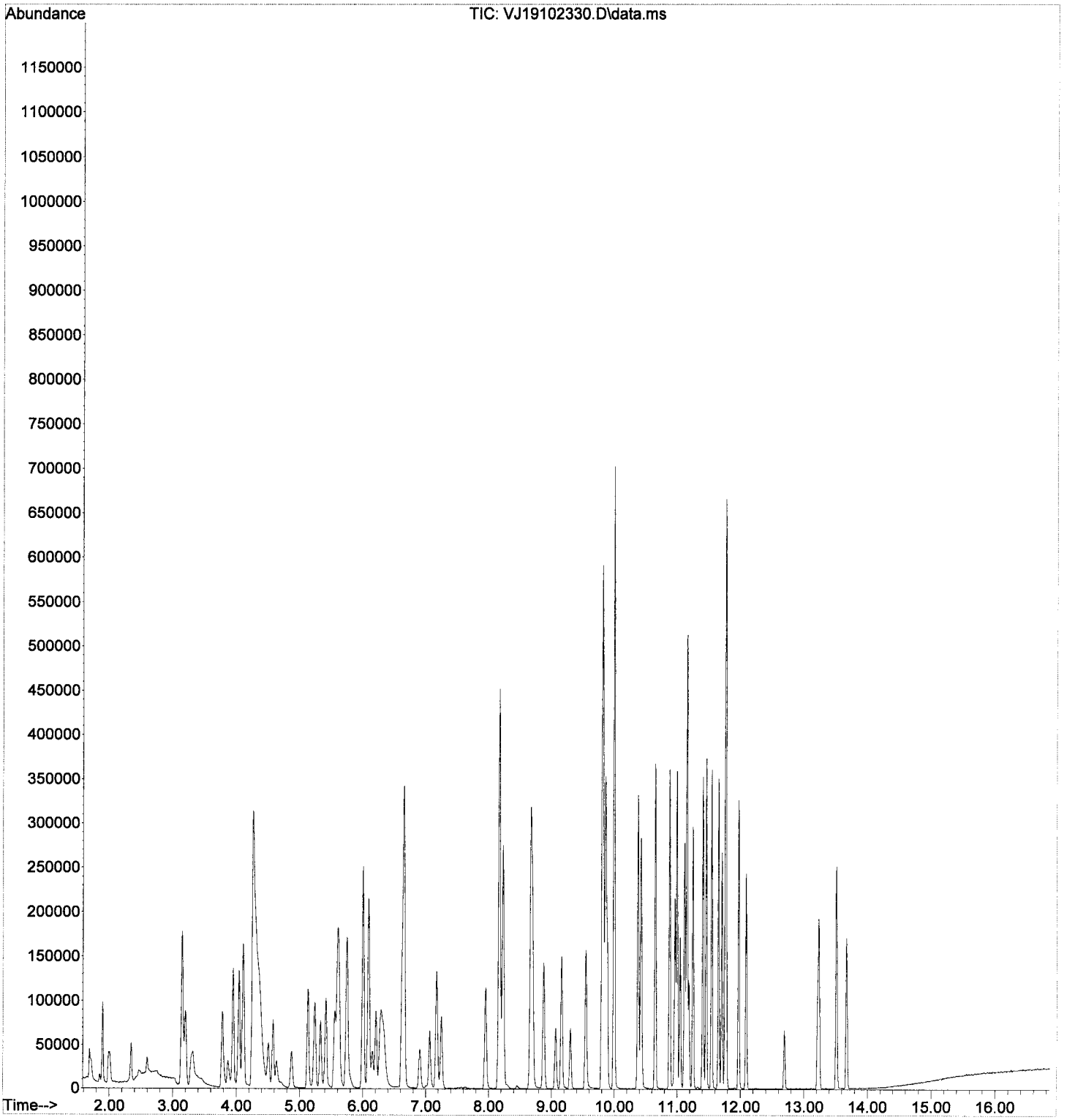
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	77.16
38.00	5.50	5.64
0.00	0.00	0.00

12/2/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102330.D
Acq On : 24 Oct 2019 1:26 am
Operator : MM
Sample : 9J23072-CAL8
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 24 08:14:03 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	105013	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	282031	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	124308	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	85109	59.95	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	323717	71.18	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	394687	51.54	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	88914	46.61	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	131685	50.95	ug/L		98
3) Chloromethane	1.892	50	201248	71.62	ug/L		99
4) Vinyl Chloride	1.983	62	155736	63.06	ug/L		95
5) Bromomethane	2.342	96	63337	60.39	ug/L		96
6) Chloroethane	2.470	64	22708	19.91	ug/L		96
7) Trichlorofluoromethane	2.603	101	38671	10.83	ug/L		99
8) Ethanol	3.346	45	239469	4146.53	ug/L		92
9) 1,1-Dichloroethene	3.145	61	181540	56.89	ug/L		93
10) Carbon Disulfide	3.157	76	335203	84.37	ug/L		98
11) Freon 113	3.200	101	113502	79.33	ug/L		87
12) Iodomethane	3.291	142	47020	89.59	ug/L		89
13) Methylene Chloride	3.777	84	118736	77.26	ug/L		90
14) Acetone	3.869	43	~~112420~~	96.89	ug/L		97
15) t-1,2-Dichloroethene	3.948	61	191374	66.54	ug/L		98
16) n-Hexane	4.045	86	31443	96.62	ug/L	#	86
17) Methyl-tert-butyl-ether	4.106	73	469291	59.99	ug/L		98
18) tert-Butanol (TBA)	4.319	59	~~1395157~~	2261.14	ug/L	#	86
19) Diisopropyl ether (DIPE)	4.501	45	102191	13.60	ug/L		94
20) 1,1-Dichloroethane	4.580	63	207492	62.82	ug/L		99
21) Acrylonitrile	4.629	53	~~74111~~	81.38	ug/L		99
22) Ethyl-tert-butyl ether...	4.873	59	90750	12.17	ug/L		94
23) c-1,2-Dichloroethene	5.128	61	189767	60.94	ug/L		96
24) 2,2-Dichloropropane	5.238	77	189548	51.96	ug/L		100
25) Bromochloromethane	5.329	49	116893	67.59	ug/L		80
26) Chloroform	5.414	83	226777	56.18	ug/L		97
27) Carbon Tetrachloride	5.554	117	158501	47.45	ug/L		94
28) Tetrahydrofuran	5.590	42	95139	86.39	ug/L		98
29) 1,1,1-Trichloroethane	5.621	97	208934	52.56	ug/L		96
31) 1,1-Dichloropropene	5.749	75	199471	64.49	ug/L		95
32) 2-Butanone (MEK)	5.730	43	~~189045~~	113.99	ug/L		94
33) Benzene	6.004	78	625910	78.42	ug/L		99
34) tert-Amyl methyl ether...	6.150	73	82359	11.14	ug/L		97
35) 1,2-Dichloroethane (EDC)	6.205	62	202778	44.43	ug/L		99
36) iso-Butyl Alcohol	6.302	43	411574	2392.47	ug/L		99
38) Trichloroethene (TCE)	6.619	130	131822	66.43	ug/L		95
39) tert-Amyl ethyl ether ...	6.904	59	65747	12.03	ug/L		89
40) Dibromomethane	7.063	93	83755	62.27	ug/L		84
41) 1,2-Dichloropropane	7.172	63	160675	77.12	ug/L		97
42) Bromodichloromethane	7.245	83	175537	57.34	ug/L		98
44) c-1,3-Dichloropropene	7.951	75	225850	52.08	ug/L		98
46) Toluene	8.231	91	618659	53.27	ug/L		98
47) Tetrachloroethene (PCE)	8.681	166	122230	52.12	ug/L		91
48) 4-Methyl-2-Pentanone (...	8.669	43	437036	115.89	ug/L		97

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

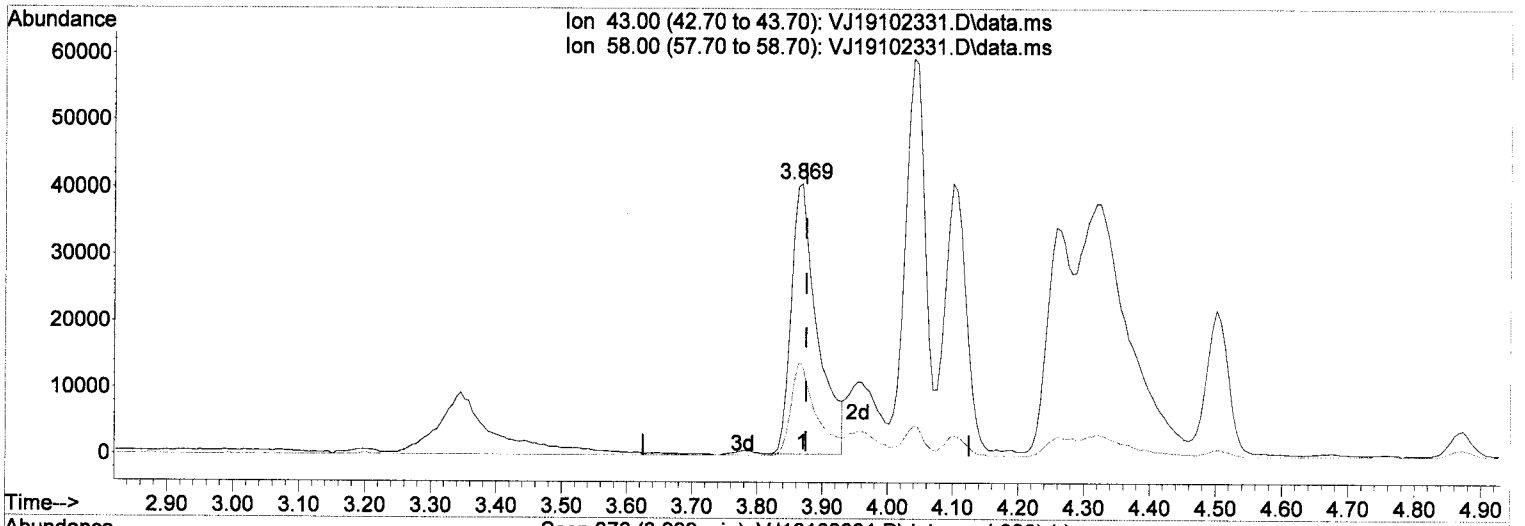
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	221998	47.89	ug/L		96
50) 1,1,2-Trichloroethane	8.876	97	133185	53.79	ug/L		97
51) Dibromochloromethane	9.064	129	113957	43.52	ug/L		99
52) 1,3-Dichloropropane	9.161	76	247593	49.68	ug/L		99
53) 1,2-Dibromoethane (EDB)	9.301	107	135703	51.93	ug/L		100
54) 2-Hexanone	9.545	43	323576	113.92	ug/L		99
55) Chlorobenzene	9.825	112	353531	50.46	ug/L		95
56) Ethylbenzene	9.861	91	654045	48.92	ug/L		98
57) 1,1,1,2-Tetrachloroethane	9.885	131	121183	45.61	ug/L		97
58) m,p-Xylenes (2)	9.995	91	967453	94.49	ug/L		97
59) o-Xylene	10.378	91	471843	46.38	ug/L		95
60) Styrene	10.421	104	342762	53.74	ug/L		98
61) Bromoform	10.439	173	78066	43.02	ug/L		97
62) Isopropylbenzene	10.652	105	584329	49.73	ug/L		97
65) Bromobenzene	10.962	156	125116	52.87	ug/L	#	72
66) n-Propylbenzene	10.993	91	690882	50.67	ug/L		94
67) 1,1,2,2-Tetrachloroethane	11.047	83	193478	67.20	ug/L		96
68) 2-Chlorotoluene	11.114	126	121749	52.32	ug/L	#	78
69) 1,3,5-Trimethylbenzene	11.157	105	450995	48.60	ug/L		95
70) 1,2,3-Trichloropropane	11.151	110	61884	49.92	ug/L		94
71) t-1,4-Dichloro-2-butene	11.187	88	27694	46.09	ug/L		93
72) 4-Chlorotoluene	11.248	91	398929	47.37	ug/L		92
73) tert-Butylbenzene	11.406	91	260062	43.07	ug/L		90
74) 1,2,4-Trimethylbenzene	11.461	105	450083	47.95	ug/L		97
75) sec-Butylbenzene	11.546	105	570890	52.35	ug/L		96
76) 4-Isopropyltoluene	11.656	119	449627	49.00	ug/L		97
77) 1,3-Dichlorobenzene	11.710	146	228262	49.62	ug/L		97
78) 1,4-Dichlorobenzene	11.777	146	228373	51.40	ug/L		95
79) n-Butylbenzene	11.972	91	411527	48.59	ug/L		94
80) 1,2-Dichlorobenzene	12.094	146	209123	49.24	ug/L		97
81) 1,2-Dibromo-3-Chloropr...	12.696	157	38129	56.50	ug/L	#	65
82) Hexachlorobutadiene	13.219	223	28768	43.18	ug/L		95
83) 1,2,4-Trichlorobenzene	13.244	180	133371	50.04	ug/L		95
84) Naphthalene	13.511	128	507971	57.66	ug/L		97
85) 1,2,3-Trichlorobenzene	13.675	180	129134	50.68	ug/L		96

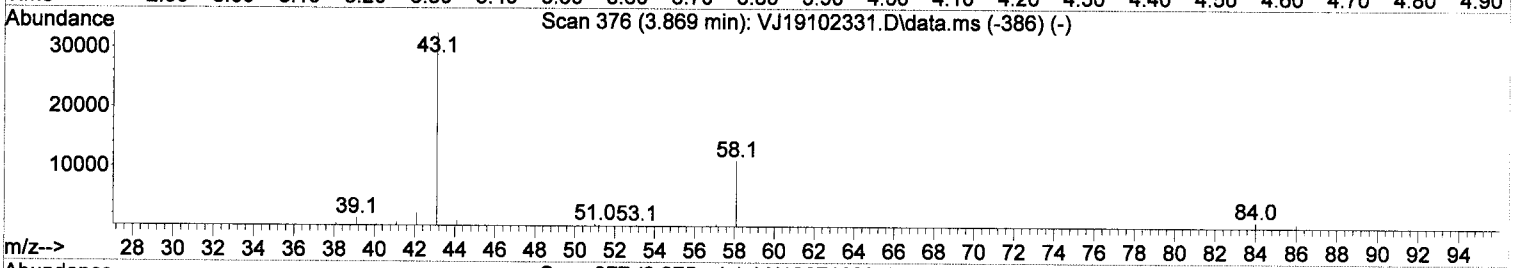
(#) = qualifier out of range (m) = manual integration (+) = signals summed

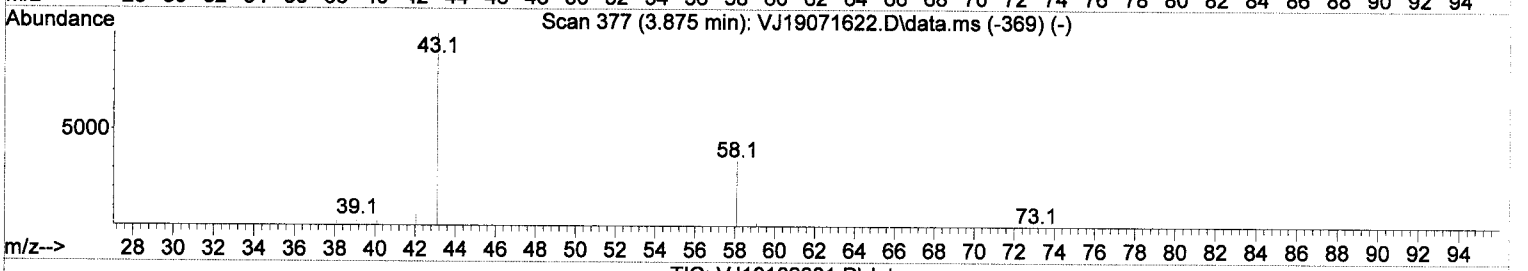
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102331.D\data.ms

(14) Acetone

3.869min (-0.005) 96.89 ug/L

response 112420

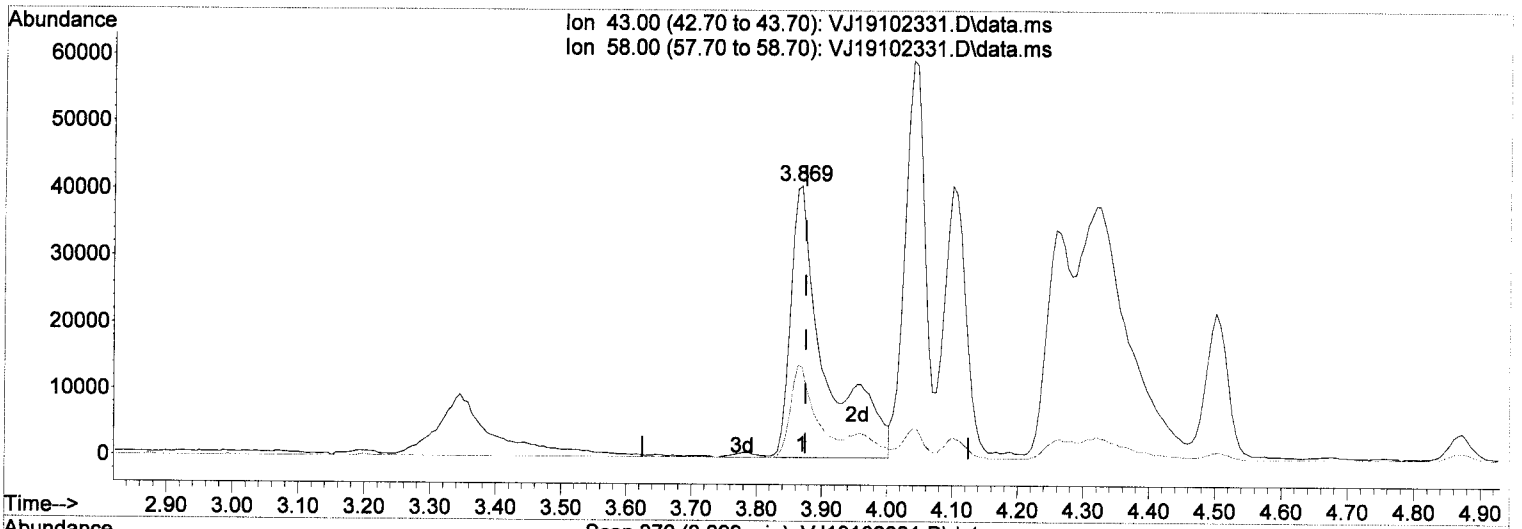
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.86
0.00	0.00	0.00
0.00	0.00	0.00

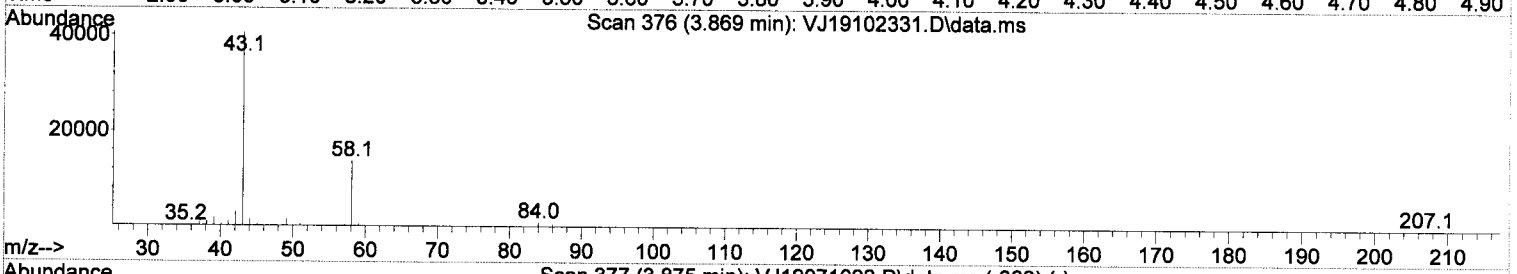
M.2.

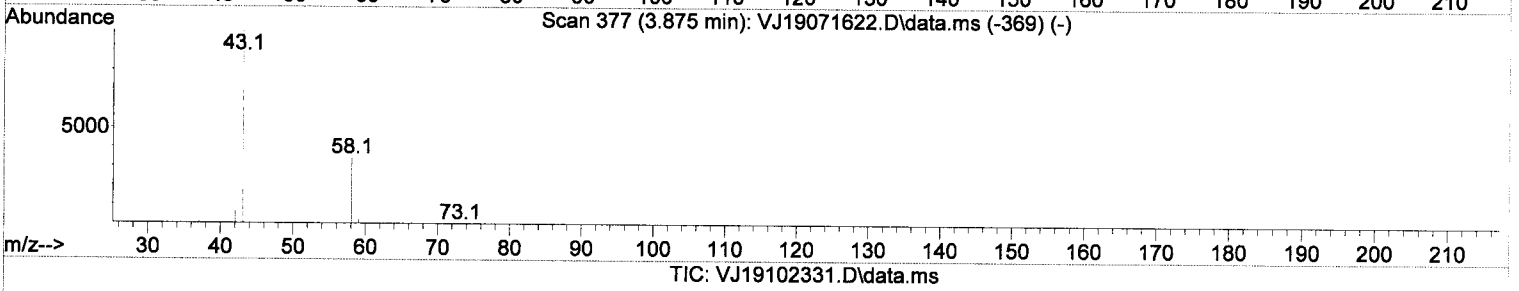
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102331.D\data.ms

(14) Acetone

3.869min (-0.005) 129.97 ug/L m

response 150797

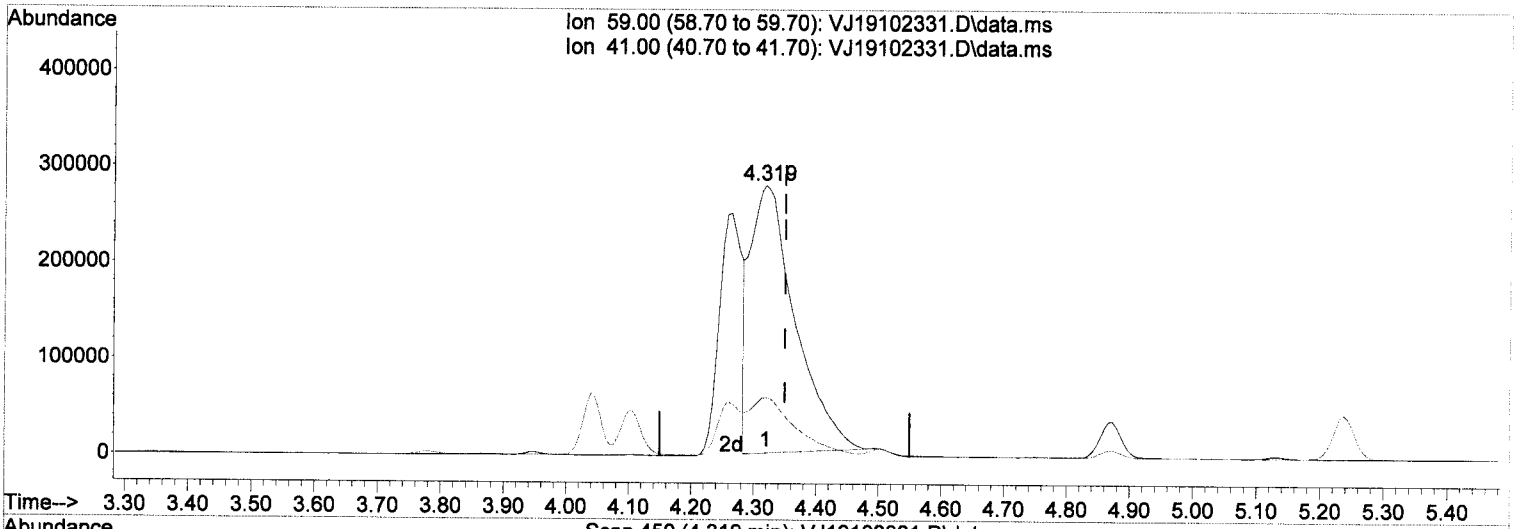
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.68
0.00	0.00	0.00
0.00	0.00	0.00

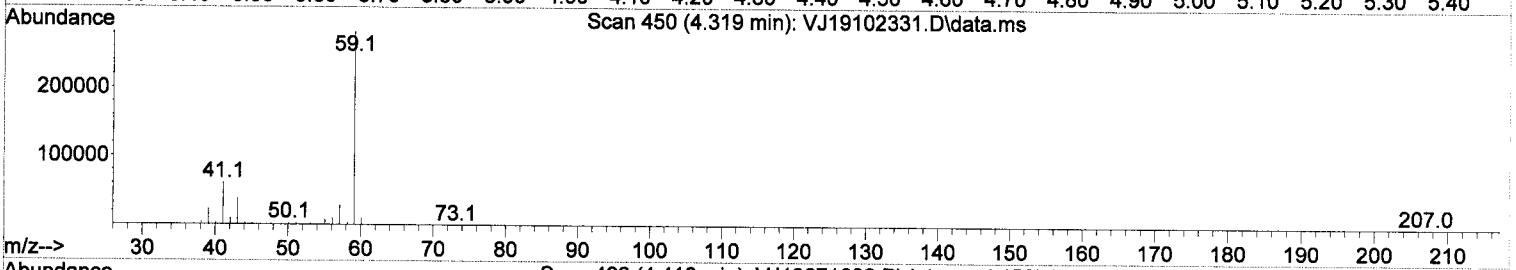
10/24/19

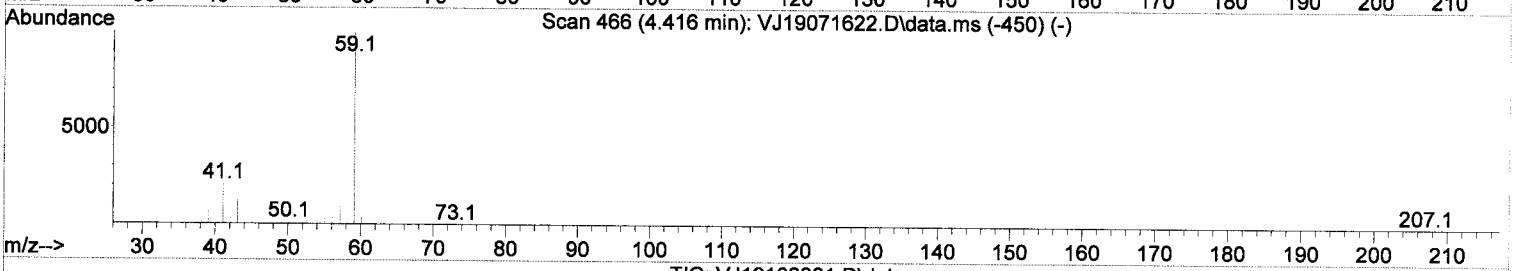
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102331.D\data.ms

(18) tert-Butanol (TBA)

4.319min (-0.030) 2261.14 ug/L

response 1395157

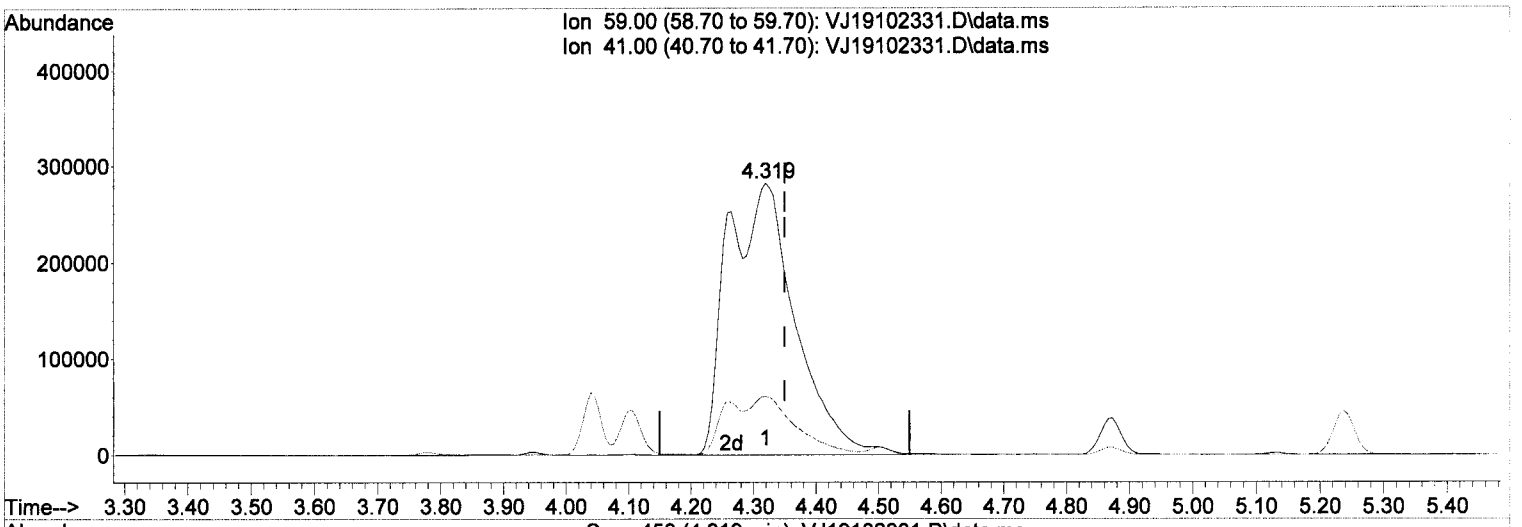
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	21.59#
0.00	0.00	0.00
0.00	0.00	0.00

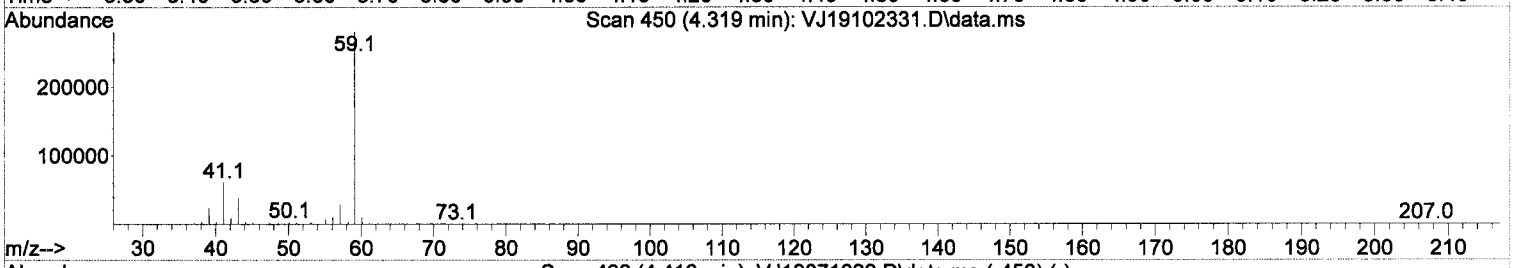
M.L.

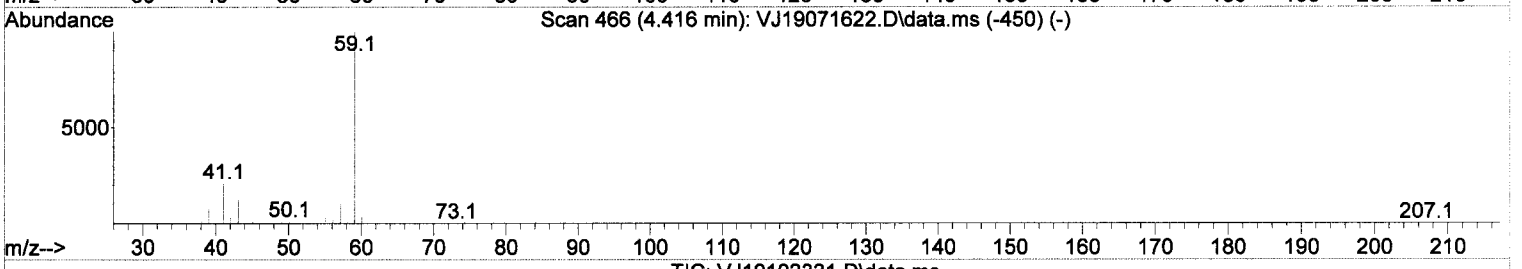
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102331.D\data.ms

(18) tert-Butanol (TBA)

4.319min (-0.030) 3230.41 ug/L m

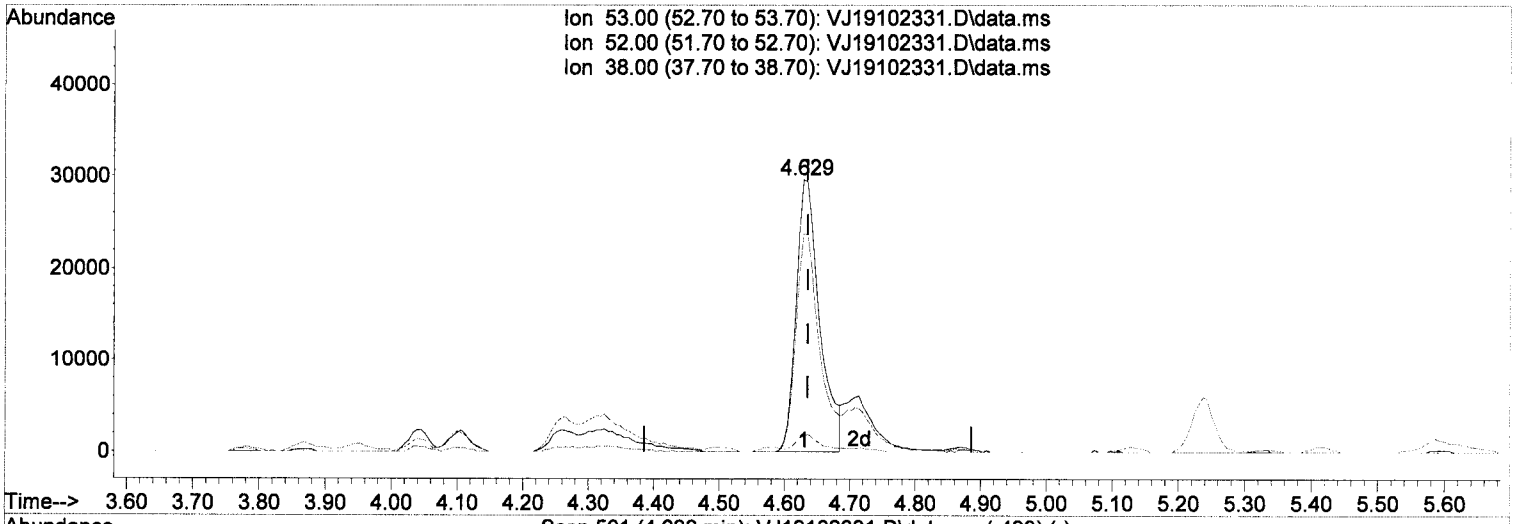
response 2117115

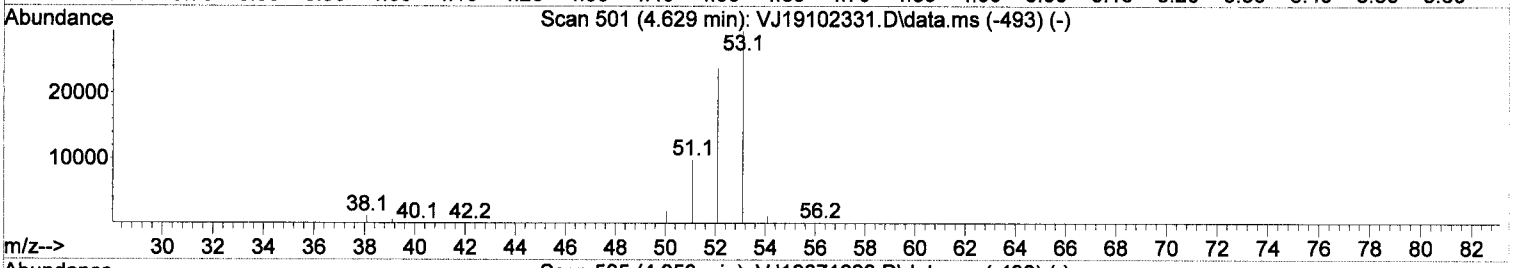
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	21.59#
0.00	0.00	0.00
0.00	0.00	0.00

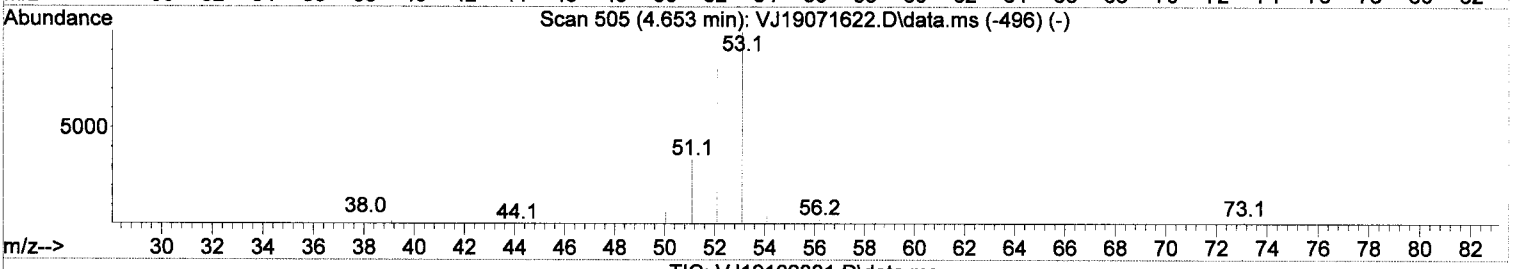
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102331.D\data.ms

(21) Acrylonitrile

4.629min (-0.006) 81.38 ug/L

response 74111

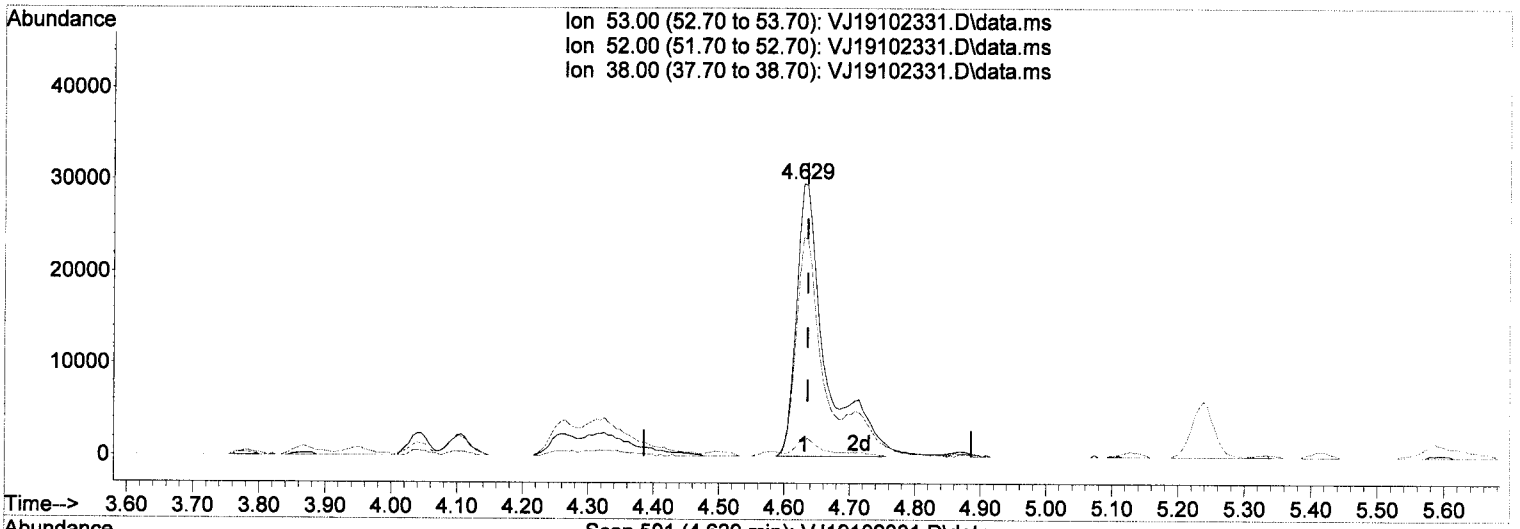
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	80.38
38.00	5.50	4.25
0.00	0.00	0.00

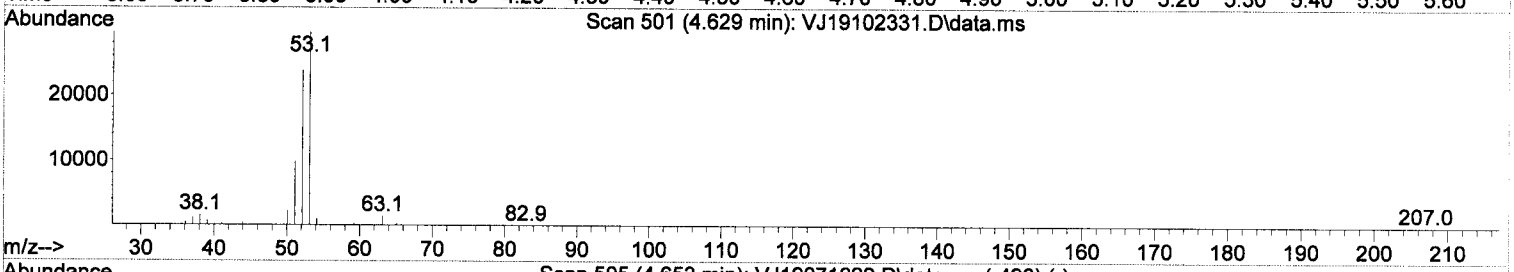
M2.

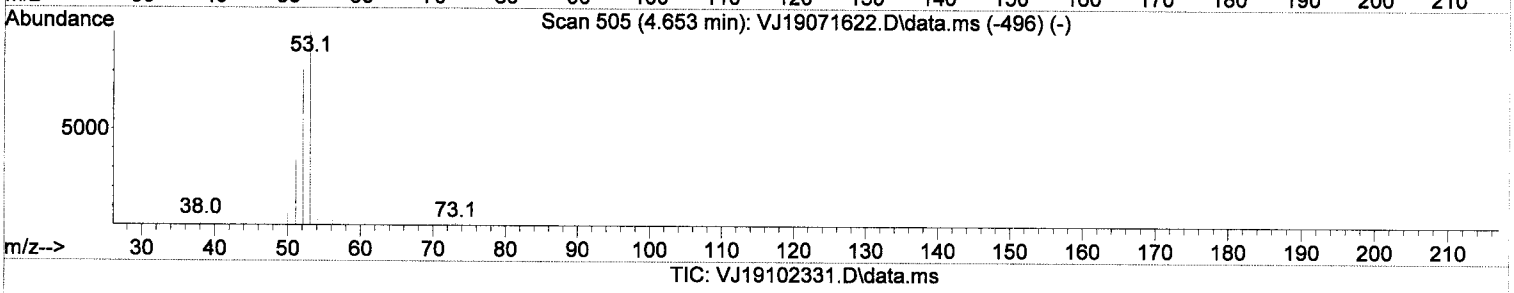
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102331.D\data.ms

(21) Acrylonitrile

4.629min (-0.006) 102.87 ug/L m

response 93684

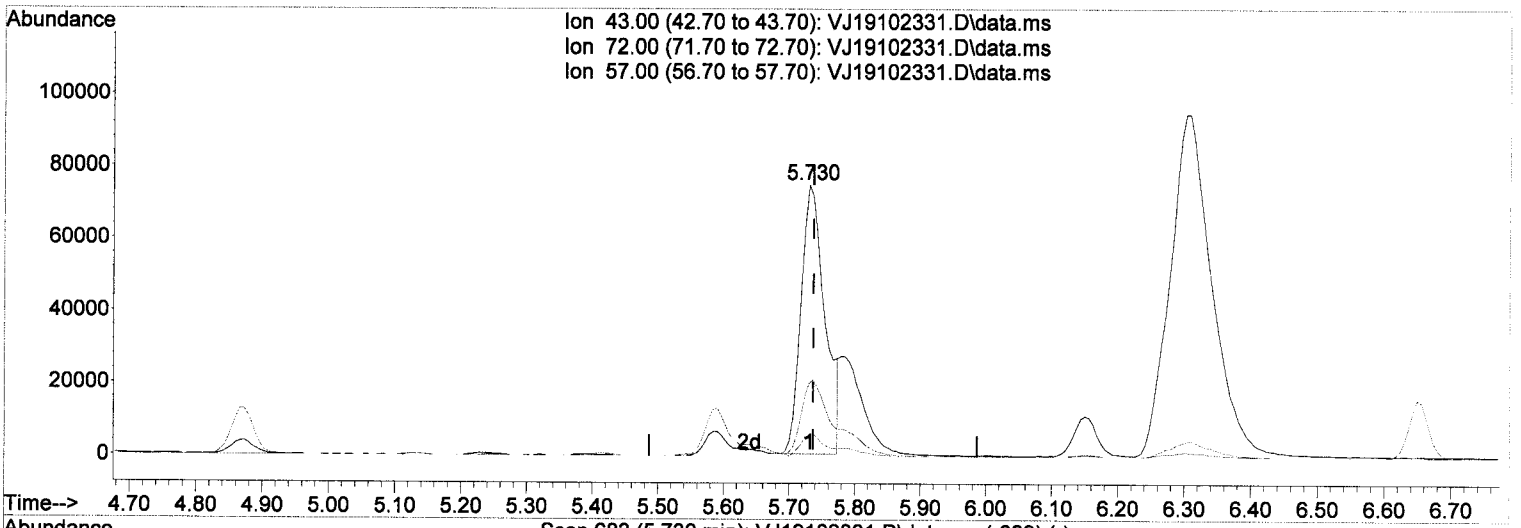
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	80.38
38.00	5.50	5.68
0.00	0.00	0.00

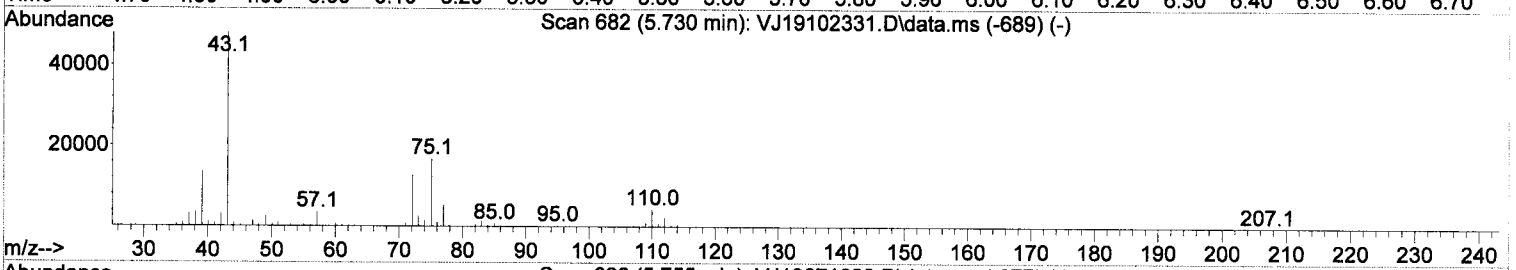
10/24/19

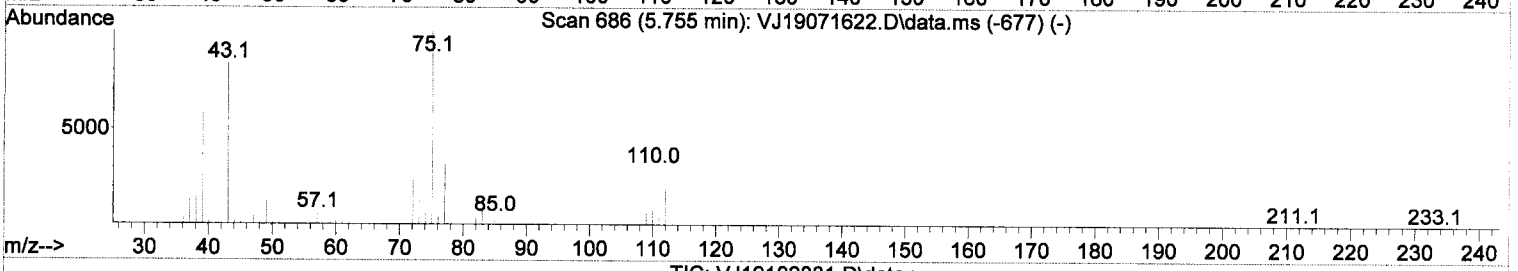
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102331.D\data.ms

(32) 2-Butanone (MEK)

5.730min (-0.006) 113.99 ug/L

response 189043

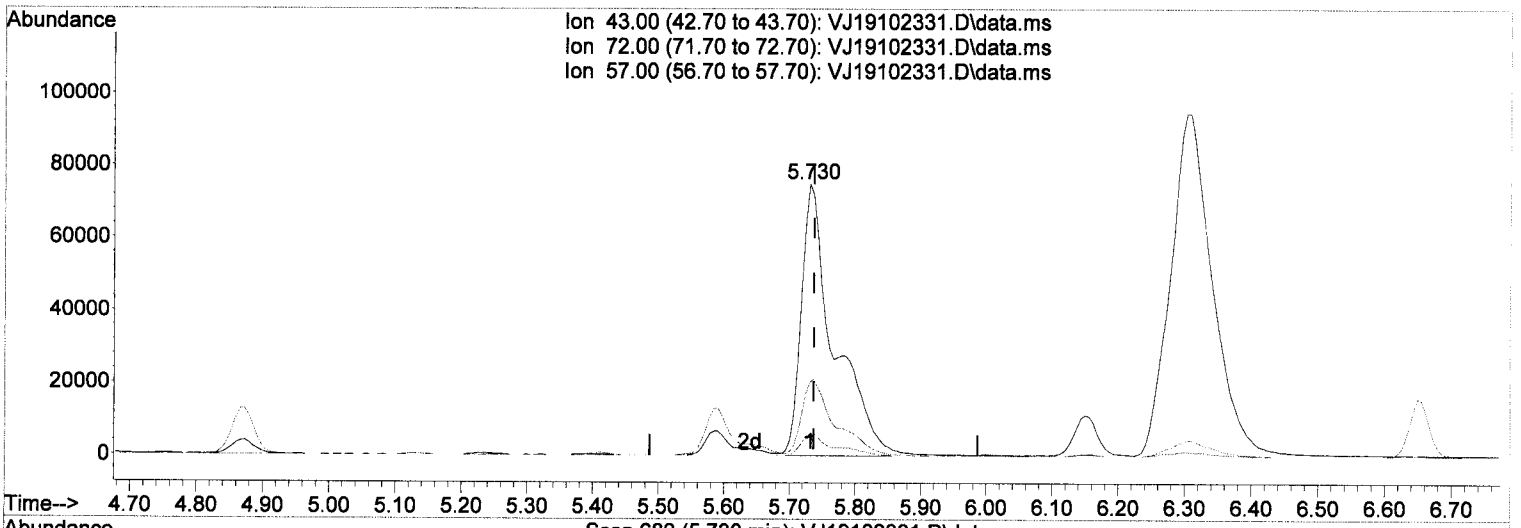
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	25.57
57.00	7.20	7.73
0.00	0.00	0.00

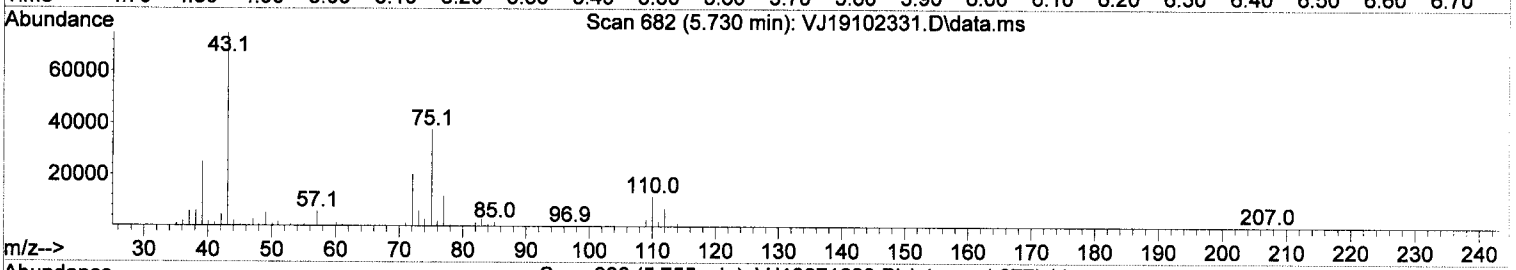
M.2.

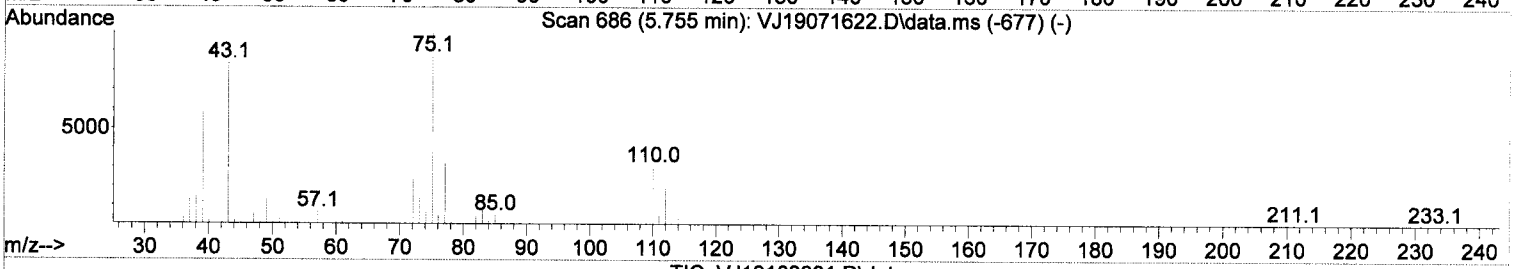
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102331.D\data.ms

(32) 2-Butanone (MEK)

5.730min (-0.006) 158.17 ug/L m

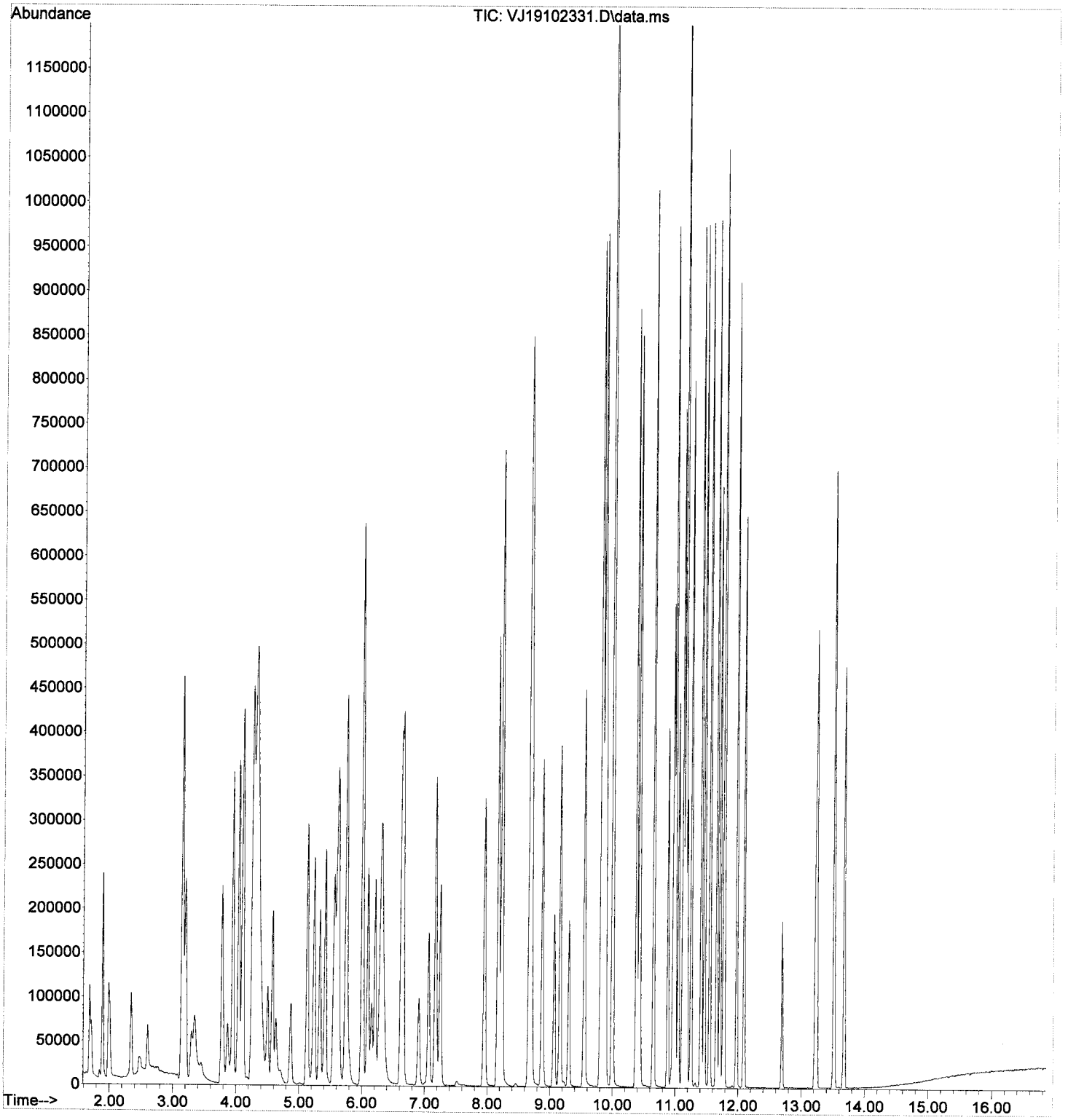
response 262305

Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	26.97
57.00	7.20	7.66
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102331.D
Acq On : 24 Oct 2019 1:53 am
Operator : MM
Sample : 9J23072-CAL9
Misc : 1X 5mL 50/100PPB VOC+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 24 08:14:06 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102332.D
Acq On : 24 Oct 2019 2:19 am
Operator : MM
Sample : 9J23072-IBL2
Misc : 1X 5mL DI+MeOH
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 24 09:41:13 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

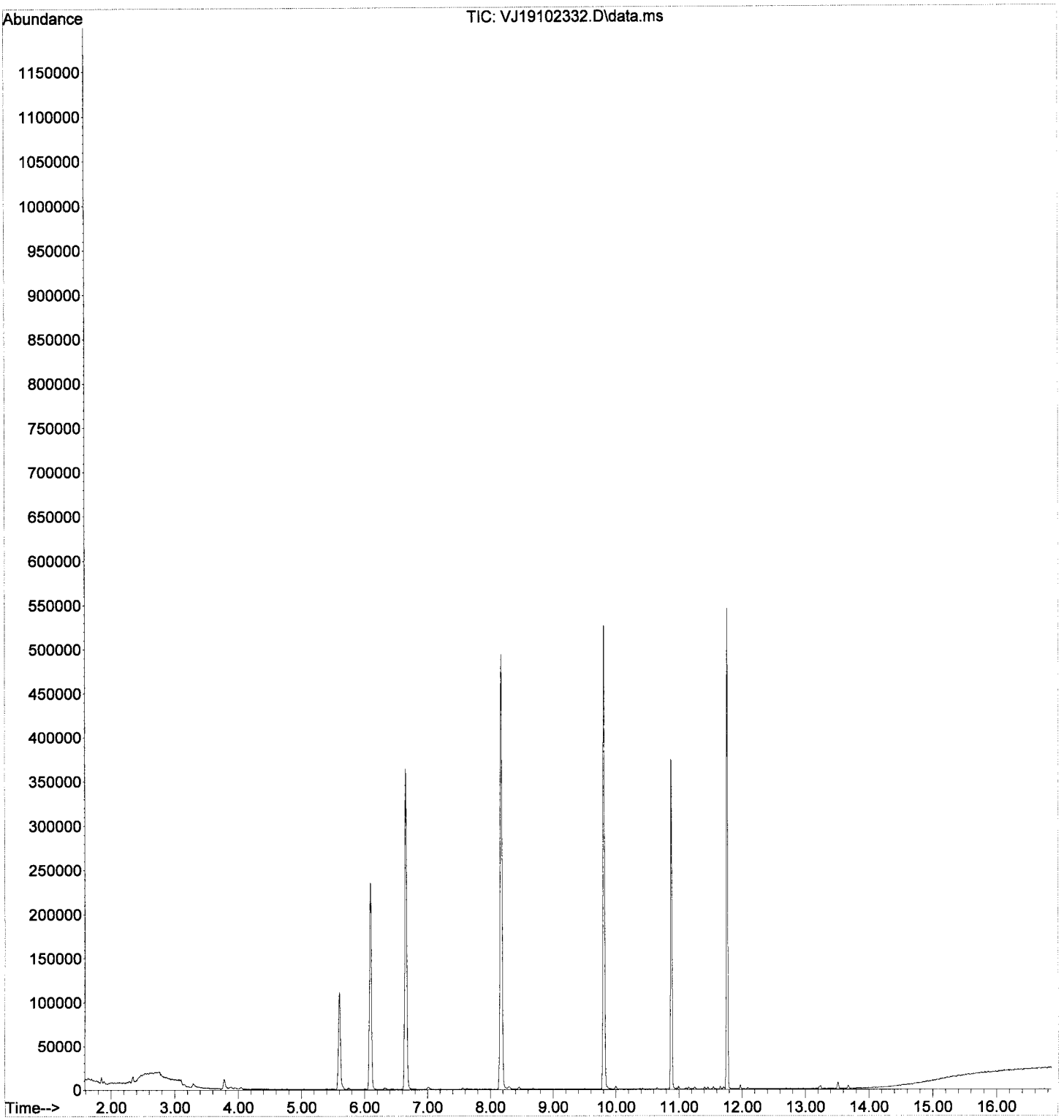
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	102386	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	273341	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	110048	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	78486	48.50	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	312478	49.61	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	385533	50.58	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	82617	51.99	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	208	0.09	ug/L	#	51
3) Chloromethane	1.892	50	3251	0.81	ug/L		95
5) Bromomethane	2.342	96	4006	0.77	ug/L		98
6) Chloroethane	2.451	64	166	1.62	ug/L	#	61
8) Ethanol	3.321	45	6089	Below Cal			89
10) Carbon Disulfide	3.157	76	2317	0.33	ug/L		81
12) Iodomethane	3.297	142	3655	4.71	ug/L		98
13) Methylene Chloride	3.784	84	5623	1.53	ug/L		95
14) Acetone	3.863	43	1912	1.22	ug/L		98
15) t-1,2-Dichloroethene	3.948	61	589	0.15	ug/L		96
28) Tetrahydrofuran	5.596	42	569	0.27	ug/L	#	30
31) 1,1-Dichloropropene	5.749	75	547	0.14	ug/L	#	39
32) 2-Butanone (MEK)	5.749	43	1103	0.40	ug/L		52
36) iso-Butyl Alcohol	6.314	43	838	2.66	ug/L		90
47) Tetrachloroethene (PCE)	8.681	166	303	0.13	ug/L	#	74
55) Chlorobenzene	9.825	112	617	0.08	ug/L	#	15
56) Ethylbenzene	9.855	91	1295	0.10	ug/L		93
58) m,p-Xylenes (2)	9.995	91	2069	0.23	ug/L		92
60) Styrene	10.421	104	326	0.22	ug/L		69
62) Isopropylbenzene	10.658	105	1144	0.11	ug/L		82
65) Bromobenzene	10.968	156	205	0.09	ug/L	#	72
66) n-Propylbenzene	10.999	91	2329	0.19	ug/L		92
68) 2-Chlorotoluene	11.120	126	217	0.10	ug/L	#	77
69) 1,3,5-Trimethylbenzene	11.157	105	1216	0.17	ug/L		82
72) 4-Chlorotoluene	11.254	91	1302	0.19	ug/L		74
73) tert-Butylbenzene	11.406	91	562	0.13	ug/L	#	68
74) 1,2,4-Trimethylbenzene	11.461	105	1149	0.15	ug/L		88
75) sec-Butylbenzene	11.546	105	1742	0.19	ug/L		85
76) 4-Isopropyltoluene	11.656	119	1548	0.22	ug/L		87
77) 1,3-Dichlorobenzene	11.711	146	866	0.21	ug/L		86
78) 1,4-Dichlorobenzene	11.777	146	1142	0.26	ug/L	#	74
79) n-Butylbenzene	11.972	91	2418	0.35	ug/L		92
80) 1,2-Dichlorobenzene	12.088	146	623	0.16	ug/L		86
82) Hexachlorobutadiene	13.219	223	222	0.46	ug/L	#	84
83) 1,2,4-Trichlorobenzene	13.244	180	1195	0.52	ug/L		95
84) Naphthalene	13.511	128	5712	0.70	ug/L		91
85) 1,2,3-Trichlorobenzene	13.676	180	1273	0.57	ug/L		94

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102332.D
Acq On : 24 Oct 2019 2:19 am
Operator : MM
Sample : 9J23072-IBL2
Misc : 1X 5mL DI+MeOH
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 24 09:41:13 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



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102333.D
Acq On : 24 Oct 2019 2:46 am
Operator : MM
Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	109942	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	294436	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	135112	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.602	111	87982	59.20	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	338746	71.15	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	411311	51.45	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	93929	45.31	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	259035	95.72	ug/L		99
3) Chloromethane	1.898	50	397217	135.02	ug/L		99
4) Vinyl Chloride	1.995	62	313932	119.18	ug/L		96
5) Bromomethane	2.348	96	123566	114.51	ug/L		99
6) Chloroethane	2.494	64	47113	39.45	ug/L		97
7) Trichlorofluoromethane	2.609	101	77408	20.70	ug/L		100
8) Ethanol	3.351	45	449287	7430.86	ug/L		91
9) 1,1-Dichloroethene	3.145	61	396303	118.63	ug/L		91
10) Carbon Disulfide	3.157	76	748104	179.86	ug/L		98
11) Freon 113	3.205	101	250927	167.52	ug/L		87
12) Iodomethane	3.297	142	117106	150.44	ug/L		90
13) Methylene Chloride	3.783	84	249850	154.91	ug/L		93
14) Acetone	3.869	43	~~219265~~	180.51	ug/L		96 308333
15) t-1,2-Dichloroethene	3.954	61	416493	138.32	ug/L		98
16) n-Hexane	4.045	86	69515	194.60	ug/L	#	71
17) Methyl-tert-butyl-ether	4.106	73	1020787	124.64	ug/L		97
18) tert-Butanol (TBA)	4.325	59	~~2773547~~	3888.55	ug/L	#	86 443802
19) Diisopropyl ether (DIPE)	4.507	45	200708	25.51	ug/L		94
20) 1,1-Dichloroethane	4.580	63	436977	126.37	ug/L		99
21) Acrylonitrile	4.635	53	~~147629~~	154.84	ug/L		97 195553
22) Ethyl-tert-butyl ether...	4.872	59	180440	23.12	ug/L		95
23) c-1,2-Dichloroethene	5.134	61	410212	125.83	ug/L		98
24) 2,2-Dichloropropane	5.243	77	411005	107.61	ug/L		99
25) Bromochloromethane	5.329	49	249374	137.73	ug/L		80
26) Chloroform	5.420	83	483892	114.50	ug/L		96
27) Carbon Tetrachloride	5.560	117	354527	101.38	ug/L		95
28) Tetrahydrofuran	5.590	42	~~162789~~	141.19	ug/L		98 204078
29) 1,1,1-Trichloroethane	5.621	97	466945	112.20	ug/L		98
31) 1,1-Dichloropropene	5.754	75	445742	137.64	ug/L		95
32) 2-Butanone (MEK)	5.736	43	~~360862~~	207.84	ug/L		99 557729
33) Benzene	6.004	78	1359633	162.71	ug/L		100
34) tert-Amyl methyl ether...	6.156	73	167834	21.68	ug/L		96
35) 1,2-Dichloroethane (EDC)	6.211	62	434140	90.85	ug/L		99
36) iso-Butyl Alcohol	6.308	43	909010	5047.15	ug/L		98
38) Trichloroethene (TCE)	6.624	130	292620	137.56	ug/L		96
39) tert-Amyl ethyl ether ...	6.904	59	133080	23.27	ug/L		89
40) Dibromomethane	7.062	93	179023	127.12	ug/L	#	84
41) 1,2-Dichloropropane	7.172	63	350522	160.69	ug/L		96
42) Bromodichloromethane	7.251	83	400178	124.87	ug/L		98
44) c-1,3-Dichloropropene	7.951	75	509437	112.52	ug/L		97
46) Toluene	8.230	91	1343640	110.82	ug/L		99
47) Tetrachloroethene (PCE)	8.681	166	275505	112.53	ug/L		91
48) 4-Methyl-2-Pentanone (...	8.675	43	950533	241.43	ug/L		96

Quantitation Report (Not Reviewed)

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Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	481174	99.42	ug/L		96
50) 1,1,2-Trichloroethane	8.881	97	282770	109.51	ug/L		98
51) Dibromochloromethane	9.070	129	256674	93.89	ug/L		99
52) 1,3-Dichloropropane	9.161	76	523949	100.70	ug/L		99
53) 1,2-Dibromoethane (EDB)	9.301	107	289923	106.28	ug/L		99
54) 2-Hexanone	9.545	43	720460	242.97	ug/L		98
55) Chlorobenzene	9.824	112	776195	106.12	ug/L		96
56) Ethylbenzene	9.861	91	1432837	102.66	ug/L		99
57) 1,1,1,2-Tetrachloroethane	9.885	131	268092	96.65	ug/L		98
58) m,p-Xylenes (2)	9.995	91	2158981	201.99	ug/L		98
59) o-Xylene	10.378	91	1054003	99.24	ug/L		96
60) Styrene	10.421	104	801932	120.43	ug/L		98
61) Bromoform	10.439	173	181310	92.74	ug/L		97
62) Isopropylbenzene	10.652	105	1303605	106.28	ug/L		97
65) Bromobenzene	10.968	156	273427	106.29	ug/L	#	81
66) n-Propylbenzene	10.999	91	1532146	103.39	ug/L		97
67) 1,1,2,2-Tetrachloroethane	11.047	83	412177	131.71	ug/L		97
68) 2-Chlorotoluene	11.120	126	274790	108.64	ug/L		89
69) 1,3,5-Trimethylbenzene	11.157	105	1011802	100.32	ug/L		95
70) 1,2,3-Trichloropropane	11.151	110	134120	99.54	ug/L		91
71) t-1,4-Dichloro-2-butene	11.187	88	61632	94.37	ug/L		92
72) 4-Chlorotoluene	11.248	91	888249	97.03	ug/L		93
73) tert-Butylbenzene	11.406	91	578812	88.19	ug/L		90
74) 1,2,4-Trimethylbenzene	11.461	105	1005539	98.57	ug/L		97
75) sec-Butylbenzene	11.546	105	1269236	107.09	ug/L		96
76) 4-Isopropyltoluene	11.656	119	1010639	101.32	ug/L		97
77) 1,3-Dichlorobenzene	11.710	146	503820	100.77	ug/L		96
78) 1,4-Dichlorobenzene	11.777	146	508874	105.36	ug/L		95
79) n-Butylbenzene	11.972	91	927051	100.71	ug/L		95
80) 1,2-Dichlorobenzene	12.094	146	463375	100.38	ug/L		98
81) 1,2-Dibromo-3-Chloropr...	12.696	157	90298	123.10	ug/L		70
82) Hexachlorobutadiene	13.219	223	61067	84.34	ug/L		94
83) 1,2,4-Trichlorobenzene	13.243	180	290565	100.30	ug/L		96
84) Naphthalene	13.517	128	1129820	117.98	ug/L		99
85) 1,2,3-Trichlorobenzene	13.675	180	281123	101.50	ug/L		98

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

Quantitation Report (Qedit)

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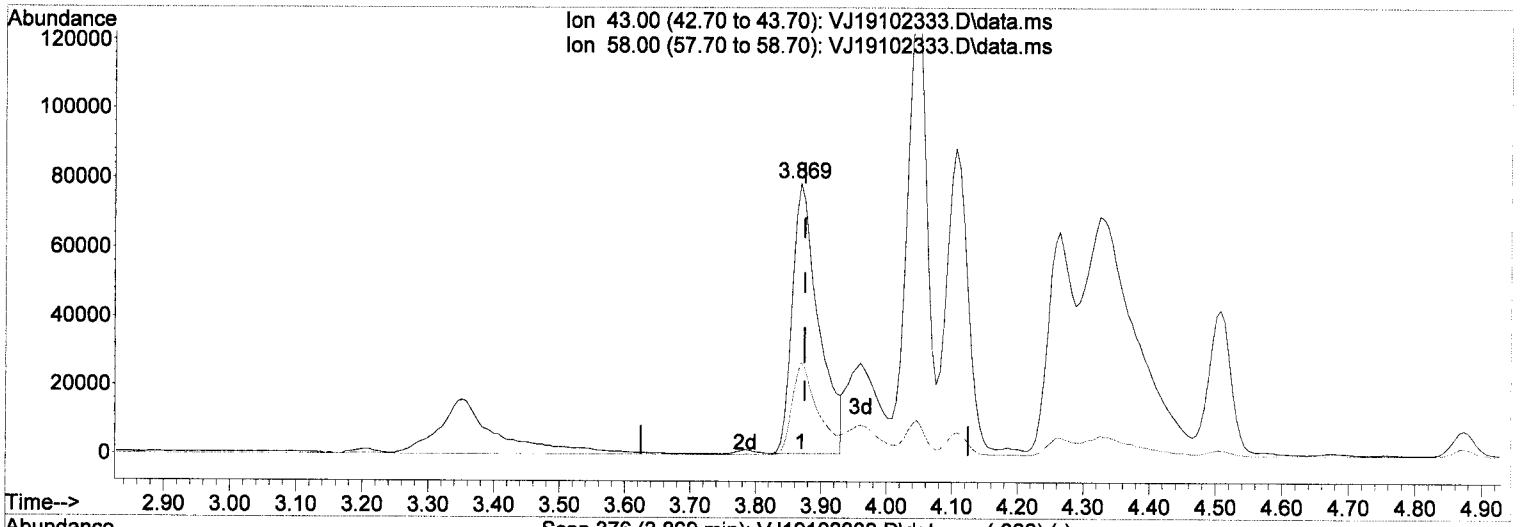
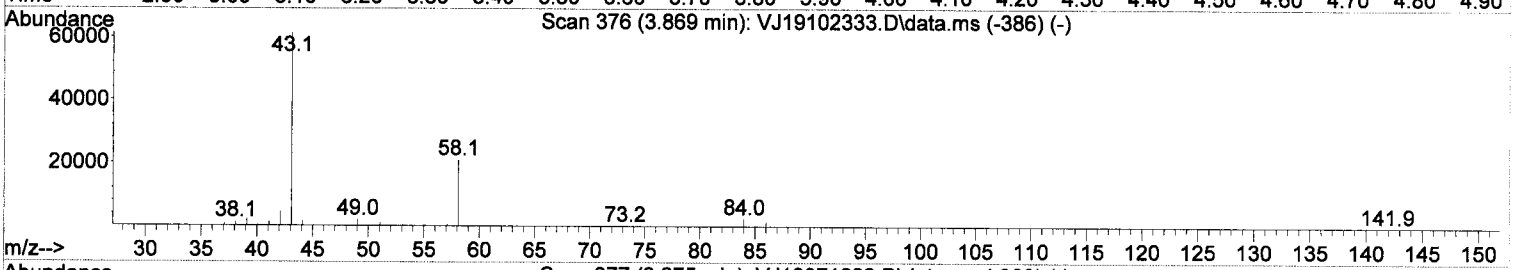
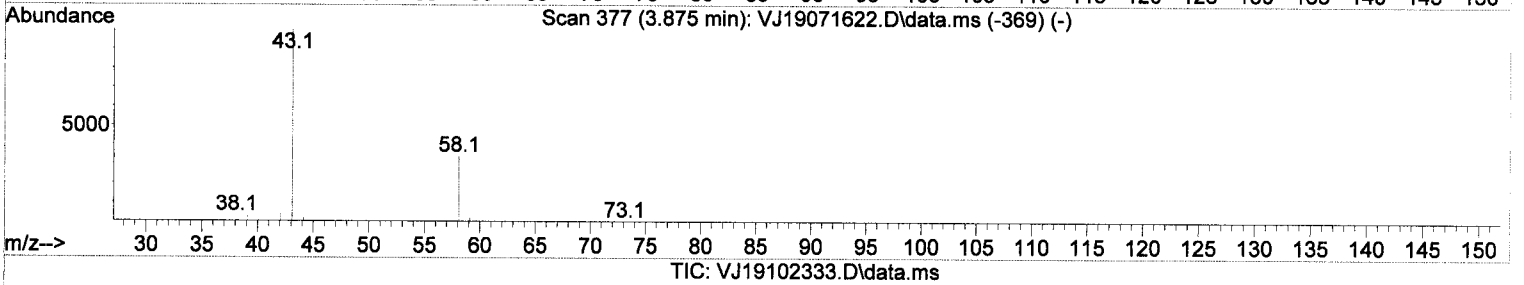
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102333.D\data.ms

(14) Acetone

3.869min (-0.005) 180.51 ug/L

response 219265

M.2.

Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	34.49
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

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QLast Update : Fri Oct 18 10:09:40 2019
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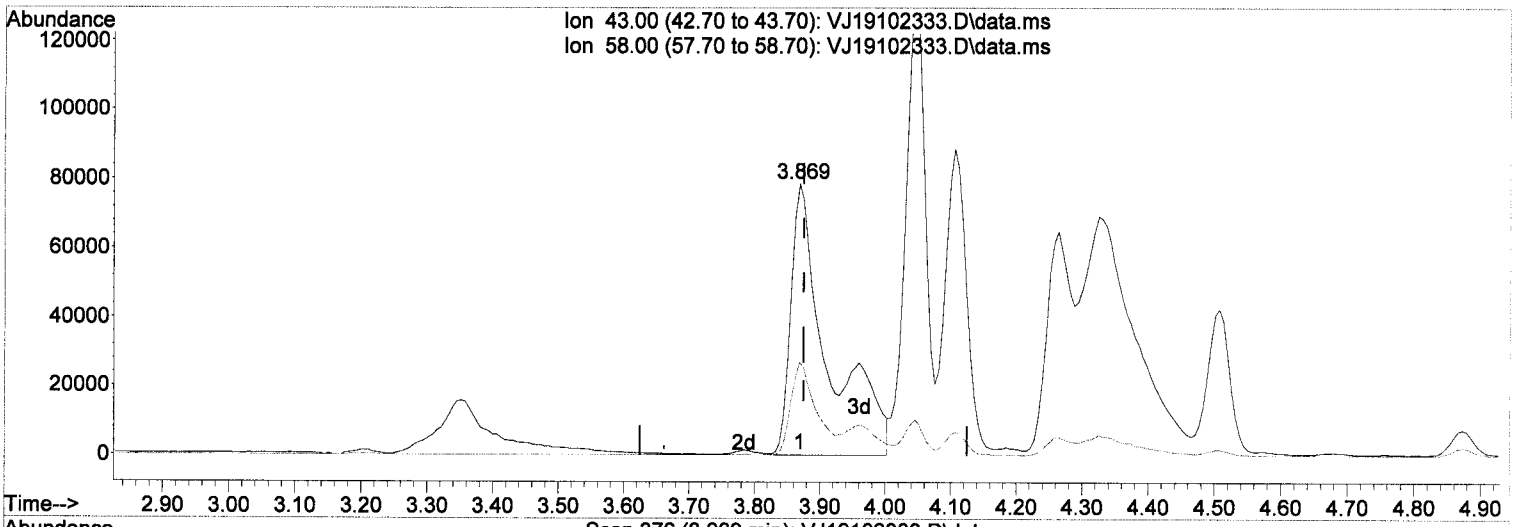

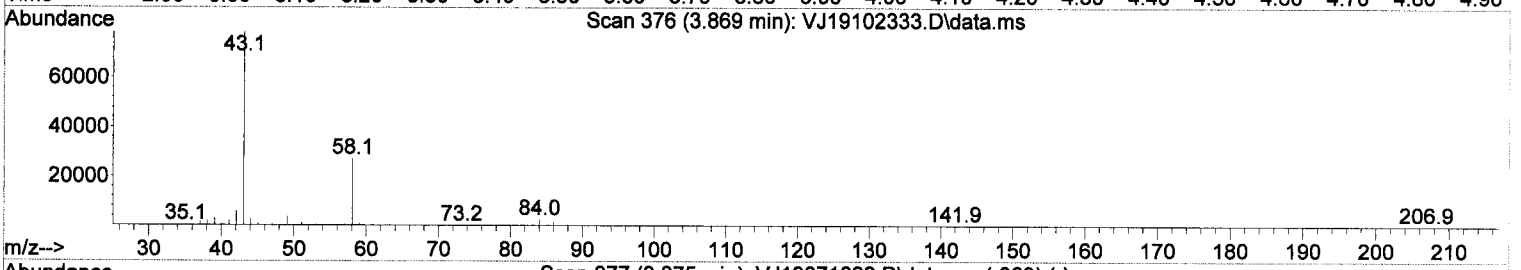

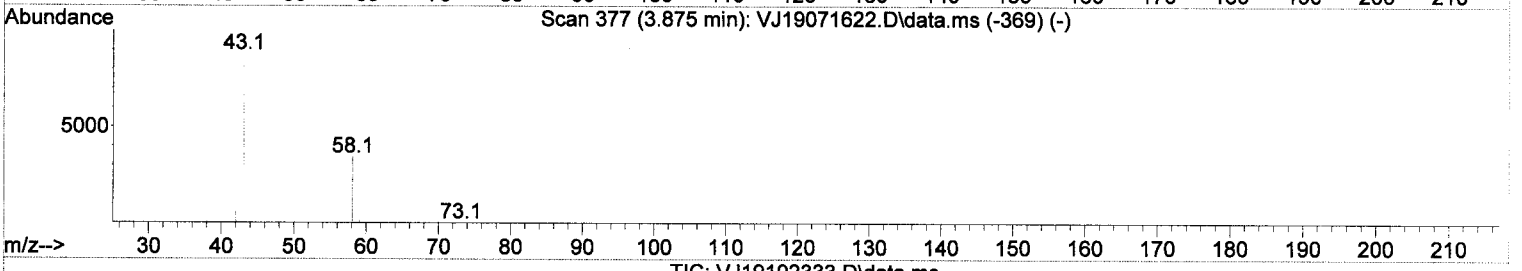

TIC: VJ19102333.D\data.ms

(14) Acetone

3.869min (-0.005) 253.83 ug/L m

response 308333

Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	34.33
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
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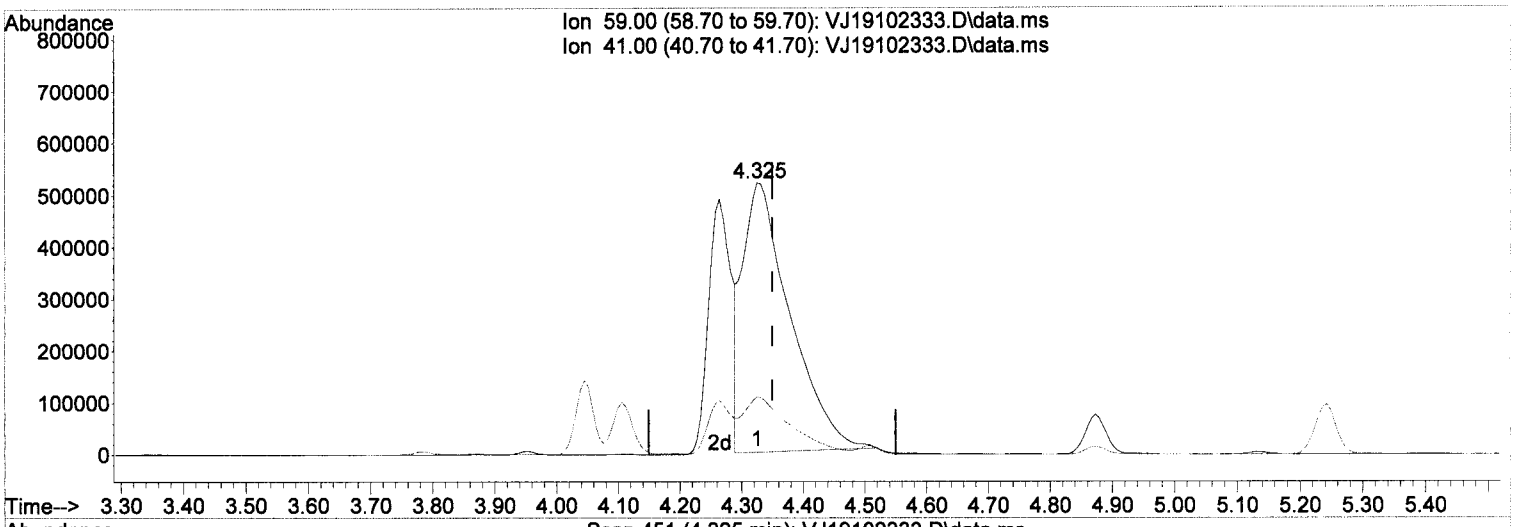

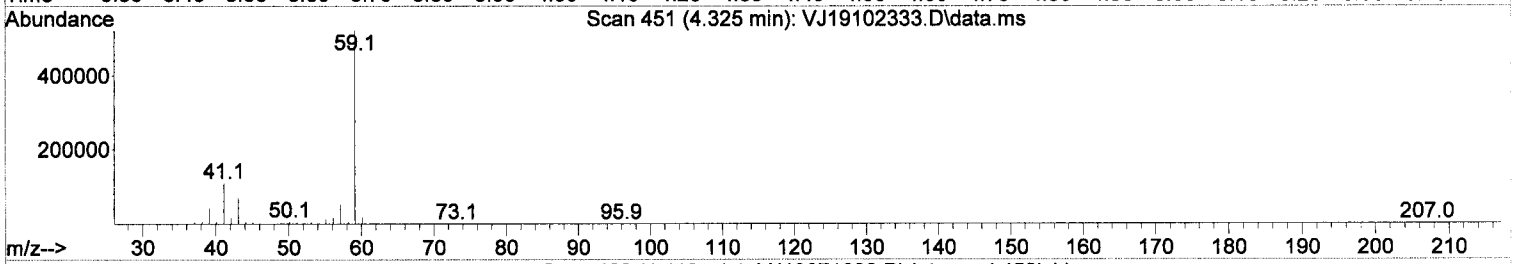

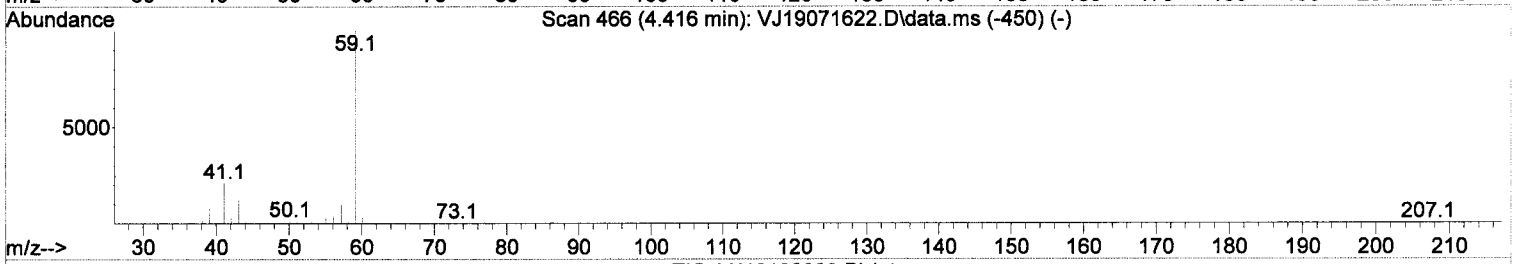

TIC: VJ19102333.D\data.ms

(18) tert-Butanol (TBA)

4.325min (-0.024) 3888.55 ug/L

response 2773547

Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	21.18#
0.00	0.00	0.00
0.00	0.00	0.00

M.2.

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
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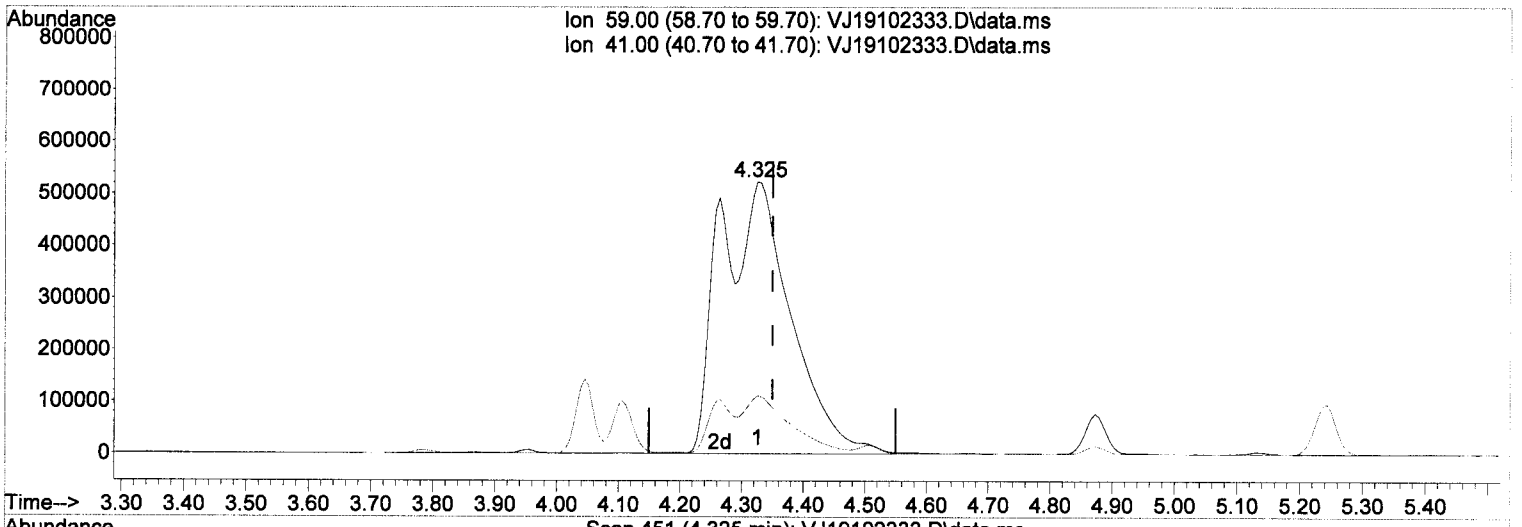

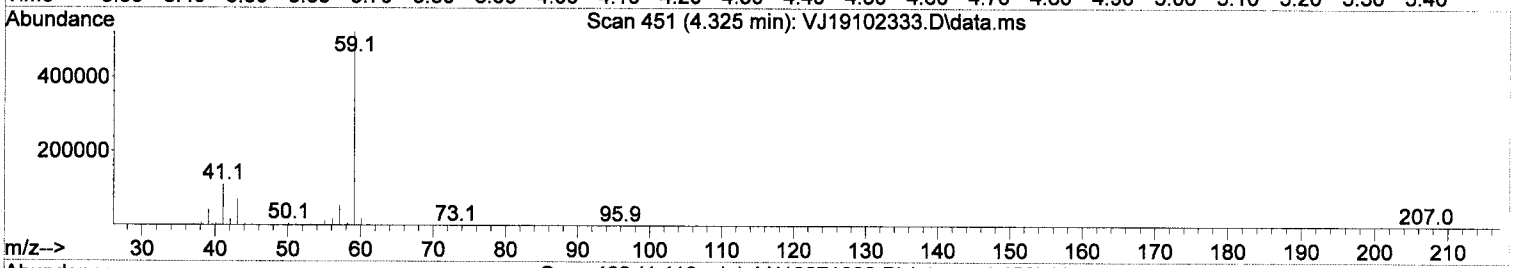

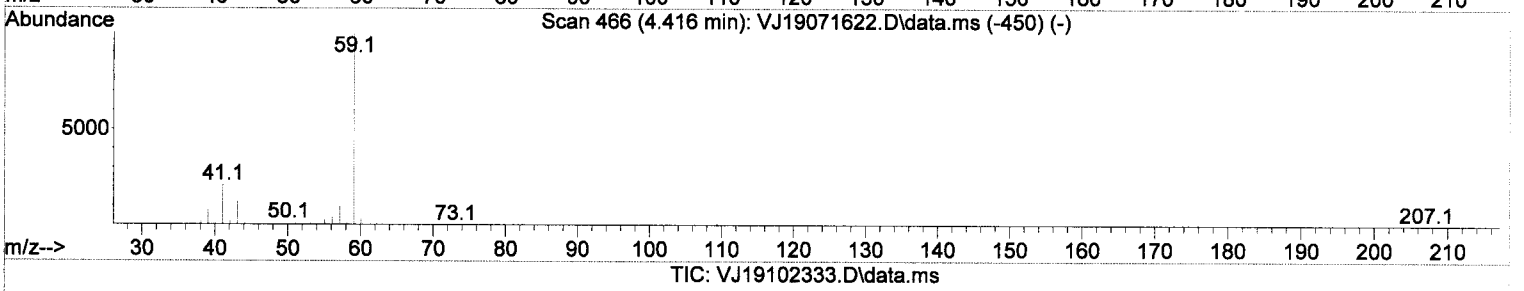

TIC: VJ19102333.D\data.ms

(18) tert-Butanol (TBA)

4.325min (-0.024) 5356.48 ug/L m

response 4143802

Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	21.18#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

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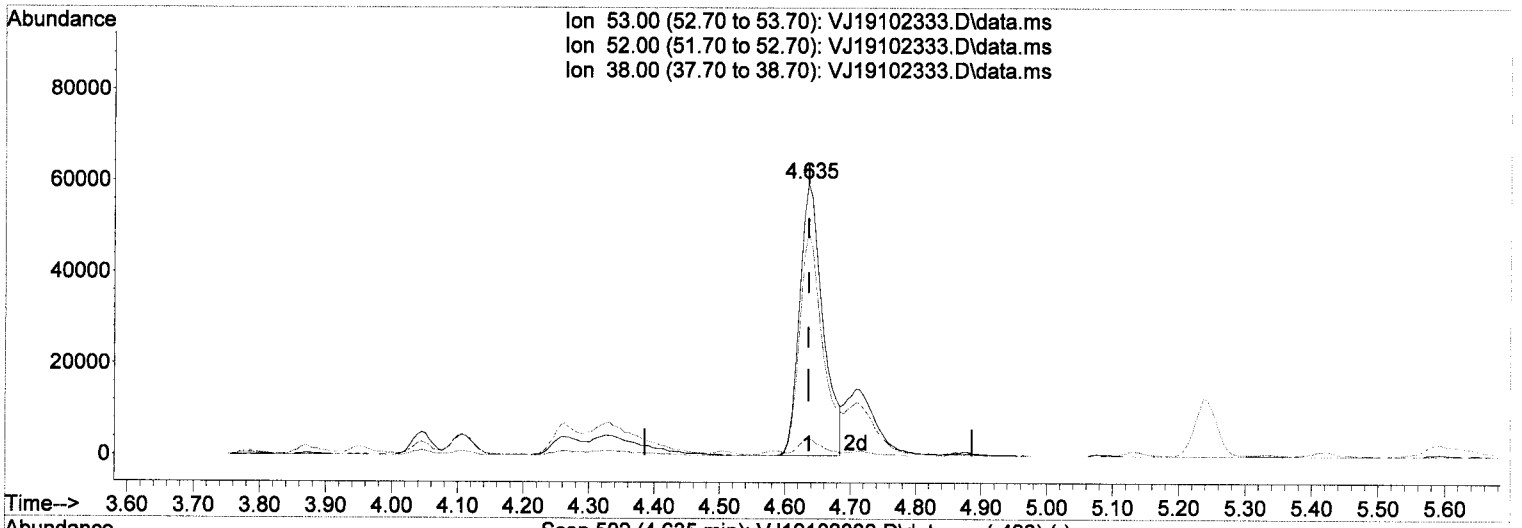

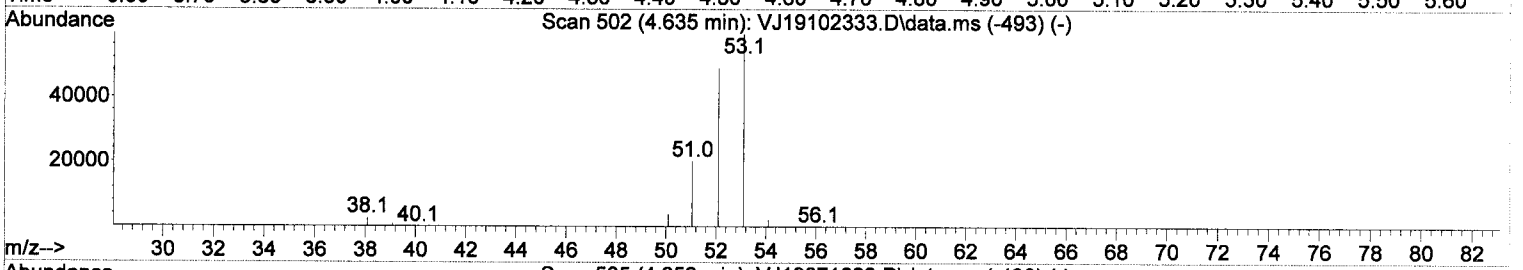

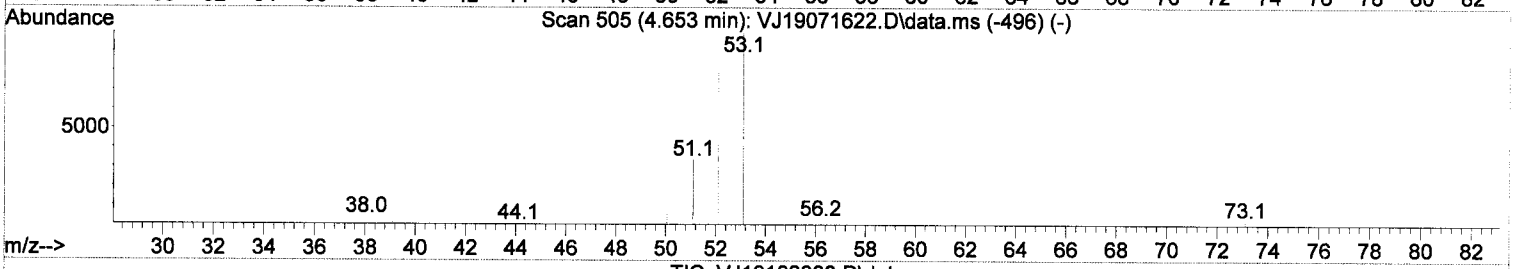

TIC: VJ19102333.D\data.ms

(21) Acrylonitrile

4.635min (+ 0.000) 154.84 ug/L

response 147629

Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	82.06
38.00	5.50	5.06
0.00	0.00	0.00

M.2.

Quantitation Report (Qedit)

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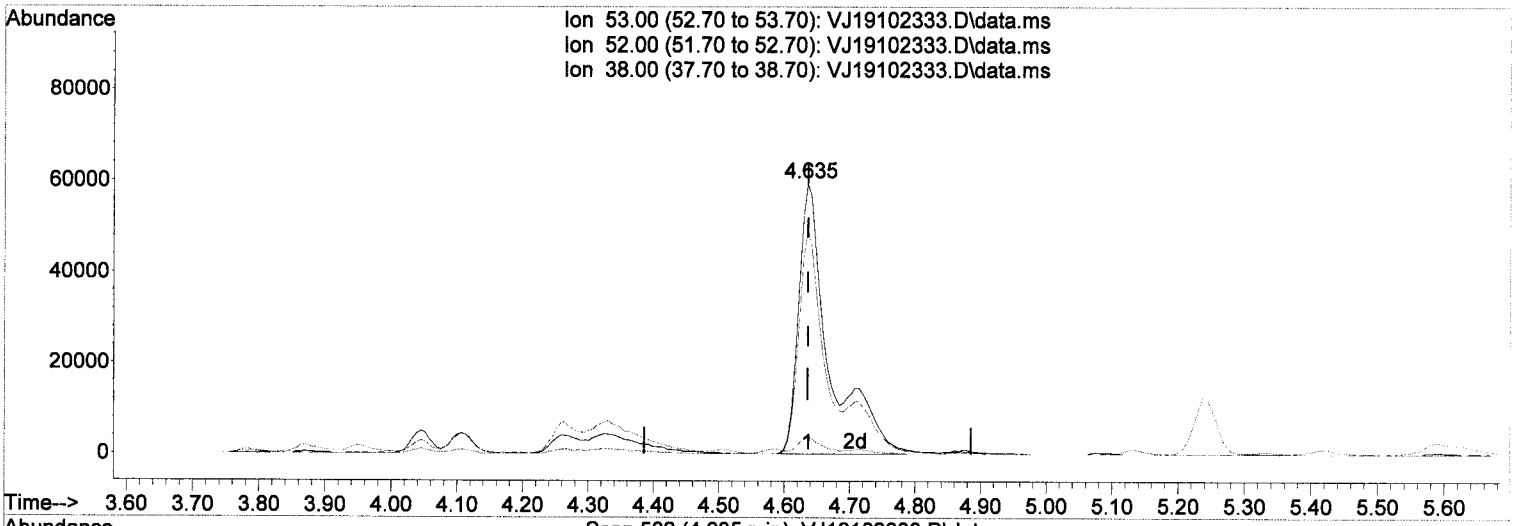

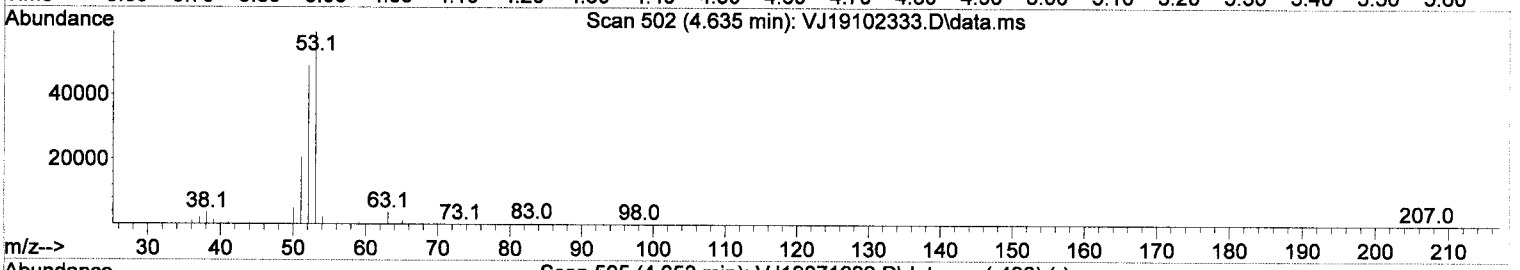

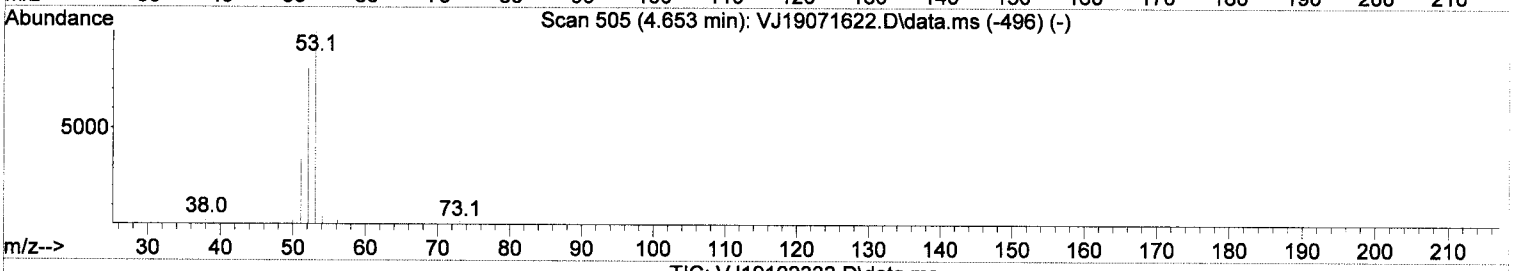

TIC: VJ19102333.D\data.ms

(21) Acrylonitrile

4.635min (+ 0.000) 205.11 ug/L m

response 195553

Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	82.06
38.00	5.50	6.20
0.00	0.00	0.00

Quantitation Report (Qedit)

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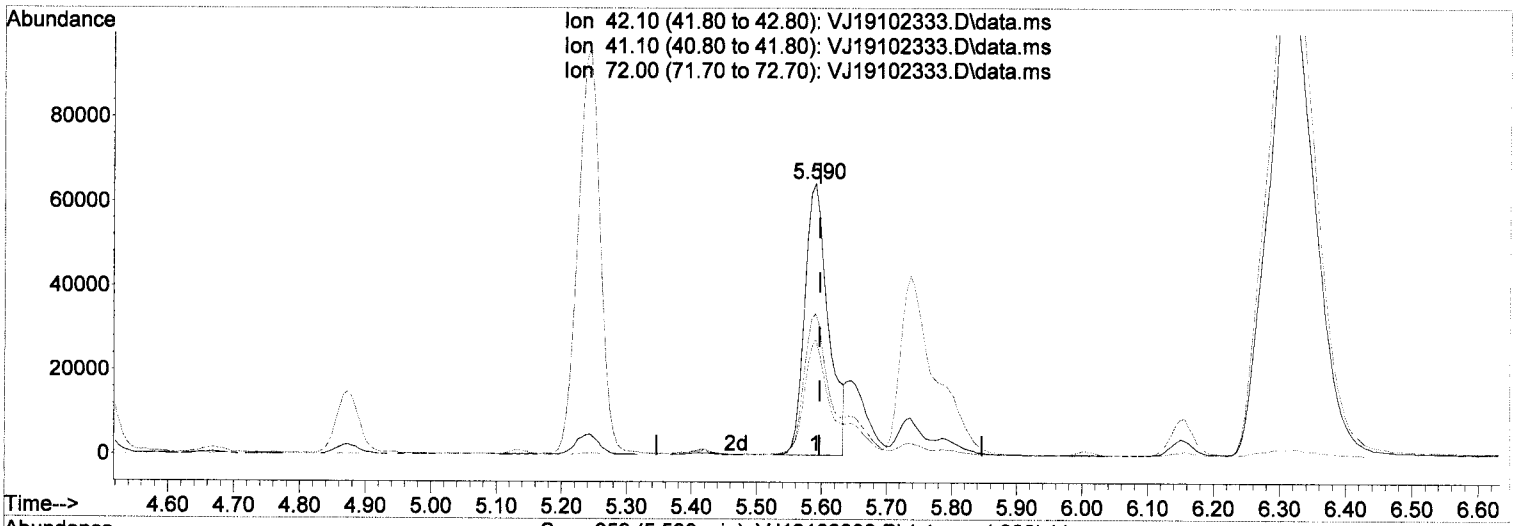
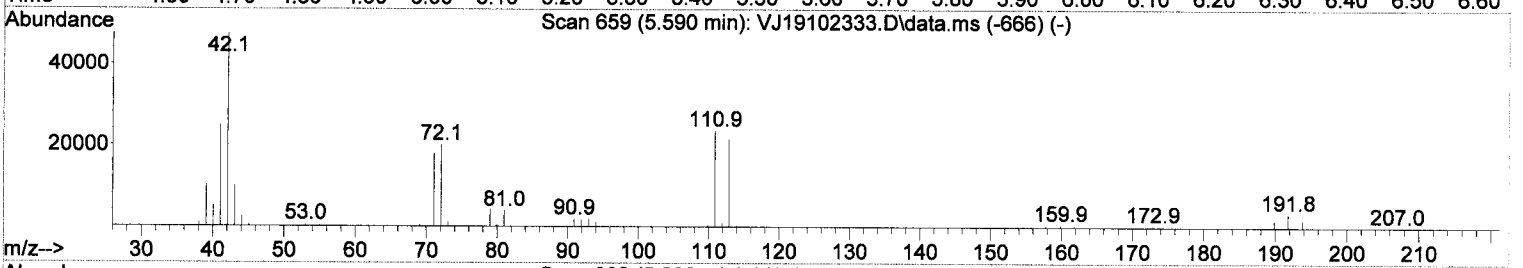
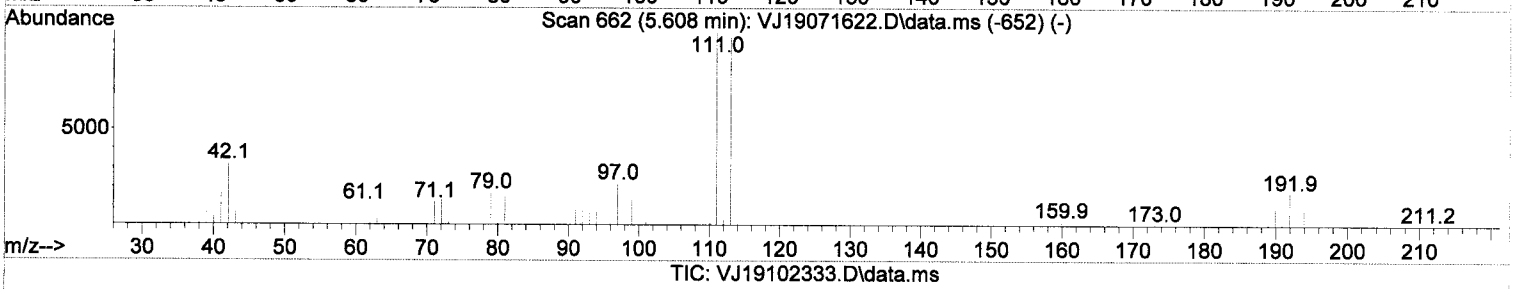
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102333.D\data.ms

(28) Tetrahydrofuran

5.590min (-0.006) 141.19 ug/L

response 162789

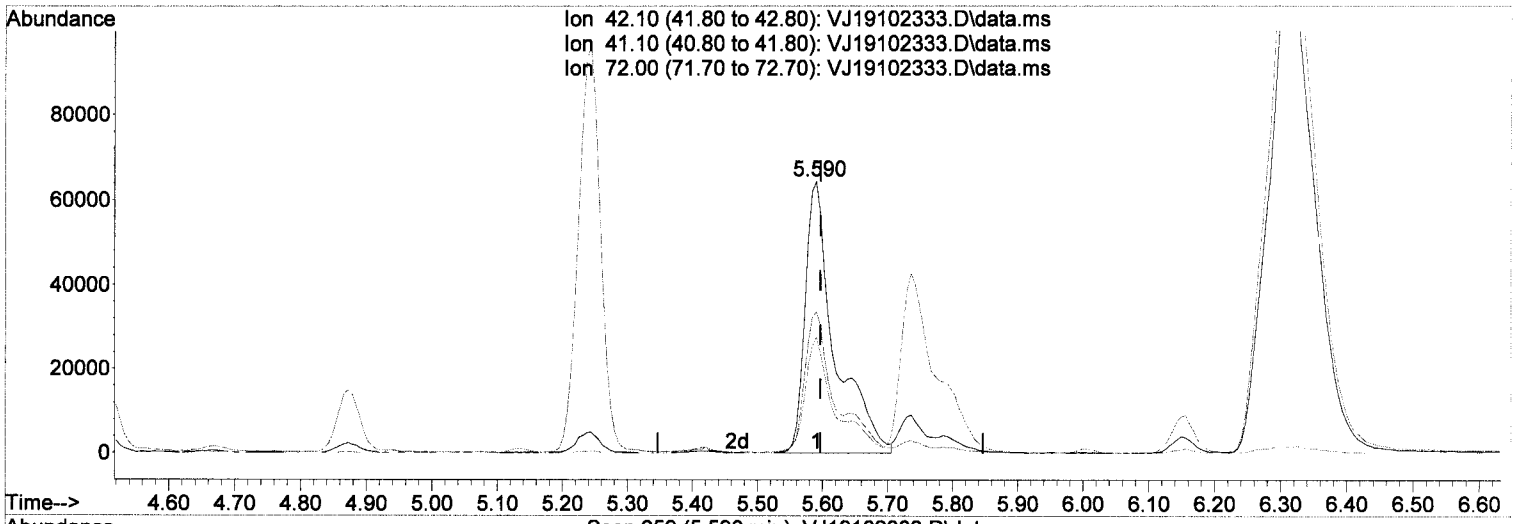
Ion	Exp%	Act%
42.10	100.00	100.00
41.10	52.70	51.87
72.00	40.40	42.79
0.00	0.00	0.00

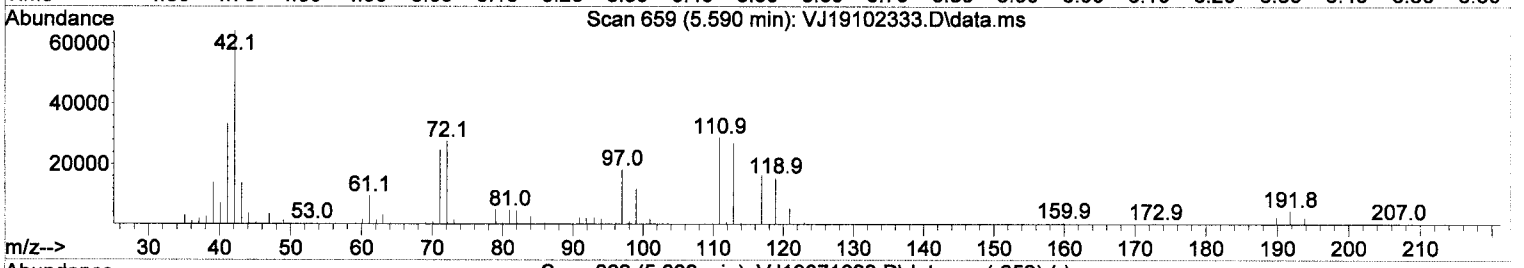
M.2.

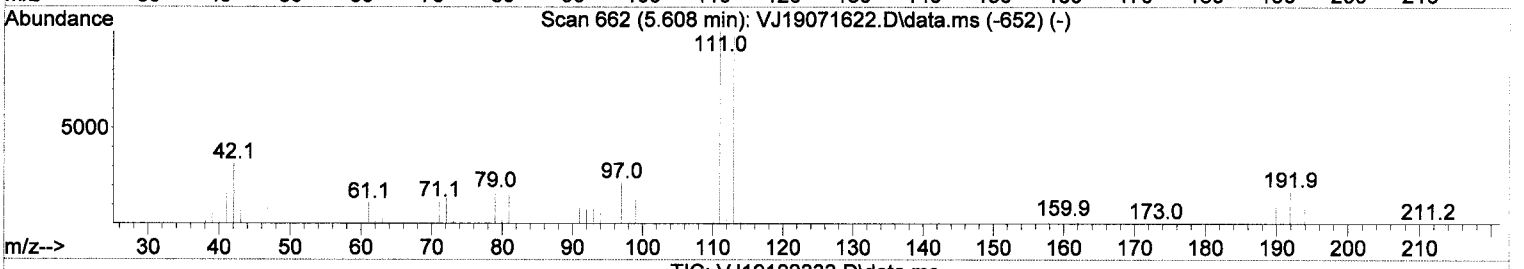
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102333.D
Acq On : 24 Oct 2019 2:46 am
Operator : MM
Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102333.D\data.ms

(28) Tetrahydrofuran

5.590min (-0.006) 177.00 ug/L m

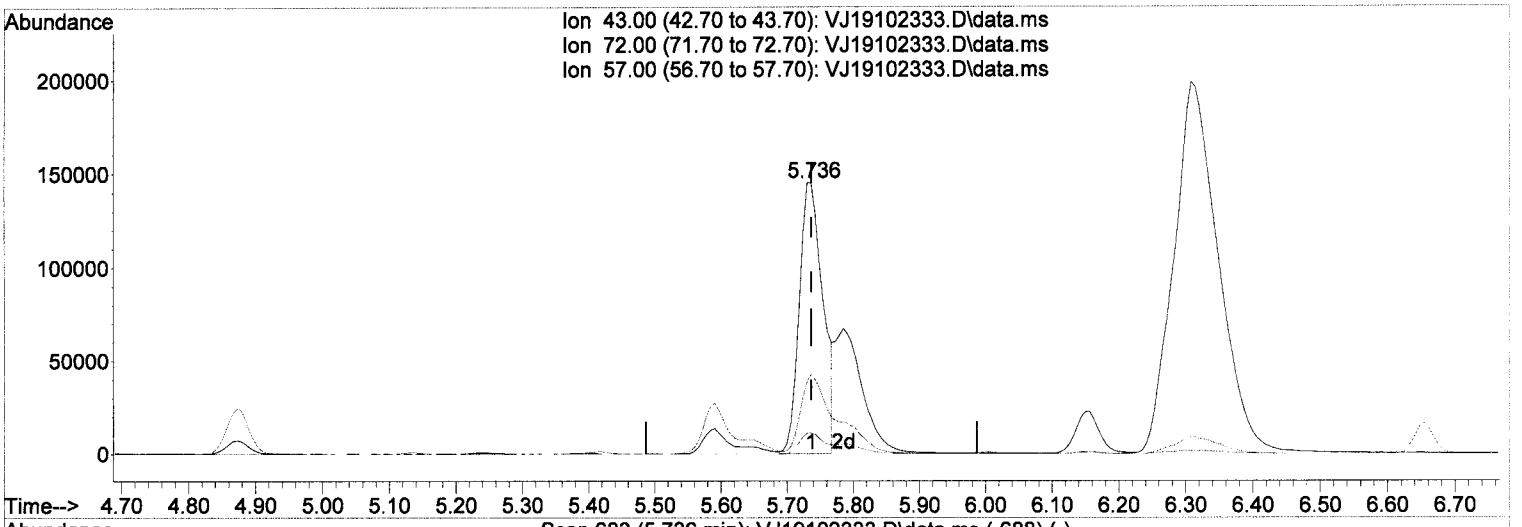
response 204078

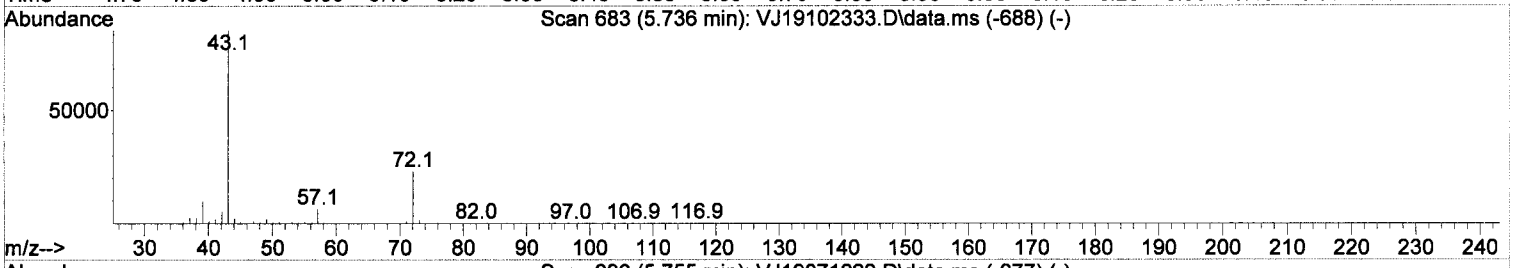
Ion	Exp%	Act%
42.10	100.00	100.00
41.10	52.70	52.22
72.00	40.40	42.79
0.00	0.00	0.00

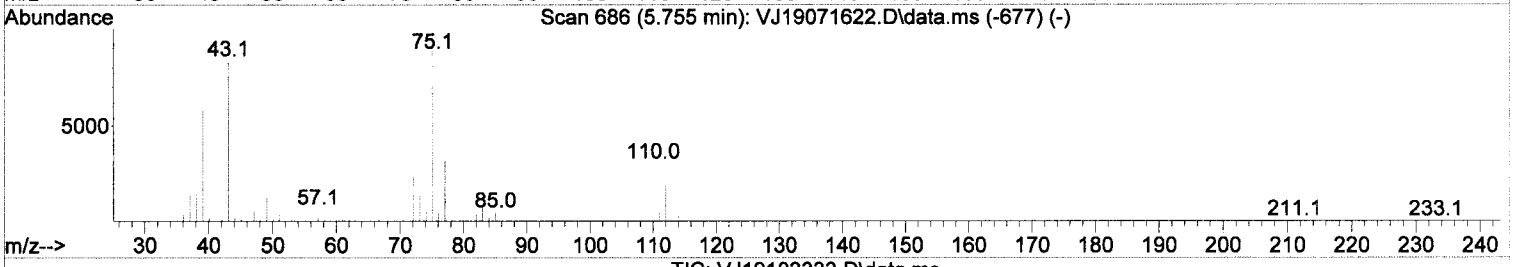
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102333.D
Acq On : 24 Oct 2019 2:46 am
Operator : MM
Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102333.D\data.ms

(32) 2-Butanone (MEK)

5.736min (+ 0.000) 207.84 ug/L

response 360862

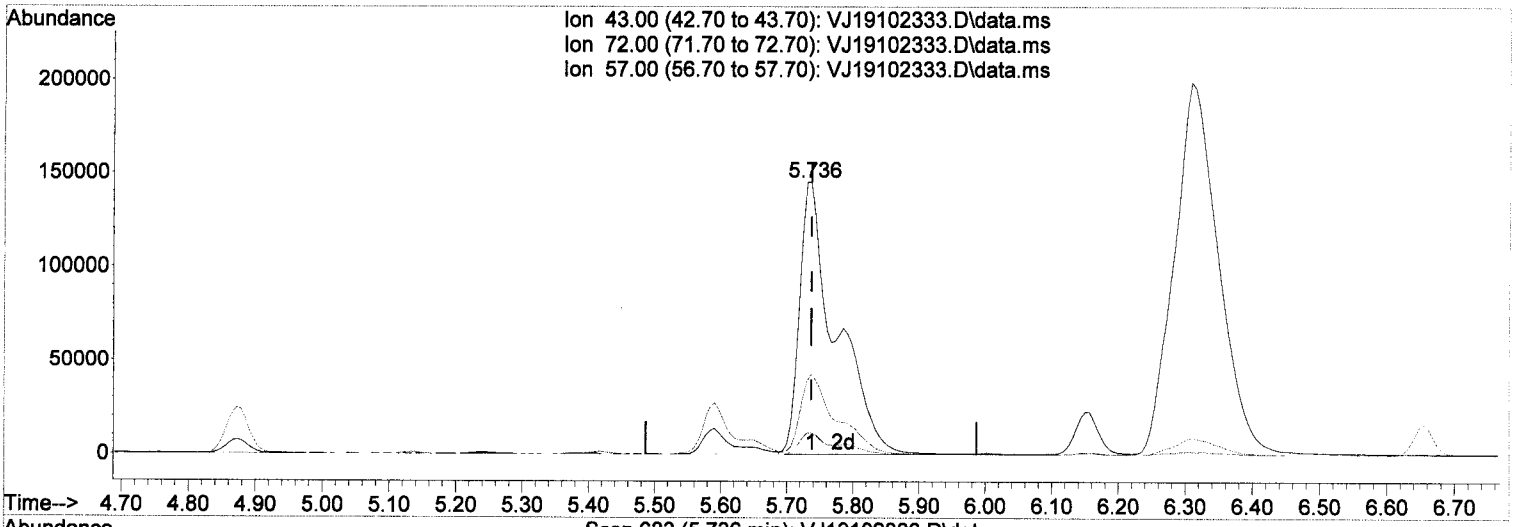
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	28.42
57.00	7.20	7.96
0.00	0.00	0.00

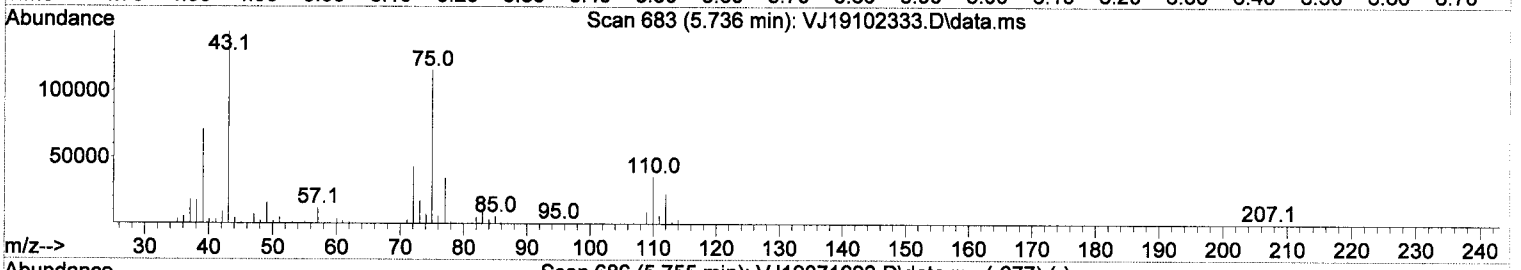
M.J.

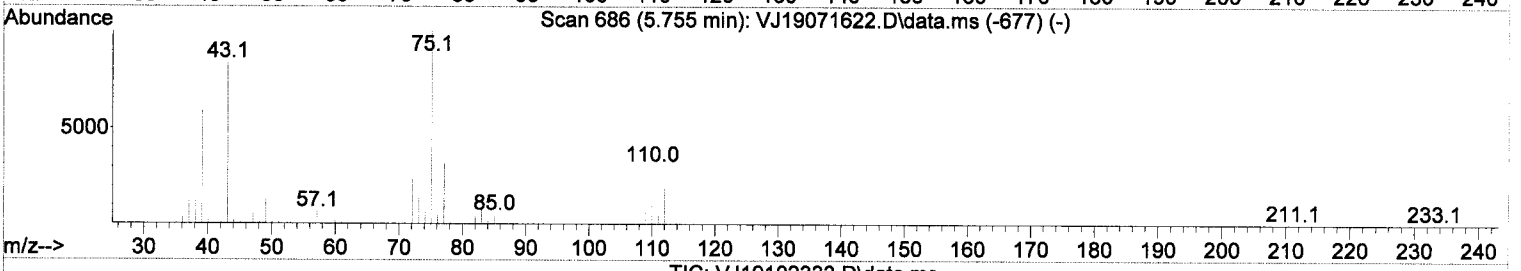
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102333.D
Acq On : 24 Oct 2019 2:46 am
Operator : MM
Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102333.D\data.ms

(32) 2-Butanone (MEK)

5.736min (+ 0.000) 321.23 ug/L (m)

response 557729

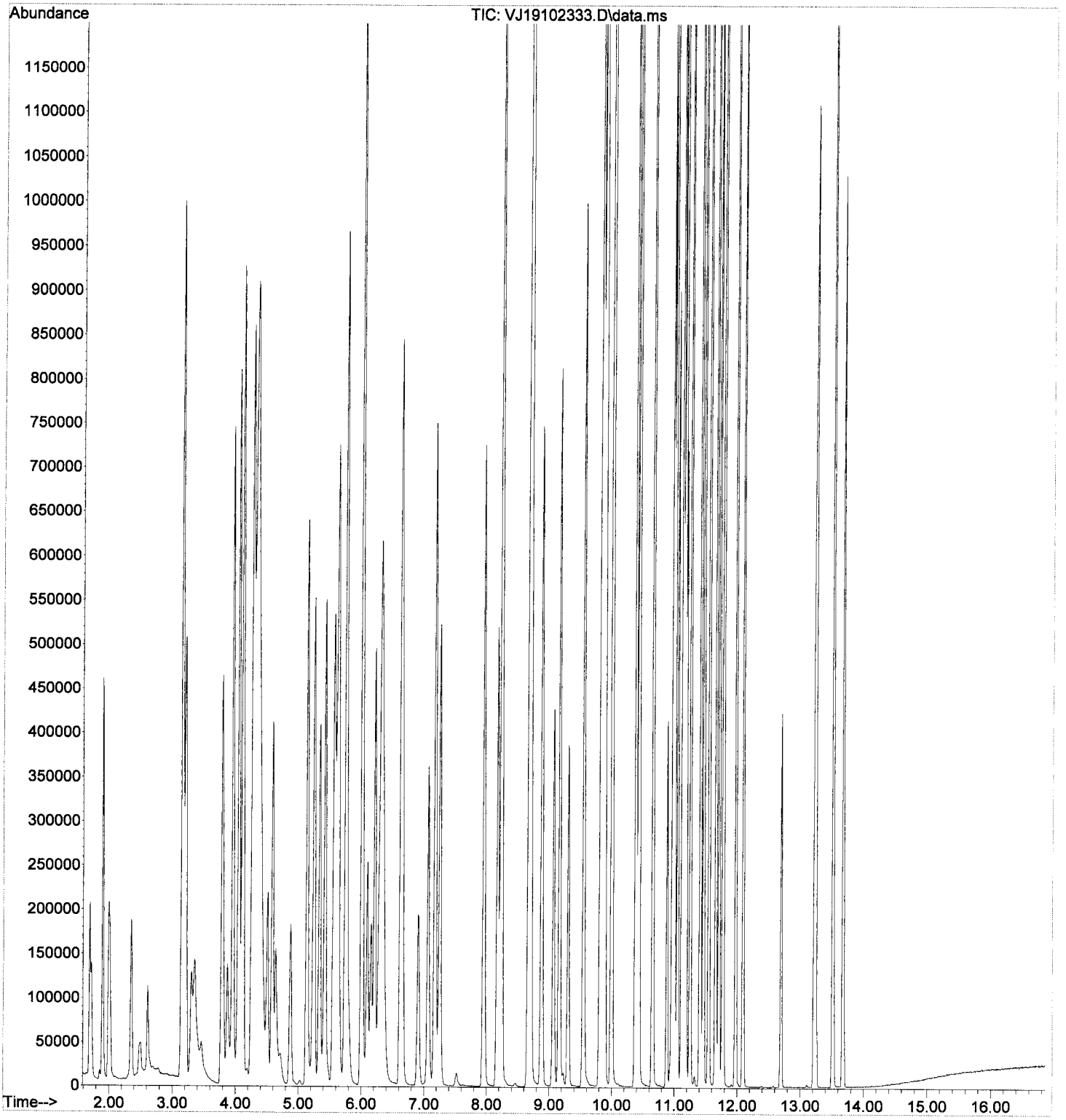
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	29.40
57.00	7.20	7.90
0.00	0.00	0.00

m 10/24/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102333.D
Acq On : 24 Oct 2019 2:46 am
Operator : MM
Sample : 9J23072-CALA
Misc : 1X 5mL 100/200PPB VOC+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 24 08:14:09 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102334.D
Acq On : 24 Oct 2019 3:13 am
Operator : MM
Sample : 9J23072-IBL3
Misc : 1X 5mL DI+MeOH
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 24 09:41:16 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)	6.089	99	104554	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	284982	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	116300	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	80800	48.89	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	322580	50.15	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	399241	50.24	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	86666	51.61	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	796	0.33	ug/L	#	51
3) Chloromethane	1.892	50	3867	0.94	ug/L		94
5) Bromomethane	2.342	96	5091	1.60	ug/L		99
6) Chloroethane	2.463	64	55	1.35	ug/L	#	8
8) Ethanol	3.333	45	5609	Below Cal			90
9) 1,1-Dichloroethene	3.139	61	786	0.20	ug/L	#	64
10) Carbon Disulfide	3.151	76	4770	0.66	ug/L		87
11) Freon 113	3.193	101	775	0.33	ug/L		81
12) Iodomethane	3.291	142	5133	6.48	ug/L		83
13) Methylene Chloride	3.784	84	5648	1.49	ug/L		88
14) Acetone	3.875	43	2370	1.49	ug/L		93
15) t-1,2-Dichloroethene	3.948	61	1187	0.29	ug/L		85
18) tert-Butanol (TBA)	4.270	59	353	0.43	ug/L	#	1
28) Tetrahydrofuran	5.621	42	406	0.19	ug/L	#	60
31) 1,1-Dichloropropene	5.749	75	1167	0.28	ug/L		86
32) 2-Butanone (MEK)	5.742	43	1402	0.50	ug/L		91
33) Benzene	6.004	78	1461	0.11	ug/L		81
36) iso-Butyl Alcohol	6.320	43	926	2.88	ug/L		92
38) Trichloroethene (TCE)	6.631	130	579	0.22	ug/L	#	66
46) Toluene	8.231	91	1947	0.15	ug/L		92
47) Tetrachloroethene (PCE)	8.681	166	934	0.38	ug/L		80
55) Chlorobenzene	9.818	112	1177	0.15	ug/L	#	1
56) Ethylbenzene	9.855	91	2568	0.20	ug/L		98
58) m,p-Xylenes (2)	10.001	91	4085	0.44	ug/L		95
59) o-Xylene	10.378	91	1317	0.15	ug/L		92
60) Styrene	10.427	104	704	0.28	ug/L		71
62) Isopropylbenzene	10.652	105	2219	0.21	ug/L		89
65) Bromobenzene	10.968	156	416	0.17	ug/L		80
66) n-Propylbenzene	10.999	91	4554	0.36	ug/L		97
68) 2-Chlorotoluene	11.114	126	573	0.25	ug/L		86
69) 1,3,5-Trimethylbenzene	11.157	105	2207	0.28	ug/L		94
72) 4-Chlorotoluene	11.254	91	2585	0.35	ug/L		92
73) tert-Butylbenzene	11.406	91	1163	0.25	ug/L	#	79
74) 1,2,4-Trimethylbenzene	11.461	105	2363	0.30	ug/L		97
75) sec-Butylbenzene	11.546	105	3443	0.35	ug/L		95
76) 4-Isopropyltoluene	11.656	119	3126	0.41	ug/L		94
77) 1,3-Dichlorobenzene	11.710	146	1896	0.44	ug/L		96
78) 1,4-Dichlorobenzene	11.777	146	2115	0.46	ug/L	#	78
79) n-Butylbenzene	11.978	91	4572	0.62	ug/L		94
80) 1,2-Dichlorobenzene	12.094	146	1108	0.28	ug/L		84
82) Hexachlorobutadiene	13.219	223	629	1.25	ug/L		93
83) 1,2,4-Trichlorobenzene	13.243	180	2262	0.94	ug/L		95
84) Naphthalene	13.517	128	8728	1.01	ug/L		98

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102334.D
Acq On : 24 Oct 2019 3:13 am
Operator : MM
Sample : 9J23072-IBL3
Misc : 1X 5mL DI+MeOH
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 24 09:41:16 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

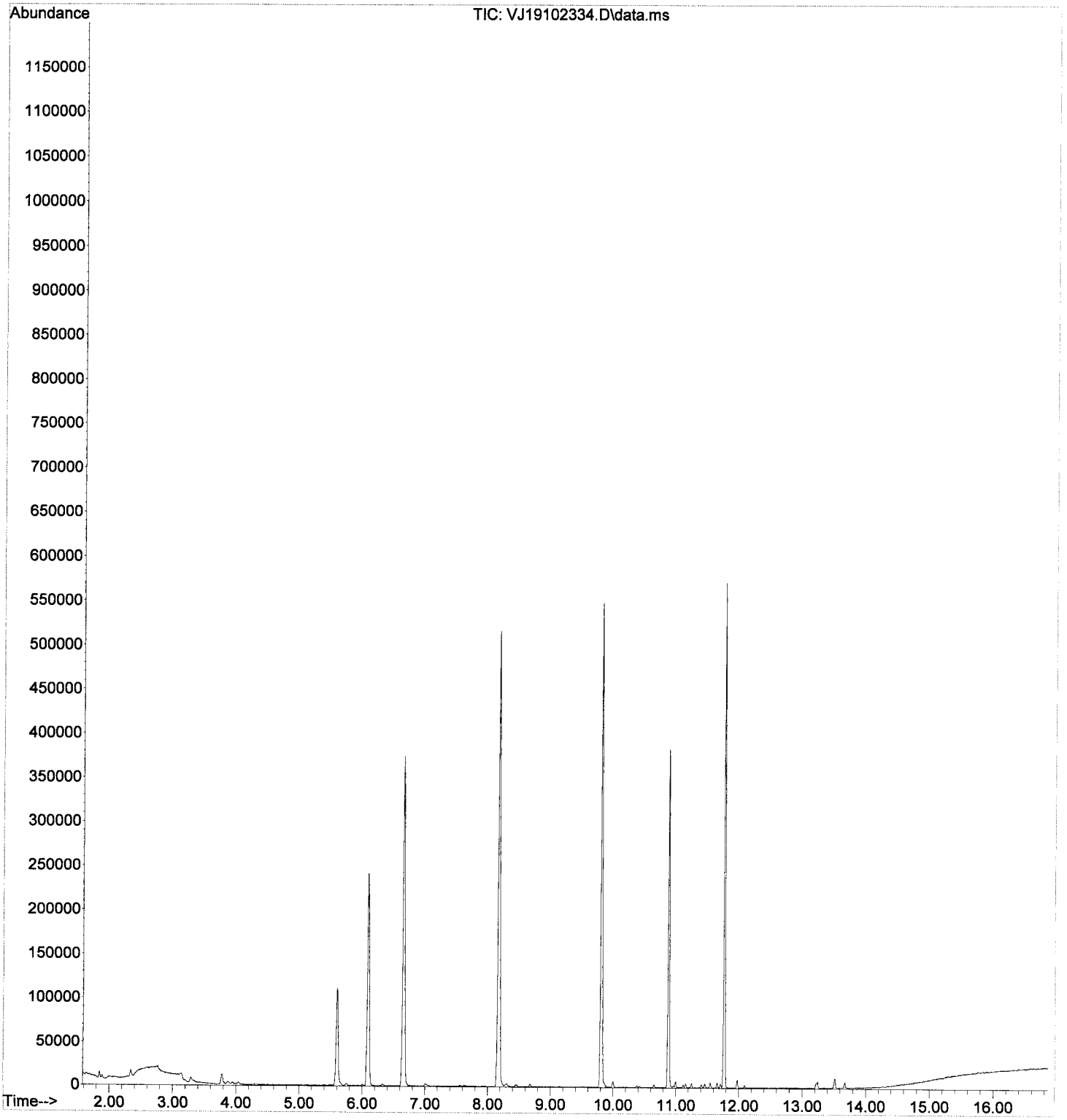
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
85) 1,2,3-Trichlorobenzene	13.675	180	2207	0.94	ug/L	90

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102334.D
Acq On : 24 Oct 2019 3:13 am
Operator : MM
Sample : 9J23072-IBL3
Misc : 1X 5mL DI+MeOH
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 24 09:41:16 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



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ~~191024S~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	110028	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	301031	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	133612	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	89835	60.40	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	346693	72.76	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	415139	50.79	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	92209	44.98	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.685	85	~~292431~~	107.98	ug/L		97
3) Chloromethane	1.892	50	787223	267.39	ug/L		100
4) Vinyl Chloride	1.983	62	635586	232.67	ug/L		96
5) Bromomethane	2.342	96	258257	240.16	ug/L		99
6) Chloroethane	2.488	64	92724	77.59	ug/L		98
7) Trichlorofluoromethane	2.597	101	147731	39.48	ug/L		97
8) Ethanol	3.400	45	713	11.78	ug/L		96
9) 1,1-Dichloroethene	3.139	61	780132	233.34	ug/L		94
10) Carbon Disulfide	3.151	76	1509890	362.72	ug/L		99
11) Freon 113	3.193	101	501626	334.62	ug/L		86
12) Iodomethane	3.291	142	265396	238.33	ug/L		91
13) Methylene Chloride	3.777	84	493458	298.49	ug/L		94
14) Acetone	3.863	43	~~496457~~	408.38	ug/L		99
15) t-1,2-Dichloroethene	3.942	61	823777	273.36	ug/L		96
16) n-Hexane	4.039	86	140691	365.93	ug/L	#	76
17) Methyl-tert-butyl-ether	4.100	73	2113381	257.85	ug/L		98
18) tert-Butanol (TBA)	0.000		0	N.D.			
19) Diisopropyl ether (DIPE)	0.000		0	N.D.			
20) 1,1-Dichloroethane	4.580	63	865836	250.20	ug/L		99
21) Acrylonitrile	4.629	53	~~328546~~	344.33	ug/L		97
22) Ethyl-tert-butyl ether...	4.860	59	57	0.01	ug/L	#	38
23) c-1,2-Dichloroethene	5.128	61	811012	248.58	ug/L		98
24) 2,2-Dichloropropane	5.237	77	813691	212.88	ug/L		98
25) Bromochloromethane	5.329	49	489443	270.12	ug/L		84
26) Chloroform	5.414	83	951891	225.05	ug/L		96
27) Carbon Tetrachloride	5.554	117	735322	210.11	ug/L		96
28) Tetrahydrofuran	5.584	42	~~357281~~	309.64	ug/L		96
29) 1,1,1-Trichloroethane	5.621	97	937584	225.11	ug/L		97
31) 1,1-Dichloropropene	5.748	75	896409	276.59	ug/L		95
32) 2-Butanone (MEK)	5.730	43	~~847722~~	487.88	ug/L		97
33) Benzene	6.004	78	2717357	324.94	ug/L		99
34) tert-Amyl methyl ether...	6.156	73	133	0.02	ug/L	#	46
35) 1,2-Dichloroethane (EDC)	6.205	62	860316	179.89	ug/L		99
36) iso-Butyl Alcohol	6.302	43	1895741	10517.61	ug/L		97
38) Trichloroethene (TCE)	6.625	130	600664	270.76	ug/L		97
39) tert-Amyl ethyl ether ...	0.000		0	N.D.			
40) Dibromomethane	7.063	93	353624	250.91	ug/L		84
41) 1,2-Dichloropropane	7.172	63	710561	325.50	ug/L		97
42) Bromodichloromethane	7.245	83	825346	257.33	ug/L		97
44) c-1,3-Dichloropropene	7.951	75	1055097	227.94	ug/L		95
46) Toluene	8.231	91	2694190	217.35	ug/L		98
47) Tetrachloroethene (PCE)	8.675	166	563695	225.19	ug/L		85
48) 4-Methyl-2-Pentanone (...	8.675	43	1880689	467.22	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration

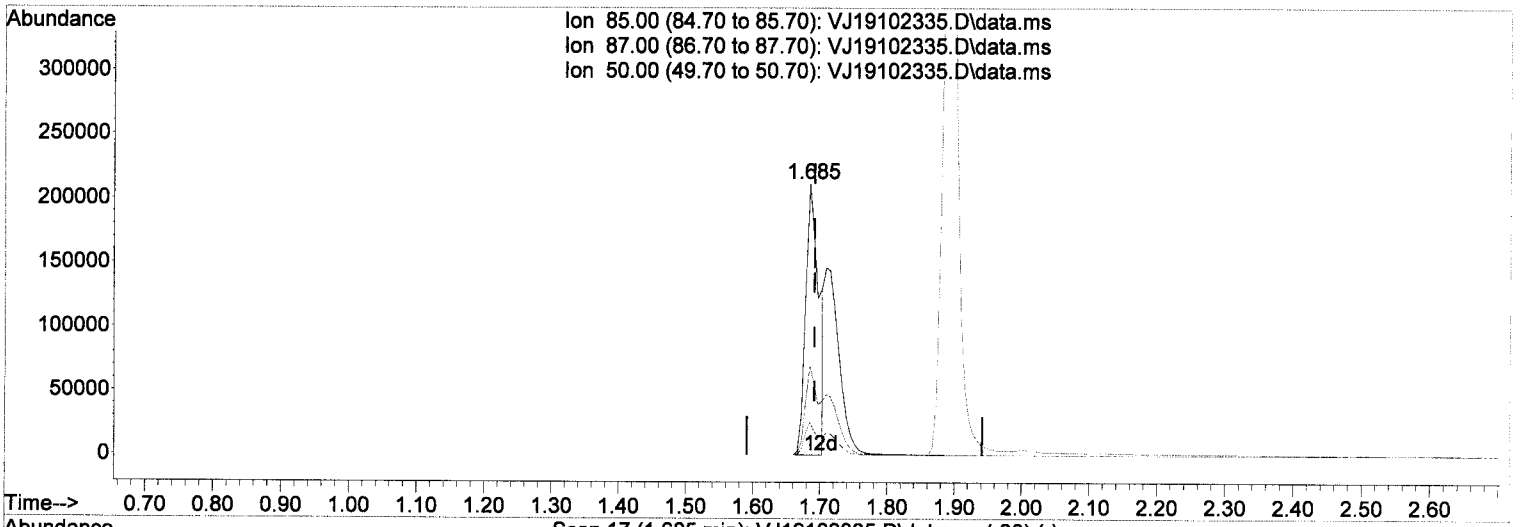
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	979397	197.94	ug/L		98
50) 1,1,2-Trichloroethane	8.875	97	564264	214.50	ug/L		97
51) Dibromochloromethane	9.064	129	542189	193.99	ug/L		99
52) 1,3-Dichloropropane	9.161	76	1049067	197.21	ug/L		98
53) 1,2-Dibromoethane (EDB)	9.301	107	586578	210.31	ug/L		100
54) 2-Hexanone	9.545	43	1458573	481.12	ug/L		96
55) Chlorobenzene	9.825	112	1537073	205.55	ug/L		96
56) Ethylbenzene	9.861	91	2864835	200.77	ug/L		100
57) 1,1,1,2-Tetrachloroethane	9.885	131	543615	191.69	ug/L		97
58) m,p-Xylenes (2)	9.995	91	4351315	398.18	ug/L		99
59) o-Xylene	10.378	91	2102591	193.64	ug/L		97
60) Styrene	10.421	104	1640257	240.92	ug/L		99
61) Bromoform	10.439	173	371025	177.73	ug/L		97
62) Isopropylbenzene	10.652	105	2575948	205.41	ug/L		98
65) Bromobenzene	10.968	156	539540	212.10	ug/L	#	82
66) n-Propylbenzene	10.999	91	3009505	205.36	ug/L		97
67) 1,1,2,2-Tetrachloroethane	11.047	83	808397	261.23	ug/L		97
68) 2-Chlorotoluene	11.120	126	541055	216.31	ug/L		90
69) 1,3,5-Trimethylbenzene	11.157	105	2020440	202.57	ug/L		96
70) 1,2,3-Trichloropropane	11.151	110	266315	199.87	ug/L		92
71) t-1,4-Dichloro-2-butene	11.187	88	121850	188.67	ug/L	#	92
72) 4-Chlorotoluene	11.248	91	1741373	192.36	ug/L		93
73) tert-Butylbenzene	11.406	91	1137746	175.29	ug/L		91
74) 1,2,4-Trimethylbenzene	11.461	105	1974970	195.77	ug/L		97
75) sec-Butylbenzene	11.546	105	2487376	212.22	ug/L		96
76) 4-Isopropyltoluene	11.656	119	1999489	202.71	ug/L		98
77) 1,3-Dichlorobenzene	11.710	146	987891	199.81	ug/L		96
78) 1,4-Dichlorobenzene	11.777	146	992164	207.74	ug/L		95
79) n-Butylbenzene	11.972	91	1809932	198.83	ug/L		94
80) 1,2-Dichlorobenzene	12.094	146	919855	201.50	ug/L		98
81) 1,2-Dibromo-3-Chloropr...	12.696	157	195586	269.62	ug/L		75
82) Hexachlorobutadiene	13.219	223	119522	166.93	ug/L		94
83) 1,2,4-Trichlorobenzene	13.243	180	586605	204.77	ug/L		96
84) Naphthalene	13.511	128	2345481	247.68	ug/L		98
85) 1,2,3-Trichlorobenzene	13.675	180	576564	210.50	ug/L		98

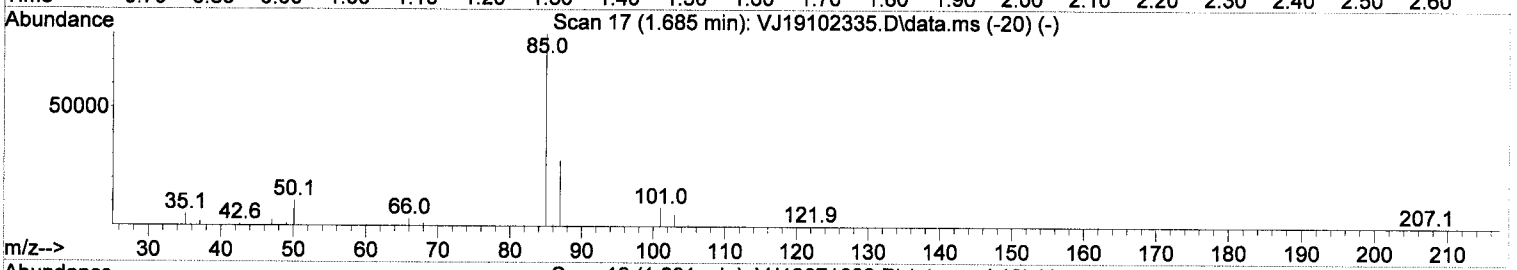
(#) = qualifier out of range (m) = manual integration (+) = signals summed

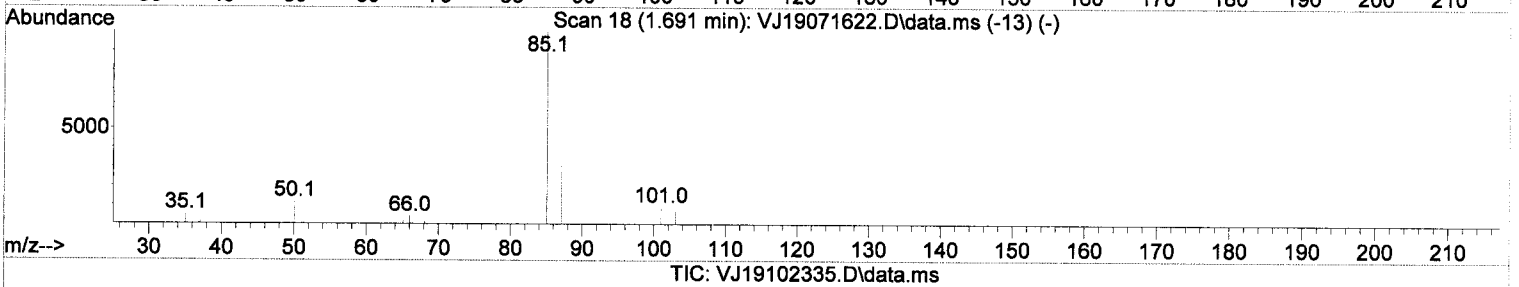
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102335.D\data.ms

(2) Dichlorodifluoromethane

1.685min (-0.006) 107.98 ug/L

response 292431

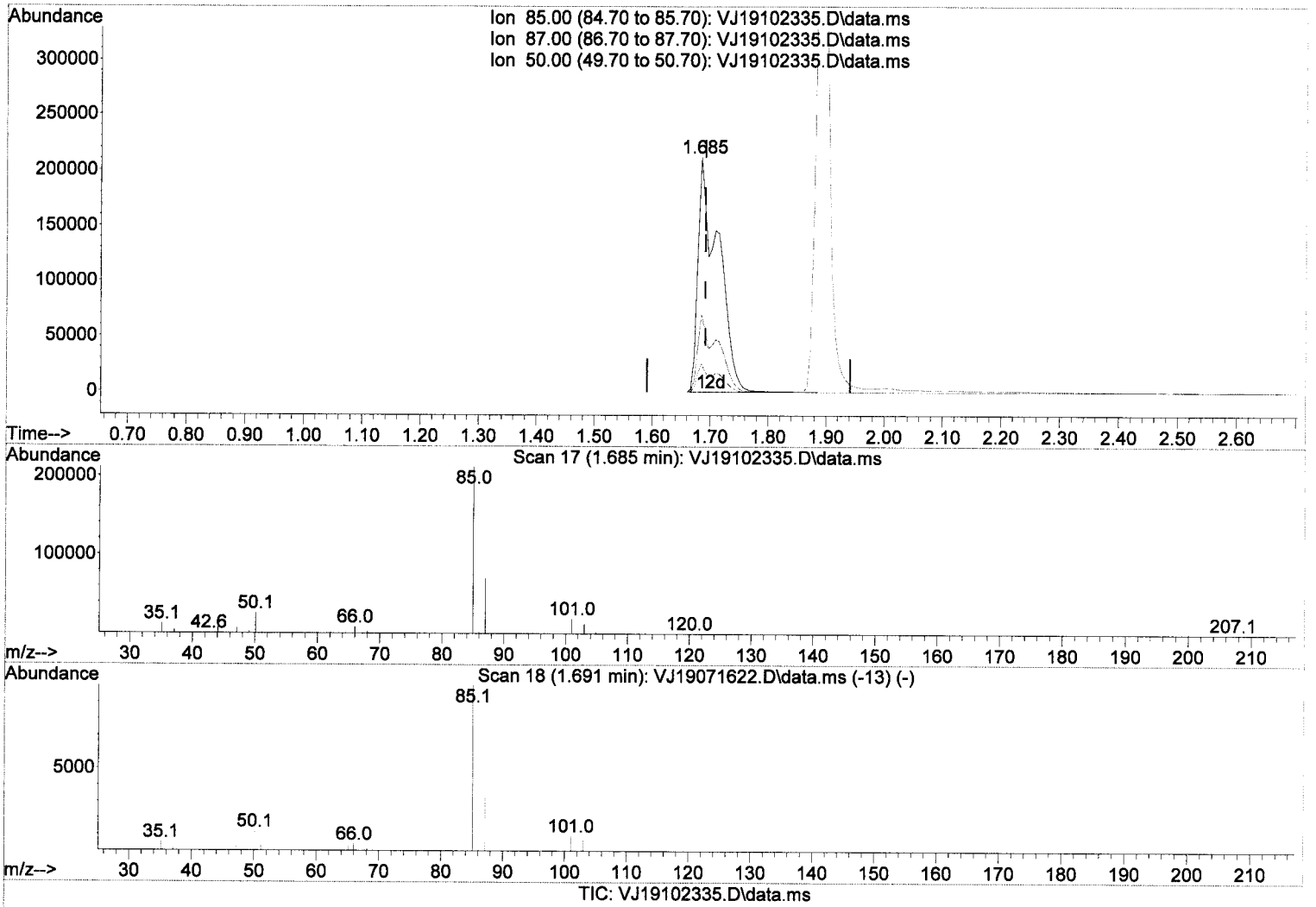
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	32.99
50.00	11.20	12.13
0.00	0.00	0.00

M.2.

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



TIC: VJ19102335.D\data.ms

(2) Dichlorodifluoromethane

1.685min (-0.006) 190.24 ug/L m

response 515195

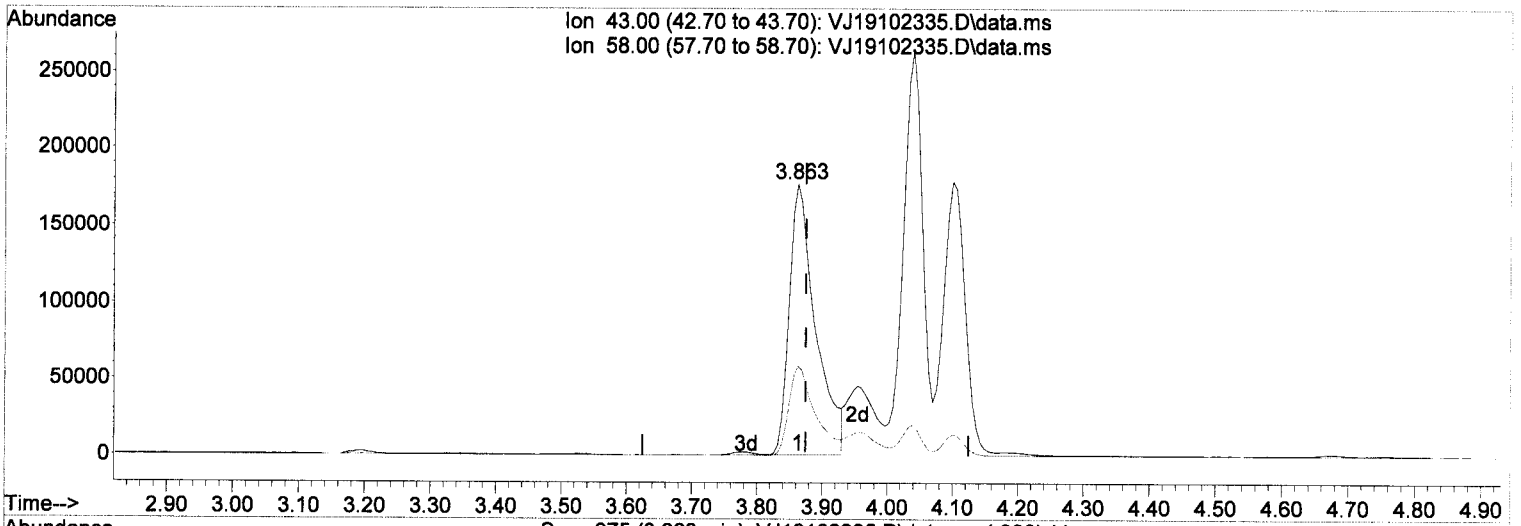
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	32.99
50.00	11.20	12.13
0.00	0.00	0.00

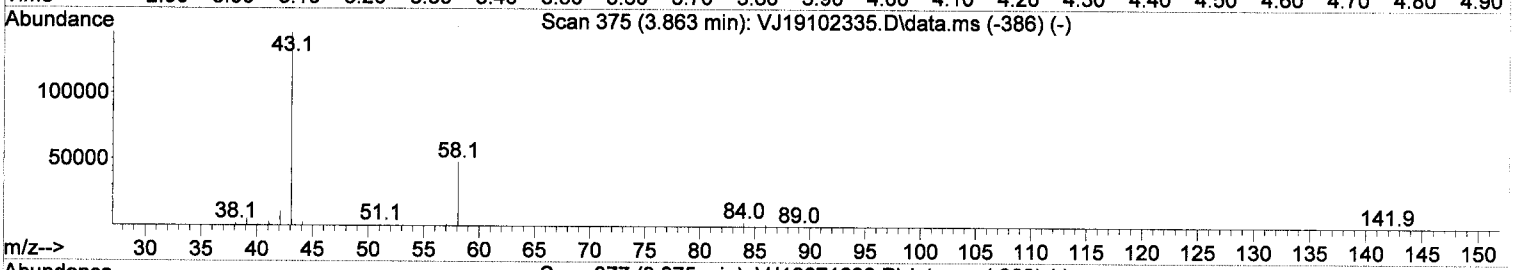
10/24/19

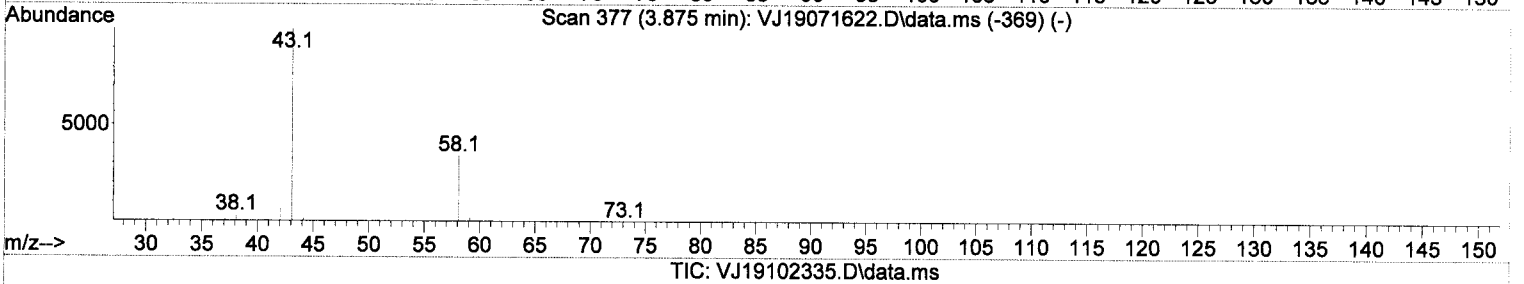
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102335.D\data.ms

(14) Acetone

3.863min (-0.011) 408.38 ug/L

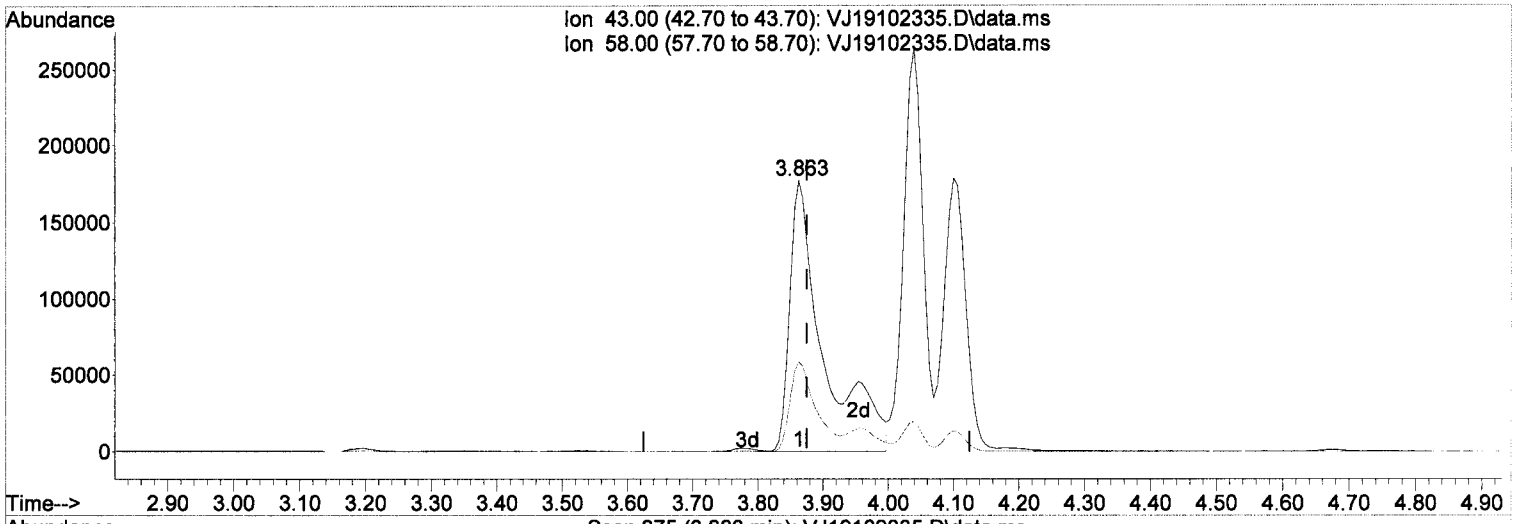
response 496457

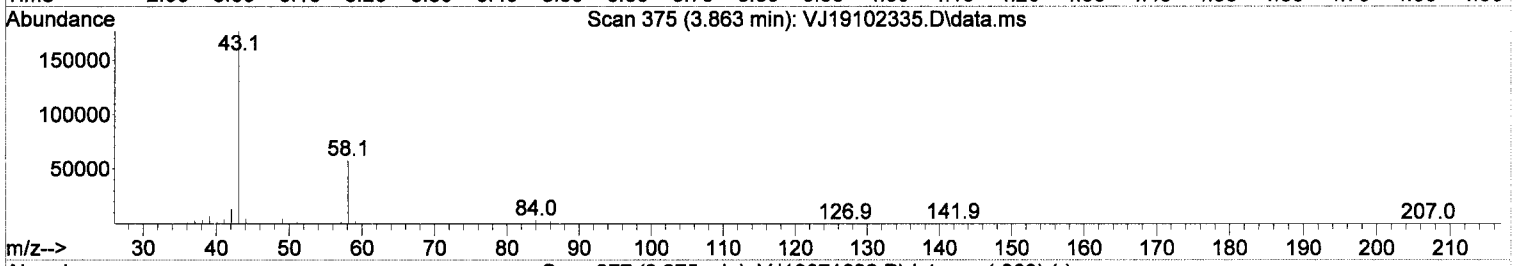
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.01
0.00	0.00	0.00
0.00	0.00	0.00

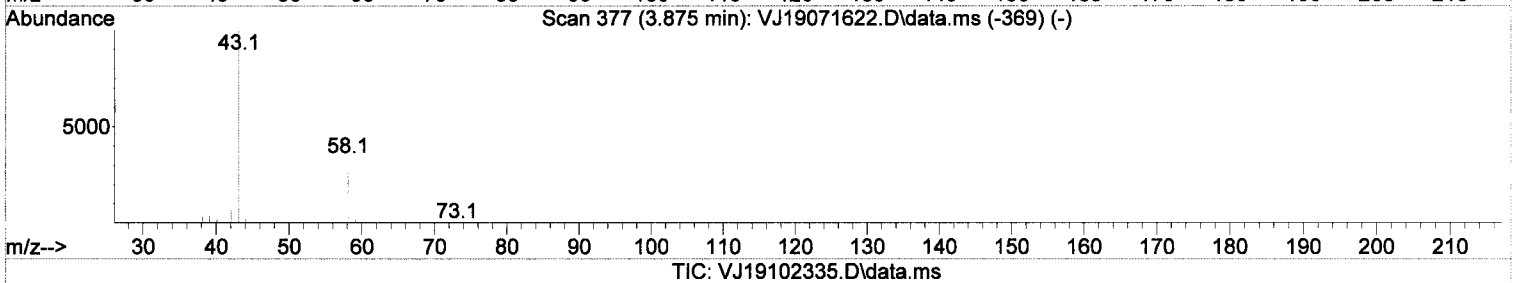
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102335.D\data.ms

(14) Acetone

3.863min (-0.011) 523.45 ug/L m

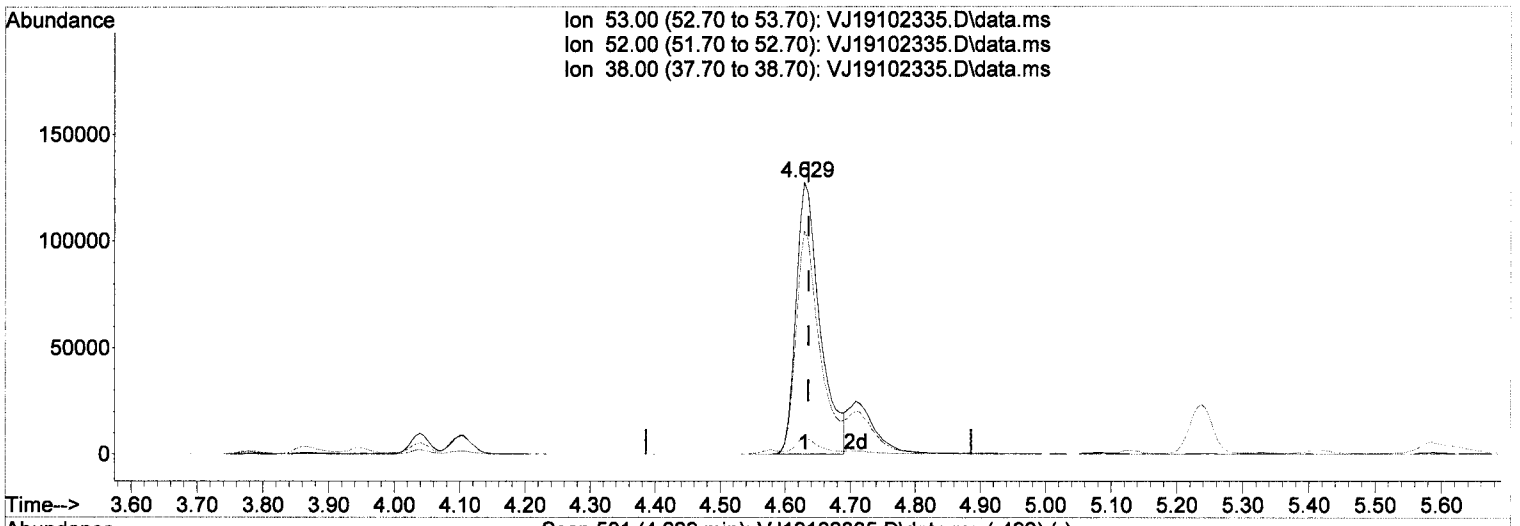
response 636343

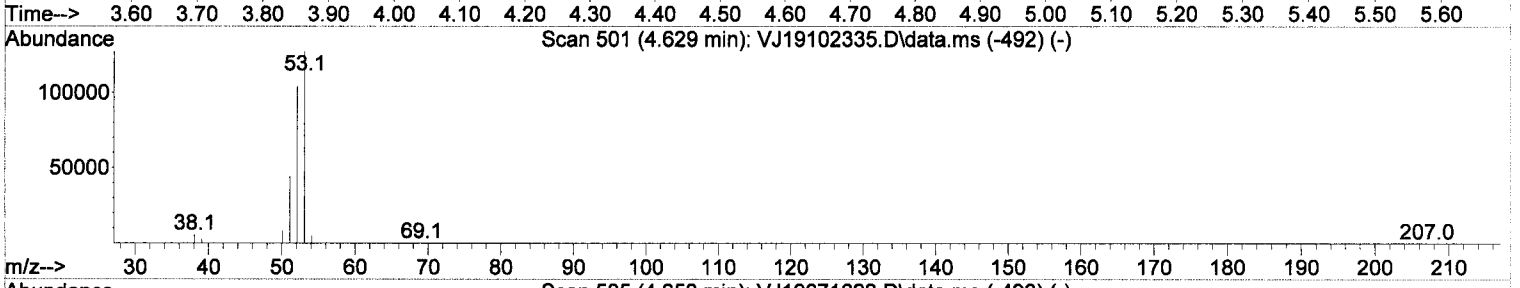
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	32.93
0.00	0.00	0.00
0.00	0.00	0.00

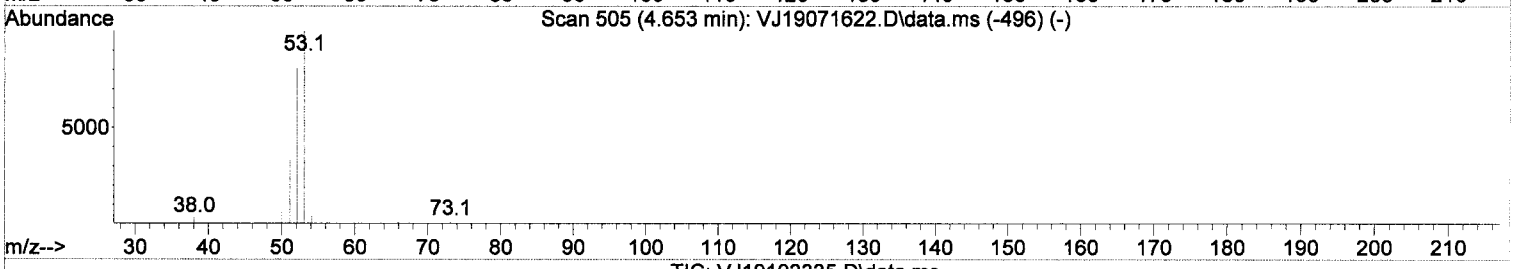
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102335.D\data.ms

(21) Acrylonitrile

4.629min (-0.006) 344.33 ug/L

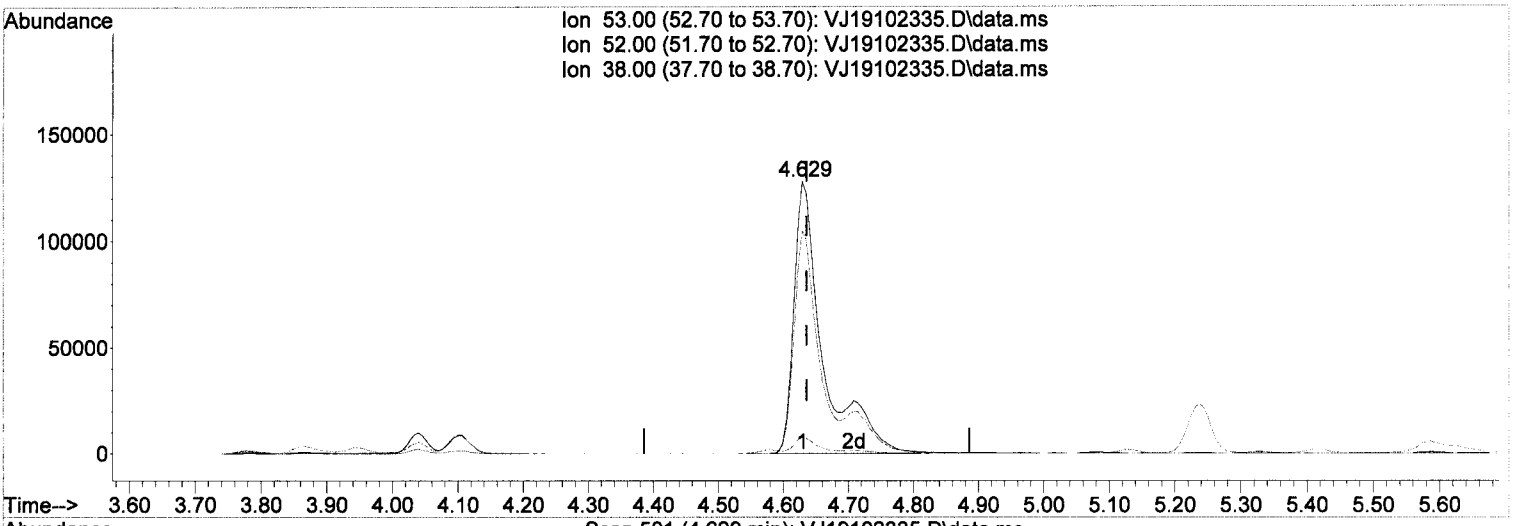
response 328546

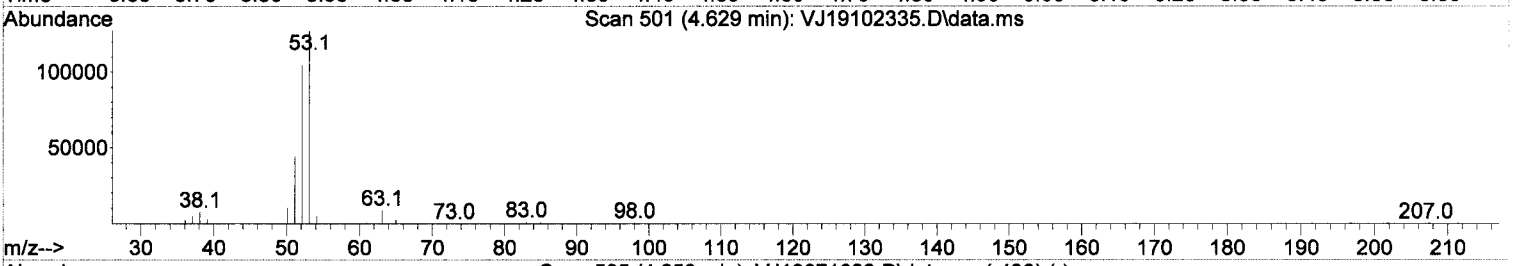
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	81.87
38.00	5.50	4.78
0.00	0.00	0.00

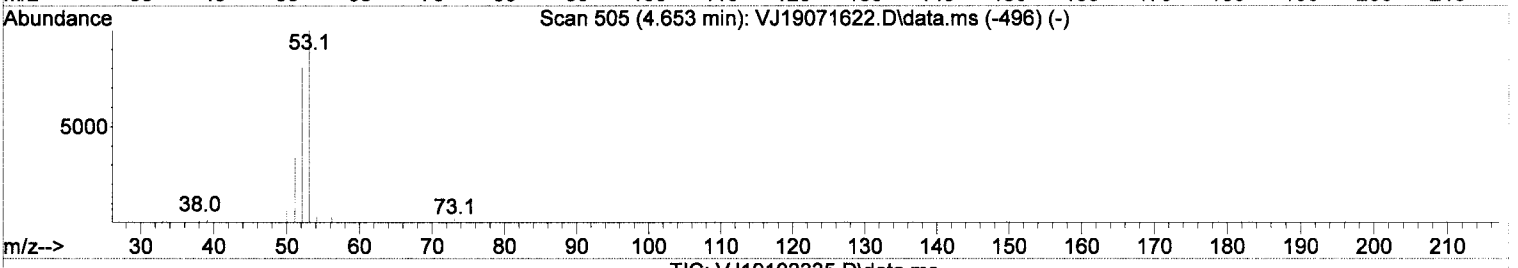
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102335.D\data.ms

(21) Acrylonitrile

4.629min (-0.006) 419.92 ug/L

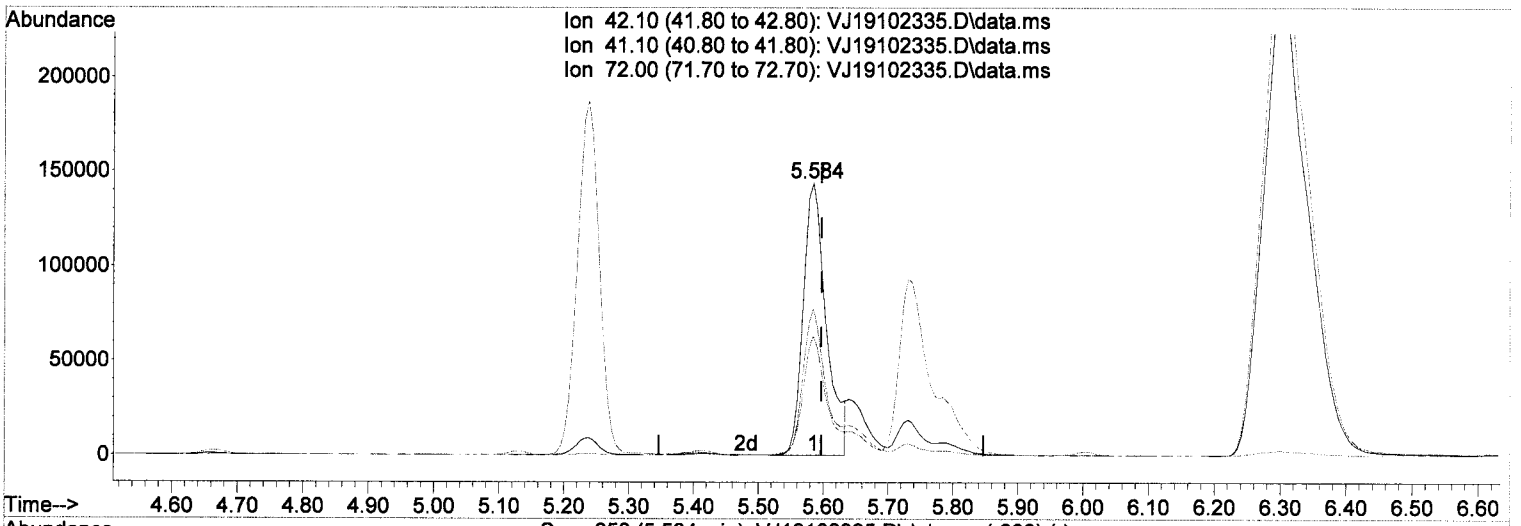
response 400678

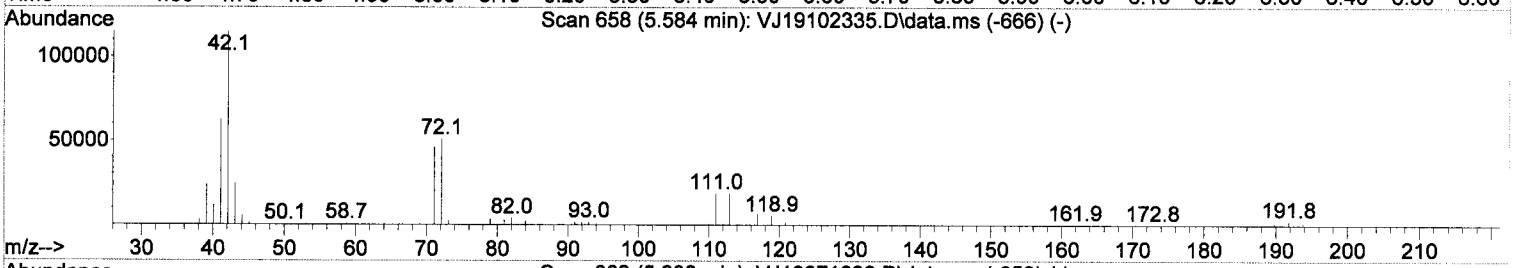
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	81.87
38.00	5.50	5.82
0.00	0.00	0.00

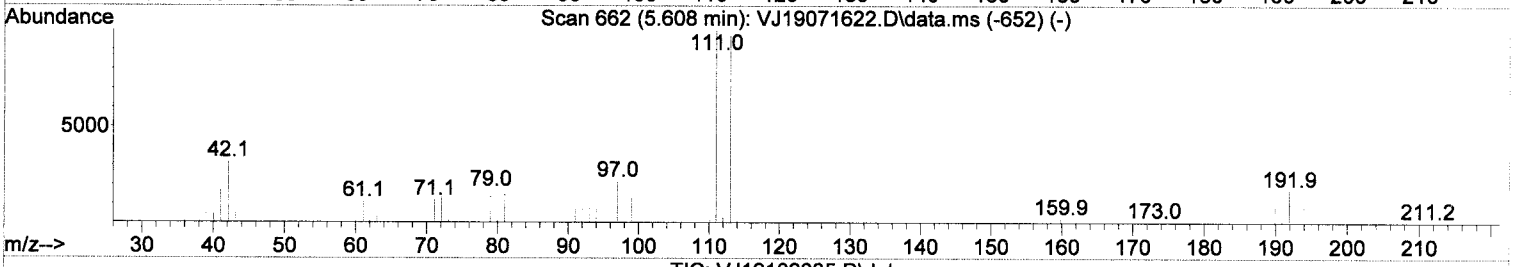
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102335.D\data.ms

(28) Tetrahydrofuran

5.584min (-0.012) 309.64 ug/L

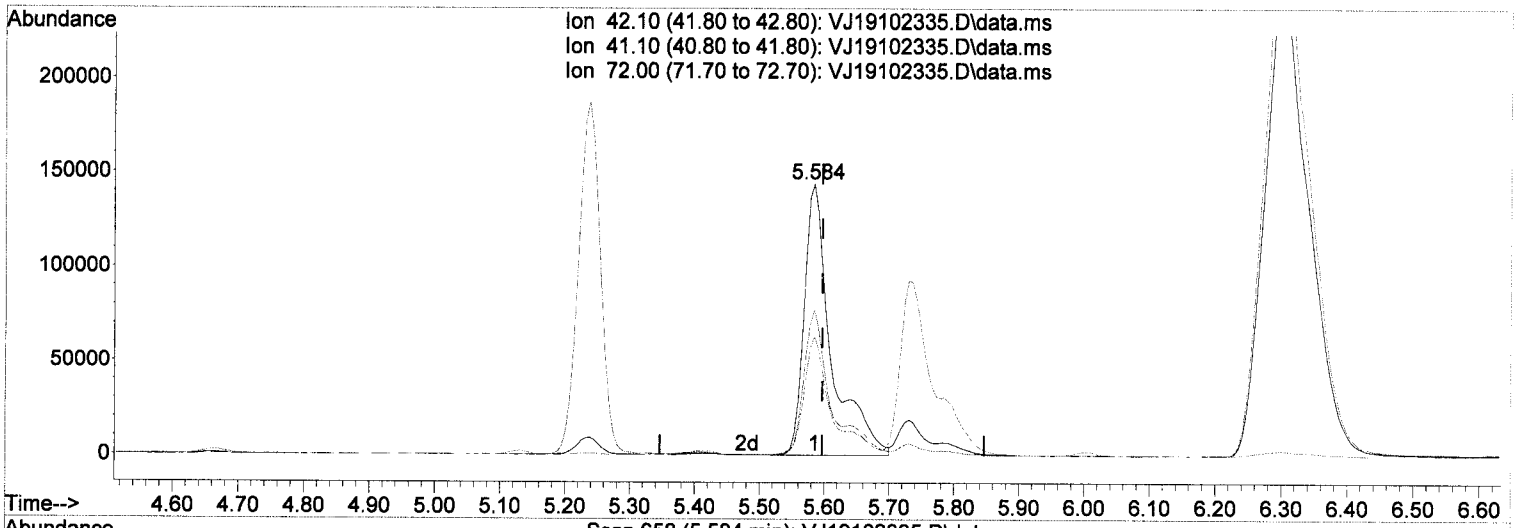
response 357281

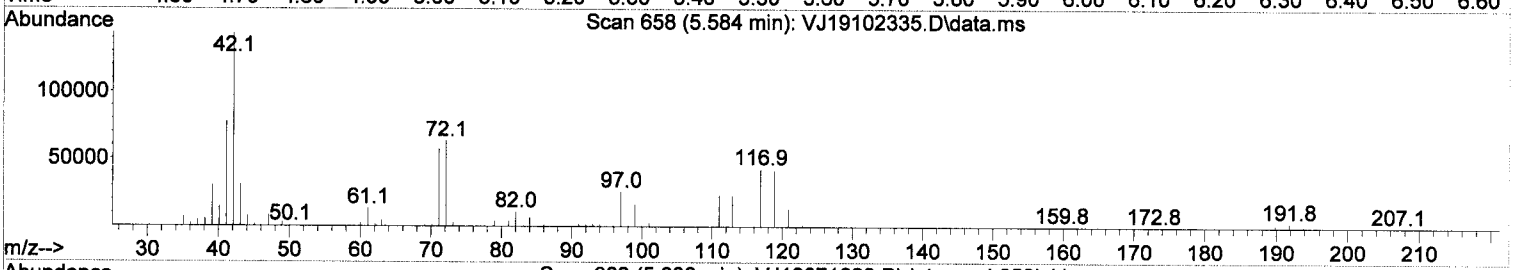
Ion	Exp%	Act%
42.10	100.00	100.00
41.10	52.70	53.96
72.00	40.40	44.03
0.00	0.00	0.00

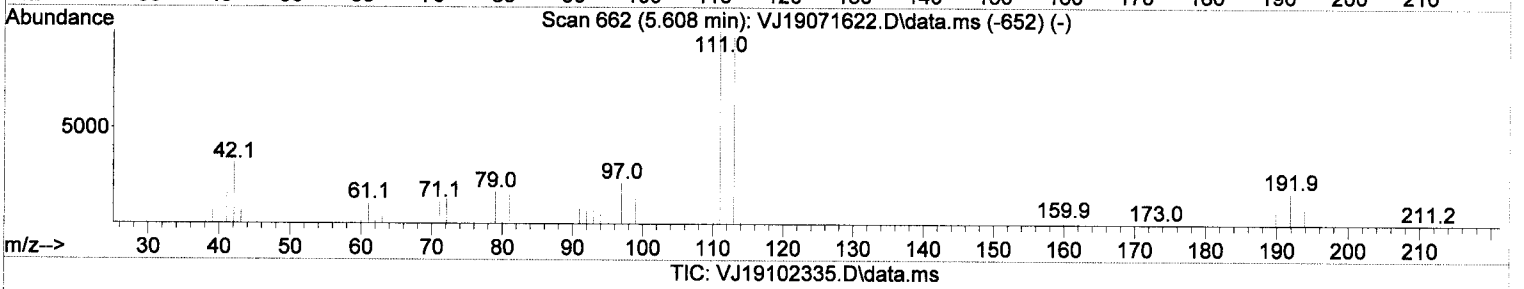
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102335.D\data.ms

(28) Tetrahydrofuran

5.584min (-0.012) 365.44 ug/L m

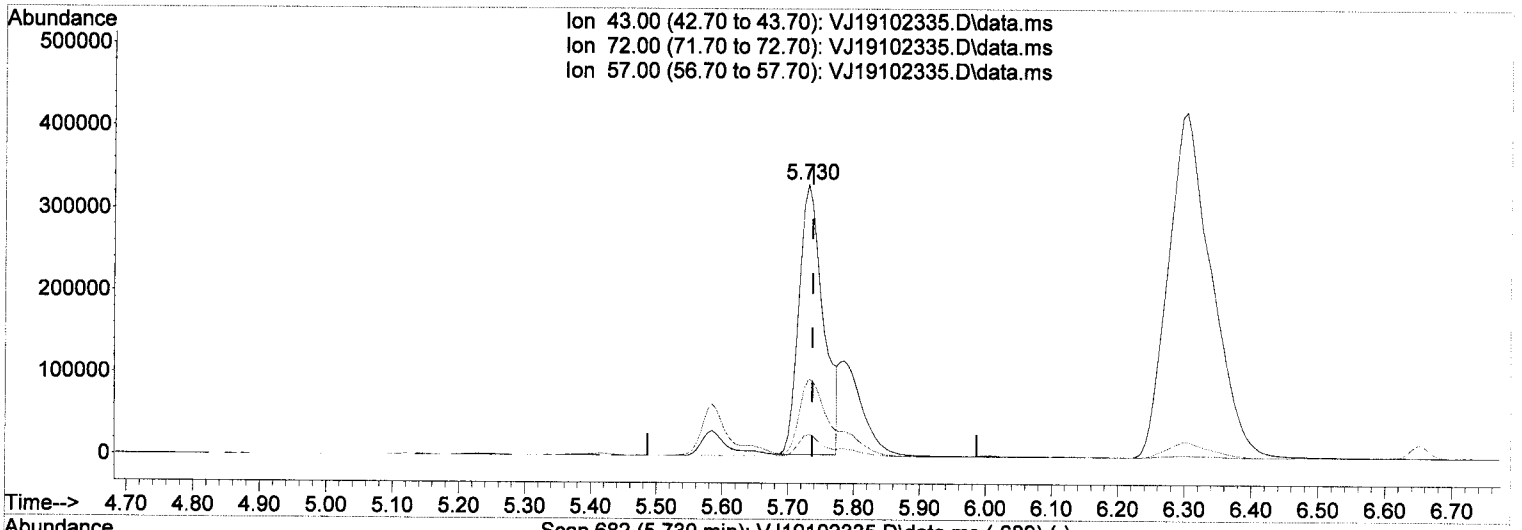
response 421666

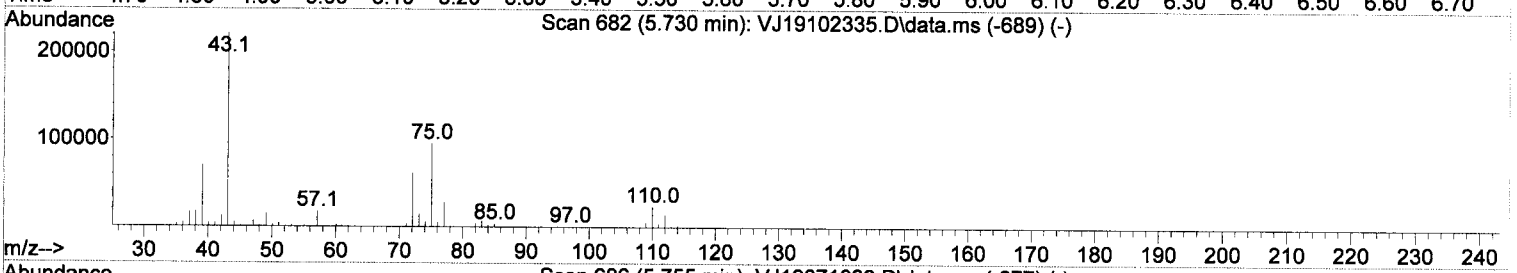
Ion	Exp%	Act%
42.10	100.00	100.00
41.10	52.70	54.14
72.00	40.40	44.03
0.00	0.00	0.00

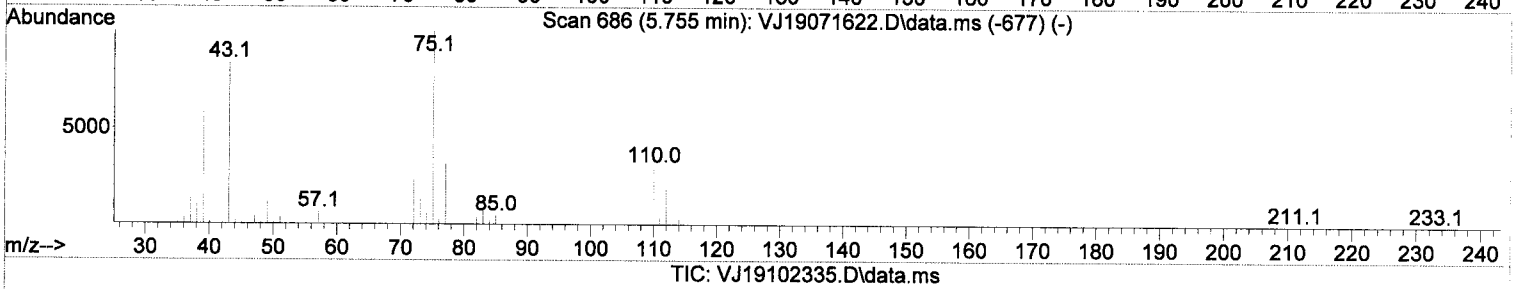
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102335.D\data.ms

(32) 2-Butanone (MEK)

5.730min (-0.006) 487.88 ug/L

response 847722

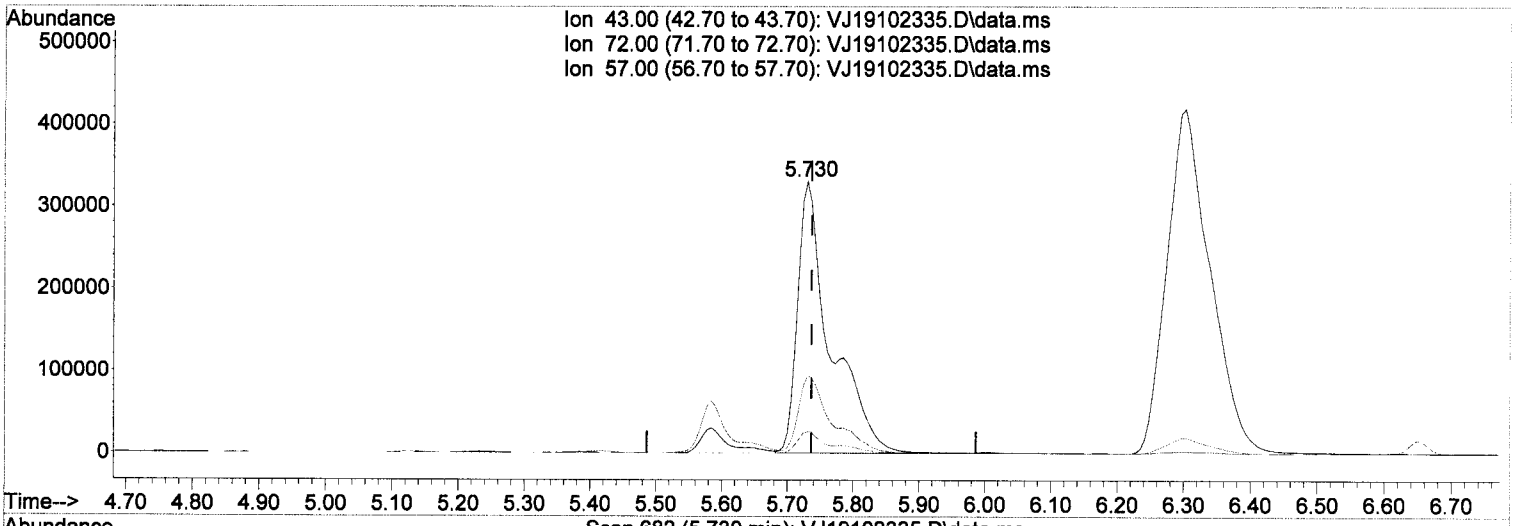
M.2

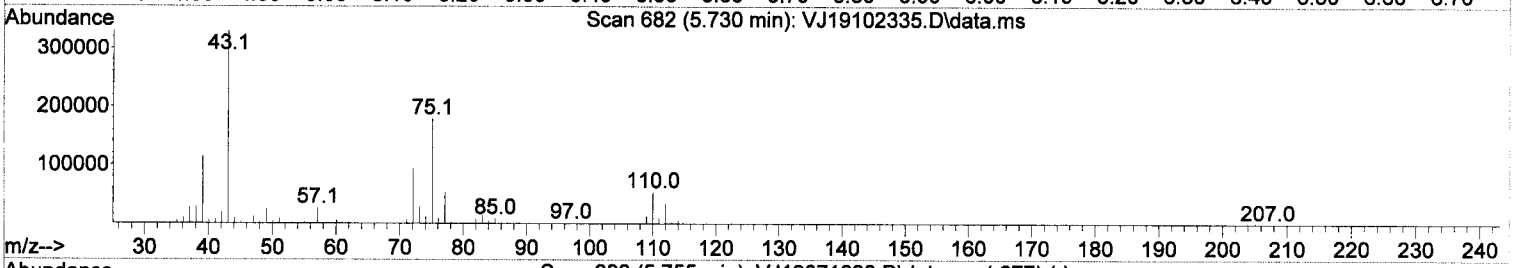
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	27.19
57.00	7.20	7.98
0.00	0.00	0.00

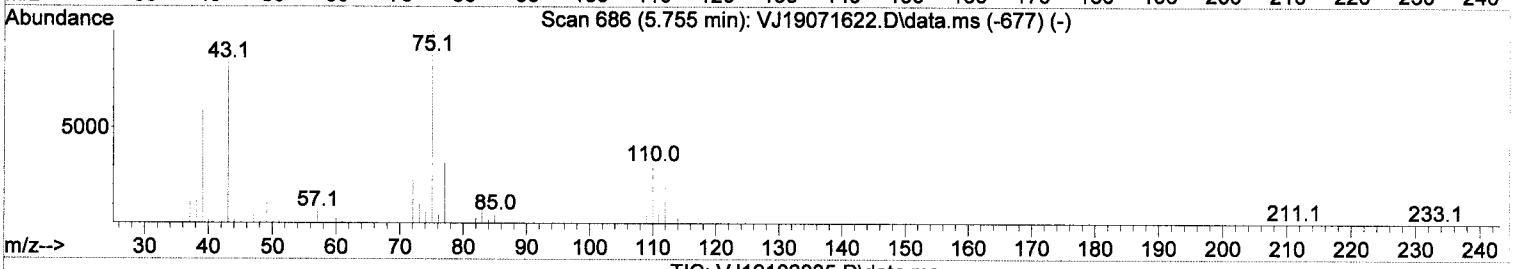
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration







TIC: VJ19102335.D\data.ms

(32) 2-Butanone (MEK)

5.730min (-0.006) 662.17 ug/L m

response 1150574

Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	28.15
57.00	7.20	7.93
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102335.D
Acq On : 24 Oct 2019 3:40 am
Operator : MM
Sample : 9J23072-CALB
Misc : 1X 5mL 200/400PPB VOC+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 24 08:14:12 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
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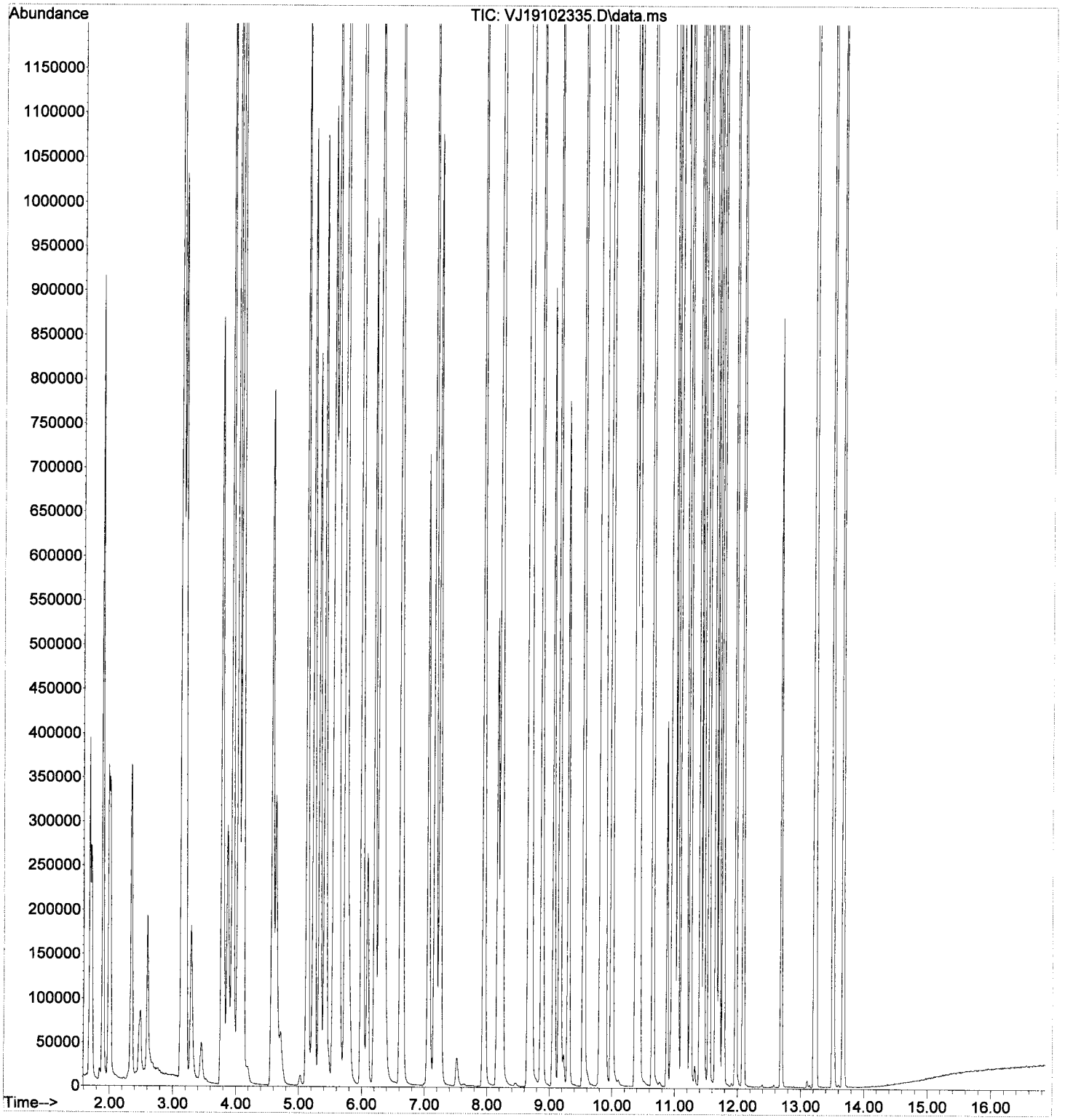
QLast Update : Fri Oct 18 10:09:40 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102336.D
Acq On : 24 Oct 2019 4:07 am
Operator : MM
Sample : 9J23072-IBL4
Misc : 1X 5mL DI+MeOH
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 24 09:41:19 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)	6.095	99	107566	50.00 ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	292494	50.00 ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	122660	50.00 ug/L		0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.603	111	84793	49.87 ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	333118	50.34 ug/L		0.00
45) Toluene-d8 (S)	8.170	98	410057	50.27 ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	89939	50.78 ug/L		0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.697	85	1579	0.63 ug/L		90
3) Chloromethane	1.898	50	4506	1.07 ug/L		97
4) Vinyl Chloride	1.995	62	838	0.26 ug/L	#	46
5) Bromomethane	2.348	96	6148	2.33 ug/L		96
6) Chloroethane	2.488	64	114	1.48 ug/L	#	63
7) Trichlorofluoromethane	2.603	101	174	0.24 ug/L	#	41
8) Ethanol	3.297	45	4668	Below Cal		87
9) 1,1-Dichloroethene	3.145	61	1317	0.33 ug/L		92
10) Carbon Disulfide	3.163	76	9199	1.23 ug/L		97
11) Freon 113	3.206	101	1568	0.64 ug/L		81
12) Iodomethane	3.297	142	6159	7.56 ug/L		88
13) Methylene Chloride	3.784	84	6521	1.78 ug/L		90
14) Acetone	3.875	43	2258	1.38 ug/L		90
15) t-1,2-Dichloroethene	3.954	61	2151	0.51 ug/L		94
16) n-Hexane	4.051	86	156	0.25 ug/L	#	34
17) Methyl-tert-butyl-ether	4.106	73	1006	0.10 ug/L		57
23) c-1,2-Dichloroethene	5.140	61	752	0.18 ug/L		95
25) Bromochloromethane	5.335	49	439	0.17 ug/L	#	63
27) Carbon Tetrachloride	5.572	117	605	0.19 ug/L		70
28) Tetrahydrofuran	5.590	42	775	0.36 ug/L	#	62
29) 1,1,1-Trichloroethane	5.627	97	479	0.11 ug/L		90
31) 1,1-Dichloropropene	5.749	75	2265	0.54 ug/L		90
32) 2-Butanone (MEK)	5.736	43	2102	0.73 ug/L		52
33) Benzene	6.010	78	2611	0.19 ug/L		93
35) 1,2-Dichloroethane (EDC)	6.211	62	343	0.08 ug/L	#	49
36) iso-Butyl Alcohol	6.327	43	955	2.89 ug/L		93
38) Trichloroethene (TCE)	6.619	130	1181	0.43 ug/L		72
44) c-1,3-Dichloropropene	7.951	75	451	0.10 ug/L	#	56
46) Toluene	8.231	91	3474	0.25 ug/L		88
47) Tetrachloroethene (PCE)	8.681	166	1969	0.78 ug/L		93
49) t-1,3-Dichloropropene	8.705	75	643	0.15 ug/L		69
55) Chlorobenzene	9.819	112	2476	0.32 ug/L	#	66
56) Ethylbenzene	9.861	91	4956	0.37 ug/L		97
58) m,p-Xylenes (2)	9.995	91	7912	0.84 ug/L		96
59) o-Xylene	10.378	91	2358	0.26 ug/L		99
60) Styrene	10.427	104	1491	0.39 ug/L		87
62) Isopropylbenzene	10.652	105	4301	0.40 ug/L		93
65) Bromobenzene	10.968	156	802	0.32 ug/L	#	74
66) n-Propylbenzene	10.999	91	9166	0.69 ug/L		95
68) 2-Chlorotoluene	11.120	126	1193	0.50 ug/L		95
69) 1,3,5-Trimethylbenzene	11.157	105	4619	0.56 ug/L		96
72) 4-Chlorotoluene	11.248	91	4873	0.63 ug/L		92
73) tert-Butylbenzene	11.406	91	2458	0.51 ug/L		86

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102336.D
Acq On : 24 Oct 2019 4:07 am
Operator : MM
Sample : 9J23072-IBL4
Misc : 1X 5mL DI+MeOH
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 24 09:41:19 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

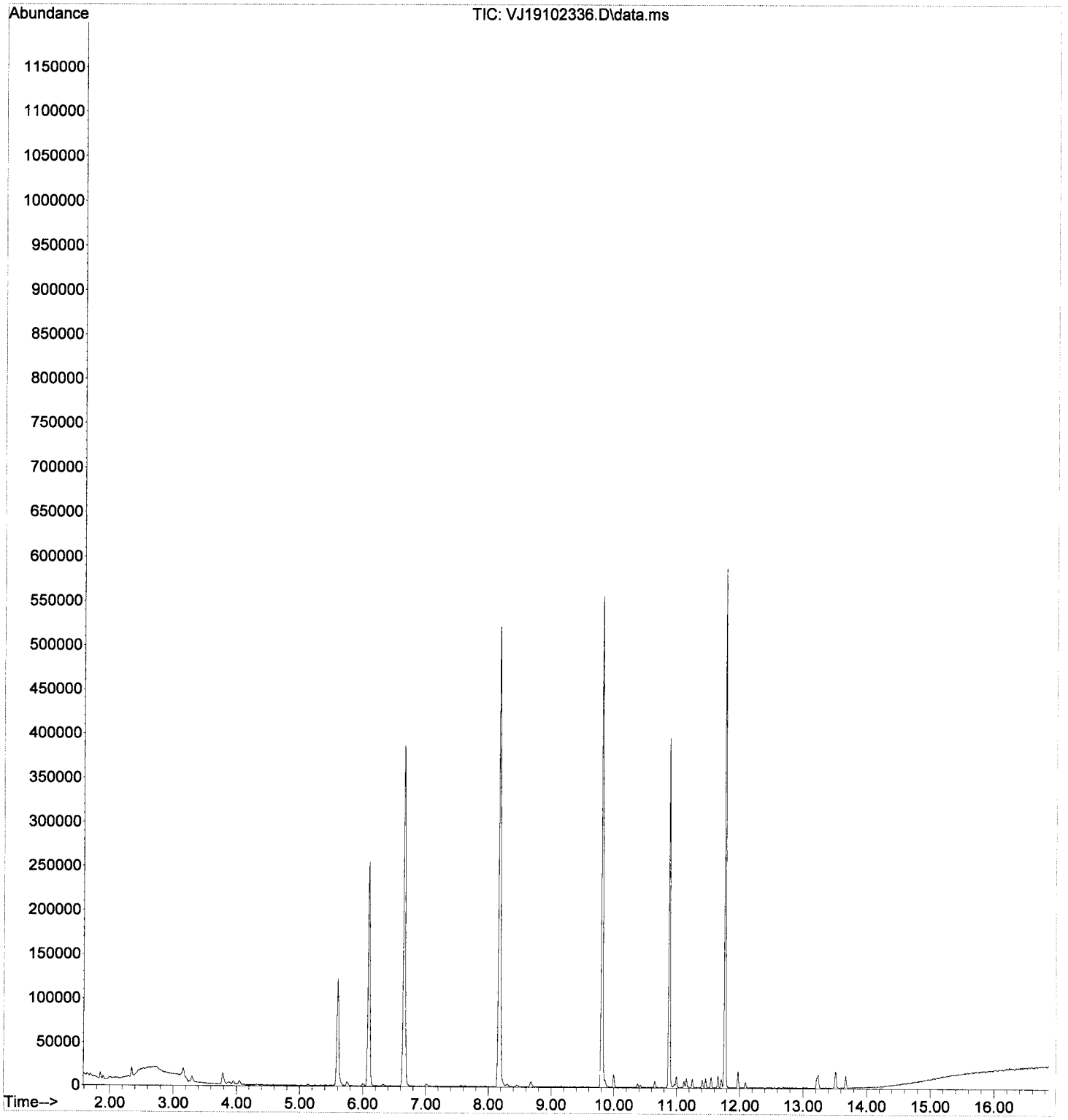
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
74) 1,2,4-Trimethylbenzene	11.461	105	5075	0.61	ug/L	98
75) sec-Butylbenzene	11.546	105	7209	0.69	ug/L	97
76) 4-Isopropyltoluene	11.656	119	6234	0.78	ug/L	95
77) 1,3-Dichlorobenzene	11.711	146	3787	0.82	ug/L	93
78) 1,4-Dichlorobenzene	11.777	146	4050	0.83	ug/L	81
79) n-Butylbenzene	11.972	91	8931	1.15	ug/L	95
80) 1,2-Dichlorobenzene	12.094	146	2355	0.56	ug/L	96
82) Hexachlorobutadiene	13.219	223	1189	2.23	ug/L	91
83) 1,2,4-Trichlorobenzene	13.244	180	4623	1.82	ug/L	89
84) Naphthalene	13.511	128	14934	1.64	ug/L	96
85) 1,2,3-Trichlorobenzene	13.676	180	4240	1.71	ug/L	99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102336.D
Acq On : 24 Oct 2019 4:07 am
Operator : MM
Sample : 9J23072-IBL4
Misc : 1X 5mL DI+MeOH
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 24 09:41:19 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



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102337.D
Acq On : 24 Oct 2019 4:34 am
Operator : MM
Sample : 9J23072-IBL5
Misc : 1X 5mL DI+MeOH
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 24 09:41:22 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)	6.089	99	108805	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	293706	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	116760	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	83108	48.32	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	334636	49.99	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	411232	50.21	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	88844	52.70	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	412	0.16	ug/L	#	51
3) Chloromethane	1.898	50	3247	0.76	ug/L		98
5) Bromomethane	2.342	96	4921	1.30	ug/L		95
6) Chloroethane	2.470	64	56	1.35	ug/L	#	62
8) Ethanol	3.327	45	4945	Below Cal			78
9) 1,1-Dichloroethene	3.151	61	337	0.08	ug/L	#	40
10) Carbon Disulfide	3.157	76	3948	0.52	ug/L		90
11) Freon 113	3.206	101	700	0.28	ug/L		87
12) Iodomethane	3.297	142	4186	5.08	ug/L		89
13) Methylene Chloride	3.784	84	5777	1.45	ug/L		91
14) Acetone	3.881	43	1879	1.13	ug/L		92
15) t-1,2-Dichloroethene	3.948	61	731	0.17	ug/L		83
18) tert-Butanol (TBA)	4.252	59	202	0.24	ug/L	#	46
28) Tetrahydrofuran	5.609	42	385	0.17	ug/L	#	30
31) 1,1-Dichloropropene	5.749	75	904	0.21	ug/L	#	61
32) 2-Butanone (MEK)	5.736	43	1096	0.37	ug/L		52
36) iso-Butyl Alcohol	6.327	43	715	2.14	ug/L		78
38) Trichloroethene (TCE)	6.625	130	395	0.14	ug/L	#	74
46) Toluene	8.225	91	1576	0.11	ug/L		86
47) Tetrachloroethene (PCE)	8.675	166	834	0.33	ug/L		97
55) Chlorobenzene	9.825	112	1049	0.13	ug/L	#	58
56) Ethylbenzene	9.855	91	1918	0.14	ug/L		82
58) m,p-Xylenes (2)	9.995	91	3048	0.32	ug/L		95
59) o-Xylene	10.378	91	952	0.11	ug/L		91
60) Styrene	10.427	104	462	0.24	ug/L		66
62) Isopropylbenzene	10.652	105	1652	0.15	ug/L		86
65) Bromobenzene	10.962	156	241	0.10	ug/L		92
66) n-Propylbenzene	10.999	91	3504	0.28	ug/L		91
68) 2-Chlorotoluene	11.114	126	330	0.15	ug/L	#	67
69) 1,3,5-Trimethylbenzene	11.151	105	1691	0.22	ug/L		83
72) 4-Chlorotoluene	11.254	91	1898	0.26	ug/L		97
73) tert-Butylbenzene	11.406	91	704	0.15	ug/L		99
74) 1,2,4-Trimethylbenzene	11.461	105	1813	0.23	ug/L		90
75) sec-Butylbenzene	11.546	105	2505	0.25	ug/L		93
76) 4-Isopropyltoluene	11.656	119	2535	0.33	ug/L		94
77) 1,3-Dichlorobenzene	11.711	146	1436	0.33	ug/L		84
78) 1,4-Dichlorobenzene	11.771	146	1594	0.34	ug/L	#	59
79) n-Butylbenzene	11.972	91	3797	0.52	ug/L		94
80) 1,2-Dichlorobenzene	12.094	146	834	0.21	ug/L		89
82) Hexachlorobutadiene	13.213	223	436	0.86	ug/L	#	76
83) 1,2,4-Trichlorobenzene	13.238	180	1613	0.67	ug/L		92
84) Naphthalene	13.511	128	4574	0.53	ug/L		96
85) 1,2,3-Trichlorobenzene	13.676	180	1311	0.56	ug/L		82

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102337.D
Acq On : 24 Oct 2019 4:34 am
Operator : MM
Sample : 9J23072-IBL5
Misc : 1X 5mL DI+MeOH
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 24 09:41:22 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

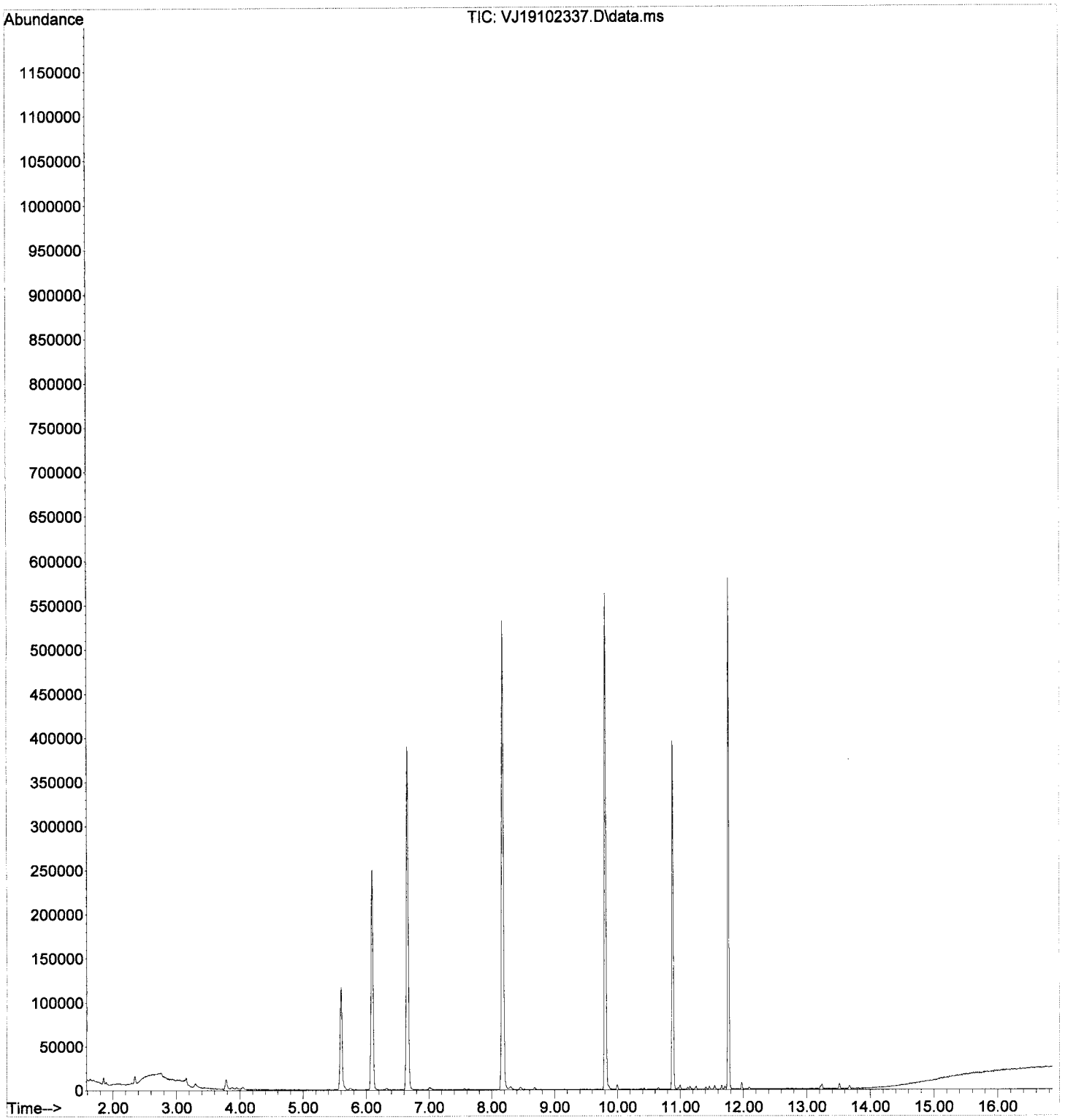
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102337.D
Acq On : 24 Oct 2019 4:34 am
Operator : MM
Sample : 9J23072-IBL5
Misc : 1X 5mL DI+MeOH
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 24 09:41:22 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



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102338.D
Acq On : 24 Oct 2019 5:00 am
Operator : MM
Sample : 9J23072-ICV1
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 24 09:41:25 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)	6.089	99	99885	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	266896	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	115116	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	78888	49.97	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	309887	50.43	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	374533	50.32	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	83075	49.98	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.685	85	55993	24.22	ug/L		99
3) Chloromethane	1.891	50	85783	21.90	ug/L		99
4) Vinyl Chloride	1.983	62	68082	22.53	ug/L		93
5) Bromomethane	2.342	96	32688	25.75	ug/L		97
6) Chloroethane	2.469	64	6942	18.06	ug/L		90
7) Trichlorofluoromethane	2.597	101	13381	19.85	ug/L		99
8) Ethanol	3.327	45	10414	32.82	ug/L		91
9) 1,1-Dichloroethene	3.139	61	70213	18.89	ug/L		96
10) Carbon Disulfide	3.151	76	125587	18.12	ug/L		98
11) Freon 113	3.193	101	44019	19.49	ug/L		83
12) Iodomethane	3.291	142	20945	27.68	ug/L		90
13) Methylene Chloride	3.777	84	51374	21.83	ug/L		91
14) Acetone	3.863	43	49385	32.40	ug/L		97
15) t-1,2-Dichloroethene	3.948	61	80908	20.82	ug/L		97
16) n-Hexane	4.039	86	11211	19.05	ug/L	#	78
17) Methyl-tert-butyl-ether	4.106	73	189730	20.42	ug/L		97
18) tert-Butanol (TBA)	4.264	59	3402	4.34	ug/L	#	88
19) Diisopropyl ether (DIPE)	4.501	45	1037	0.11	ug/L		73
20) 1,1-Dichloroethane	4.580	63	88325	21.54	ug/L		99
21) Acrylonitrile	4.635	53	29602	17.16	ug/L		99
22) Ethyl-tert-butyl ether...	4.872	59	819	0.10	ug/L	#	38
23) c-1,2-Dichloroethene	5.128	61	77472	20.22	ug/L		97
24) 2,2-Dichloropropane	5.237	77	70480	18.16	ug/L		96
25) Bromochloromethane	5.329	49	47873	20.52	ug/L		79
26) Chloroform	5.414	83	93692	21.39	ug/L		95
27) Carbon Tetrachloride	5.554	117	62353	21.54	ug/L		95
28) Tetrahydrofuran	5.590	42	37867	18.68	ug/L		98
29) 1,1,1-Trichloroethane	5.621	97	84455	20.97	ug/L		98
31) 1,1-Dichloropropene	5.748	75	79011	20.19	ug/L		95
32) 2-Butanone (MEK)	5.736	43	101987	37.99	ug/L		95
33) Benzene	6.004	78	255304	19.90	ug/L		99
34) tert-Amyl methyl ether...	6.150	73	1151	0.14	ug/L		71
35) 1,2-Dichloroethane (EDC)	6.211	62	82128	20.79	ug/L		99
36) iso-Butyl Alcohol	6.302	43	169237	551.01	ug/L		98
38) Trichloroethene (TCE)	6.624	130	55394	21.73	ug/L		95
40) Dibromomethane	7.062	93	33554	20.84	ug/L		84
41) 1,2-Dichloropropane	7.172	63	65112	20.51	ug/L		99
42) Bromodichloromethane	7.251	83	66373	21.40	ug/L		97
44) c-1,3-Dichloropropene	7.951	75	84290	21.19	ug/L		98
46) Toluene	8.231	91	252241	20.22	ug/L		96
47) Tetrachloroethene (PCE)	8.681	166	50536	21.83	ug/L		90
48) 4-Methyl-2-Pentanone (...	8.669	43	165334	42.77	ug/L		98
49) t-1,3-Dichloropropene	8.699	75	87854	22.78	ug/L		95

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102338.D
Acq On : 24 Oct 2019 5:00 am
Operator : MM
Sample : 9J23072-ICV1
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 24 09:41:25 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

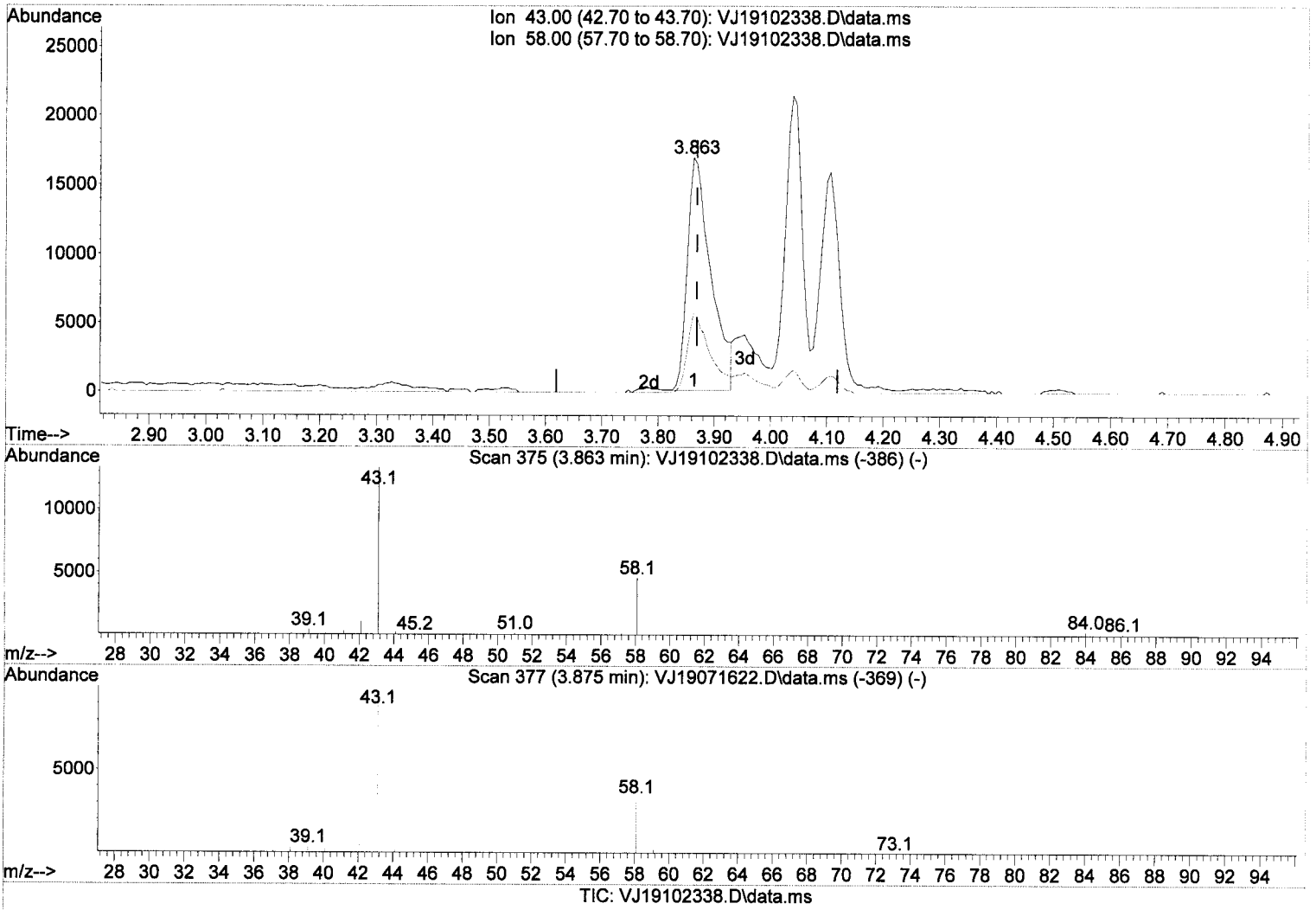
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
50) 1,1,2-Trichloroethane	8.875	97	55320	21.85	ug/L		96
51) Dibromochloromethane	9.064	129	44137	21.60	ug/L		99
52) 1,3-Dichloropropane	9.161	76	101709	21.39	ug/L		99
53) 1,2-Dibromoethane (EDB)	9.301	107	53497	22.05	ug/L		97
54) 2-Hexanone	9.545	43	121336	42.18	ug/L		99
55) Chlorobenzene	9.824	112	148150	20.82	ug/L		95
56) Ethylbenzene	9.861	91	262531	21.66	ug/L		97
57) 1,1,1,2-Tetrachloroethane	9.885	131	48514	22.01	ug/L		98
58) m,p-Xylenes (2)	9.995	91	382778	44.36	ug/L		98
59) o-Xylene	10.378	91	184849	22.44	ug/L		95
60) Styrene	10.421	104	123362	19.44	ug/L		98
61) Bromoform	10.439	173	28437	19.72	ug/L		98
62) Isopropylbenzene	10.652	105	225170	22.68	ug/L		96
65) Bromobenzene	10.962	156	51305	21.54	ug/L	#	74
66) n-Propylbenzene	10.999	91	271045	21.59	ug/L		95
67) 1,1,2,2-Tetrachloroethane	11.047	83	77823	21.41	ug/L		98
68) 2-Chlorotoluene	11.114	126	48899	21.83	ug/L	#	80
69) 1,3,5-Trimethylbenzene	11.157	105	180309	23.46	ug/L		94
70) 1,2,3-Trichloropropane	11.151	110	25446	21.80	ug/L		96
71) t-1,4-Dichloro-2-butene	11.187	88	9272	19.80	ug/L		92
72) 4-Chlorotoluene	11.248	91	159954	21.99	ug/L		92
73) tert-Butylbenzene	11.406	91	101437	22.26	ug/L		89
74) 1,2,4-Trimethylbenzene	11.461	105	180192	23.21	ug/L		95
75) sec-Butylbenzene	11.546	105	222106	22.61	ug/L		97
76) 4-Isopropyltoluene	11.656	119	175710	23.46	ug/L		96
77) 1,3-Dichlorobenzene	11.710	146	93549	21.70	ug/L		97
78) 1,4-Dichlorobenzene	11.777	146	94625	20.65	ug/L		95
79) n-Butylbenzene	11.972	91	162694	22.40	ug/L		95
80) 1,2-Dichlorobenzene	12.094	146	87423	22.13	ug/L		97
81) 1,2-Dibromo-3-Chloropr...	12.696	157	13552	19.68	ug/L	#	55
82) Hexachlorobutadiene	13.219	223	11551	23.12	ug/L		95
83) 1,2,4-Trichlorobenzene	13.243	180	54107	22.68	ug/L		97
84) Naphthalene	13.517	128	193179	22.57	ug/L		99
85) 1,2,3-Trichlorobenzene	13.675	180	53621	23.09	ug/L		97

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

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102338.D
Acq On : 24 Oct 2019 5:00 am
Operator : MM
Sample : 9J23072-ICV1
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 24 09:41:25 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: VJ19102338.D\data.ms

(14) Acetone

3.863min (-0.005) 32.40 ug/L

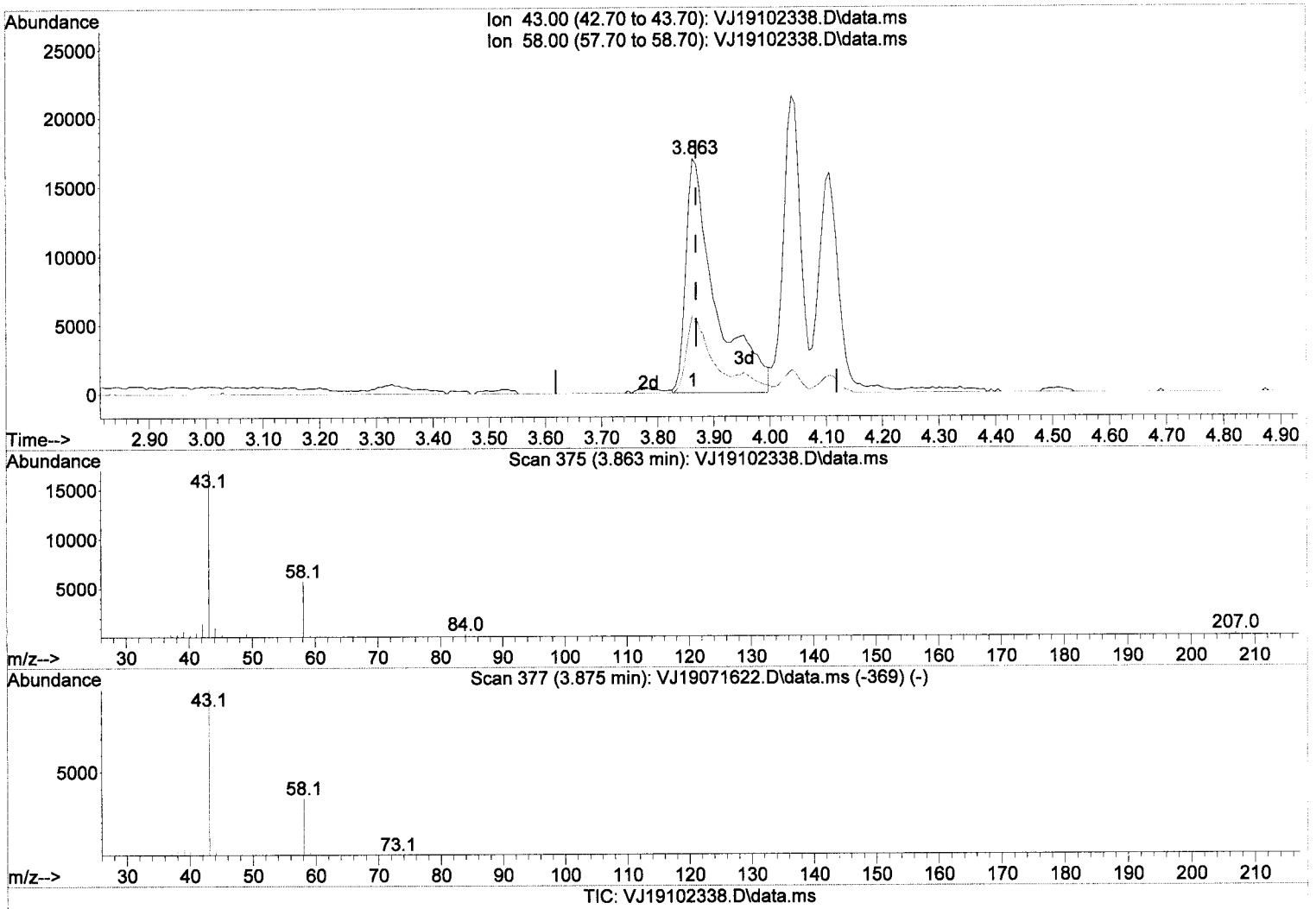
response 49385

Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	34.06
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102338.D
Acq On : 24 Oct 2019 5:00 am
Operator : MM
Sample : 9J23072-ICV1
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 24 09:41:25 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: VJ19102338.D\data.ms

(14) Acetone

3.863min (-0.005) 41.33 ug/L (m)

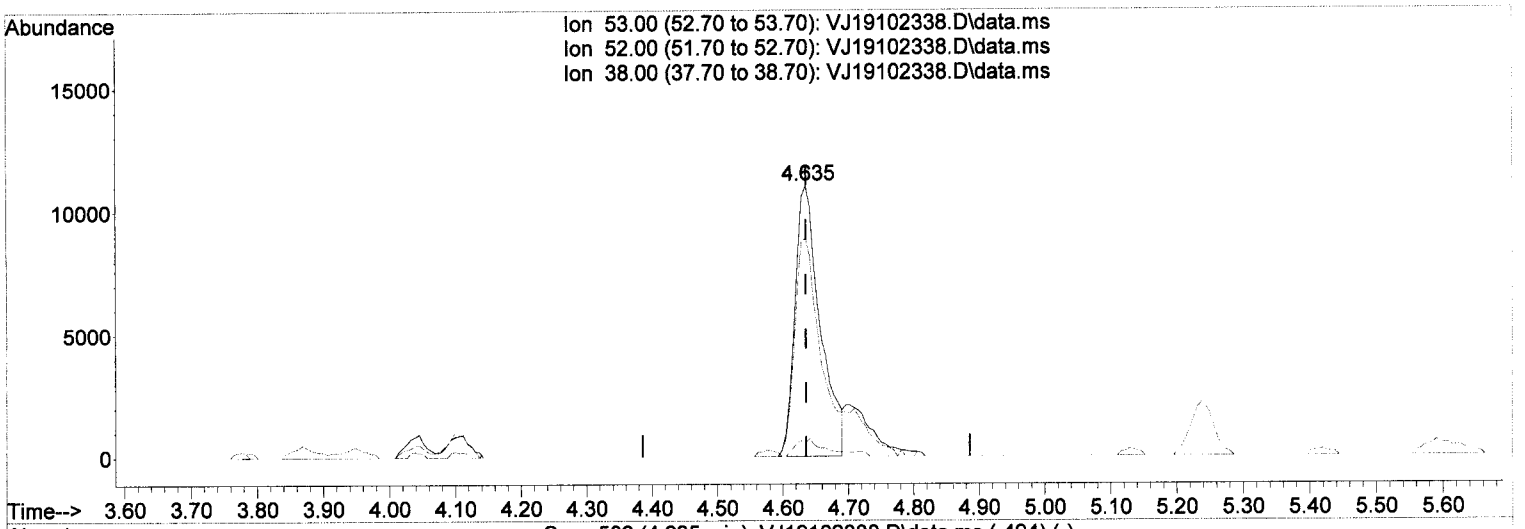
response 63006

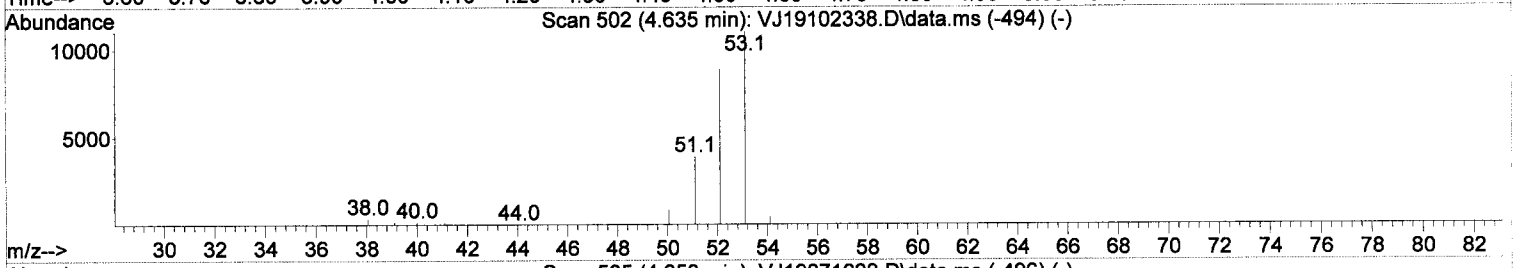
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.75
0.00	0.00	0.00
0.00	0.00	0.00

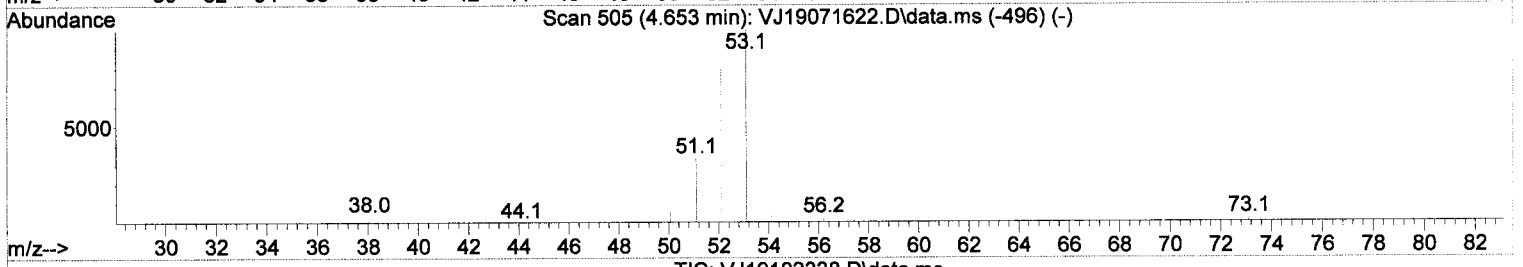
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102338.D
Acq On : 24 Oct 2019 5:00 am
Operator : MM
Sample : 9J23072-ICV1
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 24 09:41:25 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: VJ19102338.D\data.ms

(21) Acrylonitrile

4.635min (+ 0.000) 17.16 ug/L

response 29602

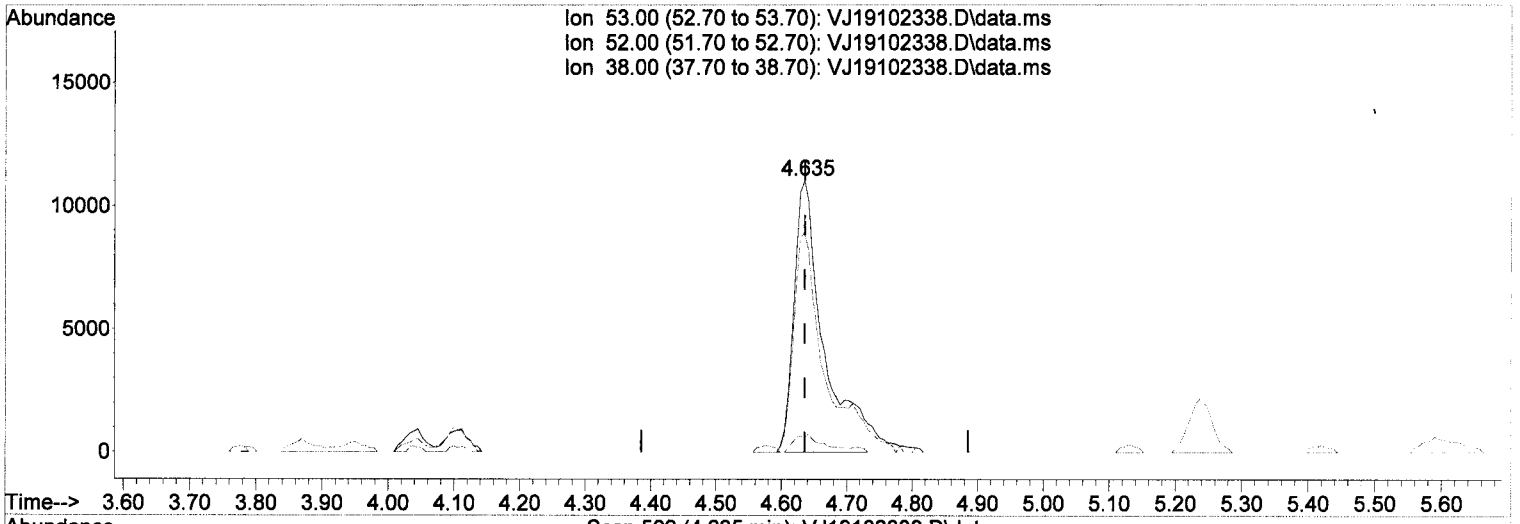
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	80.51
38.00	5.50	3.81
0.00	0.00	0.00

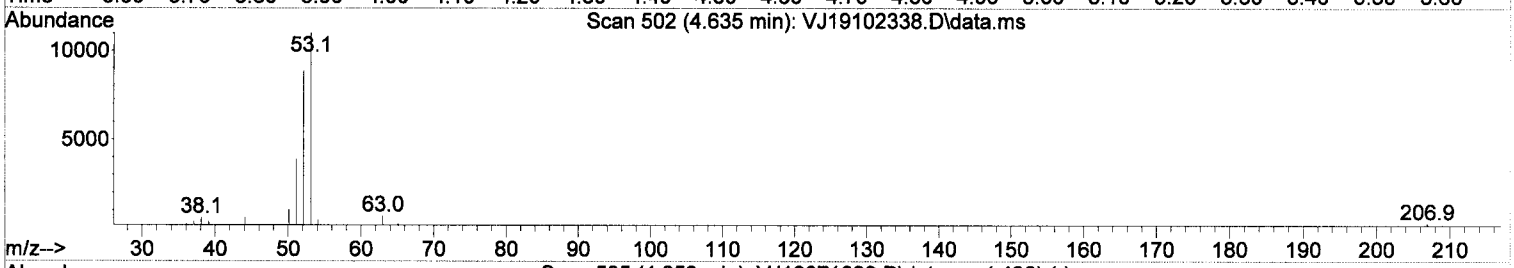
M.2

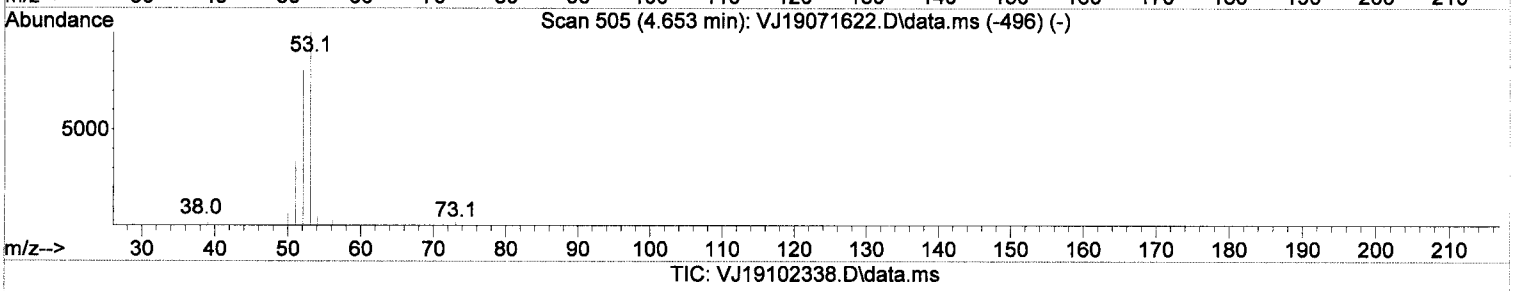
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102338.D
Acq On : 24 Oct 2019 5:00 am
Operator : MM
Sample : 9J23072-ICV1
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 24 09:41:25 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: VJ19102338.D\data.ms

(21) Acrylonitrile

4.635min (+ 0.000) 20.87 ug/L m

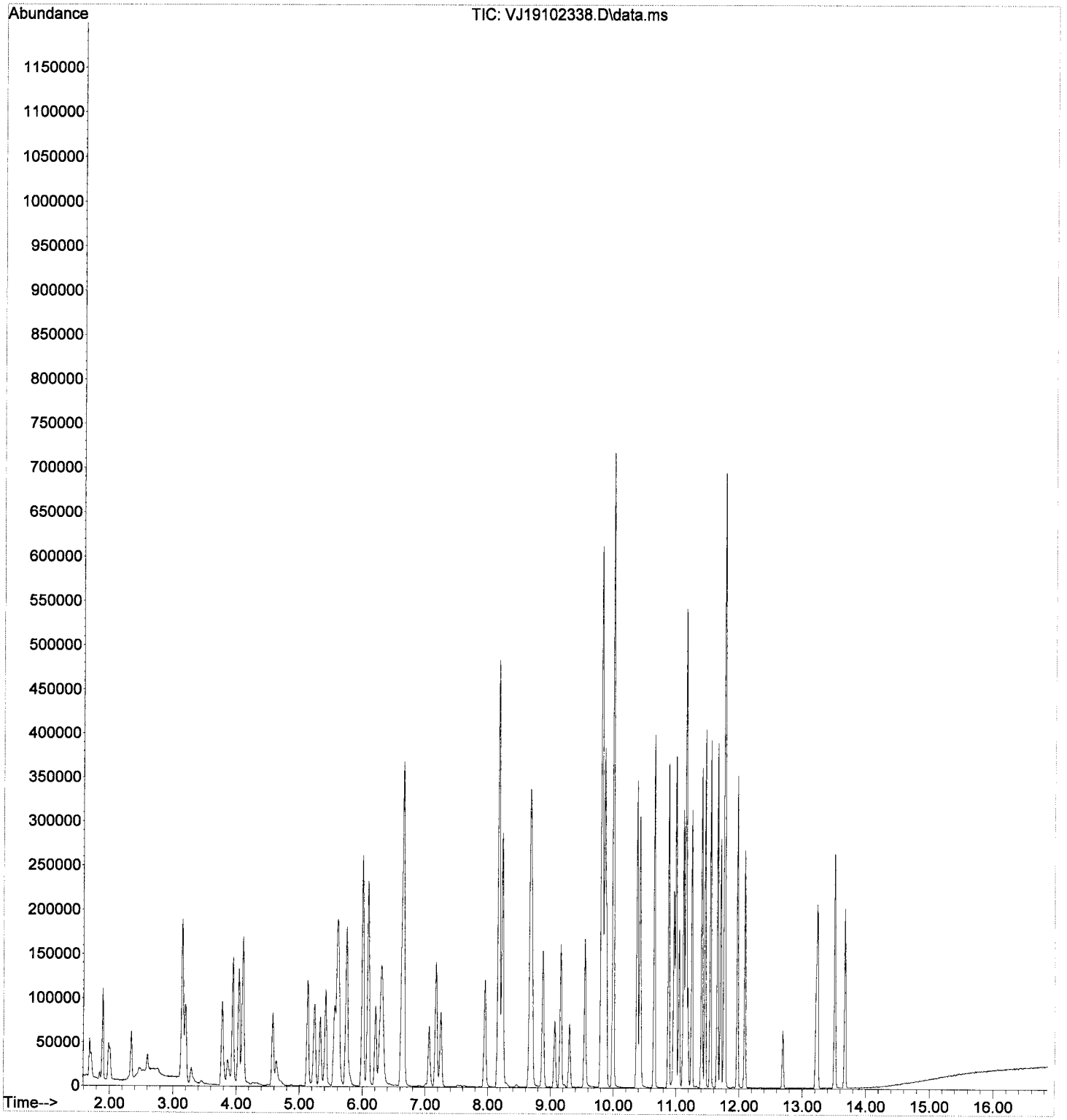
response 36020

Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	80.51
38.00	5.50	5.37
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102338.D
Acq On : 24 Oct 2019 5:00 am
Operator : MM
Sample : 9J23072-ICV1
Misc : 1X 5mL 20/40PPB VOC+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 24 09:41:25 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



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102339.D
Acq On : 24 Oct 2019 5:27 am
Operator : MM
Sample : 9J23072-ICV2
Misc : 1X 5mL 5/1250PPB OXY+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 24 09:41:28 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)	6.089	99	102568	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	279935	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	116291	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	81075	50.01	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	318450	50.47	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	392151	50.23	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	85744	51.06	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	360	0.15	ug/L	#	51
3) Chloromethane	1.891	50	3310	0.82	ug/L		94
4) Vinyl Chloride	1.983	62	266	0.09	ug/L	#	46
5) Bromomethane	2.342	96	4390	1.09	ug/L		95
6) Chloroethane	2.463	64	195	1.68	ug/L	#	47
8) Ethanol	3.315	45	132914	1319.11	ug/L		90
9) 1,1-Dichloroethene	3.145	61	879	0.23	ug/L		92
10) Carbon Disulfide	3.157	76	3679	0.52	ug/L		81
11) Freon 113	3.199	101	379	0.16	ug/L	#	73
12) Iodomethane	3.291	142	2820	3.63	ug/L		92
13) Methylene Chloride	3.783	84	2642	0.25	ug/L		98
14) Acetone	3.869	43	2284	1.46	ug/L		94
15) t-1,2-Dichloroethene	3.954	61	1316	0.33	ug/L		92
17) Methyl-tert-butyl-ether	4.106	73	1163	0.12	ug/L		57
18) tert-Butanol (TBA)	4.258	59	505484	~~627.62~~	ug/L	#	89
19) Diisopropyl ether (DIPE)	4.501	45	51568	5.26	ug/L		92
20) 1,1-Dichloroethane	4.580	63	950	0.23	ug/L		91
22) Ethyl-tert-butyl ether...	4.872	59	47320	5.36	ug/L		94
23) c-1,2-Dichloroethene	5.128	61	1019	0.26	ug/L		84
24) 2,2-Dichloropropane	5.244	77	754	0.19	ug/L		66
25) Bromochloromethane	5.329	49	367	0.15	ug/L	#	14
26) Chloroform	5.420	83	1021	0.23	ug/L		88
27) Carbon Tetrachloride	5.554	117	408	0.14	ug/L		90
28) Tetrahydrofuran	5.596	42	364	0.17	ug/L	#	28
29) 1,1,1-Trichloroethane	5.621	97	552	0.13	ug/L		83
31) 1,1-Dichloropropene	5.755	75	1195	0.30	ug/L		90
32) 2-Butanone (MEK)	5.742	43	1199	0.43	ug/L		52
33) Benzene	6.004	78	3439	0.26	ug/L		92
34) tert-Amyl methyl ether...	6.150	73	42189	4.96	ug/L		96
35) 1,2-Dichloroethane (EDC)	6.211	62	507	0.12	ug/L	#	49
36) iso-Butyl Alcohol	6.320	43	1005	3.19	ug/L		88
38) Trichloroethene (TCE)	6.625	130	796	0.30	ug/L		86
39) tert-Amyl ethyl ether ...	6.910	59	31873	5.39	ug/L		89
41) 1,2-Dichloropropane	7.172	63	648	0.20	ug/L	#	40
42) Bromodichloromethane	7.257	83	453	0.14	ug/L		83
44) c-1,3-Dichloropropene	7.963	75	620	0.15	ug/L		70
46) Toluene	8.231	91	3493	0.27	ug/L		96
47) Tetrachloroethene (PCE)	8.675	166	862	0.36	ug/L		74
49) t-1,3-Dichloropropene	8.705	75	446	0.11	ug/L	#	45
52) 1,3-Dichloropropane	9.161	76	422	0.08	ug/L		66
55) Chlorobenzene	9.824	112	2136	0.29	ug/L		94
56) Ethylbenzene	9.855	91	3431	0.27	ug/L		97
57) 1,1,1,2-Tetrachloroethane	9.885	131	365	0.16	ug/L	#	49

1428.86

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102339.D
Acq On : 24 Oct 2019 5:27 am
Operator : MM
Sample : 9J23072-ICV2
Misc : 1X 5mL 5/1250PPB OXY+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 24 09:41:28 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

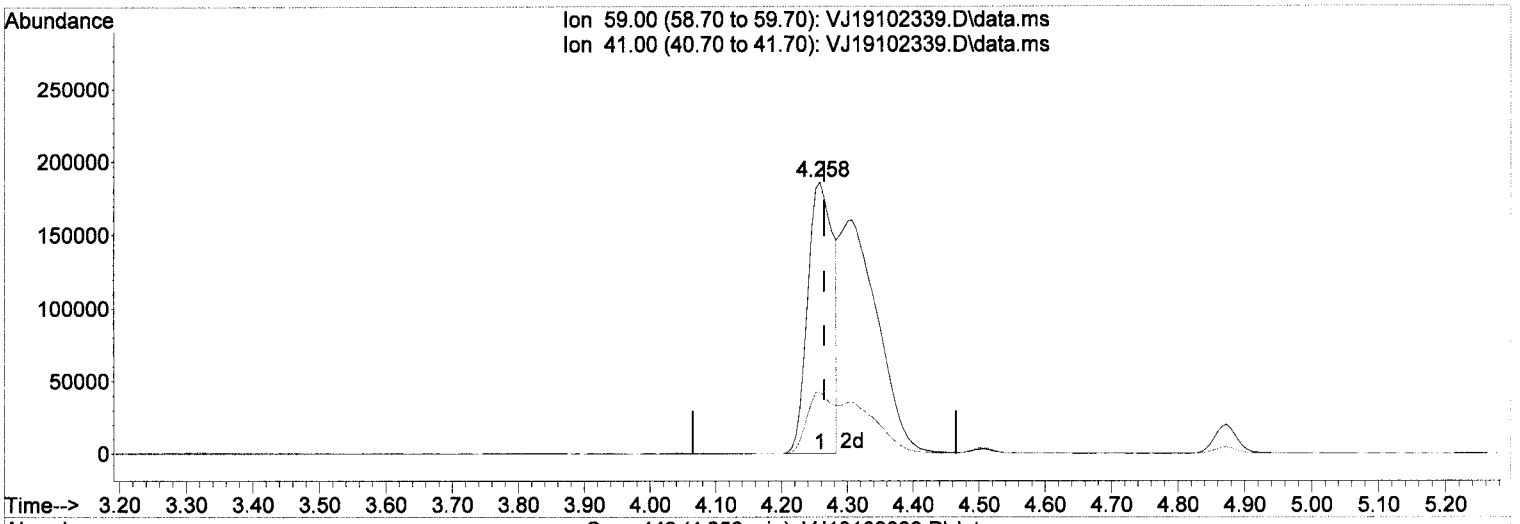
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
58) m,p-Xylenes (2)	9.995	91	4873	0.54 ug/L	94
59) o-Xylene	10.372	91	2135	0.25 ug/L	82
60) Styrene	10.427	104	1126	0.34 ug/L	95
62) Isopropylbenzene	10.652	105	2409	0.23 ug/L	93
65) Bromobenzene	10.968	156	607	0.25 ug/L	93
66) n-Propylbenzene	10.993	91	4033	0.32 ug/L	93
68) 2-Chlorotoluene	11.114	126	692	0.31 ug/L	96
69) 1,3,5-Trimethylbenzene	11.157	105	2252	0.29 ug/L	100
72) 4-Chlorotoluene	11.248	91	2491	0.34 ug/L	96
73) tert-Butylbenzene	11.406	91	1019	0.22 ug/L	94
74) 1,2,4-Trimethylbenzene	11.461	105	2316	0.30 ug/L	97
75) sec-Butylbenzene	11.546	105	2816	0.28 ug/L	96
76) 4-Isopropyltoluene	11.656	119	2479	0.33 ug/L	93
77) 1,3-Dichlorobenzene	11.710	146	1793	0.41 ug/L	97
78) 1,4-Dichlorobenzene	11.777	146	1826	0.39 ug/L	83
79) n-Butylbenzene	11.972	91	3638	0.50 ug/L	93
80) 1,2-Dichlorobenzene	12.094	146	1062	0.27 ug/L	90
82) Hexachlorobutadiene	13.219	223	301	0.60 ug/L #	74
83) 1,2,4-Trichlorobenzene	13.237	180	1525	0.63 ug/L	88
84) Naphthalene	13.517	128	4638	0.54 ug/L	91
85) 1,2,3-Trichlorobenzene	13.675	180	1265	0.54 ug/L	88

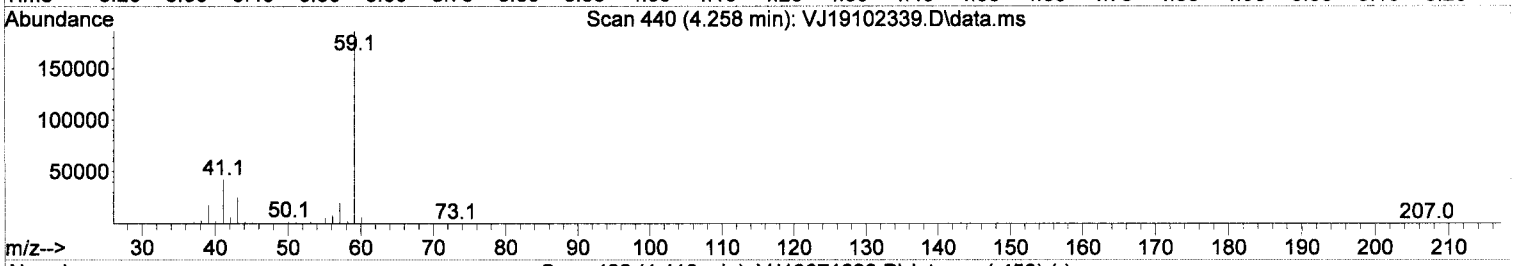
(#) = qualifier out of range (m) = manual integration (+) = signals summed

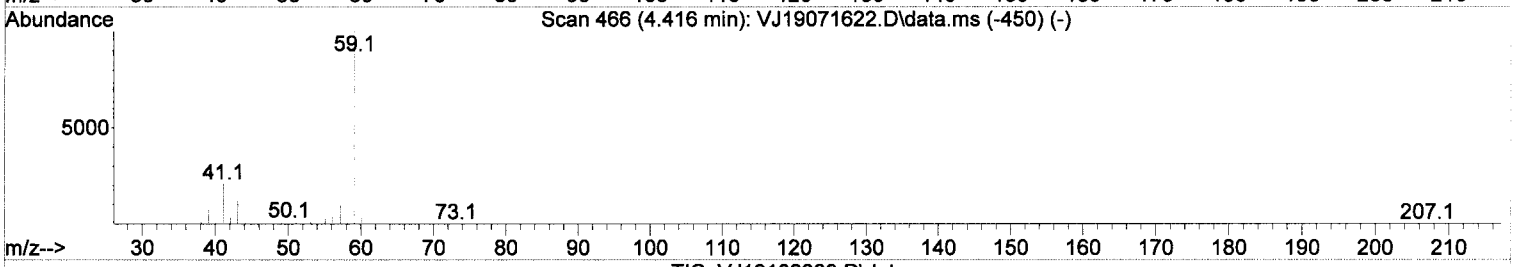
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102339.D
Acq On : 24 Oct 2019 5:27 am
Operator : MM
Sample : 9J23072-ICV2
Misc : 1X 5mL 5/1250PPB OXY+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 24 09:41:28 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: VJ19102339.D\data.ms

(18) tert-Butanol (TBA)

4.258min (-0.006) 627.62 ug/L

response 505484

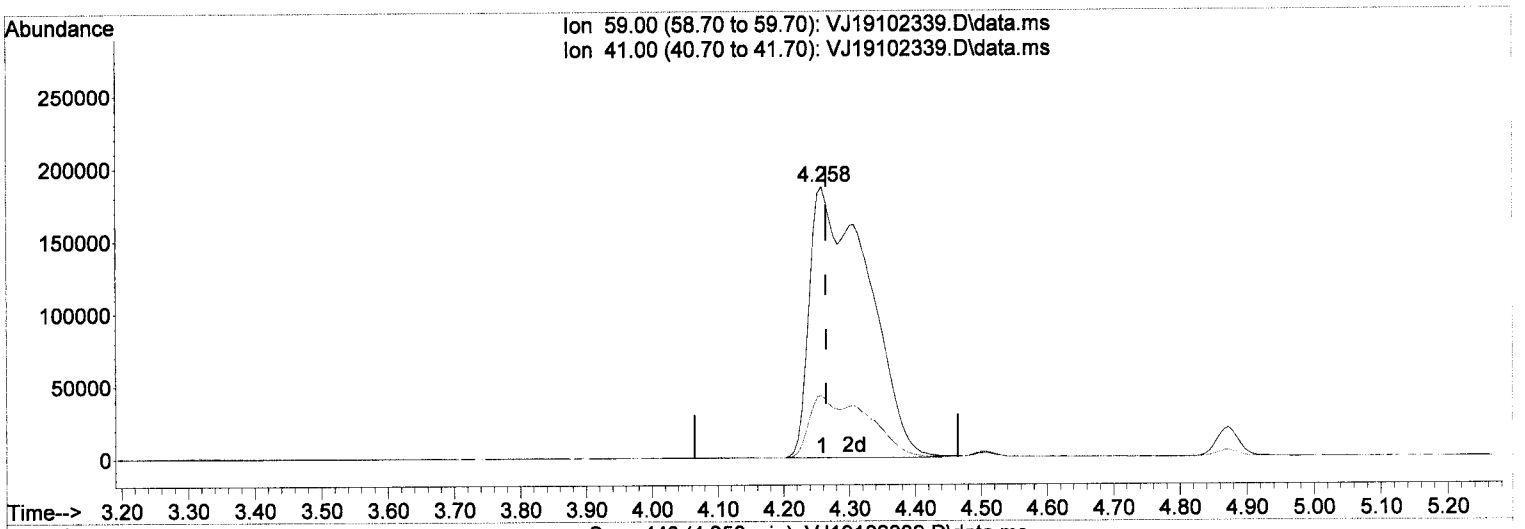
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	22.78#
0.00	0.00	0.00
0.00	0.00	0.00

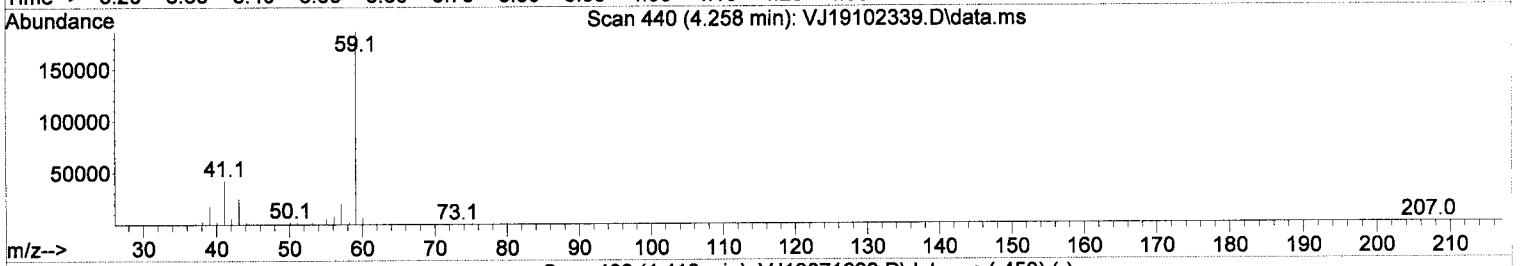
M.T.

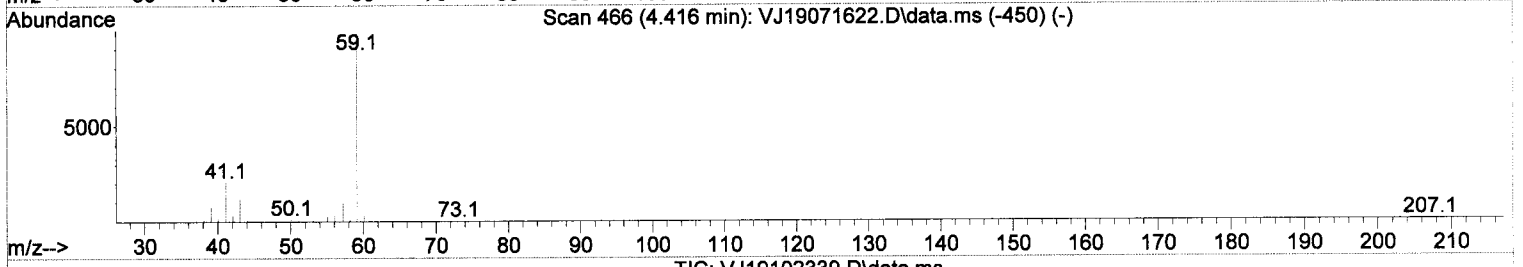
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102339.D
Acq On : 24 Oct 2019 5:27 am
Operator : MM
Sample : 9J23072-ICV2
Misc : 1X 5mL 5/1250PPB OXY+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 24 09:41:28 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: VJ19102339.D\data.ms

(18) tert-Butanol (TBA)

4.258min (-0.006) 1428.86 ug/L m

response 1150797

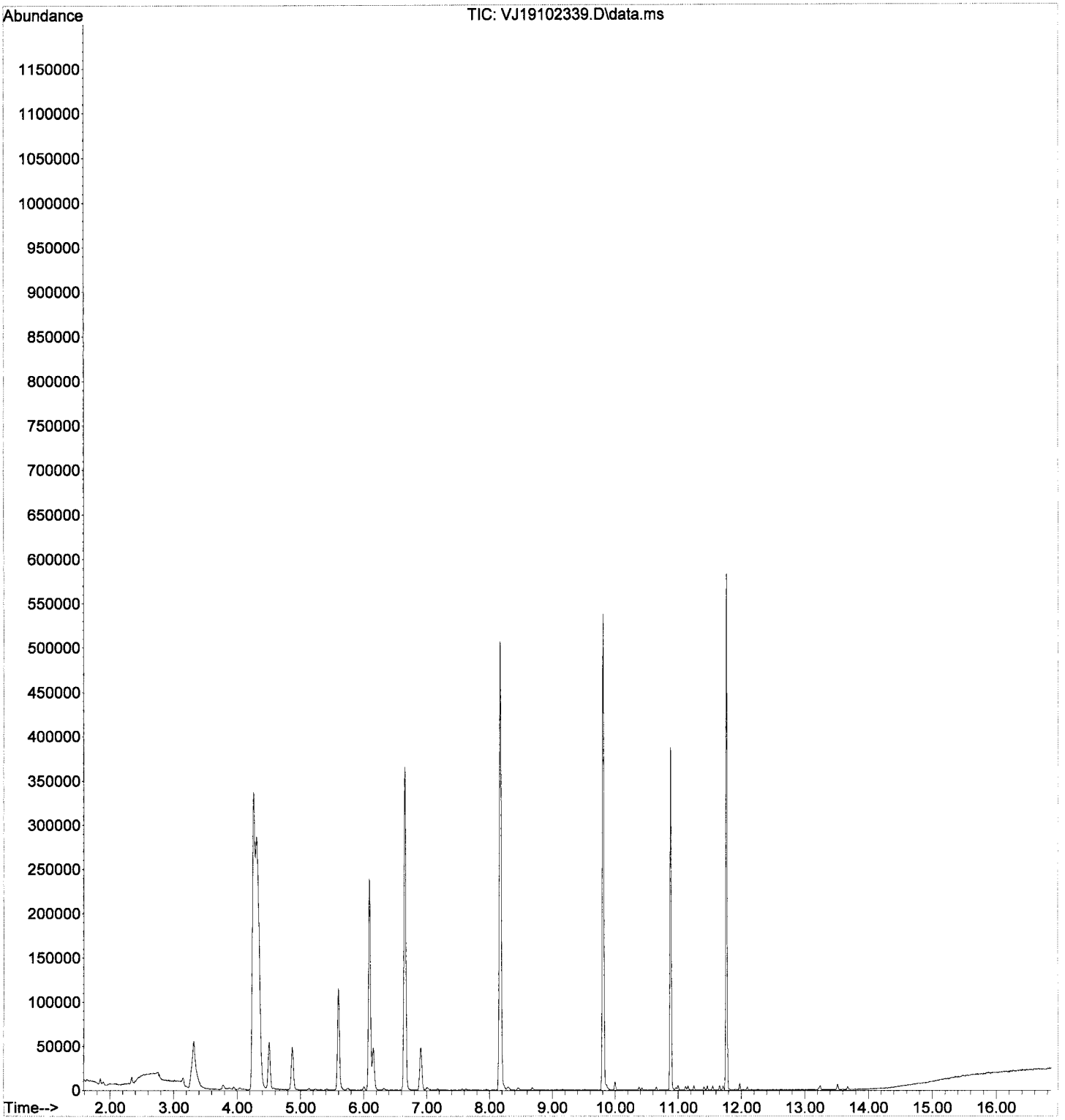
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	22.78#
0.00	0.00	0.00
0.00	0.00	0.00

M 10/24/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102339.D
Acq On : 24 Oct 2019 5:27 am
Operator : MM
Sample : 9J23072-ICV2
Misc : 1X 5mL 5/1250PPB OXY+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 24 09:41:28 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



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102340.D
Acq On : 24 Oct 2019 5:54 am
Operator : MM
Sample : 9J23072-IBL6
Misc : 1X 5mL DI+MeOH
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 24 09:41:31 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

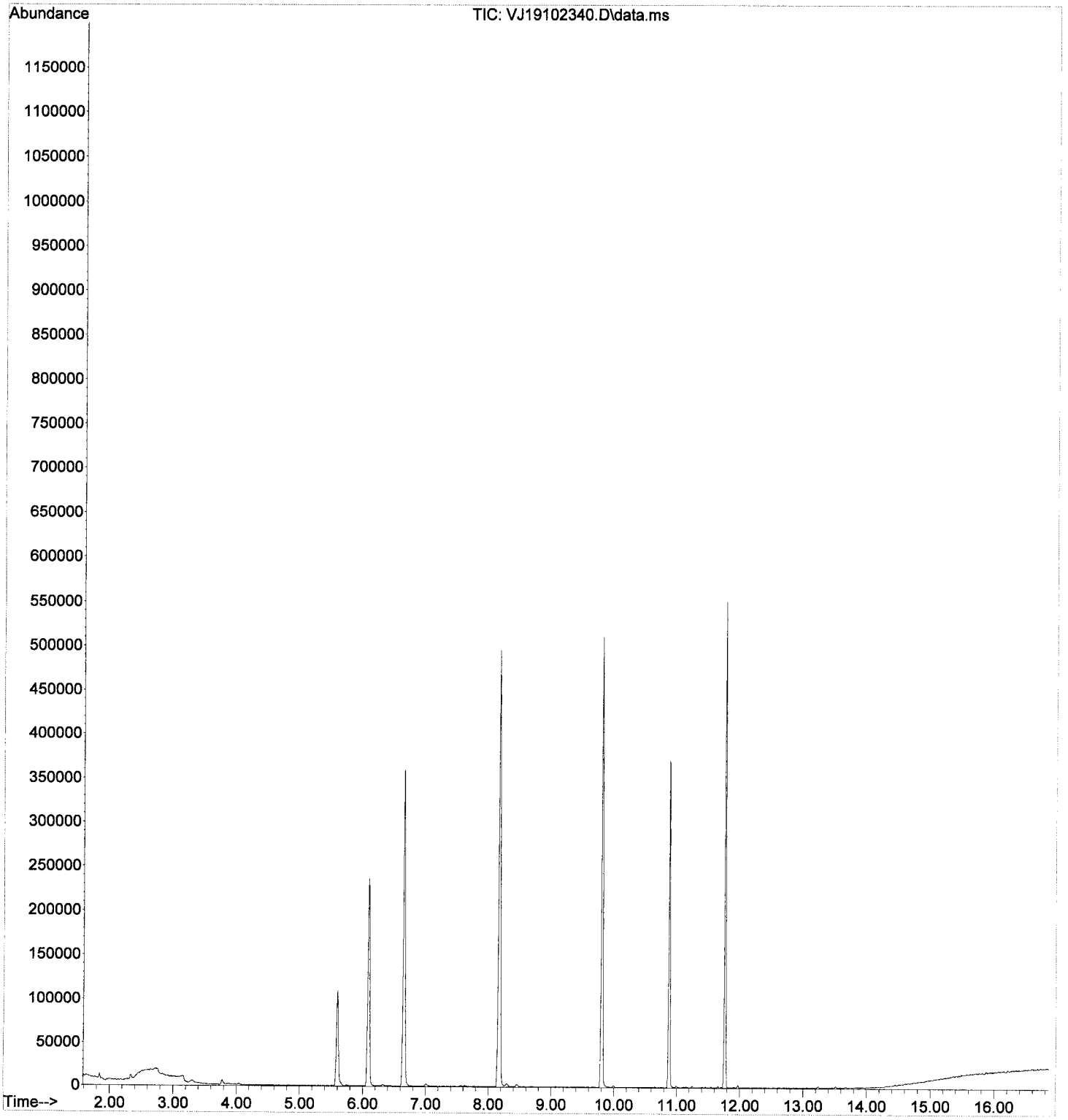
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	100948	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	272905	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	112217	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	77569	48.61	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	310823	50.05	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	380882	50.05	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	82709	51.05	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.892	50	1724	0.44	ug/L		77
5) Bromomethane	2.342	96	3174	0.10	ug/L		93
6) Chloroethane	2.469	64	55	1.35	ug/L	#	68
8) Ethanol	3.315	45	5033	Below Cal			84
10) Carbon Disulfide	3.157	76	1703	0.24	ug/L		45
12) Iodomethane	3.291	142	1937	2.53	ug/L		86
13) Methylene Chloride	3.777	84	2471	0.19	ug/L	#	71
14) Acetone	3.869	43	1441	0.94	ug/L	#	42
28) Tetrahydrofuran	5.590	42	208	0.10	ug/L	#	43
32) 2-Butanone (MEK)	5.749	43	733	0.27	ug/L		52
36) iso-Butyl Alcohol	6.308	43	702	2.26	ug/L		89
58) m,p-Xylenes (2)	9.995	91	1183	0.13	ug/L		90
60) Styrene	10.421	104	205	0.20	ug/L	#	40
66) n-Propylbenzene	10.993	91	1329	0.11	ug/L		89
72) 4-Chlorotoluene	11.248	91	620	0.09	ug/L	#	46
74) 1,2,4-Trimethylbenzene	11.461	105	648	0.09	ug/L		94
75) sec-Butylbenzene	11.546	105	871	0.09	ug/L		68
76) 4-Isopropyltoluene	11.656	119	954	0.13	ug/L		93
77) 1,3-Dichlorobenzene	11.710	146	423	0.10	ug/L		78
78) 1,4-Dichlorobenzene	11.777	146	590	0.13	ug/L	#	54
79) n-Butylbenzene	11.978	91	1462	0.21	ug/L		90
83) 1,2,4-Trichlorobenzene	13.250	180	684	0.29	ug/L	#	61
84) Naphthalene	13.517	128	1765	0.21	ug/L		79
85) 1,2,3-Trichlorobenzene	13.669	180	544	0.24	ug/L	#	58

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102340.D
Acq On : 24 Oct 2019 5:54 am
Operator : MM
Sample : 9J23072-IBL6
Misc : 1X 5mL DI+MeOH
ALS Vial : 26 Sample Multiplier: 1

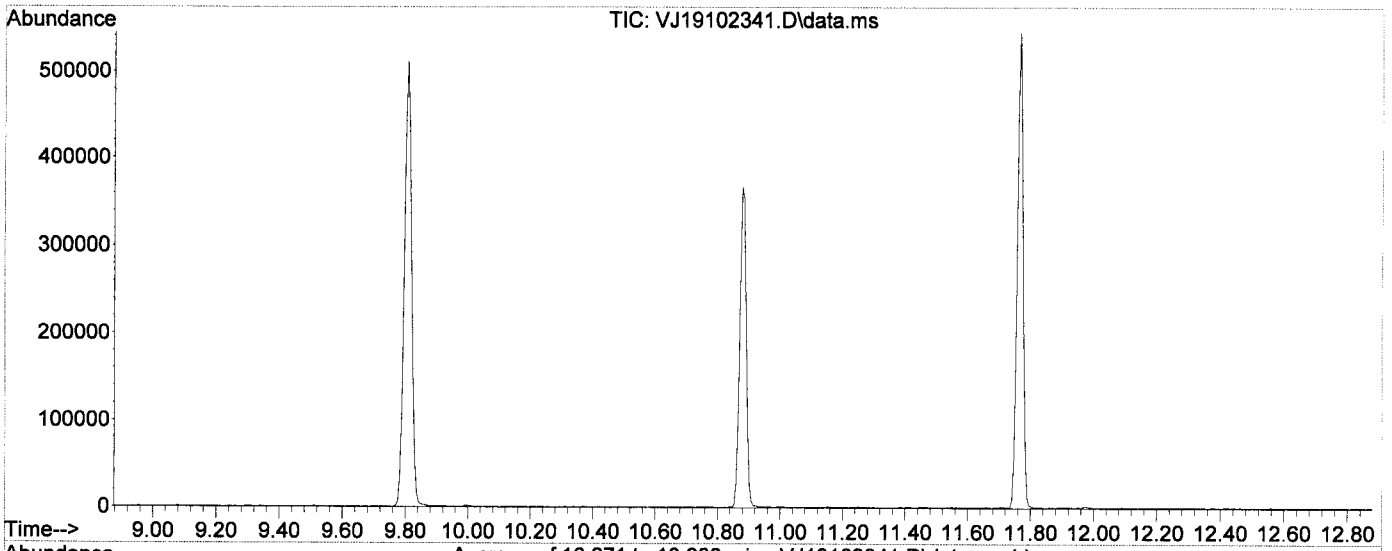
Quant Time: Oct 24 09:41:31 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

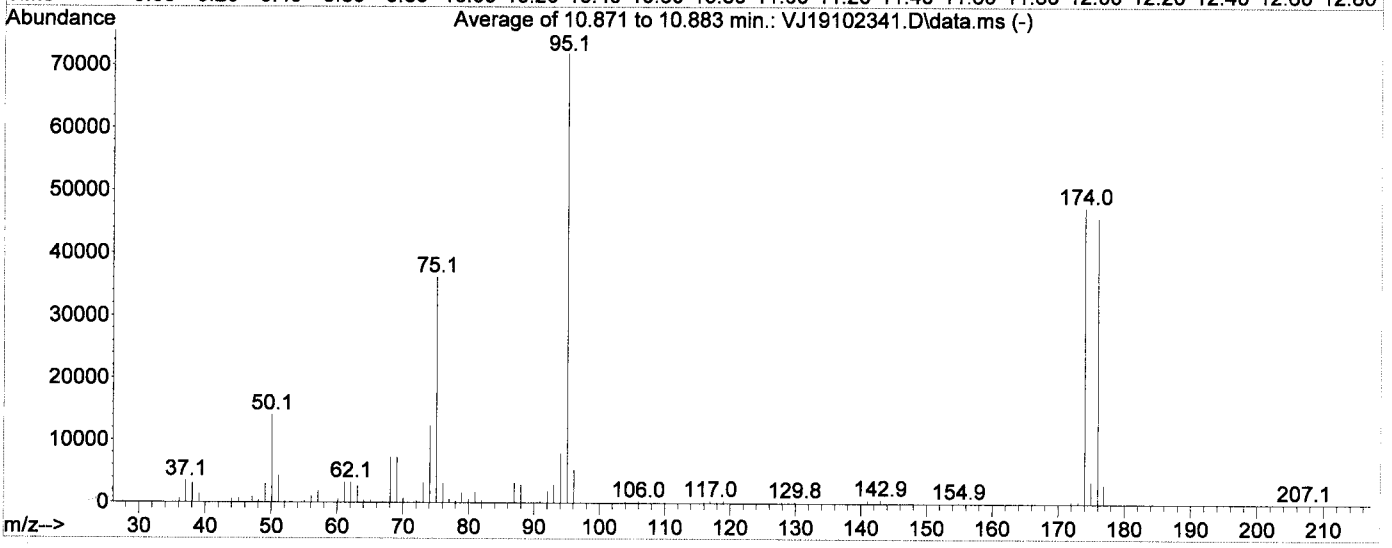


Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102341.D
Acq On : 24 Oct 2019 6:21 am
Operator : MM
Sample : 9J23072-TUN2
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 27 Sample Multiplier: 1

Integration File: APEXG.P

Method : C:\msdchem\1\methods\VJ191024G.M
Title : NWTPH-Gx by GC/MS
Last Update : Thu Oct 24 12:01:51 2019





AutoFind: Scans 1527, 1528, 1529; Background Corrected with Scan 1521

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	151.6	71859	PASS
96	95	5	9	7.3	5269	PASS
173	174	0.00	2	0.7	332	PASS
174	95	50	200	66.0	47405	PASS
175	174	5	9	7.5	3553	PASS
176	174	95	105	96.5	45755	PASS
177	176	5	10	6.6	2999	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102341.D
Acq On : 24 Oct 2019 6:21 am
Operator : MM
Sample : 9J23072-TUN2
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 24 12:07:29 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

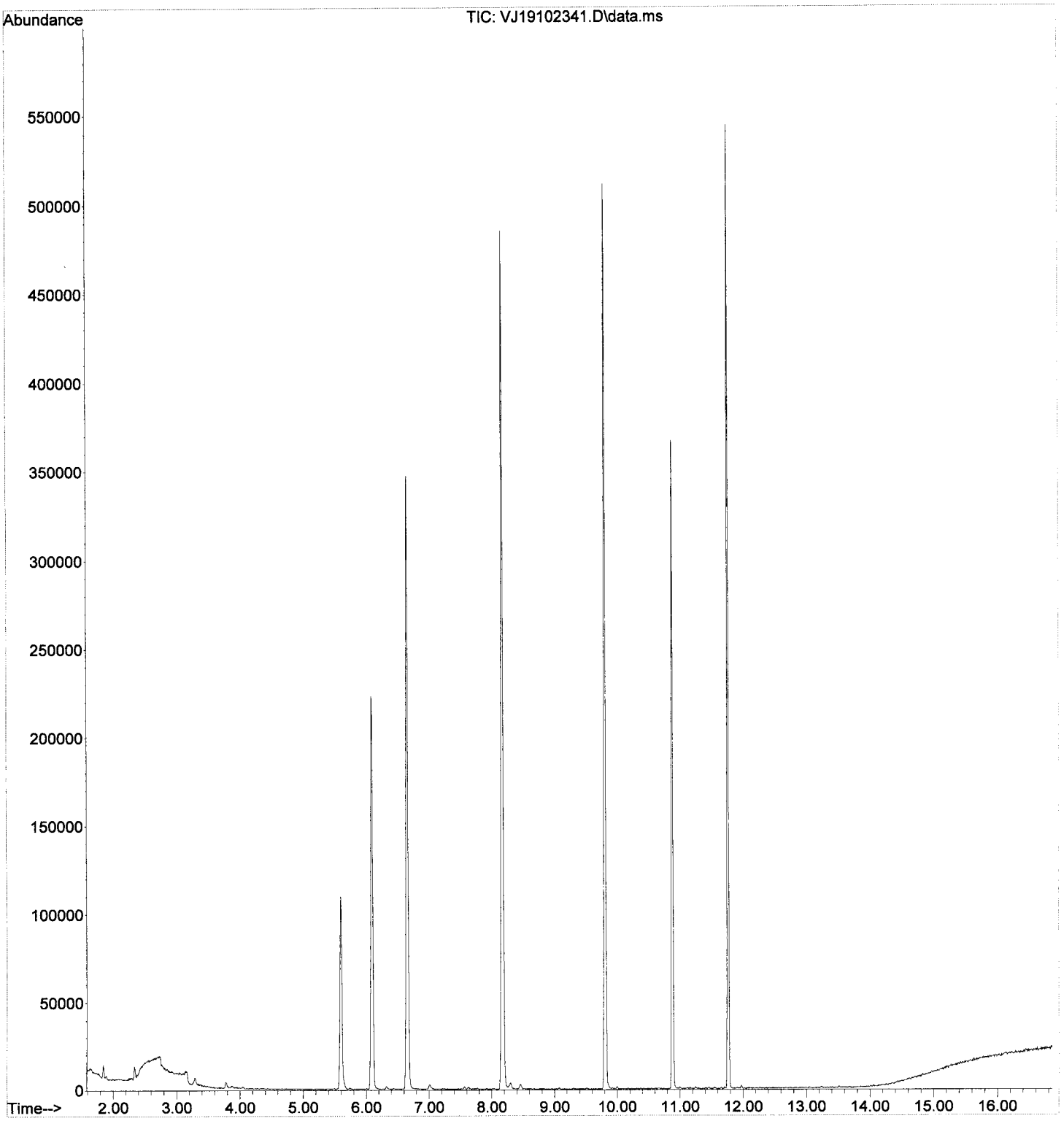
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	157543	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	301152	50.24	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	81118	50.24	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	371145	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	267046	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	173688	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	104995m	16.84	ug/L	
5) TPHg (C5-C9)	9.239	TIC	335883m	Below Cal		
6) TPHg (C6-C10)	9.239	TIC	297596m	8.34	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	383945m	Below Cal		

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102341.D
Acq On : 24 Oct 2019 6:21 am
Operator : MM
Sample : 9J23072-TUN2
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 27 Sample Multiplier: 1

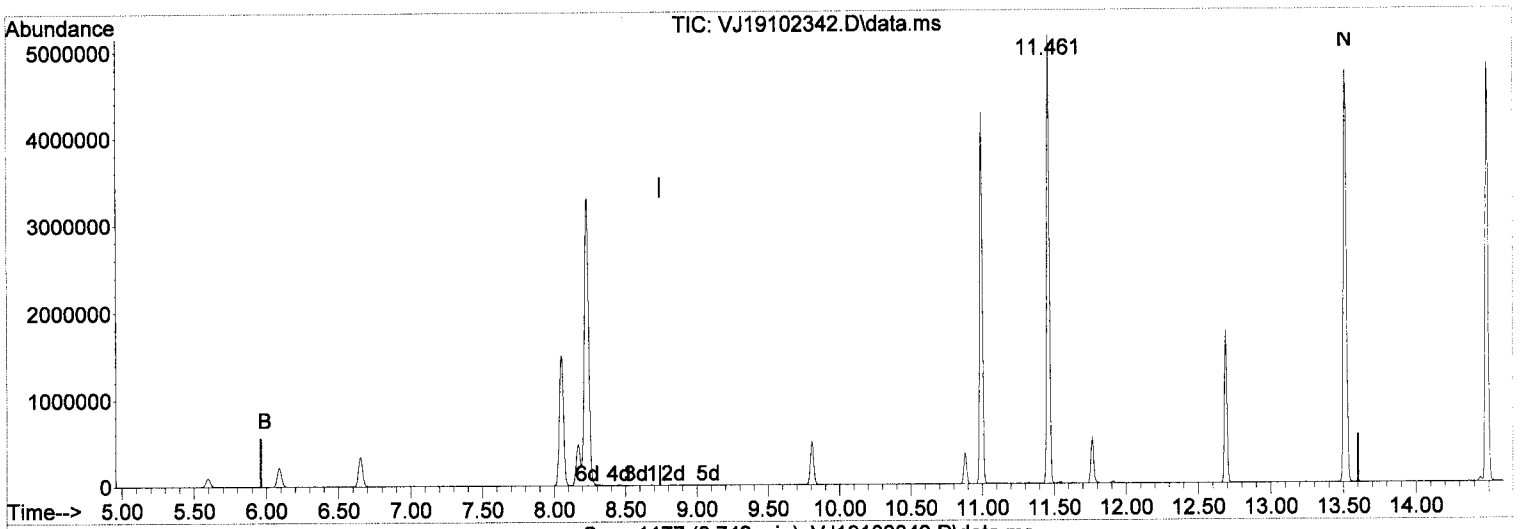
Quant Time: Oct 24 12:07:29 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration

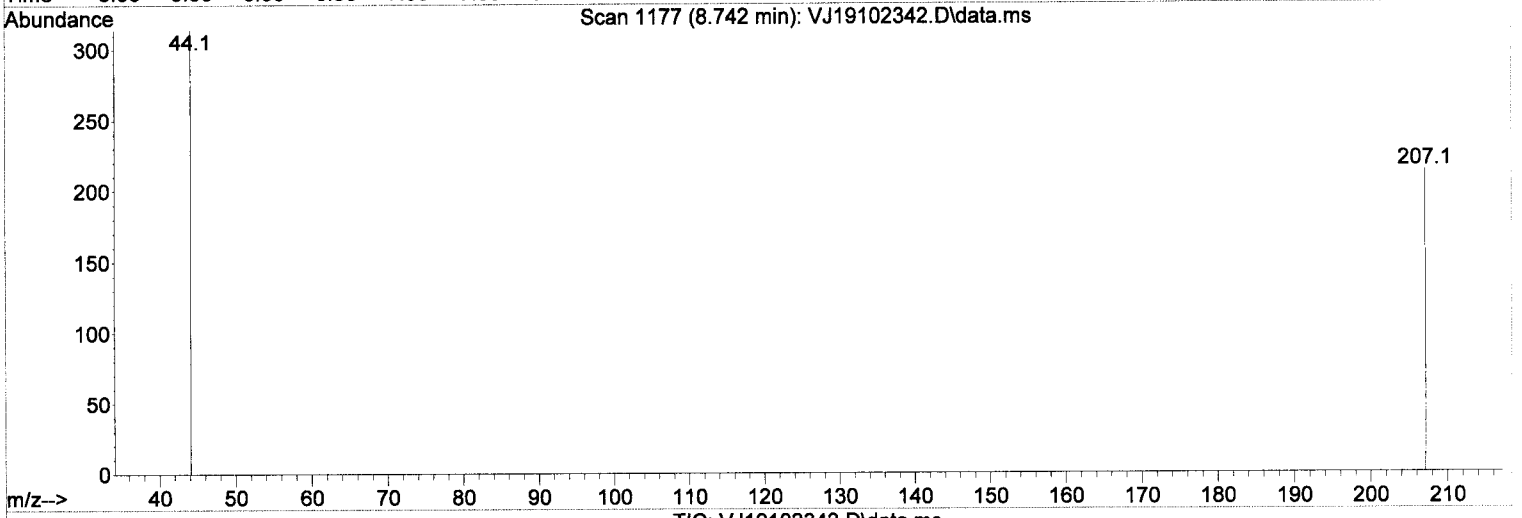


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102342.D
Acq On : 24 Oct 2019 6:48 am
Operator : MM
Sample : 9J23072-RT1
Misc : A19A167 VPH RT STD
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 24 12:07:39 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: VJ19102342.D\data.ms

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

8.739min (0.000) 3791.19 ug/L m

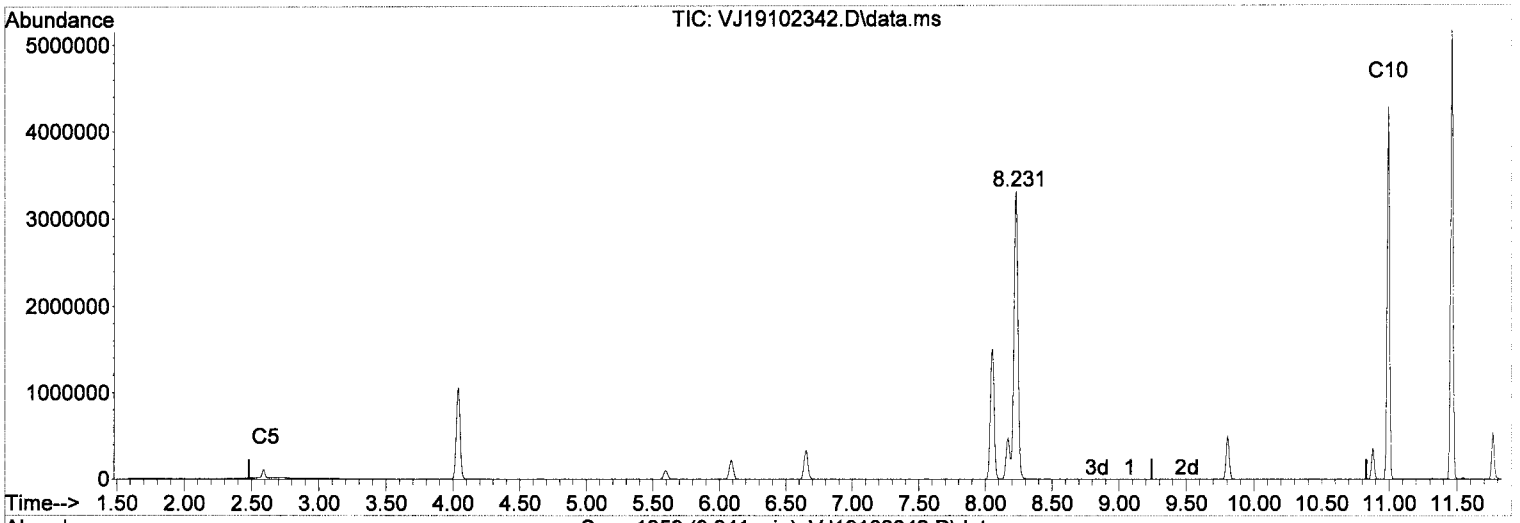
response 30811353

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.94#
0.00	0.00	0.75#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102342.D
Acq On : 24 Oct 2019 6:48 am
Operator : MM
Sample : 9J23072-RT1
Misc : A19A167 VPH RT STD
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 24 12:07:39 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: VJ19102342.D\data.ms

(5) TPHg (C5-C9) (H)

9.239min (0.000) 1281.09 ug/L m

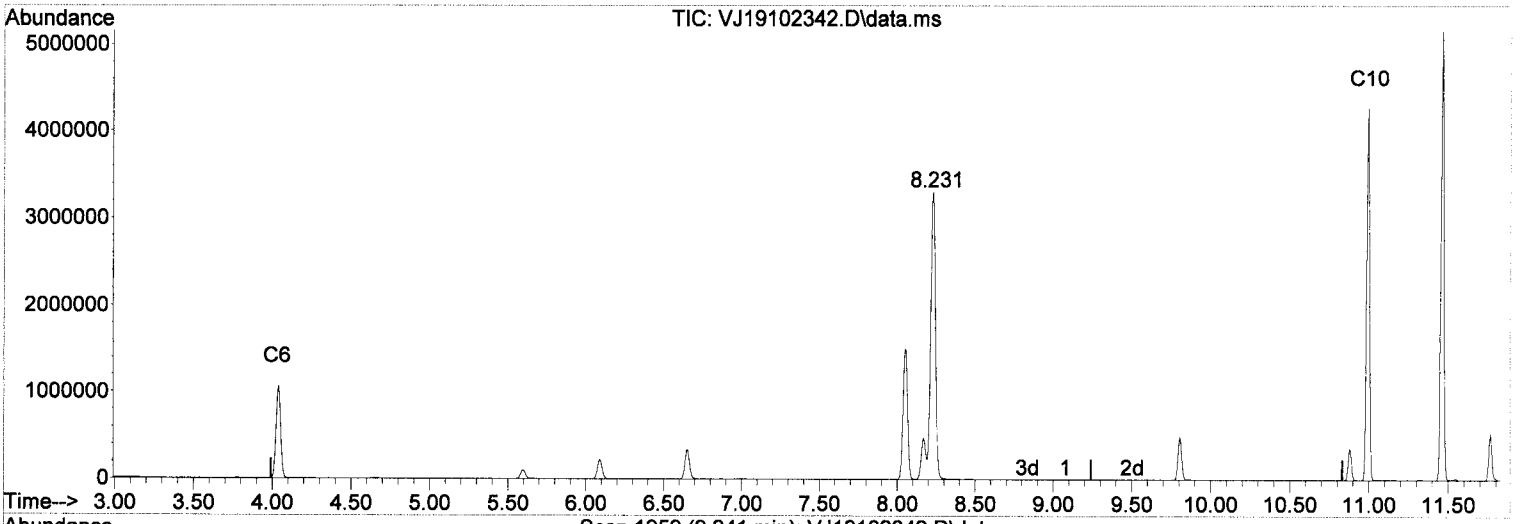
response 12973167

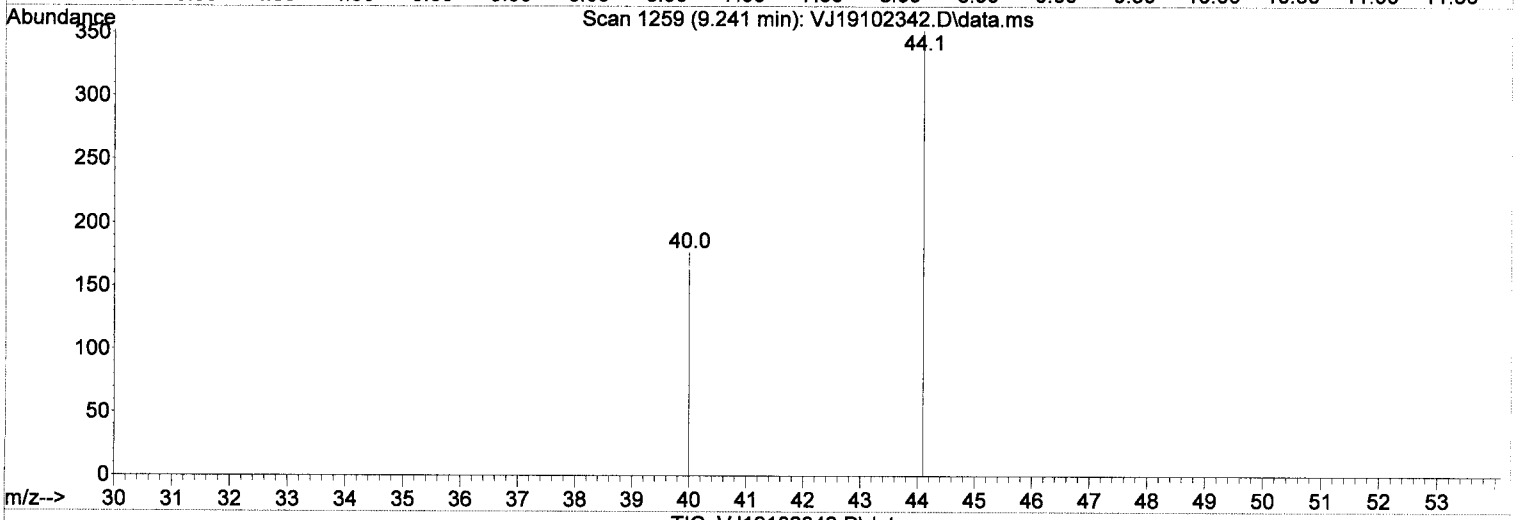
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.23#
0.00	0.00	1.78#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102342.D
Acq On : 24 Oct 2019 6:48 am
Operator : MM
Sample : 9J23072-RT1
Misc : A19A167 VPH RT STD
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 24 12:07:39 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: VJ19102342.D\data.ms

(6) TPHg (C6-C10) (H)

9.239min (0.000) 1426.94 ug/L m

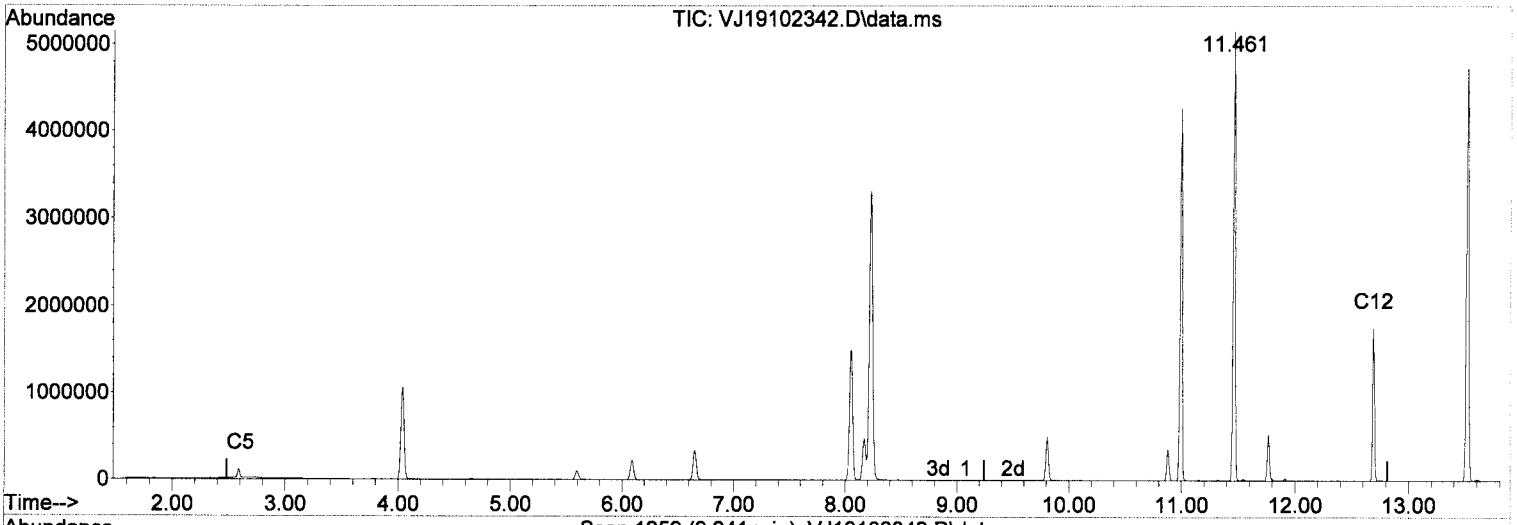
response 12428804

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.33#
0.00	0.00	1.85#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102342.D
Acq On : 24 Oct 2019 6:48 am
Operator : MM
Sample : 9J23072-RT1
Misc : A19A167 VPH RT STD
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 24 12:07:39 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: VJ19102342.D\data.ms

(7) CA-LUFT (C5-C12) (H)

9.239min (0.000) 2235.31 ug/L m

response 26853201

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	1.08#
0.00	0.00	0.86#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102342.D
Acq On : 24 Oct 2019 6:48 am
Operator : MM
Sample : 9J23072-RT1
Misc : A19A167 VPH RT STD
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 24 12:07:39 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

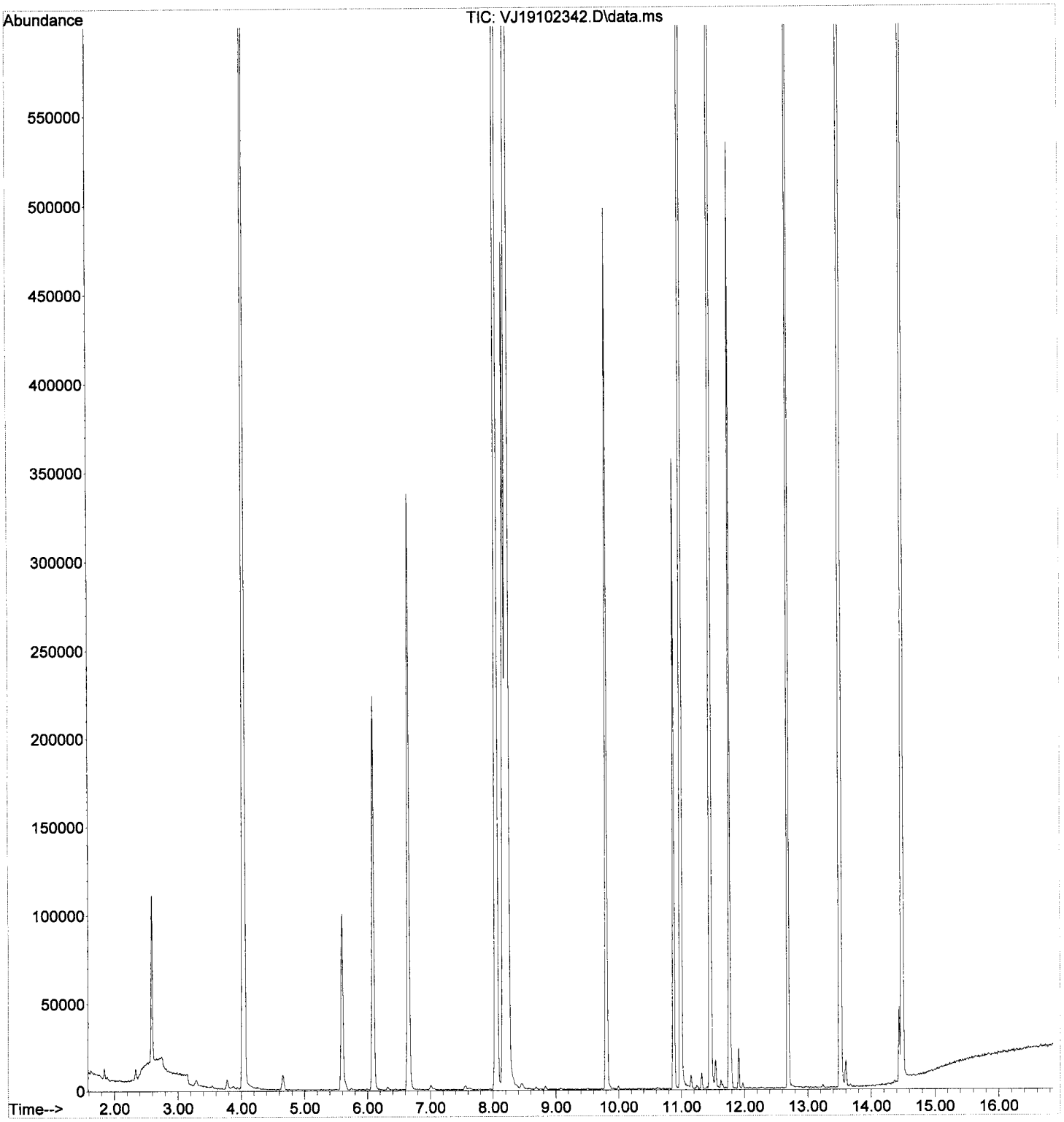
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	152504	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	291705	50.27	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	79181	50.66	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	374151	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	260047	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	178769	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	30811353m	3791.19	ug/L	
5) TPHg (C5-C9)	9.239	TIC	12973167m	1281.09	ug/L	
6) TPHg (C6-C10)	9.239	TIC	12428804m	1426.94	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	26853201m	2235.31	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102342.D
Acq On : 24 Oct 2019 6:48 am
Operator : MM
Sample : 9J23072-RT1
Misc : A19A167 VPH RT STD
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 24 12:07:39 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



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102343.D
Acq On : 24 Oct 2019 7:14 am
Operator : MM
Sample : 9J23072-IBL7
Misc : 1X 5mL DI+MeOH
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 24 12:08:37 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

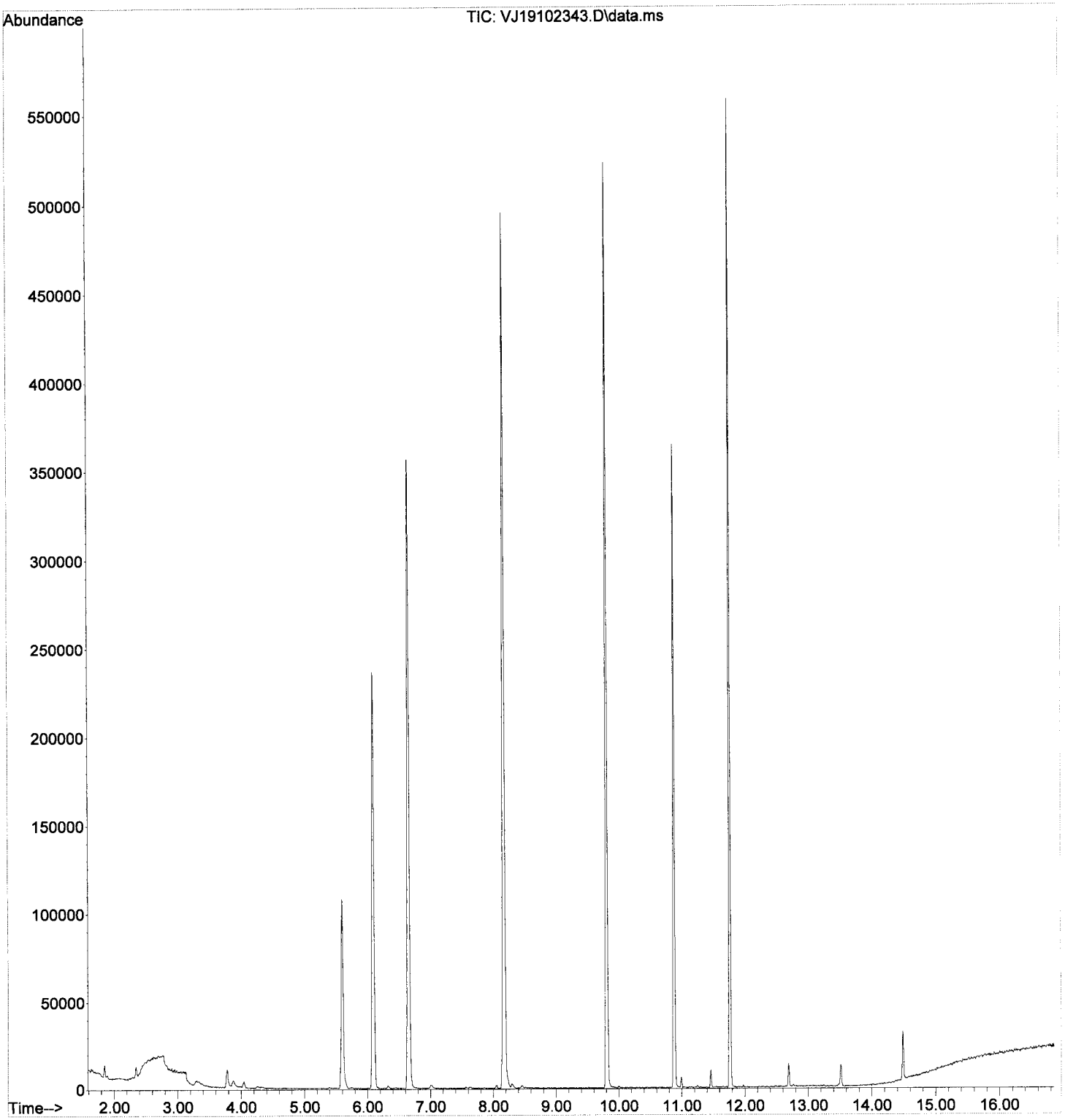
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	162093	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	309916	50.25	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	81881	49.28	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	381407	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	272169	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	173838	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	162878m	23.62	ug/L	
5) TPHg (C5-C9)	9.239	TIC	367418m	Below Cal		
6) TPHg (C6-C10)	9.239	TIC	301030m	7.76	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	454097m	4.31	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102343.D
Acq On : 24 Oct 2019 7:14 am
Operator : MM
Sample : 9J23072-IBL7
Misc : 1X 5mL DI+MeOH
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 24 12:08:37 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



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102344.D
Acq On : 24 Oct 2019 7:41 am
Operator : MM
Sample : 9J23072-ICB2
Misc : 1X 5mL DI+MeOH
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 24 12:08:40 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

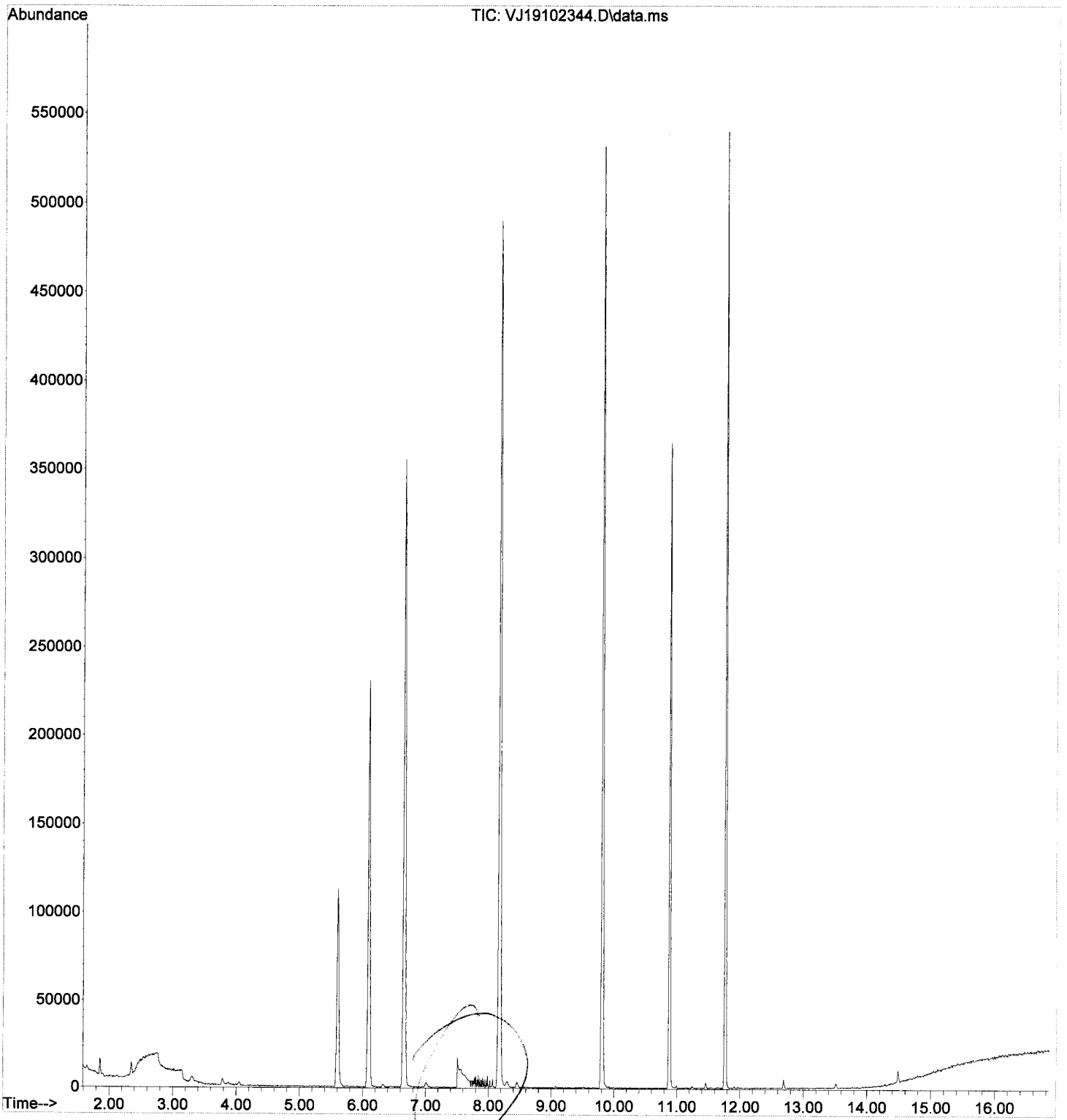
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	157703	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	301697	50.28	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	79924	49.45	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	376233	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	267981	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	171088	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	224158m	31.96	ug/L	
5) TPHg (C5-C9)	9.239	TIC	461564m	6.37	ug/L	
6) TPHg (C6-C10)	9.239	TIC	415558m	21.81	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	511341m	10.14	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102344.D
Acq On : 24 Oct 2019 7:41 am
Operator : MM
Sample : 9J23072-ICB2
Misc : 1X 5mL DI+MeOH
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 24 12:08:40 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



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102345.D
Acq On : 24 Oct 2019 8:08 am
Operator : MM
Sample : 9J23072-CALC
Misc : 1X 5mL 50PPB GX+MeOH
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 24 11:56:22 2019
Quant Method : C:\msdchem\1\methods\~~VJ191024~~G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration

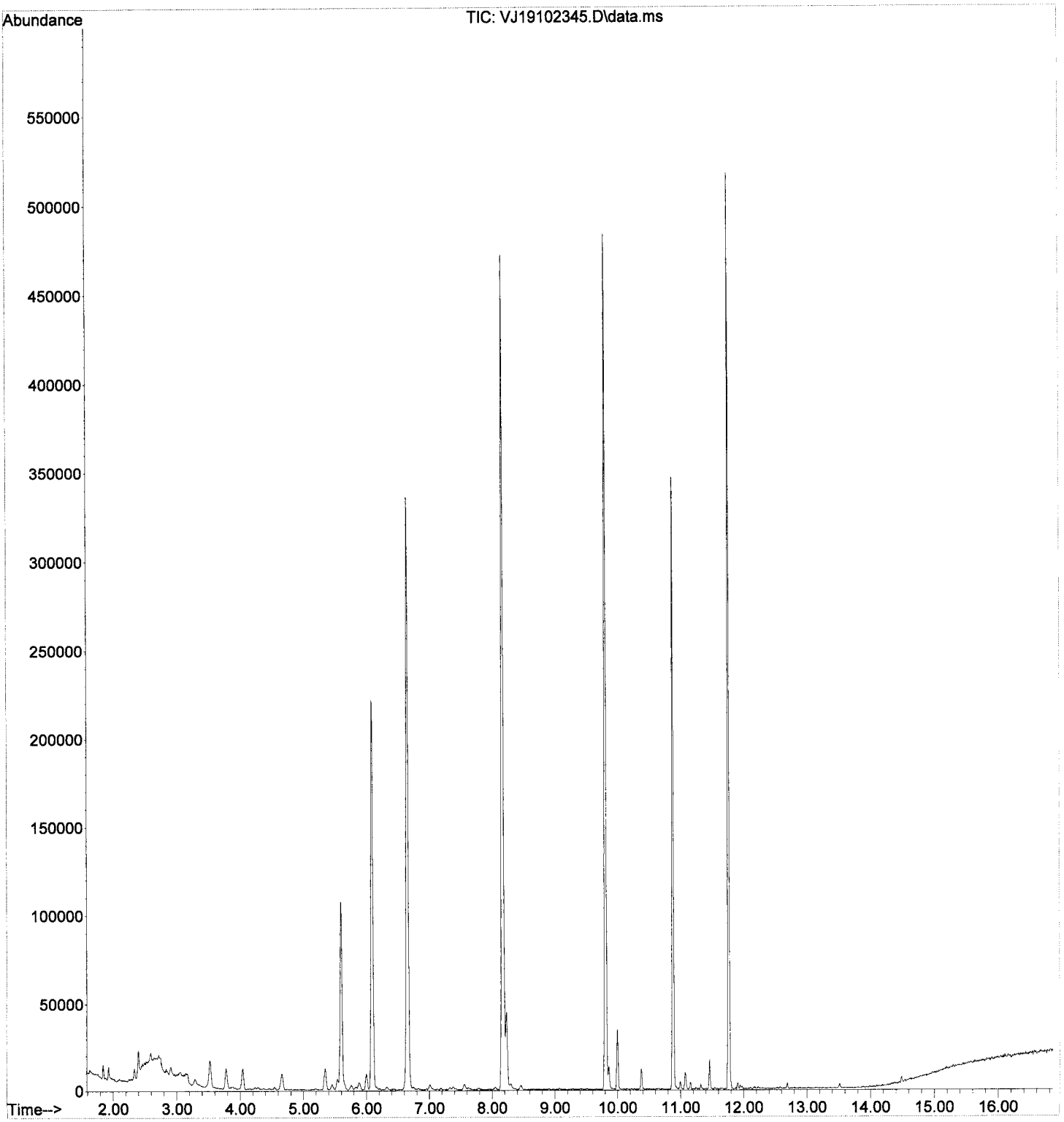
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	152567	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	289686	54.80	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	77731	44.73	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	359519	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	255377	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	164945	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	375320m	73.85	ug/L	
5) TPHg (C5-C9)	9.239	TIC	843934m	Below Cal		
6) TPHg (C6-C10)	9.239	TIC	631711m	67.57	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	946025m	Below Cal		
8) Benzene (NR)	5.998	78	4495	No Calib		
10) Toluene (NR)	8.231	91	38006	No Calib		
13) Naphthalene (NR)	13.517	128	2301	No Calib	#	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102345.D
Acq On : 24 Oct 2019 8:08 am
Operator : MM
Sample : 9J23072-CALC
Misc : 1X 5mL 50PPB GX+MeOH
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 24 11:56:22 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102346.D
Acq On : 24 Oct 2019 8:35 am
Operator : MM
Sample : 9J23072-CALD
Misc : 1X 5mL 100PPB GX+MeOH
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Oct 24 11:56:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration

MM 10/24/19

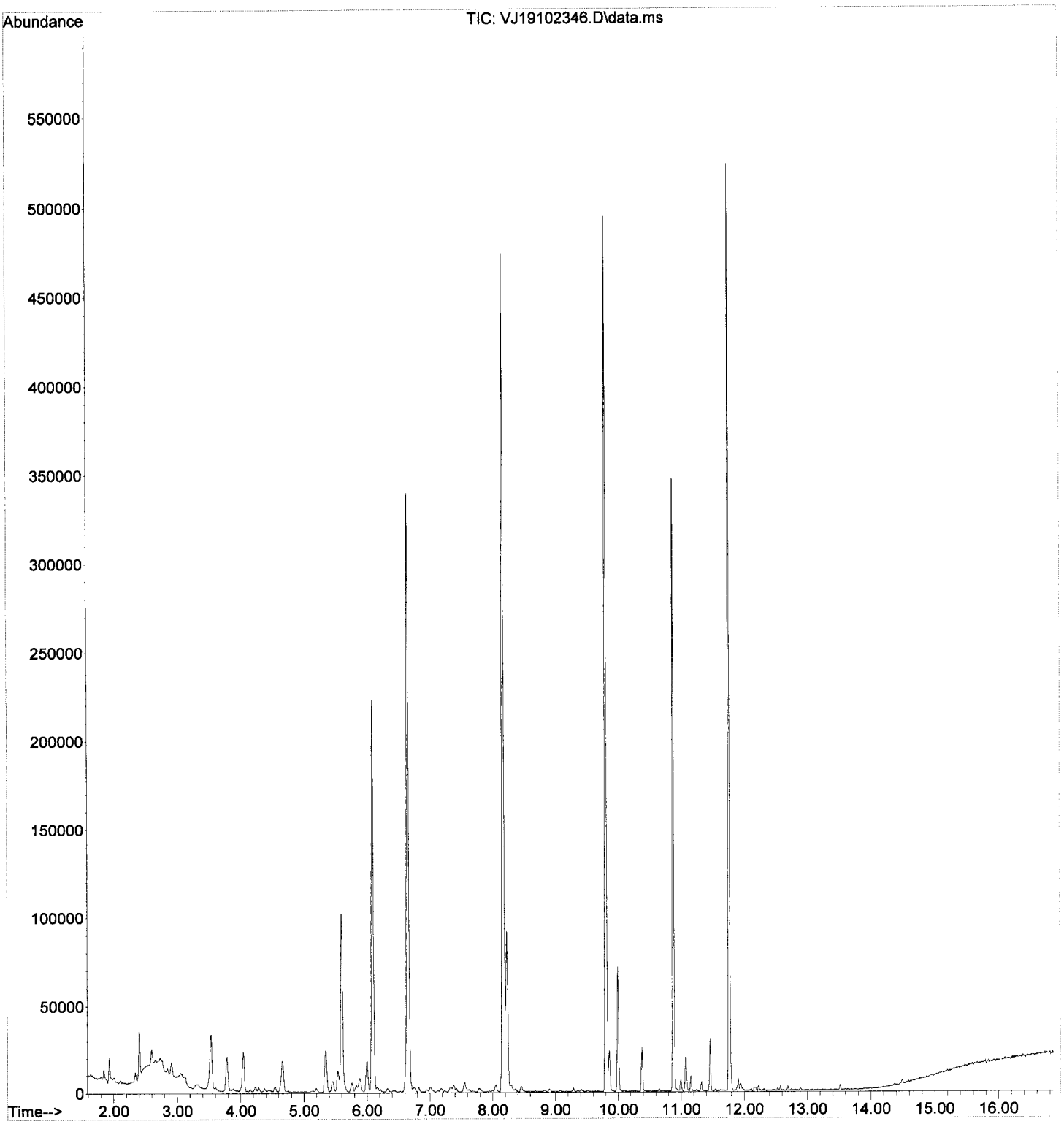
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	153392	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	292121	54.97	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	77996	44.64	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	363344	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	257766	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	166498	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	727259m	112.67	ug/L	
5) TPHg (C5-C9)	9.239	TIC	1427185m	Below Cal		
6) TPHg (C6-C10)	9.239	TIC	1074809m	115.74	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	1596035m	6.25	ug/L	
8) Benzene (NR)	6.004	78	8975	No Calib		
10) Toluene (NR)	8.231	91	77585	No Calib		
13) Naphthalene (NR)	13.511	128	2245	No Calib	#	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102346.D
Acq On : 24 Oct 2019 8:35 am
Operator : MM
Sample : 9J23072-CALD
Misc : 1X 5mL 100PPB GX+MeOH
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Oct 24 11:56:25 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102347.D
Acq On : 24 Oct 2019 9:02 am
Operator : MM
Sample : 9J23072-CALE
Misc : 1X 5mL 250PPB GX+MeOH
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 24 11:56:27 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration

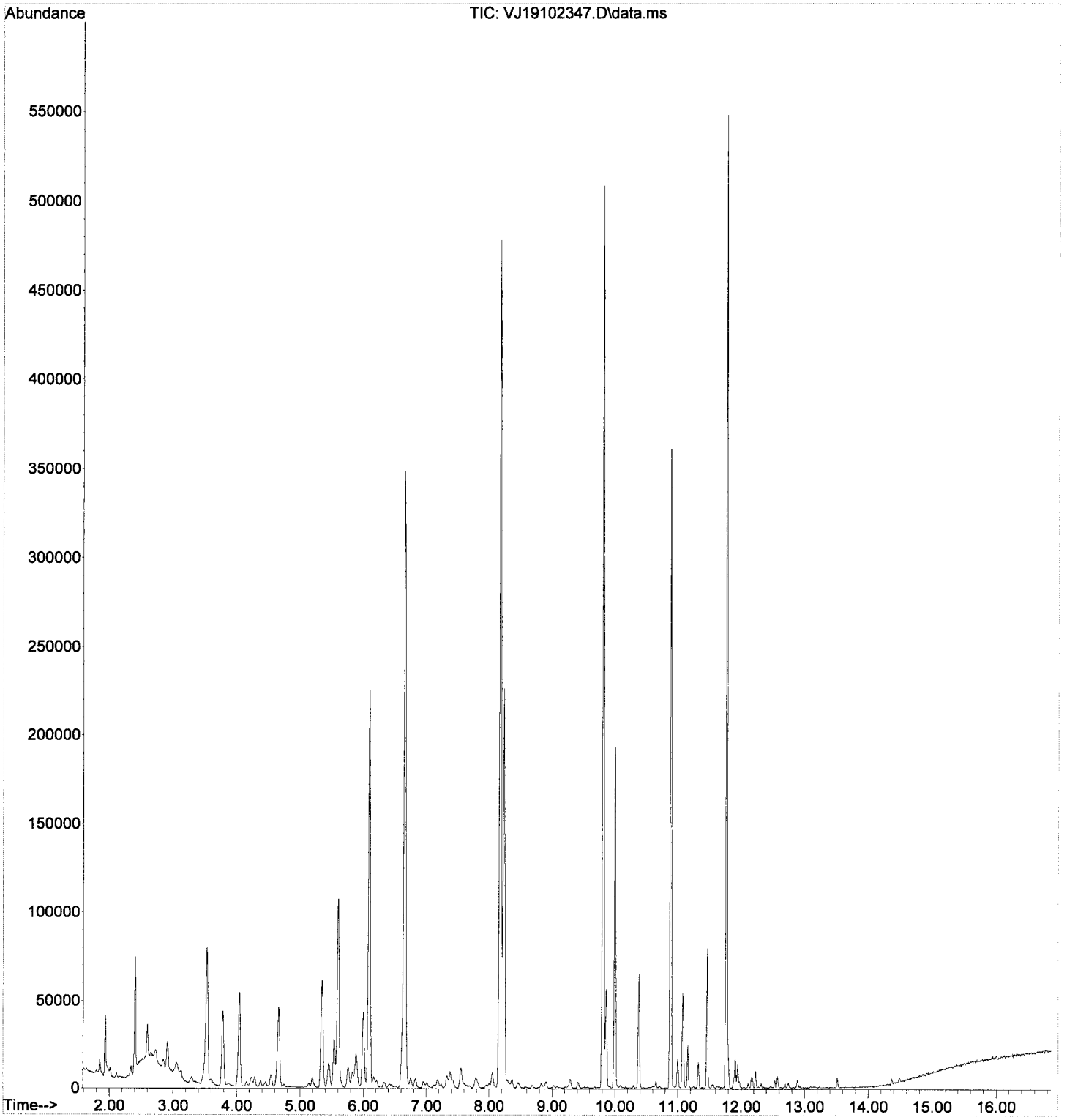
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	155593	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	296265	54.96	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	79823	45.04	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	365297	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	262110	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	171256	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	1852913m	234.60	ug/L	
5) TPHg (C5-C9)	9.239	TIC	2804041m	108.97	ug/L	
6) TPHg (C6-C10)	9.239	TIC	2339645m	250.72	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	3235032m	126.41	ug/L	
8) Benzene (NR)	6.004	78	21544	No Calib		
10) Toluene (NR)	8.231	91	188901	No Calib		
13) Naphthalene (NR)	13.517	128	3700	No Calib		

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102347.D
Acq On : 24 Oct 2019 9:02 am
Operator : MM
Sample : 9J23072-CALE
Misc : 1X 5mL 250PPB GX+MeOH
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 24 11:56:27 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102348.D
Acq On : 24 Oct 2019 9:29 am
Operator : MM
Sample : 9J23072-CALF
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 24 11:56:29 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration

MM 10/24/19

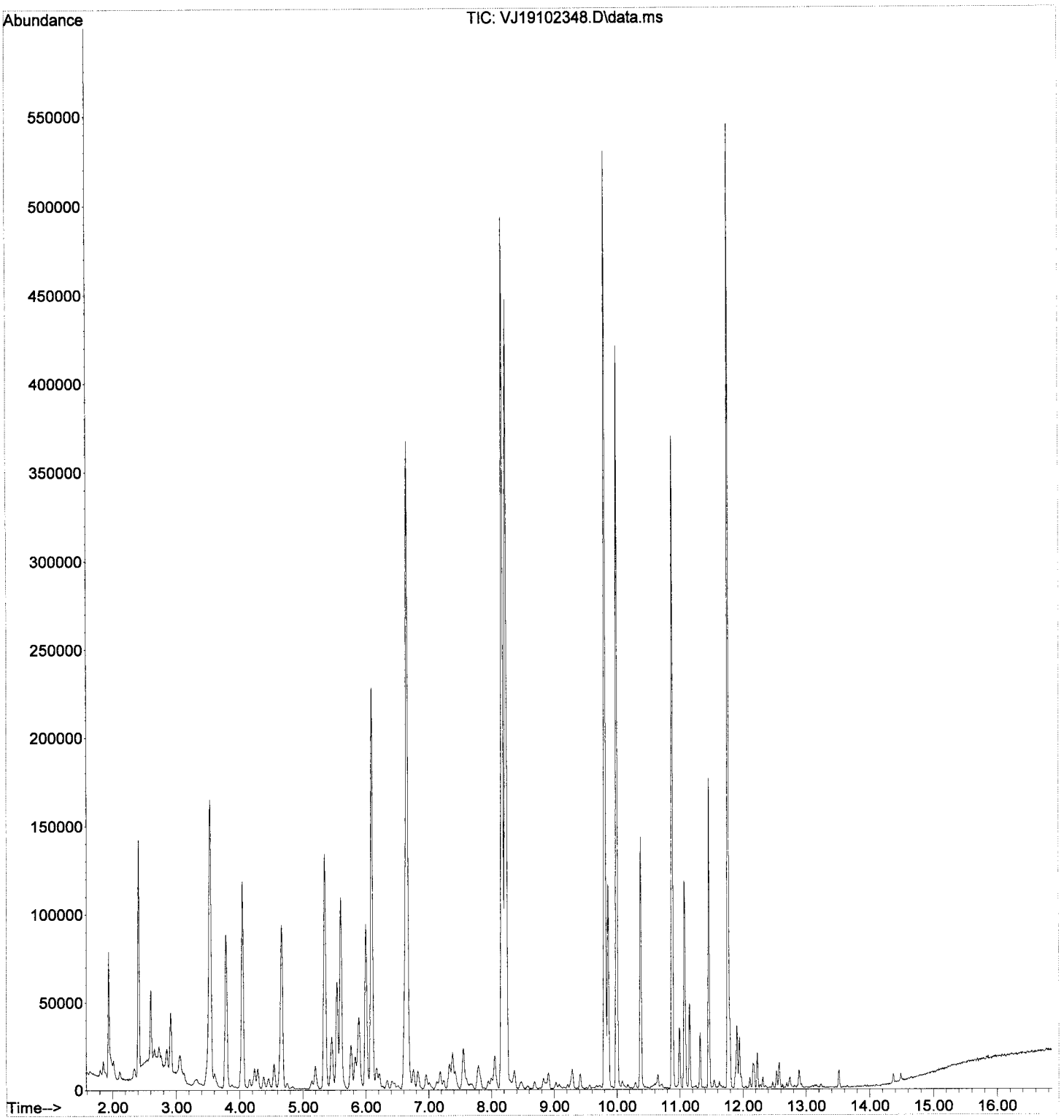
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	159177	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	305907	55.47	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	82765	45.65	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	375068	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	265334	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	174931	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	3865293m	444.99	ug/L	
5) TPHg (C5-C9)	9.239	TIC	5443810m	340.27	ug/L	
6) TPHg (C6-C10)	9.239	TIC	4678414m	492.11	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	6336737m	346.64	ug/L	
8) Benzene (NR)	6.004	78	43809	No Calib		
10) Toluene (NR)	8.231	91	381749	No Calib		
13) Naphthalene (NR)	13.517	128	7126	No Calib	#	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102348.D
Acq On : 24 Oct 2019 9:29 am
Operator : MM
Sample : 9J23072-CALF
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 24 11:56:29 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102349.D
Acq On : 24 Oct 2019 9:56 am
Operator : MM
Sample : 9J23072-CALG
Misc : 1X 5mL 1000PPB GX+MeOH
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 24 11:56:31 2019
Quant Method : C:\msdchem\1\methods\VJ~~191024~~G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration

MM 10/24/19

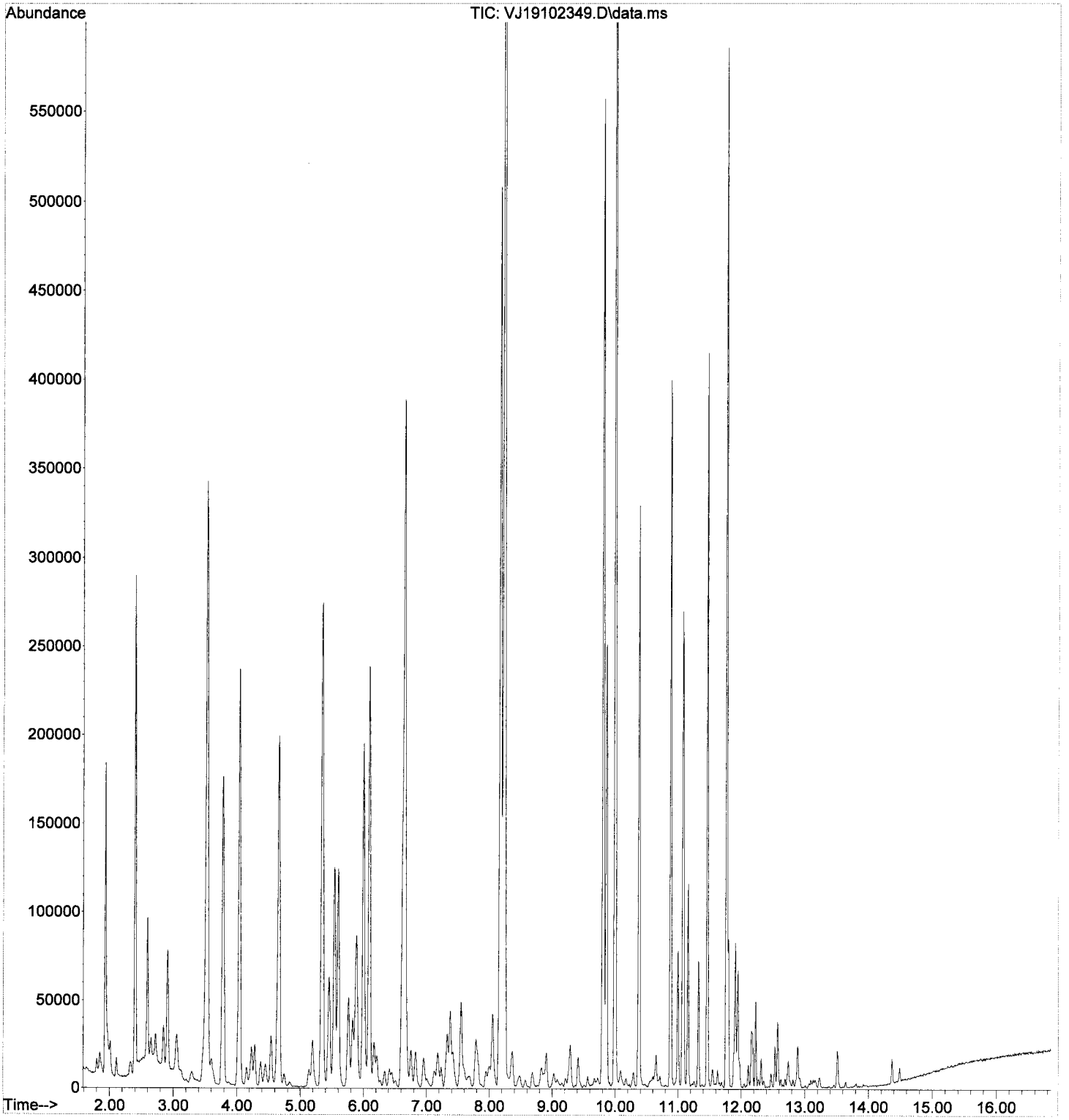
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	167155	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	318452	54.99	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	85756	45.04	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	390339	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	277618	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	186339	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	8482501m	894.38	ug/L	
5) TPHg (C5-C9)	9.239	TIC	11257602m	814.94	ug/L	
6) TPHg (C6-C10)	9.239	TIC	9708618m	975.00	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	13286173m	807.02	ug/L	
8) Benzene (NR)	6.004	78	92658	No Calib		
10) Toluene (NR)	8.231	91	802280	No Calib		
13) Naphthalene (NR)	13.511	128	15467	No Calib	#	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102349.D
Acq On : 24 Oct 2019 9:56 am
Operator : MM
Sample : 9J23072-CALG
Misc : 1X 5mL 1000PPB GX+MeOH
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 24 11:56:31 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102350.D
Acq On : 24 Oct 2019 10:23 am
Operator : MM
Sample : 9J23072-CALH
Misc : 1X 5mL 2500PPB GX+MeOH
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Oct 24 11:56:33 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration

MM 10/24/19

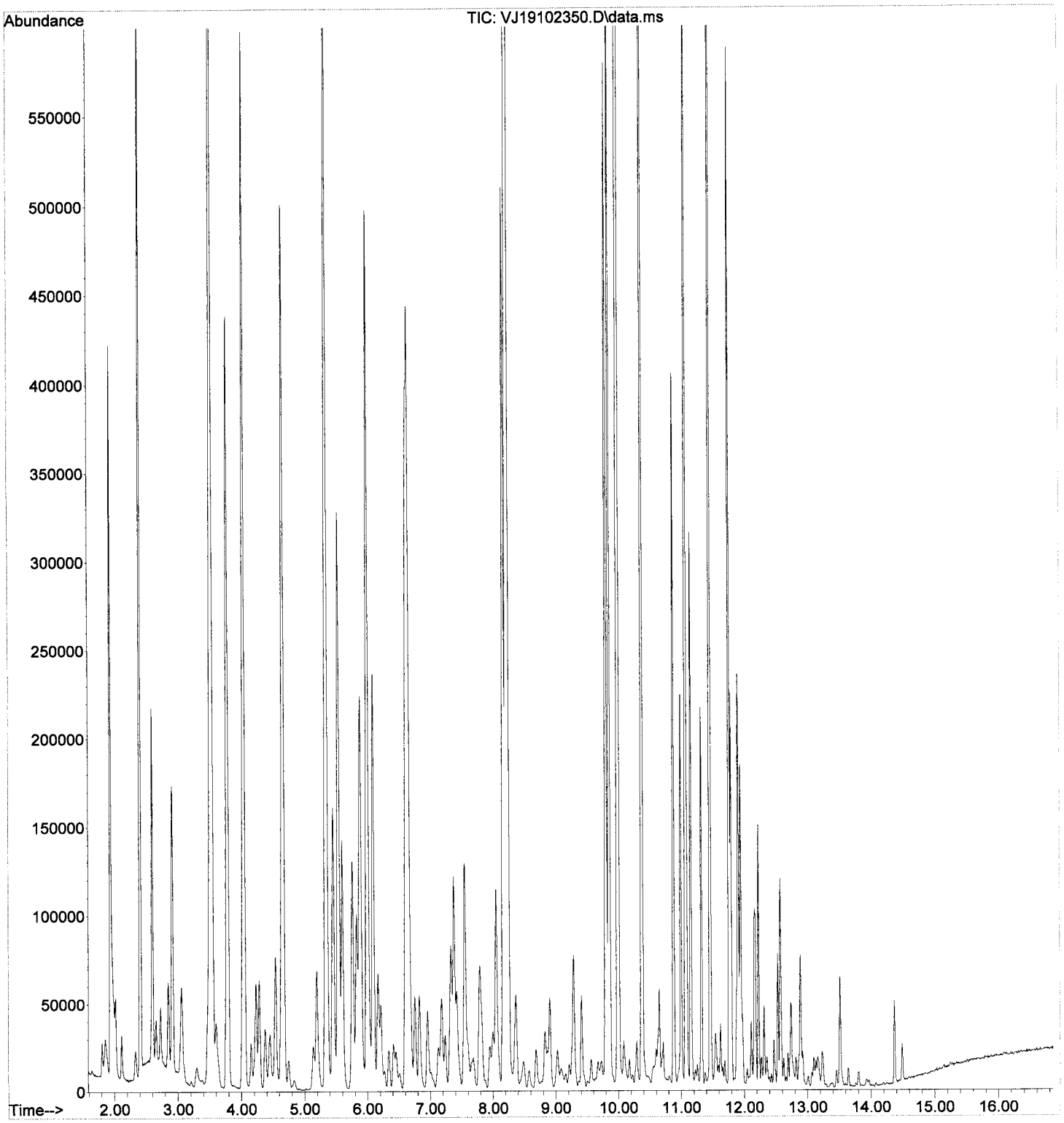
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	165305	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	318152	55.55	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	88206	46.85	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	391013	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	281864	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	191298	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	22541564m	2343.34	ug/L	
5) TPHg (C5-C9)	9.239	TIC	28537427m	2329.09	ug/L	
6) TPHg (C6-C10)	9.239	TIC	24711927m	2517.27	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	33928653m	2274.82	ug/L	
8) Benzene (NR)	6.004	78	233398	No Calib		
10) Toluene (NR)	8.231	91	2066383	No Calib		
13) Naphthalene (NR)	13.511	128	44264	No Calib		

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102350.D
Acq On : 24 Oct 2019 10:23 am
Operator : MM
Sample : 9J23072-CALH
Misc : 1X 5mL 2500PPB GX+MeOH
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Oct 24 11:56:33 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102351.D
Acq On : 24 Oct 2019 10:50 am
Operator : MM
Sample : 9J23072-CALI
Misc : 1X 5mL 5000PPB GX+MeOH
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 24 11:56:35 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	174020	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	330721	54.85	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	88041	44.42	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	401096	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	276544	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	192375	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	46069170m	4501.87	ug/L	
5) TPHg (C5-C9)	9.239	TIC	56741700m	4553.67	ug/L	
6) TPHg (C6-C10)	9.239	TIC	48815780m	4737.90	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	68263618m	4481.96	ug/L	
8) Benzene (NR)	6.004	78	464989	No Calib		
10) Toluene (NR)	8.231	91	3996793	No Calib		
13) Naphthalene (NR)	13.511	128	96059	No Calib		

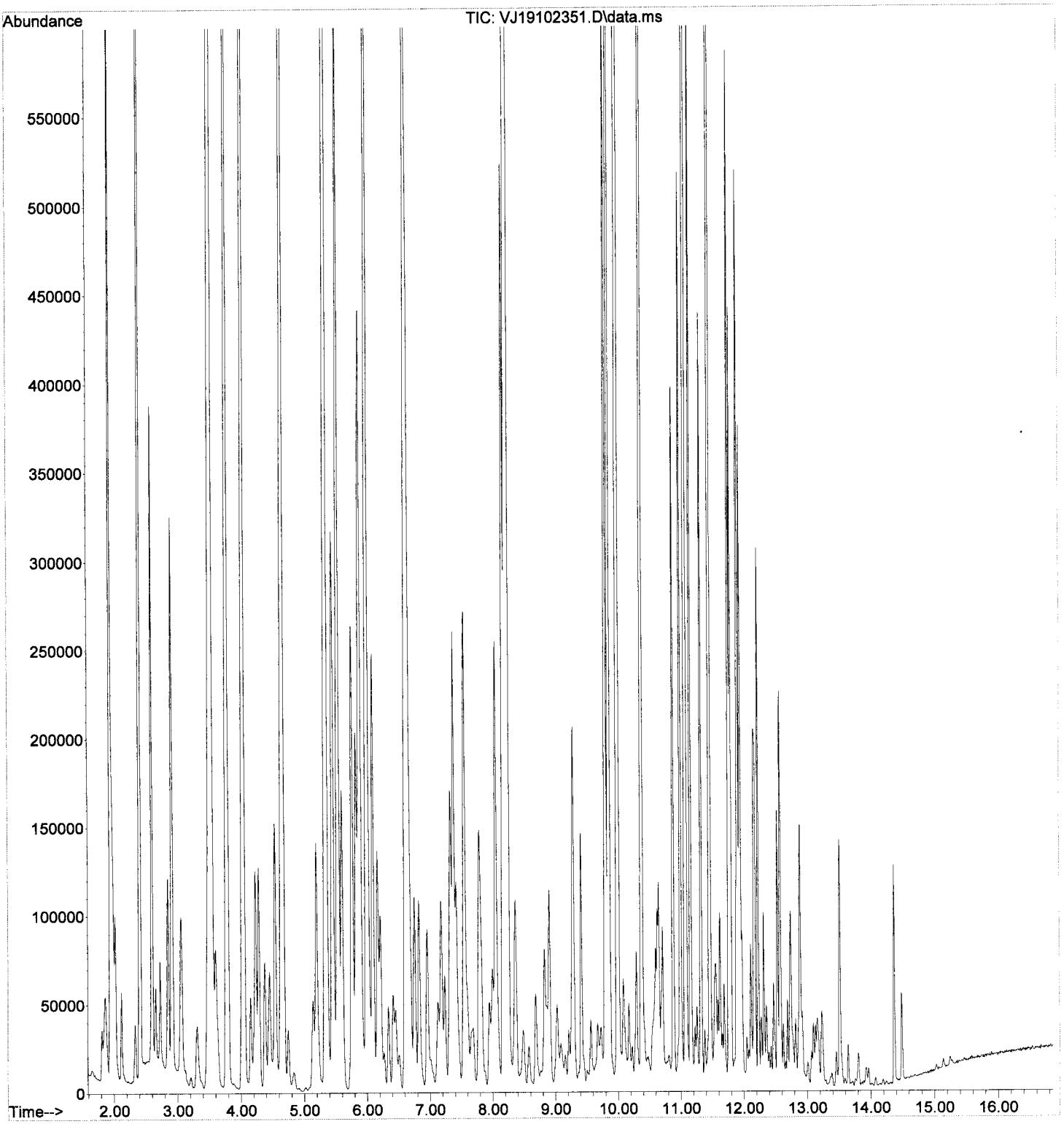
(#) = qualifier out of range (m) = manual integration (+) = signals summed

10/24/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102351.D
Acq On : 24 Oct 2019 10:50 am
Operator : MM
Sample : 9J23072-CALI
Misc : 1X 5mL 5000PPB GX+MeOH
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 24 11:56:35 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102352.D
Acq On : 24 Oct 2019 11:16 am
Operator : MM
Sample : 9J23072-CALJ
Misc : 1X 5mL 10000PPB GX+MeOH
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 24 11:56:37 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration

VV 10/24/19

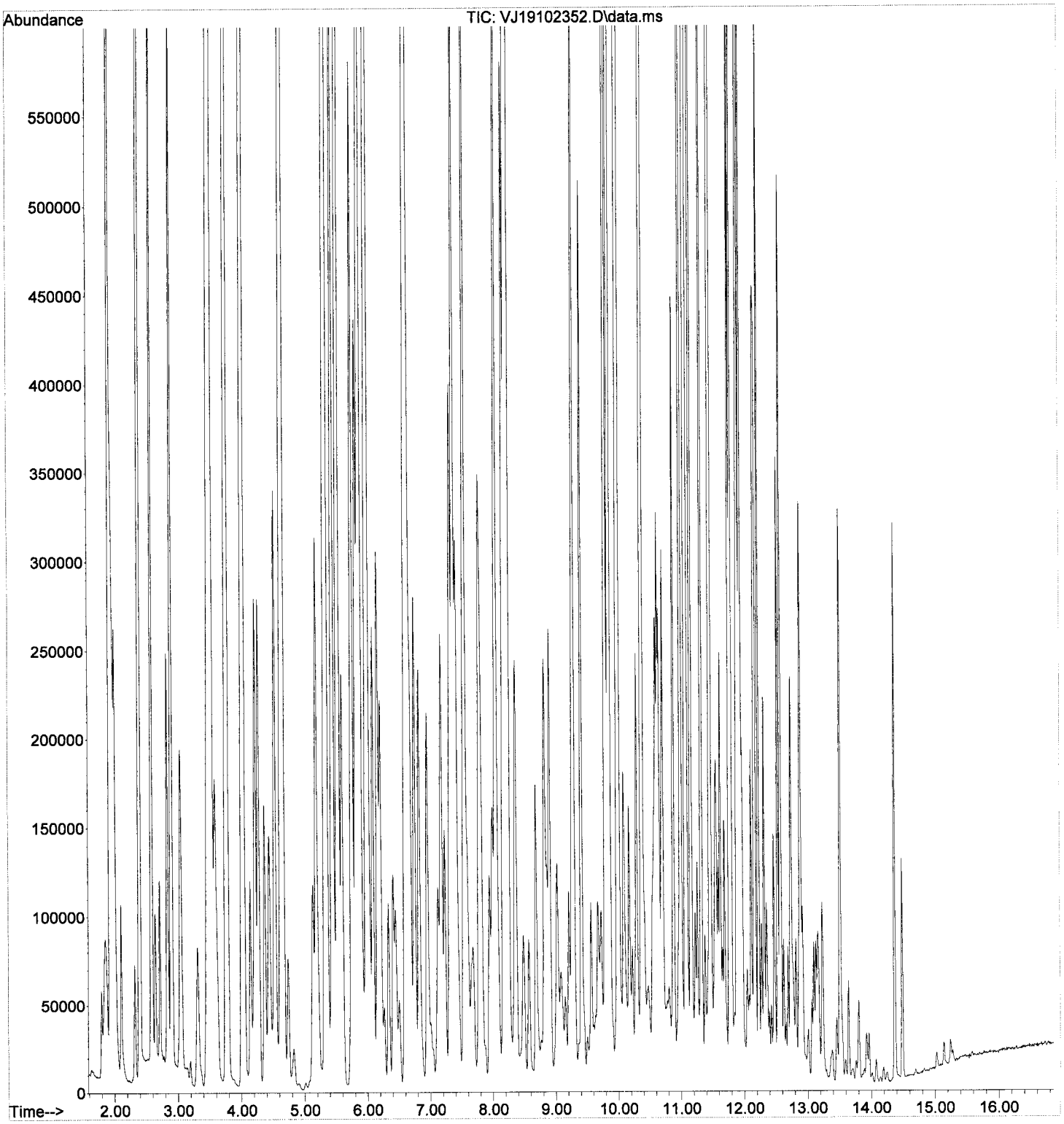
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	181337	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	337220	53.68	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	90011	43.58	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	410077	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	282468	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	197183	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	107284123m	9925.06	ug/L	
5) TPHg (C5-C9)	9.239	TIC	128200060m	10173.08	ug/L	
6) TPHg (C6-C10)	9.239	TIC	110687494m	10382.03	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	154291685m	10024.25	ug/L	
8) Benzene (NR)	5.998	78	1011196	No Calib		
10) Toluene (NR)	8.231	91	8616507	No Calib		
13) Naphthalene (NR)	13.511	128	217422	No Calib		

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102352.D
Acq On : 24 Oct 2019 11:16 am
Operator : MM
Sample : 9J23072-CALJ
Misc : 1X 5mL 10000PPB GX+MeOH
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 24 11:56:37 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 18 13:38:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102353.D
Acq On : 24 Oct 2019 11:43 am
Operator : MM
Sample : 9J23072-IBL8
Misc : 1X 5mL DI+MeOH
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 24 12:08:49 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

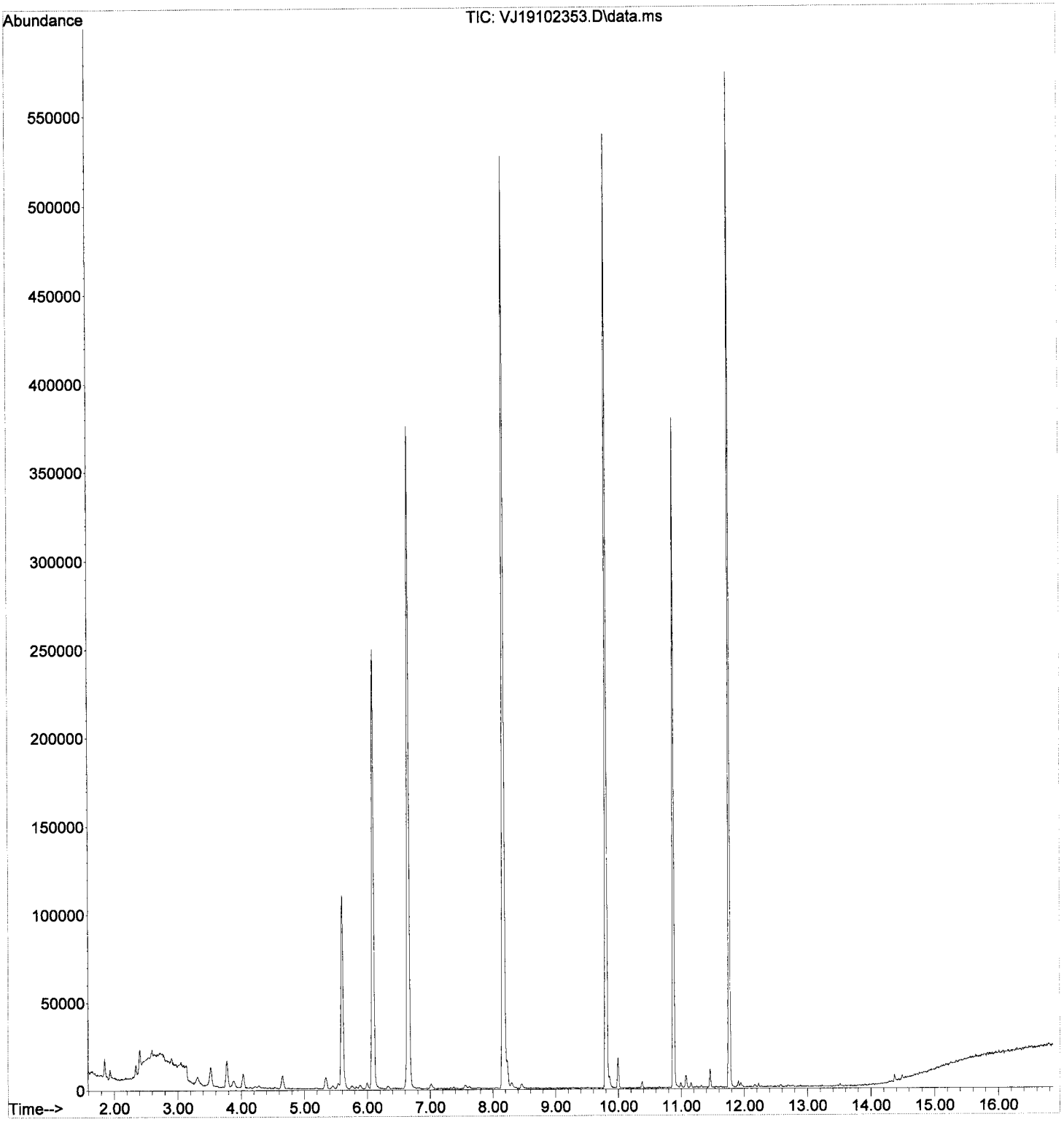
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	180184	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	335961	49.01	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	86624	46.90	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	412224	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	287061	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	186193	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	258654m	32.24	ug/L	
5) TPHg (C5-C9)	9.239	TIC	598793m	12.60	ug/L	
6) TPHg (C6-C10)	9.239	TIC	506930m	25.02	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	690694m	17.94	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102353.D
Acq On : 24 Oct 2019 11:43 am
Operator : MM
Sample : 9J23072-IBL8
Misc : 1X 5mL DI+MeOH
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 24 12:08:49 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



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102354.D
Acq On : 24 Oct 2019 12:10 pm
Operator : MM
Sample : 9J23072-IBL9
Misc : 1X 5mL DI+MeOH
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Oct 24 13:07:25 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

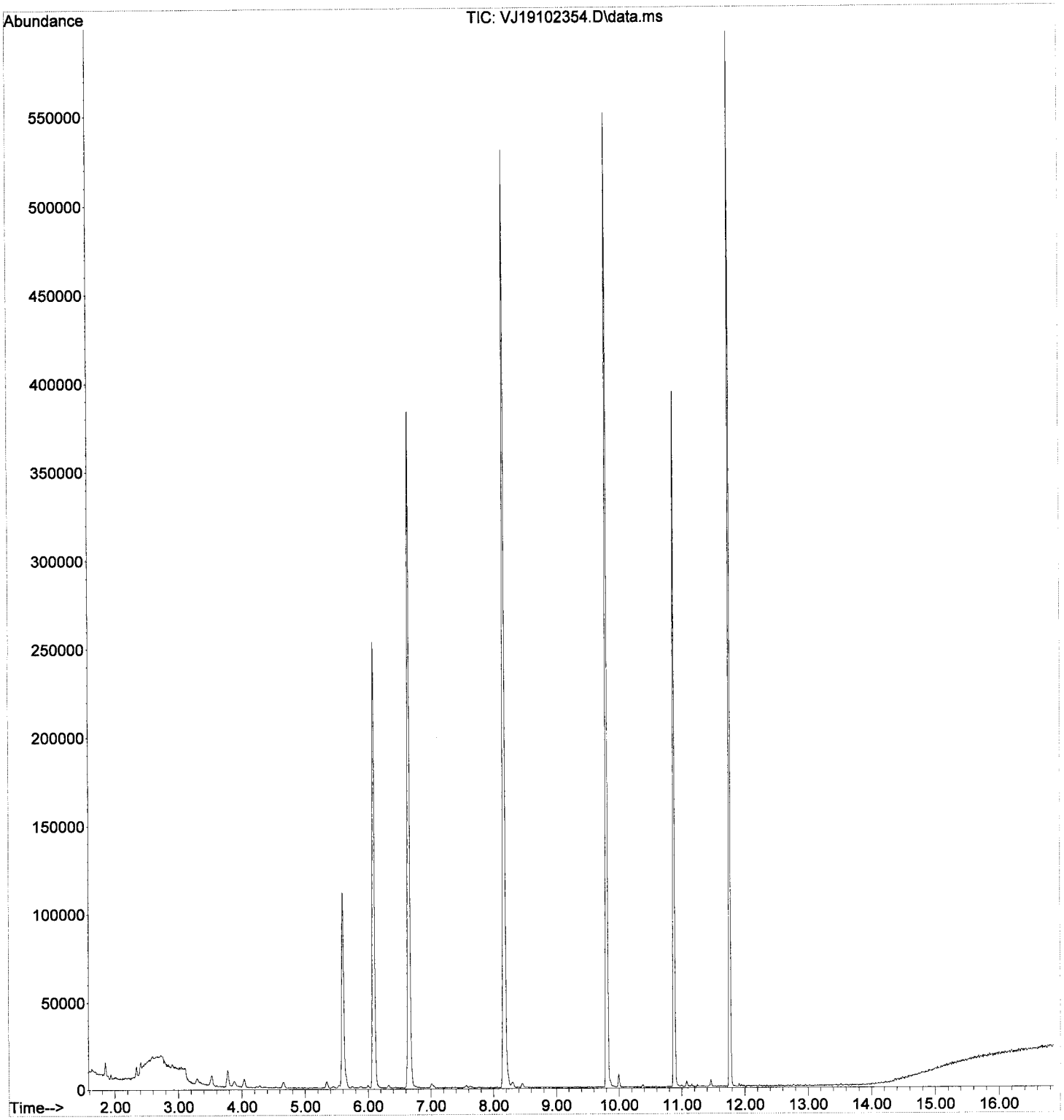
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	182663	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	342782	49.32	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	89835	47.98	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	418445	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	293118	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	192417	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	142810m	19.15	ug/L	
5) TPHg (C5-C9)	9.239	TIC	449208m	Below Cal		
6) TPHg (C6-C10)	9.239	TIC	373549m	11.15	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	516394m	4.65	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102354.D
Acq On : 24 Oct 2019 12:10 pm
Operator : MM
Sample : 9J23072-IBL9
Misc : 1X 5mL DI+MeOH
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Oct 24 13:07:25 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



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102355.D
Acq On : 24 Oct 2019 12:37 pm
Operator : MM
Sample : 9J23072-ICV3
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 24 13:07:28 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

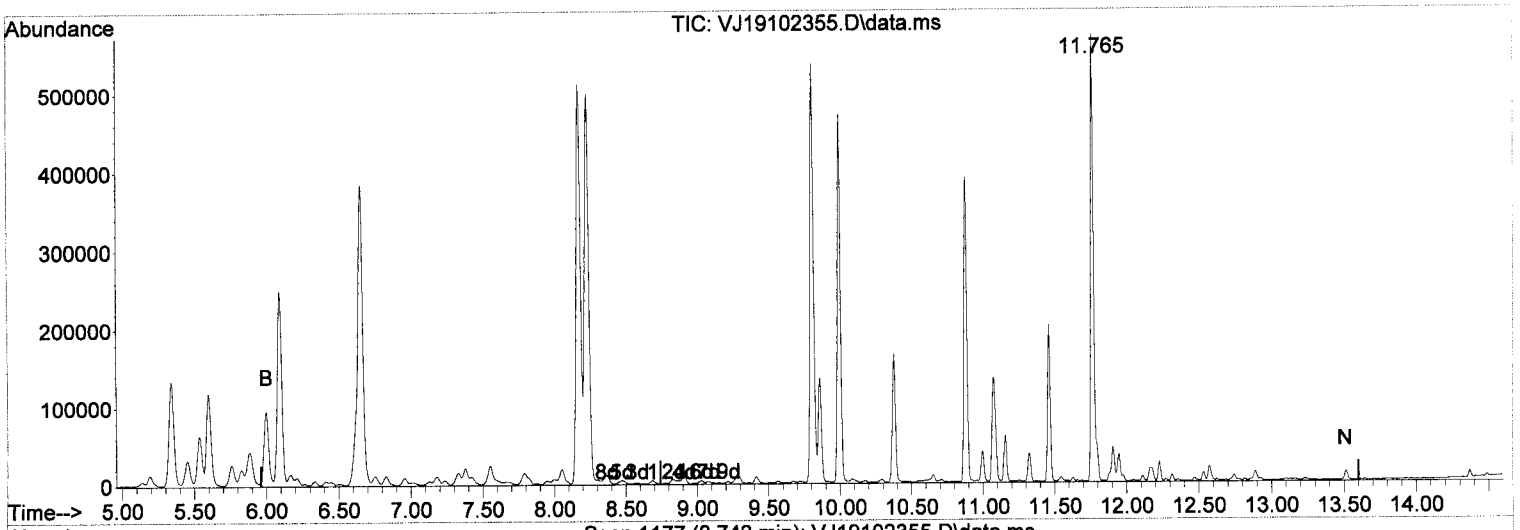
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	177331	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	333318	49.40	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	87092	47.92	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	404431	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	284724	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	189269	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	4329987m	488.49	ug/L	
5) TPHg (C5-C9)	9.239	TIC	5778816m	470.46	ug/L	
6) TPHg (C6-C10)	9.239	TIC	5020099m	483.25	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	6839068m	474.17	ug/L	

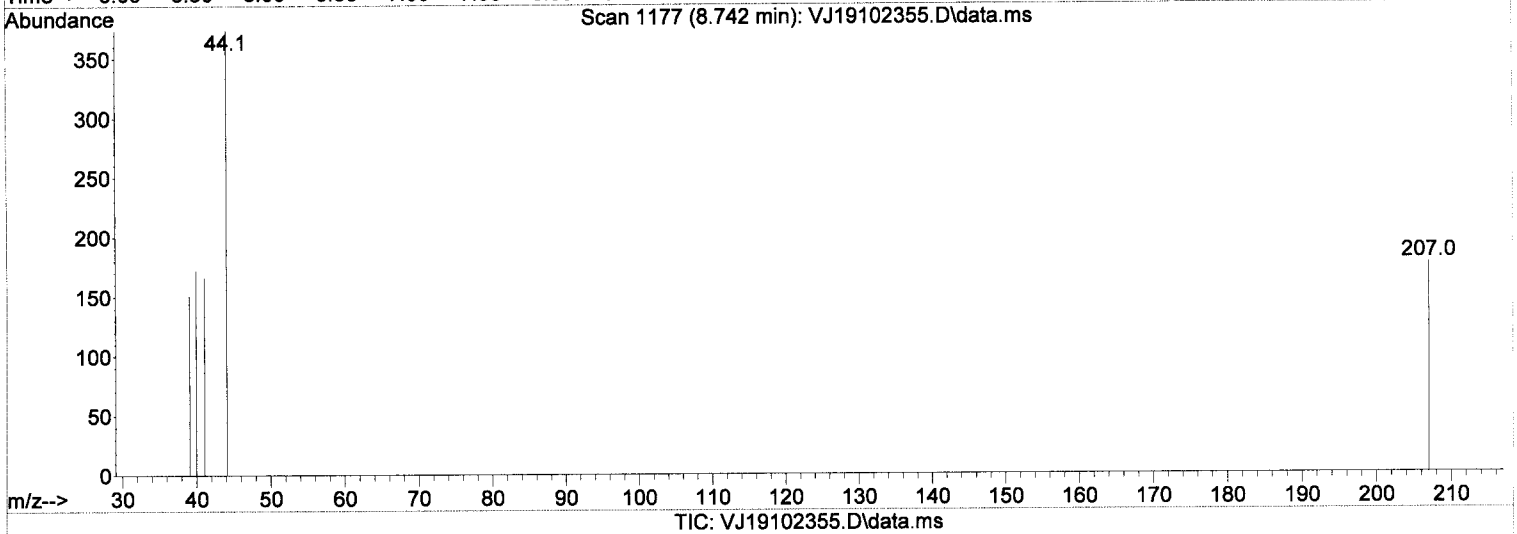
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102355.D
Acq On : 24 Oct 2019 12:37 pm
Operator : MM
Sample : 9J23072-ICV3
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 24 13:07:28 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: VJ19102355.D\data.ms

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

8.739min (0.000) 488.49 ug/L m

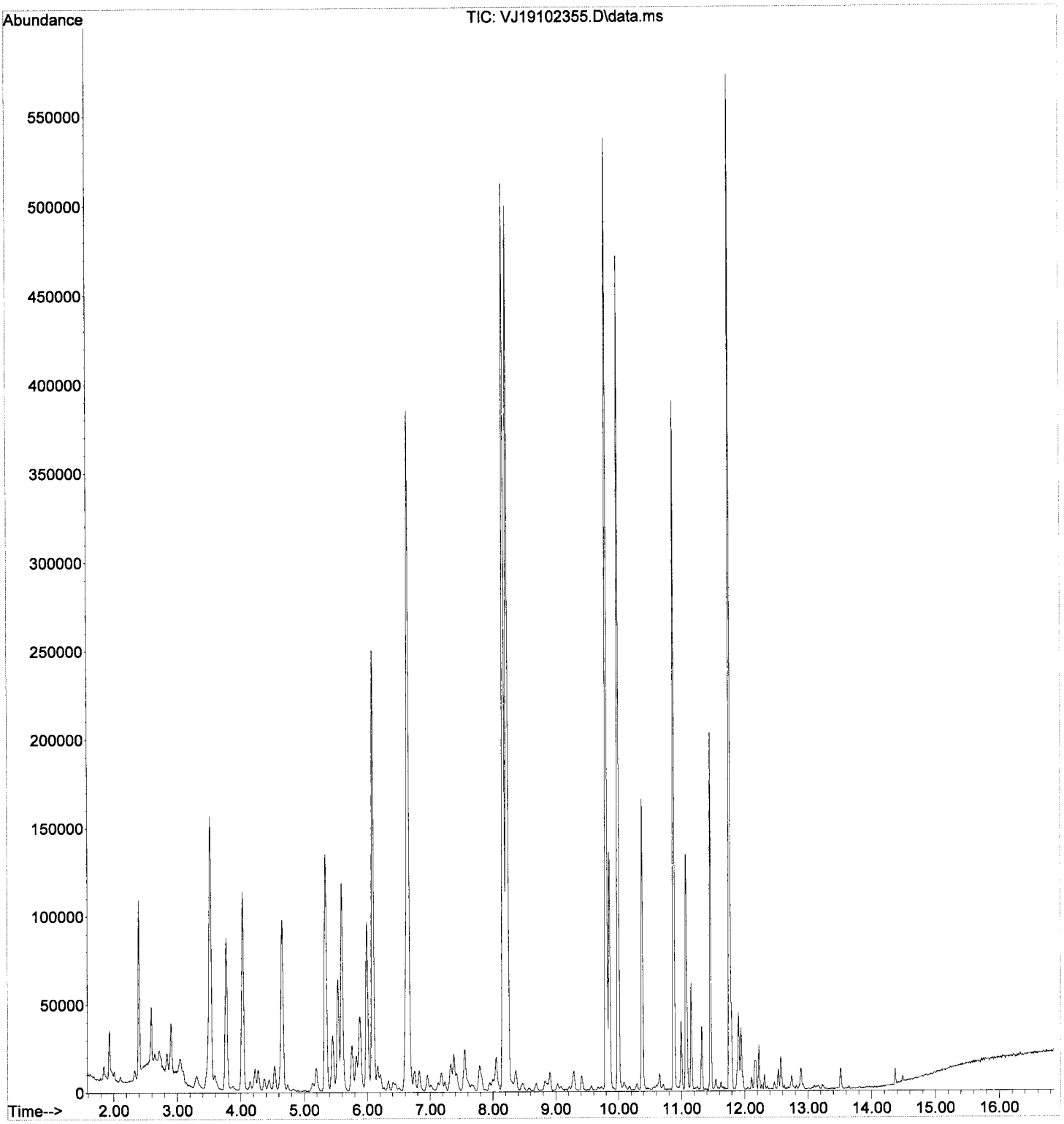
response 4329987

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.02#
0.00	0.00	0.02#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102355.D
Acq On : 24 Oct 2019 12:37 pm
Operator : MM
Sample : 9J23072-ICV3
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 24 13:07:28 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



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 9101791
Sequence 9J31024 (A9J0950-01RE1,02RE1,03,04)

PREPARATION BENCH SHEET

BATCH #: 9101791 (Water)

Apex Laboratories

NOV 0 1 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*
9101791-BLK1		QC	10/31/19 08:48	5	5						Extraction batch #9101776	
9101791-BS1		QC	10/31/19 08:48	5	5	A19J352		250			@50X	
A9J0950-01	C	1311/8260C TCLP/ZHE VOC	10/31/19 10:58	5	5					PDI-015SC-C-00-8.1-191024		<2
A9J0950-01RE1	C	1311/8260C TCLP/ZHE VOC	10/31/19 10:58	5	5					PDI-015SC-C-00-8.1-191024	50X RR1	<2
9101791-DUP1		QC	10/31/19 10:58	5	5		A9J0950-01RE1					<2
A9J0950-02	C	1311/8260C TCLP/ZHE VOC	10/31/19 10:58	5	5					PDI-026SC-C-00-3.9-191024		<2
A9J0950-02RE1	C	1311/8260C TCLP/ZHE VOC	10/31/19 10:58	5	5					PDI-026SC-C-00-3.9-191024	50X RR1	<2
A9J0950-03	C	1311/8260C TCLP/ZHE VOC	10/31/19 10:58	5	5					PDI-037SC-C-00-12.4-191024		<2
A9J0950-04	C	1311/8260C TCLP/ZHE VOC	10/31/19 10:58	5	5					PDI-073SC-C-00-13.7-191024		<2
A9J1006-01	C	1311/8260C TCLP/ZHE VOC	10/31/19 10:58	5	5					PDI-071SC-C-00-08-191028		<2
A9J1006-02	C	1311/8260C TCLP/ZHE VOC	10/31/19 10:58	5	5					PDI-074SC-C-00-7.3-191028		<2
A9J1006-02RE1	C	1311/8260C TCLP/ZHE VOC	10/31/19 10:58	5	5					PDI-074SC-C-00-7.3-191028	50X RR3	<2
9101791-MS1		QC	10/31/19 10:58	5	5	A19J352	A9J1006-02RE1	250			@50X	<2

*pH <2 verified N/A

Standards/Reagents

Reagent(s)			Analyte Spike(s)			Surrogate(s)		
Std ID	Exp. Date	Description	Std ID	Exp. Date	Description	Std ID	Exp. Date	Description
			A19J352	11/09/19	8260 Cal. Std. B VOCR+OXY Spike (20-40ug/r			

GCMS7

Prepared By: [signature] 10/31/19 Date

Reviewed By: [signature] 10/31/19 Date

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9J31024**	Instrument:	**VOA-GCMS7**
Date:	**10/31/19 08:47**	Calibration:	**A9J2806**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J31024-IBL1	Water	QC	QC			A19F381	
2	9J31024-IBL2	Water	QC	QC			A19F381	
3	9J31024-TUN1	Water	QC	QC			A19F381	
4	9J31024-CCV1	Water	QC	QC			A19F381	
5	9101791-BS1	Water	QC	QC		9101791	A19F381	
6	9101791-BLK1	Water	QC	QC		9101791	A19F381	
7	A9J0950-01	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	11/07/19	9101791	A19F381	
8	A9J0950-02	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	11/07/19	9101791	A19F381	
9	A9J0950-01RE1	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	11/07/19	9101791	A19F381	
10	9101791-DUP1	Water	QC	QC		9101791	A19F381	
11	A9J0950-02RE1	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	11/07/19	9101791	A19F381	
12	A9J0950-03	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	11/07/19	9101791	A19F381	
13	A9J0950-04	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	11/07/19	9101791	A19F381	
14	A9J1006-01	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	11/11/19	9101791	A19F381	
15	A9J1006-02	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	11/11/19	9101791	A19F381	
16	9101791-MS1	Water	QC	QC		9101791	A19F381	
17	9J31024-IBL3	Water	QC	QC			A19F381	
18	A9J1006-02RE1	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	11/11/19	9101791	A19F381	

Data Entered By: 10/31/19

Data Reviewed By: 10/31/19

Comments:

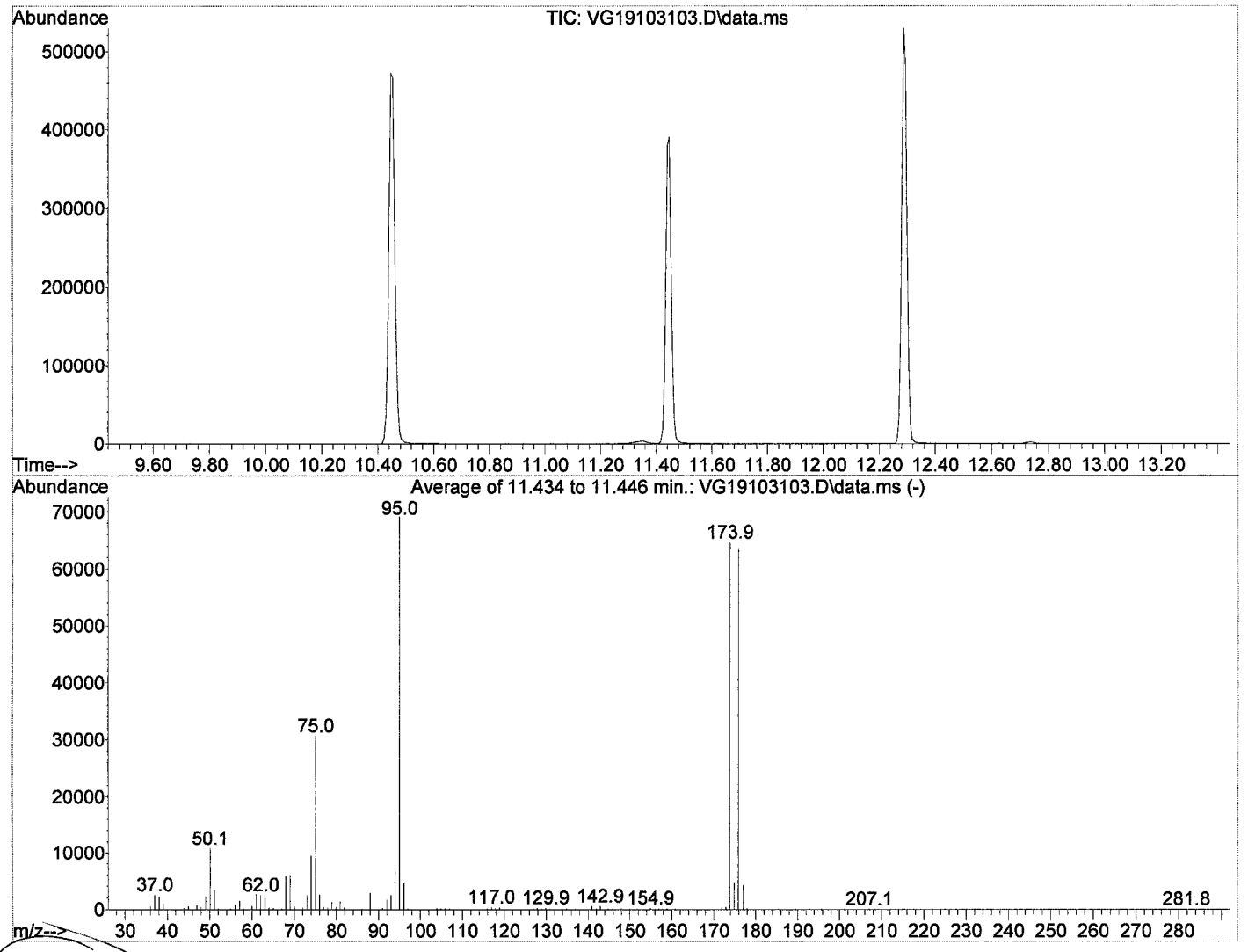
BFB

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103103.D
Acq On : 31 Oct 2019 10:04 am
Operator : TNL
Sample : 9J31024-TUN1
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 3 Sample Multiplier: 1

Integration File: RTEINT.P

10/31/19

Method : C:\msdchem\1\methods\VG191025W.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Mon Oct 28 11:12:23 2019



AutoFind: Scans 1607, 1608, 1609; Background Corrected with Scan 1601

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	106.9	69104	PASS
96	95	5	9	6.5	4516	PASS
173	174	0.00	2	0.6	382	PASS
174	95	50	200	93.5	64632	PASS
175	174	5	9	7.3	4721	PASS
176	174	95	105	98.4	63595	PASS
177	176	5	10	6.5	4124	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103103.D
Acq On : 31 Oct 2019 10:04 am
Operator : TNL
Sample : 9J31024-TUN1
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

10/31/19

Quant Time: Oct 31 13:01:42 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

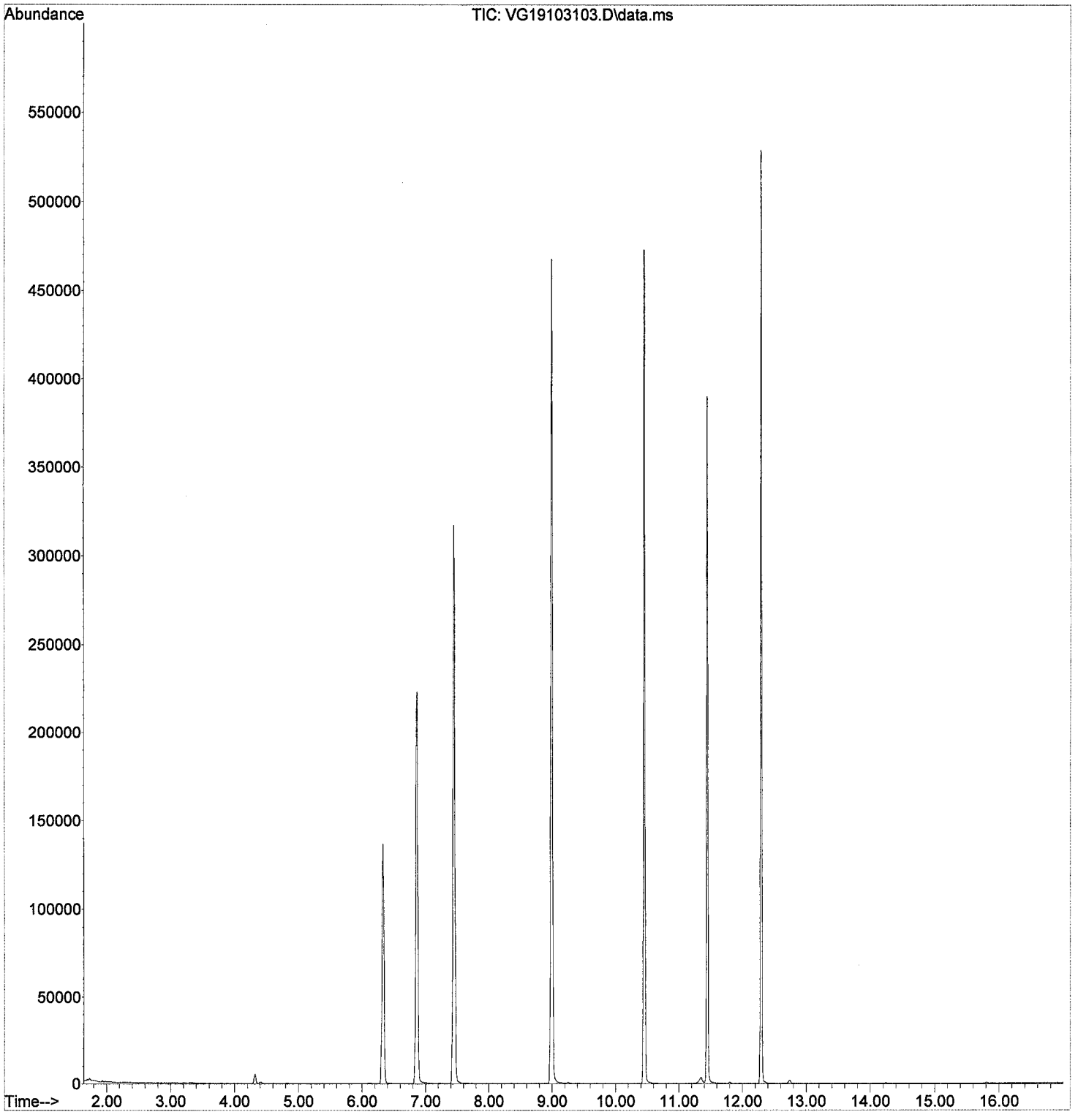
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	84061	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	261868	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.287	152	132301	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.325	111	93541	52.86	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	304614	52.75	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	338090	49.52	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	110476	49.45	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.984	50	258	0.13	ug/L		92
8) Ethanol	3.636	45	10	0.23	ug/L	#	29
14) Methylene Chloride	4.319	84	2708	0.68	ug/L		91
15) Acetone	4.405	43	1250	1.43	ug/L		97
19) tert-Butanol (TBA)	4.819	59	352	1.06	ug/L	#	55

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103103.D
Acq On : 31 Oct 2019 10:04 am
Operator : TNL
Sample : 9J31024-TUN1
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:01:42 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103104.D
Acq On : 31 Oct 2019 10:31 am
Operator : TNL
Sample : 9101791-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19J352
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:01:45 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

10/31/19

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	100	0.00	
2		Dichlorodifluoromethane	20.000	21.945	-9.7	118	0.00	
3	P	Chloromethane	20.000	20.324	-1.6	109	0.00	
4	C	Vinyl Chloride	20.000	21.932	-9.7	110	0.00	
5		Bromomethane	20.000	19.221	3.9	103	0.00	
6		Chloroethane	20.000	21.851	-9.3	112	0.00	
7		Trichlorofluoromethane	20.000	23.125	-15.6	114	0.00	
8		Ethanol	1250.000	1114.742	10.8	85	0.00	
9	C	1,1-Dichloroethene	20.000	22.535	-12.7	113	0.00	
10		Carbon Disulfide	20.000	22.955	-14.8	118	0.00	
11		Freon 113	20.000	22.433	-12.2	113	0.00	
12		Iodomethane	20.000	18.725	6.4	107	0.00	
13		Acrolein	20.000	19.592	2.0	100	0.00	
14		Methylene Chloride	20.000	21.893	-9.5	105	0.00	
15		Acetone	40.000	38.540	3.7	98	0.00	
16		t-1,2-Dichloroethene	20.000	22.144	-10.7	108	0.00	
17		n-Hexane	20.000	24.767	-23.8#	124	0.00	-NR
18		Methyl-tert-butyl-ether	20.000	23.024	-15.1	106	0.00	
19		tert-Butanol (TBA)	1250.000	1274.158	-1.9	90	0.00	
20		Diisopropyl ether (DIPE)	5.000	4.781	4.4	86	0.00	
21	P	1,1-Dichloroethane	20.000	21.370	-6.9	107	0.00	
22		Acrylonitrile	20.000	21.406	-7.0	99	0.00	
23		Vinyl Acetate	20.000	19.865	0.7	101	0.00	
24		Ethyl-tert-butyl ether (ETB	5.000	5.226	-4.5	91	0.00	
25		c-1,2-Dichloroethene	20.000	22.279	-11.4	107	0.00	
26		2,2-Dichloropropane	20.000	27.049	-35.2#	132	0.00	-NR
27		Bromochloromethane	20.000	21.463	-7.3	104	0.00	
28	C	Chloroform	20.000	22.054	-10.3	108	0.00	
29		Carbon Tetrachloride	20.000	25.309	-26.5#	114	0.00	-Q56
30		Tetrahydrofuran	20.000	20.858	-4.3	97	0.00	
31		1,1,1-Trichloroethane	20.000	23.435	-17.2	114	0.00	
32	S	Dibromofluoromethane (S)	50.000	49.510	1.0	101	0.00	
33		1,1-Dichloropropene	20.000	24.849	-24.2#	109	0.00	-NR
34		2-Butanone (MEK)	40.000	42.746	-6.9	98	0.00	
35		Benzene	20.000	22.282	-11.4	107	0.00	
36		tert-Amyl methyl ether (TAM	5.000	4.727	5.5	92	0.00	
37		1,2-Dichloroethane (EDC)	20.000	21.343	-6.7	106	0.00	
38		iso-Butyl Alcohol	500.000	514.111	-2.8	99	0.00	
39	S	1,4-Difluorobenzene (S)	50.000	48.420	3.2	99	0.00	
40		Trichloroethene (TCE)	20.000	21.155	-5.8	110	0.00	
41		tert-Amyl ethyl ether (TAEE	5.000	5.119	-2.4	95	0.00	
42		Dibromomethane	20.000	21.669	-8.3	103	0.00	
43	C	1,2-Dichloropropane	20.000	21.223	-6.1	103	0.00	
44		Bromodichloromethane	20.000	22.667	-13.3	108	0.00	
45		Chlorobenzene-d5 (I)	50.000	50.000	0.0	100	0.00	
46		2-Chloroethyl Vinyl Ether	20.000	19.150	4.3	98	0.00	
47		c-1,3-Dichloropropene	20.000	22.706	-13.5	109	0.00	
48	S	Toluene-d8 (S)	50.000	49.677	0.6	100	0.00	
49	C	Toluene	20.000	21.186	-5.9	108	0.00	
50		Tetrachloroethene (PCE)	20.000	22.414	-12.1	112	0.00	

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103104.D
Acq On : 31 Oct 2019 10:31 am
Operator : TNL
Sample : 9101791-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19J352
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:01:45 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 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	44.499	-11.2	100	0.00	
52		t-1,3-Dichloropropene	20.000	24.745	-23.7#	112	0.00	NR
53		1,1,2-Trichloroethane	20.000	21.992	-10.0	104	0.00	
54		Dibromochloromethane	20.000	21.969	-9.8	108	0.00	
55		1,3-Dichloropropane	20.000	21.887	-9.4	103	0.00	
56		1,2-Dibromoethane (EDB)	20.000	22.430	-12.1	103	0.00	
57		2-Hexanone	40.000	44.926	-12.3	100	0.00	
58	P	Chlorobenzene	20.000	21.368	-6.8	107	0.00	
59	C	Ethylbenzene	20.000	22.610	-13.0	109	0.00	
60		1,1,1,2-Tetrachloroethane	20.000	23.118	-15.6	109	0.00	
61		m,p-Xylenes (2)	40.000	47.725	-19.3	108	0.00	
62		o-Xylene	20.000	24.402	-22.0#	108	0.00	NR
63		Styrene	20.000	22.473	-12.4	108	0.00	
64	P	Bromoform	20.000	21.026	-5.1	107	0.00	
65		Isopropylbenzene	20.000	24.036	-20.2#	111	0.00	
66	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	101	0.00	
67	S	4-Bromofluorobenzene (S)	50.000	49.952	0.1	102	0.00	
68		Bromobenzene	20.000	21.906	-9.5	107	0.00	
69		n-Propylbenzene	20.000	22.831	-14.2	110	0.00	
70	P	1,1,2,2-Tetrachloroethane	20.000	21.563	-7.8	104	0.00	
71		2-Chlorotoluene	20.000	23.021	-15.1	108	0.00	
72		1,3,5-Trimethylbenzene	20.000	23.933	-19.7	107	0.00	
73		1,2,3-Trichloropropane	20.000	20.929	-4.6	104	0.00	
74		t-1,4-Dichloro-2-butene	20.000	21.946	-9.7	109	0.00	
75		4-Chlorotoluene	20.000	23.612	-18.1	109	0.00	
76		tert-Butylbenzene	20.000	23.542	-17.7	109	0.00	
77		1,2,4-Trimethylbenzene	20.000	23.631	-18.2	107	0.00	
78		sec-Butylbenzene	20.000	23.425	-17.1	108	0.00	
79		4-Isopropyltoluene	20.000	23.575	-17.9	109	0.00	
80		1,3-Dichlorobenzene	20.000	22.735	-13.7	109	0.00	
81		1,4-Dichlorobenzene	20.000	20.229	-1.1	107	0.00	
82		n-Butylbenzene	20.000	24.785	-23.9#	109	0.00	NR
83		1,2-Dichlorobenzene	20.000	22.376	-11.9	107	0.00	
84		1,2-Dibromo-3-Chloropropane	20.000	21.614	-8.1	109	0.00	
85		Hexachlorobutadiene	20.000	23.726	-18.6	109	0.00	
86		1,2,4-Trichlorobenzene	20.000	23.743	-18.7	107	0.00	
87		Naphthalene	20.000	21.506	-7.5	105	0.00	
88		1,2,3-Trichlorobenzene	20.000	24.675	-23.4#	108	0.00	NR

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103104.D
Acq On : 31 Oct 2019 10:31 am
Operator : TNL
Sample : 9101791-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19J352
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:01:45 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

10/30/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.855	99	87110	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	253385	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.287	152	130177	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.325	111	90789	49.51	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	289752	48.42	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	328183	49.68	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	109804	49.95	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	32059	21.95	ug/L		98
3) Chloromethane	1.984	50	40321	20.32	ug/L		98
4) Vinyl Chloride	2.112	62	37145	21.93	ug/L		96
5) Bromomethane	2.545	96	17318	19.22	ug/L		99
6) Chloroethane	2.722	64	9107	21.85	ug/L		91
7) Trichlorofluoromethane	2.911	101	42262	23.13	ug/L		99
8) Ethanol	3.636	45	50931	1114.74	ug/L		85
9) 1,1-Dichloroethene	3.581	61	45712	22.54	ug/L		96
10) Carbon Disulfide	3.581	76	70659	22.96	ug/L		98
11) Freon 113	3.655	101	37297	22.43	ug/L		98
12) Iodomethane	3.746	142	12557	18.72	ug/L		98
13) Acrolein	4.033	56	8777	19.59	ug/L		97
14) Methylene Chloride	4.313	84	36110	21.89	ug/L		94
15) Acetone	4.398	43	34998	38.54	ug/L		96
16) t-1,2-Dichloroethene	4.502	61	46525	22.14	ug/L		94
17) n-Hexane	4.606	86	5895	24.77	ug/L	#	53
18) Methyl-tert-butyl-ether	4.654	73	91225	23.02	ug/L		96
19) tert-Butanol (TBA)	4.819	59	438078	1274.16	ug/L	#	87
20) Diisopropyl ether (DIPE)	5.106	45	20781	4.78	ug/L		99
21) 1,1-Dichloroethane	5.215	63	61200	21.37	ug/L		100
22) Acrylonitrile	5.282	53	20788	21.41	ug/L		98
23) Vinyl Acetate	5.520	43	61768	19.87	ug/L		96
24) Ethyl-tert-butyl ether...	5.514	59	19553	5.23	ug/L		99
25) c-1,2-Dichloroethene	5.819	61	47590	22.28	ug/L		93
26) 2,2-Dichloropropane	5.929	77	35177	27.05	ug/L		78
27) Bromochloromethane	6.032	49	29004	21.46	ug/L		83
28) Chloroform	6.130	83	63524	22.05	ug/L		98
29) Carbon Tetrachloride	6.258	117	40101	25.31	ug/L		95
30) Tetrahydrofuran	6.300	42	17567	20.86	ug/L		90
31) 1,1,1-Trichloroethane	6.337	97	50767	23.43	ug/L		96
33) 1,1-Dichloropropene	6.477	75	48369	24.85	ug/L		96
34) 2-Butanone (MEK)	6.471	43	54934	42.75	ug/L		94
35) Benzene	6.752	78	150183	22.28	ug/L		98
36) tert-Amyl methyl ether...	6.892	73	18239	4.73	ug/L		81
37) 1,2-Dichloroethane (EDC)	6.977	62	49100	21.34	ug/L		99
38) iso-Butyl Alcohol	7.038	43	74175	514.11	ug/L		90
40) Trichloroethene (TCE)	7.404	130	41645	21.16	ug/L		97
41) tert-Amyl ethyl ether ...	7.684	59	12696	5.12	ug/L		91
42) Dibromomethane	7.879	93	24646	21.67	ug/L		94
43) 1,2-Dichloropropane	7.989	63	36303	21.22	ug/L		100
44) Bromodichloromethane	8.068	83	42183	22.67	ug/L		97
46) 2-Chloroethyl Vinyl Ether	8.733	63	19978	19.15	ug/L	#	1
47) c-1,3-Dichloropropene	8.794	75	48667	22.71	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103104.D
Acq On : 31 Oct 2019 10:31 am
Operator : TNL
Sample : 9101791-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19J352
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:01:45 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

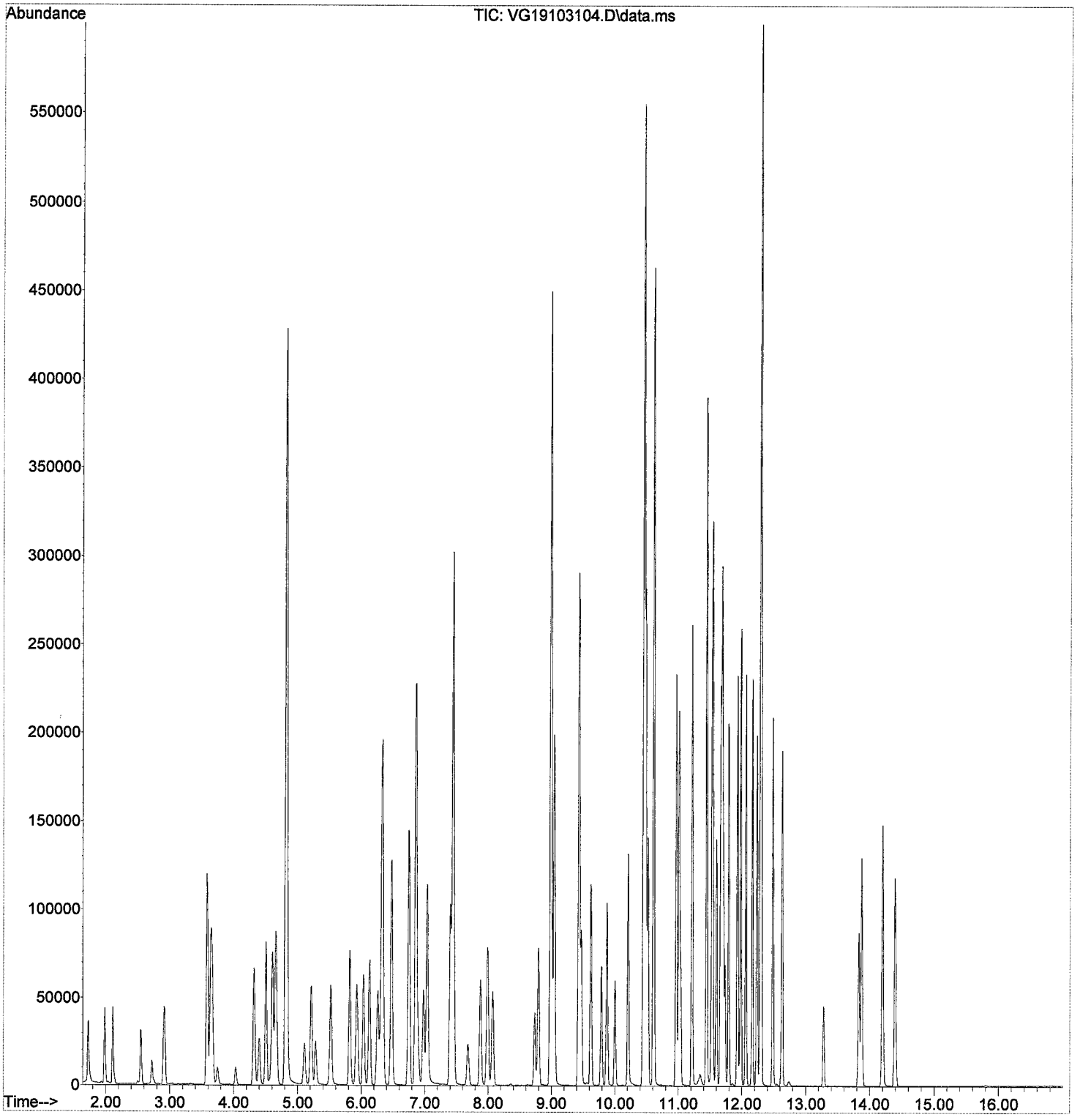
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.038	91	160703	21.19	ug/L		100
50) Tetrachloroethene (PCE)	9.428	166	45119	22.41	ug/L		97
51) 4-Methyl-2-Pentanone (...	9.434	43	97786	44.50	ug/L		94
52) t-1,3-Dichloropropene	9.471	75	42590	24.74	ug/L		97
53) 1,1,2-Trichloroethane	9.623	97	38463	21.99	ug/L		96
54) Dibromochloromethane	9.788	129	36354	21.97	ug/L		99
55) 1,3-Dichloropropane	9.873	76	59170	21.89	ug/L		97
56) 1,2-Dibromoethane (EDB)	10.001	107	39504	22.43	ug/L		98
57) 2-Hexanone	10.208	43	72058	44.93	ug/L		97
58) Chlorobenzene	10.464	112	105615	21.37	ug/L		97
59) Ethylbenzene	10.483	91	163992	22.61	ug/L		99
60) 1,1,1,2-Tetrachloroethane	10.519	131	34292	23.12	ug/L		97
61) m,p-Xylenes (2)	10.611	91	238081	47.72	ug/L		99
62) o-Xylene	10.964	91	115295	24.40	ug/L		99
63) Styrene	11.007	104	95446	22.47	ug/L		95
64) Bromoform	11.037	173	28229	21.03	ug/L		98
65) Isopropylbenzene	11.214	105	145670	24.04	ug/L		99
68) Bromobenzene	11.525	156	46872	21.91	ug/L		97
69) n-Propylbenzene	11.537	91	163247	22.83	ug/L		98
70) 1,1,2,2-Tetrachloroethane	11.598	83	58726	21.56	ug/L		98
71) 2-Chlorotoluene	11.665	126	37463	23.02	ug/L		93
72) 1,3,5-Trimethylbenzene	11.684	105	120745	23.93	ug/L		95
73) 1,2,3-Trichloropropane	11.702	110	17300	20.93	ug/L		95
74) t-1,4-Dichloro-2-butene	11.732	88	5210	21.95	ug/L	#	86
75) 4-Chlorotoluene	11.787	91	103213	23.61	ug/L		98
76) tert-Butylbenzene	11.927	91	59709	23.54	ug/L		98
77) 1,2,4-Trimethylbenzene	11.982	105	123559	23.63	ug/L		100
78) sec-Butylbenzene	12.062	105	135125	23.42	ug/L		98
79) 4-Isopropyltoluene	12.165	119	114553	23.57	ug/L		99
80) 1,3-Dichlorobenzene	12.232	146	76973	22.74	ug/L		99
81) 1,4-Dichlorobenzene	12.299	146	77262	20.23	ug/L		97
82) n-Butylbenzene	12.482	91	96141	24.78	ug/L		97
83) 1,2-Dichlorobenzene	12.628	146	74348	22.38	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	13010	21.61	ug/L		95
85) Hexachlorobutadiene	13.829	223	12296	23.73	ug/L		97
86) 1,2,4-Trichlorobenzene	13.872	180	46206	23.74	ug/L		96
87) Naphthalene	14.195	128	129263	21.51	ug/L		97
88) 1,2,3-Trichlorobenzene	14.390	180	46995	24.68	ug/L		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103104.D
Acq On : 31 Oct 2019 10:31 am
Operator : TNL
Sample : 9101791-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19J352
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:01:45 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103105.D
Acq On : 31 Oct 2019 10:58 am
Operator : TNL
Sample : 9101791-BLK1@50
Misc : 50X 1mL/50mL EXTRACTION FLUID 1
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:01:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

10/30 10/31/19
10/31/19

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.861	99	81589	50.00 ug/L		0.00
45) Chlorobenzene-d5 (I)	10.446	117	251794	50.00 ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.287	152	124120	50.00 ug/L		0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	6.325	111	89597	52.17 ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	290320	51.80 ug/L		0.00
48) Toluene-d8 (S)	8.989	98	324986	49.50 ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	104765	49.98 ug/L		0.00
Target Compounds						Qvalue
3) Chloromethane	1.984	50	394	0.21 ug/L		80
6) Chloroethane	2.722	64	71	Below Cal	#	47
10) Carbon Disulfide	3.581	76	610	0.21 ug/L		78
12) Iodomethane	3.740	142	21	2.12 ug/L	#	47
14) Methylene Chloride	4.319	84	789	Below Cal		88
15) Acetone	4.398	43	596	0.70 ug/L		98
16) t-1,2-Dichloroethene	4.514	61	164	0.08 ug/L	#	71
19) tert-Butanol (TBA)	4.831	59	440	1.37 ug/L	#	80
28) Chloroform	6.130	83	427	0.16 ug/L		95
33) 1,1-Dichloropropene	6.477	75	151	0.08 ug/L	#	39
50) Tetrachloroethene (PCE)	9.434	166	213	0.11 ug/L		95
61) m,p-Xylenes (2)	10.611	91	567	0.11 ug/L		83
63) Styrene	11.025	104	40	0.11 ug/L	#	40
69) n-Propylbenzene	11.543	91	625	0.09 ug/L		91
80) 1,3-Dichlorobenzene	12.238	146	297	0.09 ug/L		92
81) 1,4-Dichlorobenzene	12.299	146	380	0.10 ug/L	#	7
82) n-Butylbenzene	12.488	91	439	0.12 ug/L		80
85) Hexachlorobutadiene	13.829	223	75	0.15 ug/L	#	73
86) 1,2,4-Trichlorobenzene	13.878	180	185	0.10 ug/L		92
87) Naphthalene	14.201	128	284	0.32 ug/L		79
88) 1,2,3-Trichlorobenzene	14.396	180	149	0.08 ug/L		76

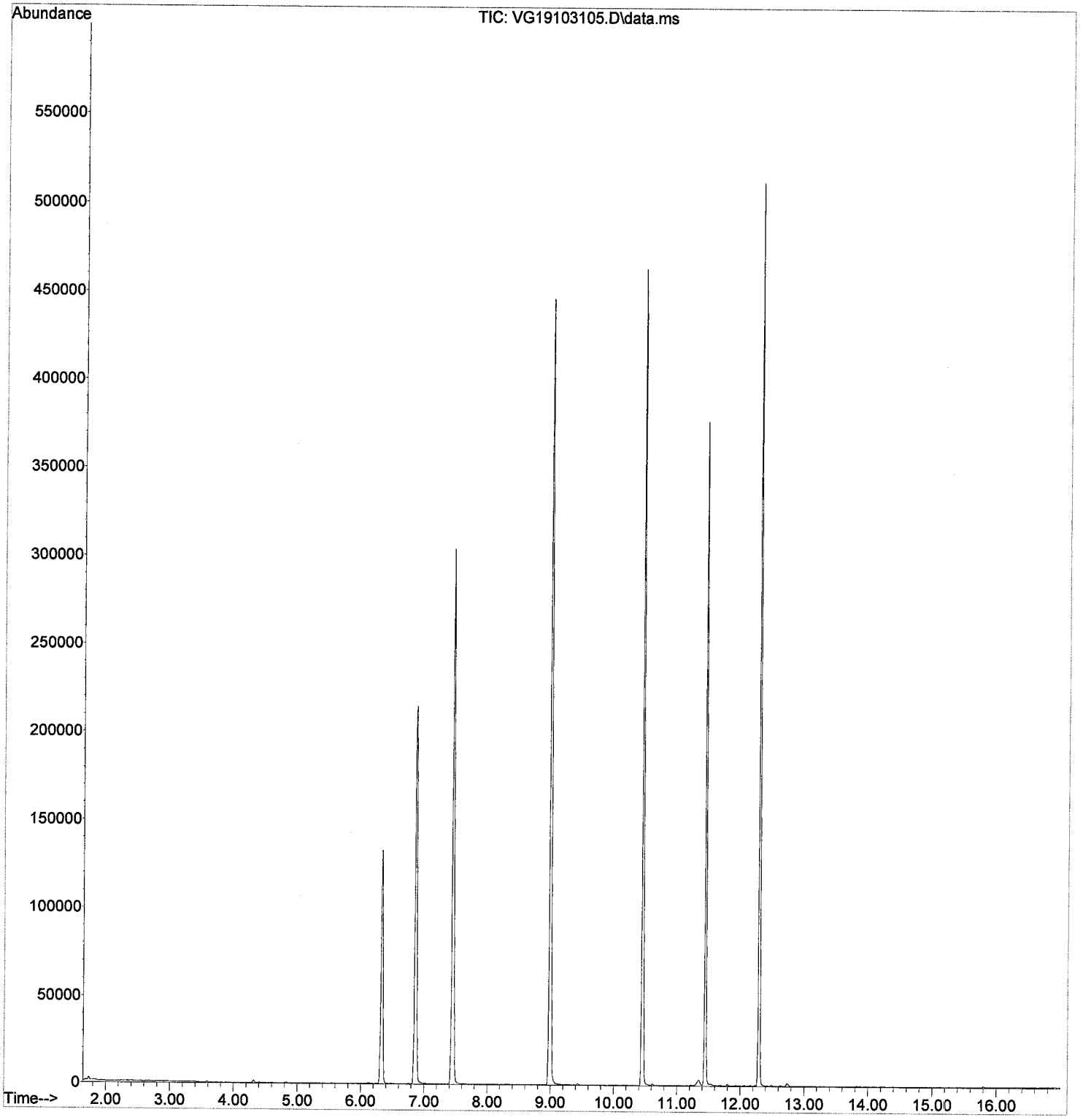
<MDL

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103105.D
Acq On : 31 Oct 2019 10:58 am
Operator : TNL
Sample : 9101791-BLK1@50
Misc : 50X 1mL/50mL EXTRACTION FLUID 1
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:01:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103106.D
Acq On : 31 Oct 2019 11:25 am
Operator : TNL
Sample : A9J0950-01@2000
Misc : 2000X 25uL/50mL TCLP REG LIST
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:01:51 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

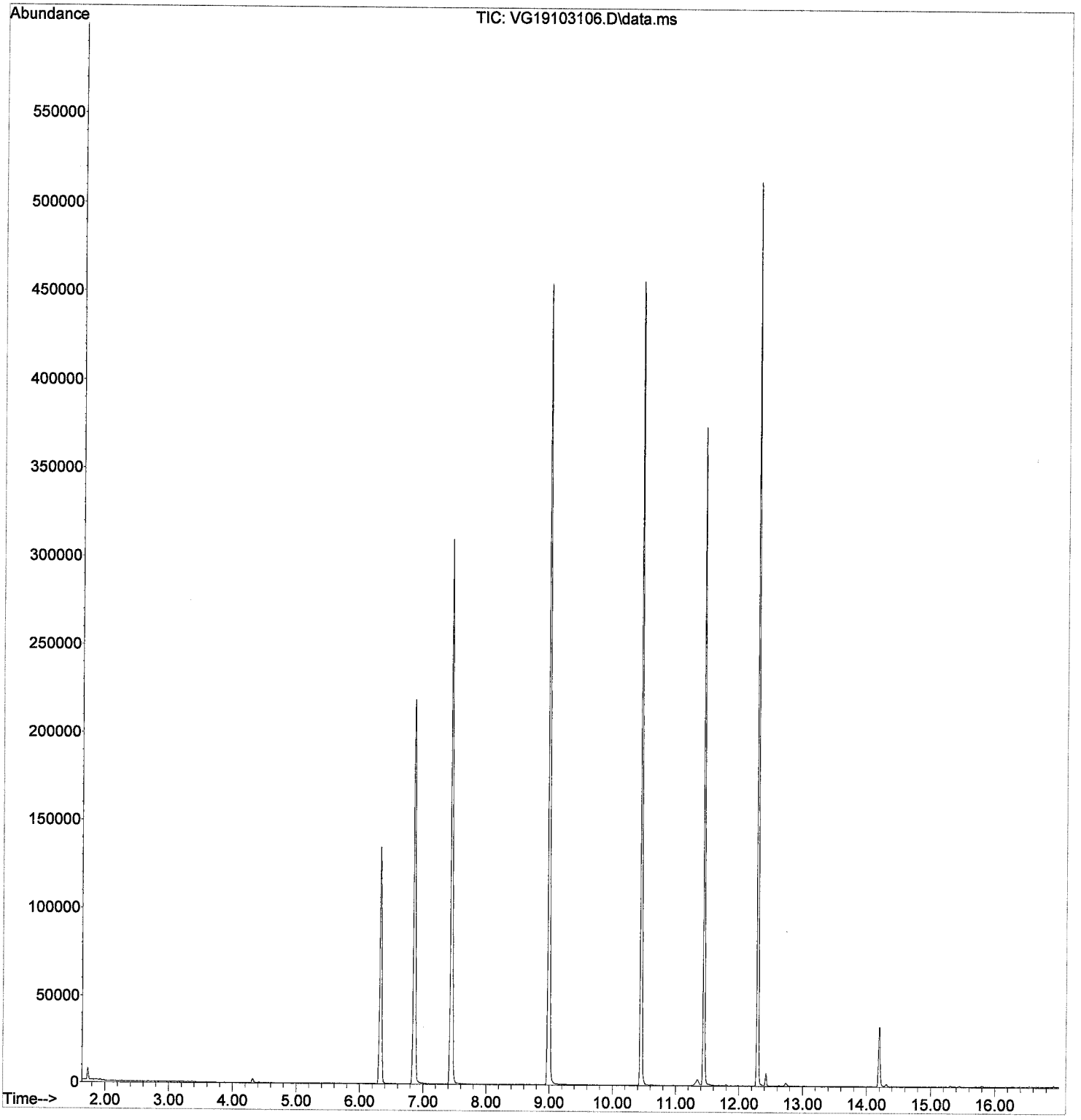
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.855	99	82901	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	254628	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.287	152	125964	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.325	111	90674	51.96	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	296840	52.12	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	328944	49.55	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	105732	49.71	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.984	50	305	0.16	ug/L		82
6) Chloroethane	2.704	64	10	Below Cal		#	47
14) Methylene Chloride	4.313	84	1251	Below Cal			93
15) Acetone	4.399	43	579	0.67	ug/L		91
46) 2-Chloroethyl Vinyl Ether	8.745	63	10	0.42	ug/L	#	1
59) Ethylbenzene	10.489	91	842	0.12	ug/L		94
63) Styrene	11.019	104	19	0.10	ug/L	#	40
87) Naphthalene	14.202	128	32618	5.88	ug/L		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103106.D
Acq On : 31 Oct 2019 11:25 am
Operator : TNL
Sample : A9J0950-01@2000
Misc : 2000X 25uL/50mL TCLP REG LIST
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:01:51 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103107.D
Acq On : 31 Oct 2019 11:52 am
Operator : TNL
Sample : A9J0950-02@2000
Misc : 2000X 25uL/50mL TCLP REG LIST
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:01:54 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

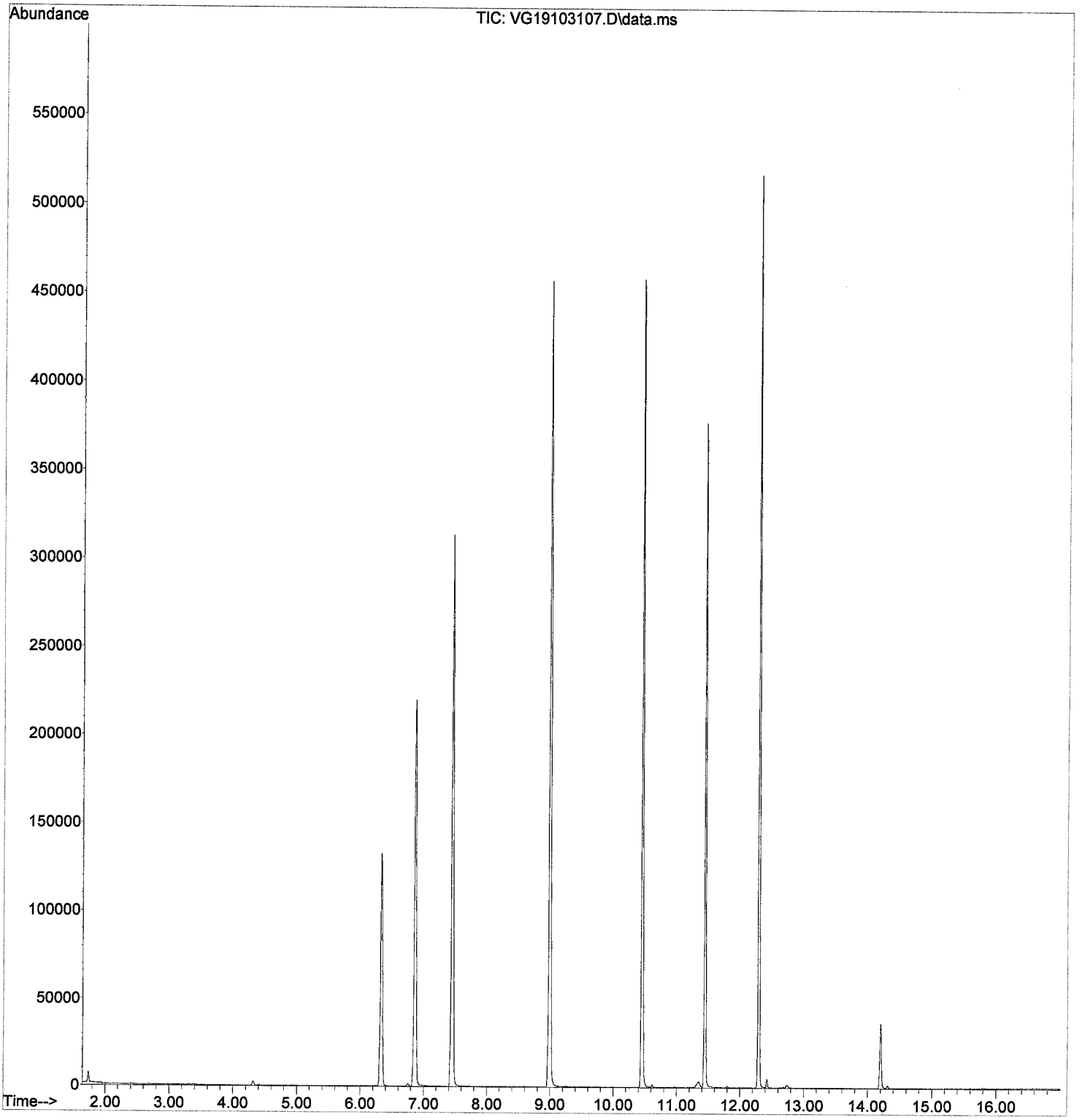
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.855	99	83626	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	256270	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.287	152	126811	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.325	111	90239	51.26	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	297031	51.70	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	330429	49.45	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	106437	49.71	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.984	50	202	0.11	ug/L		80
6) Chloroethane	2.698	64	19	Below Cal		#	1
8) Ethanol	3.643	45	10	0.23	ug/L	#	29
14) Methylene Chloride	4.313	84	1337	Below Cal			86
15) Acetone	4.399	43	612	0.70	ug/L		81
35) Benzene	6.746	78	1707	0.26	ug/L		95
59) Ethylbenzene	10.489	91	1351	0.18	ug/L		98
61) m,p-Xylenes (2)	10.611	91	978	0.19	ug/L		97
62) o-Xylene	10.970	91	390	0.08	ug/L		92
87) Naphthalene	14.195	128	34385	6.14	ug/L		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103107.D
Acq On : 31 Oct 2019 11:52 am
Operator : TNL
Sample : A9J0950-02@2000
Misc : 2000X 25uL/50mL TCLP REG LIST
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:01:54 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103108.D
Acq On : 31 Oct 2019 12:21 pm
Operator : TNL
Sample : A9J0950-01RE1@50
Misc : 50X 1mL/50mL TCLP REG LIST
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

10/31/19

Quant Time: Oct 31 13:01:57 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)	Qvalue
Internal Standards								
1) Pentafluorobenzene (I)	6.855	99	85384	50.00	ug/L		0.00	
45) Chlorobenzene-d5 (I)	10.452	117	268156	50.00	ug/L		0.00	
66) 1,4-Dichlorobenzene-d4...	12.287	152	137259	50.00	ug/L		0.00	
System Monitoring Compounds								
32) Dibromofluoromethane (S)	6.325	111	92698	51.57	ug/L		0.00	
39) 1,4-Difluorobenzene (S)	7.447	114	305428	52.07	ug/L		0.00	
48) Toluene-d8 (S)	8.989	98	343309	49.10	ug/L		0.00	
67) 4-Bromofluorobenzene (S)	11.446	174	116917	50.44	ug/L		0.00	
Target Compounds								Qvalue
3) Chloromethane	1.991	50	251	0.13	ug/L			89
6) Chloroethane	2.801	64	10	Below Cal		#		47
15) Acetone	4.399	43	681	0.77	ug/L			78
19) tert-Butanol (TBA)	4.819	59	236	0.70	ug/L	#		75
28) Chloroform	6.130	83	270	0.10	ug/L			82
59) Ethylbenzene	10.483	91	36869	4.80	ug/L			99
61) m,p-Xylenes (2)	10.611	91	3969	0.75	ug/L			99
62) o-Xylene	10.964	91	7050	1.41	ug/L			99
63) Styrene	11.019	104	40	0.11	ug/L	#		40
65) Isopropylbenzene	11.214	105	1623	0.25	ug/L			96
72) 1,3,5-Trimethylbenzene	11.684	105	3030	0.57	ug/L			92
76) tert-Butylbenzene	11.976	91	1124	0.42	ug/L	#		56
77) 1,2,4-Trimethylbenzene	11.982	105	9752	1.77	ug/L			98
87) Naphthalene	14.195	128	2799591	347.19	ug/L			98

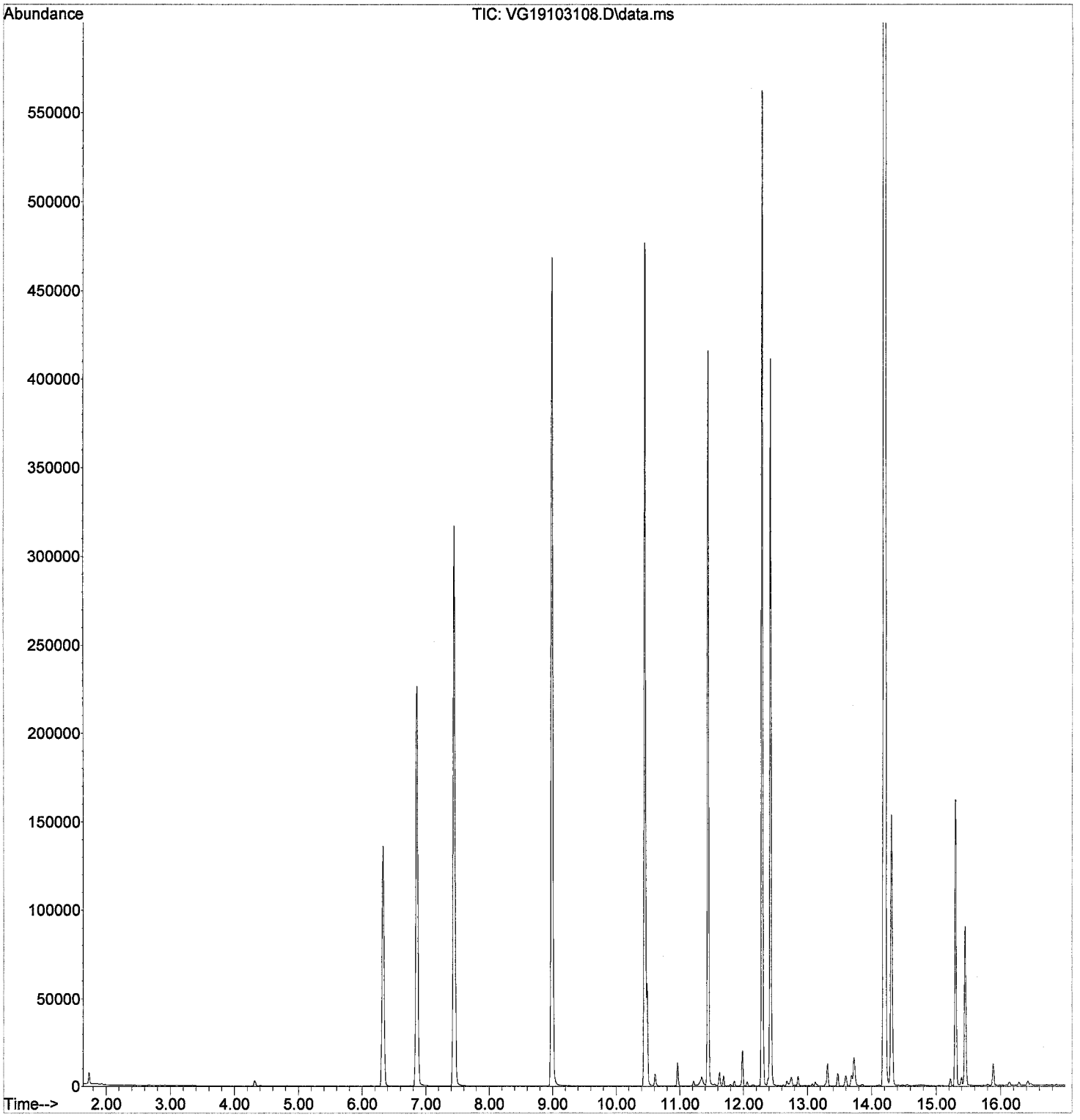
<MDL

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103108.D
Acq On : 31 Oct 2019 12:21 pm
Operator : TNL
Sample : A9J0950-01RE1@50
Misc : 50X 1mL/50mL TCLP REG LIST
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:01:57 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103109.D
Acq On : 31 Oct 2019 12:48 pm
Operator : TNL
Sample : 9101791-DUP1@50
Misc : 50X 1mL/50mL TCLP REG LIST
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:12:04 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

10/31/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.855	99	89196	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.446	117	274382	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.287	152	142527	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.325	111	95532	50.88	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	316951	51.73	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	353051	49.35	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	120156	49.92	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.984	50	244	0.12	ug/L		92
6) Chloroethane	2.734	64	11	Below Cal		#	47
8) Ethanol	3.630	45	10	0.21	ug/L	#	29
14) Methylene Chloride	4.319	84	1674	Below Cal			95
15) Acetone	4.404	43	692	0.74	ug/L		98
19) tert-Butanol (TBA)	4.837	59	225	0.64	ug/L	#	46
28) Chloroform	6.130	83	281	0.10	ug/L		82
57) 2-Hexanone	10.135	43	163	0.09	ug/L	#	32
59) Ethylbenzene	10.483	91	38097	4.85	ug/L		98
61) m,p-Xylenes (2)	10.611	91	4198	0.78	ug/L		96
62) o-Xylene	10.964	91	7407	1.45	ug/L		98
63) Styrene	10.964	104	180	0.14	ug/L	#	1
65) Isopropylbenzene	11.214	105	1754	0.27	ug/L		93
69) n-Propylbenzene	11.543	91	675	0.09	ug/L		82
72) 1,3,5-Trimethylbenzene	11.690	105	3261	0.59	ug/L		91
76) tert-Butylbenzene	11.982	91	1137	0.41	ug/L	#	63
77) 1,2,4-Trimethylbenzene	11.982	105	10483	1.83	ug/L		98
79) 4-Isopropyltoluene	12.159	119	442	0.08	ug/L		89
87) Naphthalene	14.195	128	2840802	340.68	ug/L		98

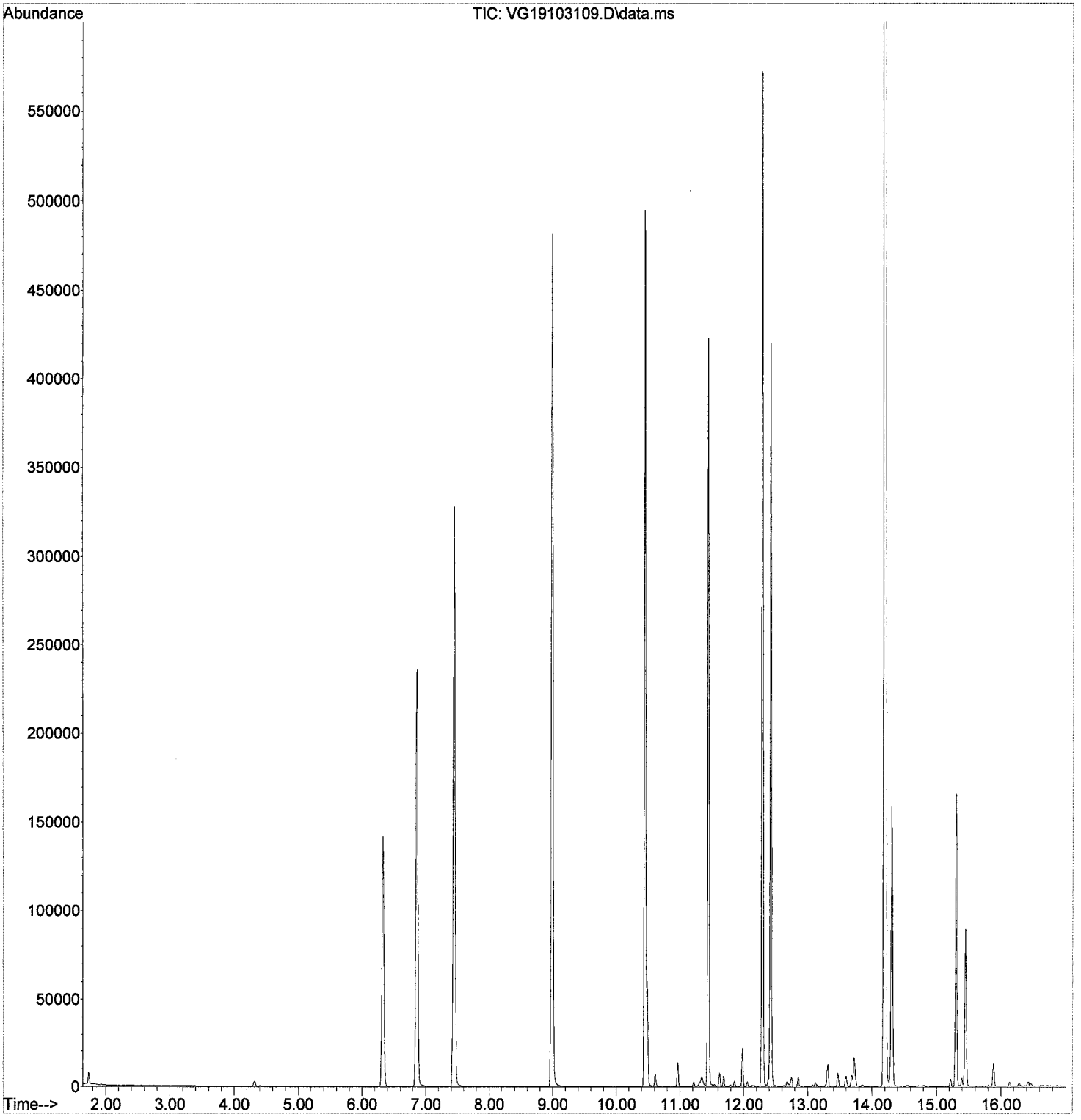
NR
NR
< MDL

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103109.D
Acq On : 31 Oct 2019 12:48 pm
Operator : TNL
Sample : 9101791-DUP1@50
Misc : 50X 1mL/50mL TCLP REG LIST
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:12:04 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103110.D
Acq On : 31 Oct 2019 1:15 pm
Operator : TNL
Sample : A9J0950-02RE1@50
Misc : 50X 1mL/50mL TCLP REG LIST
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:41:38 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

10/31/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.855	99	88414	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.446	117	259635	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.287	152	133723	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.325	111	90308	48.52	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	298866	49.21	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	336852	49.76	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.440	174	112498	49.82	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.984	50	241	0.12	ug/L		73
5) Bromomethane	2.545	96	108	0.12	ug/L		71
6) Chloroethane	2.722	64	33	Below Cal		#	1
8) Ethanol	3.630	45	79	1.70	ug/L		95
14) Methylene Chloride	4.313	84	1048	Below Cal			82
15) Acetone	4.405	43	501	0.54	ug/L		98
19) tert-Butanol (TBA)	4.825	59	335	0.96	ug/L	#	93
28) Chloroform	6.124	83	338	0.12	ug/L		83
35) Benzene	6.752	78	76975	11.25	ug/L		98
49) Toluene	9.044	91	12139	1.56	ug/L		97
52) t-1,3-Dichloropropene	9.477	75	11	0.09	ug/L	#	45
59) Ethylbenzene	10.483	91	58282	7.84	ug/L		99
61) m,p-Xylenes (2)	10.611	91	46122	9.02	ug/L		98
62) o-Xylene	10.964	91	20585	4.25	ug/L		100
63) Styrene	11.007	104	232	0.15	ug/L		78
65) Isopropylbenzene	11.214	105	3129	0.50	ug/L		91
69) n-Propylbenzene	11.543	91	1044	0.14	ug/L		90
72) 1,3,5-Trimethylbenzene	11.684	105	3755	0.72	ug/L		96
76) tert-Butylbenzene	11.921	91	252	0.10	ug/L	#	54
77) 1,2,4-Trimethylbenzene	11.982	105	10464	1.95	ug/L		98
78) sec-Butylbenzene	12.062	105	2341	0.40	ug/L		88
79) 4-Isopropyltoluene	12.159	119	469	0.09	ug/L		88
87) Naphthalene	14.195	128	2691511	343.42	ug/L		98

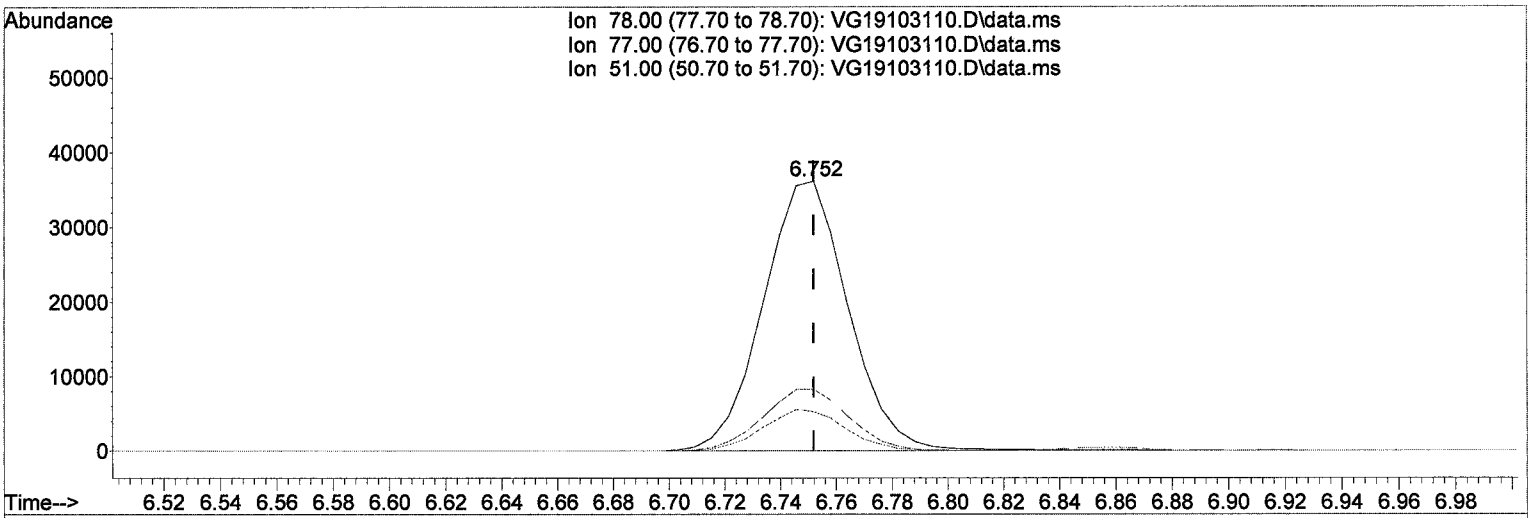
NR
NR
<MDL

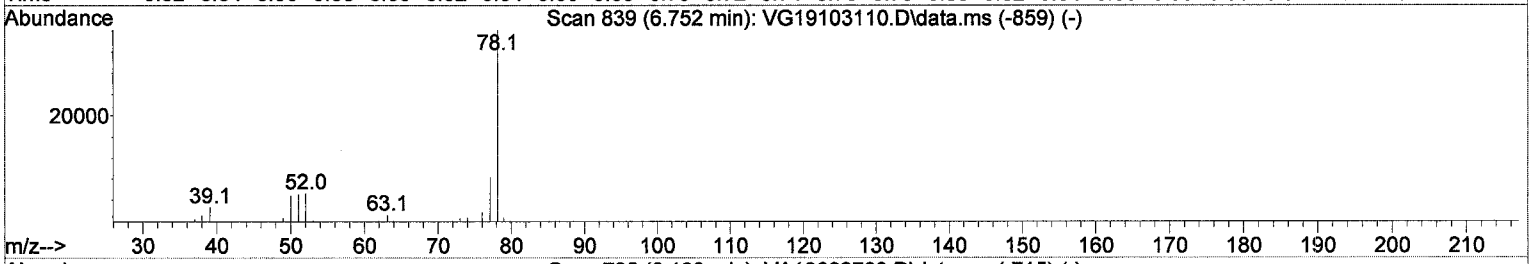
(#) = qualifier out of range (m) = manual integration (+) = signals summed

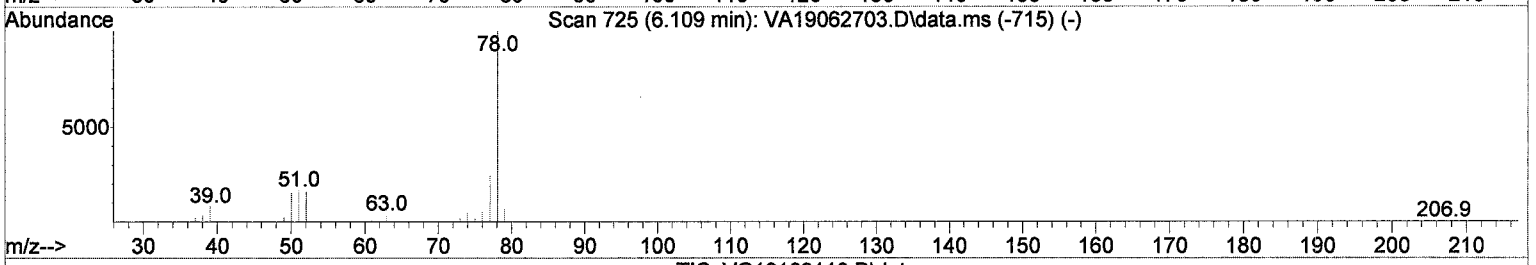
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103110.D
Acq On : 31 Oct 2019 1:15 pm
Operator : TNL
Sample : A9J0950-02RE1@50
Misc : 50X 1mL/50mL TCLP REG LIST
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:41:38 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







TIC: VG19103110.D\data.ms

(35) Benzene

6.752min (-0.000) 11.25 ug/L

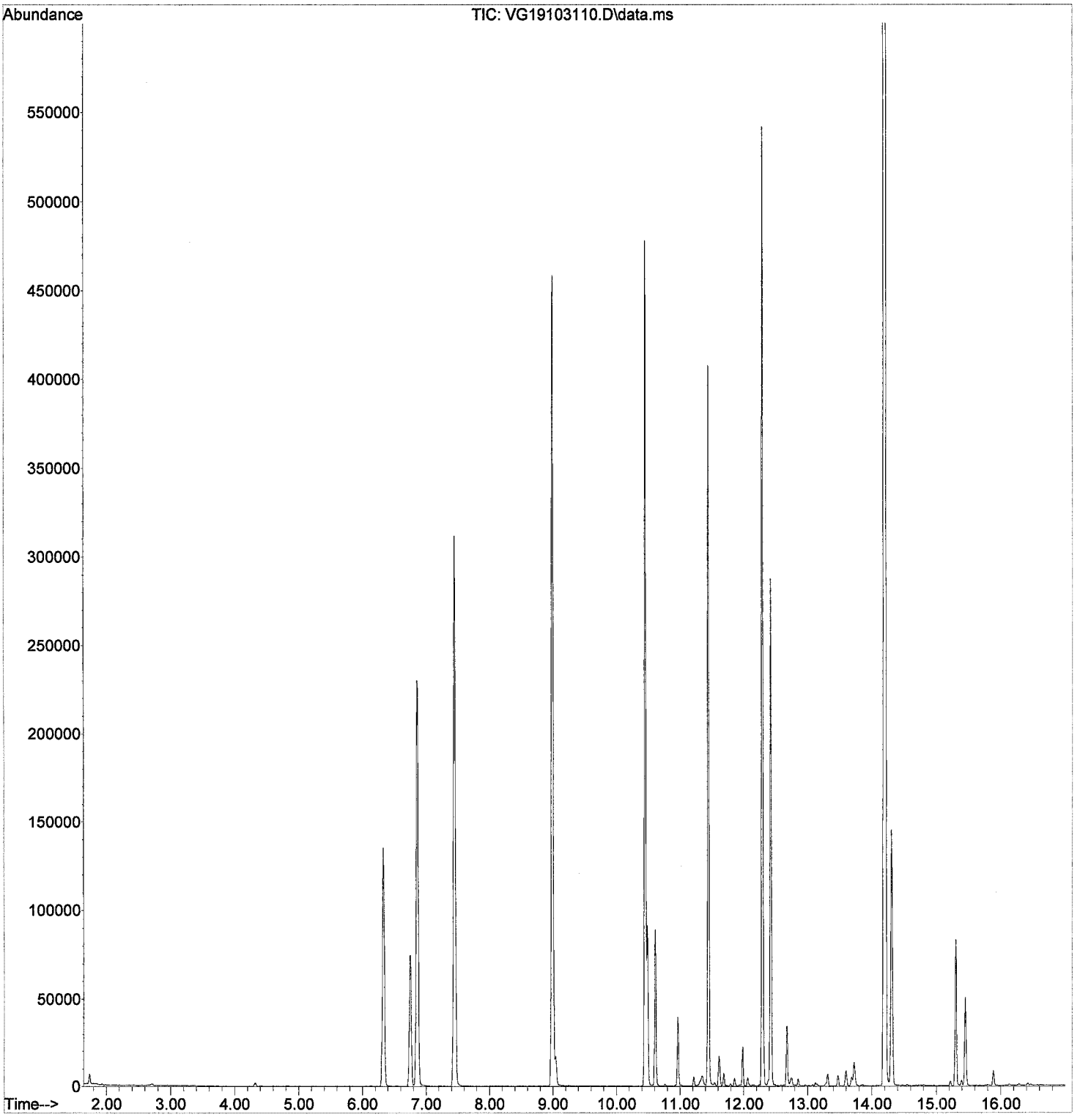
response 76975

Ion	Exp%	Act%
78.00	100.00	100.00
77.00	23.60	22.99
51.00	16.20	14.53
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103110.D
Acq On : 31 Oct 2019 1:15 pm
Operator : TNL
Sample : A9J0950-02RE1@50
Misc : 50X 1mL/50mL TCLP REG LIST
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:41:38 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103111.D
Acq On : 31 Oct 2019 1:42 pm
Operator : TNL
Sample : A9J0950-03@50
Misc : 50X 1mL/50mL TCLP REG LIST
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:59:40 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

10/31/19

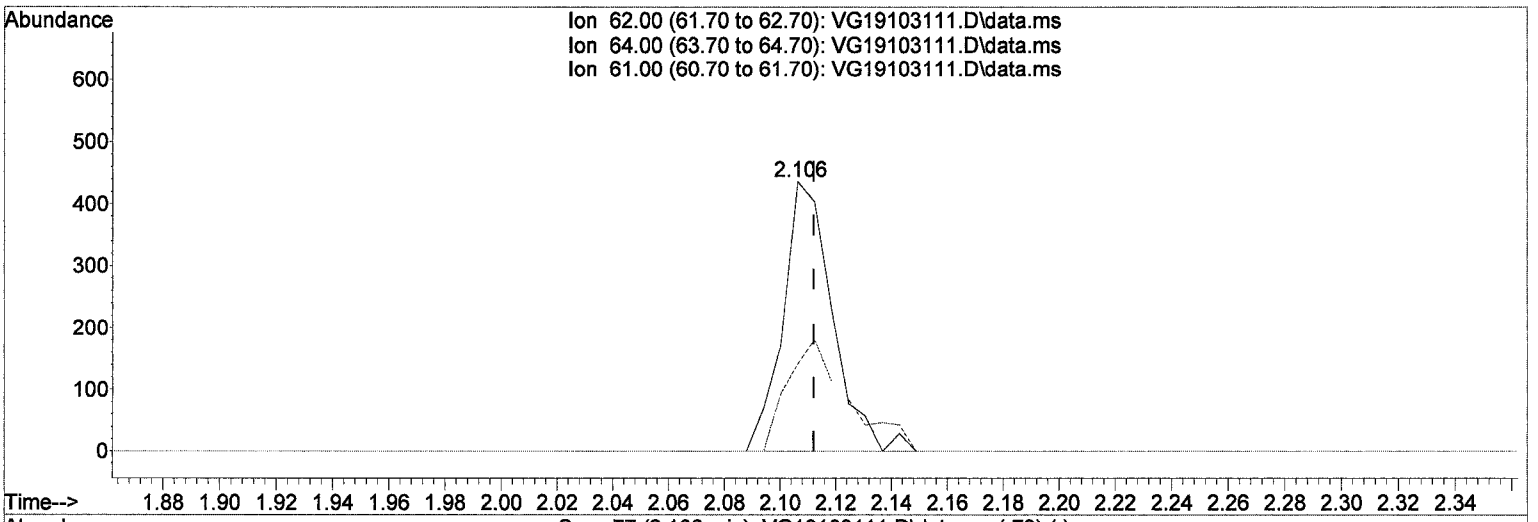
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.855	99	91459	50.00 ug/L		0.00
45) Chlorobenzene-d5 (I)	10.446	117	271400	50.00 ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.287	152	138421	50.00 ug/L		0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	6.325	111	94788	49.23 ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	315590	50.23 ug/L		0.00
48) Toluene-d8 (S)	8.989	98	352600	49.83 ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	117775	50.39 ug/L		0.00
Target Compounds						Qvalue
3) Chloromethane	1.990	50	261	0.13 ug/L	MR	76
4) Vinyl Chloride	2.106	62	539	0.30 ug/L		91
6) Chloroethane	2.704	64	47	Below Cal	# MR	64
8) Ethanol	3.643	45	93	1.94 ug/L	#	29
12) Iodomethane	3.752	142	25	2.13 ug/L	#	47
14) Methylene Chloride	4.313	84	1160	Below Cal		89
15) Acetone	4.405	43	524	0.55 ug/L		98
19) tert-Butanol (TBA)	4.825	59	390	1.08 ug/L	#	84
25) c-1,2-Dichloroethene	5.819	61	2455	1.09 ug/L		94
28) Chloroform	6.136	83	362	0.12 ug/L		72
35) Benzene	6.752	78	10405	1.47 ug/L		99
49) Toluene	9.044	91	6881	0.85 ug/L	MR	95
59) Ethylbenzene	10.483	91	38831	5.00 ug/L		99
61) m,p-Xylenes (2)	10.611	91	26338	4.93 ug/L		99
62) o-Xylene	10.964	91	11579	2.29 ug/L		98
63) Styrene	11.025	104	113	0.13 ug/L		54
65) Isopropylbenzene	11.214	105	2287	0.35 ug/L		97
69) n-Propylbenzene	11.543	91	862	0.11 ug/L		92
72) 1,3,5-Trimethylbenzene	11.684	105	3001	0.56 ug/L		95
77) 1,2,4-Trimethylbenzene	11.982	105	8414	1.51 ug/L		97
78) sec-Butylbenzene	12.062	105	1240	0.20 ug/L		88
79) 4-Isopropyltoluene	12.159	119	447	0.09 ug/L		94
87) Naphthalene	14.195	128	2402293	303.74 ug/L		98

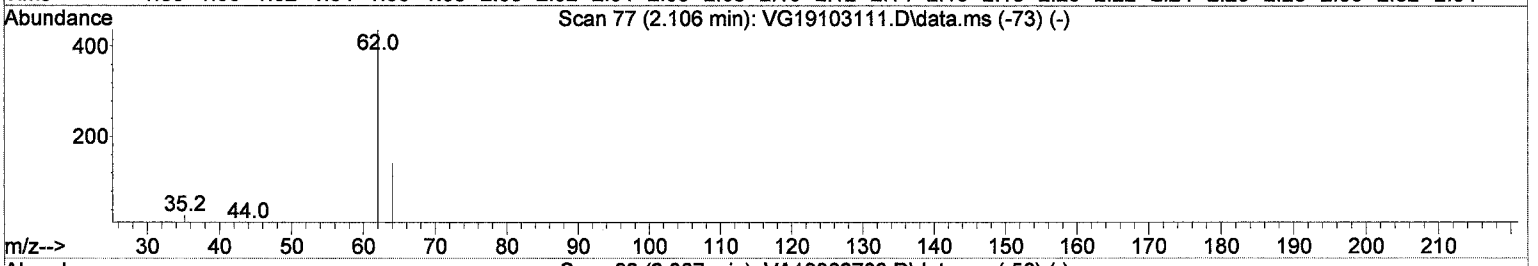
(#) = qualifier out of range (m) = manual integration (+) = signals summed

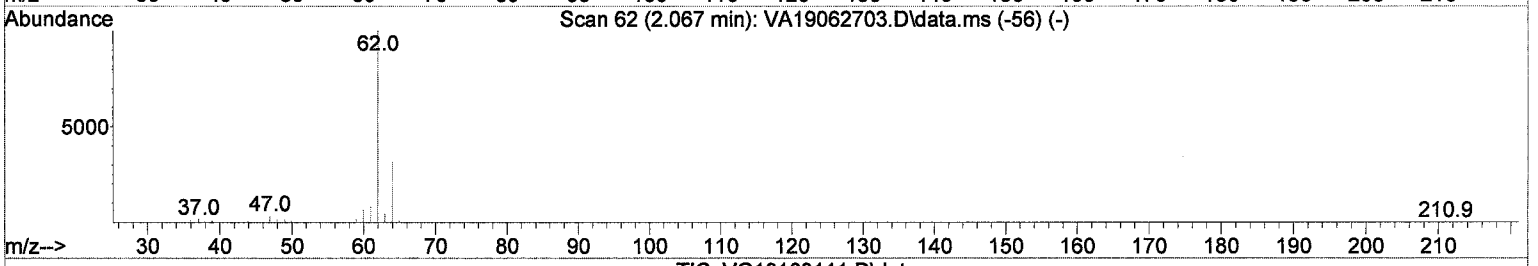
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103111.D
Acq On : 31 Oct 2019 1:42 pm
Operator : TNL
Sample : A9J0950-03@50
Misc : 50X 1mL/50mL TCLP REG LIST
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:59:40 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







TIC: VG19103111.D\data.ms

(4) Vinyl Chloride (C)

2.106min (-0.006) 0.30 ug/L

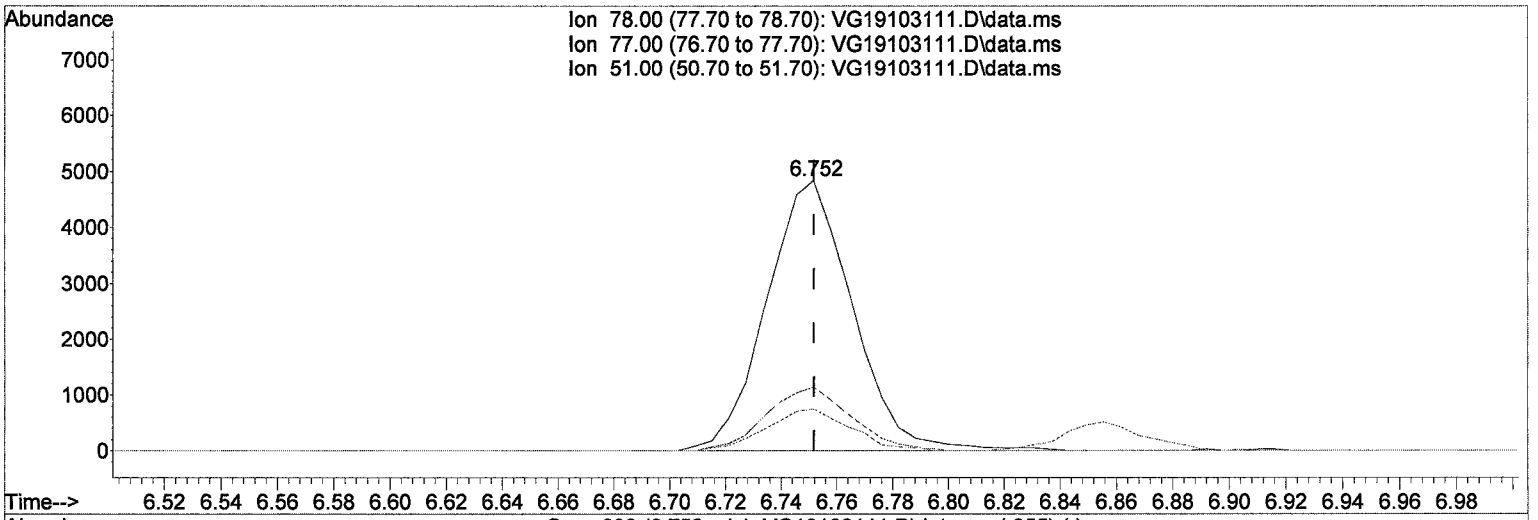
response 539

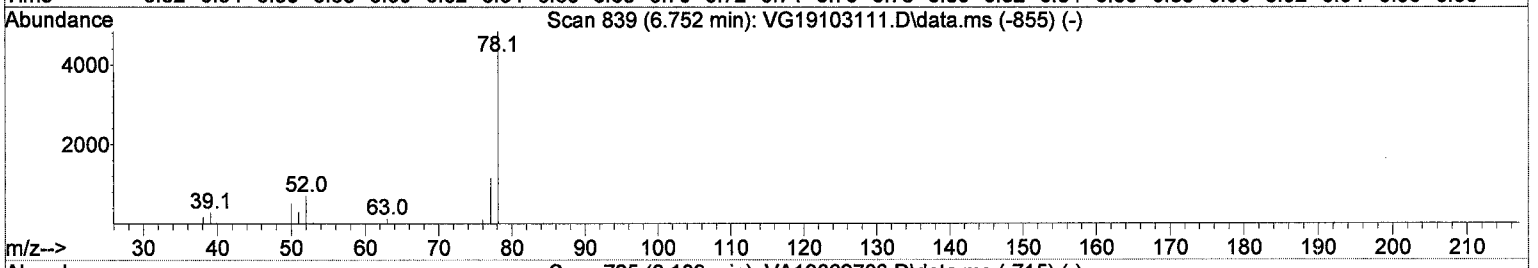
Ion	Exp%	Act%
62.00	100.00	100.00
64.00	35.50	32.34
61.00	8.30	0.00
0.00	0.00	0.00

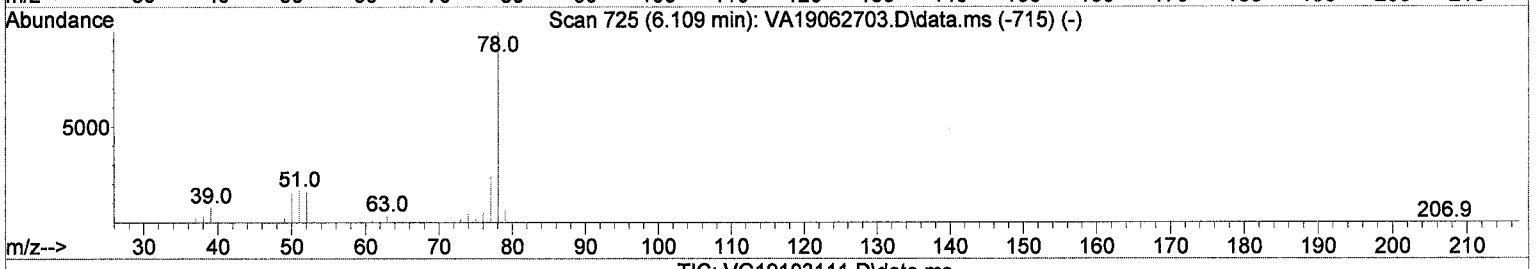
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103111.D
Acq On : 31 Oct 2019 1:42 pm
Operator : TNL
Sample : A9J0950-03@50
Misc : 50X 1mL/50mL TCLP REG LIST
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:59:40 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







TIC: VG19103111.D\data.ms

(35) Benzene

6.752min (-0.000) 1.47 ug/L

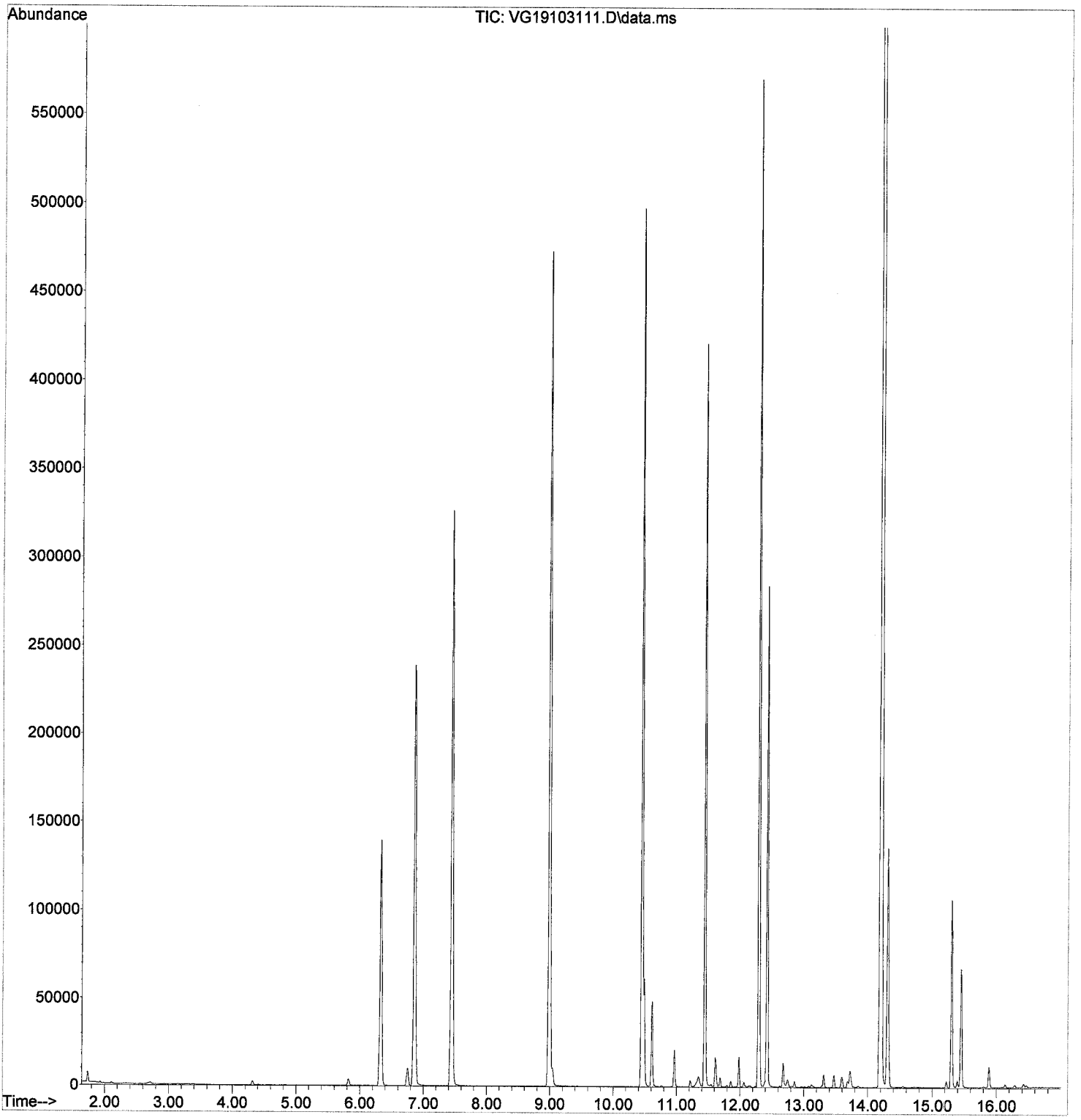
response 10405

Ion	Exp%	Act%
78.00	100.00	100.00
77.00	23.60	23.74
51.00	16.20	15.52
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103111.D
Acq On : 31 Oct 2019 1:42 pm
Operator : TNL
Sample : A9J0950-03@50
Misc : 50X 1mL/50mL TCLP REG LIST
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 13:59:40 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103112.D
Acq On : 31 Oct 2019 2:09 pm
Operator : TNL
Sample : A9J0950-04@50
Misc : 50X 1mL/50mL TCLP REG LIST
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 14:27:58 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

10/31/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.855	99	94103	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.446	117	266286	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.287	152	136069	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.325	111	92295	46.59	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	308870	47.78	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	344631	49.64	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	115774	50.39	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.990	50	247	0.12	ug/L		88
6) Chloroethane	2.734	64	10	Below Cal		#	47
8) Ethanol	3.618	45	21	0.43	ug/L	#	29
14) Methylene Chloride	4.319	84	1213	Below Cal		#	77
15) Acetone	4.398	43	615	0.63	ug/L		85
19) tert-Butanol (TBA)	4.825	59	202	0.54	ug/L	#	65
28) Chloroform	6.136	83	261	0.08	ug/L		92
35) Benzene	6.746	78	623305	85.60	ug/L		98
49) Toluene	9.038	91	256308	32.15	ug/L		99
57) 2-Hexanone	10.129	43	147	0.09	ug/L	#	32
59) Ethylbenzene	10.483	91	60617	7.95	ug/L		99
61) m,p-Xylenes (2)	10.611	91	69099	13.18	ug/L		99
62) o-Xylene	10.964	91	28490	5.74	ug/L		96
63) Styrene	11.013	104	8089	1.93	ug/L		94
65) Isopropylbenzene	11.214	105	4199	0.66	ug/L		98
69) n-Propylbenzene	11.543	91	853	0.11	ug/L		96
72) 1,3,5-Trimethylbenzene	11.684	105	3712	0.70	ug/L		96
76) tert-Butylbenzene	11.927	91	335	0.13	ug/L		96
77) 1,2,4-Trimethylbenzene	11.982	105	10473	1.92	ug/L		100
78) sec-Butylbenzene	12.062	105	2780	0.46	ug/L		89
87) Naphthalene	14.195	128	2624945	331.63	ug/L		98

NA

NA

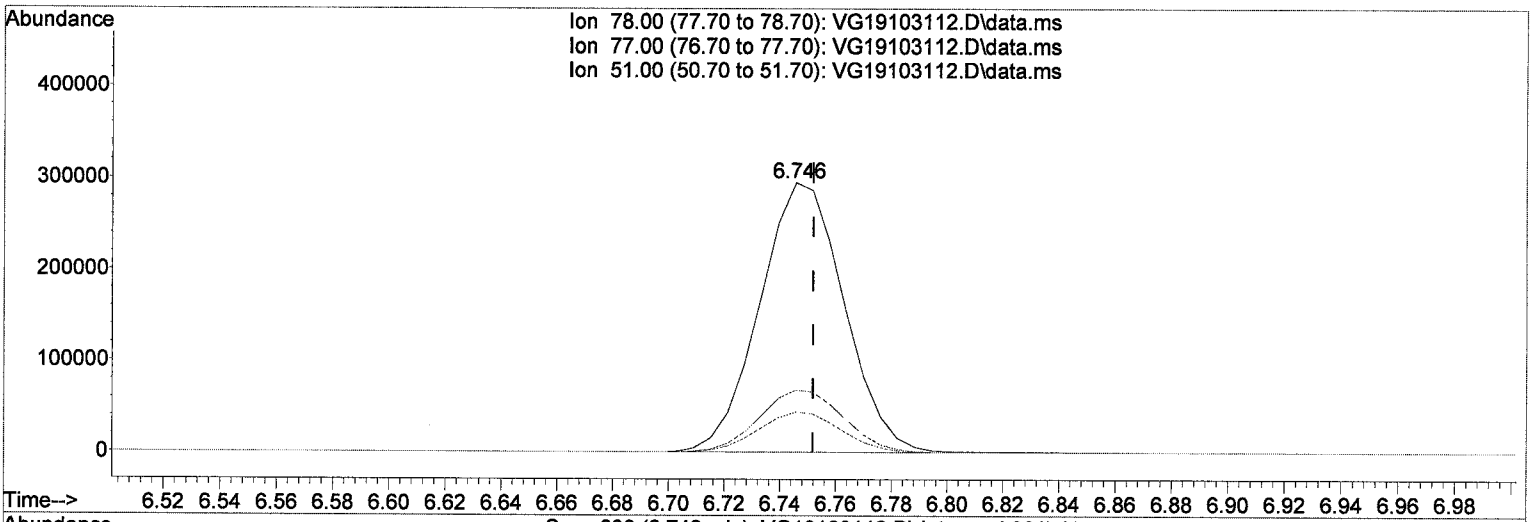
< MDL

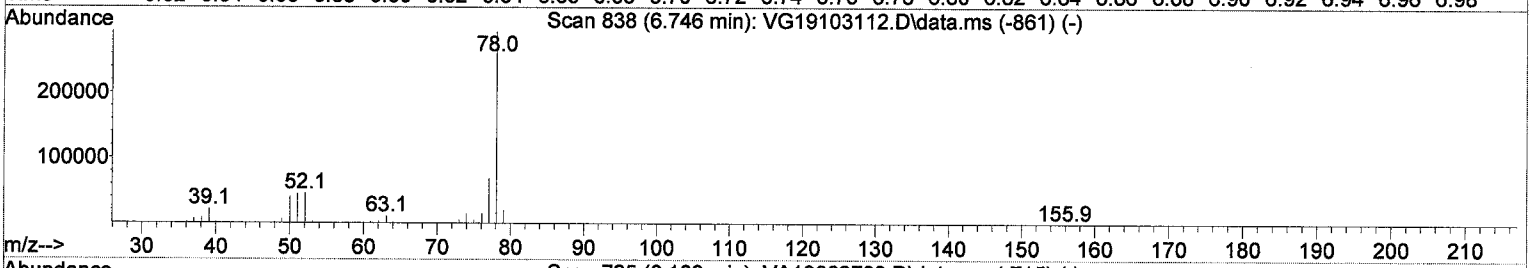
(#) = qualifier out of range (m) = manual integration (+) = signals summed

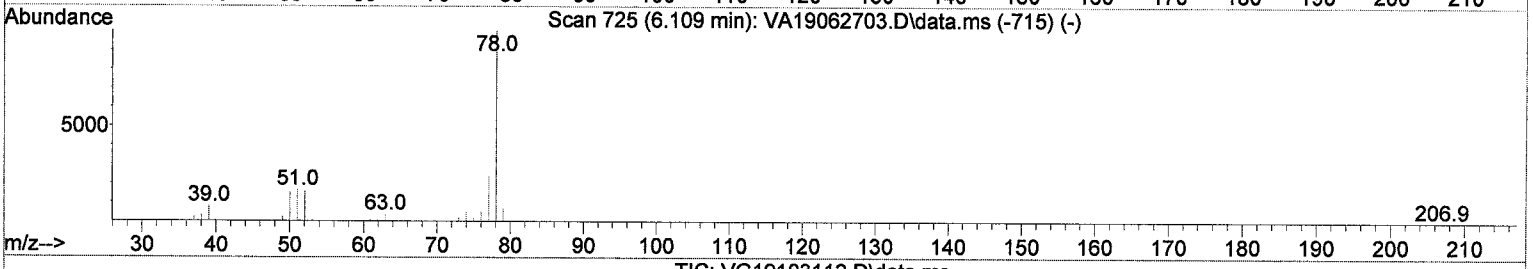
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103112.D
Acq On : 31 Oct 2019 2:09 pm
Operator : TNL
Sample : A9J0950-04@50
Misc : 50X 1mL/50mL TCLP REG LIST
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 14:27:58 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







TIC: VG19103112.D\data.ms

(35) Benzene

6.746min (-0.006) 85.60 ug/L

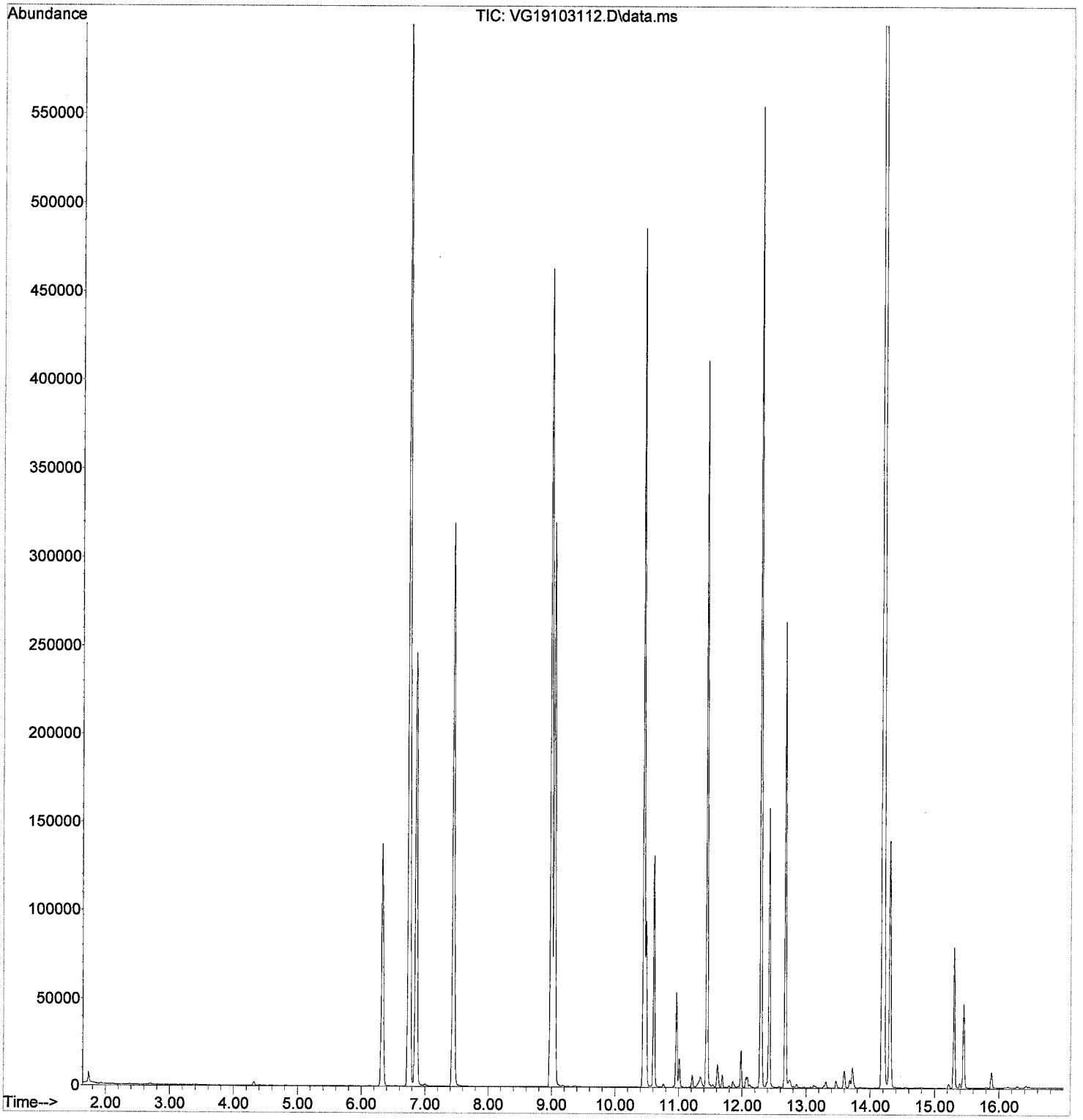
response 623305

Ion	Exp%	Act%
78.00	100.00	100.00
77.00	23.60	23.16
51.00	16.20	14.96
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J31024\
Data File : VG19103112.D
Acq On : 31 Oct 2019 2:09 pm
Operator : TNL
Sample : A9J0950-04@50
Misc : 50X 1mL/50mL TCLP REG LIST
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 31 14:27:58 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 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 9J25051 (Cal ID A9J2806) VOA-GCMS7

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	9J25051	Instrument:	VOA-GCMS7
Date:	10/25/19 15:22	Calibration:	A9J2806

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J25051-IBL1	Water	QC	QC			A19F381	
2	9J25051-TUN1	Water	QC	QC			A19F381	
3	9J25051-ICB1	Water	QC	QC			A19F381	
4	9J25051-CAL1	Water	QC	QC			A19F381	A19J377
5	9J25051-CAL2	Water	QC	QC			A19F381	A19J378
6	9J25051-CAL3	Water	QC	QC			A19F381	A19J379
7	9J25051-CAL4	Water	QC	QC			A19F381	A19J380
8	9J25051-CAL5	Water	QC	QC			A19F381	A19J381
9	9J25051-CAL6	Water	QC	QC			A19F381	A19J382
10	9J25051-CAL7	Water	QC	QC			A19F381	A19J383
11	9J25051-CAL8	Water	QC	QC			A19F381	A19J384
12	9J25051-CAL9	Water	QC	QC			A19F381	A19J385
13	9J25051-IBL2	Water	QC	QC			A19F381	
14	9J25051-CALA	Water	QC	QC			A19F381	A19J386
15	9J25051-IBL3	Water	QC	QC			A19F381	
16	9J25051-CALB	Water	QC	QC			A19F381	A19J387
17	9J25051-IBL4	Water	QC	QC			A19F381	
18	9J25051-IBL5	Water	QC	QC			A19F381	
19	9J25051-ICV1	Water	QC	QC			A19F381	A19J131
20	9J25051-ICV2	Water	QC	QC			A19F381	A19E195
21	9J25051-IBL6	Water	QC	QC			A19F381	
22	9J25051-TUN2	Water	QC	QC			A19F381	
23	9J25051-IBL7	Water	QC	QC			A19F381	
24	9J25051-ICB2	Water	QC	QC			A19F381	
25	9J25051-CALC	Water	QC	QC			A19F381	A19J388
26	9J25051-CALD	Water	QC	QC			A19F381	A19J389
27	9J25051-CALE	Water	QC	QC			A19F381	A19J390
28	9J25051-CALF	Water	QC	QC			A19F381	A19J391
29	9J25051-CALG	Water	QC	QC			A19F381	A19J392
30	9J25051-CALH	Water	QC	QC			A19F381	A19J393
31	9J25051-CALI	Water	QC	QC			A19F381	A19J394
32	9J25051-CALJ	Water	QC	QC			A19F381	A19J395
33	9J25051-IBL8	Water	QC	QC			A19F381	
34	9J25051-IBL9	Water	QC	QC			A19F381	
35	9J25051-ICV3	Water	QC	QC			A19F381	A19G350
36	9J25051-IBLA	Water	QC	QC			A19F381	

Data Entered By: 10/28/19

Data Reviewed By: MA 10/30/19

Comments:

Calibration Status Report VOA-GCMS7

Method Path : C:\msdchem\1\methods\
Method File : VG191025W.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Mon Oct 28 11:12:23 2019
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	1	-1	50	C:\msdchem\1\data\2019-10\9J25051\VG19102514.D
2	2	0	50	C:\msdchem\1\data\2019-10\9J25051\VG19102515.D
3	3	0	50	C:\msdchem\1\data\2019-10\9J25051\VG19102516.D
4	4	1	50	C:\msdchem\1\data\2019-10\9J25051\VG19102517.D
5	5	2	50	C:\msdchem\1\data\2019-10\9J25051\VG19102518.D
6	6	5	50	C:\msdchem\1\data\2019-10\9J25051\VG19102519.D
7	7	10	50	C:\msdchem\1\data\2019-10\9J25051\VG19102520.D
8	8	20	50	C:\msdchem\1\data\2019-10\9J25051\VG19102521.D
9	9	50	50	C:\msdchem\1\data\2019-10\9J25051\VG19102522.D
10	10	100	50	C:\msdchem\1\data\2019-10\9J25051\VG19102524.D
11	1a	200	50	C:\msdchem\1\data\2019-10\9J25051\VG19102526.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Oct 28 11:11 2019	Oct 28 10:37 2019	25 Oct 2019 4:53 pm
2	2	Oct 28 11:11 2019	Oct 28 10:40 2019	25 Oct 2019 5:20 pm
3	3	Oct 28 11:11 2019	Oct 28 10:43 2019	25 Oct 2019 5:47 pm
4	4	Oct 28 11:11 2019	Oct 28 10:44 2019	25 Oct 2019 6:14 pm
5	5	Oct 28 11:11 2019	Oct 28 10:25 2019	25 Oct 2019 6:41 pm
6	6	Oct 28 11:11 2019	Oct 28 10:25 2019	25 Oct 2019 7:08 pm
7	7	Oct 28 11:11 2019	Oct 28 10:25 2019	25 Oct 2019 7:35 pm
8	8	Oct 28 11:12 2019	Oct 28 10:25 2019	25 Oct 2019 8:02 pm
9	9	Oct 28 11:11 2019	Oct 28 10:25 2019	25 Oct 2019 8:29 pm
10	10	Oct 28 11:11 2019	Oct 28 10:25 2019	25 Oct 2019 9:22 pm
11	1a	Oct 28 11:11 2019	Oct 28 10:53 2019	25 Oct 2019 10:16 pm

VG191025W.M Mon Oct 28 12:57:18 2019

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J25051

Analysis Included

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

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD ID	Analyzed	
9J25051-TUN1	MS Tune	Water		A19F381	10/25/2019	3:58:00PM
9J25051-ICB1	Initial Cal Blank	Water		A19F381	10/25/2019	4:25:00PM
9J25051-CAL1	Cal Standard	Water	A19J377	"	10/25/2019	4:53:00PM
9J25051-CAL2	Cal Standard	Water	A19J378	"	10/25/2019	5:20:00PM
9J25051-CAL3	Cal Standard	Water	A19J379	"	10/25/2019	5:47:00PM
9J25051-CAL4	Cal Standard	Water	A19J380	"	10/25/2019	6:14:00PM
9J25051-CAL5	Cal Standard	Water	A19J381	"	10/25/2019	6:41:00PM
9J25051-CAL6	Cal Standard	Water	A19J382	"	10/25/2019	7:08:00PM
9J25051-CAL7	Cal Standard	Water	A19J383	"	10/25/2019	7:35:00PM
9J25051-CAL8	Cal Standard	Water	A19J384	"	10/25/2019	8:02:00PM
9J25051-CAL9	Cal Standard	Water	A19J385	"	10/25/2019	8:29:00PM
9J25051-CALA	Cal Standard	Water	A19J386	"	10/25/2019	9:22:00PM
9J25051-CALB	Cal Standard	Water	A19J387	"	10/25/2019	10:16:00PM
9J25051-ICV1	Initial Cal Check	Water	A19J131	"	10/25/2019	11:37:00PM
9J25051-ICV2	Initial Cal Check	Water	A19E195	"	10/26/2019	12:04:00AM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9J2806** Instrument: **VOA-GCMS7**

8260C Full List Sequence: 9J25051 Matrix: Water

9J25051-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J25051-CALB	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J25051

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: **A9J2806** Instrument: **VOA-GCMS7**

8260C Full List Sequence: **9J25051** Matrix: **Water**

9J25051-ICV1	Inst. MRL	ICV Level	Result	%Rec.	Qual
9J25051-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.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102529.D
Acq On : 25 Oct 2019 11:37 pm
Operator : MM
Sample : 9J25051-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:58 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

10/28/19

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	Pentafluorobenzene (I)	50.000	50.000	0.0	105	0.00
2		Dichlorodifluoromethane	20.000	24.475	-22.4	137	0.00
3	P	Chloromethane	20.000	21.781	-8.9	122	0.00
4	C	Vinyl Chloride	20.000	22.344	-11.7	117	0.00
5		Bromomethane	20.000	18.619	6.9	105	0.00
6		Chloroethane	20.000	18.870	5.6	102	0.00
7		Trichlorofluoromethane	20.000	20.028	-0.1	103	0.00
8		~~Ethanol~~	~~1250.000~~	~~32.970~~	~~97.4#~~	~~3~~	~~0.00~~
9	C	1,1-Dichloroethene	20.000	20.190	-1.0	106	0.00
10		Carbon Disulfide	20.000	18.937	5.3	102	0.00
11		Freon 113	20.000	18.382	8.1	96	0.00
12		Iodomethane	20.000	23.068	-15.3	144	0.00
13		Acrolein	20.000	23.137	-15.7	123	0.00
14		Methylene Chloride	20.000	20.883	-4.4	105	0.00
15		Acetone	40.000	38.535	3.7	103	0.00
16		t-1,2-Dichloroethene	20.000	20.695	-3.5	105	0.00
17		n-Hexane	20.000	18.853	5.7	99	0.00
18		Methyl-tert-butyl-ether	20.000	21.443	-7.2	103	0.00
19		~~tert-Butanol (TBA)~~	~~1250.000~~	~~29.198~~	~~97.7#~~	~~2~~	~~0.00~~
20		~~Diisopropyl ether (DIPE)~~	~~5.000~~	~~0.167~~	~~96.7#~~	~~3~~	~~0.00~~
21	P	1,1-Dichloroethane	20.000	20.134	-0.7	105	0.00
22		Acrylonitrile	20.000	20.433	-2.2	99	0.00
23		Vinyl Acetate	20.000	21.254	-6.3	113	0.00
24		~~Ethyl-tert-butyl ether (ETB~~	~~5.000~~	~~0.196~~	~~96.1#~~	~~4~~	~~0.01~~
25		c-1,2-Dichloroethene	20.000	20.722	-3.6	103	0.00
26		2,2-Dichloropropane	20.000	18.657	6.7	95	0.00
27		Bromochloromethane	20.000	20.679	-3.4	105	0.00
28	C	Chloroform	20.000	20.087	-0.4	102	0.00
29		Carbon Tetrachloride	20.000	21.734	-8.7	102	0.00
30		Tetrahydrofuran	20.000	21.248	-6.2	103	0.00
31		1,1,1-Trichloroethane	20.000	20.183	-0.9	102	0.00
32	S	Dibromofluoromethane (S)	50.000	49.158	1.7	105	0.00
33		1,1-Dichloropropene	20.000	22.212	-11.1	102	0.00
34		2-Butanone (MEK)	40.000	42.443	-6.1	101	0.00
35		Benzene	20.000	20.402	-2.0	102	0.00
36		~~tert-Amyl methyl ether (TAM~~	~~5.000~~	~~0.212~~	~~95.8#~~	~~4~~	~~0.00~~
37		1,2-Dichloroethane (EDC)	20.000	20.013	-0.1	103	0.00
38		iso-Butyl Alcohol	500.000	529.784	-6.0	107	0.00
39	S	1,4-Difluorobenzene (S)	50.000	48.823	2.4	105	0.00
40		Trichloroethene (TCE)	20.000	19.828	0.9	107	0.00
41		~~tert-Amyl ethyl ether (TAEE~~	~~5.000~~	~~0.182~~	~~96.4#~~	~~4~~	~~0.00~~
42		Dibromomethane	20.000	20.428	-2.1	101	0.00
43	C	1,2-Dichloropropane	20.000	20.305	-1.5	103	0.00
44		Bromodichloromethane	20.000	20.687	-3.4	103	0.00
45		Chlorobenzene-d5 (I)	50.000	50.000	0.0	105	0.00
46		2-Chloroethyl Vinyl Ether	20.000	21.360	-6.8	116	0.00
47		c-1,3-Dichloropropene	20.000	20.290	-1.4	102	0.00
48	S	Toluene-d8 (S)	50.000	49.725	0.5	105	0.00
49	C	Toluene	20.000	19.384	3.1	104	0.00
50		Tetrachloroethene (PCE)	20.000	20.033	-0.2	105	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102529.D
Acq On : 25 Oct 2019 11:37 pm
Operator : MM
Sample : 9J25051-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:58 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 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)
51		4-Methyl-2-Pentanone (MIBK)	40.000	43.897	-9.7	103	0.00
52		t-1,3-Dichloropropene	20.000	22.830	-14.1	108	0.00
53		1,1,2-Trichloroethane	20.000	21.039	-5.2	105	0.00
54		Dibromochloromethane	20.000	20.745	-3.7	106	0.00
55		1,3-Dichloropropane	20.000	21.061	-5.3	104	0.00
56		1,2-Dibromoethane (EDB)	20.000	21.476	-7.4	104	0.00
57		2-Hexanone	40.000	44.774	-11.9	105	0.00
58	P	Chlorobenzene	20.000	19.855	0.7	104	0.00
59	C	Ethylbenzene	20.000	20.650	-3.2	105	0.00
60		1,1,1,2-Tetrachloroethane	20.000	20.976	-4.9	104	0.00
61		m,p-Xylenes (2)	40.000	44.147	-10.4	105	0.00
62		o-Xylene	20.000	22.920	-14.6	106	0.00
63		Styrene	20.000	21.134	-5.7	107	0.00
64	P	Bromoform	20.000	19.469	2.7	104	0.00
65		Isopropylbenzene	20.000	21.747	-8.7	105	0.00
66	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	107	0.00
67	S	4-Bromofluorobenzene (S)	50.000	49.148	1.7	106	0.00
68		Bromobenzene	20.000	20.236	-1.2	105	0.00
69		n-Propylbenzene	20.000	20.543	-2.7	104	0.00
70	P	1,1,2,2-Tetrachloroethane	20.000	19.960	0.2	102	0.00
71		2-Chlorotoluene	20.000	21.462	-7.3	106	0.00
72		1,3,5-Trimethylbenzene	20.000	22.121	-10.6	105	0.00
73		1,2,3-Trichloropropane	20.000	19.915	0.4	105	0.00
74		t-1,4-Dichloro-2-butene	20.000	16.698	16.5	86	0.00
75		4-Chlorotoluene	20.000	21.910	-9.6	107	0.00
76		tert-Butylbenzene	20.000	21.688	-8.4	106	0.00
77		1,2,4-Trimethylbenzene	20.000	21.702	-8.5	104	0.00
78		sec-Butylbenzene	20.000	21.287	-6.4	104	0.00
79		4-Isopropyltoluene	20.000	21.641	-8.2	106	0.00
80		1,3-Dichlorobenzene	20.000	21.290	-6.4	108	0.00
81		1,4-Dichlorobenzene	20.000	19.194	4.0	108	0.00
82		n-Butylbenzene	20.000	22.979	-14.9	106	0.00
83		1,2-Dichlorobenzene	20.000	21.226	-6.1	107	0.00
84		1,2-Dibromo-3-Chloropropane	20.000	19.861	0.7	106	0.00
85		Hexachlorobutadiene	20.000	21.482	-7.4	105	0.00
86		1,2,4-Trichlorobenzene	20.000	22.669	-13.3	108	0.00
87		Naphthalene	20.000	20.737	-3.7	107	0.00
88		1,2,3-Trichlorobenzene	20.000	23.057	-15.3	107	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\9J25051\
Data File : VG19102530.D
Acq On : 26 Oct 2019 12:04 am
Operator : MM
Sample : 9J25051-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:01 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

10/25/19

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	Pentafluorobenzene (I)	50.000	50.000	0.0	98	0.00
2		Dichlorodifluoromethane	20.000	0.154	99.2#	1	0.00
3	P	Chloromethane	20.000	0.503	97.5#	3	0.00
4	C	Vinyl Chloride	20.000	0.234	98.8#	1	0.00
5		Bromomethane	20.000	0.479	97.6#	3	0.00
6		Chloroethane	20.000	-1.000	105.0#	1	0.00
7		Trichlorofluoromethane	20.000	0.128	99.4#	1	0.00
8		Ethanol	1250.000	1240.676	0.7	92	-0.01
9	C	1,1-Dichloroethene	20.000	0.214	98.9#	1	0.00
10		Carbon Disulfide	20.000	0.491	97.5#	2	0.00
11		Freon 113	20.000	0.163	99.2#	1	0.00
12		Iodomethane	20.000	2.402	88.0#	2	0.00
13		Acrolein	20.000	0.000	100.0#	0	-4.03#
14		Methylene Chloride	20.000	0.356	98.2#	7	0.00
15		Acetone	40.000	1.225	96.9#	3	0.00
16		t-1,2-Dichloroethene	20.000	0.345	98.3#	2	0.00
17		n-Hexane	20.000	0.043	99.8#	0	0.00
18		Methyl-tert-butyl-ether	20.000	0.103	99.5#	0	0.00
19		tert-Butanol (TBA)	1250.000	1370.603	-9.6	94	0.00
20		Diisopropyl ether (DIPE)	5.000	5.379	-7.6	95	0.00
21	P	1,1-Dichloroethane	20.000	0.269	98.7#	1	0.00
22		Acrylonitrile	20.000	0.020	99.9#	0	0.01
23		Vinyl Acetate	20.000	0.795	96.0#	4	0.00
24		Ethyl-tert-butyl ether (ETB	5.000	5.357	-7.1	91	0.00
25		c-1,2-Dichloroethene	20.000	0.306	98.5#	1	0.00
26		2,2-Dichloropropane	20.000	0.163	99.2#	1	0.00
27		Bromochloromethane	20.000	0.228	98.9#	1	0.00
28	C	Chloroform	20.000	0.256	98.7#	1	0.00
29		Carbon Tetrachloride	20.000	0.087	99.6#	0	0.00
30		Tetrahydrofuran	20.000	0.013	99.9#	0	0.00
31		1,1,1-Trichloroethane	20.000	0.167	99.2#	1	0.00
32	S	Dibromofluoromethane (S)	50.000	48.359	3.3	96	0.00
33		1,1-Dichloropropene	20.000	0.236	98.8#	1	0.01
34		2-Butanone (MEK)	40.000	0.000	100.0#	0	-6.48#
35		Benzene	20.000	0.271	98.6#	1	0.00
36		tert-Amyl methyl ether (TAM	5.000	4.709	5.8	90	0.00
37		1,2-Dichloroethane (EDC)	20.000	0.174	99.1#	1	0.00
38		iso-Butyl Alcohol	500.000	0.135	100.0#	0	0.02
39	S	1,4-Difluorobenzene (S)	50.000	49.944	0.1	100	0.00
40		Trichloroethene (TCE)	20.000	0.304	98.5#	2	0.00
41		tert-Amyl ethyl ether (TAEE	5.000	4.937	1.3	90	0.00
42		Dibromomethane	20.000	0.126	99.4#	1	0.00
43	C	1,2-Dichloropropane	20.000	0.246	98.8#	1	0.00
44		Bromodichloromethane	20.000	0.203	99.0#	1	0.00
45		Chlorobenzene-d5 (I)	50.000	50.000	0.0	99	0.00
46		2-Chloroethyl Vinyl Ether	20.000	0.000	100.0#	0	-8.74#
47		c-1,3-Dichloropropene	20.000	0.258	98.7#	1	0.00
48	S	Toluene-d8 (S)	50.000	49.687	0.6	98	0.00
49	C	Toluene	20.000	0.289	98.6#	1	0.00
50		Tetrachloroethene (PCE)	20.000	0.313	98.4#	2	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102530.D
Acq On : 26 Oct 2019 12:04 am
Operator : MM
Sample : 9J25051-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:01 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 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)
51		4-Methyl-2-Pentanone (MIBK)	40.000	0.070	99.8#	0	0.00
52		t-1,3-Dichloropropene	20.000	0.227	98.9#	1	0.02
53		1,1,2-Trichloroethane	20.000	0.134	99.3#	1	0.00
54		Dibromochloromethane	20.000	0.239	98.8#	1	0.00
55		1,3-Dichloropropane	20.000	0.134	99.3#	1	0.00
56		1,2-Dibromoethane (EDB)	20.000	0.110	99.5#	1	0.01
57		2-Hexanone	40.000	0.047	99.9#	0	0.01
58	P	Chlorobenzene	20.000	0.322	98.4#	2	0.00
59	C	Ethylbenzene	20.000	0.262	98.7#	1	0.00
60		1,1,1,2-Tetrachloroethane	20.000	0.167	99.2#	1	0.00
61		m,p-Xylenes (2)	40.000	0.528	98.7#	1	0.00
62		o-Xylene	20.000	0.235	98.8#	1	0.00
63		Styrene	20.000	0.316	98.4#	1	0.00
64	P	Bromoform	20.000	0.186	99.1#	0	0.00
65		Isopropylbenzene	20.000	0.202	99.0#	1	0.00
66	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	98	0.00
67	S	4-Bromofluorobenzene (S)	50.000	49.237	1.5	98	0.00
68		Bromobenzene	20.000	0.280	98.6#	1	0.00
69		n-Propylbenzene	20.000	0.291	98.5#	1	0.00
70	P	1,1,2,2-Tetrachloroethane	20.000	0.070	99.6#	0	0.00
71		2-Chlorotoluene	20.000	0.298	98.5#	1	0.00
72		1,3,5-Trimethylbenzene	20.000	0.249	98.8#	1	0.00
73		1,2,3-Trichloropropane	20.000	0.012	99.9#	0	0.00
74		t-1,4-Dichloro-2-butene	20.000	0.000	100.0#	0	-11.74#
75		4-Chlorotoluene	20.000	0.349	98.3#	2	0.00
76		tert-Butylbenzene	20.000	0.220	98.9#	1	0.00
77		1,2,4-Trimethylbenzene	20.000	0.225	98.9#	1	0.00
78		sec-Butylbenzene	20.000	0.215	98.9#	1	0.00
79		4-Isopropyltoluene	20.000	0.250	98.8#	1	0.00
80		1,3-Dichlorobenzene	20.000	0.378	98.1#	2	0.00
81		1,4-Dichlorobenzene	20.000	0.417	97.9#	2	0.00
82		n-Butylbenzene	20.000	0.358	98.2#	2	0.00
83		1,2-Dichlorobenzene	20.000	0.298	98.5#	1	0.00
84		1,2-Dibromo-3-Chloropropane	20.000	0.000	100.0#	0	-13.28#
85		Hexachlorobutadiene	20.000	0.512	97.4#	2	0.00
86		1,2,4-Trichlorobenzene	20.000	0.361	98.2#	2	0.00
87		Naphthalene	20.000	0.392	98.0#	1	0.00
88		1,2,3-Trichlorobenzene	20.000	0.292	98.5#	1	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Compound List Report VOA-GCMS7

Method Path : C:\msdchem\1\methods\
Method File : VG191025W.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Mon Oct 28 11:12:23 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	6.861	1.000	A	2	A	R
2		Dichlorodifluoromethane	85	1.728	0.252	A	2	A	R
3	P	Chloromethane	50	1.990	0.290	A	2	A	R
4	C	Vinyl Chloride	62	2.112	0.308	A	2	A	R
5		Bromomethane	96	2.551	0.372	A	2	A	R
6		Chloroethane	64	2.722	0.397	Q1/a	2	A	R
7		Trichlorofluoromethane	101	2.917	0.425	A	2	A	R
8		Ethanol	45	3.636	0.530	A	1	A	R
9	C	1,1-Dichloroethene	61	3.588	0.523	A	2	A	R
10		Carbon Disulfide	76	3.588	0.523	A	2	A	R
11		Freon 113	101	3.661	0.534	A	2	A	R
12		Iodomethane	142	3.746	0.546	Q1/a	2	A	R
13		Acrolein	56	4.032	0.588	A	2	A	R
14		Methylene Chloride	84	4.319	0.630	Q1/a	2	A	R
15		Acetone	43	4.398	0.641	A	1	A	R
16		t-1,2-Dichloroethene	61	4.508	0.657	A	2	A	R
17		n-Hexane	86	4.606	0.671	A	3	A	R
18		Methyl-tert-butyl-ether	73	4.661	0.679	A	3	A	R
19		tert-Butanol (TBA)	59	4.819	0.702	A	1	A	R
20		Diisopropyl ether (DIPE)	45	5.112	0.745	A	2	A	R
21	P	1,1-Dichloroethane	63	5.215	0.760	A	2	A	R
22		Acrylonitrile	53	5.289	0.771	A	2	A	R
23		Vinyl Acetate	43	5.526	0.805	A	2	A	R
24		Ethyl-tert-butyl ether (ETBE)	59	5.514	0.804	A	2	A	R
25		c-1,2-Dichloroethene	61	5.825	0.849	A	2	A	R
26		2,2-Dichloropropane	77	5.935	0.865	A	2	A	R
27		Bromochloromethane	49	6.038	0.880	A	2	A	R
28	C	Chloroform	83	6.136	0.894	A	2	A	R
29		Carbon Tetrachloride	117	6.264	0.913	A	2	A	R
30		Tetrahydrofuran	42	6.307	0.919	A	2	A	R
31		1,1,1-Trichloroethane	97	6.343	0.925	A	2	A	R
32	S	Dibromofluoromethane (S)	111	6.331	0.923	A	2	A	R
33		1,1-Dichloropropene	75	6.477	0.944	A	2	A	R
34		2-Butanone (MEK)	43	6.477	0.944	A	2	A	R
35		Benzene	78	6.752	0.984	A	2	A	R
36		tert-Amyl methyl ether (TAME)	73	6.898	1.005	A	2	A	R
37		1,2-Dichloroethane (EDC)	62	6.983	1.018	A	2	A	R
38		iso-Butyl Alcohol	43	7.038	1.026	A	2	A	R
39	S	1,4-Difluorobenzene (S)	114	7.453	1.086	A	2	A	R
40		Trichloroethene (TCE)	130	7.410	1.080	A	2	A	R
41		tert-Amyl ethyl ether (TAEE)	59	7.691	1.121	A	2	A	R
42		Dibromomethane	93	7.886	1.149	A	2	A	R
43	C	1,2-Dichloropropane	63	7.995	1.165	A	2	A	R
44		Bromodichloromethane	83	8.075	1.177	A	2	A	R
45	I	Chlorobenzene-d5 (I)	117	10.452	1.000	A	2	A	R
46		2-Chloroethyl Vinyl Ether	63	8.739	0.836	Q1/a	2	A	R
47		c-1,3-Dichloropropene	75	8.800	0.842	Q1/a	2	A	R
48	S	Toluene-d8 (S)	98	8.989	0.860	A	2	A	R
49	C	Toluene	91	9.044	0.865	A	2	A	R
50		Tetrachloroethene (PCE)	166	9.434	0.903	A	2	A	R
51		4-Methyl-2-Pentanone (MIBK)	43	9.434	0.903	A	2	A	R
52		t-1,3-Dichloropropene	75	9.470	0.906	Q1/a2	2	A	R
53		1,1,2-Trichloroethane	97	9.623	0.921	A	2	A	R
54		Dibromochloromethane	129	9.787	0.936	Q1/a	2	A	R
55		1,3-Dichloropropane	76	9.879	0.945	A	2	A	R

56		1,2-Dibromoethane (EDB)	107	10.001	0.957	A	2	A	R
57		2-Hexanone	43	10.208	0.977	A	2	A	R
58	P	Chlorobenzene	112	10.471	1.002	A	2	A	R
59	C	Ethylbenzene	91	10.489	1.004	A	2	A	R
60		1,1,1,2-Tetrachloroethane	131	10.525	1.007	A	2	A	R
61		m,p-Xylenes (2)	91	10.611	1.015	A	2	A	R
62		o-Xylene	91	10.970	1.050	A	2	A	R
63		Styrene	104	11.013	1.054	Q l/a	2	A	R
64	P	Bromoform	173	11.037	1.056	Q l/a	2	A	R
65		Isopropylbenzene	105	11.220	1.073	A	2	A	R
66	I	1,4-Dichlorobenzene-d4 (I)	152	12.293	1.000	A	2	A	R
67	S	4-Bromofluorobenzene (S)	174	11.446	0.931	A	2	A	R
68		Bromobenzene	156	11.531	0.938	A	2	A	R
69		n-Propylbenzene	91	11.544	0.939	A	2	A	R
70	P	1,1,2,2-Tetrachloroethane	83	11.598	0.943	A	2	A	R
71		2-Chlorotoluene	126	11.665	0.949	A	2	A	R
72		1,3,5-Trimethylbenzene	105	11.690	0.951	A	2	A	R
73		1,2,3-Trichloropropane	110	11.708	0.952	A	2	A	R
74		t-1,4-Dichloro-2-butene	88	11.738	0.955	Q l/a	3	A	R
75		4-Chlorotoluene	91	11.793	0.959	A	2	A	R
76		tert-Butylbenzene	91	11.934	0.971	A	2	A	R
77		1,2,4-Trimethylbenzene	105	11.982	0.975	A	2	A	R
78		sec-Butylbenzene	105	12.062	0.981	A	2	A	R
79		4-Isopropyltoluene	119	12.165	0.990	A	2	A	R
80		1,3-Dichlorobenzene	146	12.238	0.996	A	2	A	R
81		1,4-Dichlorobenzene	146	12.306	1.001	A	2	A	R
82		n-Butylbenzene	91	12.488	1.016	A	2	A	R
83		1,2-Dichlorobenzene	146	12.629	1.027	A	2	A	R
84		1,2-Dibromo-3-Chloropropane	157	13.281	1.080	A	2	A	R
85		Hexachlorobutadiene	223	13.830	1.125	A	3	A	R
86		1,2,4-Trichlorobenzene	180	13.872	1.128	A	2	A	R
87		Naphthalene	128	14.201	1.155	Q l/a	2	A	R
88		1,2,3-Trichlorobenzene	180	14.396	1.171	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

VG191025W.M Mon Oct 28 12:23:07 2019

Response Factor Report VOA-GCMS7

Method Path : C:\msdchem\1\methods\
Method File : VG191025W.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Mon Oct 28 11:12:23 2019
Response Via : Initial Calibration

Calibration Files
1 =VG19102514.D 2 =VG19102515.D 3 =VG19102516.D 4 =VG19102517.D 5 =VG19102518.D 6 =VG19102519.D
7 =VG19102520.D 8 =VG19102521.D 9 =VG19102522.D 10 =VG19102524.D 1a =VG19102526.D

		Compound	1	2	3	4	5	6	7	8	9	10	1a	Avg	%RSD
1)	I	Pentafluorobenzene...	----------				ISTD								
2)		Dichlorodifluo...		0.807	0.646	0.756	0.913	0.879	0.821	0.784	0.966	0.899	0.914	0.839	11.32
3)	P	Chloromethane			1.457	1.154	1.209	1.149	1.069	1.064	1.072	1.025	1.049	1.139	11.72
4)	C	Vinyl Chloride	0.837	0.960	0.870	0.957	1.025	1.021	0.980	0.976	1.049	0.995	1.023	0.972	6.77
5)		Bromomethane				0.587	0.643	0.585	0.497	0.483	0.441	0.439	0.463	0.517	14.94
6)		Chloroethane				0.269	0.405	0.333	0.242	0.234	0.238	0.210	0.202	0.267	25.91
7)		Trichlorofluor...	0.959	1.037	1.036	1.078	1.178	1.134	1.104	1.068	1.070	0.971	0.904	1.049	7.63
8)		Ethanol			0.026	0.026	0.029	0.028	0.027	0.028	0.025	0.021		0.026	8.82
9)	C	1,1-Dichloroet...	1.208	1.083	1.148	1.139	1.196	1.182	1.139	1.168	1.125	1.184	1.235	1.164	3.69
10)		Carbon Disulfide	1.999	1.788	1.527	1.489	1.635	1.610	1.620	1.727	1.845	2.018	2.177	1.767	12.55
11)		Freon 113		0.979	0.921	0.908	1.036	1.024	0.981	0.954	0.892	0.897	0.951	0.954	5.33
12)		Iodomethane					0.146	0.189	0.241	0.338	0.465	0.603	0.741	0.389	57.35
13)		Acrolein				0.207	0.260	0.242	0.249	0.254	0.280	0.276	0.290	0.257	10.23
14)		Methylene Chlo...	1.057	0.596	0.326	0.198	0.156	0.122	0.107	0.099	0.089	0.088	0.090	0.266	E1 114.13
15)		Acetone					0.647	0.553	0.516	0.512	0.464	0.463	0.494	0.521	12.24
16)		t-1,2-Dichloro...	1.255	1.071	1.149	1.152	1.272	1.224	1.212	1.248	1.167	1.220	1.295	1.206	5.44
17)		n-Hexane					0.112	0.120	0.135	0.137	0.144	0.150	0.158	0.137	11.92
18)		Methyl-tert-bu...	2.068	1.979	1.982	2.041	2.191	2.305	2.409	2.482	2.371	2.511	2.678	2.274	10.48
19)		tert-Butanol (...	0.195	0.180	0.176	0.176	0.208	0.209	0.215	0.226	0.205	0.183		0.197	9.01
20)		Diisopropyl et...			2.181	2.343	2.644	2.606	2.587	2.782	2.442	2.374		2.495	7.80
21)	P	1,1-Dichloroet...	1.749	1.558	1.562	1.702	1.767	1.719	1.642	1.650	1.508	1.572	1.653	1.644	5.19
22)		Acrylonitrile			0.466	0.473	0.567	0.588	0.581	0.606	0.559	0.574	0.604	0.557	9.39
23)		Vinyl Acetate						1.393	1.557	1.766	1.930	1.988	2.075	1.785	14.87
24)		Ethyl-tert-but...			1.766	1.819	2.135	2.243	2.356	2.469	2.237	2.156		2.148	11.37
25)		c-1,2-Dichloro...	1.150	1.129	1.181	1.160	1.274	1.274	1.265	1.288	1.188	1.249	1.330	1.226	5.42
26)		2,2-Dichloropr...		0.669	0.576	0.727	0.761	0.748	0.744	0.766	0.751	0.818	0.905	0.746	11.51
27)		Bromochloromet...	0.657	0.733	0.843	0.845	0.867	0.860	0.827	0.801	0.705	0.693	0.700	0.776	10.12
28)	C	Chloroform	1.545	1.687	1.569	1.660	1.783	1.738	1.683	1.702	1.546	1.593	1.681	1.653	4.81
29)		Carbon Tetrach...		0.736	0.713	0.790	0.906	0.956	0.983	1.013	1.006	1.082		0.909	14.58
30)		Tetrahydrofuran			0.394	0.414	0.458	0.476	0.486	0.523	0.505	0.524	0.570	0.483	11.49
31)		1,1,1-Trichlor...	1.185	1.068	1.169	1.153	1.295	1.296	1.286	1.288	1.230	1.309	1.401	1.243	7.48
32)	S	Dibromofluorom...	1.074	1.076	1.069	1.064	1.065	1.045	1.051	1.036	1.032	1.040	1.026	1.053	1.68
33)		1,1-Dichloropr...	0.767	0.942	0.990	1.060	1.101	1.180	1.224	1.274	1.199	1.247	1.307	1.117	14.78
34)		2-Butanone (MEK)			0.543	0.661	0.747	0.777	0.782	0.810	0.754	0.762	0.803	0.738	11.51
35)		Benzene	3.649	3.789	3.689	3.704	4.043	4.102	4.047	4.040	3.703	3.820	3.971	3.869	4.48
36)		tert-Amyl meth...				2.439	2.274	2.241	2.234	2.277	2.056	1.981		2.215	6.86
37)		1,2-Dichloroet...		1.252	1.282	1.322	1.474	1.400	1.342	1.341	1.213	1.254	1.326	1.320	5.83
38)		iso-Butyl Alcohol					0.084	0.082	0.082	0.086	0.085	0.081	0.079	0.083	3.12
39)	S	1,4-Difluorobe...	3.555	3.532	3.514	3.524	3.453	3.390	3.391	3.361	3.354	3.373	3.337	3.435	2.40
40)		Trichloroethen...	1.179	1.175	1.178	1.116	1.151	1.135	1.135	1.095	1.038	1.093	1.133	1.130	3.80
41)		tert-Amyl ethy...				1.330	1.484	1.403	1.462	1.536	1.388	1.362		1.423	5.12

Method Path : C:\msdchem\1\methods\
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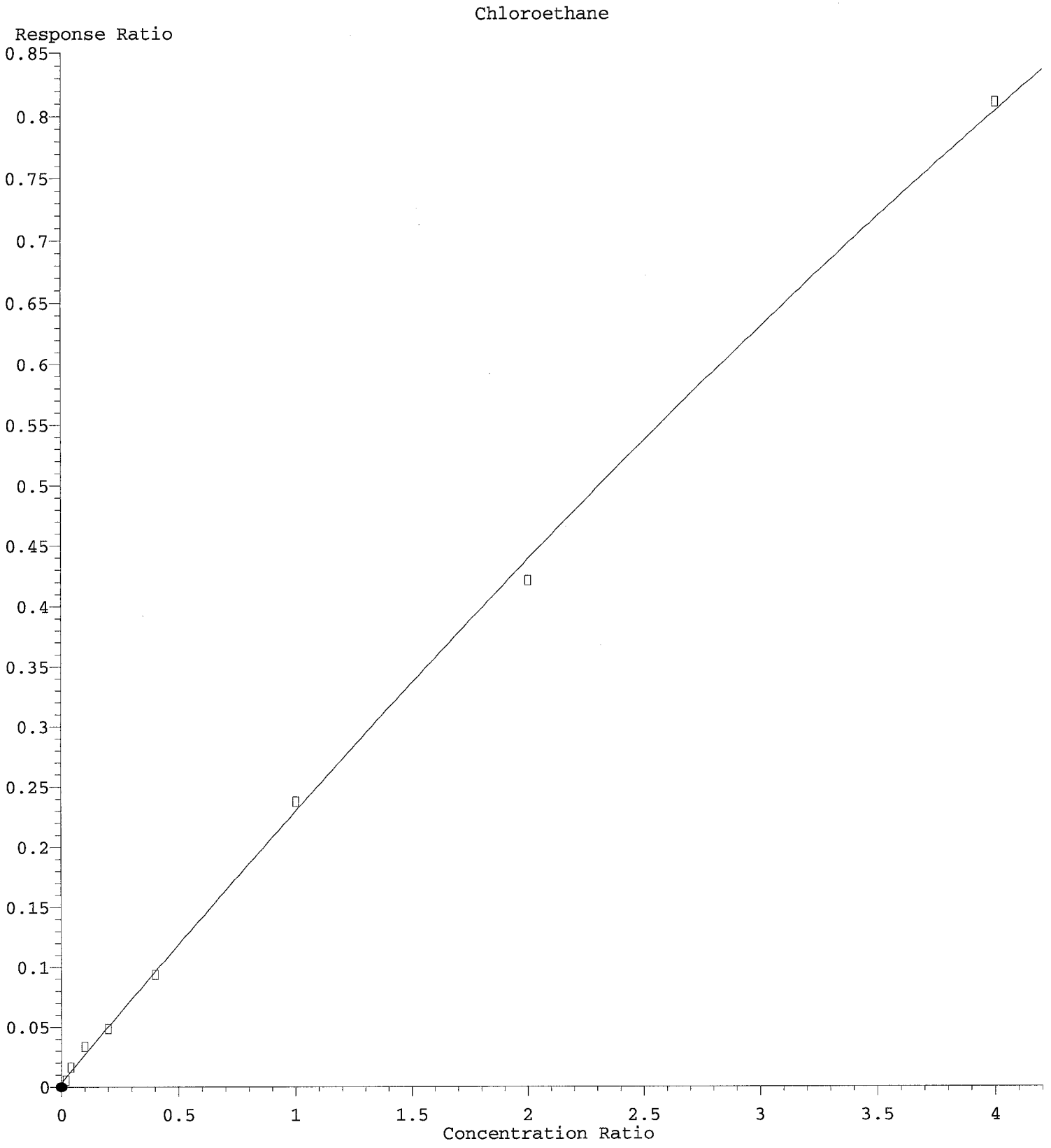
42)		Dibromomethane		0.506	0.580	0.660	0.681	0.694	0.699	0.690	0.643	0.670	0.705	0.653	9.69
43)	C	1,2-Dichloropr...	0.918	1.003	0.933	0.951	1.055	1.018	1.001	1.013	0.926	0.963	1.019	0.982	4.65
44)		Bromodichlorom...		0.862	0.894	1.010	1.069	1.083	1.084	1.124	1.090	1.180	1.286	1.068	11.68
45)		Chlorobenzene-d5 (I)	----------	ISTD	----------										
46)		2-Chloroethyl ...			0.078	0.122	0.141	0.152	0.166	0.201	0.225	0.240	0.262	0.176	34.20
47)		c-1,3-Dichloro...	0.228	0.239	0.270	0.284	0.336	0.358	0.400	0.442	0.442	0.486	0.553	0.367	29.10
48)	S	Toluene-d8 (S)	1.297	1.291	1.307	1.306	1.295	1.291	1.295	1.302	1.294	1.310	1.352	1.304	1.32
49)	C	Toluene	1.884	1.545	1.435	1.451	1.508	1.486	1.463	1.467	1.343	1.392	1.491	1.497	9.34
50)		Tetrachloroeth...	0.409	0.431	0.382	0.380	0.411	0.409	0.403	0.398	0.371	0.379	0.395	0.397	4.49
51)		4-Methyl-2-Pen...			0.353	0.370	0.424	0.434	0.449	0.484	0.460	0.461	0.467	0.434	10.32
52)		t-1,3-Dichloro...		0.213	0.211	0.243	0.279	0.316	0.345	0.374	0.387	0.431	0.493	0.329	28.73
53)		1,1,2-Trichlor...	0.310	0.314	0.321	0.330	0.381	0.371	0.366	0.363	0.332	0.341	0.366	0.345	7.30
54)		Dibromochlorom...		0.182	0.224	0.243	0.281	0.299	0.314	0.334	0.336	0.371	0.416	0.300	23.35
55)		1,3-Dichloropr...	0.504	0.467	0.465	0.518	0.565	0.566	0.565	0.565	0.520	0.544	0.588	0.533	7.84
56)		1,2-Dibromoeth...		0.288	0.295	0.309	0.344	0.366	0.364	0.377	0.355	0.372	0.406	0.348	11.05
57)		2-Hexanone				0.233	0.273	0.299	0.316	0.354	0.349	0.349	0.358	0.316	14.29
58)	P	Chlorobenzene	1.051	0.984	0.954	0.999	1.027	1.008	0.980	0.977	0.892	0.910	0.946	0.975	4.88
59)	C	Ethylbenzene	1.437	1.394	1.308	1.356	1.486	1.494	1.468	1.482	1.388	1.426	1.502	1.431	4.42
60)		1,1,1,2-Tetrac...		0.230	0.257	0.271	0.282	0.296	0.308	0.312	0.304	0.321	0.348	0.293	11.68
61)		m,p-Xylenes (2)			0.820	0.848	0.964	1.027	1.052	1.090	1.020	1.054		0.984	10.15
62)		o-Xylene			0.732	0.777	0.853	0.930	0.970	1.057	1.040	1.098		0.932	14.42
63)		Styrene	0.426	0.477	0.475	0.547	0.659	0.772	0.825	0.873	0.847	0.884	0.926	0.701	27.01
64)	P	Bromoform		0.135	0.167	0.175	0.206	0.221	0.234	0.260	0.274	0.301	0.316	0.229	26.09
65)		Isopropylbenzene				0.889	1.018	1.154	1.225	1.301	1.263	1.326	1.392	1.196	14.11
66)	I	1,4-Dichlorobenzen...	----------	ISTD	----------										
67)	S	4-Bromofluorob...	0.854	0.843	0.833	0.832	0.822	0.837	0.842	0.837	0.846	0.859	0.882	0.844	1.92
68)		Bromobenzene	0.823	0.792	0.783	0.824	0.844	0.860	0.846	0.851	0.781	0.798	0.840	0.822	3.52
69)		n-Propylbenzene	2.728	2.581	2.417	2.595	2.852	2.843	2.831	2.894	2.661	2.780	3.027	2.746	6.26
70)	P	1,1,2,2-Tetrac...	0.974	0.993	1.034	1.046	1.209	1.114	1.119	1.096	0.992	0.957	0.973	1.046	7.59
71)		2-Chlorotoluene		0.495	0.514	0.615	0.633	0.653	0.665	0.675	0.632	0.663	0.706	0.625	10.97
72)		1,3,5-Trimethy...			1.484	1.538	1.821	2.002	2.137	2.184	2.009	2.072	2.195	1.938	13.82
73)		1,2,3-Trichlor...		0.313	0.310	0.330	0.355	0.338	0.328	0.323	0.295	0.292	0.291	0.317	6.67
74)		t-1,4-Dichloro...				0.056	0.069	0.073	0.079	0.093	0.096	0.107	0.121	0.087	24.88
75)		4-Chlorotoluene	1.475	1.443	1.350	1.545	1.700	1.808	1.799	1.838	1.721	1.806	1.984	1.679	11.77
76)		tert-Butylbenzene		0.810	0.778	0.853	0.954	0.999	1.016	1.066	1.011	1.070	1.184	0.974	13.06
77)		1,2,4-Trimethy...				1.475	1.721	2.035	2.190	2.238	2.050	2.117	2.240	2.008	13.58
78)		sec-Butylbenzene			1.661	1.884	2.113	2.325	2.359	2.422	2.246	2.376	2.554	2.216	12.81
79)		4-Isopropyltol...				1.398	1.615	1.842	1.959	2.041	1.911	2.019	2.145	1.866	13.21
80)		1,3-Dichlorobe...	1.199	1.266	1.146	1.211	1.364	1.401	1.381	1.369	1.271	1.321	1.374	1.300	6.68
81)		1,4-Dichlorobe...	1.746	1.645	1.490	1.449	1.518	1.496	1.421	1.396	1.289	1.315	1.371	1.467	9.27
82)		n-Butylbenzene		1.168	1.172	1.283	1.410	1.546	1.657	1.719	1.573	1.642	1.728	1.490	14.58
83)		1,2-Dichlorobe...	1.199	1.189	1.125	1.258	1.357	1.350	1.357	1.356	1.264	1.274	1.312	1.276	6.22
84)		1,2-Dibromo-3-...					0.194	0.200	0.220	0.232	0.246	0.251	0.276	0.231	12.69
85)		Hexachlorobuta...			0.172	0.185	0.202	0.208	0.218	0.218	0.195	0.197	0.196	0.199	7.49
86)		1,2,4-Trichlor...				0.594	0.635	0.680	0.788	0.843	0.811	0.797	0.833	0.747	12.92
87)		Naphthalene		0.922	0.978	1.054	1.309	1.514	1.979	2.399	2.496	2.501	2.651	1.780	39.33
88)		1,2,3-Trichlor...				0.537	0.626	0.700	0.807	0.845	0.784	0.759	0.795	0.732	14.26

(#) = Out of Range



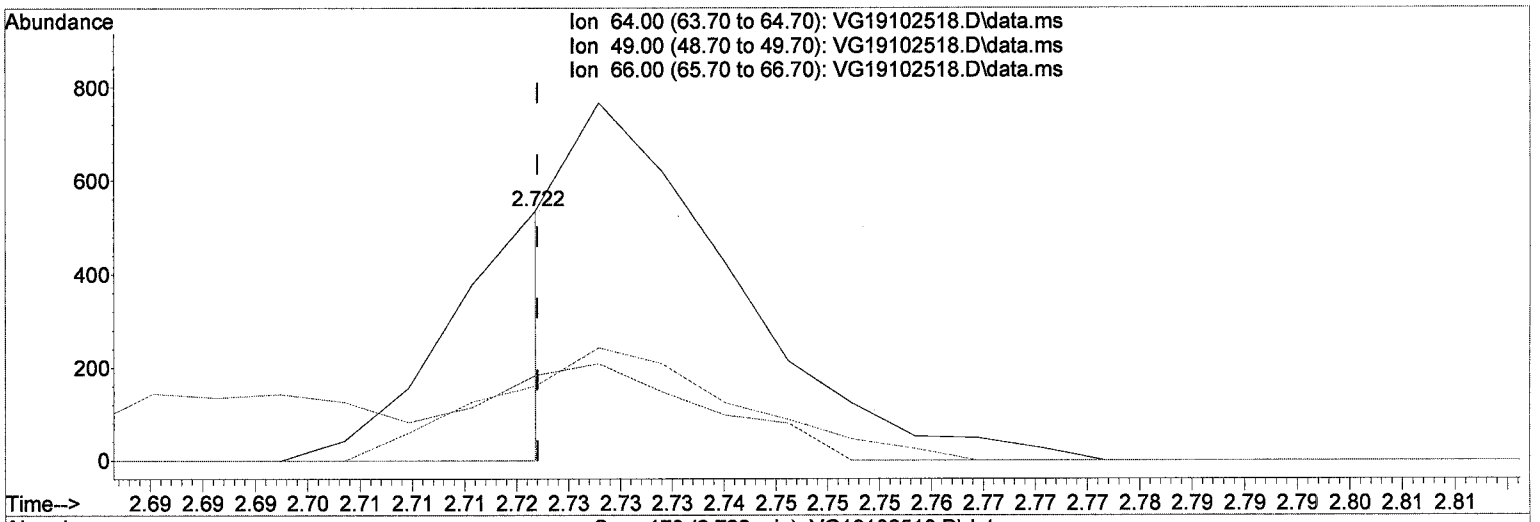
Int = (−)

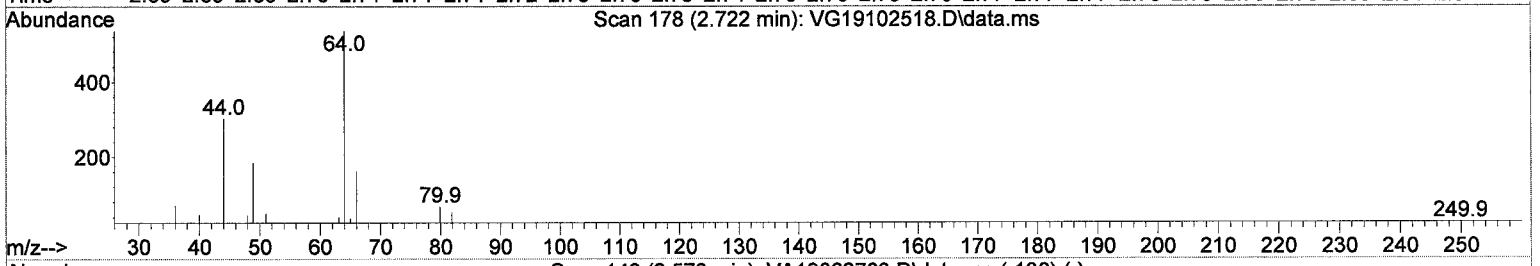
R = -8.88e-003 A*A + 2.35e-001 A + 3.40e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

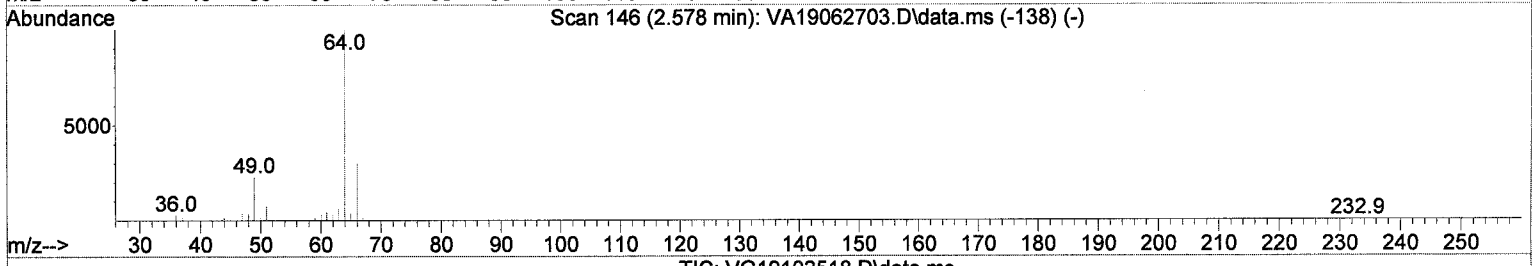
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







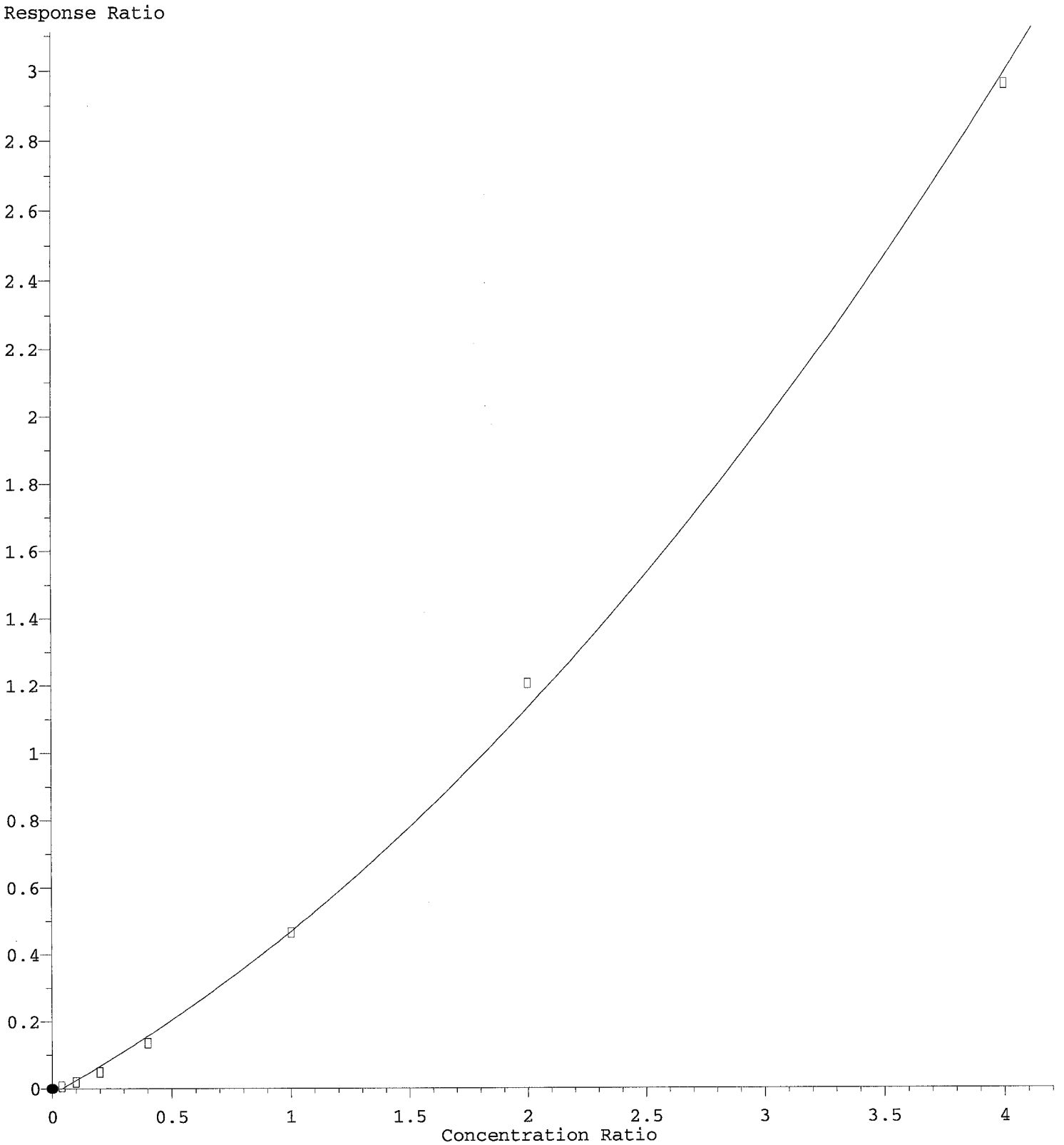
TIC: VG19102518.D\data.ms

(6) Chloroethane

2.722min (-0.000) 0.41 ug/L m

response 407

Ion	Exp%	Act%
64.00	100.00	100.00
49.00	24.30	34.33
66.00	31.30	30.04
0.00	0.00	0.00



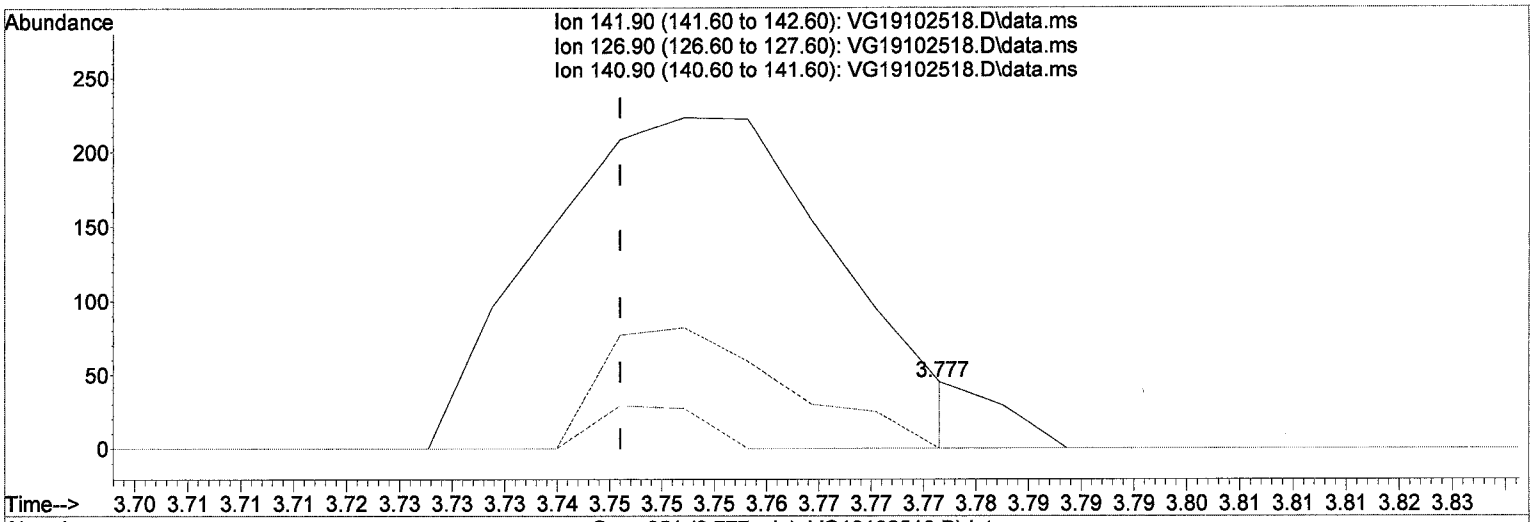
Int = 2.11

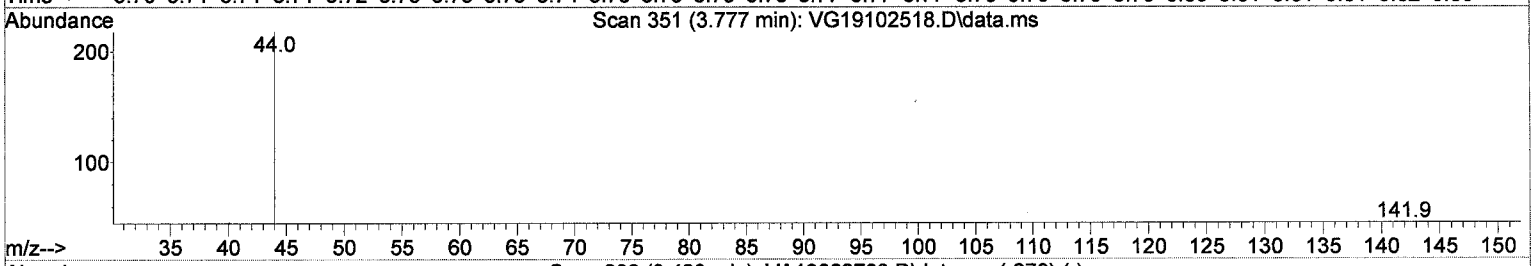
R = 8.93e-002 A*A + 3.96e-001 A - 1.67e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

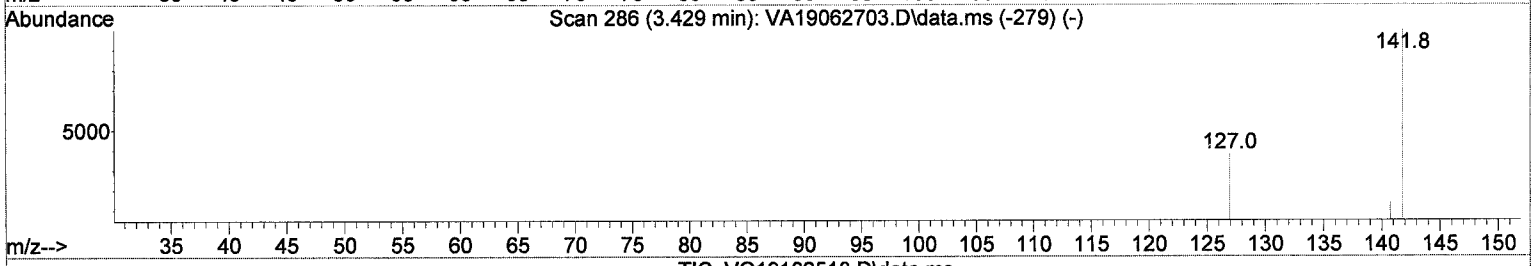
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







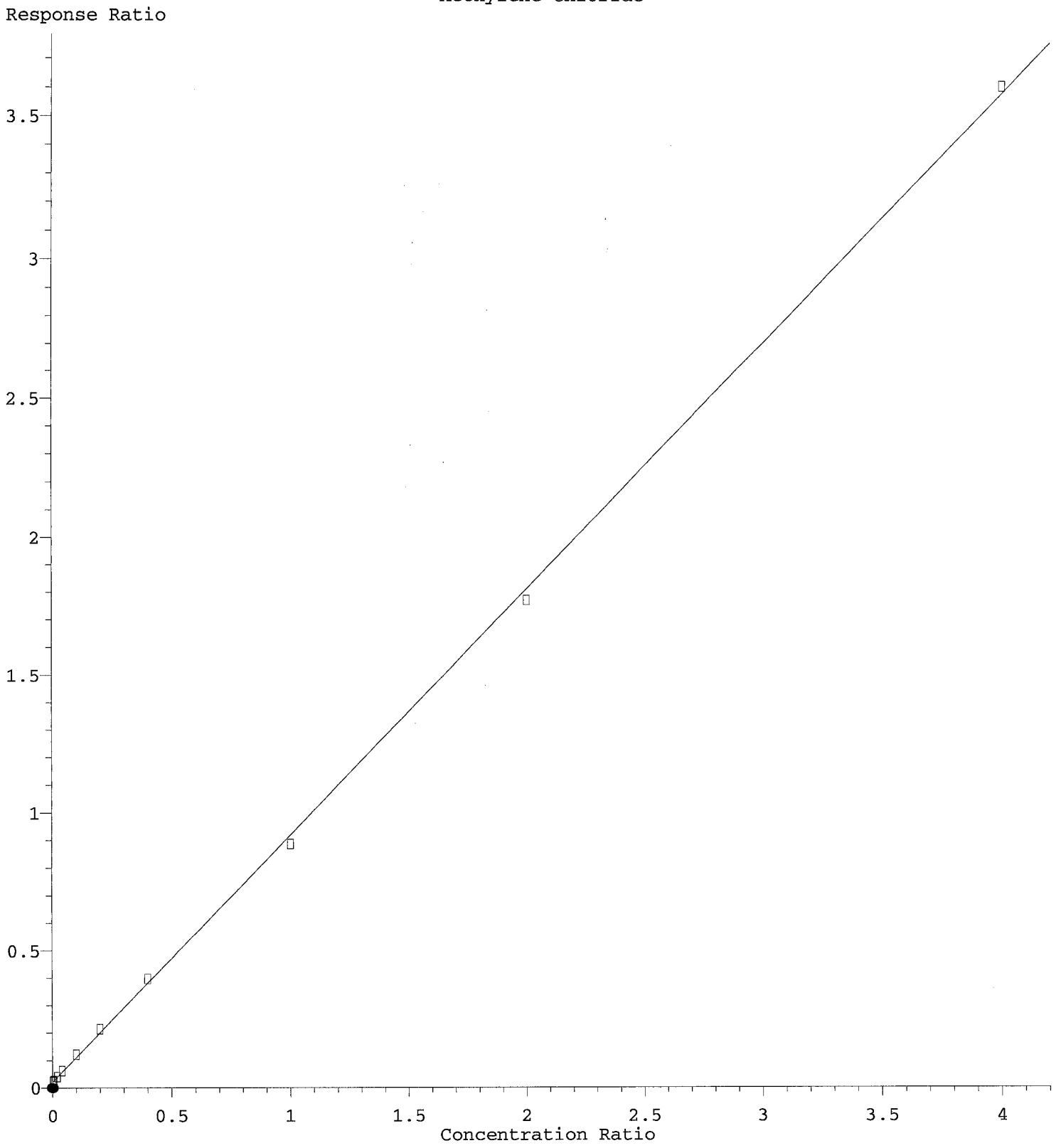
TIC: VG19102518.D\data.ms

(12) Iodomethane

3.777min (+ 0.030) 2.11 ug/L m

response 11

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



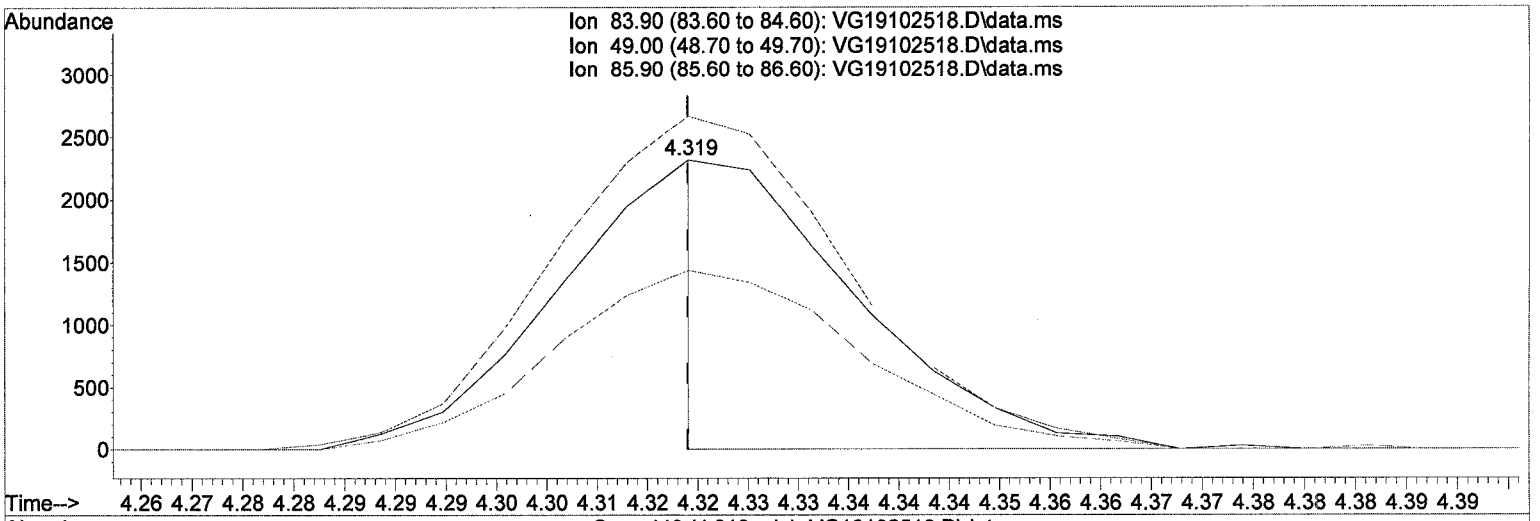
Int = (−0.52)

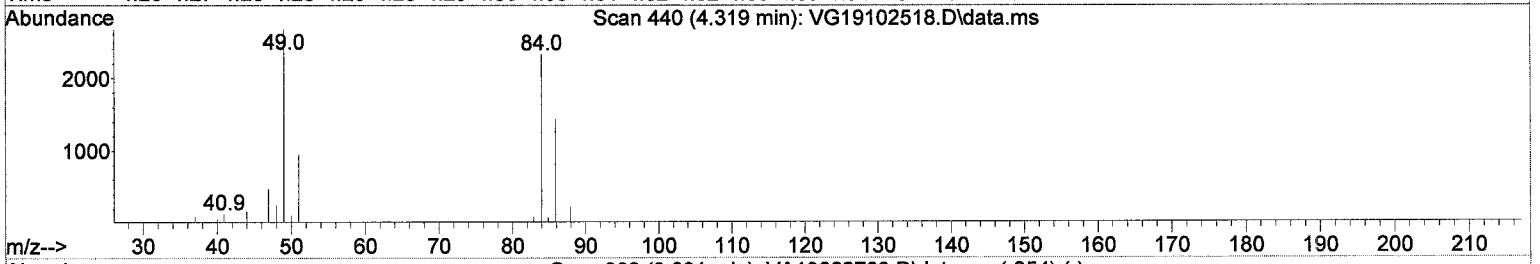
R = -3.40e-003 A*A + 9.03e-001 A + 2.00e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

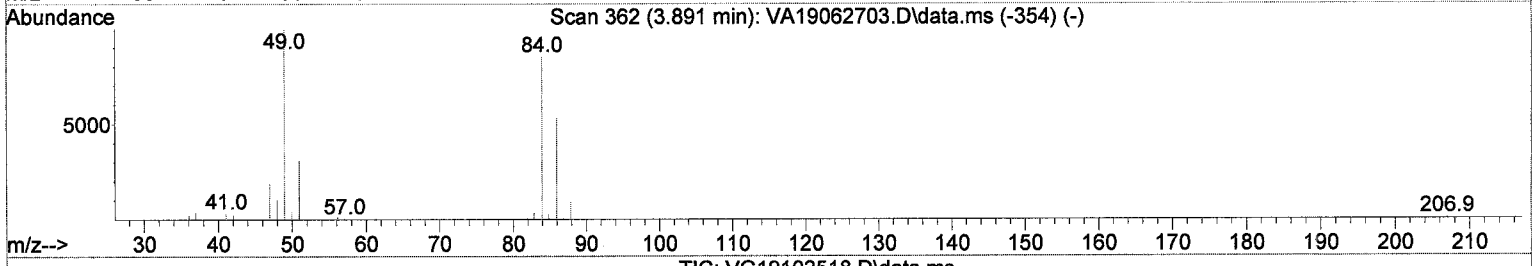
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







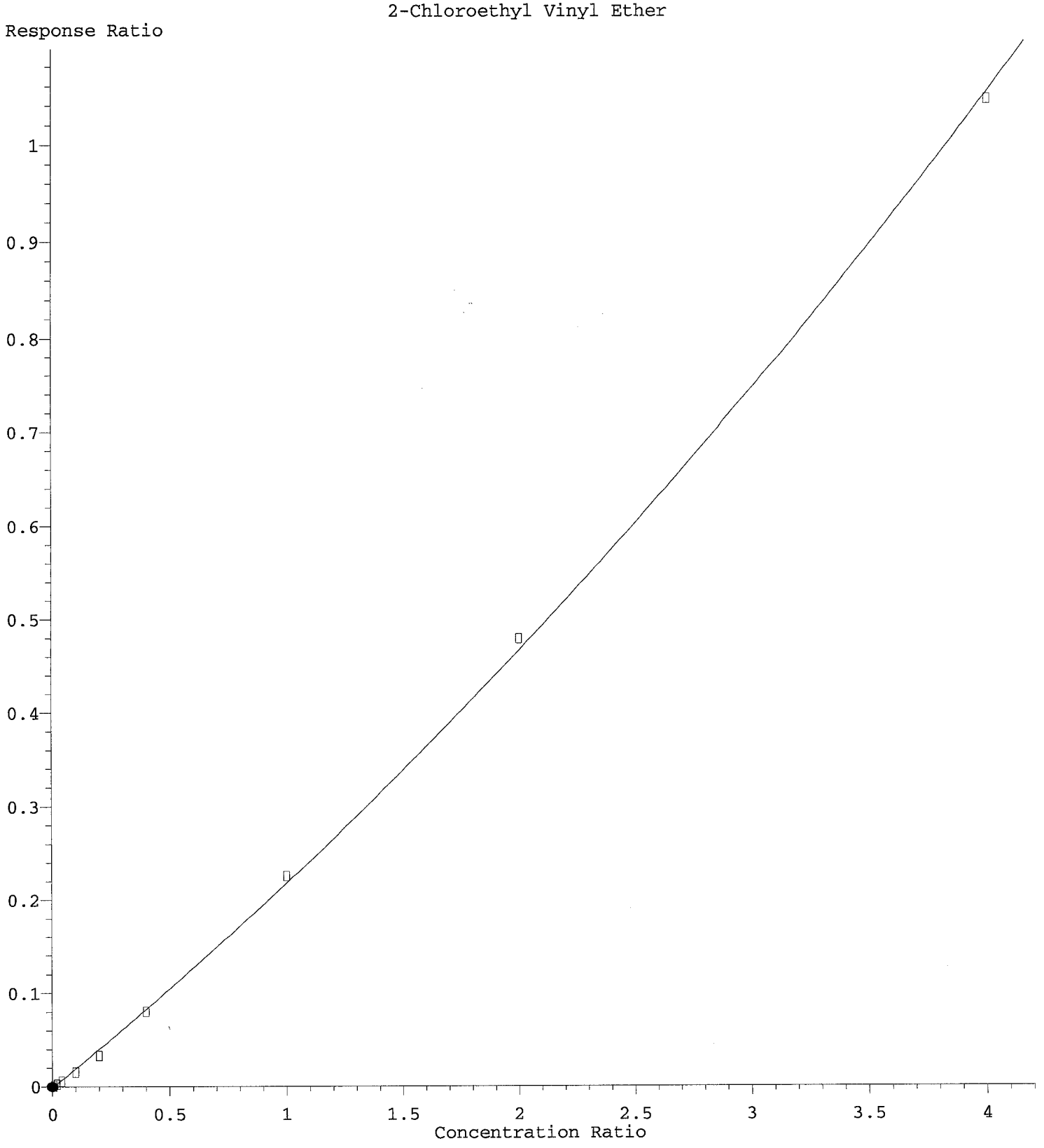
TIC: VG19102518.D\data.ms

(14) Methylene Chloride

4.319min (+ 0.000) 0.52 ug/L m

response 2253

Ion	Exp%	Act%
83.90	100.00	100.00
49.00	123.30	114.94
85.90	63.90	62.10
0.00	0.00	0.00



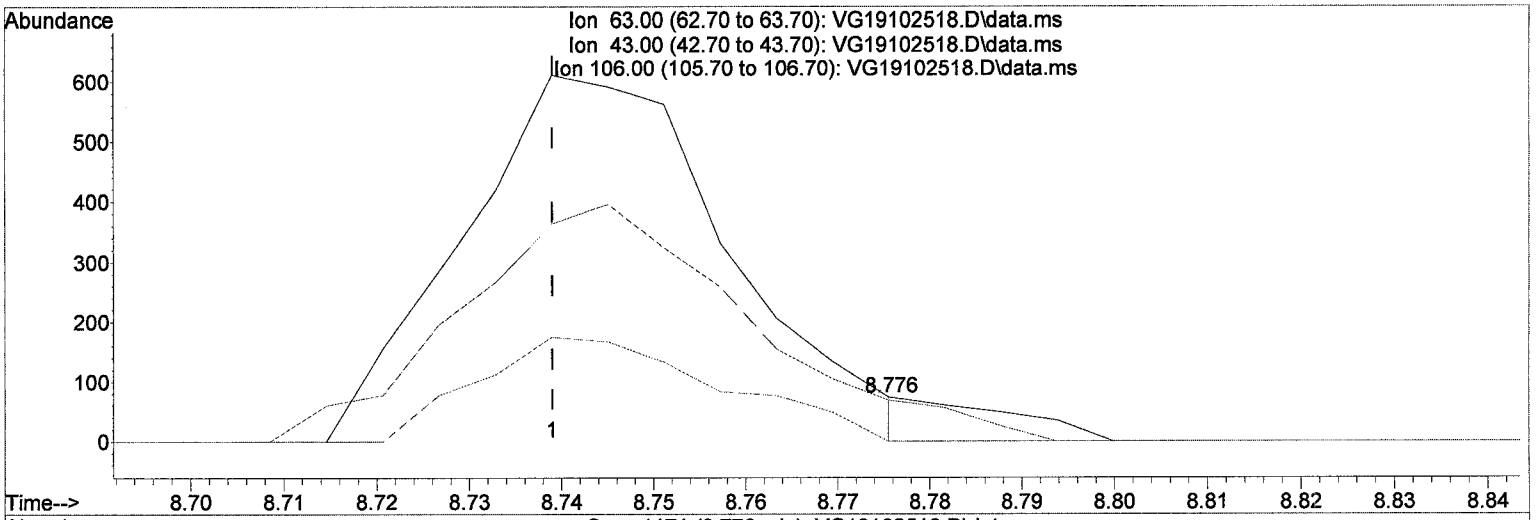
Int = 0.47

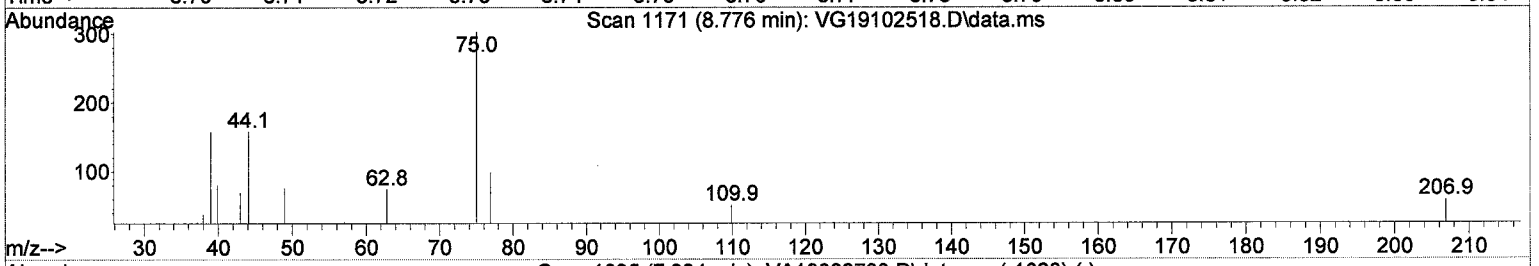
R = 1.48e-002 A*A + 2.05e-001 A - 1.70e-003
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M

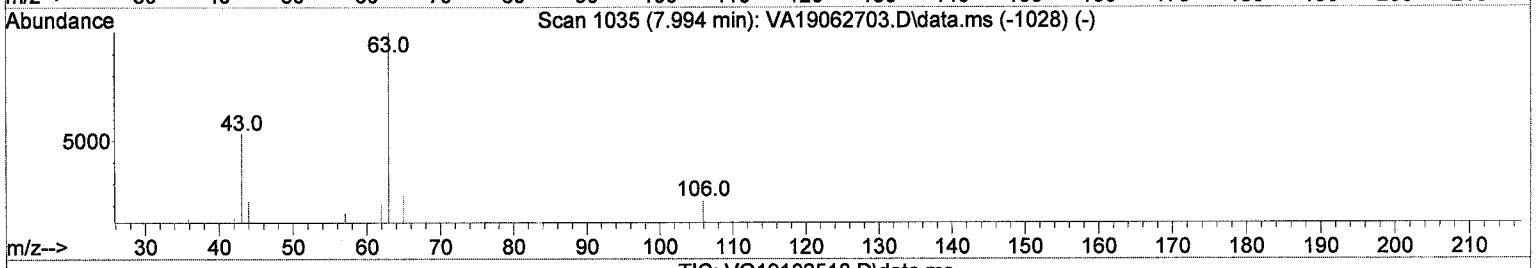
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







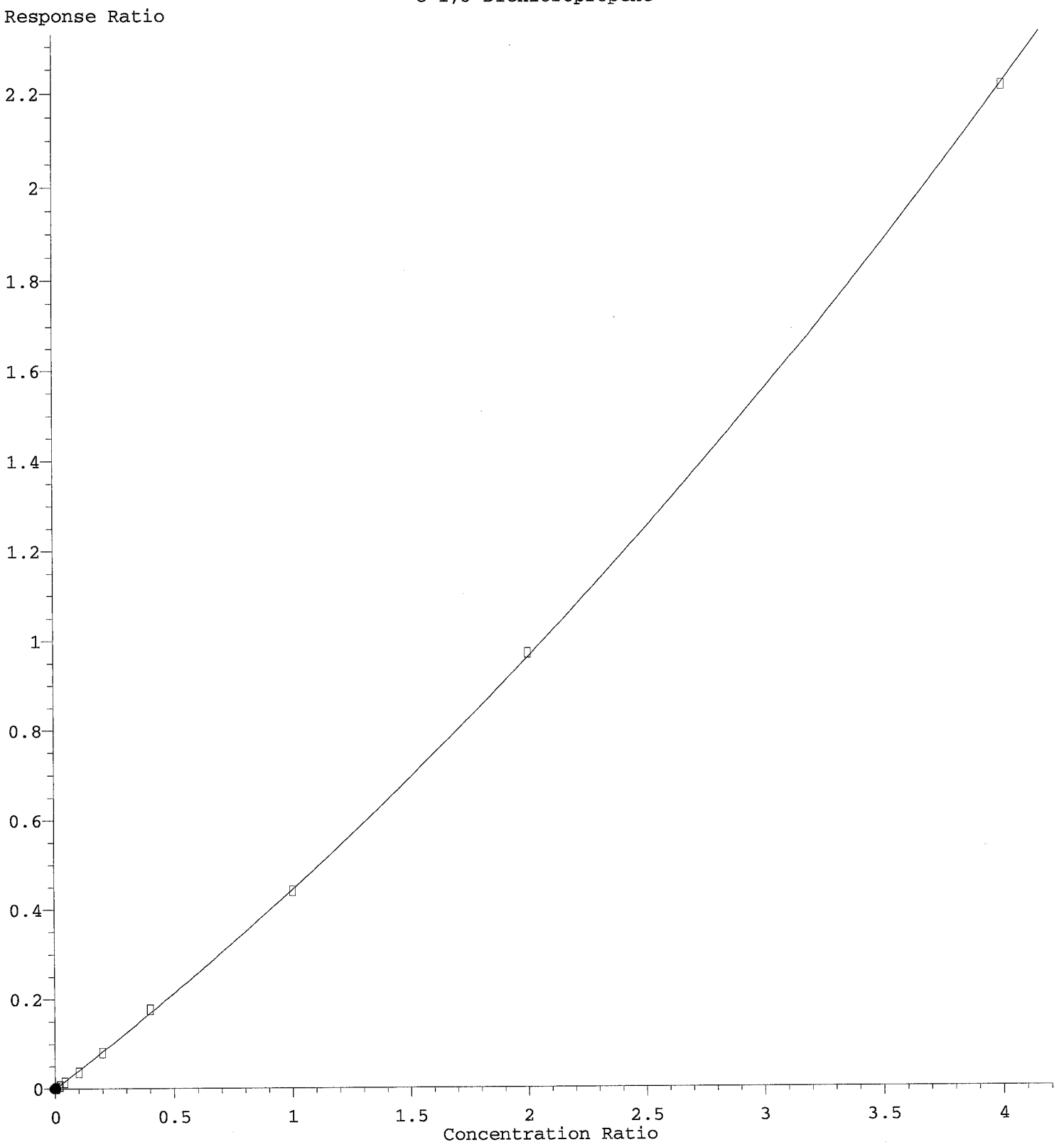
TIC: VG19102518.D\data.ms

(46) 2-Chloroethyl Vinyl Ether

8.776min (+ 0.037) 0.47 ug/L m

response 53

Ion	Exp%	Act%
63.00	100.00	100.00
43.00	282.80	93.24#
106.00	0.00	0.00
0.00	0.00	0.00



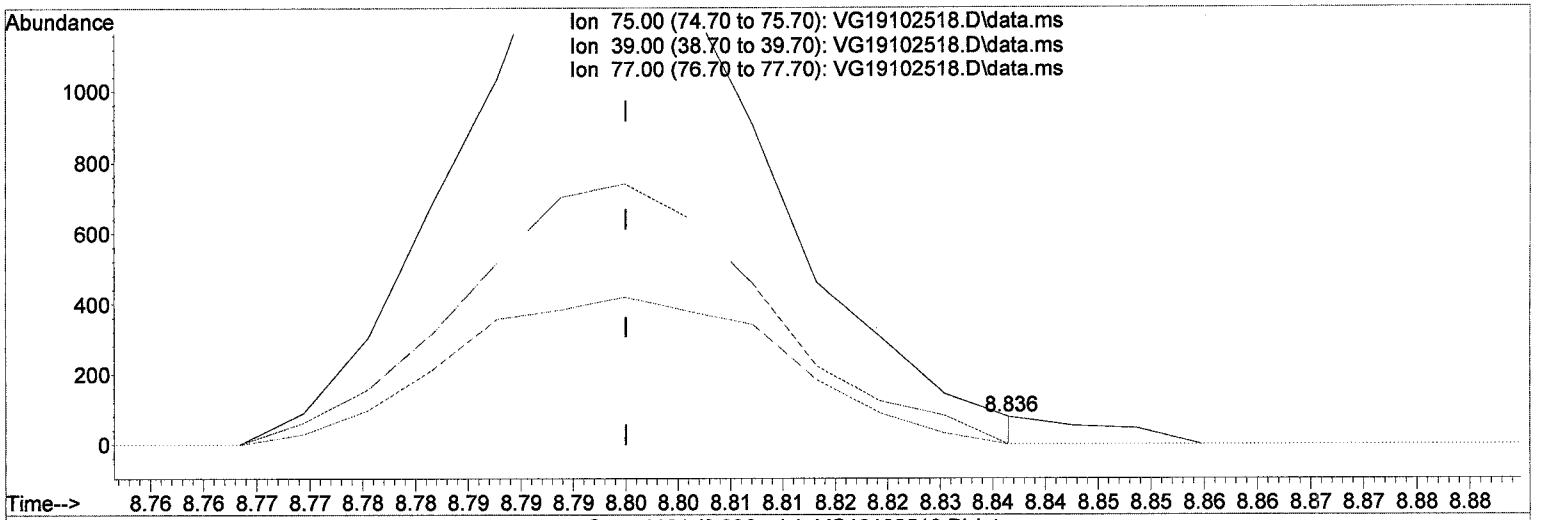
Int = 0.11

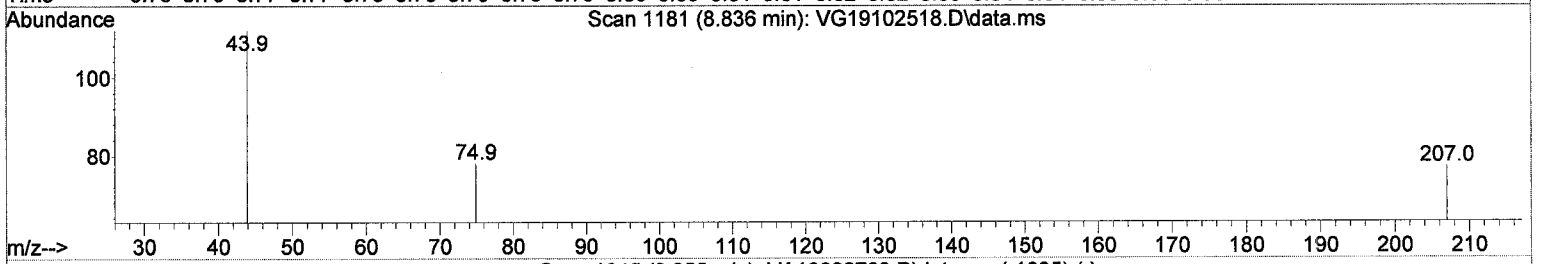
R = 3.67e-002 A*A + 4.08e-001 A - 7.59e-004
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

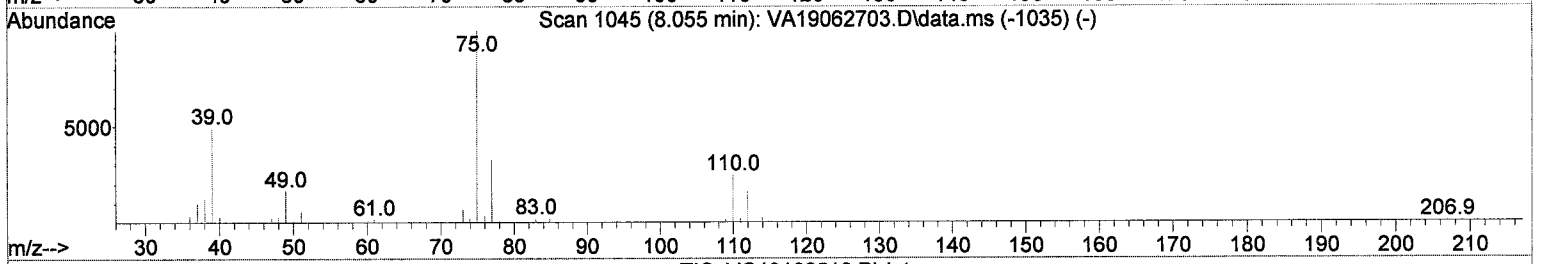
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







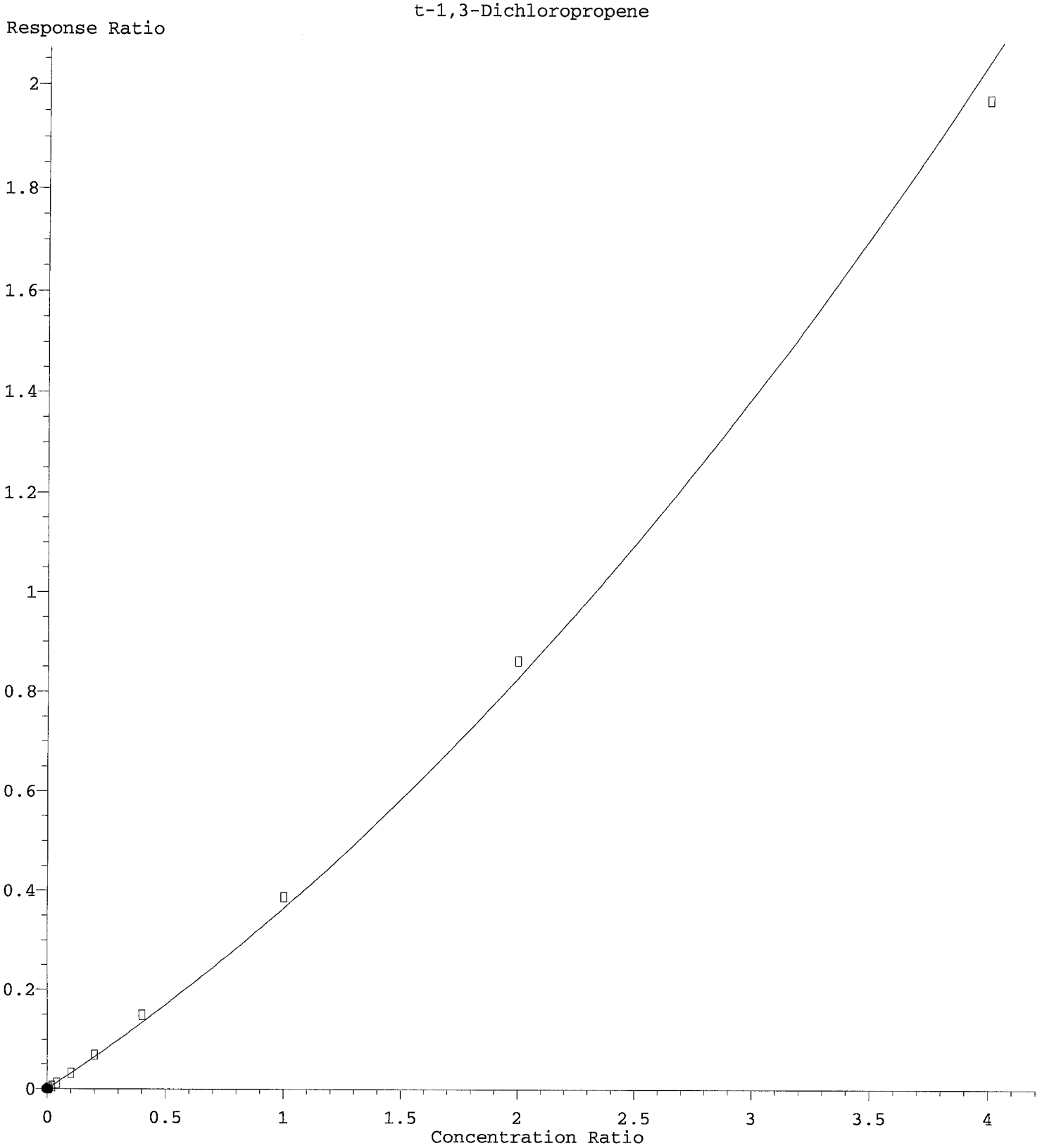
TIC: VG19102518.D\data.ms

(47) c-1,3-Dichloropropene

8.836min (+ 0.036) 0.11 ug/L m

response 36

Ion	Exp%	Act%
75.00	100.00	100.00
39.00	50.30	0.00#
77.00	31.90	0.00#
0.00	0.00	0.00



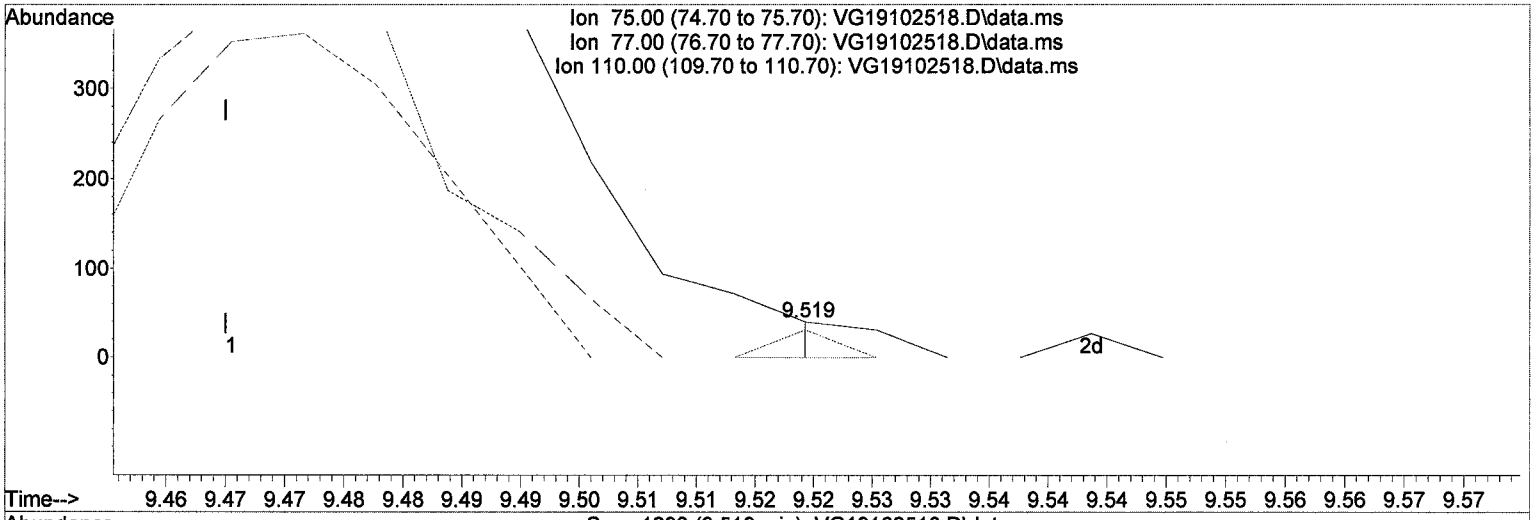
Int= 0.09

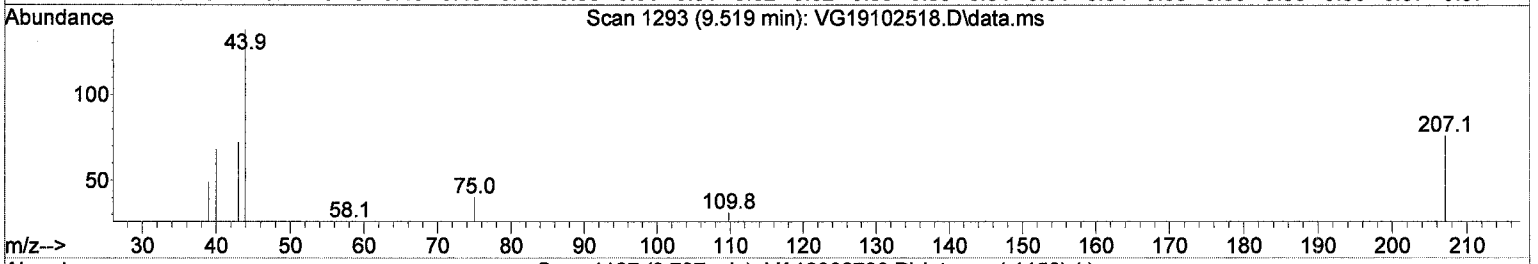
R = 4.88e-002 A*A + 3.17e-001 A - 5.38e-004
Coef of Det (r^2) = 0.992 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\VGI91025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

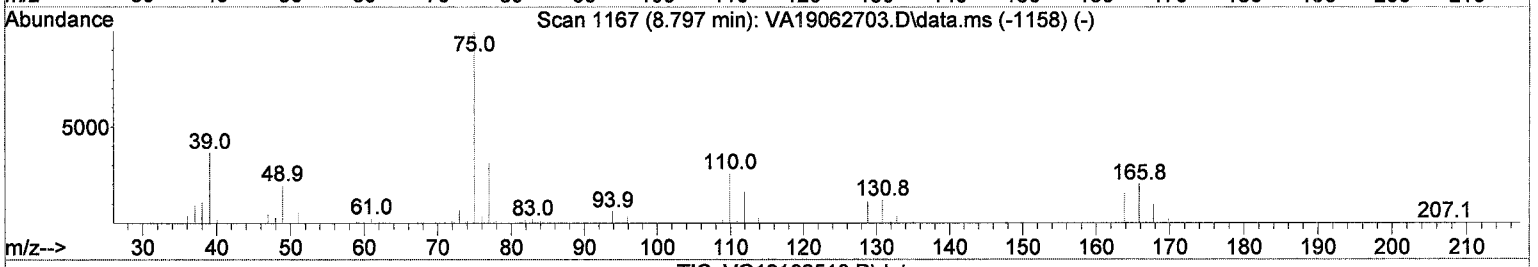
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







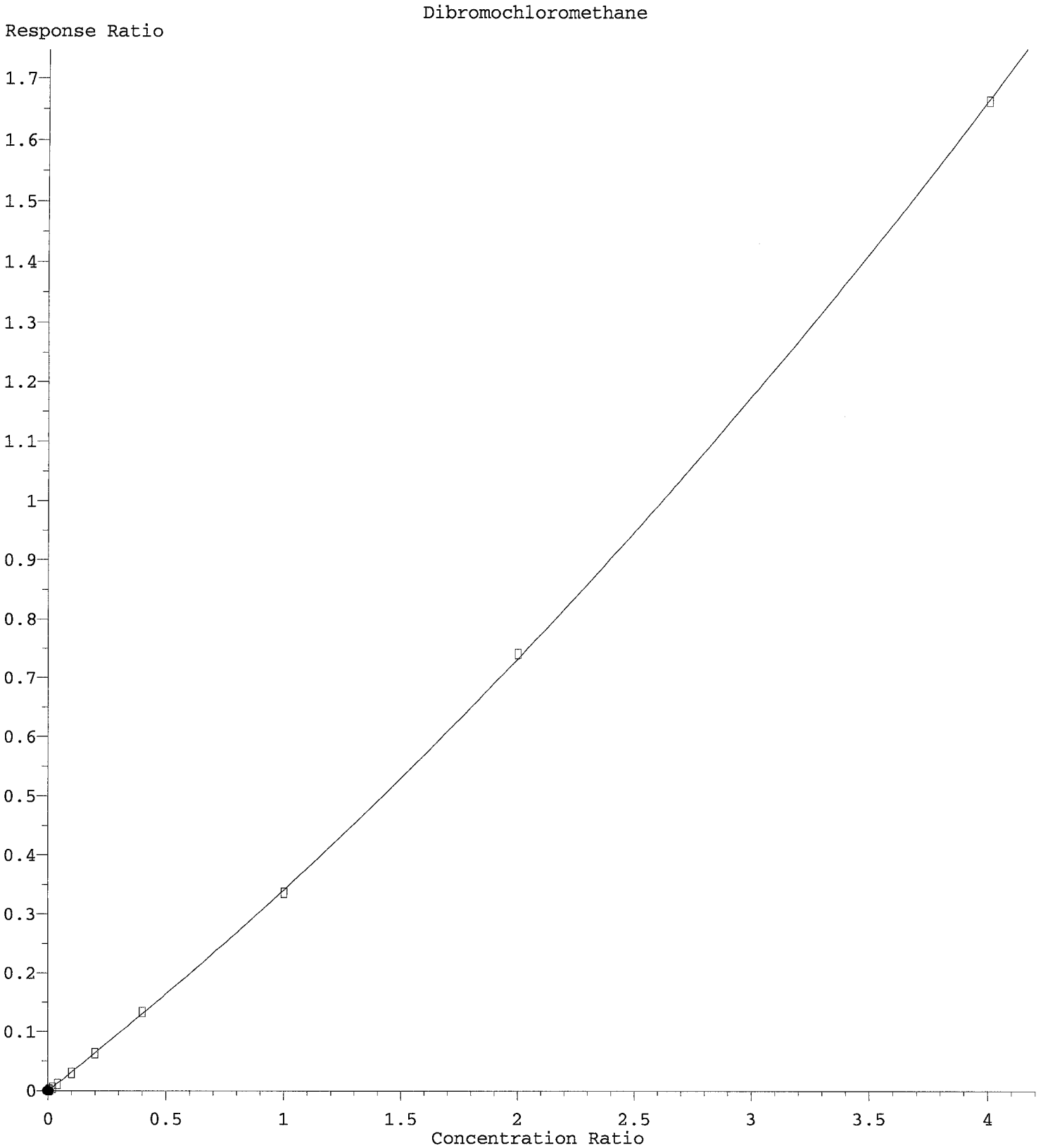
TIC: VG19102518.D\data.ms

(52) t-1,3-Dichloropropene

9.519min (+ 0.049) 0.09 ug/L m

response 11

Ion	Exp%	Act%
75.00	100.00	100.00
77.00	33.20	0.00#
110.00	25.60	77.50#
0.00	0.00	0.00



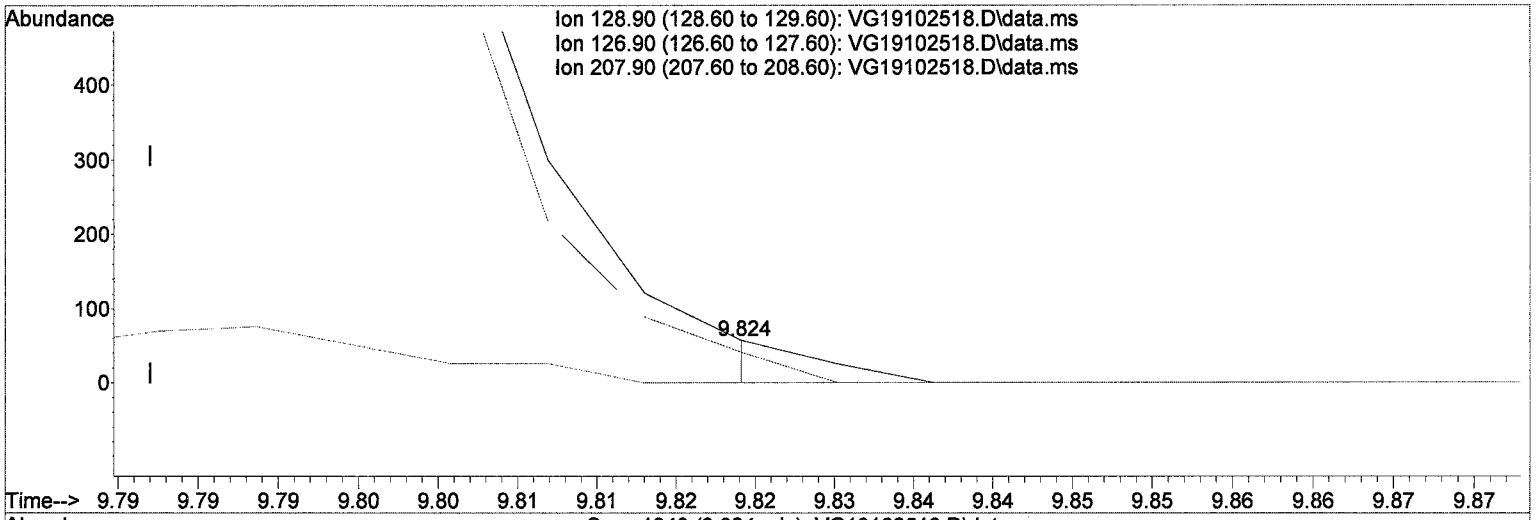
Int = 0,13

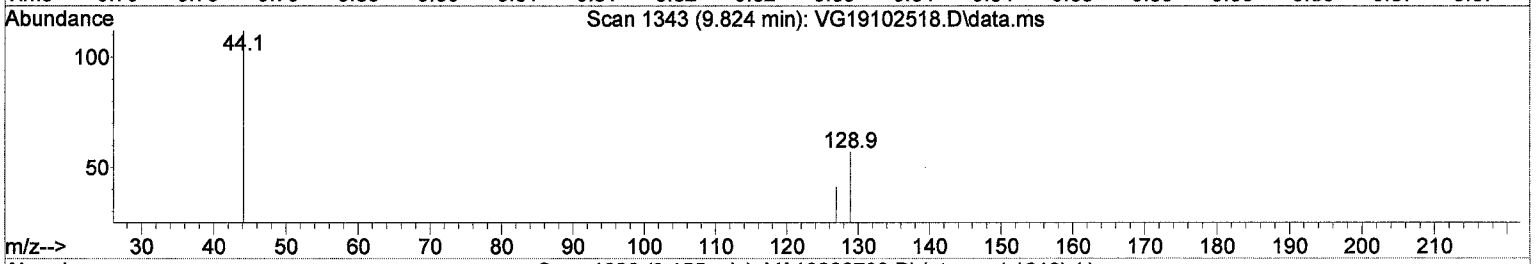
R = 2.49e-002 A*A + 3.17e-001 A - 7.80e-004
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

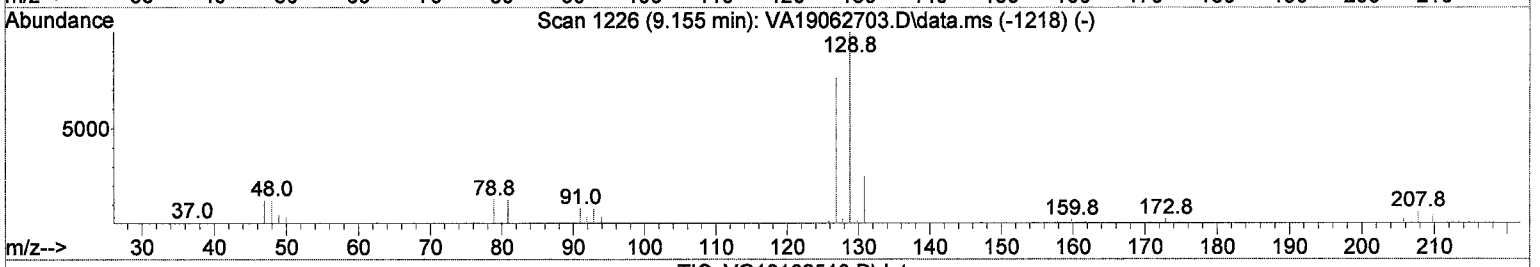
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







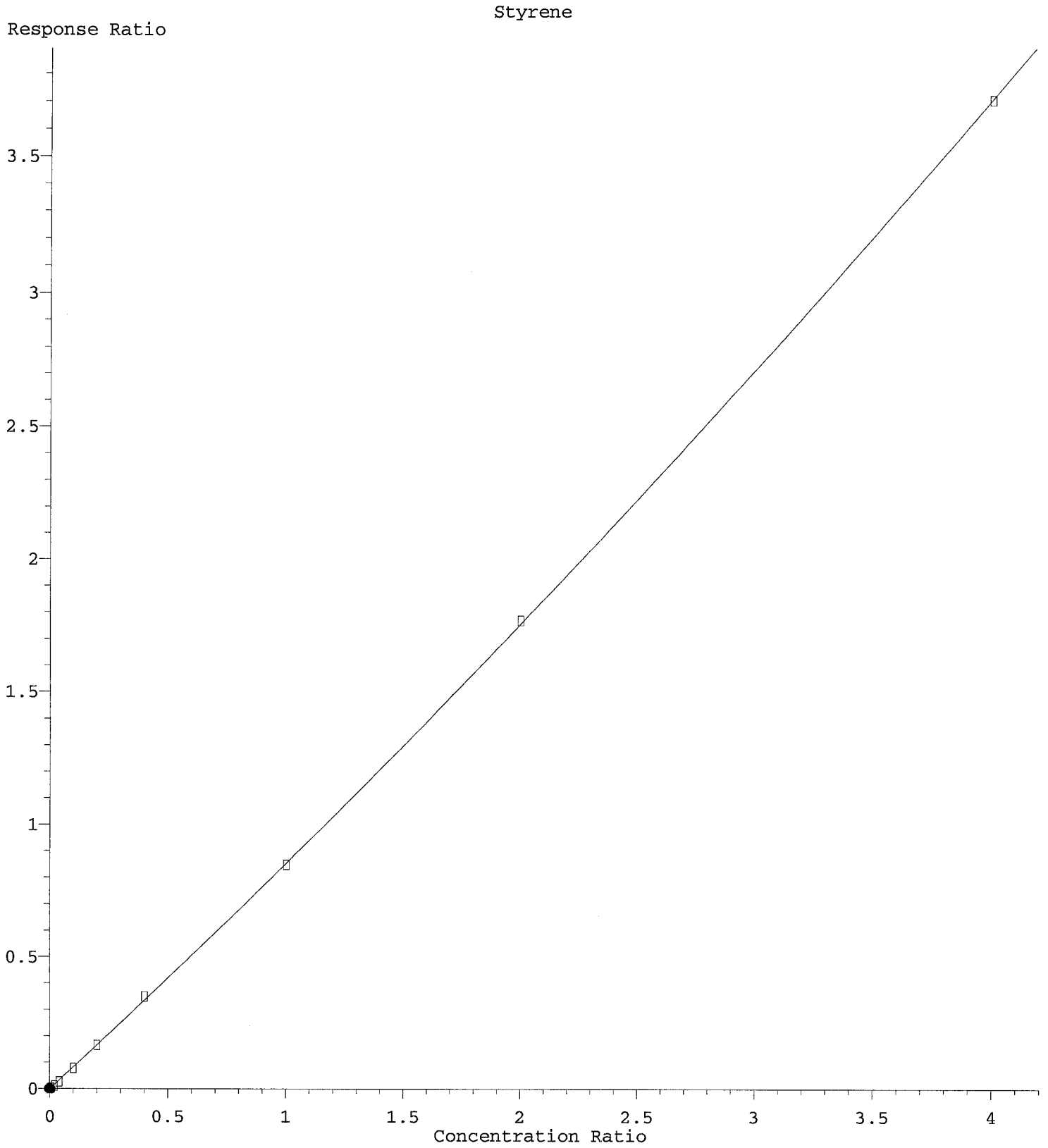
TIC: VG19102518.D\data.ms

(54) Dibromochloromethane

9.824min (+ 0.037) 0.13 ug/L m

response 9

Ion	Exp%	Act%
128.90	100.00	100.00
126.90	77.40	71.93
207.90	7.30	0.00
0.00	0.00	0.00



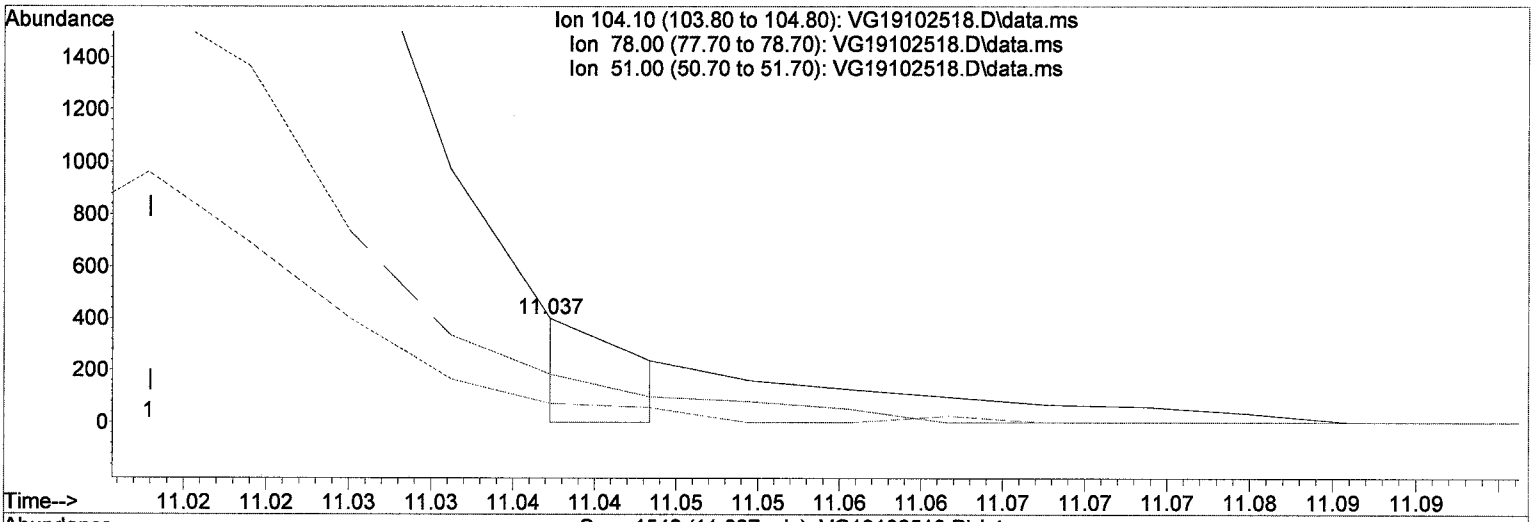
Int = 0.12

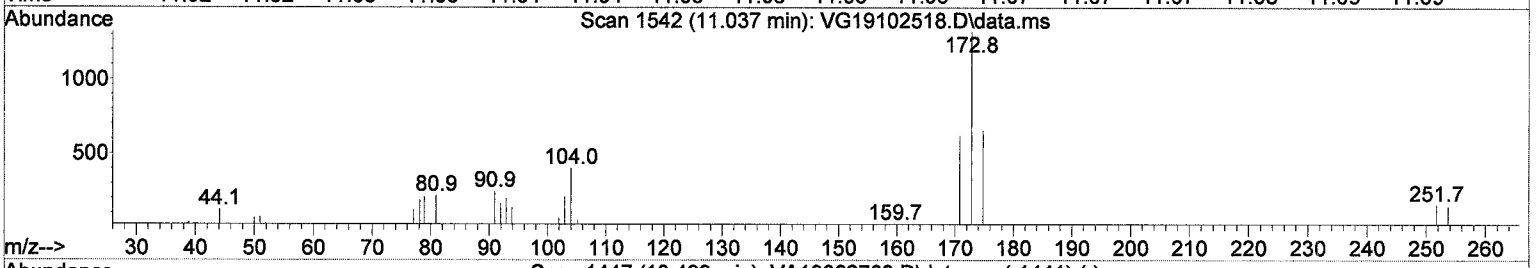
R = 2.43e-002 A*A + 8.31e-001 A - 1.67e-003
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

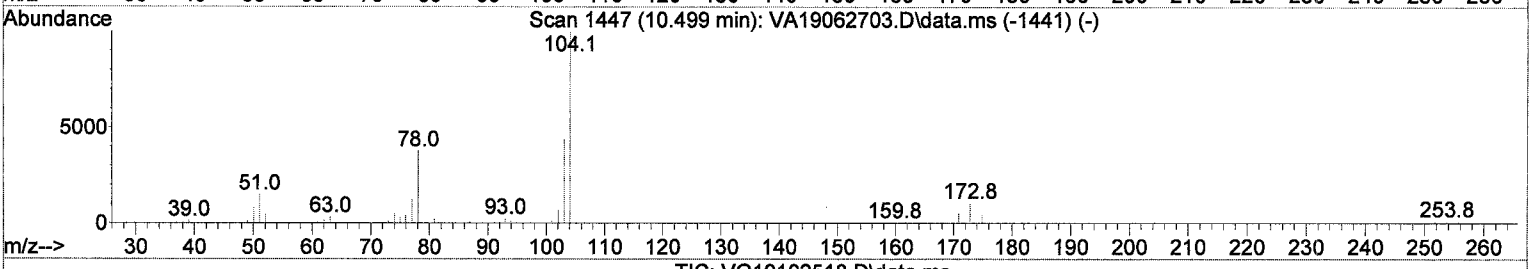
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







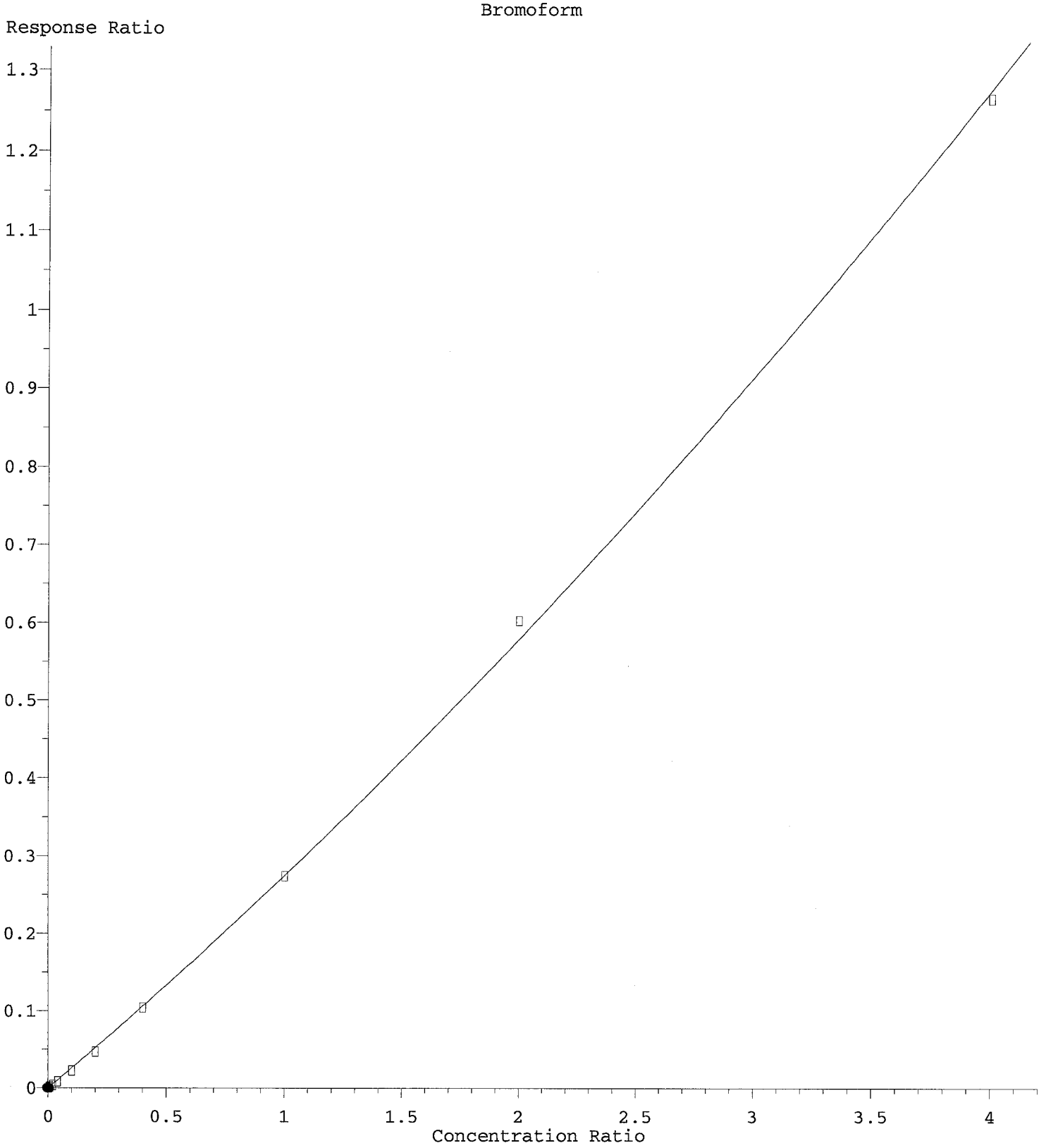
TIC: VG19102518.D\data.ms

(63) Styrene

11.037min (+ 0.024) 0.12 ug/L m

response 86

Ion	Exp%	Act%
104.10	100.00	100.00
78.00	42.20	46.00
51.00	24.70	18.25
0.00	0.00	0.00



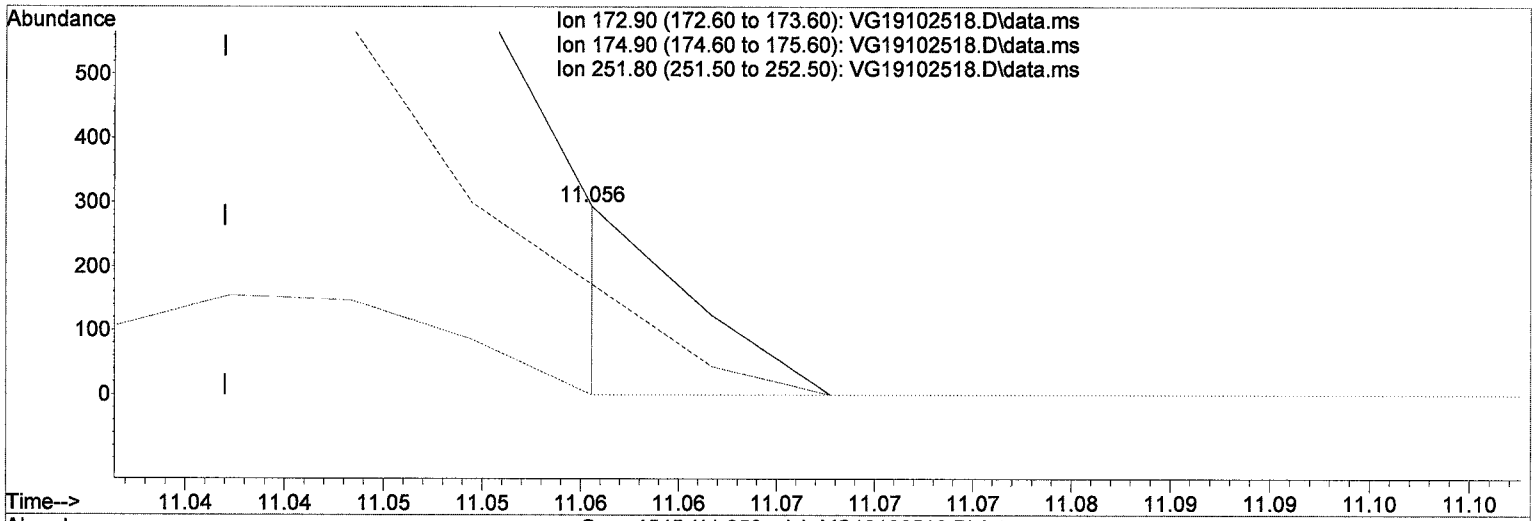
INT = 0,21

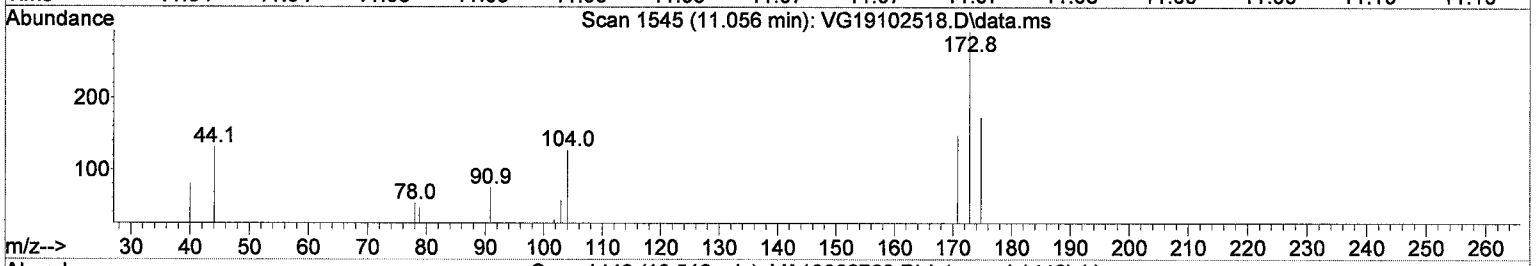
R = 1.46e-002 A*A + 2.61e-001 A - 9.25e-004
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

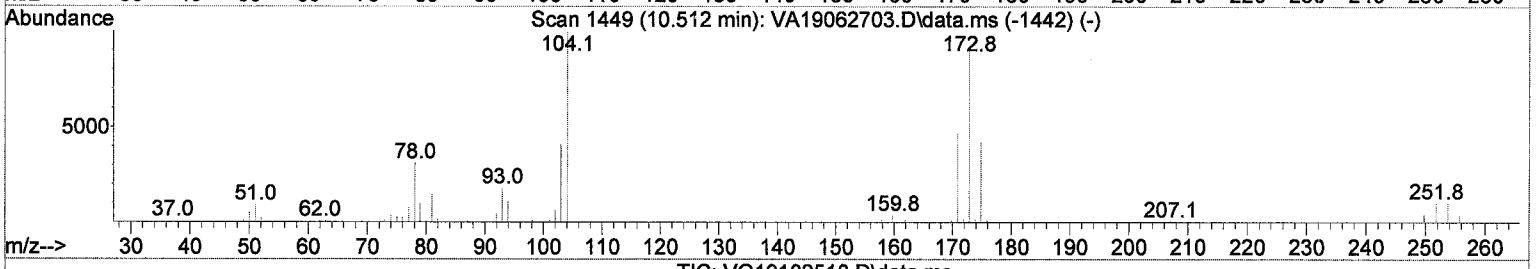
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







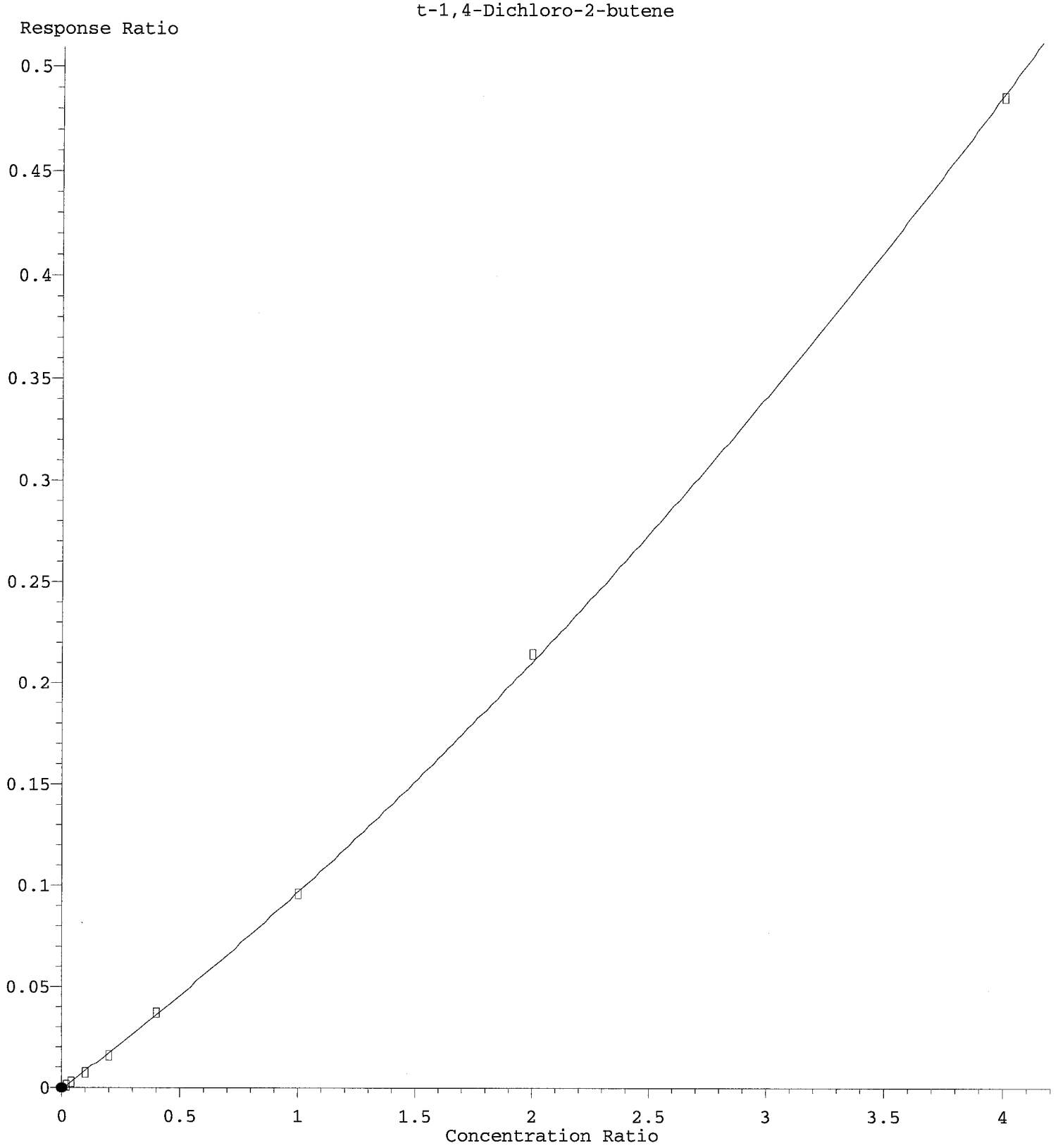
TIC: VG19102518.D\data.ms

(64) Bromoform (P)

11.056min (+ 0.019) 0.21 ug/L m

response 45

Ion	Exp%	Act%
172.90	100.00	100.00
174.90	48.50	58.84
251.80	13.90	0.00
0.00	0.00	0.00



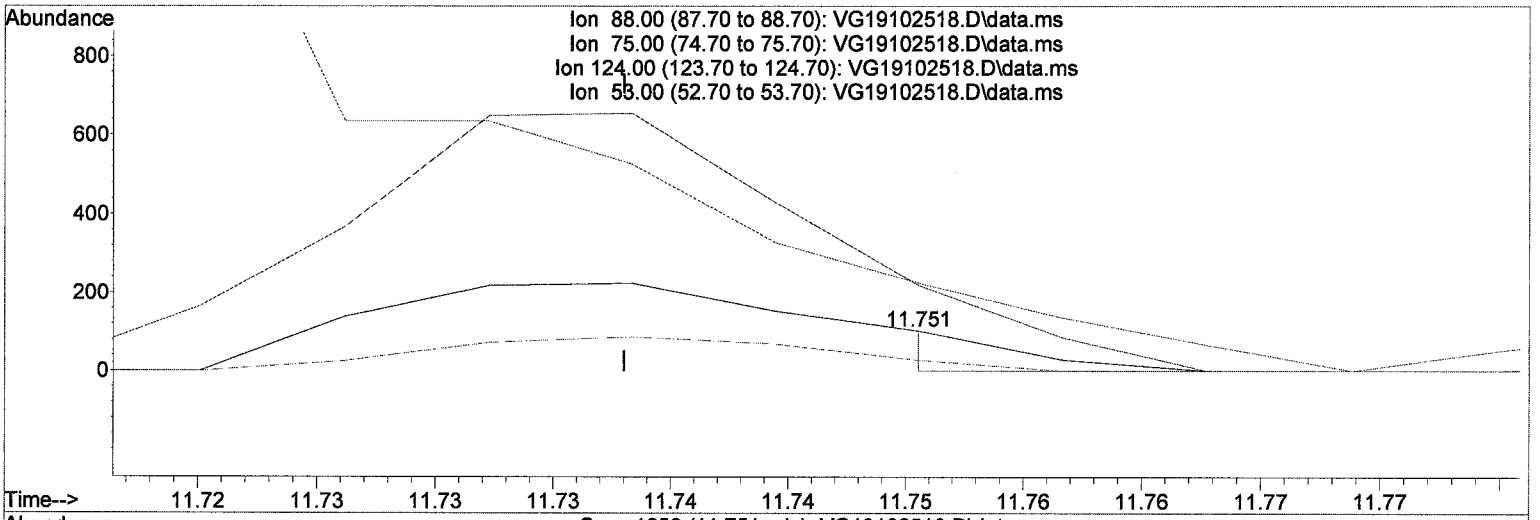
Fut = 0.56

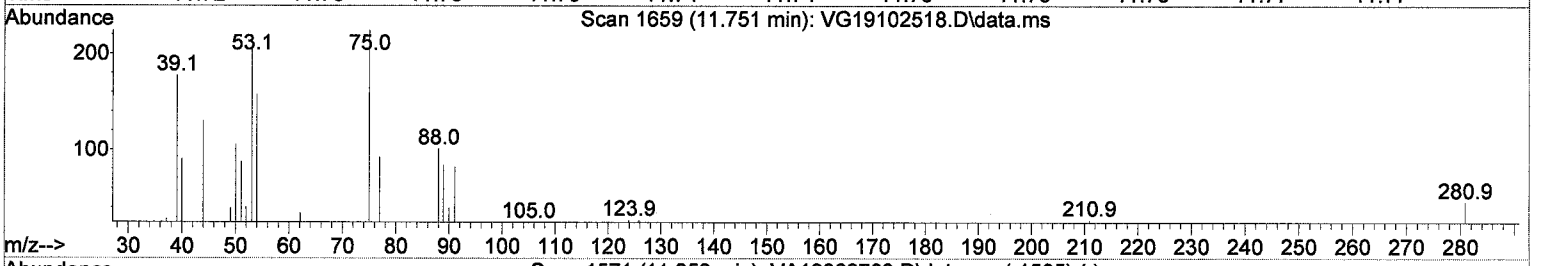
R = 8.09e-003 A*A + 8.97e-002 A - 9.14e-004
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VGI191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

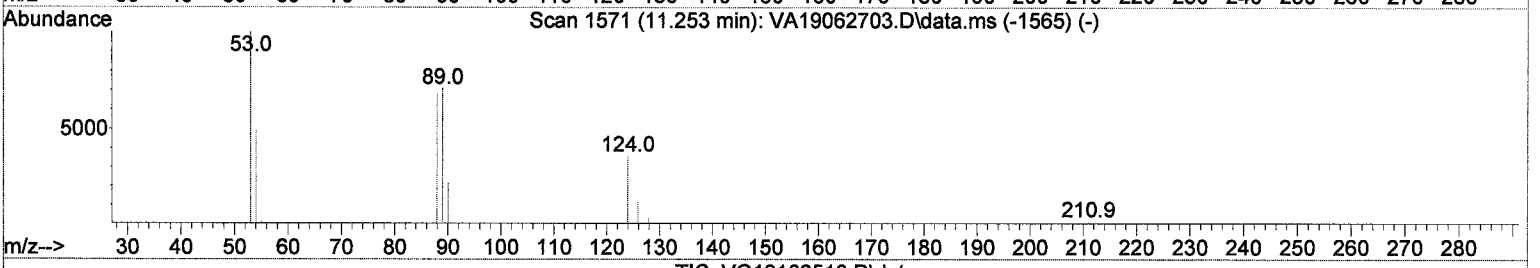
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







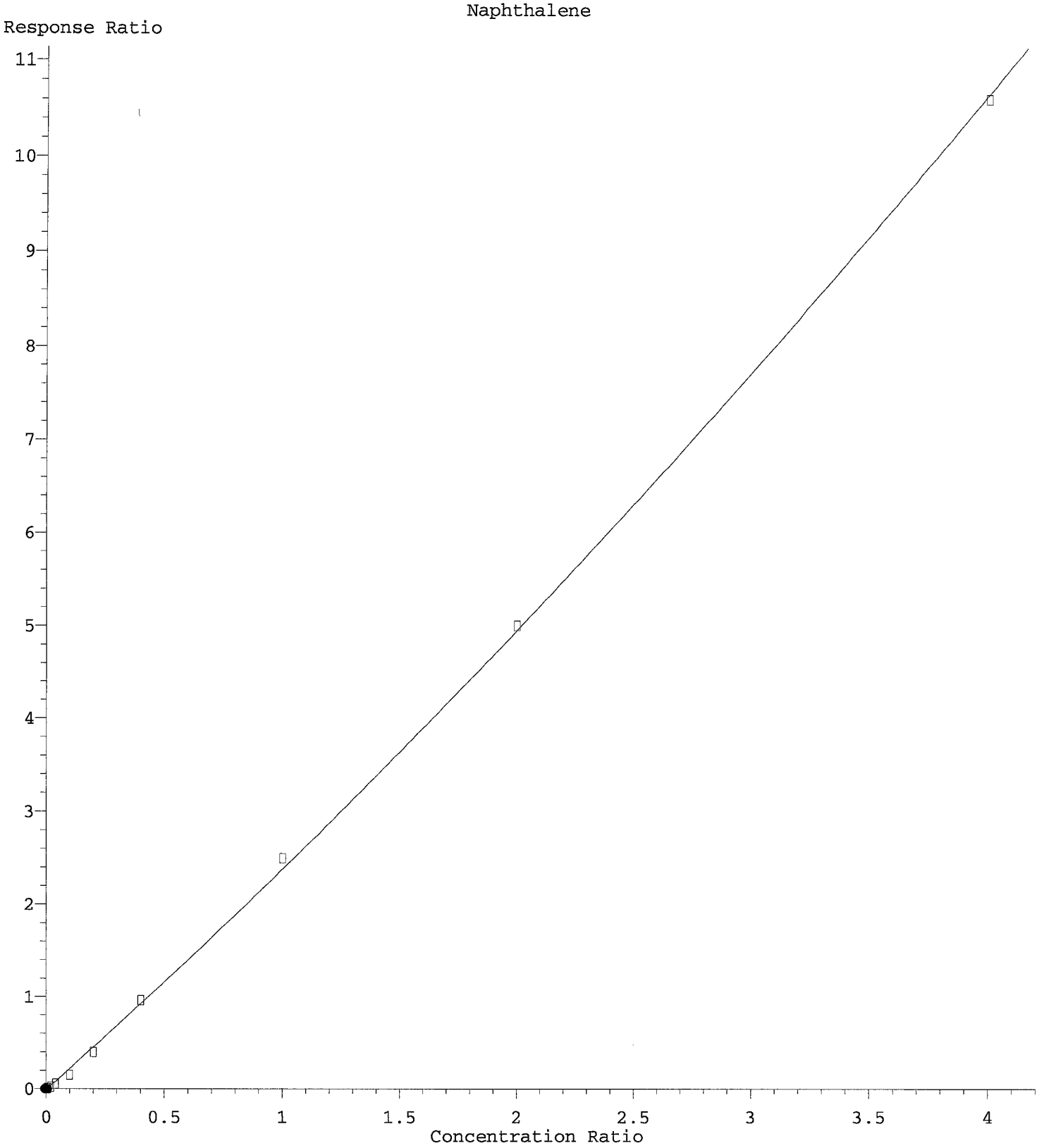
TIC: VG19102518.D\data.ms

(74) t-1,4-Dichloro-2-butene

11.751min (+ 0.013) 0.56 ug/L m

response 10

Ion	Exp%	Act%
88.00	100.00	100.00
75.00	263.20	221.78#
124.00	63.30	26.73#
53.00	196.80	215.84



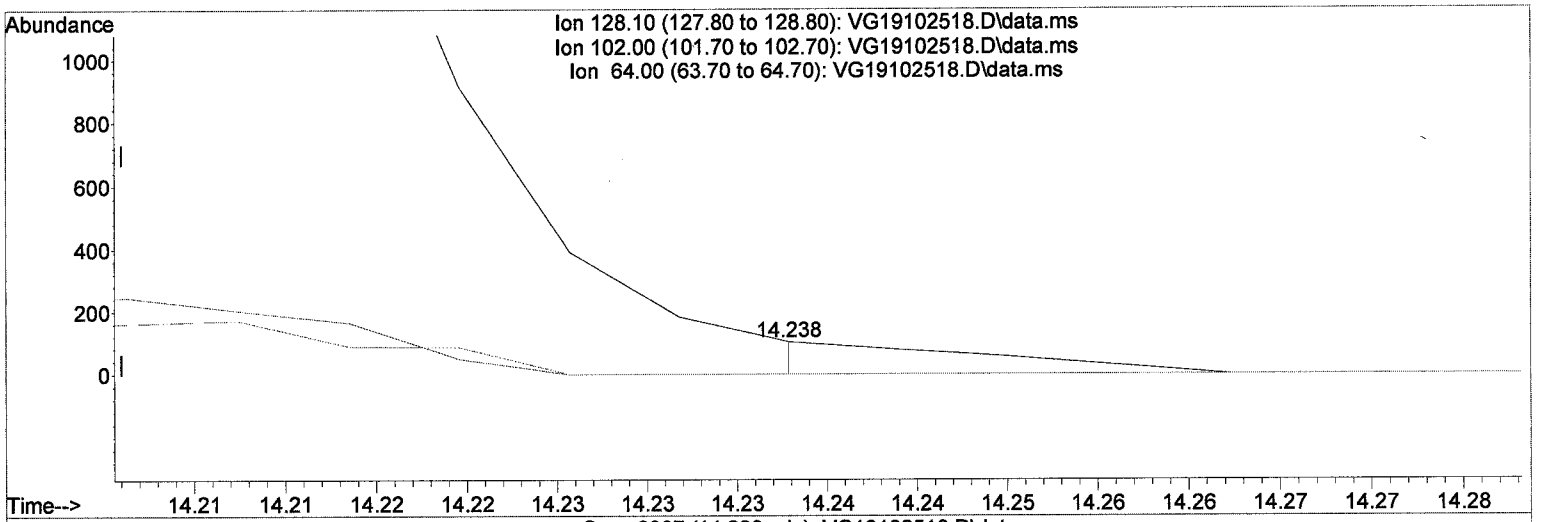
Int = 0.28

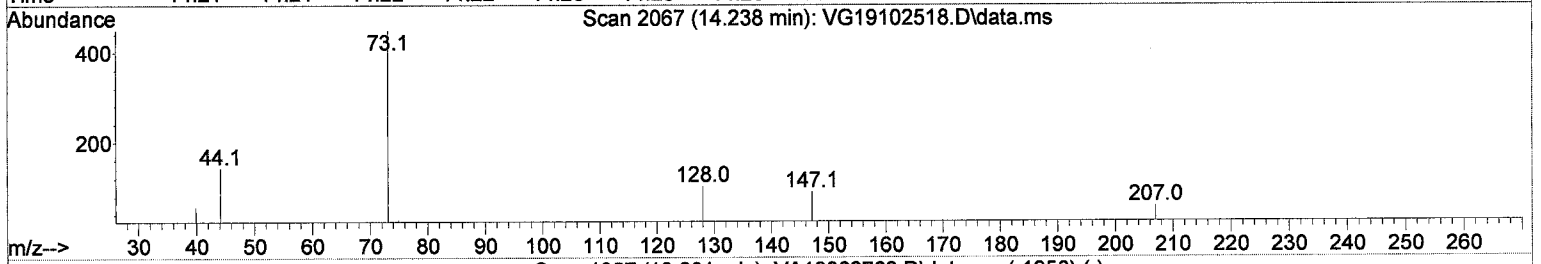
R = 9.23e-002 A*A + 2.30e+000 A - 1.26e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

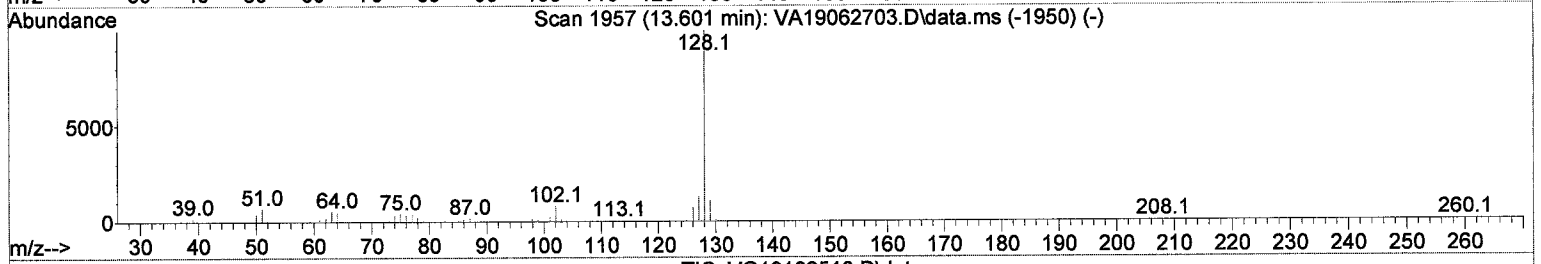
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\REQUANT\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:05:59 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration







TIC: VG19102518.D\data.ms

(87) Naphthalene

14.238min (+ 0.037) 0.28 ug/L m

response 58

Ion	Exp%	Act%
128.10	100.00	100.00
102.00	7.90	0.00
64.00	6.30	0.00
0.00	0.00	0.00

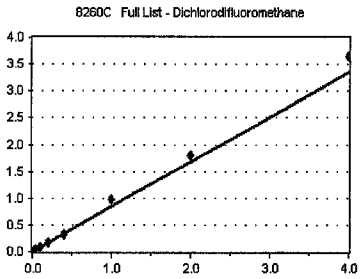
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

Dichlorodifluoromethane

Curve Fit: **AVERAGE RF**

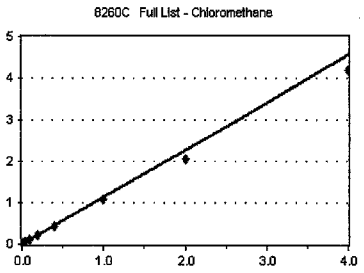


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	263	0.807	1.73
9J25051-CAL3	0.4	405	0.646	1.73
9J25051-CAL4	1	1328	0.756	1.73
9J25051-CAL5	2	2795	0.913	1.73
9J25051-CAL6	5	7404	0.879	1.73
9J25051-CAL7	10	15599	0.821	1.73
9J25051-CAL8	20	27201	0.784	1.73
9J25051-CAL9	50	91711	0.966	1.73
9J25051-CALA	100	173843	0.899	1.73
9J25051-CALB	200	310233	0.914	1.73

AVE RF **0.839** RF RSD **11.32** AVE RT **1.73**

Chloromethane

Curve Fit: **AVERAGE RF**

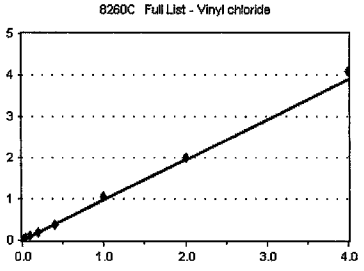


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~449~~	~~2.609~~	~~1.98~~
~~9J25051-CAL2~~	~~0.2~~	~~619~~	~~1.899~~	~~1.98~~
9J25051-CAL3	0.4	914	1.457	1.98
9J25051-CAL4	1	2027	1.154	1.98
9J25051-CAL5	2	3700	1.209	1.98
9J25051-CAL6	5	9675	1.149	1.98
9J25051-CAL7	10	20315	1.069	1.98
9J25051-CAL8	20	36903	1.064	1.99
9J25051-CAL9	50	101831	1.072	1.98
9J25051-CALA	100	198132	1.025	1.98
9J25051-CALB	200	356174	1.049	1.98

AVE RF **1.139** RF RSD **11.72** AVE RT **1.98**

Vinyl chloride

Curve Fit: **AVERAGE RF**

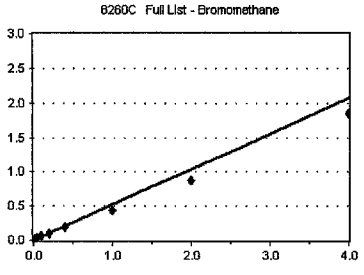


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	144	0.837	2.11
9J25051-CAL2	0.2	313	0.960	2.11
9J25051-CAL3	0.4	546	0.870	2.11
9J25051-CAL4	1	1682	0.957	2.11
9J25051-CAL5	2	3136	1.025	2.11
9J25051-CAL6	5	8598	1.021	2.11
9J25051-CAL7	10	18609	0.980	2.11
9J25051-CAL8	20	33851	0.976	2.11
9J25051-CAL9	50	99666	1.049	2.11
9J25051-CALA	100	192412	0.995	2.11
9J25051-CALB	200	347189	1.023	2.11

AVE RF **0.972** RF RSD **6.77** AVE RT **2.11**

Bromomethane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~151~~	~~0.877~~	~~2.55~~
~~9J25051-CAL2~~	~~0.2~~	~~229~~	~~0.703~~	~~2.55~~
~~9J25051-CAL3~~	~~0.4~~	~~415~~	~~0.662~~	~~2.55~~
9J25051-CAL4	1	1031	0.587	2.55
9J25051-CAL5	2	1968	0.643	2.55
9J25051-CAL6	5	4925	0.585	2.55
9J25051-CAL7	10	9433	0.497	2.55
9J25051-CAL8	20	16751	0.483	2.55
9J25051-CAL9	50	41867	0.441	2.55
9J25051-CALA	100	84791	0.439	2.55
9J25051-CALB	200	157346	0.463	2.55

AVE RF **0.517** RF RSD **14.94** AVE RT **2.55**

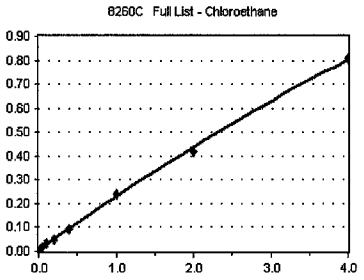
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

Chloroethane

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

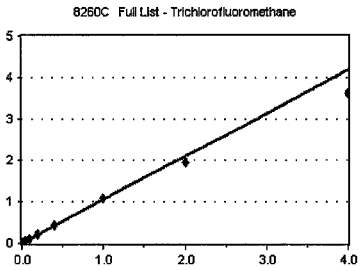


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~183~~	~~0.292~~	~~2.72~~
9J25051-CAL4	1	473	0.269	2.72
9J25051-CAL5	2	1240	0.405	2.73
9J25051-CAL6	5	2805	0.333	2.73
9J25051-CAL7	10	4599	0.242	2.72
9J25051-CAL8	20	8110	0.234	2.72
9J25051-CAL9	50	22569	0.238	2.72
9J25051-CALA	100	40673	0.210	2.72
9J25051-CALB	200	68728	0.202	2.72

AVE RF **0.267** RF RSD **25.91** AVE RT **2.72**

Trichlorofluoromethane

Curve Fit: **AVERAGE RF**

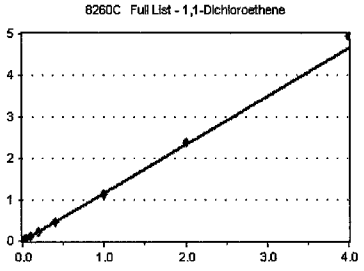


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	165	0.959	2.92
9J25051-CAL2	0.2	338	1.037	2.92
9J25051-CAL3	0.4	650	1.036	2.92
9J25051-CAL4	1	1893	1.078	2.92
9J25051-CAL5	2	3605	1.178	2.92
9J25051-CAL6	5	9548	1.134	2.92
9J25051-CAL7	10	20980	1.104	2.92
9J25051-CAL8	20	37053	1.068	2.92
9J25051-CAL9	50	101591	1.070	2.92
9J25051-CALA	100	187789	0.971	2.92
9J25051-CALB	200	306829	0.904	2.91

AVE RF **1.049** RF RSD **7.63** AVE RT **2.92**

1,1-Dichloroethene

Curve Fit: **AVERAGE RF**

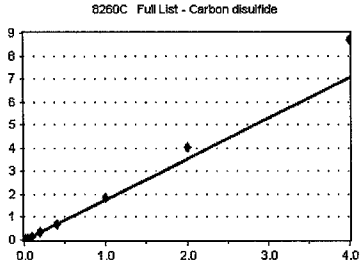


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	208	1.208	3.59
9J25051-CAL2	0.2	353	1.083	3.58
9J25051-CAL3	0.4	720	1.148	3.59
9J25051-CAL4	1	2001	1.139	3.58
9J25051-CAL5	2	3661	1.196	3.59
9J25051-CAL6	5	9956	1.182	3.59
9J25051-CAL7	10	21638	1.139	3.59
9J25051-CAL8	20	40497	1.168	3.59
9J25051-CAL9	50	106825	1.125	3.59
9J25051-CALA	100	228850	1.184	3.59
9J25051-CALB	200	419375	1.235	3.58

AVE RF **1.164** RF RSD **3.69** AVE RT **3.59**

Carbon disulfide

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	344	1.999	3.59
9J25051-CAL2	0.2	583	1.788	3.59
9J25051-CAL3	0.4	958	1.527	3.59
9J25051-CAL4	1	2616	1.489	3.59
9J25051-CAL5	2	5003	1.635	3.59
9J25051-CAL6	5	13555	1.610	3.59
9J25051-CAL7	10	30767	1.620	3.59
9J25051-CAL8	20	59881	1.727	3.59
9J25051-CAL9	50	175211	1.845	3.59
9J25051-CALA	100	390234	2.018	3.59
9J25051-CALB	200	739088	2.177	3.58

AVE RF **1.767** RF RSD **12.55** AVE RT **3.59**

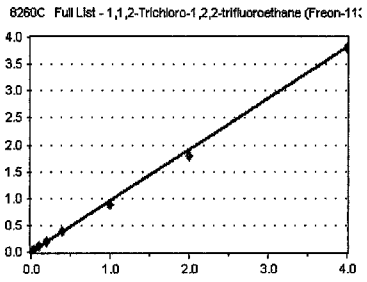
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

1,1,2-Trichloro-1,2,2-trifluoroetha

Curve Fit: **AVERAGE RF**

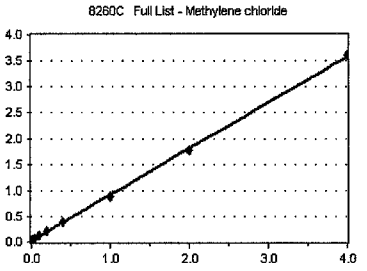


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	319	0.979	3.67
9J25051-CAL3	0.4	578	0.921	3.66
9J25051-CAL4	1	1595	0.908	3.66
9J25051-CAL5	2	3171	1.036	3.66
9J25051-CAL6	5	8623	1.024	3.66
9J25051-CAL7	10	18630	0.981	3.66
9J25051-CAL8	20	33091	0.954	3.66
9J25051-CAL9	50	84735	0.892	3.66
9J25051-CALA	100	173399	0.897	3.66
9J25051-CALB	200	322757	0.951	3.66

AVE RF **0.954** RF RSD **5.33** AVE RT **3.66**

Methylene chloride

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

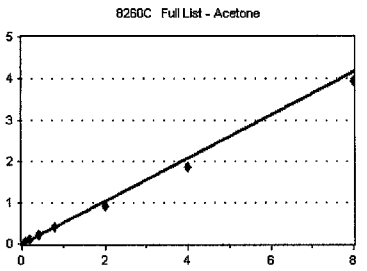


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	1819	10.568	4.32
9J25051-CAL2	0.2	1942	5.958	4.32
9J25051-CAL3	0.4	2043	3.257	4.32
9J25051-CAL4	1	3475	1.978	4.32
9J25051-CAL5	2	4760	1.556	4.32
9J25051-CAL6	5	10277	1.220	4.32
9J25051-CAL7	10	20314	1.069	4.32
9J25051-CAL8	20	34415	0.992	4.32
9J25051-CAL9	50	84220	0.887	4.32
9J25051-CALA	100	171077	0.885	4.32
9J25051-CALB	200	305732	0.901	4.32

AVE RF **2.661** RF RSD **114.13** AVE RT **4.32**

Acetone

Curve Fit: **AVERAGE RF**

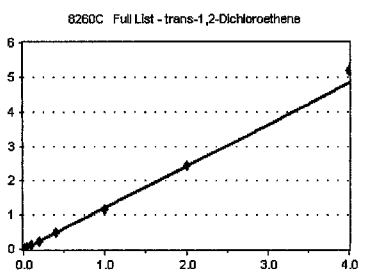


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.2~~	~~1032~~	~~2.998~~	~~4.41~~
~~9J25051-CAL2~~	~~0.4~~	~~1117~~	~~1.713~~	~~4.40~~
~~9J25051-CAL3~~	~~0.8~~	~~1426~~	~~1.137~~	~~4.40~~
~~9J25051-CAL4~~	~~2~~	~~2696~~	~~0.767~~	~~4.40~~
9J25051-CAL5	4	3962	0.647	4.40
9J25051-CAL6	10	9305	0.553	4.40
9J25051-CAL7	20	19598	0.516	4.40
9J25051-CAL8	40	35535	0.512	4.40
9J25051-CAL9	100	88109	0.464	4.40
9J25051-CALA	200	178985	0.463	4.40
9J25051-CALB	400	335353	0.494	4.40

AVE RF **0.521** RF RSD **12.24** AVE RT **4.40**

trans-1,2-Dichloroethene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	216	1.255	4.51
9J25051-CAL2	0.2	349	1.071	4.51
9J25051-CAL3	0.4	721	1.149	4.51
9J25051-CAL4	1	2024	1.152	4.51
9J25051-CAL5	2	3893	1.272	4.51
9J25051-CAL6	5	10306	1.224	4.51
9J25051-CAL7	10	23032	1.212	4.51
9J25051-CAL8	20	43270	1.248	4.51
9J25051-CAL9	50	110813	1.167	4.51
9J25051-CALA	100	235876	1.220	4.51
9J25051-CALB	200	439733	1.295	4.51

AVE RF **1.206** RF RSD **5.44** AVE RT **4.51**

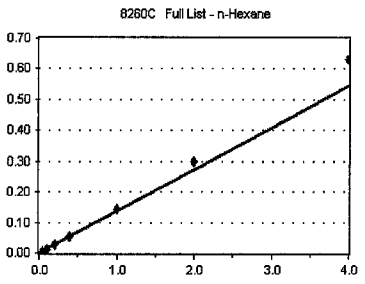
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

n-Hexane

Curve Fit: **AVERAGE RF**

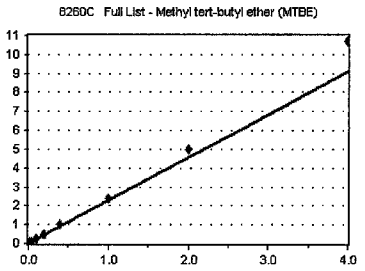


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~10~~	~~1.594~~	~~0.00~~
~~9J25051-CAL4~~	~~1~~	~~168~~	~~9.563~~	~~4.61~~
9J25051-CAL5	2	342	0.112	4.61
9J25051-CAL6	5	1014	0.120	4.61
9J25051-CAL7	10	2568	0.135	4.61
9J25051-CAL8	20	4737	0.137	4.61
9J25051-CAL9	50	13670	0.144	4.61
9J25051-CALA	100	29007	0.150	4.61
9J25051-CALB	200	53781	0.158	4.61

AVE RF **0.137** RF RSD **11.92** AVE RT **4.61**

Methyl tert-butyl ether (MTBE)

Curve Fit: **AVERAGE RF**

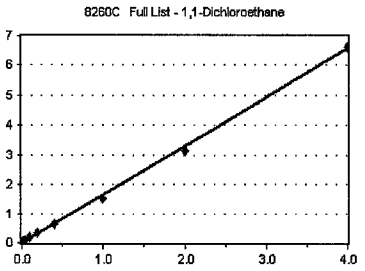


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	356	2.068	4.67
9J25051-CAL2	0.2	645	1.979	4.67
9J25051-CAL3	0.4	1243	1.982	4.67
9J25051-CAL4	1	3585	2.041	4.67
9J25051-CAL5	2	6706	2.191	4.67
9J25051-CAL6	5	19407	2.305	4.66
9J25051-CAL7	10	45758	2.409	4.66
9J25051-CAL8	20	86097	2.482	4.66
9J25051-CAL9	50	225213	2.371	4.66
9J25051-CALA	100	485505	2.511	4.66
9J25051-CALB	200	909069	2.678	4.66

AVE RF **2.274** RF RSD **10.48** AVE RT **4.66**

1,1-Dichloroethane

Curve Fit: **AVERAGE RF**

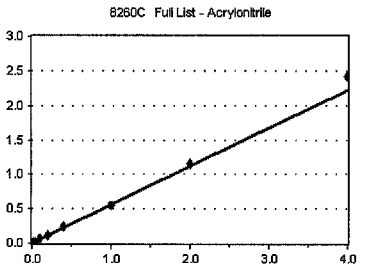


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	301	1.749	5.22
9J25051-CAL2	0.2	508	1.558	5.22
9J25051-CAL3	0.4	980	1.562	5.22
9J25051-CAL4	1	2990	1.702	5.22
9J25051-CAL5	2	5406	1.767	5.22
9J25051-CAL6	5	14473	1.719	5.22
9J25051-CAL7	10	31196	1.642	5.22
9J25051-CAL8	20	57239	1.650	5.22
9J25051-CAL9	50	143204	1.508	5.22
9J25051-CALA	100	303825	1.572	5.22
9J25051-CALB	200	561273	1.653	5.22

AVE RF **1.644** RF RSD **5.19** AVE RT **5.22**

Acrylonitrile

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	0.4	292	0.466	5.30
9J25051-CAL4	1	831	0.473	5.30
9J25051-CAL5	2	1734	0.567	5.30
9J25051-CAL6	5	4948	0.588	5.29
9J25051-CAL7	10	11034	0.581	5.29
9J25051-CAL8	20	21017	0.606	5.29
9J25051-CAL9	50	53096	0.559	5.28
9J25051-CALA	100	110954	0.574	5.29
9J25051-CALB	200	205093	0.604	5.29

AVE RF **0.557** RF RSD **9.39** AVE RT **5.29**

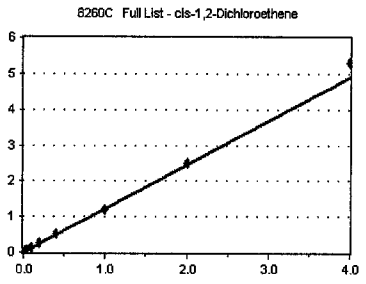
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

cis-1,2-Dichloroethene

Curve Fit: **AVERAGE RF**

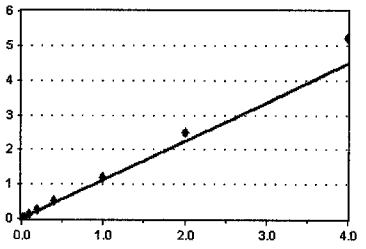


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	198	1.150	5.83
9J25051-CAL2	0.2	368	1.129	5.83
9J25051-CAL3	0.4	741	1.181	5.83
9J25051-CAL4	1	2038	1.160	5.82
9J25051-CAL5	2	3898	1.274	5.83
9J25051-CAL6	5	10725	1.274	5.83
9J25051-CAL7	10	24037	1.265	5.82
9J25051-CAL8	20	44663	1.288	5.83
9J25051-CAL9	50	112782	1.188	5.82
9J25051-CALA	100	241396	1.249	5.83
9J25051-CALB	200	451383	1.330	5.82

AVE RF **1.226** RF RSD **5.42** AVE RT **5.82**

1,1-Dichloropropene

Curve Fit: **AVERAGE RF**

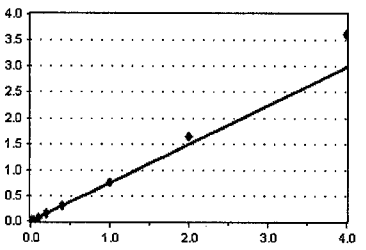


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	132	0.767	0.00
9J25051-CAL2	0.2	307	0.942	6.48
9J25051-CAL3	0.4	621	0.990	6.48
9J25051-CAL4	1	1862	1.060	6.48
9J25051-CAL5	2	3368	1.101	6.48
9J25051-CAL6	5	9935	1.180	6.48
9J25051-CAL7	10	23256	1.224	6.48
9J25051-CAL8	20	44179	1.274	6.48
9J25051-CAL9	50	113867	1.199	6.48
9J25051-CALA	100	241070	1.247	6.48
9J25051-CALB	200	443732	1.307	6.48

AVE RF **1.117** RF RSD **14.78** AVE RT **5.89**

2,2-Dichloropropane

Curve Fit: **AVERAGE RF**

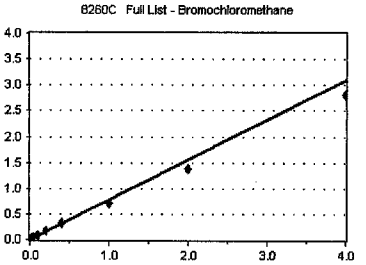


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	218	0.669	5.94
9J25051-CAL3	0.4	361	0.576	5.94
9J25051-CAL4	1	1277	0.727	5.94
9J25051-CAL5	2	2329	0.761	5.94
9J25051-CAL6	5	6301	0.748	5.94
9J25051-CAL7	10	14137	0.744	5.94
9J25051-CAL8	20	26576	0.766	5.94
9J25051-CAL9	50	71310	0.751	5.94
9J25051-CALA	100	158158	0.818	5.94
9J25051-CALB	200	307183	0.905	5.94

AVE RF **0.746** RF RSD **11.51** AVE RT **5.94**

Bromochloromethane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	113	0.657	6.04
9J25051-CAL2	0.2	239	0.733	6.04
9J25051-CAL3	0.4	529	0.843	6.04
9J25051-CAL4	1	1485	0.845	6.04
9J25051-CAL5	2	2654	0.867	6.04
9J25051-CAL6	5	7242	0.860	6.04
9J25051-CAL7	10	15717	0.827	6.04
9J25051-CAL8	20	27767	0.801	6.04
9J25051-CAL9	50	66951	0.705	6.04
9J25051-CALA	100	134039	0.693	6.04
9J25051-CALB	200	237805	0.700	6.04

AVE RF **0.776** RF RSD **10.12** AVE RT **6.04**

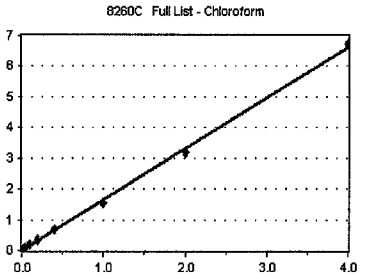
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

Chloroform

Curve Fit: **AVERAGE RF**

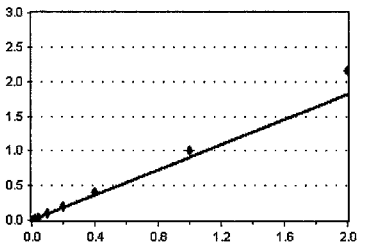


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	266	1.545	6.13
9J25051-CAL2	0.2	550	1.687	6.14
9J25051-CAL3	0.4	984	1.569	6.14
9J25051-CAL4	1	2916	1.660	6.14
9J25051-CAL5	2	5455	1.783	6.14
9J25051-CAL6	5	14639	1.738	6.14
9J25051-CAL7	10	31968	1.683	6.14
9J25051-CAL8	20	59036	1.702	6.14
9J25051-CAL9	50	146798	1.546	6.14
9J25051-CALA	100	307965	1.593	6.14
9J25051-CALB	200	570590	1.681	6.14

AVE RF **1.653** RF RSD **4.81** AVE RT **6.14**

Carbon tetrachloride

Curve Fit: **AVERAGE RF**

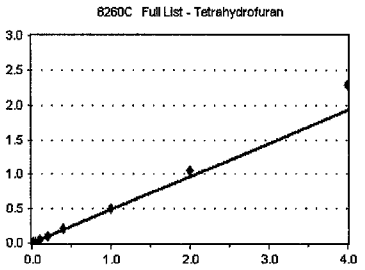


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	240	0.736	6.26
9J25051-CAL3	0.4	447	0.713	6.26
9J25051-CAL4	1	1387	0.790	6.26
9J25051-CAL5	2	2771	0.906	6.26
9J25051-CAL6	5	8051	0.956	6.26
9J25051-CAL7	10	18676	0.983	6.26
9J25051-CAL8	20	35140	1.013	6.26
9J25051-CAL9	50	95588	1.006	6.26
9J25051-CALA	100	209216	1.082	6.26
~~9J25051-CALB~~	~~200~~	~~401239~~	~~1.182~~	~~6.26~~

AVE RF **0.909** RF RSD **14.58** AVE RT **6.26**

Tetrahydrofuran

Curve Fit: **AVERAGE RF**

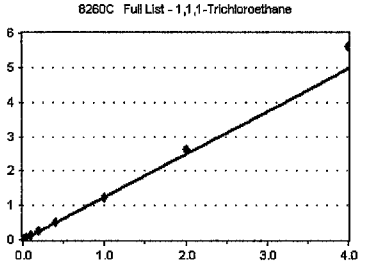


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	0.4	247	0.394	6.31
9J25051-CAL4	1	728	0.414	6.32
9J25051-CAL5	2	1403	0.458	6.31
9J25051-CAL6	5	4008	0.476	6.31
9J25051-CAL7	10	9225	0.486	6.31
9J25051-CAL8	20	18146	0.523	6.31
9J25051-CAL9	50	48009	0.505	6.30
9J25051-CALA	100	101260	0.524	6.30
9J25051-CALB	200	193536	0.570	6.30

AVE RF **0.483** RF RSD **11.49** AVE RT **6.31**

1,1,1-Trichloroethane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	204	1.185	6.34
9J25051-CAL2	0.2	348	1.068	6.34
9J25051-CAL3	0.4	733	1.169	6.34
9J25051-CAL4	1	2025	1.153	6.34
9J25051-CAL5	2	3963	1.295	6.34
9J25051-CAL6	5	10911	1.296	6.34
9J25051-CAL7	10	24426	1.286	6.34
9J25051-CAL8	20	44656	1.288	6.34
9J25051-CAL9	50	116783	1.230	6.34
9J25051-CALA	100	253138	1.309	6.34
9J25051-CALB	200	475459	1.401	6.34

AVE RF **1.243** RF RSD **7.48** AVE RT **6.34**

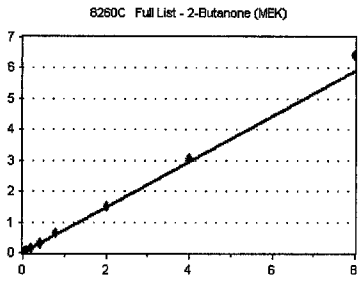
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

2-Butanone (MEK)

Curve Fit: **AVERAGE RF**

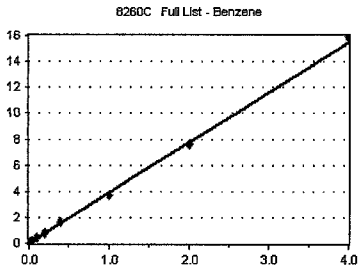


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	0.8	681	0.543	6.48
9J25051-CAL4	2	2324	0.661	6.48
9J25051-CAL5	4	4574	0.747	6.48
9J25051-CAL6	10	13080	0.777	6.48
9J25051-CAL7	20	29709	0.782	6.48
9J25051-CAL8	40	56191	0.810	6.48
9J25051-CAL9	100	143270	0.754	6.47
9J25051-CALA	200	294469	0.762	6.47
9J25051-CALB	400	545000	0.803	6.47

AVE RF **0.738** RF RSD **11.51** AVE RT **6.48**

Benzene

Curve Fit: **AVERAGE RF**

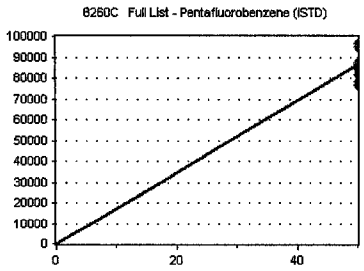


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	628	3.649	6.76
9J25051-CAL2	0.2	1235	3.789	6.75
9J25051-CAL3	0.4	2314	3.689	6.75
9J25051-CAL4	1	6507	3.704	6.75
9J25051-CAL5	2	12371	4.043	6.76
9J25051-CAL6	5	34545	4.102	6.76
9J25051-CAL7	10	76881	4.047	6.75
9J25051-CAL8	20	140134	4.040	6.75
9J25051-CAL9	50	351675	3.703	6.75
9J25051-CALA	100	738577	3.820	6.75
9J25051-CALB	200	1348023	3.971	6.75

AVE RF **3.869** RF RSD **4.48** AVE RT **6.75**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

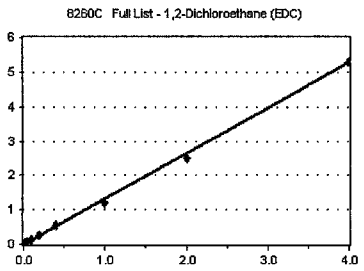


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	86062	1721.240	6.86
9J25051-CAL2	50	81493	1629.860	6.86
9J25051-CAL3	50	78410	1568.200	6.86
9J25051-CAL4	50	87837	1756.740	6.86
9J25051-CAL5	50	76501	1530.020	6.86
9J25051-CAL6	50	84206	1684.120	6.86
9J25051-CAL7	50	94987	1899.740	6.86
9J25051-CAL8	50	86706	1734.120	6.86
9J25051-CAL9	50	94974	1899.480	6.86
9J25051-CALA	50	96665	1933.300	6.86
9J25051-CALB	50	84871	1697.420	6.86

AVE RF **1732.204** RF RSD **7.72** AVE RT **6.86**

1,2-Dichloroethane (EDC)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	408	1.252	6.99
9J25051-CAL3	0.4	804	1.282	6.98
9J25051-CAL4	1	2322	1.322	6.98
9J25051-CAL5	2	4512	1.474	6.98
9J25051-CAL6	5	11793	1.400	6.98
9J25051-CAL7	10	25491	1.342	6.98
9J25051-CAL8	20	46494	1.341	6.98
9J25051-CAL9	50	115183	1.213	6.98
9J25051-CALA	100	242443	1.254	6.98
9J25051-CALB	200	450038	1.326	6.98

AVE RF **1.320** RF RSD **5.83** AVE RT **6.98**

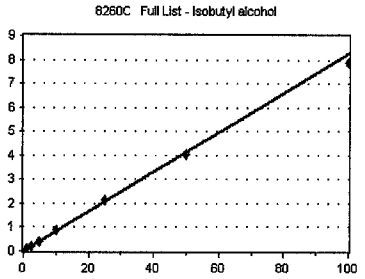
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

Isobutyl alcohol

Curve Fit: **AVERAGE RF**

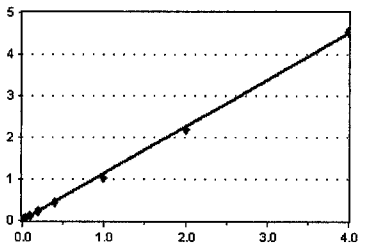


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~2.5~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~5~~	~~506~~	~~6.209~~	~~7.05~~
~~9J25051-CAL3~~	~~10~~	~~1036~~	~~0.066~~	~~7.05~~
~~9J25051-CAL4~~	~~25~~	~~3182~~	~~7.245~~	~~7.04~~
9J25051-CAL5	50	6444	8.423	7.04
9J25051-CAL6	125	17343	8.238	7.04
9J25051-CAL7	250	38810	8.172	7.04
9J25051-CAL8	500	74881	8.636	7.04
9J25051-CAL9	1250	202120	8.513	7.04
9J25051-CALA	2500	391326	0.081	7.04
9J25051-CALB	5000	669707	7.891	7.04

AVE RF **8.281** RF RSD **3.12** AVE RT **7.04**

Trichloroethene (TCE)

Curve Fit: **AVERAGE RF**

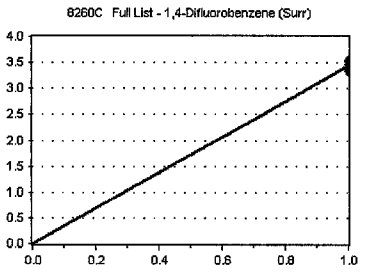


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	203	1.179	7.40
9J25051-CAL2	0.2	383	1.175	7.40
9J25051-CAL3	0.4	739	1.178	7.40
9J25051-CAL4	1	1961	1.116	7.41
9J25051-CAL5	2	3521	1.151	7.41
9J25051-CAL6	5	9556	1.135	7.40
9J25051-CAL7	10	21560	1.135	7.41
9J25051-CAL8	20	37986	1.095	7.41
9J25051-CAL9	50	98591	1.038	7.40
9J25051-CALA	100	211347	1.093	7.41
9J25051-CALB	200	384777	1.133	7.41

AVE RF **1.130** RF RSD **3.80** AVE RT **7.41**

1,4-Difluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

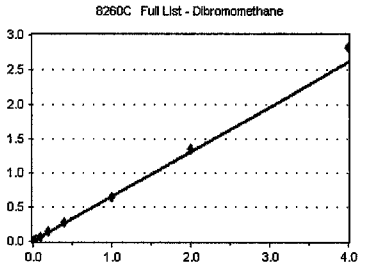


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	305946	3.555	7.45
9J25051-CAL2	50	287858	3.532	7.45
9J25051-CAL3	50	275500	3.514	7.45
9J25051-CAL4	50	309533	3.524	7.45
9J25051-CAL5	50	264143	3.453	7.45
9J25051-CAL6	50	285436	3.390	7.45
9J25051-CAL7	50	322104	3.391	7.45
9J25051-CAL8	50	291439	3.361	7.45
9J25051-CAL9	50	318518	3.354	7.45
9J25051-CALA	50	326047	3.373	7.45
9J25051-CALB	50	283209	3.337	7.45

AVE RF **3.435** RF RSD **2.40** AVE RT **7.45**

Dibromomethane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~64~~	~~0.372~~	~~0.00~~
9J25051-CAL2	0.2	165	0.506	7.89
9J25051-CAL3	0.4	364	0.580	7.89
9J25051-CAL4	1	1159	0.660	7.88
9J25051-CAL5	2	2084	0.681	7.89
9J25051-CAL6	5	5847	0.694	7.88
9J25051-CAL7	10	13281	0.699	7.88
9J25051-CAL8	20	23918	0.690	7.89
9J25051-CAL9	50	61052	0.643	7.88
9J25051-CALA	100	129476	0.670	7.88
9J25051-CALB	200	239485	0.705	7.88

AVE RF **0.653** RF RSD **9.69** AVE RT **7.88**

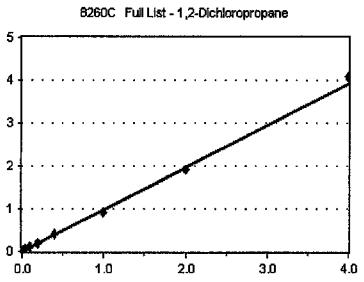
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

1,2-Dichloropropane

Curve Fit: **AVERAGE RF**

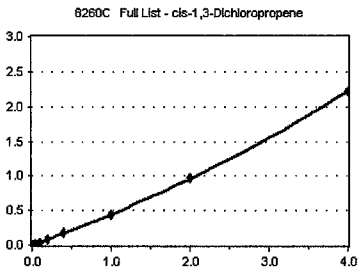


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	158	0.918	8.00
9J25051-CAL2	0.2	327	1.003	8.00
9J25051-CAL3	0.4	585	0.933	7.99
9J25051-CAL4	1	1670	0.951	8.00
9J25051-CAL5	2	3229	1.055	8.00
9J25051-CAL6	5	8575	1.018	8.00
9J25051-CAL7	10	19019	1.001	8.00
9J25051-CAL8	20	35146	1.013	8.00
9J25051-CAL9	50	87924	0.926	8.00
9J25051-CALA	100	186244	0.963	8.00
9J25051-CALB	200	345874	1.019	8.00

AVE RF **0.982** RF RSD **4.65** AVE RT **8.00**

cis-1,3-Dichloropropene

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

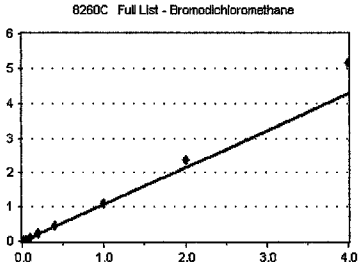


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	120	0.228	0.00
9J25051-CAL2	0.2	237	0.239	8.80
9J25051-CAL3	0.4	512	0.270	8.81
9J25051-CAL4	1	1512	0.284	8.80
9J25051-CAL5	2	3075	0.336	8.80
9J25051-CAL6	5	8925	0.358	8.80
9J25051-CAL7	10	22428	0.400	8.80
9J25051-CAL8	20	44754	0.442	8.80
9J25051-CAL9	50	122277	0.442	8.79
9J25051-CALA	100	272691	0.486	8.79
9J25051-CALB	200	524872	0.553	8.80

AVE RF **0.367** RF RSD **29.10** AVE RT **8.00**

Bromodichloromethane

Curve Fit: **AVERAGE RF**

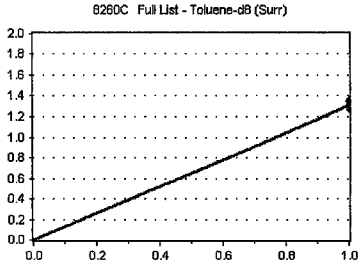


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	281	0.862	8.07
9J25051-CAL3	0.4	561	0.894	8.08
9J25051-CAL4	1	1774	1.010	8.08
9J25051-CAL5	2	3272	1.069	8.07
9J25051-CAL6	5	9117	1.083	8.08
9J25051-CAL7	10	20600	1.084	8.08
9J25051-CAL8	20	38970	1.124	8.08
9J25051-CAL9	50	103483	1.090	8.08
9J25051-CALA	100	228141	1.180	8.08
9J25051-CALB	200	436572	1.286	8.08

AVE RF **1.068** RF RSD **11.68** AVE RT **8.08**

Toluene-d8 (Surr)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	340973	1.297	8.99
9J25051-CAL2	50	320375	1.291	8.99
9J25051-CAL3	50	309475	1.307	8.99
9J25051-CAL4	50	348152	1.306	8.99
9J25051-CAL5	50	296218	1.295	8.99
9J25051-CAL6	50	321703	1.291	8.99
9J25051-CAL7	50	362985	1.295	8.99
9J25051-CAL8	50	329731	1.302	8.99
9J25051-CAL9	50	358348	1.294	8.99
9J25051-CALA	50	367797	1.310	8.99
9J25051-CALB	50	320536	1.352	9.00

AVE RF **1.304** RF RSD **1.32** AVE RT **8.99**

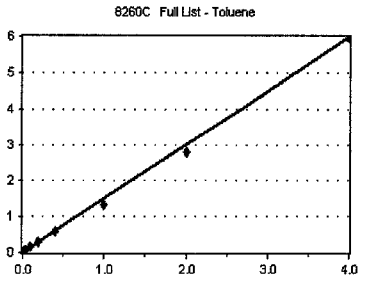
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

Toluene

Curve Fit: **AVERAGE RF**

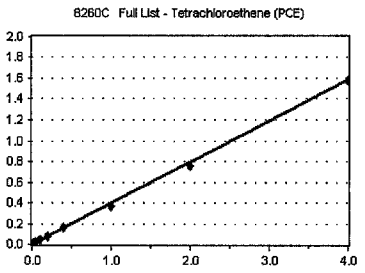


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	991	1.884	9.05
9J25051-CAL2	0.2	1534	1.545	9.05
9J25051-CAL3	0.4	2717	1.435	9.05
9J25051-CAL4	1	7737	1.451	9.04
9J25051-CAL5	2	13799	1.508	9.04
9J25051-CAL6	5	37021	1.486	9.04
9J25051-CAL7	10	81964	1.463	9.04
9J25051-CAL8	20	148631	1.467	9.04
9J25051-CAL9	50	371837	1.343	9.04
9J25051-CALA	100	781810	1.392	9.04
9J25051-CALB	200	1414184	1.491	9.04

AVE RF **1.497** RF RSD **9.34** AVE RT **9.05**

Tetrachloroethene (PCE)

Curve Fit: **AVERAGE RF**

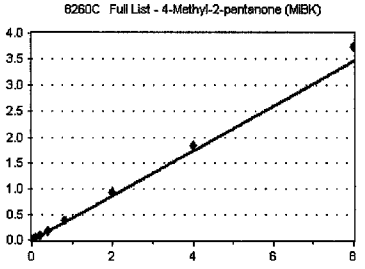


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	215	0.409	9.44
9J25051-CAL2	0.2	428	0.431	9.43
9J25051-CAL3	0.4	724	0.382	9.44
9J25051-CAL4	1	2028	0.380	9.44
9J25051-CAL5	2	3761	0.411	9.43
9J25051-CAL6	5	10200	0.409	9.43
9J25051-CAL7	10	22594	0.403	9.43
9J25051-CAL8	20	40323	0.398	9.43
9J25051-CAL9	50	102842	0.371	9.43
9J25051-CALA	100	212731	0.379	9.43
9J25051-CALB	200	374693	0.395	9.43

AVE RF **0.397** RF RSD **4.49** AVE RT **9.44**

4-Methyl-2-pentanone (MiBK)

Curve Fit: **AVERAGE RF**

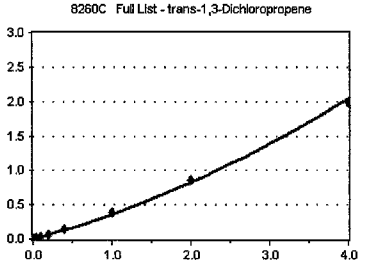


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.2~~	~~316~~	~~0.300~~	~~9.45~~
~~9J25051-CAL2~~	~~0.4~~	~~661~~	~~0.333~~	~~9.44~~
9J25051-CAL3	0.8	1338	0.353	9.45
9J25051-CAL4	2	3944	0.370	9.44
9J25051-CAL5	4	7750	0.424	9.44
9J25051-CAL6	10	21651	0.434	9.44
9J25051-CAL7	20	50335	0.449	9.44
9J25051-CAL8	40	98178	0.484	9.43
9J25051-CAL9	100	254574	0.460	9.43
9J25051-CALA	200	518207	0.461	9.43
9J25051-CALB	400	885884	0.467	9.43

AVE RF **0.434** RF RSD **10.32** AVE RT **9.44**

trans-1,3-Dichloropropene

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



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	211	0.213	9.48
9J25051-CAL3	0.4	400	0.211	9.48
9J25051-CAL4	1	1296	0.243	9.47
9J25051-CAL5	2	2554	0.279	9.47
9J25051-CAL6	5	7875	0.316	9.47
9J25051-CAL7	10	19307	0.345	9.47
9J25051-CAL8	20	37931	0.374	9.47
9J25051-CAL9	50	107286	0.387	9.47
9J25051-CALA	100	242090	0.431	9.47
9J25051-CALB	200	467620	0.493	9.47

AVE RF **0.329** RF RSD **28.73** AVE RT **9.47**

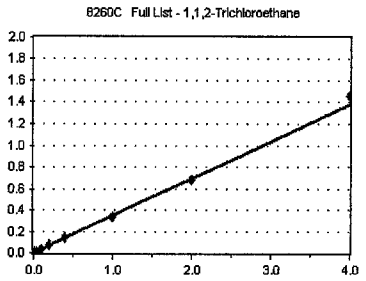
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

1,1,2-Trichloroethane

Curve Fit: **AVERAGE RF**

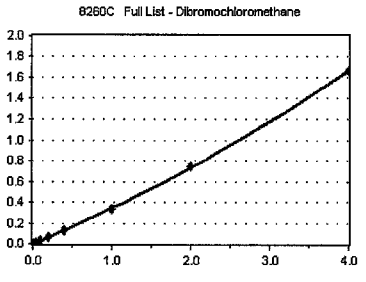


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	163	0.310	9.63
9J25051-CAL2	0.2	312	0.314	9.64
9J25051-CAL3	0.4	608	0.321	9.62
9J25051-CAL4	1	1761	0.330	9.62
9J25051-CAL5	2	3489	0.381	9.63
9J25051-CAL6	5	9239	0.371	9.62
9J25051-CAL7	10	20512	0.366	9.62
9J25051-CAL8	20	36821	0.363	9.62
9J25051-CAL9	50	91931	0.332	9.62
9J25051-CALA	100	191781	0.341	9.62
9J25051-CALB	200	346944	0.366	9.62

AVE RF **0.345** RF RSD **7.30** AVE RT **9.63**

Dibromochloromethane

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

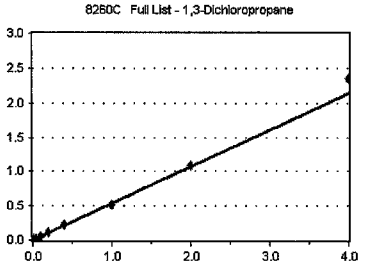


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~42~~	~~7.985~~	~~0.00~~
9J25051-CAL2	0.2	181	0.182	9.79
9J25051-CAL3	0.4	425	0.224	9.79
9J25051-CAL4	1	1298	0.243	9.79
9J25051-CAL5	2	2572	0.281	9.79
9J25051-CAL6	5	7461	0.299	9.79
9J25051-CAL7	10	17581	0.314	9.79
9J25051-CAL8	20	33811	0.334	9.79
9J25051-CAL9	50	93162	0.336	9.79
9J25051-CALA	100	208257	0.371	9.79
9J25051-CALB	200	394459	0.416	9.79

AVE RF **0.300** RF RSD **23.35** AVE RT **9.79**

1,3-Dichloropropane

Curve Fit: **AVERAGE RF**

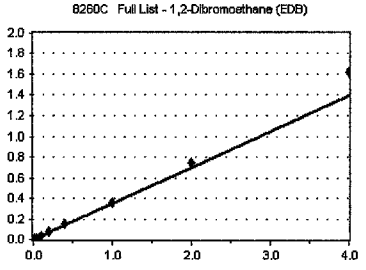


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	265	0.504	9.88
9J25051-CAL2	0.2	464	0.467	9.88
9J25051-CAL3	0.4	881	0.465	9.88
9J25051-CAL4	1	2761	0.518	9.88
9J25051-CAL5	2	5172	0.565	9.88
9J25051-CAL6	5	14110	0.566	9.88
9J25051-CAL7	10	31655	0.565	9.88
9J25051-CAL8	20	57259	0.565	9.88
9J25051-CAL9	50	144038	0.520	9.88
9J25051-CALA	100	305571	0.544	9.88
9J25051-CALB	200	557771	0.588	9.88

AVE RF **0.533** RF RSD **7.84** AVE RT **9.88**

1,2-Dibromoethane (EDB)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	286	0.288	10.01
9J25051-CAL3	0.4	559	0.295	10.01
9J25051-CAL4	1	1647	0.309	10.01
9J25051-CAL5	2	3150	0.344	10.01
9J25051-CAL6	5	9131	0.366	10.01
9J25051-CAL7	10	20378	0.364	10.01
9J25051-CAL8	20	38181	0.377	10.00
9J25051-CAL9	50	98185	0.355	10.00
9J25051-CALA	100	208836	0.372	10.00
9J25051-CALB	200	384667	0.406	10.01

AVE RF **0.348** RF RSD **11.05** AVE RT **10.01**

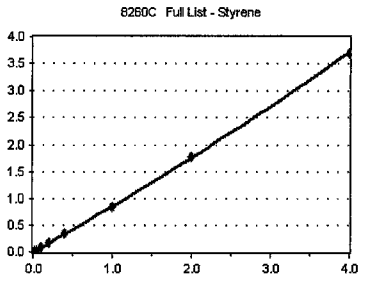
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

Styrene

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

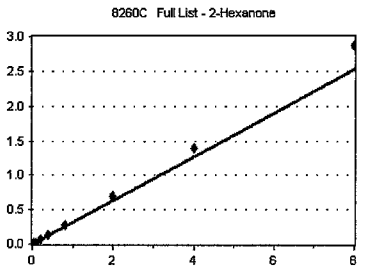


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	224	0.426	0.00
9J25051-CAL2	0.2	473	0.477	11.02
9J25051-CAL3	0.4	899	0.475	11.02
9J25051-CAL4	1	2917	0.547	11.01
9J25051-CAL5	2	6029	0.659	11.01
9J25051-CAL6	5	19241	0.772	11.01
9J25051-CAL7	10	46210	0.825	11.01
9J25051-CAL8	20	88408	0.873	11.01
9J25051-CAL9	50	234659	0.847	11.01
9J25051-CALA	100	496713	0.884	11.01
9J25051-CALB	200	878618	0.926	11.01

AVE RF **0.701** RF RSD **27.01** AVE RT **10.01**

2-Hexanone

Curve Fit: **AVERAGE RF**

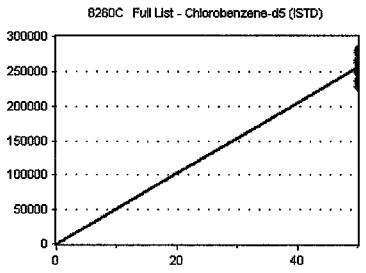


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.4~~	~~303~~	~~0.153~~	~~10.22~~
~~9J25051-CAL3~~	~~0.8~~	~~717~~	~~0.189~~	~~10.21~~
9J25051-CAL4	2	2488	0.233	10.21
9J25051-CAL5	4	5003	0.273	10.21
9J25051-CAL6	10	14919	0.299	10.21
9J25051-CAL7	20	35393	0.316	10.21
9J25051-CAL8	40	71710	0.354	10.21
9J25051-CAL9	100	193352	0.349	10.21
9J25051-CALA	200	392003	0.349	10.21
9J25051-CALB	400	679397	0.358	10.21

AVE RF **0.316** RF RSD **14.29** AVE RT **10.21**

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**

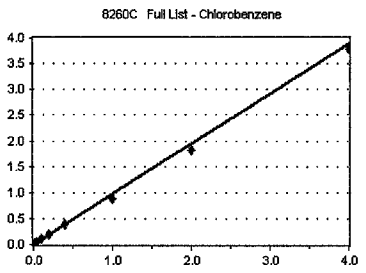


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	262978	5259.560	10.45
9J25051-CAL2	50	248140	4962.800	10.45
9J25051-CAL3	50	236751	4735.020	10.45
9J25051-CAL4	50	266623	5332.460	10.45
9J25051-CAL5	50	228711	4574.220	10.45
9J25051-CAL6	50	249179	4983.580	10.45
9J25051-CAL7	50	280212	5604.240	10.45
9J25051-CAL8	50	253314	5066.280	10.45
9J25051-CAL9	50	276912	5538.240	10.45
9J25051-CALA	50	280815	5616.300	10.45
9J25051-CALB	50	237104	4742.080	10.45

AVE RF **5128.616** RF RSD **7.18** AVE RT **10.45**

Chlorobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	553	1.051	10.47
9J25051-CAL2	0.2	977	0.984	10.46
9J25051-CAL3	0.4	1806	0.954	10.47
9J25051-CAL4	1	5325	0.999	10.47
9J25051-CAL5	2	9394	1.027	10.46
9J25051-CAL6	5	25125	1.008	10.47
9J25051-CAL7	10	54921	0.980	10.47
9J25051-CAL8	20	98998	0.977	10.47
9J25051-CAL9	50	247035	0.892	10.47
9J25051-CALA	100	511165	0.910	10.47
9J25051-CALB	200	897555	0.946	10.47

AVE RF **0.975** RF RSD **4.88** AVE RT **10.47**

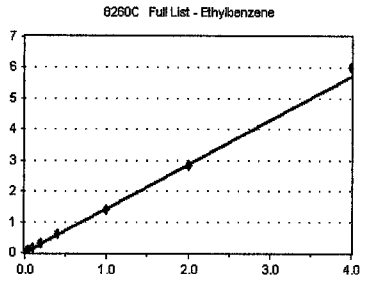
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

Ethylbenzene

Curve Fit: **AVERAGE RF**

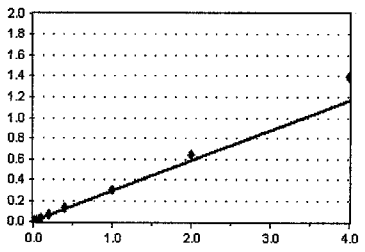


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	756	1.437	10.49
9J25051-CAL2	0.2	1384	1.394	10.49
9J25051-CAL3	0.4	2478	1.308	10.49
9J25051-CAL4	1	7230	1.356	10.49
9J25051-CAL5	2	13598	1.486	10.49
9J25051-CAL6	5	37238	1.494	10.49
9J25051-CAL7	10	82267	1.468	10.49
9J25051-CAL8	20	150206	1.482	10.49
9J25051-CAL9	50	384473	1.388	10.49
9J25051-CALA	100	801122	1.426	10.49
9J25051-CALB	200	1424477	1.502	10.49

AVE RF **1.431** RF RSD **4.42** AVE RT **10.49**

1,1,1,2-Tetrachloroethane

Curve Fit: **AVERAGE RF**

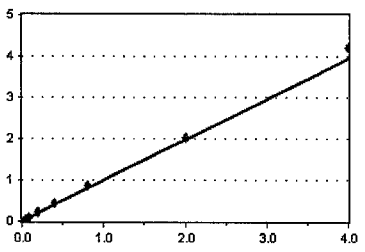


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	228	0.230	10.53
9J25051-CAL3	0.4	486	0.257	10.53
9J25051-CAL4	1	1443	0.271	10.52
9J25051-CAL5	2	2578	0.282	10.53
9J25051-CAL6	5	7365	0.296	10.53
9J25051-CAL7	10	17260	0.308	10.53
9J25051-CAL8	20	31571	0.312	10.53
9J25051-CAL9	50	84064	0.304	10.53
9J25051-CALA	100	180354	0.321	10.53
9J25051-CALB	200	330493	0.348	10.53

AVE RF **0.293** RF RSD **11.68** AVE RT **10.52**

m,p-Xylene

Curve Fit: **AVERAGE RF**

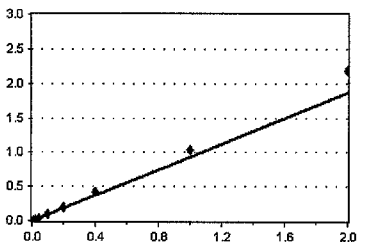


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.2~~	~~920~~	~~0.875~~	~~10.62~~
~~9J25051-CAL2~~	~~0.4~~	~~1670~~	~~0.841~~	~~10.62~~
9J25051-CAL3	0.8	3107	0.820	10.62
9J25051-CAL4	2	9040	0.848	10.61
9J25051-CAL5	4	17637	0.964	10.62
9J25051-CAL6	10	51157	1.027	10.61
9J25051-CAL7	20	117957	1.052	10.61
9J25051-CAL8	40	220983	1.090	10.61
9J25051-CAL9	100	564636	1.020	10.61
9J25051-CALA	200	1184446	1.054	10.61
~~9J25051-CALB~~	~~400~~	~~2061112~~	~~1.087~~	~~10.61~~

AVE RF **0.984** RF RSD **10.15** AVE RT **10.61**

o-Xylene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~378~~	~~0.719~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~748~~	~~0.754~~	~~10.97~~
9J25051-CAL3	0.4	1387	0.732	10.97
9J25051-CAL4	1	4144	0.777	10.97
9J25051-CAL5	2	7805	0.853	10.97
9J25051-CAL6	5	23185	0.930	10.97
9J25051-CAL7	10	54341	0.970	10.97
9J25051-CAL8	20	107127	1.057	10.97
9J25051-CAL9	50	288059	1.040	10.97
9J25051-CALA	100	616887	1.098	10.97
~~9J25051-CALB~~	~~200~~	~~1108926~~	~~1.169~~	~~10.97~~

AVE RF **0.932** RF RSD **14.42** AVE RT **10.97**

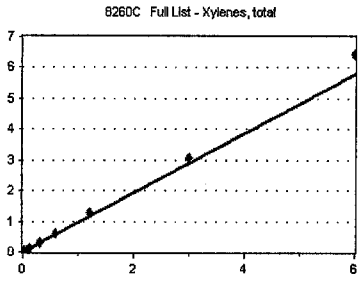
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

Xylenes, total

Curve Fit: **AVERAGE RF**

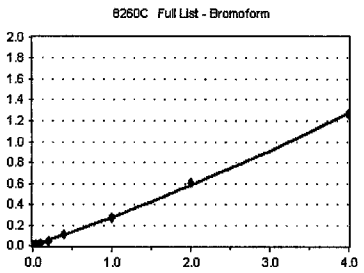


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.3~~	~~1298~~	~~0.823~~	~~10.62~~
~~9J25051-CAL2~~	~~0.6~~	~~2418~~	~~0.812~~	~~10.97~~
9J25051-CAL3	1.2	4494	0.791	10.97
9J25051-CAL4	3	13184	0.824	10.97
9J25051-CAL5	6	25442	0.927	10.97
9J25051-CAL6	15	74342	0.994	10.97
9J25051-CAL7	30	172298	1.025	10.97
9J25051-CAL8	60	328110	1.079	10.97
9J25051-CAL9	150	852695	1.026	10.97
9J25051-CALA	300	1801333	1.069	10.97
~~9J25051-CALB~~	~~600~~	~~3170038~~	~~1.114~~	~~10.97~~

AVE RF **0.967** RF RSD **11.31** AVE RT **10.97**

Bromoform

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

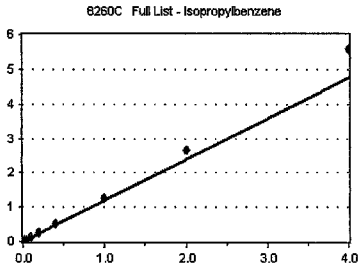


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	134	0.135	11.04
9J25051-CAL3	0.4	316	0.167	11.04
9J25051-CAL4	1	931	0.175	11.04
9J25051-CAL5	2	1883	0.206	11.04
9J25051-CAL6	5	5513	0.221	11.04
9J25051-CAL7	10	13109	0.234	11.04
9J25051-CAL8	20	26373	0.260	11.04
9J25051-CAL9	50	75820	0.274	11.04
9J25051-CALA	100	169206	0.301	11.04
9J25051-CALB	200	299993	0.316	11.04

AVE RF **0.229** RF RSD **26.09** AVE RT **11.04**

Isopropylbenzene

Curve Fit: **AVERAGE RF**

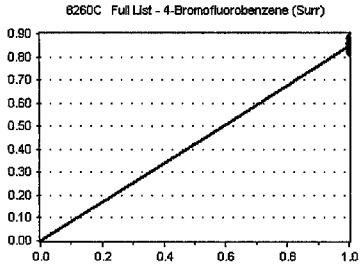


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~392~~	~~0.745~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~829~~	~~0.835~~	~~11.22~~
~~9J25051-CAL3~~	~~0.4~~	~~1525~~	~~0.805~~	~~11.22~~
9J25051-CAL4	1	4739	0.889	11.22
9J25051-CAL5	2	9314	1.018	11.22
9J25051-CAL6	5	28750	1.154	11.22
9J25051-CAL7	10	68642	1.225	11.22
9J25051-CAL8	20	131792	1.301	11.22
9J25051-CAL9	50	349766	1.263	11.22
9J25051-CALA	100	744896	1.326	11.22
9J25051-CALB	200	1319857	1.392	11.22

AVE RF **1.196** RF RSD **14.11** AVE RT **11.22**

4-Bromofluorobenzene (Surr)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	110058	0.854	11.45
9J25051-CAL2	50	103556	0.843	11.45
9J25051-CAL3	50	97363	0.833	11.45
9J25051-CAL4	50	112252	0.832	11.45
9J25051-CAL5	50	93974	0.822	11.45
9J25051-CAL6	50	105208	0.837	11.45
9J25051-CAL7	50	119477	0.842	11.45
9J25051-CAL8	50	107703	0.837	11.45
9J25051-CAL9	50	121264	0.846	11.45
9J25051-CALA	50	124225	0.859	11.45
9J25051-CALB	50	102899	0.882	11.45

AVE RF **0.844** RF RSD **1.92** AVE RT **11.45**

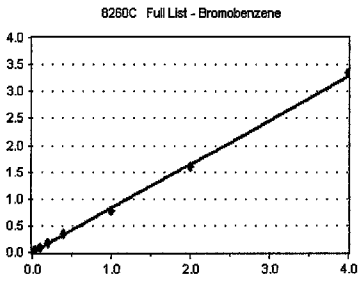
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

Bromobenzene

Curve Fit: **AVERAGE RF**

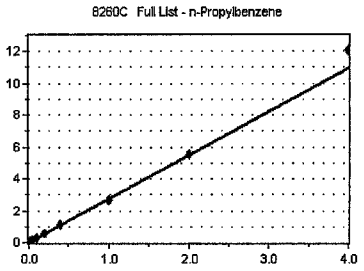


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	212	0.823	11.53
9J25051-CAL2	0.2	389	0.792	11.53
9J25051-CAL3	0.4	732	0.783	11.53
9J25051-CAL4	1	2221	0.824	11.53
9J25051-CAL5	2	3862	0.844	11.53
9J25051-CAL6	5	10809	0.860	11.53
9J25051-CAL7	10	23997	0.846	11.53
9J25051-CAL8	20	43790	0.851	11.53
9J25051-CAL9	50	111875	0.781	11.53
9J25051-CALA	100	230853	0.798	11.53
9J25051-CALB	200	391986	0.840	11.53

AVE RF **0.822** RF RSD **3.52** AVE RT **11.53**

n-Propylbenzene

Curve Fit: **AVERAGE RF**

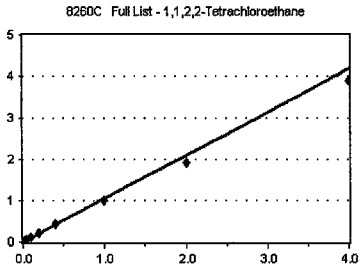


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	703	2.728	11.54
9J25051-CAL2	0.2	1268	2.581	11.54
9J25051-CAL3	0.4	2261	2.417	11.54
9J25051-CAL4	1	6998	2.595	11.54
9J25051-CAL5	2	13043	2.852	11.54
9J25051-CAL6	5	35745	2.843	11.54
9J25051-CAL7	10	80330	2.831	11.54
9J25051-CAL8	20	148949	2.894	11.54
9J25051-CAL9	50	381465	2.661	11.54
9J25051-CALA	100	803869	2.780	11.54
9J25051-CALB	200	1412751	3.027	11.54

AVE RF **2.746** RF RSD **6.26** AVE RT **11.54**

1,1,2,2-Tetrachloroethane

Curve Fit: **AVERAGE RF**

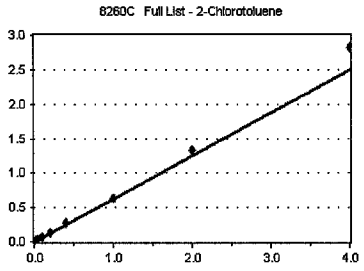


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	251	0.974	11.60
9J25051-CAL2	0.2	488	0.993	11.60
9J25051-CAL3	0.4	967	1.034	11.60
9J25051-CAL4	1	2820	1.046	11.60
9J25051-CAL5	2	5527	1.209	11.60
9J25051-CAL6	5	14004	1.114	11.60
9J25051-CAL7	10	31762	1.119	11.60
9J25051-CAL8	20	56394	1.096	11.60
9J25051-CAL9	50	142222	0.992	11.60
9J25051-CALA	100	276789	0.957	11.60
9J25051-CALB	200	454028	0.973	11.60

AVE RF **1.046** RF RSD **7.59** AVE RT **11.60**

2-Chlorotoluene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~96~~	~~0.373~~	~~0.00~~
9J25051-CAL2	0.2	243	0.495	11.67
9J25051-CAL3	0.4	481	0.514	11.67
9J25051-CAL4	1	1659	0.615	11.67
9J25051-CAL5	2	2896	0.633	11.67
9J25051-CAL6	5	8212	0.653	11.67
9J25051-CAL7	10	18857	0.665	11.67
9J25051-CAL8	20	34740	0.675	11.67
9J25051-CAL9	50	90597	0.632	11.67
9J25051-CALA	100	191643	0.663	11.67
9J25051-CALB	200	329426	0.706	11.67

AVE RF **0.625** RF RSD **10.97** AVE RT **11.67**

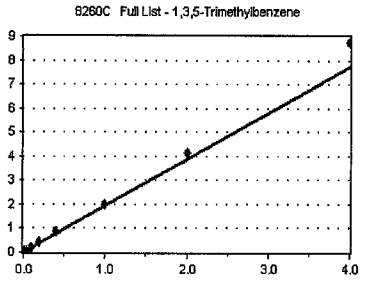
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

1,3,5-Trimethylbenzene

Curve Fit: **AVERAGE RF**

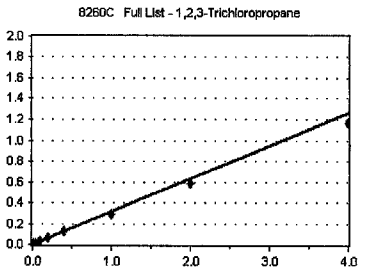


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~347~~	~~1.347~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~719~~	~~1.464~~	~~11.69~~
9J25051-CAL3	0.4	1388	1.484	11.69
9J25051-CAL4	1	4147	1.538	11.69
9J25051-CAL5	2	8326	1.821	11.69
9J25051-CAL6	5	25171	2.002	11.69
9J25051-CAL7	10	60626	2.137	11.69
9J25051-CAL8	20	112417	2.184	11.69
9J25051-CAL9	50	287885	2.009	11.69
9J25051-CALA	100	599123	2.072	11.69
9J25051-CALB	200	1024588	2.195	11.69

AVE RF **1.938** RF RSD **13.82** AVE RT **11.69**

1,2,3-Trichloropropane

Curve Fit: **AVERAGE RF**

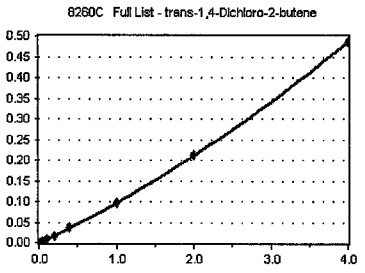


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	154	0.313	11.71
9J25051-CAL3	0.4	290	0.310	11.70
9J25051-CAL4	1	889	0.330	11.71
9J25051-CAL5	2	1624	0.355	11.71
9J25051-CAL6	5	4250	0.338	11.71
9J25051-CAL7	10	9293	0.328	11.71
9J25051-CAL8	20	16623	0.323	11.71
9J25051-CAL9	50	42315	0.295	11.71
9J25051-CALA	100	84503	0.292	11.71
9J25051-CALB	200	135722	0.291	11.71

AVE RF **0.317** RF RSD **6.67** AVE RT **11.71**

trans-1,4-Dichloro-2-butene

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

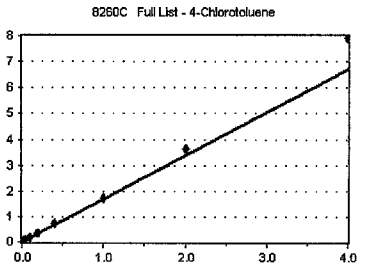


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL4	1	151	5.599	11.73
9J25051-CAL5	2	314	6.866	11.74
9J25051-CAL6	5	920	0.073	11.74
9J25051-CAL7	10	2243	7.905	11.74
9J25051-CAL8	20	4774	9.275	11.74
9J25051-CAL9	50	13756	9.597	11.73
9J25051-CALA	100	31040	0.107	11.73
9J25051-CALB	200	56671	0.121	11.73

AVE RF **8.679** RF RSD **24.88** AVE RT **11.74**

4-Chlorotoluene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	380	1.475	11.80
9J25051-CAL2	0.2	709	1.443	11.80
9J25051-CAL3	0.4	1263	1.350	11.80
9J25051-CAL4	1	4167	1.545	11.79
9J25051-CAL5	2	7775	1.700	11.79
9J25051-CAL6	5	22730	1.808	11.79
9J25051-CAL7	10	51031	1.799	11.79
9J25051-CAL8	20	94606	1.838	11.79
9J25051-CAL9	50	246655	1.721	11.79
9J25051-CALA	100	522158	1.806	11.79
9J25051-CALB	200	925899	1.984	11.79

AVE RF **1.679** RF RSD **11.77** AVE RT **11.79**

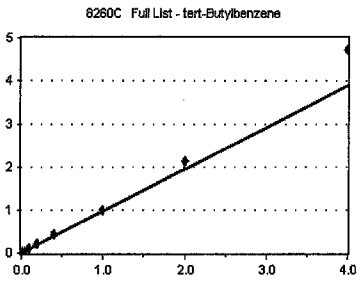
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

tert-Butylbenzene

Curve Fit: **AVERAGE RF**

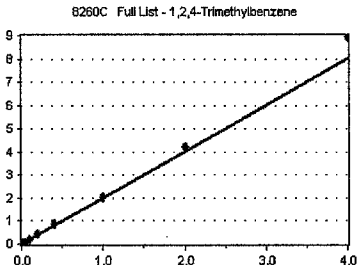


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~160~~	~~0.621~~	~~0.00~~
9J25051-CAL2	0.2	398	0.810	11.93
9J25051-CAL3	0.4	728	0.778	11.93
9J25051-CAL4	1	2301	0.853	11.93
9J25051-CAL5	2	4363	0.954	11.93
9J25051-CAL6	5	12557	0.999	11.93
9J25051-CAL7	10	28831	1.016	11.93
9J25051-CAL8	20	54853	1.066	11.93
9J25051-CAL9	50	144949	1.011	11.93
9J25051-CALA	100	309424	1.070	11.93
9J25051-CALB	200	552713	1.184	11.93

AVE RF **0.974** RF RSD **13.06** AVE RT **11.93**

1,2,4-Trimethylbenzene

Curve Fit: **AVERAGE RF**

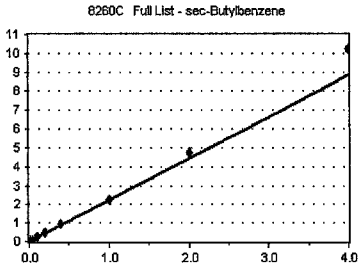


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~385~~	~~1.494~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~700~~	~~1.425~~	~~11.98~~
~~9J25051-CAL3~~	~~0.4~~	~~1235~~	~~1.320~~	~~11.98~~
9J25051-CAL4	1	3979	1.475	11.98
9J25051-CAL5	2	7870	1.721	11.98
9J25051-CAL6	5	25589	2.035	11.98
9J25051-CAL7	10	62151	2.190	11.98
9J25051-CAL8	20	115215	2.238	11.98
9J25051-CAL9	50	293788	2.050	11.98
9J25051-CALA	100	612078	2.117	11.98
9J25051-CALB	200	1045289	2.240	11.98

AVE RF **2.008** RF RSD **13.58** AVE RT **11.98**

sec-Butylbenzene

Curve Fit: **AVERAGE RF**

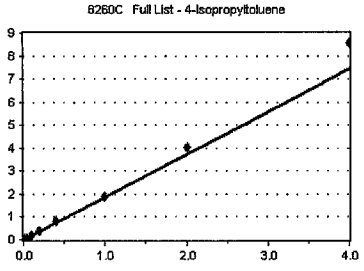


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~435~~	~~1.688~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~773~~	~~1.574~~	~~12.07~~
9J25051-CAL3	0.4	1554	1.661	12.06
9J25051-CAL4	1	5081	1.884	12.06
9J25051-CAL5	2	9664	2.113	12.06
9J25051-CAL6	5	29229	2.325	12.06
9J25051-CAL7	10	66926	2.359	12.06
9J25051-CAL8	20	124647	2.422	12.06
9J25051-CAL9	50	321962	2.246	12.06
9J25051-CALA	100	687152	2.376	12.06
9J25051-CALB	200	1192215	2.554	12.06

AVE RF **2.216** RF RSD **12.81** AVE RT **12.06**

4-Isopropyltoluene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~323~~	~~1.253~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~591~~	~~1.203~~	~~12.17~~
~~9J25051-CAL3~~	~~0.4~~	~~1094~~	~~1.170~~	~~12.17~~
9J25051-CAL4	1	3769	1.398	12.17
9J25051-CAL5	2	7387	1.615	12.17
9J25051-CAL6	5	23158	1.842	12.17
9J25051-CAL7	10	55590	1.959	12.17
9J25051-CAL8	20	105070	2.041	12.17
9J25051-CAL9	50	273920	1.911	12.17
9J25051-CALA	100	583941	2.019	12.17
9J25051-CALB	200	1001166	2.145	12.17

AVE RF **1.866** RF RSD **13.21** AVE RT **12.17**

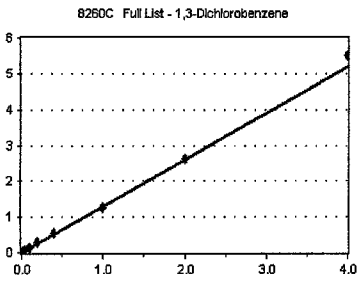
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

1,3-Dichlorobenzene

Curve Fit: **AVERAGE RF**

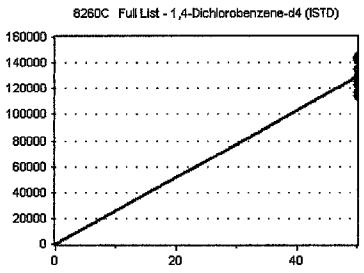


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	309	1.199	12.24
9J25051-CAL2	0.2	622	1.266	12.24
9J25051-CAL3	0.4	1072	1.146	12.24
9J25051-CAL4	1	3266	1.211	12.24
9J25051-CAL5	2	6240	1.364	12.24
9J25051-CAL6	5	17620	1.401	12.24
9J25051-CAL7	10	39173	1.381	12.24
9J25051-CAL8	20	70439	1.369	12.24
9J25051-CAL9	50	182204	1.271	12.24
9J25051-CALA	100	382076	1.321	12.24
9J25051-CALB	200	641529	1.374	12.24

AVE RF **1.300** RF RSD **6.68** AVE RT **12.24**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**

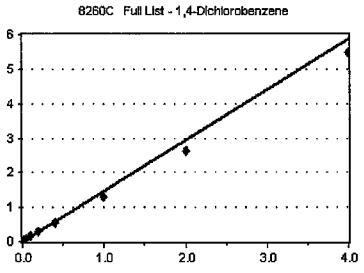


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	128844	2576.880	12.29
9J25051-CAL2	50	122815	2456.300	12.29
9J25051-CAL3	50	116929	2338.580	12.29
9J25051-CAL4	50	134840	2696.800	12.29
9J25051-CAL5	50	114333	2286.660	12.29
9J25051-CAL6	50	125726	2514.520	12.29
9J25051-CAL7	50	141868	2837.360	12.29
9J25051-CAL8	50	128679	2573.580	12.29
9J25051-CAL9	50	143329	2866.580	12.29
9J25051-CALA	50	144590	2891.800	12.29
9J25051-CALB	50	116686	2333.720	12.29

AVE RF **2579.344** RF RSD **8.53** AVE RT **12.29**

1,4-Dichlorobenzene

Curve Fit: **AVERAGE RF**

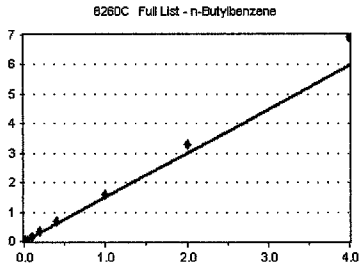


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	450	1.746	12.31
9J25051-CAL2	0.2	808	1.645	12.30
9J25051-CAL3	0.4	1394	1.490	12.31
9J25051-CAL4	1	3909	1.449	12.31
9J25051-CAL5	2	6942	1.518	12.31
9J25051-CAL6	5	18805	1.496	12.31
9J25051-CAL7	10	40327	1.421	12.31
9J25051-CAL8	20	71878	1.396	12.31
9J25051-CAL9	50	184746	1.289	12.31
9J25051-CALA	100	380389	1.315	12.31
9J25051-CALB	200	639760	1.371	12.31

AVE RF **1.467** RF RSD **9.27** AVE RT **12.30**

n-Butylbenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~309~~	~~1.199~~	~~0.00~~
9J25051-CAL2	0.2	574	1.168	12.49
9J25051-CAL3	0.4	1096	1.172	12.49
9J25051-CAL4	1	3461	1.283	12.49
9J25051-CAL5	2	6447	1.410	12.49
9J25051-CAL6	5	19439	1.546	12.49
9J25051-CAL7	10	47013	1.657	12.49
9J25051-CAL8	20	88503	1.719	12.49
9J25051-CAL9	50	225454	1.573	12.48
9J25051-CALA	100	474858	1.642	12.49
9J25051-CALB	200	806750	1.728	12.49

AVE RF **1.490** RF RSD **14.58** AVE RT **12.49**

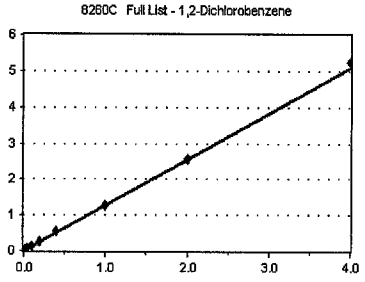
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

1,2-Dichlorobenzene

Curve Fit: **AVERAGE RF**

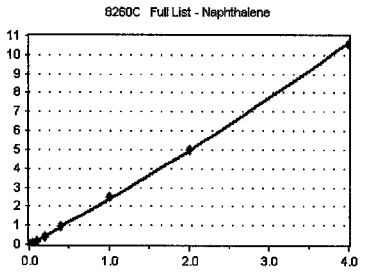


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	309	1.199	12.64
9J25051-CAL2	0.2	584	1.189	12.64
9J25051-CAL3	0.4	1052	1.125	12.63
9J25051-CAL4	1	3393	1.258	12.64
9J25051-CAL5	2	6204	1.357	12.64
9J25051-CAL6	5	16971	1.350	12.64
9J25051-CAL7	10	38505	1.357	12.64
9J25051-CAL8	20	69775	1.356	12.63
9J25051-CAL9	50	181138	1.264	12.63
9J25051-CALA	100	368271	1.274	12.63
9J25051-CALB	200	612148	1.312	12.63

AVE RF **1.276** RF RSD **6.22** AVE RT **12.63**

Naphthalene

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

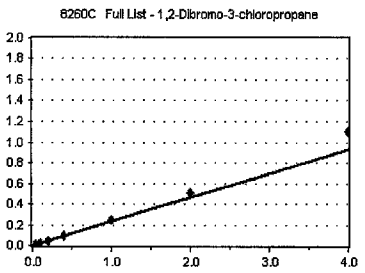


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	453	0.922	0.00
9J25051-CAL3	0.4	915	0.978	14.20
9J25051-CAL4	1	2843	1.054	14.20
9J25051-CAL5	2	5987	1.309	14.20
9J25051-CAL6	5	19030	1.514	14.20
9J25051-CAL7	10	56149	1.979	14.20
9J25051-CAL8	20	123502	2.399	14.20
9J25051-CAL9	50	357738	2.496	14.20
9J25051-CALA	100	723210	2.501	14.20
9J25051-CALB	200	1237338	2.651	14.20

AVE RF **1.780** RF RSD **39.33** AVE RT **12.78**

1,2-Dibromo-3-chloropropane

Curve Fit: **AVERAGE RF**

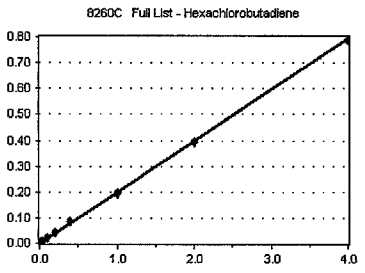


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~121~~	~~0.129~~	~~13.29~~
~~9J25051-CAL4~~	~~1~~	~~450~~	~~0.167~~	~~13.28~~
9J25051-CAL5	2	887	0.194	13.28
9J25051-CAL6	5	2511	0.200	13.28
9J25051-CAL7	10	6229	0.220	13.28
9J25051-CAL8	20	11935	0.232	13.28
9J25051-CAL9	50	35194	0.246	13.28
9J25051-CALA	100	72710	0.251	13.28
9J25051-CALB	200	128958	0.276	13.28

AVE RF **0.231** RF RSD **12.69** AVE RT **13.28**

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	0.4	161	0.172	13.83
9J25051-CAL4	1	499	0.185	13.83
9J25051-CAL5	2	925	0.202	13.83
9J25051-CAL6	5	2612	0.208	13.83
9J25051-CAL7	10	6191	0.218	13.83
9J25051-CAL8	20	11238	0.218	13.83
9J25051-CAL9	50	27912	0.195	13.83
9J25051-CALA	100	56850	0.197	13.83
9J25051-CALB	200	91693	0.196	13.83

AVE RF **0.199** RF RSD **7.49** AVE RT **13.83**

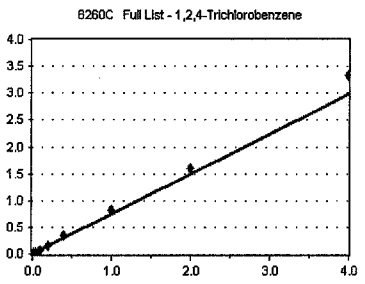
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VG191025W VG191025G**

1,2,4-Trichlorobenzene

Curve Fit: **AVERAGE RF**

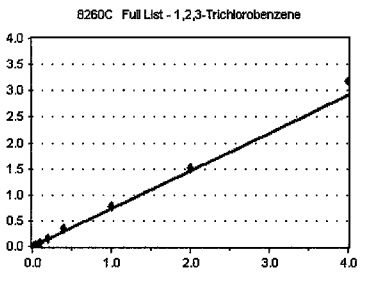


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~123~~	~~0.477~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~228~~	~~0.464~~	~~13.88~~
~~9J25051-CAL3~~	~~0.4~~	~~459~~	~~0.491~~	~~13.87~~
9J25051-CAL4	1	1602	0.594	13.87
9J25051-CAL5	2	2902	0.635	13.87
9J25051-CAL6	5	8550	0.680	13.87
9J25051-CAL7	10	22360	0.788	13.87
9J25051-CAL8	20	43365	0.843	13.87
9J25051-CAL9	50	116235	0.811	13.87
9J25051-CALA	100	230455	0.797	13.87
9J25051-CALB	200	388731	0.833	13.87

AVE RF **0.747** RF RSD **12.92** AVE RT **13.87**

1,2,3-Trichlorobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~188~~	~~0.383~~	~~14.40~~
~~9J25051-CAL3~~	~~0.4~~	~~435~~	~~0.465~~	~~14.40~~
9J25051-CAL4	1	1447	0.537	14.40
9J25051-CAL5	2	2863	0.626	14.40
9J25051-CAL6	5	8797	0.700	14.40
9J25051-CAL7	10	22886	0.807	14.40
9J25051-CAL8	20	43488	0.845	14.40
9J25051-CAL9	50	112370	0.784	14.40
9J25051-CALA	100	219631	0.759	14.40
9J25051-CALB	200	370994	0.795	14.40

AVE RF **0.732** RF RSD **14.26** AVE RT **14.40**

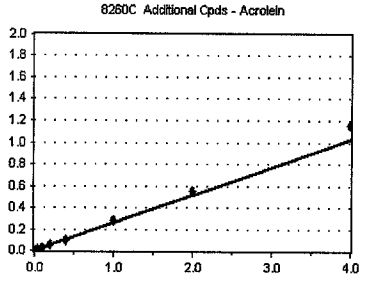
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Additional Cpds** Instrument Cal ID: **VG191025W VG191025G**

Acrolein

Curve Fit: **AVERAGE RF**

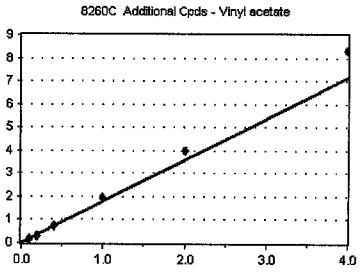


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL4	1	363	0.207	4.03
9J25051-CAL5	2	797	0.260	4.03
9J25051-CAL6	5	2034	0.242	4.04
9J25051-CAL7	10	4726	0.249	4.03
9J25051-CAL8	20	8799	0.254	4.03
9J25051-CAL9	50	26568	0.280	4.03
9J25051-CALA	100	53447	0.276	4.03
9J25051-CALB	200	98401	0.290	4.03

AVE RF **0.257** RF RSD **10.23** AVE RT **4.03**

Vinyl acetate

Curve Fit: **AVERAGE RF**

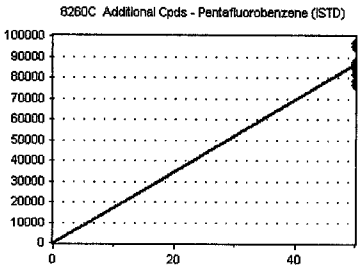


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL4~~	~~1~~	~~1655~~	~~0.942~~	~~5.53~~
~~9J25051-CAL5~~	~~2~~	~~3721~~	~~1.216~~	~~5.53~~
9J25051-CAL6	5	11730	1.393	5.53
9J25051-CAL7	10	29582	1.557	5.53
9J25051-CAL8	20	61236	1.766	5.53
9J25051-CAL9	50	183258	1.930	5.53
9J25051-CALA	100	384431	1.988	5.53
9J25051-CALB	200	704281	2.075	5.53

AVE RF **1.785** RF RSD **14.87** AVE RT **5.53**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

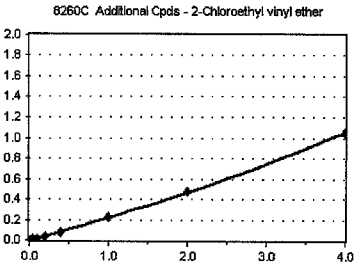


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	86062	1721.240	6.86
9J25051-CAL2	50	81493	1629.860	6.86
9J25051-CAL3	50	78410	1568.200	6.86
9J25051-CAL4	50	87837	1756.740	6.86
9J25051-CAL5	50	76501	1530.020	6.86
9J25051-CAL6	50	84206	1684.120	6.86
9J25051-CAL7	50	94987	1899.740	6.86
9J25051-CAL8	50	86706	1734.120	6.86
9J25051-CAL9	50	94974	1899.480	6.86
9J25051-CALA	50	96665	1933.300	6.86
9J25051-CALB	50	84871	1697.420	6.86

AVE RF **1732.204** RF RSD **7.72** AVE RT **6.86**

2-Chloroethyl vinyl ether

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



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	0.4	147	7.761	8.75
9J25051-CAL4	1	648	0.122	8.74
9J25051-CAL5	2	1287	0.141	8.74
9J25051-CAL6	5	3782	0.152	8.74
9J25051-CAL7	10	9286	0.166	8.74
9J25051-CAL8	20	20353	0.201	8.74
9J25051-CAL9	50	62426	0.225	8.74
9J25051-CALA	100	134625	0.240	8.74
9J25051-CALB	200	248016	0.262	8.74

AVE RF **0.176** RF RSD **34.20** AVE RT **8.74**

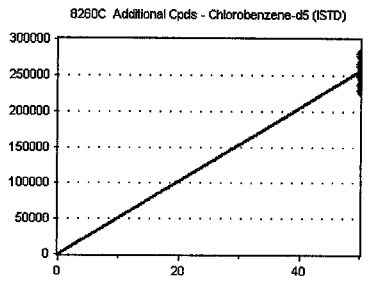
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Additional Cpds** Instrument Cal ID: **VG191025W VG191025G**

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	262978	5259.560	10.45
9J25051-CAL2	50	248140	4962.800	10.45
9J25051-CAL3	50	236751	4735.020	10.45
9J25051-CAL4	50	266623	5332.460	10.45
9J25051-CAL5	50	228711	4574.220	10.45
9J25051-CAL6	50	249179	4983.580	10.45
9J25051-CAL7	50	280212	5604.240	10.45
9J25051-CAL8	50	253314	5066.280	10.45
9J25051-CAL9	50	276912	5538.240	10.45
9J25051-CALA	50	280815	5616.300	10.45
9J25051-CALB	50	237104	4742.080	10.45

AVE RF **5128.616** RF RSD **7.18** AVE RT **10.45**

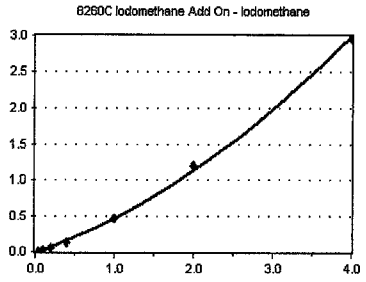
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Iodomethane Add On** Instrument Cal ID: **VG191025W VG191025G**

Iodomethane

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

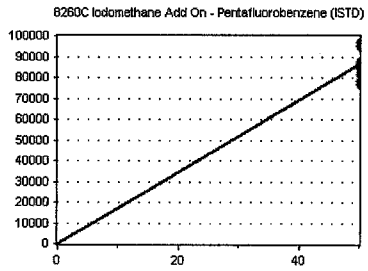


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL4~~	~~1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL5	2	448	0.146	3.75
9J25051-CAL6	5	1592	0.189	3.75
9J25051-CAL7	10	4581	0.241	3.75
9J25051-CAL8	20	11720	0.338	3.75
9J25051-CAL9	50	44167	0.465	3.75
9J25051-CALA	100	116589	0.603	3.75
9J25051-CALB	200	251532	0.741	3.75

AVE RF **0.389** RF RSD **57.35** AVE RT **3.75**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	86062	1721.240	6.86
9J25051-CAL2	50	81493	1629.860	6.86
9J25051-CAL3	50	78410	1568.200	6.86
9J25051-CAL4	50	87837	1756.740	6.86
9J25051-CAL5	50	76501	1530.020	6.86
9J25051-CAL6	50	84206	1684.120	6.86
9J25051-CAL7	50	94987	1899.740	6.86
9J25051-CAL8	50	86706	1734.120	6.86
9J25051-CAL9	50	94974	1899.480	6.86
9J25051-CALA	50	96665	1933.300	6.86
9J25051-CALB	50	84871	1697.420	6.86

AVE RF **1732.204** RF RSD **7.72** AVE RT **6.86**

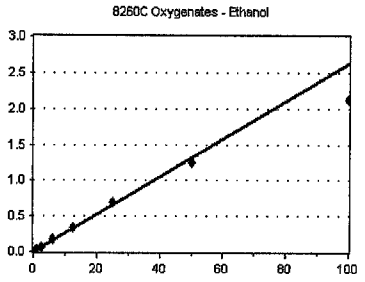
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VG191025W VG191025G**

Ethanol

Curve Fit: **AVERAGE RF**

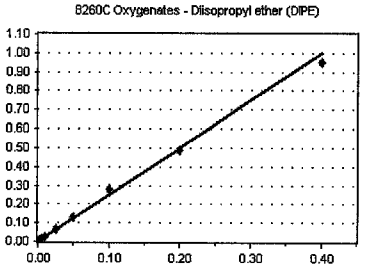


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~6.25~~	~~266~~	~~2.473~~	~~3.63~~
~~9J25051-CAL2~~	~~12.5~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	25	1029	2.625	3.63
9J25051-CAL4	62.5	2873	2.617	3.64
9J25051-CAL5	125	5504	2.878	3.63
9J25051-CAL6	312	14603	2.779	3.63
9J25051-CAL7	625	31930	0.027	3.63
9J25051-CAL8	1250	59872	0.028	3.64
9J25051-CAL9	2500	118949	2.505	3.63
9J25051-CALA	5000	205433	2.125	3.64

AVE RF **2.622** RF RSD **8.82** AVE RT **3.63**

Diisopropyl ether (DIPE)

Curve Fit: **AVERAGE RF**

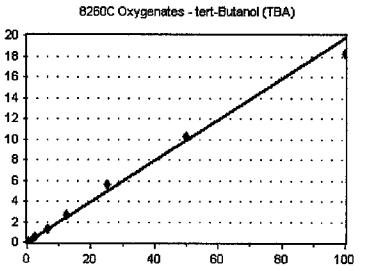


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	0.1	342	2.181	0.00
9J25051-CAL4	0.25	1029	2.343	5.11
9J25051-CAL5	0.5	2023	2.644	5.11
9J25051-CAL6	1.25	5485	2.606	5.11
9J25051-CAL7	2.5	12288	2.587	5.11
9J25051-CAL8	5	24122	2.782	5.11
9J25051-CAL9	10	46377	2.442	5.11
9J25051-CALA	20	91793	2.374	5.11

AVE RF **2.495** RF RSD **7.80** AVE RT **4.47**

tert-Butanol (TBA)

Curve Fit: **AVERAGE RF**

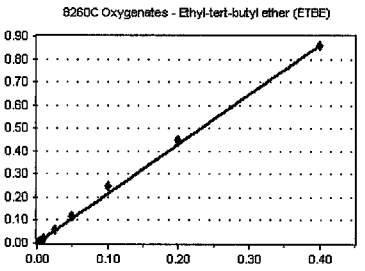


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	6.25	2096	0.195	4.83
9J25051-CAL2	12.5	3672	0.180	4.83
9J25051-CAL3	25	6902	0.176	4.83
9J25051-CAL4	62.5	19370	0.176	4.83
9J25051-CAL5	125	39779	0.208	4.82
9J25051-CAL6	312	110044	0.209	4.82
9J25051-CAL7	625	255470	0.215	4.82
9J25051-CAL8	1250	489113	0.226	4.82
9J25051-CAL9	2500	974201	0.205	4.82
9J25051-CALA	5000	1764644	0.183	4.83

AVE RF **0.197** RF RSD **9.01** AVE RT **4.82**

Ethyl-tert-butyl ether (ETBE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	0.1	277	1.766	0.00
9J25051-CAL4	0.25	799	1.819	5.51
9J25051-CAL5	0.5	1633	2.135	5.52
9J25051-CAL6	1.25	4721	2.243	5.51
9J25051-CAL7	2.5	11188	2.356	5.52
9J25051-CAL8	5	21409	2.469	5.51
9J25051-CAL9	10	42497	2.237	5.51
9J25051-CALA	20	83379	2.156	5.51

AVE RF **2.148** RF RSD **11.37** AVE RT **4.83**

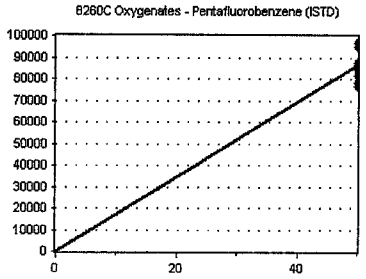
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VG191025W VG191025G**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

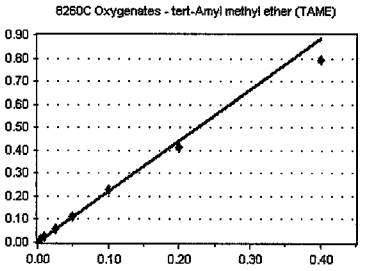


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	86062	1721.240	6.86
9J25051-CAL2	50	81493	1629.860	6.86
9J25051-CAL3	50	78410	1568.200	6.86
9J25051-CAL4	50	87837	1756.740	6.86
9J25051-CAL5	50	76501	1530.020	6.86
9J25051-CAL6	50	84206	1684.120	6.86
9J25051-CAL7	50	94987	1899.740	6.86
9J25051-CAL8	50	86706	1734.120	6.86
9J25051-CAL9	50	94974	1899.480	6.86
9J25051-CALA	50	96665	1933.300	6.86
9J25051-CALB	50	84871	1697.420	6.86

AVE RF **1732.204** RF RSD **7.72** AVE RT **6.86**

tert-Amyl methyl ether (TAME)

Curve Fit: **AVERAGE RF**

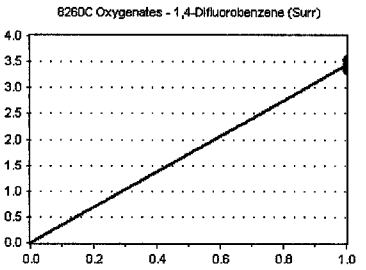


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL4	0.25	1071	2.439	6.90
9J25051-CAL5	0.5	1740	2.274	6.90
9J25051-CAL6	1.25	4717	2.241	6.90
9J25051-CAL7	2.5	10610	2.234	6.90
9J25051-CAL8	5	19745	2.277	6.90
9J25051-CAL9	10	39047	2.056	6.90
9J25051-CALA	20	76599	1.981	6.90

AVE RF **2.215** RF RSD **6.86** AVE RT **6.90**

1,4-Difluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

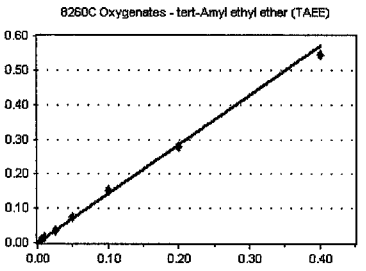


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	305946	3.555	7.45
9J25051-CAL2	50	287858	3.532	7.45
9J25051-CAL3	50	275500	3.514	7.45
9J25051-CAL4	50	309533	3.524	7.45
9J25051-CAL5	50	264143	3.453	7.45
9J25051-CAL6	50	285436	3.390	7.45
9J25051-CAL7	50	322104	3.391	7.45
9J25051-CAL8	50	291439	3.361	7.45
9J25051-CAL9	50	318518	3.354	7.45
9J25051-CALA	50	326047	3.373	7.45
9J25051-CALB	50	283209	3.337	7.45

AVE RF **3.435** RF RSD **2.40** AVE RT **7.45**

tert-Amyl ethyl ether (TAEE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.1~~	~~195~~	~~1.243~~	~~7.68~~
9J25051-CAL4	0.25	584	1.330	7.68
9J25051-CAL5	0.5	1135	1.484	7.68
9J25051-CAL6	1.25	2954	1.403	7.68
9J25051-CAL7	2.5	6943	1.462	7.69
9J25051-CAL8	5	13314	1.536	7.69
9J25051-CAL9	10	26359	1.388	7.68
9J25051-CALA	20	52681	1.362	7.69

AVE RF **1.423** RF RSD **5.12** AVE RT **7.69**

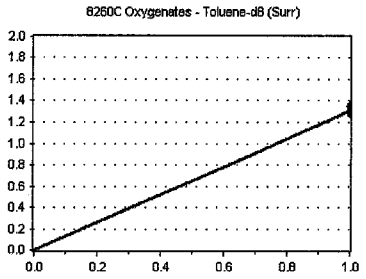
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VG191025W VG191025G**

Toluene-d8 (Surr)

Curve Fit: **AVERAGE RF**

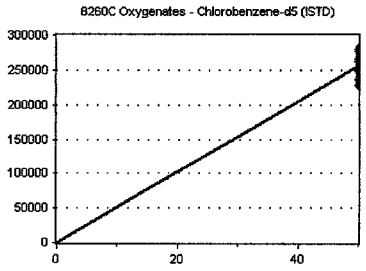


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	340973	1.297	8.99
9J25051-CAL2	50	320375	1.291	8.99
9J25051-CAL3	50	309475	1.307	8.99
9J25051-CAL4	50	348152	1.306	8.99
9J25051-CAL5	50	296218	1.295	8.99
9J25051-CAL6	50	321703	1.291	8.99
9J25051-CAL7	50	362985	1.295	8.99
9J25051-CAL8	50	329731	1.302	8.99
9J25051-CAL9	50	358348	1.294	8.99
9J25051-CALA	50	367797	1.310	8.99
9J25051-CALB	50	320536	1.352	9.00

AVE RF **1.304** RF RSD **1.32** AVE RT **8.99**

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**

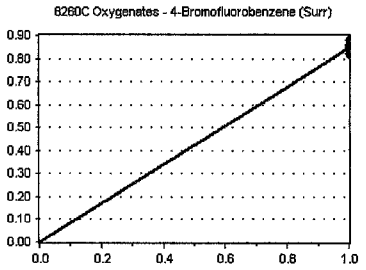


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	262978	5259.560	10.45
9J25051-CAL2	50	248140	4962.800	10.45
9J25051-CAL3	50	236751	4735.020	10.45
9J25051-CAL4	50	266623	5332.460	10.45
9J25051-CAL5	50	228711	4574.220	10.45
9J25051-CAL6	50	249179	4983.580	10.45
9J25051-CAL7	50	280212	5604.240	10.45
9J25051-CAL8	50	253314	5066.280	10.45
9J25051-CAL9	50	276912	5538.240	10.45
9J25051-CALA	50	280815	5616.300	10.45
9J25051-CALB	50	237104	4742.080	10.45

AVE RF **5128.616** RF RSD **7.18** AVE RT **10.45**

4-Bromofluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

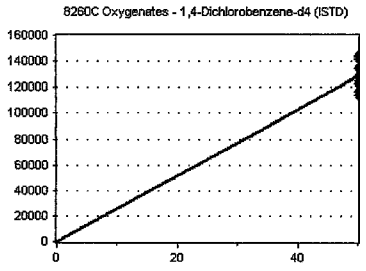


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	110058	0.854	11.45
9J25051-CAL2	50	103556	0.843	11.45
9J25051-CAL3	50	97363	0.833	11.45
9J25051-CAL4	50	112252	0.832	11.45
9J25051-CAL5	50	93974	0.822	11.45
9J25051-CAL6	50	105208	0.837	11.45
9J25051-CAL7	50	119477	0.842	11.45
9J25051-CAL8	50	107703	0.837	11.45
9J25051-CAL9	50	121264	0.846	11.45
9J25051-CALA	50	124225	0.859	11.45
9J25051-CALB	50	102899	0.882	11.45

AVE RF **0.844** RF RSD **1.92** AVE RT **11.45**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	128844	2576.880	12.29
9J25051-CAL2	50	122815	2456.300	12.29
9J25051-CAL3	50	116929	2338.580	12.29
9J25051-CAL4	50	134840	2696.800	12.29
9J25051-CAL5	50	114333	2286.660	12.29
9J25051-CAL6	50	125726	2514.520	12.29
9J25051-CAL7	50	141868	2837.360	12.29
9J25051-CAL8	50	128679	2573.580	12.29
9J25051-CAL9	50	143329	2866.580	12.29
9J25051-CALA	50	144590	2891.800	12.29
9J25051-CALB	50	116686	2333.720	12.29

AVE RF **2579.344** RF RSD **8.53** AVE RT **12.29**

Calibration Status Report VOA-GCMS7

Method Path : C:\msdchem\1\methods\
Method File : VG191025G.M
Title : NWTPH-Gx by GC/MS
Last Update : Mon Oct 28 12:17:57 2019
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	50	50	50	C:\msdchem\1\data\2019-10\9J25051\VG19102536.D
2	100	100	50	C:\msdchem\1\data\2019-10\9J25051\VG19102537.D
3	250	250	50	C:\msdchem\1\data\2019-10\9J25051\VG19102538.D
4	500	500	50	C:\msdchem\1\data\2019-10\9J25051\VG19102539.D
5	1000	1000	50	C:\msdchem\1\data\2019-10\9J25051\VG19102540.D
6	2500	2500	50	C:\msdchem\1\data\2019-10\9J25051\VG19102541.D
7	5000	5000	50	C:\msdchem\1\data\2019-10\9J25051\VG19102542.D
8	10K	10000	50	C:\msdchem\1\data\2019-10\9J25051\VG19102543.D

#	ID	Update Time	Quant Time	Acquisition Time
1	50	Oct 28 12:17 2019	Oct 28 12:12 2019	26 Oct 2019 2:45 am
2	100	Oct 28 12:17 2019	Oct 28 12:12 2019	26 Oct 2019 3:12 am
3	250	Oct 28 12:17 2019	Oct 28 12:12 2019	26 Oct 2019 3:38 am
4	500	Oct 28 12:17 2019	Oct 28 12:12 2019	26 Oct 2019 4:05 am
5	1000	Oct 28 12:17 2019	Oct 28 12:12 2019	26 Oct 2019 4:32 am
6	2500	Oct 28 12:17 2019	Oct 28 12:12 2019	26 Oct 2019 4:59 am
7	5000	Oct 28 12:17 2019	Oct 28 12:12 2019	26 Oct 2019 5:26 am
8	10K	Oct 28 12:17 2019	Oct 28 12:12 2019	26 Oct 2019 5:52 am

VG191025G.M Mon Oct 28 13:01:23 2019

Response Factor Report VOA-GCMS7

Method Path : C:\msdchem\1\methods\
Method File : VG191025G.M
Title : NWTPH-Gx by GC/MS
Last Update : Mon Oct 28 12:17:57 2019
Response Via : Initial Calibration

Calibration Files
50 =VG19102536.D 100 =VG19102537.D 250 =VG19102538.D 500 =VG19102539.D 1000=VG19102540.D 2500=VG19102541.D
5000=VG19102542.D 10K =VG19102543.D

		Compound	50	100	250	500	1000	2500	5000	10K	Avg	%RSD
1)	I	Pentafluorobenzene...	----------	----------	ISTD	----------	----------	----------	----------	----------		
2)	S	1,4-Difluorobe...	1.524	1.508	1.481	1.497	1.503	1.466	1.494	1.485	1.495	1.20
3)	S	4-Bromofluorob...	0.543	0.543	0.544	0.538	0.536	0.541	0.557	0.553	0.545	1.31
4)	H	NWTPH-Gx (TPH)	1.077	1.006	1.136	1.222	1.285	1.296	1.372	1.394	1.224	11.42
5)	H	TPHg (C5-C9)	2.792	1.935	1.689	1.647	1.666	1.555	1.606	1.595	1.811	22.82
6)	H	TPHg (C6-C10)	2.469	1.683	1.432	1.380	1.387	1.295	1.334	1.328	1.539	25.67
7)	H	CA-LUFT (C5-C12)	3.061	2.205	1.975	1.979	2.037	1.955	2.033	2.039	2.160	17.22
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-GCMS7

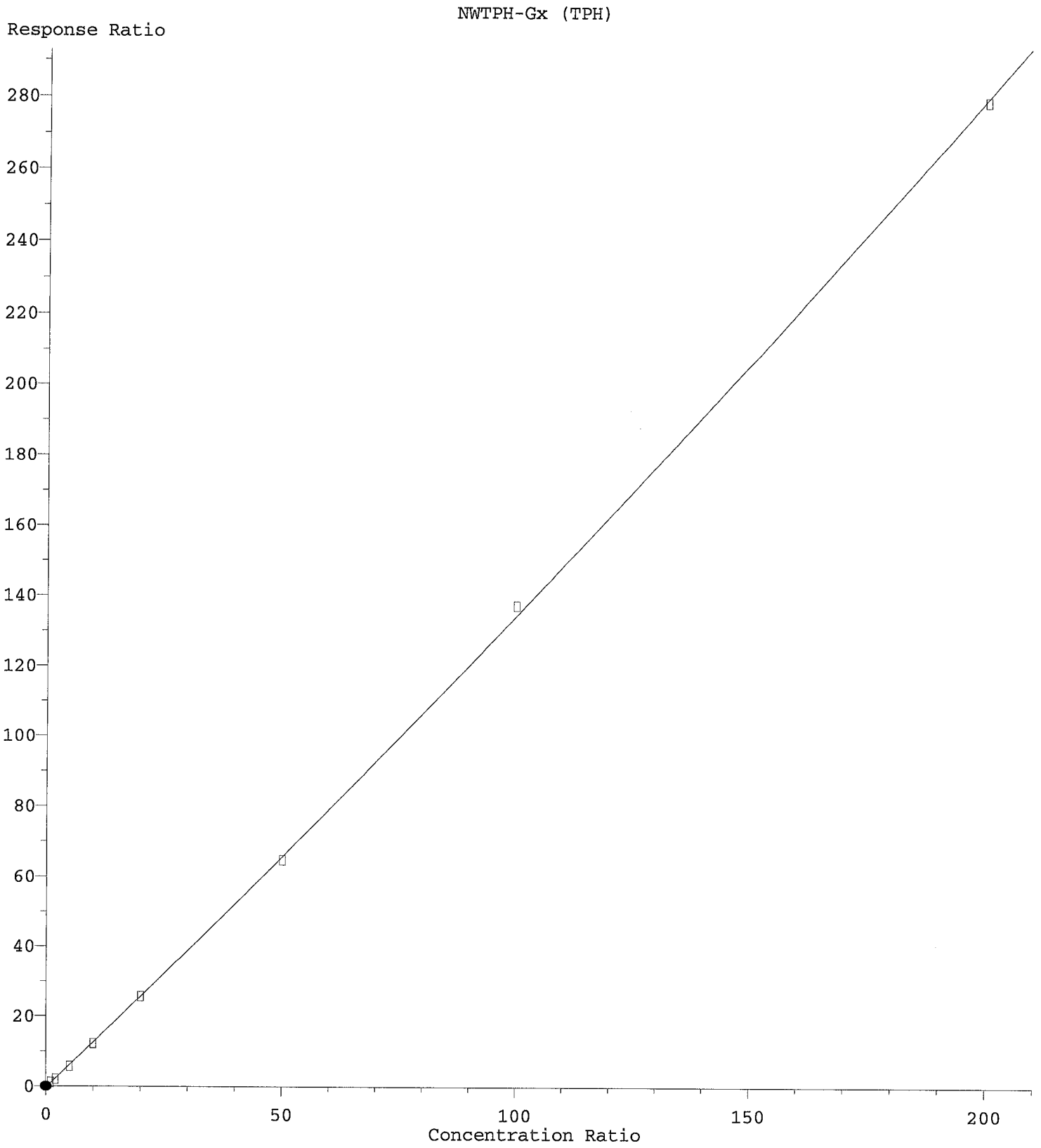
Method Path : C:\msdchem\1\methods\
Method File : VG191025G.M
Title : NWTPH-Gx by GC/MS
Last Update : Mon Oct 28 12:17:57 2019
Response Via : Initial Calibration

Total Cpnds : 13

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene (IS)	168	6.874	1.000	A	2	A	B
2	S	1,4-Difluorobenzene (Sur)	114	7.459	1.085	A	2	A	B
3	S	4-Bromofluorobenzene (Sur)	174	11.452	1.666	A	2	A	B
4	H	NWTPH-Gx (TPH)	TIC	9.440	1.373	Q	0	A	B
5	H	TPHg (C5-C9)	TIC	9.940	1.446	Q	0	A	B
6	H	TPHg (C6-C10)	TIC	9.940	1.446	Q	0	A	B
7	H	CA-LUFT (C5-C12)	TIC	9.940	1.446	Q	0	A	B
8		Benzene (NR)	78	6.758	0.983	A	2	A	B
9	S	Toluene-d8 (NR)	98	9.001	1.310	A	2	A	B
10		Toluene (NR)	91	9.050	1.317	A	2	A	B
11	S	Chlorobenzene-d5 (NR)	117	10.458	1.522	A	2	A	B
12	S	1,4-Dichlorobenzene-d4 (NR)	150	12.293	1.788	A	2	A	B
13		Naphthalene (NR)	128	14.207	2.067	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

VG191025G.M Mon Oct 28 13:01:42 2019



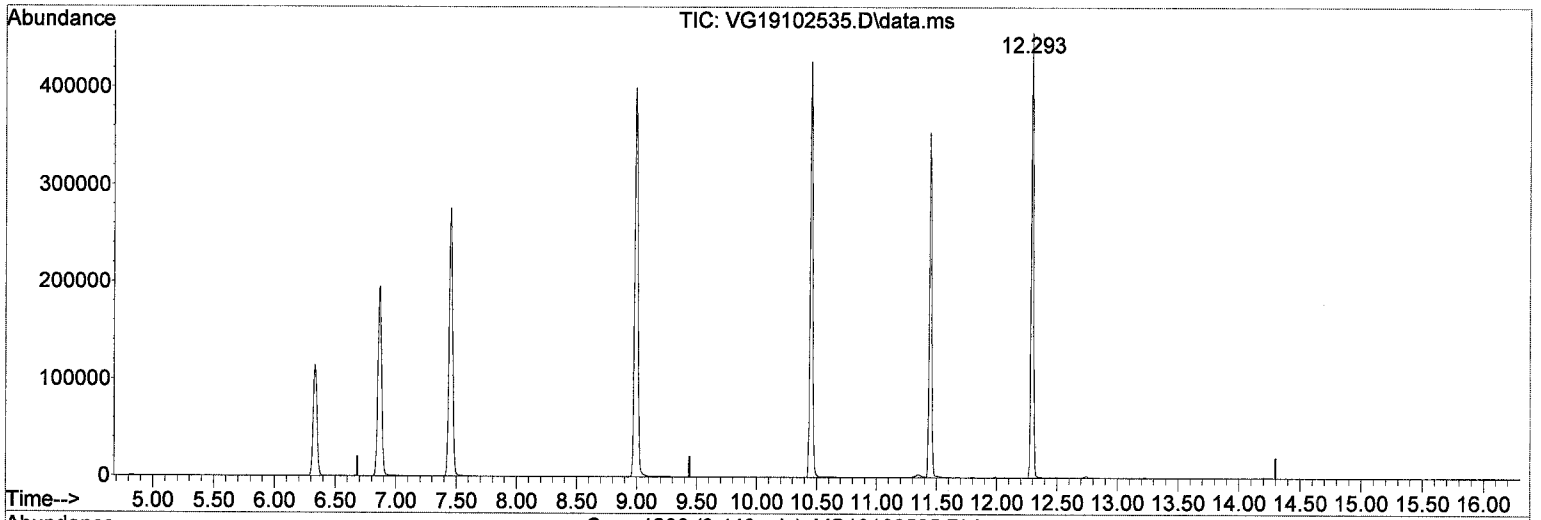
Int = 23.29 ✓

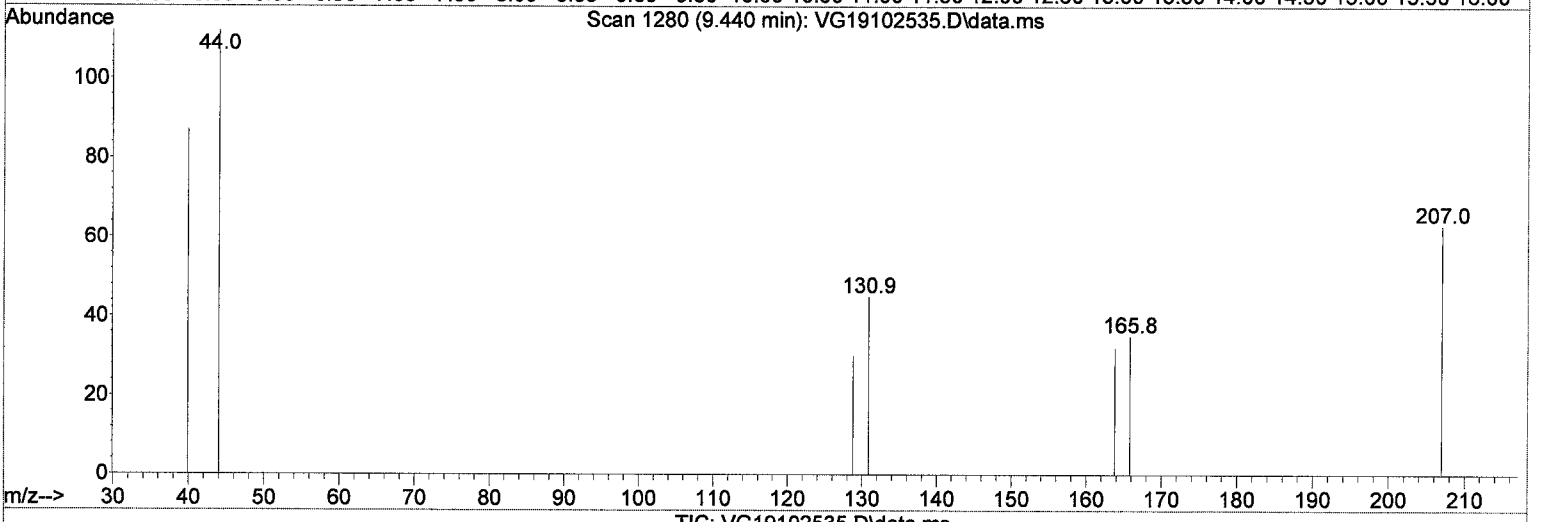
R = 5.30e-004 A*A + 1.30e+000 A - 4.15e-001
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG1911025G.M
Calibration Table Last Updated: Mon Oct 28 12:17:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102535.D
Acq On : 26 Oct 2019 2:18 am
Operator : MM
Sample : 9J25051-ICB2
Misc : 1X 5mL DI
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:40 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration





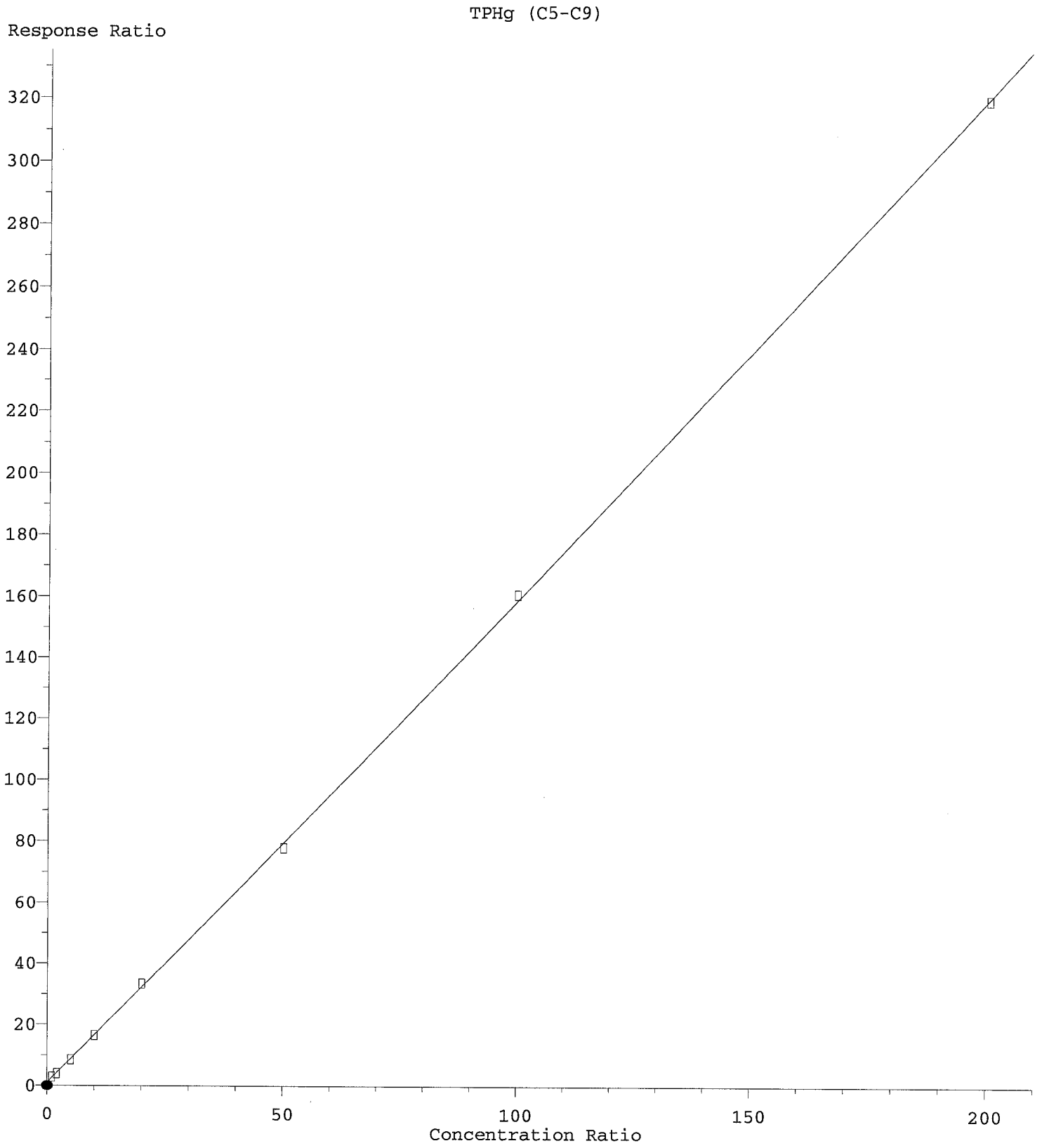
TIC: VG19102535.D\data.ms

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

9.440min (0.000) 23.29 ug/L m

response 31416

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



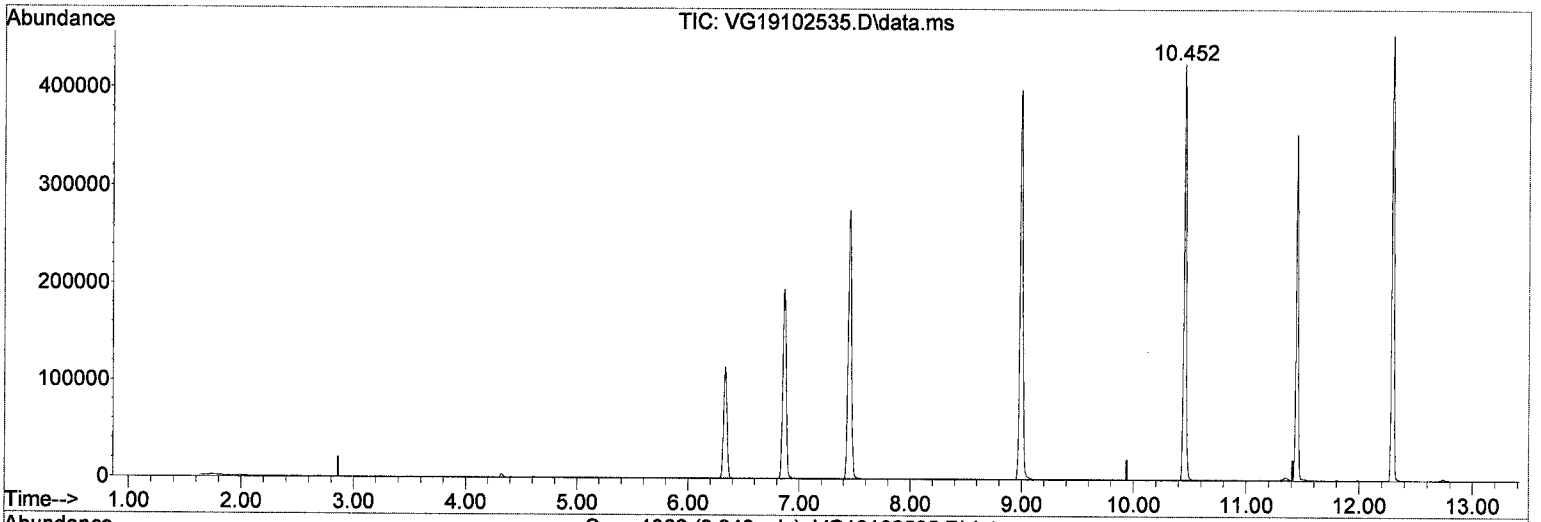
Int = 18.73

R = 1.66e-004 A*A + 1.56e+000 A + 1.03e+000
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025G.M
Calibration Table Last Updated: Mon Oct 28 12:17:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102535.D
Acq On : 26 Oct 2019 2:18 am
Operator : MM
Sample : 9J25051-ICB2
Misc : 1X 5mL DI
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:40 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration



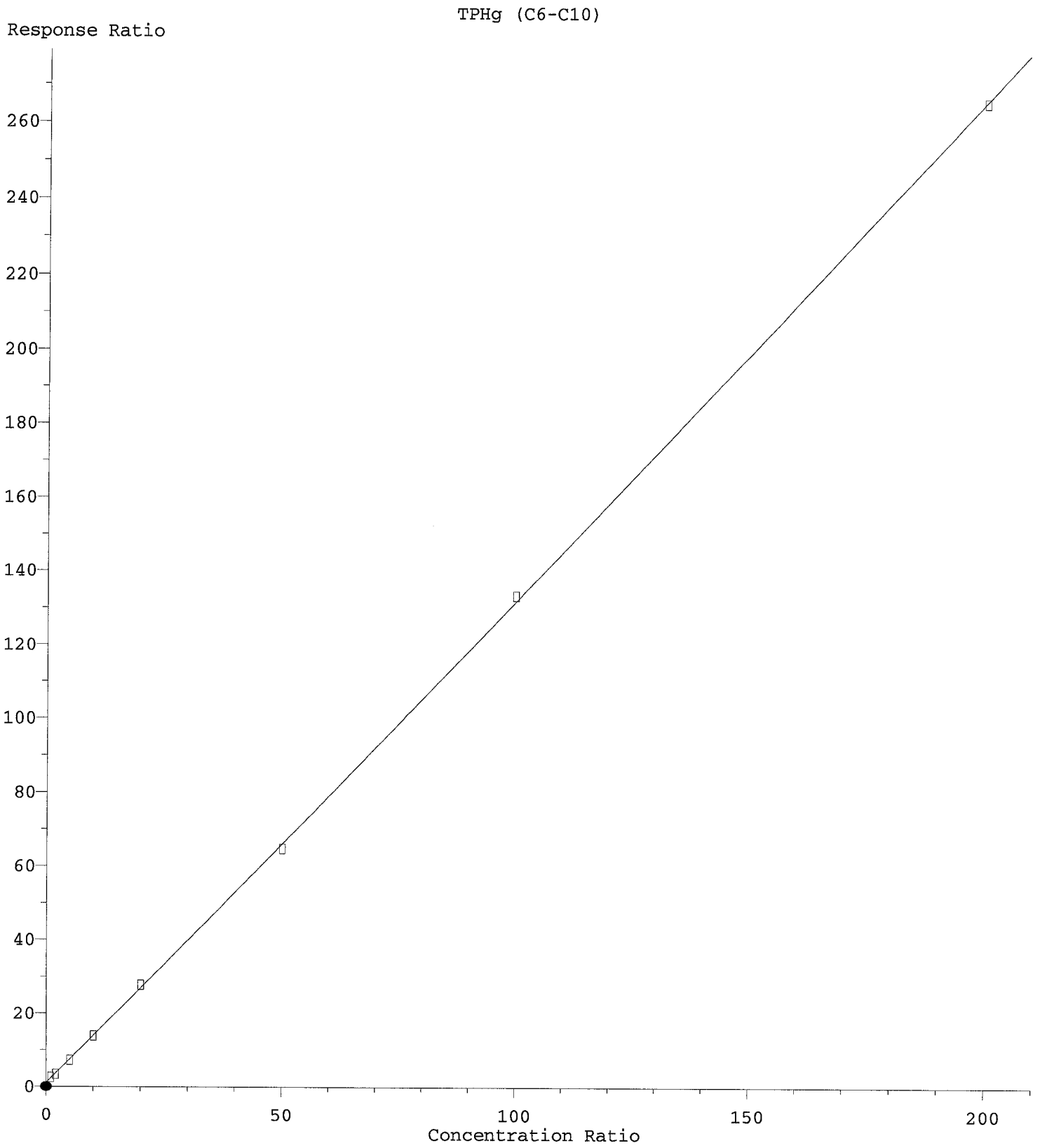
TIC: VG19102535.D\data.ms

(5) TPHg (C5-C9) (H)

9.940min (0.000) 18.73 ug/L m

response 269339

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



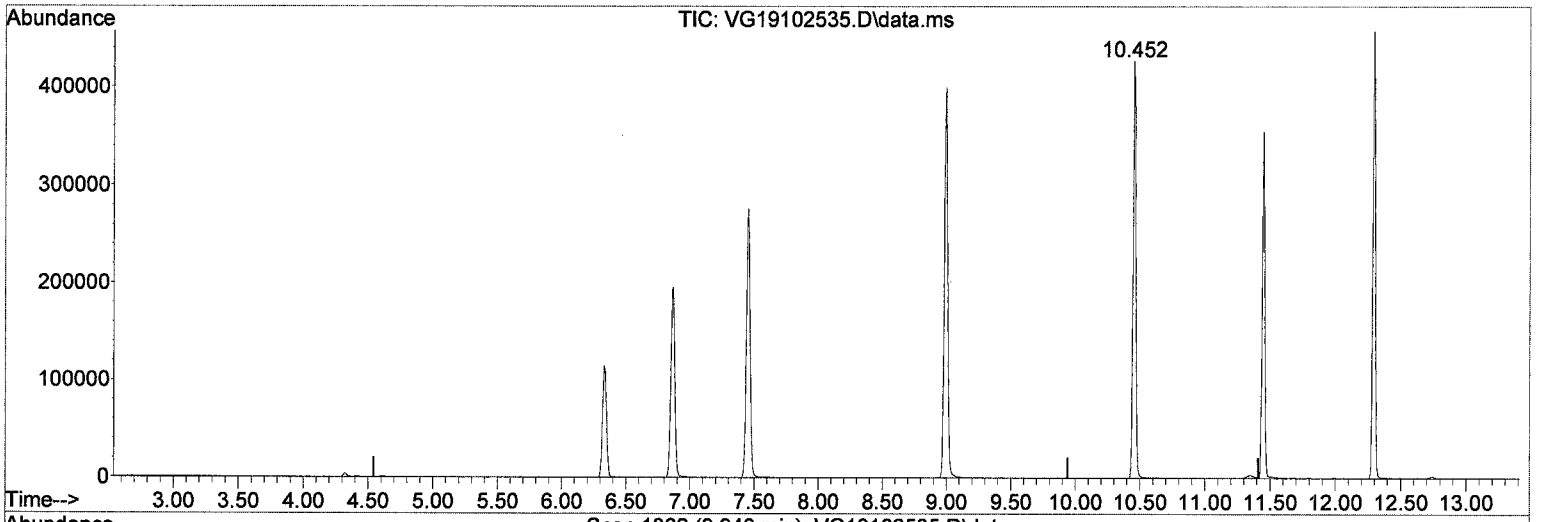
fmt = 21.67

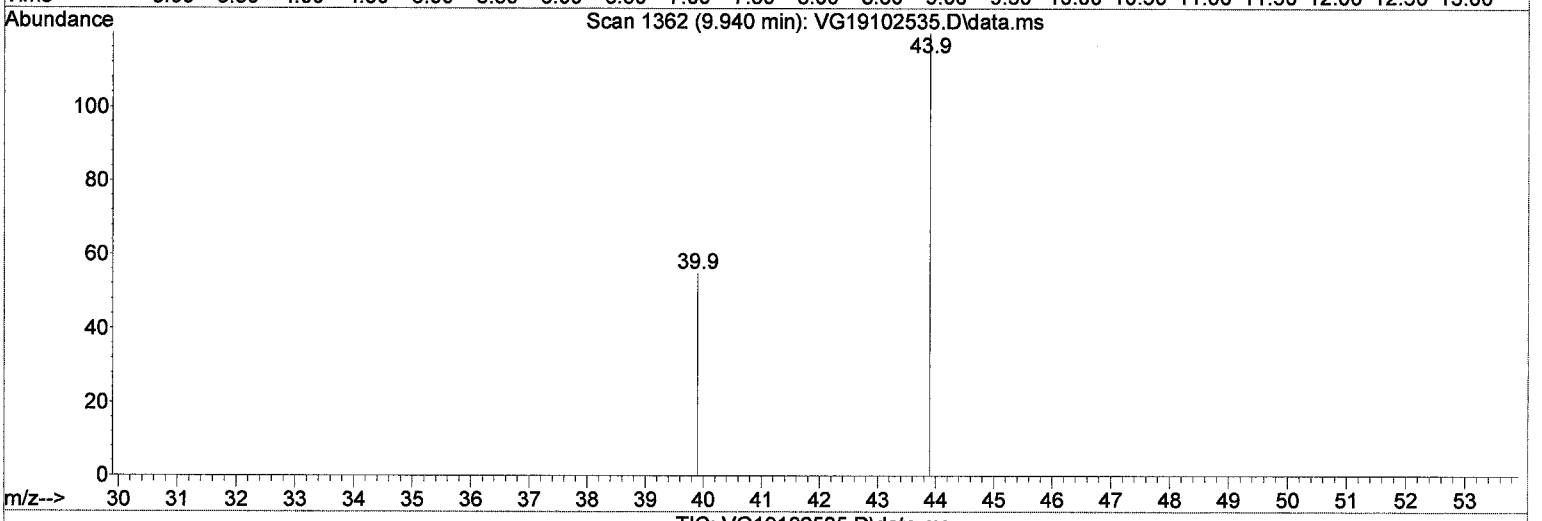
R = 1.62e-004 A*A + 1.29e+000 A + 1.01e+000
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025G.M
Calibration Table Last Updated: Mon Oct 28 12:17:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102535.D
Acq On : 26 Oct 2019 2:18 am
Operator : MM
Sample : 9J25051-ICB2
Misc : 1X 5mL DI
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:40 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration





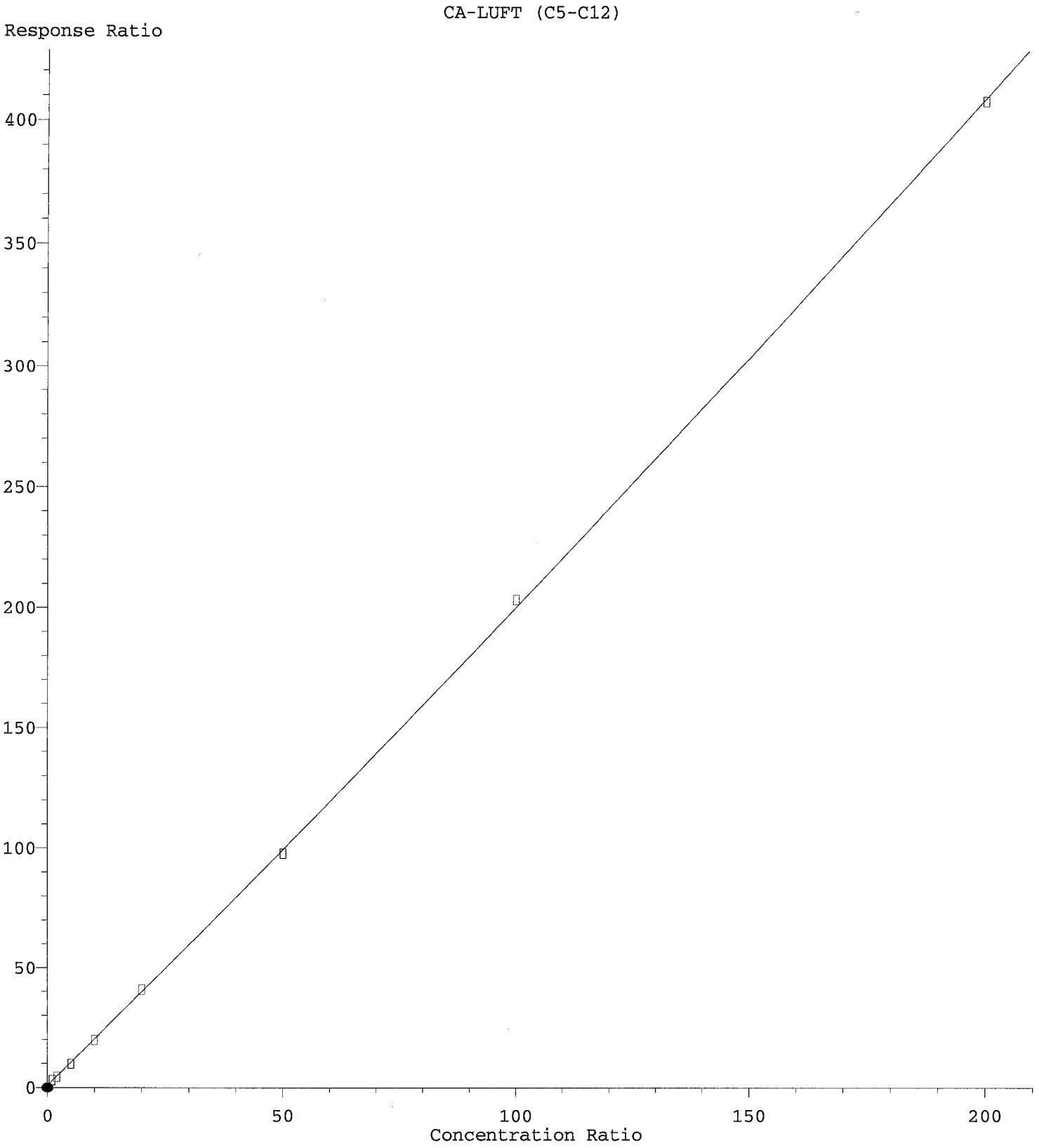
TIC: VG19102535.D\data.ms

(6) TPHg (C6-C10) (H)

9.940min (0.000) 21.67 ug/L m

response 261869

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



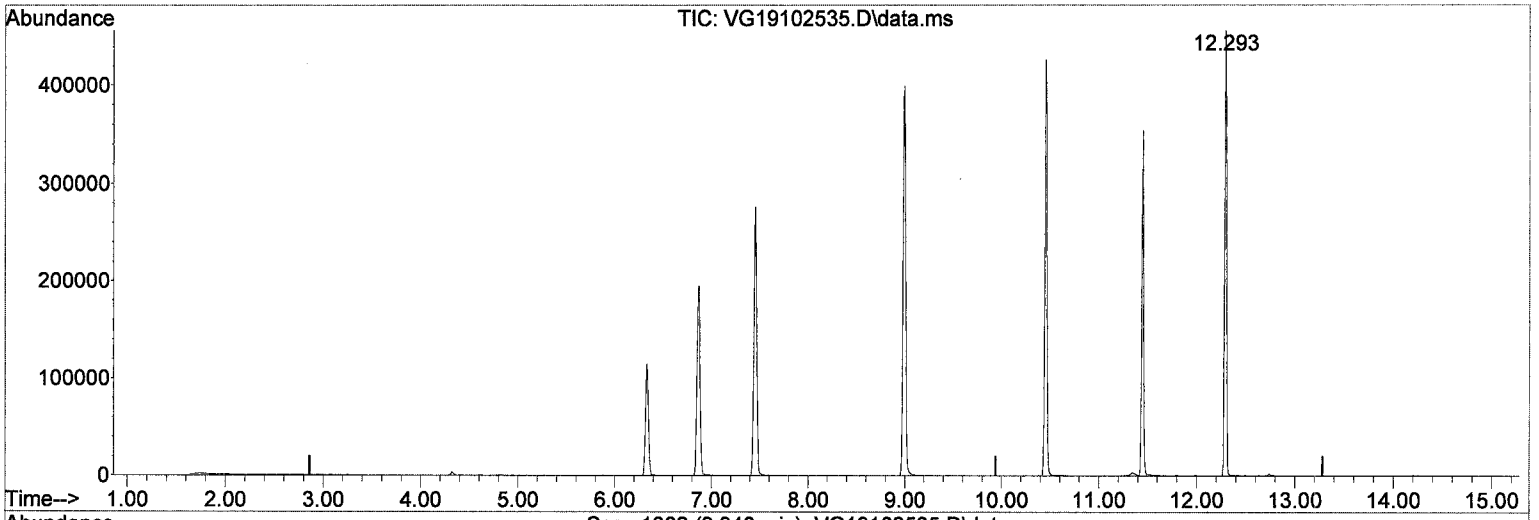
$I_{UT} = 22.78$

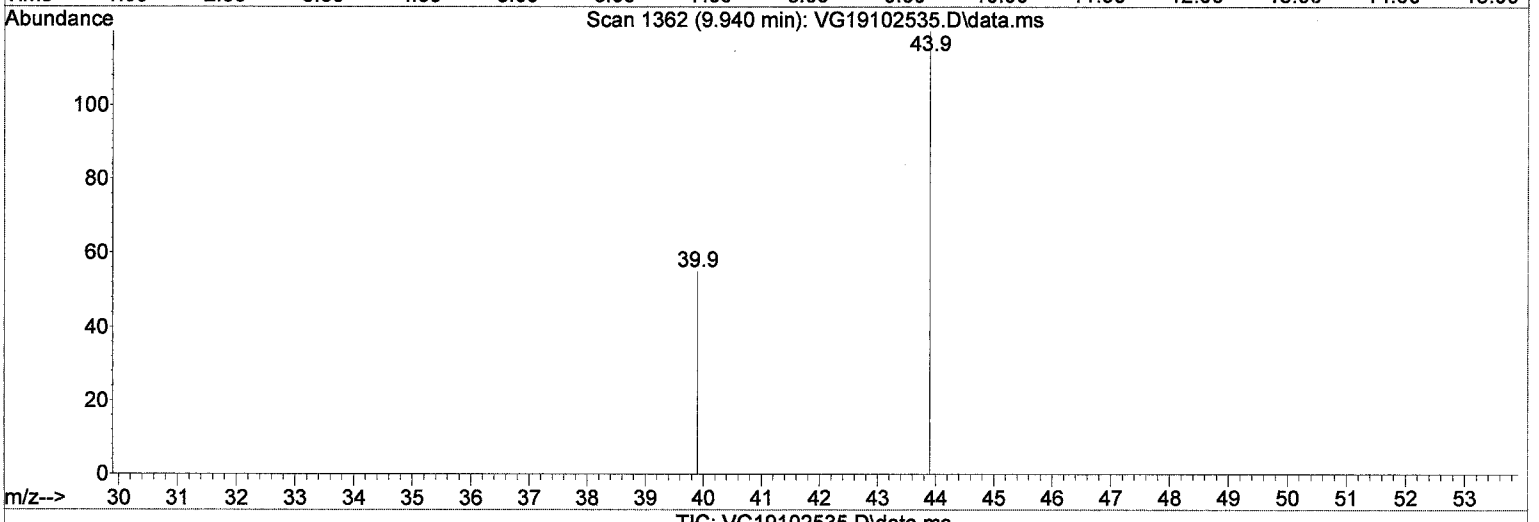
R = 4.75e-004 A*A + 1.95e+000 A + 8.13e-001
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025G.M
Calibration Table Last Updated: Mon Oct 28 12:17:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102535.D
Acq On : 26 Oct 2019 2:18 am
Operator : MM
Sample : 9J25051-ICB2
Misc : 1X 5mL DI
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:40 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration





TIC: VG19102535.D\data.ms

(7) CA-LUFT (C5-C12) (H)

9.940min (0.000) 22.78 ug/L m

response 283617

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

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J25051

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
9J25051-TUN2	MS Tune	Water		A19F381	10/26/2019 12:57:00AM
9J25051-ICB2	Initial Cal Blank	Water		A19F381	10/26/2019 2:18:00AM
9J25051-CALC	Cal Standard	Water	A19J388	"	10/26/2019 2:45:00AM
9J25051-CALD	Cal Standard	Water	A19J389	"	10/26/2019 3:12:00AM
9J25051-CALE	Cal Standard	Water	A19J390	"	10/26/2019 3:38:00AM
9J25051-CALF	Cal Standard	Water	A19J391	"	10/26/2019 4:05:00AM
9J25051-CALG	Cal Standard	Water	A19J392	"	10/26/2019 4:32:00AM
9J25051-CALH	Cal Standard	Water	A19J393	"	10/26/2019 4:59:00AM
9J25051-CALI	Cal Standard	Water	A19J394	"	10/26/2019 5:26:00AM
9J25051-CALJ	Cal Standard	Water	A19J395	"	10/26/2019 5:52:00AM
9J25051-ICV3	Initial Cal Check	Water	A19G350	"	10/26/2019 7:13:00AM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9J2806** Instrument: **VOA-GCMS7**

8015D-Mod Gasoline (C6-C10 Sequence: **9J25051** Matrix: **Water**

9J25051-CALC	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J25051-CALD	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J25051-CALE	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J25051-CALF	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J25051-CALG	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J25051-CALH	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J25051-CALI	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J25051-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: 9J25051

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: **A9J2806** Instrument: **VOA-GCMS7**

NWTPH-Gx Sequence: **9J25051** Matrix: **Water**

9J25051-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.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102546.D
Acq On : 26 Oct 2019 7:13 am
Operator : MM
Sample : 9J25051-ICV3
Misc : 1X 5mL 500PPB GX
ALS Vial : 36 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:46 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration

10/28/19

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	108	0.00
2	S	1,4-Difluorobenzene (Sur)	50.000	49.620	0.8	107	0.00
3	S	4-Bromofluorobenzene (Sur)	50.000	49.762	0.5	109	0.00
4	H	NWTPH-Gx (TPH)	500.000	536.396	-7.3	120	0.00
5	H	TPHg (C5-C9)	500.000	518.140	-3.6	113	0.00
6	H	TPHg (C6-C10)	500.000	530.811	-6.2	116	0.00
7	H	CA-LUFT (C5-C12)	500.000	518.197	-3.6	115	0.00
8		Benzene (NR)	-1.000	0.000	0.0	108	0.00
9	S	Toluene-d8 (NR)	-1.000	0.000	0.0	107	0.00
10		Toluene (NR)	-1.000	0.000	0.0	111	0.00
11	S	Chlorobenzene-d5 (NR)	-1.000	0.000	0.0	107	0.00
12	S	1,4-Dichlorobenzene-d4 (NR)	-1.000	0.000	0.0	106	0.00
13		Naphthalene (NR)	-1.000	0.000	0.0	126	0.00

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

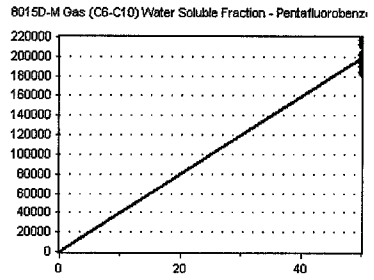
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8015D-M Gas (C6-C10) Wate** Instrument Cal ID: **VG191025W VG191025G**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

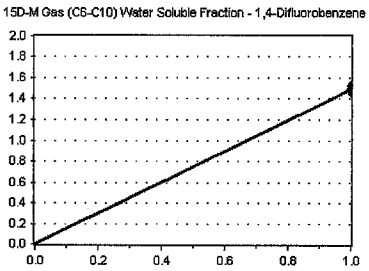


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	193559	3871.180	6.87
9J25051-CALD	50	202223	4044.460	6.87
9J25051-CALE	50	212459	4249.180	6.87
9J25051-CALF	50	184039	3680.780	6.86
9J25051-CALG	50	190639	3812.780	6.87
9J25051-CALH	50	218107	4362.140	6.87
9J25051-CALI	50	195244	3904.880	6.86
9J25051-CALJ	50	197171	3943.420	6.86

AVE RF **3983.603** RF RSD **5.68** AVE RT **6.87**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

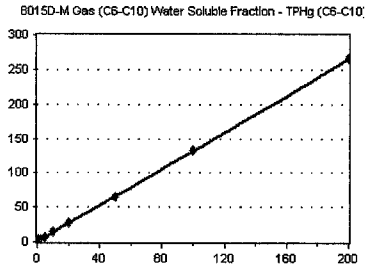


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	295012	1.524	7.45
9J25051-CALD	50	304919	1.508	7.45
9J25051-CALE	50	314600	1.481	7.45
9J25051-CALF	50	275552	1.497	7.45
9J25051-CALG	50	286580	1.503	7.45
9J25051-CALH	50	319682	1.466	7.45
9J25051-CALI	50	291674	1.494	7.45
9J25051-CALJ	50	292717	1.485	7.45

AVE RF **1.495** RF RSD **1.20** AVE RT **7.45**

TPHg (C6-C10)

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

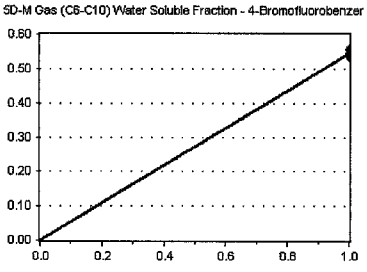


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	477926	2.469	9.94
9J25051-CALD	100	680725	1.683	9.94
9J25051-CALE	250	1521053	1.432	9.94
9J25051-CALF	500	2539707	1.380	9.94
9J25051-CALG	1000	5288509	1.387	9.94
9J25051-CALH	2500	1.41248E+07	1.295	9.94
9J25051-CALI	5000	2.605397E+07	1.334	9.94
9J25051-CALJ	10000	5.235829E+07	1.328	9.94

AVE RF **1.539** RF RSD **25.67** AVE RT **9.94**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	105074	0.543	11.45
9J25051-CALD	50	109800	0.543	11.45
9J25051-CALE	50	115645	0.544	11.45
9J25051-CALF	50	99104	0.538	11.45
9J25051-CALG	50	102218	0.536	11.45
9J25051-CALH	50	117998	0.541	11.45
9J25051-CALI	50	108752	0.557	11.45
9J25051-CALJ	50	109113	0.553	11.45

AVE RF **0.545** RF RSD **1.31** AVE RT **11.45**

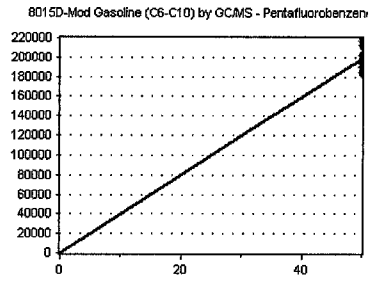
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8015D-Mod Gasoline (C6-C1** Instrument Cal ID: **VG191025W VG191025G**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

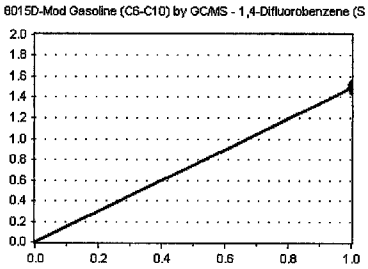


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	193559	3871.180	6.87
9J25051-CALD	50	202223	4044.460	6.87
9J25051-CALE	50	212459	4249.180	6.87
9J25051-CALF	50	184039	3680.780	6.86
9J25051-CALG	50	190639	3812.780	6.87
9J25051-CALH	50	218107	4362.140	6.87
9J25051-CALI	50	195244	3904.880	6.86
9J25051-CALJ	50	197171	3943.420	6.86

AVE RF **3983.603** RF RSD **5.68** AVE RT **6.87**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

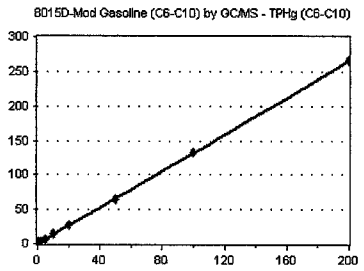


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	295012	1.524	7.45
9J25051-CALD	50	304919	1.508	7.45
9J25051-CALE	50	314600	1.481	7.45
9J25051-CALF	50	275552	1.497	7.45
9J25051-CALG	50	286580	1.503	7.45
9J25051-CALH	50	319682	1.466	7.45
9J25051-CALI	50	291674	1.494	7.45
9J25051-CALJ	50	292717	1.485	7.45

AVE RF **1.495** RF RSD **1.20** AVE RT **7.45**

TPHg (C6-C10)

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

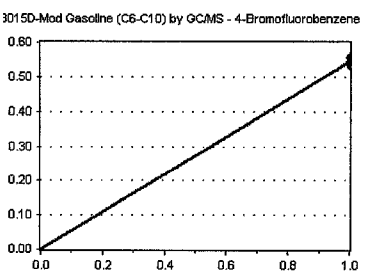


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	477926	2.469	9.94
9J25051-CALD	100	680725	1.683	9.94
9J25051-CALE	250	1521053	1.432	9.94
9J25051-CALF	500	2539707	1.380	9.94
9J25051-CALG	1000	5288509	1.387	9.94
9J25051-CALH	2500	1.41248E+07	1.295	9.94
9J25051-CALI	5000	2.605397E+07	1.334	9.94
9J25051-CALJ	10000	5.235829E+07	1.328	9.94

AVE RF **1.539** RF RSD **25.67** AVE RT **9.94**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	105074	0.543	11.45
9J25051-CALD	50	109800	0.543	11.45
9J25051-CALE	50	115645	0.544	11.45
9J25051-CALF	50	99104	0.538	11.45
9J25051-CALG	50	102218	0.536	11.45
9J25051-CALH	50	117998	0.541	11.45
9J25051-CALI	50	108752	0.557	11.45
9J25051-CALJ	50	109113	0.553	11.45

AVE RF **0.545** RF RSD **1.31** AVE RT **11.45**

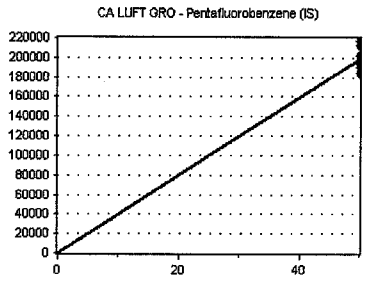
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **CA LUFT GRO** Instrument Cal ID: **VG191025W VG191025G**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

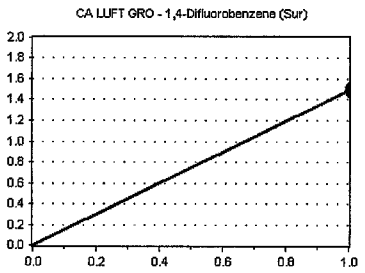


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	193559	3871.180	6.87
9J25051-CALD	50	202223	4044.460	6.87
9J25051-CALE	50	212459	4249.180	6.87
9J25051-CALF	50	184039	3680.780	6.86
9J25051-CALG	50	190639	3812.780	6.87
9J25051-CALH	50	218107	4362.140	6.87
9J25051-CALI	50	195244	3904.880	6.86
9J25051-CALJ	50	197171	3943.420	6.86

AVE RF **3983.603** RF RSD **5.68** AVE RT **6.87**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

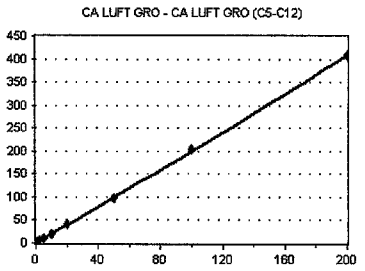


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	295012	1.524	7.45
9J25051-CALD	50	304919	1.508	7.45
9J25051-CALE	50	314600	1.481	7.45
9J25051-CALF	50	275552	1.497	7.45
9J25051-CALG	50	286580	1.503	7.45
9J25051-CALH	50	319682	1.466	7.45
9J25051-CALI	50	291674	1.494	7.45
9J25051-CALJ	50	292717	1.485	7.45

AVE RF **1.495** RF RSD **1.20** AVE RT **7.45**

CA LUFT GRO (C5-C12)

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

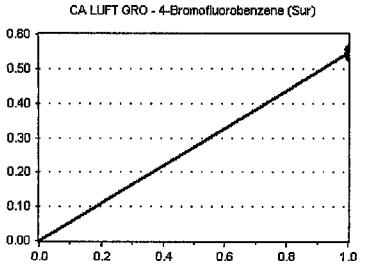


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	592441	3.061	9.94
9J25051-CALD	100	891666	2.205	9.94
9J25051-CALE	250	2098250	1.975	9.94
9J25051-CALF	500	3642980	1.979	9.94
9J25051-CALG	1000	7765125	2.037	9.94
9J25051-CALH	2500	2.13198E+07	1.955	9.94
9J25051-CALI	5000	3.968852E+07	2.033	9.94
9J25051-CALJ	10000	8.03942E+07	2.039	9.94

AVE RF **2.160** RF RSD **17.22** AVE RT **9.94**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	105074	0.543	11.45
9J25051-CALD	50	109800	0.543	11.45
9J25051-CALE	50	115645	0.544	11.45
9J25051-CALF	50	99104	0.538	11.45
9J25051-CALG	50	102218	0.536	11.45
9J25051-CALH	50	117998	0.541	11.45
9J25051-CALI	50	108752	0.557	11.45
9J25051-CALJ	50	109113	0.553	11.45

AVE RF **0.545** RF RSD **1.31** AVE RT **11.45**

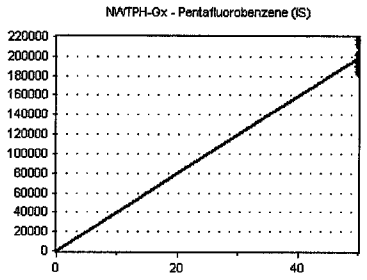
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **NWTPH-Gx** Instrument Cal ID: **VG191025W VG191025G**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

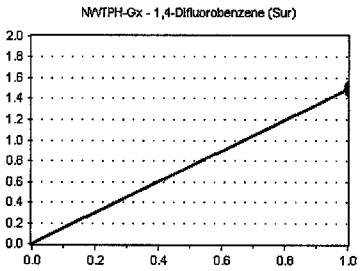


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	193559	3871.180	6.87
9J25051-CALD	50	202223	4044.460	6.87
9J25051-CALE	50	212459	4249.180	6.87
9J25051-CALF	50	184039	3680.780	6.86
9J25051-CALG	50	190639	3812.780	6.87
9J25051-CALH	50	218107	4362.140	6.87
9J25051-CALI	50	195244	3904.880	6.86
9J25051-CALJ	50	197171	3943.420	6.86

AVE RF **3983.603** RF RSD **5.68** AVE RT **6.87**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

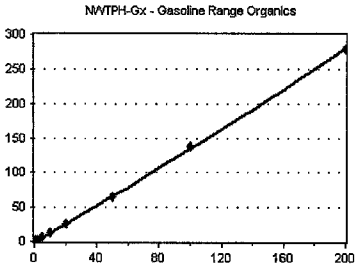


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	295012	1.524	7.45
9J25051-CALD	50	304919	1.508	7.45
9J25051-CALE	50	314600	1.481	7.45
9J25051-CALF	50	275552	1.497	7.45
9J25051-CALG	50	286580	1.503	7.45
9J25051-CALH	50	319682	1.466	7.45
9J25051-CALI	50	291674	1.494	7.45
9J25051-CALJ	50	292717	1.485	7.45

AVE RF **1.495** RF RSD **1.20** AVE RT **7.45**

Gasoline Range Organics

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

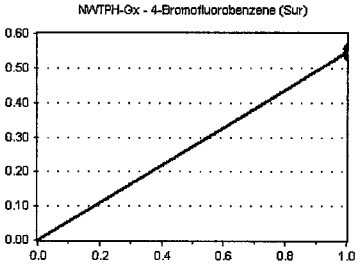


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	208521	1.077	9.44
9J25051-CALD	100	406857	1.006	9.44
9J25051-CALE	250	1206913	1.136	9.44
9J25051-CALF	500	2248368	1.222	9.44
9J25051-CALG	1000	4898415	1.285	9.44
9J25051-CALH	2500	1.413597E+07	1.296	9.44
9J25051-CALI	5000	2.67945E+07	1.372	9.44
9J25051-CALJ	10000	5.496649E+07	1.394	9.44

AVE RF **1.224** RF RSD **11.42** AVE RT **9.44**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	105074	0.543	11.45
9J25051-CALD	50	109800	0.543	11.45
9J25051-CALE	50	115645	0.544	11.45
9J25051-CALF	50	99104	0.538	11.45
9J25051-CALG	50	102218	0.536	11.45
9J25051-CALH	50	117998	0.541	11.45
9J25051-CALI	50	108752	0.557	11.45
9J25051-CALJ	50	109113	0.553	11.45

AVE RF **0.545** RF RSD **1.31** AVE RT **11.45**

Injection Log

Directory: z:\data\2019-10\9J25051

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	Vg19102511.d	1.	9J25051-IBL1	1X 5mL DI	25 Oct 2019 15:31
2	2	Vg19102512.d	1.	9J25051-TUN1	A19F381 BFB (IS/...	25 Oct 2019 15:58
3	3	Vg19102513.d	1.	9J25051-ICB1	1X 5mL DI	25 Oct 2019 16:25
4	4	Vg19102514.d	1.	9J25051-CAL1	1X 5mL 0.1/0.2...	25 Oct 2019 16:53
5	5	Vg19102515.d	1.	9J25051-CAL2	1X 5mL 0.2/0.4...	25 Oct 2019 17:20
6	6	Vg19102516.d	1.	9J25051-CAL3	1X 5mL 0.4/0.8...	25 Oct 2019 17:47
7	7	Vg19102517.d	1.	9J25051-CAL4	1X 5mL 1/2PPB ...	25 Oct 2019 18:14
8	8	Vg19102518.d	1.	9J25051-CAL5	1X 5mL 2/4PPB ...	25 Oct 2019 18:41
9	9	Vg19102519.d	1.	9J25051-CAL6	1X 5mL 5/10PPB...	25 Oct 2019 19:08
10	10	Vg19102520.d	1.	9J25051-CAL7	1X 5mL 10/20PP...	25 Oct 2019 19:35
11	11	Vg19102521.d	1.	9J25051-CAL8	1X 5mL 20/40PP...	25 Oct 2019 20:02
12	12	Vg19102522.d	1.	9J25051-CAL9	1X 5mL 50/100P...	25 Oct 2019 20:29
13	13	Vg19102523.d	1.	9J25051-IBL2	1X 5mL DI	25 Oct 2019 20:55
14	14	Vg19102524.d	1.	9J25051-CALA	1X 5mL 100/200...	25 Oct 2019 21:22
15	15	Vg19102525.d	1.	9J25051-IBL3	1X 5mL DI	25 Oct 2019 21:49
16	16	Vg19102526.d	1.	9J25051-CALB	1X 5mL 200/400...	25 Oct 2019 22:16
17	17	Vg19102527.d	1.	9J25051-IBL4	1X 5mL DI	25 Oct 2019 22:43
18	18	Vg19102528.d	1.	9J25051-IBL5	1X 5mL DI	25 Oct 2019 23:10
19	19	Vg19102529.d	1.	9J25051-ICV1	1X 5mL 20/40PP...	25 Oct 2019 23:37
20	20	Vg19102530.d	1.	9J25051-ICV2	1X 5mL 5/1250P...	26 Oct 2019 00:04
21	21	Vg19102531.d	1.	9J25051-IBL6	1X 5mL DI	26 Oct 2019 00:31
22	22	Vg19102532.d	1.	9J25051-TUN2	A19F381 BFB (IS/...	26 Oct 2019 00:57
23	23	Vg19102533.d	1.	9J25051-RT1	A18A167 VPH RT STD	26 Oct 2019 01:24
24	24	Vg19102534.d	1.	9J25051-IBL7	1X 5mL DI	26 Oct 2019 01:51
25	25	Vg19102535.d	1.	9J25051-ICB2	1X 5mL DI	26 Oct 2019 02:18
26	26	Vg19102536.d	1.	9J25051-CALC	1X 5mL 50PPB GX	26 Oct 2019 02:45
27	27	Vg19102537.d	1.	9J25051-CALD	1X 5mL 100PPB GX	26 Oct 2019 03:12
28	28	Vg19102538.d	1.	9J25051-CALE	1X 5mL 250PPB GX	26 Oct 2019 03:38
29	29	Vg19102539.d	1.	9J25051-CALF	1X 5mL 500PPB GX	26 Oct 2019 04:05
30	30	Vg19102540.d	1.	9J25051-CALG	1X 5mL 1000PPB GX	26 Oct 2019 04:32
31	31	Vg19102541.d	1.	9J25051-CALH	1X 5mL 2500PPB GX	26 Oct 2019 04:59
32	32	Vg19102542.d	1.	9J25051-CALI	1X 5mL 5000PPB GX	26 Oct 2019 05:26
33	33	Vg19102543.d	1.	9J25051-CALJ	1X 5mL 10000PP...	26 Oct 2019 05:52
34	34	Vg19102544.d	1.	9J25051-IBL8	1X 5mL DI	26 Oct 2019 06:19
35	35	Vg19102545.d	1.	9J25051-IBL9	1X 5mL DI	26 Oct 2019 06:46
36	36	Vg19102546.d	1.	9J25051-ICV3	1X 5mL 500PPB GX	26 Oct 2019 07:13
37	37	Vg19102547.d	1.	9J25051-IBLA	1X 5mL DI	26 Oct 2019 07:40

10/28/19 ml

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102511.D
Acq On : 25 Oct 2019 3:31 pm
Operator : MM
Sample : 9J25051-IBL1
Misc : 1X 5mL DI
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:37 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

NR

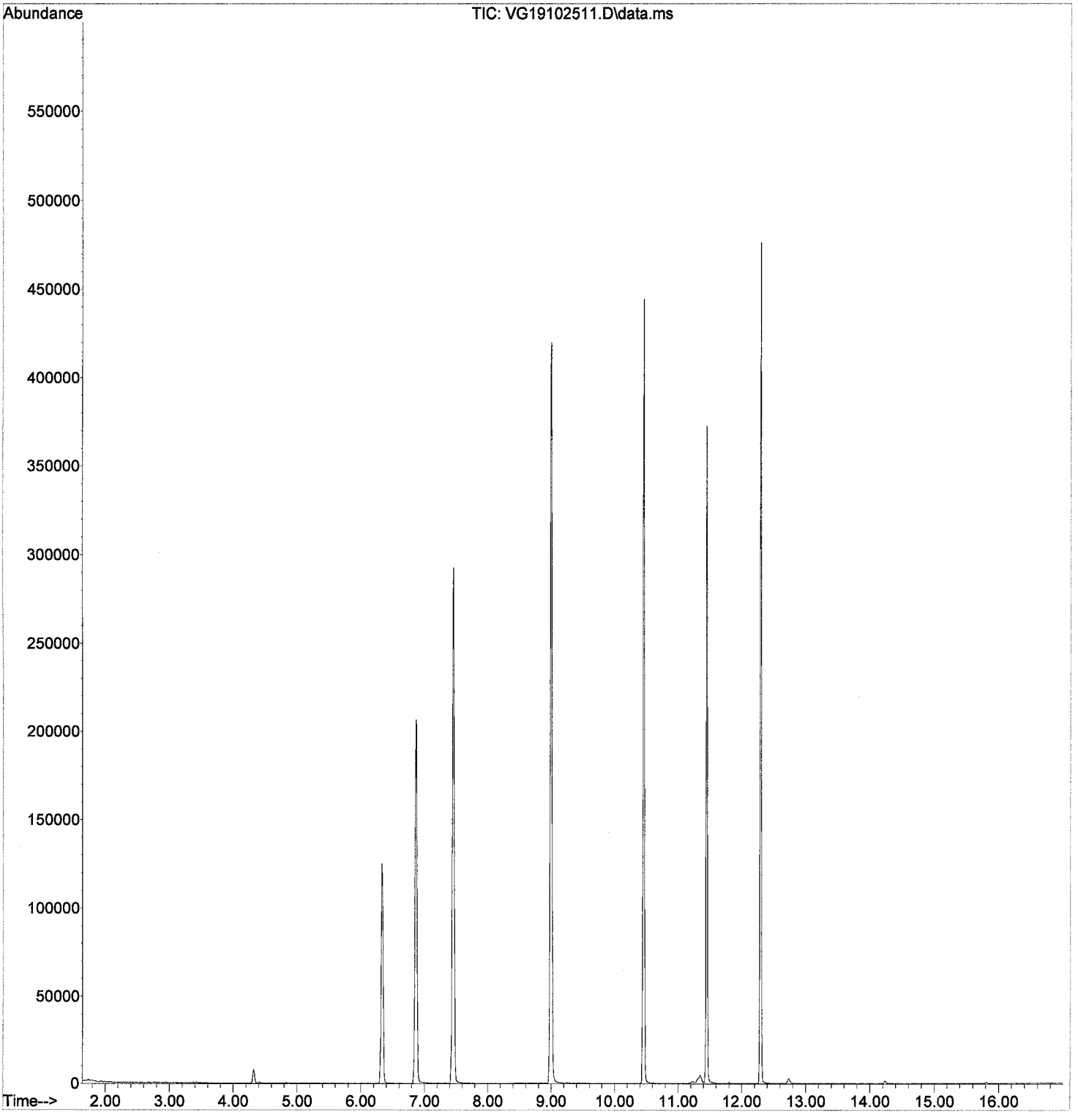
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	79679	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	238424	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	114211	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	84431	50.34	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	279431	51.05	ug/L		0.00
48) Toluene-d8 (S)	8.995	98	311513	50.11	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	97930	50.78	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.984	50	207	0.11	ug/L		77
6) Chloroethane	2.832	64	11	Below Cal		#	47
14) Methylene Chloride	4.319	84	4164	1.79	ug/L		96
15) Acetone	4.405	43	787	0.95	ug/L		95
19) tert-Butanol (TBA)	4.831	59	256	0.81	ug/L	#	46

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102511.D
Acq On : 25 Oct 2019 3:31 pm
Operator : MM
Sample : 9J25051-IBL1
Misc : 1X 5mL DI
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:37 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



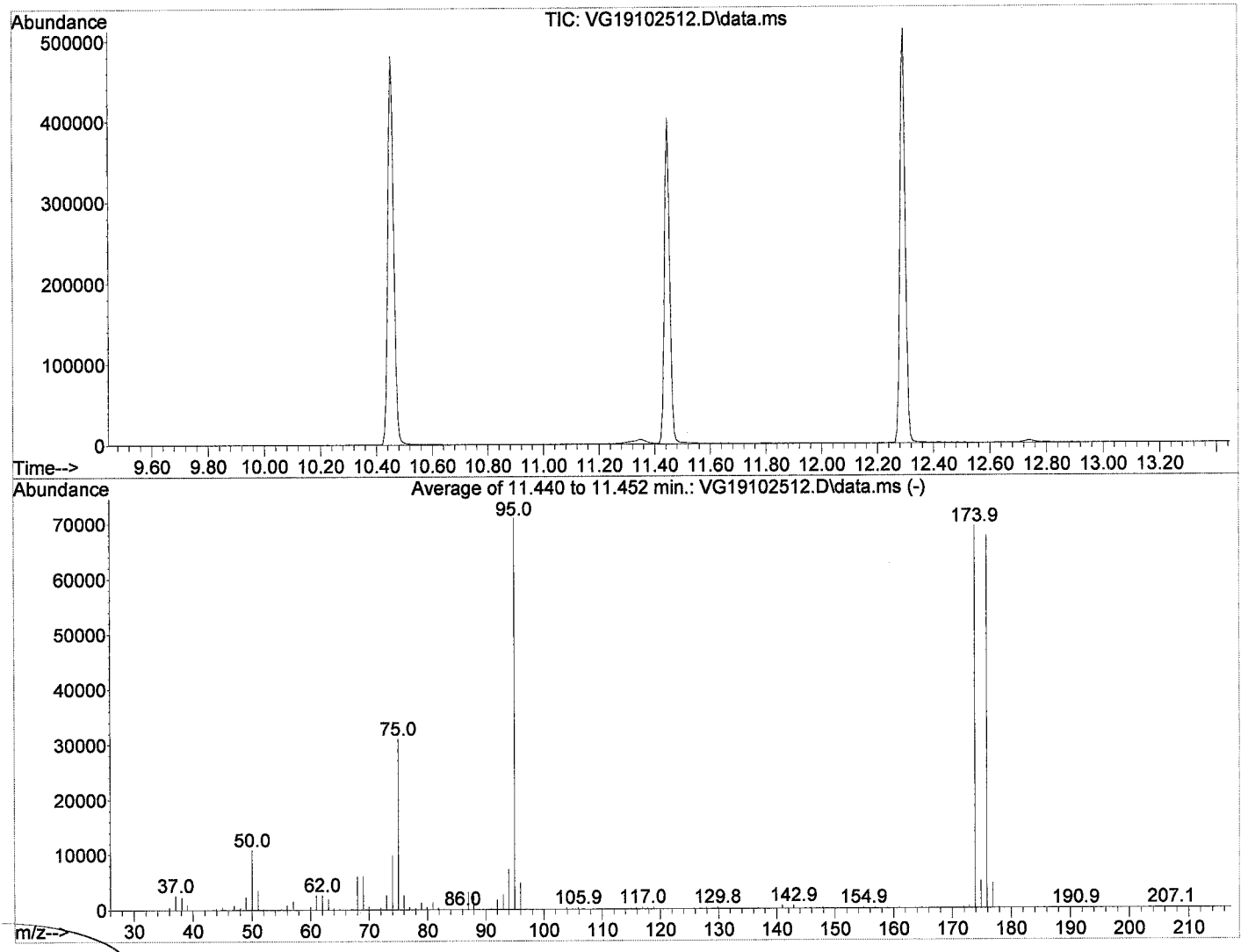
BFB

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102512.D
Acq On : 25 Oct 2019 3:58 pm
Operator : MM
Sample : 9J25051-TUN1
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\methods\VG191025W.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Mon Oct 28 11:12:23 2019

10/25/19



AutoFind: Scans 1608, 1609, 1610; Background Corrected with Scan 1601

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	102.5	71019	PASS
96	95	5	9	6.7	4776	PASS
173	174	0.00	2	0.6	397	PASS
174	95	50	200	97.5	69277	PASS
175	174	5	9	7.0	4863	PASS
176	174	95	105	97.4	67507	PASS
177	176	5	10	6.6	4457	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102512.D
Acq On : 25 Oct 2019 3:58 pm
Operator : MM
Sample : 9J25051-TUN1
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:40 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

10/25/19

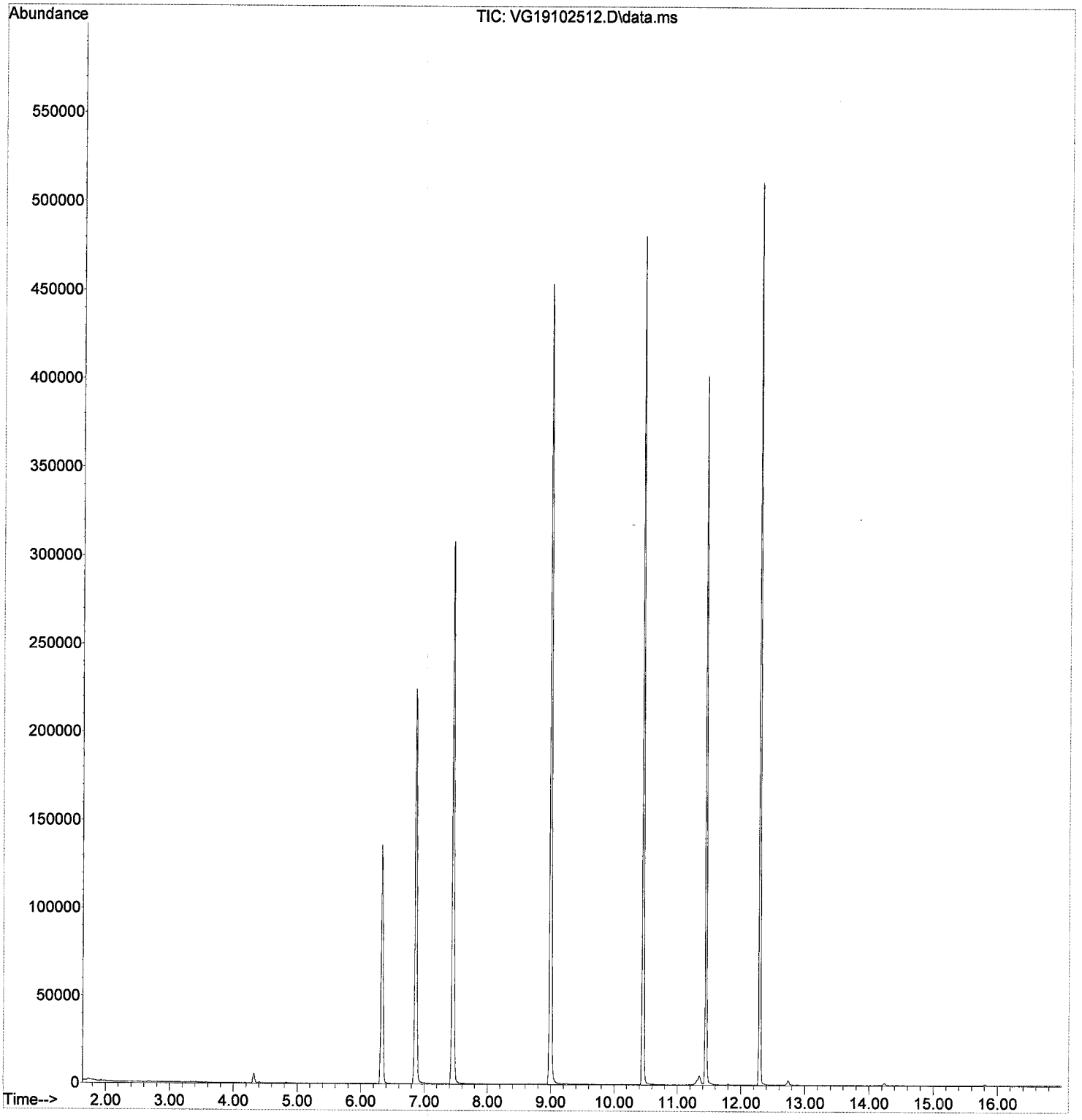
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.862	99	84248	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	258488	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	125829	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	91848	51.79	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	301964	52.17	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	335293	49.75	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	107678	50.68	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.984	50	243	0.13	ug/L		78
6) Chloroethane	2.807	64	20	Below Cal		#	47
14) Methylene Chloride	4.319	84	2895	0.80	ug/L		96
15) Acetone	4.405	43	747	0.85	ug/L		95
19) tert-Butanol (TBA)	4.831	59	341	1.03	ug/L	#	82
87) Naphthalene	14.214	128	19	0.28	ug/L		79

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102512.D
Acq On : 25 Oct 2019 3:58 pm
Operator : MM
Sample : 9J25051-TUN1
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:40 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102513.D
Acq On : 25 Oct 2019 4:25 pm
Operator : MM
Sample : 9J25051-ICB1
Misc : 1X 5mL DI
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:43 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

10/25/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	79992	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	244512	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	118749	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	87451	51.93	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	286935	52.22	ug/L		0.00
48) Toluene-d8 (S)	8.995	98	318243	49.92	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	100945	50.34	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.990	50	219	0.12	ug/L		77
6) Chloroethane	2.771	64	10	Below Cal		#	47
14) Methylene Chloride	4.325	84	1333	Below Cal			92
15) Acetone	4.405	43	628	0.75	ug/L		89
19) tert-Butanol (TBA)	4.831	59	197	0.62	ug/L	#	60
47) c-1,3-Dichloropropene	8.751	75	10	0.10	ug/L	#	33

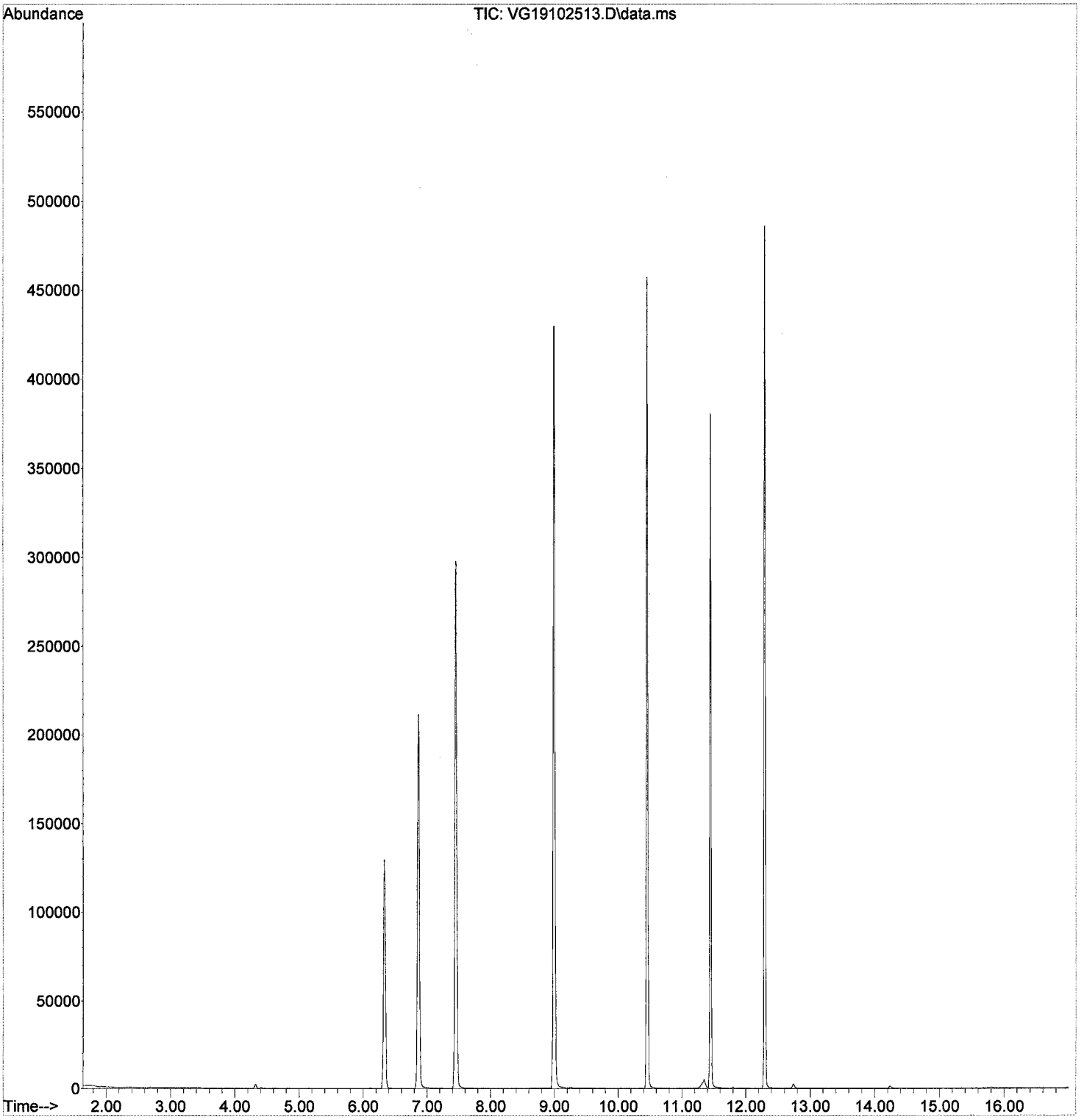
LMDC

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102513.D
Acq On : 25 Oct 2019 4:25 pm
Operator : MM
Sample : 9J25051-ICB1
Misc : 1X 5mL DI
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:43 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102514.D
Acq On : 25 Oct 2019 4:53 pm
Operator : MM
Sample : 9J25051-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:37:03 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	86062	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	262978	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	128844	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	92408	51.80	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	305946	52.88	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	340973	49.80	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	110058	51.03	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	d		
3) Chloromethane	1.984	50	449	0.25	ug/L		89
4) Vinyl Chloride	2.112	62	144	0.09	ug/L		77
5) Bromomethane	2.551	96	151	0.18	ug/L		82
6) Chloroethane	0.000		0	N.D.	d		
7) Trichlorofluoromethane	2.923	101	165	0.09	ug/L		81
8) Ethanol	3.630	45	266	5.60	ug/L		78
9) 1,1-Dichloroethene	3.588	61	208	0.10	ug/L		91
10) Carbon Disulfide	3.588	76	344	0.12	ug/L		78
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	4.319	84	1819	1.07	ug/L		99
15) Acetone	4.411	43	1032	1.17	ug/L		91
16) t-1,2-Dichloroethene	4.514	61	216	0.10	ug/L		81
17) n-Hexane	0.000		0	N.D.			
18) Methyl-tert-butyl-ether	4.673	73	356	0.08	ug/L		57
19) tert-Butanol (TBA)	4.825	59	2096	5.40	ug/L	#	71
20) Diisopropyl ether (DIPE)	0.000		0	N.D.	d		
21) 1,1-Dichloroethane	5.215	63	301	0.11	ug/L		84
22) Acrylonitrile	0.000		0	N.D.	d		
23) Vinyl Acetate	0.000		0	N.D.			
24) Ethyl-tert-butyl ether...	0.000		0	N.D.	d		
25) c-1,2-Dichloroethene	5.825	61	198	0.09	ug/L		82
26) 2,2-Dichloropropane	0.000		0	N.D.	d		
27) Bromochloromethane	6.038	49	113	0.08	ug/L		90
28) Chloroform	6.130	83	266	0.09	ug/L		66
29) Carbon Tetrachloride	0.000		0	N.D.	d		
30) Tetrahydrofuran	0.000		0	N.D.	d		
31) 1,1,1-Trichloroethane	6.343	97	204	0.09	ug/L		74
33) 1,1-Dichloropropene	6.477	75	132	0.06	ug/L	#	65
34) 2-Butanone (MEK)	0.000		0	N.D.	d		
35) Benzene	6.758	78	628	0.09	ug/L		75
36) tert-Amyl methyl ether...	0.000		0	N.D.	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)	7.404	130	203	0.11	ug/L		87
41) tert-Amyl ethyl ether ...	0.000		0	N.D.			
42) Dibromomethane	7.892	93	64	0.05	ug/L	#	32
43) 1,2-Dichloropropane	7.995	63	158	0.09	ug/L		83
44) Bromodichloromethane	0.000		0	N.D.	d		
46) 2-Chloroethyl Vinyl Ether	0.000		0	N.D.	d		
47) c-1,3-Dichloropropene	8.812	75	120	0.05	ug/L	#	60

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102514.D
Acq On : 25 Oct 2019 4:53 pm
Operator : MM
Sample : 9J25051-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:37:03 2019
Quant Method : C:\msdchem\1\methods\~~VG191025W.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	991	0.13	ug/L		90
50) Tetrachloroethene (PCE)	9.440	166	215	0.10	ug/L		74
51) 4-Methyl-2-Pentanone (...	9.446	43	316	0.12	ug/L		86
52) t-1,3-Dichloropropene	0.000		0	N.D.	d		
53) 1,1,2-Trichloroethane	9.629	97	163	0.09	ug/L	#	63
54) Dibromochloromethane	9.794	129	42	0.02	ug/L	#	58
55) 1,3-Dichloropropane	9.879	76	265	0.09	ug/L		80
56) 1,2-Dibromoethane (EDB)	0.000		0	N.D.	d		
57) 2-Hexanone	0.000		0	N.D.	d		
58) Chlorobenzene	10.470	112	553	0.11	ug/L	#	55
59) Ethylbenzene	10.489	91	756	0.10	ug/L		89
60) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	d		
61) m,p-Xylenes (2)	10.617	91	920	0.16	ug/L		98
62) o-Xylene	10.970	91	378	0.07	ug/L		95
63) Styrene	11.019	104	224	0.05	ug/L		97
64) Bromoform	0.000		0	N.D.	d		
65) Isopropylbenzene	11.220	105	392	0.06	ug/L		92
68) Bromobenzene	11.531	156	212	0.10	ug/L		88
69) n-Propylbenzene	11.543	91	703	0.09	ug/L		95
70) 1,1,2,2-Tetrachloroethane	11.604	83	251	0.09	ug/L		89
71) 2-Chlorotoluene	11.671	126	96	0.06	ug/L	#	67
72) 1,3,5-Trimethylbenzene	11.690	105	347	0.06	ug/L		74
73) 1,2,3-Trichloropropane	0.000		0	N.D.	d		
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
75) 4-Chlorotoluene	11.799	91	380	0.08	ug/L		80
76) tert-Butylbenzene	11.927	91	160	0.06	ug/L		91
77) 1,2,4-Trimethylbenzene	11.988	105	385	0.07	ug/L		81
78) sec-Butylbenzene	12.068	105	435	0.07	ug/L		97
79) 4-Isopropyltoluene	12.165	119	323	0.06	ug/L		84
80) 1,3-Dichlorobenzene	12.238	146	309	0.09	ug/L		99
81) 1,4-Dichlorobenzene	12.305	146	450	0.13	ug/L	#	56
82) n-Butylbenzene	12.488	91	309	0.07	ug/L		94
83) 1,2-Dichlorobenzene	12.635	146	309	0.09	ug/L		74
84) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
85) Hexachlorobutadiene	0.000		0	N.D.	d		
86) 1,2,4-Trichlorobenzene	13.884	180	123	0.06	ug/L		83
87) Naphthalene	0.000		0	N.D.	d		
88) 1,2,3-Trichlorobenzene	0.000		0	N.D.	d		

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102514.D
Acq On : 25 Oct 2019 4:53 pm
Operator : MM
Sample : 9J25051-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:27 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	86062	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	262978	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	128844	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	92408	51.80	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	305946	52.88	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	340973	49.80	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	110058	51.08	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	129	0.10	ug/L	#	51
3) Chloromethane	1.984	50	449	0.25	ug/L		89
4) Vinyl Chloride	2.112	62	144	0.09	ug/L		77
5) Bromomethane	2.551	96	151	0.18	ug/L		82
6) Chloroethane	2.722	64	59	0.15	ug/L	#	47
7) Trichlorofluoromethane	2.923	101	165	0.09	ug/L		81
8) Ethanol	3.630	45	266	5.60	ug/L		78
9) 1,1-Dichloroethene	3.588	61	208	0.10	ug/L		91
10) Carbon Disulfide	3.588	76	344	0.12	ug/L		78
11) Freon 113	3.655	101	163	0.10	ug/L	#	77
12) Iodomethane	0.000		0	N.D.			
13) Acrolein	0.000		0	N.D.			
14) Methylene Chloride	4.319	84	1819	1.07	ug/L		99
15) Acetone	4.411	43	1032	1.17	ug/L		91
16) t-1,2-Dichloroethene	4.514	61	216	0.10	ug/L		81
17) n-Hexane	0.000		0	N.D.			
18) Methyl-tert-butyl-ether	4.673	73	356	0.08	ug/L		57
19) tert-Butanol (TBA)	4.825	59	2096	5.40	ug/L	#	71
20) Diisopropyl ether (DIPE)	5.112	45	35	0.01	ug/L		60
21) 1,1-Dichloroethane	5.215	63	301	0.11	ug/L		84
22) Acrylonitrile	5.343	53	10	0.01	ug/L	#	14
23) Vinyl Acetate	0.000		0	N.D.			
24) Ethyl-tert-butyl ether...	5.508	59	19	0.00	ug/L	#	38
25) c-1,2-Dichloroethene	5.825	61	198	0.09	ug/L		82
26) 2,2-Dichloropropane	5.947	77	59	0.04	ug/L	#	32
27) Bromochloromethane	6.038	49	113	0.08	ug/L		90
28) Chloroform	6.130	83	266	0.09	ug/L		66
29) Carbon Tetrachloride	6.252	117	10	0.01	ug/L	#	20
30) Tetrahydrofuran	6.301	42	11	0.01	ug/L	#	30
31) 1,1,1-Trichloroethane	6.343	97	204	0.09	ug/L		74
33) 1,1-Dichloropropene	6.477	75	132	0.06	ug/L	#	65
34) 2-Butanone (MEK)	6.489	43	25	0.02	ug/L		52
35) Benzene	6.758	78	628	0.09	ug/L		75
36) tert-Amyl methyl ether...	6.916	73	11	0.00	ug/L	#	8
37) 1,2-Dichloroethane (EDC)	6.983	62	195	0.08	ug/L		81
38) iso-Butyl Alcohol	7.056	43	168	1.13	ug/L		67
40) Trichloroethene (TCE)	7.404	130	203	0.11	ug/L		87
41) tert-Amyl ethyl ether ...	0.000		0	N.D.			
42) Dibromomethane	7.892	93	64	0.05	ug/L	#	32
43) 1,2-Dichloropropane	7.995	63	158	0.09	ug/L		83
44) Bromodichloromethane	8.075	83	165	0.09	ug/L	#	26
46) 2-Chloroethyl Vinyl Ether	8.757	63	10	0.01	ug/L	#	1
47) c-1,3-Dichloropropene	8.812	75	120	0.05	ug/L	#	60

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102514.D
Acq On : 25 Oct 2019 4:53 pm
Operator : MM
Sample : 9J25051-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:27 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

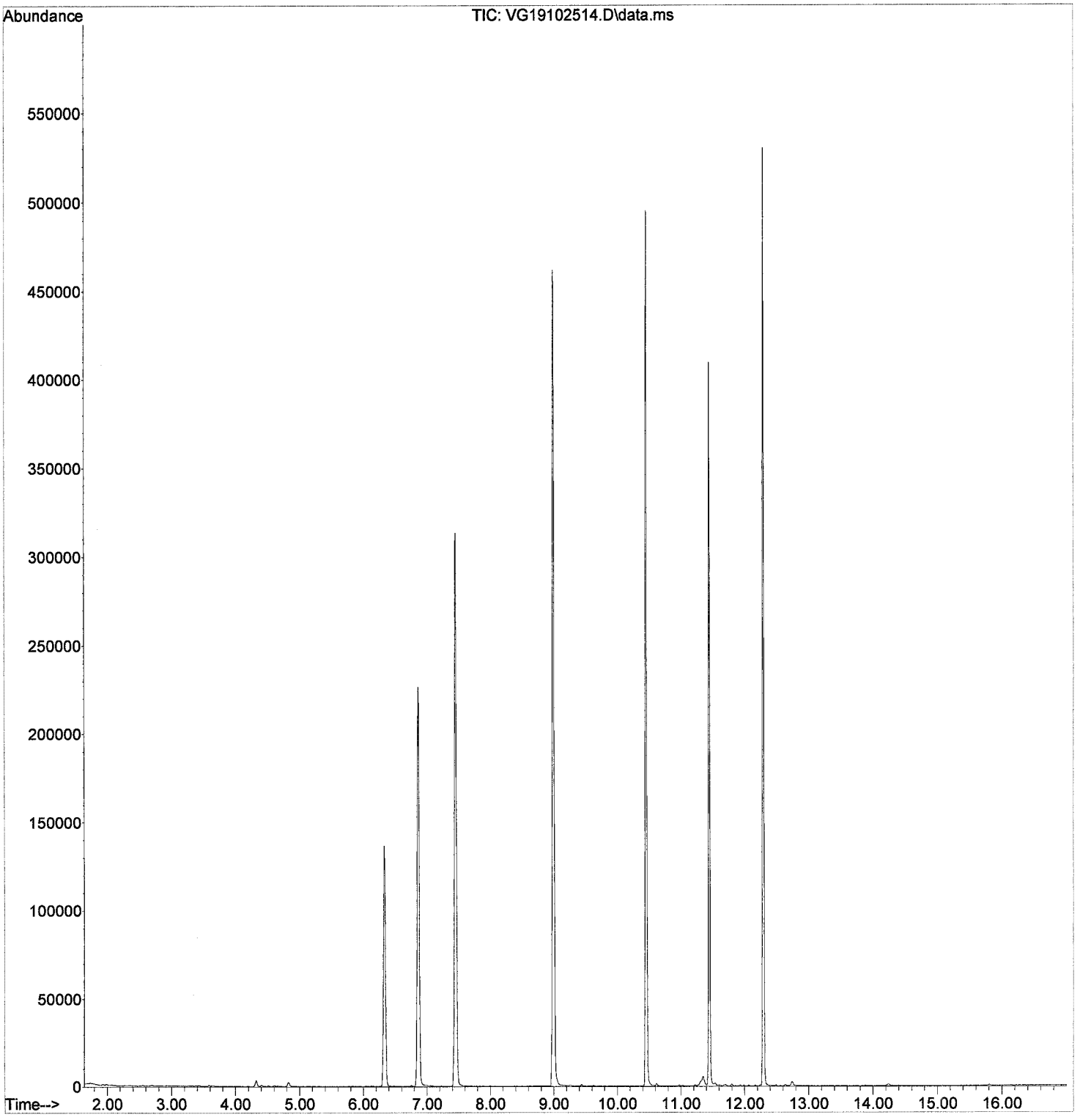
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	991	0.13	ug/L		90
50) Tetrachloroethene (PCE)	9.440	166	215	0.10	ug/L		74
51) 4-Methyl-2-Pentanone (...	9.446	43	316	0.12	ug/L		86
52) t-1,3-Dichloropropene	9.483	75	81	0.04	ug/L	#	45
53) 1,1,2-Trichloroethane	9.629	97	163	0.09	ug/L	#	63
54) Dibromochloromethane	9.794	129	42	0.02	ug/L	#	58
55) 1,3-Dichloropropane	9.879	76	265	0.09	ug/L		80
56) 1,2-Dibromoethane (EDB)	10.007	107	117	0.06	ug/L		85
57) 2-Hexanone	10.227	43	143	0.08	ug/L		71
58) Chlorobenzene	10.470	112	553	0.11	ug/L	#	55
59) Ethylbenzene	10.489	91	756	0.10	ug/L		89
60) 1,1,1,2-Tetrachloroethane	10.525	131	113	0.07	ug/L	#	61
61) m,p-Xylenes (2)	10.617	91	920	0.16	ug/L		98
62) o-Xylene	10.970	91	378	0.07	ug/L		95
63) Styrene	11.019	104	224	0.05	ug/L		97
64) Bromoform	11.037	173	29	0.02	ug/L	#	37
65) Isopropylbenzene	11.220	105	392	0.06	ug/L		92
68) Bromobenzene	11.531	156	212	0.10	ug/L		88
69) n-Propylbenzene	11.543	91	703	0.09	ug/L		95
70) 1,1,2,2-Tetrachloroethane	11.604	83	251	0.09	ug/L		89
71) 2-Chlorotoluene	11.671	126	96	0.06	ug/L	#	67
72) 1,3,5-Trimethylbenzene	11.690	105	347	0.06	ug/L		74
73) 1,2,3-Trichloropropane	11.702	110	63	0.08	ug/L	#	60
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
75) 4-Chlorotoluene	11.799	91	380	0.08	ug/L		80
76) tert-Butylbenzene	11.927	91	160	0.06	ug/L		91
77) 1,2,4-Trimethylbenzene	11.988	105	385	0.07	ug/L		81
78) sec-Butylbenzene	12.068	105	435	0.07	ug/L		97
79) 4-Isopropyltoluene	12.165	119	323	0.06	ug/L		84
80) 1,3-Dichlorobenzene	12.238	146	309	0.09	ug/L		99
81) 1,4-Dichlorobenzene	12.305	146	450	0.13	ug/L	#	56
82) n-Butylbenzene	12.488	91	309	0.07	ug/L		94
83) 1,2-Dichlorobenzene	12.635	146	309	0.09	ug/L		74
84) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
85) Hexachlorobutadiene	13.830	223	19	0.03	ug/L	#	1
86) 1,2,4-Trichlorobenzene	13.884	180	123	0.06	ug/L		83
87) Naphthalene	14.201	128	230	0.04	ug/L		79
88) 1,2,3-Trichlorobenzene	14.403	180	75	0.03	ug/L	#	12

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102514.D
Acq On : 25 Oct 2019 4:53 pm
Operator : MM
Sample : 9J25051-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:27 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102515.D
Acq On : 25 Oct 2019 5:20 pm
Operator : MM
Sample : 9J25051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:40:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	81493	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	248140	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	122815	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	87694	51.91	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	287858	52.54	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	320375	49.59	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	103556	50.37	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	263	0.21	ug/L		72
3) Chloromethane	1.984	50	619	0.36	ug/L		99
4) Vinyl Chloride	2.112	62	313	0.20	ug/L		94
5) Bromomethane	2.551	96	229	0.29	ug/L		80
6) Chloroethane	0.000		0	N.D.	d		
7) Trichlorofluoromethane	2.923	101	338	0.19	ug/L		78
8) Ethanol	0.000		0	N.D.	d		
9) 1,1-Dichloroethene	3.581	61	353	0.19	ug/L		98
10) Carbon Disulfide	3.588	76	583	0.21	ug/L		77
11) Freon 113	3.667	101	319	0.21	ug/L		77
12) Iodomethane	0.000		0	N.D.	d		
13) Acrolein	0.000		0	N.D.	d		
14) Methylene Chloride	4.319	84	1942	1.20	ug/L		91
15) Acetone	4.404	43	1117	1.34	ug/L		96
16) t-1,2-Dichloroethene	4.508	61	349	0.17	ug/L		93
17) n-Hexane	0.000		0	N.D.			
18) Methyl-tert-butyl-ether	4.667	73	645	0.16	ug/L		96
19) tert-Butanol (TBA)	4.825	59	3672	9.98	ug/L	#	66
20) Diisopropyl ether (DIPE)	0.000		0	N.D.	d		
21) 1,1-Dichloroethane	5.215	63	508	0.19	ug/L		95
22) Acrylonitrile	0.000		0	N.D.	d		
23) Vinyl Acetate	0.000		0	N.D.	d		
24) Ethyl-tert-butyl ether...	0.000		0	N.D.	d		
25) c-1,2-Dichloroethene	5.825	61	368	0.18	ug/L		93
26) 2,2-Dichloropropane	5.935	77	218	0.17	ug/L		59
27) Bromochloromethane	6.044	49	239	0.18	ug/L		83
28) Chloroform	6.136	83	550	0.20	ug/L		81
29) Carbon Tetrachloride	6.264	117	240	0.15	ug/L	#	63
30) Tetrahydrofuran	0.000		0	N.D.	d		
31) 1,1,1-Trichloroethane	6.337	97	348	0.17	ug/L		91
33) 1,1-Dichloropropene	6.483	75	307	0.15	ug/L		87
34) 2-Butanone (MEK)	0.000		0	N.D.	d		
35) Benzene	6.752	78	1235	0.19	ug/L		93
36) tert-Amyl methyl ether...	0.000		0	N.D.	d		
37) 1,2-Dichloroethane (EDC)	6.989	62	408	0.19	ug/L		71
38) iso-Butyl Alcohol	7.050	43	506	3.59	ug/L		92
40) Trichloroethene (TCE)	7.404	130	383	0.21	ug/L		79
41) tert-Amyl ethyl ether ...	0.000		0	N.D.	d		
42) Dibromomethane	7.892	93	165m	0.15	ug/L		
43) 1,2-Dichloropropane	8.001	63	327	0.20	ug/L		98
44) Bromodichloromethane	8.074	83	281	0.15	ug/L		96
46) 2-Chloroethyl Vinyl Ether	0.000		0	N.D.	d		
47) c-1,3-Dichloropropene	8.800	75	237	0.11	ug/L	#	52

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102515.D
Acq On : 25 Oct 2019 5:20 pm
Operator : MM
Sample : 9J25051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:40:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

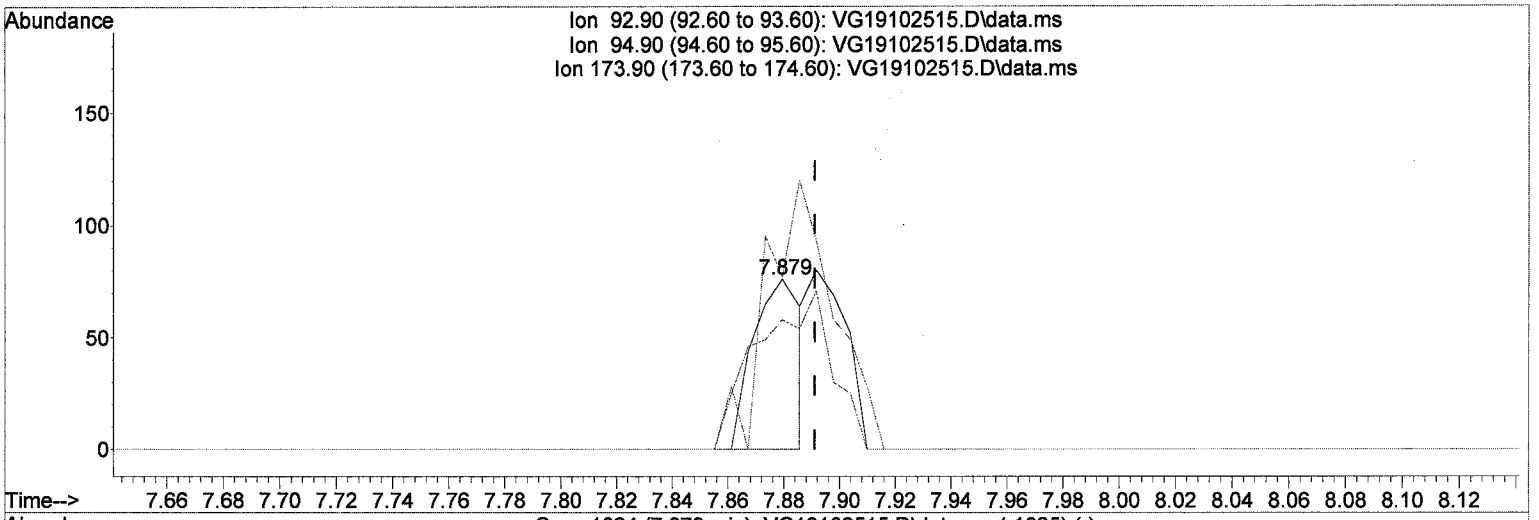
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	1534	0.21	ug/L		89
50) Tetrachloroethene (PCE)	9.434	166	428	0.22	ug/L		95
51) 4-Methyl-2-Pentanone (...	9.440	43	661	0.27	ug/L		78
52) t-1,3-Dichloropropene	9.483	75	211	0.11	ug/L		96
53) 1,1,2-Trichloroethane	9.635	97	312	0.17	ug/L		87
54) Dibromochloromethane	9.794	129	181	0.11	ug/L		87
55) 1,3-Dichloropropane	9.879	76	464	0.17	ug/L		83
56) 1,2-Dibromoethane (EDB)	10.007	107	286	0.15	ug/L		81
57) 2-Hexanone	10.220	43	303	0.17	ug/L		86
58) Chlorobenzene	10.464	112	977	0.20	ug/L	#	36
59) Ethylbenzene	10.489	91	1384	0.19	ug/L		97
60) 1,1,1,2-Tetrachloroethane	10.525	131	228	0.15	ug/L		84
61) m,p-Xylenes (2)	10.617	91	1670	0.31	ug/L		97
62) o-Xylene	10.970	91	748	0.14	ug/L		91
63) Styrene	11.019	104	473	0.11	ug/L		82
64) Bromoform	11.043	173	134	0.10	ug/L		81
65) Isopropylbenzene	11.220	105	829	0.13	ug/L		98
68) Bromobenzene	11.531	156	389	0.19	ug/L		97
69) n-Propylbenzene	11.543	91	1268	0.18	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.598	83	488	0.18	ug/L		90
71) 2-Chlorotoluene	11.671	126	243	0.15	ug/L	#	74
72) 1,3,5-Trimethylbenzene	11.690	105	719	0.13	ug/L		94
73) 1,2,3-Trichloropropane	11.708	110	154	0.19	ug/L	#	76
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
75) 4-Chlorotoluene	11.799	91	709	0.16	ug/L		87
76) tert-Butylbenzene	11.927	91	398	0.15	ug/L	#	70
77) 1,2,4-Trimethylbenzene	11.982	105	700	0.13	ug/L		88
78) sec-Butylbenzene	12.068	105	773	0.13	ug/L		98
79) 4-Isopropyltoluene	12.165	119	591	0.12	ug/L		92
80) 1,3-Dichlorobenzene	12.238	146	622	0.19	ug/L		86
81) 1,4-Dichlorobenzene	12.299	146	808	0.24	ug/L	#	26
82) n-Butylbenzene	12.488	91	574	0.14	ug/L		85
83) 1,2-Dichlorobenzene	12.635	146	584	0.18	ug/L		94
84) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.	d		
85) Hexachlorobutadiene	0.000		0	N.D.			
86) 1,2,4-Trichlorobenzene	13.884	180	228	0.11	ug/L		83
87) Naphthalene	14.207	128	453	0.08	ug/L		79
88) 1,2,3-Trichlorobenzene	14.396	180	188	0.09	ug/L		82

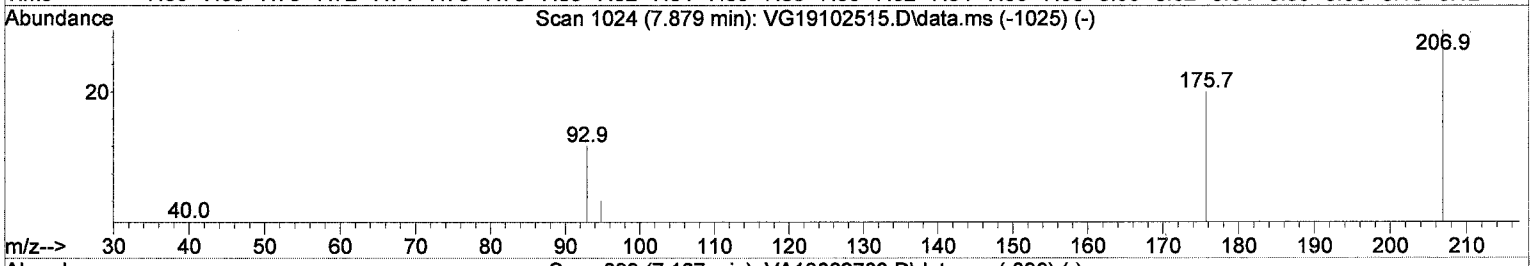
(#) = qualifier out of range (m) = manual integration (+) = signals summed

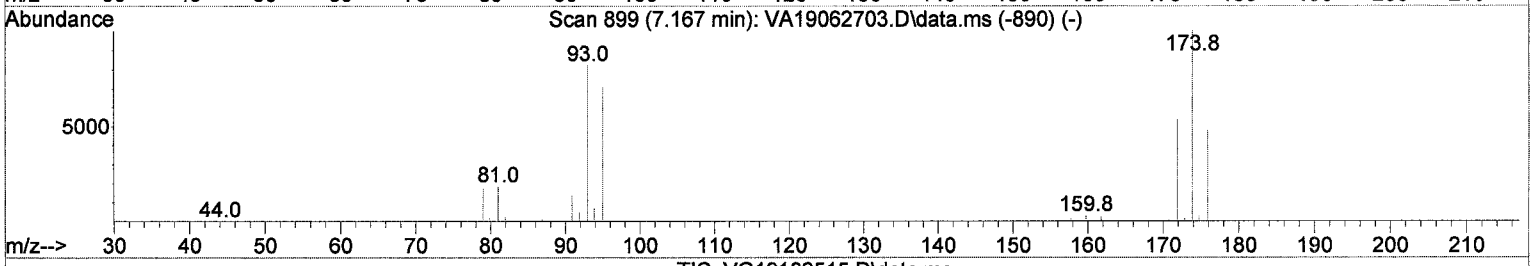
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102515.D
Acq On : 25 Oct 2019 5:20 pm
Operator : MM
Sample : 9J25051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:30 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration







TIC: VG19102515.D\data.ms

(42) Dibromomethane

7.879min (-0.012) 0.08 ug/L

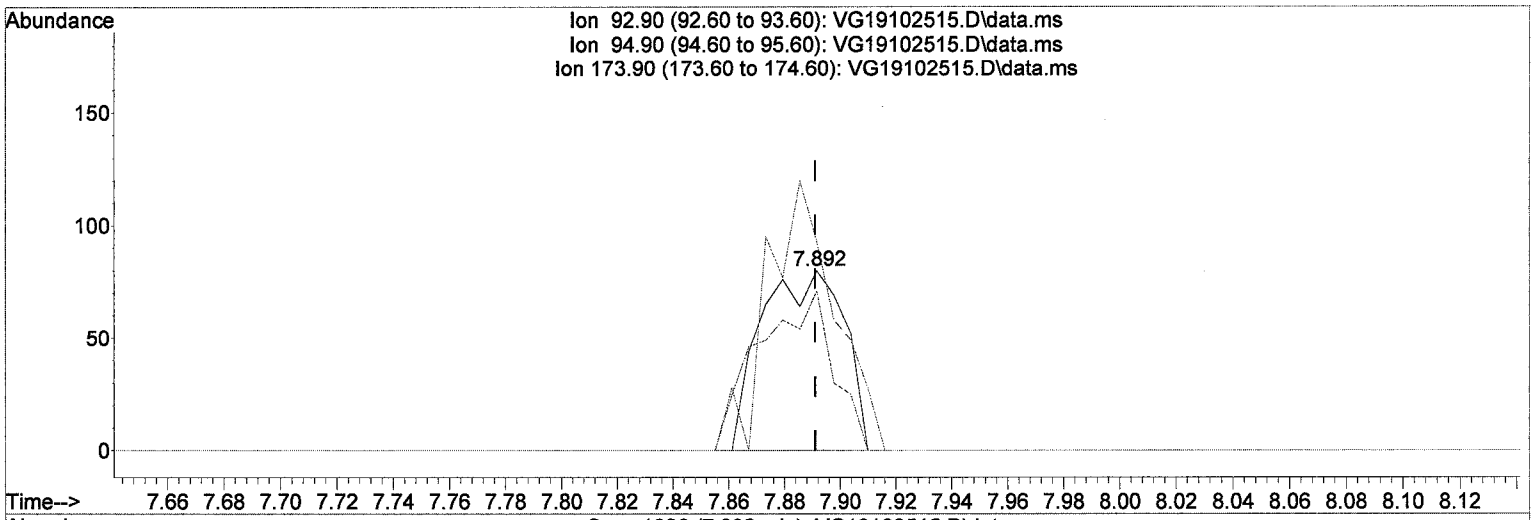
response 91

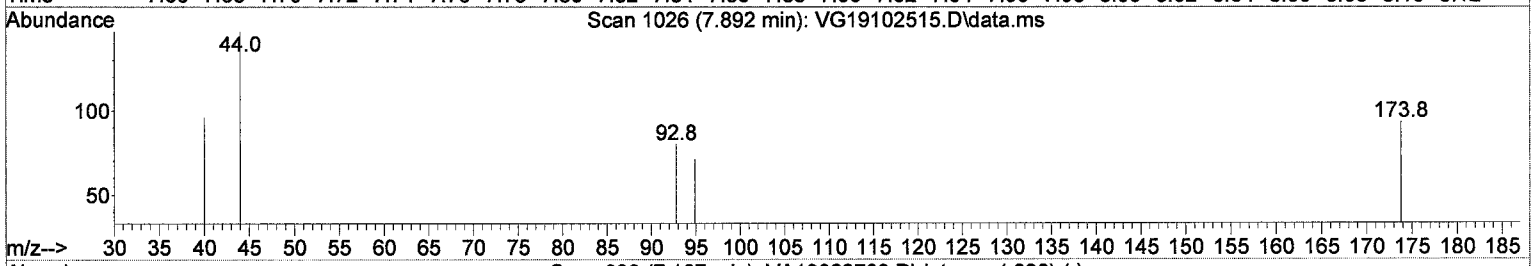
Ion	Exp%	Act%
92.90	100.00	100.00
94.90	83.10	76.32
173.90	115.70	101.32
0.00	0.00	0.00

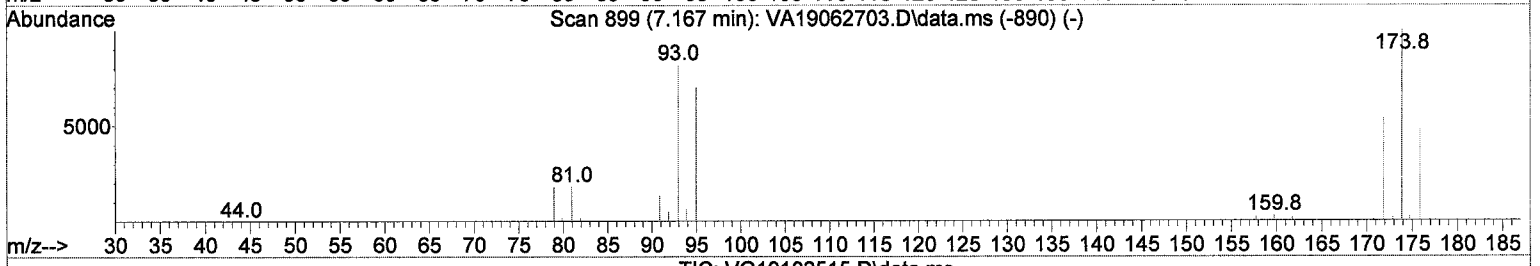
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102515.D
Acq On : 25 Oct 2019 5:20 pm
Operator : MM
Sample : 9J25051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:30 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration







TIC: VG19102515.D\data.ms

(42) Dibromomethane

7.892min (+ 0.001) 0.15 ug/L m

10/28/19

response 165

Ion	Exp%	Act%
92.90	100.00	100.00
94.90	83.10	88.75
173.90	115.70	116.25
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102515.D
Acq On : 25 Oct 2019 5:20 pm
Operator : MM
Sample : 9J25051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:30 2019
Quant Method : C:\msdchem\1\methods\~~VG191025W.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	81493	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	248140	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	122815	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	87694	51.91	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	287858	52.54	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	320375	49.59	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	103556	50.37	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	263	0.21	ug/L		72
3) Chloromethane	1.984	50	619	0.36	ug/L		99
4) Vinyl Chloride	2.112	62	313	0.20	ug/L		94
5) Bromomethane	2.551	96	229	0.29	ug/L		80
6) Chloroethane	2.728	64	137	0.36	ug/L	#	47
7) Trichlorofluoromethane	2.923	101	338	0.19	ug/L		78
8) Ethanol	3.630	45	529	11.75	ug/L		89
9) 1,1-Dichloroethene	3.581	61	353	0.19	ug/L		98
10) Carbon Disulfide	3.588	76	583	0.21	ug/L		77
11) Freon 113	3.667	101	319	0.21	ug/L		77
12) Iodomethane	3.746	142	22	0.04	ug/L	#	47
13) Acrolein	4.039	56	35	0.08	ug/L	#	23
14) Methylene Chloride	4.319	84	1942	1.20	ug/L		91
15) Acetone	4.404	43	1117	1.34	ug/L		96
16) t-1,2-Dichloroethene	4.508	61	349	0.17	ug/L		93
17) n-Hexane	0.000		0	N.D.			
18) Methyl-tert-butyl-ether	4.667	73	645	0.16	ug/L		96
19) tert-Butanol (TBA)	4.825	59	3672	9.98	ug/L	#	66
20) Diisopropyl ether (DIPE)	5.124	45	144	0.03	ug/L	#	33
21) 1,1-Dichloroethane	5.215	63	508	0.19	ug/L		95
22) Acrylonitrile	5.295	53	109	0.11	ug/L	#	14
23) Vinyl Acetate	5.551	43	104	0.04	ug/L		74
24) Ethyl-tert-butyl ether...	5.520	59	80	0.02	ug/L	#	72
25) c-1,2-Dichloroethene	5.825	61	368	0.18	ug/L		93
26) 2,2-Dichloropropane	5.935	77	218	0.17	ug/L		59
27) Bromochloromethane	6.044	49	239	0.18	ug/L		83
28) Chloroform	6.136	83	550	0.20	ug/L		81
29) Carbon Tetrachloride	6.264	117	240	0.15	ug/L	#	63
30) Tetrahydrofuran	6.313	42	50	0.06	ug/L	#	30
31) 1,1,1-Trichloroethane	6.337	97	348	0.17	ug/L		91
33) 1,1-Dichloropropene	6.483	75	307	0.15	ug/L		87
34) 2-Butanone (MEK)	6.496	43	192	0.15	ug/L		52
35) Benzene	6.752	78	1235	0.19	ug/L		93
36) tert-Amyl methyl ether...	6.898	73	143	0.04	ug/L	#	1
37) 1,2-Dichloroethane (EDC)	6.989	62	408	0.19	ug/L		71
38) iso-Butyl Alcohol	7.050	43	506	3.59	ug/L		92
40) Trichloroethene (TCE)	7.404	130	383	0.21	ug/L		79
41) tert-Amyl ethyl ether ...	7.678	59	21	0.01	ug/L	#	42
42) Dibromomethane	~~7.879~~	~~93~~	~~91~~	~~0.08~~	~~ug/L~~		~~89~~ MI 165
43) 1,2-Dichloropropane	8.001	63	327	0.20	ug/L		98
44) Bromodichloromethane	8.074	83	281	0.15	ug/L		96
46) 2-Chloroethyl Vinyl Ether	8.745	63	19	0.02	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	237	0.11	ug/L	#	52

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102515.D
Acq On : 25 Oct 2019 5:20 pm
Operator : MM
Sample : 9J25051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:30 2019
Quant Method : C:\msdchem\1\methods\VG~~191025W.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

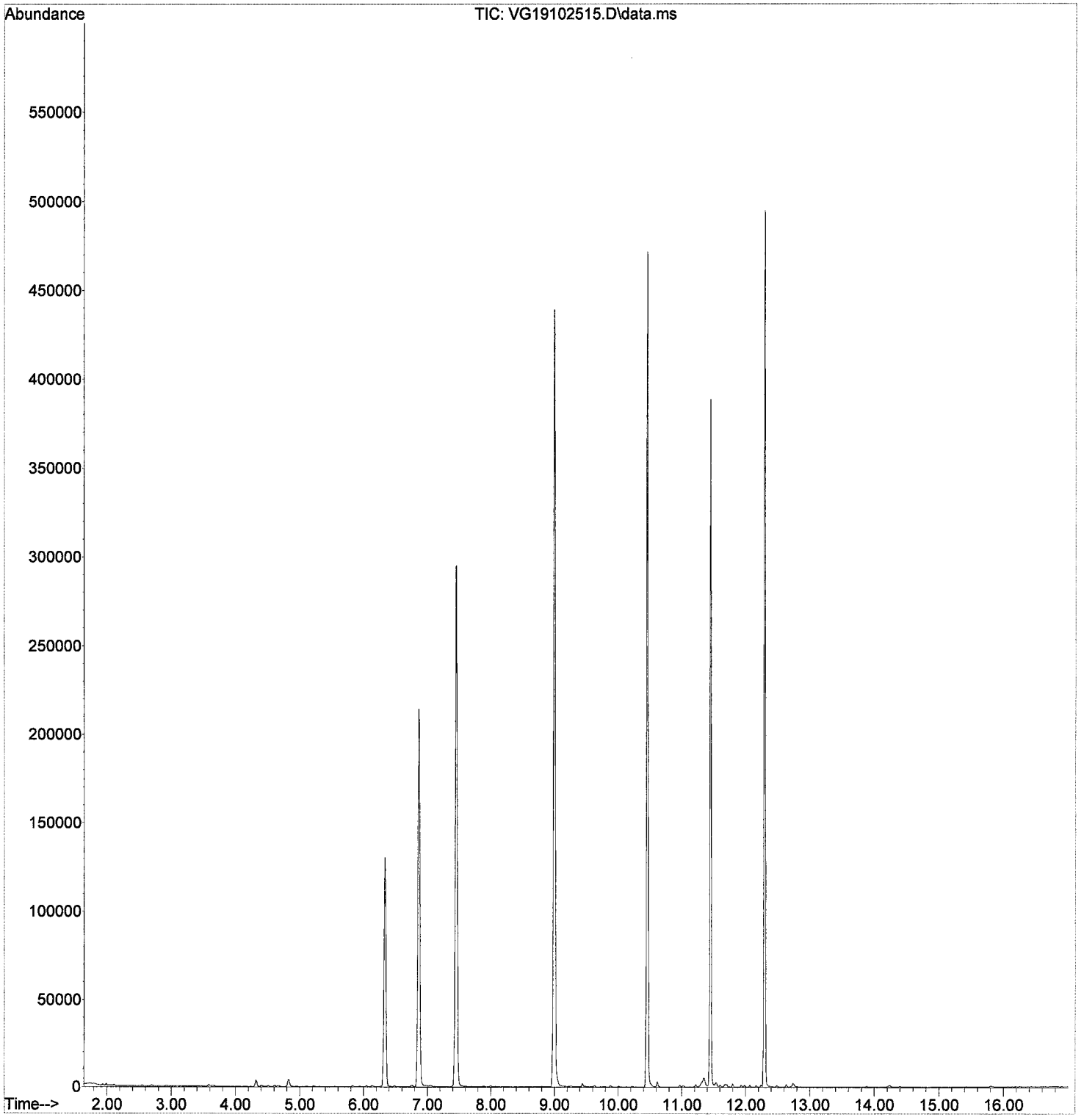
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	1534	0.21	ug/L		89
50) Tetrachloroethene (PCE)	9.434	166	428	0.22	ug/L		95
51) 4-Methyl-2-Pentanone (...	9.440	43	661	0.27	ug/L		78
52) t-1,3-Dichloropropene	9.483	75	211	0.11	ug/L		96
53) 1,1,2-Trichloroethane	9.635	97	312	0.17	ug/L		87
54) Dibromochloromethane	9.794	129	181	0.11	ug/L		87
55) 1,3-Dichloropropane	9.879	76	464	0.17	ug/L		83
56) 1,2-Dibromoethane (EDB)	10.007	107	286	0.15	ug/L		81
57) 2-Hexanone	10.220	43	303	0.17	ug/L		86
58) Chlorobenzene	10.464	112	977	0.20	ug/L	#	36
59) Ethylbenzene	10.489	91	1384	0.19	ug/L		97
60) 1,1,1,2-Tetrachloroethane	10.525	131	228	0.15	ug/L		84
61) m,p-Xylenes (2)	10.617	91	1670	0.31	ug/L		97
62) o-Xylene	10.970	91	748	0.14	ug/L		91
63) Styrene	11.019	104	473	0.11	ug/L		82
64) Bromoform	11.043	173	134	0.10	ug/L		81
65) Isopropylbenzene	11.220	105	829	0.13	ug/L		98
68) Bromobenzene	11.531	156	389	0.19	ug/L		97
69) n-Propylbenzene	11.543	91	1268	0.18	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.598	83	488	0.18	ug/L		90
71) 2-Chlorotoluene	11.671	126	243	0.15	ug/L	#	74
72) 1,3,5-Trimethylbenzene	11.690	105	719	0.13	ug/L		94
73) 1,2,3-Trichloropropane	11.708	110	154	0.19	ug/L	#	76
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
75) 4-Chlorotoluene	11.799	91	709	0.16	ug/L		87
76) tert-Butylbenzene	11.927	91	398	0.15	ug/L	#	70
77) 1,2,4-Trimethylbenzene	11.982	105	700	0.13	ug/L		88
78) sec-Butylbenzene	12.068	105	773	0.13	ug/L		98
79) 4-Isopropyltoluene	12.165	119	591	0.12	ug/L		92
80) 1,3-Dichlorobenzene	12.238	146	622	0.19	ug/L		86
81) 1,4-Dichlorobenzene	12.299	146	808	0.24	ug/L	#	26
82) n-Butylbenzene	12.488	91	574	0.14	ug/L		85
83) 1,2-Dichlorobenzene	12.635	146	584	0.18	ug/L		94
84) 1,2-Dibromo-3-Chloropr...	13.287	157	31	0.05	ug/L	#	18
85) Hexachlorobutadiene	0.000		0	N.D.			
86) 1,2,4-Trichlorobenzene	13.884	180	228	0.11	ug/L		83
87) Naphthalene	14.207	128	453	0.08	ug/L		79
88) 1,2,3-Trichlorobenzene	14.396	180	188	0.09	ug/L		82

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102515.D
Acq On : 25 Oct 2019 5:20 pm
Operator : MM
Sample : 9J25051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:30 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102516.D
Acq On : 25 Oct 2019 5:47 pm
Operator : MM
Sample : 9J25051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:43:31 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	78410	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	236751	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	116929	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	83807	51.56	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	275500	52.27	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	309475	50.21	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	97363	49.74	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	405	0.33	ug/L		90
3) Chloromethane	1.984	50	914	0.55	ug/L		90
4) Vinyl Chloride	2.112	62	546	0.36	ug/L		83
5) Bromomethane	2.545	96	415	0.55	ug/L		77
6) Chloroethane	2.722	64	183	0.50	ug/L	#	65
7) Trichlorofluoromethane	2.923	101	650	0.39	ug/L		89
8) Ethanol	3.630	45	1029	23.76	ug/L		76
9) 1,1-Dichloroethene	3.588	61	720	0.39	ug/L		98
10) Carbon Disulfide	3.588	76	958	0.35	ug/L		93
11) Freon 113	3.655	101	578	0.39	ug/L		88
12) Iodomethane	0.000		0	N.D.	d		
13) Acrolein	0.000		0	N.D.	d		
14) Methylene Chloride	4.319	84	2043	1.31	ug/L		94
15) Acetone	4.404	43	1426	1.78	ug/L		96
16) t-1,2-Dichloroethene	4.508	61	721	0.37	ug/L		83
17) n-Hexane	4.624	86	10	0.05	ug/L	#	22
18) Methyl-tert-butyl-ether	4.667	73	1243	0.32	ug/L		95
19) tert-Butanol (TBA)	4.825	59	6902	19.51	ug/L	#	52
20) Diisopropyl ether (DIPE)	5.106	45	342	0.08	ug/L		78
21) 1,1-Dichloroethane	5.215	63	980	0.38	ug/L		98
22) Acrylonitrile	5.295	53	292	0.31	ug/L		83
23) Vinyl Acetate	0.000		0	N.D.	d		
24) Ethyl-tert-butyl ether...	5.520	59	277	0.07	ug/L	#	76
25) c-1,2-Dichloroethene	5.831	61	741	0.37	ug/L		88
26) 2,2-Dichloropropane	5.935	77	361	0.30	ug/L	#	53
27) Bromochloromethane	6.038	49	529	0.42	ug/L		93
28) Chloroform	6.136	83	984	0.37	ug/L		96
29) Carbon Tetrachloride	6.264	117	447	0.28	ug/L		92
30) Tetrahydrofuran	6.313	42	247	0.30	ug/L		89
31) 1,1,1-Trichloroethane	6.343	97	733	0.36	ug/L		96
33) 1,1-Dichloropropene	6.483	75	621	0.31	ug/L		94
34) 2-Butanone (MEK)	6.483	43	681	0.54	ug/L		86
35) Benzene	6.752	78	2314	0.37	ug/L		91
36) tert-Amyl methyl ether...	0.000		0	N.D.	d		
37) 1,2-Dichloroethane (EDC)	6.983	62	804	0.38	ug/L		91
38) iso-Butyl Alcohol	7.050	43	1036	7.65	ug/L		68
40) Trichloroethene (TCE)	7.404	130	739	0.43	ug/L		94
41) tert-Amyl ethyl ether ...	7.684	59	195	0.08	ug/L	#	58
42) Dibromomethane	7.892	93	364	0.34	ug/L		97
43) 1,2-Dichloropropane	7.989	63	585	0.37	ug/L		79
44) Bromodichloromethane	8.081	83	561	0.32	ug/L		85
46) 2-Chloroethyl Vinyl Ether	8.751	63	147	0.15	ug/L	#	1
47) c-1,3-Dichloropropene	8.806	75	512	0.24	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102516.D
Acq On : 25 Oct 2019 5:47 pm
Operator : MM
Sample : 9J25051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:43:31 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	2717	0.39	ug/L		97
50) Tetrachloroethene (PCE)	9.440	166	724	0.38	ug/L		88
51) 4-Methyl-2-Pentanone (...	9.446	43	1338	0.58	ug/L		98
52) t-1,3-Dichloropropene	9.477	75	400	0.23	ug/L		97
53) 1,1,2-Trichloroethane	9.623	97	608	0.35	ug/L		95
54) Dibromochloromethane	9.794	129	425	0.27	ug/L		88
55) 1,3-Dichloropropane	9.879	76	881	0.33	ug/L		77
56) 1,2-Dibromoethane (EDB)	10.007	107	559	0.31	ug/L		91
57) 2-Hexanone	10.214	43	717	0.43	ug/L		97
58) Chlorobenzene	10.470	112	1806	0.39	ug/L		87
59) Ethylbenzene	10.489	91	2478	0.35	ug/L		96
60) 1,1,1,2-Tetrachloroethane	10.525	131	486	0.33	ug/L		96
61) m,p-Xylenes (2)	10.617	91	3107	0.60	ug/L		98
62) o-Xylene	10.970	91	1387	0.28	ug/L		97
63) Styrene	11.019	104	899	0.22	ug/L		98
64) Bromoform	11.043	173	316	0.26	ug/L		75
65) Isopropylbenzene	11.220	105	1525	0.25	ug/L		95
68) Bromobenzene	11.531	156	732	0.37	ug/L		97
69) n-Propylbenzene	11.543	91	2261	0.33	ug/L		96
70) 1,1,2,2-Tetrachloroethane	11.604	83	967	0.38	ug/L		95
71) 2-Chlorotoluene	11.671	126	481	0.30	ug/L		96
72) 1,3,5-Trimethylbenzene	11.690	105	1388	0.27	ug/L		98
73) 1,2,3-Trichloropropane	11.702	110	290	0.38	ug/L	#	72
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.	d		
75) 4-Chlorotoluene	11.799	91	1263	0.29	ug/L		92
76) tert-Butylbenzene	11.927	91	728	0.29	ug/L		87
77) 1,2,4-Trimethylbenzene	11.982	105	1235	0.24	ug/L		94
78) sec-Butylbenzene	12.062	105	1554	0.27	ug/L		97
79) 4-Isopropyltoluene	12.165	119	1094	0.23	ug/L		97
80) 1,3-Dichlorobenzene	12.238	146	1072	0.33	ug/L		100
81) 1,4-Dichlorobenzene	12.305	146	1394	0.43	ug/L		84
82) n-Butylbenzene	12.488	91	1096	0.27	ug/L		92
83) 1,2-Dichlorobenzene	12.628	146	1052	0.33	ug/L		95
84) 1,2-Dibromo-3-Chloropr...	13.287	157	121	0.22	ug/L		84
85) Hexachlorobutadiene	13.829	223	161	0.32	ug/L		93
86) 1,2,4-Trichlorobenzene	13.872	180	459	0.23	ug/L		93
87) Naphthalene	14.201	128	915	0.16	ug/L		89
88) 1,2,3-Trichlorobenzene	14.396	180	435	0.22	ug/L		92

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102516.D
Acq On : 25 Oct 2019 5:47 pm
Operator : MM
Sample : 9J25051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:33 2019
Quant Method : C:\msdchem\1\methods\~~VG191025W.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	78410	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	236751	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	116929	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	83807	51.56	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	275500	52.27	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	309475	50.21	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	97363	49.74	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	405	0.33	ug/L		90
3) Chloromethane	1.984	50	914	0.55	ug/L		90
4) Vinyl Chloride	2.112	62	546	0.36	ug/L		83
5) Bromomethane	2.545	96	415	0.55	ug/L		77
6) Chloroethane	2.722	64	183	0.50	ug/L	#	65
7) Trichlorofluoromethane	2.923	101	650	0.39	ug/L		89
8) Ethanol	3.630	45	1029	23.76	ug/L		76
9) 1,1-Dichloroethene	3.588	61	720	0.39	ug/L		98
10) Carbon Disulfide	3.588	76	958	0.35	ug/L		93
11) Freon 113	3.655	101	578	0.39	ug/L		88
12) Iodomethane	3.740	142	27	0.05	ug/L	#	47
13) Acrolein	4.039	56	89	0.22	ug/L		96
14) Methylene Chloride	4.319	84	2043	1.31	ug/L		94
15) Acetone	4.404	43	1426	1.78	ug/L		96
16) t-1,2-Dichloroethene	4.508	61	721	0.37	ug/L		83
17) n-Hexane	4.624	86	10	0.05	ug/L	#	22
18) Methyl-tert-butyl-ether	4.667	73	1243	0.32	ug/L		95
19) tert-Butanol (TBA)	4.825	59	6902	19.51	ug/L	#	52
20) Diisopropyl ether (DIPE)	5.106	45	342	0.08	ug/L		78
21) 1,1-Dichloroethane	5.215	63	980	0.38	ug/L		98
22) Acrylonitrile	5.295	53	292	0.31	ug/L		83
23) Vinyl Acetate	5.544	43	406	0.15	ug/L		74
24) Ethyl-tert-butyl ether...	5.520	59	277	0.07	ug/L	#	76
25) c-1,2-Dichloroethene	5.831	61	741	0.37	ug/L		88
26) 2,2-Dichloropropane	5.935	77	361	0.30	ug/L	#	53
27) Bromochloromethane	6.038	49	529	0.42	ug/L		93
28) Chloroform	6.136	83	984	0.37	ug/L		96
29) Carbon Tetrachloride	6.264	117	447	0.28	ug/L		92
30) Tetrahydrofuran	6.313	42	247	0.30	ug/L		89
31) 1,1,1-Trichloroethane	6.343	97	733	0.36	ug/L		96
33) 1,1-Dichloropropene	6.483	75	621	0.31	ug/L		94
34) 2-Butanone (MEK)	6.483	43	681	0.54	ug/L		86
35) Benzene	6.752	78	2314	0.37	ug/L		91
36) tert-Amyl methyl ether...	6.892	73	326	0.09	ug/L	#	1
37) 1,2-Dichloroethane (EDC)	6.983	62	804	0.38	ug/L		91
38) iso-Butyl Alcohol	7.050	43	1036	7.65	ug/L		68
40) Trichloroethene (TCE)	7.404	130	739	0.43	ug/L		94
41) tert-Amyl ethyl ether ...	7.684	59	195	0.08	ug/L	#	58
42) Dibromomethane	7.892	93	364	0.34	ug/L		97
43) 1,2-Dichloropropane	7.989	63	585	0.37	ug/L		79
44) Bromodichloromethane	8.081	83	561	0.32	ug/L		85
46) 2-Chloroethyl Vinyl Ether	8.751	63	147	0.15	ug/L	#	1
47) c-1,3-Dichloropropene	8.806	75	512	0.24	ug/L		100

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102516.D
Acq On : 25 Oct 2019 5:47 pm
Operator : MM
Sample : 9J25051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:33 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

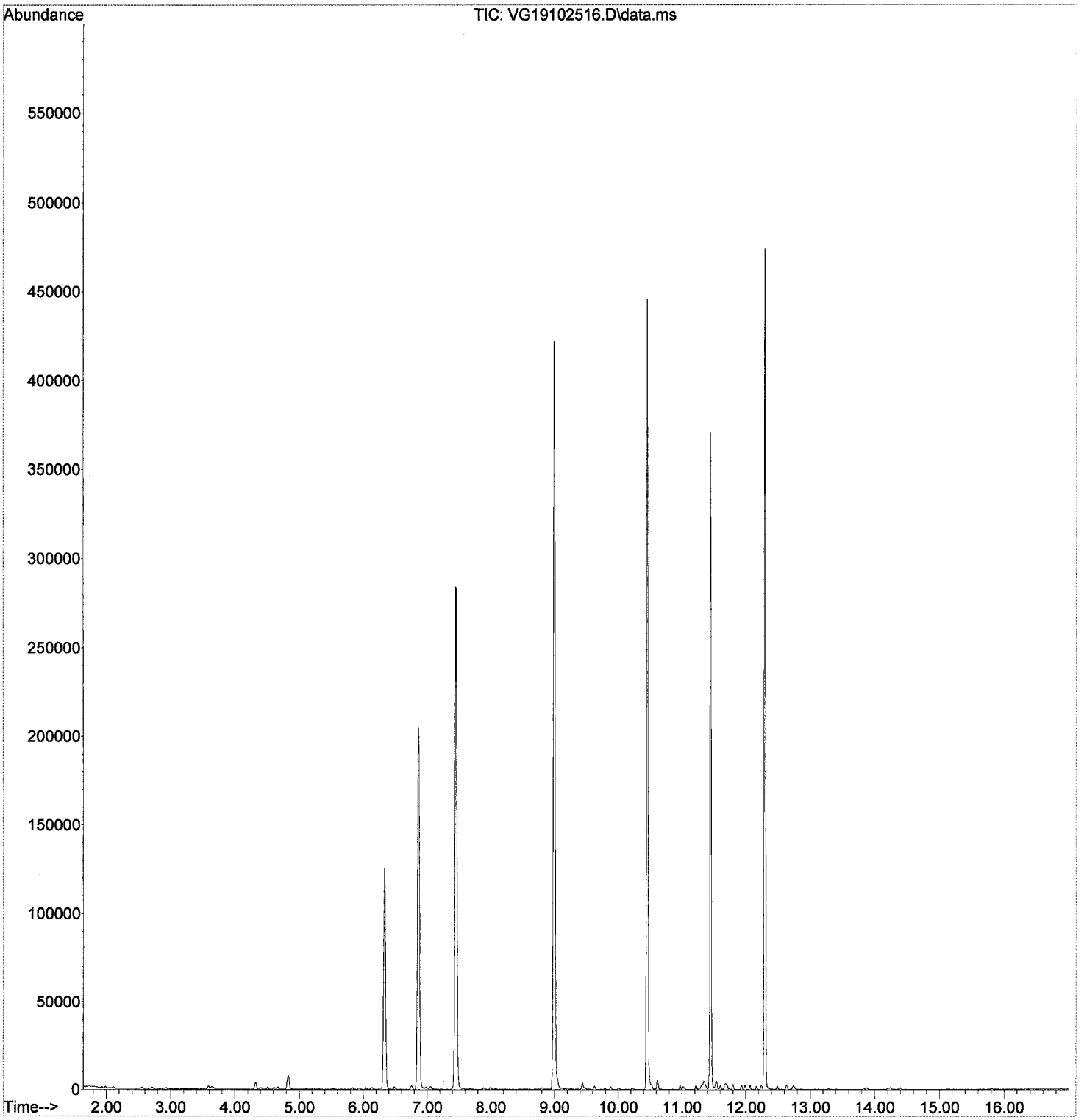
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	2717	0.39	ug/L		97
50) Tetrachloroethene (PCE)	9.440	166	724	0.38	ug/L		88
51) 4-Methyl-2-Pentanone (...	9.446	43	1338	0.58	ug/L		98
52) t-1,3-Dichloropropene	9.477	75	400	0.23	ug/L		97
53) 1,1,2-Trichloroethane	9.623	97	608	0.35	ug/L		95
54) Dibromochloromethane	9.794	129	425	0.27	ug/L		88
55) 1,3-Dichloropropane	9.879	76	881	0.33	ug/L		77
56) 1,2-Dibromoethane (EDB)	10.007	107	559	0.31	ug/L		91
57) 2-Hexanone	10.214	43	717	0.43	ug/L		97
58) Chlorobenzene	10.470	112	1806	0.39	ug/L		87
59) Ethylbenzene	10.489	91	2478	0.35	ug/L		96
60) 1,1,1,2-Tetrachloroethane	10.525	131	486	0.33	ug/L		96
61) m,p-Xylenes (2)	10.617	91	3107	0.60	ug/L		98
62) o-Xylene	10.970	91	1387	0.28	ug/L		97
63) Styrene	11.019	104	899	0.22	ug/L		98
64) Bromoform	11.043	173	316	0.26	ug/L		75
65) Isopropylbenzene	11.220	105	1525	0.25	ug/L		95
68) Bromobenzene	11.531	156	732	0.37	ug/L		97
69) n-Propylbenzene	11.543	91	2261	0.33	ug/L		96
70) 1,1,2,2-Tetrachloroethane	11.604	83	967	0.38	ug/L		95
71) 2-Chlorotoluene	11.671	126	481	0.30	ug/L		96
72) 1,3,5-Trimethylbenzene	11.690	105	1388	0.27	ug/L		98
73) 1,2,3-Trichloropropane	11.702	110	290	0.38	ug/L	#	72
74) t-1,4-Dichloro-2-butene	11.744	88	10	0.05	ug/L	#	28
75) 4-Chlorotoluene	11.799	91	1263	0.29	ug/L		92
76) tert-Butylbenzene	11.927	91	728	0.29	ug/L		87
77) 1,2,4-Trimethylbenzene	11.982	105	1235	0.24	ug/L		94
78) sec-Butylbenzene	12.062	105	1554	0.27	ug/L		97
79) 4-Isopropyltoluene	12.165	119	1094	0.23	ug/L		97
80) 1,3-Dichlorobenzene	12.238	146	1072	0.33	ug/L		100
81) 1,4-Dichlorobenzene	12.305	146	1394	0.43	ug/L		84
82) n-Butylbenzene	12.488	91	1096	0.27	ug/L		92
83) 1,2-Dichlorobenzene	12.628	146	1052	0.33	ug/L		95
84) 1,2-Dibromo-3-Chloropr...	13.287	157	121	0.22	ug/L		84
85) Hexachlorobutadiene	13.829	223	161	0.32	ug/L		93
86) 1,2,4-Trichlorobenzene	13.872	180	459	0.23	ug/L		93
87) Naphthalene	14.201	128	915	0.16	ug/L		89
88) 1,2,3-Trichlorobenzene	14.396	180	435	0.22	ug/L		92

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102516.D
Acq On : 25 Oct 2019 5:47 pm
Operator : MM
Sample : 9J25051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:33 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102517.D
Acq On : 25 Oct 2019 6:14 pm
Operator : MM
Sample : 9J25051-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:44:54 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	87837	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	266623	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	134840	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	93451	51.32	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	309533	52.42	ug/L		-0.01
48) Toluene-d8 (S)	8.989	98	348152	50.16	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	112252	49.73	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	1328	0.96	ug/L		98
3) Chloromethane	1.984	50	2027	1.08	ug/L		88
4) Vinyl Chloride	2.112	62	1682	0.98	ug/L		99
5) Bromomethane	2.545	96	1031	1.22	ug/L		99
6) Chloroethane	2.722	64	473	1.15	ug/L	#	34
7) Trichlorofluoromethane	2.917	101	1893	1.01	ug/L		99
8) Ethanol	3.636	45	2873	59.21	ug/L		93
9) 1,1-Dichloroethene	3.581	61	2001	0.98	ug/L		92
10) Carbon Disulfide	3.588	76	2616	0.86	ug/L		95
11) Freon 113	3.661	101	1595	0.95	ug/L		83
12) Iodomethane	0.000		0	N.D.	d		
13) Acrolein	4.027	56	363	0.81	ug/L		85
14) Methylene Chloride	4.319	84	3475	1.99	ug/L		89
15) Acetone	4.404	43	2696	3.00	ug/L		97
16) t-1,2-Dichloroethene	4.508	61	2024	0.92	ug/L		94
17) n-Hexane	4.606	86	168	0.70	ug/L	#	60
18) Methyl-tert-butyl-ether	4.667	73	3585	0.82	ug/L		92
19) tert-Butanol (TBA)	4.825	59	19370	48.87	ug/L	#	57
20) Diisopropyl ether (DIPE)	5.112	45	1029	0.21	ug/L		96
21) 1,1-Dichloroethane	5.215	63	2990	1.03	ug/L		97
22) Acrylonitrile	5.295	53	831	0.78	ug/L		98
23) Vinyl Acetate	5.532	43	1655	0.53	ug/L		87
24) Ethyl-tert-butyl ether...	5.514	59	799	0.18	ug/L		92
25) c-1,2-Dichloroethene	5.819	61	2038	0.90	ug/L		95
26) 2,2-Dichloropropane	5.935	77	1277	0.95	ug/L	#	51
27) Bromochloromethane	6.038	49	1485	1.06	ug/L		95
28) Chloroform	6.136	83	2916	0.98	ug/L		97
29) Carbon Tetrachloride	6.264	117	1387	0.78	ug/L		95
30) Tetrahydrofuran	6.319	42	728	0.79	ug/L		80
31) 1,1,1-Trichloroethane	6.337	97	2025	0.90	ug/L		95
33) 1,1-Dichloropropene	6.477	75	1862	0.83	ug/L		97
34) 2-Butanone (MEK)	6.483	43	2324	1.63	ug/L		90
35) Benzene	6.752	78	6507	0.92	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	1071	0.27	ug/L	#	58
37) 1,2-Dichloroethane (EDC)	6.983	62	2322	0.99	ug/L		99
38) iso-Butyl Alcohol	7.044	43	3182	20.97	ug/L		89
40) Trichloroethene (TCE)	7.410	130	1961	1.02	ug/L		88
41) tert-Amyl ethyl ether ...	7.684	59	584	0.22	ug/L		80
42) Dibromomethane	7.879	93	1159	0.96	ug/L		96
43) 1,2-Dichloropropane	7.995	63	1670	0.94	ug/L		93
44) Bromodichloromethane	8.075	83	1774	0.90	ug/L		97
46) 2-Chloroethyl Vinyl Ether	8.739	63	648	0.60	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	1512	0.64	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102517.D
Acq On : 25 Oct 2019 6:14 pm
Operator : MM
Sample : 9J25051-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:44:54 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

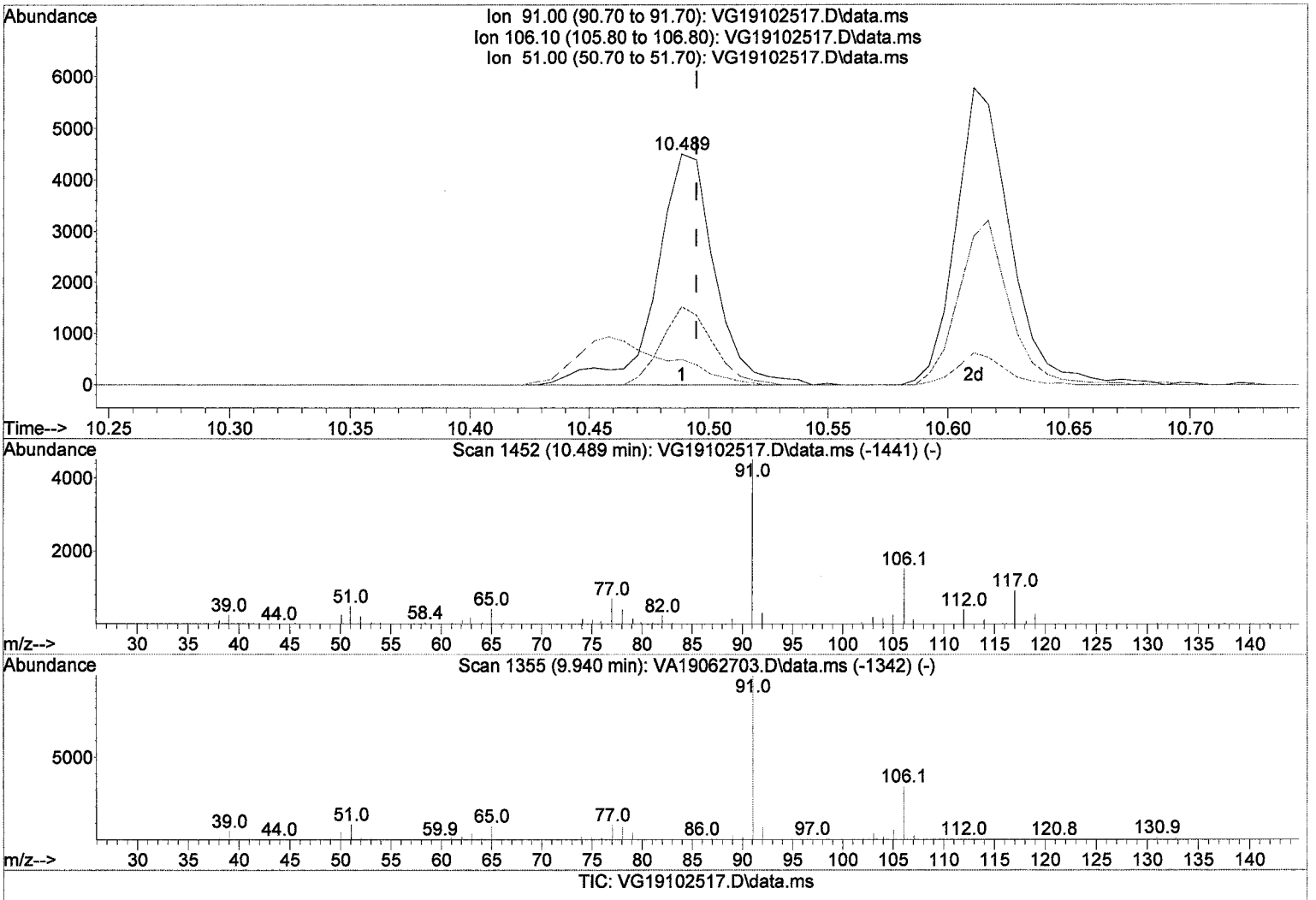
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	7737	0.99	ug/L		95
50) Tetrachloroethene (PCE)	9.440	166	2028	0.96	ug/L		86
51) 4-Methyl-2-Pentanone (...	9.440	43	3944	1.53	ug/L		93
52) t-1,3-Dichloropropene	9.471	75	1296	0.65	ug/L		86
53) 1,1,2-Trichloroethane	9.623	97	1761	0.91	ug/L		96
54) Dibromochloromethane	9.788	129	1298	0.73	ug/L		92
55) 1,3-Dichloropropane	9.879	76	2761	0.92	ug/L		94
56) 1,2-Dibromoethane (EDB)	10.007	107	1647	0.82	ug/L		99
57) 2-Hexanone	10.214	43	2488	1.32	ug/L		96
58) Chlorobenzene	10.470	112	5325	1.02	ug/L		98
59) Ethylbenzene	10.489	91	7230m	0.91	ug/L		
60) 1,1,1,2-Tetrachloroethane	10.519	131	1443	0.87	ug/L		97
61) m,p-Xylenes (2)	10.611	91	9040	1.55	ug/L		98
62) o-Xylene	10.970	91	4144	0.74	ug/L		95
63) Styrene	11.013	104	2917	0.63	ug/L		95
64) Bromoform	11.037	173	931	0.67	ug/L		95
65) Isopropylbenzene	11.220	105	4739	0.68	ug/L		96
68) Bromobenzene	11.531	156	2221	0.97	ug/L		96
69) n-Propylbenzene	11.543	91	6998	0.90	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.598	83	2820	0.95	ug/L		100
71) 2-Chlorotoluene	11.665	126	1659	0.91	ug/L	#	71
72) 1,3,5-Trimethylbenzene	11.690	105	4147	0.70	ug/L		98
73) 1,2,3-Trichloropropane	11.708	110	889	1.02	ug/L	#	81
74) t-1,4-Dichloro-2-butene	11.732	88	151	0.60	ug/L	#	65
75) 4-Chlorotoluene	11.793	91	4167	0.84	ug/L		99
76) tert-Butylbenzene	11.927	91	2301	0.80	ug/L		88
77) 1,2,4-Trimethylbenzene	11.982	105	3979	0.66	ug/L		99
78) sec-Butylbenzene	12.062	105	5081	0.78	ug/L		98
79) 4-Isopropyltoluene	12.165	119	3769	0.68	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	3266	0.88	ug/L		96
81) 1,4-Dichlorobenzene	12.305	146	3909	1.04	ug/L		94
82) n-Butylbenzene	12.488	91	3461	0.75	ug/L		97
83) 1,2-Dichlorobenzene	12.635	146	3393	0.93	ug/L		99
84) 1,2-Dibromo-3-Chloropr...	13.281	157	450	0.72	ug/L		73
85) Hexachlorobutadiene	13.829	223	499	0.85	ug/L		86
86) 1,2,4-Trichlorobenzene	13.872	180	1602	0.71	ug/L		85
87) Naphthalene	14.201	128	2843	0.44	ug/L		99
88) 1,2,3-Trichlorobenzene	14.396	180	1447	0.64	ug/L		89

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

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102517.D
Acq On : 25 Oct 2019 6:14 pm
Operator : MM
Sample : 9J25051-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:36 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



TIC: VG19102517.D\data.ms

(59) Ethylbenzene (C)

10.489min (-0.006) 0.97 ug/L

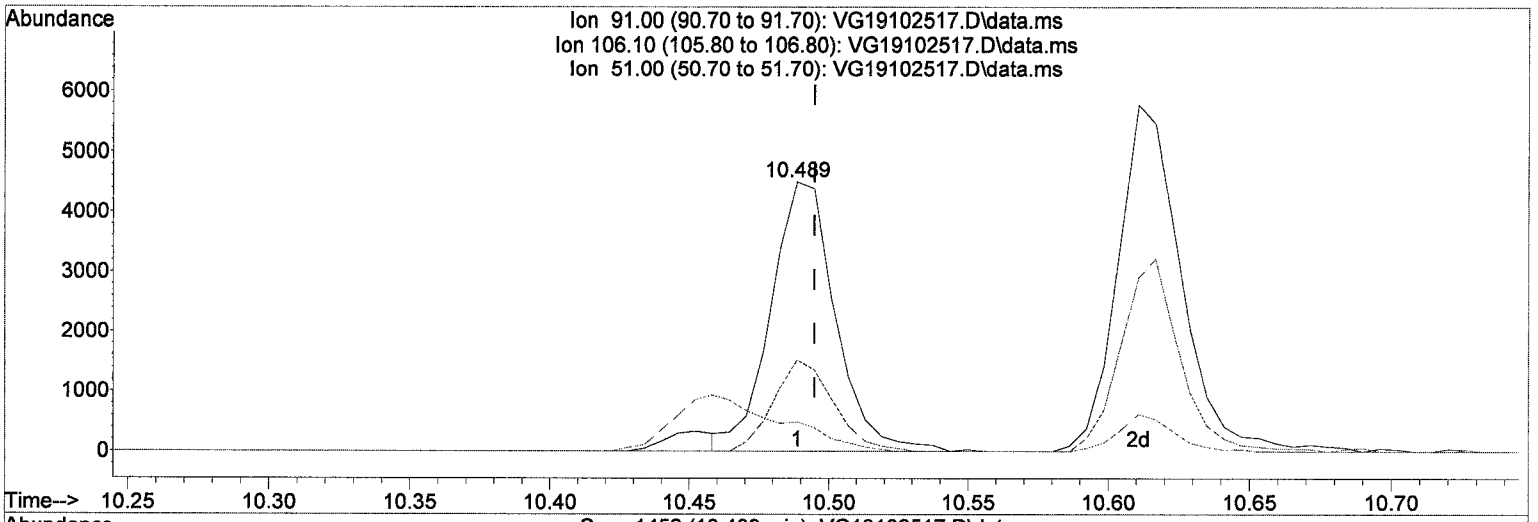
response 7653

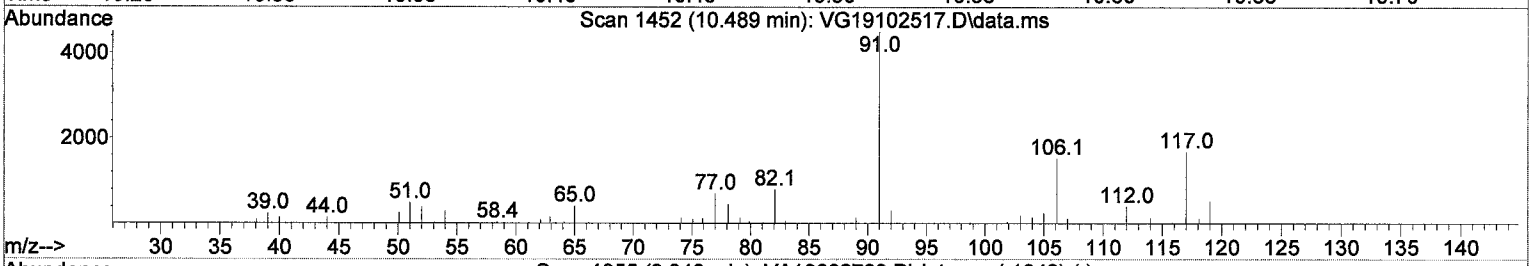
Ion	Exp%	Act%
91.00	100.00	100.00
106.10	31.80	33.82
51.00	9.80	10.88
0.00	0.00	0.00

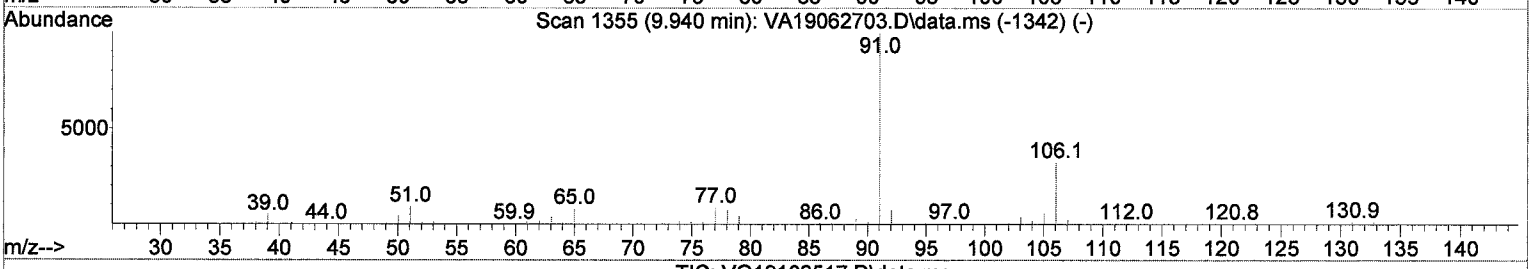
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102517.D
Acq On : 25 Oct 2019 6:14 pm
Operator : MM
Sample : 9J25051-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:36 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration







TIC: VG19102517.D\data.ms

(59) Ethylbenzene (C)

10.489min (-0.006) 0.91 ug/L m

response 7230

Ion	Exp%	Act%
91.00	100.00	100.00
106.10	31.80	33.82
51.00	9.80	10.88
0.00	0.00	0.00

10/28/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102517.D
Acq On : 25 Oct 2019 6:14 pm
Operator : MM
Sample : 9J25051-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:36 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	87837	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	266623	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	134840	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	93451	51.32	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	309533	52.42	ug/L		-0.01
48) Toluene-d8 (S)	8.989	98	348152	50.16	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	112252	49.73	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	1328	0.96	ug/L		98
3) Chloromethane	1.984	50	2027	1.08	ug/L		88
4) Vinyl Chloride	2.112	62	1682	0.98	ug/L		99
5) Bromomethane	2.545	96	1031	1.22	ug/L		99
6) Chloroethane	2.722	64	473	1.15	ug/L	#	34
7) Trichlorofluoromethane	2.917	101	1893	1.01	ug/L		99
8) Ethanol	3.636	45	2873	59.21	ug/L		93
9) 1,1-Dichloroethene	3.581	61	2001	0.98	ug/L		92
10) Carbon Disulfide	3.588	76	2616	0.86	ug/L		95
11) Freon 113	3.661	101	1595	0.95	ug/L		83
12) Iodomethane	3.746	142	185	0.81	ug/L	#	54
13) Acrolein	4.027	56	363	0.81	ug/L		85
14) Methylene Chloride	4.319	84	3475	1.99	ug/L		89
15) Acetone	4.404	43	2696	3.00	ug/L		97
16) t-1,2-Dichloroethene	4.508	61	2024	0.92	ug/L		94
17) n-Hexane	4.606	86	168	0.70	ug/L	#	60
18) Methyl-tert-butyl-ether	4.667	73	3585	0.82	ug/L		92
19) tert-Butanol (TBA)	4.825	59	19370	48.87	ug/L	#	57
20) Diisopropyl ether (DIPE)	5.112	45	1029	0.21	ug/L		96
21) 1,1-Dichloroethane	5.215	63	2990	1.03	ug/L		97
22) Acrylonitrile	5.295	53	831	0.78	ug/L		98
23) Vinyl Acetate	5.532	43	1655	0.53	ug/L		87
24) Ethyl-tert-butyl ether...	5.514	59	799	0.18	ug/L		92
25) c-1,2-Dichloroethene	5.819	61	2038	0.90	ug/L		95
26) 2,2-Dichloropropane	5.935	77	1277	0.95	ug/L	#	51
27) Bromochloromethane	6.038	49	1485	1.06	ug/L		95
28) Chloroform	6.136	83	2916	0.98	ug/L		97
29) Carbon Tetrachloride	6.264	117	1387	0.78	ug/L		95
30) Tetrahydrofuran	6.319	42	728	0.79	ug/L		80
31) 1,1,1-Trichloroethane	6.337	97	2025	0.90	ug/L		95
33) 1,1-Dichloropropene	6.477	75	1862	0.83	ug/L		97
34) 2-Butanone (MEK)	6.483	43	2324	1.63	ug/L		90
35) Benzene	6.752	78	6507	0.92	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	1071	0.27	ug/L	#	58
37) 1,2-Dichloroethane (EDC)	6.983	62	2322	0.99	ug/L		99
38) iso-Butyl Alcohol	7.044	43	3182	20.97	ug/L		89
40) Trichloroethene (TCE)	7.410	130	1961	1.02	ug/L		88
41) tert-Amyl ethyl ether ...	7.684	59	584	0.22	ug/L		80
42) Dibromomethane	7.879	93	1159	0.96	ug/L		96
43) 1,2-Dichloropropane	7.995	63	1670	0.94	ug/L		93
44) Bromodichloromethane	8.075	83	1774	0.90	ug/L		97
46) 2-Chloroethyl Vinyl Ether	8.739	63	648	0.60	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	1512	0.64	ug/L		89

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102517.D
Acq On : 25 Oct 2019 6:14 pm
Operator : MM
Sample : 9J25051-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:36 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

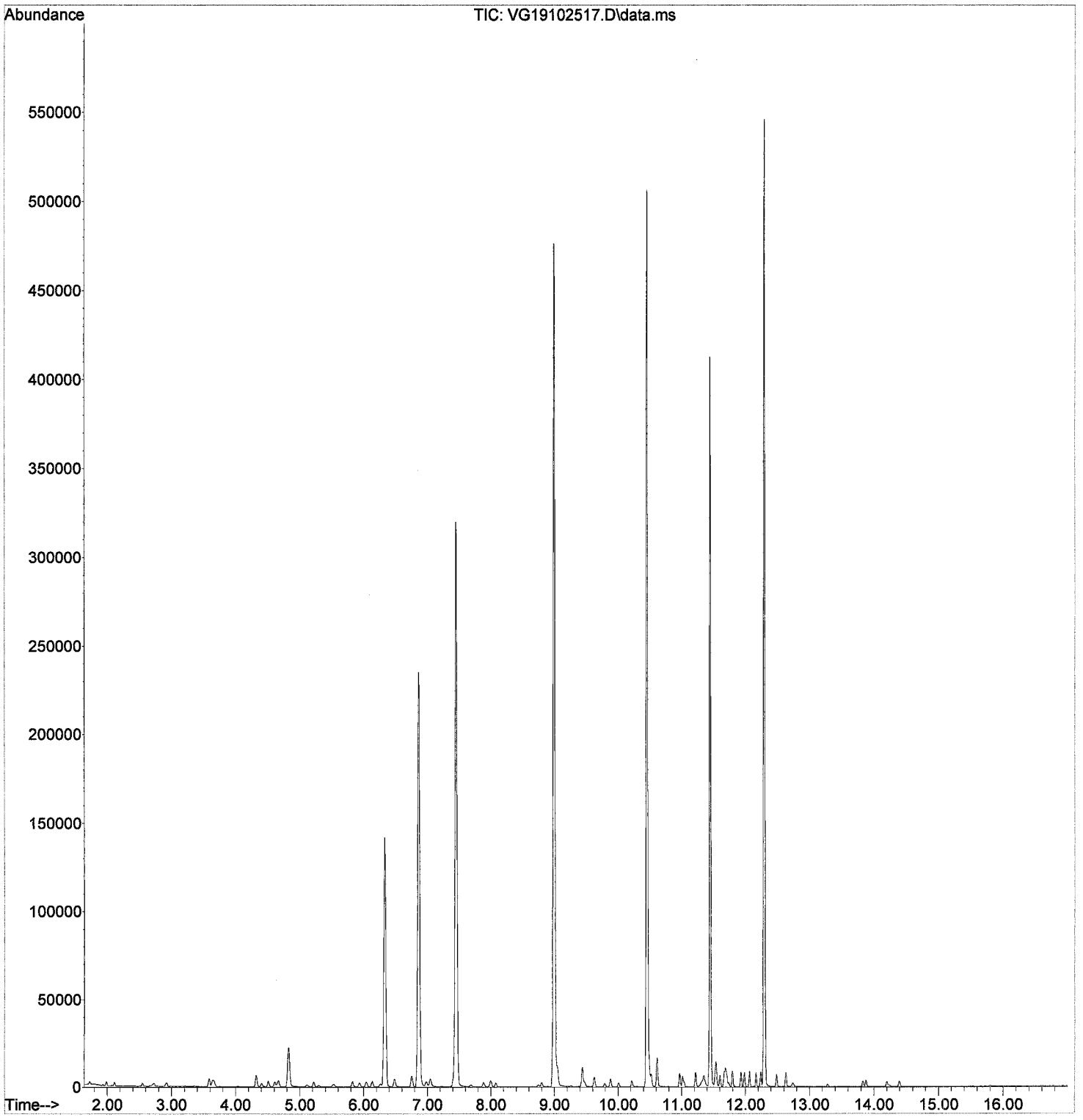
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	7737	0.99	ug/L		95
50) Tetrachloroethene (PCE)	9.440	166	2028	0.96	ug/L		86
51) 4-Methyl-2-Pentanone (...	9.440	43	3944	1.53	ug/L		93
52) t-1,3-Dichloropropene	9.471	75	1296	0.65	ug/L		86
53) 1,1,2-Trichloroethane	9.623	97	1761	0.91	ug/L		96
54) Dibromochloromethane	9.788	129	1298	0.73	ug/L		92
55) 1,3-Dichloropropane	9.879	76	2761	0.92	ug/L		94
56) 1,2-Dibromoethane (EDB)	10.007	107	1647	0.82	ug/L		99
57) 2-Hexanone	10.214	43	2488	1.32	ug/L		96
58) Chlorobenzene	10.470	112	5325	1.02	ug/L		98
59) Ethylbenzene	10.489	91	~~7653~~	~~0.97~~	~~ug/L~~		~~97~~ MI 7230
60) 1,1,1,2-Tetrachloroethane	10.519	131	1443	0.87	ug/L		97
61) m,p-Xylenes (2)	10.611	91	9040	1.55	ug/L		98
62) o-Xylene	10.970	91	4144	0.74	ug/L		95
63) Styrene	11.013	104	2917	0.63	ug/L		95
64) Bromoform	11.037	173	931	0.67	ug/L		95
65) Isopropylbenzene	11.220	105	4739	0.68	ug/L		96
68) Bromobenzene	11.531	156	2221	0.97	ug/L		96
69) n-Propylbenzene	11.543	91	6998	0.90	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.598	83	2820	0.95	ug/L		100
71) 2-Chlorotoluene	11.665	126	1659	0.91	ug/L	#	71
72) 1,3,5-Trimethylbenzene	11.690	105	4147	0.70	ug/L		98
73) 1,2,3-Trichloropropane	11.708	110	889	1.02	ug/L	#	81
74) t-1,4-Dichloro-2-butene	11.732	88	151	0.60	ug/L	#	65
75) 4-Chlorotoluene	11.793	91	4167	0.84	ug/L		99
76) tert-Butylbenzene	11.927	91	2301	0.80	ug/L		88
77) 1,2,4-Trimethylbenzene	11.982	105	3979	0.66	ug/L		99
78) sec-Butylbenzene	12.062	105	5081	0.78	ug/L		98
79) 4-Isopropyltoluene	12.165	119	3769	0.68	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	3266	0.88	ug/L		96
81) 1,4-Dichlorobenzene	12.305	146	3909	1.04	ug/L		94
82) n-Butylbenzene	12.488	91	3461	0.75	ug/L		97
83) 1,2-Dichlorobenzene	12.635	146	3393	0.93	ug/L		99
84) 1,2-Dibromo-3-Chloropr...	13.281	157	450	0.72	ug/L		73
85) Hexachlorobutadiene	13.829	223	499	0.85	ug/L		86
86) 1,2,4-Trichlorobenzene	13.872	180	1602	0.71	ug/L		85
87) Naphthalene	14.201	128	2843	0.44	ug/L		99
88) 1,2,3-Trichlorobenzene	14.396	180	1447	0.64	ug/L		89

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102517.D
Acq On : 25 Oct 2019 6:14 pm
Operator : MM
Sample : 9J25051-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:36 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:39 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	76501	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	228711	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	114333	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	81480	51.38	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	264143	51.36	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	296218	49.75	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	93974	49.10	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	2795	2.33	ug/L		96
3) Chloromethane	1.984	50	3700	2.27	ug/L		94
4) Vinyl Chloride	2.112	62	3136	2.10	ug/L		95
5) Bromomethane	2.551	96	1968	2.66	ug/L		92
6) Chloroethane	2.728	64	1240	3.47	ug/L		97
7) Trichlorofluoromethane	2.923	101	3605	2.21	ug/L		91
8) Ethanol	3.630	45	5504	130.24	ug/L		82
9) 1,1-Dichloroethene	3.587	61	3661	2.05	ug/L		90
10) Carbon Disulfide	3.587	76	5003	1.89	ug/L		99
11) Freon 113	3.661	101	3171	2.17	ug/L		96
12) Iodomethane	3.752	142	448	0.87	ug/L		95
13) Acrolein	4.033	56	797	2.05	ug/L		92
14) Methylene Chloride	4.319	84	4760	3.14	ug/L		94
15) Acetone	4.404	43	3962	5.05	ug/L		99
16) t-1,2-Dichloroethene	4.508	61	3893	2.04	ug/L		93
17) n-Hexane	4.606	86	342	1.64	ug/L	#	72
18) Methyl-tert-butyl-ether	4.667	73	6706	1.77	ug/L		97
19) tert-Butanol (TBA)	4.819	59	39779	115.22	ug/L	#	59
20) Diisopropyl ether (DIPE)	5.106	45	2023	0.48	ug/L		96
21) 1,1-Dichloroethane	5.215	63	5406	2.14	ug/L		95
22) Acrylonitrile	5.301	53	1734	1.87	ug/L		94
23) Vinyl Acetate	5.532	43	3721	1.38	ug/L		95
24) Ethyl-tert-butyl ether...	5.520	59	1633	0.43	ug/L		97
25) c-1,2-Dichloroethene	5.825	61	3898	1.98	ug/L		91
26) 2,2-Dichloropropane	5.935	77	2329	1.99	ug/L	#	61
27) Bromochloromethane	6.044	49	2654	2.17	ug/L		87
28) Chloroform	6.136	83	5455	2.09	ug/L		98
29) Carbon Tetrachloride	6.258	117	2771	1.79	ug/L		94
30) Tetrahydrofuran	6.313	42	1403	1.75	ug/L		90
31) 1,1,1-Trichloroethane	6.343	97	3963	2.01	ug/L		93
33) 1,1-Dichloropropene	6.483	75	3368	1.73	ug/L		96
34) 2-Butanone (MEK)	6.483	43	4574	3.69	ug/L		98
35) Benzene	6.758	78	12371	2.00	ug/L		97
36) tert-Amyl methyl ether...	6.904	73	1740	0.50	ug/L		65
37) 1,2-Dichloroethane (EDC)	6.983	62	4512	2.20	ug/L		96
38) iso-Butyl Alcohol	7.044	43	6444	48.77	ug/L		80
40) Trichloroethene (TCE)	7.410	130	3521	2.10	ug/L		96
41) tert-Amyl ethyl ether ...	7.684	59	1135	0.48	ug/L		91
42) Dibromomethane	7.885	93	2084	1.98	ug/L		92
43) 1,2-Dichloropropane	7.995	63	3229	2.08	ug/L		91
44) Bromodichloromethane	8.074	83	3272	1.90	ug/L		91
46) 2-Chloroethyl Vinyl Ether	8.739	63	1287	1.40	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	3075	1.52	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:39 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	13799	2.06	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	3761	2.07	ug/L		97
51) 4-Methyl-2-Pentanone (...	9.440	43	7750	3.50	ug/L		98
52) t-1,3-Dichloropropene	9.470	75	2554	1.49	ug/L		96
53) 1,1,2-Trichloroethane	9.629	97	3489	2.10	ug/L		94
54) Dibromochloromethane	9.794	129	2572	1.69	ug/L		93
55) 1,3-Dichloropropane	9.879	76	5172	2.00	ug/L		99
56) 1,2-Dibromoethane (EDB)	10.007	107	3150	1.83	ug/L		95
57) 2-Hexanone	10.214	43	5003	3.09	ug/L		100
58) Chlorobenzene	10.464	112	9394	2.10	ug/L		97
59) Ethylbenzene	10.489	91	13598	2.01	ug/L		97
60) 1,1,1,2-Tetrachloroethane	10.525	131	2578	1.81	ug/L		94
61) m,p-Xylenes (2)	10.617	91	17637	3.54	ug/L		98
62) o-Xylene	10.970	91	7805	1.61	ug/L		95
63) Styrene	11.013	104	6029	1.51	ug/L		98
64) Bromoform	11.037	173	1883	1.58	ug/L		98
65) Isopropylbenzene	11.220	105	9314	1.57	ug/L		99
68) Bromobenzene	11.531	156	3862	1.99	ug/L		96
69) n-Propylbenzene	11.543	91	13043	1.97	ug/L		97
70) 1,1,2,2-Tetrachloroethane	11.604	83	5527	2.21	ug/L		99
71) 2-Chlorotoluene	11.665	126	2896	1.88	ug/L		92
72) 1,3,5-Trimethylbenzene	11.690	105	8326	1.67	ug/L		95
73) 1,2,3-Trichloropropane	11.708	110	1624	2.20	ug/L	#	83
74) t-1,4-Dichloro-2-butene	11.738	88	314	1.48	ug/L	#	64
75) 4-Chlorotoluene	11.793	91	7775	1.85	ug/L		98
76) tert-Butylbenzene	11.933	91	4363	1.79	ug/L		91
77) 1,2,4-Trimethylbenzene	11.982	105	7870	1.54	ug/L		98
78) sec-Butylbenzene	12.061	105	9664	1.75	ug/L		96
79) 4-Isopropyltoluene	12.165	119	7387	1.58	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	6240	1.99	ug/L		96
81) 1,4-Dichlorobenzene	12.305	146	6942	2.17	ug/L		95
82) n-Butylbenzene	12.488	91	6447	1.64	ug/L		96
83) 1,2-Dichlorobenzene	12.635	146	6204	2.00	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	887	1.67	ug/L		96
85) Hexachlorobutadiene	13.829	223	925	1.85	ug/L		90
86) 1,2,4-Trichlorobenzene	13.872	180	2902	1.51	ug/L		93
87) Naphthalene	14.201	128	5987	1.09	ug/L		97
88) 1,2,3-Trichlorobenzene	14.396	180	2863	1.48	ug/L		94

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:39 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	76501	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	228711	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	114333	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	81480	51.38	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	264143	51.36	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	296218	49.75	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	93974	49.10	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	2795	2.33	ug/L		96
3) Chloromethane	1.984	50	3700	2.27	ug/L		94
4) Vinyl Chloride	2.112	62	3136	2.10	ug/L		95
5) Bromomethane	2.551	96	1968	2.66	ug/L		92
6) Chloroethane	2.728	64	1240	3.47	ug/L		97
7) Trichlorofluoromethane	2.923	101	3605	2.21	ug/L		91
8) Ethanol	3.630	45	5504	130.24	ug/L		82
9) 1,1-Dichloroethene	3.587	61	3661	2.05	ug/L		90
10) Carbon Disulfide	3.587	76	5003	1.89	ug/L		99
11) Freon 113	3.661	101	3171	2.17	ug/L		96
12) Iodomethane	3.752	142	448	0.87	ug/L		95
13) Acrolein	4.033	56	797	2.05	ug/L		92
14) Methylene Chloride	4.319	84	4760	3.14	ug/L		94
15) Acetone	4.404	43	3962	5.05	ug/L		99
16) t-1,2-Dichloroethene	4.508	61	3893	2.04	ug/L		93
17) n-Hexane	4.606	86	342	1.64	ug/L	#	72
18) Methyl-tert-butyl-ether	4.667	73	6706	1.77	ug/L		97
19) tert-Butanol (TBA)	4.819	59	39779	115.22	ug/L	#	59
20) Diisopropyl ether (DIPE)	5.106	45	2023	0.48	ug/L		96
21) 1,1-Dichloroethane	5.215	63	5406	2.14	ug/L		95
22) Acrylonitrile	5.301	53	1734	1.87	ug/L		94
23) Vinyl Acetate	5.532	43	3721	1.38	ug/L		95
24) Ethyl-tert-butyl ether...	5.520	59	1633	0.43	ug/L		97
25) c-1,2-Dichloroethene	5.825	61	3898	1.98	ug/L		91
26) 2,2-Dichloropropane	5.935	77	2329	1.99	ug/L	#	61
27) Bromochloromethane	6.044	49	2654	2.17	ug/L		87
28) Chloroform	6.136	83	5455	2.09	ug/L		98
29) Carbon Tetrachloride	6.258	117	2771	1.79	ug/L		94
30) Tetrahydrofuran	6.313	42	1403	1.75	ug/L		90
31) 1,1,1-Trichloroethane	6.343	97	3963	2.01	ug/L		93
33) 1,1-Dichloropropene	6.483	75	3368	1.73	ug/L		96
34) 2-Butanone (MEK)	6.483	43	4574	3.69	ug/L		98
35) Benzene	6.758	78	12371	2.00	ug/L		97
36) tert-Amyl methyl ether...	6.904	73	1740	0.50	ug/L		65
37) 1,2-Dichloroethane (EDC)	6.983	62	4512	2.20	ug/L		96
38) iso-Butyl Alcohol	7.044	43	6444	48.77	ug/L		80
40) Trichloroethene (TCE)	7.410	130	3521	2.10	ug/L		96
41) tert-Amyl ethyl ether ...	7.684	59	1135	0.48	ug/L		91
42) Dibromomethane	7.885	93	2084	1.98	ug/L		92
43) 1,2-Dichloropropane	7.995	63	3229	2.08	ug/L		91
44) Bromodichloromethane	8.074	83	3272	1.90	ug/L		91
46) 2-Chloroethyl Vinyl Ether	8.739	63	1287	1.40	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	3075	1.52	ug/L		95

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:39 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

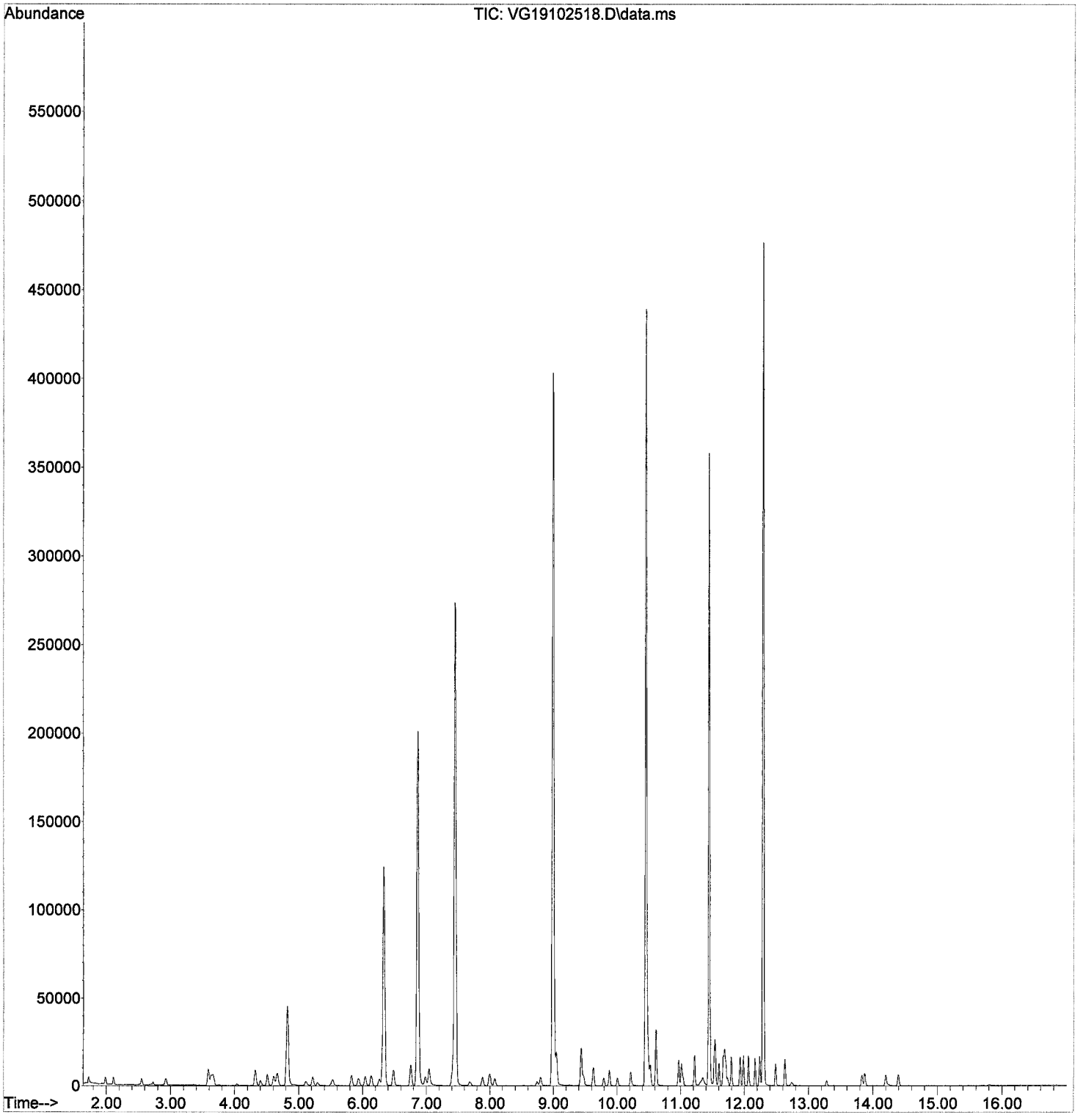
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	13799	2.06	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	3761	2.07	ug/L		97
51) 4-Methyl-2-Pentanone (...	9.440	43	7750	3.50	ug/L		98
52) t-1,3-Dichloropropene	9.470	75	2554	1.49	ug/L		96
53) 1,1,2-Trichloroethane	9.629	97	3489	2.10	ug/L		94
54) Dibromochloromethane	9.794	129	2572	1.69	ug/L		93
55) 1,3-Dichloropropane	9.879	76	5172	2.00	ug/L		99
56) 1,2-Dibromoethane (EDB)	10.007	107	3150	1.83	ug/L		95
57) 2-Hexanone	10.214	43	5003	3.09	ug/L		100
58) Chlorobenzene	10.464	112	9394	2.10	ug/L		97
59) Ethylbenzene	10.489	91	13598	2.01	ug/L		97
60) 1,1,1,2-Tetrachloroethane	10.525	131	2578	1.81	ug/L		94
61) m,p-Xylenes (2)	10.617	91	17637	3.54	ug/L		98
62) o-Xylene	10.970	91	7805	1.61	ug/L		95
63) Styrene	11.013	104	6029	1.51	ug/L		98
64) Bromoform	11.037	173	1883	1.58	ug/L		98
65) Isopropylbenzene	11.220	105	9314	1.57	ug/L		99
68) Bromobenzene	11.531	156	3862	1.99	ug/L		96
69) n-Propylbenzene	11.543	91	13043	1.97	ug/L		97
70) 1,1,2,2-Tetrachloroethane	11.604	83	5527	2.21	ug/L		99
71) 2-Chlorotoluene	11.665	126	2896	1.88	ug/L		92
72) 1,3,5-Trimethylbenzene	11.690	105	8326	1.67	ug/L		95
73) 1,2,3-Trichloropropane	11.708	110	1624	2.20	ug/L	#	83
74) t-1,4-Dichloro-2-butene	11.738	88	314	1.48	ug/L	#	64
75) 4-Chlorotoluene	11.793	91	7775	1.85	ug/L		98
76) tert-Butylbenzene	11.933	91	4363	1.79	ug/L		91
77) 1,2,4-Trimethylbenzene	11.982	105	7870	1.54	ug/L		98
78) sec-Butylbenzene	12.061	105	9664	1.75	ug/L		96
79) 4-Isopropyltoluene	12.165	119	7387	1.58	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	6240	1.99	ug/L		96
81) 1,4-Dichlorobenzene	12.305	146	6942	2.17	ug/L		95
82) n-Butylbenzene	12.488	91	6447	1.64	ug/L		96
83) 1,2-Dichlorobenzene	12.635	146	6204	2.00	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	887	1.67	ug/L		96
85) Hexachlorobutadiene	13.829	223	925	1.85	ug/L		90
86) 1,2,4-Trichlorobenzene	13.872	180	2902	1.51	ug/L		93
87) Naphthalene	14.201	128	5987	1.09	ug/L		97
88) 1,2,3-Trichlorobenzene	14.396	180	2863	1.48	ug/L		94

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102518.D
Acq On : 25 Oct 2019 6:41 pm
Operator : MM
Sample : 9J25051-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:39 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102519.D
Acq On : 25 Oct 2019 7:08 pm
Operator : MM
Sample : 9J25051-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:42 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	84206	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	249179	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	125726	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	87988	50.41	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	285436	50.42	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	321703	49.59	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	105208	49.99	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	7404	5.61	ug/L		97
3) Chloromethane	1.984	50	9675	5.40	ug/L		98
4) Vinyl Chloride	2.112	62	8598	5.23	ug/L		97
5) Bromomethane	2.551	96	4925	6.05	ug/L		94
6) Chloroethane	2.728	64	2805	7.12	ug/L		91
7) Trichlorofluoromethane	2.923	101	9548	5.31	ug/L		97
8) Ethanol	3.630	45	14603	313.93	ug/L		84
9) 1,1-Dichloroethene	3.588	61	9956	5.06	ug/L		99
10) Carbon Disulfide	3.588	76	13555	4.66	ug/L		99
11) Freon 113	3.661	101	8623	5.37	ug/L		95
12) Iodomethane	3.752	142	1592	2.80	ug/L		98
13) Acrolein	4.039	56	2034	4.76	ug/L		91
14) Methylene Chloride	4.319	84	10277	6.15	ug/L		96
15) Acetone	4.399	43	9305	10.79	ug/L		96
16) t-1,2-Dichloroethene	4.508	61	10306	4.91	ug/L		93
17) n-Hexane	4.612	86	1014	4.41	ug/L	#	46
18) Methyl-tert-butyl-ether	4.661	73	19407	4.64	ug/L		94
19) tert-Butanol (TBA)	4.819	59	110044	289.58	ug/L	#	65
20) Diisopropyl ether (DIPE)	5.106	45	5485	1.17	ug/L		95
21) 1,1-Dichloroethane	5.215	63	14473	5.21	ug/L		96
22) Acrylonitrile	5.289	53	4948	4.85	ug/L		96
23) Vinyl Acetate	5.532	43	11730	3.94	ug/L		98
24) Ethyl-tert-butyl ether...	5.514	59	4721	1.14	ug/L		91
25) c-1,2-Dichloroethene	5.825	61	10725	4.95	ug/L		96
26) 2,2-Dichloropropane	5.935	77	6301	4.88	ug/L	#	65
27) Bromochloromethane	6.038	49	7242	5.37	ug/L		86
28) Chloroform	6.136	83	14639	5.11	ug/L		97
29) Carbon Tetrachloride	6.264	117	8051	4.72	ug/L		97
30) Tetrahydrofuran	6.313	42	4008	4.55	ug/L		96
31) 1,1,1-Trichloroethane	6.343	97	10911	5.03	ug/L		92
33) 1,1-Dichloropropene	6.483	75	9935	4.63	ug/L		97
34) 2-Butanone (MEK)	6.483	43	13080	9.59	ug/L		99
35) Benzene	6.758	78	34545	5.08	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	4717	1.23	ug/L		71
37) 1,2-Dichloroethane (EDC)	6.983	62	11793	5.22	ug/L		95
38) iso-Butyl Alcohol	7.044	43	17343	119.24	ug/L		86
40) Trichloroethene (TCE)	7.404	130	9556	5.18	ug/L		99
41) tert-Amyl ethyl ether ...	7.684	59	2954	1.14	ug/L		91
42) Dibromomethane	7.880	93	5847	5.03	ug/L		95
43) 1,2-Dichloropropane	7.995	63	8575	5.02	ug/L		100
44) Bromodichloromethane	8.075	83	9117	4.82	ug/L		98
46) 2-Chloroethyl Vinyl Ether	8.739	63	3782	3.78	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	8925	4.05	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102519.D
Acq On : 25 Oct 2019 7:08 pm
Operator : MM
Sample : 9J25051-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:42 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	37021	5.06	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	10200	5.14	ug/L		96
51) 4-Methyl-2-Pentanone (...	9.440	43	21651	8.97	ug/L		96
52) t-1,3-Dichloropropene	9.471	75	7875	4.22	ug/L		96
53) 1,1,2-Trichloroethane	9.623	97	9239	5.10	ug/L		100
54) Dibromochloromethane	9.794	129	7461	4.49	ug/L		97
55) 1,3-Dichloropropane	9.879	76	14110	5.01	ug/L		97
56) 1,2-Dibromoethane (EDB)	10.007	107	9131	4.86	ug/L		99
57) 2-Hexanone	10.214	43	14919	8.46	ug/L		99
58) Chlorobenzene	10.470	112	25125	5.16	ug/L		98
59) Ethylbenzene	10.489	91	37238	5.04	ug/L		98
60) 1,1,1,2-Tetrachloroethane	10.525	131	7365	4.74	ug/L		94
61) m,p-Xylenes (2)	10.611	91	51157	9.41	ug/L		98
62) o-Xylene	10.970	91	23185	4.40	ug/L		98
63) Styrene	11.013	104	19241	4.43	ug/L		94
64) Bromoform	11.037	173	5513	4.25	ug/L		96
65) Isopropylbenzene	11.220	105	28750	4.44	ug/L		100
68) Bromobenzene	11.531	156	10809	5.05	ug/L		95
69) n-Propylbenzene	11.543	91	35745	4.91	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.604	83	14004	5.08	ug/L		96
71) 2-Chlorotoluene	11.665	126	8212	4.84	ug/L		96
72) 1,3,5-Trimethylbenzene	11.690	105	25171	4.58	ug/L		94
73) 1,2,3-Trichloropropane	11.708	110	4250	5.23	ug/L		94
74) t-1,4-Dichloro-2-butene	11.739	88	920	3.94	ug/L	#	67
75) 4-Chlorotoluene	11.793	91	22730	4.92	ug/L		99
76) tert-Butylbenzene	11.934	91	12557	4.69	ug/L		95
77) 1,2,4-Trimethylbenzene	11.982	105	25589	4.55	ug/L		99
78) sec-Butylbenzene	12.062	105	29229	4.80	ug/L		96
79) 4-Isopropyltoluene	12.165	119	23158	4.51	ug/L		98
80) 1,3-Dichlorobenzene	12.238	146	17620	5.12	ug/L		97
81) 1,4-Dichlorobenzene	12.306	146	18805	5.36	ug/L		96
82) n-Butylbenzene	12.488	91	19439	4.50	ug/L		97
83) 1,2-Dichlorobenzene	12.635	146	16971	4.98	ug/L		97
84) 1,2-Dibromo-3-Chloropr...	13.281	157	2511	4.31	ug/L		89
85) Hexachlorobutadiene	13.830	223	2612	4.76	ug/L		96
86) 1,2,4-Trichlorobenzene	13.872	180	8550	4.04	ug/L		95
87) Naphthalene	14.201	128	19030	3.15	ug/L		99
88) 1,2,3-Trichlorobenzene	14.397	180	8797	4.14	ug/L		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102519.D
Acq On : 25 Oct 2019 7:08 pm
Operator : MM
Sample : 9J25051-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:42 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	84206	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	249179	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	125726	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	87988	50.41	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	285436	50.42	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	321703	49.59	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	105208	49.99	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	7404	5.61	ug/L		97
3) Chloromethane	1.984	50	9675	5.40	ug/L		98
4) Vinyl Chloride	2.112	62	8598	5.23	ug/L		97
5) Bromomethane	2.551	96	4925	6.05	ug/L		94
6) Chloroethane	2.728	64	2805	7.12	ug/L		91
7) Trichlorofluoromethane	2.923	101	9548	5.31	ug/L		97
8) Ethanol	3.630	45	14603	313.93	ug/L		84
9) 1,1-Dichloroethene	3.588	61	9956	5.06	ug/L		99
10) Carbon Disulfide	3.588	76	13555	4.66	ug/L		99
11) Freon 113	3.661	101	8623	5.37	ug/L		95
12) Iodomethane	3.752	142	1592	2.80	ug/L		98
13) Acrolein	4.039	56	2034	4.76	ug/L		91
14) Methylene Chloride	4.319	84	10277	6.15	ug/L		96
15) Acetone	4.399	43	9305	10.79	ug/L		96
16) t-1,2-Dichloroethene	4.508	61	10306	4.91	ug/L		93
17) n-Hexane	4.612	86	1014	4.41	ug/L	#	46
18) Methyl-tert-butyl-ether	4.661	73	19407	4.64	ug/L		94
19) tert-Butanol (TBA)	4.819	59	110044	289.58	ug/L	#	65
20) Diisopropyl ether (DIPE)	5.106	45	5485	1.17	ug/L		95
21) 1,1-Dichloroethane	5.215	63	14473	5.21	ug/L		96
22) Acrylonitrile	5.289	53	4948	4.85	ug/L		96
23) Vinyl Acetate	5.532	43	11730	3.94	ug/L		98
24) Ethyl-tert-butyl ether...	5.514	59	4721	1.14	ug/L		91
25) c-1,2-Dichloroethene	5.825	61	10725	4.95	ug/L		96
26) 2,2-Dichloropropane	5.935	77	6301	4.88	ug/L	#	65
27) Bromochloromethane	6.038	49	7242	5.37	ug/L		86
28) Chloroform	6.136	83	14639	5.11	ug/L		97
29) Carbon Tetrachloride	6.264	117	8051	4.72	ug/L		97
30) Tetrahydrofuran	6.313	42	4008	4.55	ug/L		96
31) 1,1,1-Trichloroethane	6.343	97	10911	5.03	ug/L		92
33) 1,1-Dichloropropene	6.483	75	9935	4.63	ug/L		97
34) 2-Butanone (MEK)	6.483	43	13080	9.59	ug/L		99
35) Benzene	6.758	78	34545	5.08	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	4717	1.23	ug/L		71
37) 1,2-Dichloroethane (EDC)	6.983	62	11793	5.22	ug/L		95
38) iso-Butyl Alcohol	7.044	43	17343	119.24	ug/L		86
40) Trichloroethene (TCE)	7.404	130	9556	5.18	ug/L		99
41) tert-Amyl ethyl ether ...	7.684	59	2954	1.14	ug/L		91
42) Dibromomethane	7.880	93	5847	5.03	ug/L		95
43) 1,2-Dichloropropane	7.995	63	8575	5.02	ug/L		100
44) Bromodichloromethane	8.075	83	9117	4.82	ug/L		98
46) 2-Chloroethyl Vinyl Ether	8.739	63	3782	3.78	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	8925	4.05	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102519.D
Acq On : 25 Oct 2019 7:08 pm
Operator : MM
Sample : 9J25051-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:42 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

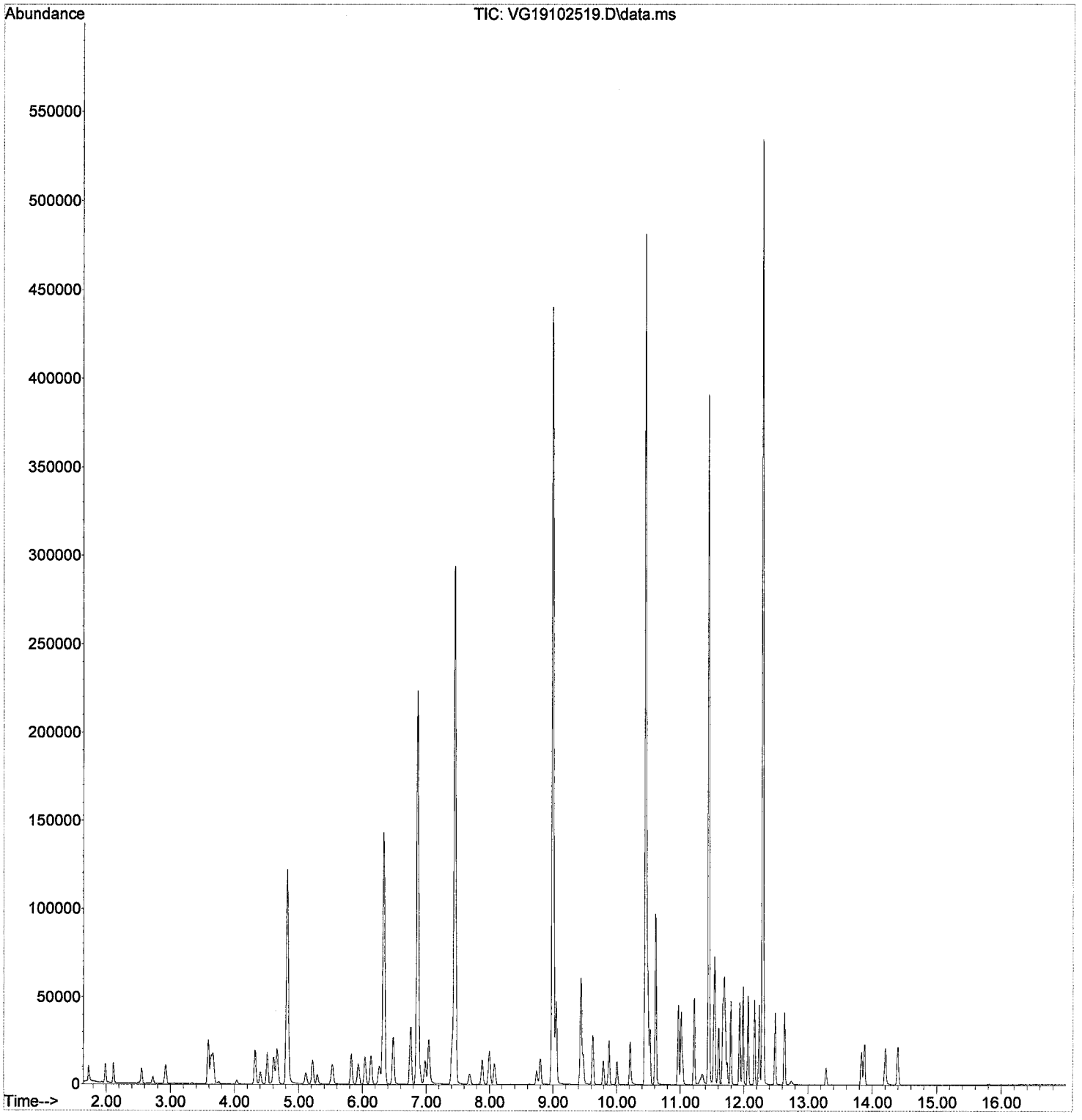
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	37021	5.06	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	10200	5.14	ug/L		96
51) 4-Methyl-2-Pentanone (...	9.440	43	21651	8.97	ug/L		96
52) t-1,3-Dichloropropene	9.471	75	7875	4.22	ug/L		96
53) 1,1,2-Trichloroethane	9.623	97	9239	5.10	ug/L		100
54) Dibromochloromethane	9.794	129	7461	4.49	ug/L		97
55) 1,3-Dichloropropane	9.879	76	14110	5.01	ug/L		97
56) 1,2-Dibromoethane (EDB)	10.007	107	9131	4.86	ug/L		99
57) 2-Hexanone	10.214	43	14919	8.46	ug/L		99
58) Chlorobenzene	10.470	112	25125	5.16	ug/L		98
59) Ethylbenzene	10.489	91	37238	5.04	ug/L		98
60) 1,1,1,2-Tetrachloroethane	10.525	131	7365	4.74	ug/L		94
61) m,p-Xylenes (2)	10.611	91	51157	9.41	ug/L		98
62) o-Xylene	10.970	91	23185	4.40	ug/L		98
63) Styrene	11.013	104	19241	4.43	ug/L		94
64) Bromoform	11.037	173	5513	4.25	ug/L		96
65) Isopropylbenzene	11.220	105	28750	4.44	ug/L		100
68) Bromobenzene	11.531	156	10809	5.05	ug/L		95
69) n-Propylbenzene	11.543	91	35745	4.91	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.604	83	14004	5.08	ug/L		96
71) 2-Chlorotoluene	11.665	126	8212	4.84	ug/L		96
72) 1,3,5-Trimethylbenzene	11.690	105	25171	4.58	ug/L		94
73) 1,2,3-Trichloropropane	11.708	110	4250	5.23	ug/L		94
74) t-1,4-Dichloro-2-butene	11.739	88	920	3.94	ug/L	#	67
75) 4-Chlorotoluene	11.793	91	22730	4.92	ug/L		99
76) tert-Butylbenzene	11.934	91	12557	4.69	ug/L		95
77) 1,2,4-Trimethylbenzene	11.982	105	25589	4.55	ug/L		99
78) sec-Butylbenzene	12.062	105	29229	4.80	ug/L		96
79) 4-Isopropyltoluene	12.165	119	23158	4.51	ug/L		98
80) 1,3-Dichlorobenzene	12.238	146	17620	5.12	ug/L		97
81) 1,4-Dichlorobenzene	12.306	146	18805	5.36	ug/L		96
82) n-Butylbenzene	12.488	91	19439	4.50	ug/L		97
83) 1,2-Dichlorobenzene	12.635	146	16971	4.98	ug/L		97
84) 1,2-Dibromo-3-Chloropr...	13.281	157	2511	4.31	ug/L		89
85) Hexachlorobutadiene	13.830	223	2612	4.76	ug/L		96
86) 1,2,4-Trichlorobenzene	13.872	180	8550	4.04	ug/L		95
87) Naphthalene	14.201	128	19030	3.15	ug/L		99
88) 1,2,3-Trichlorobenzene	14.397	180	8797	4.14	ug/L		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102519.D
Acq On : 25 Oct 2019 7:08 pm
Operator : MM
Sample : 9J25051-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:42 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102520.D
Acq On : 25 Oct 2019 7:35 pm
Operator : MM
Sample : 9J25051-CAL7
Misc : 1X 5mL 10/20PPB VOCR
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:45 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	94987	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	280212	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	141868	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	99801	50.68	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	322104	50.44	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	362985	49.76	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	119477	50.31	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	15599	10.47	ug/L		99
3) Chloromethane	1.984	50	20315	10.05	ug/L		99
4) Vinyl Chloride	2.112	62	18609	10.04	ug/L		96
5) Bromomethane	2.551	96	9433	10.28	ug/L		99
6) Chloroethane	2.722	64	4599	10.35	ug/L		86
7) Trichlorofluoromethane	2.923	101	20980	10.34	ug/L		97
8) Ethanol	3.630	45	31930	608.51	ug/L		85
9) 1,1-Dichloroethene	3.588	61	21638	9.75	ug/L		95
10) Carbon Disulfide	3.588	76	30767	9.38	ug/L		98
11) Freon 113	3.661	101	18630	10.28	ug/L		99
12) Iodomethane	3.752	142	4581	7.14	ug/L		97
13) Acrolein	4.033	56	4726	9.81	ug/L		97
14) Methylene Chloride	4.319	84	20314	10.78	ug/L		94
15) Acetone	4.399	43	19598	20.14	ug/L		93
16) t-1,2-Dichloroethene	4.508	61	23032	9.72	ug/L		94
17) n-Hexane	4.612	86	2568	9.90	ug/L	#	66
18) Methyl-tert-butyl-ether	4.661	73	45758	9.70	ug/L		97
19) tert-Butanol (TBA)	4.819	59	255470	595.97	ug/L	#	77
20) Diisopropyl ether (DIPE)	5.112	45	12288	2.32	ug/L		96
21) 1,1-Dichloroethane	5.215	63	31196	9.95	ug/L		98
22) Acrylonitrile	5.289	53	11034	9.58	ug/L		99
23) Vinyl Acetate	5.532	43	29582	8.82	ug/L		98
24) Ethyl-tert-butyl ether...	5.520	59	11188	2.39	ug/L		95
25) c-1,2-Dichloroethene	5.819	61	24037	9.83	ug/L		93
26) 2,2-Dichloropropane	5.935	77	14137	9.71	ug/L		68
27) Bromochloromethane	6.038	49	15717	10.33	ug/L		86
28) Chloroform	6.136	83	31968	9.89	ug/L		98
29) Carbon Tetrachloride	6.264	117	18676	9.70	ug/L		99
30) Tetrahydrofuran	6.307	42	9225	9.28	ug/L		89
31) 1,1,1-Trichloroethane	6.343	97	24426	9.99	ug/L		97
33) 1,1-Dichloropropene	6.477	75	23256	9.61	ug/L		99
34) 2-Butanone (MEK)	6.477	43	29709	19.30	ug/L		96
35) Benzene	6.752	78	76881	10.02	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	10610	2.45	ug/L		76
37) 1,2-Dichloroethane (EDC)	6.983	62	25491	10.01	ug/L		98
38) iso-Butyl Alcohol	7.044	43	38810	236.55	ug/L		89
40) Trichloroethene (TCE)	7.410	130	21560	10.36	ug/L		97
41) tert-Amyl ethyl ether ...	7.691	59	6943	2.38	ug/L		95
42) Dibromomethane	7.880	93	13281	10.14	ug/L		99
43) 1,2-Dichloropropane	7.995	63	19019	9.88	ug/L		99
44) Bromodichloromethane	8.075	83	20600	9.65	ug/L		98
46) 2-Chloroethyl Vinyl Ether	8.739	63	9286	8.25	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	22428	9.06	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102520.D
Acq On : 25 Oct 2019 7:35 pm
Operator : MM
Sample : 9J25051-CAL7
Misc : 1X 5mL 10/20PPB VOCR
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:45 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	81964	9.97	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	22594	10.13	ug/L		98
51) 4-Methyl-2-Pentanone (...	9.440	43	50335	18.54	ug/L		94
52) t-1,3-Dichloropropene	9.471	75	19307	9.20	ug/L		97
53) 1,1,2-Trichloroethane	9.623	97	20512	10.07	ug/L		97
54) Dibromochloromethane	9.788	129	17581	9.40	ug/L		99
55) 1,3-Dichloropropane	9.879	76	31655	10.00	ug/L		97
56) 1,2-Dibromoethane (EDB)	10.007	107	20378	9.65	ug/L		97
57) 2-Hexanone	10.208	43	35393	17.85	ug/L		99
58) Chlorobenzene	10.470	112	54921	10.03	ug/L		96
59) Ethylbenzene	10.489	91	82267	9.90	ug/L		99
60) 1,1,1,2-Tetrachloroethane	10.525	131	17260	9.88	ug/L		97
61) m,p-Xylenes (2)	10.611	91	117957	19.30	ug/L		99
62) o-Xylene	10.970	91	54341	9.17	ug/L		99
63) Styrene	11.013	104	46210	9.45	ug/L		93
64) Bromoform	11.037	173	13109	8.99	ug/L		98
65) Isopropylbenzene	11.220	105	68642	9.42	ug/L		100
68) Bromobenzene	11.531	156	23997	9.94	ug/L		97
69) n-Propylbenzene	11.543	91	80330	9.78	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.598	83	31762	10.22	ug/L		96
71) 2-Chlorotoluene	11.665	126	18857	9.85	ug/L		96
72) 1,3,5-Trimethylbenzene	11.690	105	60626	9.78	ug/L		97
73) 1,2,3-Trichloropropane	11.708	110	9293	10.14	ug/L		98
74) t-1,4-Dichloro-2-butene	11.739	88	2243	8.52	ug/L	#	73
75) 4-Chlorotoluene	11.793	91	51031	9.79	ug/L		99
76) tert-Butylbenzene	11.934	91	28831	9.53	ug/L		95
77) 1,2,4-Trimethylbenzene	11.982	105	62151	9.79	ug/L		98
78) sec-Butylbenzene	12.062	105	66926	9.74	ug/L		98
79) 4-Isopropyltoluene	12.165	119	55590	9.60	ug/L		100
80) 1,3-Dichlorobenzene	12.238	146	39173	10.09	ug/L		99
81) 1,4-Dichlorobenzene	12.306	146	40327	10.18	ug/L		98
82) n-Butylbenzene	12.488	91	47013	9.64	ug/L		98
83) 1,2-Dichlorobenzene	12.635	146	38505	10.01	ug/L		97
84) 1,2-Dibromo-3-Chloropr...	13.281	157	6229	9.47	ug/L		98
85) Hexachlorobutadiene	13.830	223	6191	9.99	ug/L		99
86) 1,2,4-Trichlorobenzene	13.872	180	22360	9.35	ug/L		98
87) Naphthalene	14.201	128	56149	8.25	ug/L		98
88) 1,2,3-Trichlorobenzene	14.397	180	22886	9.55	ug/L		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102520.D
Acq On : 25 Oct 2019 7:35 pm
Operator : MM
Sample : 9J25051-CAL7
Misc : 1X 5mL 10/20PPB VOCR
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:45 2019
Quant Method : C:\msdchem\1\methods\~~VG191025W.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	94987	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	280212	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	141868	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	99801	50.68	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	322104	50.44	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	362985	49.76	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	119477	50.31	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	15599	10.47	ug/L		99
3) Chloromethane	1.984	50	20315	10.05	ug/L		99
4) Vinyl Chloride	2.112	62	18609	10.04	ug/L		96
5) Bromomethane	2.551	96	9433	10.28	ug/L		99
6) Chloroethane	2.722	64	4599	10.35	ug/L		86
7) Trichlorofluoromethane	2.923	101	20980	10.34	ug/L		97
8) Ethanol	3.630	45	31930	608.51	ug/L		85
9) 1,1-Dichloroethene	3.588	61	21638	9.75	ug/L		95
10) Carbon Disulfide	3.588	76	30767	9.38	ug/L		98
11) Freon 113	3.661	101	18630	10.28	ug/L		99
12) Iodomethane	3.752	142	4581	7.14	ug/L		97
13) Acrolein	4.033	56	4726	9.81	ug/L		97
14) Methylene Chloride	4.319	84	20314	10.78	ug/L		94
15) Acetone	4.399	43	19598	20.14	ug/L		93
16) t-1,2-Dichloroethene	4.508	61	23032	9.72	ug/L		94
17) n-Hexane	4.612	86	2568	9.90	ug/L	#	66
18) Methyl-tert-butyl-ether	4.661	73	45758	9.70	ug/L		97
19) tert-Butanol (TBA)	4.819	59	255470	595.97	ug/L	#	77
20) Diisopropyl ether (DIPE)	5.112	45	12288	2.32	ug/L		96
21) 1,1-Dichloroethane	5.215	63	31196	9.95	ug/L		98
22) Acrylonitrile	5.289	53	11034	9.58	ug/L		99
23) Vinyl Acetate	5.532	43	29582	8.82	ug/L		98
24) Ethyl-tert-butyl ether...	5.520	59	11188	2.39	ug/L		95
25) c-1,2-Dichloroethene	5.819	61	24037	9.83	ug/L		93
26) 2,2-Dichloropropane	5.935	77	14137	9.71	ug/L		68
27) Bromochloromethane	6.038	49	15717	10.33	ug/L		86
28) Chloroform	6.136	83	31968	9.89	ug/L		98
29) Carbon Tetrachloride	6.264	117	18676	9.70	ug/L		99
30) Tetrahydrofuran	6.307	42	9225	9.28	ug/L		89
31) 1,1,1-Trichloroethane	6.343	97	24426	9.99	ug/L		97
33) 1,1-Dichloropropene	6.477	75	23256	9.61	ug/L		99
34) 2-Butanone (MEK)	6.477	43	29709	19.30	ug/L		96
35) Benzene	6.752	78	76881	10.02	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	10610	2.45	ug/L		76
37) 1,2-Dichloroethane (EDC)	6.983	62	25491	10.01	ug/L		98
38) iso-Butyl Alcohol	7.044	43	38810	236.55	ug/L		89
40) Trichloroethene (TCE)	7.410	130	21560	10.36	ug/L		97
41) tert-Amyl ethyl ether ...	7.691	59	6943	2.38	ug/L		95
42) Dibromomethane	7.880	93	13281	10.14	ug/L		99
43) 1,2-Dichloropropane	7.995	63	19019	9.88	ug/L		99
44) Bromodichloromethane	8.075	83	20600	9.65	ug/L		98
46) 2-Chloroethyl Vinyl Ether	8.739	63	9286	8.25	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	22428	9.06	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102520.D
Acq On : 25 Oct 2019 7:35 pm
Operator : MM
Sample : 9J25051-CAL7
Misc : 1X 5mL 10/20PPB VOCR
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:45 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

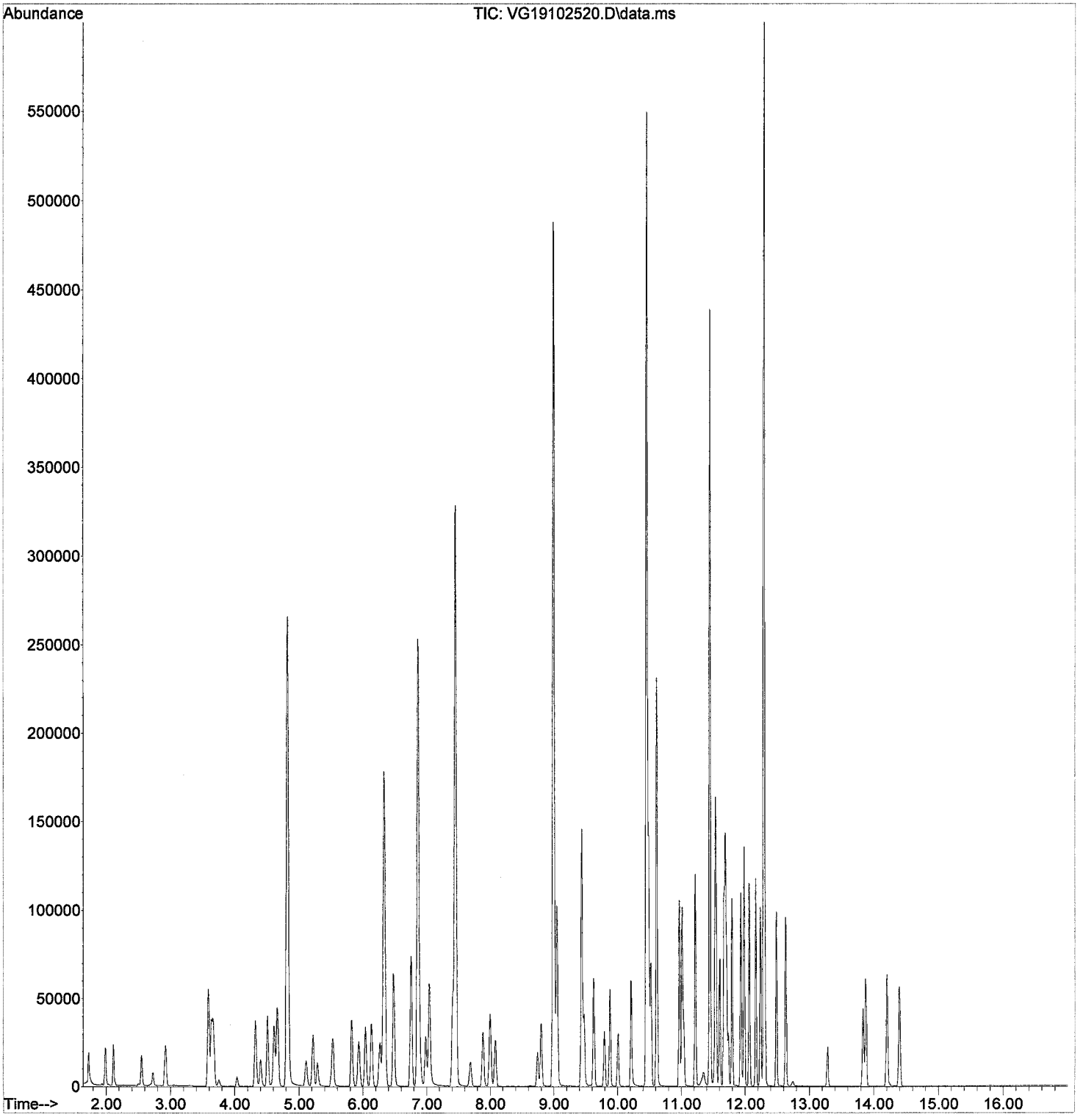
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	81964	9.97	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	22594	10.13	ug/L		98
51) 4-Methyl-2-Pentanone (...	9.440	43	50335	18.54	ug/L		94
52) t-1,3-Dichloropropene	9.471	75	19307	9.20	ug/L		97
53) 1,1,2-Trichloroethane	9.623	97	20512	10.07	ug/L		97
54) Dibromochloromethane	9.788	129	17581	9.40	ug/L		99
55) 1,3-Dichloropropane	9.879	76	31655	10.00	ug/L		97
56) 1,2-Dibromoethane (EDB)	10.007	107	20378	9.65	ug/L		97
57) 2-Hexanone	10.208	43	35393	17.85	ug/L		99
58) Chlorobenzene	10.470	112	54921	10.03	ug/L		96
59) Ethylbenzene	10.489	91	82267	9.90	ug/L		99
60) 1,1,1,2-Tetrachloroethane	10.525	131	17260	9.88	ug/L		97
61) m,p-Xylenes (2)	10.611	91	117957	19.30	ug/L		99
62) o-Xylene	10.970	91	54341	9.17	ug/L		99
63) Styrene	11.013	104	46210	9.45	ug/L		93
64) Bromoform	11.037	173	13109	8.99	ug/L		98
65) Isopropylbenzene	11.220	105	68642	9.42	ug/L		100
68) Bromobenzene	11.531	156	23997	9.94	ug/L		97
69) n-Propylbenzene	11.543	91	80330	9.78	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.598	83	31762	10.22	ug/L		96
71) 2-Chlorotoluene	11.665	126	18857	9.85	ug/L		96
72) 1,3,5-Trimethylbenzene	11.690	105	60626	9.78	ug/L		97
73) 1,2,3-Trichloropropane	11.708	110	9293	10.14	ug/L		98
74) t-1,4-Dichloro-2-butene	11.739	88	2243	8.52	ug/L	#	73
75) 4-Chlorotoluene	11.793	91	51031	9.79	ug/L		99
76) tert-Butylbenzene	11.934	91	28831	9.53	ug/L		95
77) 1,2,4-Trimethylbenzene	11.982	105	62151	9.79	ug/L		98
78) sec-Butylbenzene	12.062	105	66926	9.74	ug/L		98
79) 4-Isopropyltoluene	12.165	119	55590	9.60	ug/L		100
80) 1,3-Dichlorobenzene	12.238	146	39173	10.09	ug/L		99
81) 1,4-Dichlorobenzene	12.306	146	40327	10.18	ug/L		98
82) n-Butylbenzene	12.488	91	47013	9.64	ug/L		98
83) 1,2-Dichlorobenzene	12.635	146	38505	10.01	ug/L		97
84) 1,2-Dibromo-3-Chloropr...	13.281	157	6229	9.47	ug/L		98
85) Hexachlorobutadiene	13.830	223	6191	9.99	ug/L		99
86) 1,2,4-Trichlorobenzene	13.872	180	22360	9.35	ug/L		98
87) Naphthalene	14.201	128	56149	8.25	ug/L		98
88) 1,2,3-Trichlorobenzene	14.397	180	22886	9.55	ug/L		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102520.D
Acq On : 25 Oct 2019 7:35 pm
Operator : MM
Sample : 9J25051-CAL7
Misc : 1X 5mL 10/20PPB VOCR
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:45 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102521.D
Acq On : 25 Oct 2019 8:02 pm
Operator : MM
Sample : 9J25051-CAL8
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	86706	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	253314	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	128679	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	89870	50.00	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	291439	50.00	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	329731	50.00	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	107703	50.00	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	27201	20.00	ug/L		97
3) Chloromethane	1.990	50	36903	20.00	ug/L		99
4) Vinyl Chloride	2.112	62	33851	20.00	ug/L		95
5) Bromomethane	2.551	96	16751	20.00	ug/L		99
6) Chloroethane	2.722	64	8110	20.00	ug/L		91
7) Trichlorofluoromethane	2.917	101	37053	20.00	ug/L		99
8) Ethanol	3.636	45	59872	1250.00	ug/L		86
9) 1,1-Dichloroethene	3.588	61	40497	20.00	ug/L		95
10) Carbon Disulfide	3.588	76	59881	20.00	ug/L		99
11) Freon 113	3.661	101	33091	20.00	ug/L		94
12) Iodomethane	3.746	142	11720	20.00	ug/L		98
13) Acrolein	4.033	56	8799	20.00	ug/L		98
14) Methylene Chloride	4.319	84	34415	20.00	ug/L		93
15) Acetone	4.399	43	35535	40.00	ug/L		96
16) t-1,2-Dichloroethene	4.508	61	43270	20.00	ug/L		93
17) n-Hexane	4.606	86	4737	20.00	ug/L	#	57
18) Methyl-tert-butyl-ether	4.661	73	86097	20.00	ug/L		96
19) tert-Butanol (TBA)	4.819	59	489113	1250.00	ug/L	#	81
20) Diisopropyl ether (DIPE)	5.112	45	24122	5.00	ug/L		98
21) 1,1-Dichloroethane	5.215	63	57239	20.00	ug/L		99
22) Acrylonitrile	5.289	53	21017	20.00	ug/L		96
23) Vinyl Acetate	5.526	43	61236	20.00	ug/L		98
24) Ethyl-tert-butyl ether...	5.514	59	21409	5.00	ug/L		97
25) c-1,2-Dichloroethene	5.825	61	44663	20.00	ug/L		93
26) 2,2-Dichloropropane	5.935	77	26576	20.00	ug/L		74
27) Bromochloromethane	6.038	49	27767	20.00	ug/L		84
28) Chloroform	6.136	83	59036	20.00	ug/L		96
29) Carbon Tetrachloride	6.264	117	35140	20.00	ug/L		97
30) Tetrahydrofuran	6.307	42	18146	20.00	ug/L		91
31) 1,1,1-Trichloroethane	6.343	97	44656	20.00	ug/L		95
33) 1,1-Dichloropropene	6.477	75	44179	20.00	ug/L		98
34) 2-Butanone (MEK)	6.477	43	56191	40.00	ug/L		97
35) Benzene	6.752	78	140134	20.00	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	19745	5.00	ug/L		80
37) 1,2-Dichloroethane (EDC)	6.983	62	46494	20.00	ug/L		99
38) iso-Butyl Alcohol	7.038	43	74881	500.00	ug/L		91
40) Trichloroethene (TCE)	7.410	130	37986	20.00	ug/L		98
41) tert-Amyl ethyl ether ...	7.691	59	13314	5.00	ug/L		93
42) Dibromomethane	7.886	93	23918	20.00	ug/L		95
43) 1,2-Dichloropropane	7.995	63	35146	20.00	ug/L		98
44) Bromodichloromethane	8.075	83	38970	20.00	ug/L		97
46) 2-Chloroethyl Vinyl Ether	8.739	63	20353	20.00	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	44754	20.00	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102521.D
Acq On : 25 Oct 2019 8:02 pm
Operator : MM
Sample : 9J25051-CAL8
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	148631	20.00	ug/L		100
50) Tetrachloroethene (PCE)	9.434	166	40323	20.00	ug/L		97
51) 4-Methyl-2-Pentanone (...	9.434	43	98178	40.00	ug/L		97
52) t-1,3-Dichloropropene	9.471	75	37931	20.00	ug/L		99
53) 1,1,2-Trichloroethane	9.623	97	36821	20.00	ug/L		94
54) Dibromochloromethane	9.788	129	33811	20.00	ug/L		99
55) 1,3-Dichloropropane	9.879	76	57259	20.00	ug/L		97
56) 1,2-Dibromoethane (EDB)	10.001	107	38181	20.00	ug/L		99
57) 2-Hexanone	10.208	43	71710	40.00	ug/L		98
58) Chlorobenzene	10.471	112	98998	20.00	ug/L		97
59) Ethylbenzene	10.489	91	150206	20.00	ug/L		98
60) 1,1,1,2-Tetrachloroethane	10.525	131	31571	20.00	ug/L		96
61) m,p-Xylenes (2)	10.611	91	220983	40.00	ug/L		98
62) o-Xylene	10.970	91	107127	20.00	ug/L		98
63) Styrene	11.013	104	88408	20.00	ug/L		94
64) Bromoform	11.038	173	26373	20.00	ug/L		97
65) Isopropylbenzene	11.220	105	131792	20.00	ug/L		99
68) Bromobenzene	11.531	156	43790	20.00	ug/L		94
69) n-Propylbenzene	11.544	91	148949	20.00	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.598	83	56394	20.00	ug/L		98
71) 2-Chlorotoluene	11.665	126	34740	20.00	ug/L		94
72) 1,3,5-Trimethylbenzene	11.690	105	112417	20.00	ug/L		95
73) 1,2,3-Trichloropropane	11.708	110	16623	20.00	ug/L		96
74) t-1,4-Dichloro-2-butene	11.739	88	4774	20.00	ug/L	#	80
75) 4-Chlorotoluene	11.793	91	94606	20.00	ug/L		97
76) tert-Butylbenzene	11.934	91	54853	20.00	ug/L		96
77) 1,2,4-Trimethylbenzene	11.982	105	115215	20.00	ug/L		99
78) sec-Butylbenzene	12.062	105	124647	20.00	ug/L		98
79) 4-Isopropyltoluene	12.165	119	105070	20.00	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	70439	20.00	ug/L		99
81) 1,4-Dichlorobenzene	12.306	146	71878	20.00	ug/L		99
82) n-Butylbenzene	12.488	91	88503	20.00	ug/L		99
83) 1,2-Dichlorobenzene	12.629	146	69775	20.00	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	11935	20.00	ug/L		97
85) Hexachlorobutadiene	13.830	223	11238	20.00	ug/L		97
86) 1,2,4-Trichlorobenzene	13.872	180	43365	20.00	ug/L		95
87) Naphthalene	14.202	128	123502	20.00	ug/L		98
88) 1,2,3-Trichlorobenzene	14.397	180	43488	20.00	ug/L		99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102521.D
Acq On : 25 Oct 2019 8:02 pm
Operator : MM
Sample : 9J25051-CAL8
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	86706	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	253314	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	128679	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	89870	50.00	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	291439	50.00	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	329731	50.00	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	107703	50.00	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	27201	20.00	ug/L		97
3) Chloromethane	1.990	50	36903	20.00	ug/L		99
4) Vinyl Chloride	2.112	62	33851	20.00	ug/L		95
5) Bromomethane	2.551	96	16751	20.00	ug/L		99
6) Chloroethane	2.722	64	8110	20.00	ug/L		91
7) Trichlorofluoromethane	2.917	101	37053	20.00	ug/L		99
8) Ethanol	3.636	45	59872	1250.00	ug/L		86
9) 1,1-Dichloroethene	3.588	61	40497	20.00	ug/L		95
10) Carbon Disulfide	3.588	76	59881	20.00	ug/L		99
11) Freon 113	3.661	101	33091	20.00	ug/L		94
12) Iodomethane	3.746	142	11720	20.00	ug/L		98
13) Acrolein	4.033	56	8799	20.00	ug/L		98
14) Methylene Chloride	4.319	84	34415	20.00	ug/L		93
15) Acetone	4.399	43	35535	40.00	ug/L		96
16) t-1,2-Dichloroethene	4.508	61	43270	20.00	ug/L		93
17) n-Hexane	4.606	86	4737	20.00	ug/L	#	57
18) Methyl-tert-butyl-ether	4.661	73	86097	20.00	ug/L		96
19) tert-Butanol (TBA)	4.819	59	489113	1250.00	ug/L	#	81
20) Diisopropyl ether (DIPE)	5.112	45	24122	5.00	ug/L		98
21) 1,1-Dichloroethane	5.215	63	57239	20.00	ug/L		99
22) Acrylonitrile	5.289	53	21017	20.00	ug/L		96
23) Vinyl Acetate	5.526	43	61236	20.00	ug/L		98
24) Ethyl-tert-butyl ether...	5.514	59	21409	5.00	ug/L		97
25) c-1,2-Dichloroethene	5.825	61	44663	20.00	ug/L		93
26) 2,2-Dichloropropane	5.935	77	26576	20.00	ug/L		74
27) Bromochloromethane	6.038	49	27767	20.00	ug/L		84
28) Chloroform	6.136	83	59036	20.00	ug/L		96
29) Carbon Tetrachloride	6.264	117	35140	20.00	ug/L		97
30) Tetrahydrofuran	6.307	42	18146	20.00	ug/L		91
31) 1,1,1-Trichloroethane	6.343	97	44656	20.00	ug/L		95
33) 1,1-Dichloropropene	6.477	75	44179	20.00	ug/L		98
34) 2-Butanone (MEK)	6.477	43	56191	40.00	ug/L		97
35) Benzene	6.752	78	140134	20.00	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	19745	5.00	ug/L		80
37) 1,2-Dichloroethane (EDC)	6.983	62	46494	20.00	ug/L		99
38) iso-Butyl Alcohol	7.038	43	74881	500.00	ug/L		91
40) Trichloroethene (TCE)	7.410	130	37986	20.00	ug/L		98
41) tert-Amyl ethyl ether ...	7.691	59	13314	5.00	ug/L		93
42) Dibromomethane	7.886	93	23918	20.00	ug/L		95
43) 1,2-Dichloropropane	7.995	63	35146	20.00	ug/L		98
44) Bromodichloromethane	8.075	83	38970	20.00	ug/L		97
46) 2-Chloroethyl Vinyl Ether	8.739	63	20353	20.00	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	44754	20.00	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102521.D
Acq On : 25 Oct 2019 8:02 pm
Operator : MM
Sample : 9J25051-CAL8
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

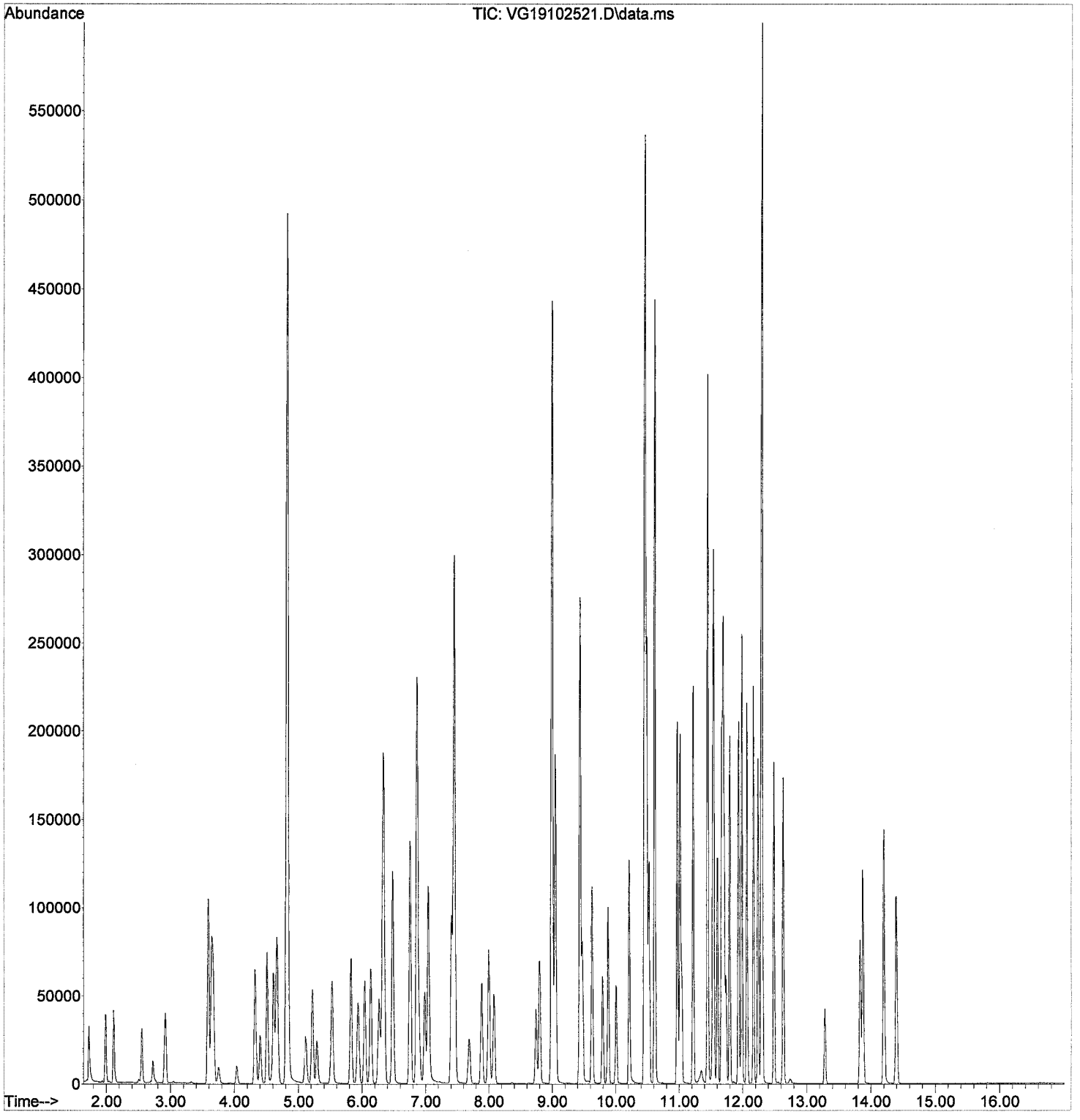
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49)	Toluene	9.044	91	148631	20.00	ug/L		100
50)	Tetrachloroethene (PCE)	9.434	166	40323	20.00	ug/L		97
51)	4-Methyl-2-Pentanone (...	9.434	43	98178	40.00	ug/L		97
52)	t-1,3-Dichloropropene	9.471	75	37931	20.00	ug/L		99
53)	1,1,2-Trichloroethane	9.623	97	36821	20.00	ug/L		94
54)	Dibromochloromethane	9.788	129	33811	20.00	ug/L		99
55)	1,3-Dichloropropane	9.879	76	57259	20.00	ug/L		97
56)	1,2-Dibromoethane (EDB)	10.001	107	38181	20.00	ug/L		99
57)	2-Hexanone	10.208	43	71710	40.00	ug/L		98
58)	Chlorobenzene	10.471	112	98998	20.00	ug/L		97
59)	Ethylbenzene	10.489	91	150206	20.00	ug/L		98
60)	1,1,1,2-Tetrachloroethane	10.525	131	31571	20.00	ug/L		96
61)	m,p-Xylenes (2)	10.611	91	220983	40.00	ug/L		98
62)	o-Xylene	10.970	91	107127	20.00	ug/L		98
63)	Styrene	11.013	104	88408	20.00	ug/L		94
64)	Bromoform	11.038	173	26373	20.00	ug/L		97
65)	Isopropylbenzene	11.220	105	131792	20.00	ug/L		99
68)	Bromobenzene	11.531	156	43790	20.00	ug/L		94
69)	n-Propylbenzene	11.544	91	148949	20.00	ug/L		99
70)	1,1,2,2-Tetrachloroethane	11.598	83	56394	20.00	ug/L		98
71)	2-Chlorotoluene	11.665	126	34740	20.00	ug/L		94
72)	1,3,5-Trimethylbenzene	11.690	105	112417	20.00	ug/L		95
73)	1,2,3-Trichloropropane	11.708	110	16623	20.00	ug/L		96
74)	t-1,4-Dichloro-2-butene	11.739	88	4774	20.00	ug/L	#	80
75)	4-Chlorotoluene	11.793	91	94606	20.00	ug/L		97
76)	tert-Butylbenzene	11.934	91	54853	20.00	ug/L		96
77)	1,2,4-Trimethylbenzene	11.982	105	115215	20.00	ug/L		99
78)	sec-Butylbenzene	12.062	105	124647	20.00	ug/L		98
79)	4-Isopropyltoluene	12.165	119	105070	20.00	ug/L		99
80)	1,3-Dichlorobenzene	12.238	146	70439	20.00	ug/L		99
81)	1,4-Dichlorobenzene	12.306	146	71878	20.00	ug/L		99
82)	n-Butylbenzene	12.488	91	88503	20.00	ug/L		99
83)	1,2-Dichlorobenzene	12.629	146	69775	20.00	ug/L		98
84)	1,2-Dibromo-3-Chloropr...	13.281	157	11935	20.00	ug/L		97
85)	Hexachlorobutadiene	13.830	223	11238	20.00	ug/L		97
86)	1,2,4-Trichlorobenzene	13.872	180	43365	20.00	ug/L		95
87)	Naphthalene	14.202	128	123502	20.00	ug/L		98
88)	1,2,3-Trichlorobenzene	14.397	180	43488	20.00	ug/L		99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102521.D
Acq On : 25 Oct 2019 8:02 pm
Operator : MM
Sample : 9J25051-CAL8
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:48 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102522.D
Acq On : 25 Oct 2019 8:29 pm
Operator : MM
Sample : 9J25051-CAL9
Misc : 1X 5mL 50/100PPB VOCR
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:51 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	94974	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	276912	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	143329	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	98035	49.79	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	318518	49.89	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	358348	49.71	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	121264	50.54	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	91711	61.56	ug/L		98
3) Chloromethane	1.984	50	101831	50.38	ug/L		99
4) Vinyl Chloride	2.112	62	99666	53.76	ug/L		95
5) Bromomethane	2.551	96	41867	45.64	ug/L		100
6) Chloroethane	2.722	64	22569	50.81	ug/L		92
7) Trichlorofluoromethane	2.917	101	101591	50.06	ug/L		97
8) Ethanol	3.630	45	118949	2267.21	ug/L		84
9) 1,1-Dichloroethene	3.588	61	106825	48.16	ug/L		96
10) Carbon Disulfide	3.588	76	175211	53.43	ug/L		99
11) Freon 113	3.661	101	84735	46.75	ug/L		97
12) Iodomethane	3.752	142	44167	68.81	ug/L		99
13) Acrolein	4.033	56	26568	55.13	ug/L		96
14) Methylene Chloride	4.319	84	84220	44.68	ug/L		94
15) Acetone	4.398	43	88109	90.55	ug/L		97
16) t-1,2-Dichloroethene	4.508	61	110813	46.76	ug/L		94
17) n-Hexane	4.612	86	13670	52.69	ug/L	#	70
18) Methyl-tert-butyl-ether	4.661	73	225213	47.76	ug/L		74
19) tert-Butanol (TBA)	4.819	59	974201	2272.97	ug/L	#	90
20) Diisopropyl ether (DIPE)	5.112	45	46377	8.78	ug/L		97
21) 1,1-Dichloroethane	5.215	63	143204	45.68	ug/L		99
22) Acrylonitrile	5.282	53	53096	46.13	ug/L		97
23) Vinyl Acetate	5.526	43	183258	54.64	ug/L		99
24) Ethyl-tert-butyl ether...	5.514	59	42497	9.06	ug/L		97
25) c-1,2-Dichloroethene	5.819	61	112782	46.11	ug/L		95
26) 2,2-Dichloropropane	5.935	77	71310	48.99	ug/L		78
27) Bromochloromethane	6.038	49	66951	44.03	ug/L		84
28) Chloroform	6.136	83	146798	45.40	ug/L		95
29) Carbon Tetrachloride	6.264	117	95588	49.67	ug/L		97
30) Tetrahydrofuran	6.301	42	48009	48.31	ug/L		89
31) 1,1,1-Trichloroethane	6.343	97	116783	47.75	ug/L		97
33) 1,1-Dichloropropene	6.483	75	113867	47.06	ug/L		98
34) 2-Butanone (MEK)	6.471	43	143270	93.11	ug/L		98
35) Benzene	6.752	78	351675	45.82	ug/L		97
36) tert-Amyl methyl ether...	6.898	73	39047	9.03	ug/L		83
37) 1,2-Dichloroethane (EDC)	6.983	62	115183	45.23	ug/L		99
38) iso-Butyl Alcohol	7.038	43	202120	1232.12	ug/L		95
40) Trichloroethene (TCE)	7.404	130	98591	47.39	ug/L		98
41) tert-Amyl ethyl ether ...	7.684	59	26359	9.04	ug/L		91
42) Dibromomethane	7.879	93	61052	46.61	ug/L		98
43) 1,2-Dichloropropane	7.995	63	87924	45.68	ug/L		97
44) Bromodichloromethane	8.075	83	103483	48.49	ug/L		97
46) 2-Chloroethyl Vinyl Ether	8.739	63	62426	56.12	ug/L	#	1
47) c-1,3-Dichloropropene	8.794	75	122277	49.99	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102522.D
Acq On : 25 Oct 2019 8:29 pm
Operator : MM
Sample : 9J25051-CAL9
Misc : 1X 5mL 50/100PPB VOCR
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:51 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	371837	45.77	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	102842	46.66	ug/L		98
51) 4-Methyl-2-Pentanone (...	9.434	43	254574	94.88	ug/L		93
52) t-1,3-Dichloropropene	9.471	75	107286	51.75	ug/L		99
53) 1,1,2-Trichloroethane	9.623	97	91931	45.68	ug/L		95
54) Dibromochloromethane	9.788	129	93162	50.41	ug/L		99
55) 1,3-Dichloropropane	9.879	76	144038	46.02	ug/L		95
56) 1,2-Dibromoethane (EDB)	10.001	107	98185	47.05	ug/L		99
57) 2-Hexanone	10.208	43	193352	98.66	ug/L		96
58) Chlorobenzene	10.470	112	247035	45.65	ug/L		96
59) Ethylbenzene	10.489	91	384473	46.83	ug/L		99
60) 1,1,1,2-Tetrachloroethane	10.525	131	84064	48.72	ug/L		98
61) m,p-Xylenes (2)	10.611	91	564636	93.49	ug/L		100
62) o-Xylene	10.970	91	288059	49.20	ug/L		99
63) Styrene	11.013	104	234659	48.56	ug/L		94
64) Bromoform	11.037	173	75820	52.60	ug/L		98
65) Isopropylbenzene	11.220	105	349766	48.56	ug/L		99
68) Bromobenzene	11.531	156	111875	45.87	ug/L		96
69) n-Propylbenzene	11.543	91	381465	45.99	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.604	83	142222	45.28	ug/L		98
71) 2-Chlorotoluene	11.665	126	90597	46.83	ug/L		92
72) 1,3,5-Trimethylbenzene	11.690	105	287885	45.98	ug/L		95
73) 1,2,3-Trichloropropane	11.708	110	42315	45.71	ug/L		96
74) t-1,4-Dichloro-2-butene	11.732	88	13756	51.74	ug/L	#	89
75) 4-Chlorotoluene	11.793	91	246655	46.81	ug/L		98
76) tert-Butylbenzene	11.934	91	144949	47.45	ug/L		97
77) 1,2,4-Trimethylbenzene	11.982	105	293788	45.79	ug/L		99
78) sec-Butylbenzene	12.062	105	321962	46.38	ug/L		98
79) 4-Isopropyltoluene	12.165	119	273920	46.81	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	182204	46.45	ug/L		99
81) 1,4-Dichlorobenzene	12.305	146	184746	46.15	ug/L		98
82) n-Butylbenzene	12.482	91	225454	45.74	ug/L		98
83) 1,2-Dichlorobenzene	12.629	146	181138	46.61	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	35194	52.95	ug/L		94
85) Hexachlorobutadiene	13.830	223	27912	44.60	ug/L		99
86) 1,2,4-Trichlorobenzene	13.872	180	116235	48.13	ug/L		96
87) Naphthalene	14.201	128	357738	52.01	ug/L		98
88) 1,2,3-Trichlorobenzene	14.396	180	112370	46.40	ug/L		99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102522.D
Acq On : 25 Oct 2019 8:29 pm
Operator : MM
Sample : 9J25051-CAL9
Misc : 1X 5mL 50/100PPB VOCR
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:51 2019
Quant Method : C:\msdchem\1\methods\~~VG191025W.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	94974	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	276912	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	143329	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	98035	49.79	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	318518	49.89	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	358348	49.71	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	121264	50.54	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	91711	61.56	ug/L		98
3) Chloromethane	1.984	50	101831	50.38	ug/L		99
4) Vinyl Chloride	2.112	62	99666	53.76	ug/L		95
5) Bromomethane	2.551	96	41867	45.64	ug/L		100
6) Chloroethane	2.722	64	22569	50.81	ug/L		92
7) Trichlorofluoromethane	2.917	101	101591	50.06	ug/L		97
8) Ethanol	3.630	45	118949	2267.21	ug/L		84
9) 1,1-Dichloroethene	3.588	61	106825	48.16	ug/L		96
10) Carbon Disulfide	3.588	76	175211	53.43	ug/L		99
11) Freon 113	3.661	101	84735	46.75	ug/L		97
12) Iodomethane	3.752	142	44167	68.81	ug/L		99
13) Acrolein	4.033	56	26568	55.13	ug/L		96
14) Methylene Chloride	4.319	84	84220	44.68	ug/L		94
15) Acetone	4.398	43	88109	90.55	ug/L		97
16) t-1,2-Dichloroethene	4.508	61	110813	46.76	ug/L		94
17) n-Hexane	4.612	86	13670	52.69	ug/L	#	70
18) Methyl-tert-butyl-ether	4.661	73	225213	47.76	ug/L		74
19) tert-Butanol (TBA)	4.819	59	974201	2272.97	ug/L	#	90
20) Diisopropyl ether (DIPE)	5.112	45	46377	8.78	ug/L		97
21) 1,1-Dichloroethane	5.215	63	143204	45.68	ug/L		99
22) Acrylonitrile	5.282	53	53096	46.13	ug/L		97
23) Vinyl Acetate	5.526	43	183258	54.64	ug/L		99
24) Ethyl-tert-butyl ether...	5.514	59	42497	9.06	ug/L		97
25) c-1,2-Dichloroethene	5.819	61	112782	46.11	ug/L		95
26) 2,2-Dichloropropane	5.935	77	71310	48.99	ug/L		78
27) Bromochloromethane	6.038	49	66951	44.03	ug/L		84
28) Chloroform	6.136	83	146798	45.40	ug/L		95
29) Carbon Tetrachloride	6.264	117	95588	49.67	ug/L		97
30) Tetrahydrofuran	6.301	42	48009	48.31	ug/L		89
31) 1,1,1-Trichloroethane	6.343	97	116783	47.75	ug/L		97
33) 1,1-Dichloropropene	6.483	75	113867	47.06	ug/L		98
34) 2-Butanone (MEK)	6.471	43	143270	93.11	ug/L		98
35) Benzene	6.752	78	351675	45.82	ug/L		97
36) tert-Amyl methyl ether...	6.898	73	39047	9.03	ug/L		83
37) 1,2-Dichloroethane (EDC)	6.983	62	115183	45.23	ug/L		99
38) iso-Butyl Alcohol	7.038	43	202120	1232.12	ug/L		95
40) Trichloroethene (TCE)	7.404	130	98591	47.39	ug/L		98
41) tert-Amyl ethyl ether ...	7.684	59	26359	9.04	ug/L		91
42) Dibromomethane	7.879	93	61052	46.61	ug/L		98
43) 1,2-Dichloropropane	7.995	63	87924	45.68	ug/L		97
44) Bromodichloromethane	8.075	83	103483	48.49	ug/L		97
46) 2-Chloroethyl Vinyl Ether	8.739	63	62426	56.12	ug/L	#	1
47) c-1,3-Dichloropropene	8.794	75	122277	49.99	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102522.D
Acq On : 25 Oct 2019 8:29 pm
Operator : MM
Sample : 9J25051-CAL9
Misc : 1X 5mL 50/100PPB VOCR
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:51 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

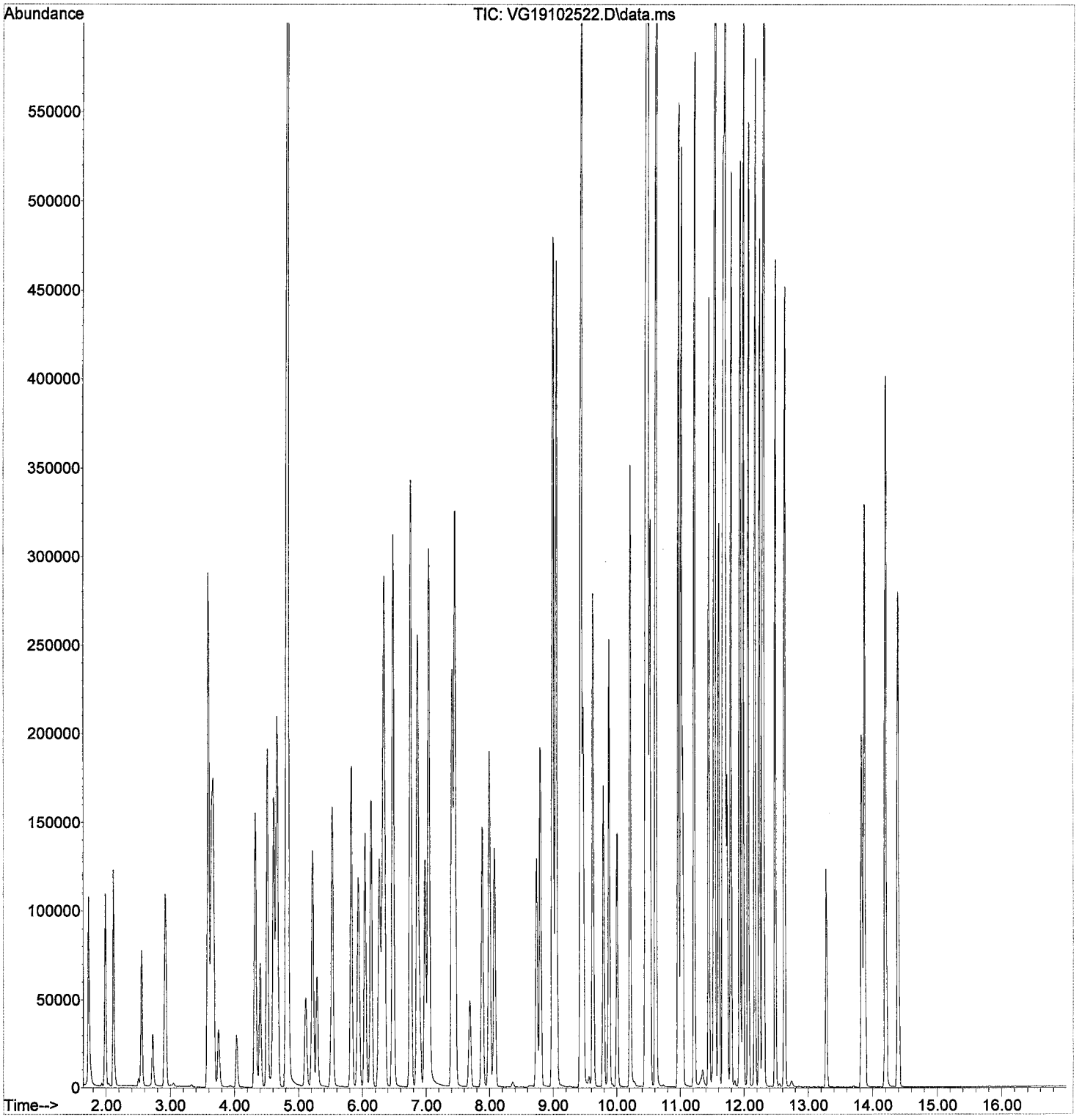
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	371837	45.77	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	102842	46.66	ug/L		98
51) 4-Methyl-2-Pentanone (...	9.434	43	254574	94.88	ug/L		93
52) t-1,3-Dichloropropene	9.471	75	107286	51.75	ug/L		99
53) 1,1,2-Trichloroethane	9.623	97	91931	45.68	ug/L		95
54) Dibromochloromethane	9.788	129	93162	50.41	ug/L		99
55) 1,3-Dichloropropane	9.879	76	144038	46.02	ug/L		95
56) 1,2-Dibromoethane (EDB)	10.001	107	98185	47.05	ug/L		99
57) 2-Hexanone	10.208	43	193352	98.66	ug/L		96
58) Chlorobenzene	10.470	112	247035	45.65	ug/L		96
59) Ethylbenzene	10.489	91	384473	46.83	ug/L		99
60) 1,1,1,2-Tetrachloroethane	10.525	131	84064	48.72	ug/L		98
61) m,p-Xylenes (2)	10.611	91	564636	93.49	ug/L		100
62) o-Xylene	10.970	91	288059	49.20	ug/L		99
63) Styrene	11.013	104	234659	48.56	ug/L		94
64) Bromoform	11.037	173	75820	52.60	ug/L		98
65) Isopropylbenzene	11.220	105	349766	48.56	ug/L		99
68) Bromobenzene	11.531	156	111875	45.87	ug/L		96
69) n-Propylbenzene	11.543	91	381465	45.99	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.604	83	142222	45.28	ug/L		98
71) 2-Chlorotoluene	11.665	126	90597	46.83	ug/L		92
72) 1,3,5-Trimethylbenzene	11.690	105	287885	45.98	ug/L		95
73) 1,2,3-Trichloropropane	11.708	110	42315	45.71	ug/L		96
74) t-1,4-Dichloro-2-butene	11.732	88	13756	51.74	ug/L	#	89
75) 4-Chlorotoluene	11.793	91	246655	46.81	ug/L		98
76) tert-Butylbenzene	11.934	91	144949	47.45	ug/L		97
77) 1,2,4-Trimethylbenzene	11.982	105	293788	45.79	ug/L		99
78) sec-Butylbenzene	12.062	105	321962	46.38	ug/L		98
79) 4-Isopropyltoluene	12.165	119	273920	46.81	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	182204	46.45	ug/L		99
81) 1,4-Dichlorobenzene	12.305	146	184746	46.15	ug/L		98
82) n-Butylbenzene	12.482	91	225454	45.74	ug/L		98
83) 1,2-Dichlorobenzene	12.629	146	181138	46.61	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	35194	52.95	ug/L		94
85) Hexachlorobutadiene	13.830	223	27912	44.60	ug/L		99
86) 1,2,4-Trichlorobenzene	13.872	180	116235	48.13	ug/L		96
87) Naphthalene	14.201	128	357738	52.01	ug/L		98
88) 1,2,3-Trichlorobenzene	14.396	180	112370	46.40	ug/L		99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102522.D
Acq On : 25 Oct 2019 8:29 pm
Operator : MM
Sample : 9J25051-CAL9
Misc : 1X 5mL 50/100PPB VOCR
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:51 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102523.D
Acq On : 25 Oct 2019 8:55 pm
Operator : MM
Sample : 9J25051-IBL2
Misc : 1X 5mL DI
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:46 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

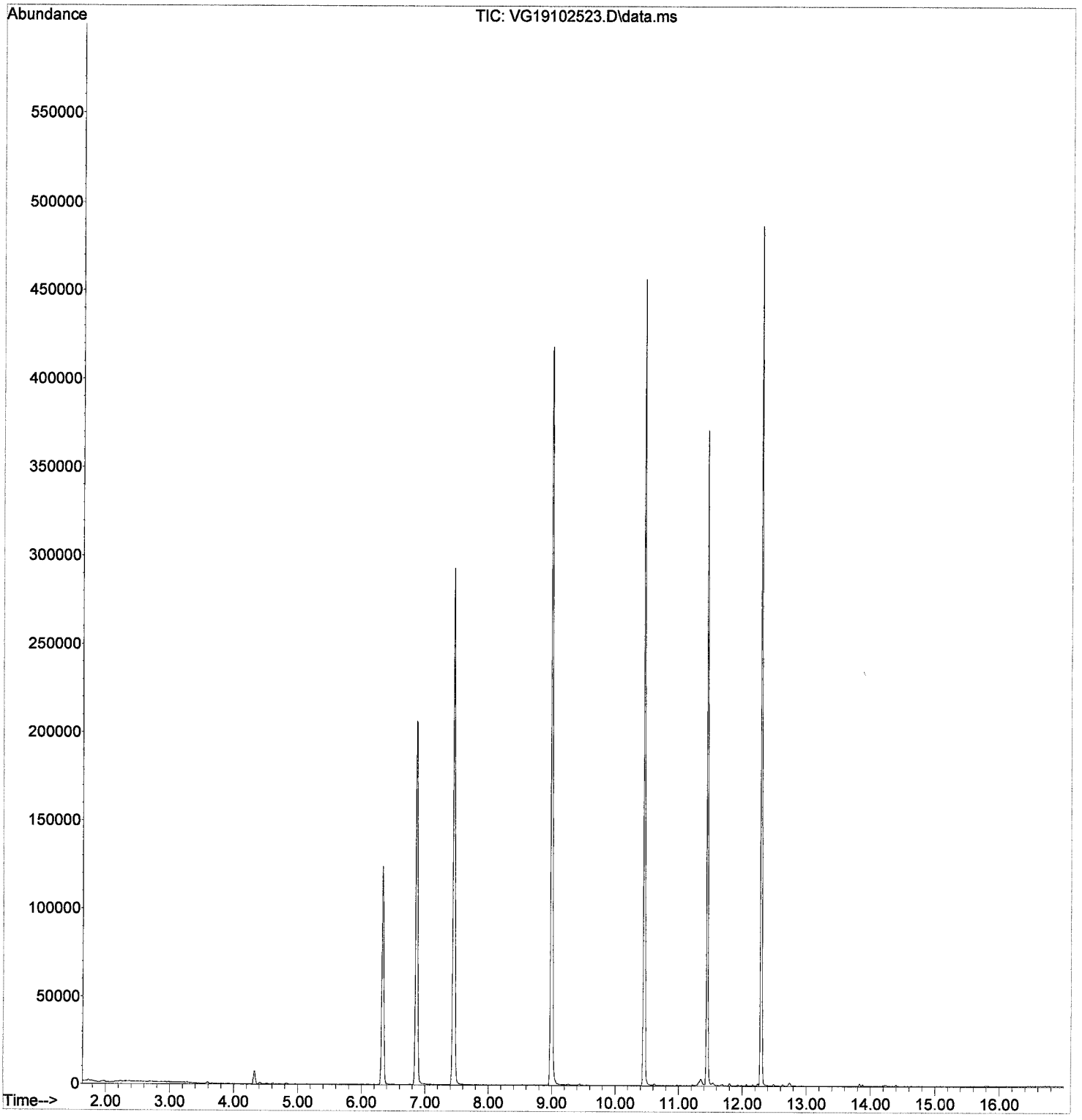
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.861	99	79919	50.00 ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	240589	50.00 ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	117739	50.00 ug/L		0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	6.331	111	83899	49.87 ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	280390	51.07 ug/L		0.00
48) Toluene-d8 (S)	8.995	98	311902	49.72 ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	98502	49.54 ug/L		0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.728	85	204	0.15 ug/L	#	51
3) Chloromethane	1.990	50	313	0.17 ug/L		86
6) Chloroethane	2.661	64	10	Below Cal	#	53
8) Ethanol	3.636	45	53	1.26 ug/L	#	29
9) 1,1-Dichloroethene	3.582	61	167	0.09 ug/L	#	25
10) Carbon Disulfide	3.594	76	1010	0.36 ug/L		91
14) Methylene Chloride	4.325	84	3641	1.42 ug/L		88
15) Acetone	4.405	43	1207	1.45 ug/L		98
16) t-1,2-Dichloroethene	4.508	61	286	0.15 ug/L		84
19) tert-Butanol (TBA)	4.831	59	531	1.68 ug/L	#	84
33) 1,1-Dichloropropene	6.483	75	184	0.10 ug/L	#	59
38) iso-Butyl Alcohol	7.087	43	11	0.08 ug/L	#	22
40) Trichloroethene (TCE)	7.410	130	193	0.11 ug/L		77
47) c-1,3-Dichloropropene	8.818	75	11	0.10 ug/L	#	33
50) Tetrachloroethene (PCE)	9.440	166	275	0.14 ug/L		75
52) t-1,3-Dichloropropene	9.489	75	12	0.09 ug/L	#	45
58) Chlorobenzene	10.464	112	411	0.09 ug/L	#	1
61) m,p-Xylenes (2)	10.623	91	666	0.14 ug/L		86
63) Styrene	11.037	104	134	0.13 ug/L	#	40
68) Bromobenzene	11.531	156	175	0.09 ug/L		81
69) n-Propylbenzene	11.549	91	840	0.13 ug/L		96
72) 1,3,5-Trimethylbenzene	11.690	105	392	0.09 ug/L		93
75) 4-Chlorotoluene	11.799	91	519	0.13 ug/L		89
76) tert-Butylbenzene	11.934	91	202	0.09 ug/L	#	71
77) 1,2,4-Trimethylbenzene	11.988	105	420	0.09 ug/L		94
78) sec-Butylbenzene	12.068	105	601	0.12 ug/L		96
79) 4-Isopropyltoluene	12.165	119	488	0.11 ug/L		90
80) 1,3-Dichlorobenzene	12.244	146	511	0.17 ug/L		95
81) 1,4-Dichlorobenzene	12.305	146	726	0.21 ug/L	#	60
82) n-Butylbenzene	12.488	91	766	0.22 ug/L		85
83) 1,2-Dichlorobenzene	12.635	146	337	0.11 ug/L		98
85) Hexachlorobutadiene	13.823	223	208	0.44 ug/L		95
86) 1,2,4-Trichlorobenzene	13.878	180	409	0.23 ug/L		91
87) Naphthalene	14.208	128	669	0.40 ug/L		79
88) 1,2,3-Trichlorobenzene	14.396	180	327	0.19 ug/L		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102523.D
Acq On : 25 Oct 2019 8:55 pm
Operator : MM
Sample : 9J25051-IBL2
Misc : 1X 5mL DI
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:46 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102524.D
Acq On : 25 Oct 2019 9:22 pm
Operator : MM
Sample : 9J25051-CALA
Misc : 1X 5mL 100/200PPB VOCR
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:54 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.862	99	96665	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	280815	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	144590	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	100532	50.17	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	326047	50.17	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	367797	50.31	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	124225	51.32	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	173843	114.65	ug/L		97
3) Chloromethane	1.984	50	198132	96.32	ug/L		98
4) Vinyl Chloride	2.112	62	192412	101.97	ug/L		95
5) Bromomethane	2.551	96	84791	90.81	ug/L		99
6) Chloroethane	2.722	64	40673	89.97	ug/L		94
7) Trichlorofluoromethane	2.917	101	187789	90.92	ug/L		97
8) Ethanol	3.643	45	205433	3847.13	ug/L		84
9) 1,1-Dichloroethene	3.588	61	228850	101.38	ug/L		96
10) Carbon Disulfide	3.588	76	390234	116.91	ug/L		98
11) Freon 113	3.661	101	173399	94.00	ug/L		95
12) Iodomethane	3.752	142	116589	178.46	ug/L		99
13) Acrolein	4.033	56	53447	108.97	ug/L		98
14) Methylene Chloride	4.319	84	171077	89.18	ug/L		94
15) Acetone	4.399	43	178985	180.72	ug/L		97
16) t-1,2-Dichloroethene	4.508	61	235876	97.79	ug/L		94
17) n-Hexane	4.612	86	29007	109.85	ug/L	#	62
18) Methyl-tert-butyl-ether	4.661	73	485505	101.16	ug/L		92
19) tert-Butanol (TBA)	4.825	59	1764644	4045.18	ug/L	#	94
20) Diisopropyl ether (DIPE)	5.112	45	91793	17.07	ug/L		96
21) 1,1-Dichloroethane	5.215	63	303825	95.22	ug/L		99
22) Acrylonitrile	5.289	53	110954	94.71	ug/L		98
23) Vinyl Acetate	5.526	43	384431	112.62	ug/L		99
24) Ethyl-tert-butyl ether...	5.514	59	83379	17.47	ug/L		99
25) c-1,2-Dichloroethene	5.825	61	241396	96.96	ug/L		92
26) 2,2-Dichloropropane	5.935	77	158158	106.76	ug/L		83
27) Bromochloromethane	6.039	49	134039	86.60	ug/L		83
28) Chloroform	6.136	83	307965	93.58	ug/L		96
29) Carbon Tetrachloride	6.264	117	209216	106.81	ug/L		96
30) Tetrahydrofuran	6.301	42	101260	100.11	ug/L		91
31) 1,1,1-Trichloroethane	6.343	97	253138	101.69	ug/L		98
33) 1,1-Dichloropropene	6.477	75	241070	97.89	ug/L		97
34) 2-Butanone (MEK)	6.471	43	294469	188.02	ug/L		97
35) Benzene	6.752	78	738577	94.55	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	76599	17.40	ug/L		86
37) 1,2-Dichloroethane (EDC)	6.983	62	242443	93.55	ug/L		99
38) iso-Butyl Alcohol	7.044	43	391326	2343.78	ug/L		96
40) Trichloroethene (TCE)	7.410	130	211347	99.81	ug/L		97
41) tert-Amyl ethyl ether ...	7.685	59	52681	17.75	ug/L		93
42) Dibromomethane	7.880	93	129476	97.11	ug/L		97
43) 1,2-Dichloropropane	7.995	63	186244	95.06	ug/L		97
44) Bromodichloromethane	8.075	83	228141	105.02	ug/L		96
46) 2-Chloroethyl Vinyl Ether	8.739	63	134625	119.33	ug/L	#	1
47) c-1,3-Dichloropropene	8.794	75	272691	109.93	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102524.D
Acq On : 25 Oct 2019 9:22 pm
Operator : MM
Sample : 9J25051-CALA
Misc : 1X 5mL 100/200PPB VOCR
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:54 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	9.044	91	781810	94.90	ug/L	99
50) Tetrachloroethene (PCE)	9.434	166	212731	95.18	ug/L	98
51) 4-Methyl-2-Pentanone (...	9.434	43	518207	190.45	ug/L	93
52) t-1,3-Dichloropropene	9.471	75	242090	115.15	ug/L	98
53) 1,1,2-Trichloroethane	9.623	97	191781	93.97	ug/L	96
54) Dibromochloromethane	9.788	129	208257	111.12	ug/L	99
55) 1,3-Dichloropropane	9.879	76	305571	96.28	ug/L	96
56) 1,2-Dibromoethane (EDB)	10.001	107	208836	98.68	ug/L	98
57) 2-Hexanone	10.208	43	392003	197.25	ug/L	96
58) Chlorobenzene	10.471	112	511165	93.15	ug/L	97
59) Ethylbenzene	10.489	91	801122	96.22	ug/L	98
60) 1,1,1,2-Tetrachloroethane	10.525	131	180354	103.06	ug/L	96
61) m,p-Xylenes (2)	10.611	91	1184446	193.40	ug/L	98
62) o-Xylene	10.970	91	616887	103.89	ug/L	98
63) Styrene	11.013	104	496713	101.36	ug/L	94
64) Bromoform	11.038	173	169206	115.75	ug/L	98
65) Isopropylbenzene	11.220	105	744896	101.97	ug/L	99
68) Bromobenzene	11.531	156	230853	93.83	ug/L	95
69) n-Propylbenzene	11.544	91	803869	96.06	ug/L	99
70) 1,1,2,2-Tetrachloroethane	11.598	83	276789	87.36	ug/L	97
71) 2-Chlorotoluene	11.665	126	191643	98.19	ug/L	92
72) 1,3,5-Trimethylbenzene	11.690	105	599123	94.86	ug/L	94
73) 1,2,3-Trichloropropane	11.708	110	84503	90.48	ug/L	93
74) t-1,4-Dichloro-2-butene	11.733	88	31040	115.73	ug/L	90
75) 4-Chlorotoluene	11.793	91	522158	98.24	ug/L	99
76) tert-Butylbenzene	11.934	91	309424	100.40	ug/L	97
77) 1,2,4-Trimethylbenzene	11.982	105	612078	94.56	ug/L	99
78) sec-Butylbenzene	12.062	105	687152	98.12	ug/L	98
79) 4-Isopropyltoluene	12.165	119	583941	98.92	ug/L	99
80) 1,3-Dichlorobenzene	12.239	146	382076	96.55	ug/L	100
81) 1,4-Dichlorobenzene	12.306	146	380389	94.20	ug/L	98
82) n-Butylbenzene	12.488	91	474858	95.50	ug/L	99
83) 1,2-Dichlorobenzene	12.629	146	368271	93.94	ug/L	98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	72710	108.44	ug/L	91
85) Hexachlorobutadiene	13.830	223	56850	90.04	ug/L	98
86) 1,2,4-Trichlorobenzene	13.872	180	230455	94.59	ug/L	97
87) Naphthalene	14.202	128	723210	104.23	ug/L	97
88) 1,2,3-Trichlorobenzene	14.397	180	219631	89.89	ug/L	99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102524.D
Acq On : 25 Oct 2019 9:22 pm
Operator : MM
Sample : 9J25051-CALA
Misc : 1X 5mL 100/200PPB VOCR
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:54 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.862	99	96665	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	280815	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	144590	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	100532	50.17	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	326047	50.17	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	367797	50.31	ug/L		-0.01
67) 4-Bromofluorobenzene (S)	11.446	174	124225	51.32	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	173843	114.65	ug/L		97
3) Chloromethane	1.984	50	198132	96.32	ug/L		98
4) Vinyl Chloride	2.112	62	192412	101.97	ug/L		95
5) Bromomethane	2.551	96	84791	90.81	ug/L		99
6) Chloroethane	2.722	64	40673	89.97	ug/L		94
7) Trichlorofluoromethane	2.917	101	187789	90.92	ug/L		97
8) Ethanol	3.643	45	205433	3847.13	ug/L		84
9) 1,1-Dichloroethene	3.588	61	228850	101.38	ug/L		96
10) Carbon Disulfide	3.588	76	390234	116.91	ug/L		98
11) Freon 113	3.661	101	173399	94.00	ug/L		95
12) Iodomethane	3.752	142	116589	178.46	ug/L		99
13) Acrolein	4.033	56	53447	108.97	ug/L		98
14) Methylene Chloride	4.319	84	171077	89.18	ug/L		94
15) Acetone	4.399	43	178985	180.72	ug/L		97
16) t-1,2-Dichloroethene	4.508	61	235876	97.79	ug/L		94
17) n-Hexane	4.612	86	29007	109.85	ug/L	#	62
18) Methyl-tert-butyl-ether	4.661	73	485505	101.16	ug/L		92
19) tert-Butanol (TBA)	4.825	59	1764644	4045.18	ug/L	#	94
20) Diisopropyl ether (DIPE)	5.112	45	91793	17.07	ug/L		96
21) 1,1-Dichloroethane	5.215	63	303825	95.22	ug/L		99
22) Acrylonitrile	5.289	53	110954	94.71	ug/L		98
23) Vinyl Acetate	5.526	43	384431	112.62	ug/L		99
24) Ethyl-tert-butyl ether...	5.514	59	83379	17.47	ug/L		99
25) c-1,2-Dichloroethene	5.825	61	241396	96.96	ug/L		92
26) 2,2-Dichloropropane	5.935	77	158158	106.76	ug/L		83
27) Bromochloromethane	6.039	49	134039	86.60	ug/L		83
28) Chloroform	6.136	83	307965	93.58	ug/L		96
29) Carbon Tetrachloride	6.264	117	209216	106.81	ug/L		96
30) Tetrahydrofuran	6.301	42	101260	100.11	ug/L		91
31) 1,1,1-Trichloroethane	6.343	97	253138	101.69	ug/L		98
33) 1,1-Dichloropropene	6.477	75	241070	97.89	ug/L		97
34) 2-Butanone (MEK)	6.471	43	294469	188.02	ug/L		97
35) Benzene	6.752	78	738577	94.55	ug/L		98
36) tert-Amyl methyl ether...	6.898	73	76599	17.40	ug/L		86
37) 1,2-Dichloroethane (EDC)	6.983	62	242443	93.55	ug/L		99
38) iso-Butyl Alcohol	7.044	43	391326	2343.78	ug/L		96
40) Trichloroethene (TCE)	7.410	130	211347	99.81	ug/L		97
41) tert-Amyl ethyl ether ...	7.685	59	52681	17.75	ug/L		93
42) Dibromomethane	7.880	93	129476	97.11	ug/L		97
43) 1,2-Dichloropropane	7.995	63	186244	95.06	ug/L		97
44) Bromodichloromethane	8.075	83	228141	105.02	ug/L		96
46) 2-Chloroethyl Vinyl Ether	8.739	63	134625	119.33	ug/L	#	1
47) c-1,3-Dichloropropene	8.794	75	272691	109.93	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102524.D
Acq On : 25 Oct 2019 9:22 pm
Operator : MM
Sample : 9J25051-CALA
Misc : 1X 5mL 100/200PPB VOCR
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:54 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

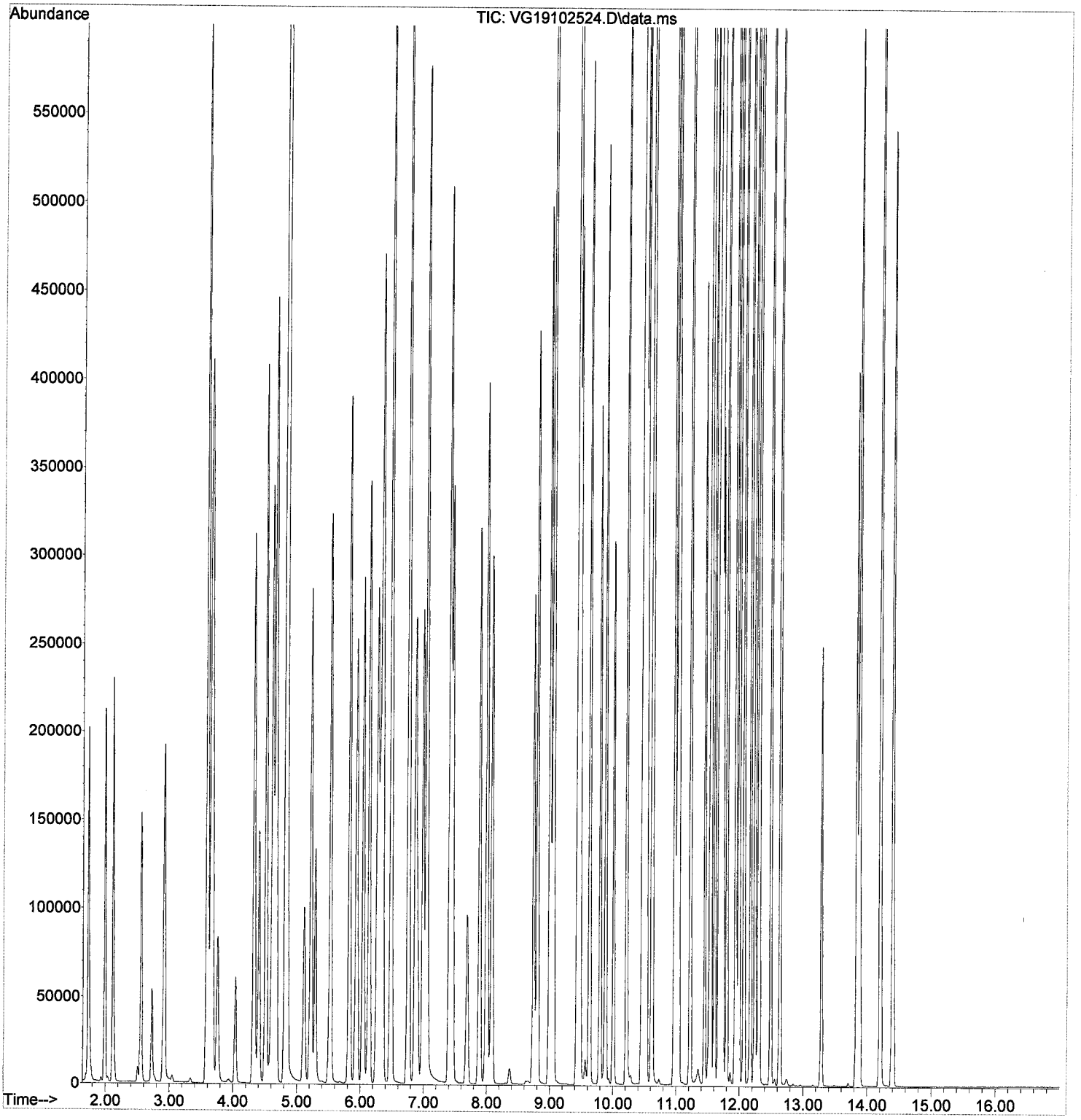
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	9.044	91	781810	94.90	ug/L	99
50) Tetrachloroethene (PCE)	9.434	166	212731	95.18	ug/L	98
51) 4-Methyl-2-Pentanone (...	9.434	43	518207	190.45	ug/L	93
52) t-1,3-Dichloropropene	9.471	75	242090	115.15	ug/L	98
53) 1,1,2-Trichloroethane	9.623	97	191781	93.97	ug/L	96
54) Dibromochloromethane	9.788	129	208257	111.12	ug/L	99
55) 1,3-Dichloropropane	9.879	76	305571	96.28	ug/L	96
56) 1,2-Dibromoethane (EDB)	10.001	107	208836	98.68	ug/L	98
57) 2-Hexanone	10.208	43	392003	197.25	ug/L	96
58) Chlorobenzene	10.471	112	511165	93.15	ug/L	97
59) Ethylbenzene	10.489	91	801122	96.22	ug/L	98
60) 1,1,1,2-Tetrachloroethane	10.525	131	180354	103.06	ug/L	96
61) m,p-Xylenes (2)	10.611	91	1184446	193.40	ug/L	98
62) o-Xylene	10.970	91	616887	103.89	ug/L	98
63) Styrene	11.013	104	496713	101.36	ug/L	94
64) Bromoform	11.038	173	169206	115.75	ug/L	98
65) Isopropylbenzene	11.220	105	744896	101.97	ug/L	99
68) Bromobenzene	11.531	156	230853	93.83	ug/L	95
69) n-Propylbenzene	11.544	91	803869	96.06	ug/L	99
70) 1,1,2,2-Tetrachloroethane	11.598	83	276789	87.36	ug/L	97
71) 2-Chlorotoluene	11.665	126	191643	98.19	ug/L	92
72) 1,3,5-Trimethylbenzene	11.690	105	599123	94.86	ug/L	94
73) 1,2,3-Trichloropropane	11.708	110	84503	90.48	ug/L	93
74) t-1,4-Dichloro-2-butene	11.733	88	31040	115.73	ug/L	90
75) 4-Chlorotoluene	11.793	91	522158	98.24	ug/L	99
76) tert-Butylbenzene	11.934	91	309424	100.40	ug/L	97
77) 1,2,4-Trimethylbenzene	11.982	105	612078	94.56	ug/L	99
78) sec-Butylbenzene	12.062	105	687152	98.12	ug/L	98
79) 4-Isopropyltoluene	12.165	119	583941	98.92	ug/L	99
80) 1,3-Dichlorobenzene	12.239	146	382076	96.55	ug/L	100
81) 1,4-Dichlorobenzene	12.306	146	380389	94.20	ug/L	98
82) n-Butylbenzene	12.488	91	474858	95.50	ug/L	99
83) 1,2-Dichlorobenzene	12.629	146	368271	93.94	ug/L	98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	72710	108.44	ug/L	91
85) Hexachlorobutadiene	13.830	223	56850	90.04	ug/L	98
86) 1,2,4-Trichlorobenzene	13.872	180	230455	94.59	ug/L	97
87) Naphthalene	14.202	128	723210	104.23	ug/L	97
88) 1,2,3-Trichlorobenzene	14.397	180	219631	89.89	ug/L	99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102524.D
Acq On : 25 Oct 2019 9:22 pm
Operator : MM
Sample : 9J25051-CALA
Misc : 1X 5mL 100/200PPB VOCR
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:54 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102525.D
Acq On : 25 Oct 2019 9:49 pm
Operator : MM
Sample : 9J25051-IBL3
Misc : 1X 5mL DI
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:49 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	81875	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	238938	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	117374	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	85118	49.39	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	283924	50.48	ug/L		0.00
48) Toluene-d8 (S)	8.995	98	312156	50.11	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	98559	49.73	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	388	0.28	ug/L		83
3) Chloromethane	1.990	50	362	0.19	ug/L		91
4) Vinyl Chloride	2.112	62	175	0.11	ug/L		63
5) Bromomethane	2.551	96	92	0.11	ug/L		86
6) Chloroethane	2.740	64	39	Below Cal		#	47
7) Trichlorofluoromethane	2.929	101	260	0.15	ug/L		94
8) Ethanol	3.630	45	101	2.35	ug/L	#	29
9) 1,1-Dichloroethene	3.588	61	321	0.17	ug/L		96
10) Carbon Disulfide	3.594	76	1909	0.66	ug/L		98
11) Freon 113	3.661	101	441	0.28	ug/L		76
12) Iodomethane	3.752	142	27	2.13	ug/L	#	47
14) Methylene Chloride	4.325	84	2626	0.67	ug/L		94
15) Acetone	4.411	43	1215	1.42	ug/L		99
16) t-1,2-Dichloroethene	4.514	61	544	0.28	ug/L		91
19) tert-Butanol (TBA)	4.825	59	566	1.75	ug/L	#	82
25) c-1,2-Dichloroethene	5.819	61	227	0.11	ug/L		90
33) 1,1-Dichloropropene	6.483	75	346	0.19	ug/L		84
38) iso-Butyl Alcohol	7.063	43	130	0.96	ug/L		71
40) Trichloroethene (TCE)	7.416	130	385	0.21	ug/L		95
47) c-1,3-Dichloropropene	8.812	75	85	0.14	ug/L	#	33
49) Toluene	9.044	91	825	0.12	ug/L		97
50) Tetrachloroethene (PCE)	9.440	166	526	0.28	ug/L		95
51) 4-Methyl-2-Pentanone (...	9.452	43	232	0.11	ug/L		70
52) t-1,3-Dichloropropene	9.483	75	60	0.12	ug/L	#	45
57) 2-Hexanone	10.227	43	155	0.10	ug/L		69
58) Chlorobenzene	10.464	112	661	0.14	ug/L	#	1
59) Ethylbenzene	10.489	91	952	0.14	ug/L		89
61) m,p-Xylenes (2)	10.617	91	1444	0.31	ug/L		98
62) o-Xylene	10.970	91	449	0.10	ug/L		85
63) Styrene	11.019	104	336	0.19	ug/L		71
65) Isopropylbenzene	11.214	105	667	0.12	ug/L		85
68) Bromobenzene	11.537	156	300	0.16	ug/L	#	79
69) n-Propylbenzene	11.543	91	1731	0.27	ug/L		96
71) 2-Chlorotoluene	11.671	126	275	0.19	ug/L	#	71
72) 1,3,5-Trimethylbenzene	11.690	105	790	0.17	ug/L		92
75) 4-Chlorotoluene	11.800	91	942	0.24	ug/L		98
76) tert-Butylbenzene	11.928	91	416	0.18	ug/L	#	77
77) 1,2,4-Trimethylbenzene	11.988	105	751	0.16	ug/L		90
78) sec-Butylbenzene	12.062	105	1219	0.23	ug/L		96
79) 4-Isopropyltoluene	12.165	119	952	0.22	ug/L		96
80) 1,3-Dichlorobenzene	12.238	146	960	0.31	ug/L		94
81) 1,4-Dichlorobenzene	12.299	146	1383	0.40	ug/L	#	62
82) n-Butylbenzene	12.488	91	1399	0.40	ug/L		97

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102525.D
Acq On : 25 Oct 2019 9:49 pm
Operator : MM
Sample : 9J25051-IBL3
Misc : 1X 5mL DI
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:49 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

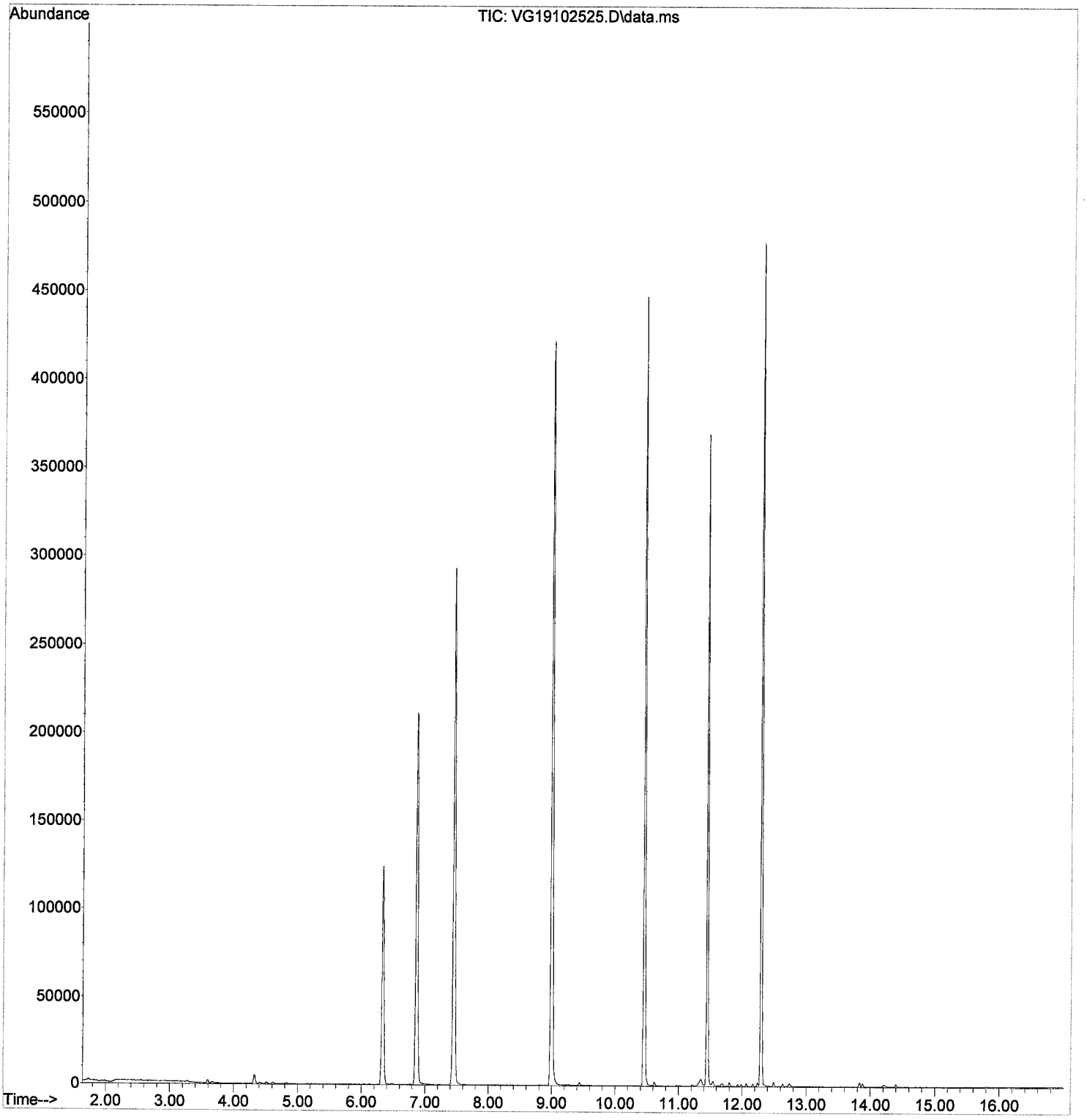
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
83) 1,2-Dichlorobenzene	12.635	146	683	0.23 ug/L	93
85) Hexachlorobutadiene	13.830	223	397	0.85 ug/L	94
86) 1,2,4-Trichlorobenzene	13.878	180	879	0.50 ug/L	89
87) Naphthalene	14.208	128	1414	0.54 ug/L	79
88) 1,2,3-Trichlorobenzene	14.397	180	774	0.45 ug/L	97

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102525.D
Acq On : 25 Oct 2019 9:49 pm
Operator : MM
Sample : 9J25051-IBL3
Misc : 1X 5mL DI
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:49 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102526.D
Acq On : 25 Oct 2019 10:16 pm
Operator : MM
Sample : 9J25051-CALB
Misc : 1X 5mL 200/400PPB VOCR
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:53:04 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	84871	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	237104	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	116686	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	87086	49.50	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	283209	49.64	ug/L		0.00
48) Toluene-d8 (S)	8.995	98	320536	51.93	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	102899	52.68	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	310233	233.04	ug/L		98
3) Chloromethane	1.984	50	356174	197.21	ug/L		99
4) Vinyl Chloride	2.112	62	347189	209.56	ug/L		96
5) Bromomethane	2.551	96	157346	191.93	ug/L		99
6) Chloroethane	2.722	64	68728	173.15	ug/L		95
7) Trichlorofluoromethane	2.911	101	306829	169.20	ug/L		98
8) Ethanol	0.000		0	N.D.	d		
9) 1,1-Dichloroethene	3.582	61	419375	211.59	ug/L		98
10) Carbon Disulfide	3.582	76	739088	252.19	ug/L		98
11) Freon 113	3.655	101	322757	199.29	ug/L		99
12) Iodomethane	3.746	142	251532	438.52	ug/L		97
13) Acrolein	4.033	56	98401	228.50	ug/L		97
14) Methylene Chloride	4.319	84	305732	181.52	ug/L		95
15) Acetone	4.399	43	335353	385.65	ug/L		98
16) t-1,2-Dichloroethene	4.508	61	439733	207.65	ug/L		95
17) n-Hexane	4.606	86	53781	231.98	ug/L	#	61
18) Methyl-tert-butyl-ether	4.661	73	909069	215.74	ug/L		95
19) tert-Butanol (TBA)	0.000		0	N.D.	d		
20) Diisopropyl ether (DIPE)	0.000		0	N.D.	d		
21) 1,1-Dichloroethane	5.215	63	561273	200.36	ug/L		99
22) Acrylonitrile	5.289	53	205093	199.39	ug/L		96
23) Vinyl Acetate	5.526	43	704281	235.00	ug/L		99
24) Ethyl-tert-butyl ether...	0.000		0	N.D.	d		
25) c-1,2-Dichloroethene	5.819	61	451383	206.50	ug/L		94
26) 2,2-Dichloropropane	5.935	77	307183	236.17	ug/L		85
27) Bromochloromethane	6.038	49	237805	174.99	ug/L		85
28) Chloroform	6.136	83	570590	197.48	ug/L		96
29) Carbon Tetrachloride	6.264	117	401239	233.30	ug/L		96
30) Tetrahydrofuran	6.301	42	193536	217.92	ug/L		92
31) 1,1,1-Trichloroethane	6.343	97	475459	217.55	ug/L		98
33) 1,1-Dichloropropene	6.477	75	443732	205.22	ug/L		98
34) 2-Butanone (MEK)	6.471	43	545000	396.35	ug/L		97
35) Benzene	6.752	78	1348023	196.55	ug/L		99
36) tert-Amyl methyl ether...	0.000		0	N.D.	d		
37) 1,2-Dichloroethane (EDC)	6.983	62	450038	197.78	ug/L		99
38) iso-Butyl Alcohol	7.044	43	669707	4568.49	ug/L		96
40) Trichloroethene (TCE)	7.410	130	384777	206.97	ug/L		97
41) tert-Amyl ethyl ether ...	0.000		0	N.D.	d		
42) Dibromomethane	7.880	93	239485	204.58	ug/L		99
43) 1,2-Dichloropropane	7.995	63	345874	201.08	ug/L		97
44) Bromodichloromethane	8.075	83	436572	228.90	ug/L		97
46) 2-Chloroethyl Vinyl Ether	8.739	63	248016	260.38	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	524872	250.59	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102526.D
Acq On : 25 Oct 2019 10:16 pm
Operator : MM
Sample : 9J25051-CALB
Misc : 1X 5mL 200/400PPB VOCR
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:53:04 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Toluene	9.044	91	1414184	203.30 ug/L	100
50) Tetrachloroethene (PCE)	9.434	166	374693	198.55 ug/L	99
51) 4-Methyl-2-Pentanone (...	9.434	43	885884	385.61 ug/L	94
52) t-1,3-Dichloropropene	9.471	75	467620	263.42 ug/L	98
53) 1,1,2-Trichloroethane	9.623	97	346944	201.33 ug/L	96
54) Dibromochloromethane	9.794	129	394459	249.28 ug/L	99
55) 1,3-Dichloropropane	9.879	76	557771	208.14 ug/L	97
56) 1,2-Dibromoethane (EDB)	10.007	107	384667	215.27 ug/L	98
57) 2-Hexanone	10.208	43	679397	404.88 ug/L	97
58) Chlorobenzene	10.470	112	897555	193.72 ug/L	98
59) Ethylbenzene	10.489	91	1424477	202.64 ug/L	99
60) 1,1,1,2-Tetrachloroethane	10.525	131	330493	223.68 ug/L	97
61) m,p-Xylenes (2)	10.611	91	2061112	398.59 ug/L	97
62) o-Xylene	10.970	91	1108926	221.18 ug/L	98
63) Styrene	11.013	104	878618	212.35 ug/L	96
64) Bromoform	11.037	173	299993	243.05 ug/L	97
65) Isopropylbenzene	11.220	105	1319857	213.99 ug/L	100
68) Bromobenzene	11.531	156	391986	197.43 ug/L	97
69) n-Propylbenzene	11.543	91	1412751	209.19 ug/L	100
70) 1,1,2,2-Tetrachloroethane	11.604	83	454028	177.57 ug/L	97
71) 2-Chlorotoluene	11.665	126	329426	209.14 ug/L	97
72) 1,3,5-Trimethylbenzene	11.690	105	1024588	201.02 ug/L	94
73) 1,2,3-Trichloropropane	11.708	110	135722	180.08 ug/L	92
74) t-1,4-Dichloro-2-butene	11.732	88	56671	261.82 ug/L	93
75) 4-Chlorotoluene	11.793	91	925899	215.86 ug/L	99
76) tert-Butylbenzene	11.934	91	552713	222.24 ug/L	99
77) 1,2,4-Trimethylbenzene	11.982	105	1045289	200.10 ug/L	99
78) sec-Butylbenzene	12.062	105	1192215	210.96 ug/L	98
79) 4-Isopropyltoluene	12.165	119	1001166	210.16 ug/L	98
80) 1,3-Dichlorobenzene	12.238	146	641529	200.87 ug/L	99
81) 1,4-Dichlorobenzene	12.306	146	639760	196.31 ug/L	98
82) n-Butylbenzene	12.488	91	806750	201.05 ug/L	99
83) 1,2-Dichlorobenzene	12.629	146	612148	193.50 ug/L	99
84) 1,2-Dibromo-3-Chloropr...	13.281	157	128958	238.31 ug/L	93
85) Hexachlorobutadiene	13.830	223	91693	179.96 ug/L	98
86) 1,2,4-Trichlorobenzene	13.872	180	388731	197.71 ug/L	97
87) Naphthalene	14.201	128	1237338	220.97 ug/L	98
88) 1,2,3-Trichlorobenzene	14.397	180	370994	188.16 ug/L	99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102526.D
Acq On : 25 Oct 2019 10:16 pm
Operator : MM
Sample : 9J25051-CALB
Misc : 1X 5mL 200/400PPB VOCR
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:57 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

10/28/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	84871	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	237104	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	116686	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	87086	49.50	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	283209	49.64	ug/L		0.00
48) Toluene-d8 (S)	8.995	98	320536	51.93	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	102899	52.68	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	310233	233.04	ug/L		98
3) Chloromethane	1.984	50	356174	197.21	ug/L		99
4) Vinyl Chloride	2.112	62	347189	209.56	ug/L		96
5) Bromomethane	2.551	96	157346	191.93	ug/L		99
6) Chloroethane	2.722	64	68728	173.15	ug/L		95
7) Trichlorofluoromethane	2.911	101	306829	169.20	ug/L		98
8) Ethanol	3.655	45	540	11.52	ug/L		87
9) 1,1-Dichloroethene	3.582	61	419375	211.59	ug/L		98
10) Carbon Disulfide	3.582	76	739088	252.19	ug/L		98
11) Freon 113	3.655	101	322757	199.29	ug/L		99
12) Iodomethane	3.746	142	251532	438.52	ug/L		97
13) Acrolein	4.033	56	98401	228.50	ug/L		97
14) Methylene Chloride	4.319	84	305732	181.52	ug/L		95
15) Acetone	4.399	43	335353	385.65	ug/L		98
16) t-1,2-Dichloroethene	4.508	61	439733	207.65	ug/L		95
17) n-Hexane	4.606	86	53781	231.98	ug/L	#	61
18) Methyl-tert-butyl-ether	4.661	73	909069	215.74	ug/L		95
19) tert-Butanol (TBA)	4.831	59	1729	4.51	ug/L	#	55
20) Diisopropyl ether (DIPE)	5.118	45	822	0.17	ug/L		85
21) 1,1-Dichloroethane	5.215	63	561273	200.36	ug/L		99
22) Acrylonitrile	5.289	53	205093	199.39	ug/L		96
23) Vinyl Acetate	5.526	43	704281	235.00	ug/L		99
24) Ethyl-tert-butyl ether...	5.520	59	721	0.17	ug/L	#	1
25) c-1,2-Dichloroethene	5.819	61	451383	206.50	ug/L		94
26) 2,2-Dichloropropane	5.935	77	307183	236.17	ug/L		85
27) Bromochloromethane	6.038	49	237805	174.99	ug/L		85
28) Chloroform	6.136	83	570590	197.48	ug/L		96
29) Carbon Tetrachloride	6.264	117	401239	233.30	ug/L		96
30) Tetrahydrofuran	6.301	42	193536	217.92	ug/L		92
31) 1,1,1-Trichloroethane	6.343	97	475459	217.55	ug/L		98
33) 1,1-Dichloropropene	6.477	75	443732	205.22	ug/L		98
34) 2-Butanone (MEK)	6.471	43	545000	396.35	ug/L		97
35) Benzene	6.752	78	1348023	196.55	ug/L		99
36) tert-Amyl methyl ether...	6.898	73	687	0.18	ug/L		55
37) 1,2-Dichloroethane (EDC)	6.983	62	450038	197.78	ug/L		99
38) iso-Butyl Alcohol	7.044	43	669707	4568.49	ug/L		96
40) Trichloroethene (TCE)	7.410	130	384777	206.97	ug/L		97
41) tert-Amyl ethyl ether ...	7.684	59	526	0.20	ug/L		81
42) Dibromomethane	7.880	93	239485	204.58	ug/L		99
43) 1,2-Dichloropropane	7.995	63	345874	201.08	ug/L		97
44) Bromodichloromethane	8.075	83	436572	228.90	ug/L		97
46) 2-Chloroethyl Vinyl Ether	8.739	63	248016	260.38	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	524872	250.59	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102526.D
Acq On : 25 Oct 2019 10:16 pm
Operator : MM
Sample : 9J25051-CALB
Misc : 1X 5mL 200/400PPB VOCR
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:57 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration

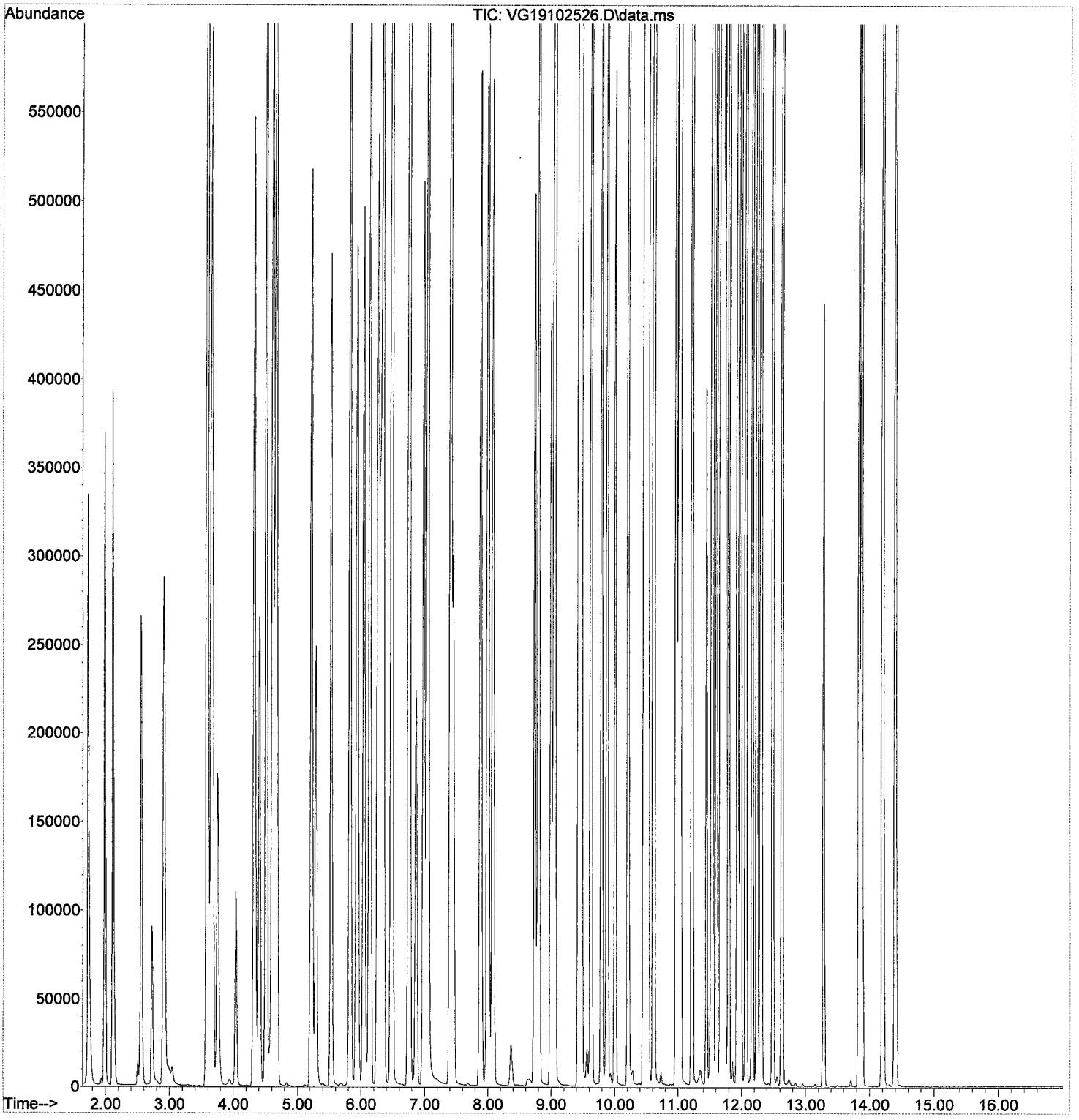
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	9.044	91	1414184	203.30	ug/L	100
50) Tetrachloroethene (PCE)	9.434	166	374693	198.55	ug/L	99
51) 4-Methyl-2-Pentanone (...	9.434	43	885884	385.61	ug/L	94
52) t-1,3-Dichloropropene	9.471	75	467620	263.42	ug/L	98
53) 1,1,2-Trichloroethane	9.623	97	346944	201.33	ug/L	96
54) Dibromochloromethane	9.794	129	394459	249.28	ug/L	99
55) 1,3-Dichloropropane	9.879	76	557771	208.14	ug/L	97
56) 1,2-Dibromoethane (EDB)	10.007	107	384667	215.27	ug/L	98
57) 2-Hexanone	10.208	43	679397	404.88	ug/L	97
58) Chlorobenzene	10.470	112	897555	193.72	ug/L	98
59) Ethylbenzene	10.489	91	1424477	202.64	ug/L	99
60) 1,1,1,2-Tetrachloroethane	10.525	131	330493	223.68	ug/L	97
61) m,p-Xylenes (2)	10.611	91	2061112	398.59	ug/L	97
62) o-Xylene	10.970	91	1108926	221.18	ug/L	98
63) Styrene	11.013	104	878618	212.35	ug/L	96
64) Bromoform	11.037	173	299993	243.05	ug/L	97
65) Isopropylbenzene	11.220	105	1319857	213.99	ug/L	100
68) Bromobenzene	11.531	156	391986	197.43	ug/L	97
69) n-Propylbenzene	11.543	91	1412751	209.19	ug/L	100
70) 1,1,2,2-Tetrachloroethane	11.604	83	454028	177.57	ug/L	97
71) 2-Chlorotoluene	11.665	126	329426	209.14	ug/L	97
72) 1,3,5-Trimethylbenzene	11.690	105	1024588	201.02	ug/L	94
73) 1,2,3-Trichloropropane	11.708	110	135722	180.08	ug/L	92
74) t-1,4-Dichloro-2-butene	11.732	88	56671	261.82	ug/L	93
75) 4-Chlorotoluene	11.793	91	925899	215.86	ug/L	99
76) tert-Butylbenzene	11.934	91	552713	222.24	ug/L	99
77) 1,2,4-Trimethylbenzene	11.982	105	1045289	200.10	ug/L	99
78) sec-Butylbenzene	12.062	105	1192215	210.96	ug/L	98
79) 4-Isopropyltoluene	12.165	119	1001166	210.16	ug/L	98
80) 1,3-Dichlorobenzene	12.238	146	641529	200.87	ug/L	99
81) 1,4-Dichlorobenzene	12.306	146	639760	196.31	ug/L	98
82) n-Butylbenzene	12.488	91	806750	201.05	ug/L	99
83) 1,2-Dichlorobenzene	12.629	146	612148	193.50	ug/L	99
84) 1,2-Dibromo-3-Chloropr...	13.281	157	128958	238.31	ug/L	93
85) Hexachlorobutadiene	13.830	223	91693	179.96	ug/L	98
86) 1,2,4-Trichlorobenzene	13.872	180	388731	197.71	ug/L	97
87) Naphthalene	14.201	128	1237338	220.97	ug/L	98
88) 1,2,3-Trichlorobenzene	14.397	180	370994	188.16	ug/L	99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102526.D
Acq On : 25 Oct 2019 10:16 pm
Operator : MM
Sample : 9J25051-CALB
Misc : 1X 5mL 200/400PPB VOCR
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 10:25:57 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 10:24:51 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102527.D
Acq On : 25 Oct 2019 10:43 pm
Operator : MM
Sample : 9J25051-IBL4
Misc : 1X 5mL DI
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:52 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	89938	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	264181	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	131026	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	91826	48.50	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	309186	50.04	ug/L		0.00
48) Toluene-d8 (S)	8.995	98	342029	49.66	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	110596	49.99	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	880	0.58	ug/L		97
3) Chloromethane	1.990	50	589	0.29	ug/L		83
4) Vinyl Chloride	2.112	62	470	0.27	ug/L		95
5) Bromomethane	2.551	96	226	0.24	ug/L	#	63
6) Chloroethane	2.728	64	90	Below Cal		#	47
7) Trichlorofluoromethane	2.929	101	590	0.31	ug/L		94
8) Ethanol	3.648	45	10	0.21	ug/L	#	29
9) 1,1-Dichloroethene	3.594	61	579	0.28	ug/L		81
10) Carbon Disulfide	3.594	76	4168	1.31	ug/L		99
11) Freon 113	3.667	101	905	0.53	ug/L		94
12) Iodomethane	3.758	142	132	2.27	ug/L	#	47
14) Methylene Chloride	4.325	84	4270	1.52	ug/L		92
15) Acetone	4.404	43	1316	1.40	ug/L		95
16) t-1,2-Dichloroethene	4.514	61	1153	0.53	ug/L		92
17) n-Hexane	4.612	86	107	0.44	ug/L	#	87
19) tert-Butanol (TBA)	4.825	59	462	1.30	ug/L	#	47
22) Acrylonitrile	5.313	53	118	0.12	ug/L	#	49
25) c-1,2-Dichloroethene	5.825	61	522	0.24	ug/L		93
27) Bromochloromethane	6.038	49	262	0.19	ug/L		90
28) Chloroform	6.136	83	285	0.10	ug/L		74
29) Carbon Tetrachloride	6.264	117	134	0.08	ug/L	#	53
33) 1,1-Dichloropropene	6.483	75	863	0.43	ug/L		90
34) 2-Butanone (MEK)	6.502	43	266	0.20	ug/L		52
35) Benzene	6.758	78	966	0.14	ug/L		92
37) 1,2-Dichloroethane (EDC)	6.983	62	221	0.09	ug/L	#	49
38) iso-Butyl Alcohol	7.056	43	320	2.15	ug/L		70
40) Trichloroethene (TCE)	7.416	130	741	0.36	ug/L		91
42) Dibromomethane	7.892	93	161	0.14	ug/L		85
47) c-1,3-Dichloropropene	8.806	75	253	0.21	ug/L		92
49) Toluene	9.050	91	1637	0.21	ug/L		93
50) Tetrachloroethene (PCE)	9.434	166	1240	0.59	ug/L		93
51) 4-Methyl-2-Pentanone (...	9.446	43	521	0.23	ug/L		91
52) t-1,3-Dichloropropene	9.477	75	270	0.25	ug/L	#	45
54) Dibromochloromethane	9.800	129	82	0.17	ug/L	#	60
56) 1,2-Dibromoethane (EDB)	10.019	107	226	0.12	ug/L		82
57) 2-Hexanone	10.220	43	495	0.30	ug/L		82
58) Chlorobenzene	10.464	112	1497	0.29	ug/L	#	57
59) Ethylbenzene	10.495	91	2070	0.27	ug/L		98
61) m,p-Xylenes (2)	10.617	91	3152	0.61	ug/L		97
62) o-Xylene	10.976	91	946	0.19	ug/L		84
63) Styrene	11.019	104	791	0.28	ug/L		95
64) Bromoform	11.043	173	76	0.23	ug/L	#	37
65) Isopropylbenzene	11.220	105	1538	0.24	ug/L		98

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102527.D
Acq On : 25 Oct 2019 10:43 pm
Operator : MM
Sample : 9J25051-IBL4
Misc : 1X 5mL DI
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:52 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

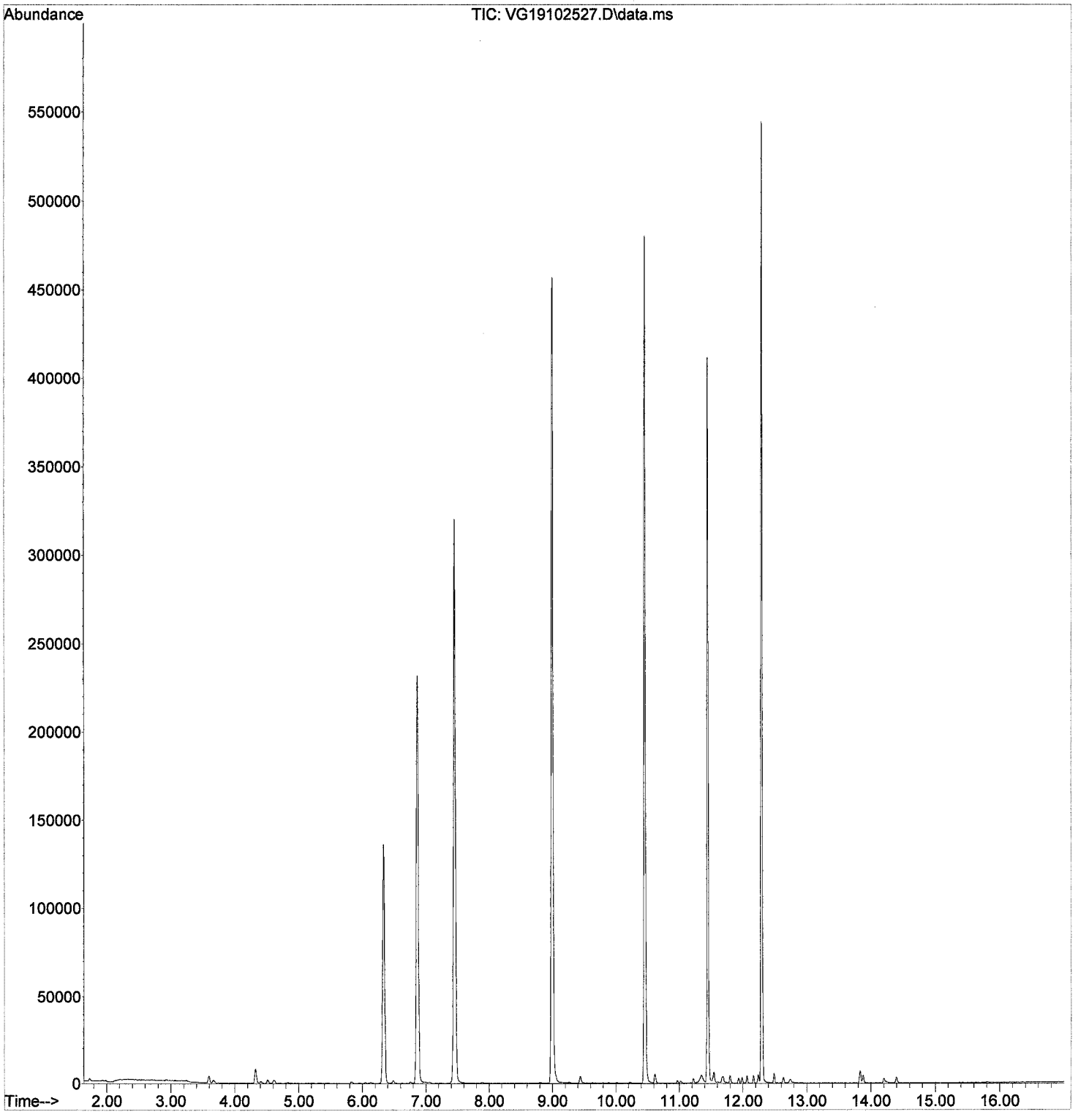
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68) Bromobenzene	11.531	156	636	0.30	ug/L		85
69) n-Propylbenzene	11.543	91	3545	0.49	ug/L		95
71) 2-Chlorotoluene	11.671	126	545	0.33	ug/L	#	81
72) 1,3,5-Trimethylbenzene	11.690	105	1761	0.35	ug/L		88
75) 4-Chlorotoluene	11.799	91	2149	0.49	ug/L		98
76) tert-Butylbenzene	11.933	91	902	0.35	ug/L		92
77) 1,2,4-Trimethylbenzene	11.982	105	1790	0.34	ug/L		94
78) sec-Butylbenzene	12.061	105	2637	0.45	ug/L		94
79) 4-Isopropyltoluene	12.165	119	2255	0.46	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	2125	0.62	ug/L		97
81) 1,4-Dichlorobenzene	12.305	146	2707	0.70	ug/L		90
82) n-Butylbenzene	12.488	91	3145	0.81	ug/L		95
83) 1,2-Dichlorobenzene	12.635	146	1381	0.41	ug/L		93
84) 1,2-Dibromo-3-Chloropr...	13.287	157	60	0.10	ug/L	#	18
85) Hexachlorobutadiene	13.829	223	1094	2.10	ug/L		96
86) 1,2,4-Trichlorobenzene	13.878	180	1916	0.98	ug/L		95
87) Naphthalene	14.201	128	2725	0.73	ug/L		97
88) 1,2,3-Trichlorobenzene	14.396	180	1506	0.79	ug/L		99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102527.D
Acq On : 25 Oct 2019 10:43 pm
Operator : MM
Sample : 9J25051-IBL4
Misc : 1X 5mL DI
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:52 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102528.D
Acq On : 25 Oct 2019 11:10 pm
Operator : MM
Sample : 9J25051-IBL5
Misc : 1X 5mL DI
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:55 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.867	99	92100	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	276911	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	138080	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	96022	49.53	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	322415	50.96	ug/L		0.00
48) Toluene-d8 (S)	8.995	98	358808	49.70	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	116196	49.83	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	353	0.23	ug/L		88
3) Chloromethane	1.990	50	363	0.17	ug/L		81
4) Vinyl Chloride	2.118	62	147	0.08	ug/L		88
5) Bromomethane	2.557	96	109	0.11	ug/L	#	56
6) Chloroethane	2.832	64	20	Below Cal		#	47
7) Trichlorofluoromethane	2.935	101	252	0.13	ug/L		75
8) Ethanol	3.630	45	11	0.23	ug/L	#	29
9) 1,1-Dichloroethene	3.588	61	226	0.11	ug/L		86
10) Carbon Disulfide	3.594	76	1842	0.57	ug/L		97
11) Freon 113	3.667	101	435	0.25	ug/L		92
12) Iodomethane	3.758	142	31	2.13	ug/L	#	47
14) Methylene Chloride	4.325	84	2342	0.30	ug/L		92
15) Acetone	4.411	43	891	0.93	ug/L		99
16) t-1,2-Dichloroethene	4.508	61	406	0.18	ug/L		88
17) n-Hexane	4.612	86	47	0.19	ug/L	#	44
19) tert-Butanol (TBA)	4.819	59	219	0.60	ug/L	#	89
25) c-1,2-Dichloroethene	5.825	61	186	0.08	ug/L	#	68
33) 1,1-Dichloropropene	6.483	75	371	0.18	ug/L	#	72
40) Trichloroethene (TCE)	7.416	130	290	0.14	ug/L		85
47) c-1,3-Dichloropropene	8.806	75	59	0.12	ug/L	#	33
49) Toluene	9.050	91	703	0.08	ug/L		85
50) Tetrachloroethene (PCE)	9.440	166	556	0.25	ug/L		92
52) t-1,3-Dichloropropene	9.489	75	100	0.14	ug/L	#	45
54) Dibromochloromethane	9.794	129	10	0.13	ug/L		86
58) Chlorobenzene	10.470	112	590	0.11	ug/L	#	64
59) Ethylbenzene	10.501	91	700	0.09	ug/L		92
61) m,p-Xylenes (2)	10.617	91	1215	0.22	ug/L		95
63) Styrene	11.019	104	269	0.16	ug/L		75
68) Bromobenzene	11.537	156	255	0.11	ug/L		77
69) n-Propylbenzene	11.549	91	1452	0.19	ug/L		96
71) 2-Chlorotoluene	11.677	126	201	0.12	ug/L		91
72) 1,3,5-Trimethylbenzene	11.690	105	600	0.11	ug/L		96
75) 4-Chlorotoluene	11.799	91	831	0.18	ug/L		98
76) tert-Butylbenzene	11.927	91	219	0.08	ug/L	#	77
77) 1,2,4-Trimethylbenzene	11.988	105	568	0.10	ug/L		91
78) sec-Butylbenzene	12.062	105	808	0.13	ug/L		95
79) 4-Isopropyltoluene	12.171	119	738	0.14	ug/L		99
80) 1,3-Dichlorobenzene	12.244	146	852	0.24	ug/L		94
81) 1,4-Dichlorobenzene	12.305	146	1131	0.28	ug/L	#	78
82) n-Butylbenzene	12.488	91	1221	0.30	ug/L		94
83) 1,2-Dichlorobenzene	12.635	146	524	0.15	ug/L		95
85) Hexachlorobutadiene	13.829	223	331	0.60	ug/L		86
86) 1,2,4-Trichlorobenzene	13.878	180	665	0.32	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102528.D
Acq On : 25 Oct 2019 11:10 pm
Operator : MM
Sample : 9J25051-IBL5
Misc : 1X 5mL DI
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:55 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

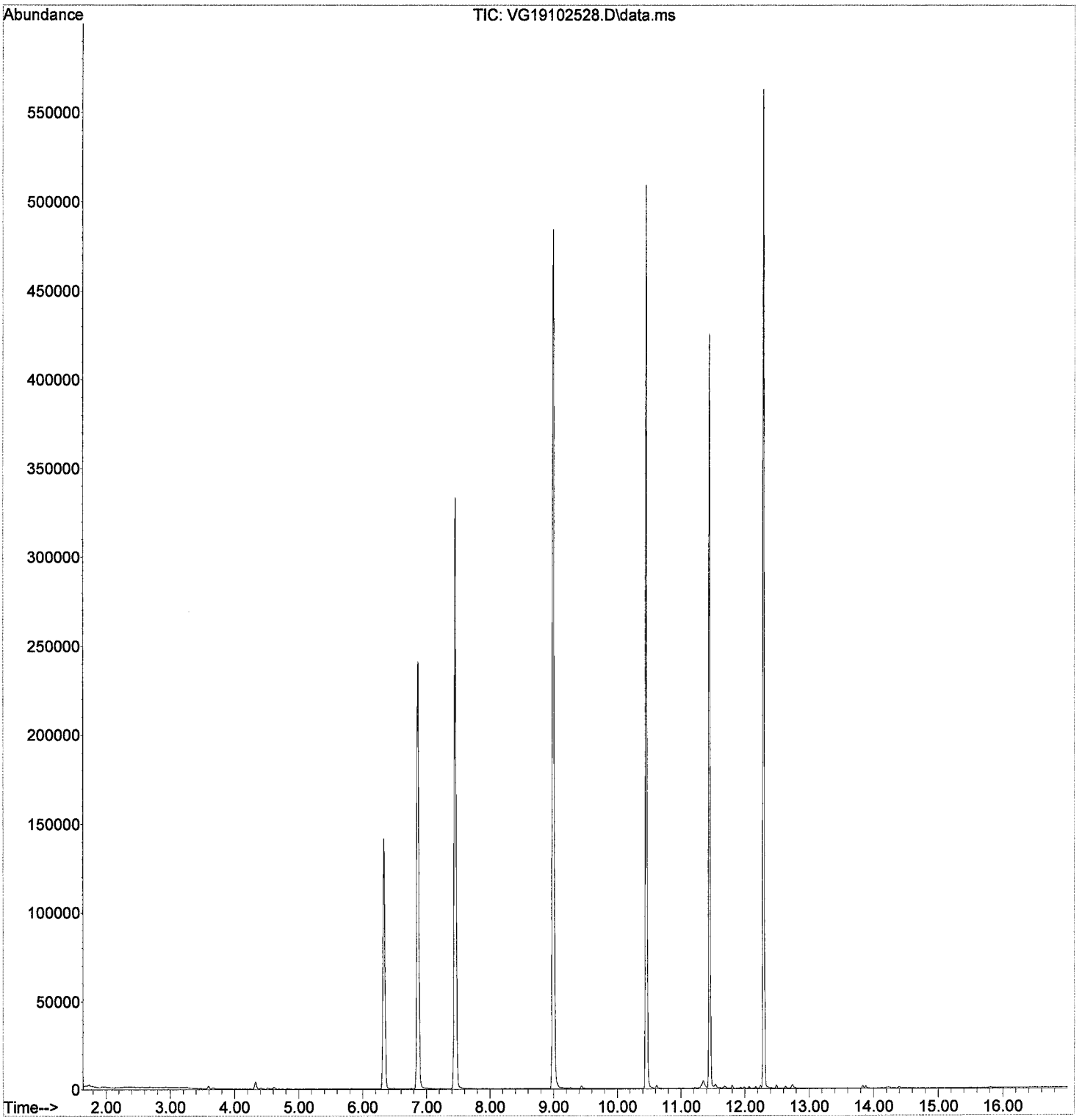
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
87) Naphthalene	14.207	128	735	0.39	ug/L	92
88) 1,2,3-Trichlorobenzene	14.396	180	489	0.24	ug/L	90

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102528.D
Acq On : 25 Oct 2019 11:10 pm
Operator : MM
Sample : 9J25051-IBL5
Misc : 1X 5mL DI
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:55 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102529.D
Acq On : 25 Oct 2019 11:37 pm
Operator : MM
Sample : 9J25051-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

10/28/19

Quant Time: Oct 28 12:44:58 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	90965	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	266164	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	137604	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	94133	49.16	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	305094	48.82	ug/L		0.00
48) Toluene-d8 (S)	8.995	98	345063	49.72	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	114201	49.15	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	37337	24.48	ug/L		97
3) Chloromethane	1.990	50	45124	21.78	ug/L		100
4) Vinyl Chloride	2.112	62	39518	22.34	ug/L		95
5) Bromomethane	2.551	96	17518	18.62	ug/L		99
6) Chloroethane	2.722	64	8273	18.87	ug/L		88
7) Trichlorofluoromethane	2.917	101	38221	20.03	ug/L		97
8) Ethanol	3.642	45	1573	32.97	ug/L		76
9) 1,1-Dichloroethene	3.588	61	42768	20.19	ug/L		97
10) Carbon Disulfide	3.588	76	60869	18.94	ug/L		99
11) Freon 113	3.667	101	31913	18.38	ug/L		96
12) Iodomethane	3.752	142	16833	23.07	ug/L		97
13) Acrolein	4.033	56	10824	23.14	ug/L		98
14) Methylene Chloride	4.319	84	36056	20.88	ug/L		96
15) Acetone	4.398	43	36542	38.53	ug/L		95
16) t-1,2-Dichloroethene	4.508	61	45403	20.69	ug/L		91
17) n-Hexane	4.606	86	4686	18.85	ug/L	#	56
18) Methyl-tert-butyl-ether	4.661	73	88721	21.44	ug/L		96
19) tert-Butanol (TBA)	4.825	59	10483	29.20	ug/L	#	58
20) Diisopropyl ether (DIPE)	5.118	45	759	0.17	ug/L		92
21) 1,1-Dichloroethane	5.221	63	60213	20.13	ug/L		99
22) Acrylonitrile	5.289	53	20721	20.43	ug/L		93
23) Vinyl Acetate	5.532	43	69012	21.25	ug/L		99
24) Ethyl-tert-butyl ether...	5.526	59	764	0.20	ug/L	#	51
25) c-1,2-Dichloroethene	5.825	61	46222	20.72	ug/L		90
26) 2,2-Dichloropropane	5.935	77	25337	18.66	ug/L		70
27) Bromochloromethane	6.038	49	29181	20.68	ug/L		85
28) Chloroform	6.136	83	60420	20.09	ug/L		96
29) Carbon Tetrachloride	6.264	117	35960	21.73	ug/L		95
30) Tetrahydrofuran	6.307	42	18687	21.25	ug/L		91
31) 1,1,1-Trichloroethane	6.343	97	45657	20.18	ug/L		96
33) 1,1-Dichloropropene	6.483	75	45149	22.21	ug/L		97
34) 2-Butanone (MEK)	6.477	43	56959	42.44	ug/L		96
35) Benzene	6.758	78	143601	20.40	ug/L		98
36) tert-Amyl methyl ether...	6.904	73	854	0.21	ug/L		75
37) 1,2-Dichloroethane (EDC)	6.983	62	48080	20.01	ug/L		99
38) iso-Butyl Alcohol	7.038	43	79819	529.78	ug/L		91
40) Trichloroethene (TCE)	7.410	130	40760	19.83	ug/L		97
41) tert-Amyl ethyl ether ...	7.690	59	471	0.18	ug/L		79
42) Dibromomethane	7.886	93	24262	20.43	ug/L		96
43) 1,2-Dichloropropane	7.995	63	36271	20.31	ug/L		98
44) Bromodichloromethane	8.081	83	40202	20.69	ug/L		98
46) 2-Chloroethyl Vinyl Ether	8.739	63	23534	21.36	ug/L	#	1
47) c-1,3-Dichloropropene	8.800	75	45468	20.29	ug/L		92

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102529.D
Acq On : 25 Oct 2019 11:37 pm
Operator : MM
Sample : 9J25051-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:58 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

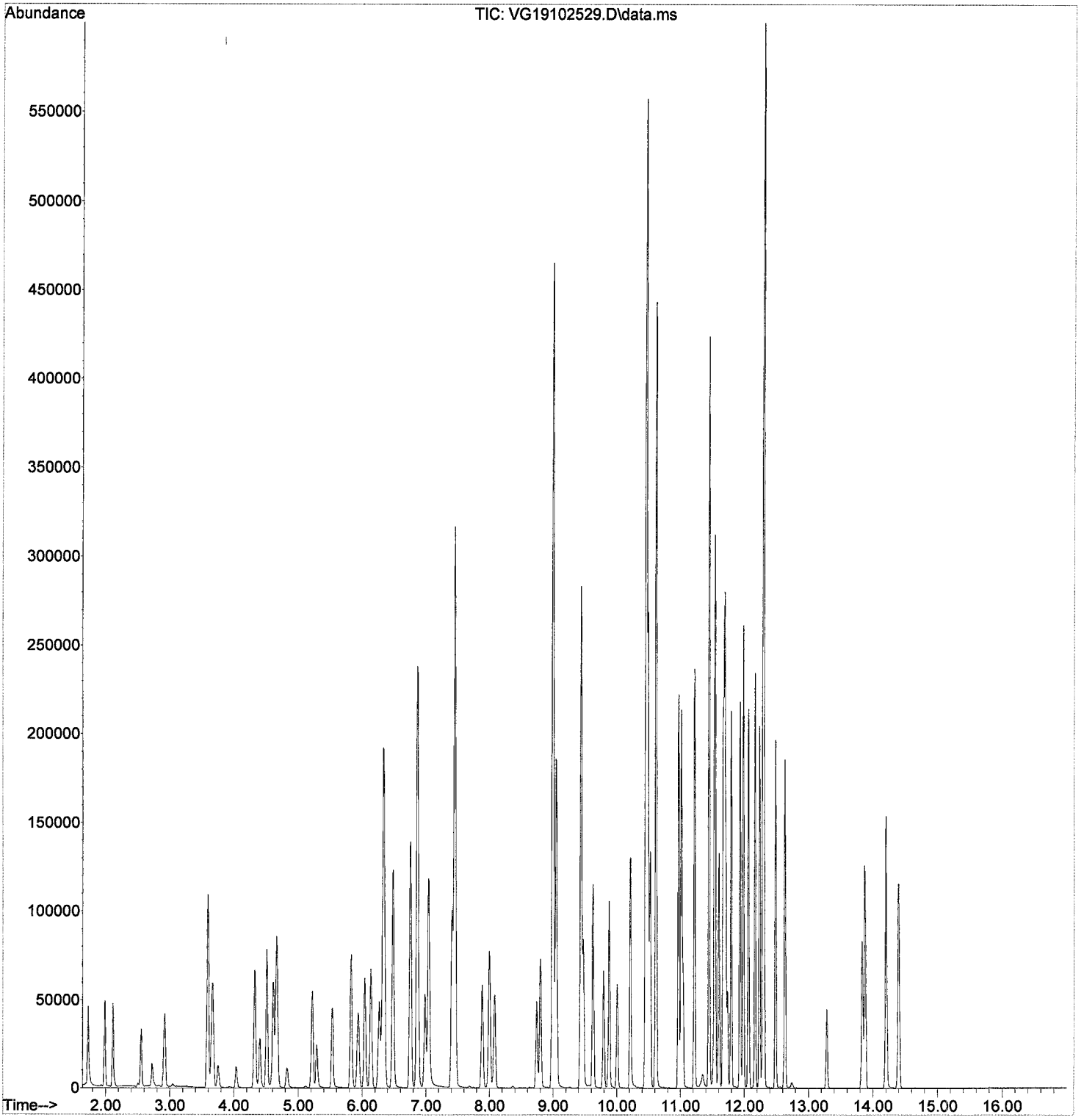
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	154447	19.38	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	42359	20.03	ug/L		98
51) 4-Methyl-2-Pentanone (...	9.434	43	101327	43.90	ug/L		96
52) t-1,3-Dichloropropene	9.471	75	41037	22.83	ug/L		98
53) 1,1,2-Trichloroethane	9.623	97	38653	21.04	ug/L		94
54) Dibromochloromethane	9.794	129	35982	20.75	ug/L		98
55) 1,3-Dichloropropane	9.879	76	59808	21.06	ug/L		97
56) 1,2-Dibromoethane (EDB)	10.007	107	39732	21.48	ug/L		100
57) 2-Hexanone	10.214	43	75436	44.77	ug/L		96
58) Chlorobenzene	10.470	112	103089	19.86	ug/L		97
59) Ethylbenzene	10.489	91	157330	20.65	ug/L		99
60) 1,1,1,2-Tetrachloroethane	10.525	131	32683	20.98	ug/L		96
61) m,p-Xylenes (2)	10.611	91	231340	44.15	ug/L		100
62) o-Xylene	10.970	91	113752	22.92	ug/L		99
63) Styrene	11.013	104	94185	21.13	ug/L		94
64) Bromoform	11.037	173	27392	19.47	ug/L		97
65) Isopropylbenzene	11.220	105	138446	21.75	ug/L		99
68) Bromobenzene	11.531	156	45767	20.24	ug/L		98
69) n-Propylbenzene	11.543	91	155267	20.54	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.604	83	57461	19.96	ug/L		99
71) 2-Chlorotoluene	11.665	126	36919	21.46	ug/L		93
72) 1,3,5-Trimethylbenzene	11.690	105	117971	22.12	ug/L		95
73) 1,2,3-Trichloropropane	11.708	110	17401	19.91	ug/L		99
74) t-1,4-Dichloro-2-butene	11.738	88	4121	16.70	ug/L	#	80
75) 4-Chlorotoluene	11.793	91	101234	21.91	ug/L		99
76) tert-Butylbenzene	11.934	91	58145	21.69	ug/L		98
77) 1,2,4-Trimethylbenzene	11.982	105	119947	21.70	ug/L		99
78) sec-Butylbenzene	12.062	105	129800	21.29	ug/L		98
79) 4-Isopropyltoluene	12.165	119	111157	21.64	ug/L		99
80) 1,3-Dichlorobenzene	12.238	146	76192	21.29	ug/L		99
81) 1,4-Dichlorobenzene	12.305	146	77493	19.19	ug/L		99
82) n-Butylbenzene	12.488	91	94224	22.98	ug/L		99
83) 1,2-Dichlorobenzene	12.635	146	74553	21.23	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	12637	19.86	ug/L		95
85) Hexachlorobutadiene	13.830	223	11768	21.48	ug/L		99
86) 1,2,4-Trichlorobenzene	13.872	180	46633	22.67	ug/L		98
87) Naphthalene	14.201	128	131607	20.74	ug/L		98
88) 1,2,3-Trichlorobenzene	14.396	180	46418	23.06	ug/L		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102529.D
Acq On : 25 Oct 2019 11:37 pm
Operator : MM
Sample : 9J25051-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:44:58 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102530.D
Acq On : 26 Oct 2019 12:04 am
Operator : MM
Sample : 9J25051-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

10/28/19

Quant Time: Oct 28 12:45:01 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.868	99	84982	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	250385	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	126694	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	86513	48.36	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	291575	49.94	ug/L		0.00
48) Toluene-d8 (S)	8.995	98	324360	49.69	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	105337	49.24	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	219	0.15	ug/L		73
3) Chloromethane	1.984	50	973	0.50	ug/L		85
4) Vinyl Chloride	2.112	62	387	0.23	ug/L		83
5) Bromomethane	2.551	96	421	0.48	ug/L		87
6) Chloroethane	2.728	64	105	Below Cal		#	49
7) Trichlorofluoromethane	2.923	101	228	0.13	ug/L		73
8) Ethanol	3.624	45	55300	1240.68	ug/L		83
9) 1,1-Dichloroethene	3.588	61	424	0.21	ug/L		87
10) Carbon Disulfide	3.594	76	1474	0.49	ug/L		97
11) Freon 113	3.667	101	265	0.16	ug/L		95
12) Iodomethane	3.746	142	212	2.40	ug/L	#	47
14) Methylene Chloride	4.325	84	2244	0.36	ug/L		86
15) Acetone	4.405	43	1085	1.22	ug/L		94
16) t-1,2-Dichloroethene	4.514	61	708	0.35	ug/L		83
18) Methyl-tert-butyl-ether	4.655	73	398	0.10	ug/L		81
19) tert-Butanol (TBA)	4.813	59	459726	1370.60	ug/L	#	83
20) Diisopropyl ether (DIPE)	5.106	45	22807	5.38	ug/L		96
21) 1,1-Dichloroethane	5.215	63	751	0.27	ug/L		82
23) Vinyl Acetate	5.520	43	2412	0.80	ug/L	#	46
24) Ethyl-tert-butyl ether...	5.514	59	19554	5.36	ug/L		97
25) c-1,2-Dichloroethene	5.825	61	638	0.31	ug/L		90
26) 2,2-Dichloropropane	5.929	77	207	0.16	ug/L		88
27) Bromochloromethane	6.032	49	300	0.23	ug/L		84
28) Chloroform	6.136	83	719	0.26	ug/L		88
29) Carbon Tetrachloride	6.264	117	135	0.09	ug/L		87
31) 1,1,1-Trichloroethane	6.337	97	352	0.17	ug/L		86
33) 1,1-Dichloropropene	6.490	75	449	0.24	ug/L		89
35) Benzene	6.758	78	1782	0.27	ug/L		93
36) tert-Amyl methyl ether...	6.898	73	17726	4.71	ug/L		79
37) 1,2-Dichloroethane (EDC)	6.989	62	391	0.17	ug/L		89
38) iso-Butyl Alcohol	7.063	43	19	0.13	ug/L	#	22
40) Trichloroethene (TCE)	7.410	130	584	0.30	ug/L		83
41) tert-Amyl ethyl ether ...	7.691	59	11945	4.94	ug/L		95
42) Dibromomethane	7.892	93	140	0.13	ug/L		96
43) 1,2-Dichloropropane	8.001	63	410	0.25	ug/L		86
44) Bromodichloromethane	8.081	83	368	0.20	ug/L		85
47) c-1,3-Dichloropropene	8.806	75	338	0.26	ug/L		85
49) Toluene	9.044	91	2163	0.29	ug/L		98
50) Tetrachloroethene (PCE)	9.434	166	622	0.31	ug/L		83
52) t-1,3-Dichloropropene	9.489	75	225	0.23	ug/L	#	45
53) 1,1,2-Trichloroethane	9.629	97	232	0.13	ug/L		76
54) Dibromochloromethane	9.794	129	184	0.24	ug/L		72
55) 1,3-Dichloropropane	9.885	76	358	0.13	ug/L		88

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102530.D
Acq On : 26 Oct 2019 12:04 am
Operator : MM
Sample : 9J25051-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:01 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

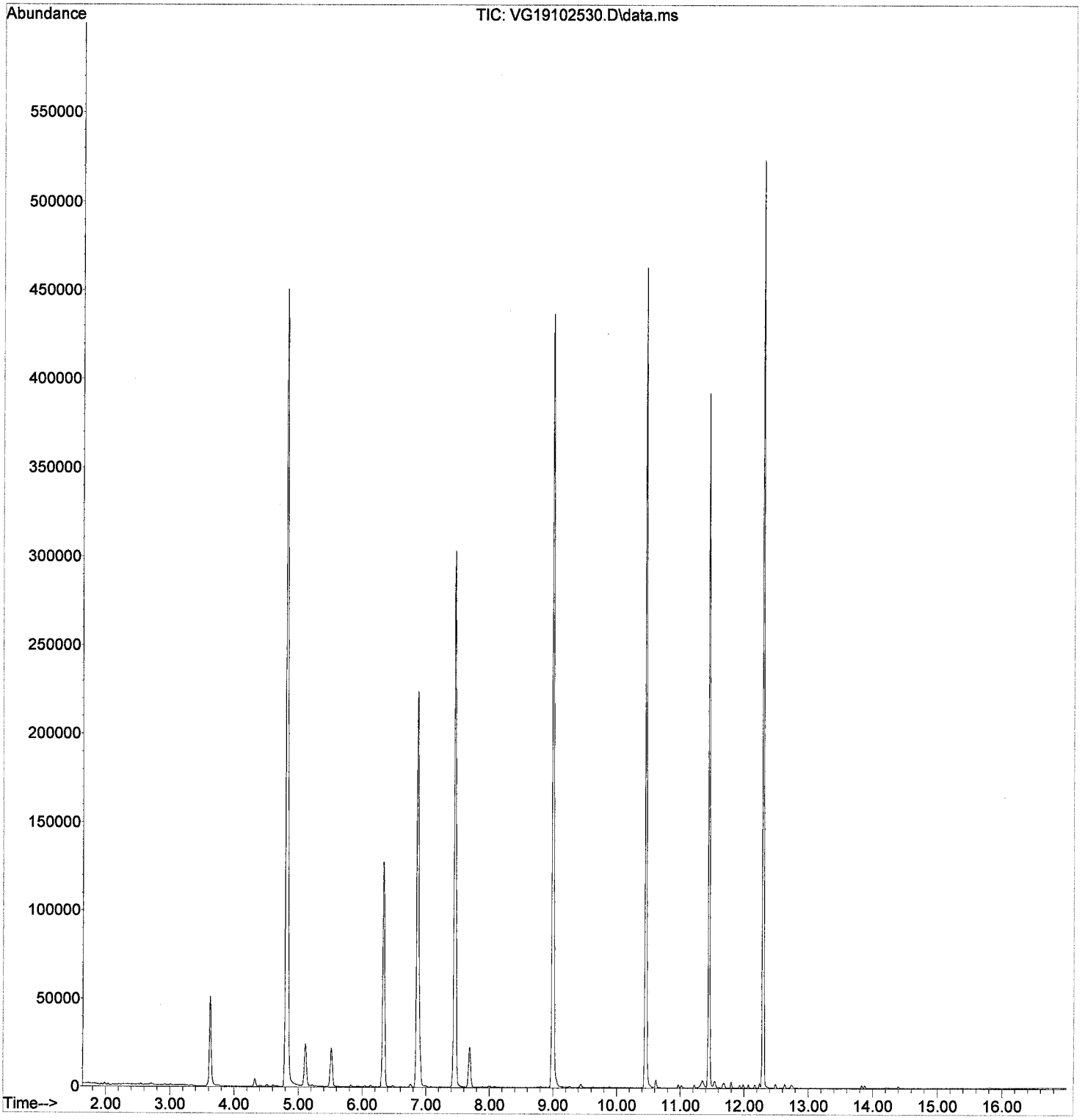
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
56) 1,2-Dibromoethane (EDB)	10.013	107	191	0.11 ug/L		83
58) Chlorobenzene	10.470	112	1573	0.32 ug/L		95
59) Ethylbenzene	10.495	91	1876	0.26 ug/L		93
60) 1,1,1,2-Tetrachloroethane	10.525	131	245	0.17 ug/L		74
61) m,p-Xylenes (2)	10.617	91	2604	0.53 ug/L		98
62) o-Xylene	10.970	91	1099	0.24 ug/L		99
63) Styrene	11.019	104	896	0.32 ug/L		92
64) Bromoform	11.031	173	11	0.19 ug/L	#	37
65) Isopropylbenzene	11.220	105	1212	0.20 ug/L		100
68) Bromobenzene	11.525	156	584	0.28 ug/L		90
69) n-Propylbenzene	11.543	91	2022	0.29 ug/L		98
71) 2-Chlorotoluene	11.671	126	472	0.30 ug/L	#	84
72) 1,3,5-Trimethylbenzene	11.690	105	1221	0.25 ug/L		88
75) 4-Chlorotoluene	11.799	91	1485	0.35 ug/L		95
76) tert-Butylbenzene	11.934	91	544	0.22 ug/L		90
77) 1,2,4-Trimethylbenzene	11.988	105	1145	0.23 ug/L		93
78) sec-Butylbenzene	12.068	105	1206	0.21 ug/L		98
79) 4-Isopropyltoluene	12.165	119	1183	0.25 ug/L		93
80) 1,3-Dichlorobenzene	12.245	146	1245	0.38 ug/L		87
81) 1,4-Dichlorobenzene	12.305	146	1551	0.42 ug/L		86
82) n-Butylbenzene	12.488	91	1351	0.36 ug/L		94
83) 1,2-Dichlorobenzene	12.635	146	963	0.30 ug/L		91
85) Hexachlorobutadiene	13.836	223	258	0.51 ug/L		93
86) 1,2,4-Trichlorobenzene	13.878	180	684	0.36 ug/L		83
87) Naphthalene	14.201	128	691	0.39 ug/L		86
88) 1,2,3-Trichlorobenzene	14.397	180	541	0.29 ug/L		77

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102530.D
Acq On : 26 Oct 2019 12:04 am
Operator : MM
Sample : 9J25051-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:01 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102531.D
Acq On : 26 Oct 2019 12:31 am
Operator : MM
Sample : 9J25051-IBL6
Misc : 1X 5mL DI
ALS Vial : 21 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:04 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration

NR

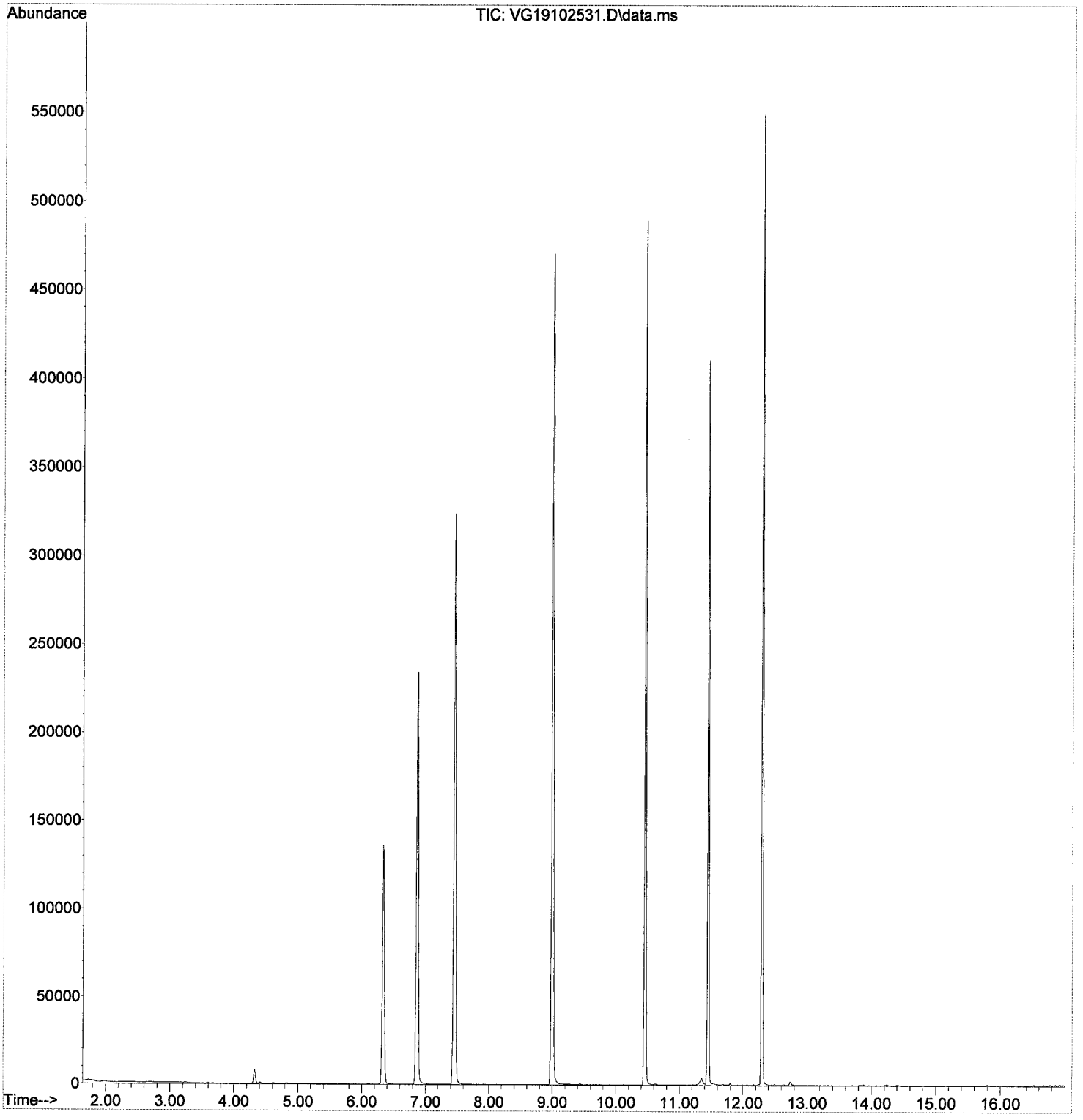
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	89250	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	268337	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	133750	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.331	111	92391	49.18	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.453	114	313231	51.09	ug/L		0.00
48) Toluene-d8 (S)	8.995	98	348030	49.75	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	111496	49.37	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	143	0.10	ug/L	#	51
3) Chloromethane	1.990	50	271	0.13	ug/L		91
6) Chloroethane	2.728	64	10	Below Cal		#	47
10) Carbon Disulfide	3.594	76	654	0.21	ug/L		96
11) Freon 113	3.661	101	149	0.09	ug/L		87
12) Iodomethane	3.764	142	10	2.11	ug/L	#	47
14) Methylene Chloride	4.325	84	3984	1.37	ug/L		91
15) Acetone	4.404	43	1226	1.32	ug/L		88
19) tert-Butanol (TBA)	4.825	59	425	1.21	ug/L	#	66
47) c-1,3-Dichloropropene	8.818	75	10	0.10	ug/L	#	37
50) Tetrachloroethene (PCE)	9.440	166	190	0.09	ug/L	#	64
61) m,p-Xylenes (2)	10.617	91	524	0.10	ug/L		78
63) Styrene	11.013	104	10	0.10	ug/L	#	40
80) 1,3-Dichlorobenzene	12.238	146	314	0.09	ug/L		95
81) 1,4-Dichlorobenzene	12.305	146	477	0.12	ug/L	#	5
82) n-Butylbenzene	12.494	91	416	0.10	ug/L		80
85) Hexachlorobutadiene	13.829	223	68	0.13	ug/L		89
86) 1,2,4-Trichlorobenzene	13.884	180	221	0.11	ug/L		80
87) Naphthalene	14.207	128	260	0.32	ug/L		79
88) 1,2,3-Trichlorobenzene	14.402	180	162	0.08	ug/L		82

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102531.D
Acq On : 26 Oct 2019 12:31 am
Operator : MM
Sample : 9J25051-IBL6
Misc : 1X 5mL DI
ALS Vial : 21 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:04 2019
Quant Method : C:\msdchem\1\methods\VG191025W.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Mon Oct 28 11:12:23 2019
Response via : Initial Calibration



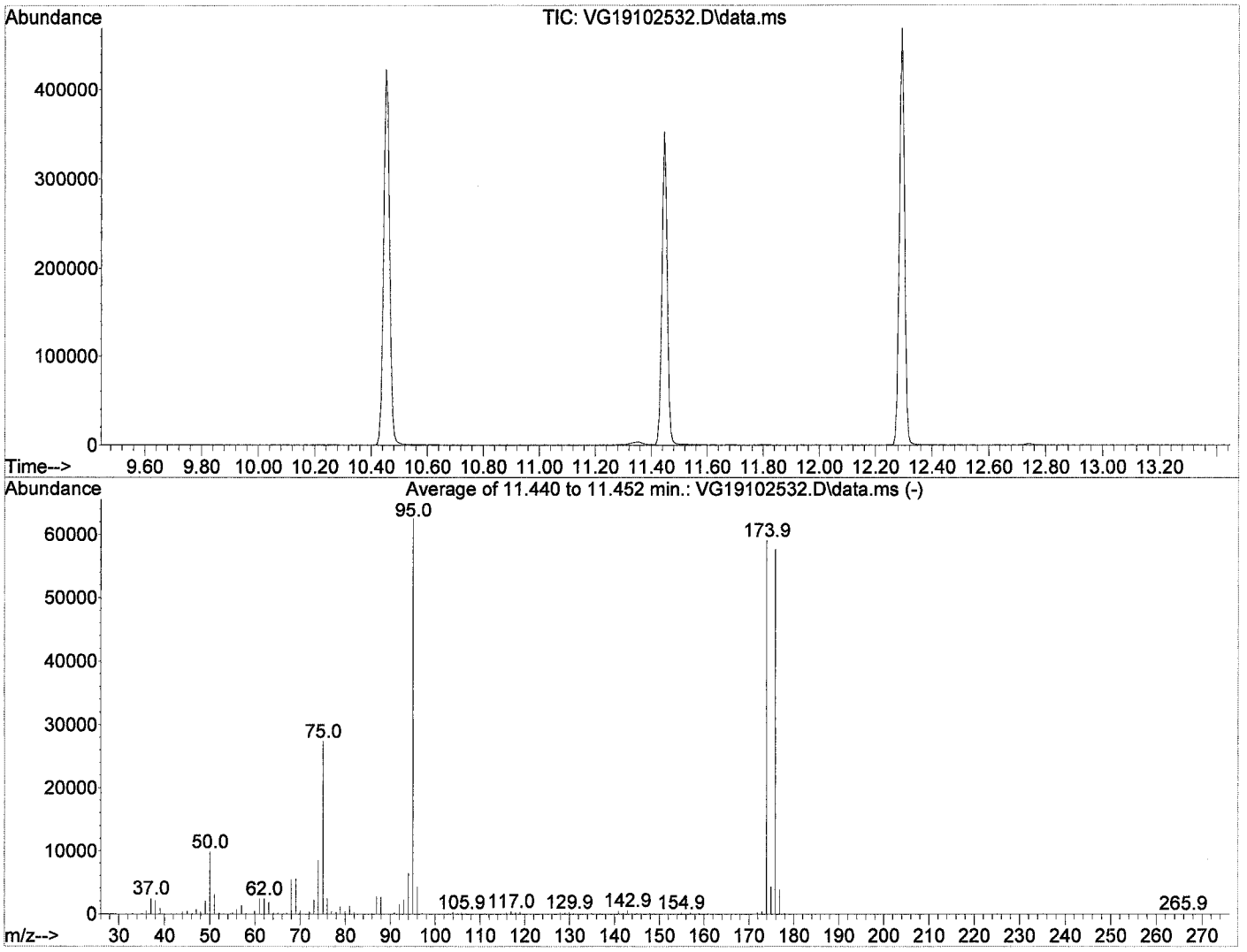
BFB

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102532.D
Acq On : 26 Oct 2019 12:57 am
Operator : MM
Sample : 9J25051-TUN2
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 22 Sample Multiplier: 1

10/28/19

Integration File: APEXG.P

Method : C:\msdchem\1\methods\VG191025G.M
Title : NWTPH-Gx by GC/MS
Last Update : Mon Oct 28 12:17:57 2019



AutoFind: Scans 1608, 1609, 1610; Background Corrected with Scan 1601

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	105.7	62517	PASS
96	95	5	9	6.6	4121	PASS
173	174	0.00	2	0.5	319	PASS
174	95	50	200	94.6	59120	PASS
175	174	5	9	7.1	4209	PASS
176	174	95	105	97.6	57699	PASS
177	176	5	10	6.5	3773	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102532.D
Acq On : 26 Oct 2019 12:57 am
Operator : MM
Sample : 9J25051-TUN2
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 22 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:33 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration

10/28/19

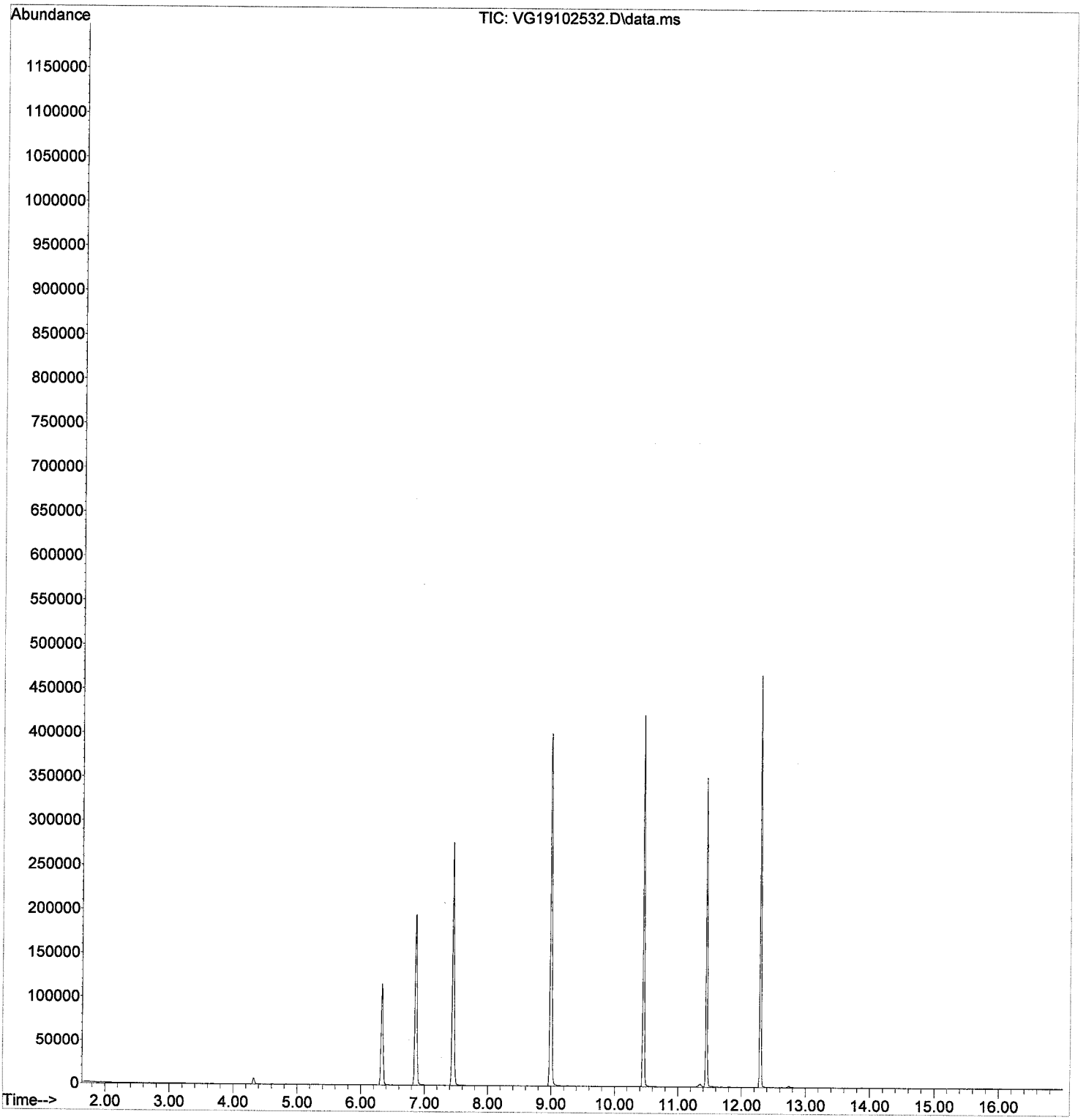
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	167672	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	264256	52.72	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	92938	50.90	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	295445	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	226737	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	175589	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	38078m	24.79	ug/L	
5) TPHg (C5-C9)	9.940	TIC	288403m	22.12	ug/L	
6) TPHg (C6-C10)	9.940	TIC	271428m	23.57	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	304009m	25.69	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102532.D
Acq On : 26 Oct 2019 12:57 am
Operator : MM
Sample : 9J25051-TUN2
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 22 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:33 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102533.D
Acq On : 26 Oct 2019 1:24 am
Operator : MM
Sample : 9J25051-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:36 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration

10/28/19

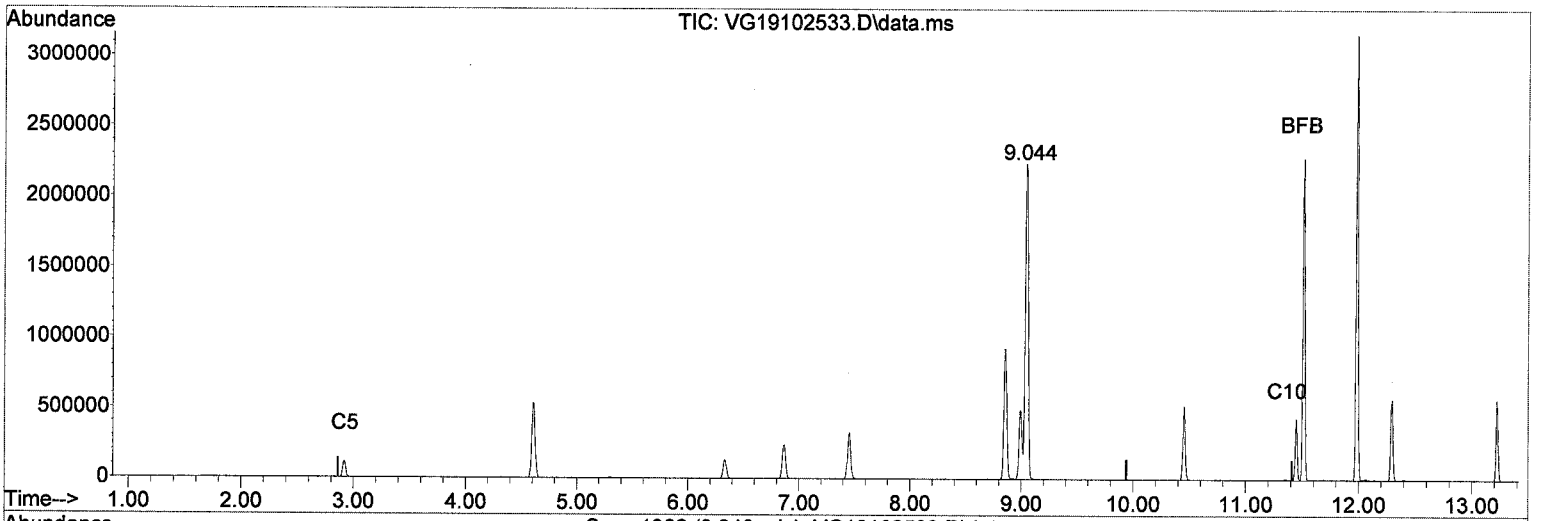
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	206554	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	314345	50.91	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	117175	52.09	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	370131	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	275270	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	223021	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	17801383m	3255.06	ug/L	
5) TPHg (C5-C9)	9.940	TIC	7577119m	1140.06	ug/L	
6) TPHg (C6-C10)	9.940	TIC	7354306m	1333.45	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	15242164m	1858.54	ug/L	

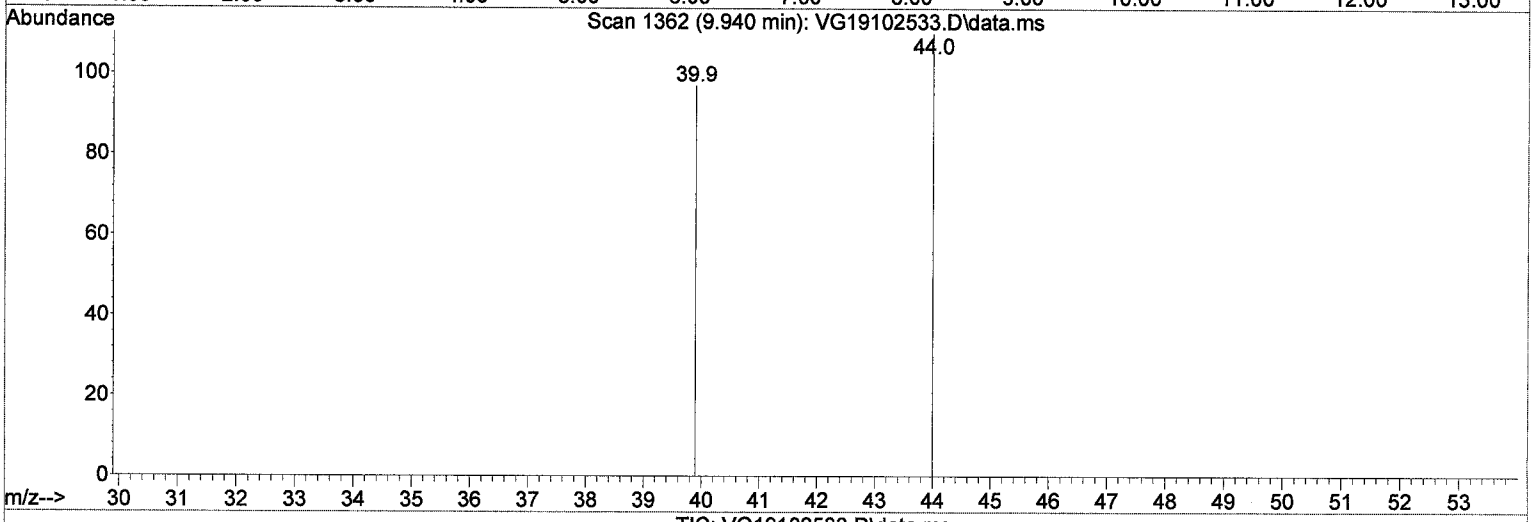
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102533.D
Acq On : 26 Oct 2019 1:24 am
Operator : MM
Sample : 9J25051-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:09:20 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Oct 08 10:06:28 2019
Response via : Initial Calibration





TIC: VG19102533.D\data.ms

(5) TPHg (C5-C9) (H)

9.940min (0.000) 997.65 ug/L m

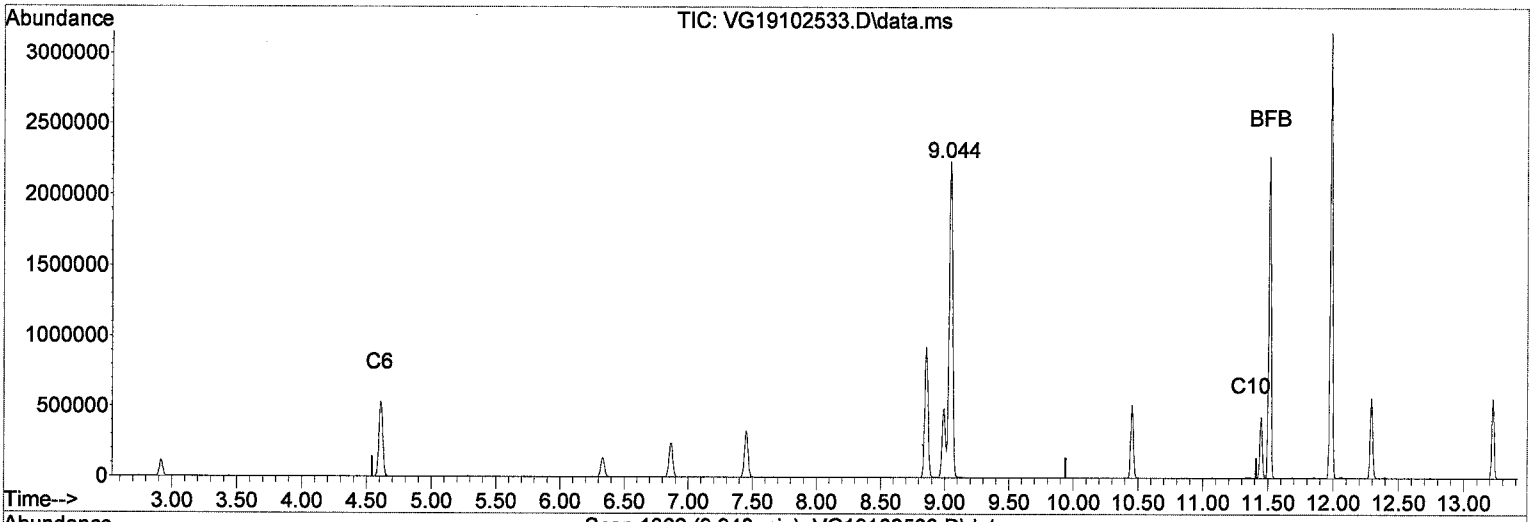
response 7577119

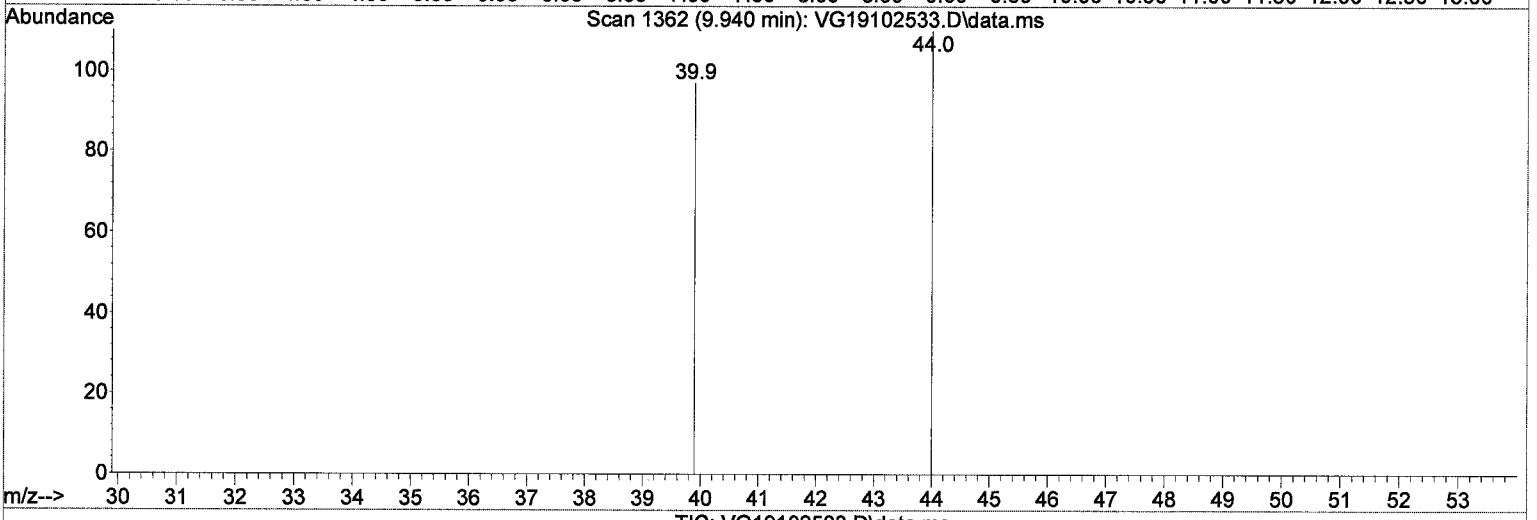
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.23#
0.00	0.00	1.50#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102533.D
Acq On : 26 Oct 2019 1:24 am
Operator : MM
Sample : 9J25051-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:09:20 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Oct 08 10:06:28 2019
Response via : Initial Calibration





TIC: VG19102533.D\data.ms

(6) TPHg (C6-C10) (H)

9.940min (0.000) 1157.40 ug/L m

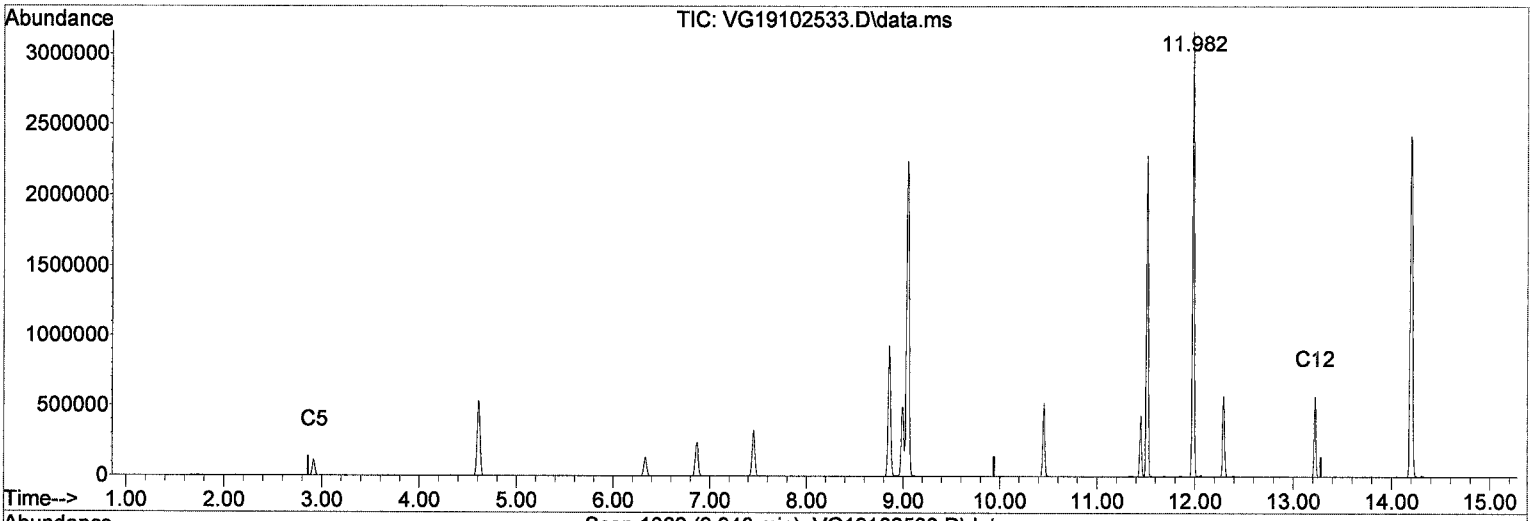
response 7354306

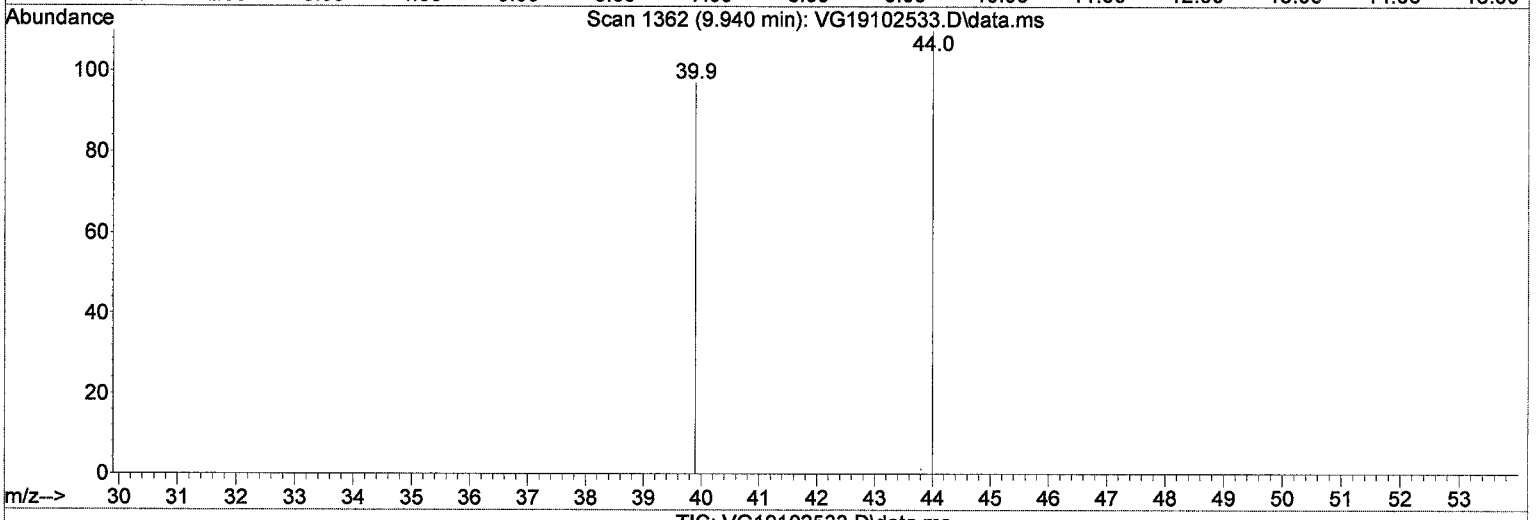
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.29#
0.00	0.00	1.55#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102533.D
Acq On : 26 Oct 2019 1:24 am
Operator : MM
Sample : 9J25051-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:09:20 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Oct 08 10:06:28 2019
Response via : Initial Calibration





TIC: VG19102533.D\data.ms

(7) CA-LUFT (C5-C12) (H)

9.940min (0.000) 1638.40 ug/L m

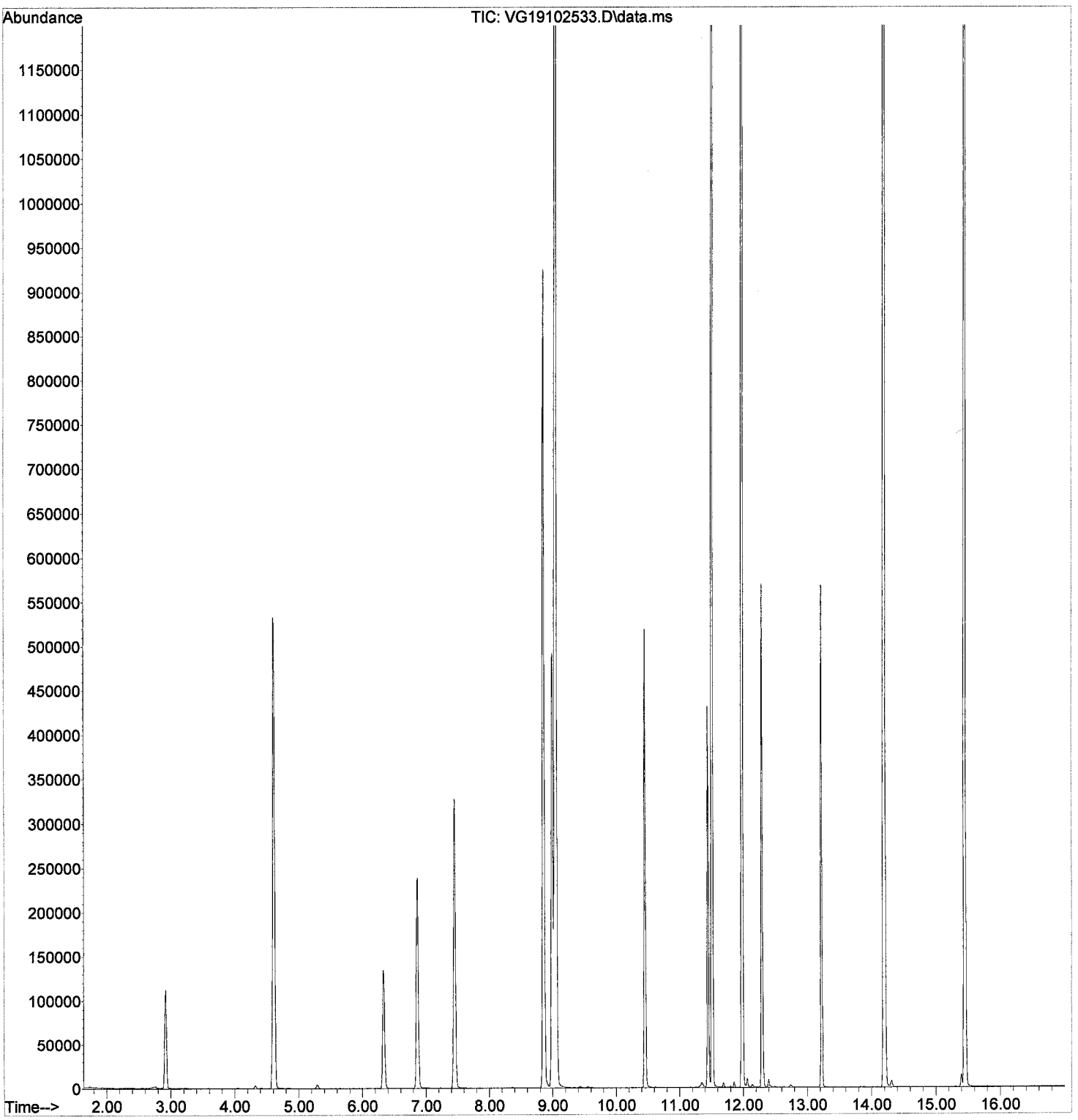
response 15242164

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	1.11#
0.00	0.00	0.75#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102533.D
Acq On : 26 Oct 2019 1:24 am
Operator : MM
Sample : 9J25051-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:36 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102534.D
Acq On : 26 Oct 2019 1:51 am
Operator : MM
Sample : 9J25051-IBL7
Misc : 1X 5mL DI
ALS Vial : 24 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:38 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration

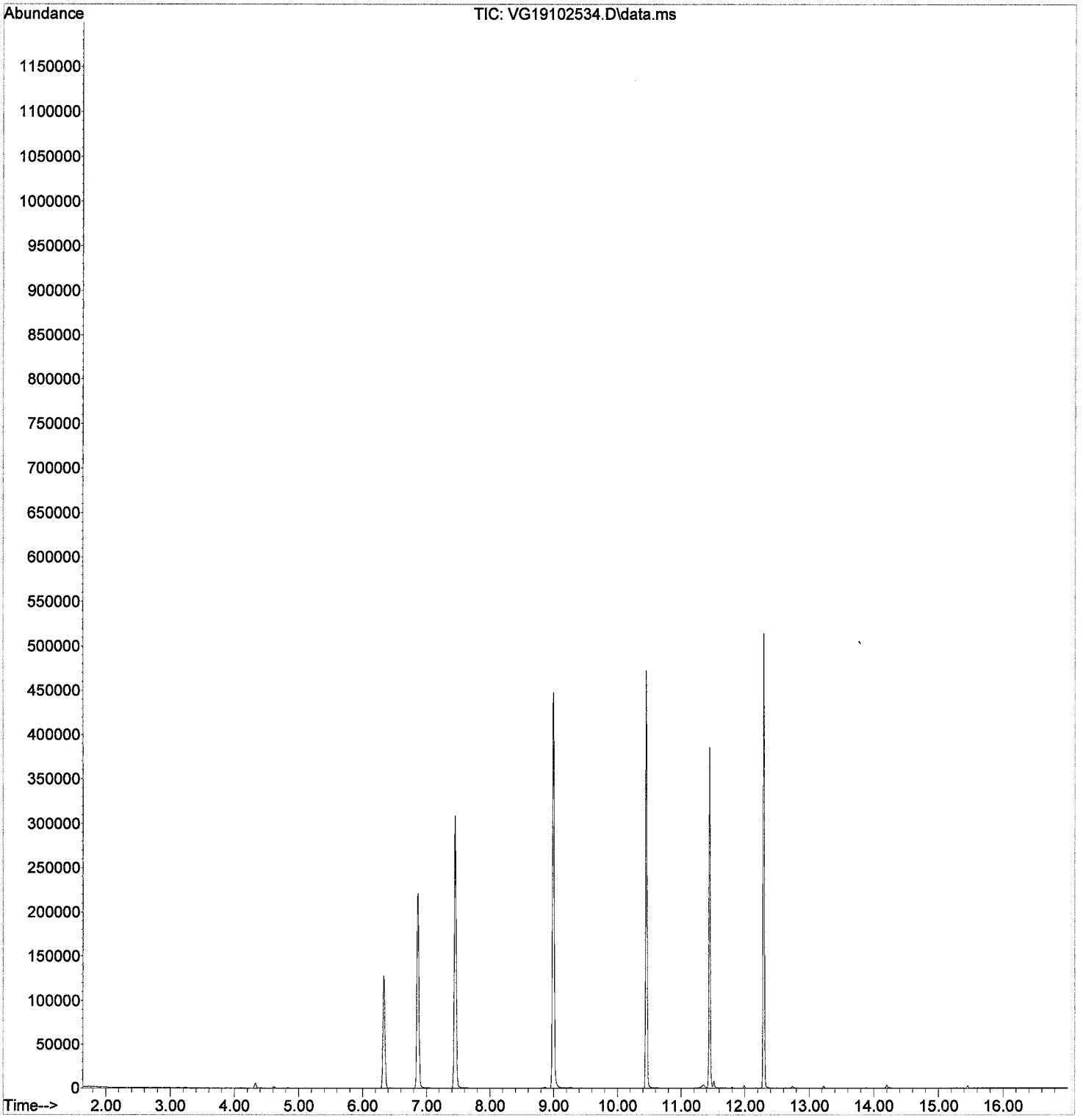
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	192420	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	297870	51.78	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	105012	50.11	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	331316	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	254503	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	199526	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	74370m	30.94	ug/L	
5) TPHg (C5-C9)	9.940	TIC	326747m	21.41	ug/L	
6) TPHg (C6-C10)	9.940	TIC	310417m	23.35	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	363718m	27.67	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102534.D
Acq On : 26 Oct 2019 1:51 am
Operator : MM
Sample : 9J25051-IBL7
Misc : 1X 5mL DI
ALS Vial : 24 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:38 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102535.D
Acq On : 26 Oct 2019 2:18 am
Operator : MM
Sample : 9J25051-ICB2
Misc : 1X 5mL DI
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

10/28/19

Quant Time: Oct 28 12:45:40 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration

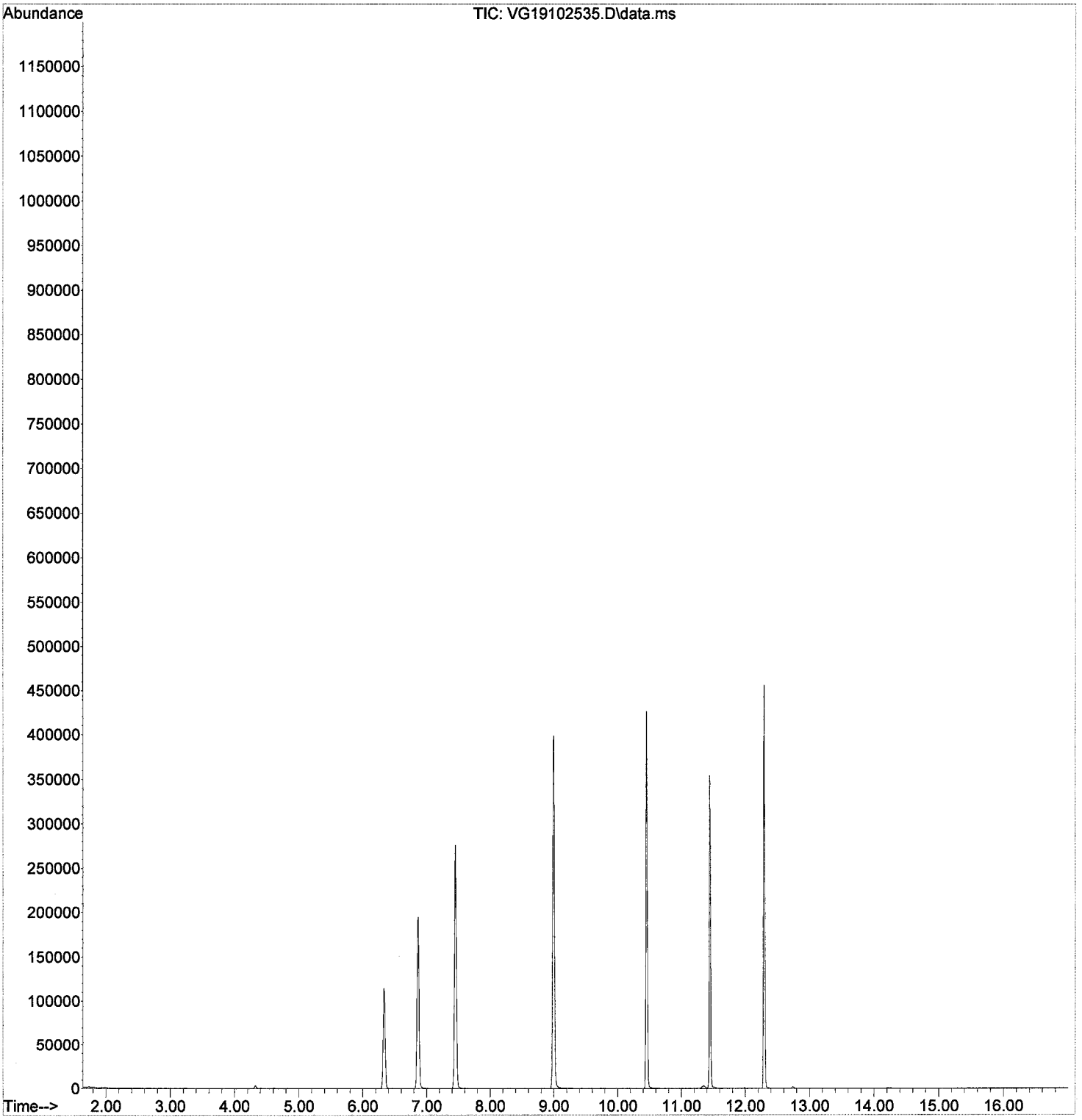
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	166825	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	262789	52.69	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	92634	50.99	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	295889	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	227022	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	174689	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	31416m	23.29	ug/L	MWL
5) TPHg (C5-C9)	9.940	TIC	269339m	18.73	ug/L	
6) TPHg (C6-C10)	9.940	TIC	261869m	21.67	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	283617m	22.78	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102535.D
Acq On : 26 Oct 2019 2:18 am
Operator : MM
Sample : 9J25051-ICB2
Misc : 1X 5mL DI
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:40 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102536.D
Acq On : 26 Oct 2019 2:45 am
Operator : MM
Sample : 9J25051-CALC
Misc : 1X 5mL 50PPB GX
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:35 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration

10/28/19

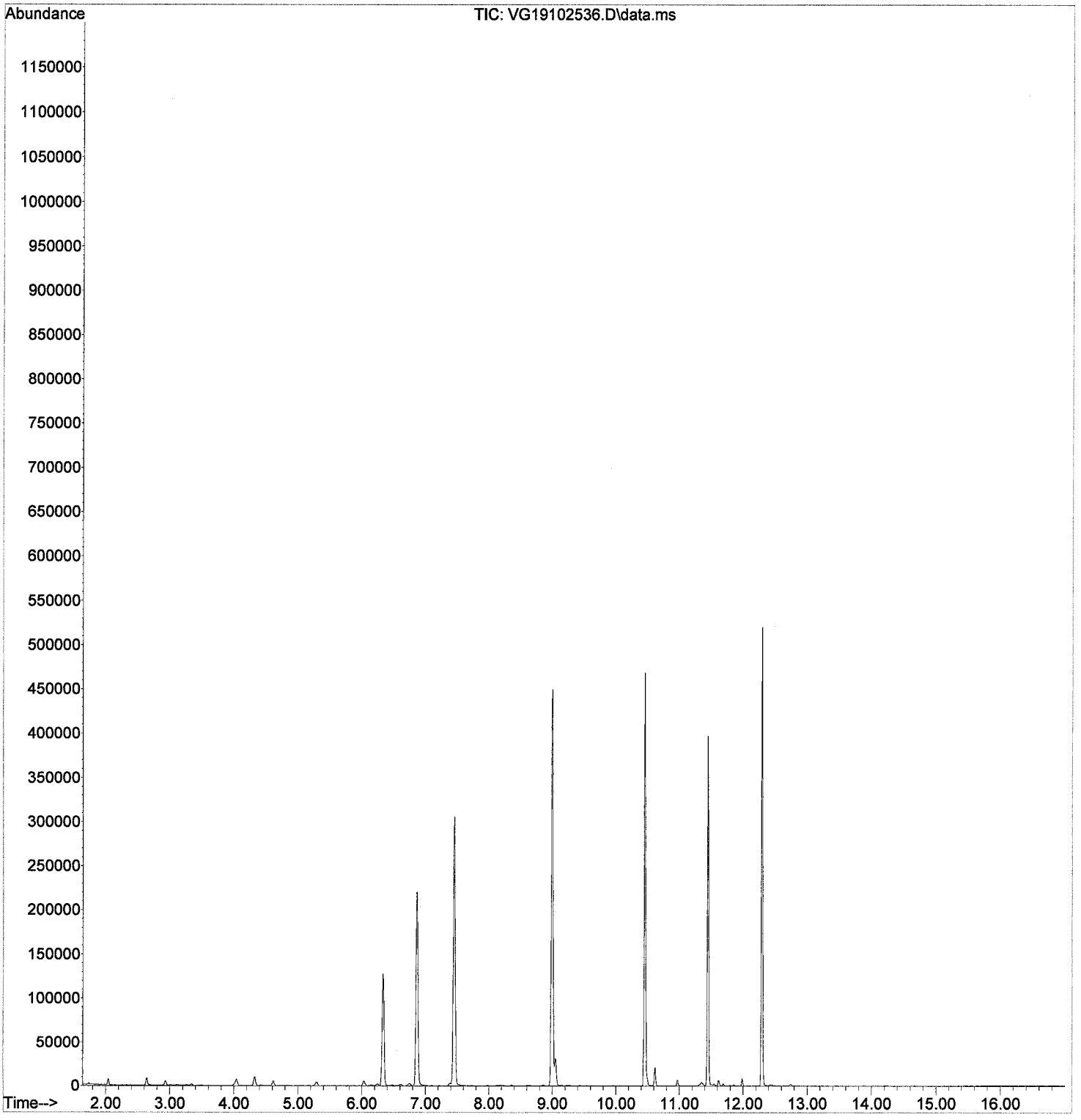
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	193559	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	295012	50.90	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	105074	50.40	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	328759	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	251777	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	199445	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	208521m	44.09	ug/L	
5) TPHg (C5-C9)	9.940	TIC	540435m	84.79	ug/L	
6) TPHg (C6-C10)	9.940	TIC	477926m	89.46	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	592441m	77.31	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102536.D
Acq On : 26 Oct 2019 2:45 am
Operator : MM
Sample : 9J25051-CALC
Misc : 1X 5mL 50PPB GX
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:35 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102537.D
Acq On : 26 Oct 2019 3:12 am
Operator : MM
Sample : 9J25051-CALD
Misc : 1X 5mL 100PPB GX
ALS Vial : 27 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:38 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration

10/28/19

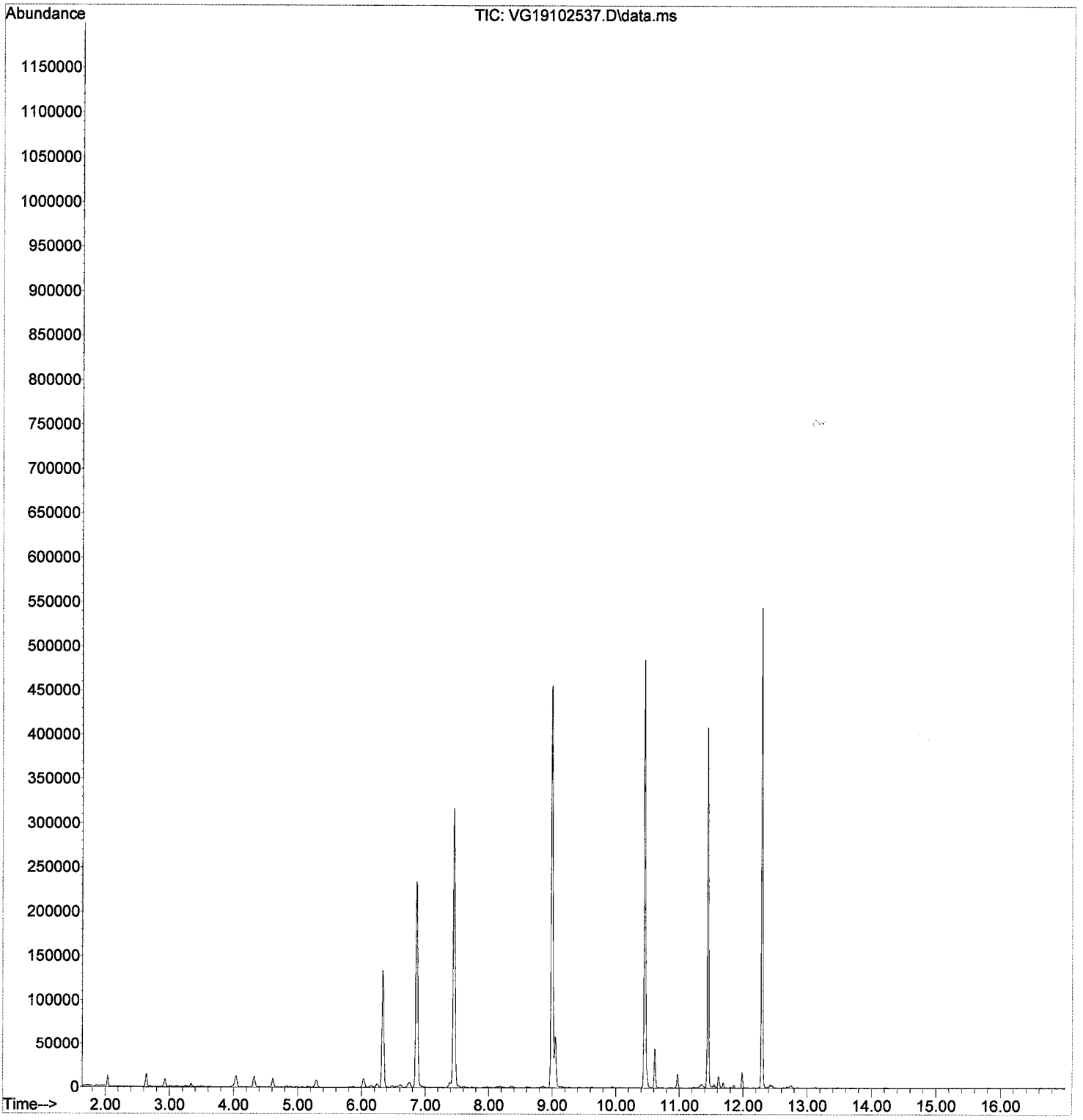
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.868	168	202223	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	304919	50.35	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	109800	50.42	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	341874	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	262610	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	208745	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	406857m	82.34	ug/L	
5) TPHg (C5-C9)	9.940	TIC	782617m	117.52	ug/L	
6) TPHg (C6-C10)	9.940	TIC	680725m	121.97	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	891666m	111.38	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102537.D
Acq On : 26 Oct 2019 3:12 am
Operator : MM
Sample : 9J25051-CALD
Misc : 1X 5mL 100PPB GX
ALS Vial : 27 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:38 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102538.D
Acq On : 26 Oct 2019 3:38 am
Operator : MM
Sample : 9J25051-CALE
Misc : 1X 5mL 250PPB GX
ALS Vial : 28 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:40 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration

10/28/19

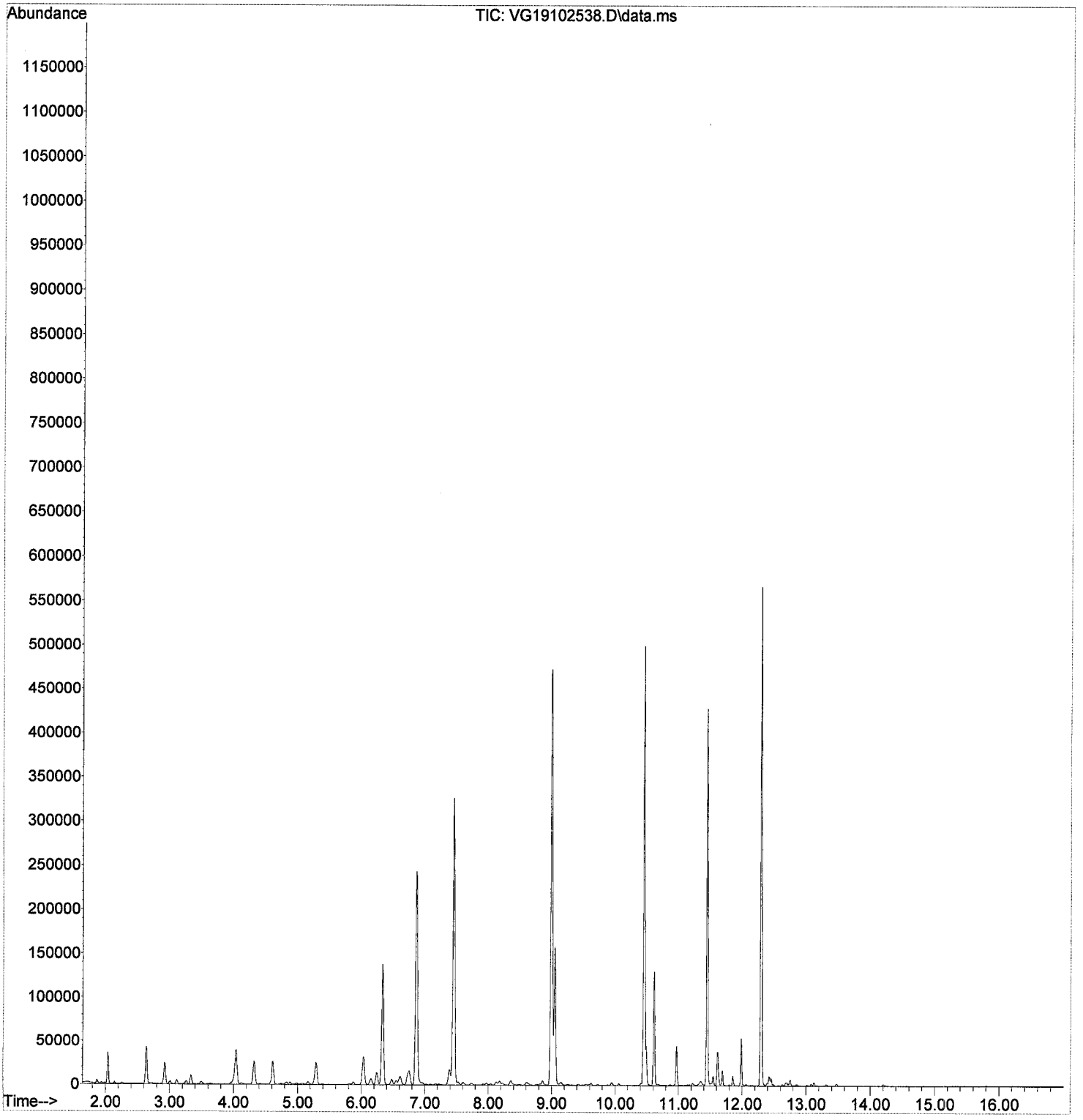
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	212459	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	314600	49.45	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	115645	50.54	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	352860	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	270819	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	218030	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	1206913m	232.49	ug/L	
5) TPHg (C5-C9)	9.940	TIC	1794254m	256.45	ug/L	
6) TPHg (C6-C10)	9.940	TIC	1521053m	259.40	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	2098250m	249.46	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102538.D
Acq On : 26 Oct 2019 3:38 am
Operator : MM
Sample : 9J25051-CALE
Misc : 1X 5mL 250PPB GX
ALS Vial : 28 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:40 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102539.D
Acq On : 26 Oct 2019 4:05 am
Operator : MM
Sample : 9J25051-CALF
Misc : 1X 5mL 500PPB GX
ALS Vial : 29 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:42 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration

10/28/19

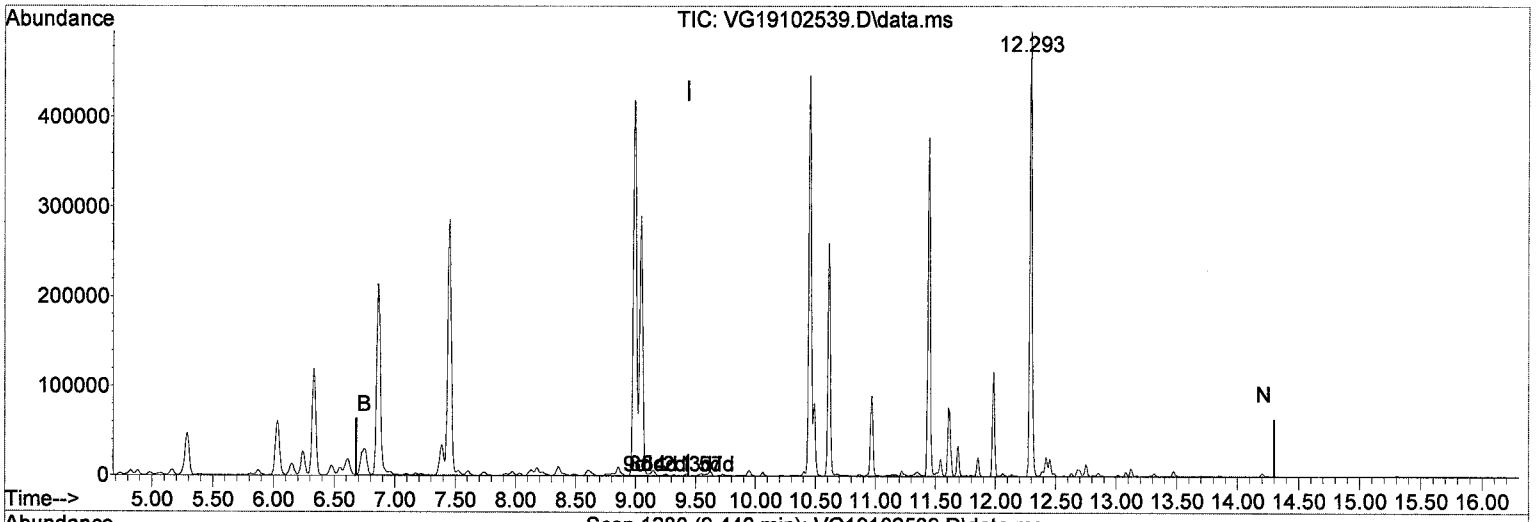
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.862	168	184039	50.00	ug/L	-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	275552	50.00	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	99104	50.00	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	311019	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	239613	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	188917	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	2248368m	500.00	ug/L	
5) TPHg (C5-C9)	9.940	TIC	3030299m	500.00	ug/L	
6) TPHg (C6-C10)	9.940	TIC	2539707m	500.00	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	3642980m	500.00	ug/L	

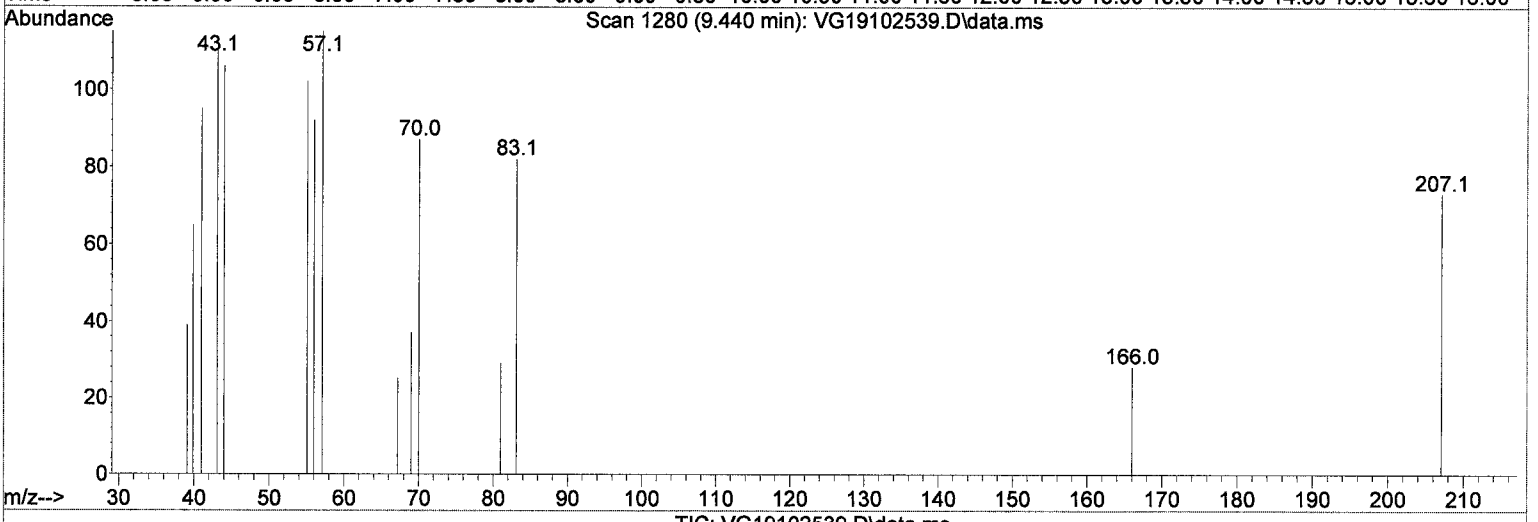
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102539.D
Acq On : 26 Oct 2019 4:05 am
Operator : MM
Sample : 9J25051-CALF
Misc : 1X 5mL 500PPB GX
ALS Vial : 29 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:42 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration





TIC: VG19102539.D\data.ms

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

9.440min (0.000) 500.00 ug/L m

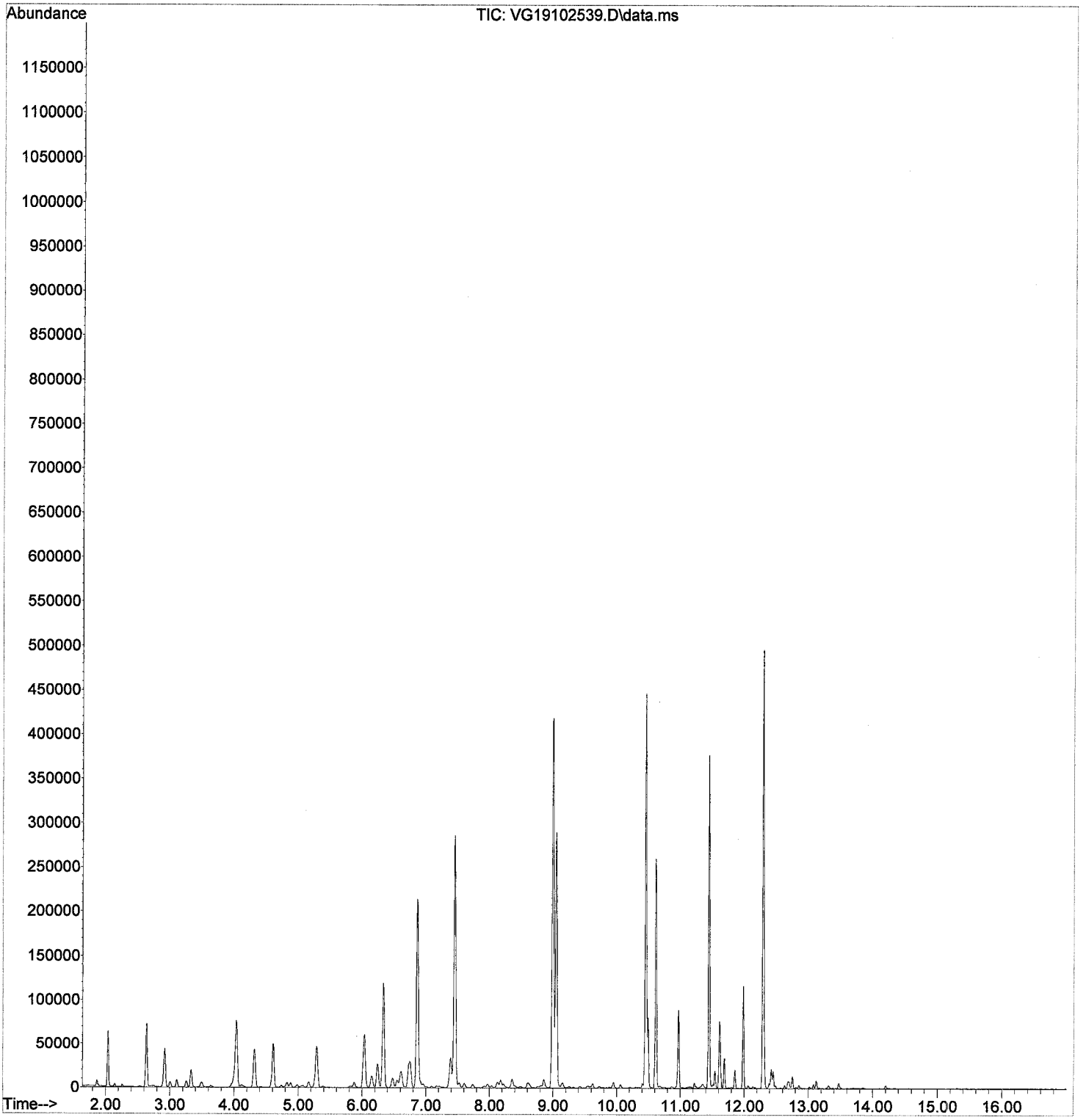
response 2248368

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102539.D
Acq On : 26 Oct 2019 4:05 am
Operator : MM
Sample : 9J25051-CALF
Misc : 1X 5mL 500PPB GX
ALS Vial : 29 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:42 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102540.D
Acq On : 26 Oct 2019 4:32 am
Operator : MM
Sample : 9J25051-CALG
Misc : 1X 5mL 1000PPB GX
ALS Vial : 30 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:44 2019
Quant Method : C:\msdchem\1\methods\~~VG191025G.M~~
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration

10/28/19

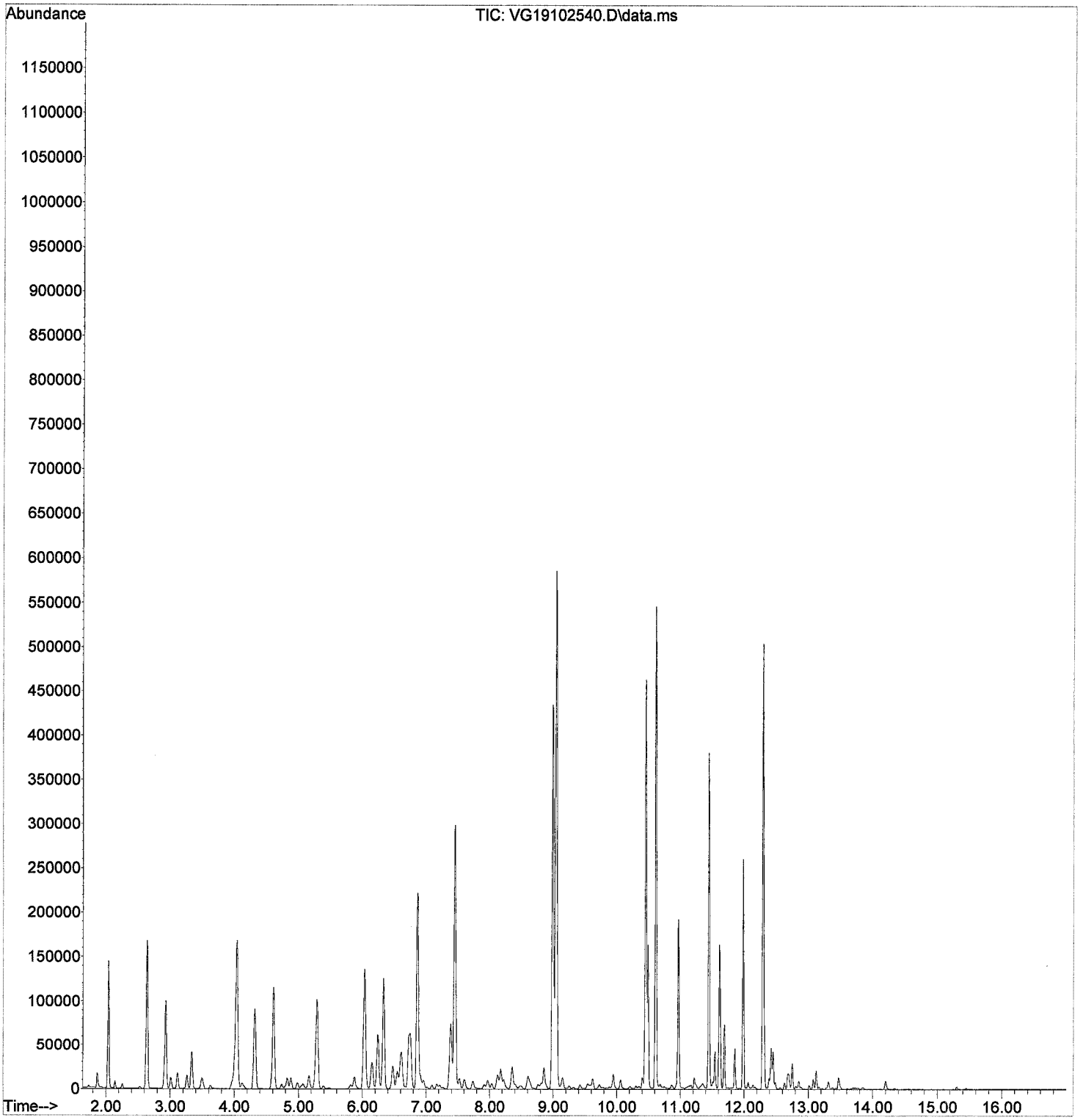
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	190639	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	286580	50.20	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	102218	49.79	ug/L	0.00
9) Toluene-d8 (NR)	8.989	98	321105	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	10.452	117	246991	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	190835	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	4898415m	1051.61	ug/L	
5) TPHg (C5-C9)	9.940	TIC	6352259m	1011.84	ug/L	
6) TPHg (C6-C10)	9.940	TIC	5288509m	1005.12	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	7765125m	1028.87	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102540.D
Acq On : 26 Oct 2019 4:32 am
Operator : MM
Sample : 9J25051-CALG
Misc : 1X 5mL 1000PPB GX
ALS Vial : 30 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:44 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102541.D
Acq On : 26 Oct 2019 4:59 am
Operator : MM
Sample : 9J25051-CALH
Misc : 1X 5mL 2500PPB GX
ALS Vial : 31 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:47 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration

10/28/19

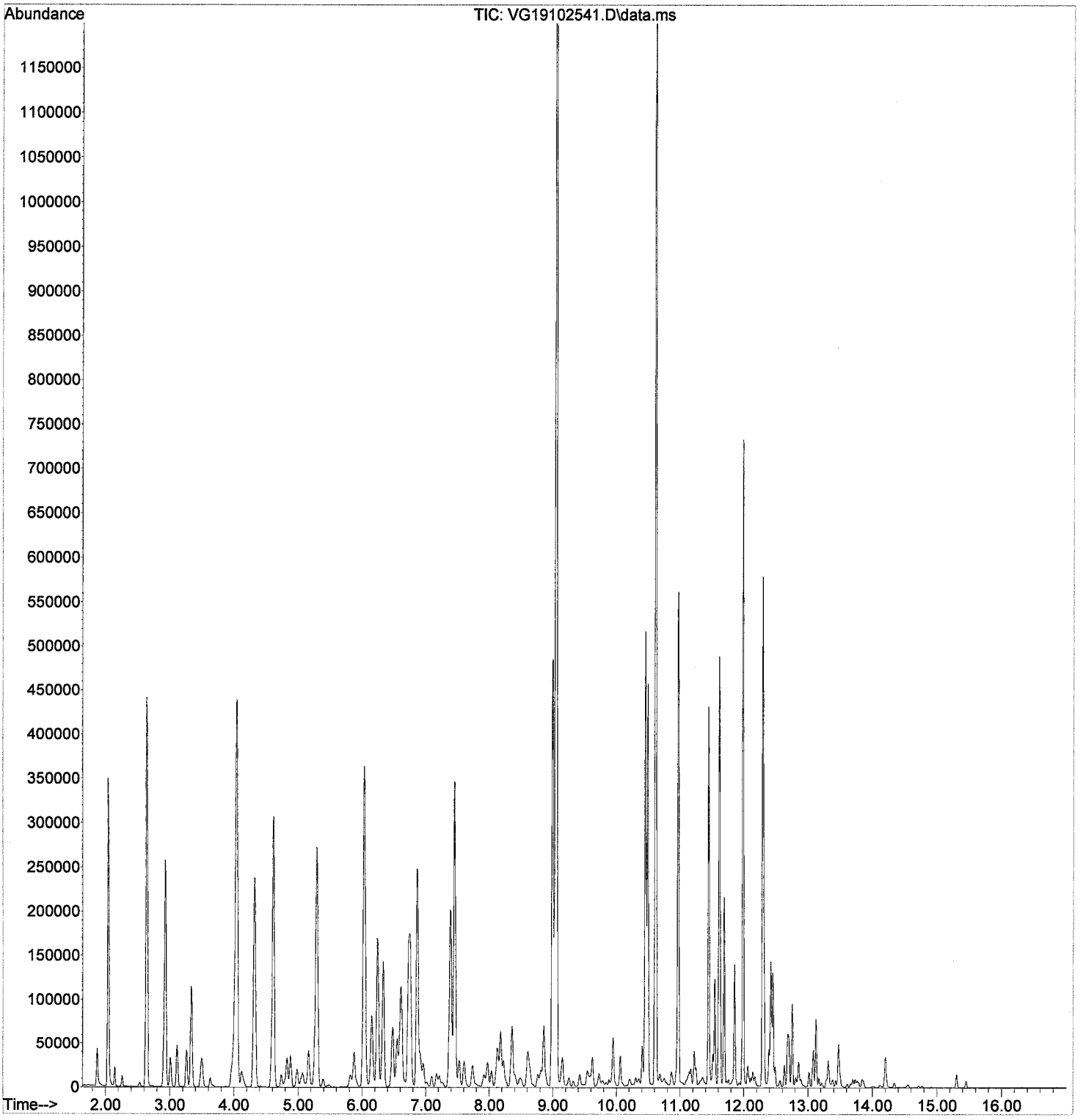
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	218107	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	319682	48.95	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	117998	50.23	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	359191	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	278863	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	220552	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	14135965m	2652.58	ug/L	
5) TPHg (C5-C9)	9.940	TIC	16960704m	2361.40	ug/L	
6) TPHg (C6-C10)	9.940	TIC	14124797m	2345.44	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	21319796m	2469.09	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102541.D
Acq On : 26 Oct 2019 4:59 am
Operator : MM
Sample : 9J25051-CALH
Misc : 1X 5mL 2500PPB GX
ALS Vial : 31 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:47 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102542.D
Acq On : 26 Oct 2019 5:26 am
Operator : MM
Sample : 9J25051-CALI
Misc : 1X 5mL 5000PPB GX
ALS Vial : 32 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:49 2019
Quant Method : C:\msdchem\1\methods\VG~~191025G.M~~
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration

10/28/19

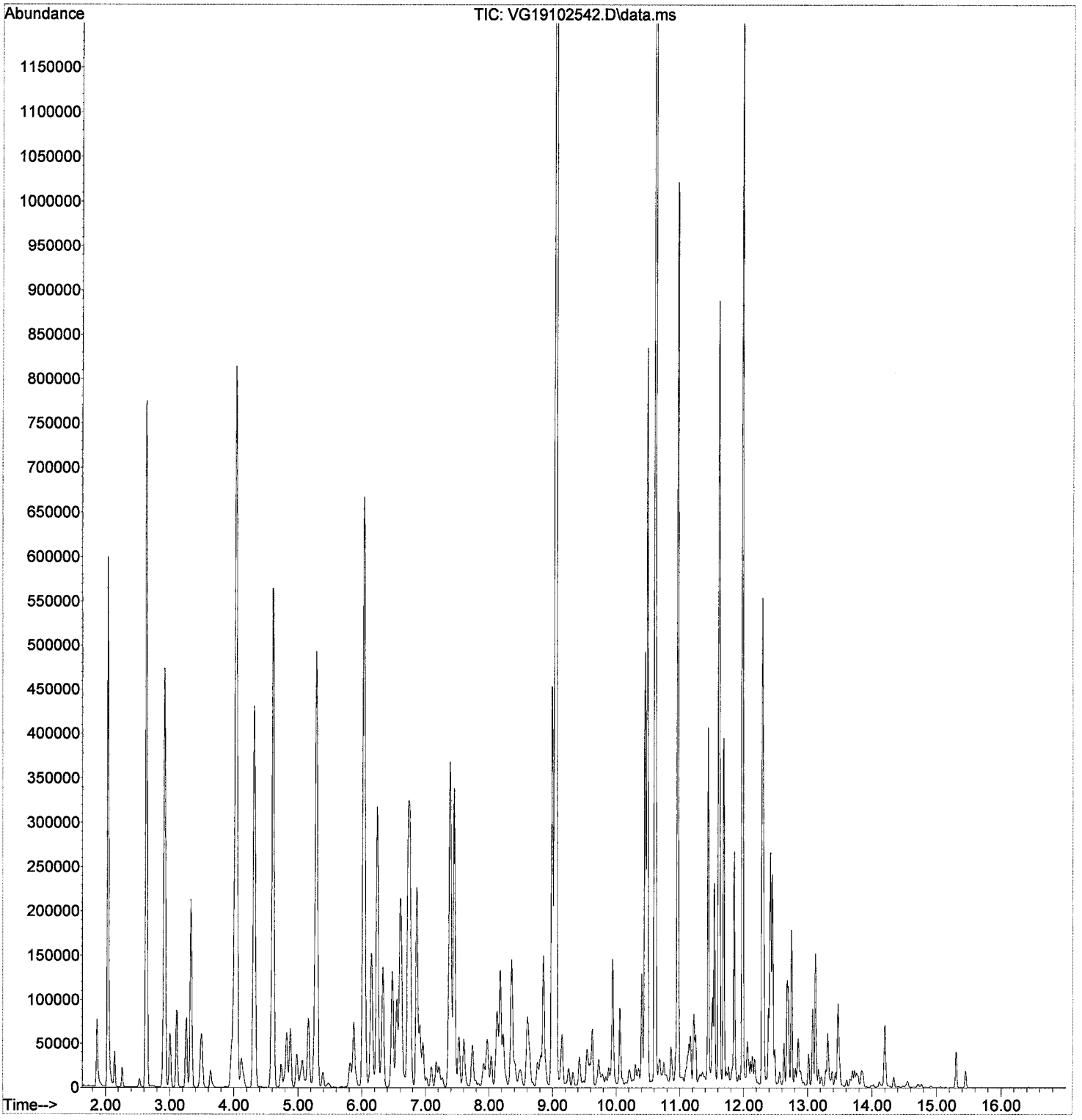
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.861	168	195244	50.00	ug/L	-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	291674	49.89	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	108752	51.72	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	328924	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	253387	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	202369	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	26794497m	5616.69	ug/L	
5) TPHg (C5-C9)	9.940	TIC	31355075m	4876.68	ug/L	
6) TPHg (C6-C10)	9.940	TIC	26053972m	4834.96	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	39688515m	5134.64	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102542.D
Acq On : 26 Oct 2019 5:26 am
Operator : MM
Sample : 9J25051-CALI
Misc : 1X 5mL 5000PPB GX
ALS Vial : 32 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:49 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102543.D
Acq On : 26 Oct 2019 5:52 am
Operator : MM
Sample : 9J25051-CALJ
Misc : 1X 5mL 10000PPB GX
ALS Vial : 33 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:51 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration

10/28/19

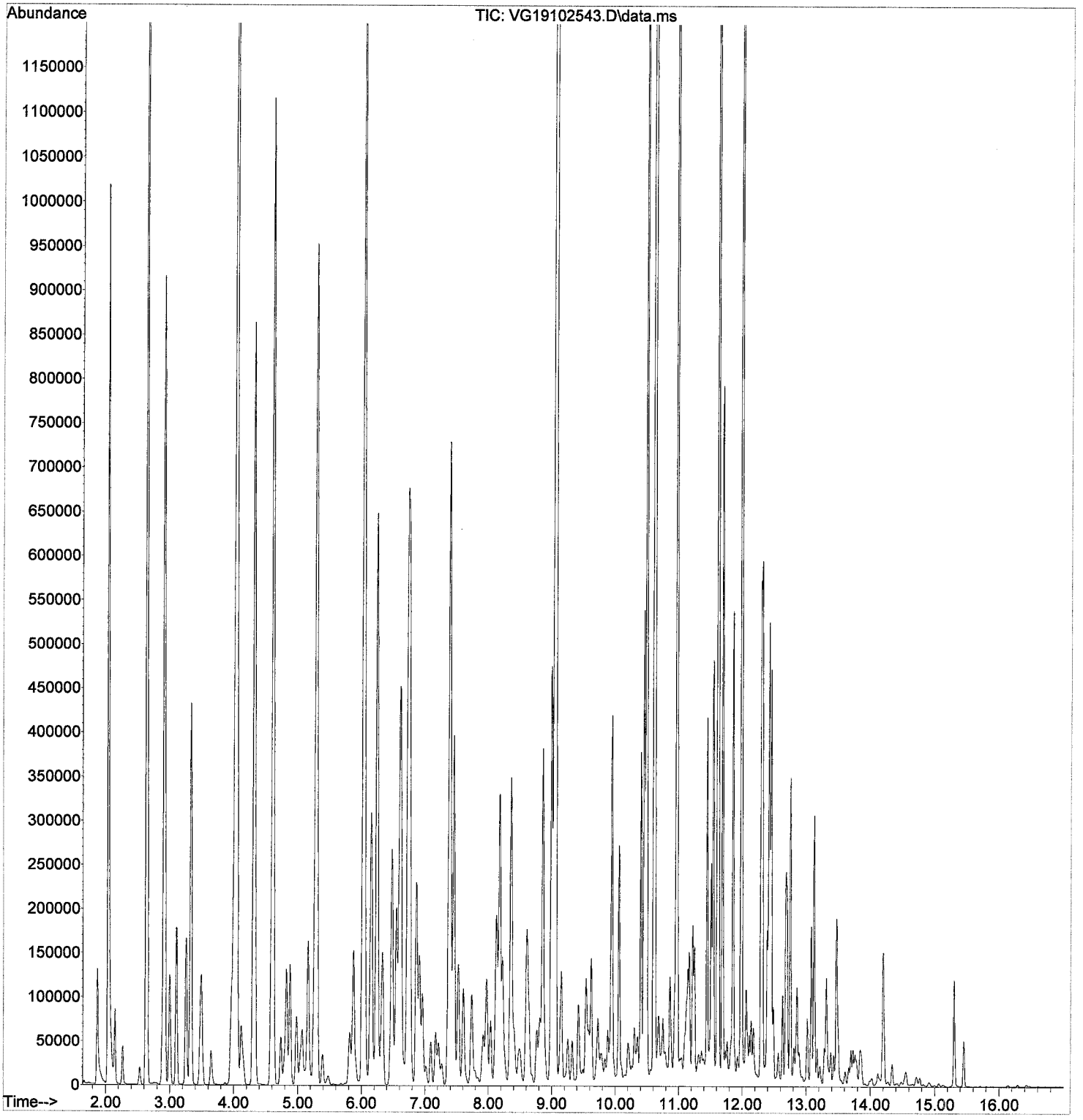
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.861	168	197171	50.00	ug/L	-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	292717	49.58	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	109113	51.38	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	331575	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	254631	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	199163	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	54966493m	11409.52	ug/L	
5) TPHg (C5-C9)	9.940	TIC	62901609m	9687.53	ug/L	
6) TPHg (C6-C10)	9.940	TIC	52358292m	9621.41	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	80394197m	10299.23	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102543.D
Acq On : 26 Oct 2019 5:52 am
Operator : MM
Sample : 9J25051-CALJ
Misc : 1X 5mL 10000PPB GX
ALS Vial : 33 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:12:51 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:11:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102544.D
Acq On : 26 Oct 2019 6:19 am
Operator : MM
Sample : 9J25051-IBL8
Misc : 1X 5mL DI
ALS Vial : 34 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:42 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration

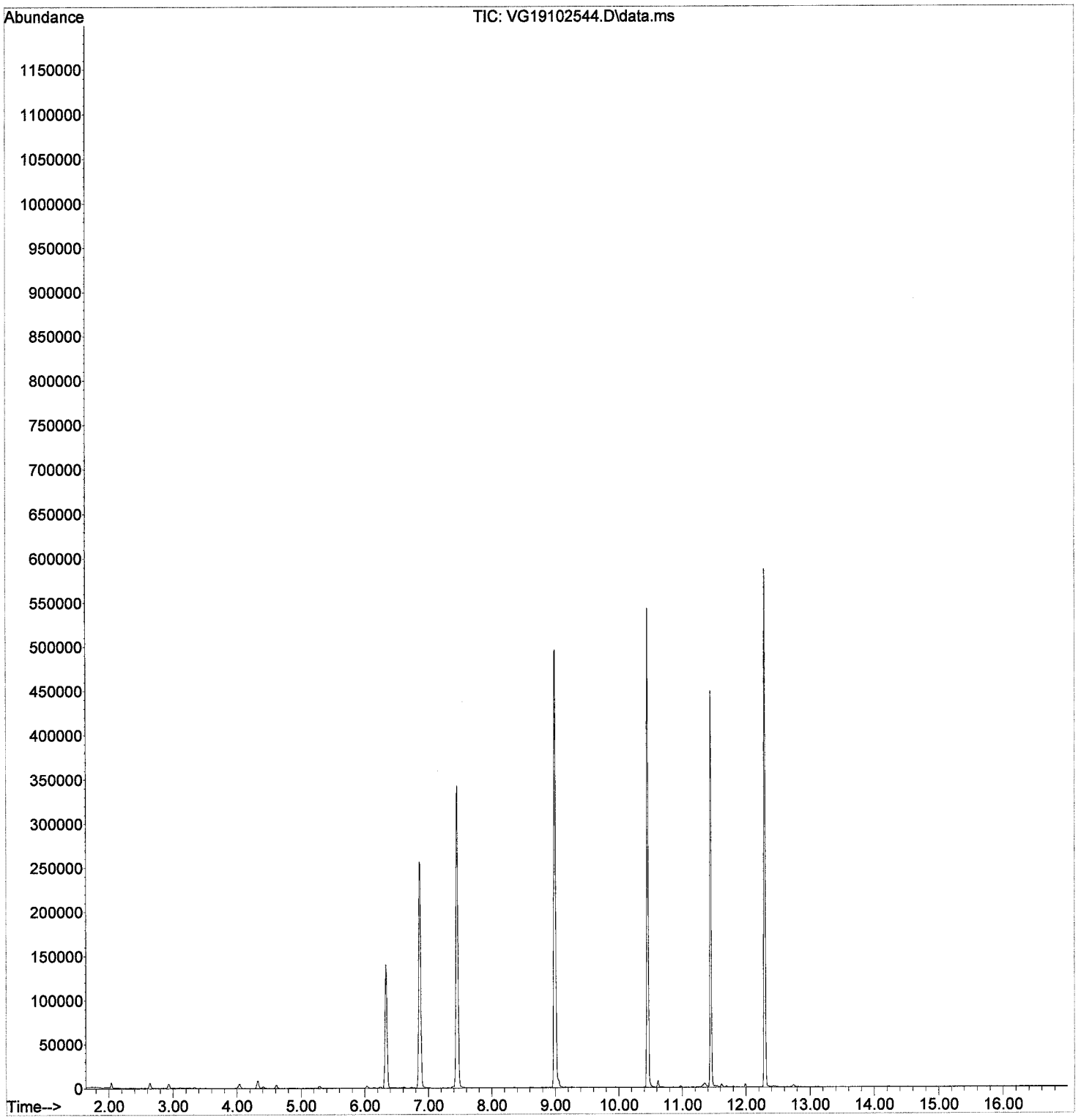
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	225495	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	337060	50.00	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	122114	49.73	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	377779	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	290665	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	226756	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	107579m	34.43	ug/L	
5) TPHg (C5-C9)	9.940	TIC	445850m	30.36	ug/L	
6) TPHg (C6-C10)	9.940	TIC	393291m	28.41	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	481896m	34.01	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102544.D
Acq On : 26 Oct 2019 6:19 am
Operator : MM
Sample : 9J25051-IBL8
Misc : 1X 5mL DI
ALS Vial : 34 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:42 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102545.D
Acq On : 26 Oct 2019 6:46 am
Operator : MM
Sample : 9J25051-IBL9
Misc : 1X 5mL DI
ALS Vial : 35 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:44 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration

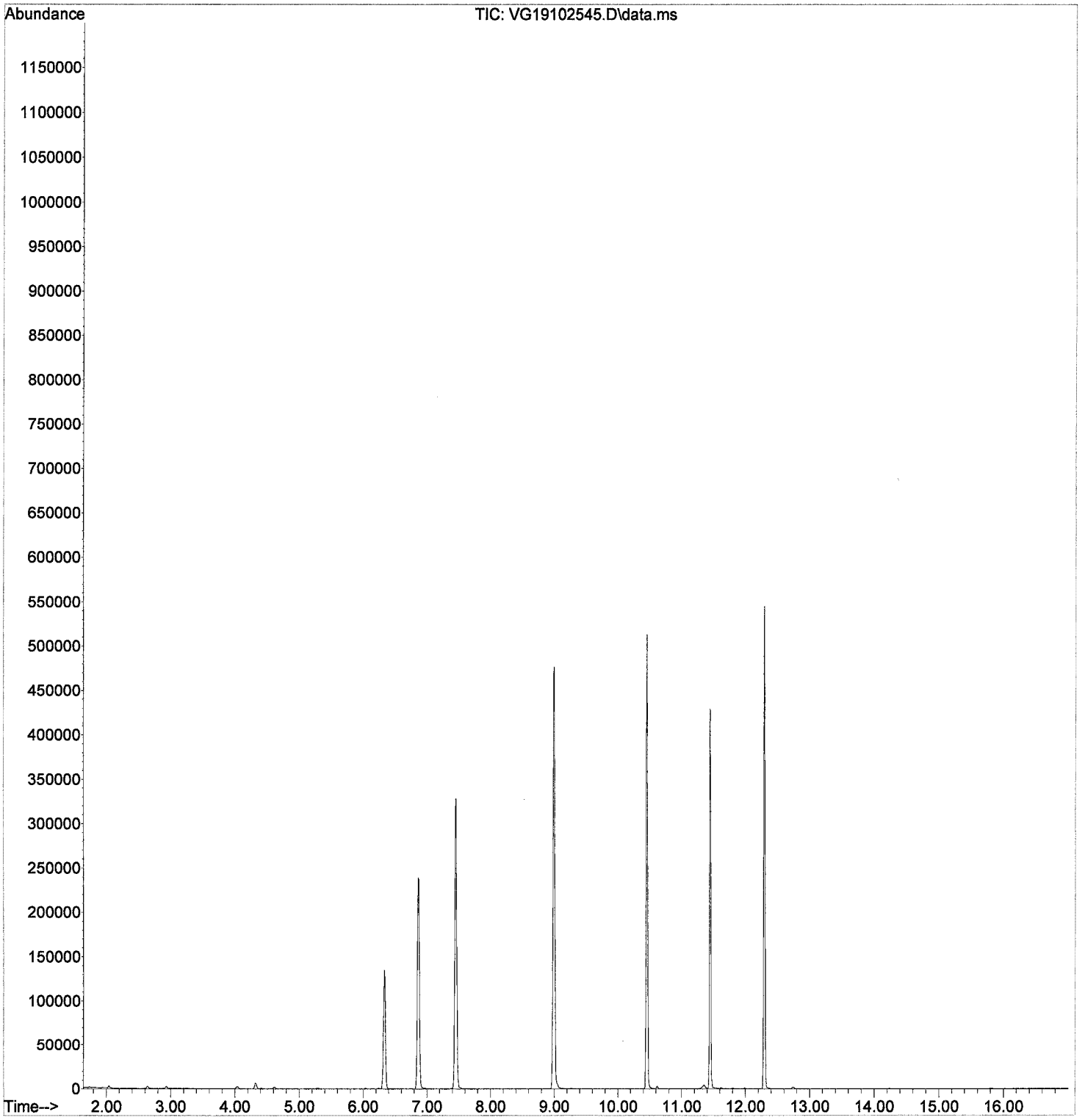
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	212130	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	321985	50.78	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	115469	49.98	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	359017	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	275943	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	214203	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	58592m	26.68	ug/L	
5) TPHg (C5-C9)	9.940	TIC	360796m	21.50	ug/L	
6) TPHg (C6-C10)	9.940	TIC	330453m	21.21	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	382639m	25.45	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102545.D
Acq On : 26 Oct 2019 6:46 am
Operator : MM
Sample : 9J25051-IBL9
Misc : 1X 5mL DI
ALS Vial : 35 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:44 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102546.D
Acq On : 26 Oct 2019 7:13 am
Operator : MM
Sample : 9J25051-ICV3
Misc : 1X 5mL 500PPB GX
ALS Vial : 36 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:46 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration

10/28/19

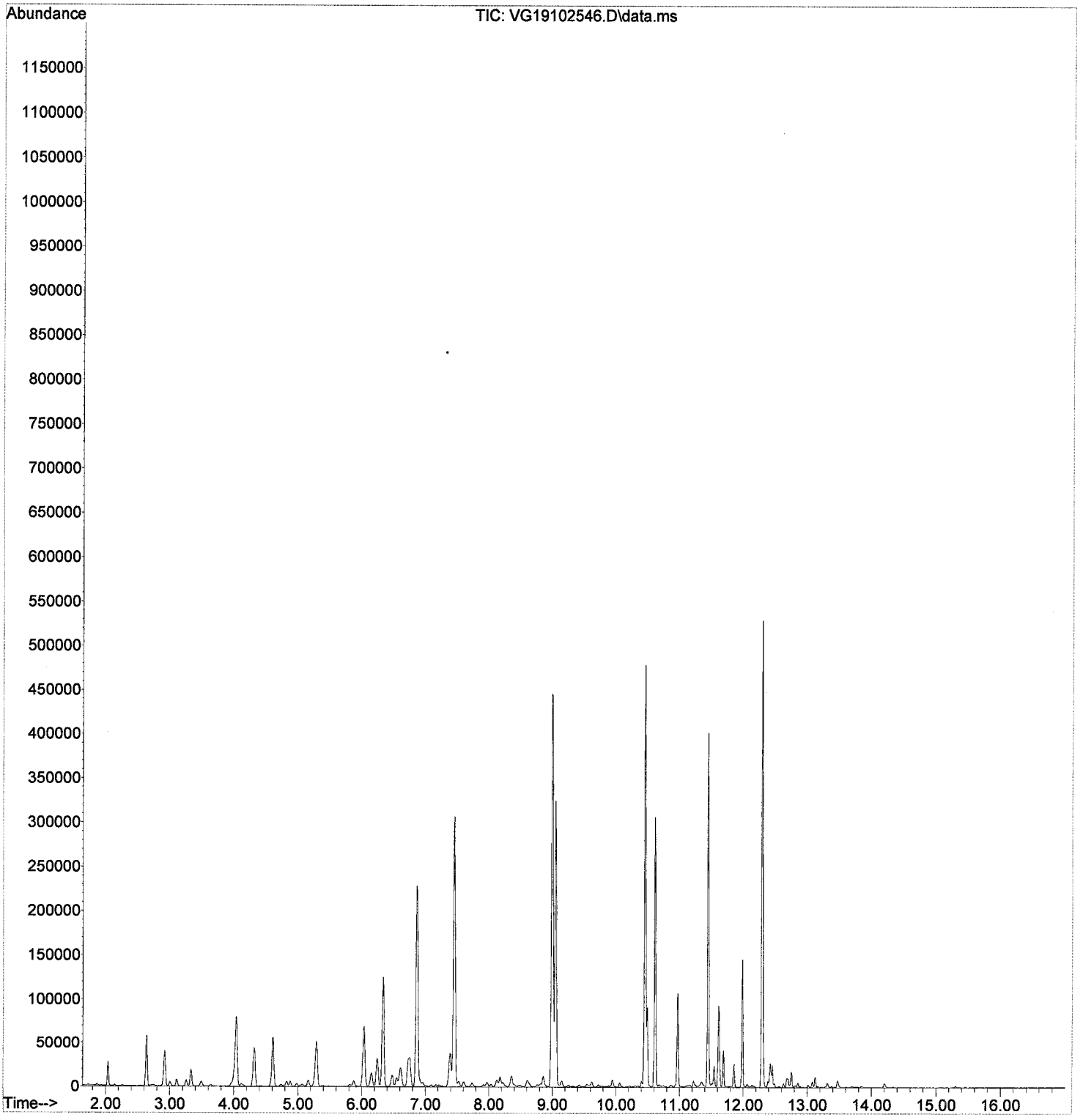
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	198918	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	295059	49.62	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	107800	49.76	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	333031	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	255524	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	200908	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	2694552m	536.40	ug/L	
5) TPHg (C5-C9)	9.940	TIC	3423889m	518.14	ug/L	
6) TPHg (C6-C10)	9.940	TIC	2934697m	530.81	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	4183115m	518.20	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102546.D
Acq On : 26 Oct 2019 7:13 am
Operator : MM
Sample : 9J25051-ICV3
Misc : 1X 5mL 500PPB GX
ALS Vial : 36 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:46 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102547.D
Acq On : 26 Oct 2019 7:40 am
Operator : MM
Sample : 9J25051-IBLA
Misc : 1X 5mL DI
ALS Vial : 37 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:48 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration

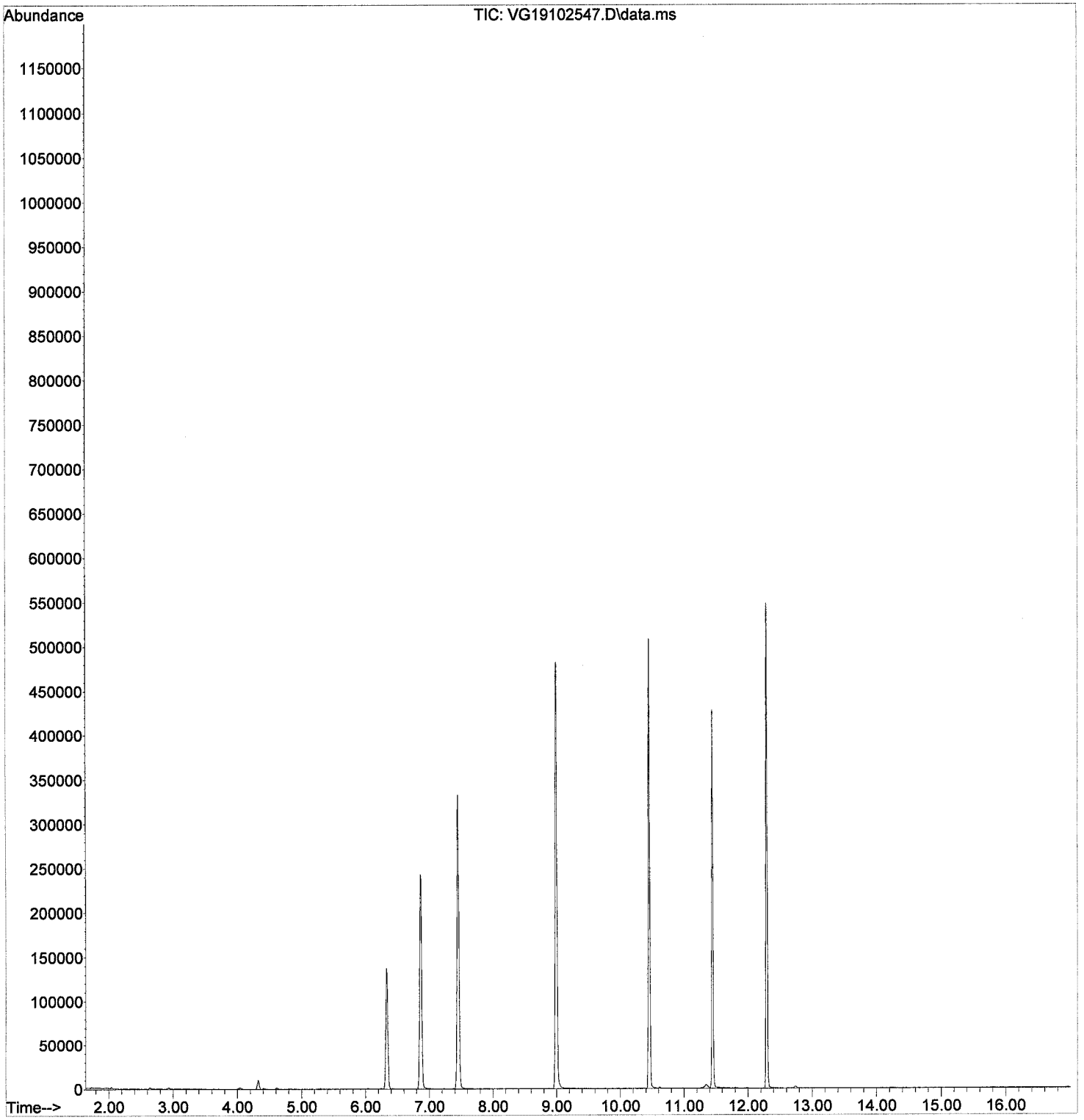
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	214380	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	325769	50.83	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	115143	49.32	ug/L	0.00
9) Toluene-d8 (NR)	8.995	98	361095	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	10.452	117	276533	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	12.293	150	213955	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.440	TIC	60146m	26.85	ug/L	
5) TPHg (C5-C9)	9.940	TIC	363449m	21.32	ug/L	
6) TPHg (C6-C10)	9.940	TIC	332311m	20.91	ug/L	
7) CA-LUFT (C5-C12)	9.940	TIC	383928m	25.12	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25051\
Data File : VG19102547.D
Acq On : 26 Oct 2019 7:40 am
Operator : MM
Sample : 9J25051-IBLA
Misc : 1X 5mL DI
ALS Vial : 37 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Oct 28 12:45:48 2019
Quant Method : C:\msdchem\1\methods\VG191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Mon Oct 28 12:17:57 2019
Response via : Initial Calibration



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

Organochloride Pesticides by EPA 8081B
Benchsheet & Analysis Sequence Data

Batch 9110391
Sequence 9K05039 (A9J0950-01RE1,02RE1,03RE1,04RE1)

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110391 (Sediment)

Prep Method: EPA 3546/3640A (GPC)

#	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9110391-BLK1		QC	10/31/19 15:10	11	10				100					
	9110391-BS1		QC	10/31/19 15:10	10	10	A19E266		100	100					
	A9J0950-01RE1	G	8081B Pesticides	10/31/19 15:11	10.73	10				100	PDI-015SC-C-00-8.1-191024	From 9101833 by gwh on 11/01/19			
	9110391-DUP1		QC	10/31/19 15:10	10.86	10		A9J0950-01RE1		100					
	A9J0950-02RE1	H	8081B Pesticides	10/31/19 15:11	10.27	10				100	PDI-026SC-C-00-3.9-191024	From 9101833 by gwh on 11/01/19			
	A9J0950-03RE1	H	8081B Pesticides	10/31/19 15:11	10.66	10				100	PDI-037SC-C-00-12.4-191024	From 9101833 by gwh on 11/01/19			
	A9J0950-04RE1	H	8081B Pesticides	10/31/19 15:11	10.12	10				100	PDI-073SC-C-00-13.7-191024	From 9101833 by gwh on 11/01/19			
	A9J0954-01RE1	H	8081B Pesticides	10/31/19 15:11	10.23	10				100	PDI-019SC-C-00-3.2-191025	From 9101833 by gwh on 11/01/19			
	A9J0954-02RE1	H	8081B Pesticides	10/31/19 15:11	10.6	10				100	PDI-095SC-C-00-8.8-191025	From 9101833 by gwh on 11/01/19			
	A9J1006-01RE1	H	8081B Pesticides	10/31/19 15:11	10.5	10				100	PDI-071SC-C-00-08-191028	From 9101833 by gwh on 11/01/19			
	A9J1006-02RE1	H	8081B Pesticides	10/31/19 15:11	10.31	10				100	PDI-074SC-C-00-7.3-191028	From 9101833 by gwh on 11/01/19			
	A9J1007-01RE1	H	8081B Pesticides	10/31/19 15:11	10.64	10				100	PDI-083SC-C-00-08-191028	From 9101833 by gwh on 11/01/19			
	9110391-MS1		QC	10/31/19 15:10	10.52	10	A19E266	A9J1007-01RE1	100	100					

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A19H411	08/31/21	n-Hexane Lot# 192712
A19I263	03/18/20	DCM CHEM PROD. 194934

Analyte Spike(s)

Std ID	Exp. Date	Description
A19E266	11/21/19	Mix AB Pesticide Matrix Spike

Surrogate(s)

Std ID	Exp. Date	Description
A19J262	04/17/20	8082 PCB Surrogate Spike

From 9101833 on 11/1/2019 by gwh

Prepared By: Date

MJB 11/6/19
Reviewed By: Date

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110391 (Sediment)

Prep Method: EPA 3546/3640A (GPC)

#	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9110391-BLK1		QC	10/31/19 15:10	11	5 10				100		1mL 2mL			
	9110391-BS1		QC	10/31/19 15:10	10	5 10	A19E266		100	100		1mL 2mL			
	A9J0950-01RE1	G	8081B Pesticides	10/31/19 15:11	10.73	5 10				100	PDI-015SC-C-00-8.1-191024	From 9101833 by gwh on 11/01/19 1mL 2mL			
	9110391-DUP1		QC	10/31/19 15:10	10.86	5 10		A9J0950-01RE1		100		1mL 2mL			
	A9J0950-02RE1	H	8081B Pesticides	10/31/19 15:11	10.27	5 10				100	PDI-026SC-C-00-3.9-191024	From 9101833 by gwh on 11/01/19 1mL 2mL			
	A9J0950-03RE1	H	8081B Pesticides	10/31/19 15:11	10.66	5 10				100	PDI-037SC-C-00-12.4-191024	From 9101833 by gwh on 11/01/19 1mL 2mL			
	A9J0950-04RE1	H	8081B Pesticides	10/31/19 15:11	10.12	5 10				100	PDI-073SC-C-00-13.7-191024	From 9101833 by gwh on 11/01/19 1mL 2mL			
	A9J0954-01RE1	H	8081B Pesticides	10/31/19 15:11	10.23	5 10				100	PDI-019SC-C-00-3.2-191025	From 9101833 by gwh on 11/01/19 1mL 2mL			
	A9J0954-02RE1	H	8081B Pesticides	10/31/19 15:11	10.6	5 10				100	PDI-095SC-C-00-8.8-191025	From 9101833 by gwh on 11/01/19 1mL 2mL			
	A9J1006-01RE1	H	8081B Pesticides	10/31/19 15:11	10.5	5 10				100	PDI-071SC-C-00-08-191028	From 9101833 by gwh on 11/01/19 1mL 2mL			
	A9J1006-02RE1	H	8081B Pesticides	10/31/19 15:11	10.31	5 10				100	PDI-074SC-C-00-7.3-191028	From 9101833 by gwh on 11/01/19 1mL 2mL			
	A9J1007-01RE1	H	8081B Pesticides	10/31/19 15:11	10.64	5 10				100	PDI-083SC-C-00-08-191028	From 9101833 by gwh on 11/01/19 1mL 2mL			
	9110391-MS1		QC	10/31/19 15:10	10.52	5 10	A19E266	A9J1007-01RE1	100	100		1mL 2mL			

Initial / final

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A19H411	08/31/21	n-Hexane Lot# 192712
A19I263	03/18/20	DCM CHEM PROD. 194934

Analyte Spike(s)

Std ID	Exp. Date	Description
A19E266	11/21/19	Mix AB Pesticide Matrix Spike

Surrogate(s)

Std ID	Exp. Date	Description
A19J262	04/17/20	8082 PCB Surrogate Spike

From 9101833 on 11/1/2019 by gwh

Prepared By: JAG — Date: 11/1/19 — 11/4/19

Reviewed By: cas — Date: 11/04/19

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9101833 (Sediment)

Prep Method: EPA 3546

#	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
13	9101833-BLK1		QC	10/31/19 15:10	~~10~~ 11	5 ✓				100					
14	9101833-BS1		QC	10/31/19 15:10	10	5 ✓	A19E266		100	100					
15	A9J0950-01	G	8081B Pesticides	10/31/19 15:11	~~10~~ 10.73	5 ✓				100	PDI-015SC-C-00 -8.1-191024	dirt odor			
16	9101833-DUP1		QC	10/31/19 15:10	~~10~~ 10.86	5 ✓		A9J0950-01		100					
17	A9J0950-02	H	8081B Pesticides	10/31/19 15:11	~~10~~ 10.27	5 ✓				100	PDI-026SC-C-00 -3.9-191024	dirt			
18	A9J0950-03	H	8081B Pesticides	10/31/19 15:11	~~10~~ 10.66	5 ✓				100	PDI-037SC-C-00 -12.4-191024	dirt Odor			
19	A9J0950-04	H	8081B Pesticides	10/31/19 15:11	~~10~~ 10.12	5 ✓				100	PDI-073SC-C-00 -13.7-191024	Mud			
20	A9J0954-01	H	8081B Pesticides	10/31/19 15:11	~~10~~ 10.23	5 ✓				100	PDI-019SC-C-00 -3.2-191025	Mud.			
21	A9J0954-02	H	8081B Pesticides	10/31/19 15:11	~~10~~ 10.60	5 ✓				100	PDI-095SC-C-00 -8.8-191025	Mud			
22	A9J1006-01	H	8081B Pesticides	10/31/19 15:11	~~10~~ 10.50	5 ✓				100	PDI-071SC-C-00 -08-191028	Mud			
23	A9J1006-02	H	8081B Pesticides	10/31/19 15:11	~~10~~ 10.31	5 ✓				100	PDI-074SC-C-00 -7.3-191028	Mud			
24	A9J1007-01	H	8081B Pesticides	10/31/19 15:11	~~10~~ 10.64	5 ✓				100	PDI-083SC-C-00 -08-191028	Mud			
25	9101833-MS1		QC	10/31/19 15:10	~~10~~ 10.52	5 ✓	A19E266	A9J1007-01	100	100					

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L219	11/30/23	Extractions Balance
A18K311	12/31/20	Glass Wool
A19I263	03/18/20	DCM CHEM PROD. 194934
A19J048	03/31/20	Sodium Sulfate Lot # 191177

Analyte Spike(s)

Std ID	Exp. Date	Description
A19E266	11/21/19	Mix AB Pesticide Matrix Spike

Surrogate(s)

Std ID	Exp. Date	Description
A19J262	04/17/20	8082 PCB Surrogate Spike

Method 3546 digestion time and temperture achieved.
Initial:

Witness: 10/31/19

Prepared By: Date 10/31/19

Reviewed By: SCG Date 10/31/2019

10.31.19

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9K05039** Instrument: **DUALECD5**

Date: **11/05/19 10:44** Calibration: **A9H2608**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K05039-BKD1	Sediment	QC	QC				A19J201
2	9K05039-CCV1	Sediment	QC	QC				A19H383
3	9K05039-CCB1	Sediment	QC	QC				A19K026
4	9110391-BLK1	Sediment	QC	QC		9110391		
5	9110391-BS1	Sediment	QC	QC		9110391		
6	A9J0950-01RE1	Sediment	8081B Pesticides	Anchor QEA, LLC	11/07/19	9110391		
7	9K05039-IBL1	Sediment	QC	QC				
8	9110391-DUP1	Sediment	QC	QC		9110391		
9	9K05039-IBL2	Sediment	QC	QC				
10	A9J0950-02RE1	Sediment	8081B Pesticides	Anchor QEA, LLC	11/07/19	9110391		
11	9K05039-IBL3	Sediment	QC	QC				
12	A9J0950-03RE1	Sediment	8081B Pesticides	Anchor QEA, LLC	11/07/19	9110391		
13	9K05039-IBL4	Sediment	QC	QC				
14	A9J0950-04RE1	Sediment	8081B Pesticides	Anchor QEA, LLC	11/07/19	9110391		
15	9K05039-IBL5	Sediment	QC	QC				
16	9K05039-CCV2	Sediment	QC	QC				A19H384
17	9K05039-CCB2	Sediment	QC	QC				A19K026
18	A9J0954-01RE1	Sediment	8081B Pesticides	Anchor QEA, LLC	11/07/19	9110391		
19	9K05039-IBL6	Sediment	QC	QC				
20	A9J0954-02RE1	Sediment	8081B Pesticides	Anchor QEA, LLC	11/07/19	9110391		
21	9K05039-IBL7	Sediment	QC	QC				
22	A9J1006-01RE1	Sediment	8081B Pesticides	Anchor QEA, LLC	11/11/19	9110391		
23	9K05039-IBL8	Sediment	QC	QC				
24	A9J1006-02RE1	Sediment	8081B Pesticides	Anchor QEA, LLC	11/11/19	9110391		
25	9K05039-IBL9	Sediment	QC	QC				
26	A9J1007-01RE1	Sediment	8081B Pesticides	Anchor QEA, LLC	11/11/19	9110391		
27	9K05039-IBLA	Sediment	QC	QC				
28	9110391-MS1	Sediment	QC	QC		9110391		
29	9K05039-IBLB	Sediment	QC	QC				
30	9K05039-CCV3	Sediment	QC	QC				A19H383
31	9K05039-CCB3	Sediment	QC	QC				A19K026
32	9K05039-IBLC	Sediment	QC	QC				

Comments:

Data Entered By: MJB 11/6/19

Data Reviewed By: [signature] 11/8/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-11\9K05039\
Data File : ECD5-11051903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 11:30
Operator : MJB
Sample : 9K05039-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 05 11:44:41 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT6.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	7.325	909186	NoCal	ng/mL
2)	Endrin	7.679	80987955	NoCal	ng/mL
3)	4,4'-DDD	7.742	11217951	NoCal	ng/mL
4)	4,4'-DDT	7.937	138470527	NoCal	ng/mL
5)	Endrin Aldehyde	8.124	4230042	NoCal	ng/mL
6)	Endrin Ketone	8.613	8362554	NoCal	ng/mL
8)	4,4'-DDE [2C]	8.086	1648724	NoCal	ng/mL
9)	Endrin [2C]	8.441	124367292	NoCal	ng/mL
10)	4,4'-DDD [2C]	8.498	20059583	NoCal	ng/mL
11)	Endrin Aldehyde [2C]	8.825	6718391	NoCal	ng/mL
12)	4,4'-DDT [2C]	8.721	215417767	NoCal	ng/mL
13)	Endrin Ketone [2C]	9.408	12492934	NoCal	ng/mL

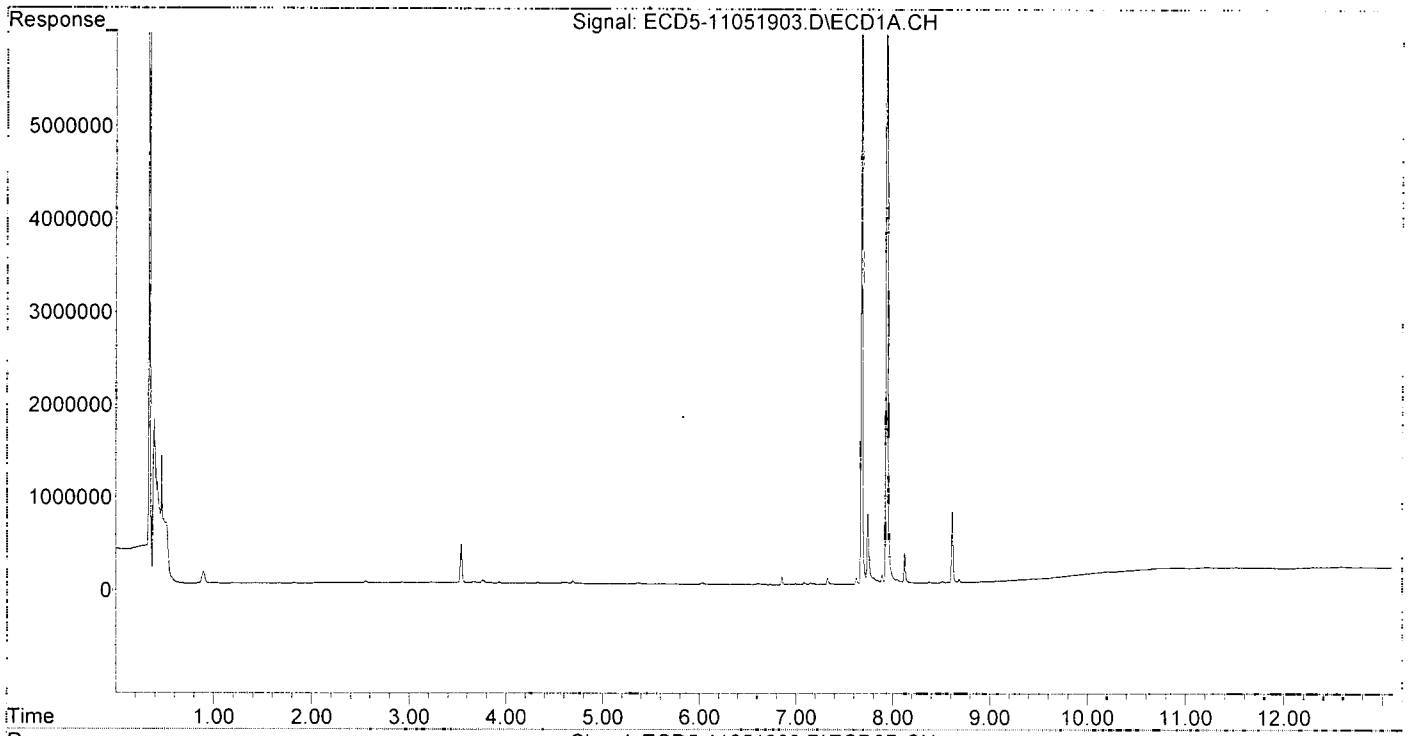
(f)=RT Delta > 1/2 Window (m)=manual int.

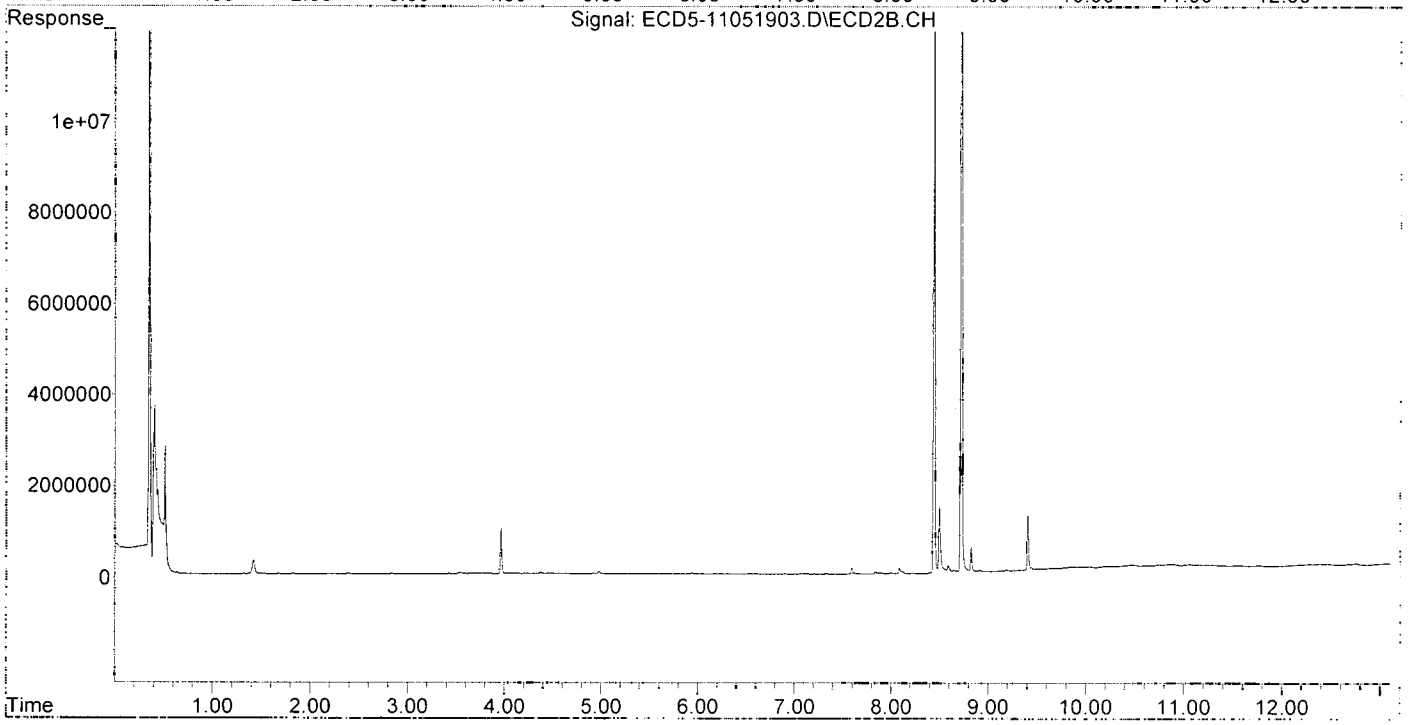
MJB 11/5/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-11\9K05039\
Data File : ECD5-11051903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 11:30
Operator : MJB
Sample : 9K05039-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 05 11:44:41 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT6.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\9K05039\
Data File : ECD5-11051904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 11:48
Operator : MJB
Sample : 9K05039-CCV1
Misc : A19H383, 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 05 15:18:41 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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 11/5/19

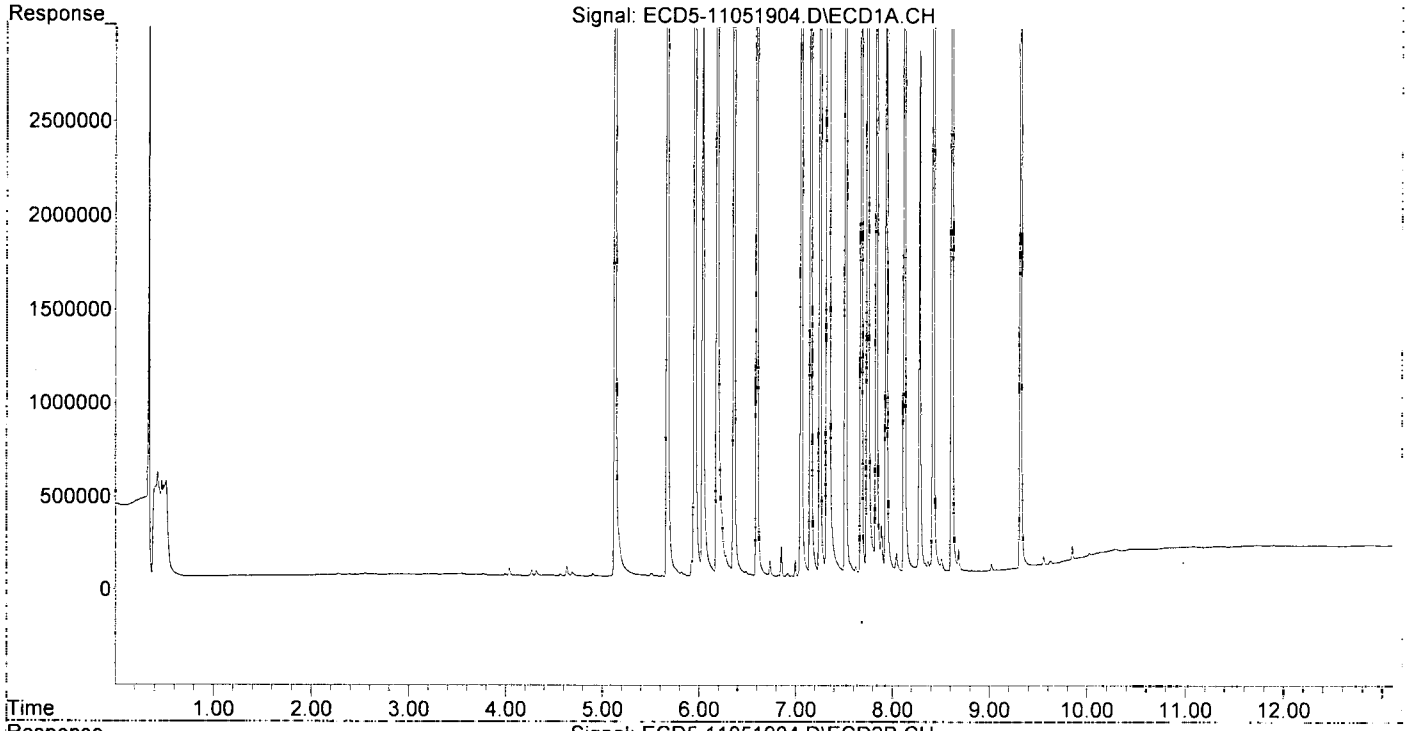
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.130	5.727	8305357	12858512	50.040	43.831	
22)	S	DCBP (S)	9.319	10.236	6710079	10051164	47.556	55.913	
		Target Compounds							
2)		a-BHC	5.669	6.336	11661191	21387464	50.849	52.121	
3)		g-BHC	5.955	6.654	9618300	18468447	47.668	51.775	
4)		b-BHC	6.037	6.723	3575587	6866839	39.560 Q-31	43.388	
5)		Heptachlor	6.361	7.022	9912728	17837186	54.677	58.296	
6)		d-BHC	6.186	6.975	7963532	16325335	40.488	46.291	
7)		Aldrin	6.599	7.283	10697166	18527084	54.178	56.246	
8)		Heptachlo...	7.058	7.722	9034984	16119033	49.056	53.579	
9)		trans-Chl...	7.155	7.861	9211391	16455755	49.821	52.520	
10)		cis-Chlor...	7.250	7.968	9232959	15757415	50.711	54.103	
11)		Endosulfa...	7.344	8.016	9442229	14682423	55.484	53.356	
12)		4,4'-DDE	7.324	8.084	8229995	13753521	43.654	44.269	
13)		Dieldrin	7.516	8.216	10170661	16752264	52.978	55.079	
14)		Endrin	7.678	8.440	7947083	12712262	54.052	56.292	
15)		4,4'-DDD	7.742	8.498	6622488	11951344	42.144	46.646	
16)		Endosulfa...	7.835	8.589	7199122	12283272	50.129	53.265	
17)		4,4'-DDT	7.936	8.720	5733280	9483542	47.953	50.399	
18)		Endrin Al...	8.123	8.825	6293181	10525482	51.248	53.375	
19)		Endosulfa...	8.422	9.015	7748339	12718938	49.997	51.062	
20)		Methoxychlor	8.281	9.203	2768964	4571093	47.273	50.887	
21)		Endrin Ke...	8.613	9.408	8447570	13760707	50.658	53.478	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.508	0.000	16586	0	0.094	N.D.	#
25)		Oxychlordane	6.996	7.638	86472	7988	0.526	0.029	#
26)		2,4'-DDE	7.058	7.861	9034984	16455755	70.442	77.571	
27)		trans-Non...	7.250	7.920	9232959	78432	51.248	0.260	#
28)		2,4'-DDD	0.000	8.216f	0	16752264	N.D.	88.700	#
29)		2,4'-DDT	7.623	8.440	46986	12712262	0.428	71.281	#
30)		cis-Nonac...	7.742f	8.498	6622488	11951344	31.898	35.628	
31)		Mirex	8.370	9.408	62057	13760707	0.495	73.953	#
32)		Chlordane...	7.250	7.968f	9232959	15757415	468.925	435.473	
33)		Chlordane...	7.324	8.084f	8229995	13753521	328.355	452.954	
34)		Chlordane...	7.888	8.720	262194	9483542	45.353	1057.737	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	8.357	0	9003	N.D.	3.431	#
37)		Toxaphene...	7.678	8.720	7947083	9483542	4920.982	2881.638	#
38)		Toxaphene...	8.043f	8.720f	110213	9483542	32.729	1871.142	#
39)		Toxaphene...	8.281f	8.825	2768964	10525482	854.578	1260.562	#
40)		Toxaphene...	8.508f	9.015f	74715	12718938	31.168	2729.176	#
41)		Toxaphene...	8.508f	9.408f	74715	13760707	23.610	2896.868	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

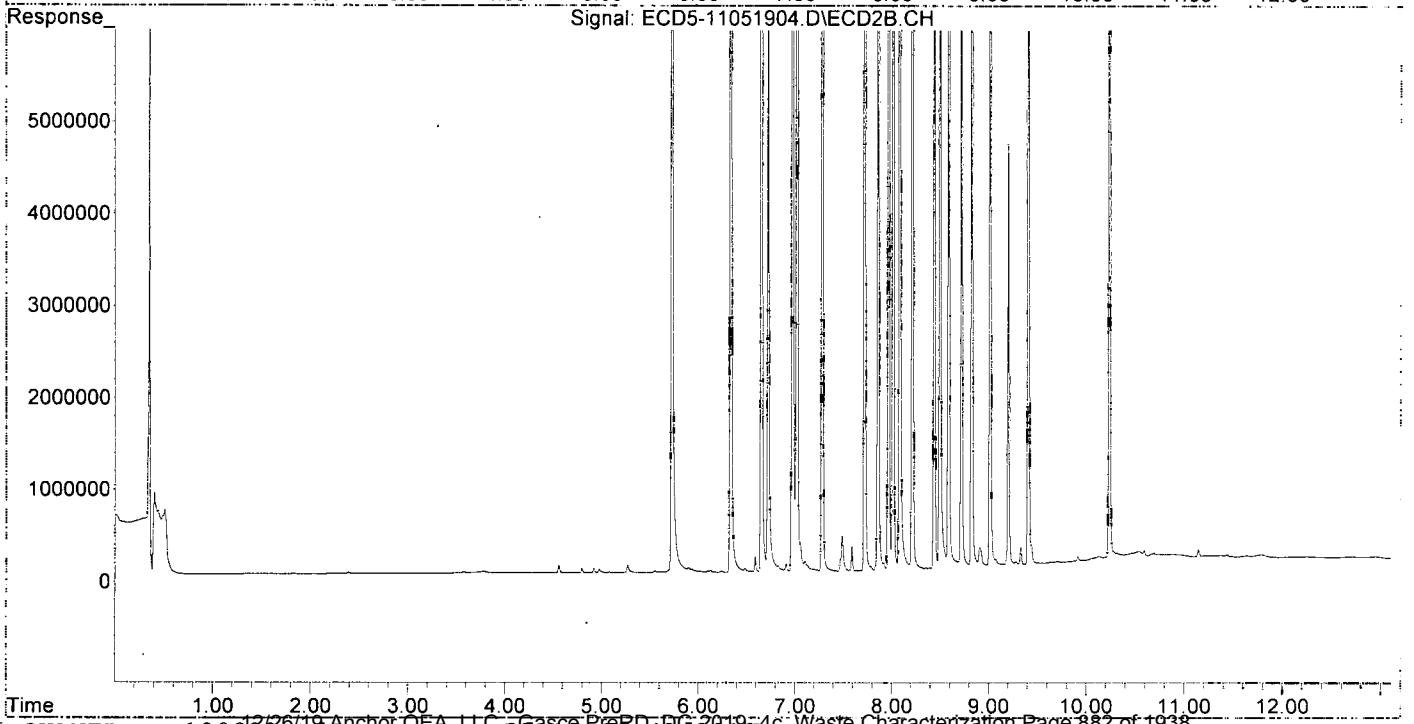
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 11:48
Operator : MJB
Sample : 9K05039-CCV1
Misc : A19H383, 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 05 15:18:41 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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\9K05039\
Data File : ECD5-11051905.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:05
Operator : MJB
Sample : 9K05039-CCB1
Misc : A19J194
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 05 15:18:48 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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 11/5/19

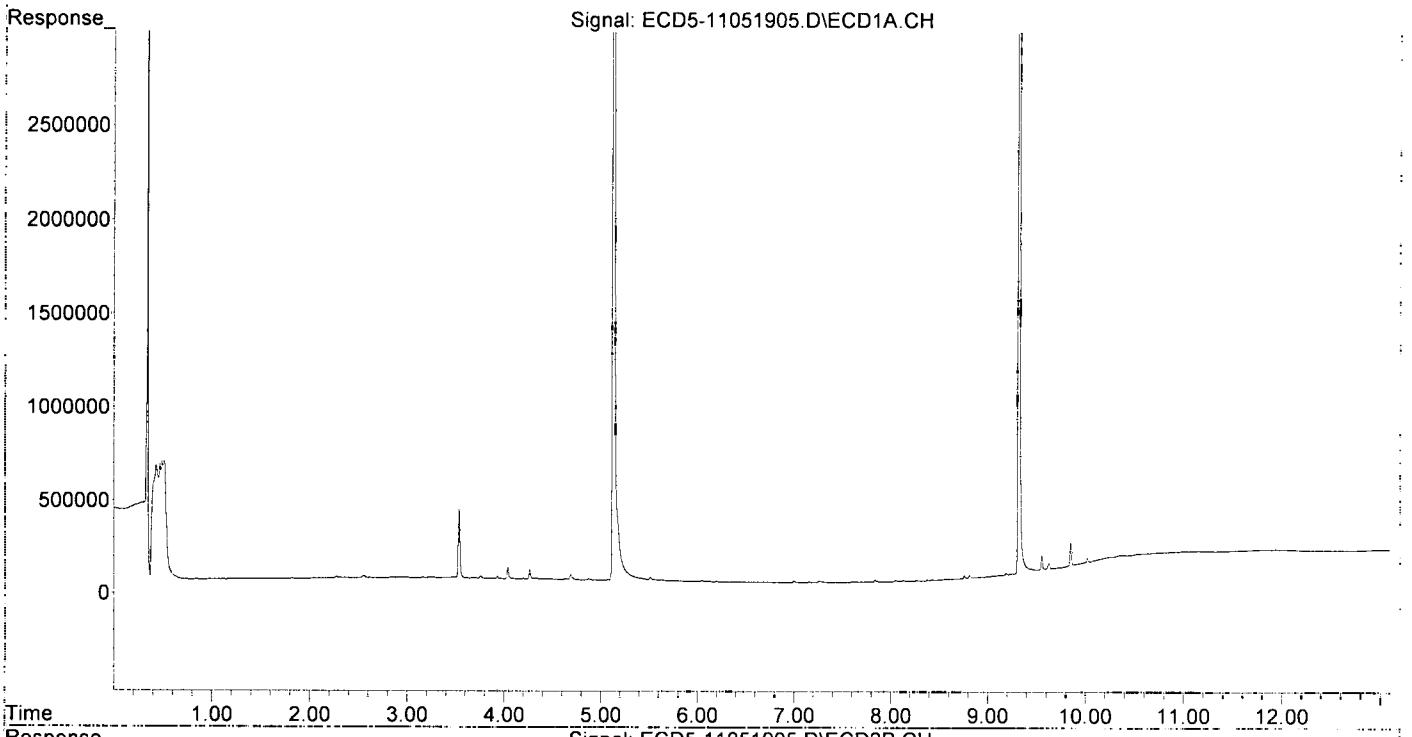
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.129	5.726	15077257	24007703	90.840	81.835	
22)	S	DCBP (S)	9.319	10.236	11811390	18138547	83.710	100.903	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.046	0.000	7105	0	0.079	N.D.	#
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	0.000	6.980	0	6572	N.D.	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	7.896f	0	7491	N.D.	0.024	#
10)		cis-Chlor...	7.259	0.000	5471	0	0.030	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	8.451	0	4463	N.D.	0.020	#
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	7.841	8.583	11086	13418	0.077	0.058	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.129	8.828	5734	6889	BelowCal	BelowCal	
19)		Endosulfa...	8.424	9.017	4507	5460	0.029	0.022	
20)		Methoxychlor	8.263	9.202	4731	2083	0.081	BelowCal	#
21)		Endrin Ke...	8.616	9.409	1702	1869	0.010	0.007	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.512	0.000	19702	0	0.112	N.D.	#
25)		Oxychlordane	7.001	7.626f	10406	20315	0.063	0.074	
26)		2,4'-DDE	0.000	7.896f	0	7491	N.D.	0.035	#
27)		trans-Non...	7.259	7.896f	5471	7491	87346.670	0.025	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	8.451	0	4463	N.D.	0.025	#
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.380	9.409	4267	1869	0.034	0.010	#
32)		Chlordane...	7.259f	0.000	5471	0	0.278	N.D.	#
33)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
34)		Chlordane...	7.841f	0.000	11086	0	1.918	N.D.	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
39)		Toxaphene...	8.263	8.828	4731	6889	1.460	0.825	#
40)		Toxaphene...	0.000	9.017f	0	5460	N.D.	1.172	#
41)		Toxaphene...	8.559	9.409f	2371	1869	0.749	0.394	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

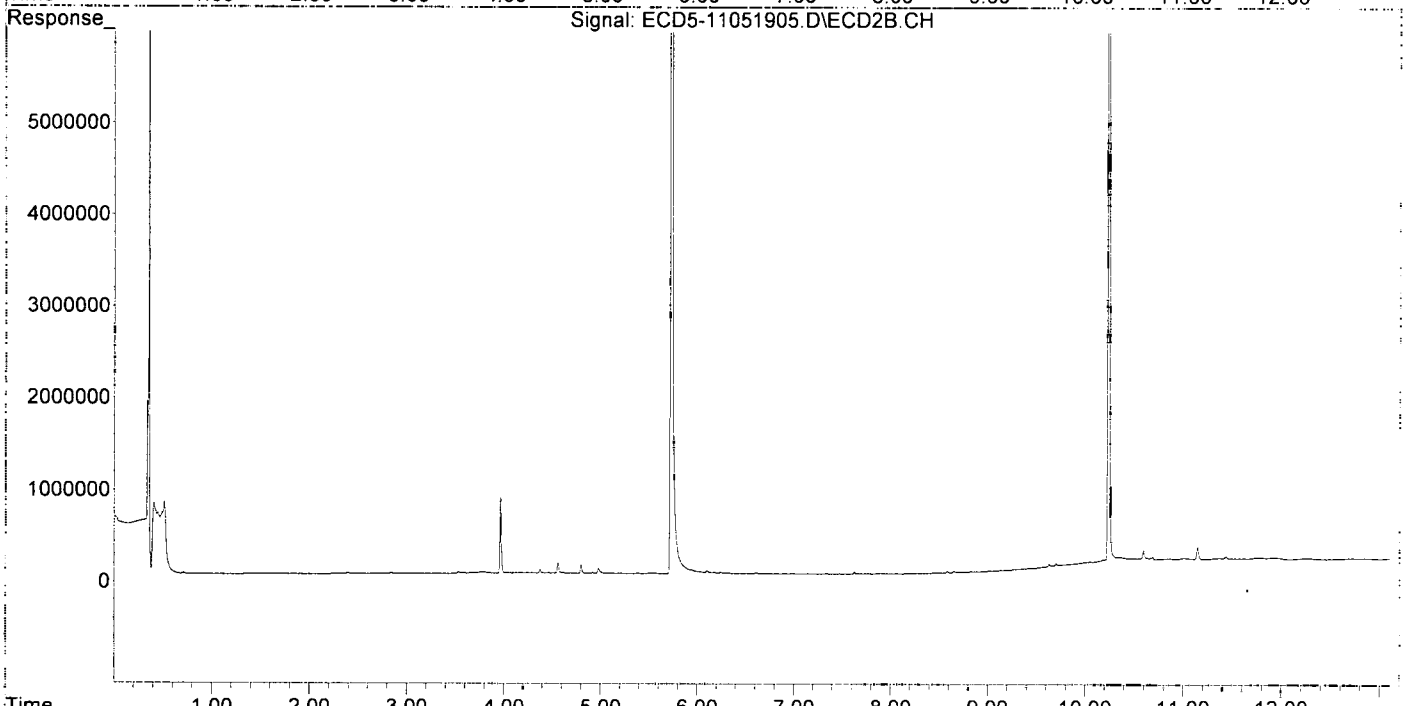
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051905.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:05
Operator : MJB
Sample : 9K05039-CCB1
Misc : A19J194
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 05 15:18:48 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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\2019-11\9K05039\
Data File : ECD5-11051906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:22
Operator : MJB
Sample : 9110391-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:37:54 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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 11/5/19

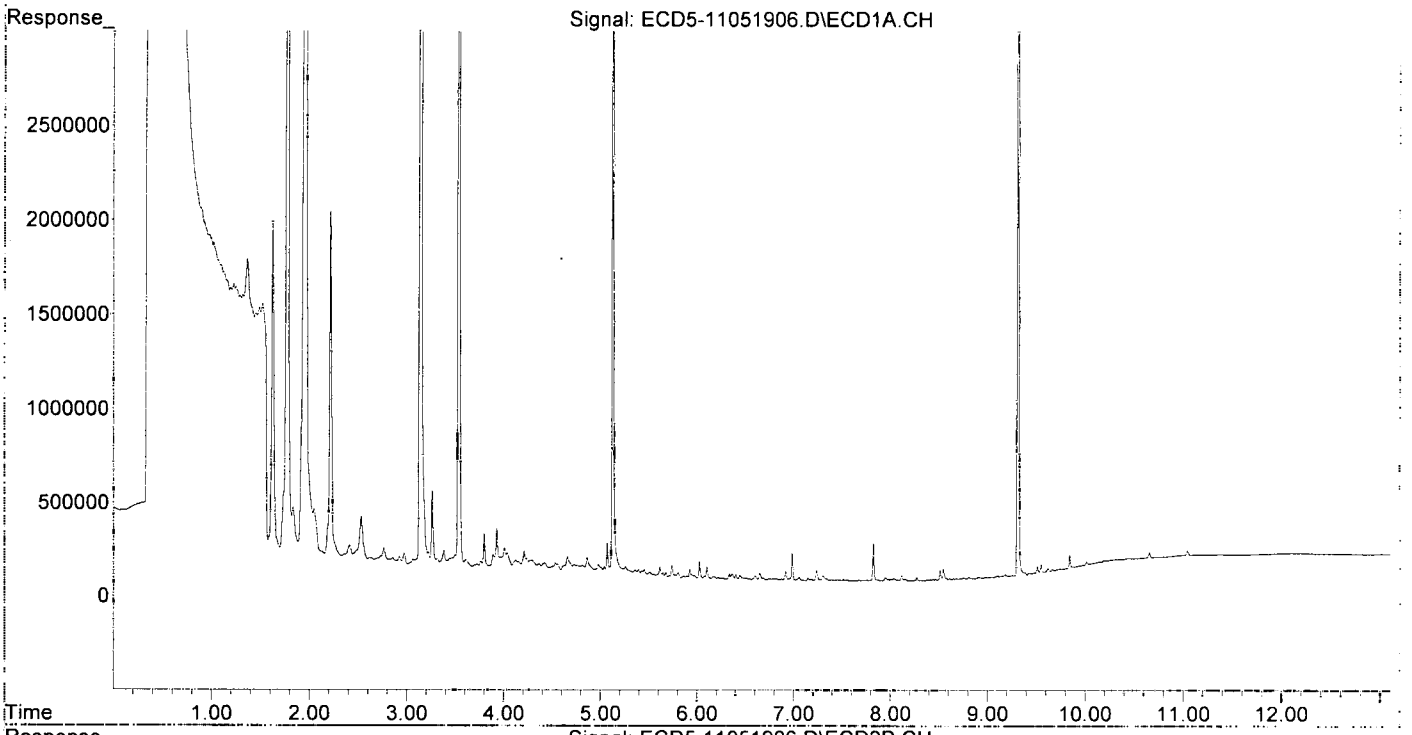
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.725	5807354	9508097	34.989	32.410	
22)	S	DCBP (S)	9.315	10.234	6291687	8960754	44.591	49.848	
		Target Compounds							
2)		a-BHC	5.678	6.345	24950	23854	0.109	0.058	#
3)		g-BHC	5.926f	6.655	46492	10565	0.230	0.030m	#
4)		b-BHC	6.026	6.713	92658	20156	1.025	0.127	#
5)		Heptachlor	6.363	7.027	28506	35259	0.157	0.115	
6)		d-BHC	6.176	6.958	14294	39019	0.073	0.111	#
7)		Aldrin	6.601	7.278	21623	9549	0.110	0.029	#
8)		Heptachlo...	7.056	7.709	18240	74943	0.099	0.249	#
9)		trans-Chl...	7.149	7.867	15979	75123	0.086	0.240	#
10)		cis-Chlor...	7.239	7.965	57271	16473	0.315	0.057	#
11)		Endosulfa...	7.341	8.010	12662	61252	0.074	0.223	#
12)		4,4'-DDE	7.305	8.083	26311	9406	0.140	0.030	#
13)		Dieldrin	7.513	8.215	7256	10687	0.038	0.035	
14)		Endrin	7.676	8.437	5361	10571	0.036	0.047	
15)		4,4'-DDD	0.000	8.505	0	7367	N.D.	0.029	#
16)		Endosulfa...	7.826	8.575	204420	240699	1.423	1.044	
17)		4,4'-DDT	7.952	8.723	17859	10691	0.149	0.024	#
18)		Endrin Al...	8.119	8.820	28111	35456	BelowCal	BelowCal	
19)		Endosulfa...	8.420	9.014	5090	7853	0.033	0.032	
20)		Methoxychlor	8.274	9.199	18244	23843	0.311	0.110	#
21)		Endrin Ke...	8.610	9.424	5981	43947	0.036	0.171	#
23)		Hexachlor...	2.925	3.402f	35147	23133933	0.192	61.538	#
24)		Hexachlor...	5.511	6.176f	21256	46193	0.121	0.147	
25)		Oxychlordane	6.985	7.663	145138	16599	0.882	0.061	#
26)		2,4'-DDE	7.056	7.867	18240	75123	0.142	0.354	#
27)		trans-Non...	7.239	7.936	57271	11724	0.003	0.039	#
28)		2,4'-DDD	0.000	8.215f	0	10687	N.D.	0.057	#
29)		2,4'-DDT	0.000	8.437f	0	10571	N.D.	0.059	#
30)		cis-Nonac...	7.676f	8.505	5361	7367	0.026	0.022	
31)		Mirex	8.382	9.424f	4927	43947	0.039	0.236	#
32)		Chlordane...	7.239	7.936	57271	11724	2.909	0.324	#
33)		Chlordane...	7.341	8.083f	12662	9406	0.505	0.310	
34)		Chlordane...	7.874	8.723	7307	10691	1.264	1.192	
35)		Chlordane...	3.382f	3.343	82427	43097	NoCal	NoCal	
36)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
37)		Toxaphene...	7.676	8.723	5361	10691	3.320	3.249	
38)		Toxaphene...	8.010	8.755	10329	16975	3.067	3.349	
39)		Toxaphene...	8.274f	8.820	18244	35456	5.631	4.246	
40)		Toxaphene...	8.467	9.014f	5272	7853	2.199	1.685	
41)		Toxaphene...	8.549	9.349f	58789	6662	18.577	1.403	#
42)		Toxaphene...	3.382f	3.343	82427	43097	NoCal	NoCal	

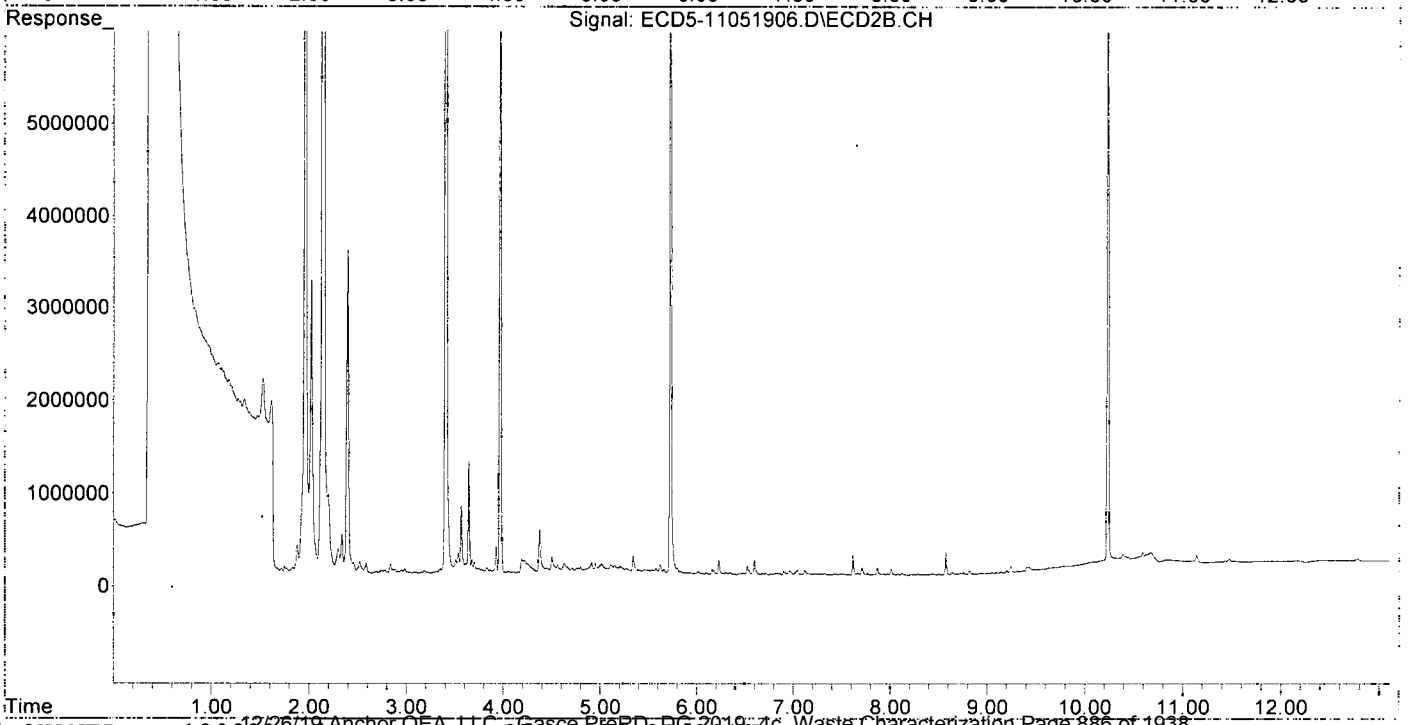
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:22
Operator : MJB
Sample : 9110391-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:37:54 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

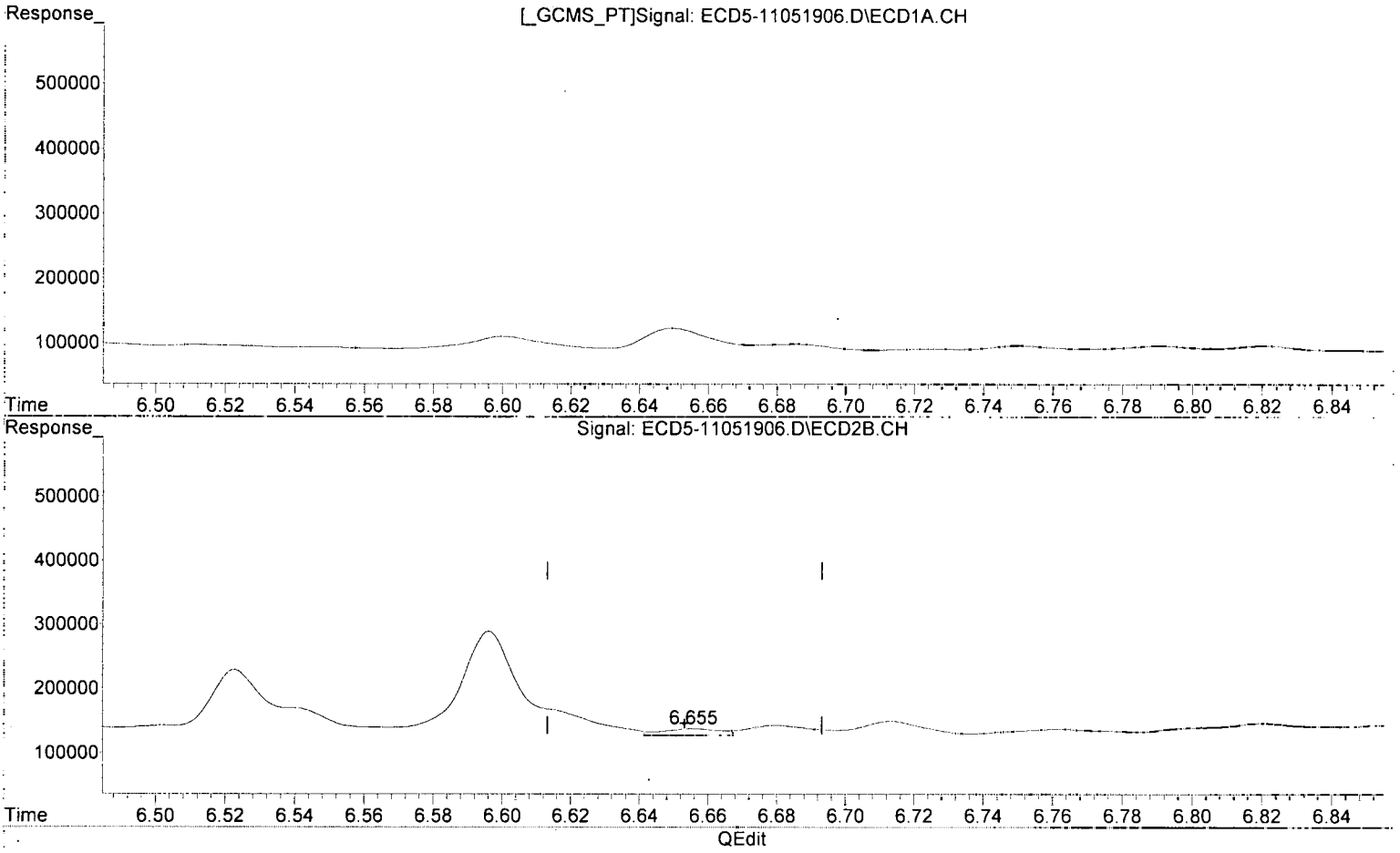




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:22
Operator : MJB
Sample : 9110391-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:18:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(3) g-BHC

5.926min 0.230 ng/mL

response 46492

MJB 11/5/19

(3) g-BHC #2

6.655min 0.030 ng/mL m

response 10565

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:22
Operator : MJB
Sample : 9110391-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:18:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

MF MJB 11/5/19

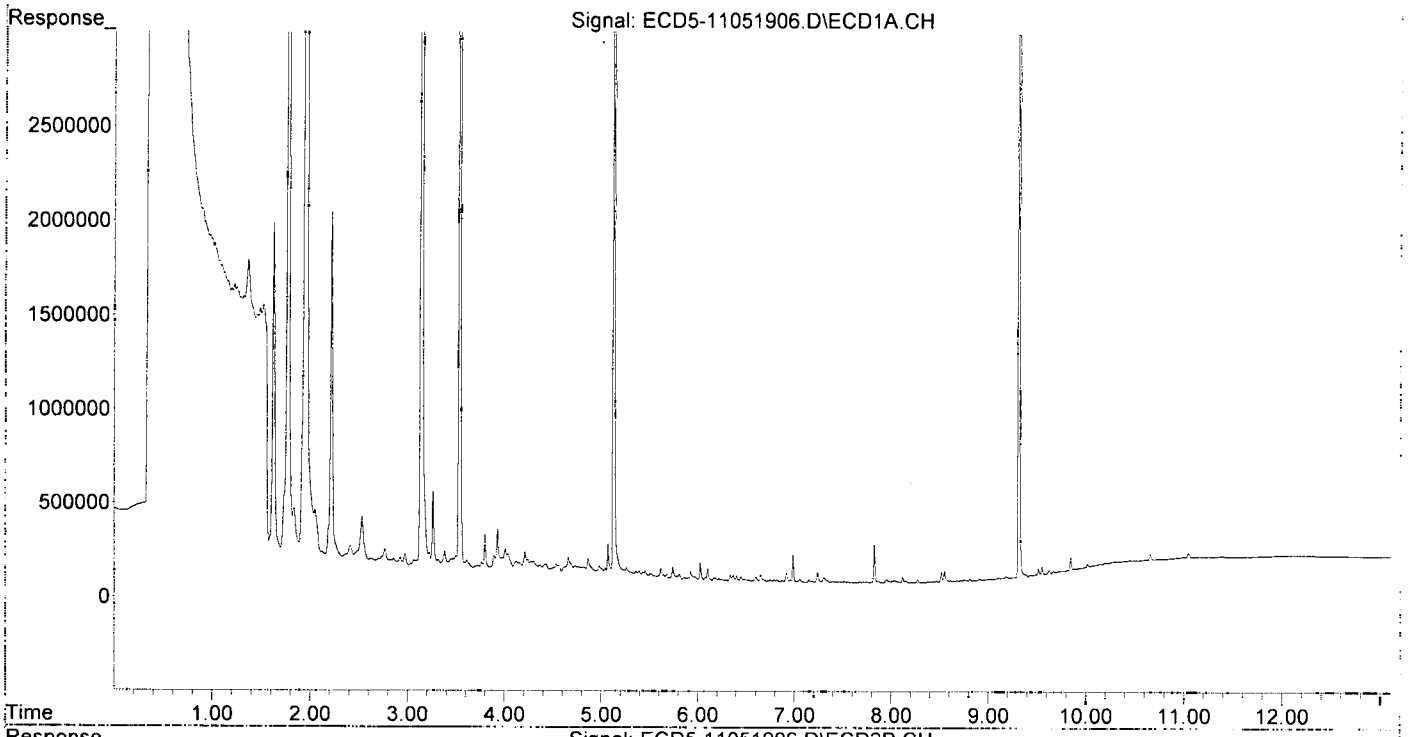
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.128	5.725	5807354	9508097	34.989	32.410	
22)	S DCBP (S)	9.315	10.234	6291687	8960754	44.591	49.848	
	Target Compounds							
2)	a-BHC	5.678	6.345	24950	23854	0.109	0.058	#
3)	g-BHC	5.926f	6.680f	46492	13577	0.230	0.038	#
4)	b-BHC	6.026	6.713	92658	20156	1.025	0.127	#
5)	Heptachlor	6.363	7.027	28506	35259	0.157	0.115	
6)	d-BHC	6.176	6.958	14294	39019	0.073	0.111	#
7)	Aldrin	6.601	7.278	21623	9549	0.110	0.029	#
8)	Heptachlo...	7.056	7.709	18240	74943	0.099	0.249	#
9)	trans-Chl...	7.149	7.867	15979	75123	0.086	0.240	#
10)	cis-Chlor...	7.239	7.965	57271	16473	0.315	0.057	#
11)	Endosulfa...	7.341	8.010	12662	61252	0.074	0.223	#
12)	4,4'-DDE	7.305	8.083	26311	9406	0.140	0.030	#
13)	Dieldrin	7.513	8.215	7256	10687	0.038	0.035	
14)	Endrin	7.676	8.437	5361	10571	0.036	0.047	
15)	4,4'-DDD	0.000	8.505	0	7367	N.D.	0.029	#
16)	Endosulfa...	7.826	8.575	204420	240699	1.423	1.044	
17)	4,4'-DDT	7.952	8.723	17859	10691	0.149	0.024	#
18)	Endrin Al...	8.119	8.820	28111	35456	BelowCal	BelowCal	
19)	Endosulfa...	8.420	9.014	5090	7853	0.033	0.032	
20)	Methoxychlor	8.274	9.199	18244	23843	0.311	0.110	#
21)	Endrin Ke...	8.610	9.424	5981	43947	0.036	0.171	#
23)	Hexachlor...	2.925	3.402f	35147	23133933	0.192	61.538	#
24)	Hexachlor...	5.511	6.176f	21256	46193	0.121	0.147	
25)	Oxychlordane	6.985	7.663	145138	16599	0.882	0.061	#
26)	2,4'-DDE	7.056	7.867	18240	75123	0.142	0.354	#
27)	trans-Non...	7.239	7.936	57271	11724	0.003	0.039	#
28)	2,4'-DDD	0.000	8.215f	0	10687	N.D.	0.057	#
29)	2,4'-DDT	0.000	8.437f	0	10571	N.D.	0.059	#
30)	cis-Nonac...	7.676f	8.505	5361	7367	0.026	0.022	
31)	Mirex	8.382	9.424f	4927	43947	0.039	0.236	#
32)	Chlordane...	7.239	7.936	57271	11724	2.909	0.324	#
33)	Chlordane...	7.841	8.083f	12662	9406	0.505	0.310	
34)	Chlordane...	7.874	8.723	7307	10691	1.264	1.192	
35)	Chlordane...	3.382f	3.343	82427	43097	NoCal	NoCal	
36)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
37)	Toxaphene...	7.676	8.723	5361	10691	3.320	3.249	
38)	Toxaphene...	8.010	8.755	10329	16975	3.067	3.349	
39)	Toxaphene...	8.274f	8.820	18244	35456	5.631	4.246	
40)	Toxaphene...	8.467	9.014f	5272	7853	2.199	1.685	
41)	Toxaphene...	8.549	9.349f	58789	6662	18.577	1.403	#
42)	Toxaphene...	3.382f	3.343	82427	43097	NoCal	NoCal	

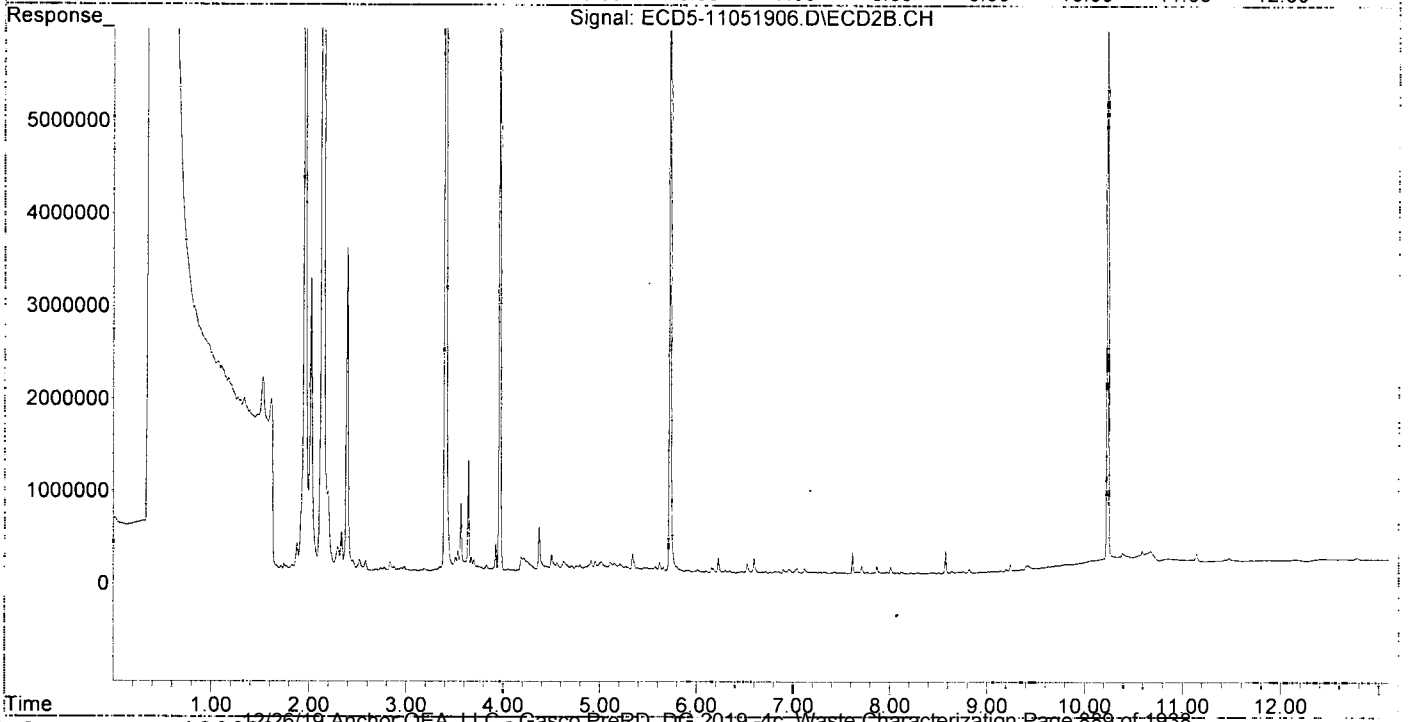
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:22
Operator : MJB
Sample : 9110391-BLK1
Misc : 1x, 8081B, GPC
ALS Vial : 6 (Sig #1); 0 (Sig #2). Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:18:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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\9K05039\
Data File : ECD5-11051907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:39
Operator : MJB
Sample : 9110391-BS1
Misc : 1x, 8081B, GPC
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:19:02 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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 11/5/19

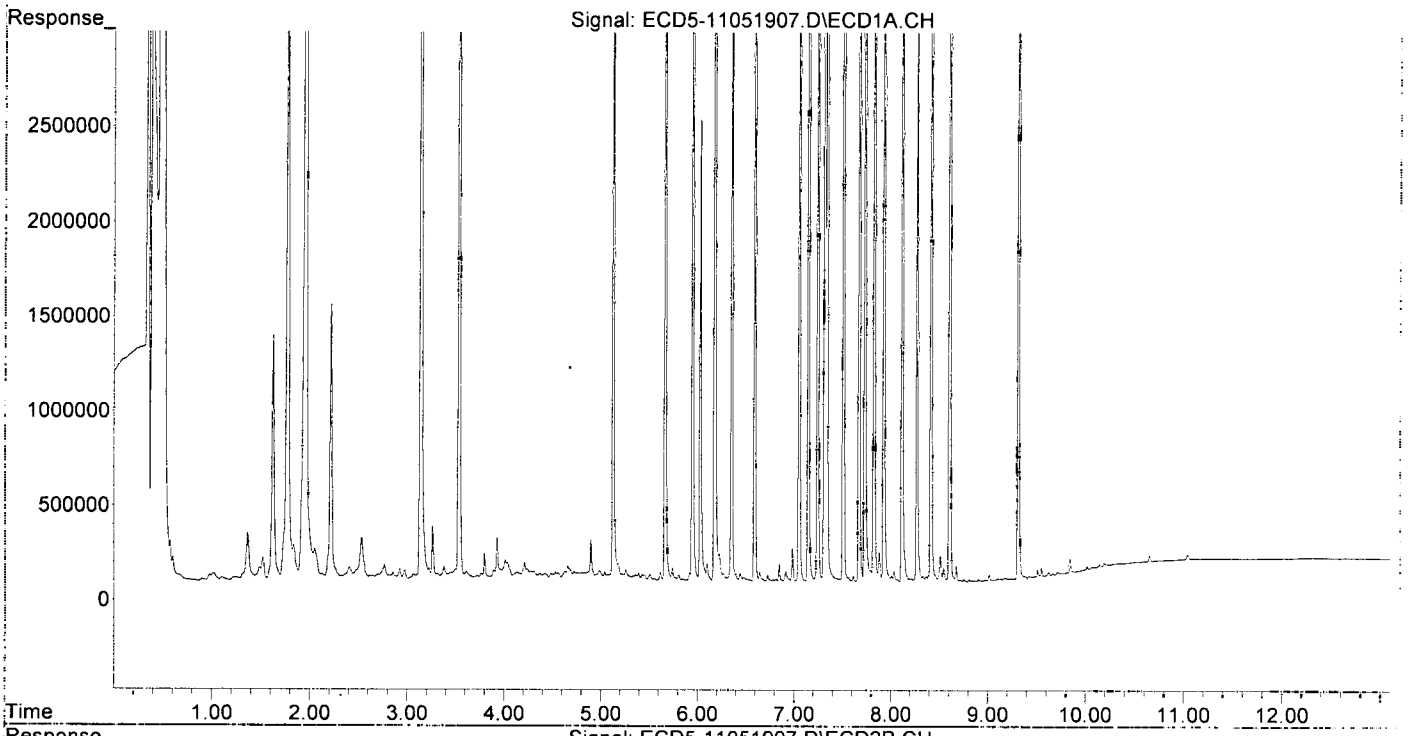
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.725	4552662	7285584	27.430	24.834	
22)	S	DCBP (S)	9.314	10.233	6384296	8819326	45.247	49.061	
		Target Compounds							
2)		a-BHC	5.666	6.333	6183452	10905604	26.963	26.577	
3)		g-BHC	5.949	6.650	5580508	9689725	27.657	27.165	
4)		b-BHC	6.031	6.719	2409651	4387734	26.660	27.724	
5)		Heptachlor	6.355	7.017	5639578	9317253	31.107	30.451	
6)		d-BHC	6.178	6.970	5908938	10780719	30.042	30.569	
7)		Aldrin	6.593	7.279	5661063	9436881	28.672	28.649	
8)		Heptachlo...	7.054	7.719	6228877	10116948	33.820	33.628	
9)		trans-Chl...	7.149	7.858	6544219	11014991	35.395	35.155	
10)		cis-Chlor...	7.246	7.965	6837364	10825144	37.553	37.168	
11)		Endosulfa...	7.340	8.013	6523896	10239954	38.335	37.212	
12)		4,4'-DDE	7.315	8.080	7322891	11830776	38.842	38.081	
13)		Dieldrin	7.511	8.213	7970096	12610432	41.515	41.461	
14)		Endrin	7.674	8.438	7073160	10667520	48.108	47.238	
15)		4,4'-DDD	7.733	8.493	6753044	10684318	42.975	41.701	
16)		Endosulfa...	7.829	8.585	6829052	10831169	47.552	46.968	
17)		4,4'-DDT	7.929	8.716	7013318	10855125	58.659	57.029	
18)		Endrin Al...	8.118	8.822	5586862	8727212	45.559	44.561	
19)		Endosulfa...	8.417	9.013	7387139	11638050	47.666	46.723	
20)		Methoxychlor	8.272	9.198	3505142	5463973	59.841	59.797	
21)		Endrin Ke...	8.608	9.406	8262718	12243940	49.549	47.583	
23)		Hexachlor...	2.924	3.402f	65980	17925429	0.361	47.683	#
24)		Hexachlor...	5.509	6.190	36612	44006	0.208	0.140	
25)		Oxychlordane	6.984	7.659	175028	26313	1.064	0.096	#
26)		2,4'-DDE	7.054f	7.858	6228877	11014991	48.564	51.924	
27)		trans-Non...	7.246	7.920	6837364	40418	37.863	0.134	#
28)		2,4'-DDD	0.000	8.213f	0	12610432	N.D.	66.770	#
29)		2,4'-DDT	7.616	8.438	30970	10667520	0.282	59.816	#
30)		cis-Nonac...	7.733	8.493	6753044	10684318	32.527	31.851	
31)		Mirex	0.000	9.406	0	12243940	N.D.	65.802	#
32)		Chlordane...	7.246	7.965f	6837364	10825144	347.257	299.165	
33)		Chlordane...	7.340	8.080f	6523896	11830776	260.286	389.631	#
34)		Chlordane...	7.883	8.716	155203	10855125	26.847	1210.715	#
35)		Chlordane...	3.382f	3.343	77786	35205	NoCal	NoCal	
36)		Toxaphene...	0.000	8.389f	0	14747	N.D.	5.619	#
37)		Toxaphene...	7.674	8.716	7073160	10855125	4379.832	3298.402	
38)		Toxaphene...	8.008	8.716f	29505	10855125	8.762	2141.761	#
39)		Toxaphene...	8.272f	8.822	3505142	8727212	1081.783	1045.196	
40)		Toxaphene...	0.000	9.013f	0	11638050	N.D.	2497.244	#
41)		Toxaphene...	8.514f	9.406f	136265	12243940	43.059	2577.562	#
42)		Toxaphene...	3.382f	3.343	77786	35205	NoCal	NoCal	

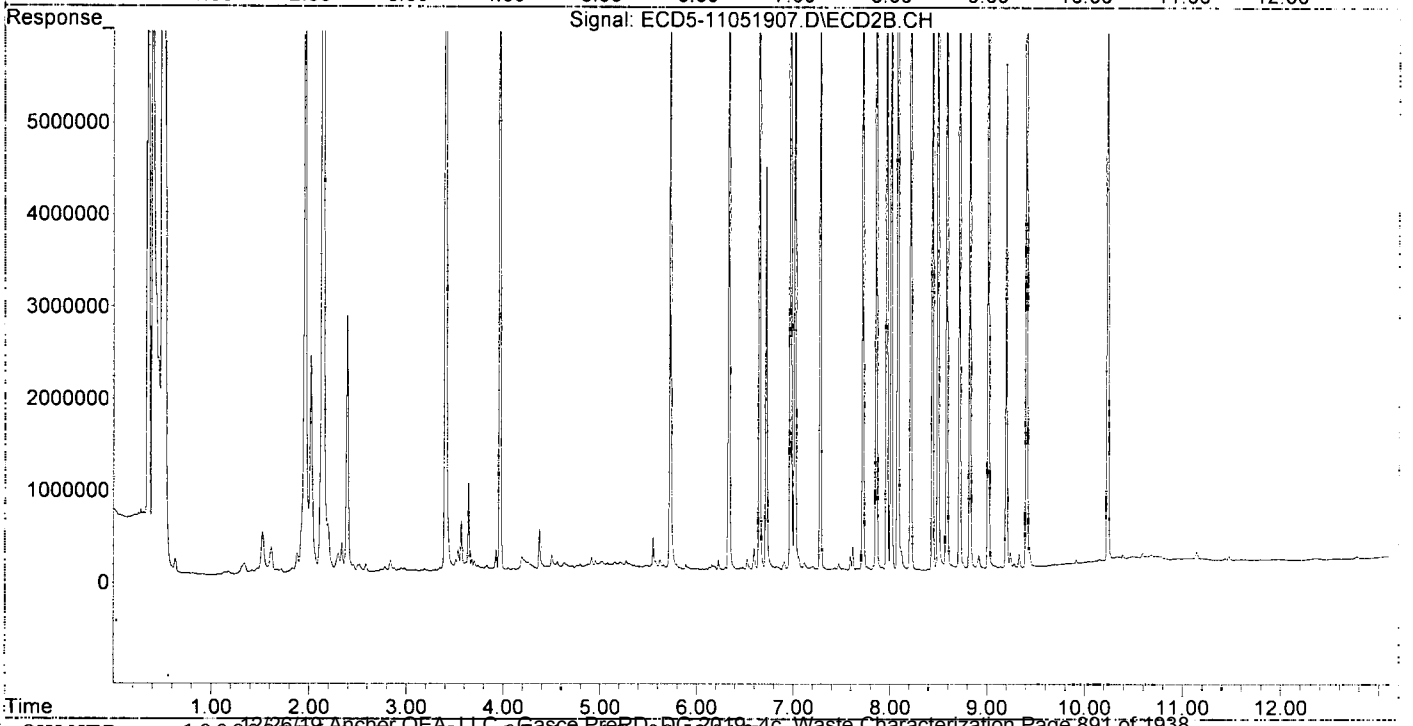
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:39
Operator : MJB
Sample : 9110391-BS1
Misc : 1x, 8081B, GPC
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:19:02 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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\2019-11\9K05039\
Data File : ECD5-11051908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:56
Operator : MJB
Sample : A9J0950-01RE1@10
Misc : 10x, 8081B, GPC
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:43:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

R.04

MJB 11/5/19

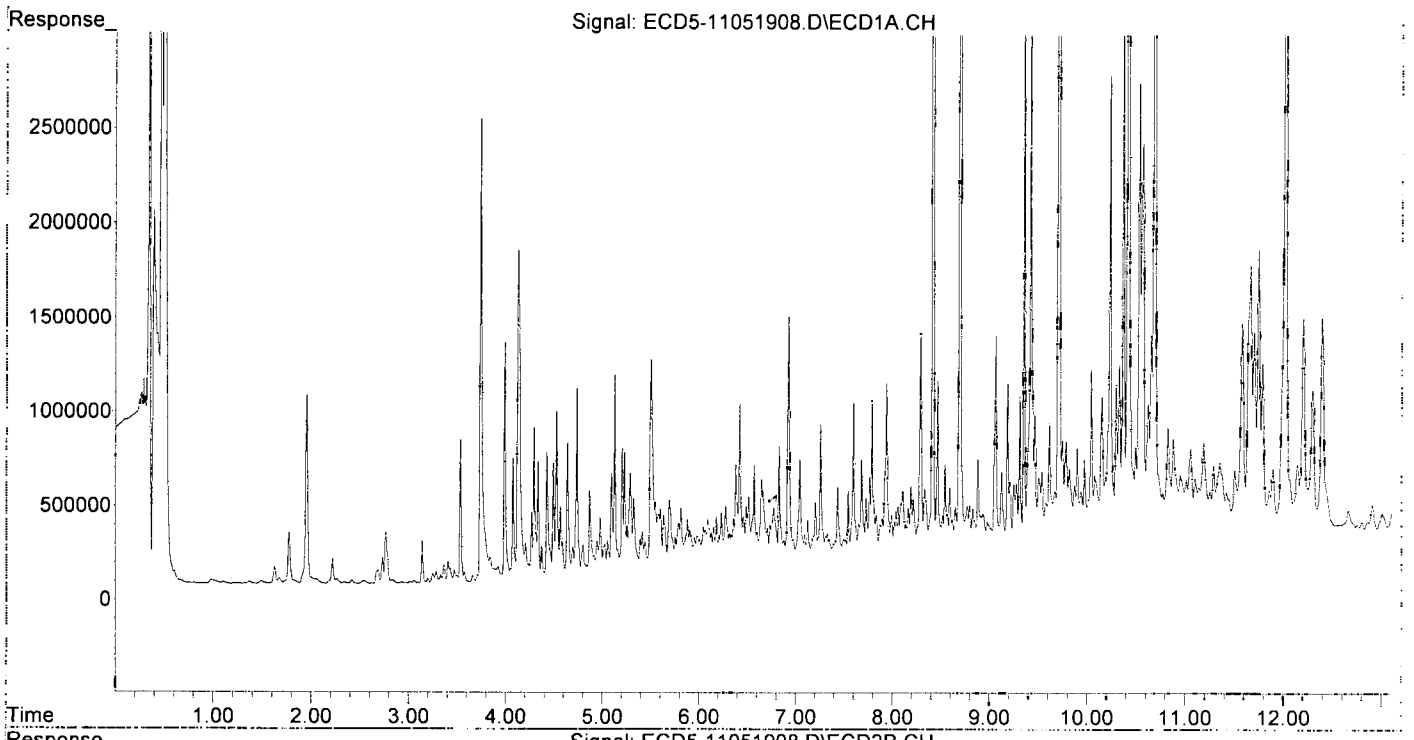
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1)	S TCMX (S)	5.129	5.725	1056327	1400783	6.364	4.775
22)	S DCBP (S)	9.314	10.232	807136	1819223	5.720	10.120 # S-04
	Target Compounds						
2)	a-BHC	5.695f	6.335	374647	287666	1.634	0.701 #
3)	g-BHC	5.956	6.650	168627	370127	0.836	1.038 P-01
4)	b-BHC	6.045	6.722	221935	367886	2.455	2.324
5)	Heptachlor	6.358	7.014	254659	527974	1.405 RT	1.726m MDL<MRL
6)	d-BHC	6.181	6.963	270983	402263	1.378	1.141
7)	Aldrin	6.602	7.294	182141	370099	0.922	1.124
8)	Heptachlo...	7.050	7.718	476375	183275	2.586m	0.609 #
9)	trans-Chl...	7.127f	7.859	219435	497954	1.187	1.589
10)	cis-Chlor...	7.261	7.989f	720642	438977	3.958	1.507 #
11)	Endosulfa...	7.328	7.989f	145958	438977	0.858	1.595 #
12)	4,4'-DDE	7.328	8.084	145958	1068194	0.774	3.438 #
13)	Dieldrin	7.517	8.225	108303	208198	0.564	0.685
14)	Endrin	7.685	8.440	532302	250231	3.620	1.108 # MDL<MRL
15)	4,4'-DDD	7.731	8.486	323210	729814	2.057	2.848
16)	Endosulfa...	7.836	8.580	227270	1758388	1.583	7.625 #
17)	4,4'-DDT	7.940	8.722	922158	786457	7.713	4.511 #
18)	Endrin Al...	8.110	8.814	346592	402136	1.953	1.350
19)	Endosulfa...	8.418	9.024	8694287	1513030	56.100	6.074 #
20)	Methoxychlor	8.284	9.207	887870	1254151	15.158m	14.909m R-02
21)	Endrin Ke...	8.594	9.404	350178	779464	2.100	3.029 #
23)	Hexachlor...	2.926	3.402f	7633	429582	0.042	1.143 #
24)	Hexachlor...	5.503	6.194	1128932	423076	6.404	1.347 #
25)	Oxychlordane	0.000	7.642	0	2224518	N.D.	8.122 #
26)	2,4'-DDE	7.095f	7.859	147204	497954	1.148	2.347 #
27)	trans-Non...	7.261	7.942	720642	929978	3.706	3.083
28)	2,4'-DDD	7.437	8.225	386933	208198	3.390	1.102 #
29)	2,4'-DDT	7.601f	8.440	827410	250231	7.543	1.403 #
30)	cis-Nonac...	7.731	8.486	323210	729814	1.557	2.176
31)	Mirex	8.336f	9.404	352340	779464	2.810	4.189 #
32)	Chlordane...	7.261f	7.942	720642	929978	36.600	25.701
33)	Chlordane...	7.328	8.042	145958	241559	5.823	7.955
34)	Chlordane...	7.897f	8.698	206482	288084	35.717	32.131
35)	Chlordane...	3.362	0.000	91077	0	NoCal	N.D.
36)	Toxaphene...	7.390	8.362	92177	214928	102.916	81.901
37)	Toxaphene...	7.685	8.722	532302	786457	329.611	238.970
38)	Toxaphene...	7.994	8.769f	222086	442444	65.950	87.296
39)	Toxaphene...	8.220f	8.814	304231	402136	93.894	48.161 #
40)	Toxaphene...	8.468	8.981	920895	708571	384.164	152.042 #
41)	Toxaphene...	8.545	9.366	474243	665739	149.860	140.150
42)	Toxaphene...	3.362	0.000	91077	0	NoCal	N.D.

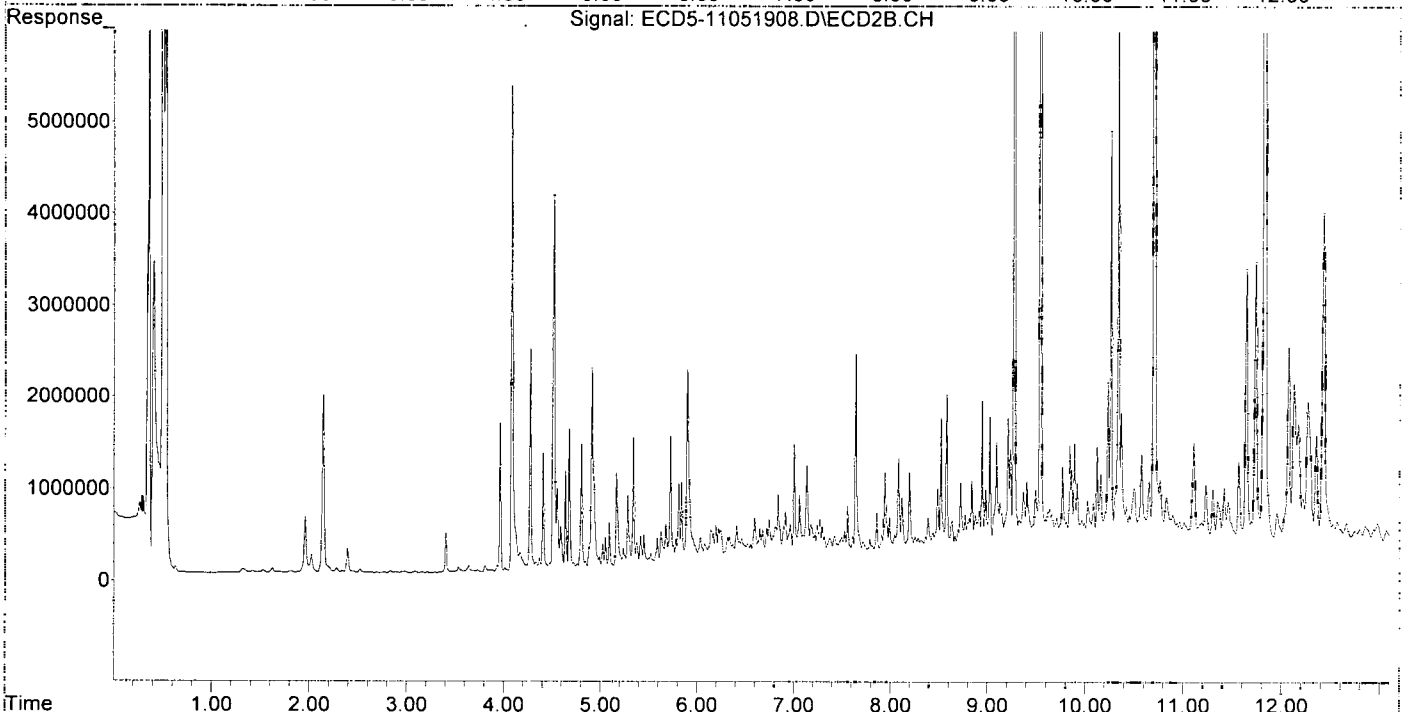
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:56
Operator : MJB
Sample : A9J0950-01RE1@10
Misc : 10x, 8081B, GPC
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:43:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

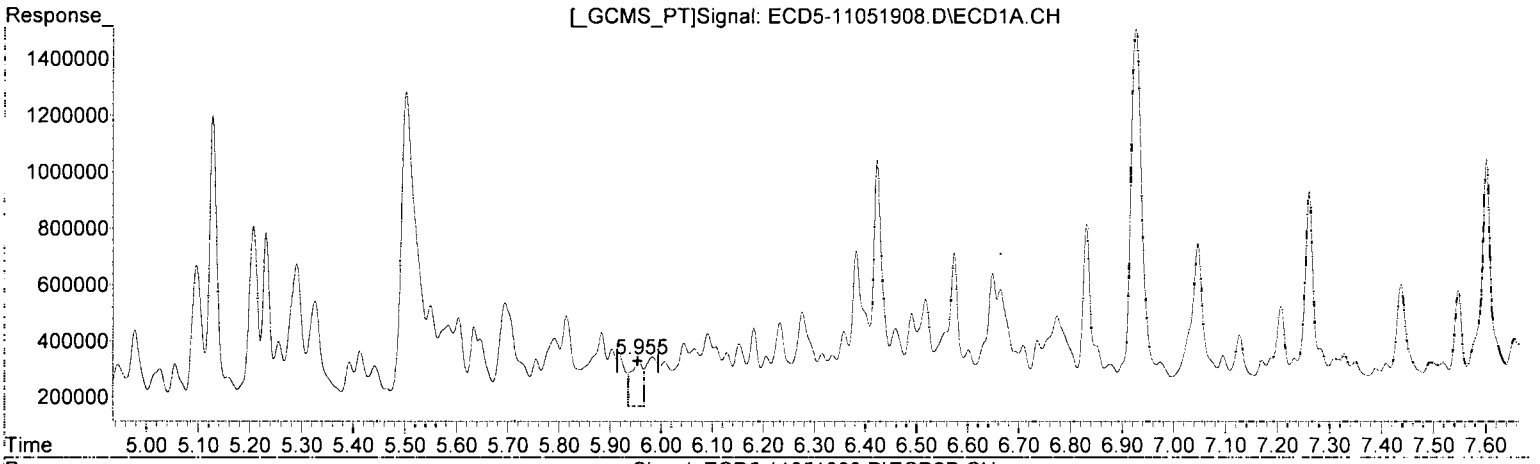


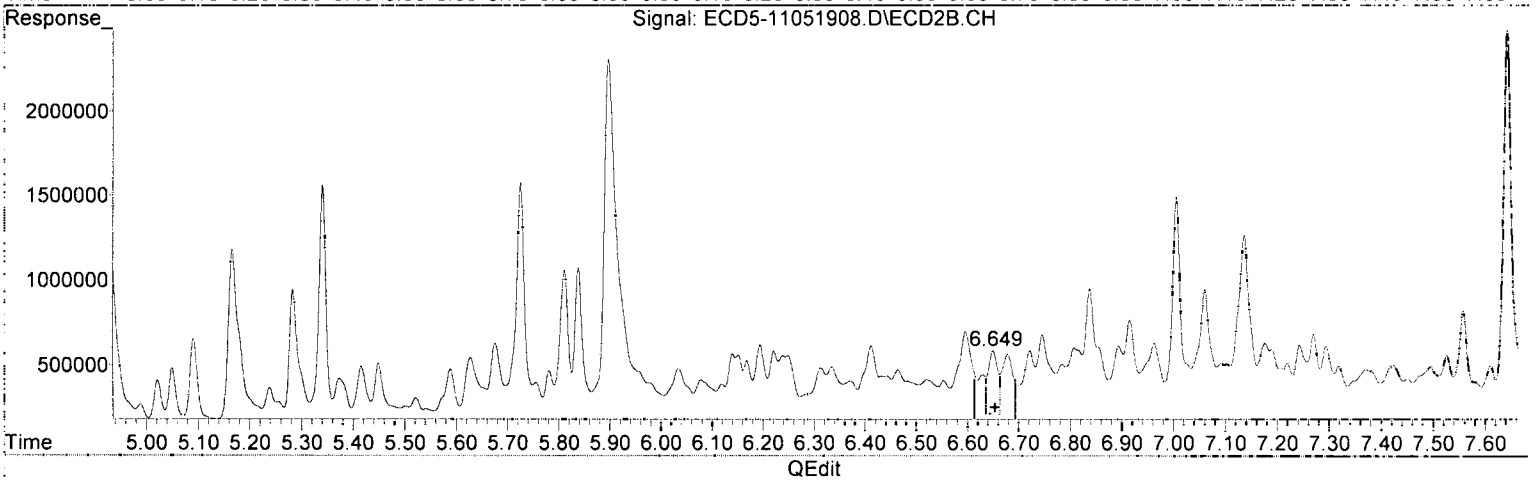


Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:56
Operator : MJB
Sample : A9J0950-01RE1@10
Misc : 10x, 8081B, GPC
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:19:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





(3) g-BHC

5.956min 0.836 ng/mL

response 168627

MJB 11/5/19

(3) g-BHC #2

6.650min 1.038 ng/mL P-01

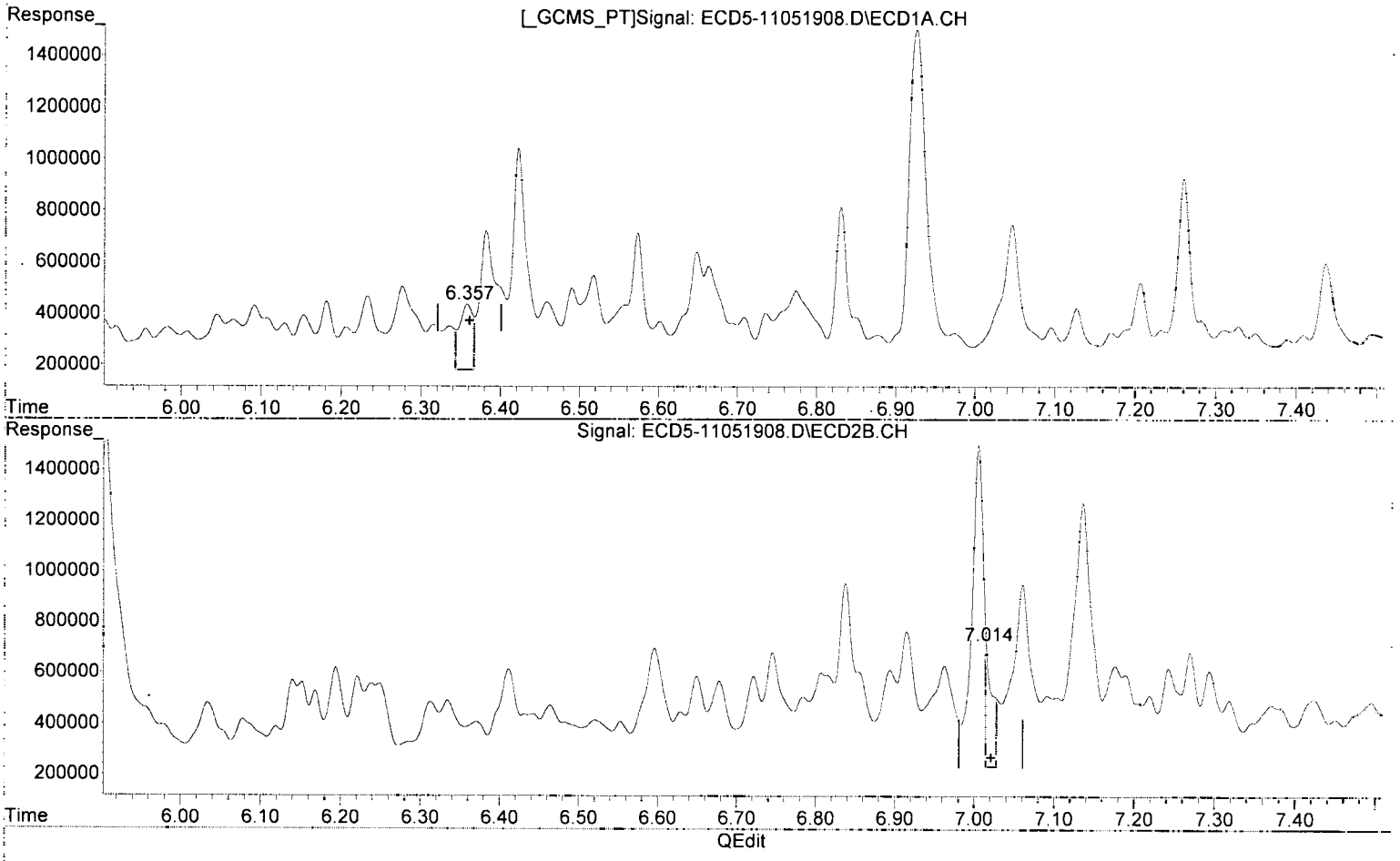
response 370127

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:56
Operator : MJB
Sample : A9J0950-01RE1@10
Misc : 10x, 8081B, GPC
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:19:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(5) Heptachlor

6.358min 1.405 ng/mL

response 254659

MJB 11/5/19

(5) Heptachlor #2

7.014min 1.726 ng/mL (m) MDL=MRL

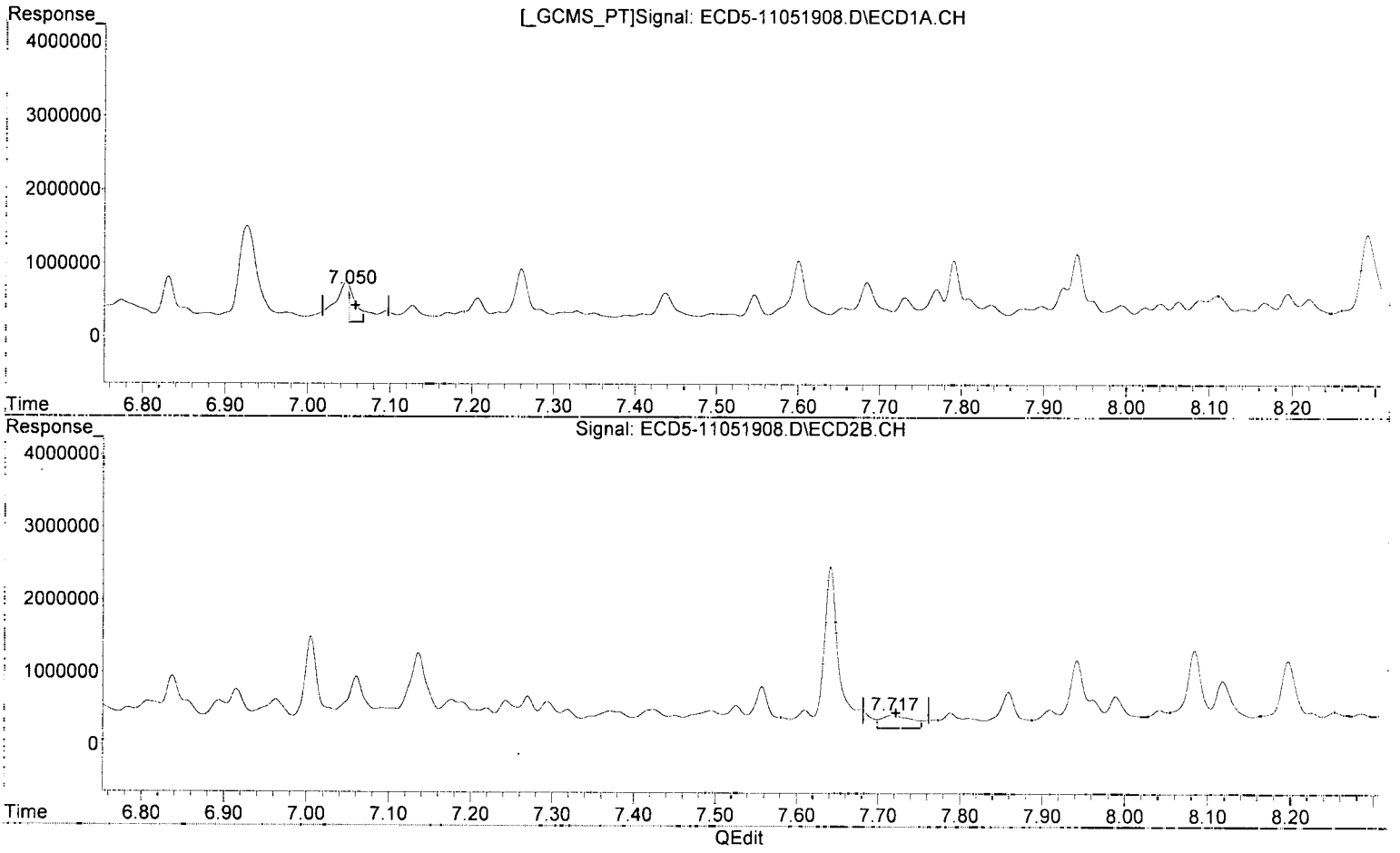
response 527974

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:56
Operator : MJB
Sample : A9J0950-01RE1@10
Misc : 10x, 8081B, GPC
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:19:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(8) Heptachlor Expoxide

7.050min 2.586 ng/mL (m)

response 476375

MB 11/5/19

(8) Heptachlor Expoxide #2

7.718min 0.609 ng/mL

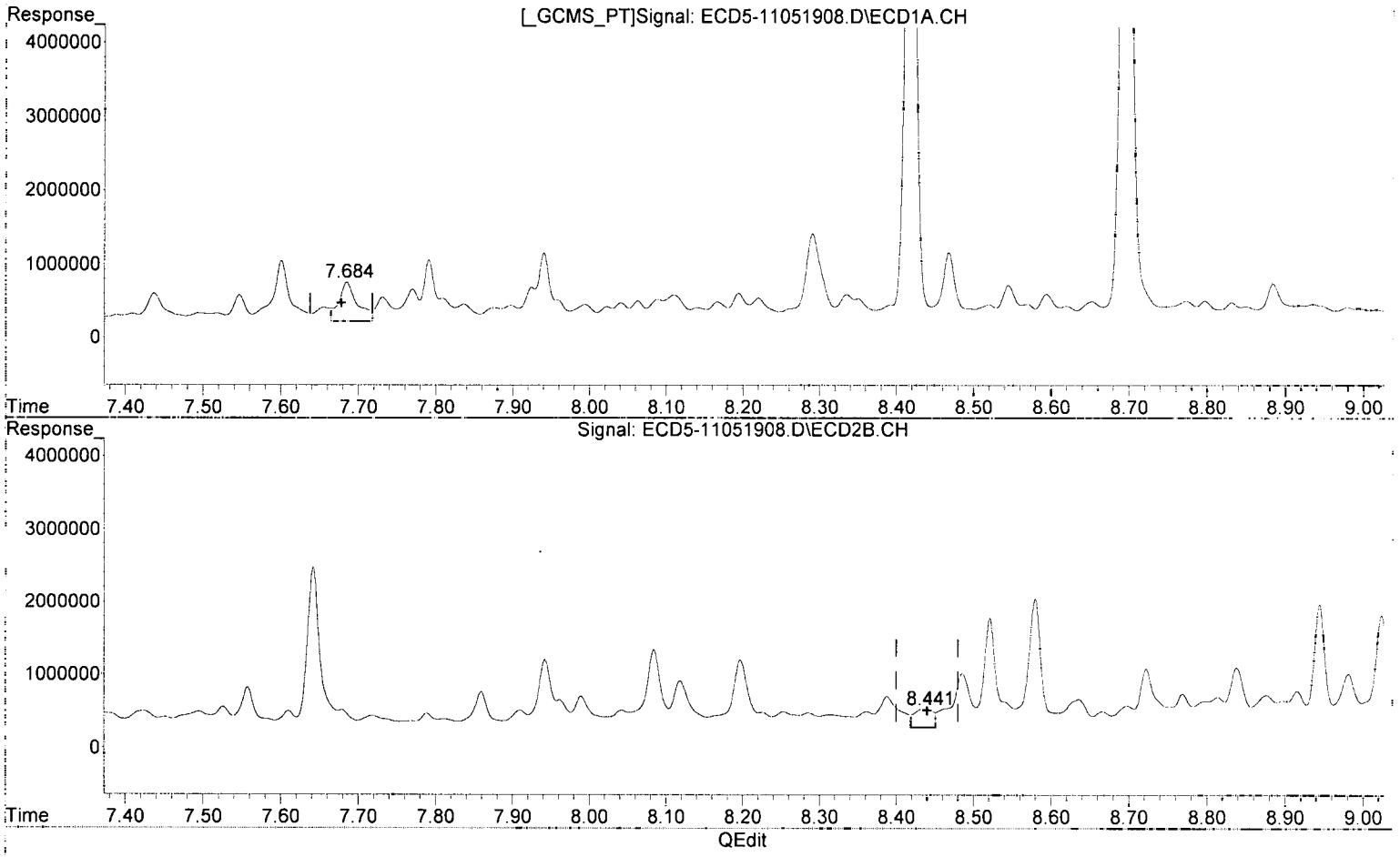
response 183275

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:56
Operator : MJB
Sample : A9J0950-01RE1@10
Misc : 10x, 8081B, GPC
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:19:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(14) Endrin

7.685min 3.620 ng/mL

response 532302

MJB 11/5/19

(14) Endrin #2

8.440min 1.108 ng/mL MDL-MRL

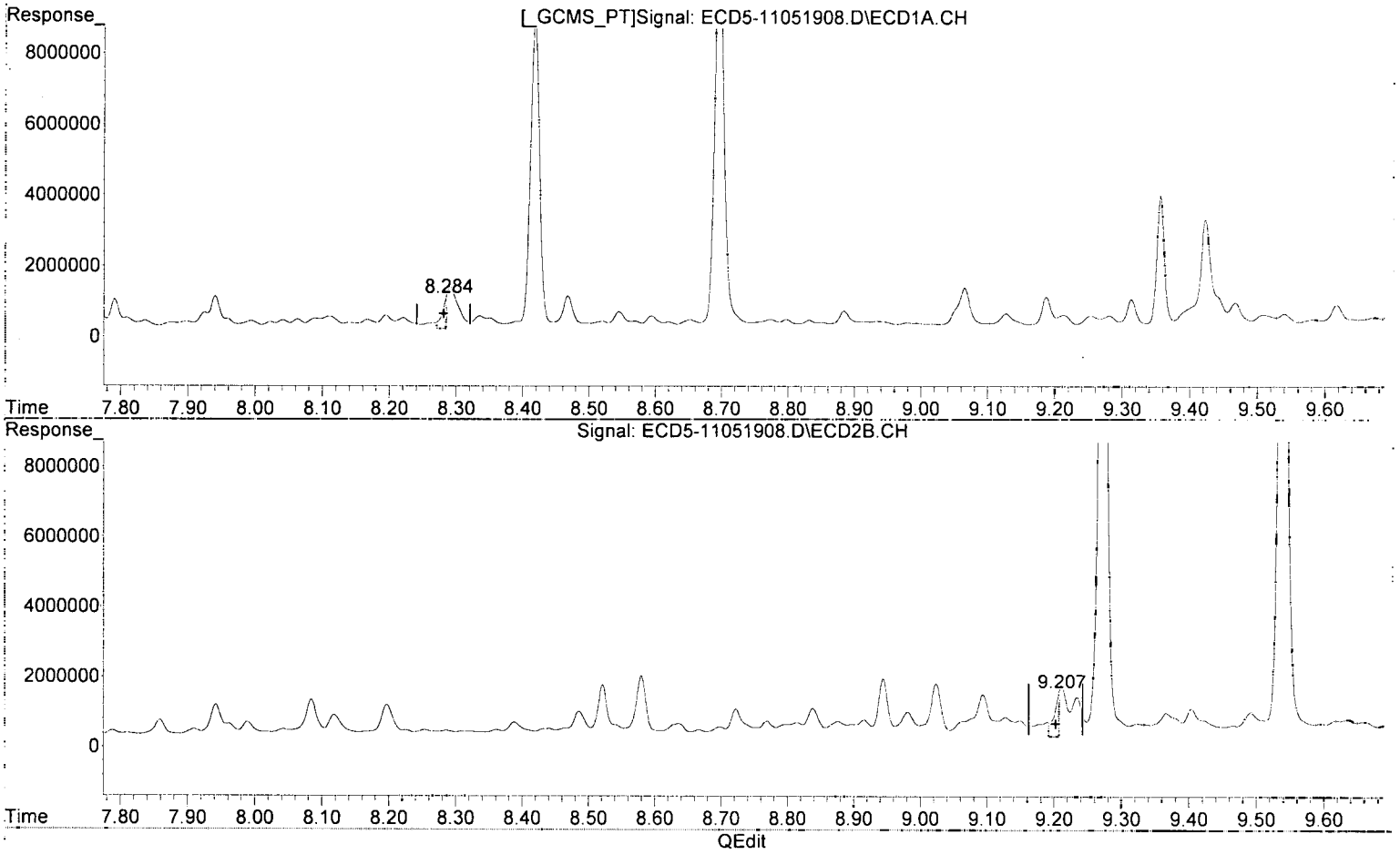
response 250231

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:56
Operator : MJB
Sample : A9J0950-01RE1@10
Misc : 10x, 8081B, GPC
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:19:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

8.284min 15.158 ng/mL (m)

response 887870

MJB 11/5/19

(20) Methoxychlor #2

9.207min 14.909 ng/mL (m) R-02

response 1254151

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:56
Operator : MJB
Sample : A9J0950-01RE1@10
Misc : 10x, 8081B, GPC
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:19:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

MI MJB 11/5/19

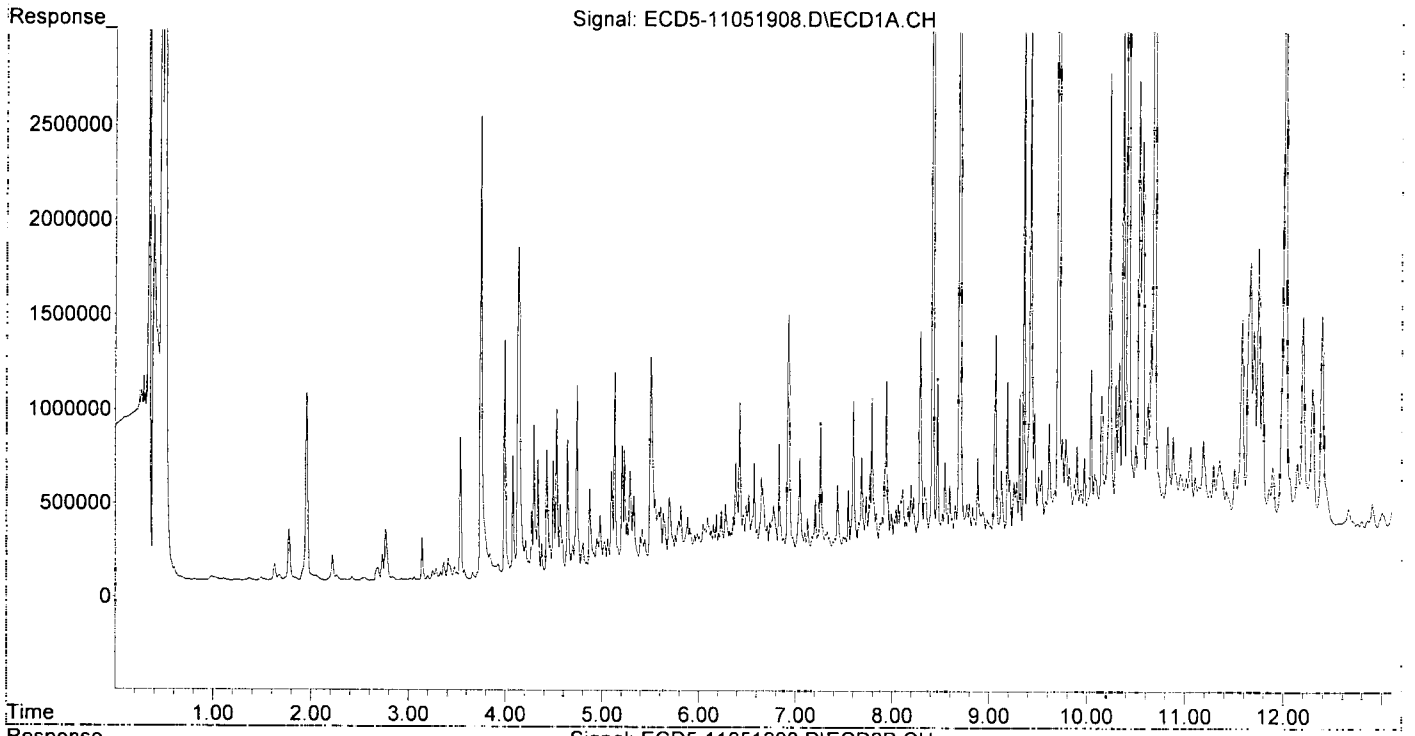
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.129	5.725	1056327	1400783	6.364	4.775	
22)	S	DCBP (S)	9.314	10.232	807136	1819223	5.720	10.120	#
		Target Compounds							
2)		a-BHC	5.695f	6.335	374647	287666	1.634	0.701	#
3)		g-BHC	5.956	6.650	168627	370127	0.836	1.038	
4)		b-BHC	6.045	6.722	221935	367886	2.455	2.324	
5)		Heptachlor	6.358	7.005	254659	1265395	1.405	4.136	#
6)		d-BHC	6.181	6.963	270983	402263	1.378	1.141	
7)		Aldrin	6.602	7.294	182141	370099	0.922	1.124	
8)		Heptachlo...	7.047	7.718	546294	183275	2.966	0.609	#
9)		trans-Chl...	7.127f	7.859	219435	497954	1.187	1.589	
10)		cis-Chlor...	7.261	7.989f	720642	438977	3.958	1.507	#
11)		Endosulfa...	7.328	7.989f	145958	438977	0.858	1.595	#
12)		4,4'-DDE	7.328	8.084	145958	1068194	0.774	3.438	#
13)		Dieldrin	7.517	8.225	108303	208198	0.564	0.685	
14)		Endrin	7.685	8.440	532302	250231	3.620	1.108	#
15)		4,4'-DDD	7.731	8.486	323210	729814	2.057	2.848	
16)		Endosulfa...	7.836	8.580	227270	1758388	1.583	7.625	#
17)		4,4'-DDT	7.940	8.722	922158	786457	7.713	4.511	#
18)		Endrin Al...	8.110	8.814	346592	402136	1.953	1.350	
19)		Endosulfa...	8.418	9.024	8694287	1513030	56.100	6.074	#
20)		Methoxychlor	8.291	9.211	1173373	1469751	20.032	17.410	
21)		Endrin Ke...	8.594	9.404	350178	779464	2.100	3.029	#
23)		Hexachlor...	2.926	3.402f	7633	429582	0.042	1.143	#
24)		Hexachlor...	5.503	6.194	1128932	423076	6.404	1.347	#
25)		Oxychlordane	0.000	7.642	0	2224518	N.D.	8.122	#
26)		2,4'-DDE	7.095f	7.859	147204	497954	1.148	2.347	#
27)		trans-Non...	7.261	7.942	720642	929978	3.706	3.083	
28)		2,4'-DDD	7.437	8.225	386933	208198	3.390	1.102	#
29)		2,4'-DDT	7.601f	8.440	827410	250231	7.543	1.403	#
30)		cis-Nonac...	7.731	8.486	323210	729814	1.557	2.176	
31)		Mirex	8.336f	9.404	352340	779464	2.810	4.189	#
32)		Chlordane...	7.261f	7.942	720642	929978	36.600	25.701	
33)		Chlordane...	7.328	8.042	145958	241559	5.823	7.955	
34)		Chlordane...	7.897f	8.698	206482	288084	35.717	32.131	
35)		Chlordane...	3.362	0.000	91077	0	NoCal	N.D.	
36)		Toxaphene...	7.390	8.362	92177	214928	102.916	81.901	
37)		Toxaphene...	7.685	8.722	532302	786457	329.611	238.970	
38)		Toxaphene...	7.994	8.769f	222086	442444	65.950	87.296	
39)		Toxaphene...	8.220f	8.814	304231	402136	93.894	48.161	#
40)		Toxaphene...	8.468	8.981	920895	708571	384.164	152.042	#
41)		Toxaphene...	8.545	9.366	474243	665739	149.860	140.150	
42)		Toxaphene...	3.362	0.000	91077	0	NoCal	N.D.	

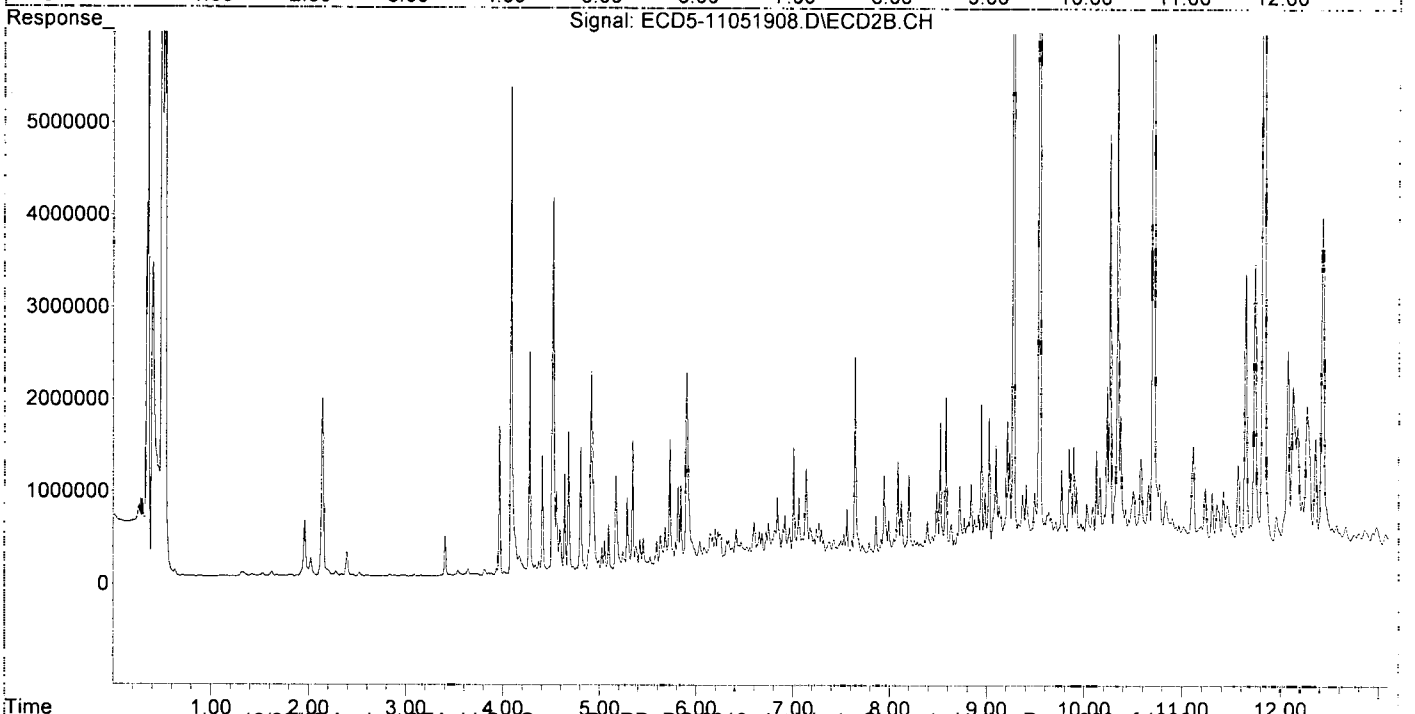
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 12:56
Operator : MJB
Sample : A9J0950-01RE1@10
Misc . : 10x, 8081B, GPC
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 15:19:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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\2019-11\9K05039\
Data File : ECD5-11051910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 13:31
Operator : MJB MJB 11/6/19
Sample : X9110391-DUP1@10
Misc : 10x, 8081B, GPC
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 05 15:49:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

R-04

MJB 11/5/19

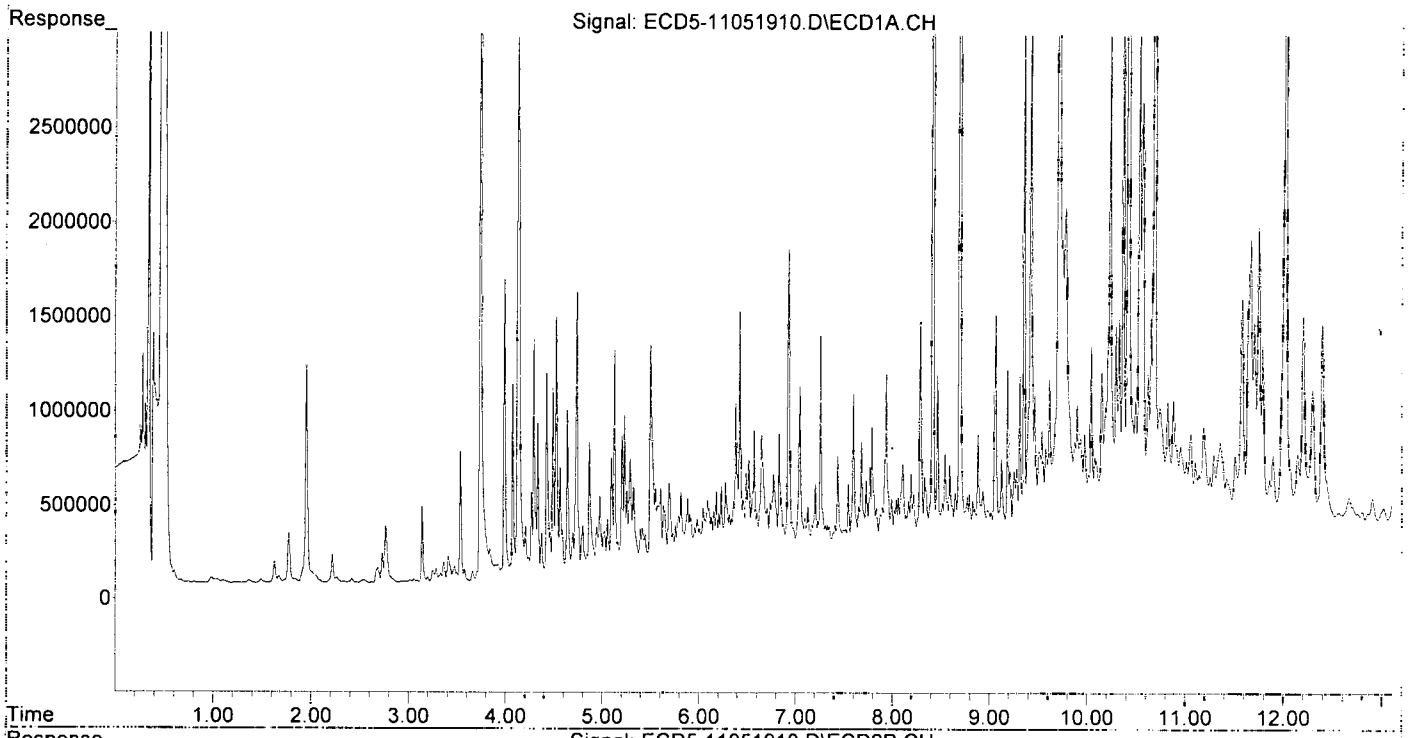
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1)	S TCMX (S)	5.128	5.726	1169693	1482483	7.047 S-01	5.053
22)	S DCBP (S)	9.314	10.231	875110	1907440	6.202	10.611 # S-01
	Target Compounds						
2)	a-BHC	5.693f	6.335	449025	387292	1.958 MDL=MRL	0.944 #
3)	g-BHC	5.955	6.649	202798	459865	1.005	1.289
4)	b-BHC	6.046	6.722	304891	425194	3.373	2.687
5)	Heptachlor	6.359	7.015	335471	679251	1.850m MDL=MRL	2.220m P-01
6)	d-BHC	6.181	6.963	393779	538619	2.002	1.527
7)	Aldrin	6.601	7.294	262181	505304	1.328	1.534
8)	Heptachlo...	7.050	7.718	701279	234758	3.808m	0.780 #
9)	trans-Chl...	7.127f	7.859	277244	553008	1.499	1.765
10)	cis-Chlor...	7.259	7.990f	1173762	472918	6.447	1.624 #
11)	Endosulfa...	7.348	7.990f	162014	472918	0.952	1.719 #
12)	4,4'-DDE	7.329	8.084	169968	1737820	0.902	5.594 #
13)	Dieldrin	7.518	8.226	141727	216812	0.738	0.713
14)	Endrin	7.683	8.438	597240	288860	4.062	1.279 # MDL=MRL
15)	4,4'-DDD	7.731	8.486	395138	740700	2.515	2.891
16)	Endosulfa...	7.835	8.580	245778	1545521	1.711	6.702 #
17)	4,4'-DDT	7.940	8.722	940698	754591	7.868	4.328 #
18)	Endrin Al...	8.108	8.814	465335	413466	2.970	1.412 #
19)	Endosulfa...	8.418	9.024	8948769	1494942	57.742	6.002 #
20)	Methoxychlor	8.284	9.206	949836	1232470	16.216m	14.656m R-02
21)	Endrin Ke...	8.594	9.403	445541	833047	2.672	3.237
23)	Hexachlor...	2.926	3.401f	5525	767655	0.030	2.042 #
24)	Hexachlor...	5.500	6.195	1182856	541523	6.710	1.724 #
25)	Oxychlordane	0.000	7.641	0	2464550	N.D.	8.998 #
26)	2,4'-DDE	7.096f	7.859	214662	553008	1.674	2.607 #
27)	trans-Non...	7.259	7.942	1173762	1486177	6.236	4.927
28)	2,4'-DDD	7.437	8.226	527454	216812	4.622	1.148 #
29)	2,4'-DDT	7.600f	8.462	853408	321763	7.780	1.804 #
30)	cis-Nonac...	7.731	8.486	395138	740700	1.903	2.208
31)	Mirex	8.335f	9.403	385673	833047	3.076	4.477 #
32)	Chlordane...	7.259f	7.942	1173762	1486177	59.613	41.072
33)	Chlordane...	7.329	8.043	169968	275089	6.781	9.060
34)	Chlordane...	7.876	8.698	205391	320674	35.528	35.766
35)	Chlordane...	3.362	0.000	101908	0	NoCal	N.D.
36)	Toxaphene...	7.408	8.361	168752	236000	188.414	89.930 #
37)	Toxaphene...	7.683	8.722	597240	754591	369.822	229.288
38)	Toxaphene...	7.994	8.770f	287583	463324	85.400	91.416
39)	Toxaphene...	8.220f	8.814	304446	413466	93.960	49.518 #
40)	Toxaphene...	8.468	8.981	917715	699136	382.837	150.018 #
41)	Toxaphene...	8.545	9.366	501415	668804	158.446	140.795
42)	Toxaphene...	3.362	0.000	101908	0	NoCal	N.D.

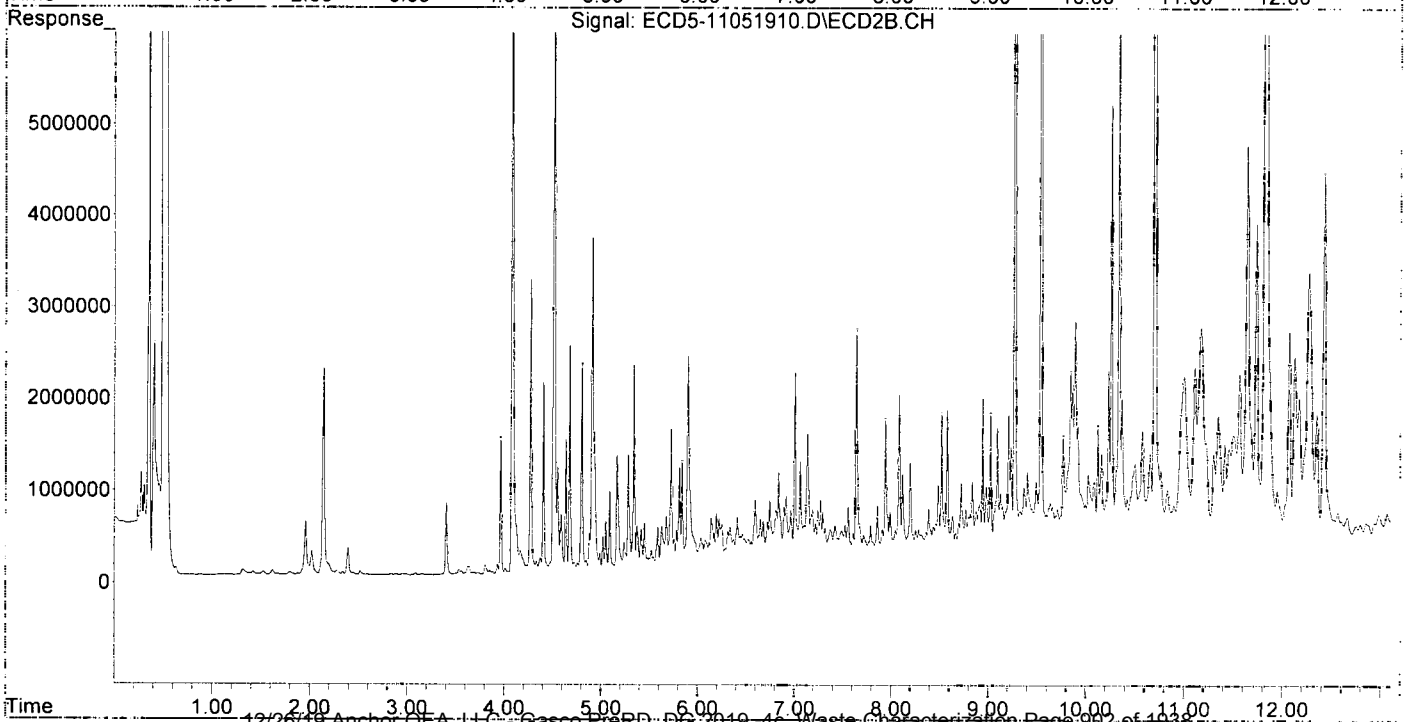
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 13:31
Operator : MJB MJB 11/6/19
Sample : 19110391-DUP1@10
Misc : 10x, 8081B, GPC
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 05 15:49:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

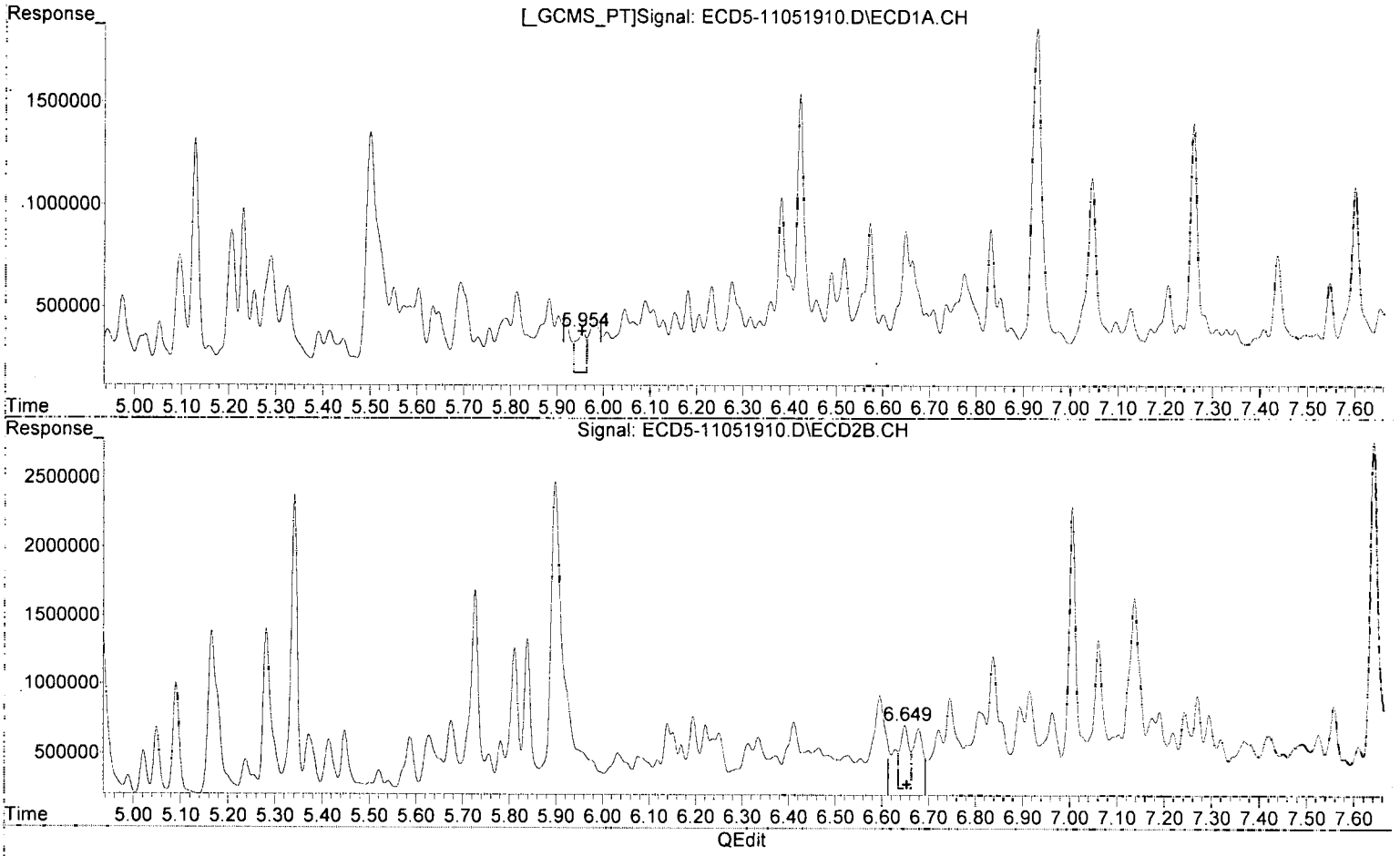




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 13:31
Operator : MJB MJB 11/6/19
Sample : 9110391-DUP1@10
Misc : 10x, 8081B, GPC
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 05 15:19:16 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode:. Small noise peaks clipped



(3) g-BHC

5.955min 1.005 ng/mL MDL-MRL

response 202798

MJB 11/5/19

(3) g-BHC #2

6.649min 1.289 ng/mL

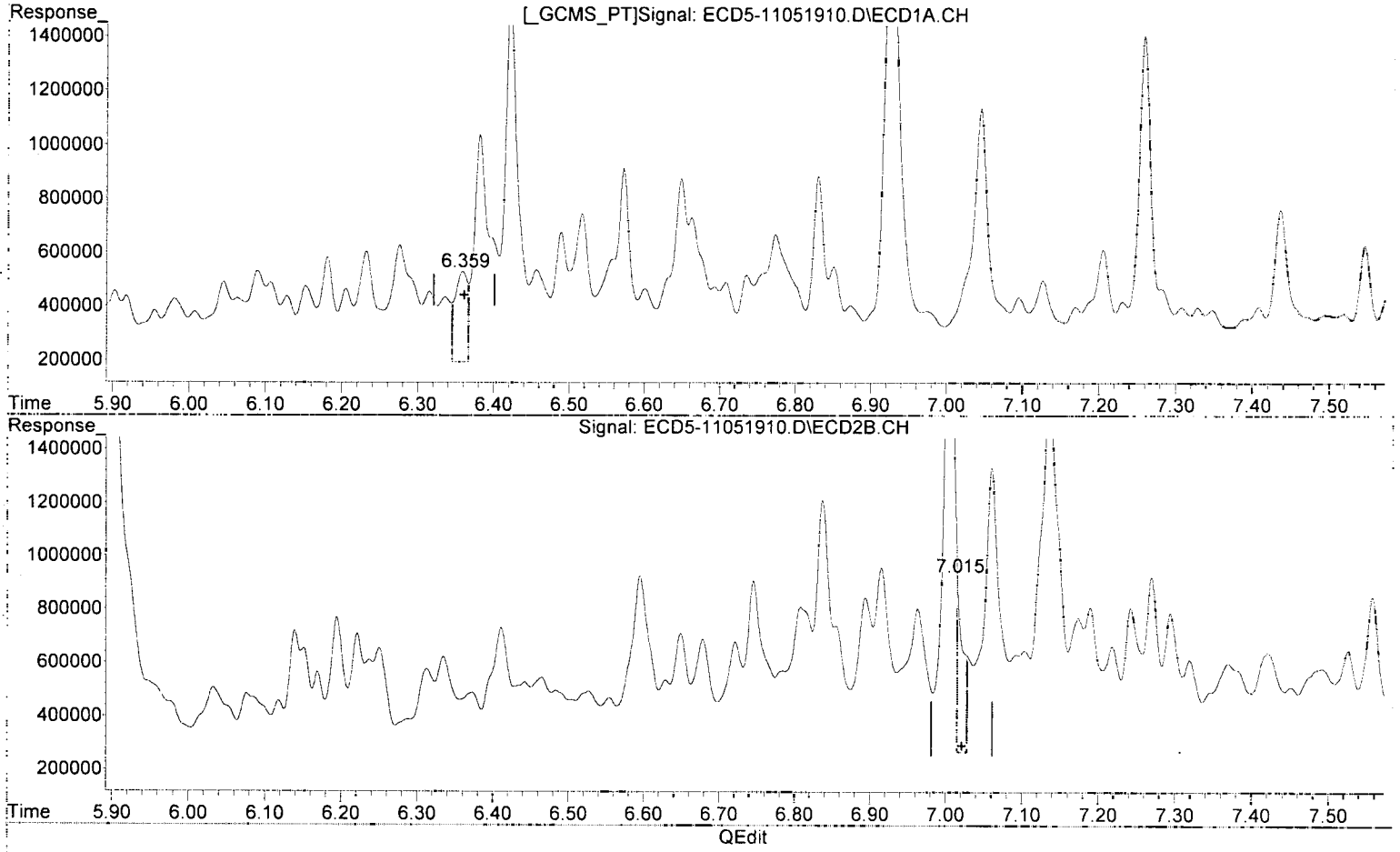
response 459865

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 13:31
Operator : MJB MB 11/6/19
Sample : 9110391-DUP1@10
Misc : 10x, 8081B, GPC
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 05 15:19:16 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(5) Heptachlor

6.359min 1.850 ng/mL (m) MDL-MRL

response 335471

MB 11/5/19

(5) Heptachlor #2

7.015min 2.220 ng/mL (m) 9.01

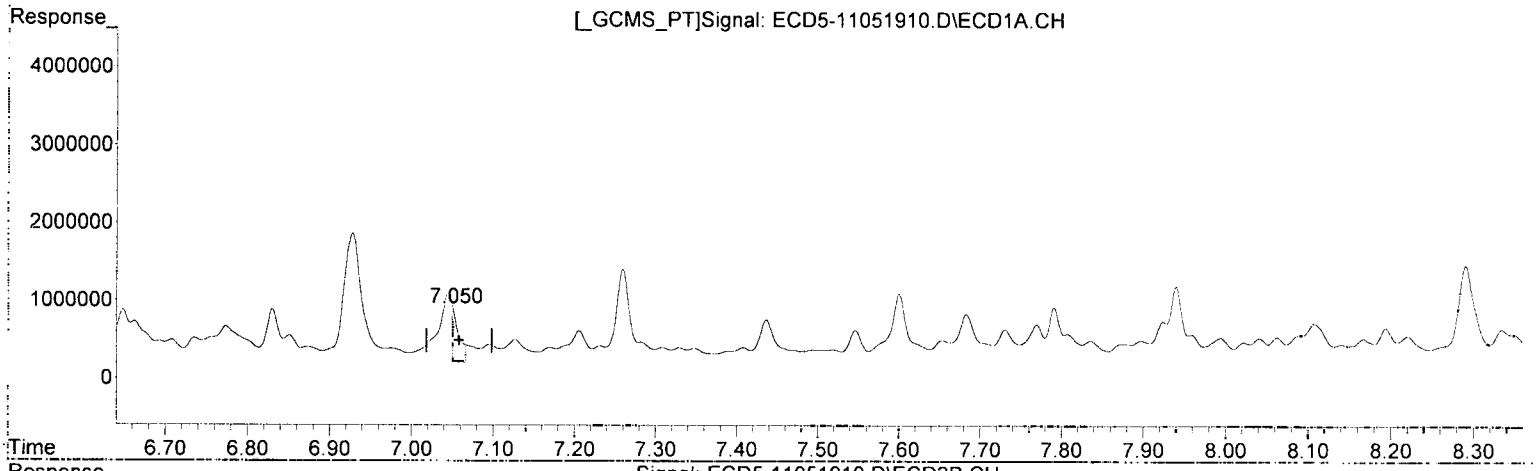
response 679251

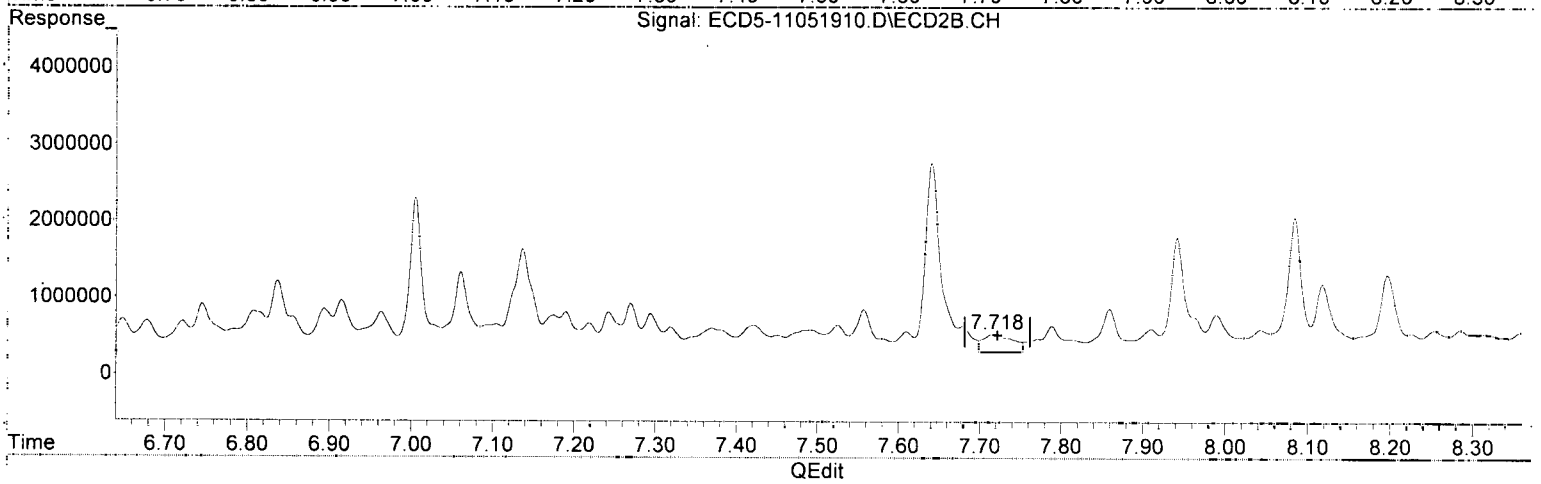
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 13:31
Operator : MJB MJB 11/5/19
Sample : 9110391-DUP1@10
Misc : 10x, 8081B, GPC
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 05 15:19:16 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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





(8) Heptachlor Expoxide

7.050min 3.808 ng/mL (m)

MJB 11/5/19

response 701279

(8) Heptachlor Expoxide #2

7.718min 0.780 ng/mL

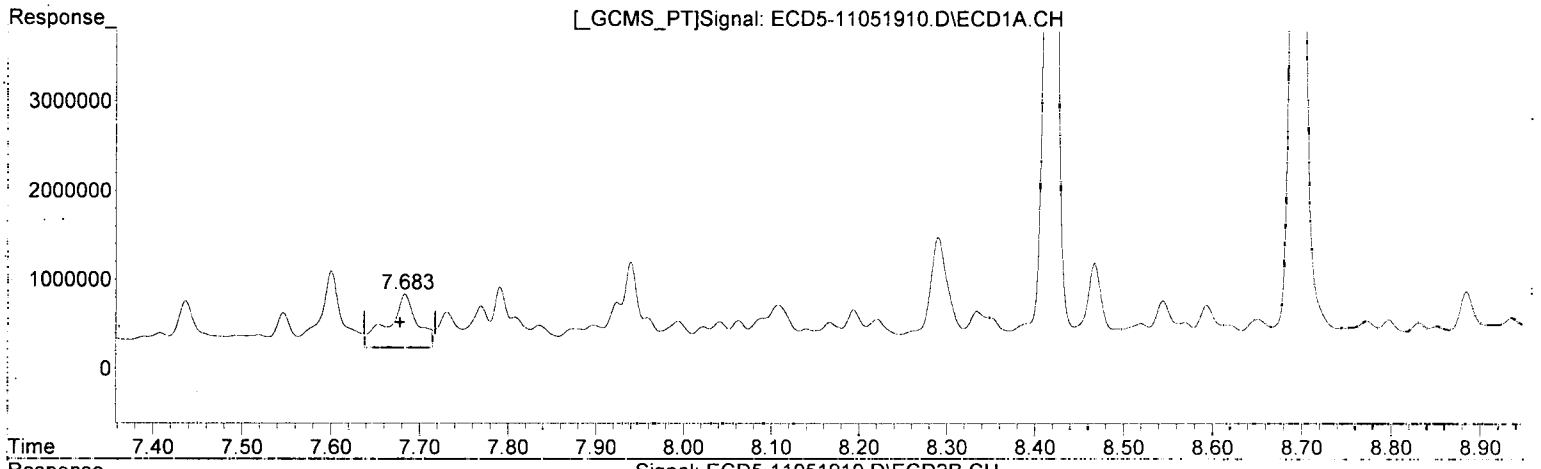
response 234758

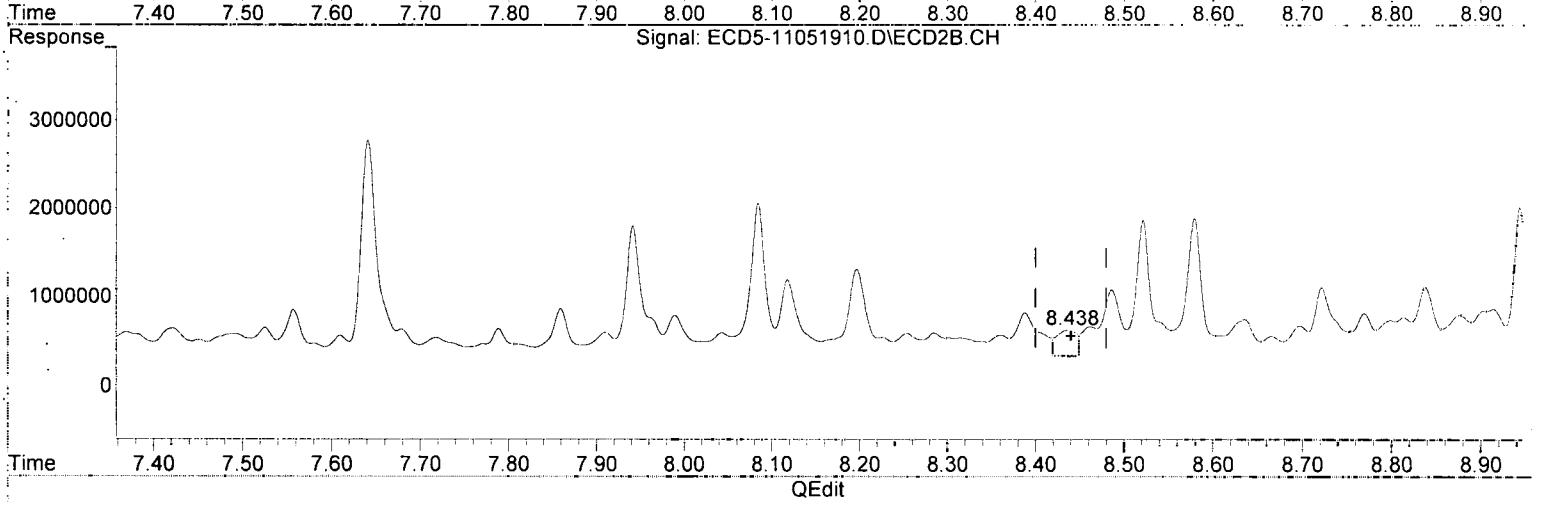
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 13:31
Operator : MJB MJB 11/6/19
Sample : 9110391-DUP1@10
Misc : 10x, 8081B, GPC
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 05 15:19:16 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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





(14) Endrin

7.683min 4.062 ng/mL

response 597240

MJB 11/5/19

(14) Endrin #2

8.438min 1.279 ng/mL MDL: MRL

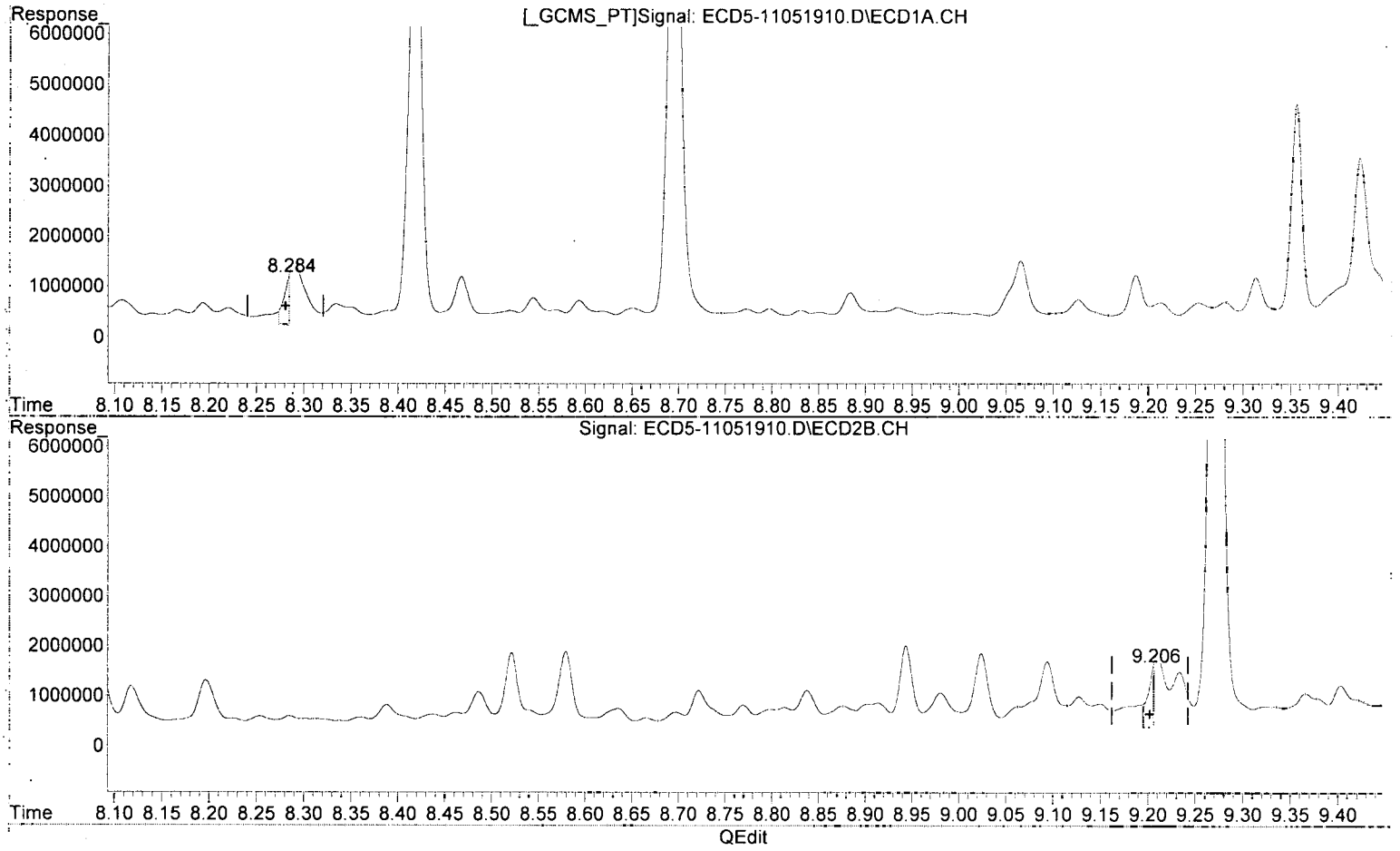
response 288860

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 13:31
Operator : MJB WB 11/6/19
Sample : 9110391-DUP1@10
Misc : 10x, 8081B, GPC
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 05 15:19:16 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

8.284min 16.216 ng/mL (m)

response 949836

WB 11/5/19

(20) Methoxychlor #2

9.206min 14.656 ng/mL (m) R .02

response 1232470

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 13:31
Operator : MJB
Sample : 110391-DUP1@10
Misc : 10x, 8081B, GPC
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 05 15:19:16 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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 11/5/19

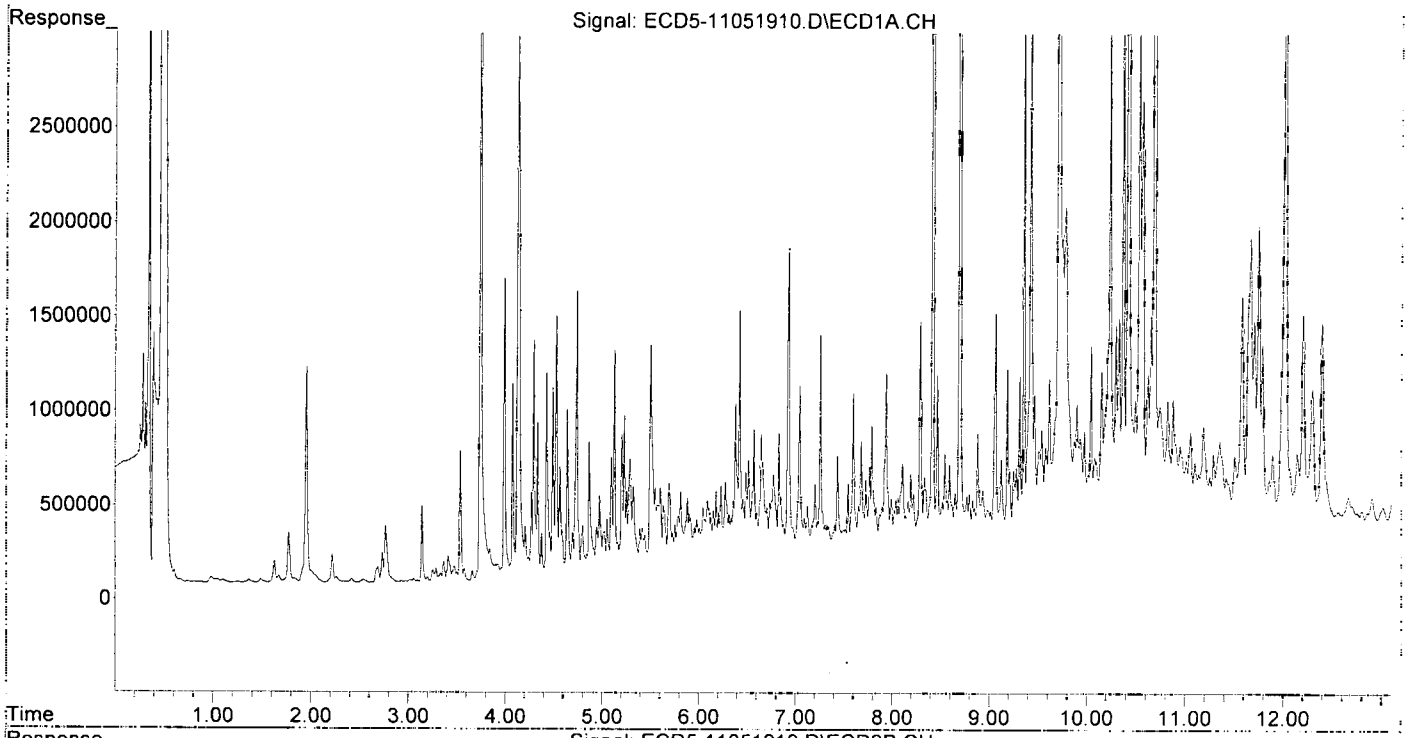
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.726	1169693	1482483	7.047	5.053	
22)	S	DCBP (S)	9.314	10.231	875110	1907440	6.202	10.611	#
		Target Compounds							
2)		a-BHC	5.693f	6.335	449025	387292	1.958	0.944	#
3)		g-BHC	5.955	6.649	202798	459865	1.005	1.289	
4)		b-BHC	6.046	6.722	304891	425194	3.373	2.687	
5)		Heptachlor	6.382f	7.005	837884	2027457	4.622	6.626	#
6)		d-BHC	6.181	6.963	393779	538619	2.002	1.527	
7)		Aldrin	6.601	7.294	262181	505304	1.328	1.534	
8)		Heptachlo...	7.045	7.718	916181	234758	4.974	0.780	#
9)		trans-Chl...	7.127f	7.859	277244	553008	1.499	1.765	
10)		cis-Chlor...	7.259	7.990f	1173762	472918	6.447	1.624	#
11)		Endosulfa...	7.348	7.990f	162014	472918	0.952	1.719	#
12)		4,4'-DDE	7.329	8.084	169968	1737820	0.902	5.594	#
13)		Dieldrin	7.518	8.226	141727	216812	0.738	0.713	
14)		Endrin	7.683	8.438	597240	288860	4.062	1.279	#
15)		4,4'-DDD	7.731	8.486	395138	740700	2.515	2.891	
16)		Endosulfa...	7.835	8.580	245778	1545521	1.711	6.702	#
17)		4,4'-DDT	7.940	8.722	940698	754591	7.868	4.328	#
18)		Endrin Al...	8.108	8.814	465335	413466	2.970	1.412	#
19)		Endosulfa...	8.418	9.024	8948769	1494942	57.742	6.002	#
20)		Methoxychlor	8.290	9.210	1206624	1460086	20.600	17.298	
21)		Endrin Ke...	8.594	9.403	445541	833047	2.672	3.237	
23)		Hexachlor...	2.926	3.401f	5525	767655	0.030	2.042	#
24)		Hexachlor...	5.500	6.195	1182856	541523	6.710	1.724	#
25)		Oxychlordane	0.000	7.641	0	2464550	N.D.	8.998	#
26)		2,4'-DDE	7.096f	7.859	214662	553008	1.674	2.607	#
27)		trans-Non...	7.259	7.942	1173762	1486177	6.236	4.927	
28)		2,4'-DDD	7.437	8.226	527454	216812	4.622	1.148	#
29)		2,4'-DDT	7.600f	8.462	853408	321763	7.780	1.804	#
30)		cis-Nonac...	7.731	8.486	395138	740700	1.903	2.208	
31)		Mirex	8.335f	9.403	385673	833047	3.076	4.477	#
32)		Chlordane...	7.259f	7.942	1173762	1486177	59.613	41.072	
33)		Chlordane...	7.329	8.043	169968	275089	6.781	9.060	
34)		Chlordane...	7.876	8.698	205391	320674	35.528	35.766	
35)		Chlordane...	3.362	0.000	101908	0	NoCal	N.D.	
36)		Toxaphene...	7.408	8.361	168752	236000	188.414	89.930	#
37)		Toxaphene...	7.683	8.722	597240	754591	369.822	229.288	
38)		Toxaphene...	7.994	8.770f	287583	463324	85.400	91.416	
39)		Toxaphene...	8.220f	8.814	304446	413466	93.960	49.518	#
40)		Toxaphene...	8.468	8.981	917715	699136	382.837	150.018	#
41)		Toxaphene...	8.545	9.366	501415	668804	158.446	140.795	
42)		Toxaphene...	3.362	0.000	101908	0	NoCal	N.D.	

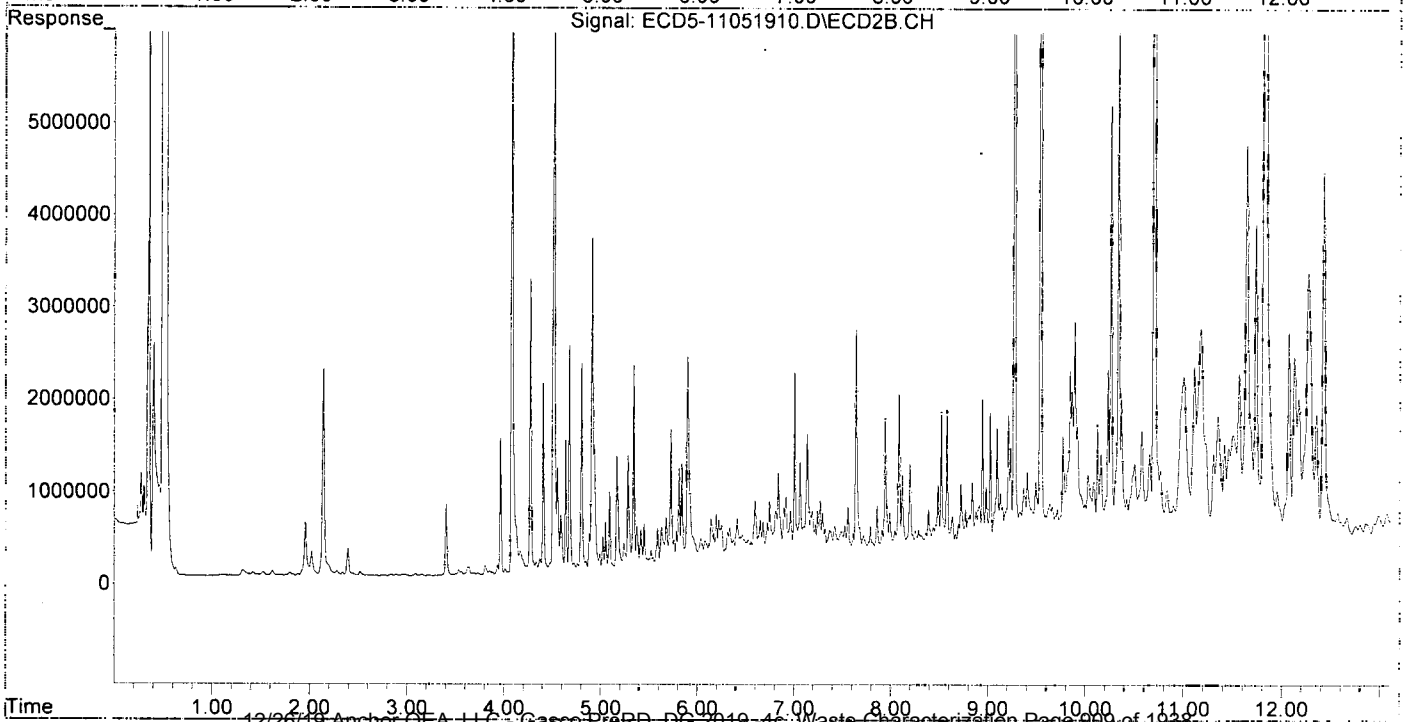
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 13:31
Operator : MJB MJB 11/6/19
Sample : 9110391-DUP1@10
Misc : 10x, 8081B, GPC
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 05 15:19:16 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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\2019-11\9K05039\
Data File : ECD5-11051912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 14:05
Operator : MJB
Sample : A9J0950-02RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:55:52 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

R-04

MJB 11/5/19

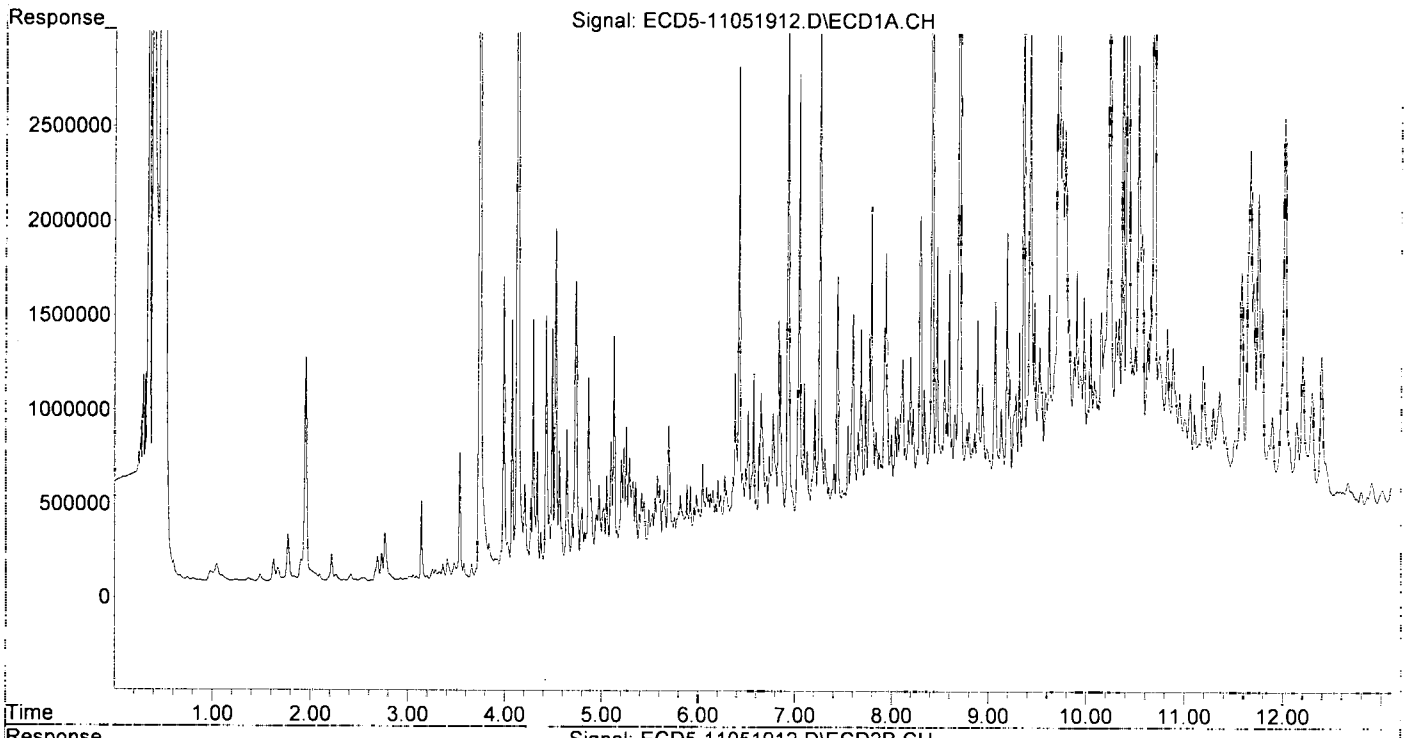
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.725	1217246	1553972	7.334	5.297	S-04
22)	S	DCBP (S)	9.313	10.231	1055533	2412710	7.481	13.422 #	S-04
		Target Compounds							
2)		a-BHC	5.646f	6.334	381841	571989	1.665	1.394	MDL-MRL
3)		g-BHC	5.956	6.647	274169	552385	1.359	1.549	
4)		b-BHC	6.044	6.721	496834	456971	5.497	2.887 #	
5)		Heptachlor	6.357	7.016	422258	854922	2.329m	2.794m	R-02 R-01
6)		d-BHC	6.204	6.963	411358	658261	2.091	1.867	
7)		Aldrin	6.600	7.294	290787	1434237	1.473	4.354 #	
8)		Heptachlo...	7.049	7.717	1738594	645098	9.440m	2.144 #	R-02
9)		trans-Chl...	7.127f	7.858	530326	1233088	2.868	3.935	
10)		cis-Chlor...	7.258	7.989f	3573016	931279	19.624	3.198 #	
11)		Endosulfa...	7.310f	8.041f	528671	557140	3.107	2.025	
12)		4,4'-DDE	7.310	8.084	528671	6222585	2.804	20.029 #	
13)		Dieldrin	7.518	8.225	287147	455348	1.496	1.497	
14)		Endrin	7.683	8.432	1143199	591453	7.775	2.619 #	R-02
15)		4,4'-DDD	7.729	8.487	798143	1102723	5.079	4.304	
16)		Endosulfa...	7.837	8.579	596980	3536701	4.157	15.337 #	
17)		4,4'-DDT	7.940	8.721	1540560	1792846	12.885	10.220	
18)		Endrin Al...	8.113	8.815	970499	852770	7.281	3.803 #	
19)		Endosulfa...	8.418	9.024	5305431	2512980	34.234	10.089 #	
20)		Methoxychlor	8.288	9.206	1454012	2058260	24.823m	24.108m	R-02
21)		Endrin Ke...	8.621	9.403	530473	1283039	3.181	4.986 #	
23)		Hexachlor...	2.923	3.400f	9096	793391	0.050	2.110 #	
24)		Hexachlor...	5.526	6.194	258498	538773	1.466	1.715	
25)		Oxychlordane	0.000	7.641	0	4805705	N.D.	17.545 #	
26)		2,4'-DDE	7.095f	7.858	884696	1233088	6.898	5.813	
27)		trans-Non...	7.258	7.941	3573016	4461307	19.631	14.790	
28)		2,4'-DDD	7.439	8.225	1434631	455348	12.571	2.411 #	
29)		2,4'-DDT	7.600f	8.467	1232590	948004	11.237	5.316 #	
30)		cis-Nonac...	7.729	8.487	798143	1102723	3.844	3.287	
31)		Mirex	8.336f	9.403	806400	1283039	6.432	6.895	
32)		Chlordane...	7.258f	7.941	3573016	4461307	181.467	123.293	
33)		Chlordane...	7.310f	8.041	528671	557140	21.093	18.349	
34)		Chlordane...	7.870	8.697	481790	644579	83.338	71.892	
35)		Chlordane...	3.360	3.349	75387	14182	NoCal	NoCal	
36)		Toxaphene...	7.404	8.362	448525	460240	500.783	175.379 #	
37)		Toxaphene...	7.683	8.721	1143199	1792846	707.890	544.768	
38)		Toxaphene...	7.995	8.769f	575052	985218	170.766	194.388	
39)		Toxaphene...	8.262	8.815	485340	852770	149.789	102.130	
40)		Toxaphene...	8.467	8.981	1548384	1675947	645.929	359.618 #	
41)		Toxaphene...	8.545	9.366	950110	1708481	300.232	359.665	
42)		Toxaphene...	3.360	3.349	75387	14182	NoCal	NoCal	

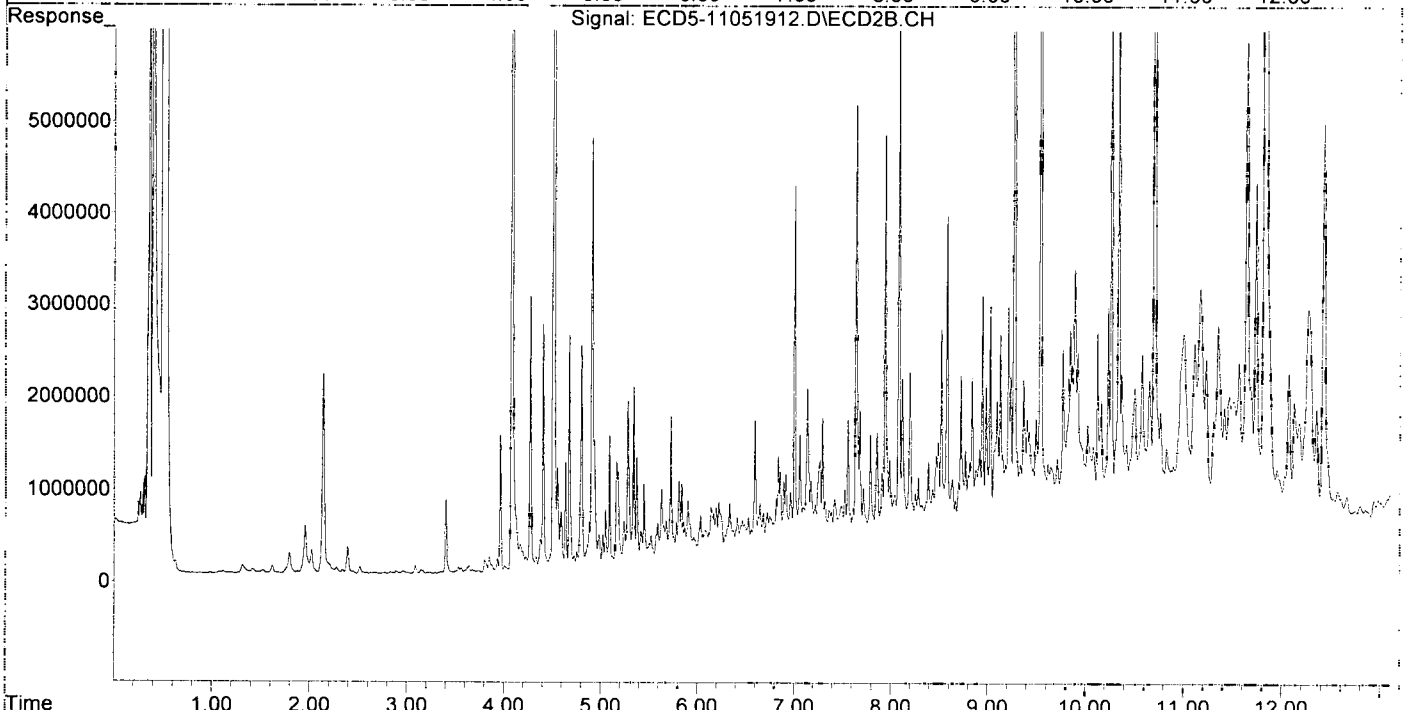
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 14:05
Operator : MJB
Sample : A9J0950-02RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:55:52 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

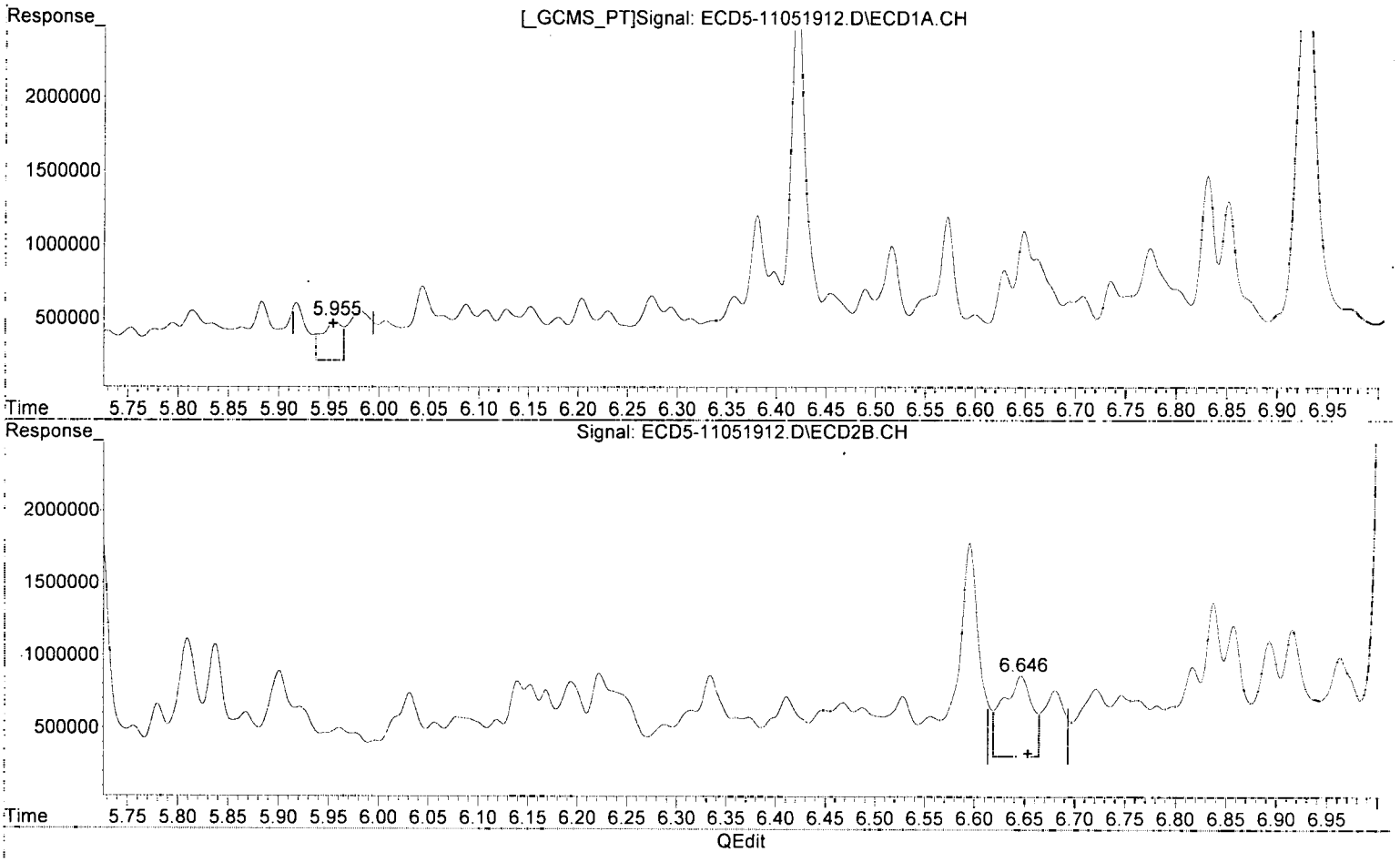




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 14:05
Operator : MJB
Sample : A9J0950-02RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:19:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(3) g-BHC

5.956min 1.359 ng/mL

response 274169

MJB 11/5/19

(3) g-BHC #2

6.647min 1.549 ng/mL MDL-MRL

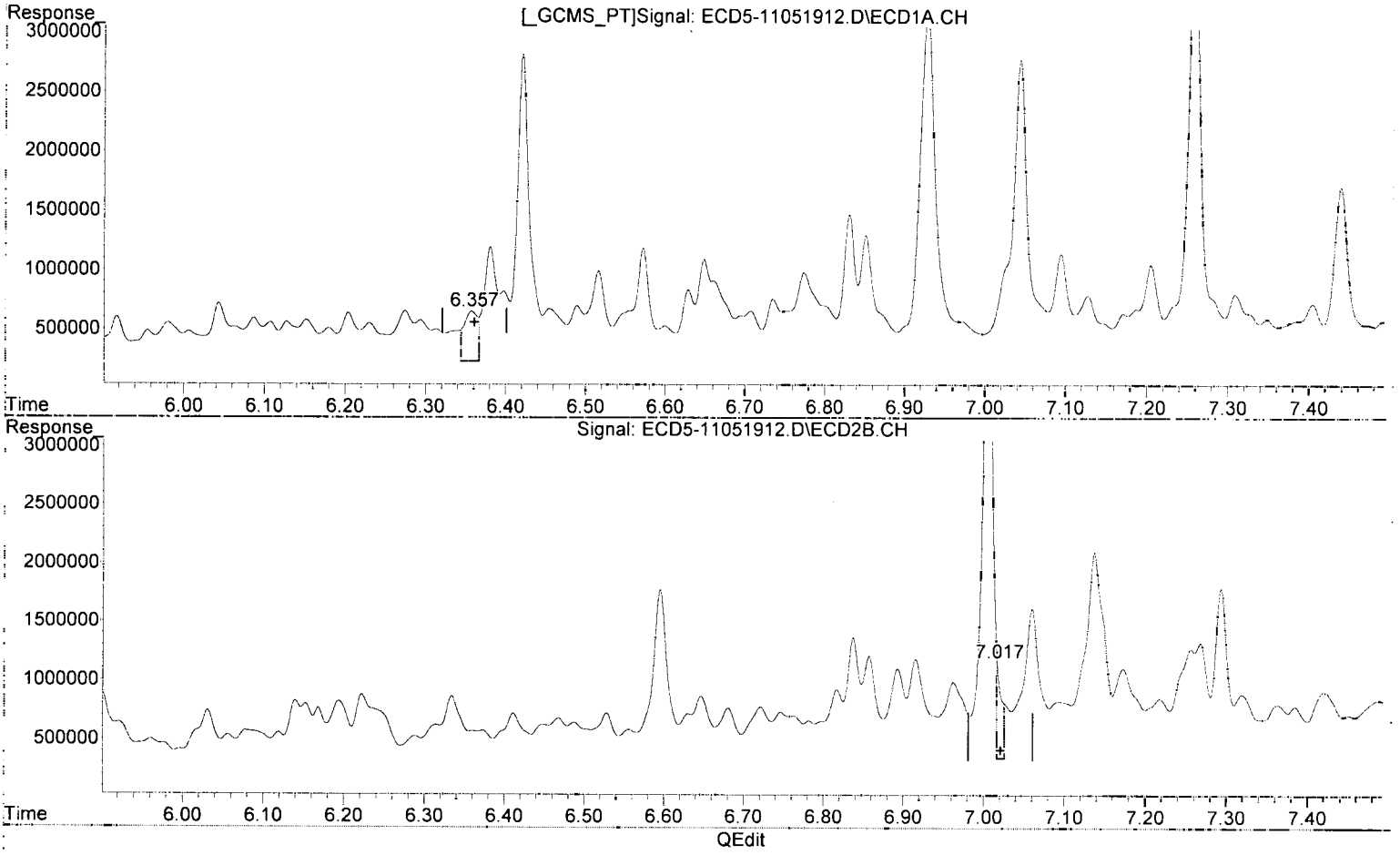
response 552385

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 14:05
Operator : MJB
Sample : A9J0950-02RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:19:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(5) Heptachlor

6.357min 2.329 ng/mL (m) P.02

response 422258

MJB 11/5/19

(5) Heptachlor #2

7.016min 2.794 ng/mL (m) P-01

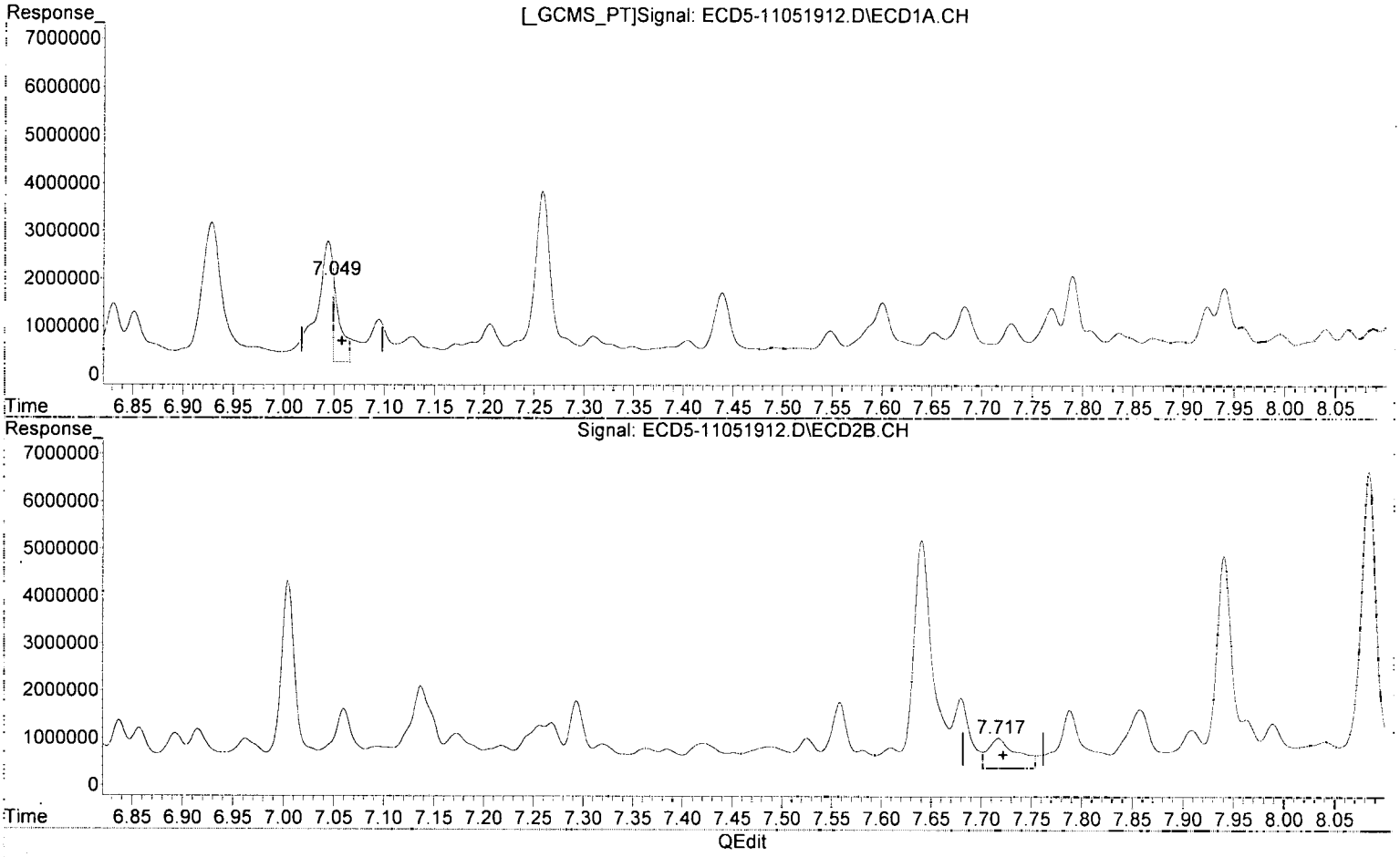
response 854922

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 14:05
Operator : MJB
Sample : A9J0950-02RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:19:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(8) Heptachlor Expoxide

7.049min 9.440 ng/mL (m)

response 1738594

MB 11/5/19

(8) Heptachlor Expoxide #2

7.717min 2.144 ng/mL P-02

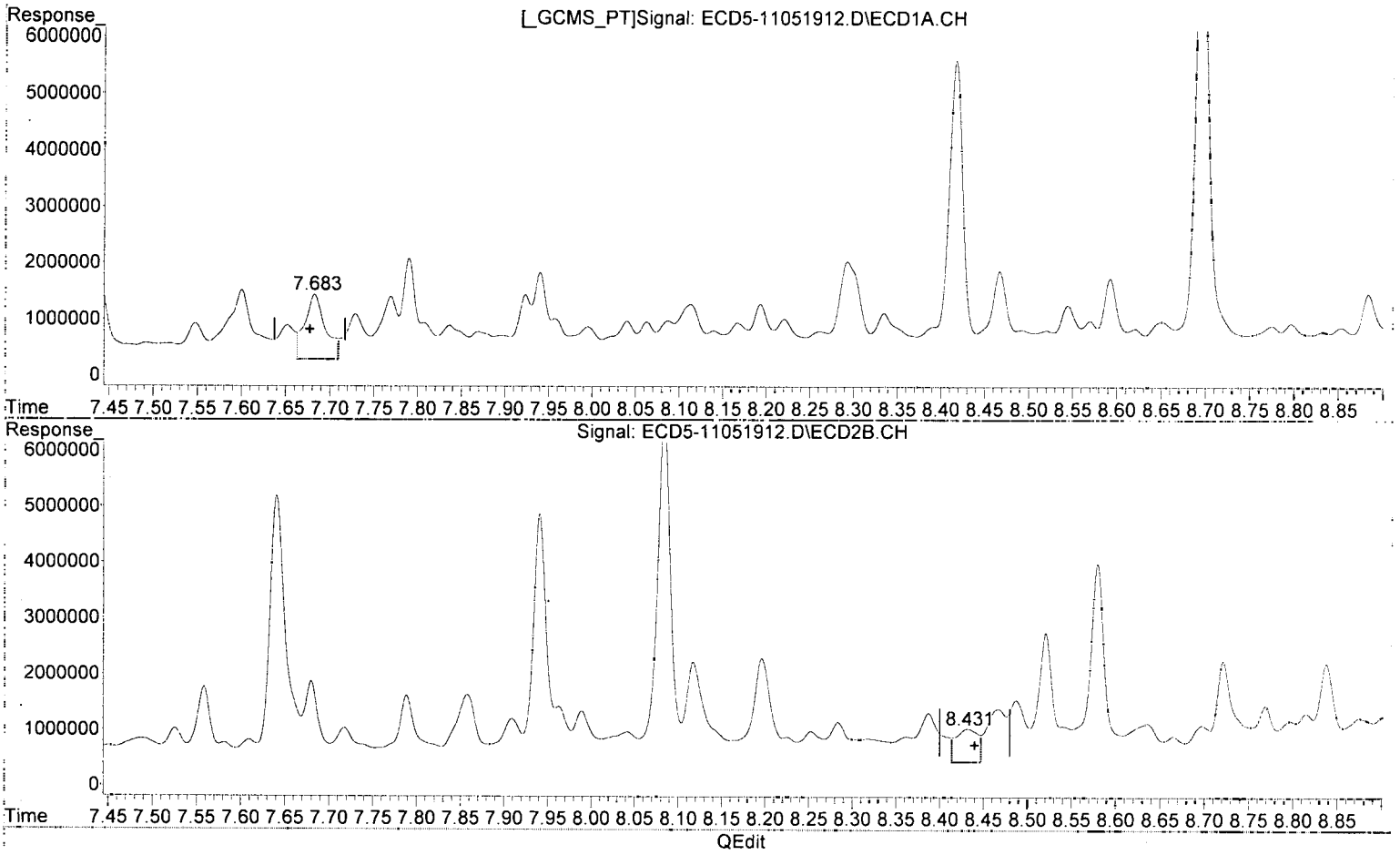
response 645098

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 14:05
Operator : MJB
Sample : A9J0950-02RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:19:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(14) Endrin

7.683min 7.775 ng/mL

response 1143199

MJB 11/5/19

(14) Endrin #2

8.432min 2.619 ng/mL R.02

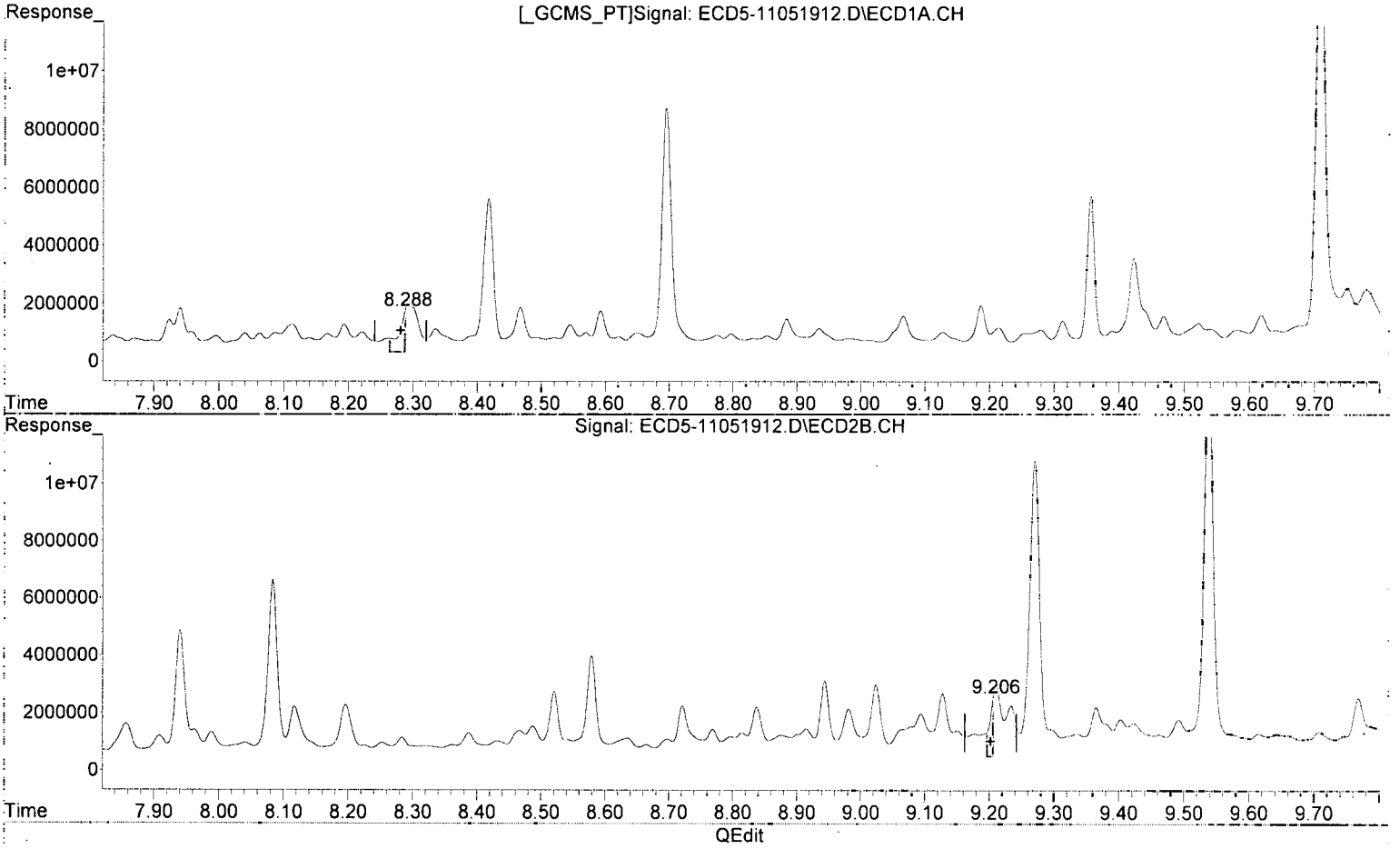
response 591453

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 14:05
Operator : MJB
Sample : A9J0950-02RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:19:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

8.288min 24.823 ng/mL (m)

response 1454012

MJB 11/5/19

(20) Methoxychlor #2

9.206min 24.108 ng/mL (m) R.02

response 2058260

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 14:05
Operator : MJB
Sample : A9J0950-02RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:19:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

MI MJB 11/5/19

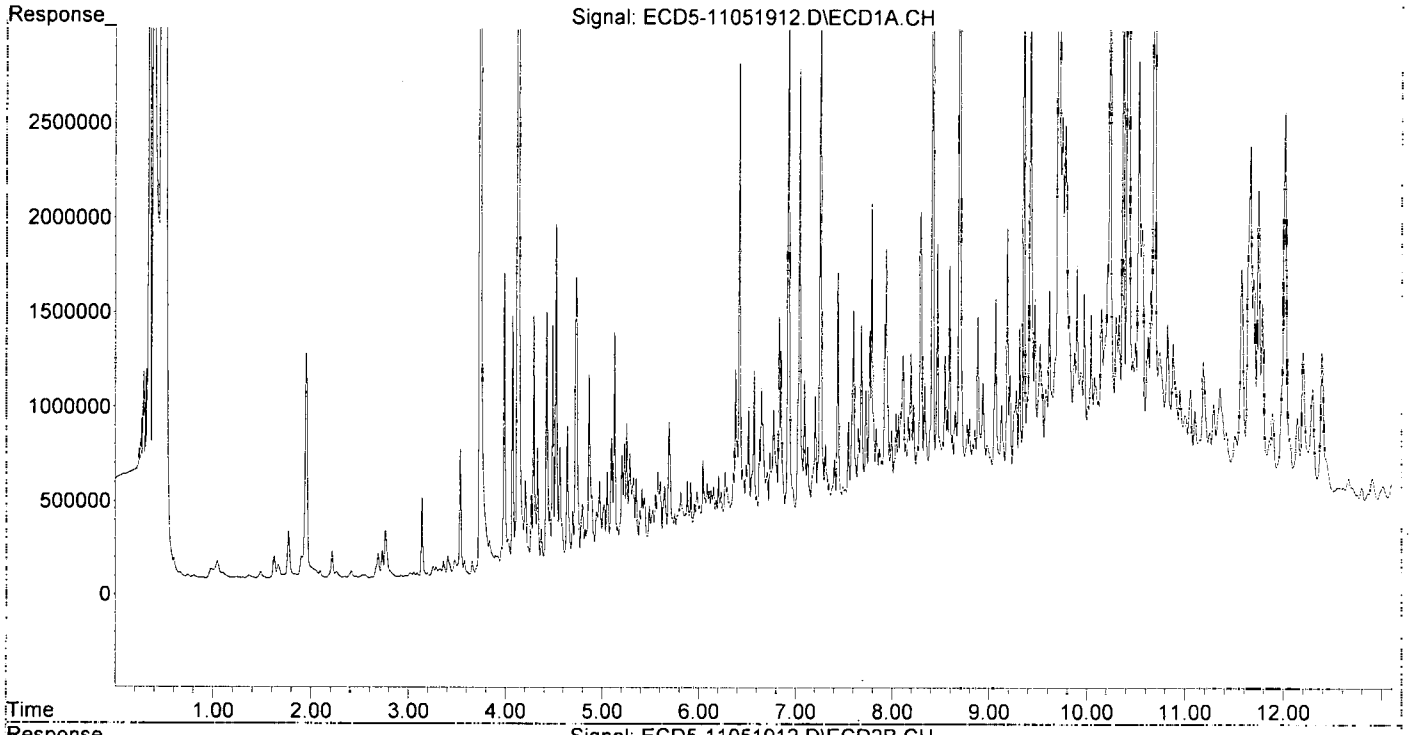
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.725	1217246	1553972	7.334	5.297	
22)	S	DCBP (S)	9.313	10.231	1055533	2412710	7.481	13.422	#
		Target Compounds							
2)		a-BHC	5.646f	6.334	381841	571989	1.665	1.394	
3)		g-BHC	5.956	6.647	274169	552385	1.359	1.549	
4)		b-BHC	6.044	6.721	496834	456971	5.497	2.887	#
5)		Heptachlor	6.381f	7.005	964246	3976126	5.319	12.995	#
6)		d-BHC	6.204	6.963	411358	658261	2.091	1.867	
7)		Aldrin	6.600	7.294	290787	1434237	1.473	4.354	#
8)		Heptachlo...	7.044	7.717	2515571	645098	13.658	2.144	#
9)		trans-Chl...	7.127f	7.858	530326	1233088	2.868	3.935	
10)		cis-Chlor...	7.258	7.989f	3573016	931279	19.624	3.198	#
11)		Endosulfa...	7.310f	8.041f	528671	557140	3.107	2.025	
12)		4,4'-DDE	7.310	8.084	528671	6222585	2.804	20.029	#
13)		Dieldrin	7.518	8.225	287147	455348	1.496	1.497	
14)		Endrin	7.683	8.432	1143199	591453	7.775	2.619	#
15)		4,4'-DDD	7.729	8.487	798143	1102723	5.079	4.304	
16)		Endosulfa...	7.837	8.579	596980	3536701	4.157	15.337	#
17)		4,4'-DDT	7.940	8.721	1540560	1792846	12.885	10.220	
18)		Endrin Al...	8.113	8.815	970499	852770	7.281	3.803	#
19)		Endosulfa...	8.418	9.024	5305431	2512980	34.234	10.089	#
20)		Methoxychlor	8.294	9.211	1704224	2506391	29.095	29.090	
21)		Endrin Ke...	8.621	9.403	530473	1283039	3.181	4.986	#
23)		Hexachlor...	2.923	3.400f	9096	793391	0.050	2.110	#
24)		Hexachlor...	5.526	6.194	258498	538773	1.466	1.715	
25)		Oxychlordane	0.000	7.641	0	4805705	N.D.	17.545	#
26)		2,4'-DDE	7.095f	7.858	884696	1233088	6.898	5.813	
27)		trans-Non...	7.258	7.941	3573016	4461307	19.631	14.790	
28)		2,4'-DDD	7.439	8.225	1434631	455348	12.571	2.411	#
29)		2,4'-DDT	7.600f	8.467	1232590	948004	11.237	5.316	#
30)		cis-Nonac...	7.729	8.487	798143	1102723	3.844	3.287	
31)		Mirex	8.336f	9.403	806400	1283039	6.432	6.895	
32)		Chlordane...	7.258f	7.941	3573016	4461307	181.467	123.293	
33)		Chlordane...	7.310f	8.041	528671	557140	21.093	18.349	
34)		Chlordane...	7.870	8.697	481790	644579	83.338	71.892	
35)		Chlordane...	3.360	3.349	75387	14182	NoCal	NoCal	
36)		Toxaphene...	7.404	8.362	448525	460240	500.783	175.379	#
37)		Toxaphene...	7.683	8.721	1143199	1792846	707.890	544.768	
38)		Toxaphene...	7.995	8.769f	575052	985218	170.766	194.388	
39)		Toxaphene...	8.262	8.815	485340	852770	149.789	102.130	
40)		Toxaphene...	8.467	8.981	1548384	1675947	645.929	359.618	#
41)		Toxaphene...	8.545	9.366	950110	1708481	300.232	359.665	
42)		Toxaphene...	3.360	3.349	75387	14182	NoCal	NoCal	

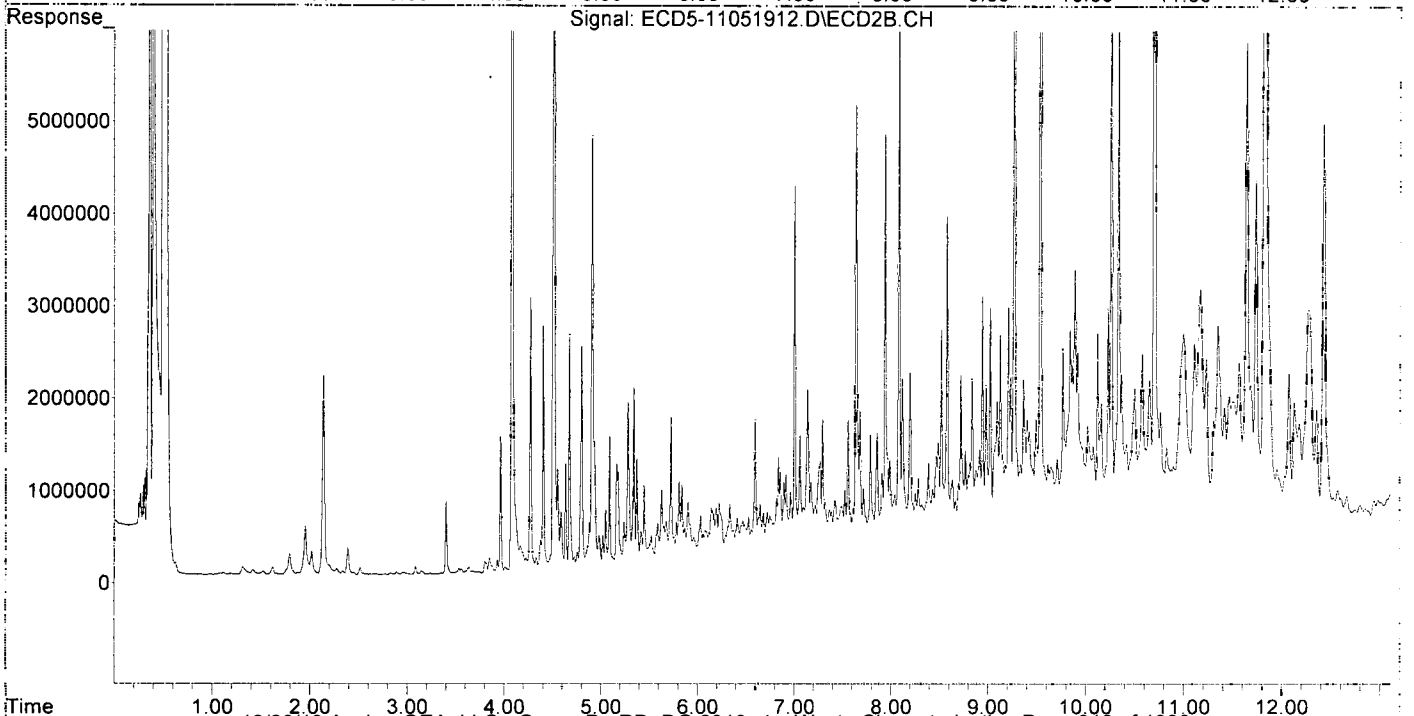
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 14:05
Operator : MJB
Sample : A9J0950-02RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:19:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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\2019-11\9K05039\
Data File : ECD5-11051914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 14:40
Operator : MJB
Sample : A9J0950-03RE1(1)
Misc : 10x, 8081B, GPC
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: Nov 05 16:01:48 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

R-04

MJB 11/5/19

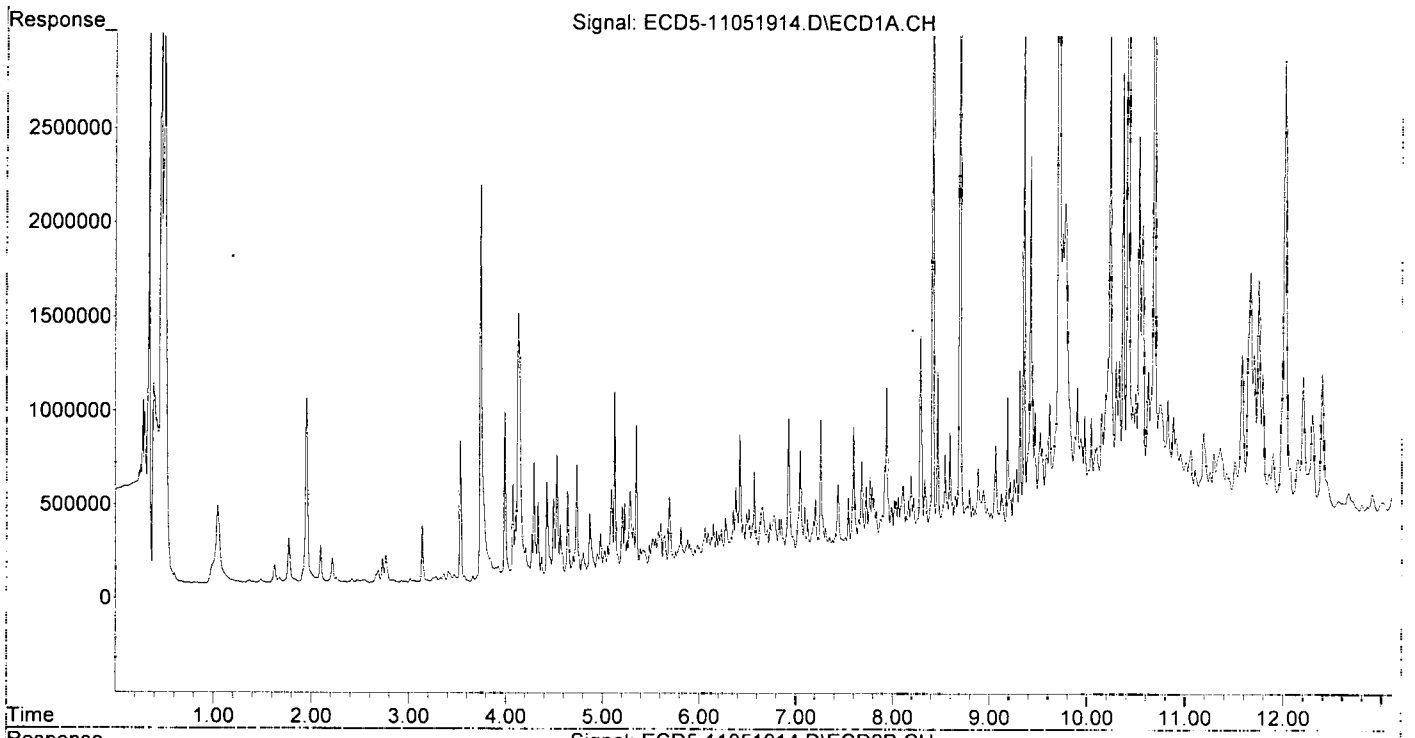
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.128	5.724	944628	1369804	5.691	4.669
22)	S	DCBP (S)	9.313	10.231	899193	1702796	6.373	9.472 # S-04
		Target Compounds						
2)		a-BHC	5.645f	6.334	167320	185956	0.730	0.453
3)		g-BHC	5.955	6.649	79416	223961	0.394	0.628 #
4)		b-BHC	6.065f	6.721	187965	355223	2.080	2.244
5)		Heptachlor	6.356	7.014	270758	493421	1.493	1.613m MDL:MRL
6)		d-BHC	6.182	6.963	167970	301069	0.854	0.854
7)		Aldrin	6.573f	7.293	464491	495942	2.353	1.506
8)		Heptachlo...	7.047	7.716	566137	186626	3.074	0.620 #
9)		trans-Chl...	7.125f	7.858	191432	457597	1.035	1.460 #
10)		cis-Chlor...	7.260	7.987	707862	450316	3.888	1.546 #
11)		Endosulfa...	7.351	8.041f	92329	163730	0.543	0.595
12)		4,4'-DDE	7.310	8.084	138452	1168200	0.734	3.760 #
13)		Dieldrin	7.516	8.227	81379	212135	0.424	0.697 #
14)		Endrin	7.684	8.440	481034	214734	3.272	0.951 #
15)		4,4'-DDD	7.731	8.488	345894	663957	2.201	2.591
16)		Endosulfa...	7.835	8.579	207643	912996	1.446	3.959 #
17)		4,4'-DDT	7.940	8.723	857693	731495	7.174	4.196 #
18)		Endrin Al...	8.112	8.815	331638	398951	1.825	1.333
19)		Endosulfa...	8.417	9.024	5174632	1505011	33.390	6.042 #
20)		Methoxychlor	8.283	9.205	834234	1204087	14.242m R-02	14.325m P-01
21)		Endrin Ke...	8.620	9.403	226790	853152	1.360	3.316 #
23)		Hexachlor...	2.924	3.400f	8971	583078	0.049	1.551 #
24)		Hexachlor...	5.522	6.196	153725	327358	0.872	1.042
25)		Oxychlordane	0.000	7.640	0	1192545	N.D.	4.354 #
26)		2,4'-DDE	7.094	7.858	255451	457597	1.992	2.157
27)		trans-Non...	7.260	7.943	707862	1030172	3.635	3.415
28)		2,4'-DDD	7.439	8.227	365840	212135	3.206	1.123 #
29)		2,4'-DDT	7.601f	8.440	664263	214734	6.056	1.204 #
30)		cis-Nonac...	7.731	8.488	345894	663957	1.666	1.979
31)		Mirex	8.335f	9.403	355157	853152	2.833	4.585 #
32)		Chlordane...	7.260f	7.943	707862	1030172	35.951	28.470
33)		Chlordane...	7.351	8.041	92329	163730	3.684	5.392 #
34)		Chlordane...	7.899f	8.698	185818	236055	32.142	26.328
35)		Chlordane...	3.362	3.347	44010	69899	NoCal	NoCal
36)		Toxaphene...	7.383	8.360	72054	165703	80.449	63.143
37)		Toxaphene...	7.684	8.723	481034	731495	297.865	222.270
38)		Toxaphene...	7.992	8.770f	219496	405323	65.181	79.972
39)		Toxaphene...	8.220f	8.815	268003	398951	82.713	47.780 #
40)		Toxaphene...	8.467	8.981	916688	760344	382.409	163.151 #
41)		Toxaphene...	8.544	9.367	483643	766362	152.830	161.333
42)		Toxaphene...	3.362	3.347	44010	69899	NoCal	NoCal

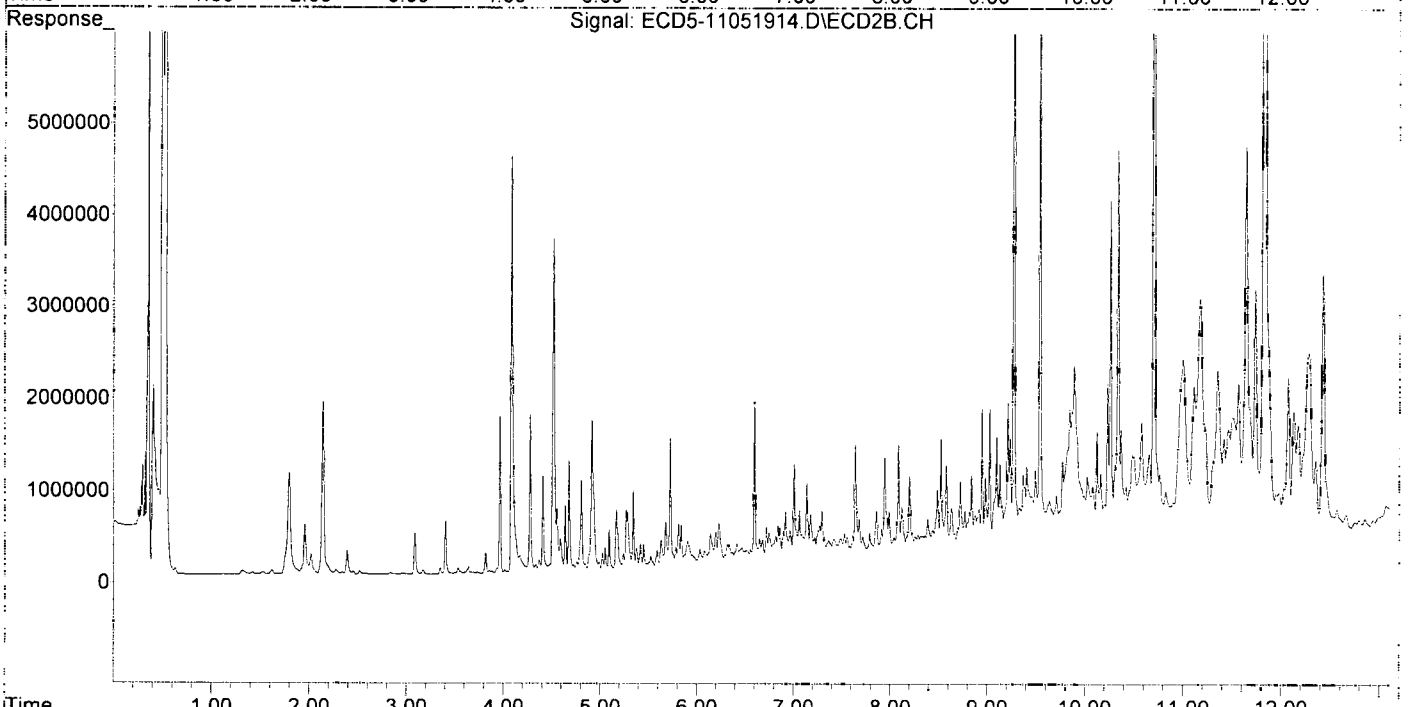
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 14:40
Operator : MJB
Sample : A9J0950-03RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 16:01:48 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

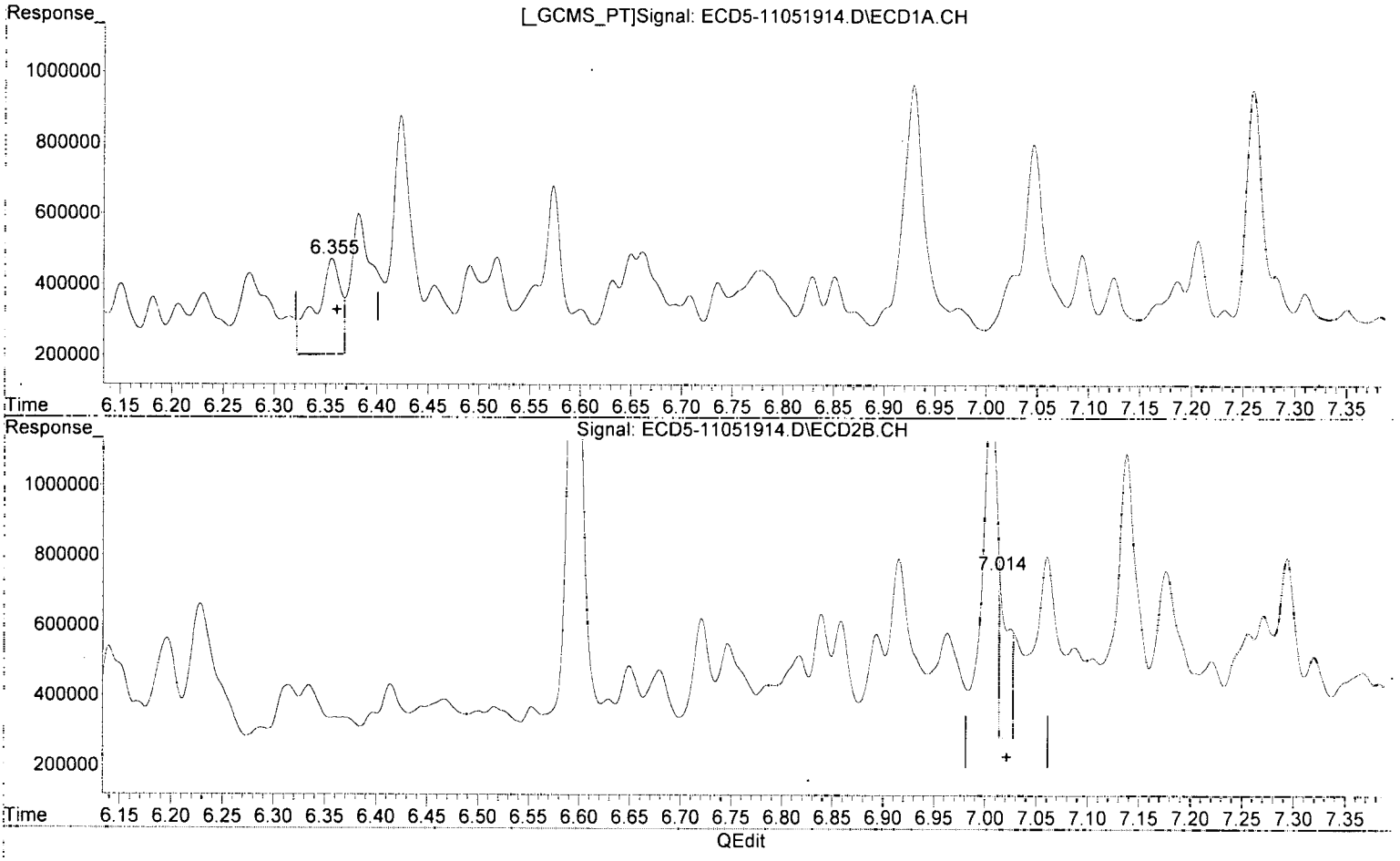




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 14:40
Operator : MJB
Sample : A9J0950-03RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:19:30 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(5) Heptachlor

6.356min 1.493 ng/mL

response 270758

MJB 11/5/19

(5) Heptachlor #2

7.014min 1.613 ng/mL (m) MPL=MRL

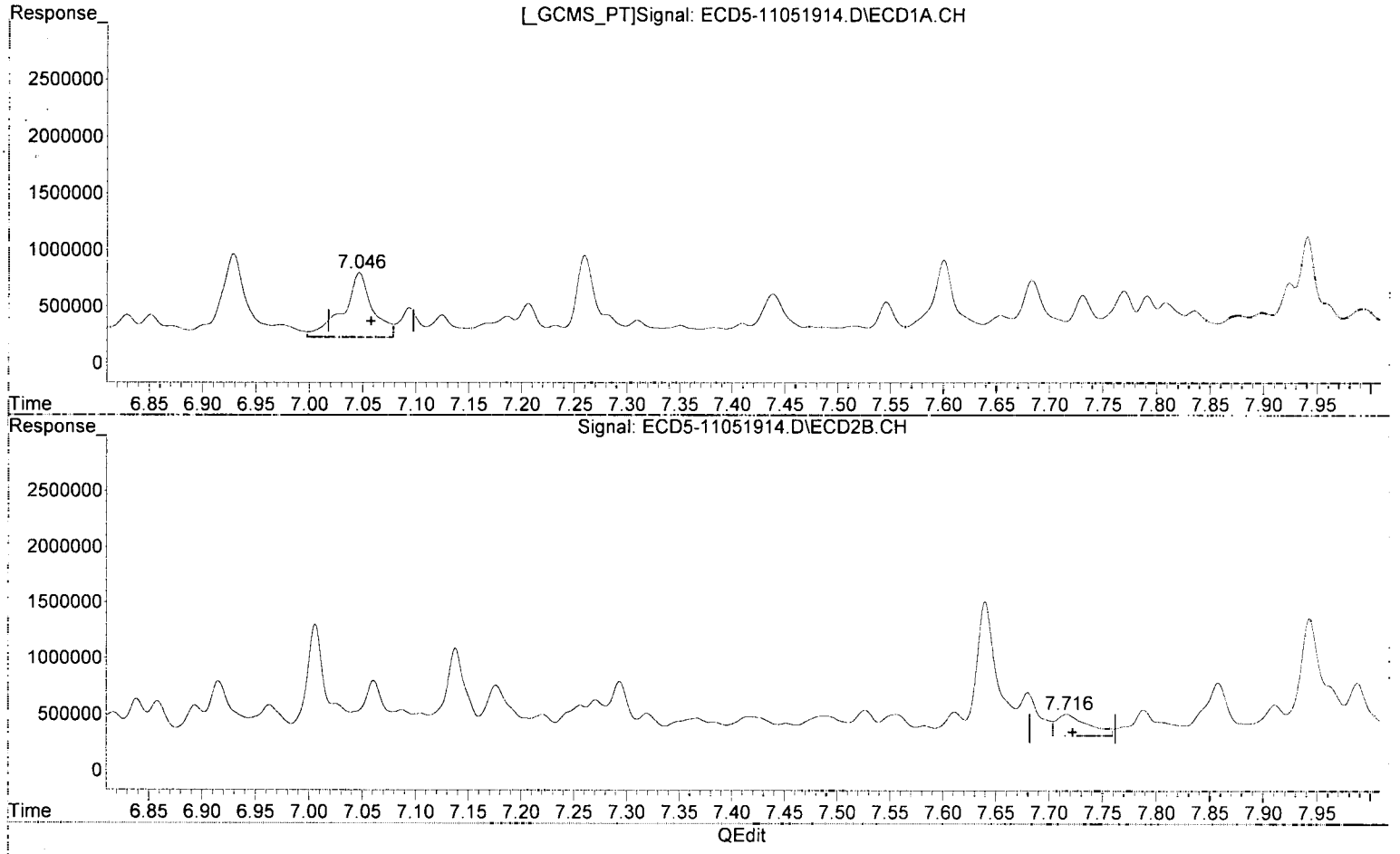
response 493421

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 14:40
Operator : MJB
Sample : A9J0950-03RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:19:30 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(8) Heptachlor Expoxide

7.047min 3.074 ng/mL

response 566137

MJB 11/5/19

(8) Heptachlor Expoxide #2

7.716min 0.620 ng/mL

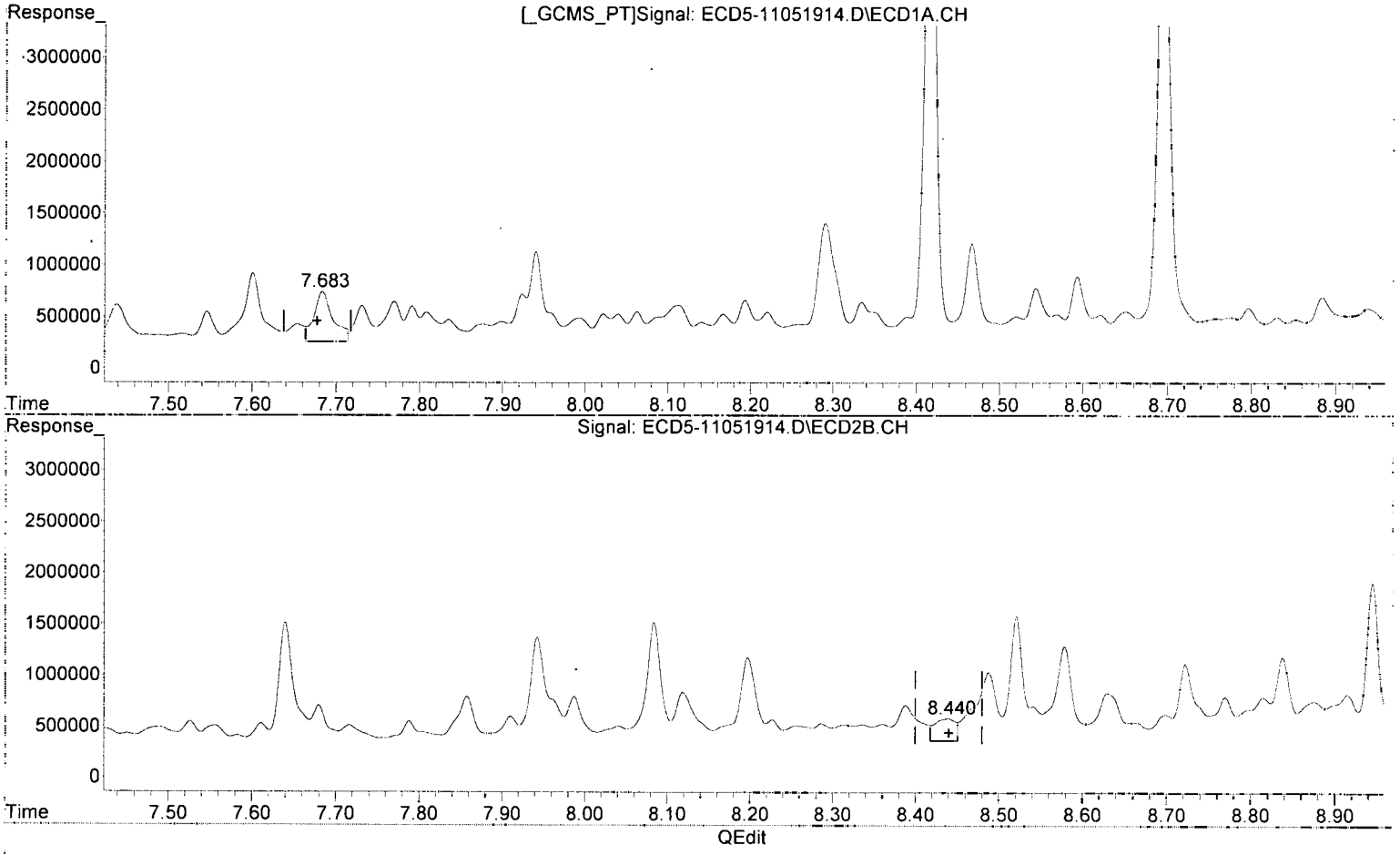
response 186626

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 14:40
Operator : MJB
Sample : A9J0950-03RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:19:30 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(14) Endrin

7.684min 3.272 ng/mL

response 481034

MJB 11/5/19

(14) Endrin #2

8.440min 0.951 ng/mL

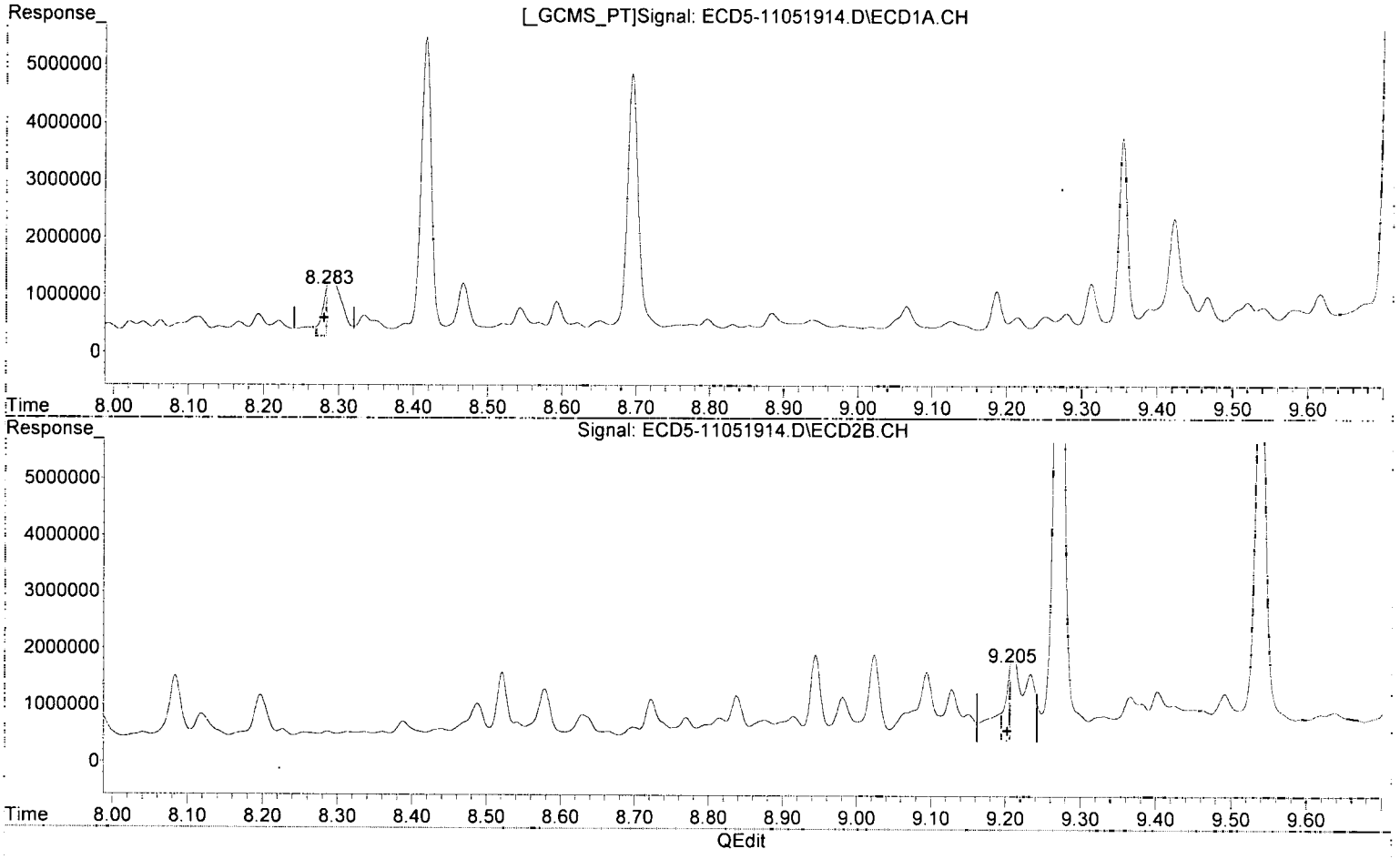
response 214734

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 14:40
Operator : MJB
Sample : A9J0950-03RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:19:30 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

8.283min 14.242 ng/mL (m) R-02

response 834234

MJB 11/5/19

(20) Methoxychlor #2

9.205min 14.325 ng/mL (m) 9-01

response 1204087

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 14:40
Operator : MJB
Sample : A9J0950-03RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:19:30 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

MF MJB 11/5/19

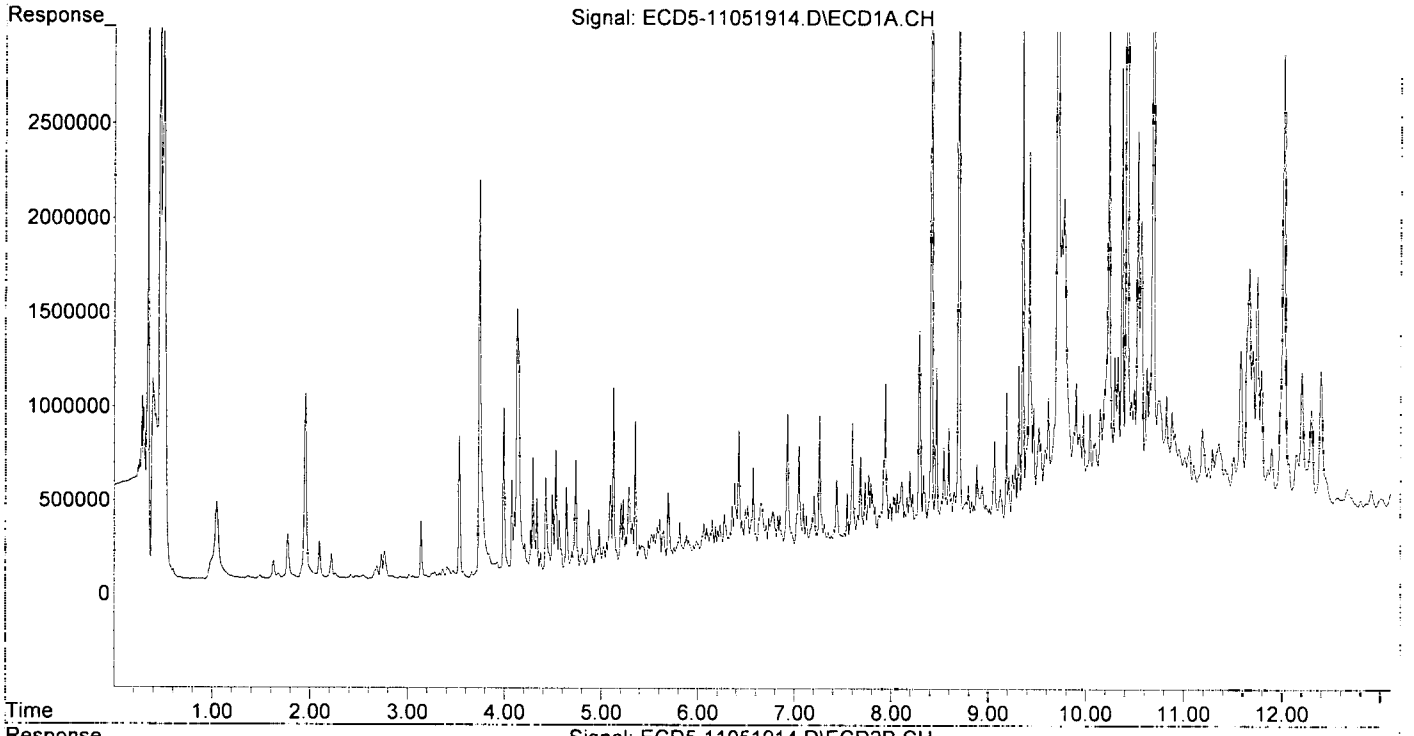
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.724	944628	1369804	5.691	4.669	
22)	S	DCBP (S)	9.313	10.231	899193	1702796	6.373	9.472	#
		Target Compounds							
2)		a-BHC	5.645f	6.334	167320	185956	0.730	0.453	
3)		g-BHC	5.955	6.649	79416	223961	0.394	0.628	#
4)		b-BHC	6.065f	6.721	187965	355223	2.080	2.244	
5)		Heptachlor	6.356	7.006	270758	1016791	1.493	3.323	#
6)		d-BHC	6.182	6.963	167970	301069	0.854	0.854	
7)		Aldrin	6.573f	7.293	464491	495942	2.353	1.506	
8)		Heptachlo...	7.047	7.716	566137	186626	3.074	0.620	#
9)		trans-Chl...	7.125f	7.858	191432	457597	1.035	1.460	#
10)		cis-Chlor...	7.260	7.987	707862	450316	3.888	1.546	#
11)		Endosulfa...	7.351	8.041f	92329	163730	0.543	0.595	
12)		4,4'-DDE	7.310	8.084	138452	1168200	0.734	3.760	#
13)		Dieldrin	7.516	8.227	81379	212135	0.424	0.697	#
14)		Endrin	7.684	8.440	481034	214734	3.272	0.951	#
15)		4,4'-DDD	7.731	8.488	345894	663957	2.201	2.591	
16)		Endosulfa...	7.835	8.579	207643	912996	1.446	3.959	#
17)		4,4'-DDT	7.940	8.723	857693	731495	7.174	4.196	#
18)		Endrin Al...	8.112	8.815	331638	398951	1.825	1.333	
19)		Endosulfa...	8.417	9.024	5174632	1505011	33.390	6.042	#
20)		Methoxychlor	8.291	9.210	1121197	1555036	19.141	18.392	
21)		Endrin Ke...	8.620	9.403	226790	853152	1.360	3.316	#
23)		Hexachlor...	2.924	3.400f	8971	583078	0.049	1.551	#
24)		Hexachlor...	5.522	6.196	153725	327358	0.872	1.042	
25)		Oxychlordane	0.000	7.640	0	1192545	N.D.	4.354	#
26)		2,4'-DDE	7.094	7.858	255451	457597	1.992	2.157	
27)		trans-Non...	7.260	7.943	707862	1030172	3.635	3.415	
28)		2,4'-DDD	7.439	8.227	365840	212135	3.206	1.123	#
29)		2,4'-DDT	7.601f	8.440	664263	214734	6.056	1.204	#
30)		cis-Nonac...	7.731	8.488	345894	663957	1.666	1.979	
31)		Mirex	8.336f	9.403	355157	853152	2.833	4.585	#
32)		Chlordane...	7.260f	7.943	707862	1030172	35.951	28.470	
33)		Chlordane...	7.351	8.041	92329	163730	3.684	5.392	#
34)		Chlordane...	7.899f	8.698	185818	236055	32.142	26.328	
35)		Chlordane...	3.362	3.347	44010	69899	NoCal	NoCal	
36)		Toxaphene...	7.383	8.360	72054	165703	80.449	63.143	
37)		Toxaphene...	7.684	8.723	481034	731495	297.865	222.270	
38)		Toxaphene...	7.992	8.770f	219496	405323	65.181	79.972	
39)		Toxaphene...	8.220f	8.815	268003	398951	82.713	47.780	#
40)		Toxaphene...	8.467	8.981	916688	760344	382.409	163.151	#
41)		Toxaphene...	8.544	9.367	483643	766362	152.830	161.333	
42)		Toxaphene...	3.362	3.347	44010	69899	NoCal	NoCal	

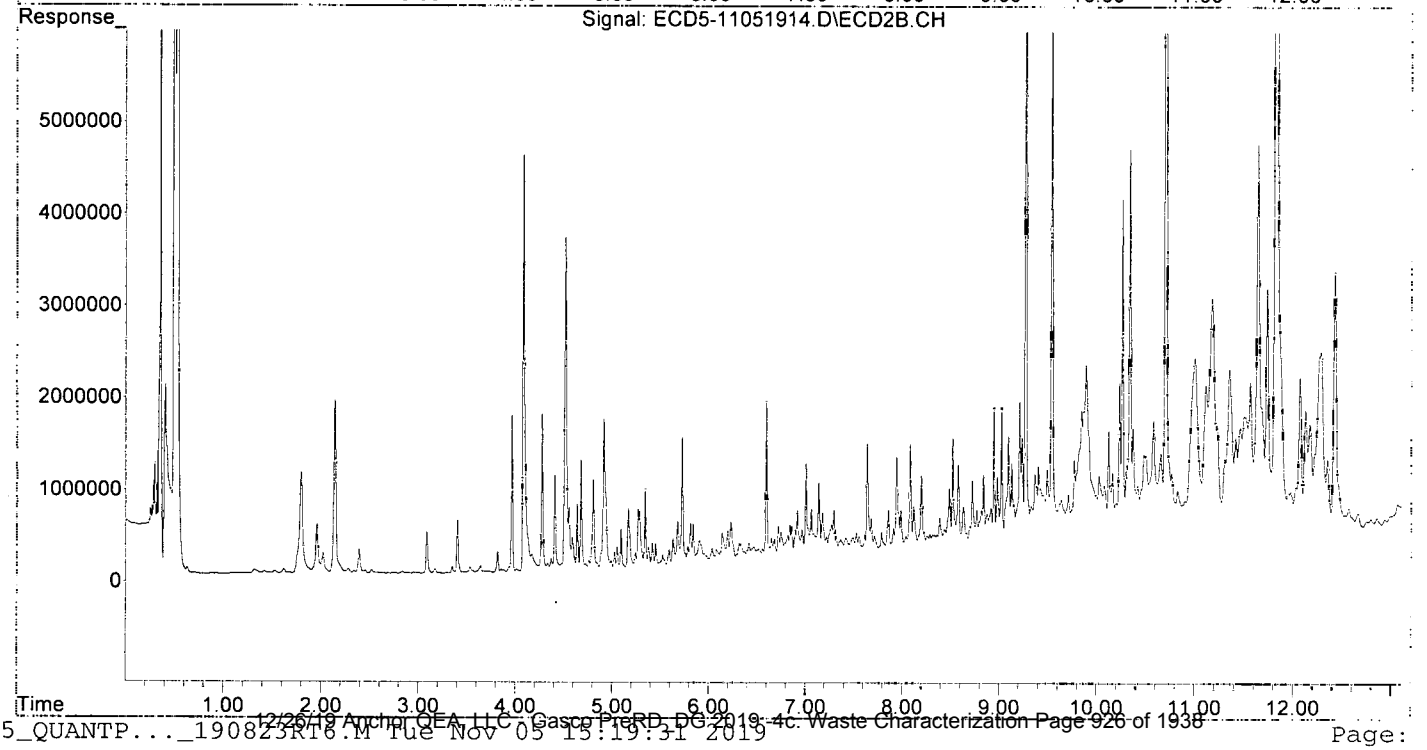
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 14:40
Operator : MJB
Sample : A9J0950-03RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:19:30 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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\2019-11\9K05039\
Data File : ECD5-11051916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:14
Operator : MJB
Sample : A9J0950-04RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 16:06:07 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

R-04

MJB 11/5/19

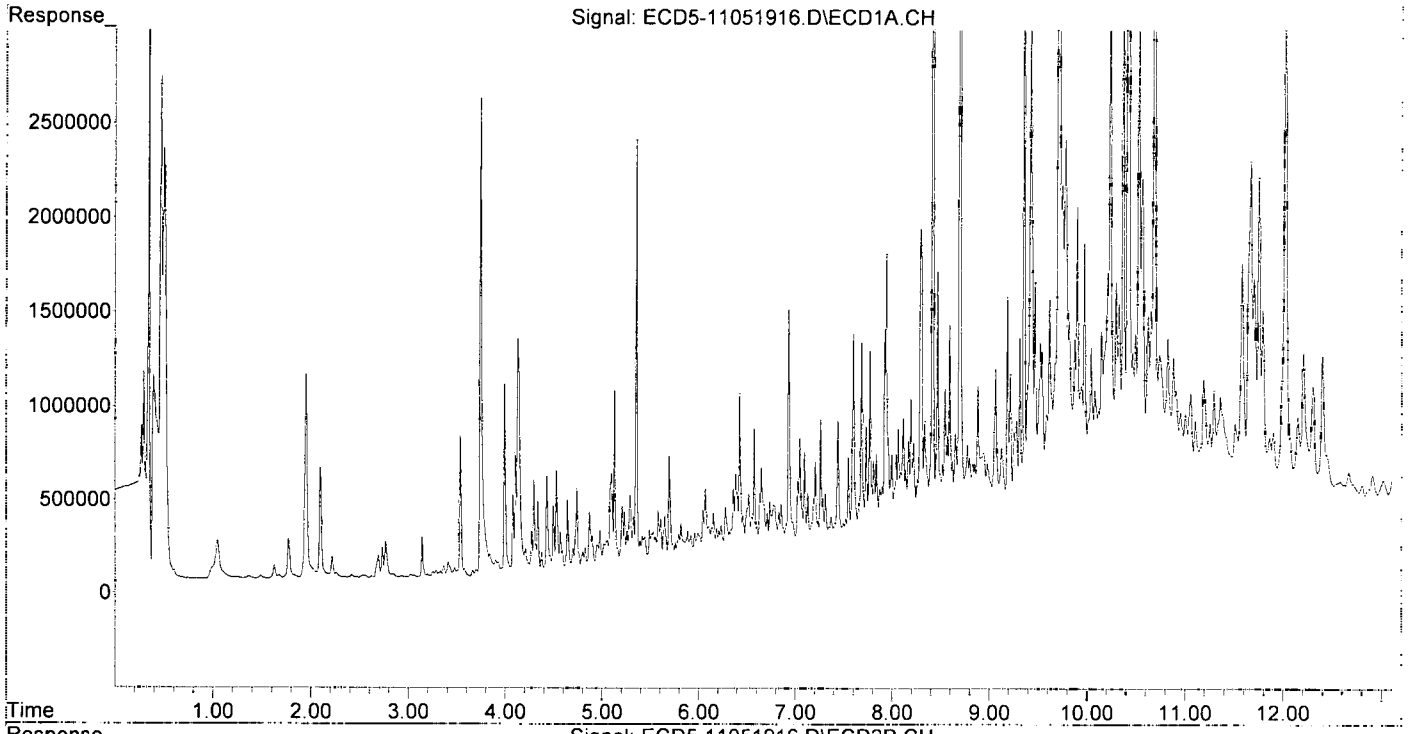
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.129	5.727	918208	1379963	~~5.532~~	~~4.704~~	S-04
22)	S DCBP (S)	9.315	10.232	1007005	2094920	7.137	11.654 #	
	Target Compounds							
2)	a-BHC	5.648f	6.336	227669	196349	0.993	0.479 #	
3)	g-BHC	5.958	6.648	123016	279509	0.610	0.784	
4)	b-BHC	6.043	6.723	241339	368339	2.670	2.327	MDL-MRL
5)	Heptachlor	6.359	7.015	340117	628029	1.876	2.053m	R-01
6)	d-BHC	6.184	6.964	137483	443406	0.699	1.257 #	
7)	Aldrin	6.575f	7.295	653117	909012	3.308	2.760	
8)	Heptachlo...	7.048	7.717	579185	241620	3.145	0.803 #	
9)	trans-Chl...	7.129f	7.860	277433	765452	1.501	2.443 #	
10)	cis-Chlor...	7.262	7.965	668126	526372	3.670	1.807 #	
11)	Endosulfa...	7.369f	8.042f	144323	237663	0.848	0.864	
12)	4,4'-DDE	7.311	8.086	271458	1249970	1.440	4.023 #	
13)	Dieldrin	7.521	8.228	126556	359122	0.659	1.181 #	
14)	Endrin	7.686	8.441	1060072	294203	7.210	1.303 #	MDL-MRL
15)	4,4'-DDD	7.732	8.490	606900	1184307	3.862	4.622	
16)	Endosulfa...	7.838	8.578	456681	1135948	3.180	4.926 #	
17)	4,4'-DDT	7.942	8.723	1516994	1785126	12.688	10.177	
18)	Endrin Al...	8.117	8.817	637299	538789	4.441	2.096 #	
19)	Endosulfa...	8.419	9.026	5811365	2206935	37.498	8.860 #	
20)	Methoxychlor	8.285	9.206	1086438	1566814	18.548m	18.527m	R-02
21)	Endrin Ke...	8.594	9.406	1108822	1164900	6.649	4.527	
23)	Hexachlor...	2.926	3.455f	7834	11703	0.043	0.031	
24)	Hexachlor...	5.530	6.194	148509	243767	0.842	0.776	
25)	Oxychlordane	0.000	7.641	0	1740529	N.D.	6.355 #	
26)	2,4'-DDE	7.096f	7.860	502071	765452	3.914	3.608	
27)	trans-Non...	7.262	7.943	668126	961936	3.413	3.189	
28)	2,4'-DDD	7.440	8.228	657251	359122	5.759	1.901 #	
29)	2,4'-DDT	7.601f	8.441	1110299	294203	10.122	1.650 #	
30)	cis-Nonac...	7.732	8.490	606900	1184307	2.923	3.531	
31)	Mirex	8.336f	9.406	605534	1164900	4.830	6.260	
32)	Chlordane...	7.262f	7.943	668126	961936	33.933	26.584	
33)	Chlordane...	7.311f	8.042	271458	237663	10.830	7.827	
34)	Chlordane...	7.875	8.701	267420	333544	46.257	37.201	
35)	Chlordane...	3.363	3.349	56576	19604	NoCal	NoCal	
36)	Toxaphene...	7.369f	8.363	144323	250557	161.138	95.477 #	
37)	Toxaphene...	7.686	8.723	1060072	1785126	656.416	542.423	
38)	Toxaphene...	7.997	8.771f	452616	857133	134.408	169.116	
39)	Toxaphene...	8.223f	8.817	501507	538789	154.779	64.527 #	
40)	Toxaphene...	8.469	8.983	1397640	1549531	583.044	332.492 #	
41)	Toxaphene...	8.547	9.368	774725	1889960	244.811	397.869 #	
42)	Toxaphene...	3.363	3.349	56576	19604	NoCal	NoCal	

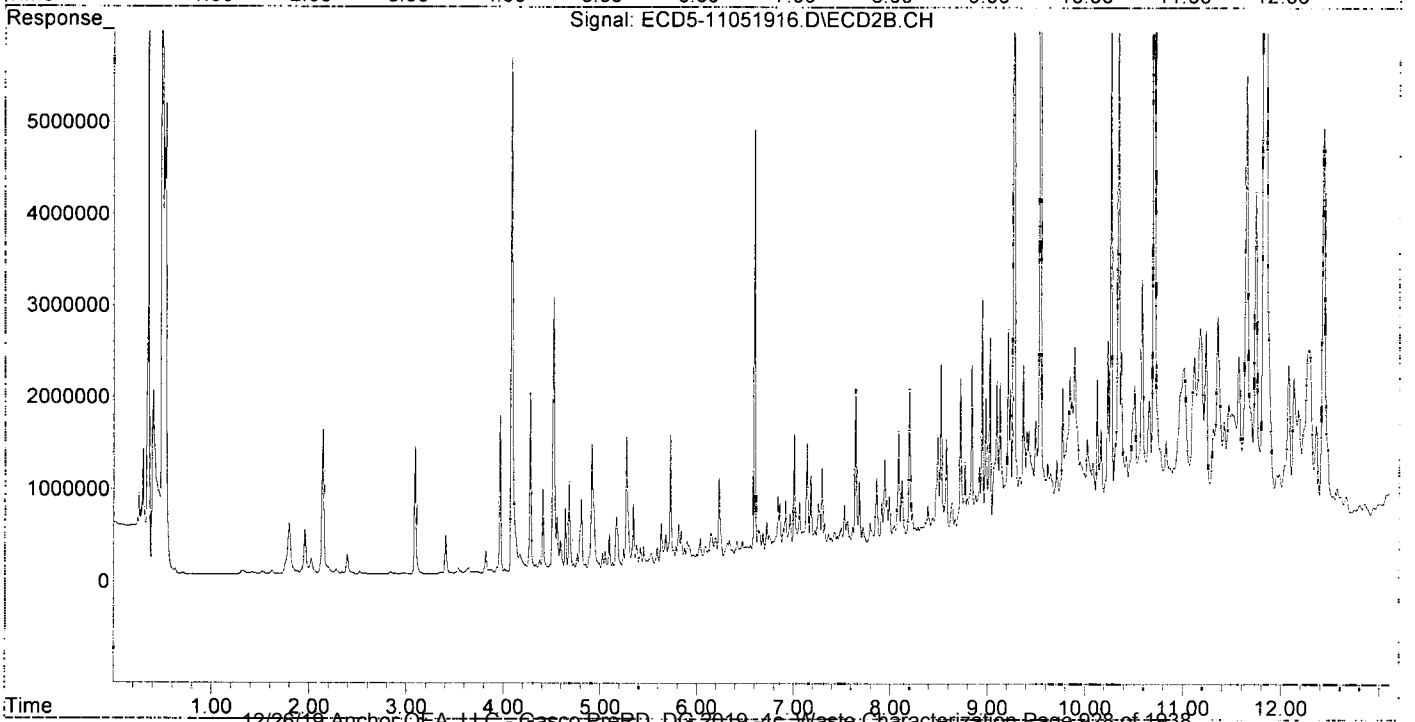
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:14
Operator : MJB
Sample : A9J0950-04RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 16:06:07 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

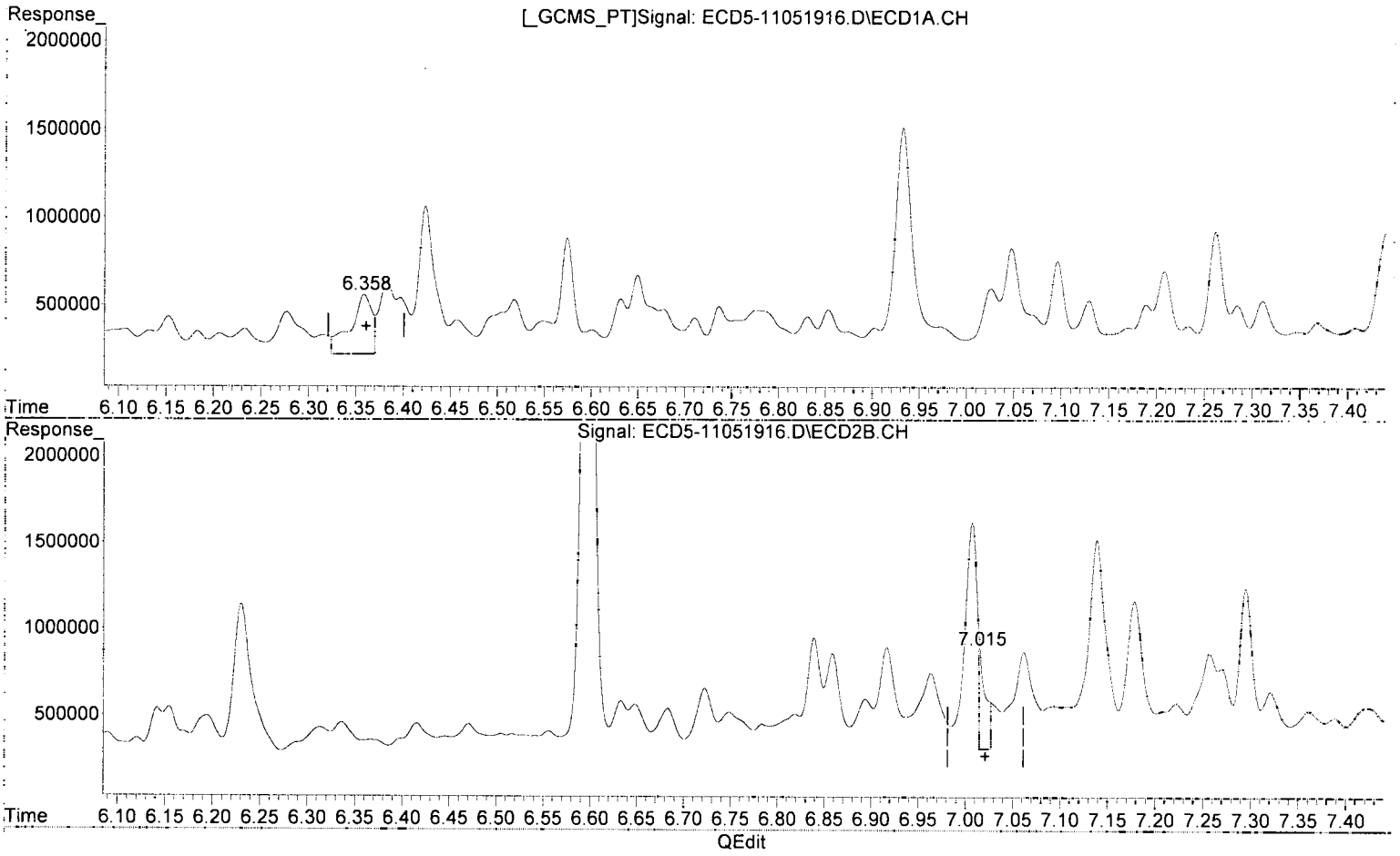




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:14
Operator : MJB
Sample : A9J0950-04RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:34:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(5) Heptachlor

6.359min 1.876 ng/mL MDL-MRL

response 340117

WB 11/5/19

(5) Heptachlor #2

7.015min 2.053 ng/mL (m) P-01

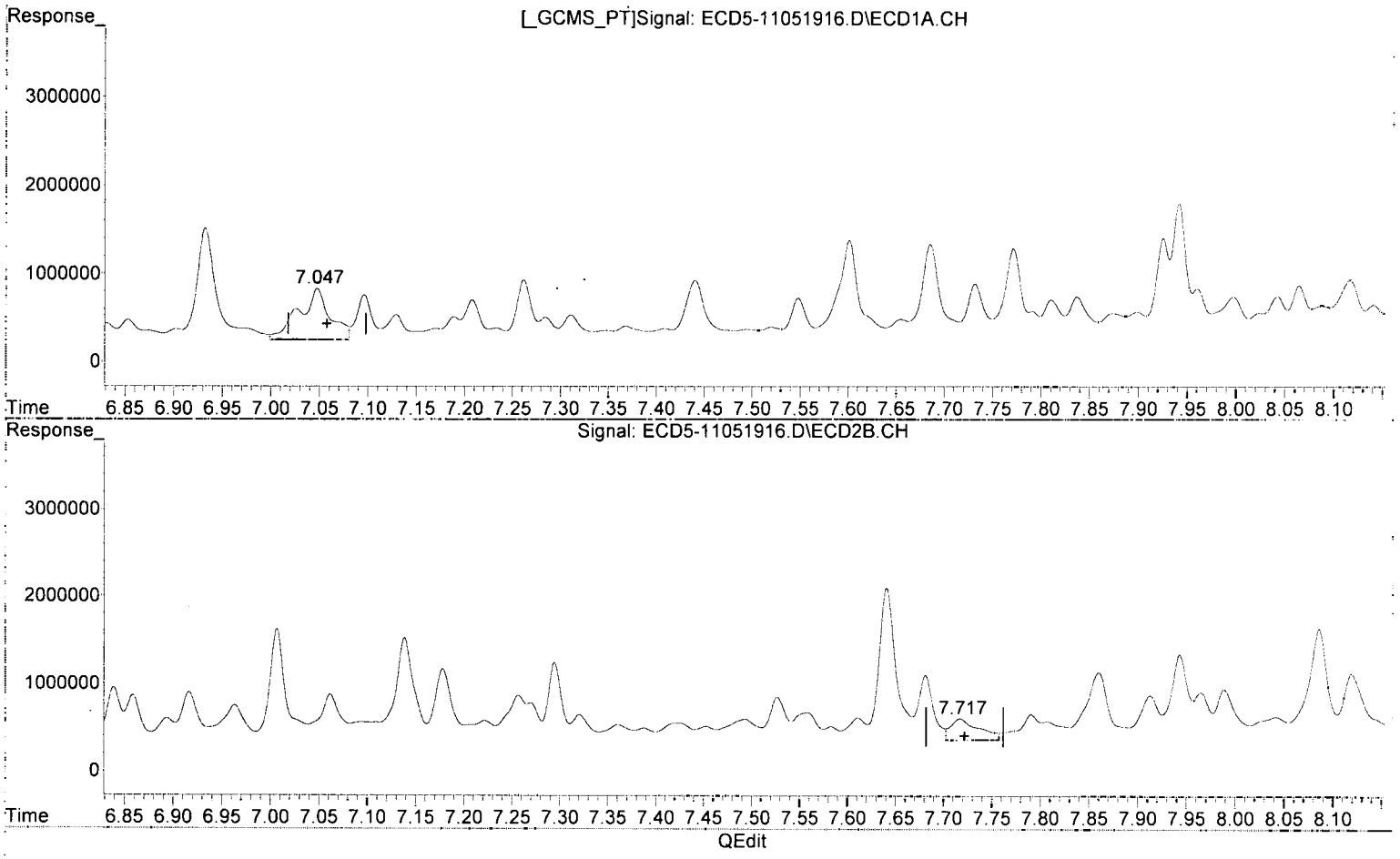
response 628029

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:14
Operator : MJB
Sample : A9J0950-04RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:34:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(8) Heptachlor Expoxide

7.048min 3.145 ng/mL

response 579185

MJB 11/5/19

(8) Heptachlor Expoxide #2

7.717min 0.803 ng/mL

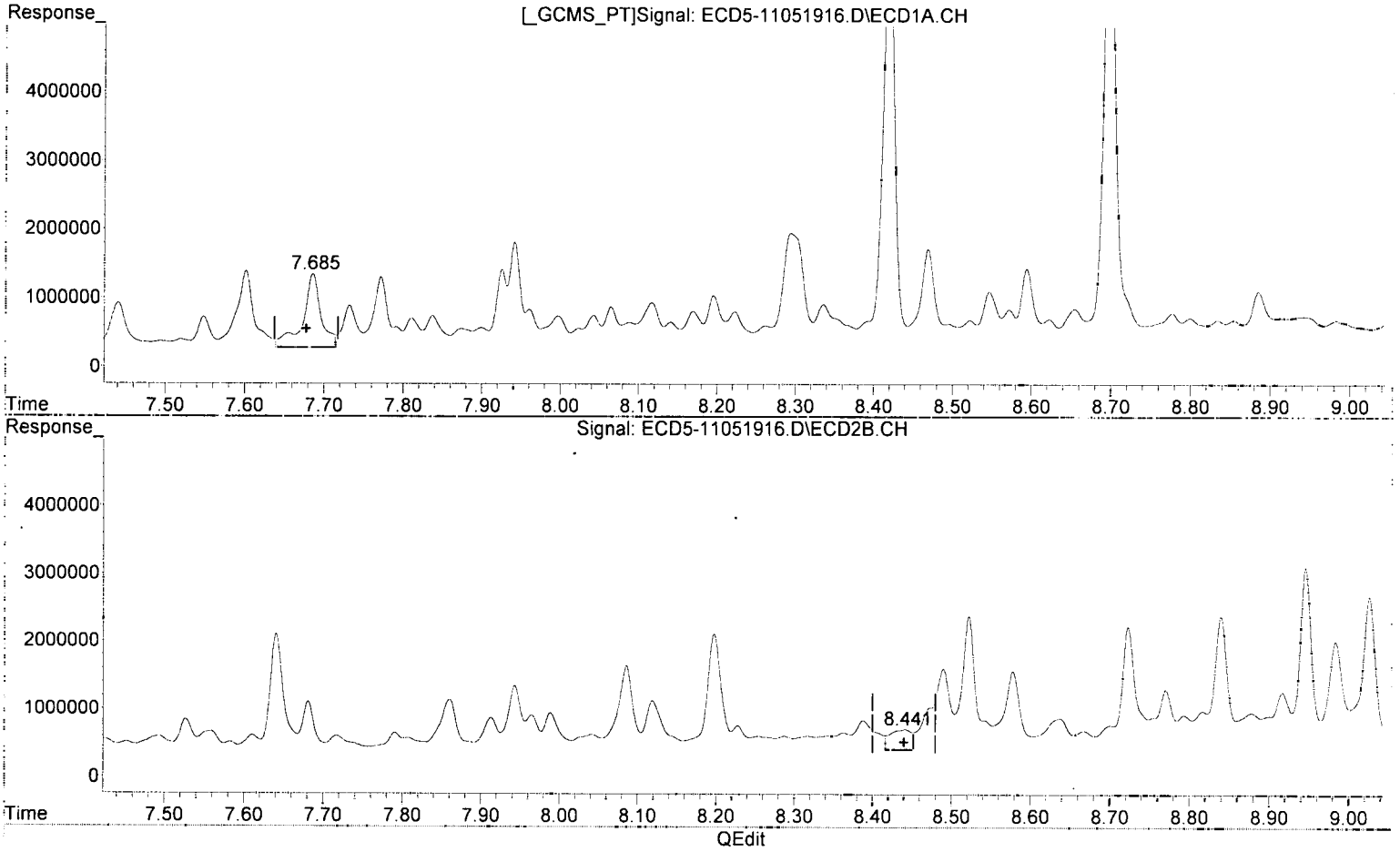
response 241620

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:14
Operator : MJB
Sample : A9J0950-04RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:34:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(14) Endrin

7.686min 7.210 ng/mL

response 1060072

MJB 11/5/19

(14) Endrin #2

8.441min 1.303 ng/mL MDL=MRL

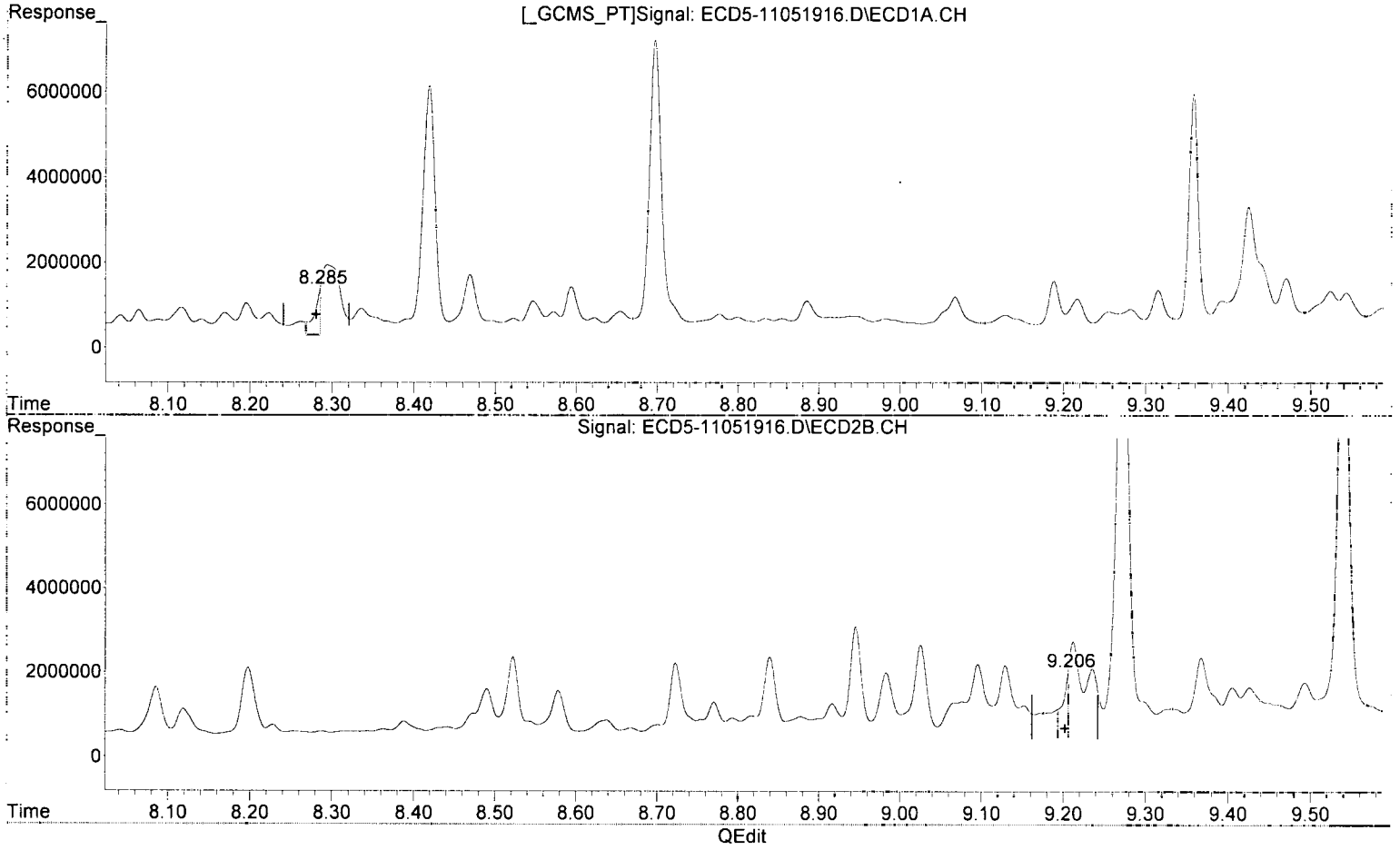
response 294203

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:14
Operator : MJB
Sample : A9J0950-04RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:34:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

8.285min 18.548 ng/ml (m)

response 1086438

MB 11/5/19

(20) Methoxychlor #2

9.206min 18.527 ng/ml (m) R-02

response 1566814

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:14
Operator : MJB
Sample : A9J0950-04RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:34:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

AT MJB 11/5/19

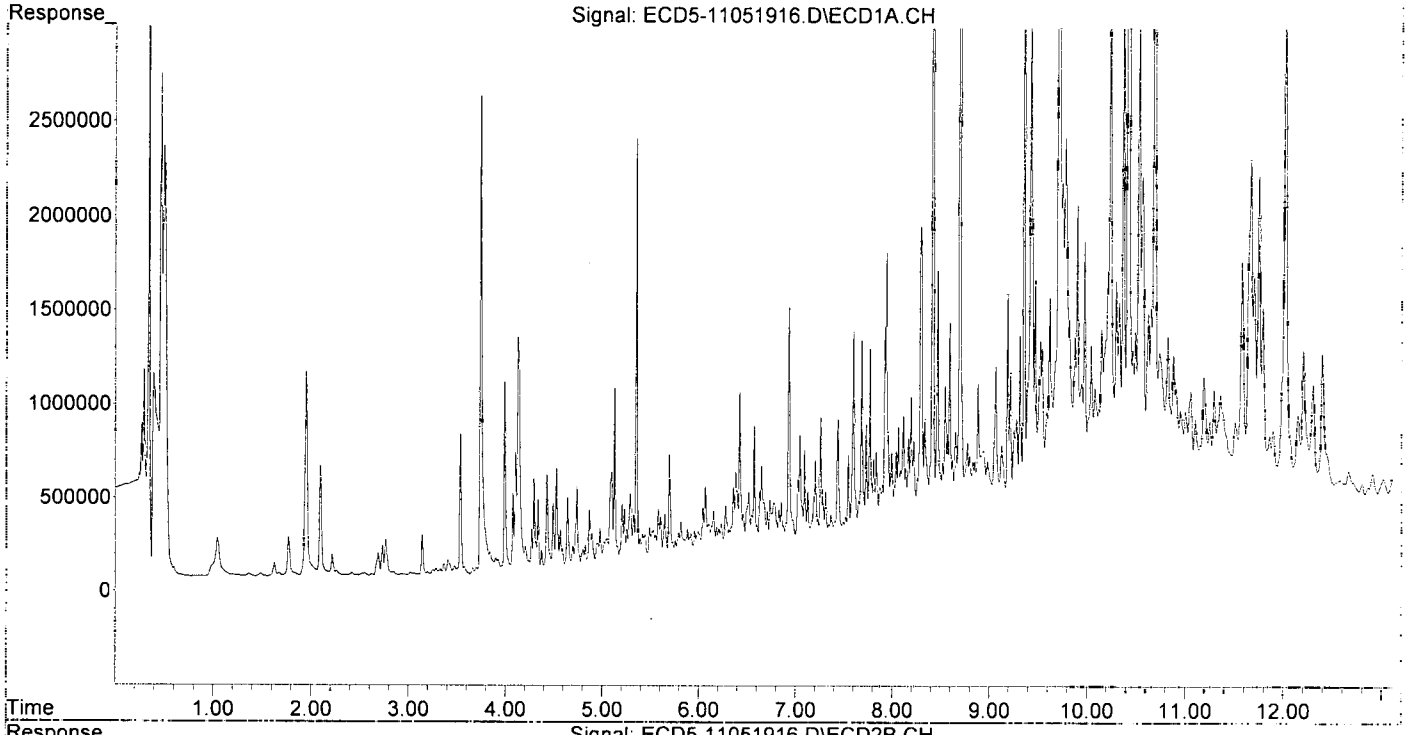
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.129	5.727	918208	1379963	5.532	4.704	
22)	S	DCBP (S)	9.315	10.232	1007005	2094920	7.137	11.654	#
		Target Compounds							
2)		a-BHC	5.648f	6.336	227669	196349	0.993	0.479	#
3)		g-BHC	5.958	6.648	123016	279509	0.610	0.784	
4)		b-BHC	6.043	6.723	241339	368339	2.670	2.327	
5)		Heptachlor	6.359	7.007	340117	1308809	1.876	4.277	#
6)		d-BHC	6.184	6.964	137483	443406	0.699	1.257	#
7)		Aldrin	6.575f	7.295	653117	909012	3.308	2.760	
8)		Heptachlo...	7.048	7.717	579185	241620	3.145	0.803	#
9)		trans-Chl...	7.129f	7.860	277433	765452	1.501	2.443	#
10)		cis-Chlor...	7.262	7.965	668126	526372	3.670	1.807	#
11)		Endosulfa...	7.369f	8.042f	144323	237663	0.848	0.864	
12)		4,4'-DDE	7.311	8.086	271458	1249970	1.440	4.023	#
13)		Dieldrin	7.521	8.228	126556	359122	0.659	1.181	#
14)		Endrin	7.686	8.441	1060072	294203	7.210	1.303	#
15)		4,4'-DDD	7.732	8.490	606900	1184307	3.862	4.622	
16)		Endosulfa...	7.838	8.578	456681	1135948	3.180	4.926	#
17)		4,4'-DDT	7.942	8.723	1516994	1785126	12.688	10.177	
18)		Endrin Al...	8.117	8.817	637299	538789	4.441	2.096	#
19)		Endosulfa...	8.419	9.026	5811365	2206935	37.498	8.860	#
20)		Methoxychlor	8.296	9.212	1635564	2274727	27.923	26.527	
21)		Endrin Ke...	8.594	9.406	1108822	1164900	6.649	4.527	
23)		Hexachlor...	2.926	3.455f	7834	11703	0.043	0.031	
24)		Hexachlor...	5.530	6.194	148509	243767	0.842	0.776	
25)		Oxychlordane	0.000	7.641	0	1740529	N.D.	6.355	#
26)		2,4'-DDE	7.096f	7.860	502071	765452	3.914	3.608	
27)		trans-Non...	7.262	7.943	668126	961936	3.413	3.189	
28)		2,4'-DDD	7.440	8.228	657251	359122	5.759	1.901	#
29)		2,4'-DDT	7.601f	8.441	1110299	294203	10.122	1.650	#
30)		cis-Nonac...	7.732	8.490	606900	1184307	2.923	3.531	
31)		Mirex	8.336f	9.406	605534	1164900	4.830	6.260	
32)		Chlordane...	7.262f	7.943	668126	961936	33.933	26.584	
33)		Chlordane...	7.311f	8.042	271458	237663	10.830	7.827	
34)		Chlordane...	7.875	8.701	267420	333544	46.257	37.201	
35)		Chlordane...	3.363	3.349	56576	19604	NoCal	NoCal	
36)		Toxaphene...	7.369f	8.363	144323	250557	161.138	95.477	#
37)		Toxaphene...	7.686	8.723	1060072	1785126	656.416	542.423	
38)		Toxaphene...	7.997	8.771f	452616	857133	134.408	169.116	
39)		Toxaphene...	8.223f	8.817	501507	538789	154.779	64.527	#
40)		Toxaphene...	8.469	8.983	1397640	1549531	583.044	332.492	#
41)		Toxaphene...	8.547	9.368	774725	1889960	244.811	397.869	#
42)		Toxaphene...	3.363	3.349	56576	19604	NoCal	NoCal	

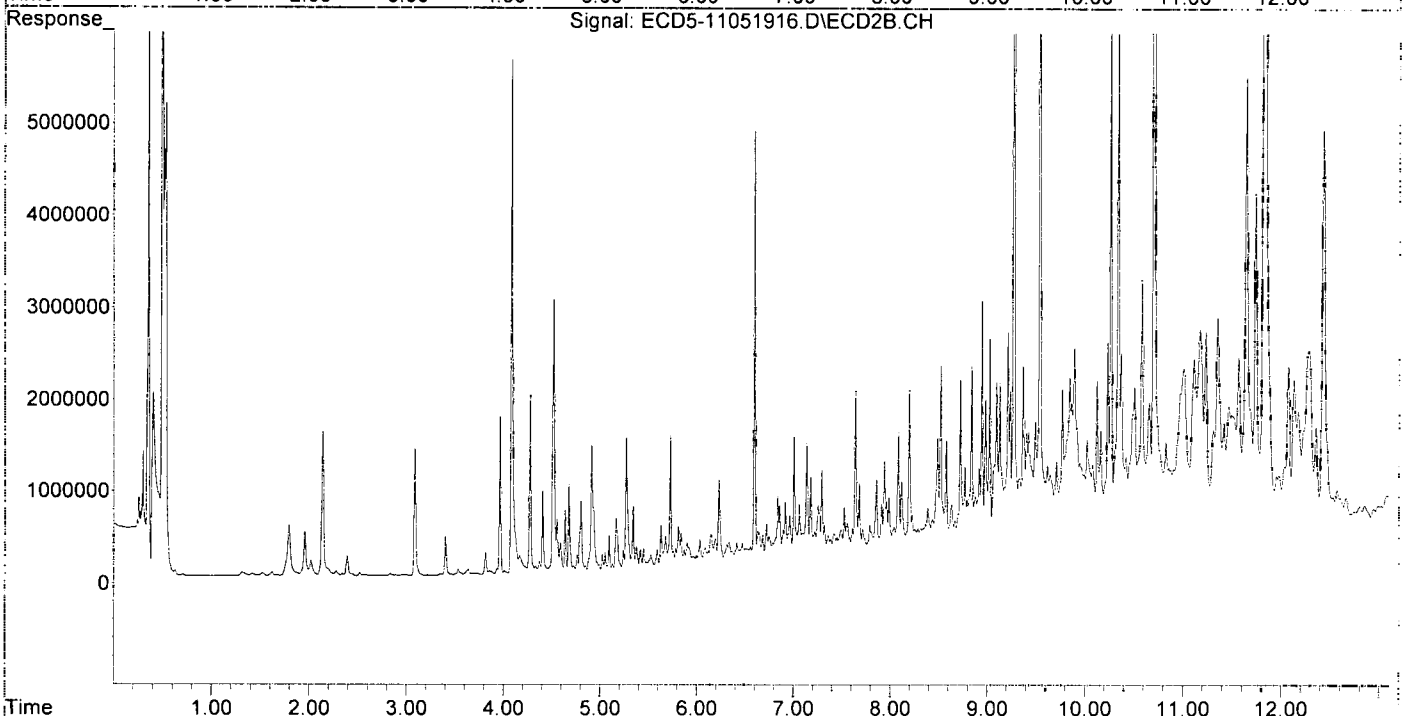
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:14
Operator : MJB
Sample : A9J0950-04RE1@10
Misc : 10x, 8081B, GPC
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: Nov 05 15:34:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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\2019-11\9K05039\
Data File : ECD5-11051918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:49
Operator : MJB
Sample : 9K05039-CCV2
Misc : A19H384, 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 05 16:10:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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 11/5/19

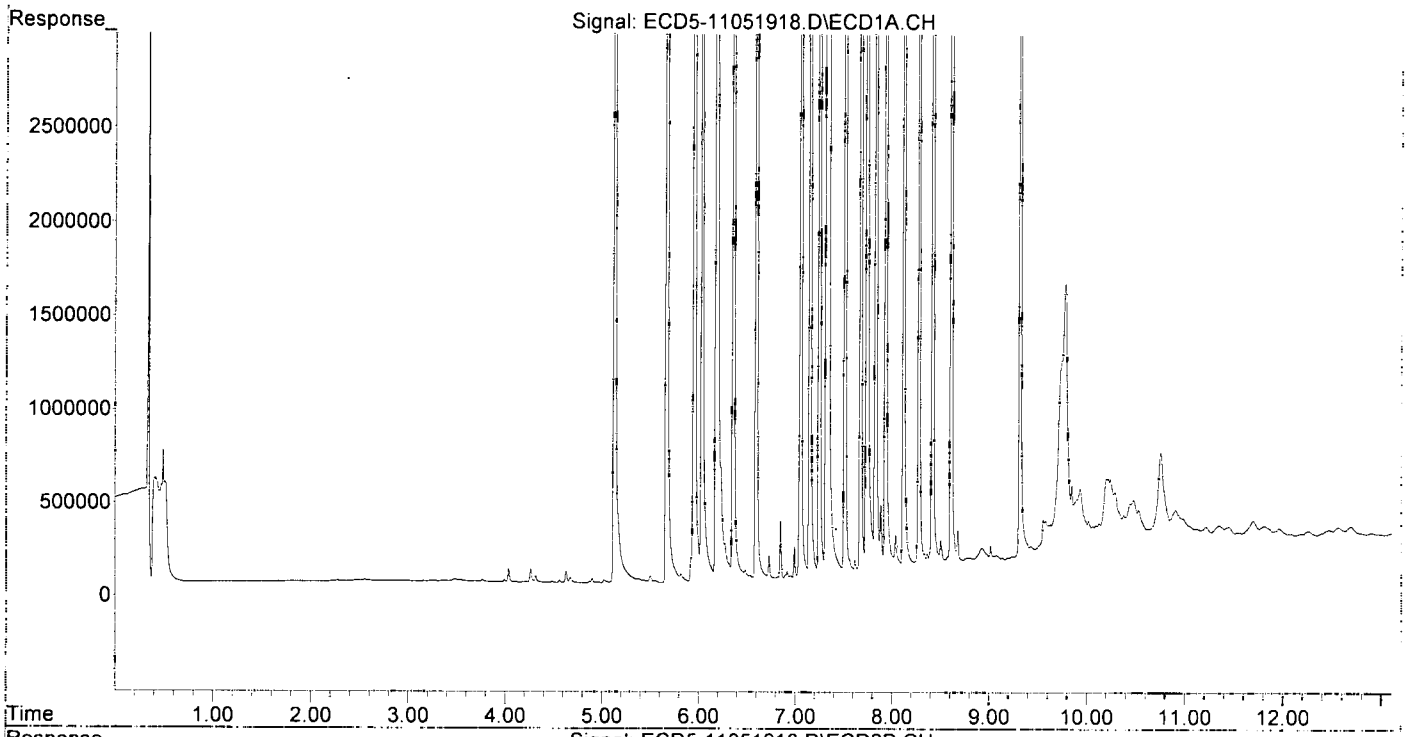
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.726	16501470	26786097	99.421	91.306	
22)	S	DCBP (S)	9.317	10.234	13789751	20632964	97.731	114.779	
		Target Compounds							
2)		a-BHC	5.667	6.334	24292428	45061637	105.928	109.816	
3)		g-BHC	5.951	6.652	20018551	39032193	99.211 Q-31	109.425	
4)		b-BHC	6.032	6.721	6630186	14299555	73.356	90.351	
5)		Heptachlor	6.358	7.020	20993237	38383285	115.795	125.445 Q-41	
6)		d-BHC	6.181	6.972	16640343	34630500	84.602	98.196	
7)		Aldrin	6.596	7.282	20892545	37959241	105.814	115.240	
8)		Heptachlo...	7.055	7.720	18254338	32720942	99.112	108.762	
9)		trans-Chl...	7.151	7.859	17720719	33142512	95.844	105.776	
10)		cis-Chlor...	7.247	7.967	18541582	31386031	101.837	107.764	
11)		Endosulfa...	7.341	8.014	18708541	29266801	109.934m	106.356	
12)		4,4'-DDE	7.319	8.082	16477251	30261969	87.399m	97.406	
13)		Dieldrin	7.513	8.214	20409281	34832482	106.310	114.524	
14)		Endrin	7.675	8.439	16969990	27534492	115.421	121.927 Q-41	
15)		4,4'-DDD	7.738	8.495	13114509	25596829	83.457	99.904	
16)		Endosulfa...	7.831	8.586	14760099	25450565	102.778	110.364	
17)		4,4'-DDT	7.933	8.719	13443623	23788286	112.442	113.803	
18)		Endrin Al...	8.120	8.824	12595562	21847854	100.277	105.477	
19)		Endosulfa...	8.418	9.014	15792326	27184436	101.901	109.136	
20)		Methoxychlor	8.277	9.200	6608443	11370574	112.822	112.881	
21)		Endrin Ke...	8.610	9.406	17780940	29922970	106.627	116.289	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.503	6.237f	32763	16345	0.186	0.052	#
25)		Oxychlordane	6.993	7.660	162402	6040	0.987	0.022	#
26)		2,4'-DDE	7.055	7.859	18254338	33142512	142.322	156.231	
27)		trans-Non...	7.247	7.920	18541582	119737	103.296	0.397	#
28)		2,4'-DDD	0.000	8.214f	0	34832482	N.D.	184.432	#
29)		2,4'-DDT	7.620	8.439	70377	27534492	0.642	154.394	#
30)		cis-Nonac...	7.738f	8.495	13114509	25596829	63.167	76.306	
31)		Mirex	0.000	9.406	0	29922970	N.D.	160.813	#
32)		Chlordane...	7.247	7.967f	18541582	31386031	941.694	867.387	
33)		Chlordane...	7.340	8.082f	19134917	30261969	763.433	996.638	
34)		Chlordane...	7.884	8.719	361649	23788286	62.557	2653.202	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	8.352	0	8812	N.D.	3.358	#
37)		Toxaphene...	7.675	8.719	16969990	23788286	10508.134	7228.230	
38)		Toxaphene...	8.039f	8.719f	184535	23788286	54.799	4693.528	#
39)		Toxaphene...	8.277f	8.824	6608443	21847854	2039.547	2616.562	
40)		Toxaphene...	8.505f	9.014f	142043	27184436	59.255	5833.122	#
41)		Toxaphene...	8.505f	9.406f	142043	29922970	44.885	6299.304	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

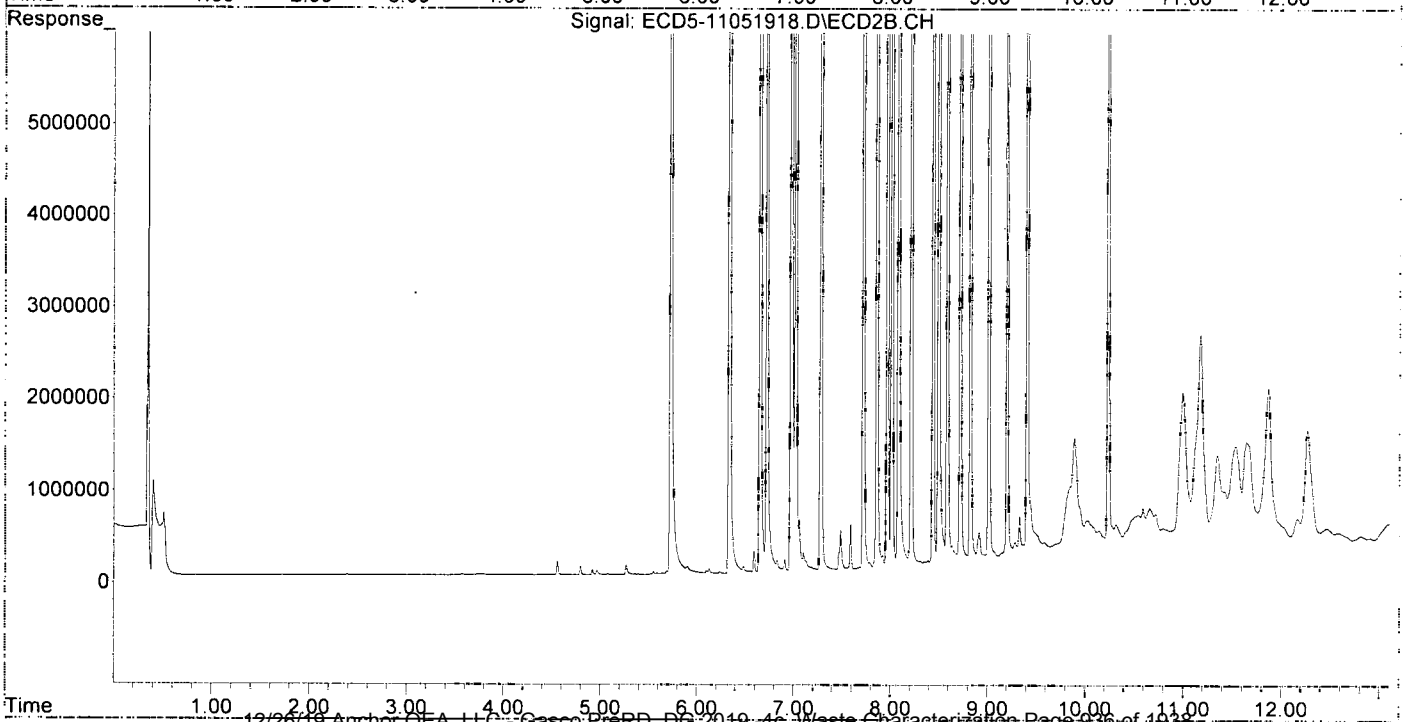
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:49
Operator : MJB
Sample : 9K05039-CCV2
Misc : A19H384, 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 05 16:10:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

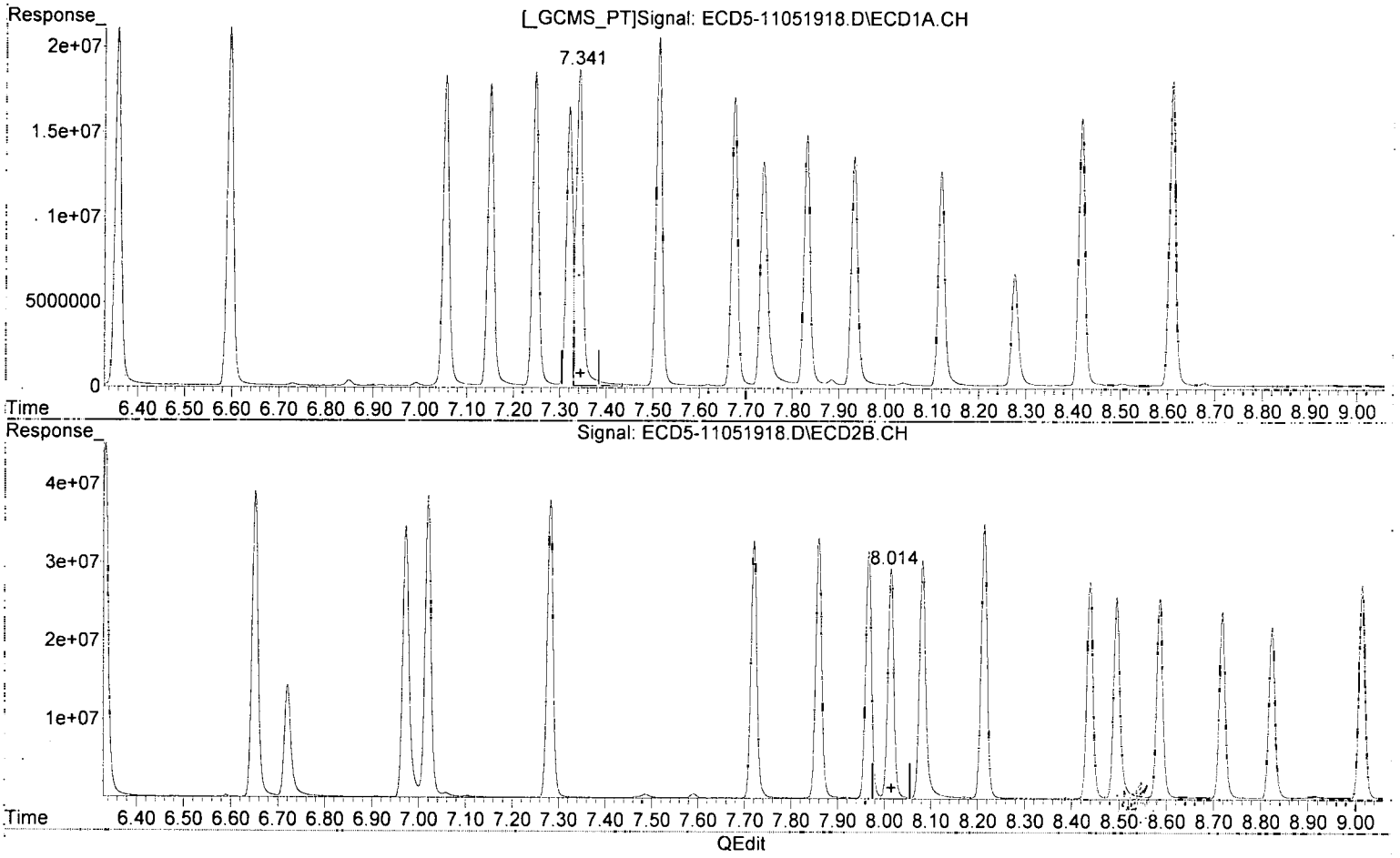




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:49
Operator : MJB
Sample : 9K05039-CCV2
Misc : A19H384, 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 05 16:09:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(11) Endosulfan I

7.341min 109.934 ng/mL (m)

response 18708541

WB 11/5/19

(11) Endosulfan I #2

8.014min 106.356 ng/mL

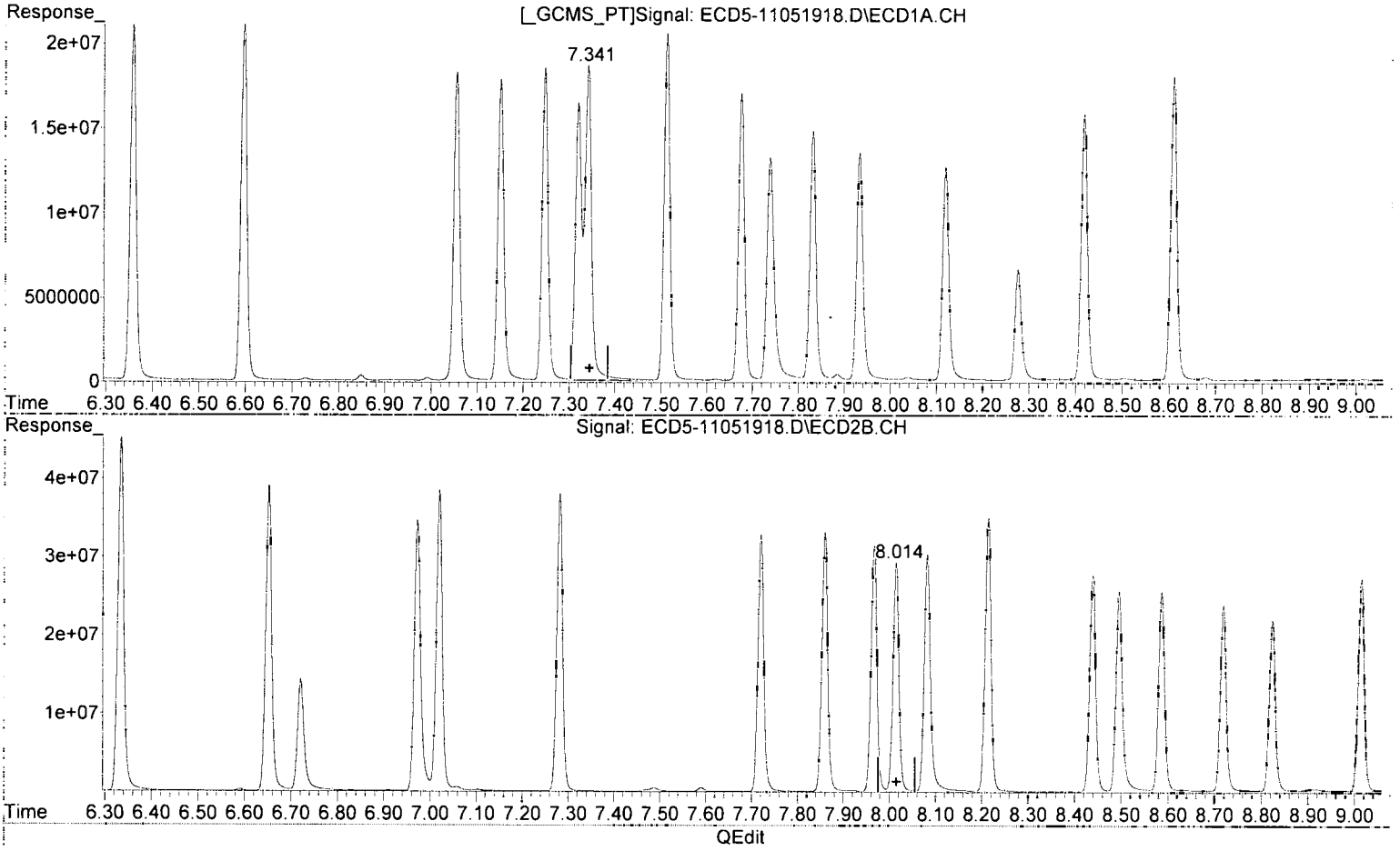
response 29266801

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:49
Operator : MJB
Sample : 9K05039-CCV2
Misc : A19H384, 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 05 16:09:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(11) Endosulfan I

7.340min 112.439 ng/mL

response 19134917

MJB 11/5/19

(11) Endosulfan I #2

8.014min 106.356 ng/mL

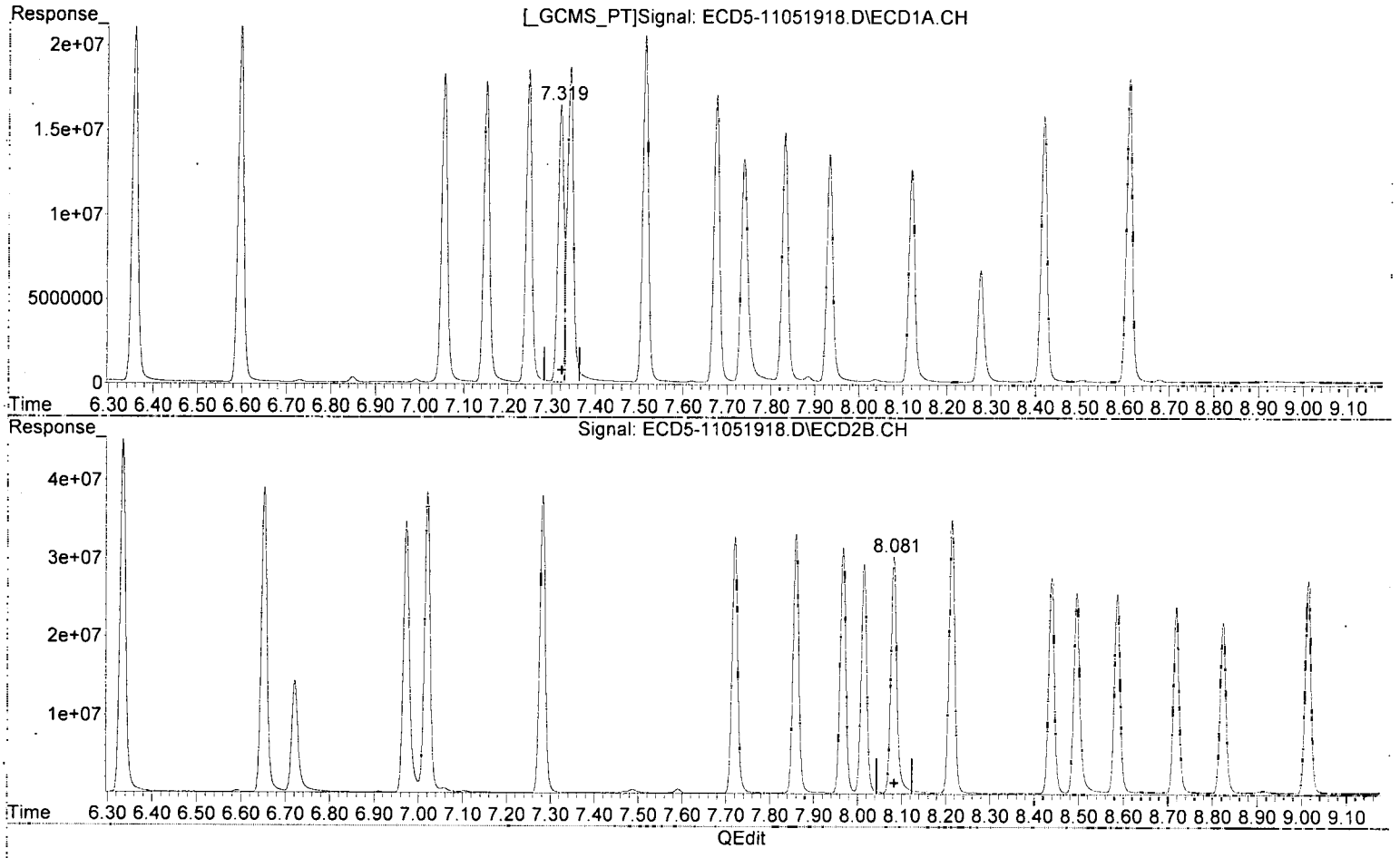
response 29266801

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:49
Operator : MJB
Sample : 9K05039-CCV2
Misc : A19H384, 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 05 16:09:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.319min 87.399 ng/mL (m)

response 16477251

MJB 11/5/19

(12) 4,4'-DDE #2

8.082min 97.406 ng/mL

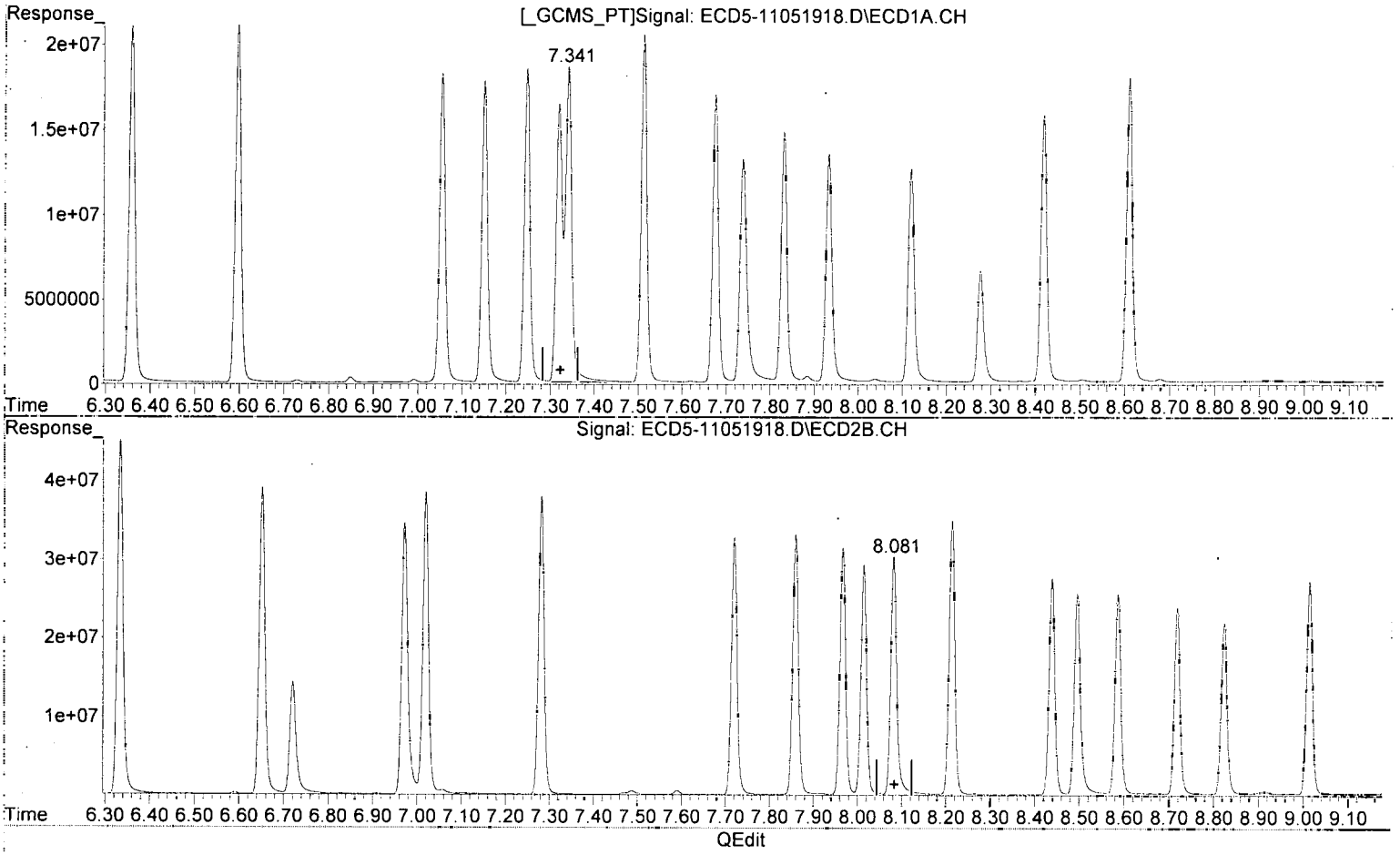
response 30261969

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:49
Operator : MJB
Sample : 9K05039-CCV2
Misc : A19H384, 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 05 16:09:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.340min 101.496 ng/mL

response 19134917

MJB 11/6/19

(12) 4,4'-DDE #2

8.082min 97.406 ng/mL

response 30261969

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:49
Operator : MJB
Sample : 9K05039-CCV2
Misc : A19H384, 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 05 16:09:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

MT
MB 11/5/19

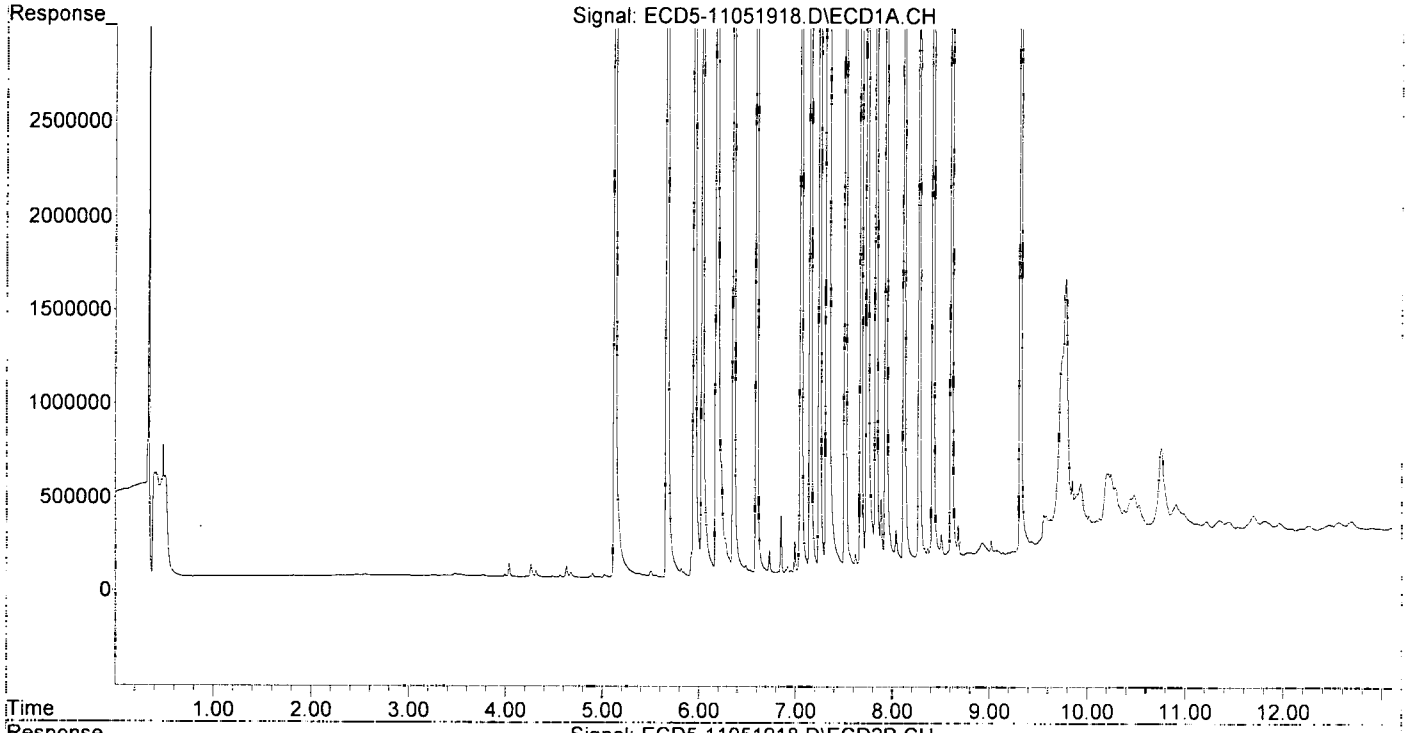
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.726	16501470	26786097	99.421	91.306	
22)	S	DCBP (S)	9.317	10.234	13789751	20632964	97.731	114.779	
		Target Compounds							
2)		a-BHC	5.667	6.334	24292428	45061637	105.928	109.816	
3)		g-BHC	5.951	6.652	20018551	39032193	99.211	109.425	
4)		b-BHC	6.032	6.721	6630186	14299555	73.356	90.351	
5)		Heptachlor	6.358	7.020	20993237	38383285	115.795	125.445	
6)		d-BHC	6.181	6.972	16640343	34630500	84.602	98.196	
7)		Aldrin	6.596	7.282	20892545	37959241	105.814	115.240	
8)		Heptachlo...	7.055	7.720	18254338	32720942	99.112	108.762	
9)		trans-Chl...	7.151	7.859	17720719	33142512	95.844	105.776	
10)		cis-Chlor...	7.247	7.967	18541582	31386031	101.837	107.764	
11)		Endosulfa...	7.340	8.014	19134917	29266801	112.439	106.356	
12)		4,4'-DDE	7.340	8.082	19134917	30261969	101.495	97.406	
13)		Dieldrin	7.513	8.214	20409281	34832482	106.310	114.524	
14)		Endrin	7.675	8.439	16969990	27534492	115.421	121.927	
15)		4,4'-DDD	7.738	8.495	13114509	25596829	83.457	99.904	
16)		Endosulfa...	7.831	8.586	14760099	25450565	102.778	110.364	
17)		4,4'-DDT	7.933	8.719	13443623	23788286	112.442	113.803	
18)		Endrin Al...	8.120	8.824	12595562	21847854	100.277	105.477	
19)		Endosulfa...	8.418	9.014	15792326	27184436	101.901	109.136	
20)		Methoxychlor	8.277	9.200	6608443	11370574	112.822	112.881	
21)		Endrin Ke...	8.610	9.406	17780940	29922970	106.627	116.289	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.503	6.237f	32763	16345	0.186	0.052	#
25)		Oxychlordane	6.993	7.660	162402	6040	0.987	0.022	#
26)		2,4'-DDE	7.055	7.859	18254338	33142512	142.322	156.231	
27)		trans-Non...	7.247	7.920	18541582	119737	103.296	0.397	#
28)		2,4'-DDD	0.000	8.214f	0	34832482	N.D.	184.432	#
29)		2,4'-DDT	7.620	8.439	70377	27534492	0.642	154.394	#
30)		cis-Nonac...	7.738f	8.495	13114509	25596829	63.167	76.306	
31)		Mirex	0.000	9.406	0	29922970	N.D.	160.813	#
32)		Chlordane...	7.247	7.967f	18541582	31386031	941.694	867.387	
33)		Chlordane...	7.340	8.082f	19134917	30261969	763.433	996.638	
34)		Chlordane...	7.884	8.719	361649	23788286	62.557	2653.202	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	8.352	0	8812	N.D.	3.358	#
37)		Toxaphene...	7.675	8.719	16969990	23788286	10508.134	7228.230	
38)		Toxaphene...	8.039f	8.719f	184535	23788286	54.799	4693.528	#
39)		Toxaphene...	8.277f	8.824	6608443	21847854	2039.547	2616.562	
40)		Toxaphene...	8.505f	9.014f	142043	27184436	59.255	5833.122	#
41)		Toxaphene...	8.505f	9.406f	142043	29922970	44.885	6299.304	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

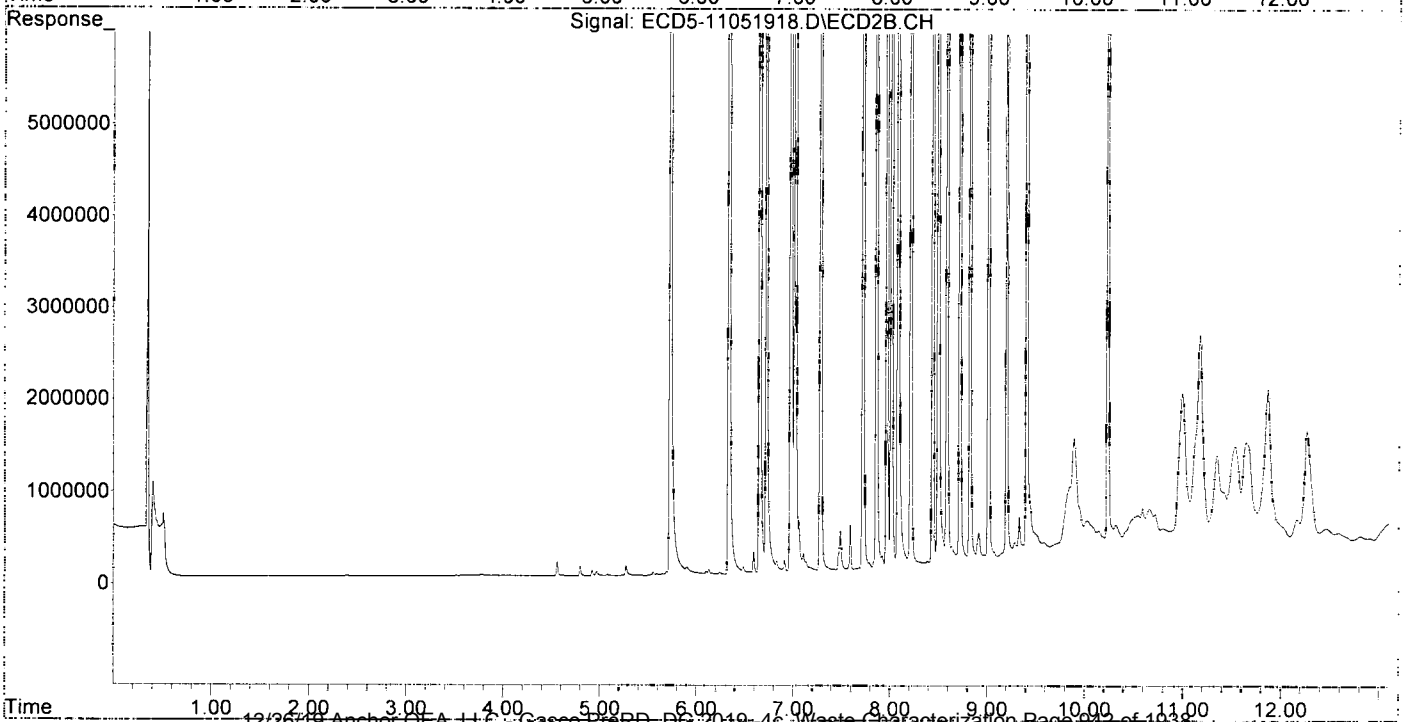
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 15:49
Operator : MJB
Sample : 9K05039-CCV2
Misc : A19H384, 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 05 16:09:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-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 05 16:21:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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 11/5/19

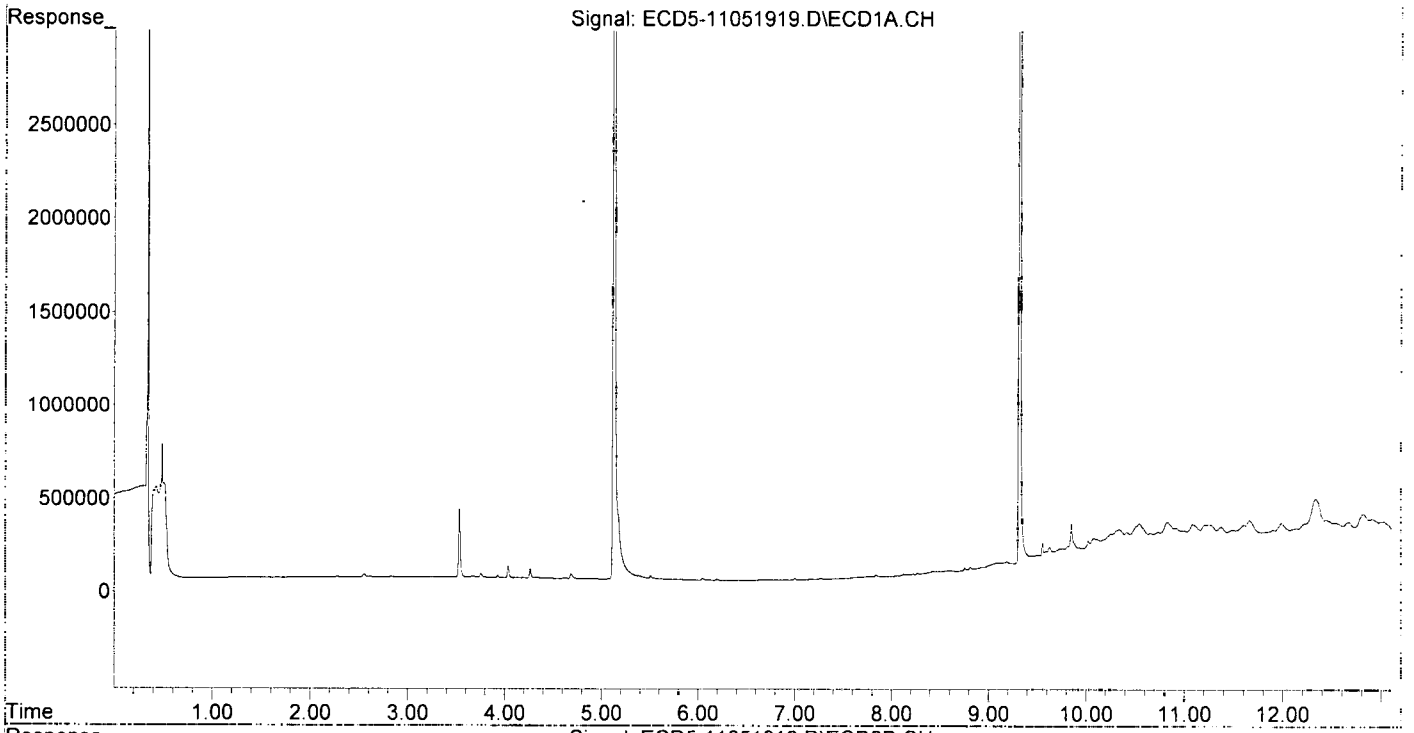
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.128	5.725	14903488	23732892	89.793	80.898
22)	S	DCBP (S)	9.318	10.235	11176139	17433119	79.208	96.978
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.
4)		b-BHC	6.046	0.000	10028	0	0.111	N.D. #
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.
6)		d-BHC	6.197	6.979	5567	11705	0.028	0.033
7)		Aldrin	6.636f	0.000	1877	0	0.010	N.D. #
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.
9)		trans-Chl...	7.160	7.875	2392	53749	0.013	0.172m#
10)		cis-Chlor...	7.261	7.987	3577	61589	0.020	0.211m#
11)		Endosulfa...	7.307f	8.043f	1210	65761	0.007	0.239m#
12)		4,4'-DDE	7.307	8.101	1210	68692	0.006	0.221m#
13)		Dieldrin	0.000	8.199	0	57989	N.D.	0.191m#
14)		Endrin	7.662	8.410f	2088	92097	0.014	0.408m#
15)		4,4'-DDD	7.755	8.477f	2813	74461	0.018	0.291m#
16)		Endosulfa...	7.841	8.585	10158	90808	0.071	0.394m#
17)		4,4'-DDT	0.000	8.700	0	77629	N.D.	0.414m#
18)		Endrin Al...	8.127	8.851f	6239	159366	BelowCal	0.023m
19)		Endosulfa...	8.425	9.011	13743	314104	0.089	1.261m# P-01
20)		Methoxychlor	8.271	9.180f	5374	146645	0.092	1.631m#
21)		Endrin Ke...	8.616	9.419	6744	237132	0.040	0.922m#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.
24)		Hexachlor...	5.510	6.174f	15297	5362	0.087	0.017 #
25)		Oxychlordane	7.002	7.625f	9682	16735	0.059	0.061
26)		2,4'-DDE	0.000	7.902f	0	18075	N.D.	0.085 #
27)		trans-Non...	7.261	7.902f	3577	18075	87346.680	0.060 #
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.
29)		2,4'-DDT	7.605	0.000	1545	0	0.014	N.D. #
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.
31)		Mirex	8.381	0.000	7274	0	0.058	N.D. #
32)		Chlordane...	7.261f	0.000	3577	0	0.182	N.D. #
33)		Chlordane...	7.307f	0.000	1210	0	0.048	N.D. #
34)		Chlordane...	7.841f	0.000	10158	0	1.757	N.D. #
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.
36)		Toxaphene...	0.000	8.387f	0	33408	N.D.	12.730 #
37)		Toxaphene...	7.662f	0.000	2088	0	1.293	N.D. #
38)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.
39)		Toxaphene...	8.227	0.000	4080	0	1.259	N.D. #
40)		Toxaphene...	0.000	9.011f	0	242527	N.D.	52.040 #
41)		Toxaphene...	8.563f	0.000	7598	0	2.401	N.D. #
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.

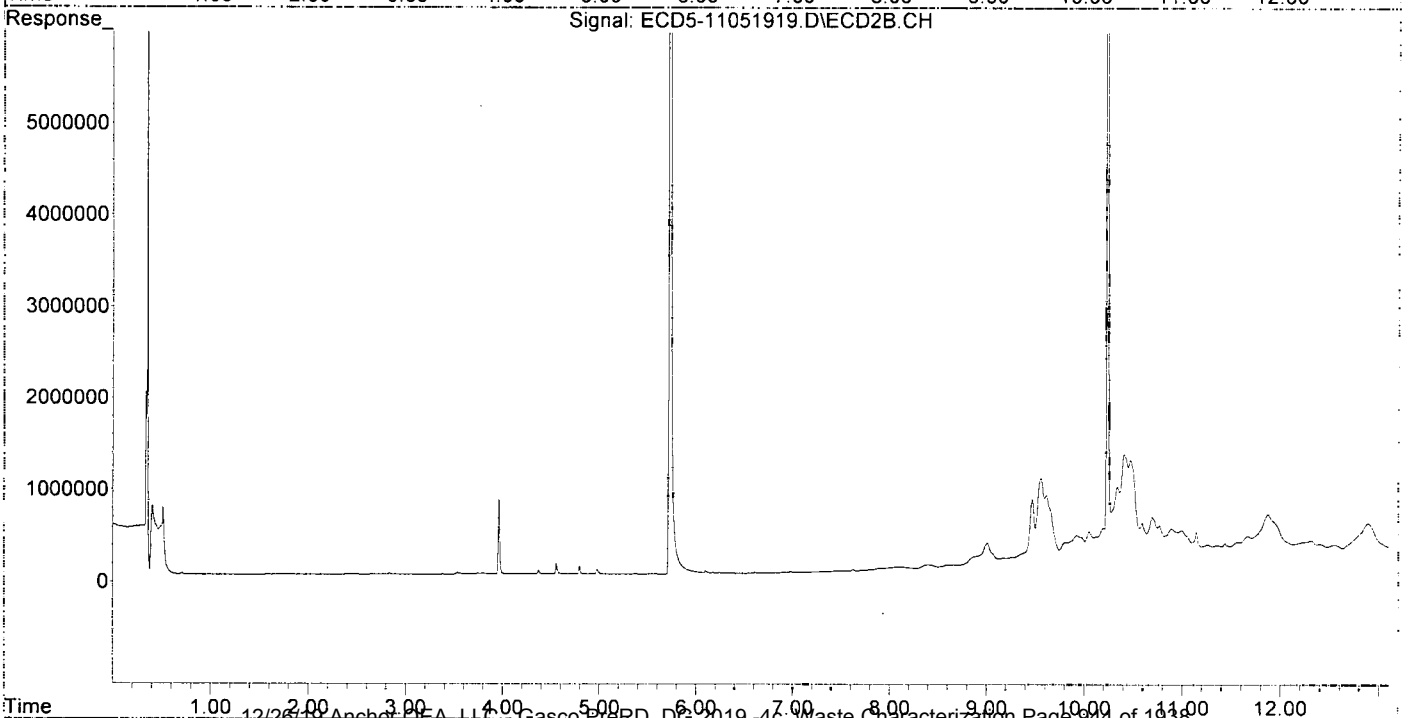
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-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 05 16:21:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

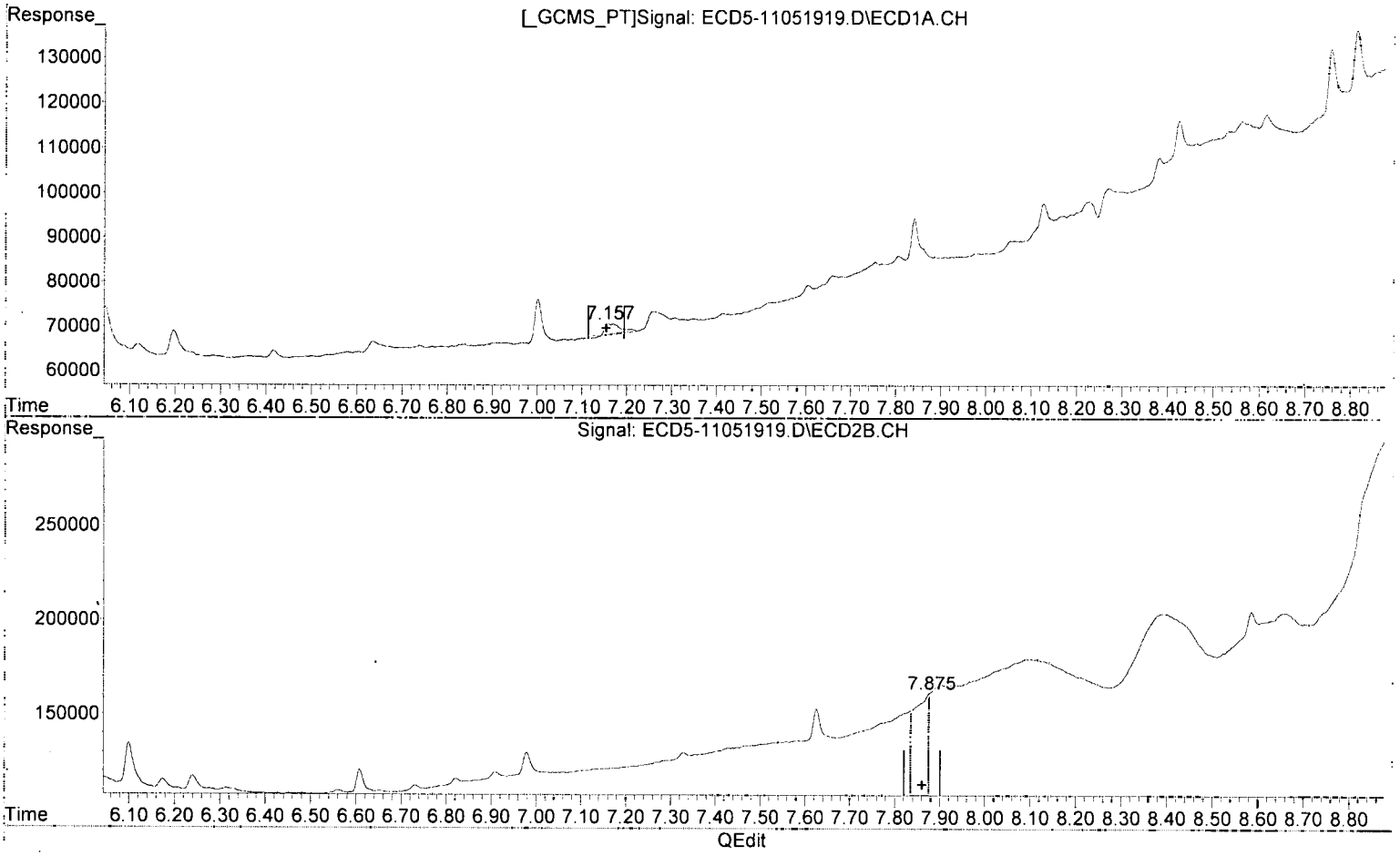




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-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 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(9) trans-Chlordane

7.160min 0.013 ng/mL

response 2392

MB 11/5/19

(9) trans-Chlordane #2

7.875min 0.172 ng/mL m

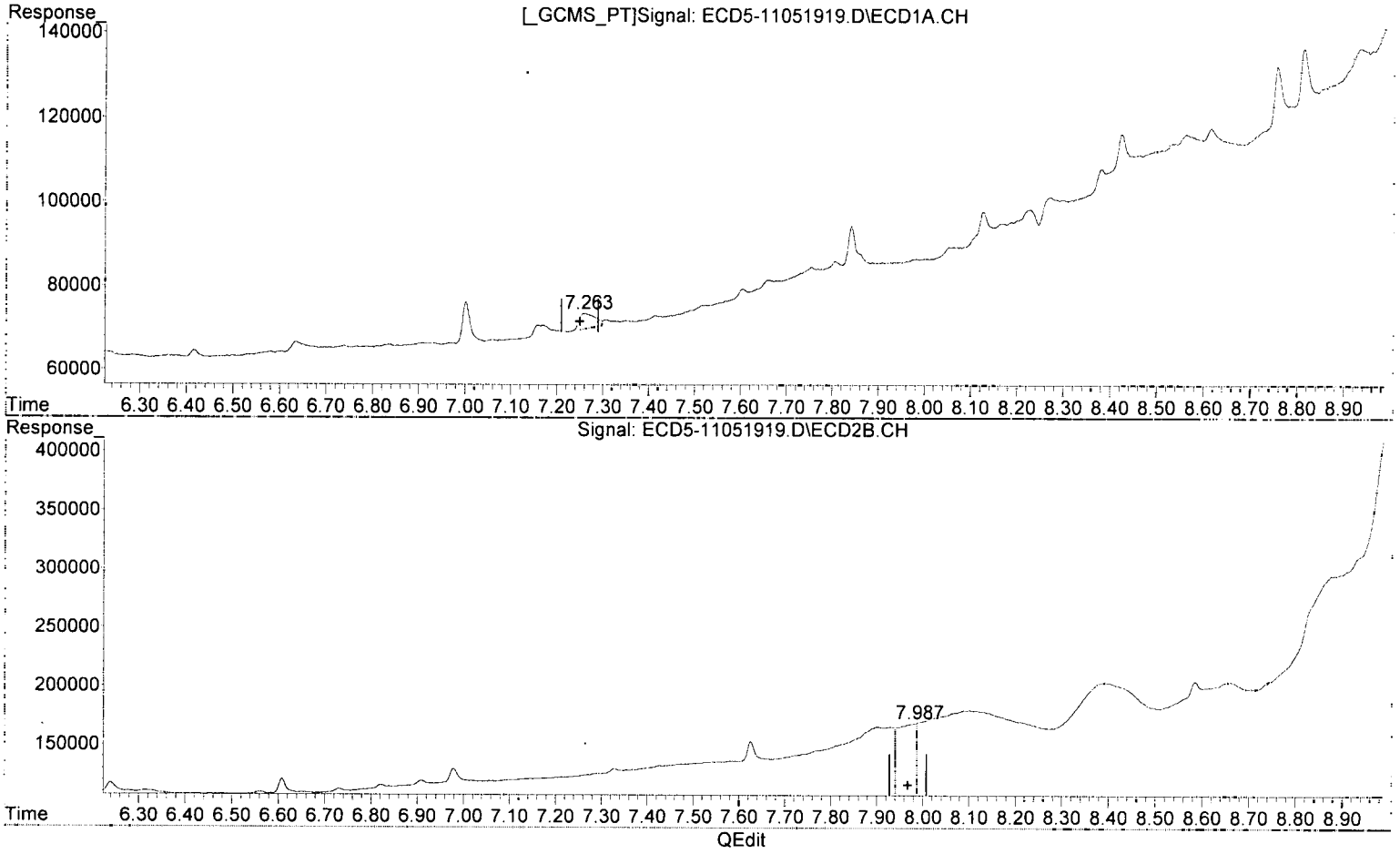
response 53749

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-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 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(10) cis-Chlordane

7.261min 0.020 ng/mL

response 3577

MJB 11/5/19

(10) cis-Chlordane #2

7.987min 0.211 ng/mL (m)

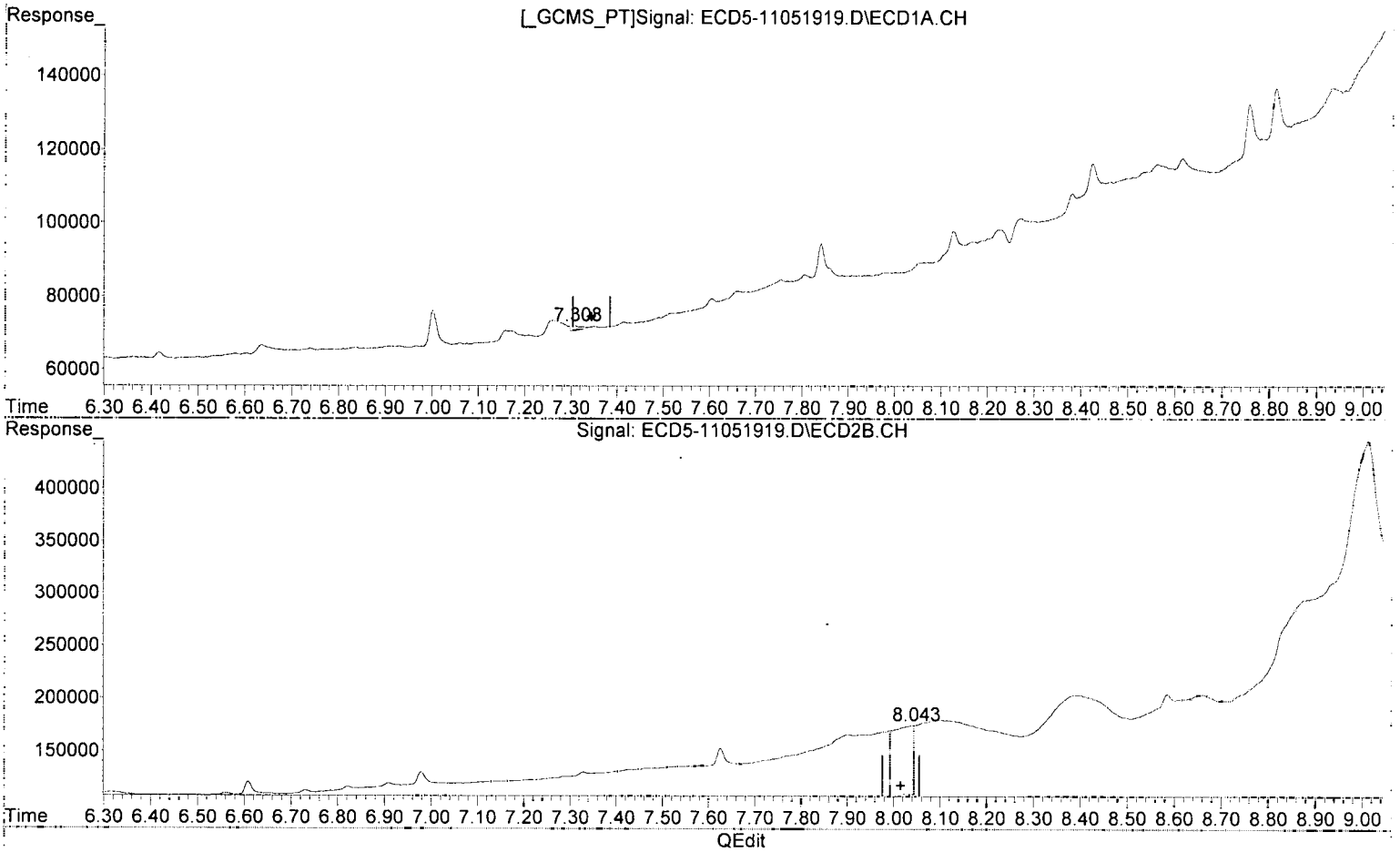
response 61589

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-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 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(11) Endosulfan I

7.307min 0.007 ng/mL

response 1210

MJB 11/5/19

(11) Endosulfan I #2

8.043min 0.239 ng/mL (m)

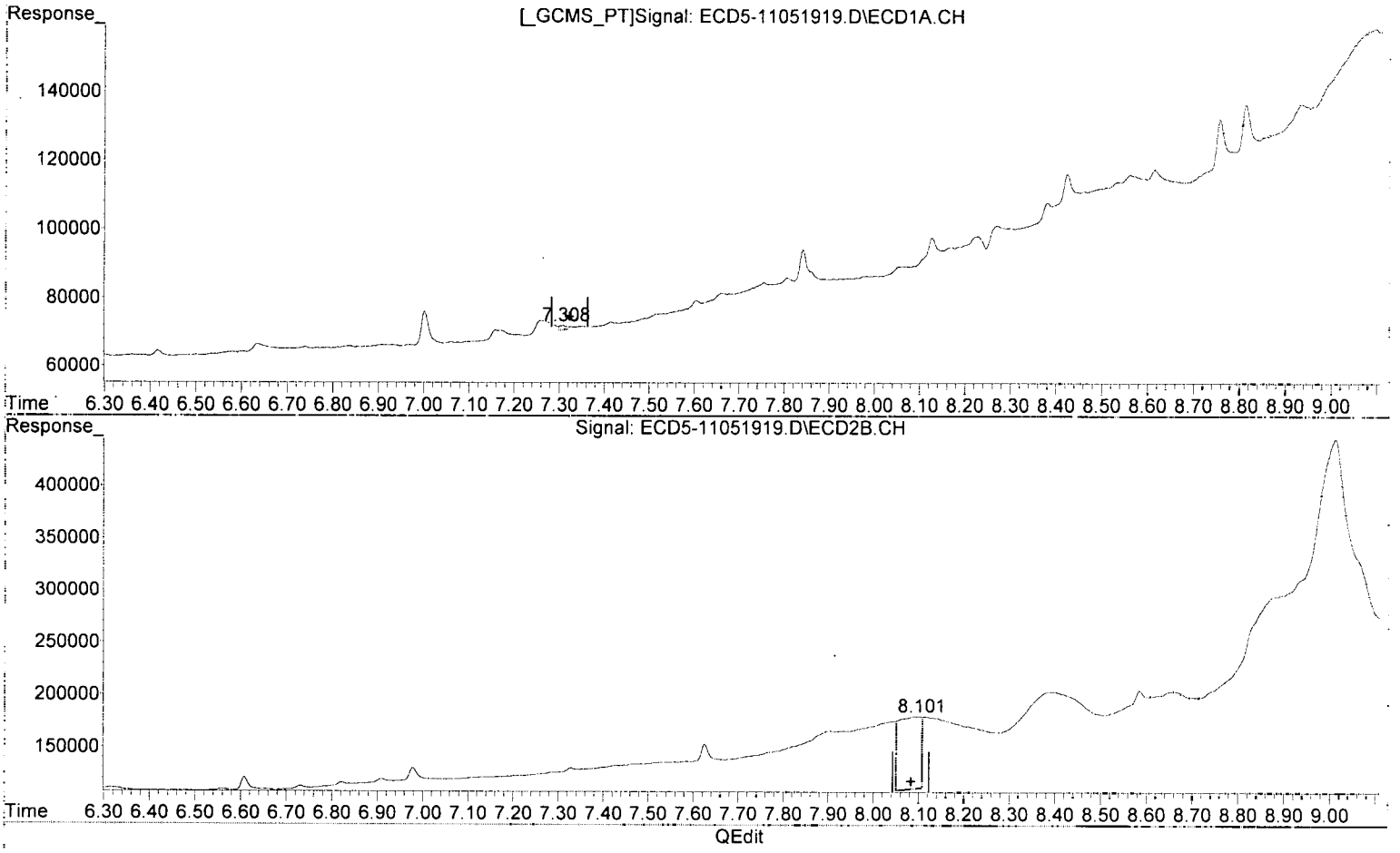
response 65761

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-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 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.307min 0.006 ng/mL

response 1210

MJB 11/5/19

(12) 4,4'-DDE #2

8.101min 0.221 ng/mL (m)

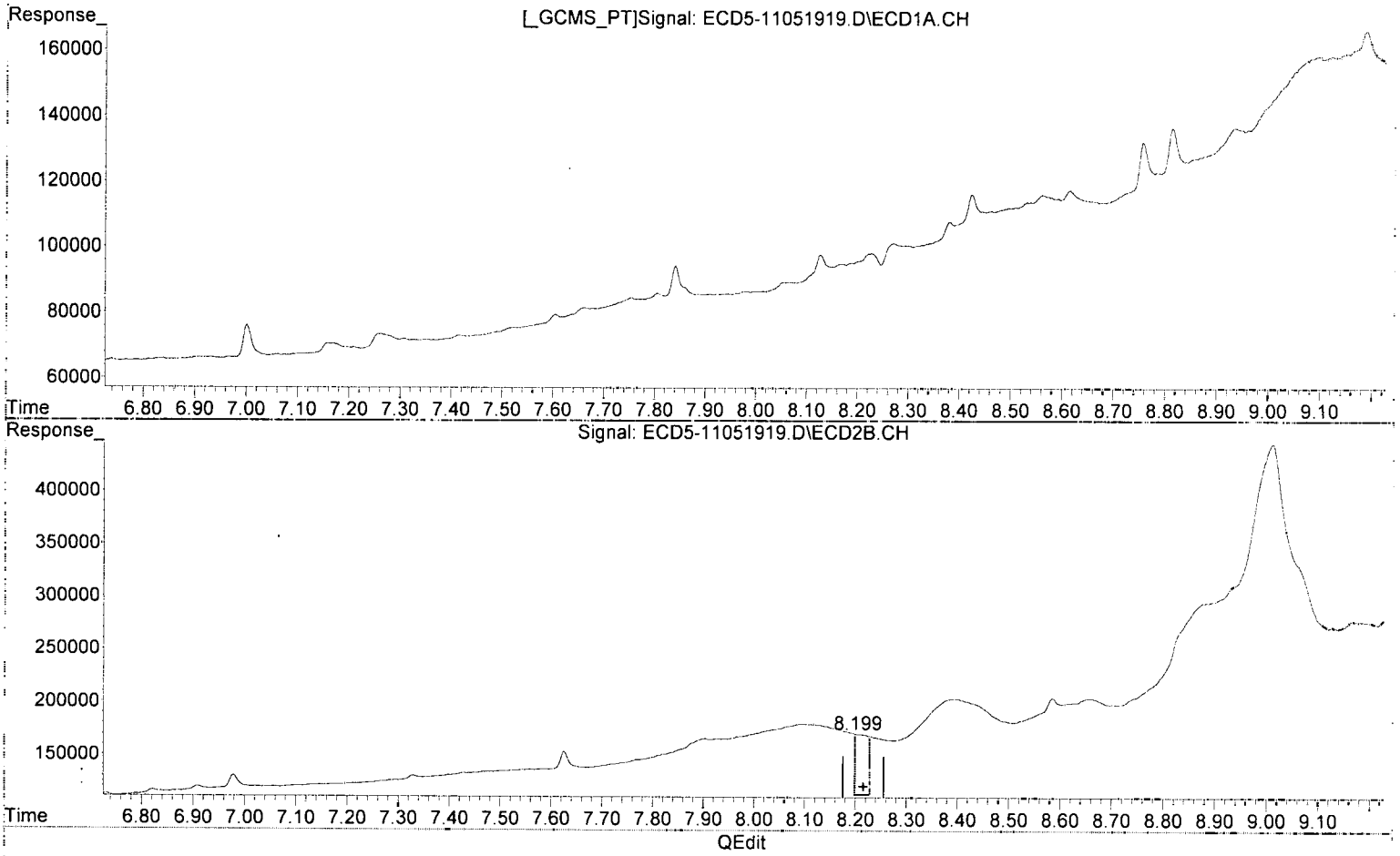
response 68692

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-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 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(13) Dieldrin

0.000min 0.000 ng/mL

response 0

MJB 11/6/19

(13) Dieldrin #2

8.199min 0.191 ng/mL (m)

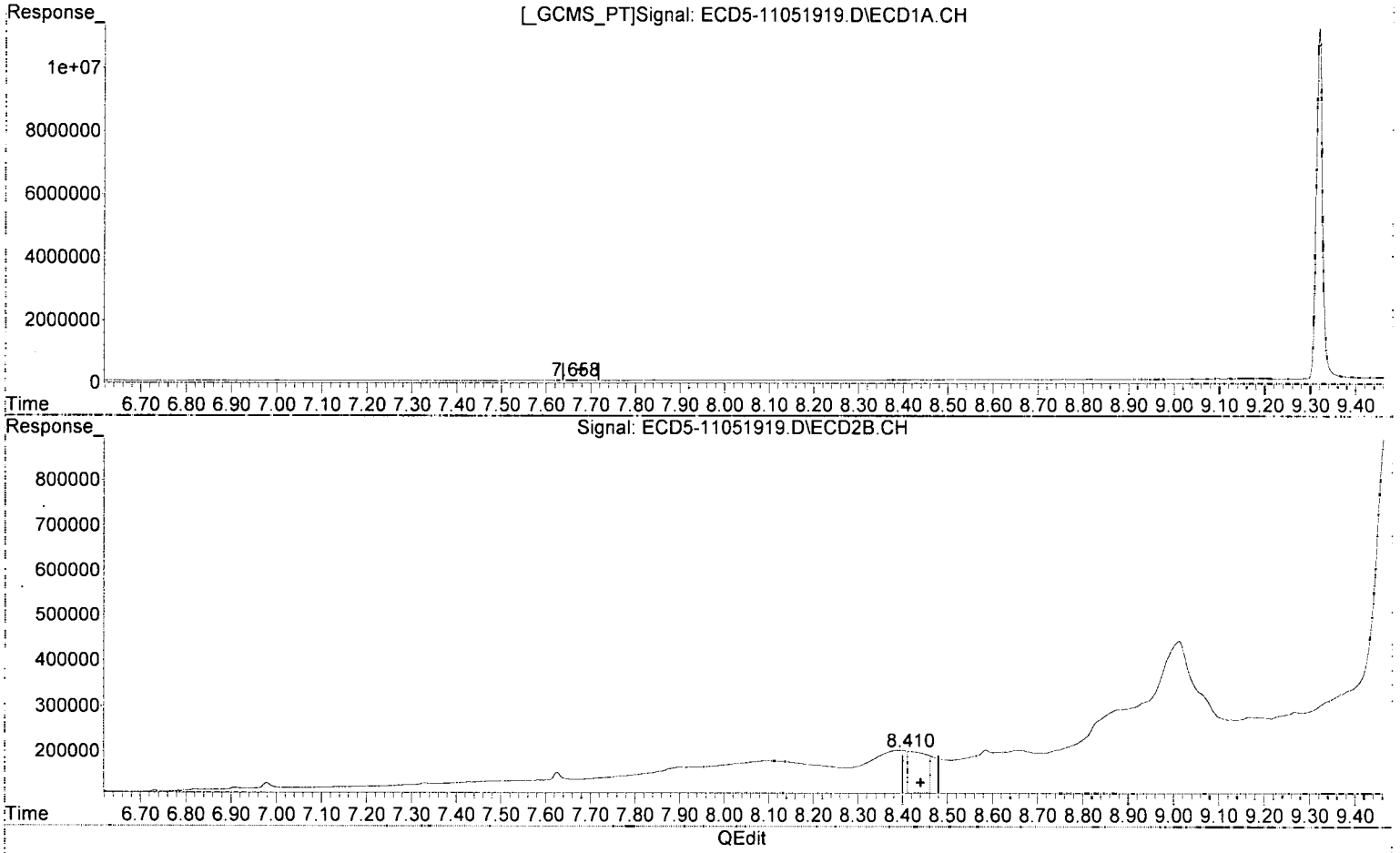
response 57989

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-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 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(14) Endrin

7.662min 0.014 ng/mL

response 2088

MJB 11/5/19

(14) Endrin #2

8.410min 0.408 ng/mL (m)

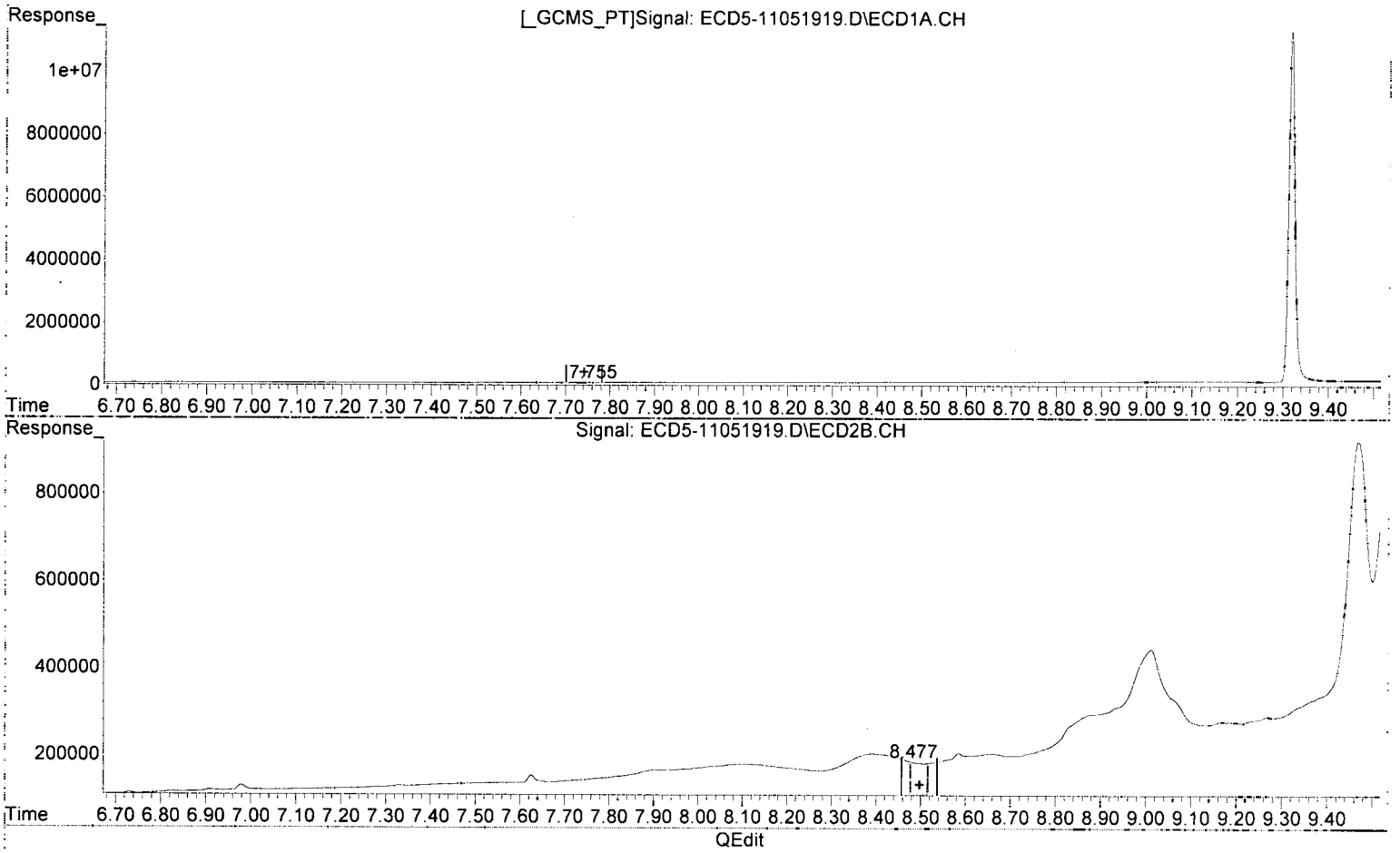
response 92097

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-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 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(15) 4,4'-DDD

7.755min 0.018 ng/mL

response 2813

MJB 11/5/19

(15) 4,4'-DDD #2

8.477min 0.291 ng/mL (m)

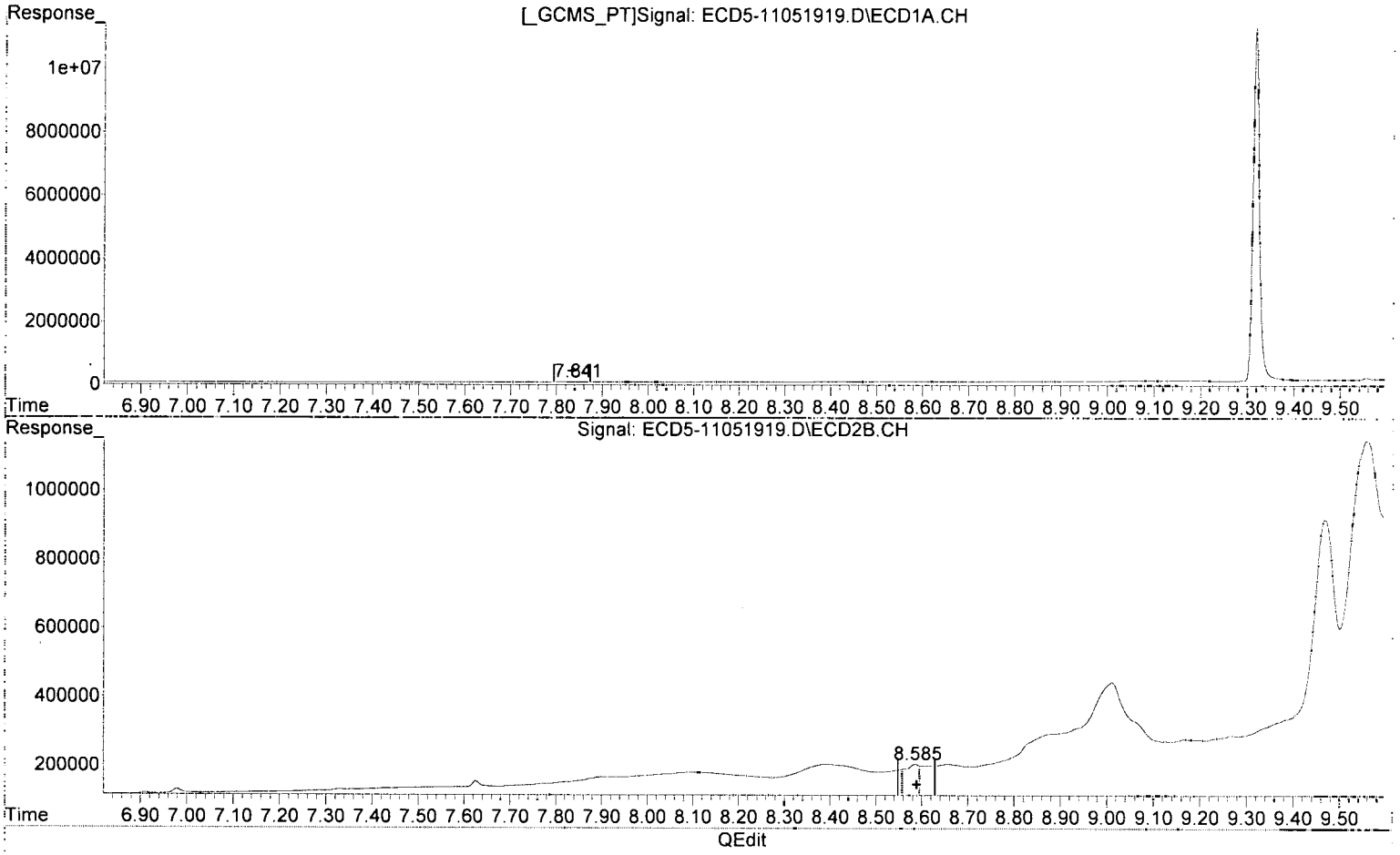
response 74461

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-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 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(16) Endosulfan II

7.841min 0.071 ng/mL

response 10158

MJB 11/5/19

(16) Endosulfan II #2

8.585min 0.394 ng/mL m

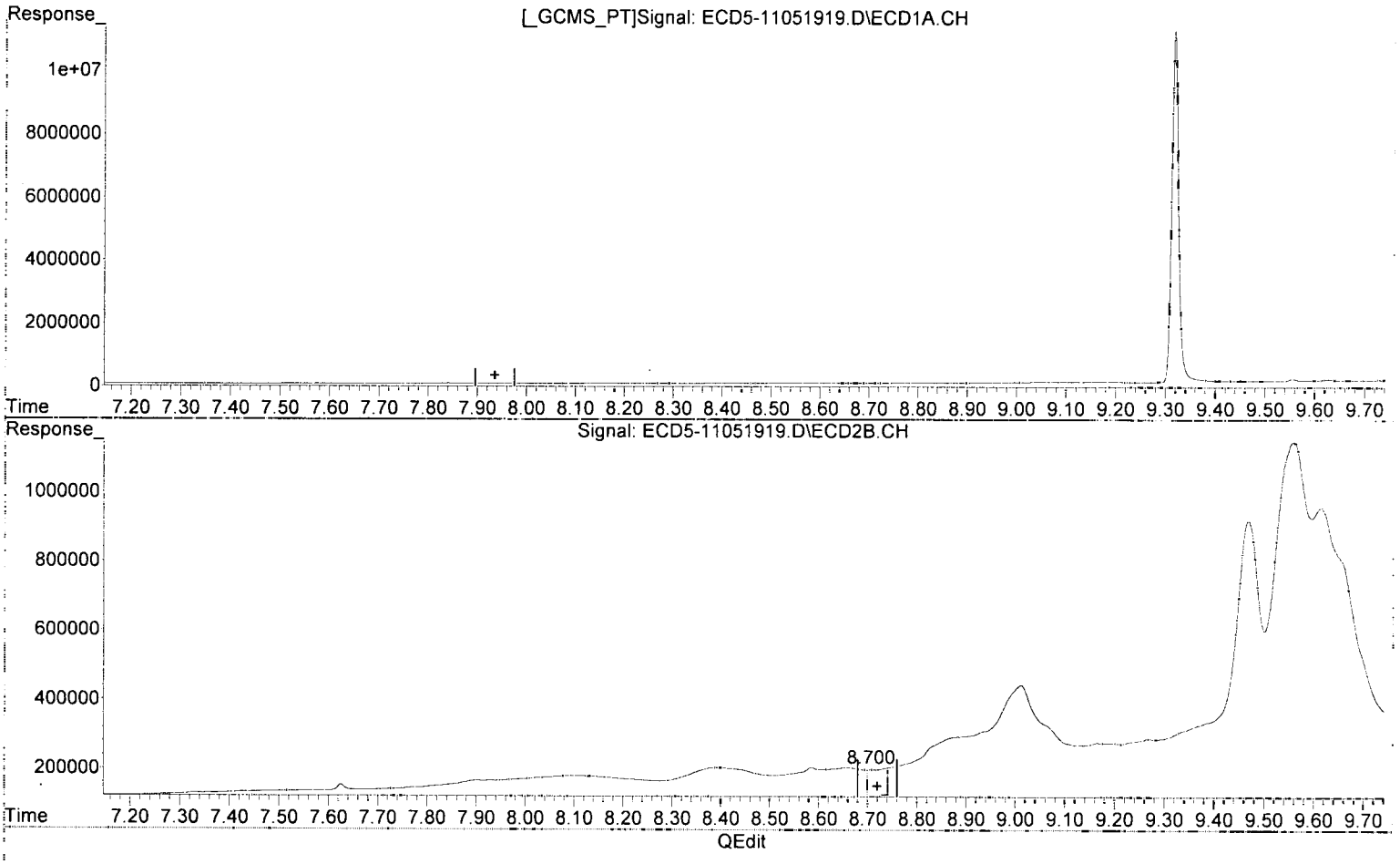
response 90808

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-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 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

0.000min 0.000 ng/mL

response 0

MJB 11/5/19

(17) 4,4'-DDT #2

8.700min 0.414 ng/mL (m)

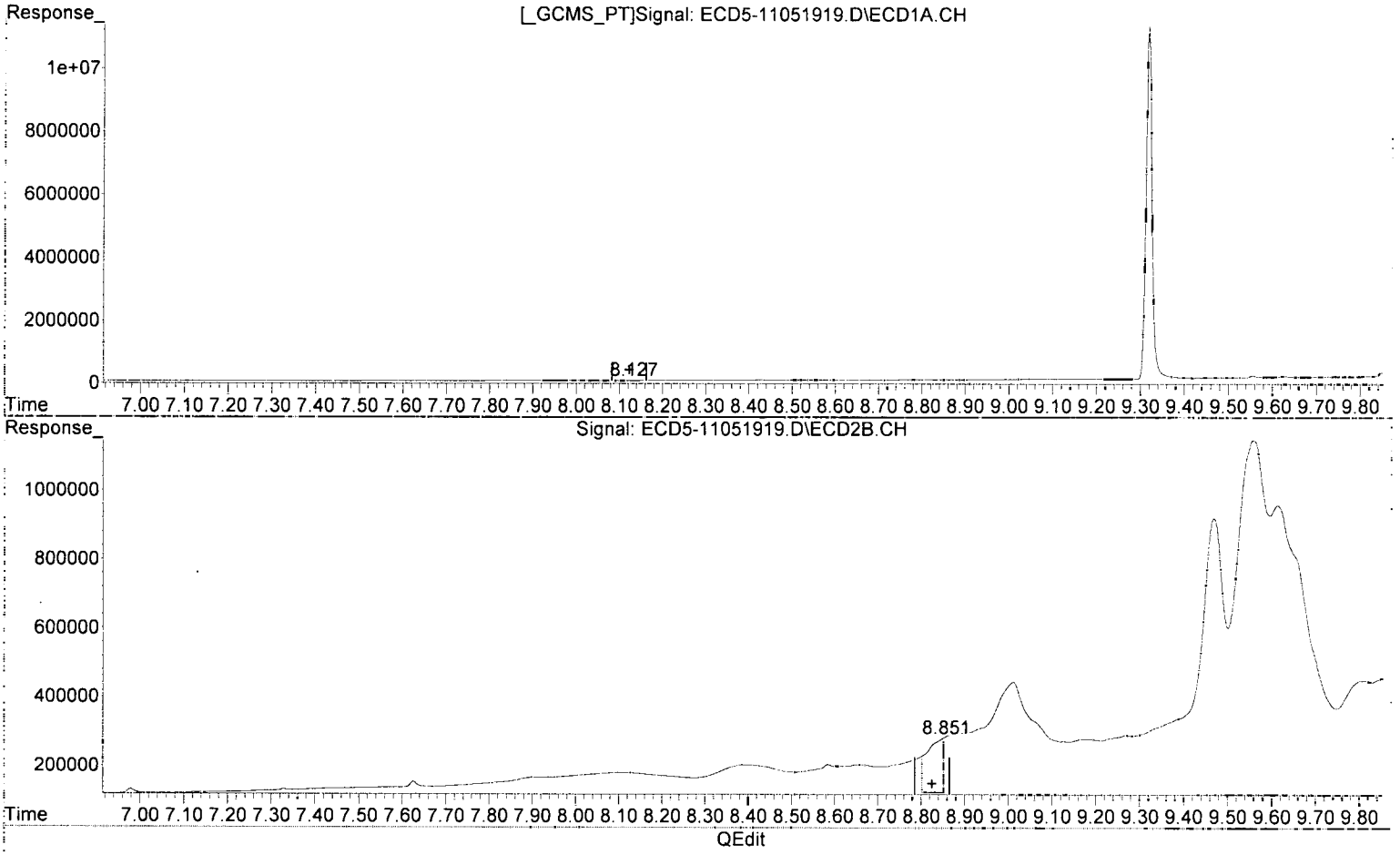
response 77629

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-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 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

8.127min -0.970 ng/mL

response 6239

MJB 11/5/19

(18) Endrin Aldehyde #2

8.851min 0.023 ng/mL (m)

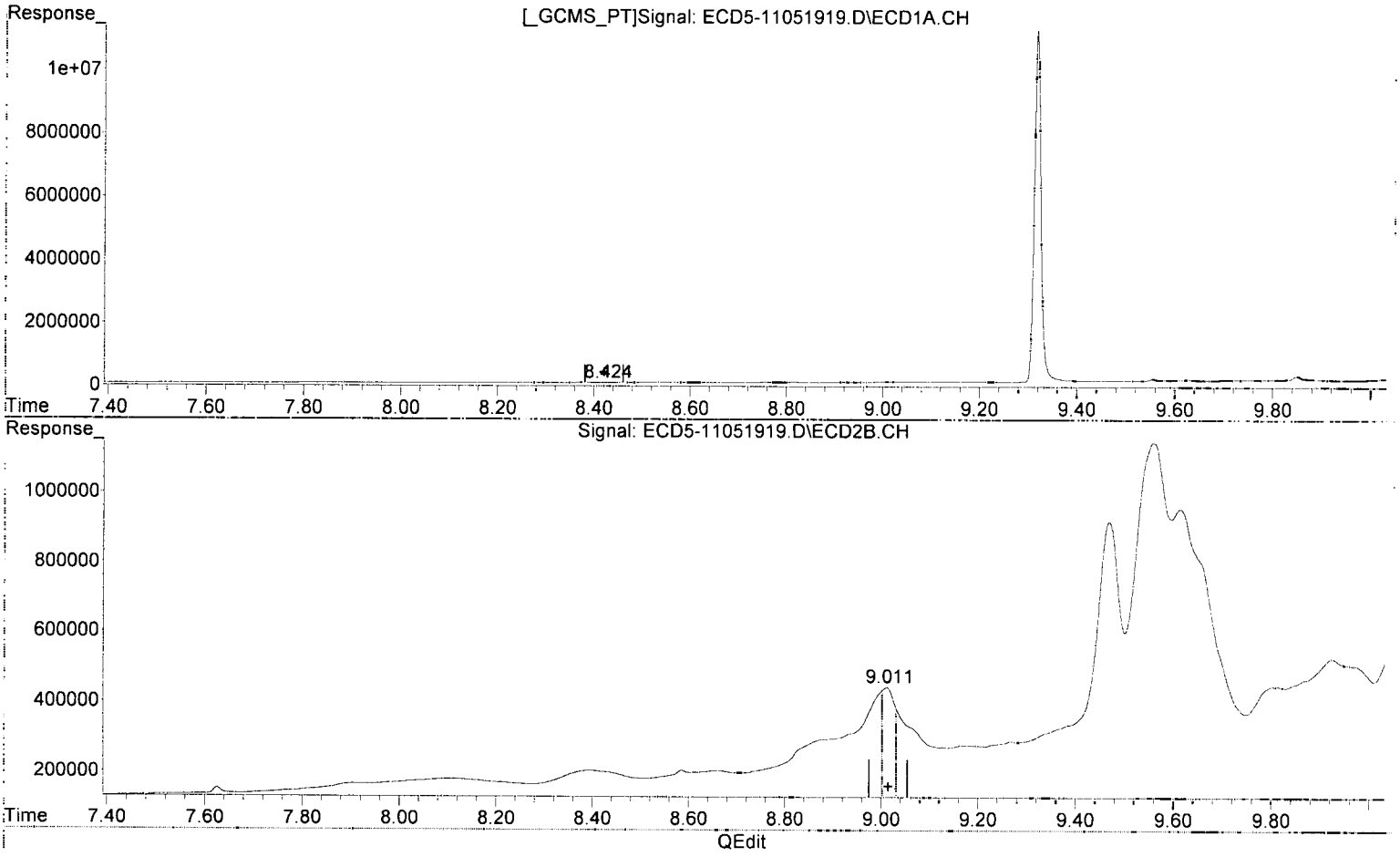
response 159366

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-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 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(19) Endosulfan Sulfate

8.425min 0.089 ng/mL

response 13743

MJB 11/5/19

(19) Endosulfan Sulfate #2

9.011min 1.261 ng/mL (m) P-Q1

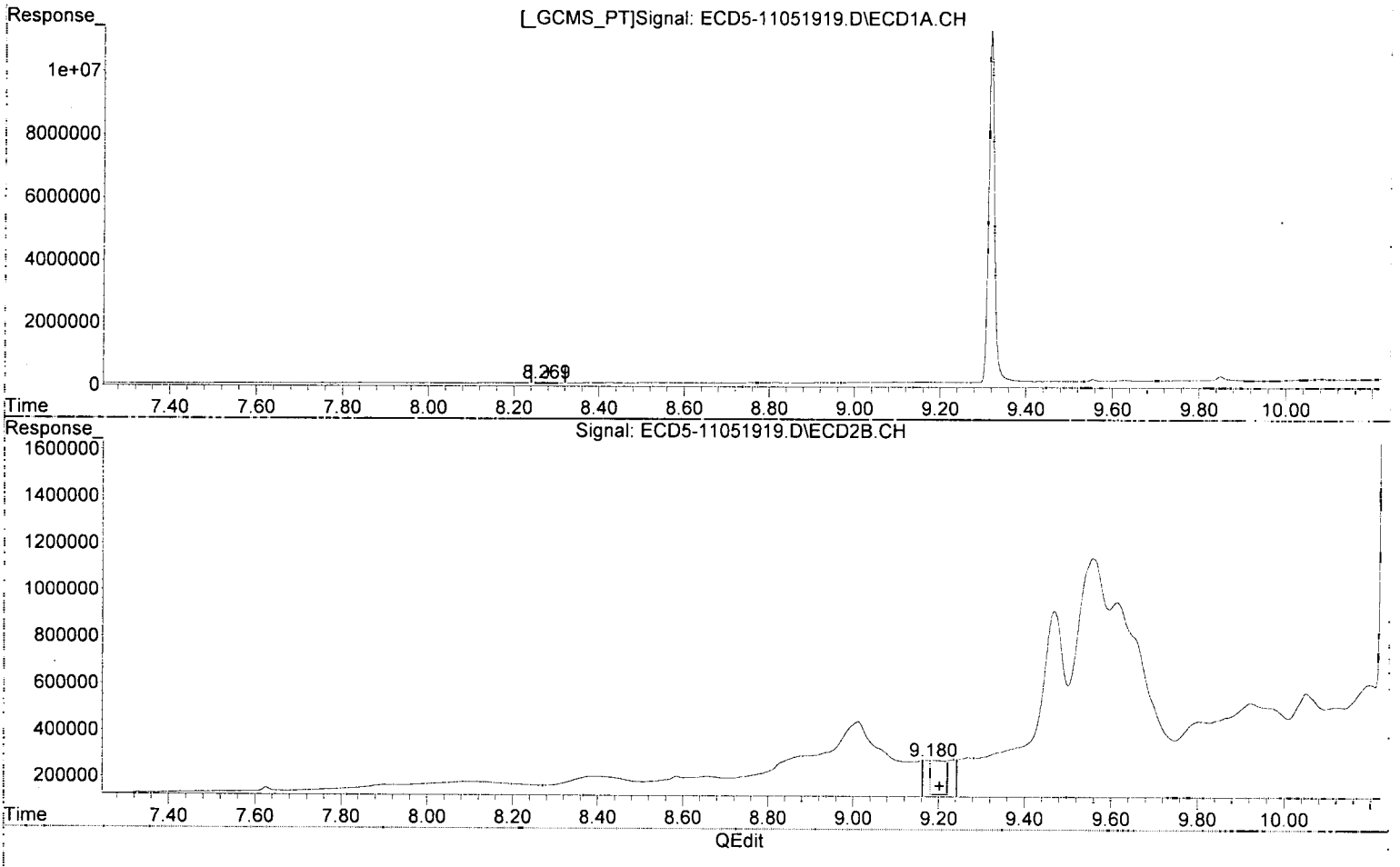
response 314104

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-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 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

8.271min 0.092 ng/mL

response 5374

WB 11/5/19

(20) Methoxychlor #2

9.180min 1.631 ng/mL (m)

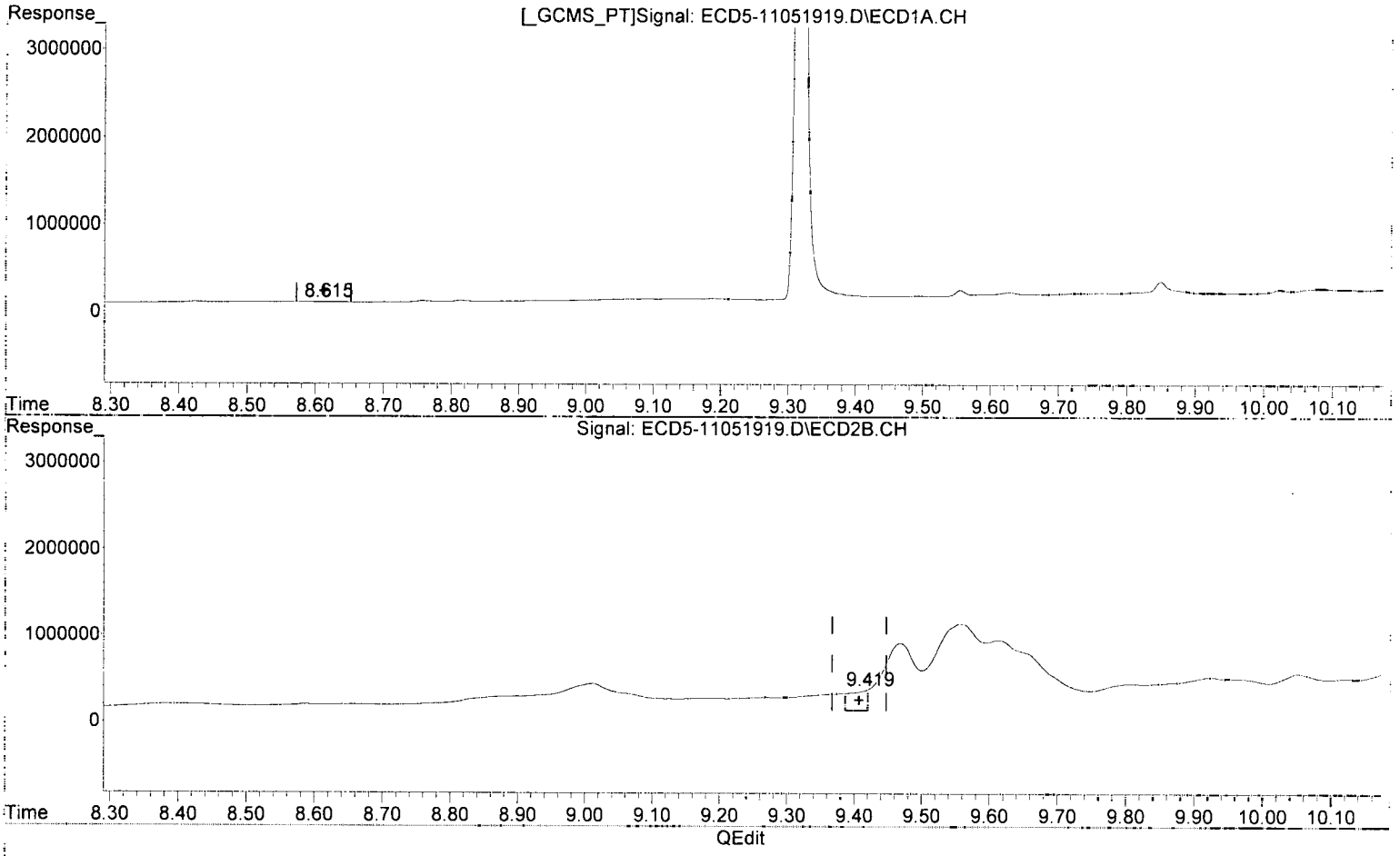
response 146645

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-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 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(21) Endrin Ketone

8.616min 0.040 ng/mL

response 6744

MJB 11/5/19

(21) Endrin Ketone #2

9.419min 0.922 ng/mL (m)

response 237132

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-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 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

MI MJB 11/5/19

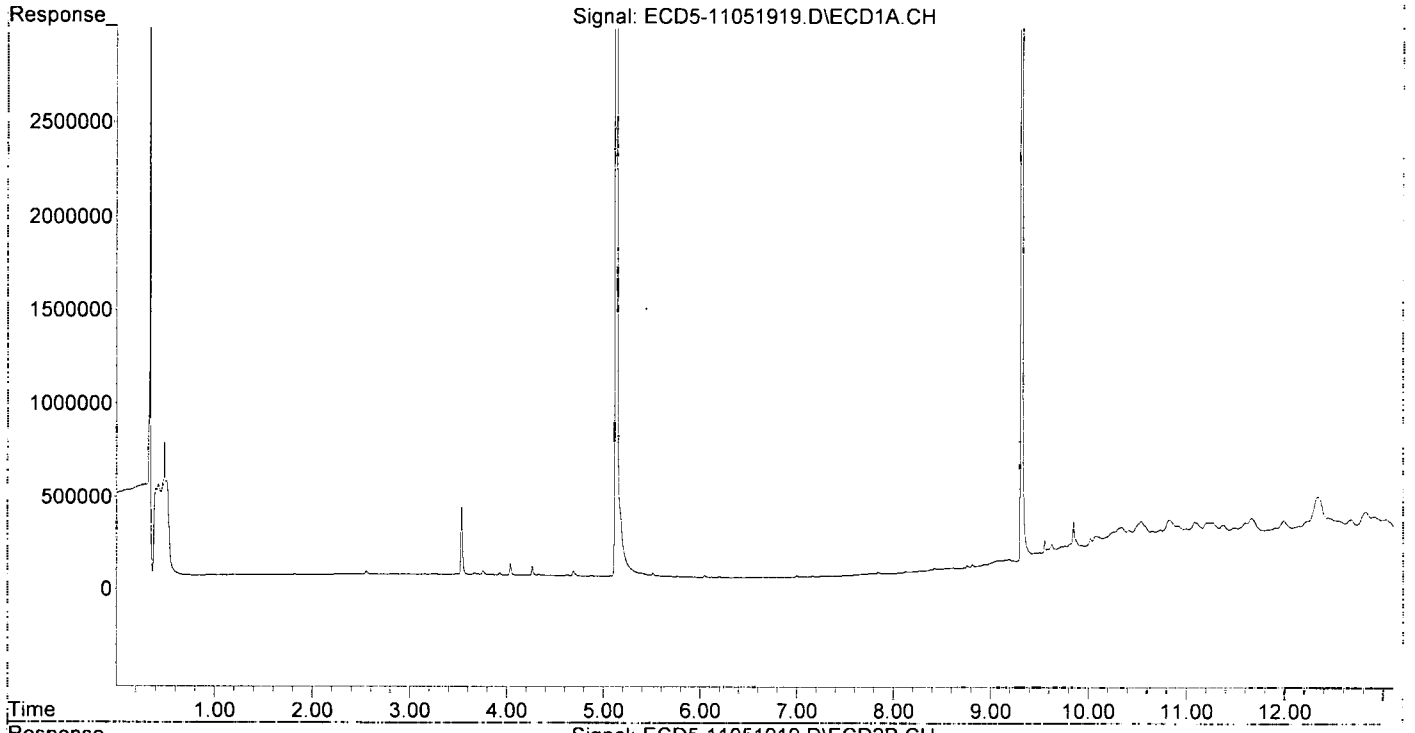
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.725	14903488	23732892	89.793	80.898	
22)	S	DCBP (S)	9.318	10.235	11176139	17433119	79.208	96.978	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.046	0.000	10028	0	0.111	N.D.	#
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.197	6.979	5567	11705	0.028	0.033	
7)		Aldrin	6.636f	0.000	1877	0	0.010	N.D.	#
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	7.160	0.000	2392	0	0.013	N.D.	#
10)		cis-Chlor...	7.261	0.000	3577	0	0.020	N.D.	#
11)		Endosulfa...	7.307f	0.000	1210	0	0.007	N.D.	#
12)		4,4'-DDE	7.307	8.100	1210	23213	0.006	0.075	#
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	7.662	0.000	2088	0	0.014	N.D.	#
15)		4,4'-DDD	7.755	0.000	2813	0	0.018	N.D.	#
16)		Endosulfa...	7.841	8.585	10158	24402	0.071	0.106	#
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.127	0.000	6239	0	BelowCal	N.D.	
19)		Endosulfa...	8.425	9.011	13743	242527	0.089	0.974	#
20)		Methoxychlor	8.271	9.165f	5374	68124	0.092	0.659	#
21)		Endrin Ke...	8.616	0.000	6744	0	0.040	N.D.	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.510	6.174f	15297	5362	0.087	0.017	#
25)		Oxychlordane	7.002	7.625f	9682	16735	0.059	0.061	
26)		2,4'-DDE	0.000	7.902f	0	18075	N.D.	0.085	#
27)		trans-Non...	7.261	7.902f	3577	18075	87346.680	0.060	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	7.605	0.000	1545	0	0.014	N.D.	#
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.381	0.000	7274	0	0.058	N.D.	#
32)		Chlordane...	7.261f	0.000	3577	0	0.182	N.D.	#
33)		Chlordane...	7.307f	0.000	1210	0	0.048	N.D.	#
34)		Chlordane...	7.841f	0.000	10158	0	1.757	N.D.	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	8.387f	0	33408	N.D.	12.730	#
37)		Toxaphene...	7.662f	0.000	2088	0	1.293	N.D.	#
38)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
39)		Toxaphene...	8.227	0.000	4080	0	1.259	N.D.	#
40)		Toxaphene...	0.000	9.011f	0	242527	N.D.	52.040	#
41)		Toxaphene...	8.563f	0.000	7598	0	2.401	N.D.	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

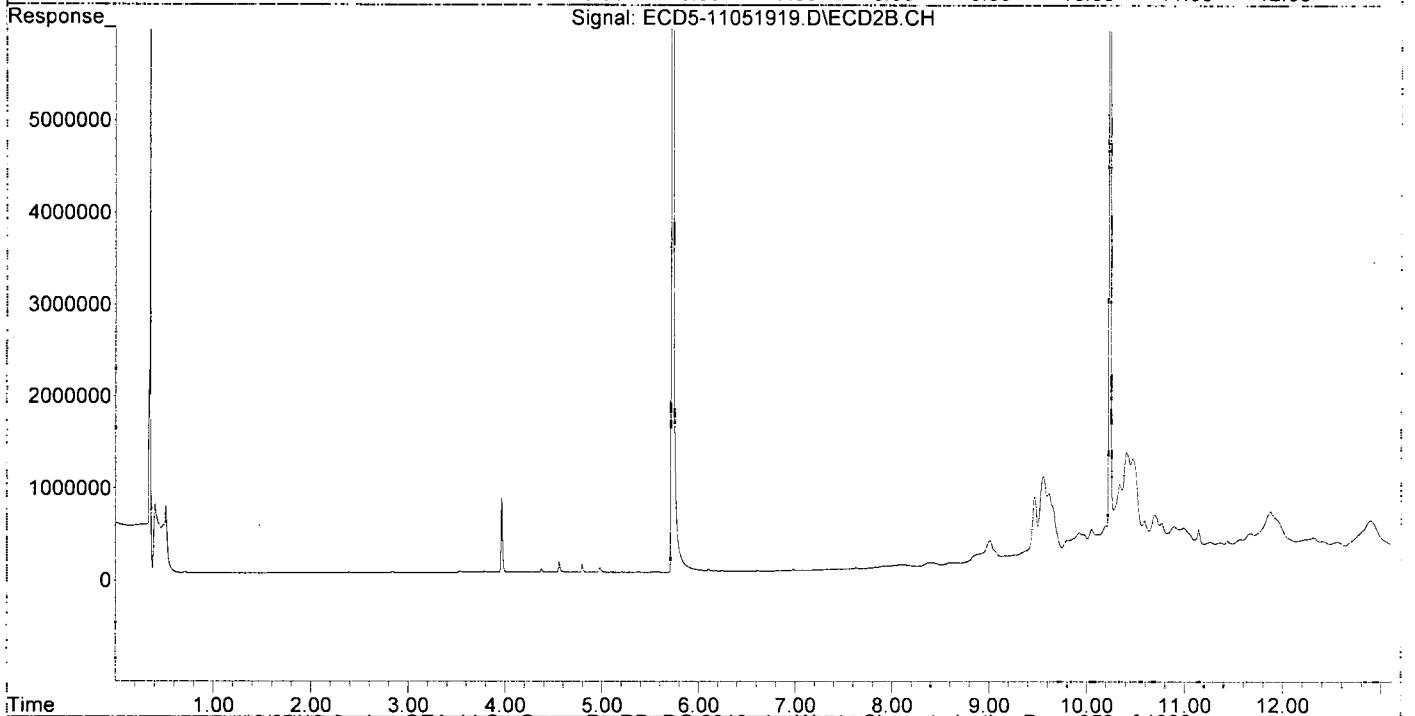
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:06
Operator : MJB
Sample : 9K05039-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 05 16:20:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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\9K05039\
Data File : ECD5-11051932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 19:49
Operator : MJB
Sample : 9K05039-CCV3
Misc : A19H383, 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 06 10:37:37 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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 11/6/19

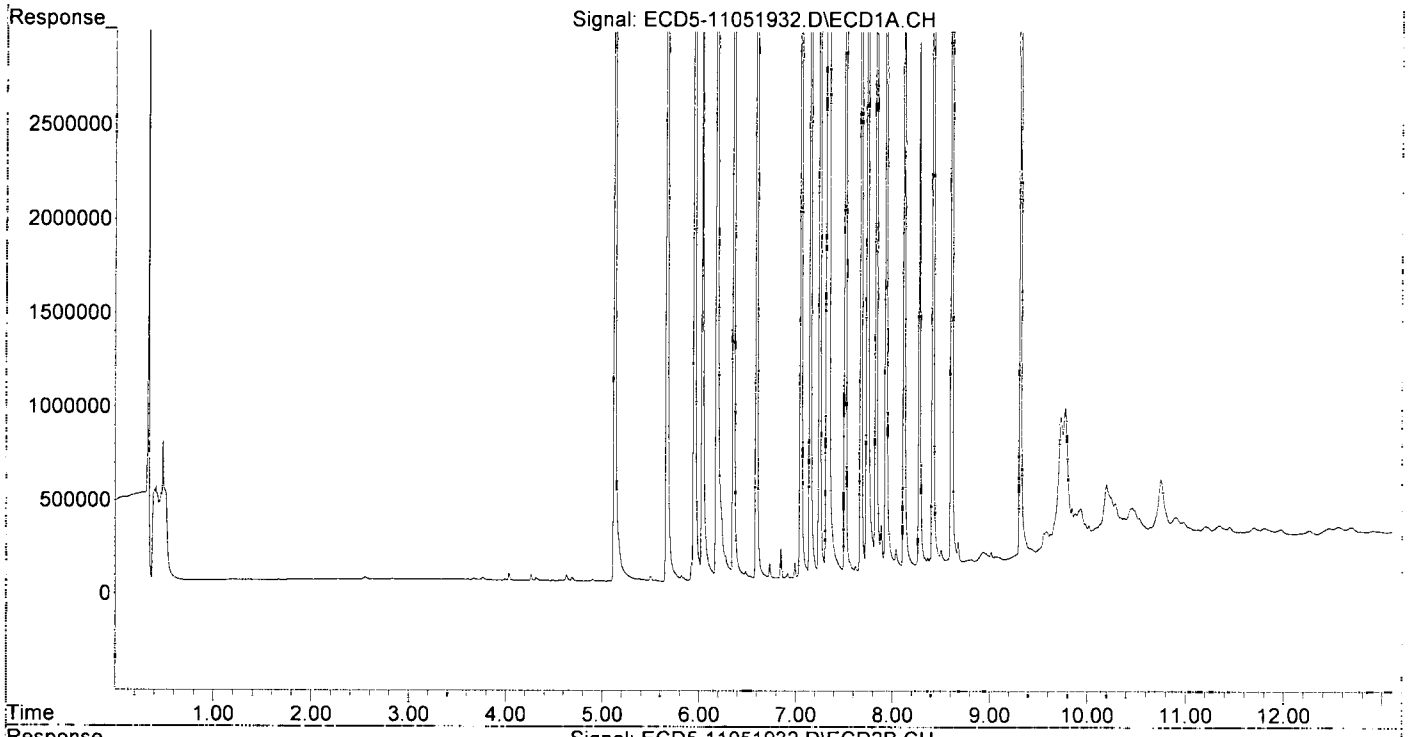
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.128	5.725	8285376	12635444	49.919	43.070	
22) S	DCBP (S)	9.318	10.235	6612459	10081199	46.864	56.080	
	Target Compounds							
2)	a-BHC	5.668	6.334	11816699	20592519	51.527	50.184	
3)	g-BHC	5.953	6.652	9805378	18426521	48.595 (Q-31)	51.658	
4)	b-BHC	6.035	6.722	3488227	6703796	38.594	42.358	
5)	Heptachlor	6.359	7.020	10057380	18197982	55.475 (Q-31)	59.475	
6)	d-BHC	6.183	6.973	7687941	15703198	39.087	44.527	
7)	Aldrin	6.597	7.281	10594547	17954251	53.658	54.507	
8)	Heptachlo...	7.056	7.720	9123637	15394806	49.537	51.171	
9)	trans-Chl...	7.152	7.859	8979449	15559116	48.566	49.658	
10)	cis-Chlor...	7.248	7.967	9127462	15103735	50.131	51.859	
11)	Endosulfa...	7.342	8.015	9494981	13889858	55.794	50.476	
12)	4,4'-DDE	7.322	8.082	7693988	13760378	40.810	44.292	
13)	Dieldrin	7.513	8.214	9980722	16671104	51.989	54.812	
14)	Endrin	7.676	8.438	8075279	12770405	54.924 (Q-31)	56.550	
15)	4,4'-DDD	7.740	8.496	6063814	11516514	38.588	44.949	
16)	Endosulfa...	7.832	8.587	7051471	11620231	49.101	50.390	
17)	4,4'-DDT	7.935	8.719	6009641	10127765	50.265	53.530	
18)	Endrin Al...	8.121	8.824	6145703	10384039	50.064	52.688	
19)	Endosulfa...	8.419	9.014	7477568	12648886	48.249	50.781	
20)	Methoxychlor	8.280	9.201	2795624	4826727	47.728	53.467	
21)	Endrin Ke...	8.611	9.406	8283053	13952405	49.671	54.223	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.502	6.237f	25833	13456	0.147	0.043	#
25)	Oxychlordane	6.994	7.661	82416	4660	0.501	0.017	#
26)	2,4'-DDE	7.056	7.859	9123637	15559116	71.133	73.344	
27)	trans-Non...	7.248	7.917	9127462	87770	50.658	0.291	#
28)	2,4'-DDD	0.000	8.214f	0	16671104	N.D.	88.271	#
29)	2,4'-DDT	7.621	8.438	39041	12770405	0.356	71.607	#
30)	cis-Nonac...	7.740f	8.496	6063814	11516514	29.207	34.332	
31)	Mirex	8.367	9.406	54102	13952405	0.432	74.983	#
32)	Chlordane...	7.248	7.967f	9127462	15103735	463.567	417.408	
33)	Chlordane...	7.322	8.082f	7693988	13760378	306.970	453.180	#
34)	Chlordane...	7.885	8.719	246249	10127765	42.595	1129.590	#
35)	Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)	Toxaphene...	0.000	8.357	0	7248	N.D.	2.762	#
37)	Toxaphene...	7.676	8.719	8075279	10127765	5000.363	3077.389	
38)	Toxaphene...	8.040f	8.719f	113957	10127765	33.840	1998.250	#
39)	Toxaphene...	8.280f	8.824	2795624	10384039	862.806	1243.622	#
40)	Toxaphene...	8.505f	9.014f	87642	12648886	36.561	2714.145	#
41)	Toxaphene...	8.505f	9.406f	87642	13952405	27.695	2937.223	#
42)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

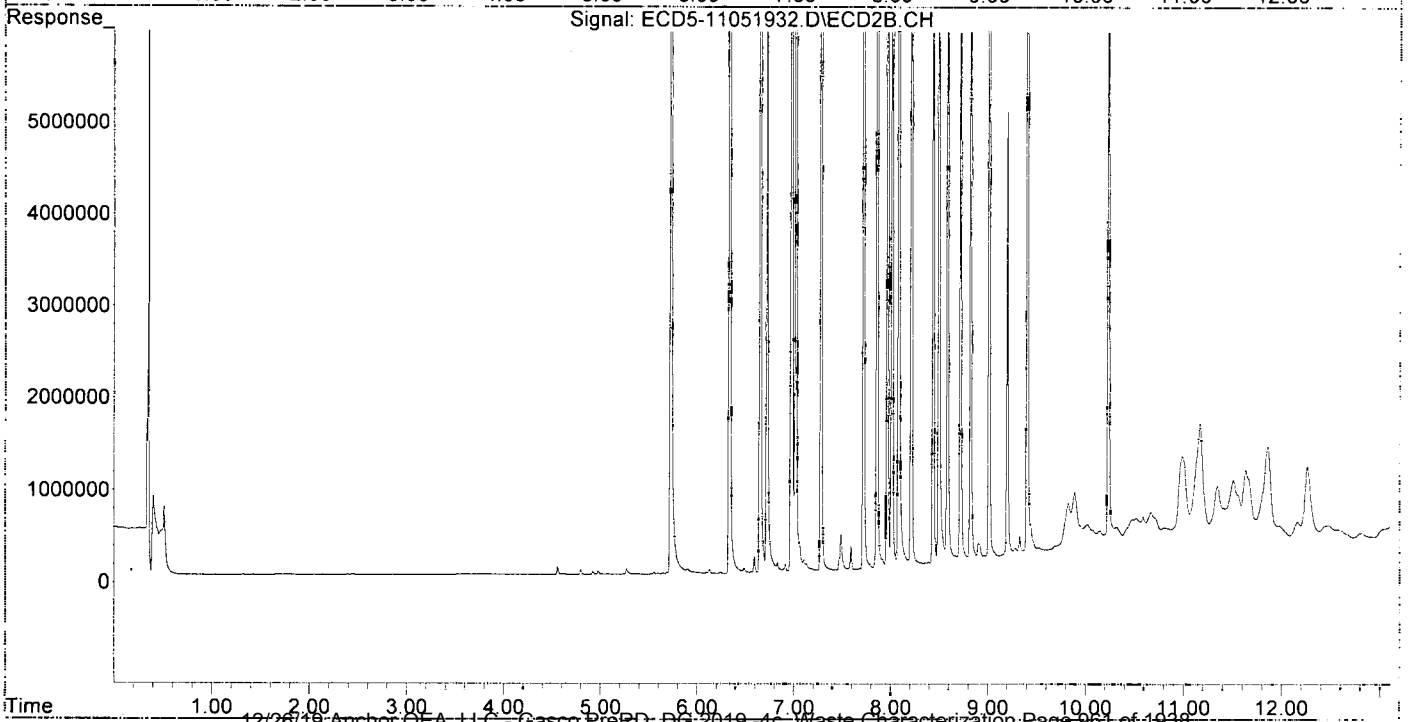
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 19:49
Operator : MJB
Sample : 9K05039-CCV3
Misc : A19H383, 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 06 10:37:37 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
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 06 11:44:41 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

WB 11/6/19

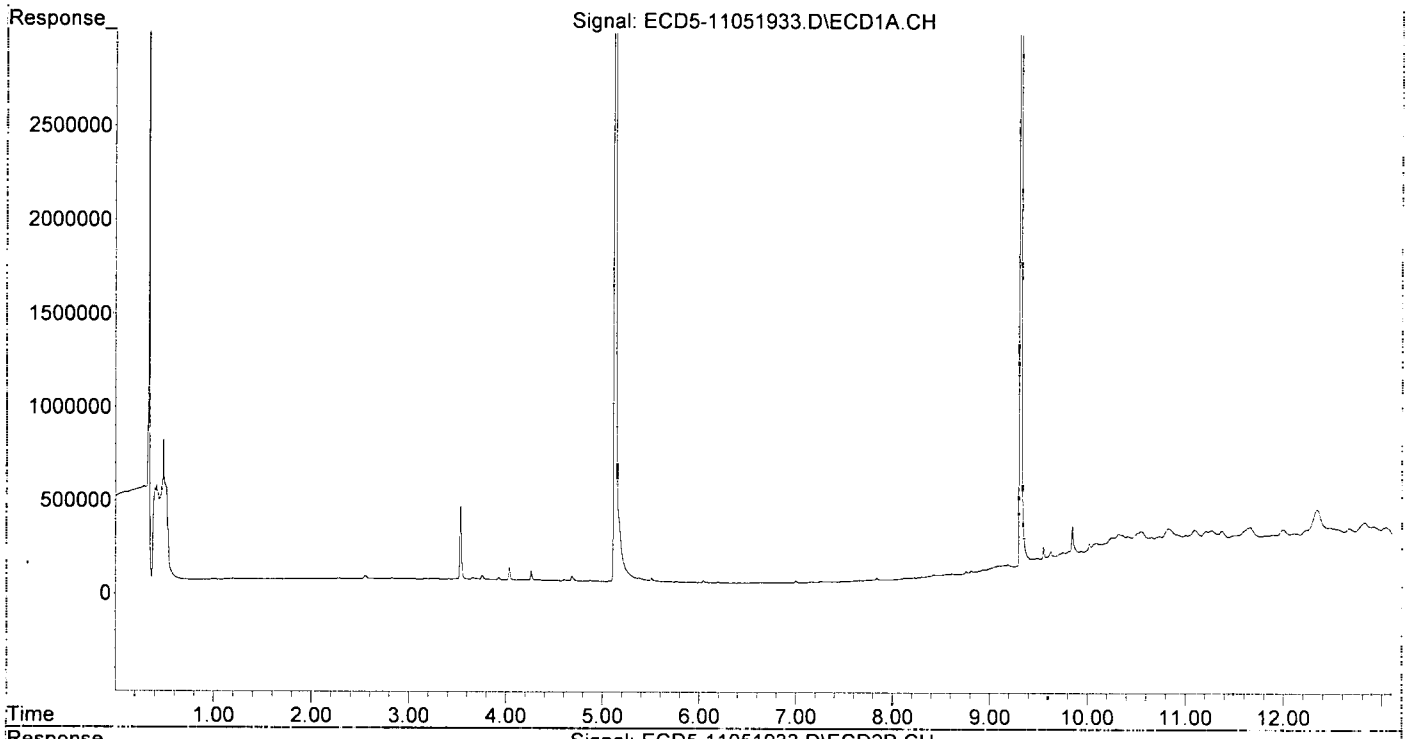
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.127	5.724	15271390	25235446	92.010	86.020
22) S	DCBP (S)	9.318	10.235	11806848	19188170	83.678	106.741
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.
3)	g-BHC	0.000	0.000	0	0	N.D.	N.D.
4)	b-BHC	6.043	0.000	11416	0	0.126	N.D. #
5)	Heptachlor	0.000	0.000	0	0	N.D.	N.D.
6)	d-BHC	6.194	6.976	5094	10429	0.026	0.030
7)	Aldrin	6.627f	0.000	2755	0	0.014	N.D. #
8)	Heptachlo...	0.000	7.733	0	29958	N.D.	0.100m#
9)	trans-Chl...	7.159	7.876	3968	47242	0.021	0.151m#
10)	cis-Chlor...	7.256	7.972	4247	54507	0.023	0.187m#
11)	Endosulfa...	7.305f	8.017	1321	60519	0.008	0.220m#
12)	4,4'-DDE	7.305	8.087	1321	65732	0.007	0.212m#
13)	Dieldrin	0.000	8.197	0	57057	N.D.	0.188m#
14)	Endrin	7.653f	8.422	2456	85738	0.017	0.380m#
15)	4,4'-DDD	0.000	8.482	0	64140	N.D.	0.250m#
16)	Endosulfa...	7.839	8.581	12139	91134	0.085	0.395m#
17)	4,4'-DDT	0.000	8.726	0	85413	N.D.	0.460m#
18)	Endrin Al...	8.126	8.831	5241	137698	BelowCal	BelowCalm
19)	Endosulfa...	8.423	9.012	12153	251082	0.078	1.008m# P-01
20)	Methoxychlor	0.000	9.210	0	147791	N.D.	1.645m#
21)	Endrin Ke...	8.614	9.423	6902	225226	0.041	0.875m#
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.
24)	Hexachlor...	5.509	6.172f	21249	8043	0.121	0.026 #
25)	Oxychlordane	6.999	7.623f	10731	18388	0.065	0.067
26)	2,4'-DDE	0.000	0.000	0	0	N.D.	N.D.
27)	trans-Non...	7.256	0.000	4247	0	87346.677	N.D. #
28)	2,4'-DDD	7.412f	0.000	680	0	0.006	N.D. #
29)	2,4'-DDT	7.606	0.000	769	0	0.007	N.D. #
30)	cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.
31)	Mirex	0.000	0.000	0	0	N.D.	N.D.
32)	Chlordane...	7.256	0.000	4247	0	0.216	N.D. #
33)	Chlordane...	7.305f	0.000	1321	0	0.053	N.D. #
34)	Chlordane...	7.839f	0.000	12139	0	2.100	N.D. #
35)	Chlordane...	0.000	0.000	0	0	N.D.	N.D.
36)	Toxaphene...	7.412	8.405f	680	27869	0.760	10.620 #
37)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.
38)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.
39)	Toxaphene...	8.225	0.000	3601	0	1.111	N.D. #
40)	Toxaphene...	0.000	9.012f	0	169100	N.D.	36.285 #
41)	Toxaphene...	8.559	0.000	6967	0	2.202	N.D. #
42)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.

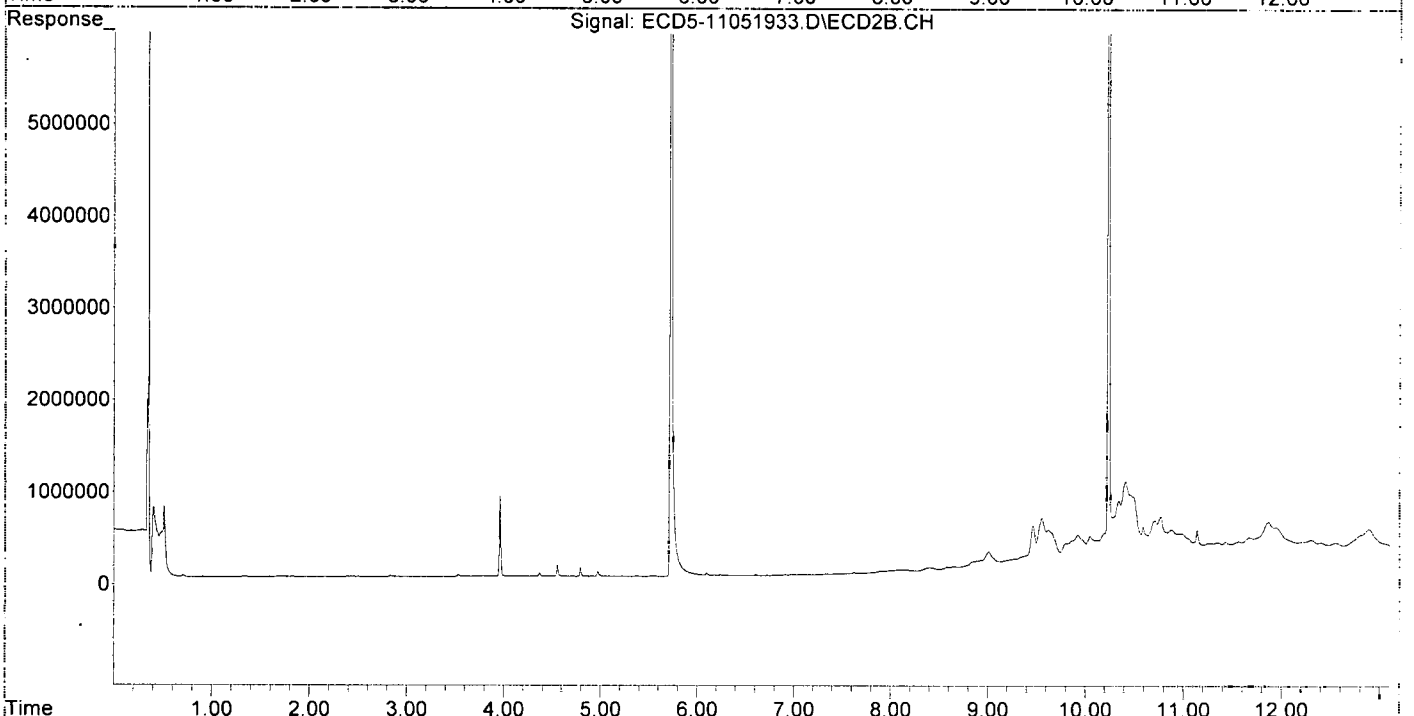
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
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 06 11:44:41 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

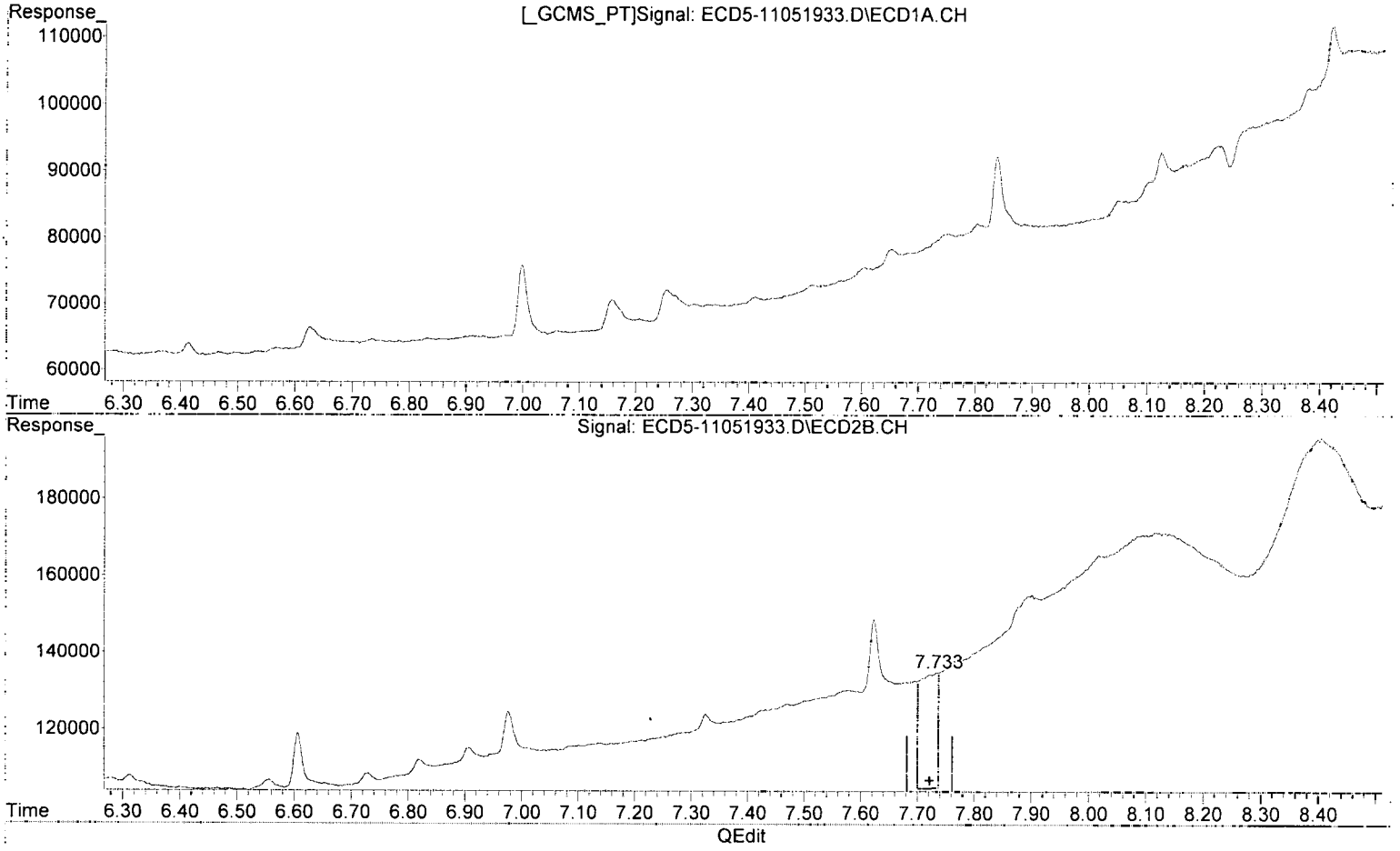




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
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 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(8) Heptachlor Expoxide

0.000min 0.000 ng/mL

response 0

MJB 1/6/19

(8) Heptachlor Expoxide #2

7.733min 0.100 ng/mL (m)

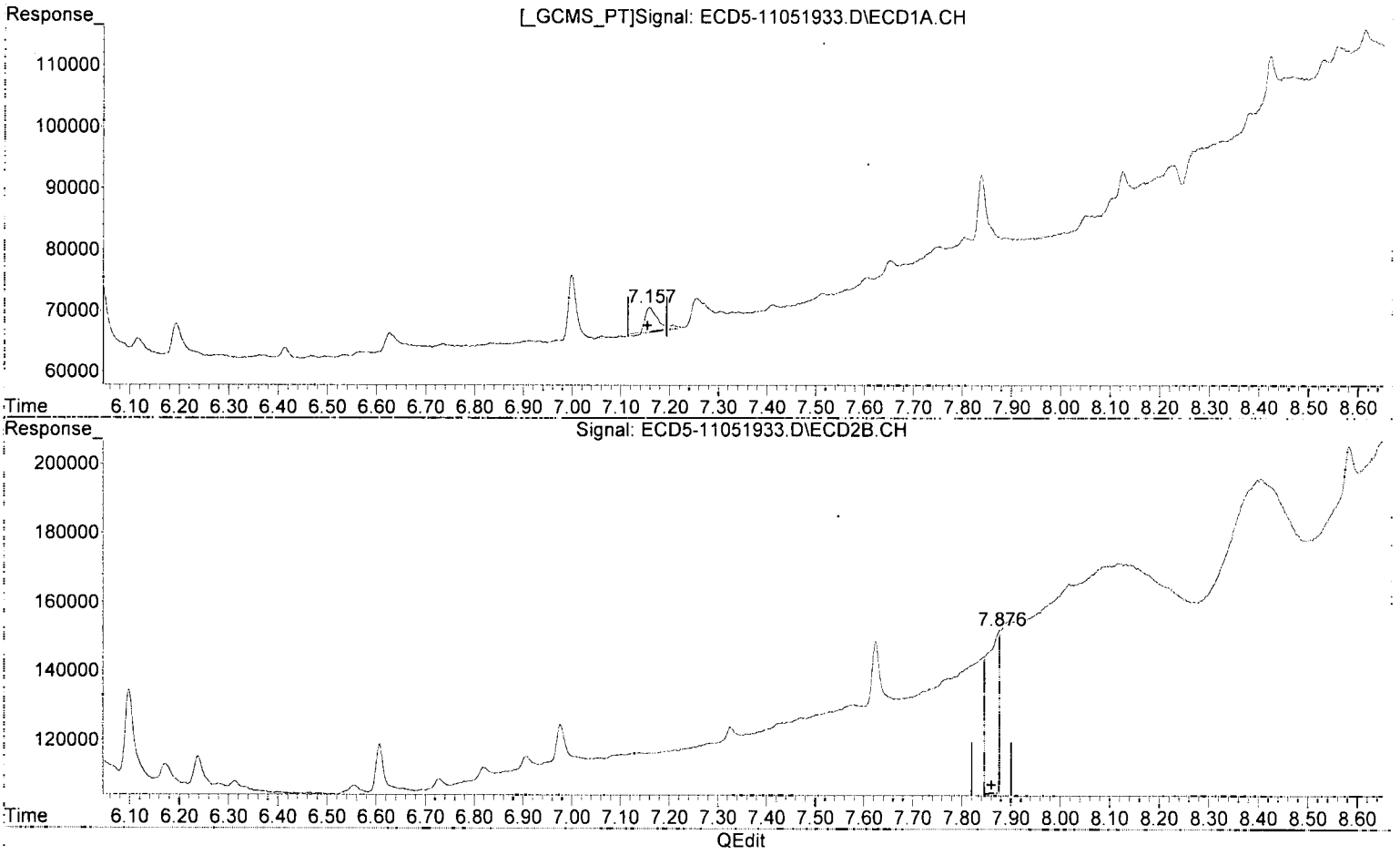
response 29958

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
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 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(9) trans-Chlordane

7.159min 0.021 ng/mL

response 3968

MJB 11/6/19

(9) trans-Chlordane #2

7.876min 0.151 ng/mL m

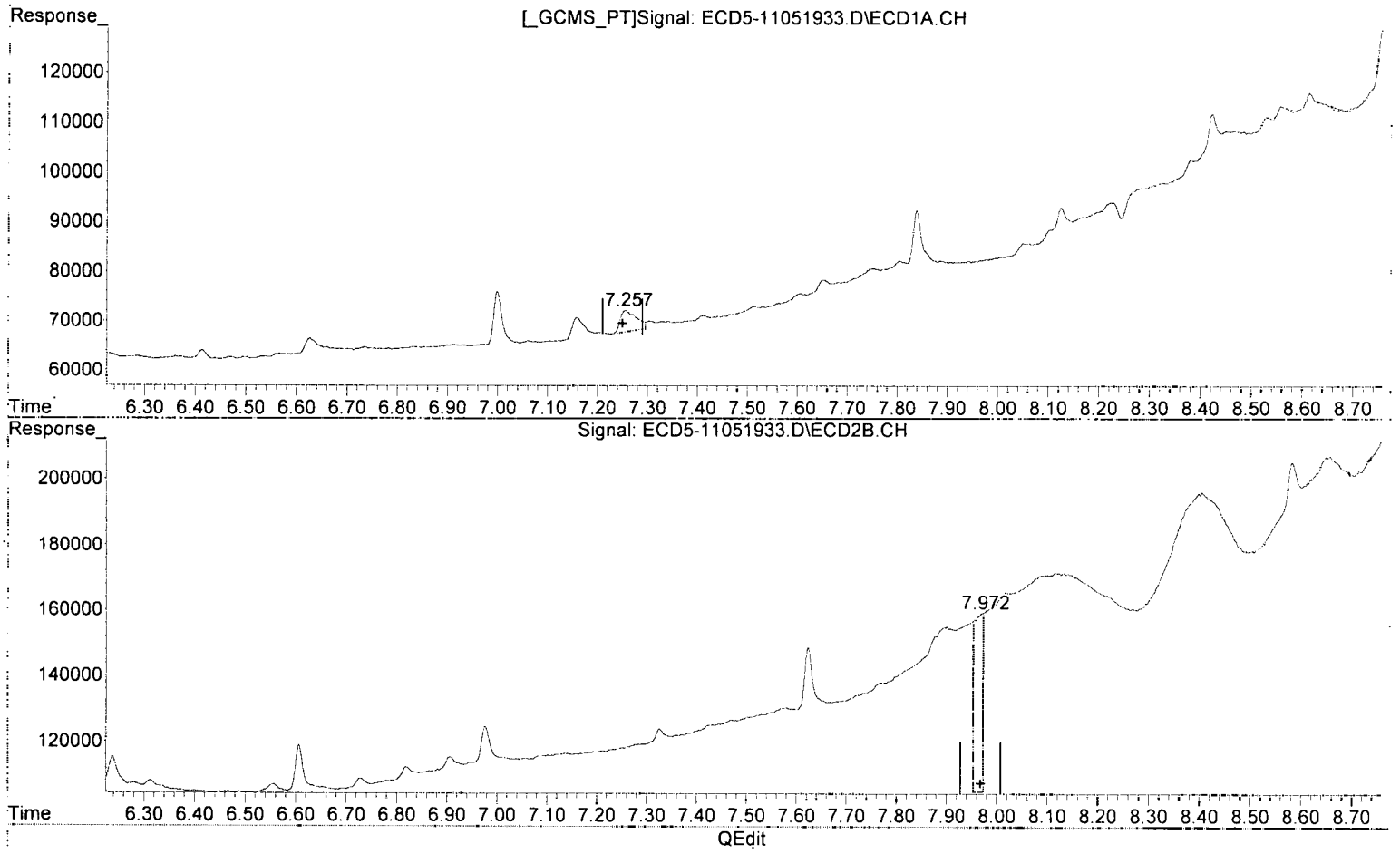
response 47242

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
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 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(10) cis-Chlordane

7.256min 0.023 ng/mL

response 4247

MJB 11/6/19

(10) cis-Chlordane #2

7.972min 0.187 ng/mL (m)

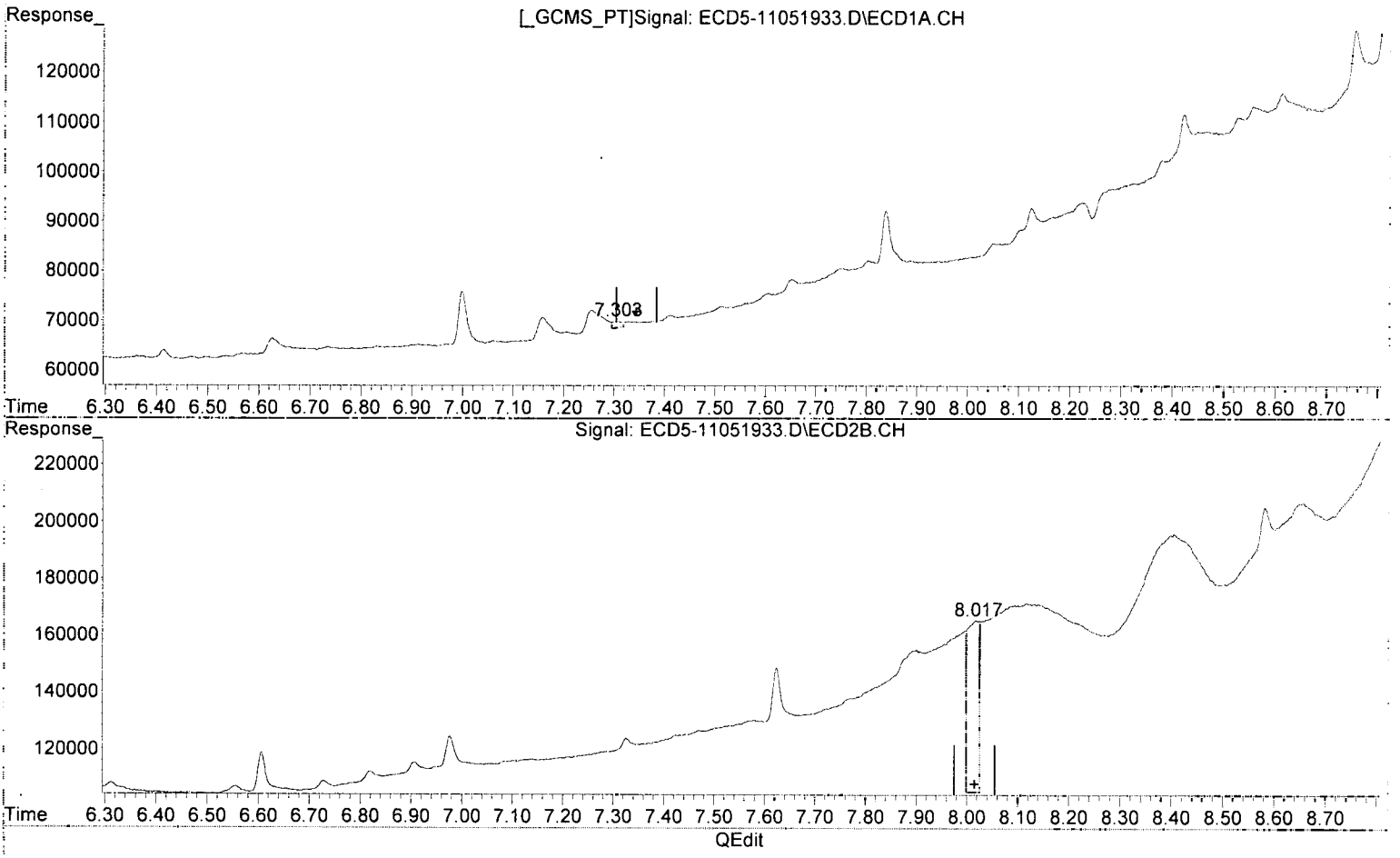
response 54507

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
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 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(11) Endosulfan I

7.305min 0.008 ng/mL

response 1321

MJB 11/6/19

(11) Endosulfan I #2

8.017min 0.220 ng/mL (m)

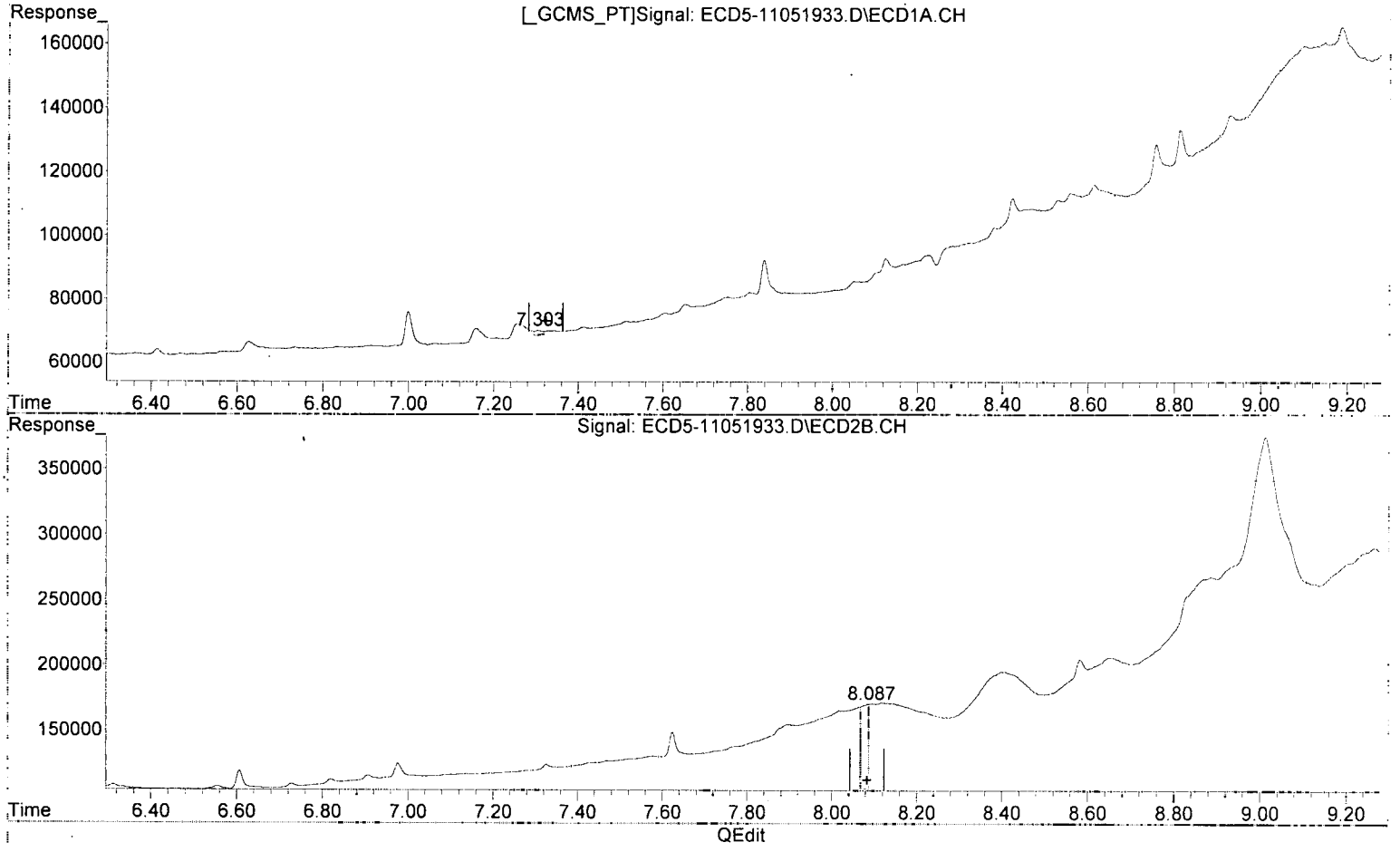
response 60519

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
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 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.305min 0.007 ng/mL

response 1321

MJB 11/4/19

(12) 4,4'-DDE #2

8.087min 0.212 ng/mL (m)

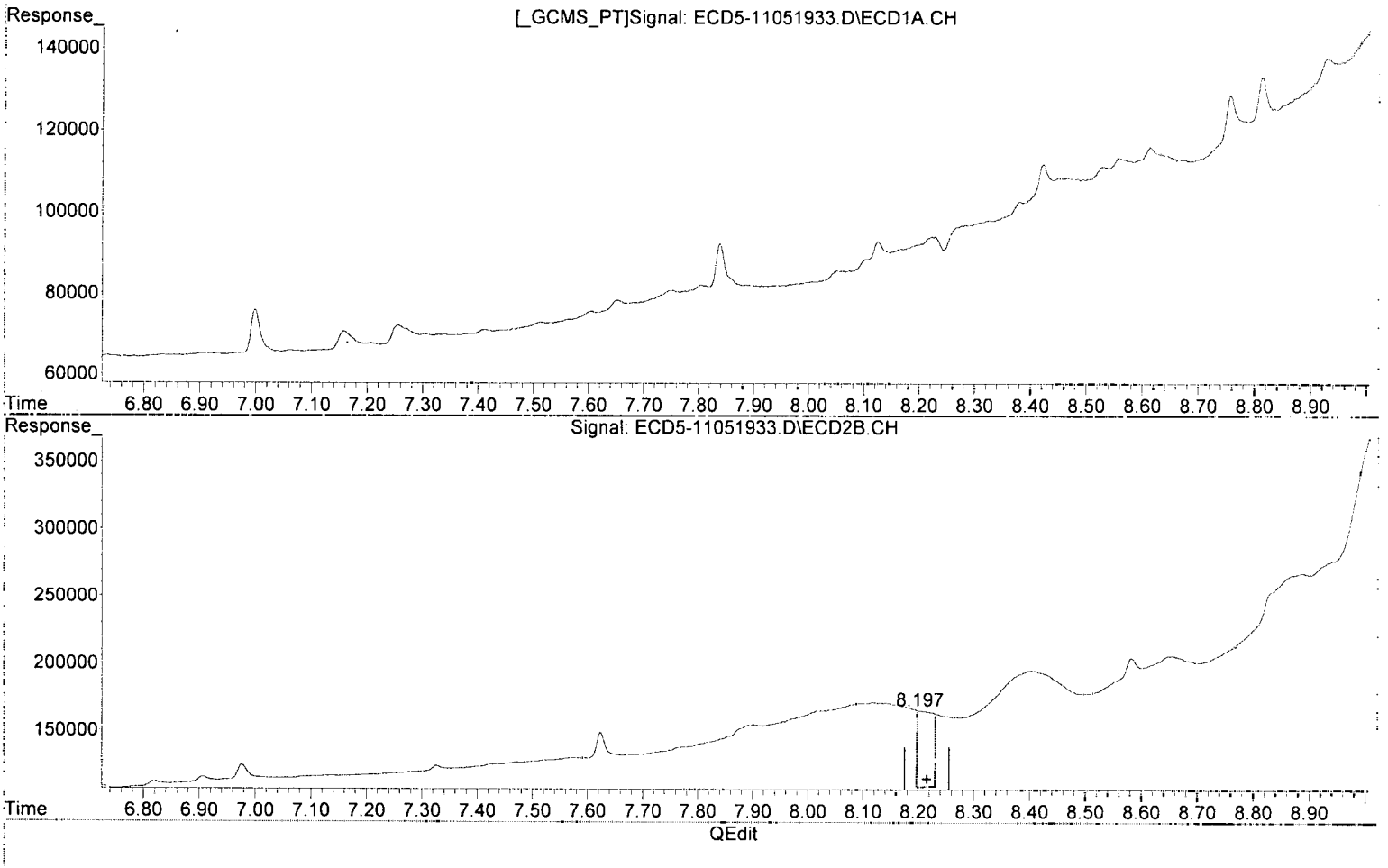
response 65732

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
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 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(13) Dieldrin

0.000min 0.000 ng/mL

response 0

MD 11/6/19

(13) Dieldrin #2

8.197min 0.188 ng/mL (m)

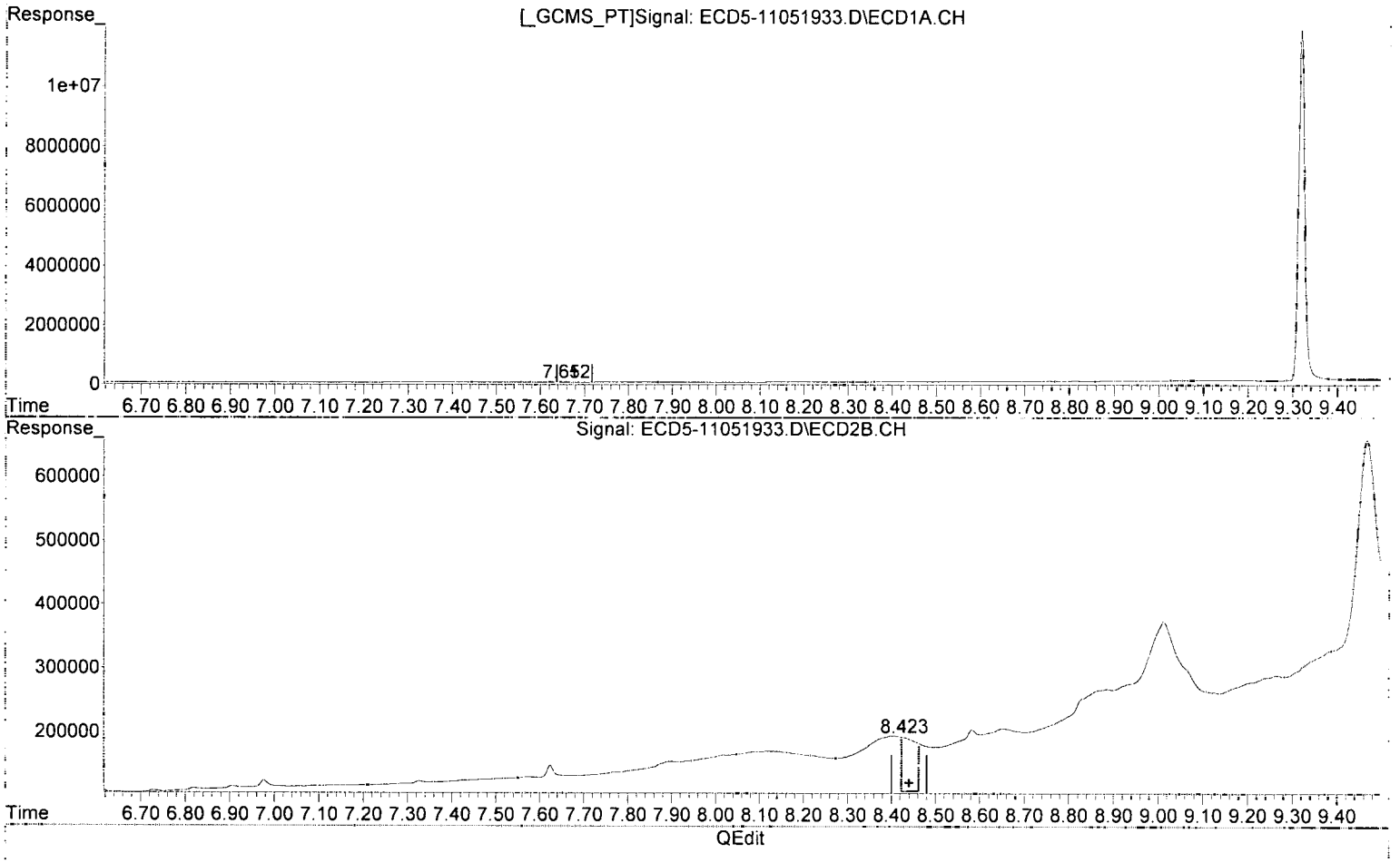
response 57057

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
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 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(14) Endrin

7.653min 0.017 ng/mL

response 2456

MJB 11/14/19

(14) Endrin #2

8.422min 0.380 ng/mL m

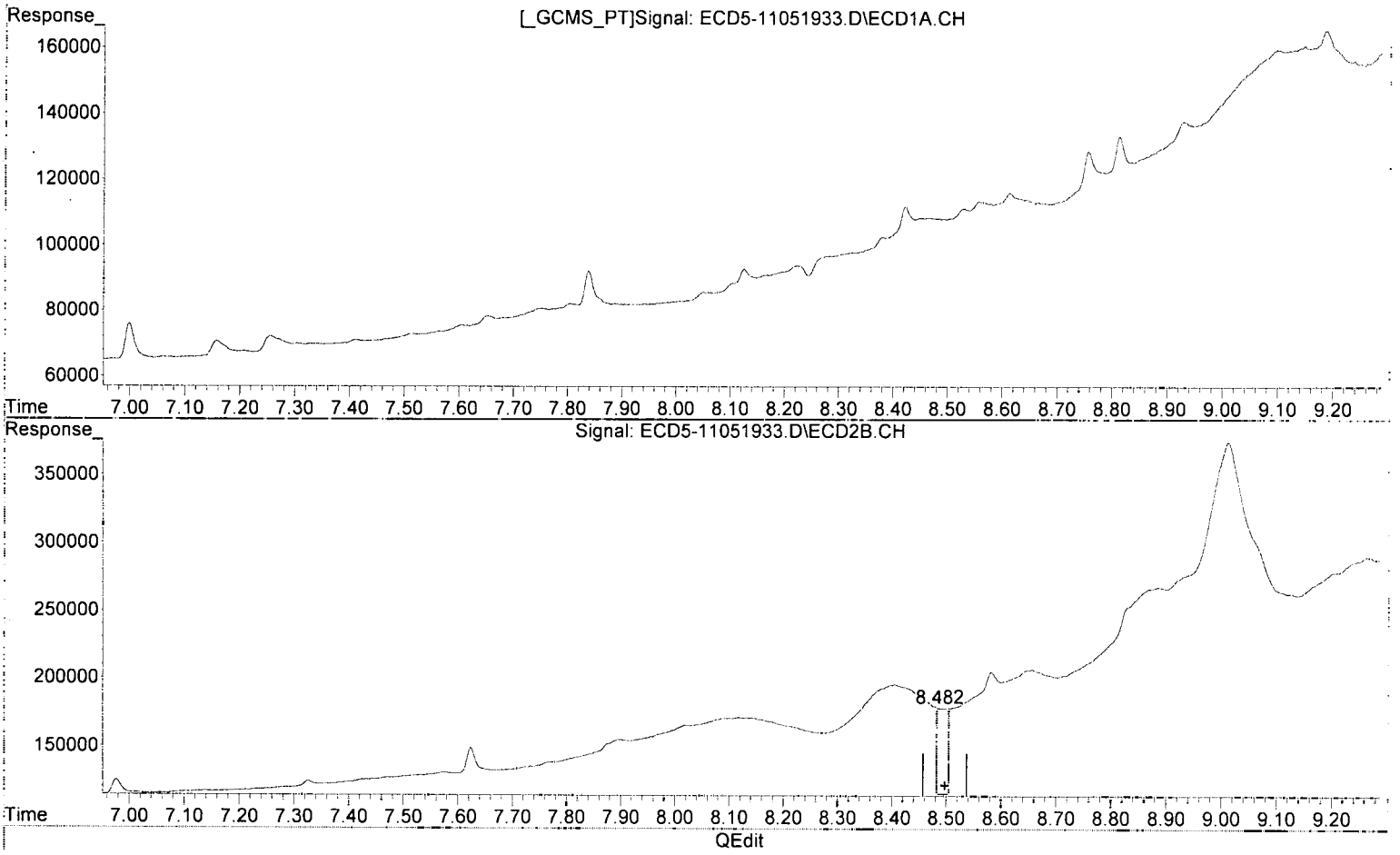
response 85738

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
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 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(15) 4,4'-DDD

0.000min 0.000 ng/mL

response 0

MJB 11/6/19

(15) 4,4'-DDD #2

8.482min 0.250 ng/mL (m)

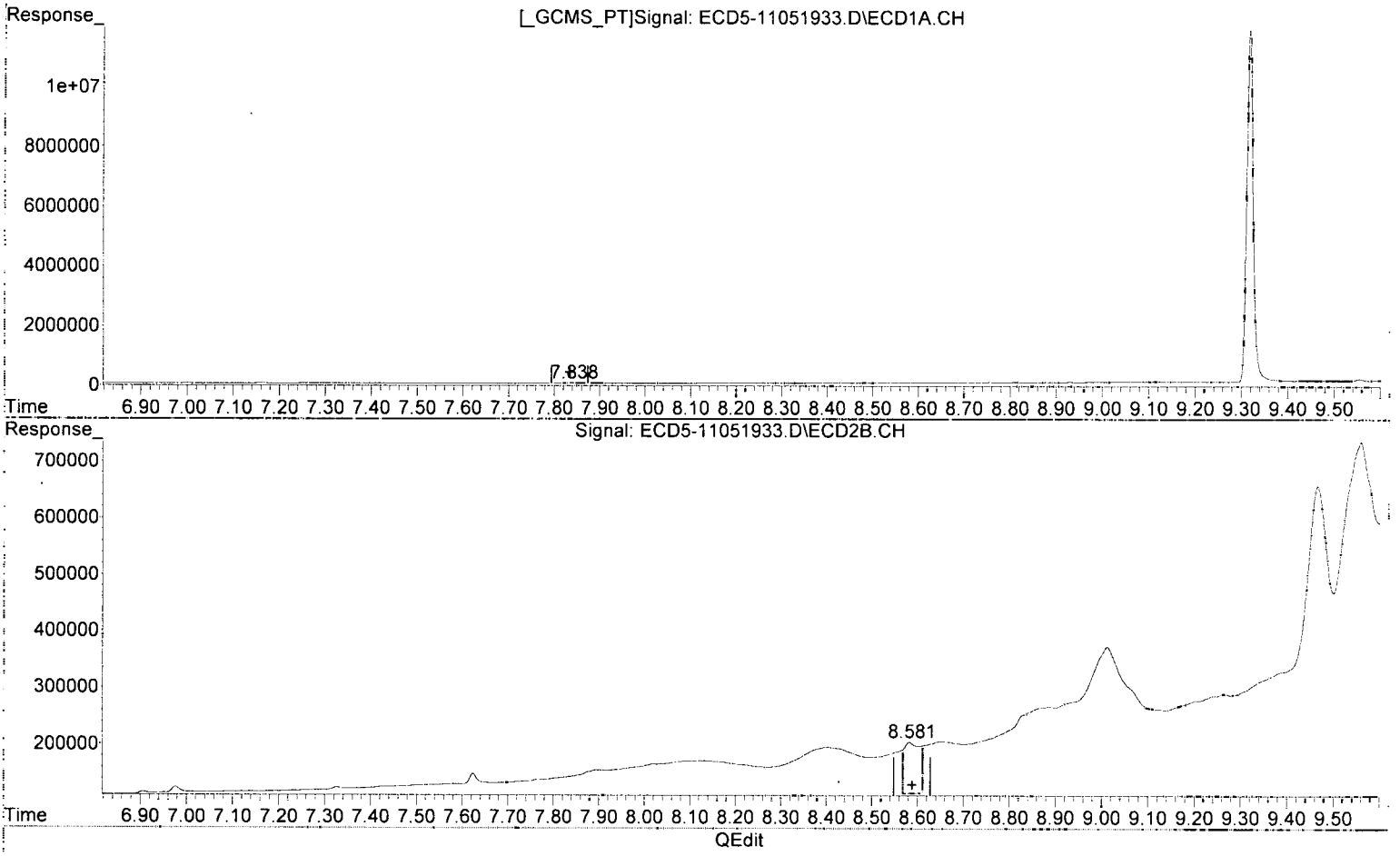
response 64140

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
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 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(16) Endosulfan II

7.839min 0.085 ng/mL

response 12139

MJB 1/6/19

(16) Endosulfan II #2

8.581min 0.395 ng/mL (m)

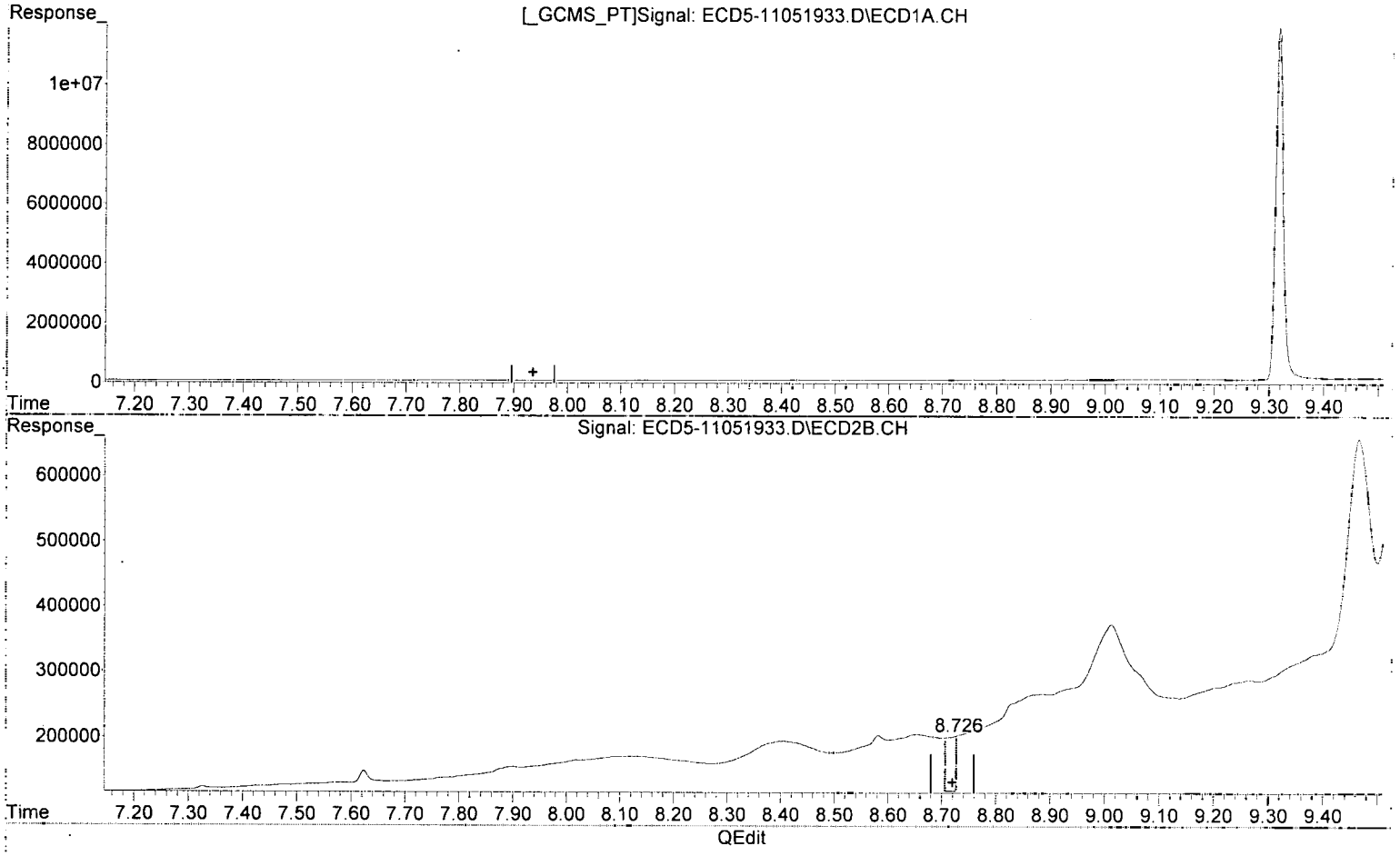
response 91134

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
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 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

0.000min 0.000 ng/mL

response 0

MJB 11/6/19

(17) 4,4'-DDT #2

8.726min 0.460 ng/mL (m)

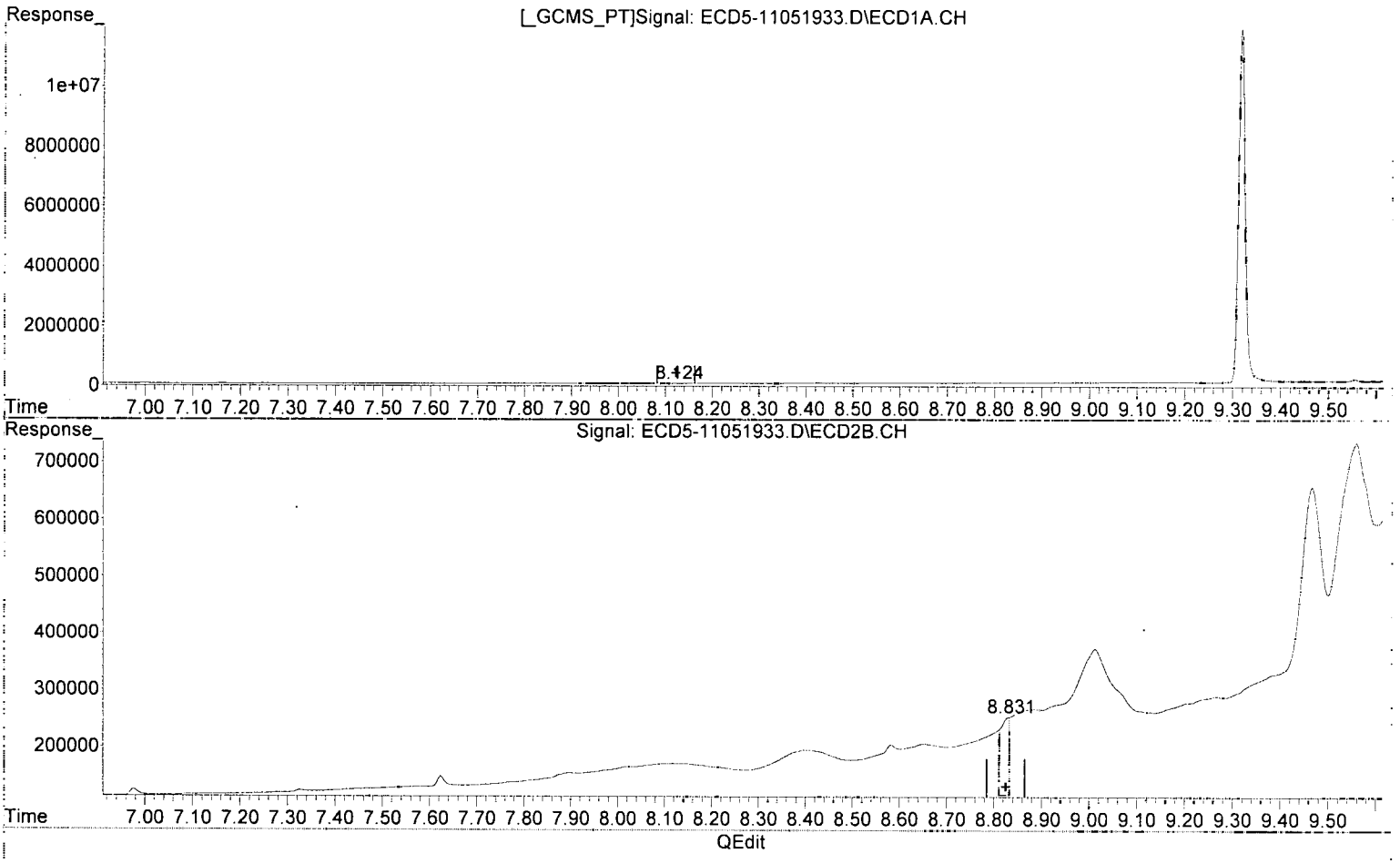
response 85413

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
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 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

8.126min -0.979 ng/mL

response 5241

MJ 11/6/19

(18) Endrin Aldehyde #2

8.831min -0.095 ng/mL m

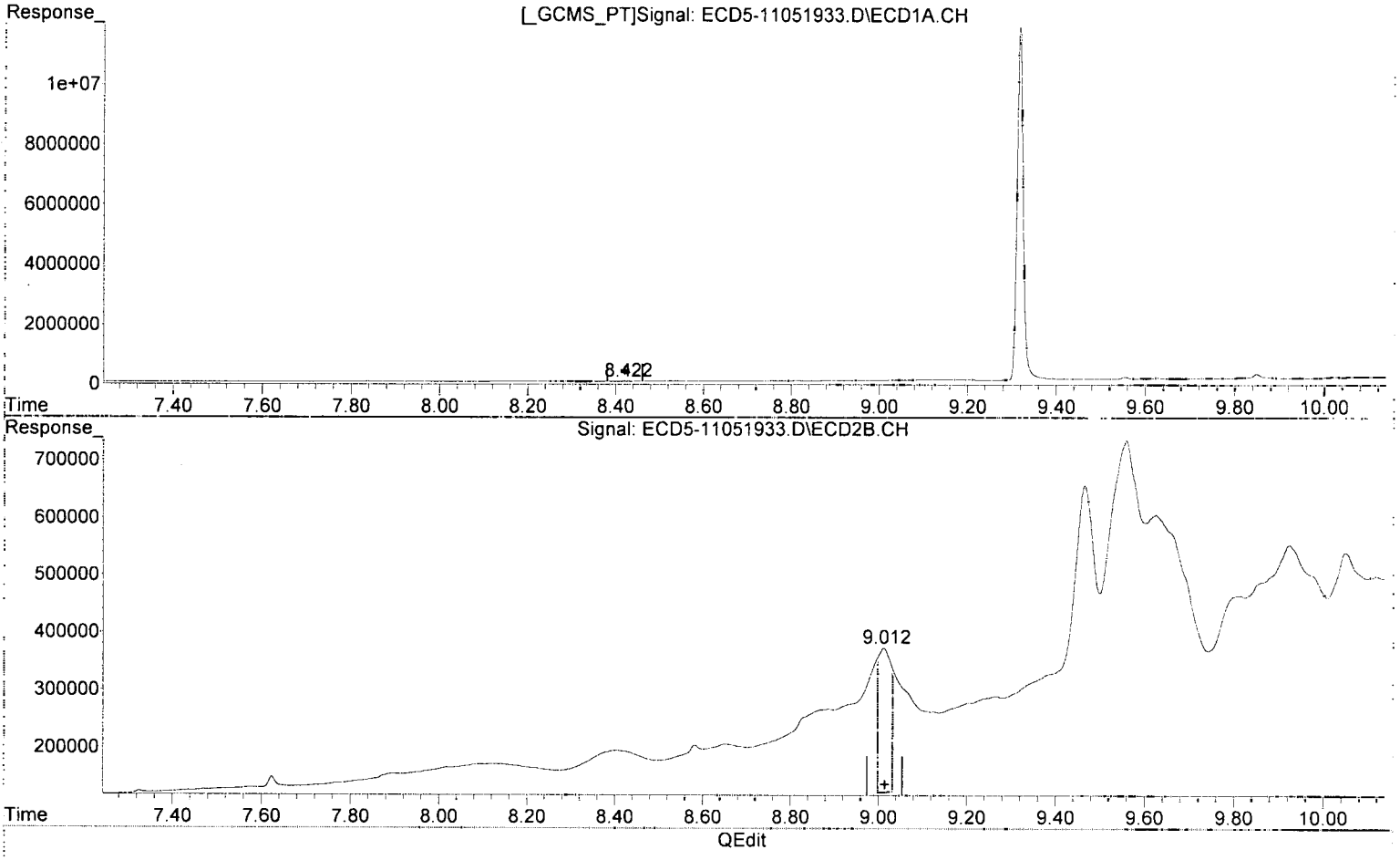
response 137698

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
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 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(19) Endosulfan Sulfate

8.423min 0.078 ng/mL

response 12153

MJB 11/6/19

(19) Endosulfan Sulfate #2

9.012min 1.008 ng/mL m

response 251082

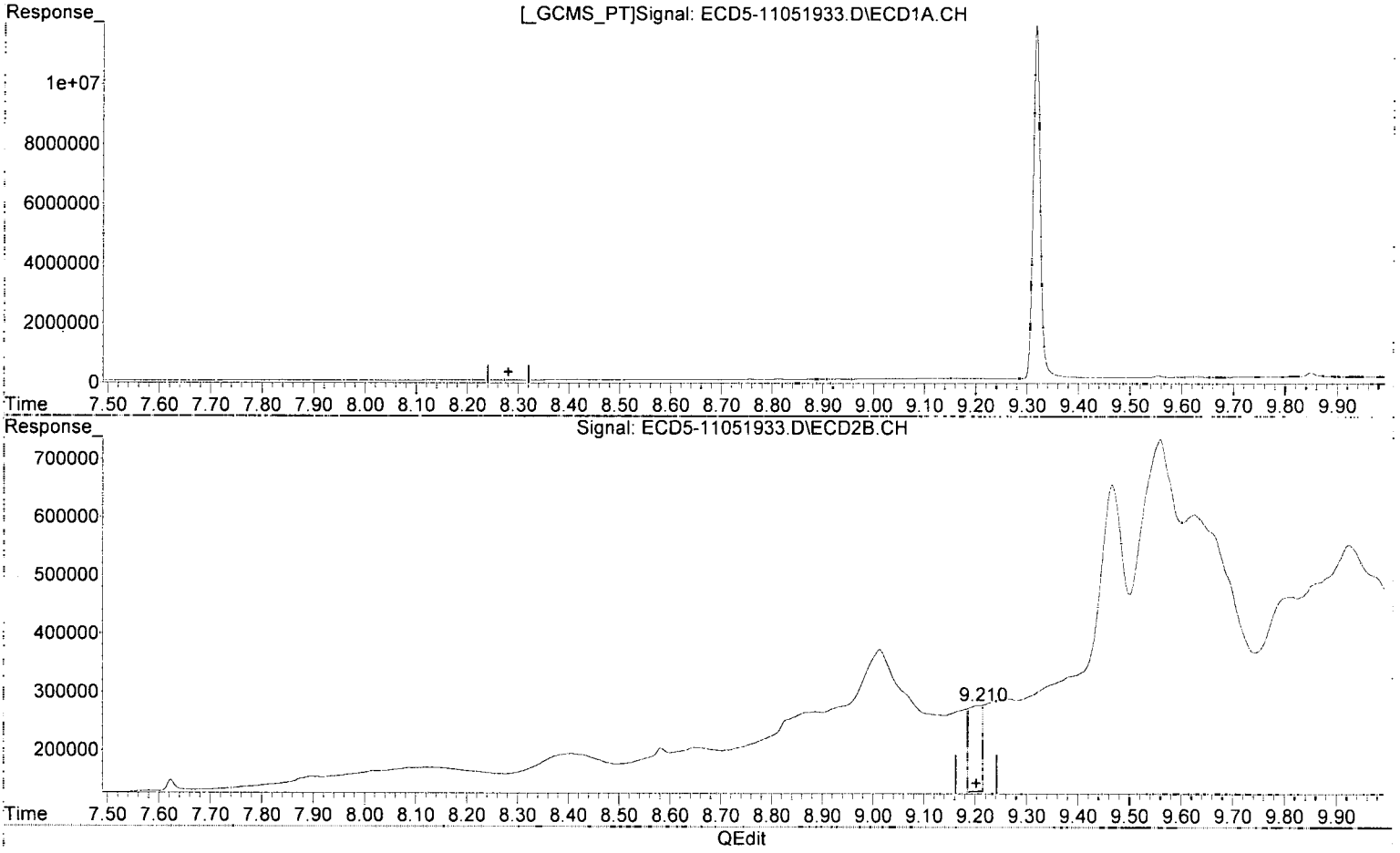
OP-01

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
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 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

0.000min 0.000 ng/mL

response 0

MJB 11/6/19

(20) Methoxychlor #2

9.210min 1.645 ng/mL m

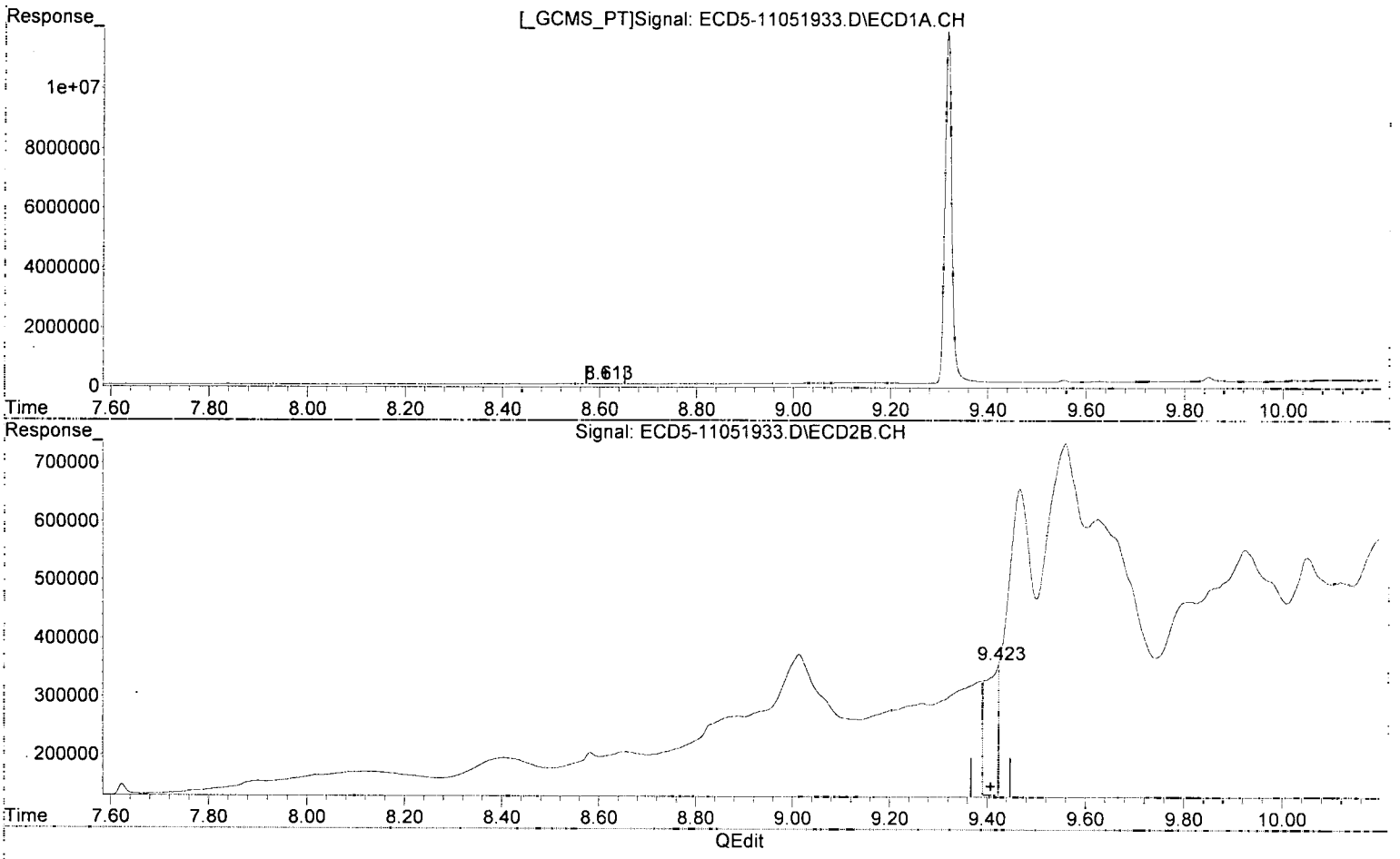
response 147791

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
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 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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



(21) Endrin Ketone

8.614min 0.041 ng/mL

response 6902

MJB 11/6/19

(21) Endrin Ketone #2

9.423min 0.875 ng/mL (m)

response 225226

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
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 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

MF MJB 11/6/19

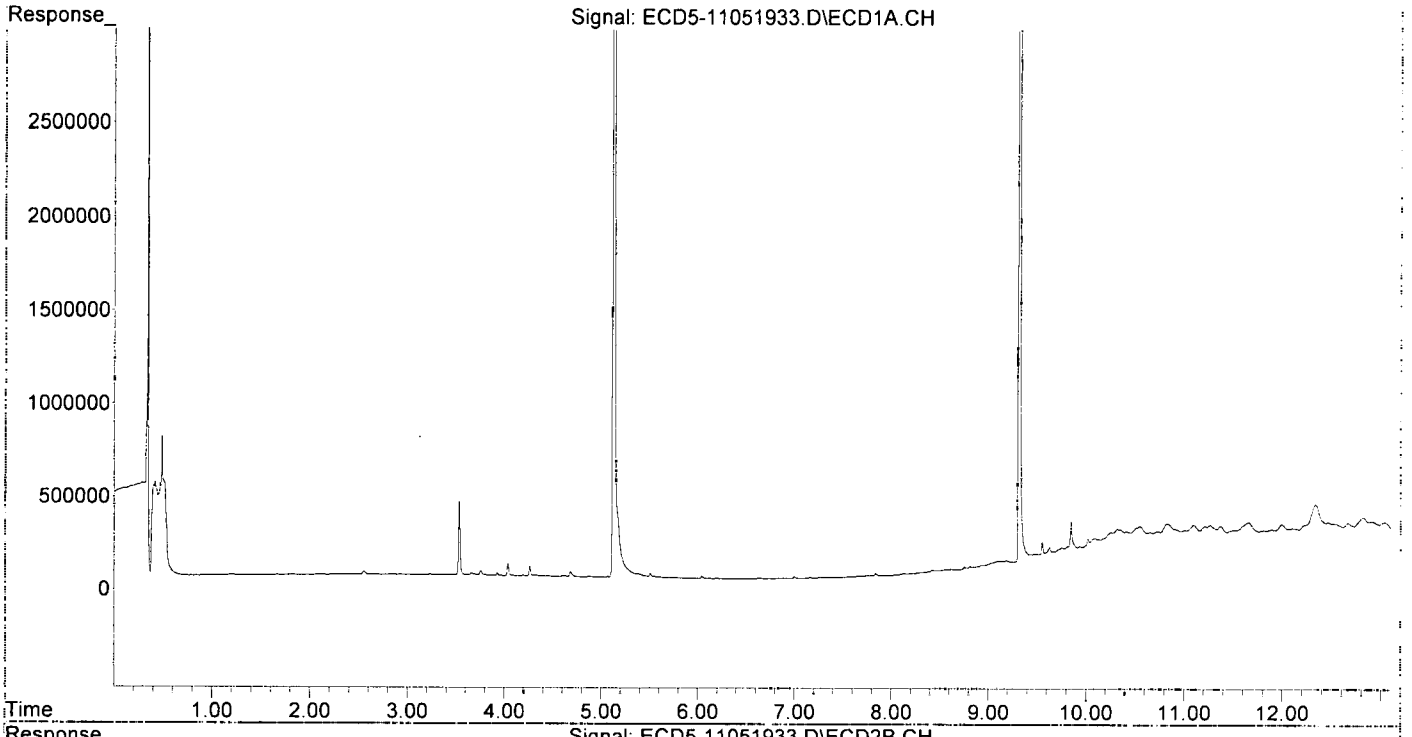
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.127	5.724	15271390	25235446	92.010	86.020	
22)	S	DCBP (S)	9.318	10.235	11806848	19188170	83.678	106.741	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.043	0.000	11416	0	0.126	N.D.	#
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.194	6.976	5094	10429	0.026	0.030	
7)		Aldrin	6.627f	0.000	2755	0	0.014	N.D.	#
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	7.159	0.000	3968	0	0.021	N.D.	#
10)		cis-Chlor...	7.256	0.000	4247	0	0.023	N.D.	#
11)		Endosulfa...	7.305f	0.000	1321	0	0.008	N.D.	#
12)		4,4'-DDE	7.305	8.117f	1321	18883	0.007	0.061	#
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	7.653f	8.405f	2456	27869	0.017	0.123	#
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	7.839	8.582	12139	26283	0.085	0.114	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.126	0.000	5241	0	BelowCal	N.D.	
19)		Endosulfa...	8.423	9.012	12153	169100	0.078	0.679	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.614	0.000	6902	0	0.041	N.D.	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.509	6.172f	21249	8043	0.121	0.026	#
25)		Oxychlordane	6.999	7.623f	10731	18388	0.065	0.067	
26)		2,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
27)		trans-Non...	7.256	0.000	4247	0	87346.677	N.D.	#
28)		2,4'-DDD	7.412f	0.000	680	0	0.006	N.D.	#
29)		2,4'-DDT	7.606	0.000	769	0	0.007	N.D.	#
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	0.000	0.000	0	0	N.D.	N.D.	
32)		Chlordane...	7.256	0.000	4247	0	0.216	N.D.	#
33)		Chlordane...	7.305f	0.000	1321	0	0.053	N.D.	#
34)		Chlordane...	7.839f	0.000	12139	0	2.100	N.D.	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	7.412	8.405f	680	27869	0.760	10.620	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
39)		Toxaphene...	8.225	0.000	3601	0	1.111	N.D.	#
40)		Toxaphene...	0.000	9.012f	0	169100	N.D.	36.285	#
41)		Toxaphene...	8.559	0.000	6967	0	2.202	N.D.	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

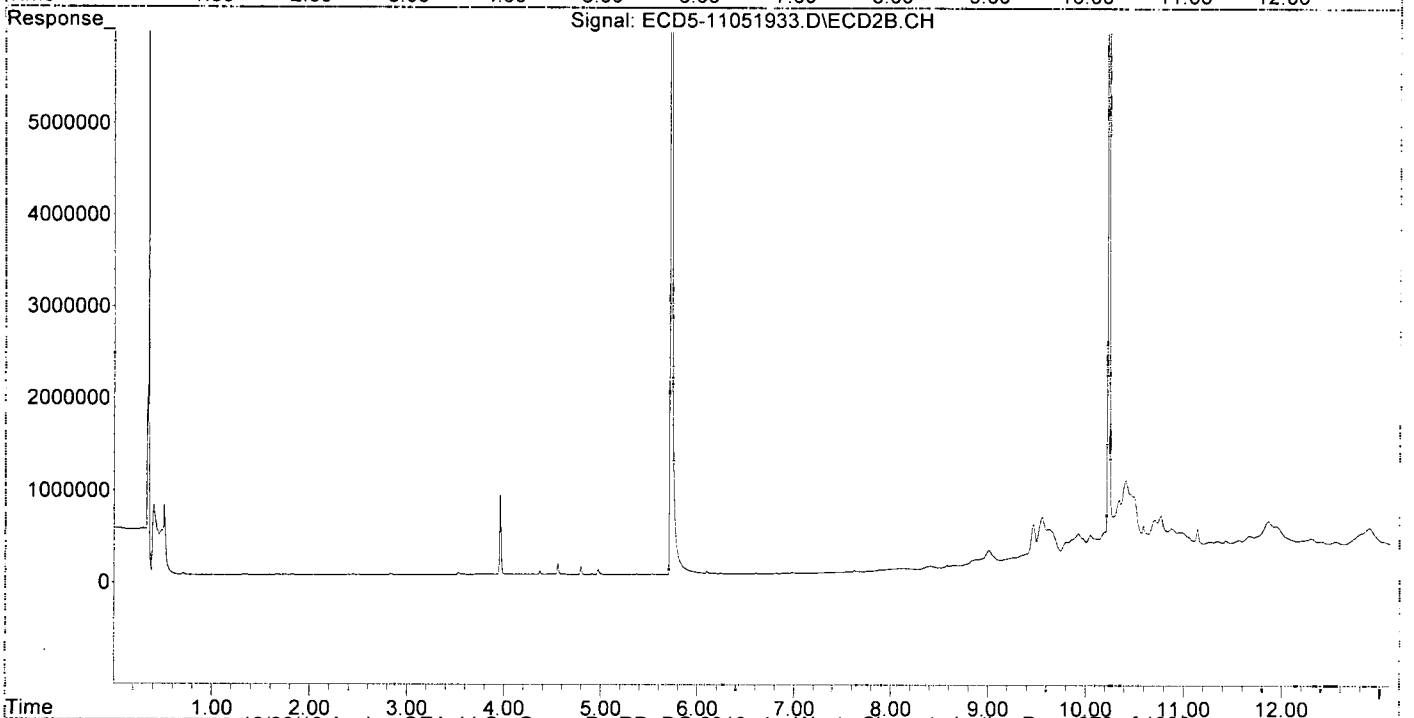
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 20:06
Operator : MJB
Sample : 9K05039-CCB3
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 06 10:37:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.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

Organochloride Pesticides by EPA 8081B
Calibration Data

Sequence 9H23034 (Cal ID A9H2608) DualECD5R/F

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

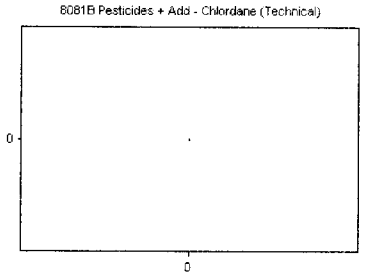
Element Calibration Review Sheet

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**

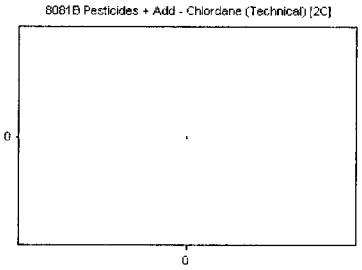


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALH~~	~~50~~	~~5365~~	~~107.300~~	~~3.45~~
~~9H23034-CALI~~	~~100~~	~~4938~~	~~49.380~~	~~3.45~~
~~9H23034-CALJ~~	~~200~~	~~4503~~	~~22.515~~	~~3.45~~
~~9H23034-CALK~~	~~500~~	~~4056~~	~~8.112~~	~~3.45~~
~~9H23034-CALL~~	~~1000~~	~~4825~~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

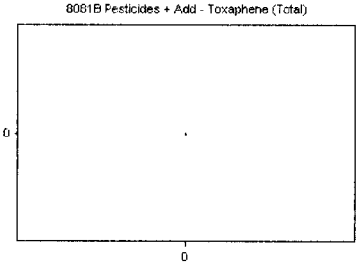


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALH~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALI~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALJ~~	~~200~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALK~~	~~500~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALL~~	~~1000~~	~~0~~	~~0.000~~	~~0.00~~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

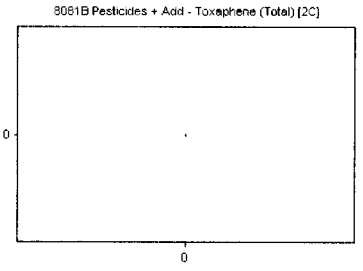


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALN~~	~~50~~	~~4023~~	~~80.460~~	~~3.45~~
~~9H23034-CALO~~	~~100~~	~~3536~~	~~35.360~~	~~3.45~~
~~9H23034-CALP~~	~~200~~	~~3919~~	~~19.595~~	~~3.45~~
~~9H23034-CALQ~~	~~500~~	~~4132~~	~~8.264~~	~~3.45~~
~~9H23034-CALR~~	~~1000~~	~~2687~~	~~2.687~~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

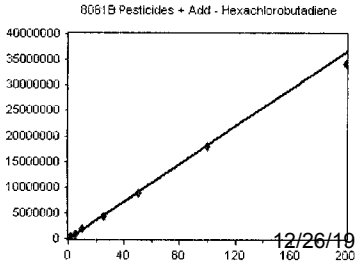


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALN~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALO~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALP~~	~~200~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALQ~~	~~500~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALR~~	~~1000~~	~~0~~	~~0.000~~	~~0.00~~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

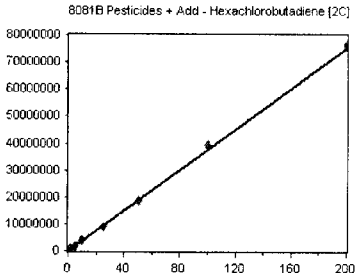
Element Calibration Review Sheet

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**

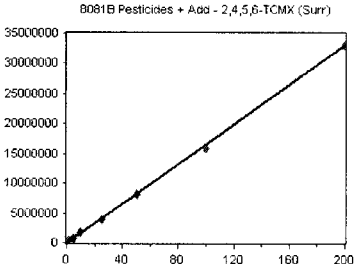


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	383198	383198.000	3.69
9H23034-CALA	2	754548	377274.000	3.69
9H23034-CALB	5	1877484	375496.800	3.69
9H23034-CALC	10	3701532	370153.200	3.69
9H23034-CALD	25	8892238	355689.500	3.69
9H23034-CALE	50	863562E+07	372712.400	3.69
9H23034-CALF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

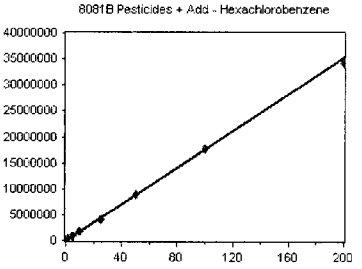


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176748	176748.000	5.40
9H23034-CAL2	2	349972	174986.000	5.40
9H23034-CAL3	5	834206	166841.200	5.40
9H23034-CAL4	10	1644447	164444.700	5.40
9H23034-CAL5	25	4015832	160633.300	5.39
9H23034-CAL6	50	8071481	161429.600	5.39
9H23034-CAL7	100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

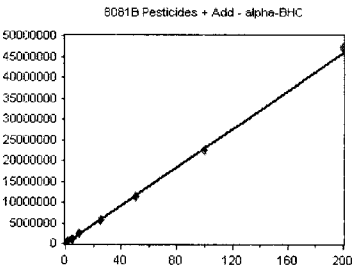


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	194679	194679.000	5.78
9H23034-CALA	2	362082	181041.000	5.78
9H23034-CALB	5	853793	170758.600	5.78
9H23034-CALC	10	1711884	171188.400	5.77
9H23034-CALD	25	4184551	167382.000	5.77
9H23034-CALE	50	8911624	178232.500	5.77
9H23034-CALF	100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

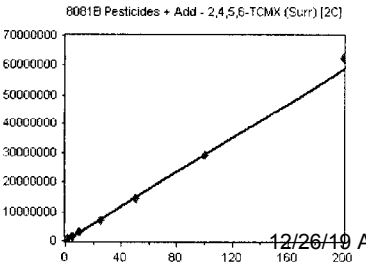


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	231994	231994.000	5.94
9H23034-CAL2	2	458365	229182.500	5.94
9H23034-CAL3	5	1147932	229586.400	5.94
9H23034-CAL4	10	2347065	234706.500	5.94
9H23034-CAL5	25	5553096	222123.800	5.94
9H23034-CAL6	50	136959E+07	227391.800	5.94
9H23034-CAL7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

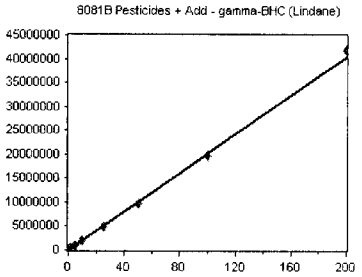
Element Calibration Review Sheet

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**

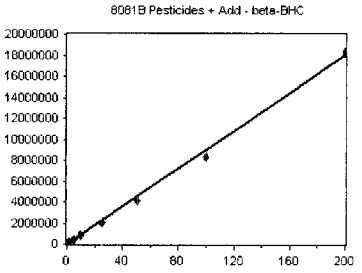


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	207427	207427.000	6.22
9H23034-CAL2	2	406027	203013.500	6.22
9H23034-CAL3	5	1020724	204144.800	6.22
9H23034-CAL4	10	2034859	203485.900	6.22
9H23034-CAL5	25	4875657	195026.300	6.22
9H23034-CAL6	50	9785999	195720.000	6.22
9H23034-CAL7	100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

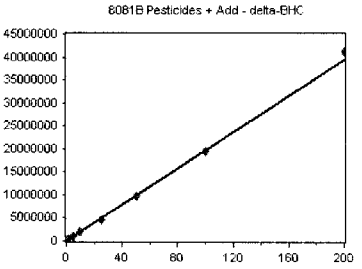


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	104326	104326.000	6.30
9H23034-CAL2	2	194168	97084.000	6.30
9H23034-CAL3	5	456954	91390.800	6.30
9H23034-CAL4	10	910875	91087.500	6.30
9H23034-CAL5	25	2060378	82415.120	6.30
9H23034-CAL6	50	4100858	82017.160	6.30
9H23034-CAL7	100	8355416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

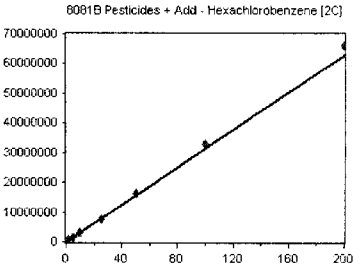


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	199840	199840.000	6.45
9H23034-CAL2	2	386980	193490.000	6.45
9H23034-CAL3	5	1004012	200802.400	6.45
9H23034-CAL4	10	2006493	200649.300	6.45
9H23034-CAL5	25	4667166	186686.600	6.45
9H23034-CAL6	50	9610742	192214.800	6.45
9H23034-CAL7	100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

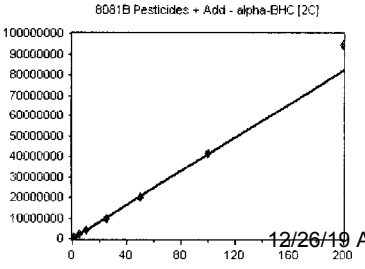


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	328025	328025.000	6.45
9H23034-CALA	2	632830	316415.000	6.45
9H23034-CALB	5	1485583	297116.600	6.45
9H23034-CALC	10	2936294	293629.400	6.45
9H23034-CALD	25	7416324	296653.000	6.45
9H23034-CALE	50	309416E+07	321883.200	6.45
9H23034-CALF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

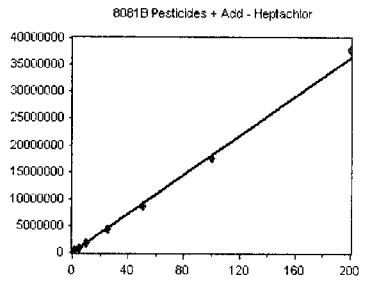
Element Calibration Review Sheet

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**

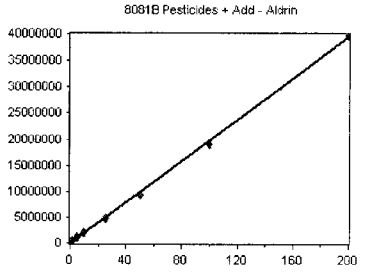


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	192066	192066.000	6.64
9H23034-CAL2	2	369615	184807.500	6.64
9H23034-CAL3	5	899091	179818.200	6.64
9H23034-CAL4	10	1819621	181962.100	6.63
9H23034-CAL5	25	4314306	172572.200	6.63
9H23034-CAL6	50	8735158	174703.200	6.63
9H23034-CAL7	100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

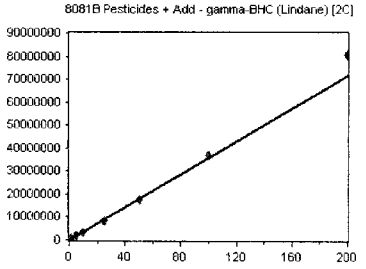


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	205523	205523.000	6.88
9H23034-CAL2	2	399550	199775.000	6.88
9H23034-CAL3	5	1012733	202546.600	6.88
9H23034-CAL4	10	2010802	201080.200	6.88
9H23034-CAL5	25	4845355	193814.200	6.87
9H23034-CAL6	50	9327672	186553.400	6.87
9H23034-CAL7	100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

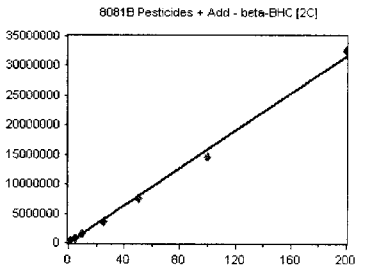


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	352286	352286.000	6.92
9H23034-CAL2	2	690922	345461.000	6.92
9H23034-CAL3	5	1742677	348535.400	6.92
9H23034-CAL4	10	3476733	347673.300	6.92
9H23034-CAL5	25	8508386	340335.400	6.91
9H23034-CAL6	50	738107E+07	347621.400	6.91
9H23034-CAL7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

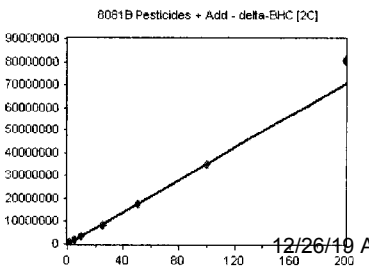


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176262	176262.000	6.98
9H23034-CAL2	2	335260	167630.000	6.98
9H23034-CAL3	5	788630	157726.000	6.98
9H23034-CAL4	10	1580847	158084.700	6.98
9H23034-CAL5	25	3677155	147086.200	6.98
9H23034-CAL6	50	7516011	150320.200	6.98
9H23034-CAL7	100	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 **352668.900** RF RSD **6.60** AVE RT **7.23**

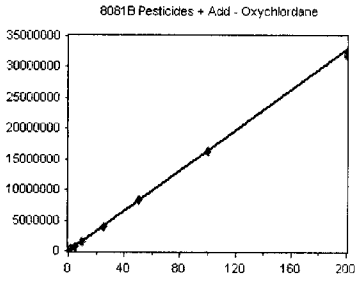
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Oxychlordane

Curve Fit: **AVERAGE RF**

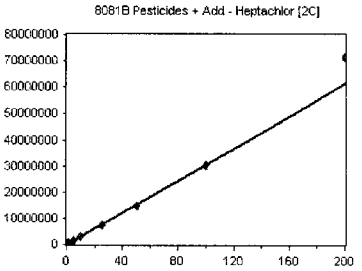


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	176844	176844.000	7.26
9H23034-CALA	2	339370	169685.000	7.26
9H23034-CALB	5	819748	163949.600	7.26
9H23034-CALC	10	1591613	159161.300	7.26
9H23034-CALD	25	3881255	155250.200	7.26
9H23034-CALE	50	8382873	167657.500	7.26
9H23034-CALF	100	535922E+07	163592.200	7.26
9H23034-CALG	200	203263E+07	160163.200	7.26

AVE RF **164537.900** RF RSD **4.13** AVE RT **7.26**

Heptachlor [2C]

Curve Fit: **AVERAGE RF**

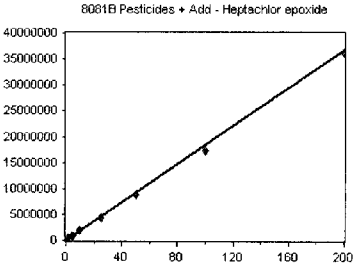


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	309811	309811.000	7.29
9H23034-CAL2	2	586765	293382.500	7.29
9H23034-CAL3	5	1508218	301643.600	7.29
9H23034-CAL4	10	3005915	300591.500	7.29
9H23034-CAL5	25	7282282	291291.300	7.29
9H23034-CAL6	50	459514E+07	291902.800	7.29
9H23034-CAL7	100	027782E+07	302778.200	7.29
9H23034-CAL8	200	128318E+07	356415.900	7.29

AVE RF **305977.100** RF RSD **6.98** AVE RT **7.29**

Heptachlor epoxide

Curve Fit: **AVERAGE RF**

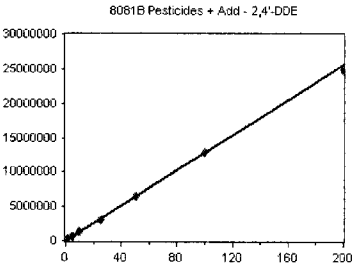


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	200503	200503.000	7.34
9H23034-CAL2	2	392052	196026.000	7.34
9H23034-CAL3	5	923620	184724.000	7.34
9H23034-CAL4	10	1865428	186542.800	7.34
9H23034-CAL5	25	4344286	173771.400	7.33
9H23034-CAL6	50	8869300	177386.000	7.33
9H23034-CAL7	100	731844E+07	173184.400	7.33
9H23034-CAL8	200	625817E+07	181290.800	7.33

AVE RF **184178.600** RF RSD **5.42** AVE RT **7.33**

2,4'-DDE

Curve Fit: **AVERAGE RF**

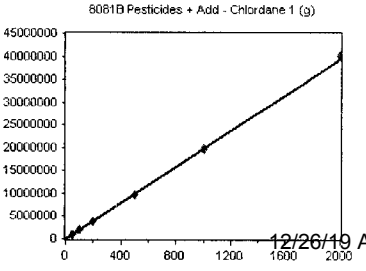


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	137947	137947.000	7.34
9H23034-CALA	2	265212	132606.000	7.33
9H23034-CALB	5	633168	126633.600	7.33
9H23034-CALC	10	1245265	124526.500	7.33
9H23034-CALD	25	3059421	122376.800	7.33
9H23034-CALE	50	6510588	130211.800	7.33
9H23034-CALF	100	276907E+07	127690.700	7.33
9H23034-CALG	200	1.48192E+07	124096.000	7.33

AVE RF **128261.100** RF RSD **4.01** AVE RT **7.33**

Chlordane 1 (g)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1009143	20182.860	7.43
9H23034-CALI	100	1978897	19788.970	7.43
9H23034-CALJ	200	3849299	19246.490	7.43
9H23034-CALK	500	9628671	19257.340	7.43
9H23034-CALL	1000	964377E+07	19643.770	7.43
9H23034-CALM	2000	1.00365E+07	20018.250	7.43

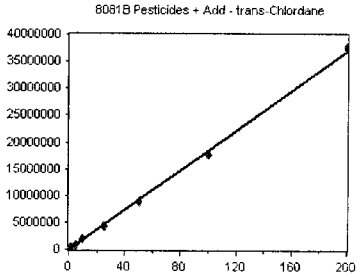
AVE RF **19869.610** RF RSD **1.96** AVE RT **7.43**

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

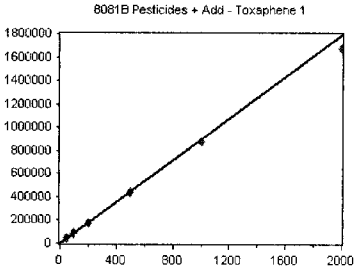


Curve Fit: **AVERAGE RF**

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

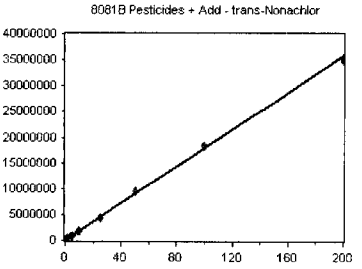


Curve Fit: **AVERAGE RF**

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

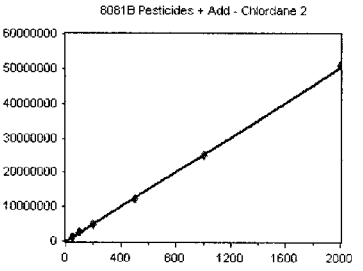


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

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

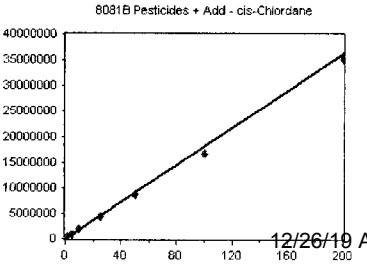


Curve Fit: **AVERAGE RF**

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 **182074.100** RF RSD **7.86** AVE RT **7.53**

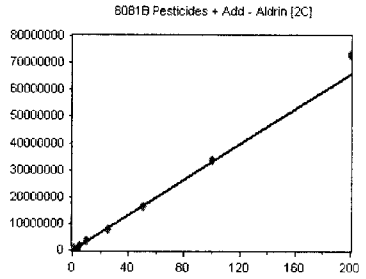
Element Calibration Review Sheet

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**

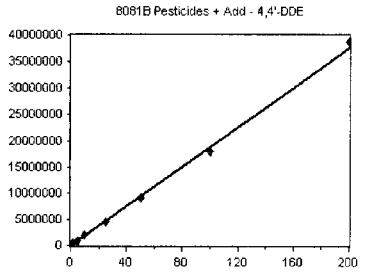


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	317466	317466.000	7.56
9H23034-CAL2	2	635458	317729.000	7.56
9H23034-CAL3	5	1600995	320199.000	7.56
9H23034-CAL4	10	3341093	334109.300	7.56
9H23034-CAL5	25	7878574	315143.000	7.56
9H23034-CAL6	50	526442E+07	325288.400	7.56
9H23034-CAL7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

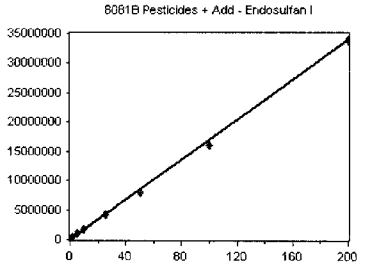


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	193435	193435.000	7.59
9H23034-CAL2	2	388618	194309.000	7.59
9H23034-CAL3	5	953351	190670.200	7.59
9H23034-CAL4	10	1890931	189093.100	7.59
9H23034-CAL5	25	4571066	182842.600	7.58
9H23034-CAL6	50	9177389	183547.800	7.58
9H23034-CAL7	100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

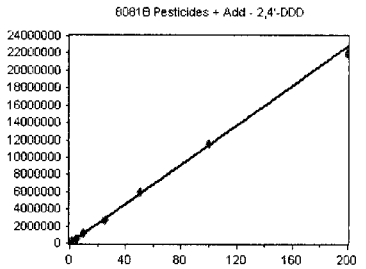


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	185217	185217.000	7.63
9H23034-CAL2	2	357368	178684.000	7.63
9H23034-CAL3	5	861509	172301.800	7.62
9H23034-CAL4	10	1709332	170933.200	7.62
9H23034-CAL5	25	4111285	164451.400	7.62
9H23034-CAL6	50	7984410	159688.200	7.62
9H23034-CAL7	100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

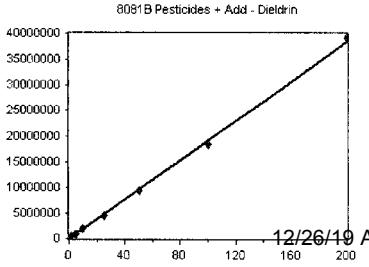


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	120240	120240.000	7.71
9H23034-CALA	2	233089	116544.500	7.71
9H23034-CALB	5	560942	112188.400	7.71
9H23034-CALC	10	1103587	110358.700	7.71
9H23034-CALD	25	2745178	109807.100	7.71
9H23034-CALE	50	5920095	118401.900	7.71
9H23034-CALF	100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

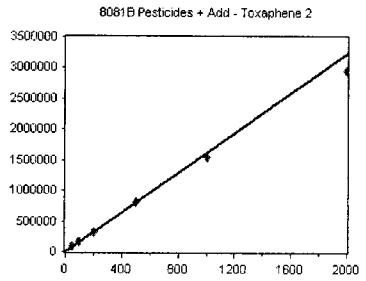
AVE RF **191979.300** RF RSD **3.25** AVE RT **7.79**

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

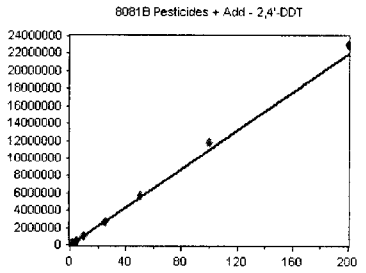


Curve Fit: **AVERAGE RF**

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

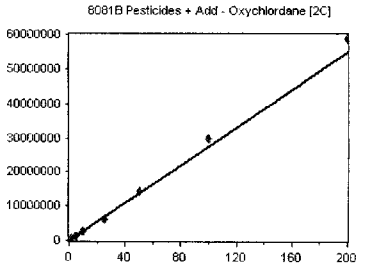


Curve Fit: **AVERAGE RF**

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]

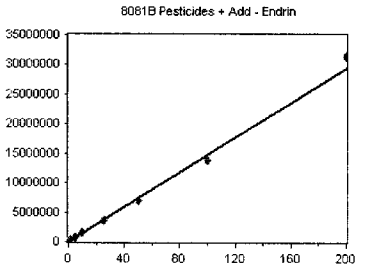


Curve Fit: **AVERAGE RF**

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

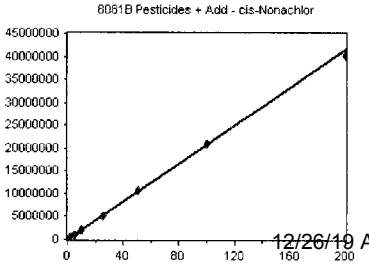


Curve Fit: **AVERAGE RF**

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 **207619.500** RF RSD **3.25** AVE RT **7.99**

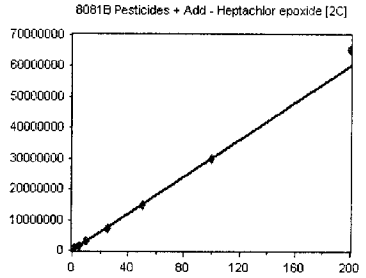
Element Calibration Review Sheet

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**

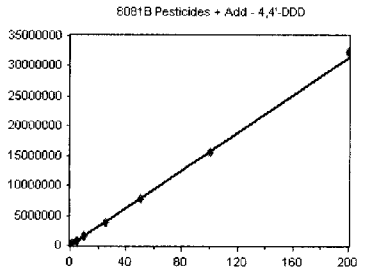


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	310098	310098.000	7.99
9H23034-CAL2	2	606240	303120.000	7.99
9H23034-CAL3	5	1455941	291188.200	7.99
9H23034-CAL4	10	2959301	295930.100	7.99
9H23034-CAL5	25	7064729	282589.200	7.99
9H23034-CAL6	50	483779E+07	296755.800	7.99
9H23034-CAL7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

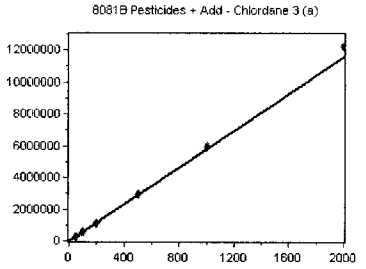


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	164956	164956.000	8.01
9H23034-CAL2	2	314622	157311.000	8.01
9H23034-CAL3	5	790498	158099.600	8.01
9H23034-CAL4	10	1565974	156597.400	8.01
9H23034-CAL5	25	3727035	149081.400	8.00
9H23034-CAL6	50	7726197	154523.900	8.00
9H23034-CAL7	100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

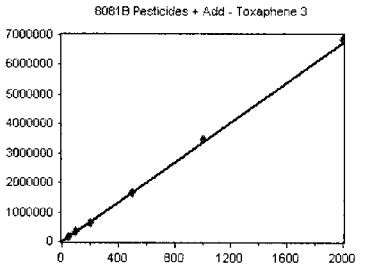


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	288087	5761.740	8.07
9H23034-CALI	100	548196	5481.960	8.07
9H23034-CALJ	200	1101677	5508.385	8.07
9H23034-CALK	500	2921278	5842.556	8.07
9H23034-CALL	1000	5987927	5987.927	8.07
9H23034-CALM	2000	220831E+07	6104.155	8.07

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

Toxaphene 3

Curve Fit: **AVERAGE RF**

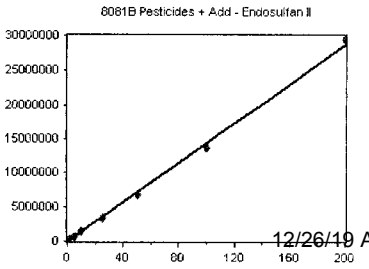


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	169381	3387.620	8.11
9H23034-CALO	100	332842	3328.420	8.11
9H23034-CALP	200	644464	3222.320	8.11
9H23034-CALQ	500	1677481	3354.962	8.11
9H23034-CALR	1000	3495877	3495.877	8.11
9H23034-CALS	2000	6831460	3415.730	8.10

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**

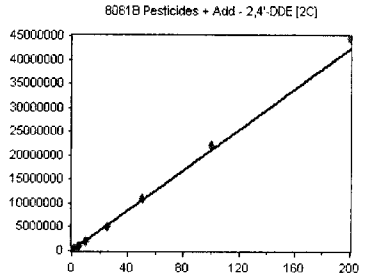
Element Calibration Review Sheet

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**

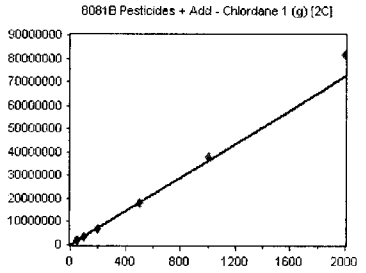


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	219164	219164.000	8.12
9H23034-CALA	2	411812	205906.000	8.12
9H23034-CALB	5	1029687	205937.400	8.12
9H23034-CALC	10	2018331	201833.100	8.12
9H23034-CALD	25	4999232	199969.300	8.12
9H23034-CALE	50	.10064E+07	220128.000	8.12
9H23034-CALF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

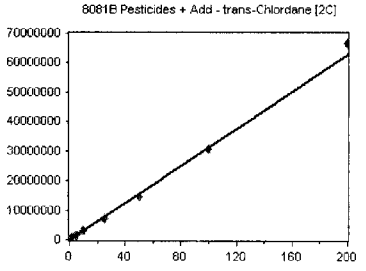


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1754707	35094.140	8.13
9H23034-CALI	100	3378388	33783.880	8.13
9H23034-CALJ	200	6751197	33755.980	8.13
9H23034-CALK	500	783043E+07	35660.860	8.13
9H23034-CALL	1000	796674E+07	37966.740	8.13
9H23034-CALM	2000	169171E+07	40845.860	8.13

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

trans-Chlordane [2C]

Curve Fit: **AVERAGE RF**

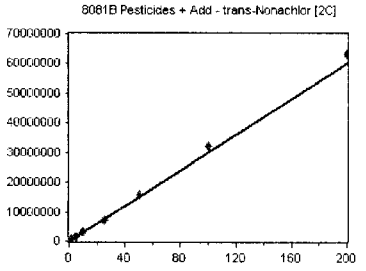


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	364142	364142.000	8.14
9H23034-CAL2	2	644454	322227.000	8.14
9H23034-CAL3	5	1502119	300423.800	8.13
9H23034-CAL4	10	3002782	300278.200	8.13
9H23034-CAL5	25	7157480	286299.200	8.13
9H23034-CAL6	50	467872E+07	293574.400	8.13
9H23034-CAL7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

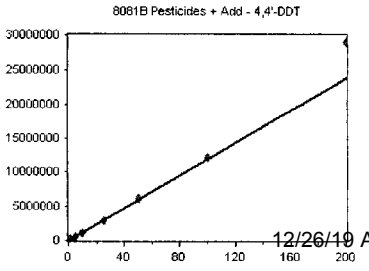


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	306202	306202.000	8.20
9H23034-CALA	2	587765	293882.500	8.19
9H23034-CALB	5	1467723	293544.600	8.19
9H23034-CALC	10	2844404	284440.400	8.19
9H23034-CALD	25	7092288	283691.500	8.19
9H23034-CALE	50	580771E+07	316154.200	8.19
9H23034-CALF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

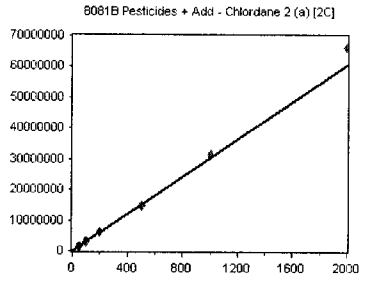
Element Calibration Review Sheet

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**

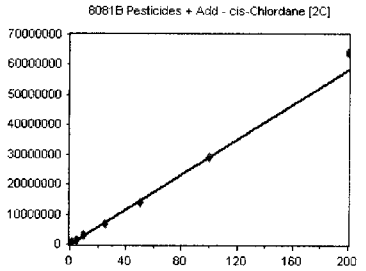


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1472400	29448.000	8.24
9H23034-CALI	100	2905941	29059.410	8.24
9H23034-CALJ	200	5883615	29418.070	8.24
9H23034-CALK	500	481227E+07	29624.540	8.24
9H23034-CALL	1000	149368E+07	31493.680	8.24
9H23034-CALM	2000	528139E+07	33140.700	8.24

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

cis-Chlordane [2C]

Curve Fit: **AVERAGE RF**

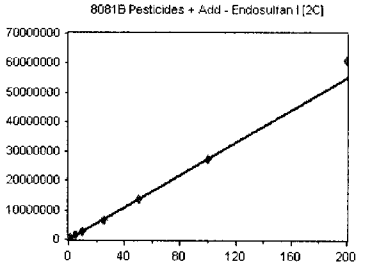


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	299422	299422.000	8.24
9H23034-CAL2	2	579667	289833.500	8.24
9H23034-CAL3	5	1434855	286971.000	8.24
9H23034-CAL4	10	2859573	285957.300	8.24
9H23034-CAL5	25	6935857	277434.300	8.24
9H23034-CAL6	50	400212E+07	280042.400	8.24
9H23034-CAL7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

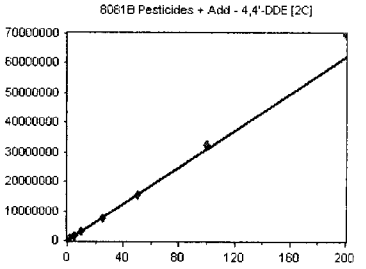


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	278874	278874.000	8.29
9H23034-CAL2	2	540442	270221.000	8.29
9H23034-CAL3	5	1327191	265438.200	8.29
9H23034-CAL4	10	2724272	272427.200	8.29
9H23034-CAL5	25	6571512	262860.500	8.29
9H23034-CAL6	50	371233E+07	274246.600	8.29
9H23034-CAL7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

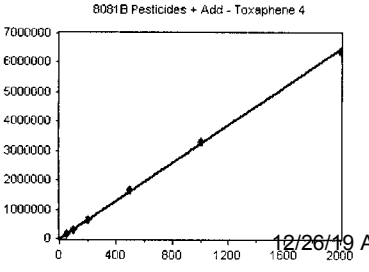


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	298463	298463.000	8.35
9H23034-CAL2	2	598066	299033.000	8.35
9H23034-CAL3	5	1487999	297599.800	8.35
9H23034-CAL4	10	3049792	304979.200	8.35
9H23034-CAL5	25	7501047	300041.900	8.34
9H23034-CAL6	50	555471E+07	311094.200	8.34
9H23034-CAL7	100	3.24996E+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**

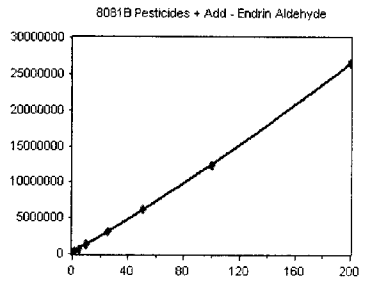
Element Calibration Review Sheet

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**

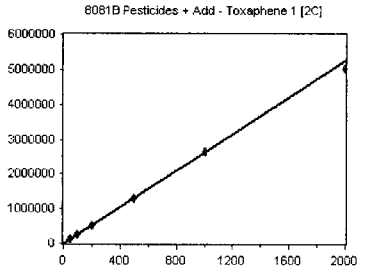


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	241285	241285.000	8.41
9H23034-CAL2	2	328182	164091.000	8.41
9H23034-CAL3	5	683393	136678.600	8.41
9H23034-CAL4	10	1375129	137512.900	8.41
9H23034-CAL5	25	3119767	124790.700	8.40
9H23034-CAL6	50	6224451	124489.000	8.40
9H23034-CAL7	100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

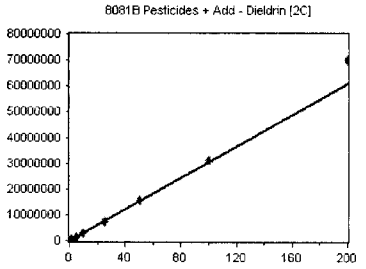


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	136848	2736.960	8.47
9H23034-CALO	100	267534	2675.340	8.47
9H23034-CALP	200	508983	2544.915	8.47
9H23034-CALQ	500	1308994	2617.988	8.47
9H23034-CALR	1000	2654886	2654.886	8.47
9H23034-CALS	2000	5030917	2515.458	8.47

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

Dieldrin [2C]

Curve Fit: **AVERAGE RF**

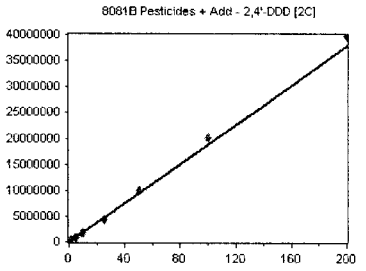


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	296684	296684.000	8.49
9H23034-CAL2	2	583812	291906.000	8.49
9H23034-CAL3	5	1462538	292507.600	8.49
9H23034-CAL4	10	2898866	289886.600	8.49
9H23034-CAL5	25	7333890	293355.600	8.49
9H23034-CAL6	50	543411E+07	308682.200	8.49
9H23034-CAL7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

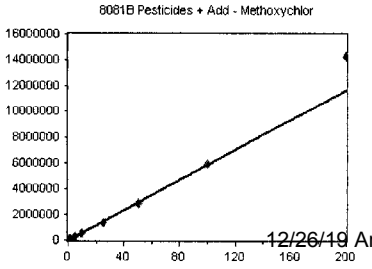


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	192040	192040.000	8.50
9H23034-CALA	2	373596	186798.000	8.50
9H23034-CALB	5	898697	179739.400	8.50
9H23034-CALC	10	1778790	177879.000	8.50
9H23034-CALD	25	4389185	175567.400	8.50
9H23034-CALE	50	9924934	198498.700	8.50
9H23034-CALF	100	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 **9.55** AVE RT **8.54**

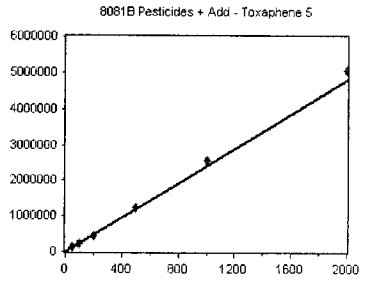
Element Calibration Review Sheet

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**

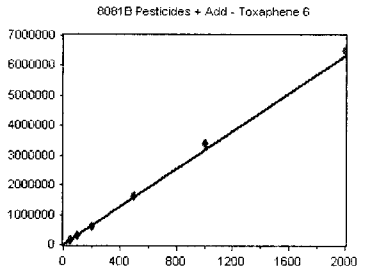


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	114720	2294.400	8.57
9H23034-CALO	100	228960	2289.600	8.57
9H23034-CALP	200	454431	2272.155	8.57
9H23034-CALQ	500	1221560	2443.120	8.57
9H23034-CALR	1000	2546293	2546.293	8.57
9H23034-CALS	2000	5074570	2537.285	8.57

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

Toxaphene 6

Curve Fit: **AVERAGE RF**

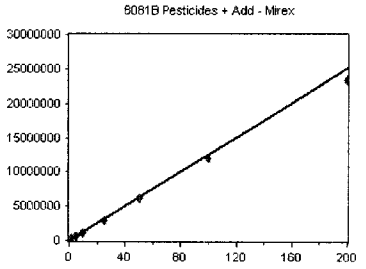


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	153138	3062.760	8.64
9H23034-CALO	100	302577	3025.770	8.64
9H23034-CALP	200	597991	2989.955	8.64
9H23034-CALQ	500	1623402	3246.804	8.64
9H23034-CALR	1000	3406737	3406.737	8.64
9H23034-CALS	2000	6510950	3255.475	8.64

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

Mirex

Curve Fit: **AVERAGE RF**

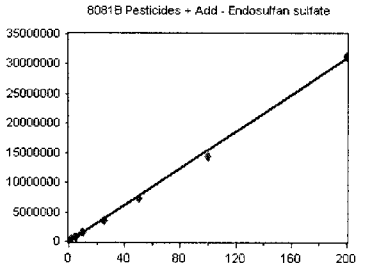


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	147356	147356.000	8.66
9H23034-CALA	2	266770	133385.000	8.66
9H23034-CALB	5	628618	125723.600	8.65
9H23034-CALC	10	1196365	119636.500	8.65
9H23034-CALD	25	2910818	116432.700	8.65
9H23034-CALE	50	6218341	124366.800	8.65
9H23034-CALF	100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

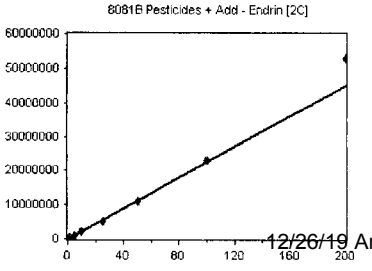


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176097	176097.000	8.71
9H23034-CAL2	2	322163	161081.500	8.71
9H23034-CAL3	5	768798	153759.600	8.71
9H23034-CAL4	10	1553540	155354.000	8.71
9H23034-CAL5	25	3645411	145816.400	8.71
9H23034-CAL6	50	7420576	148411.500	8.71
9H23034-CAL7	100	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 **7.82** AVE RT **8.72**

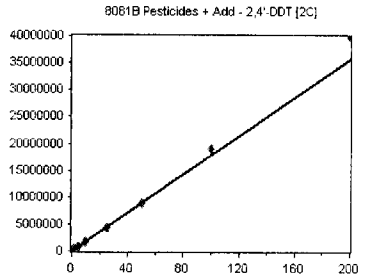
Element Calibration Review Sheet

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**

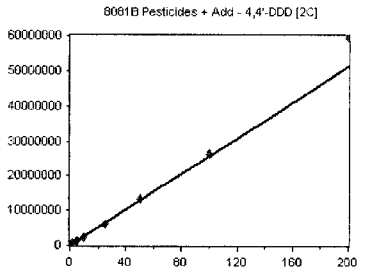


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	173338	173338.000	8.72
9H23034-CALA	2	332170	166085.000	8.72
9H23034-CALB	5	873074	174614.800	8.72
9H23034-CALC	10	1702568	170256.800	8.72
9H23034-CALD	25	4405554	176222.200	8.72
9H23034-CALE	50	8810591	176211.800	8.72
9H23034-CALF	100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

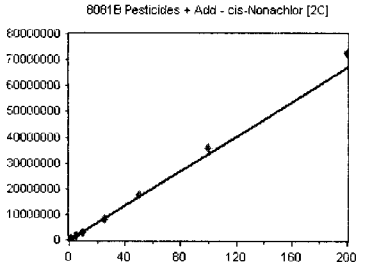


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	251549	251549.000	8.76
9H23034-CAL2	2	488120	244060.000	8.76
9H23034-CAL3	5	1208642	241728.400	8.76
9H23034-CAL4	10	2425496	242549.600	8.76
9H23034-CAL5	25	6146469	245858.800	8.76
9H23034-CAL6	50	315945E+07	263189.000	8.76
9H23034-CAL7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

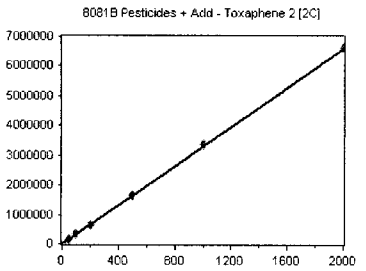


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	332745	332745.000	8.76
9H23034-CALA	2	624783	312391.500	8.76
9H23034-CALB	5	1587243	317448.600	8.76
9H23034-CALC	10	3148054	314805.400	8.76
9H23034-CALD	25	8219393	328775.700	8.76
9H23034-CALE	50	772123E+07	354424.600	8.76
9H23034-CALF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

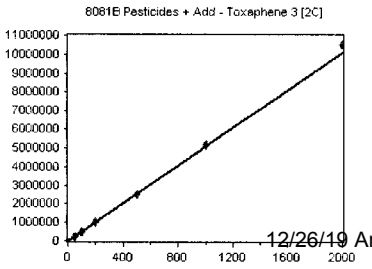


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	164706	3294.120	8.81
9H23034-CALO	100	324070	3240.700	8.81
9H23034-CALP	200	645322	3226.610	8.81
9H23034-CALQ	500	1647741	3295.482	8.81
9H23034-CALR	1000	3384036	3384.036	8.81
9H23034-CALS	2000	6610397	3305.198	8.81

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**

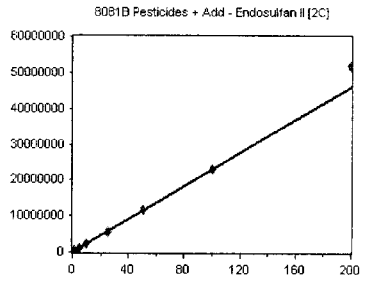
Element Calibration Review Sheet

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**

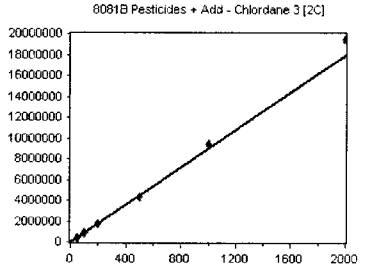


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	232156	232156.000	8.87
9H23034-CAL2	2	462256	231128.000	8.86
9H23034-CAL3	5	1096359	219271.800	8.87
9H23034-CAL4	10	2243610	224361.000	8.86
9H23034-CAL5	25	5447602	217904.100	8.86
9H23034-CAL6	50	153453E+07	230690.600	8.86
9H23034-CAL7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

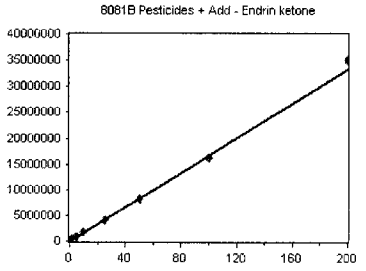


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	439020	8780.400	8.90
9H23034-CALI	100	874465	8744.650	8.90
9H23034-CALJ	200	1731727	8658.635	8.90
9H23034-CALK	500	4271709	8543.418	8.90
9H23034-CALL	1000	9358900	9358.900	8.90
9H23034-CALM	2000	941852E+07	9709.260	8.90

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

Endrin ketone

Curve Fit: **AVERAGE RF**

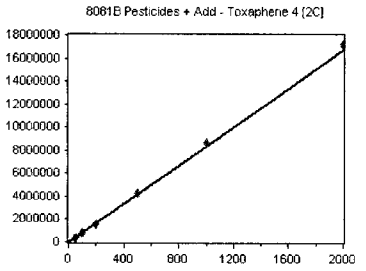


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	177552	177552.000	8.90
9H23034-CAL2	2	331269	165634.500	8.90
9H23034-CAL3	5	811384	162276.800	8.90
9H23034-CAL4	10	1664380	166438.000	8.90
9H23034-CAL5	25	4008958	160358.300	8.90
9H23034-CAL6	50	8190707	163814.100	8.90
9H23034-CAL7	100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

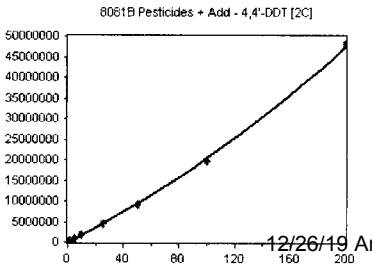


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	416348	8326.960	8.92
9H23034-CALO	100	811948	8119.480	8.92
9H23034-CALP	200	1580436	7902.180	8.91
9H23034-CALQ	500	4252640	8505.280	8.92
9H23034-CALR	1000	8650068	8650.068	8.92
9H23034-CALS	2000	719004E+07	8595.020	8.91

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 **11.69** AVE RT **8.99**

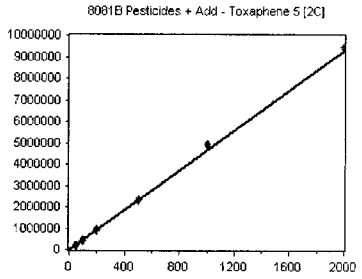
Element Calibration Review Sheet

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**

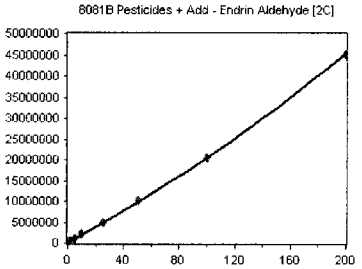


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	233185	4663.700	9.09
9H23034-CALO	100	452209	4522.090	9.09
9H23034-CALP	200	895397	4476.985	9.09
9H23034-CALQ	500	2340668	4681.336	9.09
9H23034-CALR	1000	4900430	4900.430	9.09
9H23034-CALS	2000	9435236	4717.618	9.09

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

Endrin Aldehyde [2C]

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

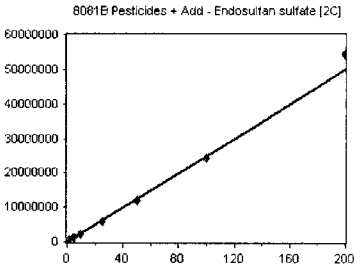


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	348624	348624.000	9.10
9H23034-CAL2	2	477694	238847.000	9.10
9H23034-CAL3	5	1045869	209173.800	9.10
9H23034-CAL4	10	2125028	212502.800	9.10
9H23034-CAL5	25	4848504	193940.200	9.10
9H23034-CAL6	50	020903E+07	204180.600	9.10
9H23034-CAL7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

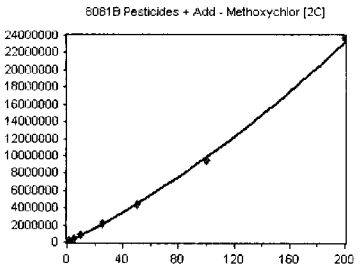


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	265797	265797.000	9.29
9H23034-CAL2	2	498767	249383.500	9.29
9H23034-CAL3	5	1175908	235181.600	9.29
9H23034-CAL4	10	2424584	242458.400	9.29
9H23034-CAL5	25	5978906	239156.200	9.29
9H23034-CAL6	50	214929E+07	242985.800	9.29
9H23034-CAL7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

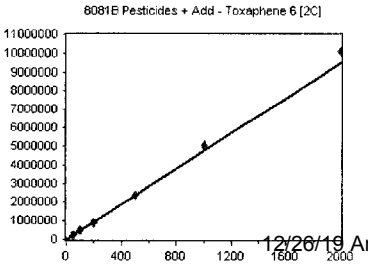


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	95155	95155.000	9.47
9H23034-CAL2	2	178074	89037.000	9.47
9H23034-CAL3	5	413802	82760.400	9.47
9H23034-CAL4	10	883069	88306.900	9.47
9H23034-CAL5	25	2166659	86666.360	9.46
9H23034-CAL6	50	4346199	86923.980	9.46
9H23034-CAL7	100	9444987	94449.870	9.46
9H23034-CAL8	200	:.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 **5.12** AVE RT **9.47**

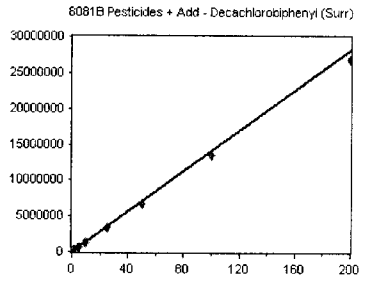
Element Calibration Review Sheet

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**

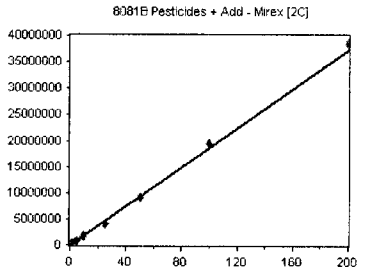


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	163865	163865.000	9.59
9H23034-CAL2	2	309904	154952.000	9.59
9H23034-CAL3	5	701050	140210.000	9.59
9H23034-CAL4	10	1335468	133546.800	9.59
9H23034-CAL5	25	3342634	133705.400	9.59
9H23034-CAL6	50	6678990	133579.800	9.59
9H23034-CAL7	100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

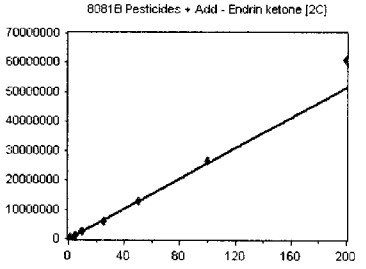


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	209783	209783.000	9.68
9H23034-CALA	2	388199	194099.500	9.68
9H23034-CALB	5	895523	179104.600	9.68
9H23034-CALC	10	1722960	172296.000	9.68
9H23034-CALD	25	4138115	165524.600	9.68
9H23034-CALE	50	9100959	182019.200	9.68
9H23034-CALF	100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

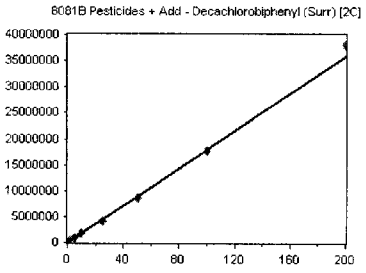


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	255763	255763.000	9.69
9H23034-CAL2	2	493110	246555.000	9.69
9H23034-CAL3	5	1205004	241000.800	9.69
9H23034-CAL4	10	2496985	249698.500	9.69
9H23034-CAL5	25	5893691	235747.600	9.69
9H23034-CAL6	50	295457E+07	259091.400	9.69
9H23034-CAL7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

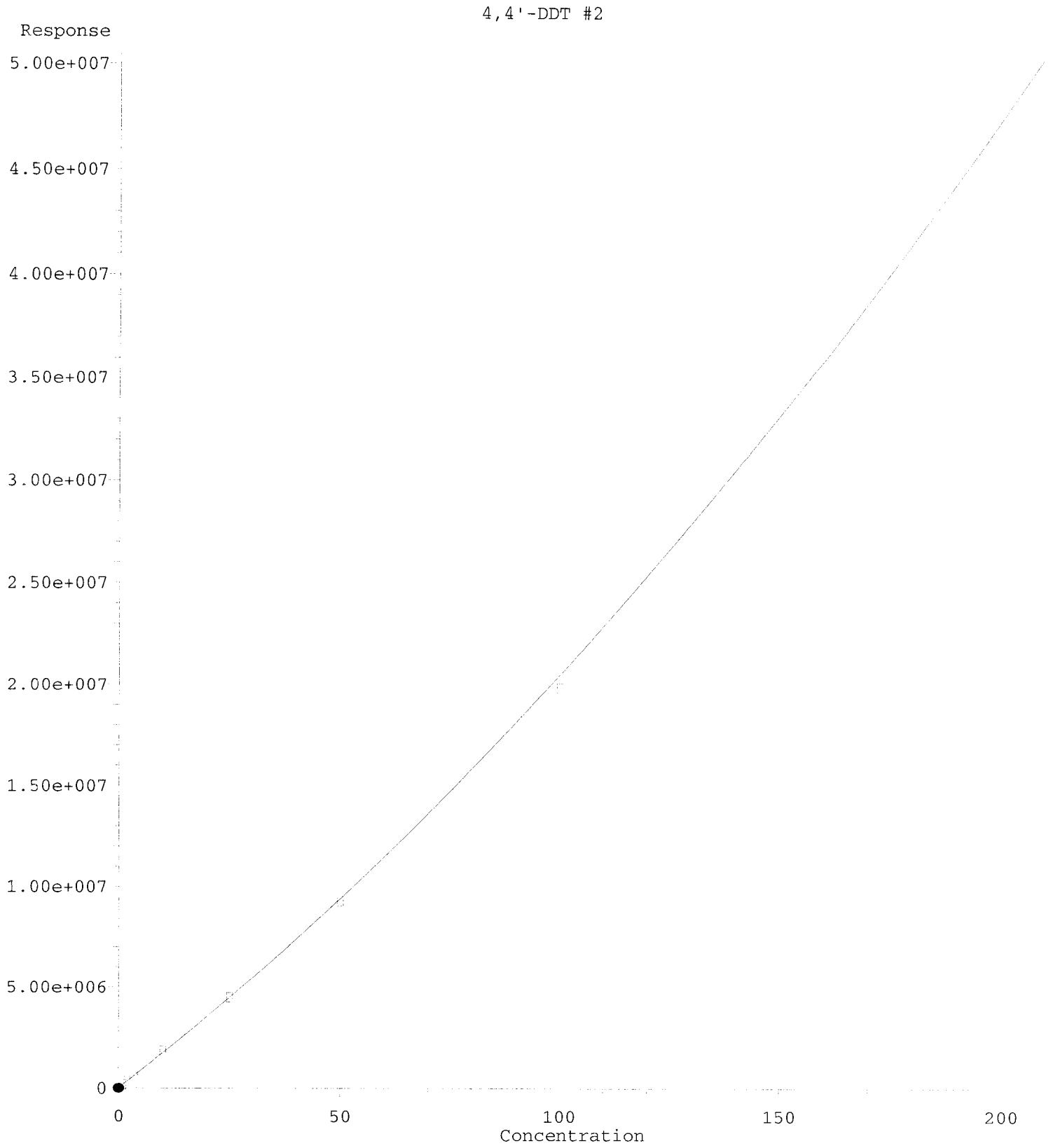
ICV RECOVERIES

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.

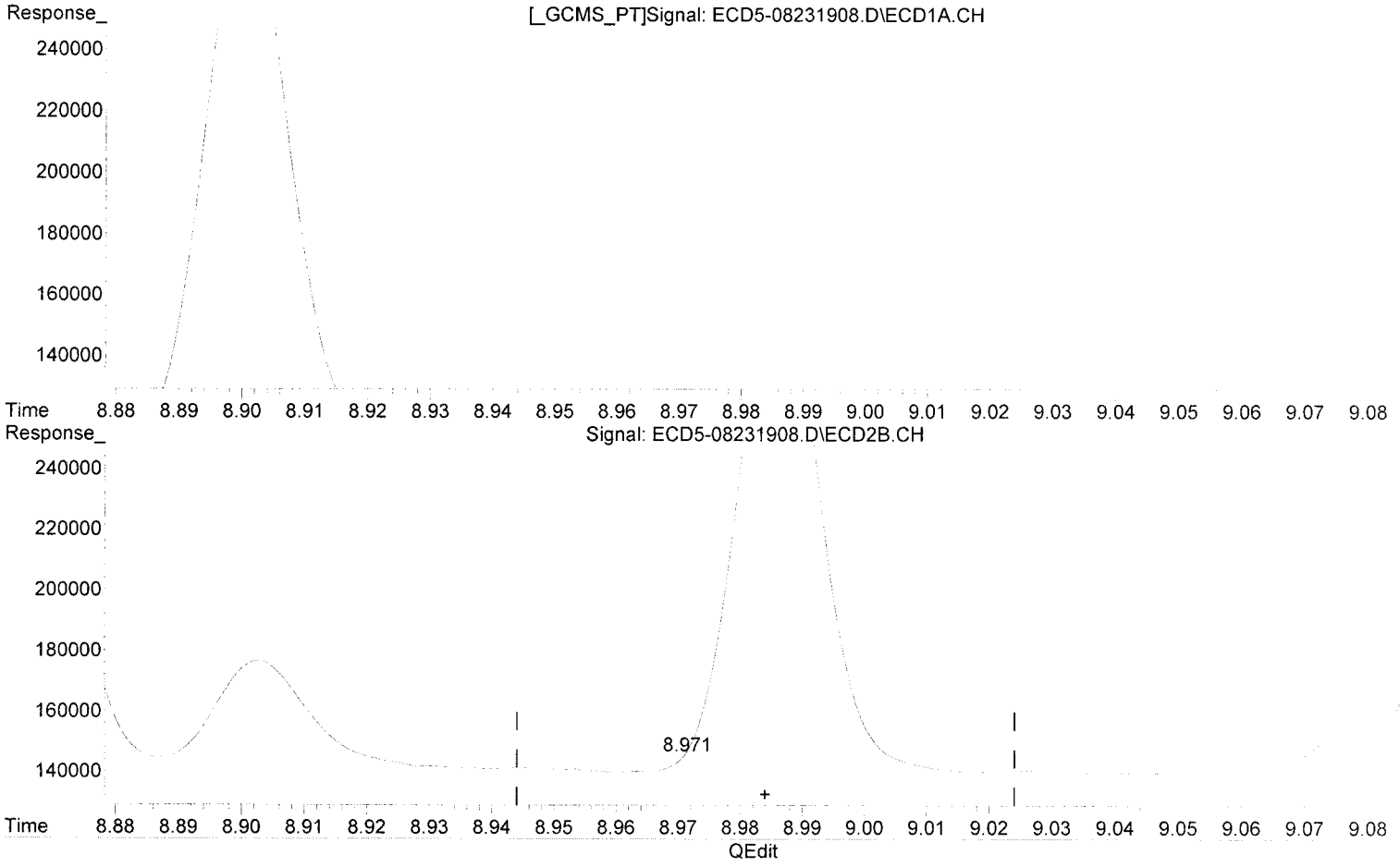


R = 3.30e+002 A*A + 1.71e+005 A + 6.57e+003
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

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

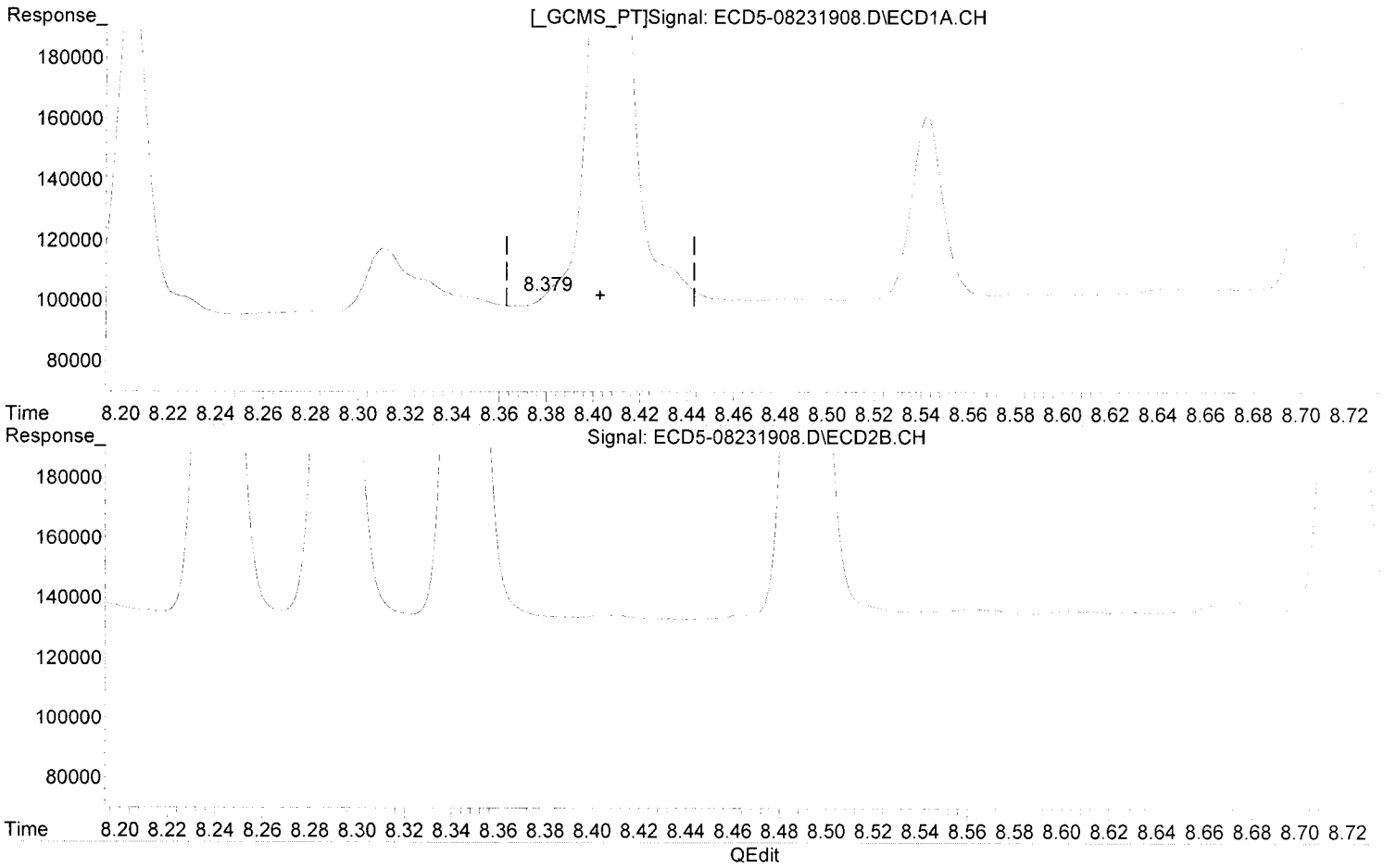
(+) = Expected Retention Time

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

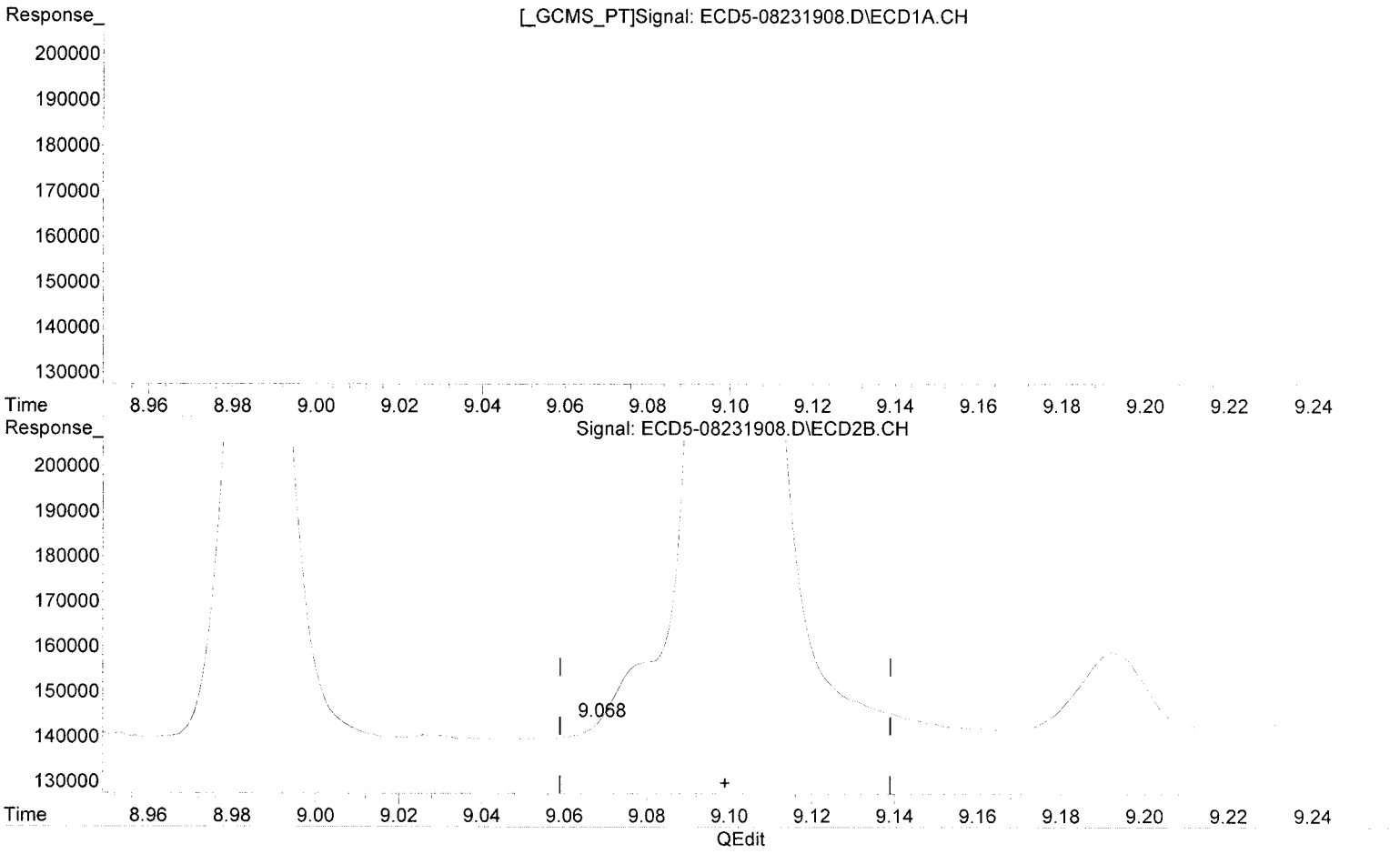
(+) = Expected Retention Time

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

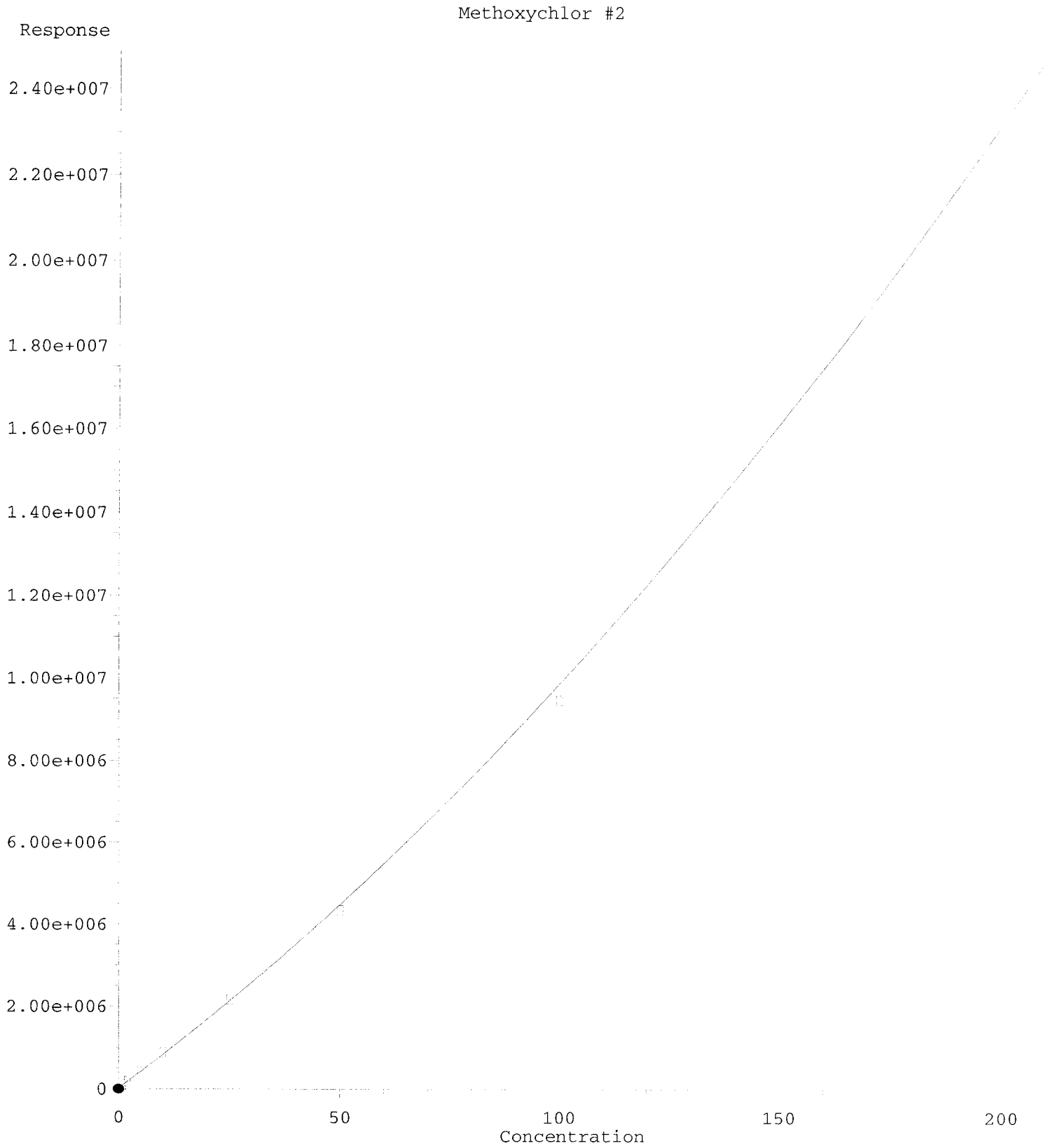
MJB 8/26/19

(18) Endrin Aldehyde #2

9.068min -0.831 ng/mL m

response 3374

(+) = Expected Retention Time

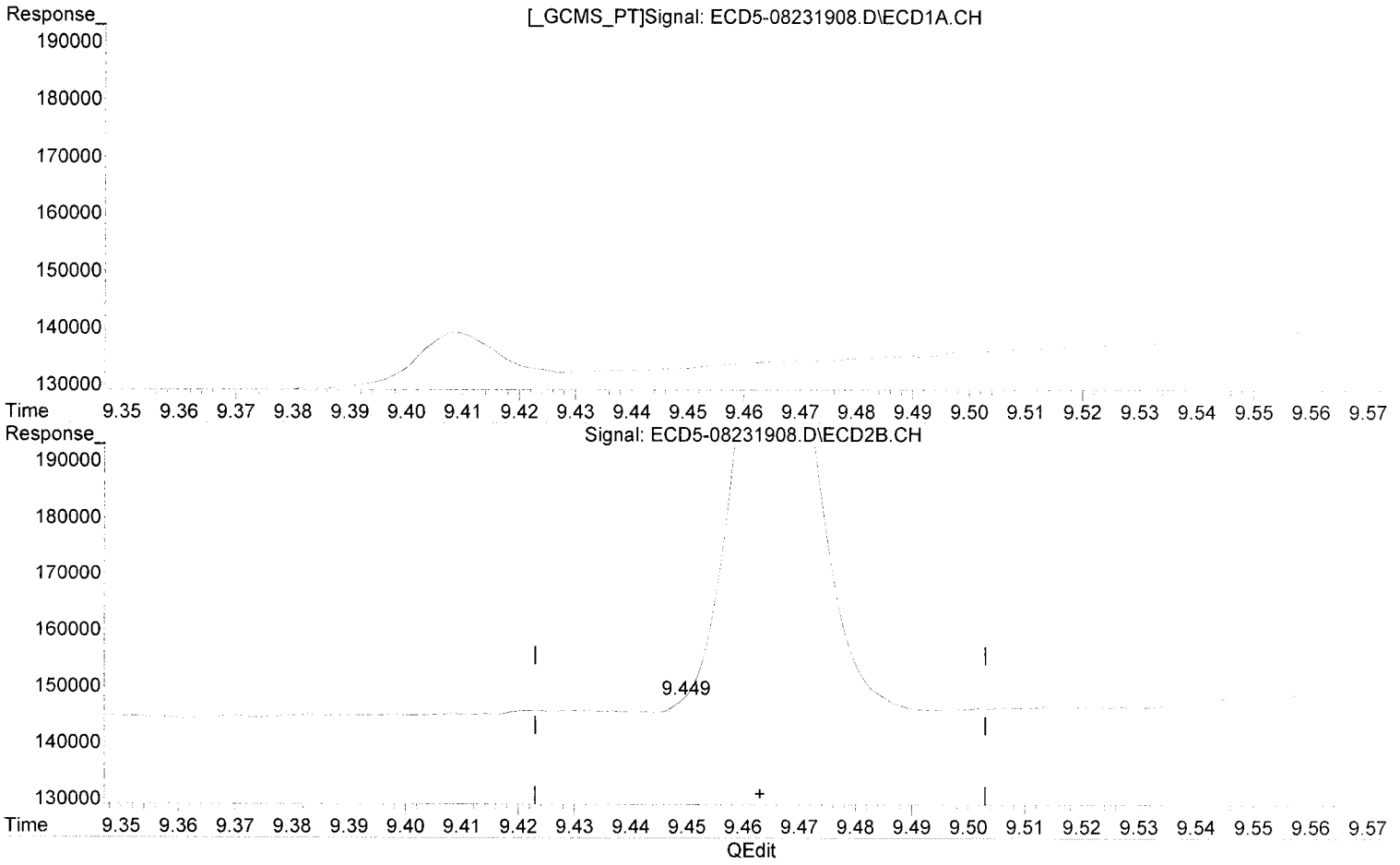


R = 1.78e+002 A*A + 8.05e+004 A + 1.50e+004
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

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

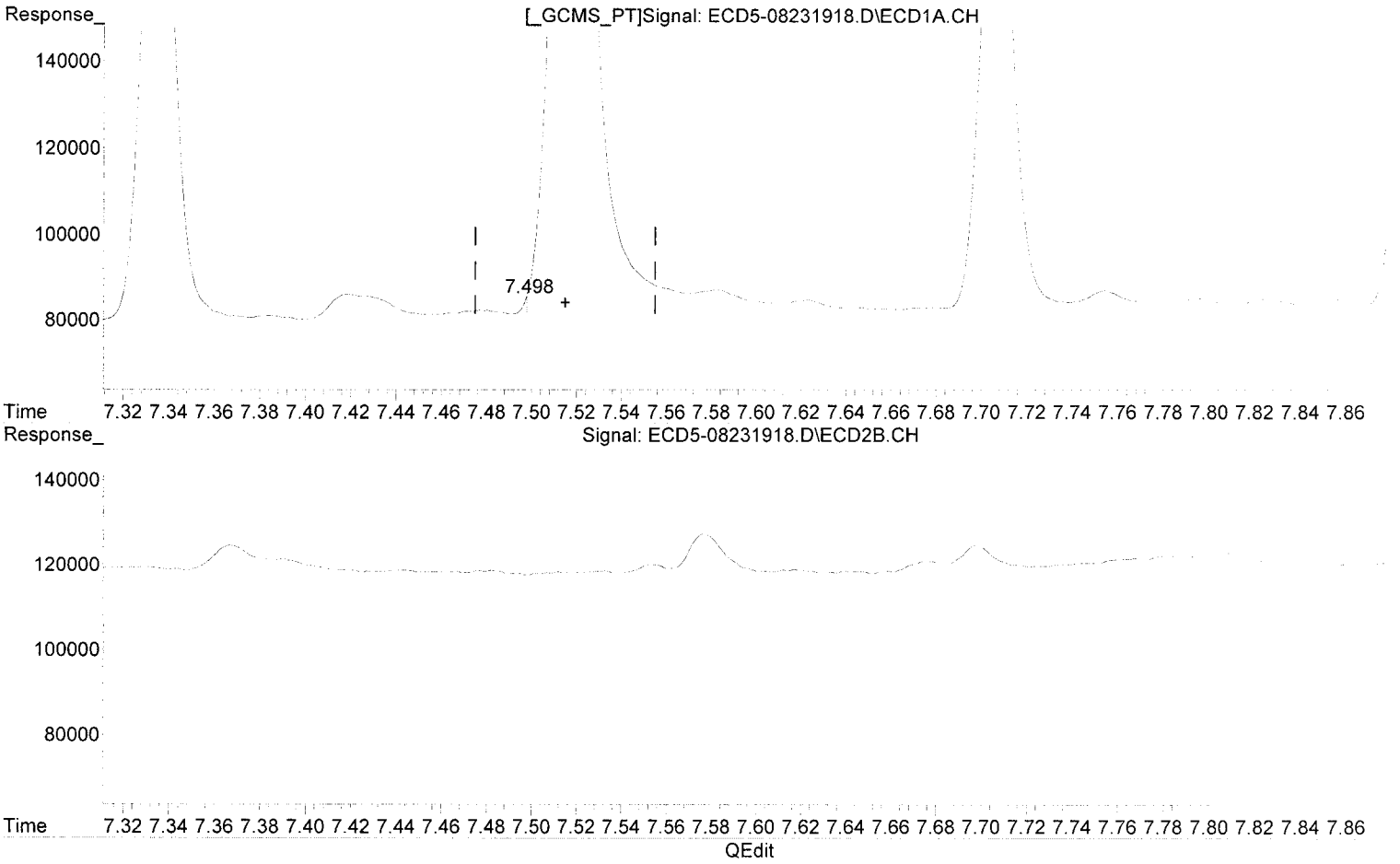
(+) = Expected Retention Time

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_QUANTTEST_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

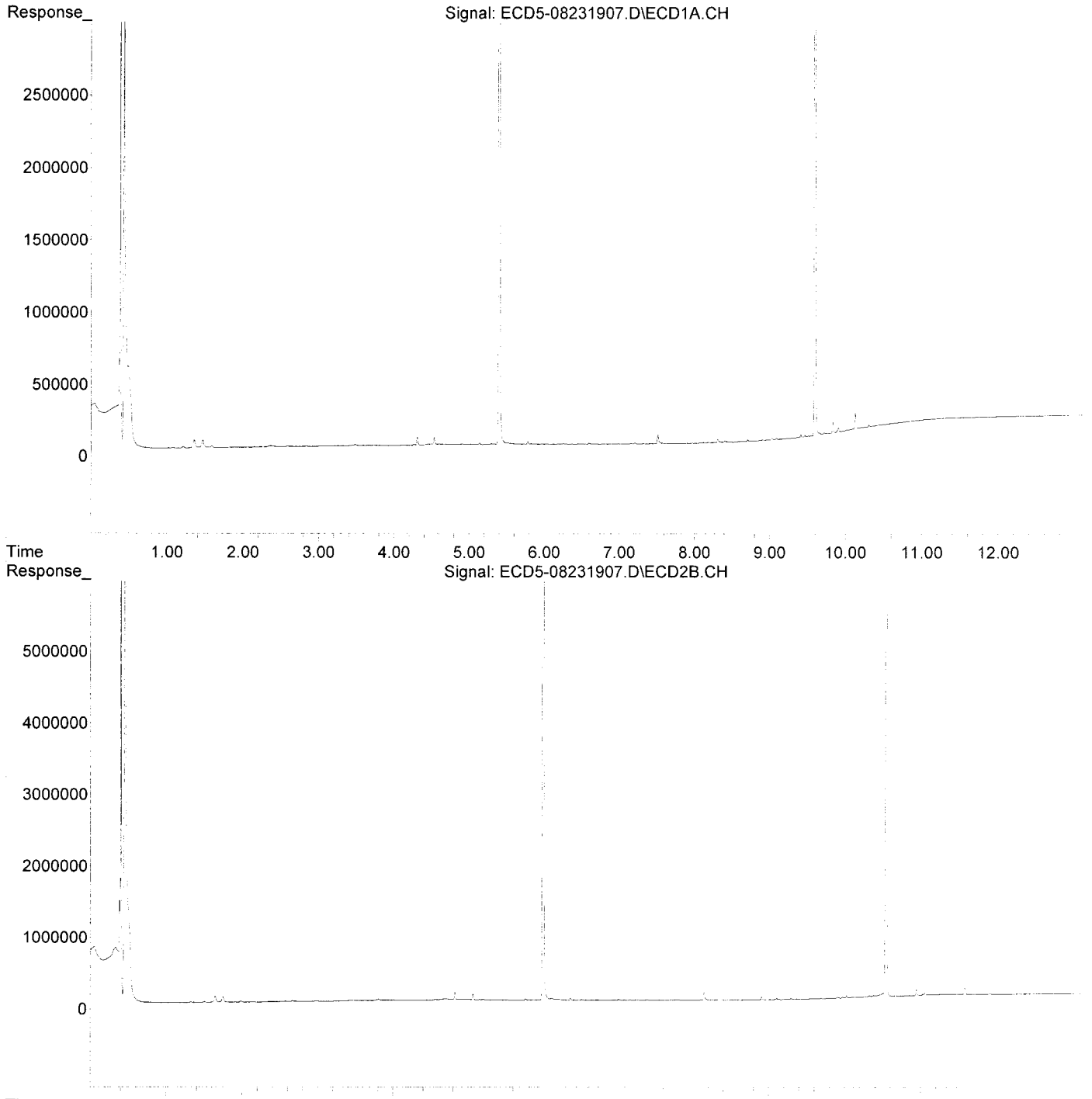
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.398	5.992	15096765	27637017	90.958	94.206	
22) S	DCBP (S)	9.594	10.543	12462090	16576085	88.322	92.211	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.253f	0.000	6973	0	0.035	N.D.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

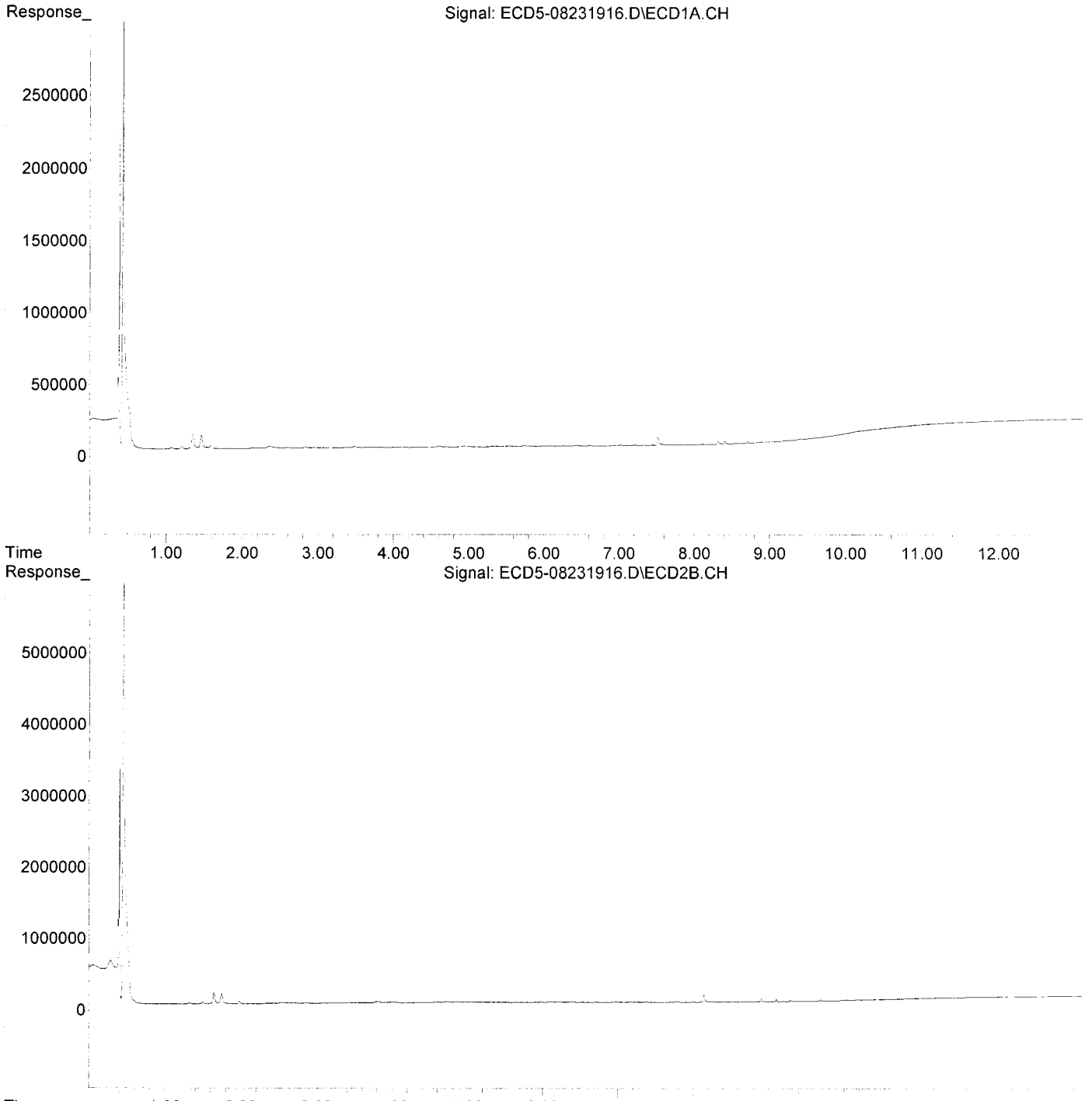
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	7755	N.D.	0.026	#
22)	S	DCBP (S)	9.595	10.540	5550	5660	0.039	0.031	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4370	0	0.022	N.D.	#
4)		b-BHC	0.000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

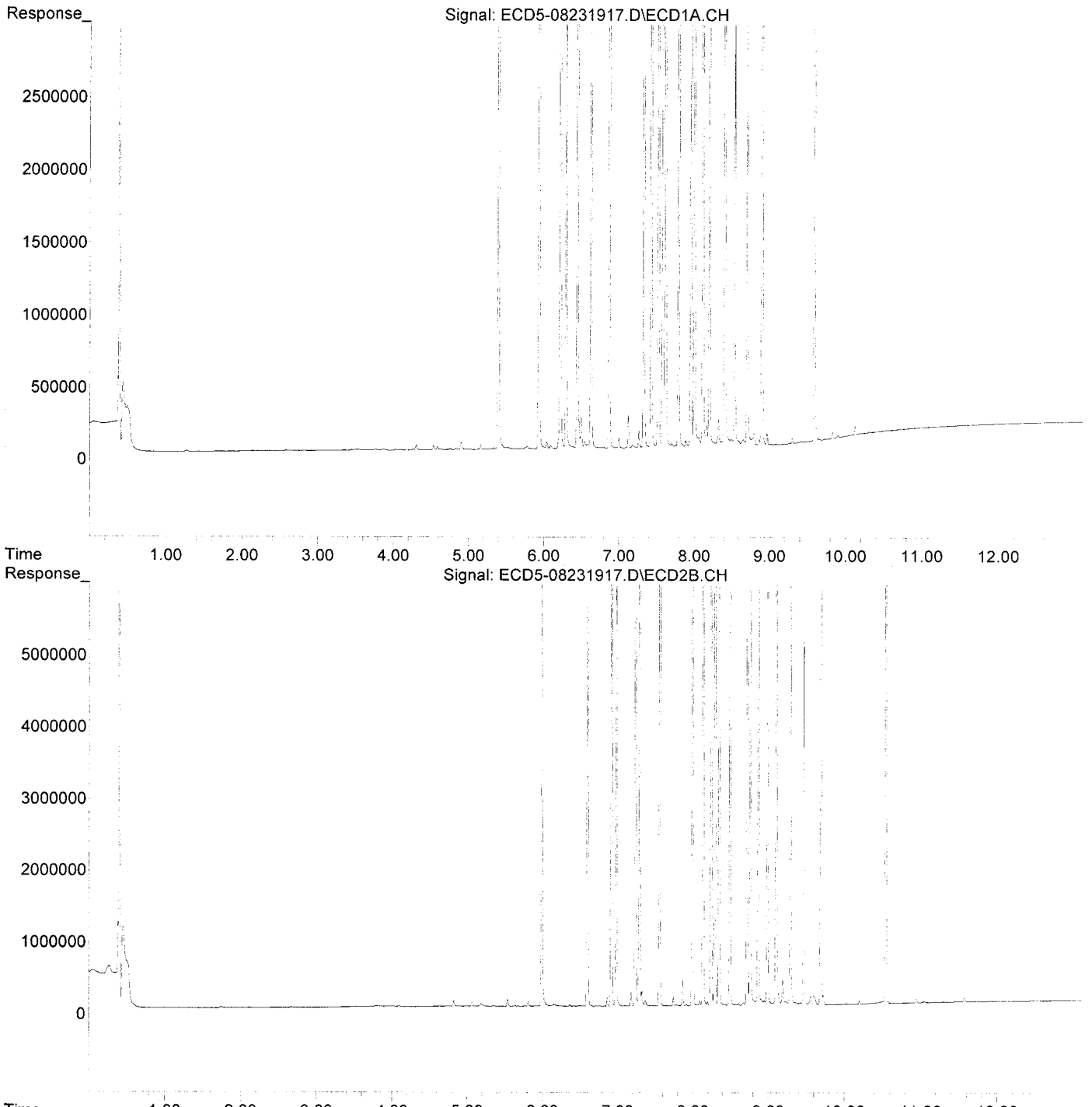
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.395	5.989	8209928	14467910	49.465	49.317	
22)	S	DCBP (S)	9.589	10.539	6928381	8667079	49.103	48.214	
		Target Compounds							
2)		a-BHC	5.935	6.596	11712240	21507667	51.072	52.414	
3)		g-BHC	6.218	6.913	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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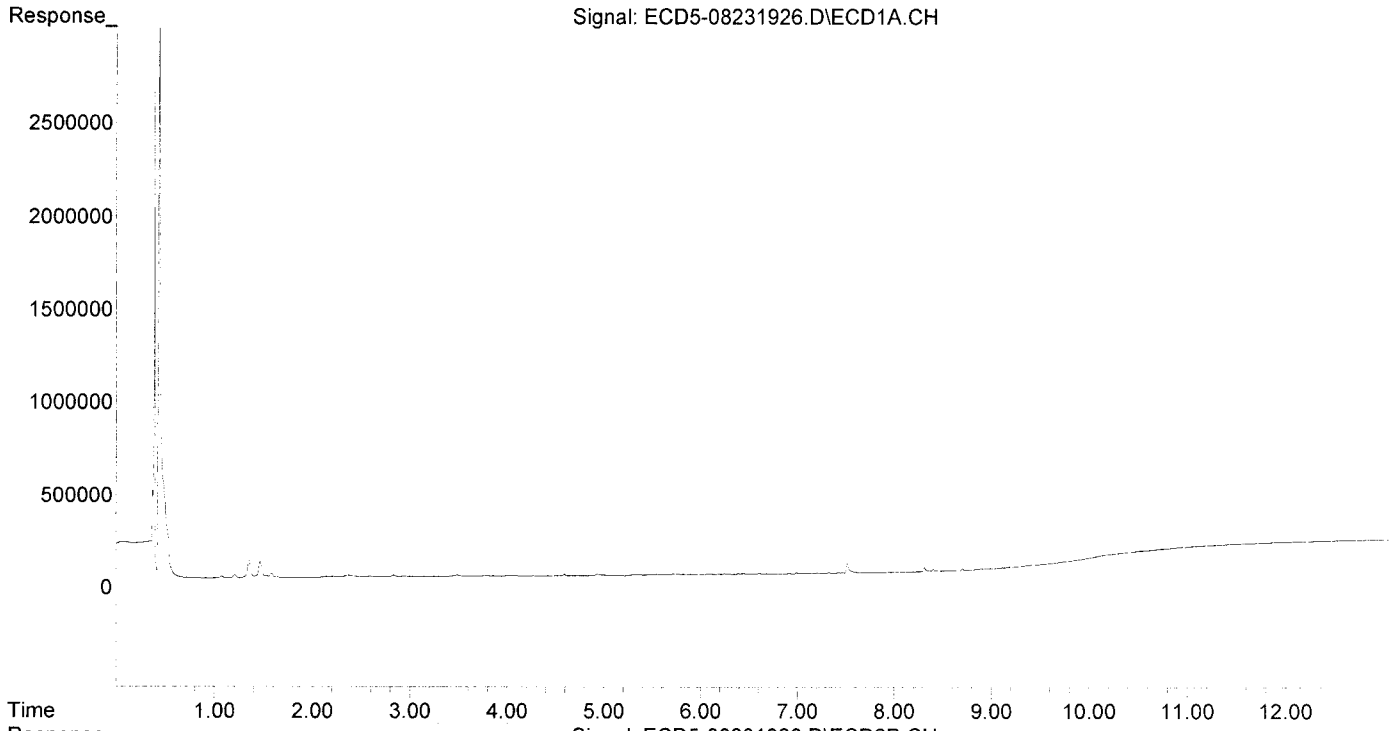
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.979	0	6612	N.D.	0.023	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.246f	0.000	5266	0	0.026	N.D.	#
4)		b-BHC	0.000	0.000	0	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.	

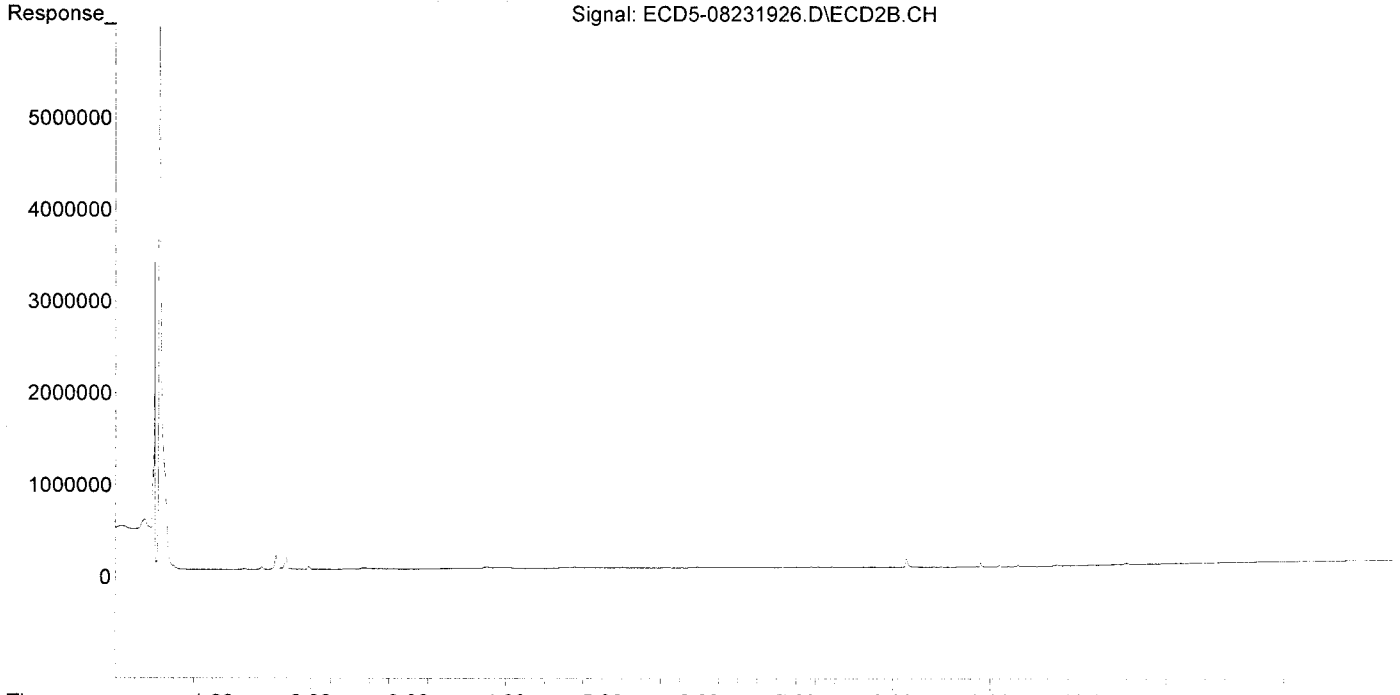
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

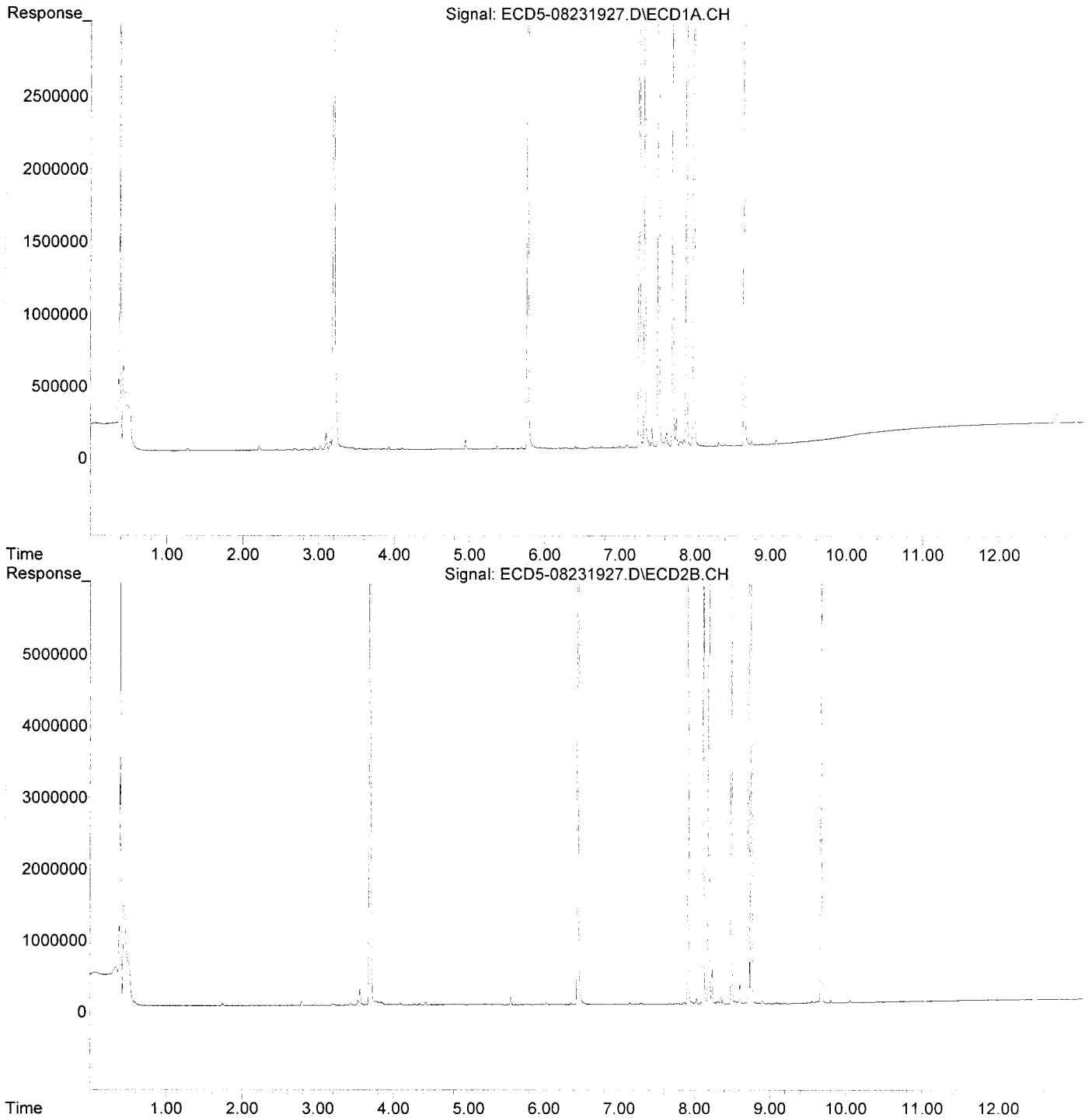
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.979	21795	7434	0.131	0.025	#
22)	S	DCBP (S)	9.593	0.000	5164	0	0.037	N.D.	#
		Target Compounds							
2)		a-BHC	5.944	0.000	7626	0	0.033	N.D.	#
3)		g-BHC	6.193f	6.950f	4309	4488	0.021	0.013	#
4)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

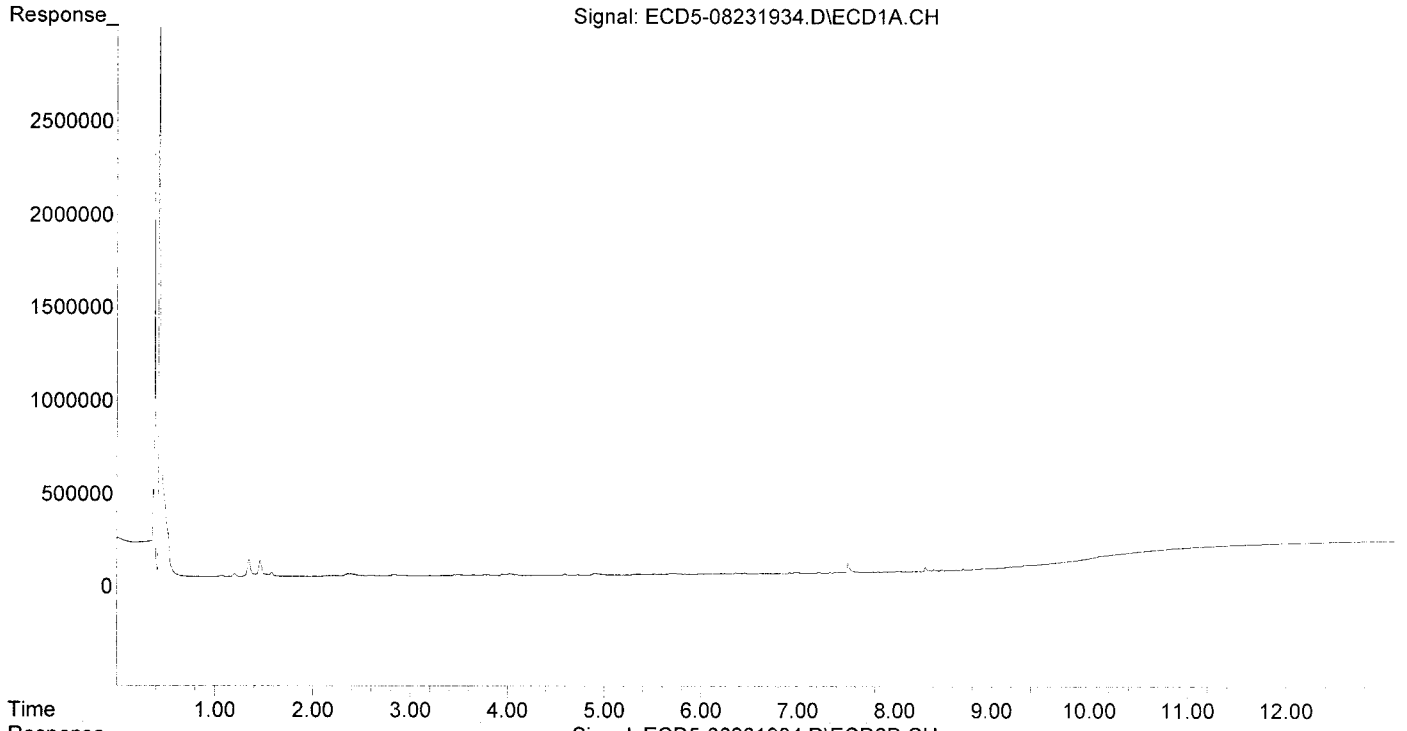
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.976	0	5923	N.D.	0.020	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.207	0.000	3774	0	0.019	N.D.	#
4)		b-BHC	0.000	0.000	0	0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

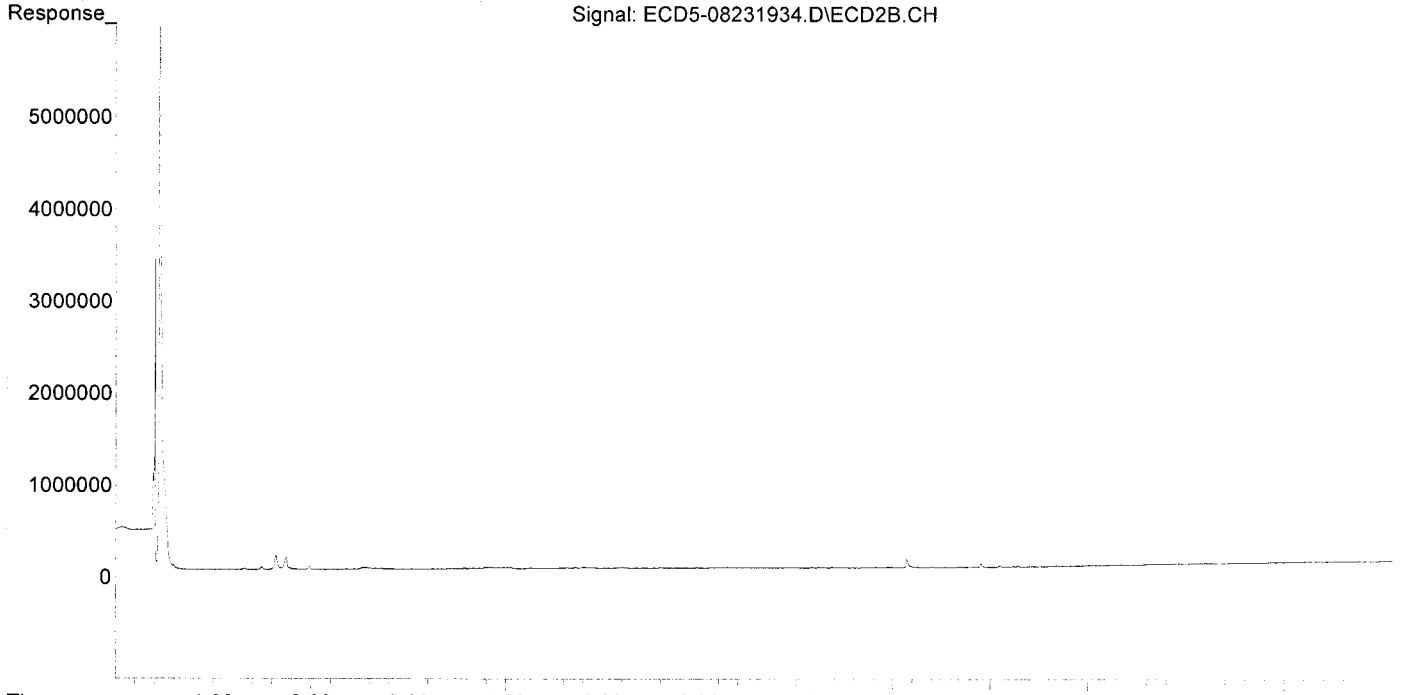
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

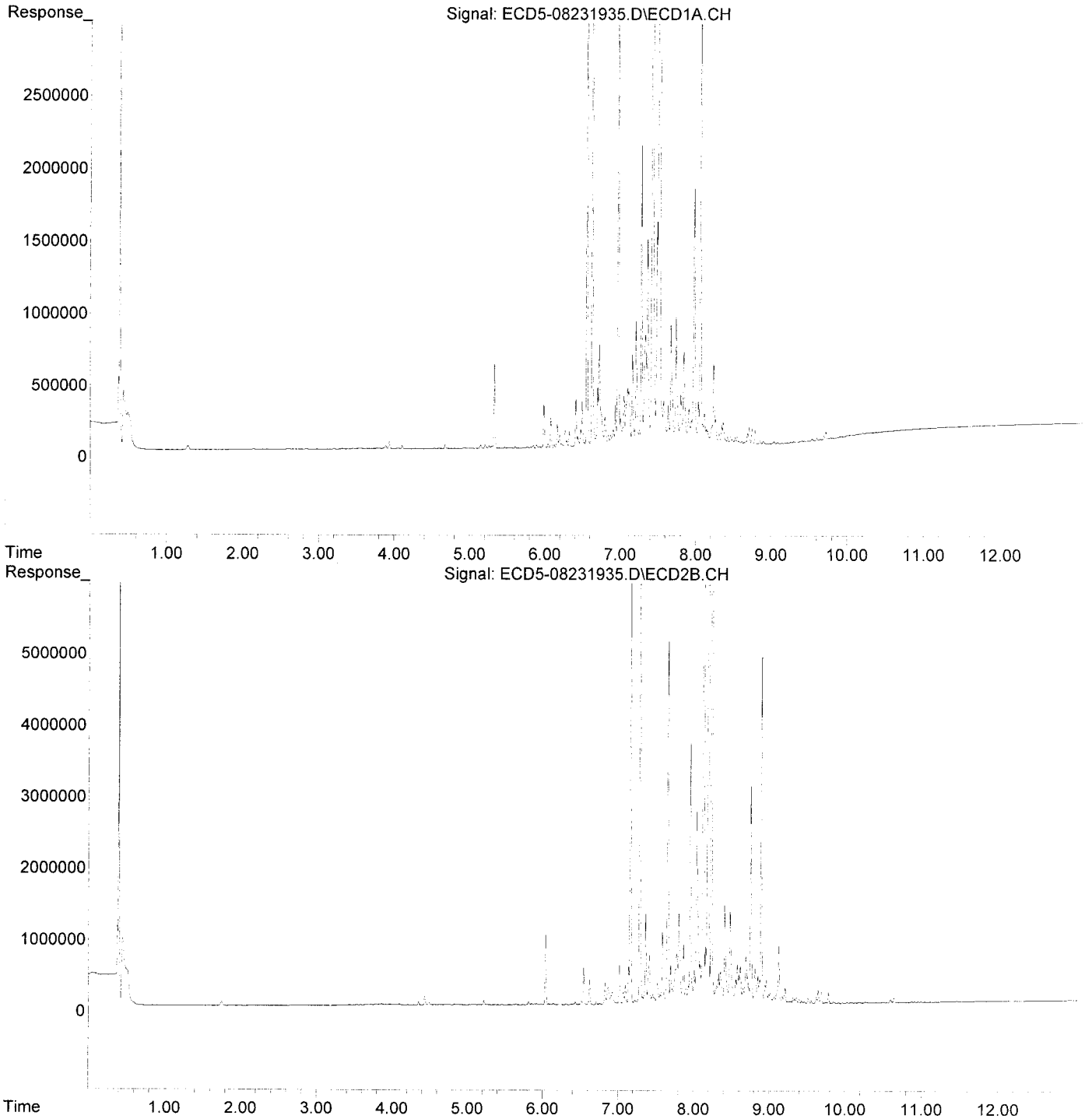
E 542.20

(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 9/26/19

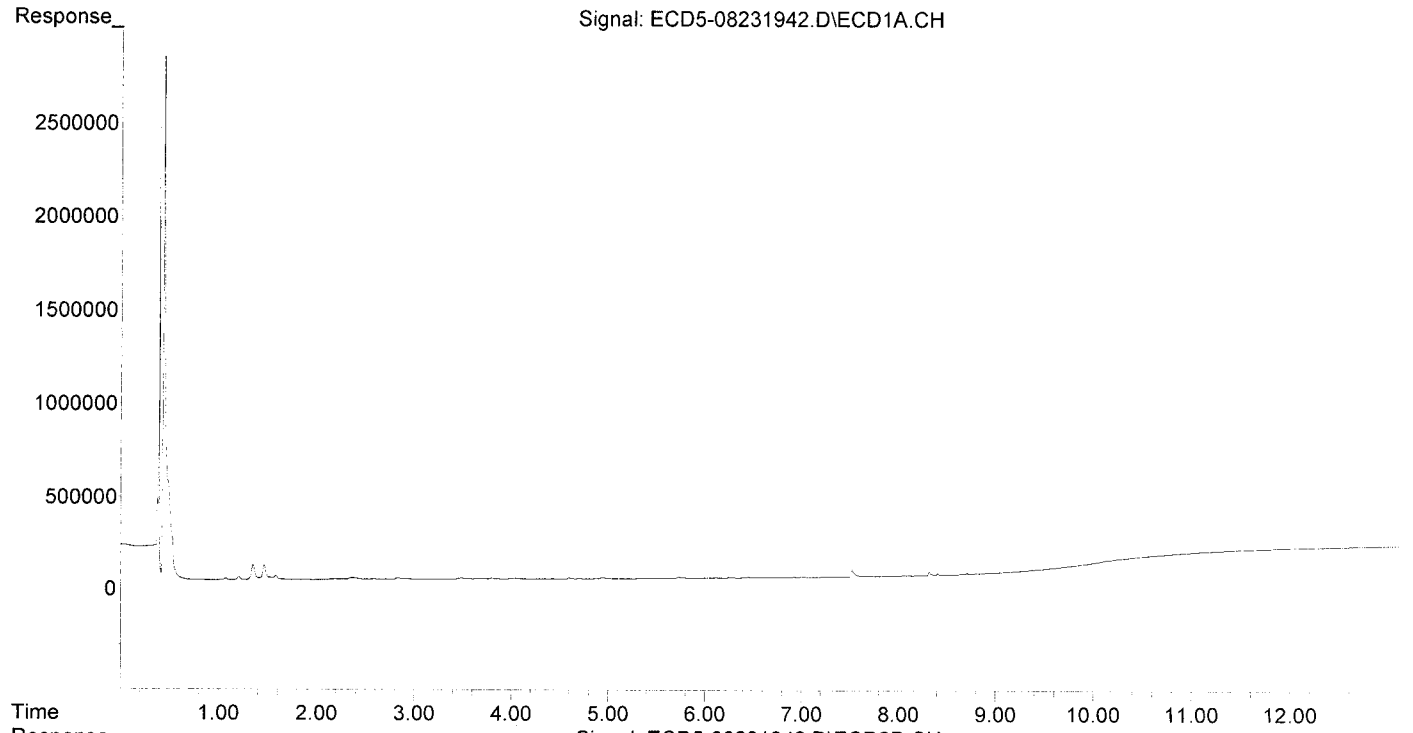
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.983	0	6142	N.D.	0.021	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.248f	0.000	4243	0	0.021	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.450	7.232	5264	7410	0.027	0.021	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.334	0.000	1978	0	0.011	N.D.	#
9)		trans-Chl...	7.425	8.145	1693	72982	0.009	0.233	#
10)		cis-Chlor...	7.522	0.000	38316	0	0.210	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	8.117	0.000	2505	0	0.017	N.D.	#
17)		4,4'-DDT	8.194	0.000	767	0	0.006	N.D.	#
18)		Endrin Al...	8.406	9.100	10140	13686	BelowCal	BelowCal	
19)		Endosulfa...	8.707	9.290	7273	12897	0.047	0.052	
20)		Methoxychlor	8.540	0.000	2018	0	0.034	N.D.	#
21)		Endrin Ke...	8.901	9.687	3565	7207	0.021	0.028	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	7.334	8.145f	1978	72982	0.015 Q2d	0.344	#
27)		trans-Non...	7.522	0.000	38316	0	~~87346.487~~	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.644	9.687	766	7207	0.006	0.039	#
32)		Chlordane...	7.425	8.145	1693	72982	0.086	2.017	#
33)		Chlordane...	7.522	0.000	38316	0	1.529	N.D.	#
34)		Chlordane...	8.049	8.906	2785	37528	0.482	4.186	#
35)		Chlordane...	3.451	0.000	3890	0	NoCal	N.D.	
36)		Toxaphene...	7.522f	0.000	38316	0	42.781	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.117	0.000	2505	0	0.744	N.D.	#
39)		Toxaphene...	8.318f	8.906	18960	37528	5.852	4.495	
40)		Toxaphene...	8.540f	9.100	2018	13686	0.842	2.937	#
41)		Toxaphene...	8.644	0.000	766	0	0.242	N.D.	#
42)		Toxaphene...	3.451	0.000	3890	0	NoCal	N.D.	

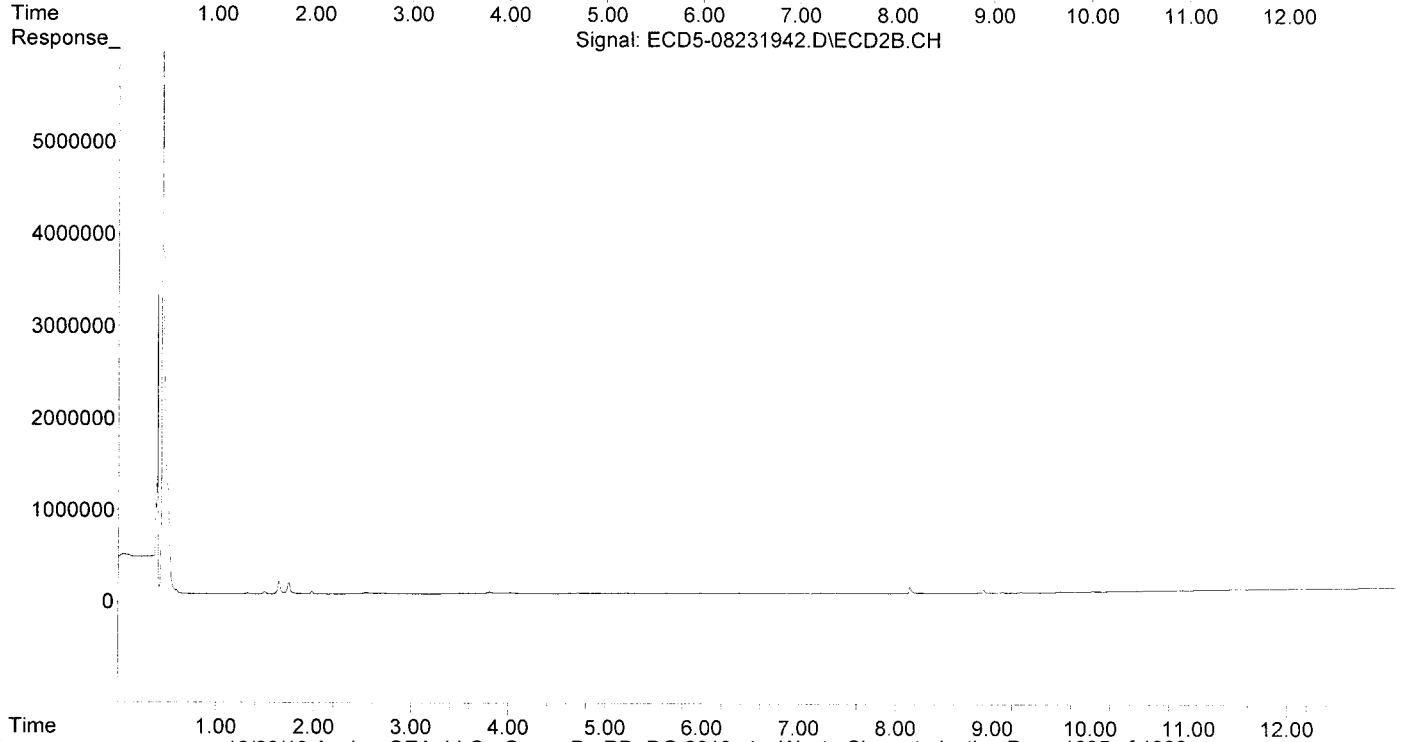
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231942.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:37
Operator : MJB
Sample : 9H23034-IBL4
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231943.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:54
Operator : MJB
Sample : 9H23034-ICV4
Misc : A19D127, TOX 500 ppb
ALS Vial : 35 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	5611	N.D.	0.019	#
22)	S	DCBP (S)	9.591	10.521	22246	40017	0.158	0.223	#
		Target Compounds							
2)		a-BHC	5.949	6.596	3272	7415	0.014	0.018	
3)		g-BHC	6.247f	6.907	6246	18839	0.031	0.053	#
4)		b-BHC	6.296	6.966	11447	24200	0.127	0.153	
5)		Heptachlor	6.631	7.293	23849	45477	0.132	0.149	
6)		d-BHC	6.434	7.233	11867	47325	0.060	0.134	#
7)		Aldrin	6.871	7.582f	53004	119759	0.268	0.364	
8)		Heptachlo...	7.358f	7.984	250185	414973	1.358	1.379	
9)		trans-Chl...	7.445	8.135	315388	332556	1.706	1.061	
10)		cis-Chlor...	7.501f	8.220	426074	475646	2.340	1.633	
11)		Endosulfa...	7.629	8.295	511717	592244	3.007	2.152	
12)		4,4'-DDE	7.551f	8.359	359885	753065	1.909	2.424	
13)		Dieldrin	7.794	8.506	766286	726725	3.992	2.389	#
14)		Endrin	7.934f	8.711	607064	1341537	4.129	5.941	#
15)		4,4'-DDD	8.021	8.761	679517	912025	4.324	3.560	
16)		Endosulfa...	8.105	8.848	1638713	2447077	11.411	10.611	
17)		4,4'-DDT	8.184	8.976	1416015	960593	11.844	5.508	#
18)		Endrin Al...	8.392	9.091	1088580	2275708	8.285	11.454	
19)		Endosulfa...	8.709	9.291	549140	929201	3.543	3.730	
20)		Methoxychlor	8.543	9.470	549172	2364076	9.376	27.518	#
21)		Endrin Ke...	8.893	9.712f	380224	458705	2.280	1.783	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.813f	6.462	3660	6563	0.021	0.021	
25)		Oxychlordane	7.265	7.936	334880	406205	2.035	1.483	
26)		2,4'-DDE	7.358f	8.112	250185	466633	1.951	2.200	
27)		trans-Non...	7.501	8.205	426074	457454	2.062	1.517	
28)		2,4'-DDD	7.712	8.506	575777	726725	5.045	3.848	
29)		2,4'-DDT	7.898	8.711	911632	1341537	8.311	7.522	
30)		cis-Nonac...	7.982	8.761	1096031	912025	5.279	2.719	#
31)		Mirex	8.641	9.712f	1546722	458705	12.338	2.465	#
32)		Chlordane...	7.445	8.135	315388	332556	16.018	9.191	#
33)		Chlordane...	7.501	8.220	426074	475646	16.999	15.665	
34)		Chlordane...	8.046f	8.915	705731	4045258	122.075	451.184	#
35)		Chlordane...	3.453	0.000	2732	0	NoCal	N.D.	
36)		Toxaphene...	7.501	8.466	426074	1252556	475.717	477.299	
37)		Toxaphene...	7.794	8.813	766286	1618562	474.499	491.811	
38)		Toxaphene...	8.105	8.848	1638713	2447077	486.627	482.818	
39)		Toxaphene...	8.346	8.915	1570667	4045258	484.751	484.472	
40)		Toxaphene...	8.573	9.091	1186452	2275708	494.944	488.312	
41)		Toxaphene...	8.641	9.470	1546722	2364076	488.760	497.679	
42)		Toxaphene...	3.453	0.000	2732	0	NoCal	N.D.	

A B

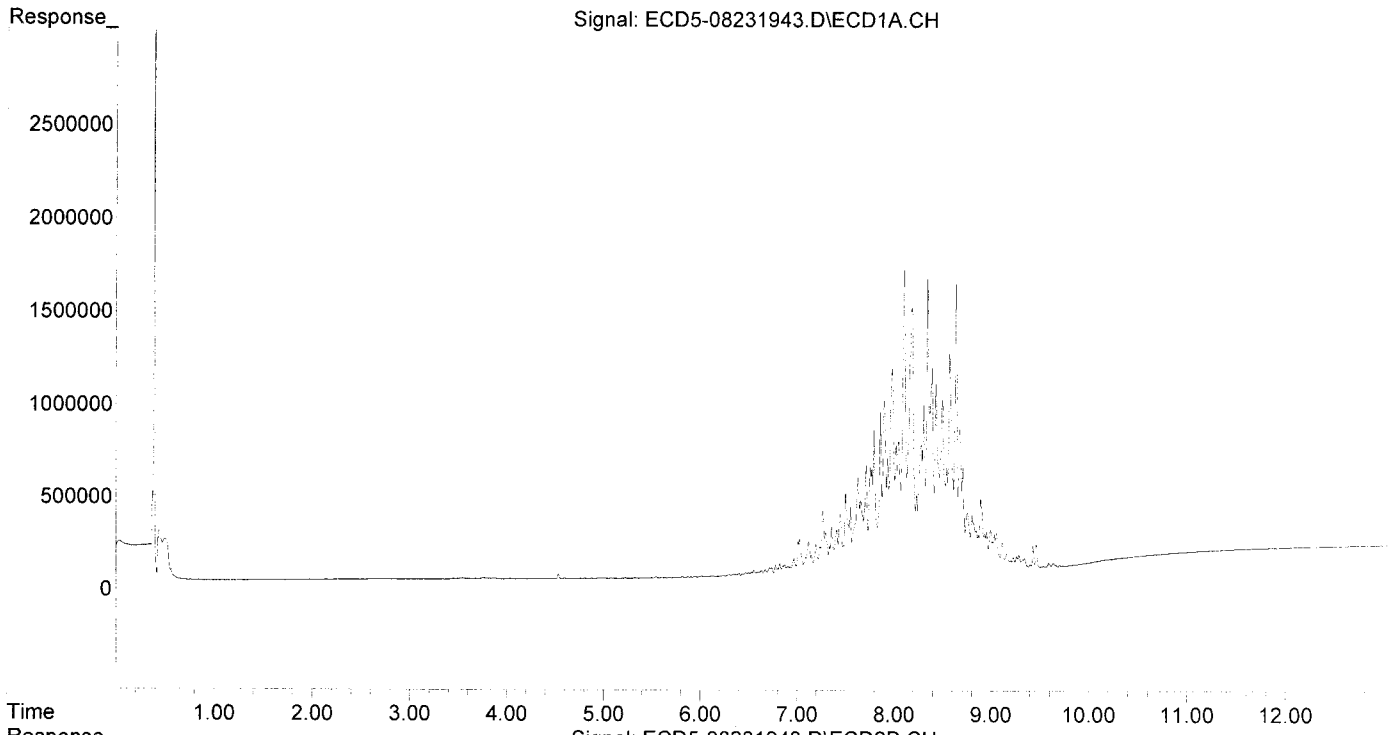
484.22 487.07

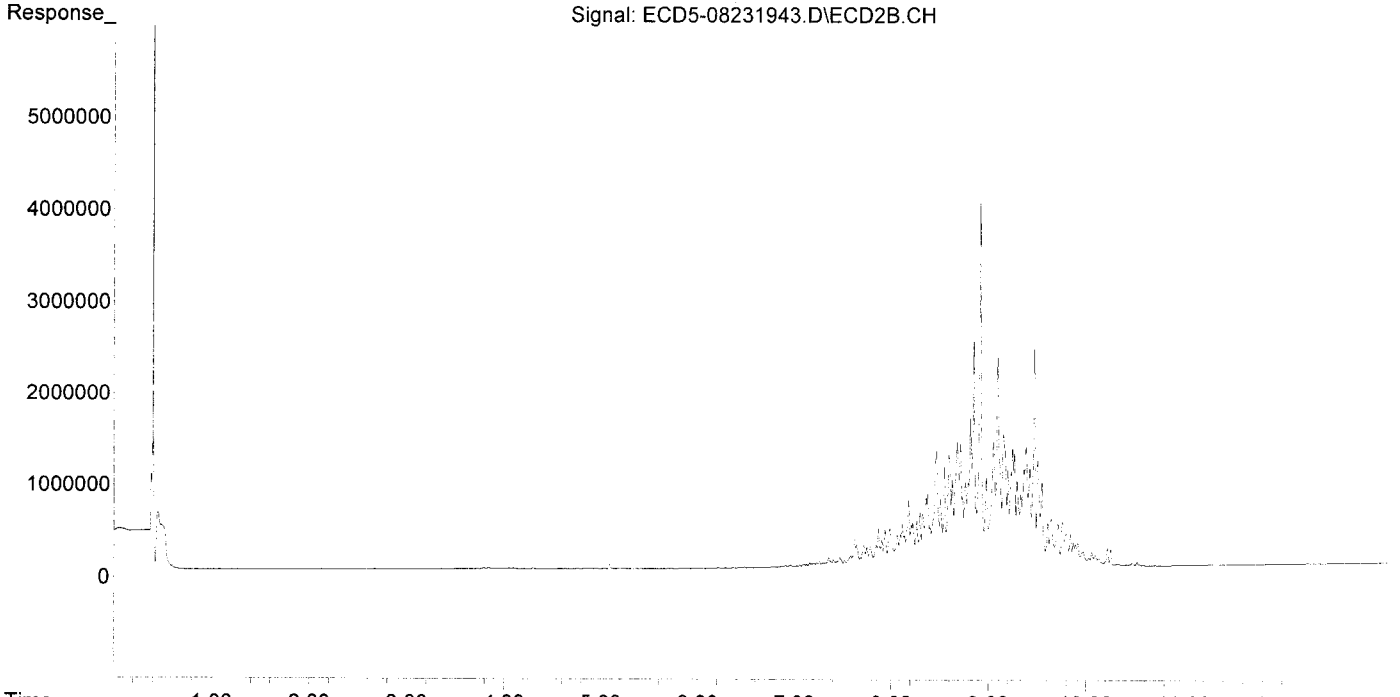
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231943.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:54
Operator : MJB
Sample : 9H23034-ICV4
Misc : A19D127, TOX 500 ppb
ALS Vial : 35 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

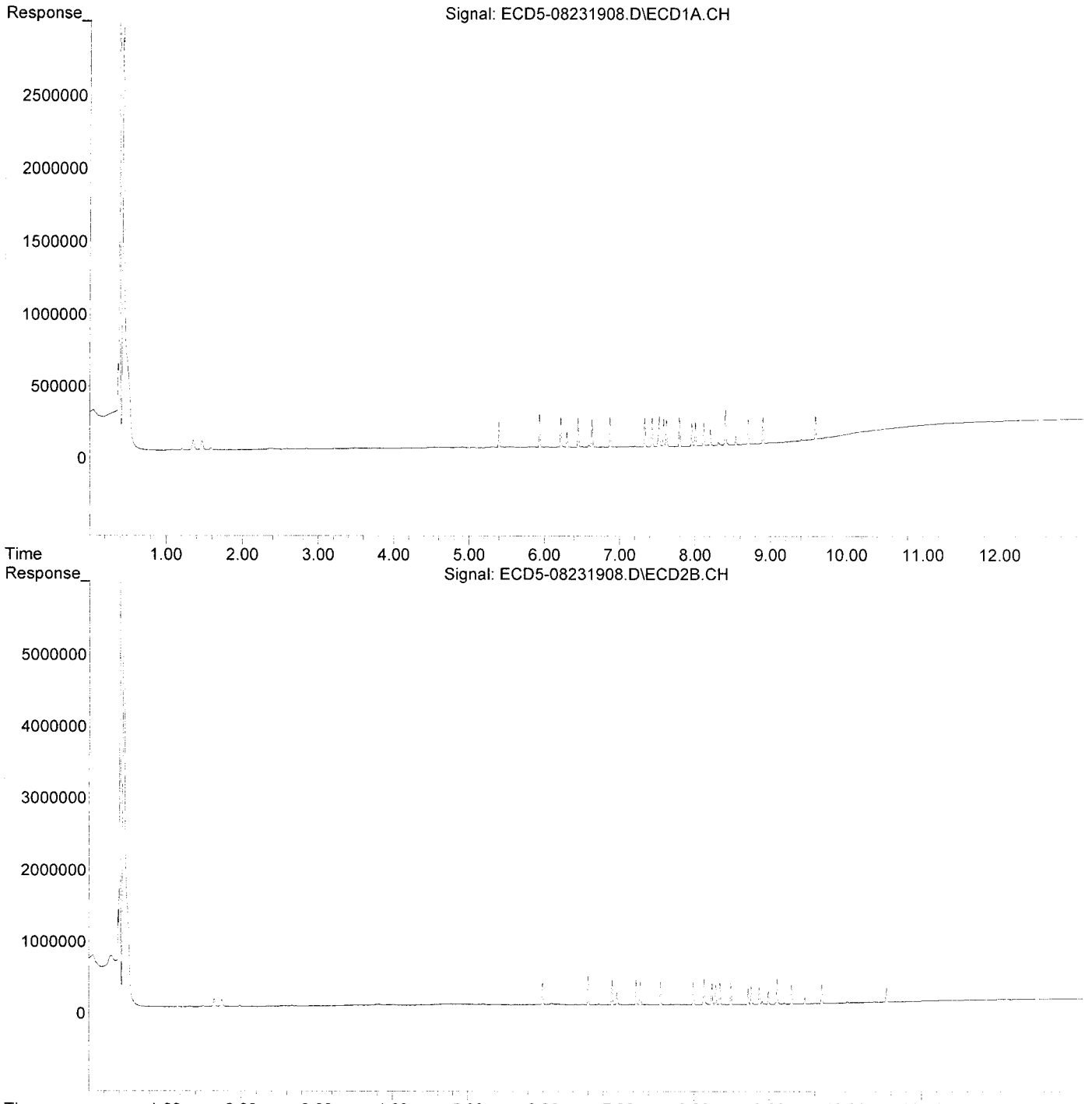
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.397	5.991	176748	300053	1.065	1.023	
22)	S	DCBP (S)	9.593	10.541	163865	191572	1.161	1.066	
		Target Compounds							
2)		a-BHC	5.937	6.597	231994	393119	1.012	0.958	
3)		g-BHC	6.221	6.915	207427	352286	1.028	0.988	
4)		b-BHC	6.300	6.980	104326	176262	1.154	1.114	
5)		Heptachlor	6.635	7.292	192066	309811	1.059	1.013	
6)		d-BHC	6.450	7.234	199840	349123	1.016	0.990	
7)		Aldrin	6.875	7.557	205523	317466	1.041	0.964	
8)		Heptachlo...	7.335	7.994	200503	310098	1.089	1.031	
9)		trans-Chl...	7.433	8.135	197202	364142	1.067	1.162	
10)		cis-Chlor...	7.528	8.241	209780	299422	1.152	1.028	
11)		Endosulfa...	7.625	8.291	185217	278874	1.088	1.013	
12)		4,4'-DDE	7.586	8.346	193435	298463	1.026	0.961	
13)		Dieldrin	7.796	8.491	197721	296684	1.030	0.975	
14)		Endrin	7.961	8.718	156412	222882	1.064	0.987	
15)		4,4'-DDD	8.007	8.760	164956	251549	1.050	0.982	
16)		Endosulfa...	8.118	8.865	158139	232156	1.101	1.007	
17)		4,4'-DDT	8.205	8.986	113897	179700	0.953	1.008	
18)		Endrin Al...	8.407	9.101	241285	348624	1.050	1.058	
19)		Endosulfa...	8.708	9.292	176097	265797	1.136	1.067	
20)		Methoxychlor	8.543	9.466	59659	95155	1.019	0.994	
21)		Endrin Ke...	8.901	9.690	177552	255763	1.065	0.994	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	7.335	8.135	200503	364142	1.563	1.717	
27)		trans-Non...	7.528	0.000	209780	0	0.855	N.D.	#
28)		2,4'-DDD	0.000	8.491	0	296684	N.D.	1.571	#
29)		2,4'-DDT	0.000	8.718	0	222882	N.D.	1.250	#
30)		cis-Nonac...	8.007f	8.760	164956	251549	0.795	0.750	
31)		Mirex	0.000	9.690	0	255763	N.D.	1.375	#
32)		Chlordane...	7.433	8.135	197202	364142	10.016	10.063	
33)		Chlordane...	7.528	8.241	209780	299422	8.370	9.861	
34)		Chlordane...	0.000	8.903	0	37787	N.D.	4.214	#
35)		Chlordane...	3.445	0.000	4502	0	NoCal	N.D.	
36)		Toxaphene...	7.528f	8.491f	209780	296684	234.222	113.054	#
37)		Toxaphene...	7.796	0.000	197721	0	122.432	N.D.	#
38)		Toxaphene...	8.118	8.865	158139	232156	46.960	45.805	
39)		Toxaphene...	8.312f	8.903	20859	37787	6.438	4.525	
40)		Toxaphene...	8.543f	9.101	59659	348624	24.888	74.806	#
41)		Toxaphene...	0.000	9.466	0	95155	N.D.	20.032	#
42)		Toxaphene...	3.445	0.000	4502	0	NoCal	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:08
Operator : MJB
Sample : 9H23034-CAL2
Misc : A19E246, AB 2 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

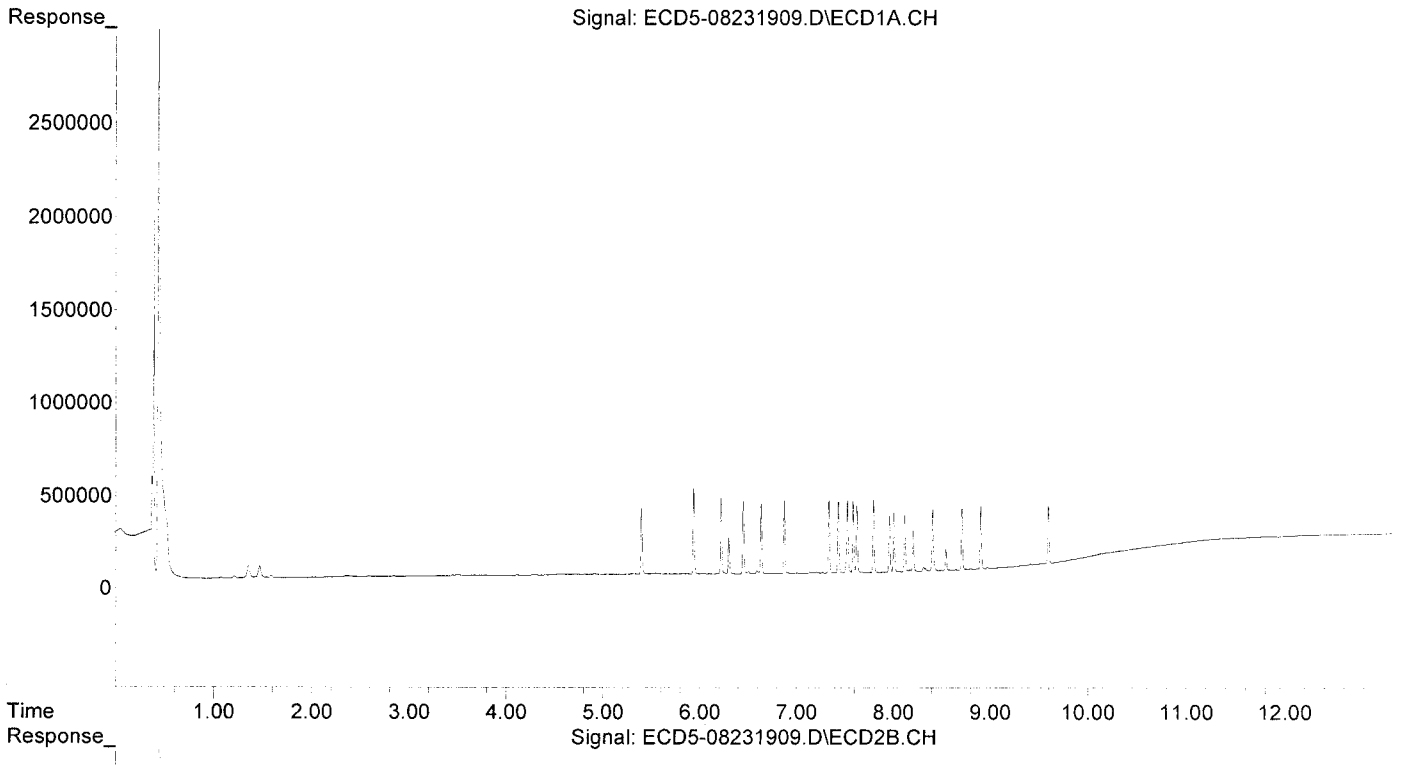
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.396	5.990	349972	600766	2.109	2.048	
22)	S	DCBP (S)	9.593	10.542	309904	390006	2.196	2.170	
		Target Compounds							
2)		a-BHC	5.936	6.597	458365	784586	1.999	1.912	
3)		g-BHC	6.220	6.915	406027	690922	2.012	1.937	
4)		b-BHC	6.300	6.980	194168	335260	2.148	2.118	
5)		Heptachlor	6.635	7.291	369615	586765	2.039	1.918	
6)		d-BHC	6.450	7.233	386980	669122	1.967	1.897	
7)		Aldrin	6.875	7.556	399550	635458	2.024	1.929	
8)		Heptachlo...	7.335	7.993	392052	606240	2.129	2.015	
9)		trans-Chl...	7.432	8.135	382271	644454	2.068	2.057	
10)		cis-Chlor...	7.527	8.241	389999	579667	2.142	1.990	
11)		Endosulfa...	7.625	8.291	357368	540442	2.100	1.964	
12)		4,4'-DDE	7.586	8.345	388618	598066	2.061	1.925	
13)		Dieldrin	7.796	8.491	395728	583812	2.061	1.919	
14)		Endrin	7.960	8.718	298515	424889	2.030	1.881	
15)		4,4'-DDD	8.006	8.760	314622	488120	2.002	1.905	
16)		Endosulfa...	8.118	8.864	299106	462256	2.083	2.005	
17)		4,4'-DDT	8.204	8.986	218190	341782	1.825	1.948	
18)		Endrin Al...	8.407	9.101	328182	477694	1.795	1.763	
19)		Endosulfa...	8.707	9.291	322163	498767	2.079	2.002	
20)		Methoxychlor	8.542	9.465	111466	178074	1.903	2.018	
21)		Endrin Ke...	8.901	9.689	331269	493110	1.987	1.916	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	7.271	0.000	4709	0	0.029	N.D.	#
26)		2,4'-DDE	7.335	8.135	392052	644454	3.057	3.038	
27)		trans-Non...	7.527	0.000	389999	0	1.861	N.D.	#
28)		2,4'-DDD	0.000	8.491	0	583812	N.D.	3.091	#
29)		2,4'-DDT	0.000	8.718	0	424889	N.D.	2.382	#
30)		cis-Nonac...	8.006f	8.760	314622	488120	1.515	1.455	
31)		Mirex	8.657	9.689	1737	493110	0.014	2.650	#
32)		Chlordane...	7.432	8.135	382271	644454	19.415	17.810	
33)		Chlordane...	7.527	8.241	389999	579667	15.560	19.091	
34)		Chlordane...	8.065	8.903	2900	40429	0.502	4.509	#
35)		Chlordane...	3.445	0.000	4897	0	NoCal	N.D.	
36)		Toxaphene...	7.527f	8.491f	389999	583812	435.438	222.468	#
37)		Toxaphene...	7.796	0.000	395728	0	245.042	N.D.	#
38)		Toxaphene...	8.118	8.864	299106	462256	88.822	91.205	
39)		Toxaphene...	8.312f	8.903	21365	40429	6.594	4.842	
40)		Toxaphene...	8.582	9.101	2314	477694	0.965	102.502	#
41)		Toxaphene...	8.657	9.465	1737	178074	0.549	37.488	#
42)		Toxaphene...	3.445	0.000	4897	0	NoCal	N.D.	

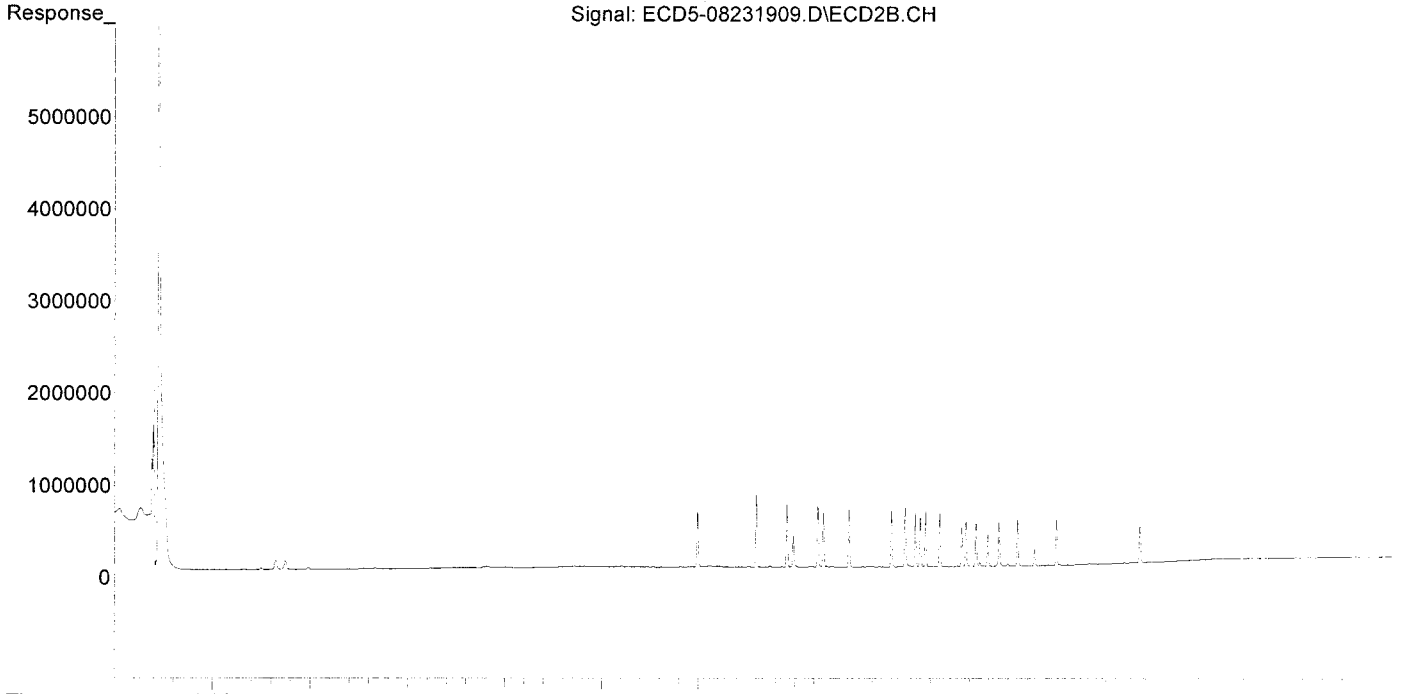
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:08
Operator : MJB
Sample : 9H23034-CAL2
Misc : A19E246, AB 2 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:25
Operator : MJB
Sample : 9H23034-CAL3
Misc : A19E247, AB 5 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:25 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

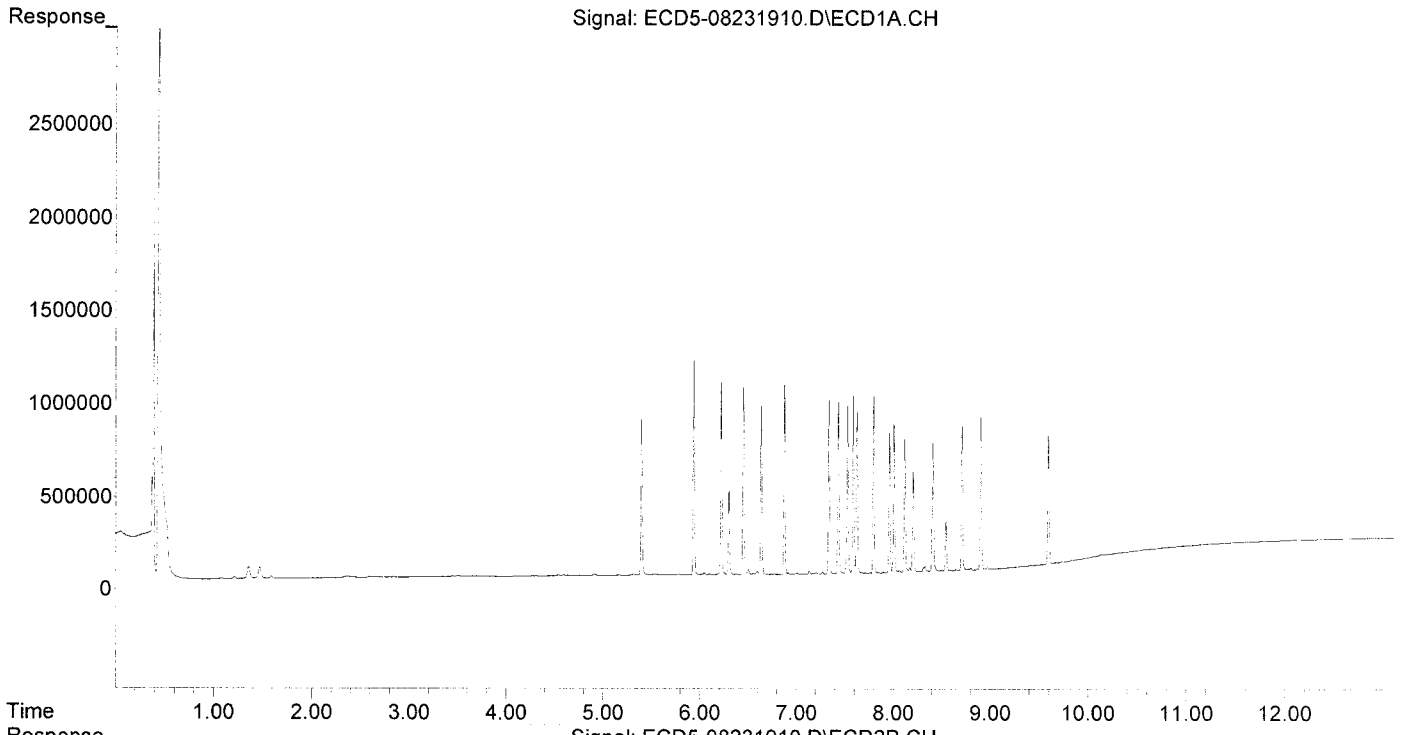
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.396	5.990	834206	1437876	5.026	4.901	
22)	S	DCBP (S)	9.594	10.542	701050	870921	4.969	4.845	
		Target Compounds							
2)		a-BHC	5.937	6.597	1147932	1985438	5.006	4.839	
3)		g-BHC	6.220	6.915	1020724	1742677	5.059	4.885	
4)		b-BHC	6.300	6.980	456954	788630	5.056	4.983	
5)		Heptachlor	6.635	7.291	899091	1508218	4.959	4.929	
6)		d-BHC	6.449	7.233	1004012	1717450	5.105	4.870	
7)		Aldrin	6.875	7.556	1012733	1600995	5.129	4.860	
8)		Heptachlo...	7.335	7.994	923620	1455941	5.015	4.839	
9)		trans-Chl...	7.432	8.134	926577	1502119	5.011	4.794	
10)		cis-Chlor...	7.528	8.241	908795	1434855	4.991	4.927	
11)		Endosulfa...	7.624	8.290	861509	1327191	5.062	4.823	
12)		4,4'-DDE	7.586	8.345	953351	1487999	5.057	4.790	
13)		Dieldrin	7.796	8.491	972009	1462538	5.063	4.809	
14)		Endrin	7.960	8.718	738953	1092877	5.026	4.839	
15)		4,4'-DDD	8.007	8.759	790498	1208642	5.031	4.717	
16)		Endosulfa...	8.118	8.865	709544	1096359	4.941	4.754	
17)		4,4'-DDT	8.205	8.986	553009	873653	4.625	5.010	
18)		Endrin Al...	8.407	9.101	683393	1045869	4.834	4.849	
19)		Endosulfa...	8.708	9.291	768798	1175908	4.961	4.721	
20)		Methoxychlor	8.542	9.466	270388	413802	4.616	4.904	
21)		Endrin Ke...	8.901	9.689	811384	1205004	4.866	4.683	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.782	0.000	4389	0	0.025	N.D.	#
25)		Oxychlordane	7.271	0.000	11672	0	0.071	N.D.	#
26)		2,4'-DDE	7.335	8.134	923620	1502119	7.201	7.081	
27)		trans-Non...	7.528	0.000	908795	0	4.756	N.D.	#
28)		2,4'-DDD	0.000	8.491	0	1462538	N.D.	7.744	#
29)		2,4'-DDT	7.894	8.718	3329	1092877	0.030	6.128	#
30)		cis-Nonac...	8.007f	8.759	790498	1208642	3.808	3.603	
31)		Mirex	8.645	9.689	4292	1205004	0.034	6.476	#
32)		Chlordane...	7.432	8.134	926577	1502119	47.059	41.513	
33)		Chlordane...	7.528	8.241	908795	1434855	36.259	47.255	
34)		Chlordane...	8.063	8.903	7555	42265	1.307	4.714	#
35)		Chlordane...	3.446	0.000	4904	0	NoCal	N.D.	
36)		Toxaphene...	7.528f	8.491f	908795	1462538	1014.680	557.315	#
37)		Toxaphene...	7.796	0.000	972009	0	601.886	N.D.	#
38)		Toxaphene...	8.118	8.865	709544	1096359	210.704	216.316	
39)		Toxaphene...	8.328	8.903	27348	42265	8.440	5.062	#
40)		Toxaphene...	8.542f	9.101	270388	1045869	112.796	224.418	#
41)		Toxaphene...	8.645	9.466	4292	413802	1.356	87.113	#
42)		Toxaphene...	3.446	0.000	4904	0	NoCal	N.D.	

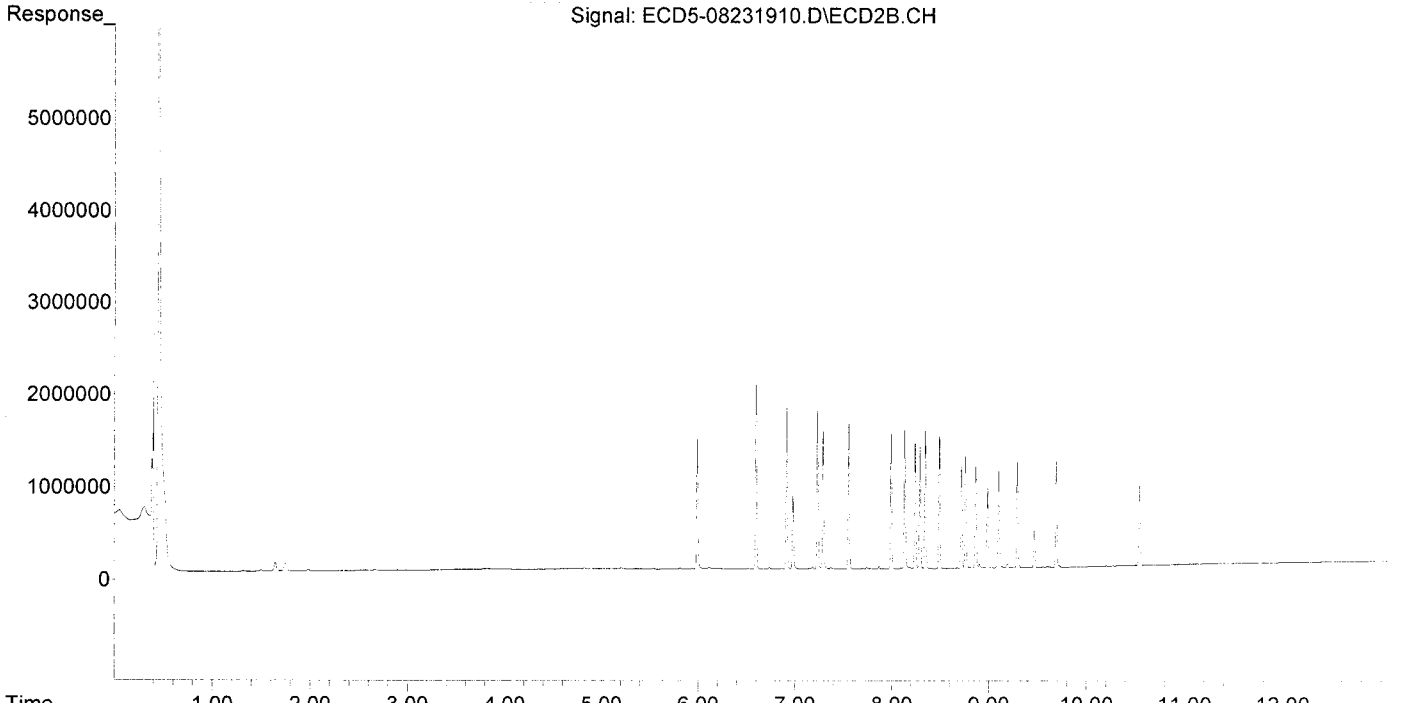
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:25
Operator : MJB
Sample : 9H23034-CAL3
Misc : A19E247, AB 5 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:25 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:42
Operator : MJB
Sample : 9H23034-CAL4
Misc : A19E249, AB 10 ppb
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

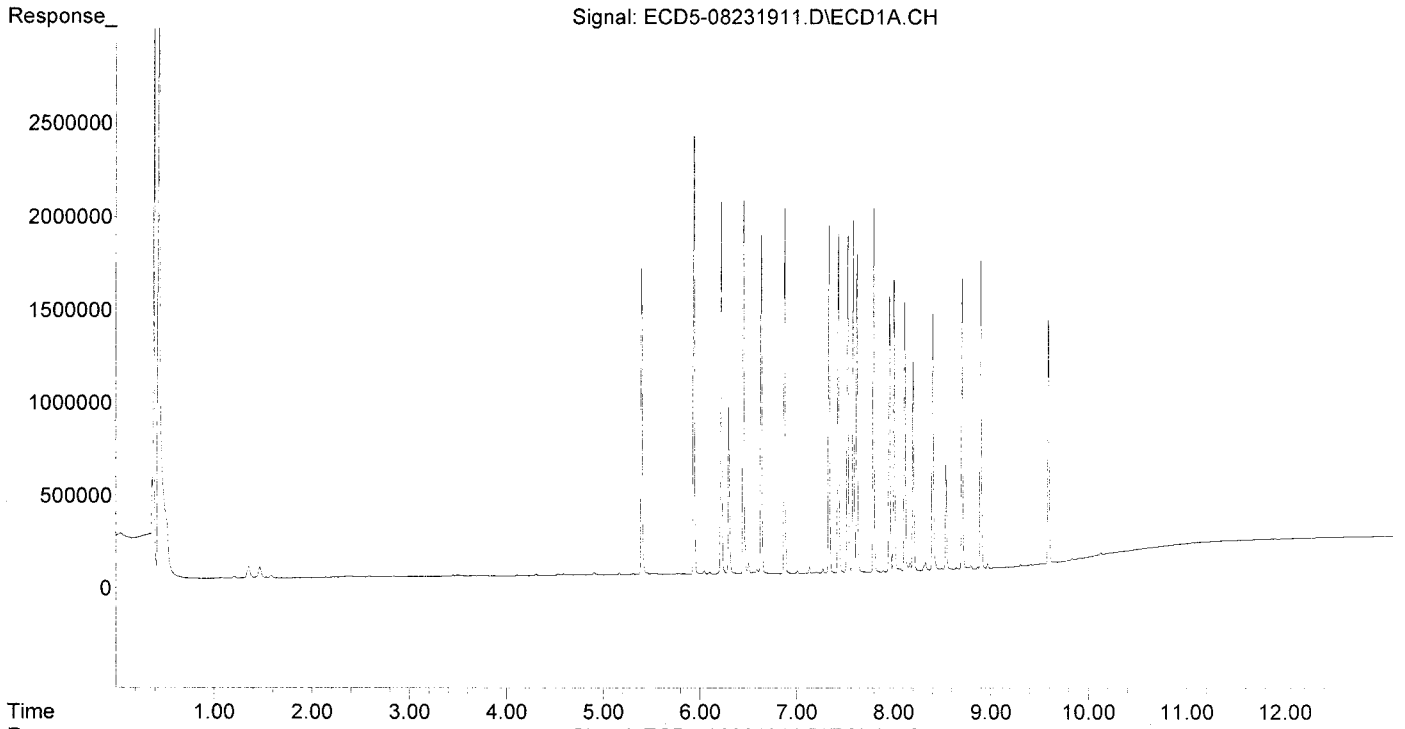
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.396	5.990	1644447	2865854	9.908	9.769	
22) S	DCBP (S)	9.593	10.541	1335468	1678728	9.465	9.339	
	Target Compounds							
2)	a-BHC	5.936	6.597	2347065	4095890	10.234	9.982	
3)	g-BHC	6.220	6.915	2034859	3476733	10.085	9.747	
4)	b-BHC	6.299	6.980	910875	1580847	10.078	9.989	
5)	Heptachlor	6.634	7.291	1819621	3005915	10.037	9.824	
6)	d-BHC	6.449	7.234	2006493	3613517	10.201	10.246	
7)	Aldrin	6.875	7.556	2010802	3341093	10.184	10.143	
8)	Heptachlo...	7.335	7.994	1865428	2959301	10.128	9.837	
9)	trans-Chl...	7.431	8.134	1847996	3002782	9.995	9.584	
10)	cis-Chlor...	7.527	8.241	1843346	2859573	10.124	9.818	
11)	Endosulfa...	7.623	8.291	1709332	2724272	10.044	9.900	
12)	4,4'-DDE	7.585	8.346	1890931	3049792	10.030	9.817	
13)	Dieldrin	7.795	8.491	1954890	2898866	10.183	9.531	
14)	Endrin	7.960	8.718	1475508	2244483	10.036	9.939	
15)	4,4'-DDD	8.006	8.760	1565974	2425496	9.965	9.467	
16)	Endosulfa...	8.117	8.864	1448080	2243610	10.083	9.729	
17)	4,4'-DDT	8.204	8.987	1146556	1841119	9.590	10.491	
18)	Endrin Al...	8.406	9.101	1375129	2125028	10.716	10.650	
19)	Endosulfa...	8.707	9.292	1553540	2424584	10.024	9.734	
20)	Methoxychlor	8.542	9.465	561706	883069	9.590	10.543	
21)	Endrin Ke...	8.900	9.689	1664380	2496985	9.981	9.704	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.781	0.000	6414	0	0.036	N.D.	#
25)	Oxychlordane	7.271	0.000	23125	0	0.141	N.D.	#
26)	2,4'-DDE	7.335	8.134	1865428	3002782	14.544	14.155	
27)	trans-Non...	7.527	0.000	1843346	0	9.974	N.D.	#
28)	2,4'-DDD	0.000	8.491	0	2898866	N.D.	15.349	#
29)	2,4'-DDT	7.893	8.718	6940	2244483	0.063	12.585	#
30)	cis-Nonac...	8.006f	8.760	1565974	2425496	7.543	7.231	
31)	Mirex	8.644	9.689	9584	2496985	0.076	13.419	#
32)	Chlordane...	7.431	8.134	1847996	3002782	93.856	82.985	
33)	Chlordane...	7.527	8.241	1843346	2859573	73.545	94.176	
34)	Chlordane...	8.062	8.903	15147	46214	2.620	5.154	#
35)	Chlordane...	3.446	0.000	4445	0	NoCal	N.D.	
36)	Toxaphene...	7.527f	8.491f	1843346	2898866	2058.116	1104.642	#
37)	Toxaphene...	7.795	0.000	1954890	0	1210.504	N.D.	#
38)	Toxaphene...	8.117	8.864	1448080	2243610	430.018	442.674	
39)	Toxaphene...	8.328	8.903	47046	46214	14.520	5.535	#
40)	Toxaphene...	8.542f	9.101	561706	2125028	234.323	455.980	#
41)	Toxaphene...	8.644	9.465	9584	883069	3.029	185.901	#
42)	Toxaphene...	3.446	0.000	4445	0	NoCal	N.D.	

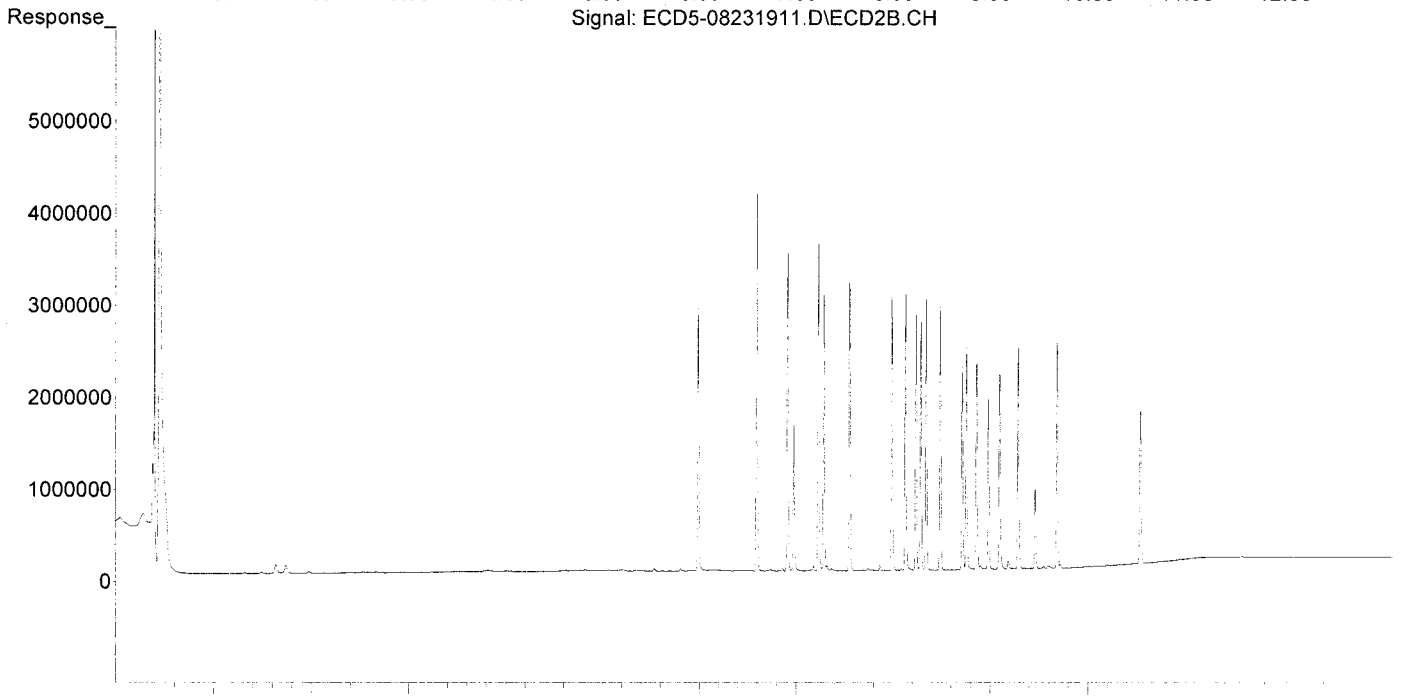
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:42
Operator : MJB
Sample : 9H23034-CAL4
Misc : A19E249, AB 10 ppb
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:00
Operator : MJB
Sample : 9H23034-CAL5
Misc : A19E250, AB 25 ppb
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:01 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MB 8/26/19

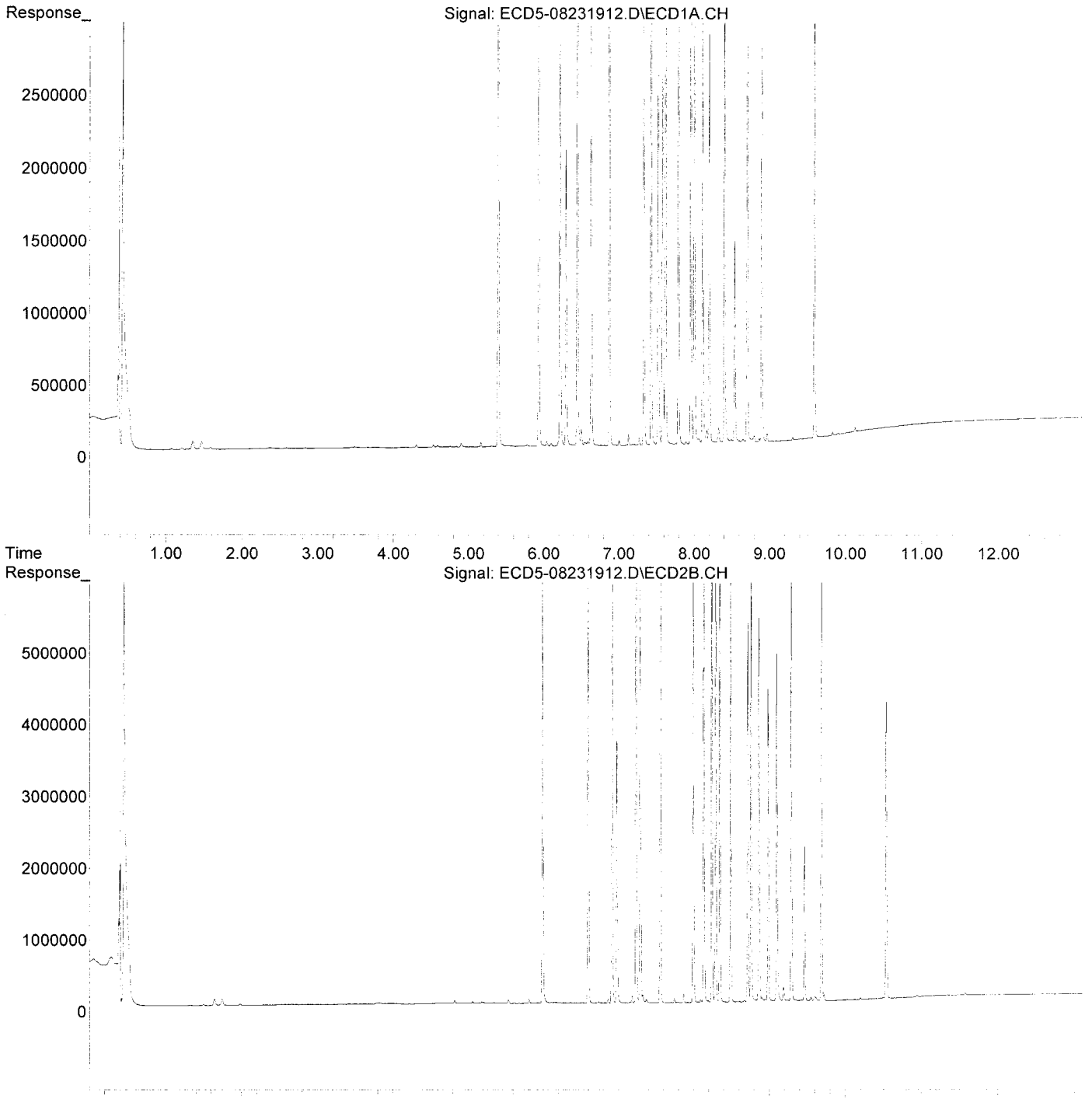
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.989	4015832	7072923	24.195	24.109	
22)	S	DCBP (S)	9.592	10.539	3342634	4163229	23.690	23.160	
		Target Compounds							
2)		a-BHC	5.935	6.596	5553096	9910863	24.215	24.153	
3)		g-BHC	6.218	6.913	4875657	8508386	24.164	23.853	
4)		b-BHC	6.297	6.978	2060378	3677155	22.796	23.234	
5)		Heptachlor	6.633	7.289	4314306	7282282	23.797	23.800	
6)		d-BHC	6.447	7.232	4667166	8247775	23.729	23.387	
7)		Aldrin	6.873	7.555	4845355	7878574	24.540	23.919	
8)		Heptachlo...	7.332	7.992	4344286	7064729	23.587	23.483	
9)		trans-Chl...	7.429	8.131	4401456	7157480	23.806	22.844	
10)		cis-Chlor...	7.525	8.239	4244413	6935857	23.312	23.814	
11)		Endosulfa...	7.621	8.288	4111285	6571512	24.158	23.881	
12)		4,4'-DDE	7.583	8.343	4571066	7501047	24.246	24.144	
13)		Dieldrin	7.792	8.489	4582306	7333890	23.869	24.113	
14)		Endrin	7.957	8.716	3508904	5325883	23.866	23.584	
15)		4,4'-DDD	8.004	8.758	3727035	6146469	23.718	23.990	
16)		Endosulfa...	8.115	8.862	3371864	5447602	23.479	23.623	
17)		4,4'-DDT	8.202	8.984	2924467	4480388	24.460	24.907	
18)		Endrin Al...	8.404	9.099	3119767	4848504	25.346	24.953	
19)		Endosulfa...	8.705	9.289	3645411	5978906	23.522	24.003	
20)		Methoxychlor	8.540	9.463	1390283	2166659	23.735	25.322	
21)		Endrin Ke...	8.899	9.688	4008958	5893691	24.041	22.904	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.779	0.000	7817	0	0.044	N.D.	#
25)		Oxychlordane	7.269	0.000	51278	0	0.312	N.D.	#
26)		2,4'-DDE	7.332	8.131	4344286	7157480	33.871	33.740	
27)		trans-Non...	7.525	8.192	4244413	24831	23.380	0.082	#
28)		2,4'-DDD	0.000	8.489	0	7333890	N.D.	38.832	#
29)		2,4'-DDT	7.891	8.716	15573	5325883	0.142	29.864	#
30)		cis-Nonac...	8.004	8.758	3727035	6146469	17.952	18.323	
31)		Mirex	8.651	9.688	18145	5893691	0.145	31.674	#
32)		Chlordane...	7.429	8.131	4401456	7157480	223.542	197.805	
33)		Chlordane...	7.525	8.239	4244413	6935857	169.341	228.423	
34)		Chlordane...	8.059	8.901	33094	57884	5.724	6.456	
35)		Chlordane...	3.446	0.000	4689	0	NoCal	N.D.	
36)		Toxaphene...	7.525f	8.489f	4244413	7333890	4738.933	2794.653	#
37)		Toxaphene...	7.792	0.000	4582306	0	2837.449	N.D.	#
38)		Toxaphene...	8.115	8.862	3371864	5447602	1001.299	1074.835	
39)		Toxaphene...	8.326f	8.901	104762	57884	32.332	6.932	#
40)		Toxaphene...	8.540f	9.099	1390283	4848504	579.975	1040.371	#
41)		Toxaphene...	8.651	9.463	18145	2166659	5.734	456.119	#
42)		Toxaphene...	3.446	0.000	4689	0	NoCal	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:00
Operator : MJB
Sample : 9H23034-CAL5
Misc : A19E250, AB 25 ppb
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:01 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:17
Operator : MJB
Sample : 9H23034-CAL6
Misc : A19H383, AB 50 ppb
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

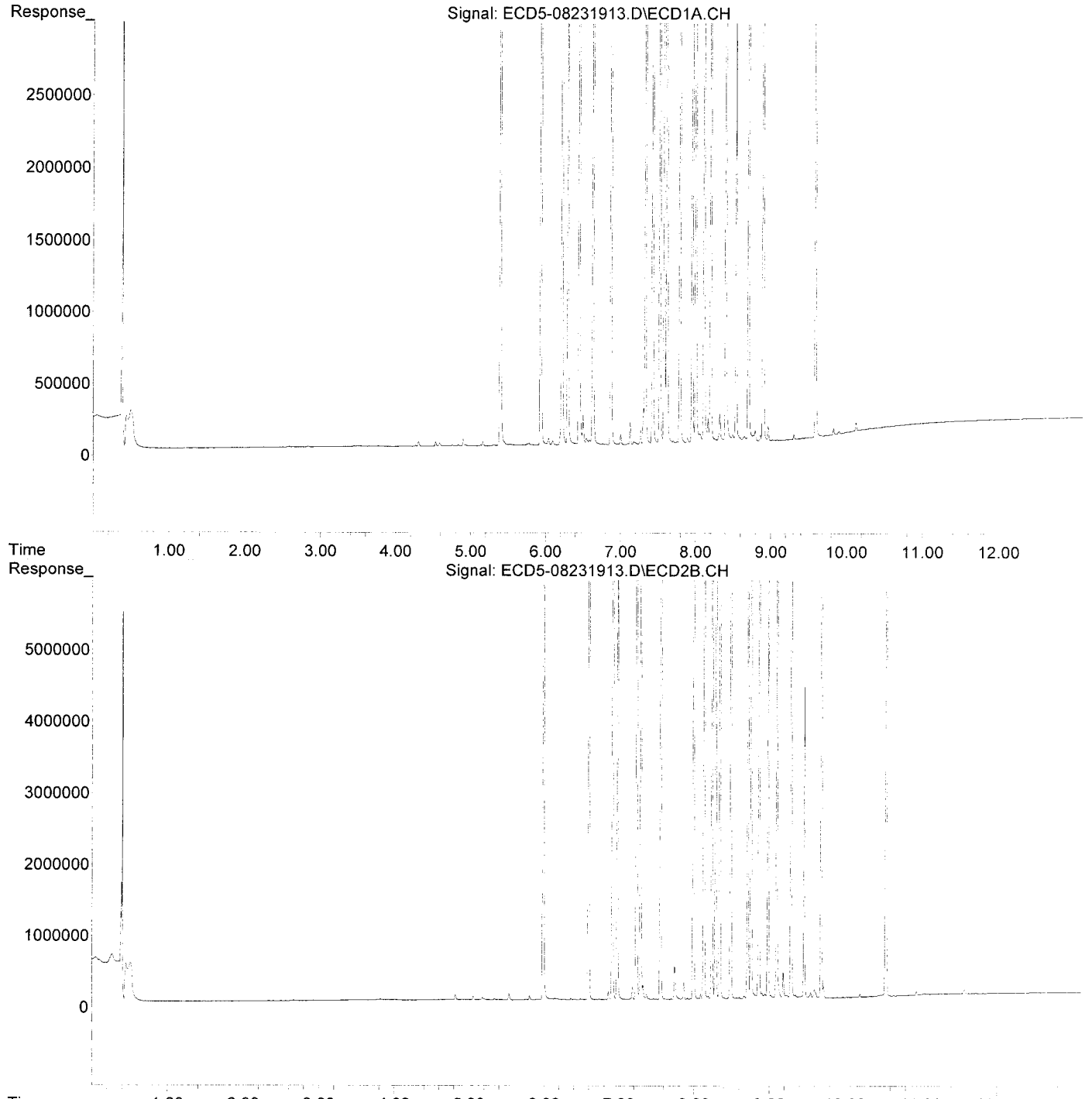
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.989	8071481	14196745	48.631	48.392	
22)	S	DCBP (S)	9.592	10.541	6678990	8730692	47.336	48.568	
		Target Compounds							
2)		a-BHC	5.935	6.596	11369592	20265817	49.578	49.388	
3)		g-BHC	6.218	6.914	9785999	17381069	48.499	48.727	
4)		b-BHC	6.296	6.978	4100858	7516011	45.372	47.490	
5)		Heptachlor	6.632	7.290	8735158	14595143	48.182	47.700	
6)		d-BHC	6.447	7.232	9610742	17311258	48.862	49.087	
7)		Aldrin	6.873	7.555	9327672	16264416	47.242	49.377	
8)		Heptachlo...	7.332	7.992	8869300	14837794	48.156	49.320	
9)		trans-Chl...	7.428	8.131	8959305	14678719	48.457	46.848	
10)		cis-Chlor...	7.524	8.238	8622674	14002116	47.359	48.076	
11)		Endosulfa...	7.621	8.289	7984410	13712329	46.917	49.831	
12)		4,4'-DDE	7.583	8.344	9177389	15554706	48.679	50.067	
13)		Dieldrin	7.792	8.489	9386664	15434113	48.894	50.745	
14)		Endrin	7.957	8.716	6979572	11015379	47.471	48.778	
15)		4,4'-DDD	8.004	8.758	7726197	13159451	49.167	51.361	
16)		Endosulfa...	8.114	8.863	6840920	11534525	47.635	50.018	
17)		4,4'-DDT	8.202	8.985	6205369	9285492	51.902	49.430	
18)		Endrin Al...	8.404	9.099	6224451	10209034	50.697	51.836	
19)		Endosulfa...	8.705	9.289	7420576	12149289	47.882	48.775	
20)		Methoxychlor	8.540	9.464	2860683	4346199	48.839	48.597	
21)		Endrin Ke...	8.899	9.687	8190707	12954568	49.117	50.345	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.777	6.487f	17034	6623	0.097	0.021	#
25)		Oxychlordane	7.268	7.916	93115	13858	0.566	0.051	#
26)		2,4'-DDE	7.332	8.131	8869300	14678719	69.150	69.194	
27)		trans-Non...	7.524	8.193	8622674	44541	47.838	0.148	#
28)		2,4'-DDD	7.705	8.489	15706	15434113	0.138	81.721	#
29)		2,4'-DDT	7.890	8.716	32276	11015379	0.294	61.766	#
30)		cis-Nonac...	8.004	8.758	7726197	13159451	37.214	39.229	
31)		Mirex	8.653	9.687	33100	12954568	0.264	69.621	#
32)		Chlordane...	7.428	8.131	8959305	14678719	455.027	405.662	
33)		Chlordane...	7.524	8.238	8622674	14002116	344.022	461.141	
34)		Chlordane...	8.059	8.901	56505	76664	9.774	8.551	
35)		Chlordane...	3.445	0.000	3954	0	NoCal	N.D.	
36)		Toxaphene...	7.524f	8.489f	8622674	15434113	9627.309	5881.324	
37)		Toxaphene...	7.792	8.823	9386664	45987	5812.397	13.973	#
38)		Toxaphene...	8.114	8.863	6840920	11534525	2031.460	2275.810	
39)		Toxaphene...	8.325f	8.901	190344	76664	58.746	9.182	#
40)		Toxaphene...	8.540f	9.099	2860683	10209034	1193.372	2190.611	#
41)		Toxaphene...	8.653	9.464	33100	4346199	10.460	914.950	#
42)		Toxaphene...	3.445	0.000	3954	0	NoCal	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:17
Operator : MJB
Sample : 9H23034-CAL6
Misc : A19H383, AB 50 ppb
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:34
Operator : MJB
Sample : 9H23034-CAL7
Misc : A19H382, AB 100 ppb
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

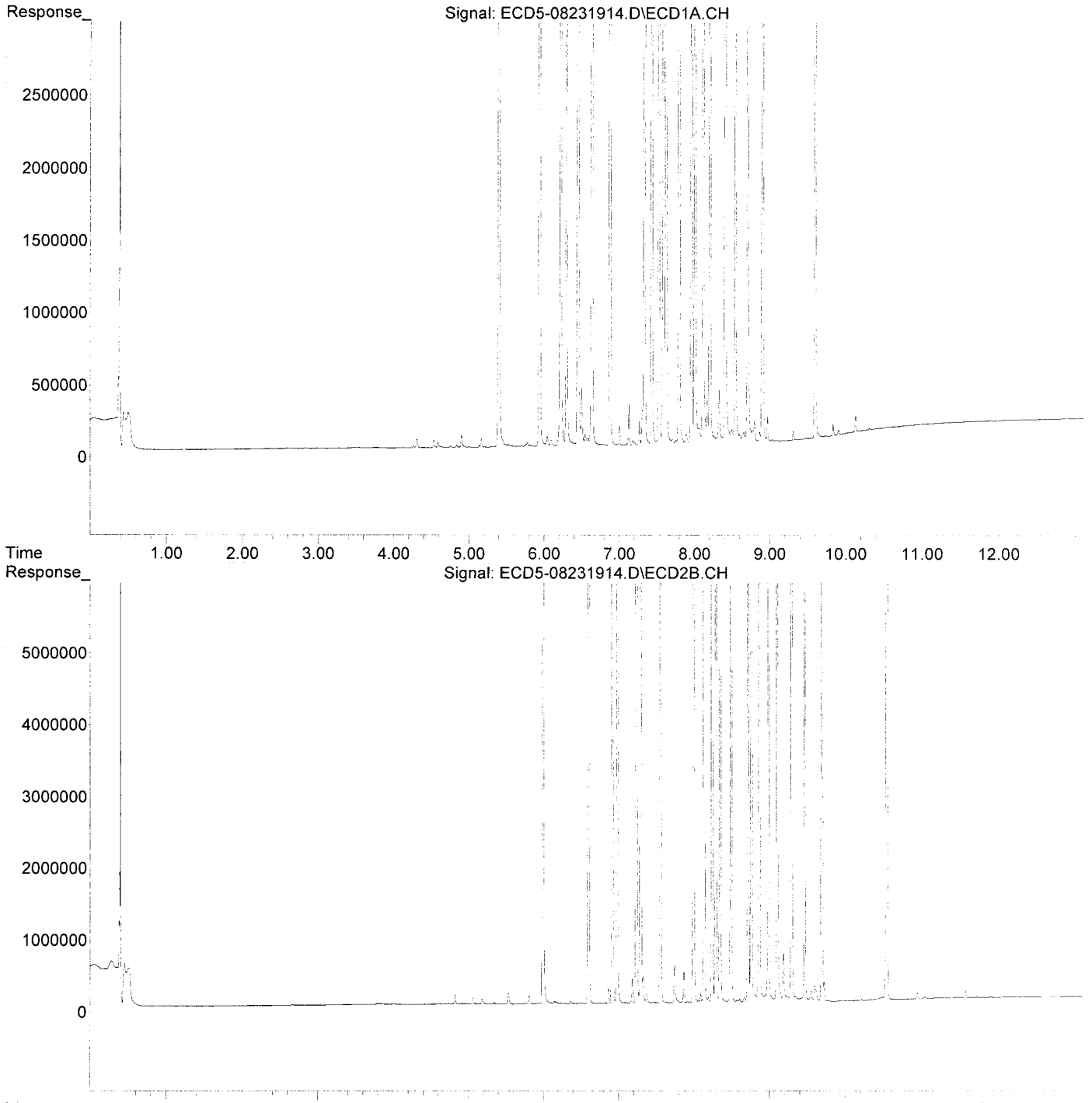
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.395	5.989	15850922	29256334	95.502	99.726	
22)	S	DCBP (S)	9.592	10.540	13405396	17784069	95.007	98.931	
		Target Compounds							
2)		a-BHC	5.935	6.596	22363584	41699210	97.517	101.621	
3)		g-BHC	6.218	6.914	19595093	36788994	97.113	103.136	
4)		b-BHC	6.296	6.977	8355416	14625175	92.444	92.409	
5)		Heptachlor	6.632	7.289	17551528	30277818	96.811	98.955	
6)		d-BHC	6.446	7.232	19475580	35176633	99.016	99.745	
7)		Aldrin	6.872	7.555	19108074	33906422	96.776	102.936	
8)		Heptachlo...	7.331	7.991	17318444	30045511	94.031	99.869	
9)		trans-Chl...	7.427	8.131	17732791	30742272	95.909	98.116	
10)		cis-Chlor...	7.523	8.238	16742584	29042863	91.956	99.719	
11)		Endosulfa...	7.619	8.288	16089996	27212707	94.547	98.892	
12)		4,4'-DDE	7.582	8.344	18052552	32499603	95.754	104.609	
13)		Dieldrin	7.791	8.488	18324422	31001958	95.450	101.930	
14)		Endrin	7.957	8.715	13812708	23102413	93.947	102.301	
15)		4,4'-DDD	8.003	8.758	15437146	26297484	98.238	102.639	
16)		Endosulfa...	8.113	8.861	13543500	23016371	94.307	99.808	
17)		4,4'-DDT	8.201	8.984	12176961	19789501	101.848	97.215	
18)		Endrin Al...	8.403	9.098	12363806	20502737	98.526	99.562	
19)		Endosulfa...	8.704	9.289	14366789	24477320	92.702	98.268	
20)		Methoxychlor	8.539	9.463	5877329	9444987	100.340	96.538	
21)		Endrin Ke...	8.898	9.687	16251943	26636559	97.458	103.517	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.777	0.000	29252	0	0.166	N.D.	#
25)		Oxychlordane	7.267	7.915	165864	25145	1.008	0.092	#
26)		2,4'-DDE	7.331	8.131	17318444	30742272	135.025	144.916	
27)		trans-Non...	7.523	8.192	16742584	77338	93.233	0.256	#
28)		2,4'-DDD	7.704	8.488	32176	31001958	0.282	164.150	#
29)		2,4'-DDT	7.889	8.715	66298	23102413	0.604	129.542	#
30)		cis-Nonac...	8.003	8.758	15437146	26297484	74.355	78.395	
31)		Mirex	8.651	9.687	63592	26636559	0.507	143.151	#
32)		Chlordane...	7.427	8.131	17732791	30742272	900.616	849.596	
33)		Chlordane...	7.523	8.238	16742584	29042863	667.985	956.488	#
34)		Chlordane...	8.059	8.899	102306	115089	17.697	12.836	
35)		Chlordane...	3.447	0.000	5362	0	NoCal	N.D.	
36)		Toxaphene...	7.523f	8.488f	16742584	31001958	18693.275	11813.609	
37)		Toxaphene...	7.791	0.000	18324422	0	11346.823	N.D.	#
38)		Toxaphene...	8.113	8.861	13543500	23016371	4021.839	4541.226	
39)		Toxaphene...	8.324f	8.899	362066	115089	111.744	13.783	#
40)		Toxaphene...	8.598f	9.098	51910	20502737	21.655	4399.391	#
41)		Toxaphene...	8.651	9.463	63592	9444987	20.095	1988.334	#
42)		Toxaphene...	3.447	0.000	5362	0	NoCal	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:34
Operator : MJB
Sample : 9H23034-CAL7
Misc : A19H382, AB 100 ppb
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:52
Operator : MJB
Sample : 9H23034-CAL8
Misc : A19E244, AB 200 ppb
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

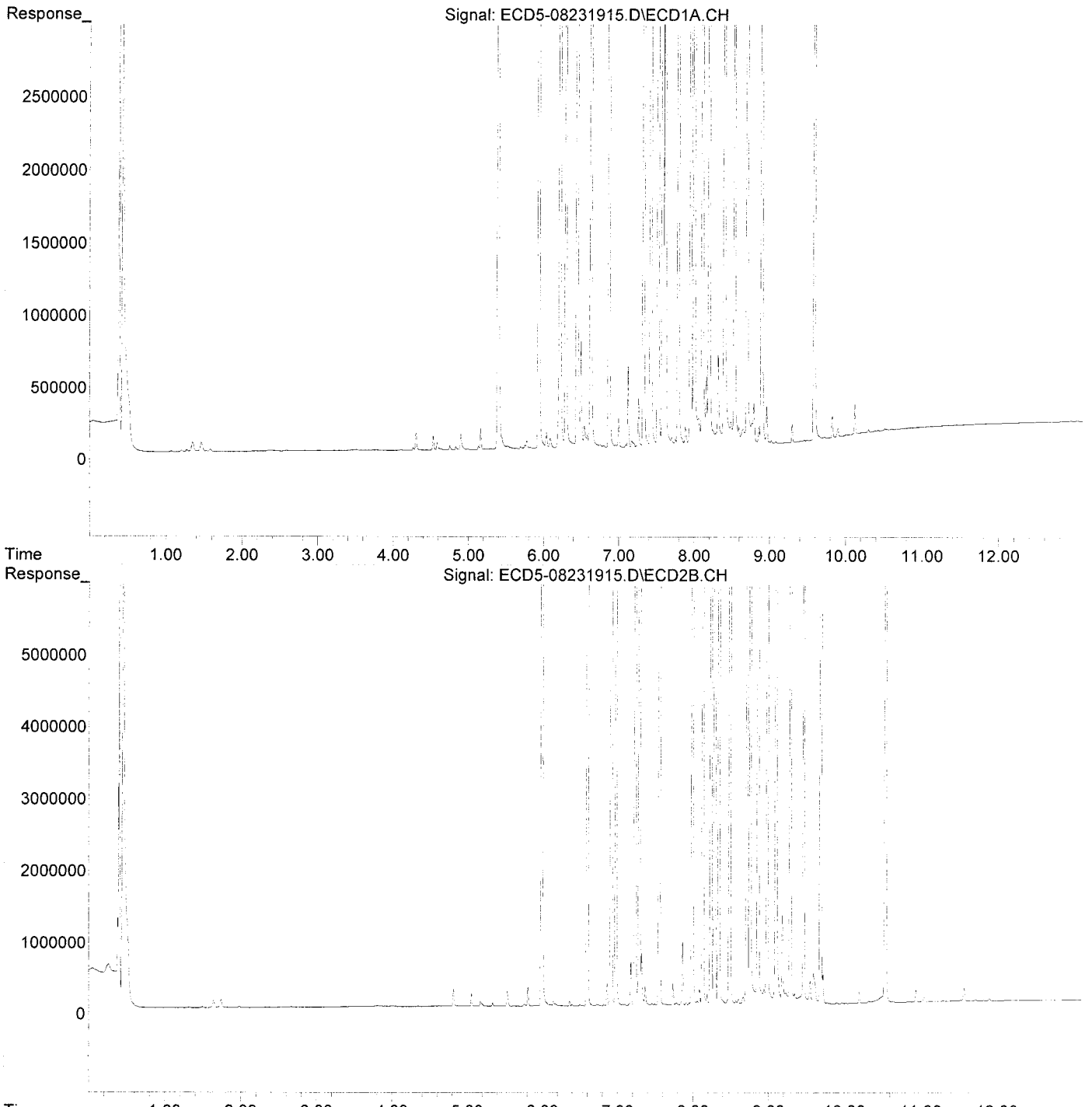
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.990	32842535	62584449	197.876	213.332	
22)	S	DCBP (S)	9.591	10.539	26975231	38097779	191.180	211.933	
		Target Compounds							
2)		a-BHC	5.935	6.597	47202252	94376748	205.828	229.997	
3)		g-BHC	6.218	6.914	41889726	80765680	207.604	226.422	
4)		b-BHC	6.294	6.977	18238696	32553433	201.792	205.688	
5)		Heptachlor	6.630	7.289	37785699	71283176	208.419	232.969	
6)		d-BHC	6.445	7.232	41016592	80979751	208.534	229.622	
7)		Aldrin	6.870	7.554	39838403	73228186	201.769	222.313	
8)		Heptachlo...	7.330	7.991	36258170	65330070	196.864	217.153	
9)		trans-Chl...	7.425	8.130	37621413	66447972	203.478	212.073	
10)		cis-Chlor...	7.521	8.238	35207945	63977063	193.375	219.666	
11)		Endosulfa...	7.618	8.288	33852593	61043507	198.922	221.834	
12)		4,4'-DDE	7.581	8.344	38763081	69842351	205.607	224.807	
13)		Dieldrin	7.791	8.489	39217772	70031781	204.281	230.254	
14)		Endrin	7.955	8.715	31426311	52779585	213.745	233.717	
15)		4,4'-DDD	8.002	8.758	32436804	59560270	206.419	232.463	
16)		Endosulfa...	8.112	8.862	29471042	51834888	205.214	224.777	
17)		4,4'-DDT	8.200	8.984	29075222	48203441	243.185	202.337	
18)		Endrin Al...	8.402	9.098	26627672	45084544	200.132	198.781	
19)		Endosulfa...	8.704	9.289	31126520	54592794	200.845	219.171	
20)		Methoxychlor	8.537	9.463	14271143	23714100	243.642	203.084	
21)		Endrin Ke...	8.898	9.688	35094718	60861376	210.452	236.524	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.776	0.000	55469	0	0.315	N.D.	#
25)		Oxychlordane	7.265	7.915	336226	30124	2.043	0.110	#
26)		2,4'-DDE	7.330	8.130	36258170	66447972	282.690	313.230	
27)		trans-Non...	7.521	8.191	35207945	140624	196.641	0.466	#
28)		2,4'-DDD	7.703	8.489	57049	70031781	0.500	370.806	#
29)		2,4'-DDT	7.886	8.715	129876	52779585	1.184	295.950	#
30)		cis-Nonac...	8.002	8.758	32436804	59560270	156.235	177.554	
31)		Mirex	8.651	9.688	103310	60861376	0.824	327.083	#
32)		Chlordane...	7.425	8.130	37621413	66447972	1910.724	1836.362	
33)		Chlordane...	7.521	8.238	35207945	63977063	1404.705	2106.999	#
34)		Chlordane...	8.058	8.862f	183720	51834888	31.779	5781.350	#
35)		Chlordane...	3.445	0.000	4872	0	NoCal	N.D.	
36)		Toxaphene...	7.521	8.489f	35207945	70031781	39310.050	26686.316	
37)		Toxaphene...	7.791	0.000	39217772	0	24284.375	N.D.	#
38)		Toxaphene...	8.112	8.862	29471042	51834888	8751.637	10227.240	
39)		Toxaphene...	8.322f	8.943f	634260	207653	195.750	24.869	#
40)		Toxaphene...	8.537f	9.098	14271143	45084544	5953.399	9674.052	#
41)		Toxaphene...	8.651	9.463	103310	23714100	32.646	4992.230	#
42)		Toxaphene...	3.445	0.000	4872	0	NoCal	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:52
Operator : MJB
Sample : 9H23034-CAL8
Misc : A19E244, AB 200 ppb
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

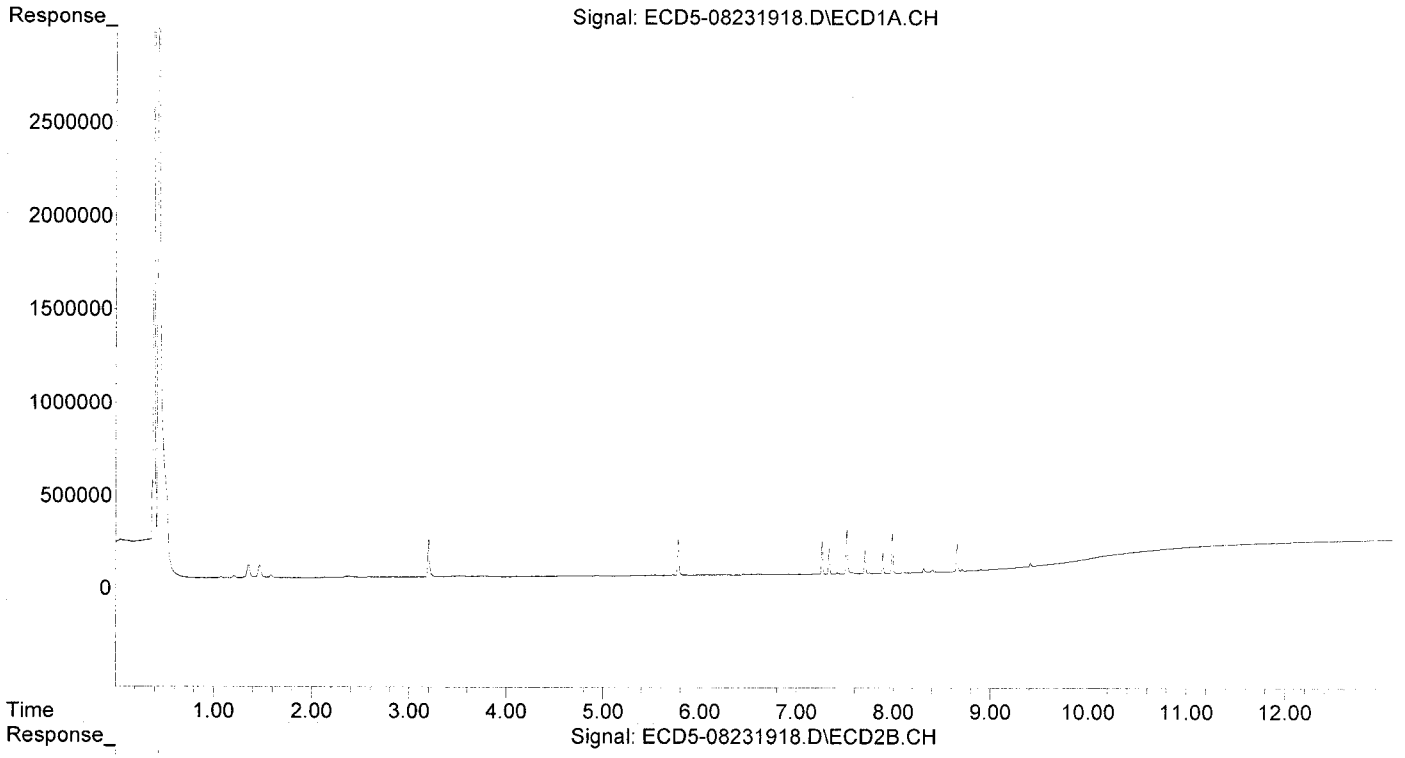
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6576	N.D.	0.022	#
22)	S	DCBP (S)	9.593	10.540	2255	5805	0.016	0.032	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4648	0	0.023	N.D.	#
4)		b-BHC	0.000	7.002f	0	7162	N.D.	0.045	#
5)		Heptachlor	6.601f	0.000	3572	0	0.020	N.D.	#
6)		d-BHC	6.449	7.232	5321	8483	0.027	0.024	
7)		Aldrin	0.000	7.577f	0	8990	N.D.	0.027	#
8)		Heptachlo...	7.335	0.000	137947	0	0.749	N.D.	#
9)		trans-Chl...	7.420	8.123	5532	219164	0.030	0.699	#
10)		cis-Chlor...	7.518	0.000	236836	0	1.301	N.D.	#
11)		Endosulfa...	7.582f	0.000	5522	0	0.032	N.D.	#
12)		4,4'-DDE	7.582	0.000	5522	0	0.029	N.D.	#
13)		Dieldrin	7.755f	8.495	4087	192040	0.021	0.631	#
14)		Endrin	7.987f	8.719	219220	173338	1.491	0.768	#
15)		4,4'-DDD	7.987	8.759	219220	332745	1.395	1.299	
16)		Endosulfa...	8.116	8.903f	2586	40443	0.018	0.175	#
17)		4,4'-DDT	8.202	0.000	1027	0	0.009	N.D.	#
18)		Endrin Al...	8.404	9.099	13122	17799	BelowCal	BelowCal	
19)		Endosulfa...	8.706	9.290	8041	12118	0.052	0.049	
20)		Methoxychlor	8.548	0.000	665	0	0.011	N.D.	#
21)		Endrin Ke...	8.900	9.680	3962	209783	0.024	0.815	#
23)		Hexachlor...	3.198	3.687	198207	383198	1.085	1.019	
24)		Hexachlor...	5.775	6.453	194679	328025	1.104	1.044	
25)		Oxychlordane	7.263	7.922	176844	279143	1.075	1.019	
26)		2,4'-DDE	7.335	8.123	137947	219164	1.076	1.033	
27)		trans-Non...	7.518	8.195	236836	306202	1.006	1.015	
28)		2,4'-DDD	7.707	8.495	120240	192040	1.054	1.017	
29)		2,4'-DDT	7.890	8.719	107110	173338	0.977	0.972	
30)		cis-Nonac...	7.987	8.759	219220	332745	1.056	0.992	
31)		Mirex	8.655	9.680	147356	209783	1.175	1.127	
32)		Chlordane...	7.420	8.123	5532	219164	0.281	6.057	#
33)		Chlordane...	7.518	0.000	236836	0	9.449	N.D.	#
34)		Chlordane...	0.000	8.903	0	40443	N.D.	4.511	#
35)		Chlordane...	3.444	0.000	4642	0	NoCal	N.D.	
36)		Toxaphene...	7.518	8.495f	236836	192040	264.430	73.179	#
37)		Toxaphene...	7.755f	0.000	4087	0	2.531	N.D.	#
38)		Toxaphene...	8.116	0.000	2586	0	0.768	N.D.	#
39)		Toxaphene...	8.312f	8.903	22217	40443	6.857	4.844	
40)		Toxaphene...	8.548f	9.099	665	17799	0.277	3.819	#
41)		Toxaphene...	8.655	0.000	147356	0	46.564	N.D.	#
42)		Toxaphene...	3.444	0.000	4642	0	NoCal	N.D.	

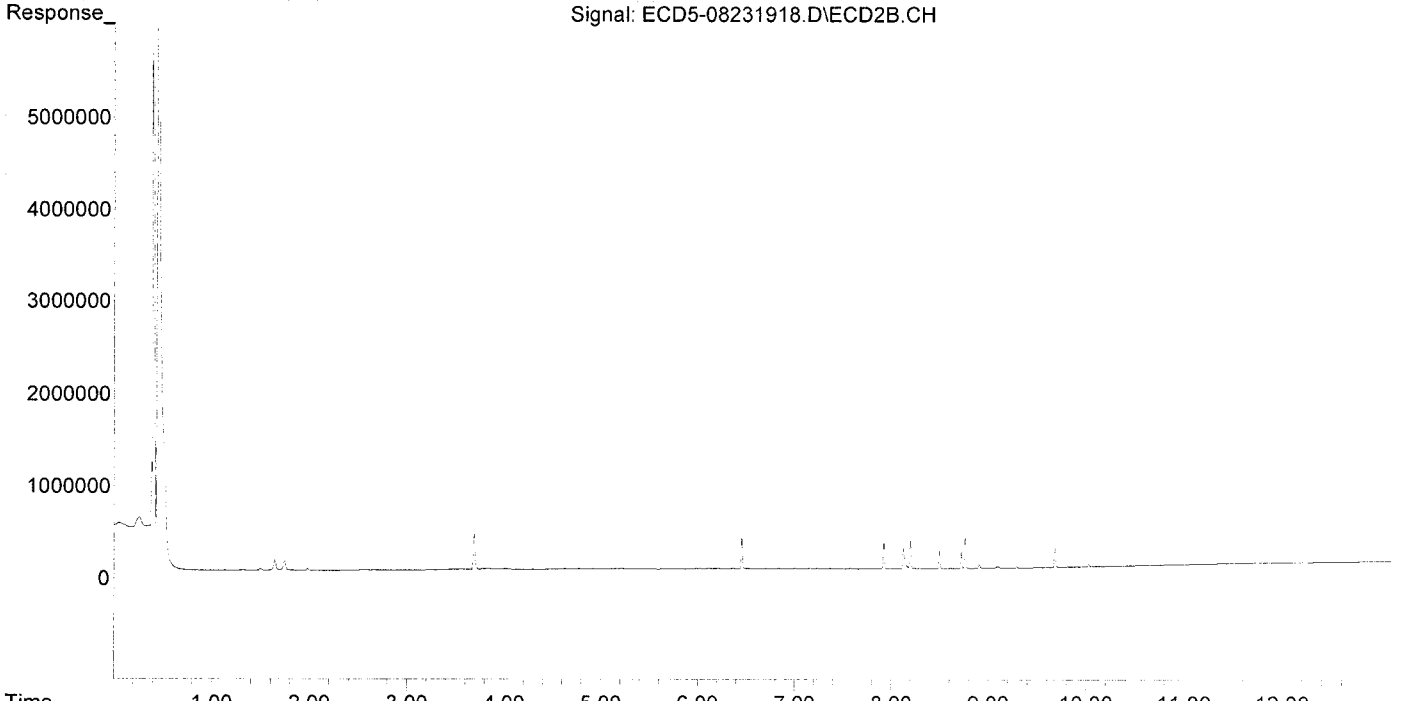
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:01
Operator : MJB
Sample : 9H23034-CALA
Misc : A19E273, 9-42 2 ppb
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:30 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

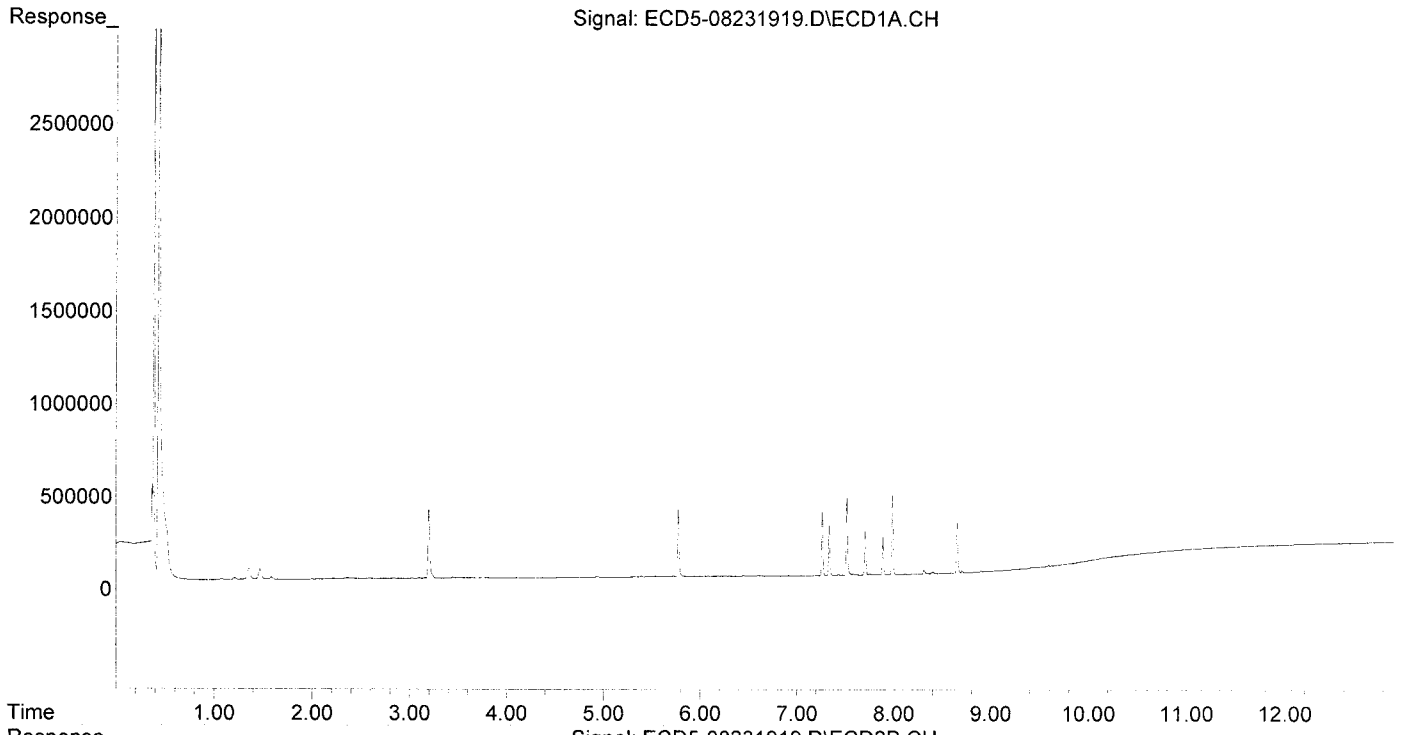
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.986	6323	13044	0.038	0.044	
22)	S	DCBP (S)	9.592	10.539	6116	7474	0.043	0.042	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.248f	0.000	3811	0	0.019	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	6.631	0.000	3915	0	0.022	N.D.	#
6)		d-BHC	6.449	7.231	6839	9605	0.035	0.027	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.334	0.000	265212	0	1.440	N.D.	#
9)		trans-Chl...	7.429	8.123	4955	411812	0.027	1.314	#
10)		cis-Chlor...	7.518	0.000	415126	0	2.280	N.D.	#
11)		Endosulfa...	7.582f	0.000	3811	0	0.022	N.D.	#
12)		4,4'-DDE	7.582	0.000	3811	0	0.020	N.D.	#
13)		Dieldrin	7.754f	8.495	8020	373596	0.042	1.228	#
14)		Endrin	7.986f	8.718	423442	332170	2.880	1.471	#
15)		4,4'-DDD	7.986	8.758	423442	624783	2.695	2.439	
16)		Endosulfa...	8.116	8.862	3733	5461	0.026	0.024	
17)		4,4'-DDT	8.200	0.000	1311	0	0.011	N.D.	#
18)		Endrin Al...	8.405	9.099	11160	14424	BelowCal	BelowCal	
19)		Endosulfa...	8.705	9.289	10006	14488	0.065	0.058	
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.899	9.680	5404	388199	0.032	1.509	#
23)		Hexachlor...	3.198	3.687	375794	754548	2.056	2.007	
24)		Hexachlor...	5.775	6.453	362082	632830	2.054	2.015	
25)		Oxychlordane	7.262	7.921	339370	541023	2.063	1.975	
26)		2,4'-DDE	7.334	8.123	265212	411812	2.068	1.941	
27)		trans-Non...	7.518	8.194	415126	587765	2.001	1.949	
28)		2,4'-DDD	7.707	8.495	233089	373596	2.042	1.978	
29)		2,4'-DDT	7.889	8.718	204209	332170	1.862	1.863	
30)		cis-Nonac...	7.986	8.758	423442	624783	2.040	1.863	
31)		Mirex	8.655	9.680	266770	388199	2.128	2.086	
32)		Chlordane...	7.429	8.123	4955	411812	0.252	11.381	#
33)		Chlordane...	7.518	0.000	415126	0	16.562	N.D.	#
34)		Chlordane...	0.000	8.903	0	41985	N.D.	4.683	#
35)		Chlordane...	3.444	0.000	5015	0	NoCal	N.D.	
36)		Toxaphene...	7.518	8.495f	415126	373596	463.493	142.363	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.116	8.862	3733	5461	1.108	1.077	
39)		Toxaphene...	8.312f	8.903	22876	41985	7.060	5.028	
40)		Toxaphene...	0.000	9.099	0	14424	N.D.	3.095	#
41)		Toxaphene...	8.655	0.000	266770	0	84.299	N.D.	#
42)		Toxaphene...	3.444	0.000	5015	0	NoCal	N.D.	

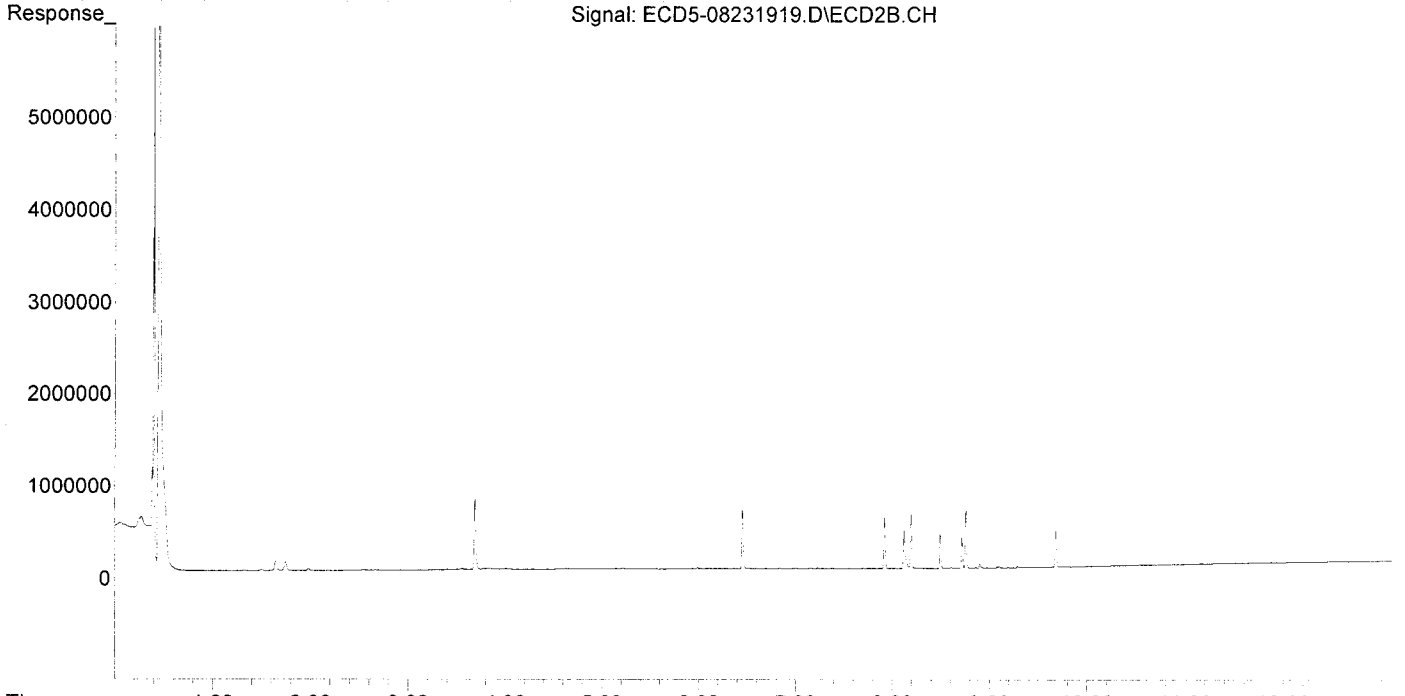
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:01
Operator : MJB
Sample : 9H23034-CALA
Misc : A19E273, 9-42 2 ppb
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:30 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:18
Operator : MJB
Sample : 9H23034-CALB
Misc : A19E274, 9-42 5 ppb
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:42 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

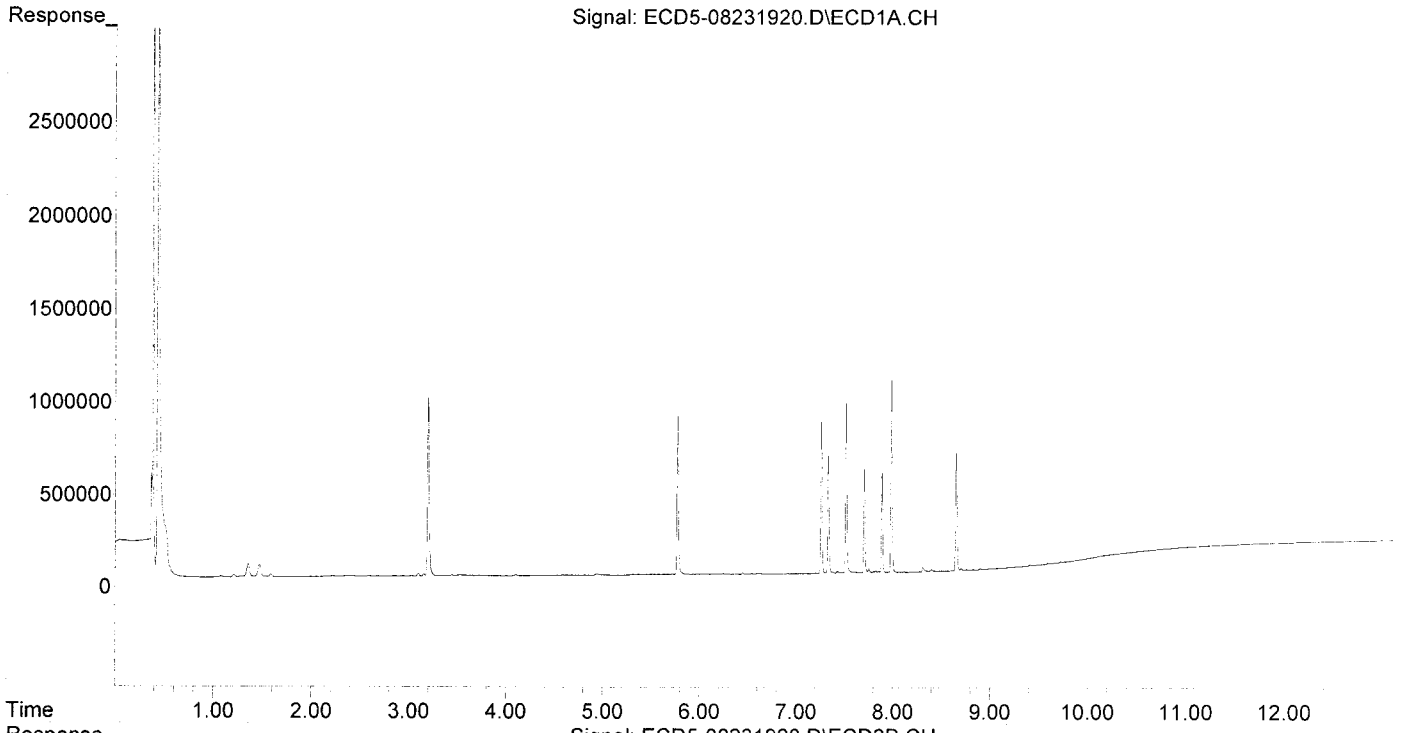
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.368f	5.982	4403	6341	0.027	0.022	
22)	S	DCBP (S)	9.592	10.539	7940	5412	0.056	0.030	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.247f	0.000	5412	0	0.027	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	6.631	7.289	4685	5276	0.026	0.017	
6)		d-BHC	6.449	7.232	7597	11663	0.039	0.033	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.334	7.991	633168	6408	3.438	0.021	#
9)		trans-Chl...	7.429	8.123	9886	1029687	0.053	3.286	#
10)		cis-Chlor...	7.518	8.236	933222	8550	5.126	0.029	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	7.799	8.495	5522	898697	0.029	2.955	#
14)		Endrin	7.986f	8.719	1025899	873074	6.978	3.866	#
15)		4,4'-DDD	7.986	8.759	1025899	1587243	6.529	6.195	
16)		Endosulfa...	8.116	8.862	3810	5519	0.027	0.024	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.404	9.098	10319	12495	BelowCal	BelowCal	
19)		Endosulfa...	8.705	9.289	10733	14179	0.069	0.057	
20)		Methoxychlor	8.550	0.000	617	0	0.011	N.D.	#
21)		Endrin Ke...	8.899	9.679	5632	895523	0.034	3.480	#
23)		Hexachlor...	3.198	3.687	959211	1877484	5.249	4.994	
24)		Hexachlor...	5.775	6.453	853793	1485583	4.843	4.730	
25)		Oxychlordane	7.262	7.921	819748	1325543	4.982	4.839	
26)		2,4'-DDE	7.334	8.123	633168	1029687	4.937	4.854	
27)		trans-Non...	7.518	8.194	933222	1467723	4.893	4.866	
28)		2,4'-DDD	7.705	8.495	560942	898697	4.915	4.758	
29)		2,4'-DDT	7.889	8.719	536967	873074	4.895	4.896	
30)		cis-Nonac...	7.986	8.759	1025899	1587243	4.941	4.732	
31)		Mirex	8.654	9.679	628618	895523	5.014	4.813	
32)		Chlordane...	7.429	8.123	9886	1029687	0.502	28.457	#
33)		Chlordane...	7.518	8.236	933222	8550	37.233	0.282	#
34)		Chlordane...	0.000	8.903	0	41570	N.D.	4.636	#
35)		Chlordane...	3.443	3.434	5083	3848	NoCal	NoCal	
36)		Toxaphene...	7.518	8.495f	933222	898697	1041.953	342.457	#
37)		Toxaphene...	7.799	0.000	5522	0	3.419	N.D.	#
38)		Toxaphene...	8.116	8.862	3810	5519	1.131	1.089	
39)		Toxaphene...	8.312f	8.903	22738	41570	7.017	4.979	
40)		Toxaphene...	8.550f	9.098	617	12495	0.257	2.681	#
41)		Toxaphene...	8.654	0.000	628618	0	198.642	N.D.	#
42)		Toxaphene...	3.443	3.434	5083	3848	NoCal	NoCal	

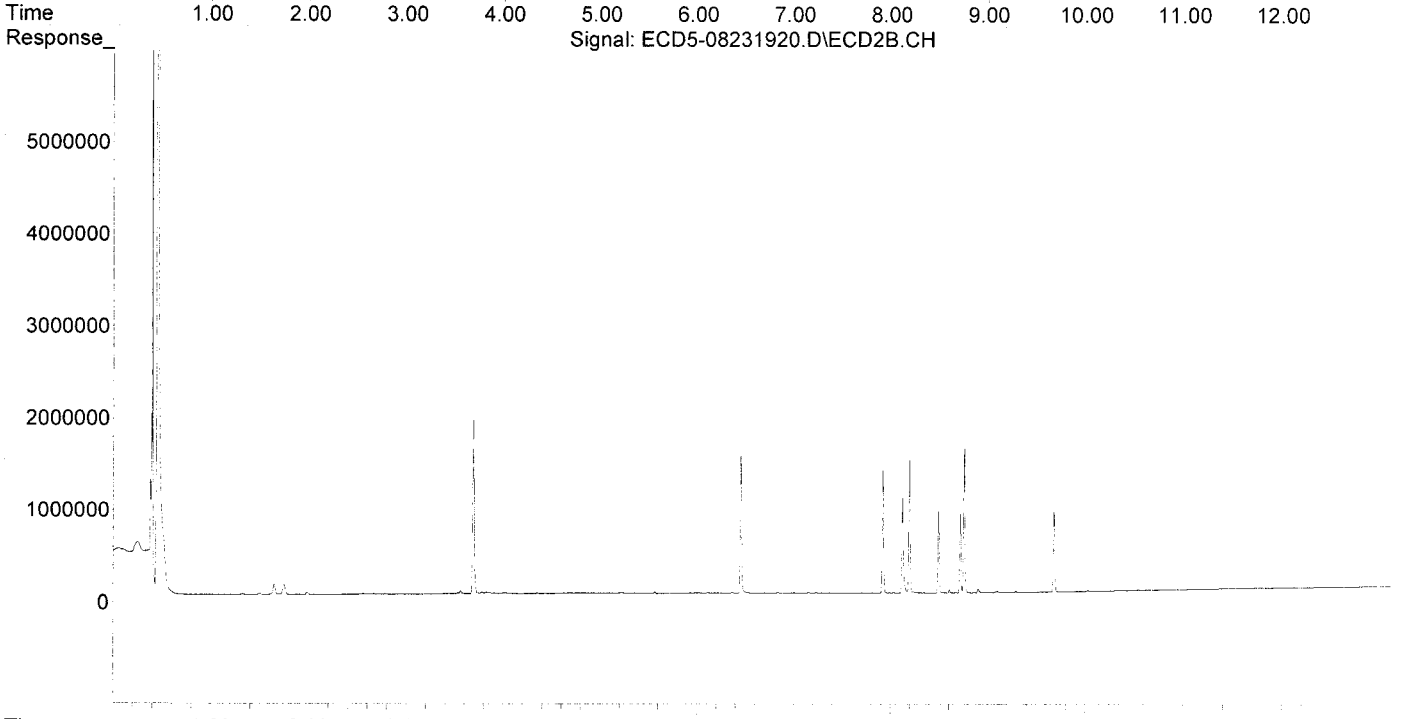
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:18
Operator : MJB
Sample : 9H23034-CALB
Misc : A19E274, 9-42 5 ppb
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:42 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:35
Operator : MJB
Sample : 9H23034-CALC
Misc : A19E275, 9-42 10 ppb
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/27/19

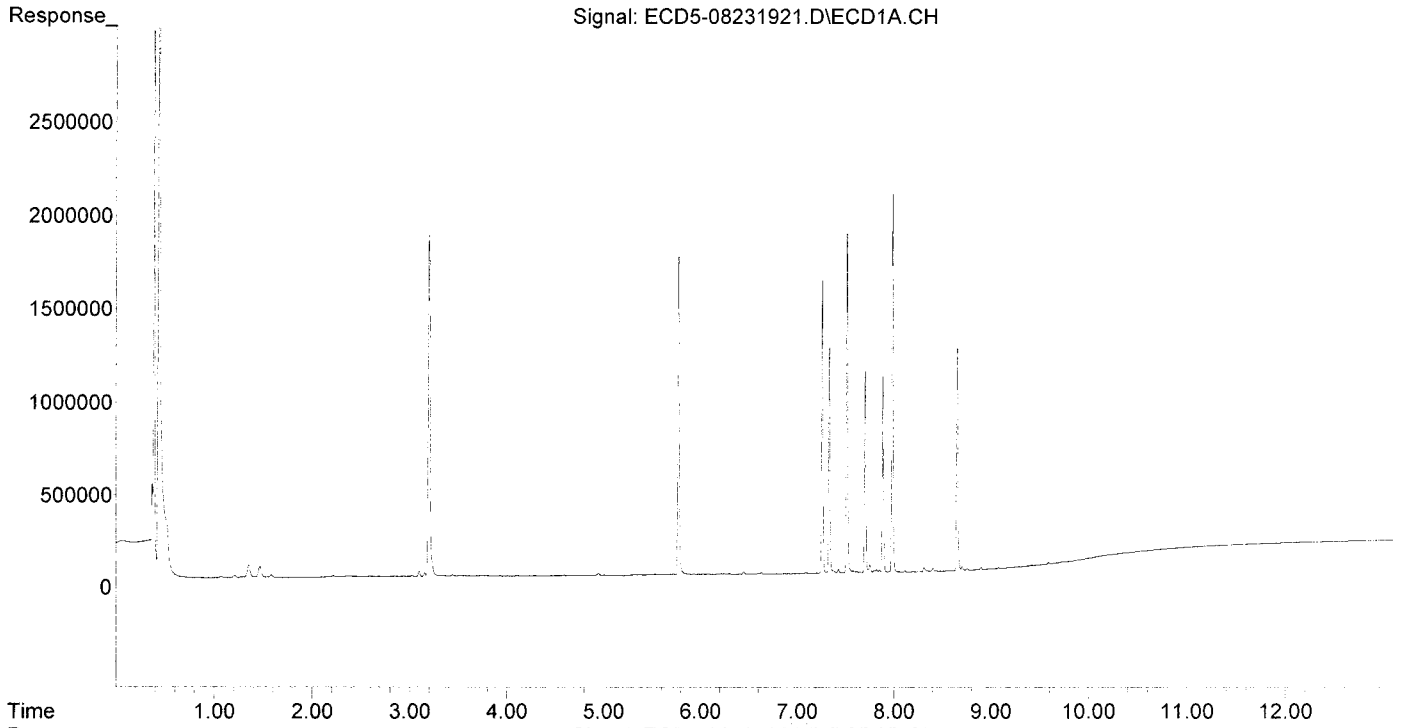
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.983	5244	8048	0.032	0.027	
22)	S	DCBP (S)	9.591	10.539	8426	10511	0.060	0.058	
		Target Compounds							
2)		a-BHC	5.934	6.594	5268	9085	0.023	0.022	
3)		g-BHC	6.219	6.912	5161	7308	0.026	0.020	
4)		b-BHC	6.300	6.978	6085	7741	0.067	0.049	
5)		Heptachlor	6.631	7.288	8267	12275	0.046	0.040	
6)		d-BHC	6.449	7.232	14325	24245	0.073	0.069	
7)		Aldrin	6.872	7.553	3901	5863	0.020	0.018	
8)		Heptachlo...	7.333	7.990	1245265	15714	6.761	0.052	#
9)		trans-Chl...	7.428	8.122	20597	2018331	0.111	6.442	#
10)		cis-Chlor...	7.516	8.236	1817552	21137	9.983	0.073	#
11)		Endosulfa...	7.620	8.289	8045	10794	0.047	0.039	
12)		4,4'-DDE	7.582	8.342	11334	7910	0.060	0.025	#
13)		Dieldrin	7.797	8.495	12142	1778790	0.063	5.848	#
14)		Endrin	7.986f	8.719	2032010	1702568	13.821	7.539	#
15)		4,4'-DDD	7.986	8.759	2032010	3148054	12.931	12.287	
16)		Endosulfa...	8.115	8.863	8267	13466	0.058	0.058	
17)		4,4'-DDT	8.202	0.000	2833	0	0.024	N.D.	#
18)		Endrin Al...	8.404	9.098	18899	26666	BelowCal	BelowCal	
19)		Endosulfa...	8.705	9.289	20232	26713	0.131	0.107	
20)		Methoxychlor	8.543	0.000	1294	0	0.022	N.D.	#
21)		Endrin Ke...	8.899	9.679	11108	1722960	0.067	6.696	#
23)		Hexachlor...	3.198	3.687	1838187	3701532	10.059	9.846	
24)		Hexachlor...	5.774	6.453	1711884	2936294	9.710	9.349	
25)		Oxychlordane	7.261	7.921	1591613	2538903	9.673	9.269	
26)		2,4'-DDE	7.333	8.122	1245265	2018331	9.709	9.514	
27)		trans-Non...	7.516	8.194	1817552	2844404	9.830	9.430	
28)		2,4'-DDD	7.705	8.495	1103587	1778790	9.670	9.418	
29)		2,4'-DDT	7.888	8.719	1051565	1702568	9.587	9.547	
30)		cis-Nonac...	7.986	8.759	2032010	3148054	9.787	9.385	
31)		Mirex	8.654	9.679	1196365	1722960	9.543	9.260	
32)		Chlordane...	7.428	8.122	20597	2018331	1.046	55.779	#
33)		Chlordane...	7.516	8.236	1817552	21137	72.516	0.696	#
34)		Chlordane...	0.000	8.903	0	42511	N.D.	4.741	#
35)		Chlordane...	3.445	3.433	6229	7261	NoCal	NoCal	
36)		Toxaphene...	7.516	8.495f	1817552	1778790	2029.316	677.826	#
37)		Toxaphene...	7.797	0.000	12142	0	7.518	N.D.	#
38)		Toxaphene...	8.115	8.863	8267	13466	2.455	2.657	
39)		Toxaphene...	8.312f	8.903	23581	42511	7.278	5.091	
40)		Toxaphene...	8.582	9.098	560	26666	0.234	5.722	#
41)		Toxaphene...	8.654	0.000	1196365	0	378.048	N.D.	#
42)		Toxaphene...	3.445	3.433	6229	7261	NoCal	NoCal	

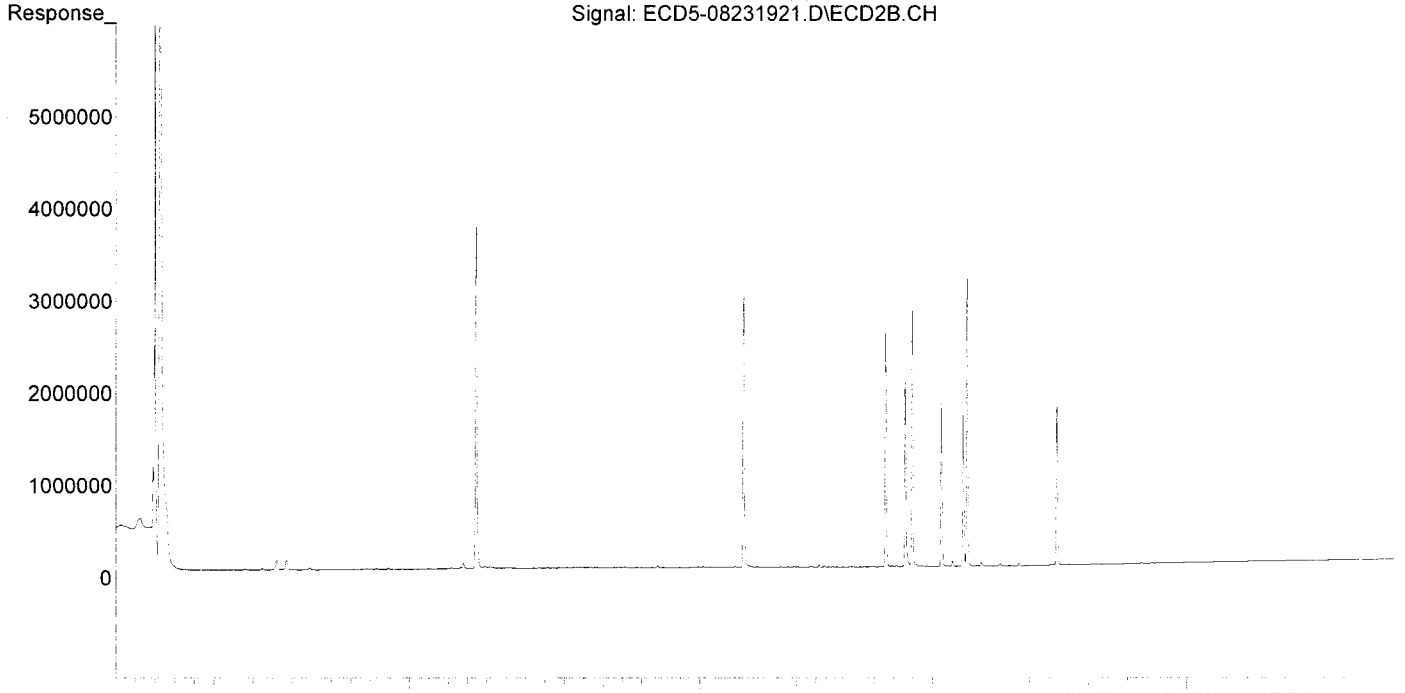
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:35
Operator : MJB
Sample : 9H23034-CALC
Misc : A19E275, 9-42 10 ppb
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:53
Operator : MJB
Sample : 9H23034-CALD
Misc : A19E276, 9-42 25 ppb
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

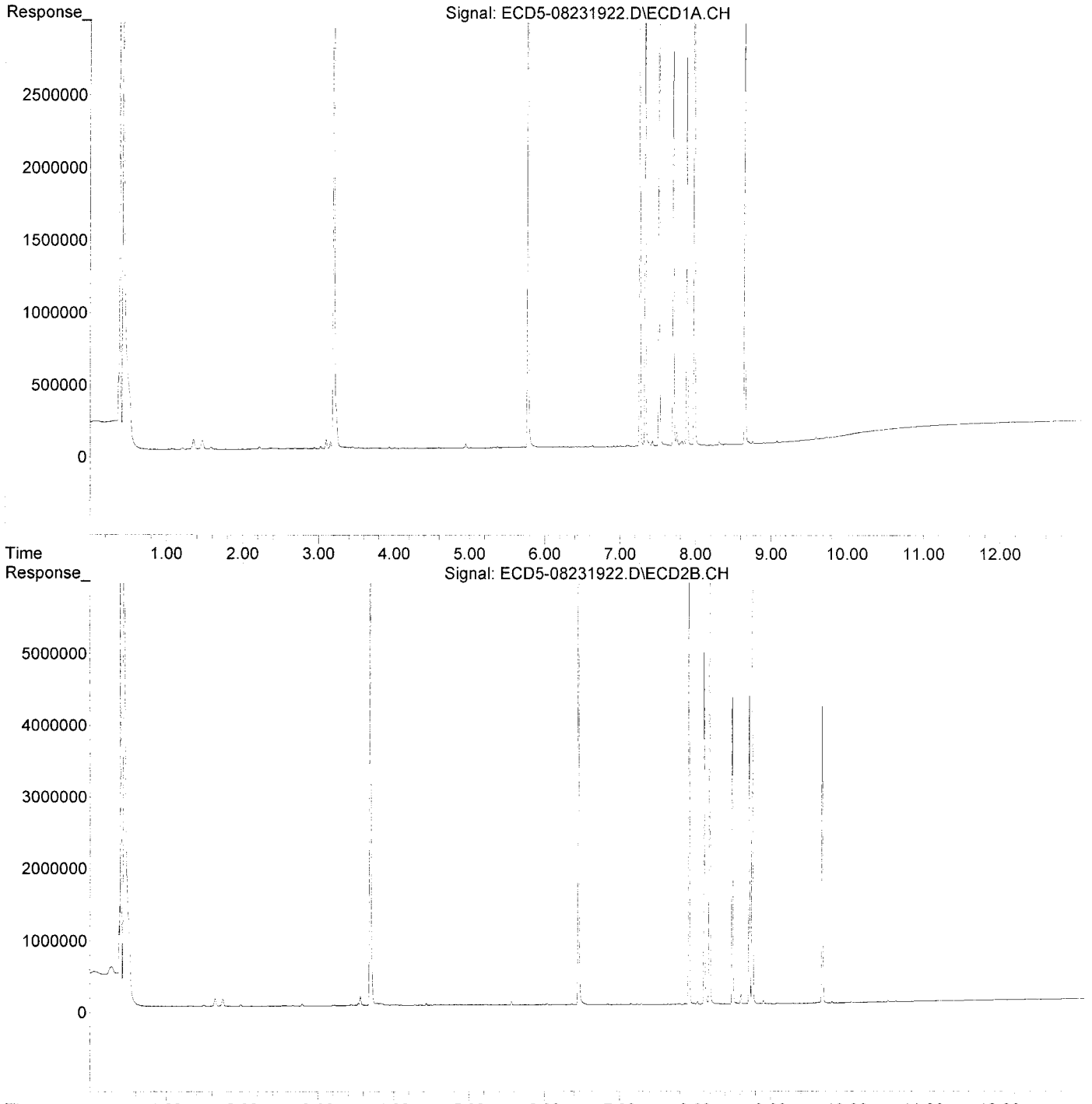
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.367f	5.981	10828	6833	0.065	0.023	#
22) S	DCBP (S)	9.592	10.539	20297	20262	0.144	0.113	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.248f	0.000	5786	0	0.029	N.D.	#
4)	b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)	Heptachlor	6.632	7.288	9958	12977	0.055	0.042	
6)	d-BHC	6.450	7.231	5090	7876	0.026	0.022	
7)	Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)	Heptachlo...	7.333	7.989	3059421	19960	16.611	0.066	#
9)	trans-Chl...	7.428	8.122	36083	4999232	0.195	15.955	#
10)	cis-Chlor...	7.516	8.235	4391046	27018	24.117	0.093	#
11)	Endosulfa...	7.604	8.299	11350	9999	0.067	0.036	#
12)	4,4'-DDE	7.604f	0.000	11350	0	0.060	N.D.	#
13)	Dieldrin	7.800	8.495	19961	4389185	0.104	14.431	#
14)	Endrin	7.986f	8.719	4993110	4405554	33.960	19.509	#
15)	4,4'-DDD	7.986	8.759	4993110	8219393	31.775	32.080	
16)	Endosulfa...	0.000	8.862	0	7977	N.D.	0.035	#
17)	4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)	Endrin Al...	8.404	9.098	7779	9076	BelowCal	BelowCal	
19)	Endosulfa...	0.000	9.289	0	11382	N.D.	0.046	#
20)	Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)	Endrin Ke...	8.899	9.679	4709	4138115	0.028	16.082	#
23)	Hexachlor...	3.198	3.687	4363988	8892238	23.881	23.654	
24)	Hexachlor...	5.774	6.453	4184551	7416324	23.736	23.612	
25)	Oxychlordane	7.261	7.920	3881255	6202791	23.589	22.646	
26)	2,4'-DDE	7.333	8.122	3059421	4999232	23.853	23.566	
27)	trans-Non...	7.516	8.194	4391046	7092288	24.199	23.513	
28)	2,4'-DDD	7.705	8.495	2745178	4389185	24.054	23.240	
29)	2,4'-DDT	7.888	8.719	2728794	4405554	24.878	24.703	
30)	cis-Nonac...	7.986	8.759	4993110	8219393	24.050	24.503	
31)	Mirex	8.654	9.679	2910818	4138115	23.218	22.239	
32)	Chlordane...	7.428	8.122	36083	4999232	1.833	138.159	#
33)	Chlordane...	7.516	8.235	4391046	27018	175.191	0.890	#
34)	Chlordane...	0.000	8.903	0	43328	N.D.	4.833	#
35)	Chlordane...	3.444	3.433	9286	16581	NoCal	NoCal	
36)	Toxaphene...	7.516	8.495f	4391046	4389185	4902.650	1672.543	#
37)	Toxaphene...	7.800	0.000	19961	0	12.360	N.D.	#
38)	Toxaphene...	0.000	8.862	0	7977	N.D.	1.574	#
39)	Toxaphene...	8.313f	8.903	24731	43328	7.633	5.189	
40)	Toxaphene...	8.607f	9.098	797	9076	0.332	1.947	#
41)	Toxaphene...	8.654	0.000	2910818	0	919.811	N.D.	#
42)	Toxaphene...	3.444	3.433	9286	16581	NoCal	NoCal	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:53
Operator : MJB
Sample : 9H23034-CALD
Misc : A19E276, 9-42 25 ppb
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

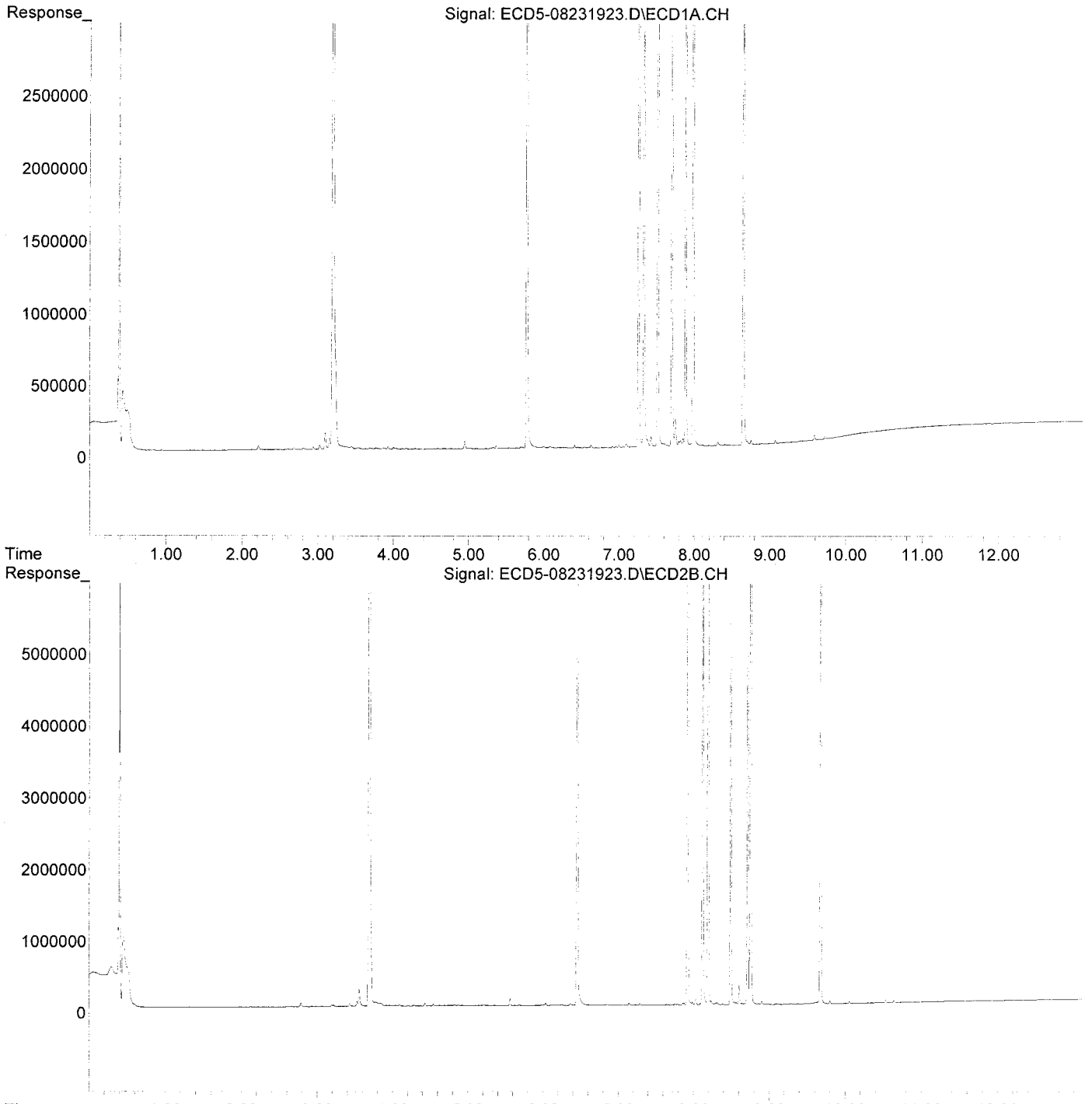
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.367f	5.981	19019	8441	0.115	0.029	#
22) S	DCBP (S)	9.591	10.538	35203	39503	0.249	0.220	
	Target Compounds							
2)	a-BHC	5.949	0.000	5252	0	0.023	N.D.	#
3)	g-BHC	6.196f	6.951f	4084	3735	0.020	0.010	#
4)	b-BHC	0.000	6.951f	0	3735	N.D.	0.024	#
5)	Heptachlor	6.632	7.289	17900	26152	0.099	0.085	
6)	d-BHC	6.450	7.232	4458	7173	0.023	0.020	
7)	Aldrin	0.000	7.520f	0	4998	N.D.	0.015	#
8)	Heptachlo...	7.333	7.989	6510588	39220	35.349	0.130	#
9)	trans-Chl...	7.428	8.122	71663	11006400	0.388	35.128	#
10)	cis-Chlor...	7.516	8.236	9581794	53379	52.627	0.183	#
11)	Endosulfa...	7.604	8.299	22096	24918	0.130	0.091	
12)	4,4'-DDE	7.604f	8.314f	22096	29928	0.117	0.096	
13)	Dieldrin	7.798	8.495	33203	9924934	0.173	32.632	#
14)	Endrin	7.985f	8.718	10616019	8810591	72.204	39.015	#
15)	4,4'-DDD	7.985	8.758	10616019	17721229	67.557	69.166	
16)	Endosulfa...	0.000	8.862	0	12791	N.D.	0.055	#
17)	4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)	Endrin Al...	8.409	9.099	5626	7468	BelowCal	BelowCal	
19)	Endosulfa...	0.000	9.289	0	9409	N.D.	0.038	#
20)	Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)	Endrin Ke...	8.898	9.679	5162	9100959	0.031	35.369	#
23)	Hexachlor...	3.198	3.688	8761747	18635615	47.947	49.572	
24)	Hexachlor...	5.774	6.454	8911624	16094159	50.550	51.241	
25)	Oxychlordane	7.261	7.920	8382873	14172543	50.948	51.743	
26)	2,4'-DDE	7.333	8.122	6510588	11006400	50.760	51.883	
27)	trans-Non...	7.516	8.194	9581794	15807712	53.197	52.407	
28)	2,4'-DDD	7.705	8.495	5920095	9924934	51.874	52.551	
29)	2,4'-DDT	7.888	8.718	5687323	8810591	51.850	49.404	
30)	cis-Nonac...	7.985	8.758	10616019	17721229	51.133	52.828	
31)	Mirex	8.652	9.679	6218341	9100959	49.601	48.911	
32)	Chlordane...	7.428	8.122	71663	11006400	3.640	304.174	#
33)	Chlordane...	7.516	8.236	9581794	53379	382.289	1.758	#
34)	Chlordane...	0.000	8.903	0	43859	N.D.	4.892	#
35)	Chlordane...	3.445	3.433	16729	32384	NoCal	NoCal	
36)	Toxaphene...	7.516	8.495f	9581794	9924934	10698.176	3781.996	#
37)	Toxaphene...	7.798	0.000	33203	0	20.560	N.D.	#
38)	Toxaphene...	0.000	8.862	0	12791	N.D.	2.524	#
39)	Toxaphene...	8.314f	8.903	24262	43859	7.488	5.253	
40)	Toxaphene...	8.605f	9.099	1073	7468	0.448	1.603	#
41)	Toxaphene...	8.652	0.000	6218341	0	1964.980	N.D.	#
42)	Toxaphene...	3.445	3.433	16729	32384	NoCal	NoCal	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

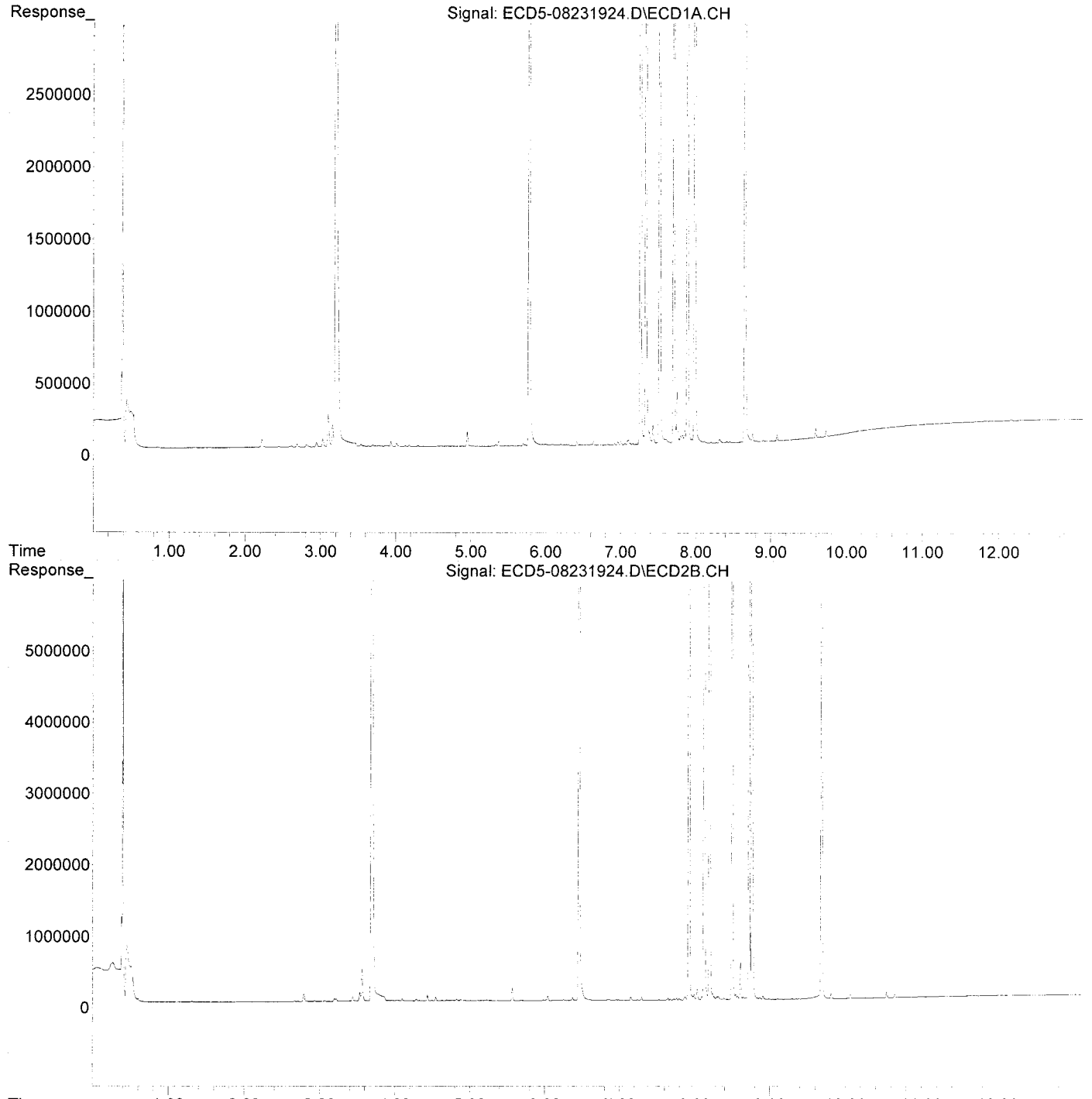
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.368f	5.981	33988	9402	0.205	0.032	#
22)	S	DCBP (S)	9.592	10.540	62236	73549	0.441	0.409	
		Target Compounds							
2)		a-BHC	5.950	0.000	8055	0	0.035	N.D.	#
3)		g-BHC	6.198	6.952f	8435	9250	0.042	0.026	
4)		b-BHC	6.301	6.979	5312	6852	0.059	0.043	
5)		Heptachlor	6.634	7.290	29320	42832	0.162	0.140	
6)		d-BHC	6.451	7.234	4881	8440	0.025	0.024	
7)		Aldrin	0.000	7.521f	0	8525	N.D.	0.026	#
8)		Heptachlo...	7.334	7.990	12769067	71027	69.330	0.236	#
9)		trans-Chl...	7.428	8.123	131019	22164400	0.709	70.739	#
10)		cis-Chlor...	7.516	8.237	18351251	88947	100.792	0.305	#
11)		Endosulfa...	7.604	8.299	36455	42308	0.214	0.154	
12)		4,4'-DDE	7.604f	8.315f	36455	43813	0.193	0.141	
13)		Dieldrin	7.798	8.496	56666	20118925	0.295	66.148	#
14)		Endrin	7.986f	8.721	20932641	18998968	142.373	84.131	#
15)		4,4'-DDD	7.986	8.760	20932641	36072644	133.210	140.791	
16)		Endosulfa...	8.115	8.863	14279	23343	0.099	0.101	
17)		4,4'-DDT	8.202	8.985	6473	9074	0.054	0.015	#
18)		Endrin Al...	8.415	9.101	7567	8073	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.290	0	9186	N.D.	0.037	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.898	9.680	6812	19363200	0.041	75.251	#
23)		Hexachlor...	3.199	3.690	17952134	39298885	98.239	104.537	
24)		Hexachlor...	5.776	6.455	17670025	32766708	100.231	104.324	
25)		Oxychlordane	7.261	7.922	16359215	29732149	99.425	108.550	
26)		2,4'-DDE	7.334	8.123	12769067	22164400	99.555	104.481	
27)		trans-Non...	7.516	8.195	18351251	31975271	102.232	106.006	
28)		2,4'-DDD	7.705	8.496	11587554	20118925	101.534	106.526	
29)		2,4'-DDT	7.888	8.721	11771354	18998968	107.317	106.533	
30)		cis-Nonac...	7.986	8.760	20932641	36072644	100.824	107.535	
31)		Mirex	8.653	9.680	11960753	19363200	95.406	104.062	
32)		Chlordane...	7.428	8.123	131019	22164400	6.654	612.537	#
33)		Chlordane...	7.516	8.237	18351251	88947	732.167	2.929	#
34)		Chlordane...	0.000	8.905	0	44814	N.D.	4.998	#
35)		Chlordane...	3.443	3.434	27193	63535	NoCal	NoCal	
36)		Toxaphene...	7.516	8.496f	18351251	20118925	20489.369	7666.519	#
37)		Toxaphene...	7.798	0.000	56666	0	35.089	N.D.	#
38)		Toxaphene...	8.115	8.863	14279	23343	4.240	4.606	
39)		Toxaphene...	8.316f	8.905	25592	44814	7.898	5.367	
40)		Toxaphene...	8.604f	9.101	1951	8073	0.814	1.732	#
41)		Toxaphene...	8.653	0.000	11960753	0	3779.567	N.D.	#
42)		Toxaphene...	3.443	3.434	27193	63535	NoCal	NoCal	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:40 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

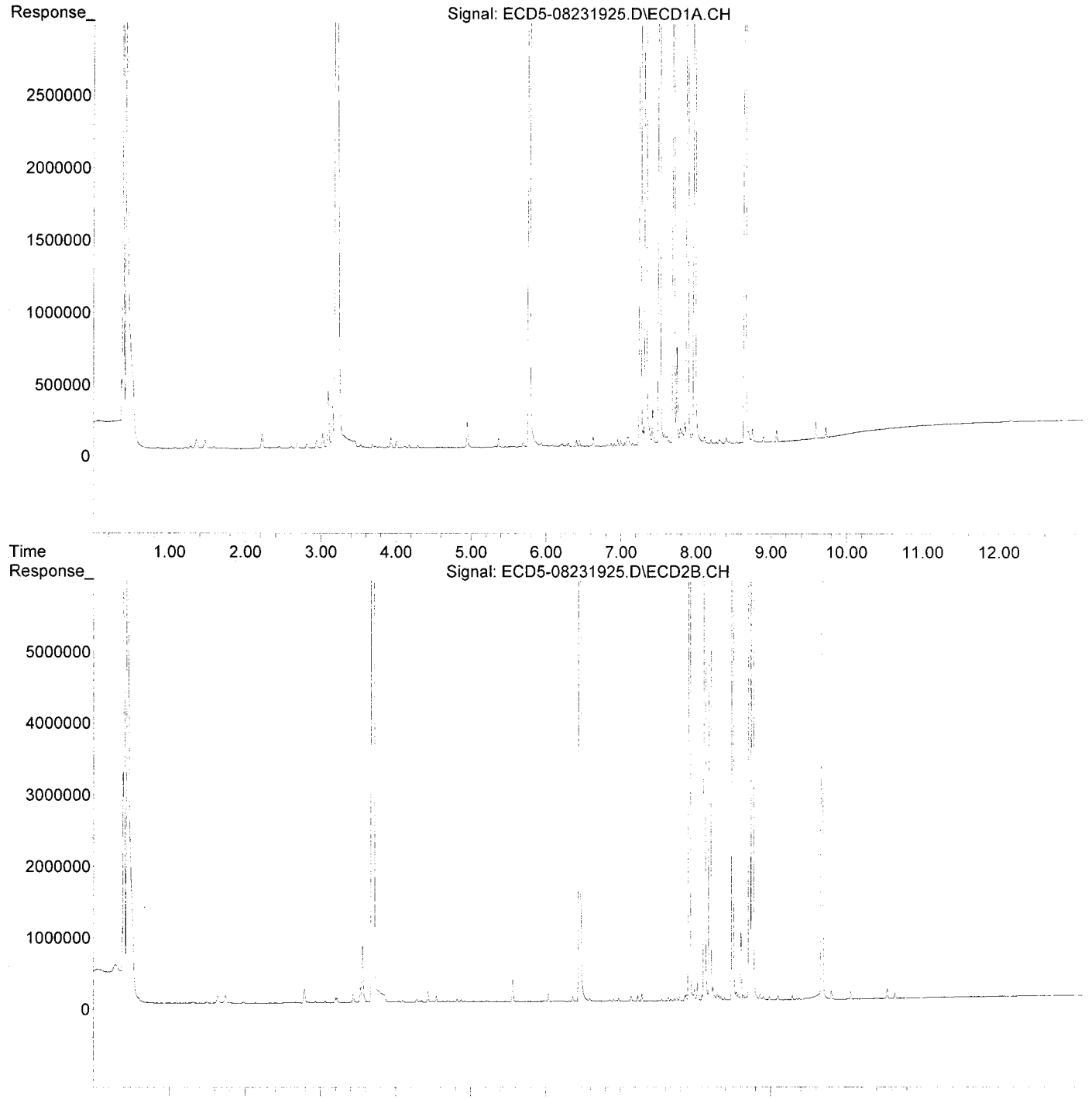
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.980	60549	10992	0.365	0.037	#
22)	S	DCBP (S)	9.590	10.538	118766	140925	0.842	0.784	
		Target Compounds							
2)		a-BHC	5.933	6.593	27118	40902	0.118	0.100	
3)		g-BHC	6.218	6.912	21255	30993	0.105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

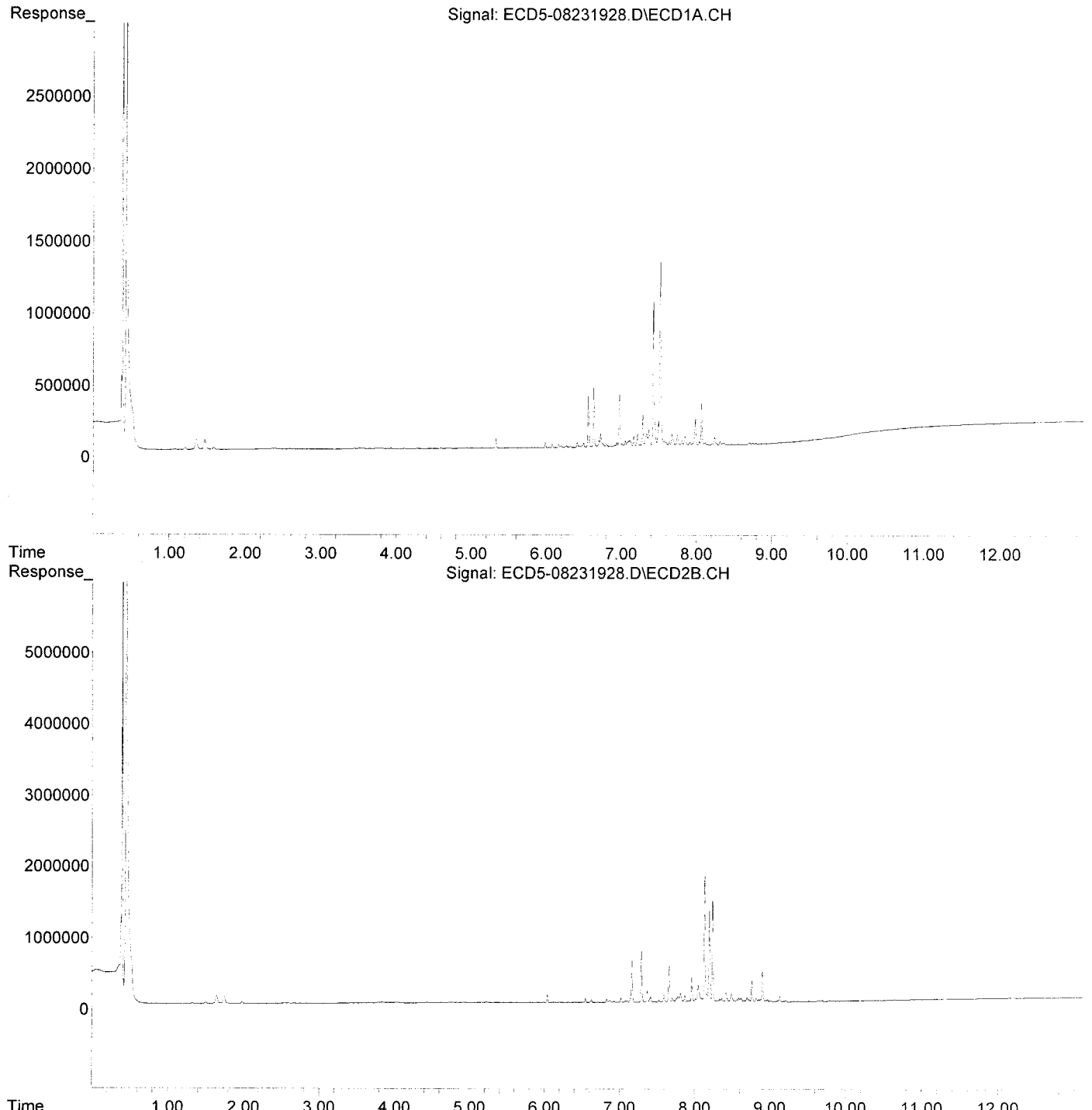
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	0.000	0	0	N.D.	N.D.	
22)	S	DCBP (S)	9.606	0.000	5901	0	0.042	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	41997	N.D.	0.102	#
3)		g-BHC	6.194f	6.924	13212	19652	0.065	0.055	
4)		b-BHC	6.323f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

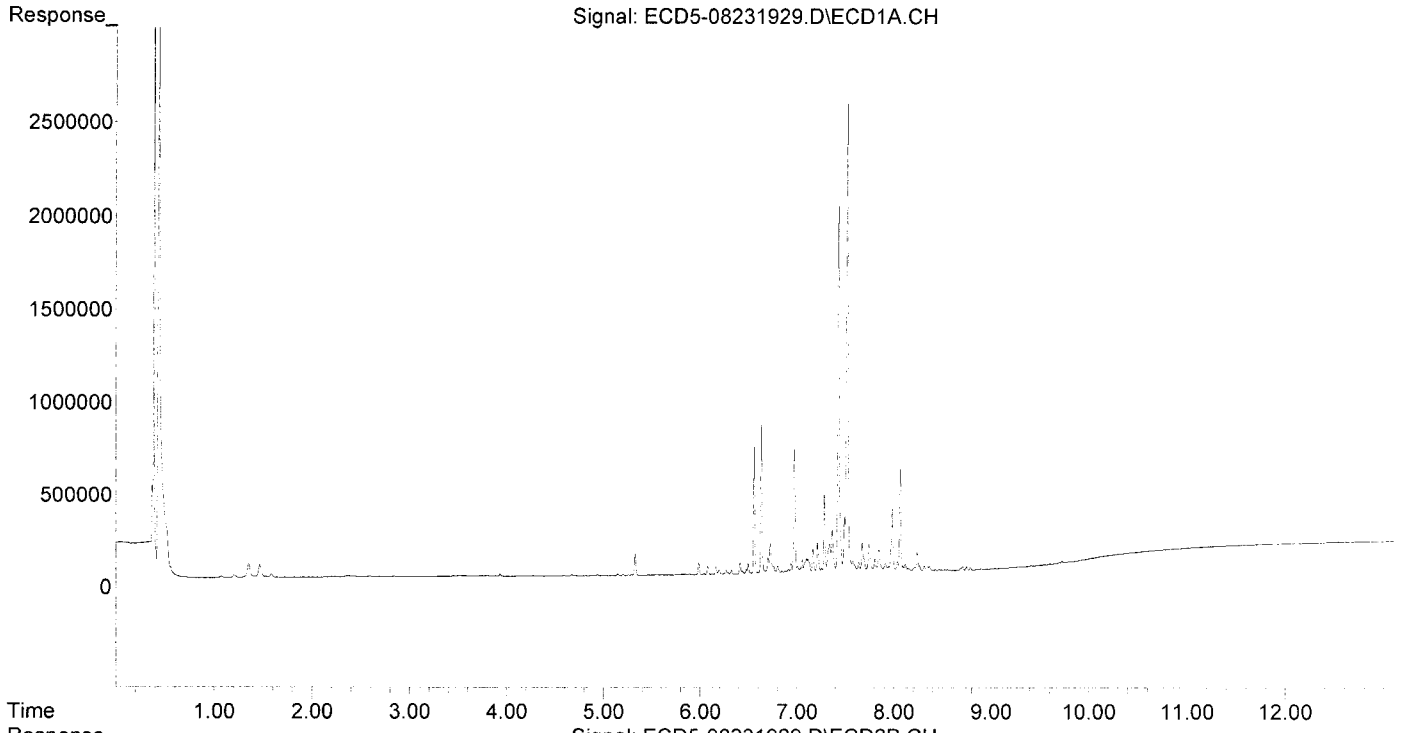
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	5943	N.D.	0.020	#
22)	S	DCBP (S)	9.606	0.000	7472	0	0.053	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	77932	N.D.	0.190	#
3)		g-BHC	6.194f	6.923	23514	36662	0.117	0.103	
4)		b-BHC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

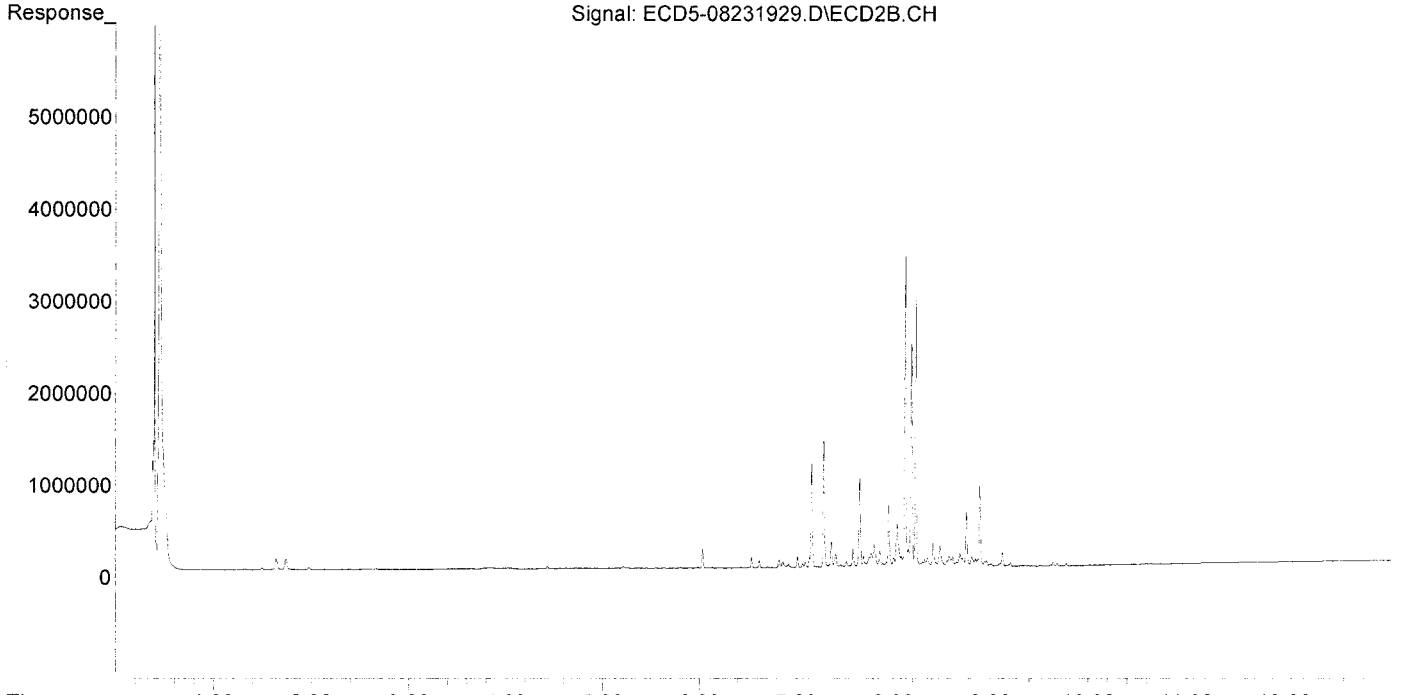
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

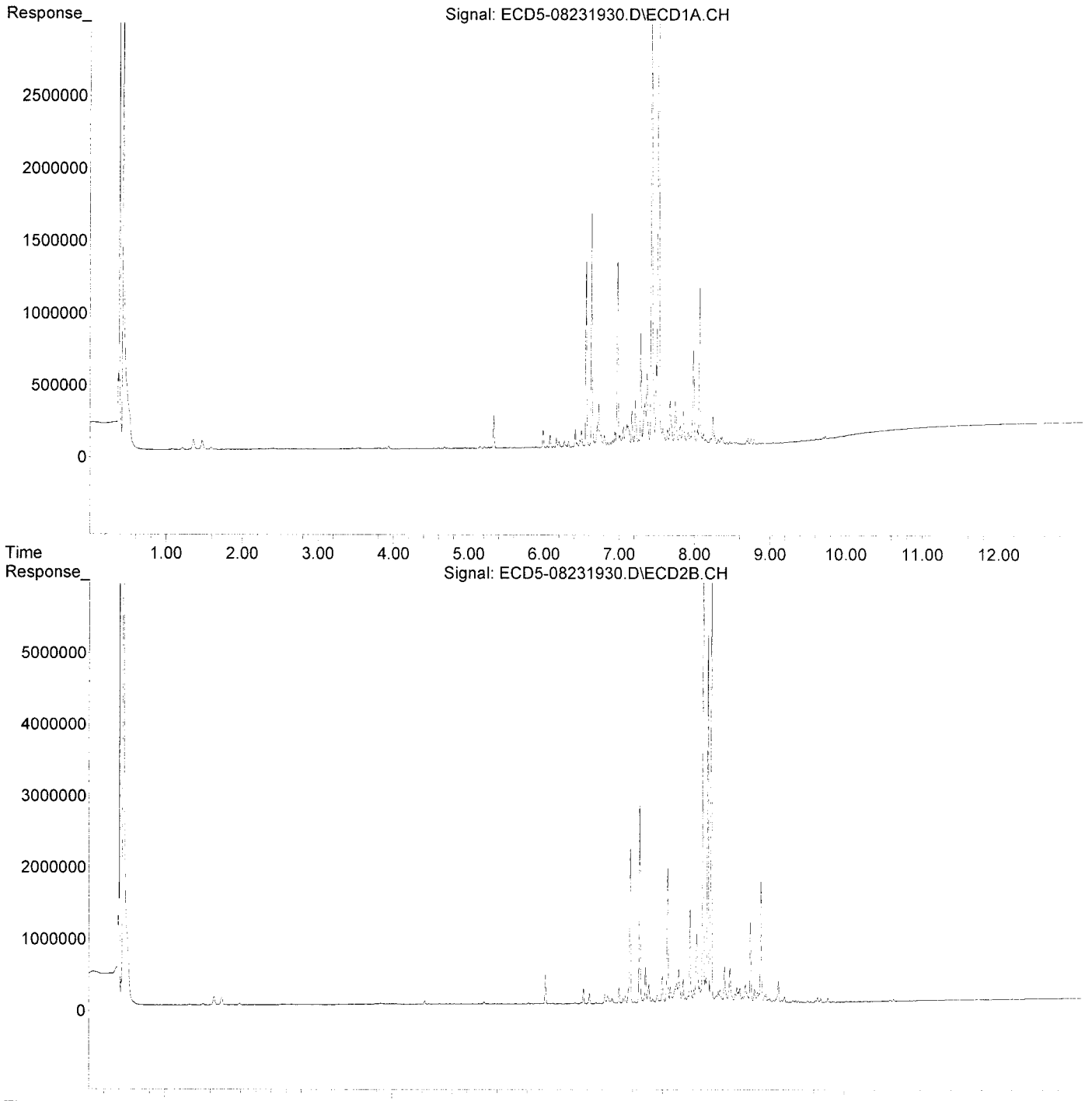
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	0.000	0	0	N.D.	N.D.	
22)	S	DCBP (S)	9.605	0.000	9631	0	0.068	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.623f	0	141009	N.D.	0.344	#
3)		g-BHC	6.197f	6.925	44236	70355	0.219	0.197	
4)		b-BHC	6.269f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

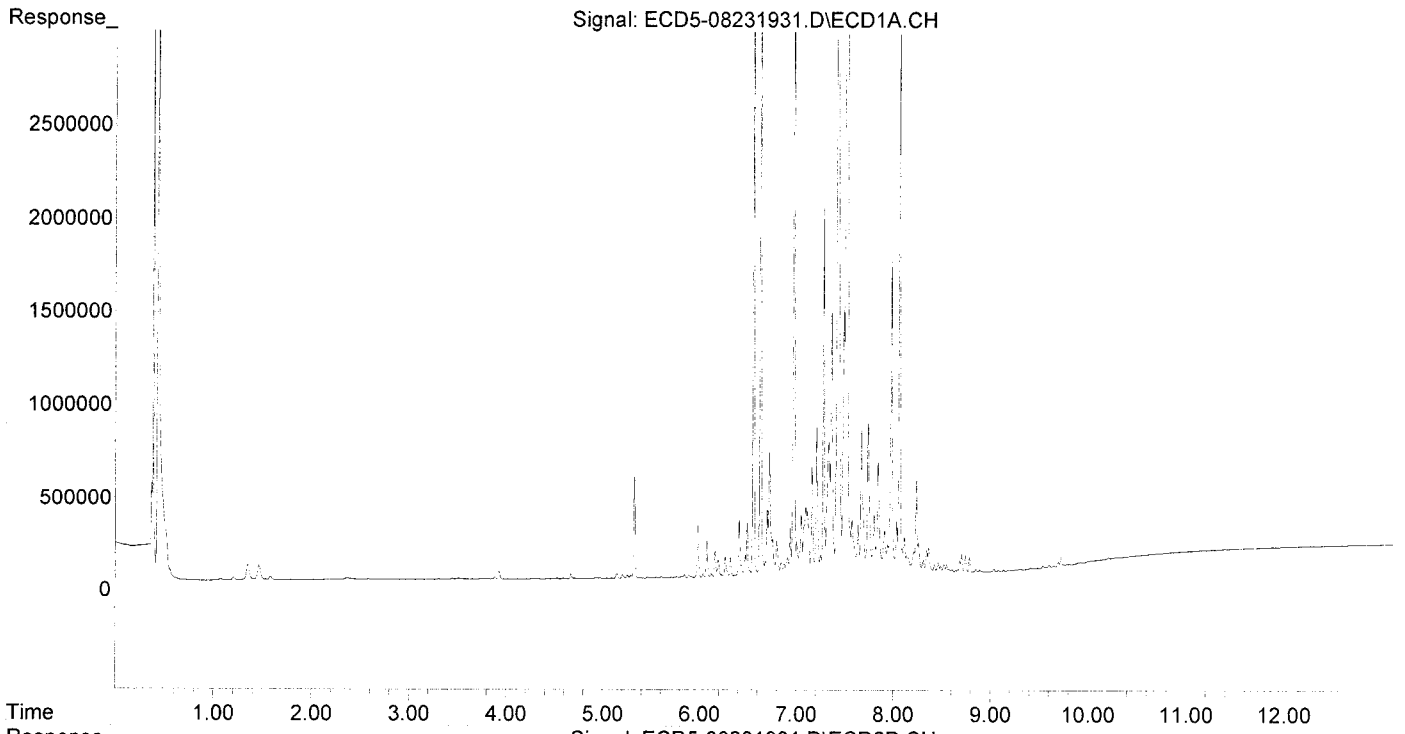
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.982	0	9372	N.D.	0.032	#
22)	S	DCBP (S)	9.605	10.512f	13871	6664	0.098	0.037	#
		Target Compounds							
2)		a-BHC	0.000	6.621f	0	314411	N.D.	0.766	#
3)		g-BHC	6.194f	6.923	92958	161395	0.461	0.452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

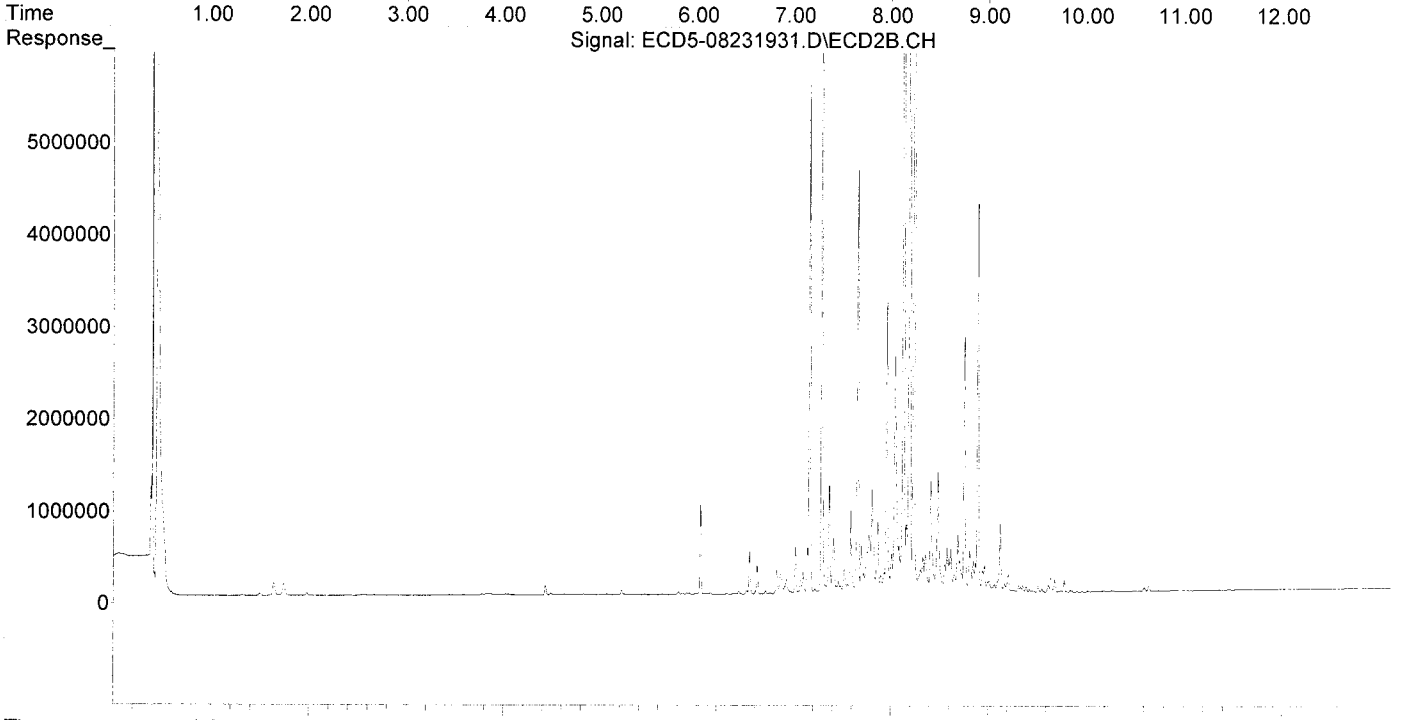
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

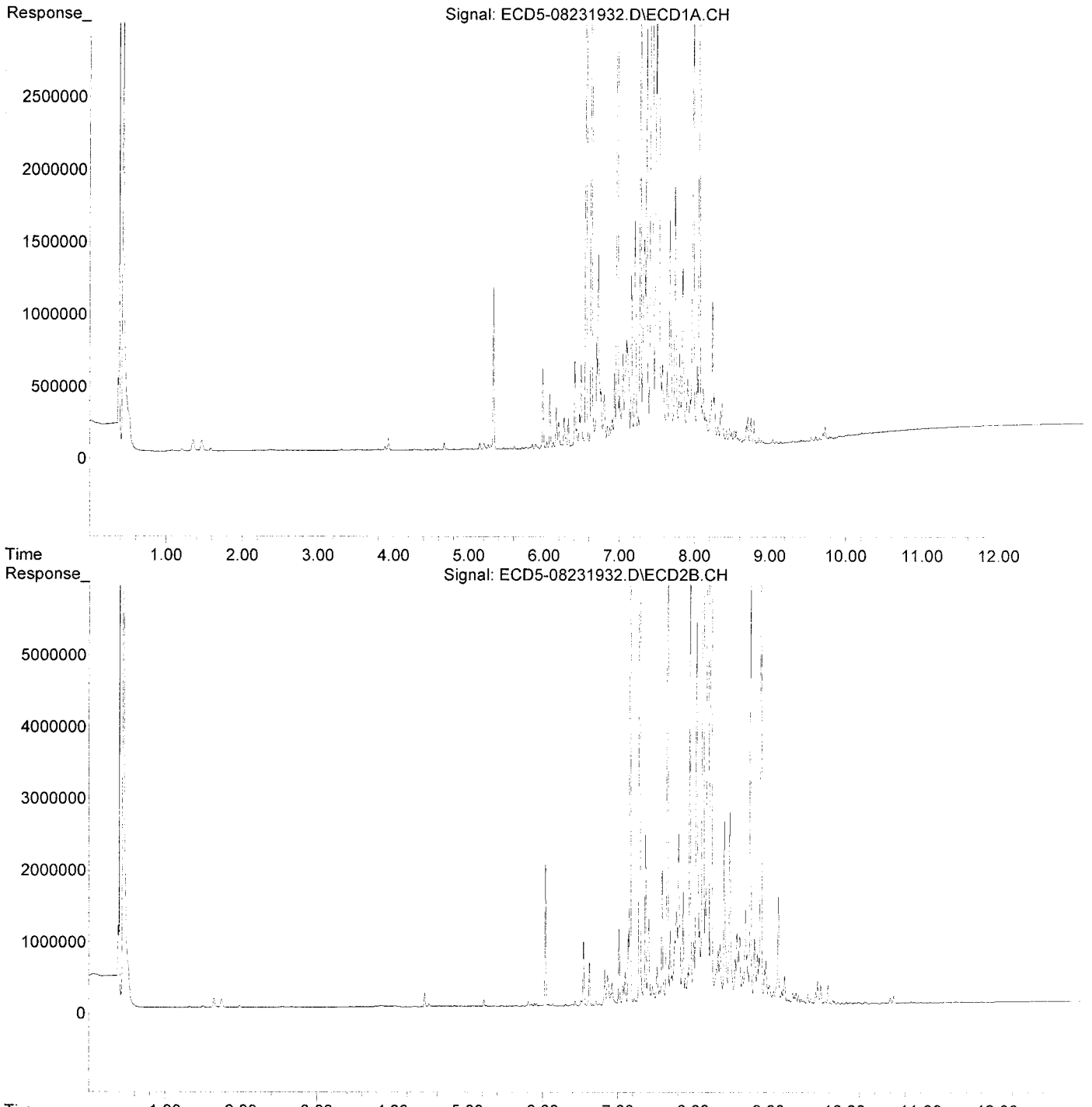
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.393	5.980	6433	11040	0.039	0.038	
22)	S	DCBP (S)	9.604	10.553	33011	8716	0.234	0.048	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	610263	N.D.	1.487	#
3)		g-BHC	6.194f	6.923	179715	319626	0.891	0.896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

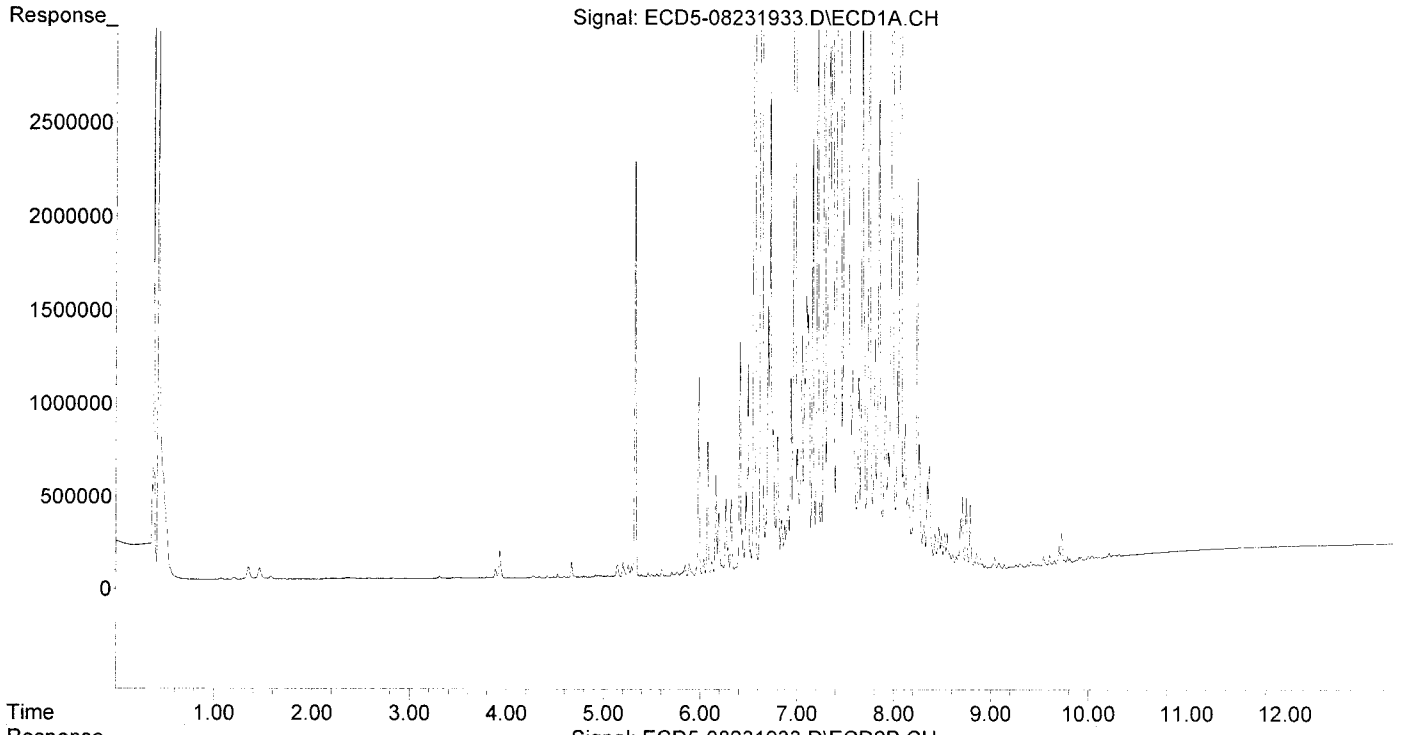
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.393	5.971	11655	15748	0.070	0.054	
22)	S	DCBP (S)	9.604	10.552	57777	17575	0.409	0.098	#
		Target Compounds							
2)		a-BHC	0.000	6.621f	0	1174704	N.D.	2.863	#
3)		g-BHC	6.193f	6.922	334417	594314	1.657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

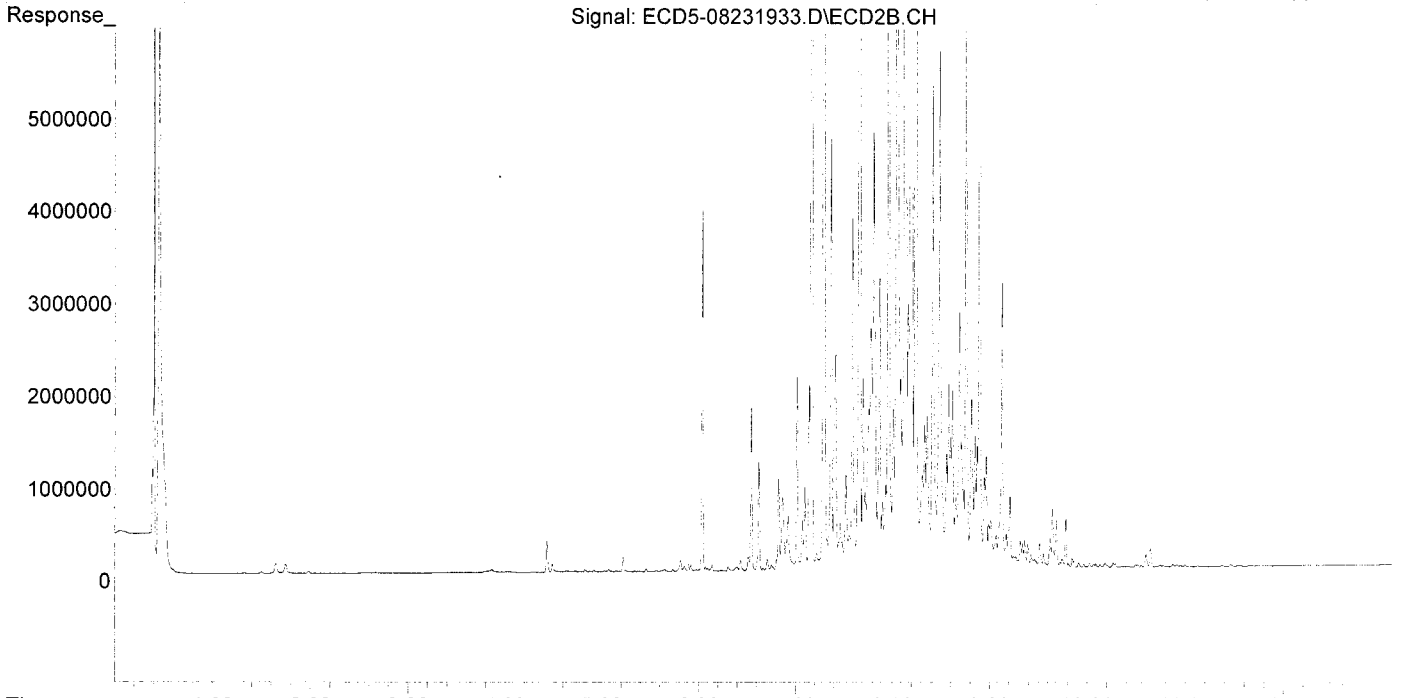
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

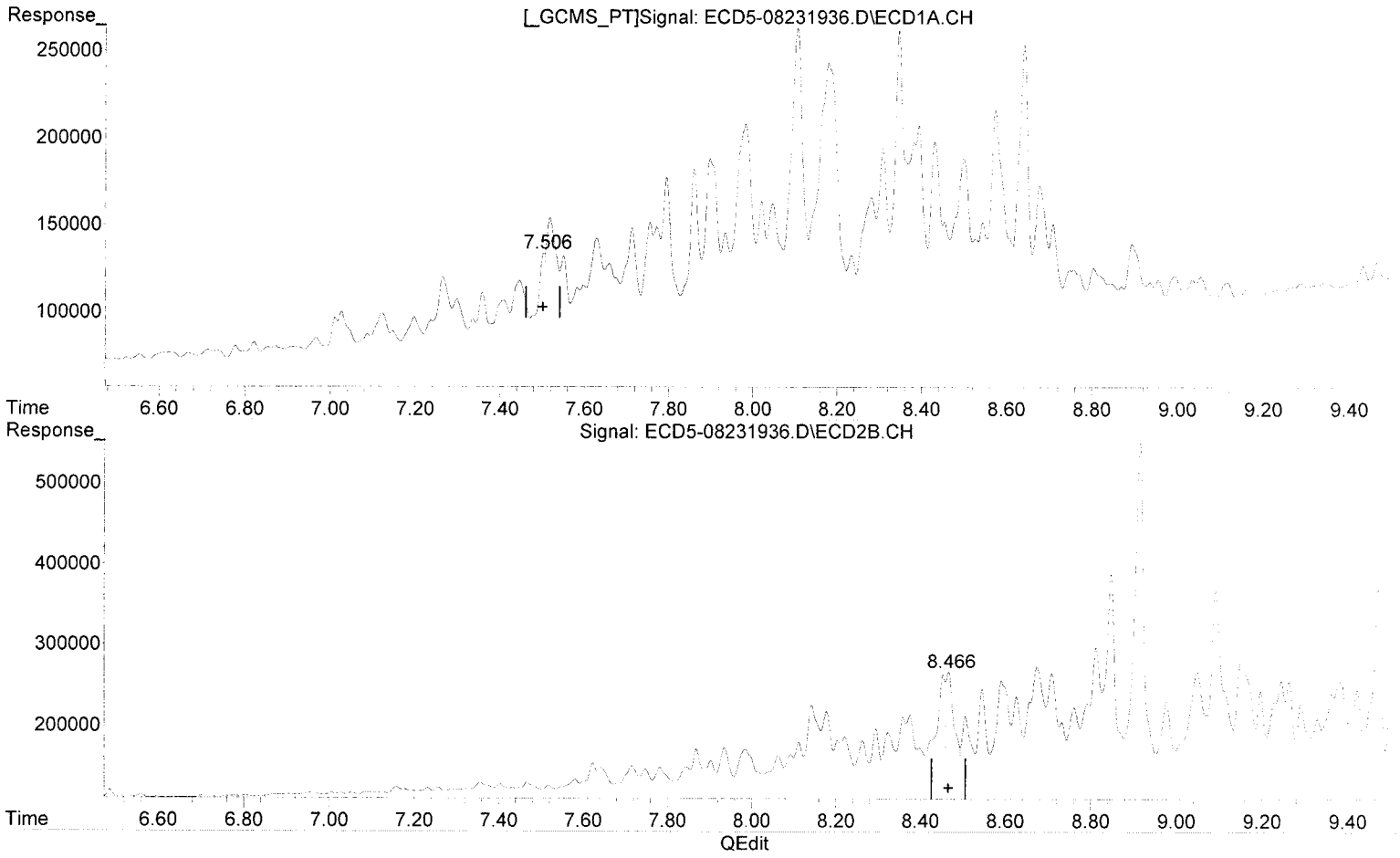
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.984	0	6201	N.D.	0.021	#
22) S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.249f	0.000	4430	0	0.022	N.D.	#
4)	b-BHC	6.297	0.000	3017	0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

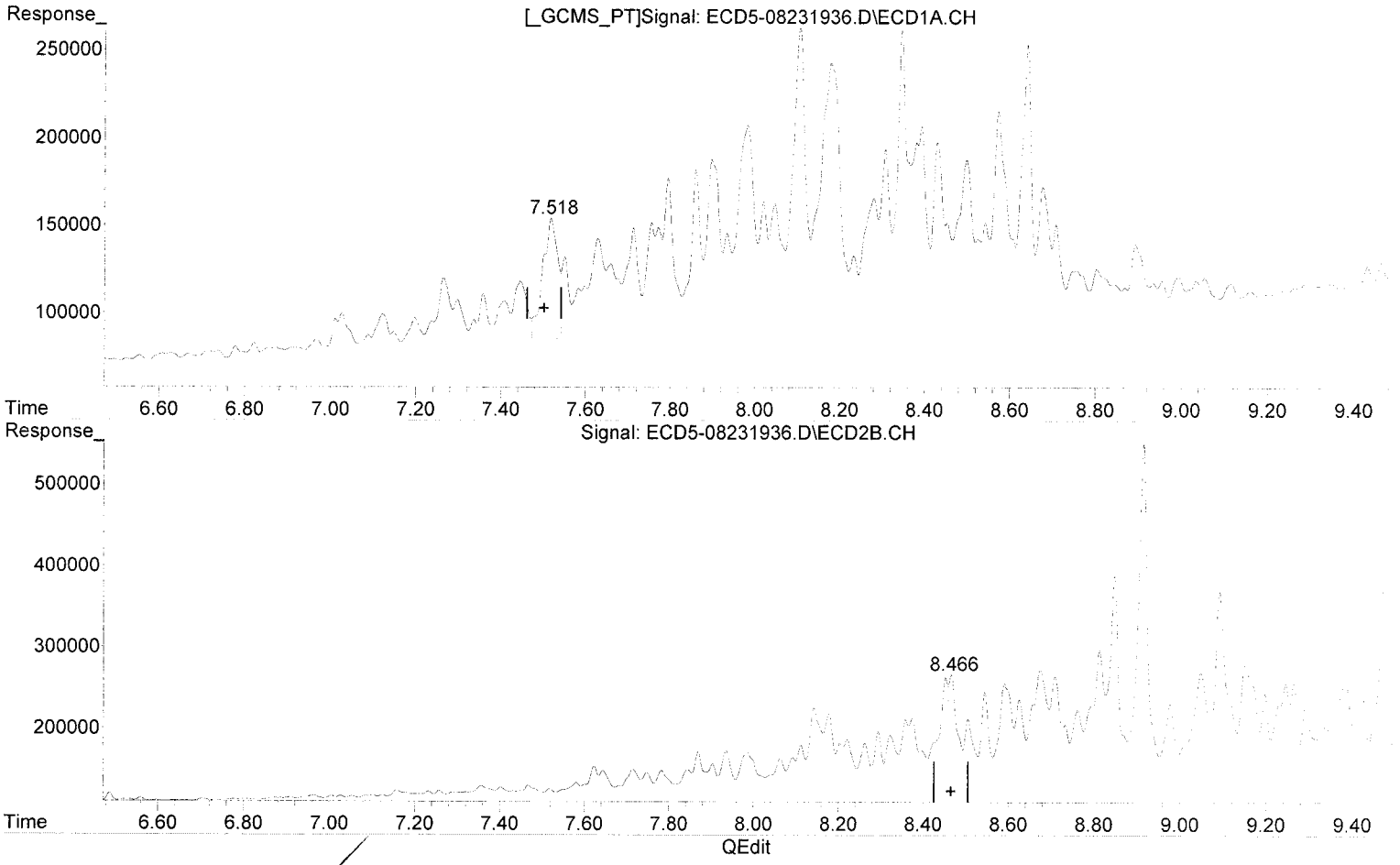
response 136848

(+) = 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

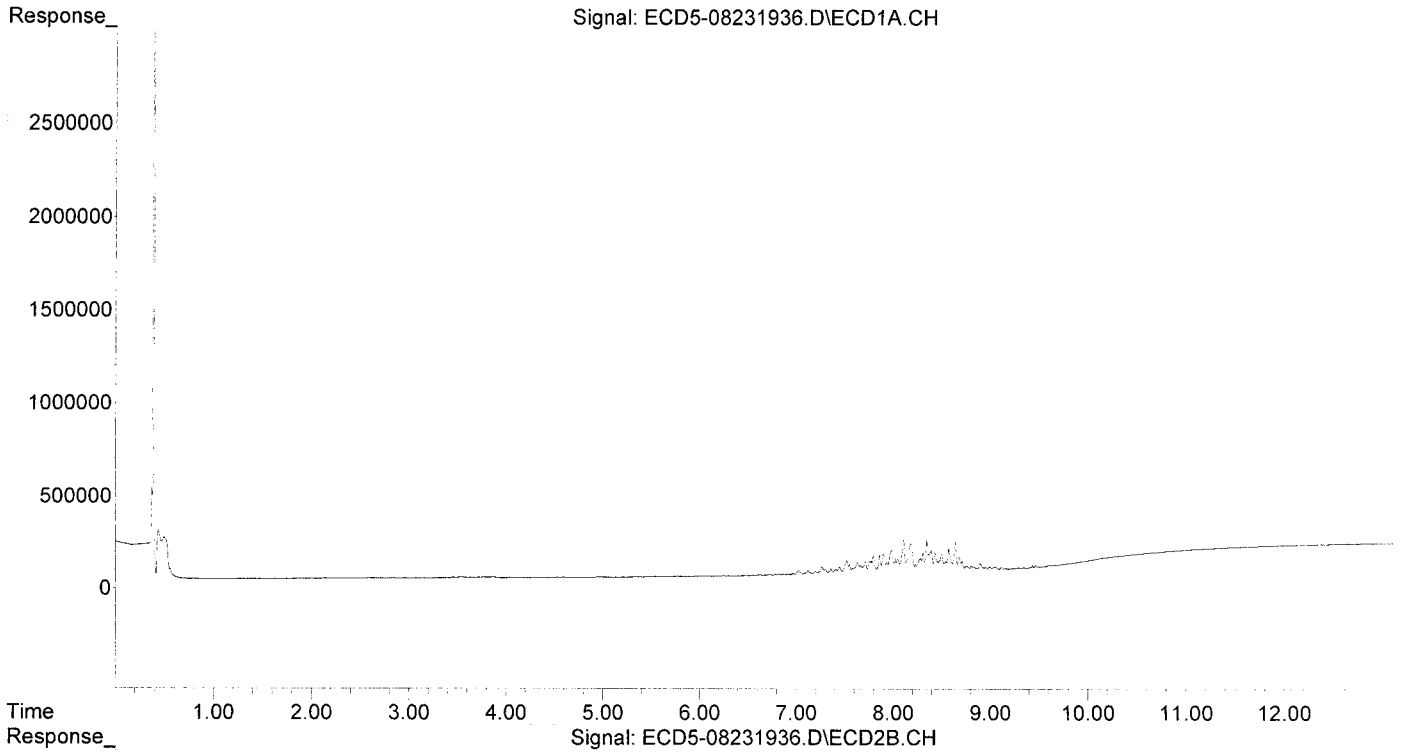
response 136848

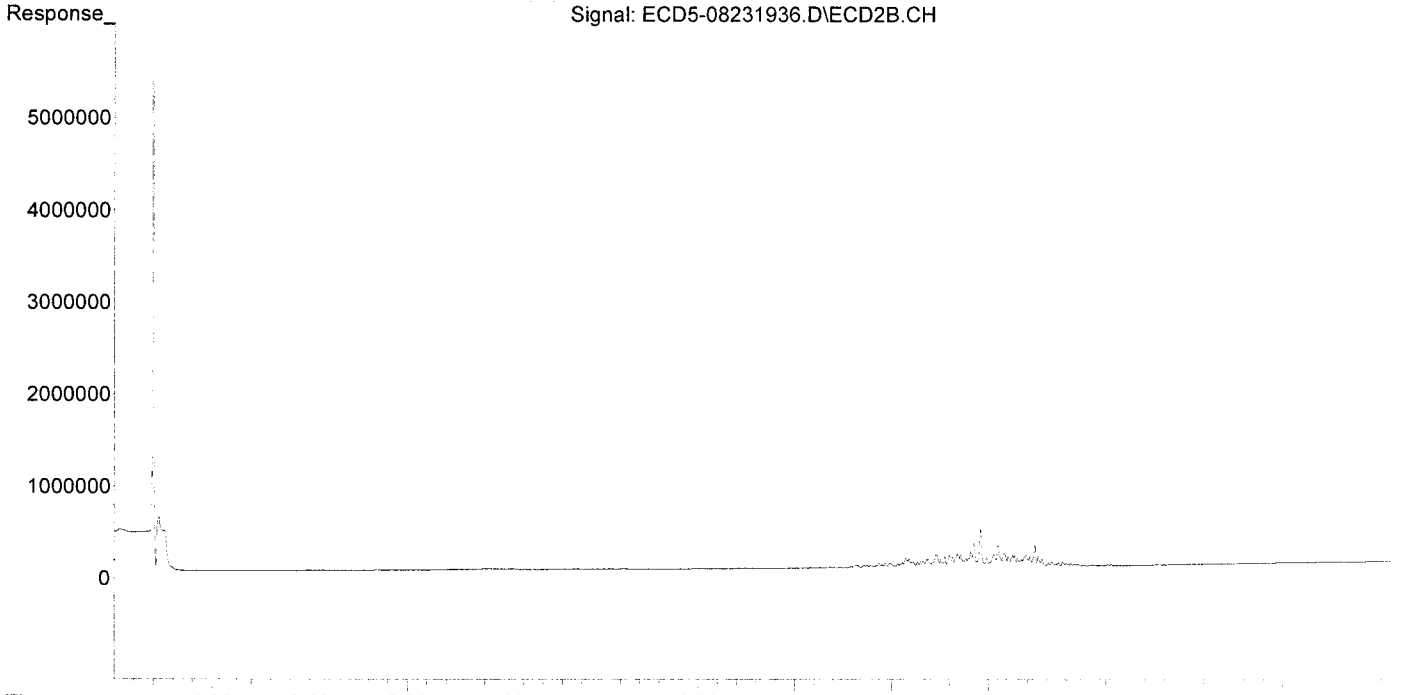
(+) = Expected Retention Time

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

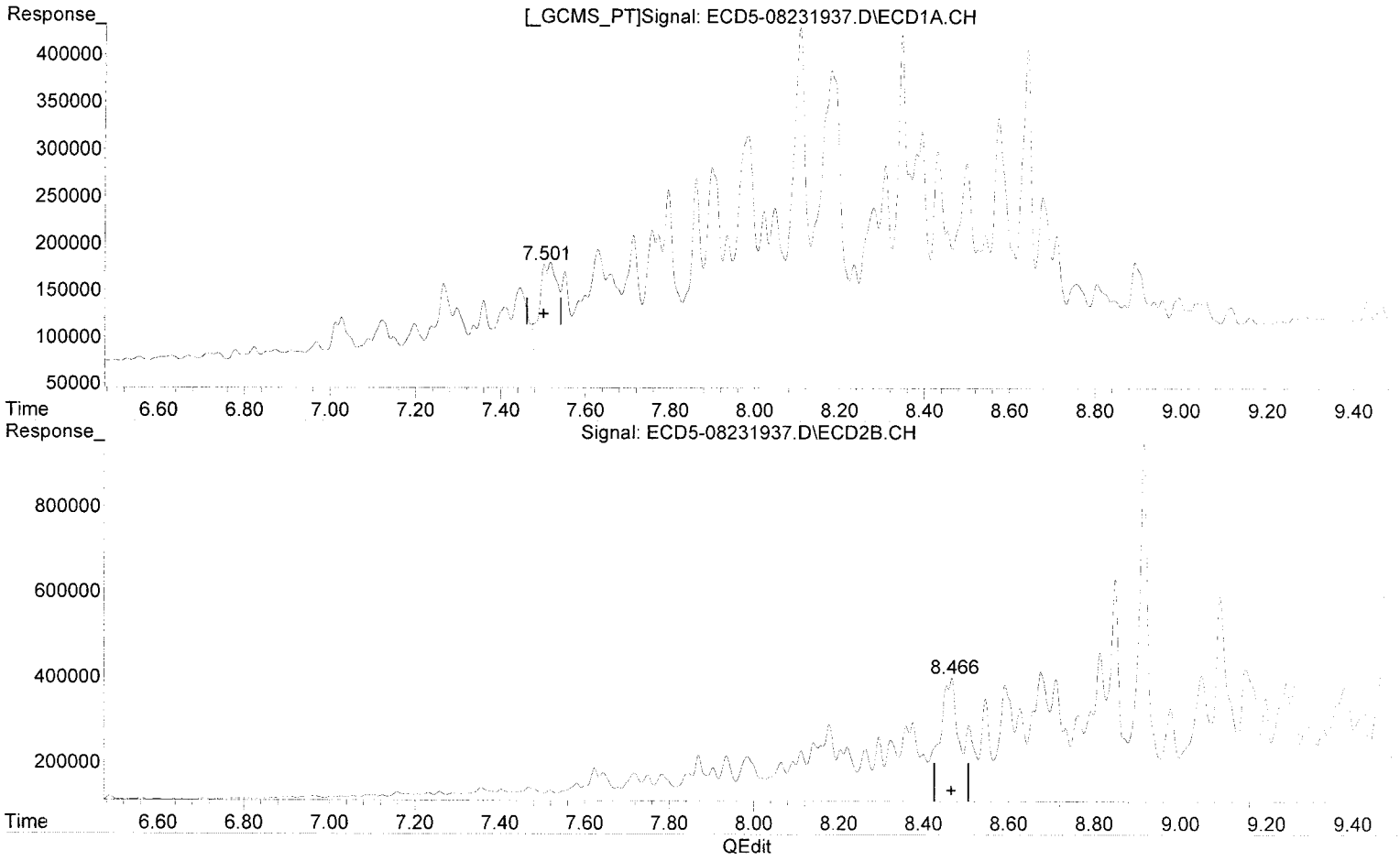
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.985	0	6562	N.D.	0.022	#
22)	S	DCBP (S)	9.592	0.000	4802	0	0.034	N.D.	#
		Target Compounds							
2)		a-BHC	5.952	0.000	2451	0	0.011	N.D.	#
3)		g-BHC	6.250f	0.000	4208	0	0.021	N.D.	#
4)		b-BHC	6.297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

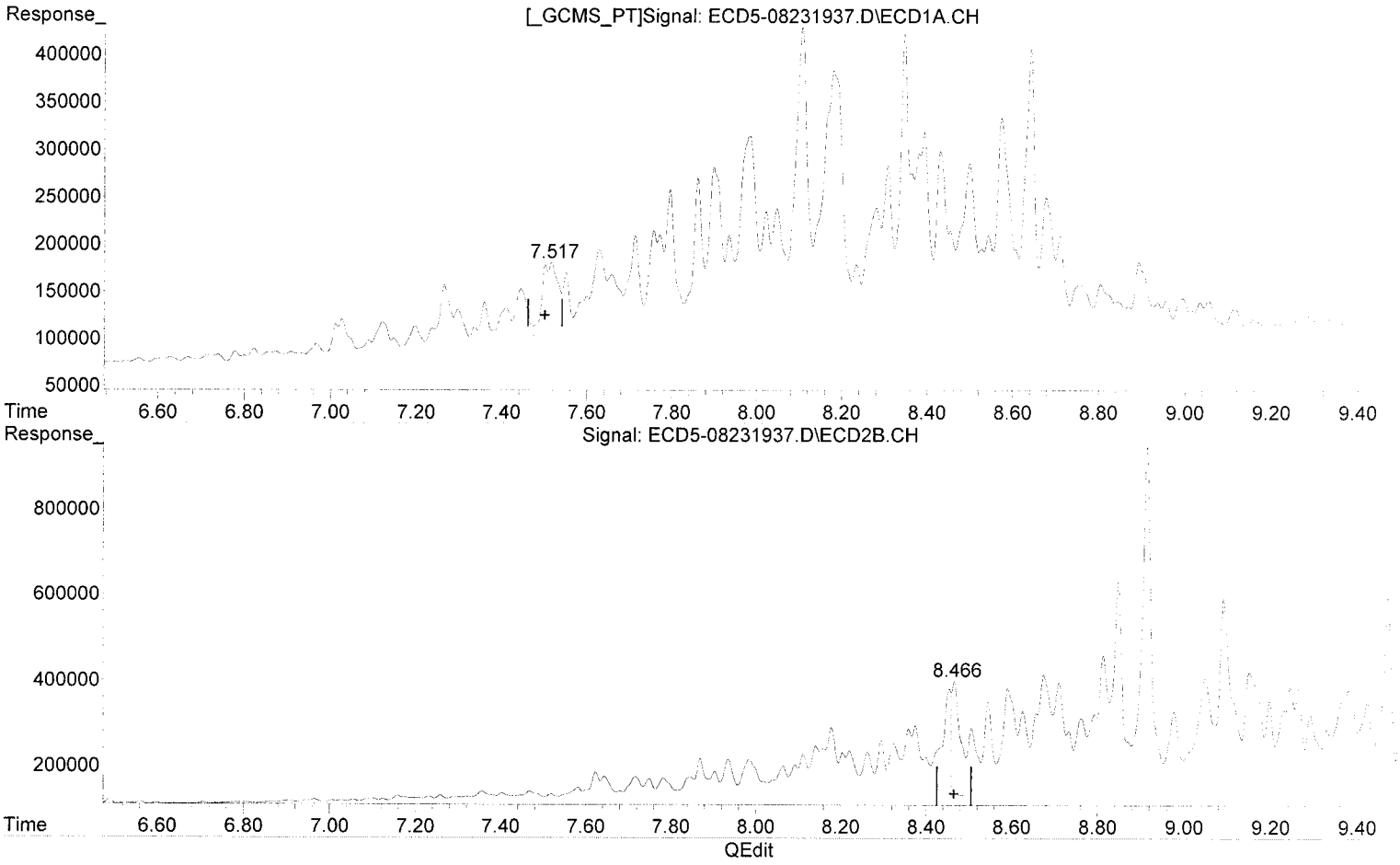
MJB 6/26/19 MJB 6/26/19

(+) = 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

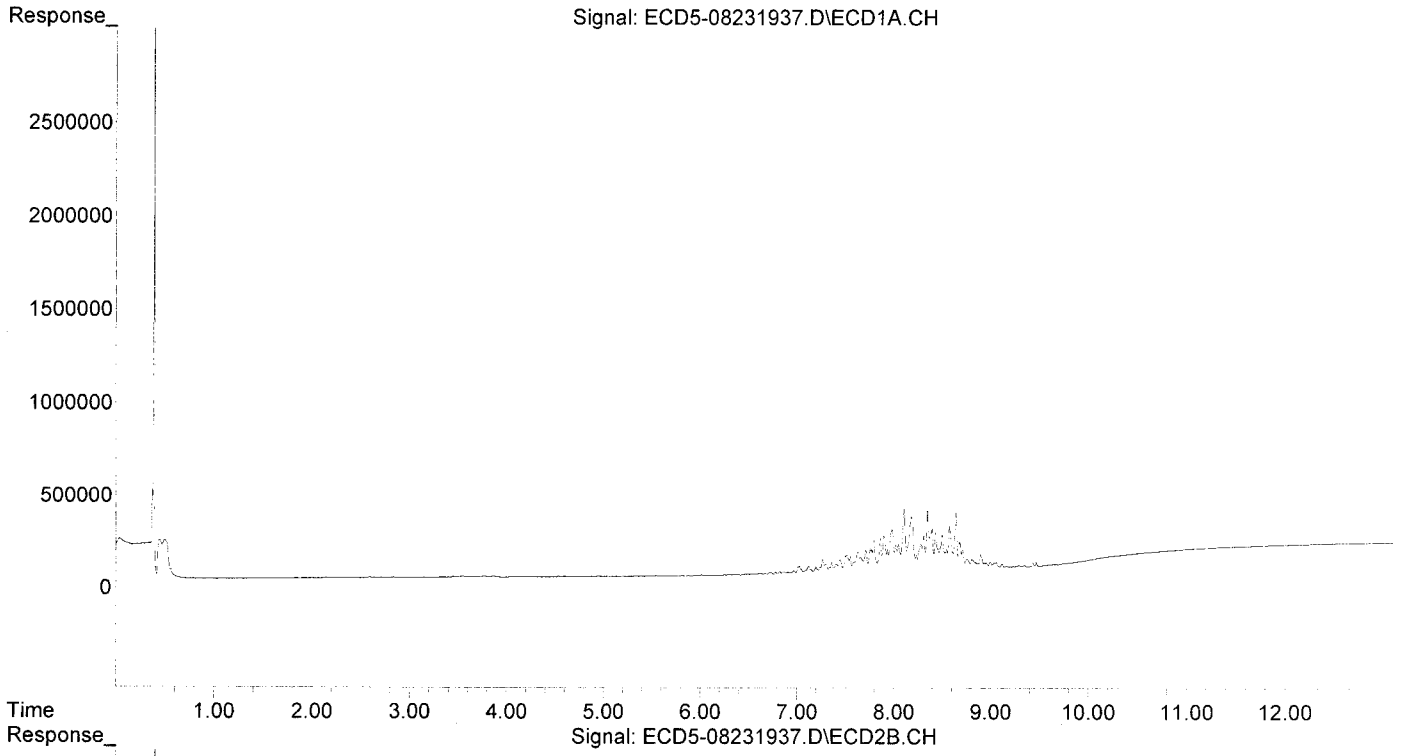
response 267534

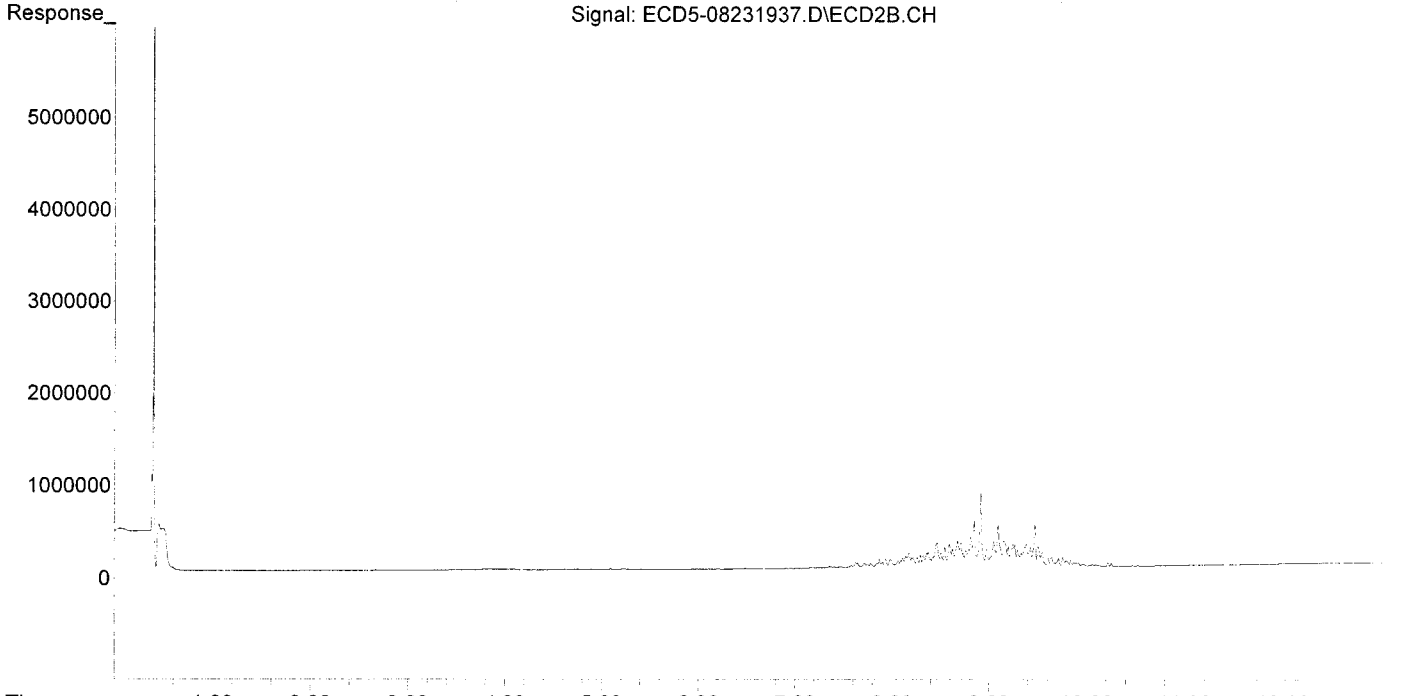
(+) = Expected Retention Time

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

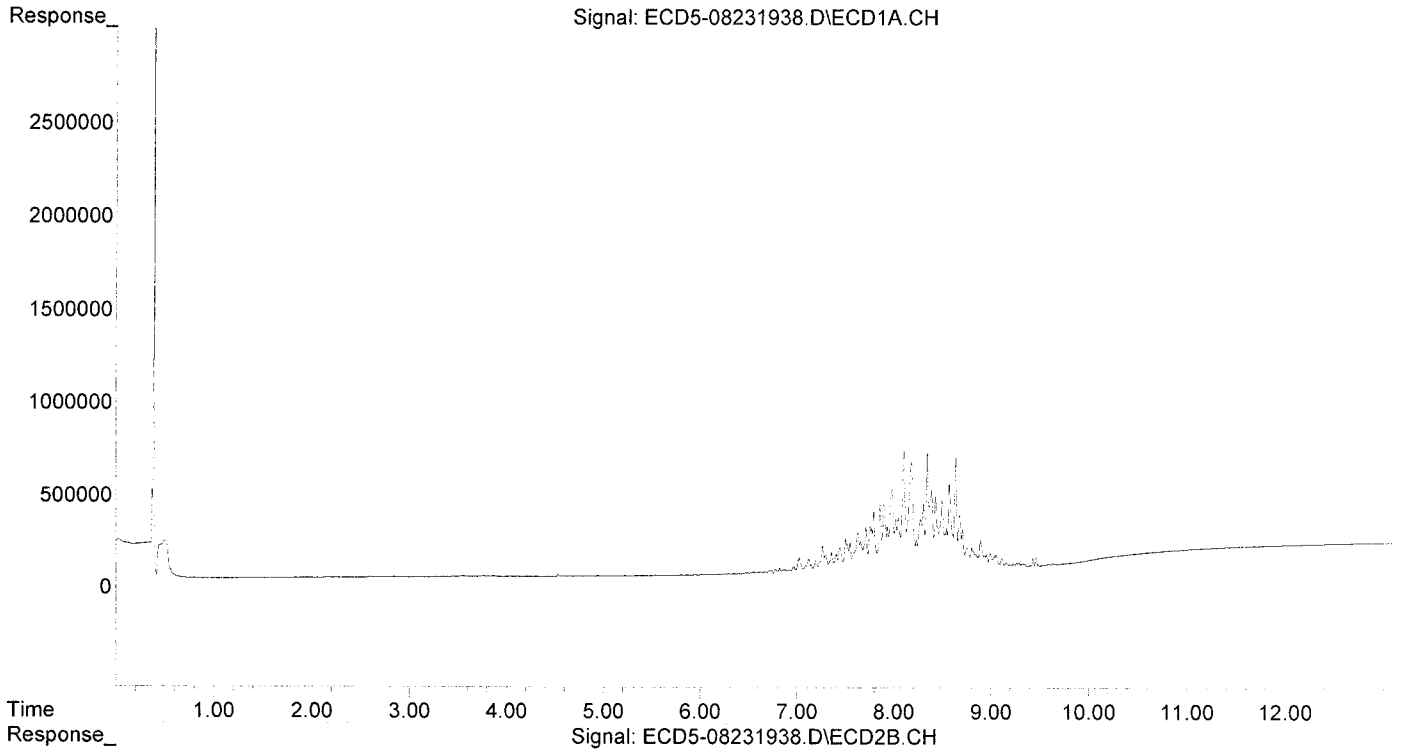
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6031	N.D.	0.021	#
22)	S	DCBP (S)	9.591	10.521	8317	11024	0.059	0.061	
		Target Compounds							
2)		a-BHC	5.950	0.000	2445	0	0.011	N.D.	#
3)		g-BHC	6.249f	6.906	4762	8484	0.024	0.024	
4)		b-BHC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

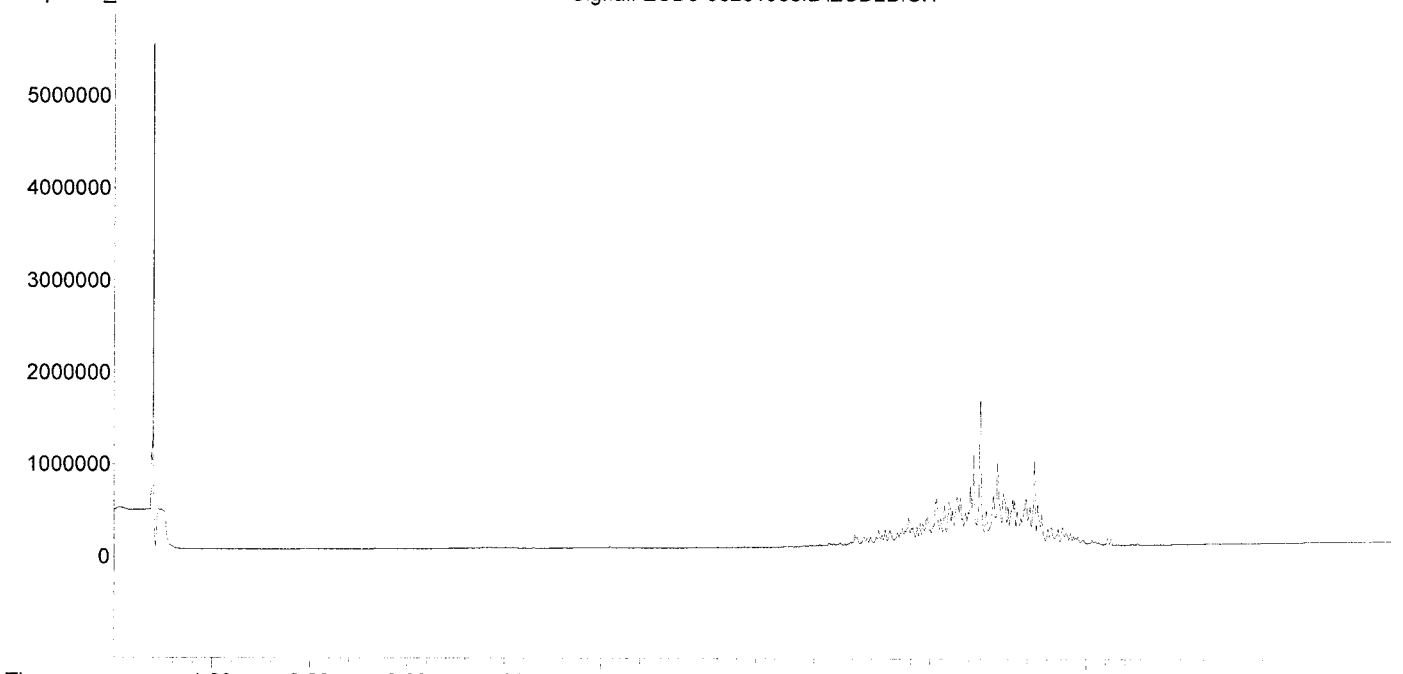
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

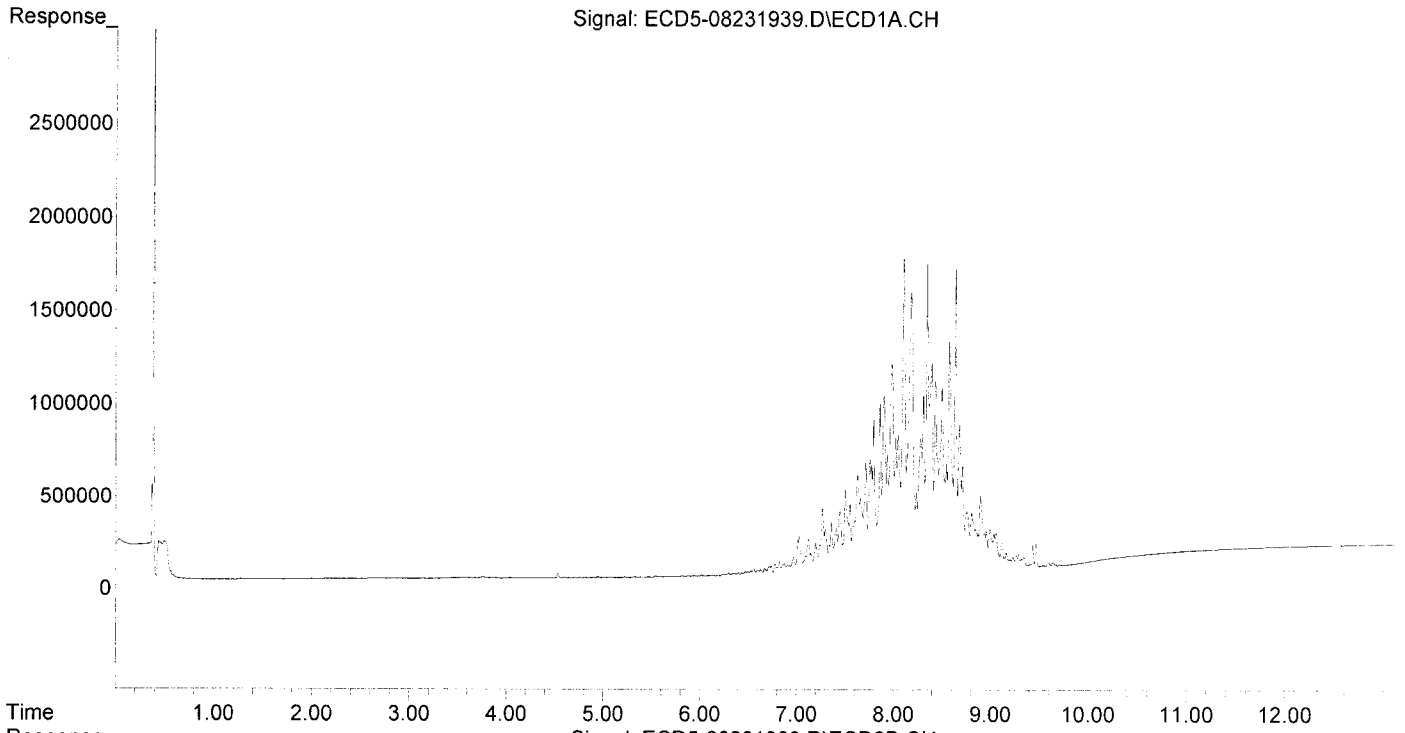
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.984	0	5601	N.D.	0.019	#
22) S	DCBP (S)	9.591	10.521	21035	39647	0.149	0.221	#
	Target Compounds							
2)	a-BHC	5.938	6.598	3646	8422	0.016	0.021	
3)	g-BHC	6.246f	6.908	6276	21315	0.031	0.060	#
4)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

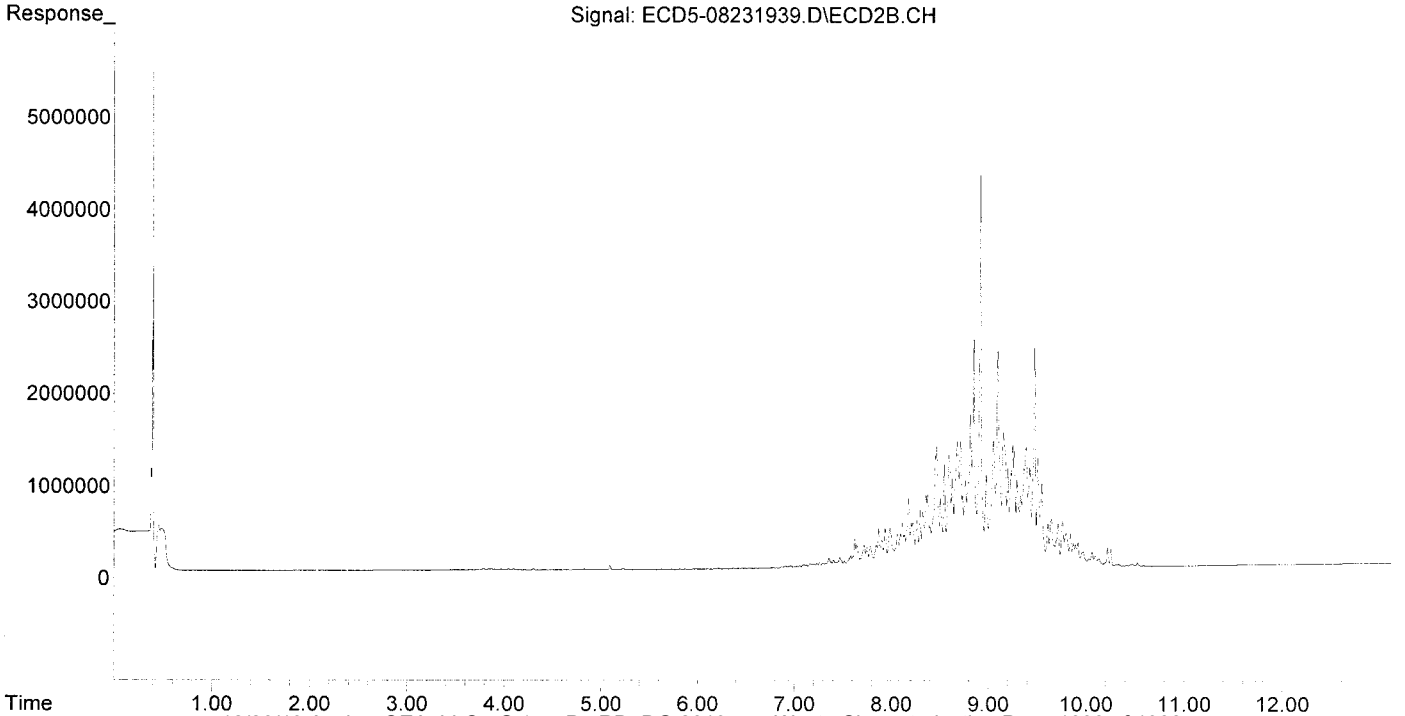
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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 9/26/19

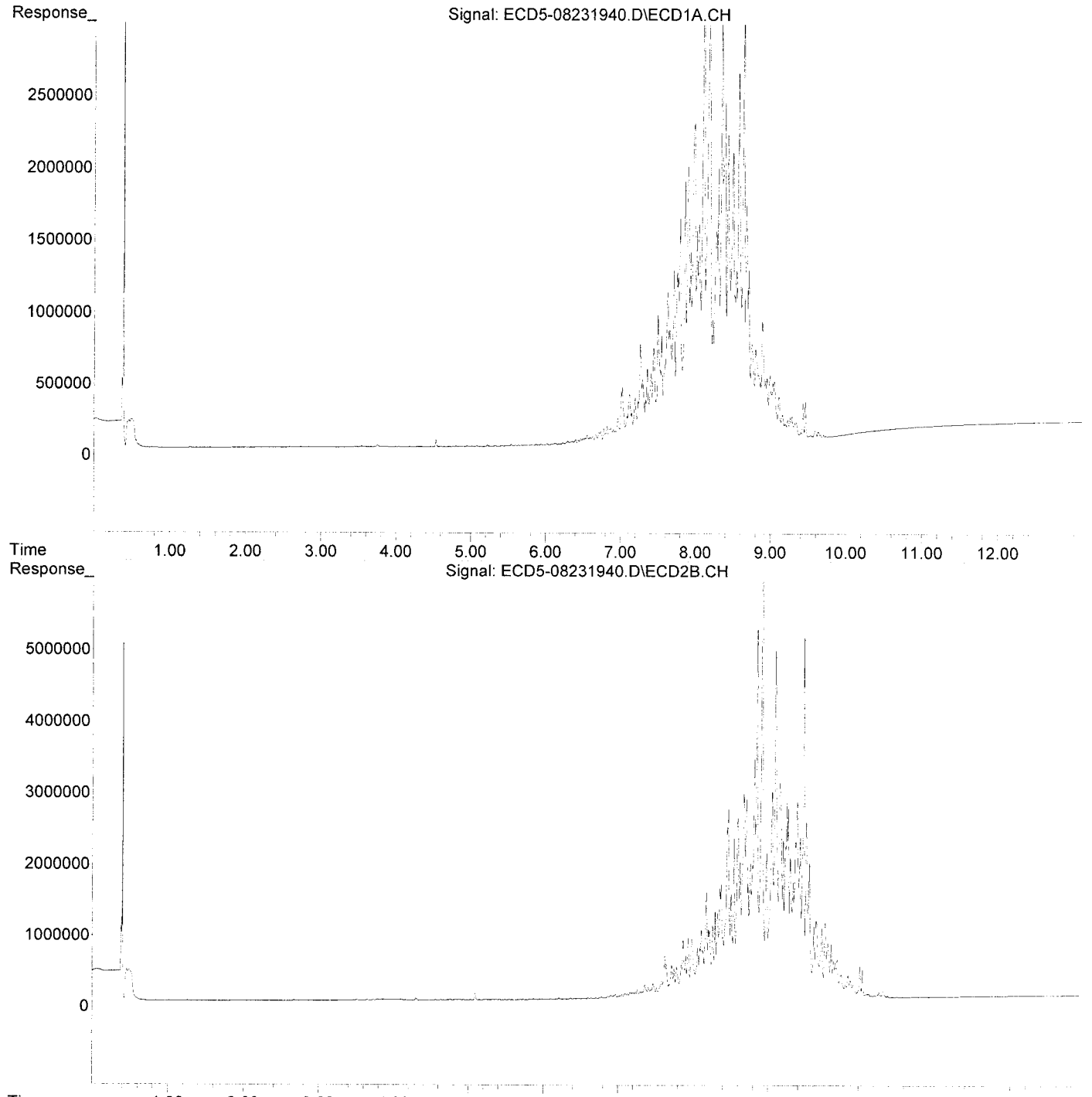
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.415f	5.982	2381	5264	0.014	0.018	
22)	S	DCBP (S)	9.591	10.522	47060	86882	0.334	0.483	#
		Target Compounds							
2)		a-BHC	5.937	6.597	7133	14957	0.031	0.036	
3)		g-BHC	6.231	6.907	12268	49388	0.061	0.138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

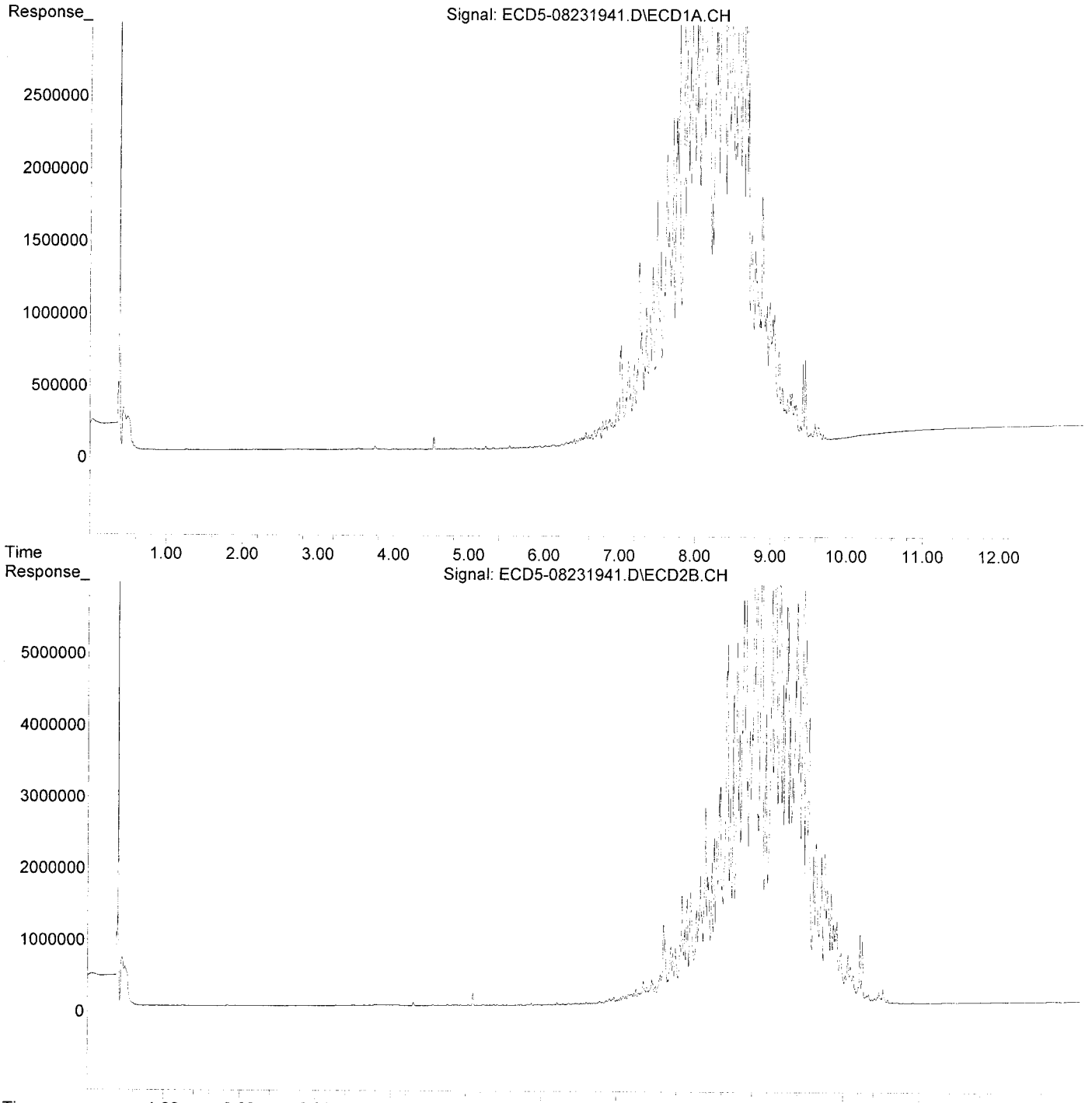
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.416f	5.979	3411	9459	0.021	0.032	#
22) S	DCBP (S)	9.591	10.521	106938	194794	0.758	1.084	#
	Target Compounds							
2)	a-BHC	5.935	6.596	13246	39719	0.058	0.097	#
3)	g-BHC	6.231	6.908	20790	85564	0.103	0.240	#
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

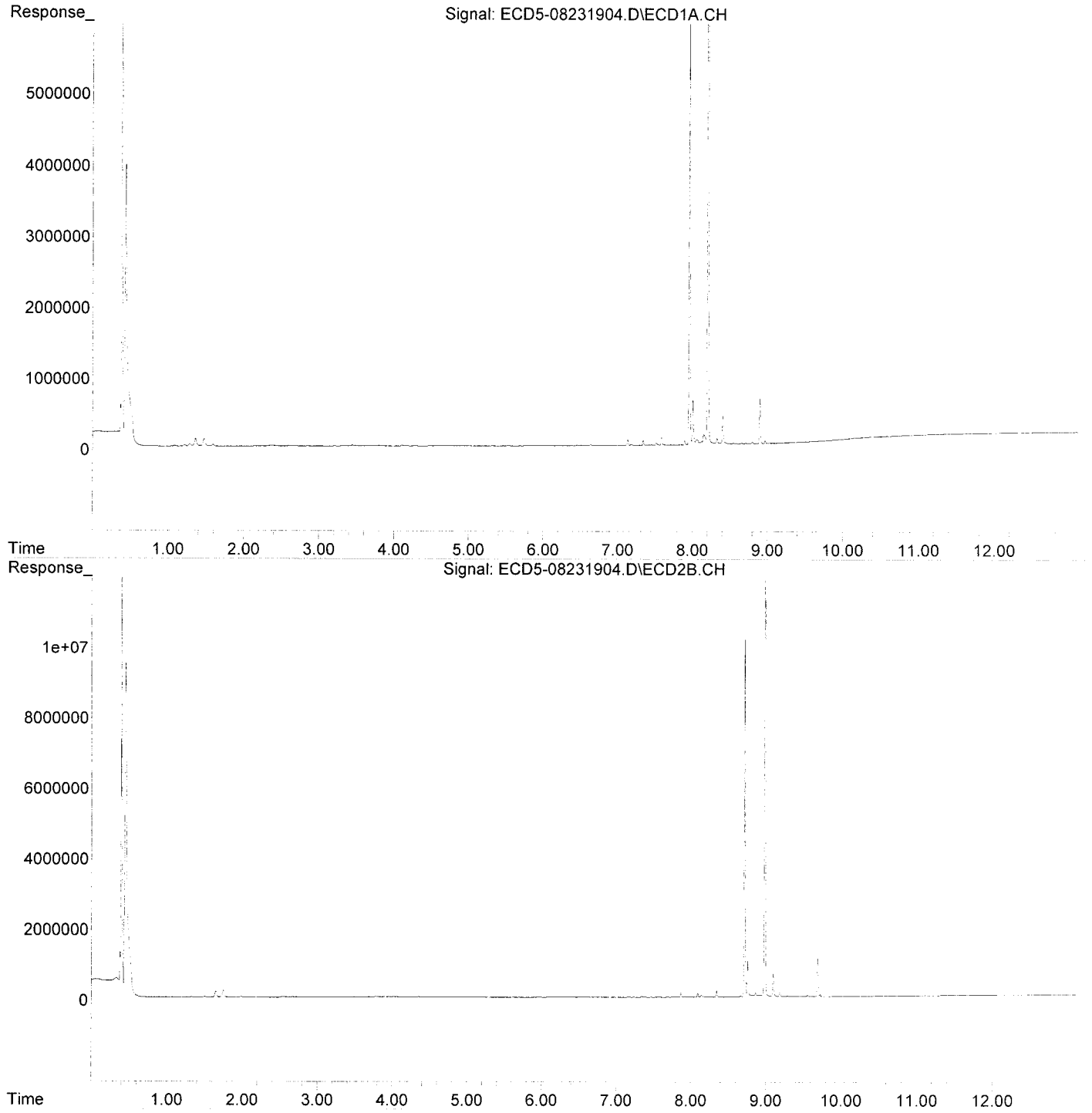
(f)=RT Delta > 1/2 Window (m)=manual int.

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

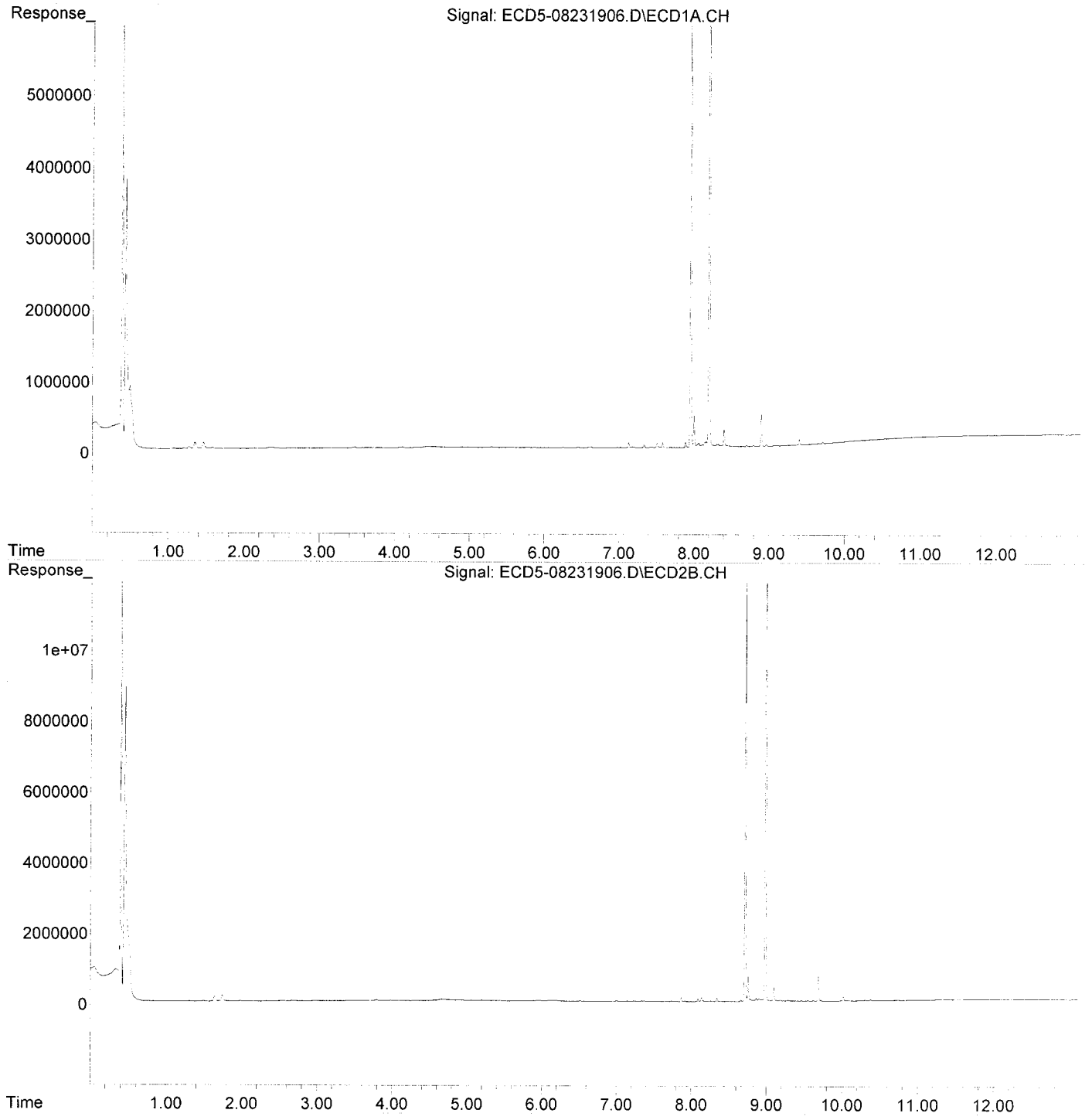
(f)=RT Delta > 1/2 Window (m)=manual int.

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

MJB 8/26/19

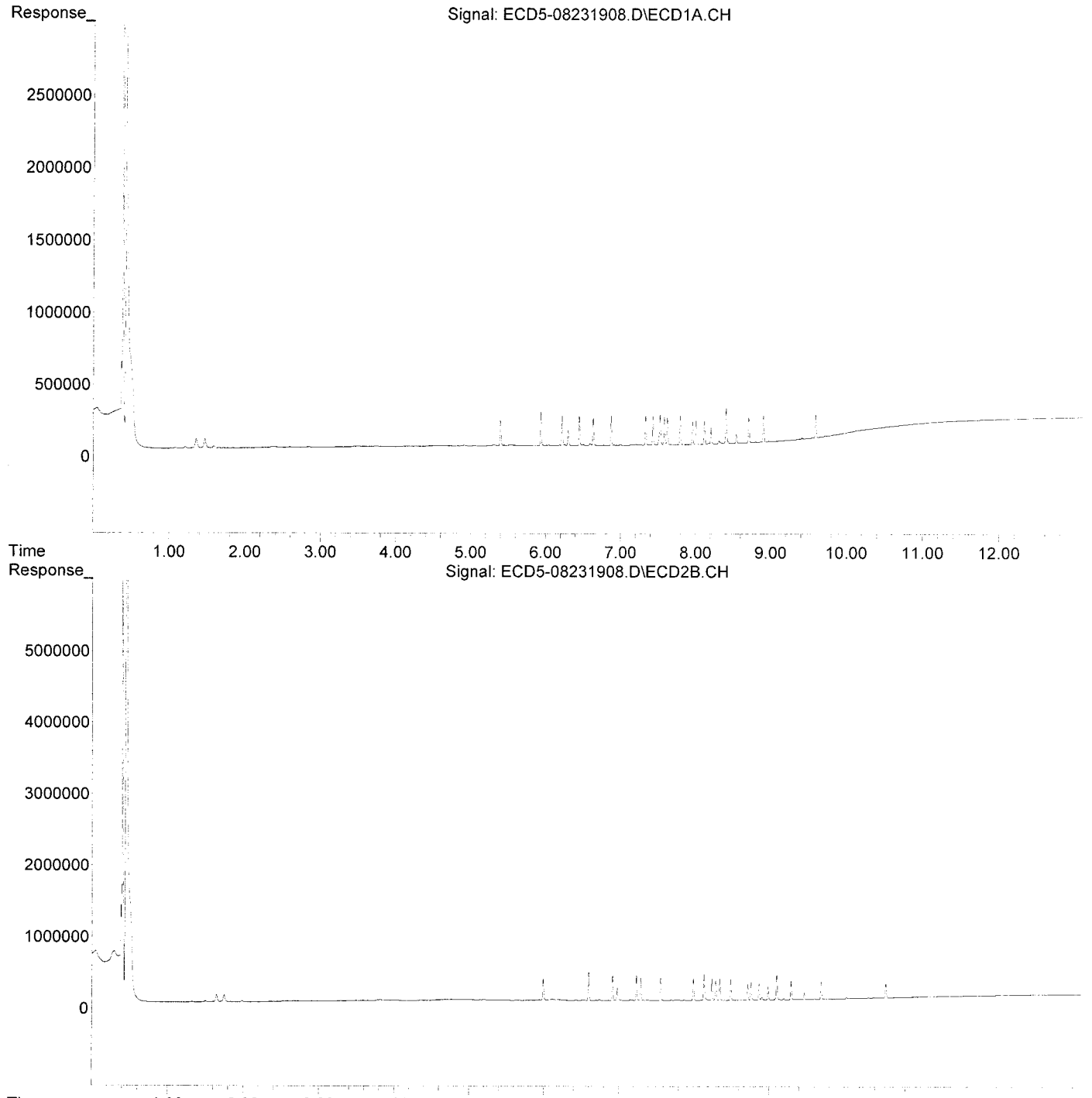
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.397	5.991	176748	300053	1.633	1.607
22)	S	DCBP (S)	9.593	10.541	163865	191572	1.202	1.206
		Target Compounds						
2)		a-BHC	5.937	6.597	231994	393119	1.665	1.296
3)		g-BHC	6.221	6.915	207427	352286	1.380	1.170
4)		b-BHC	6.300	6.980	104326	176262	1.760	1.450
5)		Heptachlor	6.635	7.292	192066	309811	1.183	1.054
6)		d-BHC	6.450	7.234	199840	349123	1.893	1.474
7)		Aldrin	6.875	7.557	205523	317466	1.221	1.096
8)		Heptachlo...	7.335	7.994	200503	310098	1.276	1.175
9)		trans-Chl...	7.433	8.135	197202	364142	1.276	1.384
10)		cis-Chlor...	7.528	8.241	209780	299422	1.367	1.179
11)		Endosulfa...	7.625	8.291	185217	278874	1.245	1.173
12)		4,4'-DDE	7.586	8.346	193435	298463	1.647	1.374
13)		Dieldrin	7.796	8.491	197721	296684	1.194	1.095
14)		Endrin	7.961	8.718	156412	222882	1.190	1.096
15)		4,4'-DDD	8.007	8.760	164956	251549	1.683	1.281
16)		Endosulfa...	8.118	8.865	158139	232156	1.378	1.183
17)		4,4'-DDT	8.205	8.986	113897	179700	1.686	1.607
18)		Endrin Al...	8.407	9.101	241285	348624	2.337	2.034
19)		Endosulfa...	8.708	9.292	176097	265797	1.418	1.337
20)		Methoxychlor	8.543	9.466	59659	95155	1.698	1.611
21)		Endrin Ke...	8.901	9.690	177552	255763	1.293	1.268
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:15:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:08
Operator : MJB
Sample : 9H23034-CAL2
Misc : A19E246, AB 2 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:16:21 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

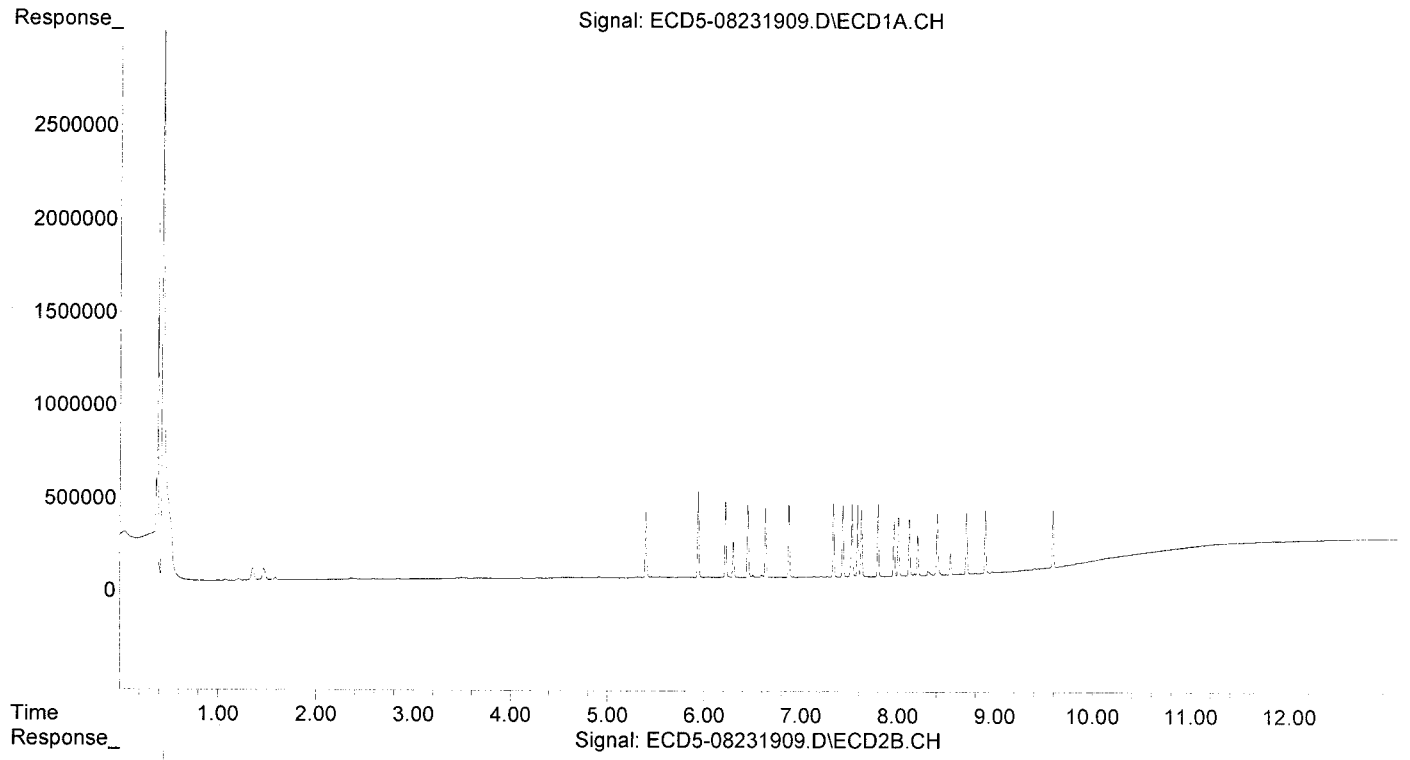
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	349972	600766	3.233	3.230
22)	S	DCBP (S)	9.593	10.542	309904	390006	2.547	2.456
		Target Compounds						
2)		a-BHC	5.936	6.597	458365	784586	3.177	2.540
3)		g-BHC	6.220	6.915	406027	690922	2.702	2.295
4)		b-BHC	6.300	6.980	194168	335260	3.275	2.757
5)		Heptachlor	6.635	7.291	369615	586765	2.276	1.995
6)		d-BHC	6.450	7.233	386980	669122	3.575	2.783
7)		Aldrin	6.875	7.556	399550	635458	2.375	2.194
8)		Heptachlo...	7.335	7.993	392052	606240	2.495	2.296
9)		trans-Chl...	7.432	8.135	382271	644454	2.473	2.449
10)		cis-Chlor...	7.527	8.241	389999	579667	2.541	2.282
11)		Endosulfa...	7.625	8.291	357368	540442	2.402	2.273
12)		4,4'-DDE	7.586	8.345	388618	598066	3.268	2.709
13)		Dieldrin	7.796	8.491	395728	583812	2.390	2.154
14)		Endrin	7.960	8.718	298515	424889	2.271	2.149
15)		4,4'-DDD	8.006	8.760	314622	488120	3.236	2.486
16)		Endosulfa...	8.118	8.864	299106	462256	2.607	2.355
17)		4,4'-DDT	8.204	8.986	218190	341782	3.052	2.875
18)		Endrin Al...	8.407	9.101	328182	477694	3.179	2.786
19)		Endosulfa...	8.707	9.291	322163	498767	2.595	2.558
20)		Methoxychlor	8.542	9.465	111466	178074	3.136	2.980
21)		Endrin Ke...	8.901	9.689	331269	493110	2.413	2.461
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

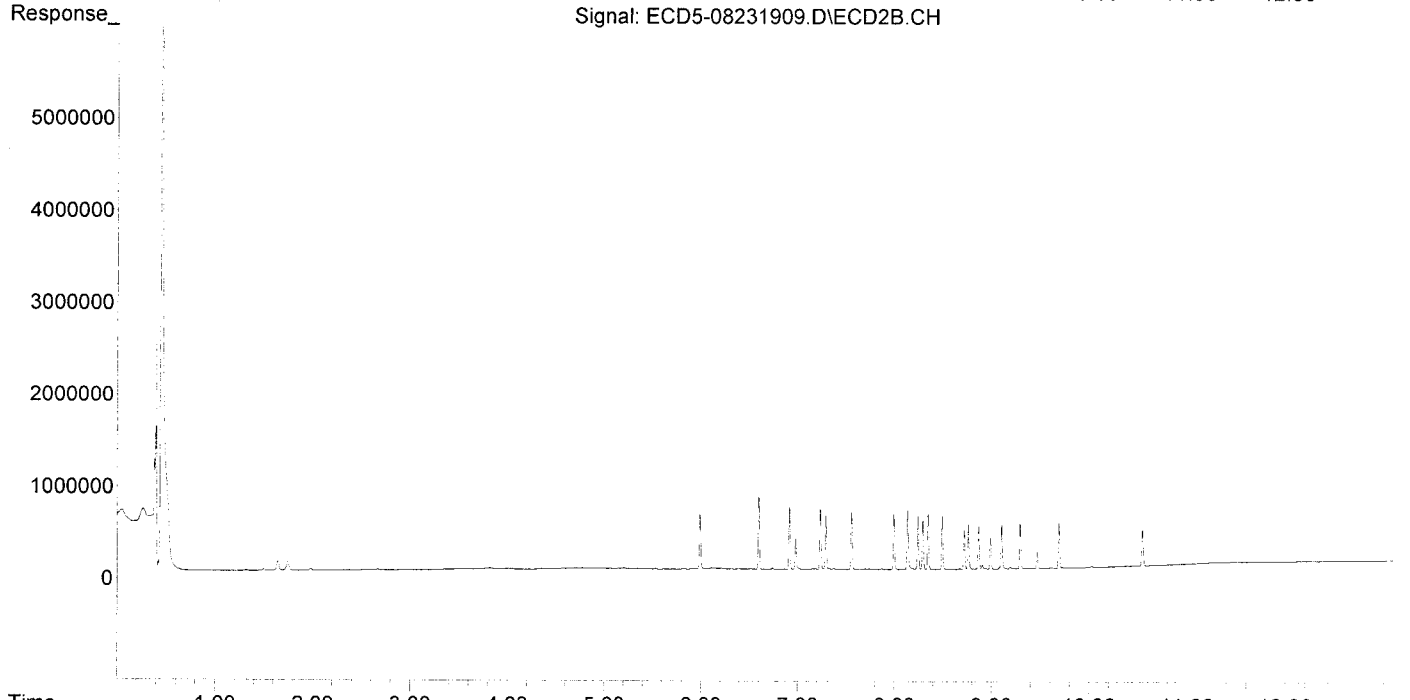
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:08
Operator : MJB
Sample : 9H23034-CAL2
Misc : A19E246, AB 2 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:16:21 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:25
Operator : MJB
Sample : 9H23034-CAL3
Misc : A19E247, AB 5 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:16:57 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

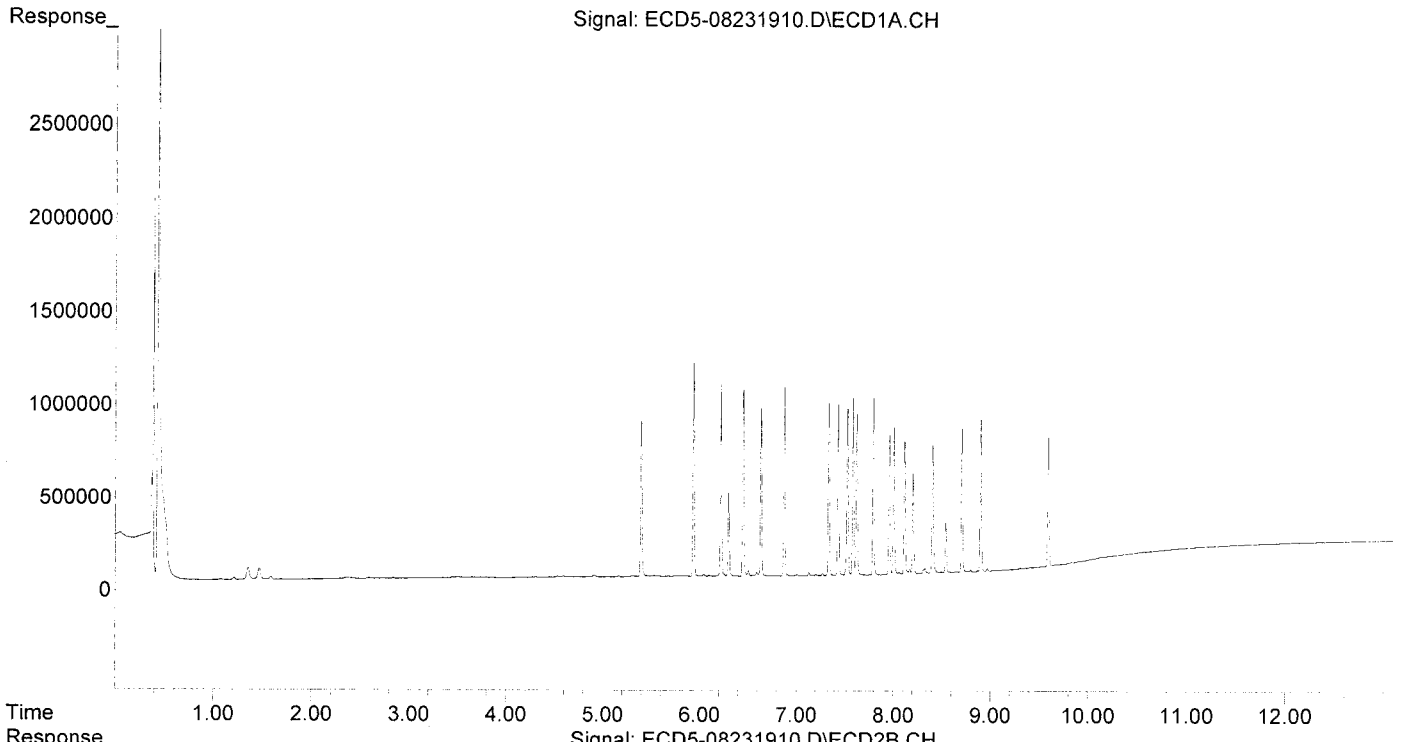
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	834206	1437876	7.707	7.700
22)	S	DCBP (S)	9.594	10.542	701050	870921	6.146	5.485
		Target Compounds						
2)		a-BHC	5.937	6.597	1147932	1985438	7.742	6.328
3)		g-BHC	6.220	6.915	1020724	1742677	6.792	5.790
4)		b-BHC	6.300	6.980	456954	788630	7.708	6.486
5)		Heptachlor	6.635	7.291	899091	1508218	5.537	5.129
6)		d-BHC	6.449	7.233	1004012	1717450	9.061	7.030
7)		Aldrin	6.875	7.556	1012733	1600995	6.019	5.528
8)		Heptachlo...	7.335	7.994	923620	1455941	5.877	5.514
9)		trans-Chl...	7.432	8.134	926577	1502119	5.993	5.707
10)		cis-Chlor...	7.528	8.241	908795	1434855	5.922	5.649
11)		Endosulfa...	7.624	8.290	861509	1327191	5.790	5.583
12)		4,4'-DDE	7.586	8.345	953351	1487999	7.901	6.642
13)		Dieldrin	7.796	8.491	972009	1462538	5.870	5.397
14)		Endrin	7.960	8.718	738953	1092877	5.622	5.608
15)		4,4'-DDD	8.007	8.759	790498	1208642	8.130	6.156
16)		Endosulfa...	8.118	8.865	709544	1096359	6.185	5.586
17)		4,4'-DDT	8.205	8.986	553009	873653	7.371	6.957
18)		Endrin Al...	8.407	9.101	683393	1045869	6.620	6.101
19)		Endosulfa...	8.708	9.291	768798	1175908	6.192	6.083
20)		Methoxychlor	8.542	9.466	270388	413802	7.493	6.808
21)		Endrin Ke...	8.901	9.689	811384	1205004	5.910	6.014
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

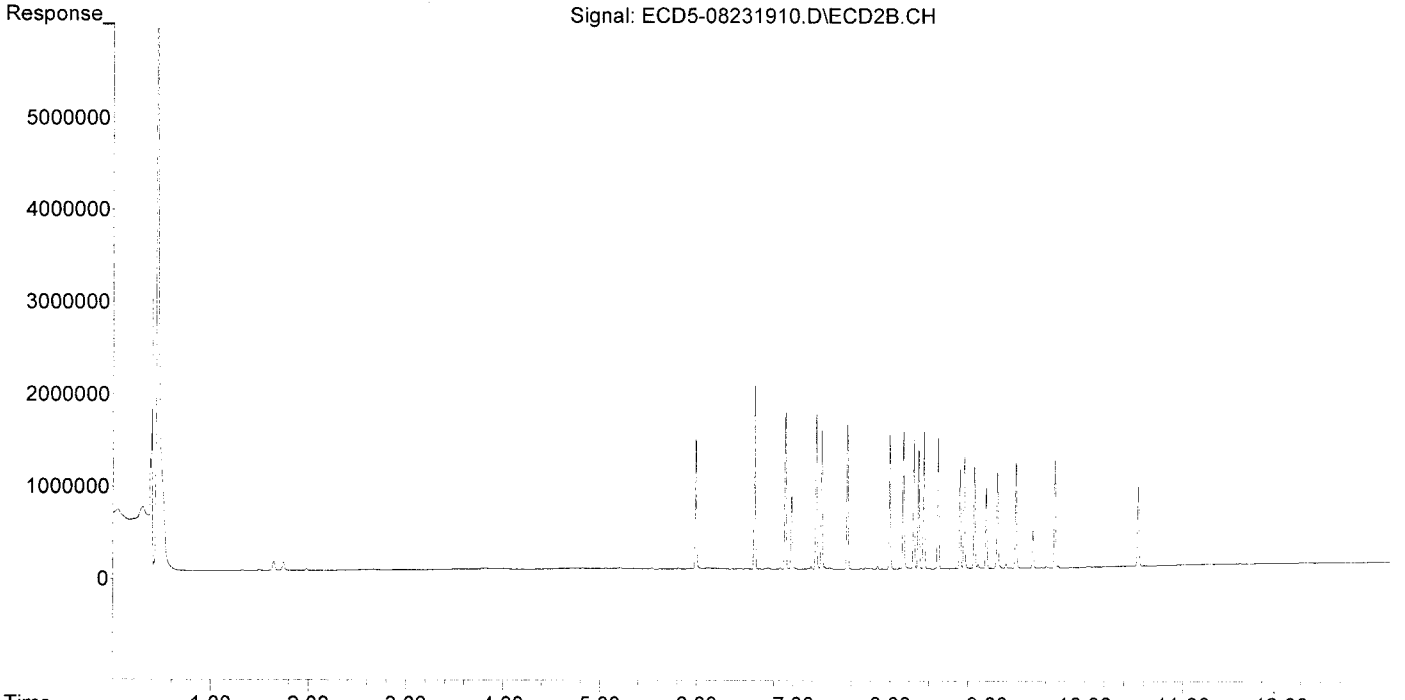
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:25
Operator : MJB
Sample : 9H23034-CAL3
Misc : A19E247, AB 5 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:16:57 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:42
Operator : MJB
Sample : 9H23034-CAL4
Misc : A19E249, AB 10 ppb
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:19:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

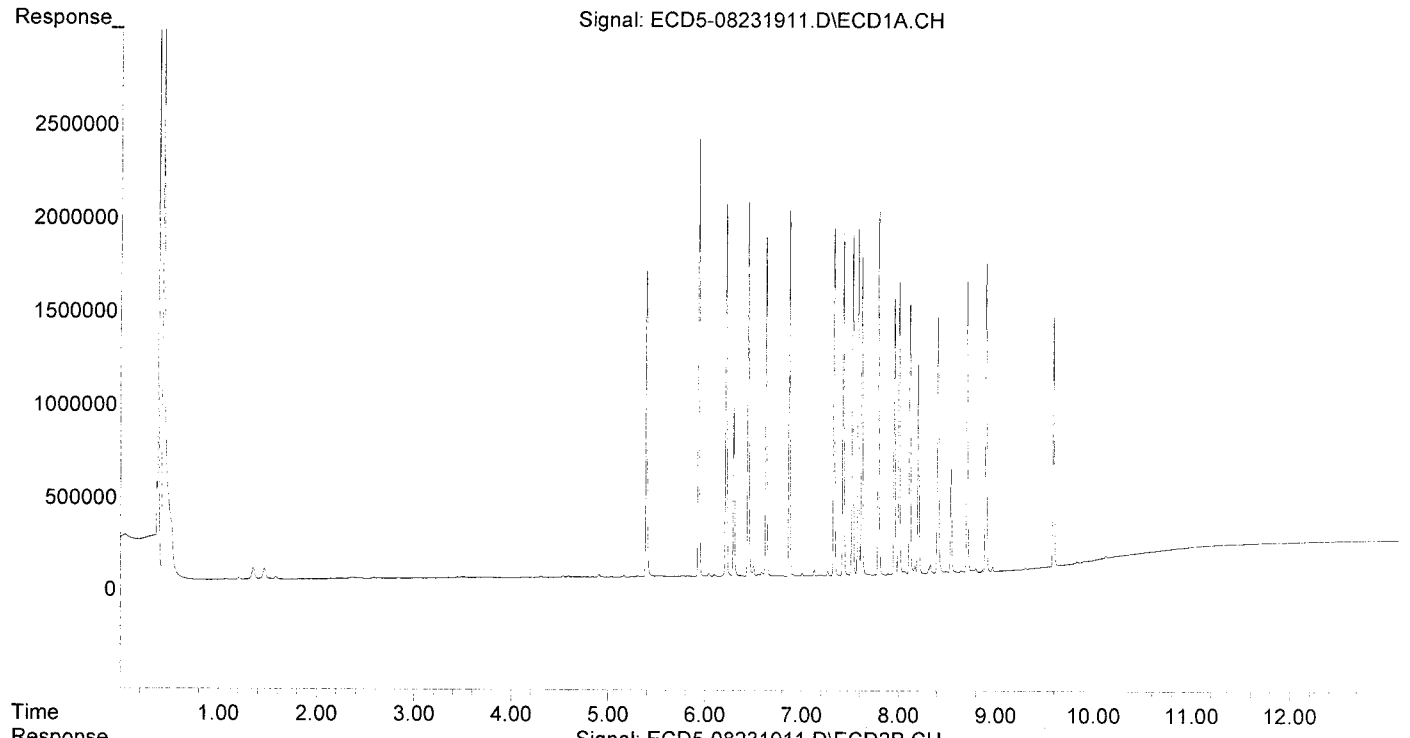
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	1644447	2865854	15.193	15.177
22)	S	DCBP (S)	9.593	10.541	1335468	1678728	11.976	10.572
		Target Compounds						
2)		a-BHC	5.936	6.597	2347065	4095890	15.530	12.883
3)		g-BHC	6.220	6.915	2034859	3476733	13.541	11.551
4)		b-BHC	6.299	6.980	910875	1580847	15.365	13.002
5)		Heptachlor	6.634	7.291	1819621	3005915	11.206	10.223
6)		d-BHC	6.449	7.234	2006493	3613517	17.784	14.564
7)		Aldrin	6.875	7.556	2010802	3341093	11.950	11.536
8)		Heptachlo...	7.335	7.994	1865428	2959301	11.869	11.208
9)		trans-Chl...	7.431	8.134	1847996	3002782	11.953	11.409
10)		cis-Chlor...	7.527	8.241	1843346	2859573	12.012	11.257
11)		Endosulfa...	7.623	8.291	1709332	2724272	11.488	11.460
12)		4,4'-DDE	7.585	8.346	1890931	3049792	15.482	13.444
13)		Dieldrin	7.795	8.491	1954890	2898866	11.805	10.697
14)		Endrin	7.960	8.718	1475508	2244483	11.225	11.476
15)		4,4'-DDD	8.006	8.760	1565974	2425496	15.969	12.353
16)		Endosulfa...	8.117	8.864	1448080	2243610	12.623	11.432
17)		4,4'-DDT	8.204	8.987	1146556	1841119	14.788	14.109
18)		Endrin Al...	8.406	9.101	1375129	2125028	13.321	12.396
19)		Endosulfa...	8.707	9.292	1553540	2424584	12.512	12.489
20)		Methoxychlor	8.542	9.465	561706	883069	15.275	14.167
21)		Endrin Ke...	8.900	9.689	1664380	2496985	12.124	12.365
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

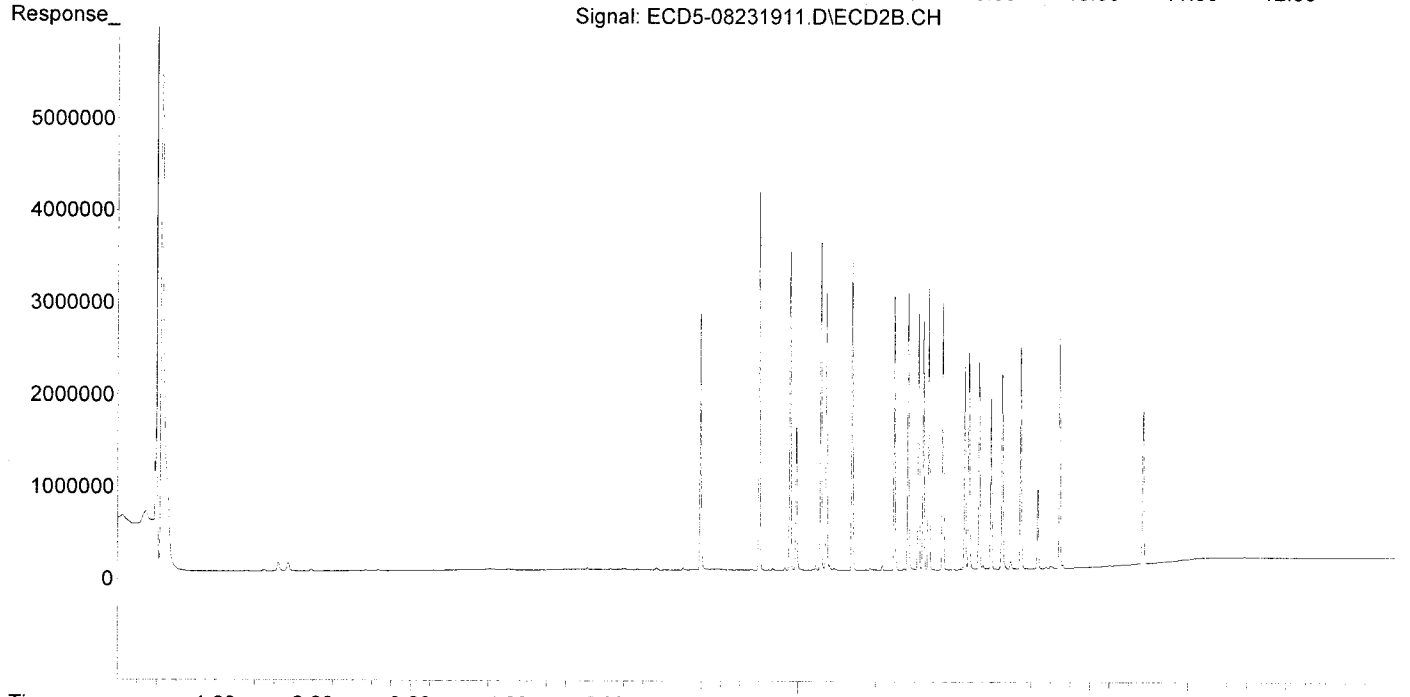
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:42
Operator : MJB
Sample : 9H23034-CAL4
Misc : A19E249, AB 10 ppb
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:19:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:00
Operator : MJB
Sample : 9H23034-CAL5
Misc : A19E250, AB 25 ppb
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:19:37 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

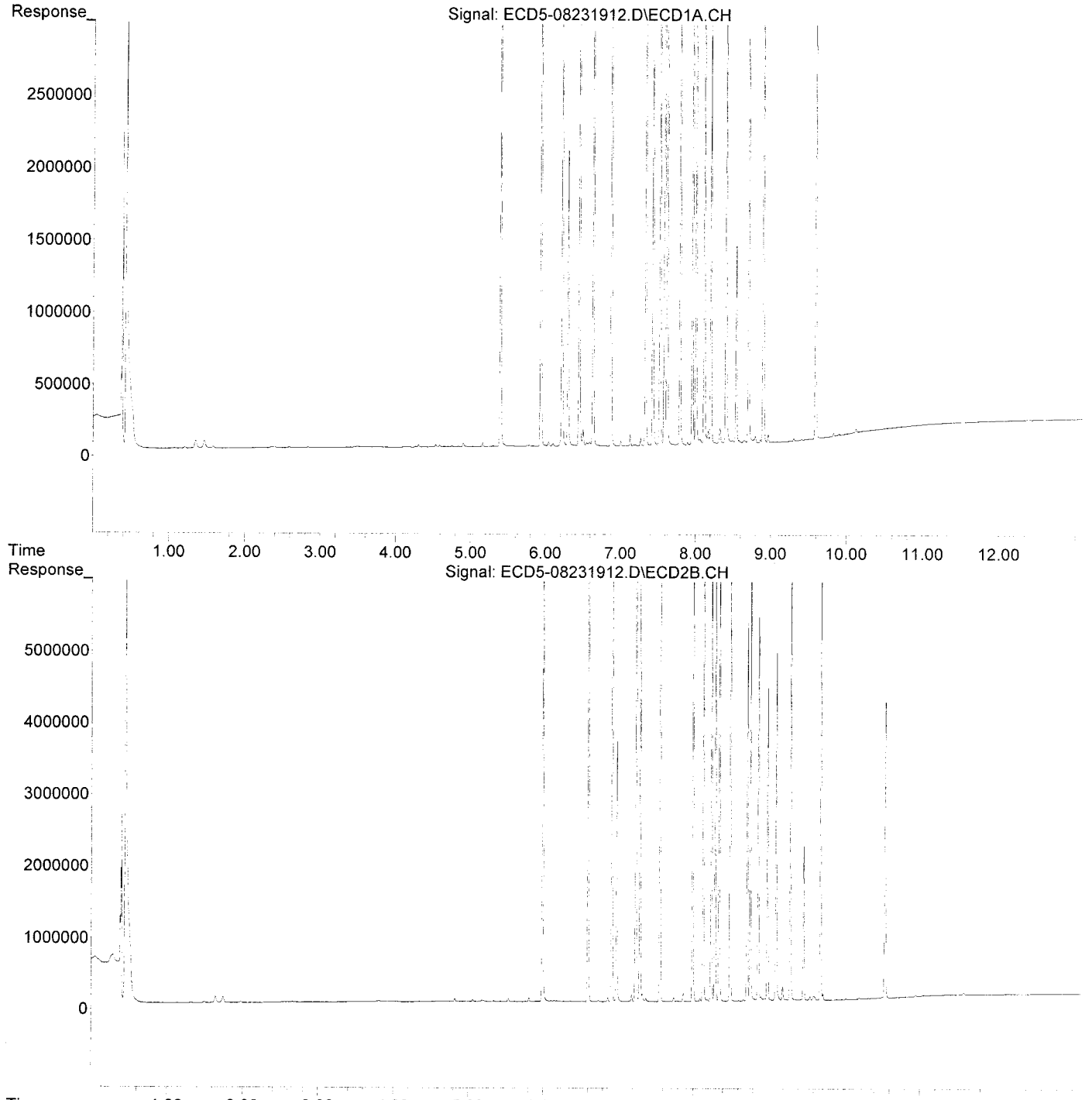
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.394	5.989	4015832	7072923	37.101	36.221
22) S	DCBP (S)	9.592	10.539	3342634	4163229	30.365	26.219
	Target Compounds						
2)	a-BHC	5.935	6.596	5553096	9910863	35.515	30.324
3)	g-BHC	6.218	6.913	4875657	8508386	32.445	28.267
4)	b-BHC	6.297	6.978	2060378	3677155	34.755	30.244
5)	Heptachlor	6.633	7.289	4314306	7282282	26.568	24.766
6)	d-BHC	6.447	7.232	4667166	8247775	39.910	32.244
7)	Aldrin	6.873	7.555	4845355	7878574	28.797	27.203
8)	Heptachlo...	7.332	7.992	4344286	7064729	27.642	26.758
9)	trans-Chl...	7.429	8.131	4401456	7157480	28.469	27.194
10)	cis-Chlor...	7.525	8.239	4244413	6935857	27.657	27.304
11)	Endosulfa...	7.621	8.288	4111285	6571512	27.630	27.643
12)	4,4'-DDE	7.583	8.343	4571066	7501047	36.397	32.167
13)	Dieldrin	7.792	8.489	4582306	7333890	27.672	27.063
14)	Endrin	7.957	8.716	3508904	5325883	26.694	26.642
15)	4,4'-DDD	8.004	8.758	3727035	6146469	37.001	31.304
16)	Endosulfa...	8.115	8.862	3371864	5447602	29.393	27.758
17)	4,4'-DDT	8.202	8.984	2924467	4480388	36.460	32.123
18)	Endrin Al...	8.404	9.099	3119767	4848504	30.221	28.282
19)	Endosulfa...	8.705	9.289	3645411	5978906	29.360	30.102
20)	Methoxychlor	8.540	9.463	1390283	2166659	36.145	32.800
21)	Endrin Ke...	8.899	9.688	4008958	5893691	29.202	28.514
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:00
Operator : MJB
Sample : 9H23034-CAL5
Misc : A19E250, AB 25 ppb
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:19:37 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:17
Operator : MJB
Sample : 9H23034-CAL6
Misc : A19H383, AB 50 ppb
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 10:58:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Wed Aug 07 17:49:44 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

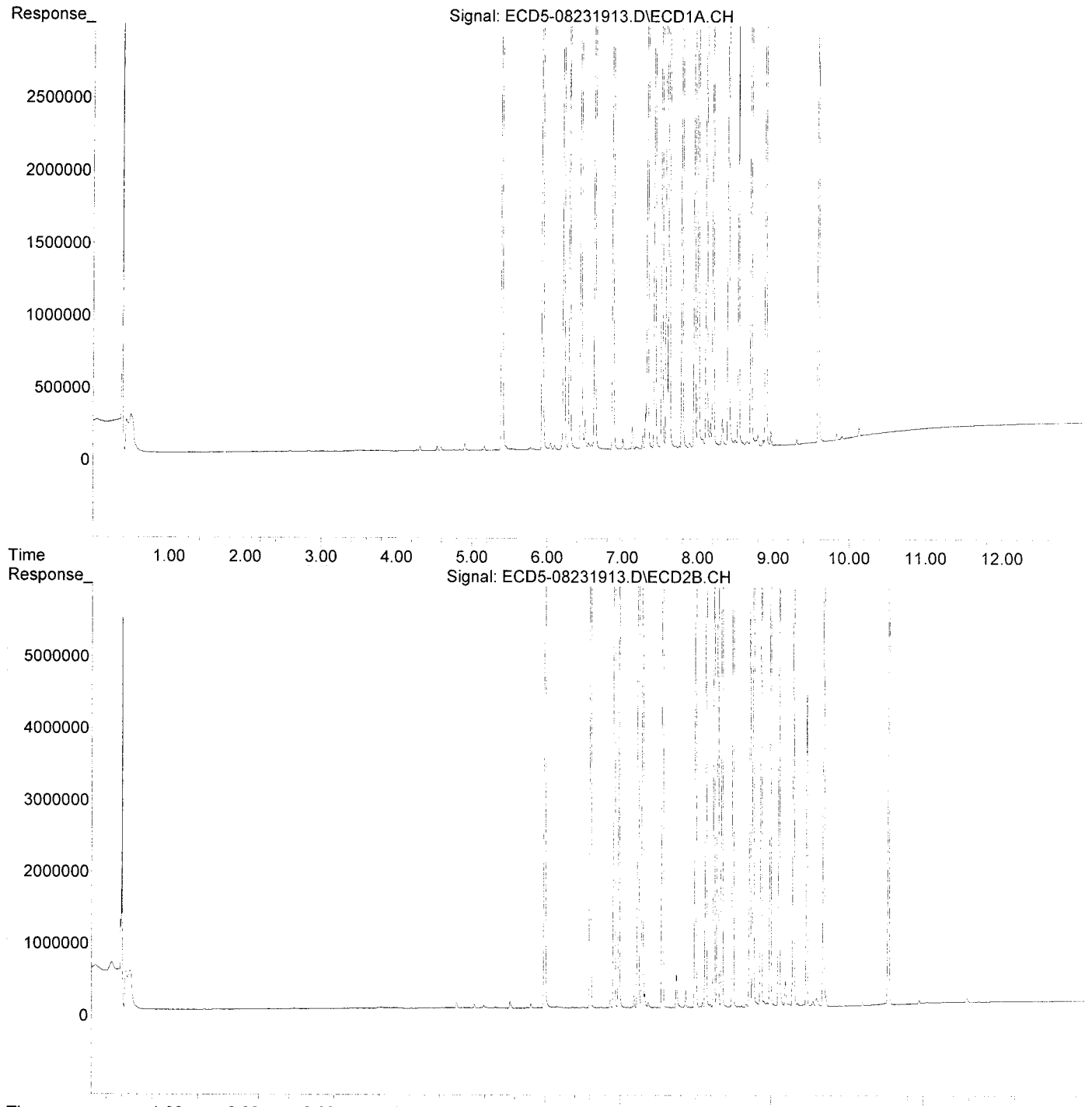
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.394	5.989	8071481	14196745	74.571	69.077
22) S	DCBP (S)	9.592	10.541	6678990	8730692	60.740	54.984
	Target Compounds						
2)	a-BHC	5.935	6.596	11369592	20265817	69.154	59.445
3)	g-BHC	6.218	6.914	9785999	17381069	65.120	57.745
4)	b-BHC	6.296	6.978	4100858	7516011	69.174	61.818
5)	Heptachlor	6.632	7.290	8735158	14595143	53.793	49.636
6)	d-BHC	6.447	7.232	9610742	17311258	77.761	64.308
7)	Aldrin	6.873	7.555	9327672	16264416	55.436	56.158
8)	Heptachlo...	7.332	7.992	8869300	14837794	56.434	56.198
9)	trans-Chl...	7.428	8.131	8959305	14678719	57.950	55.771
10)	cis-Chlor...	7.524	8.238	8622674	14002116	56.187	55.122
11)	Endosulfa...	7.621	8.289	7984410	13712329	53.659	57.680
12)	4,4'-DDE	7.583	8.344	9177389	15554706	70.089	63.904
13)	Dieldrin	7.792	8.489	9386664	15434113	56.685	56.955
14)	Endrin	7.957	8.716	6979572	11015379	53.097	52.880
15)	4,4'-DDD	8.004	8.758	7726197	13159451	73.239	67.021
16)	Endosulfa...	8.114	8.863	6840920	11534525	59.632	58.774
17)	4,4'-DDT	8.202	8.985	6205369	9285492	69.085	60.834
18)	Endrin Al...	8.404	9.099	6224451	10209034	60.296	59.551
19)	Endosulfa...	8.705	9.289	7420576	12149289	59.766	58.797
20)	Methoxychlor	8.540	9.464	2860683	4346199	69.570	60.726
21)	Endrin Ke...	8.899	9.687	8190707	12954568	59.663	59.905
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:17
Operator : MJB
Sample : 9H23034-CAL6
Misc : A19H383, AB 50 ppb
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 10:58:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Wed Aug 07 17:49:44 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:34
Operator : MJB
Sample : 9H23034-CAL7
Misc : A19H382, AB 100 ppb
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:20:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

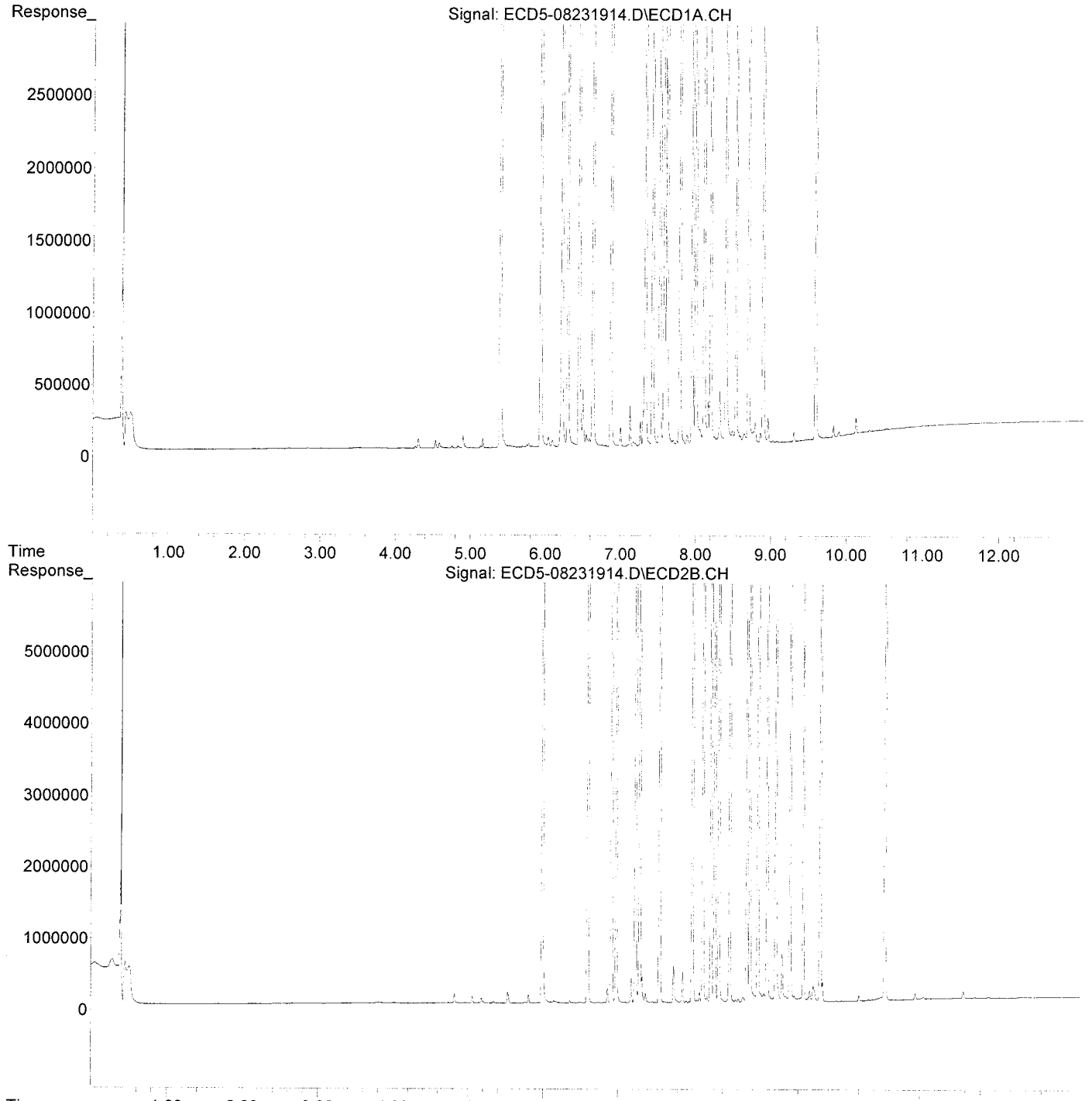
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.395	5.989	15850922	29256334	146.444	130.224
22)	S	DCBP (S)	9.592	10.540	13405396	17784069	121.277	111.999
		Target Compounds						
2)		a-BHC	5.935	6.596	22363584	41699210	125.842	113.668
3)		g-BHC	6.218	6.914	19595093	36788994	130.394	122.224
4)		b-BHC	6.296	6.977	8355416	14625175	140.940	120.290
5)		Heptachlor	6.632	7.289	17551528	30277818	108.086	102.970
6)		d-BHC	6.446	7.232	19475580	35176633	144.149	120.302
7)		Aldrin	6.872	7.555	19108074	33906422	113.562	117.072
8)		Heptachlo...	7.331	7.991	17318444	30045511	110.195	113.798
9)		trans-Chl...	7.427	8.131	17732791	30742272	114.698	116.803
10)		cis-Chlor...	7.523	8.238	16742584	29042863	109.098	114.333
11)		Endosulfa...	7.619	8.288	16089996	27212707	108.133	114.469
12)		4,4'-DDE	7.582	8.344	18052552	32499603	128.779	123.812
13)		Dieldrin	7.791	8.488	18324422	31001958	110.659	114.403
14)		Endrin	7.957	8.715	13812708	23102413	105.080	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

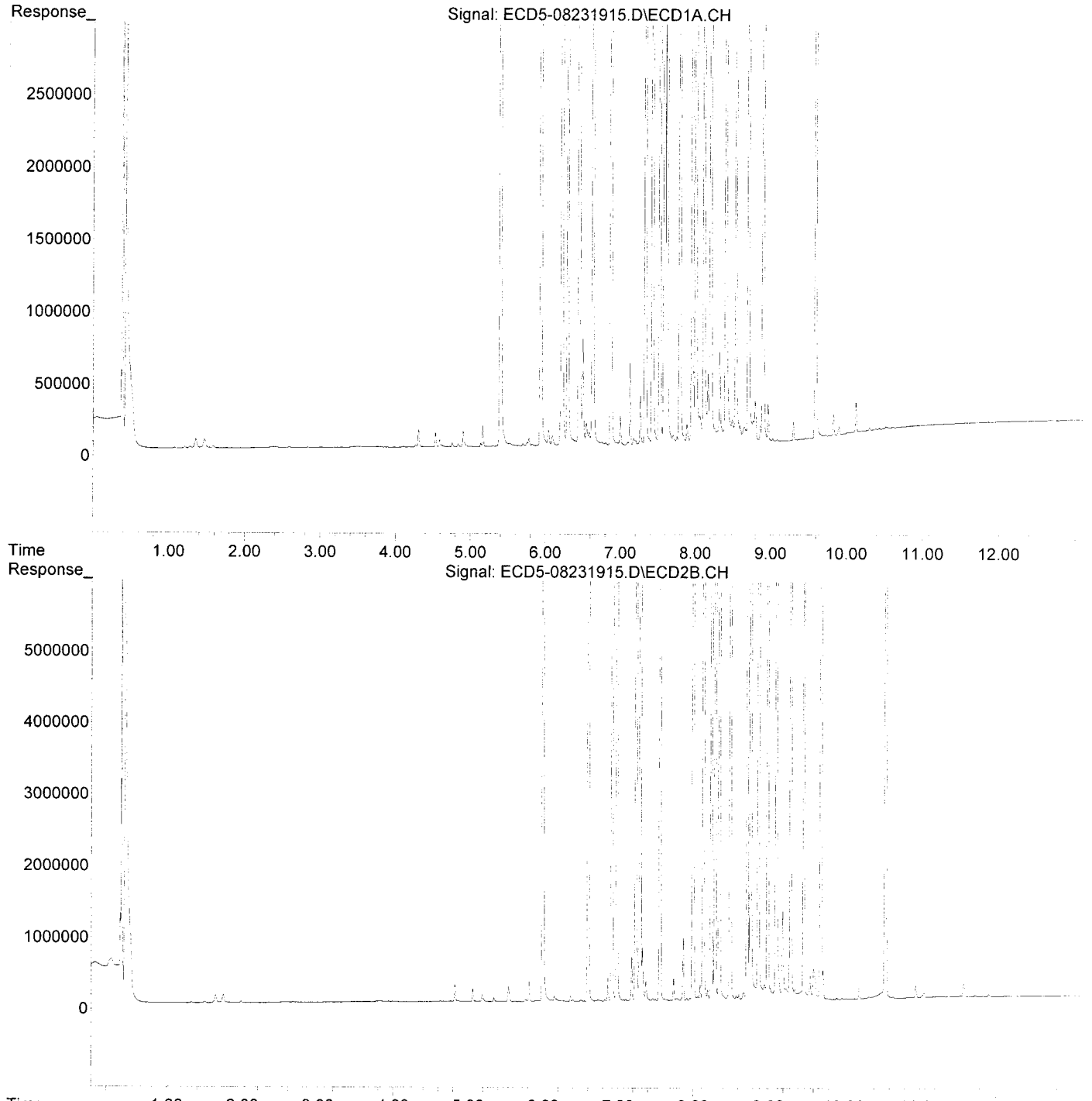
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.394	5.990	32842535	62584449	303.426	241.228
22)	S	DCBP (S)	9.591	10.539	26975231	38097779	240.687	239.929
		Target Compounds						
2)		a-BHC	5.935	6.597	47202252	94376748	232.879	224.790
3)		g-BHC	6.218	6.914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

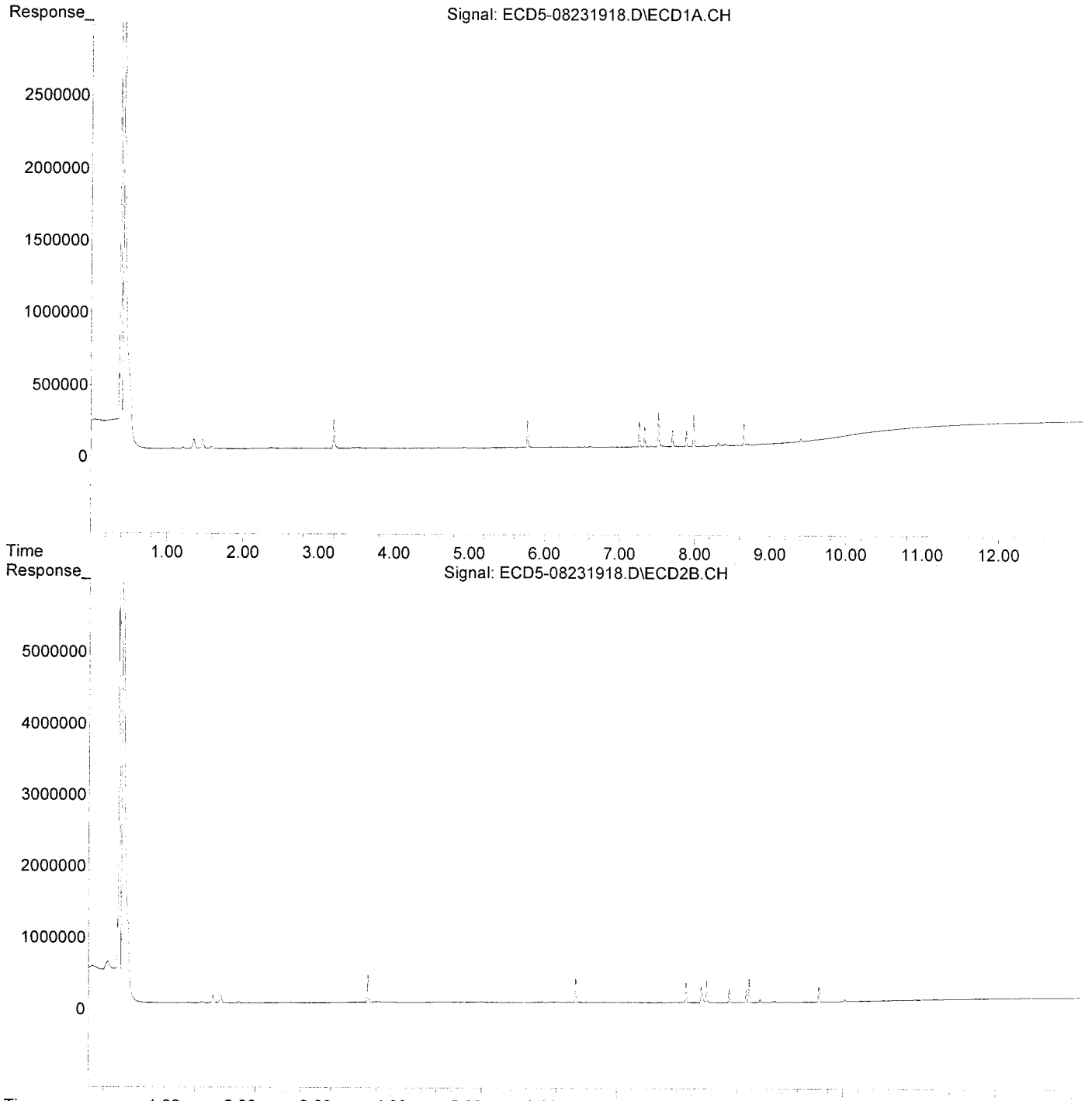
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

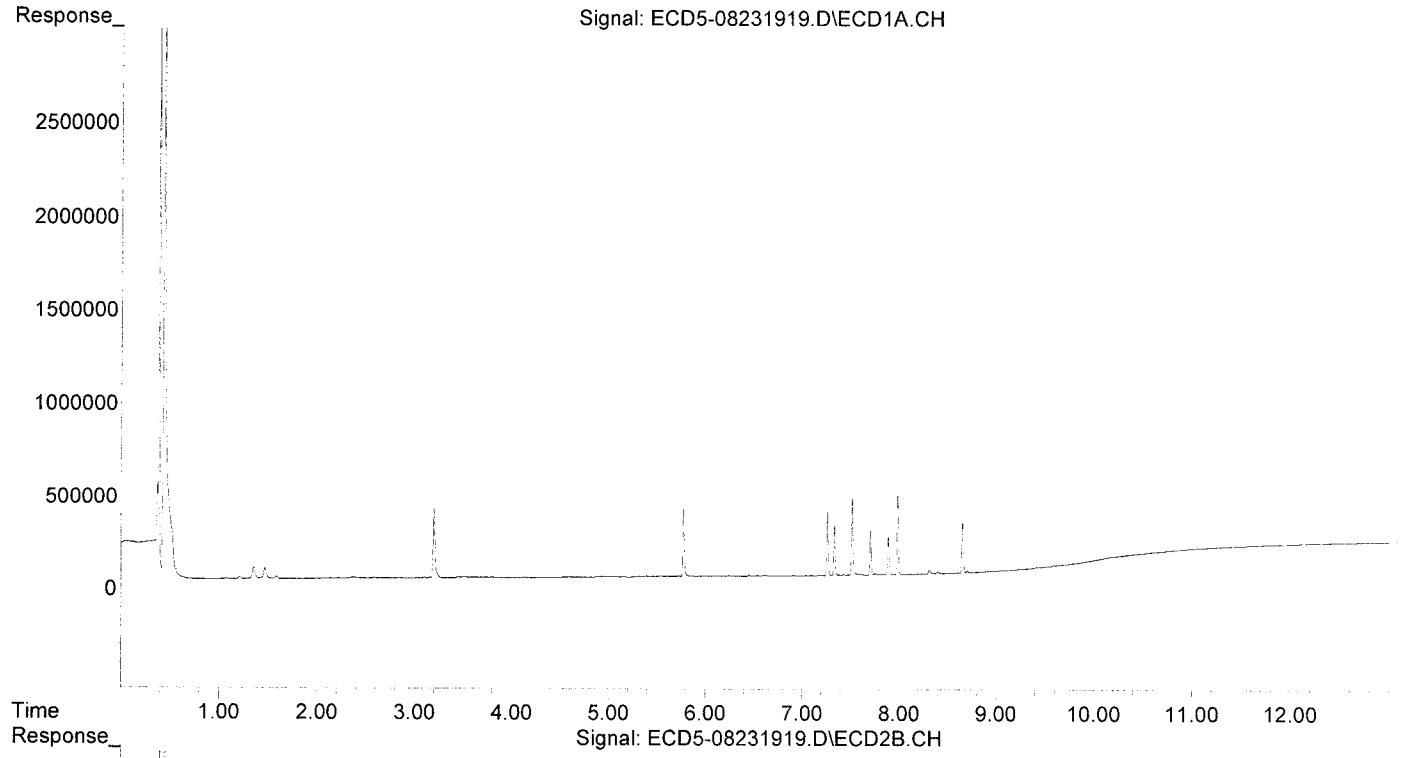
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

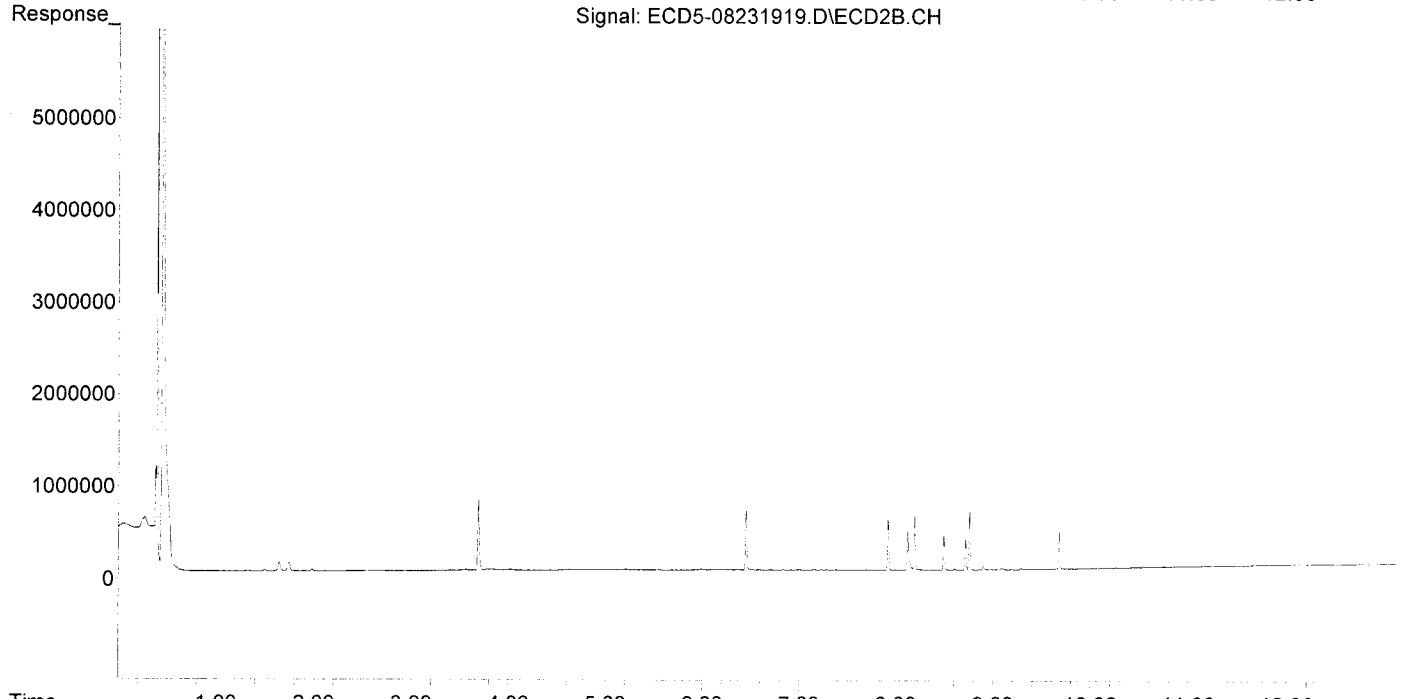
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

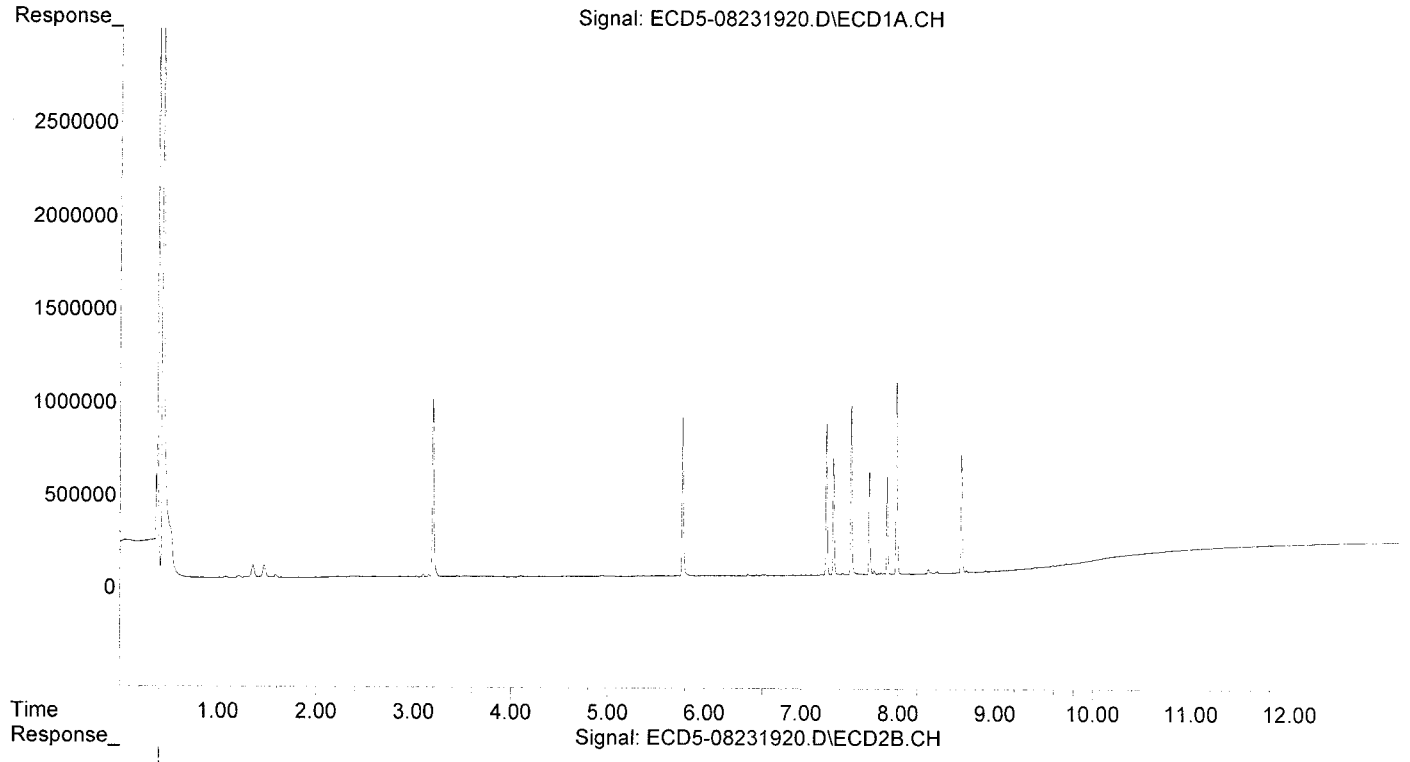
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

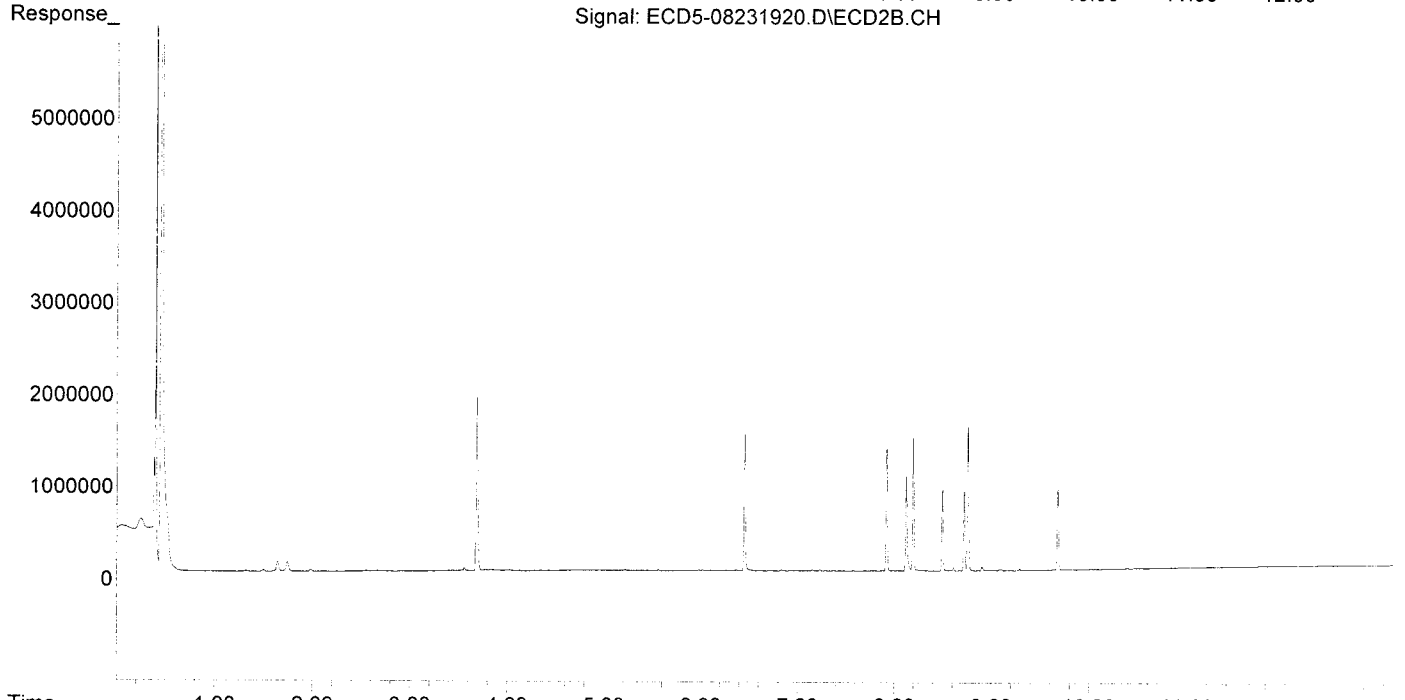
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

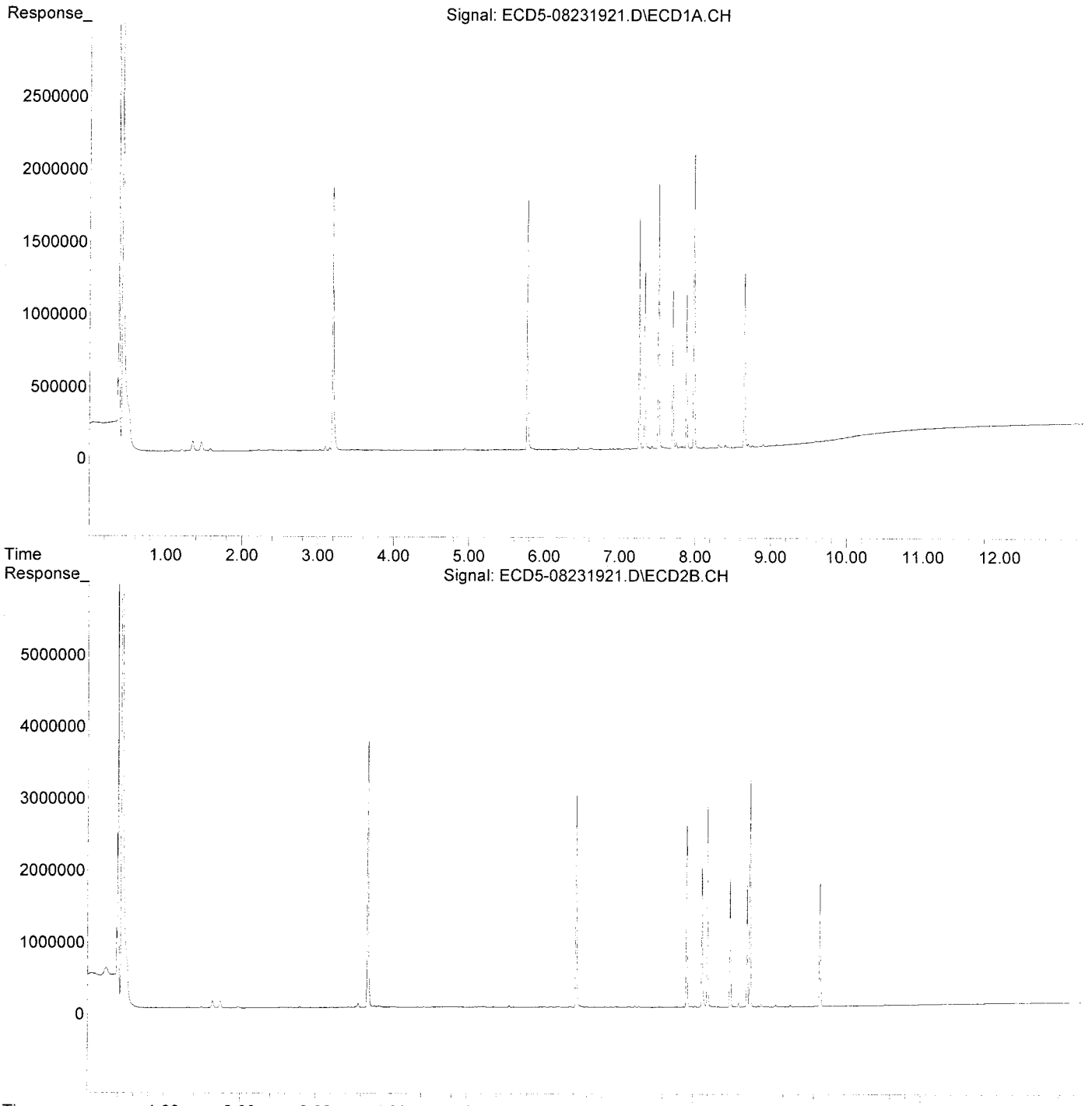
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

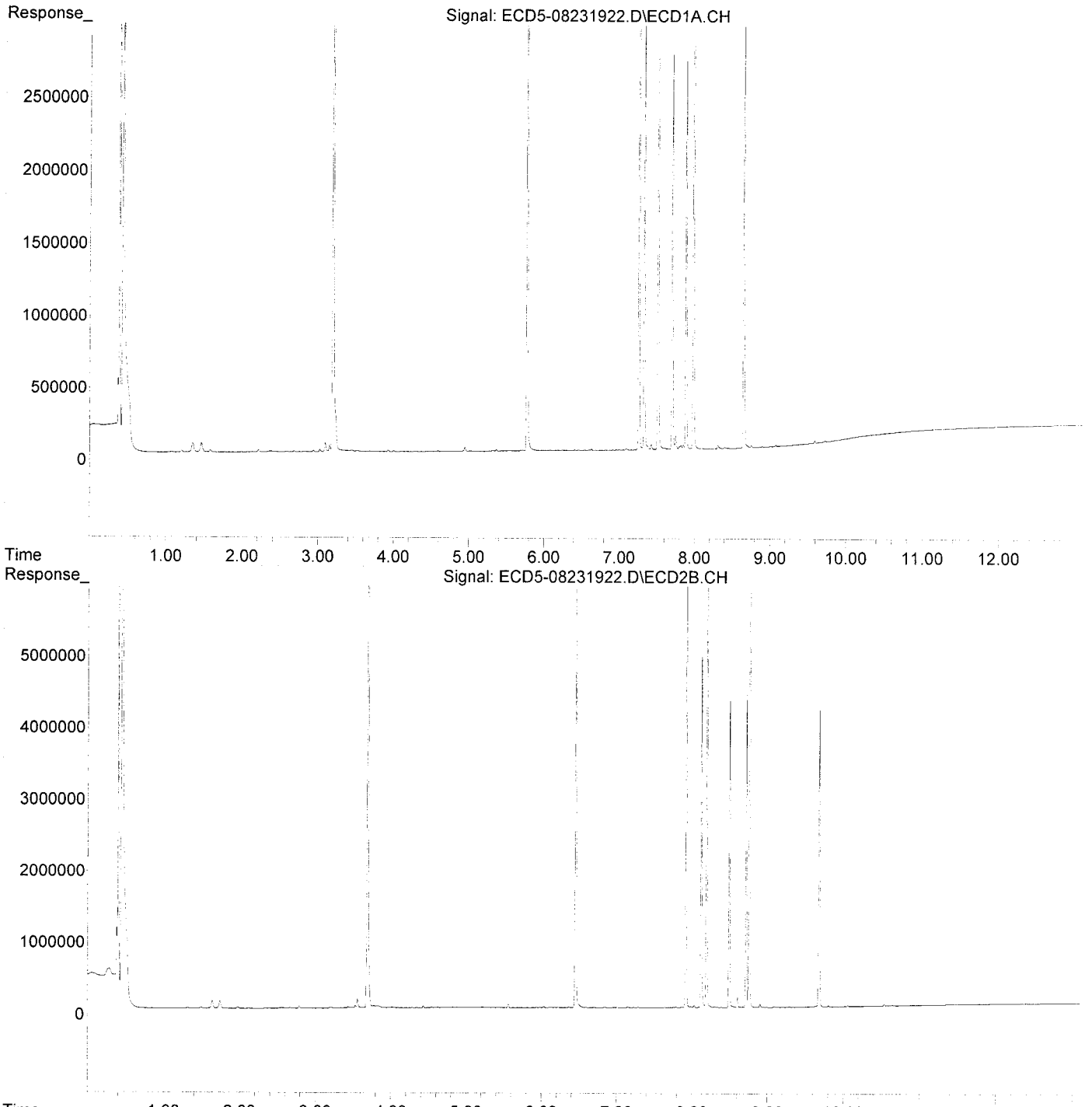
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

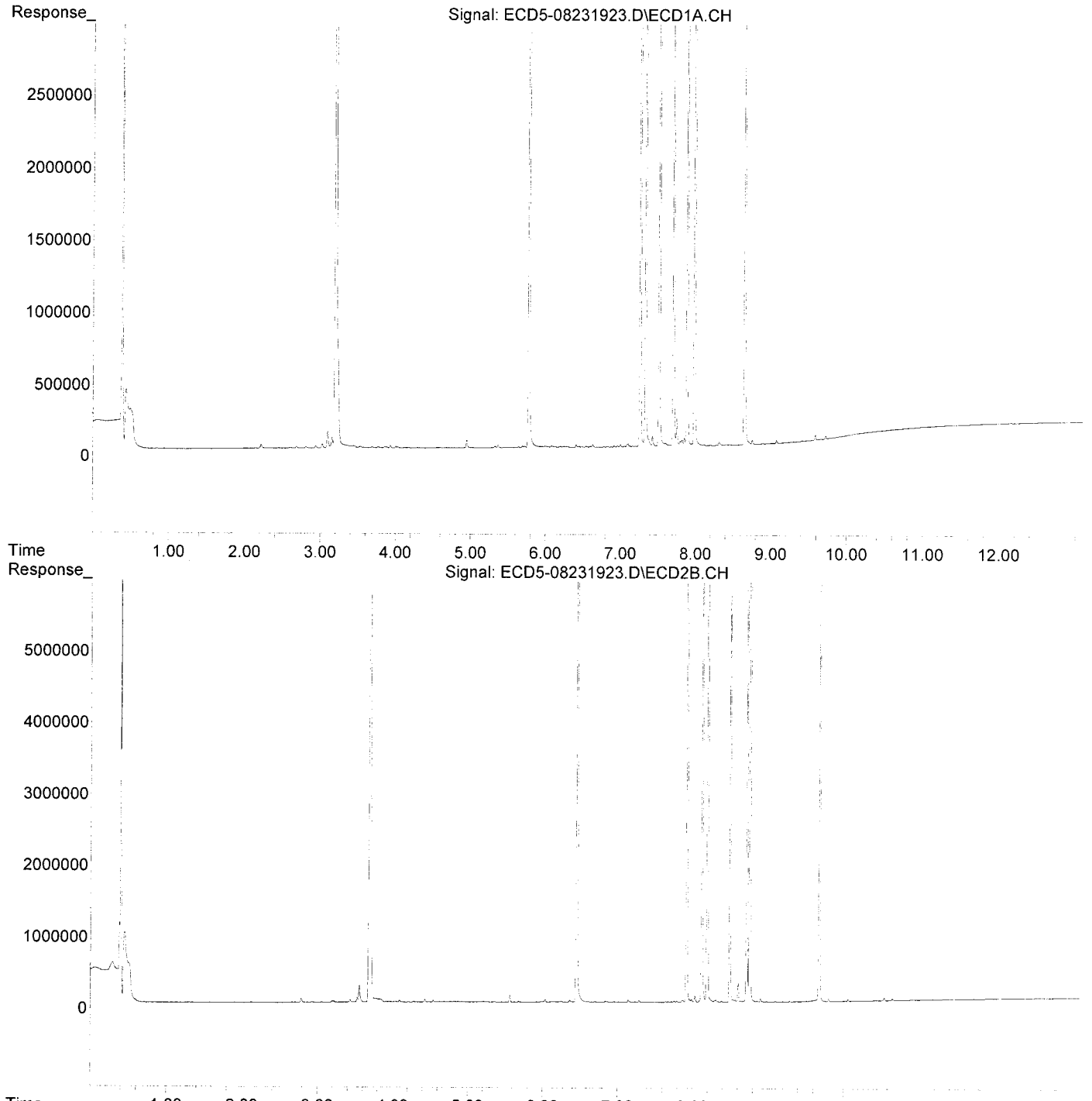
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0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

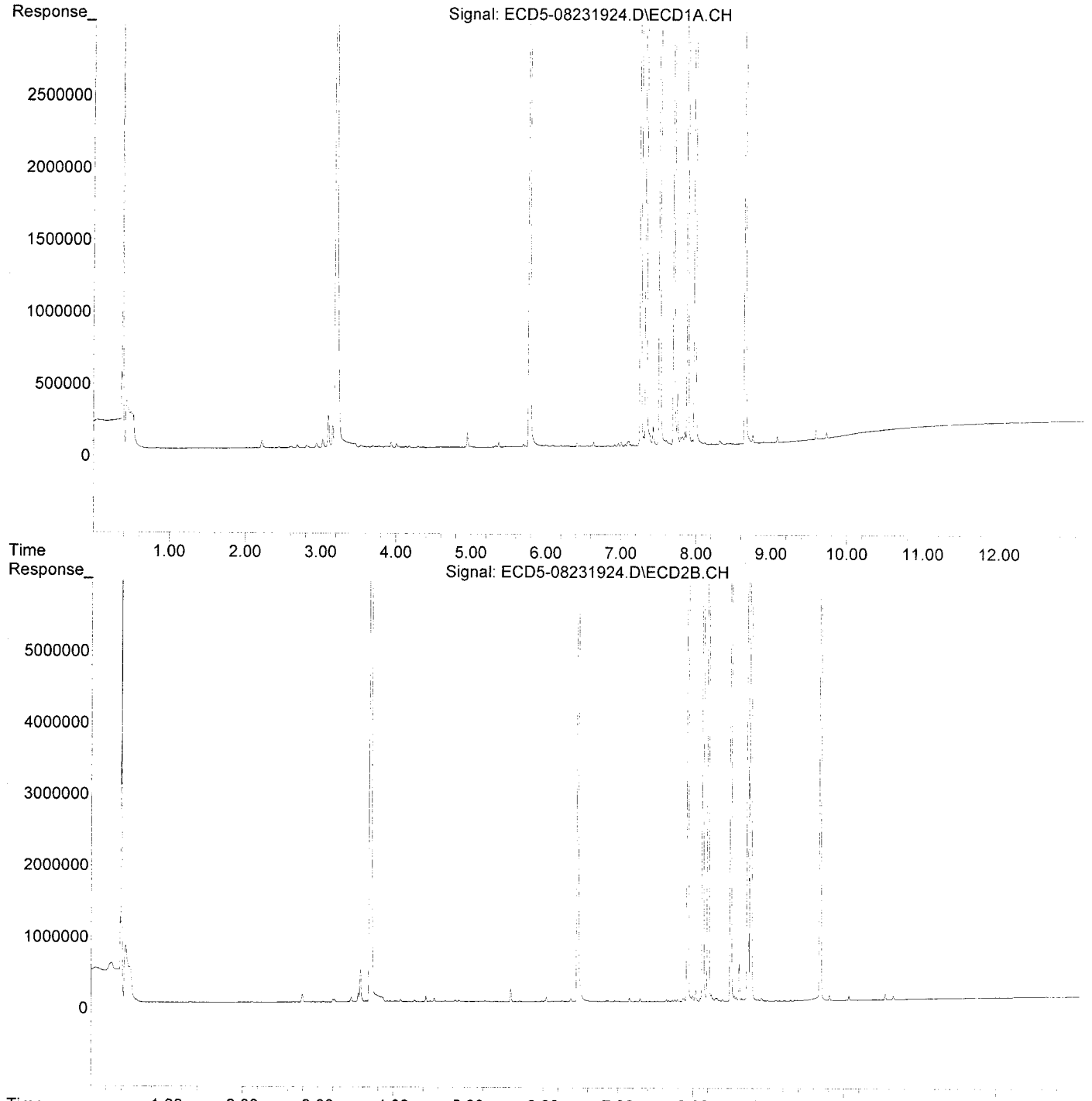
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0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

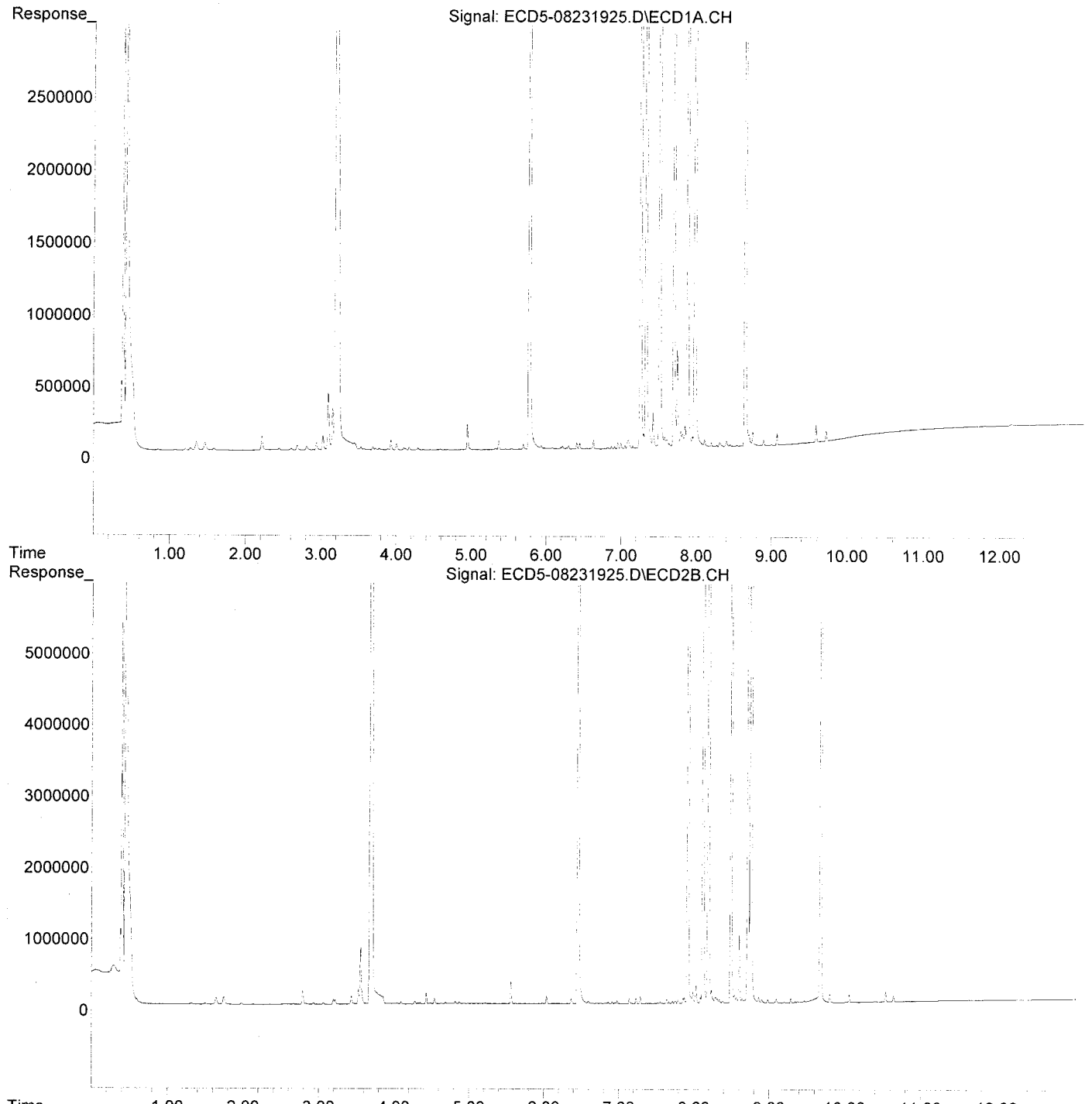
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

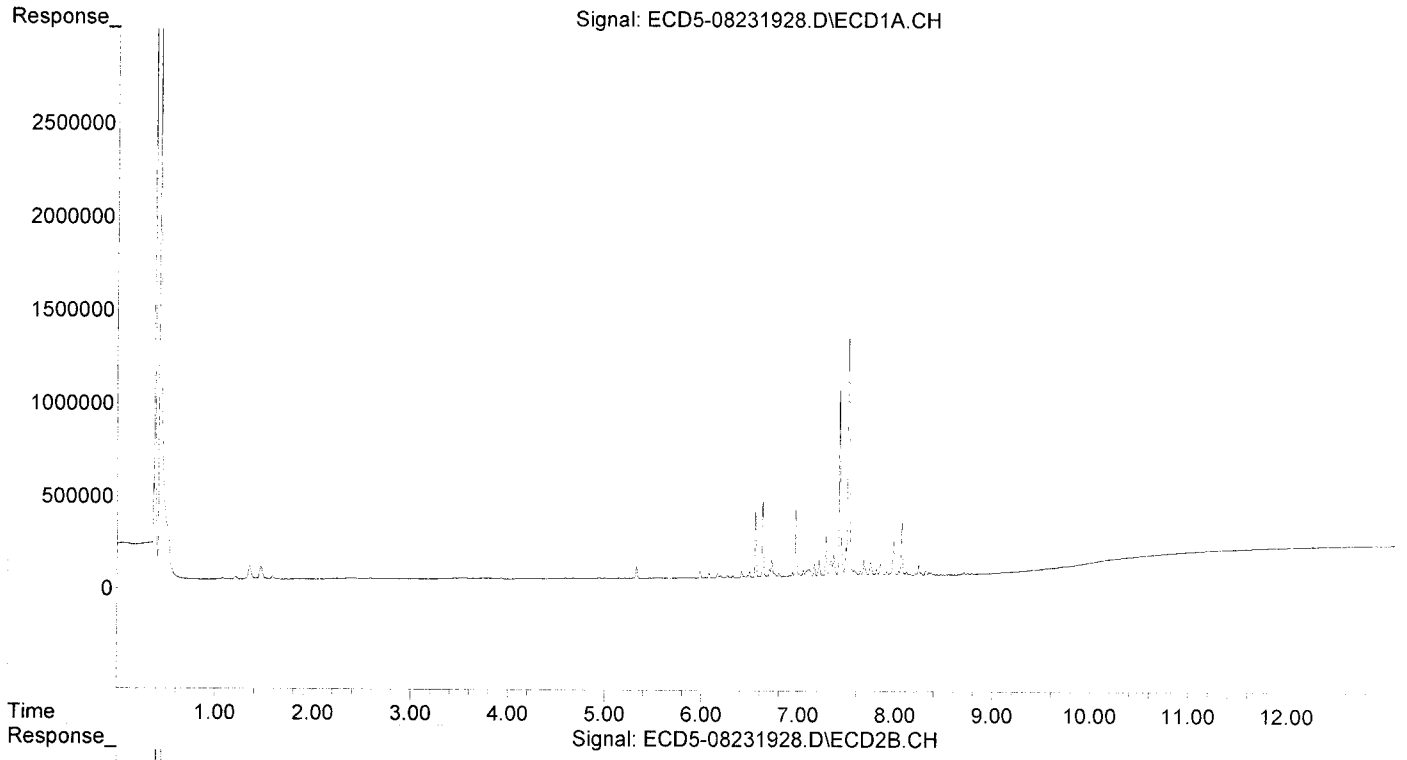
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

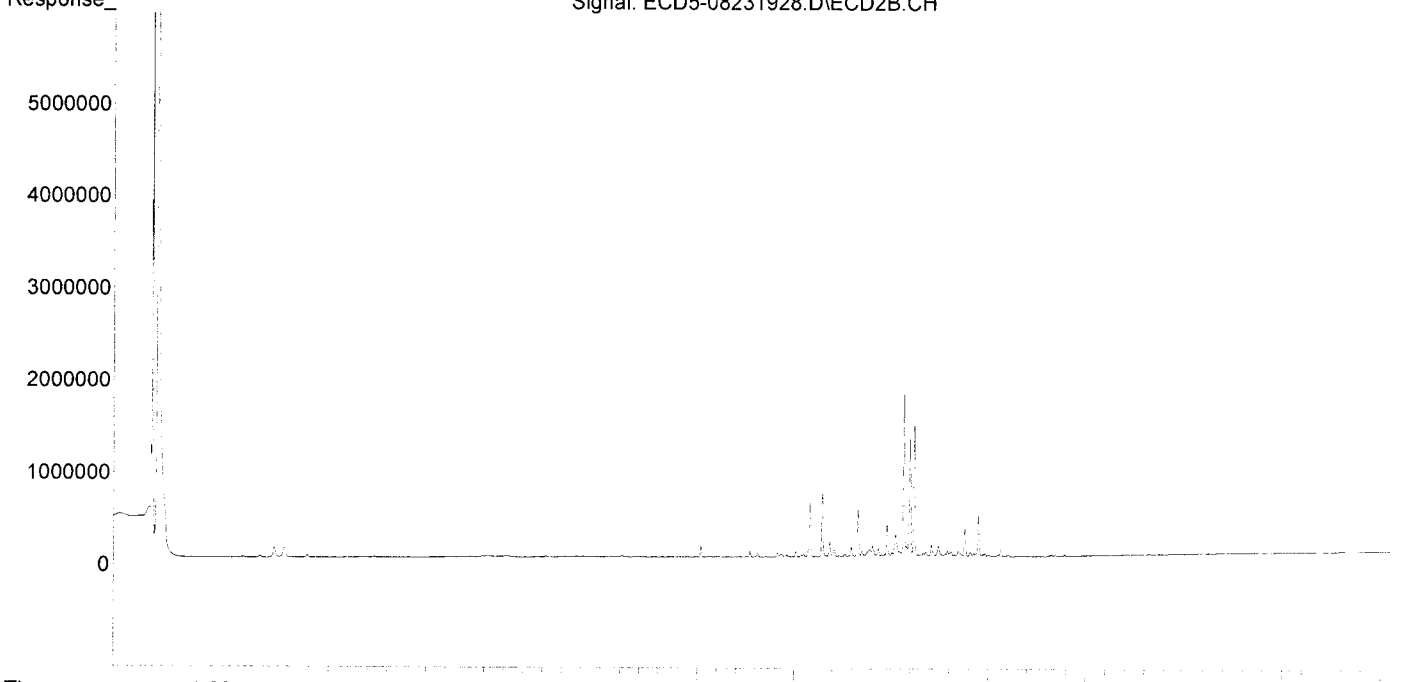
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

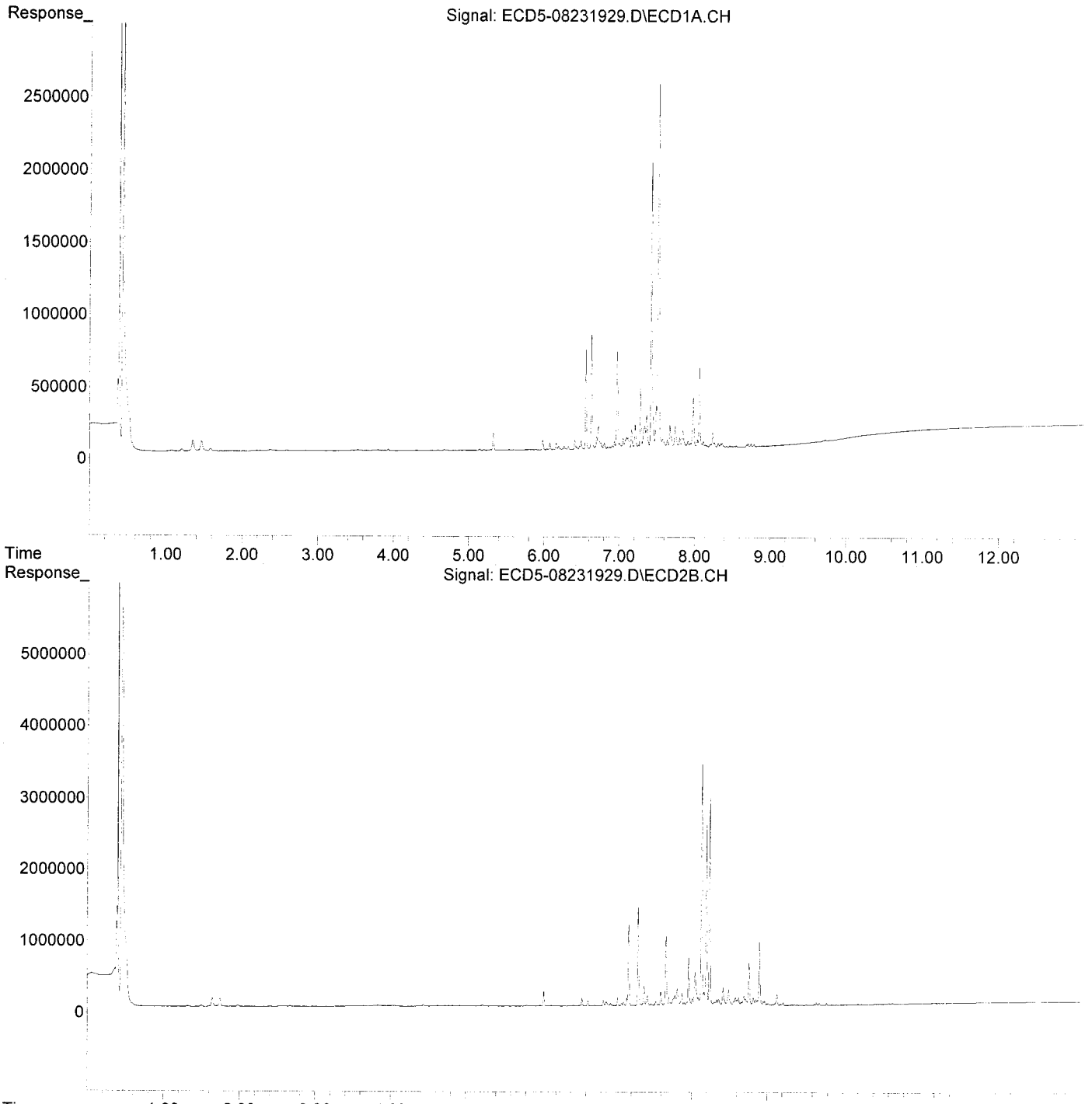
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0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

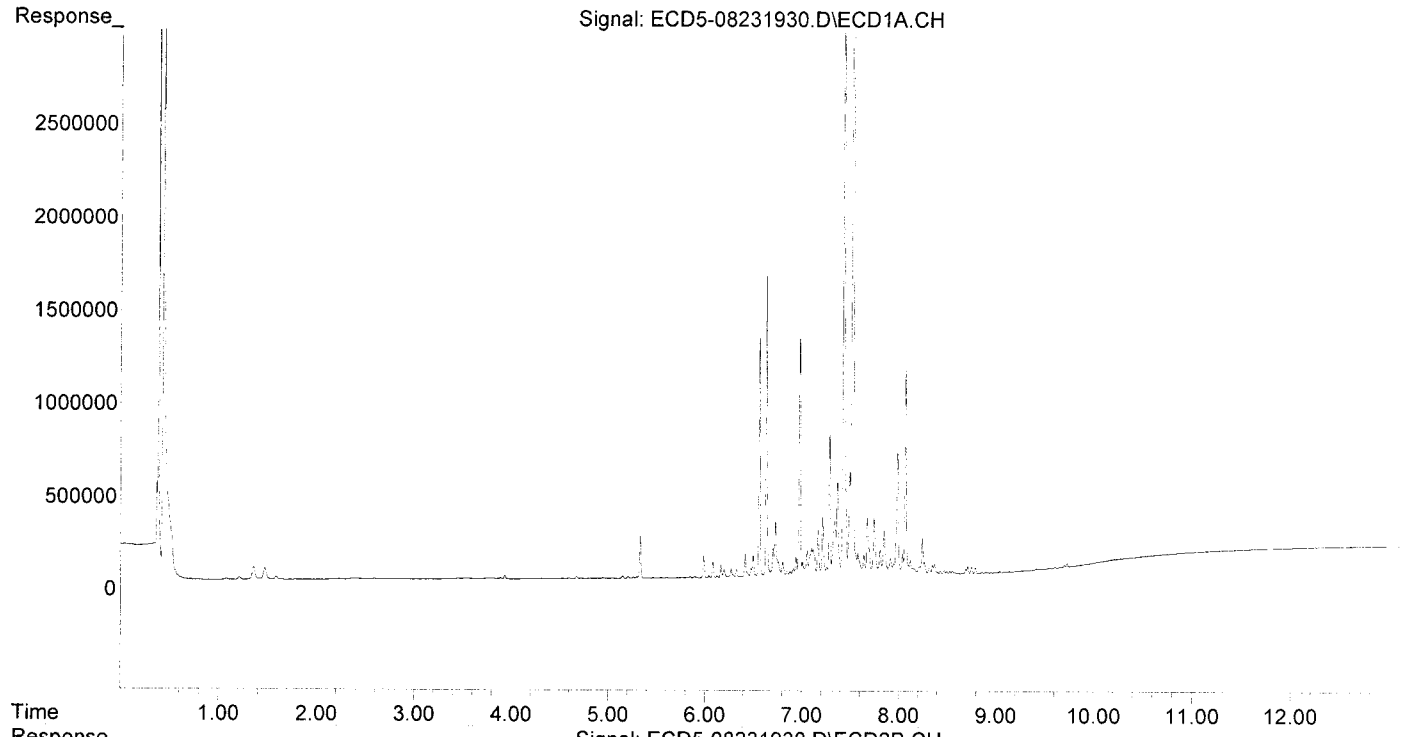
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

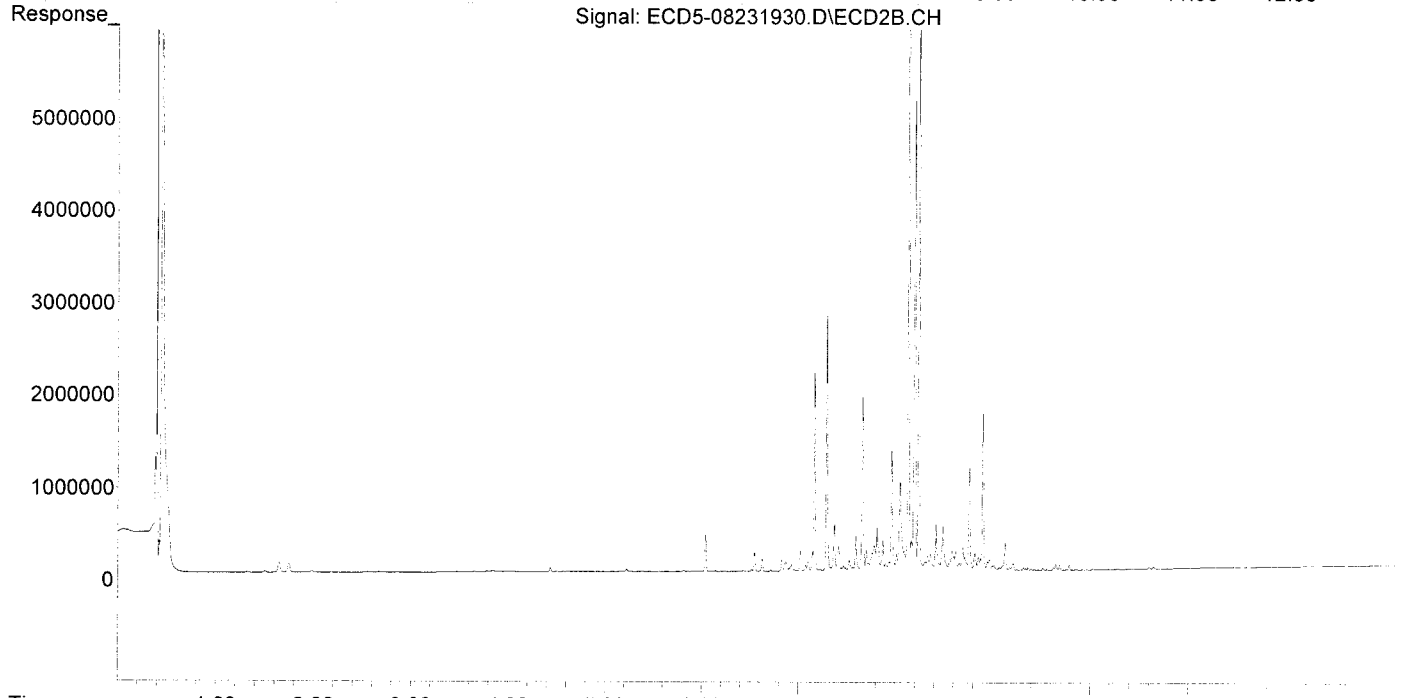
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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 9261 w

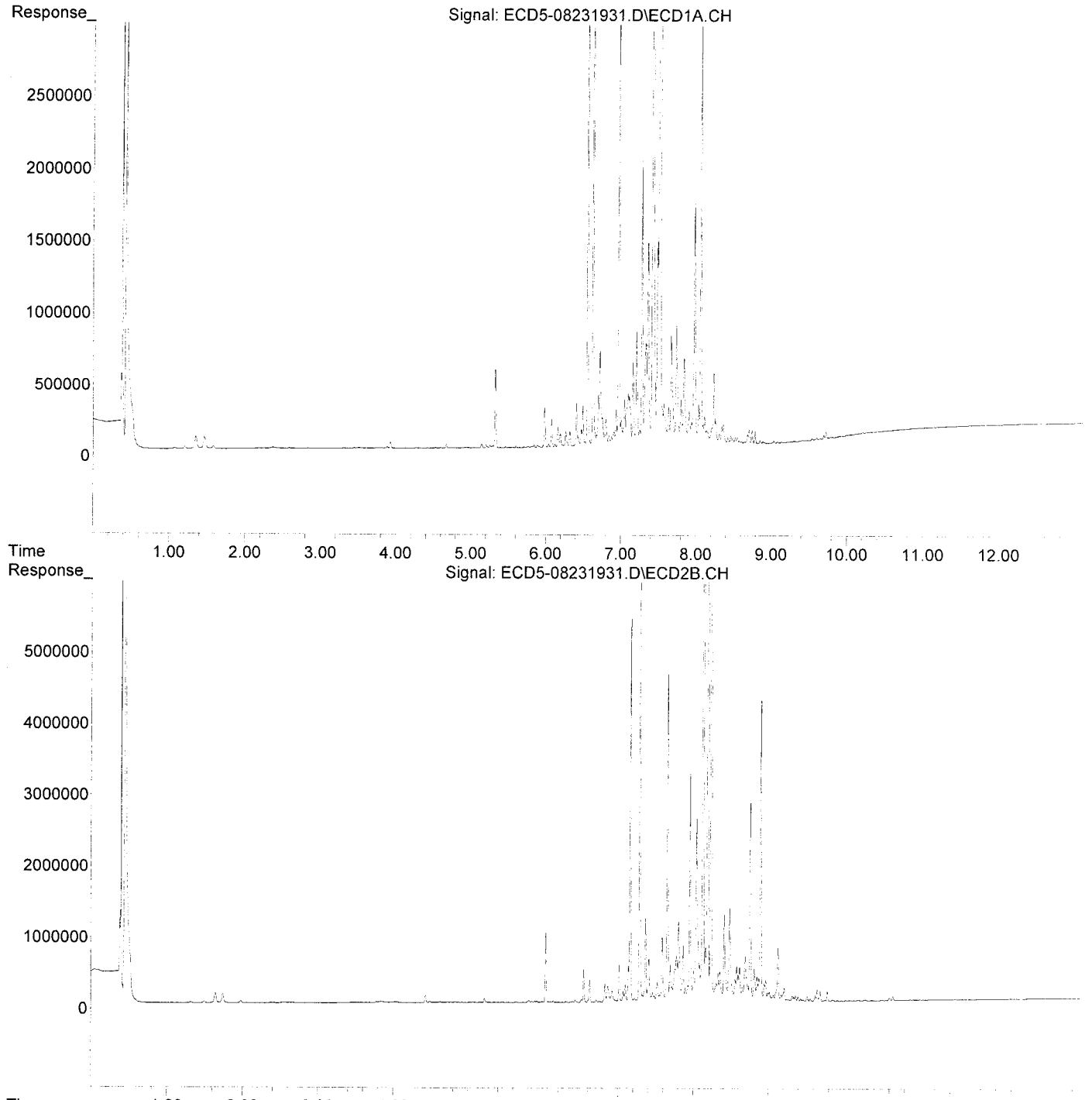
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

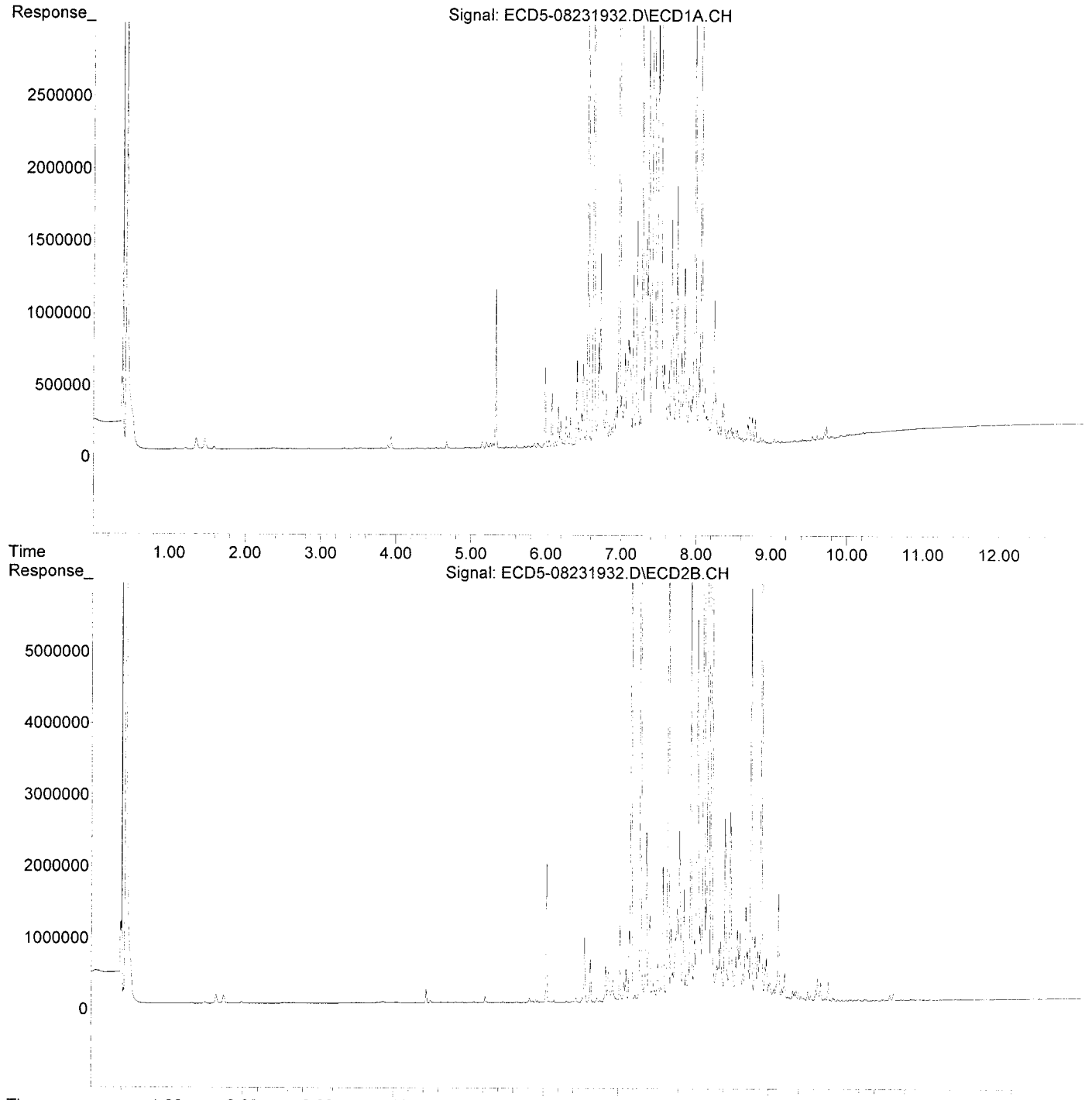
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0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

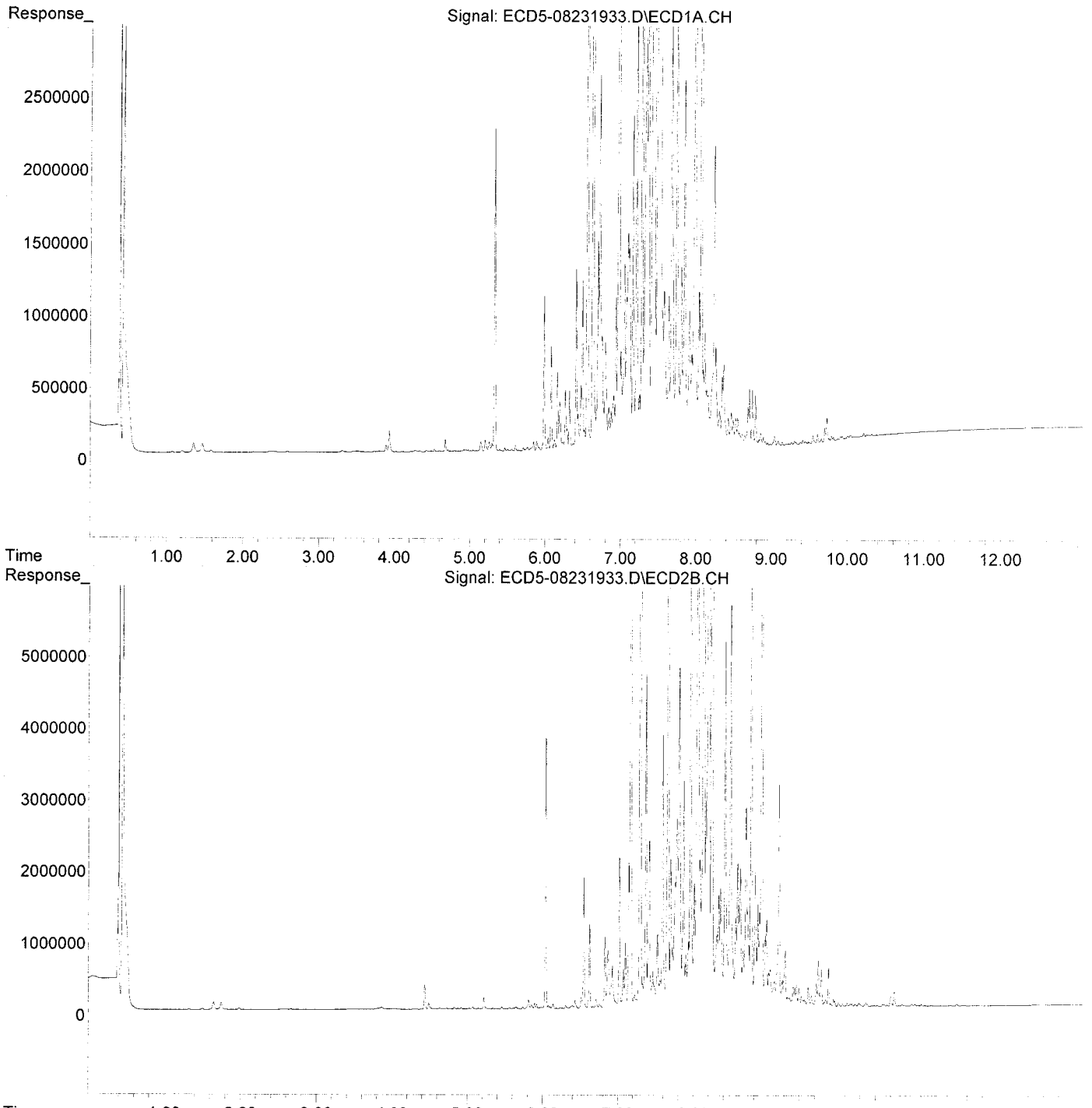
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.426	8.130	40036500	81691713	2596.366	2326.014
33)	Chlordane...	7.519	8.238	50979142	66281388	2464.138	2365.956
34)	Chlordane...	8.067	8.897	12208306	19418517	2554.588	2271.661
35)	Chlordane...	3.449	0.000	4939	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:02
Operator : MJB
Sample : 9H23034-CALM
Misc : A19F231, CHLOR 2000 ppb
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:34:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:48 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

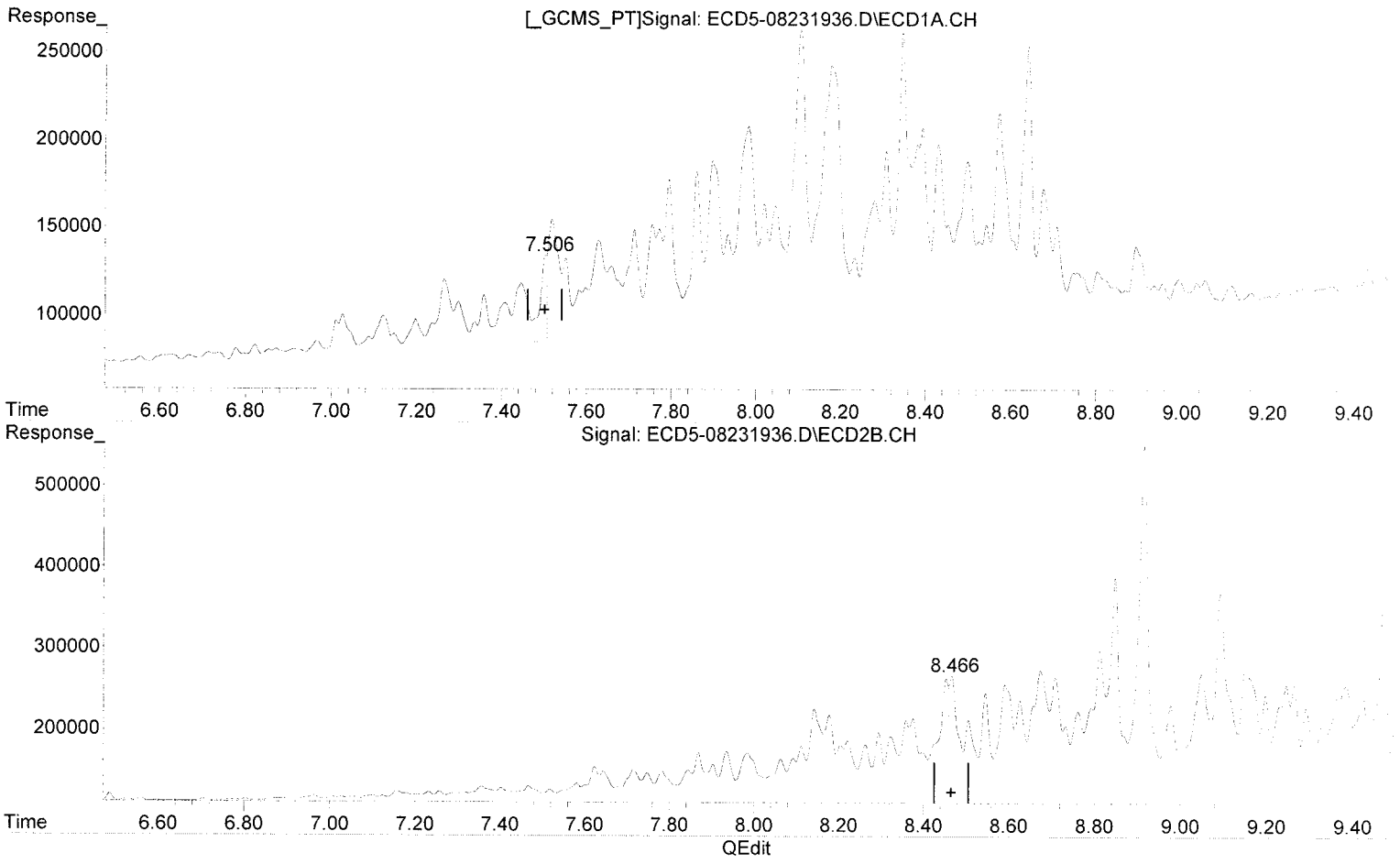
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	7.506	8.466	49250	136848	69.167m	65.864
37)	Toxaphene...	7.794	8.813	88321	164706	67.251	67.260
38)	Toxaphene...	8.105	8.847	169381	254833	62.397	67.028
39)	Toxaphene...	8.346	8.915	164317	416348	64.716	65.275
40)	Toxaphene...	8.573	9.091	114720	233185	60.554	65.984
41)	Toxaphene...	8.641	9.470	153138	230922	57.297	70.513
42)	Toxaphene...	3.449	0.000	4023	0	NoCal	N.D.

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

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.506min 69.167 ng/mL (m)

response 49250

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 65.864 ng/mL

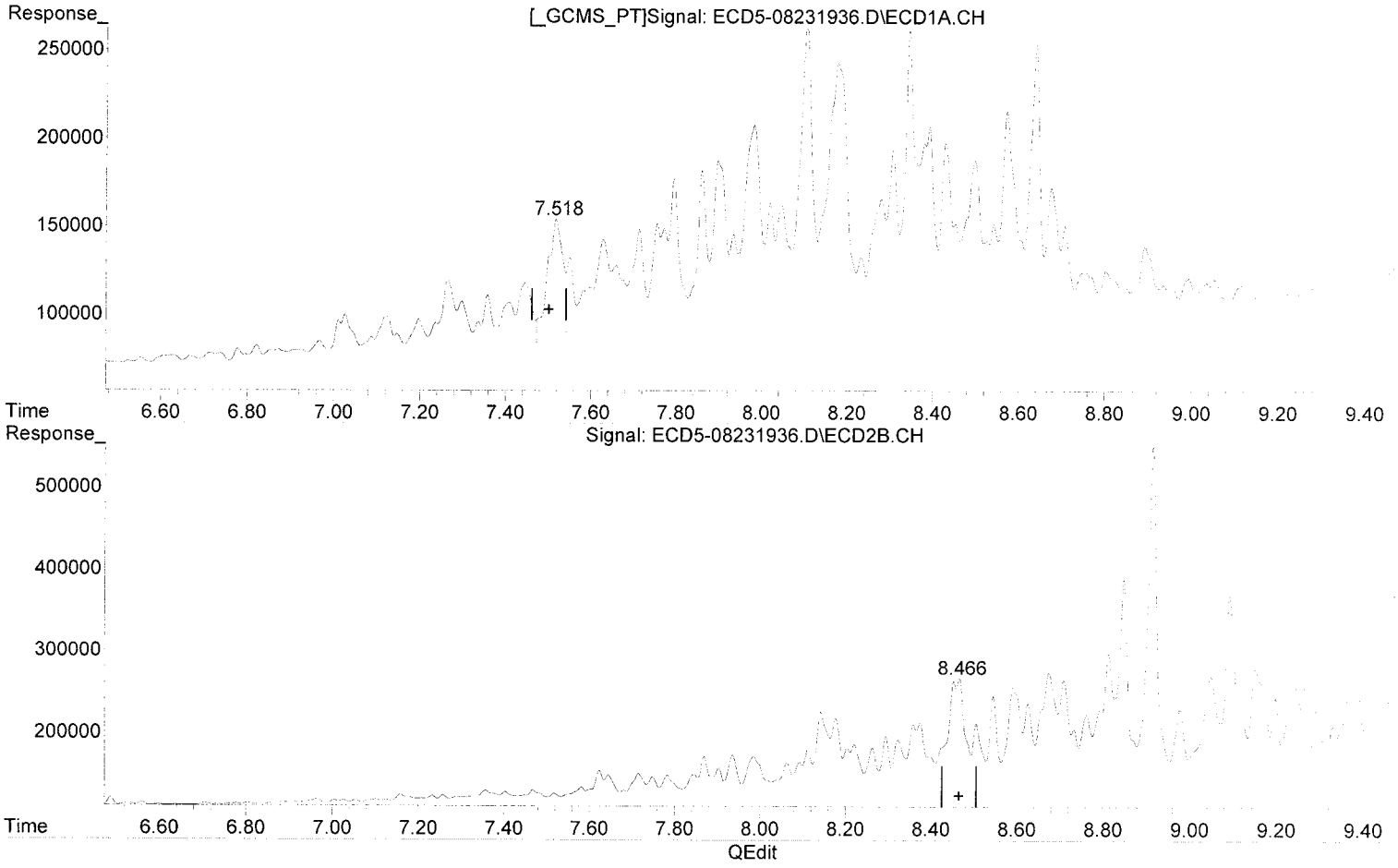
response 136848

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.518min 96.999 ng/mL

response 69068

MJB 6/26/19

(36) Toxaphene (1) #2

8.466min 65.864 ng/mL

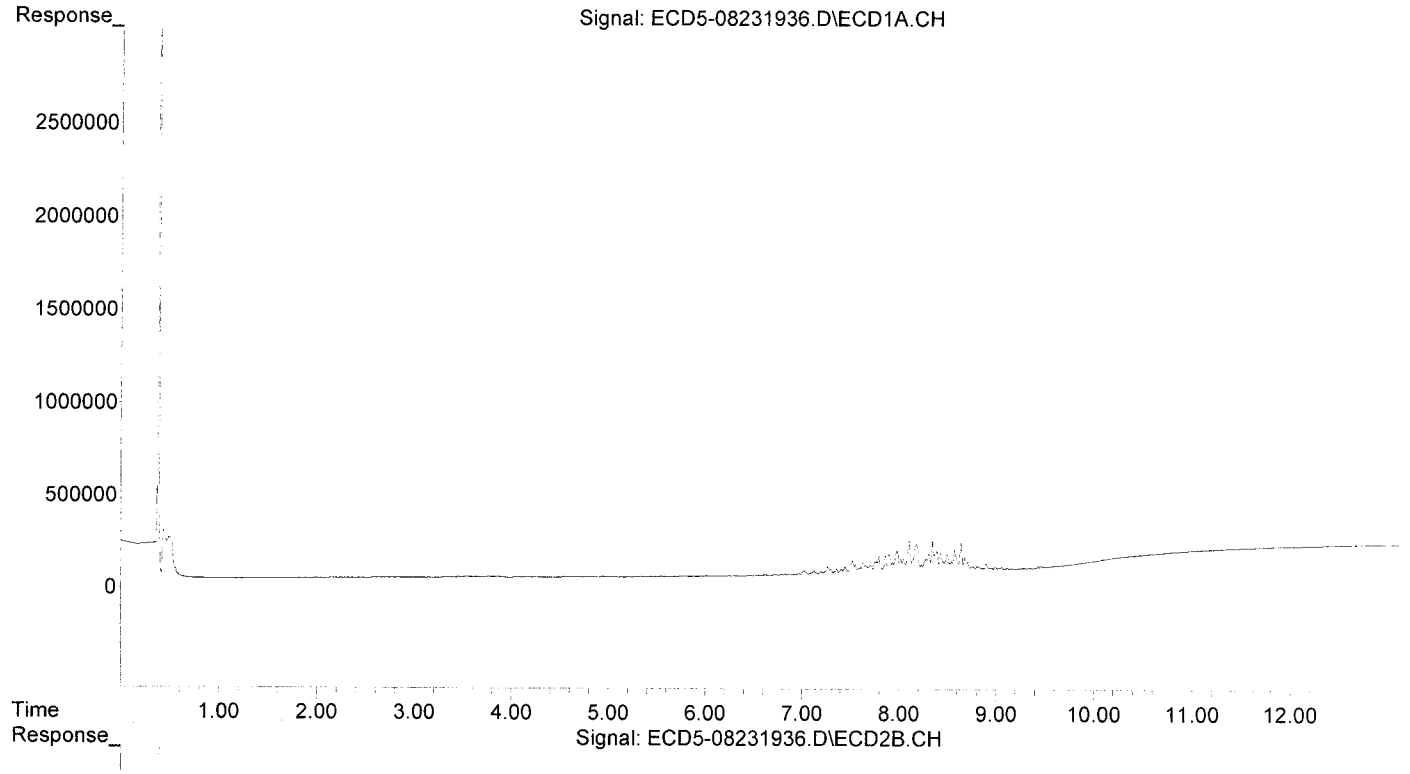
response 136848

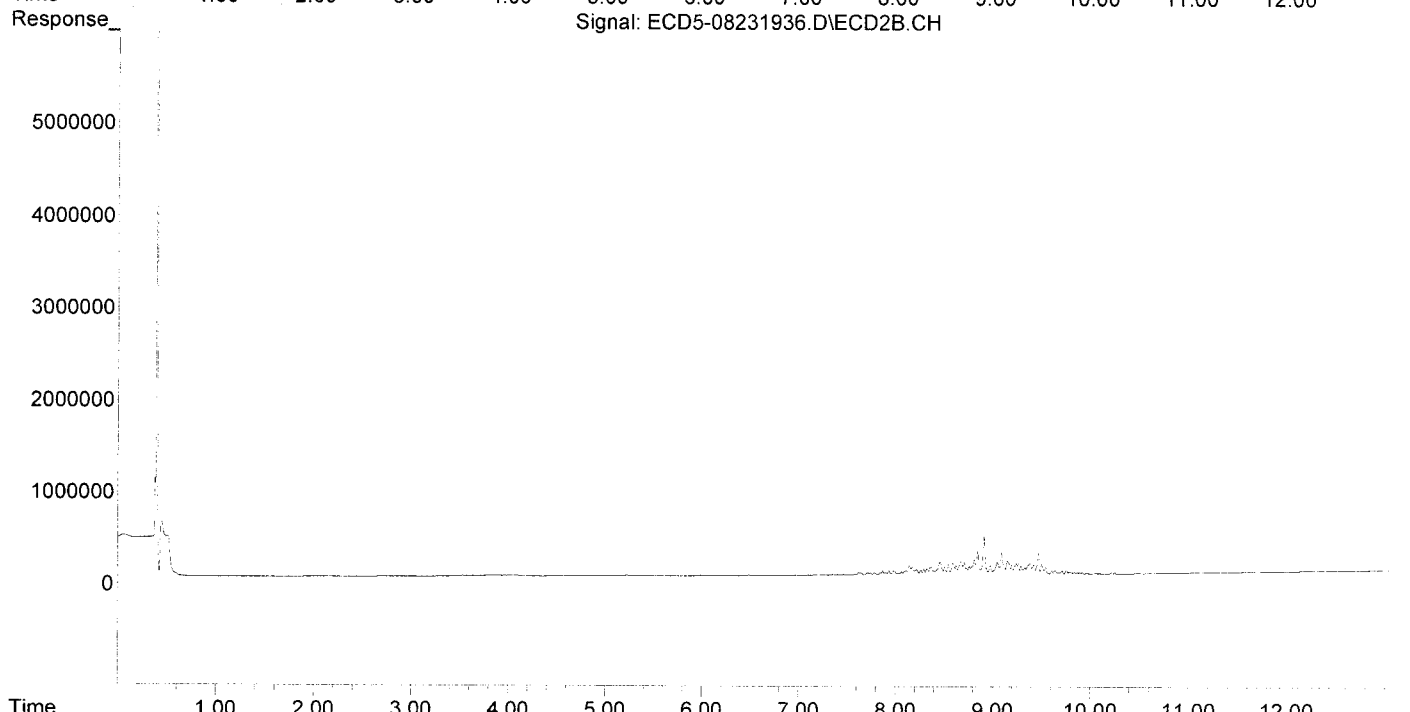
(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:48 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:38:53 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

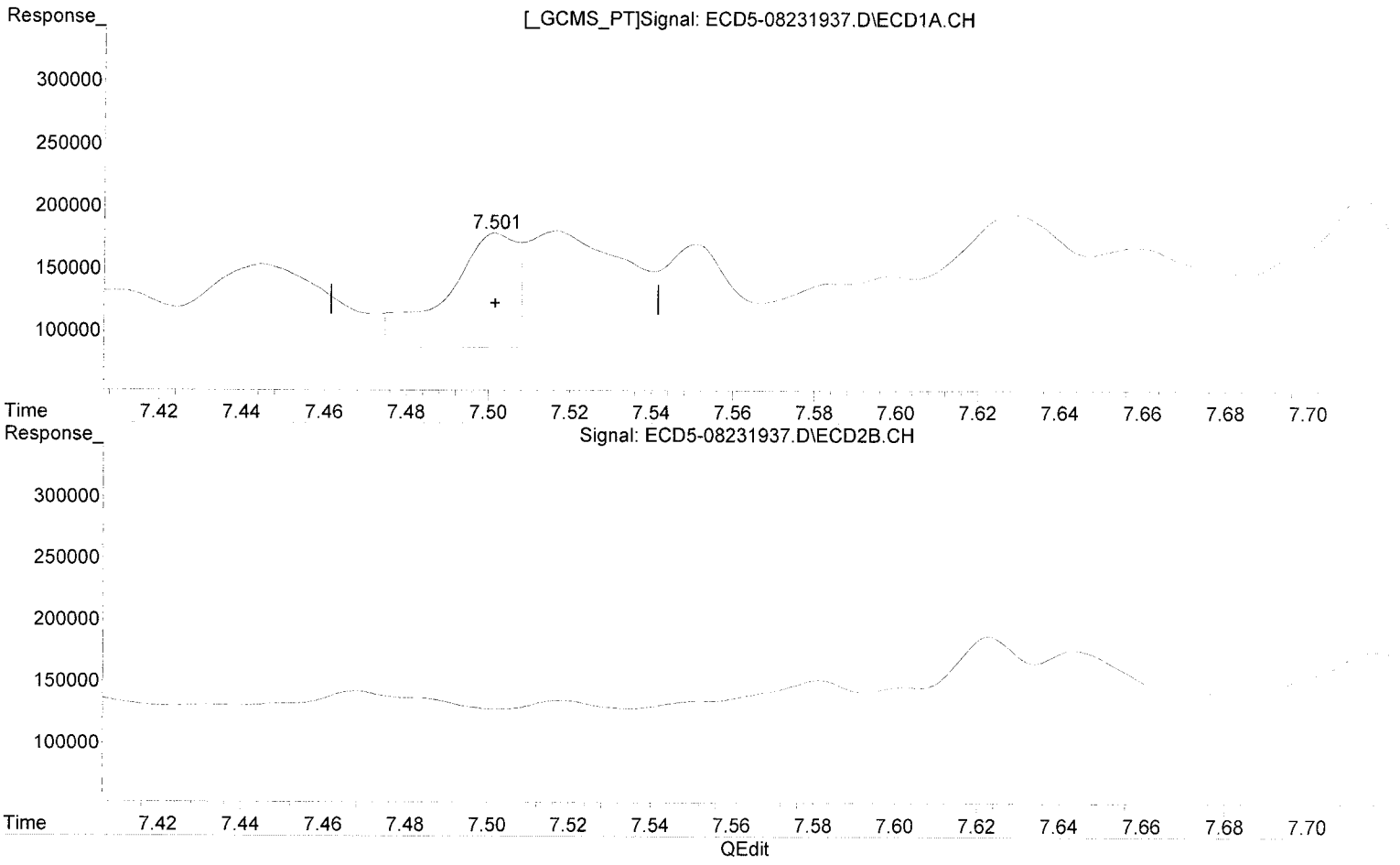
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.501	8.466	91576	267534	128.609m	128.761
37)		Toxaphene...	7.795	8.813	166085	324070	126.462	132.338
38)		Toxaphene...	8.106	8.848	332842	494430	122.613	130.048
39)		Toxaphene...	8.346	8.915	320313	811948	126.154	127.297
40)		Toxaphene...	8.574	9.091	228960	452209	120.854	127.962
41)		Toxaphene...	8.641	9.471	302577	452485	113.210	135.226
42)		Toxaphene...	3.450	0.000	3536	0	NoCal	N.D.

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

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:38:11 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.501min 128.609 ng/mL m

response 91576

MJB 9/26/19

(36) Toxaphene (1) #2

8.466min 128.761 ng/mL

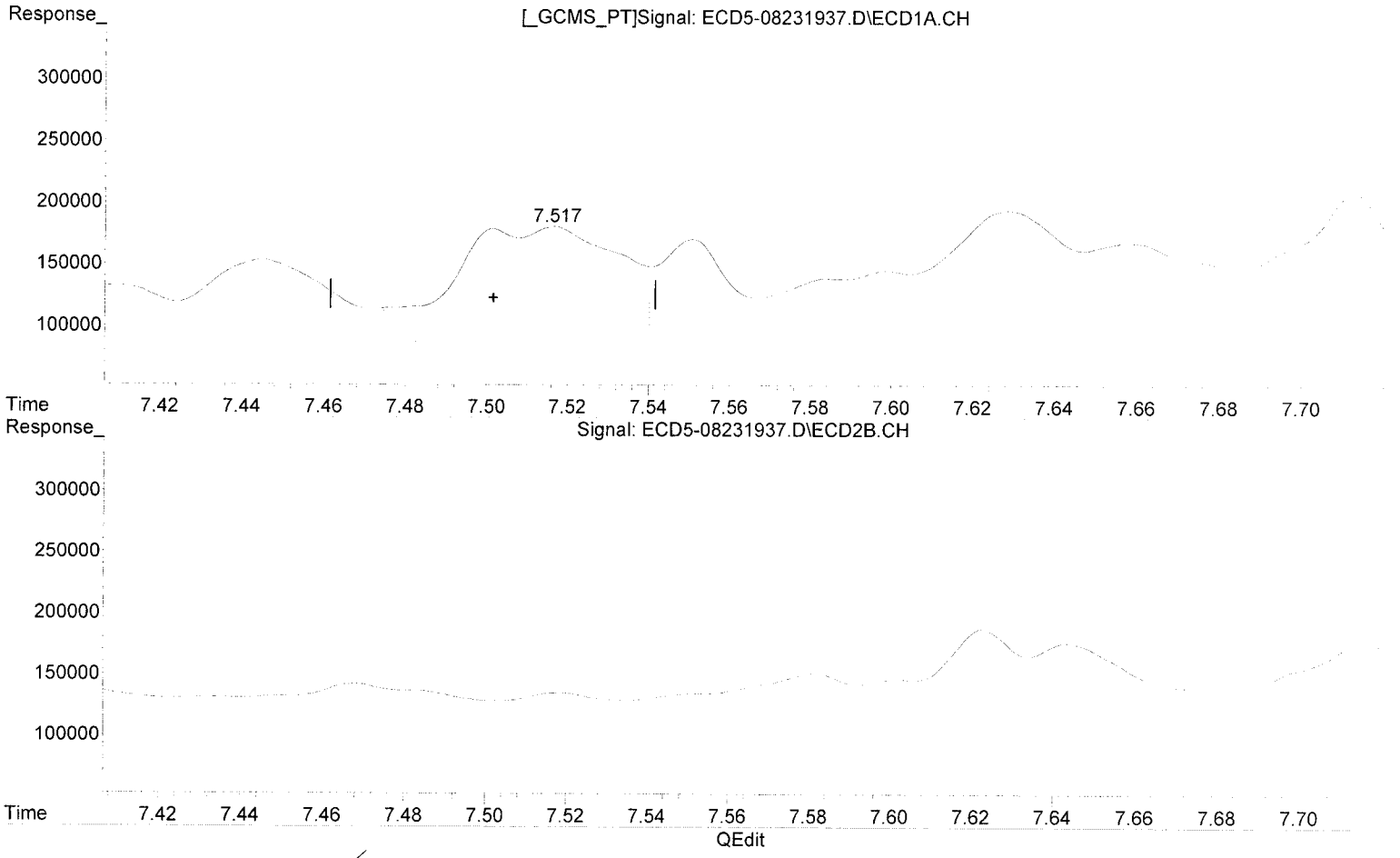
response 267534

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:38:11 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.517min 130.814 ng/mL

response 93146

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 128.761 ng/mL

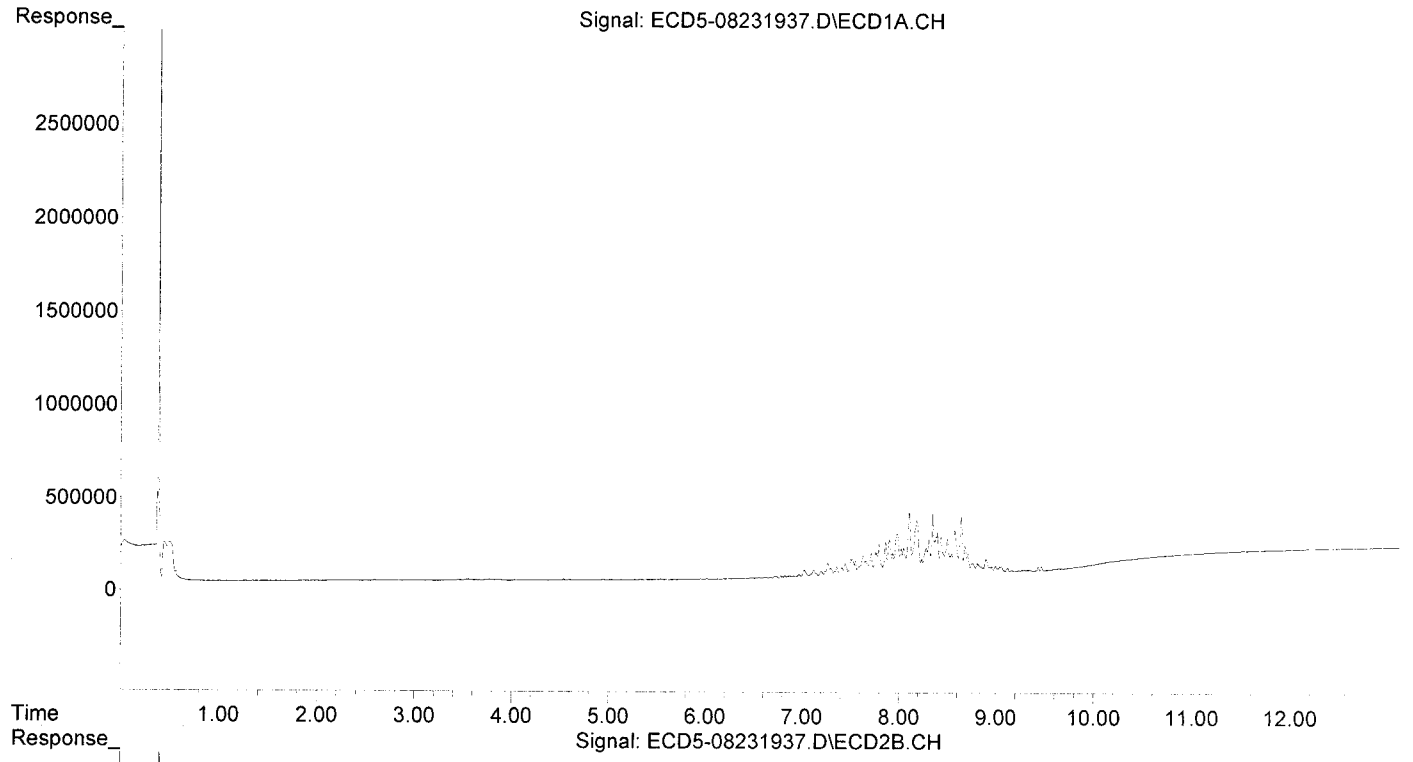
response 267534

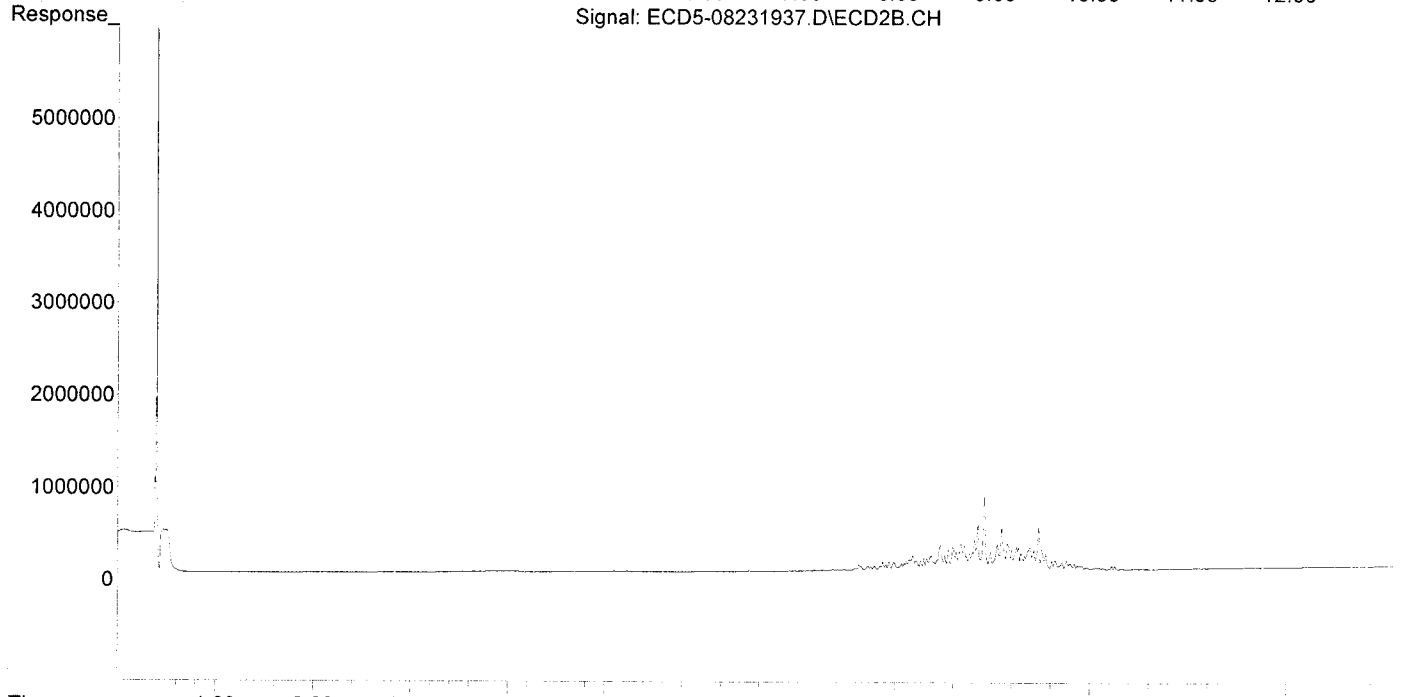
(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:38:53 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231938.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:28
Operator : MJB
Sample : 9H23034-CALP
Misc : A19D124, TOX 200 ppb
ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:39:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

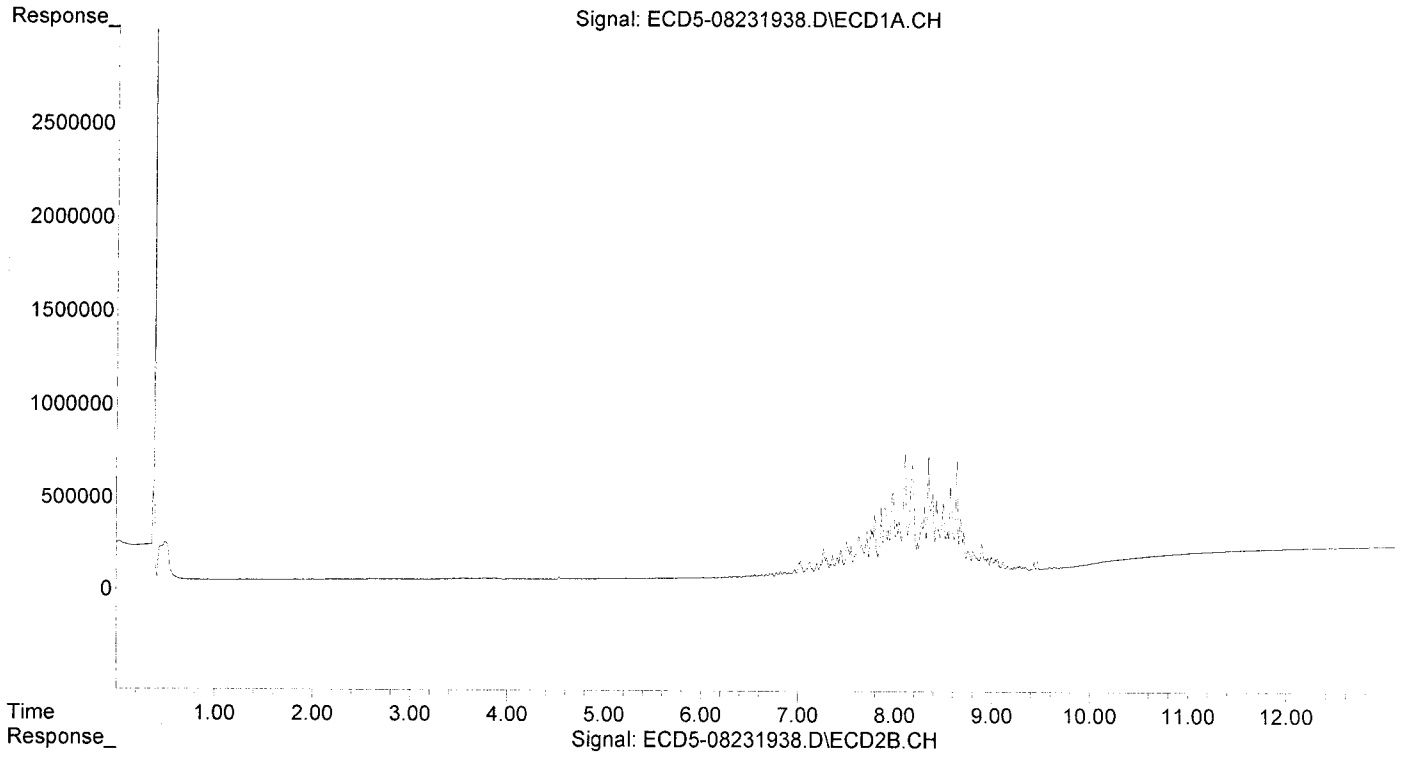
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.502	8.466	176047	508983	247.240	244.968
37)		Toxaphene...	7.795	8.812	317587	645322	241.821	263.525
38)		Toxaphene...	8.105	8.847	644464	995555	237.409	261.857
39)		Toxaphene...	8.346	8.914	632351	1580436	249.049	247.779
40)		Toxaphene...	8.574	9.090	454431	895397	239.867	253.371
41)		Toxaphene...	8.640	9.469	597991	905244	223.740	263.952
42)		Toxaphene...	3.451	0.000	3919	0	NoCal	N.D.

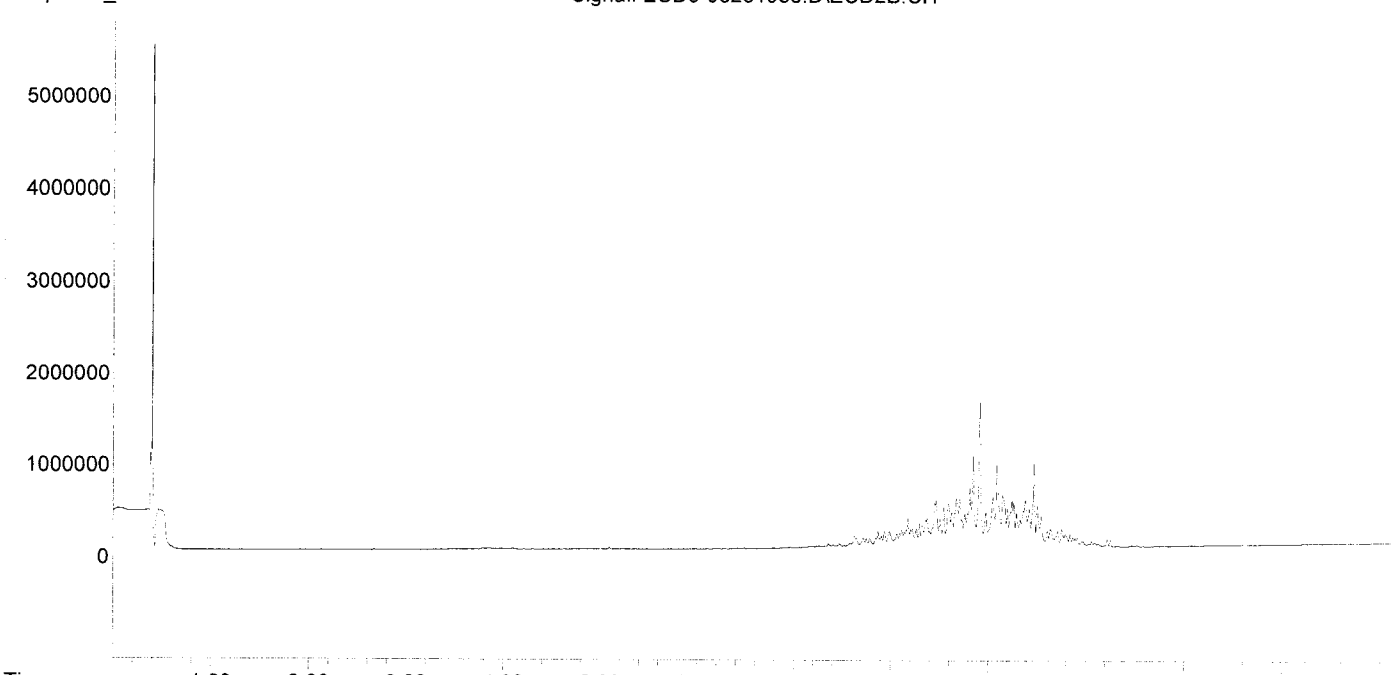
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

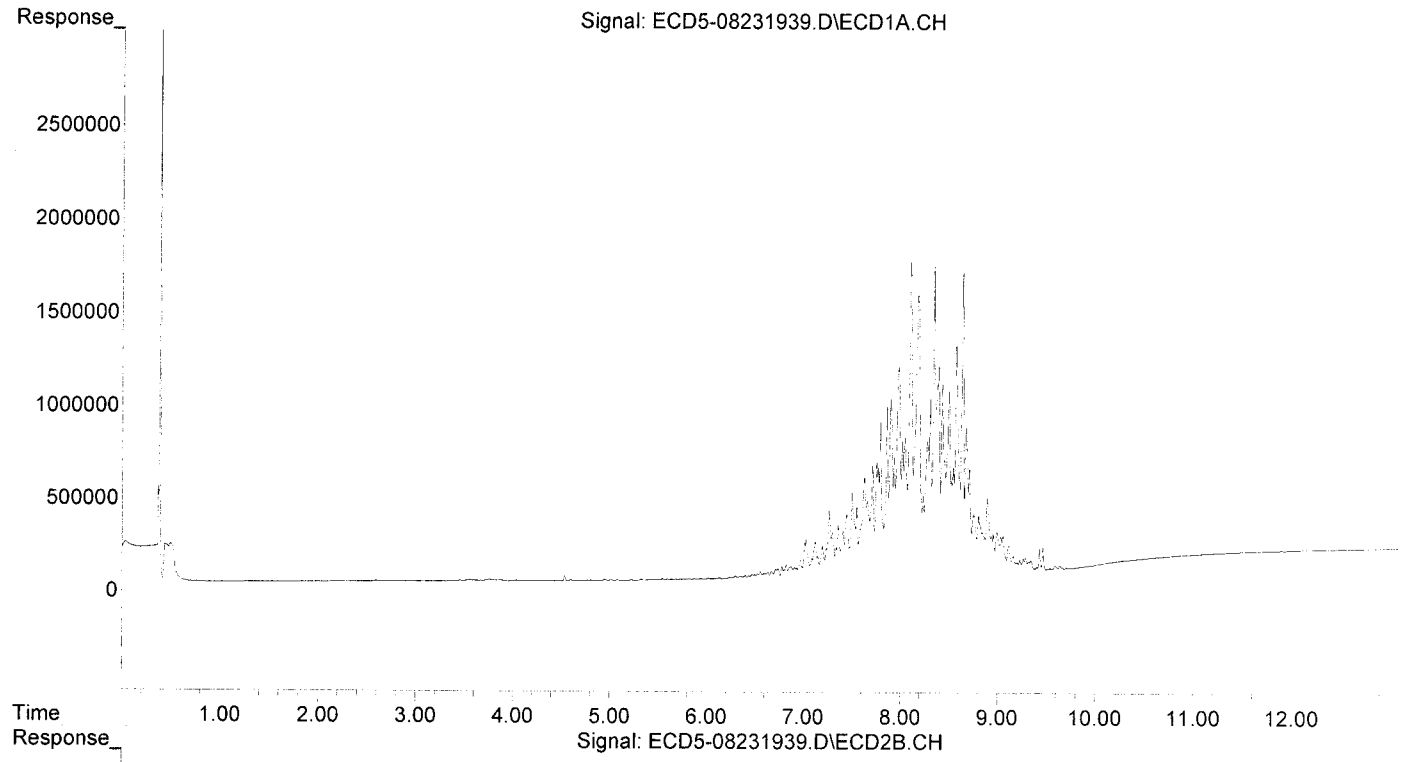
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0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

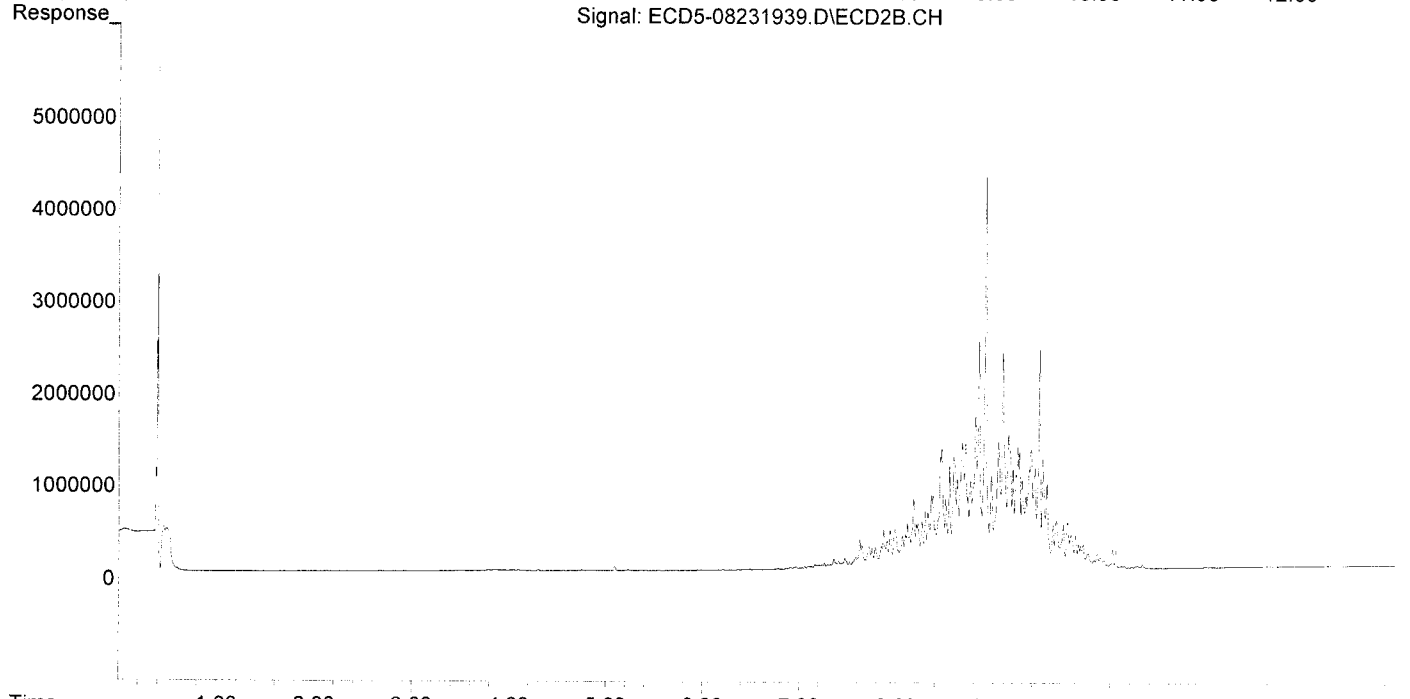
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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 8/26/19

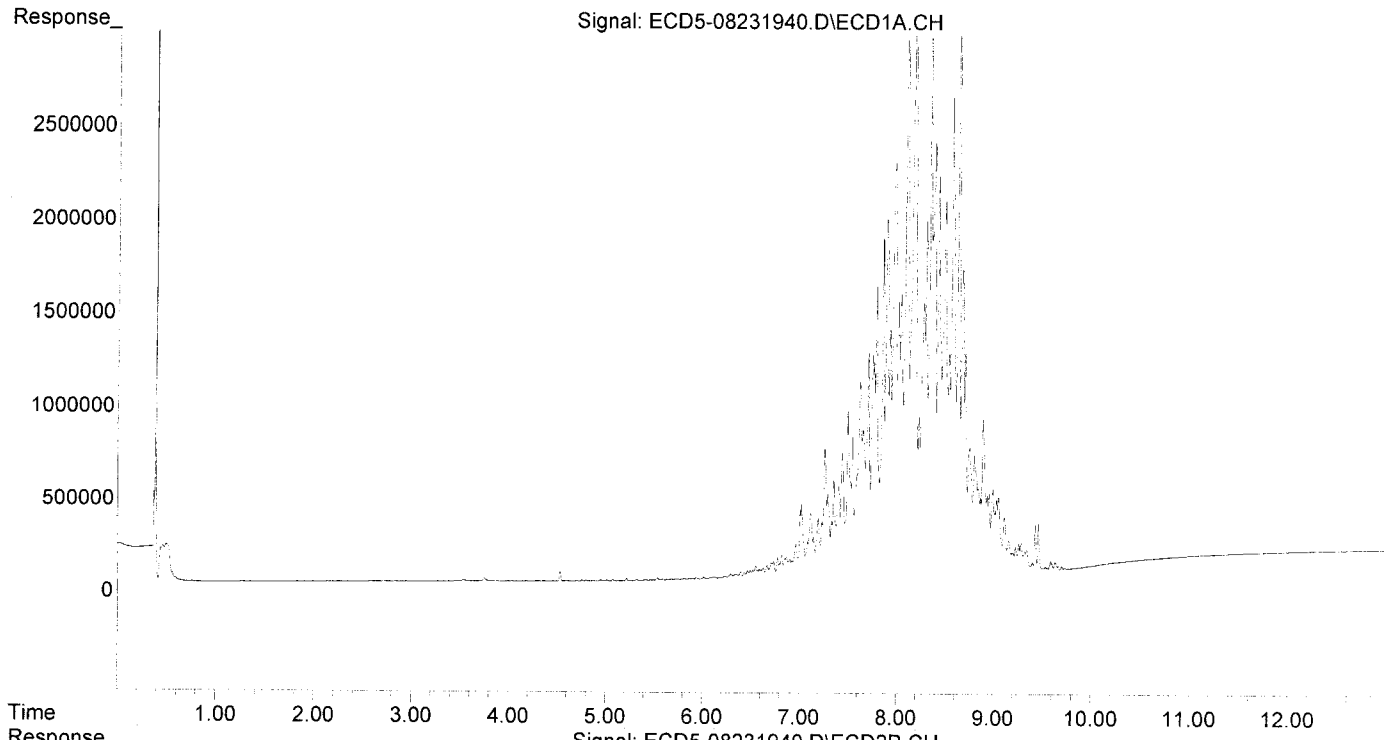
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.501	8.467	871889	2654886	1224.474	1277.768
37)		Toxaphene...	7.793	8.813	1556013	3384036	1184.797	1381.910
38)		Toxaphene...	8.105	8.848	3495877	5168269	1287.817	1359.392
39)		Toxaphene...	8.345	8.915	3287014	8650068	1294.579	1356.150
40)		Toxaphene...	8.573	9.091	2546293	4900430	1344.035	1386.677
41)		Toxaphene...	8.640	9.470	3406737	5046645	1274.639	1281.306
42)		Toxaphene...	3.451	0.000	2687	0	NoCal	N.D.

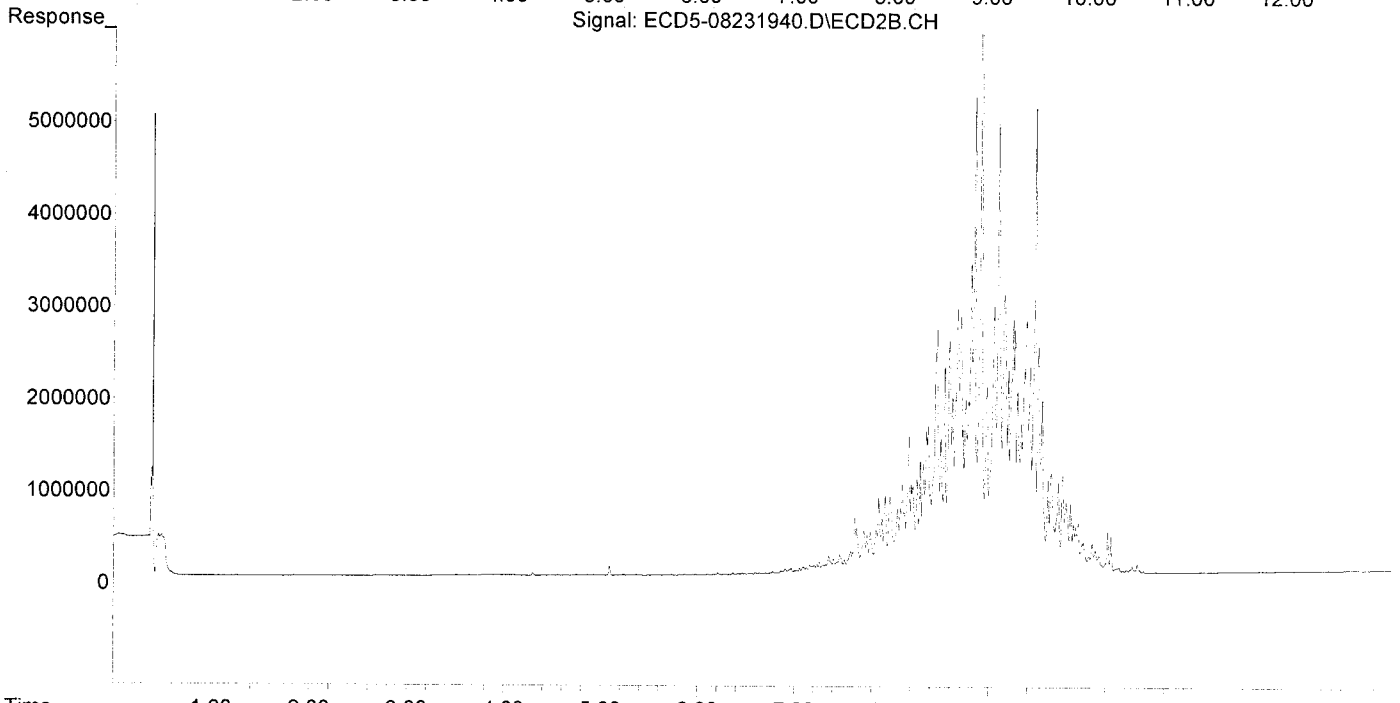
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231940.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:03
Operator : MJB
Sample : 9H23034-CALR
Misc : A19D126, TOX 1000 ppb
ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:40:10 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231941.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:20
Operator : MJB
Sample : 9H23034-CALS
Misc : A19D121, TOX 2000 ppb
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:40:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/20/19

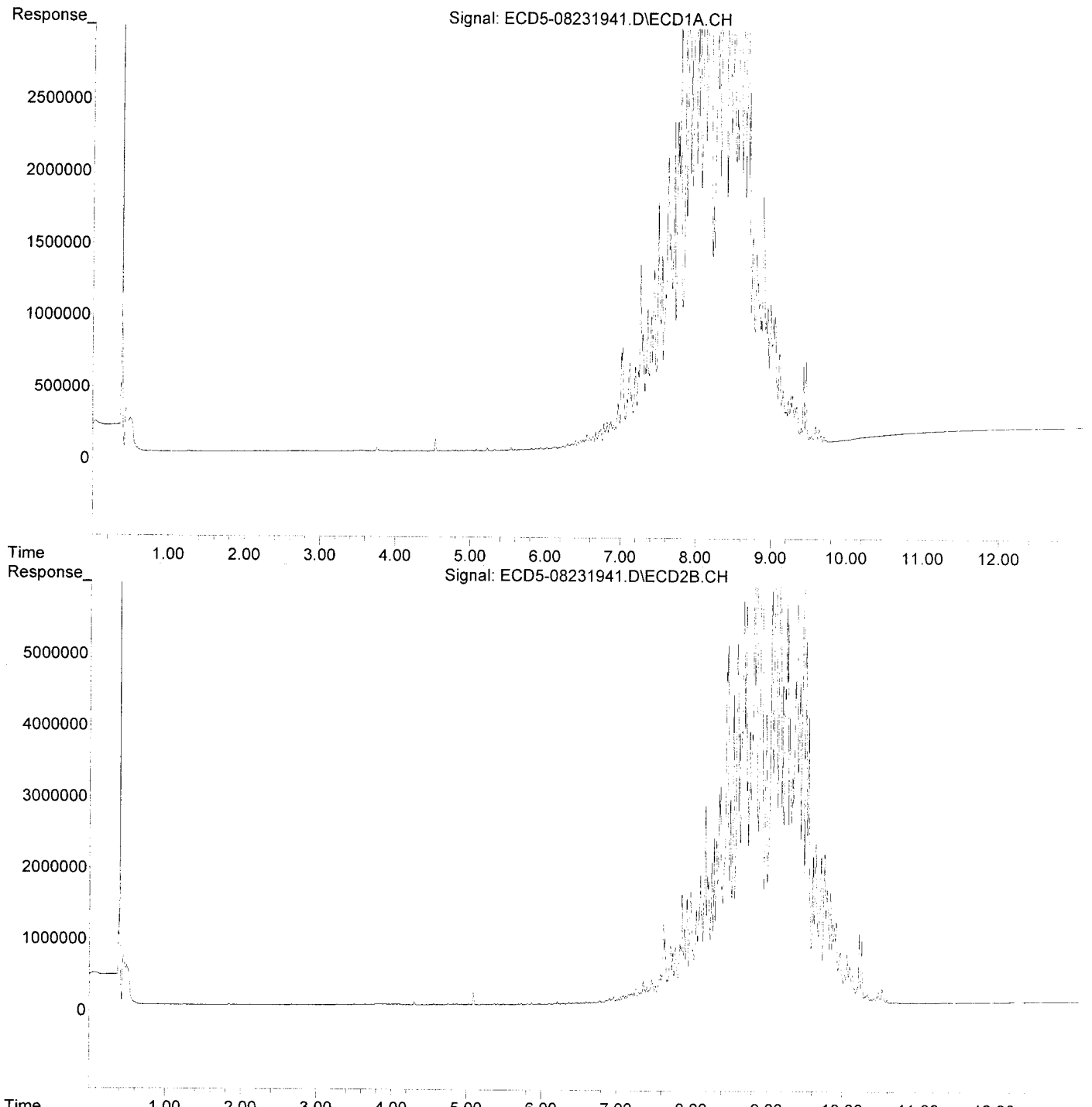
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.500	8.466	1674674	5030917	2351.899	2421.326
37)		Toxaphene...	7.792	8.813	2958997	6610397	2253.073	2699.433
38)		Toxaphene...	8.104	8.848	6831460	10545708	2516.585	2773.802
39)		Toxaphene...	8.345	8.914	6407070	17190037	2523.403	2695.039
40)		Toxaphene...	8.572	9.091	5074570	9435236	2678.561	2669.893
41)		Toxaphene...	8.640	9.471	6510950	10090951	2436.088	2281.169
42)		Toxaphene...	3.452	0.000	4166	0	NoCal	N.D.

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231941.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:20
Operator : MJB
Sample : 9H23034-CALS
Misc : A19D121, TOX 2000 ppb
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:40:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



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

TCLP Organochloride Pesticides by EPA 8081B
Benchsheet & Analysis Sequence Data

Batch 9110516
Sequence 9K07024 (A9J0950-01,02,03,04)

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110516 (Sediment)

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
	9110516-BLK1		QC	11/06/19 10:25	200	5				100					
	9110516-BSD1		QC	11/06/19 10:26	200	5	A19E266		100	100					
	9110516-BS1		QC	11/06/19 10:25	200	5	A19E266		100	100					
	A9J0950-01	A	1311/8081B TCLP Pest Reg List	11/06/19 10:25	200	5				100	PDI-015SC-C-00 -8.1-191024				
	A9J0950-02	A	1311/8081B TCLP Pest Reg List	11/06/19 10:25	200	5				100	PDI-026SC-C-00 -3.9-191024				
	A9J0950-03	A	1311/8081B TCLP Pest Reg List	11/06/19 10:25	200	5				100	PDI-037SC-C-00 -12.4-191024				
	A9J0950-04	A	1311/8081B TCLP Pest Reg List	11/06/19 10:25	200	5				100	PDI-073SC-C-00 -13.7-191024				

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A18K311	12/31/20	Glass Wool
A19I263	03/18/20	DCM CHEM PROD. 194934
A19J048	03/31/20	Sodium Sulfate Lot # 191177

Analyte Spike(s)

Std ID	Exp. Date	Description
A19E266	11/21/19	Mix AB Pesticide Matrix Spike

Surrogate(s)

Std ID	Exp. Date	Description
A19J262	04/17/20	8082 PCB Surrogate Spike

3x rinse

Witness: _____

Bottle Check: _____

Prepared By: _____ Date _____

MJB 11/7/19

Reviewed By: _____ Date _____

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110516 (Sediment)

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
	9110516-BLK1		QC	11/06/19 10:25	200	5				100				5	
	9110516-BSD1		QC	11/06/19 10:26	200	5	A19E266		100	100		*		6	
	9110516-BS1		QC	11/06/19 10:25	200	5	A19E266		100	100		*		6	
	A9J0950-01	A	1311/8081B TCLP Pest Reg List	11/06/19 10:25	200	5				100	PDI-015SC-C-00 -8.1-191024			5	
	A9J0950-02	A	1311/8081B TCLP Pest Reg List	11/06/19 10:25	200	5				100	PDI-026SC-C-00 -3.9-191024			5	
	A9J0950-03	A	1311/8081B TCLP Pest Reg List	11/06/19 10:25	200	5				100	PDI-037SC-C-00 -12.4-191024			5	
	A9J0950-04	A	1311/8081B TCLP Pest Reg List	11/06/19 10:25	200	5				100	PDI-073SC-C-00 -13.7-191024			5	

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A18K311	12/31/20	Glass Wool
A19I263	03/18/20	DCM CHEM PROD. 194934
A19J048	03/31/20	Sodium Sulfate Lot # 191177

Analyte Spike(s)

Std ID	Exp. Date	Description
A19E266	1/21/19	Mix AB Pesticide Matrix Spike

Surrogate(s)

Std ID	Exp. Date	Description
A19J262	04/17/20	8082 PCB Surrogate Spike

3x rinse ✓

Witness: 11:06-19

Bottle Check: N/A 11/6/19

* = No BLK fluid added

2mL exchanged into 2mL of Hexane. 11/6/19

Prepared By: 11/6/19 Date

Reviewed By: 11/6/19 Date

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9K07024** Instrument: **DUALECD5**

Date: **11/07/19 11:10** Calibration: **A9H2608**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K07024-BKD1	Sediment	QC	QC				A19J201
2	9K07024-CCV1	Sediment	QC	QC				A19H383
3	9K07024-CCV2	Sediment	QC	QC				A19J408
4	9K07024-CCB1	Sediment	QC	QC				A19K026
5	9110516-BLK1	Sediment	QC	QC		9110516		
6	9110516-BS1	Sediment	QC	QC		9110516		
7	9110516-BSD1	Sediment	QC	QC		9110516		
8	A9J0950-01	Sediment	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/07/19	9110516		
9	A9J0950-02	Sediment	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/07/19	9110516		
10	A9J0950-03	Sediment	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/07/19	9110516		
11	A9J0950-04	Sediment	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/07/19	9110516		
12	9K07024-CCV3	Sediment	QC	QC				A19H384
13	9K07024-CCB2	Sediment	QC	QC				A19K026
14	9110534-BLK1	Sediment	QC	QC		9110534		
15	9110534-BS1	Sediment	QC	QC		9110534		
16	9110534-BSD1	Sediment	QC	QC		9110534		
17	A9J0954-01	Sediment	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/07/19	9110534		
18	A9J0954-02	Sediment	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/07/19	9110534		
19	9K07024-CCV4	Sediment	QC	QC				A19H383
20	9K07024-CCV5	Sediment	QC	QC				A19J408
21	9K07024-CCB3	Sediment	QC	QC				A19K026
22	9110425-BLK1	Sediment	QC	QC		9110425		
23	9110425-BS1	Sediment	QC	QC		9110425		
24	9110425-BS2	Sediment	QC	QC		9110425		
25	A9J1137-06RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	11/13/19	9110425		
26	9110425-DUP1	Sediment	QC	QC		9110425		
27	9110425-MS1	Sediment	QC	QC		9110425		
28	9110425-MS2	Sediment	QC	QC		9110425		
29	A9J1137-12RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	11/13/19	9110425		
30	A9J1137-18RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	11/13/19	9110425		
31	A9J1137-24RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	11/13/19	9110425		
32	9K07024-CCV6	Sediment	QC	QC				A19H384
33	9K07024-CCV7	Sediment	QC	QC				A19J409
34	9K07024-CCB4	Sediment	QC	QC				A19J194

Data Entered By: WB 11/8/19

Comments: Complete

Data Reviewed By: MW 11/12/19

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9K07024**	Instrument:	**DUALECD5**
Date:	**11/07/19 11:10**	Calibration:	**A9H2608**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K07024-BKD1	Sediment	QC	QC				A19J201
2	9K07024-CCV1	Sediment	QC	QC				A19H383
3	9K07024-CCV2	Sediment	QC	QC				A19J408
4	9K07024-CCB1	Sediment	QC	QC				A19K026
5	9110516-BLK1	Sediment	QC	QC		9110516		
6	9110516-BS1	Sediment	QC	QC		9110516		
7	9110516-BSD1	Sediment	QC	QC		9110516		
8	A9J0950-01	Sediment	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/07/19	9110516		
9	A9J0950-02	Sediment	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/07/19	9110516		
10	A9J0950-03	Sediment	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/07/19	9110516		
11	A9J0950-04	Sediment	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/07/19	9110516		
12	9K07024-CCV3	Sediment	QC	QC				A19H384
13	9K07024-CCB2	Sediment	QC	QC				A19K026
14	9110534-BLK1	Sediment	QC	QC		9110534		
15	9110534-BS1	Sediment	QC	QC		9110534		
16	9110534-BSD1	Sediment	QC	QC		9110534		
17	A9J0954-01	Sediment	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/07/19	9110534		
18	A9J0954-02	Sediment	1311/8081B TCLP Pest Reg List	Anchor QEA, LLC	11/07/19	9110534		
19	9K07024-CCV4	Sediment	QC	QC				A19H383
20	9K07024-CCV5	Sediment	QC	QC				A19J408
21	9K07024-CCB3	Sediment	QC	QC				A19K026

Data Entered By: MJB 11/7/19

Comments: Partial

Data Reviewed By: [illegible] 11/8/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-11\9K07024\
Data File : ECD5-11071903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 11:58
Operator : MJB
Sample : 9K07024-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 07 12:12:20 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT7.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	7.309	1180701	NoCal	ng/mL
2)	Endrin	7.665	91842224	NoCal	ng/mL
3)	4,4'-DDD	7.726	8061329	NoCal	ng/mL
4)	4,4'-DDT	7.922	157665692	NoCal	ng/mL
5)	Endrin Aldehyde	8.109	2812144	NoCal	ng/mL
6)	Endrin Ketone	8.598	5893934	NoCal	ng/mL
8)	4,4'-DDE [2C]	8.069	2116579	NoCal	ng/mL
9)	Endrin [2C]	8.427	140854893	NoCal	ng/mL
10)	4,4'-DDD [2C]	8.483	13718371	NoCal	ng/mL
11)	Endrin Aldehyde [2C]	8.811	4620378	NoCal	ng/mL
12)	4,4'-DDT [2C]	8.706	242020181	NoCal	ng/mL
13)	Endrin Ketone [2C]	9.393	8392538	NoCal	ng/mL

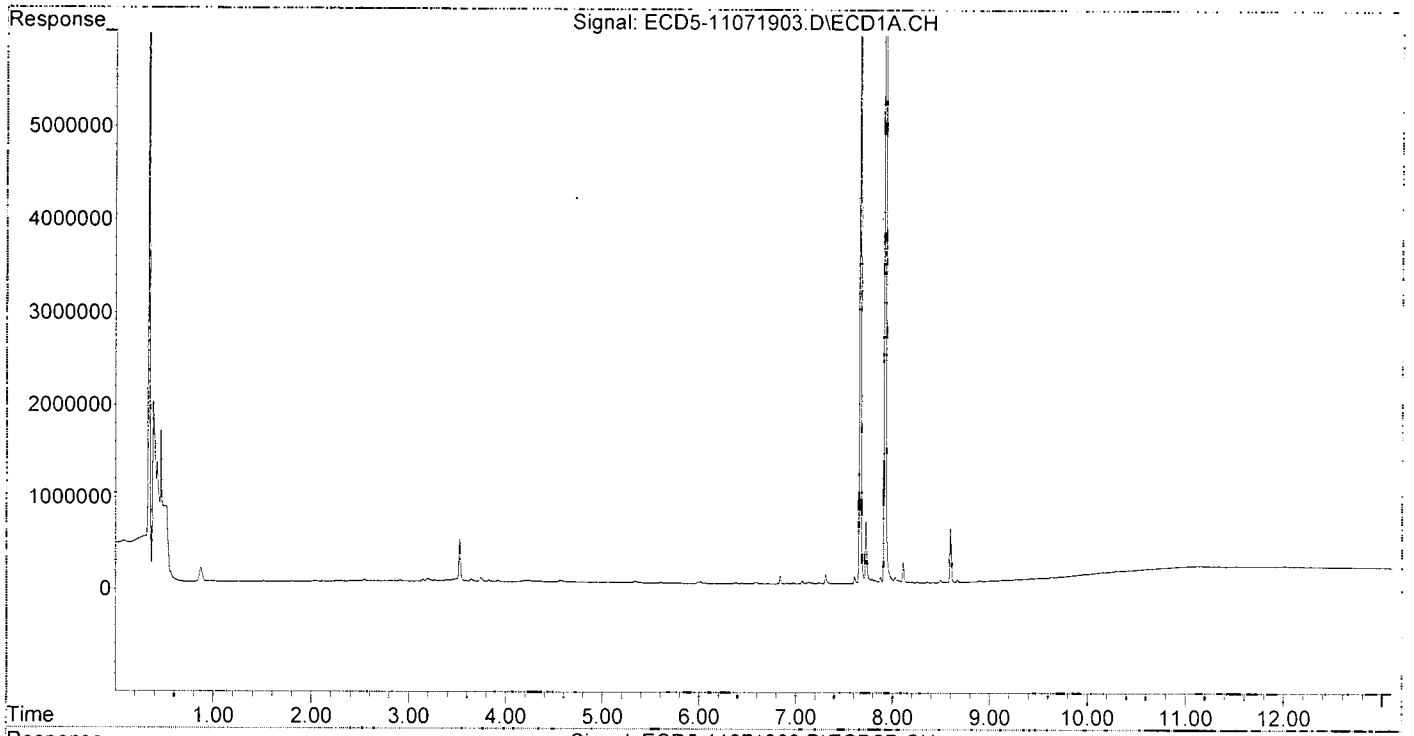
(f)=RT Delta > 1/2 Window (m)=manual int.

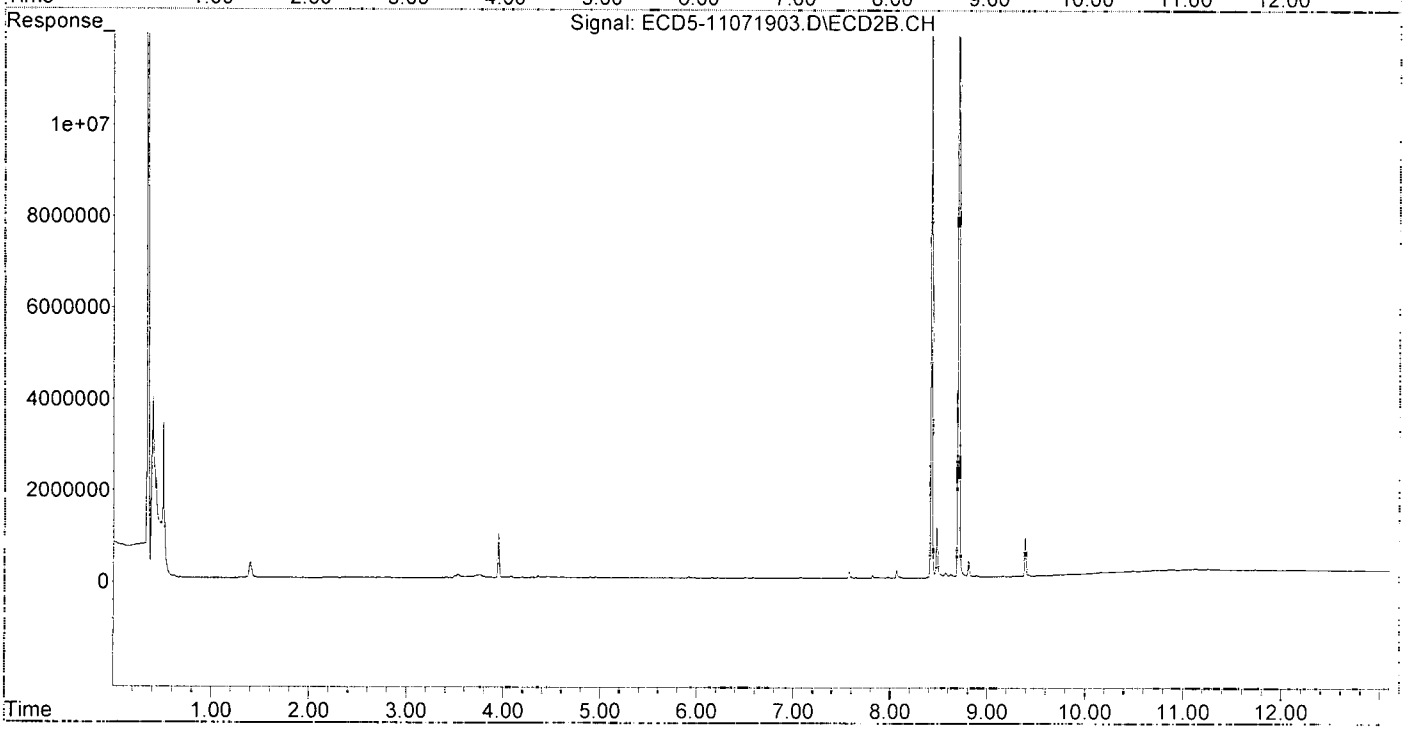
WB 11.7.19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-11\9K07024\
Data File : ECD5-11071903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 11:58
Operator : MJB
Sample : 9K07024-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 07 12:12:20 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT7.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\9K07024\
Data File : ECD5-11071904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 12:15
Operator : MJB
Sample : 9K07024-CCV1
Misc : A19H383, 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 07 14:56:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 14/7/19

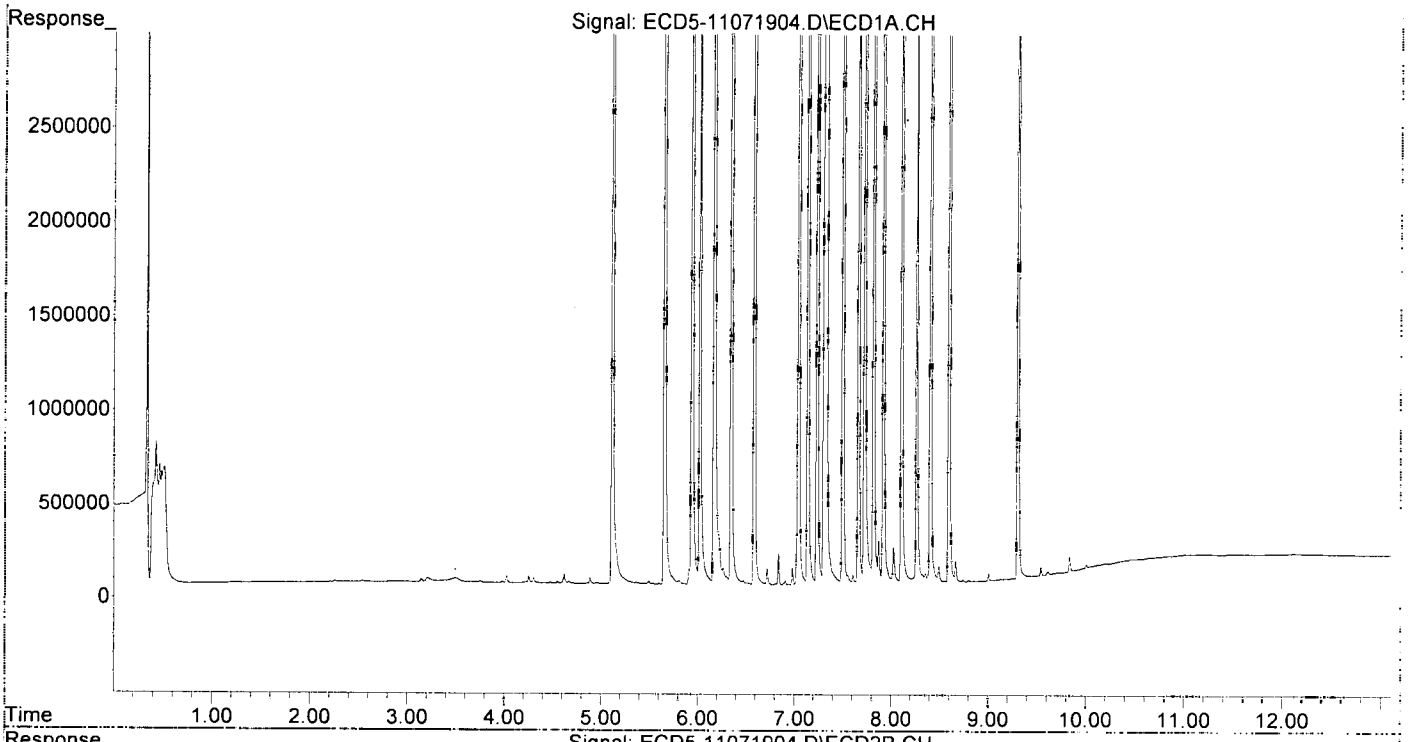
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.117	5.714	8496451	13477059	51.191	45.939	
22)	S	DCBP (S)	9.306	10.221	6928116	10099532	49.101	56.182	
		Target Compounds							
2)		a-BHC	5.656	6.322	11957846	21143263	52.143	51.526	
3)		g-BHC	5.941	6.640	10076807	18780208	49.940	52.649	
4)		b-BHC	6.022	6.709	3728856	7186735	41.256	45.409	
5)		Heptachlor	6.347	7.007	9954544	17401198	54.907	56.871	
6)		d-BHC	6.170	6.960	8909227	17148043	45.296	48.624	
7)		Aldrin	6.585	7.269	10401158	18442756	52.679	55.990	
8)		Heptachlo...	7.045	7.708	9300861	15937282	50.499	52.974	
9)		trans-Chl...	7.140	7.847	9520034	15846929	51.490	50.577	
10)		cis-Chlor...	7.236	7.954	9385184	15392584	51.547	52.851	
11)		Endosulfa...	7.331	8.001	9391958	14792908	55.188	53.758	
12)		4,4'-DDE	7.308	8.069	8767949	14976668	46.507	48.207	
13)		Dieldrin	7.502	8.201	10394616	16904487	54.144	55.579	
14)		Endrin	7.664	8.426	8672919	13750989	58.989	60.892	Q-41
15)		4,4'-DDD	7.726	8.482	7396805	12189026	47.071	47.574	
16)		Endosulfa...	7.820	8.574	7578743	12173794	52.773	52.790	
17)		4,4'-DDT	7.922	8.705	6755827	10772963	56.506	56.636	
18)		Endrin Al...	8.109	8.810	6717163	10793304	54.644	54.674	
19)		Endosulfa...	8.408	9.001	8234655	13275309	53.134	53.296	
20)		Methoxychlor	8.266	9.188	3240970	5064658	55.331	55.847	
21)		Endrin Ke...	8.599	9.393	9041521	14011113	54.219	54.451	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.496	0.000	14095	0	0.080	N.D.	#
25)		Oxychlordane	6.982	7.624	88919	7063	0.540	0.026	#
26)		2,4'-DDE	7.045	7.847	9300861	15846929	72.515	74.701	
27)		trans-Non...	7.236	7.907	9385184	65107	52.099	0.216	#
28)		2,4'-DDD	0.000	8.201	0	16904487	N.D.	89.506	#
29)		2,4'-DDT	7.608	8.426	46885	13750989	0.427	77.106	#
30)		cis-Nonac...	7.664f	8.482	8672919	12189026	41.774	36.336	
31)		Mirex	8.354	9.393	48181	14011113	0.384	75.299	#
32)		Chlordane...	7.236	7.954	9385184	15392584	476.657	425.391	
33)		Chlordane...	7.331	8.069	9391958	14976668	374.715	493.237	
34)		Chlordane...	7.874	8.705	224198	10772963	38.781	1201.551	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	8.377	0	16523	N.D.	6.296	#
37)		Toxaphene...	7.664f	8.705	8672919	10772963	5370.433	3273.437	
38)		Toxaphene...	8.027f	0.000	188924	0	56.102	N.D.	#
39)		Toxaphene...	8.266f	8.810	3240970	10793304	1000.252	1292.637	
40)		Toxaphene...	8.494f	9.001	83736	13275309	34.932	2848.560	#
41)		Toxaphene...	0.000	9.393f	0	14011113	N.D.	2949.582	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

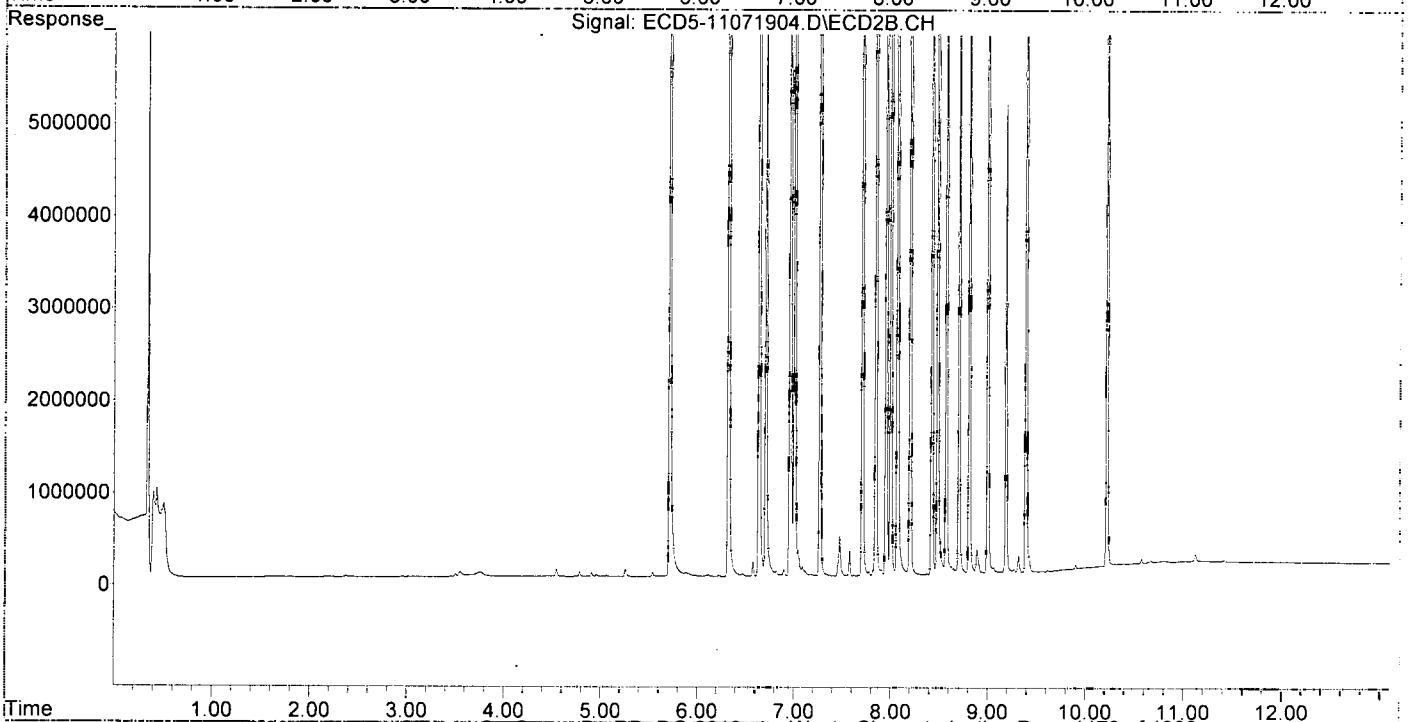
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 12:15
Operator : MJB
Sample : 9K07024-CCV1
Misc : A19H383, 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 07 14:56:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\9K07024\
Data File : ECD5-11071905.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 12:32
Operator : MJB
Sample : 9K07024-CCV2
Misc : A19J408, 9-42 50 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 07 14:56:25 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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
CCV not needed for Analysis.

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.090f	0.000	16476	0	0.099	N.D.	#
22)	S	DCBP (S)	9.306	10.220	33945	57201	0.241	0.318	
		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	6.022	0.000	11770	0	0.130	N.D.	#
5)		Heptachlor	6.346	7.006	16148	24606	0.089	0.080	
6)		d-BHC	6.174	6.961	6495	13158	0.033	0.037	
7)		Aldrin	0.000	7.309f	0	10847	N.D.	0.033	#
8)		Heptachlo...	7.058	7.705	5380498	46872	29.213	0.156	#
9)		trans-Chl...	7.139	7.846	89145	9418443	0.482	30.060	#
10)		cis-Chlor...	7.230	0.000	8503834	0	46.706	N.D.	#
11)		Endosulfa...	7.317	8.018	33839	34707	0.199	0.126	
12)		4,4'-DDE	7.317	0.000	33839	0	0.179	N.D.	#
13)		Dieldrin	7.473f	8.218	231063	8091053	1.204	26.602	#
14)		Endrin	7.696f	8.438	9765844	8499862	66.422	37.639	#
15)		4,4'-DDD	7.696f	8.472	9765844	15910750	62.147	62.099	
16)		Endosulfa...	7.820	8.566	23790	29626	0.166	0.128	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.115	8.811	10619	11252	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.000	0	9946	N.D.	0.040	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.601	9.376	5274	8716158	0.032	33.873	#
23)		Hexachlor...	2.908	3.411	9026697	18805490	49.397	50.024	
24)		Hexachlor...	5.498	6.179	7654311	11370574	43.418	36.202	
25)		Oxychlordane	6.973	7.637	7638613	12601122	46.425	46.006	
26)		2,4'-DDE	7.058	7.846	5380498	9418443	41.950	44.398	
27)		trans-Non...	7.230	7.911	8503834	14300679	47.174	47.410	
28)		2,4'-DDD	7.428	8.218	4787777	8091053	41.952	42.841	
29)		2,4'-DDT	7.608	8.438	5373592	8499862	48.990	47.661	
30)		cis-Nonac...	7.696	8.472	9765844	15910750	47.038	47.431	
31)		Mirex	8.352	9.376	5524590	8716158	44.067	46.843	
32)		Chlordane...	7.230	7.911f	8503834	14300679	431.894	395.215	
33)		Chlordane...	7.317	8.018f	33839	34707	1.350	1.143	
34)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	7.428f	8.356	4787777	23291	5345.604	8.875	#
37)		Toxaphene...	7.696	0.000	9765844	0	6047.193	N.D.	#
38)		Toxaphene...	8.030f	0.000	16649	0	4.944	N.D.	#
39)		Toxaphene...	0.000	8.811	0	11252	N.D.	1.348	#
40)		Toxaphene...	8.453	9.000	31445	9946	13.118	2.134	#
41)		Toxaphene...	8.542	9.376	4900	8716158	1.548	1834.902	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

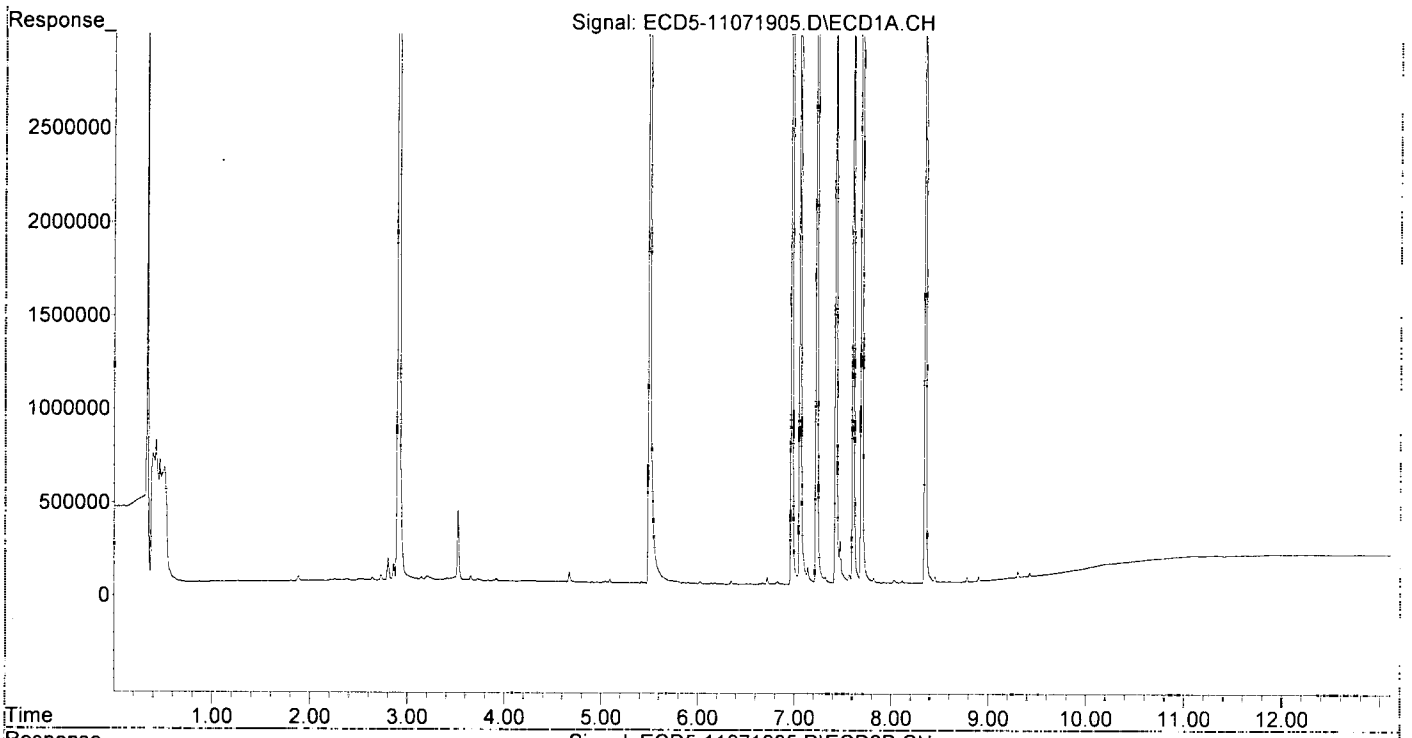
MJB 11/7/19

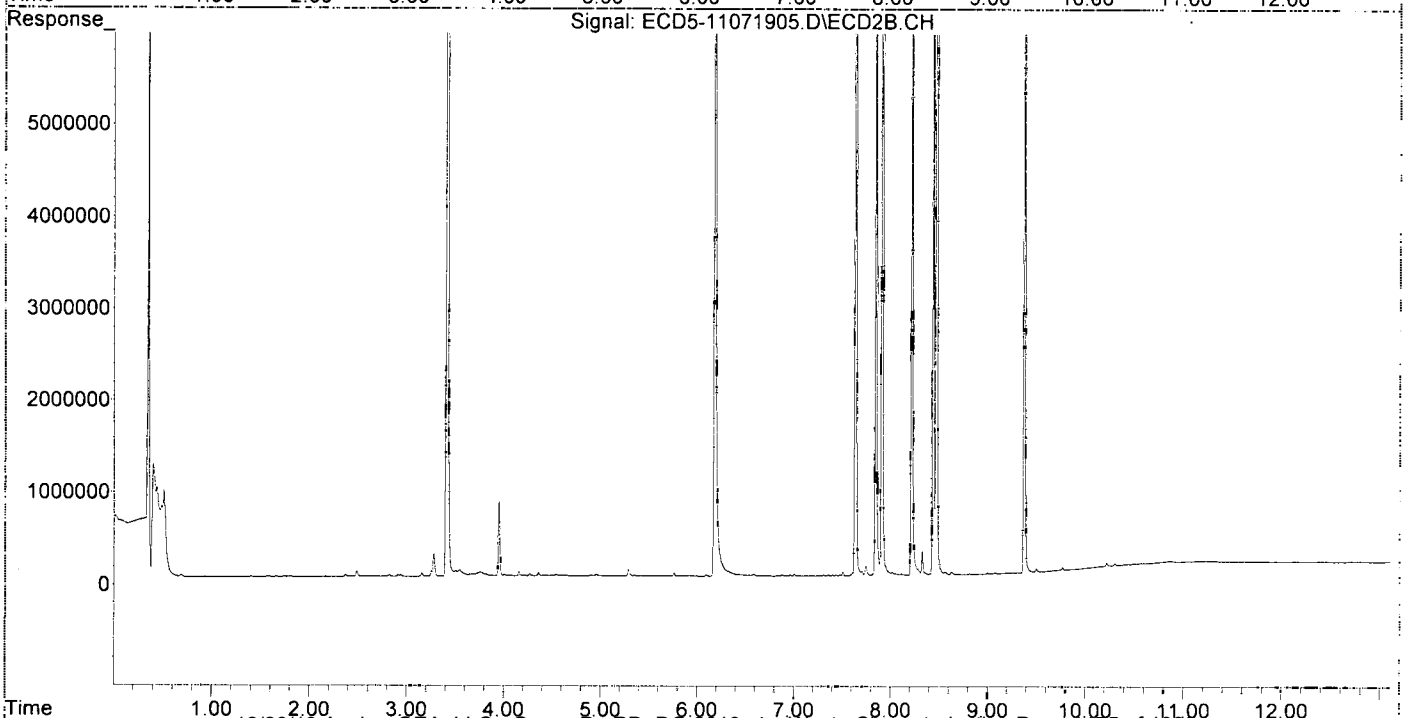
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071905.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 12:32
Operator : MJB
Sample : 9K07024-CCV2
Misc : A19J408, 9-42 50 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 07 14:56:25 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\9K07024\
Data File : ECD5-11071906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 12:49
Operator : MJB
Sample : 9K07024-CCB1
Misc : A19K026
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 07 14:56:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/7/19

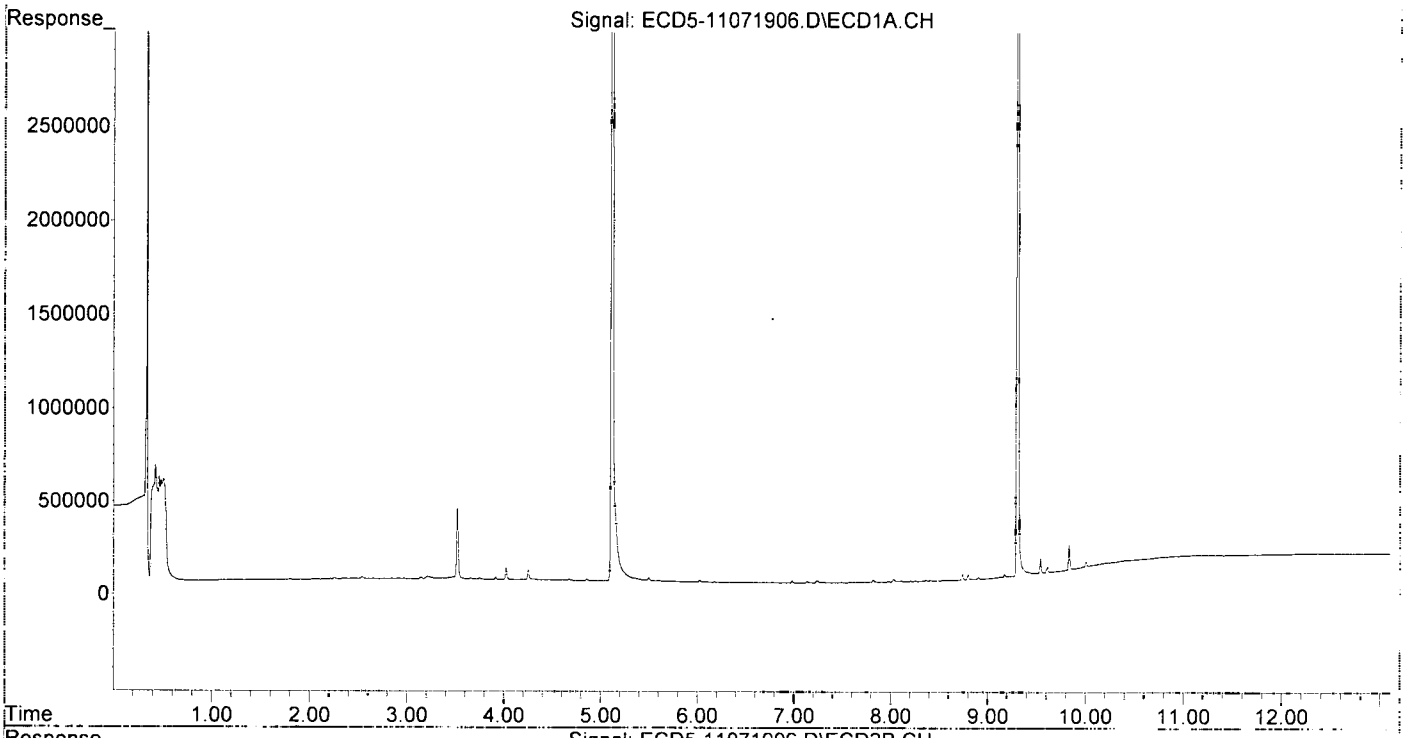
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.115	5.712	15187227	24505499	91.503	83.532	
22)	S DCBP (S)	9.305	10.220	12731047	19166314	90.228	106.620	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)	b-BHC	6.026	0.000	8867	0	0.098	N.D.	#
5)	Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)	d-BHC	0.000	6.962	0	7195	N.D.	0.020	#
7)	Aldrin	0.000	7.309f	0	10655	N.D.	0.032	#
8)	Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)	trans-Chl...	7.138	7.872f	8215	15895	0.044	0.051	
10)	cis-Chlor...	7.239	0.000	10681	0	0.059	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...	7.821	8.565	13635	17014	0.095	0.074	
17)	4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)	Endrin Al...	8.112	8.810	6289	6683	BelowCal	BelowCal	
19)	Endosulfa...	8.408	9.000	4545	6480	0.029	0.026	
20)	Methoxychlor	8.255	0.000	4171	0	0.071	N.D.	#
21)	Endrin Ke...	8.600	9.411	2587	18496	0.016	0.072	#
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.498	6.158f	18085	7143	0.103	0.023	#
25)	Oxychlordane	6.982	7.608f	11696	20966	0.071	0.077	
26)	2,4'-DDE	0.000	7.872f	0	15895	N.D.	0.075	#
27)	trans-Non...	7.239	7.872f	10681	15895	87346.641	0.053	#
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	8.364	9.411f	7013	18496	0.056	0.099	#
32)	Chlordane...	7.239	0.000	10681	0	0.542	N.D.	#
33)	Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
34)	Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
35)	Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
37)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)	Toxaphene...	8.030f	0.000	14267	0	4.237	N.D.	#
39)	Toxaphene...	8.255	8.810	4171	6683	1.287	0.800	
40)	Toxaphene...	0.000	9.000	0	6480	N.D.	1.391	#
41)	Toxaphene...	8.542	0.000	3465	0	1.095	N.D.	#
42)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

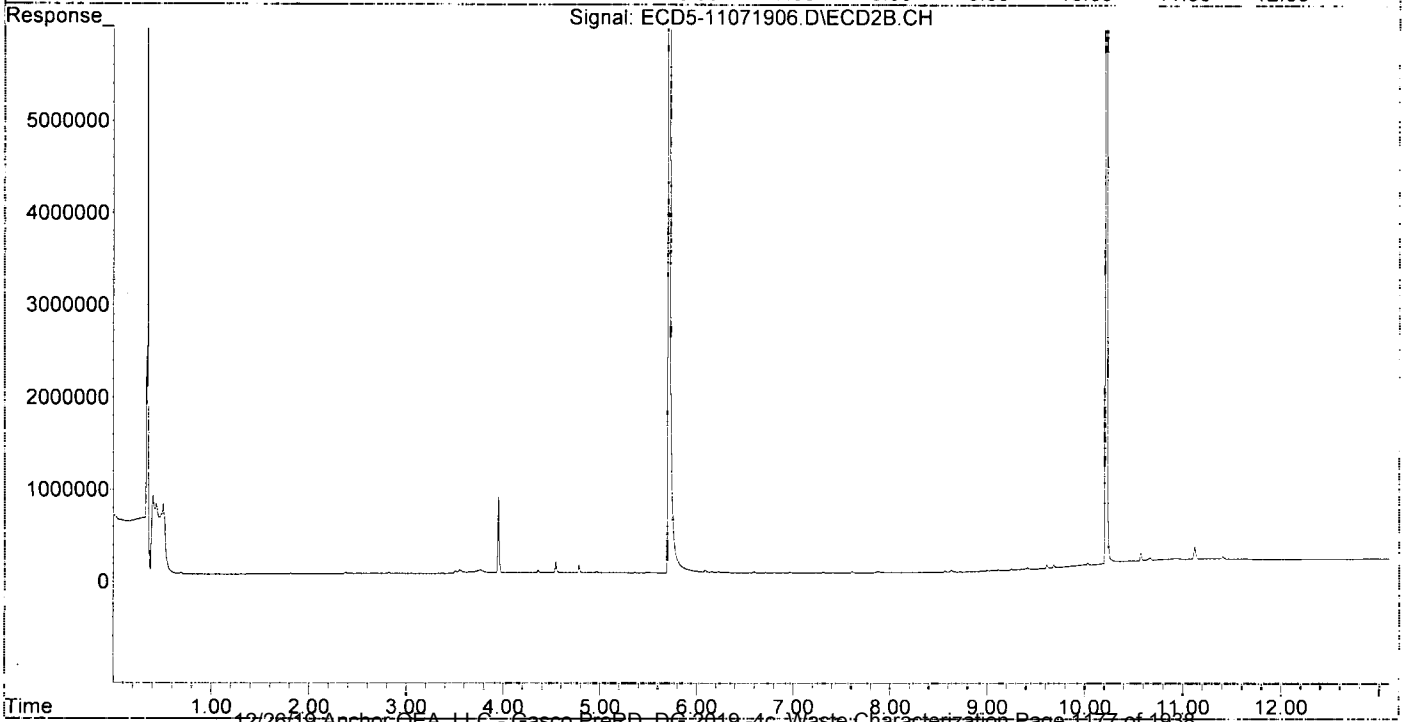
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 12:49
Operator : MJB
Sample : 9K07024-CCB1
Misc : A19K026
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 07 14:56:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\2019-11\9K07024\
Data File : ECD5-11071907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 13:07
Operator : MJB
Sample : 9110516-BLK1
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 07 15:03:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 W7119

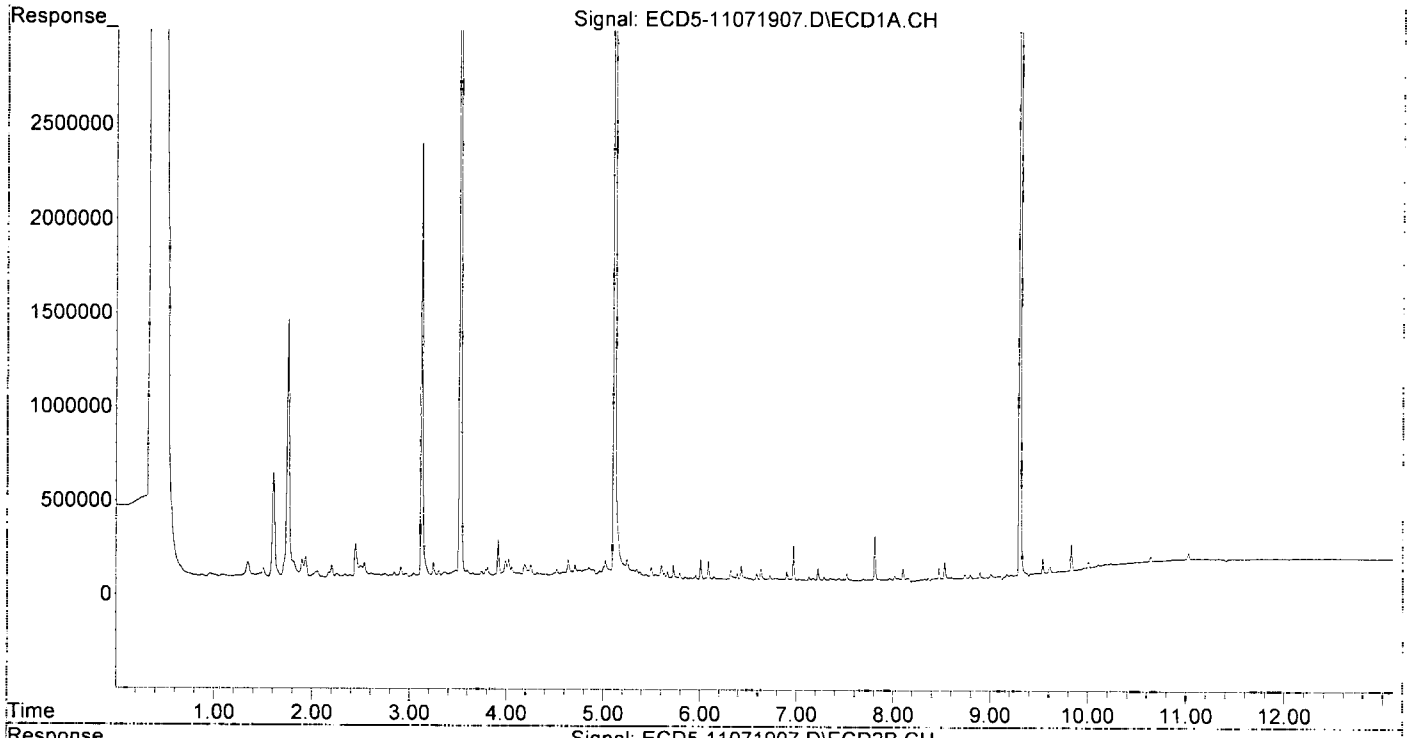
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.711	14176201	24579734	85.411	83.785	
22)	S	DCBP (S)	9.303	10.218	12406953	18449765	87.931	102.634	
		Target Compounds							
2)		a-BHC	5.664	6.331	43343	36162	0.189	0.088	#
3)		g-BHC	5.958	0.000	24080	0	0.119	N.D.	#
4)		b-BHC	6.009	6.697	108265	24894	1.198	0.157	#
5)		Heptachlor	6.320f	7.028	53550	94060	0.295	0.307	
6)		d-BHC	6.144f	6.954	18827	11757	0.096	0.033	#
7)		Aldrin	6.588	7.303f	35997	29014	0.182	0.088	#
8)		Heptachlo...	7.026	7.693	9304	56652	0.051	0.188	#
9)		trans-Chl...	7.131	7.853	22782	97714	0.123	0.312	#
10)		cis-Chlor...	7.224	7.916f	66551	60304	0.366	0.207	#
11)		Endosulfa...	7.353f	8.023f	17221	26970	0.101	0.098	
12)		4,4'-DDE	7.284f	8.072	20581	10962	0.109	0.035	#
13)		Dieldrin	7.484	8.199	10604	13151	0.055	0.043	
14)		Endrin	7.689f	8.412	11479	18474	0.078	0.082m	
15)		4,4'-DDD	7.741	8.481	9121	17946	0.058	0.070	
16)		Endosulfa...	7.812	8.560	237111	327410	1.651	1.420	
17)		4,4'-DDT	7.881f	8.730f	11913	14790	0.100	0.048	#
18)		Endrin Al...	8.101	8.800	67244	87414	BelowCal	BelowCal	
19)		Endosulfa...	8.412	8.999	12232	14618	0.079	0.059	
20)		Methoxychlor	8.247	9.180	7285	13157	0.124	BelowCal	#
21)		Endrin Ke...	8.598	9.404	17170	90483	0.103	0.352	#
23)		Hexachlor...	2.910	3.387f	57900	4250327	0.317	11.306	#
24)		Hexachlor...	5.497	6.176	66690	79854	0.378	0.254	
25)		Oxychlordane	6.970	7.642	187373	17347	1.139	0.063	#
26)		2,4'-DDE	7.078f	7.853	6479	97714	0.051	0.461	#
27)		trans-Non...	7.224	7.916	66551	60304	0.055	0.200	#
28)		2,4'-DDD	7.439	8.199	15902	13151	0.139	0.070	#
29)		2,4'-DDT	0.000	8.409f	0	17301	N.D.	0.097	#
30)		cis-Nonac...	7.689	8.481	11479	17946	0.055	0.053	
31)		Mirex	8.362	9.404f	17864	90483	0.142	0.486	#
32)		Chlordane...	7.224	7.916f	66551	60304	3.380	1.667	#
33)		Chlordane...	7.353f	8.072f	17221	10962	0.687	0.361	#
34)		Chlordane...	7.881	8.730f	11913	14790	2.061	1.650	
35)		Chlordane...	3.365	3.328	31119	19060	NoCal	NoCal	
36)		Toxaphene...	7.385	8.381	11336	15060	12.657	5.739	#
37)		Toxaphene...	7.689	8.730	11479	14790	7.108	4.494	
38)		Toxaphene...	8.018	8.730	30331	14790	9.007	2.918	#
39)		Toxaphene...	8.247	8.800	7285	87414	2.248	10.469	#
40)		Toxaphene...	8.474	8.999	67910	14618	28.330	3.137	#
41)		Toxaphene...	8.532	9.404f	97537	90483	30.821	19.048	
42)		Toxaphene...	3.365	3.328	31119	19060	NoCal	NoCal	

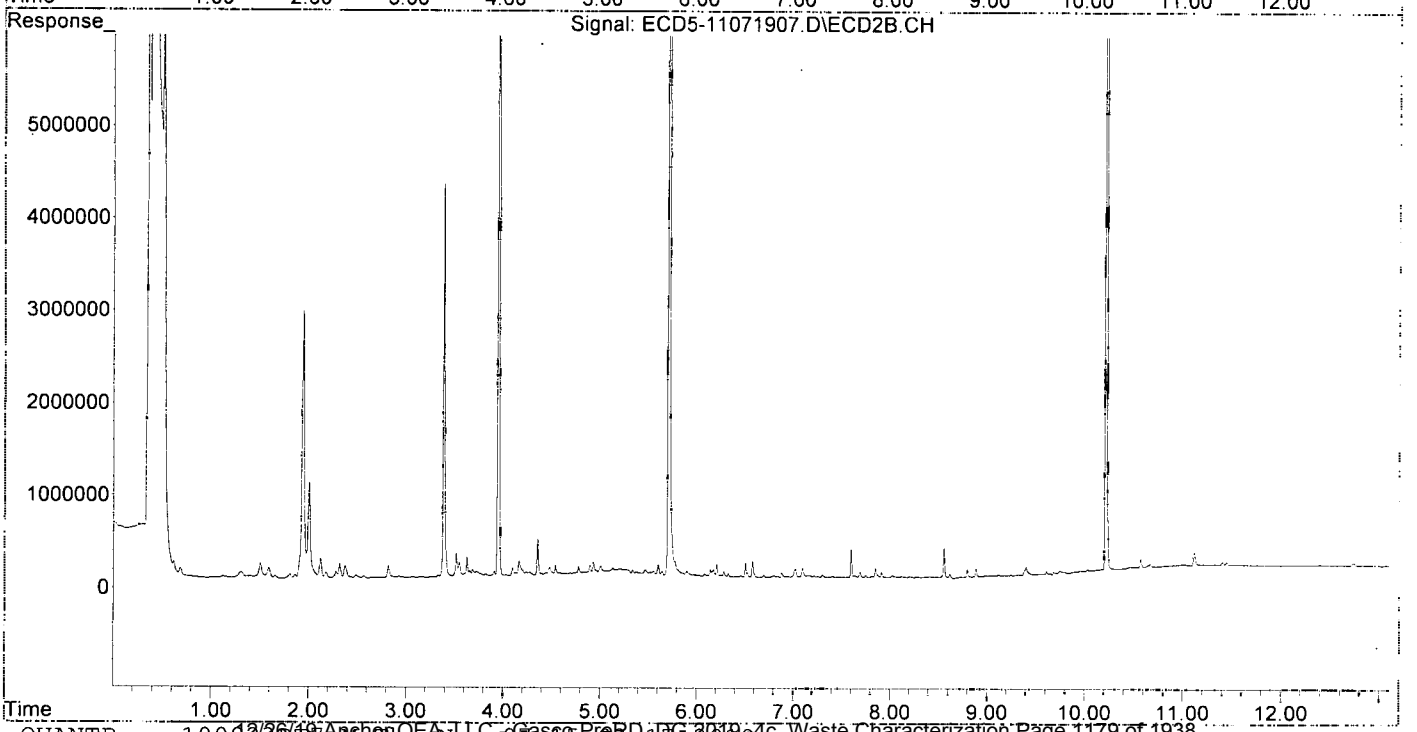
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 13:07
Operator : MJB
Sample : 9110516-BLK1
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 07 15:03:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

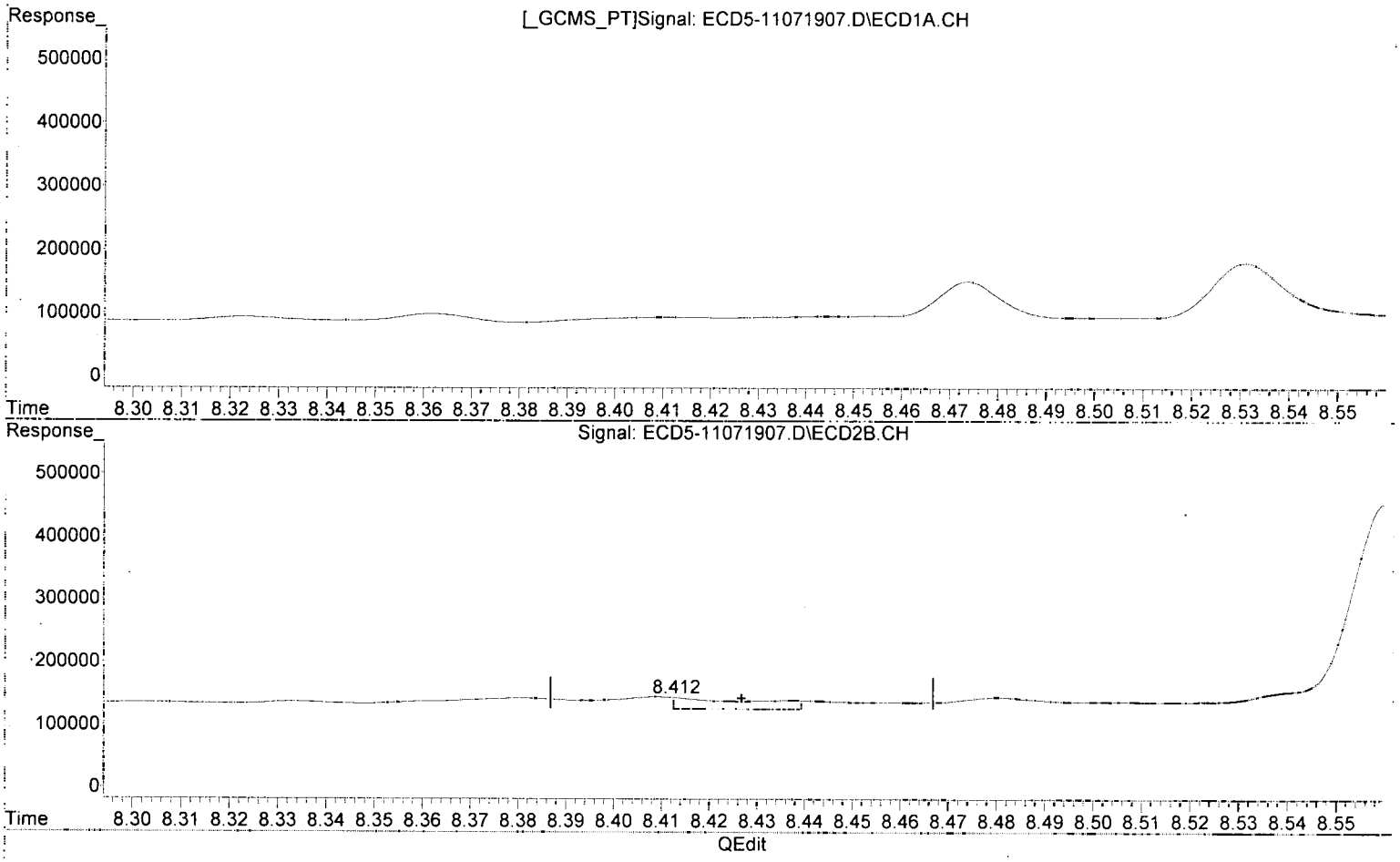




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 13:07
Operator : MJB
Sample : 9110516-BLK1
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 07 14:56:38 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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



(14) Endrin

7.689min 0.078 ng/mL

response 11479

MJB 11/7/19

(14) Endrin #2

8.412min 0.082 ng/mL (m)

response 18474

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 13:07
Operator : MJB
Sample : 9110516-BLK1
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 07 14:56:38 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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

MI MJB 11/7/19

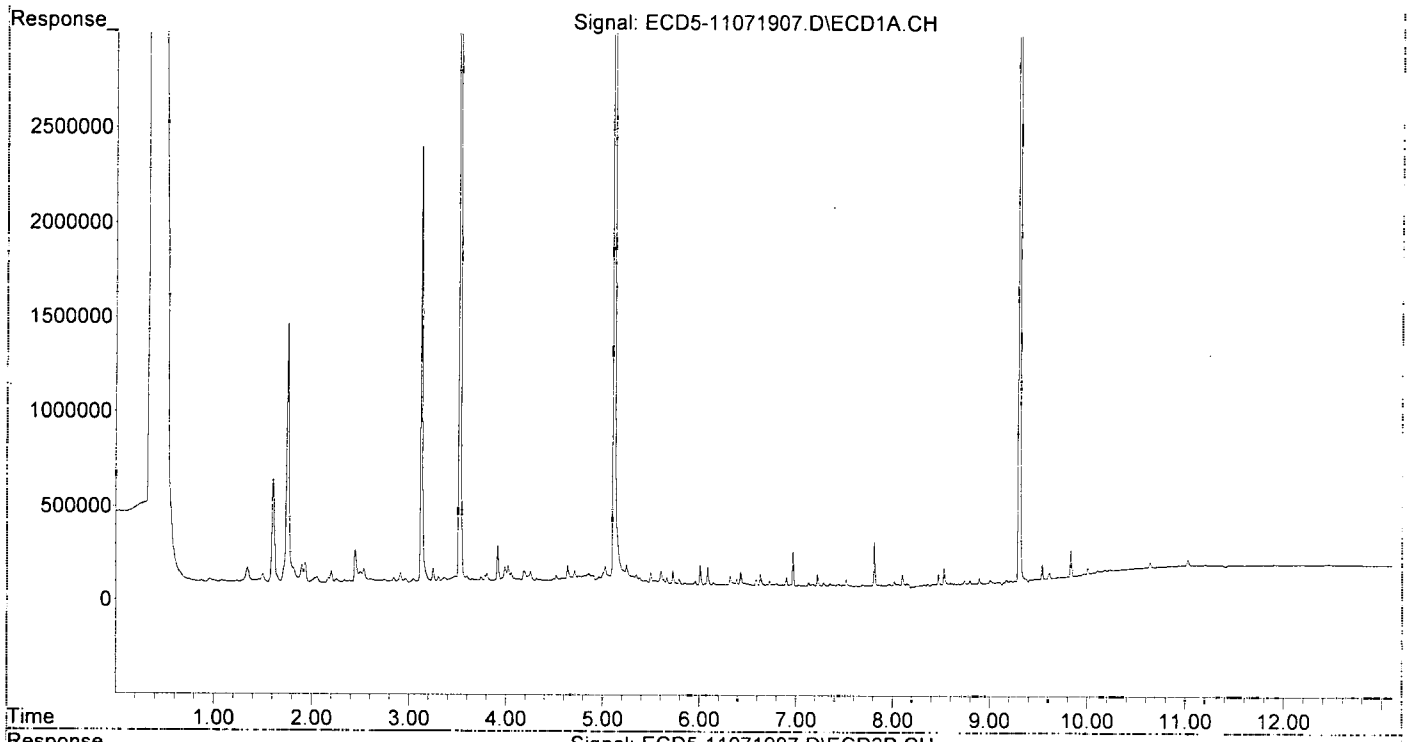
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.711	14176201	24579734	85.411	83.785	
22)	S	DCBP (S)	9.303	10.218	12406953	18449765	87.931	102.634	
		Target Compounds							
2)		a-BHC	5.664	6.331	43343	36162	0.189	0.088	#
3)		g-BHC	5.958	0.000	24080	0	0.119	N.D.	#
4)		b-BHC	6.009	6.697	108265	24894	1.198	0.157	#
5)		Heptachlor	6.320f	7.028	53550	94060	0.295	0.307	
6)		d-BHC	6.144f	6.954	18827	11757	0.096	0.033	#
7)		Aldrin	6.588	7.303f	35997	29014	0.182	0.088	#
8)		Heptachlo...	7.026	7.693	9304	56652	0.051	0.188	#
9)		trans-Chl...	7.131	7.853	22782	97714	0.123	0.312	#
10)		cis-Chlor...	7.224	7.916f	66551	60304	0.366	0.207	#
11)		Endosulfa...	7.353f	8.023f	17221	26970	0.101	0.098	
12)		4,4'-DDE	7.284f	8.072	20581	10962	0.109	0.035	#
13)		Dieldrin	7.484	8.199	10604	13151	0.055	0.043	
14)		Endrin	7.689f	8.409	11479	17301	0.078	0.077	
15)		4,4'-DDD	7.741	8.481	9121	17946	0.058	0.070	
16)		Endosulfa...	7.812	8.560	237111	327410	1.651	1.420	
17)		4,4'-DDT	7.881f	8.730f	11913	14790	0.100	0.048	#
18)		Endrin Al...	8.101	8.800	67244	87414	BelowCal	BelowCal	
19)		Endosulfa...	8.412	8.999	12232	14618	0.079	0.059	
20)		Methoxychlor	8.247	9.180	7285	13157	0.124	BelowCal	#
21)		Endrin Ke...	8.598	9.404	17170	90483	0.103	0.352	#
23)		Hexachlor...	2.910	3.387f	57900	4250327	0.317	11.306	#
24)		Hexachlor...	5.497	6.176	66690	79854	0.378	0.254	
25)		Oxychlordane	6.970	7.642	187373	17347	1.139	0.063	#
26)		2,4'-DDE	7.078f	7.853	6479	97714	0.051	0.461	#
27)		trans-Non...	7.224	7.916	66551	60304	0.055	0.200	#
28)		2,4'-DDD	7.439	8.199	15902	13151	0.139	0.070	#
29)		2,4'-DDT	0.000	8.409f	0	17301	N.D.	0.097	#
30)		cis-Nonac...	7.689	8.481	11479	17946	0.055	0.053	
31)		Mirex	8.362	9.404f	17864	90483	0.142	0.486	#
32)		Chlordane...	7.224	7.916f	66551	60304	3.380	1.667	#
33)		Chlordane...	7.353f	8.072f	17221	10962	0.687	0.361	#
34)		Chlordane...	7.881	8.730f	11913	14790	2.061	1.650	
35)		Chlordane...	3.365	3.328	31119	19060	NoCal	NoCal	
36)		Toxaphene...	7.385	8.381	11336	15060	12.657	5.739	#
37)		Toxaphene...	7.689	8.730	11479	14790	7.108	4.494	
38)		Toxaphene...	8.018	8.730	30331	14790	9.007	2.918	#
39)		Toxaphene...	8.247	8.800	7285	87414	2.248	10.469	#
40)		Toxaphene...	8.474	8.999	67910	14618	28.330	3.137	#
41)		Toxaphene...	8.532	9.404f	97537	90483	30.821	19.048	
42)		Toxaphene...	3.365	3.328	31119	19060	NoCal	NoCal	

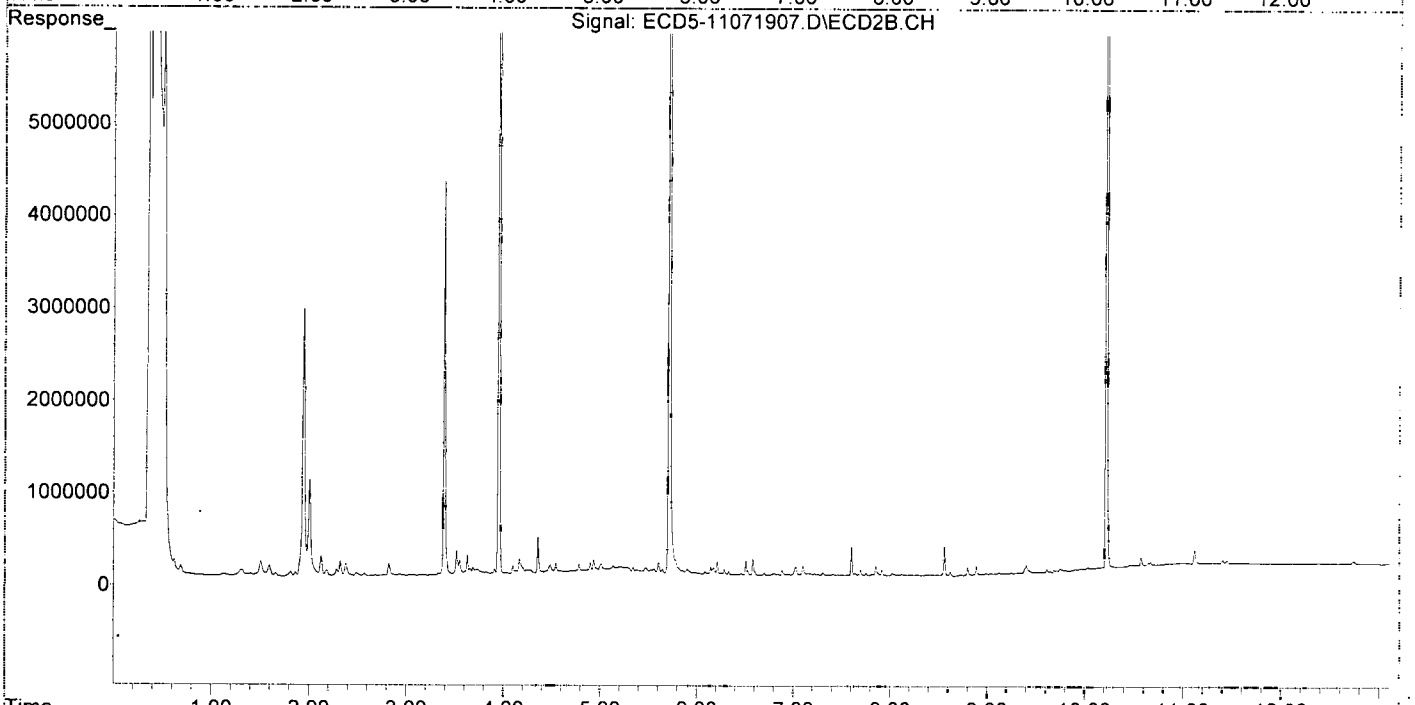
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 13:07
Operator : MJB
Sample : 9110516-BLK1
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 07 14:56:38 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\9K07024\
Data File : ECD5-11071908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 13:24
Operator : MJB
Sample : 9110516-BS1
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 07 14:56:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/7/19

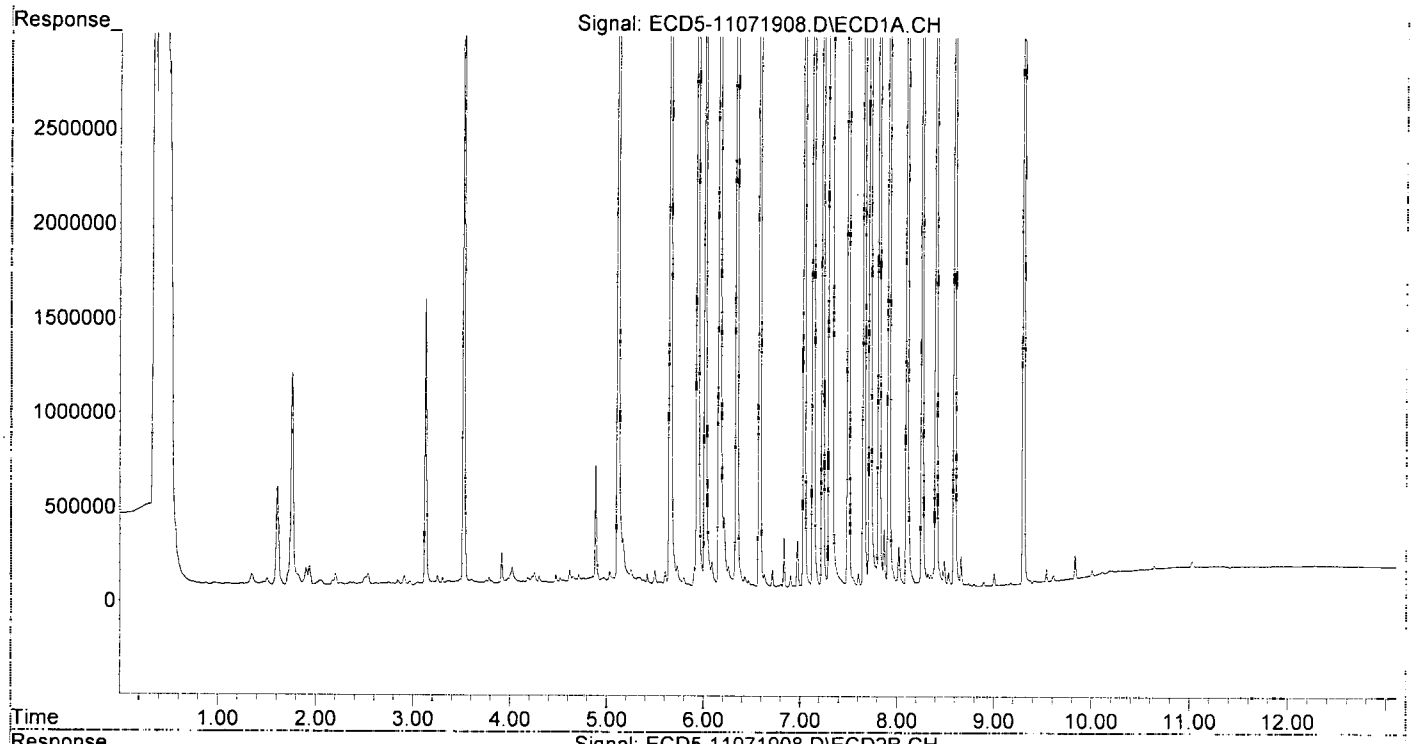
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.712	12756850	20860660	76.860	71.108	
22)	S	DCBP (S)	9.303	10.219	10713561	15987501	75.930	88.937	
		Target Compounds							
2)		a-BHC	5.654	6.320	21663907	41451210	94.466	101.017	
3)		g-BHC	5.936	6.637	19403364	35873869	96.162	100.570	
4)		b-BHC	6.016	6.705	7651714	14771752	84.658	93.335	
5)		Heptachlor	6.342	7.005	17802242	31920297	98.194	104.323	
6)		d-BHC	6.164	6.957	17310835	33946435	88.011	96.257	
7)		Aldrin	6.581	7.266	17240734	30700036	87.319	93.202	
8)		Heptachlo...	7.041	7.706	17268298	31033977	93.758	103.155	
9)		trans-Chl...	7.136	7.844	17284210	30723820	93.483	98.057	
10)		cis-Chlor...	7.233	7.952	16960399	29136505	93.153	100.041	
11)		Endosulfa...	7.327	7.999	16864427	28170821	99.098	102.374	
12)		4,4'-DDE	7.304	8.066	16701980	28293542	88.591	91.071	
13)		Dieldrin	7.498	8.199	19445703	33064234	101.291	108.710	
14)		Endrin	7.661	8.423	16819233	26972148	114.395	119.437	
15)		4,4'-DDD	7.722	8.480	14293565	25230276	90.960	98.474	
16)		Endosulfa...	7.816	8.571	15121935	25178860	105.298	109.186	
17)		4,4'-DDT	7.918	8.703	13994766	22644588	117.052	109.135	
18)		Endrin Al...	8.105	8.808	13358064	21331315	106.012	103.213	
19)		Endosulfa...	8.404	8.999	16046616	26504028	103.542	106.405	
20)		Methoxychlor	8.261	9.185	6998429	11740289	119.480	115.929	
21)		Endrin Ke...	8.596	9.391	17537464	27897780	105.167	108.418	
23)		Hexachlor...	2.909	3.388f	51275	2534659	0.281	6.742	#
24)		Hexachlor...	5.498	6.179	84530	106583	0.479	0.339	
25)		Oxychlordane	6.974	7.644	245067	44357	1.489	0.162	#
26)		2,4'-DDE	7.041	7.844	17268298	30723820	134.634	144.829	
27)		trans-Non...	7.233	7.905	16960399	88669	94.451	0.294	#
28)		2,4'-DDD	0.000	8.199	0	33064234	N.D.	175.069	#
29)		2,4'-DDT	7.604	8.423	71158	26972148	0.649	151.241	#
30)		cis-Nonac...	7.722f	8.480	14293565	25230276	68.846	75.213	
31)		Mirex	8.352	9.391	61875	27897780	0.494	149.929	#
32)		Chlordane...	7.233	7.952	16960399	29136505	861.388	805.219	
33)		Chlordane...	7.327	8.066	16864427	28293542	672.847	931.810	
34)		Chlordane...	7.870	8.703	304194	22644588	52.618	2525.641	#
35)		Chlordane...	3.355	3.327	23860	22212	NoCal	NoCal	
36)		Toxaphene...	0.000	8.374	0	26338	N.D.	10.036	#
37)		Toxaphene...	7.722f	8.703	14293565	22644588	8850.842	6880.710	
38)		Toxaphene...	8.023	0.000	211305	0	62.749	N.D.	#
39)		Toxaphene...	8.261	8.808	6998429	21331315	2159.907	2554.700	
40)		Toxaphene...	8.491	8.999	136347	26504028	56.879	5687.123	#
41)		Toxaphene...	8.534	9.391f	75049	27897780	23.715	5872.967	#
42)		Toxaphene...	3.355	3.327	23860	22212	NoCal	NoCal	

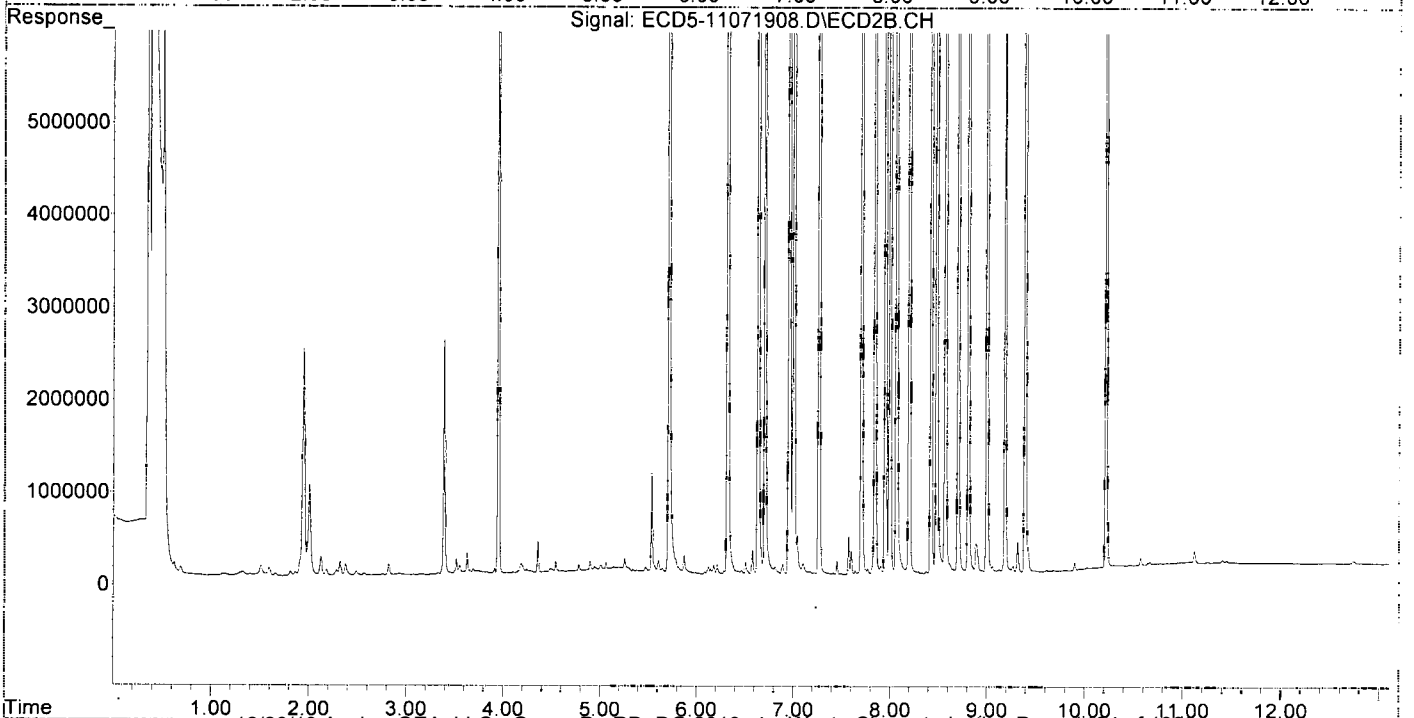
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 13:24
Operator : MJB
Sample : 9110516-BS1
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 07 14:56:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\9K07024\
Data File : ECD5-11071909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 13:41
Operator : MJB
Sample : 9110516-BSD1
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 14:56:52 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/7/19

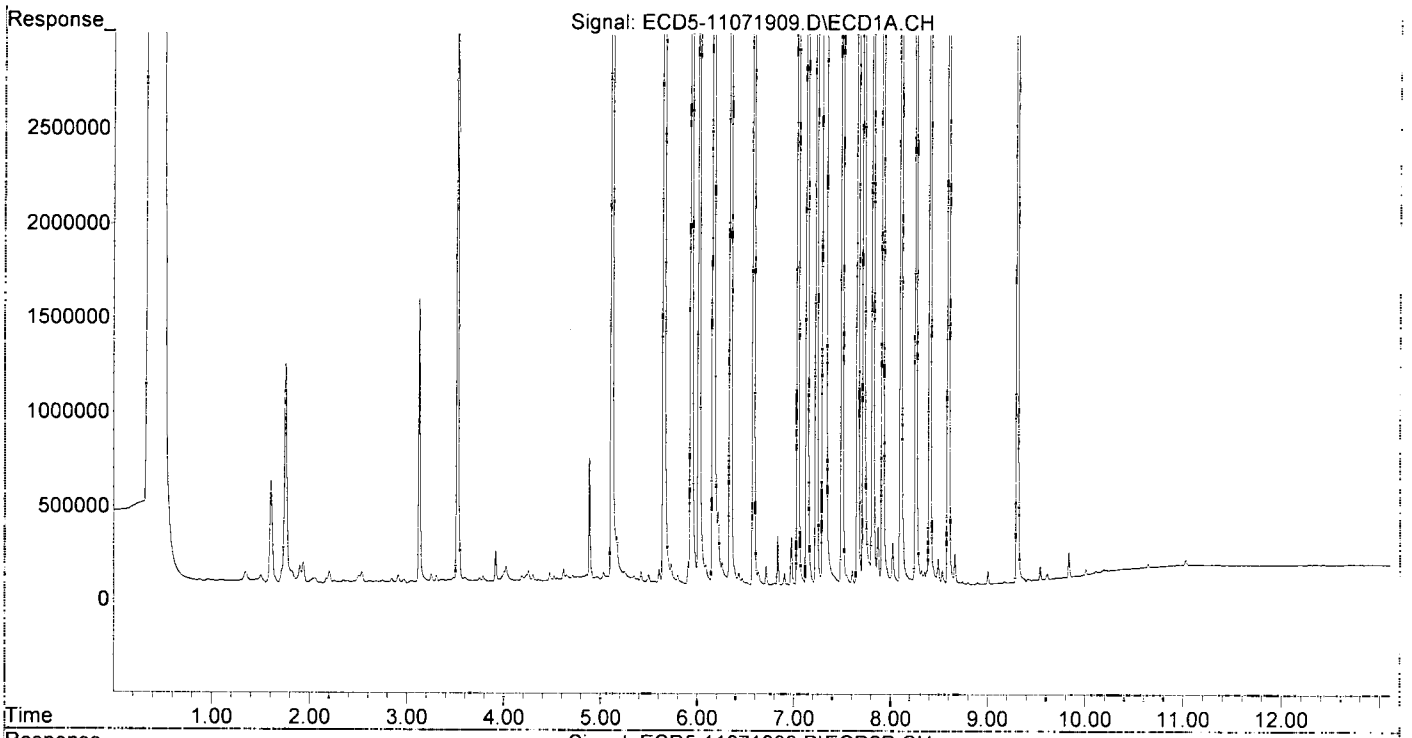
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.711	13011321	22014044	78.393	75.039	
22)	S	DCBP (S)	9.303	10.219	11523801	17131862	81.672	95.302	
		Target Compounds							
2)		a-BHC	5.653	6.319	22972081	43316434	100.171	105.562	
3)		g-BHC	5.936	6.636	20642627	37398762	102.304	104.845	
4)		b-BHC	6.016	6.705	8024990	15146322	88.788	95.702	
5)		Heptachlor	6.342	7.004	18939221	33906641	104.465	110.814	
6)		d-BHC	6.164	6.956	18289573	35211520	92.987	99.844	
7)		Aldrin	6.581	7.266	18335523	32743535	92.864	99.406	
8)		Heptachlo...	7.041	7.705	18691002	32198020	101.483	107.024	
9)		trans-Chl...	7.136	7.844	17980440	32952659	97.249	105.171	
10)		cis-Chlor...	7.232	7.951	18490951	30952177	101.559	106.275	
11)		Endosulfa...	7.327	7.999	18790742	30417131	110.417	110.537	
12)		4,4'-DDE	7.303	8.066	17890965	30328075	94.897	97.619	
13)		Dieldrin	7.498	8.199	20634385	34590029	107.482	113.727	
14)		Endrin	7.660	8.423	18116935	30092724	123.222	133.256	
15)		4,4'-DDD	7.721	8.479	14956112	26228761	95.177	102.371	
16)		Endosulfa...	7.816	8.571	15630033	27068241	108.836	117.379	
17)		4,4'-DDT	7.917	8.703	15108419	24547764	126.367	116.871	
18)		Endrin Al...	8.105	8.808	13884545	22584006	109.949	108.686	
19)		Endosulfa...	8.404	8.999	16682361	28789708	107.644	115.581	
20)		Methoxychlor	8.260	9.185	7432099	12470463	126.883	121.871	
21)		Endrin Ke...	8.595	9.391	18579689	30140304	111.417	117.133	
23)		Hexachlor...	2.909	3.387f	43977	2463826	0.241	6.554	#
24)		Hexachlor...	5.496	6.177	51549	46271	0.292	0.147	#
25)		Oxychlordane	6.974	7.644	256401	40712	1.558	0.149	#
26)		2,4'-DDE	7.041	7.844	18691002	32952659	145.726	155.336	
27)		trans-Non...	7.232	7.905	18490951	92386	103.013	0.306	#
28)		2,4'-DDD	0.000	8.199	0	34590029	N.D.	183.148	#
29)		2,4'-DDT	7.604	8.423	75541	30092724	0.689	168.739	#
30)		cis-Nonac...	7.721f	8.479	14956112	26228761	72.038	78.190	
31)		Mirex	8.351	9.391	67175	30140304	0.536	161.981	#
32)		Chlordane...	7.232	7.951	18490951	30952177	939.122	855.397	
33)		Chlordane...	7.327	8.066	18790742	30328075	749.702	998.815	
34)		Chlordane...	7.870	8.703	307005	24547764	53.105	2737.909	#
35)		Chlordane...	3.354	3.327	22090	16899	NoCal	NoCal	
36)		Toxaphene...	0.000	8.374	0	25878	N.D.	9.861	#
37)		Toxaphene...	7.721f	8.703	14956112	24547764	9261.103	7459.002	
38)		Toxaphene...	8.023	0.000	226731	0	67.329	N.D.	#
39)		Toxaphene...	8.260	8.808	7432099	22584006	2293.750	2704.725	
40)		Toxaphene...	8.491	8.999	138165	28789708	57.637	6177.574	#
41)		Toxaphene...	8.534	9.391f	75672	30140304	23.912	6345.057	#
42)		Toxaphene...	3.354	3.327	22090	16899	NoCal	NoCal	

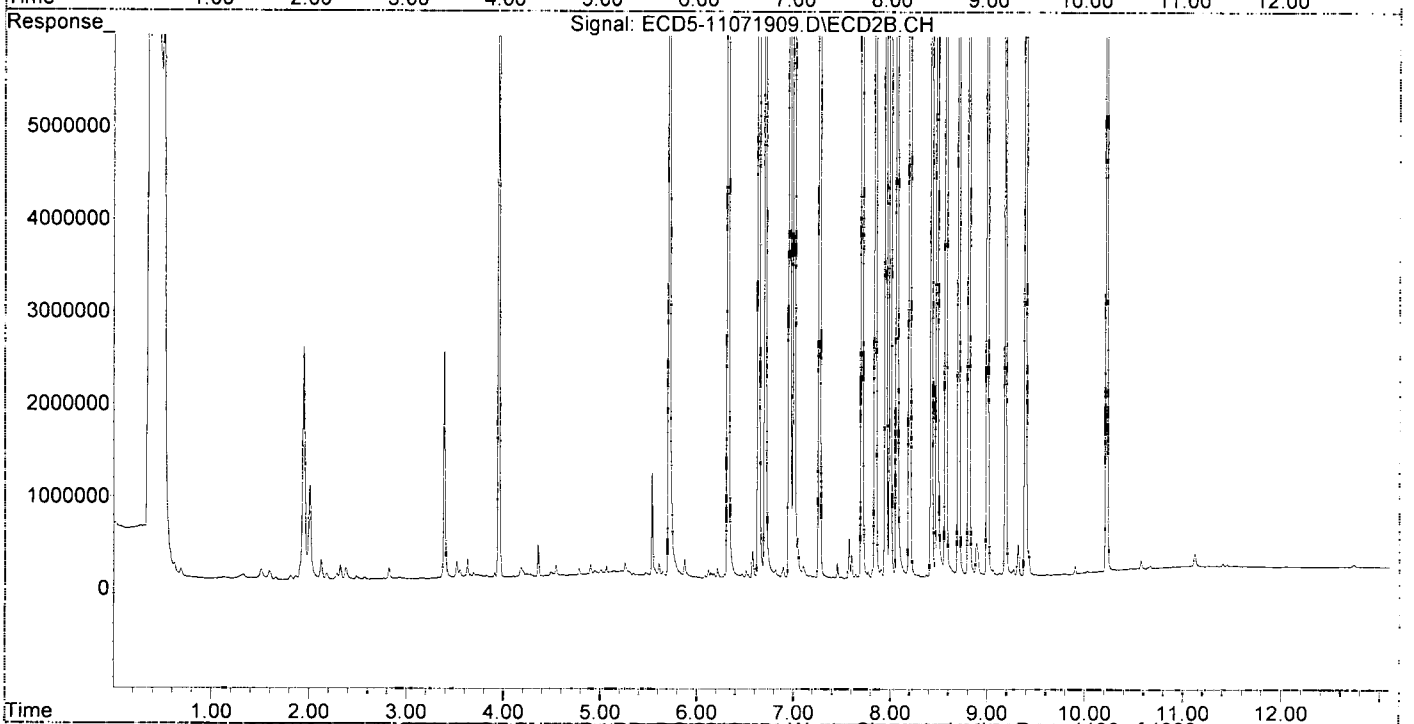
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 13:41
Operator : MJB
Sample : 9110516-BSD1
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 14:56:52 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\2019-11\9K07024\
Data File : ECD5-11071910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 13:58
Operator : MJB
Sample : A9J0950-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 15:10:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/7/19

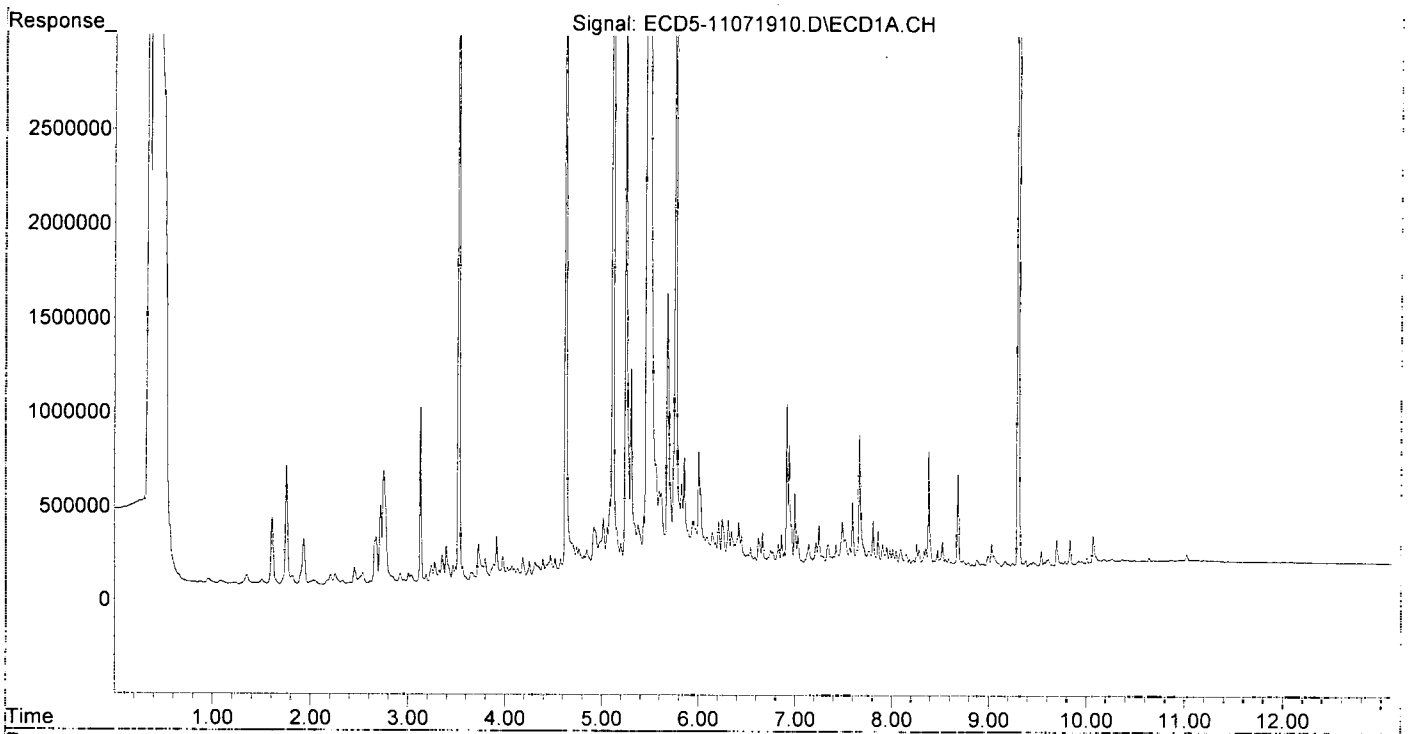
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.114	5.710	13685128	23586713	82.453	80.400	
22)	S	DCBP (S)	9.302	10.218	12244630	18655245	86.781	103.777	
		Target Compounds							
2)		a-BHC	5.679f	6.348f	1497687	994294	6.531	2.423	#
3)		g-BHC	5.939	6.643	293595	267475	1.455	0.750	#
4)		b-BHC	6.005	6.720	658224	196950	7.283	1.244	#
5)		Heptachlor	6.344	7.007	229474	188361	1.266	0.616	#
6)		d-BHC	6.180	6.960	172270	261459	0.876	0.741	
7)		Aldrin	6.583	7.265	88593	225735	0.449	0.685	#
8)		Heptachlo...	7.031	7.689	197497	167757	1.072	0.558	#
9)		trans-Chl...	7.142	7.850	150065	172554	0.812	0.551	
10)		cis-Chlor...	7.248	7.931f	248279	281188	1.364	0.965	
11)		Endosulfa...	7.344	8.004	143001	330654	0.840	1.202	#
12)		4,4'-DDE	7.344f	8.072	143001	382931	0.759	1.233	#
13)		Dieldrin	7.491	8.223f	263891	241292	1.375	0.793	#
14)		Endrin	7.669	0.000	721503	0	4.907	N.D.	#
15)		4,4'-DDD	0.000	8.493	0	178839	N.D.	0.698	#
16)		Endosulfa...	7.809	8.582	266647	133446	1.857	0.579	#
17)		4,4'-DDT	7.906	8.721	139460	253973	1.166	1.439	
18)		Endrin Al...	8.093	8.820	111788	130120	BelowCal	BelowCal	
19)		Endosulfa...	8.383f	9.005	623589	124053	4.024	0.498	#
20)		Methoxychlor	8.258	9.197	137979	74963	2.356	0.744m	#
21)		Endrin Ke...	8.586	9.399	52032	129625	0.312	0.504	#
23)		Hexachlor...	2.917	3.392	48879	1254852	0.267	3.338	#
24)		Hexachlor...	5.469f	6.175	38601255	1390172	218.960	4.426	#
25)		Oxychlordane	6.999f	7.624	421619	1011627	2.562	3.693	#
26)		2,4'-DDE	7.031f	7.850	197497	172554	1.540	0.813	#
27)		trans-Non...	7.217	7.931	157223	281188	0.561	0.932	#
28)		2,4'-DDD	7.425	8.223	143143	241292	1.254	1.278	
29)		2,4'-DDT	7.595	8.472f	373999	160158	3.410	0.898	#
30)		cis-Nonac...	7.669f	8.472	721503	160158	3.475	0.477	#
31)		Mirex	8.352	9.399f	113153	129625	0.903	0.697	
32)		Chlordane...	7.248	7.931	248279	281188	12.610	7.771	
33)		Chlordane...	7.344	8.042	143001	452909	5.705	14.916	#
34)		Chlordane...	7.859	8.721	210337	253973	36.383	28.327	
35)		Chlordane...	3.350	3.318	142990	98197	NoCal	NoCal	
36)		Toxaphene...	7.398	8.376	82977	721835	92.645	275.063	#
37)		Toxaphene...	7.669f	8.721	721503	253973	446.768	77.171	#
38)		Toxaphene...	8.010	8.751	111481	125846	33.105	24.830	
39)		Toxaphene...	8.258	8.820	137979	130120	42.584	15.584	#
40)		Toxaphene...	8.472	9.005	100113	124053	41.763	26.619	
41)		Toxaphene...	8.553	9.344f	52383	114014	16.553	24.002	#
42)		Toxaphene...	3.350	3.318f	142990	98197	NoCal	NoCal	

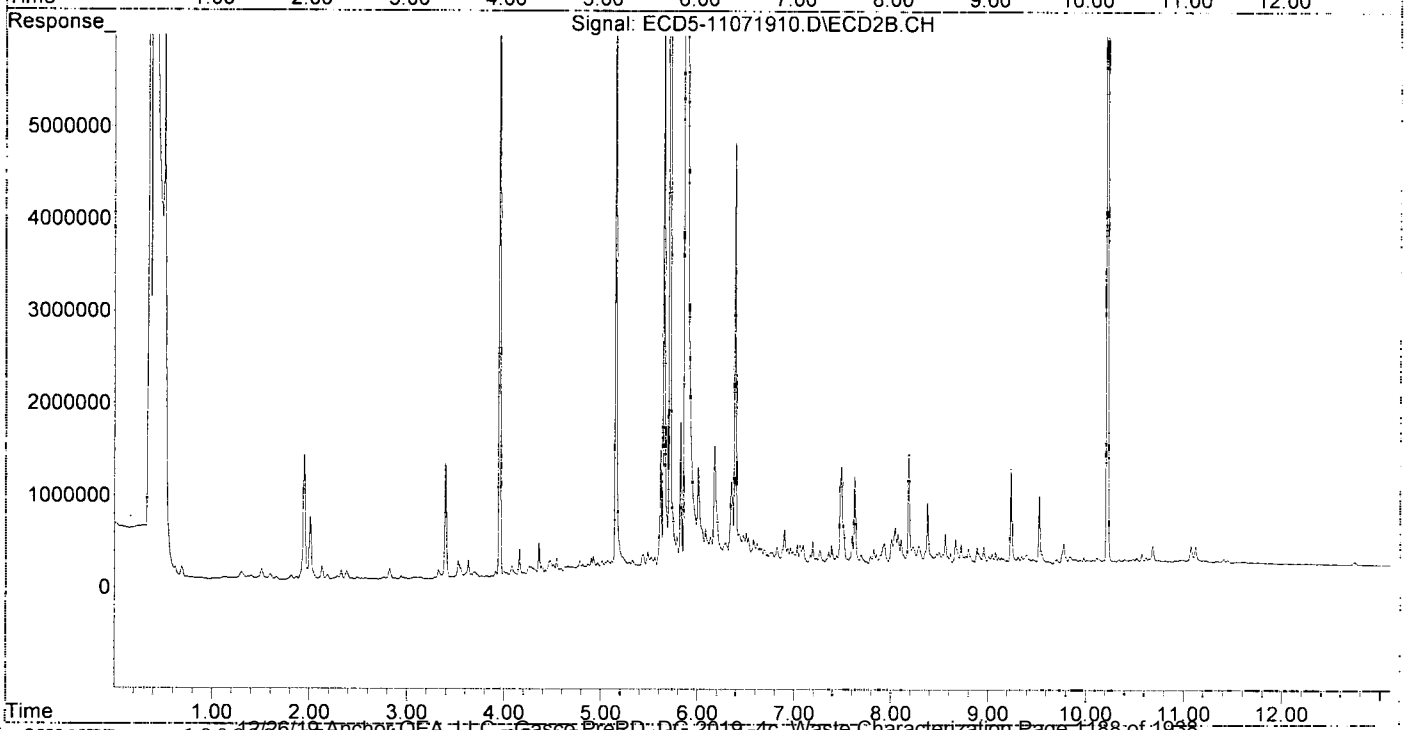
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 13:58
Operator : MJB
Sample : A9J0950-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 15:10:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

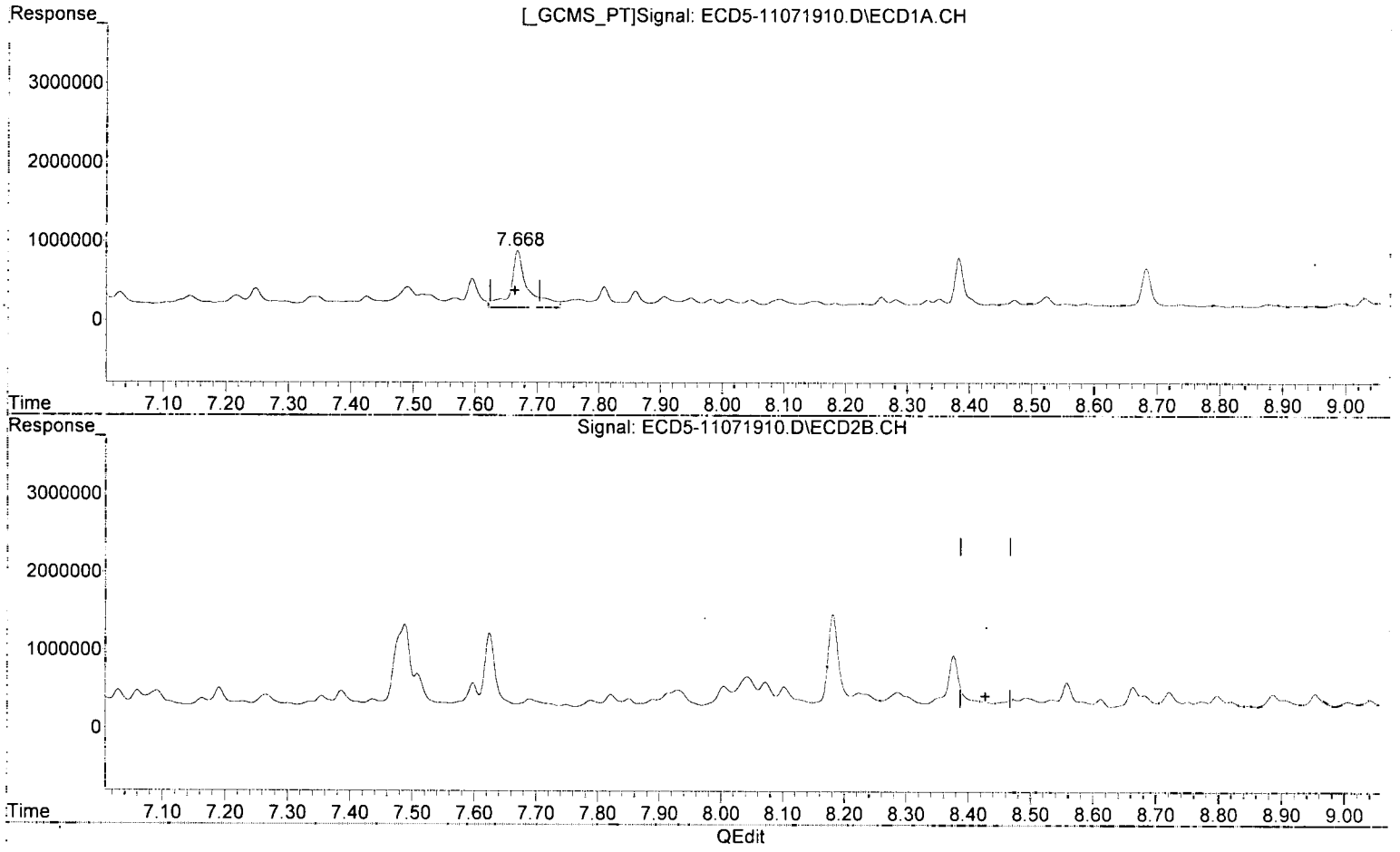




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 13:58
Operator : MJB
Sample : A9J0950-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 14:56:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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



(14) Endrin

7.669min 4.907 ng/mL

response 721503

MJB 11/7/19

(14) Endrin #2

0.000min 0.000 ng/mL

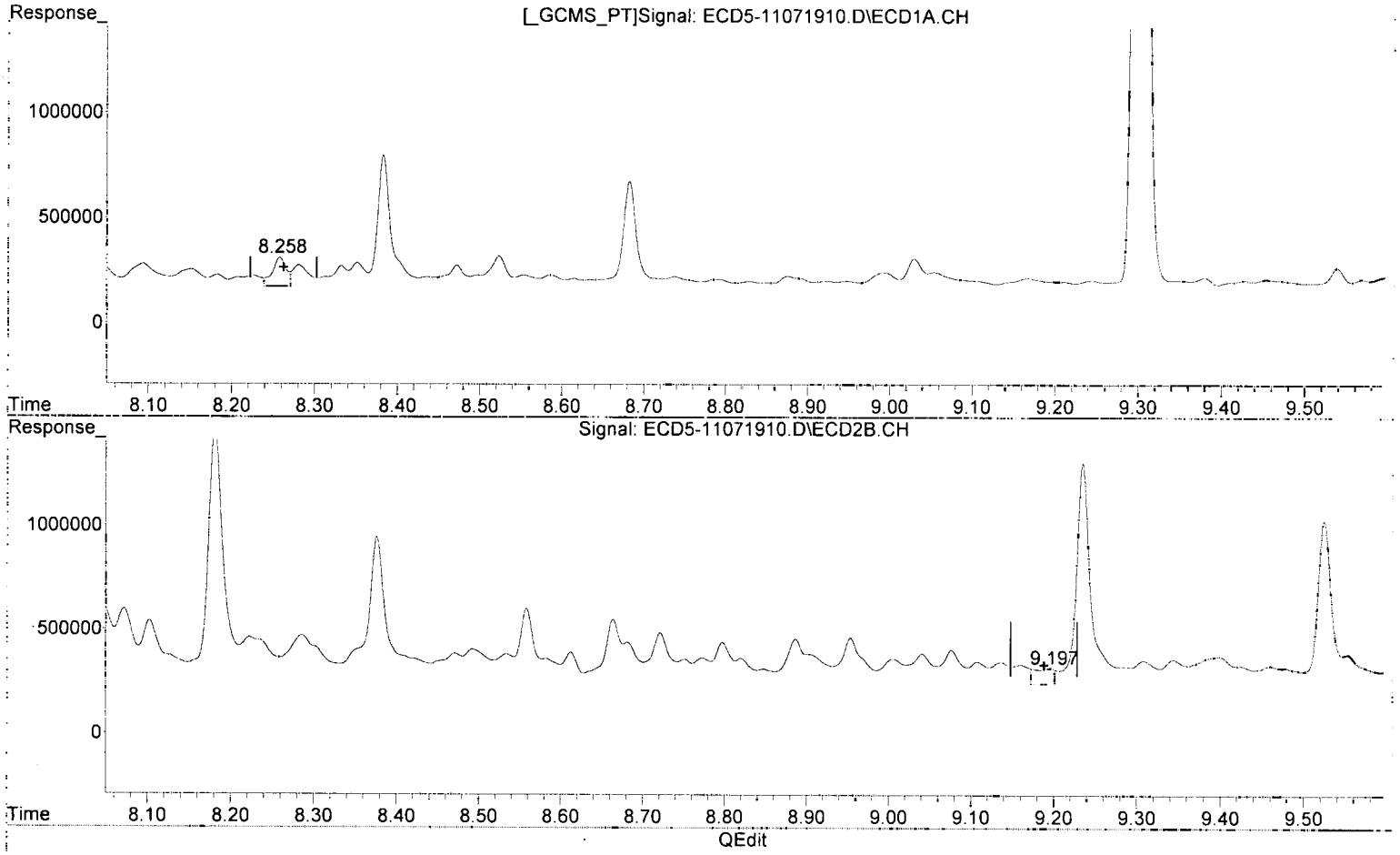
response 0

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 13:58
Operator : MJB
Sample : A9J0950-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 14:56:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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

8.258min 2.356 ng/mL

response 137979

(20) Methoxychlor #2

9.197min 0.744 ng/mL

response 74963

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 13:58
Operator : MJB
Sample : A9J0950-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 14:56:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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

ME MJB 11/7/19

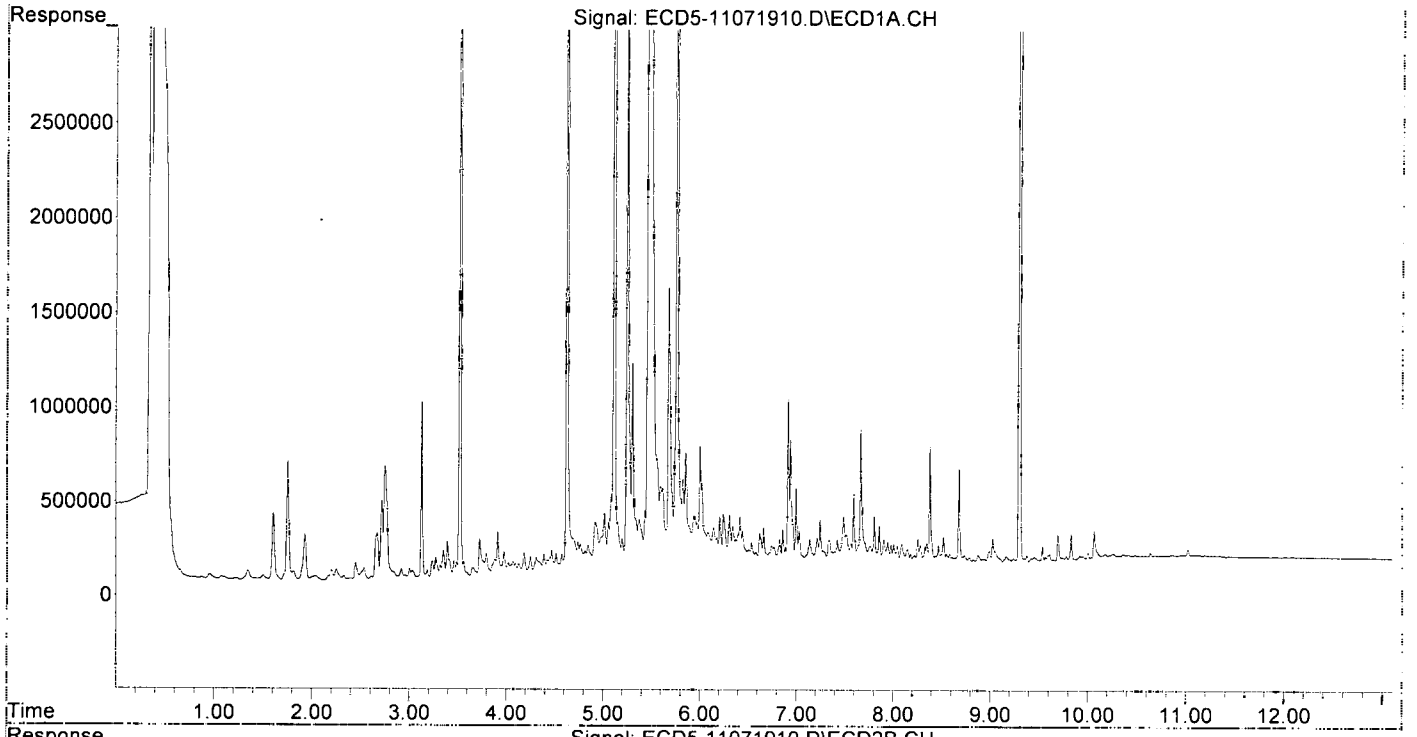
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.114	5.710	13685128	23586713	82.453	80.400	
22)	S	DCBP (S)	9.302	10.218	12244630	18655245	86.781	103.777	
		Target Compounds							
2)		a-BHC	5.679f	6.348f	1497687	994294	6.531	2.423	#
3)		g-BHC	5.939	6.643	293595	267475	1.455	0.750	#
4)		b-BHC	6.005	6.720	658224	196950	7.283	1.244	#
5)		Heptachlor	6.344	7.007	229474	188361	1.266	0.616	#
6)		d-BHC	6.180	6.960	172270	261459	0.876	0.741	
7)		Aldrin	6.583	7.265	88593	225735	0.449	0.685	#
8)		Heptachlo...	7.031	7.689	197497	167757	1.072	0.558	#
9)		trans-Chl...	7.142	7.850	150065	172554	0.812	0.551	
10)		cis-Chlor...	7.248	7.931f	248279	281188	1.364	0.965	
11)		Endosulfa...	7.344	8.004	143001	330654	0.840	1.202	#
12)		4,4'-DDE	7.344f	8.072	143001	382931	0.759	1.233	#
13)		Dieldrin	7.491	8.223f	263891	241292	1.375	0.793	#
14)		Endrin	7.669	0.000	721503	0	4.907	N.D.	#
15)		4,4'-DDD	0.000	8.493	0	178839	N.D.	0.698	#
16)		Endosulfa...	7.809	8.582	266647	133446	1.857	0.579	#
17)		4,4'-DDT	7.906	8.721	139460	253973	1.166	1.439	
18)		Endrin Al...	8.093	8.820	111788	130120	BelowCal	BelowCal	
19)		Endosulfa...	8.383f	9.005	623589	124053	4.024	0.498	#
20)		Methoxychlor	8.258	9.196	137979	75613	2.356	0.752	#
21)		Endrin Ke...	8.586	9.399	52032	129625	0.312	0.504	#
23)		Hexachlor...	2.917	8.392	48879	1254852	0.267	3.338	#
24)		Hexachlor...	5.469f	6.175	38601255	1390172	218.960	4.426	#
25)		Oxychlordane	6.999f	7.624	421619	1011627	2.562	3.693	#
26)		2,4'-DDE	7.031f	7.850	197497	172554	1.540	0.813	#
27)		trans-Non...	7.217	7.931	157223	281188	0.561	0.932	#
28)		2,4'-DDD	7.425	8.223	143143	241292	1.254	1.278	
29)		2,4'-DDT	7.595	8.472f	373999	160158	3.410	0.898	#
30)		cis-Nonac...	7.669f	8.472	721503	160158	3.475	0.477	#
31)		Mirex	8.352	9.399f	113153	129625	0.903	0.697	
32)		Chlordane...	7.248	7.931	248279	281188	12.610	7.771	
33)		Chlordane...	7.344	8.042	143001	452909	5.705	14.916	#
34)		Chlordane...	7.859	8.721	210337	253973	36.383	28.327	
35)		Chlordane...	3.350	3.318	142990	98197	NoCal	NoCal	
36)		Toxaphene...	7.398	8.376	82977	721835	92.645	275.063	#
37)		Toxaphene...	7.669f	8.721	721503	253973	446.768	77.171	#
38)		Toxaphene...	8.010	8.751	111481	125846	33.105	24.830	
39)		Toxaphene...	8.258	8.820	137979	130120	42.584	15.584	#
40)		Toxaphene...	8.472	9.005	100113	124053	41.763	26.619	
41)		Toxaphene...	8.553	9.344f	52383	114014	16.553	24.002	#
42)		Toxaphene...	3.350	3.318f	142990	98197	NoCal	NoCal	

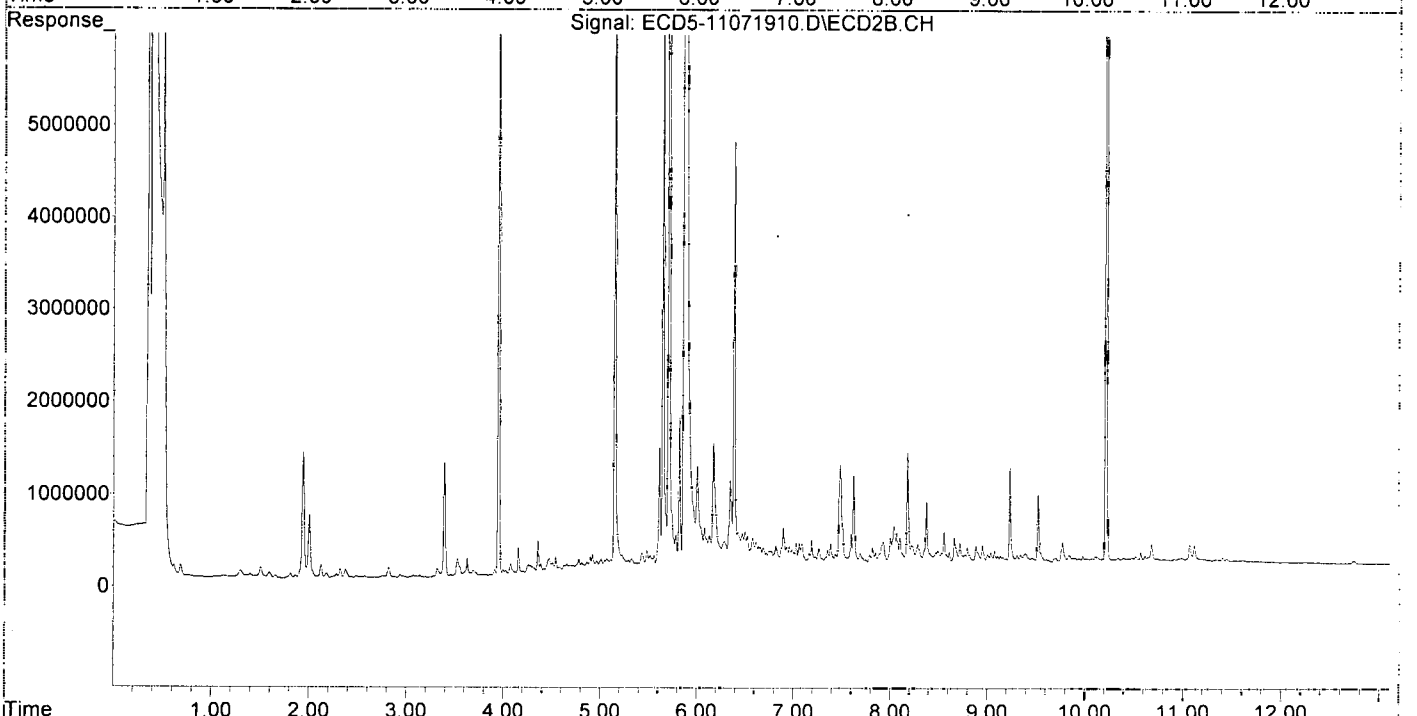
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 13:58
Operator : MJB
Sample : A9J0950-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 14:56:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\2019-11\9K07024\
Data File : ECD5-11071911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:15
Operator : MJB
Sample : A9J0950-02
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 15:13:19 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/7/19

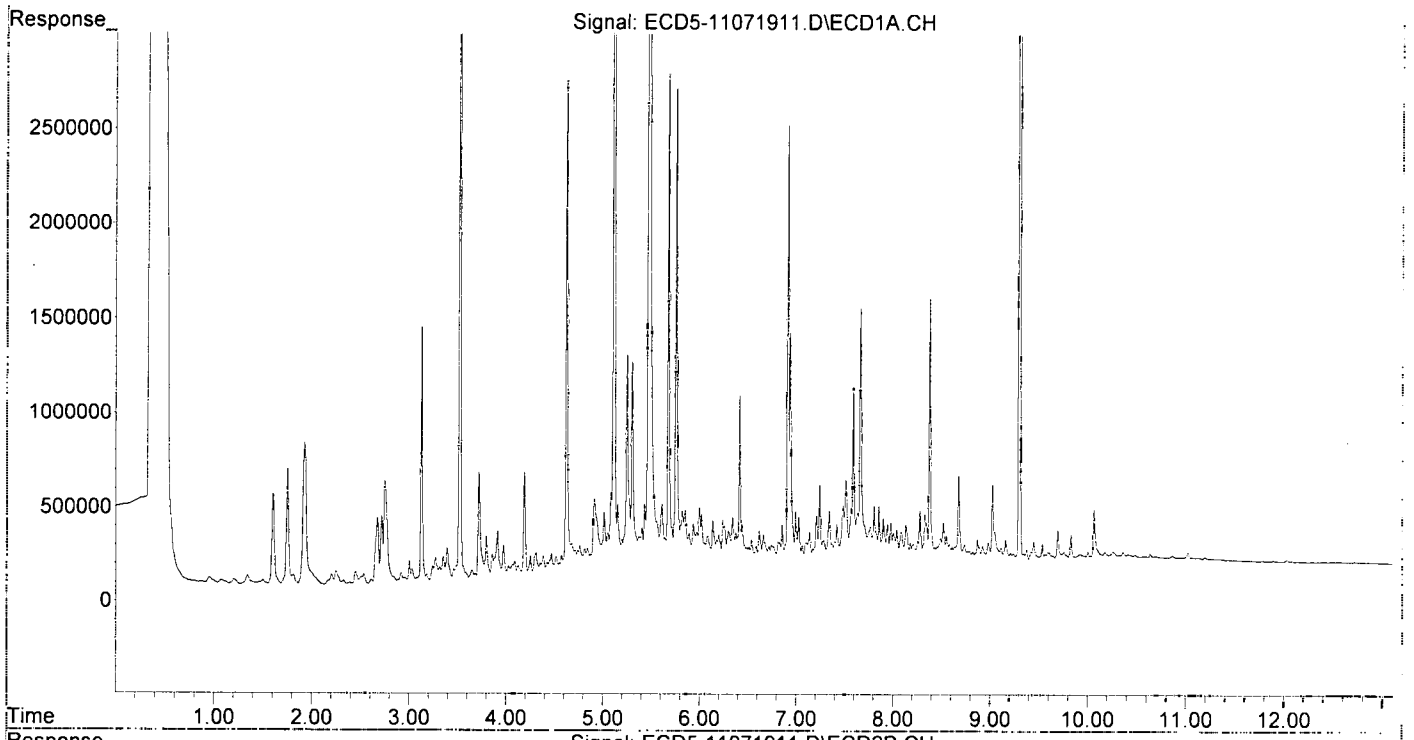
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.114	5.710	13207758	21788030	79.577	74.269
22) S	DCBP (S)	9.302	10.219	11284999	16307359	79.979	90.716
	Target Compounds						
2)	a-BHC	5.678f	6.304	2615764	280758	11.406	0.684 #
3)	g-BHC	5.938	6.641	257684	265092	1.277	0.743 #
4)	b-BHC	6.002	6.718	345277	350534	3.820	2.215 #
5)	Heptachlor	6.343	7.009	288025	276397	1.589	0.903 #
6)	d-BHC	6.138f	6.960	271305	377323	1.379	1.070
7)	Aldrin	6.588	7.264	127411	260485	0.645	0.791
8)	Heptachlo...	7.029	7.690	274904	293816	1.493	0.977
9)	trans-Chl...	7.139	7.819f	191941	503070	1.038	1.606 #
10)	cis-Chlor...	7.244	7.925f	441000	416274	2.422	1.429 #
11)	Endosulfa...	7.344	8.003	301830	448155	1.774	1.629
12)	4,4'-DDE	7.290	8.070	147429	735746	0.782	2.368 #
13)	Dieldrin	7.488	8.222f	326168	755364	1.699	2.484 #
14)	Endrin	7.666	8.412	1367550	340289	9.301	1.507m#
15)	4,4'-DDD	0.000	8.491	0	334485	N.D.	1.305 #
16)	Endosulfa...	7.808	8.583	319518	254634	2.225	1.104 #
17)	4,4'-DDT	7.904	8.720	249975	484431	2.091	2.773
18)	Endrin Al...	8.088	8.821	178682	270055	0.512	0.629
19)	Endosulfa...	8.381f	9.007	1403526	312190	9.056	1.253 #
20)	Methoxychlor	8.256	9.196	127377	184403	2.175m	2.096
21)	Endrin Ke...	8.584	9.401	104069	231872	0.624	0.901 #
23)	Hexachlor...	2.918	3.391f	52782	1851740	0.289	4.926 #
24)	Hexachlor...	5.472f	6.169	8113237	785716	46.021	2.502 #
25)	Oxychlordane	6.996f	7.623	303237	1922834	1.843	7.020 #
26)	2,4'-DDE	7.065	7.819f	124266	503070	0.969	2.371 #
27)	trans-Non...	7.244	7.925	441000	416274	2.145	1.380
28)	2,4'-DDD	7.423	8.222	227951	755364	1.997	4.000 #
29)	2,4'-DDT	7.593	8.449	949497	278508	8.656	1.562 #
30)	cis-Nonac...	7.666f	8.469	1367550	312854	6.587	0.933 #
31)	Mirex	8.348	9.401f	224065	231872	1.787	1.246
32)	Chlordane...	7.244	7.925	441000	416274	22.398	11.504 #
33)	Chlordane...	7.344	8.039	301830	548005	12.042	18.048 #
34)	Chlordane...	7.858	8.720	316514	484431	54.750	54.031
35)	Chlordane...	3.350	3.315	129944	183710	NoCal	NoCal
36)	Toxaphene...	7.423f	8.375	227951	1858220	254.510	708.093 #
37)	Toxaphene...	7.666f	8.720	1367550	484431	846.813	147.198 #
38)	Toxaphene...	8.008	8.748	171859	270669	51.035	53.404
39)	Toxaphene...	8.217f	8.821	109220	270055	33.708	32.343
40)	Toxaphene...	8.492	9.007	134482	312190	56.101	66.988
41)	Toxaphene...	8.552	9.342f	150703	259396	47.622	54.607
42)	Toxaphene...	3.350	3.315f	129944	183710	NoCal	NoCal

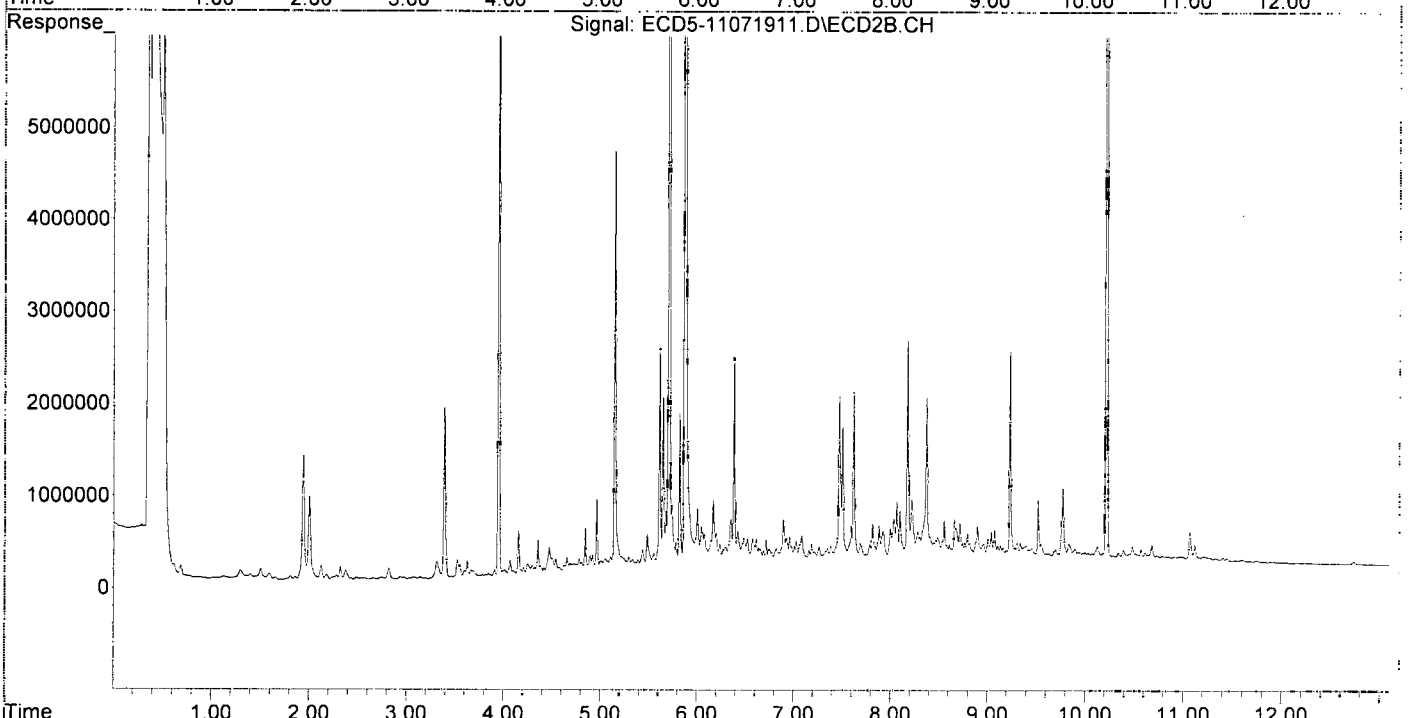
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:15
Operator : MJB
Sample : A9J0950-02
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 15:13:19 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

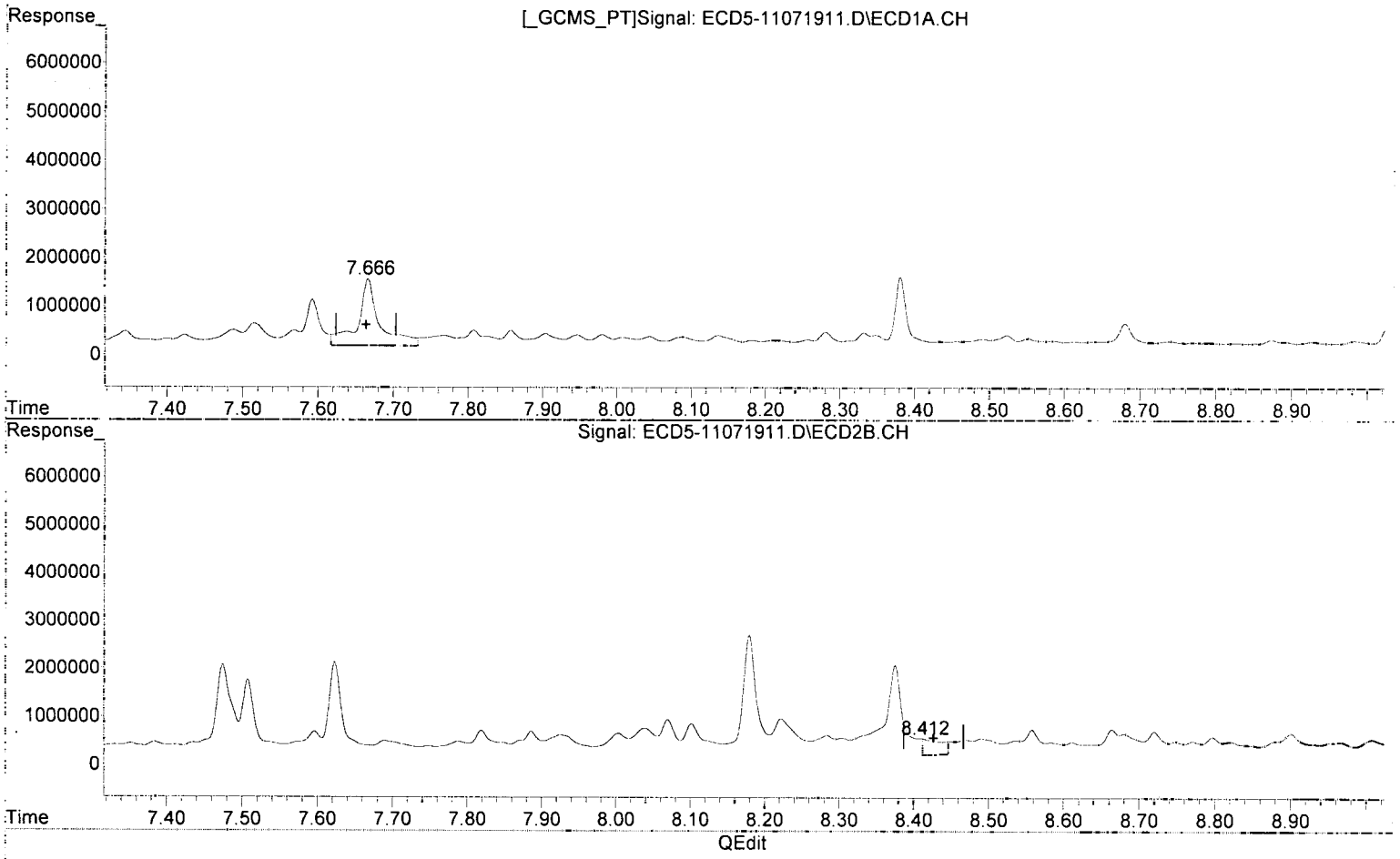




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:15
Operator : MJB
Sample : A9J0950-02
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 14:57:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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



(14) Endrin

7.666min 9.301 ng/mL

response 1367550

MJB 12/7/19

(14) Endrin #2

8.412min 1.507 ng/mL m

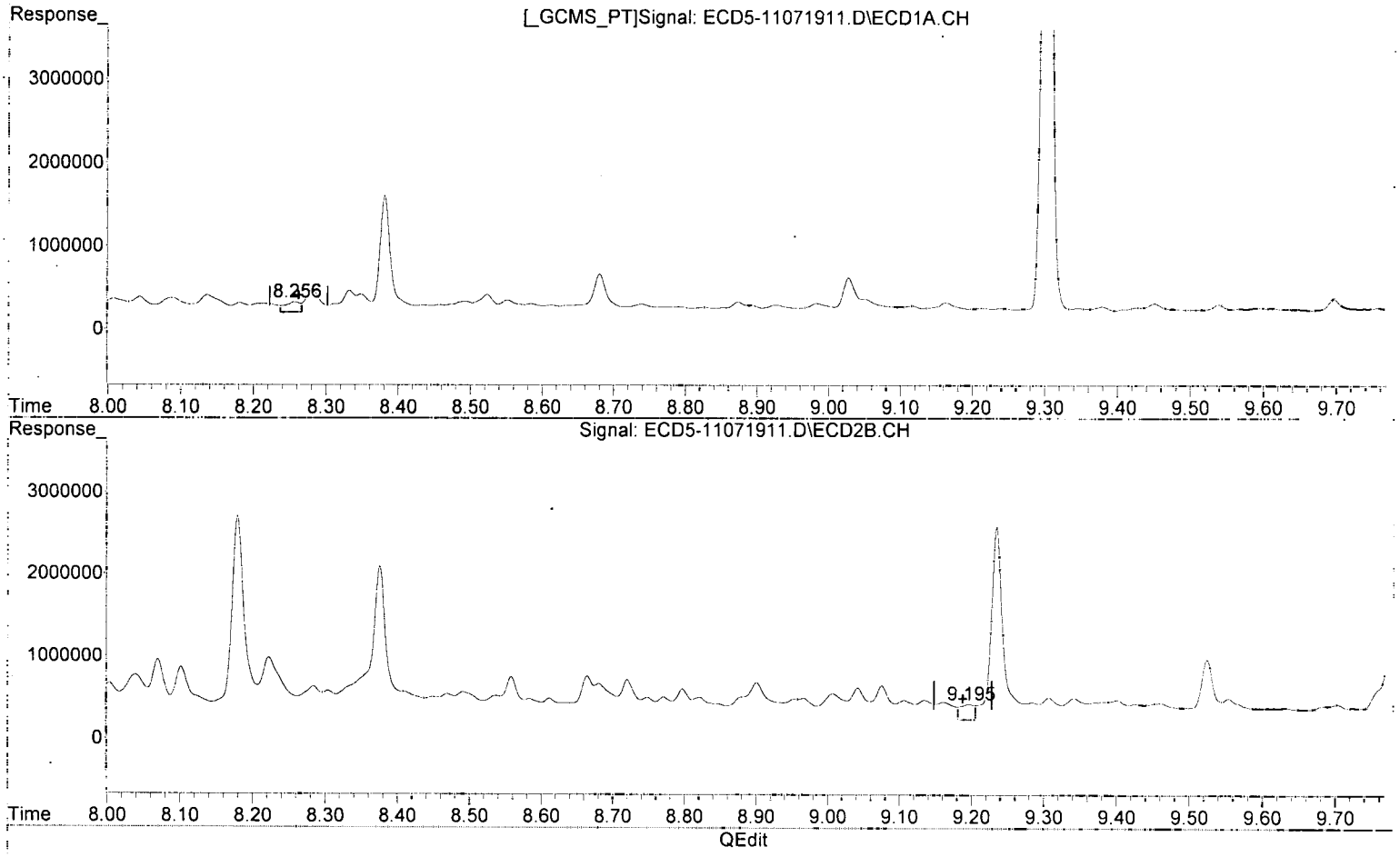
response 340289

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:15
Operator : MJB
Sample : A9J0950-02
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 14:57:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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

8.256min 2.175 ng/mL

response 127377

MJB 11/7/19

(20) Methoxychlor #2

9.196min 2.096 ng/mL

response 184403

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:15
Operator : MJB
Sample : A9J0950-02
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 14:57:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/7/19

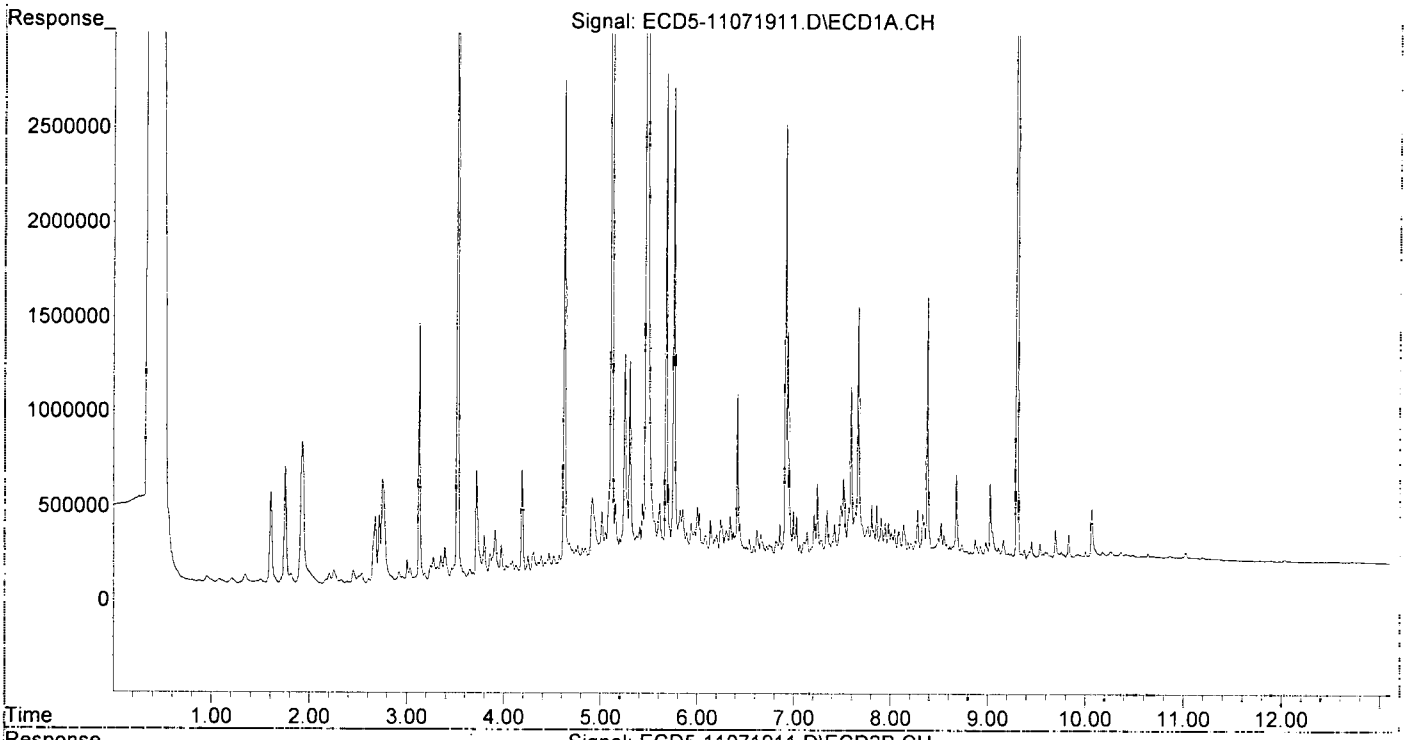
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.114	5.710	13207758	21788030	79.577	74.269	
22)	S	DCBP (S)	9.302	10.219	11284999	16307359	79.979	90.716	
		Target Compounds							
2)		a-BHC	5.678f	6.304	2615764	280758	11.406	0.684	#
3)		g-BHC	5.938	6.641	257684	265092	1.277	0.743	#
4)		b-BHC	6.002	6.718	345277	350534	3.820	2.215	#
5)		Heptachlor	6.343	7.009	288025	276397	1.589	0.903	#
6)		d-BHC	6.138f	6.960	271305	377323	1.379	1.070	
7)		Aldrin	6.588	7.264	127411	260485	0.645	0.791	
8)		Heptachlo...	7.029	7.690	274904	293816	1.493	0.977	
9)		trans-Chl...	7.139	7.819f	191941	503070	1.038	1.606	#
10)		cis-Chlor...	7.244	7.925f	441000	416274	2.422	1.429	#
11)		Endosulfa...	7.344	8.003	301830	448155	1.774	1.629	
12)		4,4'-DDE	7.290	8.070	147429	735746	0.782	2.368	#
13)		Dieldrin	7.488	8.222f	326168	755364	1.699	2.484	#
14)		Endrin	7.666	8.449f	1367550	278508	9.301	1.233	#
15)		4,4'-DDD	0.000	8.491	0	334485	N.D.	1.305	#
16)		Endosulfa...	7.808	8.583	319518	254634	2.225	1.104	#
17)		4,4'-DDT	7.904	8.720	249975	484431	2.091	2.773	
18)		Endrin Al...	8.088	8.821	178682	270055	0.512	0.629	
19)		Endosulfa...	8.381f	9.007	1403526	312190	9.056	1.253	#
20)		Methoxychlor	8.281	9.196	287220	184403	4.904	2.096	#
21)		Endrin Ke...	8.584	9.401	104069	231872	0.624	0.901	#
23)		Hexachlor...	2.918	3.391f	52782	1851740	0.289	4.926	#
24)		Hexachlor...	5.472f	6.169	8113237	785716	46.021	2.502	#
25)		Oxychlordane	6.996f	7.623	303237	1922834	1.843	7.020	#
26)		2,4'-DDE	7.065	7.819f	124266	503070	0.969	2.371	#
27)		trans-Non...	7.244	7.925	441000	416274	2.145	1.380	
28)		2,4'-DDD	7.423	8.222	227951	755364	1.997	4.000	#
29)		2,4'-DDT	7.593	8.449	949497	278508	8.656	1.562	#
30)		cis-Nonac...	7.666f	8.469	1367550	312854	6.587	0.933	#
31)		Mirex	8.348	9.401f	224065	231872	1.787	1.246	
32)		Chlordane...	7.244	7.925	441000	416274	22.398	11.504	#
33)		Chlordane...	7.344	8.039	301830	548005	12.042	18.048	#
34)		Chlordane...	7.858	8.720	316514	484431	54.750	54.031	
35)		Chlordane...	3.350	3.315	129944	183710	NoCal	NoCal	
36)		Toxaphene...	7.423f	8.375	227951	1858220	254.510	708.093	#
37)		Toxaphene...	7.666f	8.720	1367550	484431	846.813	147.198	#
38)		Toxaphene...	8.008	8.748	171859	270669	51.035	53.404	
39)		Toxaphene...	8.217f	8.821	109220	270055	33.708	32.343	
40)		Toxaphene...	8.492	9.007	134482	312190	56.101	66.988	
41)		Toxaphene...	8.552	9.342f	150703	259396	47.622	54.607	
42)		Toxaphene...	3.350	3.315f	129944	183710	NoCal	NoCal	

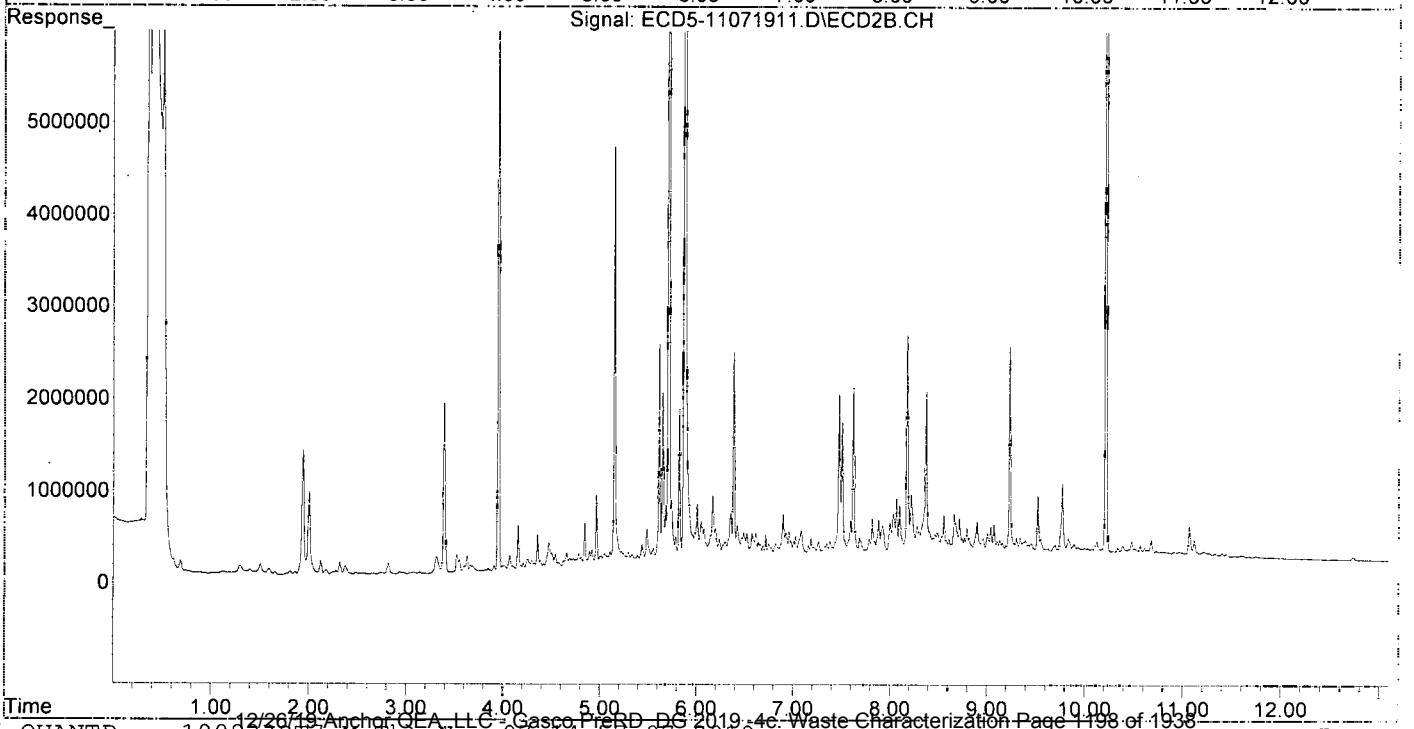
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:15
Operator : MJB
Sample : A9J0950-02
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 14:57:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\2019-11\9K07024\
Data File : ECD5-11071912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:33
Operator : MJB
Sample : A9J0950-03
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 15:17:00 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/7/19

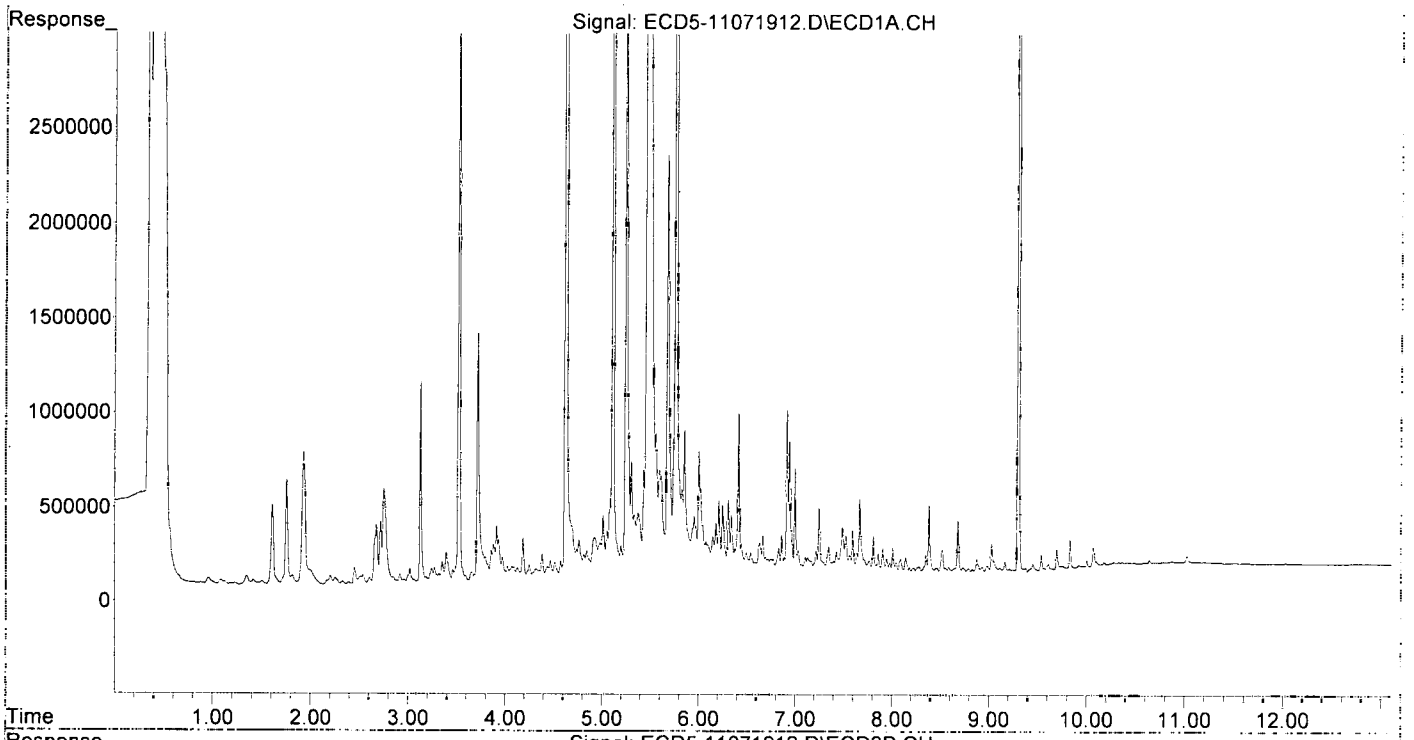
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.113	5.710	13478811	23490748	81.210	80.073	
22)	S	DCBP (S)	9.302	10.218	12265527	18759241	86.929	104.355	
		Target Compounds							
2)		a-BHC	5.678f	6.347f	2202723	1037606	9.605	2.529	#
3)		g-BHC	5.955	6.637	328851	190480	1.630	0.534	#
4)		b-BHC	6.005	6.702	668659	195799	7.398	1.237	#
5)		Heptachlor	6.341	7.025	325453	240584	1.795	0.786m	#
6)		d-BHC	6.182	6.959	289678	226537	1.473	0.642	#
7)		Aldrin	6.581	7.268	77632	299751	0.393	0.910	#
8)		Heptachlo...	7.033	7.695	134997	165515	0.733	0.550	
9)		trans-Chl...	7.130	7.847	97031	185593	0.525	0.592	
10)		cis-Chlor...	7.249	7.937	354808	245867	1.949	0.844	#
11)		Endosulfa...	7.347	8.011	152409	228239	0.896	0.829	
12)		4,4'-DDE	0.000	8.072	0	515106	N.D.	1.658	#
13)		Dieldrin	7.492	8.181f	251608	706216	1.311	2.322	#
14)		Endrin	7.670	8.406f	400903	96033	2.727	0.425m	#
15)		4,4'-DDD	0.000	8.469	0	115075	N.D.	0.449	#
16)		Endosulfa...	7.810	8.559	202997	275370	1.414	1.194	
17)		4,4'-DDT	7.908	8.721	135423	207055	1.133	1.167	
18)		Endrin Al...	8.091	8.821	78421	97071	BelowCal	BelowCal	
19)		Endosulfa...	8.384f	9.008	357565	78499	2.307	0.315	#
20)		Methoxychlor	8.282	9.195	39040	62753	0.667	0.593	
21)		Endrin Ke...	8.587	9.390	29654	93377	0.178	0.363	#
23)		Hexachlor...	2.916	3.390f	48396	1518143	0.265	4.038	#
24)		Hexachlor...	5.468f	6.175	52590875	1632980	298.314	5.199	#
25)		Oxychlordane	7.000f	7.624	564086	980983	3.428	3.582	
26)		2,4'-DDE	7.033f	7.847	134997	185593	1.053	0.875	
27)		trans-Non...	7.218	7.890f	129735	178364	0.408	0.591	#
28)		2,4'-DDD	7.427	8.227	123791	280658	1.085	1.486	
29)		2,4'-DDT	7.597	8.452	236730	88587	2.158	0.497	#
30)		cis-Nonac...	7.670f	8.469	400903	115075	1.931	0.343	#
31)		Mirex	8.352	9.390	99784	93377	0.796	0.502	
32)		Chlordane...	7.249	7.937	354808	245867	18.020	6.795	#
33)		Chlordane...	7.347	8.042	152409	454930	6.081	14.983	#
34)		Chlordane...	7.861	8.721	109556	207055	18.951	23.094	
35)		Chlordane...	3.350	3.333	109918	223296	NoCal	NoCal	
36)		Toxaphene...	7.400	8.377	77606	462528	86.648	176.251	#
37)		Toxaphene...	7.670f	8.721	400903	207055	248.246	62.915	#
38)		Toxaphene...	8.010	8.751	137788	70502	40.917	13.910	#
39)		Toxaphene...	8.225f	8.821	30398	97071	9.382	11.625	
40)		Toxaphene...	8.456	9.008	29184	78499	12.174	16.844	
41)		Toxaphene...	8.555	9.390	27153	93377	8.580	19.657	#
42)		Toxaphene...	3.350	3.333	109918	223296	NoCal	NoCal	

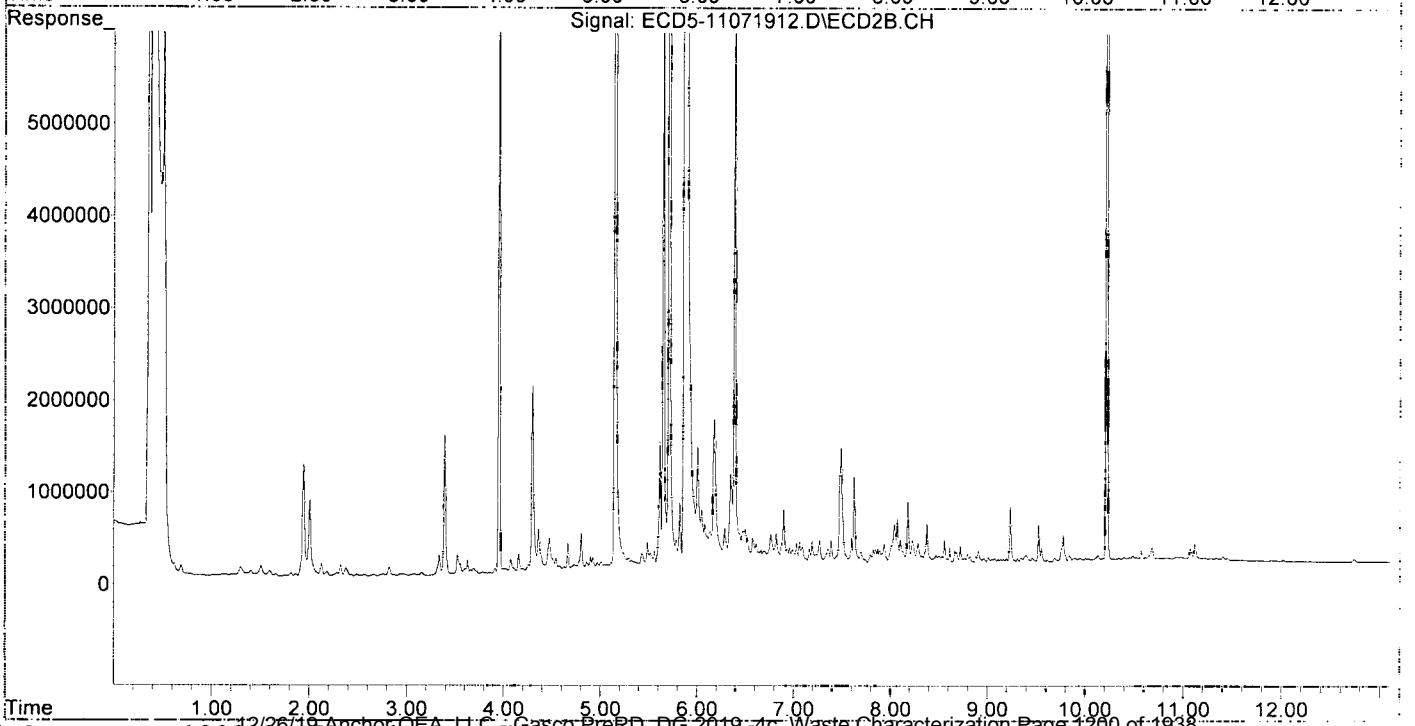
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:33
Operator : MJB
Sample : A9J0950-03
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 15:17:00 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

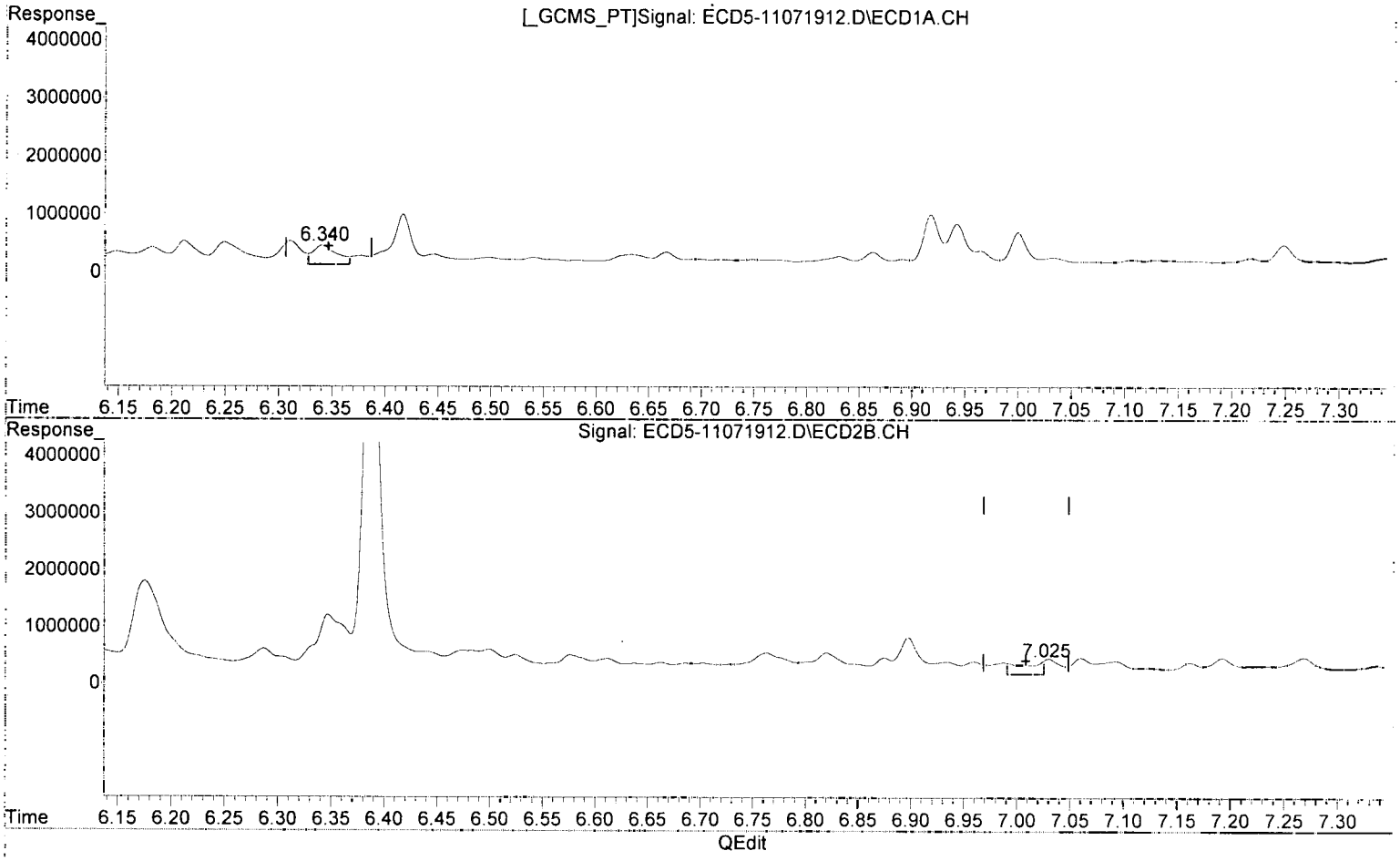




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:33
Operator : MJB
Sample : A9J0950-03
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 14:57:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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



(5) Heptachlor

6.341min 1.795 ng/mL

response 325453

MJB 11/7/19

(5) Heptachlor #2

7.025min 0.786 ng/mL m

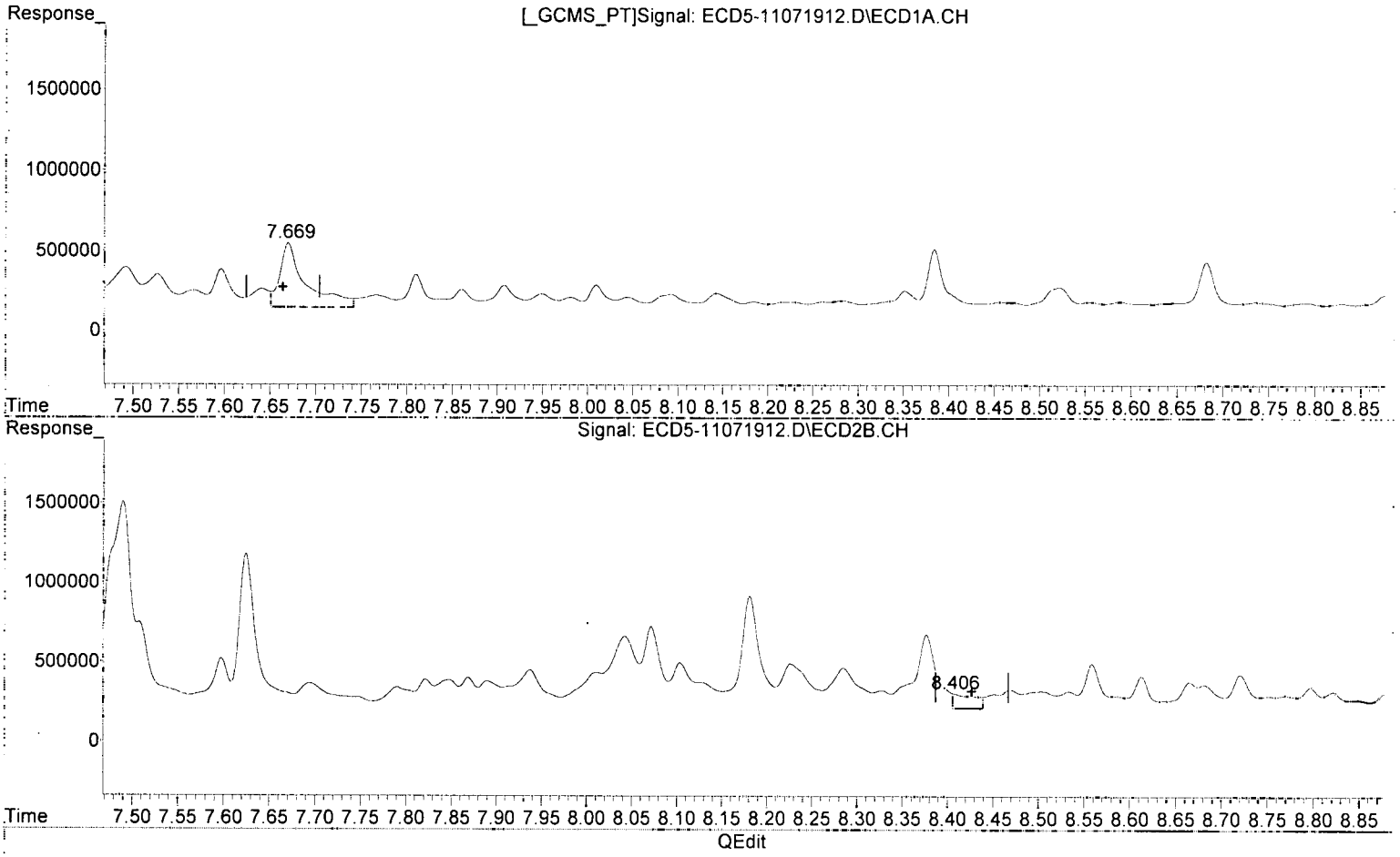
response 240584

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:33
Operator : MJB
Sample : A9J0950-03
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 14:57:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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



(14) Endrin

7.670min 2.727 ng/mL

response 400903

MJB 11/7/19

(14) Endrin #2

8.406min 0.425 ng/mL (m)

response 96033

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:33
Operator : MJB
Sample : A9J0950-03
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 14:57:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/7.9

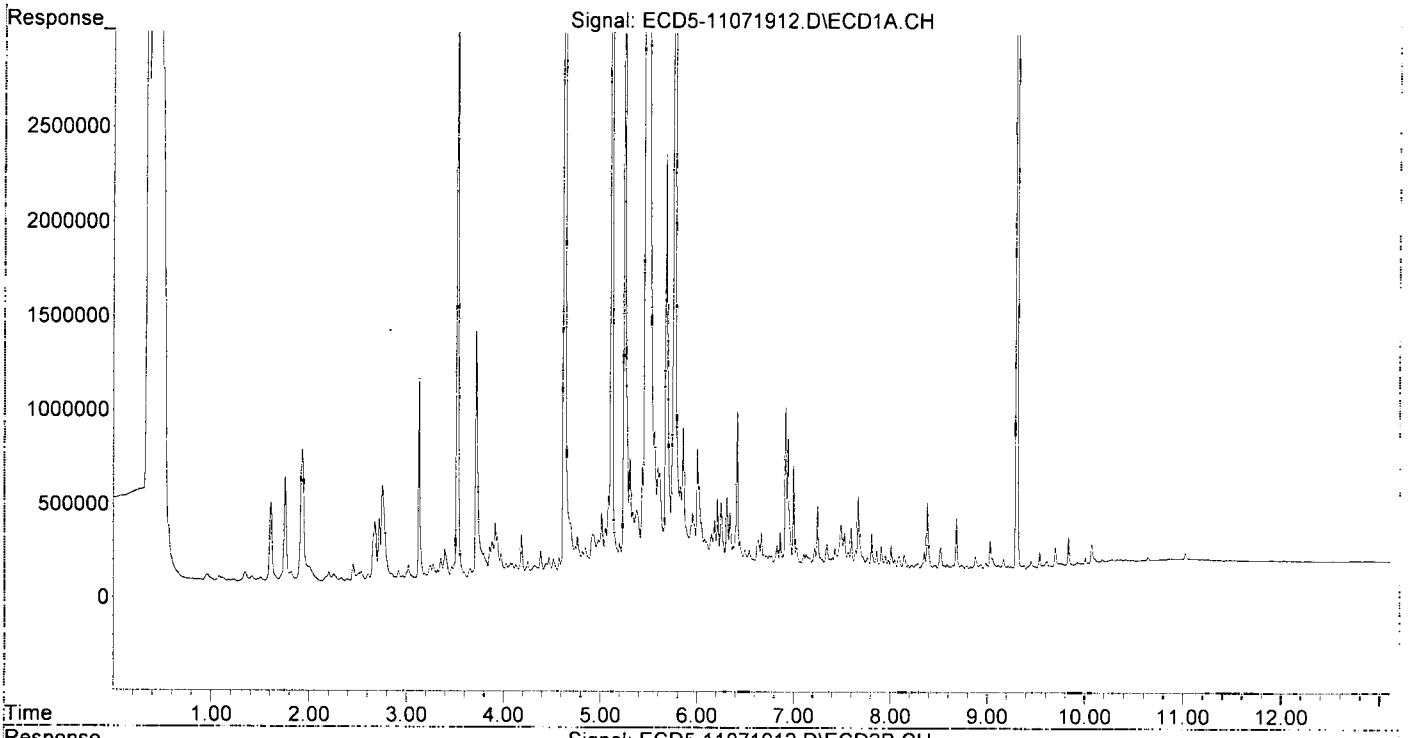
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.113	5.710	13478811	23490748	81.210	80.073	
22)	S	DCBP (S)	9.302	10.218	12265527	18759241	86.929	104.355	
		Target Compounds							
2)		a-BHC	5.678f	6.347f	2202723	1037606	9.605	2.529	#
3)		g-BHC	5.955	6.637	328851	190480	1.630	0.534	#
4)		b-BHC	6.005	6.702	668659	195789	7.398	1.237	#
5)		Heptachlor	6.341	6.987f	325453	208837	1.795	0.683	#
6)		d-BHC	6.182	6.959	289678	226537	1.473	0.642	#
7)		Aldrin	6.581	7.268	77632	299751	0.393	0.910	#
8)		Heptachlo...	7.033	7.695	134997	165515	0.733	0.550	
9)		trans-Chl...	7.130	7.847	97031	185593	0.525	0.592	
10)		cis-Chlor...	7.249	7.937	354808	245867	1.949	0.844	#
11)		Endosulfa...	7.347	8.011	152409	228239	0.896	0.829	
12)		4,4'-DDE	0.000	8.072	0	515106	N.D.	1.658	#
13)		Dieldrin	7.492	8.181f	251608	706216	1.311	2.322	#
14)		Endrin	7.670	8.452f	400903	88587	2.727	0.392	#
15)		4,4'-DDD	0.000	8.469	0	115075	N.D.	0.449	#
16)		Endosulfa...	7.810	8.559	202997	275370	1.414	1.194	
17)		4,4'-DDT	7.908	8.721	135423	207055	1.133	1.167	
18)		Endrin Al...	8.091	8.821	78421	97071	BelowCal	BelowCal	
19)		Endosulfa...	8.384f	9.008	357565	78499	2.307	0.315	#
20)		Methoxychlor	8.282	9.195	39040	62753	0.667	0.593	
21)		Endrin Ke...	8.587	9.390	29654	93377	0.178	0.363	#
23)		Hexachlor...	2.916	3.390f	48396	1518143	0.265	4.038	#
24)		Hexachlor...	5.468f	6.175	52590875	1632980	298.314	5.199	#
25)		Oxychlordane	7.000f	7.624	564086	980983	3.428	3.582	
26)		2,4'-DDE	7.033f	7.847	134997	185593	1.053	0.875	
27)		trans-Non...	7.218	7.890f	129735	178364	0.408	0.591	#
28)		2,4'-DDD	7.427	8.227	123791	280658	1.085	1.486	
29)		2,4'-DDT	7.597	8.452	236730	88587	2.158	0.497	#
30)		cis-Nonac...	7.670f	8.469	400903	115075	1.931	0.343	#
31)		Mirex	8.352	9.390	99784	93377	0.796	0.502	
32)		Chlordane...	7.249	7.937	354808	245867	18.020	6.795	#
33)		Chlordane...	7.347	8.042	152409	454930	6.081	14.983	#
34)		Chlordane...	7.861	8.721	109556	207055	18.951	23.094	
35)		Chlordane...	3.350	3.333	109918	223296	NoCal	NoCal	
36)		Toxaphene...	7.400	8.377	77606	462528	86.648	176.251	#
37)		Toxaphene...	7.670f	8.721	400903	207055	248.246	62.915	#
38)		Toxaphene...	8.010	8.751	137788	70502	40.917	13.910	#
39)		Toxaphene...	8.225f	8.821	30398	97071	9.382	11.625	
40)		Toxaphene...	8.456	9.008	29184	78499	12.174	16.844	
41)		Toxaphene...	8.555	9.390	27153	93377	8.580	19.657	#
42)		Toxaphene...	3.350	3.333	109918	223296	NoCal	NoCal	

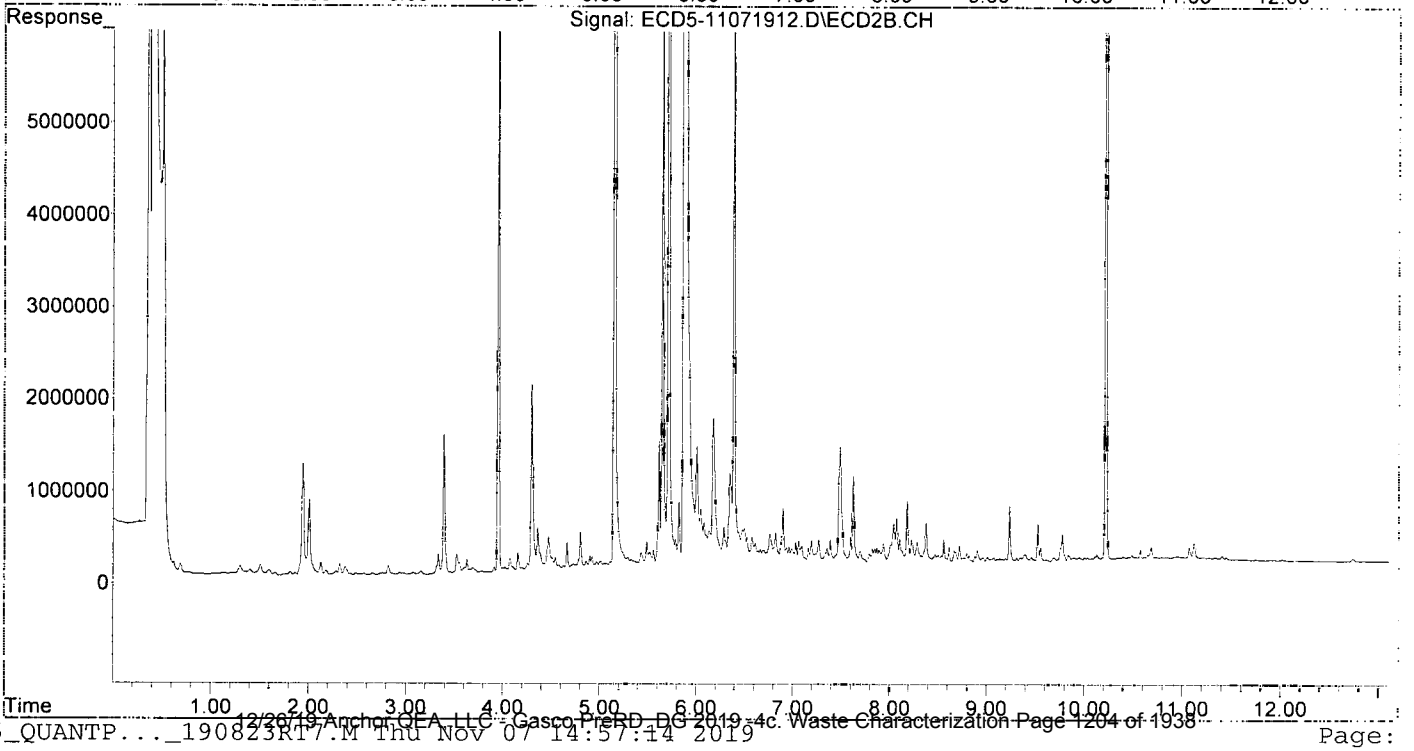
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:33
Operator : MJB
Sample : A9J0950-03
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 14:57:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\2019-11\9K07024\
Data File : ECD5-11071913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:50
Operator : MJB
Sample : A9J0950-04
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 15:20:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/7/19

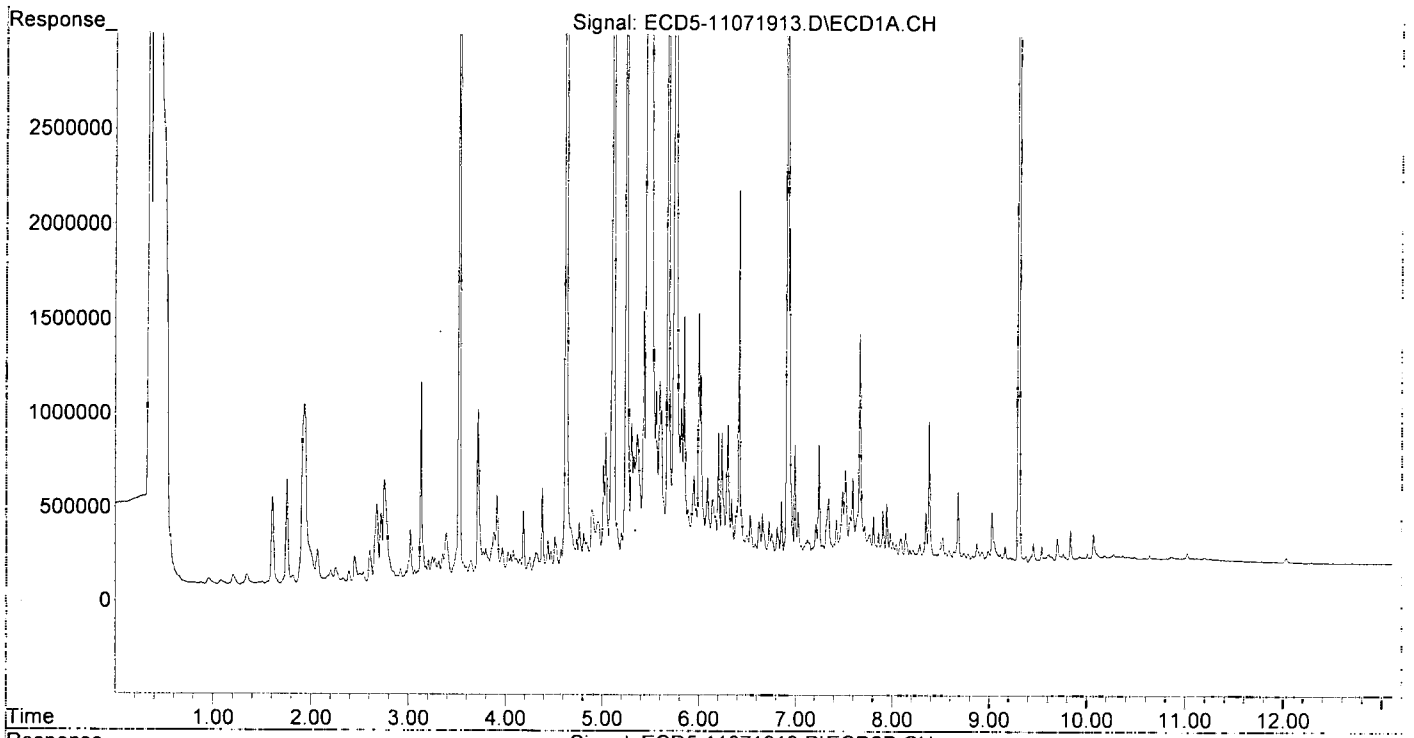
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.114	5.710	14013297	24724594	84.430	84.279	
22)	S	DCBP (S)	9.302	10.218	12489508	18397599	88.516	102.344	
		Target Compounds							
2)		a-BHC	5.677f	6.304	5134137	439436	22.388	1.071	#
3)		g-BHC	5.948	6.633	516354	565299	2.559	1.585	
4)		b-BHC	5.999f	6.719	1378619	330090	15.253	2.086	#
5)		Heptachlor	6.340	7.017	387868	265869	2.139	0.869m	#
6)		d-BHC	6.143f	6.959	386413	379907	1.965	1.077	#
7)		Aldrin	6.584	7.265	146041	407940	0.740	1.238	#
8)		Heptachlo...	7.033	7.692	264967	308727	1.439m	1.026m	
9)		trans-Chl...	7.124	7.849	158720	267276	0.858	0.853	
10)		cis-Chlor...	7.243	7.931f	656637	442618	3.606	1.520	#
11)		Endosulfa...	7.342	8.007	378725	386893	2.225	1.406	
12)		4,4'-DDE	7.342f	8.069	378725	1112646	2.009	3.581	#
13)		Dieldrin	7.488	8.221	413343	807347	2.153	2.654	
14)		Endrin	7.665	8.427	1246523	277457	8.478	1.229	#
15)		4,4'-DDD	7.715	8.489	224788	338112	1.430	1.320	
16)		Endosulfa...	7.807	8.585	277682	185278	1.934	0.803	#
17)		4,4'-DDT	7.904	8.719	304597	487911	2.548	2.793	
18)		Endrin Al...	8.089	8.820	153304	237609	0.294	0.452	#
19)		Endosulfa...	8.382f	9.008	769334	246361	4.964	0.989	#
20)		Methoxychlor	8.273	9.195	84823	173882	1.448m	1.966	
21)		Endrin Ke...	8.586	9.400	84287	179251	0.505	0.697	
23)		Hexachlor...	2.917	3.391f	63385	1453755	0.347	3.867	#
24)		Hexachlor...	5.466f	6.165	109.8E6	3782764	622.621	12.044	#
25)		Oxychlordane	6.995f	7.623	665731	2150480	4.046	7.851	#
26)		2,4'-DDE	7.029f	7.849	312922	267276	2.440	1.260	#
27)		trans-Non...	7.243	7.931	656637	442618	3.349	1.467	#
28)		2,4'-DDD	7.423	8.221	262904	807347	2.304	4.275	#
29)		2,4'-DDT	7.592	8.447	480125	257316	4.377	1.443	#
30)		cis-Nonac...	7.715f	8.467	224788	269500	1.083	0.803	
31)		Mirex	8.349	9.400f	287593	179251	2.294	0.963	#
32)		Chlordane...	7.243	7.931	656637	442618	33.349	12.232	#
33)		Chlordane...	7.342	8.039	378725	661523	15.110	21.786	#
34)		Chlordane...	7.859	8.719	188908	487911	32.677	54.419	#
35)		Chlordane...	3.350	3.313	134244	228599	NoCal	NoCal	
36)		Toxaphene...	7.423f	8.375	262904	1037484	293.535	395.344	
37)		Toxaphene...	7.715f	8.719	224788	487911	139.193	148.255	
38)		Toxaphene...	8.008	8.747	137052	170112	40.699	33.564	
39)		Toxaphene...	8.215f	8.820	88399	237609	27.282	28.457	
40)		Toxaphene...	0.000	9.008	0	246361	N.D.	52.863	#
41)		Toxaphene...	8.521	9.400f	156272	179251	49.382	37.735	
42)		Toxaphene...	3.350	3.313f	134244	228599	NoCal	NoCal	

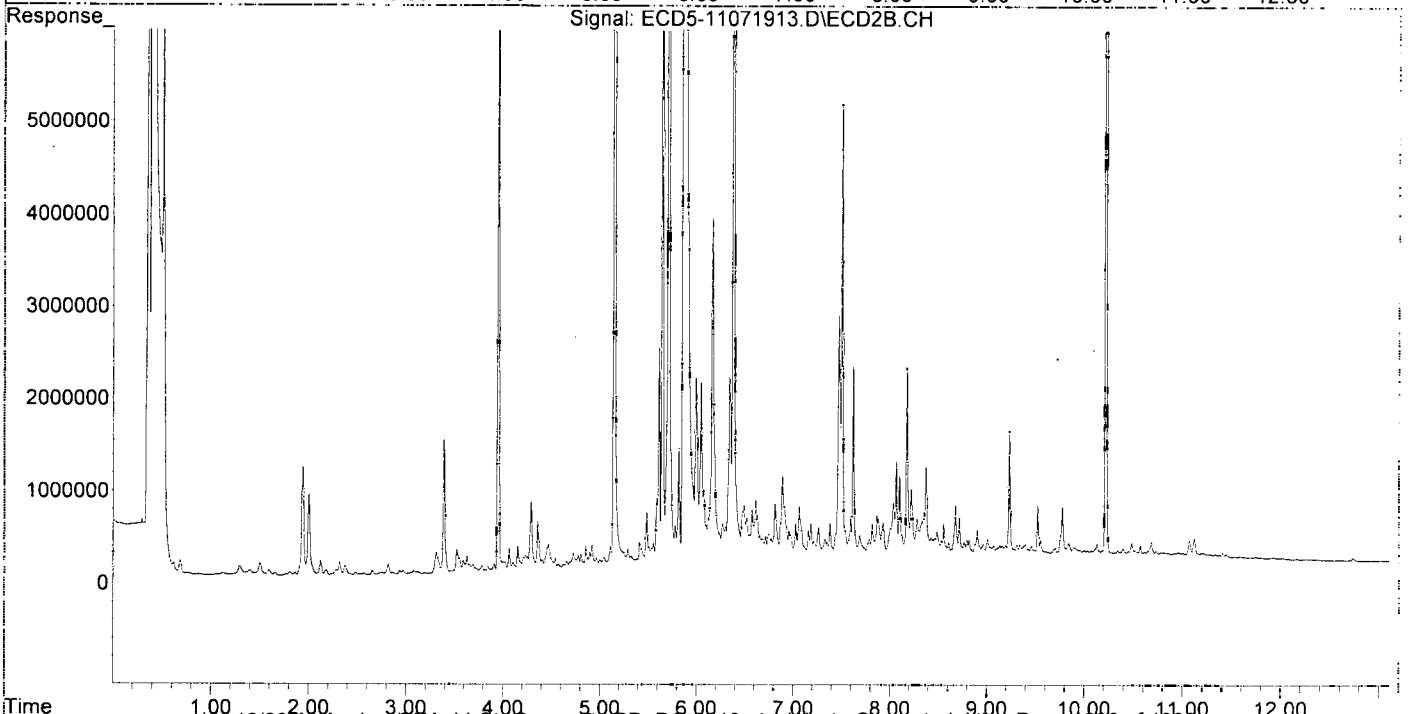
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:50
Operator : MJB
Sample : A9J0950-04
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 15:20:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

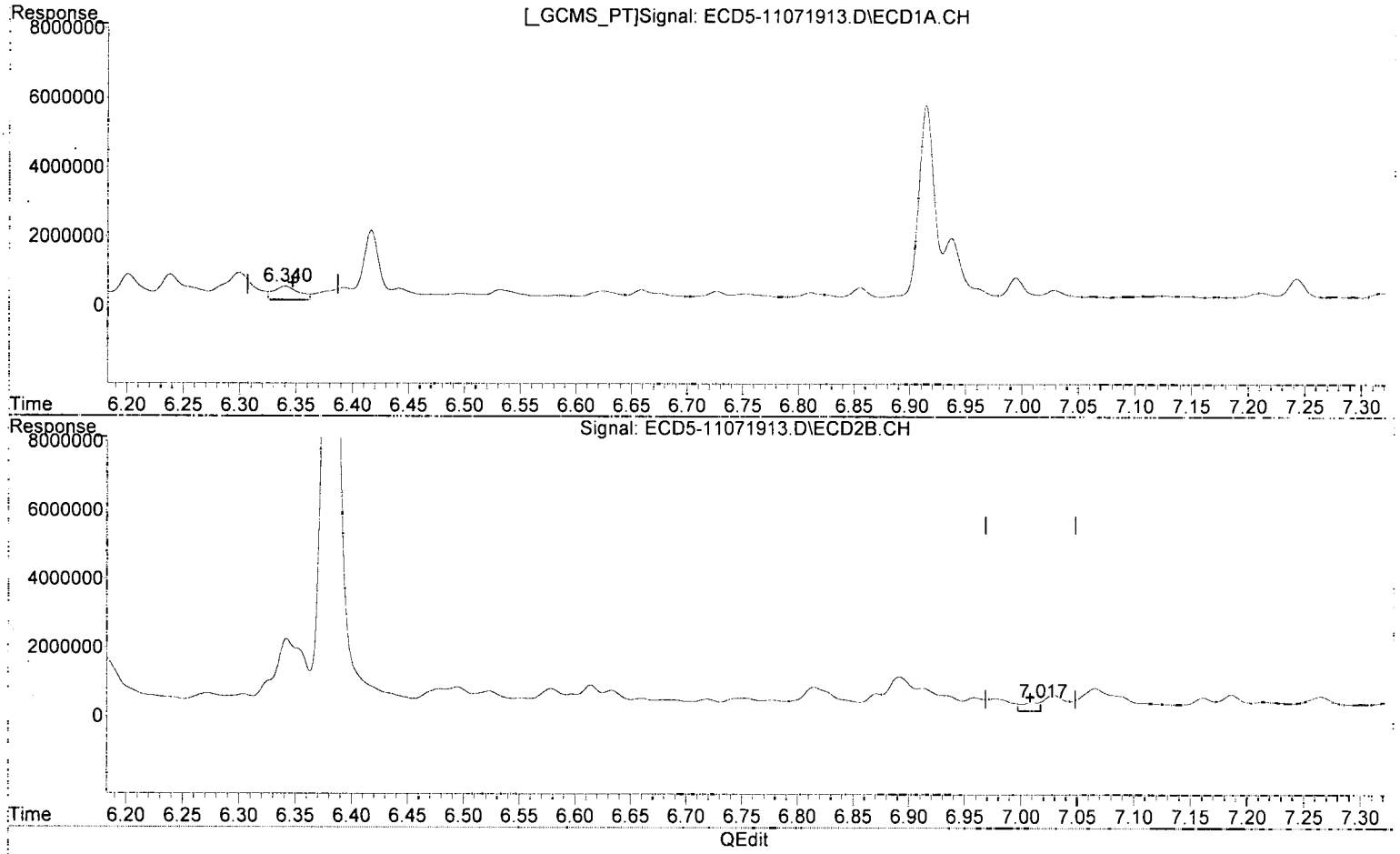




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:50
Operator : MJB
Sample : A9J0950-04
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 15:19:00 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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



(5) Heptachlor

6.340min 2.139 ng/mL

response 387868

MJB 11/7/19

(5) Heptachlor #2

7.017min 0.869 ng/mL m

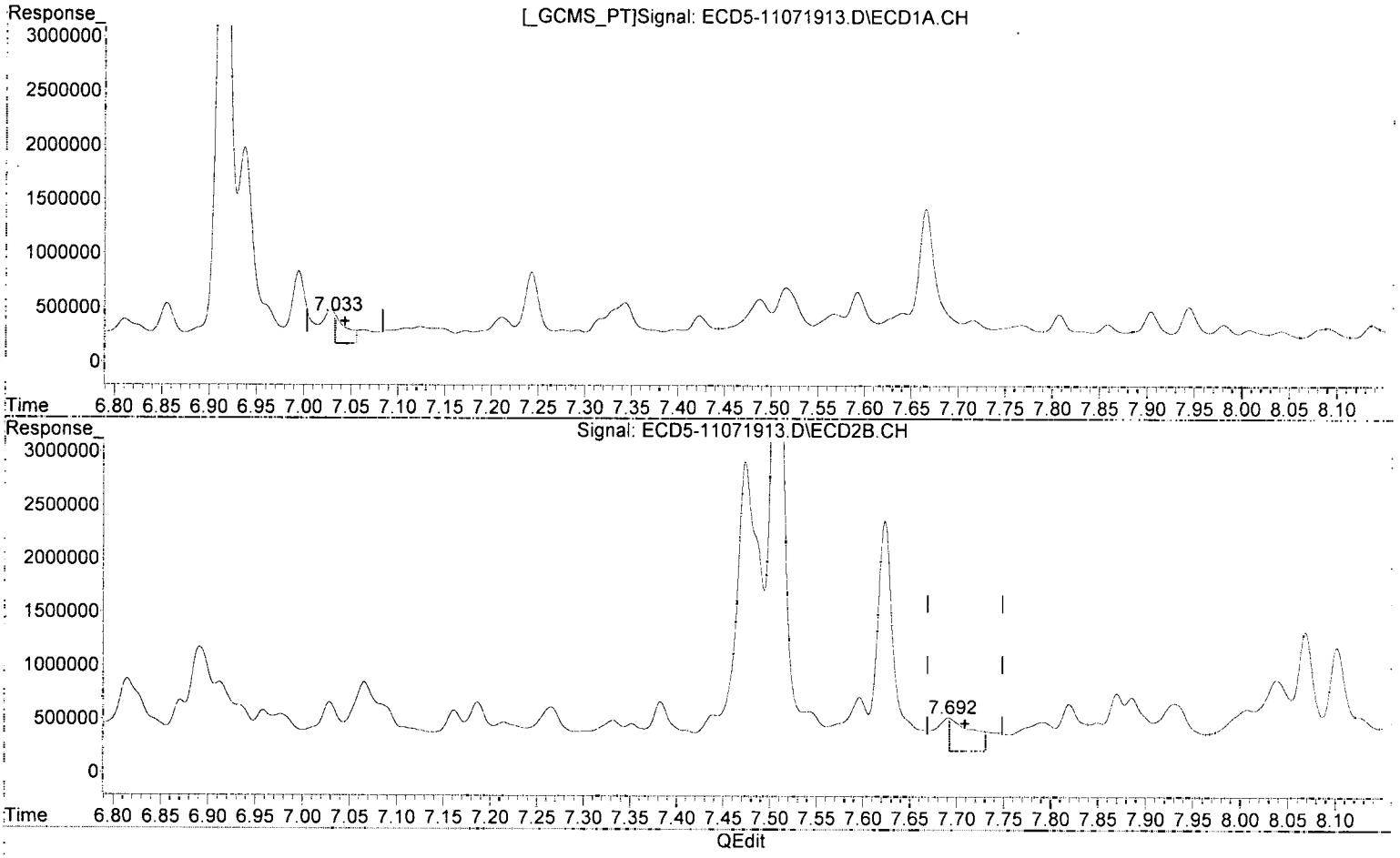
response 265869

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:50
Operator : MJB
Sample : A9J0950-04
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 15:19:00 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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



(8) Heptachlor Expoxide

7.033min 1.439 ng/mL m

response 264967

MJB 11/7/19

(8) Heptachlor Expoxide #2

7.692min 1.026 ng/mL (m)

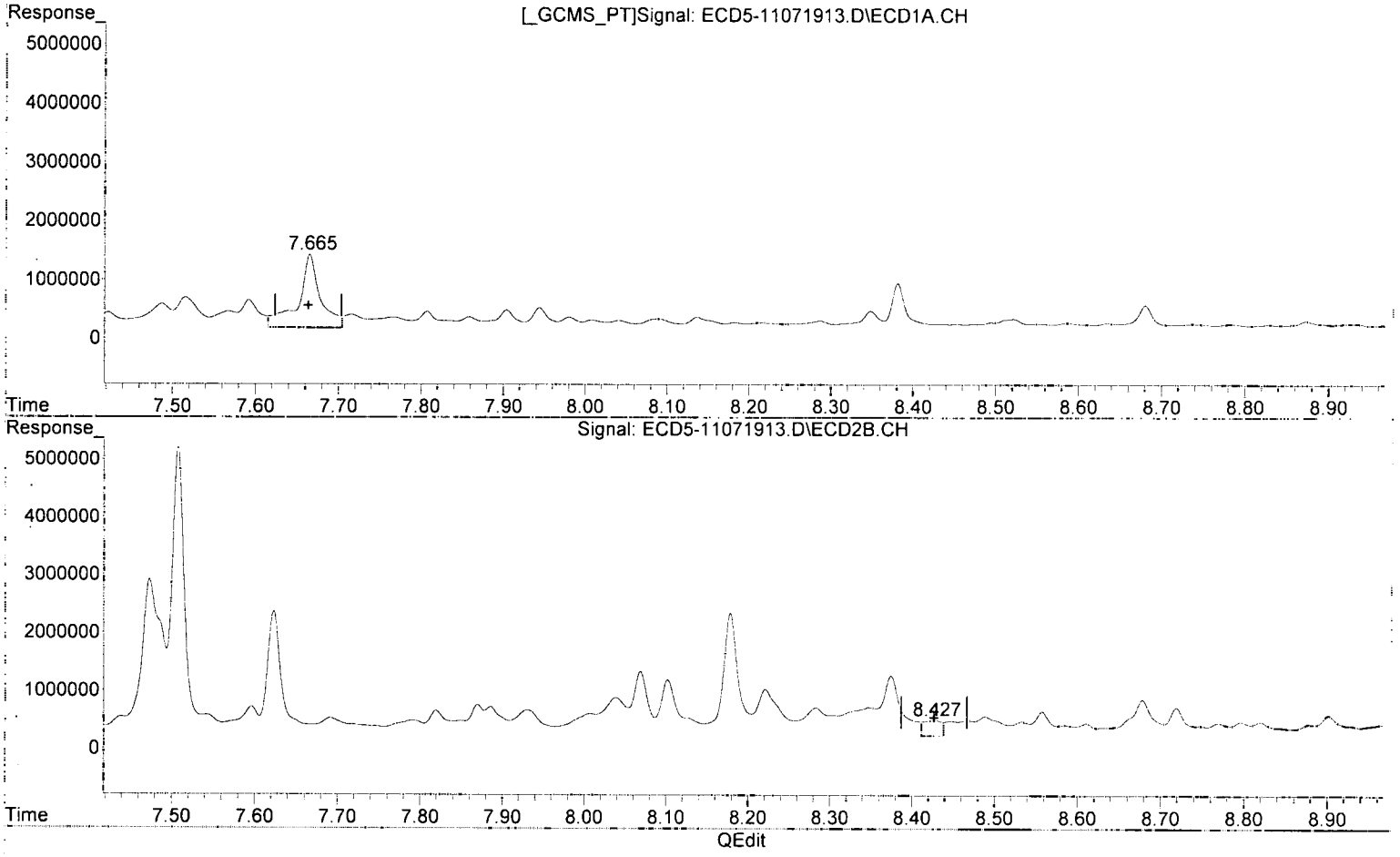
response 308727

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:50
Operator : MJB
Sample : A9J0950-04
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 15:19:00 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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



(14) Endrin

7.665min 8.478 ng/mL

response 1246523

MJB 11/7/19

(14) Endrin #2

8.427min 1.229 ng/mL

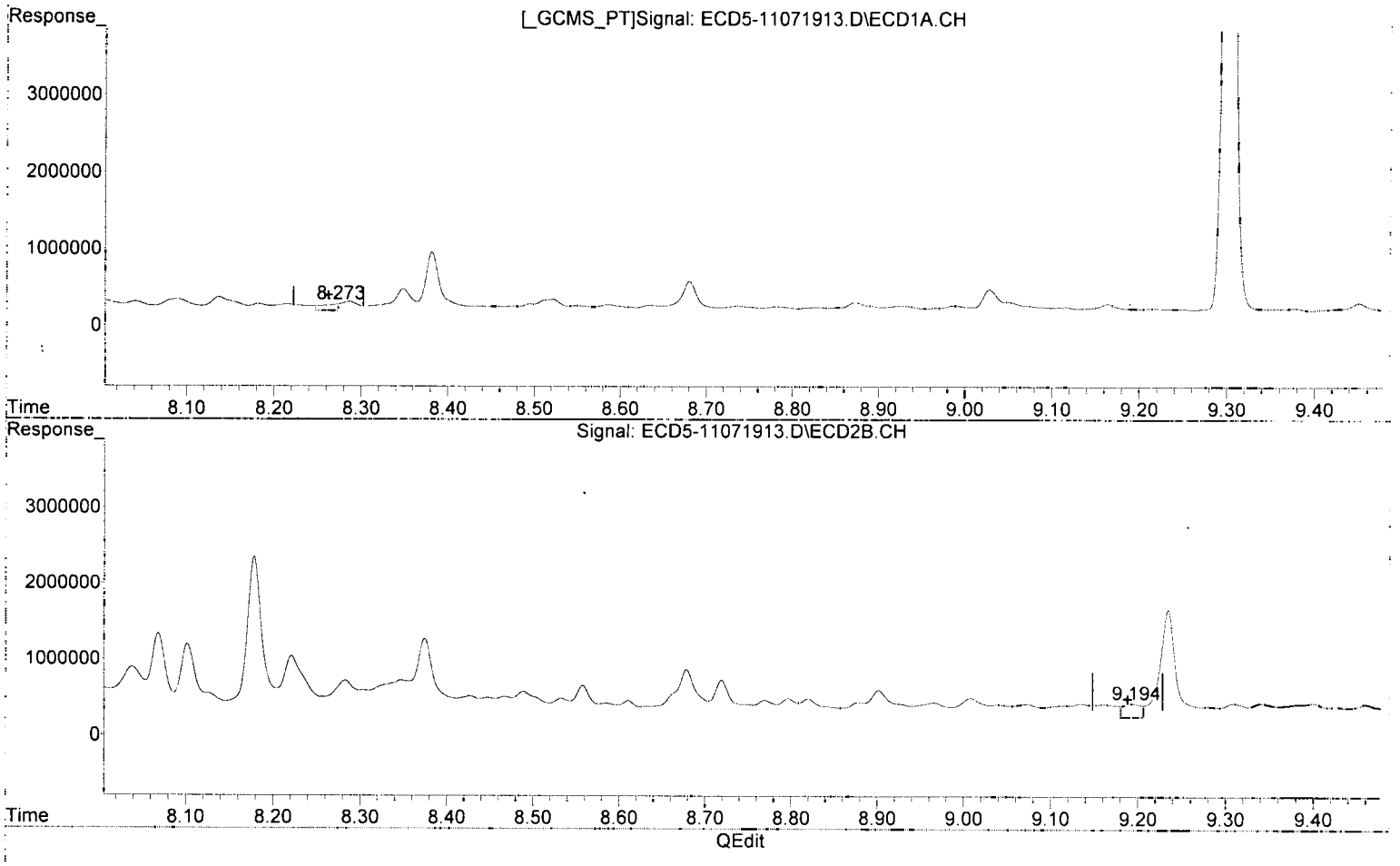
response 277457

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:50
Operator : MJB
Sample : A9J0950-04
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 15:19:00 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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

8.273min 1.448 ng/mL (m)

response 84823

MJB 11/7/19

(20) Methoxychlor #2

9.195min 1.966 ng/mL

response 173882

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:50
Operator : MJB
Sample : A9J0950-04
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 15:19:00 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/7/19

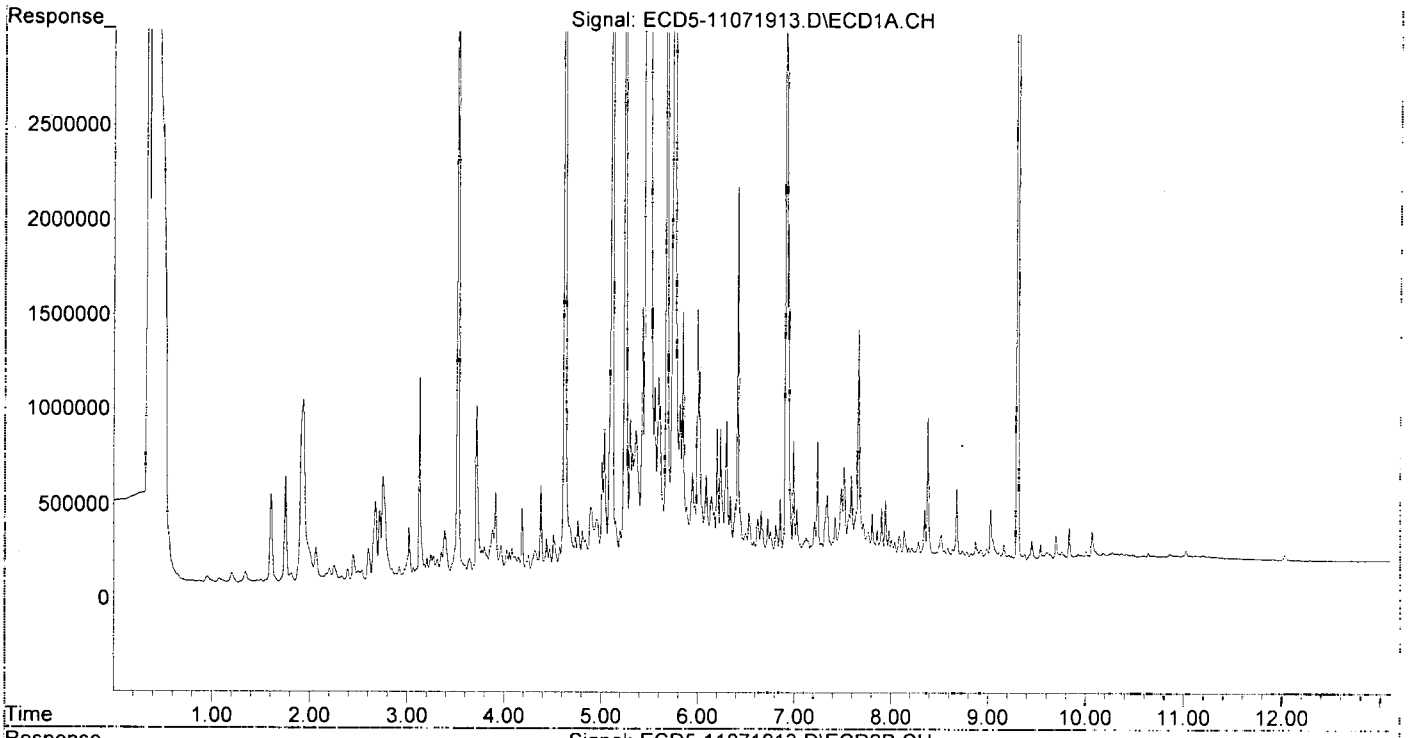
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.114	5.710	14013297	24724594	84.430	84.279	
22)	S	DCBP (S)	9.302	10.218	12489508	18397599	88.516	102.344	
		Target Compounds							
2)		a-BHC	5.677f	6.304	5134137	439436	22.388	1.071	#
3)		g-BHC	5.948	6.633	516354	565299	2.559	1.585	
4)		b-BHC	5.999f	6.719	1378619	330090	15.253	2.086	#
5)		Heptachlor	6.340	7.029f	387868	457497	2.139	1.495	
6)		d-BHC	6.143f	6.959	386413	379907	1.965	1.077	#
7)		Aldrin	6.584	7.265	146041	407940	0.740	1.238	#
8)		Heptachlo...	7.029	7.692	312922	312784	1.699	1.040	
9)		trans-Chl...	7.124	7.849	158720	267276	0.858	0.853	
10)		cis-Chlor...	7.243	7.931f	656637	442618	3.606	1.520	#
11)		Endosulfa...	7.342	8.007	378725	386893	2.225	1.406	
12)		4,4'-DDE	7.342f	8.069	378725	1112646	2.009	3.581	#
13)		Dieldrin	7.488	8.221	413343	807347	2.153	2.654	
14)		Endrin	7.665	8.427	1246523	277457	8.478	1.229	#
15)		4,4'-DDD	7.715	8.489	224788	338112	1.430	1.320	
16)		Endosulfa...	7.807	8.585	277682	185278	1.934	0.803	#
17)		4,4'-DDT	7.904	8.719	304597	487911	2.548	2.793	
18)		Endrin Al...	8.089	8.820	153304	237609	0.294	0.452	#
19)		Endosulfa...	8.382f	9.008	769334	246361	4.964	0.989	#
20)		Methoxychlor	8.286f	9.195	122684	173882	2.095	1.966	
21)		Endrin Ke...	8.586	9.400	84287	179251	0.505	0.697	
23)		Hexachlor...	2.917	3.391f	63385	1453755	0.347	3.867	#
24)		Hexachlor...	5.466f	6.165	109.8E6	3782764	622.621	12.044	#
25)		Oxychlordane	6.995f	7.623	665731	2150480	4.046	7.851	#
26)		2,4'-DDE	7.029f	7.849	312922	267276	2.440	1.260	#
27)		trans-Non...	7.243	7.931	656637	442618	3.349	1.467	#
28)		2,4'-DDD	7.423	8.221	262904	807347	2.304	4.275	#
29)		2,4'-DDT	7.592	8.447	480125	257316	4.377	1.443	#
30)		cis-Nonac...	7.715f	8.467	224788	269500	1.083	0.803	
31)		Mirex	8.349	9.400f	287593	179251	2.294	0.963	#
32)		Chlordane...	7.243	7.931	656637	442618	33.349	12.232	#
33)		Chlordane...	7.342	8.039	378725	661523	15.110	21.786	#
34)		Chlordane...	7.859	8.719	188908	487911	32.677	54.419	#
35)		Chlordane...	3.350	3.313	134244	228599	NoCal	NoCal	
36)		Toxaphene...	7.423f	8.375	262904	1037484	293.535	395.344	
37)		Toxaphene...	7.715f	8.719	224788	487911	139.193	148.255	
38)		Toxaphene...	8.008	8.747	137052	170112	40.699	33.564	
39)		Toxaphene...	8.215f	8.820	88399	237609	27.282	28.457	
40)		Toxaphene...	0.000	9.008	0	246361	N.D.	52.863	#
41)		Toxaphene...	8.521	9.400f	156272	179251	49.382	37.735	
42)		Toxaphene...	3.350	3.313f	134244	228599	NoCal	NoCal	

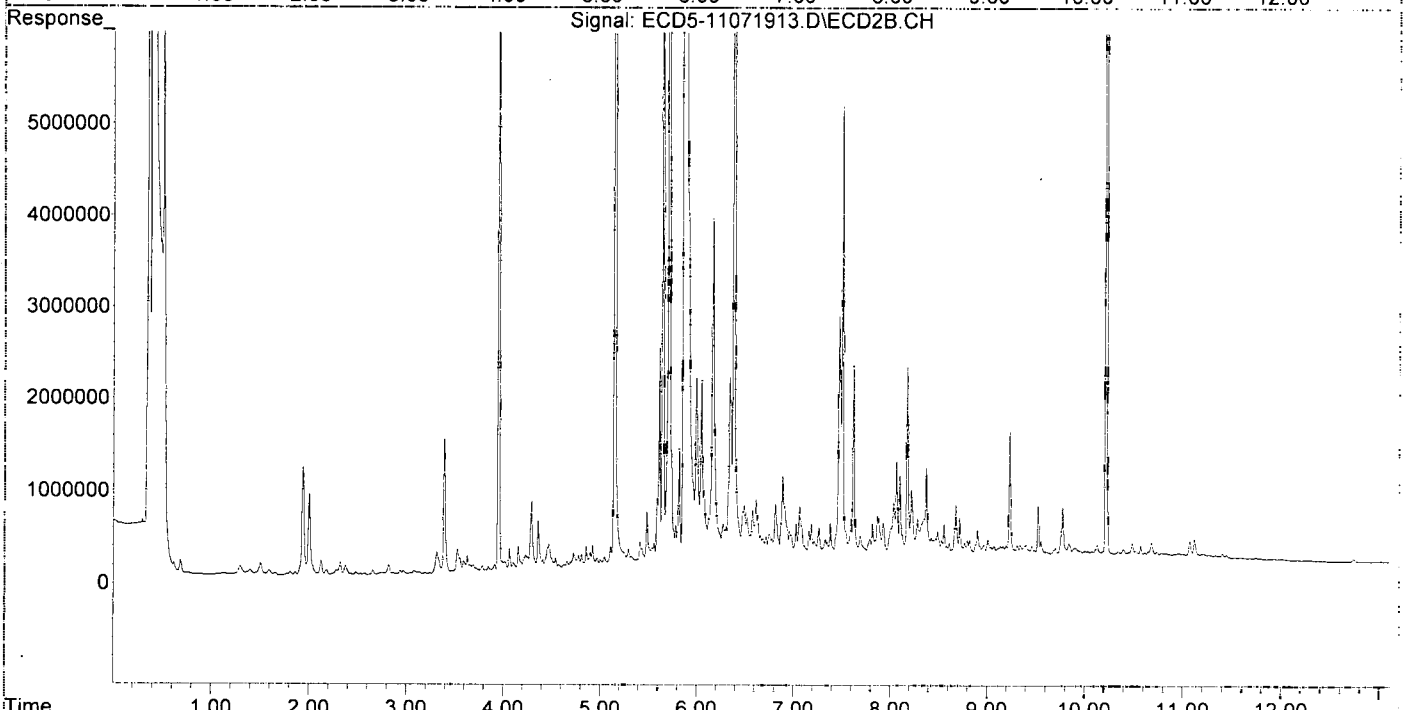
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 14:50
Operator : MJB
Sample : A9J0950-04
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 15:19:00 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\9K07024\
Data File : ECD5-11071914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 15:07
Operator : MJB
Sample : 9K07024-CCV3
Misc : A19H384, AB 100 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: Nov 07 15:22:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/7/19

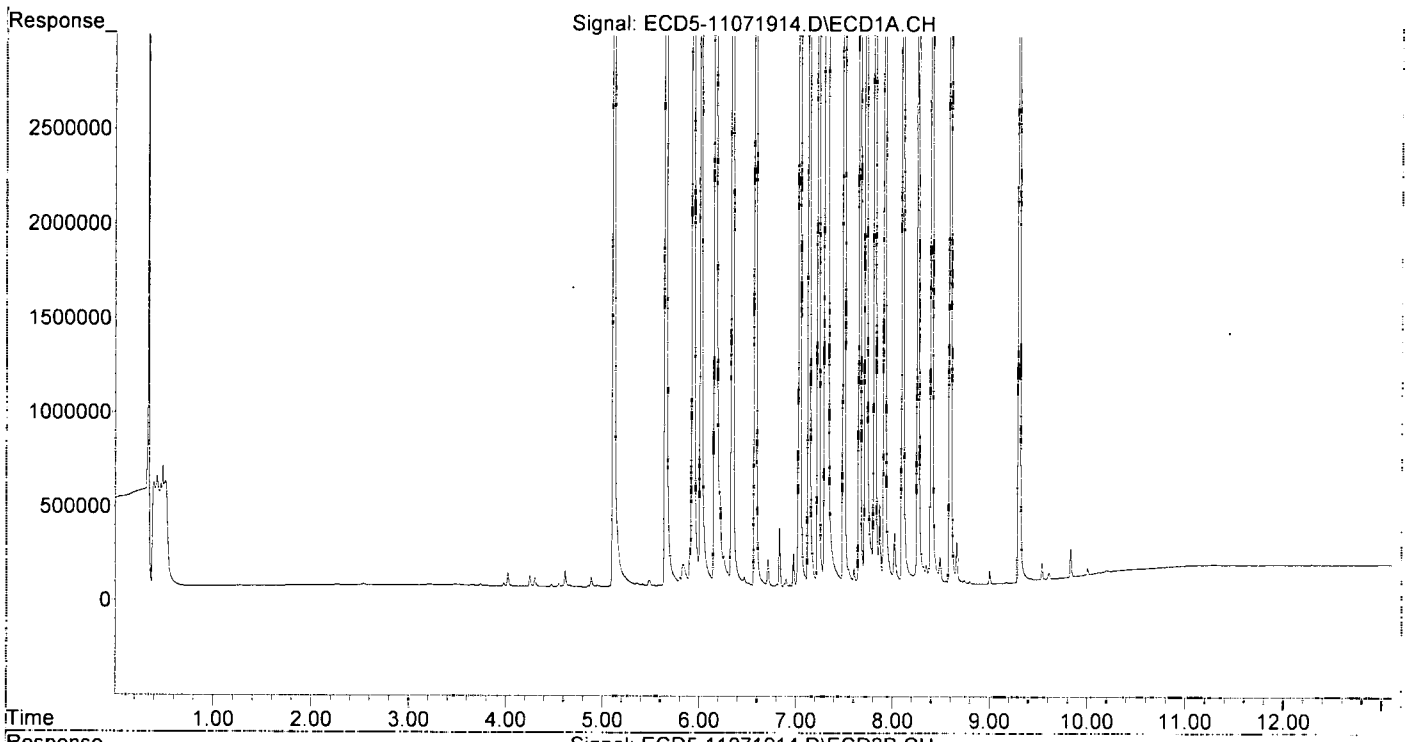
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.114	5.710	17217692	27882494	103.736	95.043	
22)	S	DCBP (S)	9.305	10.219	14047599	21069680	99.559	117.208	
		Target Compounds							
2)		a-BHC	5.652	6.319	24072218	45384204	104.968	110.602	
3)		g-BHC	5.936	6.636	20399718	39009028	101.100	109.360	
4)		b-BHC	6.017	6.705	7549885	14799636	83.532	93.511	
5)		Heptachlor	6.343	7.004	19999160	36632468	110.312	119.723	
6)		d-BHC	6.165	6.957	17390897	35738892	88.418	101.339	
7)		Aldrin	6.581	7.266	21338125	38631954	108.071	117.282	
8)		Heptachlo...	7.041	7.705	18661291	33555286	101.322	111.536	
9)		trans-Chl...	7.137	7.844	19384633	33703314	104.843	107.566	
10)		cis-Chlor...	7.233	7.951	18448188	33047777	101.324	113.470	
11)		Endosulfa...	7.327	7.999	18894820	30011932	111.029	109.064	
12)		4,4'-DDE	7.305	8.067	17626101	31585496	93.492	101.667	
13)		Dieldrin	7.499	8.198	20373382	34966187	106.123	114.964	
14)		Endrin	7.661	8.423	16930297	28060732	115.151	124.258	G-41
15)		4,4'-DDD	7.723	8.480	14610350	25781218	92.976	100.624	
16)		Endosulfa...	7.817	8.571	14652879	26176643	102.031	113.512	
17)		4,4'-DDT	7.919	8.703	13749621	23396273	115.002	112.210	
18)		Endrin Al...	8.106	8.808	13485338	22613168	106.966	108.813	
19)		Endosulfa...	8.404	8.998	16111127	27514620	103.958	110.462	
20)		Methoxychlor	8.262	9.185	6432736	10896256	109.822	108.929	
21)		Endrin Ke...	8.596	9.390	18036350	30207826	108.159	117.396	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.487	0.000	33653	0	0.191	N.D.	#
25)		Oxychlordane	6.978	7.644	173737	7255	1.056	0.026	#
26)		2,4'-DDE	7.041	7.844	18661291	33703314	145.495	158.874	
27)		trans-Non...	7.233	7.904	18448188	120913	102.774	0.401	#
28)		2,4'-DDD	0.000	8.198	0	34966187	N.D.	185.140	#
29)		2,4'-DDT	7.605	8.423	91441	28060732	0.834	157.345	#
30)		cis-Nonac...	7.723f	8.480	14610350	25781218	70.372	76.856	
31)		Mirex	8.351	9.390	106524	30207826	0.850	162.344	#
32)		Chlordane...	7.233	7.951	18448188	33047777	936.950	913.311	
33)		Chlordane...	7.327	8.067	18894820	31585496	753.854	1040.226	
34)		Chlordane...	7.870	8.703	429193	23396273	74.240	2609.479	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	8.373	0	41309	N.D.	15.741	#
37)		Toxaphene...	7.723f	8.703	14610350	23396273	9047.001	7109.114	
38)		Toxaphene...	8.024	0.000	279278	0	82.934	N.D.	#
39)		Toxaphene...	8.262	8.808	6432736	22613168	1985.319	2708.218	
40)		Toxaphene...	8.491	8.998	147711	27514620	61.620	5903.971	#
41)		Toxaphene...	8.556	9.390f	18886	30207826	5.968	6359.271	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

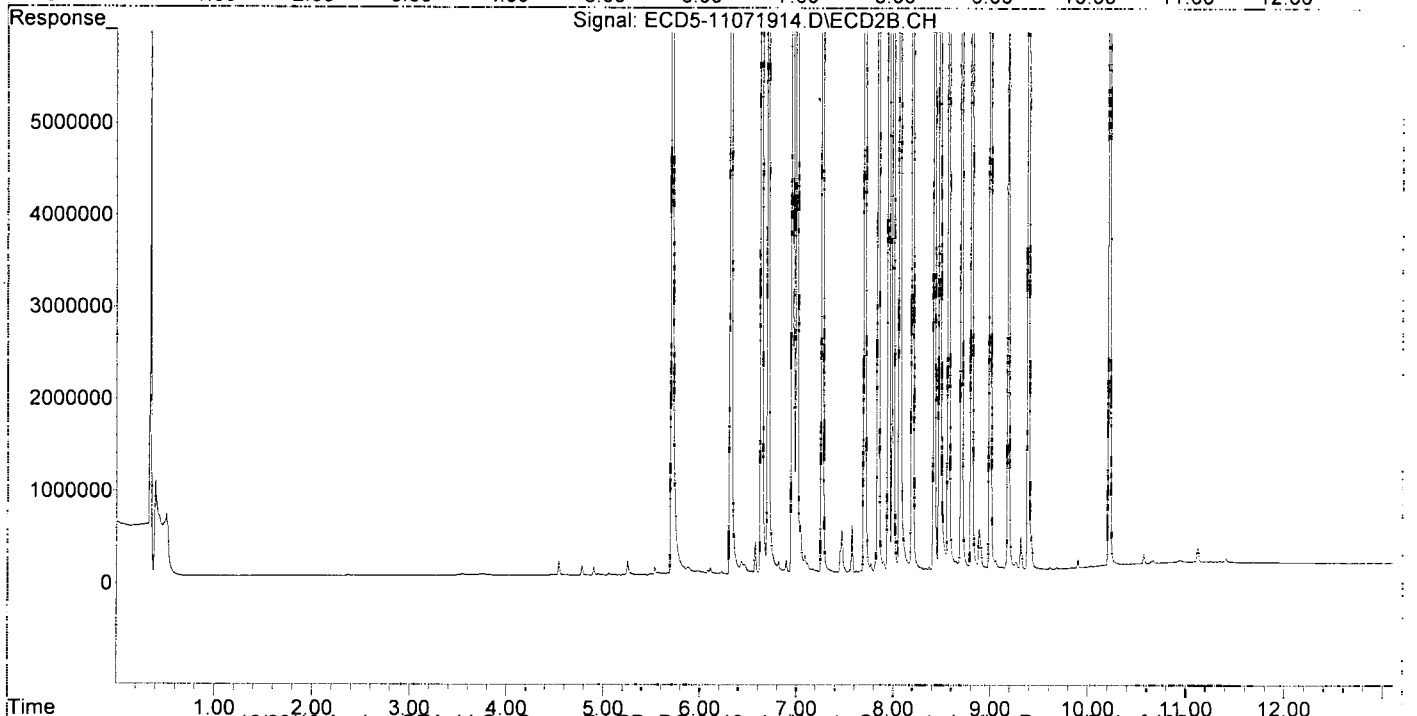
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 15:07
Operator : MJB
Sample : 9K07024-CCV3
Misc : A19H384, AB 100 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: Nov 07 15:22:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\9K07024\
Data File : ECD5-11071915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 15:24
Operator : MJB
Sample : 9K07024-CCB2
Misc : A19K026
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 07 15:38:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/7/19

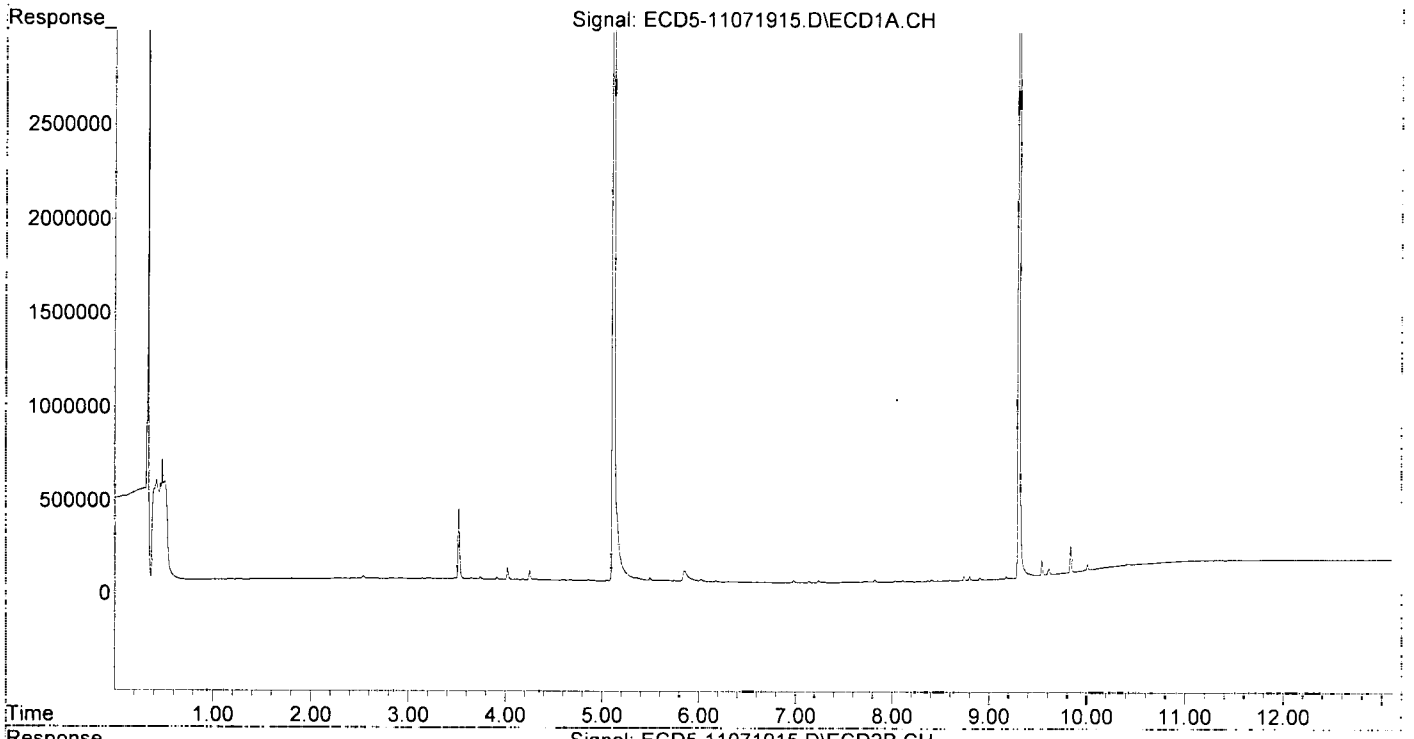
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.115	5.711	14969549	24838729	90.191	84.668	
22)	S DCBP (S)	9.305	10.220	12468363	18654113	88.366	103.771	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)	b-BHC	6.026	0.000	13828	0	0.153	N.D.	#
5)	Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)	d-BHC	6.178	6.962	7465	14805	0.038	0.042	
7)	Aldrin	0.000	7.309f	0	10052	N.D.	0.031	#
8)	Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)	trans-Chl...	7.138	7.871f	8299	14976	0.045	0.048	
10)	cis-Chlor...	7.239	0.000	10409	0	0.057	N.D.	#
11)	Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.000	8.076	0	4587	N.D.	0.015	#
13)	Dieldrin	0.000	8.222f	0	4450	N.D.	0.015	#
14)	Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)	4,4'-DDD	7.731	0.000	4064	0	0.026	N.D.	#
16)	Endosulfa...	7.822	8.566	14540	16943	0.101	0.073	
17)	4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)	Endrin Al...	8.111	8.810	9882	12931	BelowCal	BelowCal	
19)	Endosulfa...	8.409	9.000	11053	14395	0.071	0.058	
20)	Methoxychlor	8.258	0.000	4261	0	0.073	N.D.	#
21)	Endrin Ke...	8.599	9.412	5131	22543	0.031	0.088	#
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.497	0.000	21123	0	0.120	N.D.	#
25)	Oxychlordane	6.983	7.608f	13076	21492	0.079	0.078	
26)	2,4'-DDE	0.000	7.871f	0	14976	N.D.	0.071	#
27)	trans-Non...	7.239	7.871f	10409	14976	87346.642	0.050	#
28)	2,4'-DDD	0.000	8.222	0	4450	N.D.	0.024	#
29)	2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)	cis-Nonac...	7.731f	0.000	4064	0	0.020	N.D.	#
31)	Mirex	8.365	9.412f	6218	22543	0.050	0.121	#
32)	Chlordane...	7.239	0.000	10409	0	0.529	N.D.	#
33)	Chlordane...	0.000	8.076f	0	4587	N.D.	0.151	#
34)	Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
35)	Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
37)	Toxaphene...	7.731f	0.000	4064	0	2.517	N.D.	#
38)	Toxaphene...	8.030f	0.000	7506	0	2.229	N.D.	#
39)	Toxaphene...	8.258	8.810	4261	12931	1.315	1.549	
40)	Toxaphene...	8.478	9.000	1693	14395	0.706	3.089	#
41)	Toxaphene...	8.540	0.000	3885	0	1.228	N.D.	#
42)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

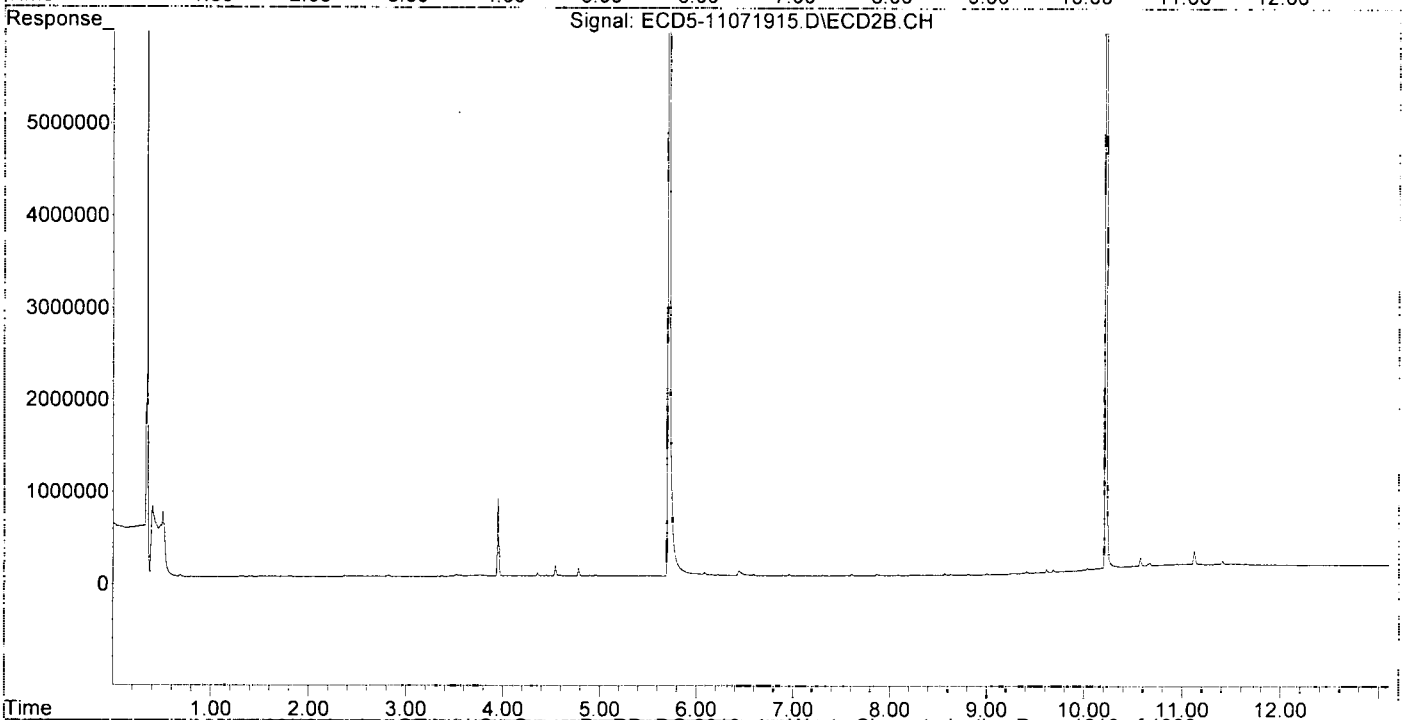
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 15:24
Operator : MJB
Sample : 9K07024-CCB2
Misc : A19K026
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 07 15:38:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\9K07024\
Data File : ECD5-11071916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 15:41
Operator : MJB
Sample : 9110534-BLK1
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 17:33:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/7/19

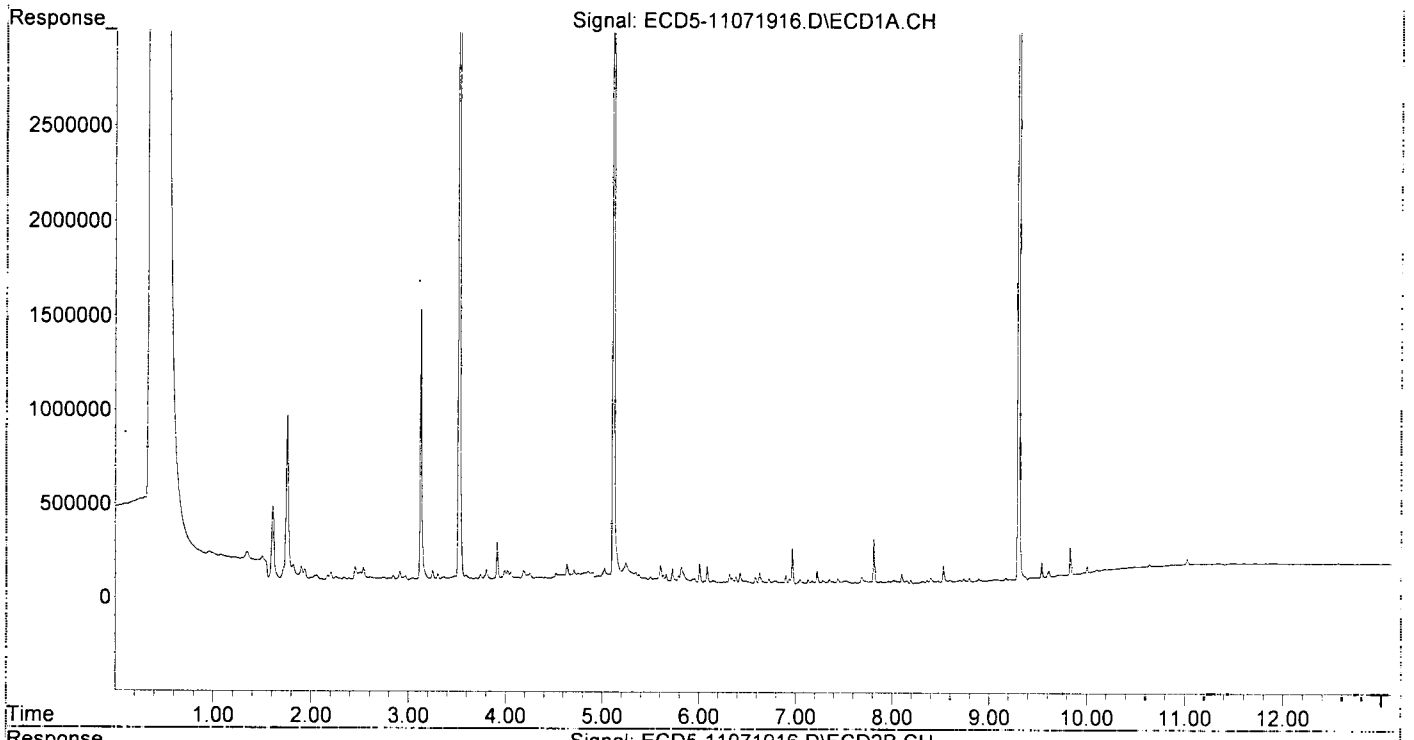
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.114	5.710	6651148	10848736	40.073	36.980	
22)	S	DCBP (S)	9.302	10.218	13053757	18769993	92.515	104.415	
		Target Compounds							
2)		a-BHC	5.663	6.329	43104	30580	0.188	0.075	#
3)		g-BHC	5.937	0.000	21625	0	0.107	N.D.	#
4)		b-BHC	6.008	6.699	102668	25183	1.136	0.159	#
5)		Heptachlor	6.319f	7.014	47223	67190	0.260	0.220	
6)		d-BHC	6.143f	6.954	13957	13869	0.071	0.039	#
7)		Aldrin	6.586	7.263	30530	11463	0.155	0.035	#
8)		Heptachlo...	7.049	7.693	21915	71491	0.119	0.238	#
9)		trans-Chl...	7.131	7.852	21426	101948	0.116	0.325	#
10)		cis-Chlor...	7.224	7.949	67748	14436	0.372	0.050	#
11)		Endosulfa...	7.352f	8.023f	22848	37530	0.134	0.136	
12)		4,4'-DDE	7.283f	8.066	18494	19896	0.098	0.064	
13)		Dieldrin	7.520	8.198	15270	48069	0.080	0.158	#
14)		Endrin	7.687f	8.409	33927	12230	0.231	0.054	#
15)		4,4'-DDD	7.687f	8.479	33927	20563	0.216	0.080	#
16)		Endosulfa...	7.812	8.560	239378	333983	1.667	1.448	
17)		4,4'-DDT	7.922	8.704	8901	11236	0.074	0.027	#
18)		Endrin Al...	8.101	8.799	51853	67910	BelowCal	BelowCal	
19)		Endosulfa...	8.399	8.997	27142	10824	0.175	0.043	#
20)		Methoxychlor	8.240f	0.000	4139	0	0.071	N.D.	#
21)		Endrin Ke...	8.597	9.390	13266	53572	0.080	0.208	#
23)		Hexachlor...	2.909	3.386f	44892	2552610	0.246	6.790	#
24)		Hexachlor...	5.499	6.160	28345	70162	0.161	0.223	
25)		Oxychlordane	6.970	7.640	186885	44505	1.136	0.162	#
26)		2,4'-DDE	7.049	7.852	21915	101948	0.171	0.481	#
27)		trans-Non...	7.224	7.918	67748	25771	0.062	0.085	
28)		2,4'-DDD	7.440	8.198	25349	48069	0.222	0.255	
29)		2,4'-DDT	0.000	8.409f	0	12230	N.D.	0.069	#
30)		cis-Nonac...	7.687	8.479	33927	20563	0.163	0.061	#
31)		Mirex	8.361	9.390	14458	53572	0.115	0.288	#
32)		Chlordane...	7.224	7.949	67748	14436	3.441	0.399	#
33)		Chlordane...	7.352	8.066	22848	19896	0.912	0.655	
34)		Chlordane...	7.880	8.704	12892	11236	2.230	1.253	#
35)		Chlordane...	3.367	3.327	18510	20208	NoCal	NoCal	
36)		Toxaphene...	7.384	8.382	12323	10843	13.759	4.132	#
37)		Toxaphene...	7.687	8.704	33927	11236	21.008	3.414	#
38)		Toxaphene...	8.017	8.754	19159	45403	5.690	8.958	#
39)		Toxaphene...	8.240	8.799	4139	67910	1.277	8.133	#
40)		Toxaphene...	8.474	8.997	9380	10824	3.913	2.323	#
41)		Toxaphene...	8.531	9.390	89183	53572	28.182	11.278	#
42)		Toxaphene...	3.367	3.327	18510	20208	NoCal	NoCal	

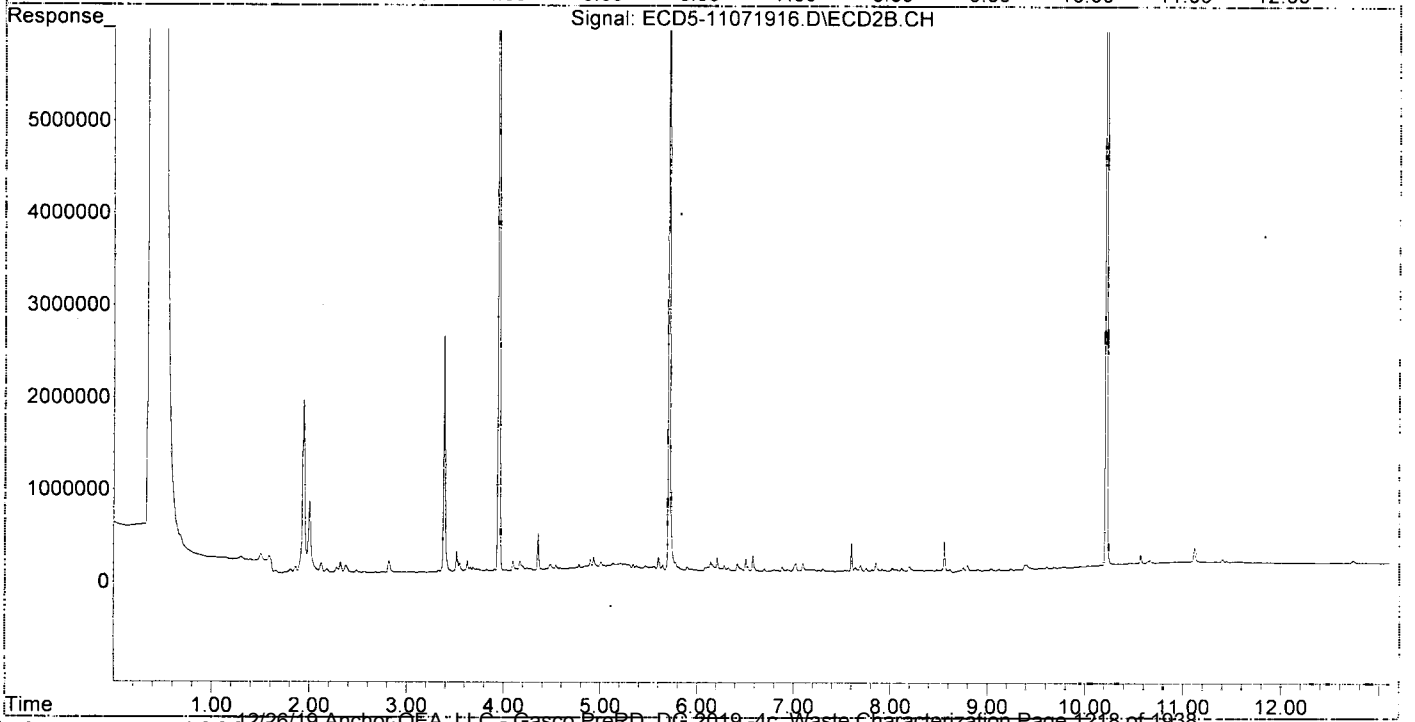
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 15:41
Operator : MJB
Sample : 9110534-BLK1
Misc : 1x, 1311/8081B TCLP Pest Reg List
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: Nov 07 17:33:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\9K07024\
Data File : ECD5-11071917.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 15:59
Operator : MJB
Sample : 9110534-BS1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 07 17:33:53 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/7/19

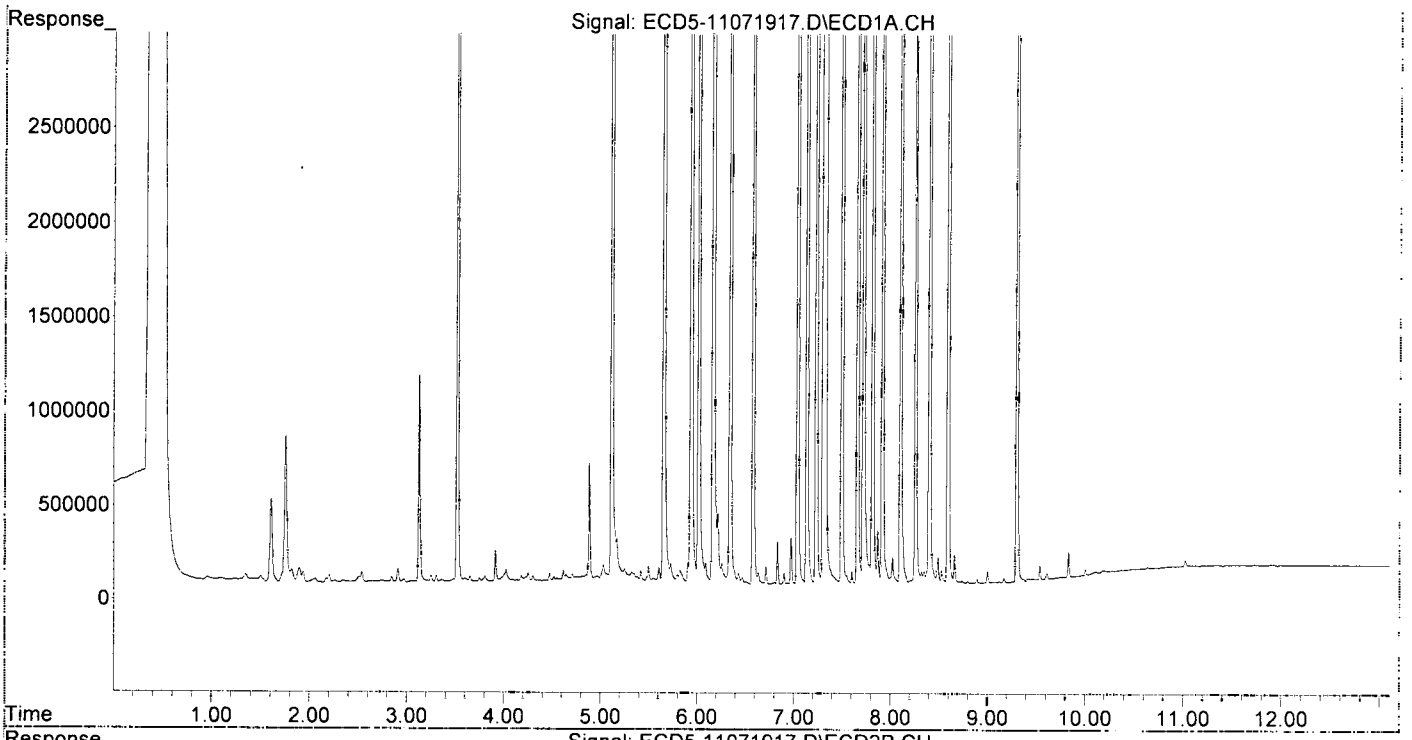
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.114	5.711	11543735	18521053	69.551	63.133	
22)	S	DCBP (S)	9.303	10.218	11751339	17062849	83.285	94.919	
		Target Compounds							
2)		a-BHC	5.652	6.319	22394582	41942687	97.653	102.215	
3)		g-BHC	5.935	6.636	20020240	36733895	99.220	102.981	
4)		b-BHC	6.015	6.704	7890251	14410425	87.297	91.052	
5)		Heptachlor	6.342	7.003	16799555	28985543	92.663	94.731	
6)		d-BHC	6.162	6.955	17965780	36030146	91.340	102.165	
7)		Aldrin	6.580	7.265	15032681	26355174	76.136	80.011	
8)		Heptachlo...	7.040	7.705	18135288	31279395	98.466	103.971	
9)		trans-Chl...	7.135	7.844	17686875	31296957	95.661	99.886	
10)		cis-Chlor...	7.232	7.951	17341828	30005462	95.248	103.024	
11)		Endosulfa...	7.326	7.998	17306380	28276977	101.695	102.759	
12)		4,4'-DDE	7.303	8.065	16851830	28501066	89.385	91.738	
13)		Dieldrin	7.498	8.198	19570937	33146765	101.943	108.982	
14)		Endrin	7.660	8.423	17378417	29001294	118.199	128.423	
15)		4,4'-DDD	7.721	8.479	15313119	26476288	97.449	103.337	
16)		Endosulfa...	7.816	8.570	15738251	26607305	109.589	115.380	
17)		4,4'-DDT	7.917	8.703	14938393	23645222	124.945	113.222	
18)		Endrin Al...	8.105	8.807	13927414	22431825	110.269	108.025	
19)		Endosulfa...	8.403	8.998	16796406	28883565	108.380	115.958	
20)		Methoxychlor	8.259	9.184	7884778	12724538	134.612	123.914	
21)		Endrin Ke...	8.595	9.390	18406595	31270389	110.379	121.525	
23)		Hexachlor...	2.908	3.387f	77473	1826411	0.424	4.858	#
24)		Hexachlor...	5.496	6.177	96337	113177	0.546	0.360	
25)		Oxychlordane	6.974	7.644	249830	53326	1.518	0.195	#
26)		2,4'-DDE	7.040	7.844	18135288	31296957	141.394	147.531	
27)		trans-Non...	7.232	7.904	17341828	81920	96.585	0.272	#
28)		2,4'-DDD	0.000	8.198	0	33146765	N.D.	175.506	#
29)		2,4'-DDT	7.604	8.423	65101	29001294	0.594	162.619	#
30)		cis-Nonac...	7.721f	8.479	15313119	26476288	73.757	78.928	
31)		Mirex	8.350	9.390	64068	31270389	0.511	168.054	#
32)		Chlordane...	7.232	7.951	17341828	30005462	880.760	829.233	
33)		Chlordane...	7.326	8.065	17306380	28501066	690.479	938.645	
34)		Chlordane...	7.870	8.703	282630	23645222	48.889	2637.245	#
35)		Chlordane...	3.354	3.327	16300	19617	NoCal	NoCal	
36)		Toxaphene...	0.000	8.373	0	27855	N.D.	10.614	#
37)		Toxaphene...	7.721f	8.703	15313119	23645222	9482.168	7184.759	
38)		Toxaphene...	8.022	0.000	141454	0	42.006	N.D.	#
39)		Toxaphene...	8.259	8.807	7884778	22431825	2433.459	2686.500	
40)		Toxaphene...	8.491	8.998	140651	28883565	58.674	6197.714	#
41)		Toxaphene...	8.530	9.390	74393	31270389	23.508	6582.959	#
42)		Toxaphene...	3.354	3.327	16300	19617	NoCal	NoCal	

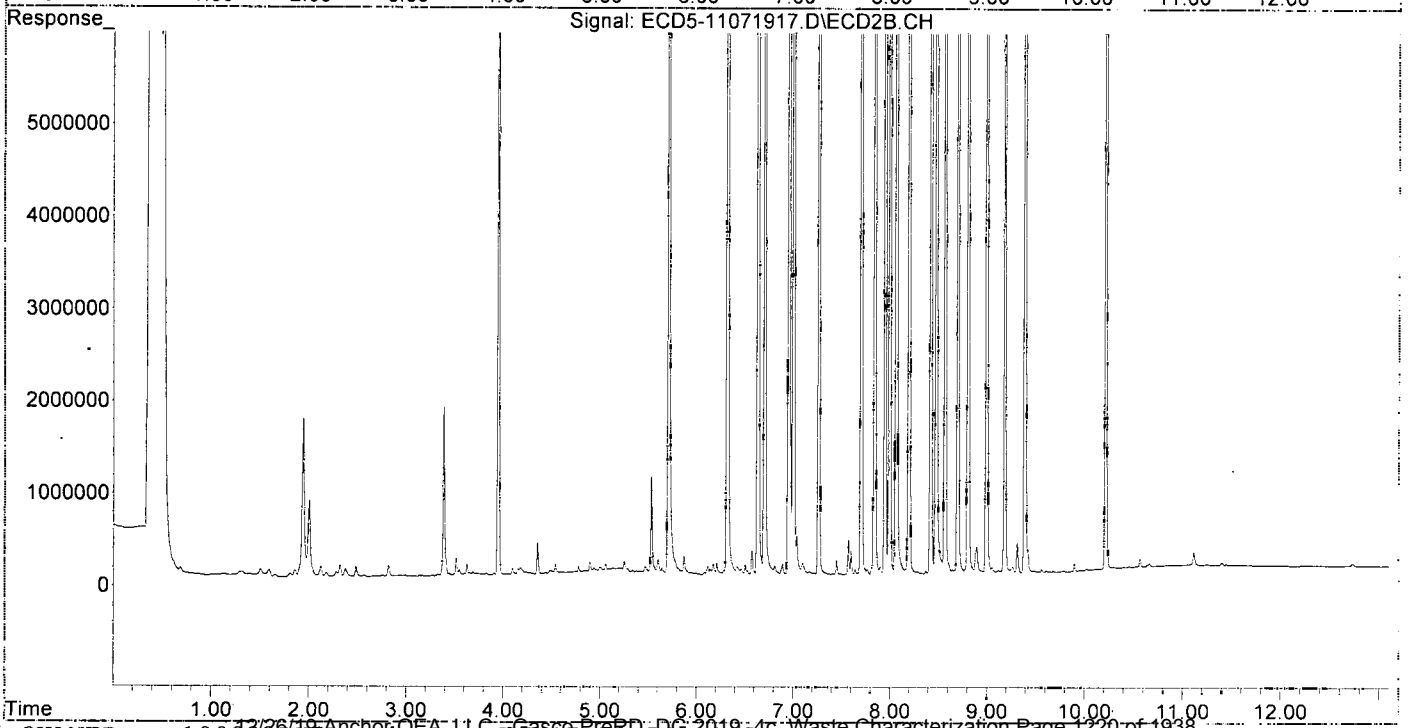
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071917.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 15:59
Operator : MJB
Sample : 9110534-BS1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 07 17:33:53 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\9K07024\
Data File : ECD5-11071918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 16:16
Operator : MJB
Sample : 9110534-BSD1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 07 17:33:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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

QA

MJB 11/7/19

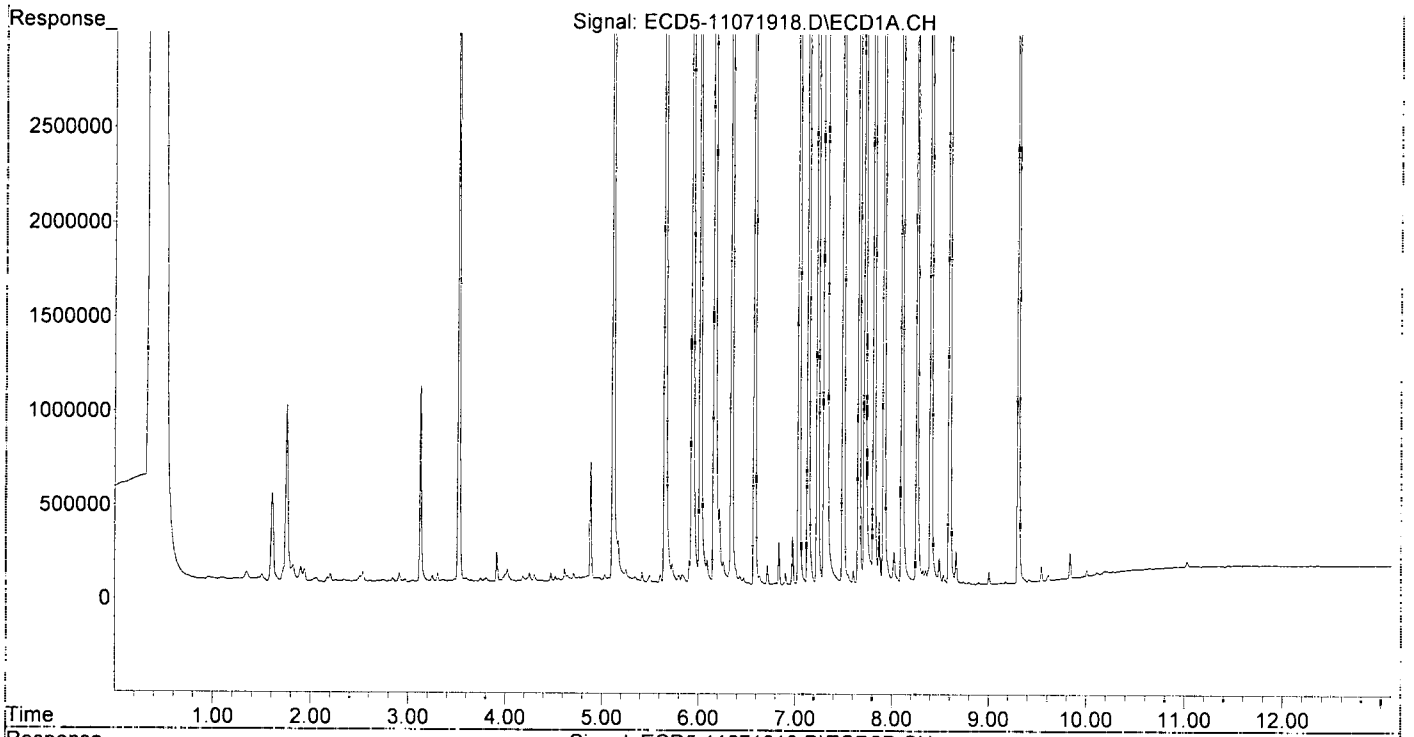
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.116	5.712	11196280	18328083	67.457	62.475	
22)	S	DCBP (S)	9.305	10.220	11117039	16440227	78.789	91.455	
		Target Compounds							
2)		a-BHC	5.654	6.320	22756884	42661513	99.232	103.966	
3)		g-BHC	5.937	6.637	19969808	37017534	98.970	103.777	
4)		b-BHC	6.017	6.706	7744548	14925963	85.685	94.309	
5)		Heptachlor	6.343	7.005	16054949	28947766	88.556	94.608	
6)		d-BHC	6.165	6.957	18248099	34992198	92.776	99.222	
7)		Aldrin	6.582	7.267	14711246	25949118	74.508	78.779	
8)		Heptachlo...	7.042	7.706	18246315	31592759	99.069	105.012	
9)		trans-Chl...	7.137	7.845	17918385	30775832	96.913	98.223	
10)		cis-Chlor...	7.234	7.953	17405872	29880568	95.599	102.595	
11)		Endosulfa...	7.328	8.000	17657532	29550827	103.758	107.389	
12)		4,4'-DDE	7.305	8.067	17049711	29750809	90.435	95.761	
13)		Dieldrin	7.499	8.200	19968739	33740870	104.015	110.935	
14)		Endrin	7.662	8.425	17563303	28584440	119.456	126.577	
15)		4,4'-DDD	7.723	8.481	15410429	26111012	98.068	101.911	
16)		Endosulfa...	7.817	8.572	15827475	25880875	110.210	112.230	
17)		4,4'-DDT	7.919	8.704	14867180	23506140	124.349	112.657	
18)		Endrin Al...	8.106	8.810	13592770	22379649	107.770	107.797	
19)		Endosulfa...	8.405	9.000	17164041	28907465	110.752	116.053	
20)		Methoxychlor	8.262	9.187	7620918	12524302	130.107	122.305	
21)		Endrin Ke...	8.597	9.392	18669142	31008562	111.953	120.508	
23)		Hexachlor...	2.910	3.388f	49033	1773844	0.268	4.719	#
24)		Hexachlor...	5.496	6.178	45697	36595	0.259	0.117	#
25)		Oxychlordane	6.976	7.645	253906	49252	1.543	0.180	#
26)		2,4'-DDE	7.042	7.845	18246315	30775832	142.259	145.074	
27)		trans-Non...	7.234	7.906	17405872	95186	96.943	0.316	#
28)		2,4'-DDD	0.000	8.200	0	33740870	N.D.	178.652	#
29)		2,4'-DDT	7.605	8.425	74602	28584440	0.680	160.281	#
30)		cis-Nonac...	7.723f	8.481	15410429	26111012	74.226	77.839	
31)		Mirex	8.352	9.392	74300	31008562	0.593	166.647	#
32)		Chlordane...	7.234	7.953	17405872	29880568	884.013	825.782	
33)		Chlordane...	7.328	8.067	17657532	29750809	704.490	979.803	
34)		Chlordane...	7.871	8.704	334355	23506140	57.836	2621.733	#
35)		Chlordane...	3.355	3.328	16590	17362	NoCal	NoCal	
36)		Toxaphene...	0.000	8.375	0	31190	N.D.	11.885	#
37)		Toxaphene...	7.723f	8.704	15410429	23506140	9542.425	7142.498	
38)		Toxaphene...	8.024	0.000	171705	0	50.989	N.D.	#
39)		Toxaphene...	8.262	8.810	7620918	22379649	2352.025	2680.251	
40)		Toxaphene...	8.492	9.000	137081	28907465	57.185	6202.842	#
41)		Toxaphene...	8.535	9.392f	52009	31008562	16.435	6527.840	#
42)		Toxaphene...	3.355	3.328	16590	17362	NoCal	NoCal	

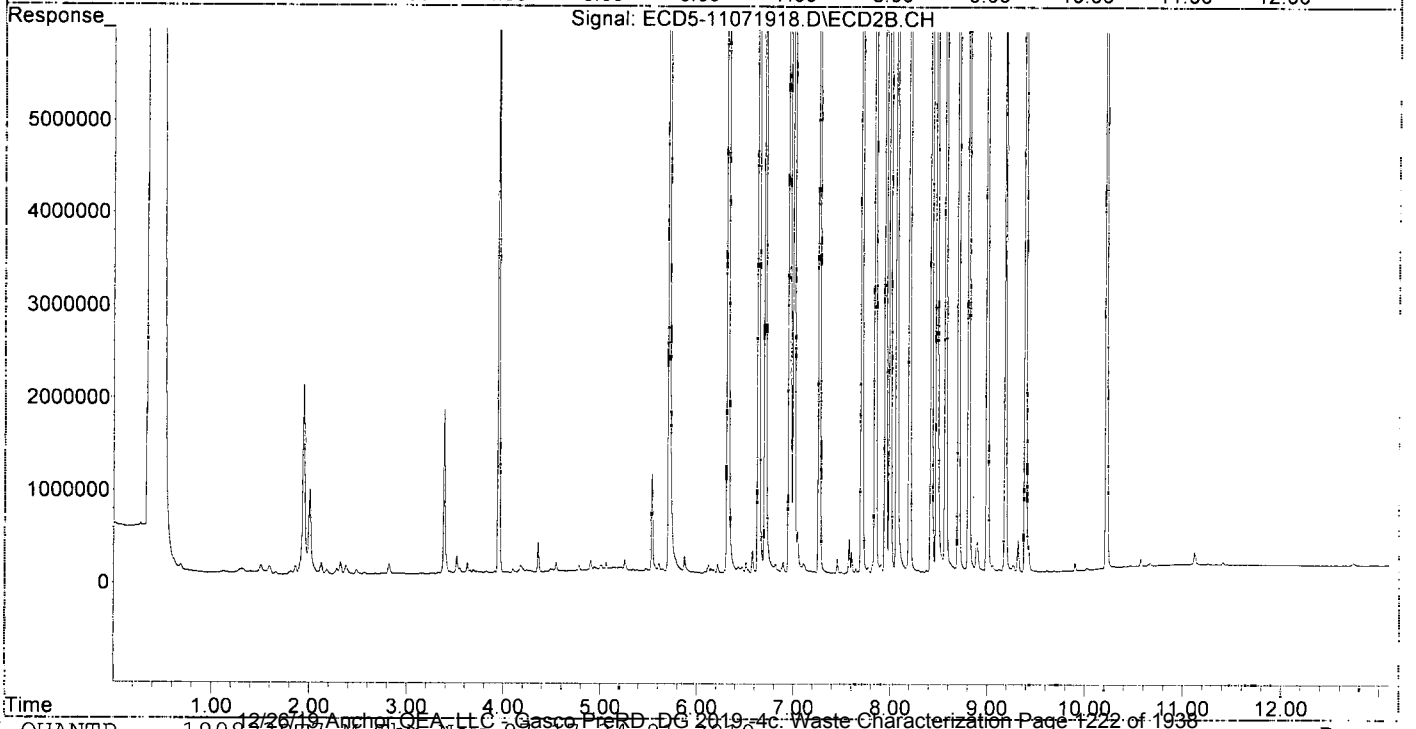
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 16:16
Operator : MJB
Sample : 9110534-BSD1
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 07 17:33:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\2019-11\9K07024\
Data File : ECD5-11071921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 17:07
Operator : MJB
Sample : 9K07024-CCV4
Misc : A19H383, 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 07 17:45:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/7/19

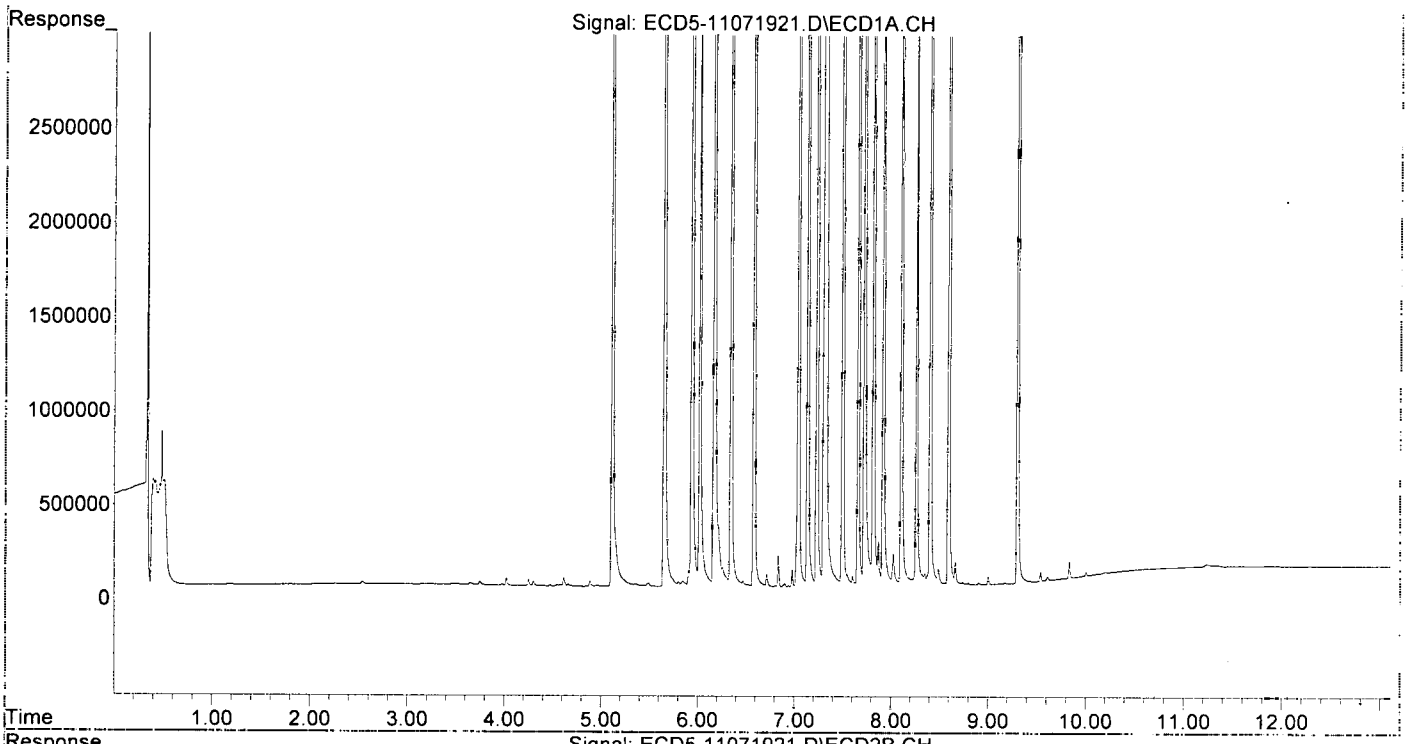
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.711	8822125	13596030	53.153	46.345	
22)	S	DCBP (S)	9.304	10.219	7017114	10362230	49.732	57.644	
		Target Compounds							
2)		a-BHC	5.654	6.320	12155561	21585416	53.005	52.604	
3)		g-BHC	5.938	6.637	10262530	19065443	50.861	53.449	
4)		b-BHC	6.021	6.707	3573653	7143097	39.539	45.134	
5)		Heptachlor	6.345	7.005	10261176	18731881	56.599	61.220	Q41
6)		d-BHC	6.168	6.958	8608625	17202559	43.767	48.779	
7)		Aldrin	6.583	7.266	11028822	18477361	55.858	56.095	
8)		Heptachlo...	7.042	7.706	9601872	16618255	52.133	55.238	
9)		trans-Chl...	7.138	7.844	9370151	16624880	50.679	53.059	
10)		cis-Chlor...	7.234	7.952	9627622	16148227	52.878	55.445	
11)		Endosulfa...	7.327	7.999	10049633	14958127	59.053	54.358	
12)		4,4'-DDE	7.307	8.067	8862244	14659380	47.007m	47.185	
13)		Dieldrin	7.500	8.199	10498512	17299543	54.686	56.878	
14)		Endrin	7.662	8.423	8727668	13593010	59.361	60.192	
15)		4,4'-DDD	7.725	8.481	7105510	12668842	45.218	49.446	
16)		Endosulfa...	7.818	8.571	7534562	12685979	52.465	55.011	
17)		4,4'-DDT	7.920	8.704	6671718	10953397	55.802	57.499	
18)		Endrin Al...	8.107	8.809	6677374	10708371	54.326	54.262	
19)		Endosulfa...	8.405	8.999	8190277	12809407	52.848	51.425	
20)		Methoxychlor	8.265	9.185	3212000	5144476	54.836	56.641	
21)		Endrin Ke...	8.597	9.391	9046748	14539276	54.251	56.504	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.491	0.000	15795	0	0.090	N.D.	#
25)		Oxychlordane	6.980	7.670f	91466	9301	0.556	0.034	#
26)		2,4'-DDE	7.042	7.844	9601872	16624880	74.862	78.368	
27)		trans-Non...	7.234	7.904	9627622	75616	53.453	0.251	#
28)		2,4'-DDD	0.000	8.199	0	17299543	N.D.	91.598	#
29)		2,4'-DDT	7.606	8.423	51834	13593010	0.473	76.220	#
30)		cis-Nonac...	7.725f	8.481	7105510	12668842	34.224	37.767	
31)		Mirex	8.351	9.391	61388	14539276	0.490	78.137	#
32)		Chlordane...	7.234	7.952	9627622	16148227	488.970	446.274	
33)		Chlordane...	7.327	8.067	10049633	14659380	400.954	482.787	
34)		Chlordane...	7.871	8.704	240235	10953397	41.555	1221.676	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	8.374	0	21315	N.D.	8.122	#
37)		Toxaphene...	7.725f	8.704	7105510	10953397	4399.864	3328.263	
38)		Toxaphene...	8.026f	0.000	168359	0	49.996	N.D.	#
39)		Toxaphene...	8.265	8.809	3212000	10708371	991.311	1282.465	
40)		Toxaphene...	8.492	8.999	84551	12809407	35.272	2748.588	#
41)		Toxaphene...	0.000	9.391f	0	14539276	N.D.	3060.770	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

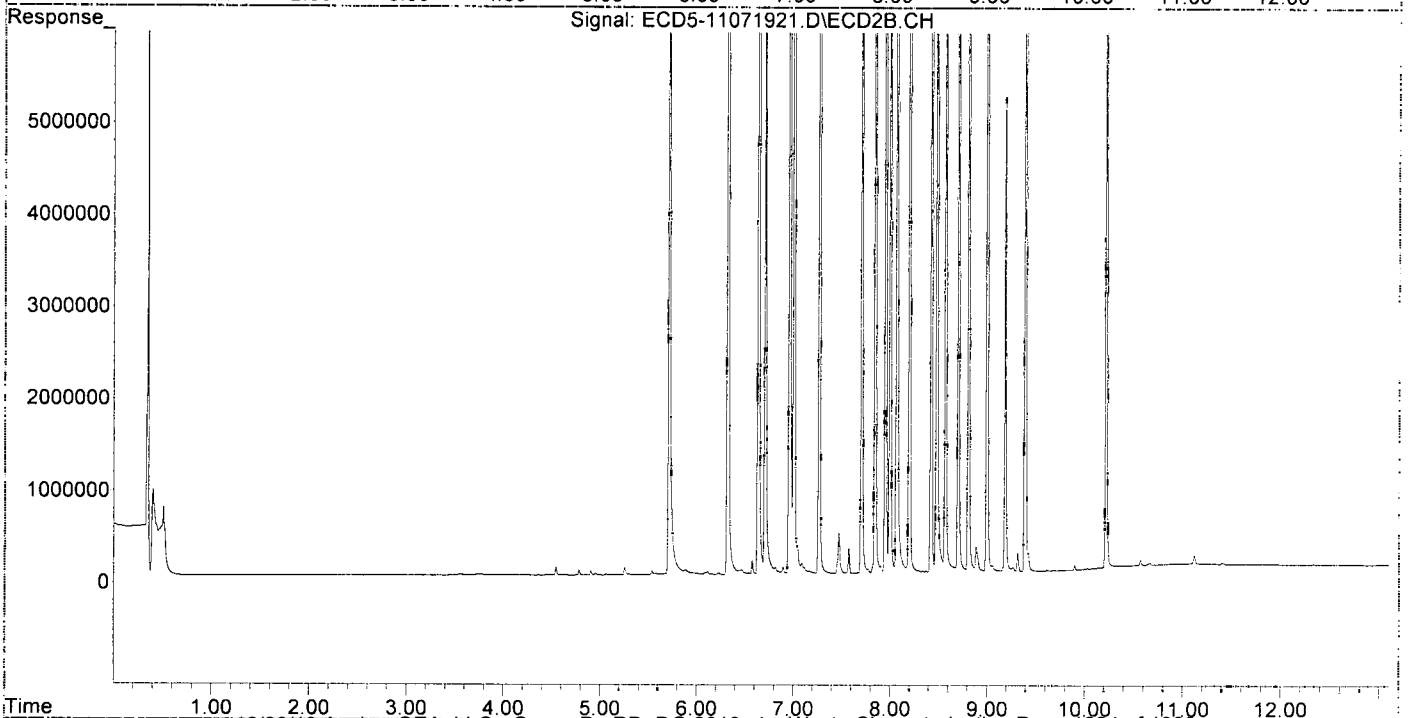
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 17:07
Operator : MJB
Sample : 9K07024-CCV4
Misc : A19H383, 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 07 17:45:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

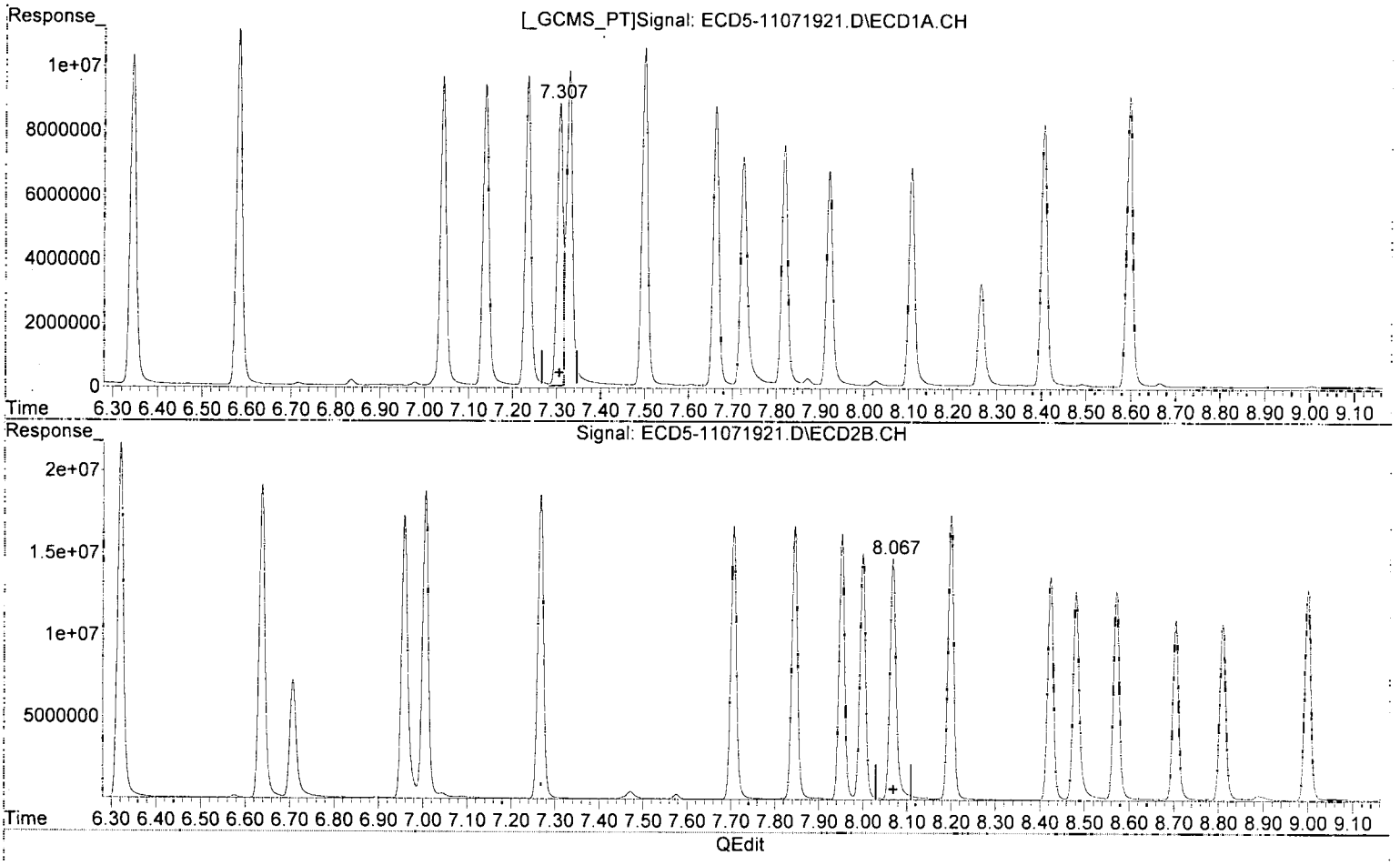




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 17:07
Operator : MJB
Sample : 9K07024-CCV4
Misc : A19H383, 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 07 17:34:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.307min 47.007 ng/mL (m)

response 8862244

MB 11/7/19

(12) 4,4'-DDE #2

8.067min 47.185 ng/mL

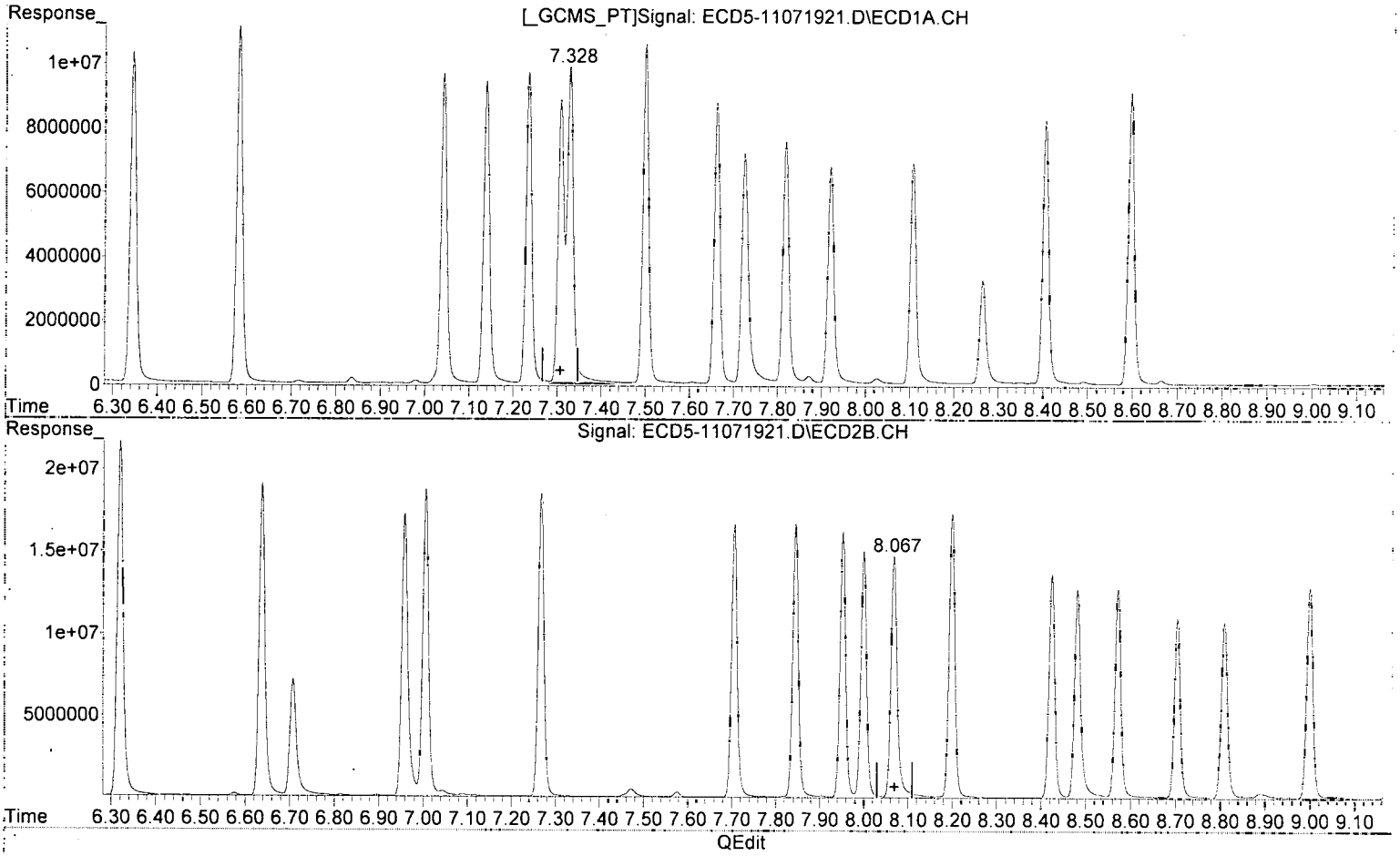
response 14659380

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 17:07
Operator : MJB
Sample : 9K07024-CCV4
Misc : A19H383, 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 07 17:34:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.327min 53.305 ng/mL

response 10049633

MJB 11/7/19

(12) 4,4'-DDE #2

8.067min 47.185 ng/mL

response 14659380

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 17:07
Operator : MJB
Sample : 9K07024-CCV4
Misc : A19H383, 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 07 17:34:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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

MI MJB 11/7/19

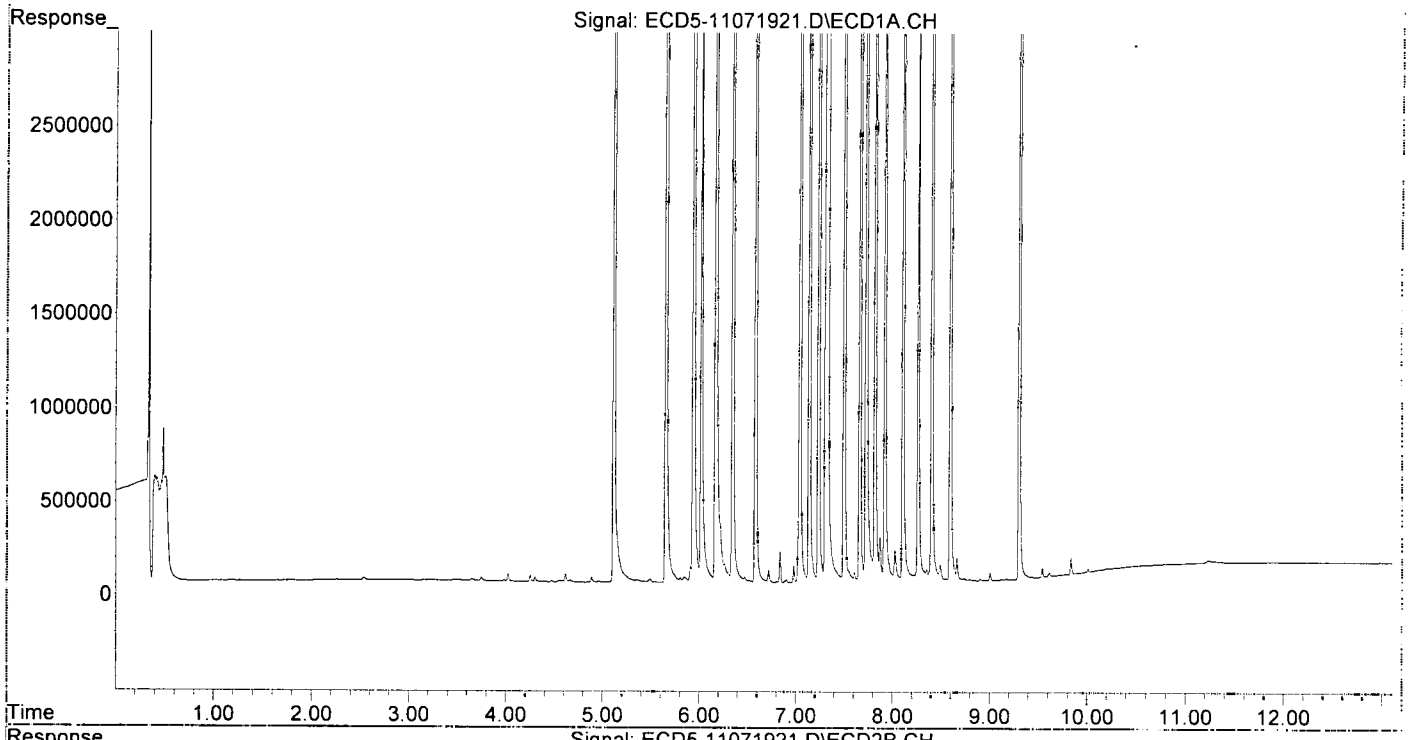
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.711	8822125	13596030	53.153	46.345	
22)	S	DCBP (S)	9.304	10.219	7017114	10362230	49.732	57.644	
		Target Compounds							
2)		a-BHC	5.654	6.320	12155561	21585416	53.005	52.604	
3)		g-BHC	5.938	6.637	10262530	19065443	50.861	53.449	
4)		b-BHC	6.021	6.707	3573653	7143097	39.539	45.134	
5)		Heptachlor	6.345	7.005	10261176	18731881	56.599	61.220	
6)		d-BHC	6.168	6.958	8608625	17202559	43.767	48.779	
7)		Aldrin	6.583	7.266	11028822	18477361	55.858	56.095	
8)		Heptachlo...	7.042	7.706	9601872	16618255	52.133	55.238	
9)		trans-Chl...	7.138	7.844	9370151	16624880	50.679	53.059	
10)		cis-Chlor...	7.234	7.952	9627622	16148227	52.878	55.445	
11)		Endosulfa...	7.327	7.999	10049633	14958127	59.053	54.358	
12)		4,4'-DDE	7.327f	8.067	10049633	14659380	53.305	47.185	
13)		Dieldrin	7.500	8.199	10498512	17299543	54.686	56.878	
14)		Endrin	7.662	8.423	8727668	13593010	59.361	60.192	
15)		4,4'-DDD	7.725	8.481	7105510	12668842	45.218	49.446	
16)		Endosulfa...	7.818	8.571	7534562	12685979	52.465	55.011	
17)		4,4'-DDT	7.920	8.704	6671718	10953397	55.802	57.499	
18)		Endrin Al...	8.107	8.809	6677374	10708371	54.326	54.262	
19)		Endosulfa...	8.405	8.999	8190277	12809407	52.848	51.425	
20)		Methoxychlor	8.265	9.185	3212000	5144476	54.836	56.641	
21)		Endrin Ke...	8.597	9.391	9046748	14539276	54.251	56.504	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.491	0.000	15795	0	0.090	N.D.	#
25)		Oxychlordane	6.980	7.670f	91466	9301	0.556	0.034	#
26)		2,4'-DDE	7.042	7.844	9601872	16624880	74.862	78.368	
27)		trans-Non...	7.234	7.904	9627622	75616	53.453	0.251	#
28)		2,4'-DDD	0.000	8.199	0	17299543	N.D.	91.598	#
29)		2,4'-DDT	7.606	8.423	51834	13593010	0.473	76.220	#
30)		cis-Nonac...	7.725f	8.481	7105510	12668842	34.224	37.767	
31)		Mirex	8.351	9.391	61388	14539276	0.490	78.137	#
32)		Chlordane...	7.234	7.952	9627622	16148227	488.970	446.274	
33)		Chlordane...	7.327	8.067	10049633	14659380	400.954	482.787	
34)		Chlordane...	7.871	8.704	240235	10953397	41.555	1221.676	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	8.374	0	21315	N.D.	8.122	#
37)		Toxaphene...	7.725f	8.704	7105510	10953397	4399.864	3328.263	
38)		Toxaphene...	8.026f	0.000	168359	0	49.996	N.D.	#
39)		Toxaphene...	8.265	8.809	3212000	10708371	991.311	1282.465	
40)		Toxaphene...	8.492	8.999	84551	12809407	35.272	2748.588	#
41)		Toxaphene...	0.000	9.391f	0	14539276	N.D.	3060.770	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

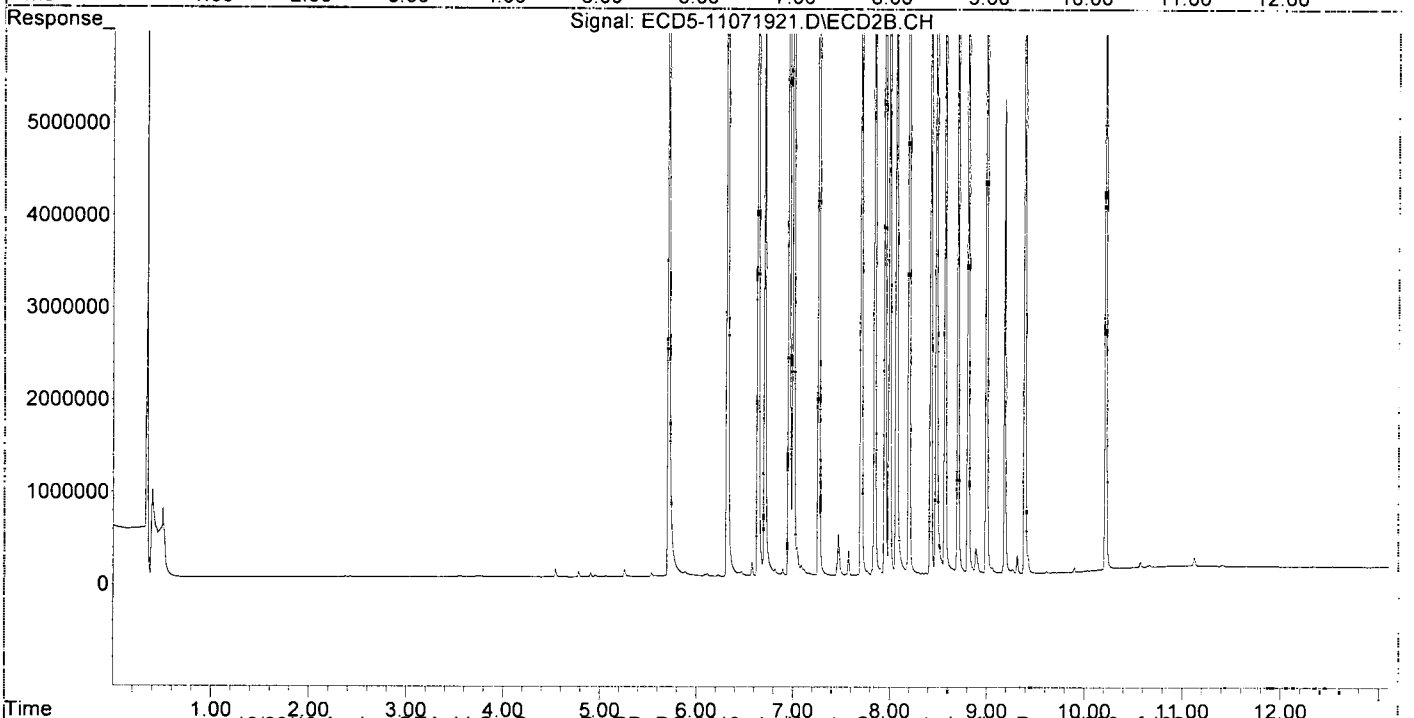
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 17:07
Operator : MJB
Sample : 9K07024-CCV4
Misc : A19H383, 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 07 17:34:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\2019-11\9K07024\
Data File : ECD5-11071922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 17:25
Operator : MJB
Sample : 9K07024-CCV5
Misc : A19J408, 9-42 50 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 07 17:47:40 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/7/19

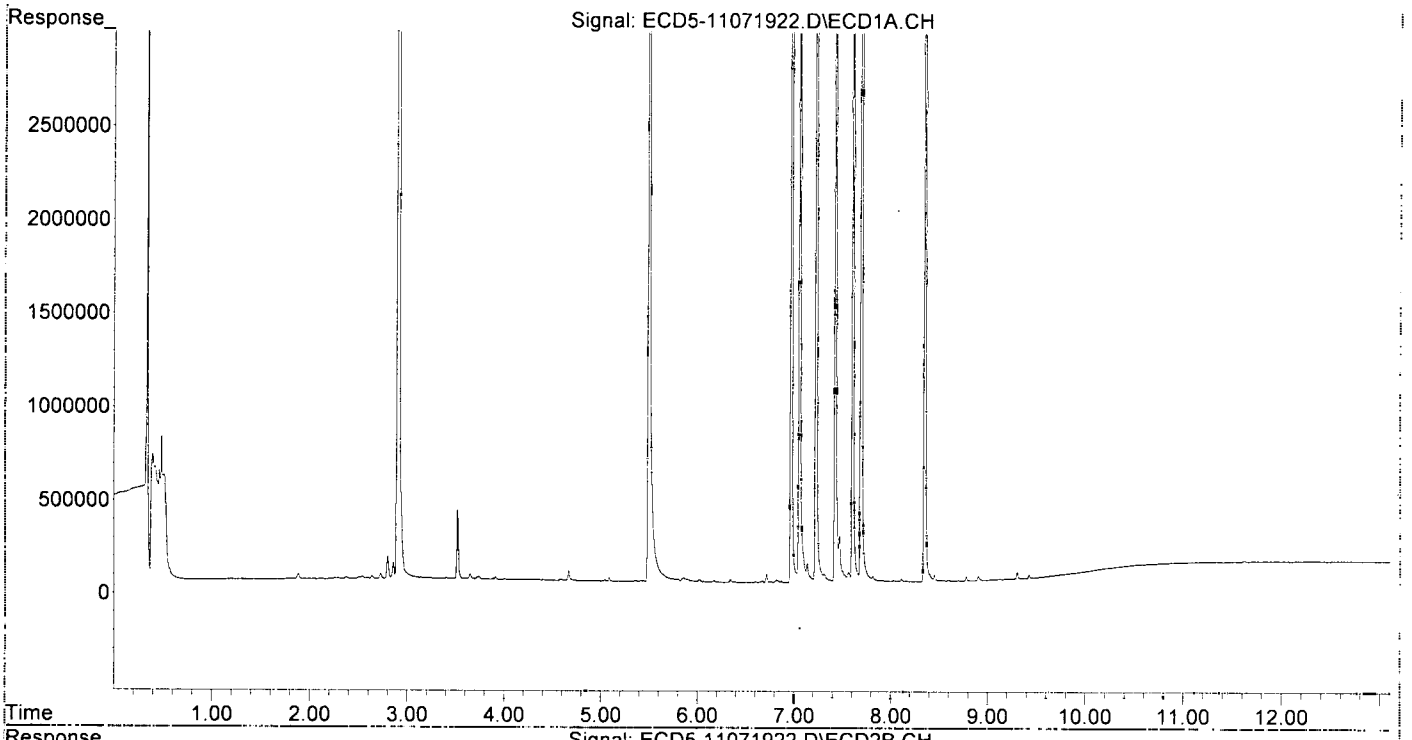
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.088f	0.000	17266	0	0.104	N.D.	#
22)	S	DCBP (S)	9.305	10.220	34189	55836	0.242	0.311	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.021	6.710	14374	6303	0.159	0.040	#
5)		Heptachlor	6.345	7.004	15752	25803	0.087	0.084	
6)		d-BHC	6.174	6.959	8597	16649	0.044	0.047	
7)		Aldrin	0.000	7.308f	0	9301	N.D.	0.028	#
8)		Heptachlo...	7.057	7.703	5130978	51106	27.859	0.170	#
9)		trans-Chl...	7.138	7.845	100421	8993832	0.543	28.704	#
10)		cis-Chlor...	7.228	0.000	8652825	0	47.524	N.D.	#
11)		Endosulfa...	7.315	8.017	44282	44674	0.260	0.162	
12)		4,4'-DDE	7.315	0.000	44282	0	0.235	N.D.	#
13)		Dieldrin	7.472f	8.217	247009	7930334	1.287	26.074	#
14)		Endrin	7.695f	8.438	9617469	8352290	65.413	36.985	#
15)		4,4'-DDD	7.695f	8.471	9617469	16049572	61.203	62.641	
16)		Endosulfa...	7.820	8.567	28501	27911	0.198	0.121	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.114	8.810	12127	15471	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.000	0	14048	N.D.	0.056	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.599	9.375	7104	8603209	0.043	33.434	#
23)		Hexachlor...	2.907	3.409	9044550	19208013	49.494	51.094	
24)		Hexachlor...	5.496	6.177	7344841	10736698	41.663	34.184	
25)		Oxychlordane	6.971	7.635	7423025	12495311	45.114	45.620	
26)		2,4'-DDE	7.057	7.845	5130978	8993832	40.004	42.396	
27)		trans-Non...	7.228	7.909	8652825	14300978	48.006	47.411	
28)		2,4'-DDD	7.427	8.217	4755267	7930334	41.667	41.990	
29)		2,4'-DDT	7.607	8.438	5225294	8352290	47.638	46.834	
30)		cis-Nonac...	7.695	8.471	9617469	16049572	46.323	47.845	
31)		Mirex	8.351	9.375	5529119	8603209	44.104	46.236	
32)		Chlordane...	7.228	7.909f	8652825	14300978	439.461	395.223	
33)		Chlordane...	7.315	8.017f	44282	44674	1.767	1.471	
34)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	7.427f	0.000	4755267	0	5309.307	N.D.	#
37)		Toxaphene...	7.695	0.000	9617469	0	5955.316	N.D.	#
38)		Toxaphene...	8.031f	0.000	4966	0	1.475	N.D.	#
39)		Toxaphene...	0.000	8.810	0	15471	N.D.	1.853	#
40)		Toxaphene...	8.453f	9.000	33063	14048	13.792	3.014	#
41)		Toxaphene...	0.000	9.375	0	8603209	N.D.	1811.125	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

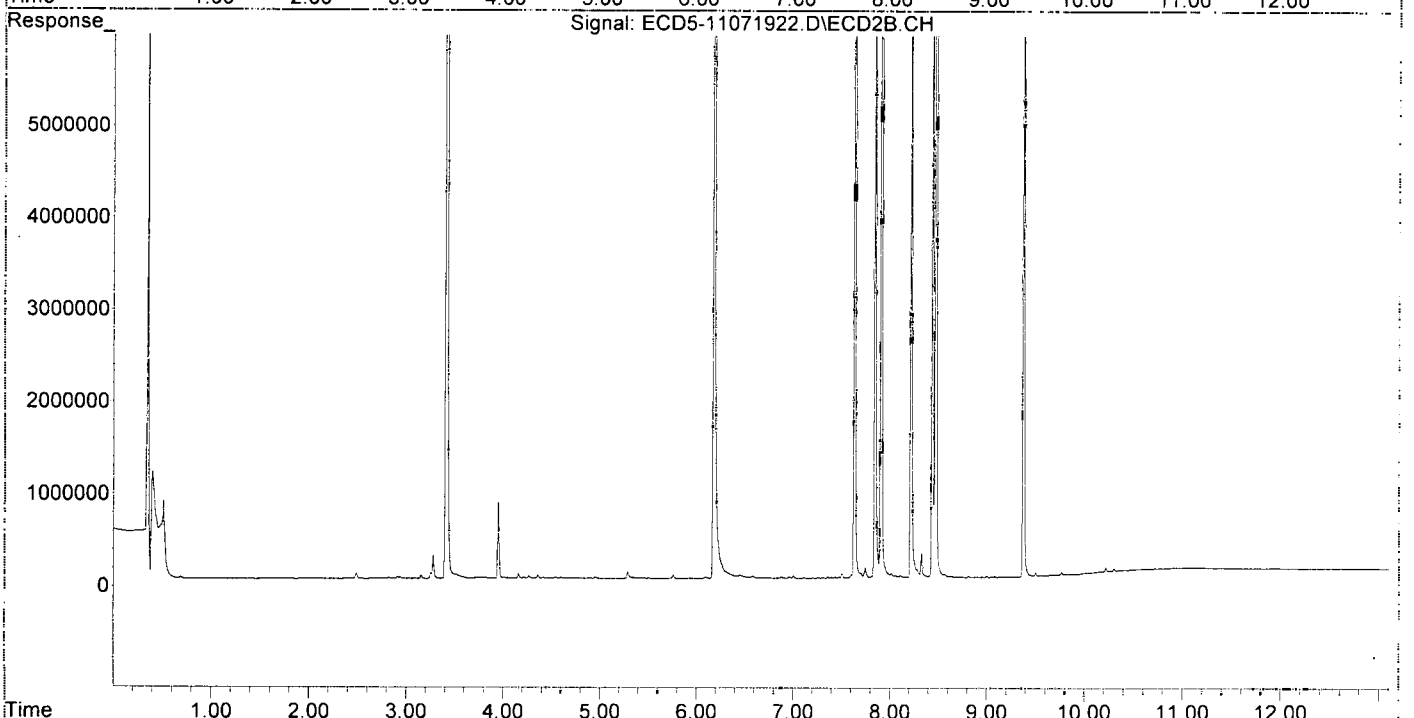
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 17:25
Operator : MJB
Sample : 9K07024-CCV5
Misc : A19J408, 9-42 50 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 07 17:47:40 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\9K07024\
Data File : ECD5-11071923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 17:42
Operator : MJB
Sample : 9K07024-CCB3
Misc : A19K026
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 07 17:56:40 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/7/19

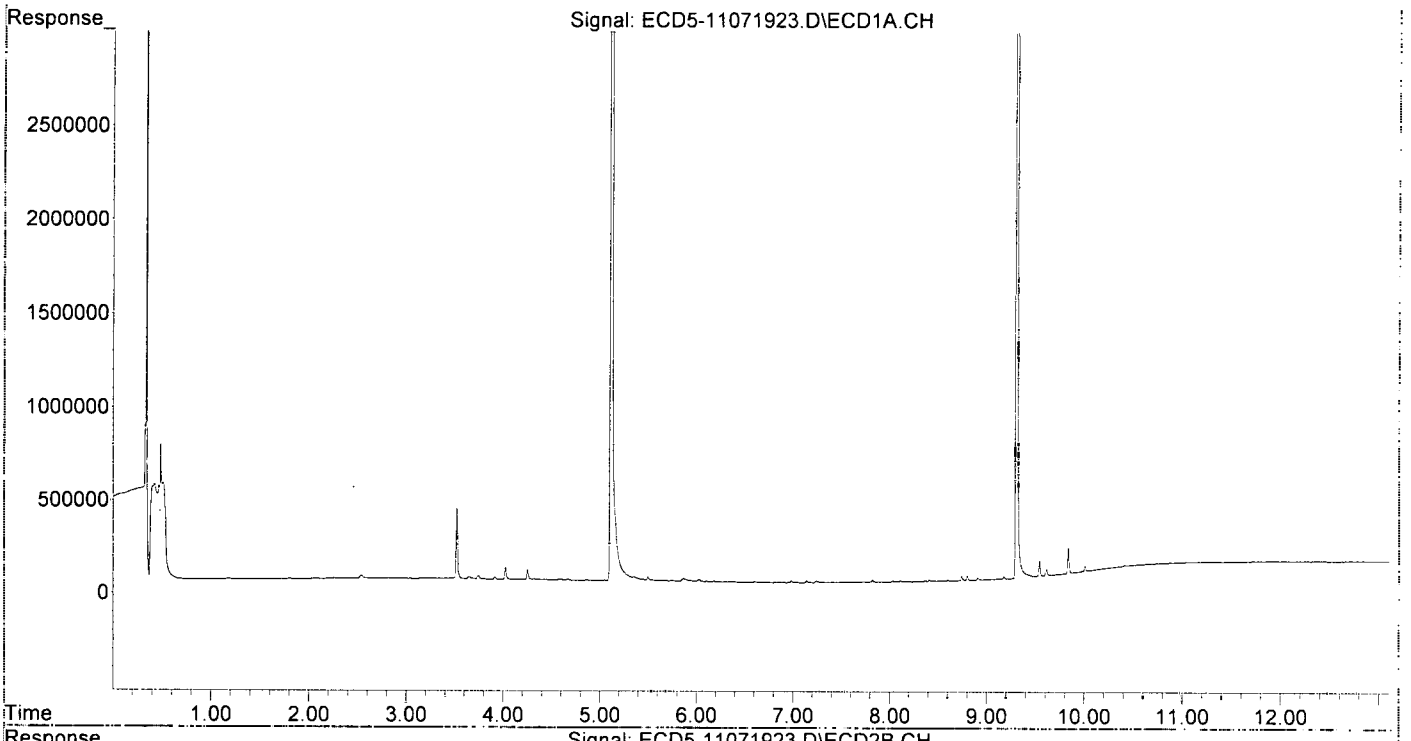
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.711	15194402	24885013	91.546	84.826	
22)	S	DCBP (S)	9.305	10.219	12404251	18940744	87.912	105.365	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.025	0.000	11871	0	0.131	N.D.	#
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.179	6.962	5632	11660	0.029	0.033	
7)		Aldrin	6.603	7.309f	3621	10000	0.018	0.030	#
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	7.139	7.875f	8867	13002	0.048	0.041	
10)		cis-Chlor...	7.241	0.000	7970	0	0.044	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	7.630f	0.000	2641	0	0.018	N.D.	#
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	7.822	8.566	12448	15905	0.087	0.069	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.111	8.810	7945	11077	BelowCal	BelowCal	
19)		Endosulfa...	8.409	9.000	7650	11548	0.049	0.046	
20)		Methoxychlor	8.258	0.000	3712	0	0.063	N.D.	#
21)		Endrin Ke...	8.599	9.392	4051	5227	0.024	0.020	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.497	0.000	21753	0	0.123	N.D.	#
25)		Oxychlordane	6.982	7.607f	10977	19794	0.067	0.072	
26)		2,4'-DDE	0.000	7.875f	0	13002	N.D.	0.061	#
27)		trans-Non...	7.241	7.875f	7970	13002	87346.656	0.043	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	7.630f	0.000	2641	0	0.024	N.D.	#
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.365	9.392	5090	5227	0.041	0.028	
32)		Chlordane...	7.241	0.000	7970	0	0.405	N.D.	#
33)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
34)		Chlordane...	0.000	0.000	0	0	N.D..	N.D.	
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.032f	0.000	5207	0	1.546	N.D.	#
39)		Toxaphene...	8.258	8.810	3712	11077	1.146	1.327	
40)		Toxaphene...	0.000	9.000	0	11548	N.D.	2.478	#
41)		Toxaphene...	8.542	9.392f	2315	5227	0.731	1.100	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

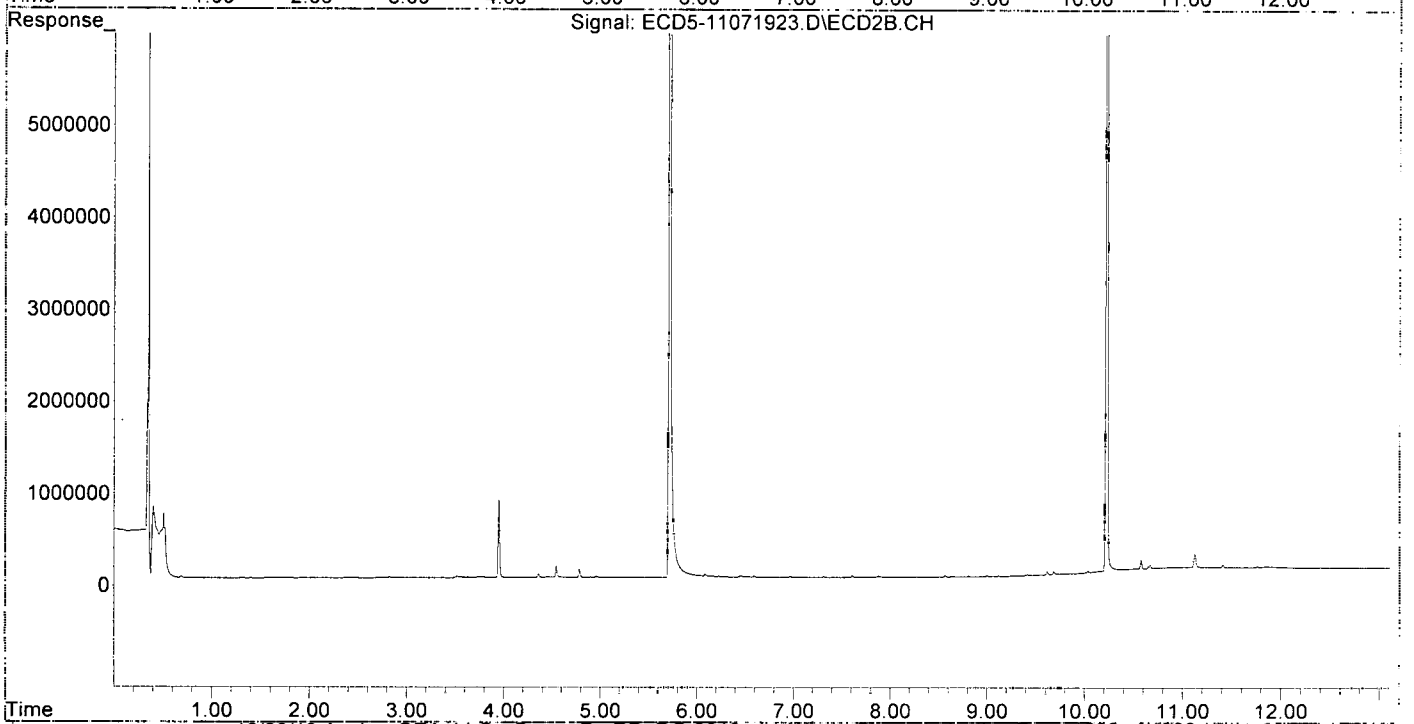
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 17:42
Operator : MJB
Sample : 9K07024-CCB3
Misc : A19K026
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 07 17:56:40 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\2019-11\9K07024\
Data File : ECD5-11071924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 17:59
Operator : MJB
Sample : 9110425-BLK1
Misc : 1x, 2,4+4,4-DDx Only, GPC
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: Nov 08 10:12:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/8/19

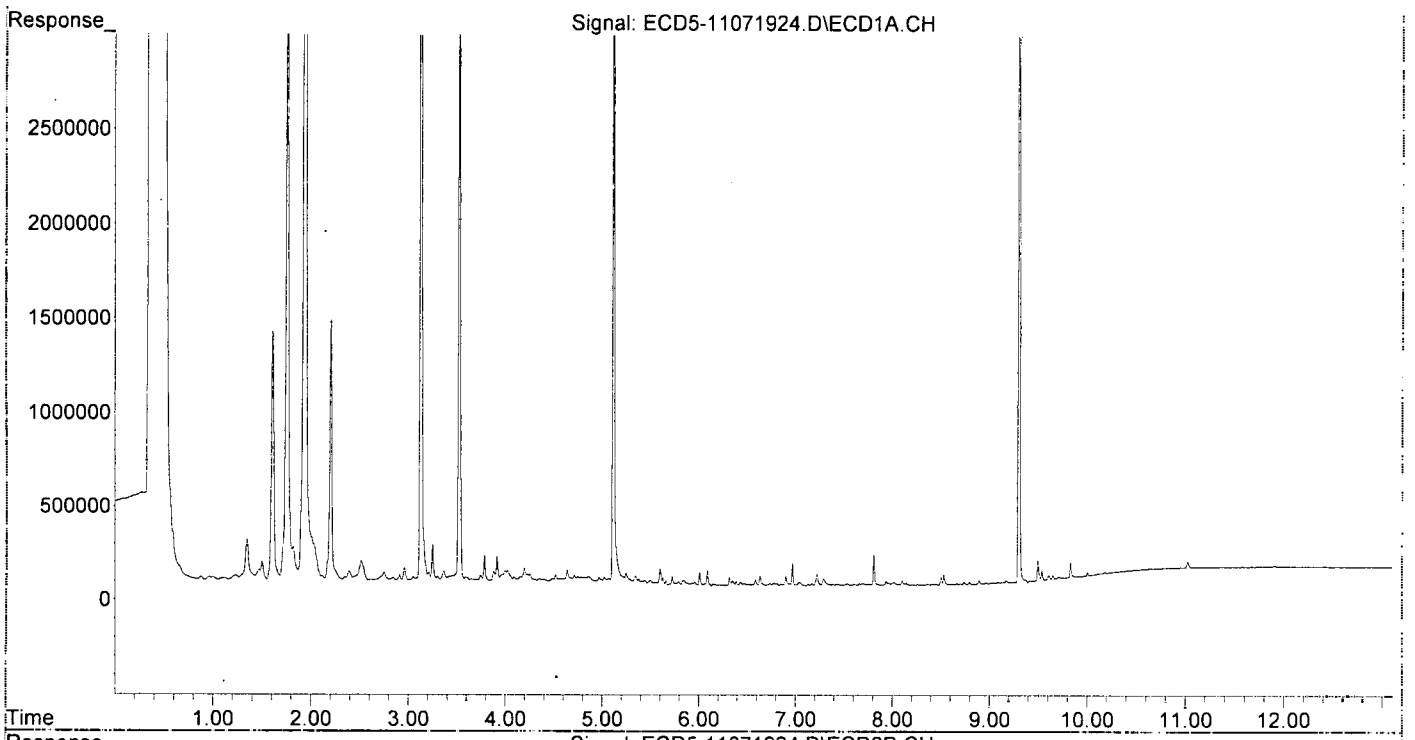
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.712	5226991	8099431	31.493	27.609	
22)	S	DCBP (S)	9.302	10.217	6451759	9204531	45.725	51.204	
		Target Compounds							
2)		a-BHC	5.661	6.331	21795	31649	0.095	0.077	
3)		g-BHC	5.957	6.643	19594	7009	0.097	0.020	#
4)		b-BHC	6.008	6.697	69976	22800	0.774	0.144	#
5)		Heptachlor	6.347	7.012	25053	43900	0.138	0.143	
6)		d-BHC	6.146f	6.940	10938	36530	0.056	0.104	#
7)		Aldrin	6.587	7.261	30762	15846	0.156	0.048	#
8)		Heptachlo...	7.040	7.692	16790	78846	0.091	0.262	#
9)		trans-Chl...	7.131	7.851	7175	88471	0.039	0.282	#
10)		cis-Chlor...	7.224	7.949	60788	24220	0.334	0.083	#
11)		Endosulfa...	0.000	7.992	0	78510	N.D.	0.285	#
12)		4,4'-DDE	7.289	8.073	36079	14083	0.191	0.045	#
13)		Dieldrin	7.535f	8.209	11012	12248	0.057	0.040	
14)		Endrin	7.660	8.438	9227	9754	0.063	0.043	
15)		4,4'-DDD	7.709	0.000	7084	0	0.045m	N.D.	#
16)		Endosulfa...	7.811	8.560	161750	200958	1.126	0.871	
17)		4,4'-DDT	7.936	8.707	21495	8081	0.180	0.009m	#
18)		Endrin Al...	8.102	8.801	25316	24602	BelowCal	BelowCal	
19)		Endosulfa...	8.408	9.029f	5902	9089	0.038	0.036	
20)		Methoxychlor	8.260	9.184	4412	9398	0.075	BelowCal	#
21)		Endrin Ke...	0.000	9.405	0	46665	N.D.	0.181	#
23)		Hexachlor...	2.910	3.388f	36783	12919631	0.201	34.367	#
24)		Hexachlor...	5.499	6.179	26371	20782	0.150	0.066	#
25)		Oxychlordane	6.970	7.634	121445	17575	0.738	0.064	#
26)		2,4'-DDE	7.040	7.851	16790	88471	0.131	0.417	#
27)		trans-Non...	7.224	7.908	60788	19017	0.023	0.063	#
28)		2,4'-DDD	7.431	8.209	7085	12248	0.062	0.065	
29)		2,4'-DDT	7.605	8.438	5683	9754	0.052	0.055	
30)		cis-Nonac...	7.694	8.438f	11397	9754	0.055	0.029	#
31)		Mirex	8.364	9.405f	6851	46665	0.055	0.251	#
32)		Chlordane...	7.224	7.949	60788	24220	3.087	0.669	#
33)		Chlordane...	0.000	8.073f	0	14083	N.D.	0.464	#
34)		Chlordane...	0.000	8.738f	0	10367	N.D.	1.156	#
35)		Chlordane...	3.365	3.329	59190	28319	NoCal	NoCal	
36)		Toxaphene...	7.385	8.391f	6312	8149	7.047	3.105	#
37)		Toxaphene...	7.694	8.738f	11397	10367	7.057	3.150	#
38)		Toxaphene...	8.018	8.738	16945	10367	5.032	2.045	#
39)		Toxaphene...	8.260	8.801	4412	24602	1.362	2.946	#
40)		Toxaphene...	8.454	9.029f	6110	9089	2.549	1.950	
41)		Toxaphene...	8.533	9.405f	52347	46665	16.542	9.824	#
42)		Toxaphene...	3.365	3.329	59190	28319	NoCal	NoCal	

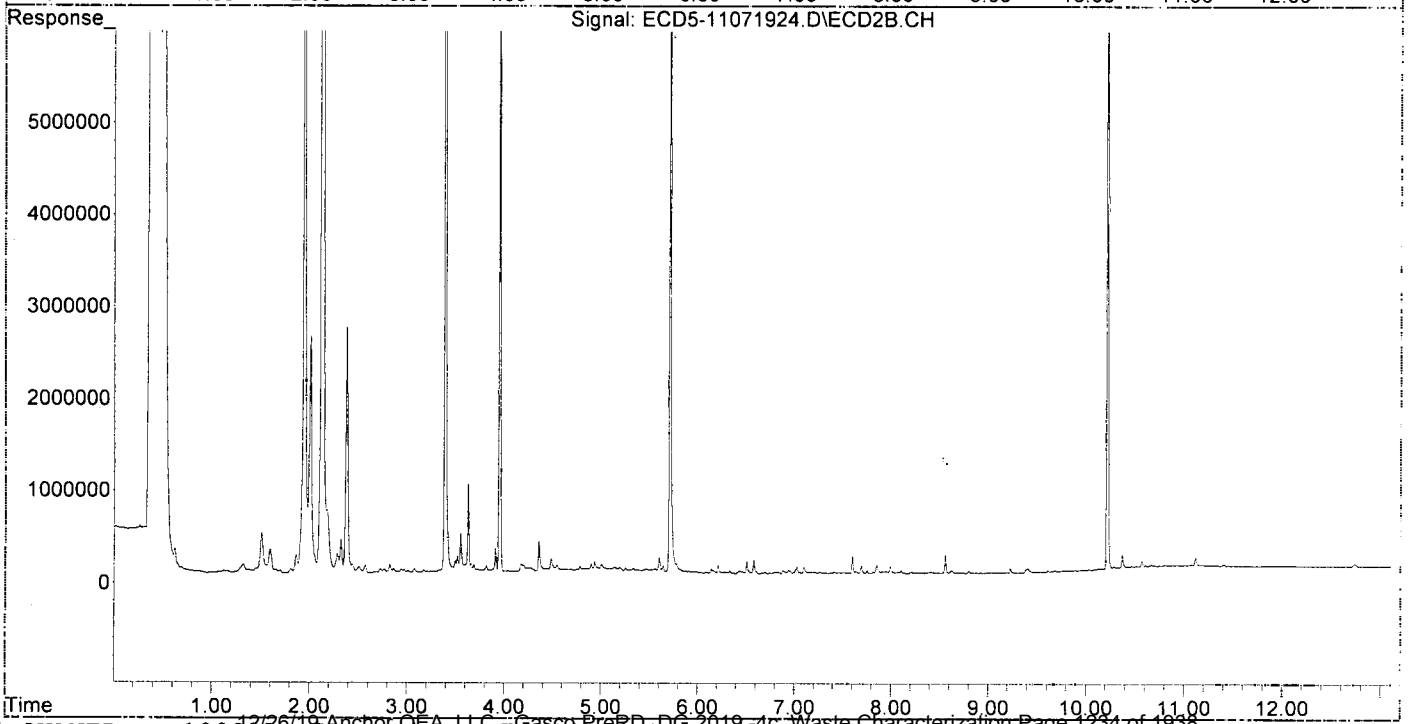
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 17:59
Operator : MJB
Sample : 9110425-BLK1
Misc : 1x, 2,4+4,4-DDx Only, GPC
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: Nov 08 10:12:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

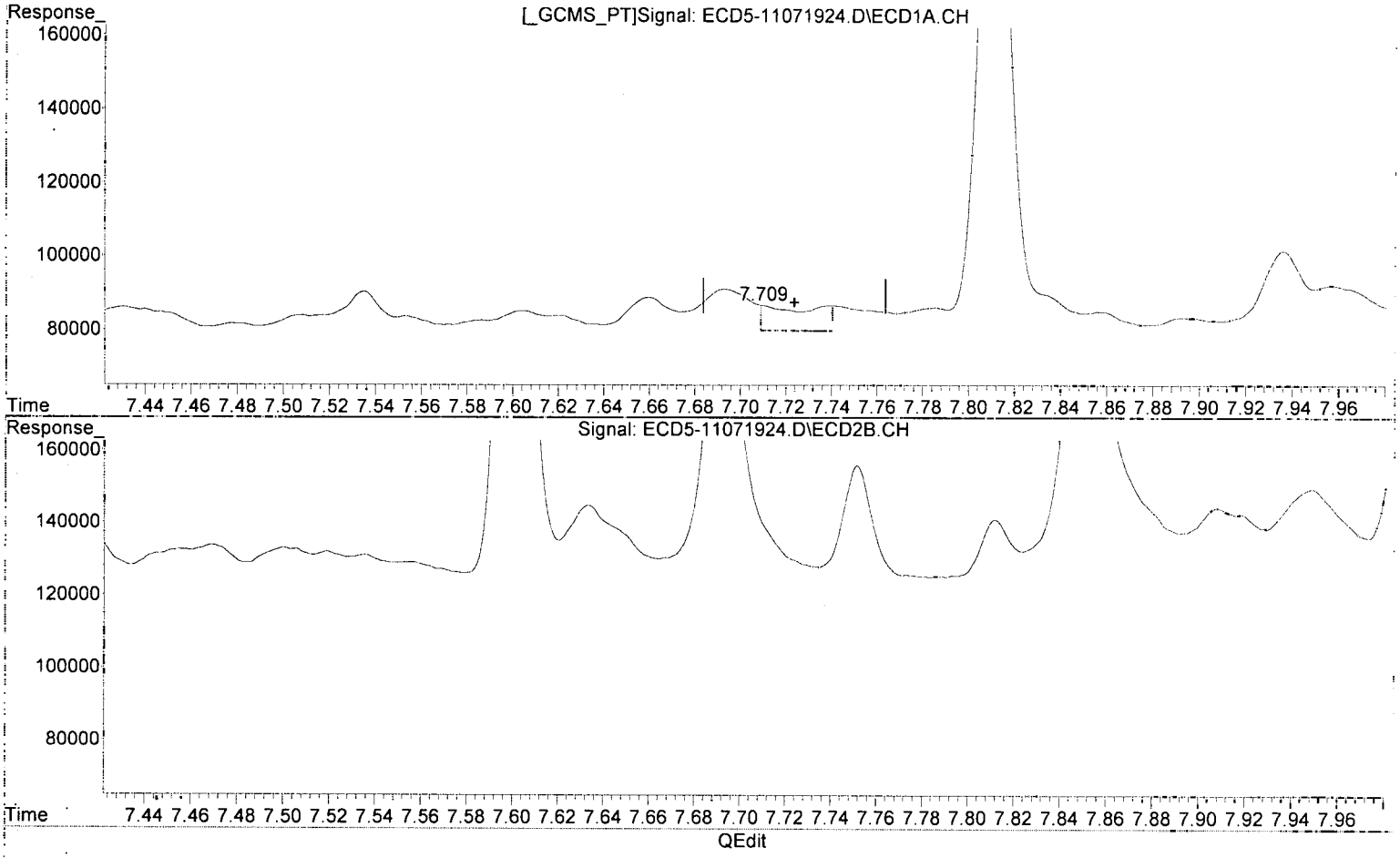




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 17:59
Operator : MJB
Sample : 9110425-BLK1
Misc : 1x, 2,4+4,4-DDx Only, GPC
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: Nov 08 09:44:25 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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



(15) 4,4'-DDD

7.709min 0.045 ng/mL (m)

response 7084

MJB 11/8/19

(15) 4,4'-DDD #2

0.000min 0.000 ng/mL

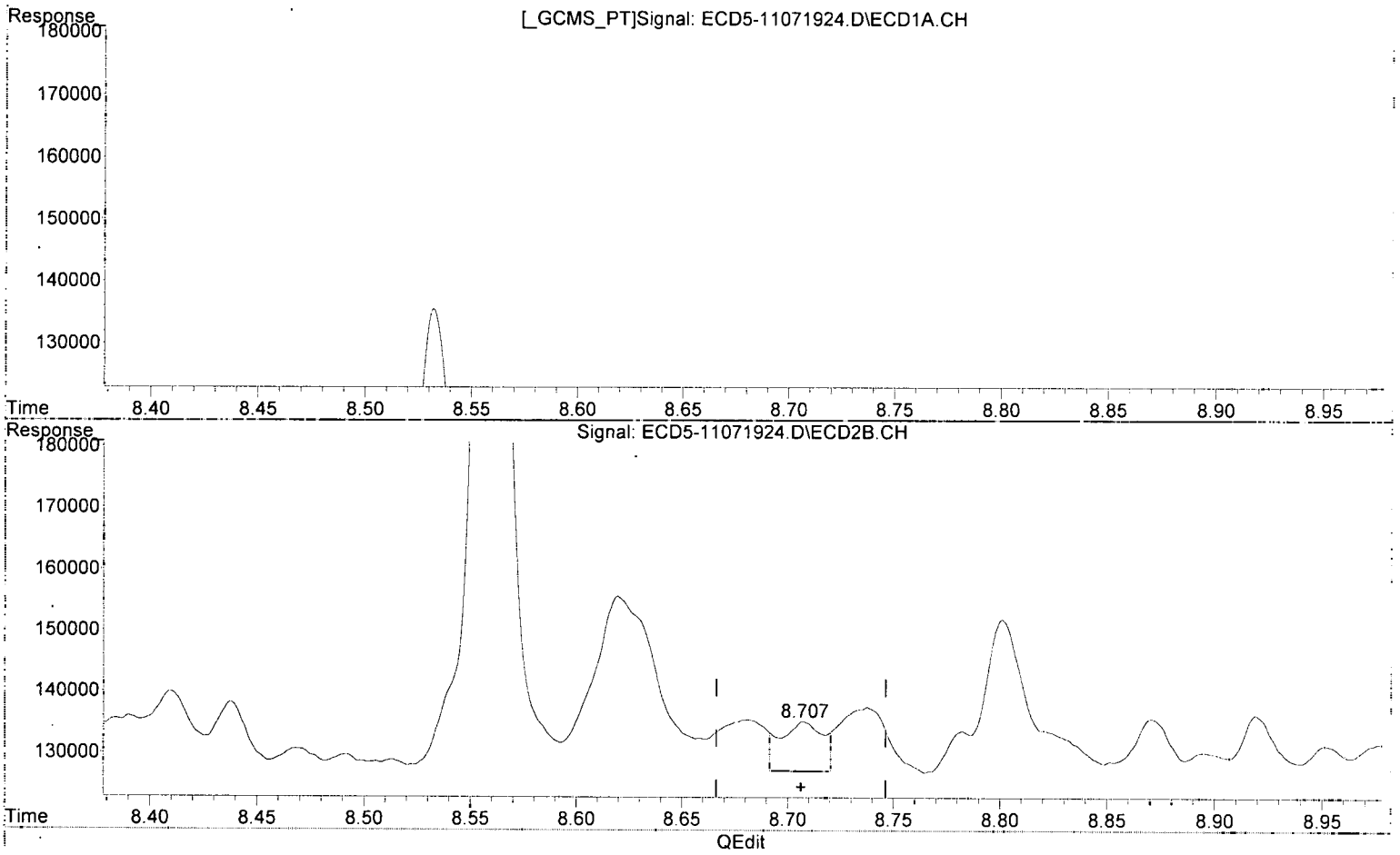
response 0

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 17:59
Operator : MJB
Sample : 9110425-BLK1
Misc : 1x, 2,4+4,4-DDx Only, GPC
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: Nov 08 09:44:25 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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

7.936min 0.180 ng/mL

response 21495

MJB 11/8/19

(17) 4,4'-DDT #2

8.707min 0.009 ng/mL m

response 8081

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 17:59
Operator : MJB
Sample : 9110425-BLK1
Misc : 1x, 2,4+4,4-DDx Only, GPC
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: Nov 08 09:44:25 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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

MS MJB 11/8/19

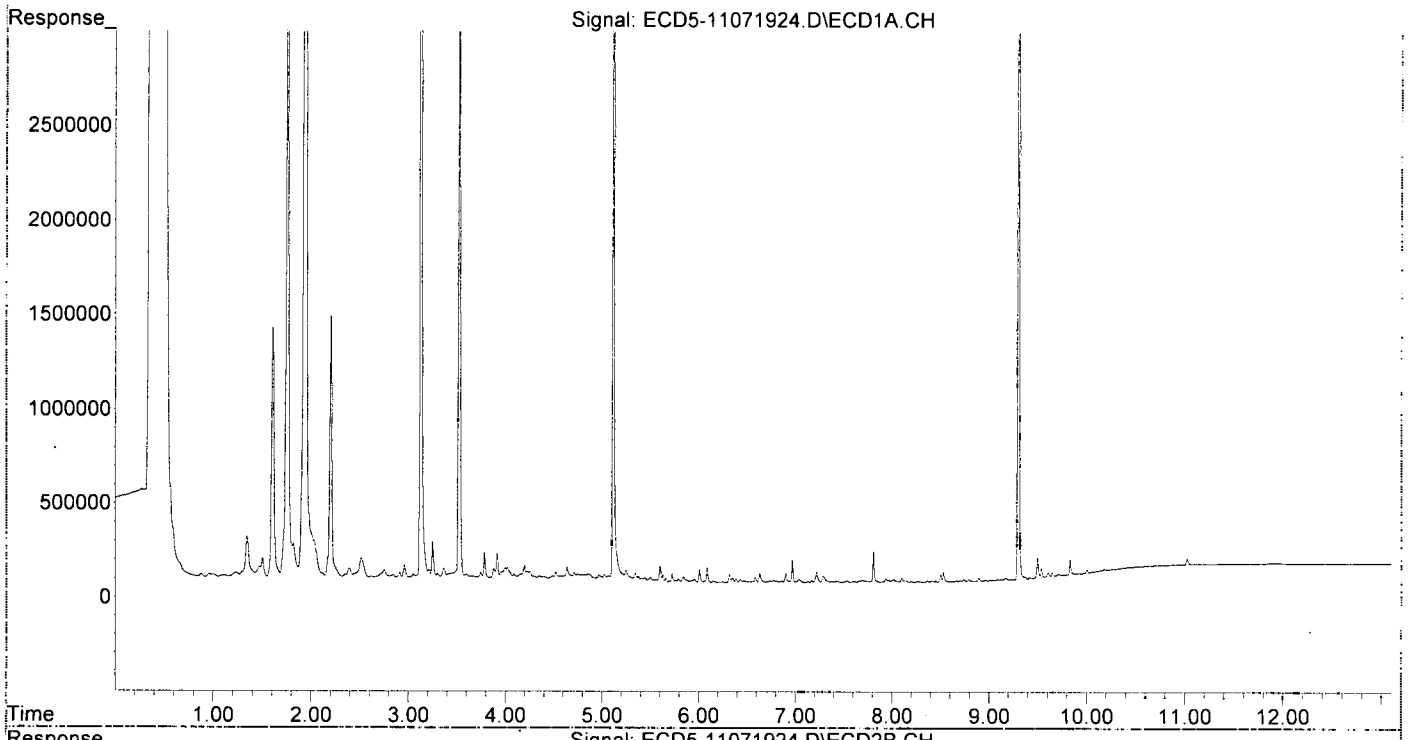
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.712	5226991	8099431	31.493	27.609	
22)	S	DCBP (S)	9.302	10.217	6451759	9204531	45.725	51.204	
		Target Compounds							
2)		a-BHC	5.661	6.331	21795	31649	0.095	0.077	
3)		g-BHC	5.957	6.643	19594	7009	0.097	0.020	#
4)		b-BHC	6.008	6.697	69976	22800	0.774	0.144	#
5)		Heptachlor	6.347	7.012	25053	43900	0.138	0.143	
6)		d-BHC	6.146f	6.940	10938	36530	0.056	0.104	#
7)		Aldrin	6.587	7.261	30762	15846	0.156	0.048	#
8)		Heptachlo...	7.040	7.692	16790	78846	0.091	0.262	#
9)		trans-Chl...	7.131	7.851	7175	88471	0.039	0.282	#
10)		cis-Chlor...	7.224	7.949	60788	24220	0.334	0.083	#
11)		Endosulfa...	0.000	7.992	0	78510	N.D.	0.285	#
12)		4,4'-DDE	7.289	8.073	36079	14083	0.191	0.045	#
13)		Dieldrin	7.535f	8.209	11012	12248	0.057	0.040	
14)		Endrin	7.660	8.438	9227	9754	0.063	0.043	
15)		4,4'-DDD	7.741	0.000	6887	0	0.044	N.D.	#
16)		Endosulfa...	7.811	8.560	161750	200958	1.126	0.871	
17)		4,4'-DDT	7.936	8.738f	21495	10367	0.180	0.022	#
18)		Endrin Al...	8.102	8.801	25316	24602	BelowCal	BelowCal	
19)		Endosulfa...	8.408	9.029f	5902	9089	0.038	0.036	
20)		Methoxychlor	8.260	9.184	4412	9398	0.075	BelowCal	#
21)		Endrin Ke...	0.000	9.405	0	46665	N.D.	0.181	#
23)		Hexachlor...	2.910	3.388f	36783	12919631	0.201	34.367	#
24)		Hexachlor...	5.499	6.179	26371	20782	0.150	0.066	#
25)		Oxychlordane	6.970	7.634	121445	17575	0.738	0.064	#
26)		2,4'-DDE	7.040	7.851	16790	88471	0.131	0.417	#
27)		trans-Non...	7.224	7.908	60788	19017	0.023	0.063	#
28)		2,4'-DDD	7.431	8.209	7085	12248	0.062	0.065	
29)		2,4'-DDT	7.605	8.438	5683	9754	0.052	0.055	
30)		cis-Nonac...	7.694	8.438f	11397	9754	0.055	0.029	#
31)		Mirex	8.364	9.405f	6851	46665	0.055	0.251	#
32)		Chlordane...	7.224	7.949	60788	24220	3.087	0.669	#
33)		Chlordane...	0.000	8.073f	0	14083	N.D.	0.464	#
34)		Chlordane...	0.000	8.738f	0	10367	N.D.	1.156	#
35)		Chlordane...	3.365	3.329	59190	28319	NoCal	NoCal	
36)		Toxaphene...	7.385	8.391f	6312	8149	7.047	3.105	#
37)		Toxaphene...	7.694	8.738f	11397	10367	7.057	3.150	#
38)		Toxaphene...	8.018	8.738	16945	10367	5.032	2.045	#
39)		Toxaphene...	8.260	8.801	4412	24602	1.362	2.946	#
40)		Toxaphene...	8.454	9.029f	6110	9089	2.549	1.950	
41)		Toxaphene...	8.533	9.405f	52347	46665	16.542	9.824	#
42)		Toxaphene...	3.365	3.329	59190	28319	NoCal	NoCal	

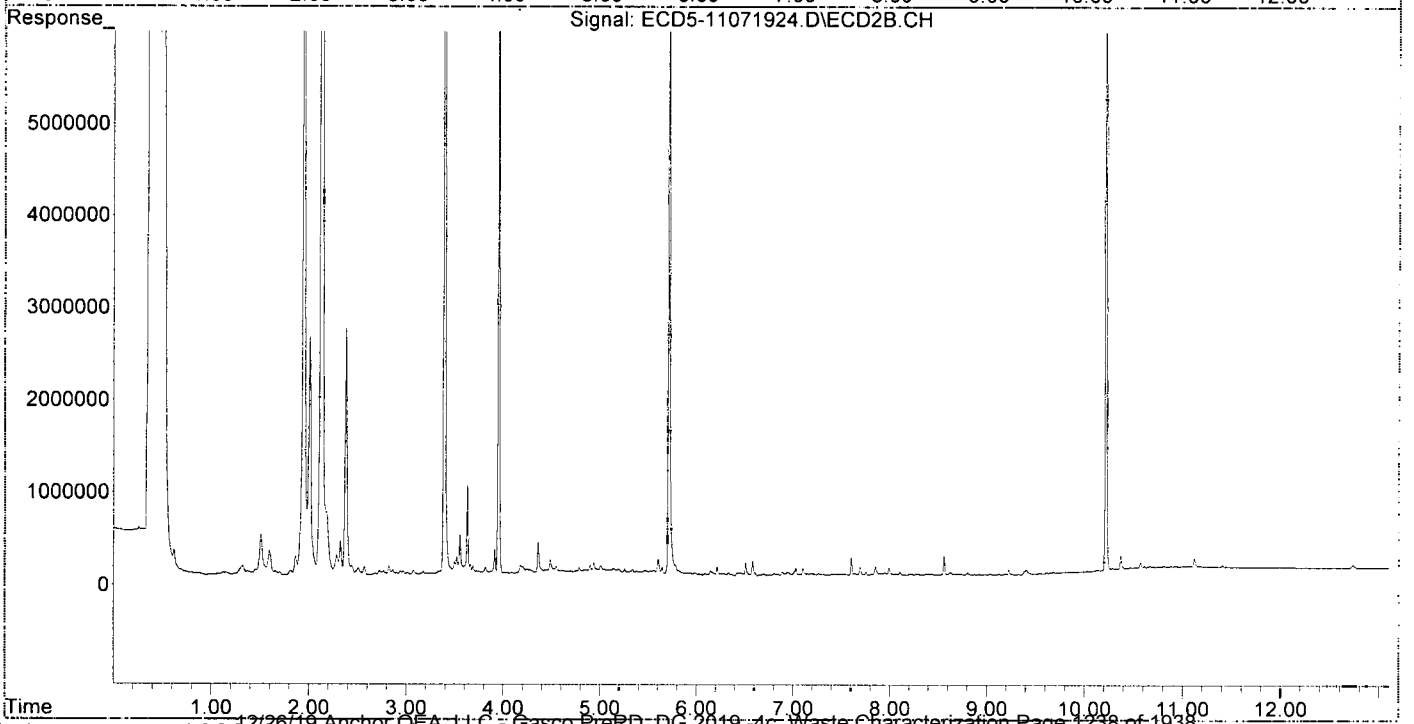
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 17:59
Operator : MJB
Sample : 9110425-BLK1
Misc : 1x, 2,4+4,4-DDx Only, GPC
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: Nov 08 09:44:25 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\9K07024\
Data File : ECD5-11071925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 18:16
Operator : MJB
Sample : 9110425-BS1
Misc : 1x, 2,4+4,4-DDx Only, GPC
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: Nov 08 09:44:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/14/19

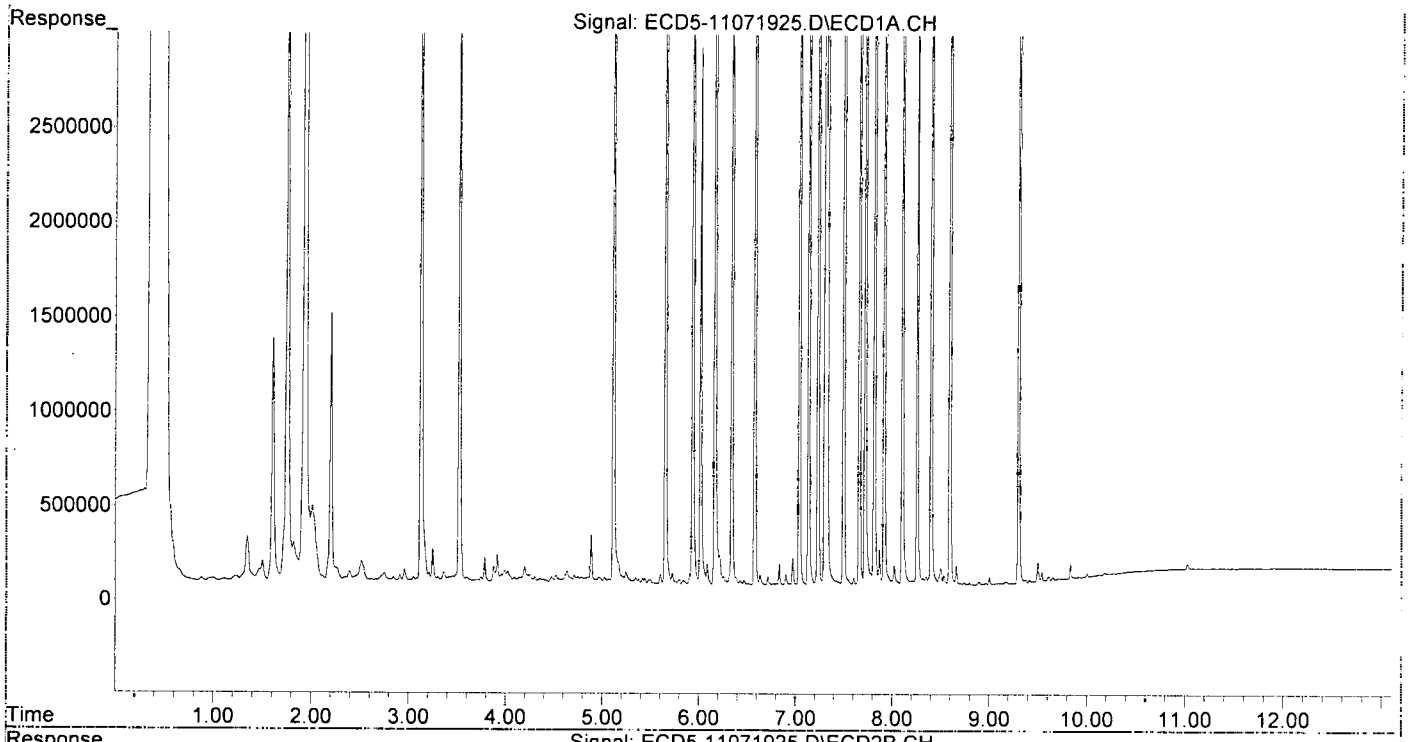
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.711	5516853	8821200	33.239	30.069	
22)	S	DCBP (S)	9.303	10.218	6609142	9082344	46.841	50.524	
		Target Compounds							
2)		a-BHC	5.653	6.319	7950227	14026412	34.667	34.182	
3)		g-BHC	5.936	6.636	6993916	12496545	34.662	35.033	
4)		b-BHC	6.017	6.705	2798294	5232034	30.960	33.058	
5)		Heptachlor	6.341	7.003	7074449	12382143	39.021	40.468	
6)		d-BHC	6.164	6.956	6683701	12881734	33.981	36.527	
7)		Aldrin	6.580	7.265	7069016	11843356	35.802	35.955	
8)		Heptachlo...	7.040	7.705	7247795	11944611	39.352	39.703	
9)		trans-Chl...	7.136	7.843	7275665	12567559	39.351	40.110	
10)		cis-Chlor...	7.233	7.951	7255304	11570977	39.849	39.729	
11)		Endosulfa...	7.327	7.999	7254240	11719383	42.627	42.589	
12)		4,4'-DDE	7.304	8.065	7698893	12422890	40.836	39.986	
13)		Dieldrin	7.498	8.198	8744721	14304083	45.550	47.030	
14)		Endrin.	7.661	8.423	7482548	11477599	50.892	50.825	
15)		4,4'-DDD	7.721	8.479	6865869	10942211	43.693	42.707	
16)		Endosulfa...	7.816	8.571	6896254	11346529	48.020	49.203	
17)		4,4'-DDT	7.917	8.702	6850067	10592210	57.294	55.769	
18)		Endrin Al...	8.105	8.808	5579048	8793407	45.496	44.888	
19)		Endosulfa...	8.404	8.998	7509855	12033052	48.458	48.309	
20)		Methoxychlor	8.259	9.184	3432987	5491723	58.609	60.070	
21)		Endrin Ke...	8.595	9.390	8353014	13196473	50.091	51.285	
23)		Hexachlor...	2.910	3.388f	39291	11427179	0.215	30.397	#
24)		Hexachlor...	5.482	6.179	22823	21776	0.129	0.069	#
25)		Oxychlordane	6.973	7.669f	143047	12103	0.869	0.044	#
26)		2,4'-DDE	7.040	7.843	7247795	12567559	56.508	59.242	
27)		trans-Non...	7.233	7.904	7255304	48398	40.198	0.160	#
28)		2,4'-DDD	0.000	8.198	0	14304083	N.D.	75.738	#
29)		2,4'-DDT	7.604	8.423	36965	11477599	0.337	64.358	#
30)		cis-Nonac...	7.721f	8.479	6865869	10942211	33.070	32.620	
31)		Mirex	8.351	9.390	42338	13196473	0.338	70.921	#
32)		Chlordane...	7.233	7.951	7255304	11570977	368.484	319.776	
33)		Chlordane...	7.327	8.065	7254240	12422890	289.425	409.131	#
34)		Chlordane...	7.870	8.702	186052	10592210	32.183	1181.391	#
35)		Chlordane...	3.362	3.330	51726	22082	NoCal	NoCal	
36)		Toxaphene...	0.000	8.374	0	19216	N.D.	7.322	#
37)		Toxaphene...	7.721f	8.702	6865869	10592210	4251.474	3218.514	
38)		Toxaphene...	8.023	0.000	101681	0	30.195	N.D.	#
39)		Toxaphene...	8.259	8.808	3432987	8793407	1059.514	1053.124	
40)		Toxaphene...	8.500f	8.998	86302	12033052	36.002	2582.002	#
41)		Toxaphene...	8.533	9.390	51783	13196473	16.363	2778.087	#
42)		Toxaphene...	3.362	3.330	51726	22082	NoCal	NoCal	

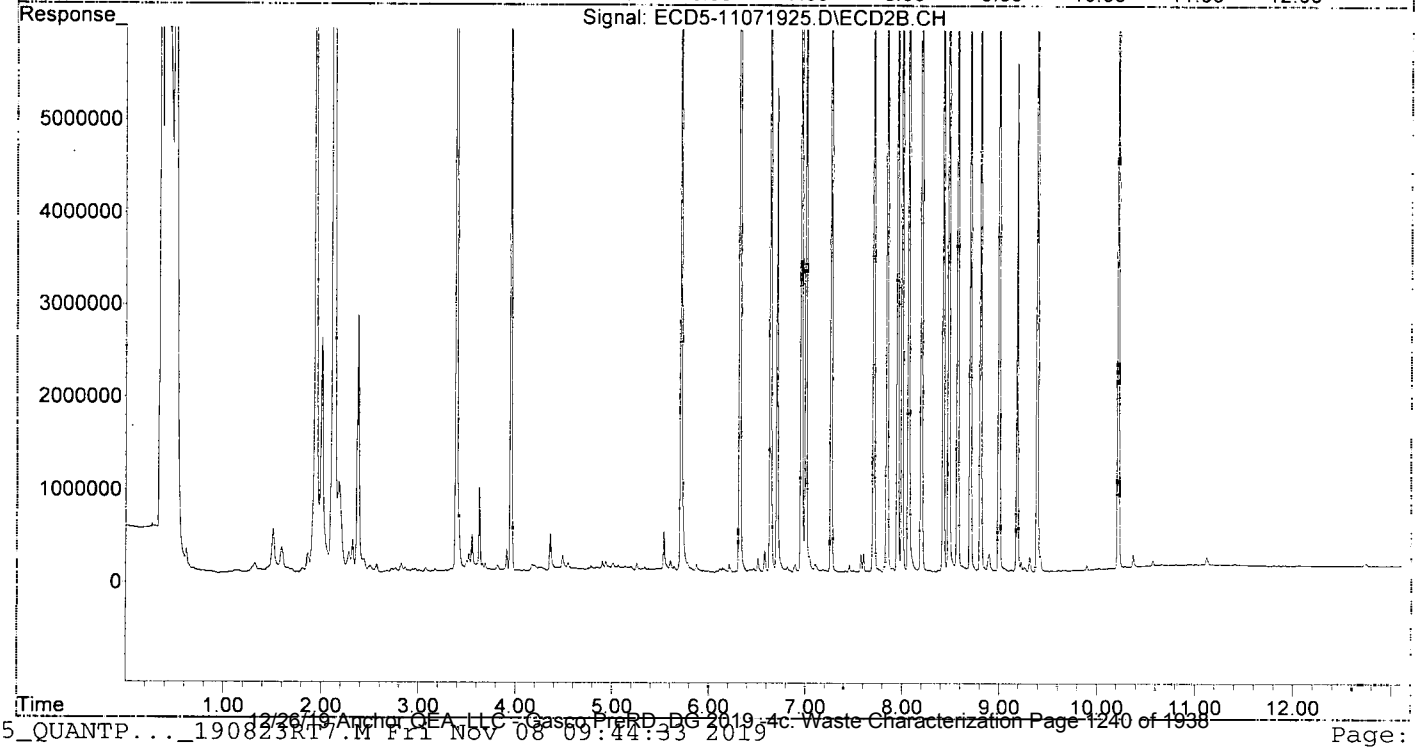
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 18:16
Operator : MJB
Sample : 9110425-BS1
Misc : 1x, 2,4+4,4-DDx Only, GPC
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: Nov 08 09:44:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\9K07024\
Data File : ECD5-11071926.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 18:34
Operator : MJB
Sample : 9110425-BS2
Misc : 1x, 2,4+4,4-DDx Only, GPC
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: Nov 08 09:44:38 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/6/19

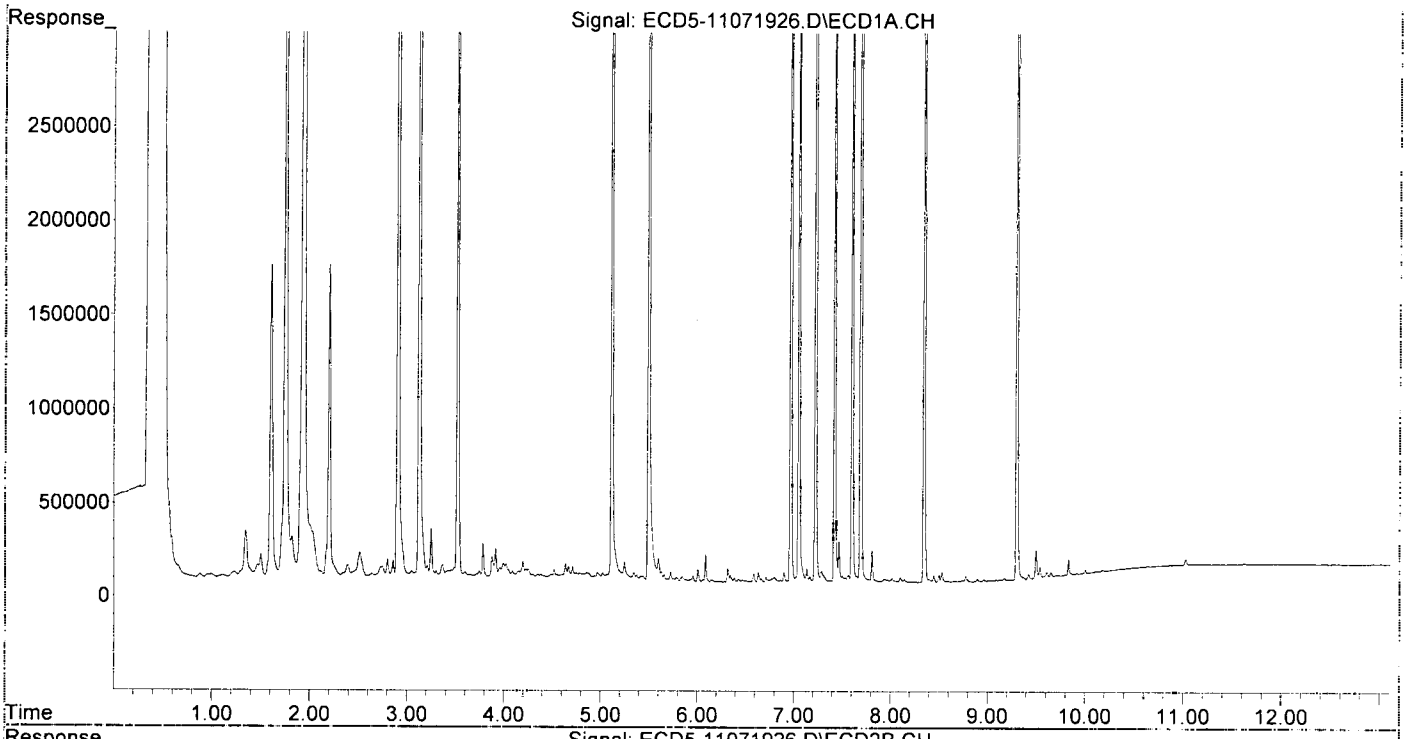
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.711	6892116	11023407	41.525	37.576	
22)	S	DCBP (S)	9.302	10.218	6940789	9554179	49.191	53.149	
		Target Compounds							
2)		a-BHC	5.659	6.329	34492	72065	0.150	0.176	
3)		g-BHC	5.957	6.641	31325	7243	0.155	0.020	#
4)		b-BHC	6.008	6.697	68929	25416	0.763	0.161	#
5)		Heptachlor	6.344	7.011	35076	74265	0.193	0.243	
6)		d-BHC	6.165	6.941	9172	38120	0.047	0.108	#
7)		Aldrin	6.586	7.262	44987	13262	0.228	0.040	#
8)		Heptachlo...	7.053	7.692	5718041	103817	31.046	0.345	#
9)		trans-Chl...	7.135	7.843	72388	9429589	0.392	30.095	#
10)		cis-Chlor...	7.226	7.948	8537777	69235	46.893	0.238	#
11)		Endosulfa...	0.000	7.992	0	100091	N.D.	0.364	#
12)		4,4'-DDE	7.288	8.072	58372	23788	0.310	0.077	#
13)		Dieldrin	7.504	8.214	33269	8455950	0.173	27.802	#
14)		Endrin	7.654	8.435	34232	9893259	0.233	43.809	#
15)		4,4'-DDD	7.692f	8.470	10366538	17013599	65.970	66.404	
16)		Endosulfa...	7.811	8.559	171435	212059	1.194	0.920	
17)		4,4'-DDT	7.937	8.704	18927	14850	0.158	0.048	#
18)		Endrin Al...	8.103	8.803	25623	27031	BelowCal	BelowCal	
19)		Endosulfa...	8.405	8.997	14591	10015	0.094	0.040	#
20)		Methoxychlor	0.000	9.185	0	5581	N.D.	BelowCal	
21)		Endrin Ke...	8.597	9.374f	5584	8851581	0.033	34.400	#
23)		Hexachlor...	2.907	3.409	7399867	16223458	40.494	43.155	
24)		Hexachlor...	5.497	6.177	6786774	10824879	38.497	34.465	
25)		Oxychlordane	6.969	7.634	7436156	12124517	45.194	44.266	
26)		2,4'-DDE	7.053	7.843	5718041	9429589	44.581	44.450	
27)		trans-Non...	7.226	7.908	8537777	14095167	47.363	46.729	
28)		2,4'-DDD	7.423	8.214	5373065	8455950	47.080	44.773	
29)		2,4'-DDT	7.604	8.435	6161949	9893259	56.177	55.474	
30)		cis-Nonac...	7.692	8.470	10366538	17013599	49.931	50.719	
31)		Mirex	8.349	9.374	5978313	8851581	47.687	47.570	
32)		Chlordane...	7.226	7.948	8537777	69235	433.618	1.913	#
33)		Chlordane...	0.000	8.046	0	19970	N.D.	0.658	#
34)		Chlordane...	0.000	8.704	0	14850	N.D.	1.656	#
35)		Chlordane...	3.366	3.330	77516	53015	NoCal	NoCal	
36)		Toxaphene...	7.423f	8.354	5373065	26143	5999.085	9.962	#
37)		Toxaphene...	7.692	8.704	10366538	14850	6419.153	4.512	#
38)		Toxaphene...	8.018	0.000	21140	0	6.278	N.D.	#
39)		Toxaphene...	0.000	8.803	0	27031	N.D.	3.237	#
40)		Toxaphene...	8.451f	8.997	34141	10015	14.242	2.149	#
41)		Toxaphene...	8.533	9.374	51120	8851581	16.154	1863.411	#
42)		Toxaphene...	3.366	3.330	77516	53015	NoCal	NoCal	

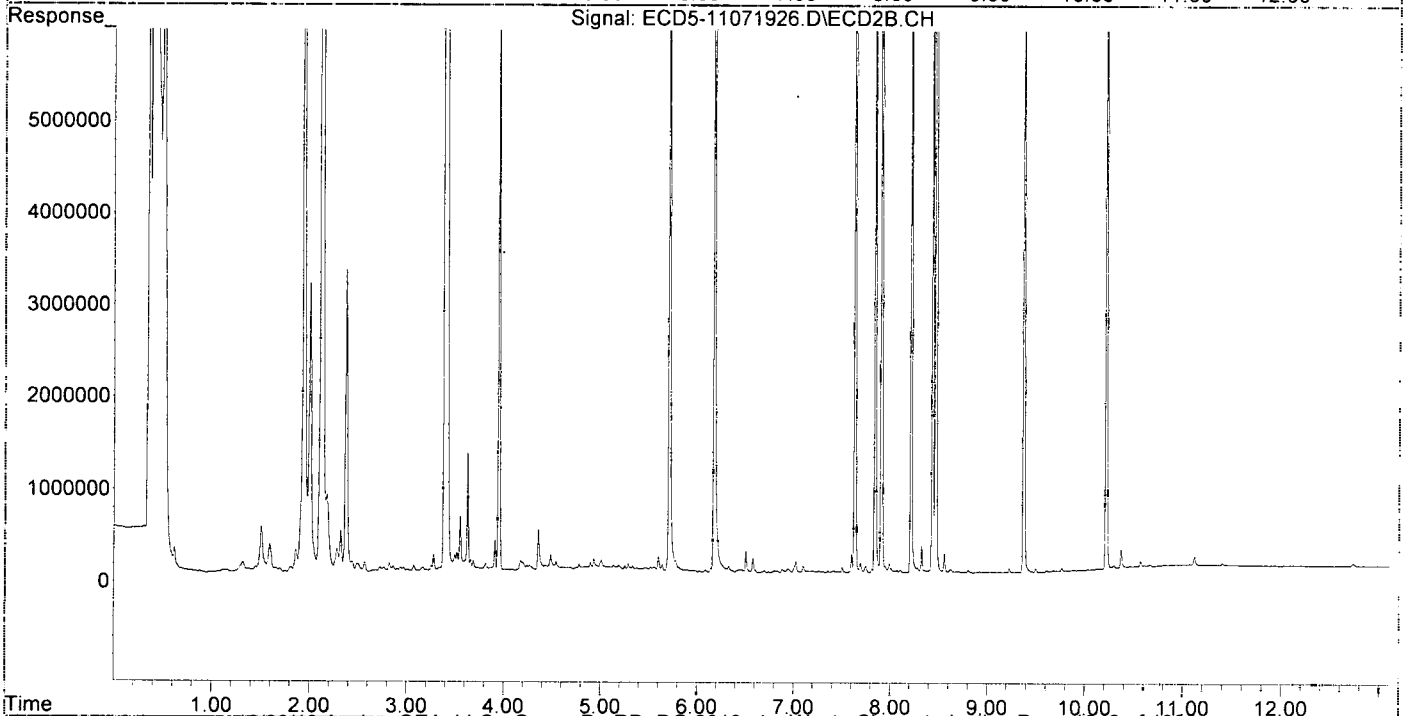
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071926.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 18:34
Operator : MJB
Sample : 9110425-BS2
Misc : 1x, 2,4+4,4-DDx Only, GPC
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: Nov 08 09:44:38 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\2019-11\9K07024\
Data File : ECD5-11071934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 20:51
Operator : MJB
Sample : 9K07024-CCV6
Misc : A19H384, AB 100 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: Nov 08 10:35:16 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/8/19

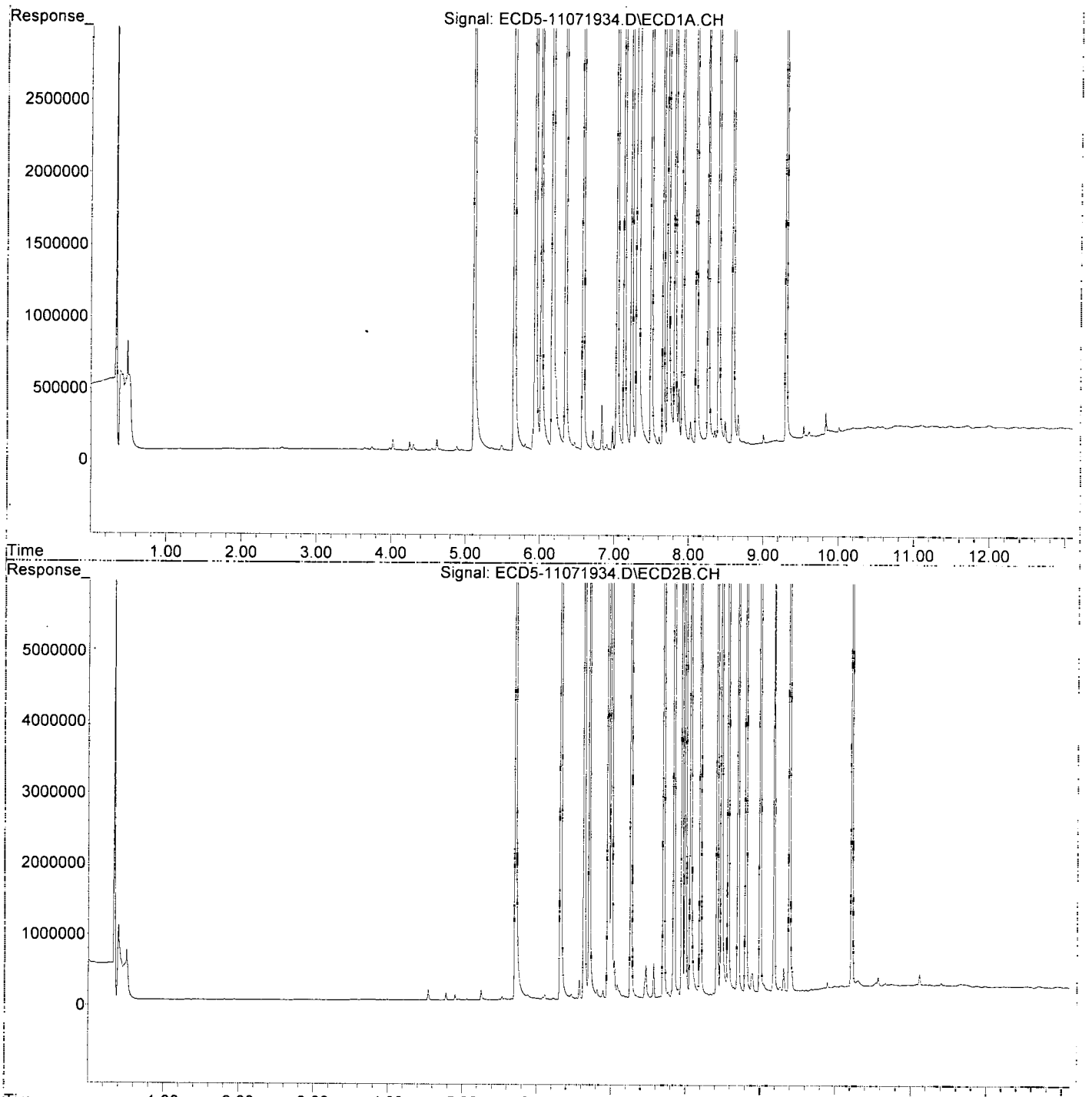
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.114	5.710	17364668	28470851	104.622	~~97.049~~	
22)	S	DCBP (S)	9.304	10.218	13870229	21862841	98.302	121.620	Q-M
		Target Compounds							
2)		a-BHC	5.652	6.318	24717447	45957098	107.782	111.998	
3)		g-BHC	5.936	6.636	20945416	39950851	103.805	112.000	
4)		b-BHC	6.017	6.705	7134149	14935555	78.932	94.370	
5)		Heptachlor	6.343	7.004	20360627	37918649	112.306	123.926	
6)		d-BHC	6.165	6.956	17567113	35537618	89.314	100.769	
7)		Aldrin	6.581	7.265	21391984	36934263	108.344	112.128	
8)		Heptachlo...	7.041	7.704	18676616	33410418	101.405	111.054	
9)		trans-Chl...	7.136	7.843	18481231	33289781	99.957	106.247	
10)		cis-Chlor...	7.233	7.950	18590491	31986132	102.106	109.825	
11)		Endosulfa...	7.326	7.998	18703995	29697603	109.907	107.922	
12)		4,4'-DDE	7.304	8.065	17926618	31518891	95.086m	101.452	
13)		Dieldrin	7.498	8.198	20591809	34360940	107.261	112.974	
14)		Endrin	7.661	8.422	17238770	28299104	117.249	125.313	
15)		4,4'-DDD	7.724	8.479	14725142	27232334	93.707	106.288	
16)		Endosulfa...	7.816	8.570	15146084	26067476	105.466	113.039	
17)		4,4'-DDT	7.919	8.702	12536228	20867524	104.853	101.762	
18)		Endrin Al...	8.105	8.807	13546325	22139628	107.422	106.751	
19)		Endosulfa...	8.404	8.997	15820390	28121640	102.082	112.899	
20)		Methoxychlor	8.263	9.184	6079077	10575942	103.784	106.234	
21)		Endrin Ke...	8.595	9.390	17579362	29962566	105.418	116.443	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.485	0.000	33412	0	0.190	N.D.	#
25)		Oxychlordane	6.978	7.643	169438	16072	1.030	0.059	#
26)		2,4'-DDE	7.041	7.843	18676616	33289781	145.614	156.925	
27)		trans-Non...	7.233	7.903	18590491	106429	103.570	0.353	#
28)		2,4'-DDD	0.000	8.198	0	34360940	N.D.	181.935	#
29)		2,4'-DDT	7.605	8.422	78813	28299104	0.719	158.681	#
30)		cis-Nonac...	7.724f	8.479	14725142	27232334	70.925	81.182	
31)		Mirex	8.352	9.390	107035	29962566	0.854	161.026	#
32)		Chlordane...	7.233	7.950	18590491	31986132	944.178	883.971	
33)		Chlordane...	7.326	8.065	18703995	31518891	746.241	1038.033	
34)		Chlordane...	0.000	8.702	0	20867524	N.D.	2327.438	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	8.372	0	28065	N.D.	10.695	#
37)		Toxaphene...	7.724f	8.702	14725142	20867524	9118.082	6340.737	
38)		Toxaphene...	8.025	0.000	173092	0	51.401	N.D.	#
39)		Toxaphene...	8.263	8.807	6079077	22139628	1876.170	2651.505	#
40)		Toxaphene...	8.491	8.997	168766	28121640	70.403	6034.223	#
41)		Toxaphene...	0.000	9.390	0	29962566	N.D.	6307.640	#
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 (QT Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 20:51
Operator : MJB
Sample : 9K07024-CCV6
Misc : A19H384, AB 100 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

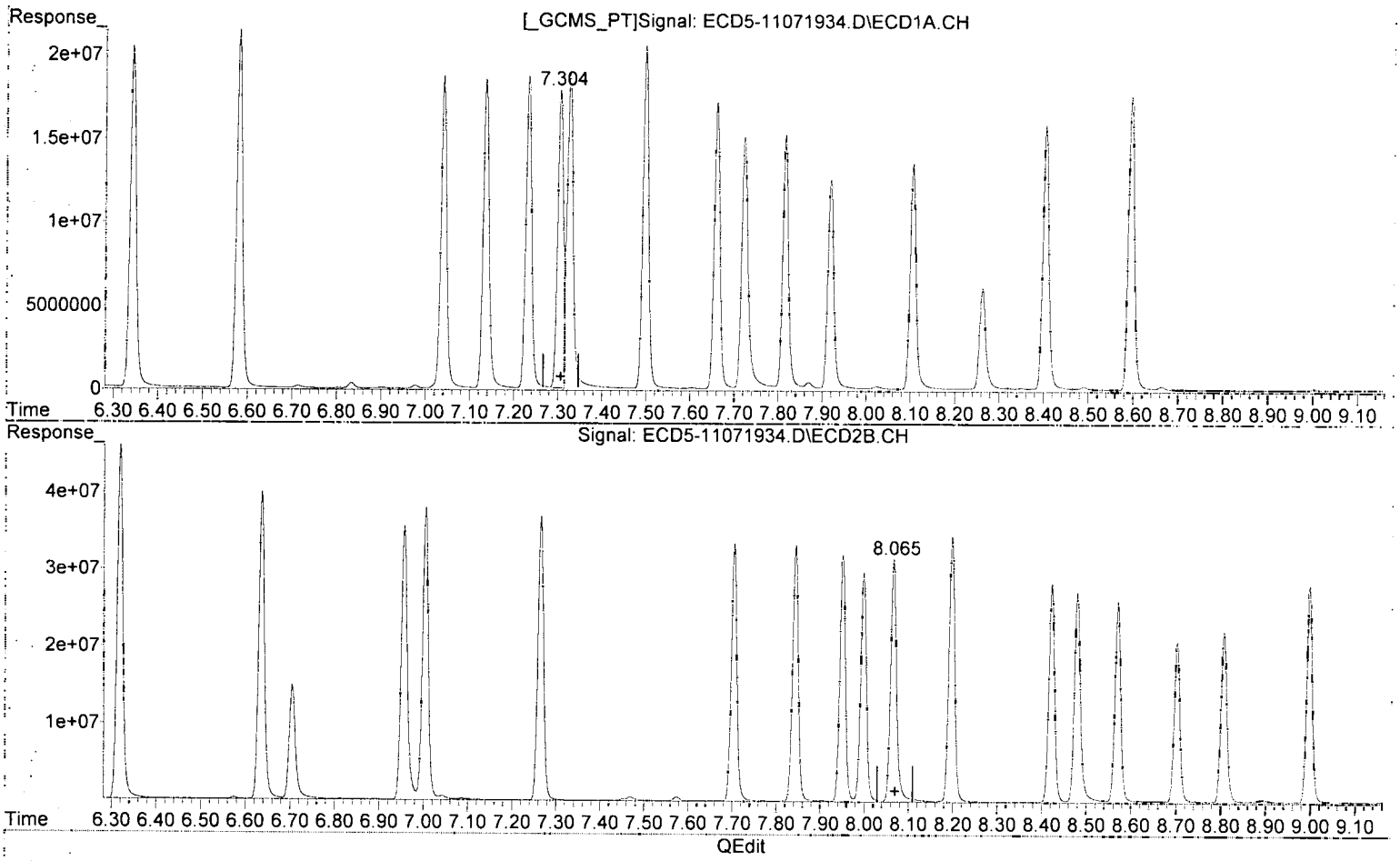
Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 08 10:35:16 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 20:51
Operator : MJB
Sample : 9K07024-CCV6
Misc : A19H384, AB 100 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: Nov 08 09:45:33 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.304min 95.086 ng/mL (m)

response 17926618

MJB 11/8/19

(12) 4,4'-DDE #2

8.065min 101.452 ng/mL

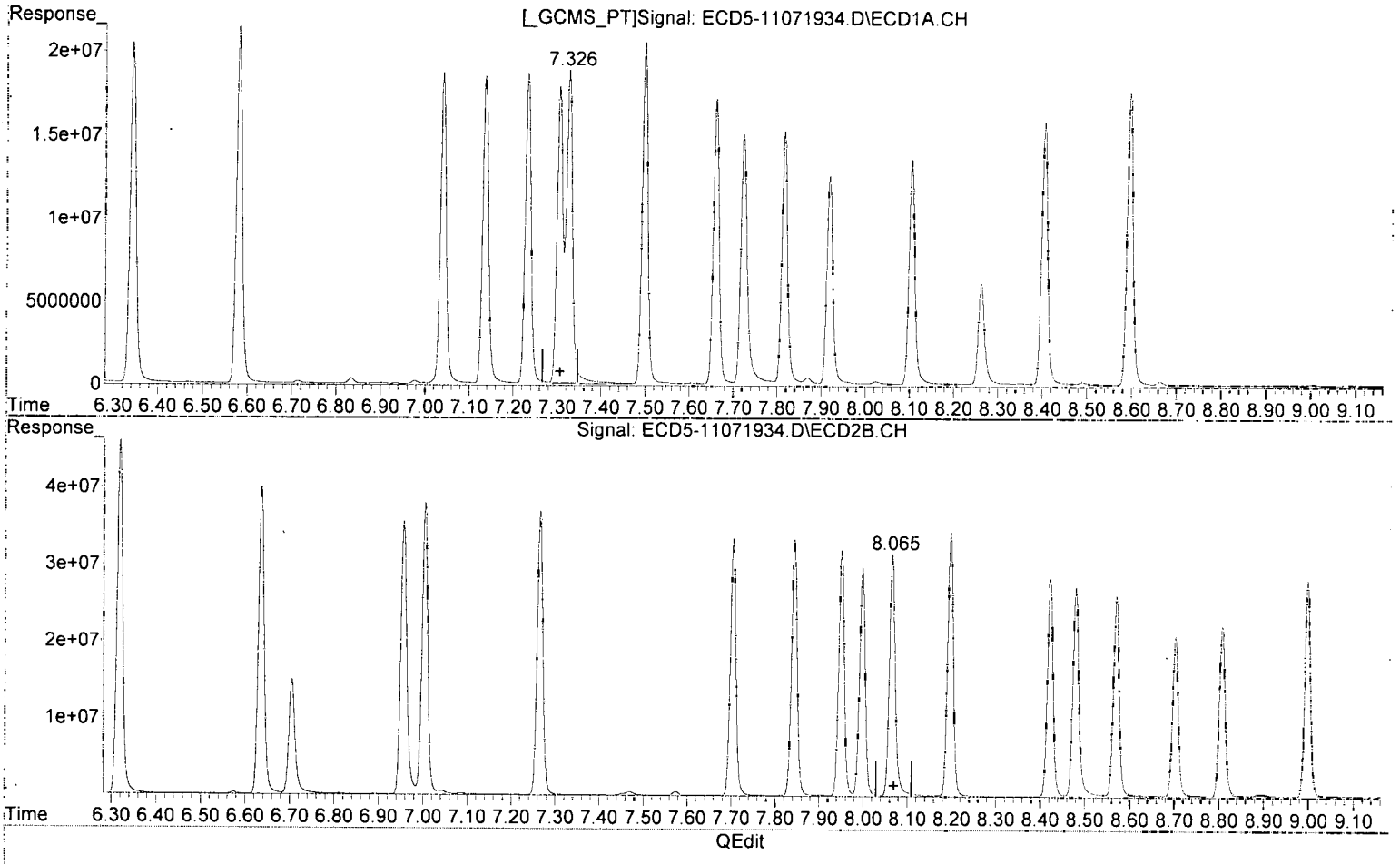
response 31518891

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 20:51
Operator : MJB
Sample : 9K07024-CCV6
Misc : A19H384, AB 100 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: Nov 08 09:45:33 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.326min 99.210 ng/mL

response 18703995

MJB 11/8/19

(12) 4,4'-DDE #2

8.065min 101.452 ng/mL

response 31518891

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 20:51
Operator : MJB
Sample : 9K07024-CCV6
Misc : A19H384, AB 100 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: Nov 08 09:45:33 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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

MT MJB 11/8/19

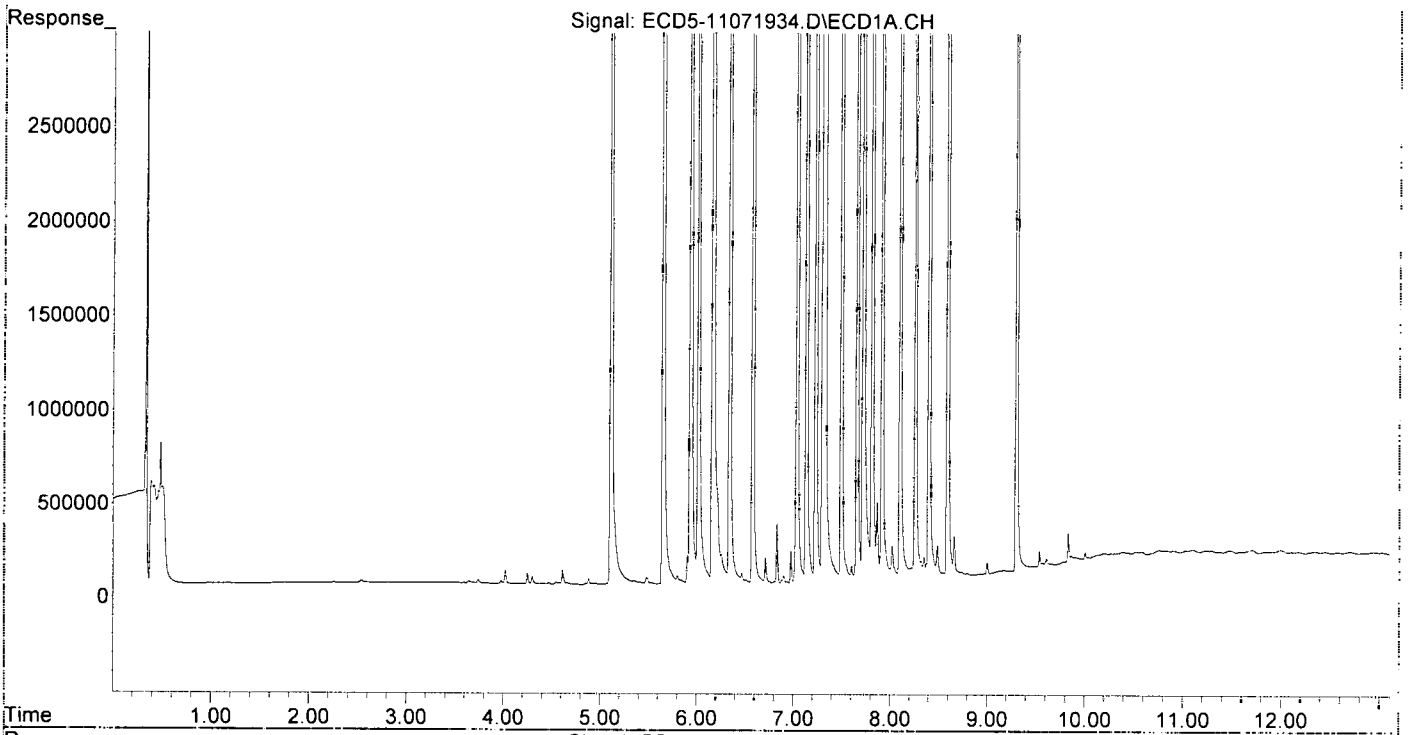
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.114	5.710	17364668	28470851	104.622	97.049	
22)	S	DCBP (S)	9.304	10.218	13870229	21862841	98.302	121.620	
		Target Compounds							
2)		a-BHC	5.652	6.318	24717447	45957098	107.782	111.998	
3)		g-BHC	5.936	6.636	20945416	39950851	103.805	112.000	
4)		b-BHC	6.017	6.705	7134149	14935555	78.932	94.370	
5)		Heptachlor	6.343	7.004	20360627	37918649	112.306	123.926	
6)		d-BHC	6.165	6.956	17567113	35537618	89.314	100.769	
7)		Aldrin	6.581	7.265	21391984	36934263	108.344	112.128	
8)		Heptachlo...	7.041	7.704	18676616	33410418	101.405	111.054	
9)		trans-Chl...	7.136	7.843	18481231	33289781	99.957	106.247	
10)		cis-Chlor...	7.233	7.950	18590491	31986132	102.106	109.825	
11)		Endosulfa...	7.326	7.998	18703995	29697603	109.907	107.922	
12)		4,4'-DDE	7.326	8.065	18703995	31518891	99.210	101.452	
13)		Dieldrin	7.498	8.198	20591809	34360940	107.261	112.974	
14)		Endrin	7.661	8.422	17238770	28299104	117.249	125.313	
15)		4,4'-DDD	7.724	8.479	14725142	27232334	93.707	106.288	
16)		Endosulfa...	7.816	8.570	15146084	26067476	105.466	113.039	
17)		4,4'-DDT	7.919	8.702	12536228	20867524	104.853	101.762	
18)		Endrin Al...	8.105	8.807	13546325	22139628	107.422	106.751	
19)		Endosulfa...	8.404	8.997	15820390	28121640	102.082	112.899	
20)		Methoxychlor	8.263	9.184	6079077	10575942	103.784	106.234	
21)		Endrin Ke...	8.595	9.390	17579362	29962566	105.418	116.443	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.485	0.000	33412	0	0.190	N.D.	#
25)		Oxychlordane	6.978	7.643	169438	16072	1.030	0.059	#
26)		2,4'-DDE	7.041	7.843	18676616	33289781	145.614	156.925	
27)		trans-Non...	7.233	7.903	18590491	106429	103.570	0.353	#
28)		2,4'-DDD	0.000	8.198	0	34360940	N.D.	181.935	#
29)		2,4'-DDT	7.605	8.422	78813	28299104	0.719	158.681	#
30)		cis-Nonac...	7.724f	8.479	14725142	27232334	70.925	81.182	
31)		Mirex	8.352	9.390	107035	29962566	0.854	161.026	#
32)		Chlordane...	7.233	7.950	18590491	31986132	944.178	883.971	
33)		Chlordane...	7.326	8.065	18703995	31518891	746.241	1038.033	
34)		Chlordane...	0.000	8.702	0	20867524	N.D.	2327.438	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	8.372	0	28065	N.D.	10.695	#
37)		Toxaphene...	7.724f	8.702	14725142	20867524	9118.082	6340.737	
38)		Toxaphene...	8.025	0.000	173092	0	51.401	N.D.	#
39)		Toxaphene...	8.263	8.807	6079077	22139628	1876.170	2651.505	#
40)		Toxaphene...	8.491	8.997	168766	28121640	70.403	6034.223	#
41)		Toxaphene...	0.000	9.390	0	29962566	N.D.	6307.640	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

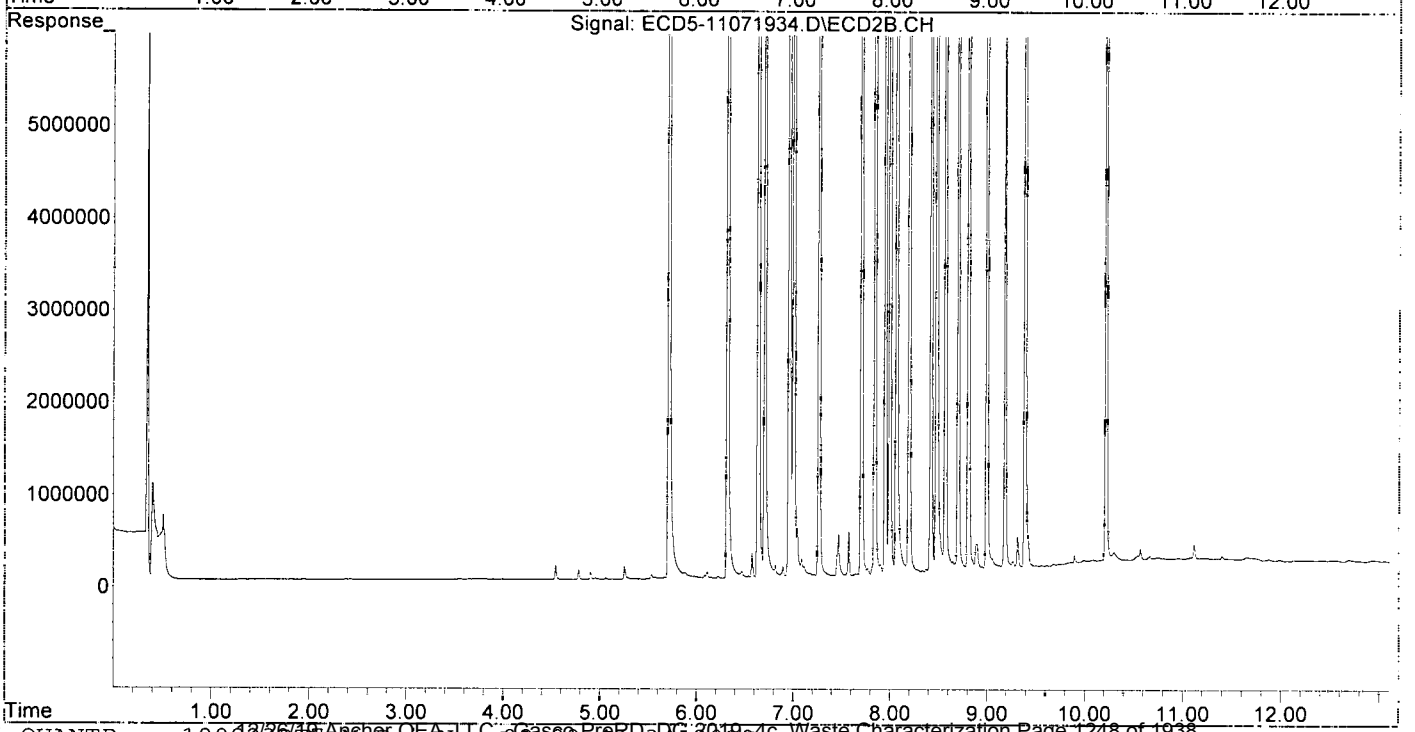
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 20:51
Operator : MJB
Sample : 9K07024-CCV6
Misc : A19H384, AB 100 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: Nov 08 09:45:33 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\9K07024\
Data File : ECD5-11071935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 21:08
Operator : MJB
Sample : 9K07024-CCV7
Misc : A19H384, AB 100 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: Nov 08 09:45:40 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 1/8/19

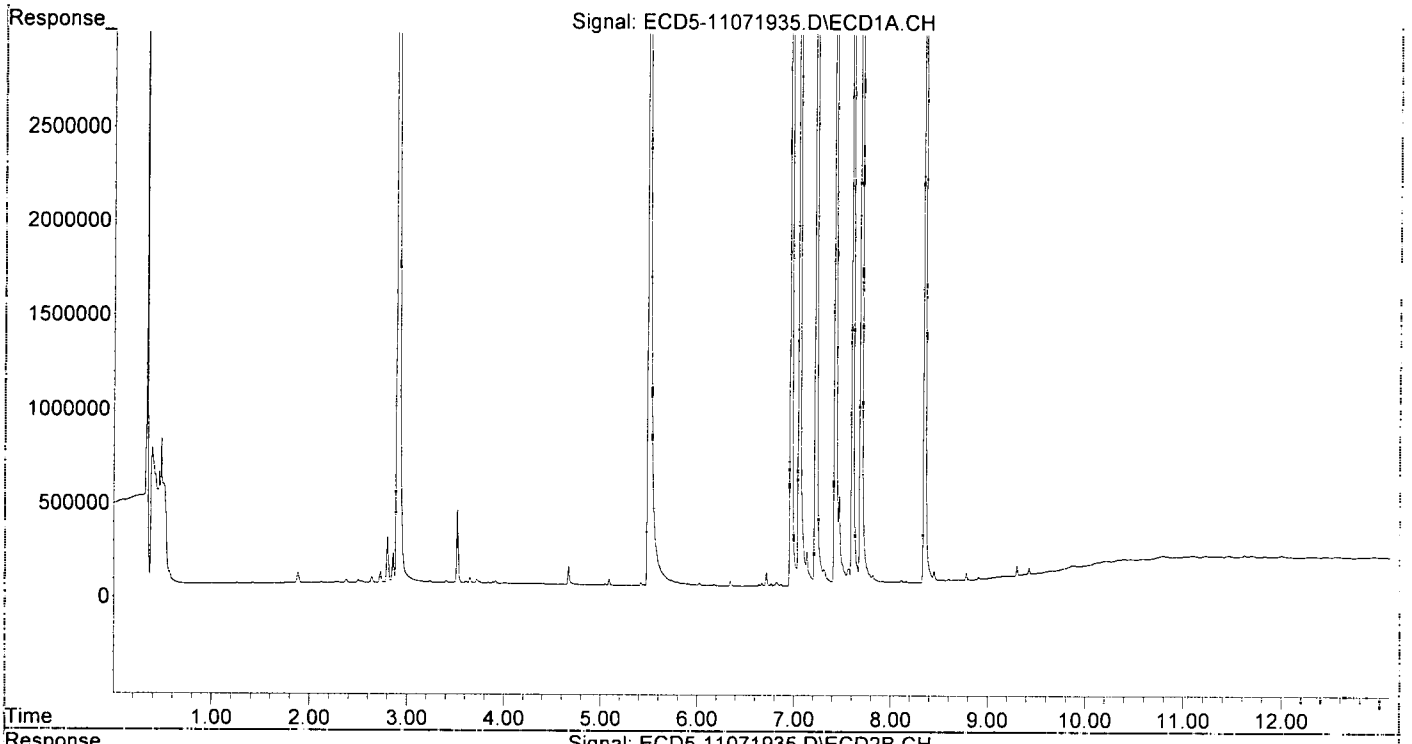
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.088f	0.000	32900	0	0.198	N.D.	#
22)	S	DCBP (S)	9.305	10.216	62683	130316	0.444	0.725	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.023	6.710	14319	8551	0.158	0.054	#
5)		Heptachlor	6.345	7.003	25717	44453	0.142	0.145	
6)		d-BHC	6.173	6.959	8551	14833	0.043	0.042	
7)		Aldrin	6.551f	7.263	3241	6515	0.016	0.020	
8)		Heptachlo...	7.055	7.701	11117933	91883	60.365	0.305	#
9)		trans-Chl...	7.136	7.843	179649	19405599	0.972	61.934	#
10)		cis-Chlor...	7.226	0.000	17442745	0	95.802	N.D.	#
11)		Endosulfa...	7.312	8.014	81393	70539	0.478	0.256	#
12)		4,4'-DDE	7.312	8.048f	81393	47008	0.432	0.151	#
13)		Dieldrin	7.470f	8.215	470610	17894671	2.451	58.835	#
14)		Endrin	7.693f	8.436	19994994	16386928	135.995	72.564	#
15)		4,4'-DDD	7.693f	8.469	19994994	34954519	127.243	136.427	
16)		Endosulfa...	7.819	8.564	44736	40155	0.312	0.174	#
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.113	8.808	14138	11309	BelowCal	BelowCal	
19)		Endosulfa...	0.000	8.998	0	10773	N.D.	0.043	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.599	9.373f	11532	18748593	0.069	72.862	#
23)		Hexachlor...	2.907	3.410	18531381	41287959	101.409	109.828	
24)		Hexachlor...	5.495	6.176	15393454	24935767	87.317	79.391	
25)		Oxychlordane	6.970	7.633	15605786	26575364	94.846	97.025	
26)		2,4'-DDE	7.055	7.843	11117933	19405599	86.682	91.476	
27)		trans-Non...	7.226	7.907	17442745	31040997	97.149	102.909	
28)		2,4'-DDD	7.425	8.215	10083275	17894671	88.353	94.749	
29)		2,4'-DDT	7.605	8.436	10052775	16386928	91.649	91.886	
30)		cis-Nonac...	7.693	8.469	19994994	34954519	96.308	104.202	
31)		Mirex	8.350	9.373	11446357	18748593	91.303	100.759	
32)		Chlordane...	7.226	7.907f	17442745	31040997	885.886	857.852	
33)		Chlordane...	7.312f	8.048	81393	47008	3.247	1.548	#
34)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	7.425f	8.352	10083275	43169	11258.085	16.450	#
37)		Toxaphene...	7.693	0.000	19994994	0	12381.273	N.D.	#
38)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
39)		Toxaphene...	0.000	8.808	0	11309	N.D.	1.354	#
40)		Toxaphene...	8.450f	8.998	56842	10773	23.713	2.312	#
41)		Toxaphene...	8.539	9.373	9013	18748593	2.848	3946.904	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

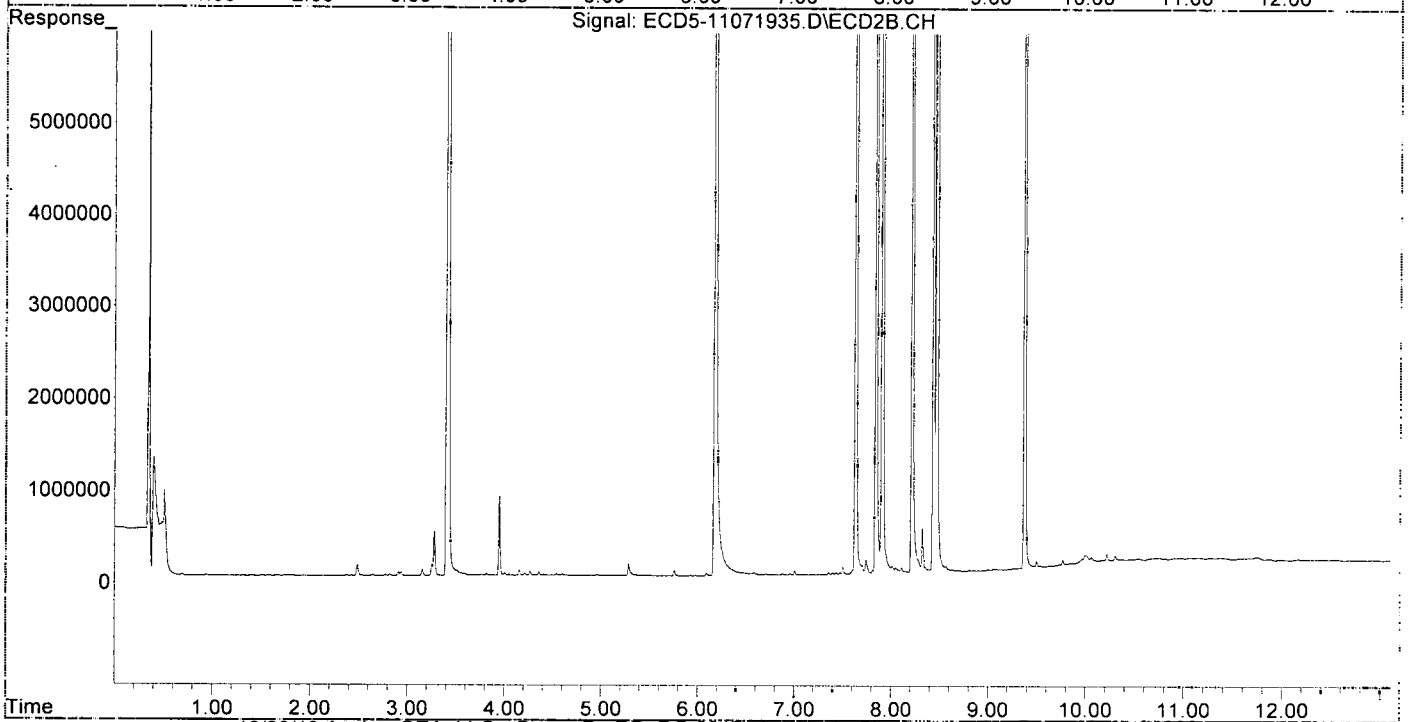
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 21:08
Operator : MJB
Sample : 9K07024-CCV7
Misc : A19H384, AB 100 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: Nov 08 09:45:40 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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\9K07024\
Data File : ECD5-11071936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 21:25
Operator : MJB
Sample : 9K07024-CCB4
Misc : A19K026
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 08 09:45:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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 11/8/19

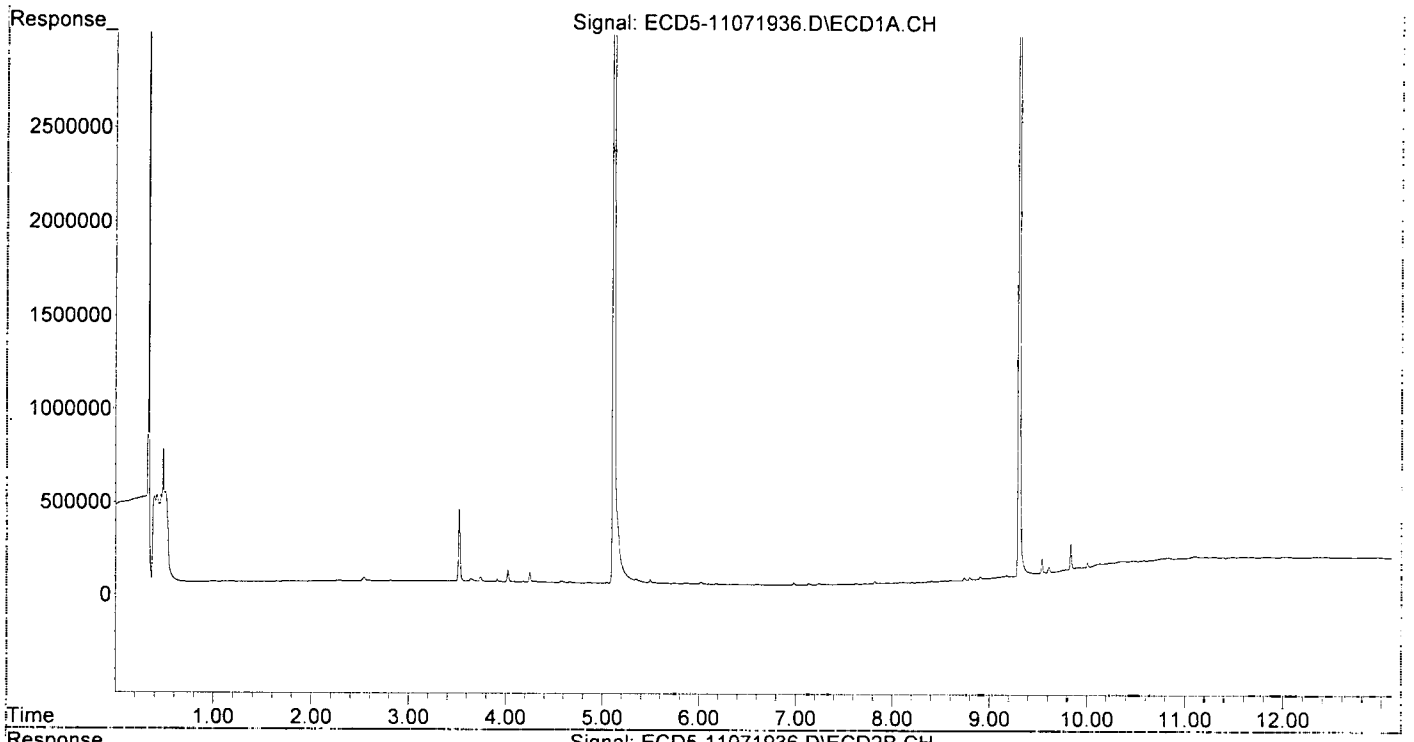
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.114	5.710	15065159	25356659	90.767	86.433	
22)	S	DCBP (S)	9.305	10.218	12519240	19064573	88.727	106.054	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.024	0.000	11710	0	0.130	N.D.	#
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.179	6.961	6511	13768	0.033	0.039	
7)		Aldrin	6.599	7.308f	4598	9050	0.023	0.027	
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	7.137	7.872f	10192	10919	0.055	0.035	
10)		cis-Chlor...	7.240	0.000	7919	0	0.043	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	7.627f	0.000	3118	0	0.021	N.D.	#
15)		4,4'-DDD	7.737	0.000	717	0	0.005	N.D.	#
16)		Endosulfa...	7.822	8.565	13579	18007	0.095	0.078	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.111	8.808	5348	11233	BelowCal	BelowCal	
19)		Endosulfa...	8.408	8.999	8640	12987	0.056	0.052	
20)		Methoxychlor	8.261	9.177	3488	5493	0.060	BelowCal	#
21)		Endrin Ke...	8.599	9.412	4949	16842	0.030	0.065	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.496	0.000	16410	0	0.093	N.D.	#
25)		Oxychlordane	6.982	7.606f	12425	20312	0.076	0.074	
26)		2,4'-DDE	0.000	7.872f	0	10919	N.D.	0.051	#
27)		trans-Non...	7.240	7.872f	7919	10919	87346.656	0.036	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	7.627f	0.000	3118	0	0.028	N.D.	#
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.365	9.412f	4089	16842	0.033	0.091	#
32)		Chlordane...	7.240	0.000	7919	0	0.402	N.D.	#
33)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
34)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.033f	0.000	3146	0	0.934	N.D.	#
39)		Toxaphene...	8.261	8.808	3488	11233	1.076	1.345	
40)		Toxaphene...	8.507f	8.999	3920	12987	1.635	2.787	#
41)		Toxaphene...	8.541	0.000	4813	0	1.521	N.D.	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

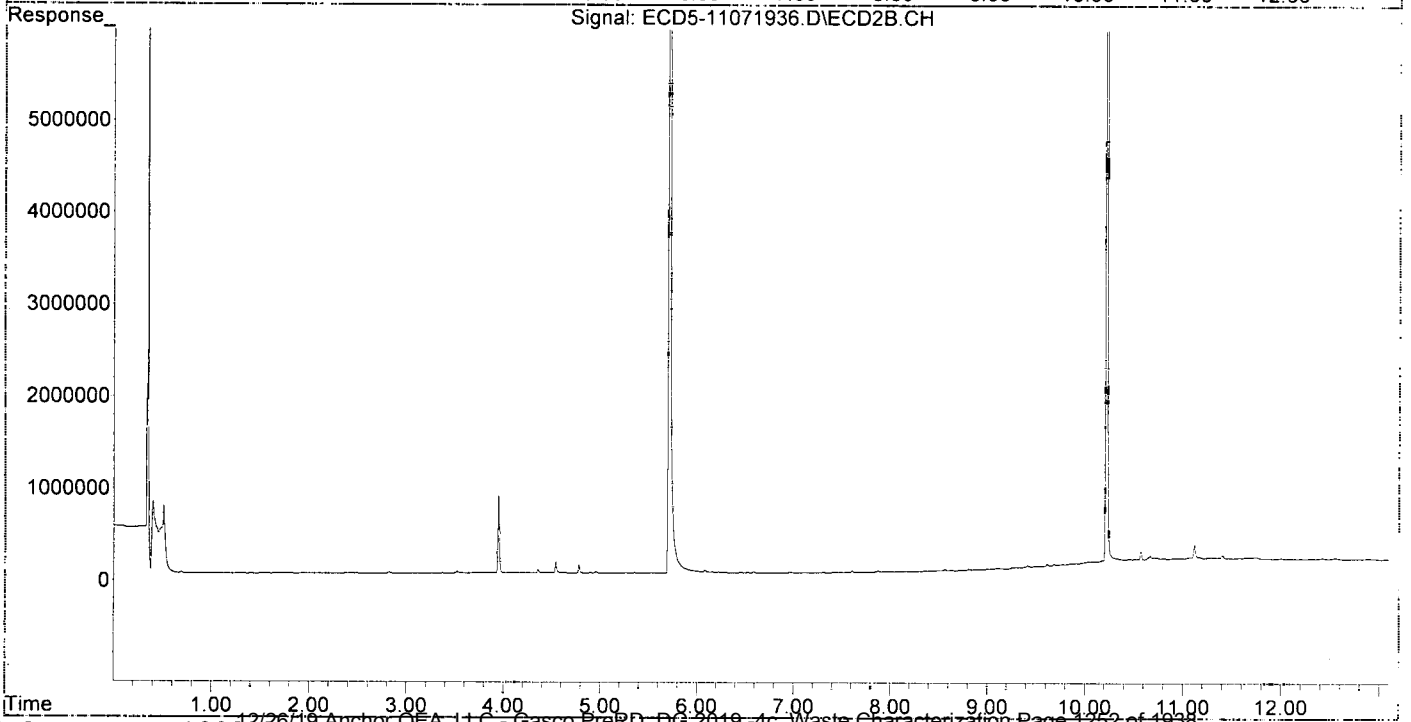
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 21:25
Operator : MJB
Sample : 9K07024-CCB4
Misc : A19K026
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 08 09:45:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.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) DualECD5R

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

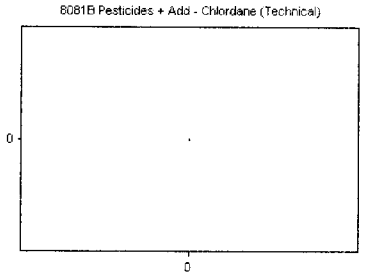
Element Calibration Review Sheet

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**

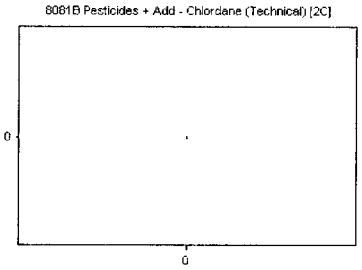


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALH~~	~~50~~	~~5365~~	~~107.300~~	~~3.45~~
~~9H23034-CALI~~	~~100~~	~~4938~~	~~49.380~~	~~3.45~~
~~9H23034-CALJ~~	~~200~~	~~4503~~	~~22.515~~	~~3.45~~
~~9H23034-CALK~~	~~500~~	~~4056~~	~~8.112~~	~~3.45~~
~~9H23034-CALL~~	~~1000~~	~~4825~~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

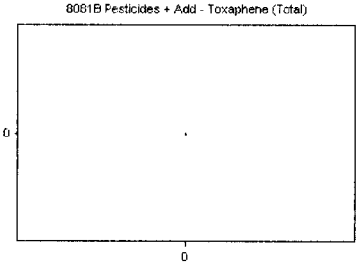


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALH~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALI~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALJ~~	~~200~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALK~~	~~500~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALL~~	~~1000~~	~~0~~	~~0.000~~	~~0.00~~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

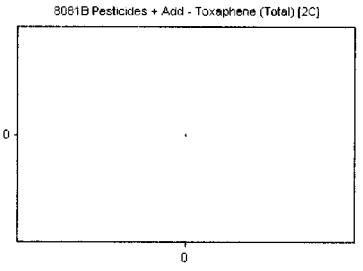


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALN~~	~~50~~	~~4023~~	~~80.460~~	~~3.45~~
~~9H23034-CALO~~	~~100~~	~~3536~~	~~35.360~~	~~3.45~~
~~9H23034-CALP~~	~~200~~	~~3919~~	~~19.595~~	~~3.45~~
~~9H23034-CALQ~~	~~500~~	~~4132~~	~~8.264~~	~~3.45~~
~~9H23034-CALR~~	~~1000~~	~~2687~~	~~2.687~~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

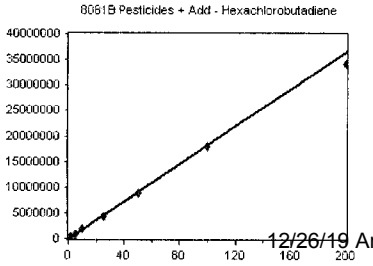


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALN~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALO~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALP~~	~~200~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALQ~~	~~500~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALR~~	~~1000~~	~~0~~	~~0.000~~	~~0.00~~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

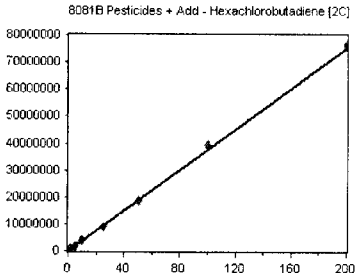
Element Calibration Review Sheet

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**

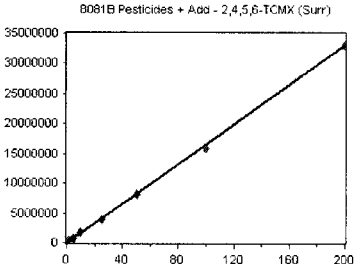


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	383198	383198.000	3.69
9H23034-CALA	2	754548	377274.000	3.69
9H23034-CALB	5	1877484	375496.800	3.69
9H23034-CALC	10	3701532	370153.200	3.69
9H23034-CALD	25	8892238	355689.500	3.69
9H23034-CALE	50	863562E+07	372712.400	3.69
9H23034-CALF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

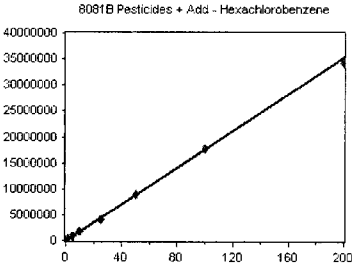


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176748	176748.000	5.40
9H23034-CAL2	2	349972	174986.000	5.40
9H23034-CAL3	5	834206	166841.200	5.40
9H23034-CAL4	10	1644447	164444.700	5.40
9H23034-CAL5	25	4015832	160633.300	5.39
9H23034-CAL6	50	8071481	161429.600	5.39
9H23034-CAL7	100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

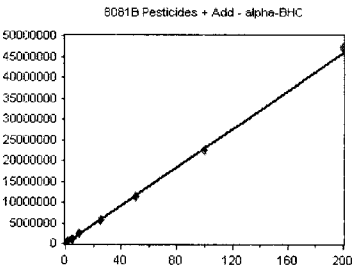


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	194679	194679.000	5.78
9H23034-CALA	2	362082	181041.000	5.78
9H23034-CALB	5	853793	170758.600	5.78
9H23034-CALC	10	1711884	171188.400	5.77
9H23034-CALD	25	4184551	167382.000	5.77
9H23034-CALE	50	8911624	178232.500	5.77
9H23034-CALF	100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

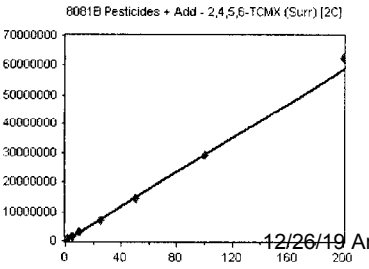


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	231994	231994.000	5.94
9H23034-CAL2	2	458365	229182.500	5.94
9H23034-CAL3	5	1147932	229586.400	5.94
9H23034-CAL4	10	2347065	234706.500	5.94
9H23034-CAL5	25	5553096	222123.800	5.94
9H23034-CAL6	50	136959E+07	227391.800	5.94
9H23034-CAL7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

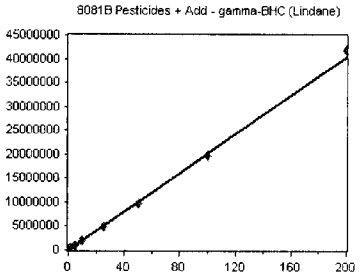
Element Calibration Review Sheet

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**

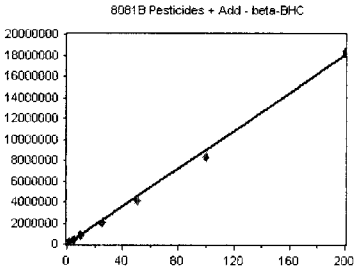


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	207427	207427.000	6.22
9H23034-CAL2	2	406027	203013.500	6.22
9H23034-CAL3	5	1020724	204144.800	6.22
9H23034-CAL4	10	2034859	203485.900	6.22
9H23034-CAL5	25	4875657	195026.300	6.22
9H23034-CAL6	50	9785999	195720.000	6.22
9H23034-CAL7	100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

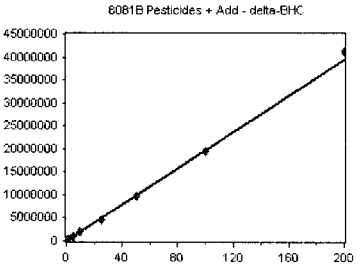


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	104326	104326.000	6.30
9H23034-CAL2	2	194168	97084.000	6.30
9H23034-CAL3	5	456954	91390.800	6.30
9H23034-CAL4	10	910875	91087.500	6.30
9H23034-CAL5	25	2060378	82415.120	6.30
9H23034-CAL6	50	4100858	82017.160	6.30
9H23034-CAL7	100	8355416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

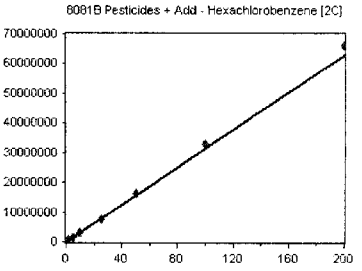


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	199840	199840.000	6.45
9H23034-CAL2	2	386980	193490.000	6.45
9H23034-CAL3	5	1004012	200802.400	6.45
9H23034-CAL4	10	2006493	200649.300	6.45
9H23034-CAL5	25	4667166	186686.600	6.45
9H23034-CAL6	50	9610742	192214.800	6.45
9H23034-CAL7	100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

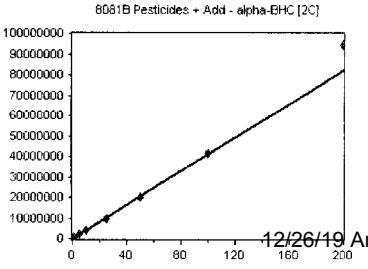


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	328025	328025.000	6.45
9H23034-CALA	2	632830	316415.000	6.45
9H23034-CALB	5	1485583	297116.600	6.45
9H23034-CALC	10	2936294	293629.400	6.45
9H23034-CALD	25	7416324	296653.000	6.45
9H23034-CALE	50	309416E+07	321883.200	6.45
9H23034-CALF	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 **6.44** AVE RT **6.60**

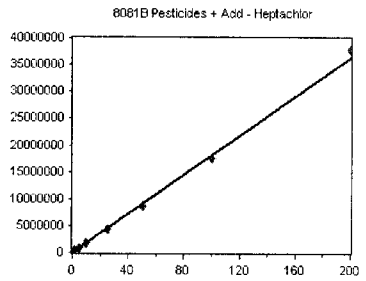
Element Calibration Review Sheet

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**

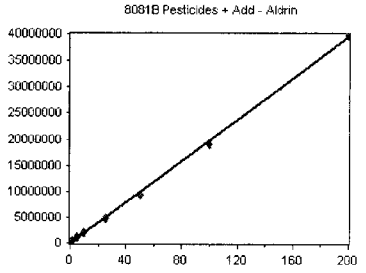


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	192066	192066.000	6.64
9H23034-CAL2	2	369615	184807.500	6.64
9H23034-CAL3	5	899091	179818.200	6.64
9H23034-CAL4	10	1819621	181962.100	6.63
9H23034-CAL5	25	4314306	172572.200	6.63
9H23034-CAL6	50	8735158	174703.200	6.63
9H23034-CAL7	100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

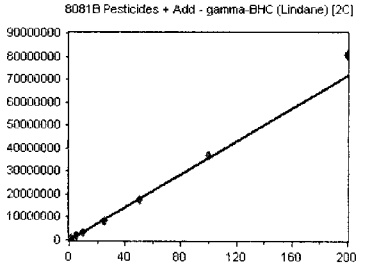


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	205523	205523.000	6.88
9H23034-CAL2	2	399550	199775.000	6.88
9H23034-CAL3	5	1012733	202546.600	6.88
9H23034-CAL4	10	2010802	201080.200	6.88
9H23034-CAL5	25	4845355	193814.200	6.87
9H23034-CAL6	50	9327672	186553.400	6.87
9H23034-CAL7	100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

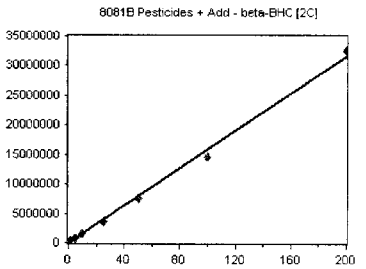


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	352286	352286.000	6.92
9H23034-CAL2	2	690922	345461.000	6.92
9H23034-CAL3	5	1742677	348535.400	6.92
9H23034-CAL4	10	3476733	347673.300	6.92
9H23034-CAL5	25	8508386	340335.400	6.91
9H23034-CAL6	50	738107E+07	347621.400	6.91
9H23034-CAL7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

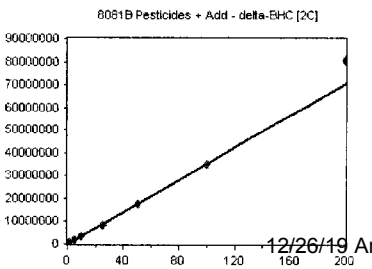


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176262	176262.000	6.98
9H23034-CAL2	2	335260	167630.000	6.98
9H23034-CAL3	5	788630	157726.000	6.98
9H23034-CAL4	10	1580847	158084.700	6.98
9H23034-CAL5	25	3677155	147086.200	6.98
9H23034-CAL6	50	7516011	150320.200	6.98
9H23034-CAL7	100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

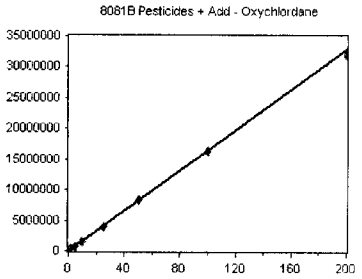
AVE RF **352665.900** RF RSD **6.66** AVE RT **7.23**

Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Oxychlordane

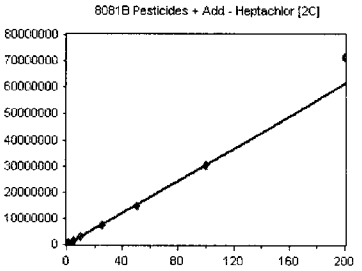


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	176844	176844.000	7.26
9H23034-CALA	2	339370	169685.000	7.26
9H23034-CALB	5	819748	163949.600	7.26
9H23034-CALC	10	1591613	159161.300	7.26
9H23034-CALD	25	3881255	155250.200	7.26
9H23034-CALE	50	8382873	167657.500	7.26
9H23034-CALF	100	535922E+07	163592.200	7.26
9H23034-CALG	200	203263E+07	160163.200	7.26

AVE RF **164537.900** RF RSD **4.13** AVE RT **7.26**

Heptachlor [2C]

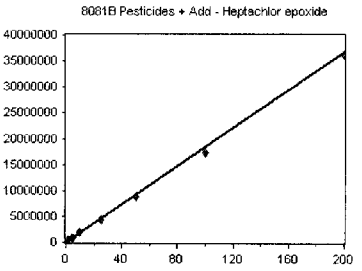


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	309811	309811.000	7.29
9H23034-CAL2	2	586765	293382.500	7.29
9H23034-CAL3	5	1508218	301643.600	7.29
9H23034-CAL4	10	3005915	300591.500	7.29
9H23034-CAL5	25	7282282	291291.300	7.29
9H23034-CAL6	50	459514E+07	291902.800	7.29
9H23034-CAL7	100	027782E+07	302778.200	7.29
9H23034-CAL8	200	128318E+07	356415.900	7.29

AVE RF **305977.100** RF RSD **6.98** AVE RT **7.29**

Heptachlor epoxide

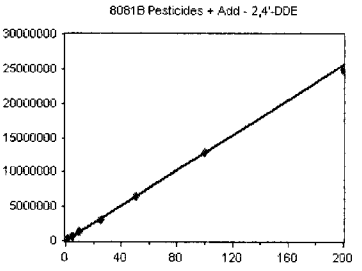


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	200503	200503.000	7.34
9H23034-CAL2	2	392052	196026.000	7.34
9H23034-CAL3	5	923620	184724.000	7.34
9H23034-CAL4	10	1865428	186542.800	7.34
9H23034-CAL5	25	4344286	173771.400	7.33
9H23034-CAL6	50	8869300	177386.000	7.33
9H23034-CAL7	100	731844E+07	173184.400	7.33
9H23034-CAL8	200	625817E+07	181290.800	7.33

AVE RF **184178.600** RF RSD **5.42** AVE RT **7.33**

2,4'-DDE

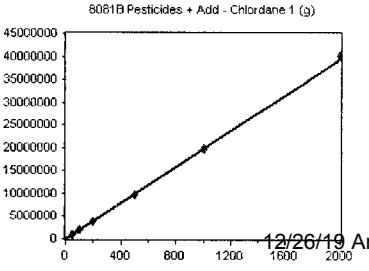


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	137947	137947.000	7.34
9H23034-CALA	2	265212	132606.000	7.33
9H23034-CALB	5	633168	126633.600	7.33
9H23034-CALC	10	1245265	124526.500	7.33
9H23034-CALD	25	3059421	122376.800	7.33
9H23034-CALE	50	6510588	130211.800	7.33
9H23034-CALF	100	276907E+07	127690.700	7.33
9H23034-CALG	200	1.48192E+07	124096.000	7.33

AVE RF **128261.100** RF RSD **4.01** AVE RT **7.33**

Chlordane 1 (g)



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1009143	20182.860	7.43
9H23034-CALI	100	1978897	19788.970	7.43
9H23034-CALJ	200	3849299	19246.490	7.43
9H23034-CALK	500	9628671	19257.340	7.43
9H23034-CALL	1000	964377E+07	19643.770	7.43
9H23034-CALM	2000	1.00365E+07	20018.250	7.43

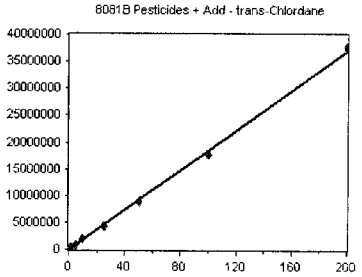
AVE RF **19589.610** RF RSD **1.96** AVE RT **7.43**

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

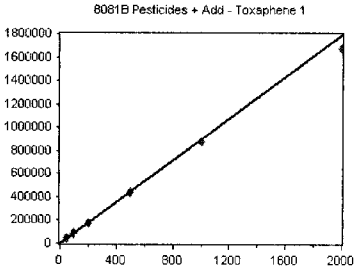


Curve Fit: **AVERAGE RF**

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

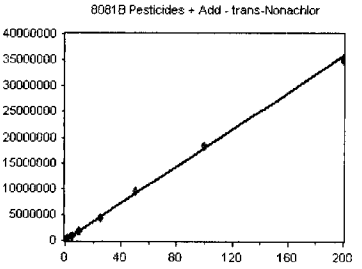


Curve Fit: **AVERAGE RF**

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

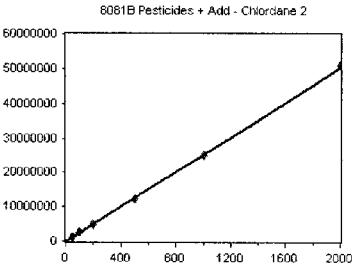


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

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

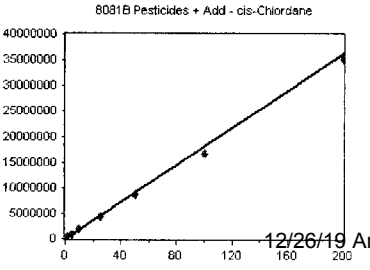


Curve Fit: **AVERAGE RF**

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 **7.86** AVE RT **7.53**

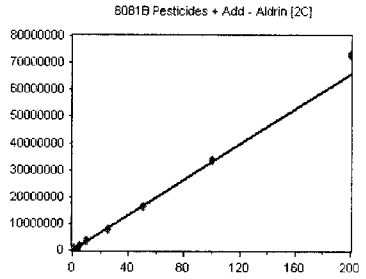
Element Calibration Review Sheet

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**

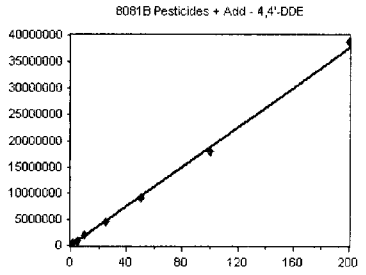


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	317466	317466.000	7.56
9H23034-CAL2	2	635458	317729.000	7.56
9H23034-CAL3	5	1600995	320199.000	7.56
9H23034-CAL4	10	3341093	334109.300	7.56
9H23034-CAL5	25	7878574	315143.000	7.56
9H23034-CAL6	50	526442E+07	325288.400	7.56
9H23034-CAL7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

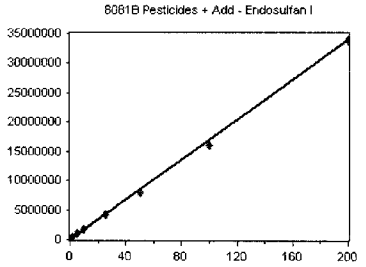


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	193435	193435.000	7.59
9H23034-CAL2	2	388618	194309.000	7.59
9H23034-CAL3	5	953351	190670.200	7.59
9H23034-CAL4	10	1890931	189093.100	7.59
9H23034-CAL5	25	4571066	182842.600	7.58
9H23034-CAL6	50	9177389	183547.800	7.58
9H23034-CAL7	100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

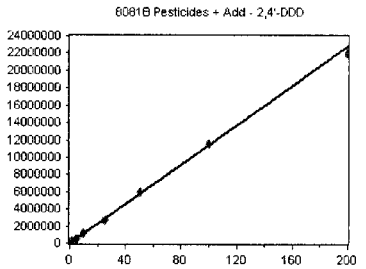


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	185217	185217.000	7.63
9H23034-CAL2	2	357368	178684.000	7.63
9H23034-CAL3	5	861509	172301.800	7.62
9H23034-CAL4	10	1709332	170933.200	7.62
9H23034-CAL5	25	4111285	164451.400	7.62
9H23034-CAL6	50	7984410	159688.200	7.62
9H23034-CAL7	100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

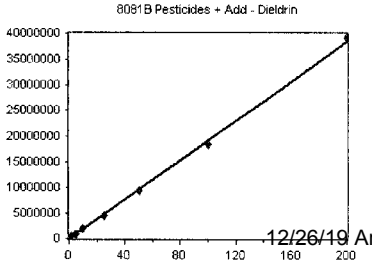


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	120240	120240.000	7.71
9H23034-CALA	2	233089	116544.500	7.71
9H23034-CALB	5	560942	112188.400	7.71
9H23034-CALC	10	1103587	110358.700	7.71
9H23034-CALD	25	2745178	109807.100	7.71
9H23034-CALE	50	5920095	118401.900	7.71
9H23034-CALF	100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

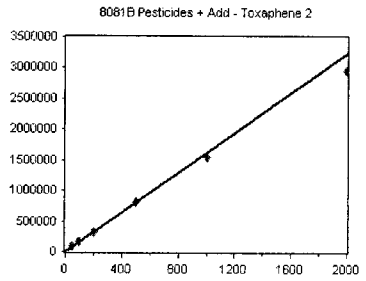
AVE RF **191979.300** RF RSD **3.25** AVE RT **7.79**

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

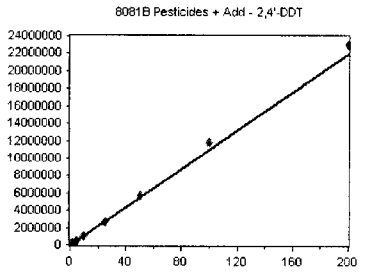


Curve Fit: **AVERAGE RF**

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

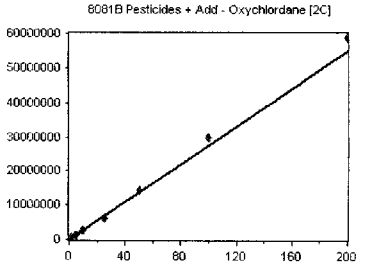


Curve Fit: **AVERAGE RF**

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]

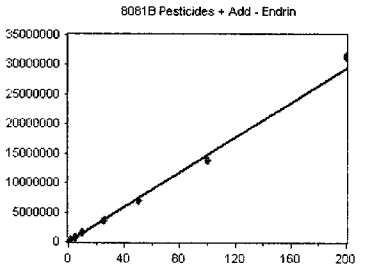


Curve Fit: **AVERAGE RF**

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

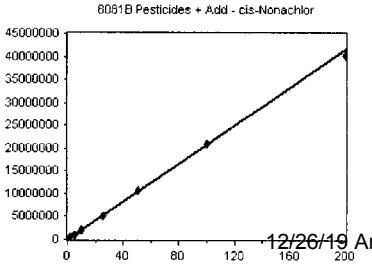


Curve Fit: **AVERAGE RF**

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 **207615.500** RF RSD **3.25** AVE RT **7.99**

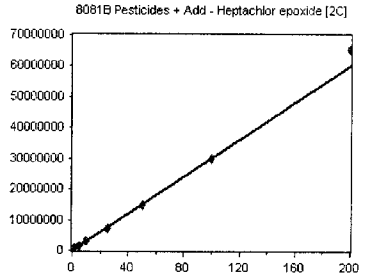
Element Calibration Review Sheet

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**

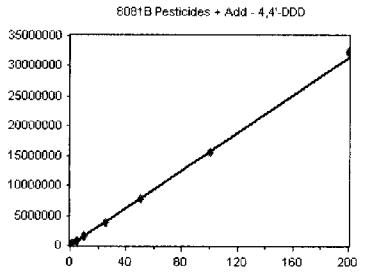


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	310098	310098.000	7.99
9H23034-CAL2	2	606240	303120.000	7.99
9H23034-CAL3	5	1455941	291188.200	7.99
9H23034-CAL4	10	2959301	295930.100	7.99
9H23034-CAL5	25	7064729	282589.200	7.99
9H23034-CAL6	50	483779E+07	296755.800	7.99
9H23034-CAL7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

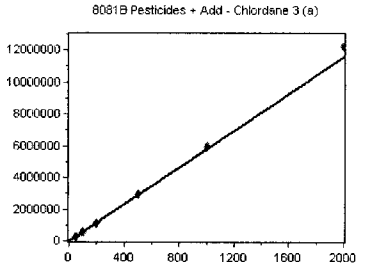


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	164956	164956.000	8.01
9H23034-CAL2	2	314622	157311.000	8.01
9H23034-CAL3	5	790498	158099.600	8.01
9H23034-CAL4	10	1565974	156597.400	8.01
9H23034-CAL5	25	3727035	149081.400	8.00
9H23034-CAL6	50	7726197	154523.900	8.00
9H23034-CAL7	100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

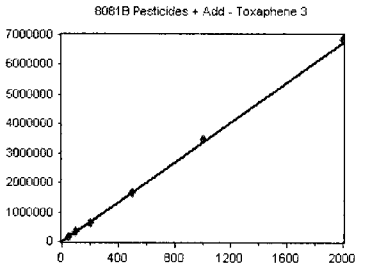


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	288087	5761.740	8.07
9H23034-CALI	100	548196	5481.960	8.07
9H23034-CALJ	200	1101677	5508.385	8.07
9H23034-CALK	500	2921278	5842.556	8.07
9H23034-CALL	1000	5987927	5987.927	8.07
9H23034-CALM	2000	220831E+07	6104.155	8.07

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

Toxaphene 3

Curve Fit: **AVERAGE RF**

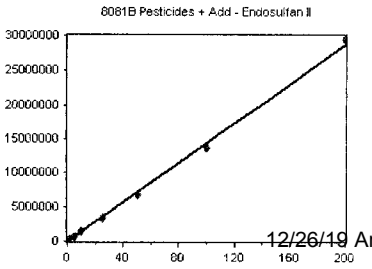


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	169381	3387.620	8.11
9H23034-CALO	100	332842	3328.420	8.11
9H23034-CALP	200	644464	3222.320	8.11
9H23034-CALQ	500	1677481	3354.962	8.11
9H23034-CALR	1000	3495877	3495.877	8.11
9H23034-CALS	2000	6831460	3415.730	8.10

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**

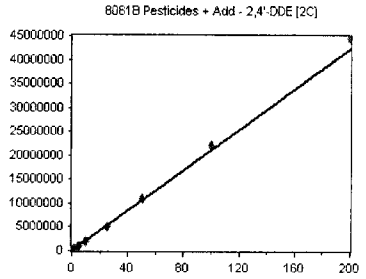
Element Calibration Review Sheet

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**

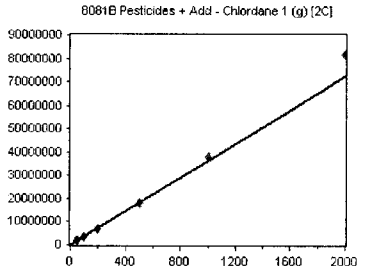


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	219164	219164.000	8.12
9H23034-CALA	2	411812	205906.000	8.12
9H23034-CALB	5	1029687	205937.400	8.12
9H23034-CALC	10	2018331	201833.100	8.12
9H23034-CALD	25	4999232	199969.300	8.12
9H23034-CALE	50	.10064E+07	220128.000	8.12
9H23034-CALF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

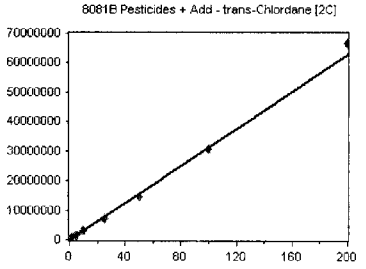


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1754707	35094.140	8.13
9H23034-CALI	100	3378388	33783.880	8.13
9H23034-CALJ	200	6751197	33755.980	8.13
9H23034-CALK	500	783043E+07	35660.860	8.13
9H23034-CALL	1000	796674E+07	37966.740	8.13
9H23034-CALM	2000	169171E+07	40845.860	8.13

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

trans-Chlordane [2C]

Curve Fit: **AVERAGE RF**

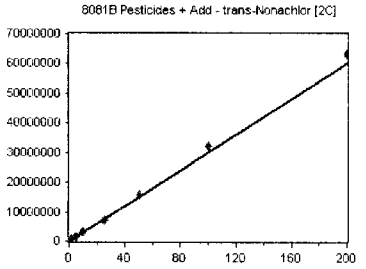


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	364142	364142.000	8.14
9H23034-CAL2	2	644454	322227.000	8.14
9H23034-CAL3	5	1502119	300423.800	8.13
9H23034-CAL4	10	3002782	300278.200	8.13
9H23034-CAL5	25	7157480	286299.200	8.13
9H23034-CAL6	50	467872E+07	293574.400	8.13
9H23034-CAL7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

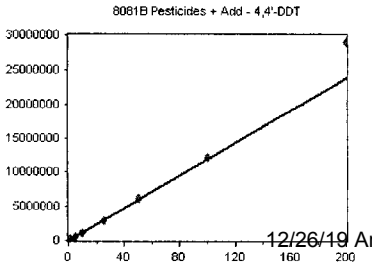


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	306202	306202.000	8.20
9H23034-CALA	2	587765	293882.500	8.19
9H23034-CALB	5	1467723	293544.600	8.19
9H23034-CALC	10	2844404	284440.400	8.19
9H23034-CALD	25	7092288	283691.500	8.19
9H23034-CALE	50	580771E+07	316154.200	8.19
9H23034-CALF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

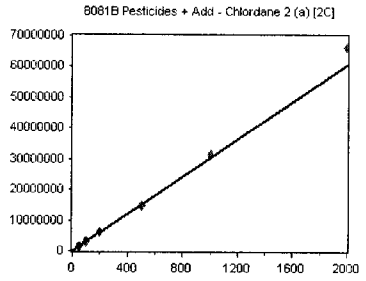
Element Calibration Review Sheet

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**

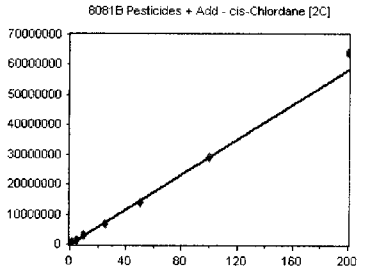


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1472400	29448.000	8.24
9H23034-CALI	100	2905941	29059.410	8.24
9H23034-CALJ	200	5883615	29418.070	8.24
9H23034-CALK	500	481227E+07	29624.540	8.24
9H23034-CALL	1000	149368E+07	31493.680	8.24
9H23034-CALM	2000	528139E+07	33140.700	8.24

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

cis-Chlordane [2C]

Curve Fit: **AVERAGE RF**

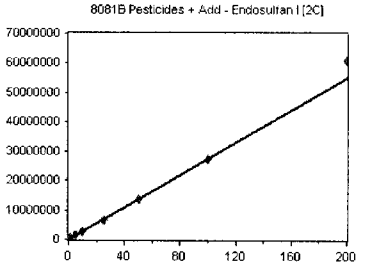


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	299422	299422.000	8.24
9H23034-CAL2	2	579667	289833.500	8.24
9H23034-CAL3	5	1434855	286971.000	8.24
9H23034-CAL4	10	2859573	285957.300	8.24
9H23034-CAL5	25	6935857	277434.300	8.24
9H23034-CAL6	50	400212E+07	280042.400	8.24
9H23034-CAL7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

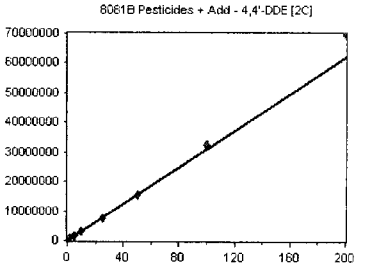


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	278874	278874.000	8.29
9H23034-CAL2	2	540442	270221.000	8.29
9H23034-CAL3	5	1327191	265438.200	8.29
9H23034-CAL4	10	2724272	272427.200	8.29
9H23034-CAL5	25	6571512	262860.500	8.29
9H23034-CAL6	50	371233E+07	274246.600	8.29
9H23034-CAL7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

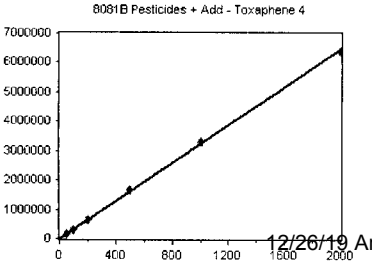


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	298463	298463.000	8.35
9H23034-CAL2	2	598066	299033.000	8.35
9H23034-CAL3	5	1487999	297599.800	8.35
9H23034-CAL4	10	3049792	304979.200	8.35
9H23034-CAL5	25	7501047	300041.900	8.34
9H23034-CAL6	50	555471E+07	311094.200	8.34
9H23034-CAL7	100	3.24996E+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 **3240.162** RF RSD **1.78** AVE RT **8.35**

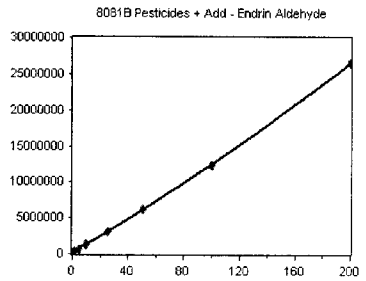
Element Calibration Review Sheet

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**

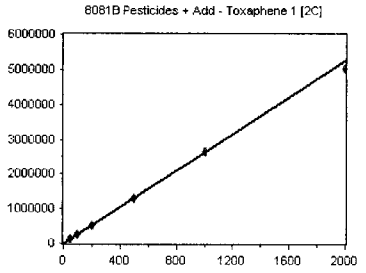


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	241285	241285.000	8.41
9H23034-CAL2	2	328182	164091.000	8.41
9H23034-CAL3	5	683393	136678.600	8.41
9H23034-CAL4	10	1375129	137512.900	8.41
9H23034-CAL5	25	3119767	124790.700	8.40
9H23034-CAL6	50	6224451	124489.000	8.40
9H23034-CAL7	100	236381E+07	123638.100	8.40
9H23034-CAL8	200	662767E+07	133138.300	8.40

AVE RF **148203.000** RF RSD **26.87** AVE RT **8.41**

Toxaphene 1 [2C]

Curve Fit: **AVERAGE RF**

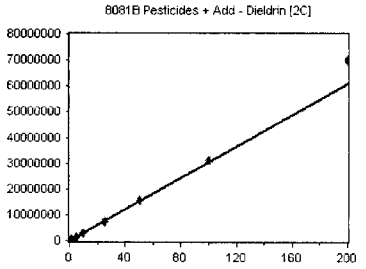


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	136848	2736.960	8.47
9H23034-CALO	100	267534	2675.340	8.47
9H23034-CALP	200	508983	2544.915	8.47
9H23034-CALQ	500	1308994	2617.988	8.47
9H23034-CALR	1000	2654886	2654.886	8.47
9H23034-CALS	2000	5030917	2515.458	8.47

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

Dieldrin [2C]

Curve Fit: **AVERAGE RF**

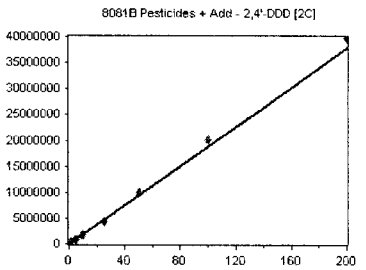


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	296684	296684.000	8.49
9H23034-CAL2	2	583812	291906.000	8.49
9H23034-CAL3	5	1462538	292507.600	8.49
9H23034-CAL4	10	2898866	289886.600	8.49
9H23034-CAL5	25	7333890	293355.600	8.49
9H23034-CAL6	50	543411E+07	308682.200	8.49
9H23034-CAL7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

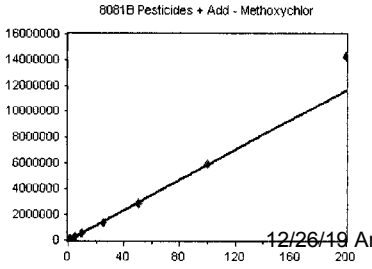


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	192040	192040.000	8.50
9H23034-CALA	2	373596	186798.000	8.50
9H23034-CALB	5	898697	179739.400	8.50
9H23034-CALC	10	1778790	177879.000	8.50
9H23034-CALD	25	4389185	175567.400	8.50
9H23034-CALE	50	9924934	198498.700	8.50
9H23034-CALF	100	011892E+07	201189.200	8.50
9H23034-CALG	200	.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

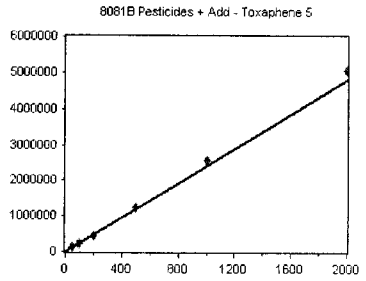
AVE RF **58574.270** RF RSD **9.55** AVE RT **8.54**

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

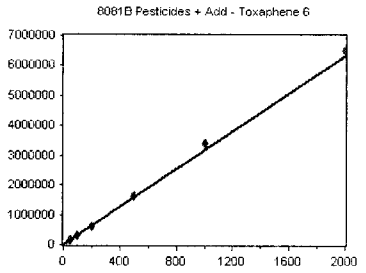


Curve Fit: **AVERAGE RF**

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

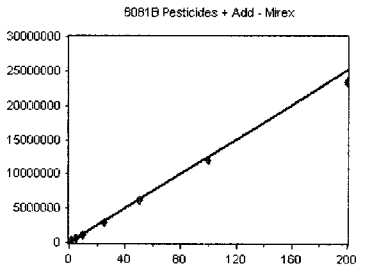


Curve Fit: **AVERAGE RF**

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

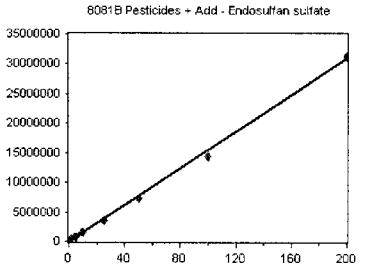


Curve Fit: **AVERAGE RF**

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

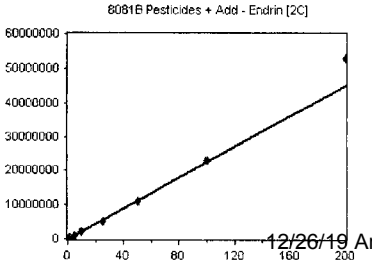


Curve Fit: **AVERAGE RF**

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 **7.82** AVE RT **8.72**

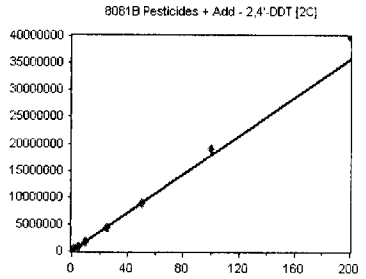
Element Calibration Review Sheet

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**

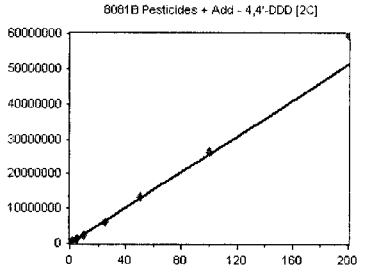


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	173338	173338.000	8.72
9H23034-CALA	2	332170	166085.000	8.72
9H23034-CALB	5	873074	174614.800	8.72
9H23034-CALC	10	1702568	170256.800	8.72
9H23034-CALD	25	4405554	176222.200	8.72
9H23034-CALE	50	8810591	176211.800	8.72
9H23034-CALF	100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

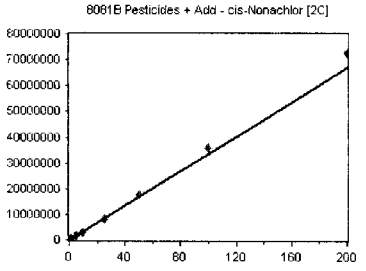


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	251549	251549.000	8.76
9H23034-CAL2	2	488120	244060.000	8.76
9H23034-CAL3	5	1208642	241728.400	8.76
9H23034-CAL4	10	2425496	242549.600	8.76
9H23034-CAL5	25	6146469	245858.800	8.76
9H23034-CAL6	50	315945E+07	263189.000	8.76
9H23034-CAL7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

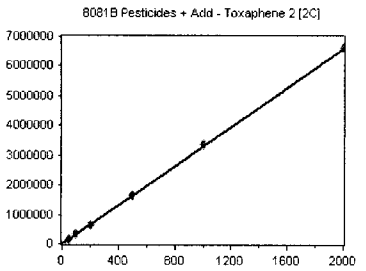


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	332745	332745.000	8.76
9H23034-CALA	2	624783	312391.500	8.76
9H23034-CALB	5	1587243	317448.600	8.76
9H23034-CALC	10	3148054	314805.400	8.76
9H23034-CALD	25	8219393	328775.700	8.76
9H23034-CALE	50	772123E+07	354424.600	8.76
9H23034-CALF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

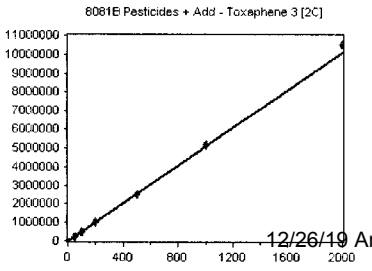


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	164706	3294.120	8.81
9H23034-CALO	100	324070	3240.700	8.81
9H23034-CALP	200	645322	3226.610	8.81
9H23034-CALQ	500	1647741	3295.482	8.81
9H23034-CALR	1000	3384036	3384.036	8.81
9H23034-CALS	2000	6610397	3305.198	8.81

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**

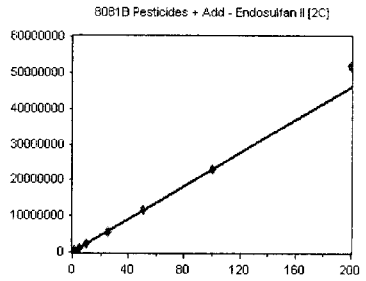
Element Calibration Review Sheet

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**

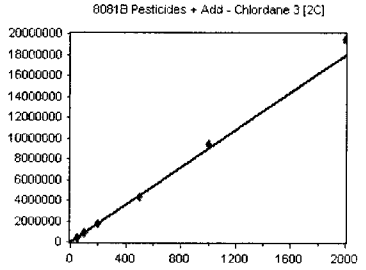


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	232156	232156.000	8.87
9H23034-CAL2	2	462256	231128.000	8.86
9H23034-CAL3	5	1096359	219271.800	8.87
9H23034-CAL4	10	2243610	224361.000	8.86
9H23034-CAL5	25	5447602	217904.100	8.86
9H23034-CAL6	50	153453E+07	230690.600	8.86
9H23034-CAL7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

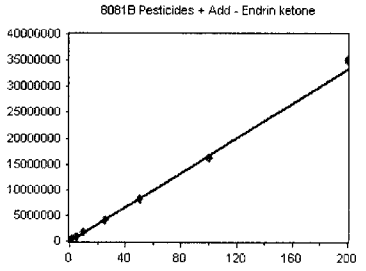


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	439020	8780.400	8.90
9H23034-CALI	100	874465	8744.650	8.90
9H23034-CALJ	200	1731727	8658.635	8.90
9H23034-CALK	500	4271709	8543.418	8.90
9H23034-CALL	1000	9358900	9358.900	8.90
9H23034-CALM	2000	941852E+07	9709.260	8.90

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

Endrin ketone

Curve Fit: **AVERAGE RF**

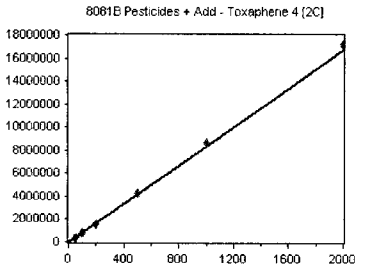


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	177552	177552.000	8.90
9H23034-CAL2	2	331269	165634.500	8.90
9H23034-CAL3	5	811384	162276.800	8.90
9H23034-CAL4	10	1664380	166438.000	8.90
9H23034-CAL5	25	4008958	160358.300	8.90
9H23034-CAL6	50	8190707	163814.100	8.90
9H23034-CAL7	100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

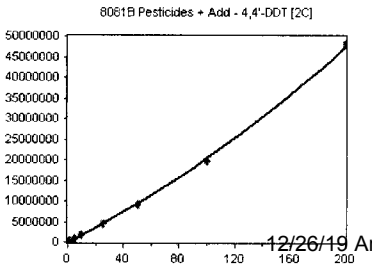


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	416348	8326.960	8.92
9H23034-CALO	100	811948	8119.480	8.92
9H23034-CALP	200	1580436	7902.180	8.91
9H23034-CALQ	500	4252640	8505.280	8.92
9H23034-CALR	1000	8650068	8650.068	8.92
9H23034-CALS	2000	719004E+07	8595.020	8.91

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 **11.69** AVE RT **8.99**

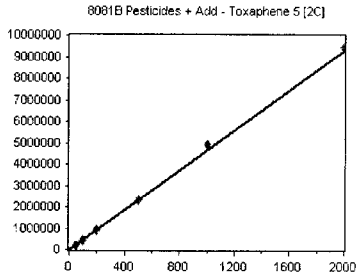
Element Calibration Review Sheet

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**

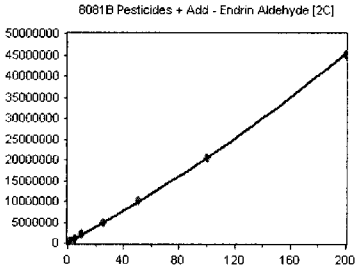


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	233185	4663.700	9.09
9H23034-CALO	100	452209	4522.090	9.09
9H23034-CALP	200	895397	4476.985	9.09
9H23034-CALQ	500	2340668	4681.336	9.09
9H23034-CALR	1000	4900430	4900.430	9.09
9H23034-CALS	2000	9435236	4717.618	9.09

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

Endrin Aldehyde [2C]

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

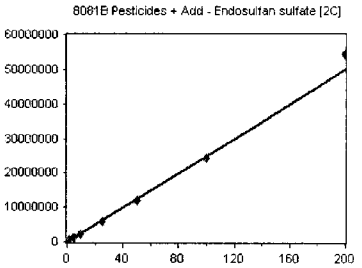


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	348624	348624.000	9.10
9H23034-CAL2	2	477694	238847.000	9.10
9H23034-CAL3	5	1045869	209173.800	9.10
9H23034-CAL4	10	2125028	212502.800	9.10
9H23034-CAL5	25	4848504	193940.200	9.10
9H23034-CAL6	50	020903E+07	204180.600	9.10
9H23034-CAL7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

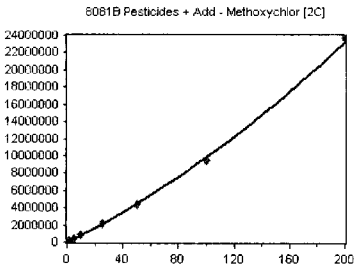


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	265797	265797.000	9.29
9H23034-CAL2	2	498767	249383.500	9.29
9H23034-CAL3	5	1175908	235181.600	9.29
9H23034-CAL4	10	2424584	242458.400	9.29
9H23034-CAL5	25	5978906	239156.200	9.29
9H23034-CAL6	50	214929E+07	242985.800	9.29
9H23034-CAL7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

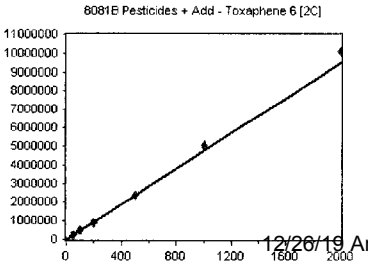


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	95155	95155.000	9.47
9H23034-CAL2	2	178074	89037.000	9.47
9H23034-CAL3	5	413802	82760.400	9.47
9H23034-CAL4	10	883069	88306.900	9.47
9H23034-CAL5	25	2166659	86666.360	9.46
9H23034-CAL6	50	4346199	86923.980	9.46
9H23034-CAL7	100	9444987	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 **5.12** AVE RT **9.47**

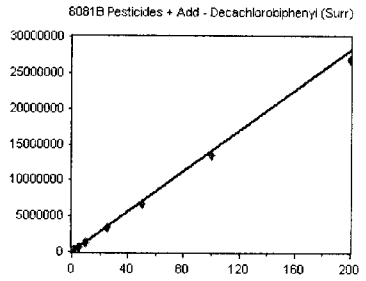
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Decachlorobiphenyl (Surr)

Curve Fit: **AVERAGE RF**

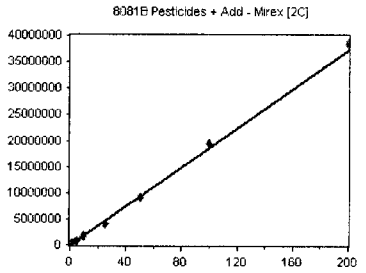


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	163865	163865.000	9.59
9H23034-CAL2	2	309904	154952.000	9.59
9H23034-CAL3	5	701050	140210.000	9.59
9H23034-CAL4	10	1335468	133546.800	9.59
9H23034-CAL5	25	3342634	133705.400	9.59
9H23034-CAL6	50	6678990	133579.800	9.59
9H23034-CAL7	100	.34054E+07	134054.000	9.59
9H23034-CAL8	200	697523E+07	134876.200	9.59

AVE RF **141098.600** RF RSD **8.33** AVE RT **9.59**

Mirex [2C]

Curve Fit: **AVERAGE RF**

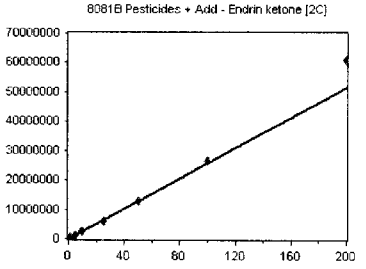


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	209783	209783.000	9.68
9H23034-CALA	2	388199	194099.500	9.68
9H23034-CALB	5	895523	179104.600	9.68
9H23034-CALC	10	1722960	172296.000	9.68
9H23034-CALD	25	4138115	165524.600	9.68
9H23034-CALE	50	9100959	182019.200	9.68
9H23034-CALF	100	.93632E+07	193632.000	9.68
9H23034-CALG	200	842553E+07	192127.600	9.68

AVE RF **186073.300** RF RSD **7.59** AVE RT **9.68**

Endrin ketone [2C]

Curve Fit: **AVERAGE RF**

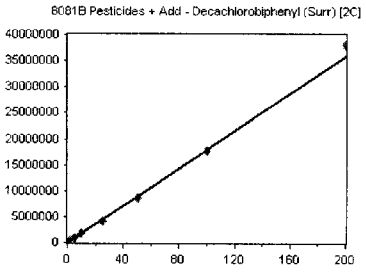


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	255763	255763.000	9.69
9H23034-CAL2	2	493110	246555.000	9.69
9H23034-CAL3	5	1205004	241000.800	9.69
9H23034-CAL4	10	2496985	249698.500	9.69
9H23034-CAL5	25	5893691	235747.600	9.69
9H23034-CAL6	50	295457E+07	259091.400	9.69
9H23034-CAL7	100	563656E+07	266365.600	9.69
9H23034-CAL8	200	086138E+07	304306.900	9.69

AVE RF **257316.100** RF RSD **8.31** AVE RT **9.69**

Decachlorobiphenyl (Surr) [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	191572	191572.000	10.54
9H23034-CAL2	2	390006	195003.000	10.54
9H23034-CAL3	5	870921	174184.200	10.54
9H23034-CAL4	10	1678728	167872.800	10.54
9H23034-CAL5	25	4163229	166529.200	10.54
9H23034-CAL6	50	8730692	174613.800	10.54
9H23034-CAL7	100	778407E+07	177840.700	10.54
9H23034-CAL8	200	809778E+07	190488.900	10.54

AVE RF **179763.100** RF RSD **6.18** AVE RT **10.54**

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

Analysis Included

1311/8081B TCLP Pest Reg List
1311/8081B TCLP Pest Reg List +ADD
1311/8081B TCLP Pesticides (All)
1311/8081B TCLP Pesticides + Add (All)
1312/8081B SPLP Pesticides
608 Additionals Only (QC)
608 Pest (Chlordane)
608 Pesticides
608 Pesticides (DDT Only)
608 Pesticides (SW)
608 Pesticides (SW) Full List
608 Pesticides (TTO)
608 Pesticides + Adds
608.3 Additionals - DEVELOPMENT
608.3 Chlordane - DEVELOPMENT
608.3 PCBs - DEVELOPMENT
608.3 Pesticides - DEVELOPMENT
608.3 Pesticides + Adds - DEVELOPMENT
608.3 Toxaphene - DEVELOPMENT
8081B Pesticides
8081B 2,4+4,4-DDx Only (+Add)
8081B Chlordane
8081B DDT Only
8081B Pesticides + Add
8081B RSET FW Sed (+Add) (2016)
8081B RSET Sediment List (+Add)
8081B RSET Sediment Marine (2016) (+Add)
8081B Toxaphene

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed
9H23034-ICB1	Initial Cal Blank	Water	A19H348		8/23/2019 1:33:00PM
9H23034-CAL1	Cal Standard	Water	A19E245	"	8/23/2019 1:51:00PM
9H23034-CAL2	Cal Standard	Water	A19E246	"	8/23/2019 2:08:00PM
9H23034-CAL3	Cal Standard	Water	A19E247	"	8/23/2019 2:25:00PM
9H23034-CAL4	Cal Standard	Water	A19E249	"	8/23/2019 2:42:00PM
9H23034-CAL5	Cal Standard	Water	A19E250	"	8/23/2019 3:00:00PM
9H23034-CAL6	Cal Standard	Water	A19H383	"	8/23/2019 3:17:00PM
9H23034-CAL7	Cal Standard	Water	A19H384	"	8/23/2019 3:34:00PM
9H23034-CAL8	Cal Standard	Water	A19E244	"	8/23/2019 3:52:00PM
9H23034-ICV1	Initial Cal Check	Water	A19E106	"	8/23/2019 4:26:00PM
9H23034-CAL9	Cal Standard	Water	A19E272	"	8/23/2019 4:44:00PM
9H23034-CALA	Cal Standard	Water	A19E273	"	8/23/2019 5:01:00PM
9H23034-CALB	Cal Standard	Water	A19E274	"	8/23/2019 5:18:00PM
9H23034-CALC	Cal Standard	Water	A19E275	"	8/23/2019 5:35:00PM
9H23034-CALD	Cal Standard	Water	A19E276	"	8/23/2019 5:53:00PM
9H23034-CALE	Cal Standard	Water	A19E154	"	8/23/2019 6:10:00PM
9H23034-CALF	Cal Standard	Water	A19E155	"	8/23/2019 6:27:00PM
9H23034-CALG	Cal Standard	Water	A19E271	"	8/23/2019 6:45:00PM
9H23034-ICV2	Initial Cal Check	Water	A19E043	"	8/23/2019 7:19:00PM
9H23034-CALH	Cal Standard	Water	A19F232	"	8/23/2019 7:36:00PM
9H23034-CALI	Cal Standard	Water	A19F233	"	8/23/2019 7:54:00PM
9H23034-CALJ	Cal Standard	Water	A19F234	"	8/23/2019 8:11:00PM
9H23034-CALK	Cal Standard	Water	A19F235	"	8/23/2019 8:28:00PM
9H23034-CALL	Cal Standard	Water	A19F236	"	8/23/2019 8:45:00PM
9H23034-CALM	Cal Standard	Water	A19F231	"	8/23/2019 9:02:00PM
9H23034-ICV3	Initial Cal Check	Water	A19E108	"	8/23/2019 9:37:00PM
9H23034-CALN	Cal Standard	Water	A19D122	"	8/23/2019 9:54:00PM
9H23034-CALO	Cal Standard	Water	A19D123	"	8/23/2019 10:11:00PM
9H23034-CALP	Cal Standard	Water	A19D124	"	8/23/2019 10:28:00PM
9H23034-CALQ	Cal Standard	Water	A19D125	"	8/23/2019 10:45:00PM
9H23034-CALR	Cal Standard	Water	A19D126	"	8/23/2019 11:03:00PM
9H23034-CALS	Cal Standard	Water	A19D121	"	8/23/2019 11:20:00PM
9H23034-ICV4	Initial Cal Check	Water	A19D127	"	8/23/2019 11:54:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9H2608** Instrument: **DualECD5F**

1311/8081B TCLP Pest Reg L Sequence: **9H23034** Matrix: **Water**

9H23034-CAL1	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL2	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL3	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL4	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL5	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

9H23034-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALB	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALC	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALD	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALE	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALF	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALG	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALH	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALI	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALJ	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALK	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALL	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALM	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALN	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALO	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALP	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALQ	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALR	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALS	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

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

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

Analytes With Quadratic Curve Fits

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

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

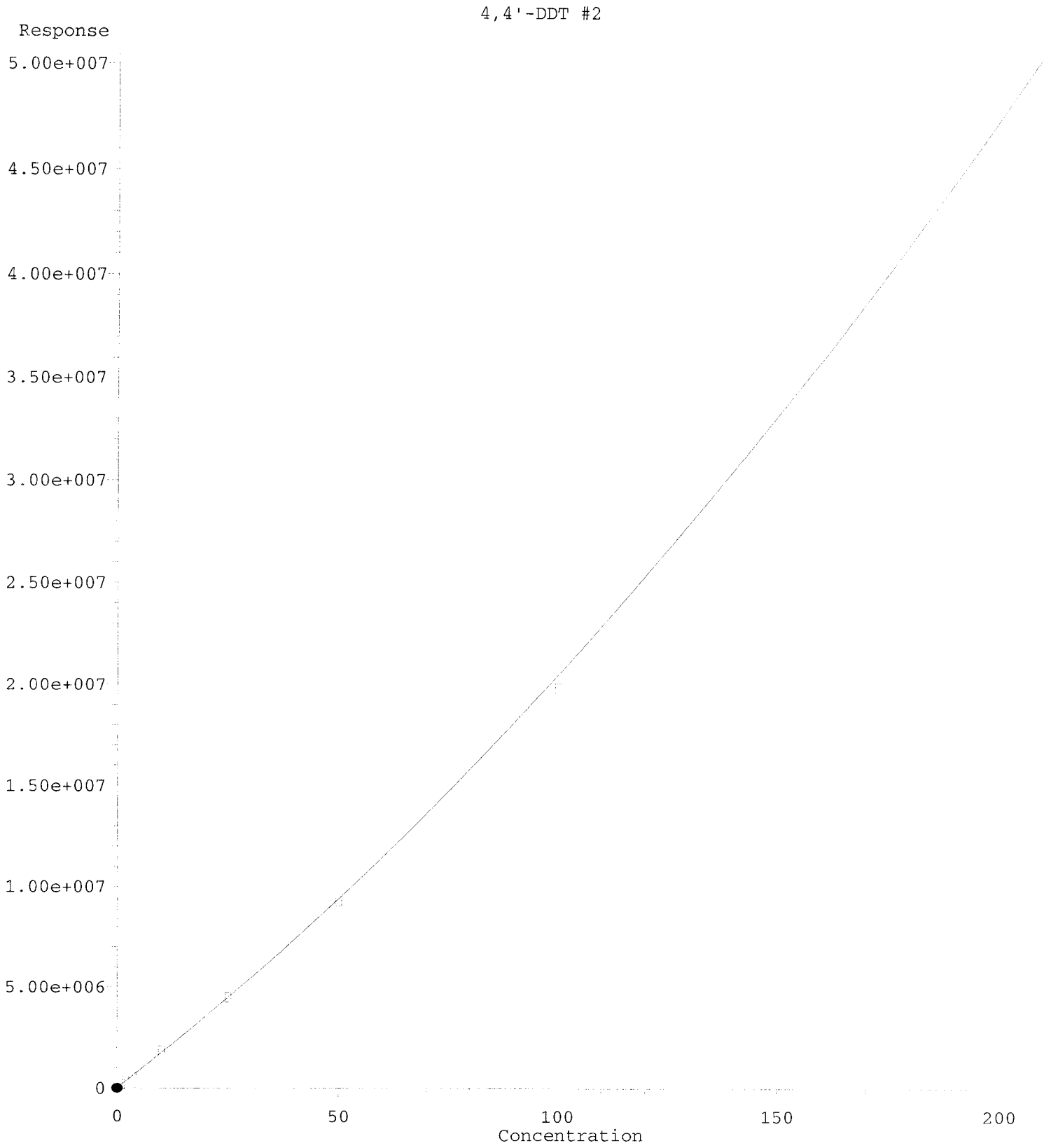
ICV RECOVERIES

Calibration: **A9H2608** Instrument: **DualECD5F**

608 Pesticides (SW) Full List Sequence: **9H23034** Matrix: **Water**

9H23034-ICV1	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**
9H23034-ICV2	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**
9H23034-ICV3	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**
9H23034-ICV4	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**

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

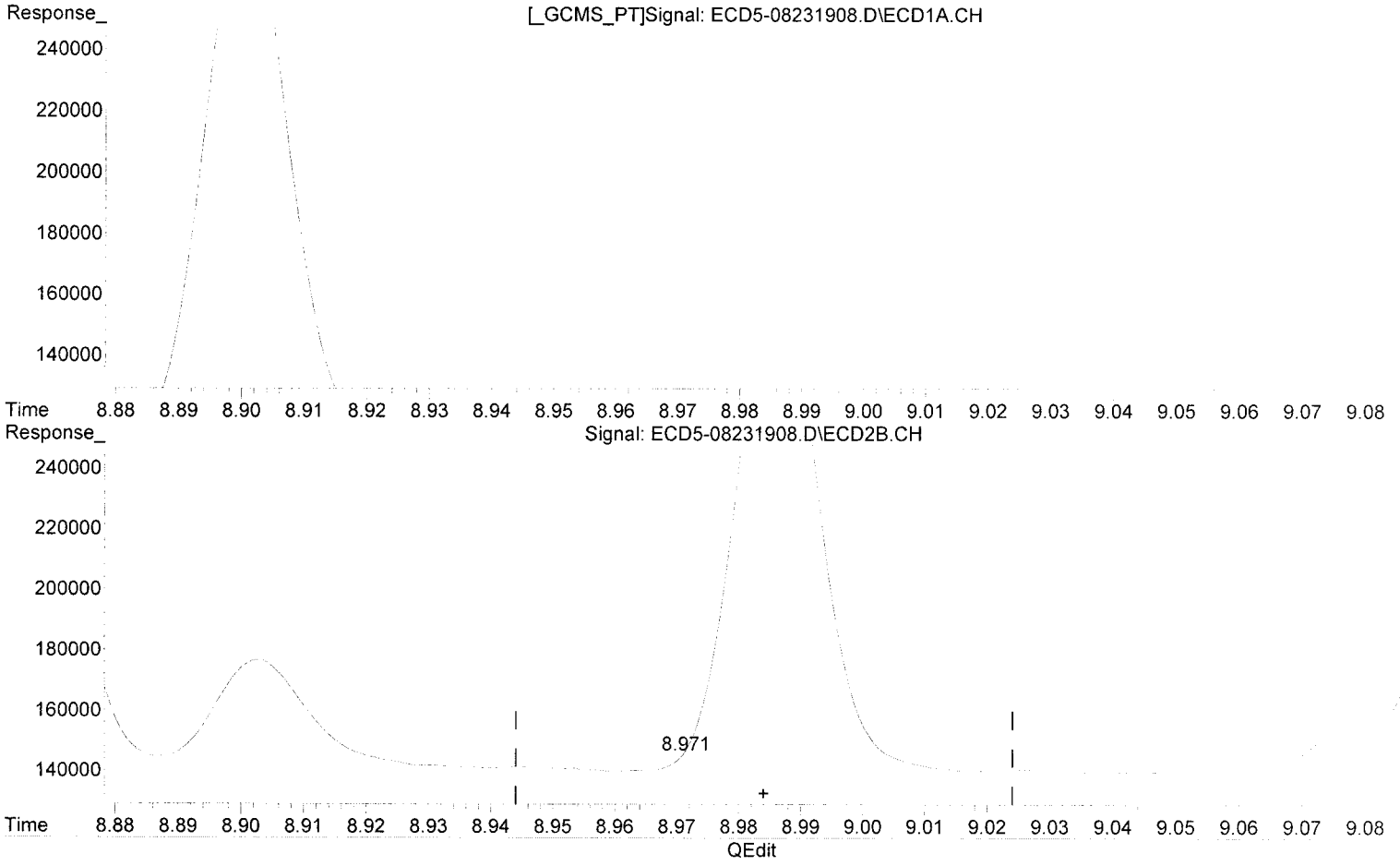


R = 3.30e+002 A*A + 1.71e+005 A + 6.57e+003
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(17) 4,4'-DDT

8.205min 0.953 ng/mL

response 113897

MJB 8/26/19

(17) 4,4'-DDT #2

8.971min -0.006 ng/mL m

response 5621

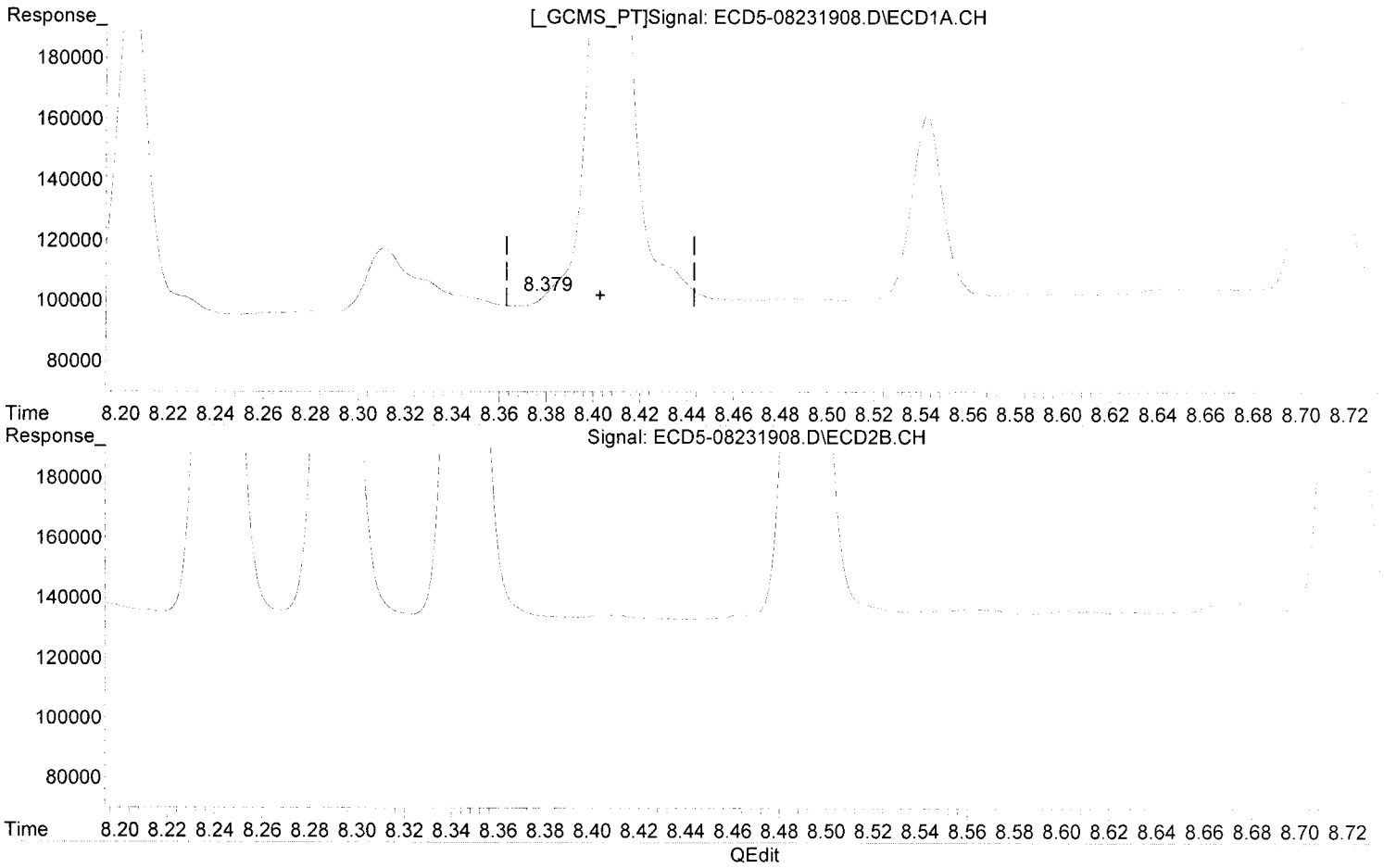
(+) = Expected Retention Time

R = 8.05e+001 A*A + 1.16e+005 A + 1.19e+005
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(18) Endrin Aldehyde

8.379min -0.993 ng/mL (m)

response 3543

MJB 9/26/19

(18) Endrin Aldehyde #2

9.101min 1.058 ng/mL

response 348624

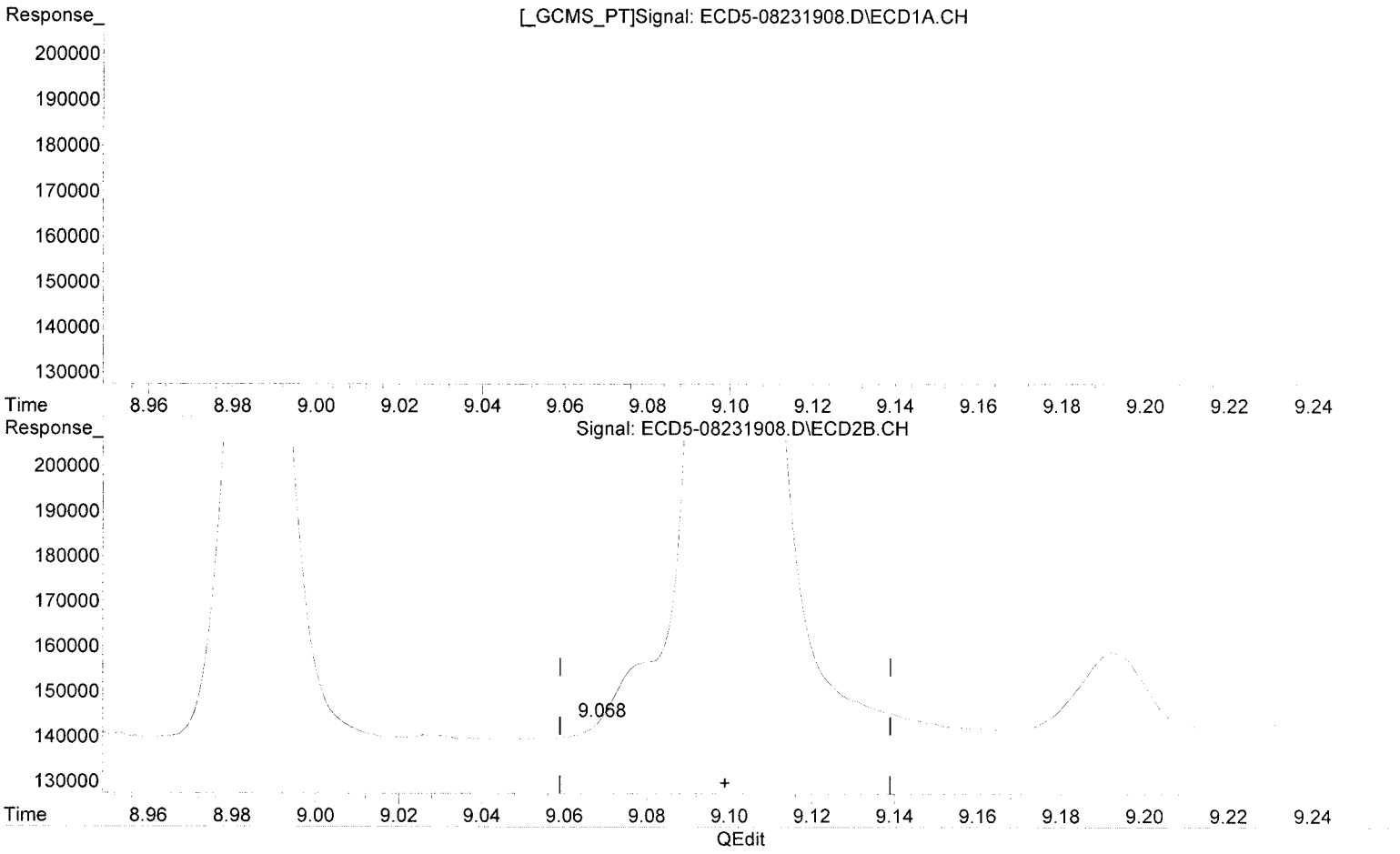
(+) = Expected Retention Time

R = 2.18e+002 A*A + 1.83e+005 A + 1.55e+005
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(18) Endrin Aldehyde

8.379min -0.993 ng/mL m

response 3543

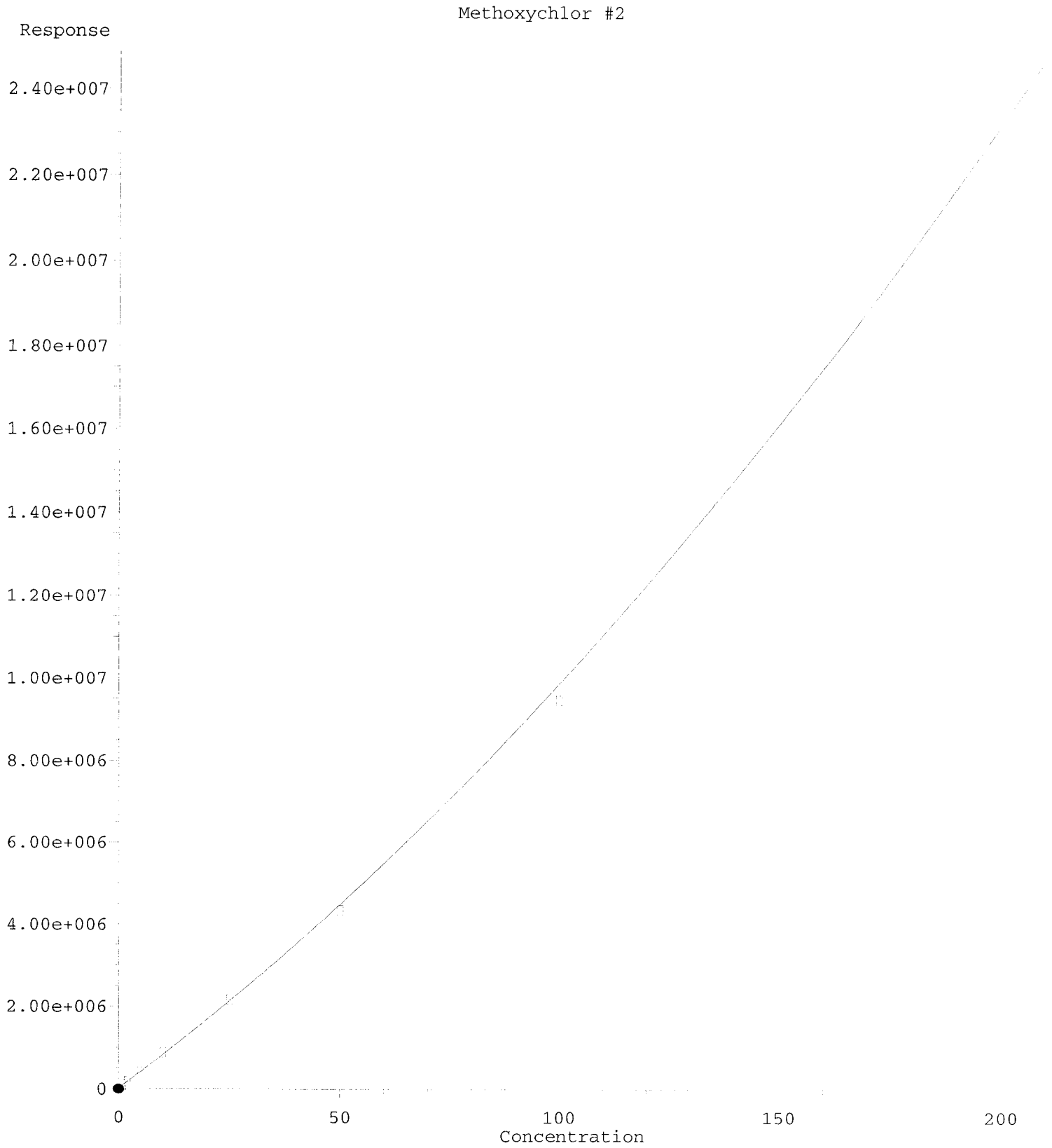
MJB 8/26/19

(18) Endrin Aldehyde #2

9.068min -0.831 ng/mL (m)

response 3374

(+) = Expected Retention Time

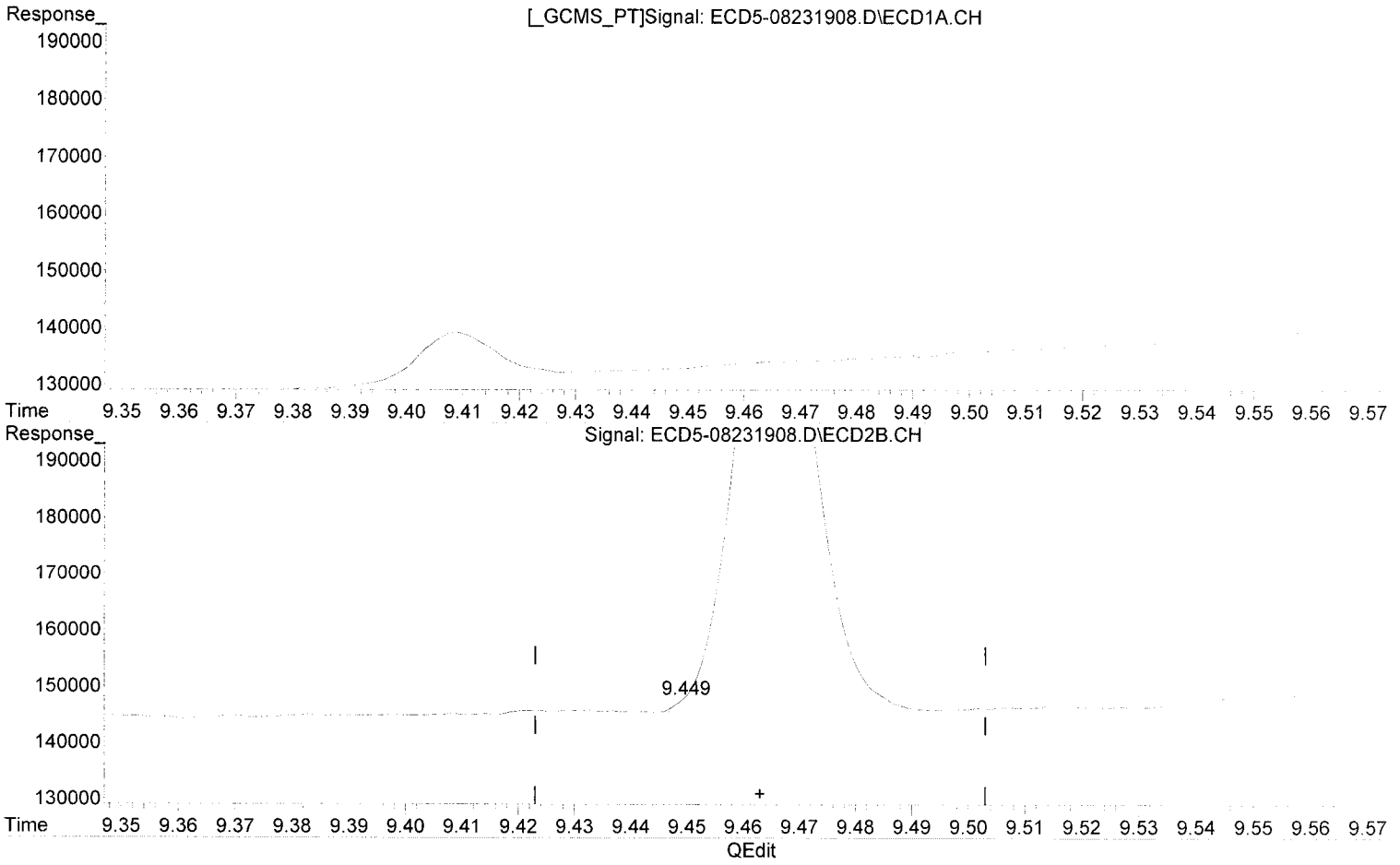


R = 1.78e+002 A*A + 8.05e+004 A + 1.50e+004
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(20) Methoxychlor

8.543min 1.019 ng/mL

response 59659

MJB 8/26/19

(20) Methoxychlor #2

9.449min -0.161 ng/mL (m)

response 2070

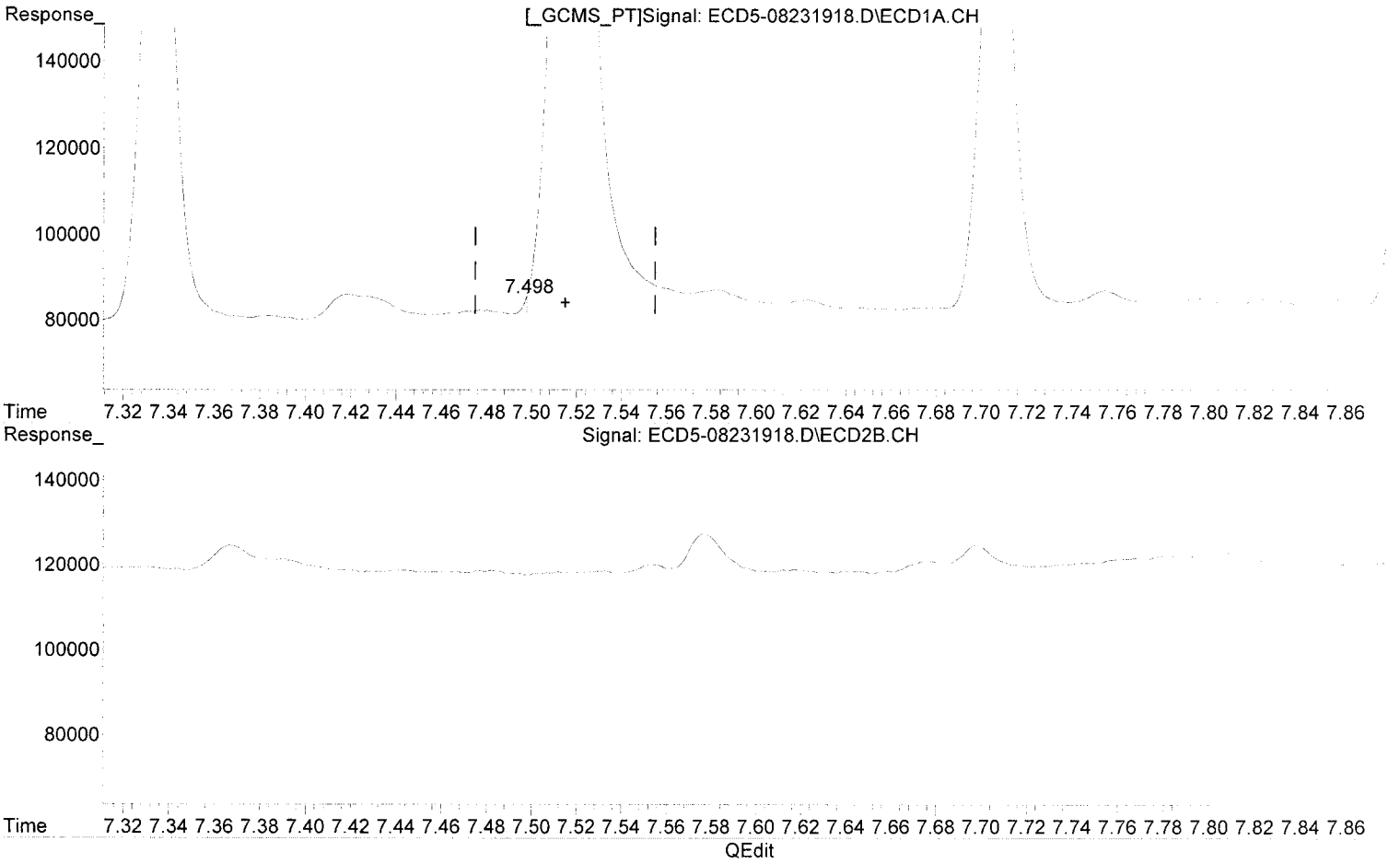
(+) = Expected Retention Time

R = -2.05e+000 A*A + 1.79e+005 A + 5.67e+004
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTTEST_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

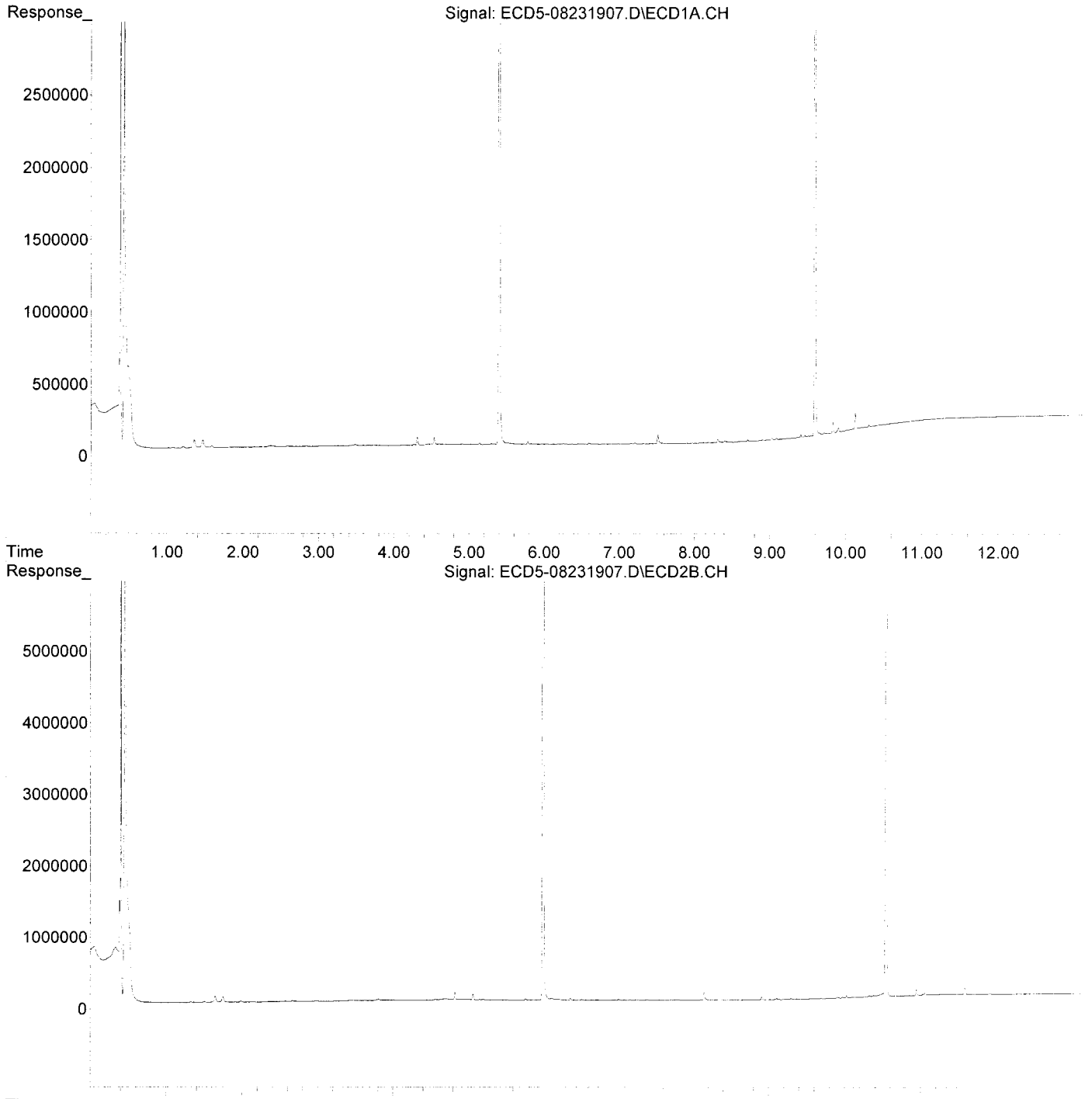
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.398	5.992	15096765	27637017	90.958	94.206	
22) S	DCBP (S)	9.594	10.543	12462090	16576085	88.322	92.211	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.253f	0.000	6973	0	0.035	N.D.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

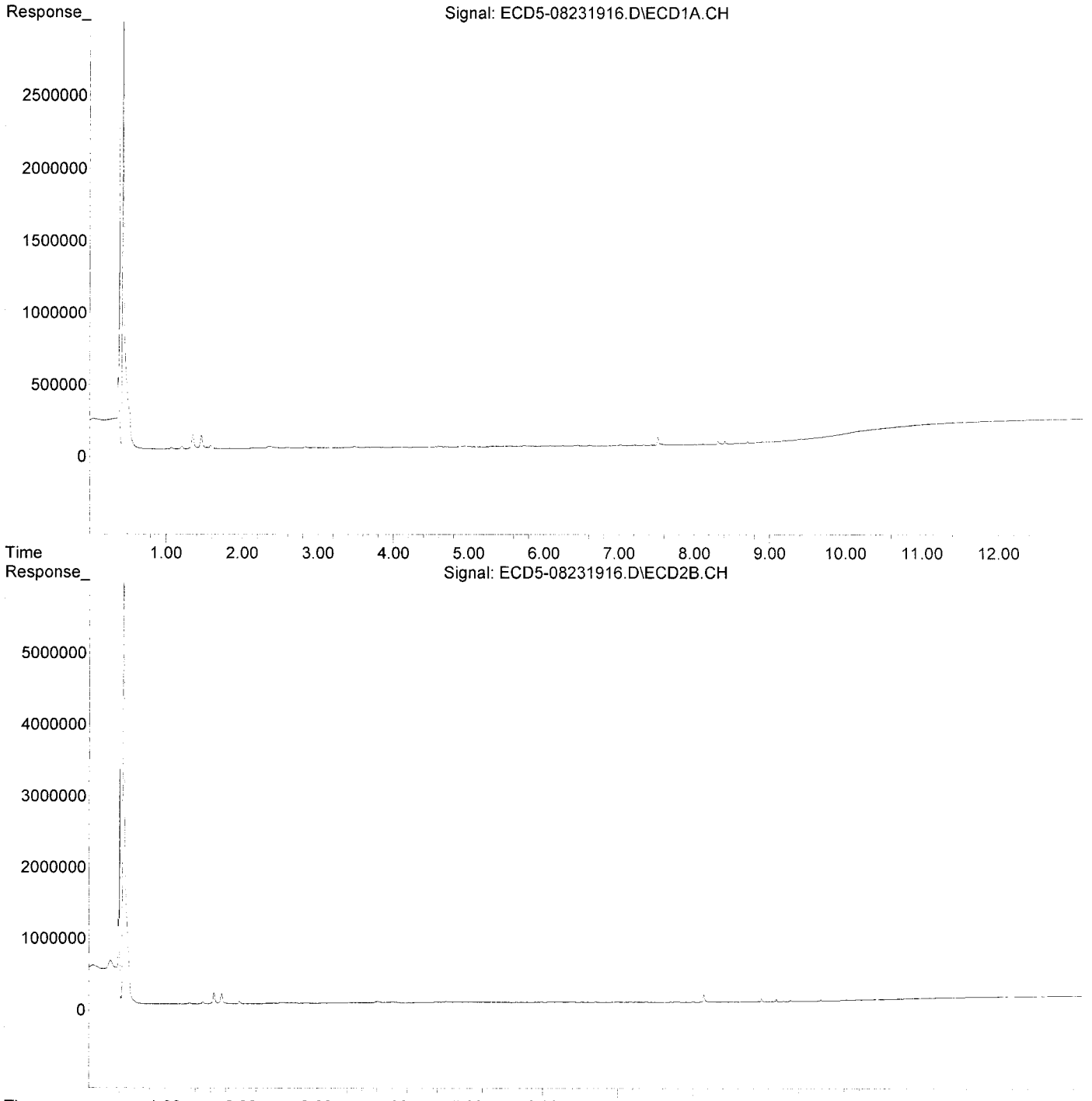
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	7755	N.D.	0.026	#
22)	S	DCBP (S)	9.595	10.540	5550	5660	0.039	0.031	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4370	0	0.022	N.D.	#
4)		b-BHC	0.000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

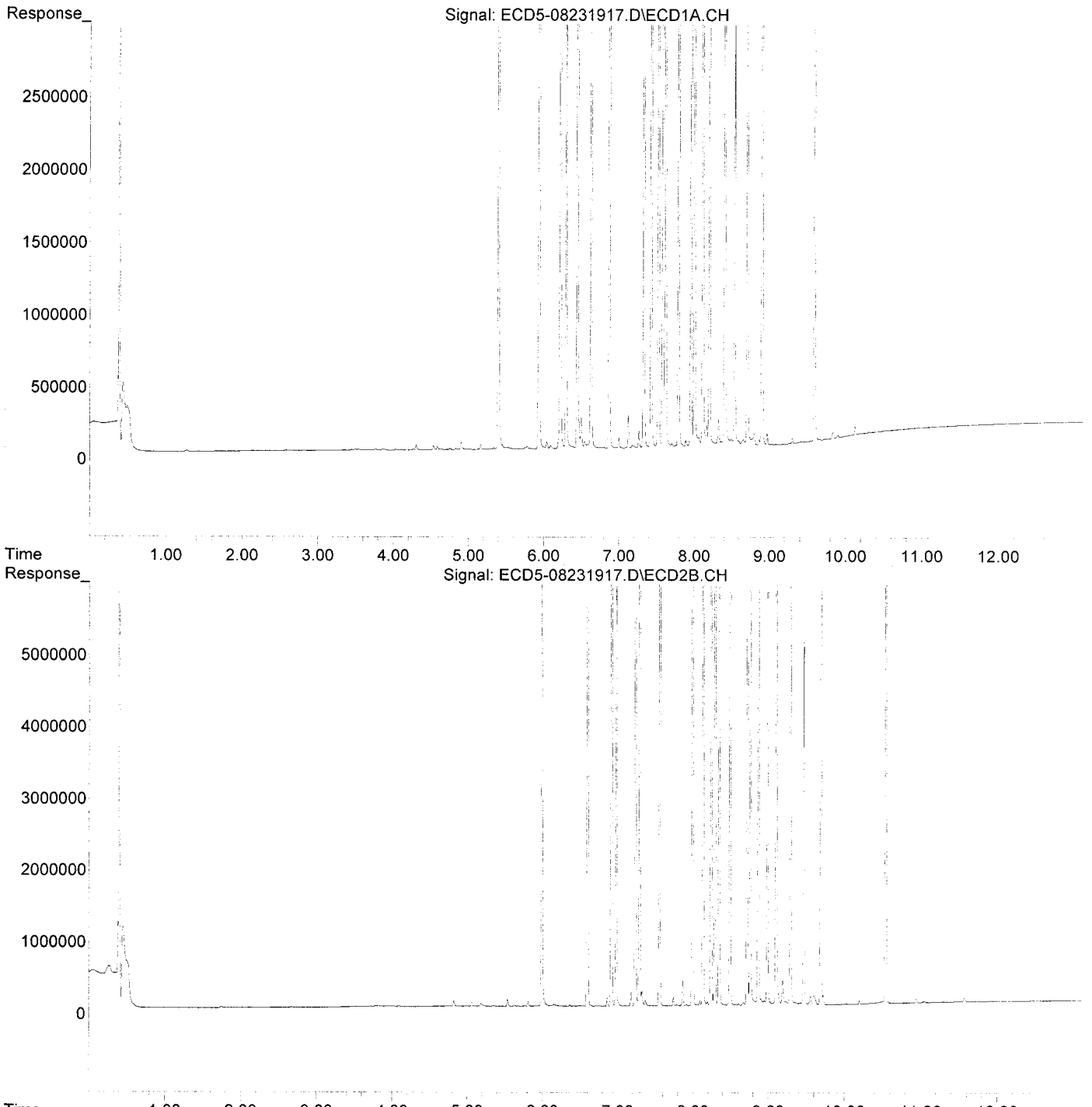
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.395	5.989	8209928	14467910	49.465	49.317	
22)	S DCBP (S)	9.589	10.539	6928381	8667079	49.103	48.214	
	Target Compounds							
2)	a-BHC	5.935	6.596	11712240	21507667	51.072	52.414	
3)	g-BHC	6.218	6.913	10370774	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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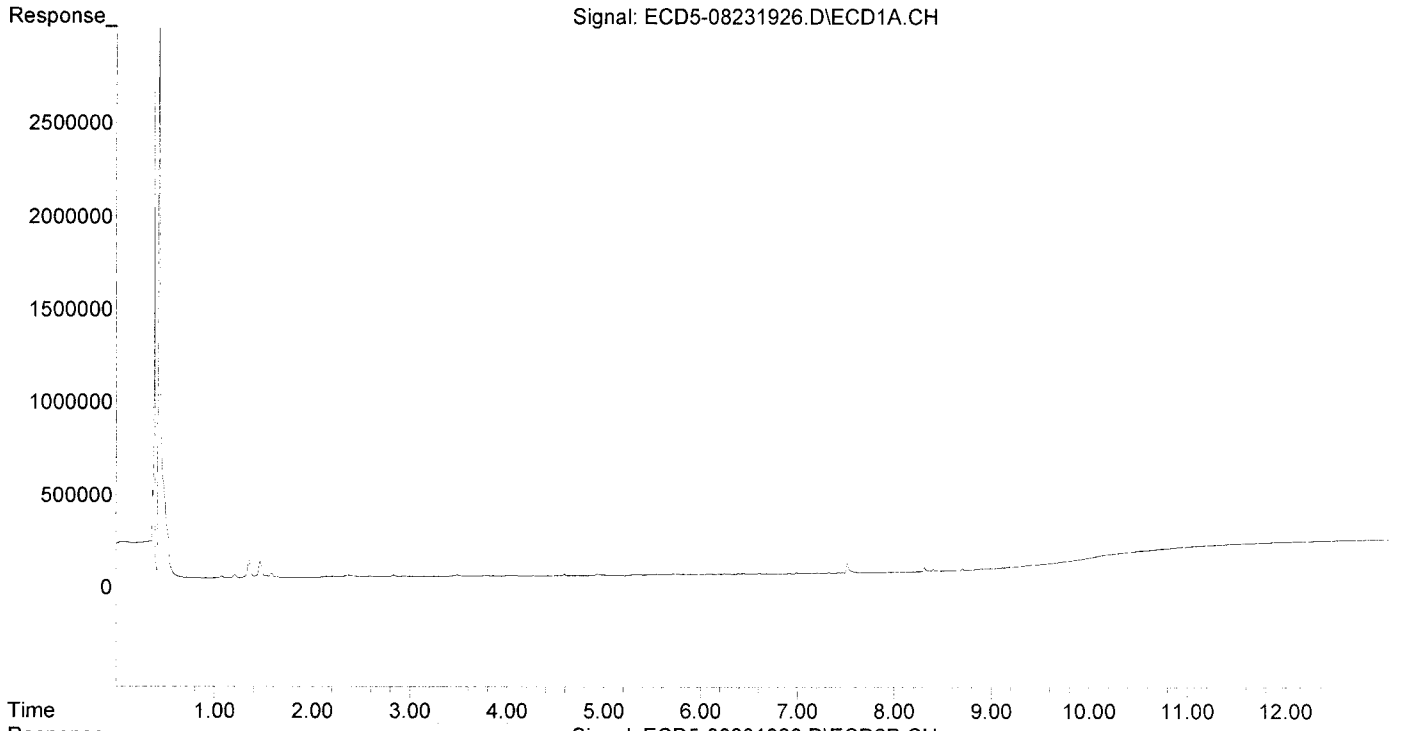
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.979	0	6612	N.D.	0.023	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.246f	0.000	5266	0	0.026	N.D.	#
4)		b-BHC	0.000	0.000	0	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.	

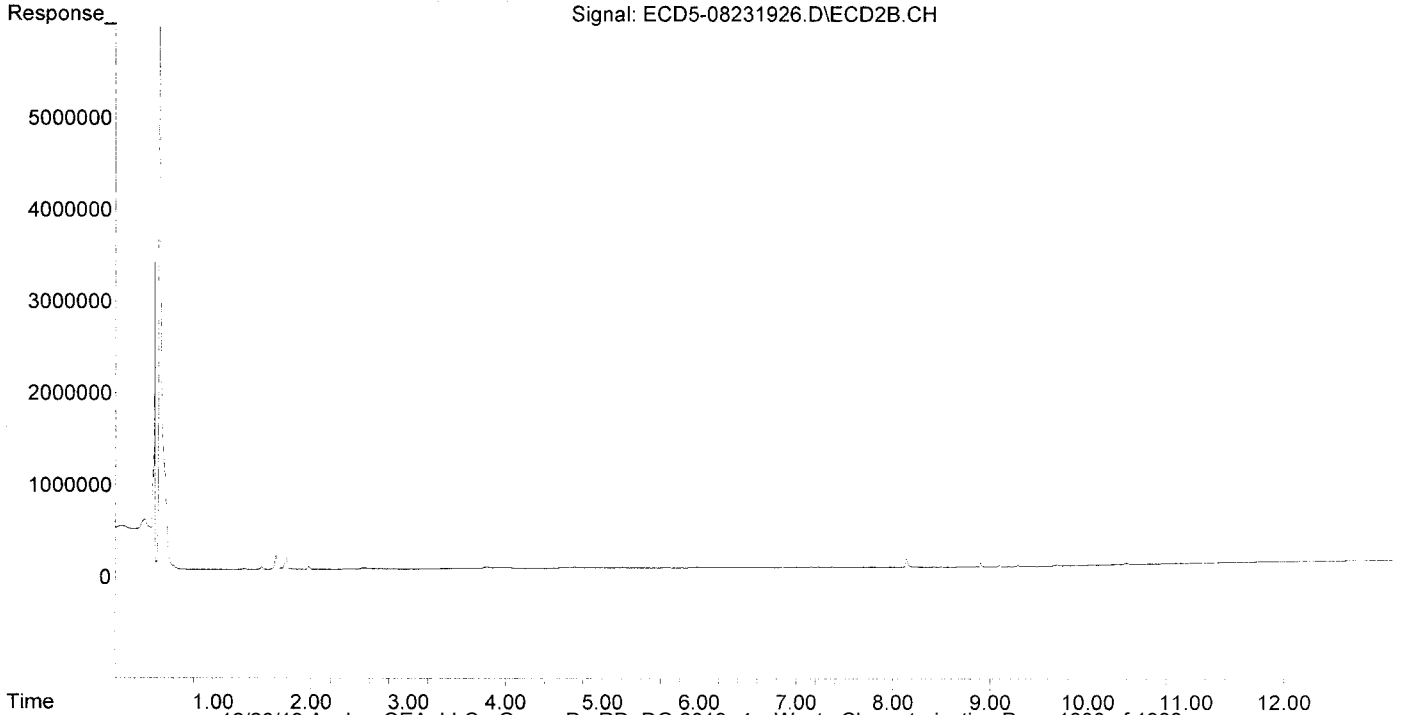
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

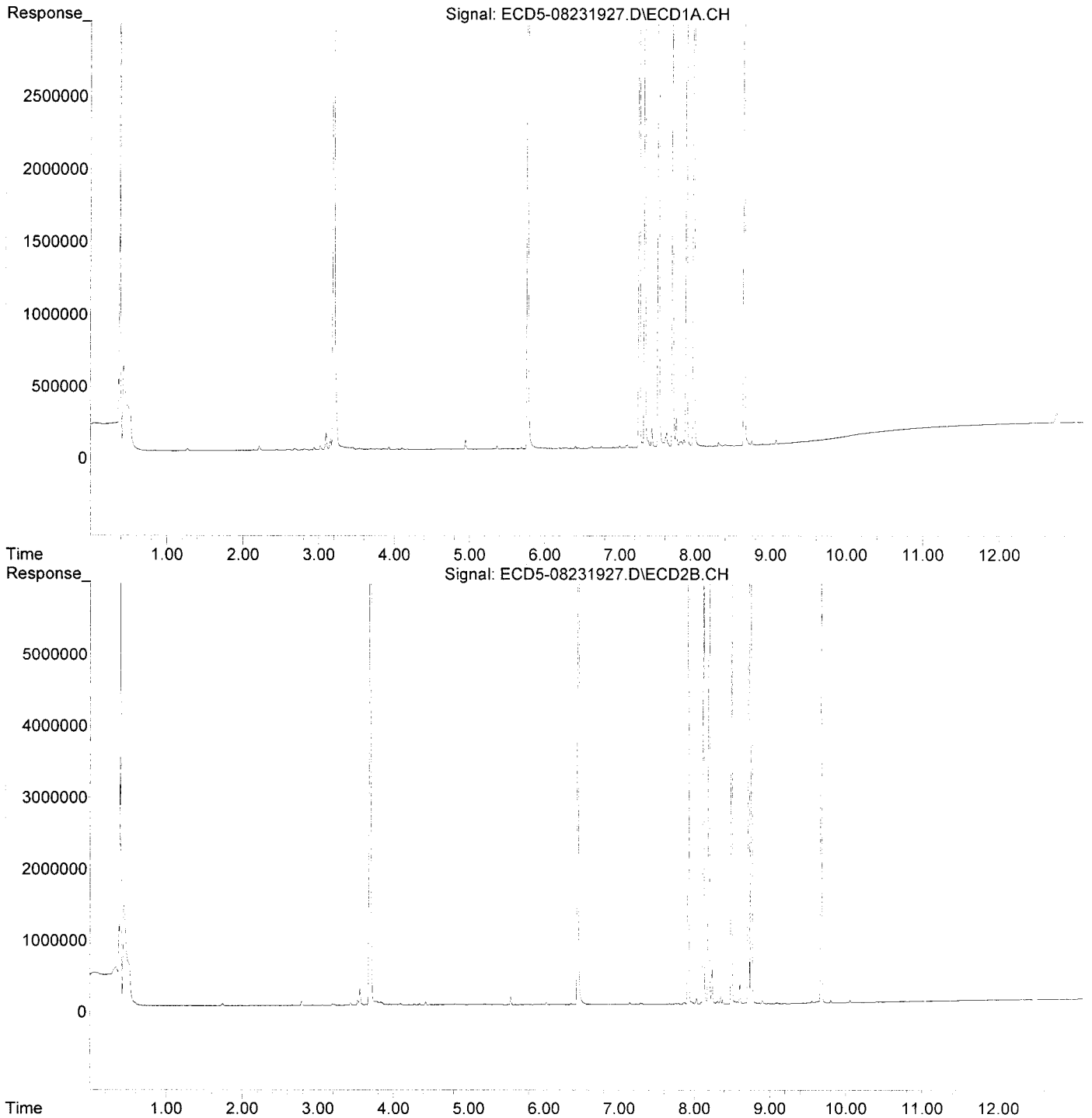
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.979	21795	7434	0.131	0.025	#
22)	S	DCBP (S)	9.593	0.000	5164	0	0.037	N.D.	#
		Target Compounds							
2)		a-BHC	5.944	0.000	7626	0	0.033	N.D.	#
3)		g-BHC	6.193f	6.950f	4309	4488	0.021	0.013	#
4)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

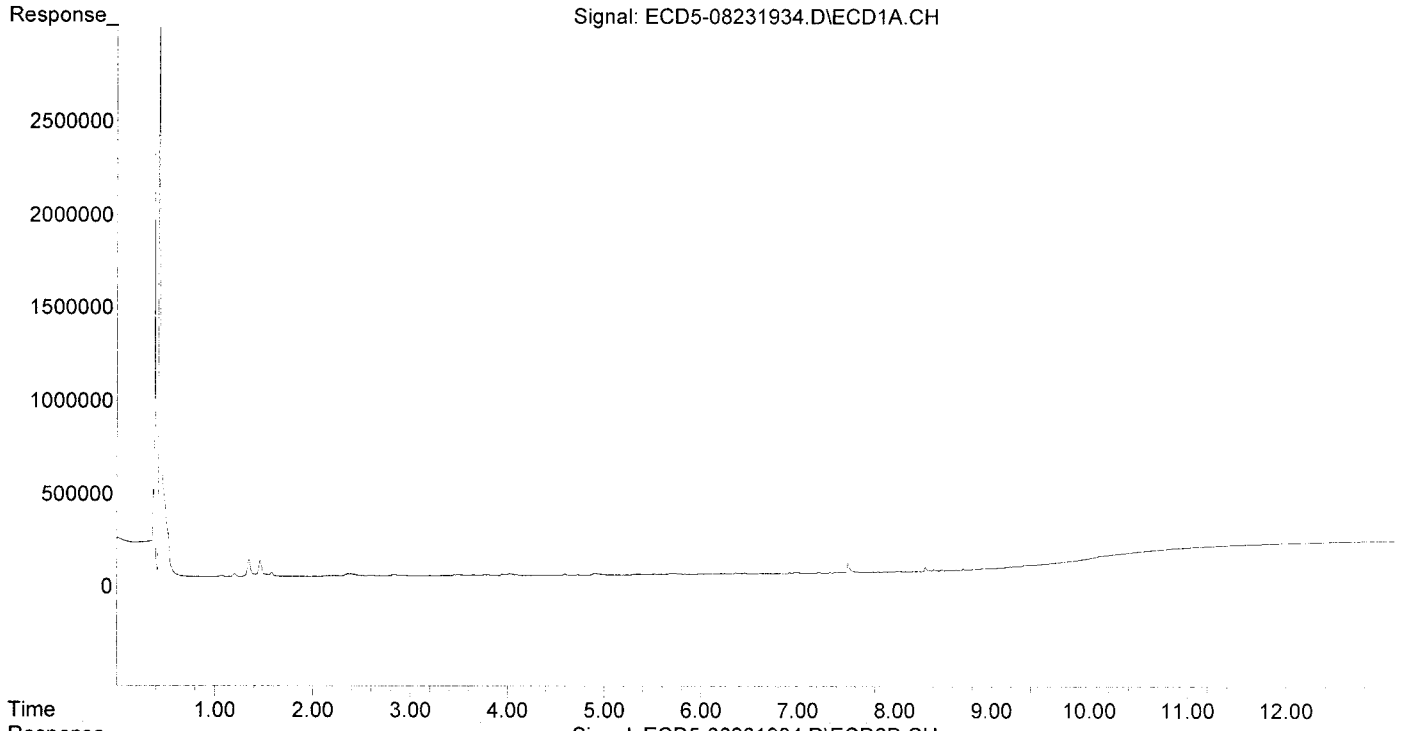
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.976	0	5923	N.D.	0.020	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.207	0.000	3774	0	0.019	N.D.	#
4)		b-BHC	0.000	0.000	0	0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

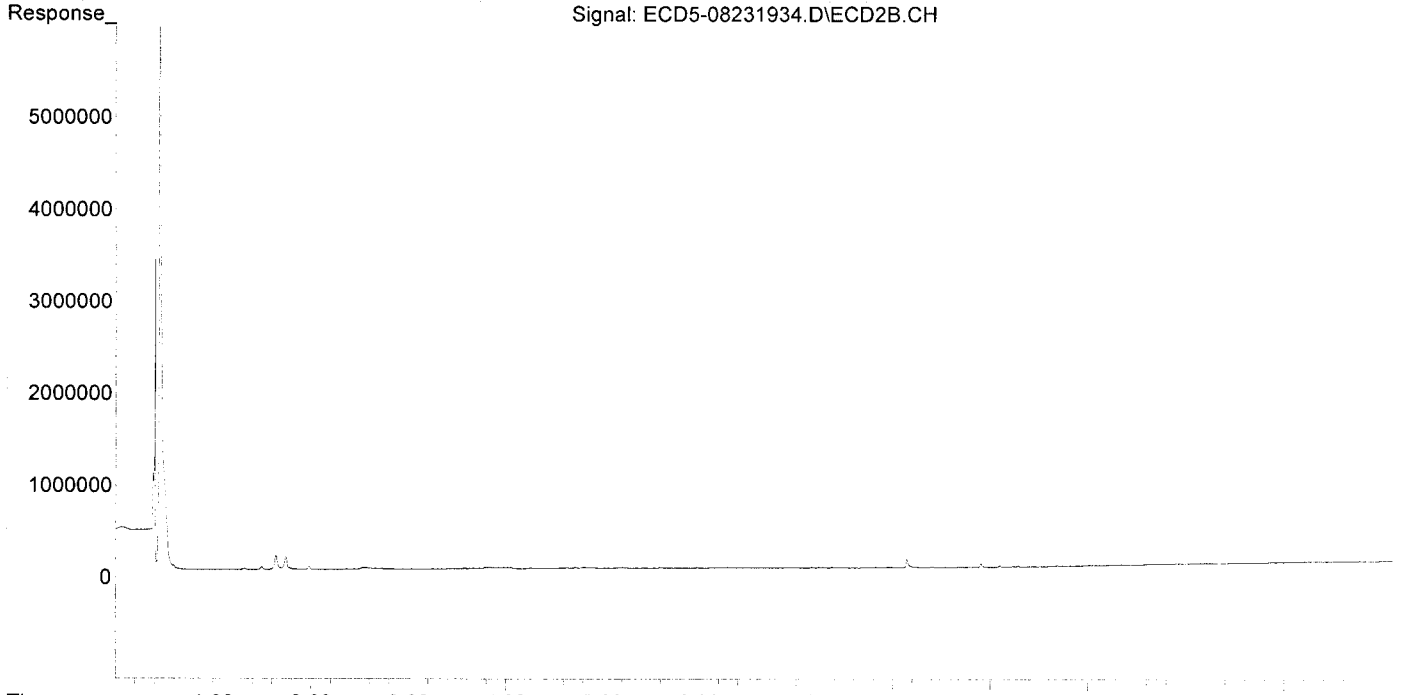
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

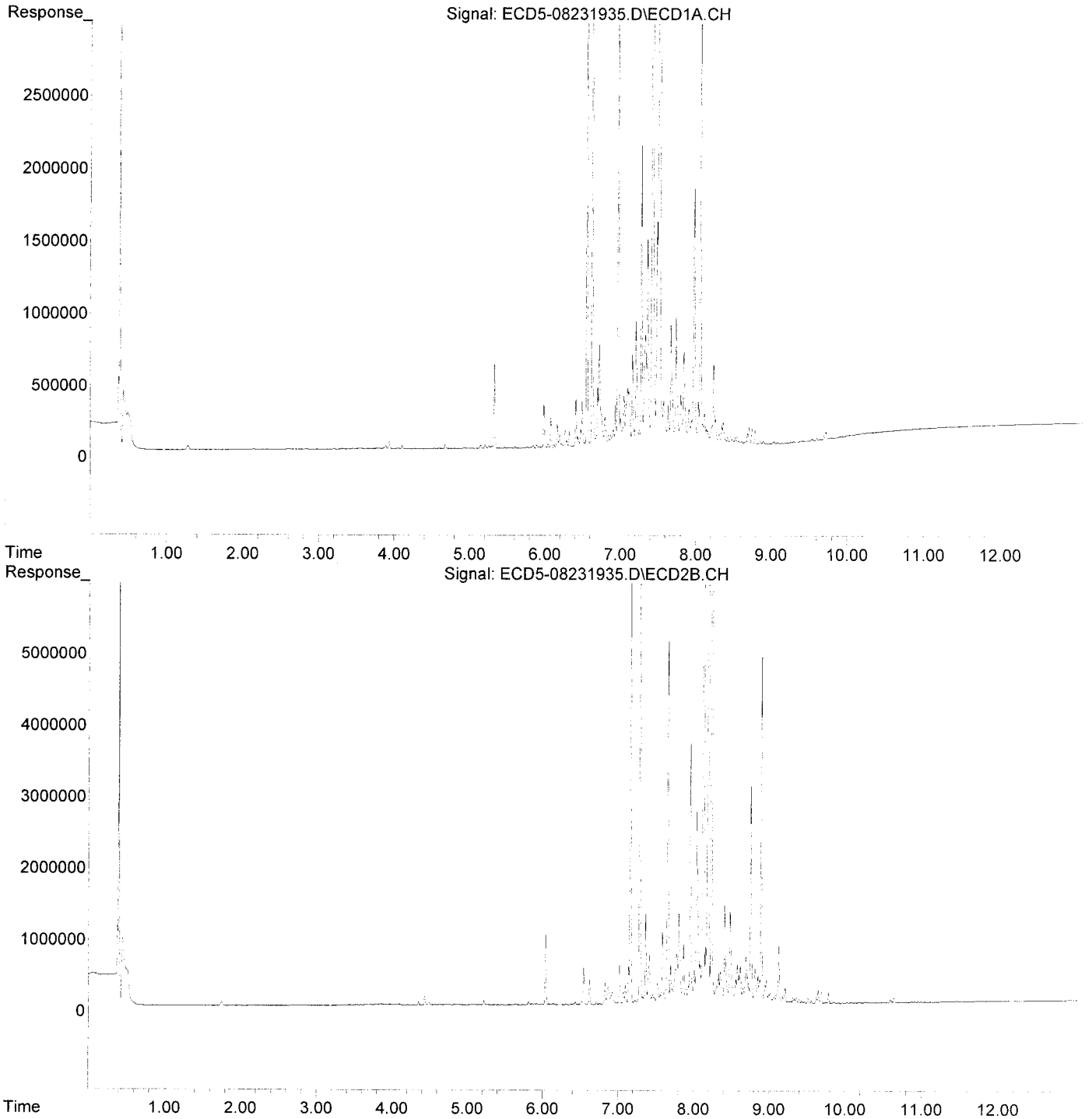
E 542.20

(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 9/26/19

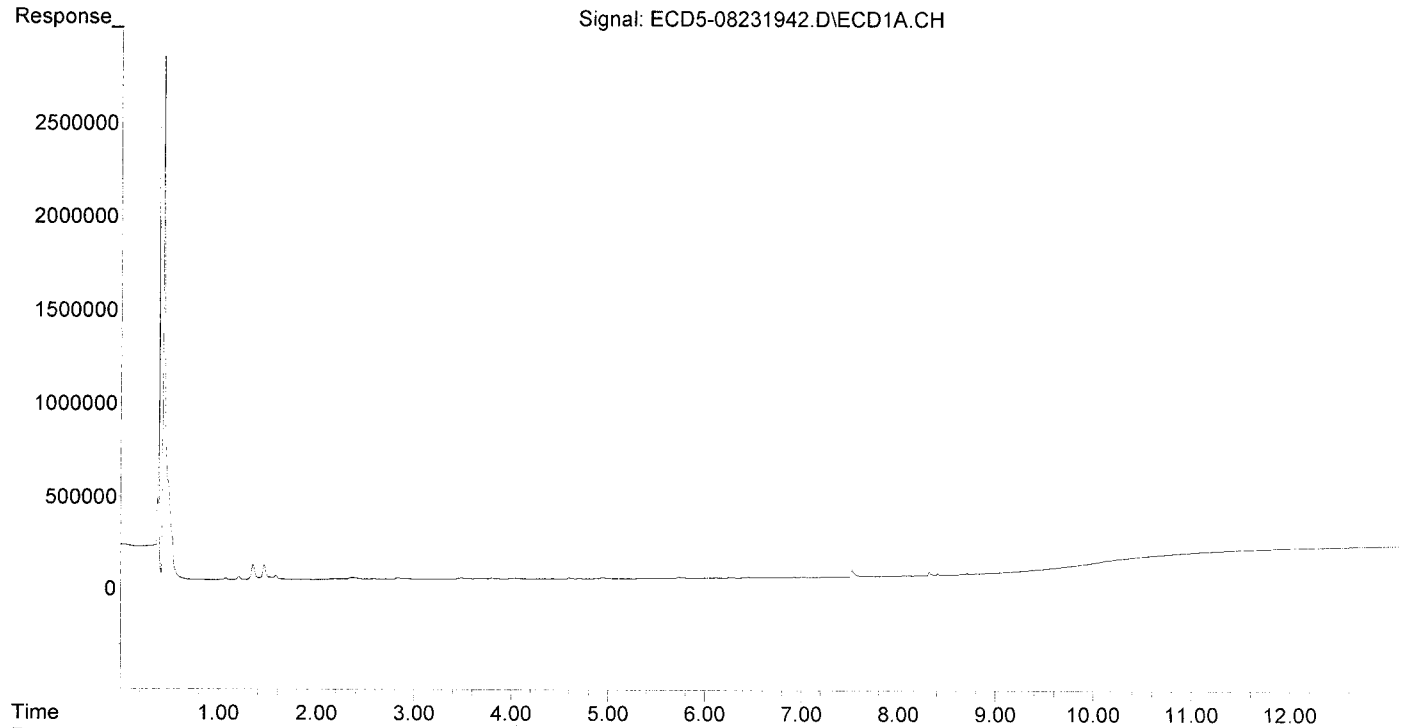
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	0.000	5.983	0	6142	N.D.	0.021	#
22)	S DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.248f	0.000	4243	0	0.021	N.D.	#
4)	b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)	Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)	d-BHC	6.450	7.232	5264	7410	0.027	0.021	
7)	Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)	Heptachlo...	7.334	0.000	1978	0	0.011	N.D.	#
9)	trans-Chl...	7.425	8.145	1693	72982	0.009	0.233	#
10)	cis-Chlor...	7.522	0.000	38316	0	0.210	N.D.	#
11)	Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)	Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)	Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)	4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)	Endosulfa...	8.117	0.000	2505	0	0.017	N.D.	#
17)	4,4'-DDT	8.194	0.000	767	0	0.006	N.D.	#
18)	Endrin Al...	8.406	9.100	10140	13686	BelowCal	BelowCal	
19)	Endosulfa...	8.707	9.290	7273	12897	0.047	0.052	
20)	Methoxychlor	8.540	0.000	2018	0	0.034	N.D.	#
21)	Endrin Ke...	8.901	9.687	3565	7207	0.021	0.028	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)	Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)	2,4'-DDE	7.334	8.145f	1978	72982	0.015 Q DCI	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.	

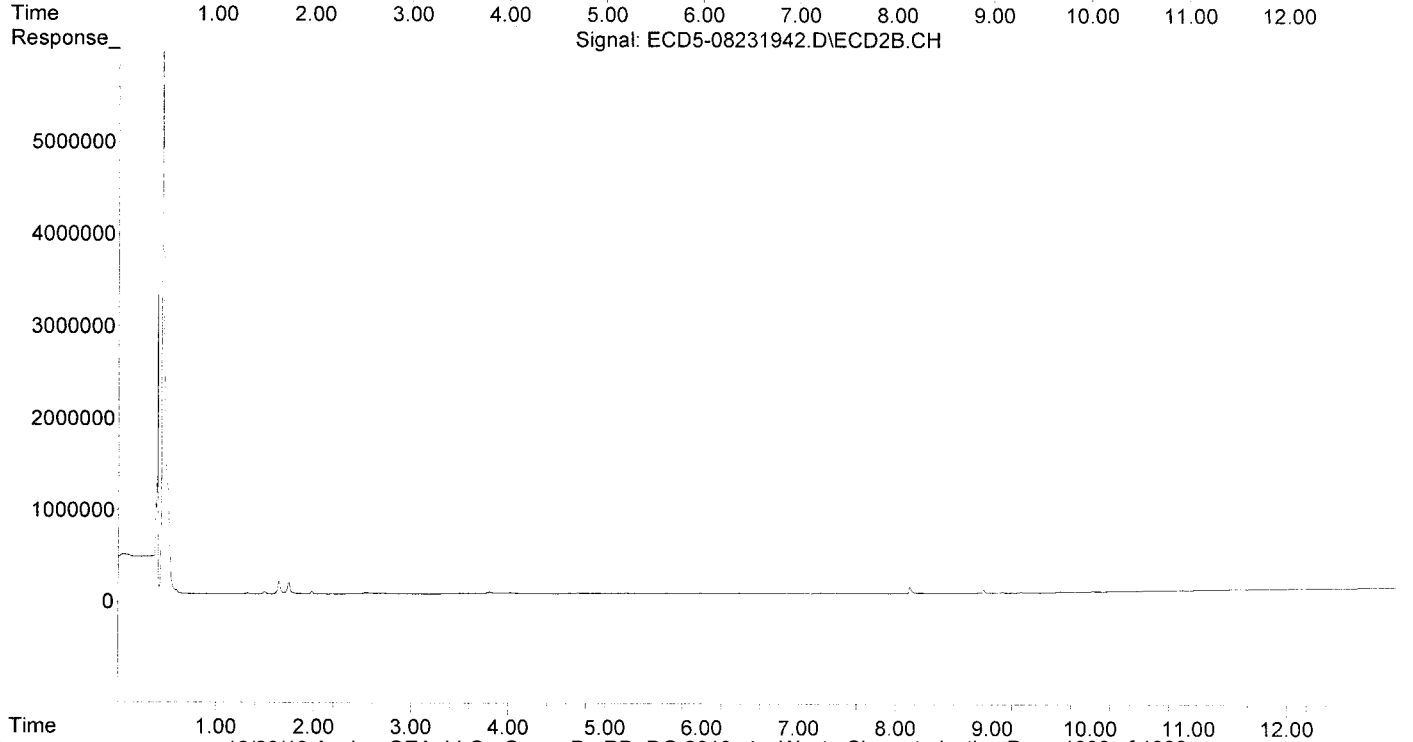
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

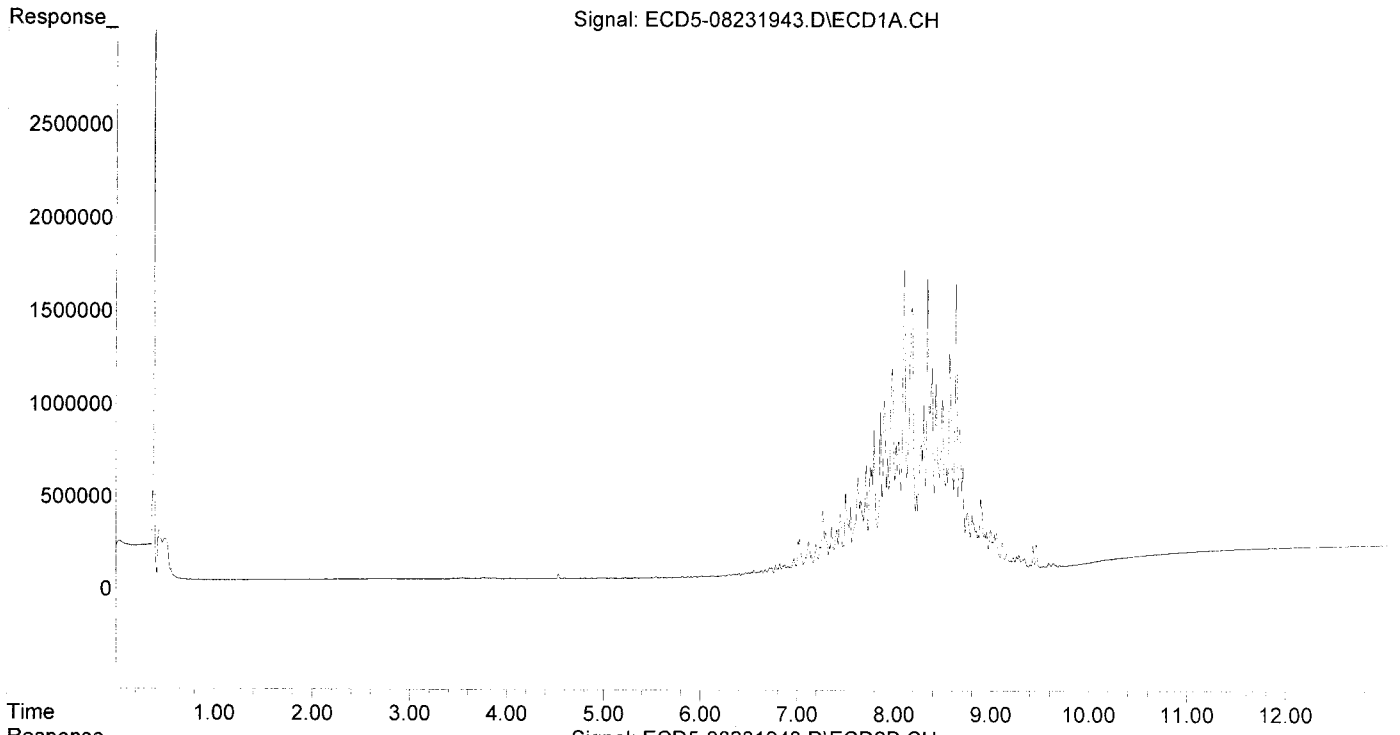
484.22 487.07

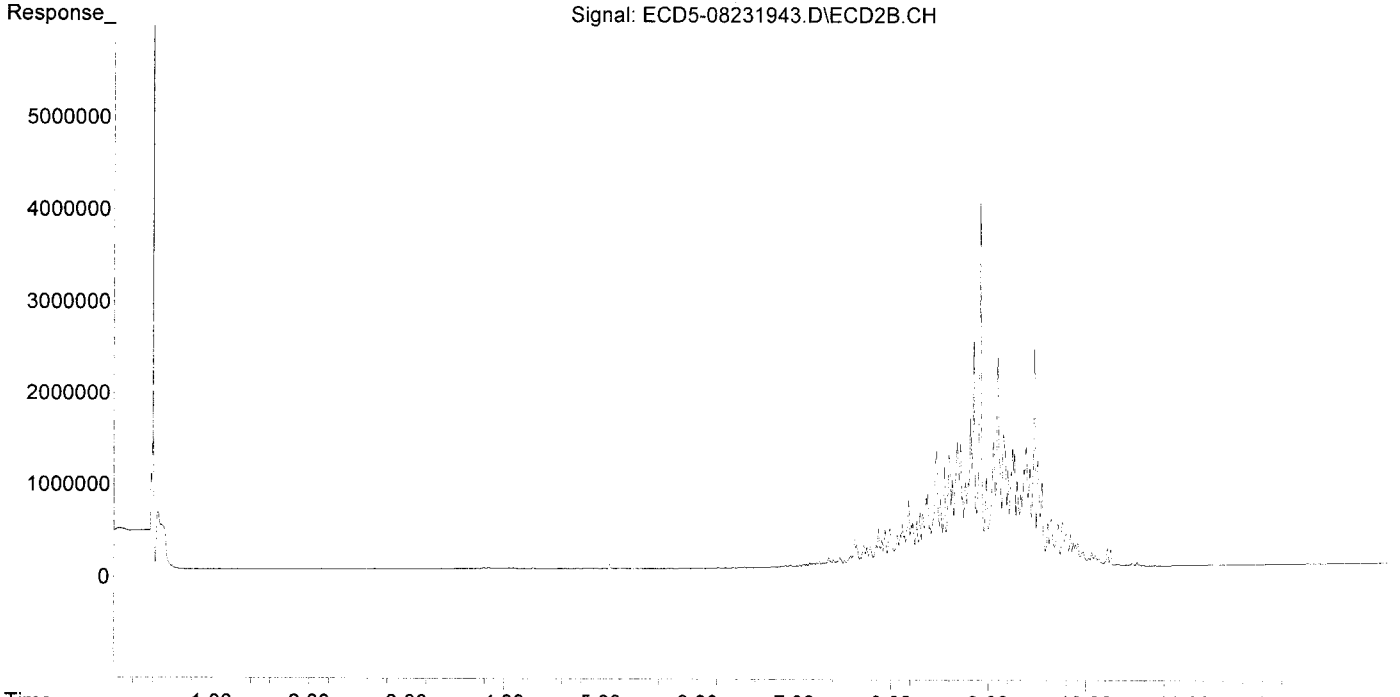
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

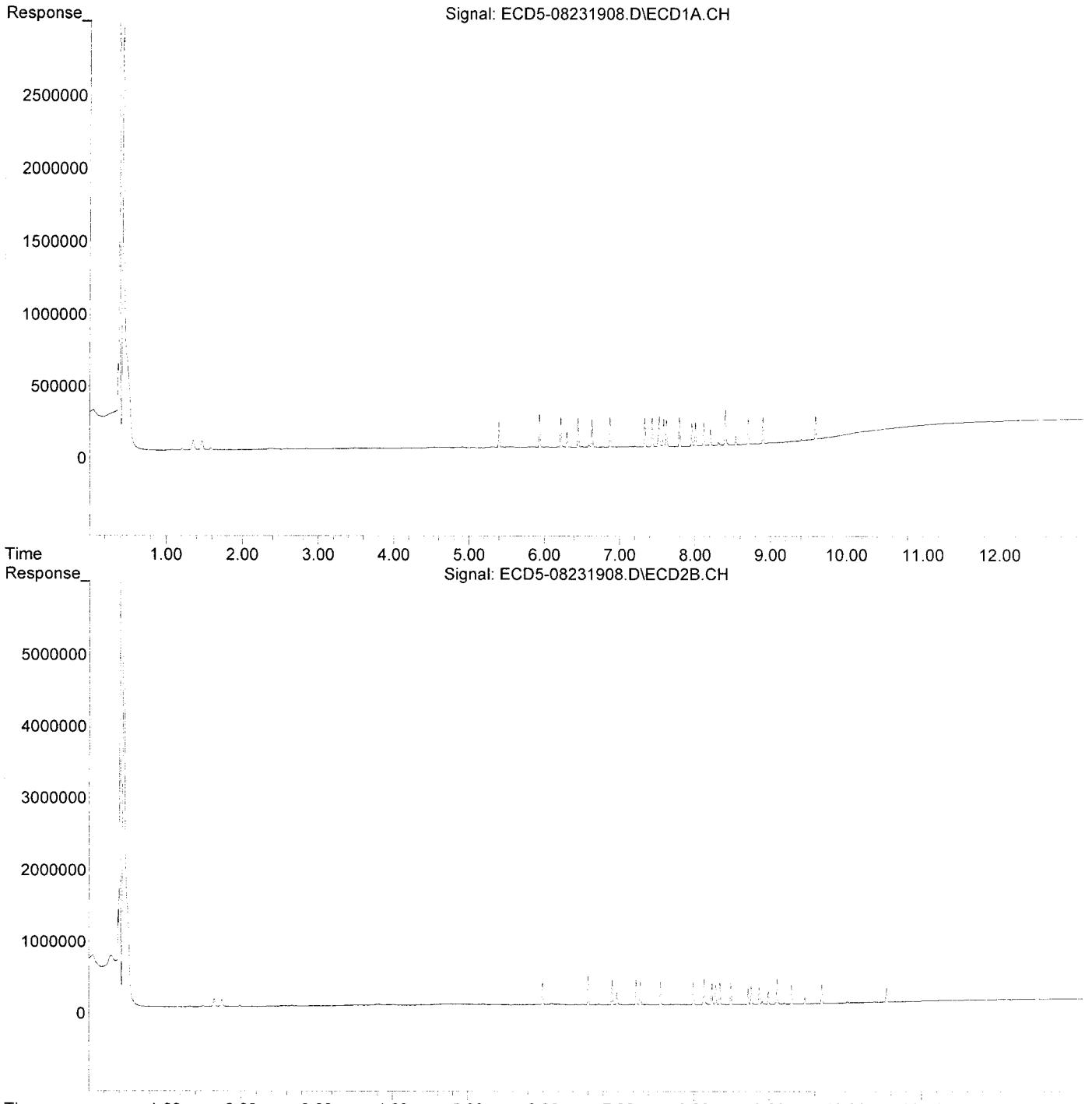
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.397	5.991	176748	300053	1.065	1.023	
22)	S	DCBP (S)	9.593	10.541	163865	191572	1.161	1.066	
		Target Compounds							
2)		a-BHC	5.937	6.597	231994	393119	1.012	0.958	
3)		g-BHC	6.221	6.915	207427	352286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

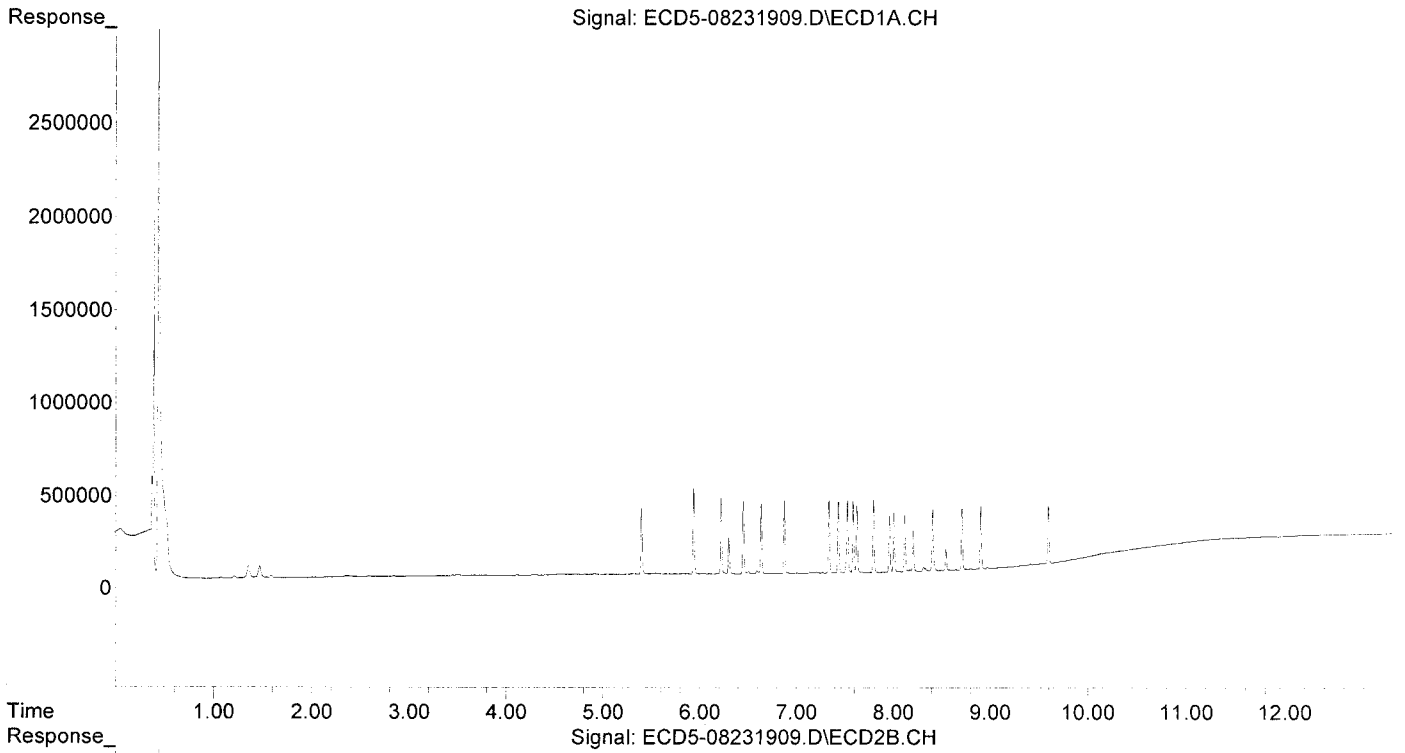
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.396	5.990	349972	600766	2.109	2.048	
22)	S	DCBP (S)	9.593	10.542	309904	390006	2.196	2.170	
		Target Compounds							
2)		a-BHC	5.936	6.597	458365	784586	1.999	1.912	
3)		g-BHC	6.220	6.915	406027	690922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

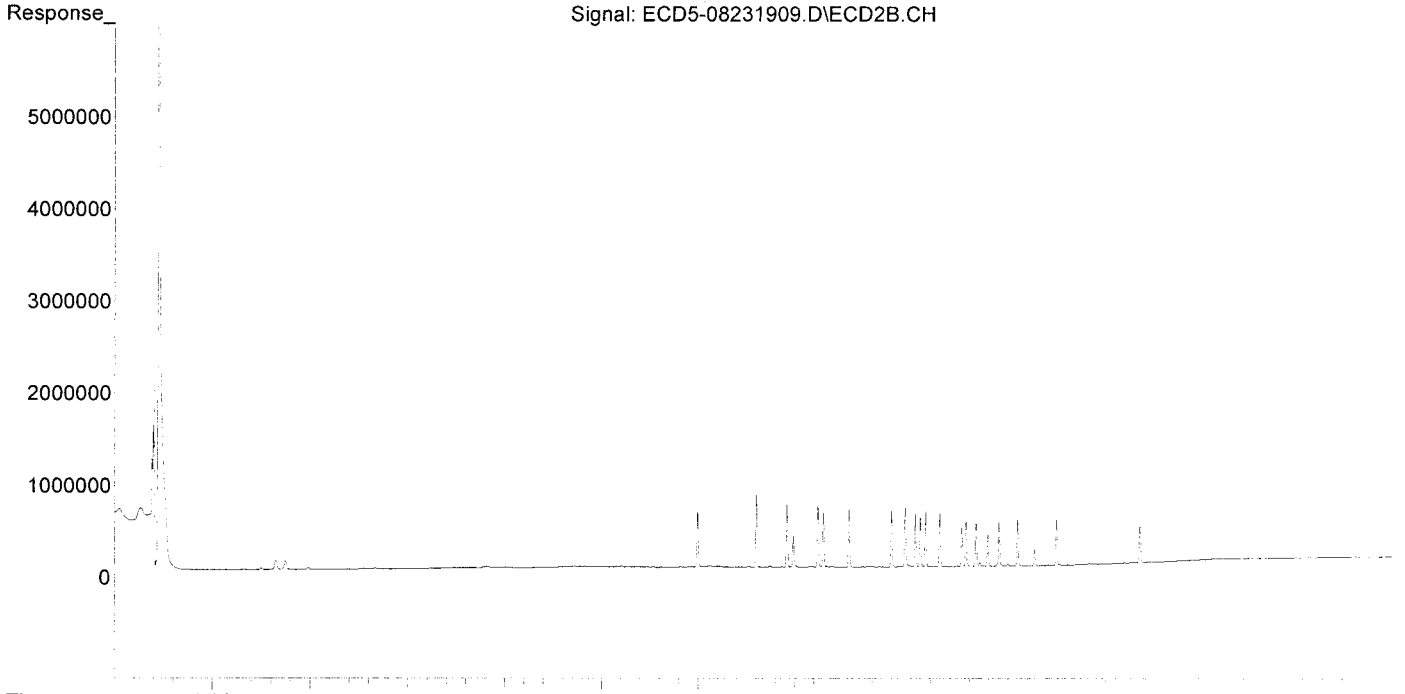
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

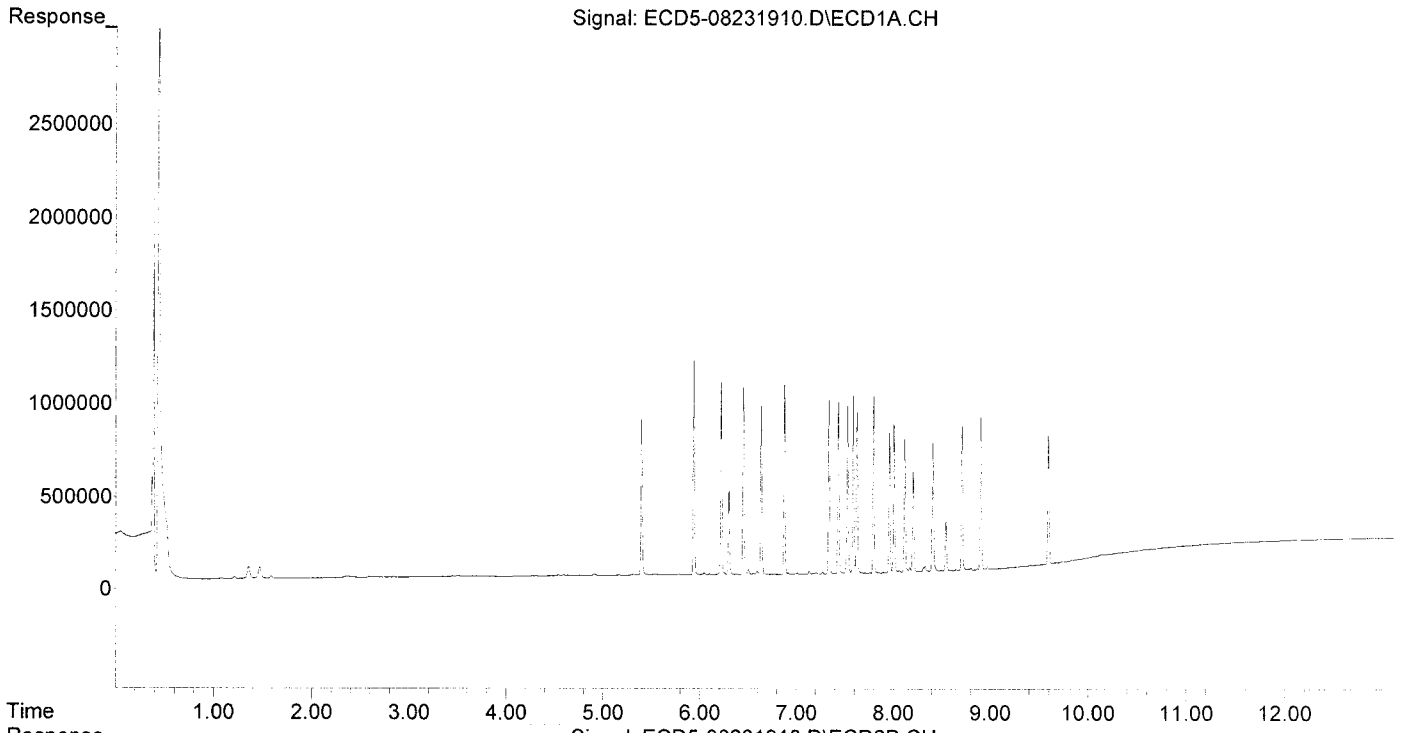
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.396	5.990	834206	1437876	5.026	4.901	
22)	S	DCBP (S)	9.594	10.542	701050	870921	4.969	4.845	
		Target Compounds							
2)		a-BHC	5.937	6.597	1147932	1985438	5.006	4.839	
3)		g-BHC	6.220	6.915	1020724	1742677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

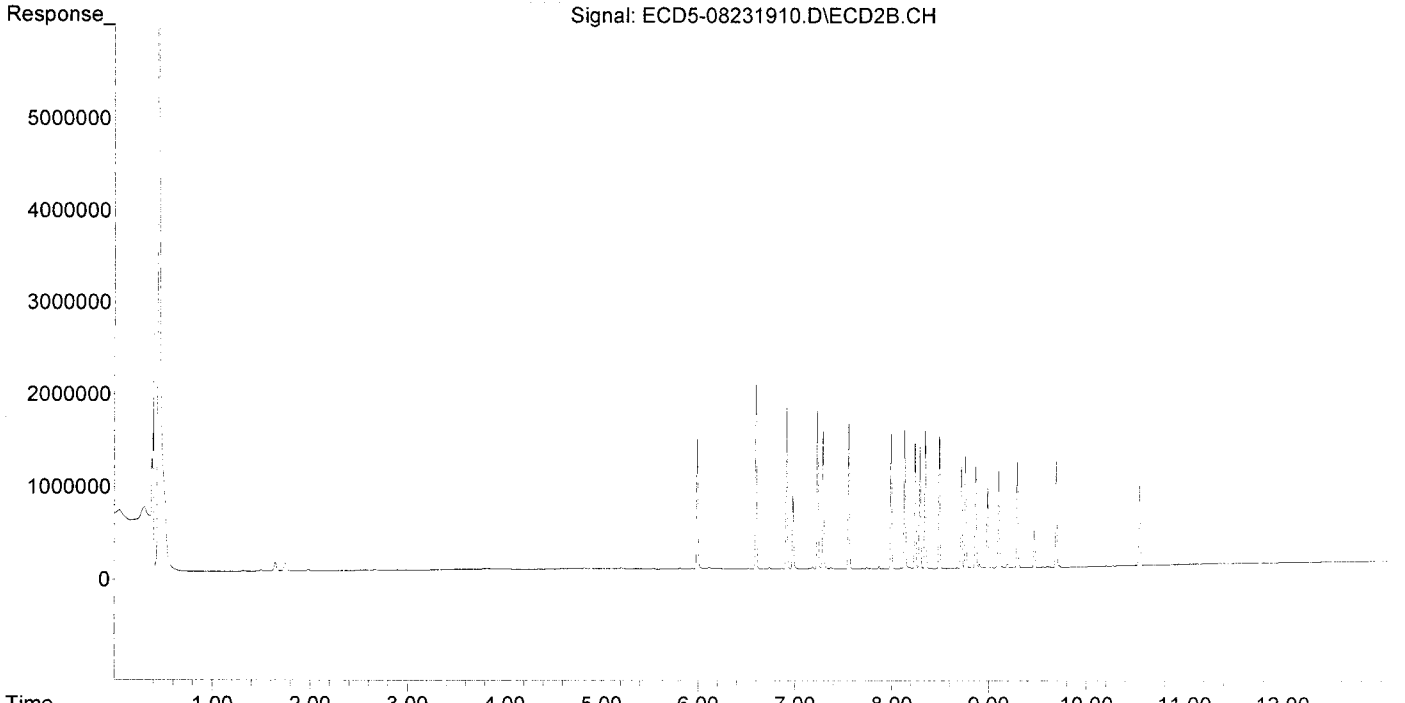
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

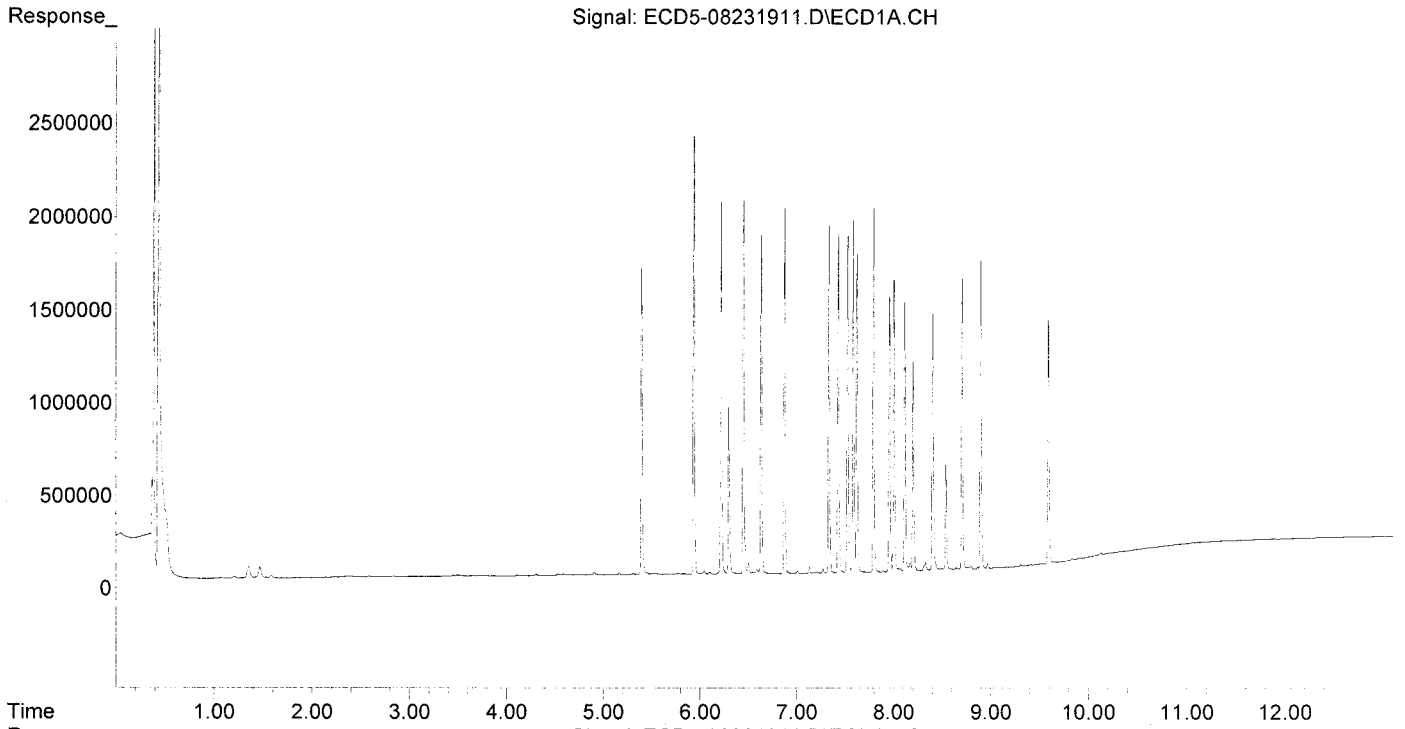
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.396	5.990	1644447	2865854	9.908	9.769	
22) S	DCBP (S)	9.593	10.541	1335468	1678728	9.465	9.339	
	Target Compounds							
2)	a-BHC	5.936	6.597	2347065	4095890	10.234	9.982	
3)	g-BHC	6.220	6.915	2034859	3476733	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.	

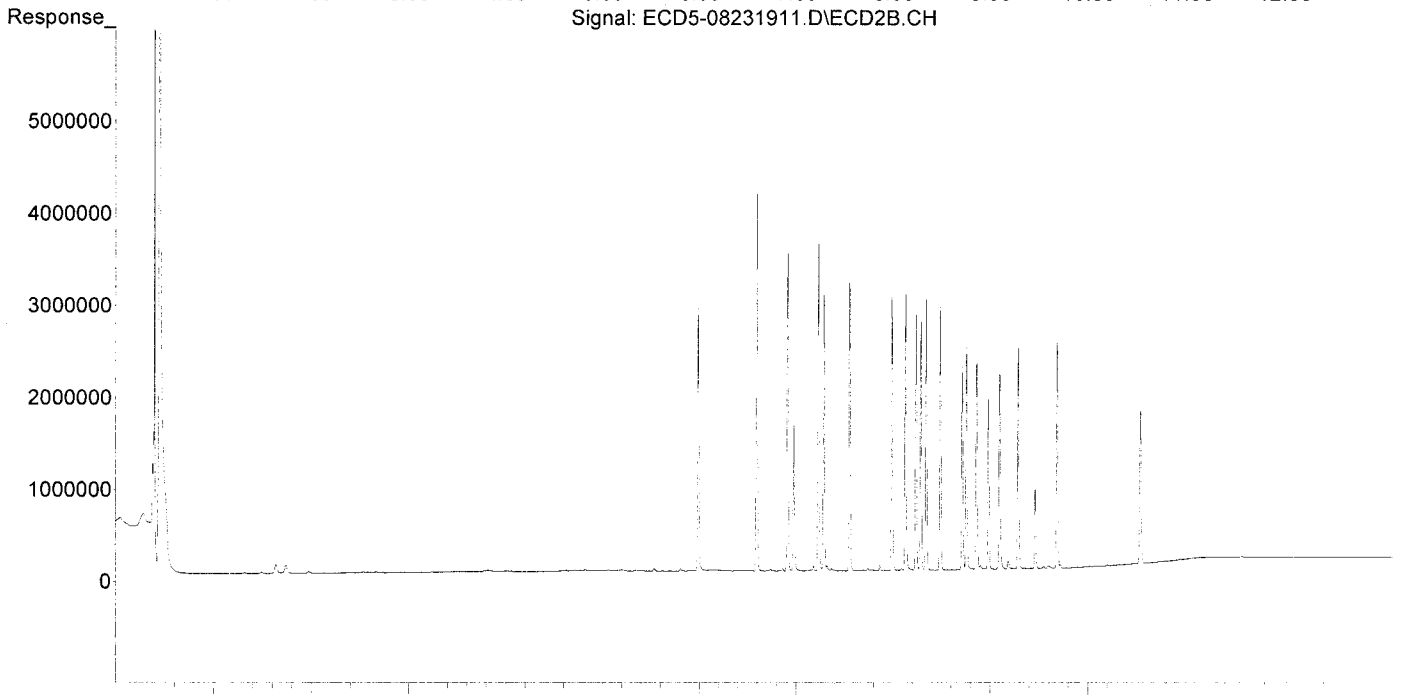
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

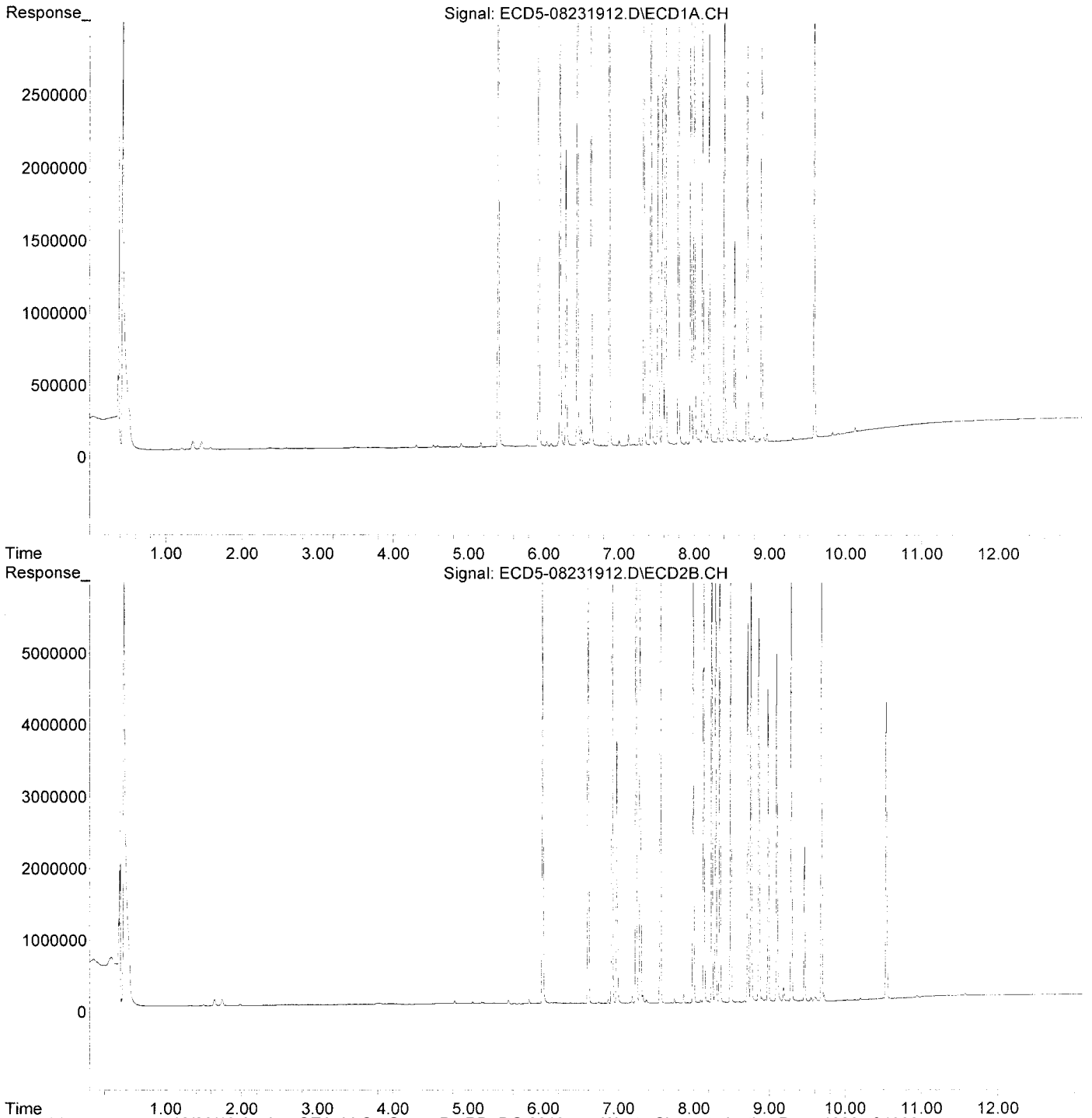
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.989	4015832	7072923	24.195	24.109	
22)	S	DCBP (S)	9.592	10.539	3342634	4163229	23.690	23.160	
		Target Compounds							
2)		a-BHC	5.935	6.596	5553096	9910863	24.215	24.153	
3)		g-BHC	6.218	6.913	4875657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

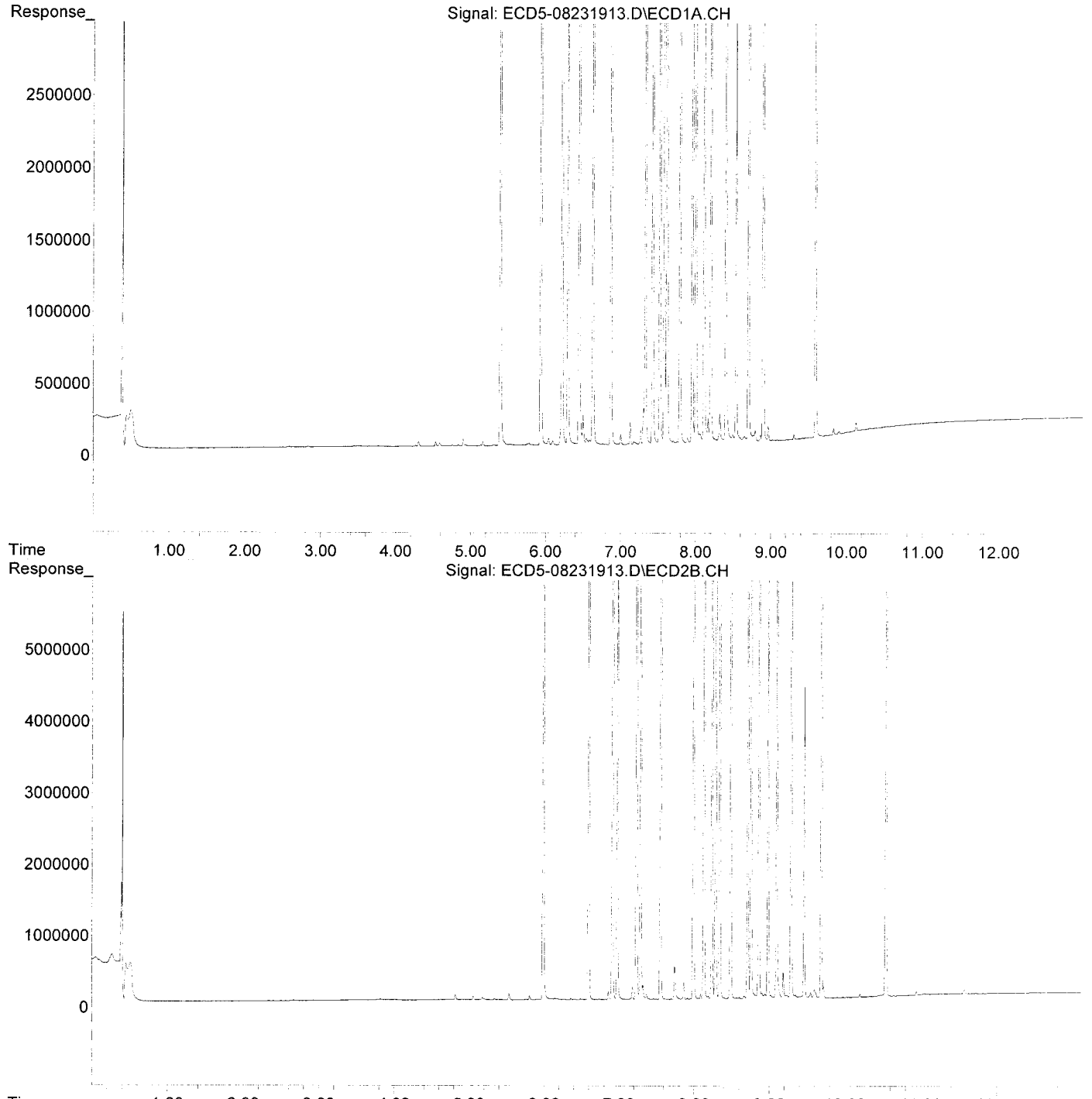
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.989	8071481	14196745	48.631	48.392	
22)	S	DCBP (S)	9.592	10.541	6678990	8730692	47.336	48.568	
		Target Compounds							
2)		a-BHC	5.935	6.596	11369592	20265817	49.578	49.388	
3)		g-BHC	6.218	6.914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

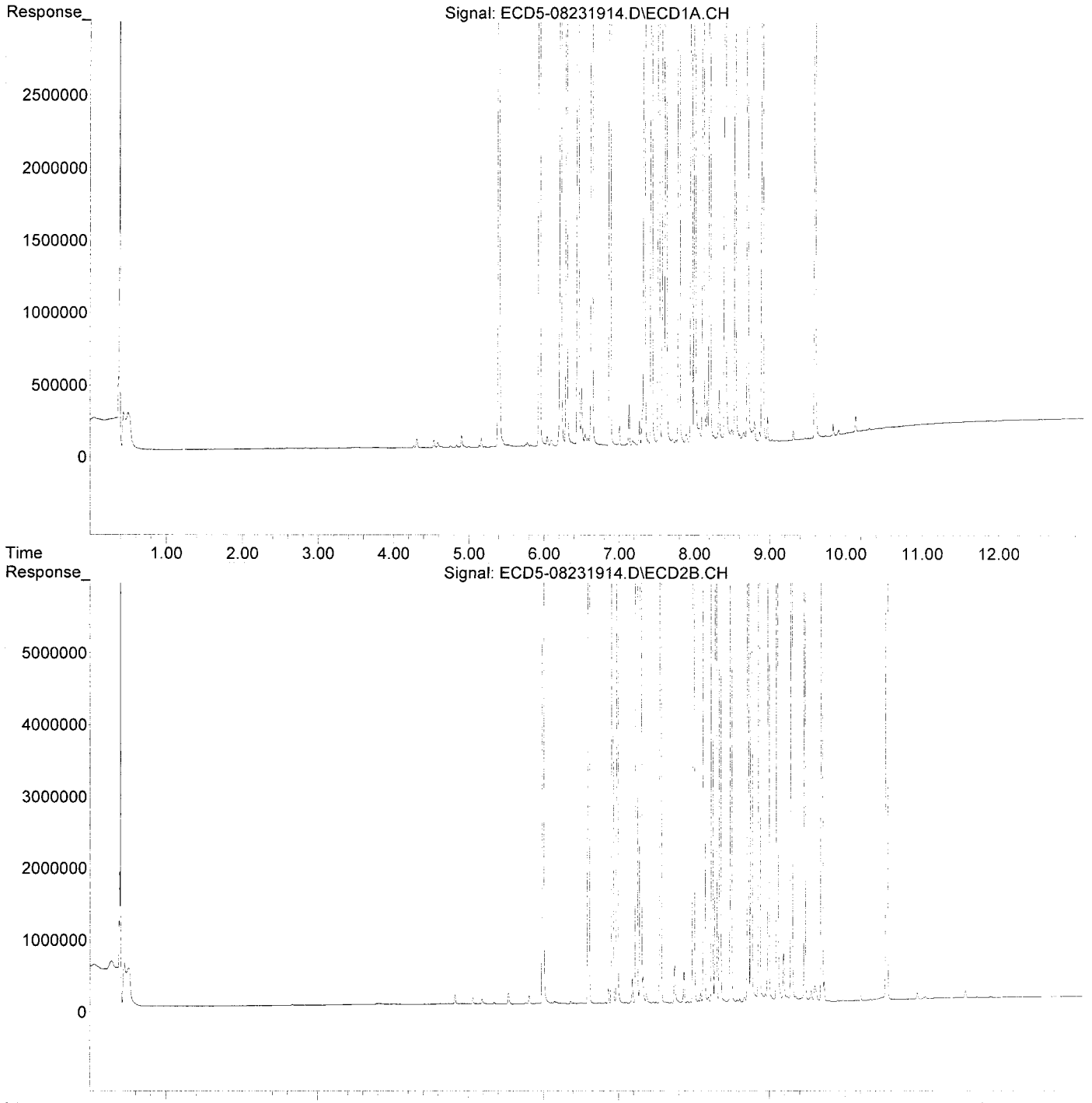
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.395	5.989	15850922	29256334	95.502	99.726	
22)	S	DCBP (S)	9.592	10.540	13405396	17784069	95.007	98.931	
		Target Compounds							
2)		a-BHC	5.935	6.596	22363584	41699210	97.517	101.621	
3)		g-BHC	6.218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

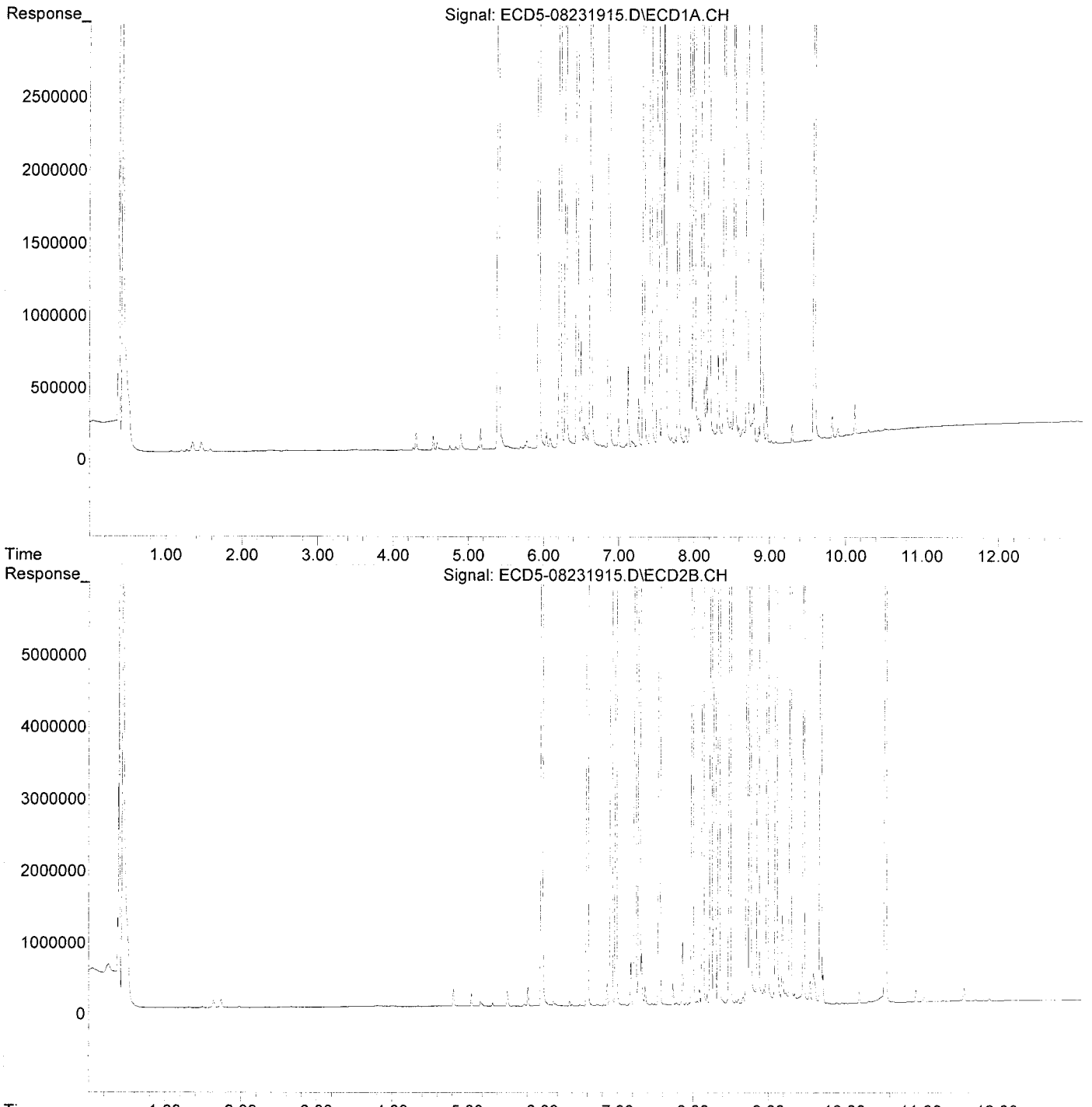
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.990	32842535	62584449	197.876	213.332	
22)	S	DCBP (S)	9.591	10.539	26975231	38097779	191.180	211.933	
		Target Compounds							
2)		a-BHC	5.935	6.597	47202252	94376748	205.828	229.997	
3)		g-BHC	6.218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

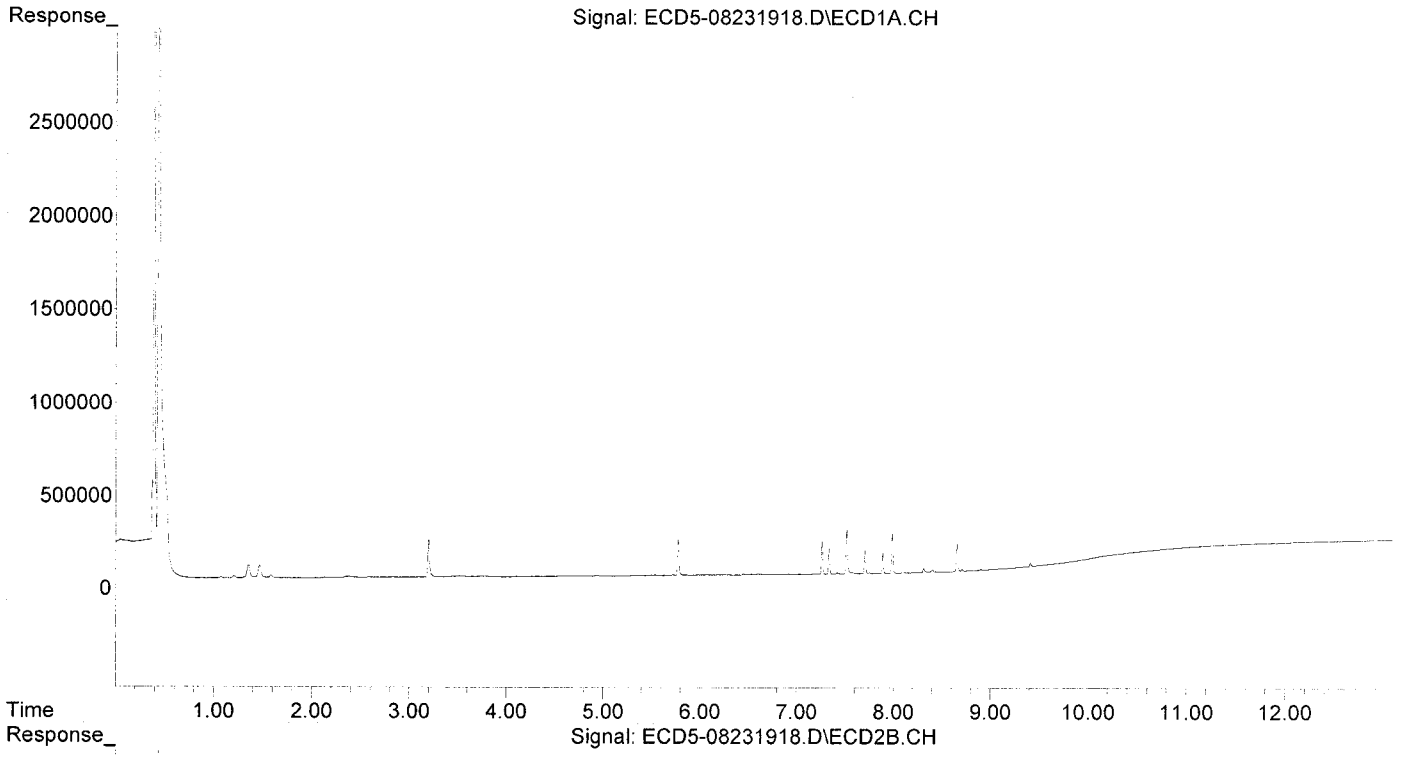
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6576	N.D.	0.022	#
22)	S	DCBP (S)	9.593	10.540	2255	5805	0.016	0.032	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4648	0	0.023	N.D.	#
4)		b-BHC	0.000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

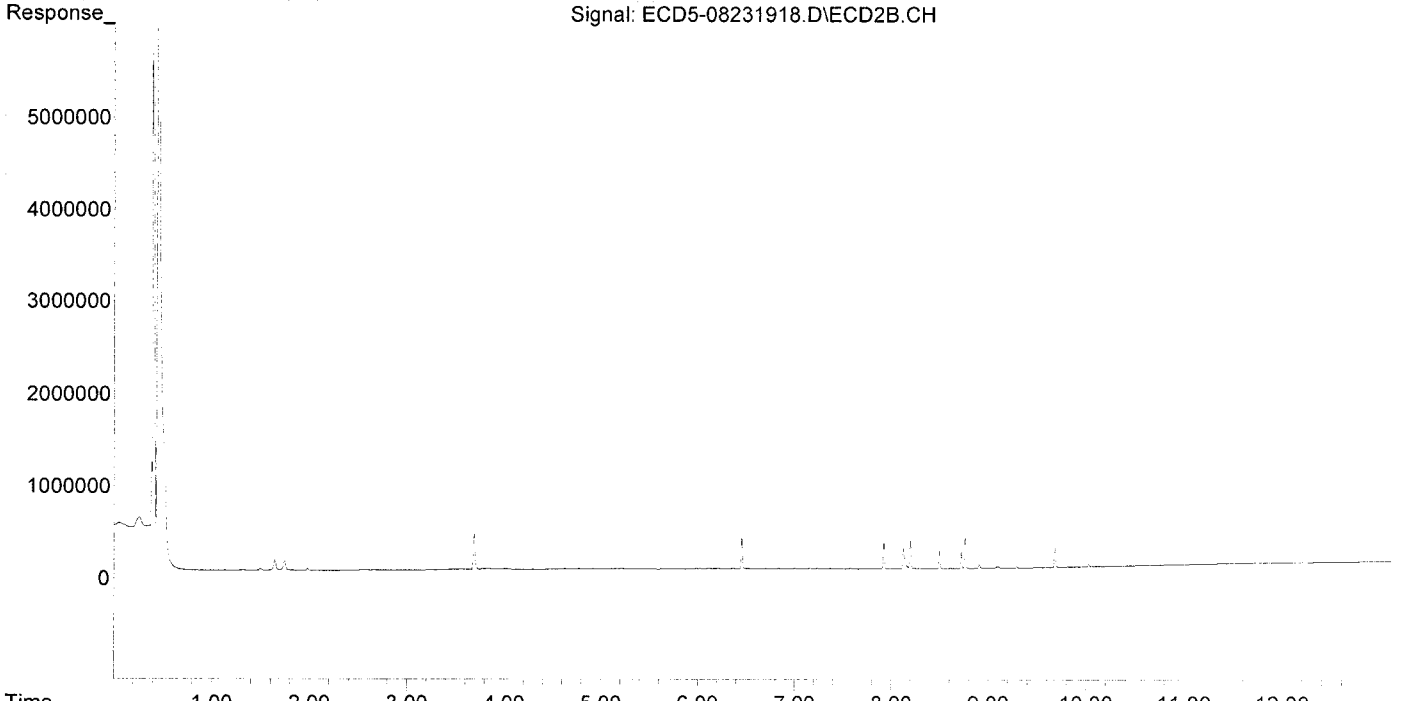
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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 8/26/19

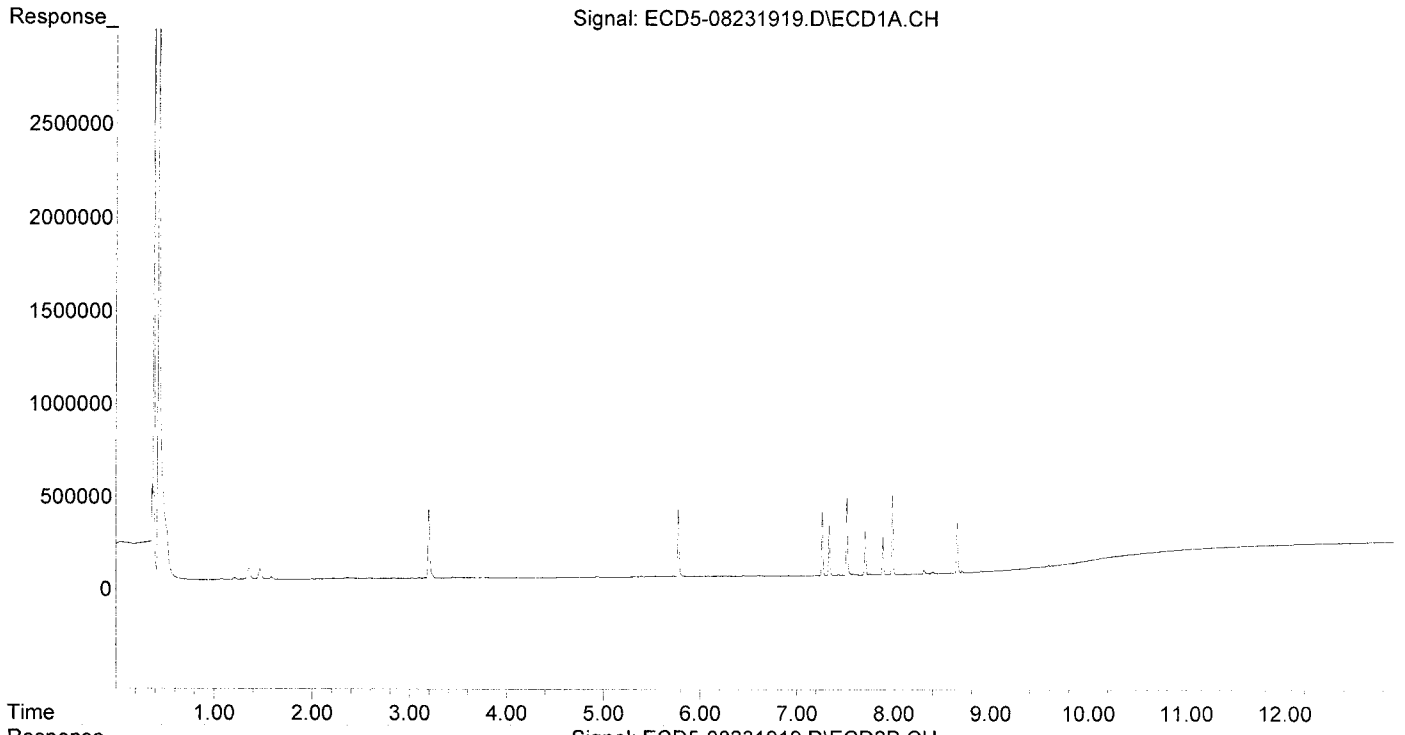
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.394	5.986	6323	13044	0.038	0.044	
22) S	DCBP (S)	9.592	10.539	6116	7474	0.043	0.042	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.248f	0.000	3811	0	0.019	N.D.	#
4)	b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)	Heptachlor	6.631	0.000	3915	0	0.022	N.D.	#
6)	d-BHC	6.449	7.231	6839	9605	0.035	0.027	
7)	Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)	Heptachlo...	7.334	0.000	265212	0	1.440	N.D.	#
9)	trans-Chl...	7.429	8.123	4955	411812	0.027	1.314	#
10)	cis-Chlor...	7.518	0.000	415126	0	2.280	N.D.	#
11)	Endosulfa...	7.582f	0.000	3811	0	0.022	N.D.	#
12)	4,4'-DDE	7.582	0.000	3811	0	0.020	N.D.	#
13)	Dieldrin	7.754f	8.495	8020	373596	0.042	1.228	#
14)	Endrin	7.986f	8.718	423442	332170	2.880	1.471	#
15)	4,4'-DDD	7.986	8.758	423442	624783	2.695	2.439	
16)	Endosulfa...	8.116	8.862	3733	5461	0.026	0.024	
17)	4,4'-DDT	8.200	0.000	1311	0	0.011	N.D.	#
18)	Endrin Al...	8.405	9.099	11160	14424	BelowCal	BelowCal	
19)	Endosulfa...	8.705	9.289	10006	14488	0.065	0.058	
20)	Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)	Endrin Ke...	8.899	9.680	5404	388199	0.032	1.509	#
23)	Hexachlor...	3.198	3.687	375794	754548	2.056	2.007	
24)	Hexachlor...	5.775	6.453	362082	632830	2.054	2.015	
25)	Oxychlordane	7.262	7.921	339370	541023	2.063	1.975	
26)	2,4'-DDE	7.334	8.123	265212	411812	2.068	1.941	
27)	trans-Non...	7.518	8.194	415126	587765	2.001	1.949	
28)	2,4'-DDD	7.707	8.495	233089	373596	2.042	1.978	
29)	2,4'-DDT	7.889	8.718	204209	332170	1.862	1.863	
30)	cis-Nonac...	7.986	8.758	423442	624783	2.040	1.863	
31)	Mirex	8.655	9.680	266770	388199	2.128	2.086	
32)	Chlordane...	7.429	8.123	4955	411812	0.252	11.381	#
33)	Chlordane...	7.518	0.000	415126	0	16.562	N.D.	#
34)	Chlordane...	0.000	8.903	0	41985	N.D.	4.683	#
35)	Chlordane...	3.444	0.000	5015	0	NoCal	N.D.	
36)	Toxaphene...	7.518	8.495f	415126	373596	463.493	142.363	#
37)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)	Toxaphene...	8.116	8.862	3733	5461	1.108	1.077	
39)	Toxaphene...	8.312f	8.903	22876	41985	7.060	5.028	
40)	Toxaphene...	0.000	9.099	0	14424	N.D.	3.095	#
41)	Toxaphene...	8.655	0.000	266770	0	84.299	N.D.	#
42)	Toxaphene...	3.444	0.000	5015	0	NoCal	N.D.	

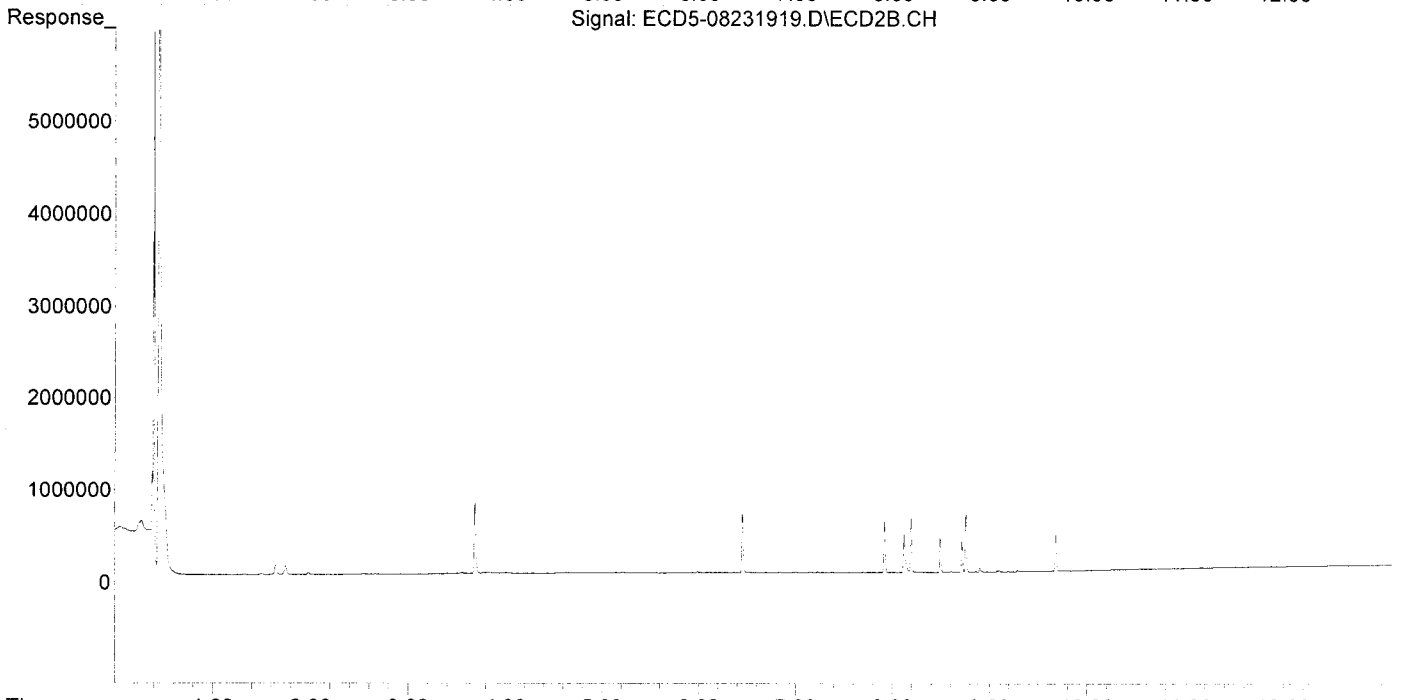
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:01
Operator : MJB
Sample : 9H23034-CALA
Misc : A19E273, 9-42 2 ppb
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:30 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:18
Operator : MJB
Sample : 9H23034-CALB
Misc : A19E274, 9-42 5 ppb
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:42 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

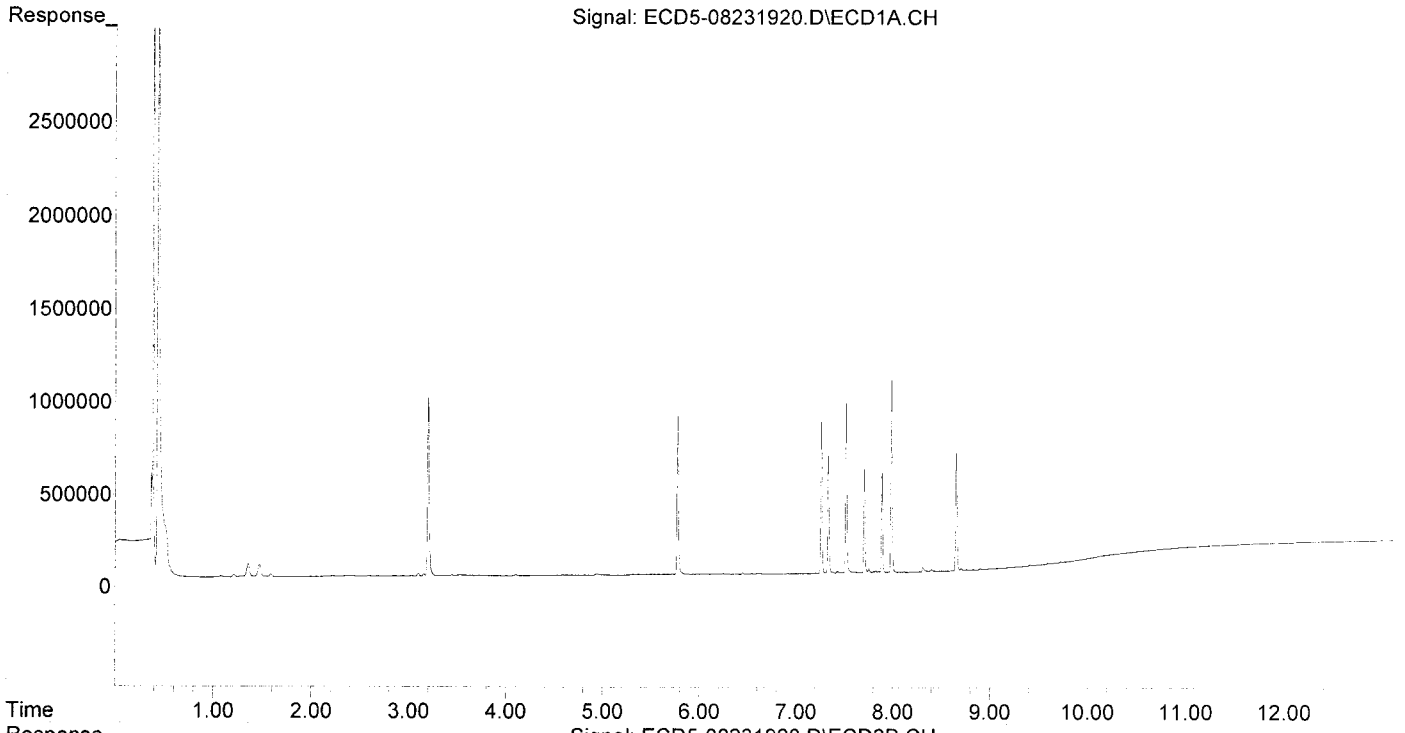
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.368f	5.982	4403	6341	0.027	0.022	
22)	S	DCBP (S)	9.592	10.539	7940	5412	0.056	0.030	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.247f	0.000	5412	0	0.027	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	6.631	7.289	4685	5276	0.026	0.017	
6)		d-BHC	6.449	7.232	7597	11663	0.039	0.033	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.334	7.991	633168	6408	3.438	0.021	#
9)		trans-Chl...	7.429	8.123	9886	1029687	0.053	3.286	#
10)		cis-Chlor...	7.518	8.236	933222	8550	5.126	0.029	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	7.799	8.495	5522	898697	0.029	2.955	#
14)		Endrin	7.986f	8.719	1025899	873074	6.978	3.866	#
15)		4,4'-DDD	7.986	8.759	1025899	1587243	6.529	6.195	
16)		Endosulfa...	8.116	8.862	3810	5519	0.027	0.024	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.404	9.098	10319	12495	BelowCal	BelowCal	
19)		Endosulfa...	8.705	9.289	10733	14179	0.069	0.057	
20)		Methoxychlor	8.550	0.000	617	0	0.011	N.D.	#
21)		Endrin Ke...	8.899	9.679	5632	895523	0.034	3.480	#
23)		Hexachlor...	3.198	3.687	959211	1877484	5.249	4.994	
24)		Hexachlor...	5.775	6.453	853793	1485583	4.843	4.730	
25)		Oxychlordane	7.262	7.921	819748	1325543	4.982	4.839	
26)		2,4'-DDE	7.334	8.123	633168	1029687	4.937	4.854	
27)		trans-Non...	7.518	8.194	933222	1467723	4.893	4.866	
28)		2,4'-DDD	7.705	8.495	560942	898697	4.915	4.758	
29)		2,4'-DDT	7.889	8.719	536967	873074	4.895	4.896	
30)		cis-Nonac...	7.986	8.759	1025899	1587243	4.941	4.732	
31)		Mirex	8.654	9.679	628618	895523	5.014	4.813	
32)		Chlordane...	7.429	8.123	9886	1029687	0.502	28.457	#
33)		Chlordane...	7.518	8.236	933222	8550	37.233	0.282	#
34)		Chlordane...	0.000	8.903	0	41570	N.D.	4.636	#
35)		Chlordane...	3.443	3.434	5083	3848	NoCal	NoCal	
36)		Toxaphene...	7.518	8.495f	933222	898697	1041.953	342.457	#
37)		Toxaphene...	7.799	0.000	5522	0	3.419	N.D.	#
38)		Toxaphene...	8.116	8.862	3810	5519	1.131	1.089	
39)		Toxaphene...	8.312f	8.903	22738	41570	7.017	4.979	
40)		Toxaphene...	8.550f	9.098	617	12495	0.257	2.681	#
41)		Toxaphene...	8.654	0.000	628618	0	198.642	N.D.	#
42)		Toxaphene...	3.443	3.434	5083	3848	NoCal	NoCal	

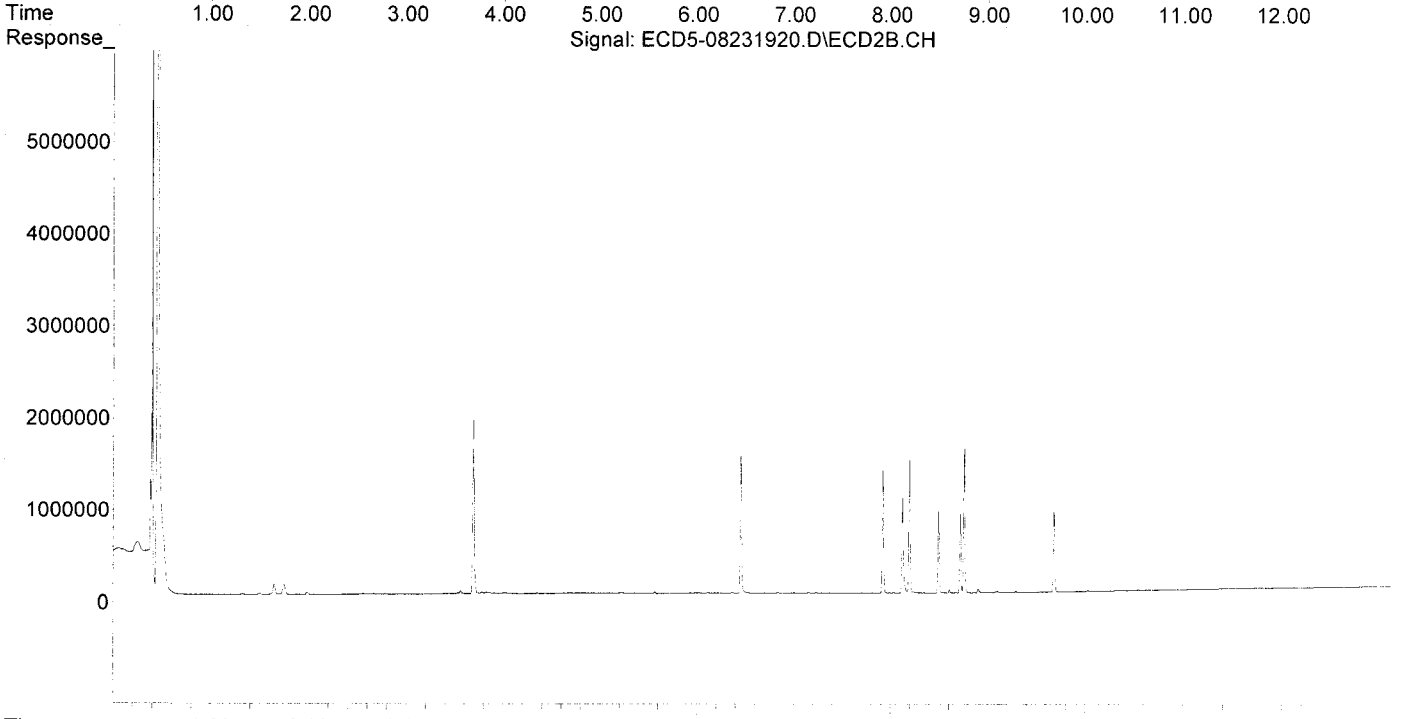
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:18
Operator : MJB
Sample : 9H23034-CALB
Misc : A19E274, 9-42 5 ppb
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:42 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:35
Operator : MJB
Sample : 9H23034-CALC
Misc : A19E275, 9-42 10 ppb
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/27/19

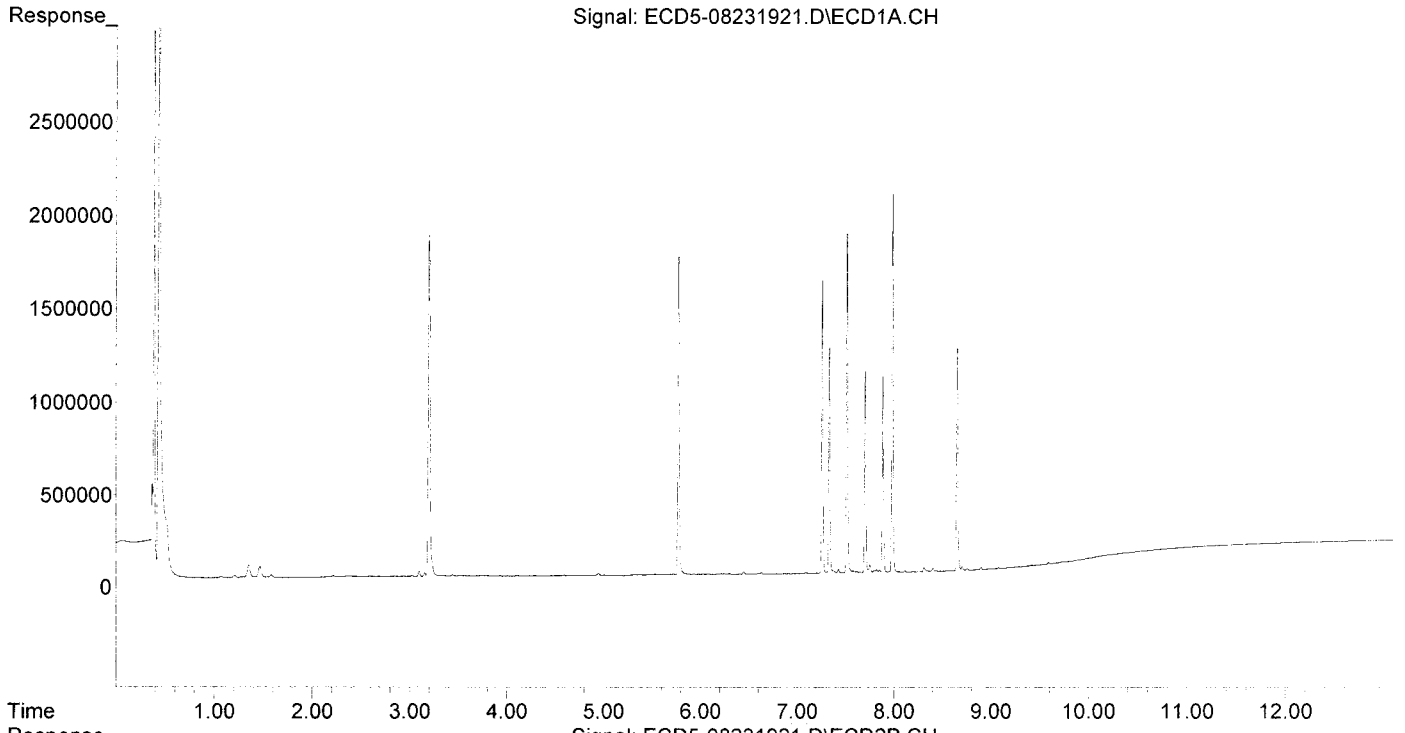
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.983	5244	8048	0.032	0.027	
22)	S	DCBP (S)	9.591	10.539	8426	10511	0.060	0.058	
		Target Compounds							
2)		a-BHC	5.934	6.594	5268	9085	0.023	0.022	
3)		g-BHC	6.219	6.912	5161	7308	0.026	0.020	
4)		b-BHC	6.300	6.978	6085	7741	0.067	0.049	
5)		Heptachlor	6.631	7.288	8267	12275	0.046	0.040	
6)		d-BHC	6.449	7.232	14325	24245	0.073	0.069	
7)		Aldrin	6.872	7.553	3901	5863	0.020	0.018	
8)		Heptachlo...	7.333	7.990	1245265	15714	6.761	0.052	#
9)		trans-Chl...	7.428	8.122	20597	2018331	0.111	6.442	#
10)		cis-Chlor...	7.516	8.236	1817552	21137	9.983	0.073	#
11)		Endosulfa...	7.620	8.289	8045	10794	0.047	0.039	
12)		4,4'-DDE	7.582	8.342	11334	7910	0.060	0.025	#
13)		Dieldrin	7.797	8.495	12142	1778790	0.063	5.848	#
14)		Endrin	7.986f	8.719	2032010	1702568	13.821	7.539	#
15)		4,4'-DDD	7.986	8.759	2032010	3148054	12.931	12.287	
16)		Endosulfa...	8.115	8.863	8267	13466	0.058	0.058	
17)		4,4'-DDT	8.202	0.000	2833	0	0.024	N.D.	#
18)		Endrin Al...	8.404	9.098	18899	26666	BelowCal	BelowCal	
19)		Endosulfa...	8.705	9.289	20232	26713	0.131	0.107	
20)		Methoxychlor	8.543	0.000	1294	0	0.022	N.D.	#
21)		Endrin Ke...	8.899	9.679	11108	1722960	0.067	6.696	#
23)		Hexachlor...	3.198	3.687	1838187	3701532	10.059	9.846	
24)		Hexachlor...	5.774	6.453	1711884	2936294	9.710	9.349	
25)		Oxychlordane	7.261	7.921	1591613	2538903	9.673	9.269	
26)		2,4'-DDE	7.333	8.122	1245265	2018331	9.709	9.514	
27)		trans-Non...	7.516	8.194	1817552	2844404	9.830	9.430	
28)		2,4'-DDD	7.705	8.495	1103587	1778790	9.670	9.418	
29)		2,4'-DDT	7.888	8.719	1051565	1702568	9.587	9.547	
30)		cis-Nonac...	7.986	8.759	2032010	3148054	9.787	9.385	
31)		Mirex	8.654	9.679	1196365	1722960	9.543	9.260	
32)		Chlordane...	7.428	8.122	20597	2018331	1.046	55.779	#
33)		Chlordane...	7.516	8.236	1817552	21137	72.516	0.696	#
34)		Chlordane...	0.000	8.903	0	42511	N.D.	4.741	#
35)		Chlordane...	3.445	3.433	6229	7261	NoCal	NoCal	
36)		Toxaphene...	7.516	8.495f	1817552	1778790	2029.316	677.826	#
37)		Toxaphene...	7.797	0.000	12142	0	7.518	N.D.	#
38)		Toxaphene...	8.115	8.863	8267	13466	2.455	2.657	
39)		Toxaphene...	8.312f	8.903	23581	42511	7.278	5.091	
40)		Toxaphene...	8.582	9.098	560	26666	0.234	5.722	#
41)		Toxaphene...	8.654	0.000	1196365	0	378.048	N.D.	#
42)		Toxaphene...	3.445	3.433	6229	7261	NoCal	NoCal	

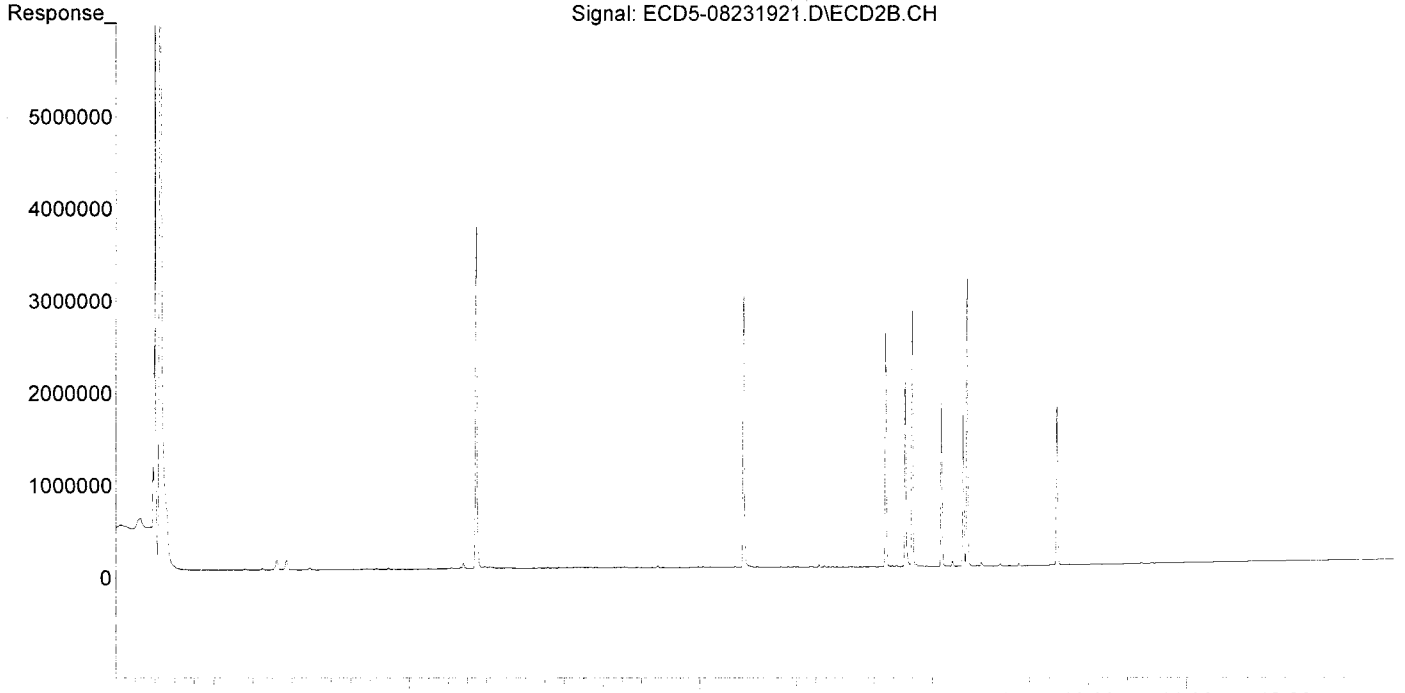
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:35
Operator : MJB
Sample : 9H23034-CALC
Misc : A19E275, 9-42 10 ppb
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:53
Operator : MJB
Sample : 9H23034-CALD
Misc : A19E276, 9-42 25 ppb
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

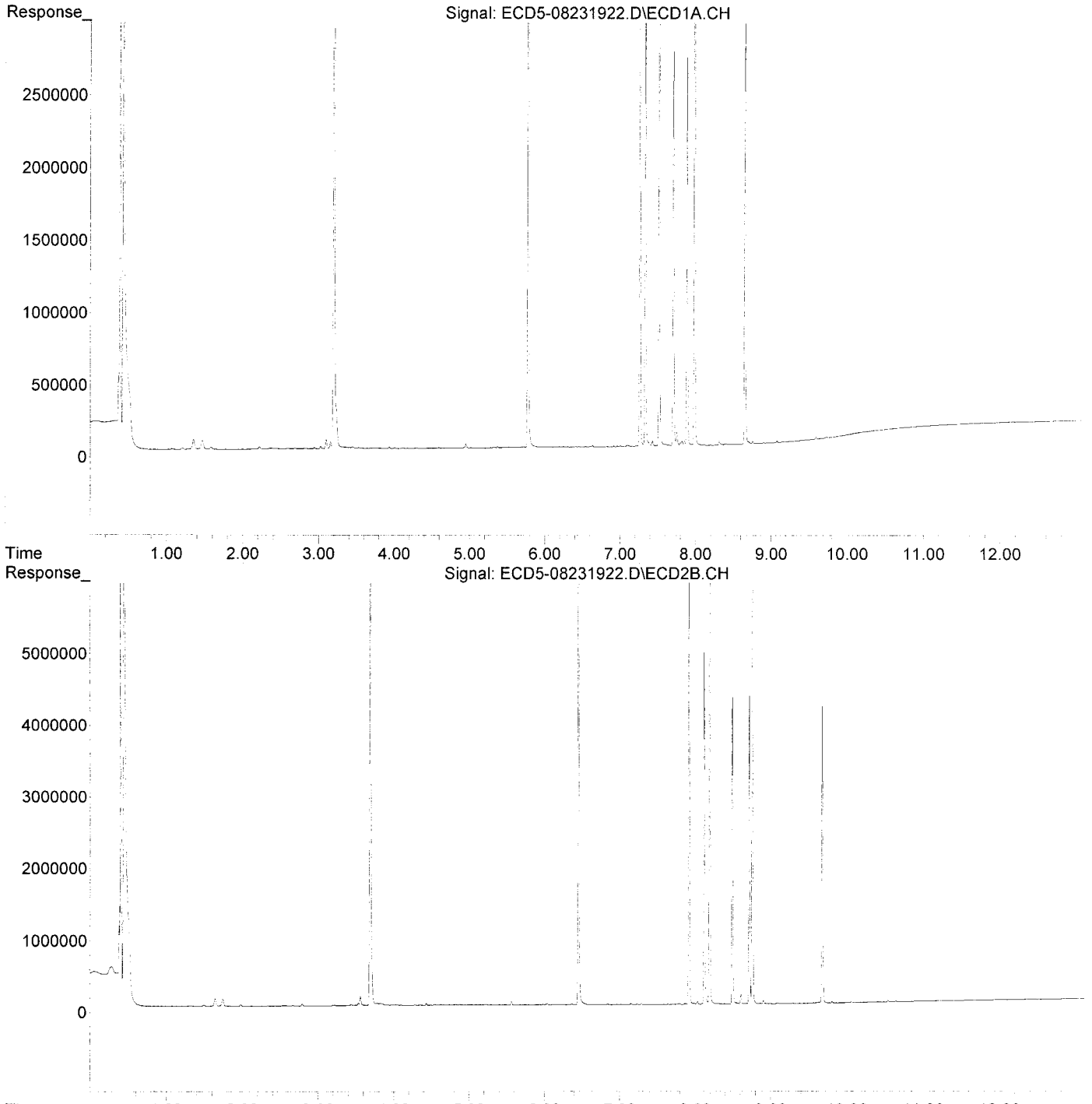
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.367f	5.981	10828	6833	0.065	0.023	#
22) S	DCBP (S)	9.592	10.539	20297	20262	0.144	0.113	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.248f	0.000	5786	0	0.029	N.D.	#
4)	b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)	Heptachlor	6.632	7.288	9958	12977	0.055	0.042	
6)	d-BHC	6.450	7.231	5090	7876	0.026	0.022	
7)	Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)	Heptachlo...	7.333	7.989	3059421	19960	16.611	0.066	#
9)	trans-Chl...	7.428	8.122	36083	4999232	0.195	15.955	#
10)	cis-Chlor...	7.516	8.235	4391046	27018	24.117	0.093	#
11)	Endosulfa...	7.604	8.299	11350	9999	0.067	0.036	#
12)	4,4'-DDE	7.604f	0.000	11350	0	0.060	N.D.	#
13)	Dieldrin	7.800	8.495	19961	4389185	0.104	14.431	#
14)	Endrin	7.986f	8.719	4993110	4405554	33.960	19.509	#
15)	4,4'-DDD	7.986	8.759	4993110	8219393	31.775	32.080	
16)	Endosulfa...	0.000	8.862	0	7977	N.D.	0.035	#
17)	4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)	Endrin Al...	8.404	9.098	7779	9076	BelowCal	BelowCal	
19)	Endosulfa...	0.000	9.289	0	11382	N.D.	0.046	#
20)	Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)	Endrin Ke...	8.899	9.679	4709	4138115	0.028	16.082	#
23)	Hexachlor...	3.198	3.687	4363988	8892238	23.881	23.654	
24)	Hexachlor...	5.774	6.453	4184551	7416324	23.736	23.612	
25)	Oxychlordane	7.261	7.920	3881255	6202791	23.589	22.646	
26)	2,4'-DDE	7.333	8.122	3059421	4999232	23.853	23.566	
27)	trans-Non...	7.516	8.194	4391046	7092288	24.199	23.513	
28)	2,4'-DDD	7.705	8.495	2745178	4389185	24.054	23.240	
29)	2,4'-DDT	7.888	8.719	2728794	4405554	24.878	24.703	
30)	cis-Nonac...	7.986	8.759	4993110	8219393	24.050	24.503	
31)	Mirex	8.654	9.679	2910818	4138115	23.218	22.239	
32)	Chlordane...	7.428	8.122	36083	4999232	1.833	138.159	#
33)	Chlordane...	7.516	8.235	4391046	27018	175.191	0.890	#
34)	Chlordane...	0.000	8.903	0	43328	N.D.	4.833	#
35)	Chlordane...	3.444	3.433	9286	16581	NoCal	NoCal	
36)	Toxaphene...	7.516	8.495f	4391046	4389185	4902.650	1672.543	#
37)	Toxaphene...	7.800	0.000	19961	0	12.360	N.D.	#
38)	Toxaphene...	0.000	8.862	0	7977	N.D.	1.574	#
39)	Toxaphene...	8.313f	8.903	24731	43328	7.633	5.189	
40)	Toxaphene...	8.607f	9.098	797	9076	0.332	1.947	#
41)	Toxaphene...	8.654	0.000	2910818	0	919.811	N.D.	#
42)	Toxaphene...	3.444	3.433	9286	16581	NoCal	NoCal	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:53
Operator : MJB
Sample : 9H23034-CALD
Misc : A19E276, 9-42 25 ppb
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

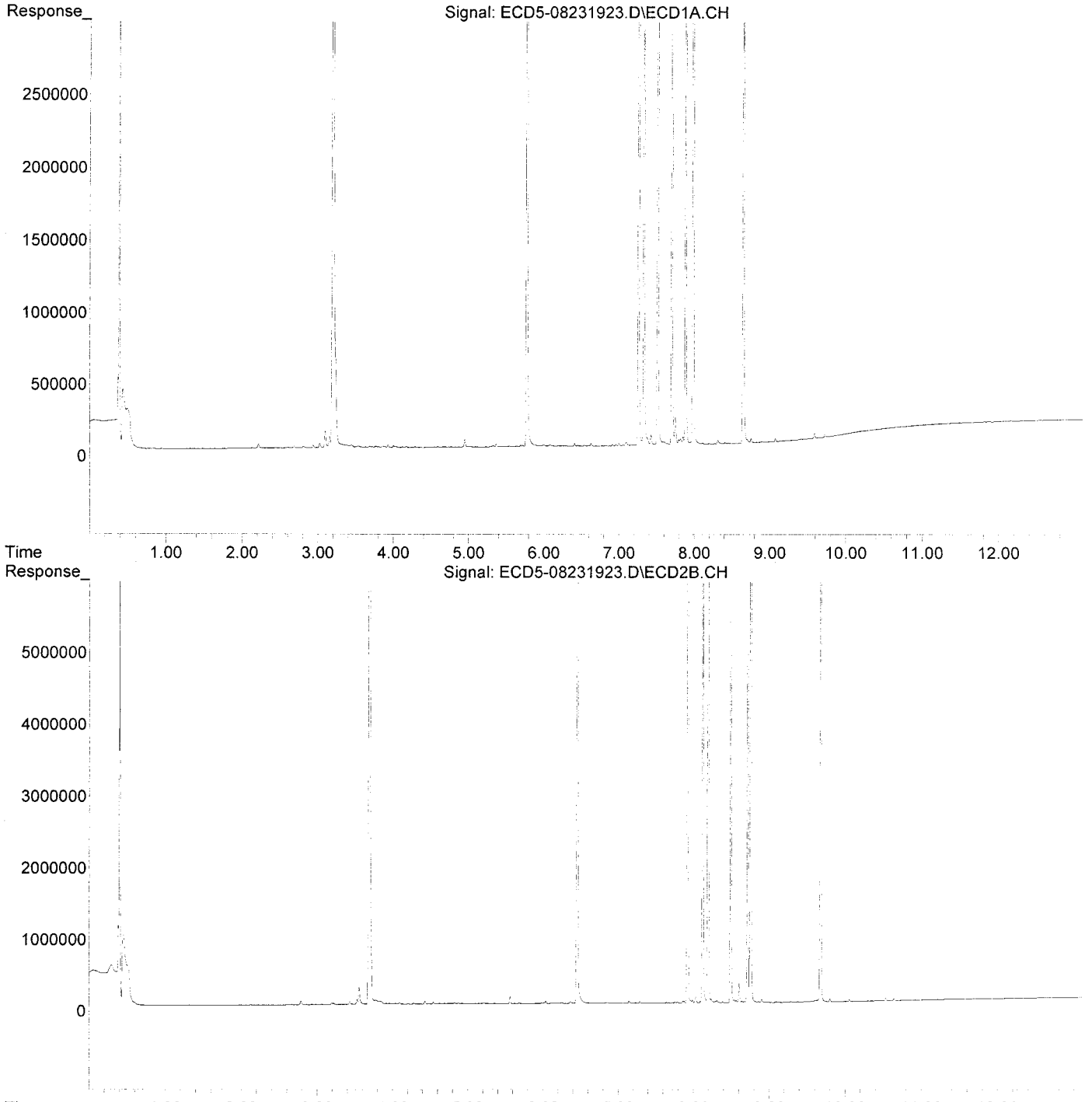
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.367f	5.981	19019	8441	0.115	0.029	#
22) S	DCBP (S)	9.591	10.538	35203	39503	0.249	0.220	
	Target Compounds							
2)	a-BHC	5.949	0.000	5252	0	0.023	N.D.	#
3)	g-BHC	6.196f	6.951f	4084	3735	0.020	0.010	#
4)	b-BHC	0.000	6.951f	0	3735	N.D.	0.024	#
5)	Heptachlor	6.632	7.289	17900	26152	0.099	0.085	
6)	d-BHC	6.450	7.232	4458	7173	0.023	0.020	
7)	Aldrin	0.000	7.520f	0	4998	N.D.	0.015	#
8)	Heptachlo...	7.333	7.989	6510588	39220	35.349	0.130	#
9)	trans-Chl...	7.428	8.122	71663	11006400	0.388	35.128	#
10)	cis-Chlor...	7.516	8.236	9581794	53379	52.627	0.183	#
11)	Endosulfa...	7.604	8.299	22096	24918	0.130	0.091	
12)	4,4'-DDE	7.604f	8.314f	22096	29928	0.117	0.096	
13)	Dieldrin	7.798	8.495	33203	9924934	0.173	32.632	#
14)	Endrin	7.985f	8.718	10616019	8810591	72.204	39.015	#
15)	4,4'-DDD	7.985	8.758	10616019	17721229	67.557	69.166	
16)	Endosulfa...	0.000	8.862	0	12791	N.D.	0.055	#
17)	4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)	Endrin Al...	8.409	9.099	5626	7468	BelowCal	BelowCal	
19)	Endosulfa...	0.000	9.289	0	9409	N.D.	0.038	#
20)	Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)	Endrin Ke...	8.898	9.679	5162	9100959	0.031	35.369	#
23)	Hexachlor...	3.198	3.688	8761747	18635615	47.947	49.572	
24)	Hexachlor...	5.774	6.454	8911624	16094159	50.550	51.241	
25)	Oxychlordane	7.261	7.920	8382873	14172543	50.948	51.743	
26)	2,4'-DDE	7.333	8.122	6510588	11006400	50.760	51.883	
27)	trans-Non...	7.516	8.194	9581794	15807712	53.197	52.407	
28)	2,4'-DDD	7.705	8.495	5920095	9924934	51.874	52.551	
29)	2,4'-DDT	7.888	8.718	5687323	8810591	51.850	49.404	
30)	cis-Nonac...	7.985	8.758	10616019	17721229	51.133	52.828	
31)	Mirex	8.652	9.679	6218341	9100959	49.601	48.911	
32)	Chlordane...	7.428	8.122	71663	11006400	3.640	304.174	#
33)	Chlordane...	7.516	8.236	9581794	53379	382.289	1.758	#
34)	Chlordane...	0.000	8.903	0	43859	N.D.	4.892	#
35)	Chlordane...	3.445	3.433	16729	32384	NoCal	NoCal	
36)	Toxaphene...	7.516	8.495f	9581794	9924934	10698.176	3781.996	#
37)	Toxaphene...	7.798	0.000	33203	0	20.560	N.D.	#
38)	Toxaphene...	0.000	8.862	0	12791	N.D.	2.524	#
39)	Toxaphene...	8.314f	8.903	24262	43859	7.488	5.253	
40)	Toxaphene...	8.605f	9.099	1073	7468	0.448	1.603	#
41)	Toxaphene...	8.652	0.000	6218341	0	1964.980	N.D.	#
42)	Toxaphene...	3.445	3.433	16729	32384	NoCal	NoCal	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

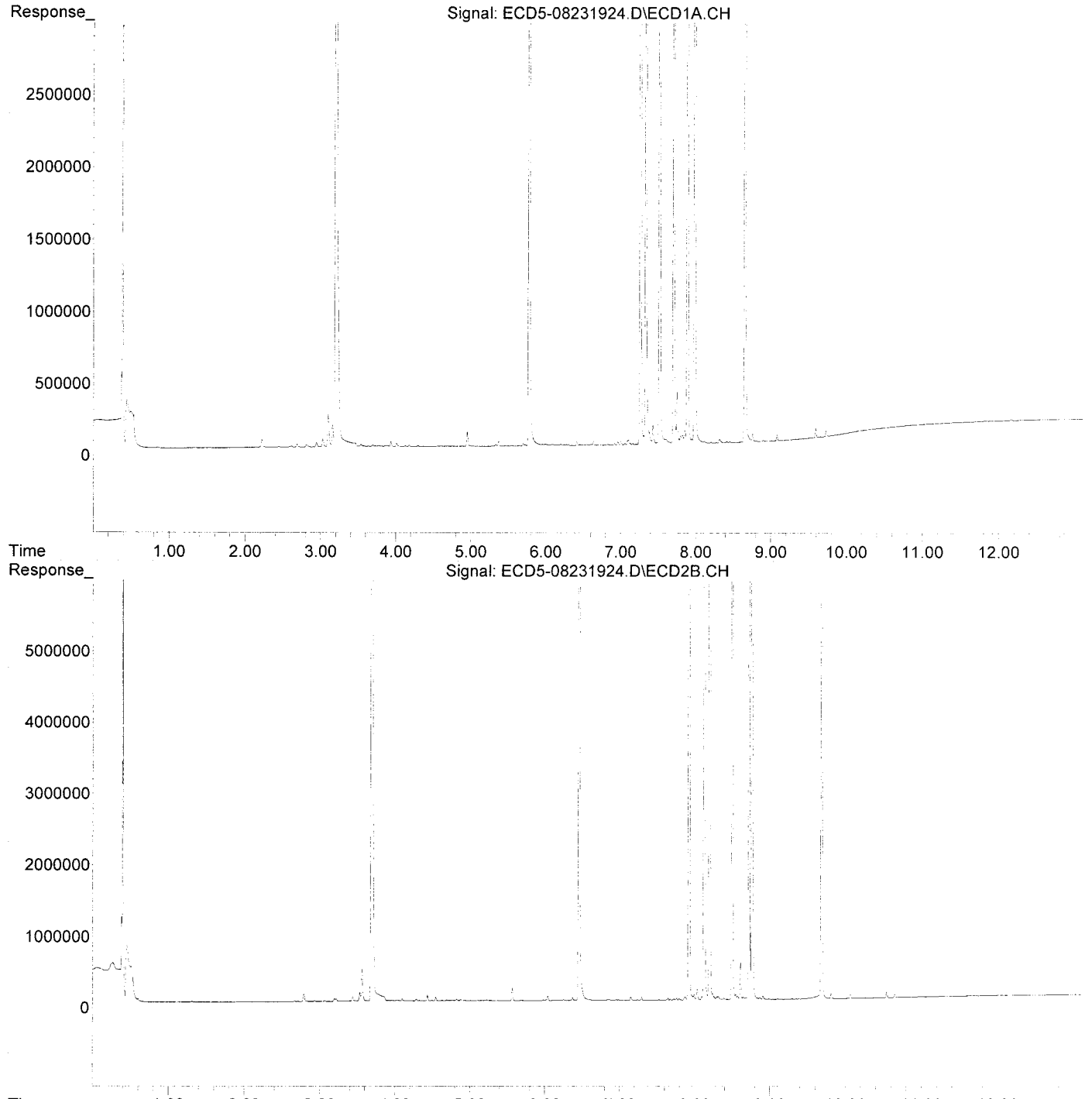
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.368f	5.981	33988	9402	0.205	0.032	#
22)	S	DCBP (S)	9.592	10.540	62236	73549	0.441	0.409	
		Target Compounds							
2)		a-BHC	5.950	0.000	8055	0	0.035	N.D.	#
3)		g-BHC	6.198	6.952f	8435	9250	0.042	0.026	
4)		b-BHC	6.301	6.979	5312	6852	0.059	0.043	
5)		Heptachlor	6.634	7.290	29320	42832	0.162	0.140	
6)		d-BHC	6.451	7.234	4881	8440	0.025	0.024	
7)		Aldrin	0.000	7.521f	0	8525	N.D.	0.026	#
8)		Heptachlo...	7.334	7.990	12769067	71027	69.330	0.236	#
9)		trans-Chl...	7.428	8.123	131019	22164400	0.709	70.739	#
10)		cis-Chlor...	7.516	8.237	18351251	88947	100.792	0.305	#
11)		Endosulfa...	7.604	8.299	36455	42308	0.214	0.154	
12)		4,4'-DDE	7.604f	8.315f	36455	43813	0.193	0.141	
13)		Dieldrin	7.798	8.496	56666	20118925	0.295	66.148	#
14)		Endrin	7.986f	8.721	20932641	18998968	142.373	84.131	#
15)		4,4'-DDD	7.986	8.760	20932641	36072644	133.210	140.791	
16)		Endosulfa...	8.115	8.863	14279	23343	0.099	0.101	
17)		4,4'-DDT	8.202	8.985	6473	9074	0.054	0.015	#
18)		Endrin Al...	8.415	9.101	7567	8073	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.290	0	9186	N.D.	0.037	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.898	9.680	6812	19363200	0.041	75.251	#
23)		Hexachlor...	3.199	3.690	17952134	39298885	98.239	104.537	
24)		Hexachlor...	5.776	6.455	17670025	32766708	100.231	104.324	
25)		Oxychlordane	7.261	7.922	16359215	29732149	99.425	108.550	
26)		2,4'-DDE	7.334	8.123	12769067	22164400	99.555	104.481	
27)		trans-Non...	7.516	8.195	18351251	31975271	102.232	106.006	
28)		2,4'-DDD	7.705	8.496	11587554	20118925	101.534	106.526	
29)		2,4'-DDT	7.888	8.721	11771354	18998968	107.317	106.533	
30)		cis-Nonac...	7.986	8.760	20932641	36072644	100.824	107.535	
31)		Mirex	8.653	9.680	11960753	19363200	95.406	104.062	
32)		Chlordane...	7.428	8.123	131019	22164400	6.654	612.537	#
33)		Chlordane...	7.516	8.237	18351251	88947	732.167	2.929	#
34)		Chlordane...	0.000	8.905	0	44814	N.D.	4.998	#
35)		Chlordane...	3.443	3.434	27193	63535	NoCal	NoCal	
36)		Toxaphene...	7.516	8.496f	18351251	20118925	20489.369	7666.519	#
37)		Toxaphene...	7.798	0.000	56666	0	35.089	N.D.	#
38)		Toxaphene...	8.115	8.863	14279	23343	4.240	4.606	
39)		Toxaphene...	8.316f	8.905	25592	44814	7.898	5.367	
40)		Toxaphene...	8.604f	9.101	1951	8073	0.814	1.732	#
41)		Toxaphene...	8.653	0.000	11960753	0	3779.567	N.D.	#
42)		Toxaphene...	3.443	3.434	27193	63535	NoCal	NoCal	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:40 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 6/26/19

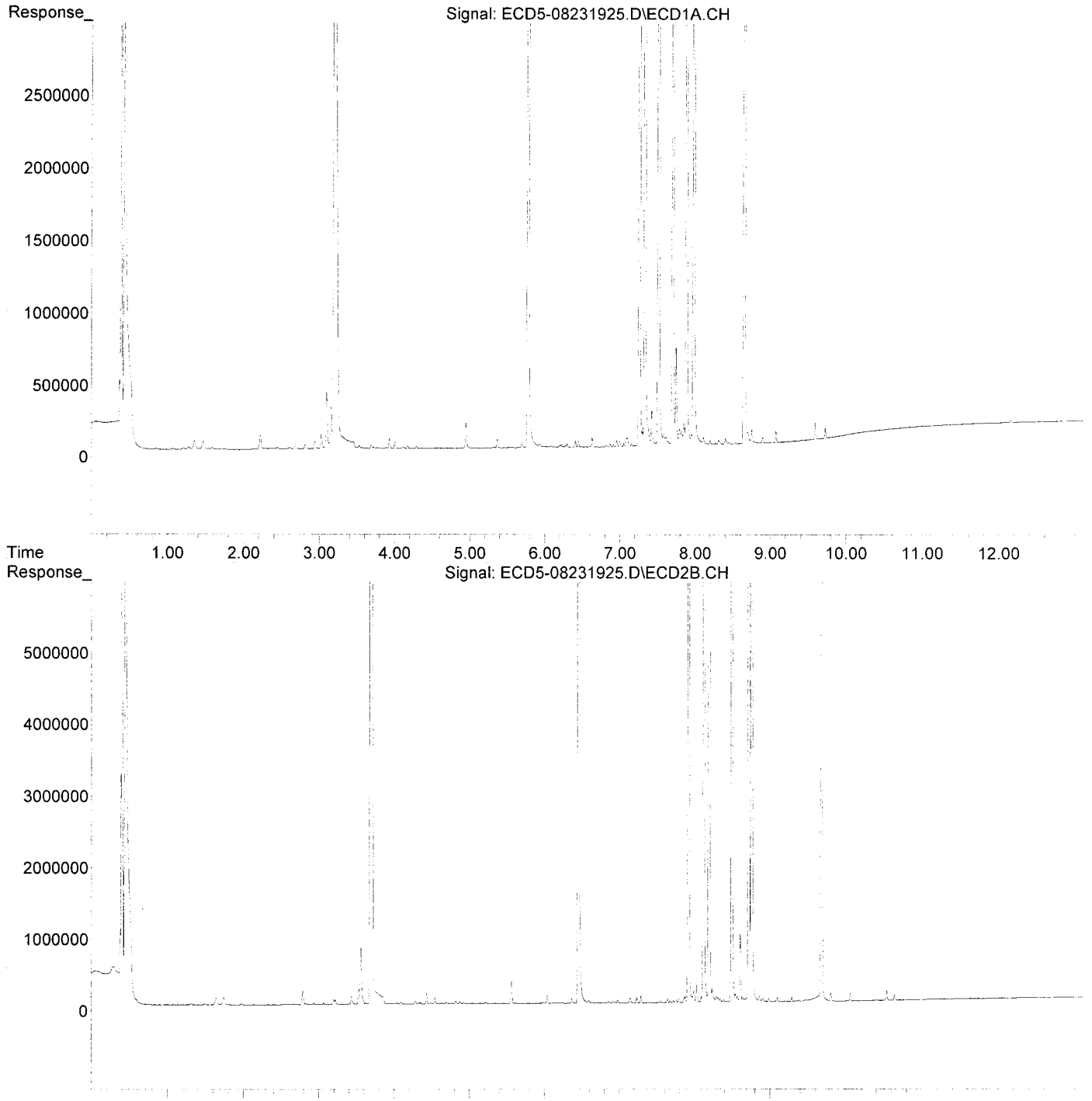
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.980	60549	10992	0.365	0.037	#
22)	S	DCBP (S)	9.590	10.538	118766	140925	0.842	0.784	
		Target Compounds							
2)		a-BHC	5.933	6.593	27118	40902	0.118	0.100	
3)		g-BHC	6.218	6.912	21255	30993	0.105	0.087	
4)		b-BHC	6.299	6.977	25058	44238	0.277	0.280	
5)		Heptachlor	6.630	7.287	63252	104459	0.349	0.341	
6)		d-BHC	6.448	7.231	43545	78794	0.221	0.223	
7)		Aldrin	6.870	7.552	17012	29944	0.086	0.091	
8)		Heptachlo...	7.331	7.988	24819199	162906	134.756	0.541	#
9)		trans-Chl...	7.425	8.122	250239	44504592	1.353	142.039	#
10)		cis-Chlor...	7.514	8.235	35027918	188111	192.386	0.646	#
11)		Endosulfa...	7.581f	8.289	74592	84898	0.438	0.309	
12)		4,4'-DDE	7.581	8.341	74592	59877	0.396	0.193	#
13)		Dieldrin	7.794	8.494	114089	39839303	0.594	130.986	#
14)		Endrin	7.984f	8.719	40046185	39999231	272.373	177.123	
15)		4,4'-DDD	7.984	8.759	40046185	72455823	254.843	282.794	
16)		Endosulfa...	8.113	8.861	50946	84198	0.355	0.365	
17)		4,4'-DDT	8.201	8.983	28640	48189	0.240	0.243	
18)		Endrin Al...	8.404	9.098	39025	57504	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.289	0	61418	N.D.	0.247	#
20)		Methoxychlor	8.541	9.464	9687	26335	0.165	0.141	
21)		Endrin Ke...	8.898	9.679	37586	38425530	0.225	149.332	#
23)		Hexachlor...	3.199	3.689	34166533	75988565	186.969	202.134	
24)		Hexachlor...	5.774	6.454	34073459	66261966	193.277	210.967	
25)		Oxychlordane	7.258	7.920	32032634	58736982	194.683	214.445	
26)		2,4'-DDE	7.331	8.122	24819199	44504592	193.505	209.791	
27)		trans-Non...	7.514	8.194	35027918	63083636	195.632	209.138	
28)		2,4'-DDD	7.703	8.494	21916962	39839303	192.043	210.942	
29)		2,4'-DDT	7.887	8.719	23024956	39999231	209.914	224.287	
30)		cis-Nonac...	7.984	8.759	40046185	72455823	192.886	215.996	
31)		Mirex	8.652	9.679	23284997	38425530	185.735	206.507	
32)		Chlordane...	7.425	8.122	250239	44504592	12.709	1229.933	#
33)		Chlordane...	7.514	8.235	35027918	188111	1397.523	6.195	#
34)		Chlordane...	0.000	8.902	0	52051	N.D.	5.805	#
35)		Chlordane...	3.438	3.433	48985	106773	NoCal	NoCal	
36)		Toxaphene...	7.514	8.494f	35027918	39839303	39109.048	15181.168	#
37)		Toxaphene...	7.794	0.000	114089	0	70.646	N.D.	#
38)		Toxaphene...	8.113	8.861	50946	84198	15.129	16.613	
39)		Toxaphene...	8.313f	8.902	28693	52051	8.856	6.234	
40)		Toxaphene...	8.602f	9.098	3169	57504	1.322	12.339	#
41)		Toxaphene...	8.652	9.464	23284997	26335	7357.999	5.544	#
42)		Toxaphene...	3.438	3.433	48985	106773	NoCal	NoCal	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:03:40 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:36
Operator : MJB
Sample : 9H23034-CALH
Misc : A19F232, CHLOR 50 ppb
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:04:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 4/26/19

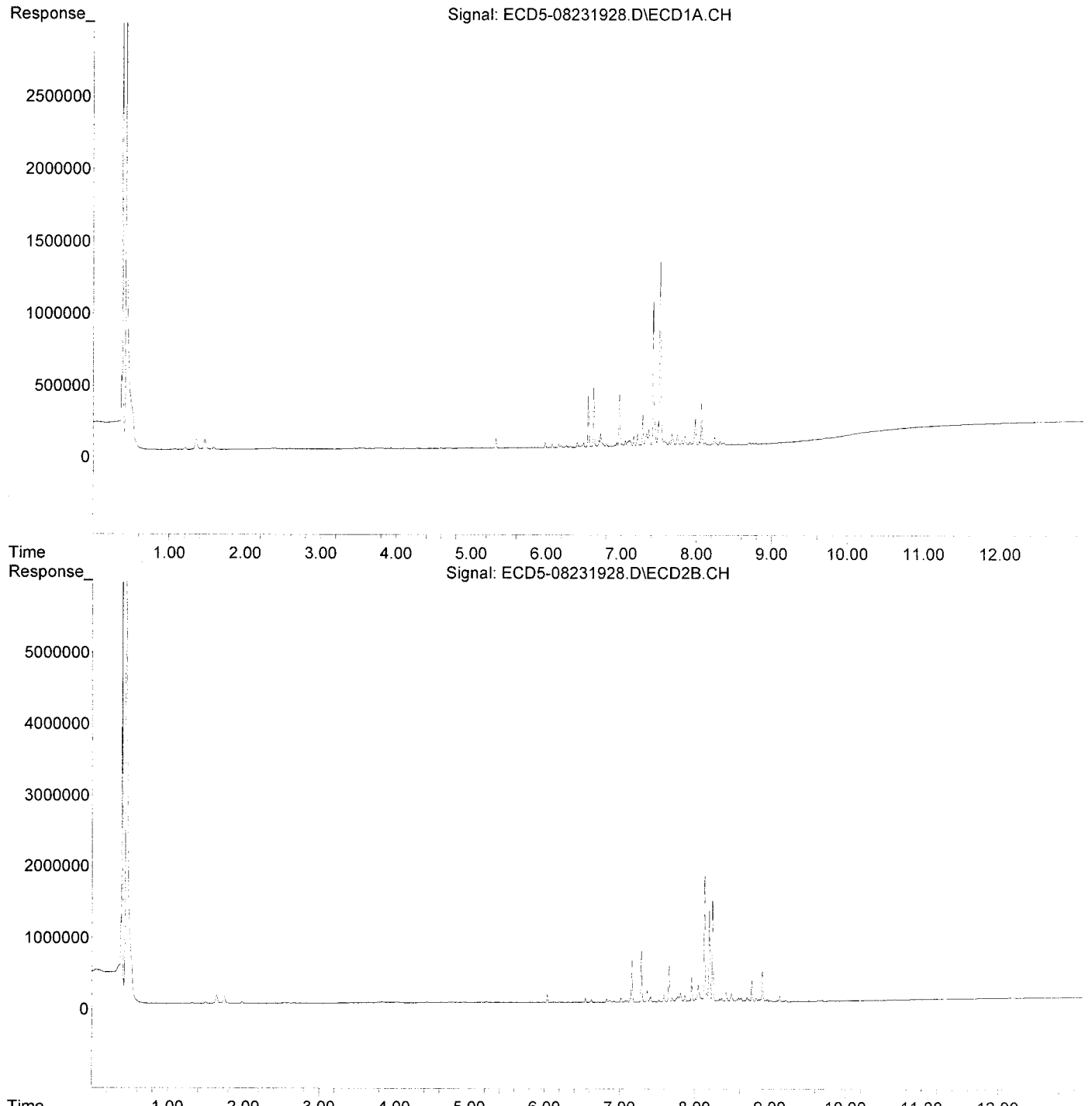
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	0.000	0	0	N.D.	N.D.	
22)	S	DCBP (S)	9.606	0.000	5901	0	0.042	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	41997	N.D.	0.102	#
3)		g-BHC	6.194f	6.924	13212	19652	0.065	0.055	
4)		b-BHC	6.323f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

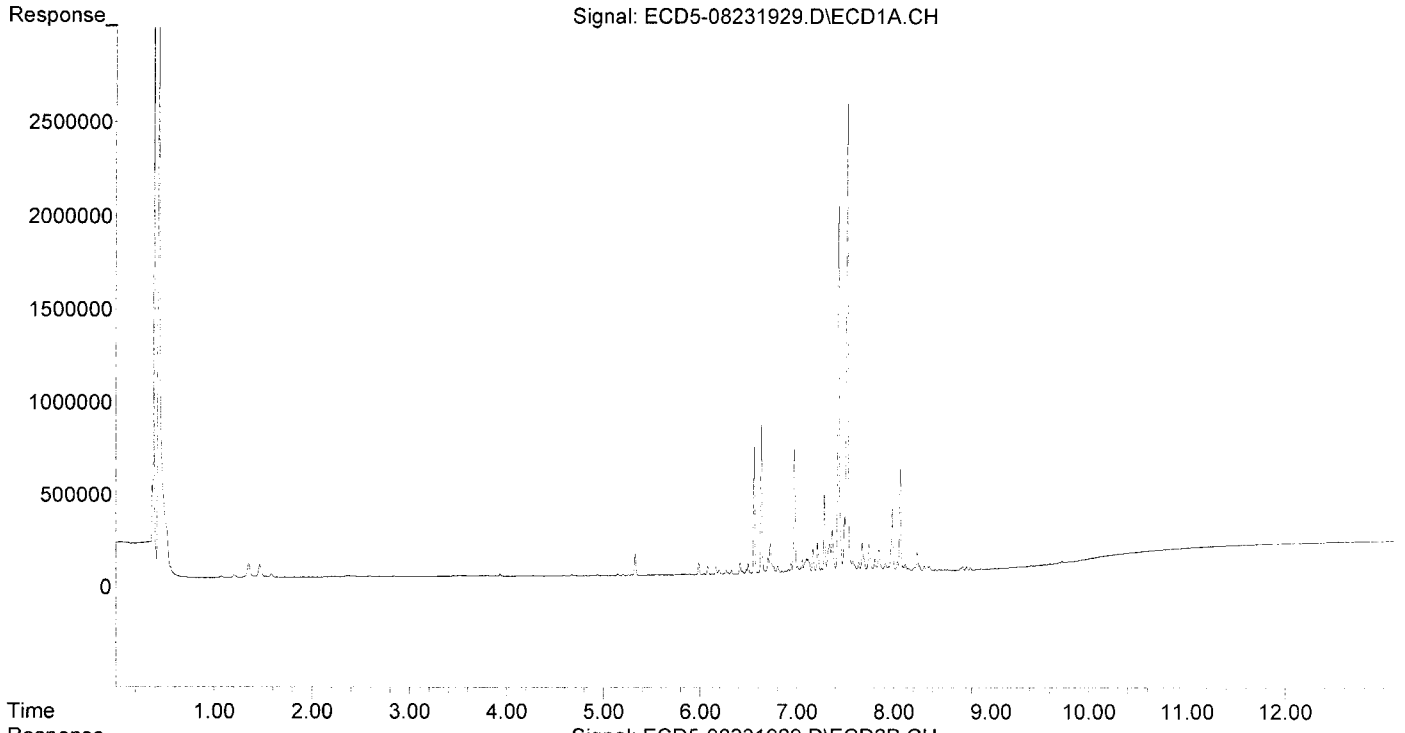
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	5943	N.D.	0.020	#
22)	S	DCBP (S)	9.606	0.000	7472	0	0.053	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	77932	N.D.	0.190	#
3)		g-BHC	6.194f	6.923	23514	36662	0.117	0.103	
4)		b-BHC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

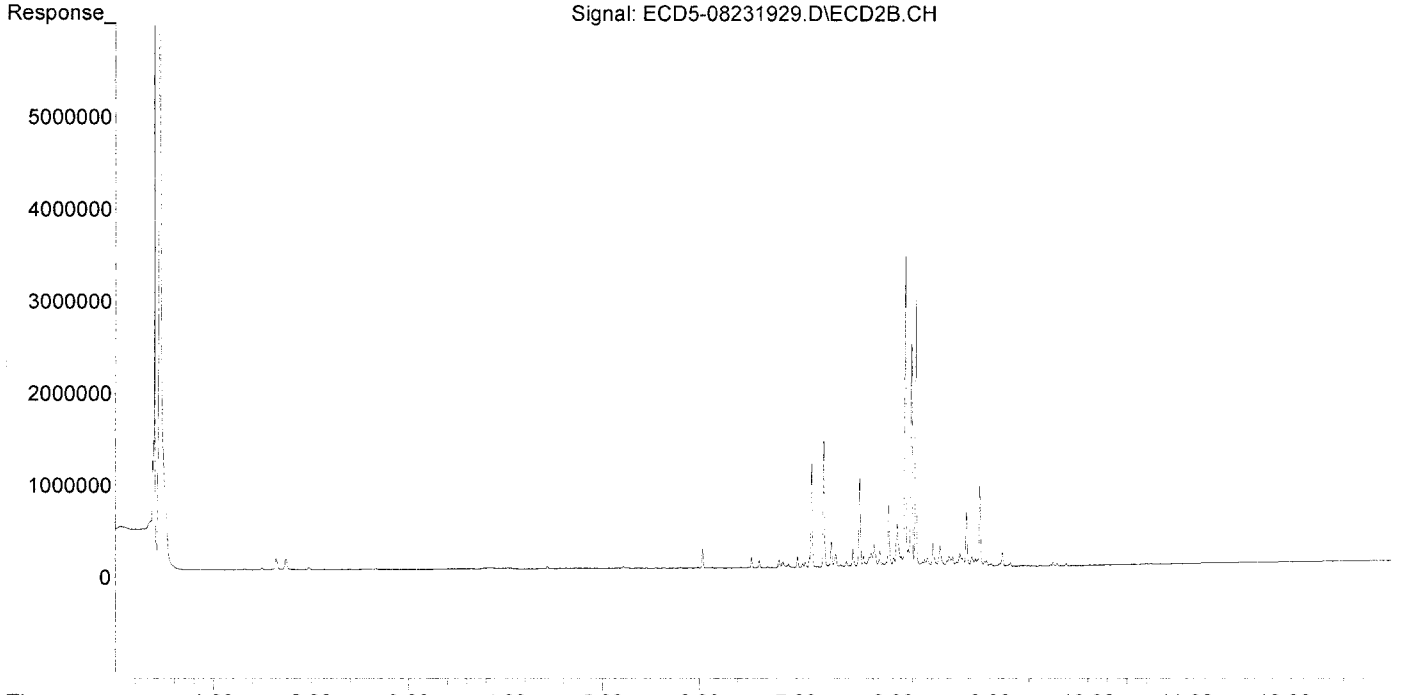
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

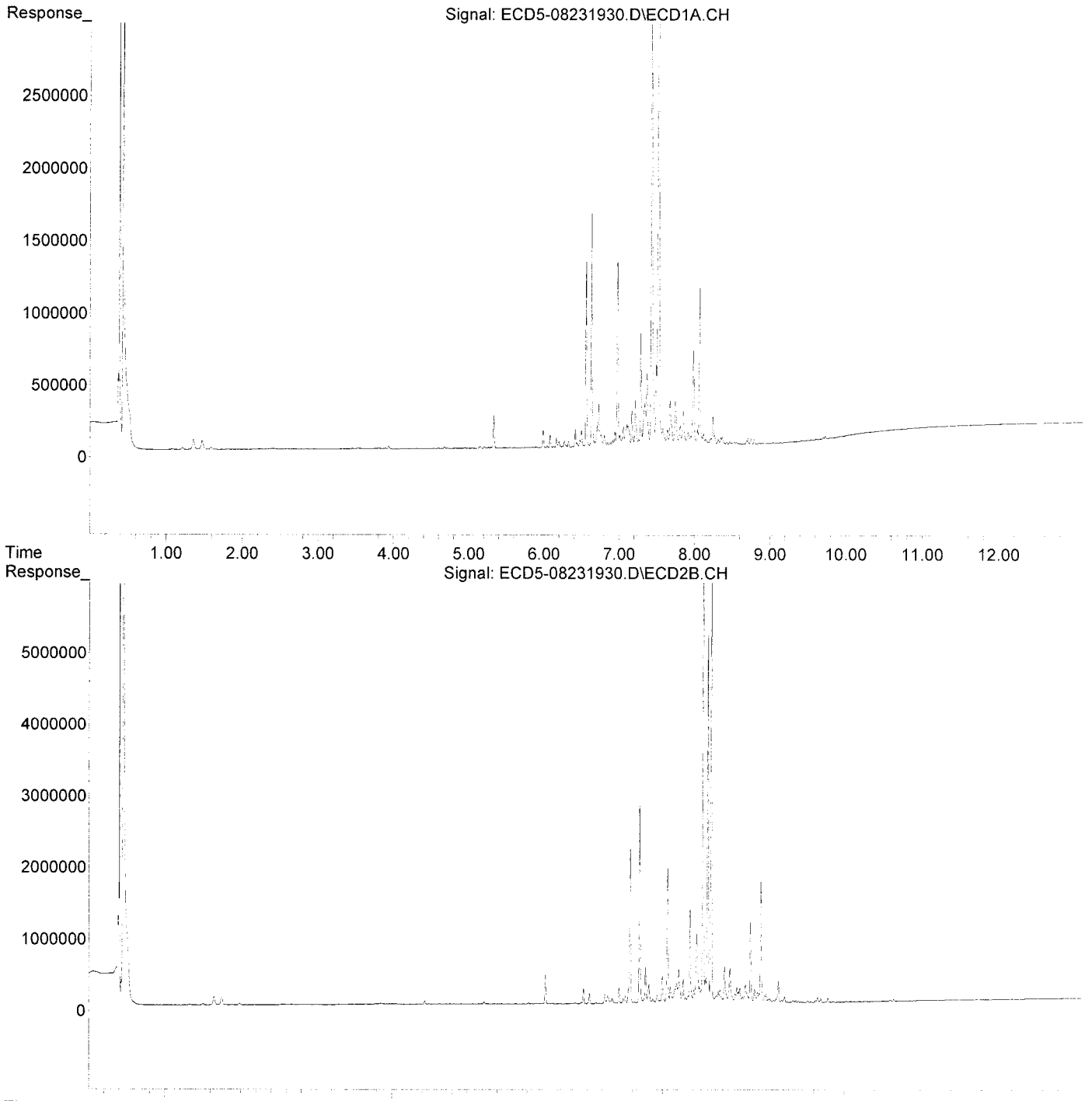
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	0.000	0	0	N.D.	N.D.	
22)	S	DCBP (S)	9.605	0.000	9631	0	0.068	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.623f	0	141009	N.D.	0.344	#
3)		g-BHC	6.197f	6.925	44236	70355	0.219	0.197	
4)		b-BHC	6.269f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

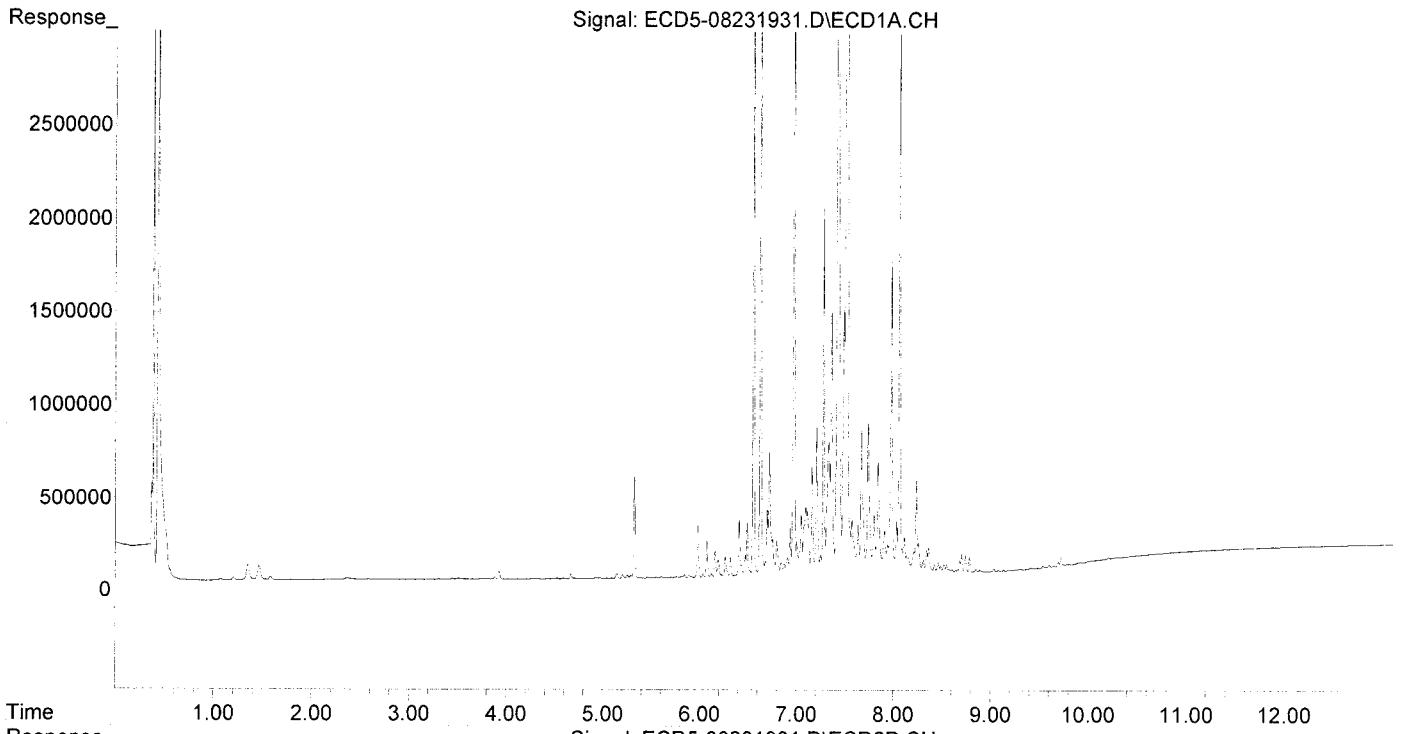
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.982	0	9372	N.D.	0.032	#
22)	S	DCBP (S)	9.605	10.512f	13871	6664	0.098	0.037	#
		Target Compounds							
2)		a-BHC	0.000	6.621f	0	314411	N.D.	0.766	#
3)		g-BHC	6.194f	6.923	92958	161395	0.461	0.452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

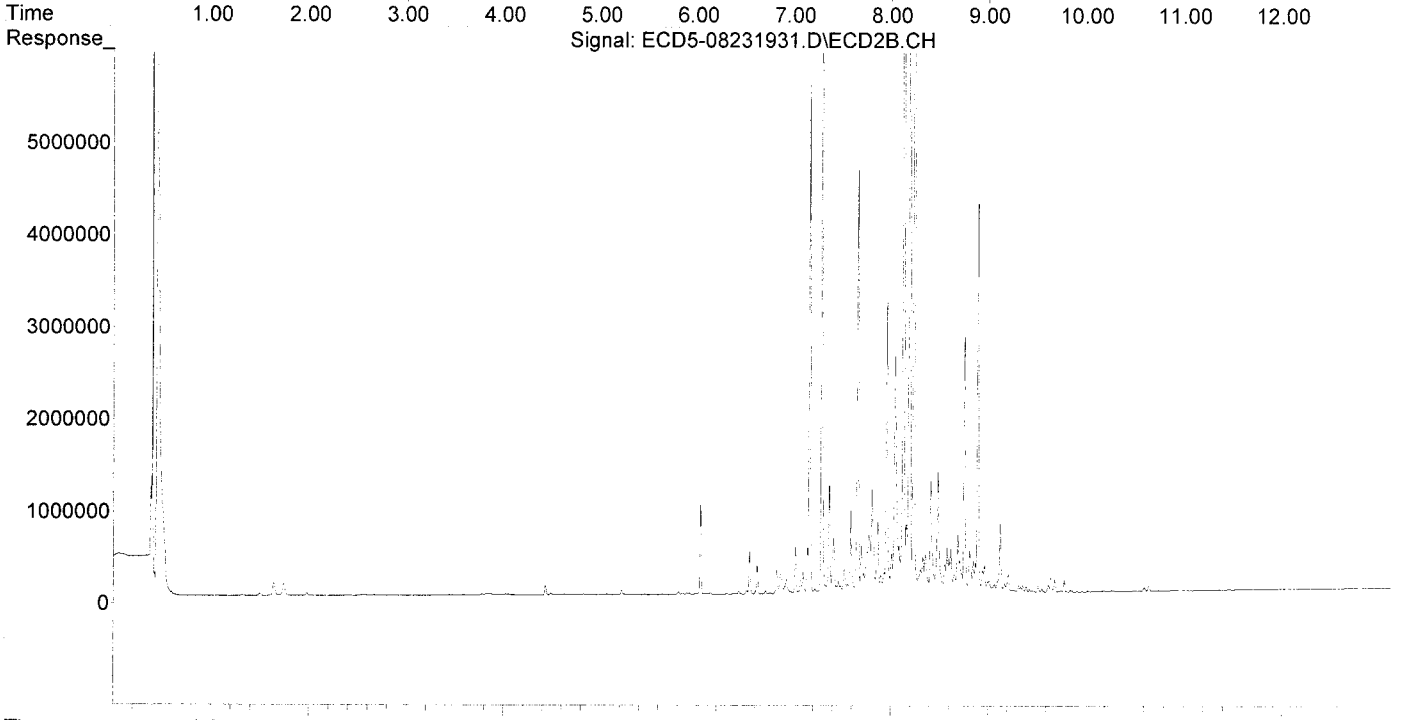
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

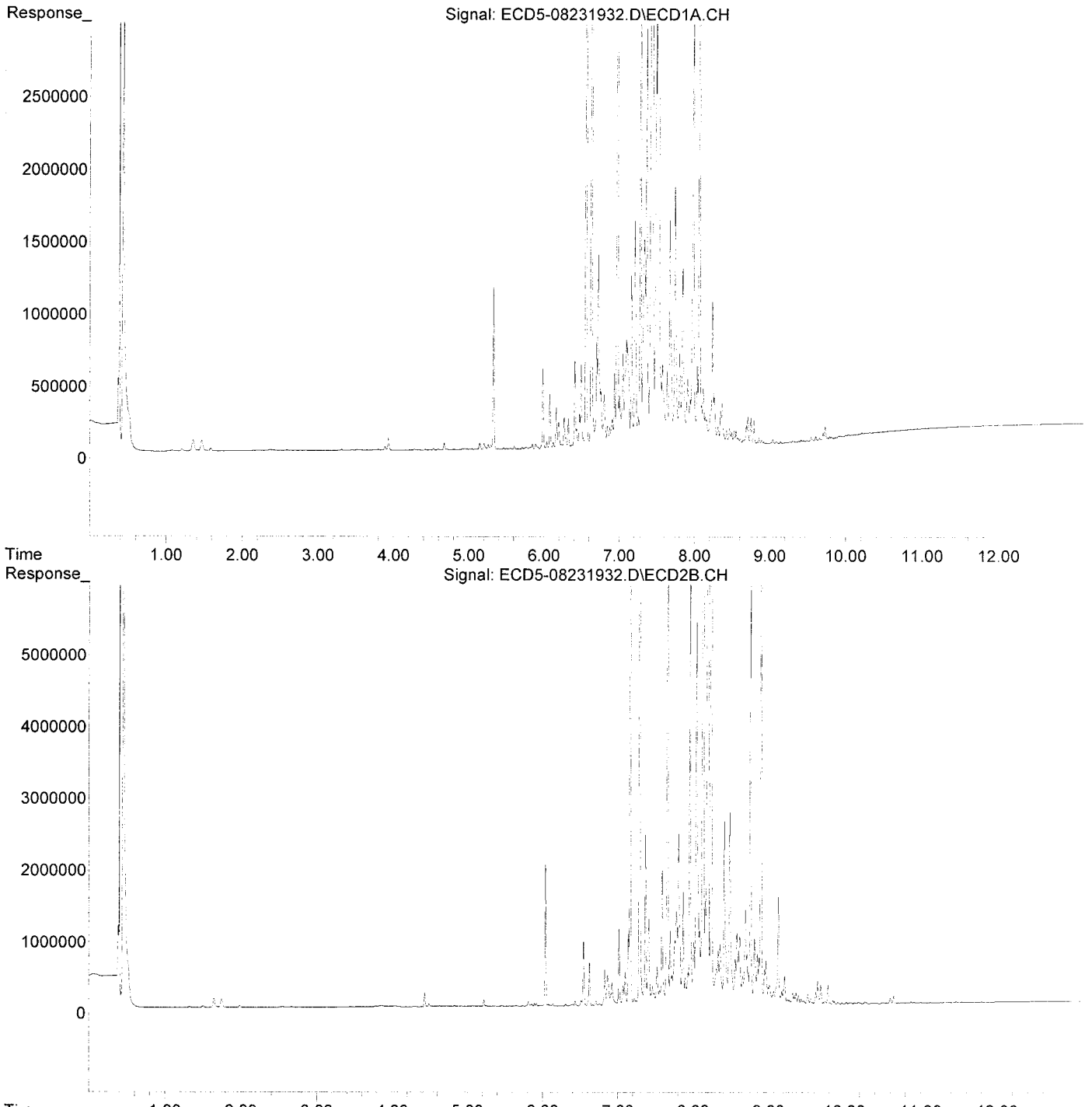
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.393	5.980	6433	11040	0.039	0.038	
22)	S	DCBP (S)	9.604	10.553	33011	8716	0.234	0.048	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	610263	N.D.	1.487	#
3)		g-BHC	6.194f	6.923	179715	319626	0.891	0.896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

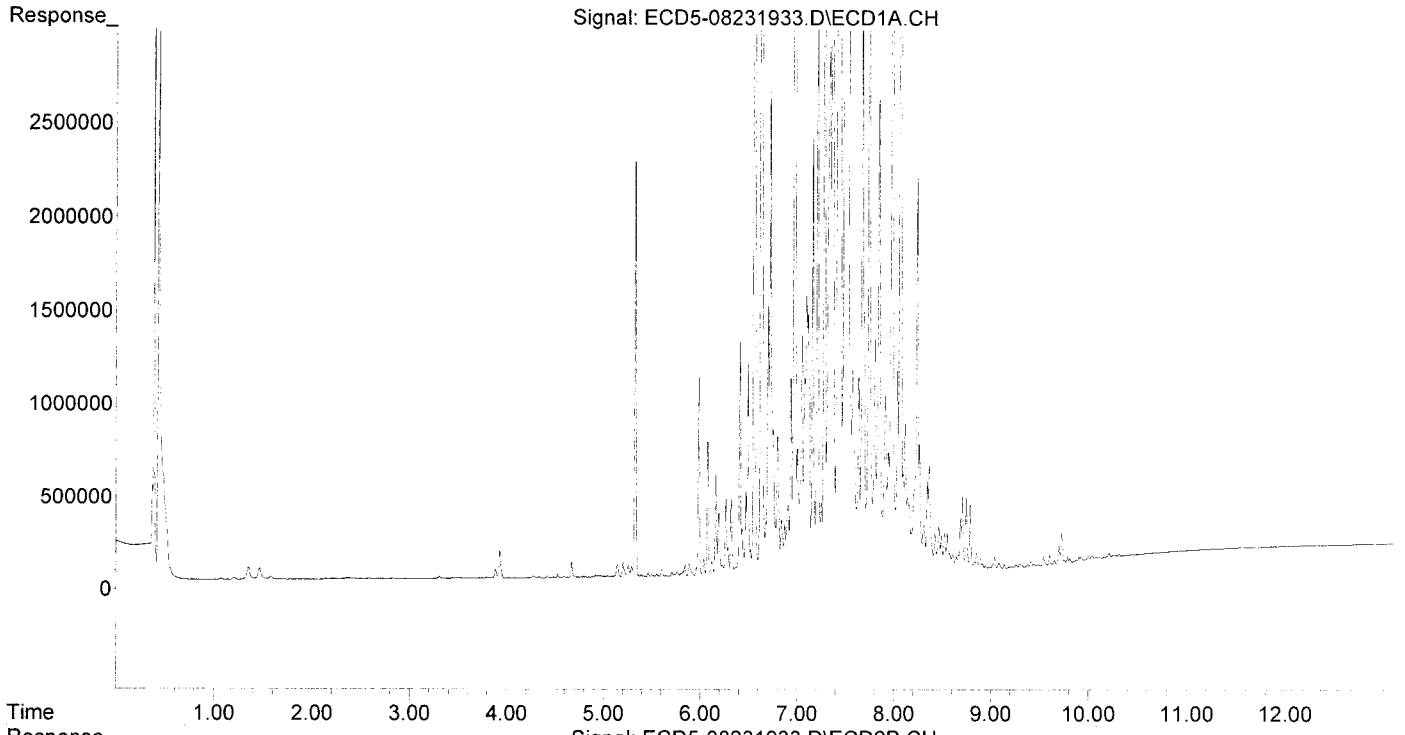
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.393	5.971	11655	15748	0.070	0.054	
22)	S	DCBP (S)	9.604	10.552	57777	17575	0.409	0.098	#
		Target Compounds							
2)		a-BHC	0.000	6.621f	0	1174704	N.D.	2.863	#
3)		g-BHC	6.193f	6.922	334417	594314	1.657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

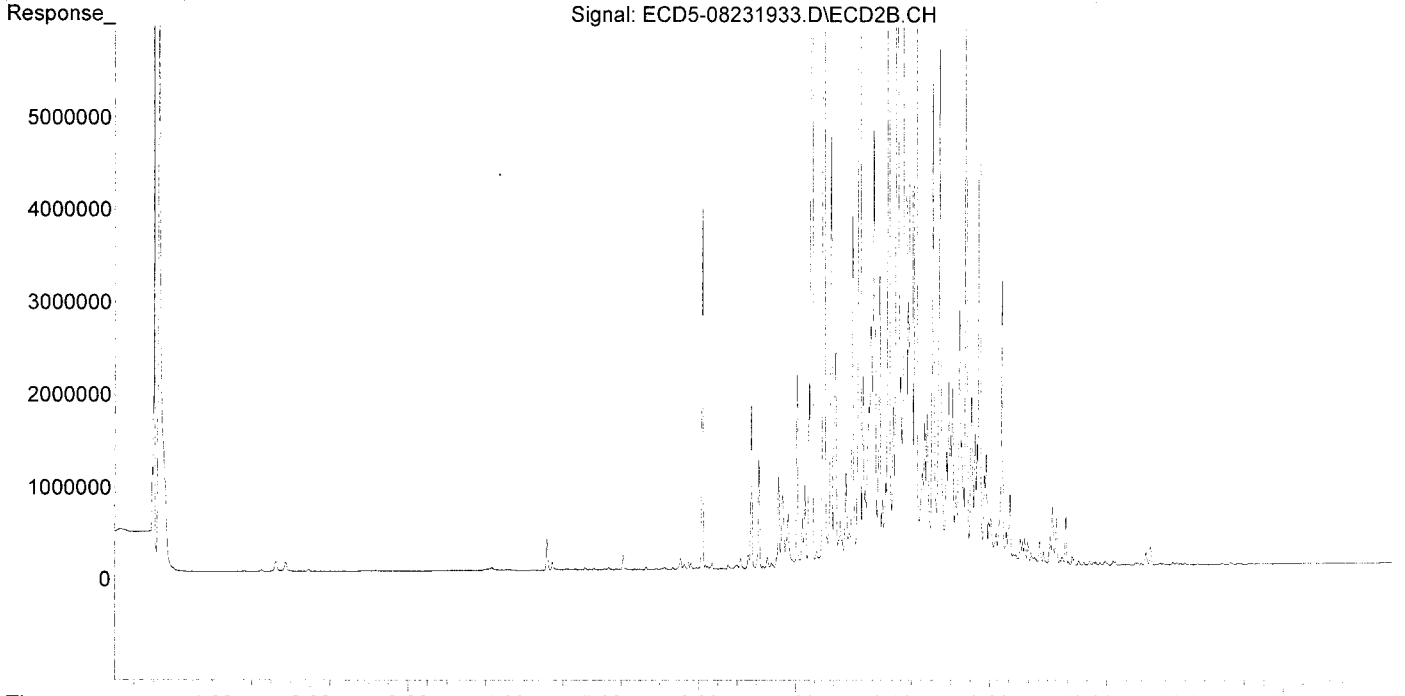
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

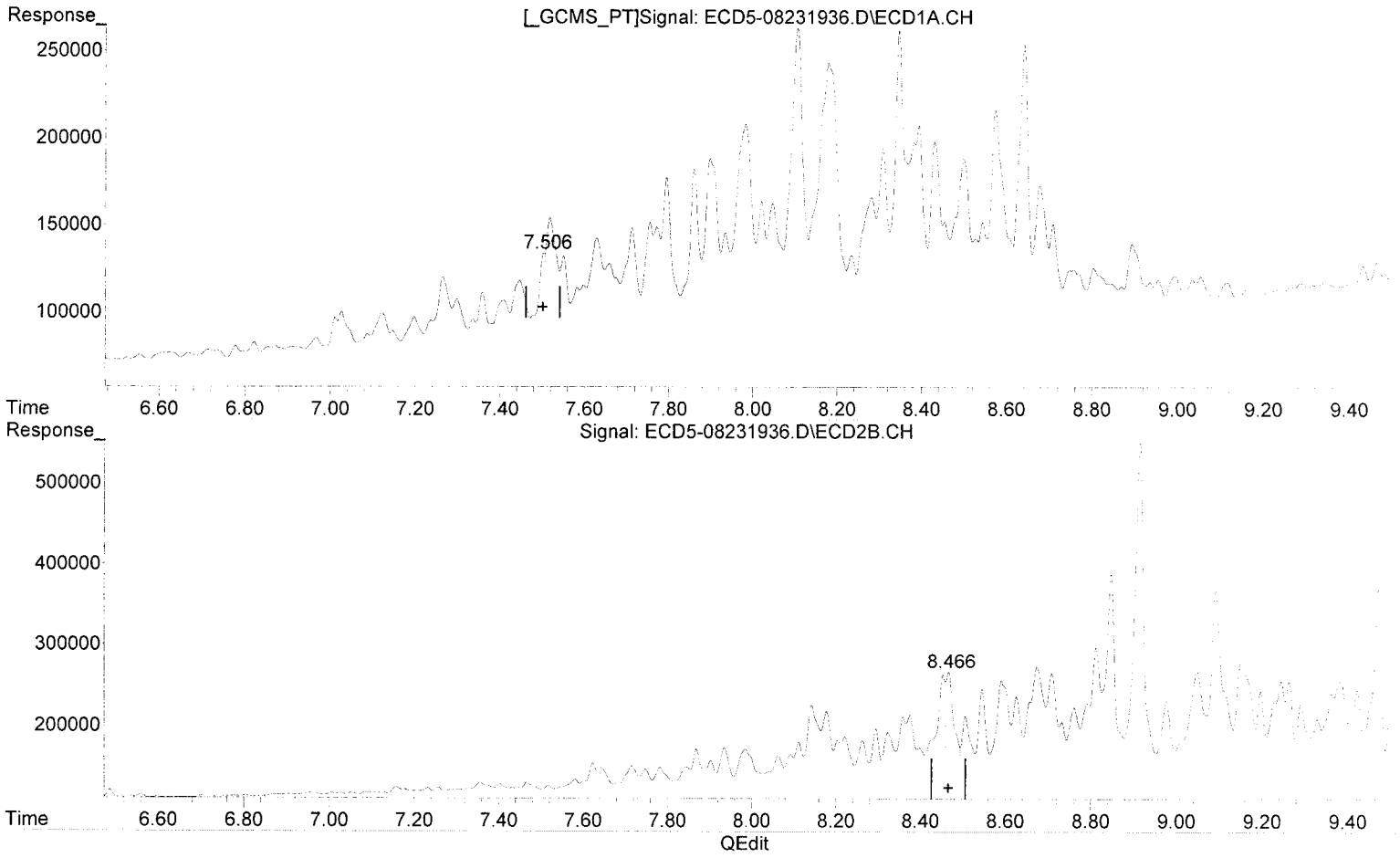
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.984	0	6201	N.D.	0.021	#
22) S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.249f	0.000	4430	0	0.022	N.D.	#
4)	b-BHC	6.297	0.000	3017	0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

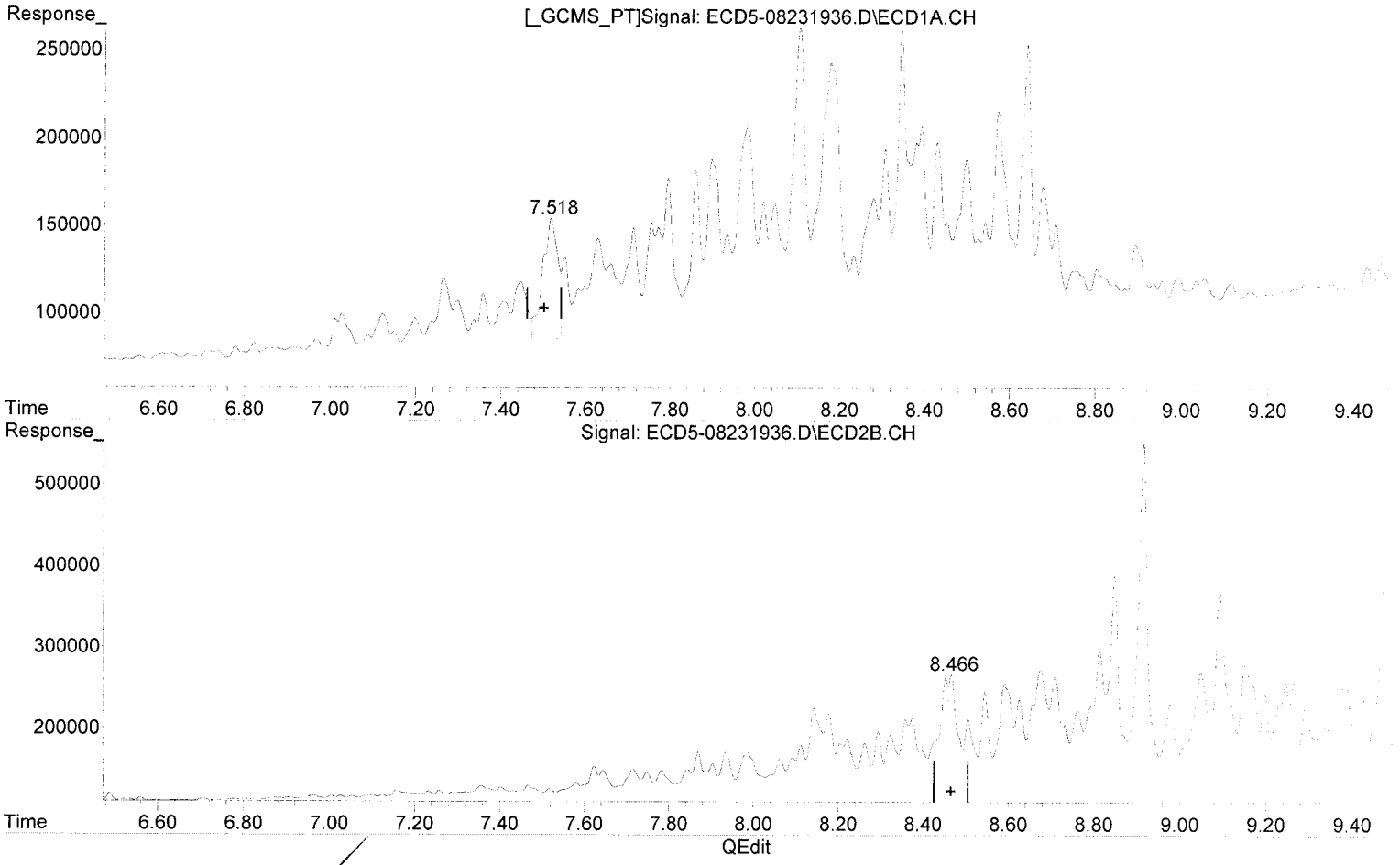
response 136848

(+) = 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

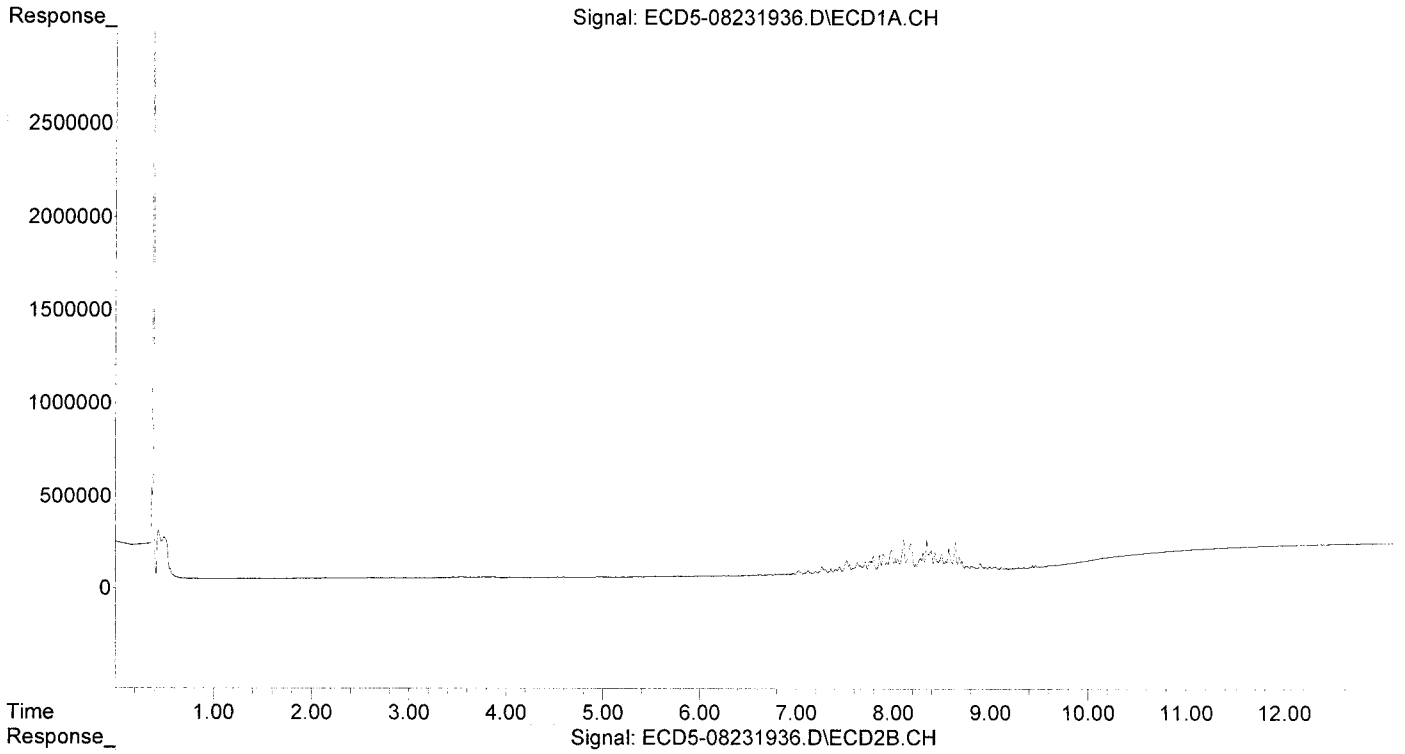
response 136848

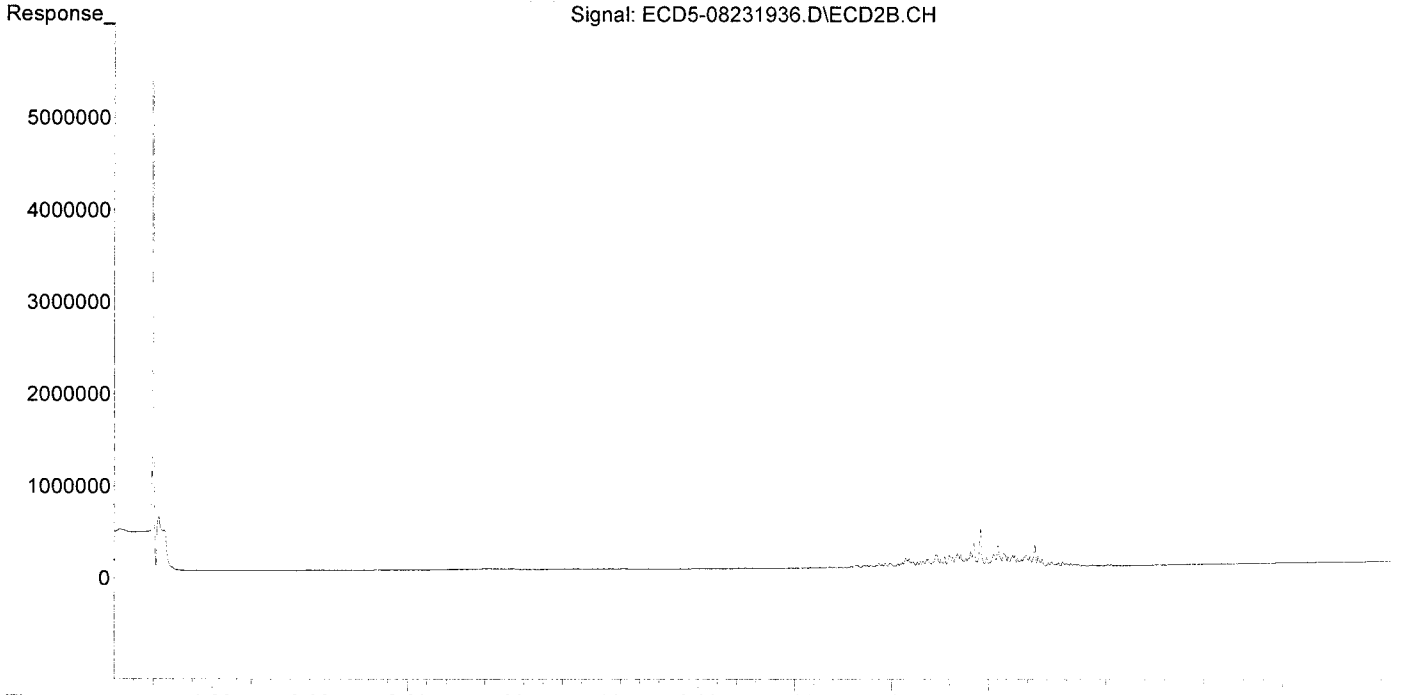
(+) = Expected Retention Time

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

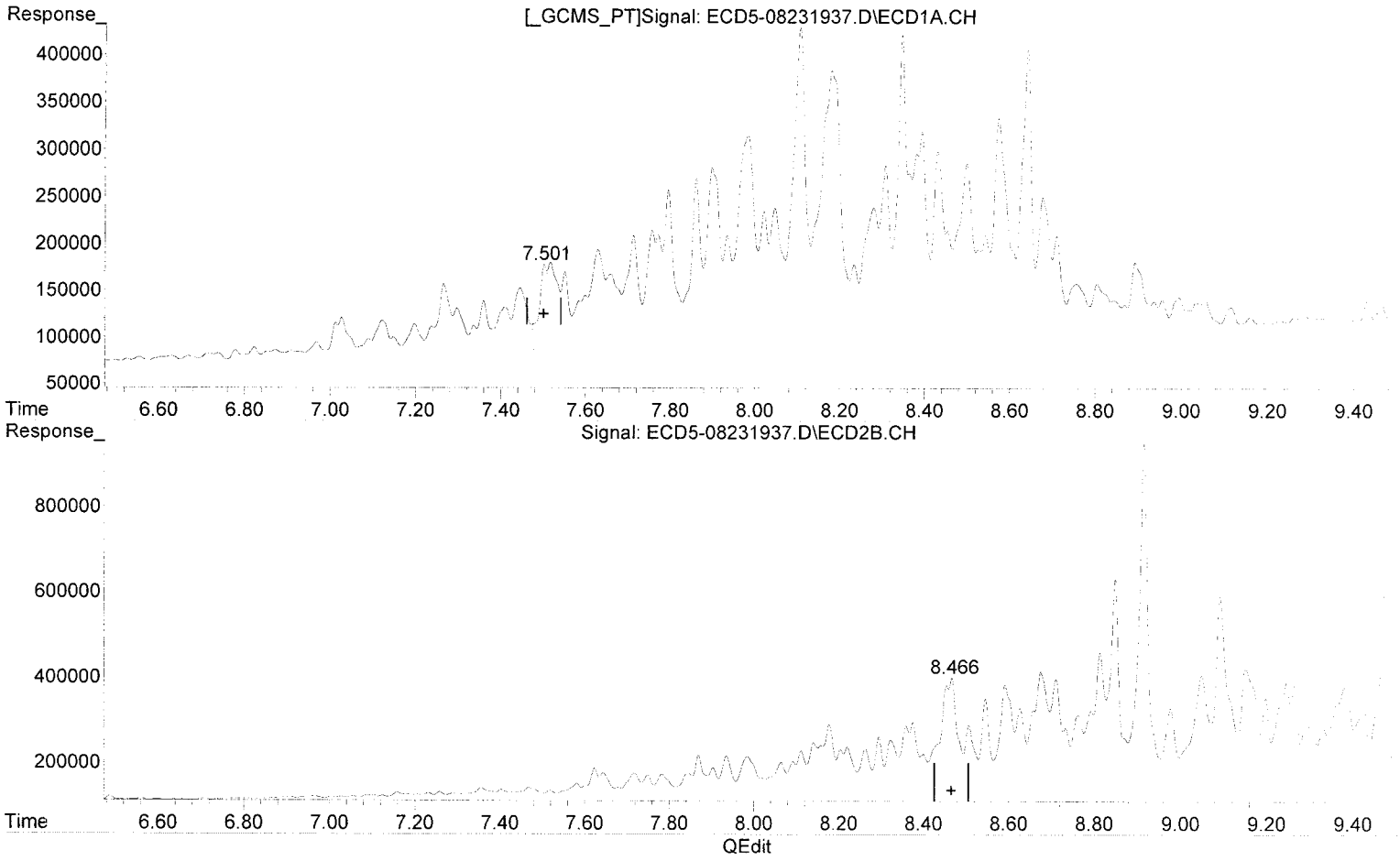
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.985	0	6562	N.D.	0.022	#
22)	S	DCBP (S)	9.592	0.000	4802	0	0.034	N.D.	#
		Target Compounds							
2)		a-BHC	5.952	0.000	2451	0	0.011	N.D.	#
3)		g-BHC	6.250f	0.000	4208	0	0.021	N.D.	#
4)		b-BHC	6.297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

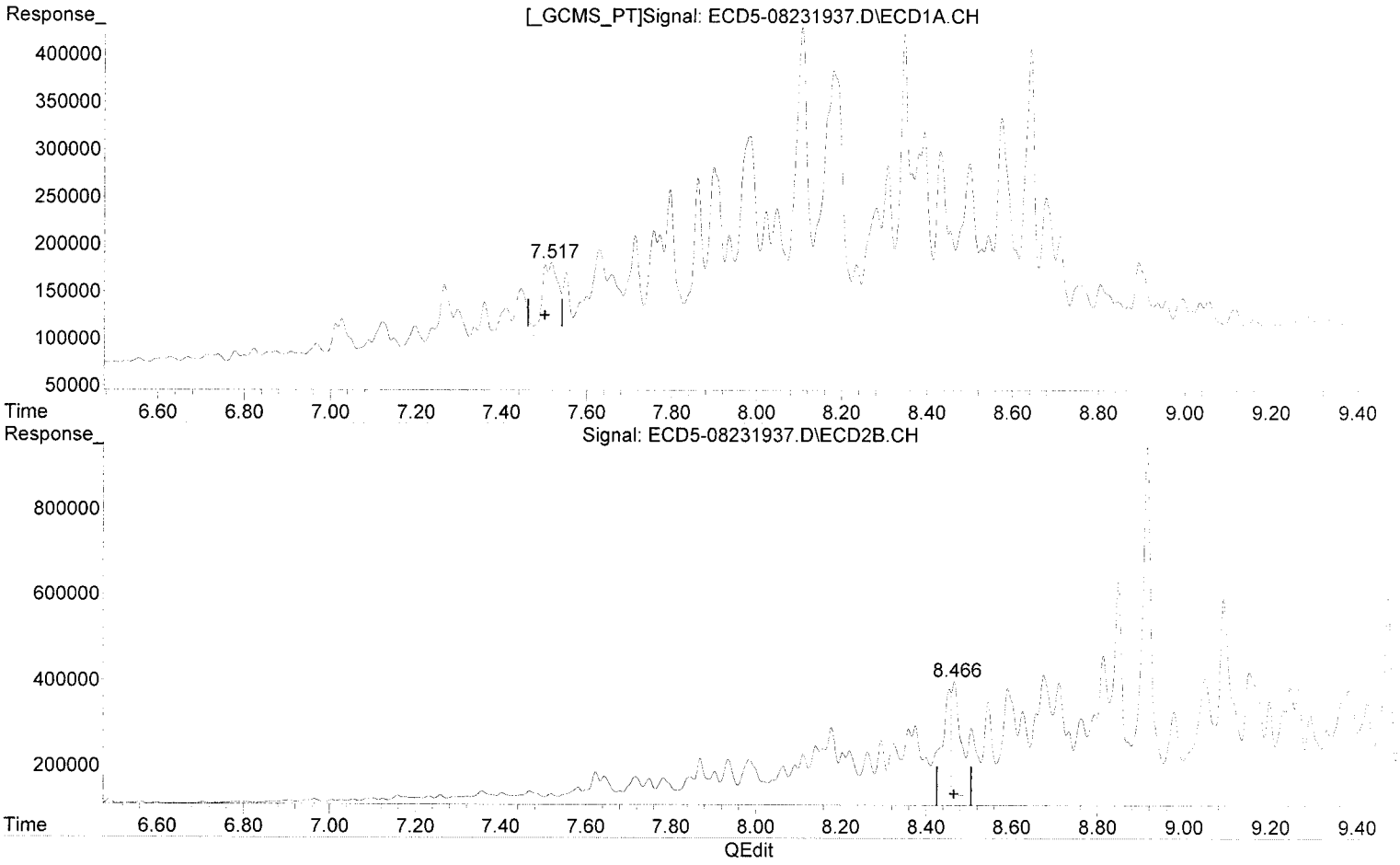
MJB 6/26/19
MJB 6/26/19

(+) = 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

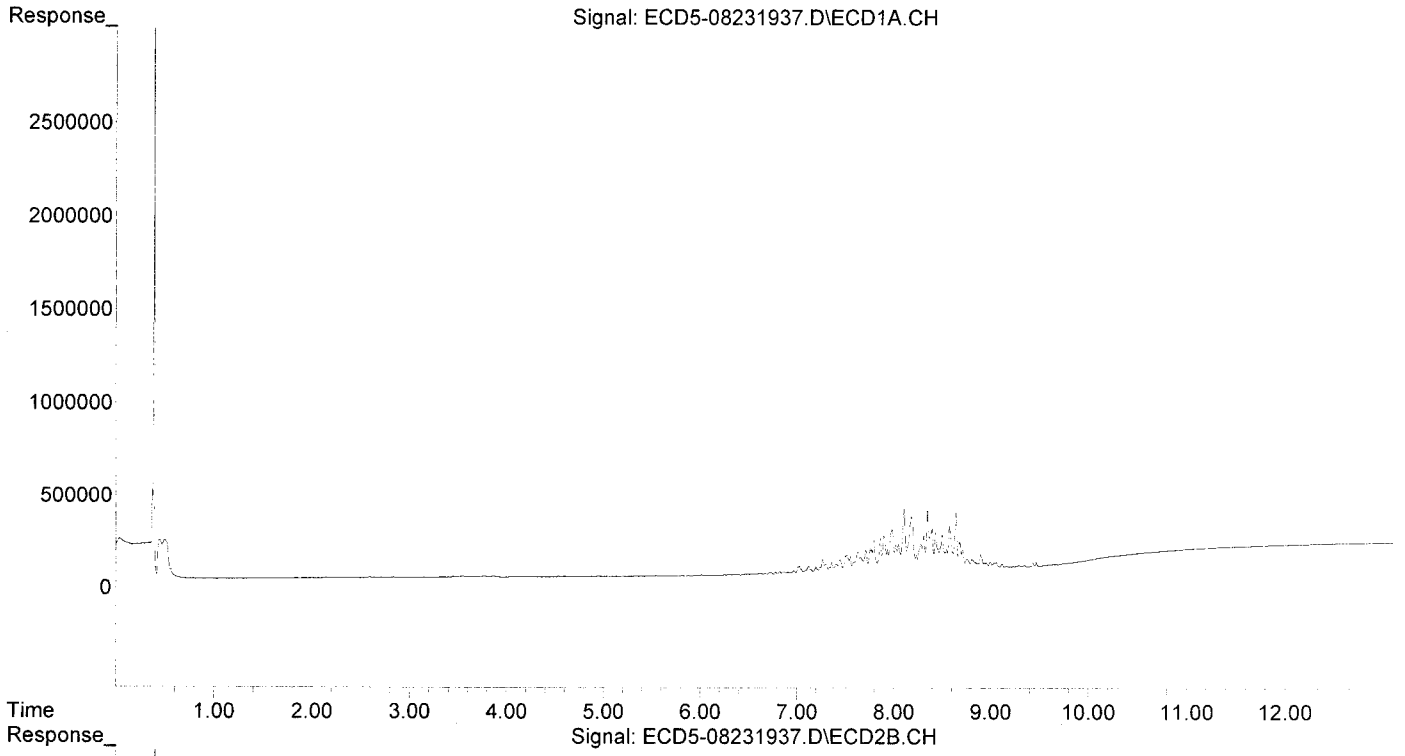
response 267534

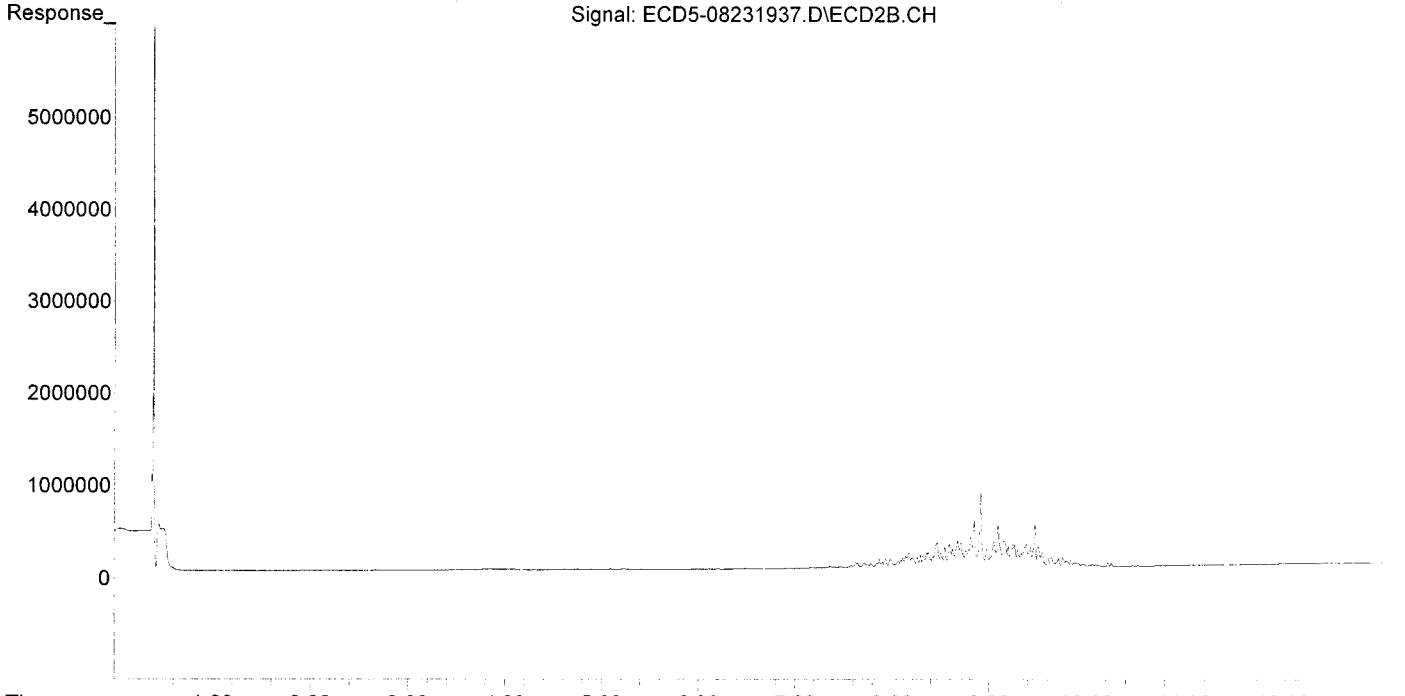
(+) = Expected Retention Time

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

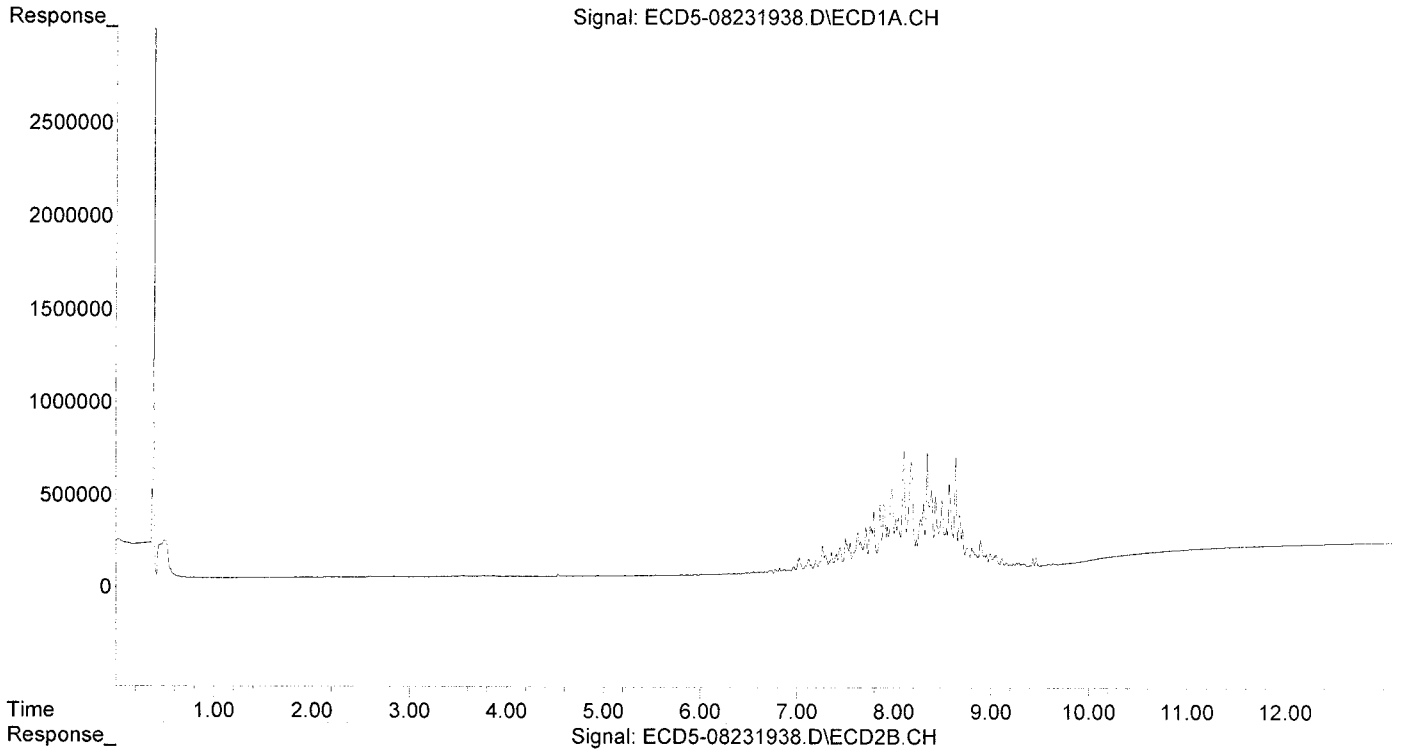
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6031	N.D.	0.021	#
22)	S	DCBP (S)	9.591	10.521	8317	11024	0.059	0.061	
		Target Compounds							
2)		a-BHC	5.950	0.000	2445	0	0.011	N.D.	#
3)		g-BHC	6.249f	6.906	4762	8484	0.024	0.024	
4)		b-BHC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

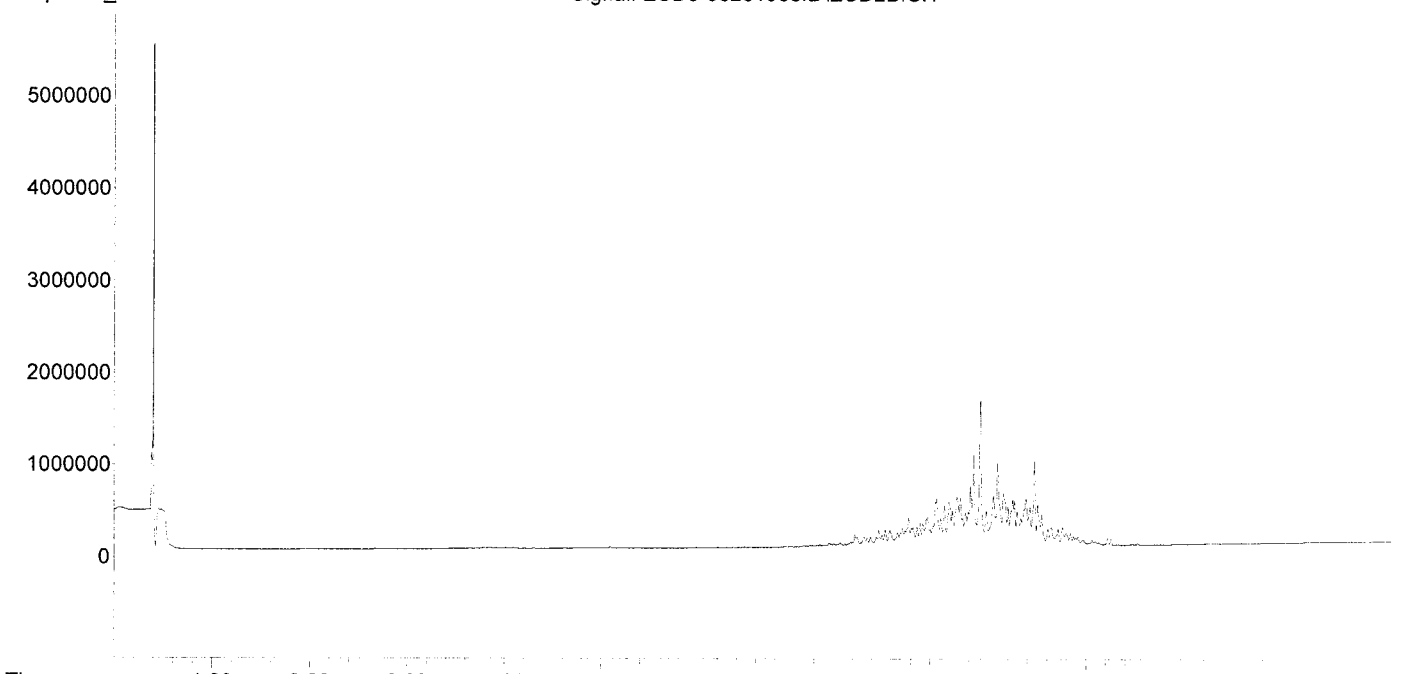
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

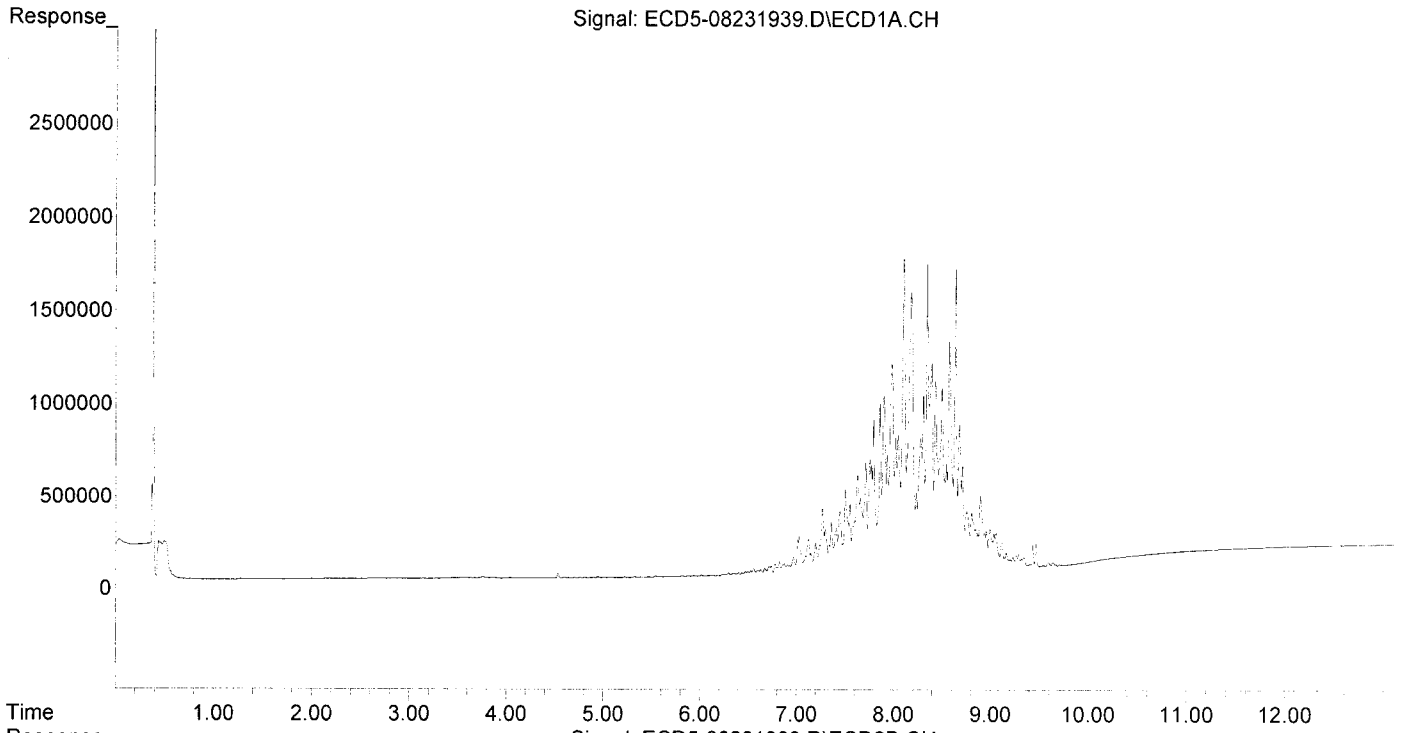
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	5601	N.D.	0.019	#
22)	S	DCBP (S)	9.591	10.521	21035	39647	0.149	0.221	#
		Target Compounds							
2)		a-BHC	5.938	6.598	3646	8422	0.016	0.021	
3)		g-BHC	6.246f	6.908	6276	21315	0.031	0.060	#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

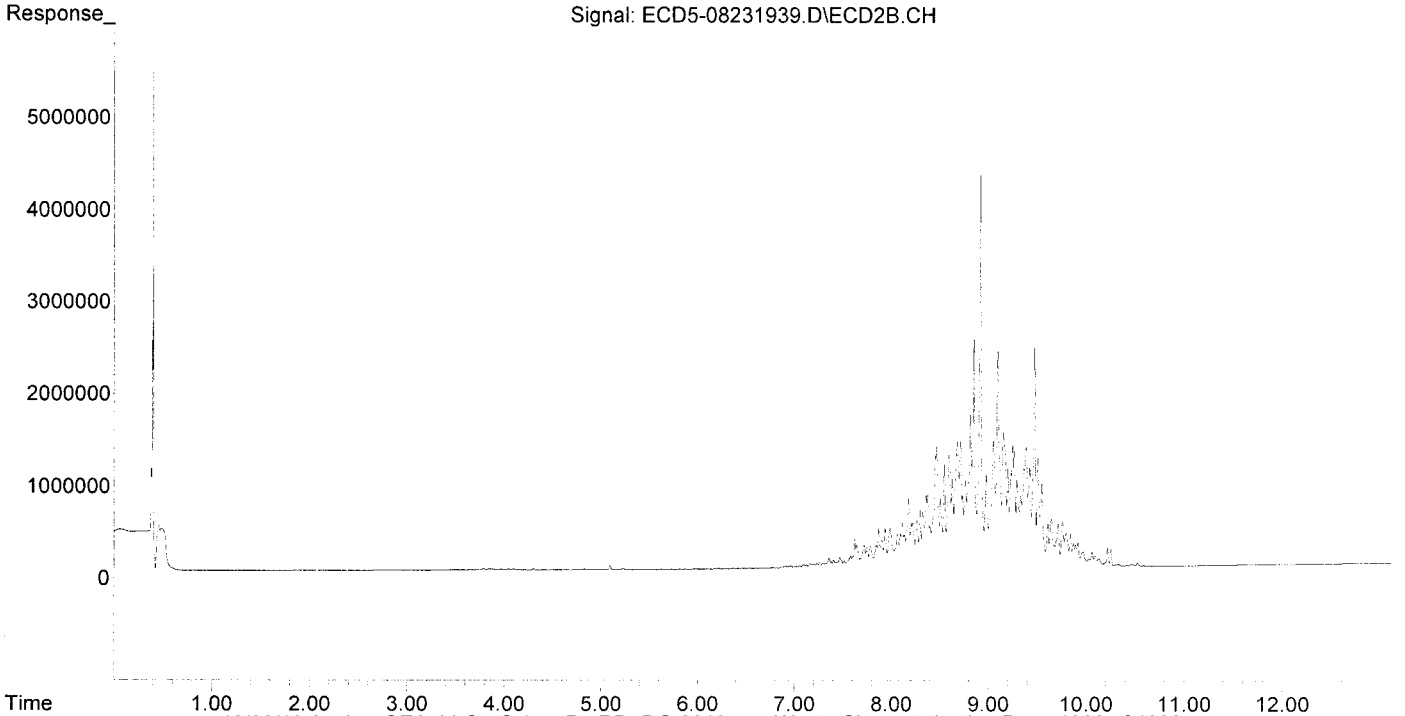
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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 9/26/19

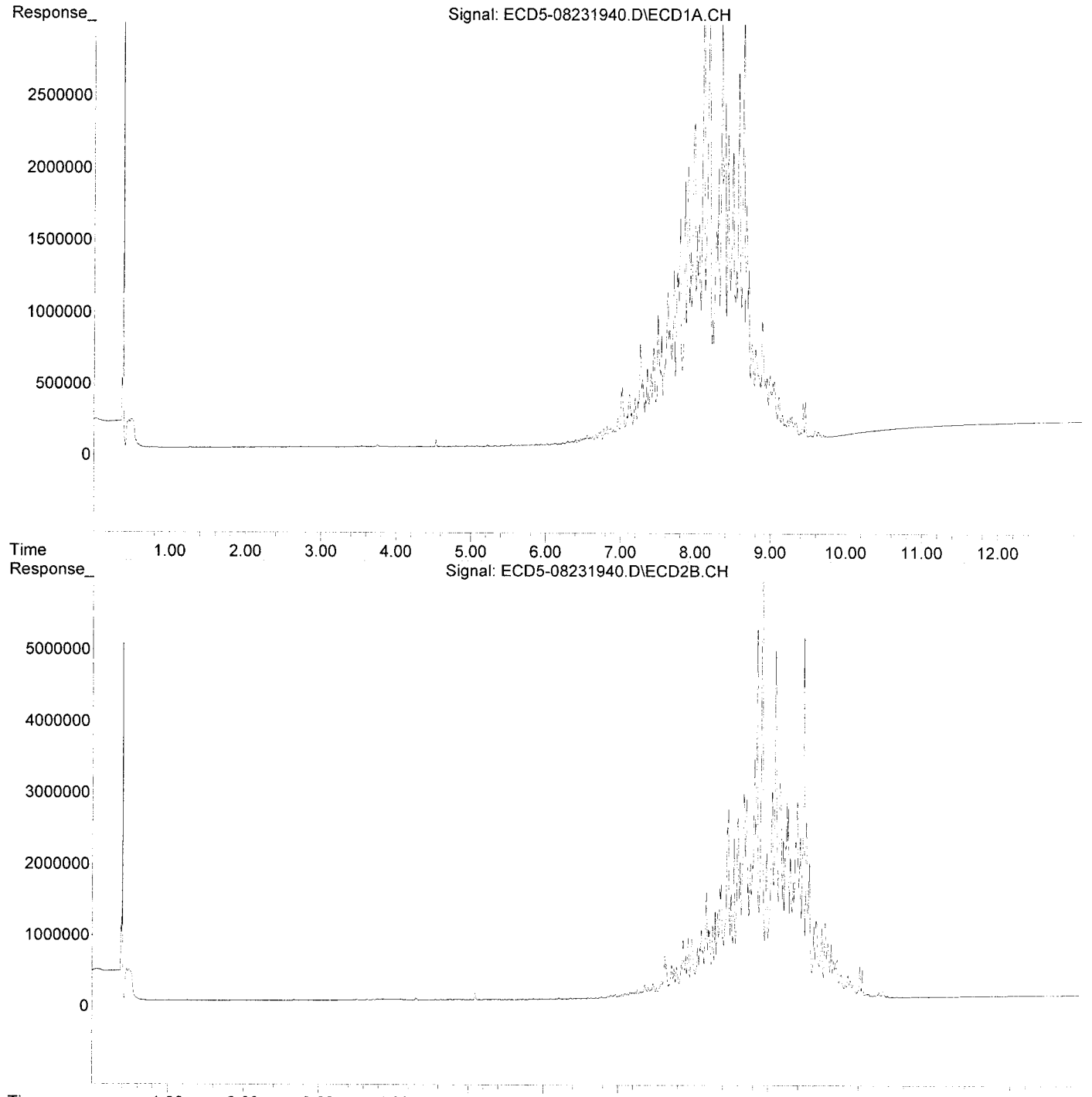
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.415f	5.982	2381	5264	0.014	0.018	
22)	S DCBP (S)	9.591	10.522	47060	86882	0.334	0.483	#
	Target Compounds							
2)	a-BHC	5.937	6.597	7133	14957	0.031	0.036	
3)	g-BHC	6.231	6.907	12268	49388	0.061	0.138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

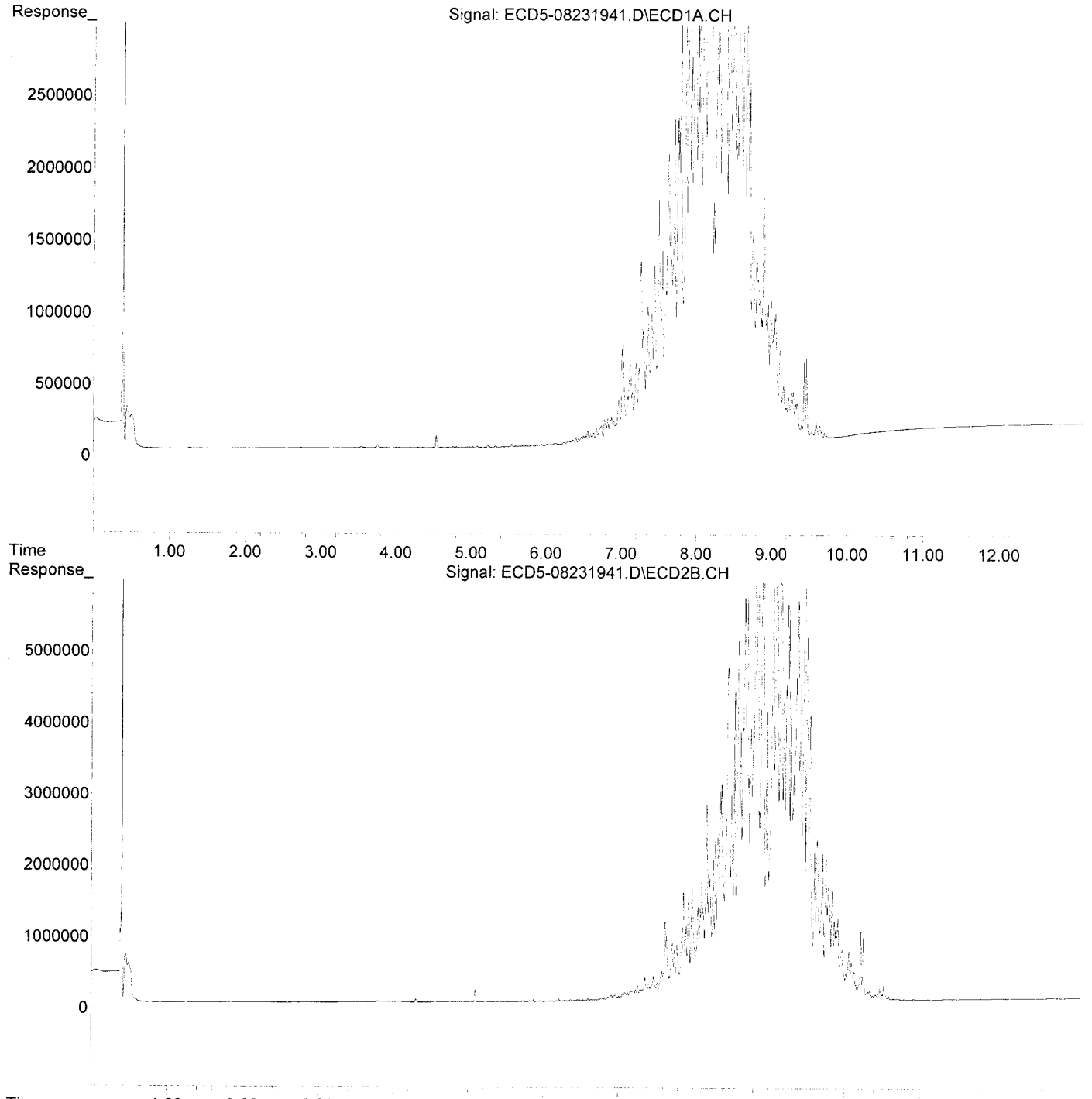
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.416f	5.979	3411	9459	0.021	0.032	#
22)	S DCBP (S)	9.591	10.521	106938	194794	0.758	1.084	#
	Target Compounds							
2)	a-BHC	5.935	6.596	13246	39719	0.058	0.097	#
3)	g-BHC	6.231	6.908	20790	85564	0.103	0.240	#
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.

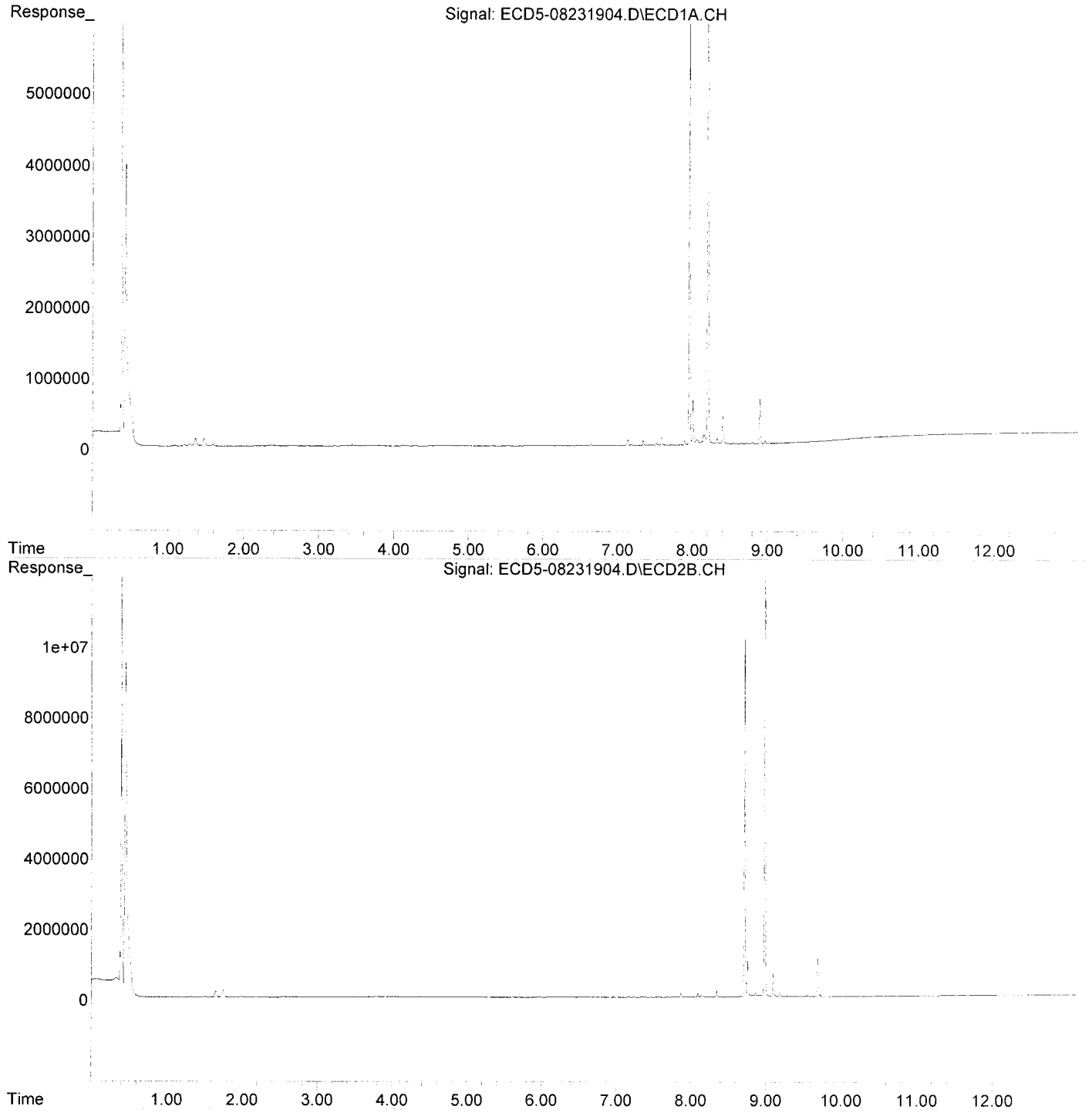
Breakdown passing, but ~~the~~ High. Maintenance performed
MJB 8/26/19

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

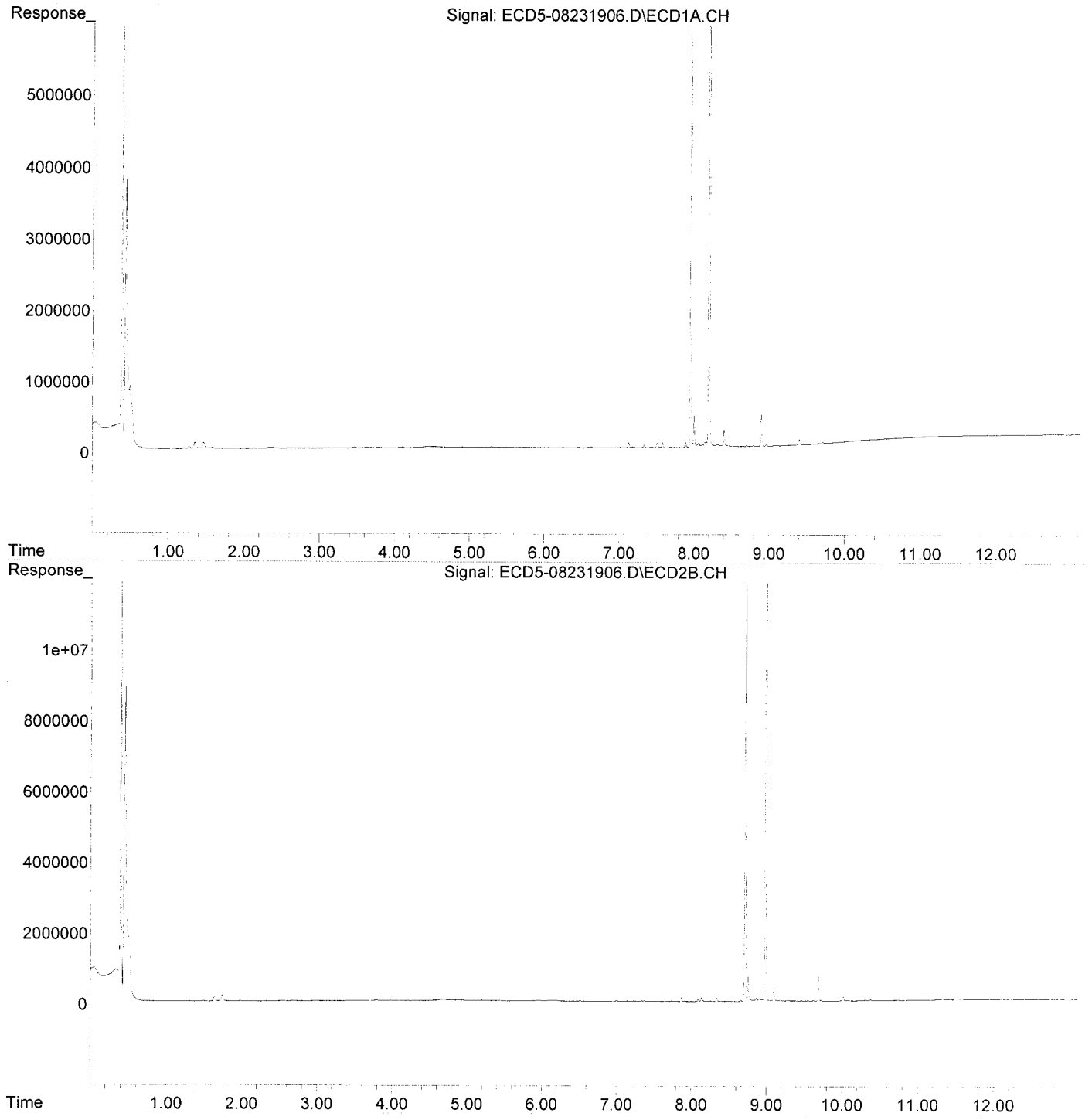
(f)=RT Delta > 1/2 Window (m)=manual int.

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

MJF 8/26/19

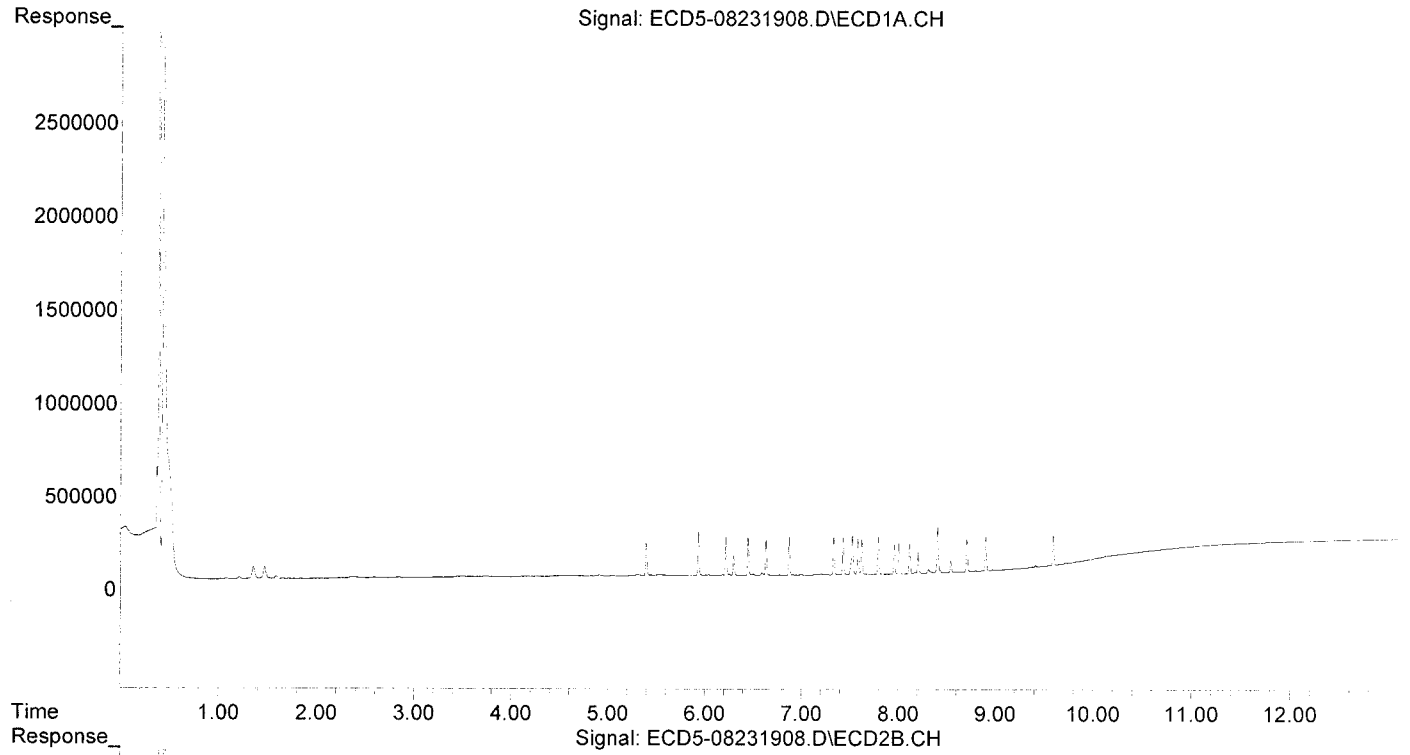
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.397	5.991	176748	300053	1.633	1.607
22)	S	DCBP (S)	9.593	10.541	163865	191572	1.202	1.206
		Target Compounds						
2)		a-BHC	5.937	6.597	231994	393119	1.665	1.296
3)		g-BHC	6.221	6.915	207427	352286	1.380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

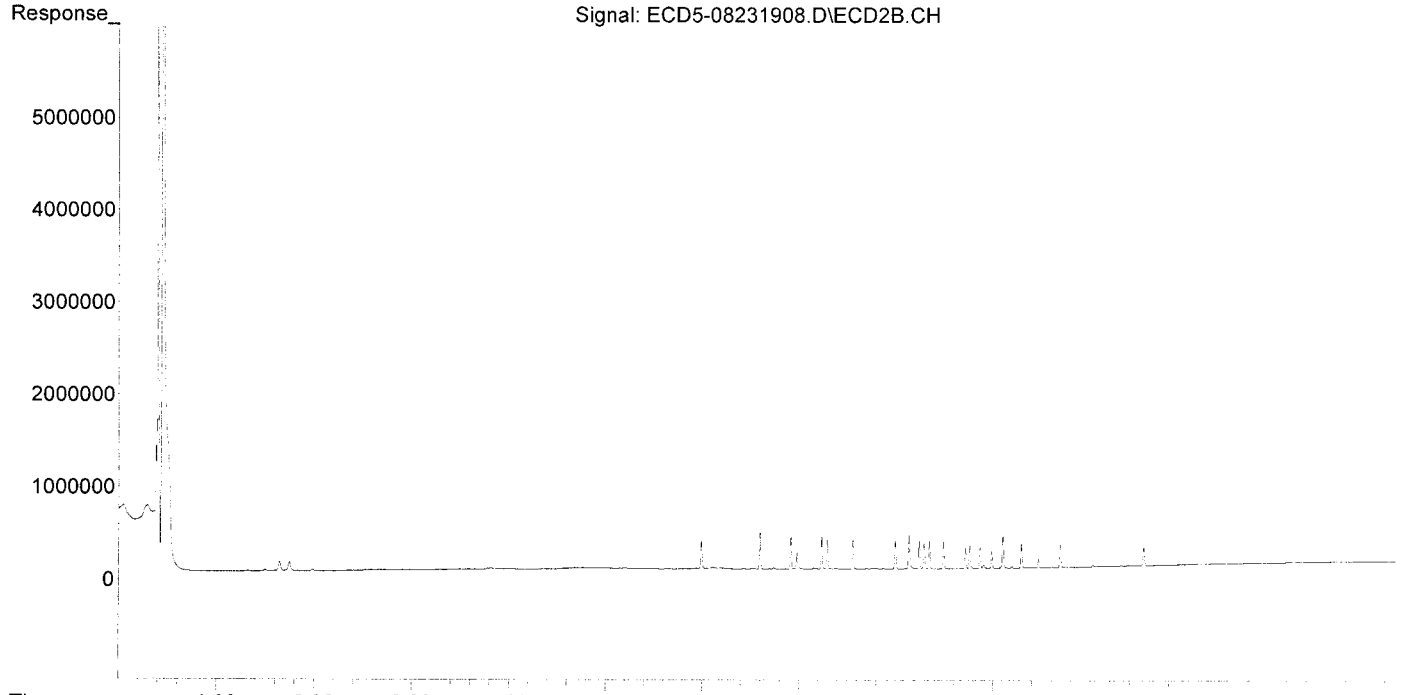
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

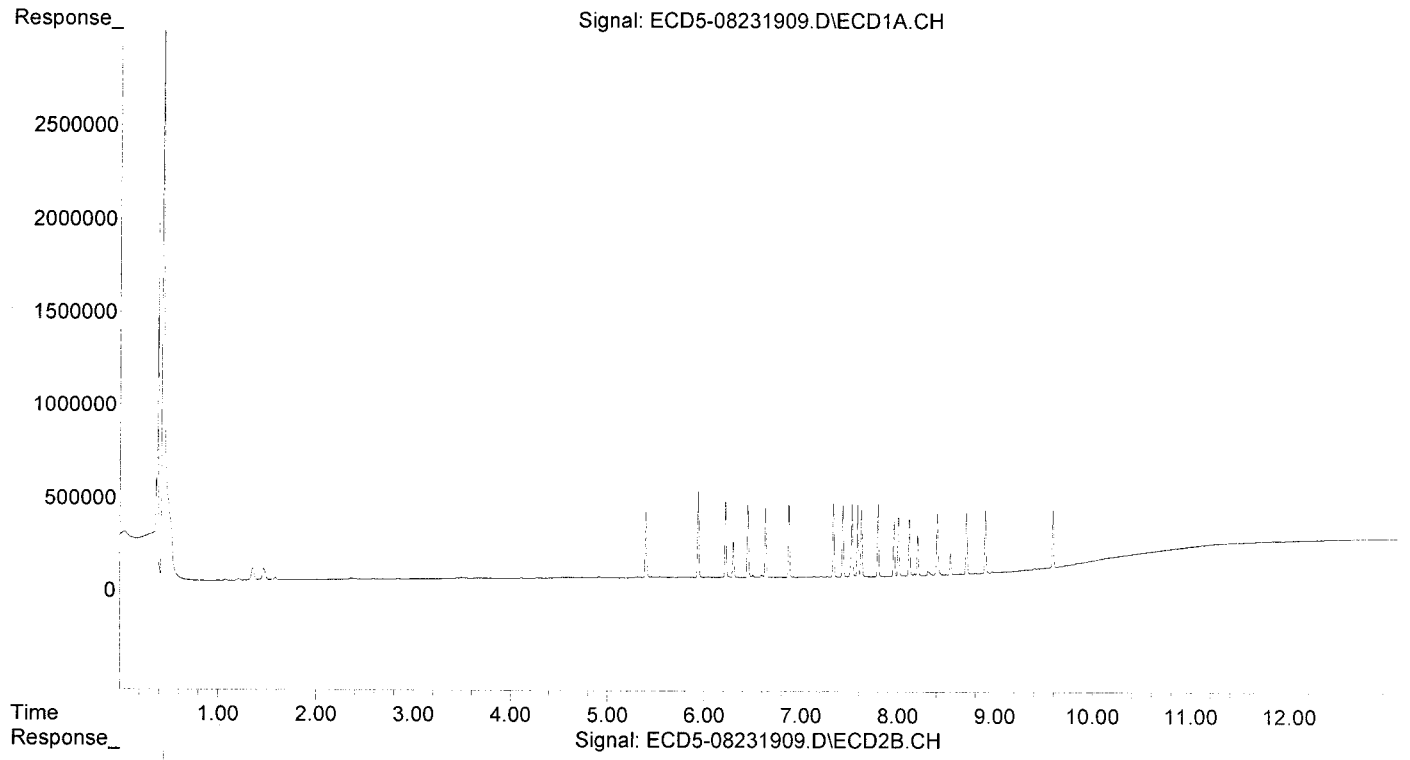
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	349972	600766	3.233	3.230
22)	S	DCBP (S)	9.593	10.542	309904	390006	2.547	2.456
		Target Compounds						
2)		a-BHC	5.936	6.597	458365	784586	3.177	2.540
3)		g-BHC	6.220	6.915	406027	690922	2.702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

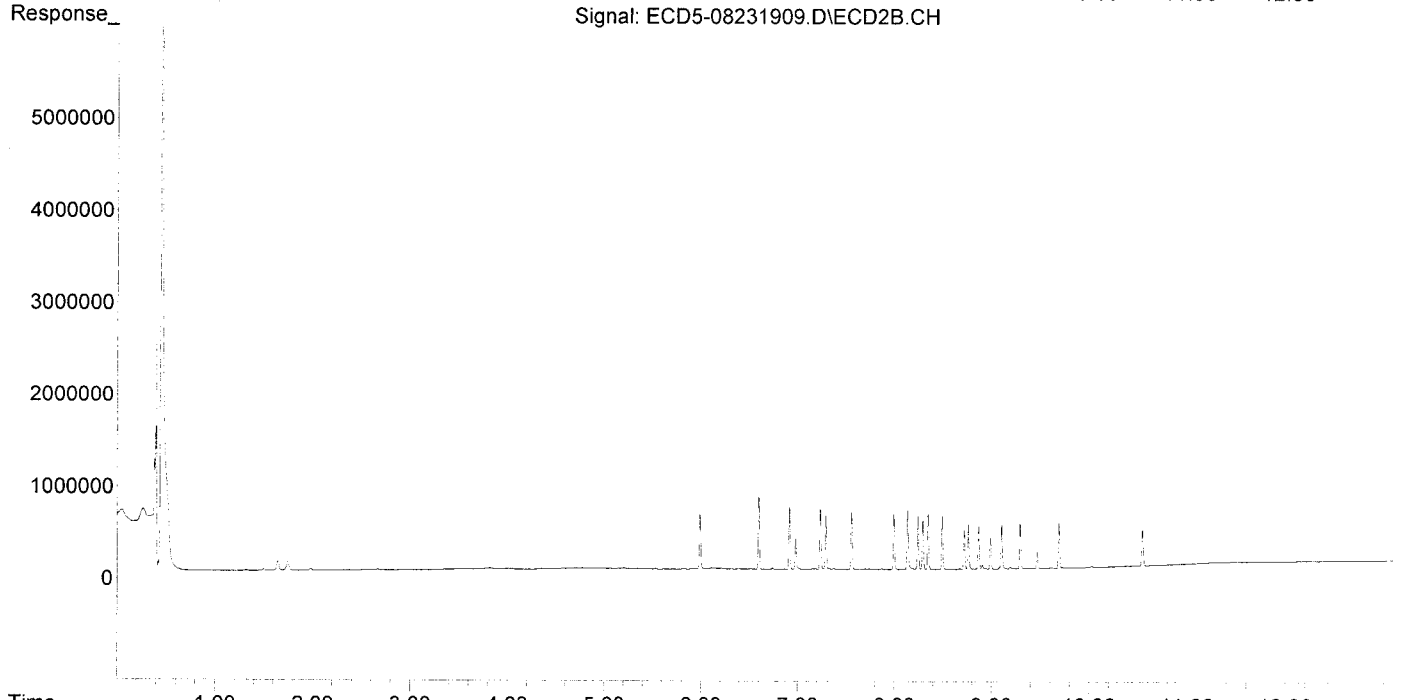
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

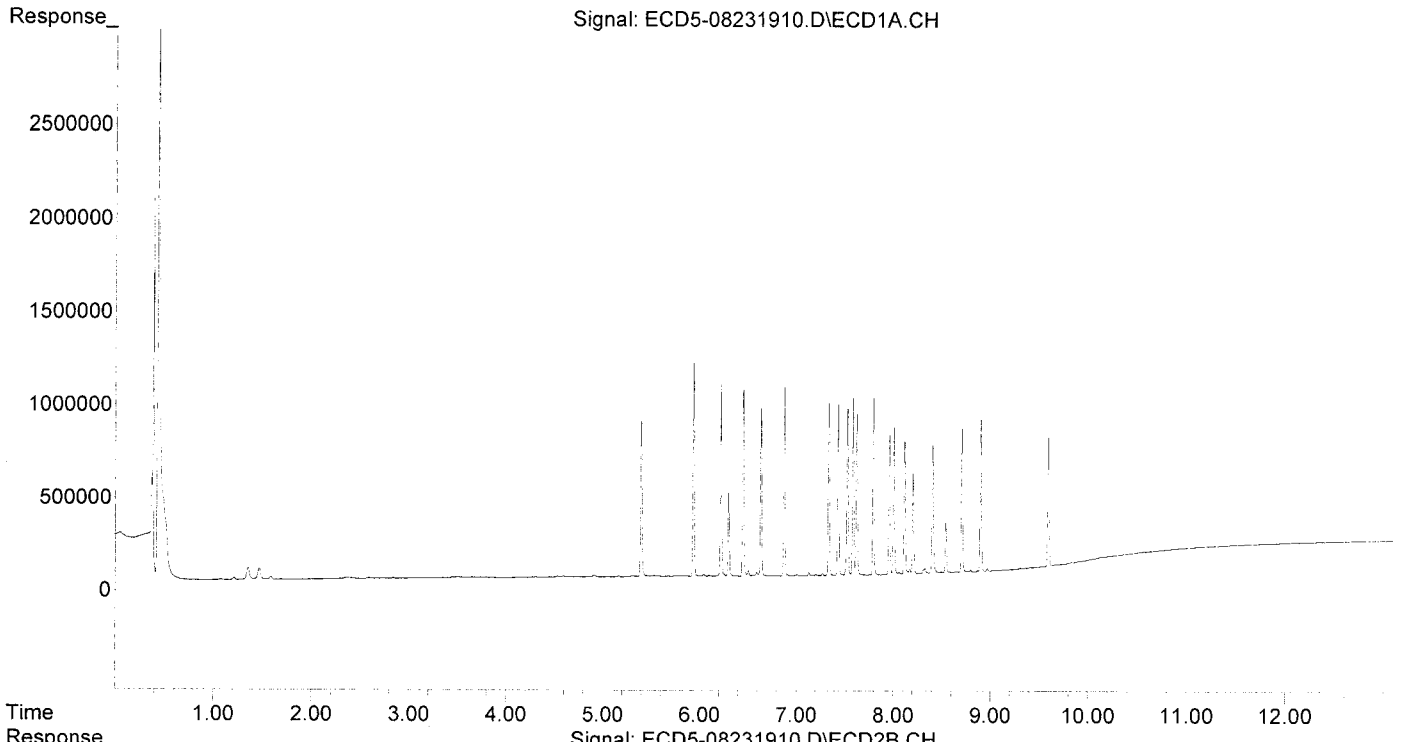
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	834206	1437876	7.707	7.700
22)	S	DCBP (S)	9.594	10.542	701050	870921	6.146	5.485
		Target Compounds						
2)		a-BHC	5.937	6.597	1147932	1985438	7.742	6.328
3)		g-BHC	6.220	6.915	1020724	1742677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

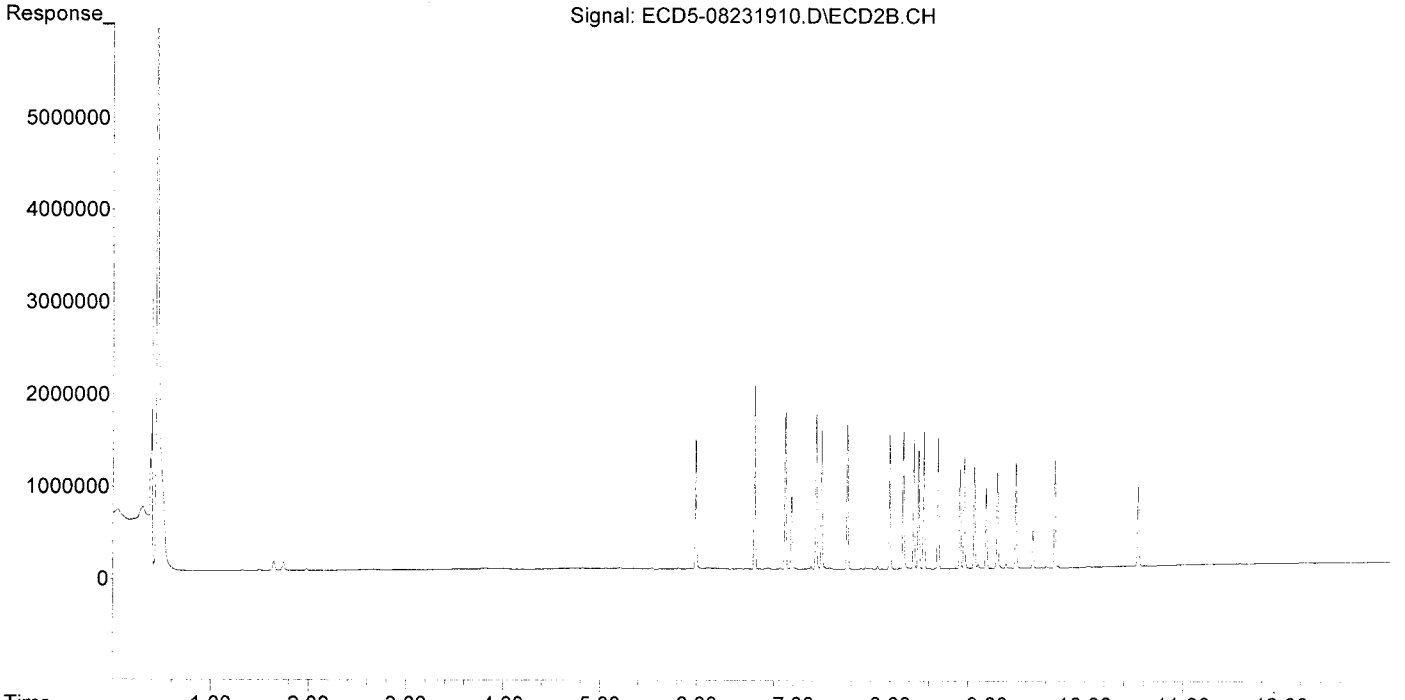
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

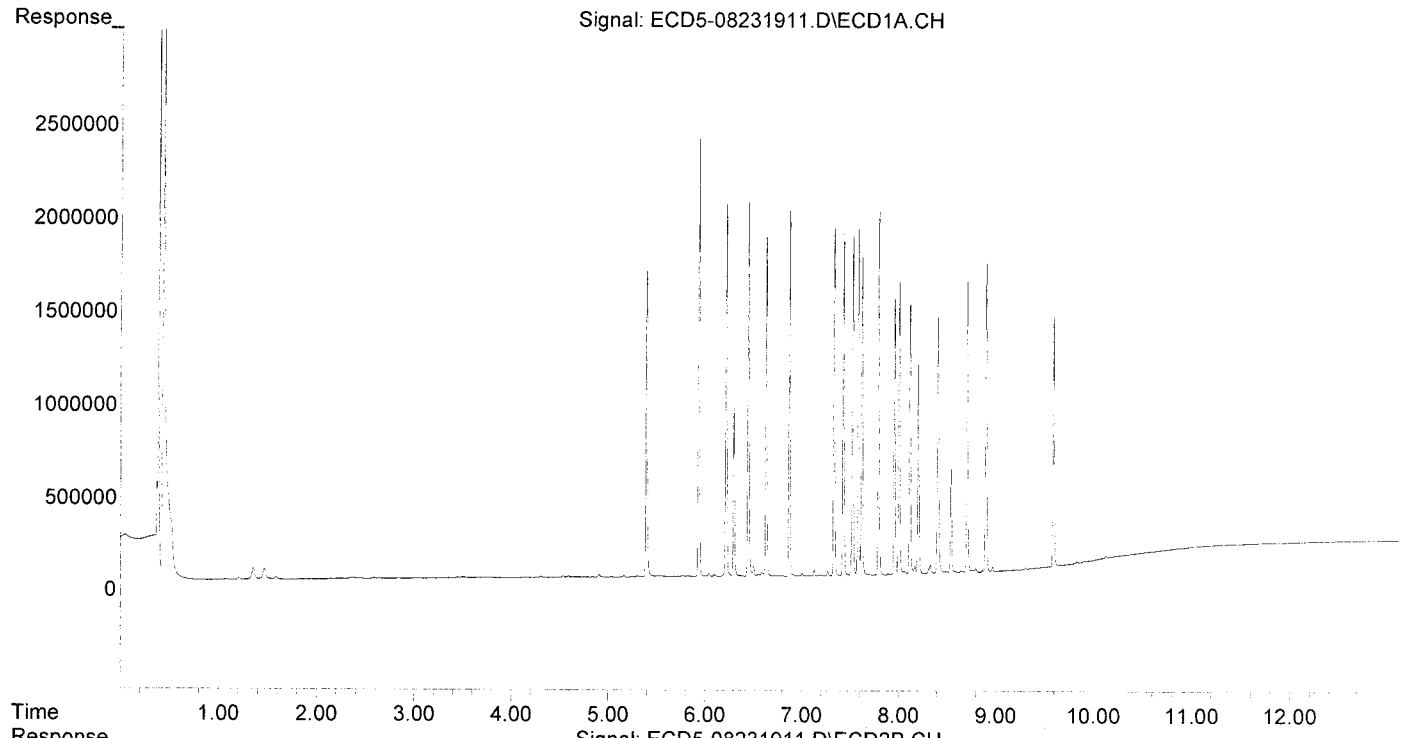
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	1644447	2865854	15.193	15.177
22)	S	DCBP (S)	9.593	10.541	1335468	1678728	11.976	10.572
		Target Compounds						
2)		a-BHC	5.936	6.597	2347065	4095890	15.530	12.883
3)		g-BHC	6.220	6.915	2034859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

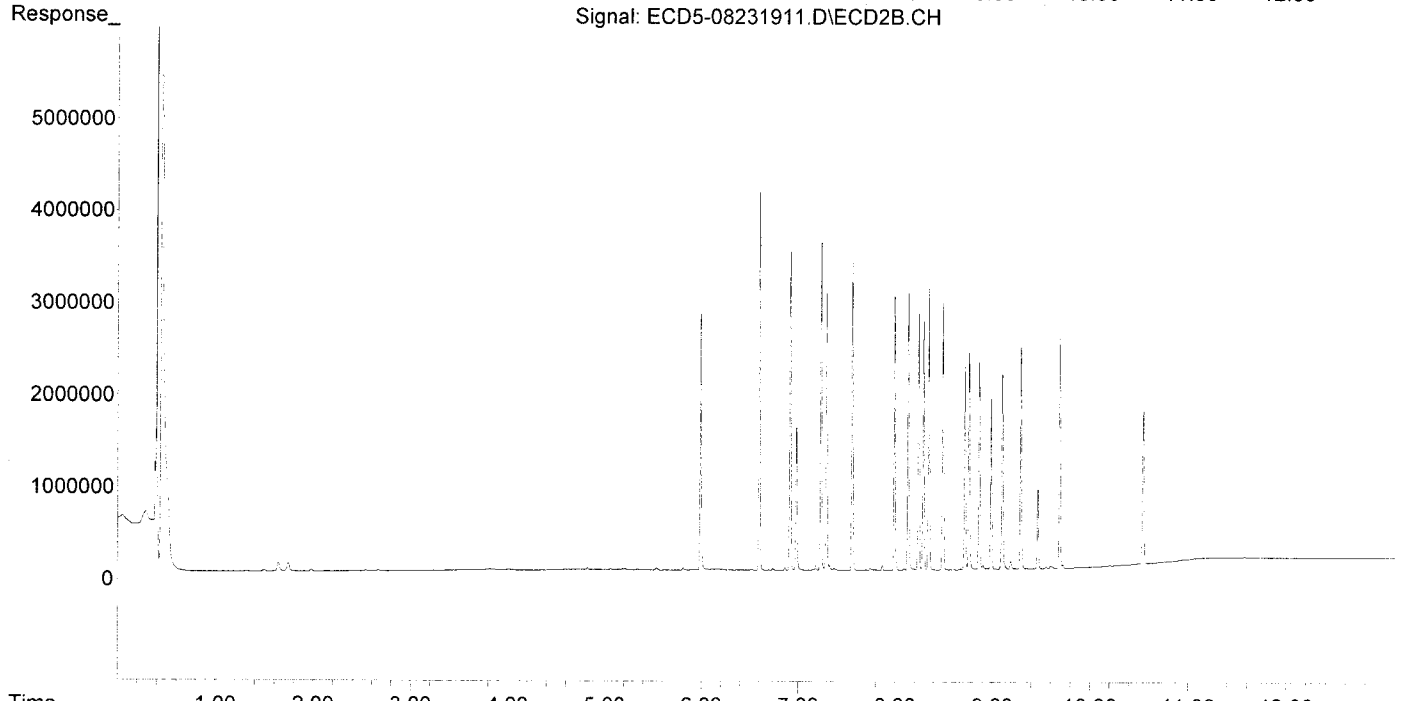
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

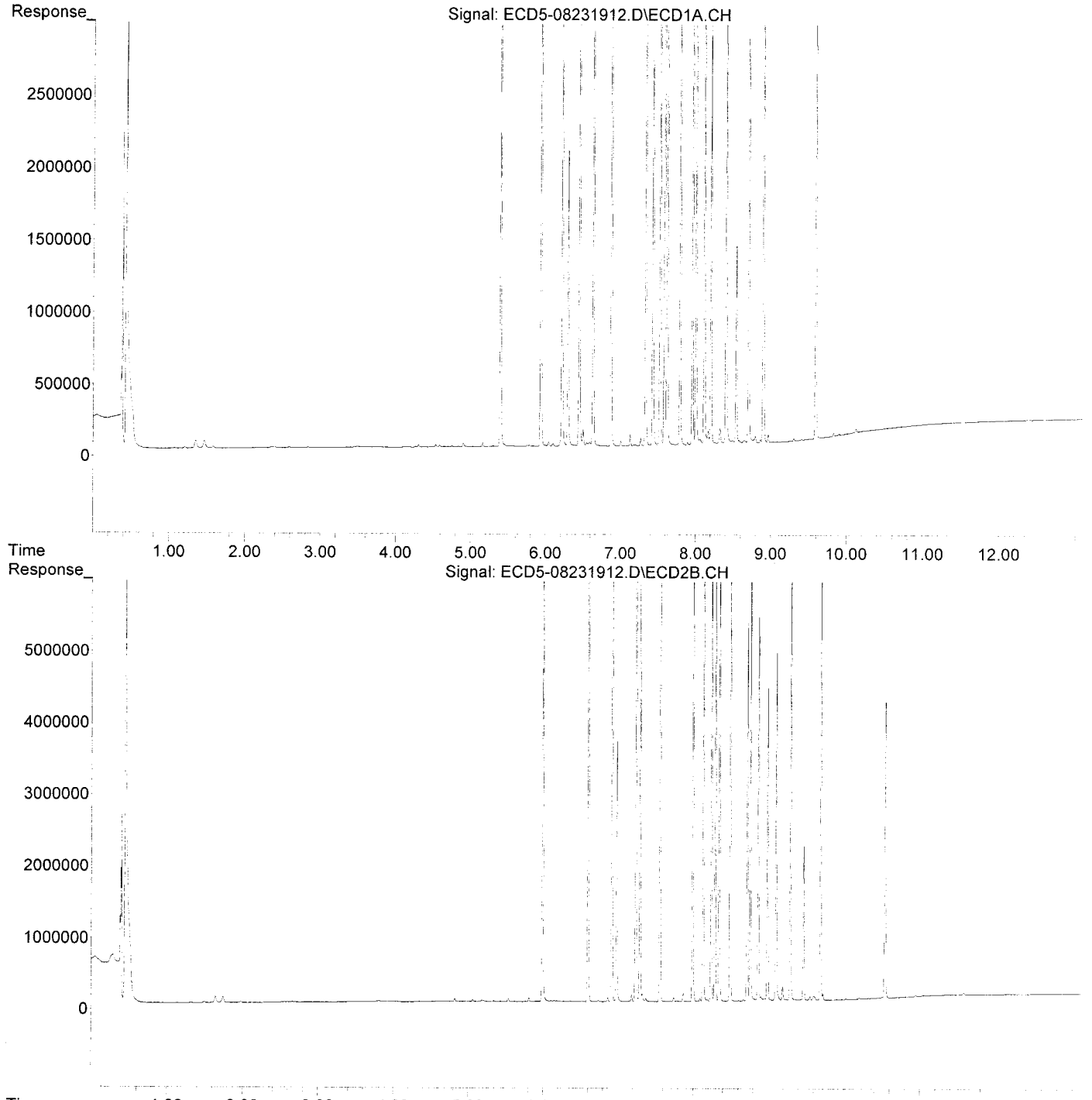
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1)	S TCMX (S)	5.394	5.989	4015832	7072923	37.101	36.221
22)	S DCBP (S)	9.592	10.539	3342634	4163229	30.365	26.219
	Target Compounds						
2)	a-BHC	5.935	6.596	5553096	9910863	35.515	30.324
3)	g-BHC	6.218	6.913	4875657	8508386	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

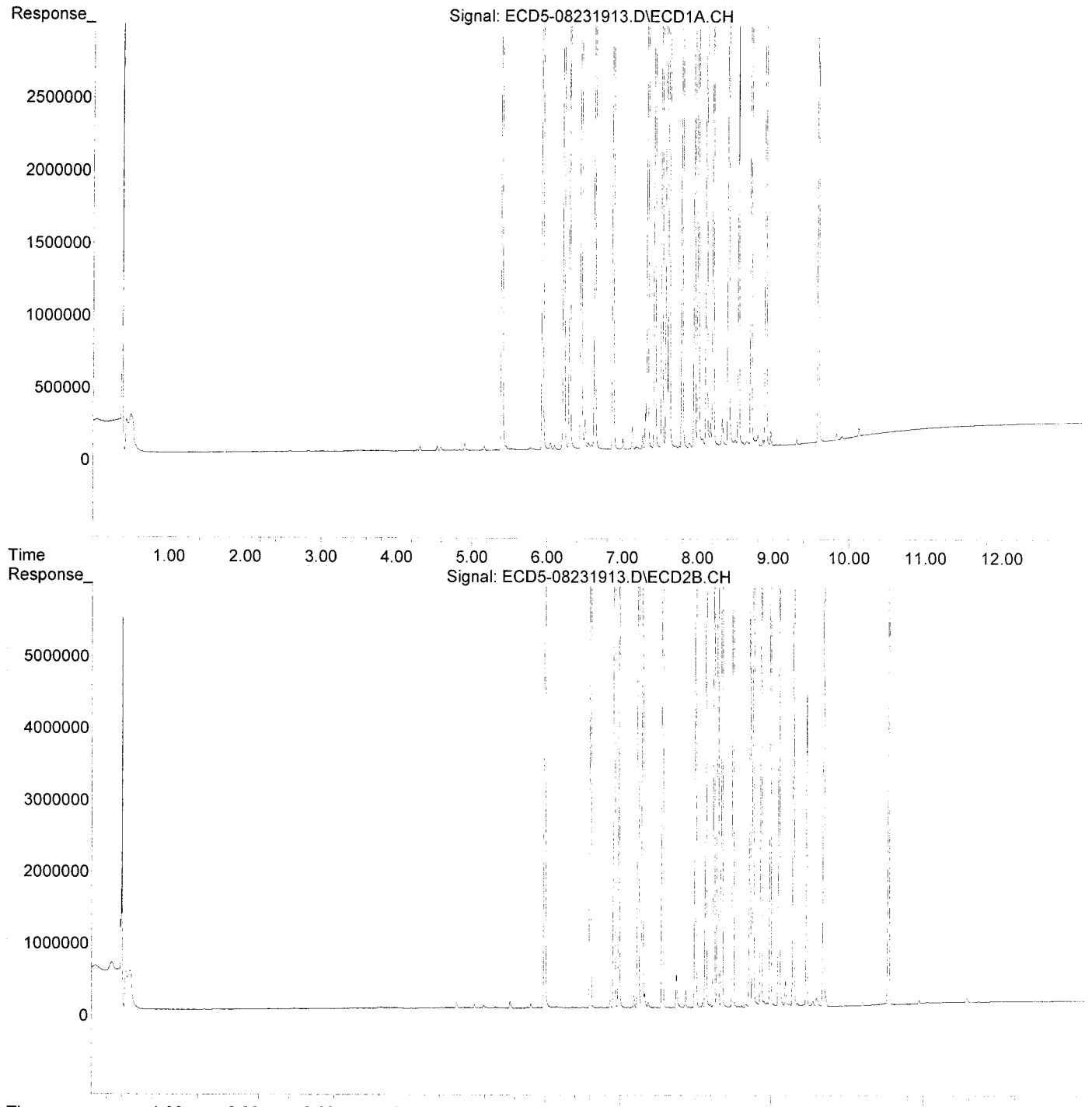
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.394	5.989	8071481	14196745	74.571	69.077
22) S	DCBP (S)	9.592	10.541	6678990	8730692	60.740	54.984
	Target Compounds						
2)	a-BHC	5.935	6.596	11369592	20265817	69.154	59.445
3)	g-BHC	6.218	6.914	9785999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

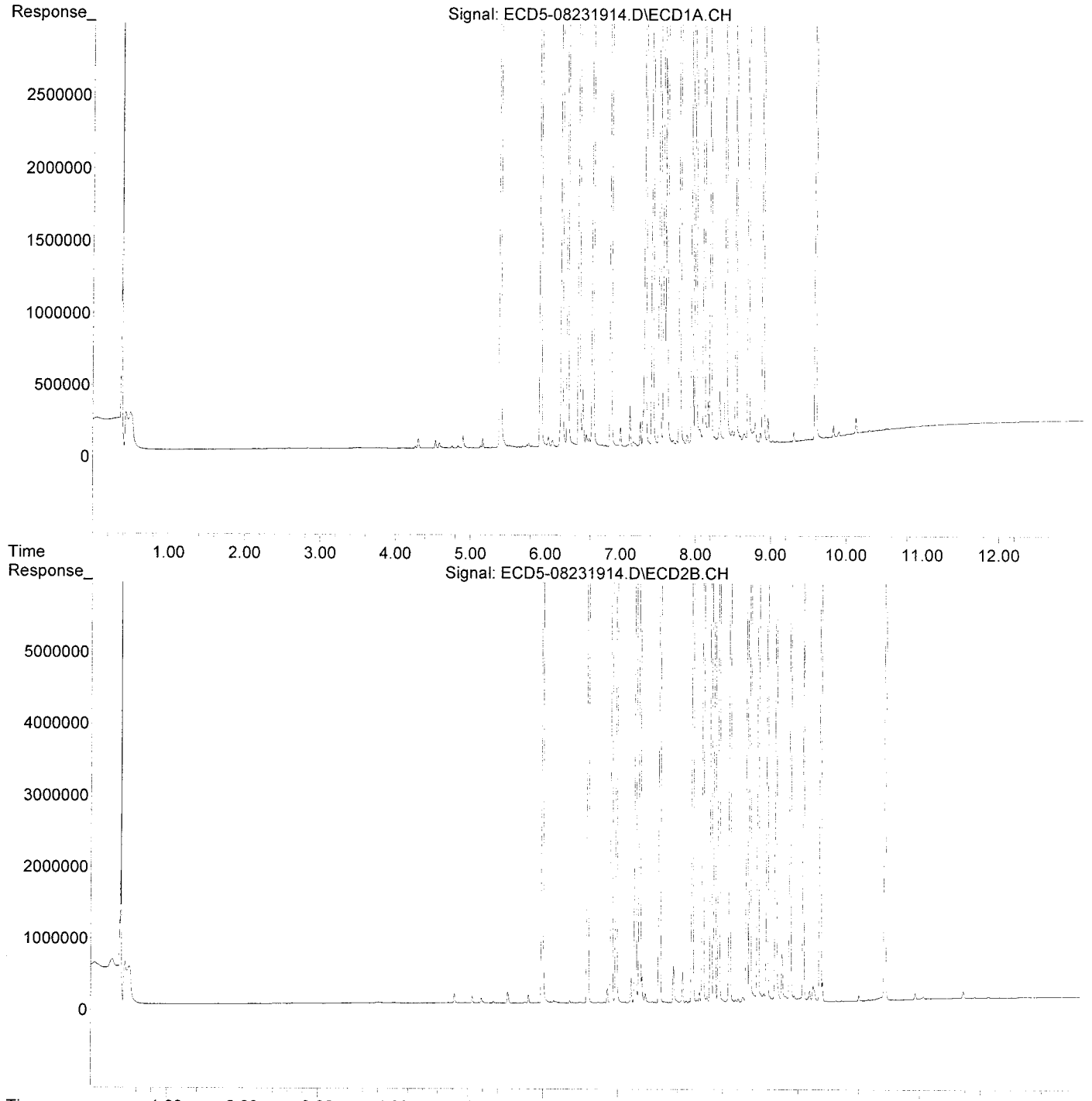
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.395	5.989	15850922	29256334	146.444	130.224
22)	S	DCBP (S)	9.592	10.540	13405396	17784069	121.277	111.999
		Target Compounds						
2)		a-BHC	5.935	6.596	22363584	41699210	125.842	113.668
3)		g-BHC	6.218	6.914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

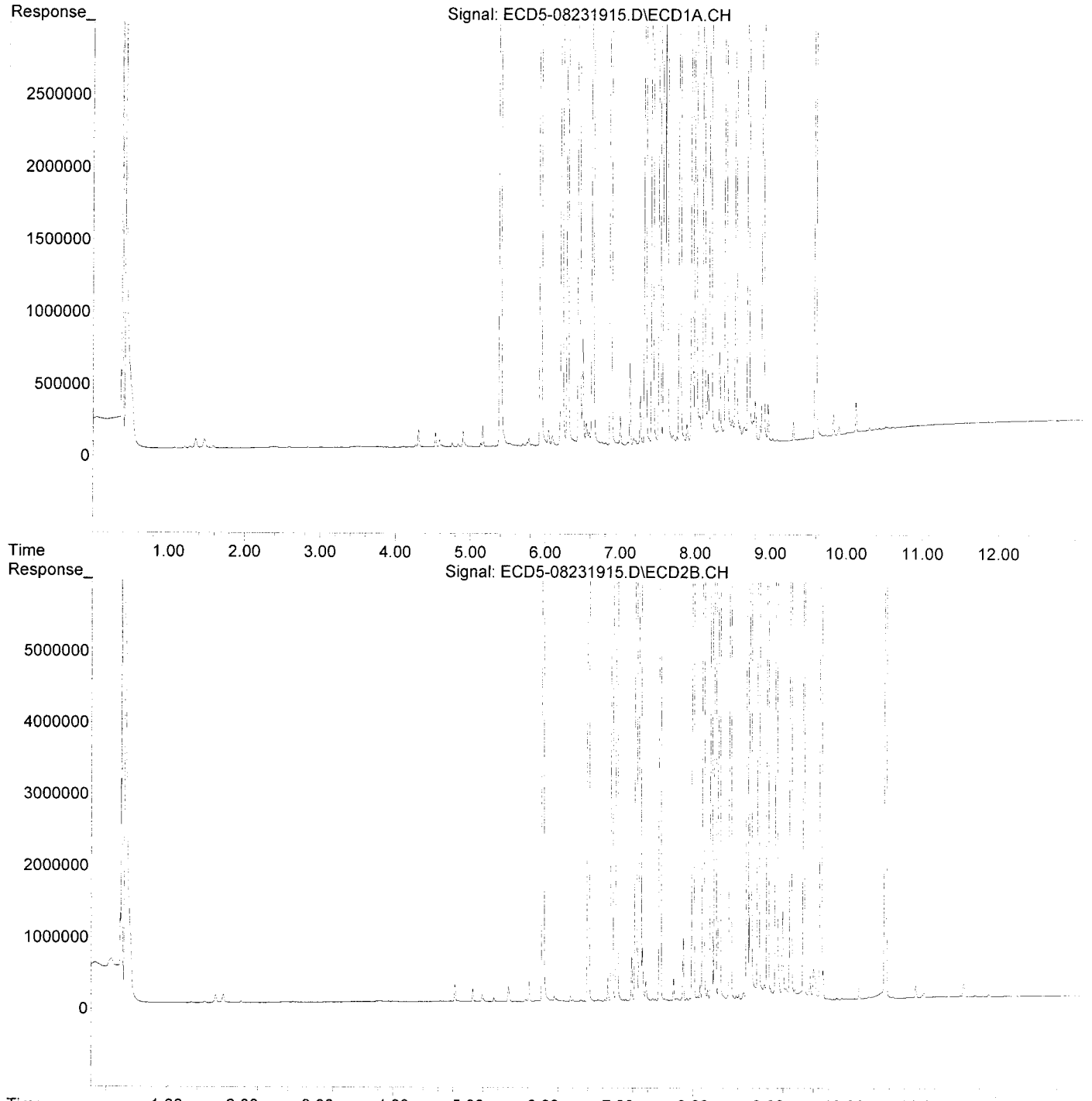
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.394	5.990	32842535	62584449	303.426	241.228
22)	S	DCBP (S)	9.591	10.539	26975231	38097779	240.687	239.929
		Target Compounds						
2)		a-BHC	5.935	6.597	47202252	94376748	232.879	224.790
3)		g-BHC	6.218	6.914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

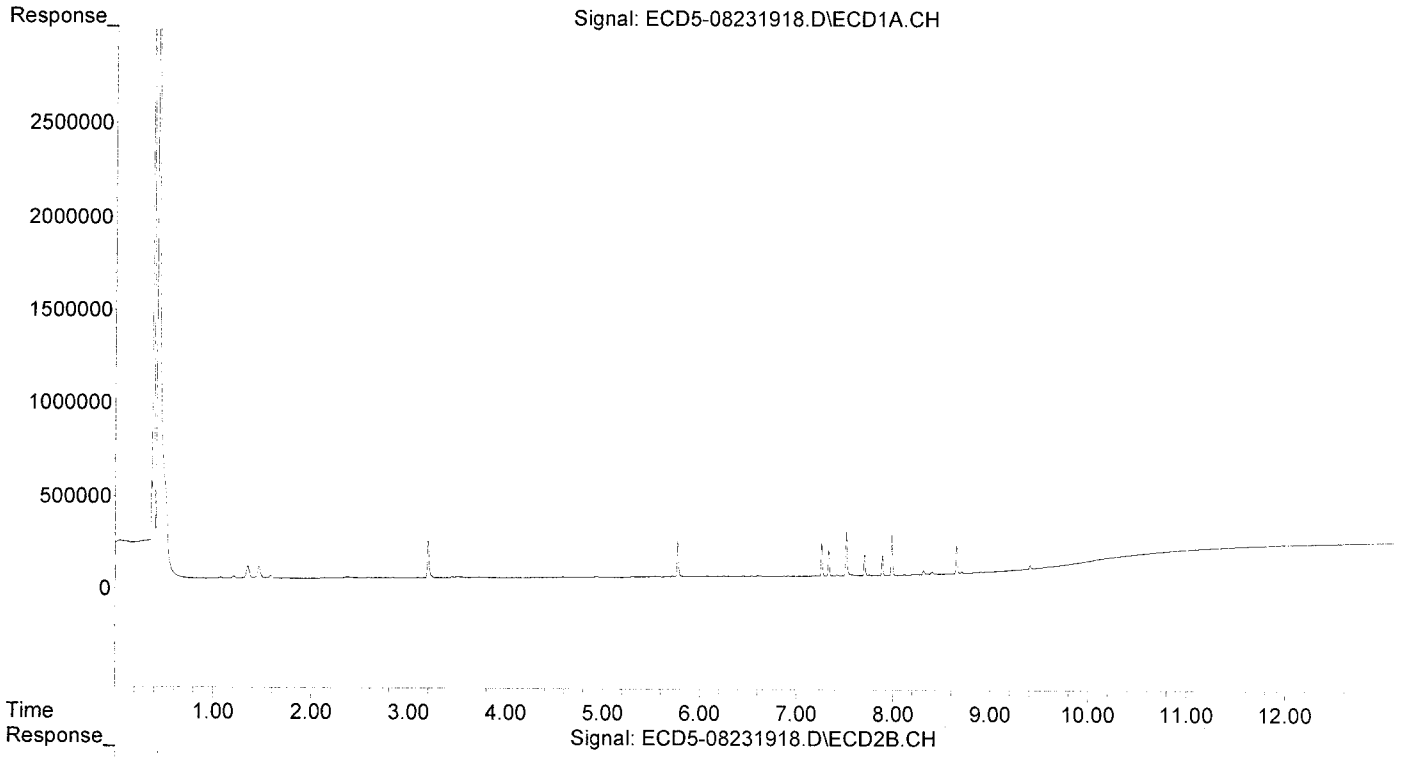
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

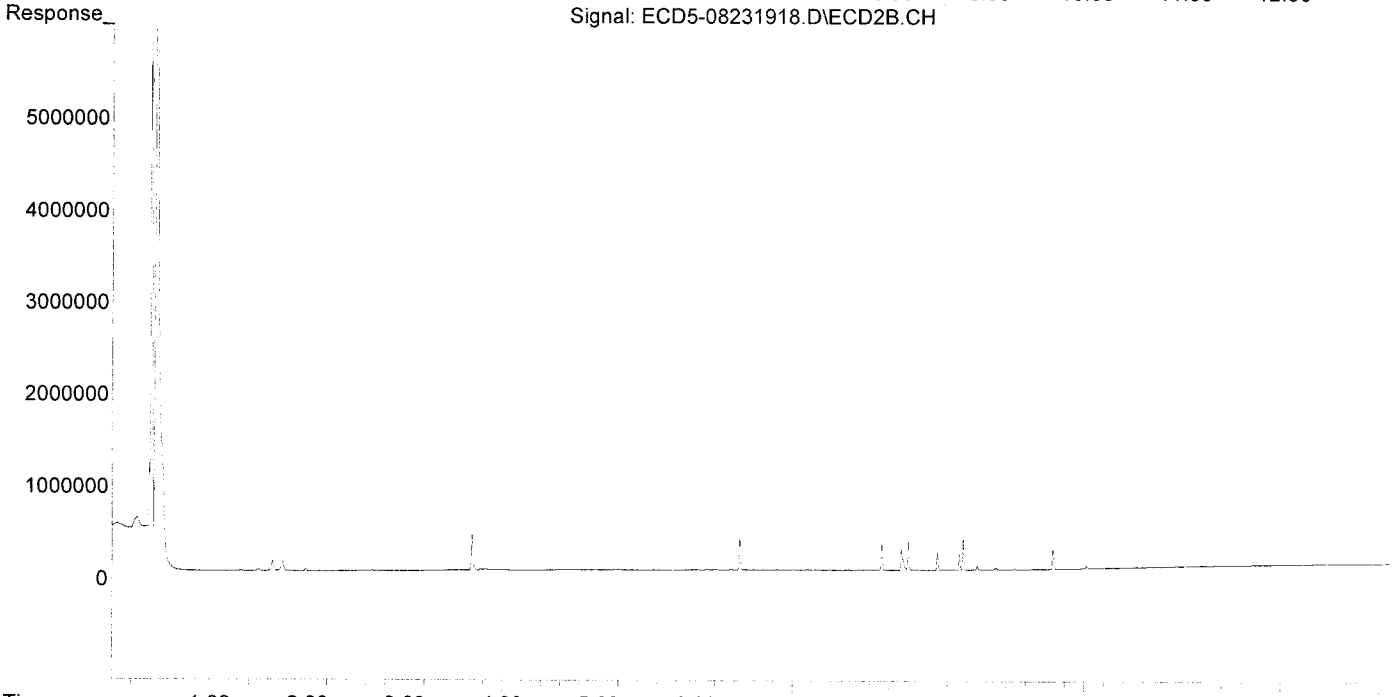
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

WP 8/26/19

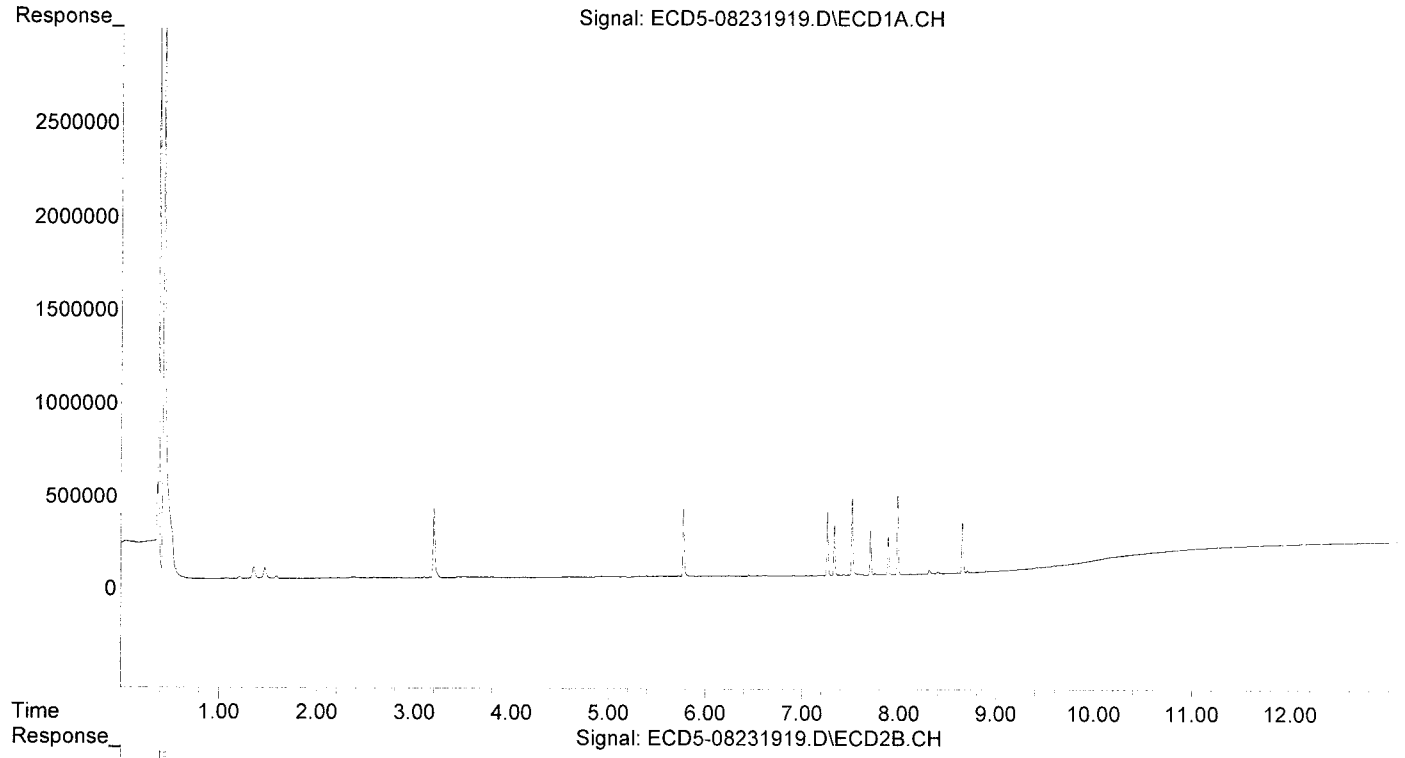
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

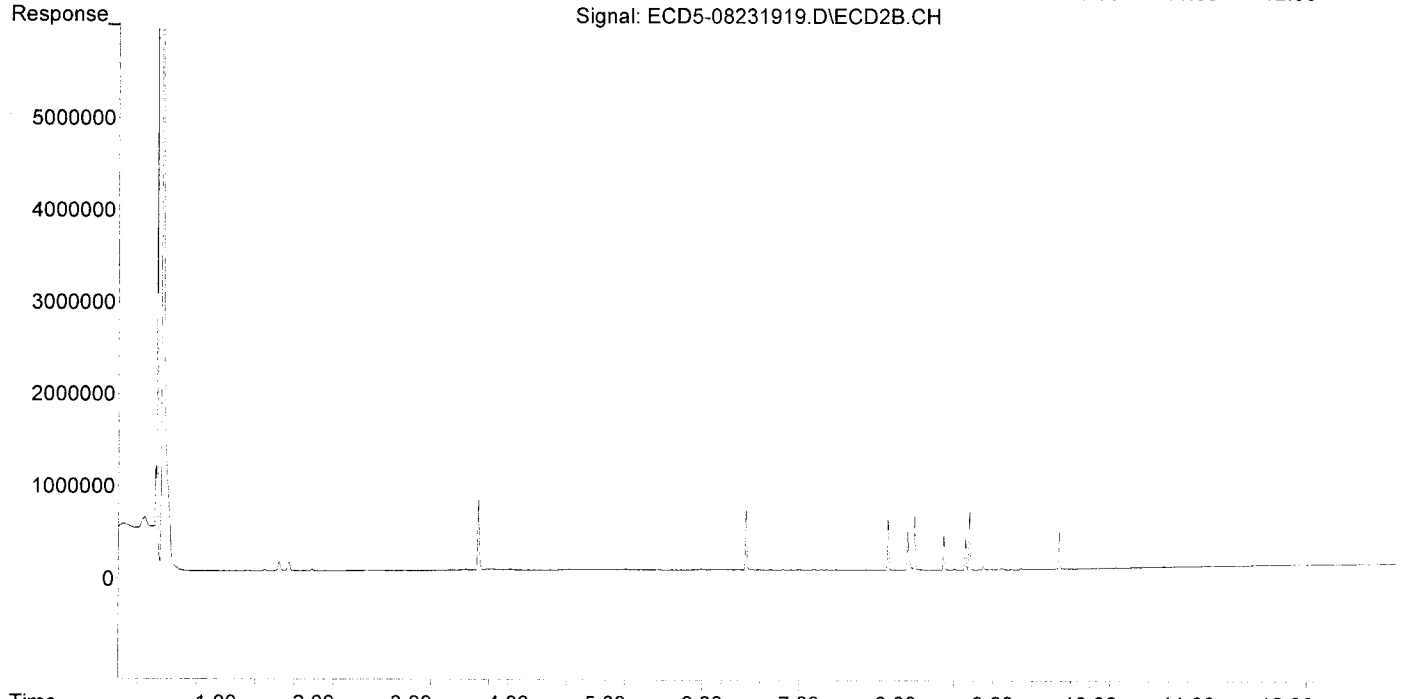
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

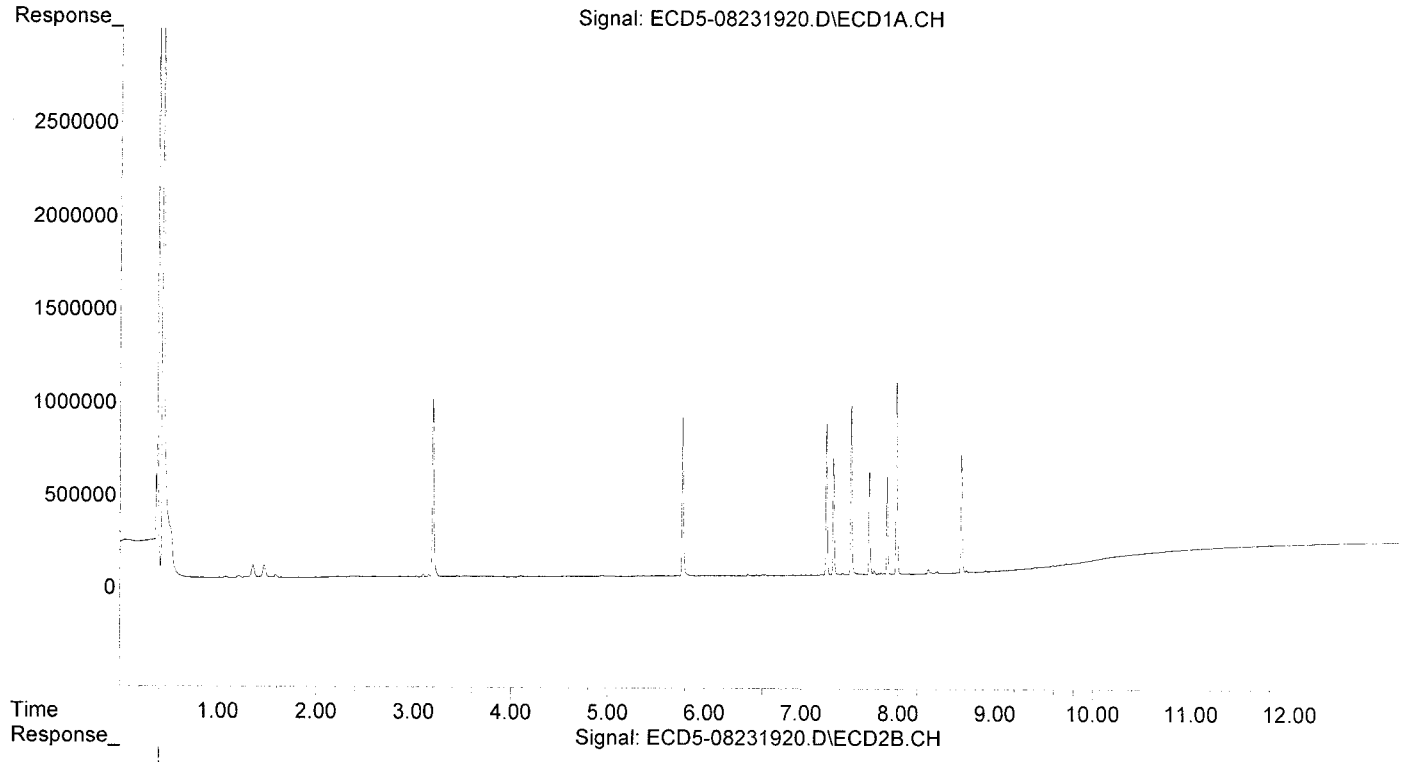
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

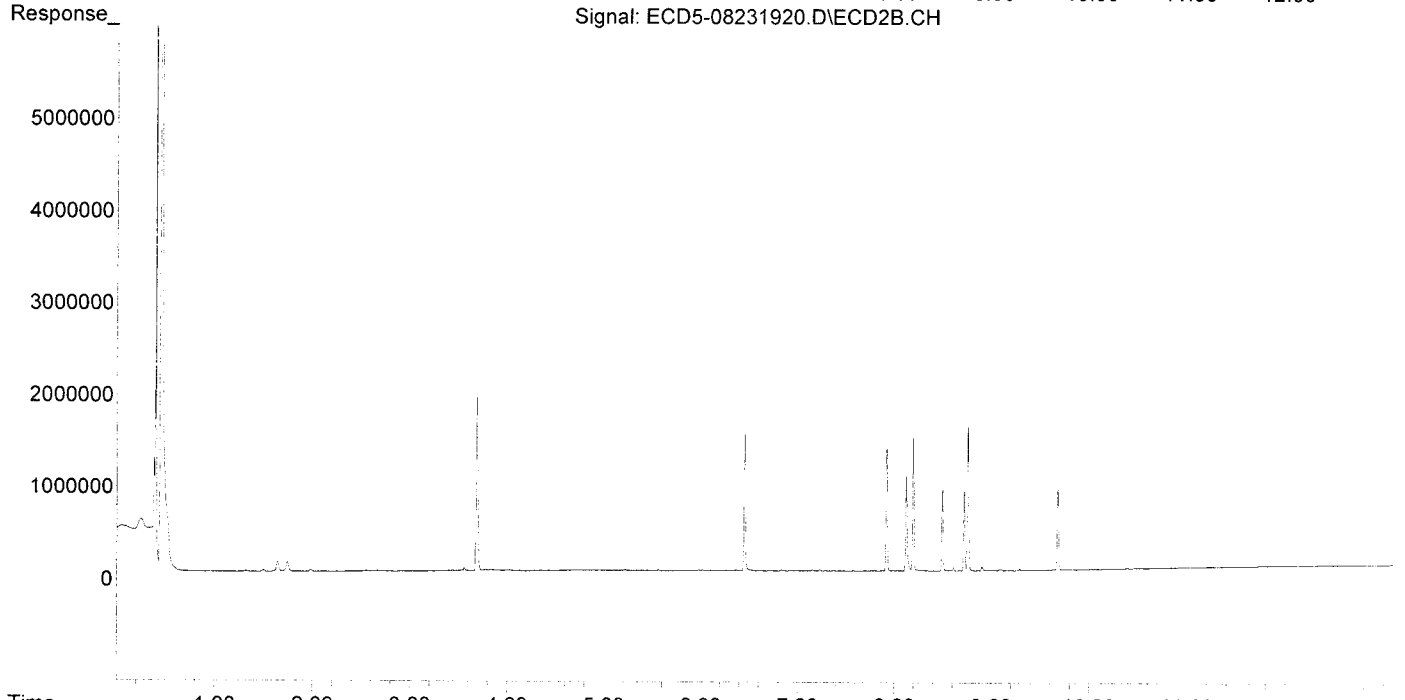
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

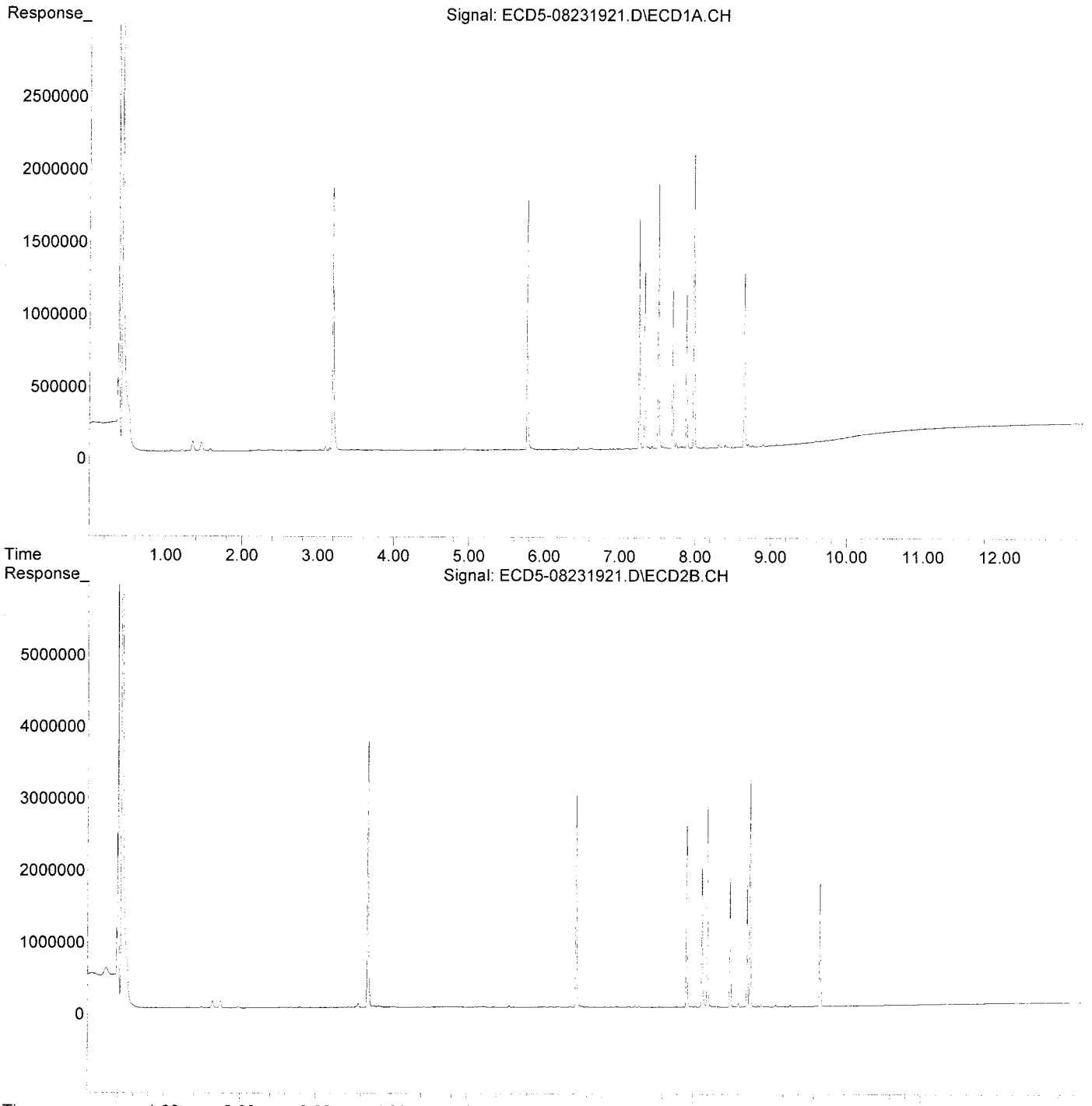
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

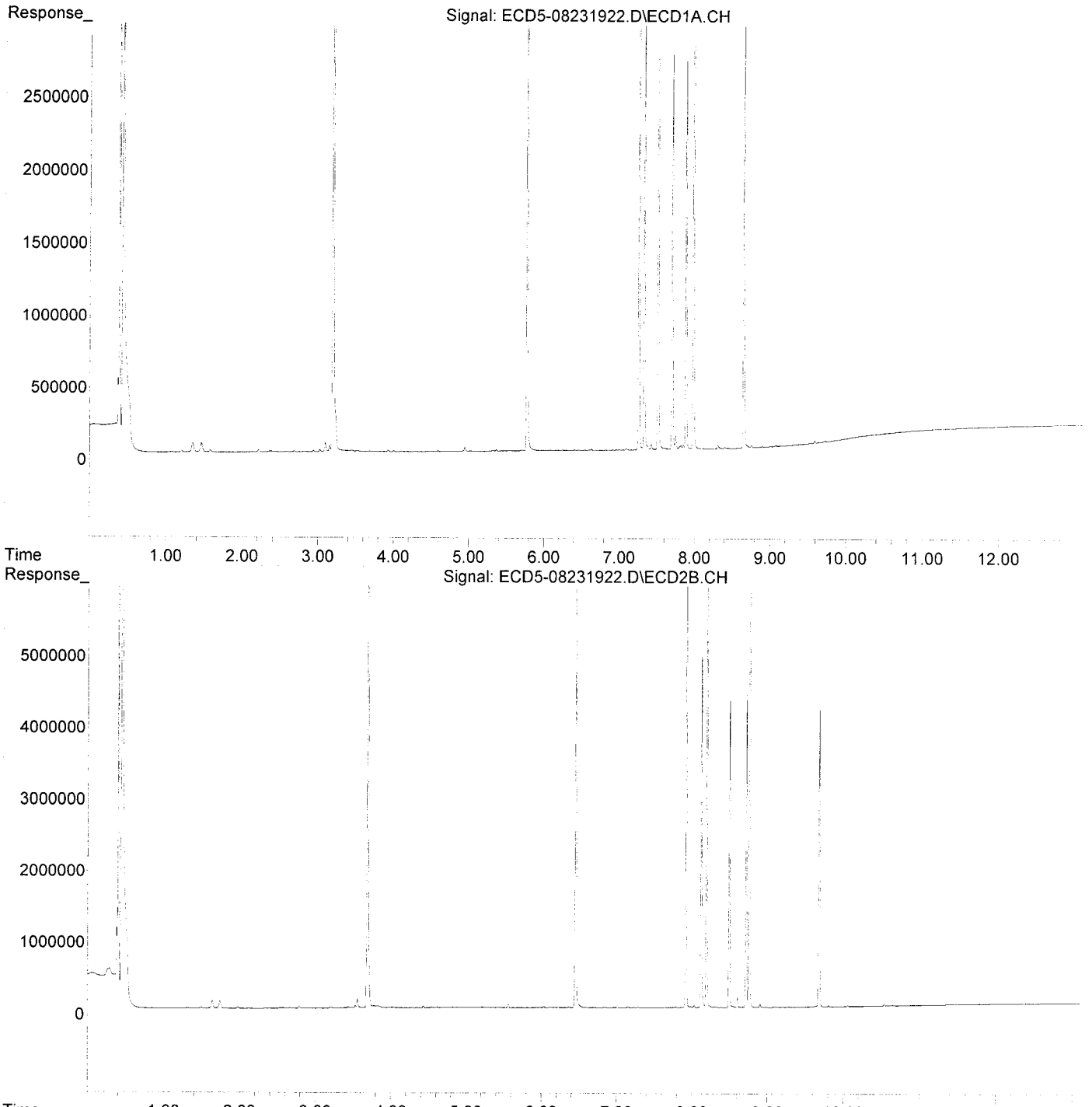
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

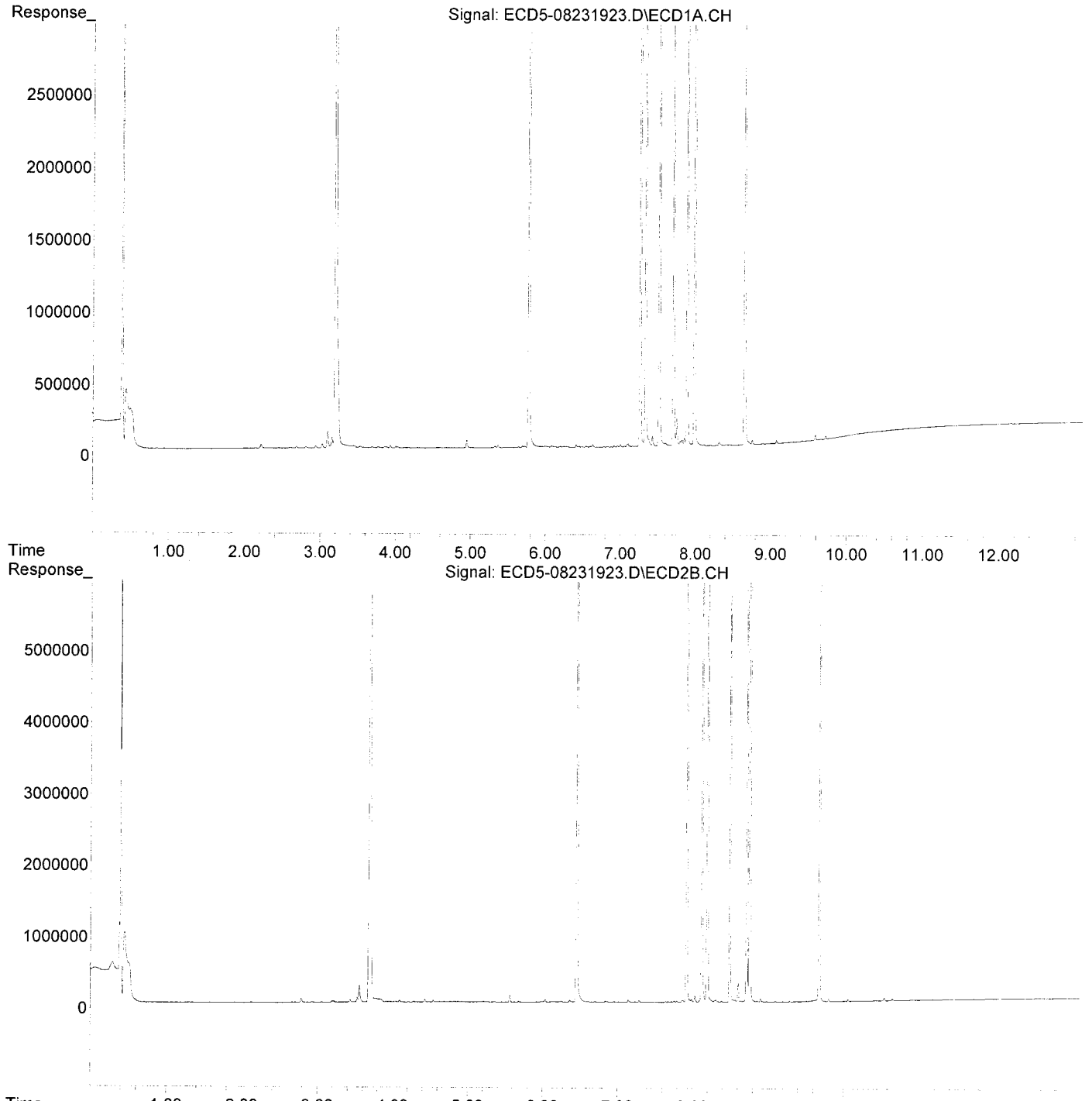
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

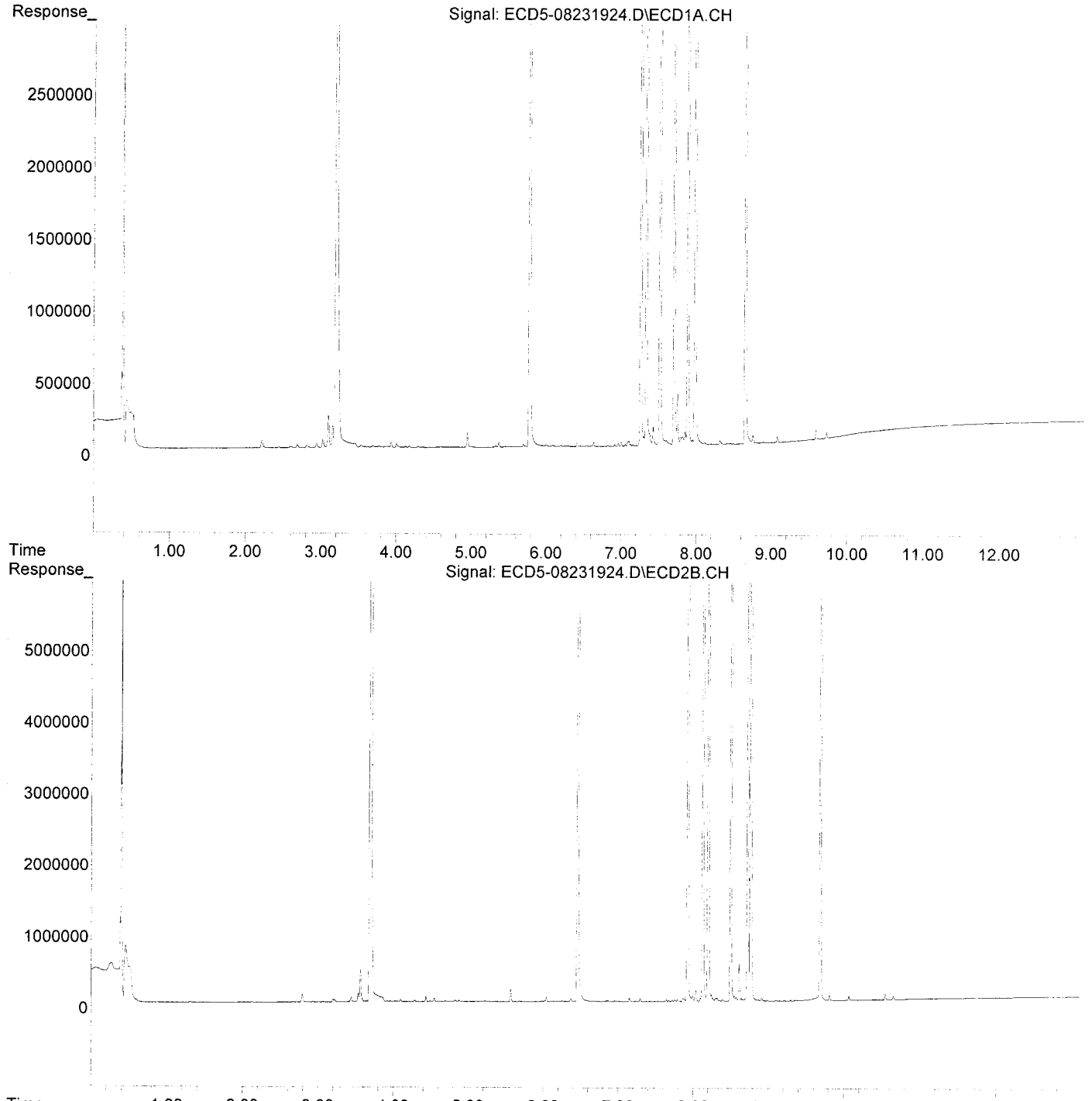
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0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

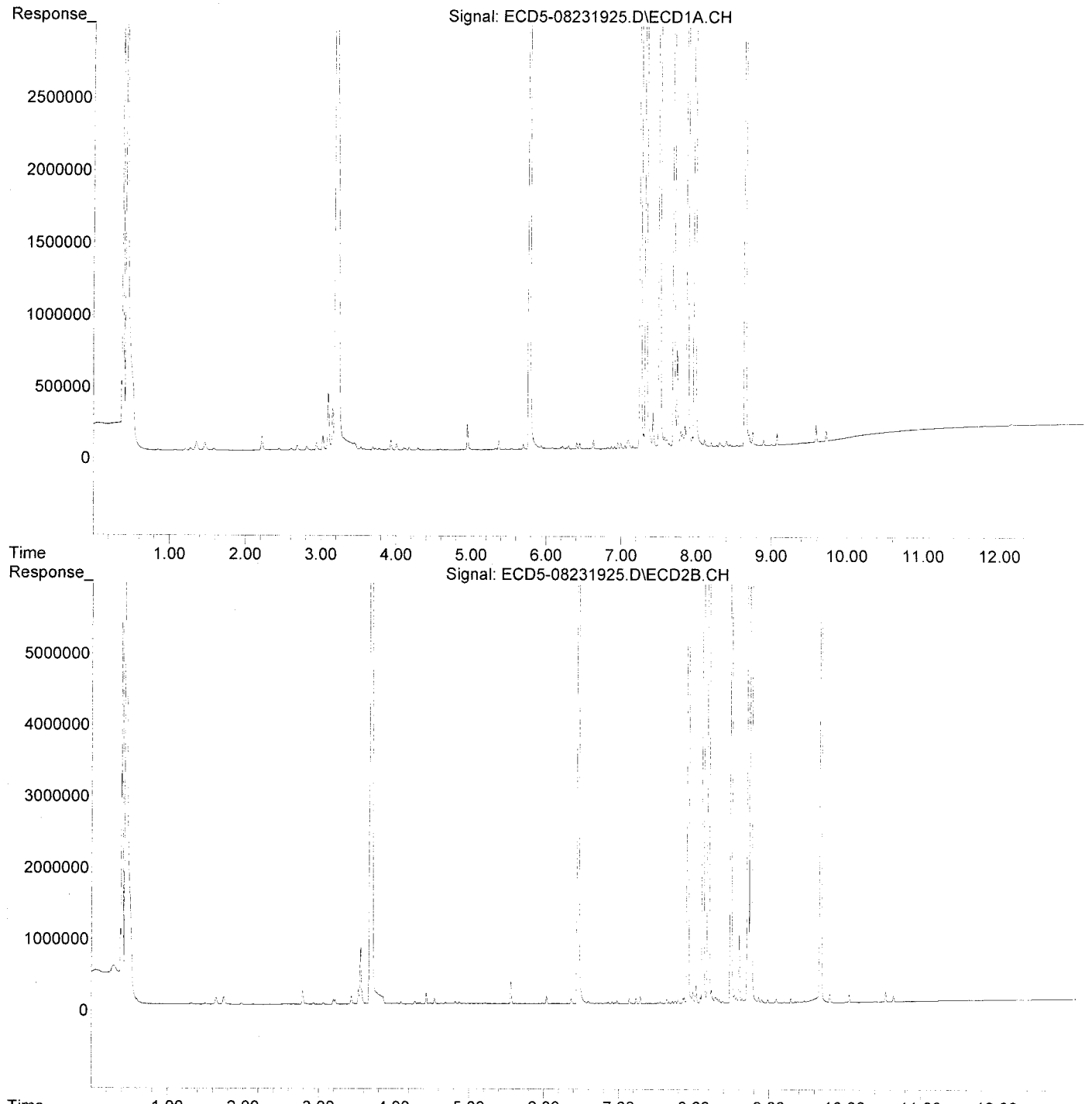
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

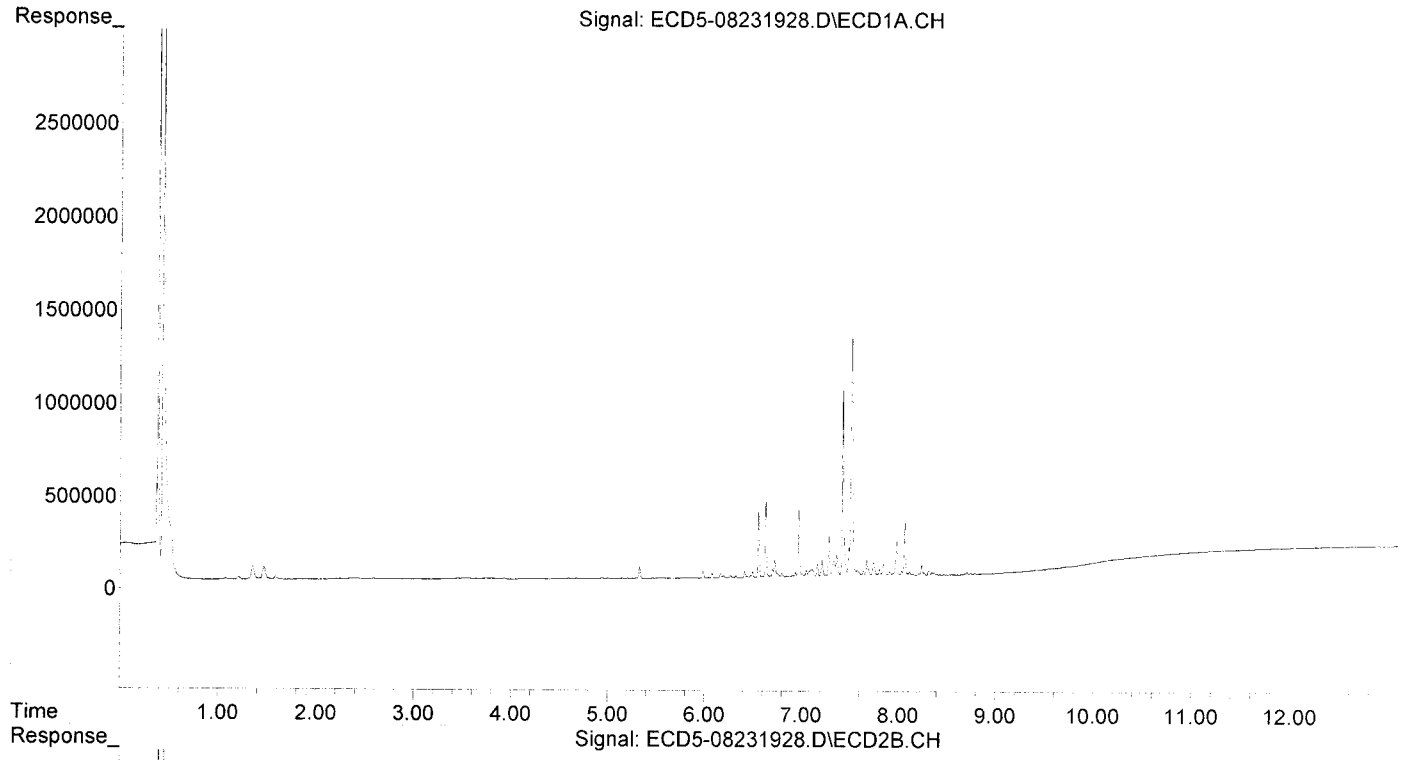
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

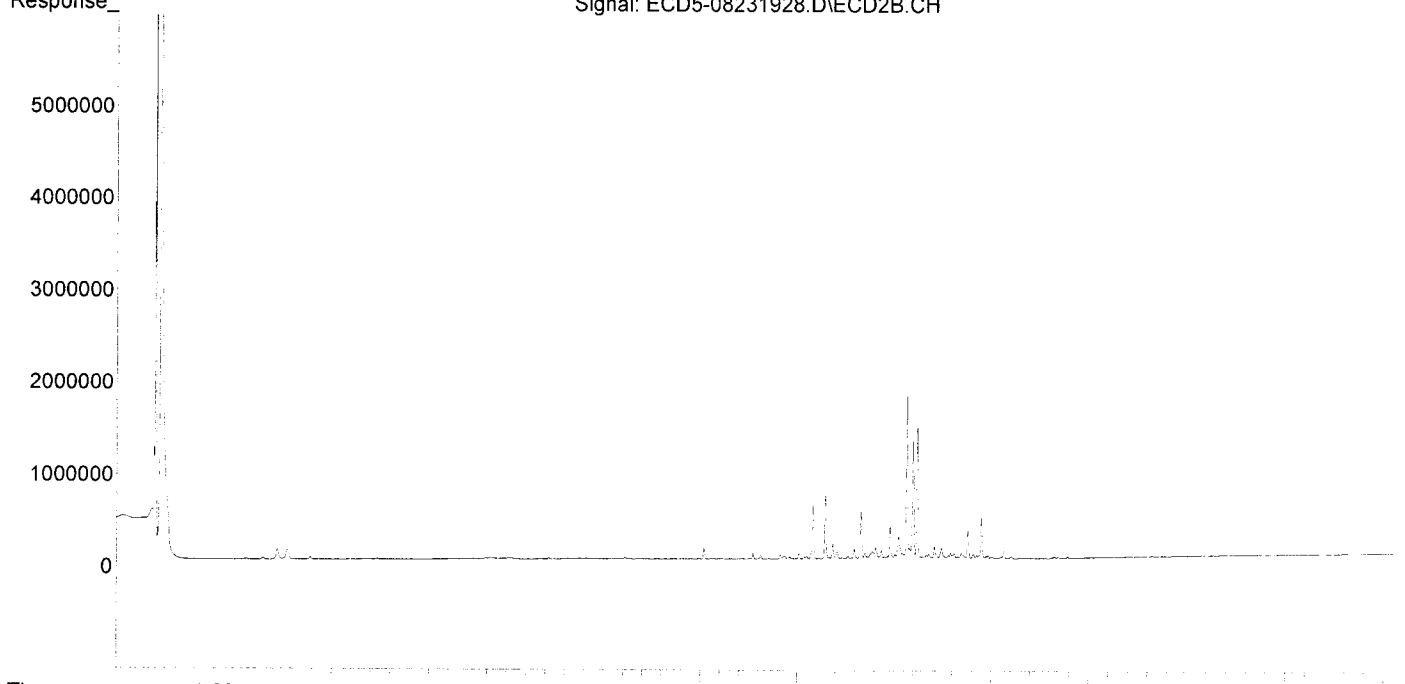
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

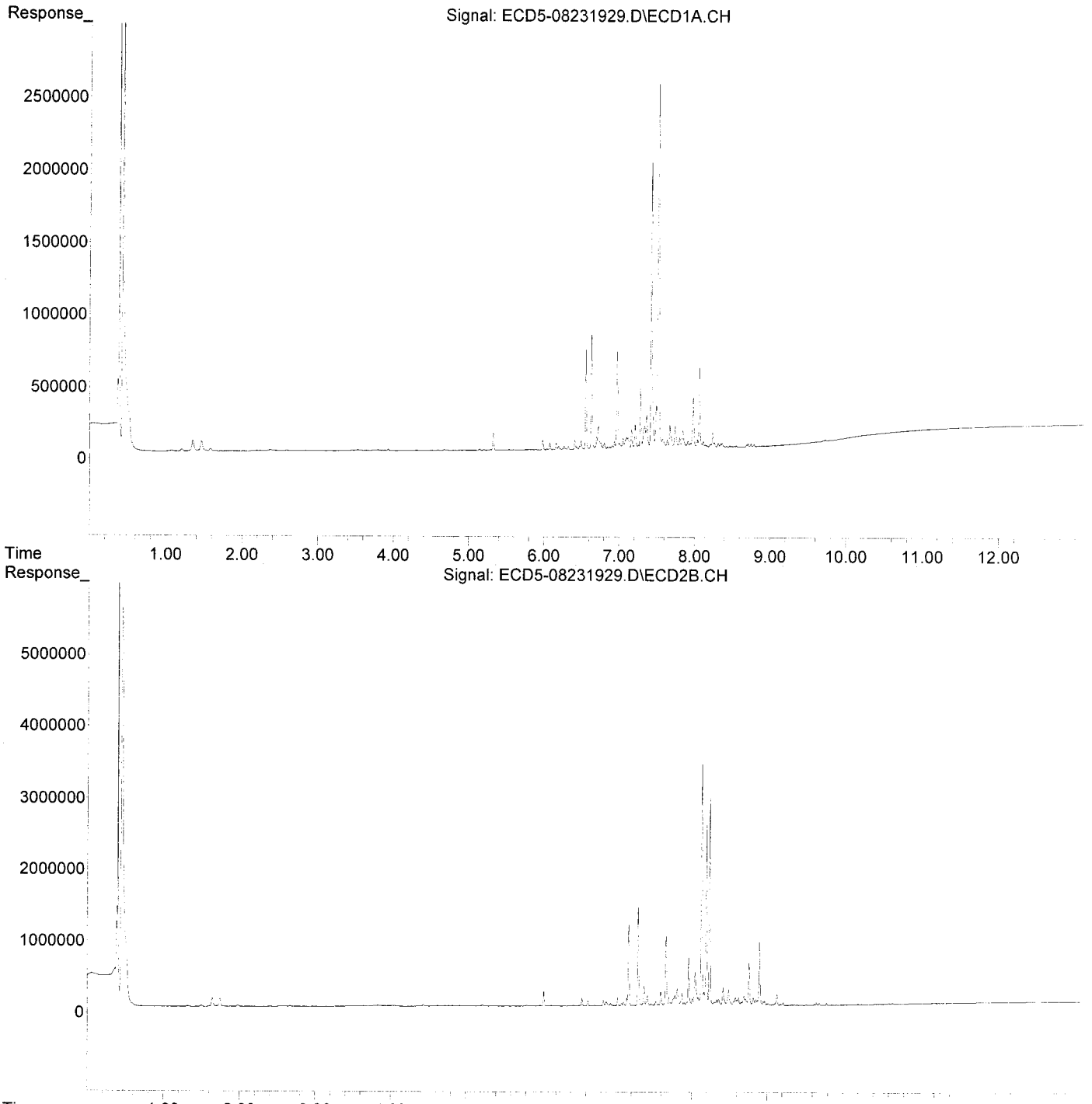
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0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

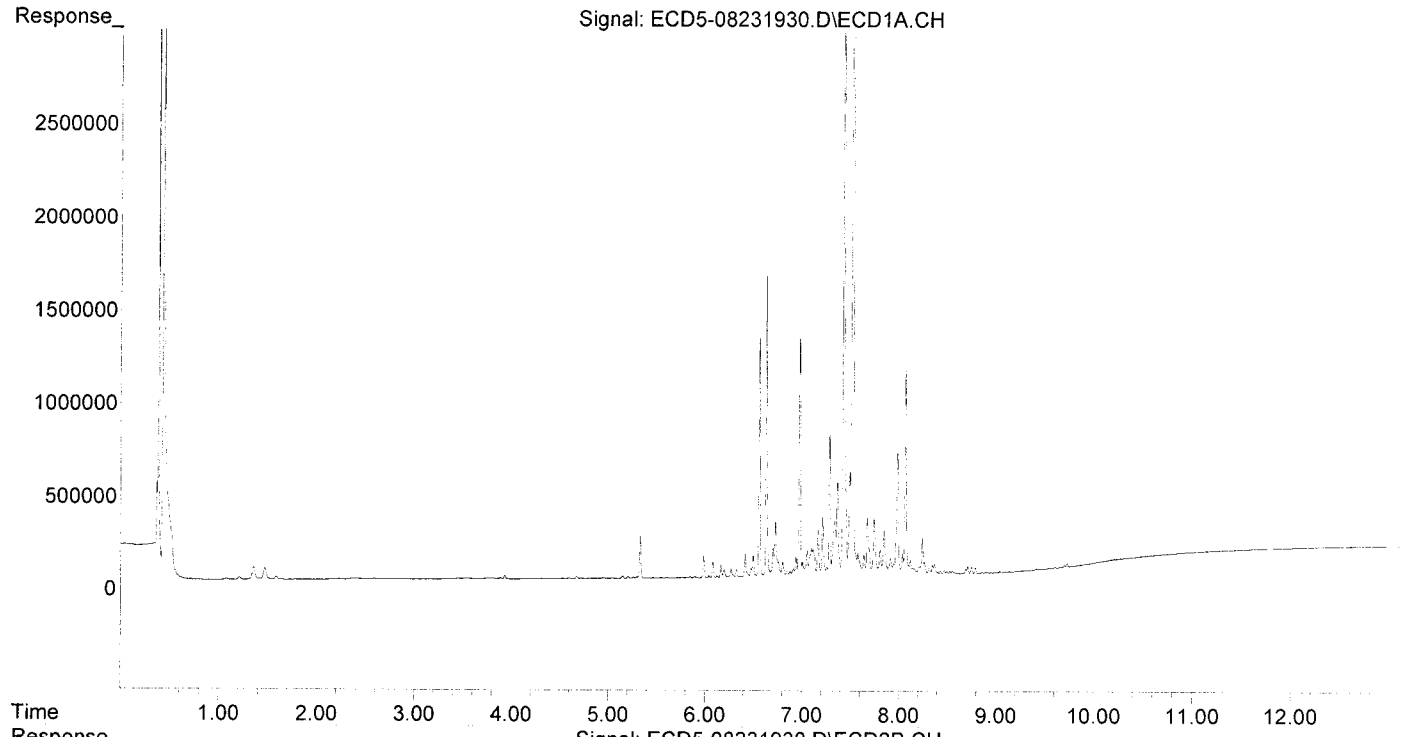
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

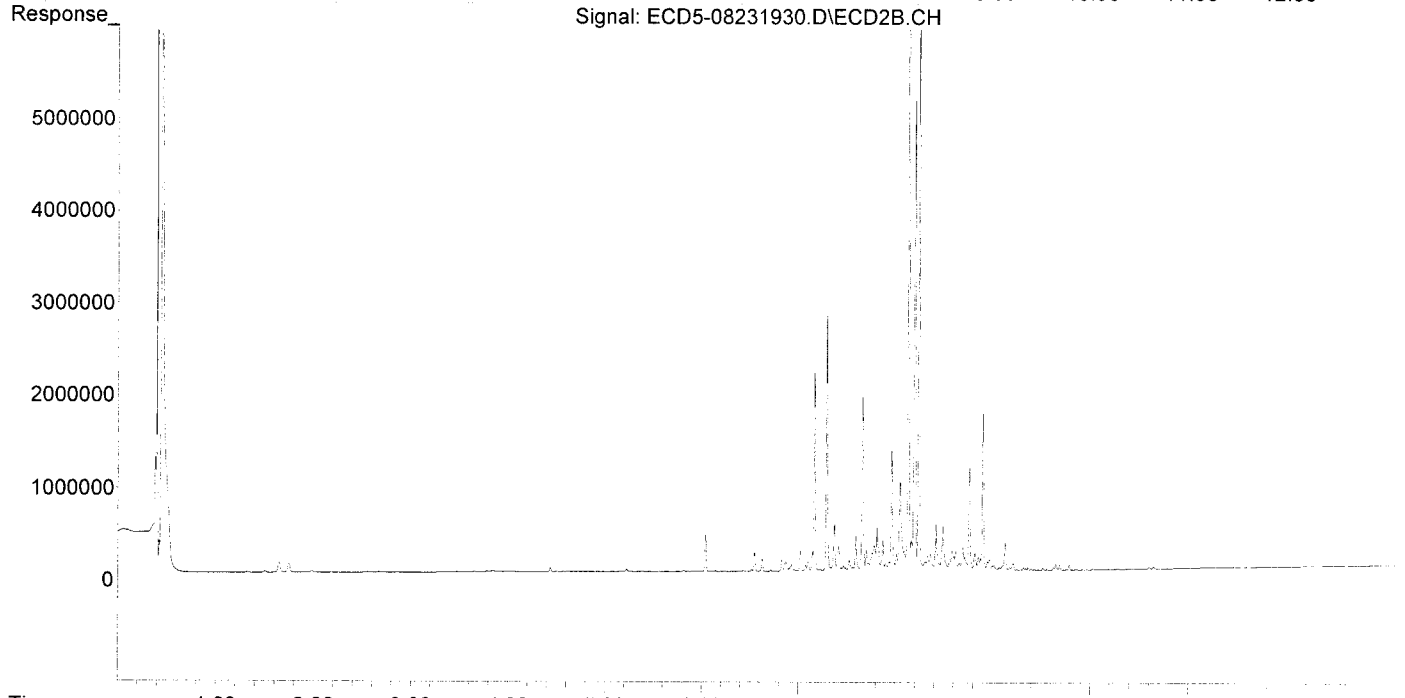
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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 9261 w

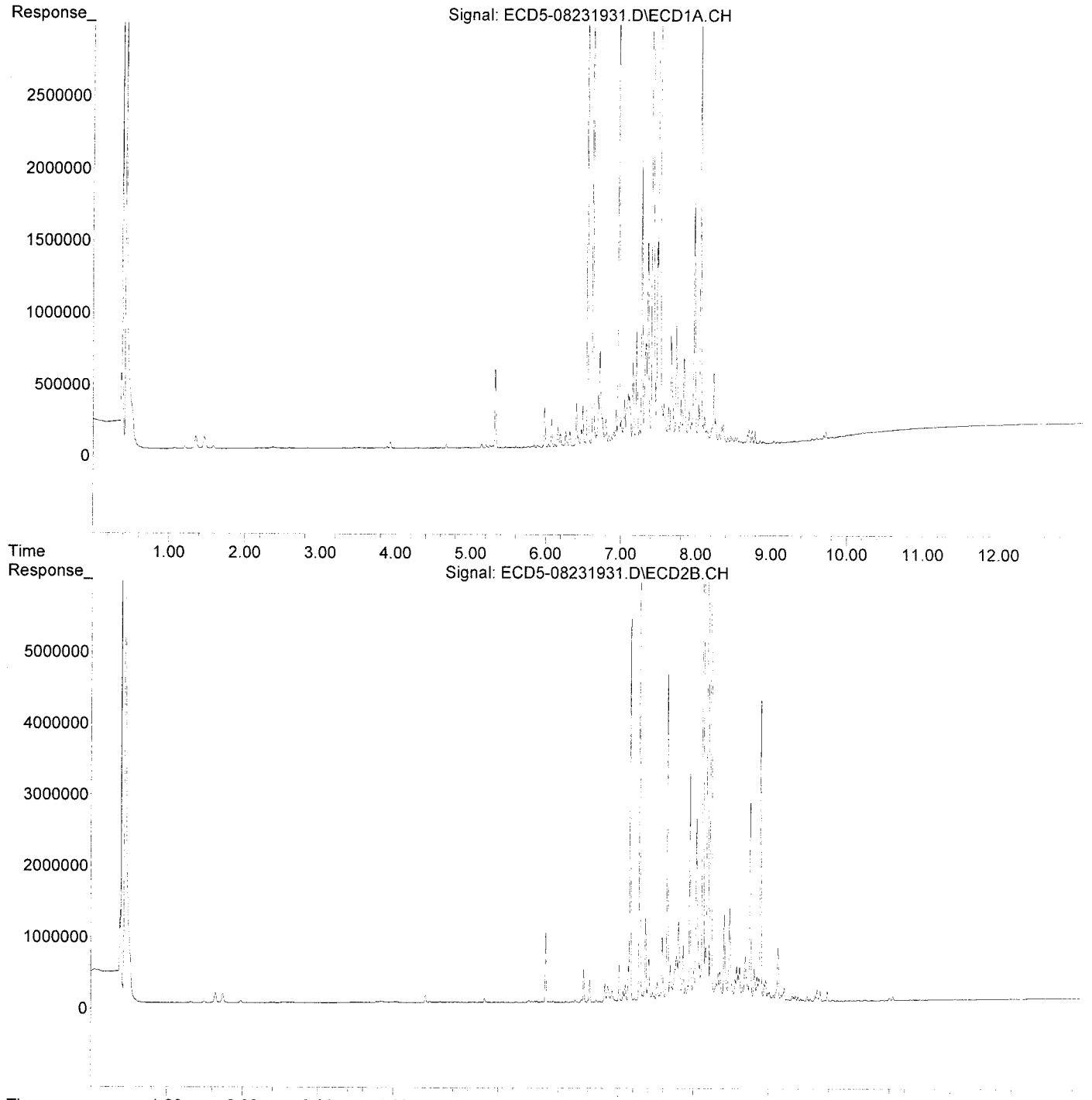
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

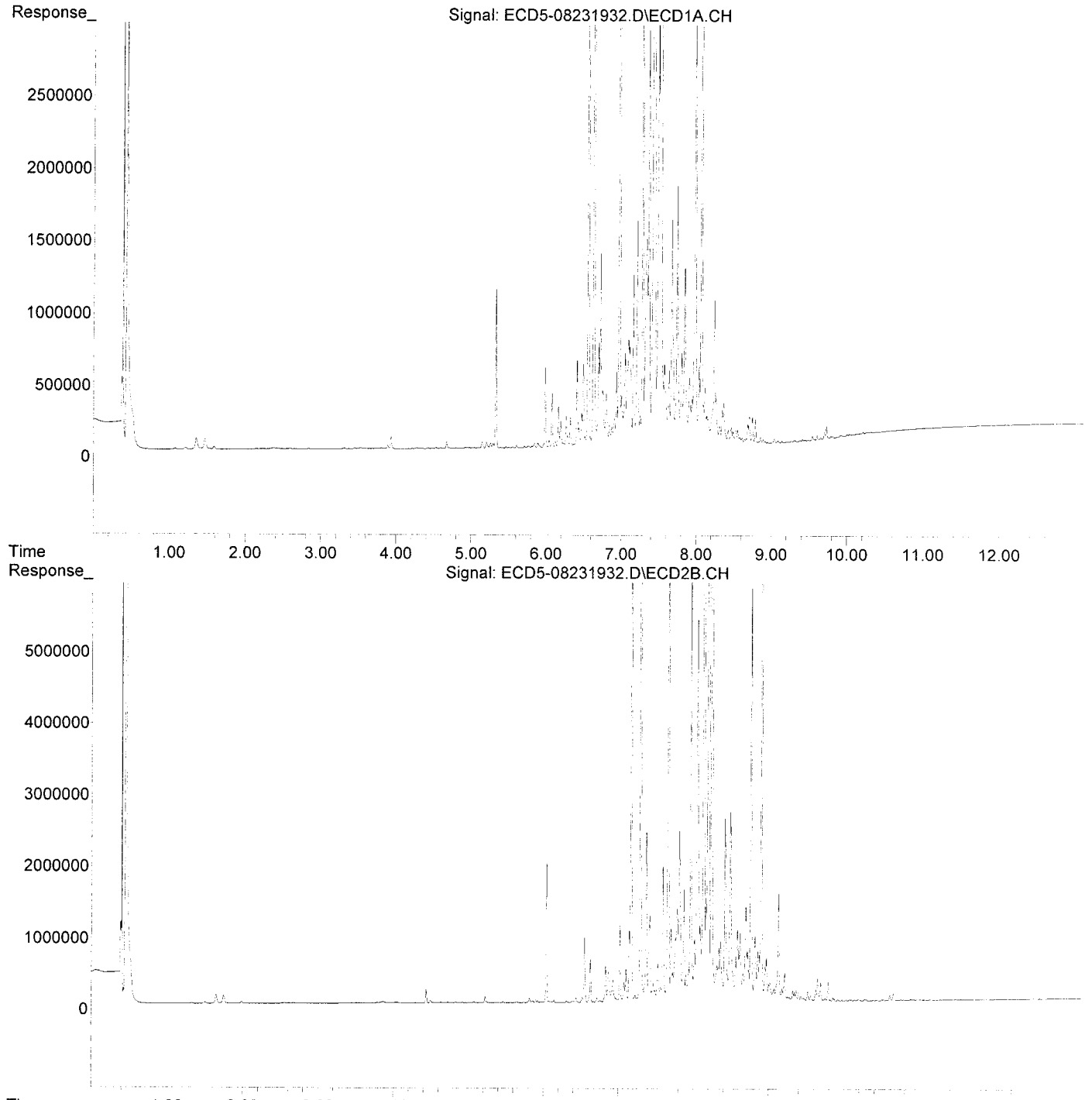
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0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

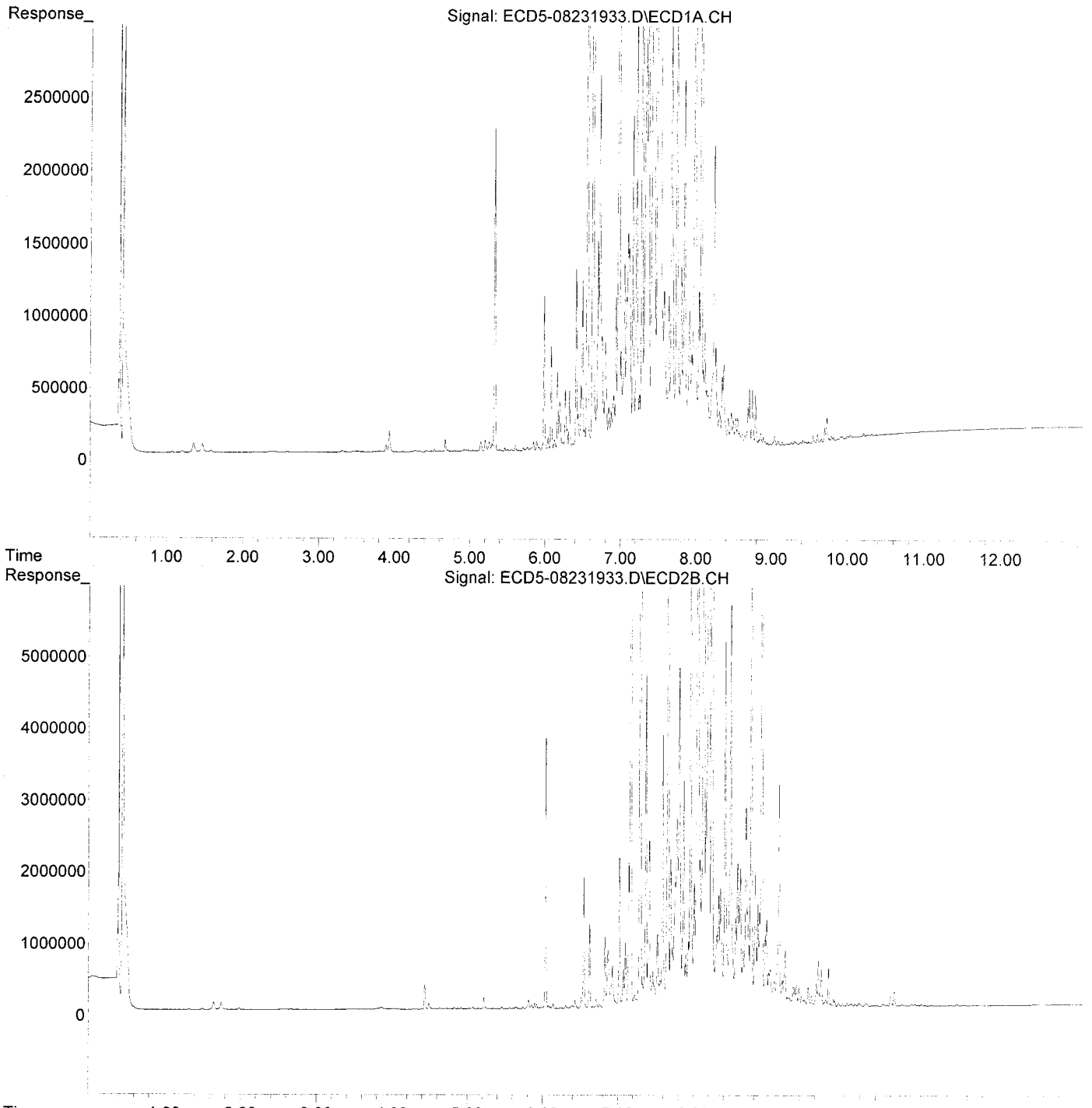
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.426	8.130	40036500	81691713	2596.366	2326.014
33)	Chlordane...	7.519	8.238	50979142	66281388	2464.138	2365.956
34)	Chlordane...	8.067	8.897	12208306	19418517	2554.588	2271.661
35)	Chlordane...	3.449	0.000	4939	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:02
Operator : MJB
Sample : 9H23034-CALM
Misc : A19F231, CHLOR 2000 ppb
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:34:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:48 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

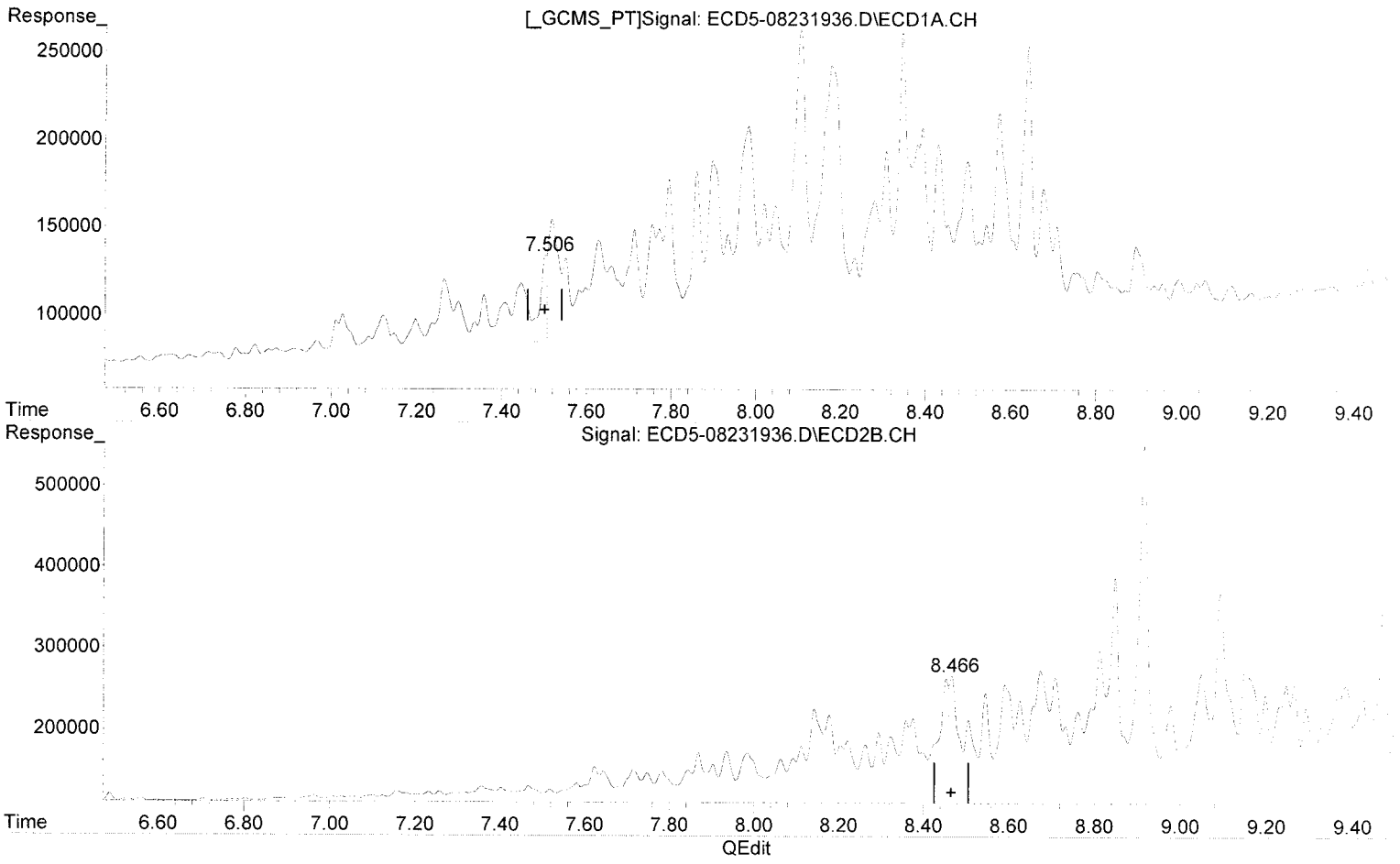
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	7.506	8.466	49250	136848	69.167m	65.864
37)	Toxaphene...	7.794	8.813	88321	164706	67.251	67.260
38)	Toxaphene...	8.105	8.847	169381	254833	62.397	67.028
39)	Toxaphene...	8.346	8.915	164317	416348	64.716	65.275
40)	Toxaphene...	8.573	9.091	114720	233185	60.554	65.984
41)	Toxaphene...	8.641	9.470	153138	230922	57.297	70.513
42)	Toxaphene...	3.449	0.000	4023	0	NoCal	N.D.

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

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.506min 69.167 ng/mL (m)

response 49250

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 65.864 ng/mL

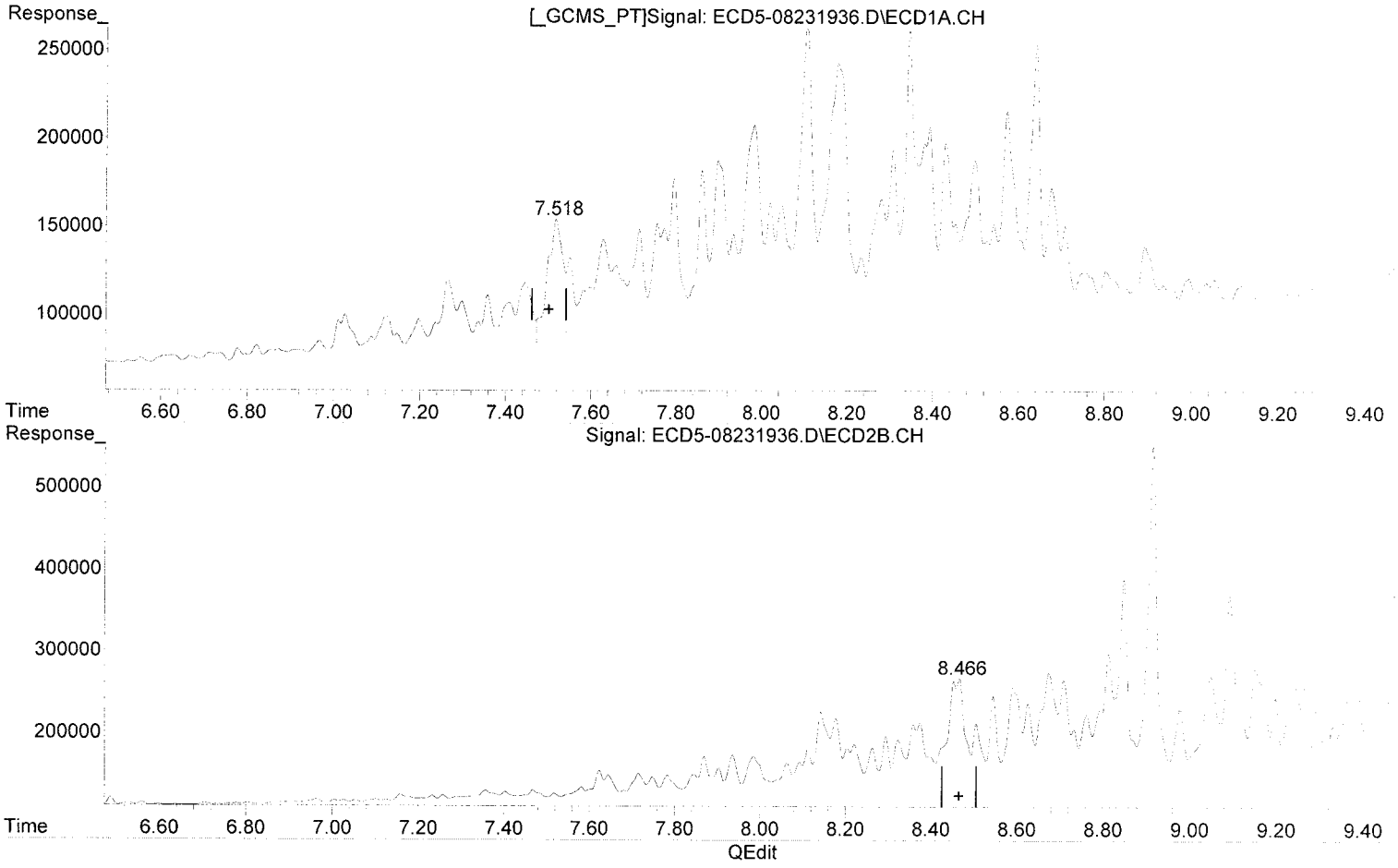
response 136848

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.518min 96.999 ng/mL

response 69068

MJB 6/26/19

(36) Toxaphene (1) #2

8.466min 65.864 ng/mL

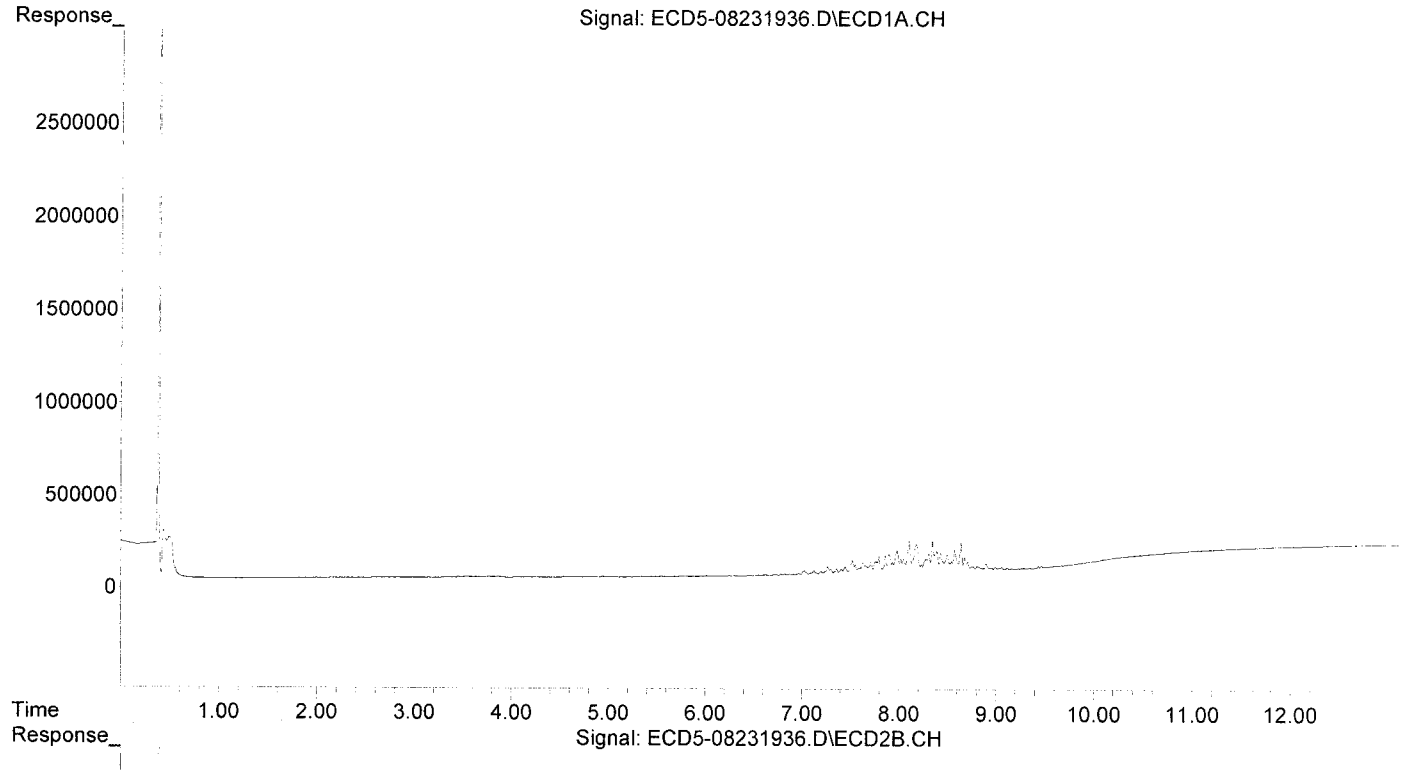
response 136848

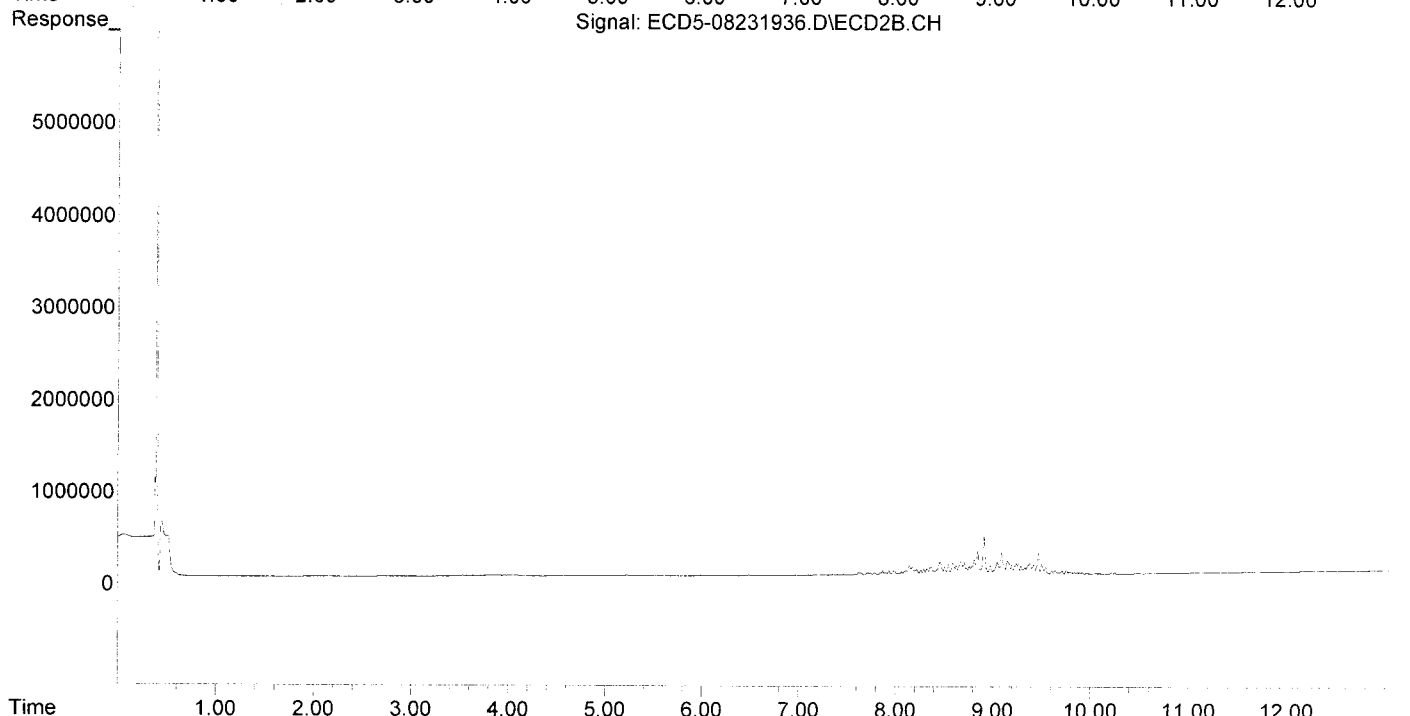
(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:54
Operator : MJB
Sample : 9H23034-CALN
Misc : A19D122, TOX 50 ppb
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:37:48 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:38:53 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

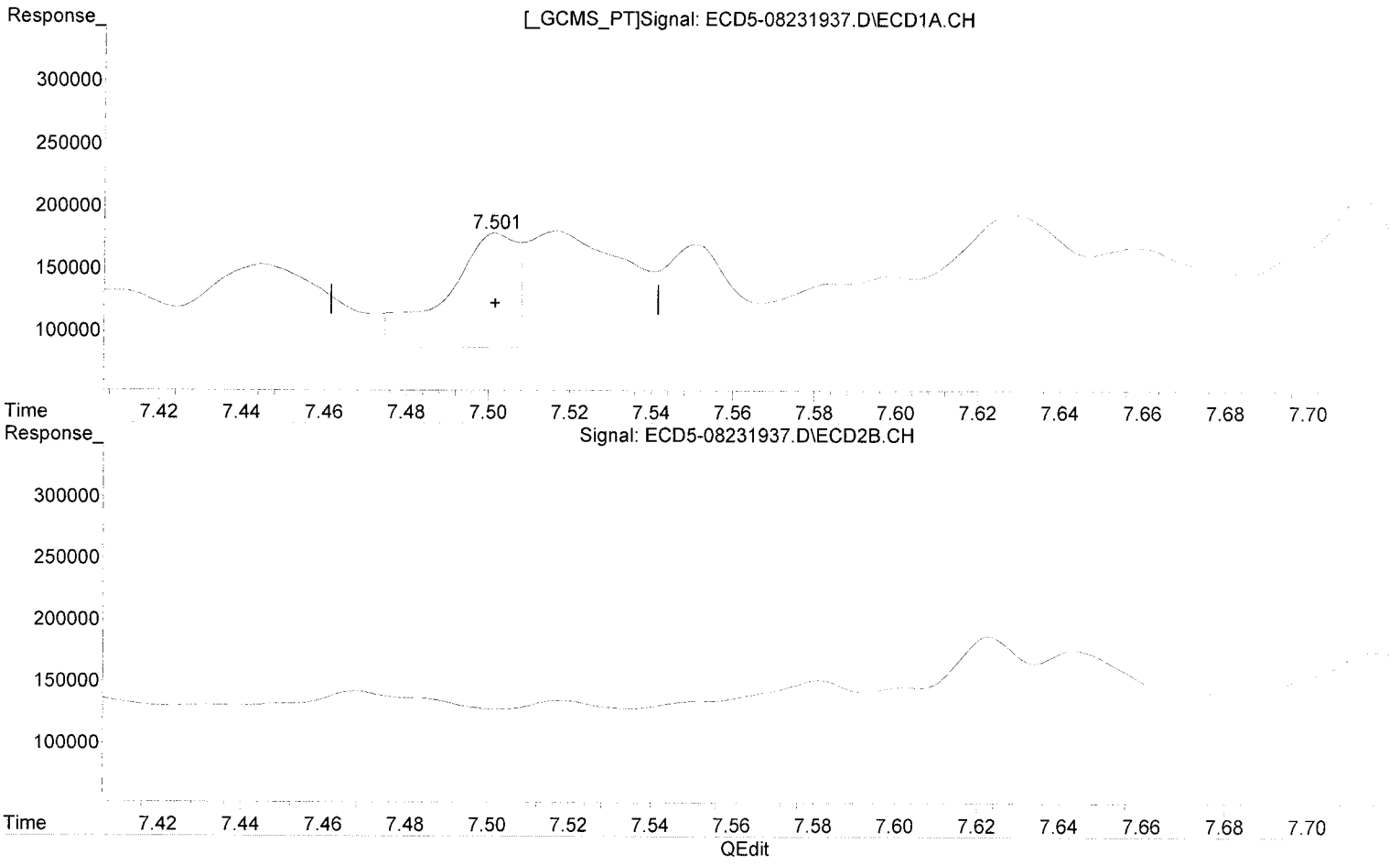
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.501	8.466	91576	267534	128.609m	128.761
37)		Toxaphene...	7.795	8.813	166085	324070	126.462	132.338
38)		Toxaphene...	8.106	8.848	332842	494430	122.613	130.048
39)		Toxaphene...	8.346	8.915	320313	811948	126.154	127.297
40)		Toxaphene...	8.574	9.091	228960	452209	120.854	127.962
41)		Toxaphene...	8.641	9.471	302577	452485	113.210	135.226
42)		Toxaphene...	3.450	0.000	3536	0	NoCal	N.D.

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

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:38:11 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.501min 128.609 ng/mL m

response 91576

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 128.761 ng/mL

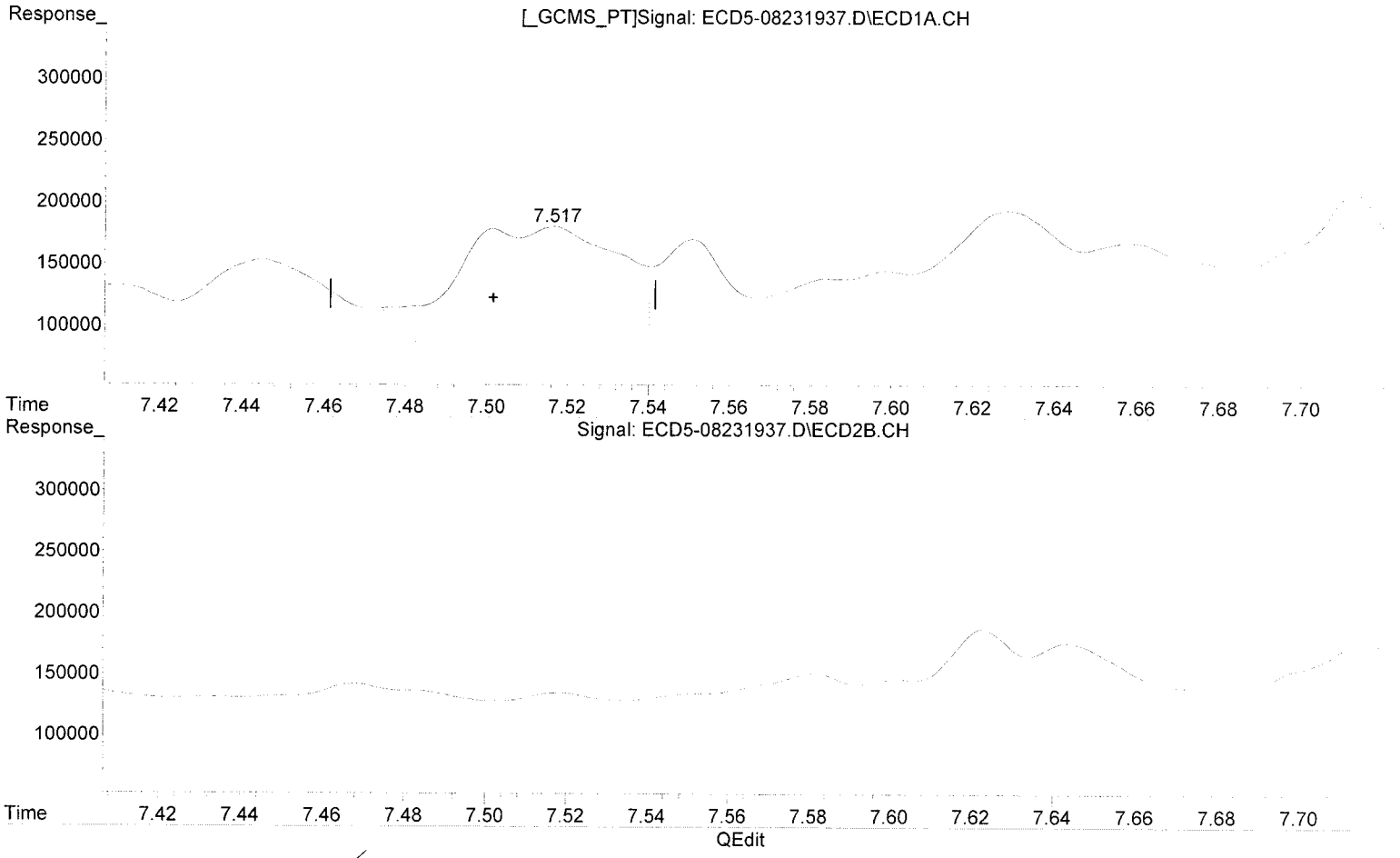
response 267534

(+) = 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

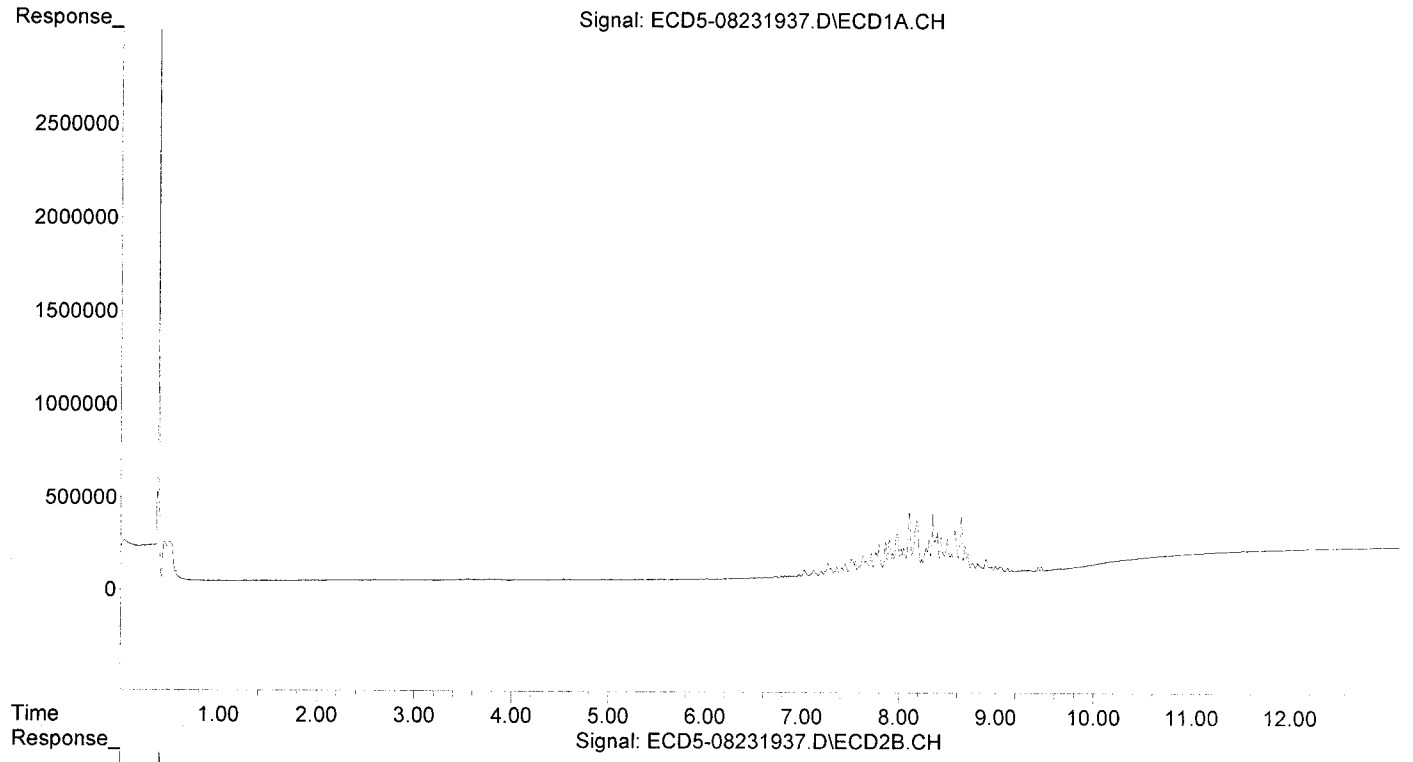
response 267534

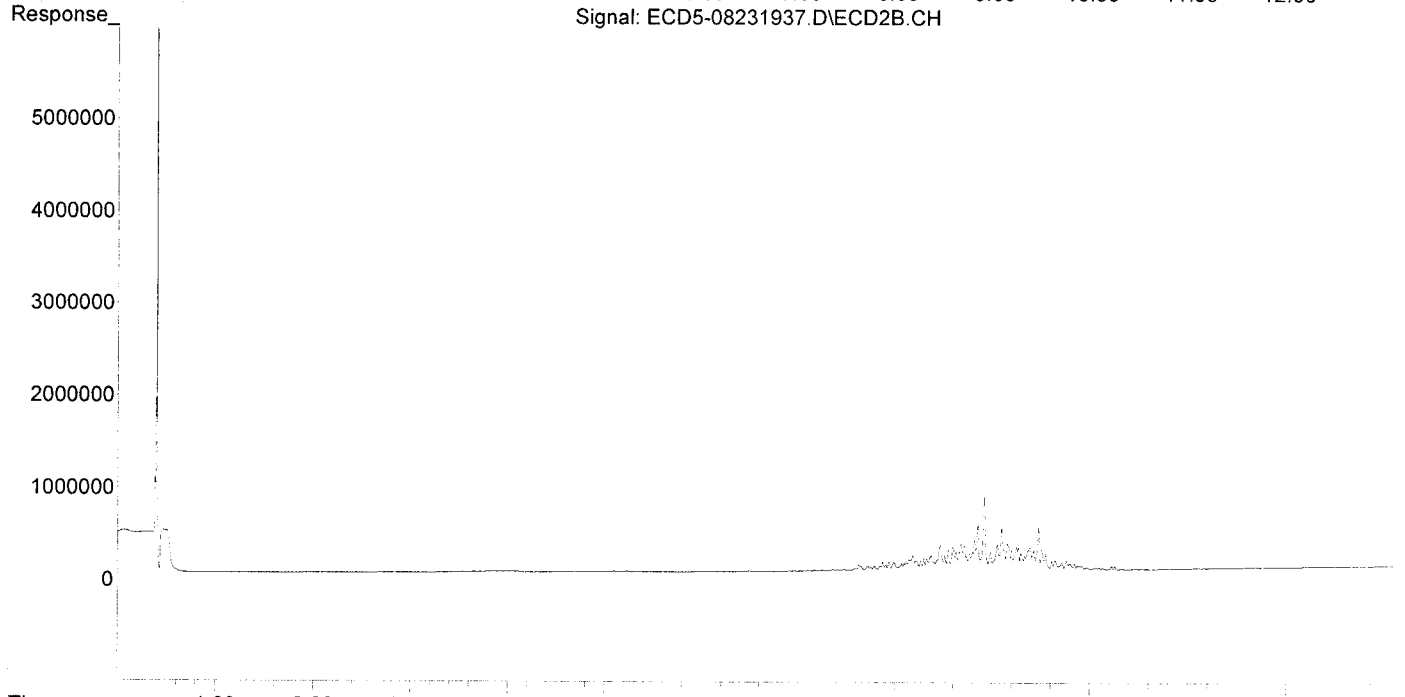
(+) = Expected Retention Time

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

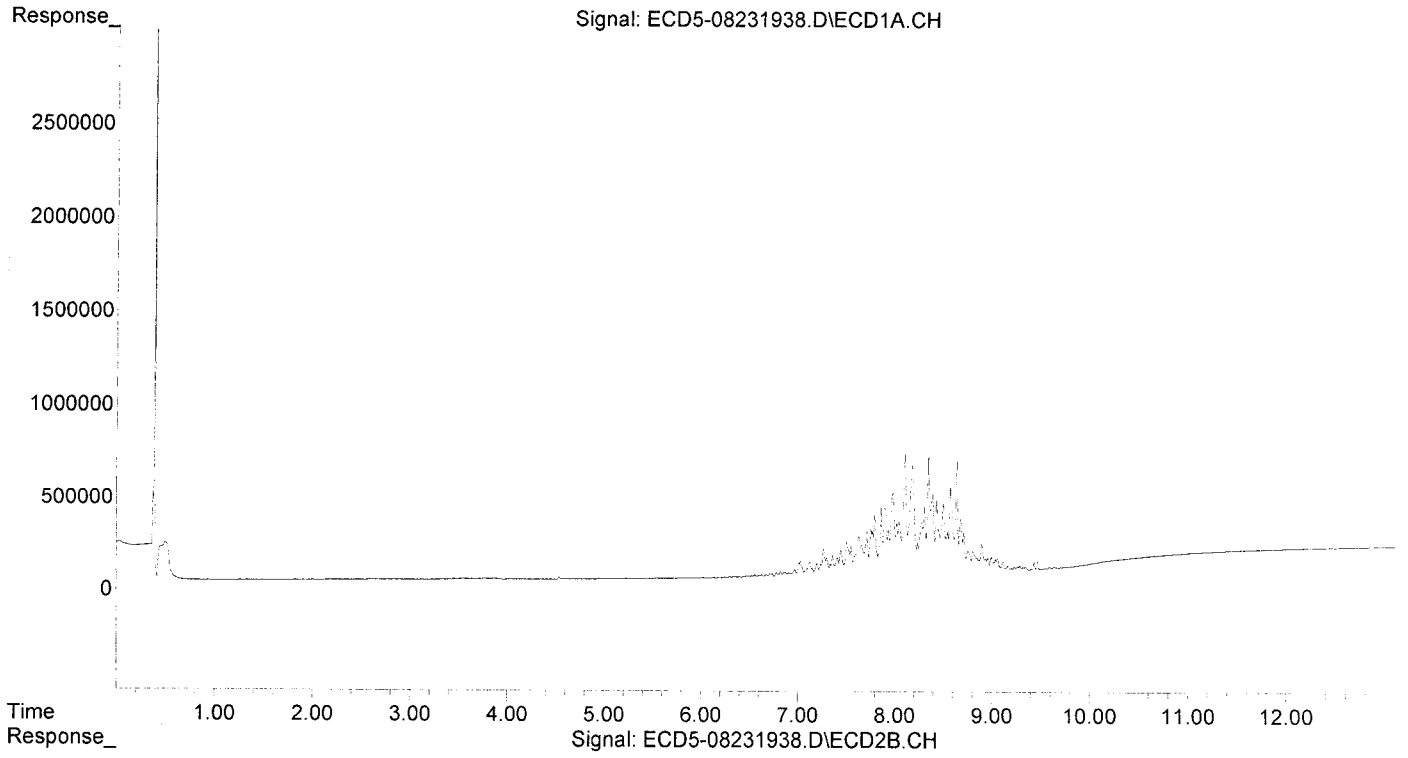
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0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

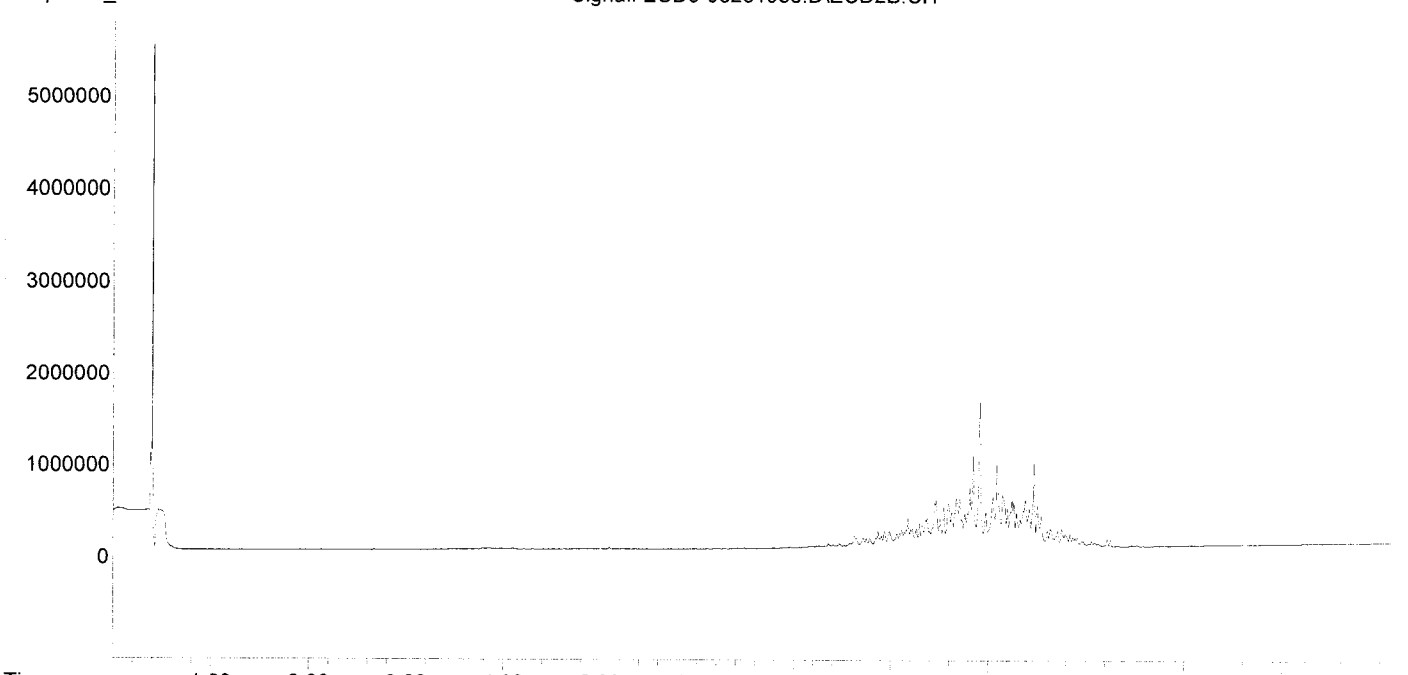
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

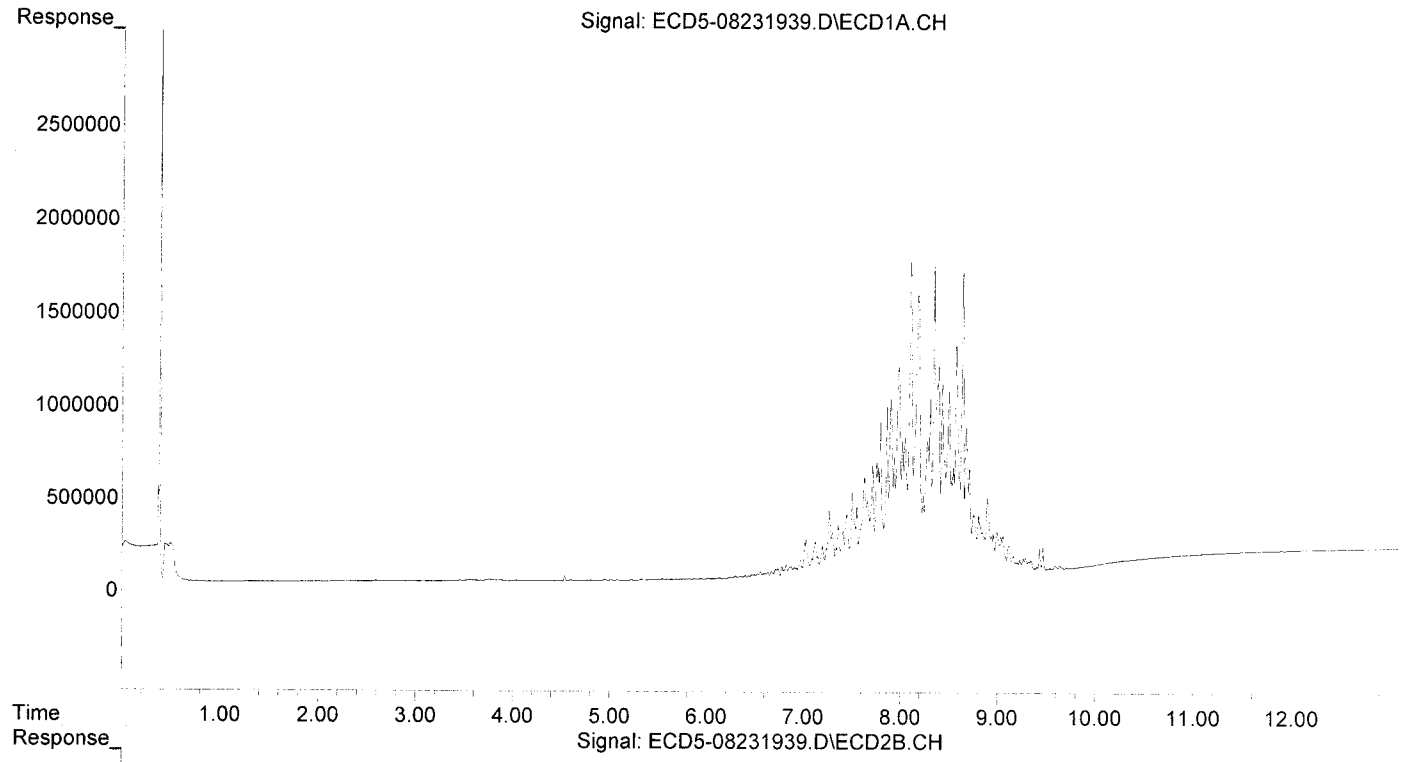
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0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

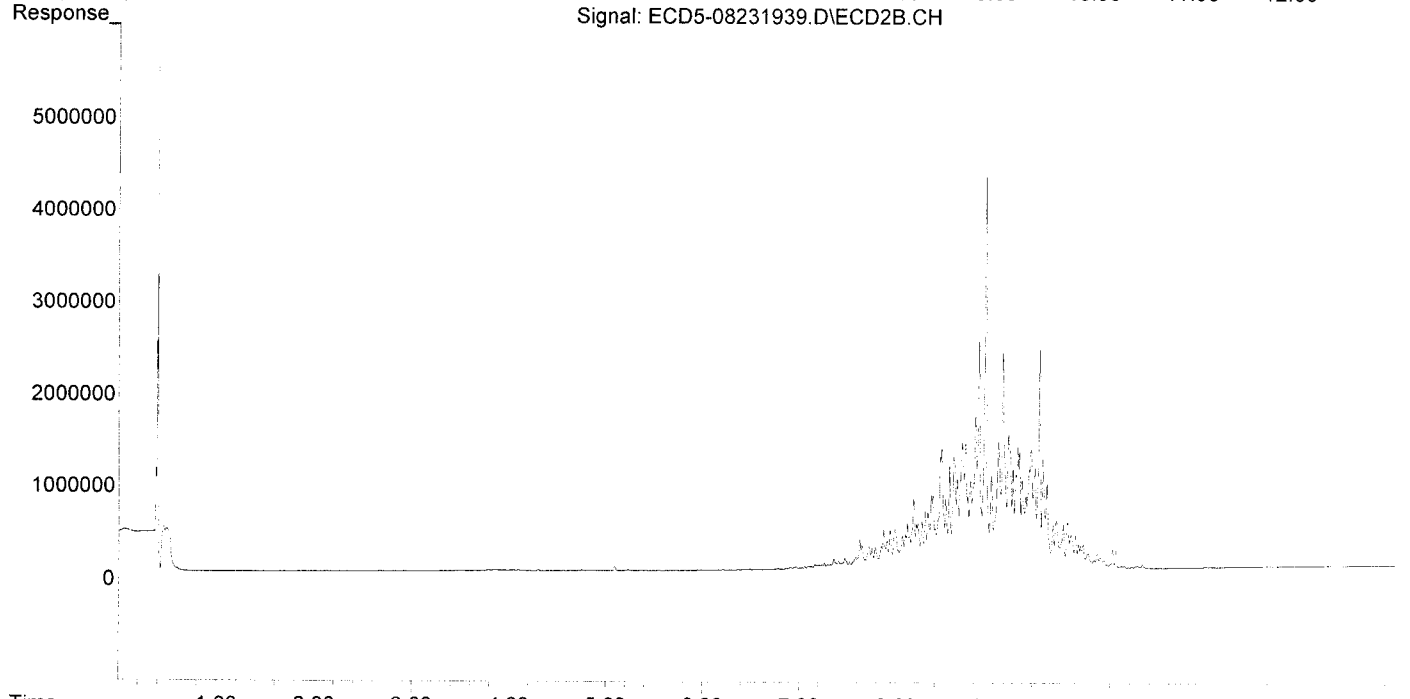
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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 8/26/19

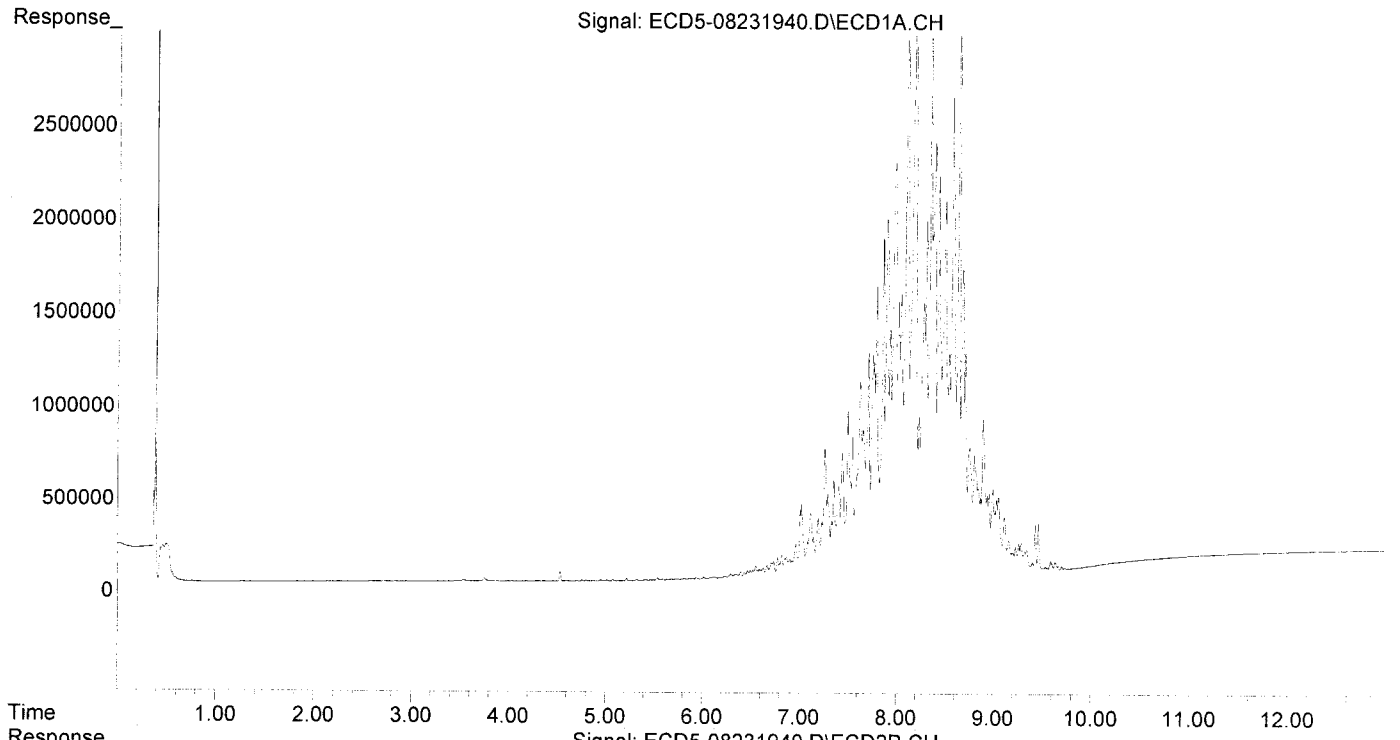
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.501	8.467	871889	2654886	1224.474	1277.768
37)		Toxaphene...	7.793	8.813	1556013	3384036	1184.797	1381.910
38)		Toxaphene...	8.105	8.848	3495877	5168269	1287.817	1359.392
39)		Toxaphene...	8.345	8.915	3287014	8650068	1294.579	1356.150
40)		Toxaphene...	8.573	9.091	2546293	4900430	1344.035	1386.677
41)		Toxaphene...	8.640	9.470	3406737	5046645	1274.639	1281.306
42)		Toxaphene...	3.451	0.000	2687	0	NoCal	N.D.

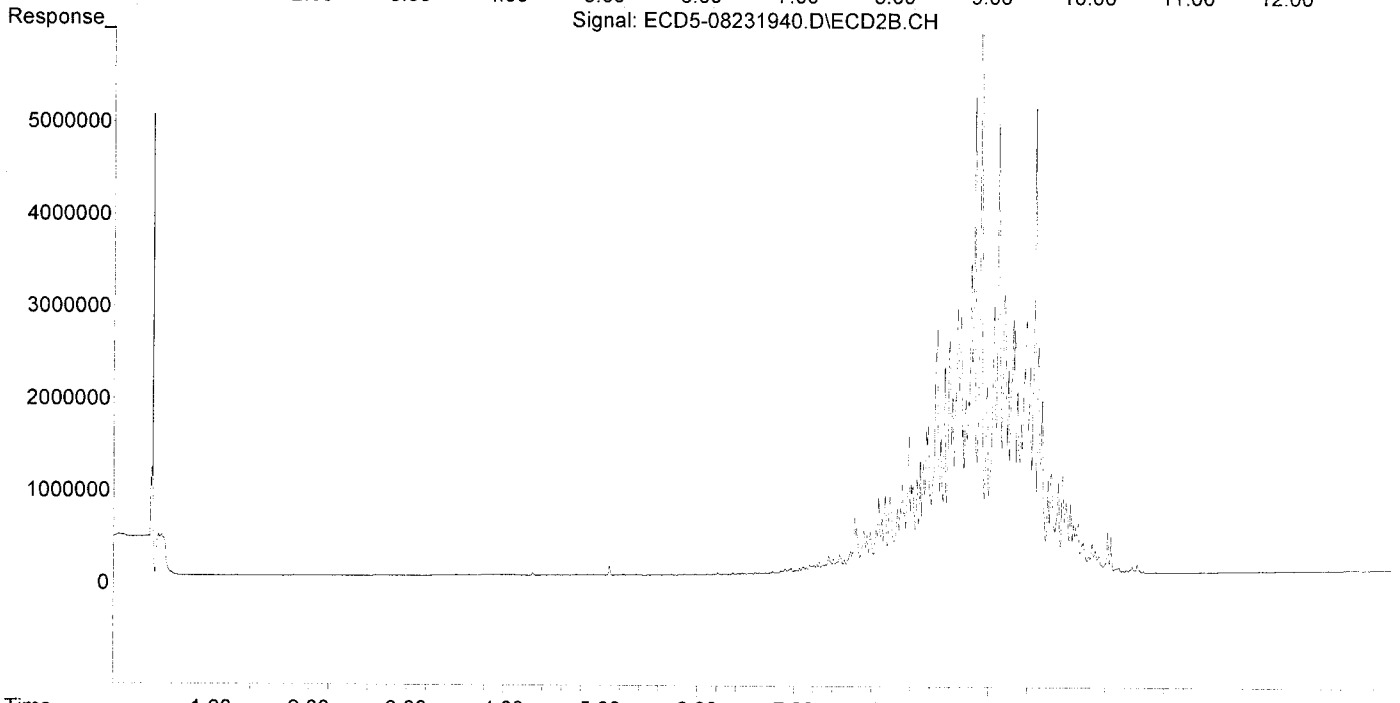
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231940.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:03
Operator : MJB
Sample : 9H23034-CALR
Misc : A19D126, TOX 1000 ppb
ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:40:10 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231941.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:20
Operator : MJB
Sample : 9H23034-CALS
Misc : A19D121, TOX 2000 ppb
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:40:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/20/19

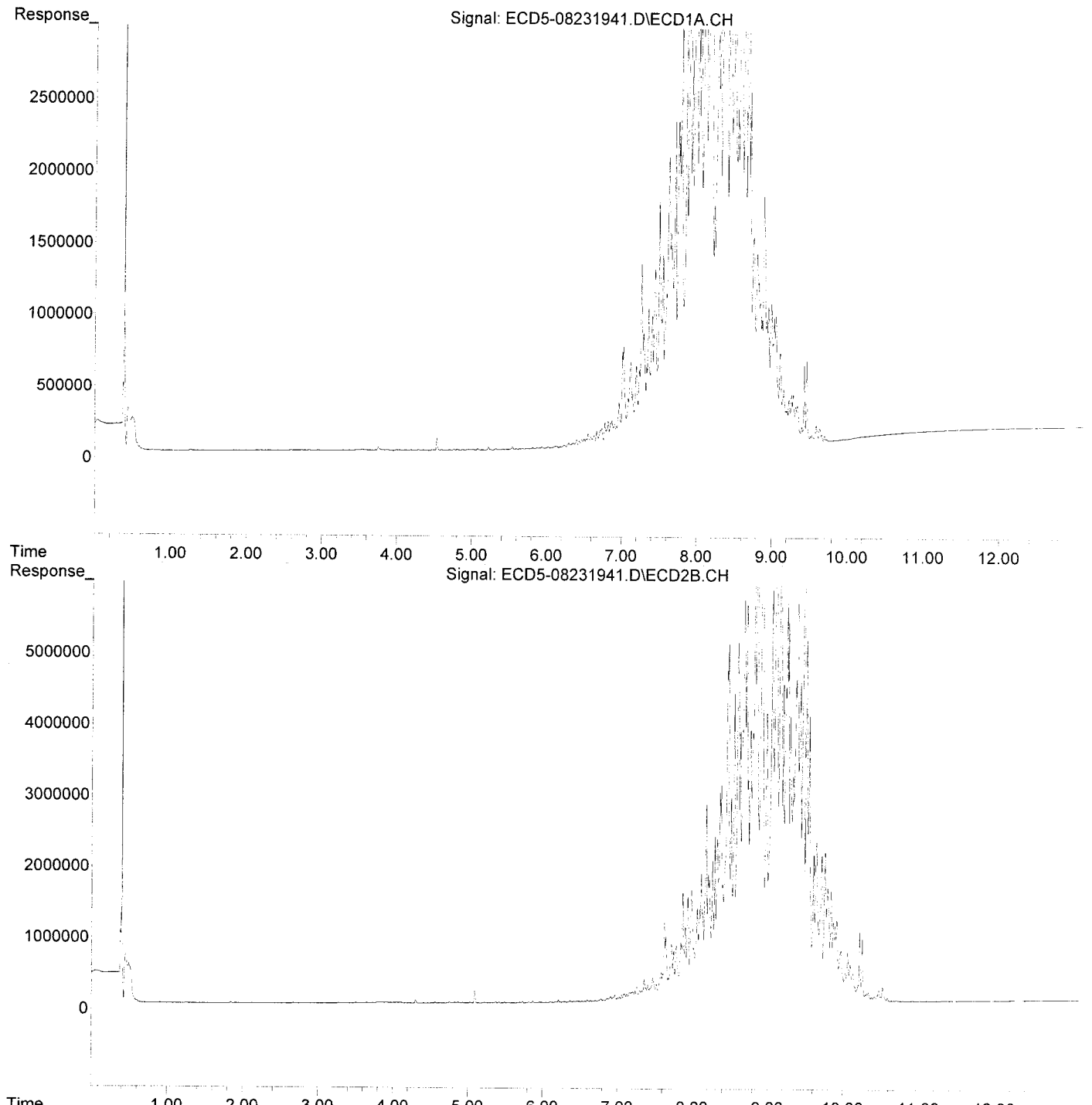
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	7.500	8.466	1674674	5030917	2351.899	2421.326
37)		Toxaphene...	7.792	8.813	2958997	6610397	2253.073	2699.433
38)		Toxaphene...	8.104	8.848	6831460	10545708	2516.585	2773.802
39)		Toxaphene...	8.345	8.914	6407070	17190037	2523.403	2695.039
40)		Toxaphene...	8.572	9.091	5074570	9435236	2678.561	2669.893
41)		Toxaphene...	8.640	9.471	6510950	10090951	2436.088	2281.169
42)		Toxaphene...	3.452	0.000	4166	0	NoCal	N.D.

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231941.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:20
Operator : MJB
Sample : 9H23034-CALS
Misc : A19D121, TOX 2000 ppb
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:40:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:36:51 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



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

Semivolatile Organic Compounds by EPA 8270D
Benchsheet & Analysis Sequence Data

Batch 9110357
Sequence 9K01021 (A9J0950-01,02,03,04)

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110357 (Sediment)

Prep Method: EPA 3546

#	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9110357-BLK1		QC	11/01/19 07:18	16	2				100					
	9110357-BLK2		QC	11/01/19 07:18	16	2				100		Added 11/4/2019 by ams			
	9110357-BS1		QC	11/01/19 07:18	15	2	A19J144		100	100					
	9110357-BS2		QC	11/01/19 07:18	15	2	A19J144		100	100		Added 11/4/2019 by ams			
	A9J0950-01	G	8270 SIM PAH	11/01/19 07:18	15.03	2				100	PDI-015SC-C-00 -8.1-191024	Added for BatchQC in: 9110357			
	A9J0950-01	G	8270D LL Full List	11/01/19 07:18	15.03	2				100	PDI-015SC-C-00 -8.1-191024	custom			
	9110357-DUP1		QC	11/01/19 09:07	15.07	2		A9J0950-01		100					
	9110357-DUP2		QC	11/01/19 09:07	15.07	2		A9J0950-01		100		Added 11/4/2019 by ams			
	A9J0950-02	G	8270D LL Full List	11/01/19 07:18	15.3	2				100	PDI-026SC-C-00 -3.9-191024	custom			
	A9J0950-03	G	8270D LL Full List	11/01/19 07:18	15.18	2				100	PDI-037SC-C-00 -12.4-191024	custom			
	A9J0950-04	G	8270D LL Full List	11/01/19 07:18	15.32	2				100	PDI-073SC-C-00 -13.7-191024	custom			
	A9J0954-01	G	8270D LL Full List	11/01/19 07:18	15.55	2				100	PDI-019SC-C-00 -3.2-191025	custom			
	A9J0954-02	G	8270D LL Full List	11/01/19 07:18	15.18	2				100	PDI-095SC-C-00 -8.8-191025	custom			
	A9J0954-02RE1	G	8270D LL Full List	11/01/19 07:18	15.18	2				100	PDI-095SC-C-00 -8.8-191025	Added 11/4/2019 by ams			
	A9J1006-01	G	8270D LL Full List	11/01/19 07:18	15.15	2				100	PDI-071SC-C-00 -08-191028	custom			
	A9J1006-02	G	8270D LL Full List	11/01/19 07:18	15.22	2				100	PDI-074SC-C-00 -7.3-191028	custom			
	A9J1007-01	G	8270 SIM PAH	11/01/19 07:18	15.08	2				100	PDI-083SC-C-00 -08-191028	Added for BatchQC in: 9110357			
	A9J1007-01	G	8270D LL Full List	11/01/19 07:18	15.08	2				100	PDI-083SC-C-00 -08-191028	custom			
	9110357-MS1		QC	11/01/19 09:07	15.15	2	A19J144	A9J1007-01	100	100					
	A9J1137-06	A	8270 SIM PAH	11/01/19 09:07	10.23	5				100	PD-15				
	A9J1137-06RE1	A	8270 SIM PAH	11/01/19 09:07	10.23	5				100	PD-15	Added 11/5/2019 by hml			
	A9J1137-12	A	8270 SIM PAH	11/01/19 09:07	10.05	5				100	PD-16				
	A9J1137-12RE1	A	8270 SIM PAH	11/01/19 09:07	10.05	5				100	PD-16	Added 11/5/2019 by hml			

Prepared By: Date

Reviewed By: 11/05/19 Date

Printed: 11/5/2019 10:28:08AM

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110357 (Sediment)

Prep Method: EPA 3546

#	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	A9J1137-18	A	8270 SIM PAH	11/01/19 09:07	10.63	5				100	PD-17				
	A9J1137-18RE1	A	8270 SIM PAH	11/01/19 09:07	10.63	5				100	PD-17	Added 11/5/2019 by hml			
	A9J1137-24	A	8270 SIM PAH	11/01/19 09:07	10.21	5				100	PD-18				
	A9J1137-24RE1	A	8270 SIM PAH	11/01/19 09:07	10.21	5				100	PD-18	Added 11/5/2019 by hml			

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L219	11/30/23	Extractions Balance
A18K311	12/31/20	Glass Wool
A19I263	03/18/20	DCM CHEM PROD. 194934
A19J048	03/31/20	Sodium Sulfate Lot # 191177

Analyte Spike(s)

Std ID	Exp. Date	Description
A19J144	04/05/20	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s)

Std ID	Exp. Date	Description
A19J260	04/14/20	PAH Soil and Water Surr. (50ppm)

Method 3546 digestion time and temperture achieved.
Initial:

Witness:_____

Prepared By: _____ Date

Reviewed By: tam 11/05/19 Date

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110357 (Sediment)

Prep Method: EPA 3546

#	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9110357-BLK1		QC	11/01/19 07:18	16	2				100					
	9110357-BS1		QC	11/01/19 07:18	15	2	A19J144		100	100					
	A9J0950-01	G	8270 SIM PAH	11/01/19 07:18	15.03	2				100	PDI-015SC-C-00 -8.1-191024	Added for BatchQC in: 9110357			
	A9J0950-01	G	8270D LL Full List	11/01/19 07:18	15.03	2				100	PDI-015SC-C-00 -8.1-191024	custom			
23	9110357-DUP1		QC	11/01/19 09:07	15.07	2		A9J0950-01		100		(S) Sand, strong odor, Product-Green			
	A9J0950-02	G	8270D LL Full List	11/01/19 07:18	15.3	2				100	PDI-026SC-C-00 -3.9-191024	custom			
	A9J0950-03	G	8270D LL Full List	11/01/19 07:18	15.18	2				100	PDI-037SC-C-00 -12.4-191024	custom			
	A9J0950-04	G	8270D LL Full List	11/01/19 07:18	15.32	2				100	PDI-073SC-C-00 -13.7-191024	custom			
	A9J0954-01	G	8270D LL Full List	11/01/19 07:18	15.55	2				100	PDI-019SC-C-00 -3.2-191025	custom			
	A9J0954-02	G	8270D LL Full List	11/01/19 07:18	15.18	2				100	PDI-095SC-C-00 -8.8-191025	custom			
	A9J1006-01	G	8270D LL Full List	11/01/19 07:18	15.15	2				100	PDI-071SC-C-00 -08-191028	custom			
	A9J1006-02	G	8270D LL Full List	11/01/19 07:18	15.22	2				100	PDI-074SC-C-00 -7.3-191028	custom			
	A9J1007-01	G	8270 SIM PAH	11/01/19 07:18	15.08	2				100	PDI-083SC-C-00 -08-191028	Added for BatchQC in: 9110357			
	A9J1007-01	G	8270D LL Full List	11/01/19 07:18	15.08	2				100	PDI-083SC-C-00 -08-191028	custom			
24	9110357-MS1		QC	11/01/19 09:07	15.15	2	A19J144	A9J1007-01	100	100		MUD, Strong odor			
25	A9J1137-06	A	8270 SIM PAH	11/01/19 09:07	10.23	5				100	PD-15	MUD, org			
26	A9J1137-12	A	8270 SIM PAH	11/01/19 09:07	10.65	5				100	PD-16	MUD, org			
27	A9J1137-18	A	8270 SIM PAH	11/01/19 09:07	10.63	5				100	PD-17	MUD, org			
28	A9J1137-24	A	8270 SIM PAH	11/01/19 09:07	10.21	5				100	PD-18	MUD, org			

Standards/Reagents

(S) = Stirring On Turbo Vap

JC 11/1/19
Prepared By: Date

CAA 11/1/19
Reviewed By: Date

11/1/19

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110357 (Sediment)

Prep Method: EPA 3546

#	Lab Number	Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11

Reagent(s)

Std ID	Exp. Date	Description
A13L219	11/30/23	Extractions Balance
A18K311	12/31/20	Glass Wool
A19I263	03/18/20	DCM CHEM PROD. 194934
A19J048	03/31/20	Sodium Sulfate Lot # 191177

Analyte Spike(s)

Std ID	Exp. Date	Description
A19J144	04/05/20	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s)

Std ID	Exp. Date	Description
A19J260	04/14/20	PAH Soil and Water Surr. (50ppm)

Method 3546 digestion time and temperture achieved.

Initial: [signature]

Witness: [signature] 11/1/19

Prepared By: Date

Reviewed By: Date

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110357 (Sediment)

Prep Method: EPA 3546

#	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
1	9110357-BLK1		QC	11/01/19 07:18	~~15~~ 16.00	2				100					
2	~~9110357-BSD1~~		~~QC~~	~~11/01/19 07:18~~	~~15~~	~~2~~	~~A19H078~~	~~A19J144~~	~~100~~	~~100~~	~~AGT 11/1/19~~				
3	9110357-BS1		QC	11/01/19 07:18	15	2	~~A19H078~~ AGT 11/1/19	A19J144	100	100					
4	A9J0950-01	G	8270D LL Full List	11/01/19 07:18	~~15~~ 15.03	2				100	PDI-015SC-C-00 -8.1-191024	custom odor, sand S			
5	A9J0950-02	G	8270D LL Full List	11/01/19 07:18	~~15~~ 15.30	2				100	PDI-026SC-C-00 -3.9-191024	custom odor, sand S			
6	A9J0950-03	G	8270D LL Full List	11/01/19 07:18	~~15~~ 15.18	2				100	PDI-037SC-C-00 -12.4-191024	custom mud, odor S			
7	A9J0950-04	G	8270D LL Full List	11/01/19 07:18	~~15~~ 15.32	2				100	PDI-073SC-C-00 -13.7-191024	custom mud, odor S			
8	A9J0954-01	G	8270D LL Full List	11/01/19 07:18	~~15~~ 15.55	2				100	PDI-019SC-C-00 -3.2-191025	custom sand, odor S			
9	A9J0954-02	G	8270D LL Full List	11/01/19 07:18	~~15~~ 15.18	2				100	PDI-095SC-C-00 -8.8-191025	custom mud, S			
10	A9J1006-01	G	8270D LL Full List	11/01/19 07:18	~~15~~ 15.15	2				100	PDI-071SC-C-00 -08-191028	custom mud, odor S			
11	A9J1006-02	G	8270D LL Full List	11/01/19 07:18	~~15~~ 15.22	2				100	PDI-074SC-C-00 -7.3-191028	custom mud S			
12	A9J1007-01	G	8270D LL Full List	11/01/19 07:18	~~15~~ 15.08	2				100	PDI-083SC-C-00 -08-191028	custom mud S			

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L219	11/30/23	Extractions Balance
A18K311	12/31/20	Glass Wool
A19I263	03/18/20	DCM CHEM PROD. 194934
A19J048	03/31/20	Sodium Sulfate Lot # 191177

Analyte Spike(s)

Std ID	Exp. Date	Description
~~A19H078~~ A19J144	~~02/02/20~~ 04/15/20	~~LVI PAH Spike @2000ng/ml~~ PAH/Phenol

Surrogate(s)

Std ID	Exp. Date	Description
~~A19I263~~ A195260	~~04/14/20~~ 4/4/20	~~8270D LL~~ PAH Only Surr. ~~(5ppm)~~ 50ppm

S - stained TurboVap

Method 3546 digestion time and temperture achieved. yes
Initial: AGT

Witness: JAG 11/1/19

AGT 11/1/19
Prepared By: Date

CAA 11/1/19
Reviewed By: Date

Printed: 11/1/2019 7:19:05AM

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9K01021**	Instrument:	**SV-GCMS9**
Date:	**11/01/19 09:28**	Calibration:	**A9J1803**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K01021-TUN1	Sediment	QC	QC			A19G233	A19J292
2	9K01021-CCV1	Sediment	QC	QC			A19G233	A19G243
3	9K01021-CCB1	Sediment	QC	QC			A19G233	
4	9110357-BLK2	Sediment	QC	QC		9110357	A19G233	
5	9110357-BS2	Sediment	QC	QC		9110357	A19G233	
6	A9J0950-01	Sediment	8270D LL Full List	Anchor QEA, LLC	11/07/19	9110357	A19G233	
7	9110357-DUP2	Sediment	QC	QC		9110357	A19G233	
8	A9J0950-02	Sediment	8270D LL Full List	Anchor QEA, LLC	11/07/19	9110357	A19G233	
9	A9J0950-03	Sediment	8270D LL Full List	Anchor QEA, LLC	11/07/19	9110357	A19G233	
10	A9J0950-04	Sediment	8270D LL Full List	Anchor QEA, LLC	11/07/19	9110357	A19G233	
11	A9J0954-01	Sediment	8270D LL Full List	Anchor QEA, LLC	11/07/19	9110357	A19G233	
12	A9J0954-02	Sediment	8270D LL Full List	Anchor QEA, LLC	11/07/19	9110357	A19G233	
13	A9J1006-01	Sediment	8270D LL Full List	Anchor QEA, LLC	11/11/19	9110357	A19G233	
14	A9J1006-02	Sediment	8270D LL Full List	Anchor QEA, LLC	11/11/19	9110357	A19G233	
15	A9J1007-01	Sediment	8270D LL Full List	Anchor QEA, LLC	11/11/19	9110357	A19G233	
16	9110374-BLK1	Water	QC	QC		9110374	A19G233	
17	9110374-BS1	Water	QC	QC		9110374	A19G233	
18	9110374-BSD1	Water	QC	QC		9110374	A19G233	
19	A9J1110-07	Water	8270D PCP LL (Scan)		11/13/19	9110374	A19G233	
20	A9J0954-02RE1	Sediment	8270D LL Full List	Anchor QEA, LLC	11/07/19	9110357	A19G233	
21	9K01021-IBL1	Sediment	QC	QC			A19G233	

Data Entered By: AMS 11/9/19

Data Reviewed By: [signature] 11/9/19

Comments:

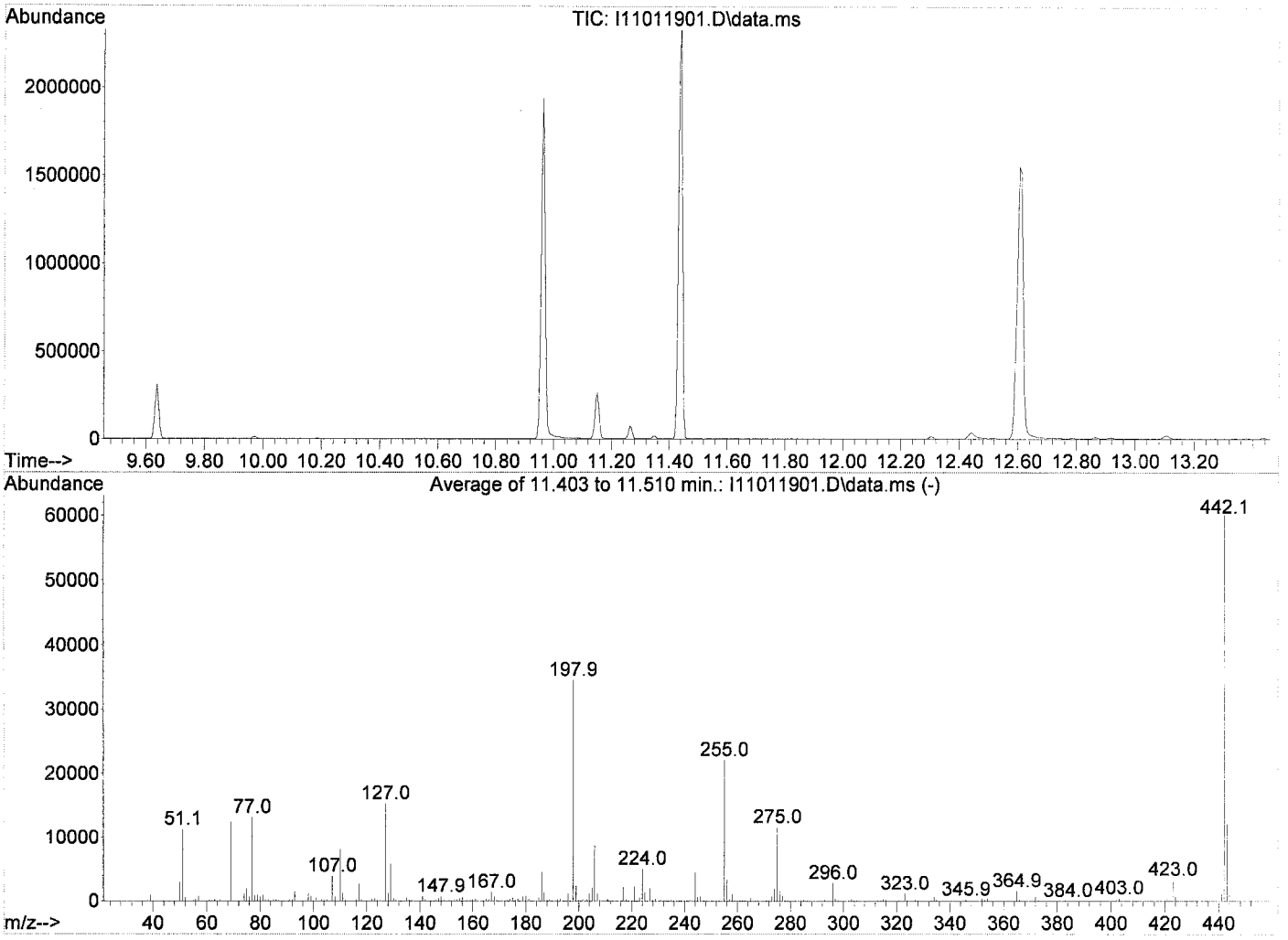
DFTPP

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011901.D
Acq On : 1 Nov 2019 9:33 am
Operator : JK /AMS /DTH
Sample : 9K01021-TUN1
Misc : 1x, A19J292 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

AMS 11/4 119

Integration File: rteint.p

Method : C:\msdchem\1\methods\DFTPP.M
Title : DFTPP Tune Methodug/mL
Last Update : Thu Oct 31 14:14:23 2019



AutoFind: Averaged scan 1480 to 1500; Bkg corrected with scan 1479)

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	0.0	3	PASS
69	69	100	100	100.0	12374	PASS
70	69	0.00	2	0.5	67	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	34488	PASS
199	198	5	9	7.0	2402	PASS
365	198	1	100	4.6	1593	PASS
441	443	0.01	150	10.5	1270	PASS
442	198	0.10	200	174.4	60134	PASS
443	442	15	24	20.1	12112	PASS

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011901.D
Acq On : 1 Nov 2019 9:33 am
Operator : JK /AMS /DTH
Sample : 9K01021-TUN1
Misc : 1x, A19J292 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 04 08:54:53 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Thu Oct 31 14:14:23 2019
Response via : Initial Calibration
InstName : SV-GCMS9

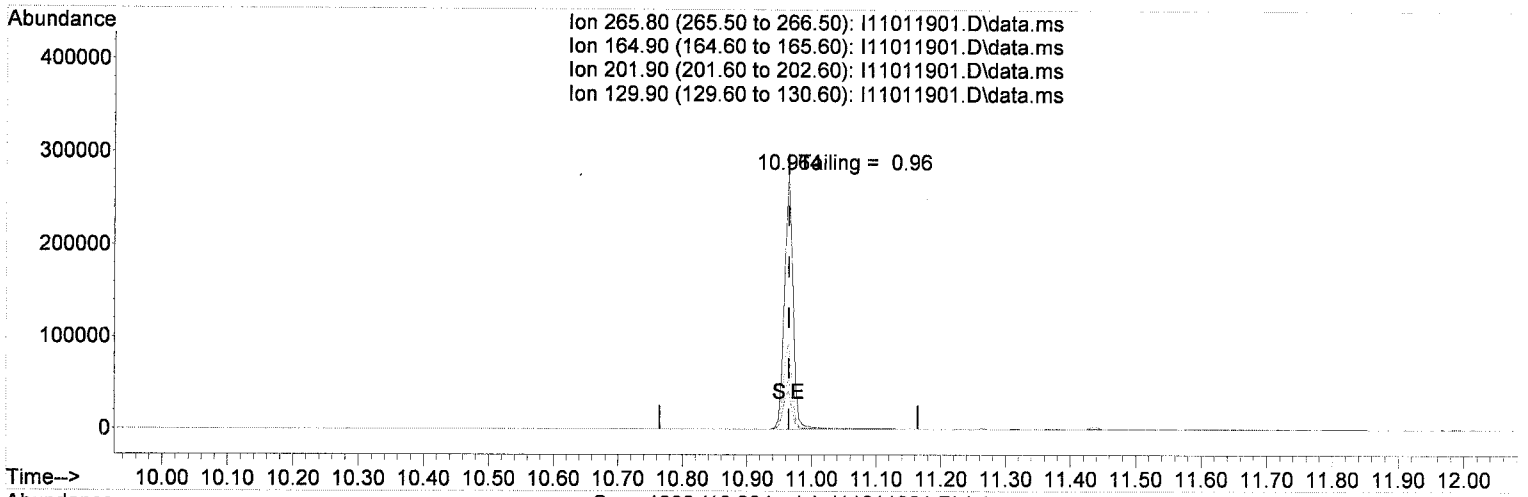
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.862	136	128793	2.00	ug/mL	0.00
2) Acenaphthene-d10	9.638	162	64970	2.00	ug/mL	0.00
4) Phenanthrene-d10	11.151	188	98721	2.00	ug/mL	0.00
10) Chrysene-d12	14.853	240	74372	2.00	ug/mL	0.00
11) Perylene-d12	16.987	264	67907	2.00	ug/mL	0.00
Target Compounds						Qvalue
3) Pentachlorophenol	10.964	266	261454	35.87	ug/mL#	83
5) DFTPP	11.440	442	405258	48.83	ug/mL#	61
6) Benzidine	12.612	184	916966	30.85	ug/mL	87
7) 4,4-DDE	12.863	TIC	10627	No Calib	#	
8) 4,4-DDD	13.377	TIC	5701	1.39	ug/mL#	1
9) 4,4-DDT	13.933	TIC	2974349	35.75	ug/mL#	1

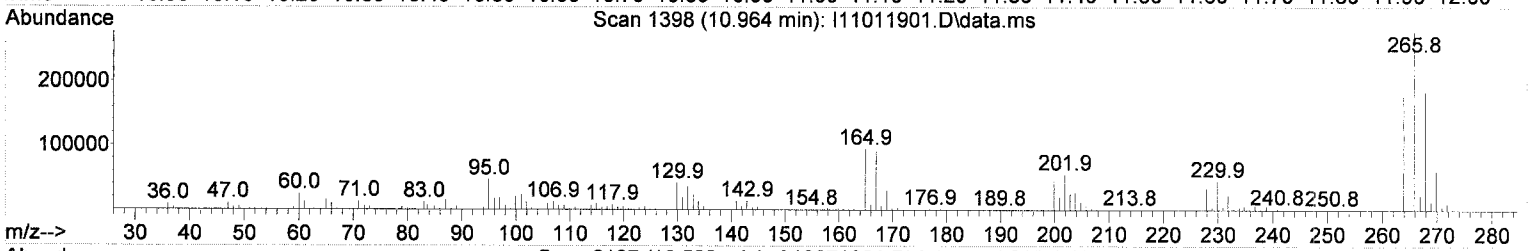
(#) = qualifier out of range (m) = manual integration (+) = signals summed

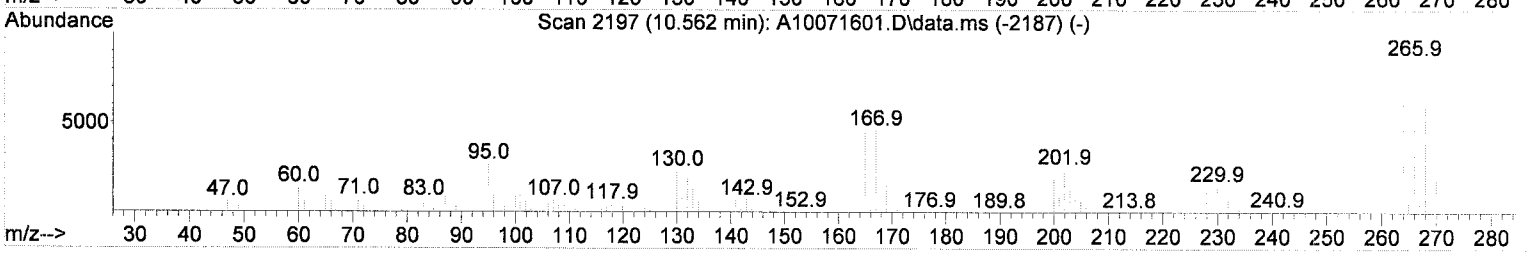
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011901.D
Acq On : 1 Nov 2019 9:33 am
Operator : JK /AMS /DTH
Sample : 9K01021-TUN1
Misc : 1x, A19J292 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 04 08:54:53 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Thu Oct 31 14:14:23 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I11011901.D\data.ms

(3) Pentachlorophenol

10.964min (-0.000) 35.87 ug/mL

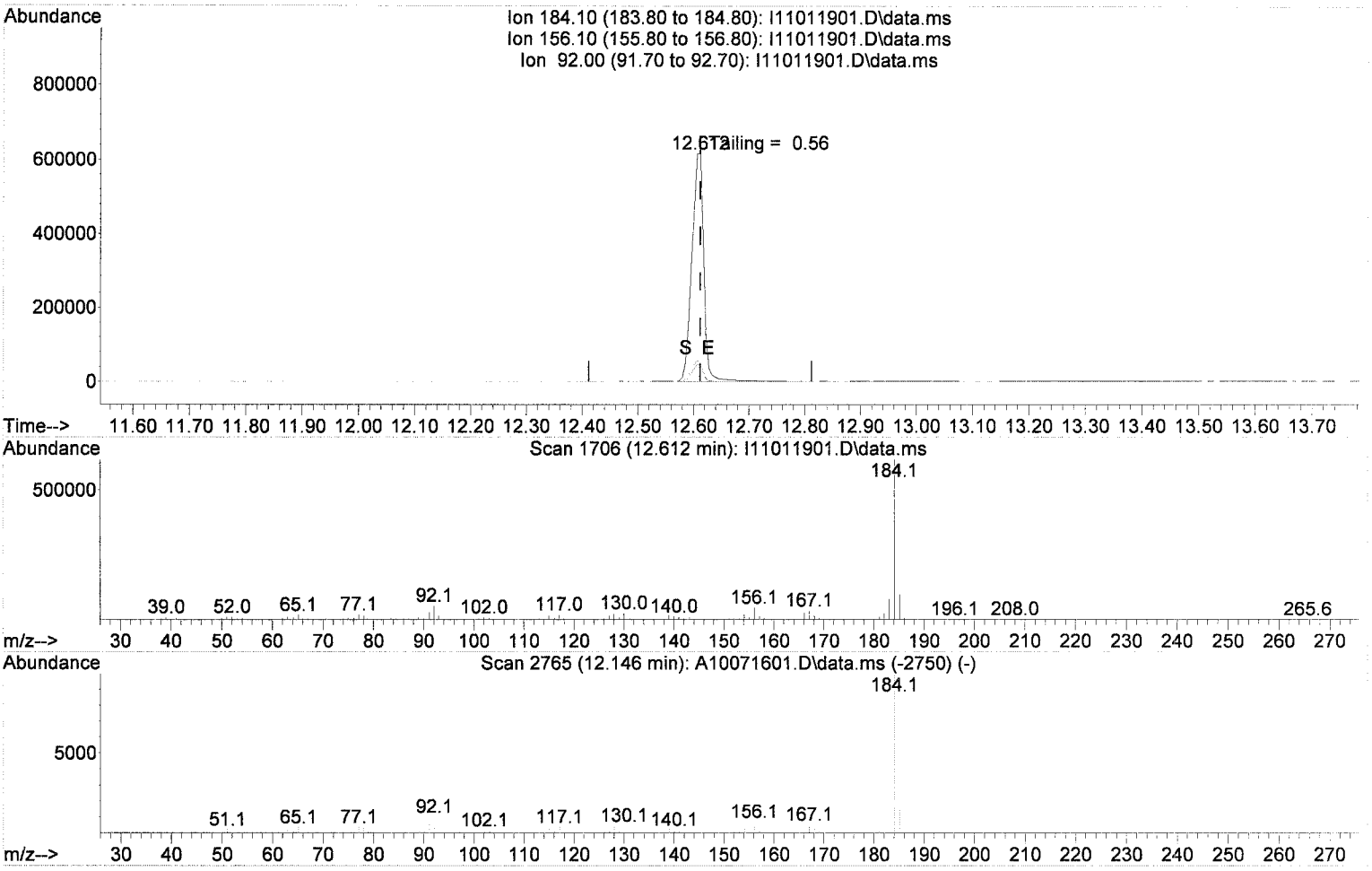
response 261454

Ion	Exp%	Act%
265.80	100.00	100.00
164.90	47.40	33.95
201.90	26.10	19.84
129.90	22.80	15.03#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011901.D
Acq On : 1 Nov 2019 9:33 am
Operator : JK /AMS /DTH
Sample : 9K01021-TUN1
Misc : 1x, A19J292 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 04 08:54:53 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Thu Oct 31 14:14:23 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I11011901.D\data.ms

(6) Benzidine

12.612min (-0.000) 30.85 ug/mL

response 916966

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	9.40	7.28
92.00	15.50	8.48
0.00	0.00	0.00

DDT Breakdown Check (Validated 5/1/2013)

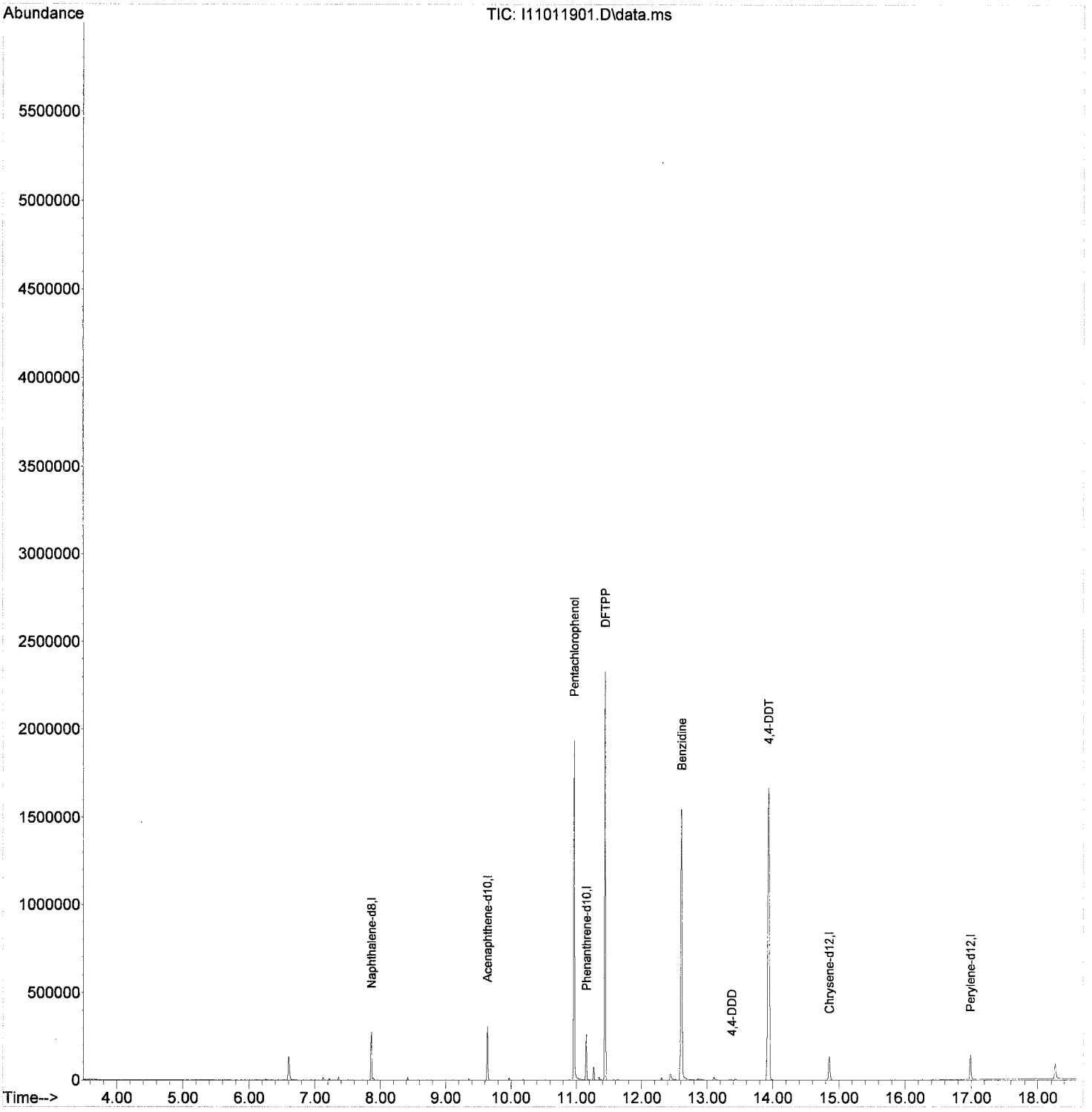
From:
9K01021-TUN1
SV-GCMS9

First Column Area Counts		Percent Breakdown	
DDE	10627		
DDD	5701		
DDT	2974349	**0.55**	**PASS**

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

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011901.D
Acq On : 1 Nov 2019 9:33 am
Operator : JK /AMS /DTH
Sample : 9K01021-TUN1
Misc : 1x, A19J292 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 04 08:54:53 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Thu Oct 31 14:14:23 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011902.D
Acq On : 1 Nov 2019 10:01 am
Operator : JK /AMS /DTH
Sample : 9K01021-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 11/4/19 11 AMS 11/4/19

Quant Time: Nov 04 08:56:26 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (IST	2000.000	2000.000	0.0	93	0.00
2	T	N-Nitrosodimethylamine	1000.000	854.152	14.6	80	0.00
3	T	Pyridine	1000.000	871.380	12.9	80	0.00
4	S	2-Fluorophenol (Surr)	1000.000	956.476	4.4	87	0.00
5	S	Phenol-d6 (Surr)	1000.000	1043.704	-4.4	92	0.00
6	T	Phenol	1000.000	1063.755	-6.4	96	0.00
7	T	Aniline	1000.000	612.913	38.7#	58	0.00
8	T	Bis(2-chloroethyl) ether	1000.000	1154.810	-15.5	102	0.00
9	T	2-Chlorophenol	1000.000	1053.569	-5.4	93	0.00
10	T	1,3-Dichlorobenzene	1000.000	1010.908	-1.1	93	0.00
11	T	1,4-Dichlorobenzene	1000.000	1011.663	-1.2	93	0.00
12	T	Benzyl alcohol	1000.000	1006.465	-0.6	87	0.00
13	T	1,2-Dichlorobenzene	1000.000	1030.018	-3.0	94	0.00
14	T	2-Methylphenol	1000.000	1054.969	-5.5	91	0.00
15	T	2,2'-Oxybis(1-Chloropropane	1000.000	784.488	21.6#	72	0.00
16	T	N-Nitrosodi-n-propylamine	1000.000	915.734	8.4	80	0.00
17	T	3+4-Methylphenol	1000.000	1099.378	-9.9	92	0.00
18	T	Hexachloroethane	1000.000	1064.074	-6.4	97	0.00
19	S	Nitrobenzene-d5 (Surr)	1000.000	1065.801	-6.6	92	0.00
20	T	Nitrobenzene	1000.000	1030.480	-3.0	88	0.00
21	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	93	0.00
22	T	Isophorone	1000.000	922.290	7.8	81	0.00
23	T	2-Nitrophenol	1000.000	1005.239	-0.5	87	0.00
24	T	2,4-Dimethylphenol	1000.000	1106.677	-10.7	94	0.00
25	T	Bis(2-chloroethoxy) methane	1000.000	1009.157	-0.9	87	0.00
26	T	Benzoic acid	2000.000	2010.366	-0.5	99	0.00
27	T	2,4-Dichlorophenol	1000.000	1180.439	-18.0	102	0.00
28	T	1,2,4-Trichlorobenzene	1000.000	1078.518	-7.9	97	0.00
29	T	Naphthalene	1000.000	1023.146	-2.3	91	0.00
30	T	4-Chloroaniline	1000.000	694.638	30.5#	63	0.00
31	T	Hexachlorobutadiene	1000.000	1086.714	-8.7	100	0.00
32	T	4-Chloro-3-methylphenol	1000.000	986.196	1.4	88	0.00
33	T	2-Methylnaphthalene	1000.000	1082.425	-8.2	93	0.00
34	T	1-Methylnaphthalene	1000.000	1058.669	-5.9	93	0.00
35	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	94	0.00
36	T	Hexachlorocyclopentadiene	1000.000	1171.867	-17.2	101	0.00
37	T	2,4,6-Trichlorophenol	1000.000	1089.744	-9.0	100	0.00
38	T	2,4,5-Trichlorophenol	1000.000	1106.884	-10.7	98	0.00
39	T	1,1'-Biphenyl	1000.000	1103.649	-10.4	94	0.00
40	S	2-Fluorobiphenyl (Surr)	1000.000	1090.512	-9.1	95	0.00
41	T	2-Chloronaphthalene	1000.000	1100.555	-10.1	94	0.00
42	T	2-Nitroaniline	1000.000	1076.663	-7.7	99	0.00
43	T	2,6-Dimethylnaphthalene	1000.000	1059.774	-6.0	92	0.00
44	T	1,4-Dinitrobenzene	1000.000	1319.736	-32.0#	142	0.00
45	T	Dimethyl phthalate	1000.000	1026.309	-2.6	92	0.00
46	T	1,3-Dinitrobenzene	1000.000	1176.635	-17.7	119	0.00
47	T	2,6-Dinitrotoluene	1000.000	1100.629	-10.1	99	0.00
48	T	1,2-Dinitrobenzene	1000.000	1026.961	-2.7	95	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011902.D
Acq On : 1 Nov 2019 10:01 am
Operator : JK /AMS /DTH
Sample : 9K01021-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:56:26 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	Acenaphthylene	1000.000	1033.382	-3.3	92	0.00
50	T	3-Nitroaniline	1000.000	744.556	25.5#	71	0.00
51	T	Acenaphthene	1000.000	1023.628	-2.4	93	0.00
52	T	2,4-Dinitrophenol	1000.000	1411.229	-41.1#	162	0.00
53	T	4-Nitrophenol	1000.000	1121.576	-12.2	103	0.00
54	T	2,4-Dinitrotoluene	1000.000	1124.377	-12.4	105	0.00
55	T	Dibenzofuran	1000.000	1054.774	-5.5	94	0.00
56	T	2,3,5,6-Tetrachlorophenol	1000.000	1139.580	-14.0	104	0.00
57	T	2,3,4,6-Tetrachlorophenol	1000.000	1160.507	-16.1	101	0.00
58	T	Diethyl phthalate	1000.000	981.898	1.8	88	0.00
59	T	2,3,5-Trimethylnaphthalene	1000.000	1069.042	-6.9	93	0.00
60	T	Fluorene	1000.000	1028.656	-2.9	94	0.00
61	T	4-Chlorophenyl phenyl ether	1000.000	1078.782	-7.9	97	0.00
62	T	4-Nitroaniline	1000.000	1245.794	-24.6#	113	0.00
63	T	4,6-Dinitro-2-methylphenol	1000.000	1206.883	-20.7#	127	0.00
64	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	95	0.00
65	T	N-Nitrosodiphenylamine	1000.000	956.366	4.4	89	0.00
66	T	Azobenzene (1,2-DPH)	1000.000	841.711	15.8	81	0.00
67	S	2,4,6-Tribromophenol (Surr)	1000.000	1145.256	-14.5	108	0.00
68	T	4-Bromophenyl phenyl ether	1000.000	1087.059	-8.7	102	0.00
69	T	Hexachlorobenzene	1000.000	1089.537	-9.0	103	0.00
70	T	Pentachlorophenol (PCP)	1000.000	1113.355	-11.3	108	0.00
71	T	Phenanthrene	1000.000	1040.540	-4.1	96	0.00
72	T	Anthracene	1000.000	1062.906	-6.3	95	0.00
73	T	Carbazole	1000.000	961.679	3.8	98	0.00
74	T	Di-n-butyl phthalate	1000.000	985.914	1.4	86	0.00
75	T	Fluoranthene	1000.000	1096.704	-9.7	96	0.00
76	T	Benzidine	2000.000	627.899	68.6#	27	0.00
77	T	Pyrene	1000.000	1114.605	-11.5	97	0.00
78	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
79	S	Terphenyl-d14 (Surr)	1000.000	1047.117	-4.7	102	0.00
80	T	Butyl benzyl phthalate	1000.000	871.785	12.8	84	0.00
81	T	Bis(2-ethylhexyl) adipate	1000.000	823.441	17.7	80	0.00
82	T	3,3-Dichlorobenzidine	2000.000	1093.563	45.3#	62	0.00
83	T	Benz(a)anthracene	1000.000	997.779	0.2	99	0.00
84	T	Chrysene	1000.000	991.868	0.8	98	0.00
85	T	Bis(2-ethylhexyl) phthalate	1000.000	843.554	15.6	81	0.00
86	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	99	0.00
87	T	Di-n-octyl phthalate	1000.000	810.649	18.9	79	0.00
88	T	Benzo(b)fluoranthene	1000.000	1075.215	-7.5	99	0.00
89	T	Benzo(k)fluoranthene	1000.000	1111.547	-11.2	97	0.00
90	T	Benzo(b+k)fluoranthene	2000.000	2189.422	-9.5	98	0.00
91	T	Benzo(e)pyrene	1000.000	1068.773	-6.9	98	0.00
92	T	Benzo(a)pyrene	1000.000	999.956	0.0	95	0.00
93	T	Perylene	1000.000	1032.341	-3.2	97	0.00
94	I	Dibenz(a,h)Anthrcene-d14 (I	2000.000	2000.000	0.0	100	-0.01

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011902.D
Acq On : 1 Nov 2019 10:01 am
Operator : JK /AMS /DTH
Sample : 9K01021-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:56:26 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
95 T	Indeno(1,2,3-cd)pyrene	1000.000	962.662	3.7	97	0.00
96 T	Dibenz(a,h)anthracene	1000.000	1018.826	-1.9	98	0.00
97 T	Benzo(g,h,i)perylene	1000.000	1030.414	-3.0	94	0.00

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

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011902.D
Acq On : 1 Nov 2019 10:01 am
Operator : JK /AMS /DTH
Sample : 9K01021-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:56:26 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.605	152	100905	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	384962	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.643	162	197971	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.151	188	376095	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.933	240	404706	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.420	264	405313	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.811	292	362980	2000.00	ng/ml	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.364	112	71067	956.48	ng/ml	0.00
5) Phenol-d6 (Surr)	6.247	99	93841	1043.70	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.145	82	69940	1065.80	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	158626	1090.51	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.440	330	26130	1145.26	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.938	244	205617	1047.12	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.032	74	50905	854.15	ng/ml	95
3) Pyridine	4.054	79	80743	871.38	ng/ml	94
6) Phenol	6.263	94	101301	1063.76	ng/ml	97
7) Aniline	6.289	93	60754	612.91	ng/ml	98
8) Bis(2-chloroethyl) ether	6.343	93	98980	1154.81	ng/ml	94
9) 2-Chlorophenol	6.407	128	76640	1053.57	ng/ml	96
10) 1,3-Dichlorobenzene	6.551	146	81593	1010.91	ng/ml	99
11) 1,4-Dichlorobenzene	6.621	146	77771	1011.66	ng/ml	99
12) Benzyl alcohol	6.739	108	42151	1006.47	ng/ml	94
13) 1,2-Dichlorobenzene	6.776	146	77168	1030.02	ng/ml	94
14) 2-Methylphenol	6.846	107	58504	1054.97	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.867	45	93055	784.49	ng/ml	90
16) N-Nitrosodi-n-propylamine	6.995	70	53489	915.73	ng/ml	94
17) 3+4-Methylphenol	6.995	107	74415	1099.38	ng/ml	98
18) Hexachloroethane	7.108	201	26283	1064.07	ng/ml	95
20) Nitrobenzene	7.167	77	71602	1030.48	ng/ml	95
22) Isophorone	7.397	82	140393	922.29	ng/ml	99
23) 2-Nitrophenol	7.482	139	33964	1005.24	ng/ml	93
24) 2,4-Dimethylphenol	7.520	122	60164	1106.68	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.605	93	85040	1009.16	ng/ml	99
26) Benzoic acid	7.611	105	42207	2010.37	ng/ml	98
27) 2,4-Dichlorophenol	7.723	162	59069	1180.44	ng/ml	95
28) 1,2,4-Trichlorobenzene	7.808	180	69977	1078.52	ng/ml	97
29) Naphthalene	7.883	128	202314	1023.15	ng/ml	99
30) 4-Chloroaniline	7.942	127	47069	694.64	ng/ml	97
31) Hexachlorobutadiene	8.017	225	38895	1086.71	ng/ml	98
32) 4-Chloro-3-methylphenol	8.413	107	58607	986.20	ng/ml	97
33) 2-Methylnaphthalene	8.579	142	153940	1082.42	ng/ml	99
34) 1-Methylnaphthalene	8.680	142	143340	1058.67	ng/ml	99
36) Hexachlorocyclopentadiene	8.750	237	40485	1171.87	ng/ml	97
37) 2,4,6-Trichlorophenol	8.862	196	42234	1089.74	ng/ml	99
38) 2,4,5-Trichlorophenol	8.900	198	41455	1106.88	ng/ml	96
39) 1,1'-Biphenyl	9.049	154	176804	1103.65	ng/ml	99
41) 2-Chloronaphthalene	9.071	162	130291	1100.56	ng/ml	98
42) 2-Nitroaniline	9.172	138	39124	1076.66	ng/ml	88
43) 2,6-Dimethylnaphthalene	9.210	156	128310	1059.77	ng/ml	99

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011902.D
Acq On : 1 Nov 2019 10:01 am
Operator : JK /AMS /DTH
Sample : 9K01021-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

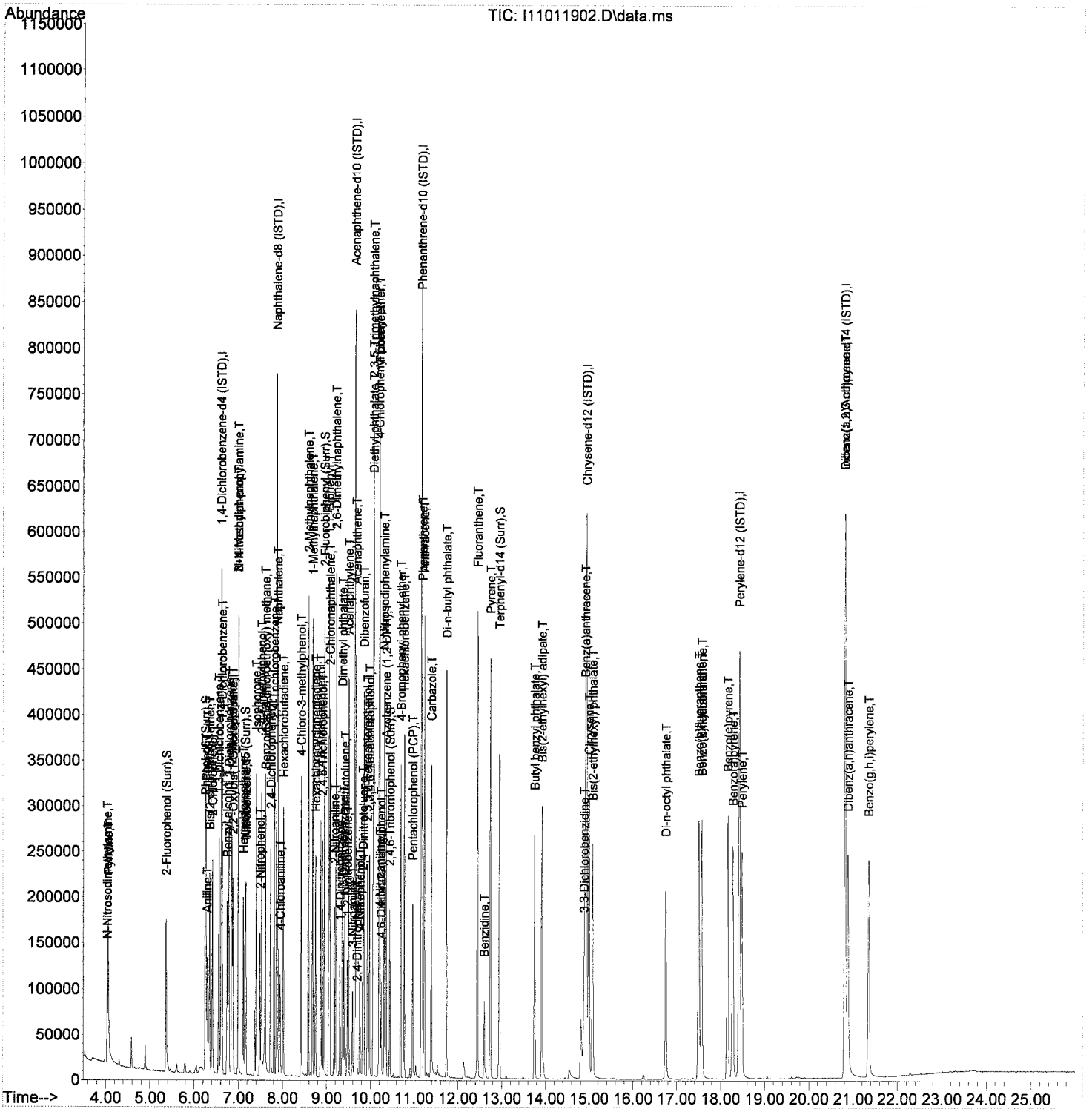
Quant Time: Nov 04 08:56:26 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.301	168	17707	1319.74	ng/ml	81
45) Dimethyl phthalate	9.354	163	148262	1026.31	ng/ml	99
46) 1,3-Dinitrobenzene	9.381	168	21396	1176.64	ng/ml	90
47) 2,6-Dinitrotoluene	9.413	165	32622	1100.63	ng/ml	86
48) 1,2-Dinitrobenzene	9.466	168	14421	1026.96	ng/ml	90
49) Acenaphthylene	9.493	152	204850	1033.38	ng/ml	99
50) 3-Nitroaniline	9.590	138	20456	744.56	ng/ml	93
51) Acenaphthene	9.675	153	127591	1023.63	ng/ml	99
52) 2,4-Dinitrophenol	9.691	184	8223	1411.23	ng/ml	84
53) 4-Nitrophenol	9.755	139	23243	1121.58	ng/ml	88
54) 2,4-Dinitrotoluene	9.825	165	40270	1124.38	ng/ml	87
55) Dibenzofuran	9.846	168	180017	1054.77	ng/ml	96
56) 2,3,5,6-Tetrachlorophenol	9.926	232	34419	1139.58	ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	9.975	232	37356	1160.51	ng/ml	94
58) Diethyl phthalate	10.066	149	134428	981.90	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.060	170	120826	1069.04	ng/ml	99
60) Fluorene	10.194	166	141226	1028.66	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.189	204	73370	1078.78	ng/ml	98
62) 4-Nitroaniline	10.210	138	29147	1245.79	ng/ml	95
63) 4,6-Dinitro-2-methylph...	10.237	198	14245	1206.88	ng/ml	96
65) N-Nitrosodiphenylamine	10.306	169	112899	956.37	ng/ml	99
66) Azobenzene (1,2-DPH)	10.349	77	129946	841.71	ng/ml	94
68) 4-Bromophenyl phenyl e...	10.686	248	47947	1087.06	ng/ml	98
69) Hexachlorobenzene	10.766	284	56814	1089.54	ng/ml	96
70) Pentachlorophenol (PCP)	10.959	266	26770	1113.36	ng/ml	97
71) Phenanthrene	11.178	178	204121	1040.54	ng/ml	99
72) Anthracene	11.226	178	205645	1062.91	ng/ml	100
73) Carbazole	11.387	167	165382	961.68	ng/ml	99
74) Di-n-butyl phthalate	11.734	149	231356	985.91	ng/ml	99
75) Fluoranthene	12.440	202	253589	1096.70	ng/ml	97
76) Benzidine	12.595	184	45355	627.90	ng/ml	97
77) Pyrene	12.735	202	251341	1114.60	ng/ml	99
80) Butyl benzyl phthalate	13.745	149	99962	871.78	ng/ml	90
81) Bis(2-ethylhexyl) adipate	13.917	129	84024	823.44	ng/ml	99
82) 3,3-Dichlorobenzidine	14.879	252	44958	1093.56	ng/ml	98
83) Benz(a)anthracene	14.906	228	233832	997.78	ng/ml	100
84) Chrysene	14.992	228	210229	991.87	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.072	149	125466	843.55	ng/ml	99
87) Di-n-octyl phthalate	16.746	149	206251	810.65	ng/ml	96
88) Benzo(b)fluoranthene	17.495	252	243353	1075.21	ng/ml	97
89) Benzo(k)fluoranthene	17.564	252	233907	1111.55	ng/ml	98
90) Benzo(b+k)fluoranthene	17.564	252	489576	2189.42	ng/ml	98
91) Benzo(e)pyrene	18.153	252	234902	1068.77	ng/ml	98
92) Benzo(a)pyrene	18.276	252	212937	999.96	ng/ml	98
93) Perylene	18.479	252	189866	1032.34	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.811	276	206389	962.66	ng/ml	92
96) Dibenz(a,h)anthracene	20.881	278	190976	1018.83	ng/ml	97
97) Benzo(g,h,i)perylene	21.346	276	210603	1030.41	ng/ml	95

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

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011902.D
Acq On : 1 Nov 2019 10:01 am
Operator : JK /AMS /DTH
Sample : 9K01021-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:56:26 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011903.D
Acq On : 1 Nov 2019 10:35 am
Operator : JK /AMS /DTH
Sample : 9K01021-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 11/4/19

Quant Time: Nov 04 08:56:44 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.605	152	109644	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	424668	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.638	162	218592	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.151	188	392156	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.922	240	407371	2000.00	ng/ml	-0.02
86) Perylene-d12 (ISTD)	18.409	264	391878	2000.00	ng/ml	-0.02
94) Dibenz(a,h)Anthrcene-d...	20.800	292	314017	2000.00	ng/ml	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	0.000	112	0	0.00	ng/ml	
5) Phenol-d6 (Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	0.000	82	0	0.00	ng/ml	
40) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	0.000	244	0	0.00	ng/ml	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	0.000		0	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	0.000		0	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	0.000		0	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	0.000		0	N.D.		
34) 1-Methylnaphthalene	0.000		0	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	0.000		0	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011903.D
Acq On : 1 Nov 2019 10:35 am
Operator : JK /AMS /DTH
Sample : 9K01021-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

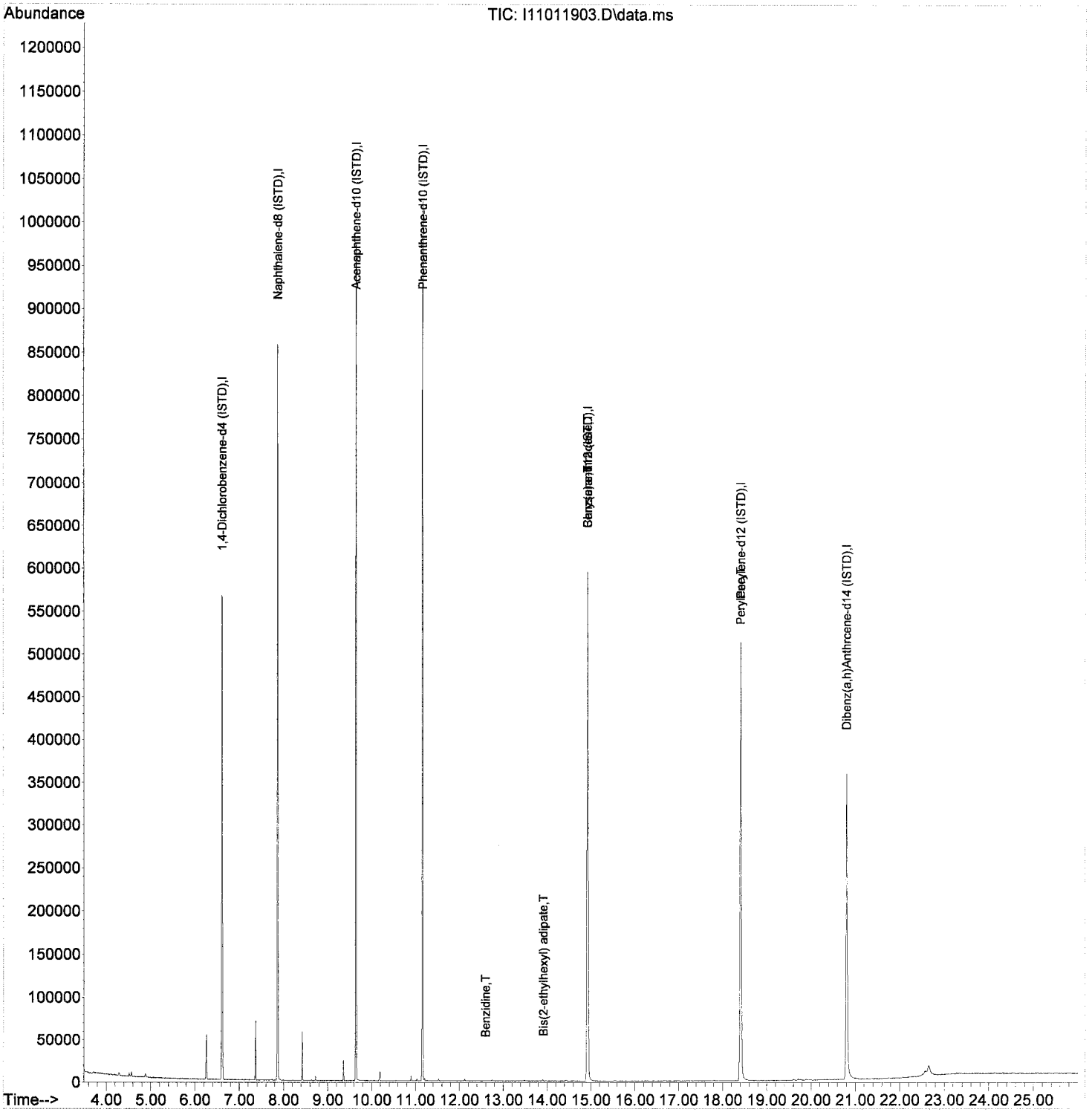
Quant Time: Nov 04 08:56:44 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.		
45) Dimethyl phthalate	0.000		0	N.D.		
46) 1,3-Dinitrobenzene	0.000		0	N.D.		
47) 2,6-Dinitrotoluene	0.000		0	N.D.		
48) 1,2-Dinitrobenzene	0.000		0	N.D.		
49) Acenaphthylene	0.000		0	N.D.		
50) 3-Nitroaniline	0.000		0	N.D.		
51) Acenaphthene	0.000		0	N.D.		
52) 2,4-Dinitrophenol	0.000		0	N.D.		
53) 4-Nitrophenol	0.000		0	N.D.		
54) 2,4-Dinitrotoluene	0.000		0	N.D.		
55) Dibenzofuran	0.000		0	N.D.		
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.		
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.		
58) Diethyl phthalate	0.000		0	N.D.		
59) 2,3,5-Trimethylnaphtha...	0.000		0	N.D.		
60) Fluorene	0.000		0	N.D.		
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.		
62) 4-Nitroaniline	0.000		0	N.D.		
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.		
65) N-Nitrosodiphenylamine	0.000		0	N.D.		
66) Azobenzene (1,2-DPH)	0.000		0	N.D.		
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.		
69) Hexachlorobenzene	0.000		0	N.D.		
70) Pentachlorophenol (PCP)	0.000		0	N.D.		
71) Phenanthrene	11.151	178	151	N.D.		
72) Anthracene	11.151	178	151	N.D.		
73) Carbazole	0.000		0	N.D.		
74) Di-n-butyl phthalate	0.000		0	N.D.		
75) Fluoranthene	0.000		0	N.D.		
76) Benzidine	12.590	184	140	110.70	ng/ml	68
77) Pyrene	0.000		0	N.D.		
80) Butyl benzyl phthalate	0.000		0	N.D.		
81) Bis(2-ethylhexyl) adipate	13.911	129	479	4.66	ng/ml	89
82) 3,3-Dichlorobenzidine	0.000		0	N.D.		
83) Benz(a)anthracene	14.922	228	958	4.06	ng/ml	59
84) Chrysene	14.922	228	958	4.49	ng/ml	56
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.		
87) Di-n-octyl phthalate	0.000		0	N.D.		
88) Benzo(b)fluoranthene	0.000		0	N.D.		
89) Benzo(k)fluoranthene	0.000		0	N.D.		
90) Benzo(b+k)fluoranthene	0.000		0	N.D.		
91) Benzo(e)pyrene	0.000		0	N.D.		
92) Benzo(a)pyrene	0.000		0	N.D.		
93) Perylene	18.404	252	1209	6.80	ng/ml	71
95) Indeno(1,2,3-cd)pyrene	20.806	276	116	N.D.		
96) Dibenz(a,h)anthracene	0.000		0	N.D.		
97) Benzo(g,h,i)perylene	0.000		0	N.D.		

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

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011903.D
Acq On : 1 Nov 2019 10:35 am
Operator : JK /AMS /DTH
Sample : 9K01021-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:56:44 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011904.D
Acq On : 1 Nov 2019 11:09 am
Operator : JK /AMS /DTH
Sample : 9110357-BLK2
Misc : 1x, 8270D LL FULL LIST CUSTOM
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 11/4/19

Quant Time: Nov 04 08:56:47 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.605	152	114442	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	439250	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.638	162	225356	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.152	188	418613	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.922	240	449358	2000.00 ng/ml	-0.02
86) Perylene-d12 (ISTD)	18.410	264	448066	2000.00 ng/ml	-0.02
94) Dibenz(a,h)Anthrcene-d...	20.800	292	371409	2000.00 ng/ml	-0.02
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.370	112	126538	1501.60 ng/ml	0.00
5) Phenol-d6 (Surr)	6.252	99	168386	1651.27 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.145	82	140658	1889.91 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	316008	1908.48 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.440	330	55010	2115.53 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.938	244	471906	2164.41 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	4.075	74	74	N.D.	
3) Pyridine	0.000		0	N.D.	
6) Phenol	6.258	94	249	N.D.	
7) Aniline	6.327	93	138	N.D.	
8) Bis(2-chloroethyl) ether	6.327	93	138	N.D.	
9) 2-Chlorophenol	0.000		0	N.D.	
10) 1,3-Dichlorobenzene	0.000		0	N.D.	
11) 1,4-Dichlorobenzene	0.000		0	N.D.	
12) Benzyl alcohol	0.000		0	N.D.	
13) 1,2-Dichlorobenzene	0.000		0	N.D.	
14) 2-Methylphenol	0.000		0	N.D.	
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.	
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.	
17) 3+4-Methylphenol	0.000		0	N.D.	
18) Hexachloroethane	0.000		0	N.D.	
20) Nitrobenzene	7.140	77	490	6.22 ng/ml#	31
22) Isophorone	7.402	82	182	N.D.	
23) 2-Nitrophenol	0.000		0	N.D.	
24) 2,4-Dimethylphenol	7.563	122	61	N.D.	
25) Bis(2-chloroethoxy) me...	7.605	93	51	N.D.	
26) Benzoic acid	7.568	105	95	761.34 ng/ml	79
27) 2,4-Dichlorophenol	0.000		0	N.D.	
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
29) Naphthalene	7.884	128	9176	40.67 ng/ml	97
30) 4-Chloroaniline	7.884	127	1247	28.85 ng/ml#	27
31) Hexachlorobutadiene	0.000		0	N.D.	
32) 4-Chloro-3-methylphenol	0.000		0	N.D.	
33) 2-Methylnaphthalene	8.579	142	922	5.68 ng/ml	93
34) 1-Methylnaphthalene	8.680	142	506	3.28 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	9.050	154	707	3.88 ng/ml	96
41) 2-Chloronaphthalene	0.000		0	N.D.	
42) 2-Nitroaniline	0.000		0	N.D.	
43) 2,6-Dimethylnaphthalene	9.210	156	145	N.D.	

J

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011904.D
Acq On : 1 Nov 2019 11:09 am
Operator : JK /AMS /DTH
Sample : 9110357-BLK2
Misc : 1x, 8270D LL FULL LIST CUSTOM
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

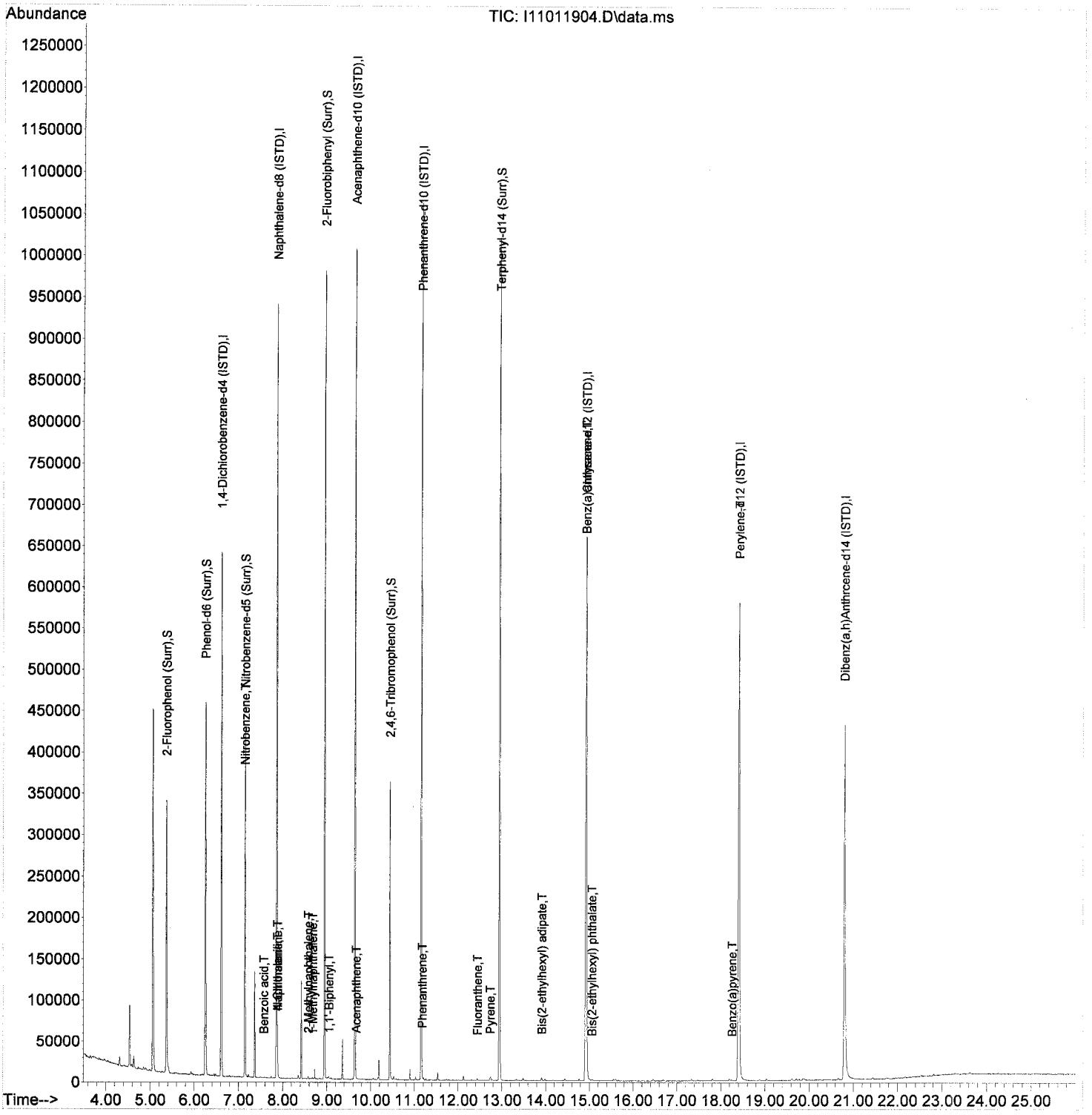
Quant Time: Nov 04 08:56:47 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44)	1,4-Dinitrobenzene	0.000		0	N.D.	
45)	Dimethyl phthalate	9.349	163	92	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	9.493	152	300	N.D.	
50)	3-Nitroaniline	0.000		0	N.D.	
51)	Acenaphthene	9.670	153	374	2.64 ng/ml	87
52)	2,4-Dinitrophenol	0.000		0	N.D.	
53)	4-Nitrophenol	0.000		0	N.D.	
54)	2,4-Dinitrotoluene	0.000		0	N.D.	
55)	Dibenzofuran	9.841	168	65	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	10.060	149	159	N.D.	
59)	2,3,5-Trimethylnaphtha...	0.000		0	N.D.	
60)	Fluorene	10.194	166	248	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)	10.355	77	79	N.D.	
68)	4-Bromophenyl phenyl e...	0.000		0	N.D.	
69)	Hexachlorobenzene	0.000		0	N.D.	
70)	Pentachlorophenol (PCP)	0.000		0	N.D.	
71)	Phenanthrene	11.173	178	2785	12.76 ng/ml	96
72)	Anthracene	11.226	178	369	N.D.	
73)	Carbazole	11.382	167	152	N.D.	
74)	Di-n-butyl phthalate	11.729	149	525	N.D.	
75)	Fluoranthene	12.441	202	1286	5.00 ng/ml	77
76)	Benzidine	0.000		0	N.D.	
77)	Pyrene	12.729	202	1648	6.57 ng/ml	98
80)	Butyl benzyl phthalate	0.000		0	N.D.	
81)	Bis(2-ethylhexyl) adipate	13.911	129	1012	8.93 ng/ml	89
82)	3,3-Dichlorobenzidine	0.000		0	N.D.	
83)	Benz(a)anthracene	14.917	228	1590	6.11 ng/ml	52
84)	Chrysene	14.981	228	433	N.D.	
85)	Bis(2-ethylhexyl) phth...	15.056	149	526	3.19 ng/ml	73
87)	Di-n-octyl phthalate	0.000		0	N.D.	
88)	Benzo(b)fluoranthene	17.479	252	298	N.D.	
89)	Benzo(k)fluoranthene	17.549	252	59	N.D.	
90)	Benzo(b+k)fluoranthene	17.549	252	59	N.D.	
91)	Benzo(e)pyrene	18.148	252	195	N.D.	
92)	Benzo(a)pyrene	18.255	252	343	10.01 ng/ml	87
93)	Perylene	18.410	252	1660	8.16 ng/ml	73
95)	Indeno(1,2,3-cd)pyrene	20.800	276	429	N.D.	
96)	Dibenz(a,h)anthracene	20.806	278	80	N.D.	
97)	Benzo(g,h,i)perylene	21.319	276	245	N.D.	

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

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011904.D
Acq On : 1 Nov 2019 11:09 am
Operator : JK /AMS /DTH
Sample : 9110357-BLK2
Misc : 1x, 8270D LL FULL LIST CUSTOM
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:56:47 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011905.D
Acq On : 1 Nov 2019 11:44 am
Operator : JK /AMS /DTH
Sample : 9110357-BS2@4
Misc : 4x, 8270D LL FULL LIST CUSTOM
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 11/4/19

Quant Time: Nov 04 08:56:51 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.605	152	109240	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	408681	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.638	162	209161	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.152	188	403657	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.928	240	432360	2000.00	ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.415	264	439300	2000.00	ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.806	292	397565	2000.00	ng/ml	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.370	112	39876	495.73	ng/ml	0.00
5) Phenol-d6 (Surr)	6.252	99	54685	561.80	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.145	82	41405	582.82	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	96596	628.54	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.440	330	16233	677.07	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.938	244	133472	636.24	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.038	74	41444	642.34	ng/ml	95
3) Pyridine	4.065	79	49044	488.90	ng/ml	93
6) Phenol	6.263	94	98736	957.71	ng/ml	96
7) Aniline	6.290	93	64121	597.52	ng/ml	98
8) Bis(2-chloroethyl) ether	6.343	93	79089	852.33	ng/ml	95
9) 2-Chlorophenol	6.407	128	71647	909.78	ng/ml	97
10) 1,3-Dichlorobenzene	6.557	146	72248	826.83	ng/ml	98
11) 1,4-Dichlorobenzene	6.627	146	69828	839.03	ng/ml	98
12) Benzyl alcohol	6.739	108	41525	915.87	ng/ml	96
13) 1,2-Dichlorobenzene	6.776	146	68831	848.64	ng/ml	97
14) 2-Methylphenol	6.846	107	59499	991.05	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.867	45	82576	643.03	ng/ml	91
16) N-Nitrosodi-n-propylamine	6.996	70	51900	820.74	ng/ml	94
17) 3+4-Methylphenol	6.996	107	73465	1002.53	ng/ml	98
18) Hexachloroethane	7.108	201	23683	885.66	ng/ml	97
20) Nitrobenzene	7.167	77	67909	902.76	ng/ml	95
22) Isophorone	7.397	82	138854	859.24	ng/ml	98
23) 2-Nitrophenol	7.482	139	41959	1160.13	ng/ml	93
24) 2,4-Dimethylphenol	7.520	122	61105	1058.75	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.605	93	83708	935.70	ng/ml	99
26) Benzoic acid	7.595	105	22987	1410.29	ng/ml	96
27) 2,4-Dichlorophenol	7.723	162	57162	1077.88	ng/ml	94
28) 1,2,4-Trichlorobenzene	7.809	180	65215	946.79	ng/ml	99
29) Naphthalene	7.884	128	193588	922.20	ng/ml	100
30) 4-Chloroaniline	7.942	127	35559	498.20	ng/ml	96
31) Hexachlorobutadiene	8.012	225	36060	949.03	ng/ml	99
32) 4-Chloro-3-methylphenol	8.413	107	59117	938.37	ng/ml	98
33) 2-Methylnaphthalene	8.579	142	148380	982.78	ng/ml	98
34) 1-Methylnaphthalene	8.680	142	138072	960.58	ng/ml	97
36) Hexachlorocyclopentadiene	8.750	237	36547	1001.28	ng/ml	95
37) 2,4,6-Trichlorophenol	8.862	196	43612	1065.83	ng/ml	97
38) 2,4,5-Trichlorophenol	8.900	198	42514	1075.12	ng/ml	98
39) 1,1'-Biphenyl	9.050	154	175635	1037.70	ng/ml	99
41) 2-Chloronaphthalene	9.071	162	130254	1041.38	ng/ml	97
42) 2-Nitroaniline	9.173	138	41452	1079.50	ng/ml	85
43) 2,6-Dimethylnaphthalene	9.210	156	126013	985.12	ng/ml	98

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011905.D
Acq On : 1 Nov 2019 11:44 am
Operator : JK /AMS /DTH
Sample : 9110357-BS2@4
Misc : 4x, 8270D LL FULL LIST CUSTOM
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

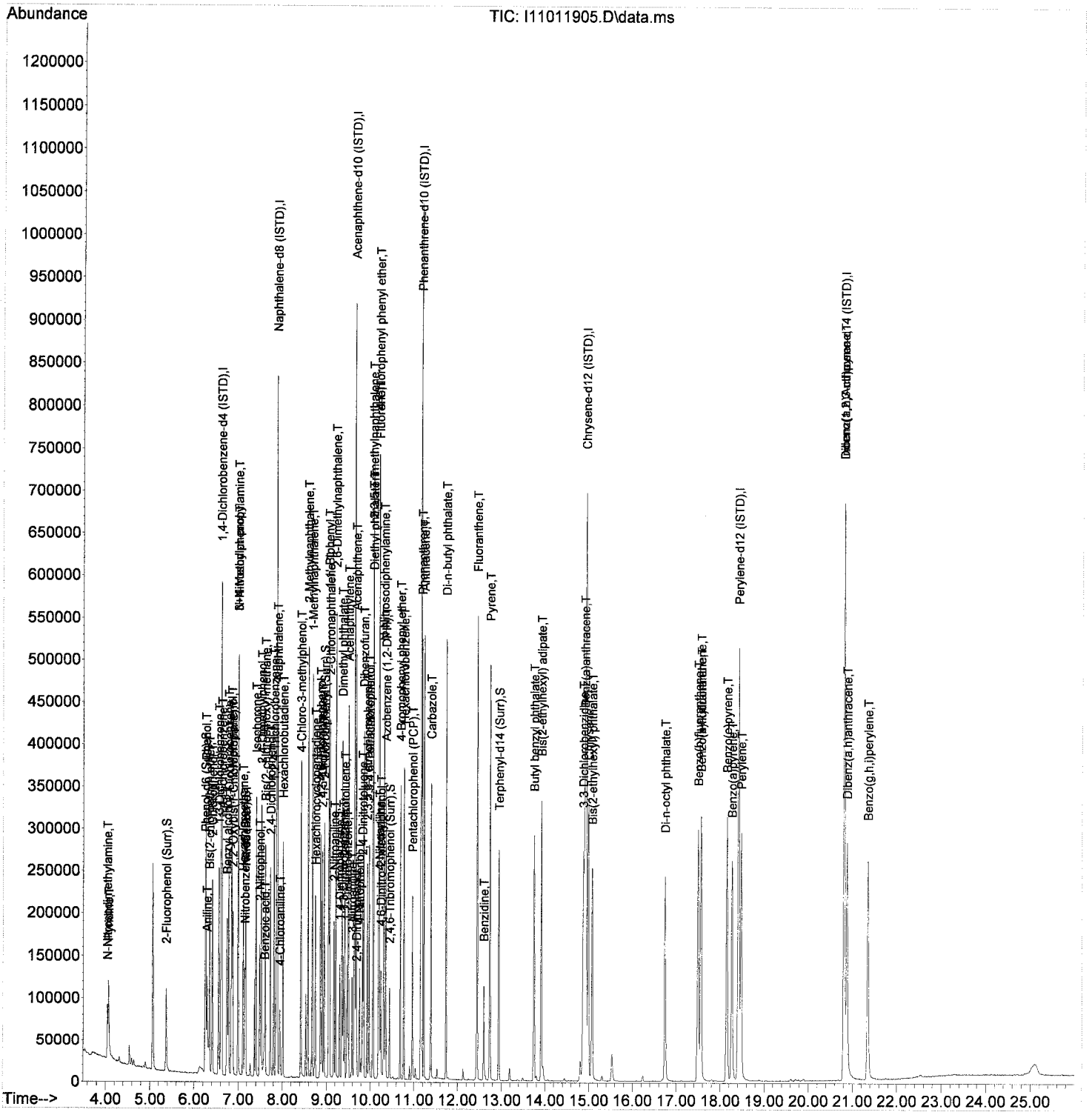
Quant Time: Nov 04 08:56:51 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.296	168	18936	1333.29	ng/ml	85
45) Dimethyl phthalate	9.354	163	155623	1019.63	ng/ml	99
46) 1,3-Dinitrobenzene	9.381	168	22556	1174.36	ng/ml	92
47) 2,6-Dinitrotoluene	9.413	165	33724	1077.68	ng/ml	83
48) 1,2-Dinitrobenzene	9.467	168	15347	1034.01	ng/ml	82
49) Acenaphthylene	9.493	152	205346	980.47	ng/ml	100
50) 3-Nitroaniline	9.584	138	23232	804.66	ng/ml	96
51) Acenaphthene	9.670	153	128781	977.90	ng/ml	99
52) 2,4-Dinitrophenol	9.686	184	8729	1415.82	ng/ml	92
53) 4-Nitrophenol	9.750	139	25348	1153.38	ng/ml	92
54) 2,4-Dinitrotoluene	9.820	165	43425	1145.98	ng/ml	91
55) Dibenzofuran	9.846	168	183165	1015.80	ng/ml	95
56) 2,3,5,6-Tetrachlorophenol	9.927	232	35372	1110.03	ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	9.970	232	37902	1115.89	ng/ml	96
58) Diethyl phthalate	10.066	149	141931	981.24	ng/ml	99
59) 2,3,5-Trimethylnaphtha...	10.055	170	119381	999.75	ng/ml	98
60) Fluorene	10.194	166	144789	998.19	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.189	204	75508	1050.82	ng/ml	95
62) 4-Nitroaniline	10.205	138	28215	1141.44	ng/ml	96
63) 4,6-Dinitro-2-methylph...	10.237	198	18613	1434.74	ng/ml	89
65) N-Nitrosodiphenylamine	10.306	169	125480	990.36	ng/ml	99
66) Azobenzene (1,2-DPH)	10.349	77	132068	797.05	ng/ml	89
68) 4-Bromophenyl phenyl e...	10.686	248	50062	1057.51	ng/ml	97
69) Hexachlorobenzene	10.766	284	59308	1059.71	ng/ml	94
70) Pentachlorophenol (PCP)	10.959	266	28745	1113.83	ng/ml	98
71) Phenanthrene	11.173	178	212996	1011.64	ng/ml	100
72) Anthracene	11.226	178	216179	1041.06	ng/ml	99
73) Carbazole	11.387	167	169283	917.15	ng/ml	98
74) Di-n-butyl phthalate	11.729	149	248317	985.94	ng/ml	100
75) Fluoranthene	12.441	202	267621	1078.36	ng/ml	97
76) Benzidine	12.596	184	59182	740.56	ng/ml	98
77) Pyrene	12.729	202	269289	1112.66	ng/ml	99
80) Butyl benzyl phthalate	13.740	149	106426	868.92	ng/ml	92
81) Bis(2-ethylhexyl) adipate	13.911	129	94253	864.61	ng/ml	99
82) 3,3-Dichlorobenzidine	14.869	252	117181	3144.80	ng/ml	98
83) Benz(a)anthracene	14.901	228	257960	1030.33	ng/ml	98
84) Chrysene	14.987	228	223039	985.00	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.072	149	134419	845.94	ng/ml	98
87) Di-n-octyl phthalate	16.741	149	227908	825.30	ng/ml	96
88) Benzo(b)fluoranthene	17.495	252	260399	1061.52	ng/ml	98
89) Benzo(k)fluoranthene	17.559	252	255983	1122.34	ng/ml	98
90) Benzo(b+k)fluoranthene	17.559	252	530029	2186.95	ng/ml	98
91) Benzo(e)pyrene	18.148	252	250391	1051.11	ng/ml	99
92) Benzo(a)pyrene	18.265	252	216114	936.42	ng/ml	96
93) Perylene	18.474	252	239346	1200.69	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.806	276	224029	954.04	ng/ml	94
96) Dibenz(a,h)anthracene	20.875	278	206344	1005.05	ng/ml	98
97) Benzo(g,h,i)perylene	21.346	276	231907	1035.94	ng/ml	94

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

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011905.D
Acq On : 1 Nov 2019 11:44 am
Operator : JK /AMS /DTH
Sample : 9110357-BS2@4
Misc : 4x, 8270D LL FULL LIST CUSTOM
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:56:51 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011906.D
Acq On : 1 Nov 2019 12:19 pm
Operator : JK /AMS /DTH
Sample : A9J0950-01@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 11/4/19 R04

Quant Time: Nov 04 08:56:55 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.600	152	118140	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.867	136	440847	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.638	162	210652	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.152	188	384511	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.928	240	413609	2000.00	ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.415	264	424620	2000.00	ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.811	292	384243	2000.00	ng/ml	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	59	0.68	ng/ml	0.00
5) Phenol-d6 (Surr)	6.247	99	155	1.47	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.140	82	281	3.66	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	663	4.28	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	12.933	244	734	3.66	ng/ml	-0.01
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.156	77	244	3.00	ng/ml#	5
22) Isophorone	7.397	82	83	N.D.		
23) 2-Nitrophenol	7.488	139	68	50.83	ng/ml#	31
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	7.605	93	134	N.D.		
26) Benzoic acid	7.584	105	962	784.47	ng/ml#	25
27) 2,4-Dichlorophenol	7.718	162	103	13.35	ng/ml#	25
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.889	128	1471137	6496.73	ng/ml	93
30) 4-Chloroaniline	7.889	127	220611	2794.75	ng/ml#	24
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.424	107	109	27.32	ng/ml#	1
33) 2-Methylnaphthalene	8.579	142	342529	2103.17	ng/ml	99
34) 1-Methylnaphthalene	8.680	142	175646	1132.82	ng/ml	99
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	9.050	154	122151	716.59	ng/ml	99
41) 2-Chloronaphthalene	9.055	162	497	3.95	ng/ml#	1
42) 2-Nitroaniline	9.146	138	296	68.02	ng/ml#	11
43) 2,6-Dimethylnaphthalene	9.215	156	68045	528.18	ng/ml	99

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011906.D
Acq On : 1 Nov 2019 12:19 pm
Operator : JK /AMS /DTH
Sample : A9J0950-01@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

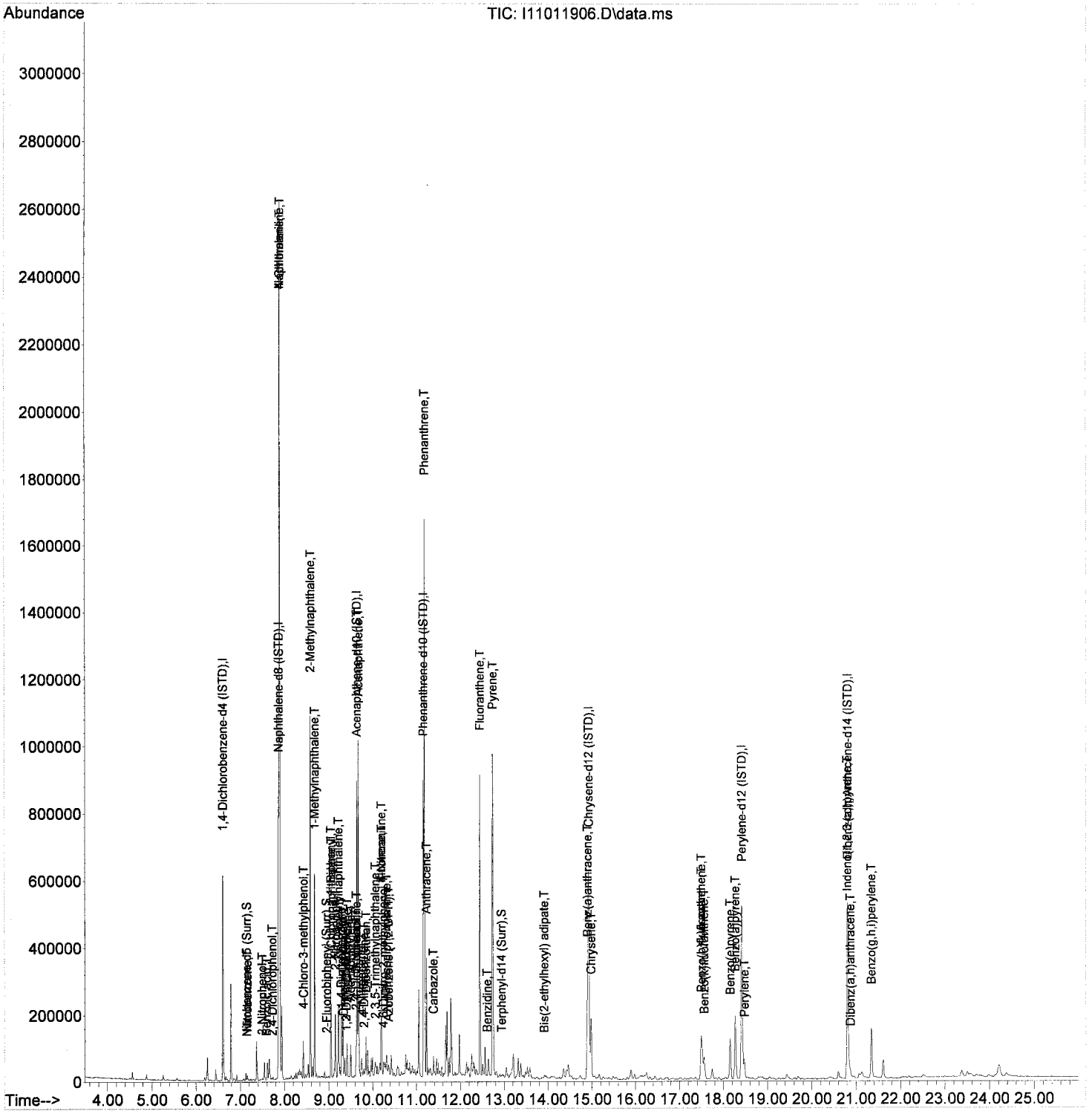
Quant Time: Nov 04 08:56:55 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.280	168	176	141.64	ng/ml#	1
45)	Dimethyl phthalate	9.328	163	638	4.15	ng/ml#	8
46)	1,3-Dinitrobenzene	9.392	168	53	126.55	ng/ml#	1
47)	2,6-Dinitrotoluene	9.413	165	66	34.00	ng/ml#	1
48)	1,2-Dinitrobenzene	9.392	168	53	61.05	ng/ml#	67
49)	Acenaphthylene	9.493	152	18363	87.06	ng/ml	89
50)	3-Nitroaniline	9.627	138	185	40.75	ng/ml#	1
51)	Acenaphthene	9.675	153	277260	2090.48	ng/ml	99
52)	2,4-Dinitrophenol	9.616	184	53	165.94	ng/ml#	1
53)	4-Nitrophenol	9.745	139	1215	125.35	ng/ml#	64
54)	2,4-Dinitrotoluene	9.798	165	1193	96.65	ng/ml#	53
55)	Dibenzofuran	9.846	168	24257	133.57	ng/ml	99
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	10.066	149	116	N.D.		
59)	2,3,5-Trimethylnaphtha...	10.055	170	17386	144.57	ng/ml	97
60)	Fluorene	10.194	166	127311	871.48	ng/ml	98
61)	4-Chlorophenyl phenyl ...	0.000		0	N.D.		
62)	4-Nitroaniline	10.194	138	1456	58.49	ng/ml#	33
63)	4,6-Dinitro-2-methylph...	10.237	198	68	153.07	ng/ml#	1
65)	N-Nitrosodiphenylamine	10.312	169	3936	32.61	ng/ml#	42
66)	Azobenzene (1,2-DPH)	10.355	77	739	4.68	ng/ml#	1
68)	4-Bromophenyl phenyl e...	0.000		0	N.D.		
69)	Hexachlorobenzene	0.000		0	N.D.		
70)	Pentachlorophenol (PCP)	0.000		0	N.D.		
71)	Phenanthrene	11.178	178	701000	3495.25	ng/ml	97
72)	Anthracene	11.226	178	141020	712.93	ng/ml	100
73)	Carbazole	11.382	167	24562	139.70	ng/ml	99
74)	Di-n-butyl phthalate	11.740	149	217	N.D.		
75)	Fluoranthene	12.446	202	454446	1922.34	ng/ml	98
76)	Benzidine	12.606	184	374	113.33	ng/ml	68
77)	Pyrene	12.735	202	556044	2411.88	ng/ml	99
80)	Butyl benzyl phthalate	0.000		0	N.D.		
81)	Bis(2-ethylhexyl) adipate	13.911	129	1102	10.57	ng/ml	79
82)	3,3-Dichlorobenzidine	14.863	252	125	Below Cal	#	12
83)	Benz(a)anthracene	14.901	228	132178	551.87	ng/ml#	57
84)	Chrysene	14.981	228	137700	635.69	ng/ml	99
85)	Bis(2-ethylhexyl) phth...	14.981	149	298	N.D.		
87)	Di-n-octyl phthalate	0.000		0	N.D.		
88)	Benzo(b)fluoranthene	17.495	252	149187	629.19	ng/ml	97
89)	Benzo(k)fluoranthene	17.559	252	43792	198.64	ng/ml	98
90)	Benzo(b+k)fluoranthene	17.495	252	211692	903.66	ng/ml	97
91)	Benzo(e)pyrene	18.148	252	99569	432.43	ng/ml	98
92)	Benzo(a)pyrene	18.265	252	157281	705.86	ng/ml	98
93)	Perylene	18.474	252	39489	204.95	ng/ml	99
95)	Indeno(1,2,3-cd)pyrene	20.800	276	106236	468.10	ng/ml	94
96)	Dibenz(a,h)anthracene	20.870	278	11122	56.05	ng/ml	96
97)	Benzo(g,h,i)perylene	21.341	276	128454	593.71	ng/ml	94

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

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011906.D
Acq On : 1 Nov 2019 12:19 pm
Operator : JK /AMS /DTH
Sample : A9J0950-01@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:56:55 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011907.D
Acq On : 1 Nov 2019 12:54 pm
Operator : JK /AMS /DTH
Sample : 9110357-DUP2@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

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AMS
11/4/19

Quant Time: Nov 04 08:56:59 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.605	152	117262	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.867	136	440101	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.638	162	210970	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.152	188	395641	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.928	240	430642	2000.00	ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.420	264	437113	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.811	292	391900	2000.00	ng/ml	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.364	112	66	0.76	ng/ml	0.00
5) Phenol-d6 (Surr)	6.252	99	154	1.47	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.145	82	150	1.97	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	506	3.26	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	12.938	244	519	2.48	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.156	77	344	4.26	ng/ml#	8
22) Isophorone	7.391	82	134	N.D.		
23) 2-Nitrophenol	7.418	139	229	54.83	ng/ml#	59
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	7.611	93	88	N.D.		
26) Benzoic acid	7.584	105	853	781.60	ng/ml#	21
27) 2,4-Dichlorophenol	7.718	162	80	12.95	ng/ml#	25
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.889	128	1434956	6347.69	ng/ml	94
30) 4-Chloroaniline	7.889	127	214830	2726.70	ng/ml#	23
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.429	107	133	27.66	ng/ml#	1
33) 2-Methylnaphthalene	8.579	142	312101	1919.58	ng/ml	99
34) 1-Methylnaphthalene	8.680	142	159255	1028.85	ng/ml	99
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	9.050	154	108889	637.83	ng/ml	99
41) 2-Chloronaphthalene	9.055	162	355	2.81	ng/ml#	1
42) 2-Nitroaniline	9.146	138	283	67.69	ng/ml#	1
43) 2,6-Dimethylnaphthalene	9.215	156	60713	470.56	ng/ml	99

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011907.D
Acq On : 1 Nov 2019 12:54 pm
Operator : JK /AMS /DTH
Sample : 9110357-DUP2@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

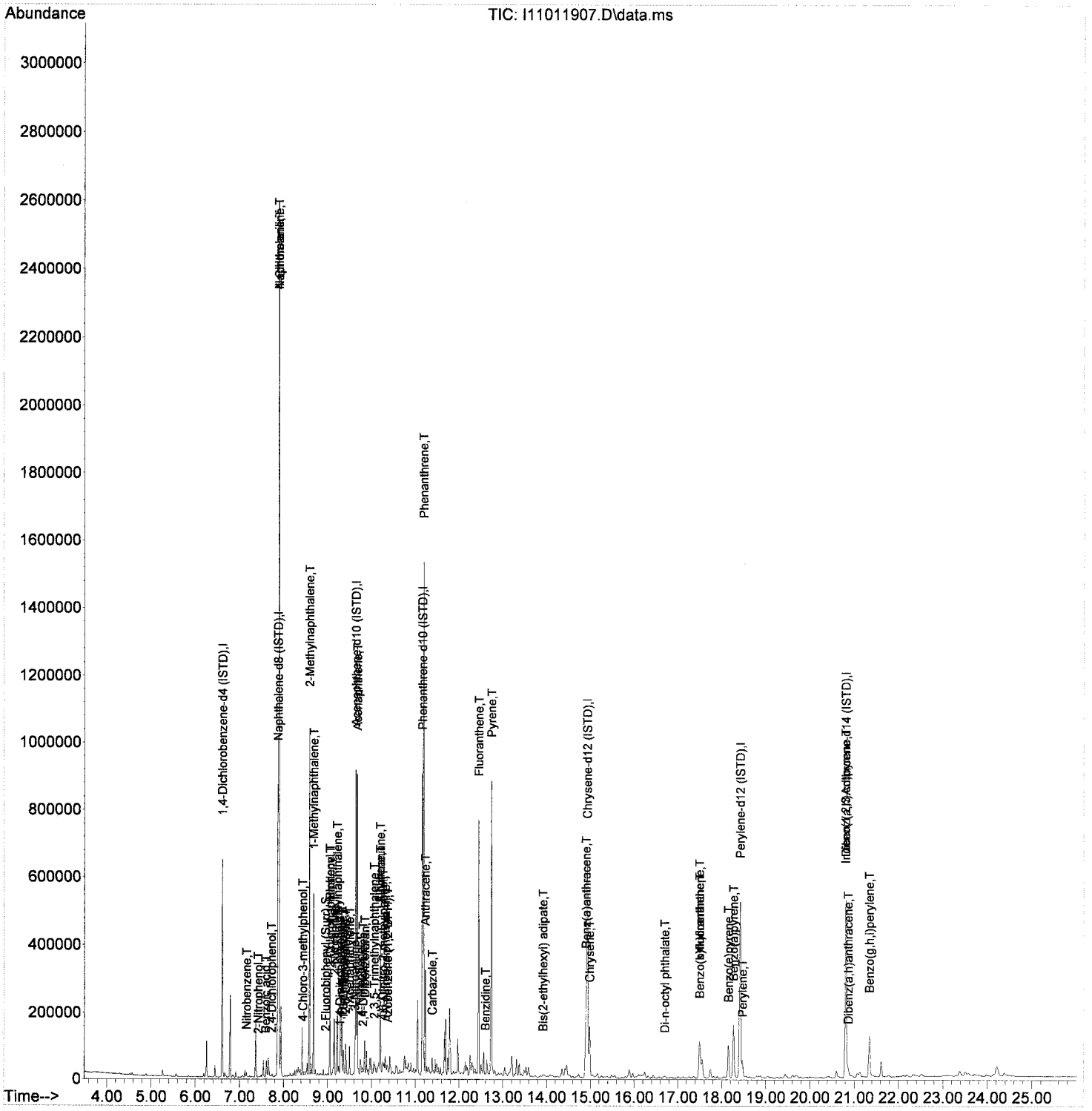
Quant Time: Nov 04 08:56:59 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.274	168	100	136.47 ng/ml#	71
45)	Dimethyl phthalate	9.328	163	495	3.22 ng/ml#	1
46)	1,3-Dinitrobenzene	9.349	168	70	127.34 ng/ml#	1
47)	2,6-Dinitrotoluene	9.403	165	58	33.75 ng/ml#	1
48)	1,2-Dinitrobenzene	0.000		0	N.D.	
49)	Acenaphthylene	9.493	152	15637	74.02 ng/ml	92
50)	3-Nitroaniline	9.617	138	65	37.21 ng/ml#	1
51)	Acenaphthene	9.670	153	246809	1858.08 ng/ml	99
52)	2,4-Dinitrophenol	0.000		0	N.D.	
53)	4-Nitrophenol	9.745	139	1088	119.55 ng/ml#	43
54)	2,4-Dinitrotoluene	9.798	165	906	89.46 ng/ml#	62
55)	Dibenzofuran	9.846	168	20769	114.19 ng/ml	93
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	10.071	149	129	N.D.	
59)	2,3,5-Trimethylnaphtha...	10.055	170	15655	129.98 ng/ml	99
60)	Fluorene	10.194	166	109550	748.77 ng/ml	100
61)	4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62)	4-Nitroaniline	10.194	138	1255	50.34 ng/ml#	32
63)	4,6-Dinitro-2-methylph...	10.253	198	71	153.29 ng/ml#	1
65)	N-Nitrosodiphenylamine	10.312	169	3527	28.40 ng/ml#	55
66)	Azobenzene (1,2-DPH)	10.360	77	903	5.56 ng/ml#	1
68)	4-Bromophenyl phenyl e...	0.000		0	N.D.	
69)	Hexachlorobenzene	0.000		0	N.D.	
70)	Pentachlorophenol (PCP)	0.000		0	N.D.	
71)	Phenanthrene	11.178	178	621210	3010.27 ng/ml	98
72)	Anthracene	11.226	178	122817	603.44 ng/ml	99
73)	Carbazole	11.382	167	21430	118.46 ng/ml	99
74)	Di-n-butyl phthalate	11.740	149	200	N.D.	
75)	Fluoranthene	12.446	202	395209	1624.73 ng/ml	97
76)	Benzidine	12.596	184	262	112.01 ng/ml	36
77)	Pyrene	12.735	202	483842	2039.66 ng/ml	99
80)	Butyl benzyl phthalate	0.000		0	N.D.	
81)	Bis(2-ethylhexyl) adipate	13.917	129	1060	9.76 ng/ml	80
82)	3,3-Dichlorobenzidine	14.805	252	57	Below Cal #	27
83)	Benz(a)anthracene	14.901	228	112769	452.21 ng/ml#	60
84)	Chrysene	14.981	228	115408	511.71 ng/ml	99
85)	Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87)	Di-n-octyl phthalate	16.698	149	64	58.21 ng/ml#	8
88)	Benzo(b)fluoranthene	17.495	252	127098	520.71 ng/ml	97
89)	Benzo(k)fluoranthene	17.495	252	155970	687.26 ng/ml	96
90)	Benzo(b+k)fluoranthene	17.495	252	181478	752.54 ng/ml	96
91)	Benzo(e)pyrene	18.148	252	82856	349.56 ng/ml	99
92)	Benzo(a)pyrene	18.265	252	134506	587.28 ng/ml	98
93)	Perylene	18.468	252	32930	166.02 ng/ml	99
95)	Indeno(1,2,3-cd)pyrene	20.806	276	87963	380.01 ng/ml	91
96)	Dibenz(a,h)anthracene	20.865	278	9880	48.82 ng/ml	92
97)	Benzo(g,h,i)perylene	21.341	276	108130	490.01 ng/ml	93

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

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011907.D
Acq On : 1 Nov 2019 12:54 pm
Operator : JK /AMS /DTH
Sample : 9110357-DUP2@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:56:59 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011908.D
Acq On : 1 Nov 2019 1:29 pm
Operator : JK /AMS /DTH
Sample : A9J0950-02@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS R04
11/4/19

Quant Time: Nov 04 08:57:02 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.605	152	118044	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.867	136	441502	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.638	162	212282	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.151	188	392896	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.927	240	422311	2000.00	ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.420	264	430391	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.811	292	394467	2000.00	ng/ml	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.364	112	95	1.09	ng/ml	0.00
5) Phenol-d6 (Surr)	6.252	99	93	0.88	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.140	82	270	3.52	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.942	172	443	2.84	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	12.938	244	545	2.66	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	6.268	94	74	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	6.958	70	62	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.161	77	198	N.D.		
22) Isophorone	7.391	82	257	N.D.		
23) 2-Nitrophenol	7.482	139	57	50.55	ng/ml#	27
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	7.611	93	218	N.D.		
26) Benzoic acid	7.605	105	309	767.03	ng/ml#	1
27) 2,4-Dichlorophenol	7.718	162	453	19.44	ng/ml#	25
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.889	128	1505650	6639.28	ng/ml	93
30) 4-Chloroaniline	7.889	127	225614	2853.39	ng/ml#	23
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.440	107	262	29.50	ng/ml#	1
33) 2-Methylnaphthalene	8.579	142	241279	1479.28	ng/ml	100
34) 1-Methylnaphthalene	8.680	142	126195	812.68	ng/ml	98
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	9.049	154	97800	569.33	ng/ml	100
41) 2-Chloronaphthalene	9.055	162	270	N.D.		
42) 2-Nitroaniline	9.140	138	221	66.13	ng/ml#	9
43) 2,6-Dimethylnaphthalene	9.215	156	49458	380.96	ng/ml	99

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011908.D
Acq On : 1 Nov 2019 1:29 pm
Operator : JK /AMS /DTH
Sample : A9J0950-02@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

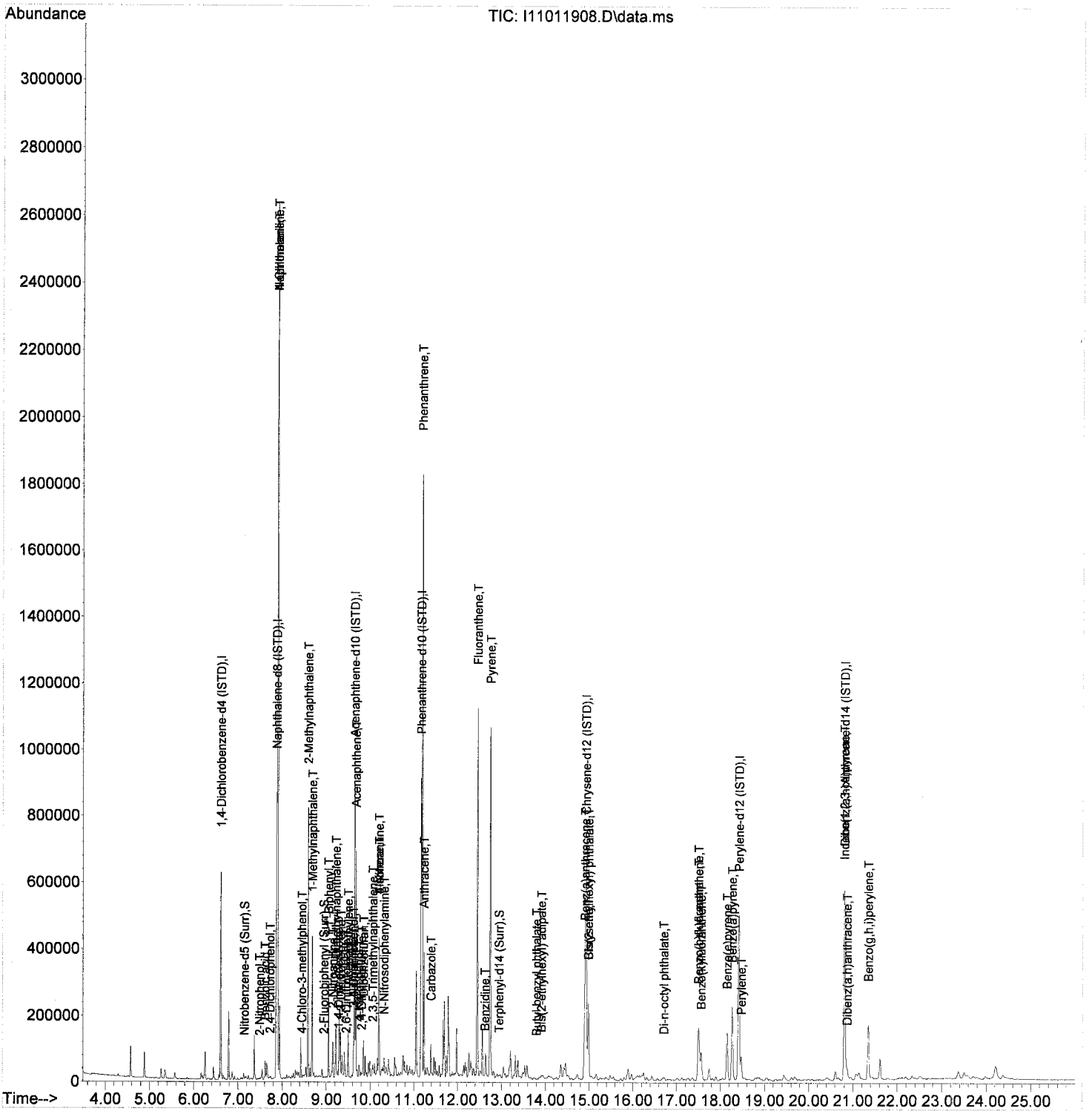
Quant Time: Nov 04 08:57:02 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.274	168	91	135.82 ng/ml	80
45)	Dimethyl phthalate	9.349	163	163	N.D.	
46)	1,3-Dinitrobenzene	9.327	168	1003	170.62 ng/ml#	34
47)	2,6-Dinitrotoluene	9.450	165	94	34.84 ng/ml#	60
48)	1,2-Dinitrobenzene	0.000		0	N.D.	
49)	Acenaphthylene	9.493	152	48362	227.52 ng/ml	98
50)	3-Nitroaniline	9.616	138	72	37.40 ng/ml#	78
51)	Acenaphthene	9.670	153	188873	1413.12 ng/ml	100
52)	2,4-Dinitrophenol	9.616	184	66	168.47 ng/ml#	1
53)	4-Nitrophenol	9.745	139	734	103.39 ng/ml	65
54)	2,4-Dinitrotoluene	9.798	165	558	80.71 ng/ml#	50
55)	Dibenzofuran	9.846	168	25418	138.89 ng/ml	96
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	10.055	149	56	N.D.	
59)	2,3,5-Trimethylnaphtha...	10.055	170	13729	113.28 ng/ml	98
60)	Fluorene	10.194	166	122590	832.72 ng/ml	99
61)	4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62)	4-Nitroaniline	10.194	138	1452	57.88 ng/ml#	26
63)	4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65)	N-Nitrosodiphenylamine	10.312	169	2847	23.09 ng/ml#	43
66)	Azobenzene (1,2-DPH)	10.354	77	375	N.D.	
68)	4-Bromophenyl phenyl e...	0.000		0	N.D.	
69)	Hexachlorobenzene	0.000		0	N.D.	
70)	Pentachlorophenol (PCP)	0.000		0	N.D.	
71)	Phenanthrene	11.178	178	805262	3929.42 ng/ml	96
72)	Anthracene	11.226	178	156517	774.39 ng/ml	100
73)	Carbazole	11.387	167	41708	232.16 ng/ml	98
74)	Di-n-butyl phthalate	11.734	149	122	N.D.	
75)	Fluoranthene	12.446	202	555870	2301.19 ng/ml	98
76)	Benzidine	12.617	184	117	110.45 ng/ml#	43
77)	Pyrene	12.740	202	634218	2692.25 ng/ml	99
80)	Butyl benzyl phthalate	13.799	149	88	26.25 ng/ml#	47
81)	Bis(2-ethylhexyl) adipate	13.911	129	1205	11.32 ng/ml	87
82)	3,3-Dichlorobenzidine	14.842	252	93	Below Cal #	19
83)	Benz(a)anthracene	14.906	228	163817	669.88 ng/ml	83
84)	Chrysene	14.986	228	178224	805.81 ng/ml	99
85)	Bis(2-ethylhexyl) phth...	14.986	149	402	2.59 ng/ml	52
87)	Di-n-octyl phthalate	16.709	149	85	58.28 ng/ml#	1
88)	Benzo(b)fluoranthene	17.500	252	183992	765.57 ng/ml	98
89)	Benzo(k)fluoranthene	17.559	252	57475	257.21 ng/ml	96
90)	Benzo(b+k)fluoranthene	17.500	252	266320	1121.61 ng/ml	97
91)	Benzo(e)pyrene	18.147	252	119159	510.57 ng/ml	99
92)	Benzo(a)pyrene	18.265	252	187853	831.07 ng/ml	98
93)	Perylene	18.474	252	47941	245.48 ng/ml	98
95)	Indeno(1,2,3-cd)pyrene	20.806	276	125507	538.68 ng/ml	97
96)	Dibenz(a,h)anthracene	20.870	278	13760	67.55 ng/ml	97
97)	Benzo(g,h,i)perylene	21.346	276	145997	657.30 ng/ml	94

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

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011908.D
Acq On : 1 Nov 2019 1:29 pm
Operator : JK /AMS /DTH
Sample : A9J0950-02@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:02 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011909.D
Acq On : 1 Nov 2019 2:05 pm
Operator : JK /AMS /DTH
Sample : A9J0950-03@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

R04

AMS 11/4/19

Quant Time: Nov 04 08:57:06 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.605	152	111950	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	435658	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.638	162	213056	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.151	188	386419	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.928	240	416633	2000.00 ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.415	264	416125	2000.00 ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.811	292	373529	2000.00 ng/ml	-0.01
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	0.000	112	0	0.00 ng/ml	
5) Phenol-d6 (Surr)	6.247	99	105	1.05 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.151	82	141	1.94 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.942	172	442	2.82 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00 ng/ml	
79) Terphenyl-d14 (Surr)	12.938	244	578	2.86 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.	
3) Pyridine	0.000		0	N.D.	
6) Phenol	0.000		0	N.D.	
7) Aniline	0.000		0	N.D.	
8) Bis(2-chloroethyl) ether	0.000		0	N.D.	
9) 2-Chlorophenol	0.000		0	N.D.	
10) 1,3-Dichlorobenzene	0.000		0	N.D.	
11) 1,4-Dichlorobenzene	0.000		0	N.D.	
12) Benzyl alcohol	0.000		0	N.D.	
13) 1,2-Dichlorobenzene	0.000		0	N.D.	
14) 2-Methylphenol	0.000		0	N.D.	
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.	
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.	
17) 3+4-Methylphenol	0.000		0	N.D.	
18) Hexachloroethane	0.000		0	N.D.	
20) Nitrobenzene	7.156	77	148	N.D.	
22) Isophorone	0.000		0	N.D.	
23) 2-Nitrophenol	7.418	139	95	51.53 ng/ml#	51
24) 2,4-Dimethylphenol	0.000		0	N.D.	
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.	
26) Benzoic acid	7.605	105	169	763.36 ng/ml#	1
27) 2,4-Dichlorophenol	7.723	162	118	13.64 ng/ml#	25
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
29) Naphthalene	7.889	128	1017326	4546.15 ng/ml	96
30) 4-Chloroaniline	7.942	127	72	13.93 ng/ml#	18
31) Hexachlorobutadiene	0.000		0	N.D.	
32) 4-Chloro-3-methylphenol	0.000		0	N.D.	
33) 2-Methylnaphthalene	8.579	142	159842	993.14 ng/ml	99
34) 1-Methylnaphthalene	8.680	142	88300	576.27 ng/ml	99
36) Hexachlorocyclopentadiene	0.000		0	N.D.	
37) 2,4,6-Trichlorophenol	0.000		0	N.D.	
38) 2,4,5-Trichlorophenol	0.000		0	N.D.	
39) 1,1'-Biphenyl	9.049	154	76391	443.09 ng/ml	98
41) 2-Chloronaphthalene	9.055	162	262	N.D.	
42) 2-Nitroaniline	9.146	138	124	63.75 ng/ml#	16
43) 2,6-Dimethylnaphthalene	9.215	156	35942	275.84 ng/ml	98

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011909.D
Acq On : 1 Nov 2019 2:05 pm
Operator : JK /AMS /DTH
Sample : A9J0950-03@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

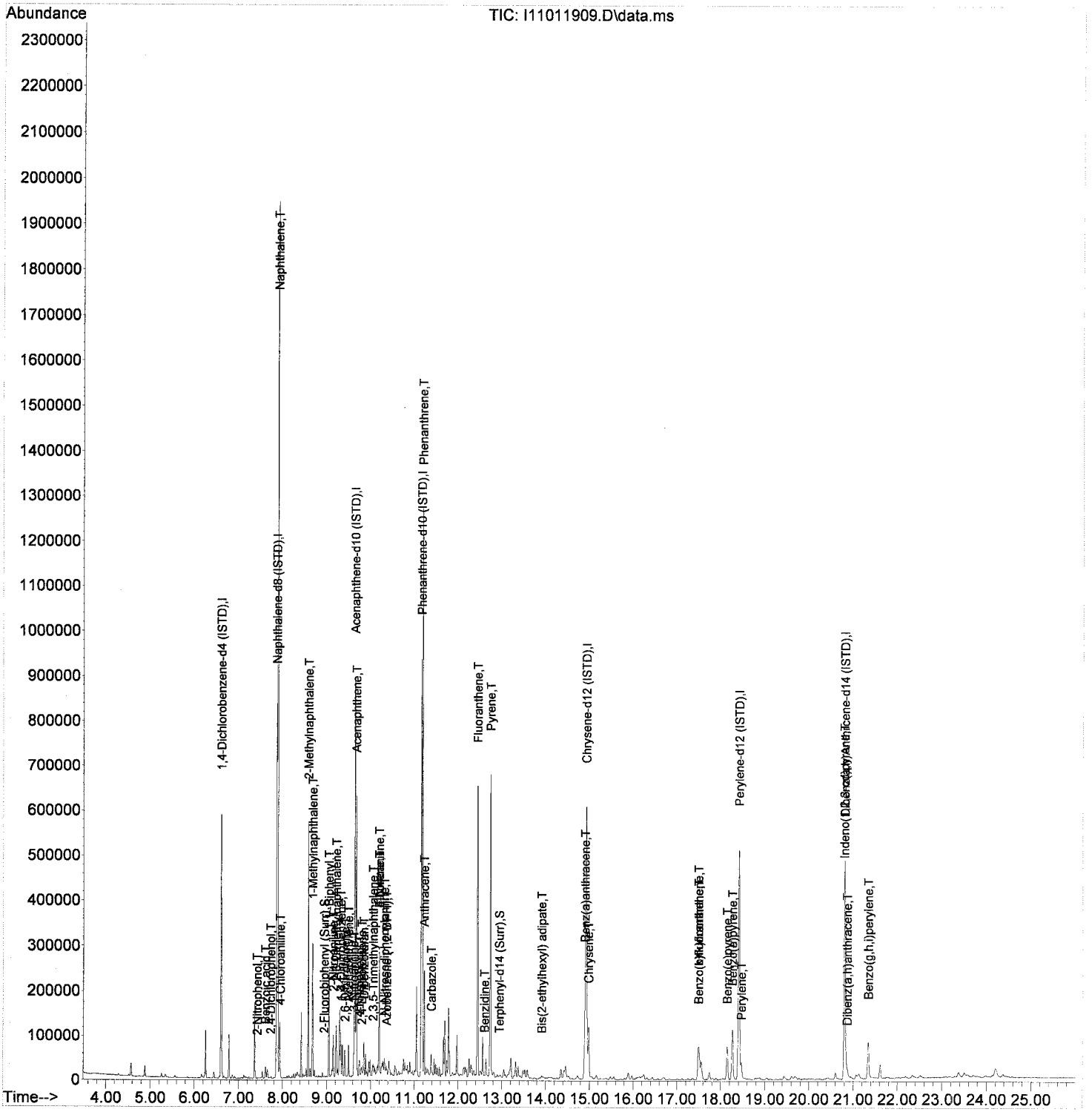
Quant Time: Nov 04 08:57:06 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.322	168	589	169.13 ng/ml#	42
45)	Dimethyl phthalate	9.354	163	132	N.D.	
46)	1,3-Dinitrobenzene	9.322	168	589	151.31 ng/ml#	1
47)	2,6-Dinitrotoluene	9.418	165	63	33.89 ng/ml#	1
48)	1,2-Dinitrobenzene	0.000		0	N.D.	
49)	Acenaphthylene	9.493	152	16635	77.98 ng/ml	95
50)	3-Nitroaniline	9.616	138	61	37.07 ng/ml#	48
51)	Acenaphthene	9.670	153	167920	1251.79 ng/ml	99
52)	2,4-Dinitrophenol	0.000		0	N.D.	
53)	4-Nitrophenol	9.745	139	989	114.66 ng/ml#	62
54)	2,4-Dinitrotoluene	9.798	165	742	85.20 ng/ml#	52
55)	Dibenzofuran	9.846	168	15411	83.90 ng/ml	95
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	10.055	149	116	N.D.	
59)	2,3,5-Trimethylnaphtha...	10.055	170	10879	89.44 ng/ml	98
60)	Fluorene	10.194	166	78287	529.85 ng/ml	98
61)	4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62)	4-Nitroaniline	10.194	138	865	34.35 ng/ml#	32
63)	4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65)	N-Nitrosodiphenylamine	10.312	169	2728	22.49 ng/ml#	35
66)	Azobenzene (1,2-DPH)	10.365	77	398	2.51 ng/ml#	1
68)	4-Bromophenyl phenyl e...	0.000		0	N.D.	
69)	Hexachlorobenzene	0.000		0	N.D.	
70)	Pentachlorophenol (PCP)	0.000		0	N.D.	
71)	Phenanthrene	11.178	178	521692	2588.36 ng/ml	99
72)	Anthracene	11.226	178	96420	485.05 ng/ml	99
73)	Carbazole	11.387	167	21854	123.68 ng/ml	96
74)	Di-n-butyl phthalate	11.734	149	128	N.D.	
75)	Fluoranthene	12.440	202	325603	1370.52 ng/ml	99
76)	Benzidine	12.601	184	126	110.57 ng/ml	68
77)	Pyrene	12.735	202	384388	1659.08 ng/ml	99
80)	Butyl benzyl phthalate	0.000		0	N.D.	
81)	Bis(2-ethylhexyl) adipate	13.911	129	994	9.46 ng/ml	78
82)	3,3-Dichlorobenzidine	0.000		0	N.D.	
83)	Benz(a)anthracene	14.901	228	83273	345.16 ng/ml	70
84)	Chrysene	14.981	228	89469	410.03 ng/ml	99
85)	Bis(2-ethylhexyl) phth...	14.981	149	168	N.D.	
87)	Di-n-octyl phthalate	0.000		0	N.D.	
88)	Benzo(b)fluoranthene	17.495	252	93364	401.80 ng/ml	97
89)	Benzo(k)fluoranthene	17.495	252	116795	540.60 ng/ml	96
90)	Benzo(b+k)fluoranthene	17.495	252	130893	570.15 ng/ml	96
91)	Benzo(e)pyrene	18.142	252	58126	257.59 ng/ml	97
92)	Benzo(a)pyrene	18.265	252	95431	439.35 ng/ml	99
93)	Perylene	18.468	252	23299	123.39 ng/ml	100
95)	Indeno(1,2,3-cd)pyrene	20.800	276	62738	284.37 ng/ml	95
96)	Dibenz(a,h)anthracene	20.865	278	6710	34.79 ng/ml	92
97)	Benzo(g,h,i)perylene	21.341	276	73393	348.95 ng/ml	94

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

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011909.D
Acq On : 1 Nov 2019 2:05 pm
Operator : JK /AMS /DTH
Sample : A9J0950-03@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:06 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011910.D
Acq On : 1 Nov 2019 2:40 pm
Operator : JK /AMS /DTH
Sample : A9J0950-04@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:10 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.605	152	114826	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.867	136	446228	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.638	162	212697	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.151	188	403918	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.933	240	436162	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.420	264	448201	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.816	292	406780	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.370	112	88	1.04	ng/ml	0.00
5) Phenol-d6 (Surr)	6.257	99	104	1.02	ng/ml	0.01
19) Nitrobenzene-d5 (Surr)	7.145	82	279	3.74	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	445	2.85	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	12.938	244	558	2.64	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	6.268	94	107	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	6.990	107	159	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.167	77	238	3.01	ng/ml	51
22) Isophorone	7.397	82	131	N.D.		
23) 2-Nitrophenol	7.418	139	119	52.06	ng/ml	81
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	7.611	93	83	N.D.		
26) Benzoic acid	7.611	105	212	764.39	ng/ml#	1
27) 2,4-Dichlorophenol	7.723	162	491	20.01	ng/ml#	25
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.889	128	1456954	6356.51	ng/ml	93
30) 4-Chloroaniline	7.894	127	220739	2762.92	ng/ml#	25
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.424	107	60	26.60	ng/ml#	1
33) 2-Methylnaphthalene	8.579	142	239747	1454.32	ng/ml	99
34) 1-Methylnaphthalene	8.680	142	126045	803.12	ng/ml	99
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	8.825	196	53	28.33	ng/ml#	11
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	9.049	154	108798	632.12	ng/ml	99
41) 2-Chloronaphthalene	9.060	162	260	N.D.		
42) 2-Nitroaniline	9.151	138	216	66.00	ng/ml#	34
43) 2,6-Dimethylnaphthalene	9.215	156	46072	354.18	ng/ml	98

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011910.D
Acq On : 1 Nov 2019 2:40 pm
Operator : JK /AMS /DTH
Sample : A9J0950-04@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

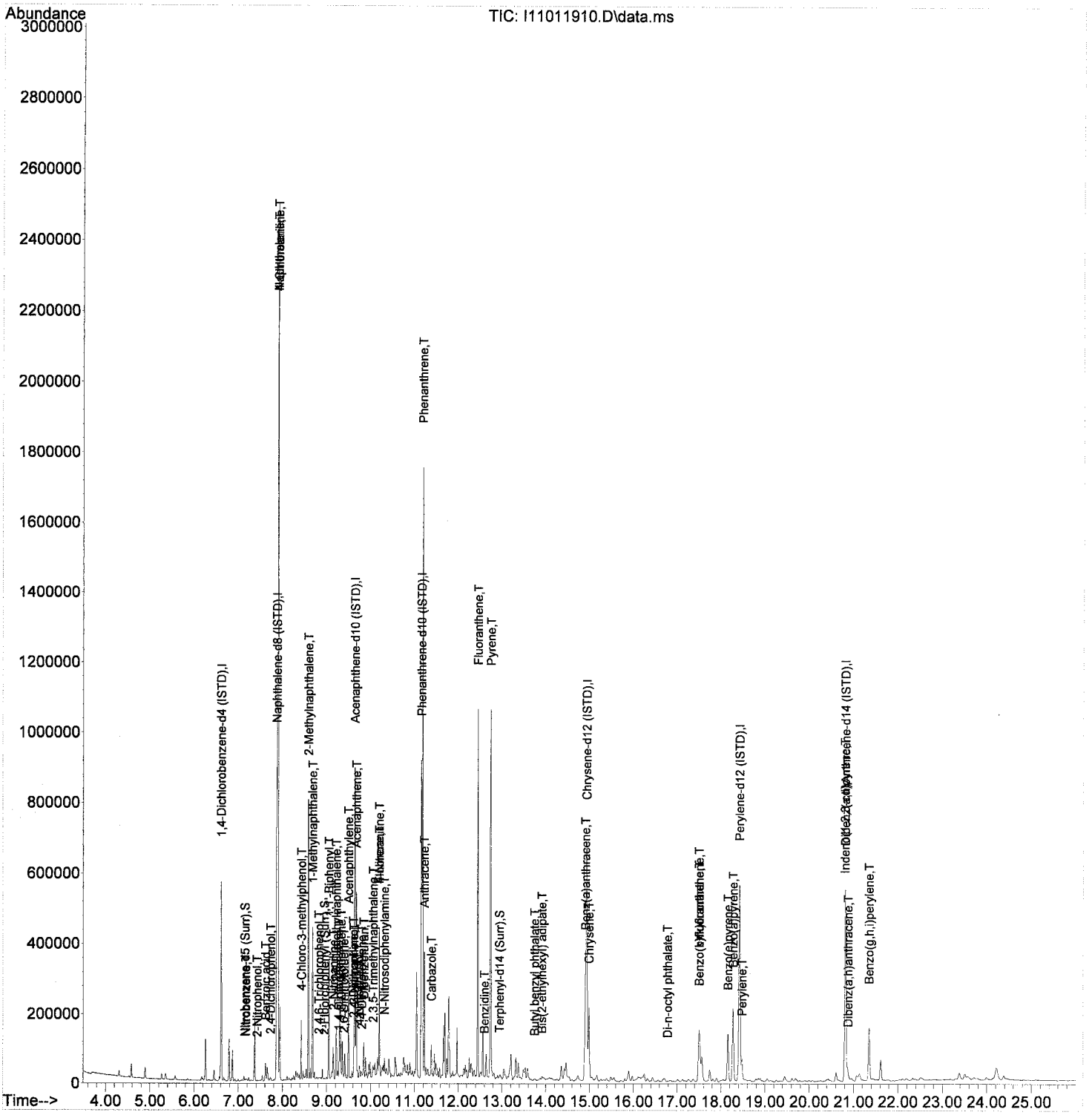
Quant Time: Nov 04 08:57:10 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	112	137.22 ng/ml#	59
45) Dimethyl phthalate	9.354	163	164	N.D.	
46) 1,3-Dinitrobenzene	9.328	168	1057	173.03 ng/ml#	29
47) 2,6-Dinitrotoluene	9.386	165	61	33.83 ng/ml#	32
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.493	152	153534	720.89 ng/ml	99
50) 3-Nitroaniline	9.616	138	147	39.58 ng/ml#	25
51) Acenaphthene	9.675	153	152219	1136.66 ng/ml	99
52) 2,4-Dinitrophenol	9.611	184	62	167.64 ng/ml#	1
53) 4-Nitrophenol	9.739	139	734	103.33 ng/ml	74
54) 2,4-Dinitrotoluene	9.798	165	737	85.11 ng/ml#	46
55) Dibenzofuran	9.846	168	24019	130.99 ng/ml	95
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	10.092	149	137	N.D.	
59) 2,3,5-Trimethylnaphtha...	10.055	170	12711	104.68 ng/ml	93
60) Fluorene	10.194	166	119357	809.18 ng/ml	99
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	10.194	138	1299	51.68 ng/ml#	32
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	10.312	169	3015	23.78 ng/ml#	41
66) Azobenzene (1,2-DPH)	10.355	77	319	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	0.000		0	N.D.	
71) Phenanthrene	11.178	178	776164	3684.08 ng/ml	97
72) Anthracene	11.226	178	150695	725.24 ng/ml	100
73) Carbazole	11.387	167	39580	214.30 ng/ml	99
74) Di-n-butyl phthalate	11.734	149	153	N.D.	
75) Fluoranthene	12.446	202	534082	2150.66 ng/ml	98
76) Benzidine	12.596	184	107	110.31 ng/ml	68
77) Pyrene	12.740	202	618433	2553.61 ng/ml	99
80) Butyl benzyl phthalate	13.740	149	52	25.94 ng/ml#	1
81) Bis(2-ethylhexyl) adipate	13.911	129	1700	15.46 ng/ml	92
82) 3,3-Dichlorobenzidine	14.885	252	60	Below Cal #	1
83) Benz(a)anthracene	14.906	228	146580	580.36 ng/ml	79
84) Chrysene	14.986	228	159097	696.49 ng/ml	98
85) Bis(2-ethylhexyl) phth...	15.035	149	56	N.D.	
87) Di-n-octyl phthalate	16.778	149	73	58.23 ng/ml#	1
88) Benzo(b)fluoranthene	17.500	252	172302	688.44 ng/ml	98
89) Benzo(k)fluoranthene	17.500	252	216046	928.43 ng/ml	97
90) Benzo(b+k)fluoranthene	17.500	252	241318	975.93 ng/ml	97
91) Benzo(e)pyrene	18.153	252	109253	449.52 ng/ml	99
92) Benzo(a)pyrene	18.276	252	175062	744.08 ng/ml	97
93) Perylene	18.474	252	44409	218.36 ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.806	276	113860	473.89 ng/ml	95
96) Dibenz(a,h)anthracene	20.875	278	11149	53.07 ng/ml	89
97) Benzo(g,h,i)perylene	21.346	276	133901	584.59 ng/ml	92

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

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011910.D
Acq On : 1 Nov 2019 2:40 pm
Operator : JK /AMS /DTH
Sample : A9J0950-04@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:10 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9



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

Semivolatile Organic Compounds by EPA 8270D
Calibration Data

Sequence 9J16053 (Cal ID A9J1803) SV-GCMS9

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9J16035**	Instrument:	**DUALECD5**
Date:	**10/16/19 10:25**	Calibration:	**A9H2608**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J16035-BKD1	Sediment	QC	QC				A19J201
2	9J16035-CCV1	Sediment	QC	QC				A19H383
3	9J16035-CCV2	Sediment	QC	QC				A19E154
4	9J16035-CCB1	Sediment	QC	QC				A19J194
5	A9J0063-17RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100949		
6	9J16035-IBL1	Sediment	QC	QC				
7	A9J0063-18RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100949		
8	9J16035-IBL2	Sediment	QC	QC				
9	A9J0063-19RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100949		
10	9J16035-IBL3	Sediment	QC	QC				
11	A9J0063-20RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100949		
12	9J16035-IBL4	Sediment	QC	QC				
13	A9J0063-21RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100949		
14	9J16035-IBL5	Sediment	QC	QC				
15	A9J0063-23RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100949		
16	9J16035-IBL6	Sediment	QC	QC				
17	9J16035-CCV3	Sediment	QC	QC				A19H384
18	9J16035-CCV4	Sediment	QC	QC				A19E155
19	9J16035-CCB2	Sediment	QC	QC				A19J194
20	A9J0149-34RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/17/19	9100949		
21	9J16035-IBL7	Sediment	QC	QC				
22	A9J0149-35RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/17/19	9100949		
23	9J16035-IBL8	Sediment	QC	QC				
24	A9J0149-36RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/17/19	9100949		
25	9J16035-IBL9	Sediment	QC	QC				
26	9100949-MS1	Sediment	QC	QC		9100949		
27	9J16035-IBLA	Sediment	QC	QC				
28	9100949-MSD1	Sediment	QC	QC		9100949		
29	9J16035-IBLB	Sediment	QC	QC				
30	A9J0149-41RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/17/19	9100949		
31	9J16035-IBLC	Sediment	QC	QC				
32	9J16035-CCV5	Sediment	QC	QC				A19H383
33	9J16035-CCV6	Sediment	QC	QC				A19E154
34	9J16035-CCB3	Sediment	QC	QC				A19J194

Comments: CCV5 failed low for 4,4'-DDE

Data Entered By: MJB 10/17/19

Data Reviewed By: MW 10/21/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-10\9J16035\
Data File : ECD5-10161903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 11:13
Operator : MJB
Sample : 9J16035-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: Oct 16 11:27:29 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT4.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	7.439	710026	NoCal	ng/mL
2)	Endrin	7.798	71538090	NoCal	ng/mL
3)	4,4'-DDD	7.854	14901052	NoCal	ng/mL
4)	4,4'-DDT	8.049	107676110	NoCal	ng/mL
5)	Endrin Aldehyde	8.245	3253851	NoCal	ng/mL
6)	Endrin Ketone	8.735	8364751	NoCal	ng/mL
8)	4,4'-DDE [2C]	8.192	1151116	NoCal	ng/mL
9)	Endrin [2C]	8.554	107691174	NoCal	ng/mL
10)	4,4'-DDD [2C]	8.605	22838219	NoCal	ng/mL
11)	Endrin Aldehyde [2C]	8.939	4187445	NoCal	ng/mL
12)	4,4'-DDT [2C]	8.829	166473836	NoCal	ng/mL
13)	Endrin Ketone [2C]	9.523	11638203	NoCal	ng/mL

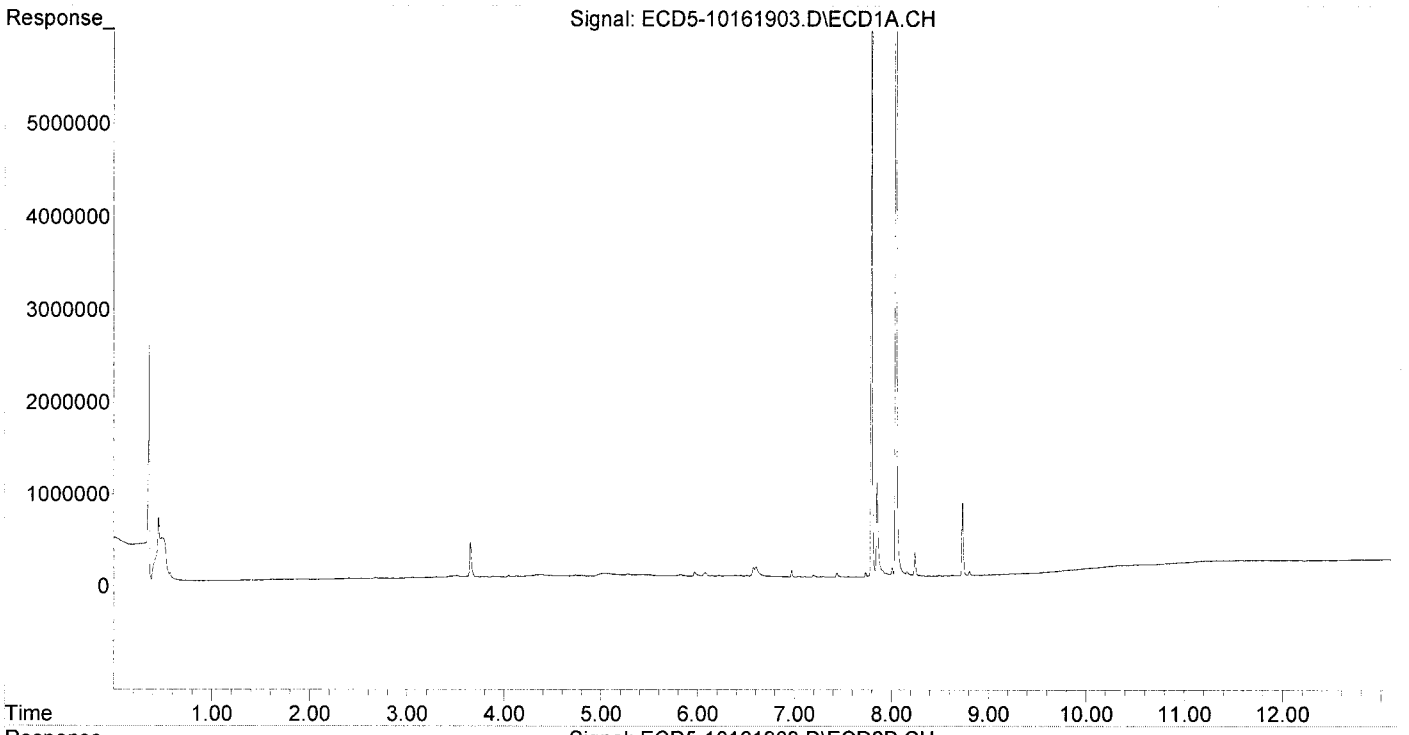
(f)=RT Delta > 1/2 Window (m)=manual int.

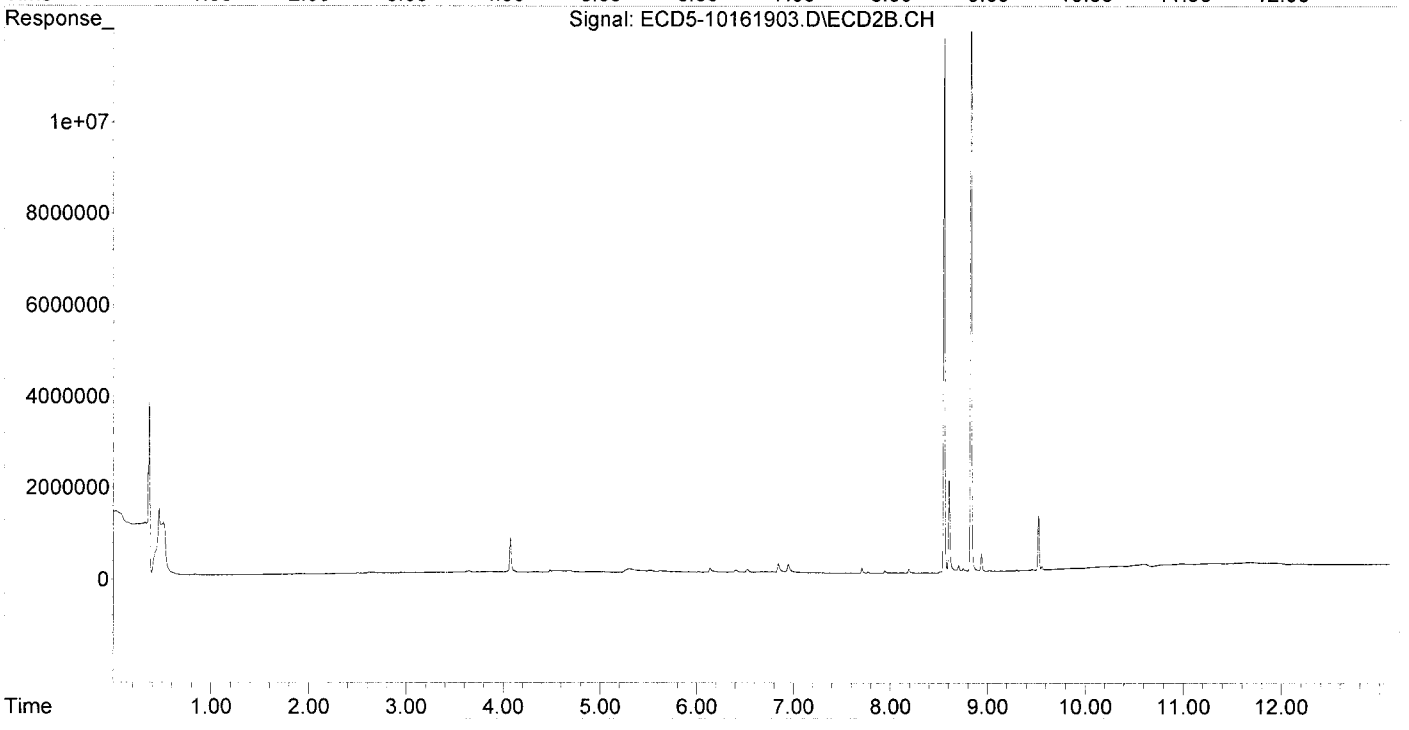
MJB 10/17/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-10\9J16035\
Data File : ECD5-10161903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 11:13
Operator : MJB
Sample : 9J16035-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: Oct 16 11:27:29 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT4.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\2019-10\9J16035\
Data File : ECD5-10161904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 11:32
Operator : MJB
Sample : 9J16035-CCV1
Misc : A19H383, 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: Oct 17 10:37:00 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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 10.17.19

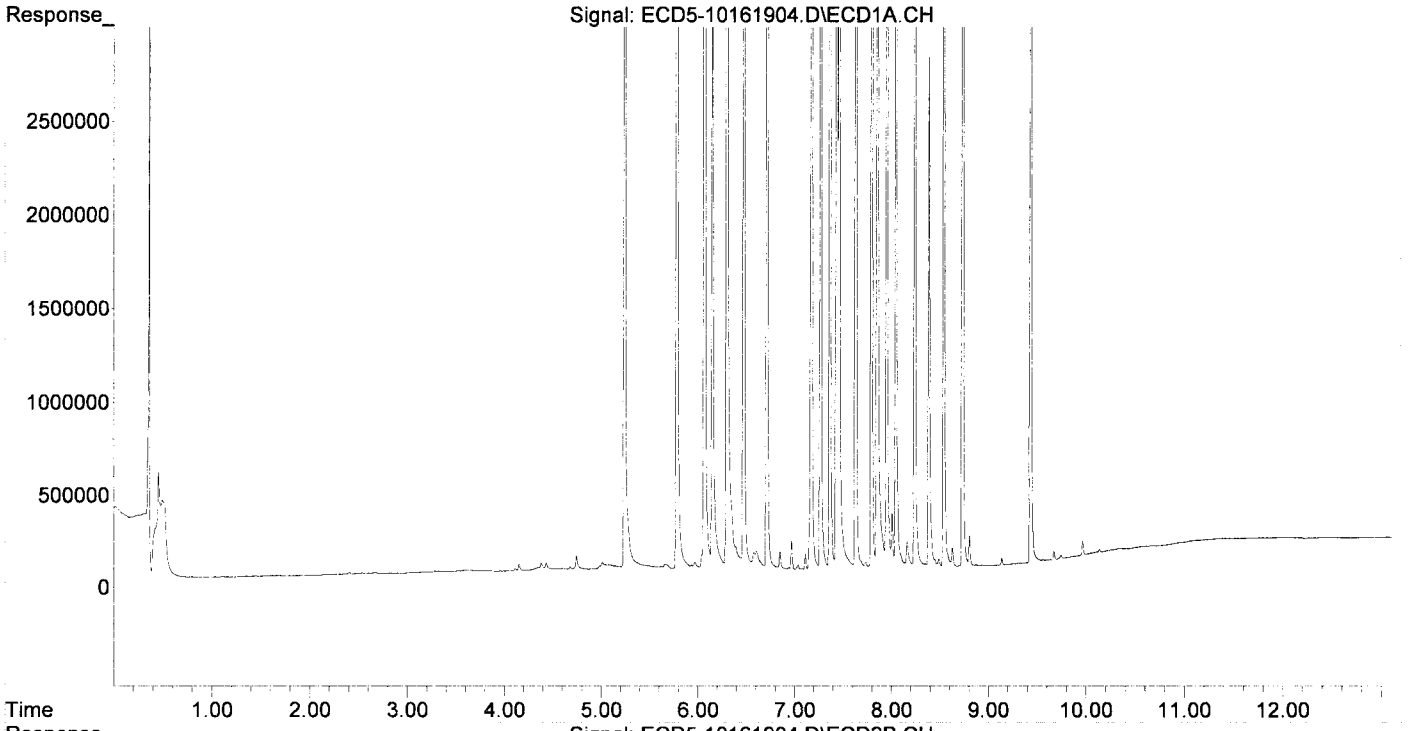
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.244	5.835	7766291	13759945	46.792	46.904	
22)	S	DCBP (S)	9.434	10.357	6627300	9288814	46.969	51.673	
		Target Compounds							
2)		a-BHC	5.783	6.442	10271175	20946869	44.788	51.048	
3)		g-BHC	6.069	6.760	8373409	18270594	41.498	51.221	
4)		b-BHC	6.152	6.829	3219639	6868279	35.622	43.397	
5)		Heptachlor	6.476	7.131	9083067	16744690	50.101	54.725	
6)		d-BHC	6.301	7.081	7322825	16409646	37.230	46.530	
7)		Aldrin	6.715	7.394	10074060	18034977	51.022	54.752	
8)		Heptachlo...	7.175	7.832	9092208	15086803	49.366	50.148	
9)		trans-Chl...	7.270	7.972	9019722	15610504	48.784	49.822	
10)		cis-Chlor...	7.367	8.079	8942993	15175179	49.118	52.104	
11)		Endosulfa...	7.463	8.128	9039720	14032498	53.119 Q-31	50.995	
12)		4,4'-DDE	7.435	8.190	7333002	14374999	38.896	46.270	
13)		Dieldrin	7.634	8.327	10085102	16426561	52.532	54.008	
14)		Endrin	7.797	8.553	7634994	12352069	51.929	54.697	
15)		4,4'-DDD	7.854	8.604	6045462	12447292	38.472 Q-31	48.582	
16)		Endosulfa...	7.955	8.700	7103102	12387884	49.461	53.719	
17)		4,4'-DDT	8.049	8.828	5458402	9401229	45.654	49.996	
18)		Endrin Al...	8.243	8.937	6708306	10723754	54.573	54.337	
19)		Endosulfa...	8.542	9.127	7783417	13169934	50.223	52.873	
20)		Methoxychlor	8.390	9.308	2717058	4780753	46.387	53.005	
21)		Endrin Ke...	8.735	9.523	8764929	14018485	52.561	54.480	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.623	6.341f	24568	13568	0.139	0.043	#
25)		Oxychlordane	7.112	7.768	82005	9498	0.498	0.035	#
26)		2,4'-DDE	7.175	7.972	9092208	15610504	70.888	73.586	
27)		trans-Non...	7.367	8.031	8942993	54512	49.628	0.181	#
28)		2,4'-DDD	0.000	8.327	0	16426561	N.D.	86.976	#
29)		2,4'-DDT	7.735	8.553	33278	12352069	0.303	69.262	#
30)		cis-Nonac...	7.854f	8.604	6045462	12447292	29.119	37.106	
31)		Mirex	8.491	9.523	41333	14018485	0.330	75.339	#
32)		Chlordane...	7.367	8.031	8942993	54512	454.198	1.507	#
33)		Chlordane...	7.435	8.128f	7333002	14032498	292.568	462.142	#
34)		Chlordane...	8.009f	8.828	288954	9401229	49.982	1048.556	#
35)		Chlordane...	3.380	3.350	6507	18889	NoCal	NoCal	
36)		Toxaphene...	7.435	0.000	7333002	0	8187.375	N.D.	#
37)		Toxaphene...	7.735f	8.748	33278	109567	20.606	33.293	#
38)		Toxaphene...	8.009	8.778	288954	53920	85.807	10.639	#
39)		Toxaphene...	8.243f	8.828	6708306	9401229	2070.368	1125.918	#
40)		Toxaphene...	8.491	9.023	41333	168026	17.243	36.054	#
41)		Toxaphene...	8.542	9.393	7783417	32169	2459.539	6.772	#
42)		Toxaphene...	3.380	3.358	6507	18019	NoCal	NoCal	

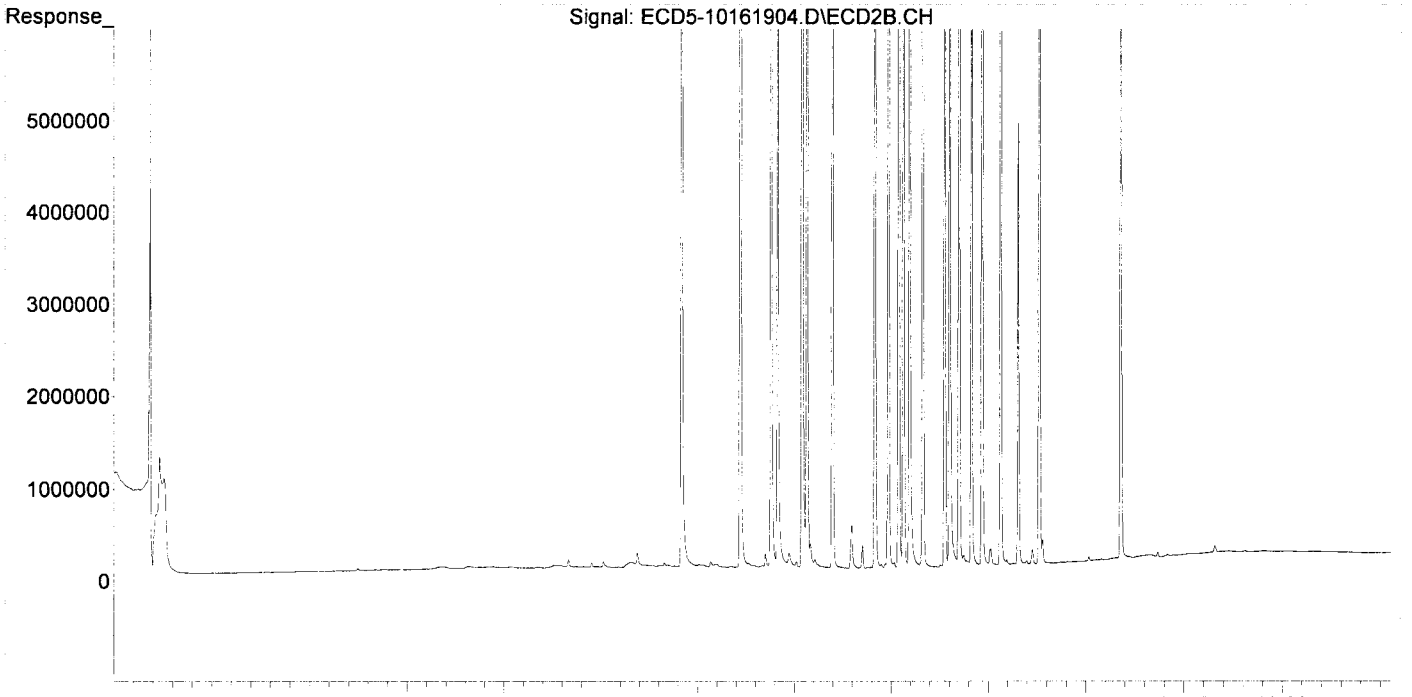
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J16035\
Data File : ECD5-10161904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 11:32
Operator : MJB
Sample : 9J16035-CCV1
Misc : A19H383, 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: Oct 17 10:37:00 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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\2019-10\9J16035\
Data File : ECD5-10161905.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 11:49
Operator : MJB
Sample : 9J16035-CCV2
Misc : A19E154, 9-42 50 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: Oct 17 10:37:07 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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 10/17/19

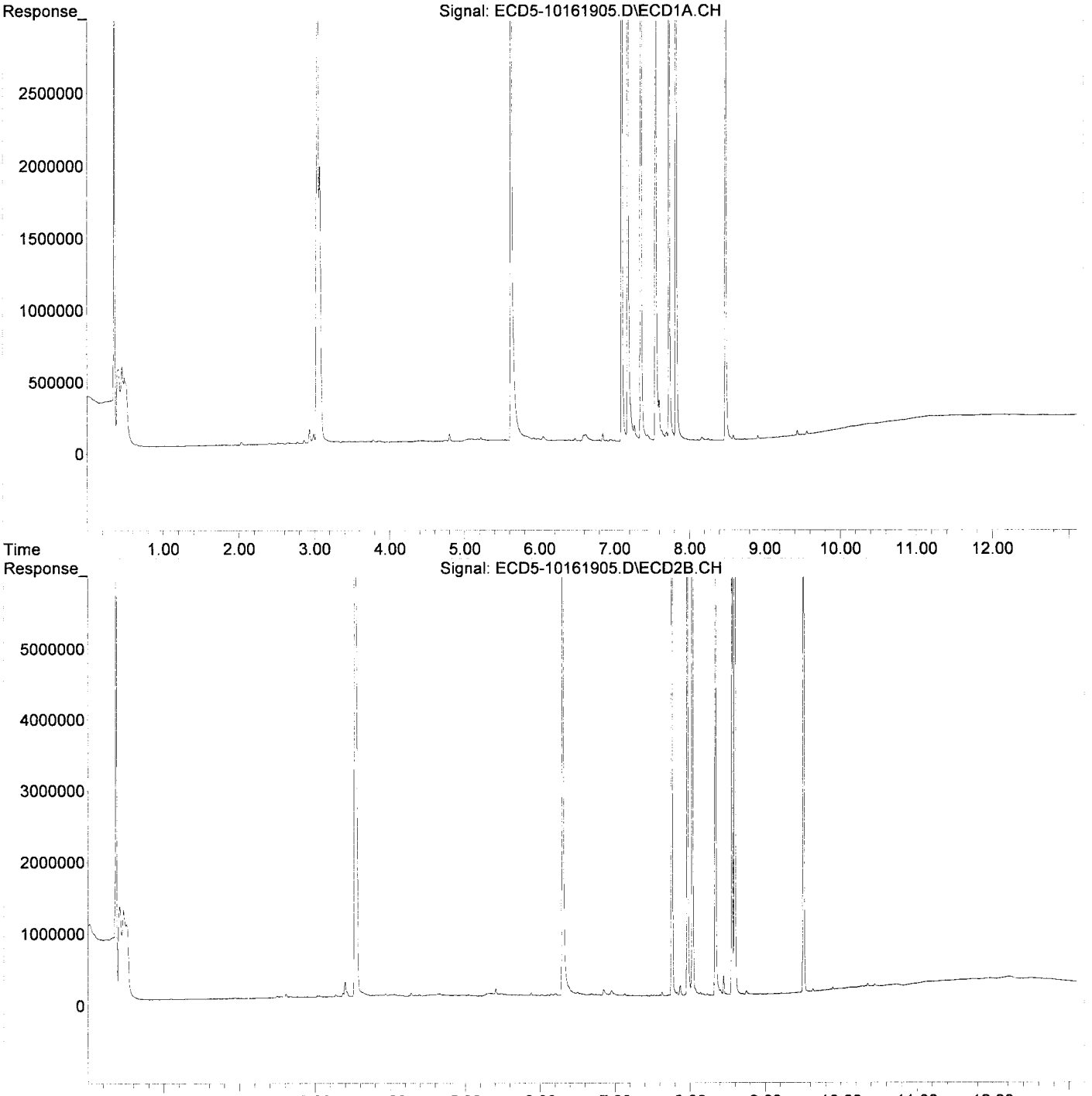
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.217f	0.000	18666	0	0.112	N.D.	#
22)	S	DCBP (S)	9.434	10.356	32900	47751	0.233	0.266	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.051f	0.000	27612	0	0.137	N.D.	#
4)		b-BHC	0.000	6.850	0	77770	N.D.	0.491	#
5)		Heptachlor	6.477	7.130	17980	27011	0.099	0.088	
6)		d-BHC	6.274f	0.000	5041	0	0.026	N.D.	#
7)		Aldrin	0.000	7.426f	0	6089	N.D.	0.018	#
8)		Heptachlo...	7.184	7.830	5464696	46131	29.671	0.153	#
9)		trans-Chl...	7.269	7.967	107002	9976645	0.579	31.841	#
10)		cis-Chlor...	7.358	0.000	9590785	0	52.676	N.D.	#
11)		Endosulfa...	7.444f	8.141	39828	40987	0.234	0.149	
12)		4,4'-DDE	7.444	8.169f	39828	23768	0.211	0.077	#
13)		Dieldrin	0.000	8.340	0	9602912	N.D.	31.573	#
14)		Endrin	7.826f	8.562	10843818	8515617	73.754	37.709	#
15)		4,4'-DDD	7.826f	8.598	10843818	18205587	69.007	71.056	
16)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.250	8.936	10523	7875	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.128	0	5723	N.D.	0.023	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.735	9.509	3833	9684288	0.023	37.636	#
23)		Hexachlor...	3.040	3.532	7305134	15729114	39.976	41.840	
24)		Hexachlor...	5.625	6.300	6570735	13090971	37.272	41.679	
25)		Oxychlordane	7.102	7.761	8372236	14297539	50.883	52.199	
26)		2,4'-DDE	7.184	7.967	5464696	9976645	42.606	47.029	
27)		trans-Non...	7.358	8.034	9590785	16241023	53.248	53.843	
28)		2,4'-DDD	7.554	8.340	4947012	9602912	43.347	50.846	
29)		2,4'-DDT	7.735	8.562	5178834	8515617	47.214	47.750	
30)		cis-Nonac...	7.826	8.598	10843818	18205587	52.230	54.272	
31)		Mirex	8.487	9.509	6632446	9684288	52.904	52.046	
32)		Chlordane...	7.358	8.034	9590785	16241023	487.099	448.838	
33)		Chlordane...	7.444	8.169	39828	23768	1.589	0.783	#
34)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
35)		Chlordane...	3.377	3.373f	11658	50487	NoCal	NoCal	
36)		Toxaphene...	7.444f	8.408f	39828	70118	44.468	26.719	
37)		Toxaphene...	7.697	8.751	60134	46780	37.236	14.214	#
38)		Toxaphene...	0.000	8.751	0	46780	N.D.	9.230	#
39)		Toxaphene...	8.250	0.000	10523	0	3.248	N.D.	#
40)		Toxaphene...	8.487	9.035f	6632446	4959	2766.814	1.064	#
41)		Toxaphene...	8.588f	0.000	30942	0	9.778	N.D.	#
42)		Toxaphene...	3.377	3.373	11658	50487	NoCal	NoCal	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J16035\
Data File : ECD5-10161905.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 11:49
Operator : MJB
Sample : 9J16035-CCV2
Misc : A19E154, 9-42 50 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: Oct 17 10:37:07 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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\2019-10\9J16035\
Data File : ECD5-10161906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 12:06
Operator : MJB
Sample : 9J16035-CCB1
Misc : A19J194
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: Oct 17 10:37:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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 10/17/19

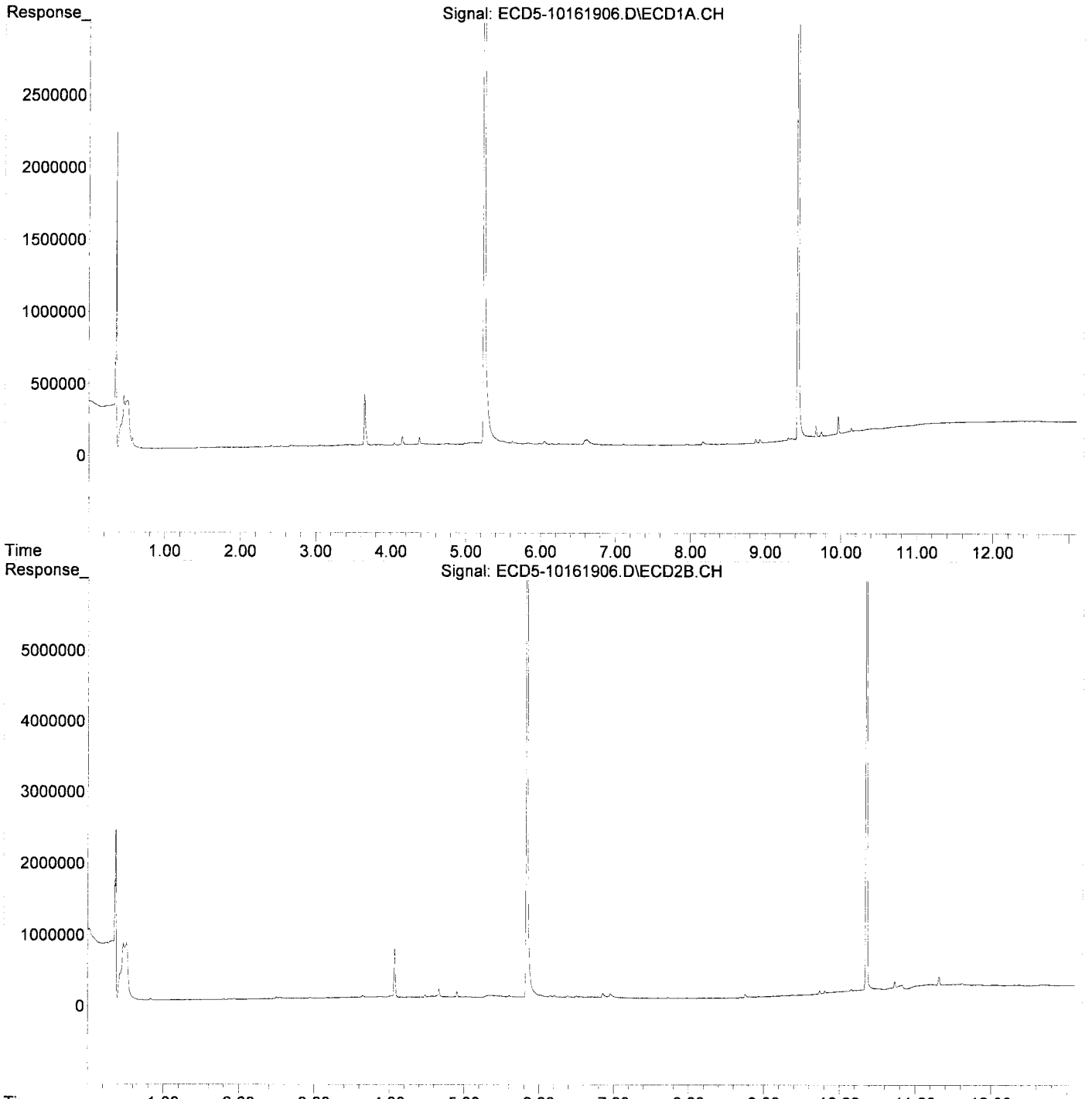
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.243	5.835	13796833	25400645	83.126	86.583	
22)	S	DCBP (S)	9.433	10.357	12505431	17783294	88.629	98.926	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.053f	0.000	20747	0	0.103	N.D.	#
4)		b-BHC	6.151	6.854f	6726	57492	0.074	0.363	#
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	7.426f	0	5791	N.D.	0.018	#
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	0.000	0.000	0	0	N.D.	N.D.	
10)		cis-Chlor...	0.000	0.000	0	0	N.D.	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...	7.951	8.689	5600	8243	0.039	0.036	
17)		4,4'-DDT	0.000	8.847	0	2244	N.D.	BelowCal	
18)		Endrin Al...	8.245	8.936	6573	4774	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.129	0	2803	N.D.	0.011	#
20)		Methoxychlor	8.383	0.000	3727	0	0.064	N.D.	#
21)		Endrin Ke...	0.000	9.522	0	2453	N.D.	0.010	#
23)		Hexachlor...	3.052	0.000	6708	0	0.037	N.D.	#
24)		Hexachlor...	5.624	0.000	22431	0	0.127	N.D.	#
25)		Oxychlordane	7.108	7.728f	7654	15155	0.047	0.055	
26)		2,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
27)		trans-Non...	0.000	0.000	0	0	N.D.	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	8.494	9.522	4554	2453	0.036	0.013	#
32)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
33)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
34)		Chlordane...	7.951f	8.847f	5600	2244	0.969	0.250	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
37)		Toxaphene...	0.000	8.753f	0	44725	N.D.	13.590	#
38)		Toxaphene...	0.000	8.753	0	44725	N.D.	8.824	#
39)		Toxaphene...	8.245	8.847	6573	2244	2.029	0.269	#
40)		Toxaphene...	8.494	0.000	4554	0	1.900	N.D.	#
41)		Toxaphene...	0.000	9.377	0	9149	N.D.	1.926	#
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\2019-10\9J16035\
Data File : ECD5-10161906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 12:06
Operator : MJB
Sample : 9J16035-CCB1
Misc : A19J194
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: Oct 17 10:37:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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\2019-10\9J16035\
Data File : ECD5-10161919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 16:11
Operator : MJB
Sample : 9J16035-CCV3
Misc : A19H384, AB 100 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: Oct 17 16:51:19 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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

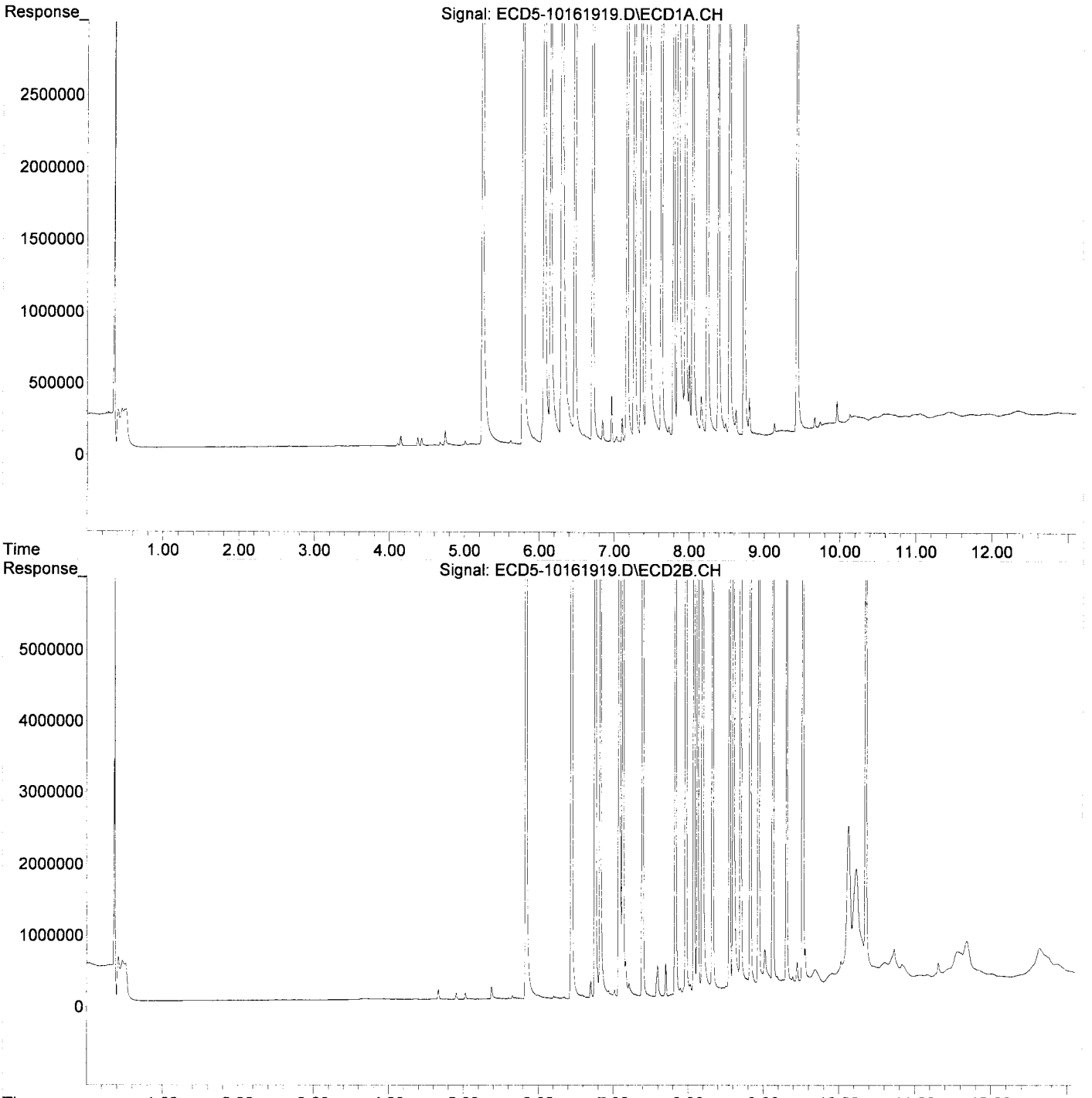
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.240	5.832	15042385	26400894	90.630	89.993	
22)	S	DCBP (S)	9.431	10.354	13385152	20037356	94.864	111.465	
		Target Compounds							
2)		a-BHC	5.780	6.440	20408785	42619630	88.993	103.864	
3)		g-BHC	6.065	6.758	17500087	35309940	86.730	98.990	
4)		b-BHC	6.147	6.825	6646410	13276189	73.536	83.885	
5)		Heptachlor	6.472	7.128	19019391	34421125	104.908	112.496	
6)		d-BHC	6.297	7.078	14007883	32033253	71.218	90.832	
7)		Aldrin	6.711	7.391	20879948	35748017	105.750	108.527	
8)		Heptachlo...	7.171	7.829	18485404	31215410	100.367	103.758	
9)		trans-Chl...	7.266	7.968	19086219	32088219	103.229	102.412	
10)		cis-Chlor...	7.363	8.076	18747783	30942772	102.970	106.242	
11)		Endosulfa...	7.458	8.125	18844302	29207150	110.732	106.140	
12)		4,4'-DDE	7.432	8.187	14207139	28104274	75.357m	90.461	
13)		Dieldrin	7.630	8.324	20638410	34017614	107.503	111.845	
14)		Endrin	7.793	8.550	16122247	25854859	109.655	114.490	
15)		4,4'-DDD	7.852	8.602	11713828	24704071	74.544	96.420	
16)		Endosulfa...	7.950	8.698	14794987	25251083	103.021	109.499	
17)		4,4'-DDT	8.046	8.826	11772283	20286493	98.463	99.319	
18)		Endrin Al...	8.239	8.935	13218104	22702771	104.963	109.202	
19)		Endosulfa...	8.538	9.125	15543138	27390776	100.293	109.964	
20)		Methoxychlor	8.388	9.306	5206446	9885798	88.886	100.352	
21)		Endrin Ke...	8.731	9.520	17631737	29808609	105.732	115.844	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.620	6.341f	25726	20891	0.146	0.067	#
25)		Oxychlordane	7.108	7.765	163036	19503	0.991	0.071	#
26)		2,4'-DDE	7.171	7.968	18485404	32088219	144.123	151.261	
27)		trans-Non...	7.363	8.028	18747783	141088	104.450	0.468	#
28)		2,4'-DDD	0.000	8.324	0	34017614	N.D.	180.117	#
29)		2,4'-DDT	7.731	8.550	89497	25854859	0.816	144.976	#
30)		cis-Nonac...	7.852f	8.602	11713828	24704071	56.421	73.645	
31)		Mirex	8.486	9.520	94922	29808609	0.757	160.198	#
32)		Chlordane...	7.363	8.028f	18747783	141088	952.166	3.899	#
33)		Chlordane...	7.458	8.187f	18844302	28104274	751.839	925.577	
34)		Chlordane...	8.004	8.826	515987	20286493	89.254	2262.633	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	7.458f	0.000	18844302	0	21039.866	N.D.	#
37)		Toxaphene...	7.731	8.698f	89497	25251083	55.418	7672.710	#
38)		Toxaphene...	8.004f	8.775	515987	181704	153.226	35.851	#
39)		Toxaphene...	8.239f	8.826	13218104	20286493	4079.470	2429.569	#
40)		Toxaphene...	8.486	9.021	94922	574597	39.598	123.295	#
41)		Toxaphene...	8.538f	9.390	15543138	166475	4911.591	35.046	#
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 (QT Reviewed)

Data Path : R:\data\2019-10\9J16035\
Data File : ECD5-10161919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 16:11
Operator : MJB
Sample : 9J16035-CCV3
Misc : A19H384, AB 100 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

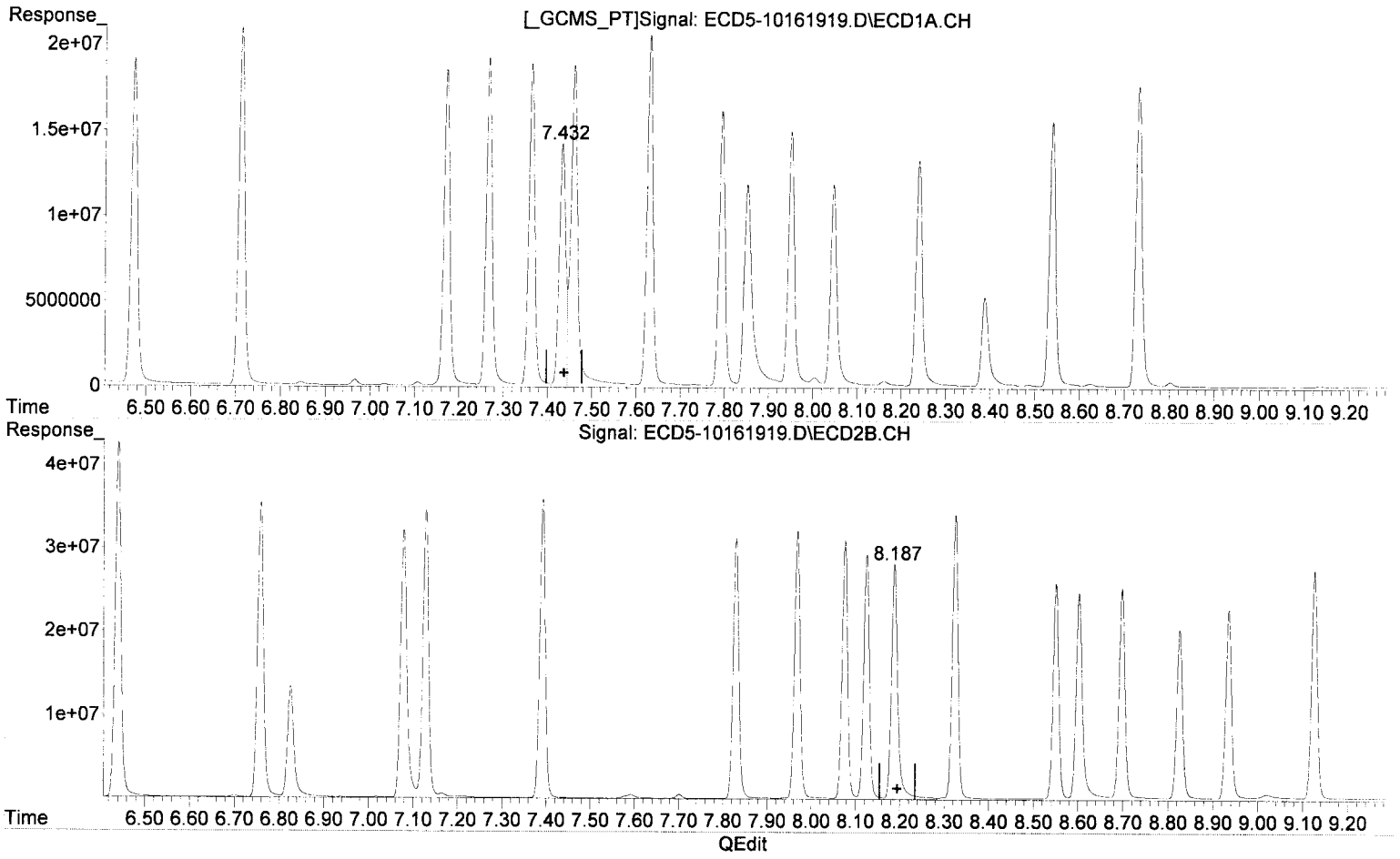
Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 17 16:51:19 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J16035\
Data File : ECD5-10161919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 16:11
Operator : MJB
Sample : 9J16035-CCV3
Misc : A19H384, AB 100 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: Oct 17 10:38:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.432min 75.357 ng/mL (m)

response 14207139

MJB 10/17/19

(12) 4,4'-DDE #2

8.187min 90.461 ng/mL

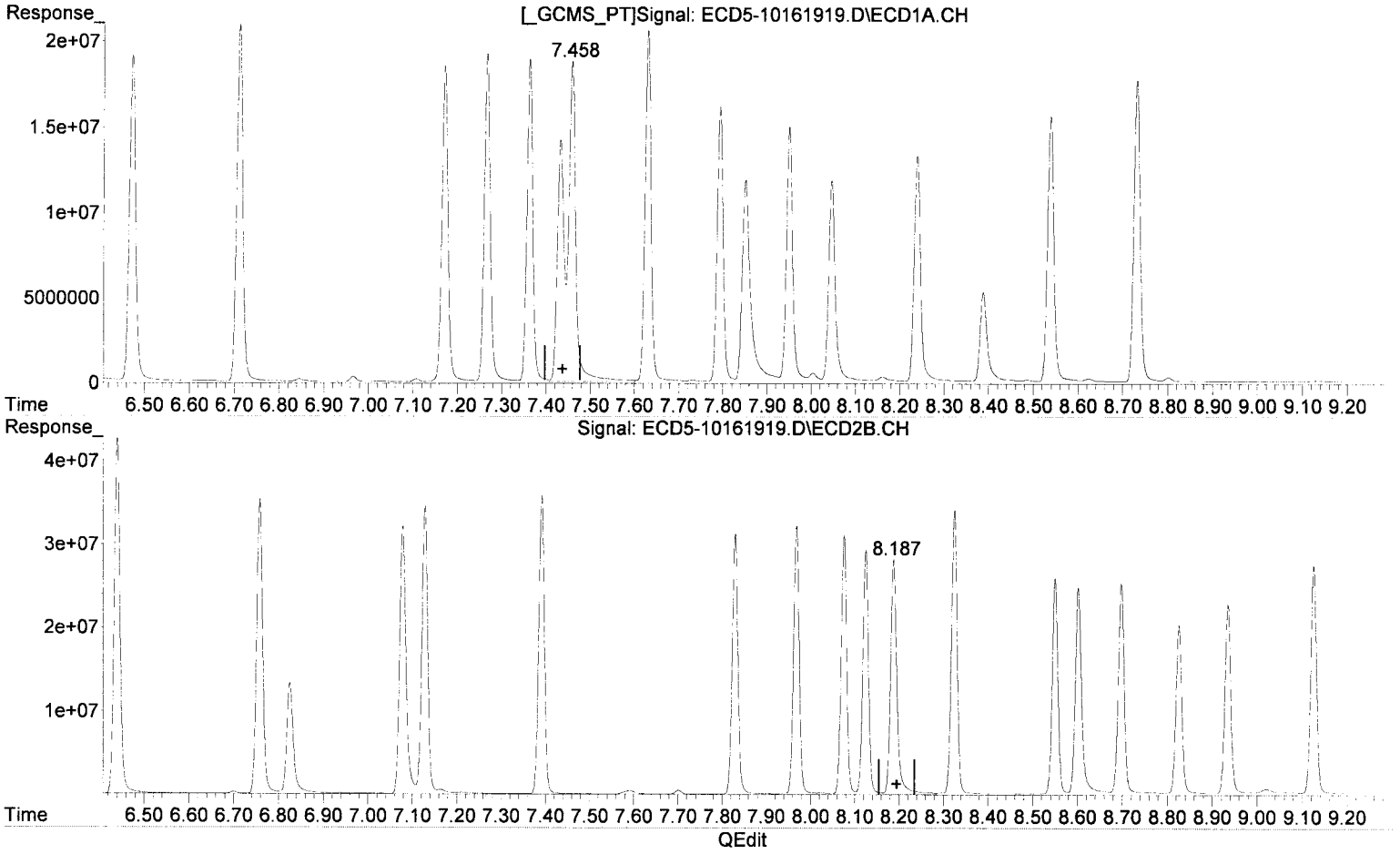
response 28104274

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J16035\
Data File : ECD5-10161919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 16:11
Operator : MJB
Sample : 9J16035-CCV3
Misc : A19H384, AB 100 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: Oct 17 10:38:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.458min 99.954 ng/mL

response 18644302

MWB 12/17/19

(12) 4,4'-DDE #2

8.187min 90.461 ng/mL

response 28104274

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J16035\
Data File : ECD5-10161919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 16:11
Operator : MJB
Sample : 9J16035-CCV3
Misc : A19H384, AB 100 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: Oct 17 10:38:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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

MF MJB 10/17/19

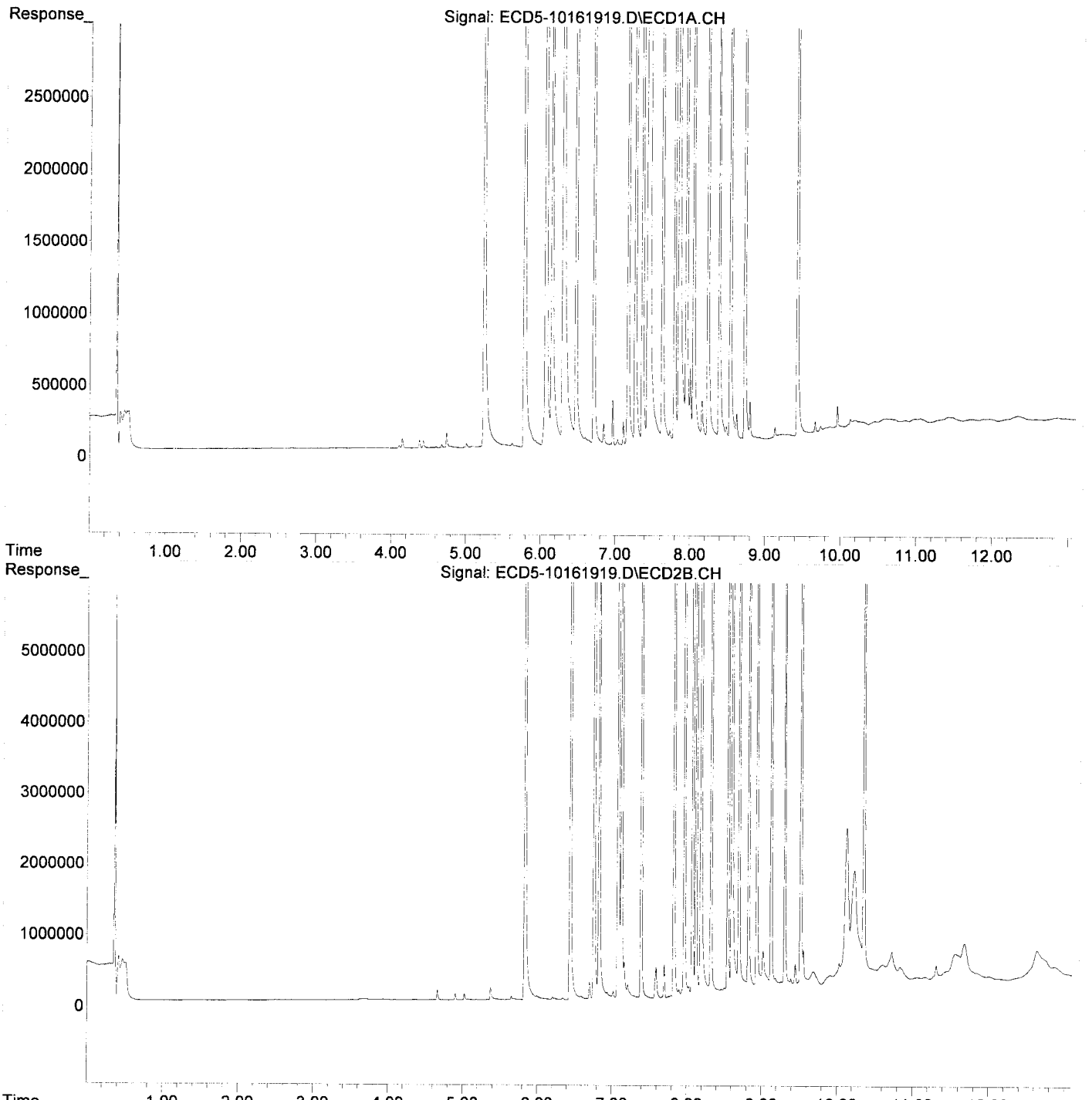
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.240	5.832	15042385	26400894	90.630	89.993	
22)	S	DCBP (S)	9.431	10.354	13385152	20037356	94.864	111.465	
		Target Compounds							
2)		a-BHC	5.780	6.440	20408785	42619630	88.993	103.864	
3)		g-BHC	6.065	6.758	17500087	35309940	86.730	98.990	
4)		b-BHC	6.147	6.825	6646410	13276189	73.536	83.885	
5)		Heptachlor	6.472	7.128	19019391	34421125	104.908	112.496	
6)		d-BHC	6.297	7.078	14007883	32033253	71.218	90.832	
7)		Aldrin	6.711	7.391	20879948	35748017	105.750	108.527	
8)		Heptachlo...	7.171	7.829	18485404	31215410	100.367	103.758	
9)		trans-Chl...	7.266	7.968	19086219	32088219	103.229	102.412	
10)		cis-Chlor...	7.363	8.076	18747783	30942772	102.970	106.242	
11)		Endosulfa...	7.458	8.125	18844302	29207150	110.732	106.140	
12)		4,4'-DDE	7.458f	8.187	18844302	28104274	99.954	90.461	
13)		Dieldrin	7.630	8.324	20638410	34017614	107.503	111.845	
14)		Endrin	7.793	8.550	16122247	25854859	109.655 Q-31	114.490	
15)		4,4'-DDD	7.852	8.602	11713828	24704071	74.544	96.420	
16)		Endosulfa...	7.950	8.698	14794987	25251083	103.021	109.499	
17)		4,4'-DDT	8.046	8.826	11772283	20286493	98.463	99.319	
18)		Endrin Al...	8.239	8.935	13218104	22702771	104.963	109.202	
19)		Endosulfa...	8.538	9.125	15543138	27390776	100.293	109.964	
20)		Methoxychlor	8.388	9.306	5206446	9885798	88.886	100.352	
21)		Endrin Ke...	8.731	9.520	17631737	29808609	105.732	115.844	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.620	6.341f	25726	20891	0.146	0.067	#
25)		Oxychlordane	7.108	7.765	163036	19503	0.991	0.071	#
26)		2,4'-DDE	7.171	7.968	18485404	32088219	144.123	151.261	
27)		trans-Non...	7.363	8.028	18747783	141088	104.450	0.468	#
28)		2,4'-DDD	0.000	8.324	0	34017614	N.D.	180.117	#
29)		2,4'-DDT	7.731	8.550	89497	25854859	0.816	144.976	#
30)		cis-Nonac...	7.852f	8.602	11713828	24704071	56.421	73.645	
31)		Mirex	8.486	9.520	94922	29808609	0.757	160.198	#
32)		Chlordane...	7.363	8.028f	18747783	141088	952.166	3.899	#
33)		Chlordane...	7.458	8.187f	18844302	28104274	751.839	925.577	
34)		Chlordane...	8.004	8.826	515987	20286493	89.254	2262.633	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	7.458f	0.000	18844302	0	21039.866	N.D.	#
37)		Toxaphene...	7.731	8.698f	89497	25251083	55.418	7672.710	#
38)		Toxaphene...	8.004f	8.775	515987	181704	153.226	35.851	#
39)		Toxaphene...	8.239f	8.826	13218104	20286493	4079.470	2429.569	#
40)		Toxaphene...	8.486	9.021	94922	574597	39.598	123.295	#
41)		Toxaphene...	8.538f	9.390	15543138	166475	4911.591	35.046	#
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\2019-10\9J16035\
Data File : ECD5-10161919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 16:11
Operator : MJB
Sample : 9J16035-CCV3
Misc : A19H384, AB 100 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: Oct 17 10:38:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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\2019-10\9J16035\
Data File : ECD5-10161920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 16:28
Operator : MJB
Sample : 9J16035-CCV4
Misc : A19E155, 9-42 100 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: Oct 17 10:38:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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 10/17/19

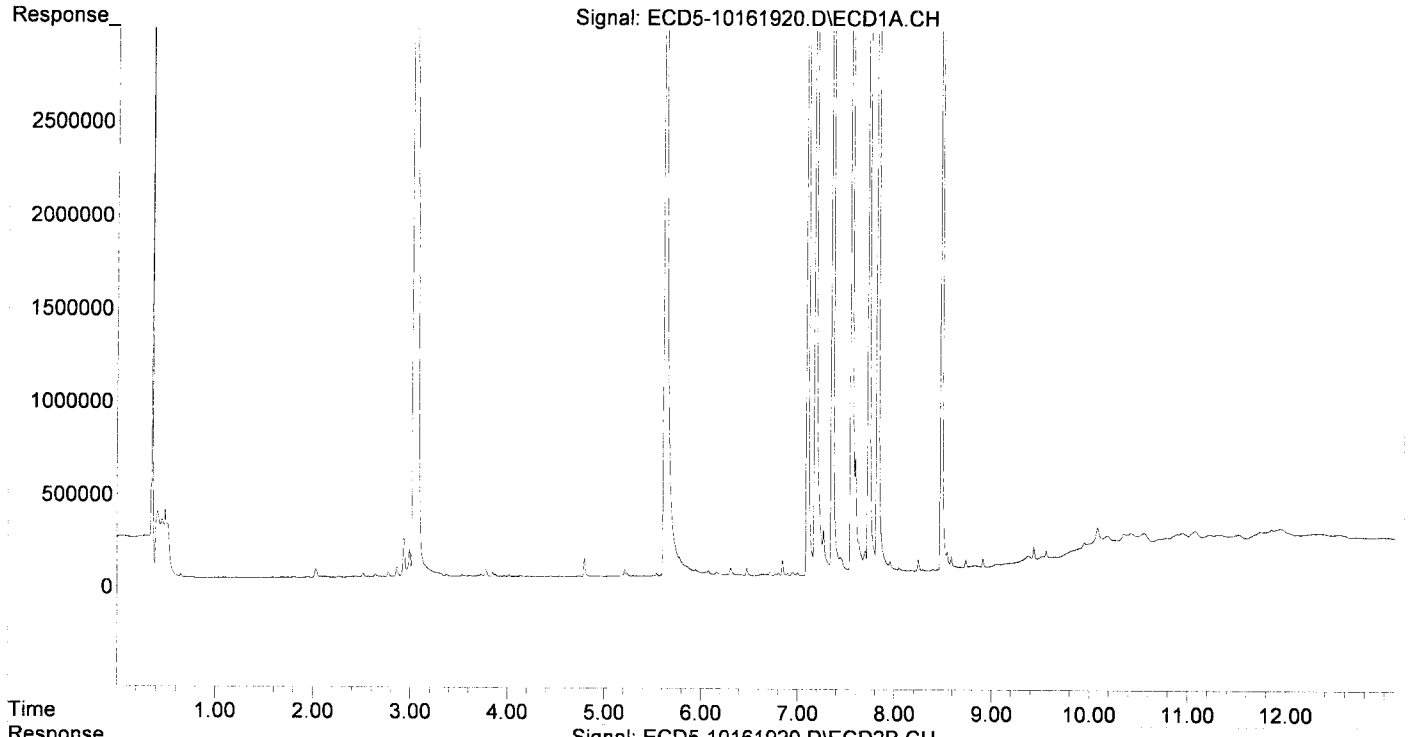
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.238	5.831	14177	18270	0.085	0.062	
22)	S	DCBP (S)	9.432	10.353	89141	227543	0.632	1.266	#
		Target Compounds							
2)		a-BHC	0.000	6.437	0	112260	N.D.	0.274	#
3)		g-BHC	6.073	6.759	27270	38710	0.135	0.109	
4)		b-BHC	6.162	6.830	21415	34671	0.237	0.219	
5)		Heptachlor	6.475	7.127	40002	67712	0.221	0.221	
6)		d-BHC	6.307	7.081	38330	81392	0.195	0.231	
7)		Aldrin	6.713	7.390	18569	28798	0.094	0.087	
8)		Heptachlo...	7.181	7.827	10204538	118849	55.406	0.395	#
9)		trans-Chl...	7.266	7.965	239036	20009327	1.293	63.861	#
10)		cis-Chlor...	7.355	0.000	19071179	0	104.746	N.D.	#
11)		Endosulfa...	7.435f	8.137	88201	90159	0.518	0.328	
12)		4,4'-DDE	7.435	8.185	88201	60403	0.468	0.194	#
13)		Dieldrin	0.000	8.337	0	17709677	N.D.	58.227	#
14)		Endrin	7.823f	8.559	21890554	19384882	148.888	85.840	#
15)		4,4'-DDD	7.823f	8.595	21890554	37721555	139.306	147.227	
16)		Endosulfa...	7.953	8.698	57090	90698	0.398	0.393	
17)		4,4'-DDT	8.047	8.825	21259	44439	0.178	0.221	
18)		Endrin Al...	8.244	8.935	58987	117758	BelowCal	BelowCal	
19)		Endosulfa...	8.540	9.125	93649	105138	0.604	0.422	
20)		Methoxychlor	8.394	9.305	5337	85017	0.091	0.869	#
21)		Endrin Ke...	8.735	9.506f	46339	19734603	0.278	76.694	#
23)		Hexachlor...	3.036	3.529	15910689	34661670	87.068	92.202	
24)		Hexachlor...	5.621	6.297	13073300	26077749	74.156	83.027	
25)		Oxychlordane	7.100	7.758	16517228	29054509	100.386	106.076	
26)		2,4'-DDE	7.181	7.965	10204538	20009327	79.561	94.322	
27)		trans-Non...	7.355	8.032	19071179	32205043	106.260	106.768	
28)		2,4'-DDD	7.552	8.337	9323445	17709677	81.695	93.770	
29)		2,4'-DDT	7.732	8.559	10883506	19384882	99.223	108.697	
30)		cis-Nonac...	7.823	8.595	21890554	37721555	105.438	112.451	
31)		Mirex	8.483	9.506	12810765	19734603	102.186	106.058	
32)		Chlordane...	7.355	8.032	19071179	32205043	968.591	890.021	
33)		Chlordane...	7.435	8.169	88201	57077	3.519	1.880	#
34)		Chlordane...	7.953f	8.825	57090	44439	9.875	4.956	#
35)		Chlordane...	3.368	3.369	12537	103429	NoCal	NoCal	
36)		Toxaphene...	7.435	8.402	88201	156508	98.478	59.639	
37)		Toxaphene...	7.695	8.753f	118803	43594	73.565	13.246	#
38)		Toxaphene...	8.047f	8.753	21259	43594	6.313	8.601	
39)		Toxaphene...	8.244	8.825	58987	44439	18.205	5.322	#
40)		Toxaphene...	8.483	8.993	12810765	38487	5344.183	8.258	#
41)		Toxaphene...	8.540	0.000	93649	0	29.593	N.D.	#
42)		Toxaphene...	3.368	3.369	12537	103429	NoCal	NoCal	

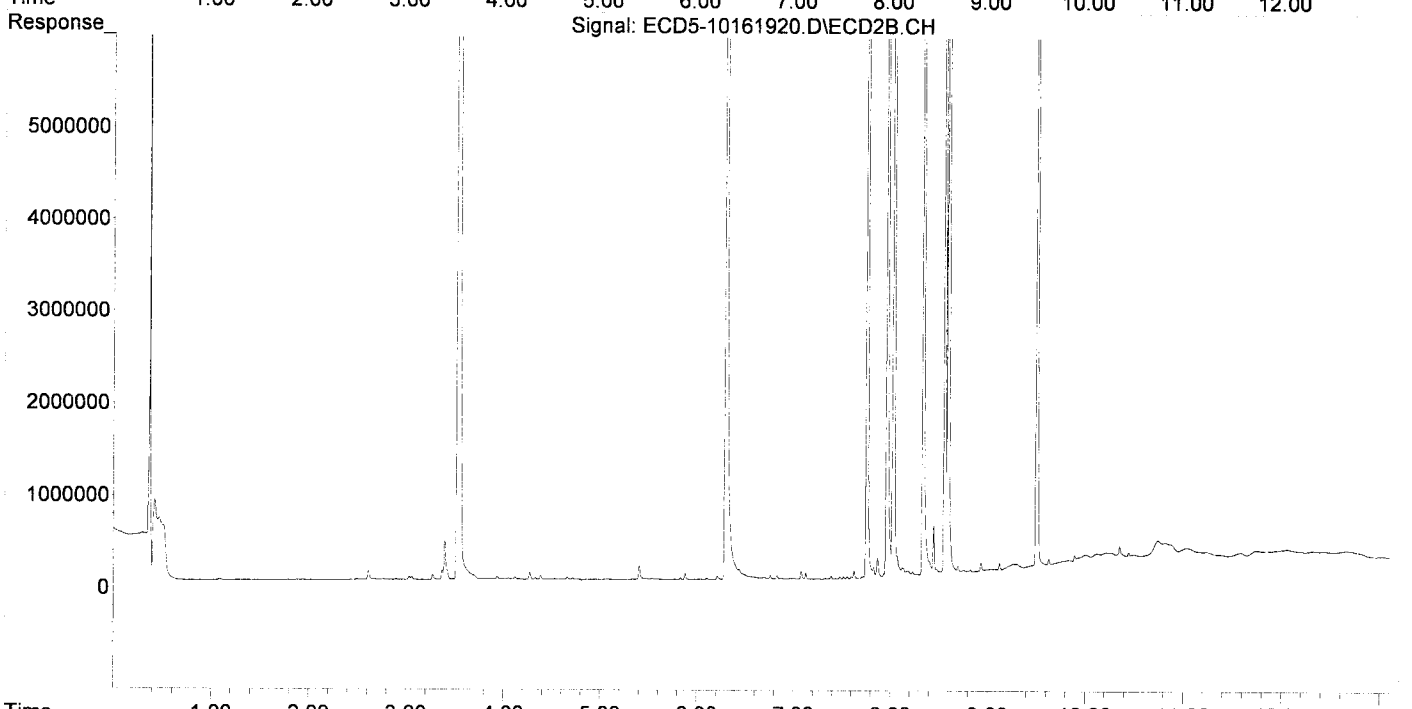
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J16035\
Data File : ECD5-10161920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 16:28
Operator : MJB
Sample : 9J16035-CCV4
Misc : A19E155, 9-42 100 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: Oct 17 10:38:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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\2019-10\9J16035\
Data File : ECD5-10161921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 16:45
Operator : MJB
Sample : 9J16035-CCB2
Misc : A19J194
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: Oct 17 10:38:19 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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 10/17/19

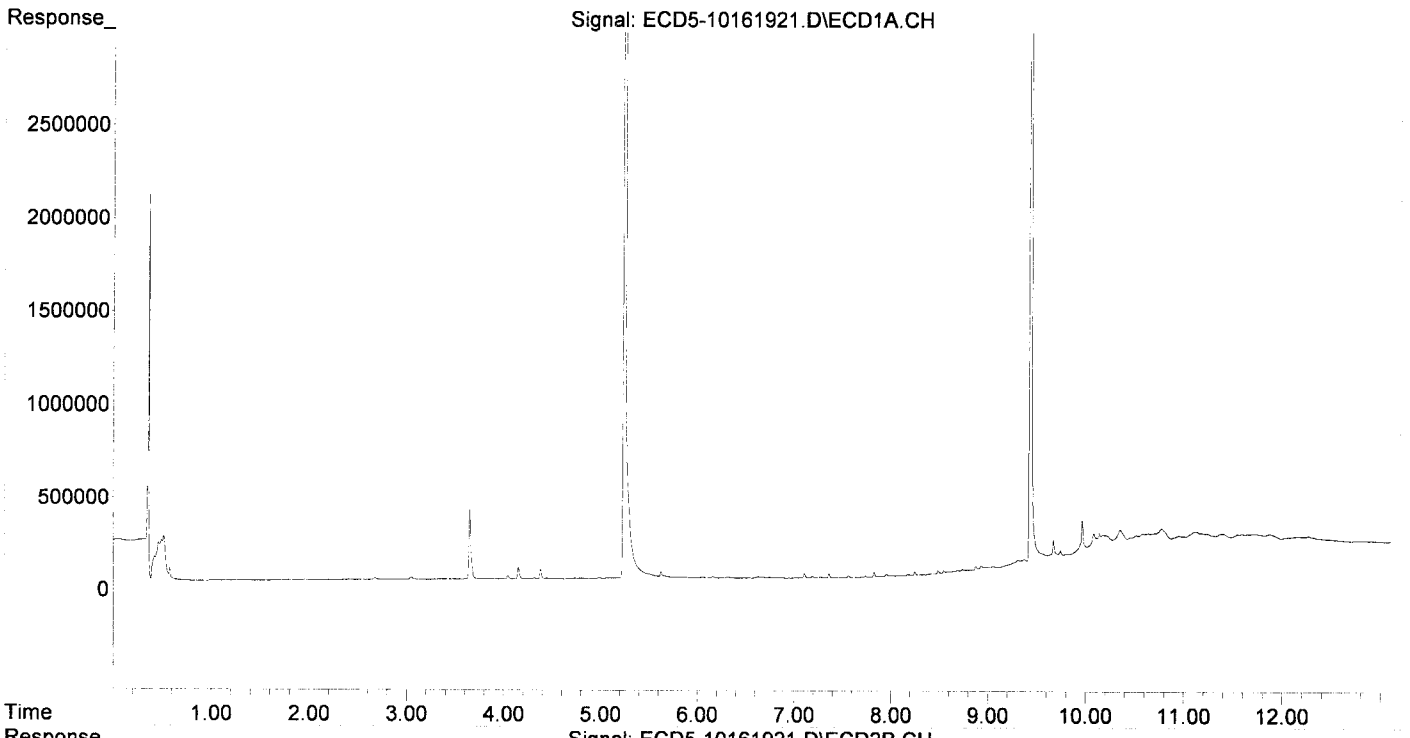
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.242	5.833	14032828	25044423	84.548	85.369	
22)	S	DCBP (S)	9.433	10.355	12358050	18477440	87.584	102.788	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.051f	0.000	4547	0	0.023	N.D.	#
4)		b-BHC	6.157	0.000	7583	0	0.084	N.D.	#
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.314	7.084	5687	13767	0.029	0.039	
7)		Aldrin	0.000	7.428f	0	6433	N.D.	0.020	#
8)		Heptachlo...	7.190	0.000	9432	0	0.051	N.D.	#
9)		trans-Chl...	7.269	7.969	4224	18046	0.023	0.058	#
10)		cis-Chlor...	7.360	0.000	20181	0	0.111	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	8.341	0	20361	N.D.	0.067	#
14)		Endrin	7.828f	8.561	24680	11413	0.168	0.051	#
15)		4,4'-DDD	7.828f	8.597	24680	36028	0.157	0.141	
16)		Endosulfa...	7.955	8.690	11233	13588	0.078	0.059	
17)		4,4'-DDT	8.071	0.000	1394	0	0.012	N.D.	#
18)		Endrin Al...	8.247	8.937	18310	24971	BelowCal	BelowCal	
19)		Endosulfa...	8.545	9.127	14444	24038	0.093	0.097	
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.738	9.507f	11463	53577	0.069	0.208	#
23)		Hexachlor...	3.045	3.528	12586	12522	0.069	0.033	#
24)		Hexachlor...	5.622	6.299	32861	22053	0.186	0.070	#
25)		Oxychlordane	7.106	7.760	23791	29234	0.145	0.107	
26)		2,4'-DDE	7.190	7.969	9432	18046	0.074	0.085	
27)		trans-Non...	7.360	8.034	20181	31244	87346.588	0.104	#
28)		2,4'-DDD	7.560	8.341	9472	20361	0.083	0.108	
29)		2,4'-DDT	7.738	8.561	6240	11413	0.057	0.064	
30)		cis-Nonac...	7.828	8.597	24680	36028	0.119	0.107	
31)		Mirex	8.488	9.507	18207	53577	0.145	0.288	#
32)		Chlordane...	7.360	8.034	20181	31244	1.025	0.863	
33)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
34)		Chlordane...	8.012f	0.000	2055	0	0.355	N.D.	#
35)		Chlordane...	3.380	0.000	2307	0	NoCal	N.D.	
36)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
37)		Toxaphene...	7.738f	8.755f	6240	12981	3.864	3.944	
38)		Toxaphene...	8.012	8.755	2055	12981	0.610	2.561	#
39)		Toxaphene...	8.247	0.000	18310	0	5.651	N.D.	#
40)		Toxaphene...	8.488	0.000	18207	0	7.595	N.D.	#
41)		Toxaphene...	8.545	0.000	14444	0	4.564	N.D.	#
42)		Toxaphene...	3.380	0.000	2307	0	NoCal	N.D.	

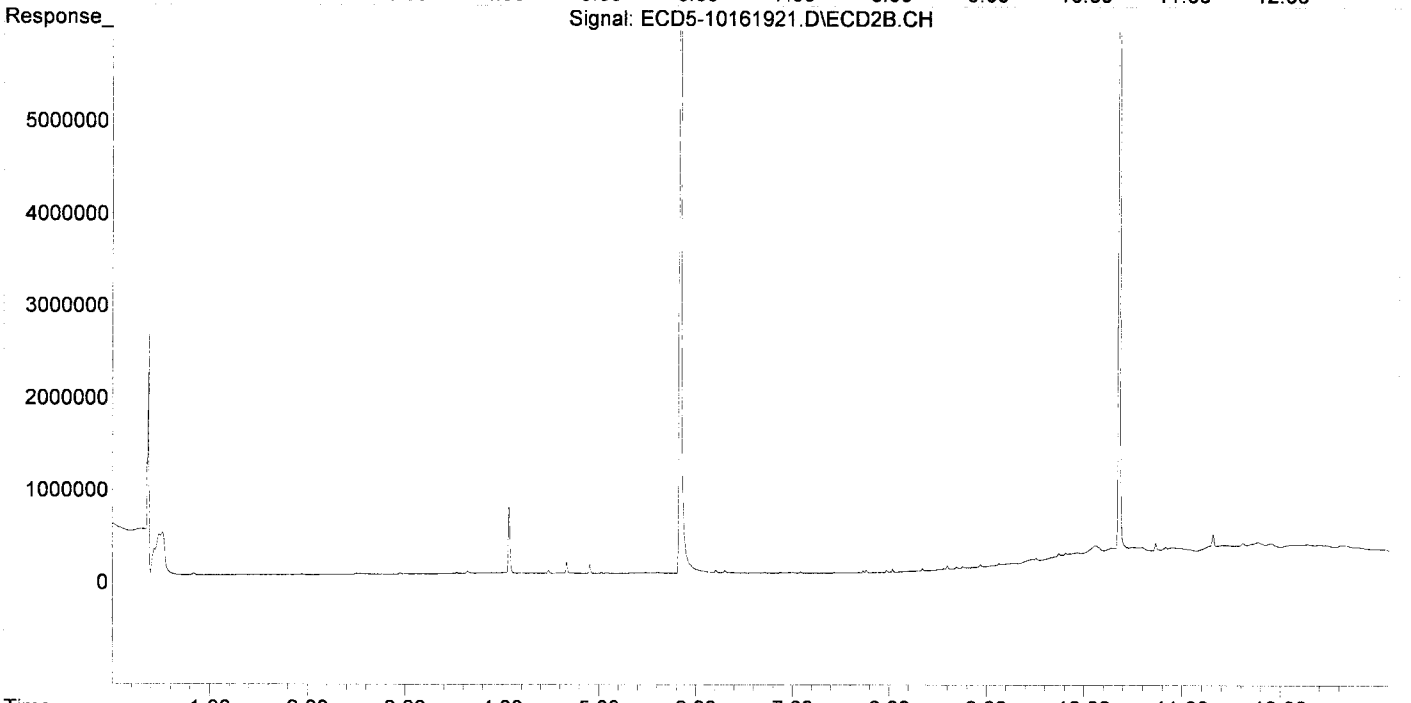
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J16035\
Data File : ECD5-10161921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 16:45
Operator : MJB
Sample : 9J16035-CCB2
Misc : A19J194
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: Oct 17 10:38:19 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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\2019-10\9J16035\
Data File : ECD5-10161934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 20:50
Operator : MJB
Sample : 9J16035-CCV5
Misc : A19H383, 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: Oct 17 17:37:38 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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 10/17/19

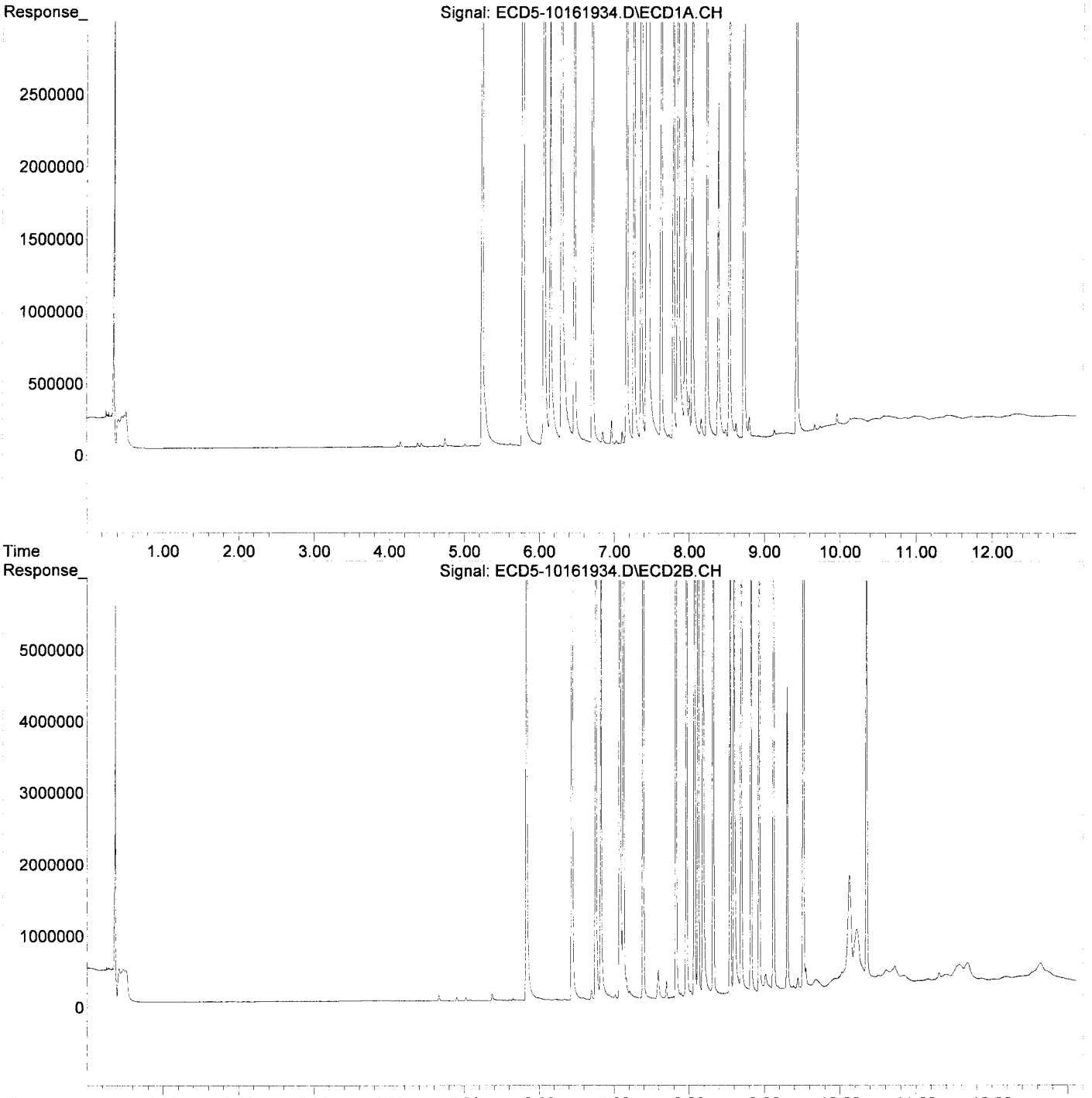
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.238	5.830	7131279	11967750	42.966	40.794	
22)	S	DCBP (S)	9.429	10.351	6306588	9463190	44.696	52.643	
		Target Compounds							
2)		a-BHC	5.778	6.437	9243477	18833529	40.307	45.897	
3)		g-BHC	6.066	6.756	7796314	15865313	38.638	44.478	
4)		b-BHC	6.149	6.824	3028435	6062229	33.506	38.304	
5)		Heptachlor	6.471	7.126	9609426	16359170	53.004	53.465	
6)		d-BHC	6.298	7.077	6306916	14257113	32.065	40.427	
7)		Aldrin	6.710	7.389	10127049	17042563	51.290	51.739	
8)		Heptachlo...	7.169	7.827	9154076	14968285	49.702	49.754	
9)		trans-Chl...	7.265	7.966	9157833	14624682	49.531	46.676	
10)		cis-Chlor...	7.361	8.073	9070288	14274726	49.817	49.012	
11)		Endosulfa...	7.457	8.123	9311392	13337394	54.715	48.469	
12)		4,4'-DDE	7.432	8.186	6242478	12199639	33.111m	39.268	Q-31
13)		Dieldrin	7.628	8.322	9842835	15804191	51.270	51.962	
14)		Endrin	7.792	8.548	7965392	12052389	54.176	53.370	
15)		4,4'-DDD	7.852	8.600	5213473	10499633	33.177	40.980	Q-31
16)		Endosulfa...	7.949	8.696	7131866	11640566	49.661	50.478	
17)		4,4'-DDT	8.045	8.824	4816260	8655798	40.283	46.328	
18)		Endrin Al...	8.238	8.933	6436187	10252469	52.395	52.047	
19)		Endosulfa...	8.537	9.122	7708431	12426469	49.739	49.888	
20)		Methoxychlor	8.389	9.305	2305000	4285758	39.352	47.978	
21)		Endrin Ke...	8.729	9.518	8342373	13933491	50.027	54.149	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.617	6.340f	15177	11973	0.086	0.038	#
25)		Oxychlordane	7.107	7.766	81878	8681	0.498	0.032	#
26)		2,4'-DDE	7.169	7.966	9154076	14624682	71.371	68.939	
27)		trans-Non...	7.361	8.026	9070288	84222	50.339	0.279	#
28)		2,4'-DDD	0.000	8.322f	0	15804191	N.D.	83.680	#
29)		2,4'-DDT	0.000	8.548	0	12052389	N.D.	67.581	#
30)		cis-Nonac...	7.852f	8.600	5213473	10499633	25.111	31.300	
31)		Mirex	8.484	9.518	62457	13933491	0.498	74.882	#
32)		Chlordane...	7.361	8.073f	9070288	14274726	460.664	394.497	
33)		Chlordane...	7.457	8.186f	9311392	12199639	371.500	401.779	
34)		Chlordane...	7.949f	8.824	7131866	8655798	1233.648	965.415	
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	7.457f	0.000	9311392	0	10396.270	N.D.	#
37)		Toxaphene...	0.000	8.696f	0	11640566	N.D.	3537.064	#
38)		Toxaphene...	8.045f	8.771	4816260	96015	1430.223	18.944	#
39)		Toxaphene...	8.238f	8.824	6436187	8655798	1986.384	1036.643	#
40)		Toxaphene...	8.484	9.020	62457	269897	26.055	57.913	#
41)		Toxaphene...	8.537f	9.388	7708431	96027	2435.844	20.215	#
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 (QT Reviewed)

Data Path : R:\data\2019-10\9J16035\
Data File : ECD5-10161934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 20:50
Operator : MJB
Sample : 9J16035-CCV5
Misc : A19H383, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

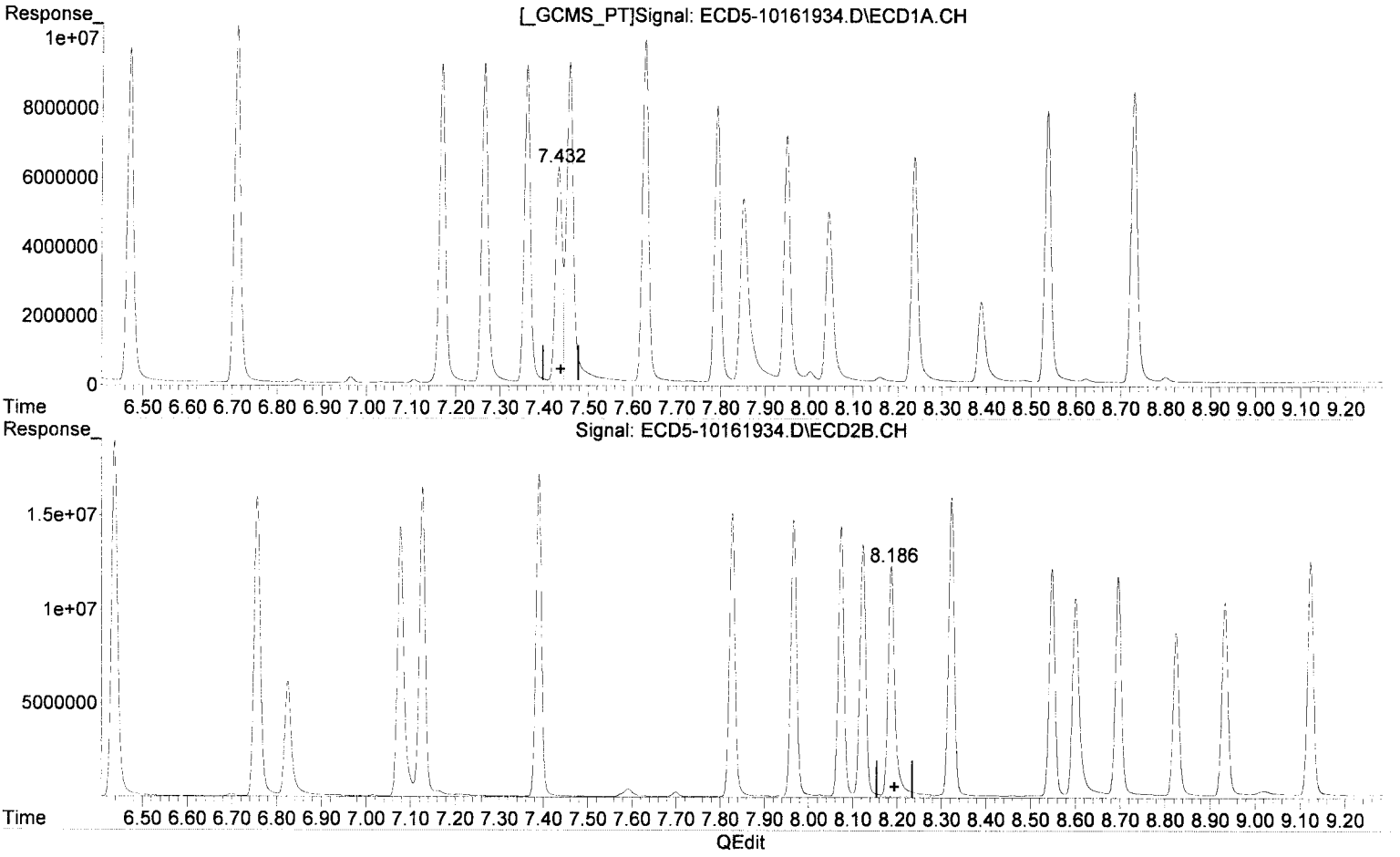
Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 17 17:37:38 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J16035\
Data File : ECD5-10161934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 20:50
Operator : MJB
Sample : 9J16035-CCV5
Misc : A19H383, 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: Oct 17 10:39:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.432min 33.111 ng/mL (m)

response 6242478

MB 10/17/19

(12) 4,4'-DDE #2

8.186min 39.268 ng/mL

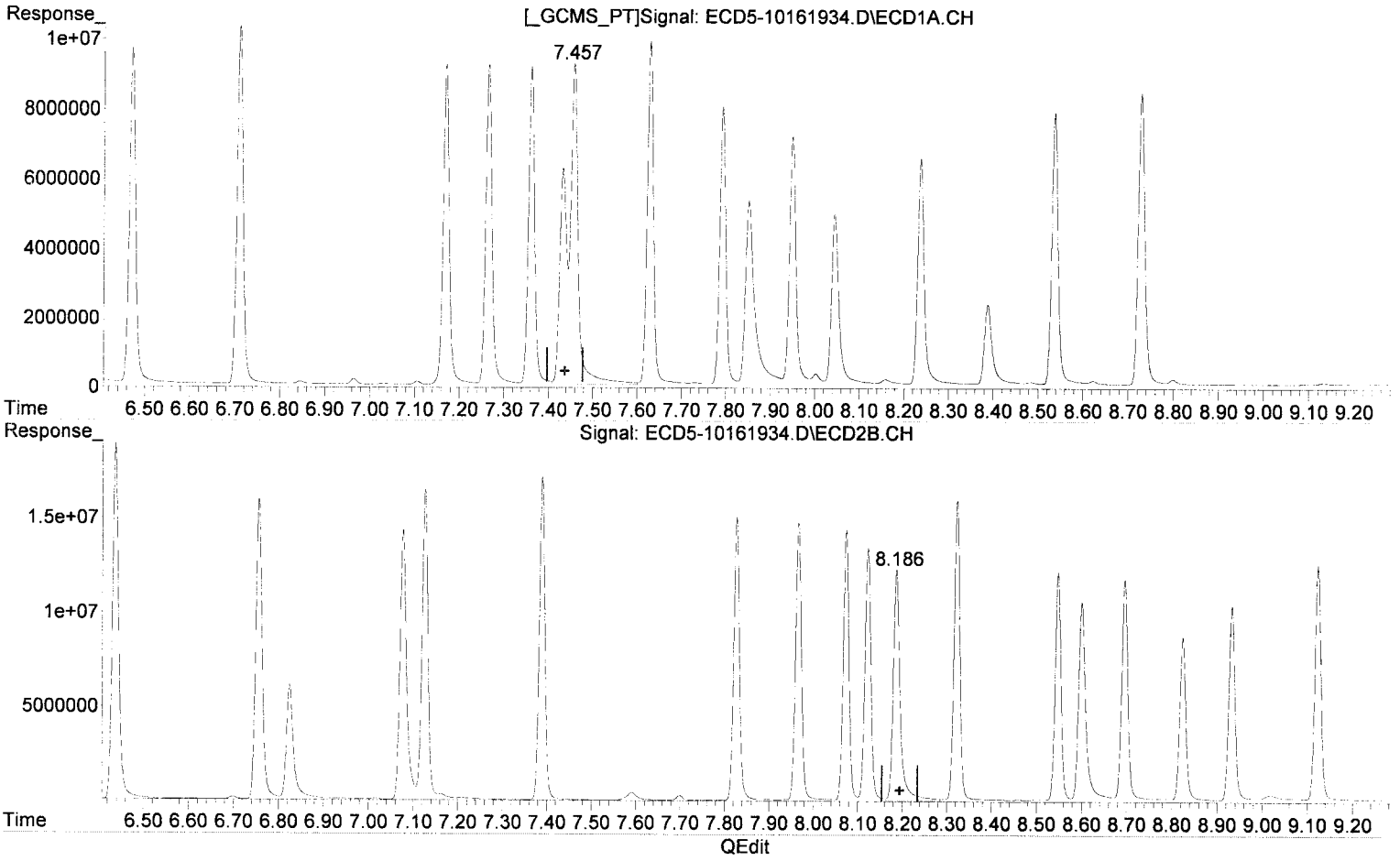
response 12199639

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J16035\
Data File : ECD5-10161934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 20:50
Operator : MJB
Sample : 9J16035-CCV5
Misc : A19H383, 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: Oct 17 10:39:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.457min 49.389 ng/mL

response 9311392

MJB 10/17/19

(12) 4,4'-DDE #2

8.186min 39.268 ng/mL

response 12199639

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J16035\
Data File : ECD5-10161934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 20:50
Operator : MJB
Sample : 9J16035-CCV5
Misc : A19H383, 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: Oct 17 10:39:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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 10.17.19

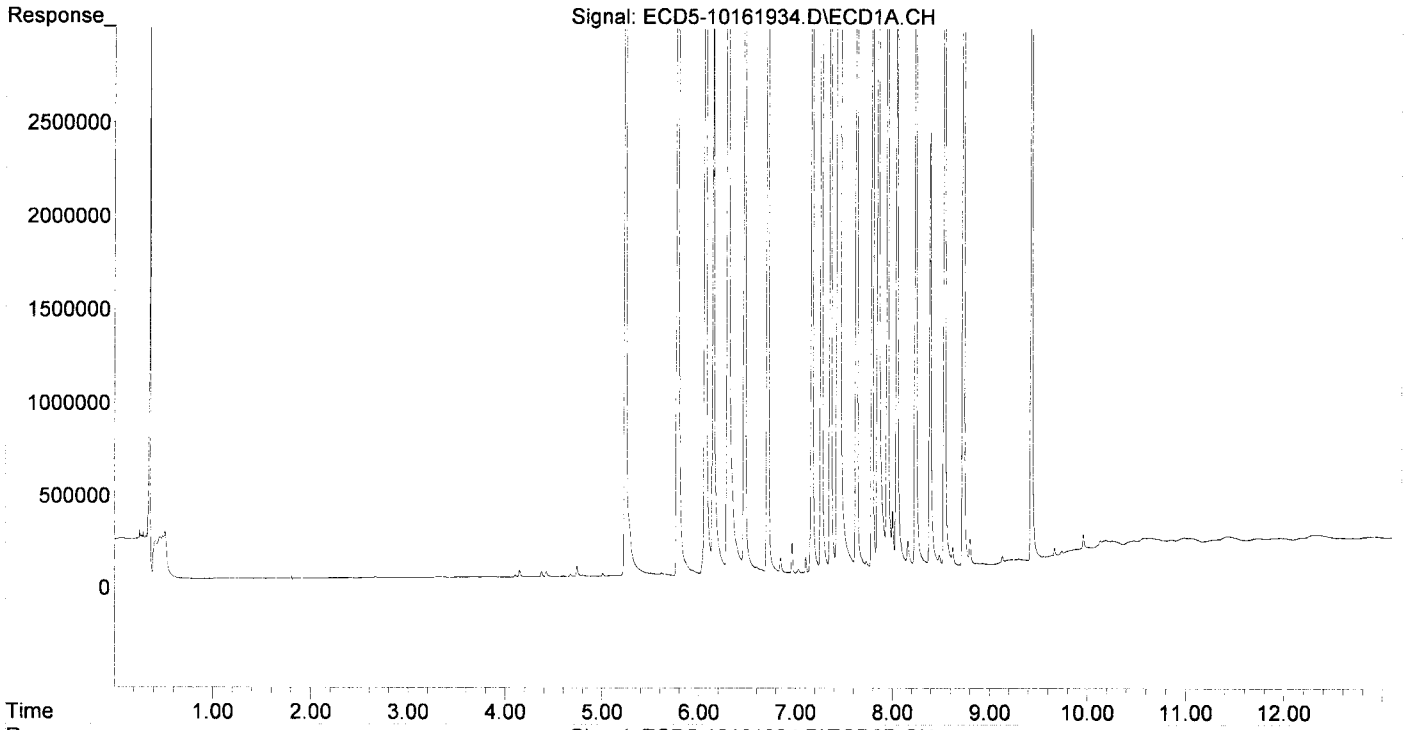
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.238	5.830	7131279	11967750	42.966	40.794	
22)	S	DCBP (S)	9.429	10.351	6306588	9463190	44.696	52.643	
		Target Compounds							
2)		a-BHC	5.778	6.437	9243477	18833529	40.307	45.897	
3)		g-BHC	6.066	6.756	7796314	15865313	38.638	44.478	
4)		b-BHC	6.149	6.824	3028435	6062229	33.506	38.304	
5)		Heptachlor	6.471	7.126	9609426	16359170	53.004	53.465	
6)		d-BHC	6.298	7.077	6306916	14257113	32.065	40.427	
7)		Aldrin	6.710	7.389	10127049	17042563	51.290	51.739	
8)		Heptachlo...	7.169	7.827	9154076	14968285	49.702	49.754	
9)		trans-Chl...	7.265	7.966	9157833	14624682	49.531	46.676	
10)		cis-Chlor...	7.361	8.073	9070288	14274726	49.817	49.012	
11)		Endosulfa...	7.457	8.123	9311392	13337394	54.715	48.469	Q-31
12)		4,4'-DDE	7.457	8.186	9311392	12199639	49.389	39.268	
13)		Dieldrin	7.628	8.322	9842835	15804191	51.270	51.962	
14)		Endrin	7.792	8.548	7965392	12052389	54.176	53.370	Q31
15)		4,4'-DDD	7.852	8.600	5213473	10499633	33.177	40.980	
16)		Endosulfa...	7.949	8.696	7131866	11640566	49.661	50.478	
17)		4,4'-DDT	8.045	8.824	4816260	8655798	40.283	46.328	
18)		Endrin Al...	8.238	8.933	6436187	10252469	52.395	52.047	
19)		Endosulfa...	8.537	9.122	7708431	12426469	49.739	49.888	
20)		Methoxychlor	8.389	9.305	2305000	4285758	39.352	47.978	
21)		Endrin Ke...	8.729	9.518	8342373	13933491	50.027	54.149	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.617	6.340f	15177	11973	0.086	0.038	#
25)		Oxychlordane	7.107	7.766	81878	8681	0.498	0.032	#
26)		2,4'-DDE	7.169	7.966	9154076	14624682	71.371	68.939	
27)		trans-Non...	7.361	8.026	9070288	84222	50.339	0.279	#
28)		2,4'-DDD	0.000	8.322f	0	15804191	N.D.	83.680	#
29)		2,4'-DDT	0.000	8.548	0	12052389	N.D.	67.581	#
30)		cis-Nonac...	7.852f	8.600	5213473	10499633	25.111	31.300	
31)		Mirex	8.484	9.518	62457	13933491	0.498	74.882	#
32)		Chlordane...	7.361	8.073f	9070288	14274726	460.664	394.497	
33)		Chlordane...	7.457	8.186f	9311392	12199639	371.500	401.779	
34)		Chlordane...	7.949f	8.824	7131866	8655798	1233.648	965.415	
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	7.457f	0.000	9311392	0	10396.270	N.D.	#
37)		Toxaphene...	0.000	8.696f	0	11640566	N.D.	3537.064	#
38)		Toxaphene...	8.045f	8.771	4816260	96015	1430.223	18.944	#
39)		Toxaphene...	8.238f	8.824	6436187	8655798	1986.384	1036.643	#
40)		Toxaphene...	8.484	9.020	62457	269897	26.055	57.913	#
41)		Toxaphene...	8.537f	9.388	7708431	96027	2435.844	20.215	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

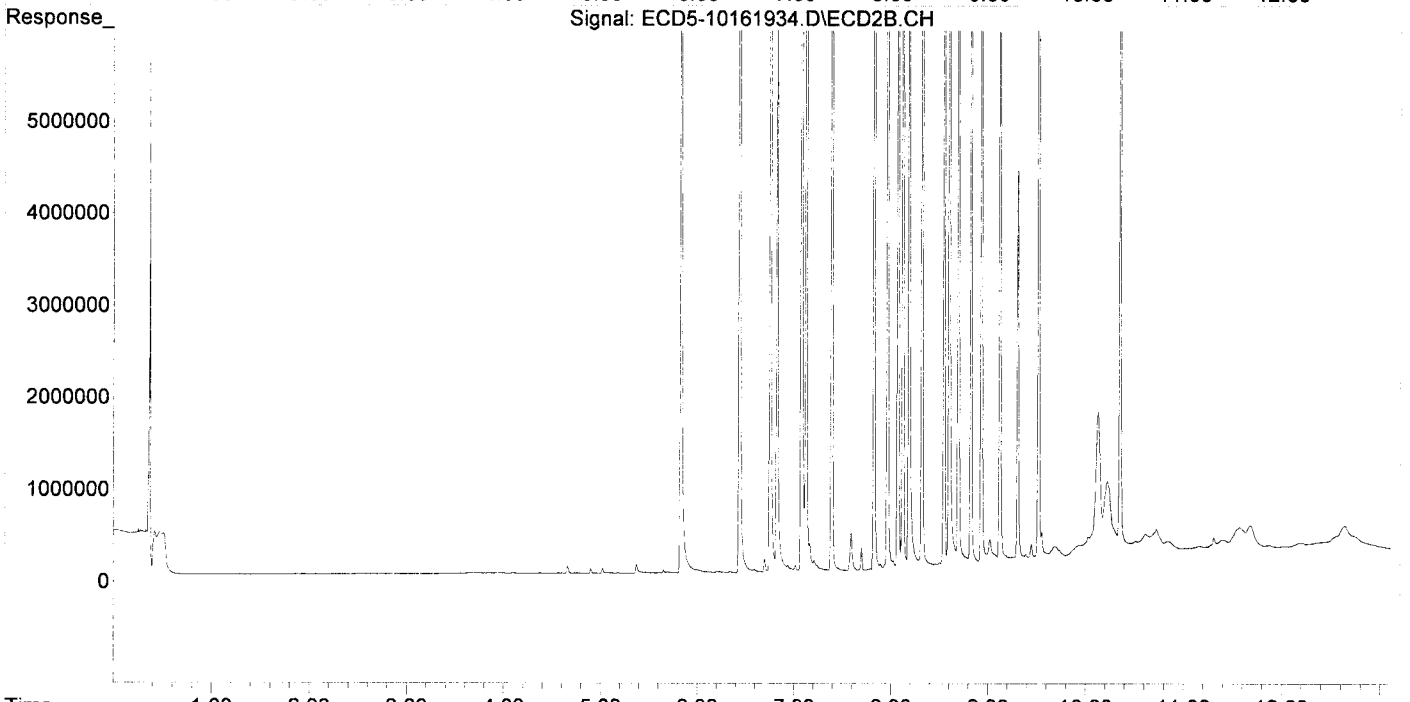
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J16035\
Data File : ECD5-10161934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 20:50
Operator : MJB
Sample : 9J16035-CCV5
Misc : A19H383, 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: Oct 17 10:39:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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\2019-10\9J16035\
Data File : ECD5-10161935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 21:07
Operator : MJB
Sample : 9J16035-CCV6
Misc : A19E154, 9-42 50 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: Oct 17 10:39:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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 10/17/19

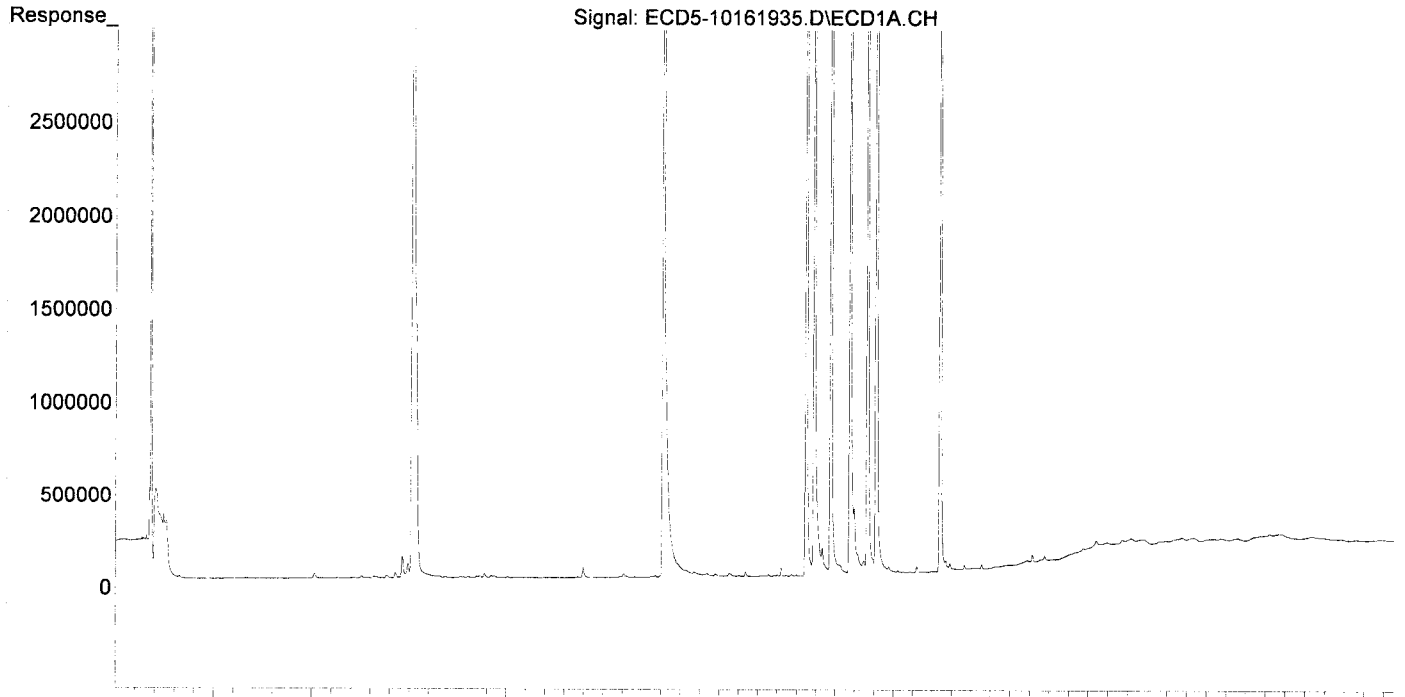
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.237	5.829	7722	11126	0.047	0.038	
22)	S	DCBP (S)	9.430	10.350	53927	107702	0.382	0.599	#
		Target Compounds							
2)		a-BHC	0.000	6.433	0	69001	N.D.	0.168	#
3)		g-BHC	6.072	6.758	19346	17567	0.096	0.049	#
4)		b-BHC	6.161	6.829	14558	17632	0.161	0.111	
5)		Heptachlor	6.474	7.126	24925	42911	0.137	0.140	
6)		d-BHC	6.306	7.079	20058	41658	0.102	0.118	
7)		Aldrin	6.711	7.388	11310	18690	0.057	0.057	
8)		Heptachlo...	7.180	7.825	5081101	67387	27.588	0.224	#
9)		trans-Chl...	7.264	7.964	147557	9622853	0.798	30.712	#
10)		cis-Chlor...	7.353	8.122f	9616747	48534	52.819	0.167	#
11)		Endosulfa...	0.000	8.134	0	47022	N.D.	0.171	#
12)		4,4'-DDE	0.000	8.183	0	28060	N.D.	0.090	#
13)		Dieldrin	0.000	8.335	0	8704194	N.D.	28.618	#
14)		Endrin	7.821f	8.556	11098357	8860554	75.485	39.236	#
15)		4,4'-DDD	7.821f	8.592	11098357	18214624	70.627	71.091	
16)		Endosulfa...	7.951	8.695	35570	39611	0.248	0.172	
17)		4,4'-DDT	8.046	8.823	13223	12240	0.111	0.033	#
18)		Endrin Al...	8.242	8.933	32472	49073	BelowCal	BelowCal	
19)		Endosulfa...	8.537	9.122	55876	39410	0.361	0.158	#
20)		Methoxychlor	8.392	9.305	3002	35121	0.051	0.250	#
21)		Endrin Ke...	8.732	9.503f	25191	10135358	0.151	39.389	#
23)		Hexachlor...	3.034	3.526	8322168	17338246	45.541	46.121	
24)		Hexachlor...	5.619	6.295	6064548	11690338	34.400	37.220	
25)		Oxychlordane	7.098	7.755	8735706	13966816	53.092	50.992	
26)		2,4'-DDE	7.180	7.964	5081101	9622853	39.615 Q-31	45.361	
27)		trans-Non...	7.353	8.029	9616747	16146832	53.393	53.531	
28)		2,4'-DDD	7.551	8.335	4625734	8704194	40.532	46.087	
29)		2,4'-DDT	7.731	8.556	5415844	8860554	49.375	49.684	
30)		cis-Nonac...	7.821	8.592	11098357	18214624	53.456	54.299	
31)		Mirex	8.481	9.503	6401912	10135358	51.065	54.470	
32)		Chlordane...	7.353	8.029f	9616747	16146832	488.417	446.235	
33)		Chlordane...	0.000	8.167	0	26944	N.D.	0.887	#
34)		Chlordane...	7.951f	8.823	35570	12240	6.153	1.365	#
35)		Chlordane...	3.368	3.367	6237	58730	NoCal	NoCal	
36)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
37)		Toxaphene...	7.731	8.752f	5415844	15197	3353.591	4.618	#
38)		Toxaphene...	8.046f	8.752	13223	15197	3.927	2.998	
39)		Toxaphene...	8.242f	8.823	32472	12240	10.022	1.466	#
40)		Toxaphene...	8.481	9.031f	6401912	9796	2670.644	2.102	#
41)		Toxaphene...	8.537f	0.000	55876	0	17.657	N.D.	#
42)		Toxaphene...	3.368	3.367	6237	58730	NoCal	NoCal	

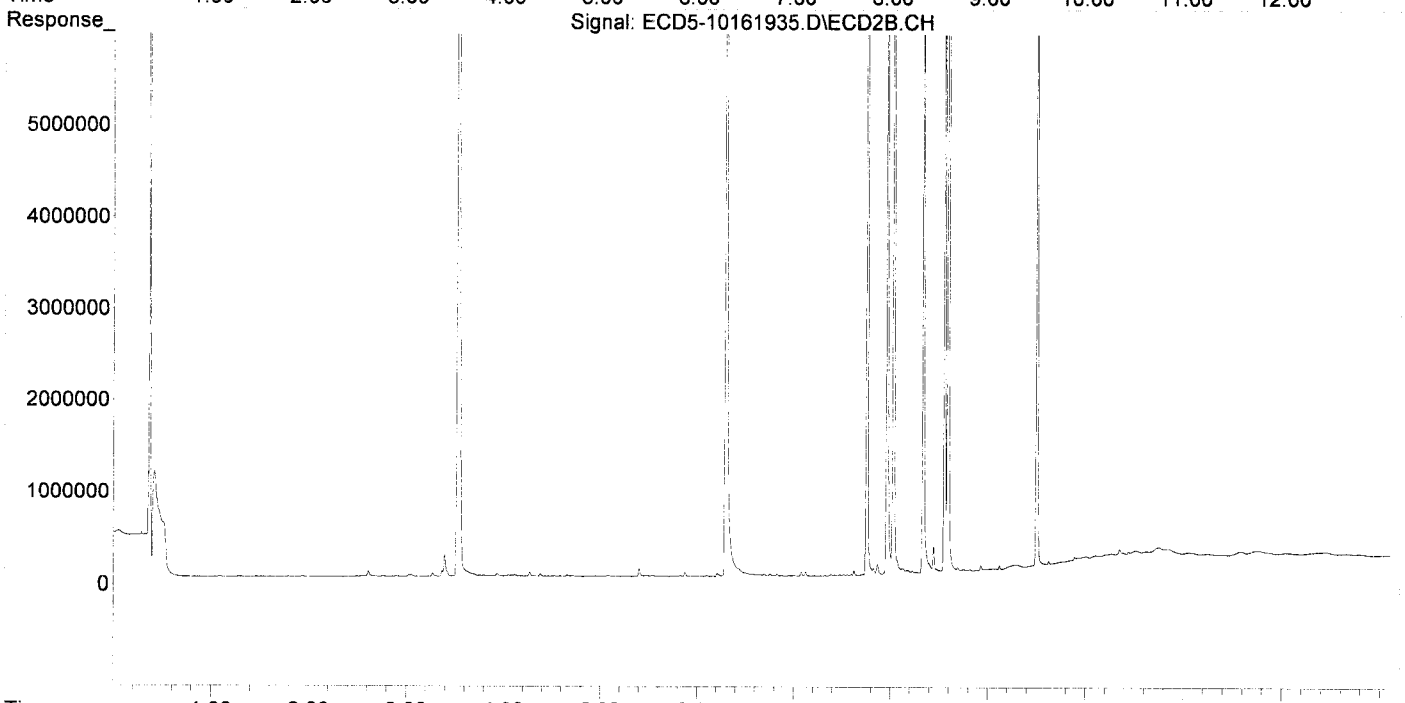
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J16035\
Data File : ECD5-10161935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 21:07
Operator : MJB
Sample : 9J16035-CCV6
Misc : A19E154, 9-42 50 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: Oct 17 10:39:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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\2019-10\9J16035\
Data File : ECD5-10161936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 21:24
Operator : MJB
Sample : 9J16035-CCB3
Misc : A19J194
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: Oct 17 10:39:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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 10/17/19

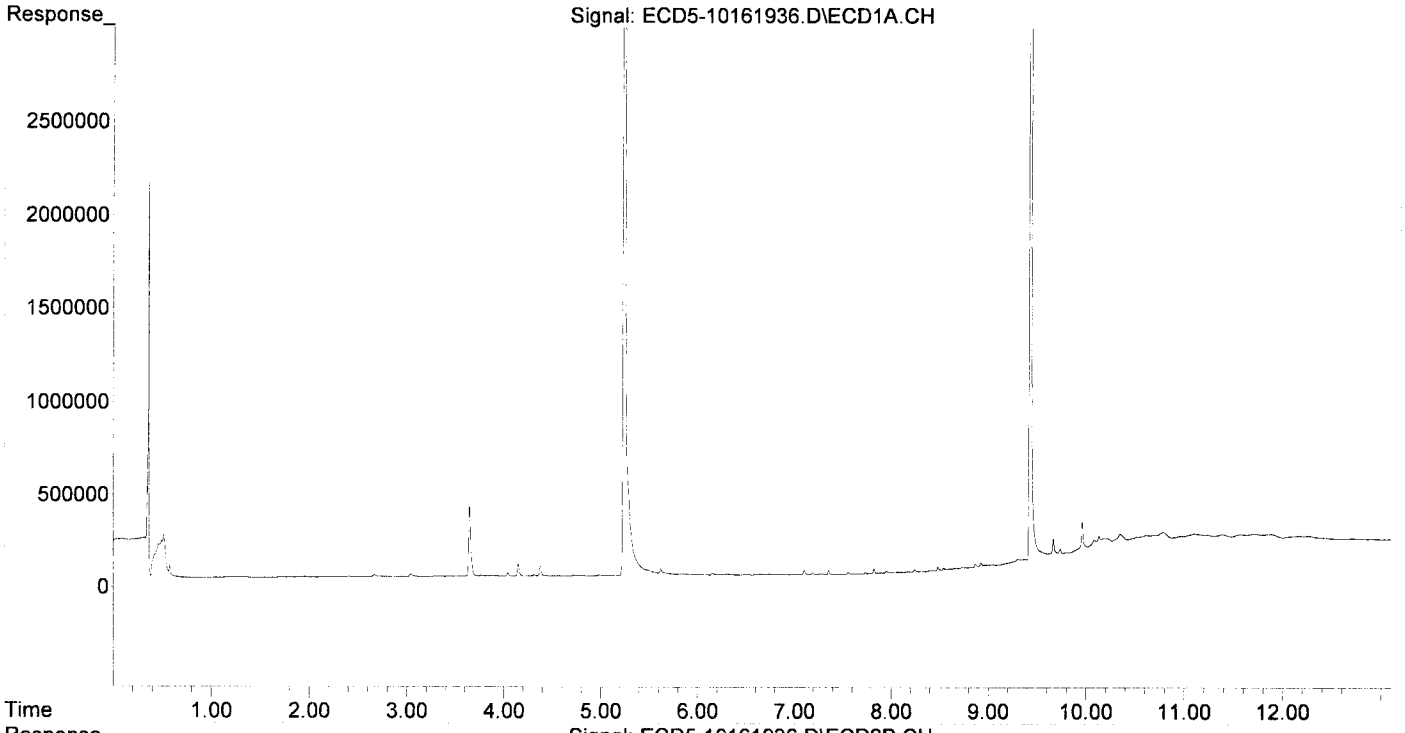
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.238	5.829	14007876	25503569	84.397	86.934	
22)	S	DCBP (S)	9.429	10.350	12610565	18978389	89.374	105.574	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.153	0.000	9481	0	0.105	N.D.	#
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.312	7.080	4555	11516	0.023	0.033	#
7)		Aldrin	6.744f	7.425f	3493	7044	0.018	0.021	
8)		Heptachlo...	7.186	0.000	9142	0	0.050	N.D.	#
9)		trans-Chl...	7.267	7.965	4634	17393	0.025	0.056	#
10)		cis-Chlor...	7.357	0.000	21573	0	0.118	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	8.337	0	19003	N.D.	0.062	#
14)		Endrin	7.778f	8.557	2071	13259	0.014	0.059	#
15)		4,4'-DDD	7.824f	8.593	25389	38727	0.162	0.151	
16)		Endosulfa...	7.952	8.687	10505	12007	0.073	0.052	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.243	8.933	14622	22316	BelowCal	BelowCal	
19)		Endosulfa...	8.541	9.123	11683	16535	0.075	0.066	
20)		Methoxychlor	0.000	9.297	0	5583	N.D.	BelowCal	
21)		Endrin Ke...	8.733	9.503f	8513	32766	0.051	0.127	#
23)		Hexachlor...	3.042	3.525	13958	17497	0.076	0.047	
24)		Hexachlor...	5.619	6.295	31678	26491	0.180	0.084	#
25)		Oxychlordane	7.103	7.756	22938	30131	0.139	0.110	
26)		2,4'-DDE	7.186	7.965	9142	17393	0.071	0.082	
27)		trans-Non...	7.357	8.030	21573	31762	87346.580	0.105	#
28)		2,4'-DDD	7.558	8.337	9067	19003	0.079	0.101	
29)		2,4'-DDT	7.734	8.557	7261	13259	0.066	0.074	
30)		cis-Nonac...	7.824	8.593	25389	38727	0.122	0.115	
31)		Mirex	8.483	9.503	19752	32766	0.158	0.176	
32)		Chlordane...	7.357	8.030f	21573	31762	1.096	0.878	
33)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
34)		Chlordane...	7.952f	0.000	10505	0	1.817	N.D.	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
37)		Toxaphene...	7.734f	8.753f	7261	9775	4.496	2.970	
38)		Toxaphene...	0.000	8.753	0	9775	N.D.	1.929	#
39)		Toxaphene...	8.243f	0.000	14622	0	4.513	N.D.	#
40)		Toxaphene...	8.483	0.000	19752	0	8.240	N.D.	#
41)		Toxaphene...	8.541	0.000	11683	0	3.692	N.D.	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

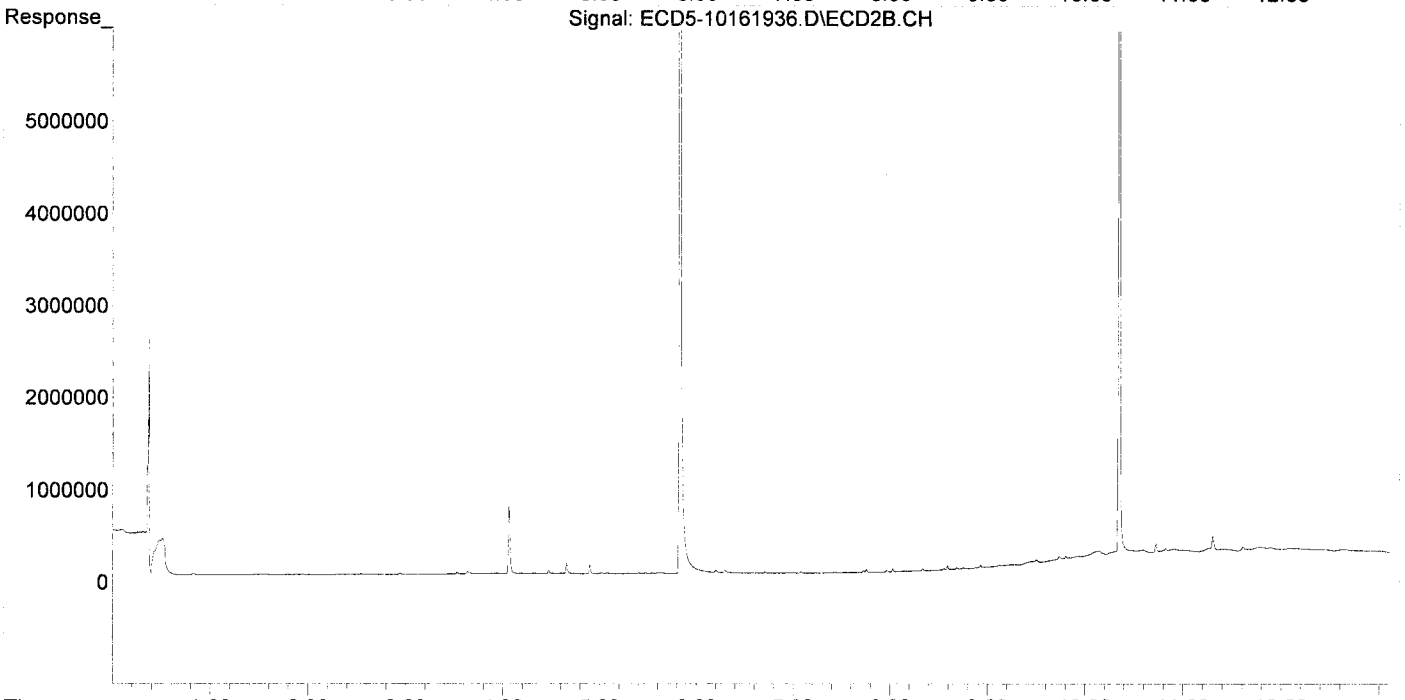
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J16035\
Data File : ECD5-10161936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Oct 2019 21:24
Operator : MJB
Sample : 9J16035-CCB3
Misc : A19J194
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: Oct 17 10:39:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.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 Semivolatile Organic Compounds by EPA 8270D
Benchsheet & Analysis Sequence Data

Batch 9110499
Sequence 9K06033 (A9J0950-01,02,03,04)

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110499 (Sediment)

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
	9110499-BLK1		QC	11/06/19 07:15	200	2				100					
	9110499-BSD1		QC	11/06/19 07:15	200	2	A19J490		100	100					
	9110499-BS1		QC	11/06/19 07:15	200	2	A19J490		100	100					
	A9J0950-01	F	1311/8270D TCLP SVOC Reg List	11/06/19 07:15	200	2				100	PDI-015SC-C-00 -8.1-191024				
	A9J0950-02	F	1311/8270D TCLP SVOC Reg List	11/06/19 07:15	200	2				100	PDI-026SC-C-00 -3.9-191024				
	A9J0950-03	F	1311/8270D TCLP SVOC Reg List	11/06/19 07:15	200	2				100	PDI-037SC-C-00 -12.4-191024				
	A9J0950-04	F	1311/8270D TCLP SVOC Reg List	11/06/19 07:15	200	2				100	PDI-073SC-C-00 -13.7-191024				

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L219	11/30/23	Extractions Balance
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
A19J048	03/31/20	Sodium Sulfate Lot # 191177

Analyte Spike(s)

Std ID	Exp. Date	Description
A19J490	04/28/20	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s)

Std ID	Exp. Date	Description
A19J260	04/14/20	PAH Soil and Water Surr. (50ppm)

Method 3546 digestion time and temperture achieved.
Initial:

Witness:_____

Prepared By: _____ Date

DTH 11/8/19
Reviewed By: Date

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110499 (Sediment)

Prep Method: EPA ~~3546~~ 1311/3510C (BNA Extraction) Cmk 11/6/19

#	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
1	9110499-BLK1		QC	11/06/19 07:15	200	2				100			X		X
2	9110499-BSD1		QC	11/06/19 07:15	200	2	A19J490		100	100		#	X		X
3	9110499-BS1		QC	11/06/19 07:15	200	2	A19J490		100	100		#	X		X
4	A9J0950-01	F	1311/8270D TCLP SVOC Reg List	11/06/19 07:15	200	2				100	PDI-015SC-C-00 -8.1-191024		X		X
5	A9J0950-02	F	1311/8270D TCLP SVOC Reg List	11/06/19 07:15	200	2				100	PDI-026SC-C-00 -3.9-191024		X		X
6	A9J0950-03	F	1311/8270D TCLP SVOC Reg List	11/06/19 07:15	200	2				100	PDI-037SC-C-00 -12.4-191024		X		X
7	A9J0950-04	F	1311/8270D TCLP SVOC Reg List	11/06/19 07:15	200	2				100	PDI-073SC-C-00 -13.7-191024		X		X

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L219	11/30/23	Extractions Balance
A18K311	12/31/20	Glass Wool
A19I263	03/18/20	DCM CHEM PROD. 194934
A19J048	03/31/20	Sodium Sulfate Lot # 191177
~~A19T297~~		NaOH
~~A19H319~~		HCl

Analyte Spike(s)

Std ID	Exp. Date	Description
A19J490	04/28/20	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s)

Std ID	Exp. Date	Description
A19J260	04/14/20	PAH Soil and Water Surr. (50ppm)

Method 3546 digestion ~~time and temperture~~ achieved. N/A AJJ 11/6/19

Initial: ~~AJJ~~

= di H_2O used

Witness: JAG 11/6/19

Bottle Check: JAG 11/6/19

AJJ 11-6-19
Prepared By: Date

~~CMK~~ 11/6/19
Reviewed By: Date

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9K06033**	Instrument:	**SV-GCMS9**
Date:	**11/06/19 08:07**	Calibration:	**A9J1803**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K06033-TUN1	Sediment	QC	QC			A19G233	A19J292
2	9K06033-CCV1	Sediment	QC	QC			A19G233	A19G243
3	9K06033-IBL1	Sediment	QC	QC			A19G233	
4	9K06033-TUN2	Sediment	QC	QC			A19G233	A19J292
5	9K06033-CCV2	Sediment	QC	QC			A19G233	A19G243
6	9K06033-CCB1	Sediment	QC	QC			A19G233	
7	9110499-BLK1	Sediment	QC	QC		9110499	A19G233	
8	9110499-BS1	Sediment	QC	QC		9110499	A19G233	
9	9110499-BSD1	Sediment	QC	QC		9110499	A19G233	
10	A9J0950-01	Sediment	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	11/07/19	9110499	A19G233	
11	A9J0950-02	Sediment	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	11/07/19	9110499	A19G233	
12	A9J0950-03	Sediment	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	11/07/19	9110499	A19G233	
13	A9J0950-04	Sediment	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	11/07/19	9110499	A19G233	
14	9K06033-IBL2	Sediment	QC	QC			A19G233	

Comments:

Data Entered By: 11/6/19

Data Reviewed By: 11/7/19

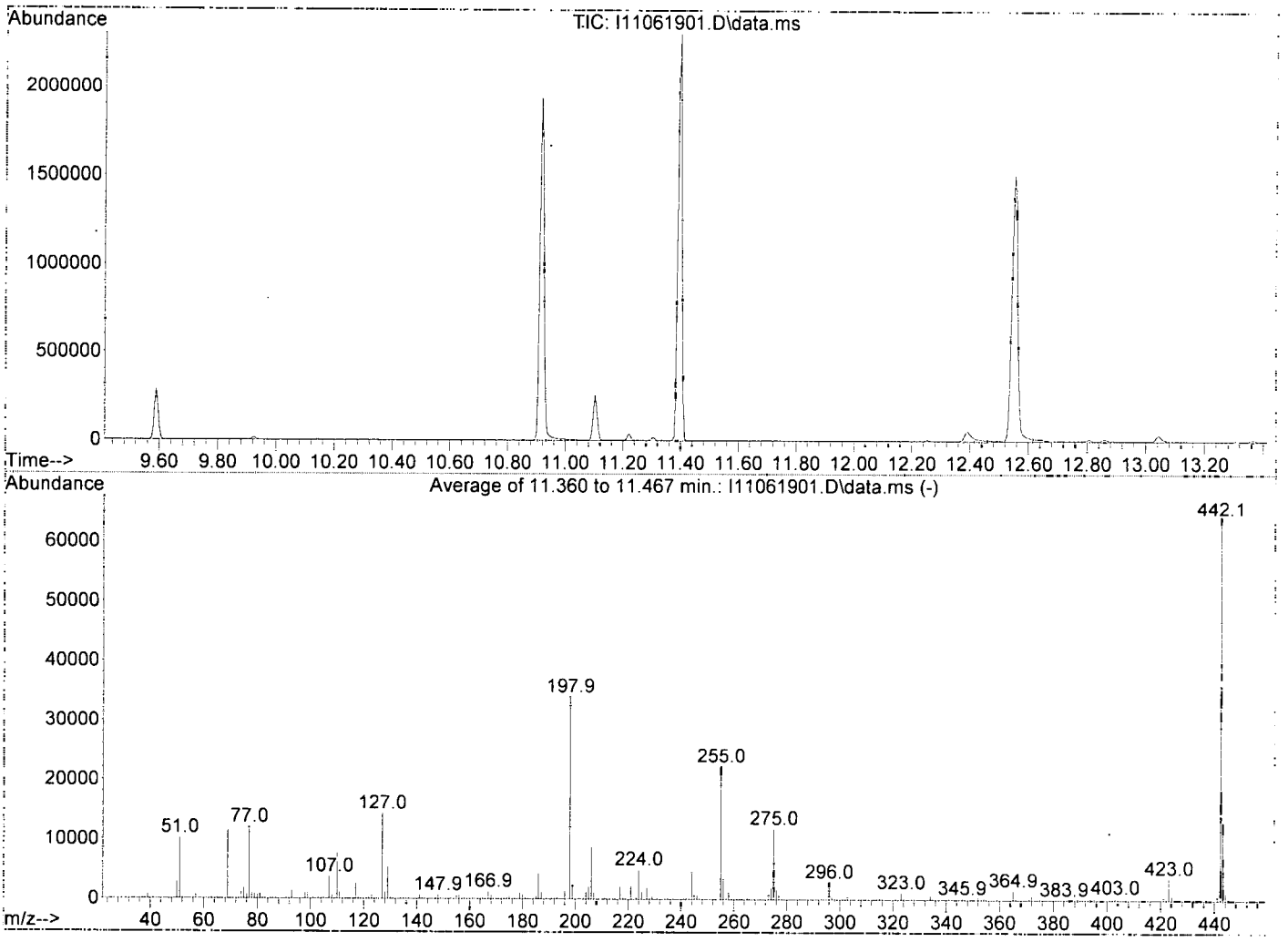
DFTPP

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061901.D
Acq On : 6 Nov 2019 8:12 am
Operator : JK /AMS /DTH
Sample : 9K06033-TUN1
Misc : 1x, A19J292 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

AMS Q-14
11/6/19

Integration File: rteint.p

Method : C:\msdchem\1\methods\DFTPP.M
Title : DFTPP Tune Methodug/mL
Last Update : Wed Nov 06 08:34:37 2019



AutoFind: Averaged scan 1472 to 1492; Bkg corrected with scan 1471)

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	11521	PASS
70	69	0.00	2	0.5	61	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	34034	PASS
199	198	5	9	7.0	2383	PASS
365	198	1	100	4.7	1600	PASS
441	443	0.01	150	5.5	716	PASS
442	198	0.10	200	189.1	64364	PASS
443	442	15	24	20.3	13053	PASS

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061901.D
Acq On : 6 Nov 2019 8:12 am
Operator : JK /AMS /DTH
Sample : 9K06033-TUN1
Misc : 1x, A19J292 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 06 09:18:12 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Nov 06 08:34:37 2019
Response via : Initial Calibration
InstName : SV-GCMS9

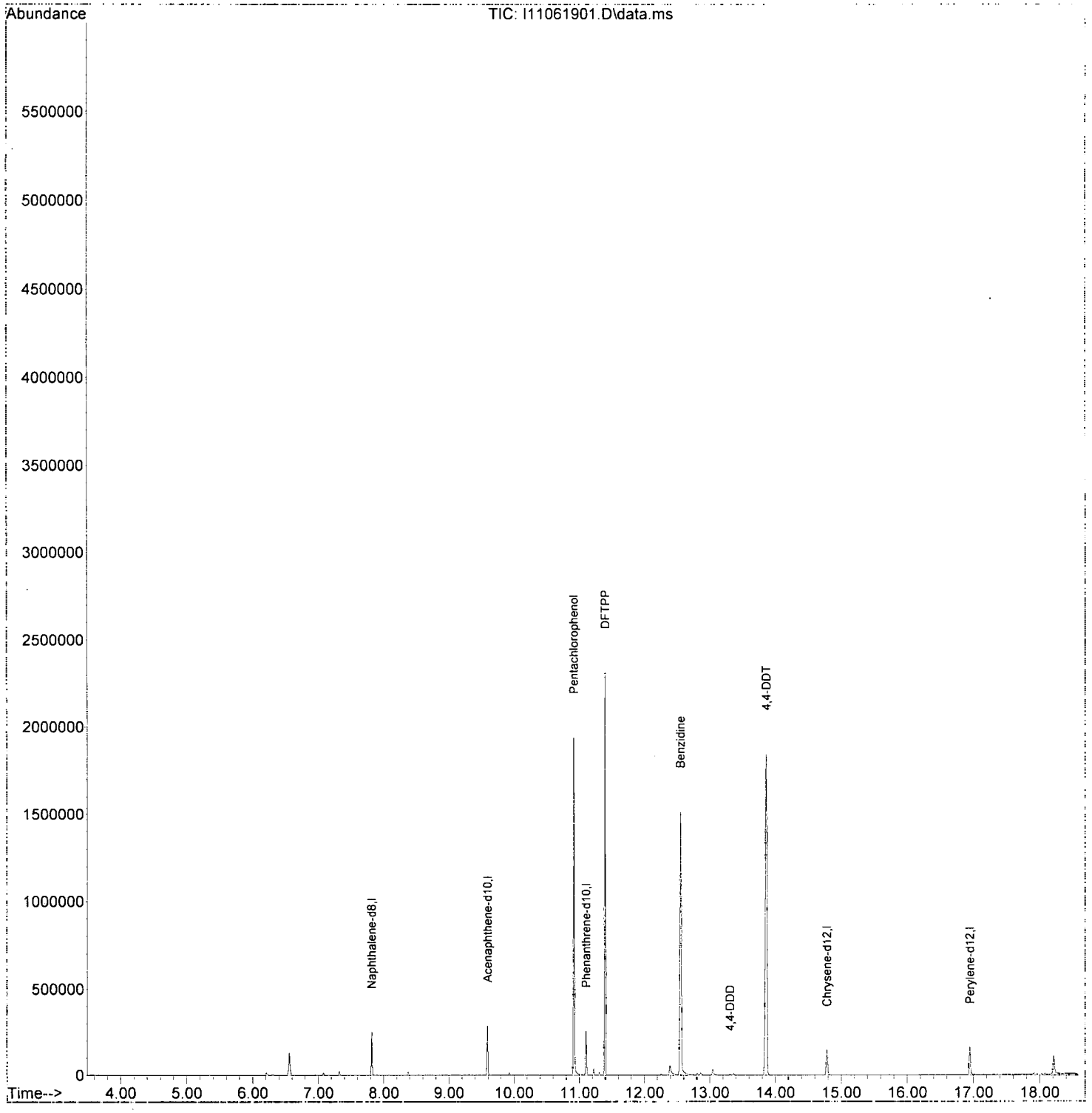
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.814	136	121643	2.00	ug/mL	0.00
2) Acenaphthene-d10	9.590	162	61215	2.00	ug/mL	0.00
4) Phenanthrene-d10	11.103	188	98523	2.00	ug/mL	0.00
10) Chrysene-d12	14.783	240	85569	2.00	ug/mL	0.00
11) Perylene-d12	16.944	264	79108	2.00	ug/mL	0.00
Target Compounds						Qvalue
3) Pentachlorophenol	10.916	266	291418	42.43	ug/mL#	83
5) DFTPP	11.397	442	433787	52.37	ug/mL#	60
6) Benzidine	12.553	184	885836	29.86	ug/mL	86
7) 4,4-DDE	12.804	TIC	11128	No Calib	#	
8) 4,4-DDD	13.307	TIC	7115	1.74	ug/mL#	1
9) 4,4-DDT	13.863	TIC	3178439	38.28	ug/mL#	1

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

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061901.D
Acq On : 6 Nov 2019 8:12 am
Operator : JK /AMS /DTH
Sample : 9K06033-TUN1
Misc : 1x, A19J292 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 06 09:18:12 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Nov 06 08:34:37 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061902.D
Acq On : 6 Nov 2019 8:40 am
Operator : JK /AMS /DTH
Sample : 9K06033-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Q-14
AMS
11/6/19

Quant Time: Nov 06 12:45:30 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R2.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.568	152	80576	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.819	136	322237	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.595	162	175358	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.103	188	351625	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.842	240	383540	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.324	264	399497	2000.00	ng/ml	0.01
94) Dibenz(a,h)Anthrcene-d...	20.720	292	386692	2000.00	ng/ml	0.01
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.337	112	50540	851.82	ng/ml	0.00
5) Phenol-d6 (Surr)	6.209	99	63938	890.53	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.102	82	54503	1040.11	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.900	172	143029	1110.09	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.392	330	25845	1209.14	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.879	244	194279	1043.98	ng/ml	0.02
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.990	74	70	N.D.		
3) Pyridine	4.075	79	56355	761.63	ng/ml	92
6) Phenol	6.225	94	69642	915.81	ng/ml	96
7) Aniline	6.257	93	48247	609.54	ng/ml	97
8) Bis(2-chloroethyl) ether	6.311	93	60439	883.05	ng/ml	92
9) 2-Chlorophenol	6.370	128	57553	990.79	ng/ml	92
10) 1,3-Dichlorobenzene	6.514	146	64125	994.93	ng/ml	99
11) 1,4-Dichlorobenzene	6.584	146	62552	1018.98	ng/ml	97
12) Benzyl alcohol	6.701	108	25441	760.73	ng/ml	95
13) 1,2-Dichlorobenzene	6.733	146	60668	1014.08	ng/ml	97
14) 2-Methylphenol	6.803	107	44717	1009.80	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.830	45	63286	668.13	ng/ml	79
16) N-Nitrosodi-n-propylamine	6.953	70	41176	882.79	ng/ml	95
17) 3+4-Methylphenol	6.953	107	54997	1017.50	ng/ml	98
18) Hexachloroethane	7.065	201	21545	1092.32	ng/ml	92
20) Nitrobenzene	7.124	77	54518	982.57	ng/ml	92
22) Isophorone	7.354	82	110047	863.66	ng/ml	95
23) 2-Nitrophenol	7.439	139	30517	1074.76	ng/ml	92
24) 2,4-Dimethylphenol	7.477	122	46884	1030.27	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.562	93	64137	909.26	ng/ml	98
26) Benzoic acid	7.562	105	28776	1783.78	ng/ml	92
27) 2,4-Dichlorophenol	7.680	162	45240	1081.84	ng/ml	92
28) 1,2,4-Trichlorobenzene	7.760	180	58910	1084.68	ng/ml	99
29) Naphthalene	7.841	128	169076	1021.49	ng/ml	98
30) 4-Chloroaniline	7.899	127	40189	708.28	ng/ml	95
31) Hexachlorobutadiene	7.969	225	34142	1139.60	ng/ml	98
32) 4-Chloro-3-methylphenol	8.370	107	43571	878.87	ng/ml	98
33) 2-Methylnaphthalene	8.536	142	130206	1093.75	ng/ml	99
34) 1-Methylnaphthalene	8.632	142	123883	1093.07	ng/ml	99
36) Hexachlorocyclopentadiene	8.702	237	39752	1299.03	ng/ml	97
37) 2,4,6-Trichlorophenol	8.819	196	35570	1037.73	ng/ml	99
38) 2,4,5-Trichlorophenol	8.851	198	34060	1028.40	ng/ml	98
39) 1,1'-Biphenyl	9.001	154	154992	1092.26	ng/ml	99
41) 2-Chloronaphthalene	9.028	162	114281	1089.80	ng/ml	97
42) 2-Nitroaniline	9.124	138	34563	1073.99	ng/ml	86
43) 2,6-Dimethylnaphthalene	9.162	156	112771	1051.54	ng/ml	99

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061902.D
Acq On : 6 Nov 2019 8:40 am
Operator : JK /AMS /DTH
Sample : 9K06033-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

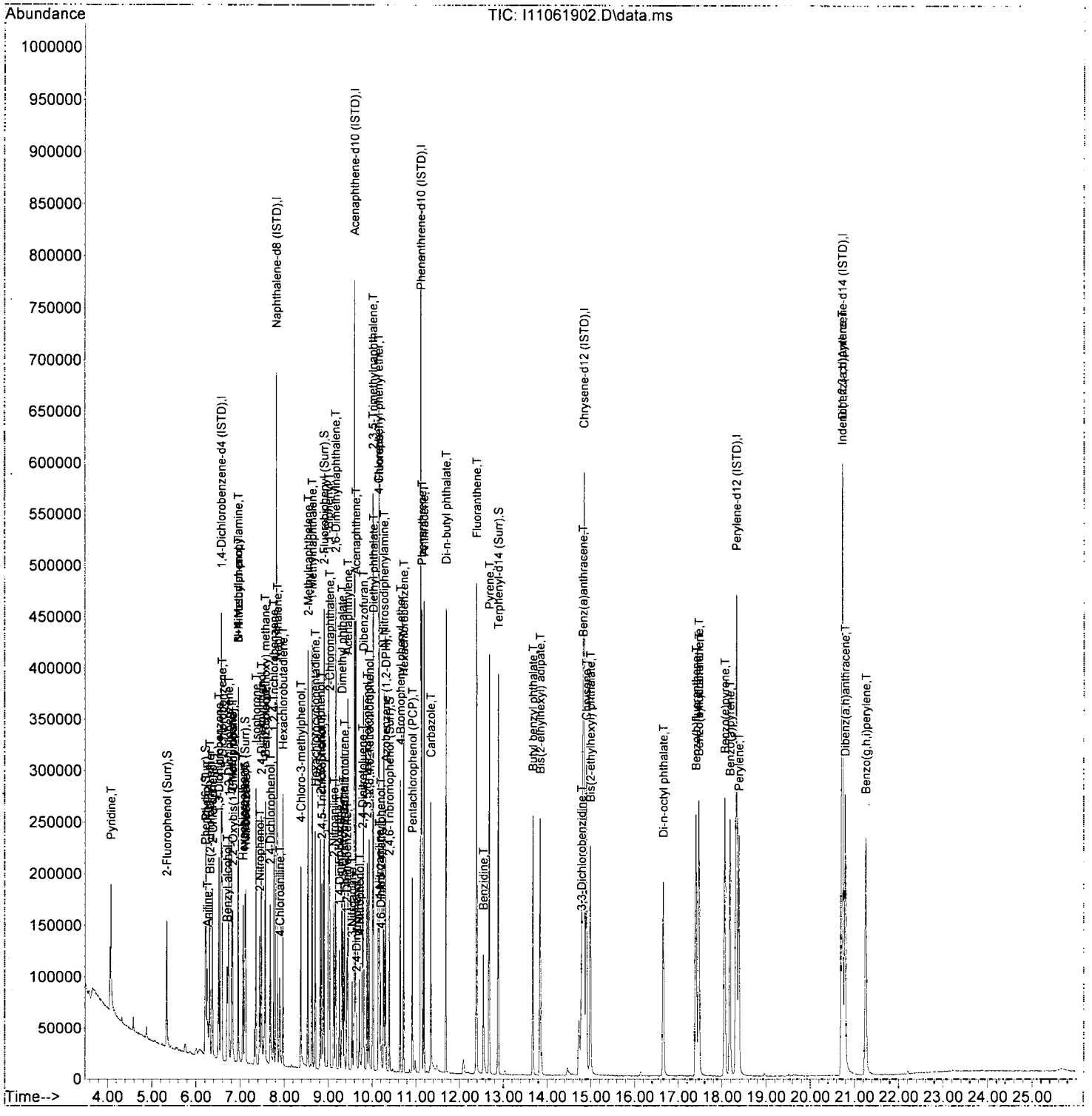
Quant Time: Nov 06 12:45:30 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R2.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.253	168	17600	1454.62	ng/ml#	71
45)	Dimethyl phthalate	9.306	163	132812	1037.91	ng/ml	99
46)	1,3-Dinitrobenzene	9.333	168	20535	1263.43	ng/ml	90
47)	2,6-Dinitrotoluene	9.365	165	30583	1162.85	ng/ml	85
48)	1,2-Dinitrobenzene	9.424	168	14628	1167.68	ng/ml#	69
49)	Acenaphthylene	9.445	152	180893	1030.20	ng/ml	99
50)	3-Nitroaniline	9.541	138	18891	778.56	ng/ml	94
51)	Acenaphthene	9.627	153	112864	1022.24	ng/ml	98
52)	2,4-Dinitrophenol	9.643	184	7719	1468.54	ng/ml	80
53)	4-Nitrophenol	9.707	139	18837	1037.07	ng/ml	94
54)	2,4-Dinitrotoluene	9.777	165	39793	1245.16	ng/ml	85
55)	Dibenzofuran	9.798	168	162581	1075.45	ng/ml	95
56)	2,3,5,6-Tetrachlorophenol	9.884	232	32028	1194.19	ng/ml	93
57)	2,3,4,6-Tetrachlorophenol	9.927	232	34044	1192.92	ng/ml	92
58)	Diethyl phthalate	10.023	149	121664	1003.26	ng/ml	98
59)	2,3,5-Trimethylnaphtha...	10.012	170	107491	1073.70	ng/ml	99
60)	Fluorene	10.151	166	128176	1053.99	ng/ml	99
61)	4-Chlorophenyl phenyl ...	10.140	204	68335	1134.32	ng/ml	97
62)	4-Nitroaniline	10.162	138	26382	1273.02	ng/ml	89
63)	4,6-Dinitro-2-methylph...	10.194	198	15278	1410.16	ng/ml	87
65)	N-Nitrosodiphenylamine	10.263	169	106612	965.96	ng/ml	99
66)	Azobenzene (1,2-DPH)	10.306	77	105845	733.31	ng/ml	84
68)	4-Bromophenyl phenyl e...	10.643	248	45882	1112.63	ng/ml	94
69)	Hexachlorobenzene	10.718	284	55733	1143.19	ng/ml	94
70)	Pentachlorophenol (PCP)	10.916	266	29066	1279.11	ng/ml	97
71)	Phenanthrene	11.130	178	186557	1017.19	ng/ml	99
72)	Anthracene	11.178	178	189367	1046.88	ng/ml	100
73)	Carbazole	11.339	167	140050	871.05	ng/ml	97
74)	Di-n-butyl phthalate	11.686	149	210405	959.03	ng/ml	99
75)	Fluoranthene	12.387	202	234375	1084.15	ng/ml	96
76)	Benzidine	12.542	184	64620	901.91	ng/ml	97
77)	Pyrene	12.676	202	232192	1101.34	ng/ml	99
80)	Butyl benzyl phthalate	13.671	149	90911	838.09	ng/ml	89
81)	Bis(2-ethylhexyl) adipate	13.842	129	75352	779.21	ng/ml	97
82)	3,3-Dichlorobenzidine	14.788	252	51298	1364.05	ng/ml	99
83)	Benz(a)anthracene	14.820	228	220929	994.75	ng/ml	99
84)	Chrysene	14.901	228	198325	987.34	ng/ml	99
85)	Bis(2-ethylhexyl) phth...	14.992	149	118052	837.51	ng/ml	97
87)	Di-n-octyl phthalate	16.660	149	194620	778.62	ng/ml	95
88)	Benzo(b)fluoranthene	17.404	252	235843	1057.20	ng/ml	96
89)	Benzo(k)fluoranthene	17.468	252	231406	1115.67	ng/ml	97
90)	Benzo(b+k)fluoranthene	17.468	252	478531	2171.18	ng/ml	97
91)	Benzo(e)pyrene	18.056	252	228697	1055.69	ng/ml	99
92)	Benzo(a)pyrene	18.179	252	214811	1023.44	ng/ml	97
93)	Perylene	18.383	252	188138	1037.84	ng/ml	99
95)	Indeno(1,2,3-cd)pyrene	20.715	276	216028	945.83	ng/ml	88
96)	Dibenz(a,h)anthracene	20.790	278	199906	1001.07	ng/ml	94
97)	Benzo(g,h,i)perylene	21.255	276	222564	1022.16	ng/ml	90

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

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061902.D
Acq On : 6 Nov 2019 8:40 am
Operator : JK /AMS /DTH
Sample : 9K06033-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 12:45:30 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R2.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9



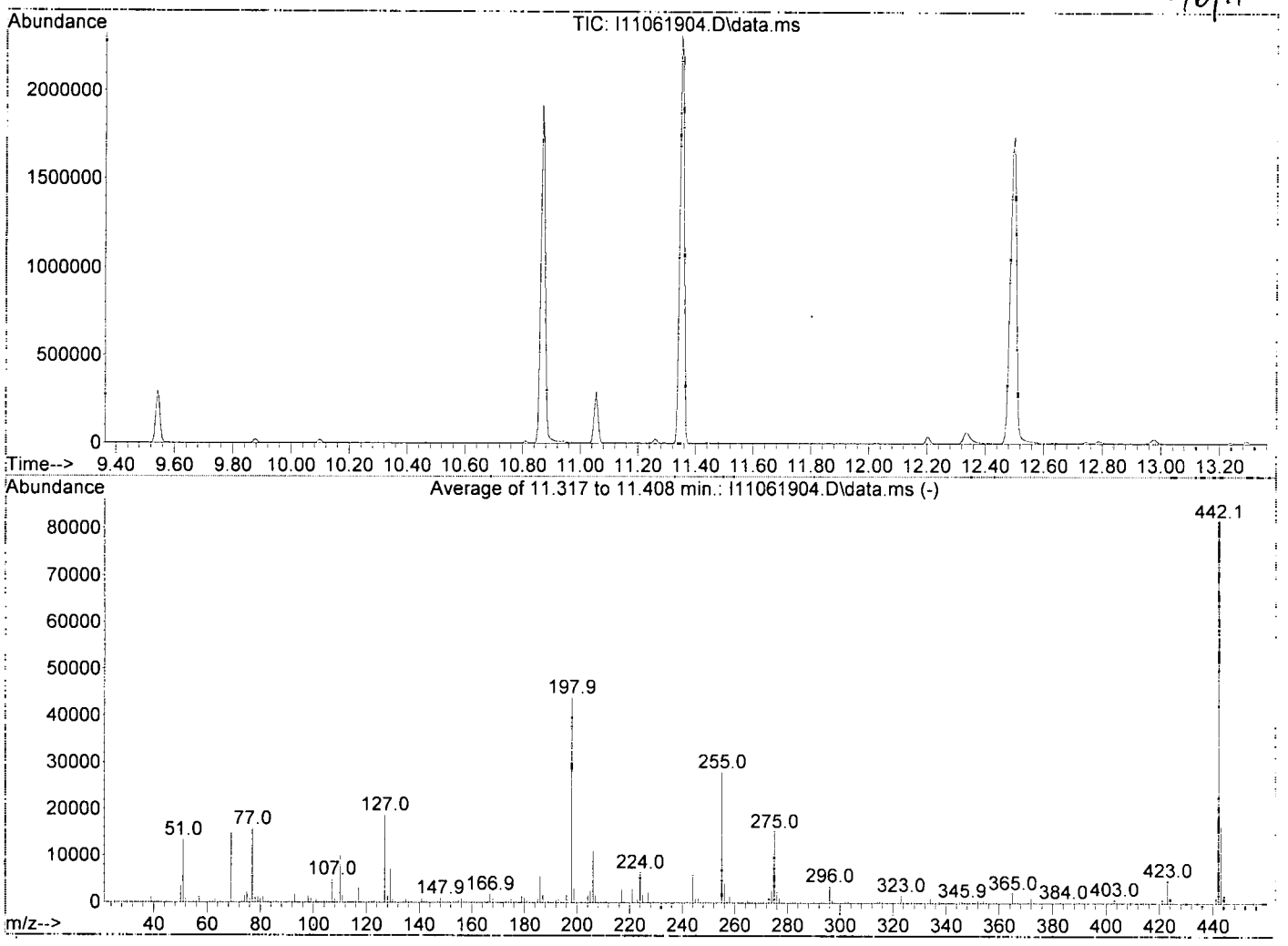
Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061904.D
Acq On : 6 Nov 2019 10:23 am
Operator : JK /AMS /DTH
Sample : 9K06033-TUN2
Misc : 1x, A19J292 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\DFTPP.M
Title : DFTPP Tune Methodug/mL
Last Update : Wed Nov 06 08:34:37 2019

Clipped column ✓ Replaced graphpack

AMS ✓ 11/6/19 AMS 11/6/19



AutoFind: Averaged scan 1464 to 1481; Bkg corrected with scan 1463)

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	0.1	15	PASS
69	69	100	100	100.0	14918	PASS
70	69	0.00	2	0.5	75	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	43978	PASS
199	198	5	9	7.1	3117	PASS
365	198	1	100	4.6	2029	PASS
441	443	0.01	150	5.2	873	PASS
442	198	0.10	200	186.7	82097	PASS
443	442	15	24	20.3	16648	PASS

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061904.D
Acq On : 6 Nov 2019 10:23 am
Operator : JK /AMS /DTH
Sample : 9K06033-TUN2
Misc : 1x, A19J292 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 06 12:48:00 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Nov 06 12:47:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9

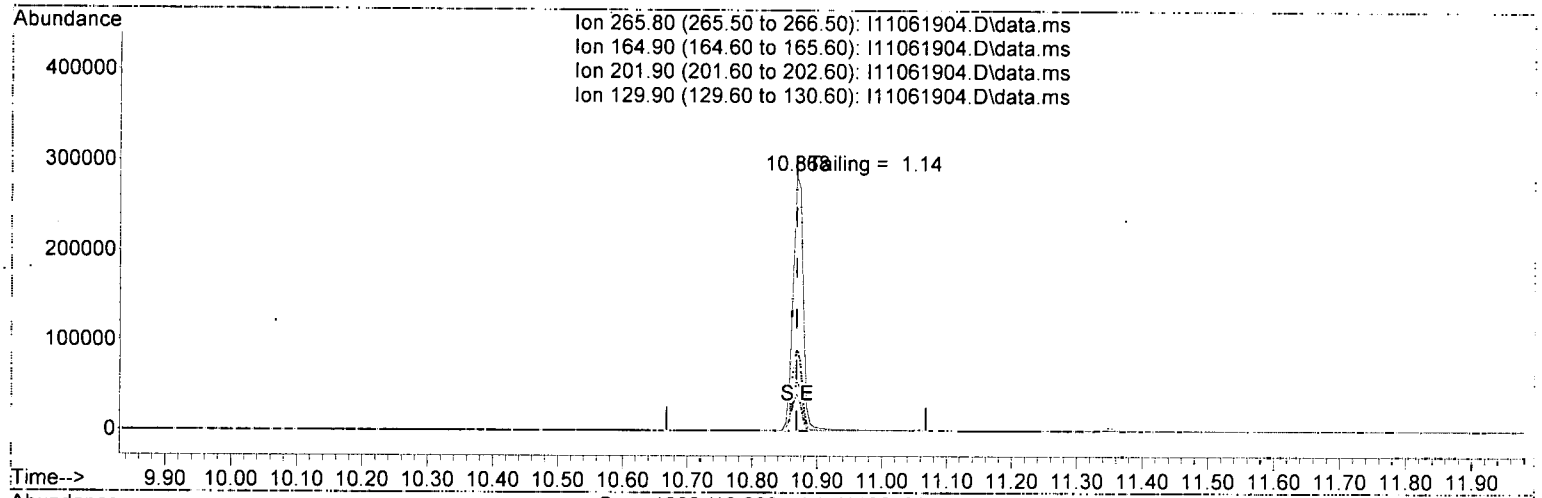
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.771	136	129630	2.00	ug/mL	0.00
2) Acenaphthene-d10	9.542	162	66151	2.00	ug/mL	0.00
4) Phenanthrene-d10	11.055	188	110226	2.00	ug/mL	0.00
10) Chrysene-d12	14.698	240	102466	2.00	ug/mL	0.00
11) Perylene-d12	16.816	264	102047	2.00	ug/mL	0.00
Target Compounds						Qvalue
3) Pentachlorophenol	10.868	266	313690	42.27	ug/mL#	81
5) DFTPP	11.355	442	474307	51.18	ug/mL#	58
6) Benzidine	12.499	184	1077615	32.47	ug/mL	86
7) 4,4-DDE	12.745	TIC	9403	No Calib	#	
8) 4,4-DDD	13.237	TIC	9626	2.11	ug/mL#	1
9) 4,4-DDT	13.783	TIC	3628688	39.06	ug/mL#	1

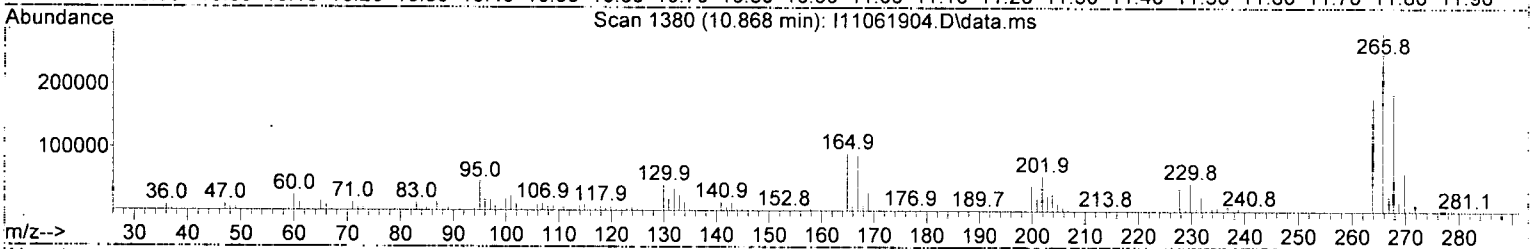
(#) = qualifier out of range (m) = manual integration (+) = signals summed

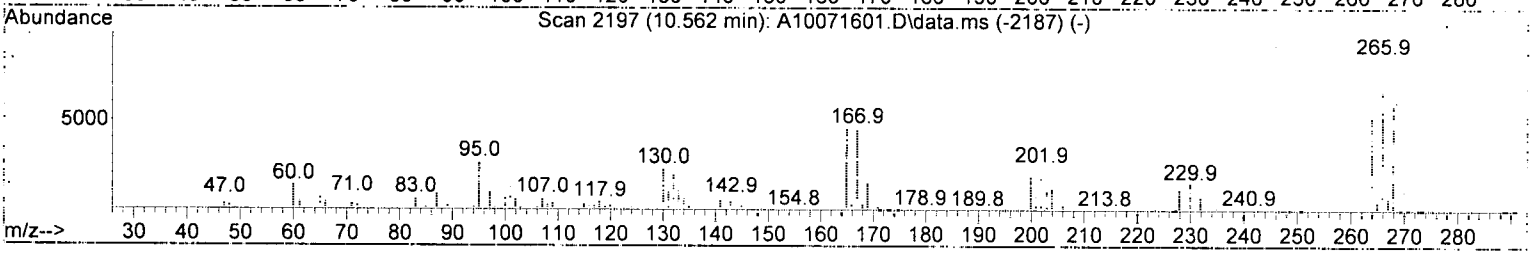
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061904.D
Acq On : 6 Nov 2019 10:23 am
Operator : JK /AMS /DTH
Sample : 9K06033-TUN2
Misc : 1x, A19J292 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 06 12:48:00 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Nov 06 12:47:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I11061904.D\data.ms

(3) Pentachlorophenol

10.868min (0.000) 42.27 ug/mL

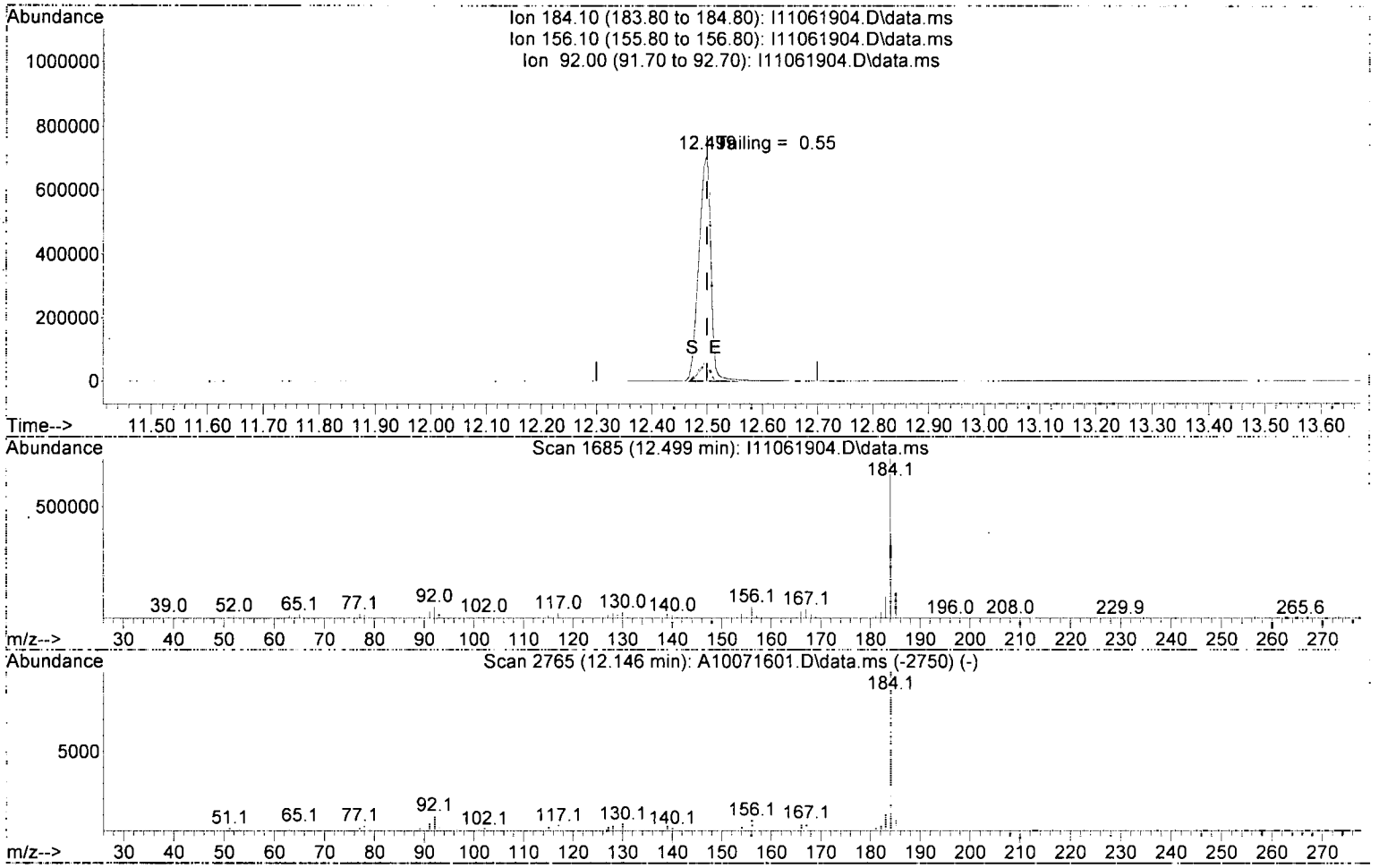
response 313690

Ion	Exp%	Act%
265.80	100.00	100.00
164.90	47.40	32.04#
201.90	26.10	19.45
129.90	22.80	14.35#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061904.D
Acq On : 6 Nov 2019 10:23 am
Operator : JK /AMS /DTH
Sample : 9K06033-TUN2
Misc : 1x, A19J292 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 06 12:48:00 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Nov 06 12:47:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I11061904.D\data.ms

(6) Benzidine

12.499min (0.000) 32.47 ug/mL

response 1077615

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	9.40	7.36
92.00	15.50	7.37
0.00	0.00	0.00

DDT Breakdown Check (Validated 5/1/2013)

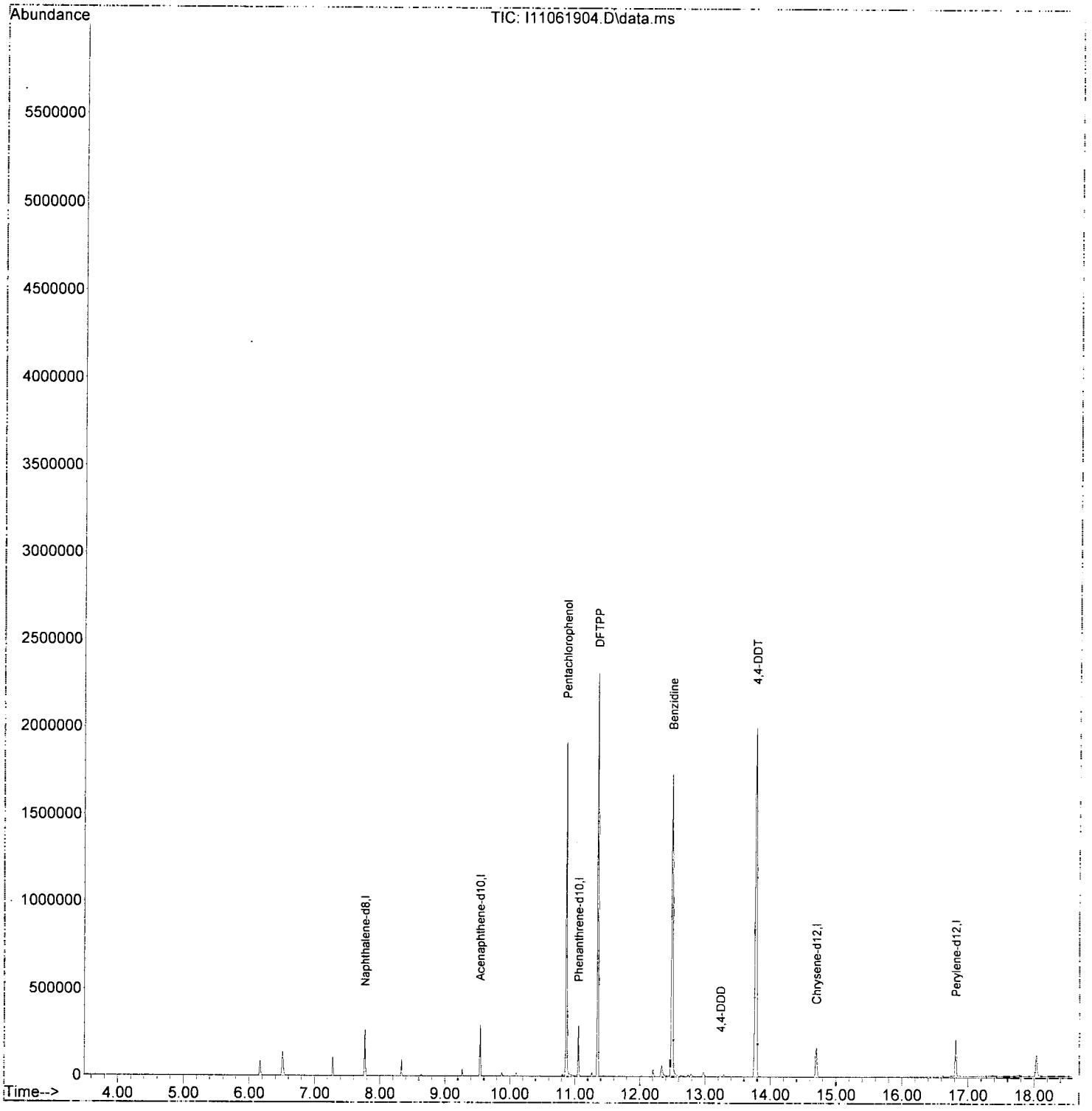
From:
9K06033-TUN2
SV-GCMS9

First Column Area Counts		Percent Breakdown
DDE	9403	
DDD	9626	
DDT	3628688	0.52 PASS

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

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061904.D
Acq On : 6 Nov 2019 10:23 am
Operator : JK /AMS /DTH
Sample : 9K06033-TUN2
Misc : 1x, A19J292 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 06 12:48:00 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Wed Nov 06 12:47:14 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061905.D
Acq On : 6 Nov 2019 10:50 am
Operator : JK /AMS /DTH
Sample : 9K06033-CCV2
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Replaced graphpack & cut ~1ft. of column.

AMS 11/6/19

Quant Time: Nov 06 12:49:37 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (IST	2000.000	2000.000	0.0	79	0.00
2	T	N-Nitrosodimethylamine	1000.000	744.143	25.6#	59	0.00
3	T	Pyridine	1000.000	801.740	19.8	63	0.00
4	S	2-Fluorophenol (Surr)	1000.000	862.821	13.7	67	0.00
5	S	Phenol-d6 (Surr)	1000.000	986.158	1.4	74	0.00
6	T	Phenol	1000.000	987.498	1.3	75	0.00
7	T	Aniline	1000.000	586.611	41.3#	47	0.00
8	T	Bis(2-chloroethyl) ether	1000.000	974.012	2.6	73	0.00
9	T	2-Chlorophenol	1000.000	1034.394	-3.4	77	0.00
10	T	1,3-Dichlorobenzene	1000.000	981.024	1.9	76	0.00
11	T	1,4-Dichlorobenzene	1000.000	1008.009	-0.8	79	0.00
12	T	Benzyl alcohol	1000.000	870.732	12.9	64	0.00
13	T	1,2-Dichlorobenzene	1000.000	1009.656	-1.0	78	0.00
14	T	2-Methylphenol	1000.000	1037.089	-3.7	76	0.00
15	T	2,2'-Oxybis(1-Chloropropane	1000.000	695.905	30.4#	54	0.00
16	T	N-Nitrosodi-n-propylamine	1000.000	891.051	10.9	66	0.00
17	T	3+4-Methylphenol	1000.000	1072.744	-7.3	77	0.00
18	T	Hexachloroethane	1000.000	1078.898	-7.9	84	0.00
19	S	Nitrobenzene-d5 (Surr)	1000.000	1107.366	-10.7	81	0.00
20	T	Nitrobenzene	1000.000	1053.673	-5.4	76	0.00
21	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	82	0.00
22	T	Isophorone	1000.000	876.334	12.4	68	0.00
23	T	2-Nitrophenol	1000.000	1135.293	-13.5	88	0.00
24	T	2,4-Dimethylphenol	1000.000	1041.710	-4.2	78	0.00
25	T	Bis(2-chloroethoxy) methane	1000.000	953.699	4.6	73	0.00
26	T	Benzoic acid	2000.000	1755.165	12.2	69	0.00
27	T	2,4-Dichlorophenol	1000.000	1178.815	-17.9	90	0.00
28	T	1,2,4-Trichlorobenzene	1000.000	1090.204	-9.0	87	0.00
29	T	Naphthalene	1000.000	1021.217	-2.1	80	0.00
30	T	4-Chloroaniline	1000.000	576.241	42.4#	46	0.00
31	T	Hexachlorobutadiene	1000.000	1137.588	-13.8	92	0.00
32	T	4-Chloro-3-methylphenol	1000.000	960.087	4.0	75	0.00
33	T	2-Methylnaphthalene	1000.000	1090.410	-9.0	83	0.00
34	T	1-Methylnaphthalene	1000.000	1075.647	-7.6	83	0.00
35	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	87	0.00
36	T	Hexachlorocyclopentadiene	1000.000	1223.740	-22.4#	98	0.00
37	T	2,4,6-Trichlorophenol	1000.000	1102.540	-10.3	93	0.00
38	T	2,4,5-Trichlorophenol	1000.000	1103.734	-10.4	90	0.00
39	T	1,1'-Biphenyl	1000.000	1089.522	-9.0	86	0.00
40	S	2-Fluorobiphenyl (Surr)	1000.000	1100.686	-10.1	88	0.00
41	T	2-Chloronaphthalene	1000.000	1089.297	-8.9	86	0.00
42	T	2-Nitroaniline	1000.000	1132.513	-13.3	96	0.00
43	T	2,6-Dimethylnaphthalene	1000.000	1064.008	-6.4	85	0.00
44	T	1,4-Dinitrobenzene	1000.000	1442.748	-44.3#	145	0.00
45	T	Dimethyl phthalate	1000.000	1039.294	-3.9	86	0.00
46	T	1,3-Dinitrobenzene	1000.000	1254.438	-25.4#	118	0.00
47	T	2,6-Dinitrotoluene	1000.000	1146.121	-14.6	95	0.00
48	T	1,2-Dinitrobenzene	1000.000	1100.813	-10.1	95	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061905.D
Acq On : 6 Nov 2019 10:50 am
Operator : JK /AMS /DTH
Sample : 9K06033-CCV2
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 12:49:37 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	Acenaphthylene	1000.000	1012.274	-1.2	83	0.00
50	T	3-Nitroaniline	1000.000	818.342	18.2	71	0.00
51	T	Acenaphthene	1000.000	1015.594	-1.6	85	0.00
52	T	2,4-Dinitrophenol	1000.000	1431.520	-43.2#	152	0.00
53	T	4-Nitrophenol	1000.000	1075.254	-7.5	90	0.00
54	T	2,4-Dinitrotoluene	1000.000	1231.525	-23.2#	107	0.00
55	T	Dibenzofuran	1000.000	1071.863	-7.2	89	0.00
56	T	2,3,5,6-Tetrachlorophenol	1000.000	1198.355	-19.8	102	0.00
57	T	2,3,4,6-Tetrachlorophenol	1000.000	1192.623	-19.3	96	0.00
58	T	Diethyl phthalate	1000.000	1017.800	-1.8	85	0.00
59	T	2,3,5-Trimethylnaphthalene	1000.000	1071.684	-7.2	86	0.00
60	T	Fluorene	1000.000	1046.154	-4.6	88	0.00
61	T	4-Chlorophenyl phenyl ether	1000.000	1141.127	-14.1	95	0.00
62	T	4-Nitroaniline	1000.000	1303.335	-30.3#	109	0.00
63	T	4,6-Dinitro-2-methylphenol	1000.000	1402.105	-40.2#	141	0.00
64	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	92	0.00
65	T	N-Nitrosodiphenylamine	1000.000	961.741	3.8	86	0.00
66	T	Azobenzene (1,2-DPH)	1000.000	755.348	24.5#	70	0.00
67	S	2,4,6-Tribromophenol (Surr)	1000.000	1238.584	-23.9#	113	0.00
68	T	4-Bromophenyl phenyl ether	1000.000	1122.469	-12.2	101	0.00
69	T	Hexachlorobenzene	1000.000	1136.085	-13.6	103	0.00
70	T	Pentachlorophenol (PCP)	1000.000	1337.362	-33.7#	126	0.00
71	T	Phenanthrene	1000.000	1022.097	-2.2	90	0.00
72	T	Anthracene	1000.000	1055.240	-5.5	91	0.00
73	T	Carbazole	1000.000	949.254	5.1	93	0.00
74	T	Di-n-butyl phthalate	1000.000	978.645	2.1	82	0.00
75	T	Fluoranthene	1000.000	1078.070	-7.8	91	0.00
76	T	Benzidine	2000.000	839.055	58.0#	36	0.00
77	T	Pyrene	1000.000	1105.278	-10.5	92	0.00
78	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	98	0.00
79	S	Terphenyl-d14 (Surr)	1000.000	1040.615	-4.1	99	0.00
80	T	Butyl benzyl phthalate	1000.000	877.801	12.2	83	0.00
81	T	Bis(2-ethylhexyl) adipate	1000.000	824.937	17.5	79	0.00
82	T	3,3-Dichlorobenzidine	2000.000	1096.587	45.2#	60	0.00
83	T	Benz(a)anthracene	1000.000	994.658	0.5	97	0.00
84	T	Chrysene	1000.000	983.740	1.6	95	0.00
85	T	Bis(2-ethylhexyl) phthalate	1000.000	865.359	13.5	81	0.00
86	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
87	T	Di-n-octyl phthalate	1000.000	846.689	15.3	83	0.00
88	T	Benzo(b)fluoranthene	1000.000	1083.987	-8.4	101	0.00
89	T	Benzo(k)fluoranthene	1000.000	1120.500	-12.0	99	0.00
90	T	Benzo(b+k)fluoranthene	2000.000	2204.178	-10.2	100	0.00
91	T	Benzo(e)pyrene	1000.000	1077.977	-7.8	100	0.00
92	T	Benzo(a)pyrene	1000.000	1030.890	-3.1	99	0.00
93	T	Perylene	1000.000	1022.917	-2.3	98	0.00
94	I	Dibenz(a,h)Anthrcene-d14 (I	2000.000	2000.000	0.0	105	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061905.D
Acq On : 6 Nov 2019 10:50 am
Operator : JK /AMS /DTH
Sample : 9K06033-CCV2
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 12:49:37 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
95 T	Indeno(1,2,3-cd)pyrene	1000.000	979.717	2.0	103	0.00
96 T	Dibenz(a,h)anthracene	1000.000	1022.568	-2.3	104	0.00
97 T	Benzo(g,h,i)perylene	1000.000	1063.826	-6.4	103	0.00

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

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061905.D
Acq On : 6 Nov 2019 10:50 am
Operator : JK /AMS /DTH
Sample : 9K06033-CCV2
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 12:49:37 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.520	152	85577	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.771	136	340138	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.547	162	182719	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.055	188	361511	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.751	240	395486	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.217	264	409588	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.608	292	381719	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.284	112	54370	862.82	ng/ml	0.00
5) Phenol-d6 (Surr)	6.161	99	75198	986.16	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.054	82	61629	1107.37	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.857	172	147771	1100.69	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.344	330	27243	1238.58	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.815	244	199685	1040.61	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.968	74	37612	744.14	ng/ml	96
3) Pyridine	3.984	79	63005	801.74	ng/ml	95
6) Phenol	6.177	94	79754	987.50	ng/ml	97
7) Aniline	6.204	93	49314	586.61	ng/ml	98
8) Bis(2-chloroethyl) ether	6.258	93	70802	974.01	ng/ml	92
9) 2-Chlorophenol	6.322	128	63815	1034.39	ng/ml	91
10) 1,3-Dichlorobenzene	6.466	146	67153	981.02	ng/ml	98
11) 1,4-Dichlorobenzene	6.536	146	65719	1008.01	ng/ml	97
12) Benzyl alcohol	6.653	108	30927	870.73	ng/ml	99
13) 1,2-Dichlorobenzene	6.685	146	64152	1009.66	ng/ml	97
14) 2-Methylphenol	6.760	107	48776	1037.09	ng/ml	100
15) 2,2'-Oxybis(1-Chloropr...	6.782	45	70008	695.91	ng/ml	85
16) N-Nitrosodi-n-propylamine	6.910	70	44141	891.05	ng/ml	89
17) 3+4-Methylphenol	6.905	107	61582	1072.74	ng/ml	99
18) Hexachloroethane	7.017	201	22601	1078.90	ng/ml	94
20) Nitrobenzene	7.076	77	62092	1053.67	ng/ml	93
22) Isophorone	7.306	82	117865	876.33	ng/ml	99
23) 2-Nitrophenol	7.391	139	34133	1135.29	ng/ml	94
24) 2,4-Dimethylphenol	7.429	122	50038	1041.71	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.520	93	71009	953.70	ng/ml	98
26) Benzoic acid	7.520	105	29506	1755.17	ng/ml	92
27) 2,4-Dichlorophenol	7.632	162	52118	1178.81	ng/ml	95
28) 1,2,4-Trichlorobenzene	7.718	180	62499	1090.20	ng/ml	97
29) Naphthalene	7.793	128	178420	1021.22	ng/ml	100
30) 4-Chloroaniline	7.857	127	34359	576.24	ng/ml	95
31) Hexachlorobutadiene	7.926	225	35975	1137.59	ng/ml	99
32) 4-Chloro-3-methylphenol	8.327	107	50374	960.09	ng/ml	95
33) 2-Methylnaphthalene	8.488	142	137019	1090.41	ng/ml	99
34) 1-Methylnaphthalene	8.590	142	128681	1075.65	ng/ml	98
36) Hexachlorocyclopentadiene	8.659	237	39020	1223.74	ng/ml	95
37) 2,4,6-Trichlorophenol	8.771	196	39452	1102.54	ng/ml	99
38) 2,4,5-Trichlorophenol	8.809	198	38150	1103.73	ng/ml	98
39) 1,1'-Biphenyl	8.959	154	161094	1089.52	ng/ml	99
41) 2-Chloronaphthalene	8.980	162	119023	1089.30	ng/ml	98
42) 2-Nitroaniline	9.082	138	38118	1132.51	ng/ml	81
43) 2,6-Dimethylnaphthalene	9.119	156	118898	1064.01	ng/ml	98

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061905.D
Acq On : 6 Nov 2019 10:50 am
Operator : JK /AMS /DTH
Sample : 9K06033-CCV2
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

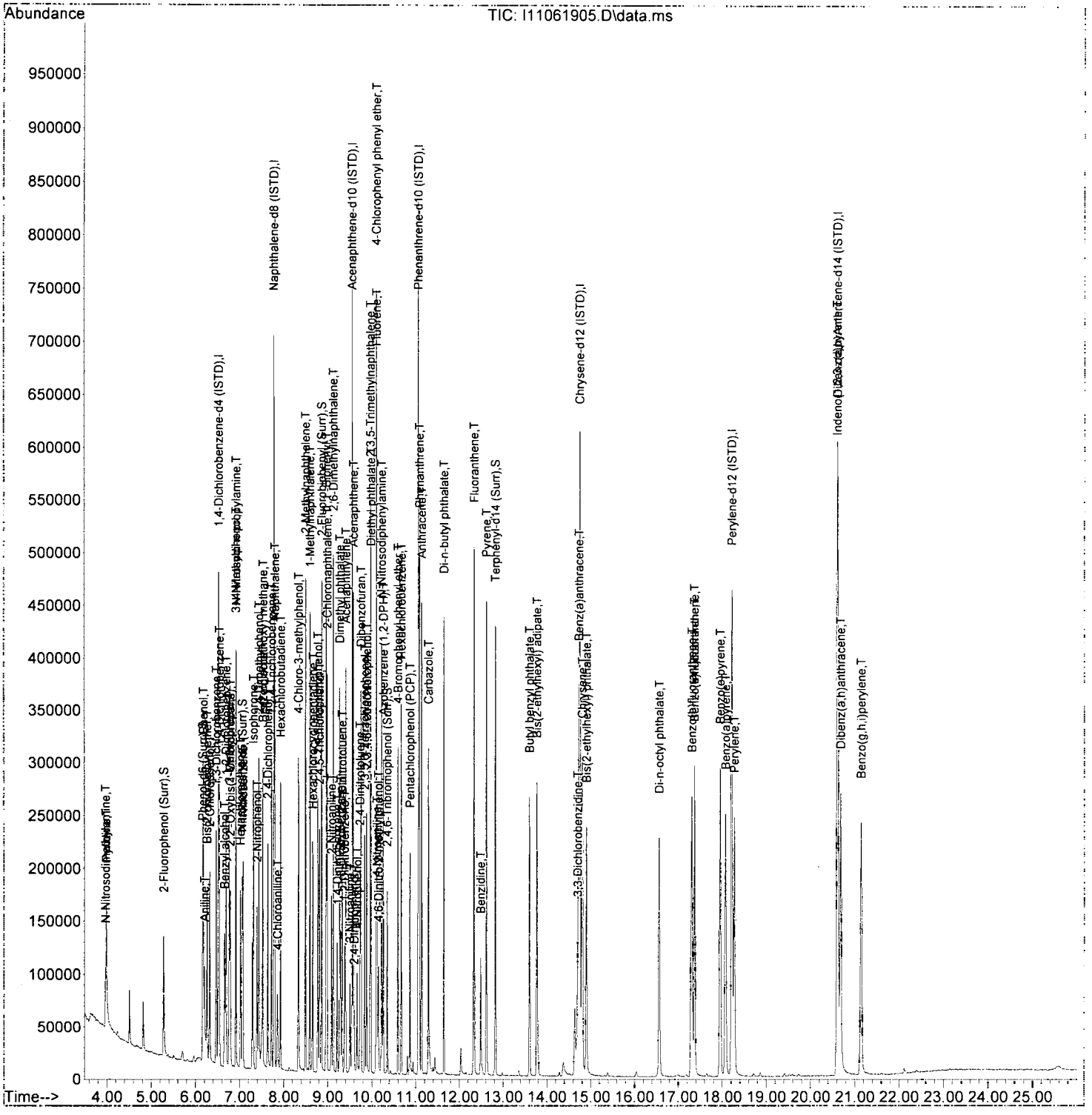
Quant Time: Nov 06 12:49:37 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.210	168	18162	1442.75 ng/ml#	70
45) Dimethyl phthalate	9.263	163	138571	1039.29 ng/ml	98
46) 1,3-Dinitrobenzene	9.290	168	21226	1254.44 ng/ml	85
47) 2,6-Dinitrotoluene	9.322	165	31394	1146.12 ng/ml	82
48) 1,2-Dinitrobenzene	9.376	168	14324	1100.81 ng/ml	83
49) Acenaphthylene	9.403	152	185206	1012.27 ng/ml	99
50) 3-Nitroaniline	9.499	138	20613	818.34 ng/ml	88
51) Acenaphthene	9.579	153	116837	1015.59 ng/ml	99
52) 2,4-Dinitrophenol	9.595	184	7749	1431.52 ng/ml	91
53) 4-Nitrophenol	9.665	139	20450	1075.25 ng/ml	90
54) 2,4-Dinitrotoluene	9.729	165	40978	1231.53 ng/ml	87
55) Dibenzofuran	9.750	168	168840	1071.86 ng/ml	95
56) 2,3,5,6-Tetrachlorophenol	9.836	232	33495	1198.36 ng/ml	93
57) 2,3,4,6-Tetrachlorophenol	9.879	232	35464	1192.62 ng/ml	94
58) Diethyl phthalate	9.975	149	128608	1017.80 ng/ml	99
59) 2,3,5-Trimethylnaphtha...	9.964	170	111793	1071.68 ng/ml	99
60) Fluorene	10.103	166	132563	1046.15 ng/ml	100
61) 4-Chlorophenyl phenyl ...	10.098	204	71631	1141.13 ng/ml	94
62) 4-Nitroaniline	10.114	138	28144	1303.34 ng/ml	94
63) 4,6-Dinitro-2-methylph...	10.146	198	15808	1402.11 ng/ml	89
65) N-Nitrosodiphenylamine	10.216	169	109131	961.74 ng/ml	99
66) Azobenzene (1,2-DPH)	10.258	77	112091	755.35 ng/ml	87
68) 4-Bromophenyl phenyl e...	10.595	248	47589	1122.47 ng/ml	95
69) Hexachlorobenzene	10.670	284	56944	1136.08 ng/ml	92
70) Pentachlorophenol (PCP)	10.868	266	31352	1337.36 ng/ml	97
71) Phenanthrene	11.082	178	192728	1022.10 ng/ml	100
72) Anthracene	11.130	178	196245	1055.24 ng/ml	99
73) Carbazole	11.291	167	156915	949.25 ng/ml	98
74) Di-n-butyl phthalate	11.644	149	220745	978.64 ng/ml	99
75) Fluoranthene	12.334	202	239614	1078.07 ng/ml	95
76) Benzidine	12.483	184	61209	839.05 ng/ml	96
77) Pyrene	12.612	202	239573	1105.28 ng/ml	99
80) Butyl benzyl phthalate	13.596	149	98389	877.80 ng/ml	88
81) Bis(2-ethylhexyl) adipate	13.767	129	82259	824.94 ng/ml	98
82) 3,3-Dichlorobenzidine	14.698	252	44035	1096.59 ng/ml	98
83) Benz(a)anthracene	14.724	228	227790	994.66 ng/ml	99
84) Chrysene	14.805	228	203756	983.74 ng/ml	98
85) Bis(2-ethylhexyl) phth...	14.901	149	125777	865.36 ng/ml	98
87) Di-n-octyl phthalate	16.564	149	218432	846.69 ng/ml	95
88) Benzo(b)fluoranthene	17.302	252	247926	1083.99 ng/ml	95
89) Benzo(k)fluoranthene	17.367	252	238278	1120.50 ng/ml	96
90) Benzo(b+k)fluoranthene	17.367	252	498074	2204.18 ng/ml	96
91) Benzo(e)pyrene	17.950	252	239424	1077.98 ng/ml	99
92) Benzo(a)pyrene	18.073	252	221841	1030.89 ng/ml	96
93) Perylene	18.276	252	190117	1022.92 ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.603	276	220889	979.72 ng/ml	89
96) Dibenz(a,h)anthracene	20.677	278	201573	1022.57 ng/ml	94
97) Benzo(g,h,i)perylene	21.143	276	228657	1063.83 ng/ml	87

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

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061905.D
Acq On : 6 Nov 2019 10:50 am
Operator : JK /AMS /DTH
Sample : 9K06033-CCV2
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 12:49:37 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061906.D
Acq On : 6 Nov 2019 11:25 am
Operator : JK /AMS /DTH
Sample : 9K06033-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 12:49:56 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

AMS 11/6/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.514	152	100019	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.771	136	395754	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.547	162	212091	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.055	188	389983	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.746	240	416375	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.217	264	420308	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.608	292	356515	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	0.000	112	0	0.00	ng/ml	
5) Phenol-d6 (Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	0.000	82	0	0.00	ng/ml	
40) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	0.000	244	0	0.00	ng/ml	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	0.000		0	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	7.434	122	51	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	0.000		0	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	0.000		0	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	0.000		0	N.D.		
34) 1-Methylnaphthalene	0.000		0	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	0.000		0	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061906.D
Acq On : 6 Nov 2019 11:25 am
Operator : JK /AMS /DTH
Sample : 9K06033-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 12:49:56 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

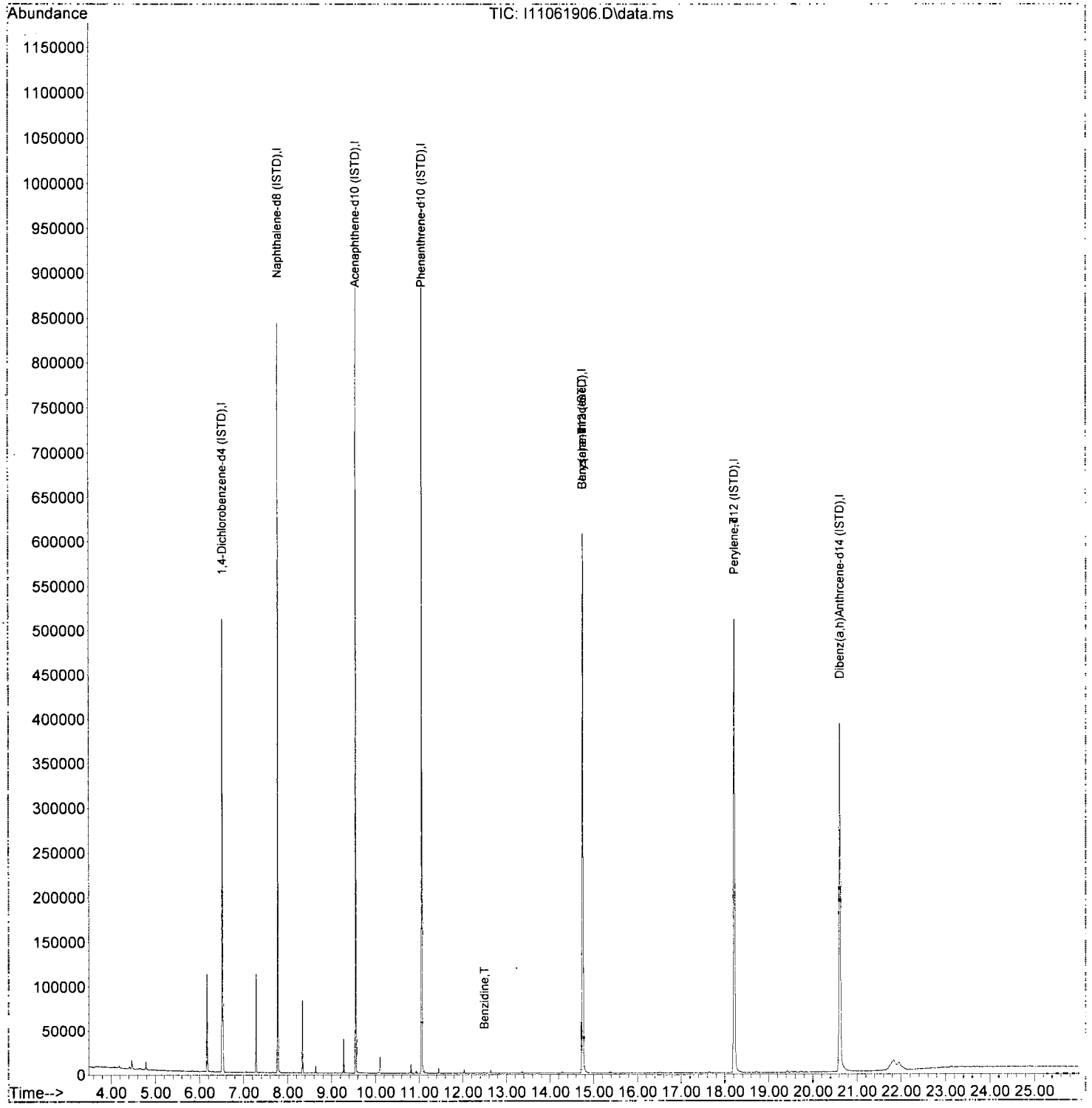
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	0.000		0	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	0.000		0	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	0.000		0	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	0.000		0	N.D.	
55) Dibenzofuran	0.000		0	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	0.000		0	N.D.	
60) Fluorene	0.000		0	N.D.	
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	0.000		0	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	0.000		0	N.D.	
71) Phenanthrene	11.060	178	123	N.D.	
72) Anthracene	11.060	178	123	N.D.	
73) Carbazole	0.000		0	N.D.	
74) Di-n-butyl phthalate	0.000		0	N.D.	
75) Fluoranthene	0.000		0	N.D.	
76) Benzidine	12.489	184	762	117.53 ng/ml	94
77) Pyrene	0.000		0	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	13.767	129	174	N.D.	
82) 3,3-Dichlorobenzidine	14.682	252	228	Below Cal #	27
83) Benz(a)anthracene	14.746	228	973	4.04 ng/ml	53
84) Chrysene	14.746	228	974	4.47 ng/ml	50
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	0.000		0	N.D.	
89) Benzo(k)fluoranthene	0.000		0	N.D.	
90) Benzo(b+k)fluoranthene	0.000		0	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.217	252	1352	7.09 ng/ml	69
95) Indeno(1,2,3-cd)pyrene	20.597	276	52	N.D.	
96) Dibenz(a,h)anthracene	0.000		0	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

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

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061906.D
Acq On : 6 Nov 2019 11:25 am
Operator : JK /AMS /DTH
Sample : 9K06033-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 12:49:56 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061907.D
Acq On : 6 Nov 2019 12:00 pm
Operator : JK /AMS /DTH
Sample : 9110499-BLK1
Misc : 1x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 11/6/19 B02

Quant Time: Nov 06 12:50:11 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.519	152	93908	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.771	136	365340	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.547	162	196781	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.060	188	373671	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.751	240	427463	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	18.222	264	440006	2000.00 ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.613	292	386863	2000.00 ng/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.284	112	59520	860.75 ng/ml	0.00
5) Phenol-d6 (Surr)	6.166	99	49415	590.55 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.054	82	130845	2142.48 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.857	172	267889	1852.80 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.349	330	64557	2748.70 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.820	244	471801	2274.76 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	4.000	74	124	N.D.	
3) Pyridine	4.075	79	428	4.96 ng/ml#	1
6) Phenol	6.177	94	1573	17.75 ng/ml#	1
7) Aniline	6.188	93	147	N.D.	
8) Bis(2-chloroethyl) ether	6.247	93	783	9.82 ng/ml#	25
9) 2-Chlorophenol	6.322	128	142	N.D.	
10) 1,3-Dichlorobenzene	6.541	146	50	N.D.	
11) 1,4-Dichlorobenzene	6.541	146	50	N.D.	
12) Benzyl alcohol	0.000		0	N.D.	
13) 1,2-Dichlorobenzene	0.000		0	N.D.	
14) 2-Methylphenol	6.765	107	274	5.31 ng/ml	69
15) 2,2'-Oxybis(1-Chloropr...	6.787	45	129	N.D.	
16) N-Nitrosodi-n-propylamine	6.910	70	166	3.05 ng/ml	59
17) 3+4-Methylphenol	6.926	107	237	3.76 ng/ml#	63
18) Hexachloroethane	0.000		0	N.D.	
20) Nitrobenzene	7.060	77	929	14.37 ng/ml#	35
22) Isophorone	7.311	82	594	4.11 ng/ml	83
23) 2-Nitrophenol	7.397	139	75	51.39 ng/ml#	45
24) 2,4-Dimethylphenol	7.450	122	536	10.39 ng/ml	92
25) Bis(2-chloroethoxy) me...	7.514	93	106	N.D.	
26) Benzoic acid	7.509	105	11033	1111.16 ng/ml	95
27) 2,4-Dichlorophenol	7.637	162	205	15.87 ng/ml#	73
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
29) Naphthalene	7.792	128	224799	1197.92 ng/ml	100
30) 4-Chloroaniline	7.792	127	30040	471.54 ng/ml#	24
31) Hexachlorobutadiene	0.000		0	N.D.	
32) 4-Chloro-3-methylphenol	8.359	107	726	38.30 ng/ml#	1
33) 2-Methylnaphthalene	8.488	142	9037	66.96 ng/ml	96
34) 1-Methylnaphthalene	8.589	142	4867	37.88 ng/ml	94
36) Hexachlorocyclopentadiene	0.000		0	N.D.	
37) 2,4,6-Trichlorophenol	8.777	196	359	36.21 ng/ml	89
38) 2,4,5-Trichlorophenol	8.819	198	171	25.08 ng/ml	77
39) 1,1'-Biphenyl	8.958	154	1896	11.91 ng/ml	97
41) 2-Chloronaphthalene	9.039	162	52	N.D.	
42) 2-Nitroaniline	0.000		0	N.D.	
43) 2,6-Dimethylnaphthalene	9.124	156	481	4.00 ng/ml	75

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061907.D
Acq On : 6 Nov 2019 12:00 pm
Operator : JK /AMS /DTH
Sample : 9110499-BLK1
Misc : 1x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 12:50:11 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

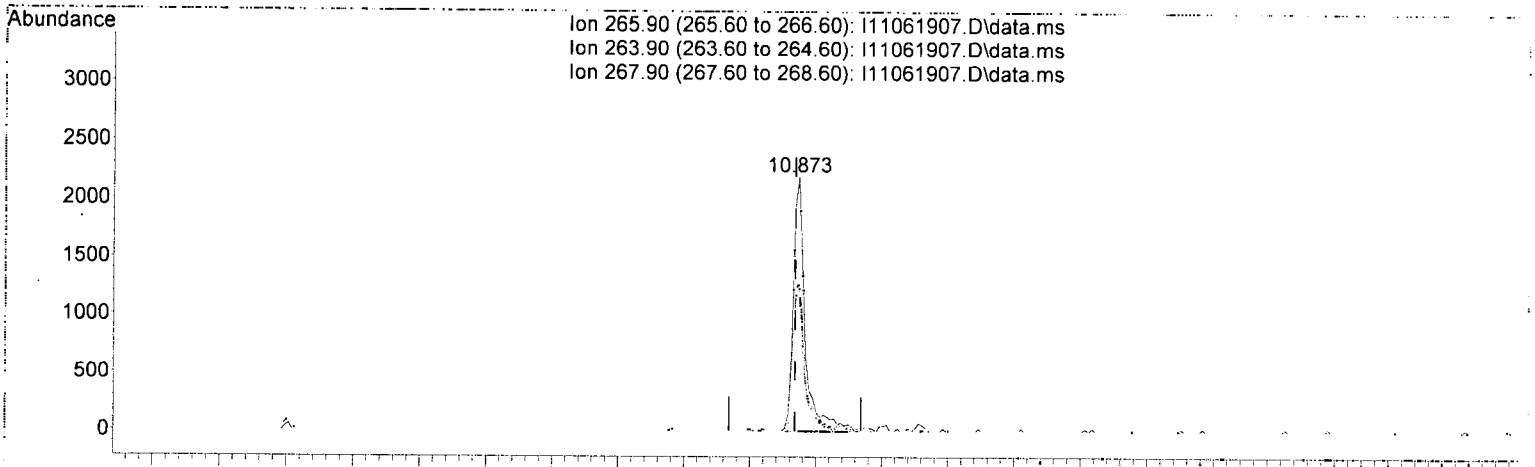
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	9.263	163	146	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	9.365	165	69	34.25 ng/ml#	21
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.402	152	194	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	9.579	153	2563	20.69 ng/ml	91
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	9.723	139	129	76.69 ng/ml	67
54) 2,4-Dinitrotoluene	9.729	165	146	70.80 ng/ml#	67
55) Dibenzofuran	9.755	168	331	N.D.	
56) 2,3,5,6-Tetrachlorophenol	9.841	232	327	41.20 ng/ml	87
57) 2,3,4,6-Tetrachlorophenol	9.884	232	495	26.24 ng/ml	94
58) Diethyl phthalate	9.975	149	1155	8.49 ng/ml	98
59) 2,3,5-Trimethylnaphtha...	9.964	170	85	N.D.	
60) Fluorene	10.103	166	655	4.80 ng/ml	95
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	10.221	169	115	N.D.	
66) Azobenzene (1,2-DPH)	10.269	77	1768	11.53 ng/ml#	1
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	10.873	266	2823	(162.62 ng/ml	92 B02
71) Phenanthrene	11.076	178	1569	8.05 ng/ml	93
72) Anthracene	11.130	178	188	N.D.	
73) Carbazole	11.296	167	214	N.D.	
74) Di-n-butyl phthalate	11.643	149	4220	18.10 ng/ml	96
75) Fluoranthene	12.328	202	453	N.D.	
76) Benzidine	12.553	184	100	110.32 ng/ml	68
77) Pyrene	12.617	202	529	N.D.	
80) Butyl benzyl phthalate	13.590	149	551	30.01 ng/ml	75
81) Bis(2-ethylhexyl) adipate	13.767	129	2623	24.34 ng/ml	97
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.746	228	1360	5.49 ng/ml	80
84) Chrysene	14.804	228	210	N.D.	
85) Bis(2-ethylhexyl) phth...	14.901	149	3927	25.00 ng/ml	89
87) Di-n-octyl phthalate	16.564	149	84	58.27 ng/ml#	1
88) Benzo(b)fluoranthene	17.313	252	66	N.D.	
89) Benzo(k)fluoranthene	17.356	252	161	N.D.	
90) Benzo(b+k)fluoranthene	17.356	252	161	N.D.	
91) Benzo(e)pyrene	17.949	252	222	N.D.	
92) Benzo(a)pyrene	18.062	252	89	8.95 ng/ml	47
93) Perylene	18.222	252	1535	7.69 ng/ml	72
95) Indeno(1,2,3-cd)pyrene	20.602	276	305	N.D.	
96) Dibenz(a,h)anthracene	20.608	278	83	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

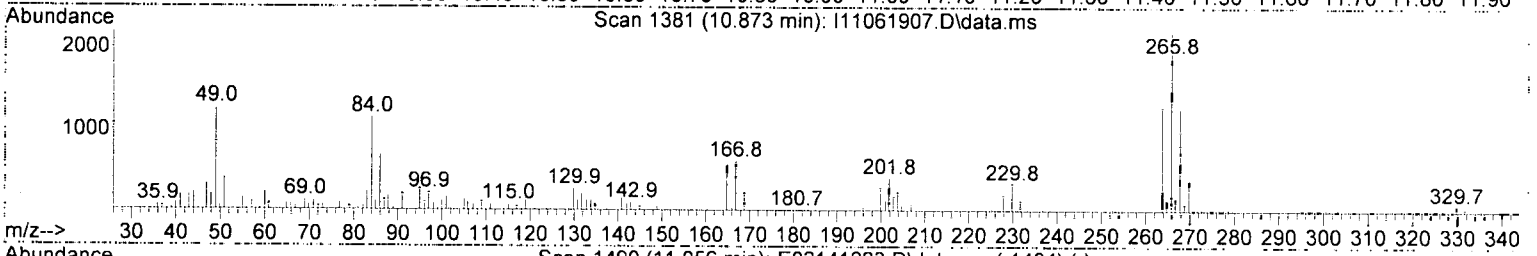
(#) = qualifier out of range (m) = manual integration (+) = signals summed

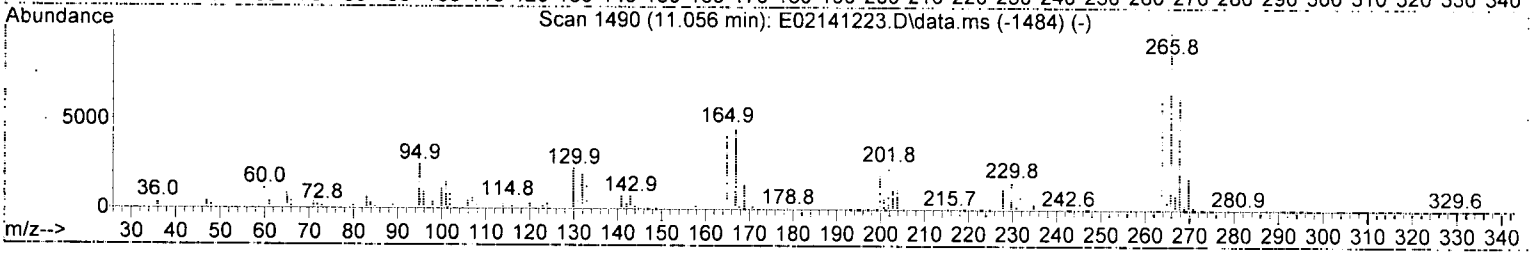
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061907.D
Acq On : 6 Nov 2019 12:00 pm
Operator : JK /AMS /DTH
Sample : 9110499-BLK1
Misc : 1x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 12:50:11 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I11061907.D\data.ms

(70) Pentachlorophenol (PCP) (T)

10.873min (+ 0.005) 162.62 ng/ml

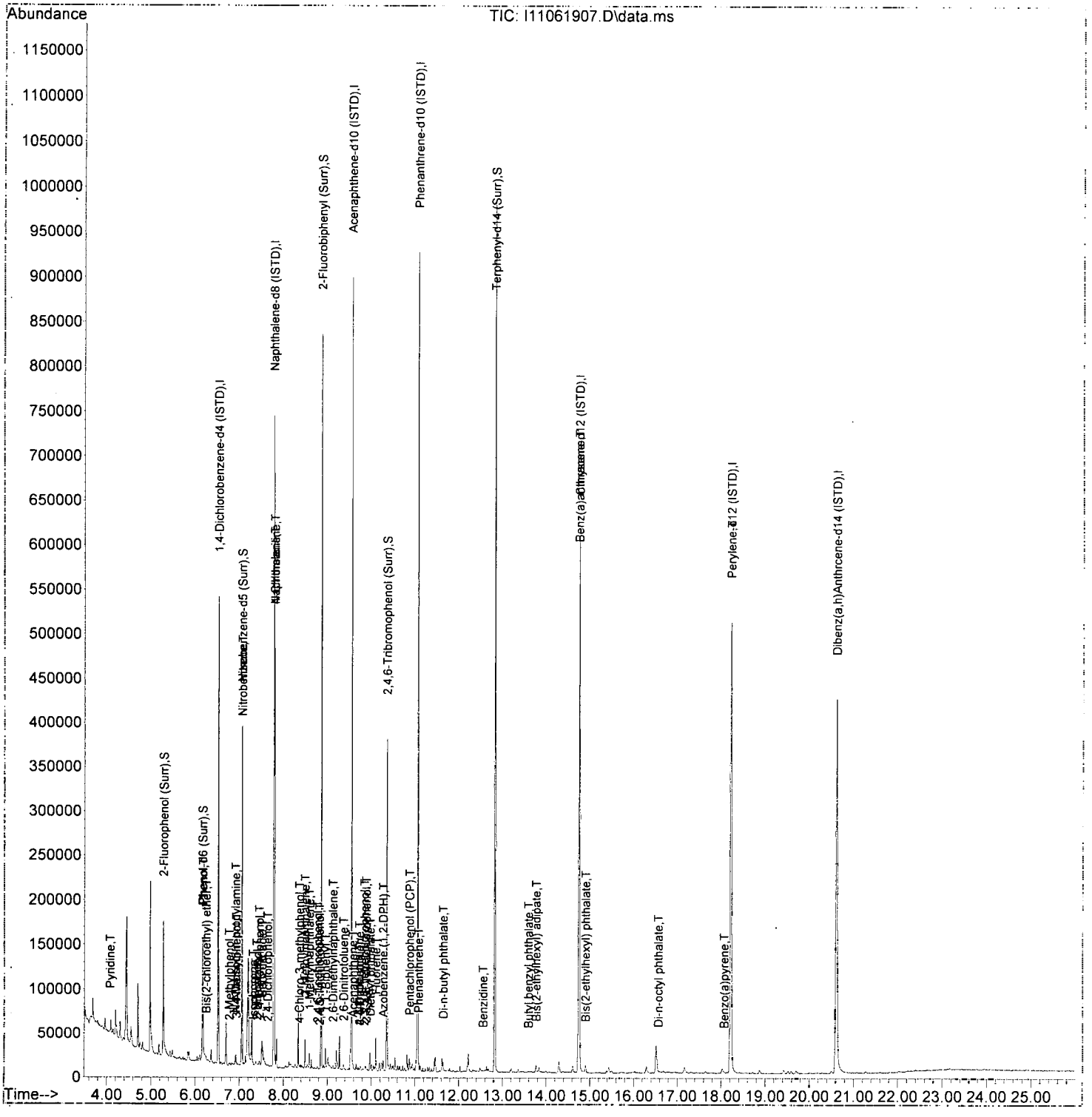
response 2823

Ion	Exp%	Act%
265.90	100.00	100.00
263.90	62.10	57.95
267.90	66.50	57.86
0.00	0.00	0.00

BOZ

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061907.D
Acq On : 6 Nov 2019 12:00 pm
Operator : JK /AMS /DTH
Sample : 9110499-BLK1
Misc : 1x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 12:50:11 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061908.D
Acq On : 6 Nov 2019 12:36 pm
Operator : JK /AMS /DTH
Sample : 9110499-BS1@4
Misc : 4x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 11/6/19

Quant Time: Nov 06 13:04:55 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.520	152	55457	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.771	136	225682	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.547	162	120702	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.055	188	232905	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.746	240	252628	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.212	264	256695	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.608	292	231451	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.284	112	8245	201.91	ng/ml	0.00
5) Phenol-d6 (Surr)	6.167	99	7311	147.95	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.054	82	20710	574.23	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.857	172	45025	507.69	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.349	330	9264	670.00	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.815	244	73715	601.38	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.974	74	11378	347.37	ng/ml	98
3) Pyridine	4.006	79	15569	305.72	ng/ml	91
6) Phenol	6.177	94	15028	287.13	ng/ml	97
7) Aniline	6.209	93	24556	450.75	ng/ml	99
8) Bis(2-chloroethyl) ether	6.263	93	34557	733.59	ng/ml	93
9) 2-Chlorophenol	6.322	128	29391	735.15	ng/ml	94
10) 1,3-Dichlorobenzene	6.466	146	14407	324.78	ng/ml	97
11) 1,4-Dichlorobenzene	6.536	146	14748	349.07	ng/ml	96
12) Benzyl alcohol	6.653	108	10634	462.00	ng/ml	95
13) 1,2-Dichlorobenzene	6.685	146	15688	381.01	ng/ml	97
14) 2-Methylphenol	6.760	107	21723	712.74	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.782	45	34246	525.31	ng/ml	84
16) N-Nitrosodi-n-propylamine	6.910	70	25287	787.70	ng/ml	90
17) 3+4-Methylphenol	6.905	107	24408	656.11	ng/ml	99
18) Hexachloroethane	7.022	201	4092	301.43	ng/ml	84
20) Nitrobenzene	7.076	77	32494	850.89	ng/ml	95
22) Isophorone	7.306	82	66917	749.86	ng/ml	98
23) 2-Nitrophenol	7.391	139	23939	1196.58	ng/ml	90
24) 2,4-Dimethylphenol	7.429	122	26012	816.17	ng/ml	99
25) Bis(2-chloroethoxy) me...	7.520	93	41338	836.77	ng/ml	99
26) Benzoic acid	7.488	105	6637	1102.01	ng/ml	90
27) 2,4-Dichlorophenol	7.632	162	27239	932.71	ng/ml	94
28) 1,2,4-Trichlorobenzene	7.718	180	16461	432.76	ng/ml	98
29) Naphthalene	7.793	128	101077	871.94	ng/ml	99
30) 4-Chloroaniline	7.851	127	15856	404.84	ng/ml	95
31) Hexachlorobutadiene	7.926	225	6935	330.51	ng/ml	99
32) 4-Chloro-3-methylphenol	8.327	107	25038	725.84	ng/ml	99
33) 2-Methylnaphthalene	8.488	142	51305	615.36	ng/ml	99
34) 1-Methylnaphthalene	8.589	142	48923	616.35	ng/ml	97
36) Hexachlorocyclopentadiene	8.659	237	8053	382.32	ng/ml	96
37) 2,4,6-Trichlorophenol	8.777	196	21356	909.17	ng/ml	99
38) 2,4,5-Trichlorophenol	8.809	198	20898	919.19	ng/ml	99
39) 1,1'-Biphenyl	8.959	154	72034	737.50	ng/ml	98
41) 2-Chloronaphthalene	8.980	162	52148	722.47	ng/ml	97
42) 2-Nitroaniline	9.076	138	22151	1004.88	ng/ml	86
43) 2,6-Dimethylnaphthalene	9.119	156	51528	698.04	ng/ml	98

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061908.D
Acq On : 6 Nov 2019 12:36 pm
Operator : JK /AMS /DTH
Sample : 9110499-BS1@4
Misc : 4x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

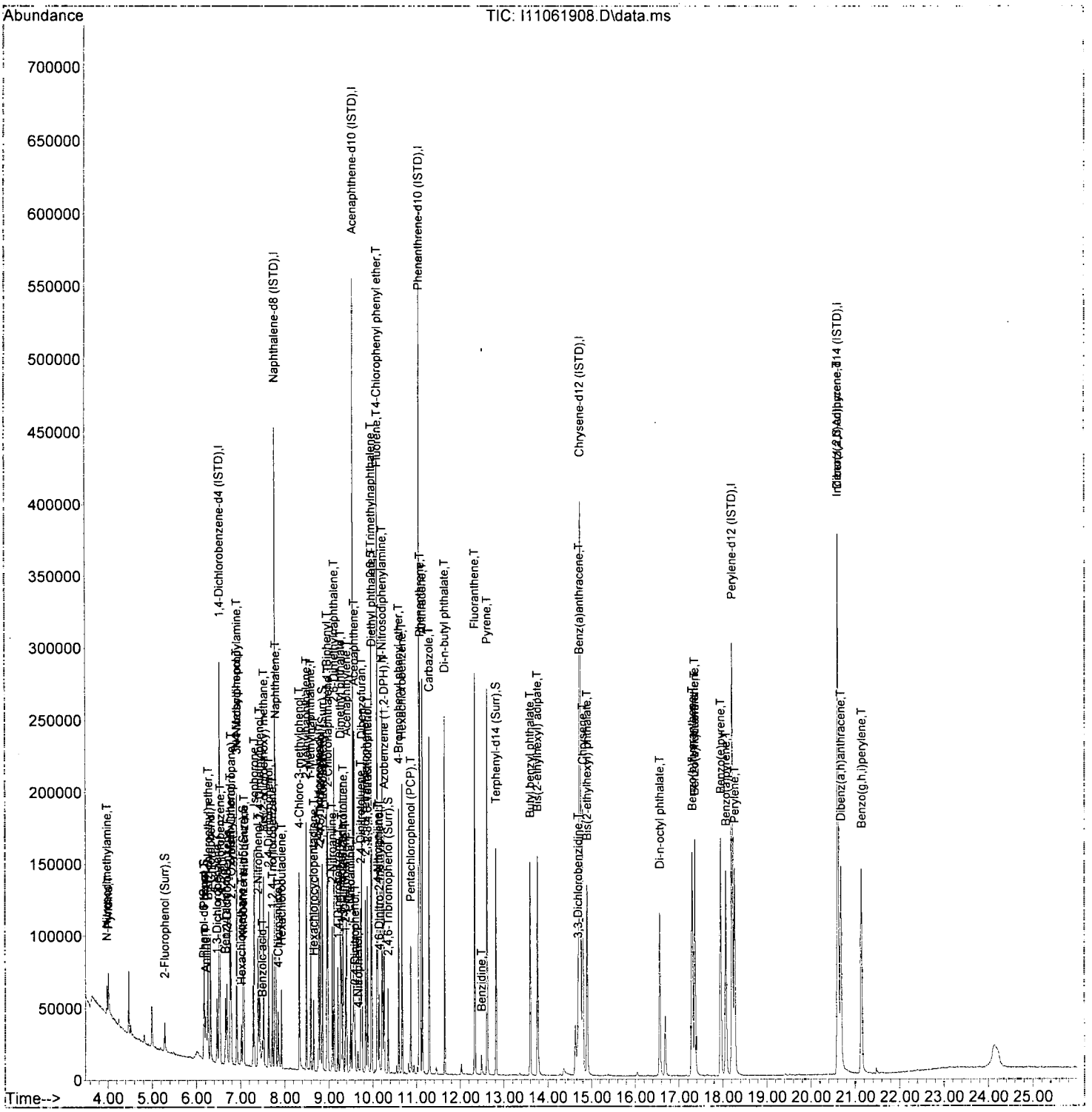
Quant Time: Nov 06 13:04:55 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.210	168	9863	1223.09	ng/ml#	70
45)	Dimethyl phthalate	9.263	163	82802	940.10	ng/ml	99
46)	1,3-Dinitrobenzene	9.290	168	12188	1108.25	ng/ml	85
47)	2,6-Dinitrotoluene	9.322	165	18218	1011.04	ng/ml	81
48)	1,2-Dinitrobenzene	9.376	168	8241	966.17	ng/ml#	74
49)	Acenaphthylene	9.402	152	95385	789.21	ng/ml	99
50)	3-Nitroaniline	9.493	138	14578	881.79	ng/ml	91
51)	Acenaphthene	9.579	153	60763	799.55	ng/ml	98
52)	2,4-Dinitrophenol	9.595	184	4068	1221.97	ng/ml	91
53)	4-Nitrophenol	9.665	139	3133	314.63	ng/ml	89
54)	2,4-Dinitrotoluene	9.729	165	22612	1041.62	ng/ml	87
55)	Dibenzofuran	9.750	168	91437	878.73	ng/ml	94
56)	2,3,5,6-Tetrachlorophenol	9.836	232	17613	965.02	ng/ml	92
57)	2,3,4,6-Tetrachlorophenol	9.878	232	19236	985.24	ng/ml	92
58)	Diethyl phthalate	9.975	149	76994	922.40	ng/ml	99
59)	2,3,5-Trimethylnaphtha...	9.964	170	60943	884.39	ng/ml	98
60)	Fluorene	10.103	166	74512	890.16	ng/ml	99
61)	4-Chlorophenyl phenyl ...	10.098	204	39169	944.59	ng/ml	94
62)	4-Nitroaniline	10.114	138	16356	1146.61	ng/ml	93
63)	4,6-Dinitro-2-methylph...	10.146	198	8827	1222.85	ng/ml	88
65)	N-Nitrosodiphenylamine	10.215	169	67748	926.72	ng/ml	99
66)	Azobenzene (1,2-DPH)	10.258	77	65134	681.28	ng/ml	89
68)	4-Bromophenyl phenyl e...	10.595	248	26123	956.39	ng/ml	94
69)	Hexachlorobenzene	10.670	284	32969	1020.97	ng/ml	95
70)	Pentachlorophenol (PCP)	10.868	266	13087	894.43	ng/ml	98
71)	Phenanthrene	11.082	178	113011	930.27	ng/ml	98
72)	Anthracene	11.130	178	113773	949.59	ng/ml	100
73)	Carbazole	11.291	167	101884	956.68	ng/ml	98
74)	Di-n-butyl phthalate	11.644	149	127882	880.01	ng/ml	99
75)	Fluoranthene	12.334	202	137861	962.76	ng/ml	97
76)	Benzidine	12.483	184	8590	267.23	ng/ml	98
77)	Pyrene	12.612	202	138668	993.01	ng/ml	99
80)	Butyl benzyl phthalate	13.596	149	52361	737.25	ng/ml	89
81)	Bis(2-ethylhexyl) adipate	13.762	129	44481	698.33	ng/ml	97
82)	3,3-Dichlorobenzidine	14.692	252	27264	1056.21	ng/ml	95
83)	Benz(a)anthracene	14.724	228	137240	938.14	ng/ml	100
84)	Chrysene	14.805	228	121666	919.58	ng/ml	99
85)	Bis(2-ethylhexyl) phth...	14.901	149	72206	777.71	ng/ml	100
87)	Di-n-octyl phthalate	16.564	149	110097	692.61	ng/ml	95
88)	Benzo(b)fluoranthene	17.302	252	136018	948.92	ng/ml	95
89)	Benzo(k)fluoranthene	17.361	252	138796	1041.44	ng/ml	98
90)	Benzo(b+k)fluoranthene	17.361	252	282316	1993.51	ng/ml	98
91)	Benzo(e)pyrene	17.950	252	135011	969.93	ng/ml	99
92)	Benzo(a)pyrene	18.067	252	115631	857.62	ng/ml	97
93)	Perylene	18.270	252	119325	1024.43	ng/ml	99
95)	Indeno(1,2,3-cd)pyrene	20.602	276	122628	897.02	ng/ml	90
96)	Dibenz(a,h)anthracene	20.672	278	115094	962.94	ng/ml	93
97)	Benzo(g,h,i)perylene	21.143	276	129776	995.78	ng/ml	89

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

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061908.D
Acq On : 6 Nov 2019 12:36 pm
Operator : JK /AMS /DTH
Sample : 9110499-BS1@4
Misc : 4x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 13:04:55 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061909.D
Acq On : 6 Nov 2019 1:11 pm
Operator : JK /AMS /DTH
Sample : 9110499-BSD1@4
Misc : 4x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Q-19
AMS
11/6/19

Quant Time: Nov 06 13:40:52 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.520	152	99174	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.771	136	351775	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.547	162	181935	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.055	188	337219	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.746	240	303617	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.212	264	278164	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.608	292	237238	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.284	112	17947	245.76	ng/ml	0.00
5) Phenol-d6 (Surr)	6.161	99	15201	172.02	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.055	82	32817	508.82	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.857	172	78037	583.77	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.349	330	14323	713.45	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.815	244	97821	664.02	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.963	74	21331	364.17	ng/ml	95
3) Pyridine	4.000	79	30550	335.45	ng/ml	95
6) Phenol	6.177	94	28806	307.77	ng/ml	98
7) Aniline	6.204	93	32788	336.55	ng/ml	98
8) Bis(2-chloroethyl) ether	6.258	93	61667	732.03	ng/ml	92
9) 2-Chlorophenol	6.322	128	54040	755.85	ng/ml	93
10) 1,3-Dichlorobenzene	6.466	146	52022	655.78	ng/ml	99
11) 1,4-Dichlorobenzene	6.536	146	50916	673.89	ng/ml	97
12) Benzyl alcohol	6.653	108	24150	586.71	ng/ml	93
13) 1,2-Dichlorobenzene	6.685	146	50408	684.58	ng/ml	95
14) 2-Methylphenol	6.760	107	36164	663.51	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.782	45	59760	512.59	ng/ml	85
16) N-Nitrosodi-n-propylamine	6.910	70	39640	690.48	ng/ml	91
17) 3+4-Methylphenol	6.905	107	42449	638.07	ng/ml	97
18) Hexachloroethane	7.017	201	17097	704.26	ng/ml	94
20) Nitrobenzene	7.076	77	52047	762.12	ng/ml	93
22) Isophorone	7.306	82	101517	729.82	ng/ml	98
23) 2-Nitrophenol	7.391	139	38040	1218.66	ng/ml	92
24) 2,4-Dimethylphenol	7.429	122	42417	853.84	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.520	93	61220	795.03	ng/ml	98
26) Benzoic acid	7.493	105	7841	1019.46	ng/ml	88
27) 2,4-Dichlorophenol	7.632	162	43021	944.84	ng/ml	94
28) 1,2,4-Trichlorobenzene	7.718	180	47534	801.73	ng/ml	98
29) Naphthalene	7.793	128	168990	935.25	ng/ml	99
30) 4-Chloroaniline	7.851	127	24540	402.07	ng/ml	96
31) Hexachlorobutadiene	7.926	225	26125	798.79	ng/ml	96
32) 4-Chloro-3-methylphenol	8.327	107	40961	760.50	ng/ml	95
33) 2-Methylnaphthalene	8.488	142	109554	843.00	ng/ml	98
34) 1-Methylnaphthalene	8.590	142	104125	841.59	ng/ml	98
36) Hexachlorocyclopentadiene	8.659	237	23673	745.63	ng/ml	98
37) 2,4,6-Trichlorophenol	8.771	196	33149	935.34	ng/ml	96
38) 2,4,5-Trichlorophenol	8.809	198	31693	924.70	ng/ml	97
39) 1,1'-Biphenyl	8.959	154	131639	894.15	ng/ml	100
41) 2-Chloronaphthalene	8.980	162	95682	879.45	ng/ml	96
42) 2-Nitroaniline	9.076	138	30083	912.26	ng/ml	88
43) 2,6-Dimethylnaphthalene	9.119	156	97349	874.92	ng/ml	99

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061909.D
Acq On : 6 Nov 2019 1:11 pm
Operator : JK /AMS /DTH
Sample : 9110499-BSD1@4
Misc : 4x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

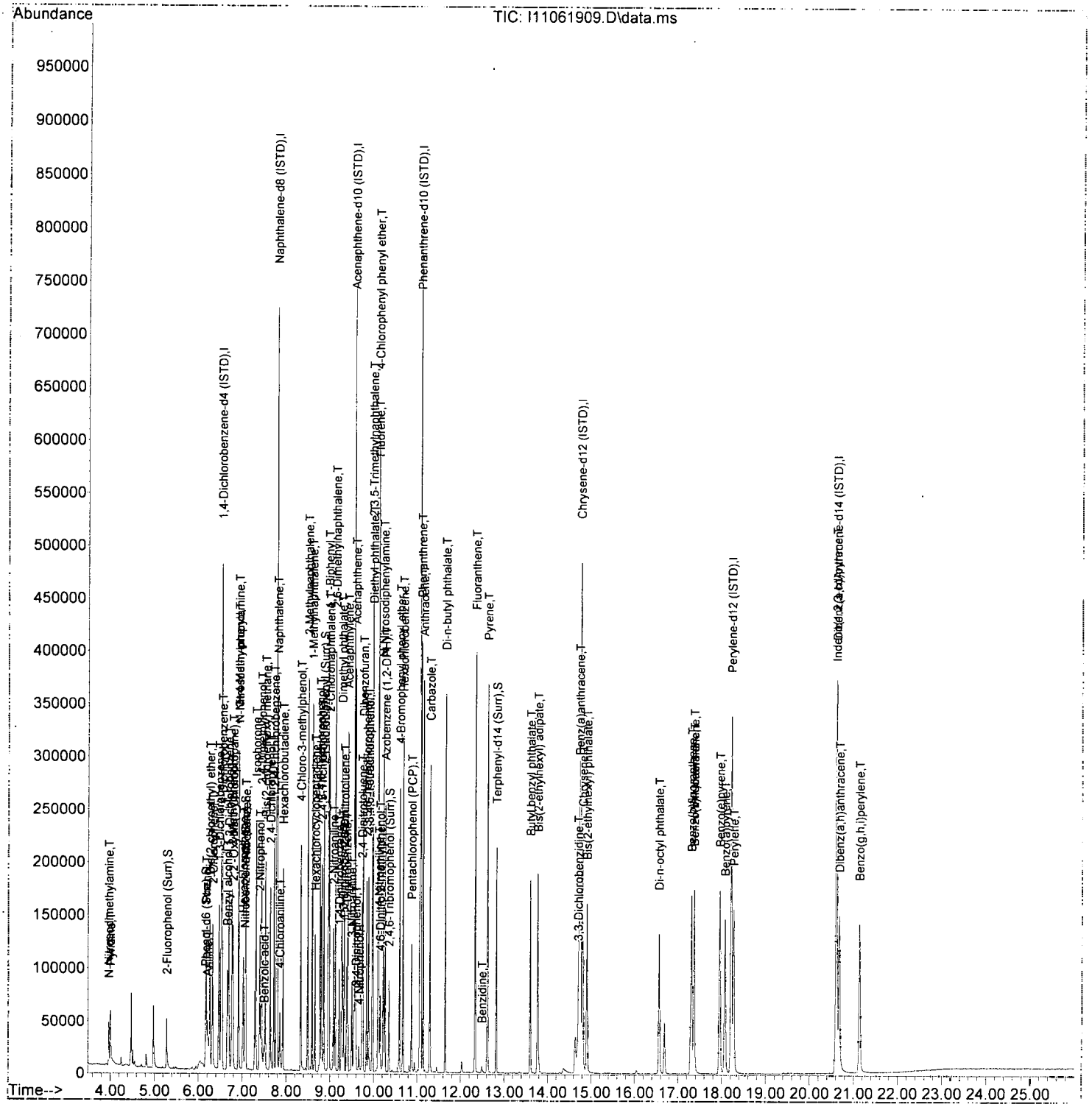
Quant Time: Nov 06 13:40:52 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.205	168	14033	1165.31 ng/ml	82
45) Dimethyl phthalate	9.263	163	124014	934.12 ng/ml	99
46) 1,3-Dinitrobenzene	9.290	168	16688	1018.99 ng/ml	88
47) 2,6-Dinitrotoluene	9.322	165	27181	1001.11 ng/ml	81
48) 1,2-Dinitrobenzene	9.376	168	12245	953.24 ng/ml	77
49) Acenaphthylene	9.403	152	156094	856.83 ng/ml	99
50) 3-Nitroaniline	9.493	138	17802	702.74 ng/ml	88
51) Acenaphthene	9.579	153	99555	869.10 ng/ml	99
52) 2,4-Dinitrophenol	9.595	184	4845	1038.17 ng/ml	83
53) 4-Nitrophenol	9.665	139	4989	328.20 ng/ml	87
54) 2,4-Dinitrotoluene	9.729	165	32791	1005.01 ng/ml	85
55) Dibenzofuran	9.756	168	139838	891.57 ng/ml	92
56) 2,3,5,6-Tetrachlorophenol	9.836	232	26349	958.16 ng/ml	91
57) 2,3,4,6-Tetrachlorophenol	9.879	232	27344	930.78 ng/ml	94
58) Diethyl phthalate	9.975	149	114919	913.38 ng/ml	99
59) 2,3,5-Trimethylnaphtha...	9.964	170	98698	950.23 ng/ml	99
60) Fluorene	10.103	166	112250	889.67 ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.098	204	60620	969.88 ng/ml	93
62) 4-Nitroaniline	10.114	138	18019	838.05 ng/ml	96
63) 4,6-Dinitro-2-methylph...	10.146	198	11599	1094.47 ng/ml	86
65) N-Nitrosodiphenylamine	10.216	169	93914	887.26 ng/ml	98
66) Azobenzene (1,2-DPH)	10.258	77	93563	675.91 ng/ml	87
68) 4-Bromophenyl phenyl e...	10.595	248	39731	1004.63 ng/ml	94
69) Hexachlorobenzene	10.670	284	51225	1095.61 ng/ml	94
70) Pentachlorophenol (PCP)	10.868	266	18342	867.97 ng/ml	96
71) Phenanthrene	11.082	178	162882	926.04 ng/ml	100
72) Anthracene	11.130	178	162574	937.16 ng/ml	99
73) Carbazole	11.291	167	129677	840.99 ng/ml	98
74) Di-n-butyl phthalate	11.644	149	183060	870.04 ng/ml	99
75) Fluoranthene	12.334	202	196214	946.40 ng/ml	95
76) Benzidine	12.489	184	4700	168.84 ng/ml	99
77) Pyrene	12.612	202	196142	970.09 ng/ml	99
80) Butyl benzyl phthalate	13.596	149	65818	769.52 ng/ml	89
81) Bis(2-ethylhexyl) adipate	13.767	129	54855	716.57 ng/ml	97
82) 3,3-Dichlorobenzidine	14.698	252	25759	787.14 ng/ml	97
83) Benz(a)anthracene	14.719	228	164853	937.65 ng/ml	97
84) Chrysene	14.805	228	144320	907.61 ng/ml	98
85) Bis(2-ethylhexyl) phth...	14.901	149	84660	758.71 ng/ml	96
87) Di-n-octyl phthalate	16.559	149	125218	724.00 ng/ml	95
88) Benzo(b)fluoranthene	17.297	252	149878	964.91 ng/ml	96
89) Benzo(k)fluoranthene	17.361	252	151302	1047.66 ng/ml	96
90) Benzo(b+k)fluoranthene	17.361	252	309541	2017.05 ng/ml	96
91) Benzo(e)pyrene	17.950	252	147161	975.62 ng/ml	97
92) Benzo(a)pyrene	18.067	252	123637	846.26 ng/ml	96
93) Perylene	18.271	252	126204	999.86 ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.597	276	124033	885.16 ng/ml	93
96) Dibenz(a,h)anthracene	20.672	278	115889	945.94 ng/ml	93
97) Benzo(g,h,i)perylene	21.132	276	131171	981.94 ng/ml	91

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

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061909.D
Acq On : 6 Nov 2019 1:11 pm
Operator : JK /AMS /DTH
Sample : 9110499-BSD1@4
Misc : 4x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 13:40:52 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061910.D
Acq On : 6 Nov 2019 1:46 pm
Operator : JK /AMS /DTH
Sample : A9J0950-01@50
Misc : 50x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 11/6/19 RQ AMS 11/6/19

Quant Time: Nov 06 15:24:01 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.525	152	92757	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.776	136	336801	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.547	162	188358	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.055	188	372409	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.751	240	416745	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.217	264	430779	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.608	292	379985	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.305	112	921	13.48	ng/ml	0.02
5) Phenol-d6 (Surr)	6.172	99	472	5.71	ng/ml	0.01
19) Nitrobenzene-d5 (Surr)	7.060	82	2560	42.44	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.857	172	6297	45.50	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.349	330	940	64.24	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.815	244	9307	46.03	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	6.766	107	126	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	6.701	45	85	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	6.915	107	76	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.076	77	282	4.41	ng/ml#	11
22) Isophorone	7.316	82	78	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	7.440	122	271	5.70	ng/ml	86
25) Bis(2-chloroethoxy) me...	7.520	93	96	N.D.		
26) Benzoic acid	7.520	105	566	778.57	ng/ml#	1
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.809	128	2285777	13212.65	ng/ml	89
30) 4-Chloroaniline	7.916	127	132	15.20	ng/ml#	55
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.333	107	104	27.70	ng/ml#	1
33) 2-Methylnaphthalene	8.488	142	213200	1713.48	ng/ml	100
34) 1-Methylnaphthalene	8.589	142	117944	995.66	ng/ml	98
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	8.814	196	84	29.31	ng/ml#	11
38) 2,4,5-Trichlorophenol	8.771	198	73	22.57	ng/ml#	62
39) 1,1'-Biphenyl	8.959	154	48193	316.18	ng/ml	99
41) 2-Chloronaphthalene	8.964	162	128	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	9.124	156	11046	95.89	ng/ml	98

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061910.D
Acq On : 6 Nov 2019 1:46 pm
Operator : JK /AMS /DTH
Sample : A9J0950-01@50
Misc : 50x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

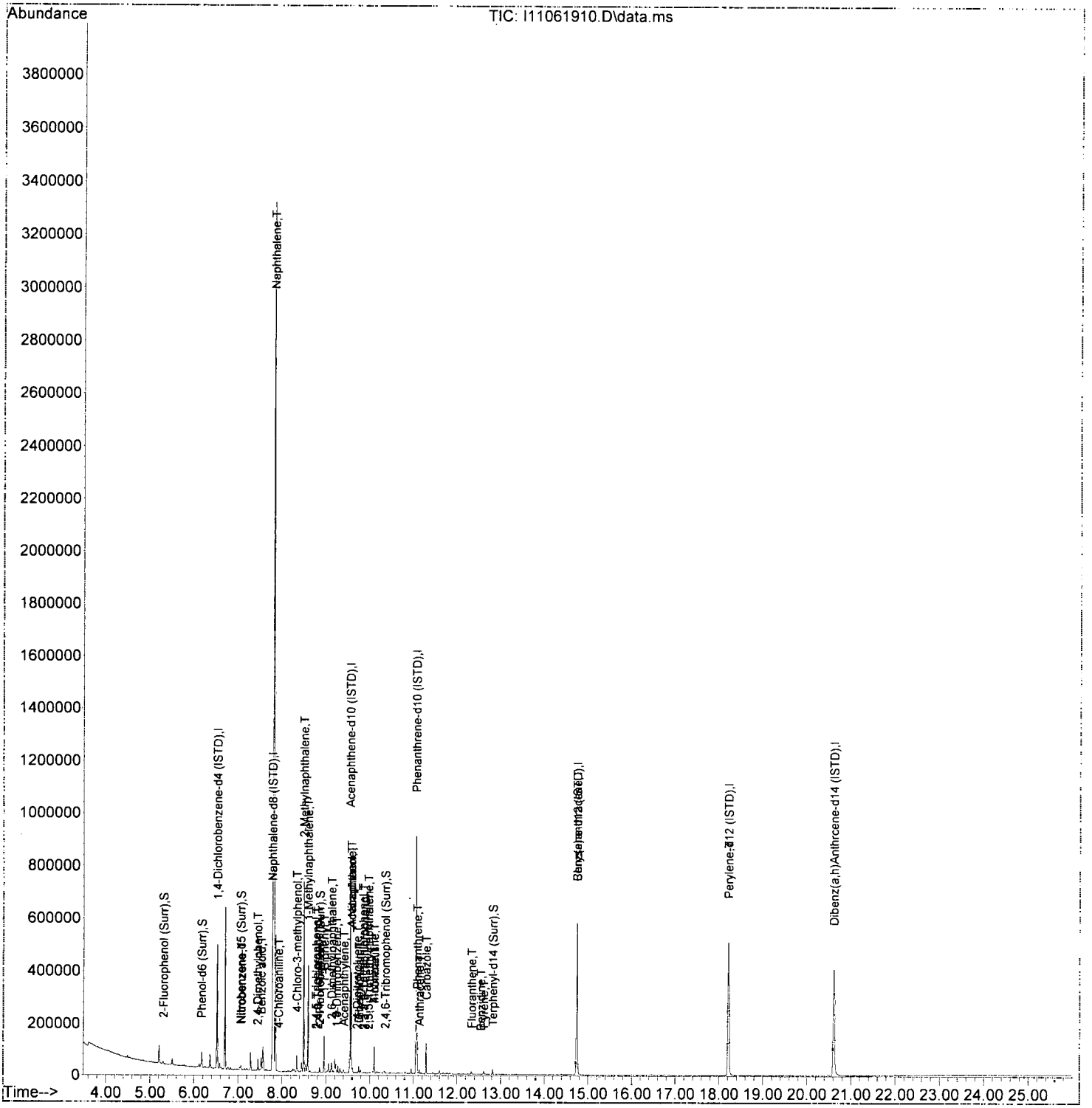
Quant Time: Nov 06 15:24:01 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.237	168	380	158.50 ng/ml#	3
45)	Dimethyl phthalate	9.237	163	81	N.D.	
46)	1,3-Dinitrobenzene	9.237	168	380	143.95 ng/ml#	77
47)	2,6-Dinitrotoluene	0.000		0	N.D.	
48)	1,2-Dinitrobenzene	0.000		0	N.D.	
49)	Acenaphthylene	9.402	152	1413	7.49 ng/ml	69
50)	3-Nitroaniline	0.000		0	N.D.	
51)	Acenaphthene	9.579	153	104354	879.93 ng/ml	99
52)	2,4-Dinitrophenol	0.000		0	N.D.	
53)	4-Nitrophenol	9.579	139	409	91.15 ng/ml#	46
54)	2,4-Dinitrotoluene	9.707	165	82	69.19 ng/ml#	74
55)	Dibenzofuran	9.750	168	6994	43.07 ng/ml	79
56)	2,3,5,6-Tetrachlorophenol	9.841	232	57	32.30 ng/ml#	56
57)	2,3,4,6-Tetrachlorophenol	9.884	232	94	13.66 ng/ml#	72
58)	Diethyl phthalate	0.000		0	N.D.	
59)	2,3,5-Trimethylnaphtha...	9.964	170	985	9.16 ng/ml	95
60)	Fluorene	10.098	166	27921	213.75 ng/ml	99
61)	4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62)	4-Nitroaniline	10.098	138	260	11.68 ng/ml#	23
63)	4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65)	N-Nitrosodiphenylamine	10.232	169	287	N.D.	
66)	Azobenzene (1,2-DPH)	10.258	77	93	N.D.	
68)	4-Bromophenyl phenyl e...	0.000		0	N.D.	
69)	Hexachlorobenzene	0.000		0	N.D.	
70)	Pentachlorophenol (PCP)	0.000		0	N.D.	
71)	Phenanthrene	11.082	178	63542	327.12 ng/ml	99
72)	Anthracene	11.130	178	7524	39.27 ng/ml	98
73)	Carbazole	11.291	167	50268	295.20 ng/ml	99
74)	Di-n-butyl phthalate	0.000		0	N.D.	
75)	Fluoranthene	12.334	202	6091	26.60 ng/ml	95
76)	Benzidine	12.542	184	71	109.99 ng/ml	68
77)	Pyrene	12.612	202	6666	29.85 ng/ml	92
80)	Butyl benzyl phthalate	0.000		0	N.D.	
81)	Bis(2-ethylhexyl) adipate	13.762	129	172	N.D.	
82)	3,3-Dichlorobenzidine	14.692	252	168	Below Cal	81
83)	Benz(a)anthracene	14.751	228	1234	5.11 ng/ml	59
84)	Chrysene	14.789	228	271	N.D.	
85)	Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87)	Di-n-octyl phthalate	0.000		0	N.D.	
88)	Benzo(b)fluoranthene	0.000		0	N.D.	
89)	Benzo(k)fluoranthene	0.000		0	N.D.	
90)	Benzo(b+k)fluoranthene	0.000		0	N.D.	
91)	Benzo(e)pyrene	0.000		0	N.D.	
92)	Benzo(a)pyrene	0.000		0	N.D.	
93)	Perylene	18.217	252	1447	7.40 ng/ml	72
95)	Indeno(1,2,3-cd)pyrene	20.608	276	154	N.D.	
96)	Dibenz(a,h)anthracene	20.613	278	60	N.D.	
97)	Benzo(g,h,i)perylene	0.000		0	N.D.	

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

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061910.D
Acq On : 6 Nov 2019 1:46 pm
Operator : JK /AMS /DTH
Sample : A9J0950-01@50
Misc : 50x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 15:24:01 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061911.D
Acq On : 6 Nov 2019 2:22 pm
Operator : JK /AMS /DTH
Sample : A9J0950-02@50
Misc : 50x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 11/6/19 ROY AMS 11/6/19

Quant Time: Nov 06 15:24:05 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.520	152	92042	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.776	136	357946	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.547	162	195071	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.055	188	379430	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.746	240	431166	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	18.217	264	439830	2000.00 ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.608	292	383105	2000.00 ng/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.279	112	838	12.36 ng/ml	0.00
5) Phenol-d6 (Surr)	6.167	99	374	4.56 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.060	82	2297	38.37 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.857	172	6207	43.31 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.349	330	801	57.46 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.815	244	8628	41.24 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.	
3) Pyridine	0.000		0	N.D.	
6) Phenol	6.177	94	65	N.D.	
7) Aniline	0.000		0	N.D.	
8) Bis(2-chloroethyl) ether	0.000		0	N.D.	
9) 2-Chlorophenol	0.000		0	N.D.	
10) 1,3-Dichlorobenzene	0.000		0	N.D.	
11) 1,4-Dichlorobenzene	0.000		0	N.D.	
12) Benzyl alcohol	0.000		0	N.D.	
13) 1,2-Dichlorobenzene	0.000		0	N.D.	
14) 2-Methylphenol	0.000		0	N.D.	
15) 2,2'-Oxybis(1-Chloropr...	6.696	45	65	N.D.	
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.	
17) 3+4-Methylphenol	0.000		0	N.D.	
18) Hexachloroethane	0.000		0	N.D.	
20) Nitrobenzene	7.076	77	250	3.94 ng/ml#	3
22) Isophorone	0.000		0	N.D.	
23) 2-Nitrophenol	7.472	139	54	50.79 ng/ml#	37
24) 2,4-Dimethylphenol	0.000		0	N.D.	
25) Bis(2-chloroethoxy) me...	7.514	93	126	N.D.	
26) Benzoic acid	7.520	105	377	771.19 ng/ml#	1
27) 2,4-Dichlorophenol	0.000		0	N.D.	
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
29) Naphthalene	7.809	128	2293042	12471.65 ng/ml	89
30) 4-Chloroaniline	7.899	127	161	15.52 ng/ml#	61
31) Hexachlorobutadiene	0.000		0	N.D.	
32) 4-Chloro-3-methylphenol	0.000		0	N.D.	
33) 2-Methylnaphthalene	8.488	142	143534	1085.43 ng/ml	98
34) 1-Methylnaphthalene	8.589	142	79570	632.04 ng/ml	98
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	8.959	154	37672	238.65 ng/ml	99
41) 2-Chloronaphthalene	8.964	162	125	N.D.	
42) 2-Nitroaniline	0.000		0	N.D.	
43) 2,6-Dimethylnaphthalene	9.124	156	7765	65.09 ng/ml	98

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061911.D
Acq On : 6 Nov 2019 2:22 pm
Operator : JK /AMS /DTH
Sample : A9J0950-02@50
Misc : 50x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

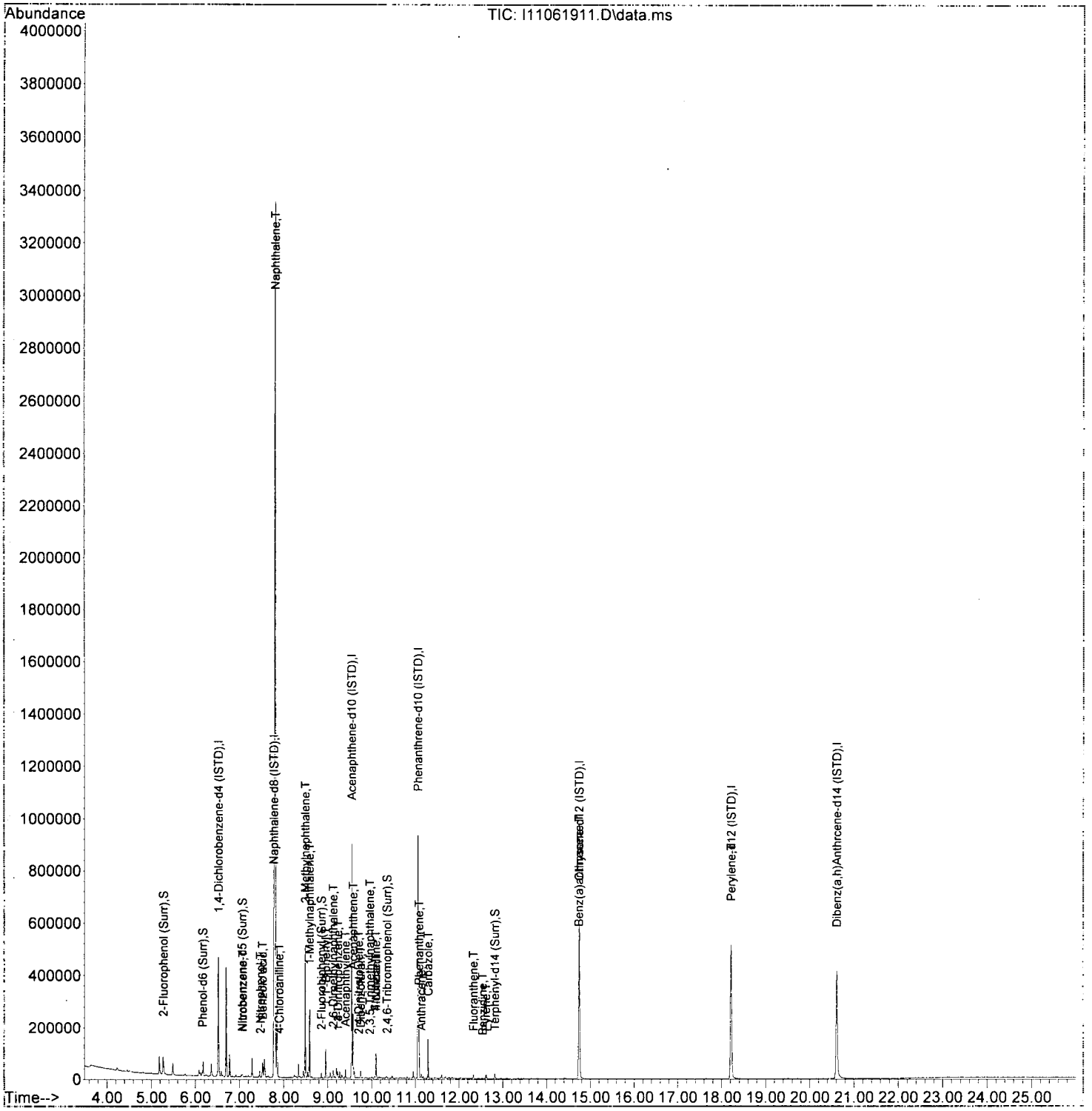
Quant Time: Nov 06 15:24:05 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.231	168	282	150.34 ng/ml#	29
45)	Dimethyl phthalate	9.215	163	116	N.D.	
46)	1,3-Dinitrobenzene	9.231	168	282	138.32 ng/ml#	1
47)	2,6-Dinitrotoluene	0.000		0	N.D.	
48)	1,2-Dinitrobenzene	0.000		0	N.D.	
49)	Acenaphthylene	9.402	152	12518	64.09 ng/ml	97
50)	3-Nitroaniline	0.000		0	N.D.	
51)	Acenaphthene	9.579	153	65715	535.05 ng/ml	99
52)	2,4-Dinitrophenol	0.000		0	N.D.	
53)	4-Nitrophenol	0.000		0	N.D.	
54)	2,4-Dinitrotoluene	9.707	165	75	68.92 ng/ml#	20
55)	Dibenzofuran	9.750	168	7338	43.63 ng/ml	89
56)	2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57)	2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58)	Diethyl phthalate	0.000		0	N.D.	
59)	2,3,5-Trimethylnaphtha...	9.959	170	840	7.54 ng/ml	85
60)	Fluorene	10.098	166	27227	201.26 ng/ml	99
61)	4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62)	4-Nitroaniline	10.098	138	257	11.15 ng/ml#	23
63)	4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65)	N-Nitrosodiphenylamine	10.231	169	114	N.D.	
66)	Azobenzene (1,2-DPH)	10.269	77	119	N.D.	
68)	4-Bromophenyl phenyl e...	0.000		0	N.D.	
69)	Hexachlorobenzene	0.000		0	N.D.	
70)	Pentachlorophenol (PCP)	0.000		0	N.D.	
71)	Phenanthrene	11.082	178	77306	390.62 ng/ml	98
72)	Anthracene	11.130	178	7156	36.66 ng/ml	98
73)	Carbazole	11.291	167	64381	371.08 ng/ml	98
74)	Di-n-butyl phthalate	0.000		0	N.D.	
75)	Fluoranthene	12.328	202	8412	36.06 ng/ml	97
76)	Benzidine	12.537	184	50	109.74 ng/ml	68
77)	Pyrene	12.612	202	8245	36.24 ng/ml	97
80)	Butyl benzyl phthalate	0.000		0	N.D.	
81)	Bis(2-ethylhexyl) adipate	13.756	129	122	N.D.	
82)	3,3-Dichlorobenzidine	0.000		0	N.D.	
83)	Benz(a)anthracene	14.735	228	1092	4.37 ng/ml	68
84)	Chrysene	14.794	228	157	N.D.	
85)	Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87)	Di-n-octyl phthalate	0.000		0	N.D.	
88)	Benzo(b)fluoranthene	0.000		0	N.D.	
89)	Benzo(k)fluoranthene	0.000		0	N.D.	
90)	Benzo(b+k)fluoranthene	0.000		0	N.D.	
91)	Benzo(e)pyrene	0.000		0	N.D.	
92)	Benzo(a)pyrene	0.000		0	N.D.	
93)	Perylene	18.217	252	1383	6.93 ng/ml	66
95)	Indeno(1,2,3-cd)pyrene	20.602	276	134	N.D.	
96)	Dibenz(a,h)anthracene	0.000		0	N.D.	
97)	Benzo(g,h,i)perylene	0.000		0	N.D.	

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

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061911.D
Acq On : 6 Nov 2019 2:22 pm
Operator : JK /AMS /DTH
Sample : A9J0950-02@50
Misc : 50x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 15:24:05 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061912.D
Acq On : 6 Nov 2019 2:57 pm
Operator : JK /AMS /DTH
Sample : A9J0950-03@50
Misc : 50x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 15:24:08 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

AMS 11/6/19

~~R04~~ AMS 11/6/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.520	152	95585	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.776	136	359606	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.547	162	191798	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.055	188	379605	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.746	240	431567	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.217	264	439716	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.608	292	384802	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.289	112	930	13.21	ng/ml	0.00
5) Phenol-d6 (Surr)	6.167	99	310	3.64	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.060	82	2276	36.61	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.857	172	6256	44.39	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.344	330	822	58.35	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.815	244	8988	42.92	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	6.696	45	92	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.070	77	201	3.05	ng/ml#	1
22) Isophorone	7.311	82	60	N.D.		
23) 2-Nitrophenol	7.466	139	101	52.21	ng/ml#	37
24) 2,4-Dimethylphenol	7.498	122	62	N.D.		
25) Bis(2-chloroethoxy) me...	7.520	93	56	N.D.		
26) Benzoic acid	7.514	105	390	771.56	ng/ml#	1
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.809	128	2267416	12275.35	ng/ml	89
30) 4-Chloroaniline	7.809	127	361195	5575.13	ng/ml#	24
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	8.488	142	178097	1340.58	ng/ml	99
34) 1-Methylnaphthalene	8.589	142	106056	838.53	ng/ml	98
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	8.959	154	55096	354.99	ng/ml	100
41) 2-Chloronaphthalene	8.964	162	116	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	9.124	156	11519	98.20	ng/ml	100

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061912.D
Acq On : 6 Nov 2019 2:57 pm
Operator : JK /AMS /DTH
Sample : A9J0950-03@50
Misc : 50x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

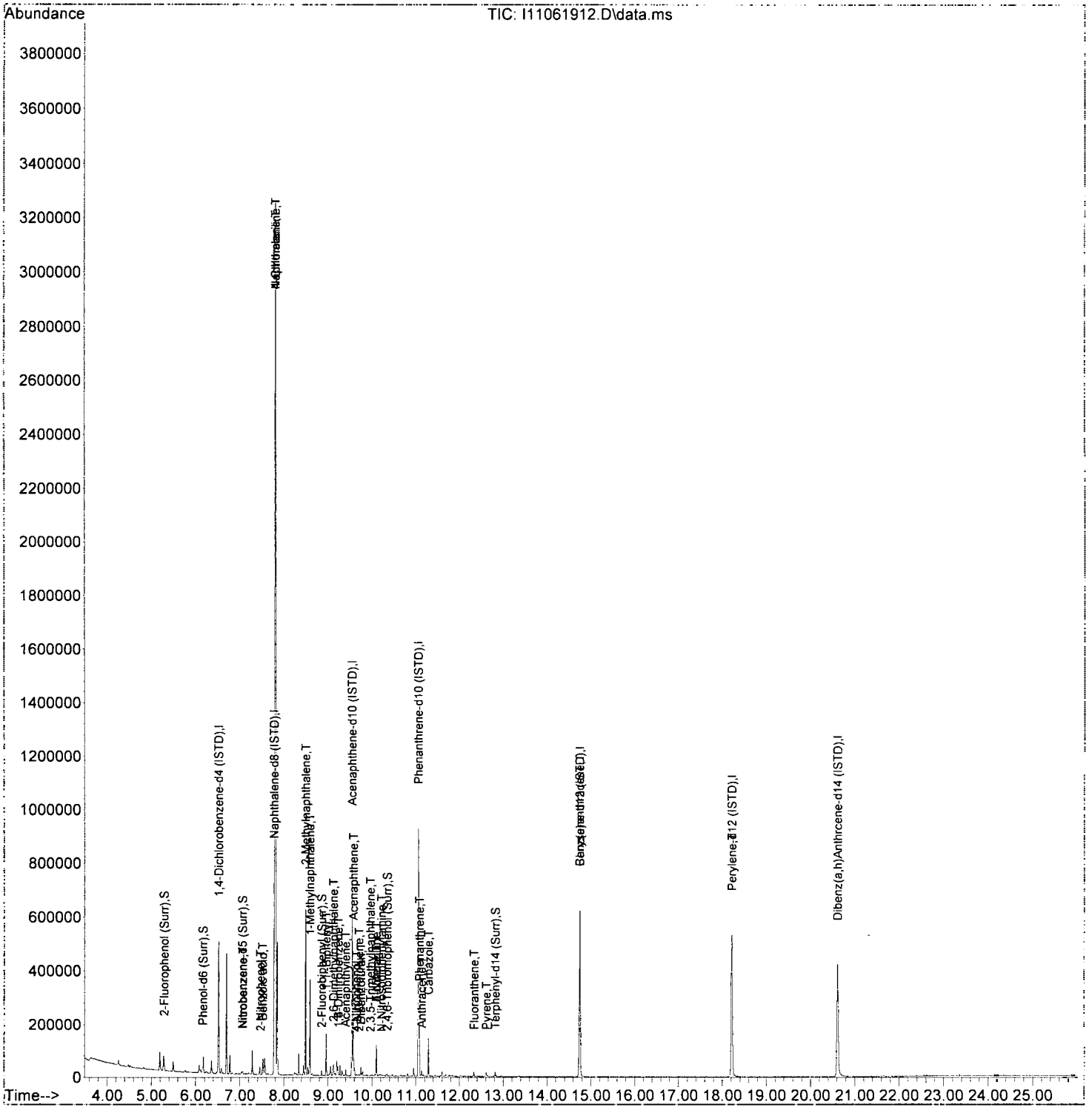
Quant Time: Nov 06 15:24:08 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.231	168	374	157.53 ng/ml#	17
45)	Dimethyl phthalate	9.237	163	72	N.D.	
46)	1,3-Dinitrobenzene	9.231	168	374	143.29 ng/ml#	1
47)	2,6-Dinitrotoluene	0.000		0	N.D.	
48)	1,2-Dinitrobenzene	0.000		0	N.D.	
49)	Acenaphthylene	9.397	152	5375	27.99 ng/ml	92
50)	3-Nitroaniline	0.000		0	N.D.	
51)	Acenaphthene	9.579	153	109440	906.27 ng/ml	99
52)	2,4-Dinitrophenol	0.000		0	N.D.	
53)	4-Nitrophenol	9.643	139	51	72.96 ng/ml#	1
54)	2,4-Dinitrotoluene	9.707	165	300	75.12 ng/ml#	41
55)	Dibenzofuran	9.750	168	7811	47.24 ng/ml	87
56)	2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57)	2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58)	Diethyl phthalate	0.000		0	N.D.	
59)	2,3,5-Trimethylnaphtha...	9.964	170	1277	11.66 ng/ml	78
60)	Fluorene	10.098	166	31069	233.58 ng/ml	95
61)	4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62)	4-Nitroaniline	10.098	138	315	13.90 ng/ml#	34
63)	4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65)	N-Nitrosodiphenylamine	10.215	169	319	2.68 ng/ml#	1
66)	Azobenzene (1,2-DPH)	10.269	77	78	N.D.	
68)	4-Bromophenyl phenyl e...	0.000		0	N.D.	
69)	Hexachlorobenzene	0.000		0	N.D.	
70)	Pentachlorophenol (PCP)	0.000		0	N.D.	
71)	Phenanthrene	11.082	178	80417	406.15 ng/ml	98
72)	Anthracene	11.130	178	8186	41.92 ng/ml	98
73)	Carbazole	11.291	167	60046	345.93 ng/ml	99
74)	Di-n-butyl phthalate	11.638	149	67	N.D.	
75)	Fluoranthene	12.334	202	8238	35.30 ng/ml	98
76)	Benzidine	0.000		0	N.D.	
77)	Pyrene	12.612	202	8306	36.49 ng/ml	96
80)	Butyl benzyl phthalate	0.000		0	N.D.	
81)	Bis(2-ethylhexyl) adipate	13.762	129	122	N.D.	
82)	3,3-Dichlorobenzidine	0.000		0	N.D.	
83)	Benz(a)anthracene	14.746	228	1258	5.03 ng/ml	79
84)	Chrysene	14.799	228	142	N.D.	
85)	Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87)	Di-n-octyl phthalate	0.000		0	N.D.	
88)	Benzo(b)fluoranthene	0.000		0	N.D.	
89)	Benzo(k)fluoranthene	0.000		0	N.D.	
90)	Benzo(b+k)fluoranthene	0.000		0	N.D.	
91)	Benzo(e)pyrene	0.000		0	N.D.	
92)	Benzo(a)pyrene	0.000		0	N.D.	
93)	Perylene	18.217	252	1489	7.46 ng/ml#	62
95)	Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	
96)	Dibenz(a,h)anthracene	20.602	278	99	N.D.	
97)	Benzo(g,h,i)perylene	0.000		0	N.D.	

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

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061912.D
Acq On : 6 Nov 2019 2:57 pm
Operator : JK /AMS /DTH
Sample : A9J0950-03@50
Misc : 50x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 15:24:08 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9



No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061913.D
Acq On : 6 Nov 2019 3:32 pm
Operator : JK /AMS /DTH
Sample : A9J0950-04@50
Misc : 50x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 16:46:37 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

DAT 11/6/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.519	152	94860	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.776	136	350725	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.547	162	189548	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.055	188	378254	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.746	240	429393	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.217	264	438977	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.608	292	391090	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.295	112	1030	14.75	ng/ml	0.01
5) Phenol-d6 (Surr)	6.172	99	364	4.31	ng/ml	0.01
19) Nitrobenzene-d5 (Surr)	7.060	82	2411	39.08	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.857	172	6027	43.28	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.349	330	933	63.30	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.815	244	8744	41.97	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	6.183	94	262	2.93	ng/ml#	55
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	6.760	107	56	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	6.701	45	99	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	6.910	107	295	4.64	ng/ml#	1
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.070	77	133	N.D.		
22) Isophorone	7.268	82	50	N.D.		
23) 2-Nitrophenol	7.466	139	54	50.83	ng/ml	83
24) 2,4-Dimethylphenol	7.439	122	290	5.86	ng/ml#	80
25) Bis(2-chloroethoxy) me...	7.525	93	75	N.D.		
26) Benzoic acid	7.520	105	256	767.39	ng/ml#	1
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.808	128	2307182	12806.92	ng/ml	89
30) 4-Chloroaniline	7.899	127	266	17.24	ng/ml#	6
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	8.488	142	157724	1217.29	ng/ml	100
34) 1-Methylnaphthalene	8.589	142	90276	731.84	ng/ml	98
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	8.958	154	45367	295.77	ng/ml	99
41) 2-Chloronaphthalene	9.033	162	1202	10.60	ng/ml#	48
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	9.124	156	8571	73.94	ng/ml	98

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061913.D
Acq On : 6 Nov 2019 3:32 pm
Operator : JK /AMS /DTH
Sample : A9J0950-04@50
Misc : 50x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 16:46:37 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9

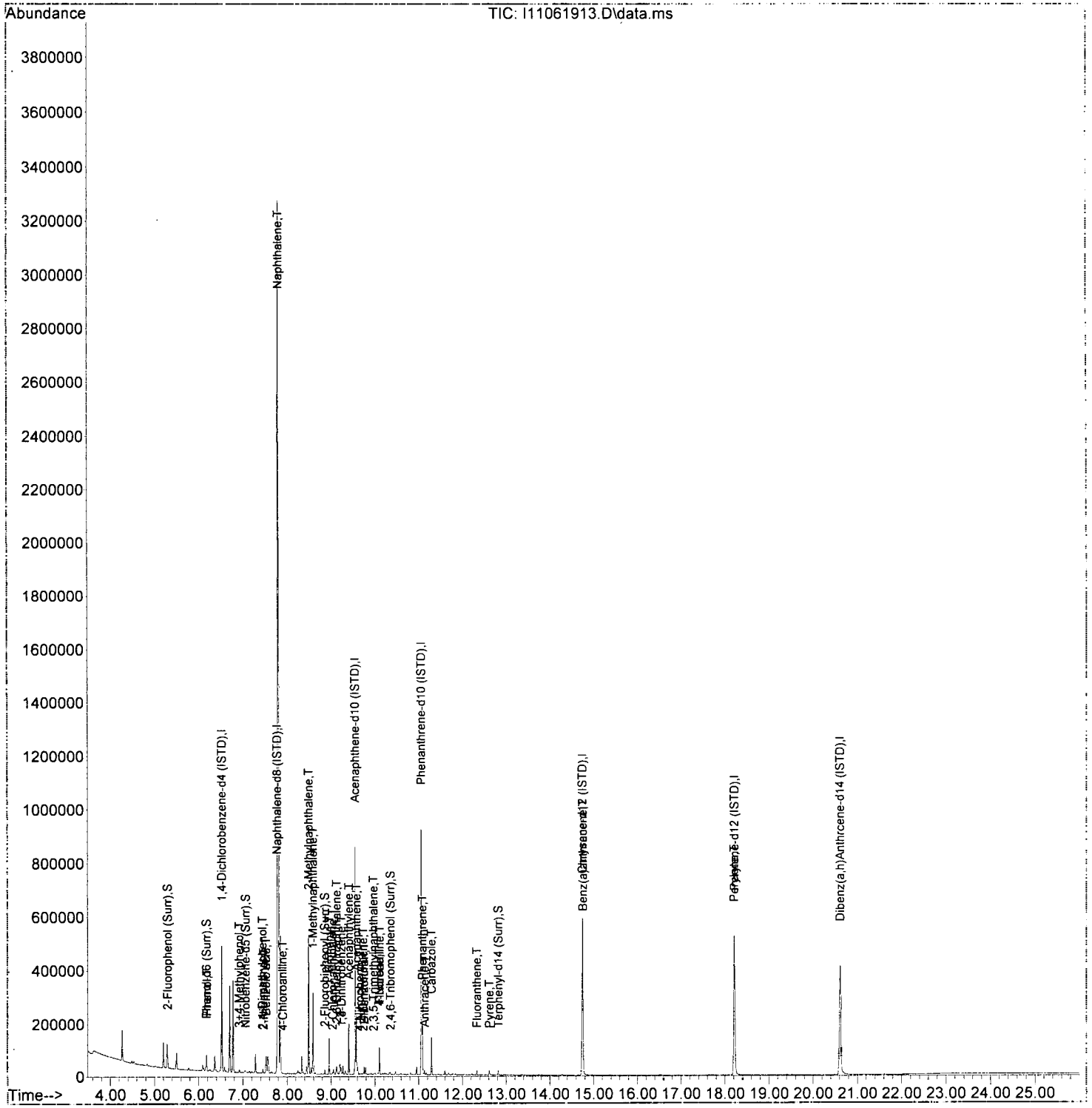
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.231	168	293	151.77 ng/ml#	20
45)	Dimethyl phthalate	9.237	163	86	N.D.	
46)	1,3-Dinitrobenzene	9.231	168	293	139.31 ng/ml#	19
47)	2,6-Dinitrotoluene	0.000		0	N.D.	
48)	1,2-Dinitrobenzene	0.000		0	N.D.	
49)	Acenaphthylene	9.402	152	88578	466.70 ng/ml	99
50)	3-Nitroaniline	0.000		0	N.D.	
51)	Acenaphthene	9.579	153	58821	492.87 ng/ml	99
52)	2,4-Dinitrophenol	0.000		0	N.D.	
53)	4-Nitrophenol	9.648	139	79	74.41 ng/ml#	22
54)	2,4-Dinitrotoluene	9.729	165	60	68.57 ng/ml#	51
55)	Dibenzofuran	9.750	168	7580	46.39 ng/ml	88
56)	2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57)	2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58)	Diethyl phthalate	0.000		0	N.D.	
59)	2,3,5-Trimethylnaphtha...	9.964	170	836	7.73 ng/ml	98
60)	Fluorene	10.098	166	29868	227.22 ng/ml	98
61)	4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62)	4-Nitroaniline	10.103	138	305	13.62 ng/ml#	35
63)	4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65)	N-Nitrosodiphenylamine	10.221	169	150	N.D.	
66)	Azobenzene (1,2-DPH)	10.264	77	167	N.D.	
68)	4-Bromophenyl phenyl e...	0.000		0	N.D.	
69)	Hexachlorobenzene	0.000		0	N.D.	
70)	Pentachlorophenol (PCP)	0.000		0	N.D.	
71)	Phenanthrene	11.082	178	81594	413.56 ng/ml	100
72)	Anthracene	11.130	178	8317	42.74 ng/ml	97
73)	Carbazole	11.290	167	61771	357.14 ng/ml	97
74)	Di-n-butyl phthalate	0.000		0	N.D.	
75)	Fluoranthene	12.328	202	9110	39.17 ng/ml	96
76)	Benzidine	0.000		0	N.D.	
77)	Pyrene	12.612	202	9024	39.79 ng/ml	99
80)	Butyl benzyl phthalate	0.000		0	N.D.	
81)	Bis(2-ethylhexyl) adipate	13.762	129	169	N.D.	
82)	3,3-Dichlorobenzidine	0.000		0	N.D.	
83)	Benz(a)anthracene	14.756	228	1338	5.38 ng/ml	65
84)	Chrysene	14.799	228	200	N.D.	
85)	Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87)	Di-n-octyl phthalate	0.000		0	N.D.	
88)	Benzo(b)fluoranthene	0.000		0	N.D.	
89)	Benzo(k)fluoranthene	0.000		0	N.D.	
90)	Benzo(b+k)fluoranthene	0.000		0	N.D.	
91)	Benzo(e)pyrene	0.000		0	N.D.	
92)	Benzo(a)pyrene	0.000		0	N.D.	
93)	Perylene	18.212	252	1362	6.84 ng/ml	71
95)	Indeno(1,2,3-cd)pyrene	20.597	276	61	N.D.	
96)	Dibenz(a,h)anthracene	0.000		0	N.D.	
97)	Benzo(g,h,i)perylene	0.000		0	N.D.	

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

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K06033\
Data File : I11061913.D
Acq On : 6 Nov 2019 3:32 pm
Operator : JK /AMS /DTH
Sample : A9J0950-04@50
Misc : 50x, 1311/8270D TCLP SVOC Reg List
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 06 16:46:37 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R3.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Wed Nov 06 11:36:04 2019
Response via : Initial Calibration
InstName : SV-GCMS9



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

TCLP Semivolatile Organic Compounds by EPA 8270D
Calibration Data

Sequence 9J16053 (Cal ID A9J1803) SV-GCMS9

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9J16053**	Instrument:	**SV-GCMS9**
Date:	**10/16/19 15:59**	Calibration:	**A9J1803**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J16053-TUN1	Water	QC	QC			A19G233	A19J016
2	9J16053-ICB1	Water	QC	QC			A19G233	
3	9J16053-CAL1	Water	QC	QC			A19G233	A19G238
4	9J16053-CAL2	Water	QC	QC			A19G233	A19G239
5	9J16053-CAL3	Water	QC	QC			A19G233	A19G240
6	9J16053-CAL4	Water	QC	QC			A19G233	A19G241
7	9J16053-CAL5	Water	QC	QC			A19G233	A19G242
8	9J16053-CAL6	Water	QC	QC			A19G233	A19G243
9	9J16053-CAL7	Water	QC	QC			A19G233	A19G244
10	9J16053-CAL8	Water	QC	QC			A19G233	A19G245
11	9J16053-CAL9	Water	QC	QC			A19G233	A19G246
12	9J16053-CALA	Water	QC	QC			A19G233	A19G247
13	9J16053-IBL1	Water	QC	QC			A19G233	
14	9J16053-ICV1	Water	QC	QC			A19G233	A19I254
15	9J16053-IBL2	Water	QC	QC			A19G233	

Data Entered By: 10/18/19

Data Reviewed By: 10/22/19

Comments:

Calibration Status Report SV-GCMS9

Method Path : T:\methods\
Method File : SV9_101619.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Thu Oct 17 11:59:00 2019
Response Via : Initial Calibration

A9J1803

JK 10/17/19

#	ID	Conc	ISTD Conc	Path\File
1	20	20	2000	T:\data\2019-10\9J16053\I10161912.D
2	50	50	2000	T:\data\2019-10\9J16053\I10161913.D
3	100	100	2000	T:\data\2019-10\9J16053\I10161914.D
4	200	200	2000	T:\data\2019-10\9J16053\I10161915.D
5	500	500	2000	T:\data\2019-10\9J16053\I10161916.D
6	1000	1000	2000	T:\data\2019-10\9J16053\I10161917.D
7	2000	2000	2000	T:\data\2019-10\9J16053\I10161918.D
8	4000	4000	2000	T:\data\2019-10\9J16053\I10161919.D
9	6000	6000	2000	T:\data\2019-10\9J16053\I10161920.D
10	8000	8000	2000	T:\data\2019-10\9J16053\I10161921.D

#	ID	Update Time	Quant Time	Acquisition Time
1	20	Oct 17 11:57 2019	Oct 17 10:12 2019	16 Oct 2019 5:09 pm
2	50	Oct 17 11:57 2019	Oct 17 11:01 2019	16 Oct 2019 5:44 pm
3	100	Oct 17 11:58 2019	Oct 17 11:05 2019	16 Oct 2019 6:19 pm
4	200	Oct 17 11:58 2019	Oct 17 11:06 2019	16 Oct 2019 6:54 pm
5	500	Oct 17 11:58 2019	Oct 17 10:13 2019	16 Oct 2019 7:30 pm
6	1000	Oct 17 11:58 2019	Oct 17 10:13 2019	16 Oct 2019 8:05 pm
7	2000	Oct 17 11:58 2019	Oct 17 10:13 2019	16 Oct 2019 8:40 pm
8	4000	Oct 17 11:58 2019	Oct 17 11:43 2019	16 Oct 2019 9:14 pm
9	6000	Oct 17 11:58 2019	Oct 17 11:45 2019	16 Oct 2019 9:49 pm
10	8000	Oct 17 11:59 2019	Oct 17 11:46 2019	16 Oct 2019 10:24 pm

SV9_101619.M Thu Oct 17 13:02:14 2019

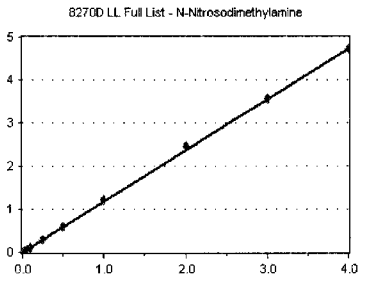
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

N-Nitrosodimethylamine

Curve Fit: **AVERAGE RF**

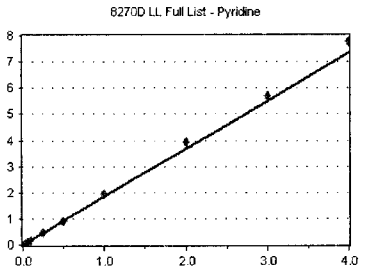


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1227	1.106	4.13
9J16053-CAL2	50	3526	1.227	4.08
9J16053-CAL3	100	6638	1.169	4.09
9J16053-CAL4	200	13447	1.119	4.06
9J16053-CAL5	500	32984	1.196	4.09
9J16053-CAL6	1000	63705	1.172	4.08
9J16053-CAL7	2000	130513	1.226	4.06
9J16053-CAL8	4000	258805	1.224	4.08
9J16053-CAL9	6000	322758	1.192	4.11
9J16053-CALA	8000	425740	1.181	4.07

AVE RF **1.181** RF RSD **3.56** AVE RT **4.08**

Pyridine

Curve Fit: **AVERAGE RF**

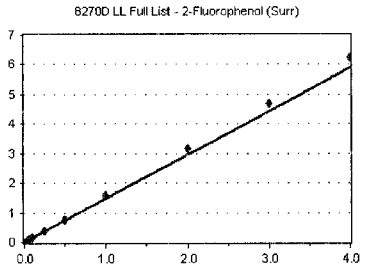


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~855~~	~~0.771~~	~~4.19~~
9J16053-CAL2	50	4710	1.639	4.12
9J16053-CAL3	100	9792	1.725	4.12
9J16053-CAL4	200	20595	1.714	4.09
9J16053-CAL5	500	50729	1.839	4.11
9J16053-CAL6	1000	100642	1.852	4.09
9J16053-CAL7	2000	206511	1.940	4.08
9J16053-CAL8	4000	416575	1.970	4.09
9J16053-CAL9	6000	514636	1.900	4.12
9J16053-CALA	8000	702998	1.950	4.08

AVE RF **1.837** RF RSD **6.45** AVE RT **4.10**

2-Fluorophenol (Surr)

Curve Fit: **AVERAGE RF**

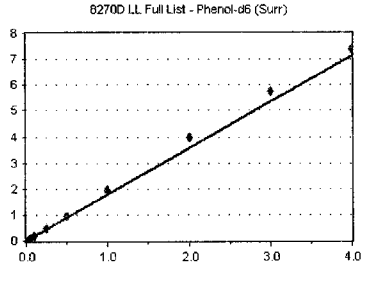


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1500	1.352	5.42
9J16053-CAL2	50	3881	1.350	5.41
9J16053-CAL3	100	7618	1.342	5.41
9J16053-CAL4	200	16598	1.381	5.40
9J16053-CAL5	500	41291	1.497	5.41
9J16053-CAL6	1000	81539	1.500	5.41
9J16053-CAL7	2000	168171	1.579	5.40
9J16053-CAL8	4000	336987	1.594	5.41
9J16053-CAL9	6000	424427	1.567	5.42
9J16053-CALA	8000	563281	1.563	5.41

AVE RF **1.473** RF RSD **7.14** AVE RT **5.41**

Phenol-d6 (Surr)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1618	1.459	6.30
9J16053-CAL2	50	4604	1.602	6.29
9J16053-CAL3	100	9393	1.654	6.29
9J16053-CAL4	200	19537	1.626	6.29
9J16053-CAL5	500	51731	1.876	6.30
9J16053-CAL6	1000	102248	1.881	6.30
9J16053-CAL7	2000	209429	1.967	6.30
9J16053-CAL8	4000	419864	1.986	6.31
9J16053-CAL9	6000	520284	1.921	6.31
9J16053-CALA	8000	666322	1.849	6.31

AVE RF **1.782** RF RSD **10.17** AVE RT **6.30**

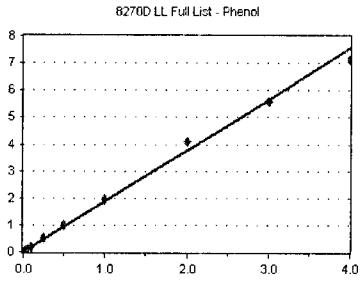
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Phenol

Curve Fit: **AVERAGE RF**

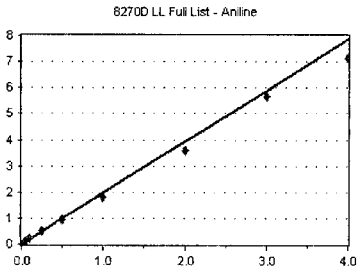


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2030	1.830	6.31
9J16053-CAL2	50	5478	1.906	6.31
9J16053-CAL3	100	10339	1.821	6.31
9J16053-CAL4	200	20713	1.724	6.30
9J16053-CAL5	500	55173	2.001	6.31
9J16053-CAL6	1000	105930	1.949	6.31
9J16053-CAL7	2000	208278	1.956	6.31
9J16053-CAL8	4000	432772	2.047	6.32
9J16053-CAL9	6000	502219	1.854	6.33
9J16053-CALA	8000	643943	1.787	6.33

AVE RF **1.888** RF RSD **5.38** AVE RT **6.31**

Aniline

Curve Fit: **AVERAGE RF**

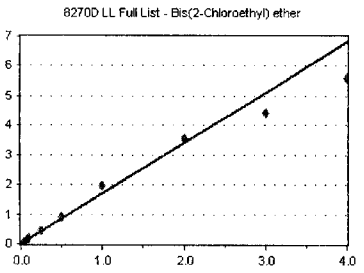


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~1021~~	~~0.921~~	~~6.35~~
9J16053-CAL2	50	5932	2.064	6.34
9J16053-CAL3	100	12340	2.173	6.34
9J16053-CAL4	200	25093	2.088	6.34
9J16053-CAL5	500	59550	2.159	6.34
9J16053-CAL6	1000	104698	1.927	6.34
9J16053-CAL7	2000	193255	1.815	6.34
9J16053-CAL8	4000	377305	1.785	6.35
9J16053-CAL9	6000	510928	1.887	6.35
9J16053-CALA	8000	643142	1.784	6.35

AVE RF **1.965** RF RSD **8.08** AVE RT **6.35**

Bis(2-Chloroethyl) ether

Curve Fit: **AVERAGE RF**

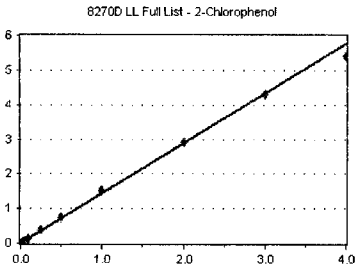


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1698	1.531	6.40
9J16053-CAL2	50	4855	1.689	6.40
9J16053-CAL3	100	10234	1.803	6.40
9J16053-CAL4	200	20574	1.712	6.39
9J16053-CAL5	500	50835	1.843	6.40
9J16053-CAL6	1000	97200	1.789	6.40
9J16053-CAL7	2000	209890	1.971	6.40
9J16053-CAL8	4000	375165	1.774	6.40
9J16053-CAL9	6000	400306	1.478	6.41
9J16053-CALA	8000	503778	1.398	6.41

AVE RF **1.699** RF RSD **10.52** AVE RT **6.40**

2-Chlorophenol

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1413	1.274	6.46
9J16053-CAL2	50	4117	1.432	6.46
9J16053-CAL3	100	8126	1.431	6.46
9J16053-CAL4	200	17444	1.452	6.46
9J16053-CAL5	500	42644	1.546	6.46
9J16053-CAL6	1000	82633	1.520	6.46
9J16053-CAL7	2000	161665	1.518	6.46
9J16053-CAL8	4000	308174	1.458	6.46
9J16053-CAL9	6000	388854	1.436	6.47
9J16053-CALA	8000	486600	1.350	6.47

AVE RF **1.442** RF RSD **5.67** AVE RT **6.46**

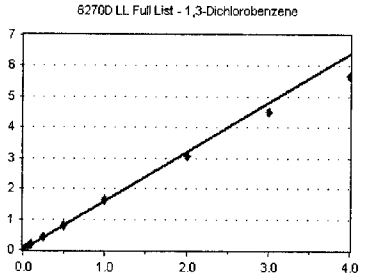
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

1,3-Dichlorobenzene

Curve Fit: **AVERAGE RF**

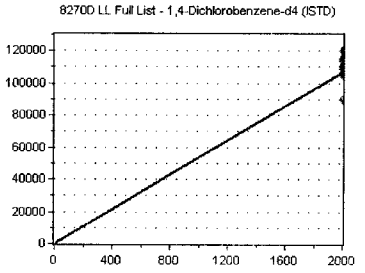


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1762	1.589	6.61
9J16053-CAL2	50	4787	1.666	6.61
9J16053-CAL3	100	9504	1.674	6.61
9J16053-CAL4	200	20472	1.704	6.61
9J16053-CAL5	500	46500	1.686	6.61
9J16053-CAL6	1000	87984	1.619	6.61
9J16053-CAL7	2000	171908	1.615	6.61
9J16053-CAL8	4000	323172	1.529	6.61
9J16053-CAL9	6000	406773	1.502	6.62
9J16053-CALA	8000	510201	1.416	6.61

AVE RF **1.600** RF RSD **5.80** AVE RT **6.61**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**

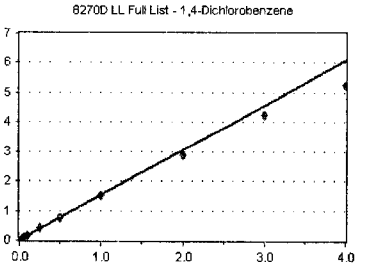


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	110906	55.453	6.66
9J16053-CAL2	2000	114962	57.481	6.66
9J16053-CAL3	2000	113552	56.776	6.66
9J16053-CAL4	2000	120155	60.078	6.66
9J16053-CAL5	2000	110317	55.159	6.66
9J16053-CAL6	2000	108692	54.346	6.66
9J16053-CAL7	2000	106472	53.236	6.66
9J16053-CAL8	2000	105713	52.856	6.66
9J16053-CAL9	2000	90276	45.138	6.66
9J16053-CALA	2000	90105	45.053	6.66

AVE RF **53.558** RF RSD **9.21** AVE RT **6.66**

1,4-Dichlorobenzene

Curve Fit: **AVERAGE RF**

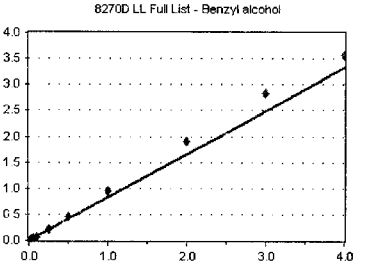


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1753	1.581	6.68
9J16053-CAL2	50	4602	1.601	6.68
9J16053-CAL3	100	9126	1.607	6.68
9J16053-CAL4	200	19398	1.614	6.68
9J16053-CAL5	500	44891	1.628	6.68
9J16053-CAL6	1000	83649	1.539	6.68
9J16053-CAL7	2000	161488	1.517	6.68
9J16053-CAL8	4000	302701	1.432	6.68
9J16053-CAL9	6000	381139	1.407	6.69
9J16053-CALA	8000	472412	1.311	6.68

AVE RF **1.524** RF RSD **7.02** AVE RT **6.68**

Benzyl alcohol

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	950	0.857	6.79
9J16053-CAL2	50	1820	0.633	6.79
9J16053-CAL3	100	3764	0.663	6.79
9J16053-CAL4	200	8208	0.683	6.79
9J16053-CAL5	500	22926	0.831	6.79
9J16053-CAL6	1000	48394	0.890	6.79
9J16053-CAL7	2000	101019	0.949	6.79
9J16053-CAL8	4000	202180	0.956	6.80
9J16053-CAL9	6000	256004	0.945	6.80
9J16053-CALA	8000	321834	0.893	6.81

AVE RF **0.830** RF RSD **15.02** AVE RT **6.79**

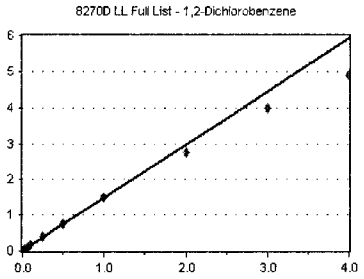
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

1,2-Dichlorobenzene

Curve Fit: **AVERAGE RF**

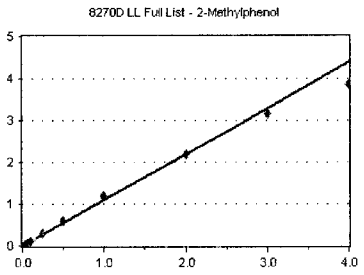


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1751	1.579	6.84
9J16053-CAL2	50	4537	1.579	6.83
9J16053-CAL3	100	8939	1.574	6.83
9J16053-CAL4	200	19037	1.584	6.82
9J16053-CAL5	500	44501	1.614	6.83
9J16053-CAL6	1000	82317	1.515	6.83
9J16053-CAL7	2000	158155	1.485	6.83
9J16053-CAL8	4000	289895	1.371	6.83
9J16053-CAL9	6000	358825	1.325	6.84
9J16053-CALA	8000	440964	1.223	6.84

AVE RF **1.485** RF RSD **8.97** AVE RT **6.83**

2-Methylphenol

Curve Fit: **AVERAGE RF**

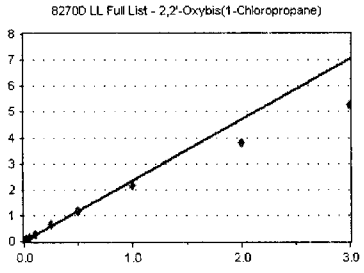


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1222	1.102	6.89
9J16053-CAL2	50	2790	0.971	6.89
9J16053-CAL3	100	6433	1.133	6.89
9J16053-CAL4	200	13130	1.093	6.89
9J16053-CAL5	500	33736	1.223	6.89
9J16053-CAL6	1000	64002	1.178	6.89
9J16053-CAL7	2000	125482	1.179	6.89
9J16053-CAL8	4000	231464	1.095	6.90
9J16053-CAL9	6000	286008	1.056	6.90
9J16053-CALA	8000	347076	0.963	6.91

AVE RF **1.099** RF RSD **7.79** AVE RT **6.90**

2,2'-Oxybis(1-Chloropropane)

Curve Fit: **AVERAGE RF**

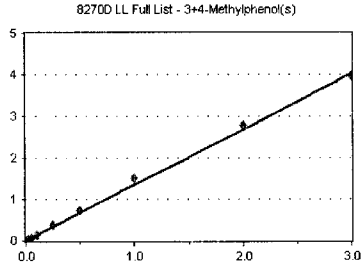


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2838	2.559	6.92
9J16053-CAL2	50	7664	2.667	6.92
9J16053-CAL3	100	14918	2.628	6.92
9J16053-CAL4	200	30514	2.540	6.92
9J16053-CAL5	500	70737	2.565	6.92
9J16053-CAL6	1000	128835	2.371	6.92
9J16053-CAL7	2000	232038	2.179	6.92
9J16053-CAL8	4000	401443	1.899	6.93
9J16053-CAL9	6000	474944	1.754	6.93
~~9J16053-CALA~~	~~8000~~	~~544410~~	~~1.610~~	~~6.93~~

AVE RF **2.351** RF RSD **14.20** AVE RT **6.92**

3+4-Methylphenol(s)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1259	1.135	7.04
9J16053-CAL2	50	3323	1.156	7.04
9J16053-CAL3	100	7443	1.311	7.04
9J16053-CAL4	200	15070	1.254	7.04
9J16053-CAL5	500	41942	1.521	7.04
9J16053-CAL6	1000	80497	1.481	7.04
9J16053-CAL7	2000	160363	1.506	7.04
9J16053-CAL8	4000	292865	1.385	7.05
9J16053-CAL9	6000	358777	1.325	7.06
~~9J16053-CALA~~	~~8000~~	~~435039~~	~~1.207~~	~~7.07~~

AVE RF **1.342** RF RSD **10.75** AVE RT **7.04**

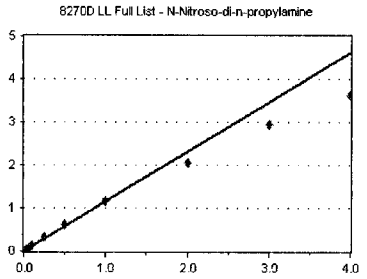
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

N-Nitroso-di-n-propylamine

Curve Fit: **AVERAGE RF**

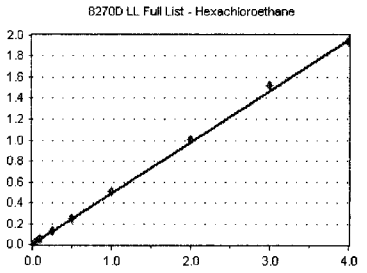


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1362	1.228	7.05
9J16053-CAL2	50	3574	1.244	7.05
9J16053-CAL3	100	7214	1.271	7.05
9J16053-CAL4	200	14701	1.224	7.04
9J16053-CAL5	500	36526	1.324	7.05
9J16053-CAL6	1000	66569	1.225	7.05
9J16053-CAL7	2000	122433	1.150	7.05
9J16053-CAL8	4000	216758	1.025	7.07
9J16053-CAL9	6000	265552	0.981	7.07
9J16053-CALA	8000	326816	0.907	7.08

AVE RF **1.158** RF RSD **12.00** AVE RT **7.06**

Hexachloroethane

Curve Fit: **AVERAGE RF**

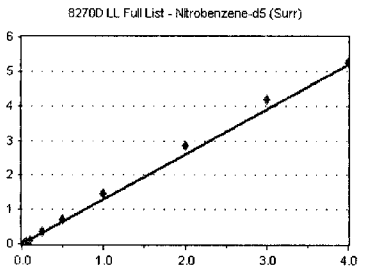


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	507	0.457	7.17
9J16053-CAL2	50	1316	0.458	7.16
9J16053-CAL3	100	2749	0.484	7.17
9J16053-CAL4	200	5953	0.495	7.16
9J16053-CAL5	500	13814	0.501	7.17
9J16053-CAL6	1000	26988	0.497	7.17
9J16053-CAL7	2000	54131	0.508	7.16
9J16053-CAL8	4000	106200	0.502	7.17
9J16053-CAL9	6000	137256	0.507	7.17
9J16053-CALA	8000	175204	0.486	7.17

AVE RF **0.490** RF RSD **3.80** AVE RT **7.17**

Nitrobenzene-d5 (Surr)

Curve Fit: **AVERAGE RF**

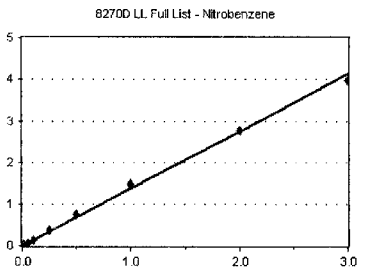


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1331	1.200	7.20
9J16053-CAL2	50	3185	1.108	7.20
9J16053-CAL3	100	6659	1.173	7.20
9J16053-CAL4	200	13464	1.121	7.20
9J16053-CAL5	500	38734	1.404	7.20
9J16053-CAL6	1000	76069	1.400	7.20
9J16053-CAL7	2000	154925	1.455	7.20
9J16053-CAL8	4000	303165	1.434	7.20
9J16053-CAL9	6000	379122	1.400	7.22
9J16053-CALA	8000	472853	1.312	7.22

AVE RF **1.301** RF RSD **10.51** AVE RT **7.20**

Nitrobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1500	1.352	7.22
9J16053-CAL2	50	3574	1.244	7.22
9J16053-CAL3	100	7135	1.257	7.22
9J16053-CAL4	200	15667	1.304	7.22
9J16053-CAL5	500	42464	1.540	7.22
9J16053-CAL6	1000	81675	1.503	7.22
9J16053-CAL7	2000	158273	1.487	7.22
9J16053-CAL8	4000	293208	1.387	7.23
9J16053-CAL9	6000	358149	1.322	7.23
~~9J16053-CALA~~	~~8000~~	~~431713~~	~~1.198~~	~~7.24~~

AVE RF **1.377** RF RSD **7.94** AVE RT **7.22**

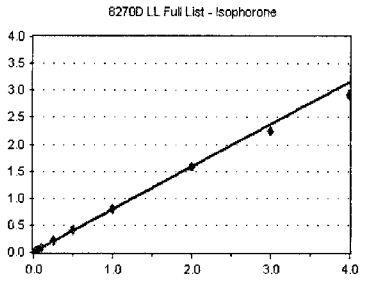
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Isophorone

Curve Fit: **AVERAGE RF**

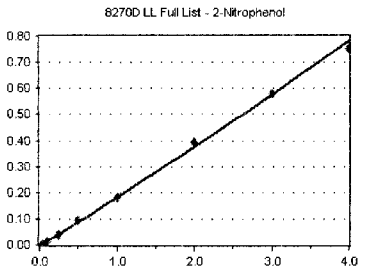


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3161	0.711	7.46
9J16053-CAL2	50	8579	0.770	7.45
9J16053-CAL3	100	18112	0.807	7.45
9J16053-CAL4	200	38056	0.850	7.45
9J16053-CAL5	500	94466	0.861	7.45
9J16053-CAL6	1000	172965	0.832	7.46
9J16053-CAL7	2000	326670	0.811	7.46
9J16053-CAL8	4000	624906	0.785	7.47
9J16053-CAL9	6000	786908	0.750	7.47
9J16053-CALA	8000	1001015	0.732	7.48

AVE RF **0.791** RF RSD **6.35** AVE RT **7.46**

2-Nitrophenol

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

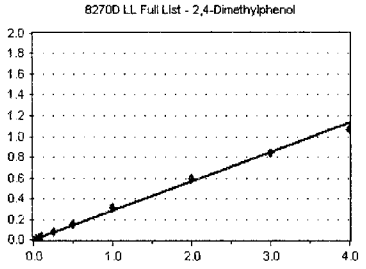


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~369~~	~~8.306~~	~~7.54~~
~~9J16053-CAL2~~	~~50~~	~~925~~	~~8.297~~	~~7.54~~
9J16053-CAL3	100	2310	0.103	7.54
9J16053-CAL4	200	5298	0.118	7.54
9J16053-CAL5	500	17473	0.159	7.54
9J16053-CAL6	1000	38840	0.187	7.54
9J16053-CAL7	2000	73325	0.182	7.54
9J16053-CAL8	4000	157209	0.198	7.54
9J16053-CAL9	6000	202850	0.193	7.55
9J16053-CALA	8000	257722	0.188	7.55

AVE RF **0.166** RF RSD **21.87** AVE RT **7.54**

2,4-Dimethylphenol

Curve Fit: **AVERAGE RF**

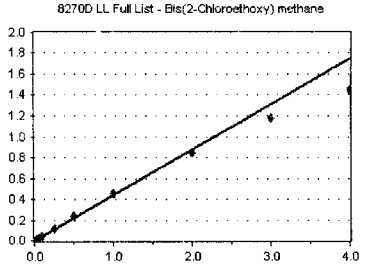


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1082	0.244	7.57
9J16053-CAL2	50	2761	0.248	7.57
9J16053-CAL3	100	6096	0.272	7.57
9J16053-CAL4	200	13189	0.294	7.57
9J16053-CAL5	500	32732	0.298	7.57
9J16053-CAL6	1000	64041	0.308	7.57
9J16053-CAL7	2000	126582	0.314	7.57
9J16053-CAL8	4000	238097	0.299	7.58
9J16053-CAL9	6000	294594	0.281	7.58
9J16053-CALA	8000	364751	0.267	7.59

AVE RF **0.282** RF RSD **8.69** AVE RT **7.57**

Bis(2-Chloroethoxy) methane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1914	0.431	7.66
9J16053-CAL2	50	4937	0.443	7.66
9J16053-CAL3	100	10224	0.456	7.66
9J16053-CAL4	200	20646	0.461	7.66
9J16053-CAL5	500	53184	0.485	7.66
9J16053-CAL6	1000	97637	0.470	7.66
9J16053-CAL7	2000	183878	0.456	7.66
9J16053-CAL8	4000	336452	0.423	7.67
9J16053-CAL9	6000	411142	0.392	7.68
9J16053-CALA	8000	495856	0.363	7.68

AVE RF **0.438** RF RSD **8.51** AVE RT **7.66**

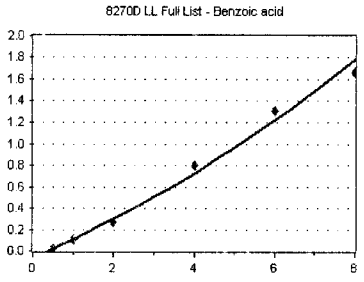
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Benzoic acid

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

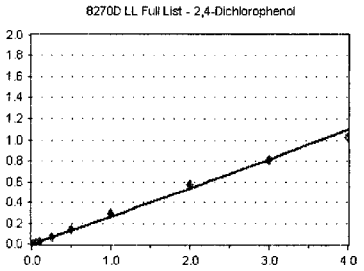


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~40~~	~~64~~	~~7.203~~	~~7.57~~
~~9J16053-CAL2~~	~~100~~	~~134~~	~~6.010~~	~~7.66~~
~~9J16053-CAL3~~	~~200~~	~~519~~	~~1.156~~	~~7.61~~
~~9J16053-CAL4~~	~~400~~	~~1889~~	~~2.109~~	~~7.61~~
9J16053-CAL5	1000	9988	4.553	7.63
9J16053-CAL6	2000	42834	0.103	7.65
9J16053-CAL7	4000	106896	0.133	7.69
9J16053-CAL8	8000	319266	0.201	7.74
9J16053-CAL9	12000	456773	0.218	7.77
9J16053-CALA	16000	567530	0.208	7.77

AVE RF **0.151** RF RSD **45.70** AVE RT **7.71**

2,4-Dichlorophenol

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

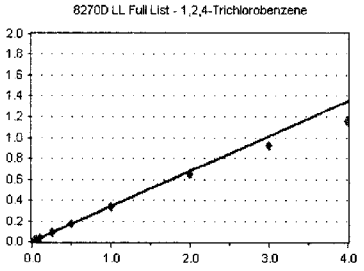


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	574	0.129	7.77
9J16053-CAL2	50	1890	0.170	7.77
9J16053-CAL3	100	4404	0.196	7.77
9J16053-CAL4	200	10420	0.233	7.77
9J16053-CAL5	500	28760	0.262	7.77
9J16053-CAL6	1000	57918	0.279	7.77
9J16053-CAL7	2000	119237	0.296	7.78
9J16053-CAL8	4000	227693	0.286	7.78
9J16053-CAL9	6000	282981	0.270	7.79
9J16053-CALA	8000	351999	0.257	7.79

AVE RF **0.238** RF RSD **23.28** AVE RT **7.78**

1,2,4-Trichlorobenzene

Curve Fit: **AVERAGE RF**

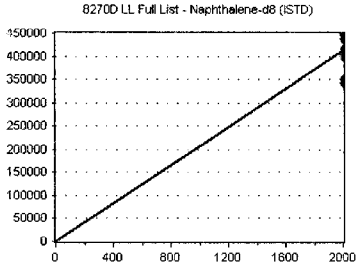


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1518	0.342	7.86
9J16053-CAL2	50	3937	0.353	7.86
9J16053-CAL3	100	7993	0.356	7.86
9J16053-CAL4	200	16256	0.363	7.86
9J16053-CAL5	500	38996	0.356	7.86
9J16053-CAL6	1000	71920	0.346	7.86
9J16053-CAL7	2000	136516	0.339	7.86
9J16053-CAL8	4000	256919	0.323	7.87
9J16053-CAL9	6000	321077	0.306	7.87
9J16053-CALA	8000	393859	0.288	7.87

AVE RF **0.337** RF RSD **7.21** AVE RT **7.86**

Naphthalene-d8 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	444279	222.140	7.92
9J16053-CAL2	2000	445939	222.970	7.92
9J16053-CAL3	2000	448868	224.434	7.92
9J16053-CAL4	2000	447887	223.943	7.92
9J16053-CAL5	2000	438764	219.382	7.92
9J16053-CAL6	2000	415784	207.892	7.92
9J16053-CAL7	2000	403006	201.503	7.92
9J16053-CAL8	2000	397960	198.980	7.93
9J16053-CAL9	2000	349868	174.934	7.93
9J16053-CALA	2000	341834	170.917	7.93

AVE RF **206.710** RF RSD **9.75** AVE RT **7.92**

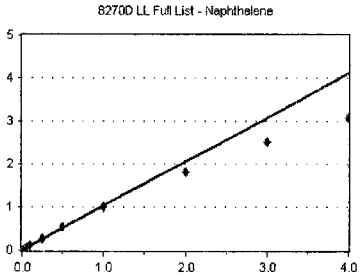
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Naphthalene

Curve Fit: **AVERAGE RF**

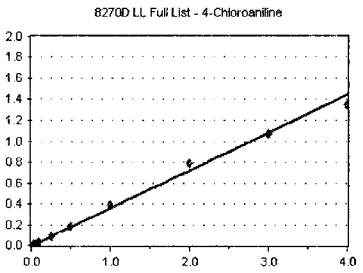


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	5043	1.135	7.94
9J16053-CAL2	50	12520	1.123	7.94
9J16053-CAL3	100	25776	1.148	7.94
9J16053-CAL4	200	50856	1.135	7.94
9J16053-CAL5	500	123871	1.129	7.94
9J16053-CAL6	1000	222697	1.071	7.94
9J16053-CAL7	2000	407227	1.010	7.94
9J16053-CAL8	4000	725187	0.911	7.95
9J16053-CAL9	6000	881153	0.840	7.95
9J16053-CALA	8000	1052026	0.769	7.95

AVE RF **1.027** RF RSD **13.58** AVE RT **7.94**

4-Chloroaniline

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

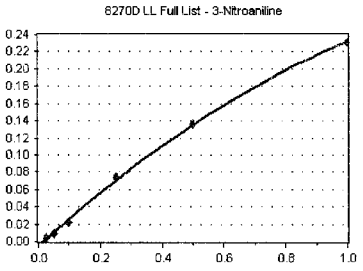


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	610	0.137	7.99
9J16053-CAL2	50	2877	0.258	7.99
9J16053-CAL3	100	6058	0.270	7.99
9J16053-CAL4	200	14311	0.320	7.99
9J16053-CAL5	500	38672	0.353	7.99
9J16053-CAL6	1000	74988	0.361	7.99
9J16053-CAL7	2000	158495	0.393	7.99
9J16053-CAL8	4000	312189	0.392	8.00
9J16053-CAL9	6000	375558	0.358	8.00
9J16053-CALA	8000	462446	0.338	8.00

AVE RF **0.318** RF RSD **24.53** AVE RT **7.99**

3-Nitroaniline

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

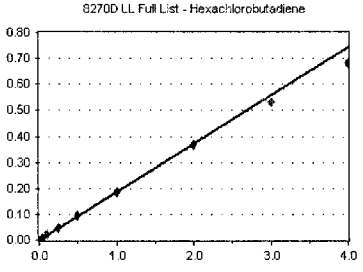


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~203~~	~~8.879~~	~~9.64~~
9J16053-CAL2	50	817	0.142	9.64
9J16053-CAL3	100	2092	0.180	9.64
9J16053-CAL4	200	5115	0.223	9.64
9J16053-CAL5	500	16475	0.294	9.64
9J16053-CAL6	1000	28849	0.274	9.64
9J16053-CAL7	2000	47185	0.231	0.00
~~9J16053-CAL8~~	~~4000~~	~~72076~~	~~0.172~~	~~0.00~~
~~9J16053-CAL9~~	~~6000~~	~~78267~~	~~0.140~~	~~0.00~~
~~9J16053-CALA~~	~~8000~~	~~117221~~	~~0.160~~	~~0.00~~

AVE RF **0.224** RF RSD **25.34** AVE RT **8.03**

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	770	0.173	8.08
9J16053-CAL2	50	2120	0.190	8.07
9J16053-CAL3	100	4343	0.194	8.07
9J16053-CAL4	200	9011	0.201	8.07
9J16053-CAL5	500	21118	0.193	8.07
9J16053-CAL6	1000	38923	0.187	8.07
9J16053-CAL7	2000	75680	0.188	8.07
9J16053-CAL8	4000	146937	0.185	8.08
9J16053-CAL9	6000	186782	0.178	8.08
9J16053-CALA	8000	234083	0.171	8.08

AVE RF **0.186** RF RSD **5.07** AVE RT **8.07**

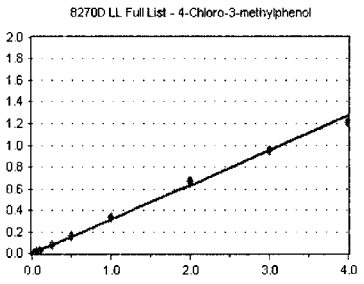
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

4-Chloro-3-methylphenol

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

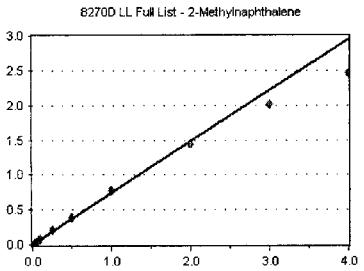


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~522~~	~~0.117~~	~~8.47~~
9J16053-CAL2	50	1947	0.175	8.47
9J16053-CAL3	100	4647	0.207	8.47
9J16053-CAL4	200	10782	0.241	8.47
9J16053-CAL5	500	33546	0.306	8.47
9J16053-CAL6	1000	66824	0.321	8.47
9J16053-CAL7	2000	134732	0.334	8.47
9J16053-CAL8	4000	266335	0.335	8.47
9J16053-CAL9	6000	333390	0.318	8.48
9J16053-CALA	8000	413423	0.302	8.48

AVE RF **0.282** RF RSD **21.03** AVE RT **8.47**

2-Methylnaphthalene

Curve Fit: **AVERAGE RF**

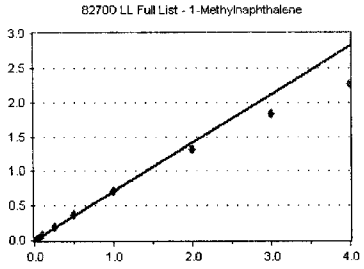


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3026	0.681	8.64
9J16053-CAL2	50	8077	0.724	8.64
9J16053-CAL3	100	17540	0.782	8.64
9J16053-CAL4	200	36226	0.809	8.64
9J16053-CAL5	500	90190	0.822	8.64
9J16053-CAL6	1000	164653	0.792	8.64
9J16053-CAL7	2000	312402	0.775	8.64
9J16053-CAL8	4000	571940	0.719	8.64
9J16053-CAL9	6000	700865	0.668	8.64
9J16053-CALA	8000	843623	0.617	8.64

AVE RF **0.739** RF RSD **9.21** AVE RT **8.64**

1-Methylnaphthalene

Curve Fit: **AVERAGE RF**

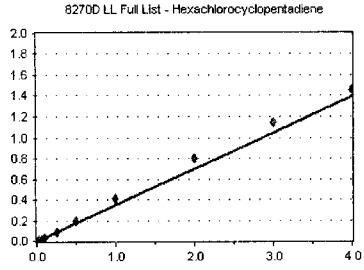


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3010	0.678	8.74
9J16053-CAL2	50	8217	0.737	8.74
9J16053-CAL3	100	17357	0.773	8.74
9J16053-CAL4	200	34216	0.764	8.74
9J16053-CAL5	500	85675	0.781	8.74
9J16053-CAL6	1000	154845	0.745	8.74
9J16053-CAL7	2000	289054	0.717	8.74
9J16053-CAL8	4000	525478	0.660	8.75
9J16053-CAL9	6000	643393	0.613	8.74
9J16053-CALA	8000	774012	0.566	8.75

AVE RF **0.703** RF RSD **10.30** AVE RT **8.74**

Hexachlorocyclopentadiene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	631	0.276	8.80
9J16053-CAL2	50	1631	0.283	8.80
9J16053-CAL3	100	3517	0.303	8.80
9J16053-CAL4	200	7790	0.340	8.80
9J16053-CAL5	500	19912	0.356	8.81
9J16053-CAL6	1000	40001	0.379	8.81
9J16053-CAL7	2000	83207	0.407	8.81
9J16053-CAL8	4000	167259	0.399	8.81
9J16053-CAL9	6000	214657	0.383	8.81
9J16053-CALA	8000	265581	0.364	8.81

AVE RF **0.349** RF RSD **13.53** AVE RT **8.81**

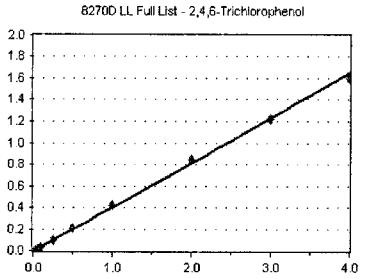
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

2,4,6-Trichlorophenol

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

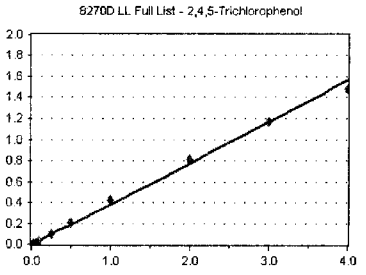


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~357~~	~~0.156~~	~~8.92~~
9J16053-CAL2	50	1180	0.205	8.92
9J16053-CAL3	100	3024	0.260	8.92
9J16053-CAL4	200	7170	0.313	8.92
9J16053-CAL5	500	21567	0.385	8.92
9J16053-CAL6	1000	42283	0.401	8.92
9J16053-CAL7	2000	86005	0.421	8.92
9J16053-CAL8	4000	176954	0.422	8.93
9J16053-CAL9	6000	227216	0.406	8.93
9J16053-CALA	8000	292625	0.401	8.93

AVE RF **0.357** RF RSD **22.07** AVE RT **8.92**

2,4,5-Trichlorophenol

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

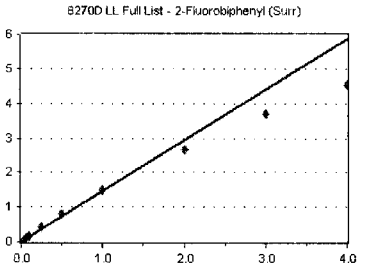


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~333~~	~~0.146~~	~~8.96~~
9J16053-CAL2	50	1507	0.262	8.95
9J16053-CAL3	100	2923	0.252	8.95
9J16053-CAL4	200	6873	0.300	8.95
9J16053-CAL5	500	21096	0.377	8.95
9J16053-CAL6	1000	42231	0.401	8.95
9J16053-CAL7	2000	85045	0.416	8.95
9J16053-CAL8	4000	169331	0.404	8.96
9J16053-CAL9	6000	218856	0.391	8.96
9J16053-CALA	8000	271144	0.371	8.96

AVE RF **0.353** RF RSD **18.09** AVE RT **8.96**

2-Fluorobiphenyl (Surr)

Curve Fit: **AVERAGE RF**

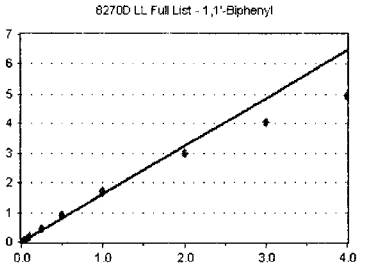


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3186	1.394	9.01
9J16053-CAL2	50	8607	1.494	9.01
9J16053-CAL3	100	19336	1.665	9.00
9J16053-CAL4	200	37977	1.659	9.00
9J16053-CAL5	500	94649	1.690	9.01
9J16053-CAL6	1000	167583	1.590	9.01
9J16053-CAL7	2000	307320	1.504	9.01
9J16053-CAL8	4000	561154	1.337	9.01
9J16053-CAL9	6000	687674	1.228	9.01
9J16053-CALA	8000	827961	1.133	9.02

AVE RF **1.470** RF RSD **13.11** AVE RT **9.01**

1,1'-Biphenyl

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3294	1.441	9.11
9J16053-CAL2	50	9466	1.643	9.11
9J16053-CAL3	100	21153	1.822	9.11
9J16053-CAL4	200	42580	1.860	9.11
9J16053-CAL5	500	104830	1.872	9.11
9J16053-CAL6	1000	187524	1.779	9.11
9J16053-CAL7	2000	345569	1.691	9.11
9J16053-CAL8	4000	623340	1.486	9.11
9J16053-CAL9	6000	756255	1.350	9.12
9J16053-CALA	8000	905572	1.240	9.12

AVE RF **1.618** RF RSD **13.98** AVE RT **9.11**

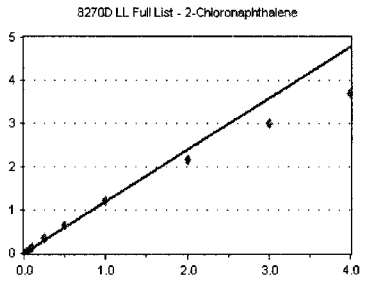
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

2-Chloronaphthalene

Curve Fit: **AVERAGE RF**

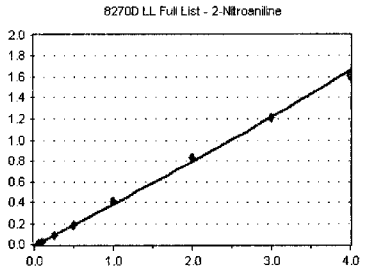


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2408	1.053	9.13
9J16053-CAL2	50	7301	1.267	9.13
9J16053-CAL3	100	15573	1.341	9.13
9J16053-CAL4	200	31240	1.365	9.13
9J16053-CAL5	500	77553	1.385	9.13
9J16053-CAL6	1000	138289	1.312	9.13
9J16053-CAL7	2000	250807	1.227	9.14
9J16053-CAL8	4000	453639	1.081	9.14
9J16053-CAL9	6000	562503	1.004	9.14
9J16053-CALA	8000	674470	0.923	9.15

AVE RF **1.196** RF RSD **13.92** AVE RT **9.13**

2-Nitroaniline

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

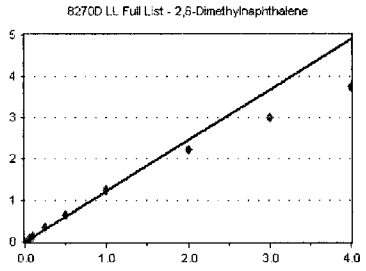


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~265~~	~~0.116~~	~~9.23~~
~~9J16053-CAL2~~	~~50~~	~~803~~	~~0.139~~	~~9.23~~
9J16053-CAL3	100	2029	0.175	9.23
9J16053-CAL4	200	5088	0.222	9.23
9J16053-CAL5	500	18180	0.325	9.23
9J16053-CAL6	1000	39518	0.375	9.23
9J16053-CAL7	2000	82868	0.406	9.23
9J16053-CAL8	4000	173545	0.414	9.24
9J16053-CAL9	6000	226292	0.404	9.24
9J16053-CALA	8000	293332	0.402	9.25

AVE RF **0.340** RF RSD **27.27** AVE RT **9.23**

2,6-Dimethylnaphthalene

Curve Fit: **AVERAGE RF**

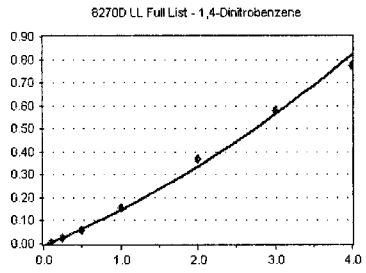


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2691	1.177	9.27
9J16053-CAL2	50	7521	1.306	9.27
9J16053-CAL3	100	15902	1.370	9.27
9J16053-CAL4	200	31242	1.365	9.27
9J16053-CAL5	500	77752	1.389	9.27
9J16053-CAL6	1000	139567	1.324	9.27
9J16053-CAL7	2000	255391	1.250	9.27
9J16053-CAL8	4000	464700	1.107	9.27
9J16053-CAL9	6000	562178	1.004	9.28
9J16053-CALA	8000	686967	0.940	9.28

AVE RF **1.223** RF RSD **13.07** AVE RT **9.27**

1,4-Dinitrobenzene

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



Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~0~~	~~0.000~~	~~0.00~~
~~9J16053-CAL2~~	~~50~~	~~260~~	~~4.514~~	~~9.35~~
~~9J16053-CAL3~~	~~100~~	~~548~~	~~4.720~~	~~9.35~~
9J16053-CAL4	200	1277	5.580	9.35
9J16053-CAL5	500	5080	9.072	9.35
9J16053-CAL6	1000	12494	0.119	9.35
9J16053-CAL7	2000	31930	0.156	9.36
9J16053-CAL8	4000	77125	0.184	9.37
9J16053-CAL9	6000	107910	0.193	9.37
9J16053-CALA	8000	141310	0.193	9.38

AVE RF **0.142** RF RSD **38.44** AVE RT **9.36**

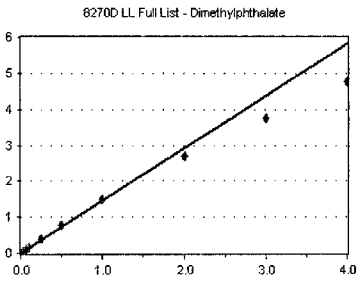
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Dimethylphthalate

Curve Fit: **AVERAGE RF**

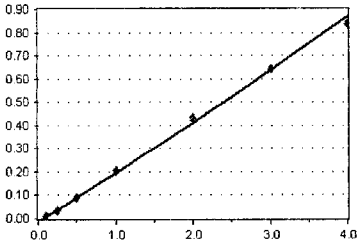


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3253	1.423	9.40
9J16053-CAL2	50	8884	1.542	9.41
9J16053-CAL3	100	18685	1.609	9.41
9J16053-CAL4	200	36622	1.600	9.41
9J16053-CAL5	500	89795	1.604	9.41
9J16053-CAL6	1000	161978	1.536	9.41
9J16053-CAL7	2000	303831	1.487	9.41
9J16053-CAL8	4000	566035	1.349	9.42
9J16053-CAL9	6000	703220	1.256	9.43
9J16053-CALA	8000	867794	1.188	9.44

AVE RF **1.459** RF RSD **10.35** AVE RT **9.42**

1,3-Dinitrobenzene

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

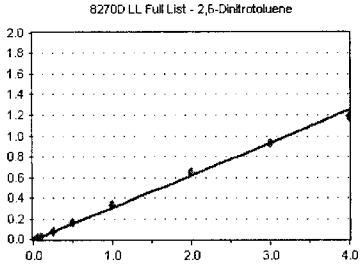


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~52~~	~~2.274~~	~~0.00~~
~~9J16053-CAL2~~	~~50~~	~~351~~	~~6.093~~	~~9.43~~
~~9J16053-CAL3~~	~~100~~	~~771~~	~~6.641~~	~~9.43~~
9J16053-CAL4	200	1889	8.254	9.44
9J16053-CAL5	500	7846	0.140	9.43
9J16053-CAL6	1000	18022	0.171	9.43
9J16053-CAL7	2000	41890	0.205	9.44
9J16053-CAL8	4000	91162	0.217	9.45
9J16053-CAL9	6000	120068	0.214	9.46
9J16053-CALA	8000	152836	0.209	9.47

AVE RF **0.177** RF RSD **28.39** AVE RT **9.45**

2,6-Dinitrotoluene

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

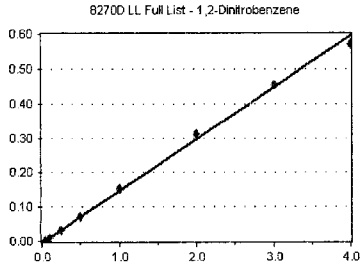


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~213~~	~~9.316~~	~~9.47~~
9J16053-CAL2	50	792	0.137	9.47
9J16053-CAL3	100	1977	0.170	9.47
9J16053-CAL4	200	5062	0.221	9.47
9J16053-CAL5	500	16561	0.296	9.47
9J16053-CAL6	1000	33104	0.314	9.47
9J16053-CAL7	2000	67679	0.331	9.47
9J16053-CAL8	4000	135556	0.323	9.48
9J16053-CAL9	6000	174146	0.311	9.49
9J16053-CALA	8000	216715	0.297	9.49

AVE RF **0.267** RF RSD **26.95** AVE RT **9.47**

1,2-Dinitrobenzene

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



Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~0~~	~~0.000~~	~~0.00~~
~~9J16053-CAL2~~	~~50~~	~~309~~	~~5.364~~	~~9.52~~
9J16053-CAL3	100	825	7.106	9.52
9J16053-CAL4	200	2119	9.259	9.52
9J16053-CAL5	500	7179	0.128	9.53
9J16053-CAL6	1000	15130	0.144	9.53
9J16053-CAL7	2000	31248	0.153	9.53
9J16053-CAL8	4000	65220	0.155	9.54
9J16053-CAL9	6000	84556	0.151	9.55
9J16053-CALA	8000	103981	0.142	9.56

AVE RF **0.130** RF RSD **24.09** AVE RT **9.53**

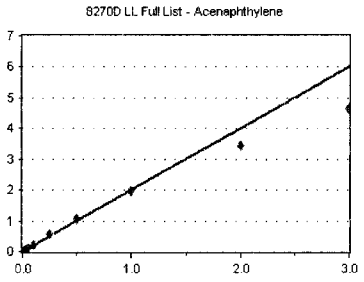
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Acenaphthylene

Curve Fit: **AVERAGE RF**

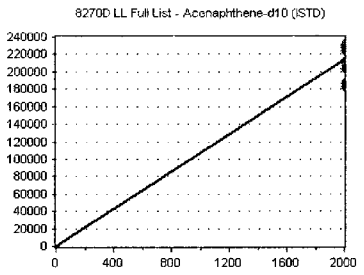


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	4331	1.894	9.55
9J16053-CAL2	50	12047	2.091	9.55
9J16053-CAL3	100	25781	2.220	9.55
9J16053-CAL4	200	50685	2.215	9.55
9J16053-CAL5	500	125650	2.244	9.55
9J16053-CAL6	1000	223232	2.117	9.55
9J16053-CAL7	2000	401818	1.967	9.56
9J16053-CAL8	4000	722393	1.722	9.56
9J16053-CAL9	6000	869974	1.554	9.56
~~9J16053-CALA~~	~~8000~~	~~1014724~~	~~1.389~~	~~9.57~~

AVE RF **2.003** RF RSD **12.04** AVE RT **9.56**

Acenaphthene-d10 (ISTD)

Curve Fit: **AVERAGE RF**

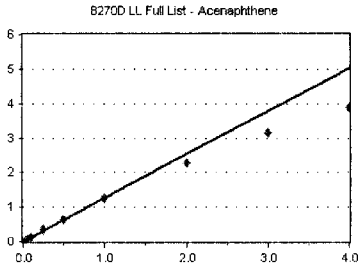


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	228631	114.315	9.70
9J16053-CAL2	2000	230418	115.209	9.70
9J16053-CAL3	2000	232211	116.105	9.70
9J16053-CAL4	2000	228870	114.435	9.70
9J16053-CAL5	2000	223981	111.990	9.70
9J16053-CAL6	2000	210848	105.424	9.70
9J16053-CAL7	2000	204324	102.162	9.70
9J16053-CAL8	2000	209804	104.902	9.70
9J16053-CAL9	2000	186669	93.335	9.71
9J16053-CALA	2000	182625	91.313	9.71

AVE RF **106.919** RF RSD **8.52** AVE RT **9.70**

Acenaphthene

Curve Fit: **AVERAGE RF**

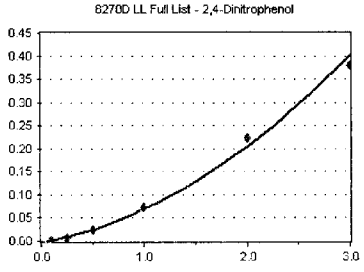


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3082	1.348	9.73
9J16053-CAL2	50	7881	1.368	9.73
9J16053-CAL3	100	16496	1.421	9.73
9J16053-CAL4	200	31461	1.375	9.73
9J16053-CAL5	500	76410	1.365	9.73
9J16053-CAL6	1000	137686	1.306	9.73
9J16053-CAL7	2000	257901	1.262	9.73
9J16053-CAL8	4000	473473	1.128	9.74
9J16053-CAL9	6000	584734	1.044	9.75
9J16053-CALA	8000	712568	0.975	9.75

AVE RF **1.259** RF RSD **12.31** AVE RT **9.73**

2,4-Dinitrophenol

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



Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~0~~	~~0.000~~	~~0.00~~
~~9J16053-CAL2~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9J16053-CAL3~~	~~100~~	~~103~~	~~8.871~~	~~9.74~~
9J16053-CAL4	200	310	1.354	9.74
9J16053-CAL5	500	1553	0.028	9.75
9J16053-CAL6	1000	5088	4.826	9.75
9J16053-CAL7	2000	15123	0.074	9.75
9J16053-CAL8	4000	47179	0.112	9.76
9J16053-CAL9	6000	71059	0.127	9.76
~~9J16053-CALA~~	~~8000~~	~~97114~~	~~0.133~~	~~9.77~~

AVE RF **6.715** RF RSD **68.09** AVE RT **9.75**

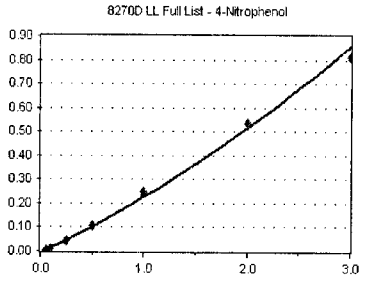
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

4-Nitrophenol

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

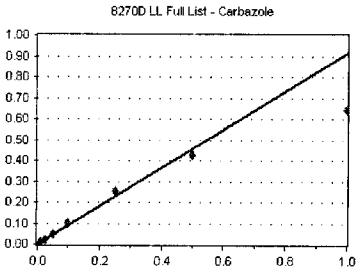


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~149~~	~~6.517~~	~~9.80~~
~~9J16053-CAL2~~	~~50~~	~~379~~	~~6.579~~	~~9.80~~
9J16053-CAL3	100	907	7.812	9.80
9J16053-CAL4	200	2397	0.105	9.80
9J16053-CAL5	500	9787	0.175	9.80
9J16053-CAL6	1000	22603	0.214	9.80
9J16053-CAL7	2000	50566	0.247	9.80
9J16053-CAL8	4000	112553	0.268	9.81
9J16053-CAL9	6000	152030	0.271	9.83
~~9J16053-CALA~~	~~8000~~	~~187194~~	~~0.256~~	~~9.83~~

AVE RF **0.194** RF RSD **40.20** AVE RT **9.80**

Carbazole

Curve Fit: **AVERAGE RF**

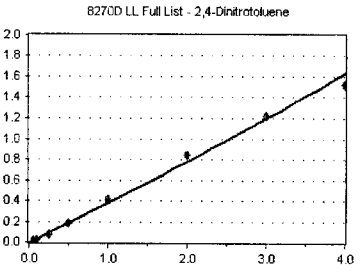


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3762	0.896	11.45
9J16053-CAL2	50	10074	0.970	11.45
9J16053-CAL3	100	21180	1.005	11.45
9J16053-CAL4	200	41597	1.024	11.45
9J16053-CAL5	500	104447	1.007	11.45
9J16053-CAL6	1000	168399	0.854	11.45
9J16053-CAL7	2000	254192	0.644	0.00
~~9J16053-CAL8~~	~~4000~~	~~377741~~	~~0.452~~	~~0.00~~
~~9J16053-CAL9~~	~~6000~~	~~424787~~	~~0.376~~	~~0.00~~
~~9J16053-CALA~~	~~8000~~	~~578961~~	~~0.385~~	~~0.00~~

AVE RF **0.915** RF RSD **14.72** AVE RT **9.81**

2,4-Dinitrotoluene

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

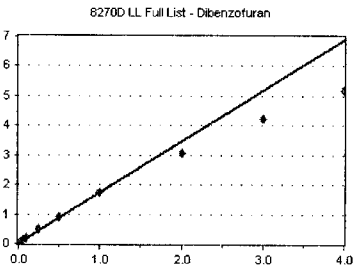


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~307~~	~~0.134~~	~~9.87~~
~~9J16053-CAL2~~	~~50~~	~~711~~	~~0.123~~	~~9.88~~
9J16053-CAL3	100	1827	0.157	9.88
9J16053-CAL4	200	4451	0.194	9.88
9J16053-CAL5	500	17286	0.309	9.88
9J16053-CAL6	1000	38193	0.362	9.88
9J16053-CAL7	2000	83801	0.410	9.88
9J16053-CAL8	4000	177218	0.422	9.90
9J16053-CAL9	6000	227357	0.406	9.90
9J16053-CALA	8000	277426	0.380	9.91

AVE RF **0.330** RF RSD **30.91** AVE RT **9.89**

Dibenzofuran

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3969	1.736	9.91
9J16053-CAL2	50	10908	1.894	9.91
9J16053-CAL3	100	22990	1.980	9.91
9J16053-CAL4	200	43819	1.915	9.91
9J16053-CAL5	500	107652	1.923	9.91
9J16053-CAL6	1000	190719	1.809	9.91
9J16053-CAL7	2000	356546	1.745	9.91
9J16053-CAL8	4000	645432	1.538	9.91
9J16053-CAL9	6000	787795	1.407	9.92
9J16053-CALA	8000	946729	1.296	9.92

AVE RF **1.724** RF RSD **13.62** AVE RT **9.91**

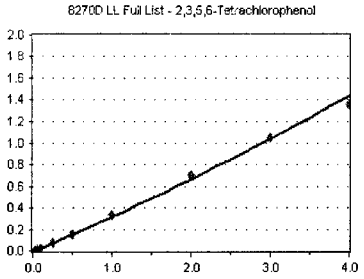
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

2,3,5,6-Tetrachlorophenol

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

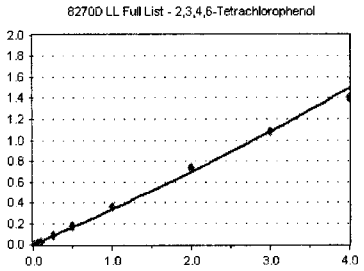


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~254~~	~~0.111~~	~~9.99~~
9J16053-CAL2	50	786	0.136	9.99
9J16053-CAL3	100	2308	0.199	9.99
9J16053-CAL4	200	5028	0.220	9.99
9J16053-CAL5	500	16246	0.290	9.99
9J16053-CAL6	1000	32998	0.313	9.99
9J16053-CAL7	2000	69287	0.339	9.99
9J16053-CAL8	4000	147371	0.351	9.99
9J16053-CAL9	6000	195876	0.350	10.00
9J16053-CALA	8000	249690	0.342	10.00

AVE RF **0.282** RF RSD **27.80** AVE RT **9.99**

2,3,4,6-Tetrachlorophenol

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

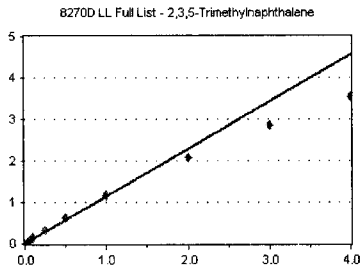


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	405	0.177	10.03
9J16053-CAL2	50	1166	0.202	10.03
9J16053-CAL3	100	3124	0.269	10.03
9J16053-CAL4	200	6167	0.269	10.03
9J16053-CAL5	500	19007	0.339	10.03
9J16053-CAL6	1000	37050	0.351	10.03
9J16053-CAL7	2000	73600	0.360	10.03
9J16053-CAL8	4000	154291	0.368	10.04
9J16053-CAL9	6000	201184	0.359	10.04
9J16053-CALA	8000	257264	0.352	10.04

AVE RF **0.305** RF RSD **23.18** AVE RT **10.03**

2,3,5-Trimethylnaphthalene

Curve Fit: **AVERAGE RF**

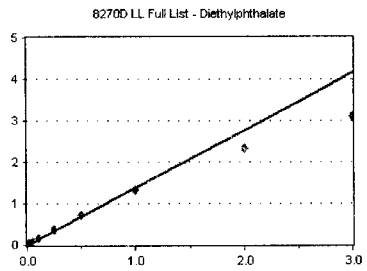


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2603	1.139	10.11
9J16053-CAL2	50	6964	1.209	10.11
9J16053-CAL3	100	14732	1.269	10.11
9J16053-CAL4	200	28442	1.243	10.11
9J16053-CAL5	500	72192	1.289	10.11
9J16053-CAL6	1000	129295	1.226	10.12
9J16053-CAL7	2000	238990	1.170	10.12
9J16053-CAL8	4000	434174	1.035	10.13
9J16053-CAL9	6000	535500	0.956	10.13
9J16053-CALA	8000	644885	0.883	10.13

AVE RF **1.142** RF RSD **12.16** AVE RT **10.12**

Diethylphthalate

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3227	1.411	10.12
9J16053-CAL2	50	8435	1.464	10.12
9J16053-CAL3	100	17844	1.537	10.12
9J16053-CAL4	200	35198	1.538	10.12
9J16053-CAL5	500	85721	1.531	10.12
9J16053-CAL6	1000	152181	1.444	10.12
9J16053-CAL7	2000	272344	1.333	10.13
9J16053-CAL8	4000	484945	1.156	10.14
9J16053-CAL9	6000	579238	1.034	10.14
~~9J16053-CALA~~	~~8000~~	~~698054~~	~~0.956~~	~~10.15~~

AVE RF **1.383** RF RSD **12.94** AVE RT **10.13**

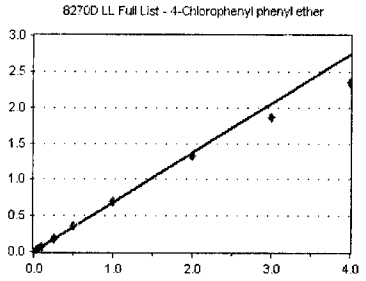
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

4-Chlorophenyl phenyl ether

Curve Fit: **AVERAGE RF**

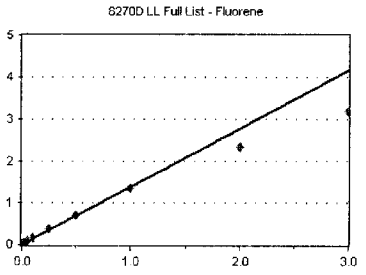


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1518	0.664	10.25
9J16053-CAL2	50	4054	0.704	10.25
9J16053-CAL3	100	8661	0.746	10.25
9J16053-CAL4	200	16535	0.722	10.25
9J16053-CAL5	500	41485	0.741	10.25
9J16053-CAL6	1000	75441	0.716	10.25
9J16053-CAL7	2000	144104	0.705	10.25
9J16053-CAL8	4000	278225	0.663	10.25
9J16053-CAL9	6000	348928	0.623	10.26
9J16053-CALA	8000	428718	0.587	10.26

AVE RF **0.687** RF RSD **7.56** AVE RT **10.25**

Fluorene

Curve Fit: **AVERAGE RF**

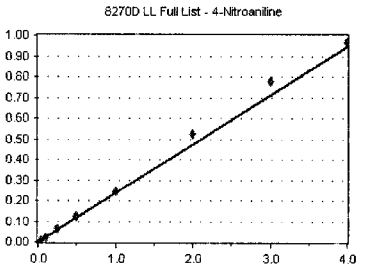


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3175	1.389	10.25
9J16053-CAL2	50	8492	1.474	10.25
9J16053-CAL3	100	18324	1.578	10.25
9J16053-CAL4	200	34530	1.509	10.25
9J16053-CAL5	500	85310	1.524	10.25
9J16053-CAL6	1000	150523	1.428	10.26
9J16053-CAL7	2000	274932	1.346	10.26
9J16053-CAL8	4000	491882	1.172	10.26
9J16053-CAL9	6000	595819	1.064	10.27
~~9J16053-CALA~~	~~8000~~	~~721314~~	~~0.987~~	~~10.27~~

AVE RF **1.387** RF RSD **12.26** AVE RT **10.26**

4-Nitroaniline

Curve Fit: **AVERAGE RF**

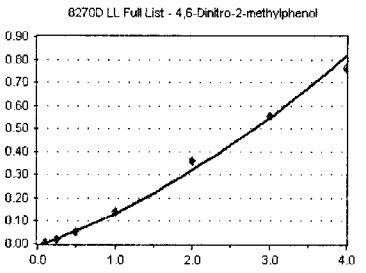


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~246~~	~~0.108~~	~~10.26~~
~~9J16053-CAL2~~	~~50~~	~~819~~	~~0.142~~	~~10.26~~
9J16053-CAL3	100	2067	0.178	10.26
9J16053-CAL4	200	4513	0.197	10.26
9J16053-CAL5	500	14782	0.264	10.26
9J16053-CAL6	1000	25826	0.245	10.26
9J16053-CAL7	2000	49921	0.244	10.27
9J16053-CAL8	4000	109557	0.261	10.28
9J16053-CAL9	6000	145167	0.259	10.29
9J16053-CALA	8000	176836	0.242	10.30

AVE RF **0.236** RF RSD **13.38** AVE RT **10.27**

4,6-Dinitro-2-methylphenol

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



Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~0~~	~~0.000~~	~~0.00~~
~~9J16053-CAL2~~	~~50~~	~~104~~	~~1.805~~	~~10.30~~
~~9J16053-CAL3~~	~~100~~	~~341~~	~~2.937~~	~~10.29~~
9J16053-CAL4	200	920	4.020	10.29
9J16053-CAL5	500	3988	7.122	10.30
9J16053-CAL6	1000	11200	0.106	10.30
9J16053-CAL7	2000	29002	0.142	10.30
9J16053-CAL8	4000	75505	0.180	10.31
9J16053-CAL9	6000	103747	0.185	10.32
9J16053-CALA	8000	139599	0.191	10.33

AVE RF **0.131** RF RSD **45.75** AVE RT **10.31**

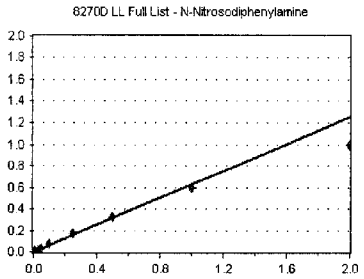
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

N-Nitrosodiphenylamine

Curve Fit: **AVERAGE RF**

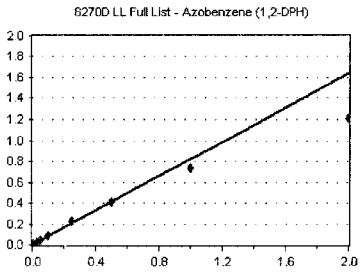


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2298	0.548	10.37
9J16053-CAL2	50	6622	0.638	10.37
9J16053-CAL3	100	14732	0.699	10.37
9J16053-CAL4	200	28901	0.711	10.37
9J16053-CAL5	500	72014	0.694	10.37
9J16053-CAL6	1000	126925	0.644	10.37
9J16053-CAL7	2000	232578	0.590	10.37
9J16053-CAL8	4000	416136	0.498	10.38
~~9J16053-CAL9~~	~~6000~~	~~498648~~	~~0.442~~	~~10.38~~
~~9J16053-CALA~~	~~8000~~	~~622397~~	~~0.414~~	~~10.39~~

AVE RF **0.628** RF RSD **12.27** AVE RT **10.37**

Azobenzene (1,2-DPH)

Curve Fit: **AVERAGE RF**

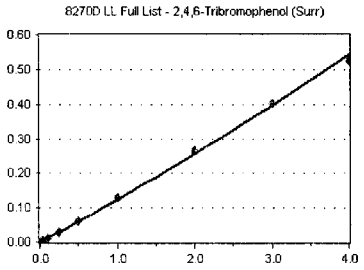


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3383	0.806	10.41
9J16053-CAL2	50	9368	0.902	10.41
9J16053-CAL3	100	18843	0.894	10.41
9J16053-CAL4	200	37095	0.913	10.41
9J16053-CAL5	500	92532	0.892	10.41
9J16053-CAL6	1000	160071	0.812	10.41
9J16053-CAL7	2000	291944	0.740	10.41
9J16053-CAL8	4000	507476	0.608	10.42
~~9J16053-CAL9~~	~~6000~~	~~608650~~	~~0.539~~	~~10.42~~
~~9J16053-CALA~~	~~8000~~	~~730839~~	~~0.486~~	~~10.42~~

AVE RF **0.821** RF RSD **12.85** AVE RT **10.41**

2,4,6-Tribromophenol (Surr)

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

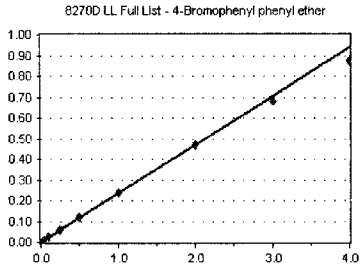


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~334~~	~~7.959~~	~~10.50~~
9J16053-CAL2	50	730	7.031	10.50
9J16053-CAL3	100	1877	8.906	10.50
9J16053-CAL4	200	4109	0.101	10.50
9J16053-CAL5	500	12089	0.117	10.50
9J16053-CAL6	1000	24117	0.122	10.50
9J16053-CAL7	2000	50890	0.129	10.50
9J16053-CAL8	4000	111317	0.133	10.51
9J16053-CAL9	6000	151399	0.134	10.51
9J16053-CALA	8000	197030	0.131	10.52

AVE RF **0.114** RF RSD **19.75** AVE RT **10.50**

4-Bromophenyl phenyl ether

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	987	0.235	10.75
9J16053-CAL2	50	2354	0.227	10.75
9J16053-CAL3	100	4920	0.233	10.75
9J16053-CAL4	200	9944	0.245	10.75
9J16053-CAL5	500	25602	0.247	10.75
9J16053-CAL6	1000	46996	0.238	10.75
9J16053-CAL7	2000	94009	0.238	10.75
9J16053-CAL8	4000	197154	0.236	10.76
9J16053-CAL9	6000	256100	0.227	10.76
9J16053-CALA	8000	329177	0.219	10.76

AVE RF **0.235** RF RSD **3.64** AVE RT **10.75**

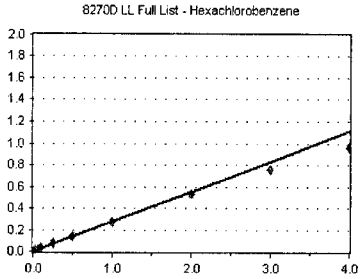
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Hexachlorobenzene

Curve Fit: **AVERAGE RF**

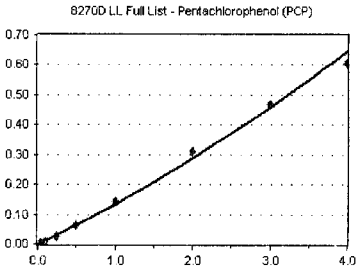


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1216	0.290	10.83
9J16053-CAL2	50	2891	0.278	10.83
9J16053-CAL3	100	6222	0.295	10.83
9J16053-CAL4	200	12268	0.302	10.83
9J16053-CAL5	500	30369	0.293	10.83
9J16053-CAL6	1000	55109	0.280	10.83
9J16053-CAL7	2000	108673	0.275	10.83
9J16053-CAL8	4000	222237	0.266	10.84
9J16053-CAL9	6000	285495	0.253	10.84
9J16053-CALA	8000	361957	0.241	10.84

AVE RF **0.277** RF RSD **7.02** AVE RT **10.83**

Pentachlorophenol (PCP)

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

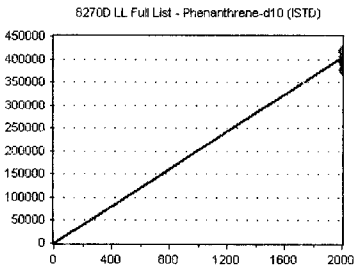


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~898~~	~~0.214~~	~~11.02~~
~~9J16053-CAL2~~	~~50~~	~~808~~	~~7.783~~	~~11.02~~
9J16053-CAL3	100	1663	7.891	11.02
9J16053-CAL4	200	3400	8.370	11.02
9J16053-CAL5	500	11494	0.111	11.02
9J16053-CAL6	1000	24901	0.126	11.02
9J16053-CAL7	2000	57124	0.145	11.02
9J16053-CAL8	4000	129749	0.155	11.02
9J16053-CAL9	6000	176453	0.156	11.03
9J16053-CALA	8000	227516	0.151	11.03

AVE RF **0.126** RF RSD **25.12** AVE RT **11.02**

Phenanthrene-d10 (ISTD)

Curve Fit: **AVERAGE RF**

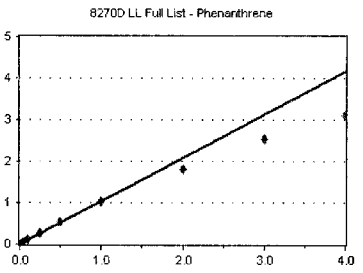


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	419652	209.826	11.22
9J16053-CAL2	2000	415279	207.640	11.21
9J16053-CAL3	2000	421494	210.747	11.21
9J16053-CAL4	2000	406200	203.100	11.21
9J16053-CAL5	2000	414839	207.420	11.22
9J16053-CAL6	2000	394261	197.130	11.22
9J16053-CAL7	2000	394462	197.231	11.22
9J16053-CAL8	2000	417540	208.770	11.22
9J16053-CAL9	2000	376380	188.190	11.22
9J16053-CALA	2000	376032	188.016	11.22

AVE RF **201.807** RF RSD **4.30** AVE RT **11.22**

Phenanthrene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	4821	1.149	11.24
9J16053-CAL2	50	12134	1.169	11.24
9J16053-CAL3	100	24650	1.170	11.24
9J16053-CAL4	200	47219	1.162	11.24
9J16053-CAL5	500	117198	1.130	11.24
9J16053-CAL6	1000	213306	1.082	11.24
9J16053-CAL7	2000	408903	1.037	11.24
9J16053-CAL8	4000	758865	0.909	11.24
9J16053-CAL9	6000	956105	0.847	11.25
9J16053-CALA	8000	1170165	0.778	11.25

AVE RF **1.043** RF RSD **14.05** AVE RT **11.24**

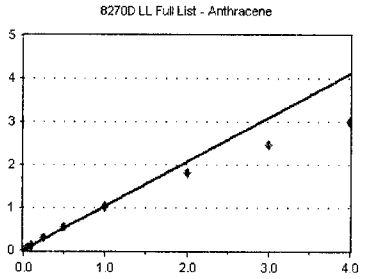
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Anthracene

Curve Fit: **AVERAGE RF**

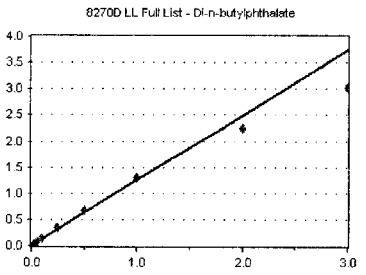


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	4322	1.030	11.29
9J16053-CAL2	50	11800	1.137	11.29
9J16053-CAL3	100	24793	1.176	11.29
9J16053-CAL4	200	47420	1.167	11.29
9J16053-CAL5	500	120664	1.163	11.29
9J16053-CAL6	1000	215829	1.095	11.29
9J16053-CAL7	2000	409728	1.039	11.29
9J16053-CAL8	4000	757506	0.907	11.30
9J16053-CAL9	6000	928594	0.822	11.30
9J16053-CALA	8000	1130706	0.752	11.31

AVE RF **1.029** RF RSD **14.83** AVE RT **11.29**

Di-n-butylphthalate

Curve Fit: **AVERAGE RF**

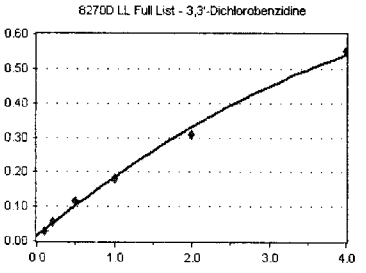


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~4261~~	~~1.015~~	~~11.79~~
9J16053-CAL2	50	12651	1.219	11.79
9J16053-CAL3	100	26455	1.255	11.79
9J16053-CAL4	200	54476	1.341	11.79
9J16053-CAL5	500	143903	1.388	11.79
9J16053-CAL6	1000	267688	1.358	11.79
9J16053-CAL7	2000	509487	1.292	11.79
9J16053-CAL8	4000	936406	1.121	11.79
9J16053-CAL9	6000	1140087	1.010	11.80
~~9J16053-CALA~~	~~8000~~	~~1371594~~	~~0.912~~	~~11.80~~

AVE RF **1.248** RF RSD **10.31** AVE RT **11.79**

3,3'-Dichlorobenzidine

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

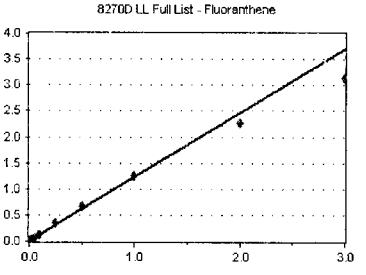


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~40~~	~~1592~~	~~0.184~~	~~0.00~~
~~9J16053-CAL2~~	~~100~~	~~5122~~	~~0.244~~	~~0.00~~
9J16053-CAL3	200	12358	0.284	0.00
9J16053-CAL4	400	23382	0.281	14.99
9J16053-CAL5	1000	50303	0.237	14.99
9J16053-CAL6	2000	72934	0.180	14.99
9J16053-CAL7	4000	117183	0.154	15.00
9J16053-CAL8	8000	209588	0.137	15.01
~~9J16053-CAL9~~	~~12000~~	~~276349~~	~~0.138~~	~~15.02~~
~~9J16053-CALA~~	~~16000~~	~~336424~~	~~0.132~~	~~15.02~~

AVE RF **0.212** RF RSD **30.11** AVE RT **12.50**

Fluoranthene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	4669	1.113	12.52
9J16053-CAL2	50	12524	1.206	12.52
9J16053-CAL3	100	27171	1.289	12.52
9J16053-CAL4	200	53527	1.318	12.52
9J16053-CAL5	500	141254	1.362	12.52
9J16053-CAL6	1000	263203	1.335	12.52
9J16053-CAL7	2000	497259	1.261	12.52
9J16053-CAL8	4000	949333	1.137	12.53
9J16053-CAL9	6000	1181210	1.046	12.53
~~9J16053-CALA~~	~~8000~~	~~1449379~~	~~0.964~~	~~12.54~~

AVE RF **1.230** RF RSD **8.98** AVE RT **12.52**

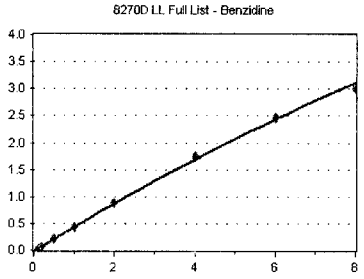
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Benzidine

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

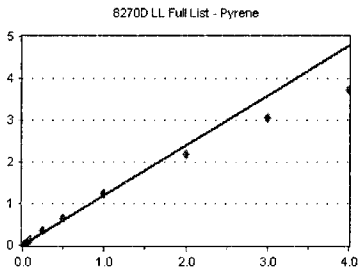


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~40~~	~~3612~~	~~0.430~~	~~12.67~~
~~9J16053-CAL2~~	~~100~~	~~3389~~	~~0.163~~	~~12.67~~
9J16053-CAL3	200	10054	0.239	12.67
9J16053-CAL4	400	22390	0.276	12.67
9J16053-CAL5	1000	90422	0.436	12.67
9J16053-CAL6	2000	169900	0.431	12.68
9J16053-CAL7	4000	351632	0.446	12.68
9J16053-CAL8	8000	735075	0.440	12.69
9J16053-CAL9	12000	924428	0.409	12.69
9J16053-CALA	16000	1130941	0.376	12.70

AVE RF **0.382** RF RSD **21.12** AVE RT **12.68**

Pyrene

Curve Fit: **AVERAGE RF**

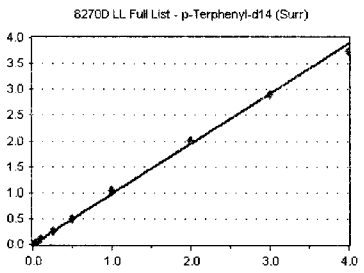


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	4626	1.102	12.81
9J16053-CAL2	50	12834	1.236	12.81
9J16053-CAL3	100	27657	1.312	12.81
9J16053-CAL4	200	55550	1.368	12.81
9J16053-CAL5	500	142947	1.378	12.82
9J16053-CAL6	1000	259464	1.316	12.82
9J16053-CAL7	2000	487359	1.236	12.82
9J16053-CAL8	4000	913548	1.094	12.83
9J16053-CAL9	6000	1149431	1.018	12.83
9J16053-CALA	8000	1400570	0.931	12.84

AVE RF **1.199** RF RSD **12.88** AVE RT **12.82**

p-Terphenyl-d14 (Surr)

Curve Fit: **AVERAGE RF**

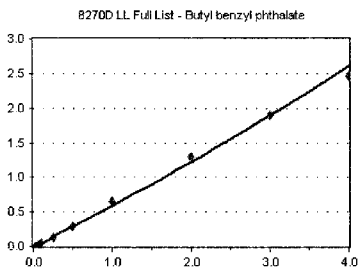


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3719	0.862	13.02
9J16053-CAL2	50	9501	0.904	13.02
9J16053-CAL3	100	20875	0.960	13.02
9J16053-CAL4	200	41737	1.002	13.02
9J16053-CAL5	500	110622	1.041	13.02
9J16053-CAL6	1000	202564	1.001	13.02
9J16053-CAL7	2000	390228	1.029	13.02
9J16053-CAL8	4000	763944	1.002	13.03
9J16053-CAL9	6000	969928	0.968	13.03
9J16053-CALA	8000	1194810	0.936	13.04

AVE RF **0.970** RF RSD **5.84** AVE RT **13.02**

Butyl benzyl phthalate

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



Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~1220~~	~~0.283~~	~~13.84~~
9J16053-CAL2	50	3359	0.320	13.85
9J16053-CAL3	100	8298	0.382	13.85
9J16053-CAL4	200	18256	0.438	13.85
9J16053-CAL5	500	58303	0.549	13.85
9J16053-CAL6	1000	118464	0.585	13.85
9J16053-CAL7	2000	243686	0.642	13.85
9J16053-CAL8	4000	495582	0.650	13.86
9J16053-CAL9	6000	631913	0.631	13.87
9J16053-CALA	8000	788952	0.618	13.87

AVE RF **0.535** RF RSD **23.15** AVE RT **13.85**

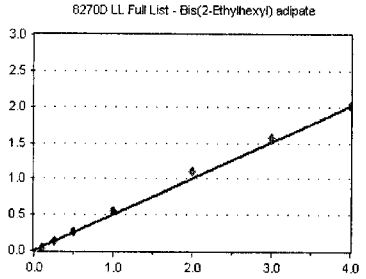
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Bis(2-Ethylhexyl) adipate

Curve Fit: **AVERAGE RF**

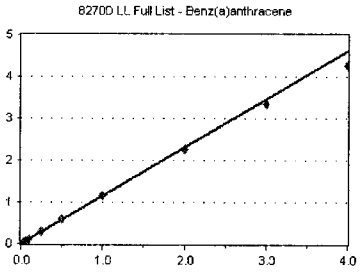


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~1272~~	~~0.295~~	~~14.03~~
~~9J16053-CAL2~~	~~50~~	~~3024~~	~~0.288~~	~~14.02~~
~~9J16053-CAL3~~	~~100~~	~~7171~~	~~0.330~~	~~14.02~~
9J16053-CAL4	200	16213	0.389	14.02
9J16053-CAL5	500	52124	0.491	14.02
9J16053-CAL6	1000	104759	0.517	14.02
9J16053-CAL7	2000	211290	0.557	14.03
9J16053-CAL8	4000	417409	0.547	14.03
9J16053-CAL9	6000	525912	0.525	14.05
9J16053-CALA	8000	642531	0.503	14.05

AVE RF **0.504** RF RSD **11.05** AVE RT **14.03**

Benz(a)anthracene

Curve Fit: **AVERAGE RF**

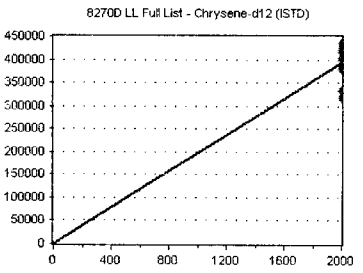


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	5352	1.240	15.02
9J16053-CAL2	50	11999	1.142	15.02
9J16053-CAL3	100	25078	1.153	15.02
9J16053-CAL4	200	48775	1.171	15.02
9J16053-CAL5	500	128384	1.208	15.02
9J16053-CAL6	1000	235737	1.164	15.03
9J16053-CAL7	2000	445654	1.175	15.03
9J16053-CAL8	4000	866011	1.136	15.05
9J16053-CAL9	6000	1123403	1.121	15.06
9J16053-CALA	8000	1366845	1.070	15.06

AVE RF **1.158** RF RSD **4.04** AVE RT **15.03**

Chrysene-d12 (ISTD)

Curve Fit: **AVERAGE RF**

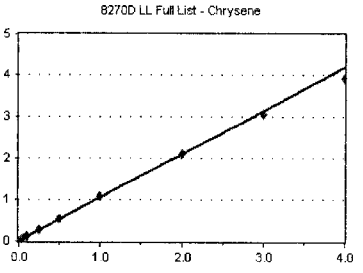


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	431513	215.757	15.05
9J16053-CAL2	2000	420433	210.217	15.05
9J16053-CAL3	2000	434926	217.463	15.05
9J16053-CAL4	2000	416387	208.193	15.05
9J16053-CAL5	2000	424974	212.487	15.05
9J16053-CAL6	2000	404897	202.448	15.05
9J16053-CAL7	2000	379303	189.652	15.06
9J16053-CAL8	2000	381197	190.598	15.07
9J16053-CAL9	2000	334077	167.038	15.08
9J16053-CALA	2000	319256	159.628	15.09

AVE RF **197.348** RF RSD **10.31** AVE RT **15.06**

Chrysene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	4336	1.005	15.10
9J16053-CAL2	50	11098	1.056	15.10
9J16053-CAL3	100	23115	1.063	15.10
9J16053-CAL4	200	44508	1.069	15.10
9J16053-CAL5	500	116526	1.097	15.10
9J16053-CAL6	1000	213742	1.056	15.11
9J16053-CAL7	2000	410860	1.083	15.12
9J16053-CAL8	4000	798796	1.048	15.14
9J16053-CAL9	6000	1022308	1.020	15.15
9J16053-CALA	8000	1249315	0.978	15.16

AVE RF **1.047** RF RSD **3.47** AVE RT **15.12**

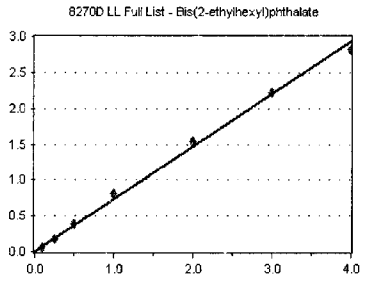
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Bis(2-ethylhexyl)phthalate

Curve Fit: **AVERAGE RF**

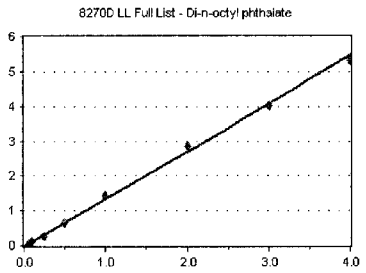


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~1364~~	~~0.316~~	~~15.19~~
~~9J16053-CAL2~~	~~50~~	~~3999~~	~~0.380~~	~~15.20~~
~~9J16053-CAL3~~	~~100~~	~~10525~~	~~0.484~~	~~15.20~~
9J16053-CAL4	200	25222	0.606	15.20
9J16053-CAL5	500	78522	0.739	15.20
9J16053-CAL6	1000	155751	0.769	15.20
9J16053-CAL7	2000	308465	0.813	15.20
9J16053-CAL8	4000	590135	0.774	15.21
9J16053-CAL9	6000	739674	0.738	15.22
9J16053-CALA	8000	901223	0.706	15.22

AVE RF **0.735** RF RSD **9.03** AVE RT **15.21**

Di-n-octyl phthalate

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

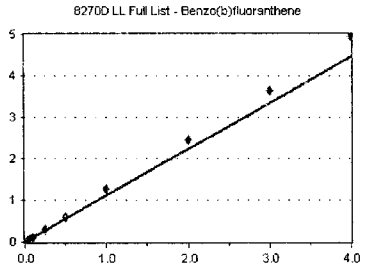


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~1789~~	~~0.415~~	~~16.87~~
~~9J16053-CAL2~~	~~50~~	~~4878~~	~~0.461~~	~~16.87~~
9J16053-CAL3	100	13641	0.631	16.87
9J16053-CAL4	200	35211	0.851	16.87
9J16053-CAL5	500	120881	1.102	16.87
9J16053-CAL6	1000	261927	1.278	16.87
9J16053-CAL7	2000	571058	1.433	16.88
9J16053-CAL8	4000	1176050	1.434	16.89
9J16053-CAL9	6000	1499067	1.335	16.90
9J16053-CALA	8000	1811511	1.328	16.91

AVE RF **1.174** RF RSD **24.91** AVE RT **16.88**

Benzo(b)fluoranthene

Curve Fit: **AVERAGE RF**

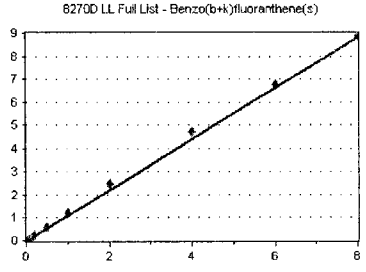


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3489	0.809	17.62
9J16053-CAL2	50	9380	0.887	17.62
9J16053-CAL3	100	21892	1.013	17.62
9J16053-CAL4	200	47123	1.139	17.62
9J16053-CAL5	500	128872	1.175	17.62
9J16053-CAL6	1000	246144	1.201	17.63
9J16053-CAL7	2000	501132	1.258	17.63
9J16053-CAL8	4000	1011072	1.233	17.66
9J16053-CAL9	6000	1366285	1.217	17.68
9J16053-CALA	8000	1686661	1.236	17.69

AVE RF **1.117** RF RSD **14.22** AVE RT **17.64**

Benzo(b+k)fluoranthene(s)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	40	6917	0.802	17.62
9J16053-CAL2	100	19673	0.930	17.68
9J16053-CAL3	200	45830	1.061	17.62
9J16053-CAL4	400	96090	1.161	17.69
9J16053-CAL5	1000	264478	1.206	17.69
9J16053-CAL6	2000	498931	1.217	17.70
9J16053-CAL7	4000	980351	1.230	17.71
9J16053-CAL8	8000	1939096	1.182	17.74
9J16053-CAL9	12000	2538483	1.130	17.75
9J16053-CALA	16000	3039542	1.114	17.76

AVE RF **1.103** RF RSD **12.56** AVE RT **17.70**

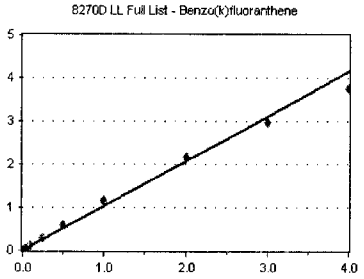
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Benzo(k)fluoranthene

Curve Fit: **AVERAGE RF**

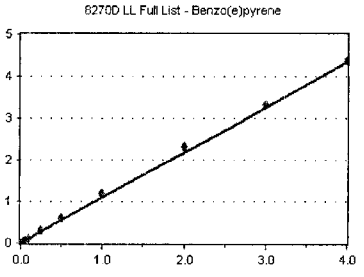


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3429	0.795	17.69
9J16053-CAL2	50	9507	0.899	17.68
9J16053-CAL3	100	22282	1.031	17.69
9J16053-CAL4	200	46458	1.123	17.69
9J16053-CAL5	500	130011	1.186	17.69
9J16053-CAL6	1000	241628	1.179	17.70
9J16053-CAL7	2000	460821	1.157	17.71
9J16053-CAL8	4000	889038	1.084	17.74
9J16053-CAL9	6000	1115022	0.993	17.75
9J16053-CALA	8000	1278627	0.937	17.76

AVE RF **1.038** RF RSD **12.67** AVE RT **17.71**

Benzo(e)pyrene

Curve Fit: **AVERAGE RF**

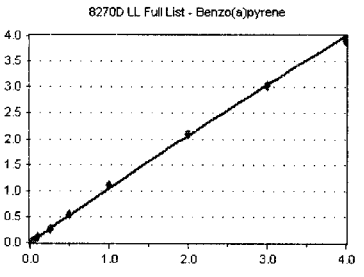


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3566	0.826	18.27
9J16053-CAL2	50	10258	0.970	18.27
9J16053-CAL3	100	22306	1.032	18.27
9J16053-CAL4	200	46317	1.120	18.28
9J16053-CAL5	500	127706	1.165	18.28
9J16053-CAL6	1000	240269	1.172	18.29
9J16053-CAL7	2000	475633	1.194	18.30
9J16053-CAL8	4000	952442	1.161	18.32
9J16053-CAL9	6000	1247052	1.111	18.34
9J16053-CALA	8000	1492293	1.094	18.34

AVE RF **1.085** RF RSD **10.48** AVE RT **18.30**

Benzo(a)pyrene

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

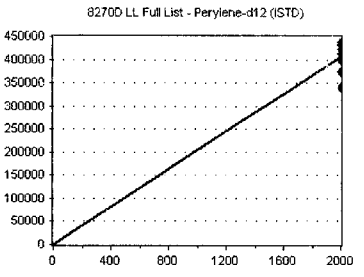


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2850	0.661	18.39
9J16053-CAL2	50	8352	0.790	18.39
9J16053-CAL3	100	19477	0.901	18.39
9J16053-CAL4	200	42344	1.024	18.39
9J16053-CAL5	500	117701	1.073	18.40
9J16053-CAL6	1000	223821	1.092	18.40
9J16053-CAL7	2000	440842	1.106	18.42
9J16053-CAL8	4000	863983	1.053	18.44
9J16053-CAL9	6000	1130687	1.007	18.47
9J16053-CALA	8000	1326605	0.972	18.47

AVE RF **0.968** RF RSD **14.94** AVE RT **18.42**

Perylene-d12 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	431467	215.733	18.55
9J16053-CAL2	2000	422859	211.430	18.55
9J16053-CAL3	2000	432129	216.065	18.54
9J16053-CAL4	2000	413647	206.823	18.55
9J16053-CAL5	2000	438576	219.288	18.55
9J16053-CAL6	2000	409934	204.967	18.55
9J16053-CAL7	2000	398414	199.207	18.56
9J16053-CAL8	2000	410166	205.083	18.57
9J16053-CAL9	2000	374258	187.129	18.59
9J16053-CALA	2000	341068	170.534	18.58

AVE RF **203.626** RF RSD **7.34** AVE RT **18.56**

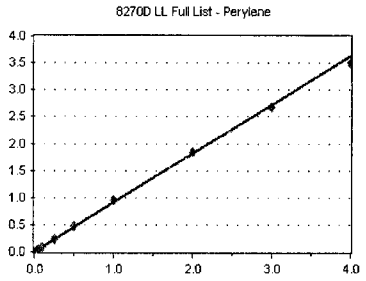
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Perylene

Curve Fit: **AVERAGE RF**

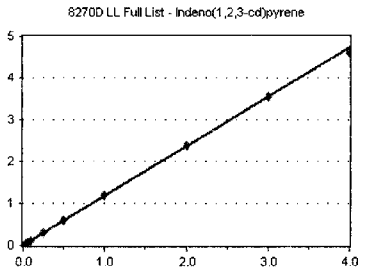


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3674	0.852	18.60
9J16053-CAL2	50	9122	0.863	18.60
9J16053-CAL3	100	19207	0.889	18.60
9J16053-CAL4	200	38182	0.923	18.60
9J16053-CAL5	500	104561	0.954	18.61
9J16053-CAL6	1000	194782	0.950	18.61
9J16053-CAL7	2000	380066	0.954	18.62
9J16053-CAL8	4000	755087	0.920	18.65
9J16053-CAL9	6000	1004144	0.894	18.67
9J16053-CALA	8000	1195430	0.876	18.67

AVE RF **0.908** RF RSD **4.21** AVE RT **18.62**

Indeno(1,2,3-cd)pyrene

Curve Fit: **AVERAGE RF**

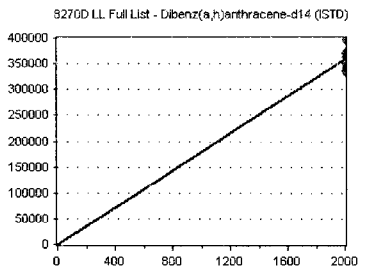


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	4048	1.156	20.93
9J16053-CAL2	50	9841	1.176	20.93
9J16053-CAL3	100	20486	1.170	20.93
9J16053-CAL4	200	40566	1.201	20.94
9J16053-CAL5	500	114261	1.227	20.95
9J16053-CAL6	1000	213608	1.175	20.95
9J16053-CAL7	2000	439827	1.183	20.96
9J16053-CAL8	4000	948237	1.192	20.99
9J16053-CAL9	6000	1311636	1.183	21.02
9J16053-CALA	8000	1567885	1.150	21.02

AVE RF **1.181** RF RSD **1.88** AVE RT **20.96**

Dibenz(a,h)anthracene-d14 (ISTD

Curve Fit: **AVERAGE RF**

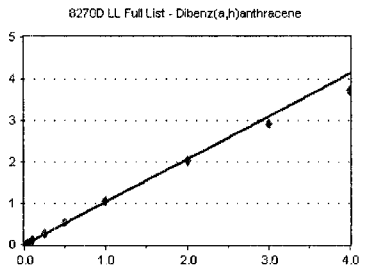


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	350266	175.133	20.95
9J16053-CAL2	2000	334828	167.414	20.95
9J16053-CAL3	2000	350177	175.088	20.95
9J16053-CAL4	2000	337729	168.865	20.95
9J16053-CAL5	2000	372459	186.230	20.95
9J16053-CAL6	2000	363670	181.835	20.95
9J16053-CAL7	2000	371696	185.848	20.96
9J16053-CAL8	2000	397776	198.888	20.98
9J16053-CAL9	2000	369437	184.718	21.00
9J16053-CALA	2000	340856	170.428	21.00

AVE RF **179.445** RF RSD **5.49** AVE RT **20.96**

Dibenz(a,h)anthracene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3500	0.999	21.00
9J16053-CAL2	50	8473	1.012	21.00
9J16053-CAL3	100	18545	1.059	21.00
9J16053-CAL4	200	37109	1.099	21.00
9J16053-CAL5	500	103626	1.113	21.01
9J16053-CAL6	1000	194682	1.071	21.02
9J16053-CAL7	2000	396150	1.066	21.03
9J16053-CAL8	4000	801452	1.007	21.06
9J16053-CAL9	6000	1076200	0.971	21.08
9J16053-CALA	8000	1269410	0.931	21.08

AVE RF **1.033** RF RSD **5.62** AVE RT **21.03**

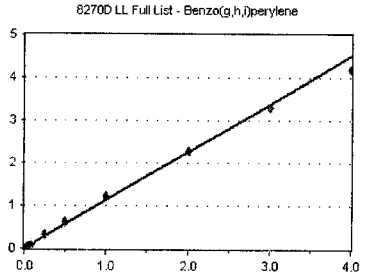
Element Calibration Review Sheet

Calibration ID: **A9J1803** Instrument: **SV-GCMS9** Calibration Date: **10/18/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9J1803**

Benzo(g,h,i)perylene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3150	0.899	21.47
9J16053-CAL2	50	8620	1.030	21.47
9J16053-CAL3	100	19859	1.134	21.47
9J16053-CAL4	200	40711	1.205	21.47
9J16053-CAL5	500	117149	1.258	21.49
9J16053-CAL6	1000	223060	1.227	21.49
9J16053-CAL7	2000	452012	1.216	21.50
9J16053-CAL8	4000	907373	1.141	21.54
9J16053-CAL9	6000	1221971	1.103	21.57
9J16053-CALA	8000	1429981	1.049	21.57

AVE RF **1.126** RF RSD **9.79** AVE RT **21.50**

Compound List Report SV-GCMS9

Method Path : T:\methods\
Method File : SV9_101619.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Thu Oct 17 11:59:00 2019
Response Via : Initial Calibration

Total Cpnds : 97

10/17/19

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-Dichlorobenzene-d4 (ISTD)	152	6.659	1.000	A	2	A	R
2	T	N-Nitrosodimethylamine	74	4.075	0.612	A	2	A	R
3	T	Pyridine	79	4.091	0.614	A	2	A	R
4	S	2-Fluorophenol (Surr)	112	5.407	0.812	A	1	A	R
5	S	Phenol-d6 (Surr)	99	6.295	0.945	A	2	A	R
6	T	Phenol	94	6.306	0.947	A	2	A	R
7	T	Aniline	93	6.342	0.952	A	2	A	R
8	T	Bis(2-chloroethyl) ether	93	6.396	0.961	A	2	A	R
9	T	2-Chlorophenol	128	6.461	0.970	A	2	A	R
10	T	1,3-Dichlorobenzene	146	6.610	0.993	A	2	A	R
11	T	1,4-Dichlorobenzene	146	6.680	1.003	A	2	A	R
12	T	Benzyl alcohol	108	6.786	1.019	A	2	A	R
13	T	1,2-Dichlorobenzene	146	6.830	1.026	A	2	A	R
14	T	2-Methylphenol	107	6.894	1.035	A	2	A	R
15	T	2,2'-Oxybis(1-Chloropropane)	45	6.920	1.039	A	2	A	R
16	T	N-Nitrosodi-n-propylamine	70	7.049	1.059	A	2	A	R
17	T	3+4-Methylphenol	107	7.043	1.058	A	3	A	R
18	T	Hexachloroethane	201	7.167	1.076	A	2	A	R
19	S	Nitrobenzene-d5 (Surr)	82	7.199	1.081	A	2	A	R
20	T	Nitrobenzene	77	7.220	1.084	A	2	A	R
21	I	Naphthalene-d8 (ISTD)	136	7.921	1.000	A	1	A	R
22	T	Isophorone	82	7.455	0.941	A	2	A	R
23	T	2-Nitrophenol	139	7.535	0.951	Q	2	A	R
24	T	2,4-Dimethylphenol	122	7.568	0.955	A	2	A	R
25	T	Bis(2-chloroethoxy) methane	93	7.664	0.968	A	2	A	R
26	T	Benzoic acid	105	7.653	0.966	Q	2	A	R
27	T	2,4-Dichlorophenol	162	7.771	0.981	Q	2	A	R
28	T	1,2,4-Trichlorobenzene	180	7.862	0.993	A	2	A	R
29	T	Naphthalene	128	7.942	1.003	A	1	A	R
30	T	4-Chloroaniline	127	7.990	1.009	Q	2	A	R
31	T	Hexachlorobutadiene	225	8.071	1.019	A	2	A	R
32	T	4-Chloro-3-methylphenol	107	8.466	1.069	Q	2	A	R
33	T	2-Methylnaphthalene	142	8.637	1.090	A	2	A	R
34	T	1-Methylnaphthalene	142	8.739	1.103	A	2	A	R
35	I	Acenaphthene-d10 (ISTD)	162	9.702	1.000	A	2	A	R
36	T	Hexachlorocyclopentadiene	237	8.809	0.908	A	2	A	R
37	T	2,4,6-Trichlorophenol	196	8.920	0.919	Q	2	A	R
38	T	2,4,5-Trichlorophenol	198	8.953	0.923	Q	2	A	R
39	T	1,1'-Biphenyl	154	9.108	0.939	A	2	A	R
40	S	2-Fluorobiphenyl (Surr)	172	9.007	0.928	A	2	A	R
41	T	2-Chloronaphthalene	162	9.130	0.941	A	2	A	R
42	T	2-Nitroaniline	138	9.225	0.951	Q	2	A	R
43	T	2,6-Dimethylnaphthalene	156	9.269	0.955	A	2	A	R
44	T	1,4-Dinitrobenzene	168	9.354	0.964	Q	2	A	R
45	T	Dimethyl phthalate	163	9.408	0.970	A	2	A	R
46	T	1,3-Dinitrobenzene	168	9.434	0.972	Q	2	A	R
47	T	2,6-Dinitrotoluene	165	9.466	0.976	Q	2	A	R
48	T	1,2-Dinitrobenzene	168	9.525	0.982	Q	2	A	R
49	T	Acenaphthylene	152	9.552	0.985	A	2	A	R
50	T	3-Nitroaniline	138	9.643	0.994	Q	2	A	R
51	T	Acenaphthene	153	9.734	1.003	A	2	A	R
52	T	2,4-Dinitrophenol	184	9.744	1.004	Q	2	A	R
53	T	4-Nitrophenol	139	9.798	1.010	Q	2	A	R
54	T	2,4-Dinitrotoluene	165	9.878	1.018	Q	2	A	R

55	T	Dibenzofuran	168	9.905	1.021	A	1/a2	2	A	R
56	T	2,3,5,6-Tetrachlorophenol	232	9.985	1.029	Q	1/a2	2	A	R
57	T	2,3,4,6-Tetrachlorophenol	232	10.028	1.034	Q	1/a2	2	A	R
58	T	Diethyl phthalate	149	10.124	1.044	A		2	A	R
59	T	2,3,5-Trimethylnaphthalene	170	10.119	1.043	A		2	A	R
60	T	Fluorene	166	10.258	1.057	A		2	A	R
61	T	4-Chlorophenyl phenyl ether	204	10.247	1.056	A		2	A	R
62	T	4-Nitroaniline	138	10.263	1.058	A		2	A	R
63	T	4,6-Dinitro-2-methylphenol	198	10.295	1.061	Q	1/a2	2	A	R
64	I	Phenanthrene-d10 (ISTD)	188	11.216	1.000	A		2	A	R
65	T	N-Nitrosodiphenylamine	169	10.365	0.924	A		2	A	R
66	T	Azobenzene (1,2-DPH)	77	10.407	0.928	A		2	A	R
67	S	2,4,6-Tribromophenol (Surr)	330	10.498	0.936	Q	1/a2	2	A	R
68	T	4-Bromophenyl phenyl ether	248	10.750	0.959	A		2	A	R
69	T	Hexachlorobenzene	284	10.825	0.965	A		2	A	R
70	T	Pentachlorophenol (PCP)	266	11.022	0.983	Q	1/a2	2	A	R
71	T	Phenanthrene	178	11.237	1.002	A		2	A	R
72	T	Anthracene	178	11.290	1.007	A		2	A	R
73	T	Carbazole	167	11.445	1.020	A		2	A	R
74	T	Di-n-butyl phthalate	149	11.793	1.051	A		2	A	R
75	T	Fluoranthene	202	12.520	1.116	A		2	A	R
76	T	Benzidine	184	12.675	1.130	Q	1/a2	2	A	R
77	T	Pyrene	202	12.815	1.143	A		2	A	R
78	I	Chrysene-d12 (ISTD)	240	15.051	1.000	A		2	A	R
79	S	Terphenyl-d14 (Surr)	244	13.023	0.865	A		2	A	R
80	T	Butyl benzyl phthalate	149	13.847	0.920	Q	1/a2	2	A	R
81	T	Bis(2-ethylhexyl) adipate	129	14.023	0.932	A		2	A	R
82	T	3,3-Dichlorobenzidine	252	14.991	0.996	Q	1/a	2	A	R
83	T	Benz(a)anthracene	228	15.029	0.999	A		2	A	R
84	T	Chrysene	228	15.109	1.004	A		2	A	R
85	T	Bis(2-ethylhexyl) phthalate	149	15.200	1.010	A		2	A	R
86	I	Perylene-d12 (ISTD)	264	18.554	1.000	A		2	A	R
87	T	Di-n-octyl phthalate	149	16.874	0.909	Q	1/a2	2	A	R
88	T	Benzo(b)fluoranthene	252	17.634	0.950	A		2	A	R
89	T	Benzo(k)fluoranthene	252	17.698	0.954	A		2	A	R
90	T	Benzo(b+k)fluoranthene	252	17.698	0.954	A		2	A	R
91	T	Benzo(e)pyrene	252	18.286	0.986	A		2	A	R
92	T	Benzo(a)pyrene	252	18.404	0.992	Q	1/a2	2	A	R
93	T	Perylene	252	18.613	1.003	A		2	A	B
94	I	Dibenz(a,h)Anthrcene-d14 (I...	292	20.950	1.000	A		1	A	B
95	T	Indeno(1,2,3-cd)pyrene	276	20.945	1.000	A		1	A	R
96	T	Dibenz(a,h)anthracene	278	21.020	1.003	A		2	A	R
97	T	Benzo(g,h,i)perylene	276	21.490	1.026	A		2	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

SV9_101619.M Thu Oct 17 12:36:38 2019

Response Factor Report SV-GCMS9

Method Path : T:\methods\
Method File : SV9_101619.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Thu Oct 17 11:59:00 2019
Response Via : Initial Calibration

10/17/19

Calibration Files
20 =I10161912.D 50 =I10161913.D 100 =I10161914.D 200 =I10161915.D 500 =I10161916.D 1000=I10161917.D 2000=I10161918.D
4000=I10161919.D 6000=I10161920.D 8000=I10161921.D

		Compound	20	50	100	200	500	1000	2000	4000	6000	8000	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------											9.21
2)	T	N-Nitrosodimet...	1.106	1.227	1.169	1.119	1.196	1.172	1.226	1.224	1.192	1.181	1.181	3.56
3)	T	Pyridine		1.639	1.725	1.714	1.839	1.852	1.940	1.970	1.900	1.950	1.837	6.45
4)	S	2-Fluorophenol...	1.352	1.350	1.342	1.381	1.497	1.500	1.579	1.594	1.567	1.563	1.473	7.14
5)	S	Phenol-d6 (Surr)	1.459	1.602	1.654	1.626	1.876	1.881	1.967	1.986	1.921	1.849	1.782	10.17
6)	T	Phenol	1.830	1.906	1.821	1.724	2.001	1.949	1.956	2.047	1.854	1.787	1.888	5.38
7)	T	Aniline		2.064	2.173	2.088	2.159	1.927	1.815	1.785	1.887	1.784	1.965	8.08
8)	T	Bis(2-chloroet...	1.531	1.689	1.803	1.712	1.843	1.789	1.971	1.774	1.478	1.398	1.699	10.52
9)	T	2-Chlorophenol	1.274	1.432	1.431	1.452	1.546	1.520	1.518	1.458	1.436	1.350	1.442	5.67
10)	T	1,3-Dichlorobe...	1.589	1.666	1.674	1.704	1.686	1.619	1.615	1.529	1.502	1.416	1.600	5.80
11)	T	1,4-Dichlorobe...	1.581	1.601	1.607	1.614	1.628	1.539	1.517	1.432	1.407	1.311	1.524	7.02
12)	T	Benzyl alcohol	0.857	0.633	0.663	0.683	0.831	0.890	0.949	0.956	0.945	0.893	0.830	15.02
13)	T	1,2-Dichlorobe...	1.579	1.579	1.574	1.584	1.614	1.515	1.485	1.371	1.325	1.223	1.485	8.97
14)	T	2-Methylphenol	1.102	0.971	1.133	1.093	1.223	1.178	1.179	1.095	1.056	0.963	1.099	7.79
15)	T	2,2'-Oxybis(1-...	2.559	2.667	2.628	2.540	2.565	2.371	2.179	1.899	1.754		2.351	14.20
16)	T	N-Nitrosodi-n-...	1.228	1.244	1.271	1.224	1.324	1.225	1.150	1.025	0.981	0.907	1.158	12.00
17)	T	3+4-Methylphenol	1.135	1.156	1.311	1.254	1.521	1.481	1.506	1.385	1.325		1.342	10.75
18)	T	Hexachloroethane	0.457	0.458	0.484	0.495	0.501	0.497	0.508	0.502	0.507	0.486	0.490	3.80
19)	S	Nitrobenzene-d...	1.200	1.108	1.173	1.121	1.404	1.400	1.455	1.434	1.400	1.312	1.301	10.51
20)	T	Nitrobenzene	1.352	1.244	1.257	1.304	1.540	1.503	1.487	1.387	1.322		1.377	7.94
21)	I	Naphthalene-d8 (ISTD)	----------ISTD----------											9.75
22)	T	Isophorone	0.711	0.770	0.807	0.850	0.861	0.832	0.811	0.785	0.750	0.732	0.791	6.35
23)	T	2-Nitrophenol			0.103	0.118	0.159	0.187	0.182	0.198	0.193	0.188	0.166	21.87
24)	T	2,4-Dimethylph...	0.244	0.248	0.272	0.294	0.298	0.308	0.314	0.299	0.281	0.267	0.282	8.69
25)	T	Bis(2-chloroet...	0.431	0.443	0.456	0.461	0.485	0.470	0.456	0.423	0.392	0.363	0.438	8.51
26)	T	Benzoic acid					0.046	0.103	0.133	0.201	0.218	0.208	0.151	45.70
27)	T	2,4-Dichloroph...	0.129	0.170	0.196	0.233	0.262	0.279	0.296	0.286	0.270	0.257	0.238	23.28
28)	T	1,2,4-Trichlor...	0.342	0.353	0.356	0.363	0.356	0.346	0.339	0.323	0.306	0.288	0.337	7.21
29)	T	Naphthalene	1.135	1.123	1.148	1.135	1.129	1.071	1.010	0.911	0.840	0.769	1.027	13.58
30)	T	4-Chloroaniline	0.137	0.258	0.270	0.320	0.353	0.361	0.393	0.392	0.358	0.338	0.318	24.53
31)	T	Hexachlorobuta...	0.173	0.190	0.194	0.201	0.193	0.187	0.188	0.185	0.178	0.171	0.186	5.07
32)	T	4-Chloro-3-met...		0.175	0.207	0.241	0.306	0.321	0.334	0.335	0.318	0.302	0.282	21.03
33)	T	2-Methylnaphth...	0.681	0.724	0.782	0.809	0.822	0.792	0.775	0.719	0.668	0.617	0.739	9.21
34)	T	1-Methylnaphth...	0.678	0.737	0.773	0.764	0.781	0.745	0.717	0.660	0.613	0.566	0.703	10.30
35)	I	Acenaphthene-d10 (...	----------ISTD----------											8.52
36)	T	Hexachlorocycl...	0.276	0.283	0.303	0.340	0.356	0.379	0.407	0.399	0.383	0.364	0.349	13.53
37)	T	2,4,6-Trichlor...		0.205	0.260	0.313	0.385	0.401	0.421	0.422	0.406	0.401	0.357	22.07
38)	T	2,4,5-Trichlor...		0.262	0.252	0.300	0.377	0.401	0.416	0.404	0.391	0.371	0.353	18.09
39)	T	1,1'-Biphenyl	1.441	1.643	1.822	1.860	1.872	1.779	1.691	1.486	1.350	1.240	1.618	13.98

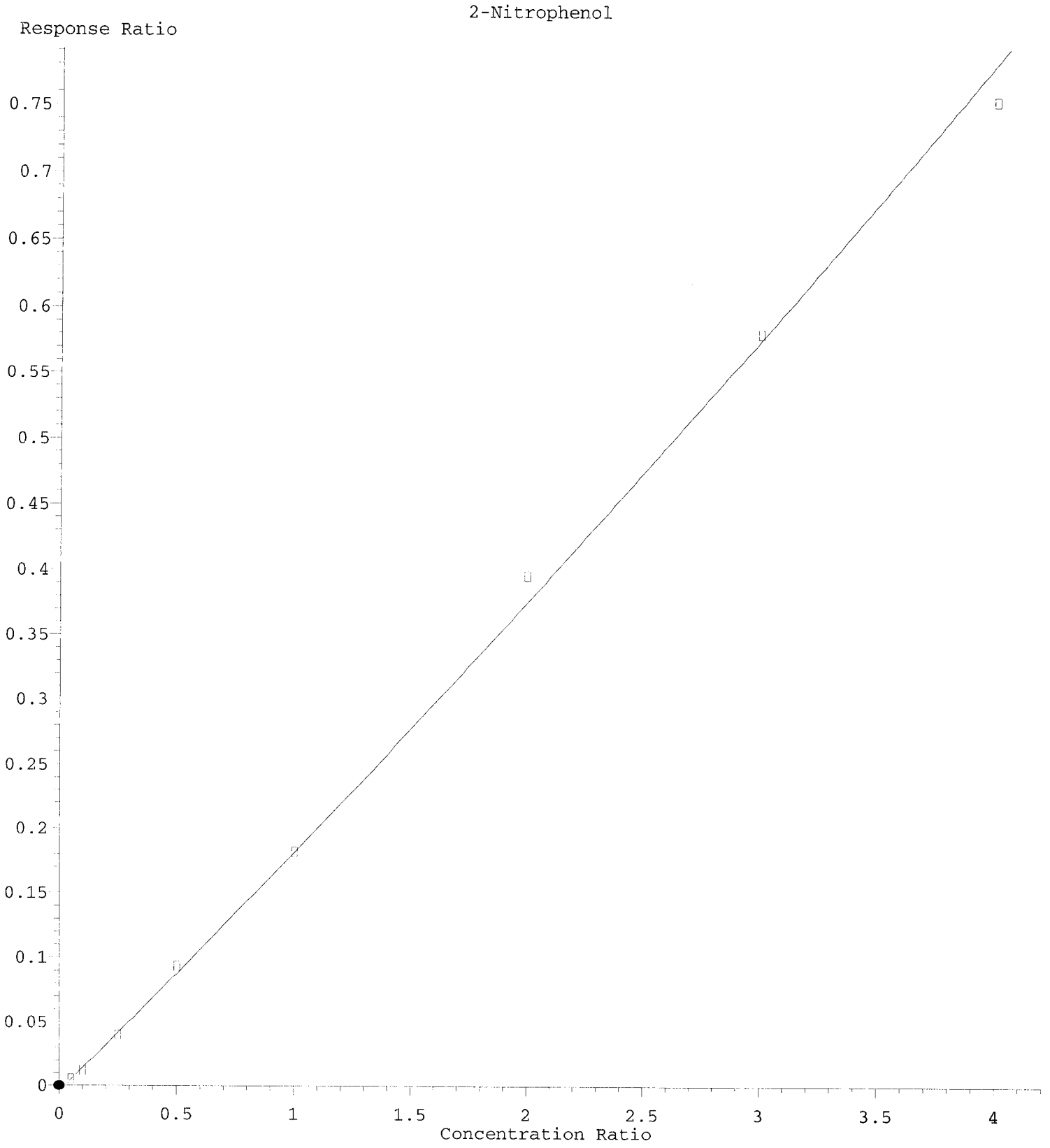
Method Path : T:\methods\
Method File : SV9_101619.M
Title : EPA 8270D: Semivolatile Organics

40)	S	2-Fluorobiphen...	1.394	1.494	1.665	1.659	1.690	1.590	1.504	1.337	1.228	1.133	1.470	13.11
41)	T	2-Chloronaphth...	1.053	1.267	1.341	1.365	1.385	1.312	1.227	1.081	1.004	0.923	1.196	13.92
42)	T	2-Nitroaniline			0.175	0.222	0.325	0.375	0.406	0.414	0.404	0.402	0.340	27.27
43)	T	2,6-Dimethylna...	1.177	1.306	1.370	1.365	1.389	1.324	1.250	1.107	1.004	0.940	1.223	13.07
44)	T	1,4-Dinitroben...				0.056	0.091	0.119	0.156	0.184	0.193	0.193	0.142	38.44
45)	T	Dimethyl phtha...	1.423	1.542	1.609	1.600	1.604	1.536	1.487	1.349	1.256	1.188	1.459	10.35
46)	T	1,3-Dinitroben...				0.083	0.140	0.171	0.205	0.217	0.214	0.209	0.177	28.39
47)	T	2,6-Dinitrotol...		0.137	0.170	0.221	0.296	0.314	0.331	0.323	0.311	0.297	0.267	26.95
48)	T	1,2-Dinitroben...			0.071	0.093	0.128	0.144	0.153	0.155	0.151	0.142	0.130	24.09
49)	T	Acenaphthylene	1.894	2.091	2.220	2.215	2.244	2.117	1.967	1.722	1.554		2.003	12.04
50)	T	3-Nitroaniline		0.142	0.180	0.223	0.294	0.274	0.231				0.224	25.34
51)	T	Acenaphthene	1.348	1.368	1.421	1.375	1.365	1.306	1.262	1.128	1.044	0.975	1.259	12.31
52)	T	2,4-Dinitrophenol				0.014	0.028	0.048	0.074	0.112	0.127		0.067	68.09
53)	T	4-Nitrophenol			0.078	0.105	0.175	0.214	0.247	0.268	0.271		0.194	40.20
54)	T	2,4-Dinitrotol...			0.157	0.194	0.309	0.362	0.410	0.422	0.406	0.380	0.330	30.91
55)	T	Dibenzofuran	1.736	1.894	1.980	1.915	1.923	1.809	1.745	1.538	1.407	1.296	1.724	13.62
56)	T	2,3,5,6-Tetrac...		0.136	0.199	0.220	0.290	0.313	0.339	0.351	0.350	0.342	0.282	27.80
57)	T	2,3,4,6-Tetrac...	0.177	0.202	0.269	0.269	0.339	0.351	0.360	0.368	0.359	0.352	0.305	23.18
58)	T	Diethyl phthalate	1.411	1.464	1.537	1.538	1.531	1.444	1.333	1.156	1.034		1.383	12.94
59)	T	2,3,5-Trimethy...	1.139	1.209	1.269	1.243	1.289	1.226	1.170	1.035	0.956	0.883	1.142	12.16
60)	T	Fluorene	1.389	1.474	1.578	1.509	1.524	1.428	1.346	1.172	1.064		1.387	12.26
61)	T	4-Chlorophenyl...	0.664	0.704	0.746	0.722	0.741	0.716	0.705	0.663	0.623	0.587	0.687	7.56
62)	T	4-Nitroaniline			0.178	0.197	0.264	0.245	0.244	0.261	0.259	0.242	0.236	13.38
63)	T	4,6-Dinitro-2-...				0.040	0.071	0.106	0.142	0.180	0.185	0.191	0.131	45.75
64)	I	Phenanthrene-d10 (...	----------	----------	ISTD	----------	----------							4.30
65)	T	N-Nitrosodiphe...	0.548	0.638	0.699	0.711	0.694	0.644	0.590	0.498			0.628	12.27
66)	T	Azobenzene (1,...	0.806	0.902	0.894	0.913	0.892	0.812	0.740	0.608			0.821	12.85
67)	S	2,4,6-Tribromo...		0.070	0.089	0.101	0.117	0.122	0.129	0.133	0.134	0.131	0.114	19.75
68)	T	4-Bromophenyl ...	0.235	0.227	0.233	0.245	0.247	0.238	0.238	0.236	0.227	0.219	0.235	3.64
69)	T	Hexachlorobenzene	0.290	0.278	0.295	0.302	0.293	0.280	0.275	0.266	0.253	0.241	0.277	7.02
70)	T	Pentachlorophe...			0.079	0.084	0.111	0.126	0.145	0.155	0.156	0.151	0.126	25.12
71)	T	Phenanthrene	1.149	1.169	1.170	1.162	1.130	1.082	1.037	0.909	0.847	0.778	1.043	14.05
72)	T	Anthracene	1.030	1.137	1.176	1.167	1.163	1.095	1.039	0.907	0.822	0.752	1.029	14.83
73)	T	Carbazole	0.896	0.970	1.005	1.024	1.007	0.854	0.644				0.915	14.72
74)	T	Di-n-butyl pht...		1.219	1.255	1.341	1.388	1.358	1.292	1.121	1.010		1.248	10.31
75)	T	Fluoranthene	1.113	1.206	1.289	1.318	1.362	1.335	1.261	1.137	1.046		1.230	8.98
76)	T	Benzidine			0.239	0.276	0.436	0.431	0.446	0.440	0.409	0.376	0.382	21.12
77)	T	Pyrene	1.102	1.236	1.312	1.368	1.378	1.316	1.236	1.094	1.018	0.931	1.199	12.88
78)	I	Chrysene-d12 (ISTD)	----------	----------	ISTD	----------	----------							10.31
79)	S	Terphenyl-d14 ...	0.862	0.904	0.960	1.002	1.041	1.001	1.029	1.002	0.968	0.936	0.970	5.84
80)	T	Butyl benzyl p...		0.320	0.382	0.438	0.549	0.585	0.642	0.650	0.631	0.618	0.535	23.15
81)	T	Bis(2-ethylhex...				0.389	0.491	0.517	0.557	0.547	0.525	0.503	0.504	11.05
82)	T	3,3-Dichlorobe...			0.284	0.281	0.237	0.180	0.154	0.137			0.212	30.11
83)	T	Benz(a)anthracene	1.240	1.142	1.153	1.171	1.208	1.164	1.175	1.136	1.121	1.070	1.158	4.04
84)	T	Chrysene	1.005	1.056	1.063	1.069	1.097	1.056	1.083	1.048	1.020	0.978	1.047	3.47
85)	T	Bis(2-ethylhex...				0.606	0.739	0.769	0.813	0.774	0.738	0.706	0.735	9.03
86)	I	Perylene-d12 (ISTD)	----------	----------	ISTD	----------	----------							7.34
87)	T	Di-n-octyl pht...			0.631	0.851	1.102	1.278	1.433	1.434	1.335	1.328	1.174	24.91

Method Path : T:\methods\
Method File : SV9_101619.M
Title : EPA 8270D: Semivolatile Organics

88)	T	Benzo(b)fluora...	0.809	0.887	1.013	1.139	1.175	1.201	1.258	1.233	1.217	1.236	1.117	14.22
89)	T	Benzo(k)fluora...	0.795	0.899	1.031	1.123	1.186	1.179	1.157	1.084	0.993	0.937	1.038	12.67
90)	T	Benzo(b+k)fluo...	0.802	0.930	1.061	1.161	1.206	1.217	1.230	1.182	1.130	1.114	1.103	12.56
91)	T	Benzo(e)pyrene	0.826	0.970	1.032	1.120	1.165	1.172	1.194	1.161	1.111	1.094	1.085	10.48
92)	T	Benzo(a)pyrene	0.661	0.790	0.901	1.024	1.073	1.092	1.106	1.053	1.007	0.972	0.968	14.94
93)	T	Perylene	0.852	0.863	0.889	0.923	0.954	0.950	0.954	0.920	0.894	0.876	0.908	4.21
94)	I	Dibenz(a,h)Anthrce...	----------ISTD----------											5.49
95)	T	Indeno(1,2,3-c...	1.156	1.176	1.170	1.201	1.227	1.175	1.183	1.192	1.183	1.150	1.181	1.88
96)	T	Dibenz(a,h)ant...	0.999	1.012	1.059	1.099	1.113	1.071	1.066	1.007	0.971	0.931	1.033	5.62
97)	T	Benzo(g,h,i)pe...	0.899	1.030	1.134	1.205	1.258	1.227	1.216	1.141	1.103	1.049	1.126	9.79

(#) = Out of Range

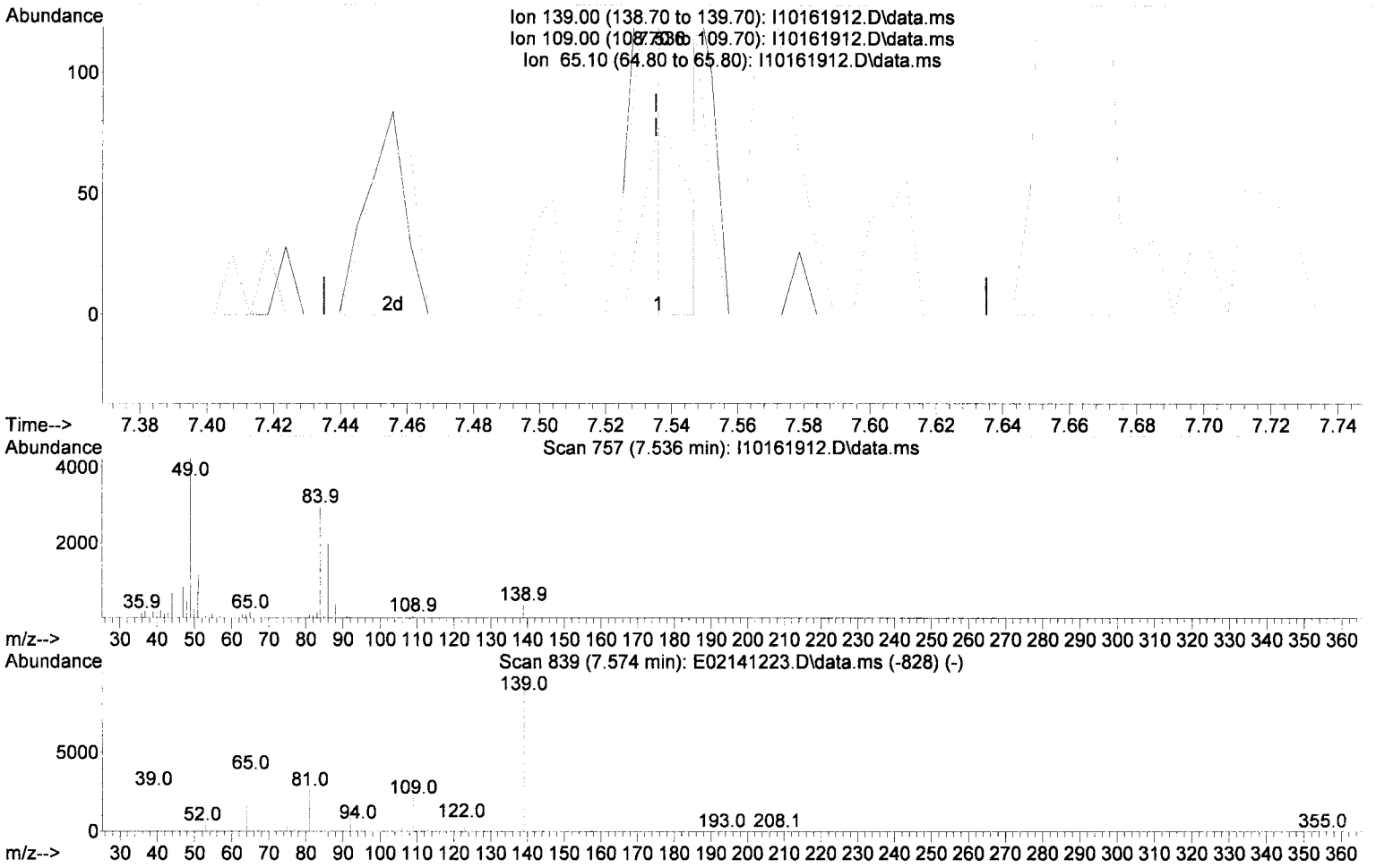


R = 3.47e-003 A*A + 1.83e-001 A - 4.49e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



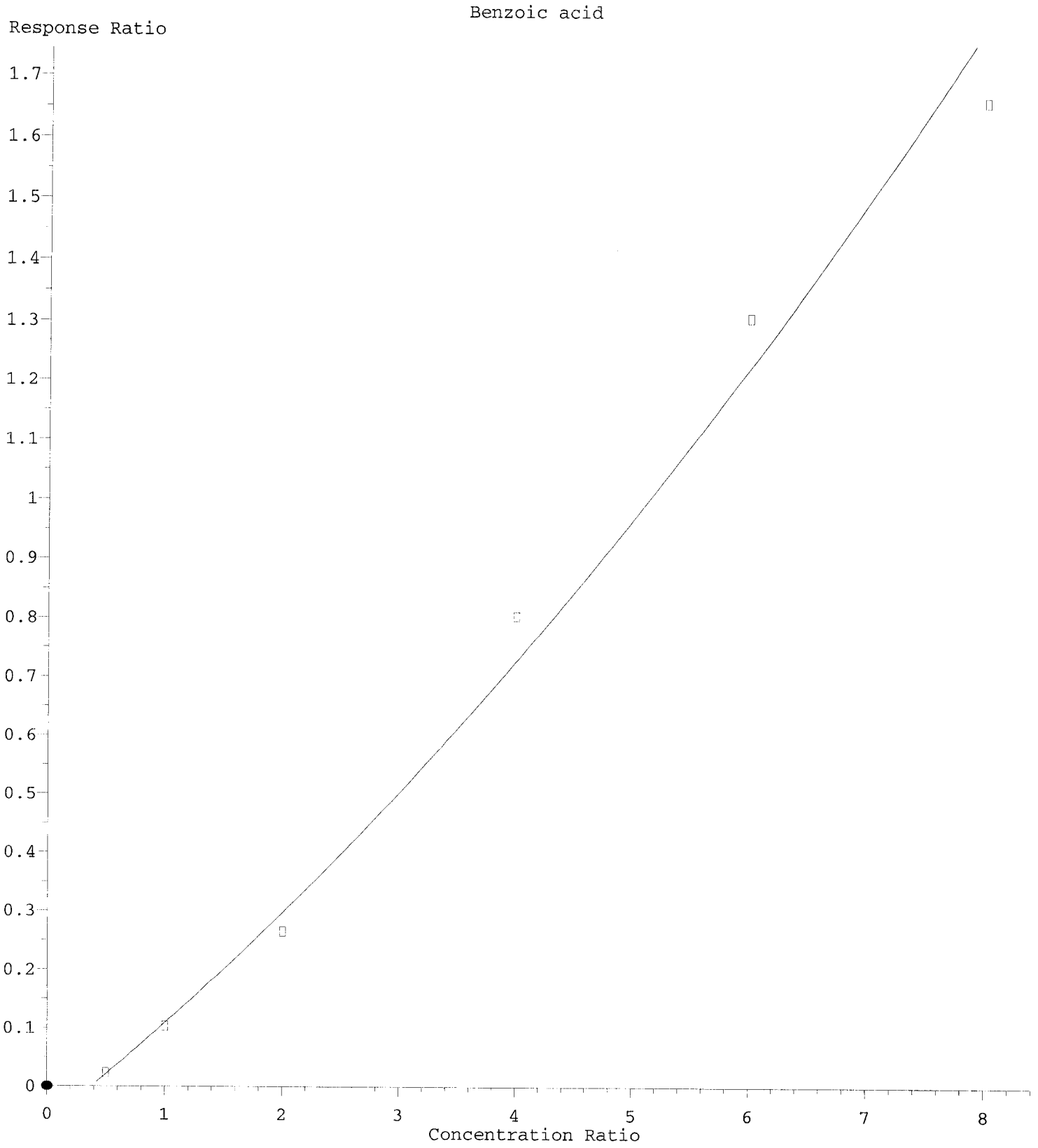
TIC: I10161912.D\data.ms

(23) 2-Nitrophenol (T)

7.536min (+ 0.001) 52.76 ng/ml m ✓

response 147

Ion	Exp%	Act%
139.00	100.00	100.00
109.00	23.30	21.14
65.10	47.80	44.17
0.00	0.00	0.00

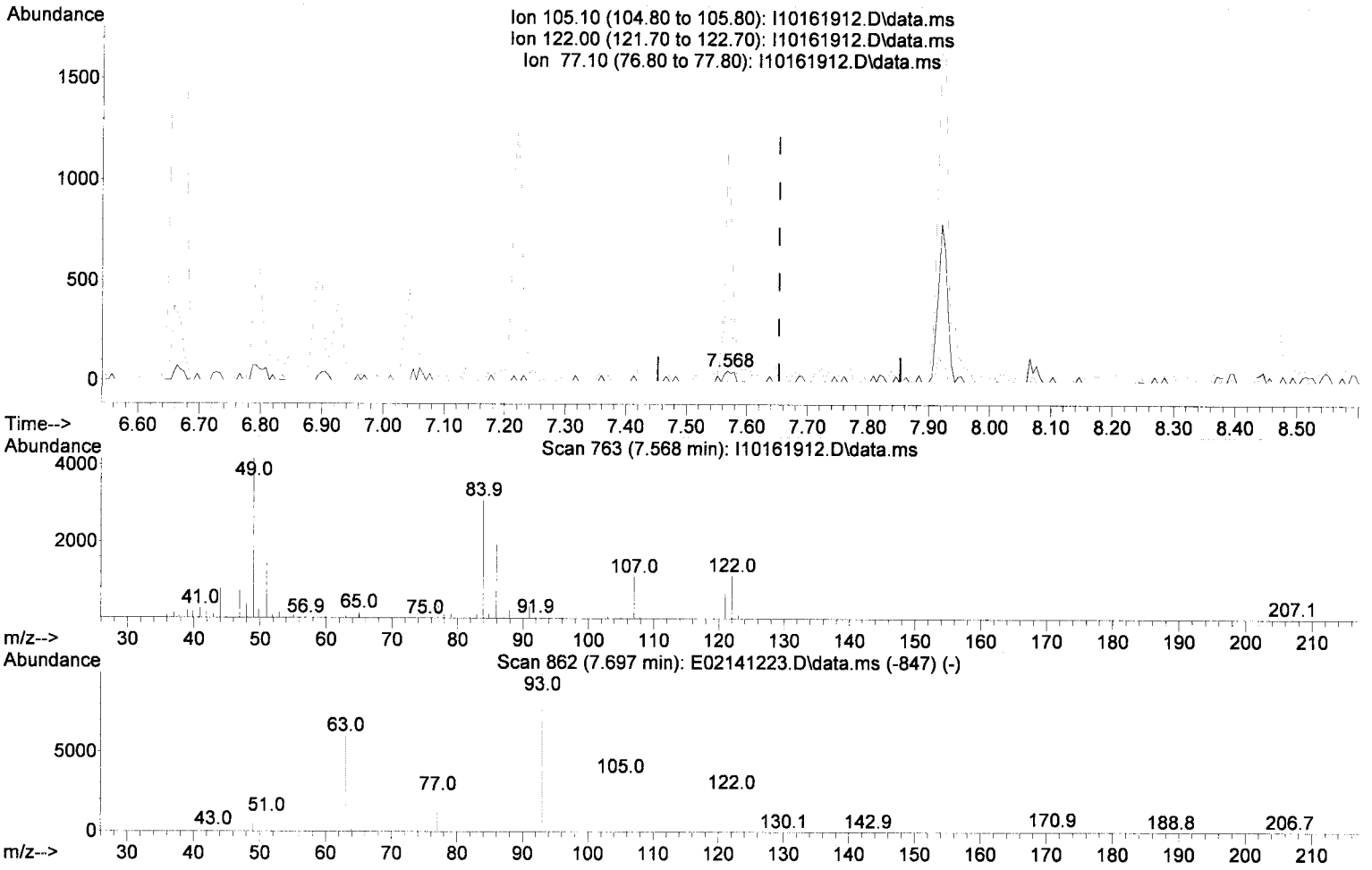


R = 8.44e-003 A*A + 1.64e-001 A - 6.33e-002
Coef of Det (r^2) = 0.992 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



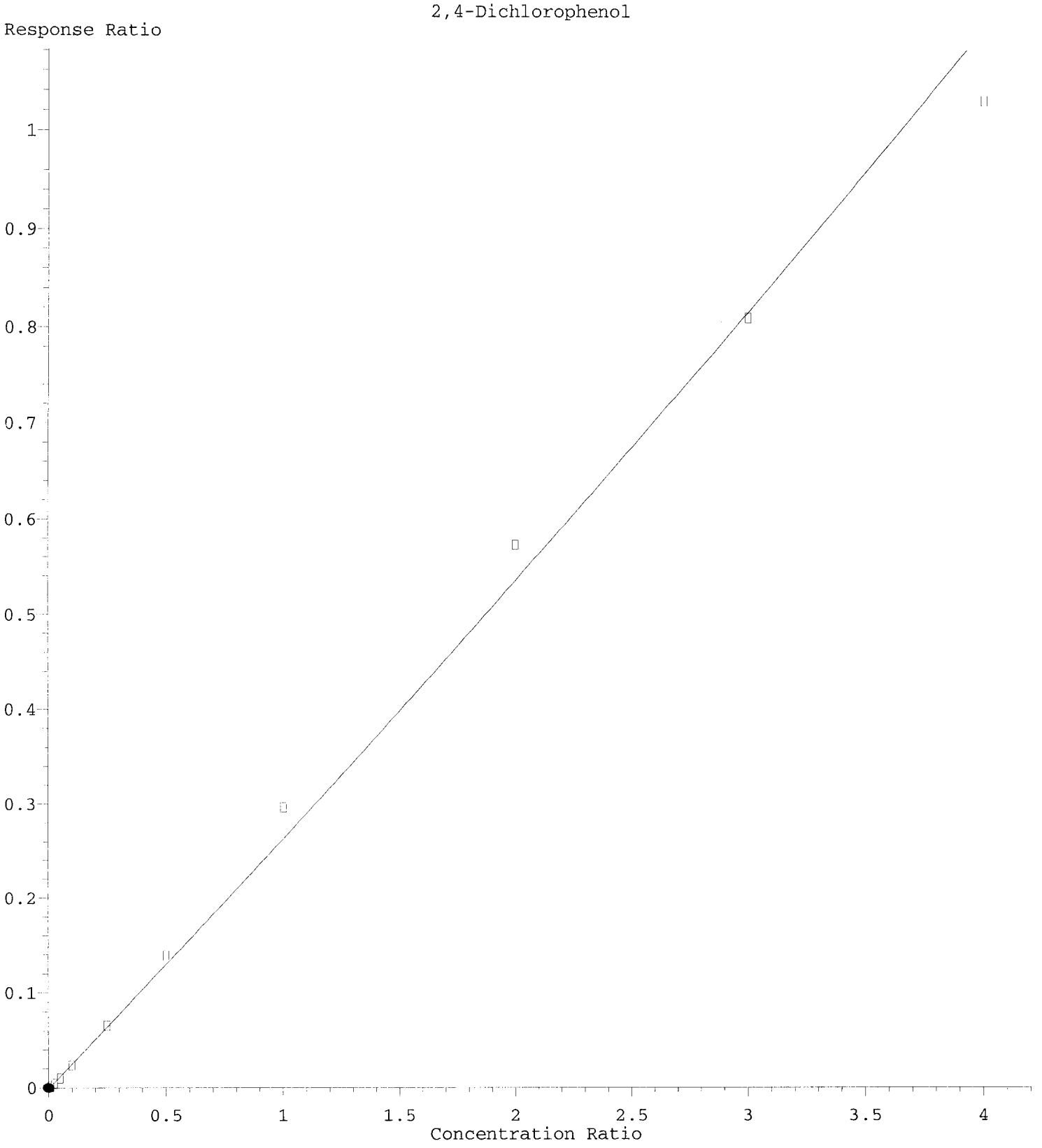
TIC: I10161912.D\data.ms

(26) Benzoic acid (T)

7.568min (-0.085) 762.03 ng/ml m

response 122

Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	2182.69#
77.10	77.80	640.38#
0.00	0.00	0.00

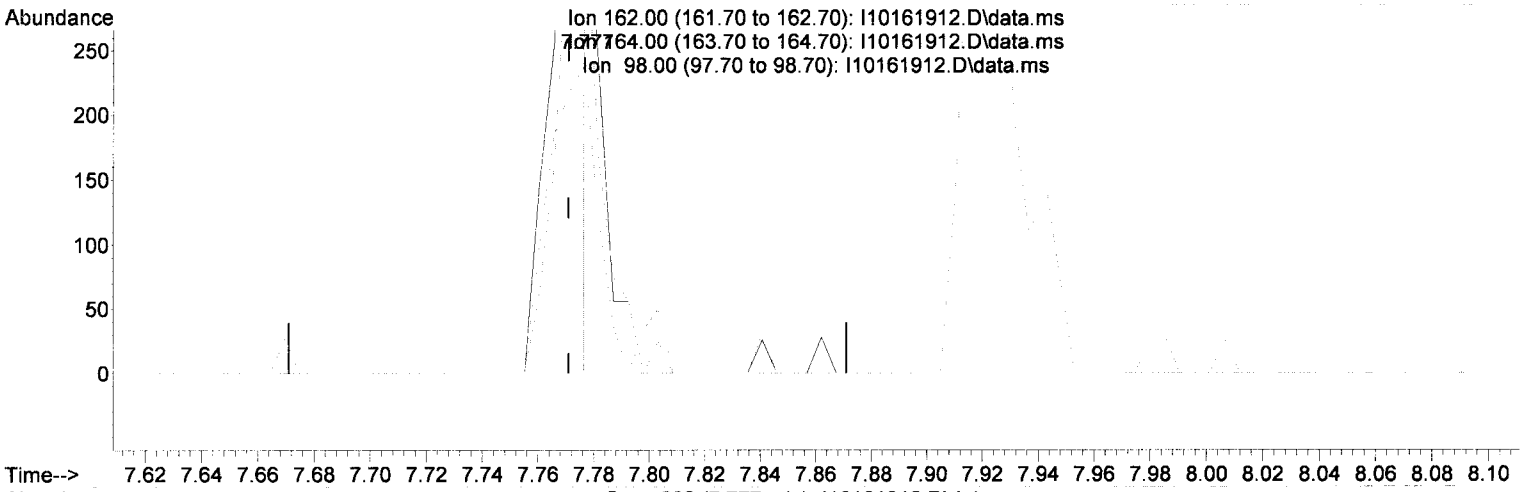


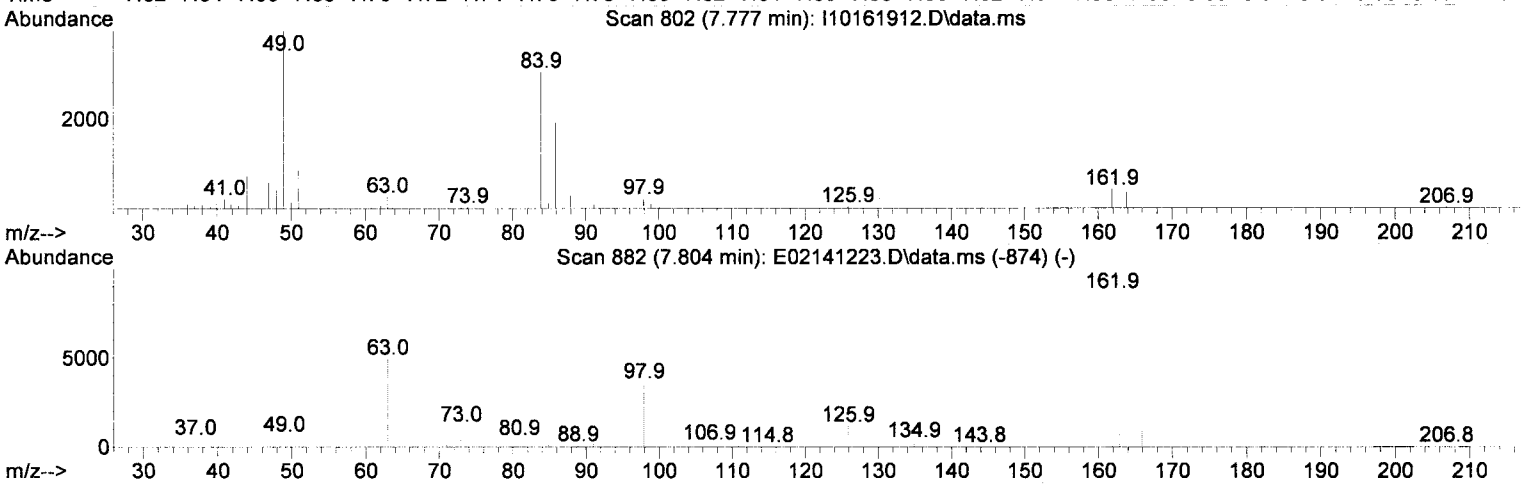
R = 3.95e-003 A*A + 2.60e-001 A - 1.50e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9





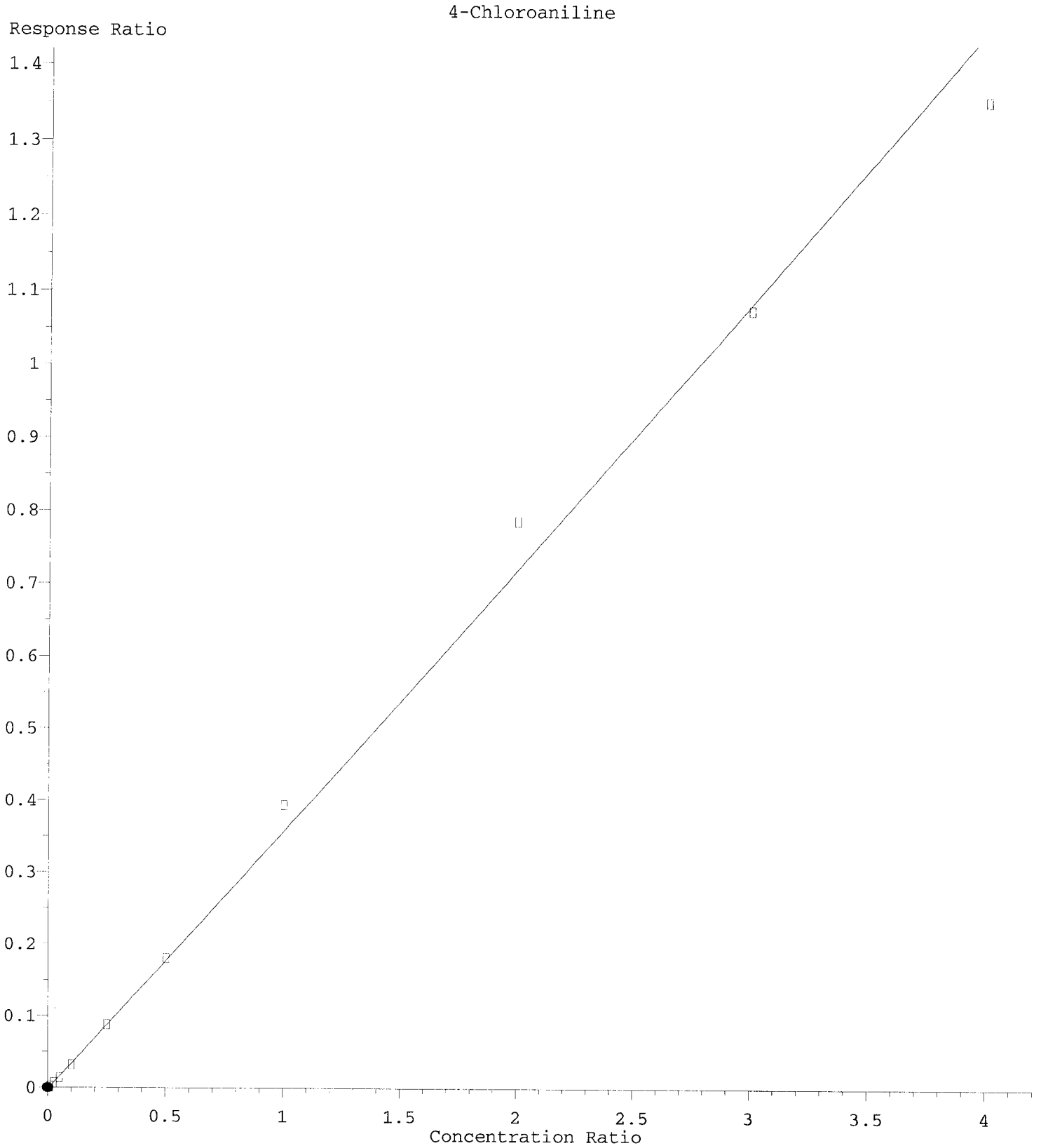
TIC: I10161912.D\data.ms

(27) 2,4-Dichlorophenol (T)

7.777min (+ 0.005) 13.48 ng/ml m

response 111

Ion	Exp%	Act%
162.00	100.00	100.00
164.00	63.40	86.79
98.00	39.00	54.21
0.00	0.00	0.00

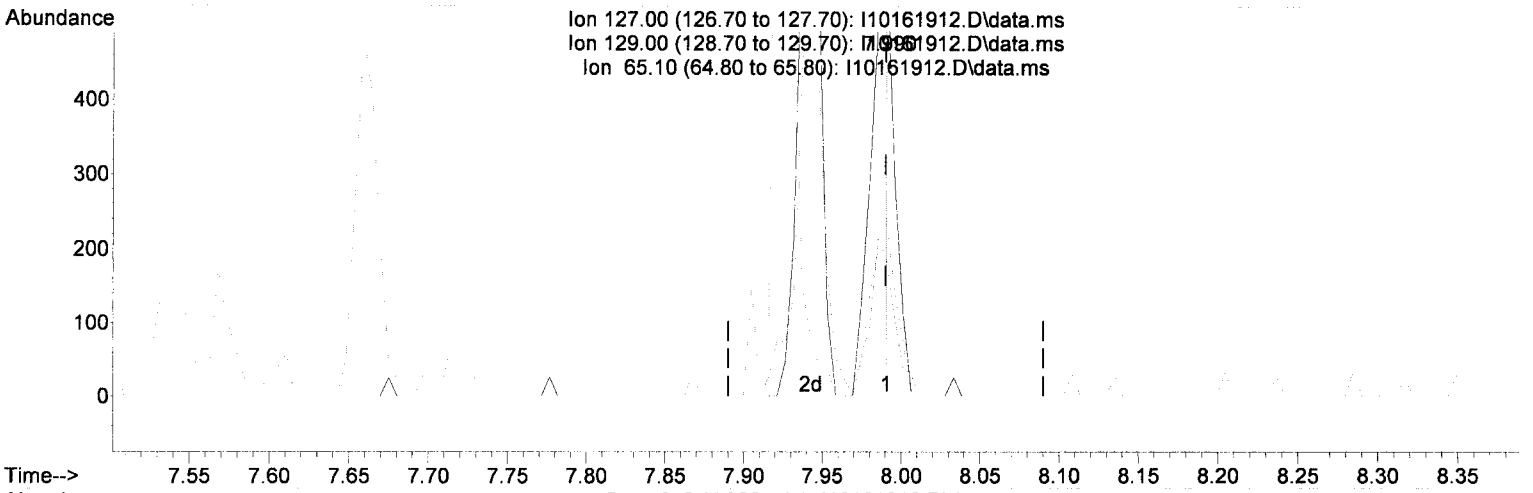


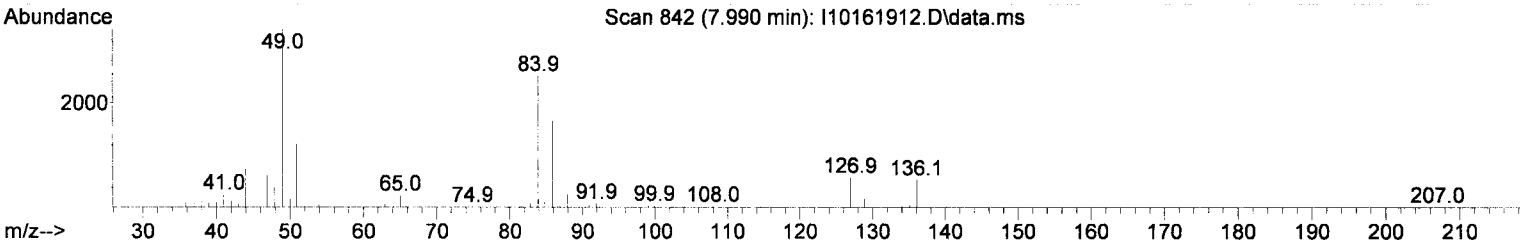
R = 9.86e-004 A*A + 3.58e-001 A - 2.33e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

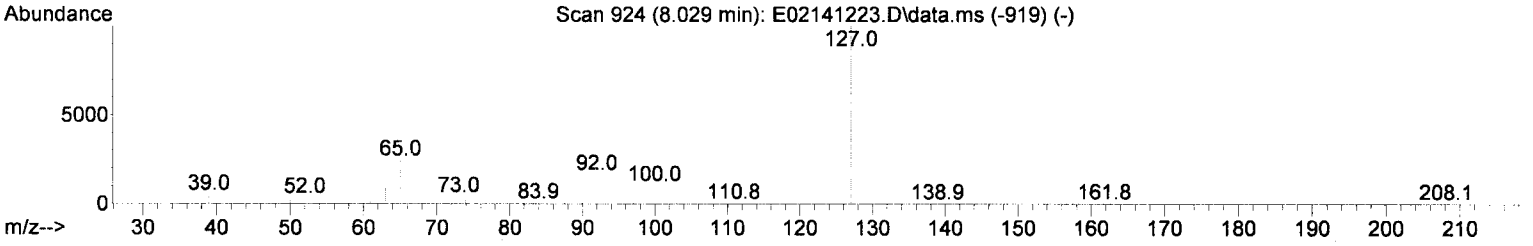
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9







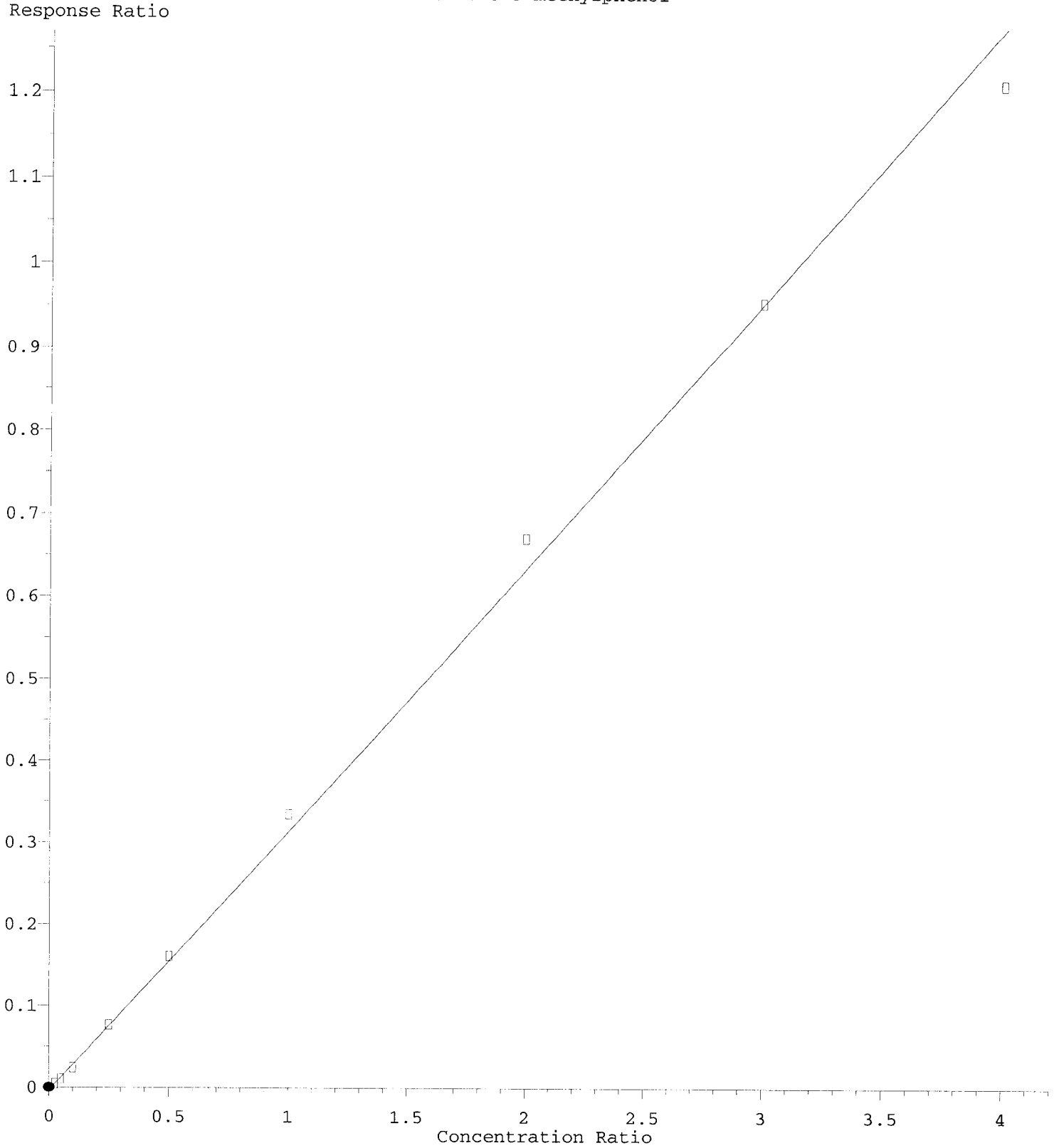
TIC: I10161912.D\data.ms

(30) 4-Chloroaniline (T)

7.990min (+ 0.000) 14.62 ng/ml m

response 128

Ion	Exp%	Act%
127.00	100.00	100.00
129.00	32.60	32.25
65.10	30.90	41.68
0.00	0.00	0.00

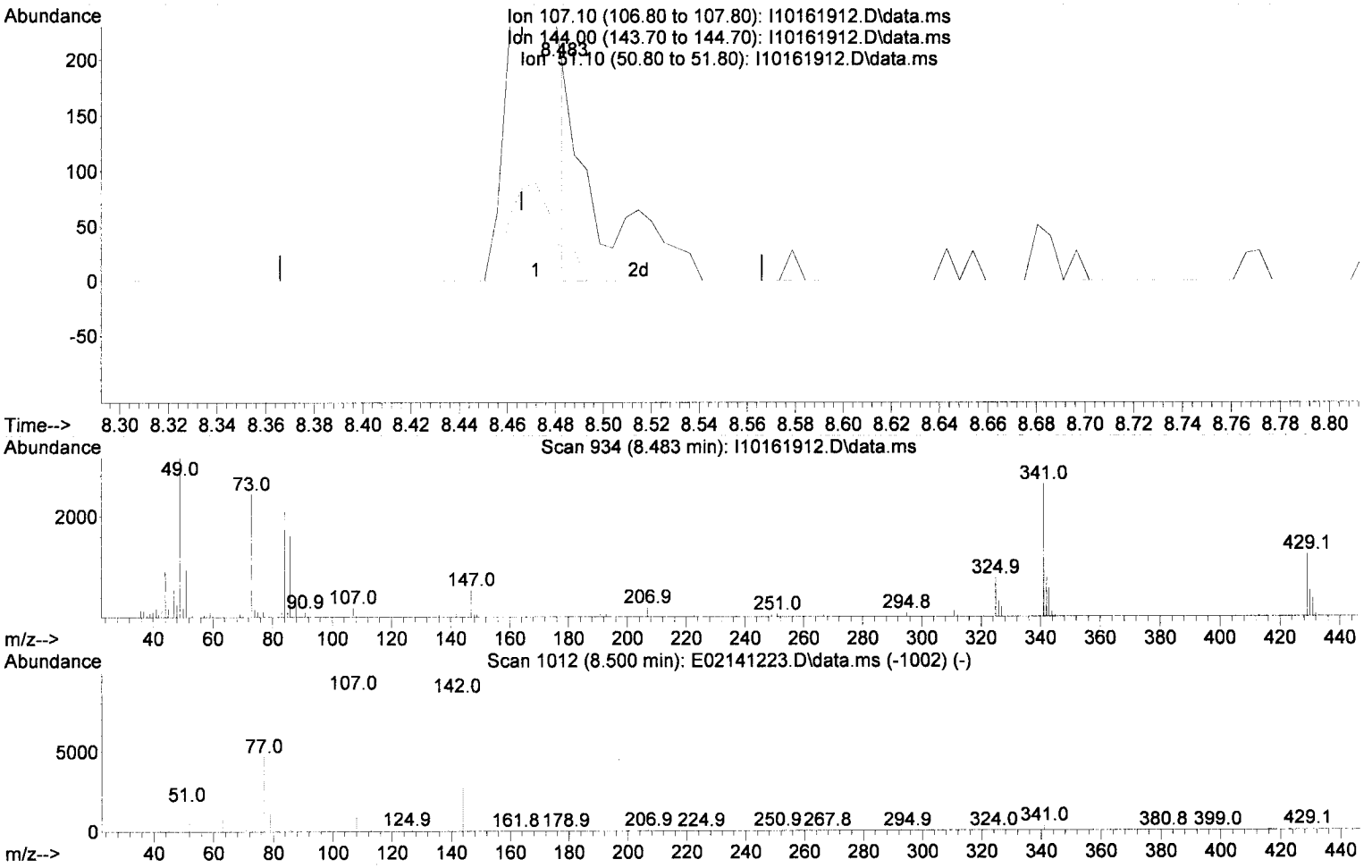


R = 6.09e-004 A*A + 3.17e-001 A - 4.08e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



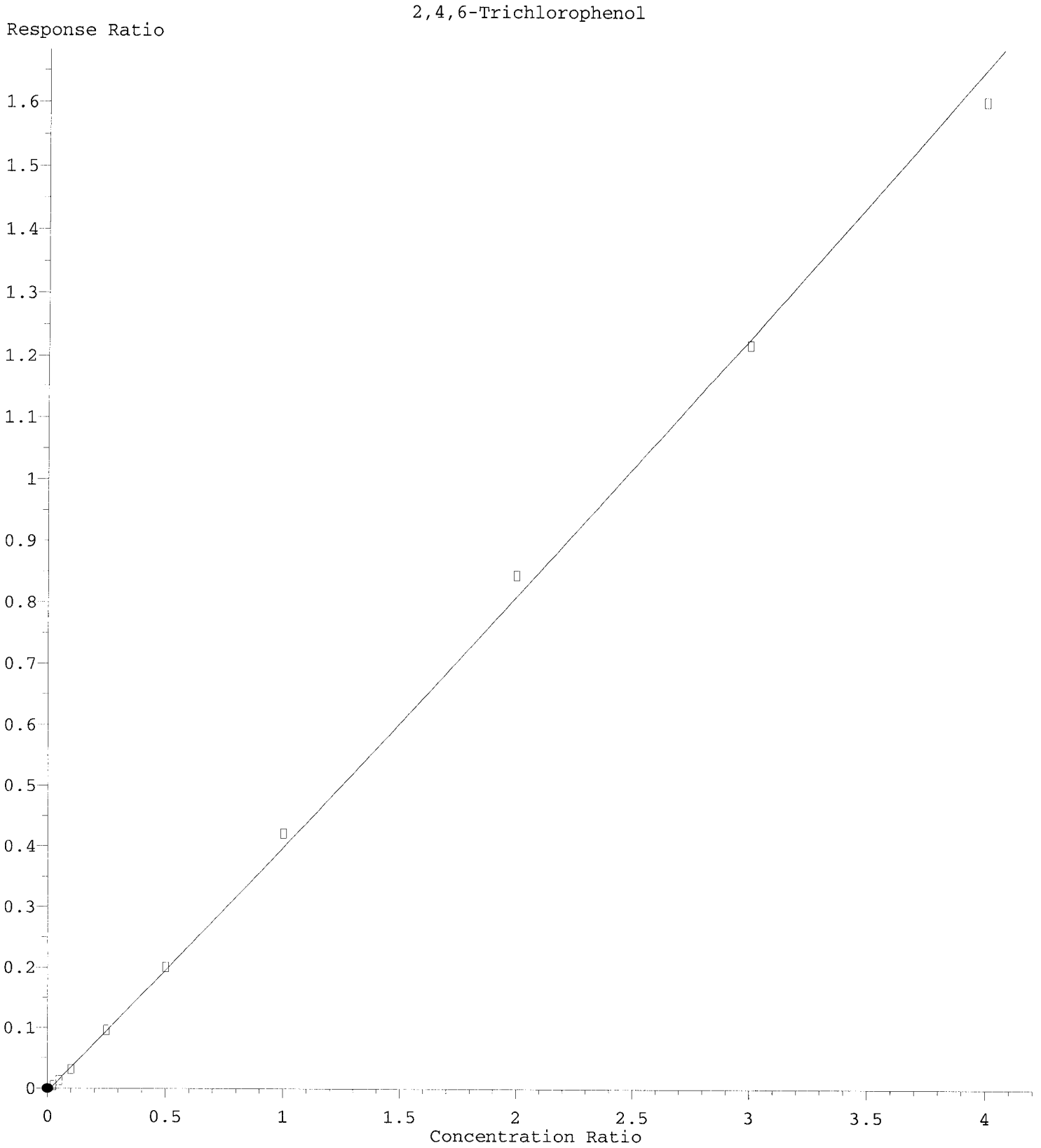
TIC: I10161912.D\data.ms

(32) 4-Chloro-3-methylphenol (T)

8.483min (+ 0.017) 28.26 ng/ml m

response 176

Ion	Exp%	Act%
107.10	100.00	100.00
144.00	26.80	12.50
51.10	22.20	477.00#
0.00	0.00	0.00

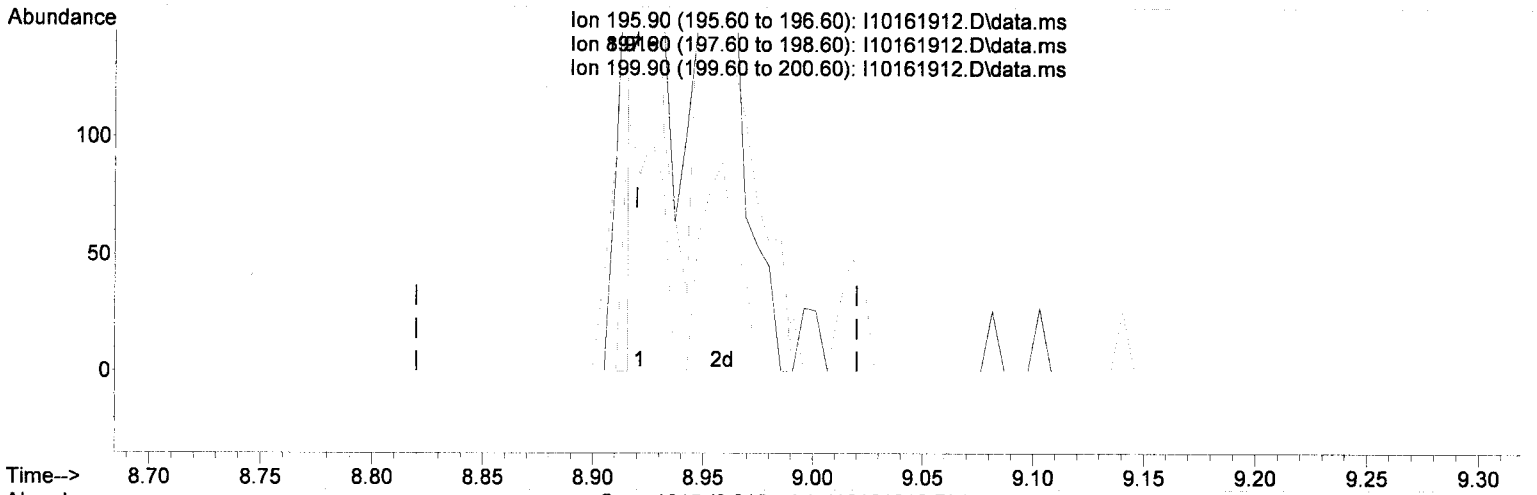


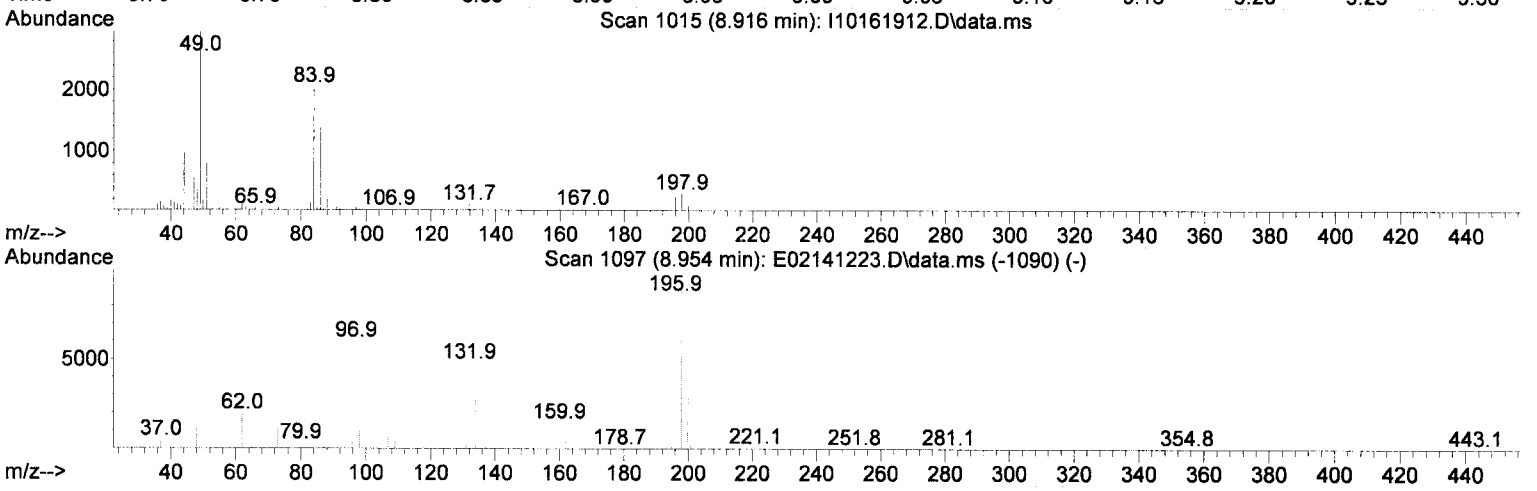
R = 3.81e-003 A*A + 3.99e-001 A - 5.41e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9





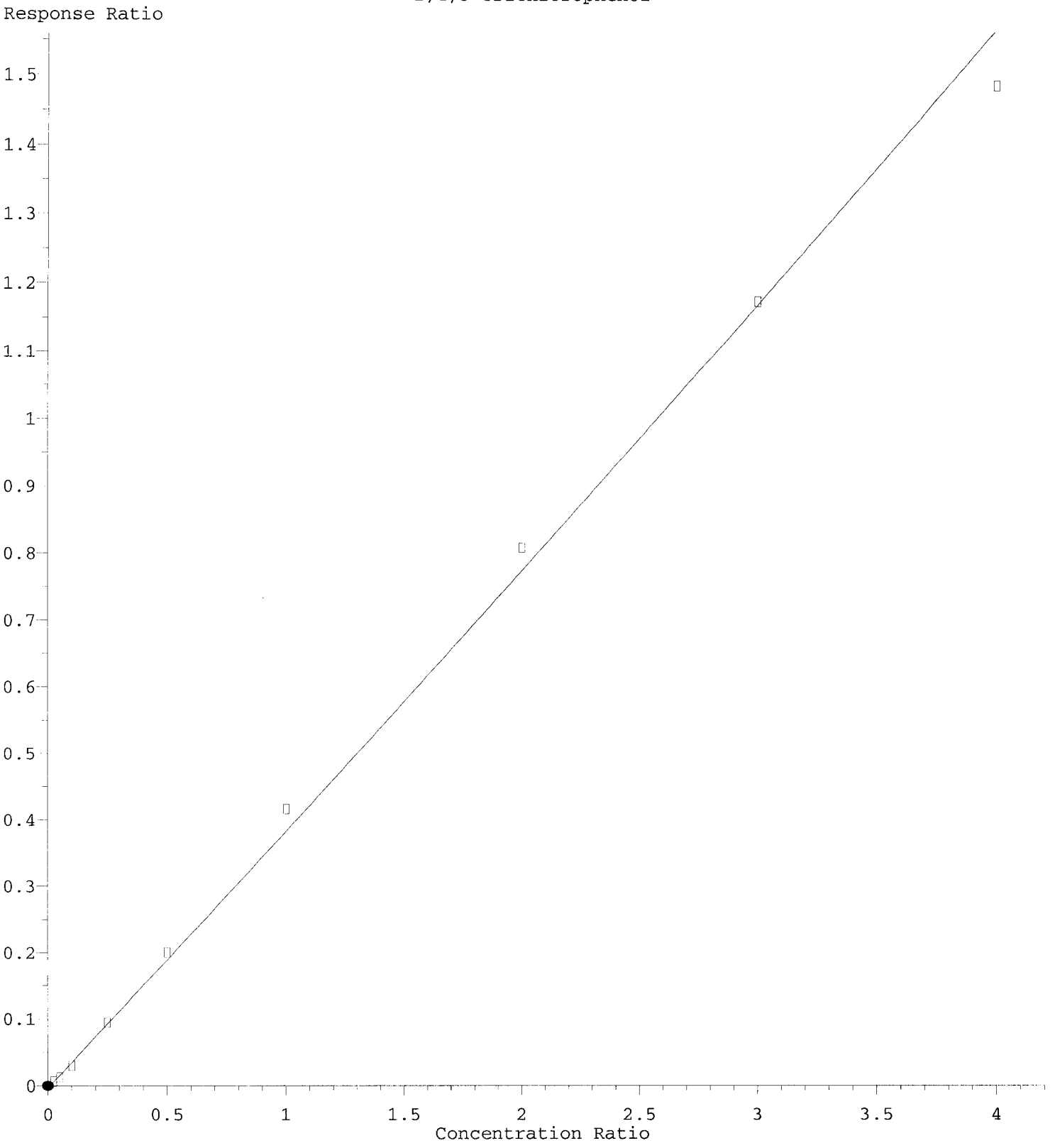
TIC: I10161912.D\data.ms

(37) 2,4,6-Trichlorophenol (T)

8.916min (-0.004) 29.38 ng/ml m

response 105

Ion	Exp%	Act%
195.90	100.00	100.00
197.90	98.10	125.21
199.90	32.40	45.80
0.00	0.00	0.00

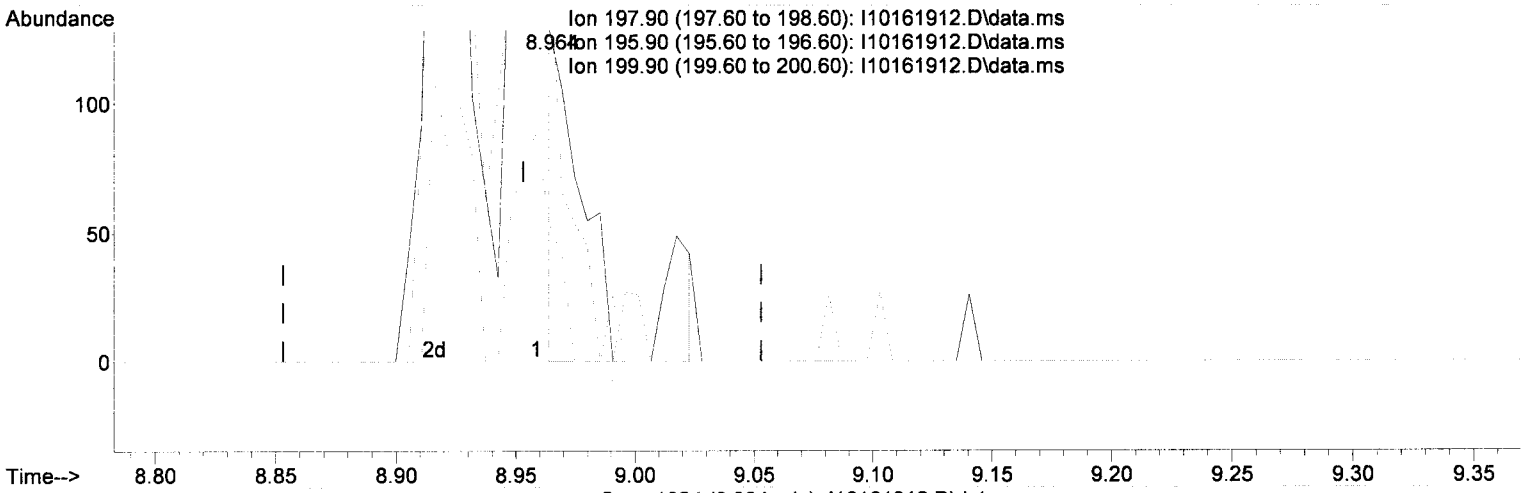


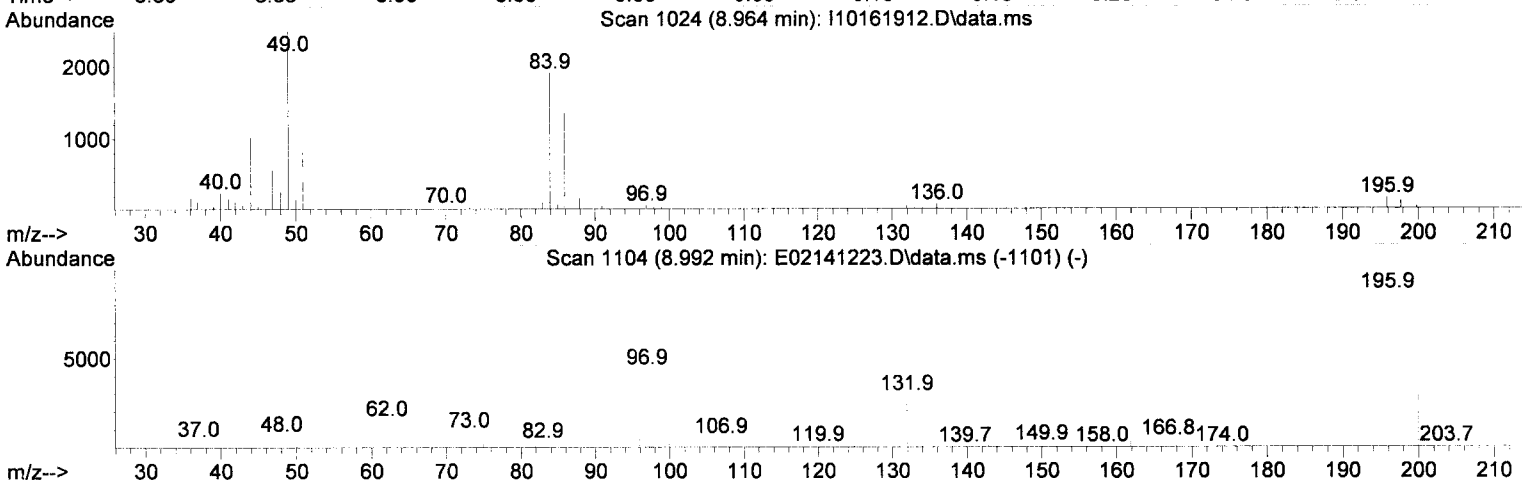
R = 1.98e-003 A*A + 3.84e-001 A - 3.95e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9





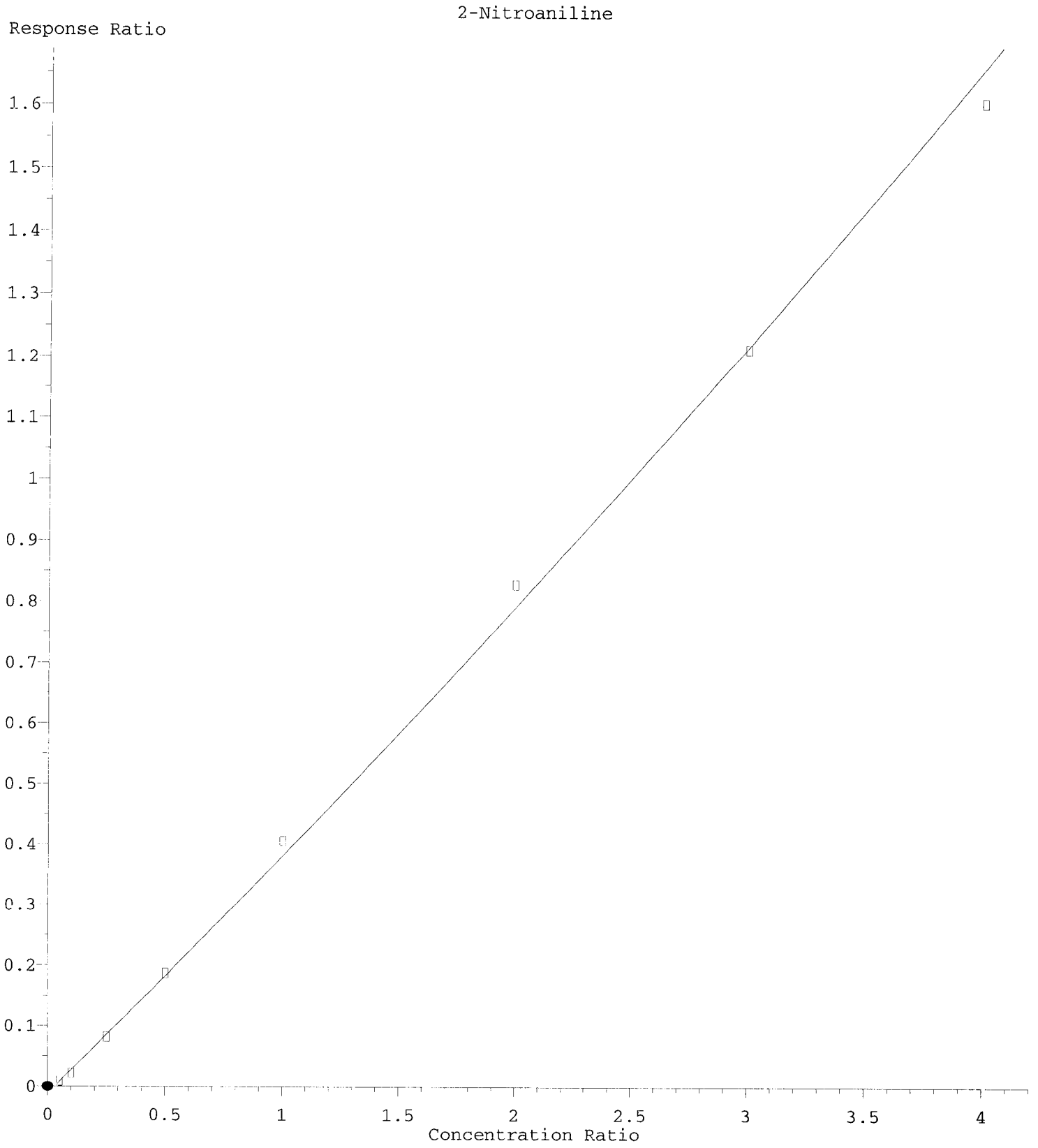
TIC: I10161912.D\data.ms

(38) 2,4,5-Trichlorophenol (T)

8.964min (+ 0.011) 23.56 ng/ml m

response 132

Ion	Exp%	Act%
197.90	100.00	100.00
195.90	103.70	130.00
199.90	30.90	41.54
0.00	0.00	0.00

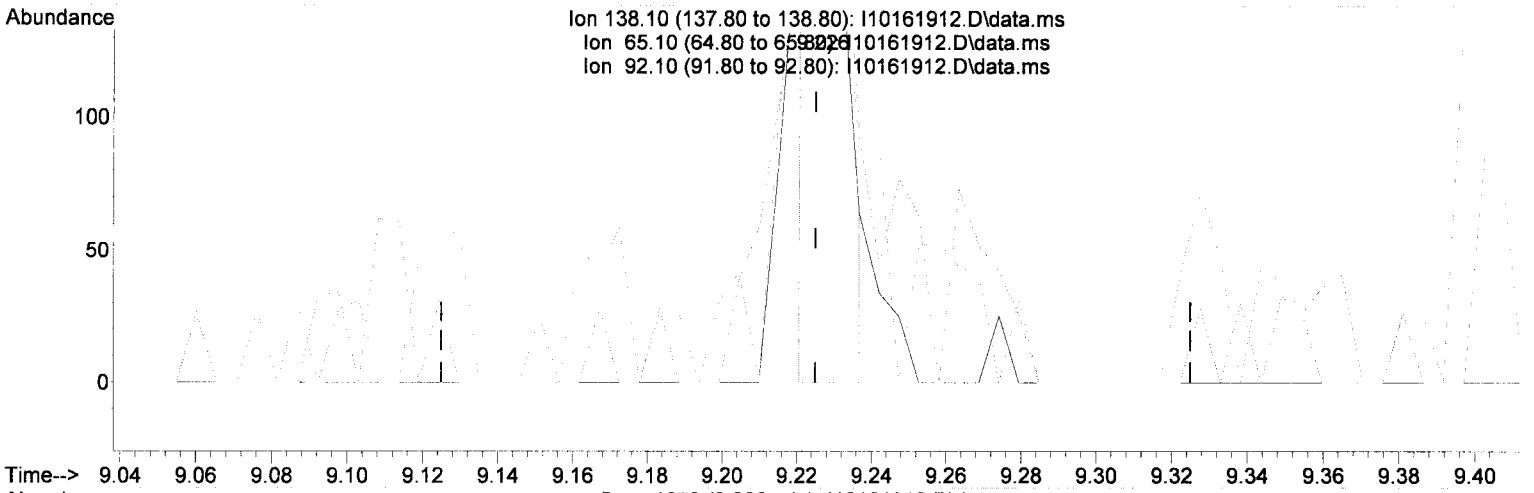


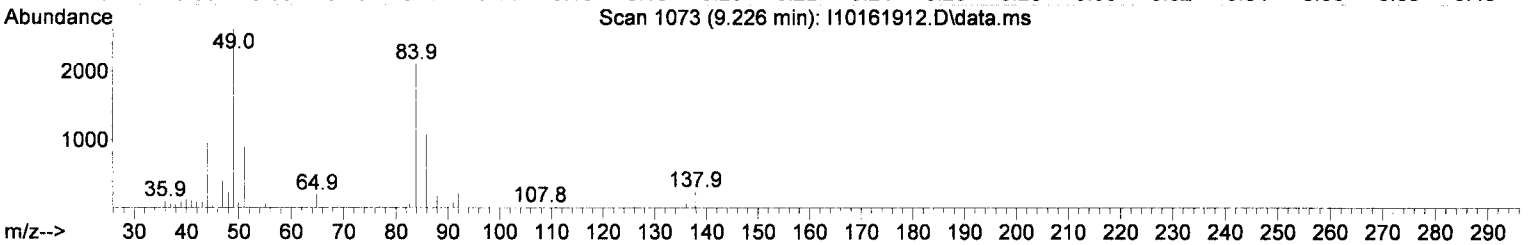
R = 8.44e-003 A*A + 3.84e-001 A - 1.17e-002
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

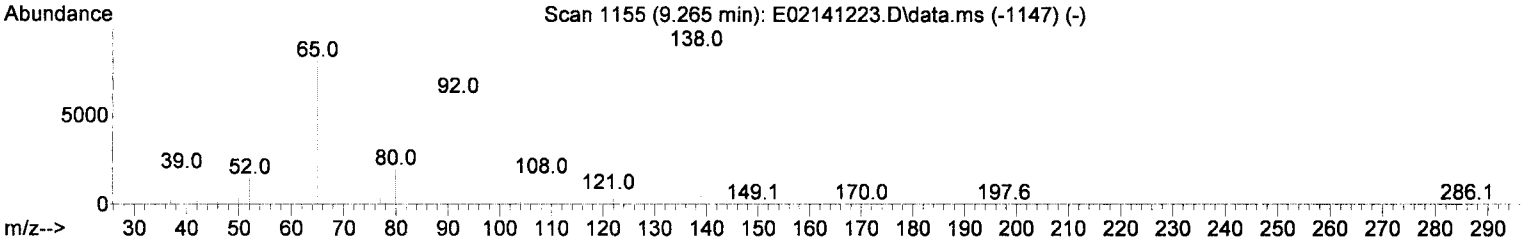
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9







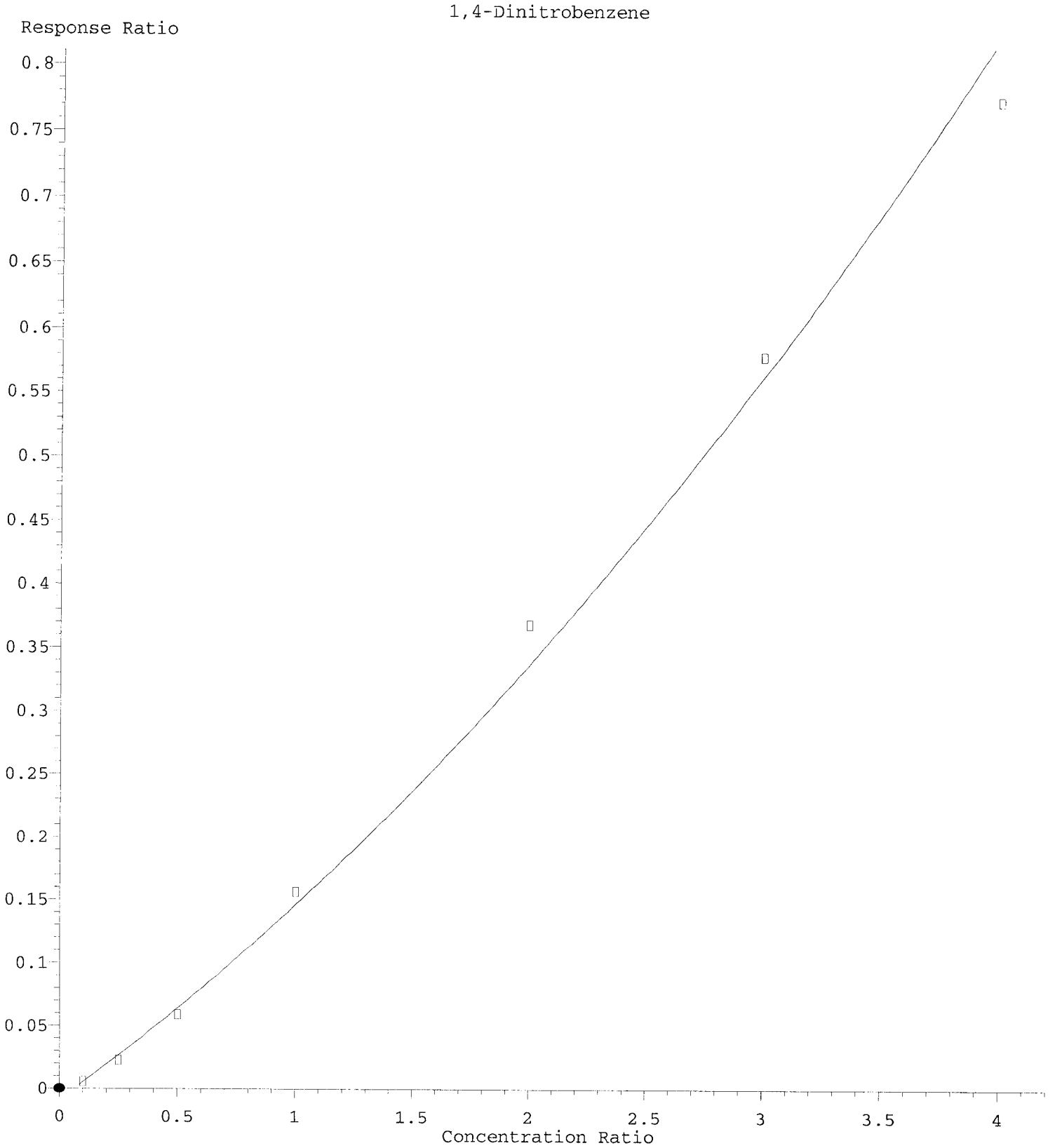
TIC: I10161912.D\data.ms

(42) 2-Nitroaniline (T)

9.226min (+ 0.001) 64.29 ng/ml m

response 157

Ion	Exp%	Act%
138.10	100.00	100.00
65.10	95.80	83.20
92.10	63.00	89.84
0.00	0.00	0.00

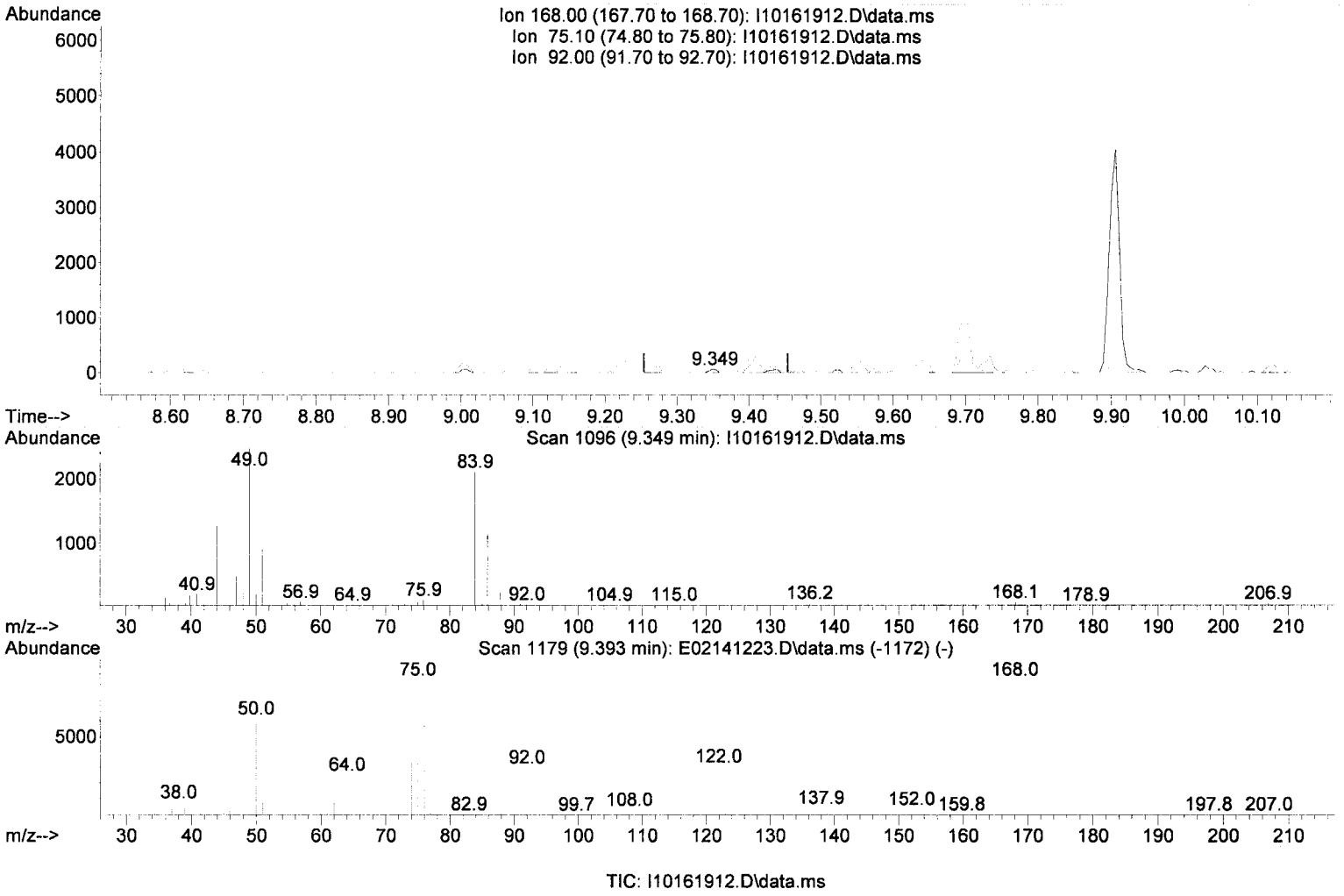


R = 1.76e-002 A*A + 1.38e-001 A - 8.99e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



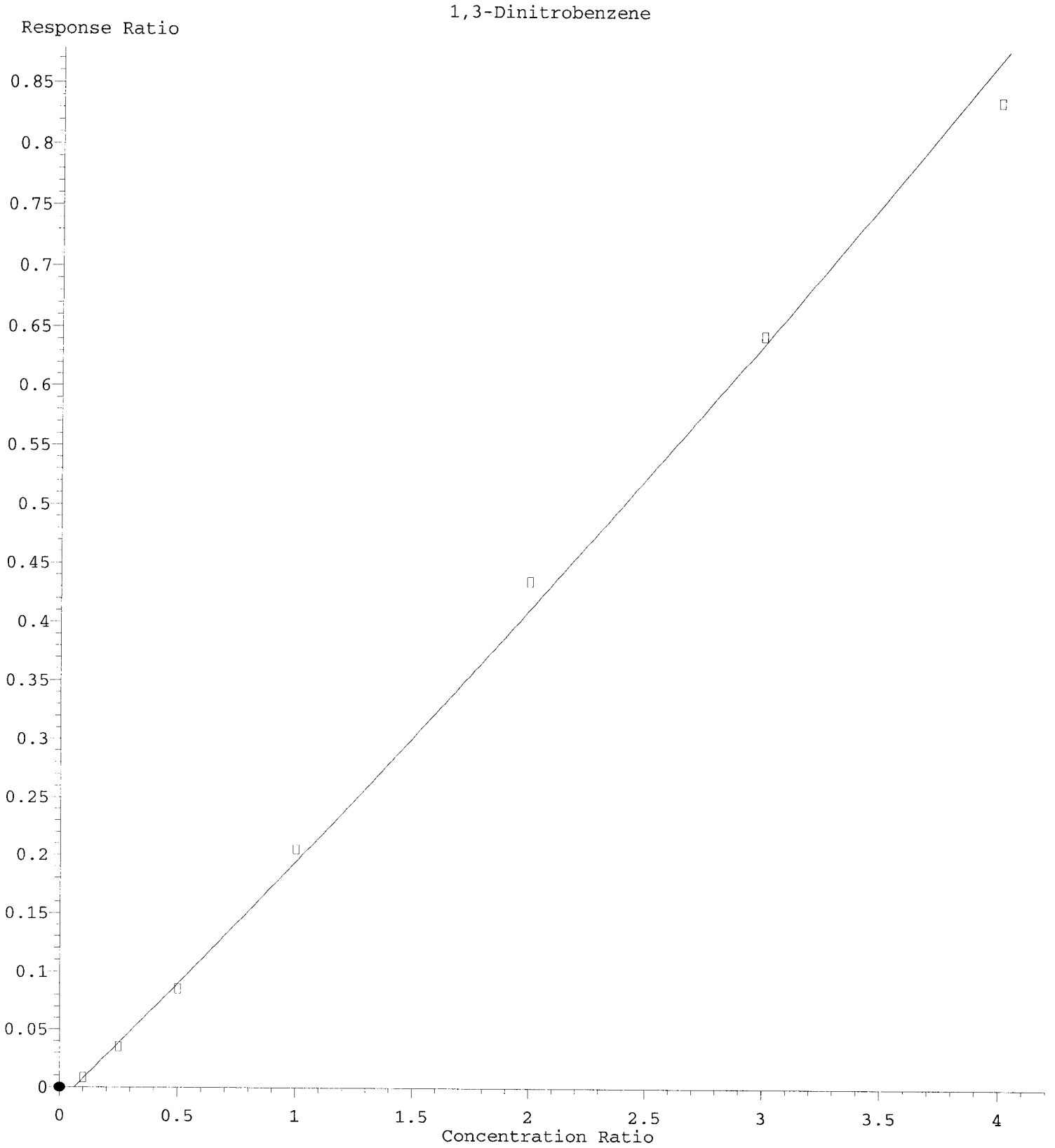
TIC: I10161912.D\data.ms

(44) 1,4-Dinitrobenzene (T)

9.349min (-0.005) 137.95 ng/ml m

response 132

Ion	Exp%	Act%
168.00	100.00	100.00
75.10	130.80	107.58
92.00	42.80	57.58
0.00	0.00	0.00

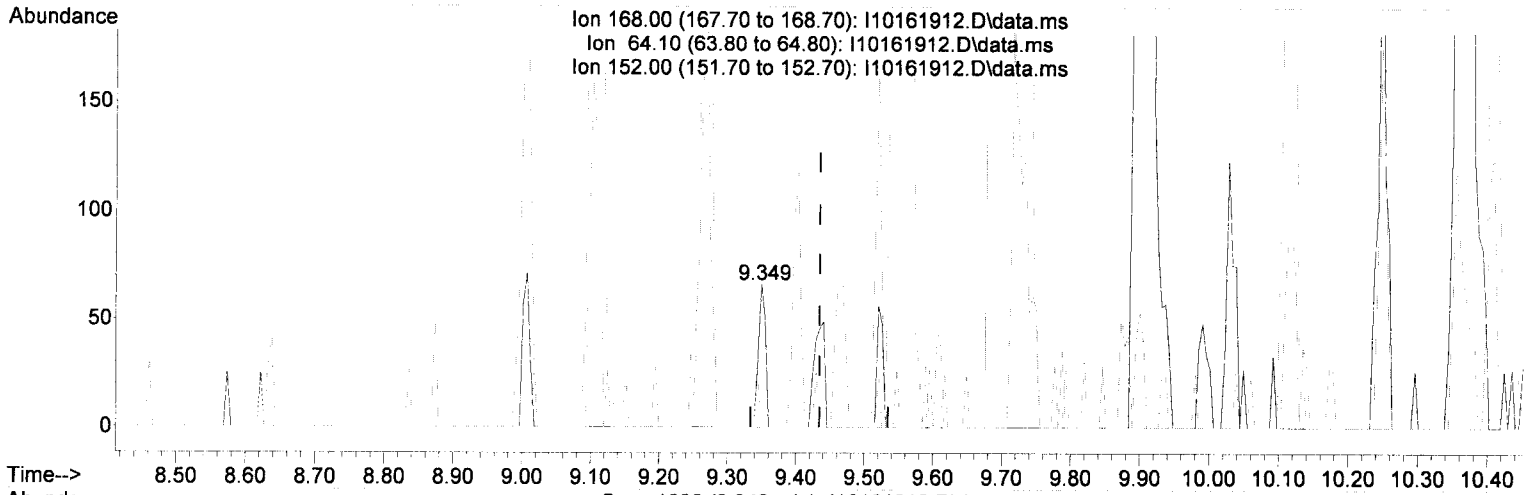


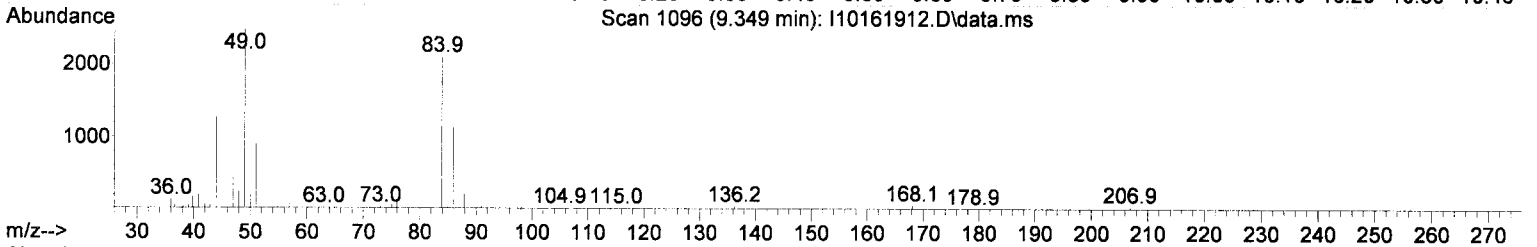
R = 4.65e-003 A*A + 2.02e-001 A - 1.26e-002
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

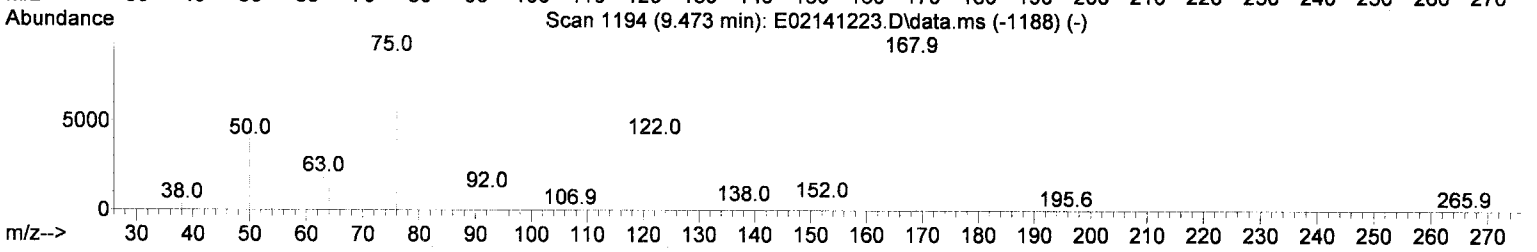
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9







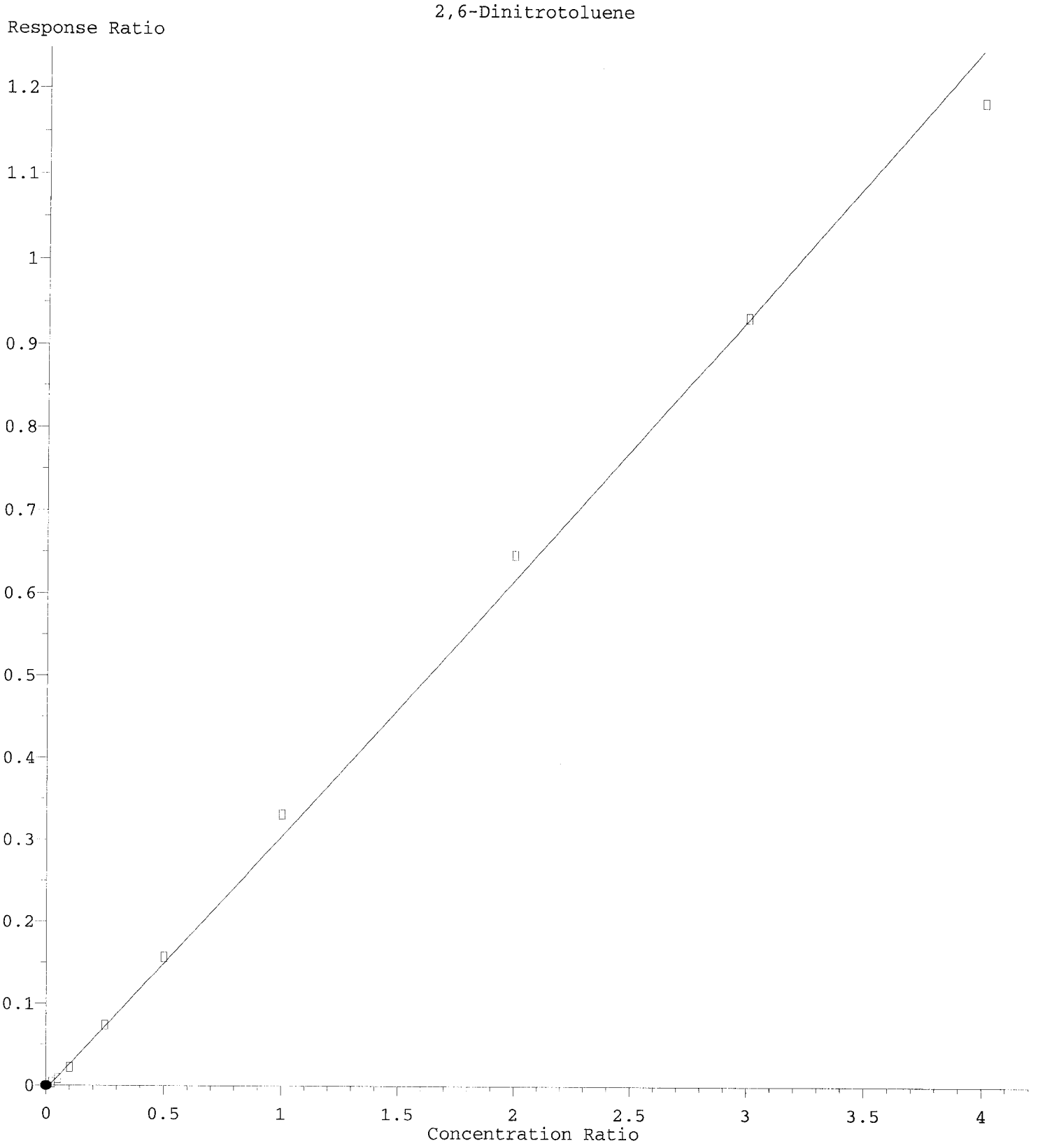
TIC: I10161912.D\data.ms

(46) 1,3-Dinitrobenzene (T)

9.349min (-0.085) 129.76 ng/ml m

response 132

Ion	Exp%	Act%
168.00	100.00	100.00
64.10	30.80	0.00#
152.00	7.90	0.00
0.00	0.00	0.00

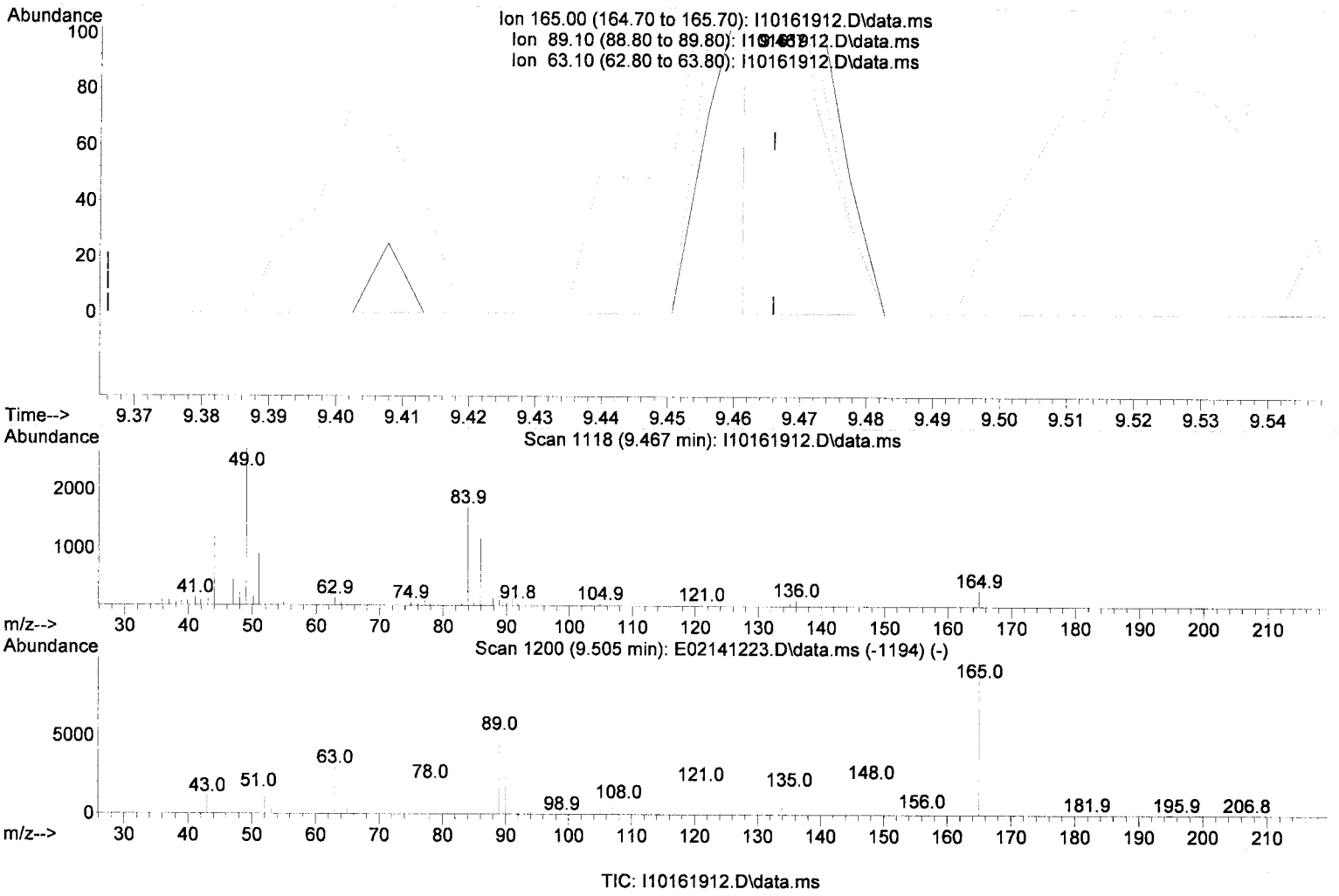


R = 1.53e-003 A*A + 3.08e-001 A - 4.92e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



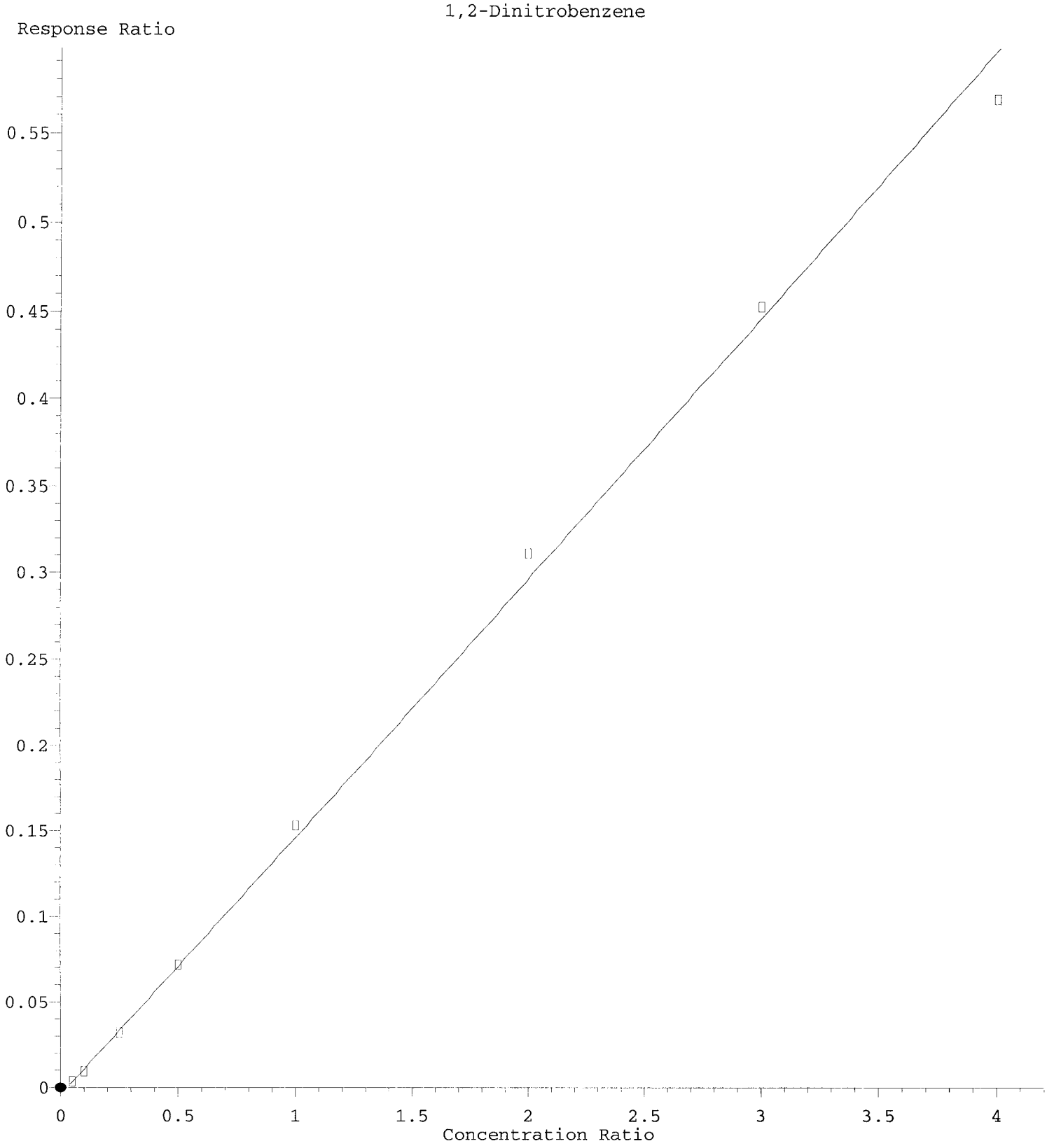
TIC: I10161912.D\data.ms

(47) 2,6-Dinitrotoluene (T)

9.467min (+ 0.001) 36.20 ng/ml m

response 149

Ion	Exp%	Act%
165.00	100.00	100.00
89.10	57.40	73.56
63.10	60.10	51.53
0.00	0.00	0.00

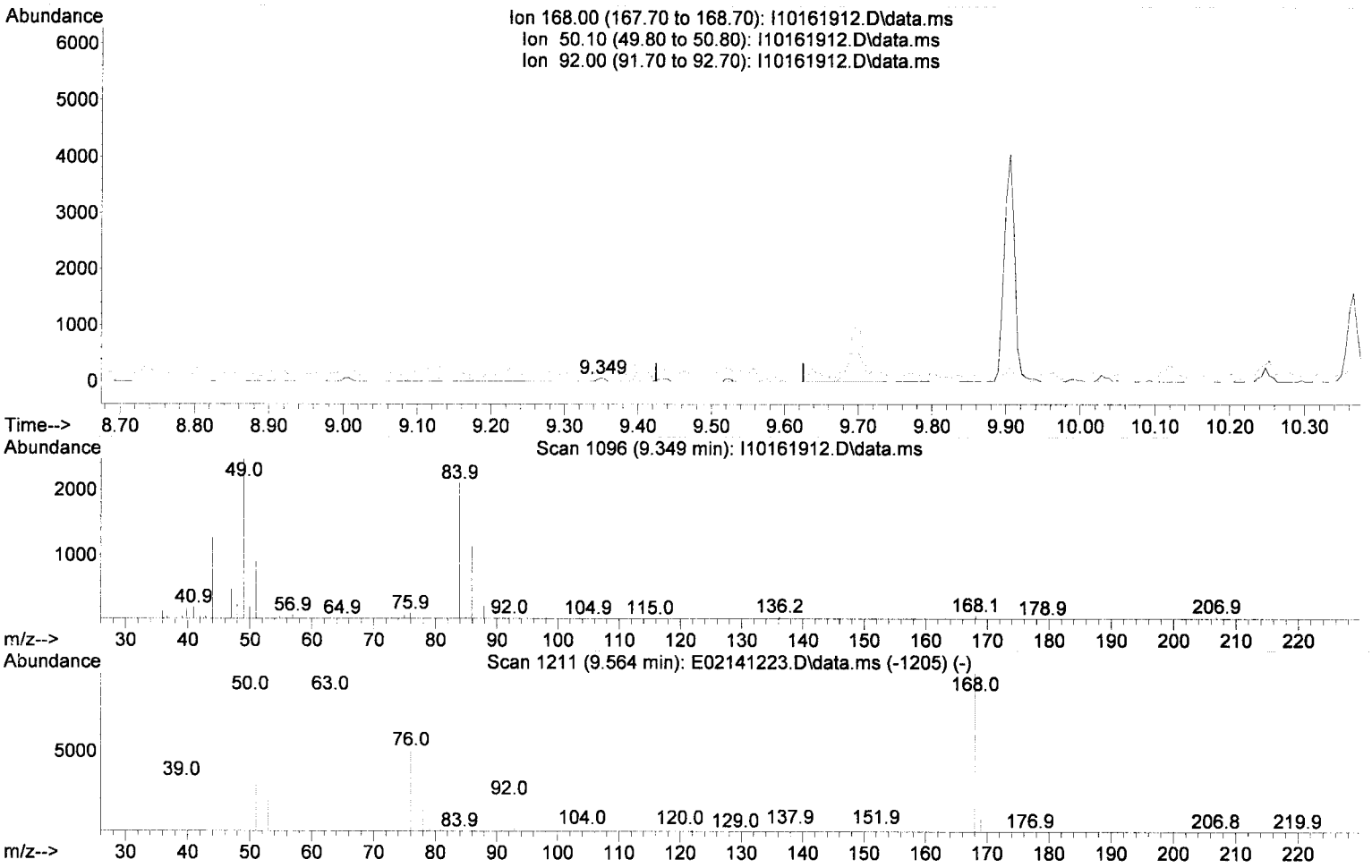


R = -3.71e-005 A*A + 1.50e-001 A - 4.34e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



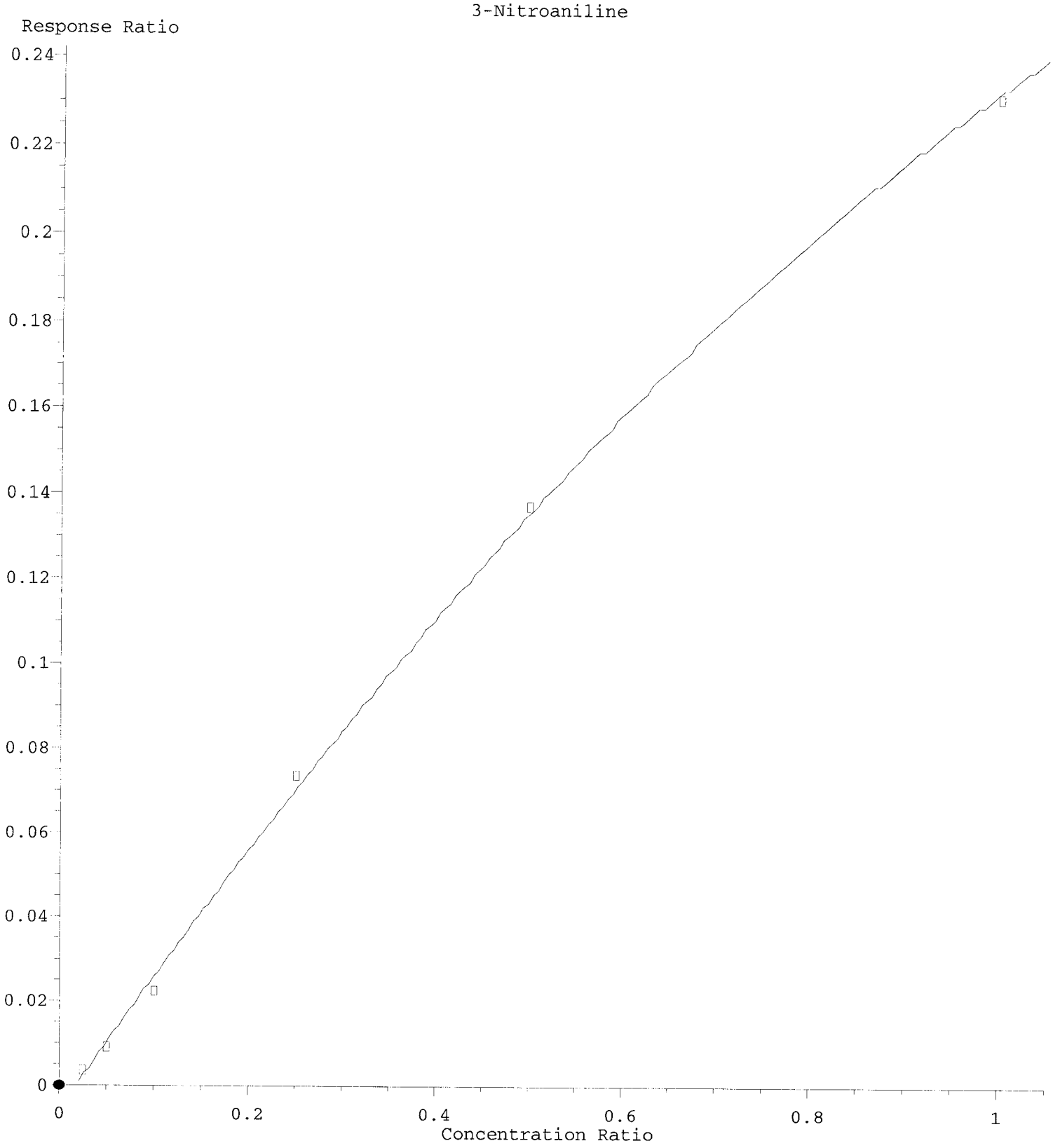
TIC: I10161912.D\data.ms

(48) 1,2-Dinitrobenzene (T)

9.349min (-0.176) 65.38 ng/ml m

response 132

Ion	Exp%	Act%
168.00	100.00	100.00
50.10	125.70	304.55#
92.00	20.70	57.58#
0.00	0.00	0.00

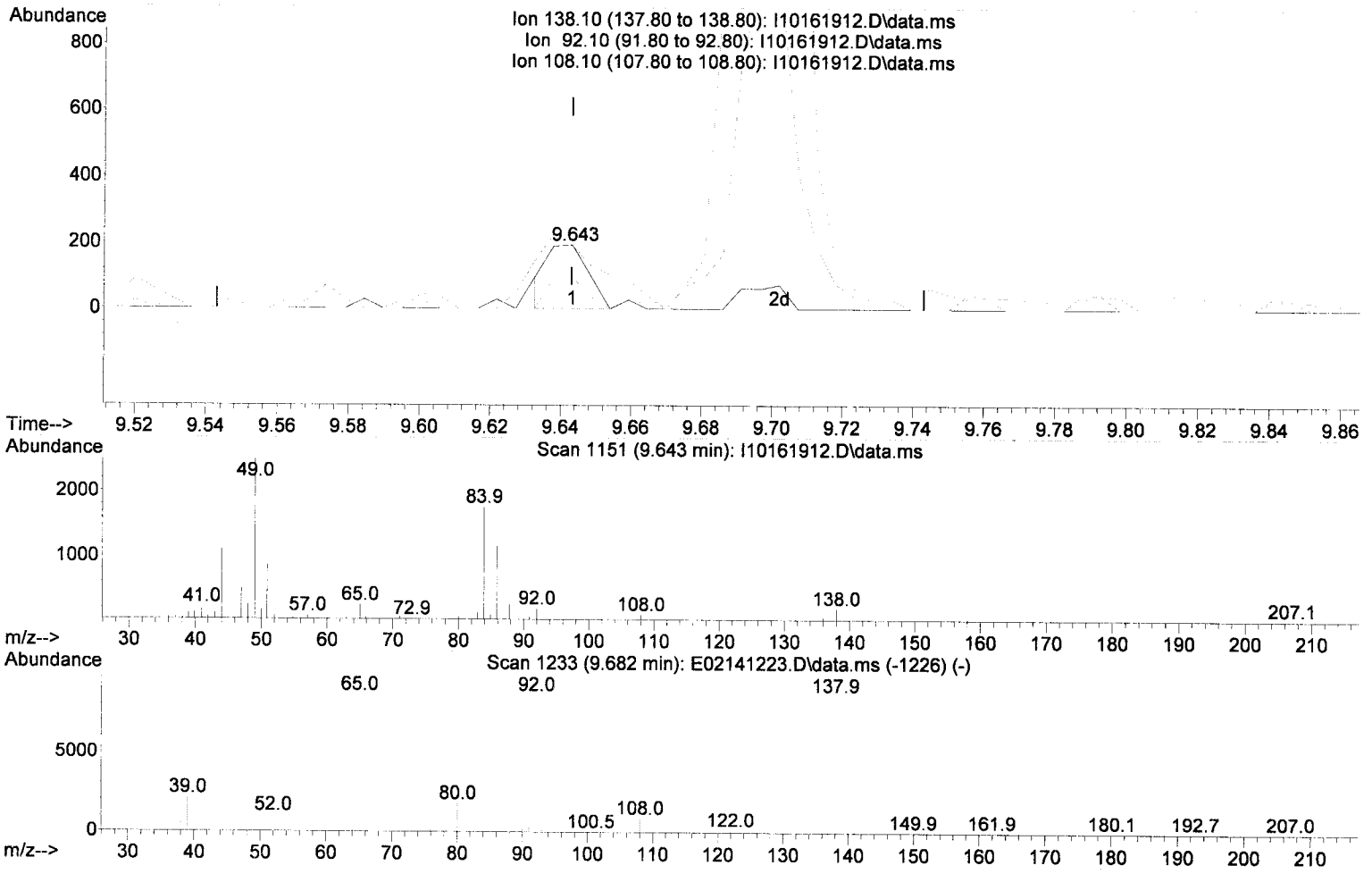


R = -8.76e-002 A*A + 3.26e-001 A - 5.72e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w/(1/a)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



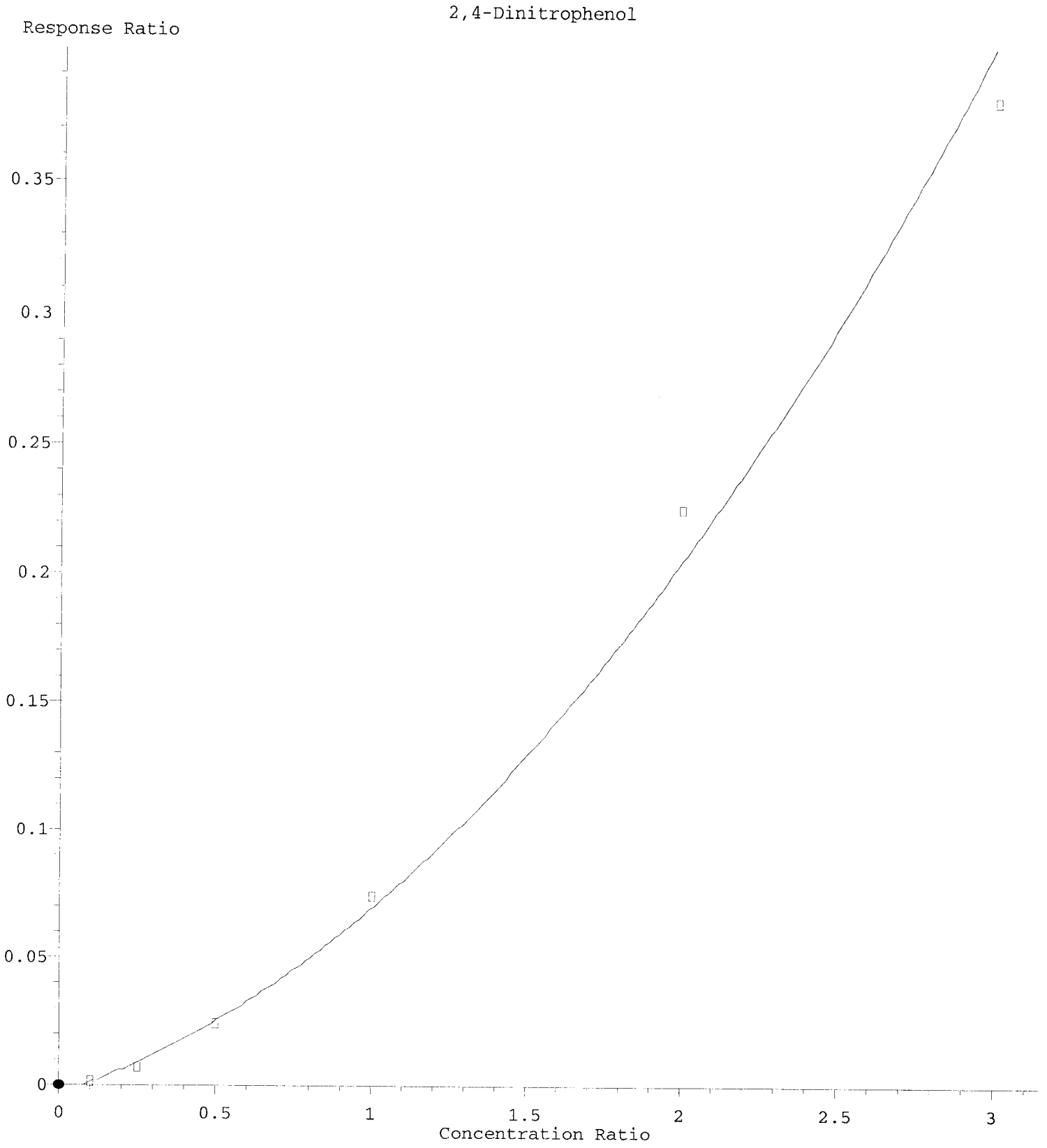
TIC: I10161912.D\data.ms

(50) 3-Nitroaniline (T)

9.643min (+ 0.000) 39.50 ng/ml m

response 155

Ion	Exp%	Act%
138.10	100.00	100.00
92.10	112.80	98.97
108.10	12.60	50.00#
0.00	0.00	0.00

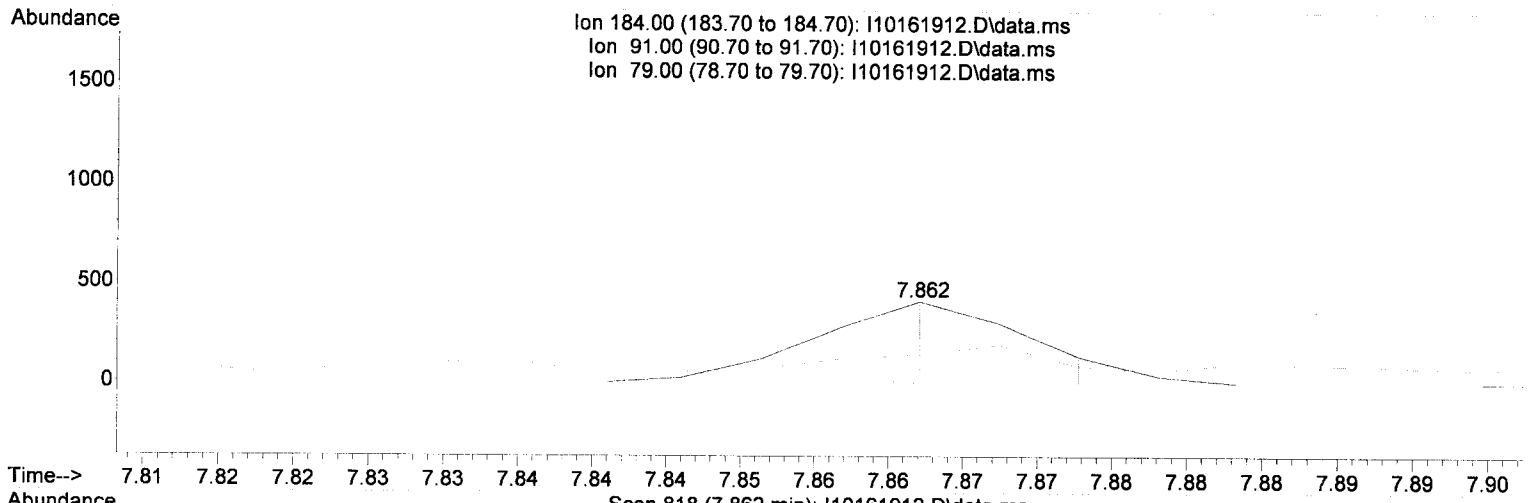


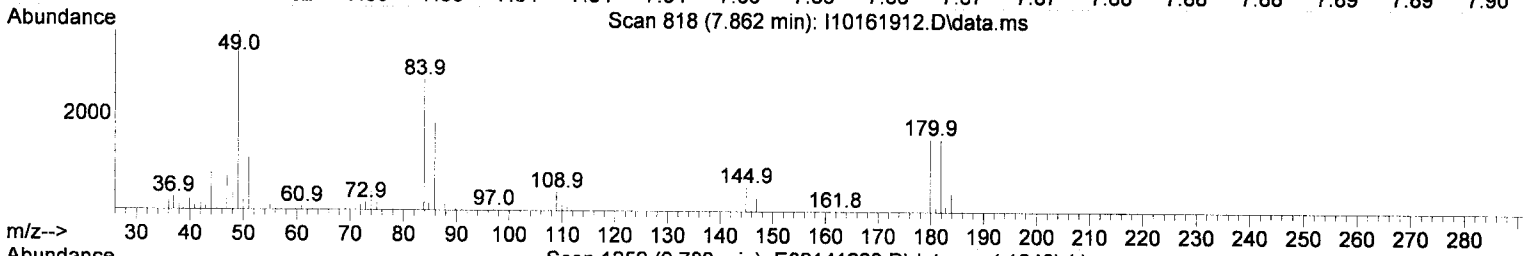
R = 3.12e-002 A*A + 4.17e-002 A - 3.42e-003
Coef of Det (r^2) = 0.993 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

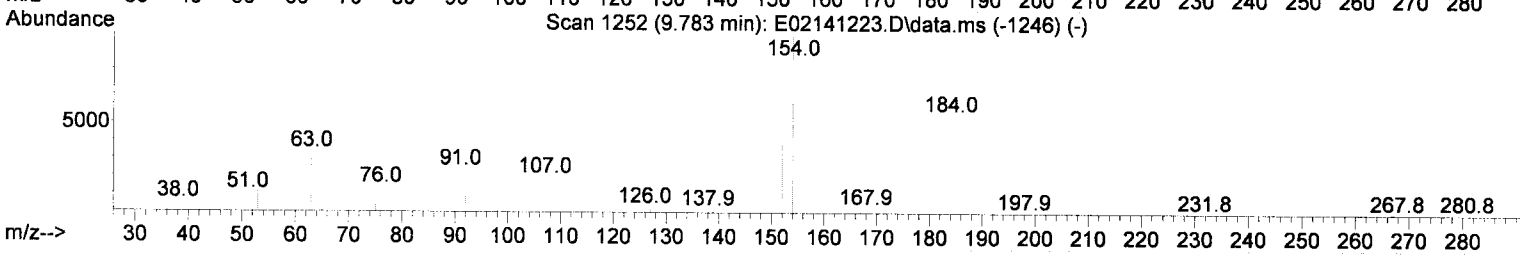
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9







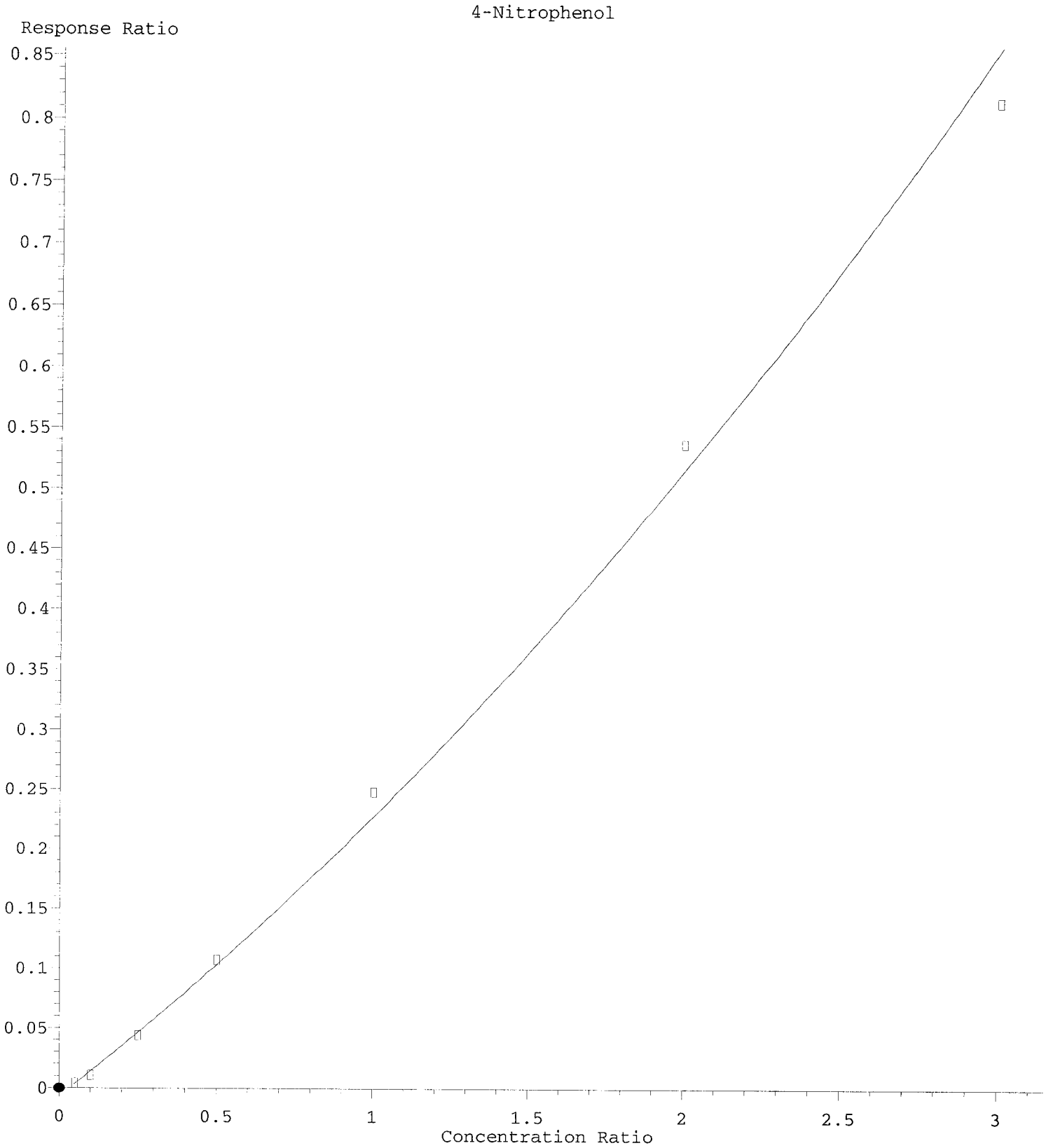
TIC: I10161912.D\data.ms

(52) 2,4-Dinitrophenol (T)

7.862min (-1.882) 181.07 ng/ml m

response 139

Ion	Exp%	Act%
184.00	100.00	100.00
91.00	48.80	35.12
79.00	36.60	0.00#
0.00	0.00	0.00

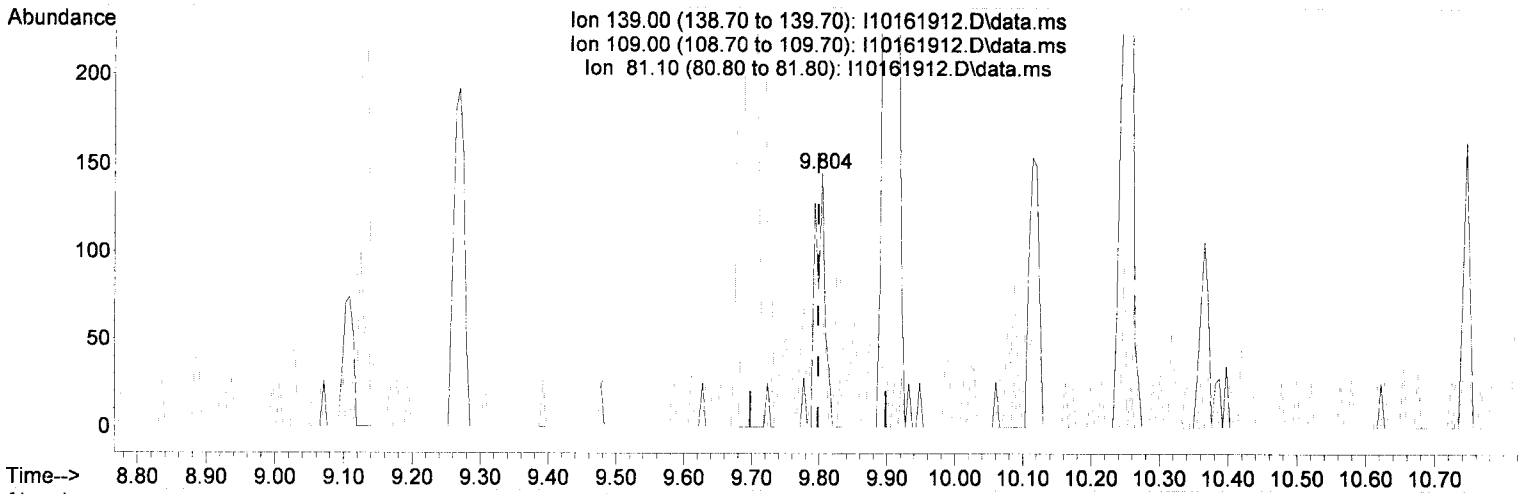


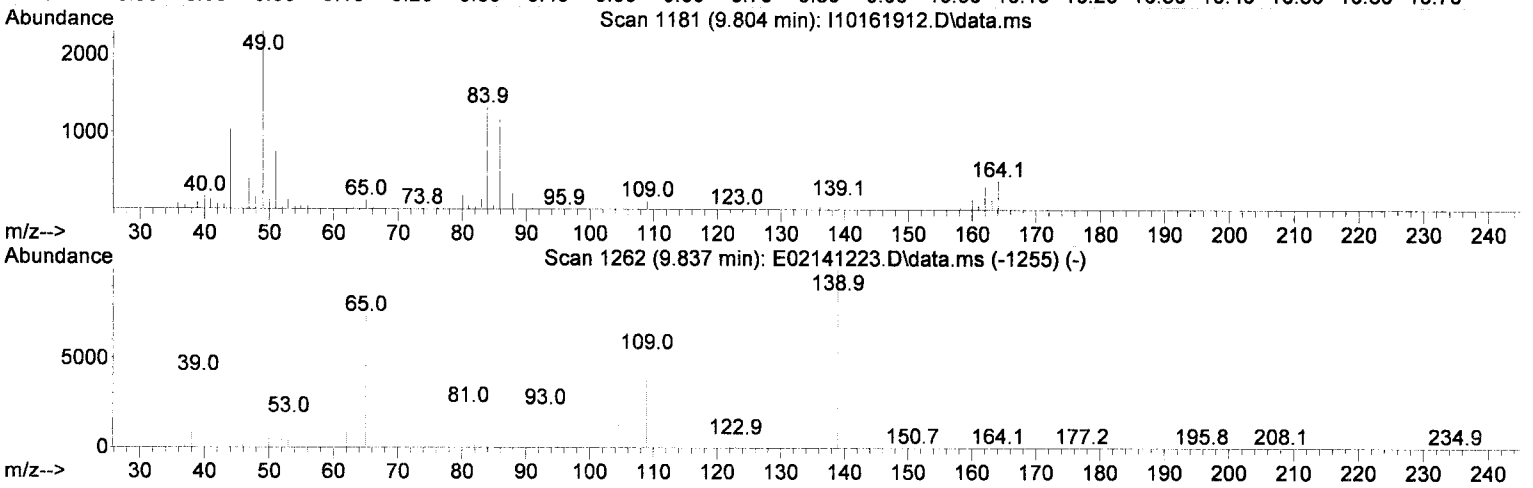
R = 2.68e-002 A*A + 2.07e-001 A - 7.34e-003
Coef of Det (r^2) = 0.992 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9





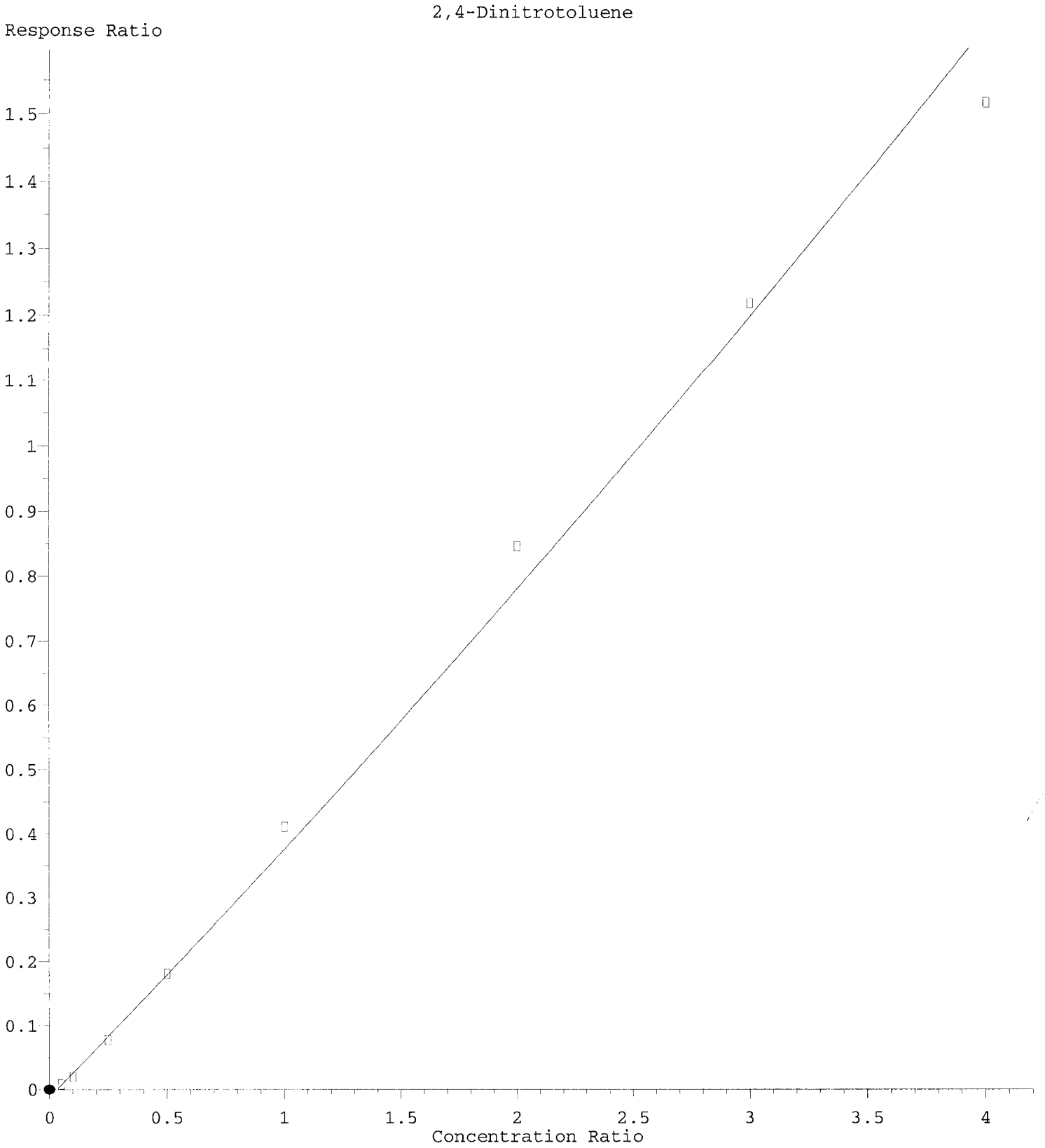
TIC: I10161912.D\data.ms

(53) 4-Nitrophenol (T)

9.804min (+ 0.006) 76.65 ng/ml

response 149

Ion	Exp%	Act%
139.00	100.00	100.00
109.00	61.50	86.90
81.10	31.00	44.14
0.00	0.00	0.00

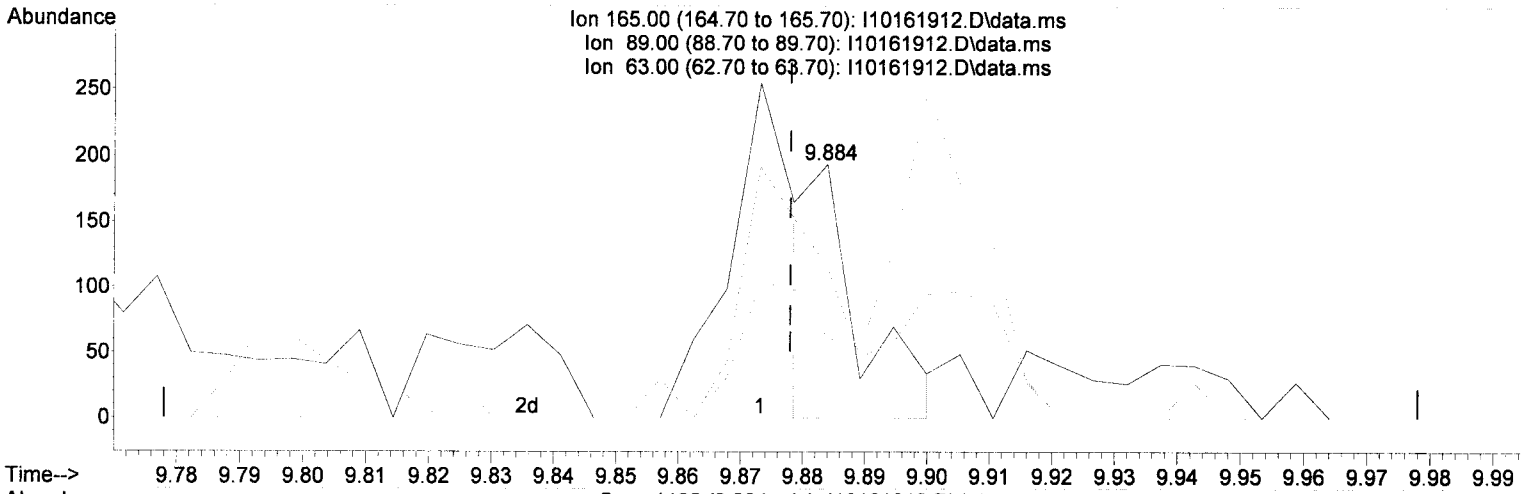


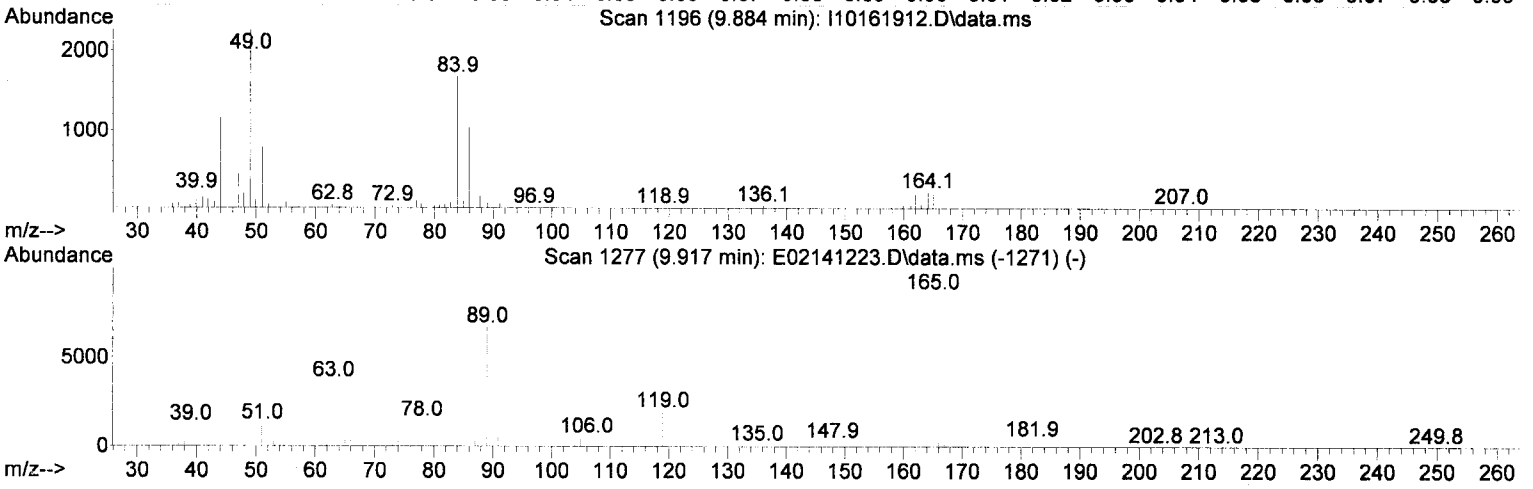
R = 7.80e-003 A*A + 3.80e-001 A - 1.27e-002
Coef of Det (r^2) = 0.990 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9





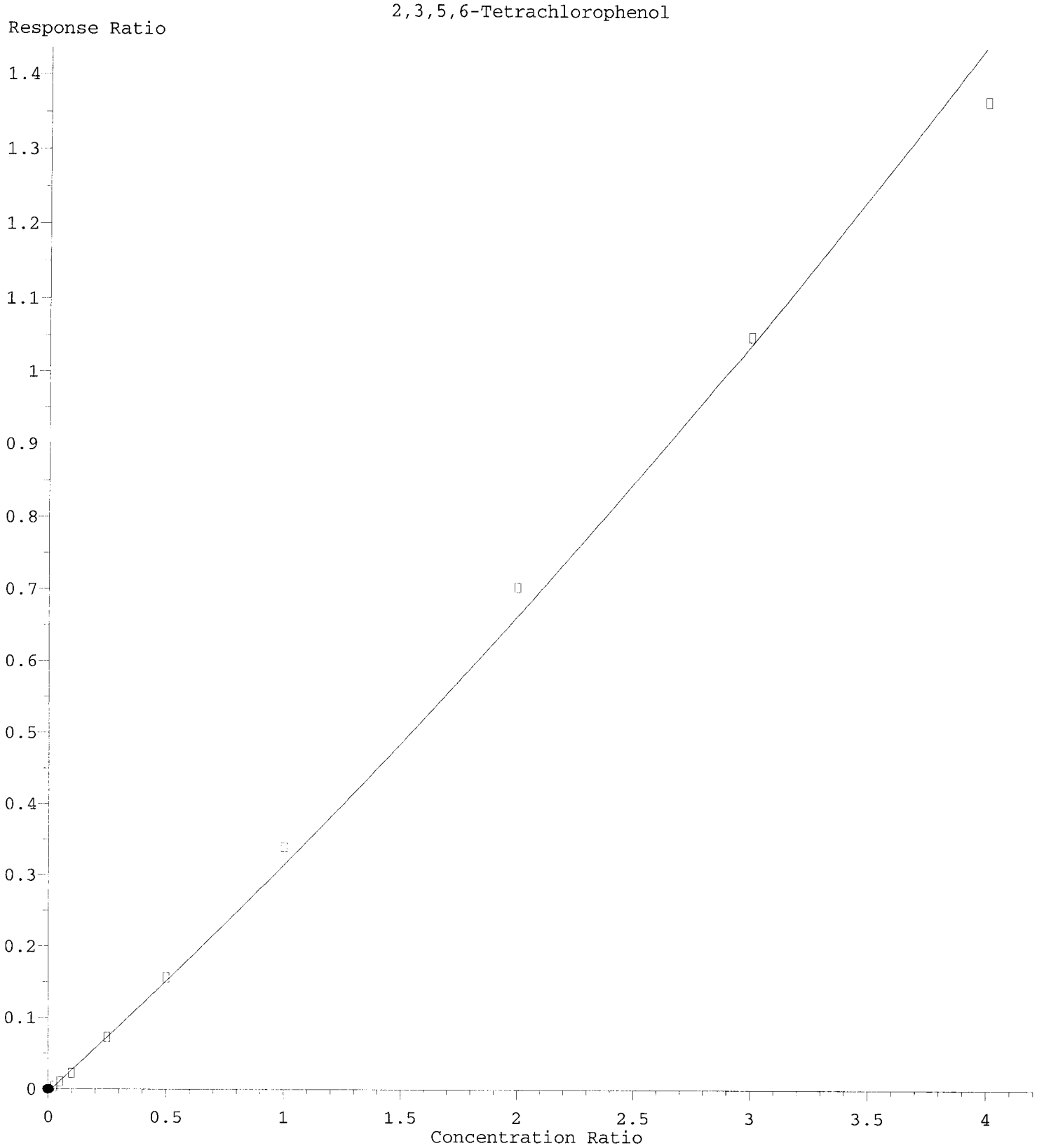
TIC: I10161912.D\data.ms

(54) 2,4-Dinitrotoluene (T)

9.884min (+ 0.006) 69.32 ng/ml m

response 105

Ion	Exp%	Act%
165.00	100.00	100.00
89.00	72.30	59.79
63.00	45.90	31.96
0.00	0.00	0.00

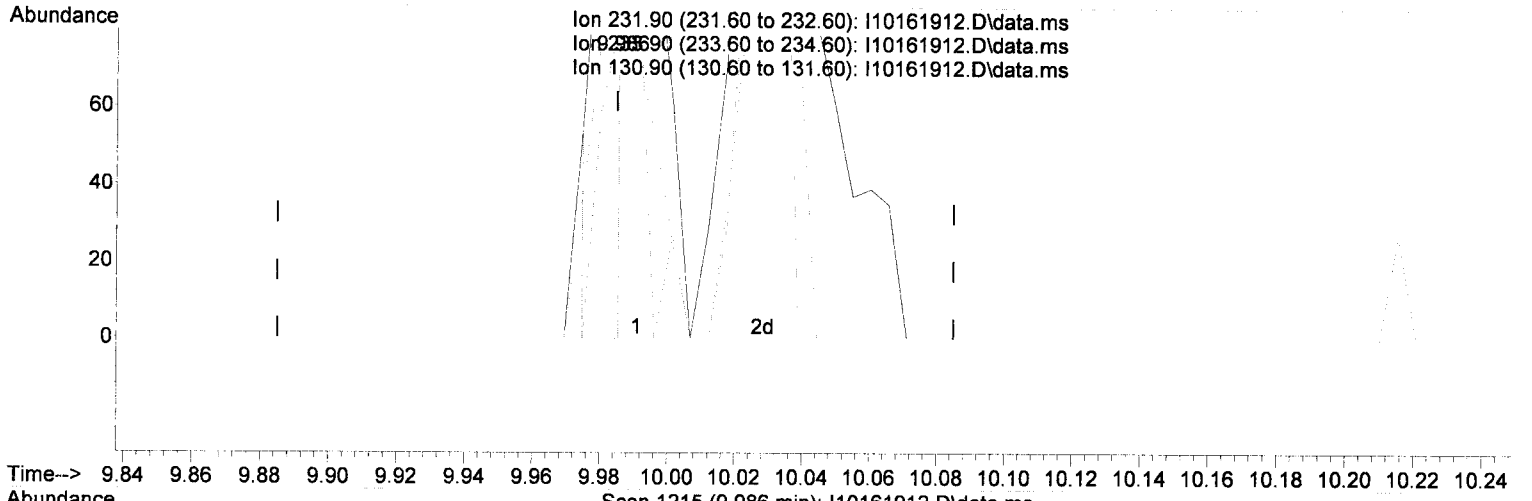


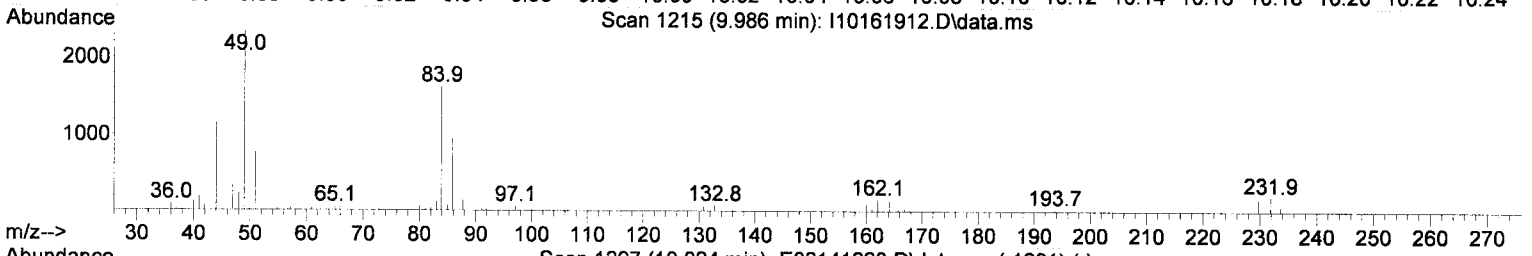
R = 1.42e-002 A*A + 3.05e-001 A - 4.63e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

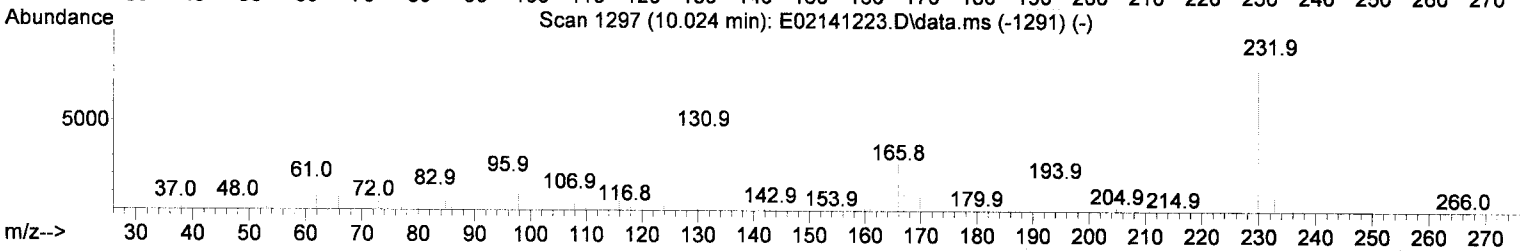
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9







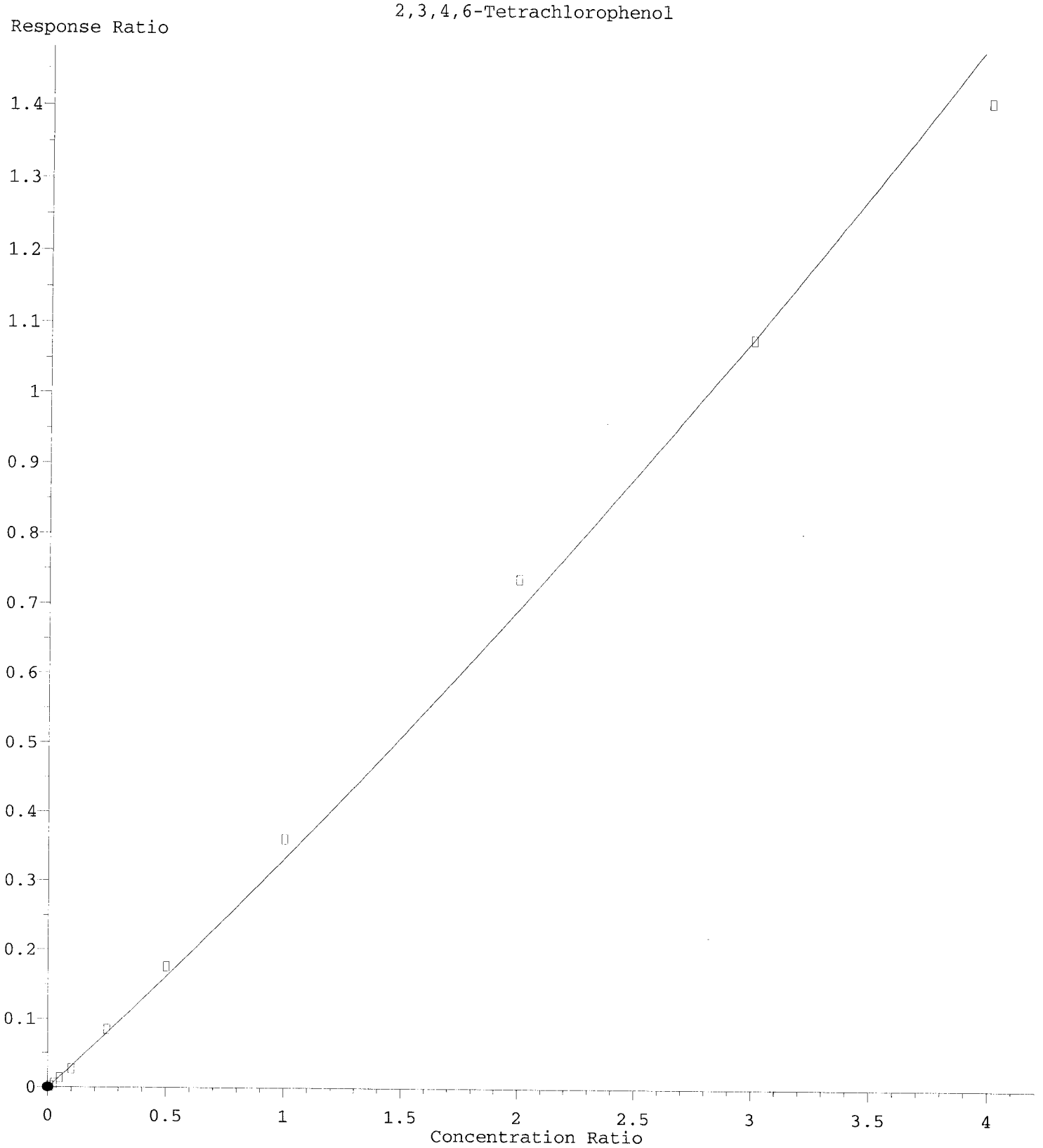
TIC: I10161912.D\data.ms

(56) 2,3,5,6-Tetrachlorophenol (T)

9.986min (+ 0.001) 33.47 ng/ml m

response 110

Ion	Exp%	Act%
231.90	100.00	100.00
233.90	49.20	39.53
130.90	41.10	41.86
0.00	0.00	0.00

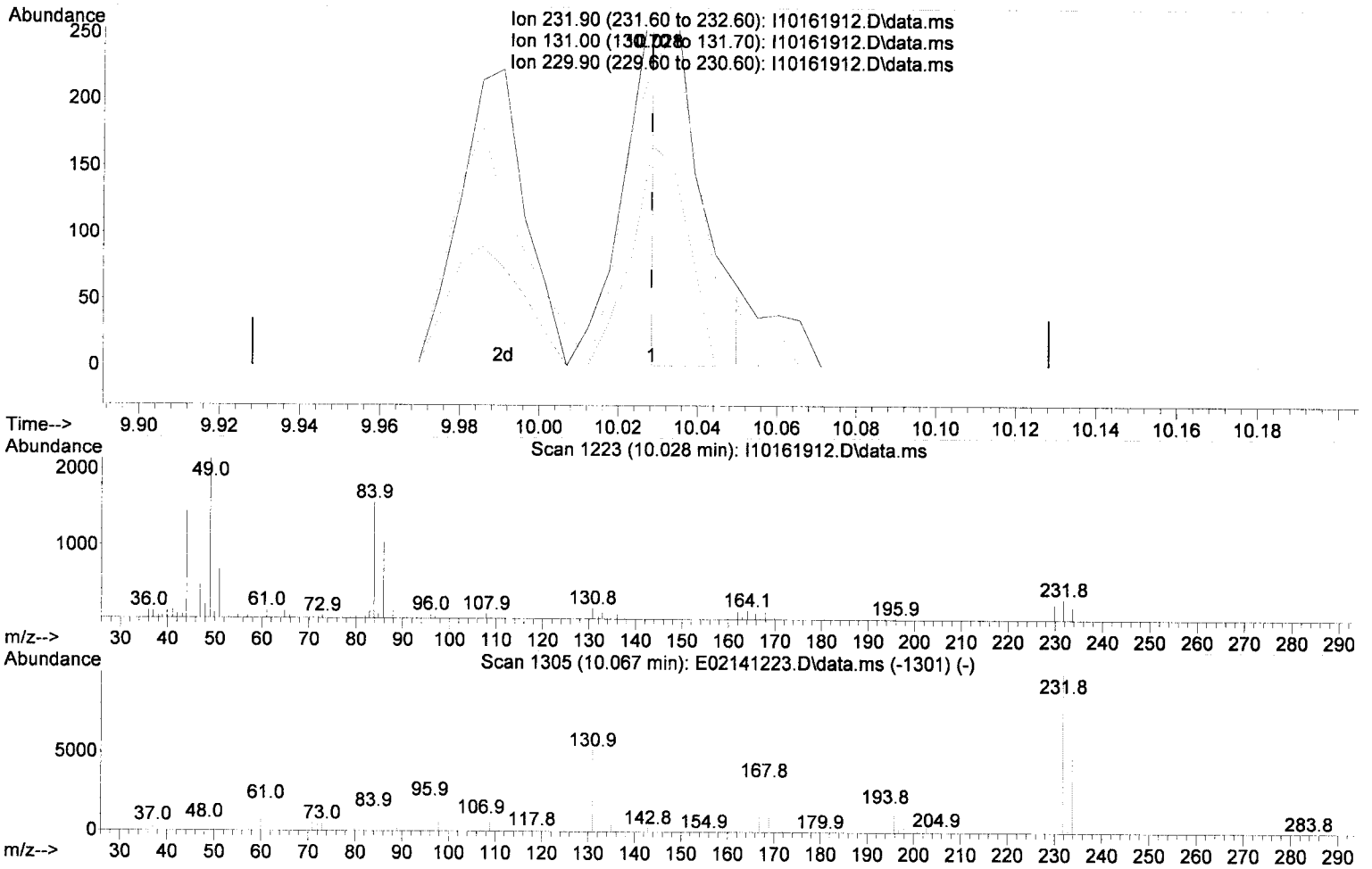


R = 1.33e-002 A*A + 3.20e-001 A - 1.69e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



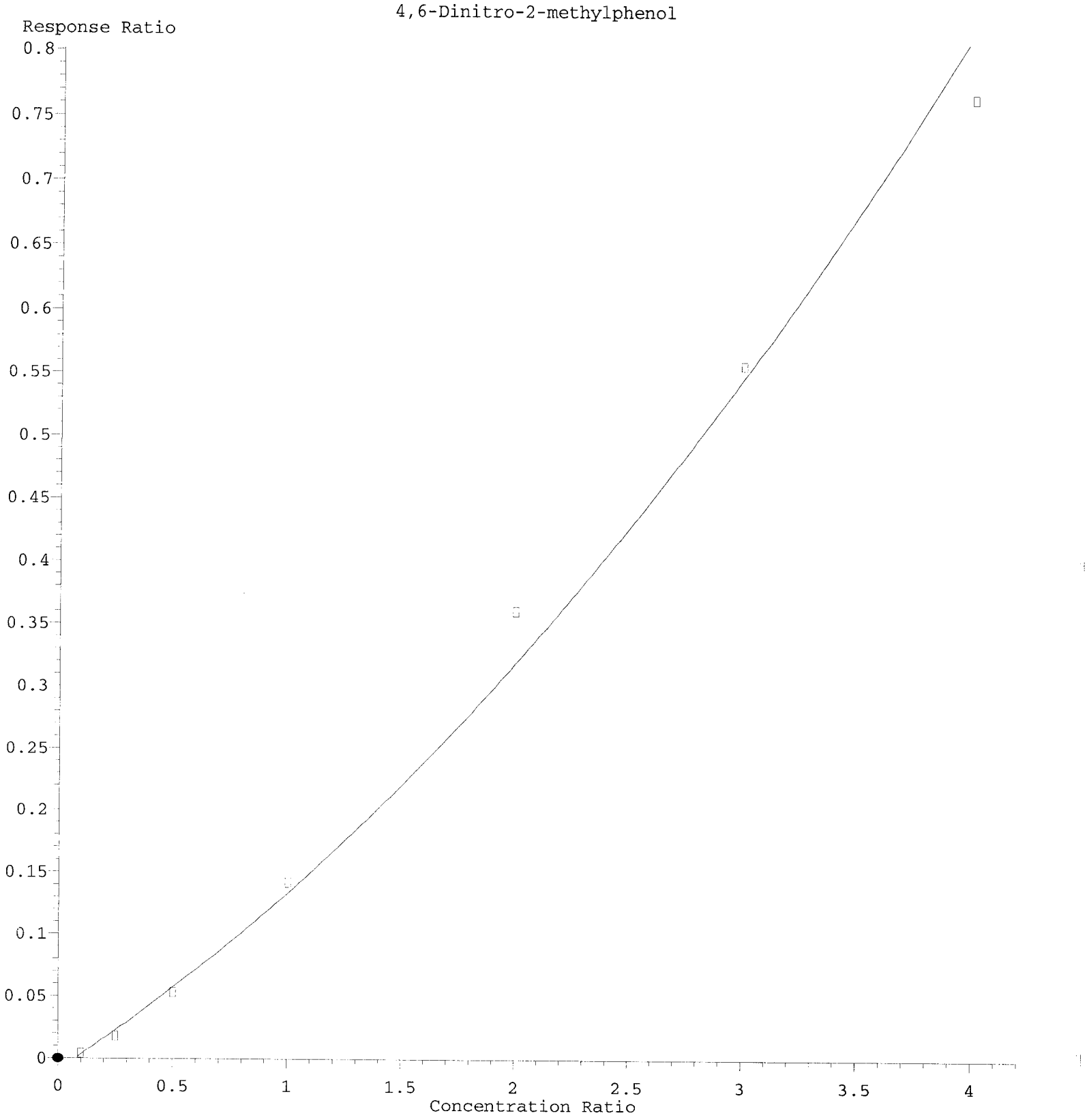
TIC: I10161912.D\data.ms

(57) 2,3,4,6-Tetrachlorophenol (T)

10.028min (+ 0.000) 15.60 ng/ml m

response 185

Ion	Exp%	Act%
231.90	100.00	100.00
131.00	47.70	56.27
229.90	78.50	76.95
0.00	0.00	0.00

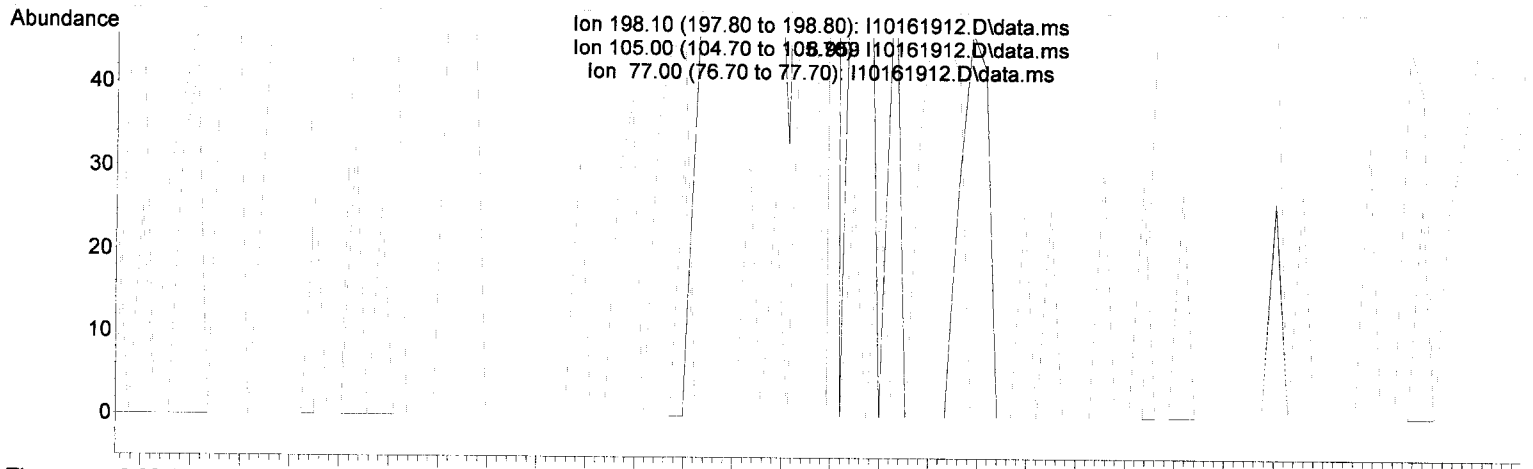


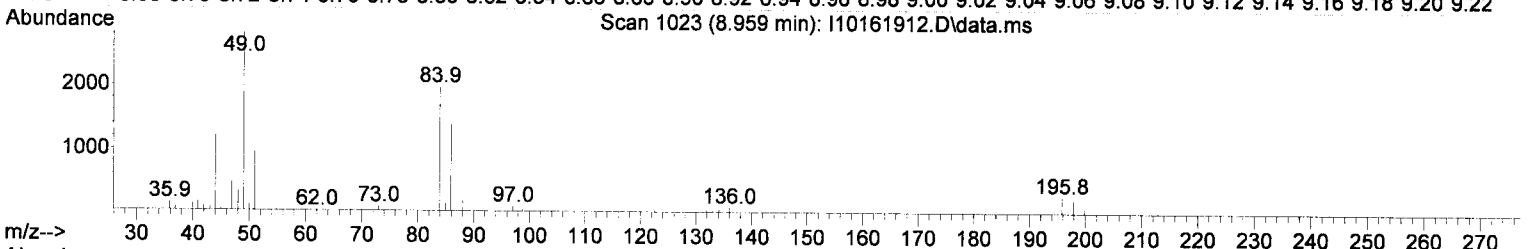
R = 2.12e-002 A*A + 1.22e-001 A - 9.10e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

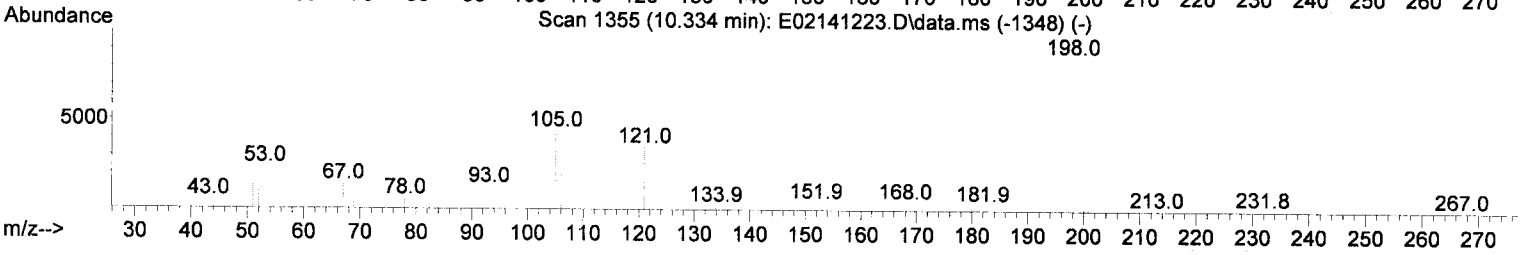
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9







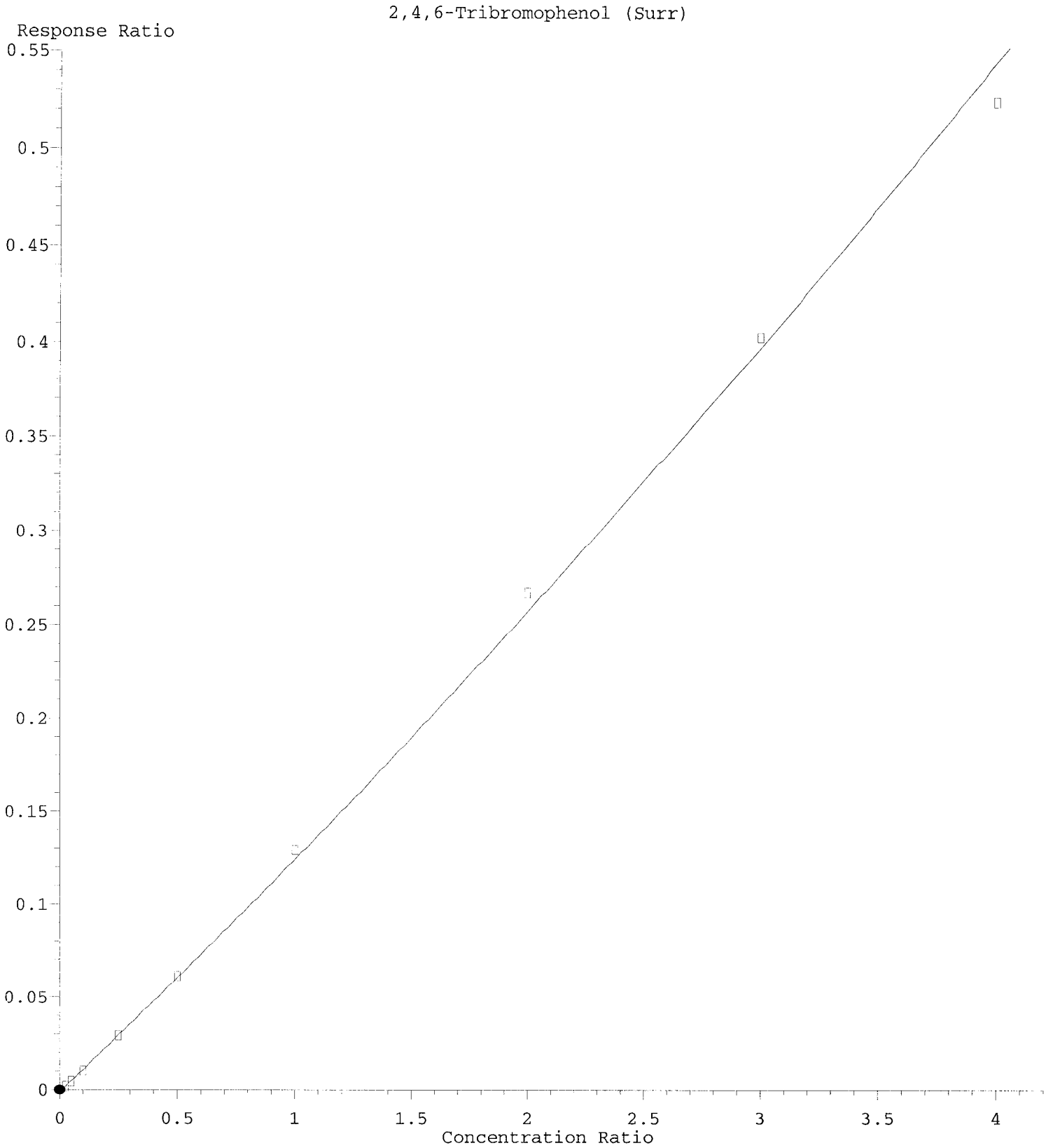
TIC: I10161912.D\data.ms

(63) 4,6-Dinitro-2-methylphenol (T)

8.959min (-1.336) 155.89 ng/ml m

response 114

Ion	Exp%	Act%
198.10	100.00	100.00
105.00	46.50	0.00#
77.00	25.30	0.00
0.00	0.00	0.00

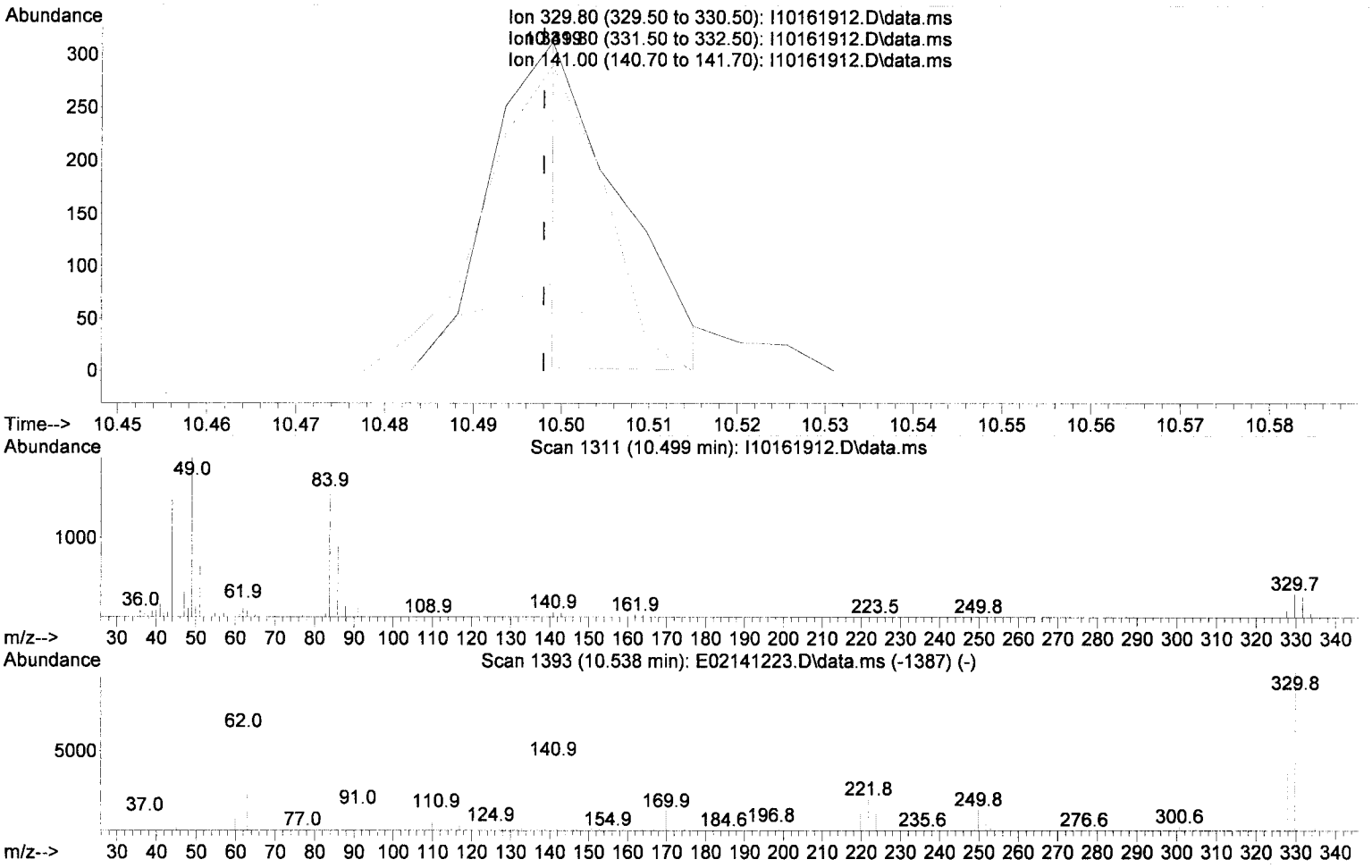


R = 3.70e-003 A*A + 1.22e-001 A - 1.39e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_I01619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



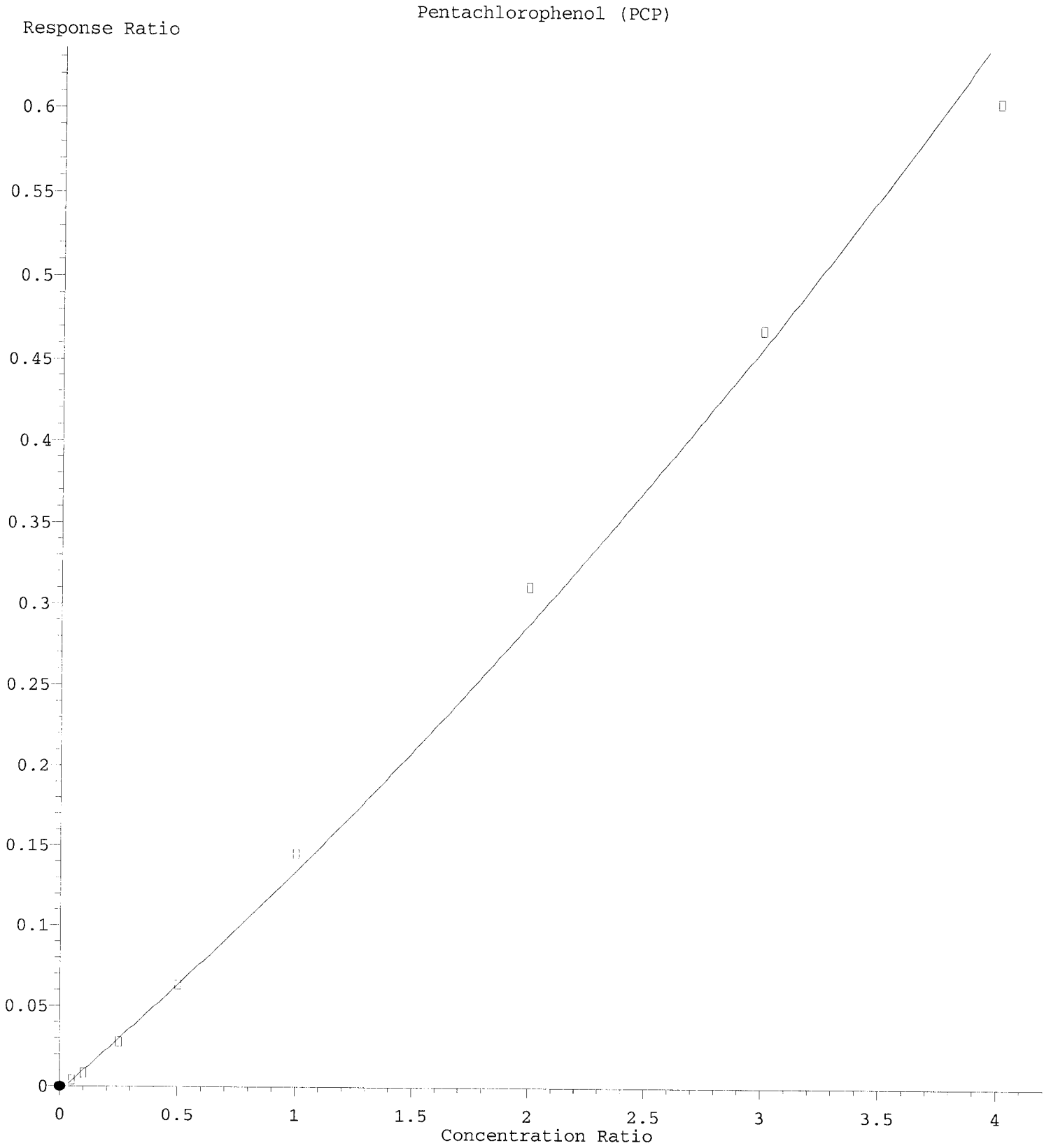
TIC: I10161912.D\data.ms

(67) 2,4,6-Tribromophenol (Surr) (S)

10.499min (+ 0.001) 27.33 ng/ml m

response 116

Ion	Exp%	Act%
329.80	100.00	100.00
331.80	99.50	92.65
141.00	32.90	26.84
0.00	0.00	0.00

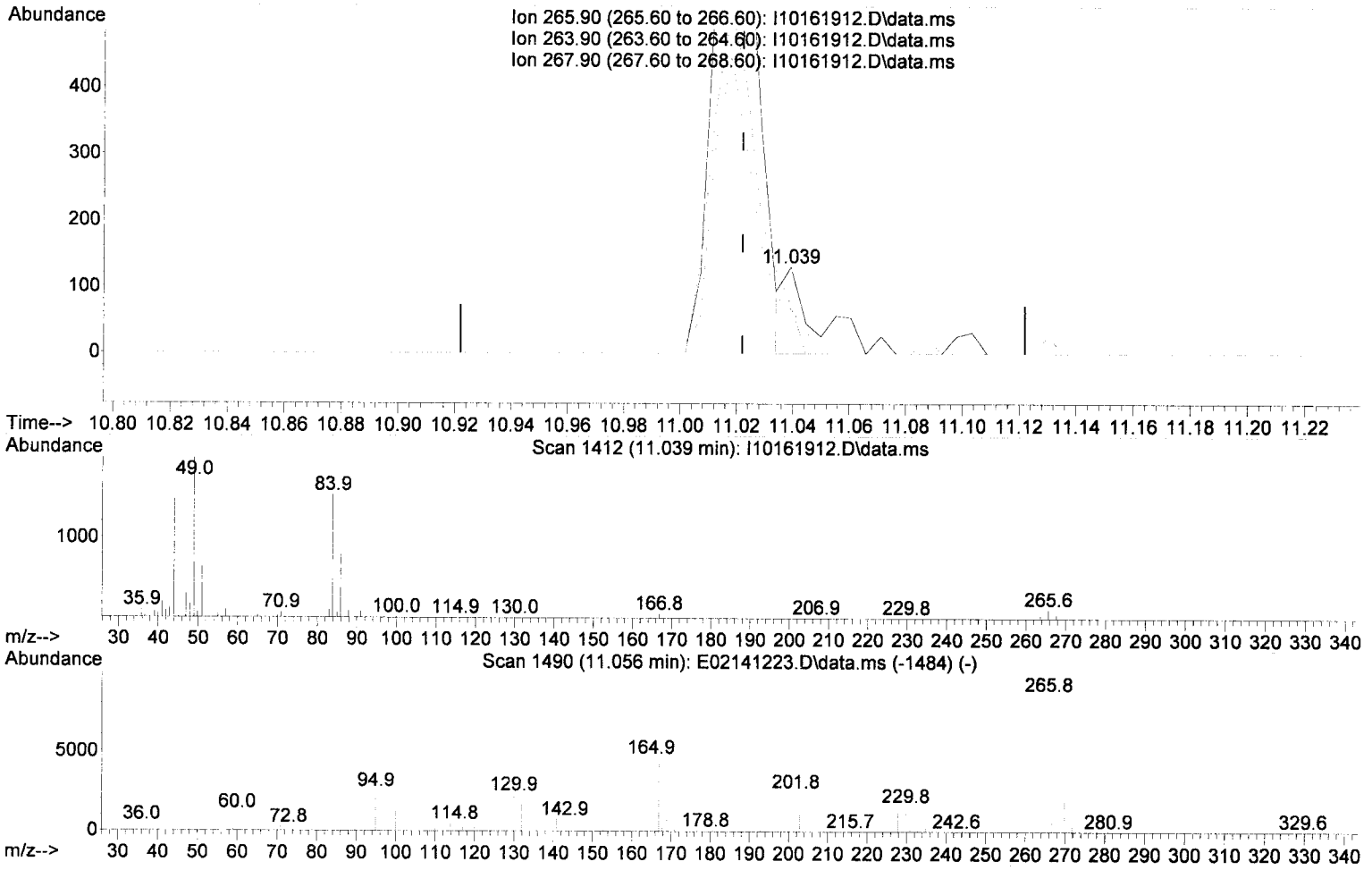


R = 8.44e-003 A*A + 1.28e-001 A - 2.95e-003
Coef of Det (r^2) = 0.993 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



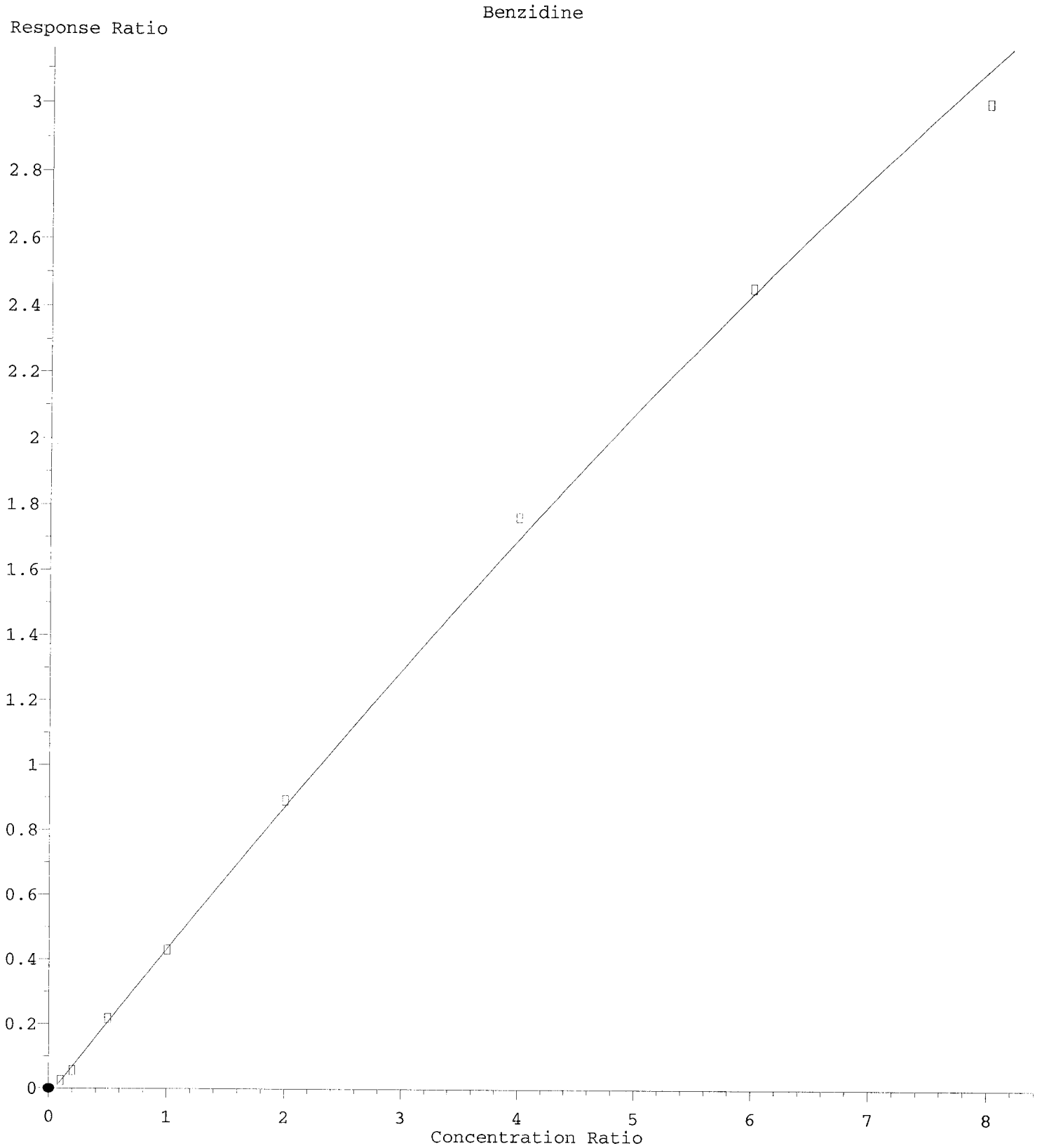
TIC: I10161912.D\data.ms

(70) Pentachlorophenol (PCP) (T)

11.039min (+ 0.017) 49.49 ng/ml m

response 100

Ion	Exp%	Act%
265.90	100.00	100.00
263.90	62.10	55.73
267.90	66.50	51.15
0.00	0.00	0.00

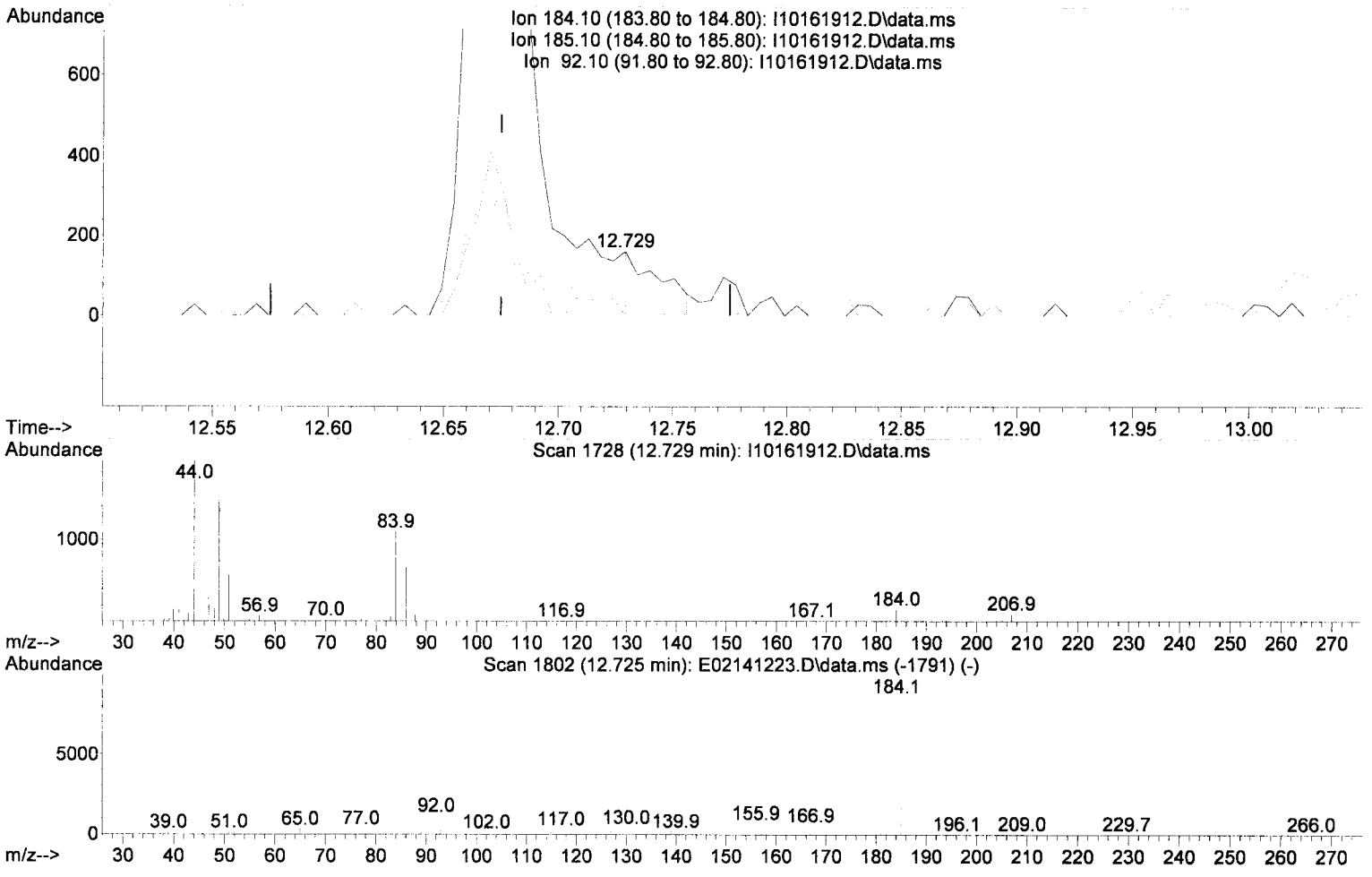


R = -9.61e-003 A*A + 4.69e-001 A - 2.55e-002
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



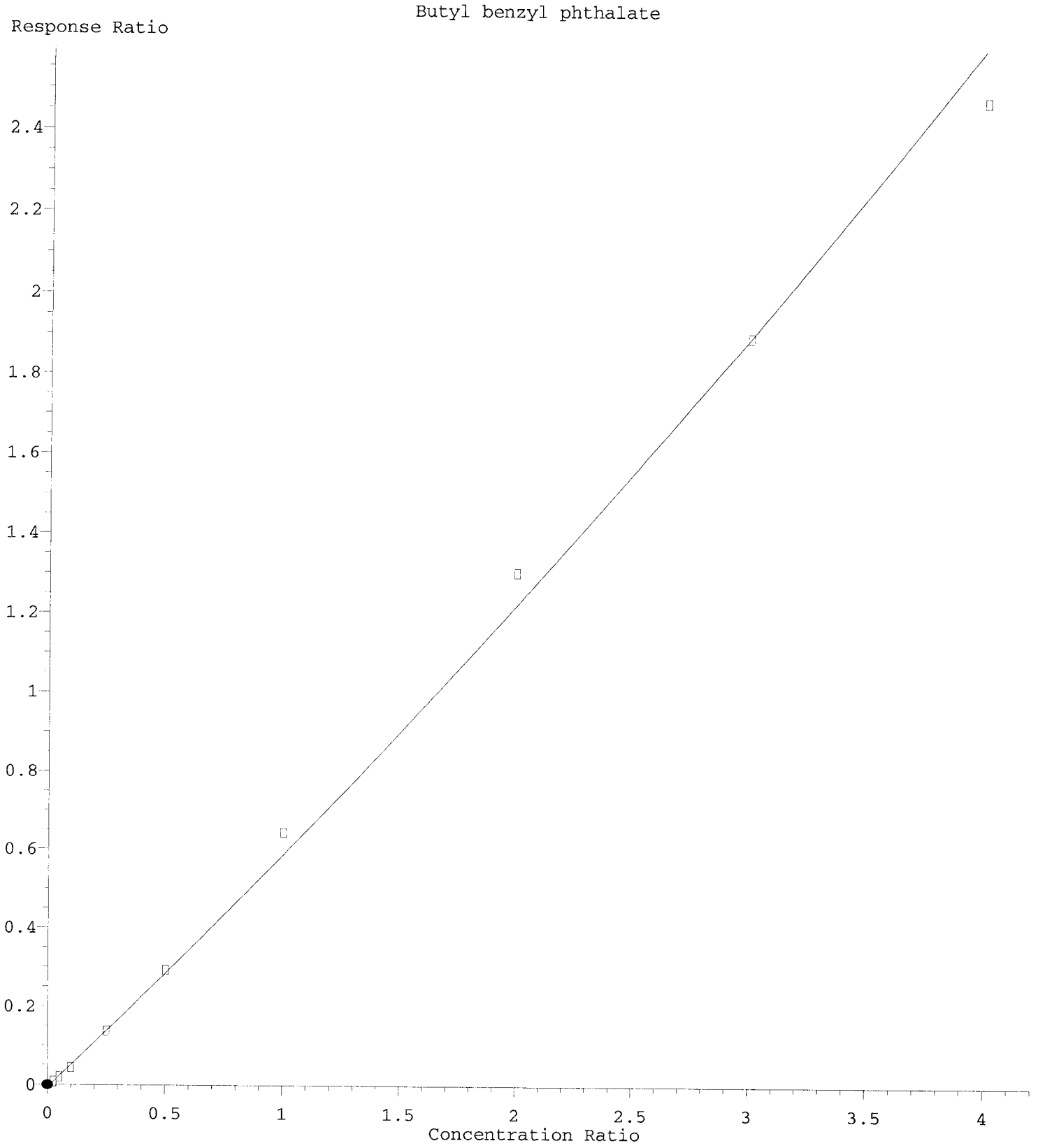
TIC: I10161912.D\data.ms

(76) Benzidine (T)

12.729min (+ 0.054) 110.62 ng/ml m

response 142

Ion	Exp%	Act%
184.10	100.00	100.00
185.10	14.70	0.00
92.10	9.90	15.63
0.00	0.00	0.00

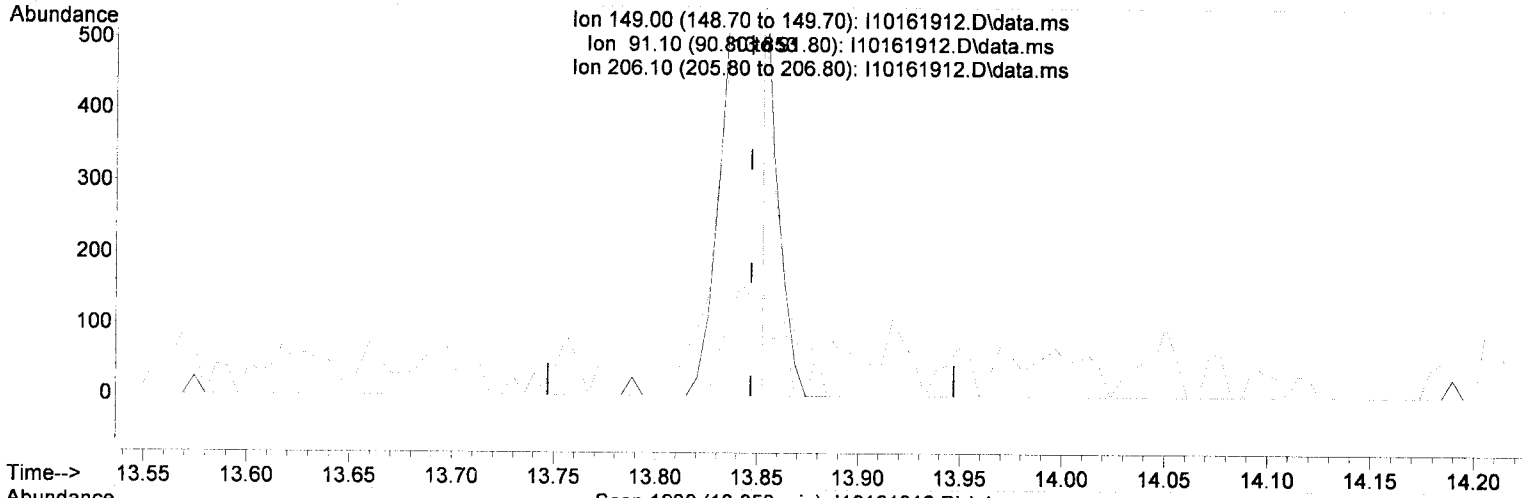


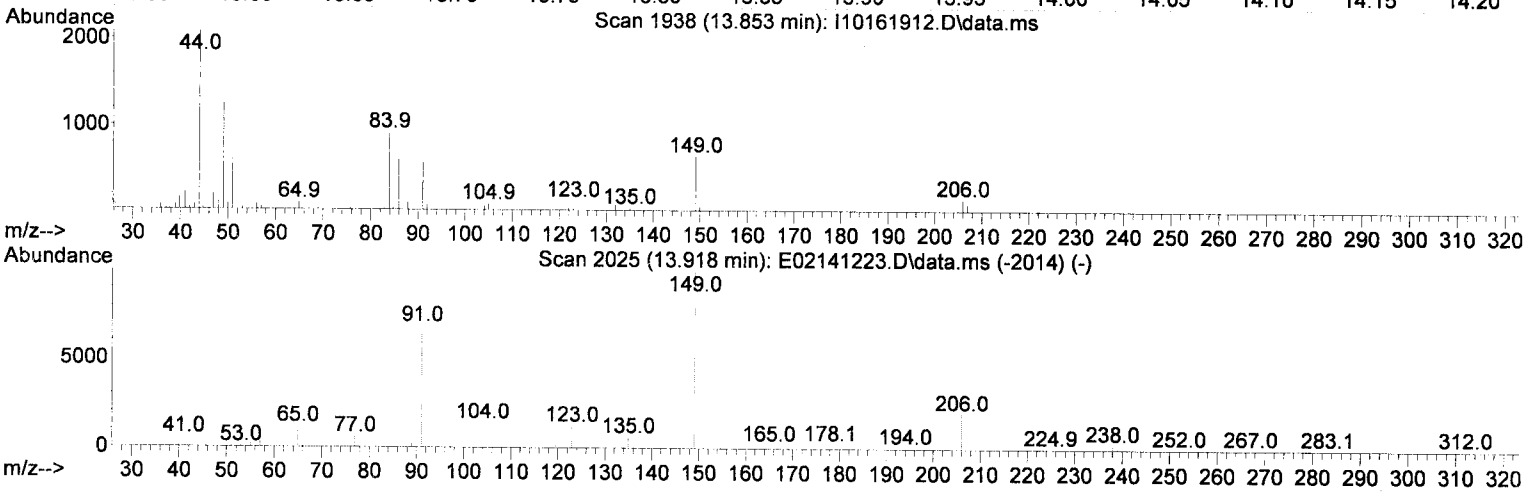
R = 1.95e-002 A*A + 5.75e-001 A - 7.34e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9





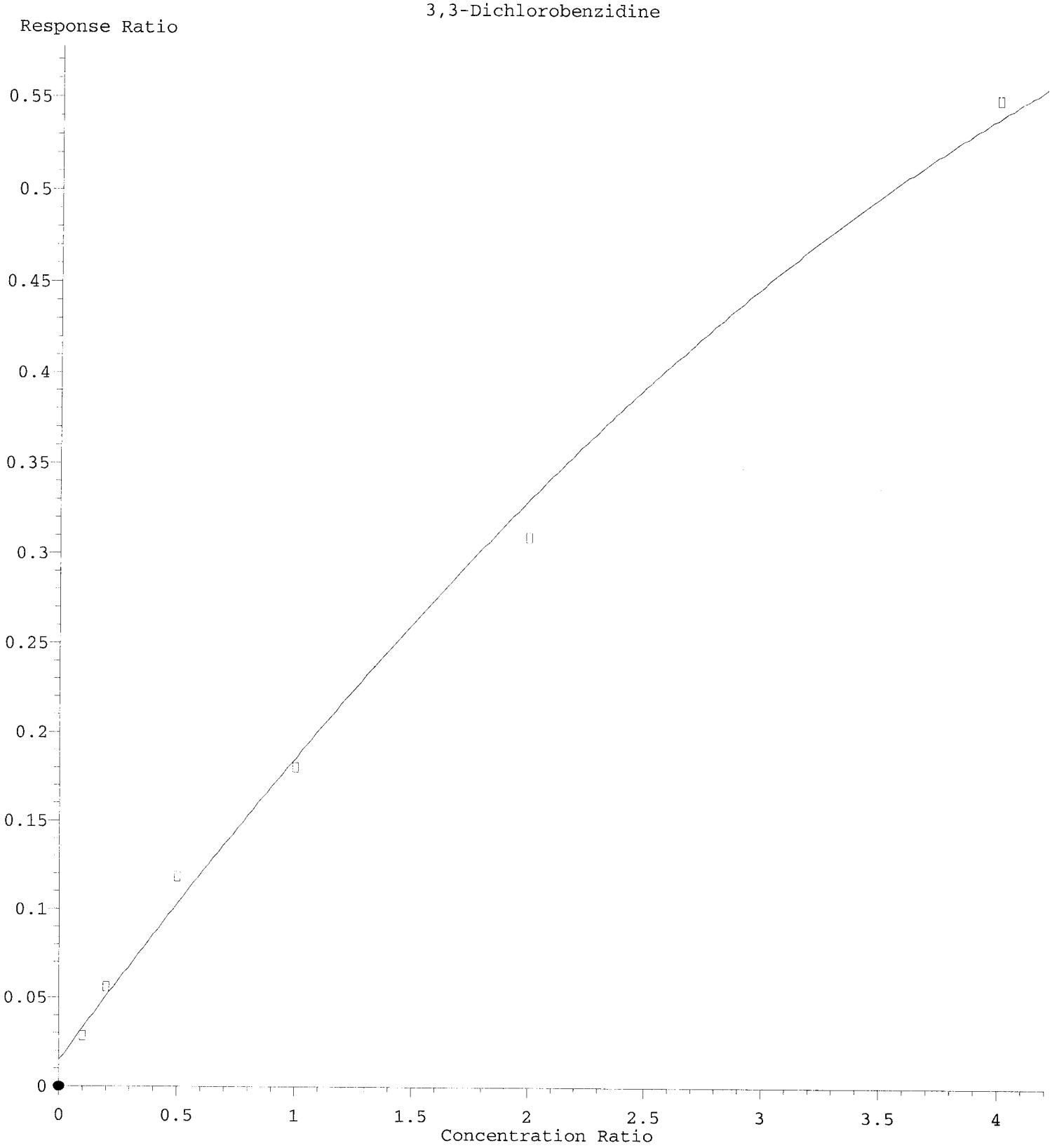
TIC: I10161912.D\data.ms

(80) Butyl benzyl phthalate (T)

13.853min (+ 0.006) 26.93 ng/ml m

response 174

Ion	Exp%	Act%
149.00	100.00	100.00
91.10	73.80	87.93
206.10	20.40	22.91
0.00	0.00	0.00

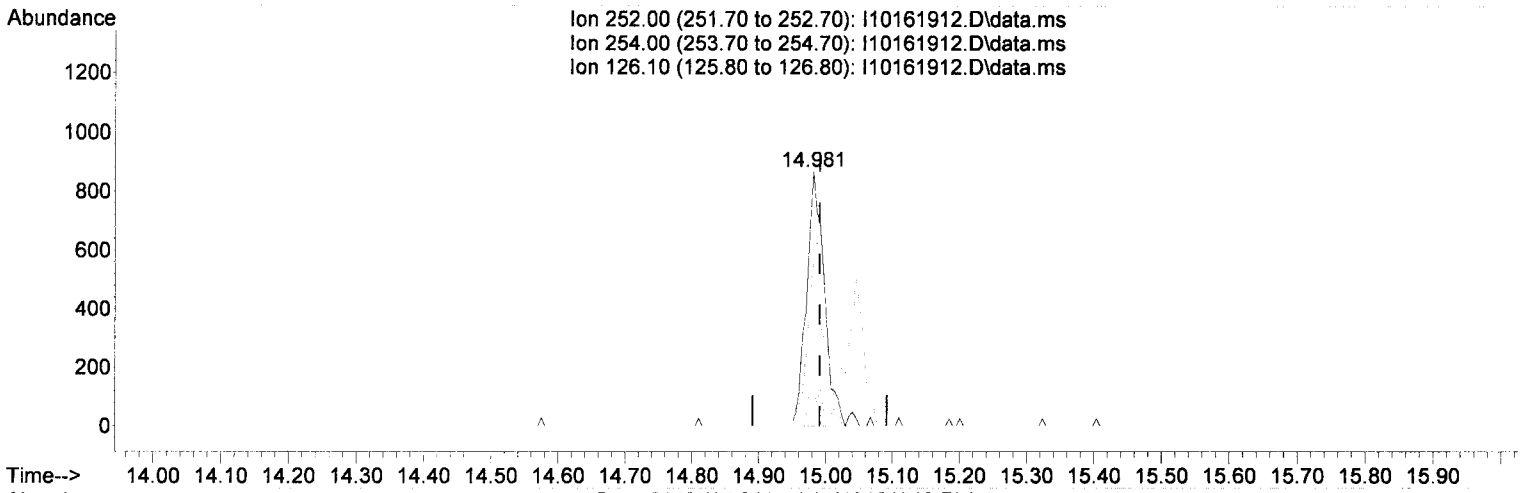


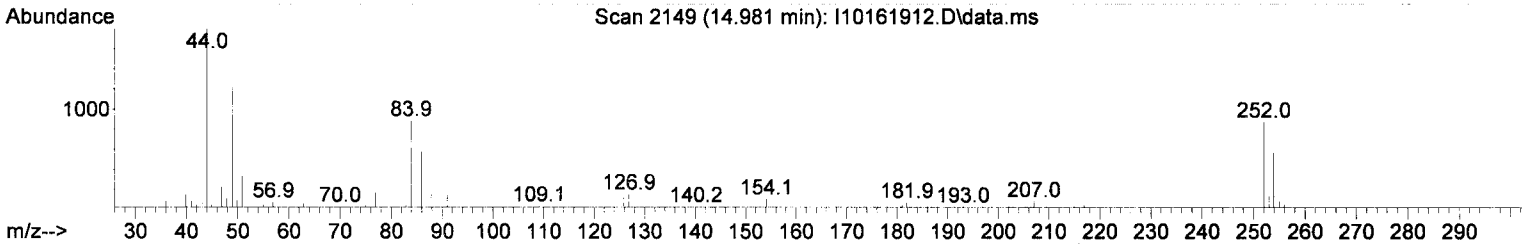
R = -1.30e-002 A*A + 1.84e-001 A + 1.46e-002
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w(1/a)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

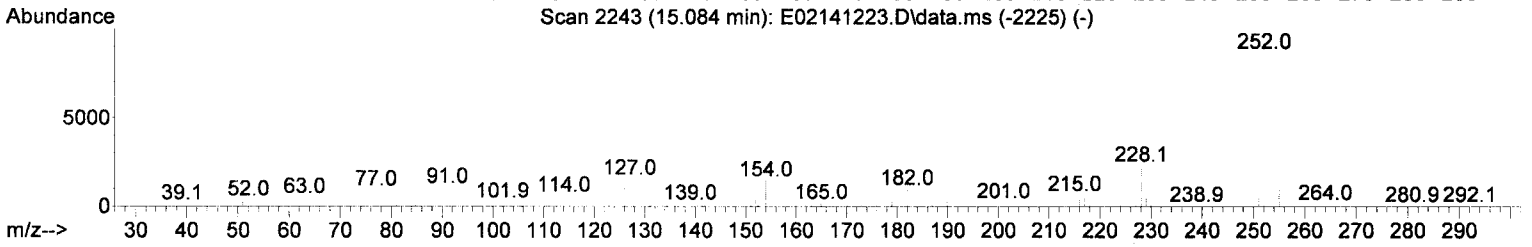
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9







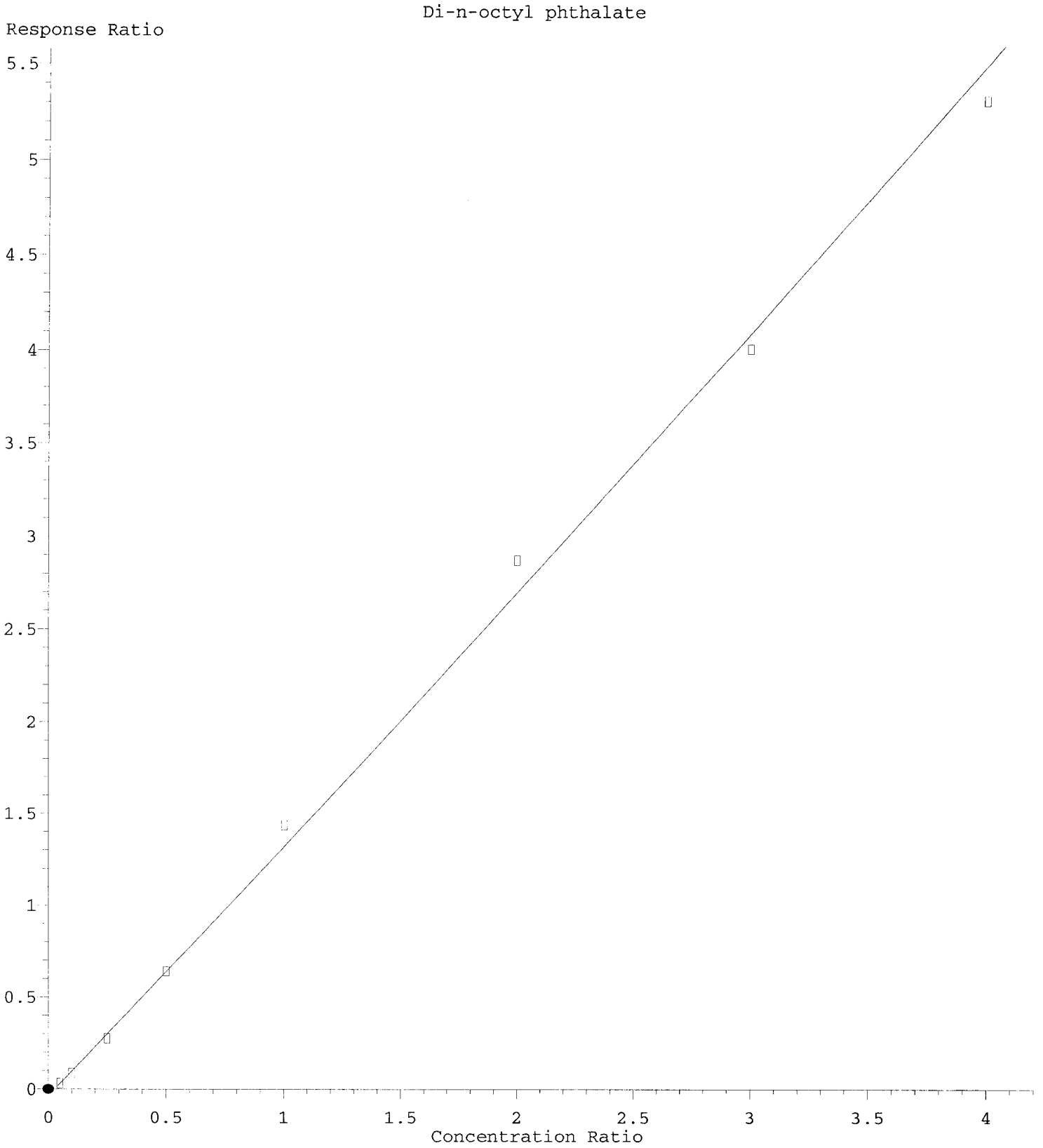
TIC: I10161912.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.981min (-0.010) -1.00 ng/ml

response 1592

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	64.00	65.28
126.10	14.00	14.07
0.00	0.00	0.00

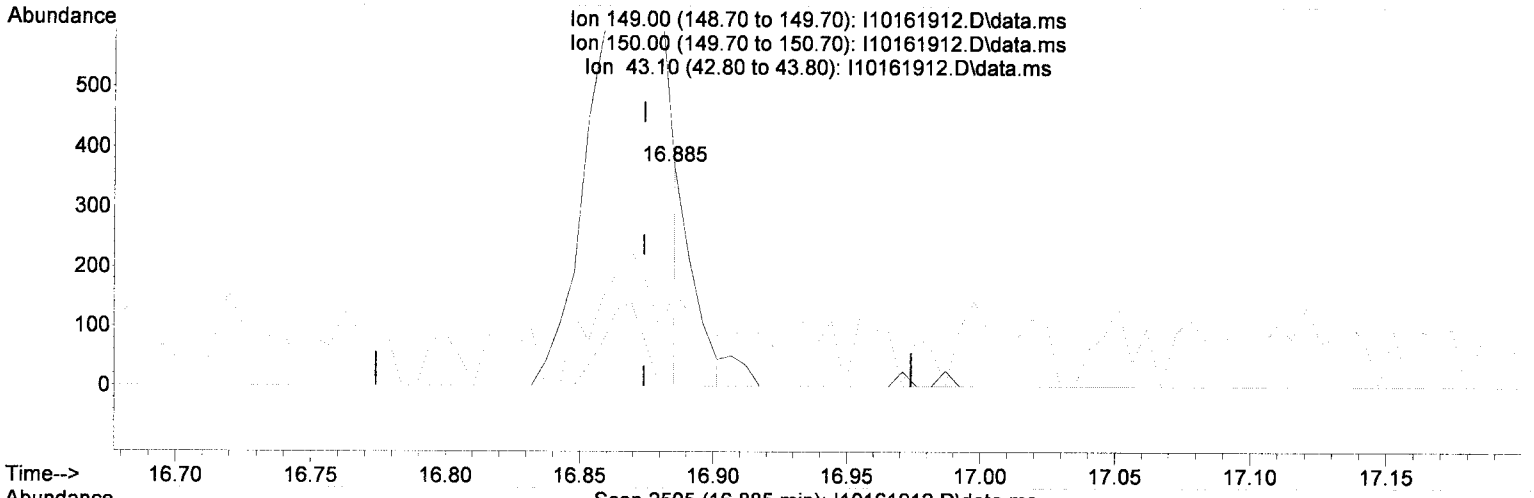


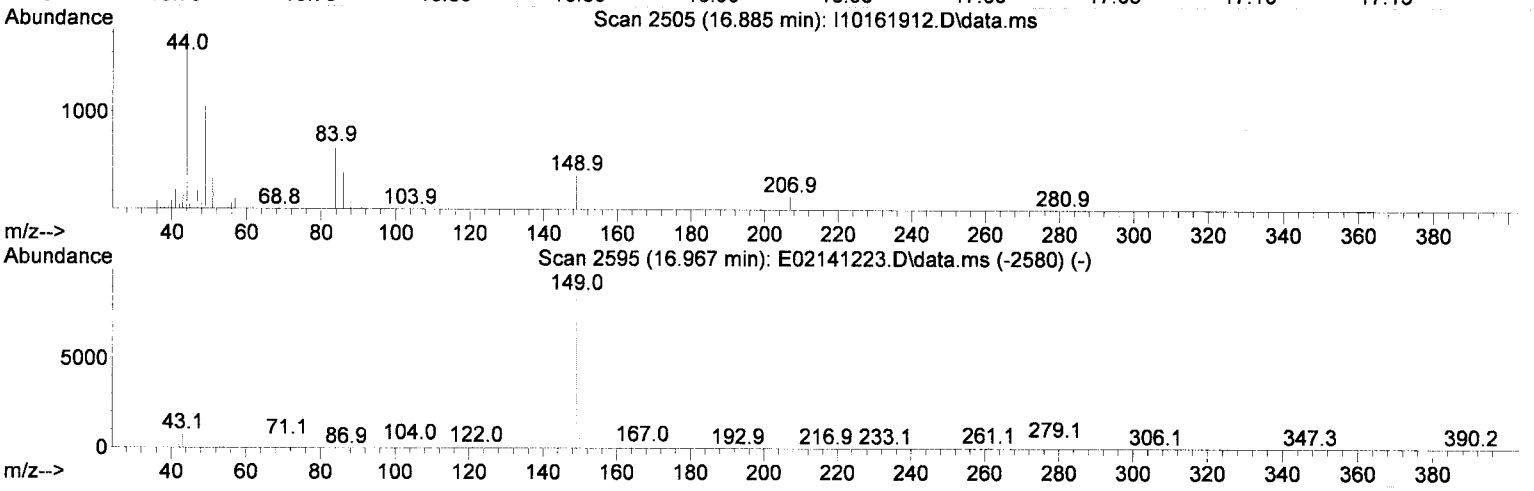
R = 8.70e-003 A*A + 1.35e+000 A - 3.91e-002
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9





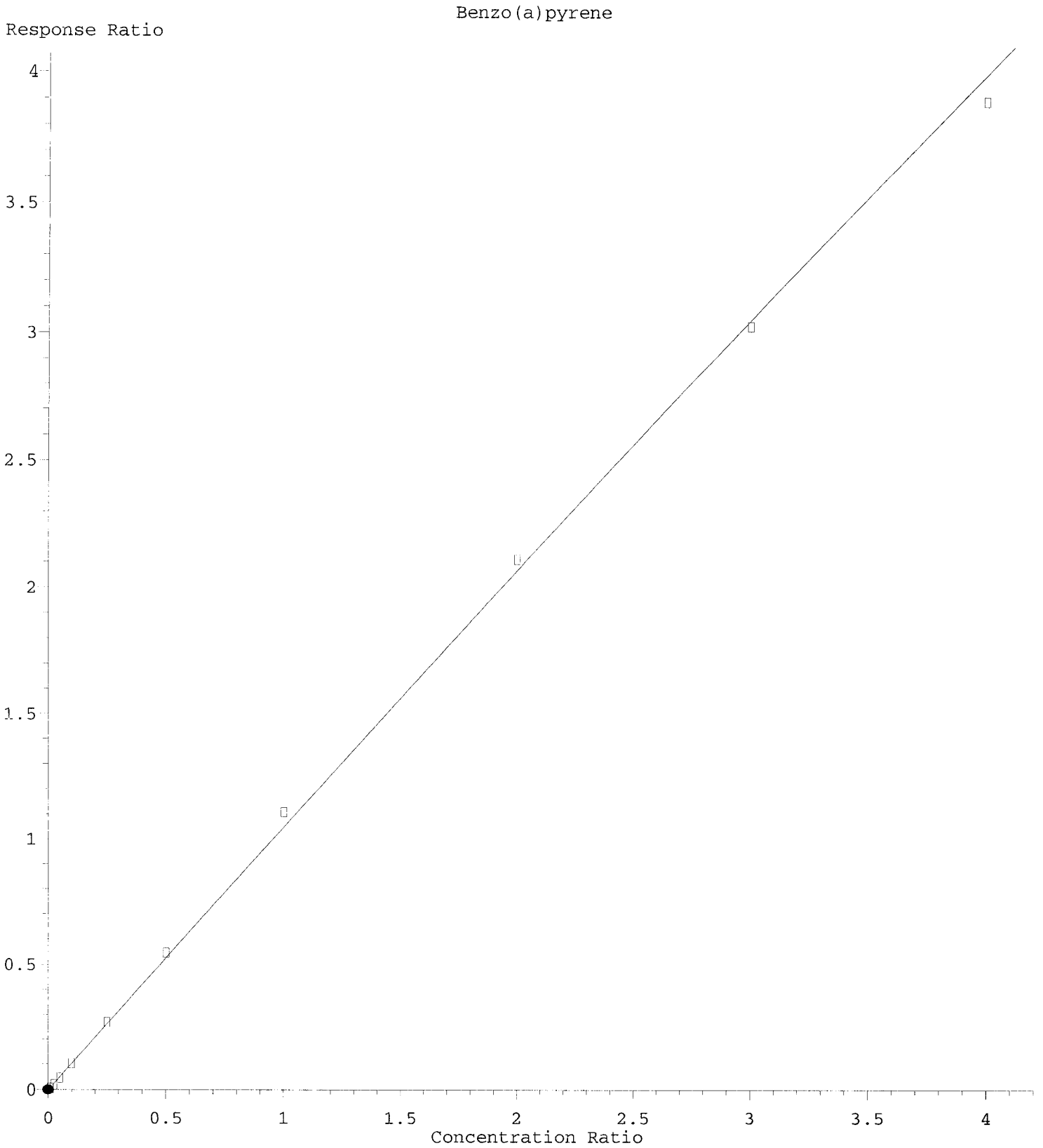
TIC: I10161912.D\data.ms

(87) Di-n-octyl phthalate (T)

16.885min (+ 0.011) 58.40 ng/ml m

response 119

Ion	Exp%	Act%
149.00	100.00	100.00
150.00	9.20	0.00
43.10	10.80	43.36#
0.00	0.00	0.00

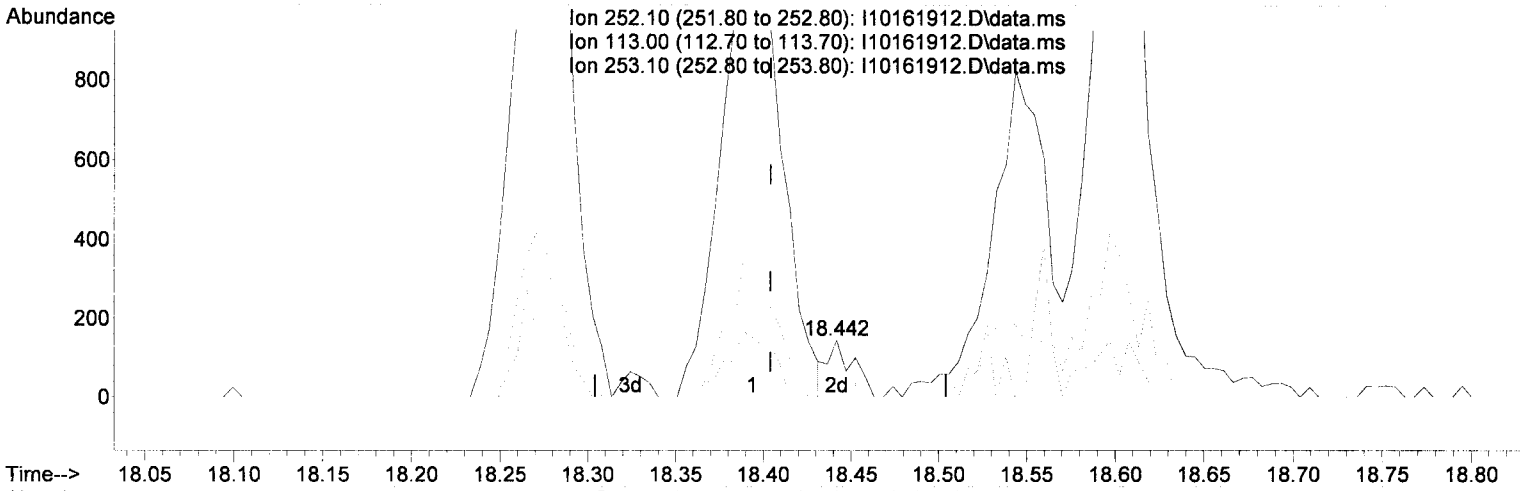


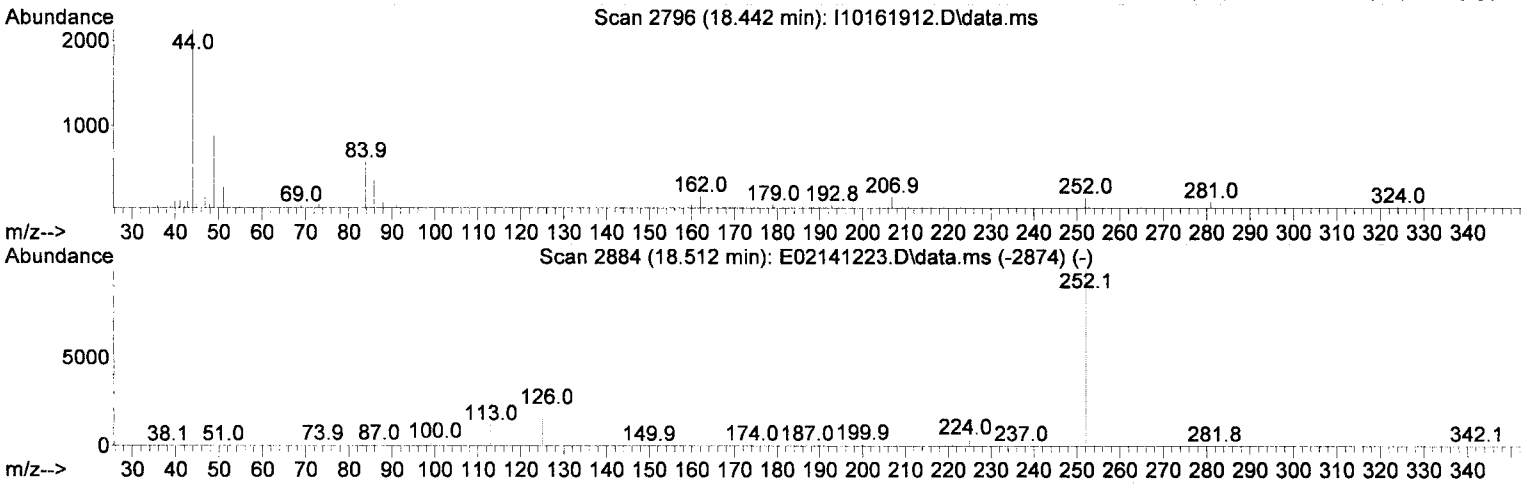
R = -1.74e-002 A*A + 1.07e+000 A - 4.58e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_I01619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\REQUANT\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 12:57:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9





TIC: I10161912.D\data.ms

(92) Benzo(a)pyrene (T)

18.442min (+ 0.038) 9.13 ng/ml m

response 128

Ion	Exp%	Act%
252.10	100.00	100.00
113.00	10.80	0.00
253.10	22.90	19.31
0.00	0.00	0.00

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J16053

Analysis Included
8270D LL Full List

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD ID	Analyzed	
9J16053-TUN1	MS Tune	Soil	A19J016	A19G233	10/16/2019	4:07:00PM
9J16053-ICB1	Initial Cal Blank	Soil		A19G233	10/16/2019	4:34:00PM
9J16053-CAL1	Cal Standard	Soil	A19G238	"	10/16/2019	5:09:00PM
9J16053-CAL2	Cal Standard	Soil	A19G239	"	10/16/2019	5:44:00PM
9J16053-CAL3	Cal Standard	Soil	A19G240	"	10/16/2019	6:19:00PM
9J16053-CAL4	Cal Standard	Soil	A19G241	"	10/16/2019	6:54:00PM
9J16053-CAL5	Cal Standard	Soil	A19G242	"	10/16/2019	7:30:00PM
9J16053-CAL6	Cal Standard	Soil	A19G243	"	10/16/2019	8:05:00PM
9J16053-CAL7	Cal Standard	Soil	A19G244	"	10/16/2019	8:40:00PM
9J16053-CAL8	Cal Standard	Soil	A19G245	"	10/16/2019	9:14:00PM
9J16053-CAL9	Cal Standard	Soil	A19G246	"	10/16/2019	9:49:00PM
9J16053-CALA	Cal Standard	Soil	A19G247	"	10/16/2019	10:24:00PM
9J16053-ICV1	Initial Cal Check	Soil	A19I254	"	10/16/2019	11:33:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9J1803** Instrument: **SV-GCMS9**

8270D LL Full List Sequence: **9J16053** Matrix: **Soil**

9J16053-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-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: 9J16053

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: **A9J1803** Instrument: **SV-GCMS9**

8270D LL Full List Sequence: **9J16053** Matrix: **Soil**

9J16053-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: 9J16053

Analysis Included
8270D LL Full List

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD ID	Analyzed
9J16053-TUN1	MS Tune	Water	A19J016	A19G233	10/16/2019 4:07:00PM
9J16053-ICB1	Initial Cal Blank	Water		A19G233	10/16/2019 4:34:00PM
9J16053-CAL1	Cal Standard	Water	A19G238	"	10/16/2019 5:09:00PM
9J16053-CAL2	Cal Standard	Water	A19G239	"	10/16/2019 5:44:00PM
9J16053-CAL3	Cal Standard	Water	A19G240	"	10/16/2019 6:19:00PM
9J16053-CAL4	Cal Standard	Water	A19G241	"	10/16/2019 6:54:00PM
9J16053-CAL5	Cal Standard	Water	A19G242	"	10/16/2019 7:30:00PM
9J16053-CAL6	Cal Standard	Water	A19G243	"	10/16/2019 8:05:00PM
9J16053-CAL7	Cal Standard	Water	A19G244	"	10/16/2019 8:40:00PM
9J16053-CAL8	Cal Standard	Water	A19G245	"	10/16/2019 9:14:00PM
9J16053-CAL9	Cal Standard	Water	A19G246	"	10/16/2019 9:49:00PM
9J16053-CALA	Cal Standard	Water	A19G247	"	10/16/2019 10:24:00PM
9J16053-ICV1	Initial Cal Check	Water	A19I254	"	10/16/2019 11:33:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9J1803** Instrument: **SV-GCMS9**

8270D LL Full List Sequence: **9J16053** Matrix: **Water**

9J16053-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9J16053-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: 9J16053

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: **A9J1803** Instrument: **SV-GCMS9**

8270D LL Full List Sequence: **9J16053** Matrix: **Water**

9J16053-ICV1	Inst. MRL	ICV Level	Result	%Rec.	Qual

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

Evaluate Continuing Calibration Report

Data Path : T:\data\2019-10\9J16053\
Data File : I10161923.D
Acq On : 16 Oct 2019 11:33 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICV1
Misc : 1x, A19I254 BNA@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 13:16:10 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (IST	2000.000	2000.000	0.0	98	0.00
2	T	N-Nitrosodimethylamine	1000.000	962.446	3.8	95	0.00
3	T	Pyridine	1000.000	870.093	13.0	85	0.01
4	S	2-Fluorophenol (Surr)	1000.000	979.880	2.0	94	0.00
5	S	Phenol-d6 (Surr)	1000.000	1034.035	-3.4	96	0.00
6	T	Phenol	1000.000	1017.510	-1.8	97	0.00
7	T	Aniline	1000.000	919.514	8.0	92	0.00
8	T	Bis(2-chloroethyl) ether	1000.000	1054.557	-5.5	98	0.00
9	T	2-Chlorophenol	1000.000	1063.881	-6.4	99	0.00
10	T	1,3-Dichlorobenzene	1000.000	1008.128	-0.8	98	0.00
11	T	1,4-Dichlorobenzene	1000.000	997.215	0.3	97	0.00
12	T	Benzyl alcohol	1000.000	972.384	2.8	89	0.00
13	T	1,2-Dichlorobenzene	1000.000	1014.944	-1.5	97	0.00
14	T	2-Methylphenol	1000.000	1103.297	-10.3	101	0.00
15	T	2,2'-Oxybis(1-Chloropropane	1000.000	942.252	5.8	92	0.00
16	T	N-Nitrosodi-n-propylamine	1000.000	1022.292	-2.2	95	0.00
17	T	3+4-Methylphenol	1000.000	1061.213	-6.1	94	0.00
18	T	Hexachloroethane	1000.000	1021.570	-2.2	99	0.00
19	S	Nitrobenzene-d5 (Surr)	1000.000	1123.585	-12.4	102	0.00
20	T	Nitrobenzene	1000.000	1086.148	-8.6	97	0.00
21	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	99	0.00
22	T	Isophorone	1000.000	1027.168	-2.7	97	0.00
23	T	2-Nitrophenol	1000.000	1122.187	-12.2	105	0.00
24	T	2,4-Dimethylphenol	1000.000	1039.762	-4.0	94	0.00
25	T	Bis(2-chloroethoxy) methane	1000.000	1041.105	-4.1	96	0.00
26	T	Benzoic acid	2000.000	1748.344	12.6	83	0.00
27	T	2,4-Dichlorophenol	1000.000	1054.418	-5.4	97	0.00
28	T	1,2,4-Trichlorobenzene	1000.000	1029.385	-2.9	99	0.00
29	T	Naphthalene	1000.000	1028.989	-2.9	98	0.00
30	T	4-Chloroaniline	1000.000	927.481	7.3	90	0.00
31	T	Hexachlorobutadiene	1000.000	1016.945	-1.7	100	0.00
32	T	4-Chloro-3-methylphenol	1000.000	994.599	0.5	95	0.00
33	T	2-Methylnaphthalene	1000.000	1066.214	-6.6	98	0.00
34	T	1-Methylnaphthalene	1000.000	1059.020	-5.9	99	0.00
35	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	99	0.00
36	T	Hexachlorocyclopentadiene	1000.000	994.036	0.6	91	0.00
37	T	2,4,6-Trichlorophenol	1000.000	1015.450	-1.5	98	0.00
38	T	2,4,5-Trichlorophenol	1000.000	1032.606	-3.3	97	0.00
39	T	1,1'-Biphenyl	1000.000	1063.192	-6.3	96	0.00
40	S	2-Fluorobiphenyl (Surr)	1000.000	1073.638	-7.4	99	0.00
41	T	2-Chloronaphthalene	1000.000	1066.440	-6.6	97	0.00
42	T	2-Nitroaniline	1000.000	1029.228	-2.9	100	0.00
43	T	2,6-Dimethylnaphthalene	1000.000	1040.044	-4.0	95	0.00
44	T	1,4-Dinitrobenzene	1000.000	1003.651	-0.4	108	0.00
45	T	Dimethyl phthalate	1000.000	1036.771	-3.7	98	0.00
46	T	1,3-Dinitrobenzene	1000.000	998.654	0.1	104	0.00
47	T	2,6-Dinitrotoluene	1000.000	1046.423	-4.6	99	0.00
48	T	1,2-Dinitrobenzene	1000.000	991.160	0.9	97	0.00

Evaluate Continuing Calibration Report

Data Path : T:\data\2019-10\9J16053\
Data File : I10161923.D
Acq On : 16 Oct 2019 11:33 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICV1
Misc : 1x, A19I254 BNA@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 13:16:10 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	Acenaphthylene	1000.000	1039.761	-4.0	98	0.00
50	T	3-Nitroaniline	1000.000	869.325	13.1	87	0.00
51	T	Acenaphthene	1000.000	1024.424	-2.4	98	0.00
52	T	2,4-Dinitrophenol	1000.000	966.046	3.4	99	0.00
53	T	4-Nitrophenol	1000.000	979.868	2.0	93	0.00
54	T	2,4-Dinitrotoluene	1000.000	993.559	0.6	98	0.00
55	T	Dibenzofuran	1000.000	1028.254	-2.8	97	0.00
56	T	2,3,5,6-Tetrachlorophenol	1000.000	1002.754	-0.3	96	0.00
57	T	2,3,4,6-Tetrachlorophenol	1000.000	1003.972	-0.4	92	0.00
58	T	Diethyl phthalate	1000.000	1019.702	-2.0	97	0.00
59	T	2,3,5-Trimethylnaphthalene	1000.000	1039.964	-4.0	96	0.00
60	T	Fluorene	1000.000	1004.883	-0.5	97	0.00
61	T	4-Chlorophenyl phenyl ether	1000.000	1027.798	-2.8	98	0.00
62	T	4-Nitroaniline	1000.000	933.765	6.6	89	0.00
63	T	4,6-Dinitro-2-methylphenol	1000.000	1015.341	-1.5	109	0.00
64	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	98	0.00
65	T	N-Nitrosodiphenylamine	1000.000	983.980	1.6	94	0.00
66	T	Azobenzene (1,2-DPH)	1000.000	949.430	5.1	94	0.00
67	S	2,4,6-Tribromophenol (Surr)	1000.000	991.893	0.8	96	0.00
68	T	4-Bromophenyl phenyl ether	1000.000	1008.027	-0.8	97	0.00
69	T	Hexachlorobenzene	1000.000	1061.983	-6.2	103	0.00
70	T	Pentachlorophenol (PCP)	1000.000	976.185	2.4	96	0.00
71	T	Phenanthrene	1000.000	1020.754	-2.1	96	0.00
72	T	Anthracene	1000.000	1026.292	-2.6	94	0.00
73	T	Carbazole	1000.000	832.589	16.7	87	0.00
74	T	Di-n-butyl phthalate	1000.000	1062.496	-6.2	96	0.00
75	T	Fluoranthene	1000.000	1051.634	-5.2	95	0.00
76	T	Benzidine	2000.000	1525.647	23.7	74	0.00
77	T	Pyrene	1000.000	1066.742	-6.7	95	0.00
78	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	94	0.00
79	S	Terphenyl-d14 (Surr)	1000.000	1042.443	-4.2	95	0.00
80	T	Butyl benzyl phthalate	1000.000	996.013	0.4	91	0.00
81	T	Bis(2-ethylhexyl) adipate	1000.000	1010.502	-1.1	93	0.00
82	T	3,3-Dichlorobenzidine	2000.000	1766.404	11.7	87	0.00
83	T	Benz(a)anthracene	1000.000	1026.777	-2.7	96	0.00
84	T	Chrysene	1000.000	999.031	0.1	93	0.00
85	T	Bis(2-ethylhexyl) phthalate	1000.000	1028.727	-2.9	93	0.00
86	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	94	0.00
87	T	Di-n-octyl phthalate	1000.000	966.334	3.4	90	0.00
88	T	Benzo(b)fluoranthene	1000.000	1047.954	-4.8	91	0.00
89	T	Benzo(k)fluoranthene	1000.000	1120.667	-12.1	92	0.00
90	T	Benzo(b+k)fluoranthene	2000.000	2155.044	-7.8	91	0.00
91	T	Benzo(e)pyrene	1000.000	1038.228	-3.8	90	0.00
92	T	Benzo(a)pyrene	1000.000	951.211	4.9	86	0.00
93	T	Perylene	1000.000	1199.802	-20.0	107	0.00
94	I	Dibenz(a,h)Anthrcene-d14 (I	2000.000	2000.000	0.0	92	0.00

Evaluate Continuing Calibration Report

Data Path : T:\data\2019-10\9J16053\
Data File : I10161923.D
Acq On : 16 Oct 2019 11:33 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICV1
Misc : 1x, A19I254 BNA@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 13:16:10 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
95	T	Indeno(1,2,3-cd)pyrene	1000.000	981.169	1.9	91	0.01
96	T	Dibenz(a,h)anthracene	1000.000	1003.353	-0.3	89	0.00
97	T	Benzo(g,h,i)perylene	1000.000	1065.457	-6.5	90	0.00

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

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161910.D
Acq On : 16 Oct 2019 4:07 pm
Operator : JK /AMS /DTH
Sample : 9J16053-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Oct 17 09:26:38 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Thu Oct 17 09:26:26 2019
Response via : Initial Calibration
InstName : SV-GCMS9

9/2 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.921	136	133481	2.00	ug/mL	0.00
2) Acenaphthene-d10	9.697	162	65336	2.00	ug/mL	0.00
4) Phenanthrene-d10	11.210	188	97755	2.00	ug/mL	0.00
10) Chrysene-d12	14.949	240	85323	2.00	ug/mL	0.00
11) Perylene-d12	17.035	264	78474	2.00	ug/mL	0.00
Target Compounds						Qvalue
3) Pentachlorophenol	11.023	266	276241	37.69	ug/mL	87
5) DFTPP	11.504	442	395830	48.17	ug/mL#	55
6) Benzidine	12.686	184	1012337	34.40	ug/mL	91
7) 4,4-DDE	12.949	TIC	12045	No Calib	#	
8) 4,4-DDD	13.467	TIC	8168	2.02	ug/mL#	1
9) 4,4-DDT	14.045	TIC	3561767	43.23	ug/mL#	1

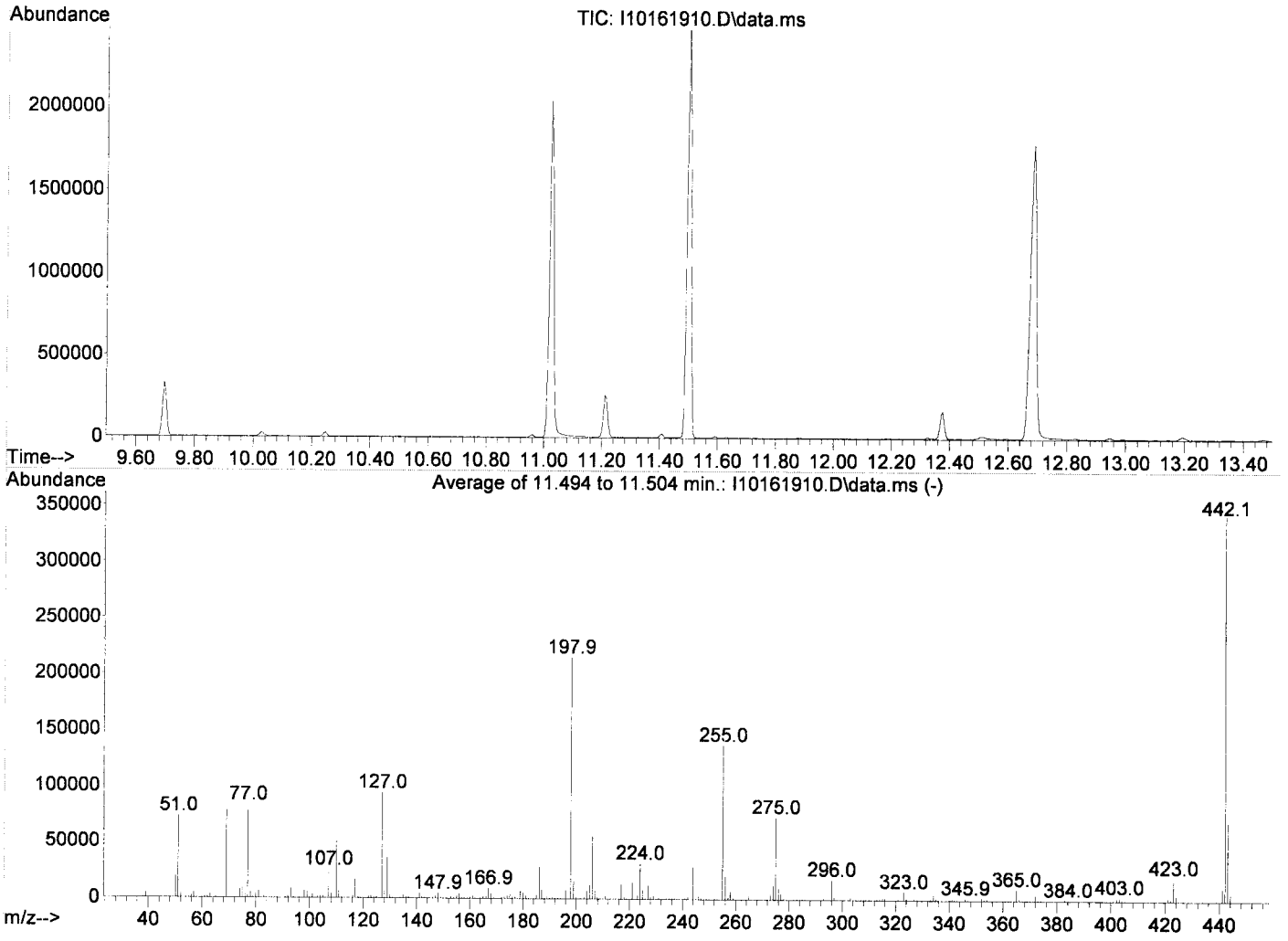
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\data\2019-10\9J16053\
Data File : I10161910.D
Acq On : 16 Oct 2019 4:07 pm
Operator : JK /AMS /DTH
Sample : 9J16053-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : T:\methods\DFTPP.M
Title : DFTPP Tune Methodug/mL
Last Update : Thu Oct 17 09:26:26 2019

10/17/19



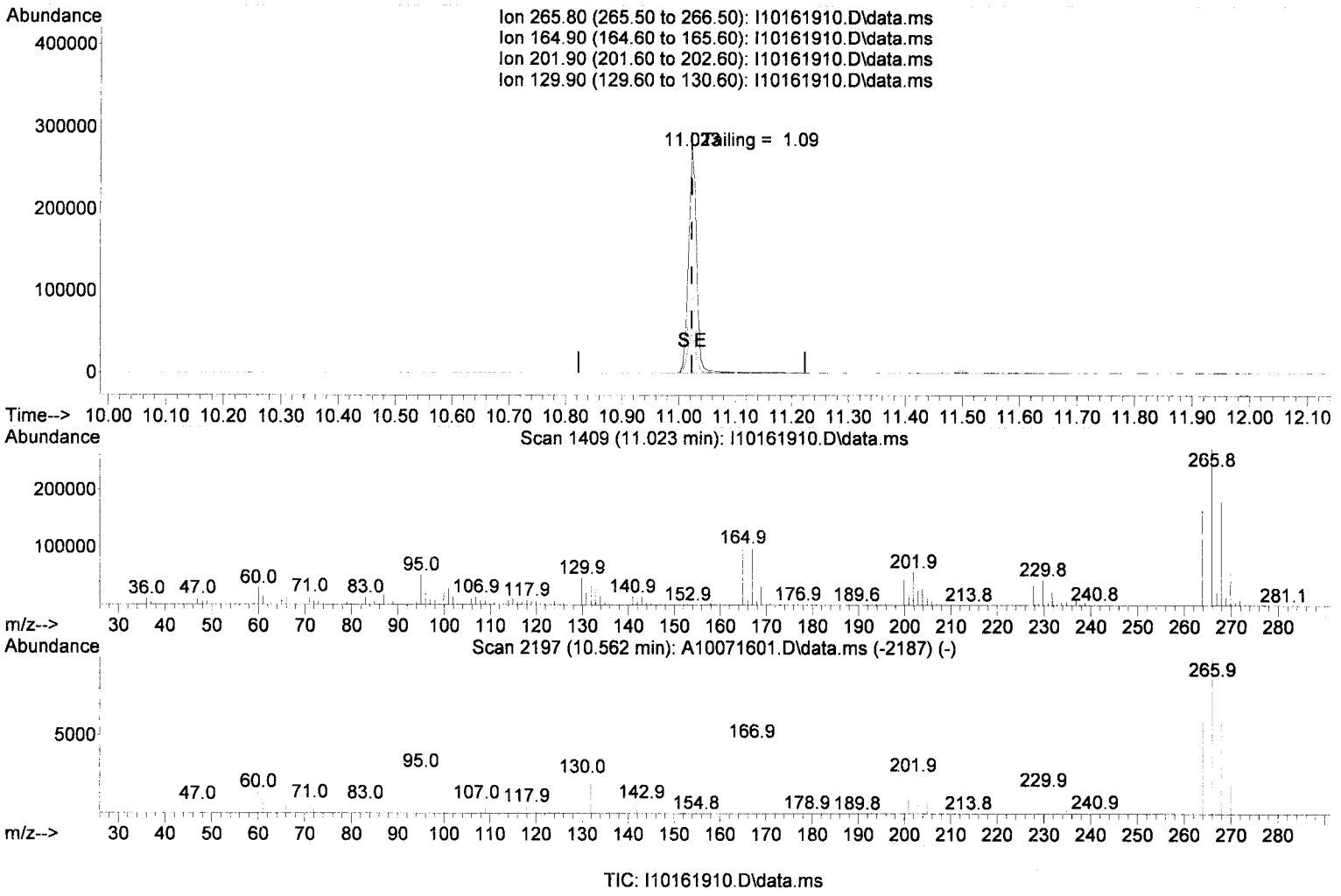
AutoFind: Scans 1497, 1498, 1499; Background Corrected with Scan 1490

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	77934	PASS
70	69	0.00	2	0.5	381	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	214955	PASS
199	198	5	9	7.2	15571	PASS
365	198	1	100	4.5	9699	PASS
441	443	0.01	150	16.4	11437	PASS
442	198	0.10	200	159.9	343659	PASS
443	442	15	24	20.4	69936	PASS

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161910.D
Acq On : 16 Oct 2019 4:07 pm
Operator : JK /AMS /DTH
Sample : 9J16053-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Oct 17 09:26:38 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Thu Oct 17 09:26:26 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161910.D\data.ms

(3) Pentachlorophenol

11.023min (0.000) 37.69 ug/mL

response 276241

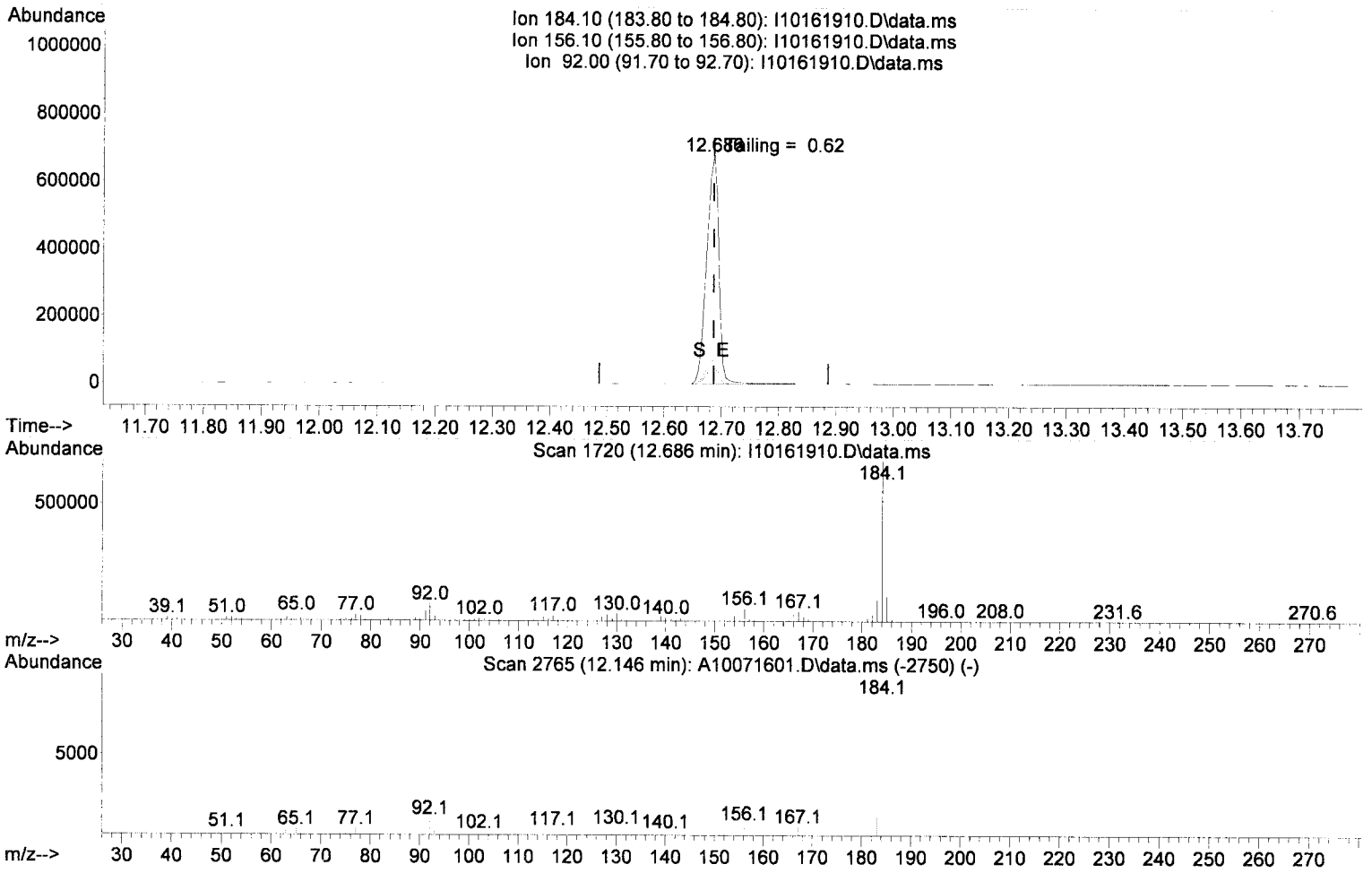
Ion	Exp%	Act%
265.80	100.00	100.00
164.90	47.40	36.72
201.90	26.10	21.28
129.90	22.80	17.33

JK 10/17/19

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161910.D
Acq On : 16 Oct 2019 4:07 pm
Operator : JK /AMS /DTH
Sample : 9J16053-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Oct 17 09:26:38 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Thu Oct 17 09:26:26 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161910.D\data.ms

(6) Benzidine

12.686min (0.000) 34.40 ug/mL

response 1012337

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	9.40	7.62
92.00	15.50	10.38
0.00	0.00	0.00

10/17/19

DDT Breakdown Check (Validated 5/1/2013)

From:
9J16053-TUN1
SV-GCMS9

First Column	Area Counts	Percent Breakdown	
DDE	12045		
DDD	8168		
DDT	3561767	**0.56**	**PASS**

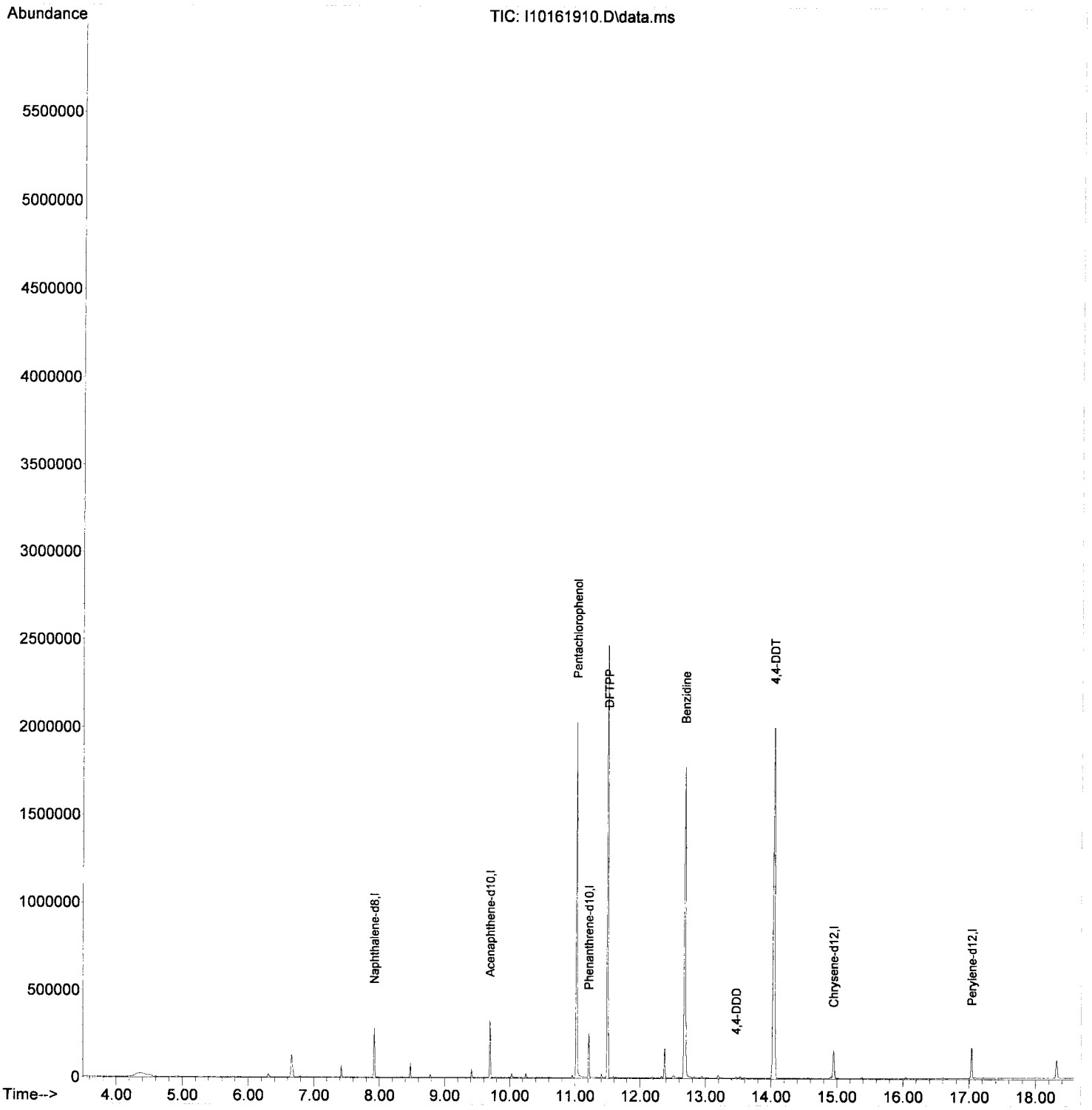
10/17/19

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

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161910.D
Acq On : 16 Oct 2019 4:07 pm
Operator : JK /AMS /DTH
Sample : 9J16053-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Oct 17 09:26:38 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : DFTPP Tune Methodug/mL
QLast Update : Thu Oct 17 09:26:26 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161911.D
Acq On : 16 Oct 2019 4:34 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:35 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

GH 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.659	152	111120	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	441084	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.697	162	229361	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.210	188	410587	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.045	240	414594	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.543	264	407095	2000.00	ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.939	292	322955	2000.00	ng/ml	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	0.000	112	0	0.00	ng/ml	
5) Phenol-d6 (Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	0.000	82	0	0.00	ng/ml	
40) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	0.000	244	0	0.00	ng/ml	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	6.803	108	127	33.63	ng/ml#	45
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.177	77	61	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	7.578	122	81	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	0.000		0	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	0.000		0	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	0.000		0	N.D.		
34) 1-Methylnaphthalene	0.000		0	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	0.000		0	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161911.D
Acq On : 16 Oct 2019 4:34 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:35 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

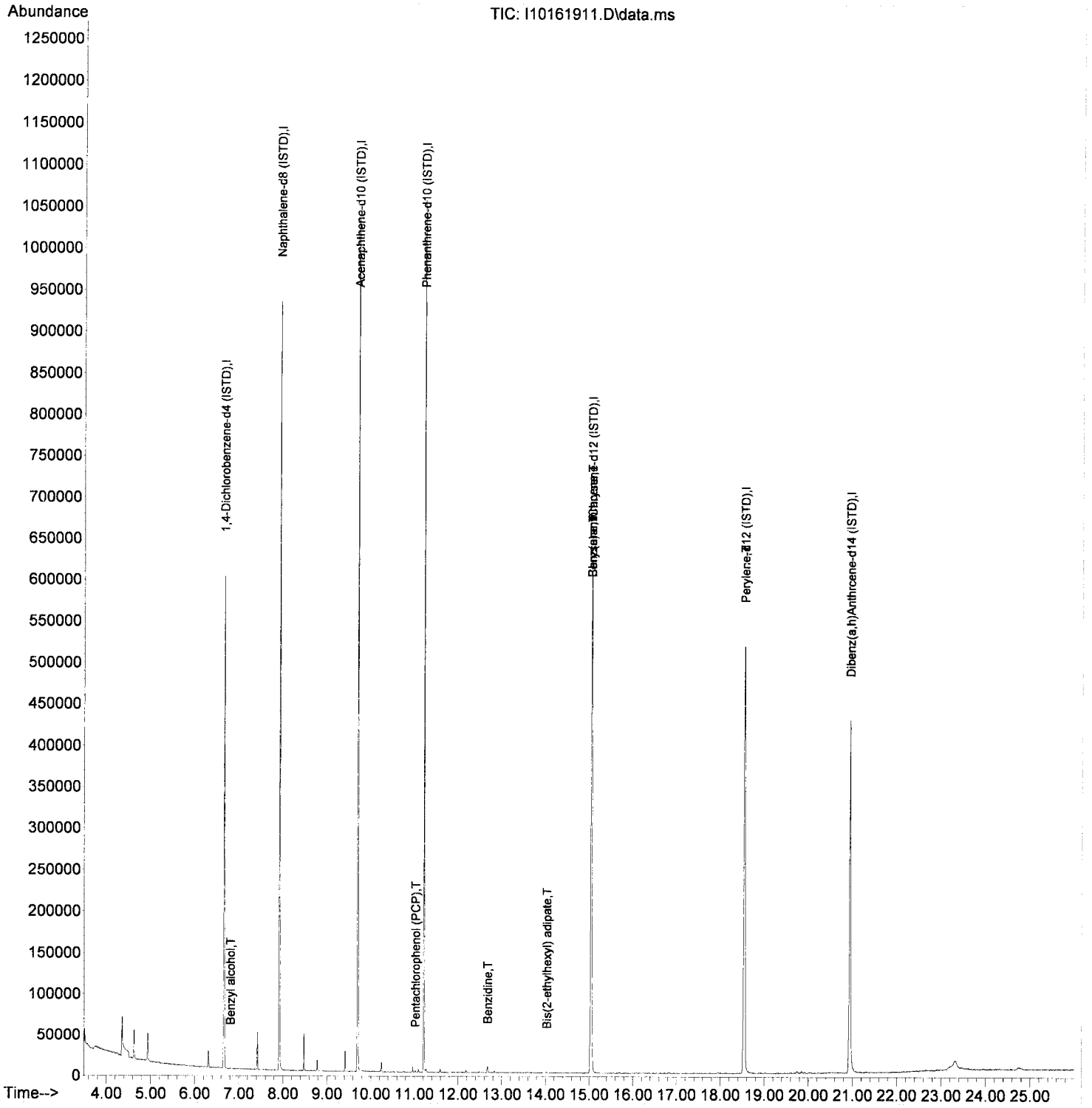
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	0.000		0	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	0.000		0	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	0.000		0	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	0.000		0	N.D.	
55) Dibenzofuran	0.000		0	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	0.000		0	N.D.	
60) Fluorene	0.000		0	N.D.	
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	10.328	77	82	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	11.018	266	377	33.68 ng/ml	88
71) Phenanthrene	11.210	178	142	N.D.	
72) Anthracene	11.210	178	142	N.D.	
73) Carbazole	0.000		0	N.D.	
74) Di-n-butyl phthalate	0.000		0	N.D.	
75) Fluoranthene	0.000		0	N.D.	
76) Benzidine	12.670	184	4346	66.79 ng/ml	95
77) Pyrene	0.000		0	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	14.029	129	284	2.93 ng/ml	80
82) 3,3-Dichlorobenzidine	14.981	252	134	Below Cal	88
83) Benz(a)anthracene	15.040	228	1055	4.44 ng/ml	69
84) Chrysene	15.040	228	1056	4.86 ng/ml	65
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	0.000		0	N.D.	
89) Benzo(k)fluoranthene	0.000		0	N.D.	
90) Benzo(b+k)fluoranthene	0.000		0	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.543	252	1547	8.22 ng/ml	72
95) Indeno(1,2,3-cd)pyrene	20.934	276	59	N.D.	
96) Dibenz(a,h)anthracene	0.000		0	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161911.D
Acq On : 16 Oct 2019 4:34 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:35 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161911.D
Acq On : 16 Oct 2019 4:34 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Final Reagent

JK 10/17/19

Quant Time: Oct 17 13:16:02 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.659	152	111120	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	441084	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.697	162	229361	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.210	188	410587	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.045	240	414594	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.543	264	407095	2000.00	ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.939	292	322955	2000.00	ng/ml	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	0.000	112	0	0.00	ng/ml	
5) Phenol-d6 (Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	0.000	82	0	0.00	ng/ml	
40) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	0.000	244	0	0.00	ng/ml	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	6.803	108	127	2.75	ng/ml#	45
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	0.000		0	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	0.000		0	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.177	77	61	N.D.		
22) Isophorone	0.000		0	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	7.578	122	81	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	0.000		0	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	0.000		0	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	0.000		0	N.D.		
33) 2-Methylnaphthalene	0.000		0	N.D.		
34) 1-Methylnaphthalene	0.000		0	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	0.000		0	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161911.D
Acq On : 16 Oct 2019 4:34 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 13:16:02 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9

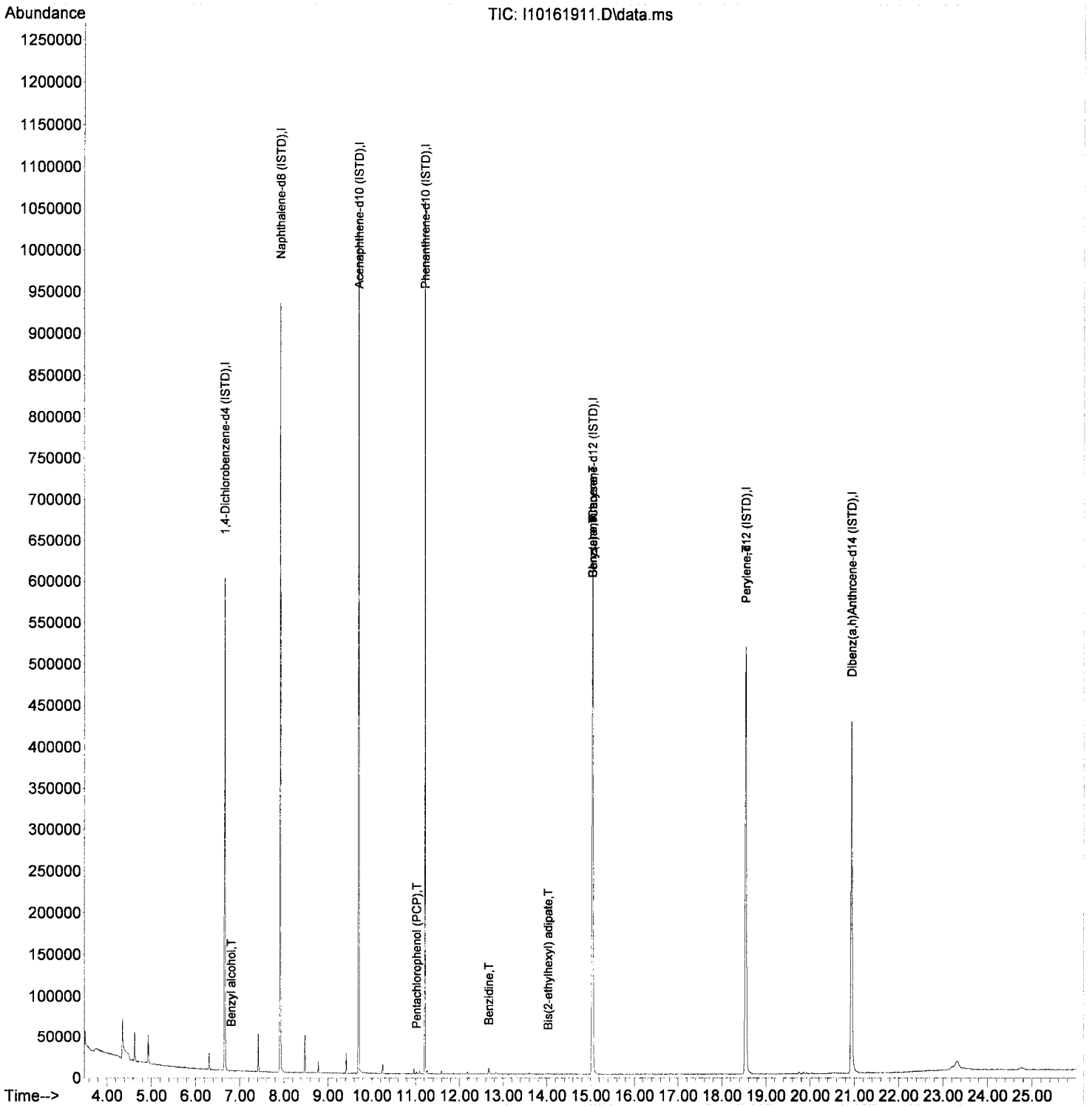
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	0.000		0	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	0.000		0	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	0.000		0	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	0.000		0	N.D.	
55) Dibenzofuran	0.000		0	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	0.000		0	N.D.	
60) Fluorene	0.000		0	N.D.	
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	10.328	77	82	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	11.018	266	377	60.04 ng/ml	88
71) Phenanthrene	11.210	178	142	N.D.	
72) Anthracene	11.210	178	142	N.D.	
73) Carbazole	0.000		0	N.D.	
74) Di-n-butyl phthalate	0.000		0	N.D.	
75) Fluoranthene	0.000		0	N.D.	
76) Benzidine	12.670	184	4346	154.48 ng/ml	95
77) Pyrene	0.000		0	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	14.029	129	284	2.72 ng/ml	80
82) 3,3-Dichlorobenzidine	14.981	252	134	Below Cal	88
83) Benz(a)anthracene	15.040	228	1055	4.39 ng/ml	69
84) Chrysene	15.040	228	1056	4.86 ng/ml	65
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	0.000		0	N.D.	
89) Benzo(k)fluoranthene	0.000		0	N.D.	
90) Benzo(b+k)fluoranthene	0.000		0	N.D.	
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.543	252	1547	8.37 ng/ml	72
95) Indeno(1,2,3-cd)pyrene	20.934	276	59	N.D.	
96) Dibenz(a,h)anthracene	0.000		0	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161911.D
Acq On : 16 Oct 2019 4:34 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 13:16:02 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.664	152	110906	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	444279	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.697	162	228631	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.216	188	419652	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.045	240	431513	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.549	264	431467	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.945	292	350266	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.418	112	1500	20.64	ng/ml	0.01
5) Phenol-d6 (Surr)	6.295	99	1618	18.62	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.199	82	1331	19.02	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.007	172	3186	19.06	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.499	330	334	26.40	ng/ml	0.00
79) Terphenyl-d14 (Surr)	13.018	244	3719	17.99	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.129	74	1227	24.23	ng/ml	69
3) Pyridine	4.193	79	855	21.35	ng/ml#	7
6) Phenol	6.311	94	2030	22.76	ng/ml	94
7) Aniline	6.348	93	1021	12.34	ng/ml	86
8) Bis(2-chloroethyl) ether	6.402	93	1698	20.58	ng/ml	92
9) 2-Chlorophenol	6.461	128	1413	18.40	ng/ml	97
10) 1,3-Dichlorobenzene	6.611	146	1762	20.10	ng/ml	91
11) 1,4-Dichlorobenzene	6.680	146	1753	20.55	ng/ml	88
12) Benzyl alcohol	6.792	108	950	53.34	ng/ml	82
13) 1,2-Dichlorobenzene	6.835	146	1751	21.20	ng/ml	99
14) 2-Methylphenol	6.894	107	1222	22.56	ng/ml	91
15) 2,2'-Oxybis(1-Chloropr...	6.921	45	2838	33.30	ng/ml	95
16) N-Nitrosodi-n-propylamine	7.049	70	1362	27.29	ng/ml	94
17) 3+4-Methylphenol	7.044	107	1259	26.81	ng/ml	88
18) Hexachloroethane	7.167	201	507	18.65	ng/ml	90
20) Nitrobenzene	7.220	77	1500	21.48	ng/ml	90
22) Isophorone	7.456	82	3161	21.19	ng/ml	99
23) 2-Nitrophenol	7.536	139	369	8.33	ng/ml	95
24) 2,4-Dimethylphenol	7.568	122	1082	16.73	ng/ml	89
25) Bis(2-chloroethoxy) me...	7.664	93	1914	21.31	ng/ml	97
26) Benzoic acid	7.568	105	64	689.17	ng/ml#	1
27) 2,4-Dichlorophenol	7.771	162	574	32.97	ng/ml	93
28) 1,2,4-Trichlorobenzene	7.862	180	1518	19.84	ng/ml	97
29) Naphthalene	7.942	128	5043	22.08	ng/ml	97
30) 4-Chloroaniline	7.990	127	610	23.52	ng/ml	83
31) Hexachlorobutadiene	8.076	225	770	18.86	ng/ml	90
32) 4-Chloro-3-methylphenol	8.472	107	522	49.09	ng/ml#	1
33) 2-Methylnaphthalene	8.638	142	3026	18.47	ng/ml	96
34) 1-Methylnaphthalene	8.739	142	3010	19.27	ng/ml	93
36) Hexachlorocyclopentadiene	8.803	237	631	14.46	ng/ml	85
37) 2,4,6-Trichlorophenol	8.921	196	357	40.14	ng/ml	80
38) 2,4,5-Trichlorophenol	8.959	198	333	33.56	ng/ml	80
39) 1,1'-Biphenyl	9.108	154	3294	17.48	ng/ml	93
41) 2-Chloronaphthalene	9.130	162	2408	17.54	ng/ml	91
42) 2-Nitroaniline	9.226	138	265	5.68	ng/ml	78
43) 2,6-Dimethylnaphthalene	9.269	156	2691	19.11	ng/ml	100

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

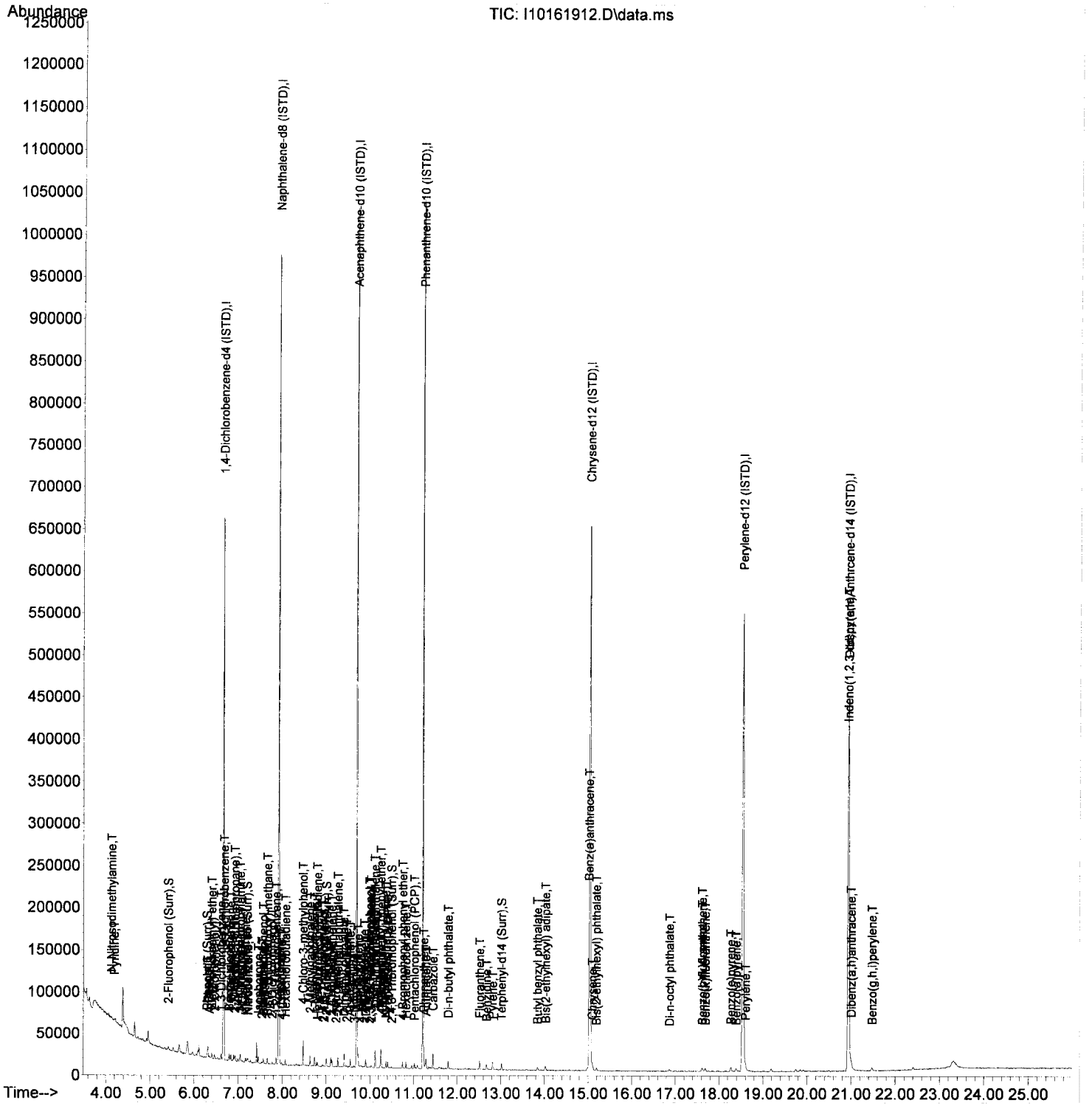
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	0.000		0	N.D.		
45)	Dimethyl phthalate	9.402	163	3253	19.56	ng/ml	97
46)	1,3-Dinitrobenzene	9.440	168	52	N.D.		
47)	2,6-Dinitrotoluene	9.467	165	213	5.54	ng/ml	84
48)	1,2-Dinitrobenzene	0.000		0	N.D.		
49)	Acenaphthylene	9.552	152	4331	19.41	ng/ml	97
50)	3-Nitroaniline	9.643	138	203	27.60	ng/ml#	79
51)	Acenaphthene	9.729	153	3082	21.45	ng/ml	91
52)	2,4-Dinitrophenol	0.000		0	N.D.		
53)	4-Nitrophenol	9.804	139	149	66.50	ng/ml	70
54)	2,4-Dinitrotoluene	9.873	165	307	6.39	ng/ml	95
55)	Dibenzofuran	9.905	168	3969	19.87	ng/ml#	72
56)	2,3,5,6-Tetrachlorophenol	9.991	232	254	36.72	ng/ml	91
57)	2,3,4,6-Tetrachlorophenol	10.028	232	405	22.64	ng/ml	94
58)	Diethyl phthalate	10.119	149	3227	20.84	ng/ml	95
59)	2,3,5-Trimethylnaphtha...	10.114	170	2603	19.20	ng/ml	98
60)	Fluorene	10.253	166	3175	19.83	ng/ml	98
61)	4-Chlorophenyl phenyl ...	10.248	204	1518	18.63	ng/ml	95
62)	4-Nitroaniline	10.258	138	246	7.30	ng/ml#	61
63)	4,6-Dinitro-2-methylph...	0.000		0	N.D.		
65)	N-Nitrosodiphenylamine	10.365	169	2298	17.80	ng/ml	97
66)	Azobenzene (1,2-DPH)	10.408	77	3383	26.10	ng/ml	99
68)	4-Bromophenyl phenyl e...	10.750	248	987	20.33	ng/ml	98
69)	Hexachlorobenzene	10.825	284	1216	21.86	ng/ml	94
70)	Pentachlorophenol (PCP)	11.018	266	898	52.21	ng/ml	91
71)	Phenanthrene	11.237	178	4821	21.73	ng/ml	97
72)	Anthracene	11.285	178	4322	20.04	ng/ml	97
73)	Carbazole	11.446	167	3762	21.24	ng/ml	97
74)	Di-n-butyl phthalate	11.793	149	4261	17.18	ng/ml	96
75)	Fluoranthene	12.515	202	4669	18.59	ng/ml	97
76)	Benzidine	12.671	184	3612	54.31	ng/ml	94
77)	Pyrene	12.810	202	4626	18.31	ng/ml	99
80)	Butyl benzyl phthalate	13.842	149	1220	35.17	ng/ml	88
81)	Bis(2-ethylhexyl) adipate	14.029	129	1272	12.61	ng/ml	95
82)	3,3-Dichlorobenzidine	14.981	252	1592	Below Cal		99
83)	Benz(a)anthracene	15.024	228	5352	21.62	ng/ml	95
84)	Chrysene	15.099	228	4336	19.18	ng/ml	93
85)	Bis(2-ethylhexyl) phth...	15.190	149	1364	9.24	ng/ml	92
87)	Di-n-octyl phthalate	16.869	149	1789	63.80	ng/ml	82
88)	Benzo(b)fluoranthene	17.618	252	3489	14.40	ng/ml	91
89)	Benzo(k)fluoranthene	17.688	252	3429	15.01	ng/ml	97
90)	Benzo(b+k)fluoranthene	17.618	252	6917	28.71	ng/ml	91
91)	Benzo(e)pyrene	18.271	252	3566	15.08	ng/ml	94
92)	Benzo(a)pyrene	18.394	252	2850	21.60	ng/ml	99
93)	Perylene	18.602	252	3674	18.41	ng/ml	98
95)	Indeno(1,2,3-cd)pyrene	20.934	276	4048	19.13	ng/ml	52
96)	Dibenz(a,h)anthracene	21.004	278	3500	18.99	ng/ml	88
97)	Benzo(g,h,i)perylene	21.474	276	3150	15.56	ng/ml	96

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

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161912.D
Acq On : 16 Oct 2019 5:09 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL1
Misc : 1x, A19G238 BNA@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161913.D
Acq On : 16 Oct 2019 5:44 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL2
Misc : 1x, A19G239 BNA@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:50 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.659	152	114962	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	445939	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.697	162	230418	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.210	188	415279	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.045	240	420433	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.549	264	422859	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.945	292	334828	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.407	112	3881	51.53	ng/ml	0.00
5) Phenol-d6 (Surr)	6.289	99	4604	51.10	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.199	82	3185	43.91	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.007	172	8607	51.08	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.499	330	730	43.22	ng/ml	0.00
79) Terphenyl-d14 (Surr)	13.018	244	9501	47.17	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.080	74	3526	67.17	ng/ml	90
3) Pyridine	4.123	79	4710	70.91	ng/ml	83
6) Phenol	6.306	94	5478	59.26	ng/ml	93
7) Aniline	6.343	93	5932	69.17	ng/ml	98
8) Bis(2-chloroethyl) ether	6.396	93	4855	56.77	ng/ml	92
9) 2-Chlorophenol	6.455	128	4117	51.73	ng/ml	96
10) 1,3-Dichlorobenzene	6.605	146	4787	52.68	ng/ml	91
11) 1,4-Dichlorobenzene	6.675	146	4602	52.04	ng/ml	96
12) Benzyl alcohol	6.792	108	1820	72.61	ng/ml	91
13) 1,2-Dichlorobenzene	6.830	146	4537	53.00	ng/ml	94
14) 2-Methylphenol	6.894	107	2790	49.68	ng/ml	91
15) 2,2'-Oxybis(1-Chloropr...	6.921	45	7664	86.75	ng/ml	98
16) N-Nitrosodi-n-propylamine	7.049	70	3574	69.09	ng/ml	98
17) 3+4-Methylphenol	7.038	107	3323	53.48	ng/ml	97
18) Hexachloroethane	7.161	201	1316	46.69	ng/ml	90
20) Nitrobenzene	7.215	77	3574	49.37	ng/ml	90
22) Isophorone	7.450	82	8579	57.29	ng/ml	98
23) 2-Nitrophenol	7.536	139	925	20.81	ng/ml	85
24) 2,4-Dimethylphenol	7.568	122	2761	42.54	ng/ml	95
25) Bis(2-chloroethoxy) me...	7.659	93	4937	54.77	ng/ml	98
26) Benzoic acid	7.659	105	134	690.78	ng/ml#	64
27) 2,4-Dichlorophenol	7.771	162	1890	54.39	ng/ml	93
28) 1,2,4-Trichlorobenzene	7.862	180	3937	51.27	ng/ml	97
29) Naphthalene	7.942	128	12520	54.62	ng/ml	97
30) 4-Chloroaniline	7.990	127	2877	62.07	ng/ml	96
31) Hexachlorobutadiene	8.071	225	2120	51.74	ng/ml	92
32) 4-Chloro-3-methylphenol	8.466	107	1947	71.54	ng/ml#	63
33) 2-Methylnaphthalene	8.638	142	8077	49.12	ng/ml	96
34) 1-Methylnaphthalene	8.739	142	8217	52.41	ng/ml	93
36) Hexachlorocyclopentadiene	8.803	237	1631	37.10	ng/ml	92
37) 2,4,6-Trichlorophenol	8.921	196	1180	57.50	ng/ml	85
38) 2,4,5-Trichlorophenol	8.953	198	1380	56.28	ng/ml	91
39) 1,1'-Biphenyl	9.108	154	9466	49.85	ng/ml	99
41) 2-Chloronaphthalene	9.130	162	7301	52.77	ng/ml	97
42) 2-Nitroaniline	9.226	138	803	17.08	ng/ml	94
43) 2,6-Dimethylnaphthalene	9.269	156	7521	53.01	ng/ml	96

See MJ

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161913.D
Acq On : 16 Oct 2019 5:44 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL2
Misc : 1x, A19G239 BNA@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:50 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

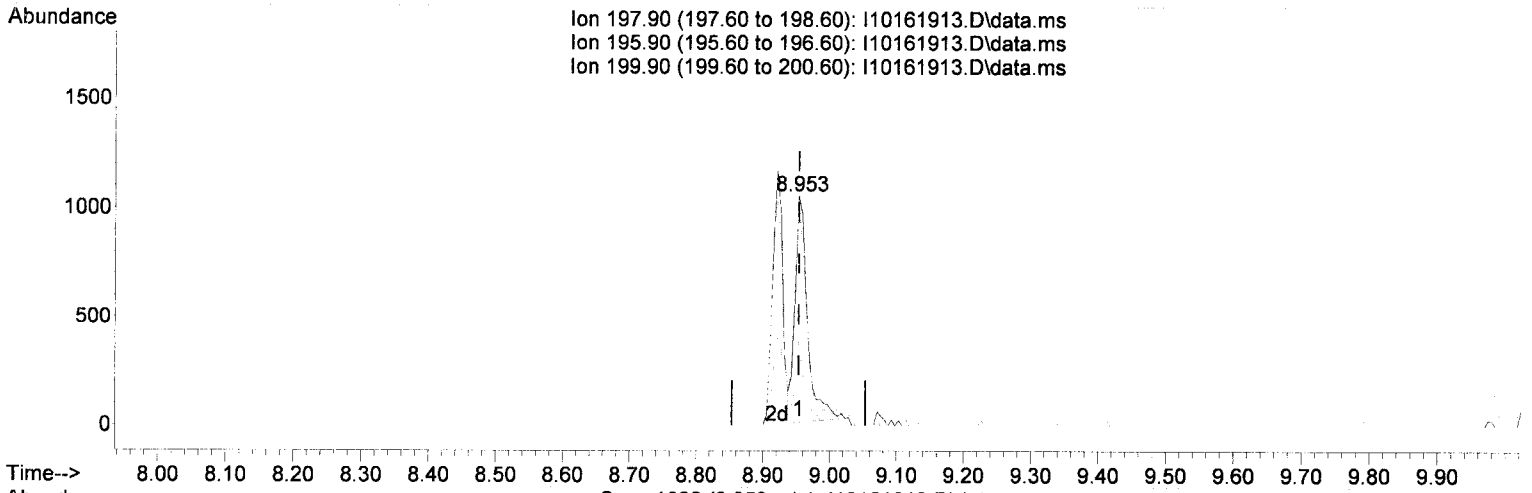
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.349	168	260	73.59	ng/ml	80
45) Dimethyl phthalate	9.408	163	8884	53.00	ng/ml	97
46) 1,3-Dinitrobenzene	9.434	168	351	12.68	ng/ml	55
47) 2,6-Dinitrotoluene	9.467	165	792	20.42	ng/ml	90
48) 1,2-Dinitrobenzene	9.520	168	309	16.43	ng/ml	87
49) Acenaphthylene	9.552	152	12047	53.56	ng/ml	98
50) 3-Nitroaniline	9.638	138	817	42.51	ng/ml	92
51) Acenaphthene	9.729	153	7881	54.42	ng/ml	97
52) 2,4-Dinitrophenol	0.000		0	N.D.		
53) 4-Nitrophenol	9.804	139	379	74.08	ng/ml	80
54) 2,4-Dinitrotoluene	9.878	165	711	14.67	ng/ml	93
55) Dibenzofuran	9.905	168	10908	54.20	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.985	232	786	50.55	ng/ml	95
57) 2,3,4,6-Tetrachlorophenol	10.028	232	1166	42.00	ng/ml	95
58) Diethyl phthalate	10.119	149	8435	54.05	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.114	170	6964	50.96	ng/ml	97
60) Fluorene	10.253	166	8492	52.63	ng/ml	94
61) 4-Chlorophenyl phenyl ...	10.247	204	4054	49.87	ng/ml	95
62) 4-Nitroaniline	10.258	138	819	24.11	ng/ml	84
63) 4,6-Dinitro-2-methylph...	10.296	198	104	79.94	ng/ml#	54
65) N-Nitrosodiphenylamine	10.365	169	6622	51.83	ng/ml	98
66) Azobenzene (1,2-DPH)	10.408	77	9368	73.03	ng/ml	98
68) 4-Bromophenyl phenyl e...	10.745	248	2354	49.00	ng/ml	91
69) Hexachlorobenzene	10.825	284	2891	52.51	ng/ml	93
70) Pentachlorophenol (PCP)	11.023	266	808	49.26	ng/ml	90
71) Phenanthrene	11.237	178	12134	55.27	ng/ml	99
72) Anthracene	11.285	178	11800	55.30	ng/ml	99
73) Carbazole	11.446	167	10074	49.84	ng/ml	98
74) Di-n-butyl phthalate	11.793	149	12651	51.56	ng/ml	99
75) Fluoranthene	12.515	202	12524	50.39	ng/ml	99
76) Benzidine	12.670	184	3389	51.49	ng/ml	89
77) Pyrene	12.809	202	12834	51.32	ng/ml	98
80) Butyl benzyl phthalate	13.847	149	3359	54.50	ng/ml	95
81) Bis(2-ethylhexyl) adipate	14.018	129	3024	30.76	ng/ml	89
82) 3,3-Dichlorobenzidine	14.981	252	5122	Below Cal		89
83) Benz(a)anthracene	15.024	228	11999	49.74	ng/ml	100
84) Chrysene	15.104	228	11098	50.38	ng/ml	96
85) Bis(2-ethylhexyl) phth...	15.195	149	3999	27.80	ng/ml	97
87) Di-n-octyl phthalate	16.869	149	4878	75.82	ng/ml	90
88) Benzo(b)fluoranthene	17.618	252	9380	39.51	ng/ml	97
89) Benzo(k)fluoranthene	17.682	252	9507	42.47	ng/ml	95
90) Benzo(b+k)fluoranthene	17.682	252	19673	83.31	ng/ml	95
91) Benzo(e)pyrene	18.270	252	10258	44.28	ng/ml	99
92) Benzo(a)pyrene	18.393	252	8352	46.78	ng/ml	94
93) Perylene	18.597	252	9122	46.65	ng/ml	98
95) Indeno(1,2,3-cd)pyrene	20.934	276	9841	48.66	ng/ml	87
96) Dibenz(a,h)anthracene	21.004	278	8473	48.08	ng/ml	98
97) Benzo(g,h,i)perylene	21.469	276	8620	44.58	ng/ml	92

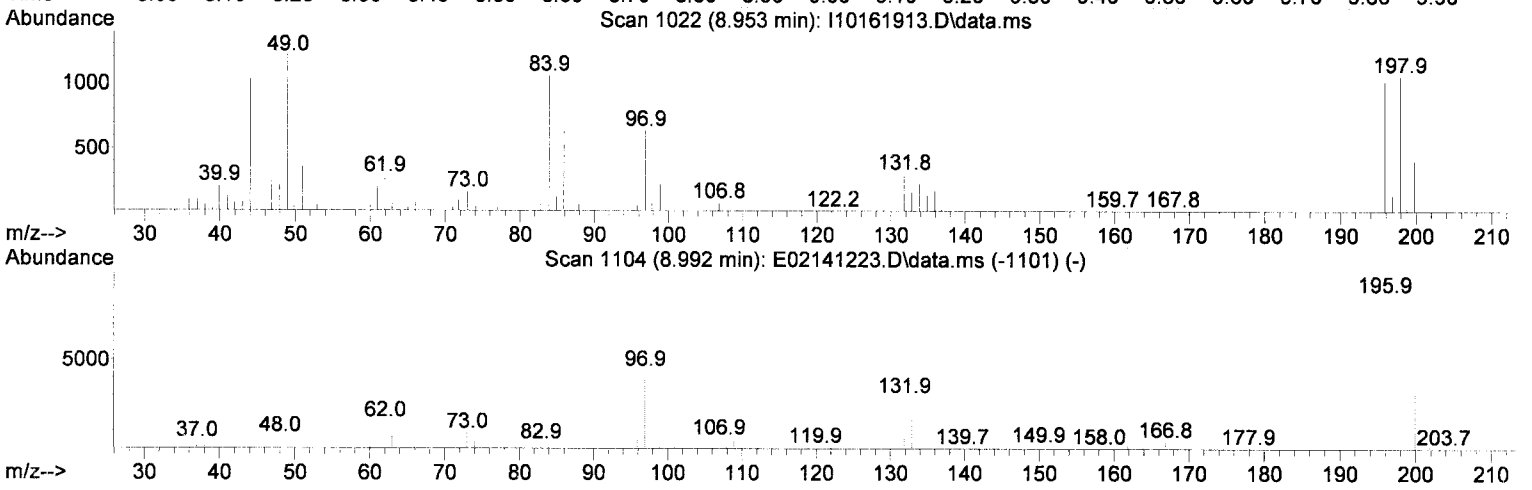
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161913.D
Acq On : 16 Oct 2019 5:44 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL2
Misc : 1x, A19G239 BNA@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:50 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9





TIC: I10161913.D\data.ms

(38) 2,4,5-Trichlorophenol (T)

8.953min (+ 0.000) 56.28 ng/ml

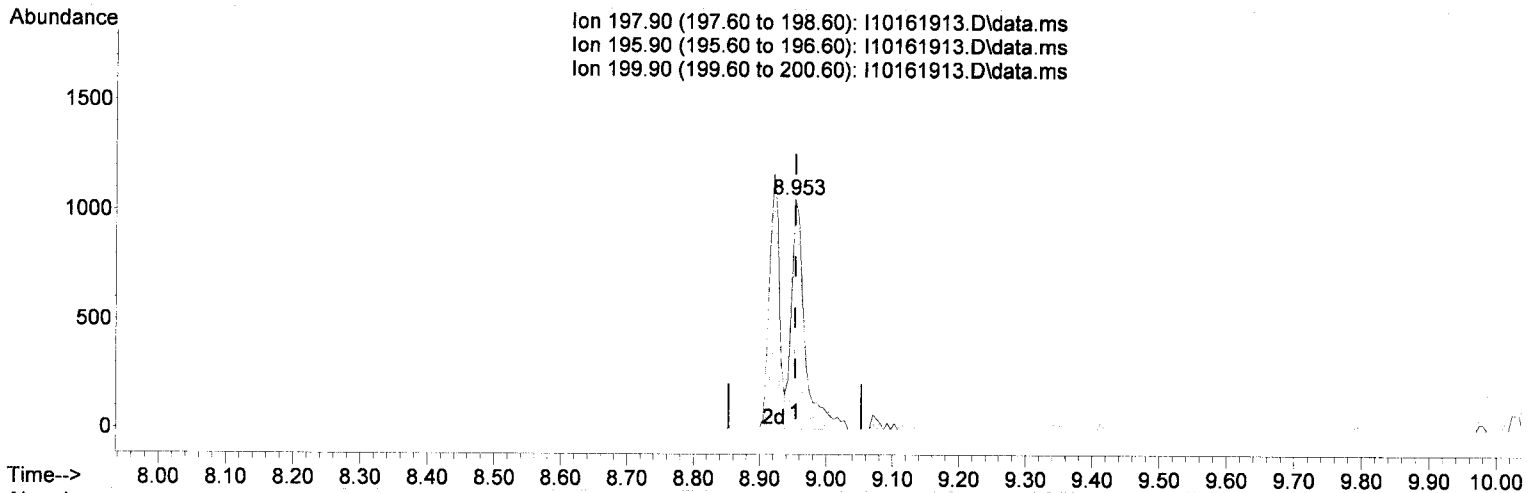
response 1380

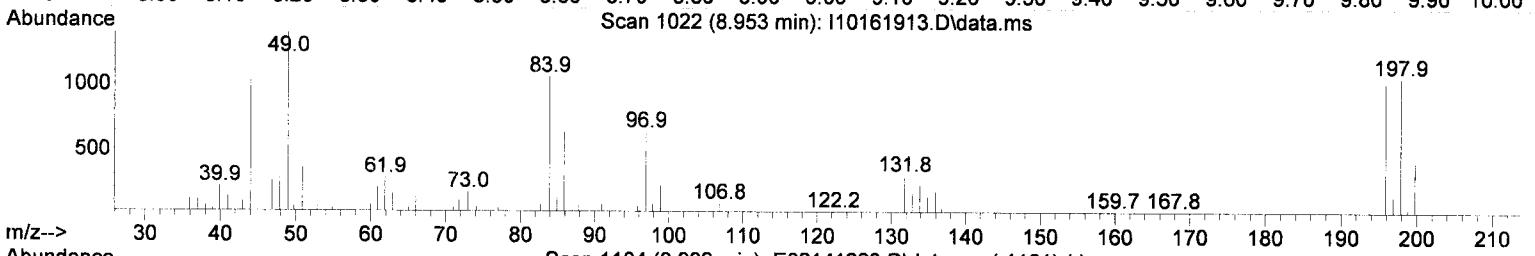
Ion	Exp%	Act%
197.90	100.00	100.00
195.90	103.70	96.21
199.90	30.90	38.67
0.00	0.00	0.00

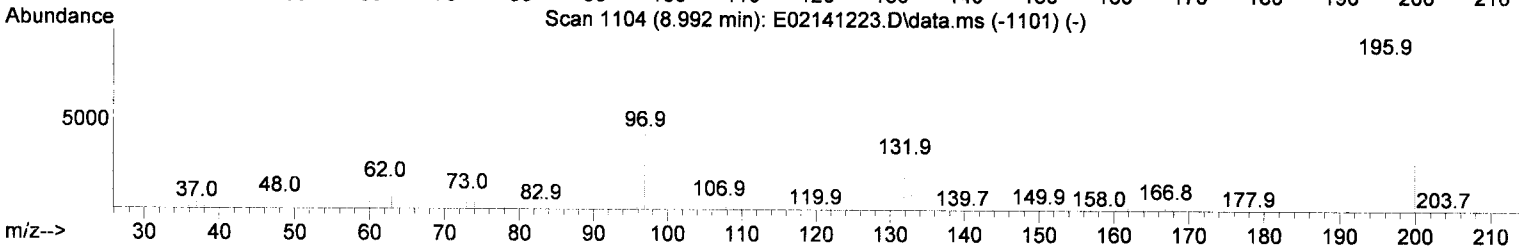
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161913.D
Acq On : 16 Oct 2019 5:44 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL2
Misc : 1x, A19G239 BNA@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:50 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I10161913.D\data.ms

(38) 2,4,5-Trichlorophenol (T)

8.953min (+ 0.000) 59.05 ng/ml m

response 1507

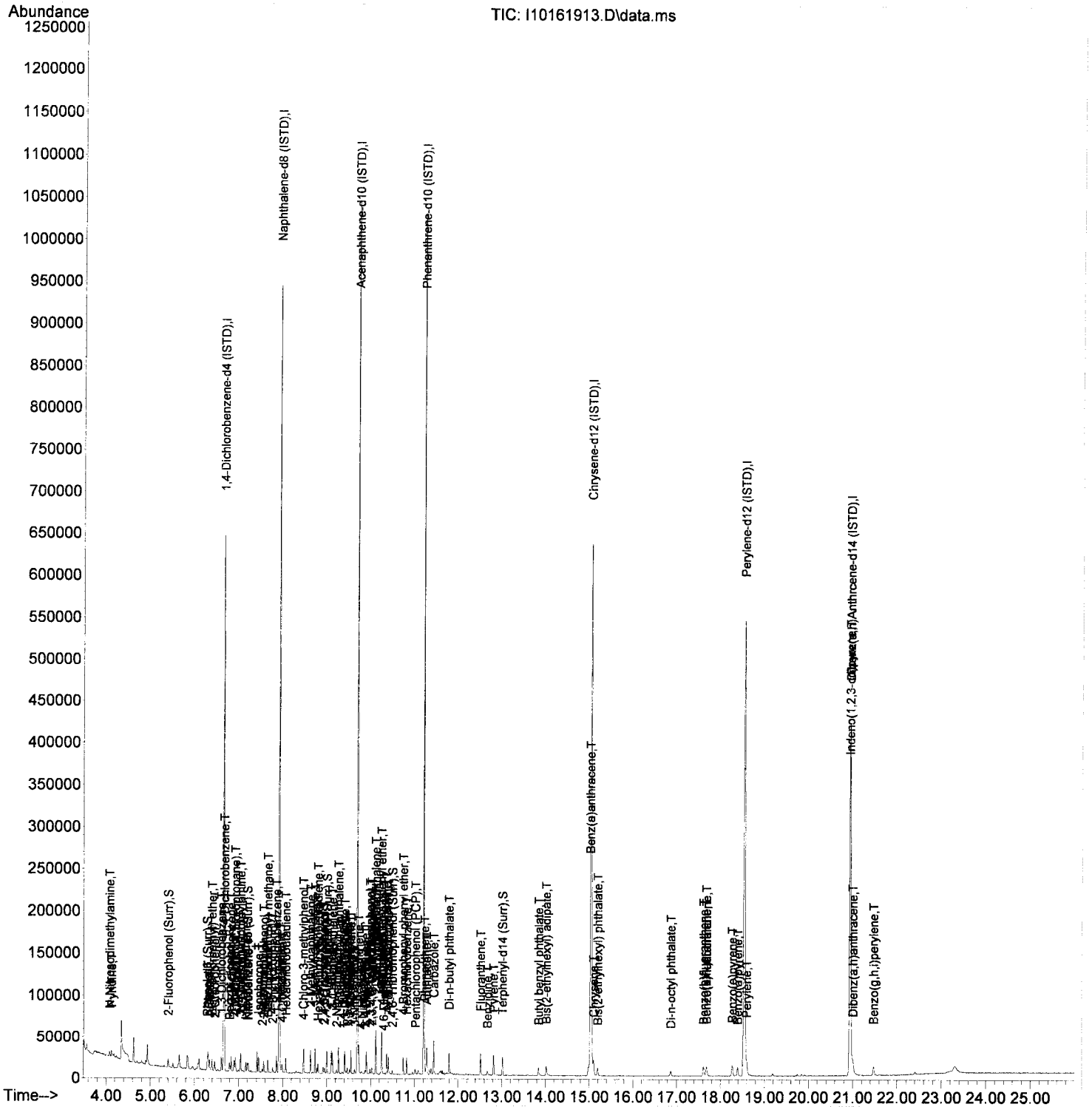
Ion	Exp%	Act%
197.90	100.00	100.00
195.90	103.70	96.21
199.90	30.90	38.67
0.00	0.00	0.00

10/17/19

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161913.D
Acq On : 16 Oct 2019 5:44 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL2
Misc : 1x, A19G239 BNA@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:50 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161914.D
Acq On : 16 Oct 2019 6:19 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL3
Misc : 1x, A19G240 BNA@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.659	152	113552	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	448868	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.697	162	232211	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.210	188	421494	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.045	240	434926	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.543	264	432129	2000.00	ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.945	292	350177	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.412	112	7618	102.40	ng/ml	0.00
5) Phenol-d6 (Surr)	6.289	99	9393	105.55	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.199	82	6659	92.95	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.001	172	19336	113.88	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.499	330	1877	90.32	ng/ml	0.00
79) Terphenyl-d14 (Surr)	13.018	244	20875	100.19	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.091	74	6638	128.02	ng/ml	94
3) Pyridine	4.123	79	9792	138.13	ng/ml	92
6) Phenol	6.306	94	10339	113.24	ng/ml	95
7) Aniline	6.343	93	12340	145.68	ng/ml	94
8) Bis(2-chloroethyl) ether	6.396	93	10234	121.15	ng/ml	95
9) 2-Chlorophenol	6.461	128	8126	103.37	ng/ml	98
10) 1,3-Dichlorobenzene	6.610	146	9504	105.89	ng/ml	96
11) 1,4-Dichlorobenzene	6.680	146	9126	104.49	ng/ml	96
12) Benzyl alcohol	6.787	108	3764	118.45	ng/ml	94
13) 1,2-Dichlorobenzene	6.830	146	8939	105.72	ng/ml	98
14) 2-Methylphenol	6.894	107	6433	115.98	ng/ml	96
15) 2,2'-Oxybis(1-Chloropr...	6.921	45	14918	170.96	ng/ml	99
16) N-Nitrosodi-n-propylamine	7.049	70	7214	141.18	ng/ml	96
17) 3+4-Methylphenol	7.038	107	7443	109.18	ng/ml	99
18) Hexachloroethane	7.167	201	2749	98.74	ng/ml	96
20) Nitrobenzene	7.220	77	7135	99.79	ng/ml	99
22) Isophorone	7.450	82	18112	120.16	ng/ml	99
23) 2-Nitrophenol	7.536	139	2310	51.62	ng/ml	91
24) 2,4-Dimethylphenol	7.568	122	6096	93.32	ng/ml	99
25) Bis(2-chloroethoxy) me...	7.659	93	10224	112.68	ng/ml	97
26) Benzoic acid	~~7.685~~	~~105~~	~~73~~	~~689.36~~	~~ng/ml#~~	~~52~~
27) 2,4-Dichlorophenol	7.771	162	4404	94.88	ng/ml	99
28) 1,2,4-Trichlorobenzene	7.862	180	7993	103.40	ng/ml	99
29) Naphthalene	7.942	128	25776	111.72	ng/ml	99
30) 4-Chloroaniline	7.985	127	6058	115.49	ng/ml	94
31) Hexachlorobutadiene	8.071	225	4343	105.31	ng/ml	96
32) 4-Chloro-3-methylphenol	8.466	107	4647	113.63	ng/ml	82
33) 2-Methylnaphthalene	8.638	142	17540	105.97	ng/ml	97
34) 1-Methylnaphthalene	8.739	142	17357	109.97	ng/ml	99
36) Hexachlorocyclopentadiene	8.803	237	3517	79.37	ng/ml	96
37) 2,4,6-Trichlorophenol	8.921	196	3024	96.02	ng/ml	94
38) 2,4,5-Trichlorophenol	8.953	198	2923	89.37	ng/ml	94
39) 1,1'-Biphenyl	9.108	154	21153	110.53	ng/ml	98
41) 2-Chloronaphthalene	9.130	162	15573	111.68	ng/ml	99
42) 2-Nitroaniline	9.226	138	2029	42.84	ng/ml	79
43) 2,6-Dimethylnaphthalene	9.269	156	15902	111.21	ng/ml	98

See NI

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161914.D
Acq On : 16 Oct 2019 6:19 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL3
Misc : 1x, A19G240 BNA@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

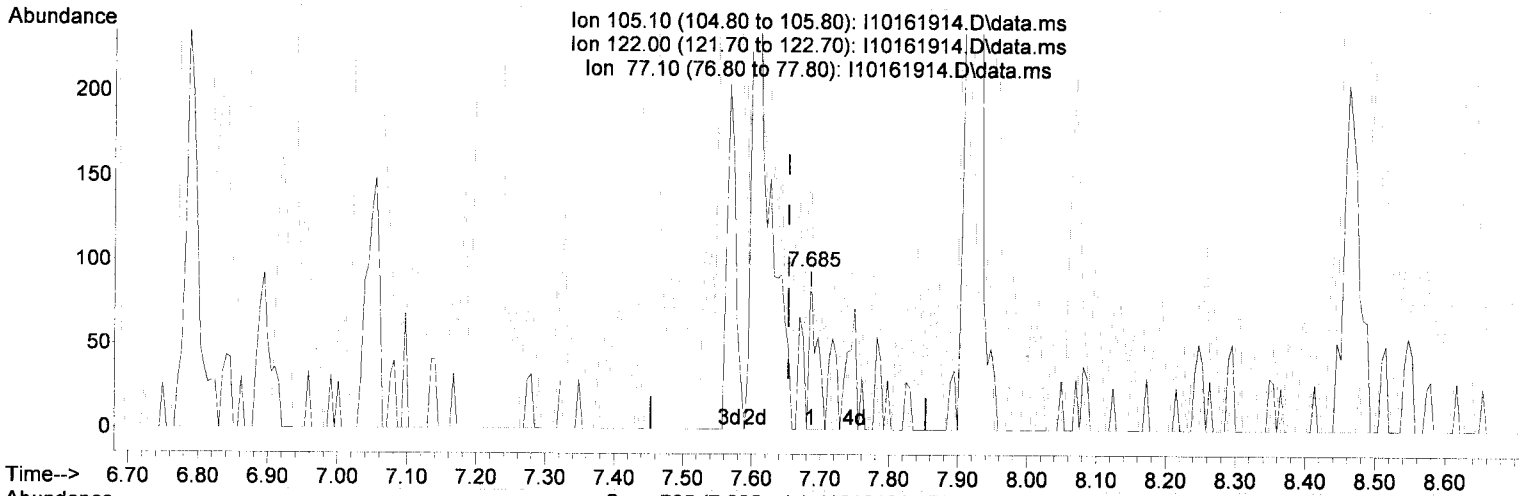
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.354	168	548	84.88	ng/ml	94
45) Dimethyl phthalate	9.408	163	18685	110.60	ng/ml	98
46) 1,3-Dinitrobenzene	9.434	168	771	27.65	ng/ml	74
47) 2,6-Dinitrotoluene	9.467	165	1977	50.59	ng/ml	94
48) 1,2-Dinitrobenzene	9.520	168	825	43.54	ng/ml	74
49) Acenaphthylene	9.552	152	25781	113.74	ng/ml	99
50) 3-Nitroaniline	9.638	138	2092	73.69	ng/ml	90
51) Acenaphthene	9.729	153	16496	113.02	ng/ml	96
52) 2,4-Dinitrophenol	9.739	184	103	164.16	ng/ml#	37
53) 4-Nitrophenol	9.798	139	907	91.33	ng/ml	78
54) 2,4-Dinitrotoluene	9.878	165	1827	37.42	ng/ml	92
55) Dibenzofuran	9.905	168	22990	113.35	ng/ml	95
56) 2,3,5,6-Tetrachlorophenol	9.985	232	2308	89.78	ng/ml	95
57) 2,3,4,6-Tetrachlorophenol	10.028	232	3124	91.39	ng/ml	92
58) Diethyl phthalate	10.119	149	17844	113.46	ng/ml	96
59) 2,3,5-Trimethylnaphtha...	10.114	170	14732	106.97	ng/ml	100
60) Fluorene	10.253	166	18324	112.69	ng/ml	97
61) 4-Chlorophenyl phenyl ...	10.247	204	8661	104.66	ng/ml	99
62) 4-Nitroaniline	10.258	138	2067	60.39	ng/ml	92
63) 4,6-Dinitro-2-methylph...	10.290	198	341	89.81	ng/ml	90
65) N-Nitrosodiphenylamine	10.365	169	14732	113.61	ng/ml	99
66) Azobenzene (1,2-DPH)	10.408	77	18843	144.73	ng/ml	98
68) 4-Bromophenyl phenyl e...	10.745	248	4920	100.90	ng/ml	91
69) Hexachlorobenzene	10.825	284	6222	111.34	ng/ml	94
70) Pentachlorophenol (PCP)	11.018	266	1663	79.57	ng/ml	91
71) Phenanthrene	11.237	178	24650	110.63	ng/ml	99
72) Anthracene	11.285	178	24793	114.47	ng/ml	98
73) Carbazole	11.446	167	21180	99.27	ng/ml	99
74) Di-n-butyl phthalate	11.788	149	26455	106.22	ng/ml	100
75) Fluoranthene	12.515	202	27171	107.72	ng/ml	98
76) Benzidine	12.670	184	10054	150.51	ng/ml	94
77) Pyrene	12.809	202	27657	108.96	ng/ml	98
80) Butyl benzyl phthalate	13.847	149	8298	95.98	ng/ml	93
81) Bis(2-ethylhexyl) adipate	14.024	129	7171	70.51	ng/ml	98
82) 3,3-Dichlorobenzidine	14.986	252	12358	Below Cal		96
83) Benz(a)anthracene	15.018	228	25078	100.49	ng/ml	98
84) Chrysene	15.104	228	23115	101.44	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.200	149	10525	70.73	ng/ml	95
87) Di-n-octyl phthalate	16.869	149	13641	108.39	ng/ml	96
88) Benzo(b)fluoranthene	17.618	252	21892	90.23	ng/ml	99
89) Benzo(k)fluoranthene	17.687	252	22282	97.40	ng/ml	98
90) Benzo(b+k)fluoranthene	17.618	252	45830	189.93	ng/ml	99
91) Benzo(e)pyrene	18.270	252	22306	94.21	ng/ml	98
92) Benzo(a)pyrene	18.393	252	19477	95.30	ng/ml	97
93) Perylene	18.602	252	19207	96.12	ng/ml	98
95) Indeno(1,2,3-cd)pyrene	20.934	276	20486	96.85	ng/ml	97
96) Dibenz(a,h)anthracene	21.004	278	18545	100.62	ng/ml	96
97) Benzo(g,h,i)perylene	21.474	276	19859	98.10	ng/ml	96

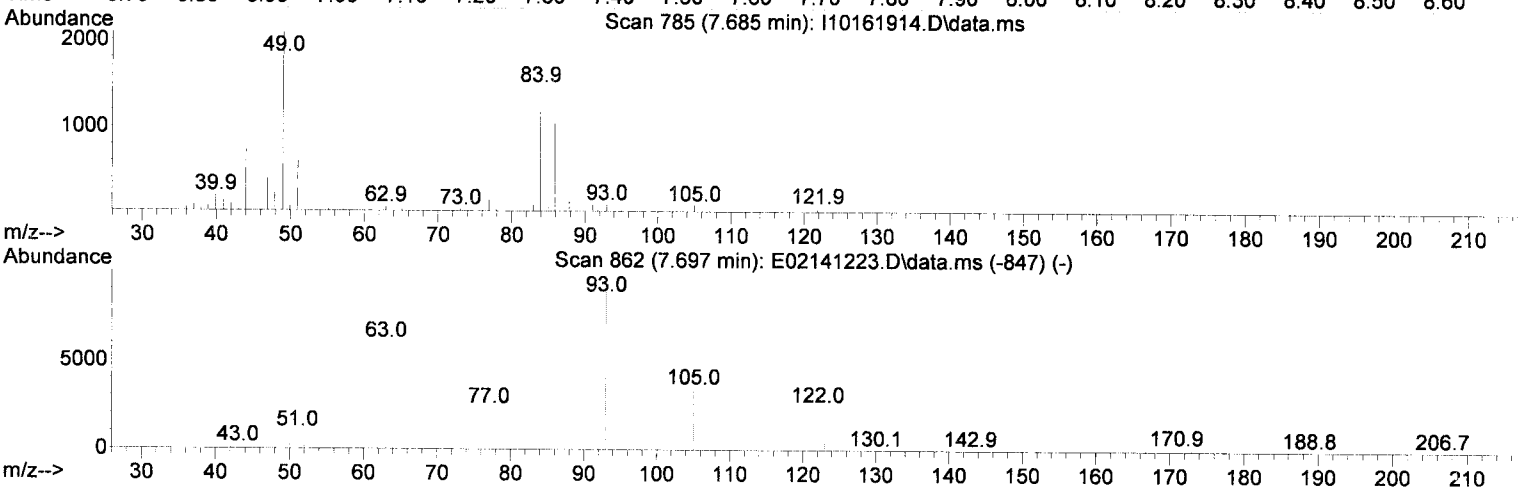
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161914.D
Acq On : 16 Oct 2019 6:19 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL3
Misc : 1x, A19G240 BNA@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9





TIC: I10161914.D\data.ms

(26) Benzoic acid (T)

7.685min (+ 0.032) 689.36 ng/ml

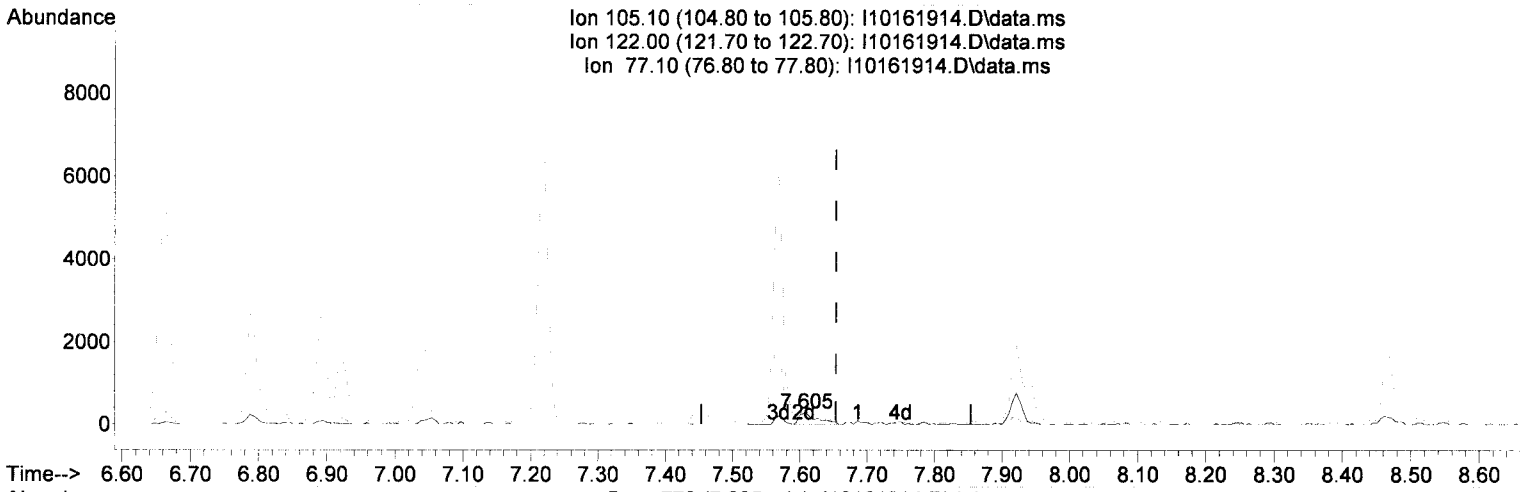
response 73

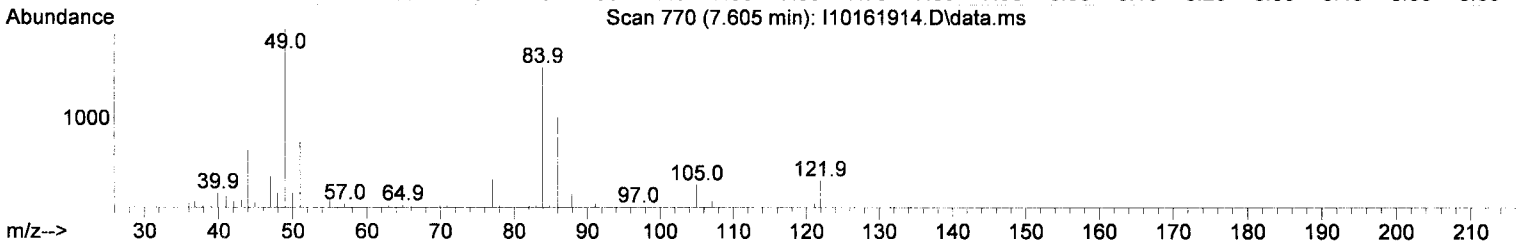
Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	76.60
77.10	77.80	158.51#
0.00	0.00	0.00

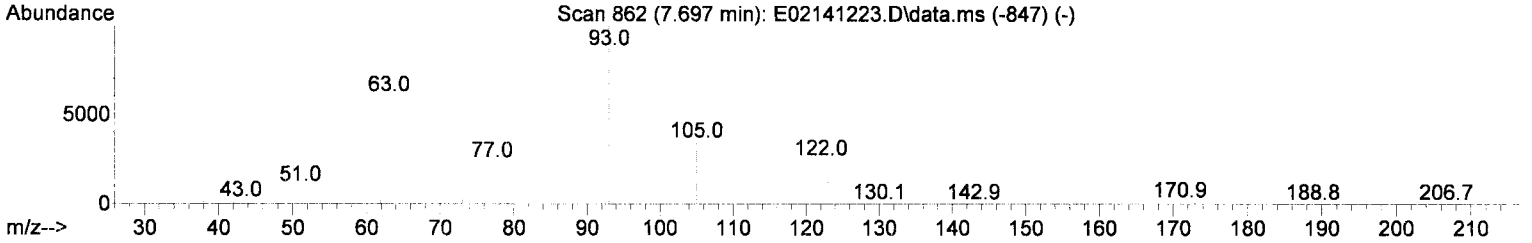
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161914.D
Acq On : 16 Oct 2019 6:19 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL3
Misc : 1x, A19G240 BNA@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I10161914.D\data.ms

(26) Benzoic acid (T)

7.605min (-0.048) 699.54 ng/ml m

10/17/19

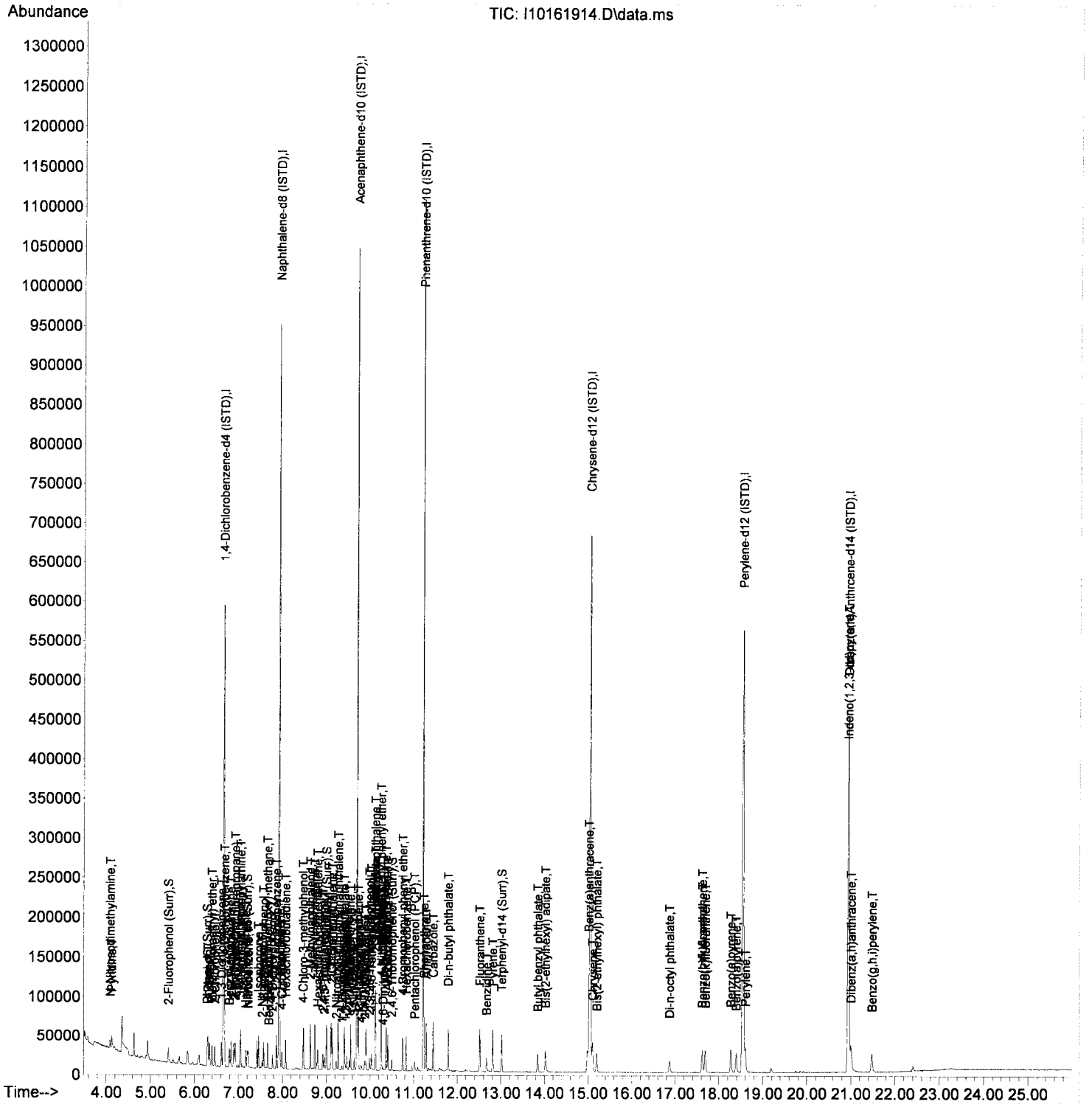
response 519

Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	116.92#
77.10	77.80	121.80#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161914.D
Acq On : 16 Oct 2019 6:19 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL3
Misc : 1x, A19G240 BNA@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:12:58 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161915.D
Acq On : 16 Oct 2019 6:54 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL4
Misc : 1x, A19G241 BNA@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:05 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.659	152	120155	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	447887	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.697	162	228870	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.210	188	406200	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.045	240	416387	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.549	264	413647	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.945	292	337729	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.402	112	16598	210.85	ng/ml	0.00
5) Phenol-d6 (Surr)	6.290	99	19537	207.48	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.199	82	13464	177.60	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.001	172	37977	226.93	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.499	330	4109	189.13	ng/ml	0.00
79) Terphenyl-d14 (Surr)	13.018	244	41737	209.23	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.059	74	13447	245.08	ng/ml	98
3) Pyridine	4.091	79	20595	263.90	ng/ml	97
6) Phenol	6.300	94	20713	214.40	ng/ml	99
7) Aniline	6.338	93	25093	279.96	ng/ml	95
8) Bis(2-chloroethyl) ether	6.391	93	20574	230.17	ng/ml	96
9) 2-Chlorophenol	6.455	128	17444	209.70	ng/ml	97
10) 1,3-Dichlorobenzene	6.605	146	20472	215.55	ng/ml	99
11) 1,4-Dichlorobenzene	6.675	146	19398	209.89	ng/ml	96
12) Benzyl alcohol	6.787	108	8208	211.19	ng/ml	93
13) 1,2-Dichlorobenzene	6.824	146	19037	212.77	ng/ml	99
14) 2-Methylphenol	6.889	107	13130	223.71	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.921	45	30514	330.48	ng/ml	98
16) N-Nitrosodi-n-propylamine	7.044	70	14701	271.89	ng/ml	98
17) 3+4-Methylphenol	7.038	107	15070	200.27	ng/ml	97
18) Hexachloroethane	7.161	201	5953	202.07	ng/ml	95
20) Nitrobenzene	7.215	77	15667	207.08	ng/ml	96
22) Isophorone	7.450	82	38056	253.02	ng/ml	96
23) 2-Nitrophenol	7.536	139	5298	118.66	ng/ml	91
24) 2,4-Dimethylphenol	7.568	122	13189	202.34	ng/ml	95
25) Bis(2-chloroethoxy) me...	7.659	93	20646	228.05	ng/ml	99
26) Benzoic acid	7.691	105	160	691.36	ng/ml	87
27) 2,4-Dichlorophenol	7.771	162	10420	192.56	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.862	180	16256	210.76	ng/ml	98
29) Naphthalene	7.942	128	50856	220.91	ng/ml	99
30) 4-Chloroaniline	7.985	127	14311	255.23	ng/ml	97
31) Hexachlorobutadiene	8.071	225	9011	218.98	ng/ml	95
32) 4-Chloro-3-methylphenol	8.467	107	10782	209.92	ng/ml	96
33) 2-Methylnaphthalene	8.638	142	36226	219.35	ng/ml	98
34) 1-Methylnaphthalene	8.739	142	34216	217.27	ng/ml	99
36) Hexachlorocyclopentadiene	8.803	237	7790	178.37	ng/ml	94
37) 2,4,6-Trichlorophenol	8.921	196	7170	185.24	ng/ml	98
38) 2,4,5-Trichlorophenol	8.953	198	6873	176.84	ng/ml	91
39) 1,1'-Biphenyl	9.108	154	42580	225.74	ng/ml	99
41) 2-Chloronaphthalene	9.130	162	31240	227.31	ng/ml	99
42) 2-Nitroaniline	9.226	138	5088	108.98	ng/ml	98
43) 2,6-Dimethylnaphthalene	9.269	156	31242	221.68	ng/ml	99

See MI

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161915.D
Acq On : 16 Oct 2019 6:54 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL4
Misc : 1x, A19G241 BNA@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:05 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

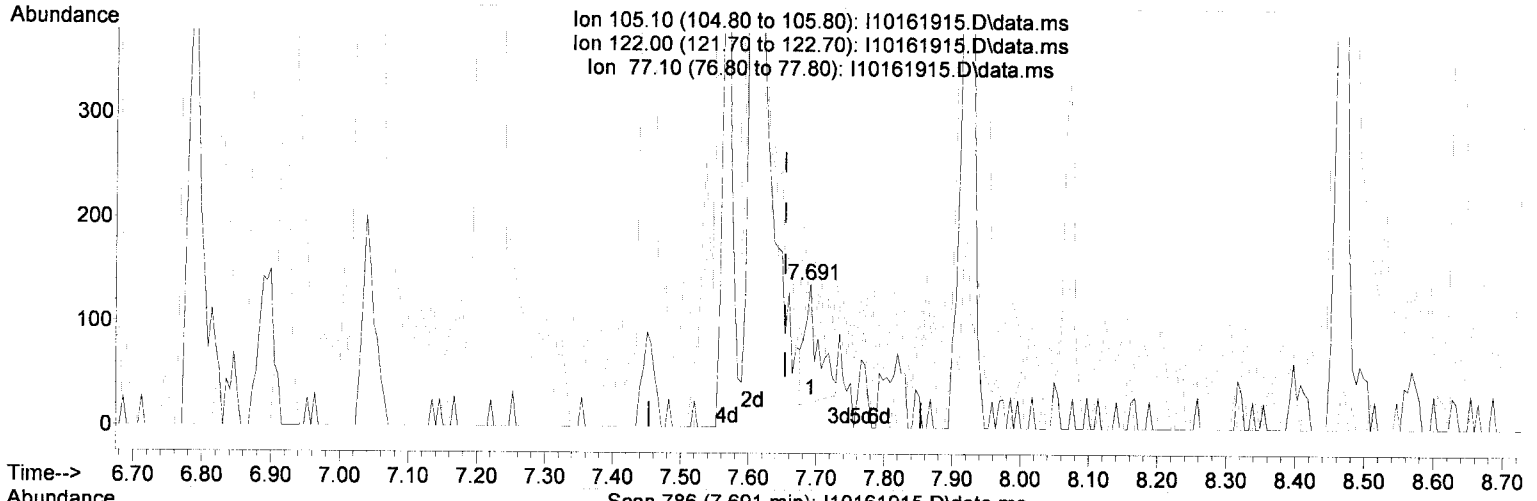
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.354	168	1277	114.39	ng/ml	92
45) Dimethyl phthalate	9.408	163	36622	219.94	ng/ml	98
46) 1,3-Dinitrobenzene	9.435	168	1889	68.72	ng/ml	91
47) 2,6-Dinitrotoluene	9.467	165	5062	131.41	ng/ml	97
48) 1,2-Dinitrobenzene	9.520	168	2119	113.46	ng/ml	88
49) Acenaphthylene	9.552	152	50685	226.88	ng/ml	98
50) 3-Nitroaniline	9.638	138	5115	151.93	ng/ml	91
51) Acenaphthene	9.729	153	31461	218.69	ng/ml	99
52) 2,4-Dinitrophenol	9.739	184	310	176.90	ng/ml	65
53) 4-Nitrophenol	9.798	139	2397	141.39	ng/ml	93
54) 2,4-Dinitrotoluene	9.879	165	4451	92.48	ng/ml	95
55) Dibenzofuran	9.905	168	43819	219.19	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.986	232	5028	162.01	ng/ml	97
57) 2,3,4,6-Tetrachlorophenol	10.028	232	6167	170.70	ng/ml	96
58) Diethyl phthalate	10.119	149	35198	227.07	ng/ml	99
59) 2,3,5-Trimethylnaphtha...	10.114	170	28442	209.54	ng/ml	98
60) Fluorene	10.253	166	34530	215.45	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.248	204	16535	202.72	ng/ml	99
62) 4-Nitroaniline	10.258	138	4513	133.78	ng/ml	90
63) 4,6-Dinitro-2-methylph...	10.290	198	920	114.54	ng/ml	82
65) N-Nitrosodiphenylamine	10.365	169	28901	231.26	ng/ml	98
66) Azobenzene (1,2-DPH)	10.408	77	37095	295.66	ng/ml	99
68) 4-Bromophenyl phenyl e...	10.745	248	9944	211.60	ng/ml	95
69) Hexachlorobenzene	10.825	284	12268	227.81	ng/ml	97
70) Pentachlorophenol (PCP)	11.018	266	3400	146.52	ng/ml	97
71) Phenanthrene	11.237	178	47219	219.90	ng/ml	99
72) Anthracene	11.285	178	47420	227.19	ng/ml	99
73) Carbazole	11.446	167	41597	201.89	ng/ml	99
74) Di-n-butyl phthalate	11.793	149	54476	226.97	ng/ml	99
75) Fluoranthene	12.515	202	53527	220.19	ng/ml	99
76) Benzidine	12.671	184	22390	347.80	ng/ml	94
77) Pyrene	12.810	202	55550	227.10	ng/ml	100
80) Butyl benzyl phthalate	13.847	149	18256	188.31	ng/ml	99
81) Bis(2-ethylhexyl) adipate	14.024	129	16213	166.51	ng/ml	98
82) 3,3-Dichlorobenzidine	14.987	252	23382	373.54	ng/ml	98
83) Benz(a)anthracene	15.019	228	48775	204.16	ng/ml	99
84) Chrysene	15.104	228	44508	204.03	ng/ml	97
85) Bis(2-ethylhexyl) phth...	15.195	149	25222	177.04	ng/ml	98
87) Di-n-octyl phthalate	16.869	149	35211	195.29	ng/ml	97
88) Benzo(b)fluoranthene	17.618	252	47123	202.90	ng/ml	99
89) Benzo(k)fluoranthene	17.688	252	46458	212.15	ng/ml	96
90) Benzo(b+k)fluoranthene	17.688	252	96090	416.00	ng/ml	96
91) Benzo(e)pyrene	18.276	252	46317	204.36	ng/ml	97
92) Benzo(a)pyrene	18.394	252	42344	205.19	ng/ml	99
93) Perylene	18.602	252	38182	199.61	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.940	276	40566	198.85	ng/ml	96
96) Dibenz(a,h)anthracene	21.004	278	37109	208.76	ng/ml	96
97) Benzo(g,h,i)perylene	21.469	276	40711	208.51	ng/ml	99

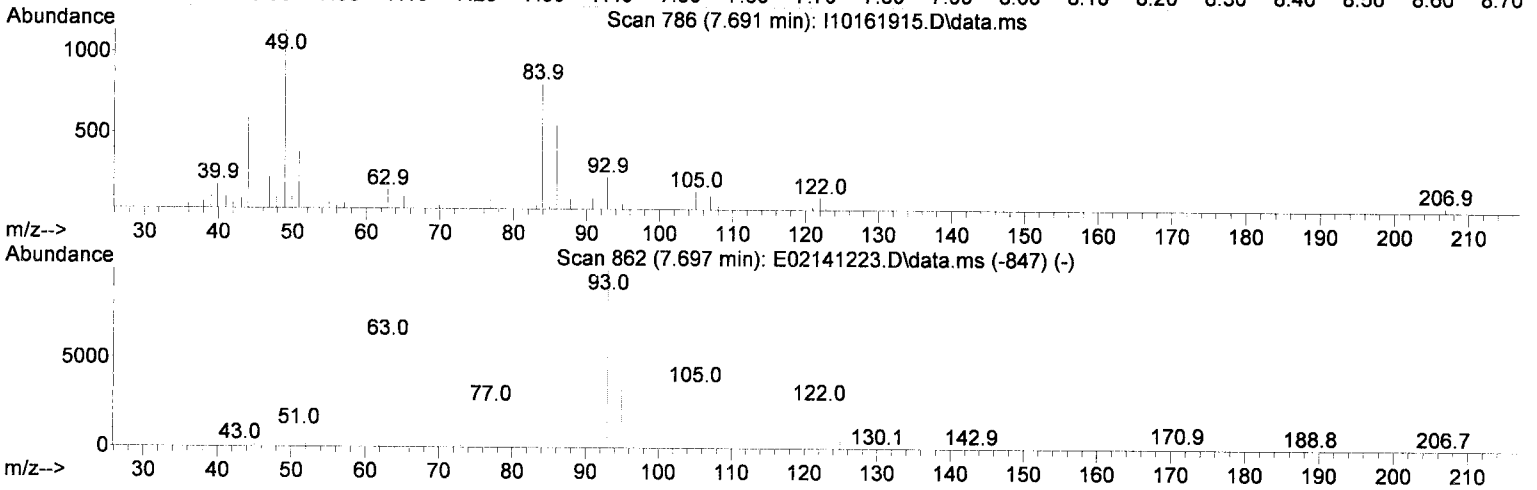
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161915.D
Acq On : 16 Oct 2019 6:54 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL4
Misc : 1x, A19G241 BNA@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:05 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9





TIC: I10161915.D\data.ms

(26) Benzoic acid (T)

7.691min (+ 0.038) 691.36 ng/ml

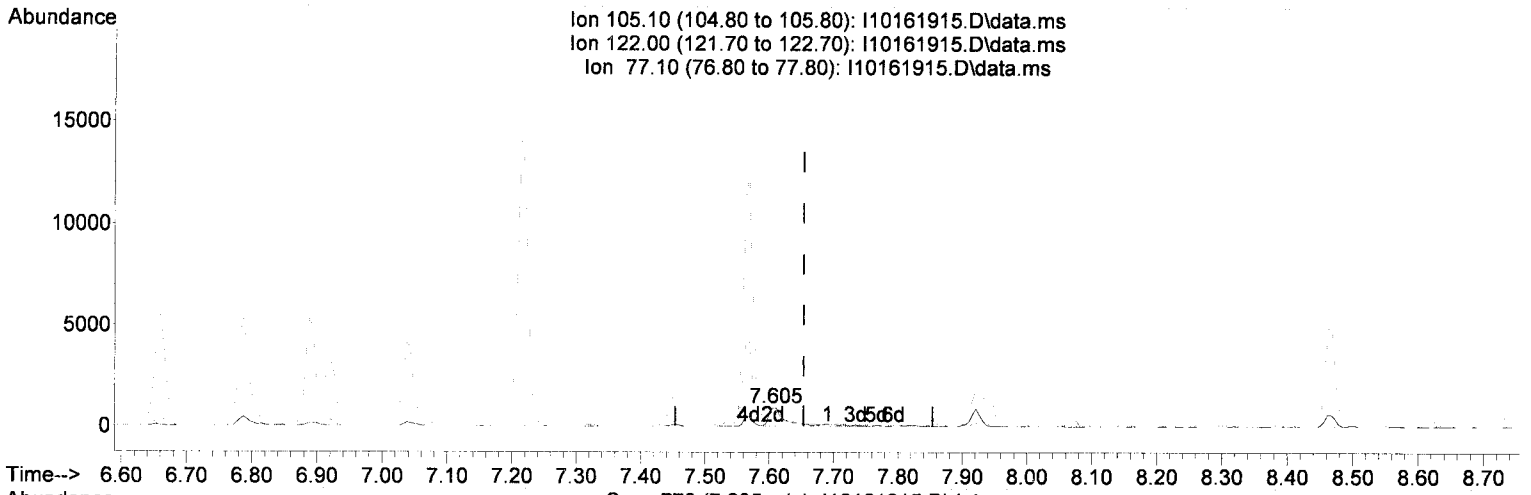
response 160

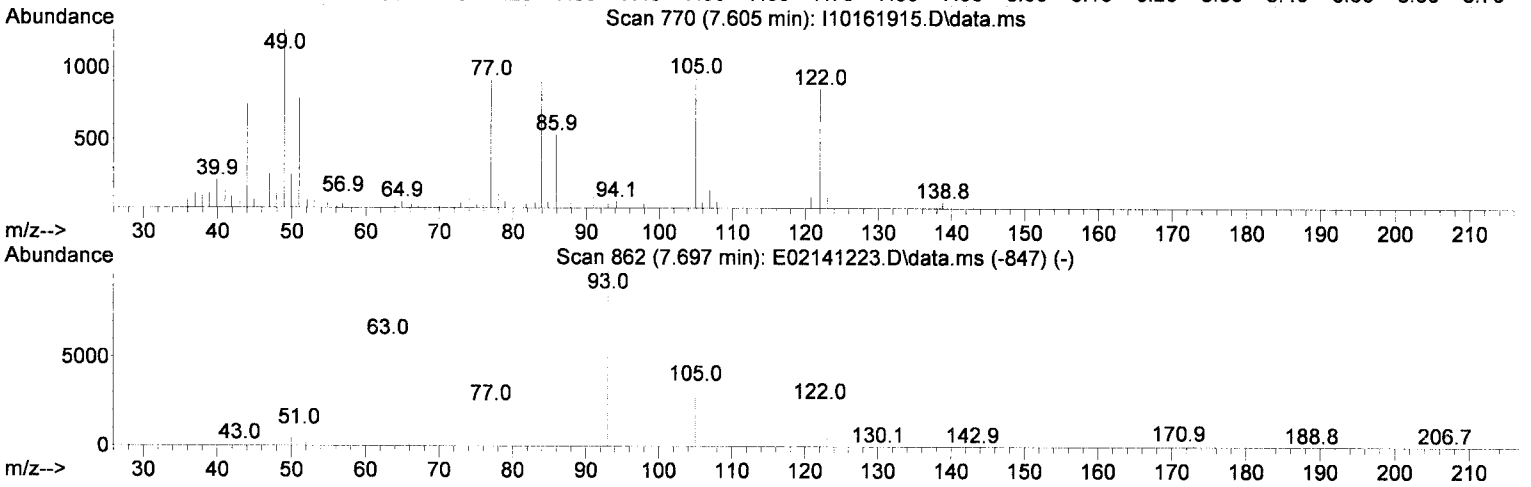
Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	71.74
77.10	77.80	63.77
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161915.D
Acq On : 16 Oct 2019 6:54 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL4
Misc : 1x, A19G241 BNA@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:05 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9





TIC: I10161915.D\data.ms

(26) Benzoic acid (T)

7.605min (-0.048) 730.87 ng/ml m

10/17/19

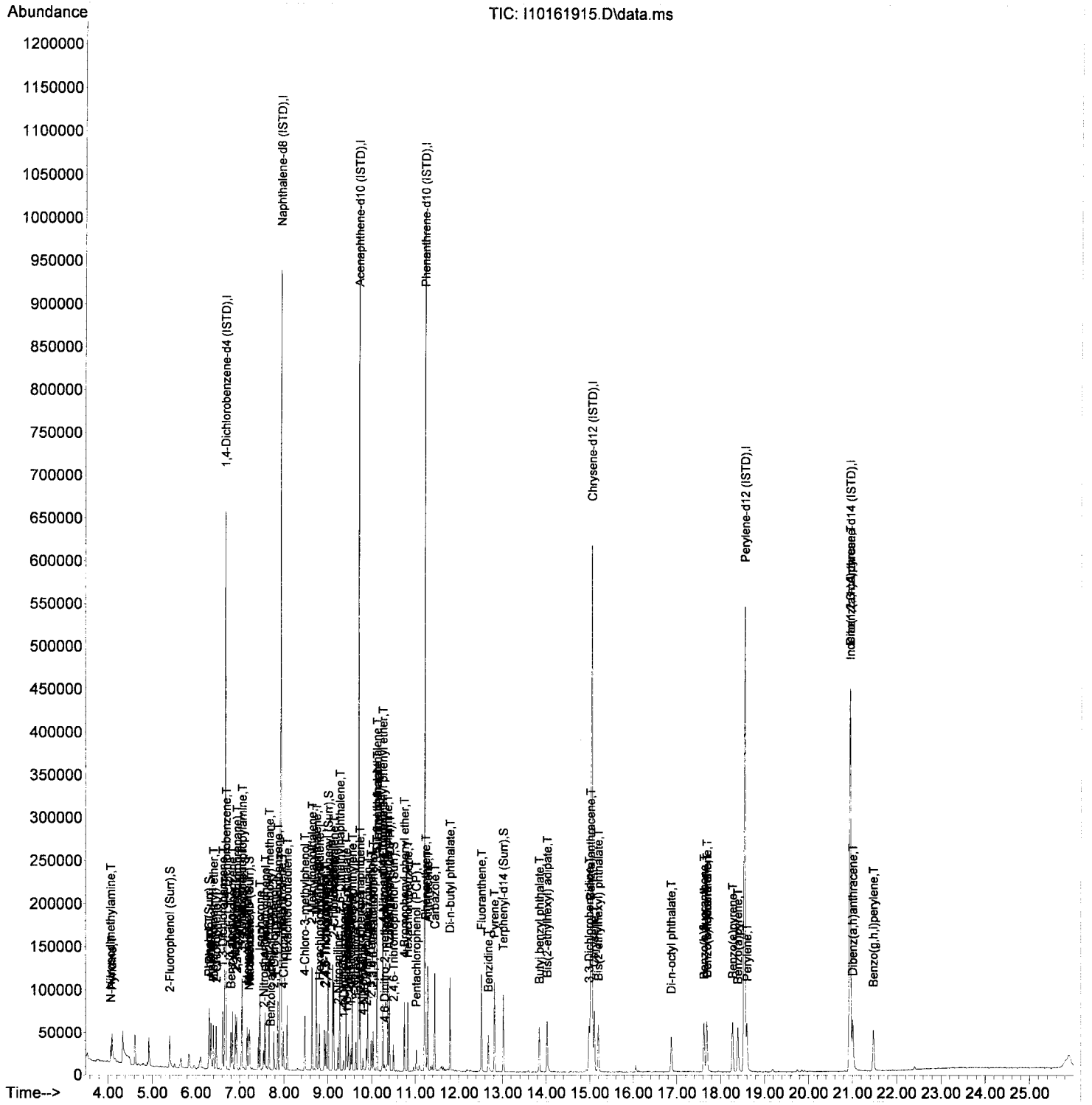
response 1889

Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	91.60
77.10	77.80	98.28
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161915.D
Acq On : 16 Oct 2019 6:54 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL4
Misc : 1x, A19G241 BNA@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:05 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161916.D
Acq On : 16 Oct 2019 7:30 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL5
Misc : 1x, A19G242 BNA@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:14 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JR 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.664	152	110317	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	438764	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.702	162	223981	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.216	188	414839	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.051	240	424974	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.554	264	438576	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.950	292	372459	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.412	112	41291	571.31	ng/ml	0.00
5) Phenol-d6 (Surr)	6.295	99	51731	598.36	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.199	82	38734	556.51	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.007	172	94649	577.90	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.499	330	12089	519.69	ng/ml	0.00
79) Terphenyl-d14 (Surr)	13.023	244	110622	543.35	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.086	74	32984	654.77	ng/ml	99
3) Pyridine	4.107	79	50729	683.06	ng/ml	96
6) Phenol	6.306	94	55173	622.03	ng/ml	97
7) Aniline	6.343	93	59550	723.63	ng/ml	96
8) Bis(2-chloroethyl) ether	6.396	93	50835	619.43	ng/ml	97
9) 2-Chlorophenol	6.461	128	42644	558.35	ng/ml	97
10) 1,3-Dichlorobenzene	6.610	146	46500	533.26	ng/ml	99
11) 1,4-Dichlorobenzene	6.680	146	44891	529.06	ng/ml	99
12) Benzyl alcohol	6.787	108	22926	574.58	ng/ml	97
13) 1,2-Dichlorobenzene	6.830	146	44501	541.74	ng/ml	99
14) 2-Methylphenol	6.894	107	33736	626.04	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.921	45	70737	834.43	ng/ml	100
16) N-Nitrosodi-n-propylamine	7.049	70	36526	735.78	ng/ml	99
17) 3+4-Methylphenol	7.044	107	41942	589.01	ng/ml	98
18) Hexachloroethane	7.167	201	13814	510.73	ng/ml	97
20) Nitrobenzene	7.220	77	42464	611.33	ng/ml	97
22) Isophorone	7.450	82	94466	641.14	ng/ml	95
23) 2-Nitrophenol	7.536	139	17473	399.47	ng/ml	99
24) 2,4-Dimethylphenol	7.568	122	32732	512.60	ng/ml	99
25) Bis(2-chloroethoxy) me...	7.659	93	53184	599.67	ng/ml	98
26) Benzoic acid	7.627	105	9988	920.18	ng/ml	95
27) 2,4-Dichlorophenol	7.771	162	28760	498.98	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.862	180	38996	516.10	ng/ml	97
29) Naphthalene	7.942	128	123871	549.27	ng/ml	100
30) 4-Chloroaniline	7.990	127	38672	678.60	ng/ml	97
31) Hexachlorobutadiene	8.071	225	21118	523.87	ng/ml	99
32) 4-Chloro-3-methylphenol	8.466	107	33546	575.28	ng/ml	98
33) 2-Methylnaphthalene	8.638	142	90190	557.45	ng/ml	99
34) 1-Methylnaphthalene	8.739	142	85675	555.34	ng/ml	98
36) Hexachlorocyclopentadiene	8.809	237	19912	465.89	ng/ml	95
37) 2,4,6-Trichlorophenol	8.921	196	21567	501.50	ng/ml	99
38) 2,4,5-Trichlorophenol	8.953	198	21096	498.53	ng/ml	99
39) 1,1'-Biphenyl	9.108	154	104830	567.88	ng/ml	100
41) 2-Chloronaphthalene	9.130	162	77553	576.62	ng/ml	99
42) 2-Nitroaniline	9.226	138	18180	397.91	ng/ml	98
43) 2,6-Dimethylnaphthalene	9.269	156	77752	563.73	ng/ml	99

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161916.D
Acq On : 16 Oct 2019 7:30 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL5
Misc : 1x, A19G242 BNA@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:14 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

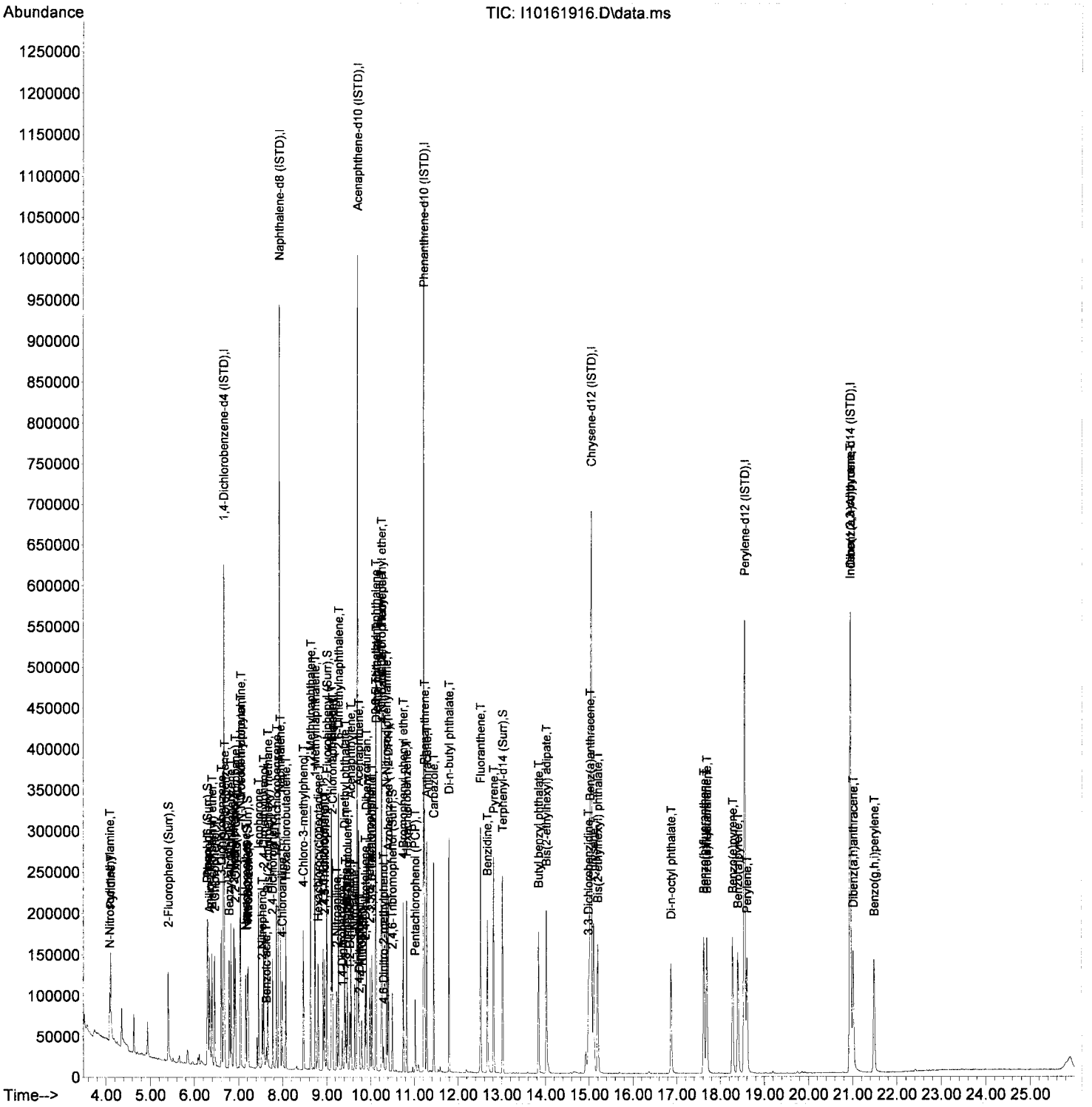
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.354	168	5080	270.73	ng/ml	99
45)	Dimethyl phthalate	9.408	163	89795	551.05	ng/ml	99
46)	1,3-Dinitrobenzene	9.434	168	7846	291.68	ng/ml	95
47)	2,6-Dinitrotoluene	9.467	165	16561	439.32	ng/ml	96
48)	1,2-Dinitrobenzene	9.525	168	7179	392.78	ng/ml	93
49)	Acenaphthylene	9.552	152	125650	574.71	ng/ml	99
50)	3-Nitroaniline	9.638	138	16475	486.95	ng/ml	90
51)	Acenaphthene	9.729	153	76410	542.74	ng/ml	99
52)	2,4-Dinitrophenol	9.745	184	1553	254.53	ng/ml	93
53)	4-Nitrophenol	9.798	139	9787	393.46	ng/ml	98
54)	2,4-Dinitrotoluene	9.878	165	17286	367.01	ng/ml	99
55)	Dibenzofuran	9.905	168	107652	550.26	ng/ml	98
56)	2,3,5,6-Tetrachlorophenol	9.985	232	16246	464.74	ng/ml	98
57)	2,3,4,6-Tetrachlorophenol	10.028	232	19007	510.11	ng/ml	97
58)	Diethyl phthalate	10.124	149	85721	565.07	ng/ml	98
59)	2,3,5-Trimethylnaphtha...	10.114	170	72192	543.46	ng/ml	100
60)	Fluorene	10.253	166	85310	543.90	ng/ml	97
61)	4-Chlorophenyl phenyl ...	10.247	204	41485	519.71	ng/ml	98
62)	4-Nitroaniline	10.258	138	14782	447.75	ng/ml	96
63)	4,6-Dinitro-2-methylph...	10.296	198	3988	247.54	ng/ml	93
65)	N-Nitrosodiphenylamine	10.365	169	72014	564.24	ng/ml	99
66)	Azobenzene (1,2-DPH)	10.408	77	92532	722.14	ng/ml	99
68)	4-Bromophenyl phenyl e...	10.745	248	25602	533.45	ng/ml	94
69)	Hexachlorobenzene	10.825	284	30369	552.18	ng/ml	99
70)	Pentachlorophenol (PCP)	11.018	266	11494	437.29	ng/ml	94
71)	Phenanthrene	11.237	178	117198	534.44	ng/ml	99
72)	Anthracene	11.290	178	120664	566.06	ng/ml	99
73)	Carbazole	11.446	167	104447	527.45	ng/ml	99
74)	Di-n-butyl phthalate	11.793	149	143903	587.08	ng/ml	99
75)	Fluoranthene	12.515	202	141254	568.97	ng/ml	99
76)	Benzidine	12.670	184	90422	1375.35	ng/ml	98
77)	Pyrene	12.815	202	142947	572.23	ng/ml	99
80)	Butyl benzyl phthalate	13.847	149	58303	532.64	ng/ml	96
81)	Bis(2-ethylhexyl) adipate	14.024	129	52124	524.49	ng/ml	98
82)	3,3-Dichlorobenzidine	14.986	252	50303	1440.52	ng/ml	97
83)	Benz(a)anthracene	15.024	228	128384	526.52	ng/ml	97
84)	Chrysene	15.104	228	116526	523.37	ng/ml	99
85)	Bis(2-ethylhexyl) phth...	15.200	149	78522	540.04	ng/ml	99
87)	Di-n-octyl phthalate	16.874	149	120881	502.40	ng/ml	99
88)	Benzo(b)fluoranthene	17.623	252	128872	523.34	ng/ml	100
89)	Benzo(k)fluoranthene	17.693	252	130011	559.94	ng/ml	99
90)	Benzo(b+k)fluoranthene	17.693	252	264478	1079.92	ng/ml	99
91)	Benzo(e)pyrene	18.281	252	127706	531.45	ng/ml	98
92)	Benzo(a)pyrene	18.399	252	117701	524.26	ng/ml	97
93)	Perylene	18.607	252	104561	515.56	ng/ml	99
95)	Indeno(1,2,3-cd)pyrene	20.945	276	114261	507.87	ng/ml	99
96)	Dibenz(a,h)anthracene	21.014	278	103626	528.61	ng/ml	99
97)	Benzo(g,h,i)perylene	21.485	276	117149	544.05	ng/ml	98

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

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161916.D
Acq On : 16 Oct 2019 7:30 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL5
Misc : 1x, A19G242 BNA@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:14 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161917.D
Acq On : 16 Oct 2019 8:05 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL6
Misc : 1x, A19G243 BNA@1000
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:21 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.659	152	108692	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	415784	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.702	162	210848	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.216	188	394261	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.051	240	404897	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.554	264	409934	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.950	292	363670	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.407	112	81539	1145.06	ng/ml	0.00
5) Phenol-d6 (Surr)	6.295	99	102248	1200.35	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.199	82	76069	1109.26	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.007	172	167583	1086.96	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.499	330	24117	1071.37	ng/ml	0.00
79) Terphenyl-d14 (Surr)	13.023	244	202564	1044.29	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.075	74	63705	1283.53	ng/ml	100
3) Pyridine	4.091	79	100642	1339.80	ng/ml	100
6) Phenol	6.306	94	105930	1212.12	ng/ml	100
7) Aniline	6.343	93	104698	1291.28	ng/ml	100
8) Bis(2-chloroethyl) ether	6.396	93	97200	1202.09	ng/ml	100
9) 2-Chlorophenol	6.461	128	82633	1098.12	ng/ml	100
10) 1,3-Dichlorobenzene	6.610	146	87984	1024.08	ng/ml	100
11) 1,4-Dichlorobenzene	6.680	146	83649	1000.58	ng/ml	100
12) Benzyl alcohol	6.787	108	48394	1177.28	ng/ml	100
13) 1,2-Dichlorobenzene	6.830	146	82317	1017.07	ng/ml	100
14) 2-Methylphenol	6.894	107	64002	1205.45	ng/ml	100
15) 2,2'-Oxybis(1-Chloropr...	6.921	45	128835	1542.49	ng/ml	100
16) N-Nitrosodi-n-propylamine	7.049	70	66569	1361.02	ng/ml	100
17) 3+4-Methylphenol	7.044	107	80497	1142.08	ng/ml	100
18) Hexachloroethane	7.167	201	26988	1012.72	ng/ml	100
20) Nitrobenzene	7.220	77	81675	1193.41	ng/ml	100
22) Isophorone	7.455	82	172965	1238.79	ng/ml	100
23) 2-Nitrophenol	7.536	139	38840	937.04	ng/ml	100
24) 2,4-Dimethylphenol	7.568	122	64041	1058.36	ng/ml	100
25) Bis(2-chloroethoxy) me...	7.664	93	97637	1161.74	ng/ml	100
26) Benzoic acid	7.653	105	42834	1729.87	ng/ml	100
27) 2,4-Dichlorophenol	7.771	162	57918	1031.32	ng/ml	100
28) 1,2,4-Trichlorobenzene	7.862	180	71920	1004.45	ng/ml	100
29) Naphthalene	7.942	128	222697	1042.06	ng/ml	100
30) 4-Chloroaniline	7.990	127	74988	1366.94	ng/ml	100
31) Hexachlorobutadiene	8.071	225	38923	1018.91	ng/ml	100
32) 4-Chloro-3-methylphenol	8.466	107	66824	1155.77	ng/ml	100
33) 2-Methylnaphthalene	8.637	142	164653	1073.94	ng/ml	100
34) 1-Methylnaphthalene	8.739	142	154845	1059.17	ng/ml	100
36) Hexachlorocyclopentadiene	8.809	237	40001	994.21	ng/ml	100
37) 2,4,6-Trichlorophenol	8.921	196	42283	1007.90	ng/ml	100
38) 2,4,5-Trichlorophenol	8.953	198	42231	1030.52	ng/ml	100
39) 1,1'-Biphenyl	9.108	154	187524	1079.13	ng/ml	100
41) 2-Chloronaphthalene	9.130	162	138289	1092.25	ng/ml	100
42) 2-Nitroaniline	9.226	138	39518	918.81	ng/ml	100
43) 2,6-Dimethylnaphthalene	9.269	156	139567	1074.94	ng/ml	100

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161917.D
Acq On : 16 Oct 2019 8:05 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL6
Misc : 1x, A19G243 BNA@1000
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:21 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

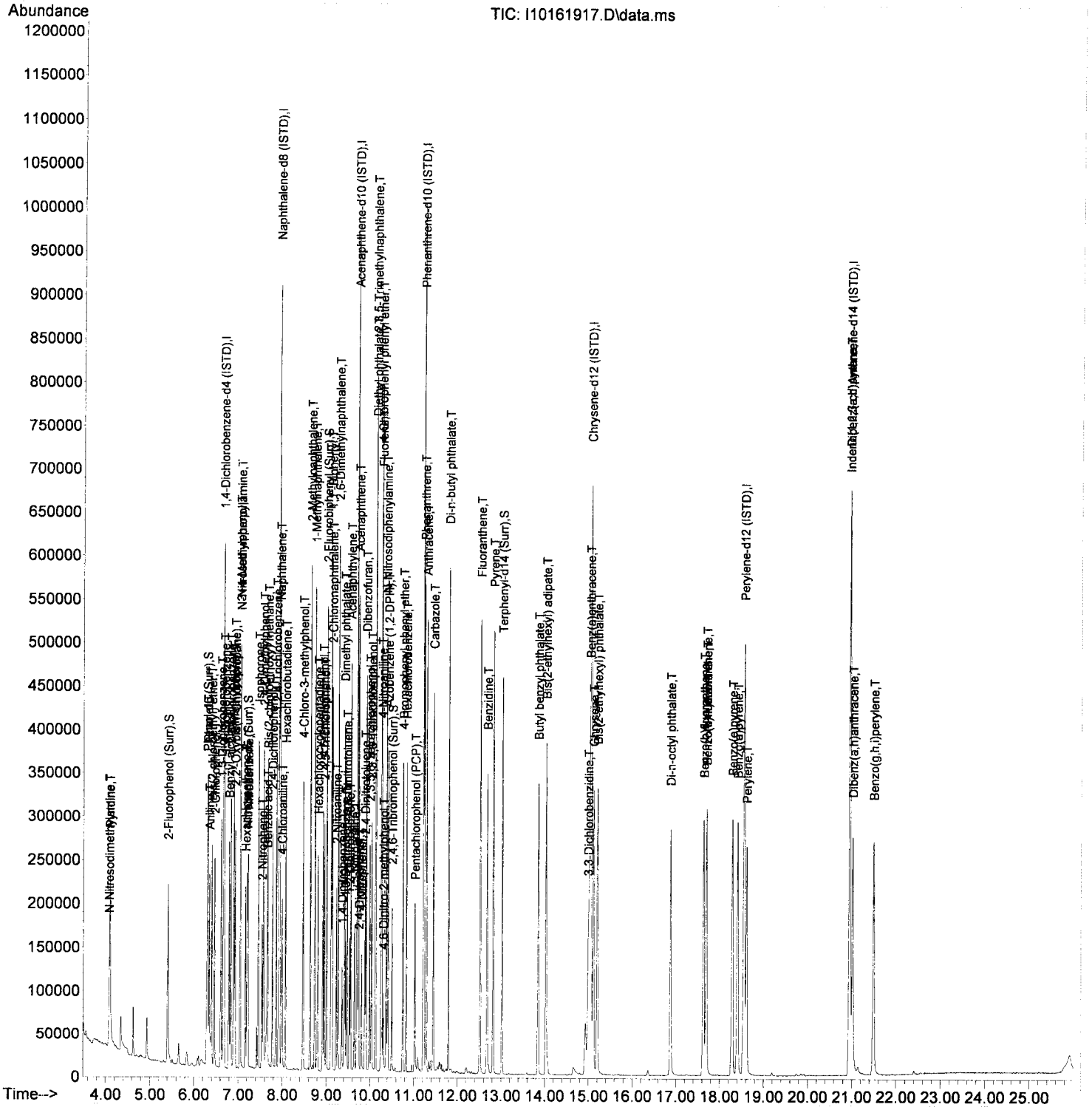
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.354	168	12494	603.08	ng/ml	100
45) Dimethyl phthalate	9.408	163	161978	1055.98	ng/ml	100
46) 1,3-Dinitrobenzene	9.434	168	18022	711.71	ng/ml	100
47) 2,6-Dinitrotoluene	9.467	165	33104	932.85	ng/ml	100
48) 1,2-Dinitrobenzene	9.525	168	15130	879.35	ng/ml	100
49) Acenaphthylene	9.552	152	223232	1084.65	ng/ml	100
50) 3-Nitroaniline	9.643	138	28849	1036.99	ng/ml	100
51) Acenaphthene	9.734	153	137686	1038.90	ng/ml	100
52) 2,4-Dinitrophenol	9.745	184	5088	489.75	ng/ml	100
53) 4-Nitrophenol	9.798	139	22603	869.99	ng/ml	100
54) 2,4-Dinitrotoluene	9.878	165	38193	861.41	ng/ml	100
55) Dibenzofuran	9.905	168	190719	1035.57	ng/ml	100
56) 2,3,5,6-Tetrachlorophenol	9.985	232	32998	964.43	ng/ml	100
57) 2,3,4,6-Tetrachlorophenol	10.028	232	37050	1039.19	ng/ml	100
58) Diethyl phthalate	10.124	149	152181	1065.65	ng/ml	100
59) 2,3,5-Trimethylnaphtha...	10.119	170	129295	1033.95	ng/ml	100
60) Fluorene	10.258	166	150523	1019.45	ng/ml	100
61) 4-Chlorophenyl phenyl ...	10.247	204	75441	1003.96	ng/ml	100
62) 4-Nitroaniline	10.263	138	25826	831.00	ng/ml	100
63) 4,6-Dinitro-2-methylph...	10.296	198	11200	583.51	ng/ml	100
65) N-Nitrosodiphenylamine	10.365	169	126925	1046.39	ng/ml	100
66) Azobenzene (1,2-DPH)	10.408	77	160071	1314.43	ng/ml	100
68) 4-Bromophenyl phenyl e...	10.750	248	46996	1030.33	ng/ml	100
69) Hexachlorobenzene	10.825	284	55109	1054.31	ng/ml	100
70) Pentachlorophenol (PCP)	11.023	266	24901	962.91	ng/ml	100
71) Phenanthrene	11.237	178	213306	1023.47	ng/ml	100
72) Anthracene	11.290	178	215829	1065.34	ng/ml	100
73) Carbazole	11.446	167	168399	1006.71	ng/ml	100
74) Di-n-butyl phthalate	11.793	149	267688	1149.08	ng/ml	100
75) Fluoranthene	12.521	202	263203	1115.51	ng/ml	100
76) Benzidine	12.676	184	169900	2719.13	ng/ml	100
77) Pyrene	12.815	202	259464	1092.86	ng/ml	100
80) Butyl benzyl phthalate	13.847	149	118464	1093.51	ng/ml	100
81) Bis(2-ethylhexyl) adipate	14.024	129	104759	1106.39	ng/ml	100
82) 3,3-Dichlorobenzidine	14.992	252	72934	2501.65	ng/ml	100
83) Benz(a)anthracene	15.029	228	235737	1014.72	ng/ml	100
84) Chrysene	15.109	228	213742	1007.62	ng/ml	100
85) Bis(2-ethylhexyl) phth...	15.200	149	155751	1124.30	ng/ml	100
87) Di-n-octyl phthalate	16.874	149	261927	1079.83	ng/ml	100
88) Benzo(b)fluoranthene	17.634	252	246144	1069.42	ng/ml	100
89) Benzo(k)fluoranthene	17.698	252	241628	1113.37	ng/ml	100
90) Benzo(b+k)fluoranthene	17.698	252	498931	2179.58	ng/ml	100
91) Benzo(e)pyrene	18.286	252	240269	1069.74	ng/ml	100
92) Benzo(a)pyrene	18.404	252	223821	1060.23	ng/ml	100
93) Perylene	18.613	252	194782	1027.52	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.945	276	213608	972.39	ng/ml	100
96) Dibenz(a,h)anthracene	21.020	278	194682	1017.09	ng/ml	100
97) Benzo(g,h,i)perylene	21.490	276	223060	1060.95	ng/ml	100

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

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161917.D
Acq On : 16 Oct 2019 8:05 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL6
Misc : 1x, A19G243 BNA@1000
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:21 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161918.D
Acq On : 16 Oct 2019 8:40 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL7
Misc : 1x, A19G244 BNA@2000
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:28 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.659	152	106472	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	403006	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.702	162	204324	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.216	188	394462	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.056	240	379303	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.559	264	398414	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.961	292	371696	2000.00	ng/ml	0.01
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.402	112	168171	2410.88	ng/ml	0.00
5) Phenol-d6 (Surr)	6.295	99	209429	2509.88	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.204	82	154925	2306.26	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.007	172	307320	2056.94	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.504	330	50890	2220.74	ng/ml	0.00
79) Terphenyl-d14 (Surr)	13.023	244	390228	2147.52	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.059	74	130513	2684.40	ng/ml	99
3) Pyridine	4.075	79	206511	2691.42	ng/ml	98
6) Phenol	6.305	94	208278	2432.94	ng/ml	98
7) Aniline	6.343	93	193255	2438.18	ng/ml	96
8) Bis(2-chloroethyl) ether	6.396	93	209890	2649.88	ng/ml	98
9) 2-Chlorophenol	6.455	128	161665	2193.18	ng/ml	98
10) 1,3-Dichlorobenzene	6.605	146	171908	2042.62	ng/ml	99
11) 1,4-Dichlorobenzene	6.675	146	161488	1971.93	ng/ml	98
12) Benzyl alcohol	6.792	108	101019	2397.02	ng/ml	98
13) 1,2-Dichlorobenzene	6.830	146	158155	1994.84	ng/ml	98
14) 2-Methylphenol	6.894	107	125482	2412.68	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.921	45	232038	2836.02	ng/ml	97
16) N-Nitrosodi-n-propylamine	7.054	70	122433	2555.37	ng/ml	97
17) 3+4-Methylphenol	7.044	107	160363	2329.50	ng/ml	99
18) Hexachloroethane	7.161	201	54131	2073.61	ng/ml	94
20) Nitrobenzene	7.220	77	158273	2360.86	ng/ml	98
22) Isophorone	7.455	82	326670	2413.82	ng/ml	99
23) 2-Nitrophenol	7.536	139	73325	1825.10	ng/ml	98
24) 2,4-Dimethylphenol	7.573	122	126582	2158.25	ng/ml	100
25) Bis(2-chloroethoxy) me...	7.664	93	183878	2257.26	ng/ml	99
26) Benzoic acid	7.685	105	106896	3322.04	ng/ml	99
27) 2,4-Dichlorophenol	7.776	162	119237	2152.69	ng/ml	99
28) 1,2,4-Trichlorobenzene	7.862	180	136516	1967.06	ng/ml	99
29) Naphthalene	7.942	128	407227	1965.94	ng/ml	99
30) 4-Chloroaniline	7.990	127	158495	2926.81	ng/ml	100
31) Hexachlorobutadiene	8.071	225	75680	2043.94	ng/ml	99
32) 4-Chloro-3-methylphenol	8.466	107	134732	2325.11	ng/ml	99
33) 2-Methylnaphthalene	8.637	142	312402	2102.28	ng/ml	99
34) 1-Methylnaphthalene	8.739	142	289054	2039.88	ng/ml	100
36) Hexachlorocyclopentadiene	8.809	237	83207	2134.12	ng/ml	98
37) 2,4,6-Trichlorophenol	8.921	196	86005	2073.95	ng/ml	98
38) 2,4,5-Trichlorophenol	8.953	198	85045	2113.03	ng/ml	99
39) 1,1'-Biphenyl	9.108	154	345569	2052.11	ng/ml	100
41) 2-Chloronaphthalene	9.135	162	250807	2044.20	ng/ml	100
42) 2-Nitroaniline	9.231	138	82868	1988.24	ng/ml	96
43) 2,6-Dimethylnaphthalene	9.269	156	255391	2029.81	ng/ml	98

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161918.D
Acq On : 16 Oct 2019 8:40 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL7
Misc : 1x, A19G244 BNA@2000
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:28 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

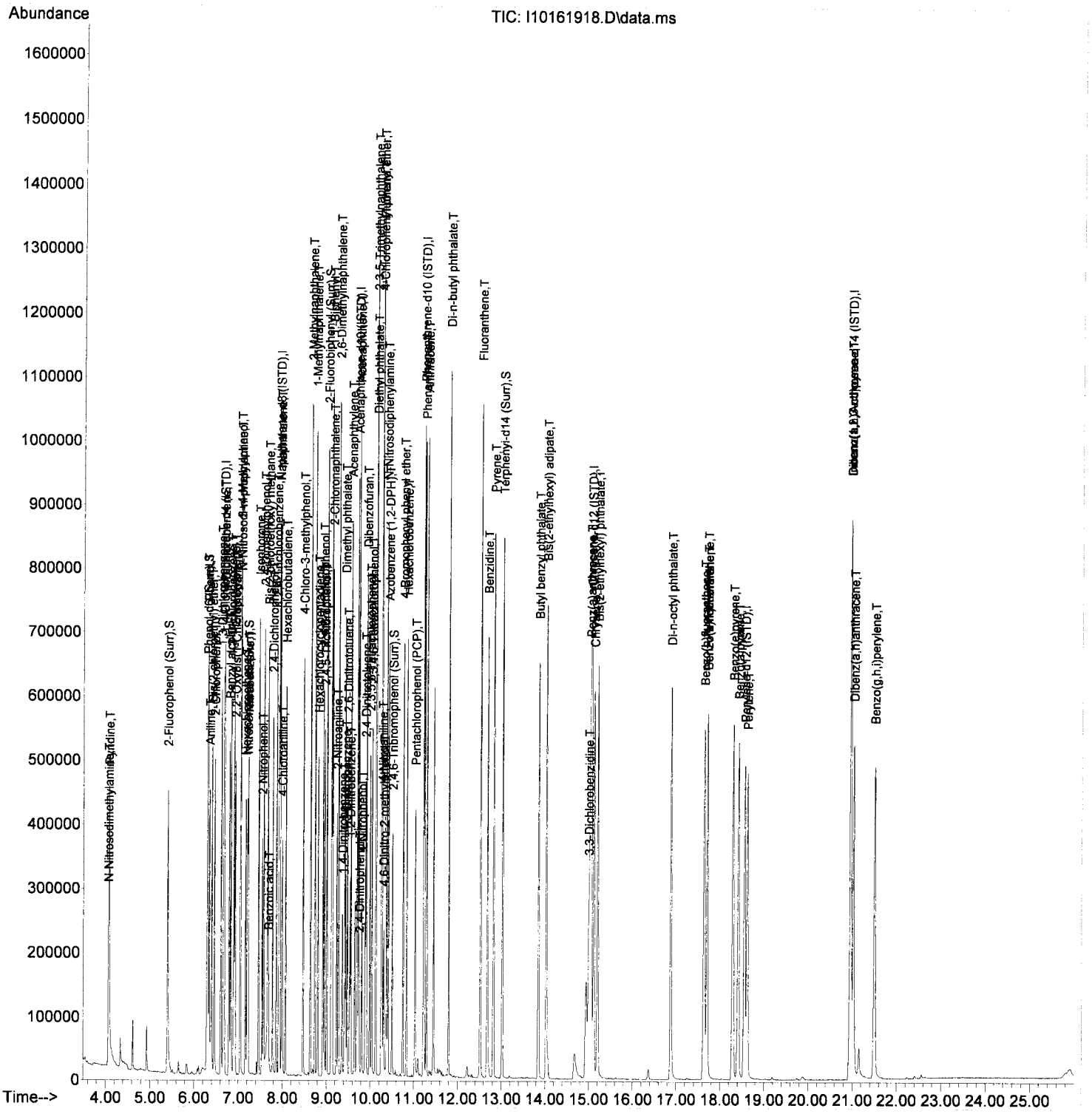
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.360	168	31930	1471.63	ng/ml	91
45)	Dimethyl phthalate	9.413	163	303831	2043.92	ng/ml	99
46)	1,3-Dinitrobenzene	9.440	168	41890	1707.10	ng/ml	97
47)	2,6-Dinitrotoluene	9.472	165	67679	1968.05	ng/ml	96
48)	1,2-Dinitrobenzene	9.531	168	31248	1874.11	ng/ml	94
49)	Acenaphthylene	9.557	152	401818	2014.70	ng/ml	100
50)	3-Nitroaniline	9.643	138	47185	Below Cal		97
51)	Acenaphthene	9.734	153	257901	2008.11	ng/ml	99
52)	2,4-Dinitrophenol	9.750	184	15123	1140.61	ng/ml	95
53)	4-Nitrophenol	9.803	139	50566	1899.28	ng/ml	96
54)	2,4-Dinitrotoluene	9.884	165	83801	1950.41	ng/ml	98
55)	Dibenzofuran	9.910	168	356546	1997.79	ng/ml	97
56)	2,3,5,6-Tetrachlorophenol	9.985	232	69287	2038.37	ng/ml	99
57)	2,3,4,6-Tetrachlorophenol	10.033	232	73600	2101.07	ng/ml	96
58)	Diethyl phthalate	10.130	149	272344	1967.98	ng/ml	97
59)	2,3,5-Trimethylnaphtha...	10.119	170	238990	1972.18	ng/ml	97
60)	Fluorene	10.258	166	274932	1921.50	ng/ml	98
61)	4-Chlorophenyl phenyl ...	10.253	204	144104	1978.96	ng/ml	96
62)	4-Nitroaniline	10.269	138	49921	1657.59	ng/ml	98
63)	4,6-Dinitro-2-methylph...	10.301	198	29002	1400.61	ng/ml	96
65)	N-Nitrosodiphenylamine	10.370	169	232578	1916.43	ng/ml	100
66)	Azobenzene (1,2-DPH)	10.413	77	291944	2396.10	ng/ml	95
68)	4-Bromophenyl phenyl e...	10.750	248	94009	2059.99	ng/ml	99
69)	Hexachlorobenzene	10.830	284	108673	2078.00	ng/ml	97
70)	Pentachlorophenol (PCP)	11.023	266	57124	2139.27	ng/ml	98
71)	Phenanthrene	11.242	178	408903	1960.97	ng/ml	99
72)	Anthracene	11.290	178	409728	2021.40	ng/ml	99
73)	Carbazole	11.446	167	254192	Below Cal		99
74)	Di-n-butyl phthalate	11.793	149	509487	2185.92	ng/ml	99
75)	Fluoranthene	12.521	202	497259	2106.42	ng/ml	99
76)	Benzidine	12.676	184	351632	5624.75	ng/ml	97
77)	Pyrene	12.820	202	487359	2051.71	ng/ml	99
80)	Butyl benzyl phthalate	13.852	149	243686	2305.47	ng/ml	98
81)	Bis(2-ethylhexyl) adipate	14.029	129	211290	2382.07	ng/ml	99
82)	3,3-Dichlorobenzidine	14.997	252	117183	4720.80	ng/ml	99
83)	Benz(a)anthracene	15.029	228	445654	2047.75	ng/ml	98
84)	Chrysene	15.115	228	410860	2067.56	ng/ml	99
85)	Bis(2-ethylhexyl) phth...	15.200	149	308465	2376.93	ng/ml	99
87)	Di-n-octyl phthalate	16.880	149	571058	2306.81	ng/ml	98
88)	Benzo(b)fluoranthene	17.634	252	501132	2240.22	ng/ml	99
89)	Benzo(k)fluoranthene	17.709	252	460821	2184.77	ng/ml	98
90)	Benzo(b+k)fluoranthene	17.709	252	980351	4406.49	ng/ml	98
91)	Benzo(e)pyrene	18.297	252	475633	2178.87	ng/ml	99
92)	Benzo(a)pyrene	18.415	252	440842	2151.48	ng/ml	99
93)	Perylene	18.618	252	380066	2062.91	ng/ml	100
95)	Indeno(1,2,3-cd)pyrene	20.961	276	439827	1958.96	ng/ml	100
96)	Dibenz(a,h)anthracene	21.030	278	396150	2024.95	ng/ml	99
97)	Benzo(g,h,i)perylene	21.501	276	452012	2103.49	ng/ml	99

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

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161918.D
Acq On : 16 Oct 2019 8:40 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL7
Misc : 1x, A19G244 BNA@2000
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:28 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161919.D
Acq On : 16 Oct 2019 9:14 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL8
Misc : 1x, A19G245 BNA@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:35 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.664	152	105713	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.926	136	397960	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.702	162	209804	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.216	188	417540	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.072	240	381197	2000.00	ng/ml	0.02
86) Perylene-d12 (ISTD)	18.570	264	410166	2000.00	ng/ml	0.02
94) Dibenz(a,h)Anthrcene-d...	20.982	292	397776	2000.00	ng/ml	0.03
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.407	112	336987	4865.69	ng/ml	0.00
5) Phenol-d6 (Surr)	6.306	99	419864	5067.94	ng/ml	0.01
19) Nitrobenzene-d5 (Surr)	7.204	82	303165	4545.41	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.012	172	561154	3657.80	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.510	330	111317	4477.71	ng/ml	0.01
79) Terphenyl-d14 (Surr)	13.029	244	763944	4183.27	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.075	74	258805	5361.35	ng/ml	99
3) Pyridine	4.086	79	416575	5115.18	ng/ml	98
6) Phenol	6.316	94	432772	5091.61	ng/ml	97
7) Aniline	6.348	93	377305	4784.58	ng/ml	96
8) Bis(2-chloroethyl) ether	6.402	93	375165	4770.50	ng/ml	98
9) 2-Chlorophenol	6.461	128	308174	4210.77	ng/ml	98
10) 1,3-Dichlorobenzene	6.611	146	323172	3867.52	ng/ml	98
11) 1,4-Dichlorobenzene	6.680	146	302701	3722.82	ng/ml	100
12) Benzyl alcohol	6.798	108	202180	4549.20	ng/ml	99
13) 1,2-Dichlorobenzene	6.830	146	289895	3682.75	ng/ml	99
14) 2-Methylphenol	6.899	107	231464	4482.38	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.926	45	401443	4941.76	ng/ml	93
16) N-Nitrosodi-n-propylamine	7.065	70	216758	4556.56	ng/ml	94
17) 3+4-Methylphenol	7.054	107	292865	4329.71	ng/ml	98
18) Hexachloroethane	7.167	201	106200	4097.43	ng/ml	97
20) Nitrobenzene	7.226	77	293208	4405.01	ng/ml	96
22) Isophorone	7.466	82	624906	4676.08	ng/ml	98
23) 2-Nitrophenol	7.541	139	157209	3962.63	ng/ml	98
24) 2,4-Dimethylphenol	7.579	122	238097	4111.08	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.670	93	336452	4182.61	ng/ml	98
26) Benzoic acid	~~7.579~~	~~105~~	~~8424~~	~~903.92~~	~~ng/ml#~~	~~1~~
27) 2,4-Dichlorophenol	7.782	162	227693	4103.34	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.867	180	256919	3748.89	ng/ml	100
29) Naphthalene	7.948	128	725187	3545.32	ng/ml	97
30) 4-Chloroaniline	7.996	127	312189	5693.61	ng/ml	99
31) Hexachlorobutadiene	8.076	225	146937	4018.74	ng/ml	99
32) 4-Chloro-3-methylphenol	8.472	107	266335	4489.42	ng/ml	97
33) 2-Methylnaphthalene	8.643	142	571940	3897.52	ng/ml	98
34) 1-Methylnaphthalene	8.745	142	525478	3755.36	ng/ml	99
36) Hexachlorocyclopentadiene	8.809	237	167259	4177.86	ng/ml	98
37) 2,4,6-Trichlorophenol	8.926	196	176954	4100.87	ng/ml	98
38) 2,4,5-Trichlorophenol	8.959	198	169331	4071.96	ng/ml	99
39) 1,1'-Biphenyl	9.114	154	623340	3604.93	ng/ml	97
41) 2-Chloronaphthalene	9.135	162	453639	3600.81	ng/ml	98
42) 2-Nitroaniline	9.237	138	173545	4055.08	ng/ml	94
43) 2,6-Dimethylnaphthalene	9.274	156	464700	3596.90	ng/ml	97

See MJ

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161919.D
Acq On : 16 Oct 2019 9:14 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL8
Misc : 1x, A19G245 BNA@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:35 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

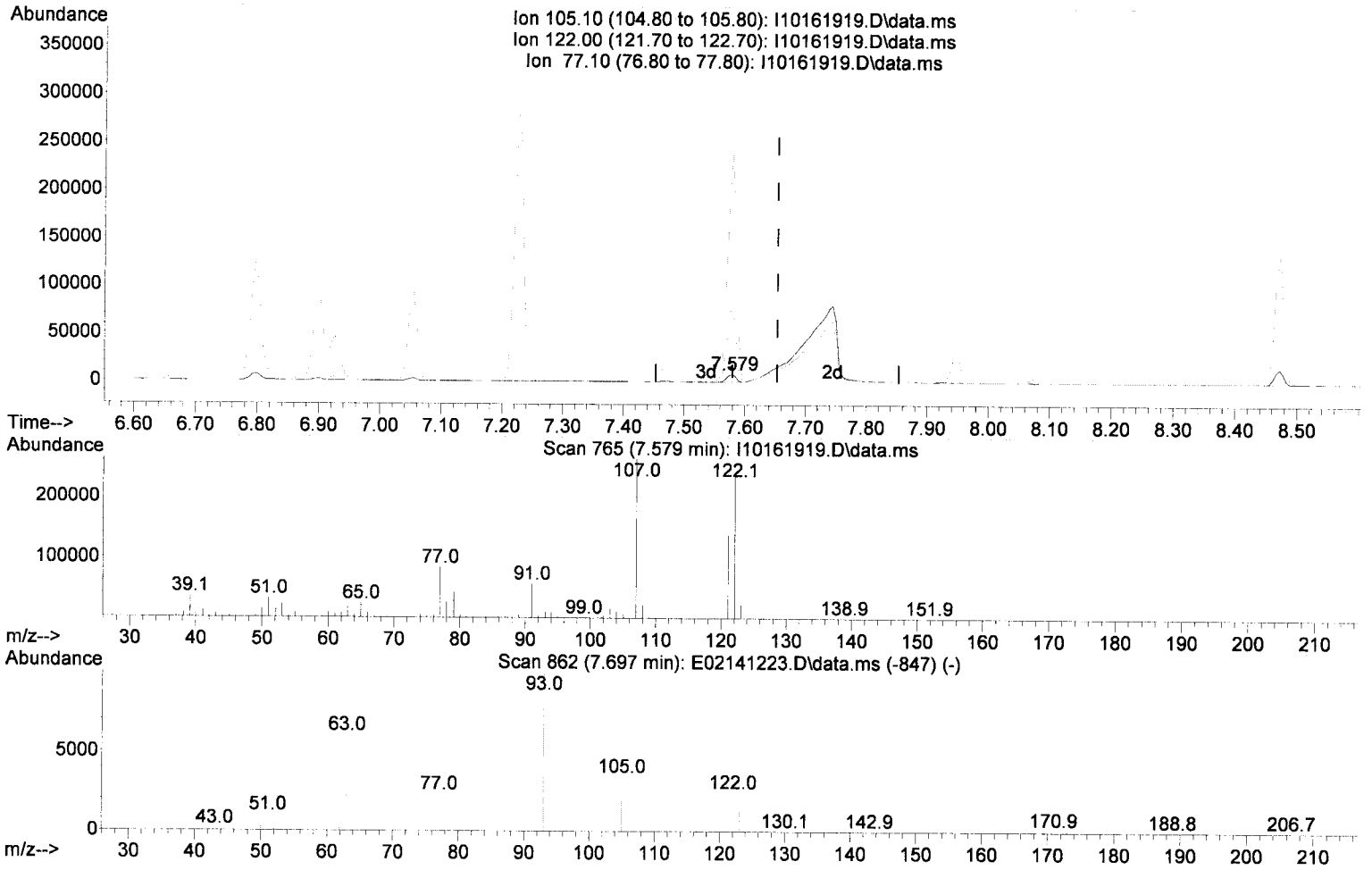
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.365	168	77125	3303.00	ng/ml	90
45) Dimethyl phthalate	9.424	163	566035	3708.34	ng/ml	99
46) 1,3-Dinitrobenzene	9.451	168	91162	3618.00	ng/ml	95
47) 2,6-Dinitrotoluene	9.483	165	135556	3838.90	ng/ml	87
48) 1,2-Dinitrobenzene	9.542	168	65220	3809.43	ng/ml	95
49) Acenaphthylene	9.563	152	722393	3527.45	ng/ml	97
50) 3-Nitroaniline	9.654	138	72076	Below Cal		97
51) Acenaphthene	9.739	153	473473	3590.34	ng/ml	99
52) 2,4-Dinitrophenol	9.756	184	47179	2890.39	ng/ml	96
53) 4-Nitrophenol	9.814	139	112553	3928.24	ng/ml	96
54) 2,4-Dinitrotoluene	9.895	165	177218	4016.90	ng/ml	94
55) Dibenzofuran	9.911	168	645432	3522.01	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.991	232	147371	4126.12	ng/ml	98
57) 2,3,4,6-Tetrachlorophenol	10.039	232	154291	4211.84	ng/ml	94
58) Diethyl phthalate	10.135	149	484945	3412.73	ng/ml	96
59) 2,3,5-Trimethylnaphtha...	10.125	170	434174	3489.29	ng/ml	98
60) Fluorene	10.264	166	491882	3347.97	ng/ml	100
61) 4-Chlorophenyl phenyl ...	10.253	204	278225	3721.02	ng/ml	97
62) 4-Nitroaniline	10.280	138	109557	3542.74	ng/ml	98
63) 4,6-Dinitro-2-methylph...	10.312	198	75505	3262.41	ng/ml	91
65) N-Nitrosodiphenylamine	10.376	169	416136	3239.42	ng/ml	100
66) Azobenzene (1,2-DPH)	10.419	77	507476	3934.84	ng/ml	88
68) 4-Bromophenyl phenyl e...	10.756	248	197154	4081.39	ng/ml	97
69) Hexachlorobenzene	10.836	284	222237	4014.65	ng/ml	95
70) Pentachlorophenol (PCP)	11.023	266	129749	4400.30	ng/ml	99
71) Phenanthrene	11.242	178	758865	3438.13	ng/ml	97
72) Anthracene	11.296	178	757506	3530.61	ng/ml	97
73) Carbazole	11.451	167	377741	Below Cal		99
74) Di-n-butyl phthalate	11.793	149	936406	3795.53	ng/ml	97
75) Fluoranthene	12.526	202	949333	3799.17	ng/ml	98
76) Benzidine	12.687	184	735075	11108.44	ng/ml	99
77) Pyrene	12.826	202	913548	3633.34	ng/ml	97
80) Butyl benzyl phthalate	13.858	149	495582	4422.98	ng/ml	94
81) Bis(2-ethylhexyl) adipate	14.034	129	417409	4682.46	ng/ml	98
82) 3,3-Dichlorobenzidine	15.008	252	209588	8892.65	ng/ml	98
83) Benz(a)anthracene	15.045	228	866011	3959.49	ng/ml	97
84) Chrysene	15.136	228	798796	3999.79	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.211	149	590135	4524.80	ng/ml	97
87) Di-n-octyl phthalate	16.891	149	1176050	4412.22	ng/ml	98
88) Benzo(b)fluoranthene	17.661	252	1011072	4390.31	ng/ml	99
89) Benzo(k)fluoranthene	17.736	252	889038	4094.20	ng/ml	98
90) Benzo(b+k)fluoranthene	17.736	252	1939096	8466.14	ng/ml	98
91) Benzo(e)pyrene	18.319	252	952442	4238.12	ng/ml	99
92) Benzo(a)pyrene	18.442	252	863983	4129.87	ng/ml	100
93) Perylene	18.645	252	755087	3981.01	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.993	276	948237	3946.49	ng/ml	98
96) Dibenz(a,h)anthracene	21.057	278	801452	3828.08	ng/ml	99
97) Benzo(g,h,i)perylene	21.539	276	907373	3945.72	ng/ml	99

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

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161919.D
Acq On : 16 Oct 2019 9:14 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL8
Misc : 1x, A19G245 BNA@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:35 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161919.D\data.ms

(26) Benzoic acid (T)

7.579min (-0.075) 903.92 ng/ml

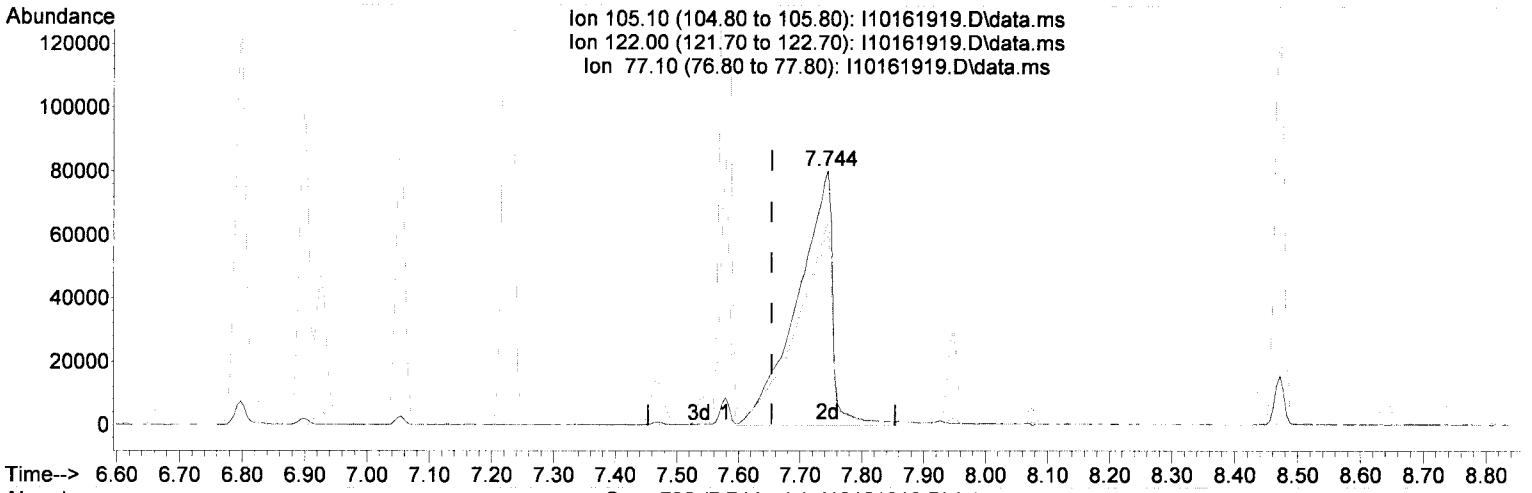
response 8424

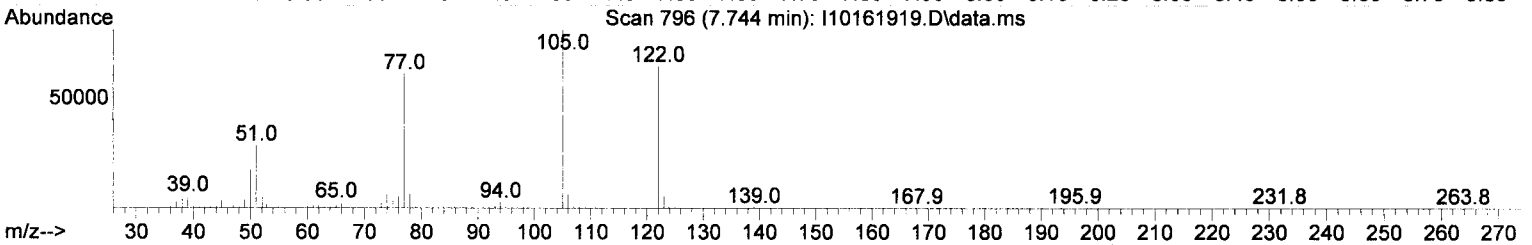
Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	2779.75#
77.10	77.80	979.43#
0.00	0.00	0.00

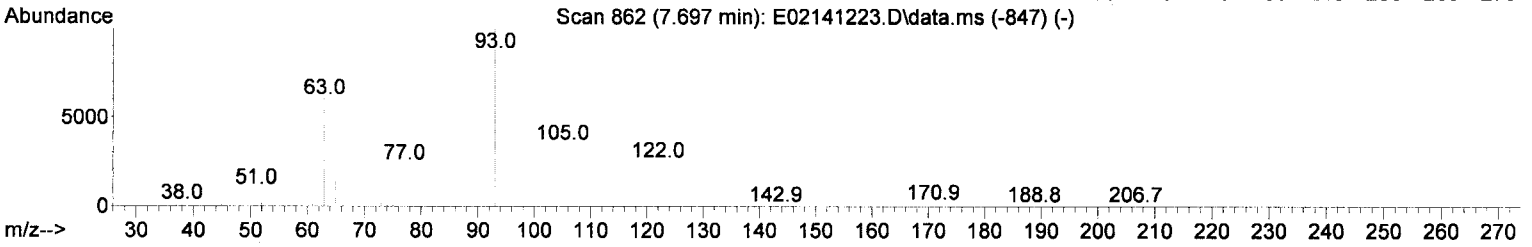
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161919.D
Acq On : 16 Oct 2019 9:14 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL8
Misc : 1x, A19G245 BNA@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:35 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I10161919.D\data.ms

(26) Benzoic acid (T)

7.744min (+ 0.091) 8231.04 ng/ml m

10/17/19

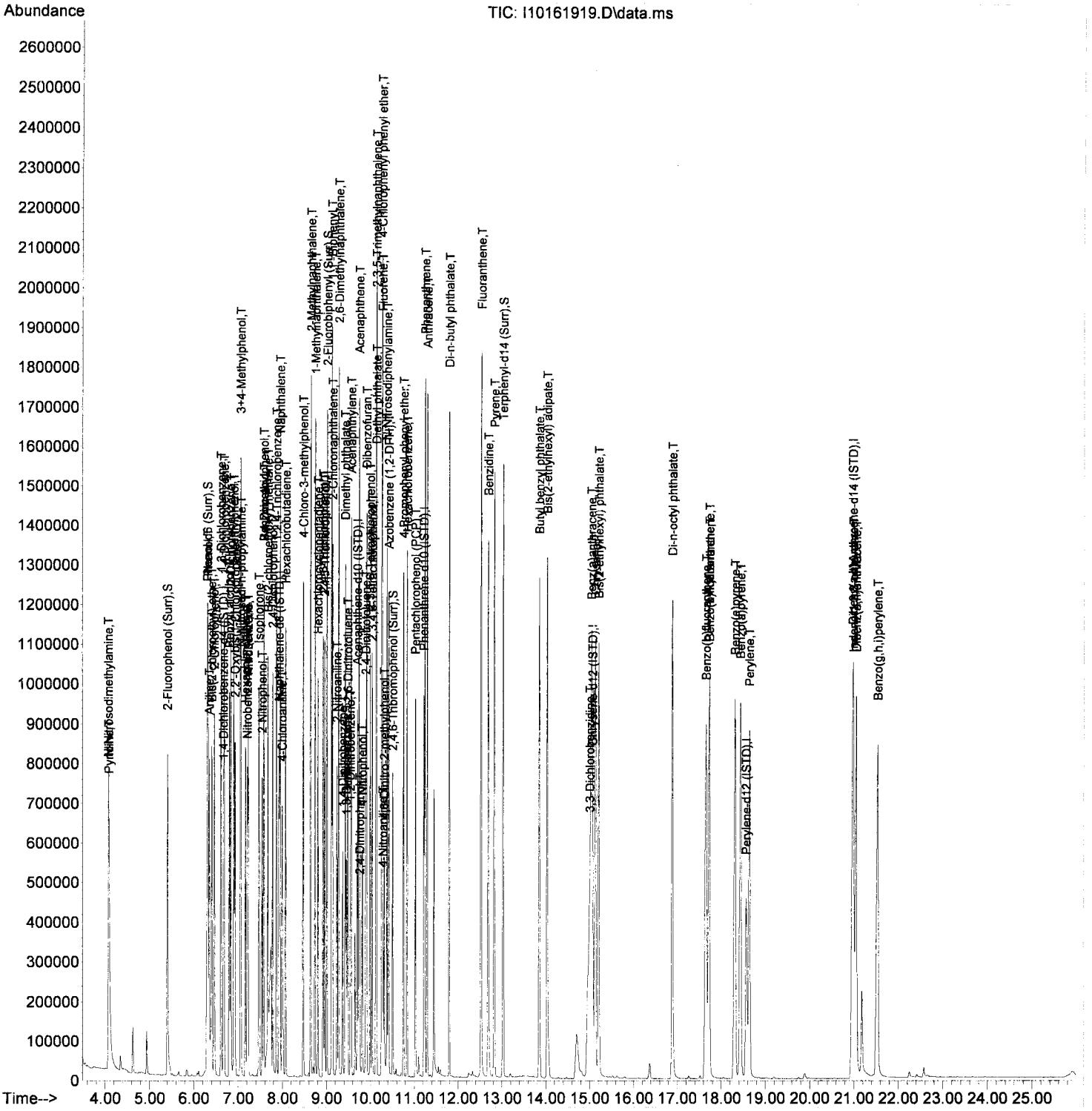
response 319266

Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	79.64
77.10	77.80	75.24
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161919.D
Acq On : 16 Oct 2019 9:14 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL8
Misc : 1x, A19G245 BNA@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:35 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.664	152	90276	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.926	136	349868	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.707	162	186669	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.221	188	376380	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.083	240	334077	2000.00 ng/ml	0.03
86) Perylene-d12 (ISTD)	18.586	264	374258	2000.00 ng/ml	0.03
94) Dibenz(a,h)Anthrcene-d...	21.004	292	369437	2000.00 ng/ml	0.05
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.423	112	424427	7176.13 ng/ml	0.02
5) Phenol-d6 (Surr)	6.311	99	520284	7353.93 ng/ml	0.02
19) Nitrobenzene-d5 (Surr)	7.215	82	379122	6656.24 ng/ml	0.02
40) 2-Fluorobiphenyl (Surr)	9.012	172	687674	5038.04 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.509	330	151399	6615.18 ng/ml	0.01
79) Terphenyl-d14 (Surr)	13.034	244	969928	6060.34 ng/ml	0.01
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	~~4.059~~	~~74~~	72	N.D.	See MJ
3) Pyridine	~~4.075~~	~~79~~	~~352~~	~~15.66 ng/ml#~~	~~1~~
6) Phenol	6.327	94	502219	6919.03 ng/ml	98
7) Aniline	6.354	93	510928	7586.94 ng/ml	96
8) Bis(2-chloroethyl) ether	6.412	93	400306	5960.59 ng/ml	98
9) 2-Chlorophenol	6.466	128	388854	6221.68 ng/ml	99
10) 1,3-Dichlorobenzene	6.616	146	406773	5700.42 ng/ml	97
11) 1,4-Dichlorobenzene	6.685	146	381139	5489.06 ng/ml	99
12) Benzyl alcohol	6.803	108	256004	6434.60 ng/ml	100
13) 1,2-Dichlorobenzene	6.835	146	358825	5337.90 ng/ml	98
14) 2-Methylphenol	6.904	107	286008	6485.75 ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.931	45	474944	6846.30 ng/ml	90
16) N-Nitrosodi-n-propylamine	7.070	70	265552	6536.84 ng/ml	94
17) 3+4-Methylphenol	7.060	107	358777	6282.94 ng/ml	97
18) Hexachloroethane	7.167	201	137256	6201.19 ng/ml	98
20) Nitrobenzene	7.231	77	358149	6300.73 ng/ml	94
22) Isophorone	7.471	82	786908	6697.71 ng/ml	97
23) 2-Nitrophenol	7.546	139	202850	5815.89 ng/ml	96
24) 2,4-Dimethylphenol	7.584	122	294594	5785.76 ng/ml	98
25) Bis(2-chloroethoxy) me...	7.675	93	411142	5813.68 ng/ml	97
26) Benzoic acid	~~7.584~~	~~105~~	10798	1002.59 ng/ml#	See MJ 1
27) 2,4-Dichlorophenol	7.787	162	282981	5746.99 ng/ml	96
28) 1,2,4-Trichlorobenzene	7.867	180	321077	5329.06 ng/ml	99
29) Naphthalene	7.953	128	881153	4899.95 ng/ml	96
30) 4-Chloroaniline	8.001	127	375558	7662.85 ng/ml	99
31) Hexachlorobutadiene	8.076	225	186782	5810.71 ng/ml	98
32) 4-Chloro-3-methylphenol	8.477	107	333390	6238.84 ng/ml	96
33) 2-Methylnaphthalene	8.643	142	700865	5432.59 ng/ml	98
34) 1-Methylnaphthalene	8.744	142	643393	5230.09 ng/ml	98
36) Hexachlorocyclopentadiene	8.809	237	214657	6026.30 ng/ml	98
37) 2,4,6-Trichlorophenol	8.926	196	227216	5876.17 ng/ml	98
38) 2,4,5-Trichlorophenol	8.964	198	218856	5902.35 ng/ml	98
39) 1,1'-Biphenyl	9.119	154	756255	4915.66 ng/ml	97
41) 2-Chloronaphthalene	9.140	162	562503	5018.29 ng/ml	98
42) 2-Nitroaniline	9.242	138	226292	5942.90 ng/ml	91
43) 2,6-Dimethylnaphthalene	9.279	156	562178	4890.70 ng/ml	96

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.370	168	107910	5052.56 ng/ml	85
45) Dimethyl phthalate	9.434	163	703220	5178.09 ng/ml	98
46) 1,3-Dinitrobenzene	9.456	168	120068	5355.80 ng/ml	95
47) 2,6-Dinitrotoluene	9.488	165	174146	5542.98 ng/ml	87
48) 1,2-Dinitrobenzene	9.552	168	84556	5550.92 ng/ml	86
49) Acenaphthylene	9.563	152	869974	4774.58 ng/ml	97
50) 3-Nitroaniline	9.659	138	78267	Below Cal	96
51) Acenaphthene	9.745	153	584734	4983.57 ng/ml	98
52) 2,4-Dinitrophenol	9.761	184	71059	4457.18 ng/ml	94
53) 4-Nitrophenol	9.825	139	152030	5778.61 ng/ml	95
54) 2,4-Dinitrotoluene	9.900	165	227357	5792.06 ng/ml	95
55) Dibenzofuran	9.916	168	787795	4831.64 ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.996	232	195876	6062.93 ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	10.039	232	201184	6084.80 ng/ml	97
58) Diethyl phthalate	10.140	149	579238	4581.50 ng/ml	95
59) 2,3,5-Trimethylnaphtha...	10.130	170	535500	4836.98 ng/ml	99
60) Fluorene	10.269	166	595819	4558.02 ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.258	204	348928	5244.97 ng/ml	95
62) 4-Nitroaniline	10.290	138	145167	5276.04 ng/ml	97
63) 4,6-Dinitro-2-methylph...	10.317	198	103747	4797.03 ng/ml	94
65) N-Nitrosodiphenylamine	10.381	169	498648	4306.23 ng/ml	100
66) Azobenzene (1,2-DPH)	10.419	77	608650	5235.41 ng/ml	89
68) 4-Bromophenyl phenyl e...	10.756	248	256100	5881.44 ng/ml	98
69) Hexachlorobenzene	10.836	284	285495	5721.39 ng/ml	97
70) Pentachlorophenol (PCP)	11.028	266	176453	6418.22 ng/ml	98
71) Phenanthrene	11.248	178	956105	4805.46 ng/ml	96
72) Anthracene	11.301	178	928594	4801.32 ng/ml	96
73) Carbazole	11.451	167	424787	Below Cal	98
74) Di-n-butyl phthalate	11.799	149	1140087	5126.46 ng/ml	96
75) Fluoranthene	12.531	202	1181210	5244.08 ng/ml	98
76) Benzidine	12.692	184	924428	15497.66 ng/ml	98
77) Pyrene	12.831	202	1149431	5071.42 ng/ml	97
80) Butyl benzyl phthalate	13.868	149	631913	6183.11 ng/ml	93
81) Bis(2-ethylhexyl) adipate	14.045	129	525912	6731.75 ng/ml	98
82) 3,3-Dichlorobenzidine	15.024	252	197737	9624.37 ng/ml	98
83) Benz(a)anthracene	15.056	228	1123403	5860.76 ng/ml	96
84) Chrysene	15.152	228	1022308	5840.98 ng/ml	98
85) Bis(2-ethylhexyl) phth...	15.222	149	739674	6471.29 ng/ml	95
87) Di-n-octyl phthalate	16.901	149	1499067	5996.73 ng/ml	98
88) Benzo(b)fluoranthene	17.677	252	1366285	6501.94 ng/ml	98
89) Benzo(k)fluoranthene	17.752	252	1115022	5627.56 ng/ml	97
90) Benzo(b+k)fluoranthene	17.752	252	2538483	12146.44 ng/ml	97
91) Benzo(e)pyrene	18.340	252	1247052	6081.46 ng/ml	97
92) Benzo(a)pyrene	18.468	252	1130687	5977.03 ng/ml	100
93) Perylene	18.666	252	1004144	5802.05 ng/ml	99
95) Indeno(1,2,3-cd)pyrene	21.020	276	1311636	5877.67 ng/ml	99
96) Dibenz(a,h)anthracene	21.078	278	1076200	5534.71 ng/ml	99
97) Benzo(g,h,i)perylene	21.565	276	1221971	5721.36 ng/ml	98

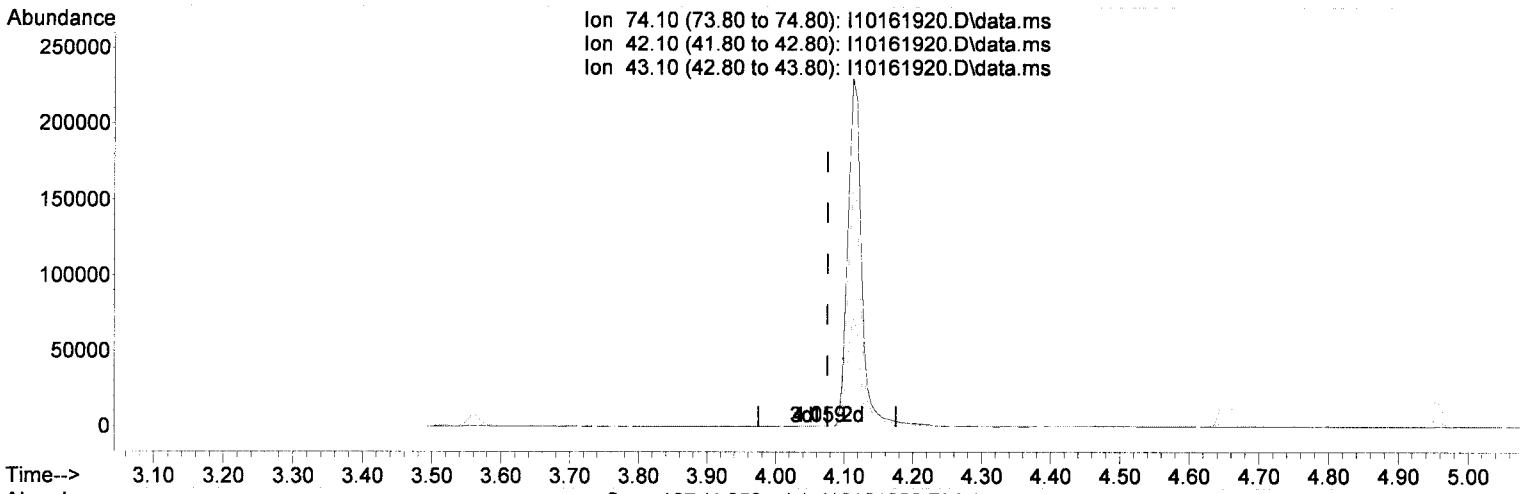
See NJ

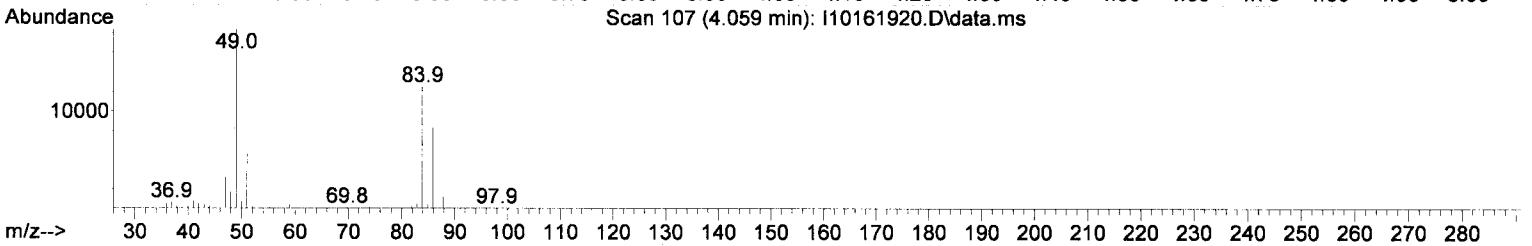
(#) = qualifier out of range (m) = manual integration (+) = signals summed

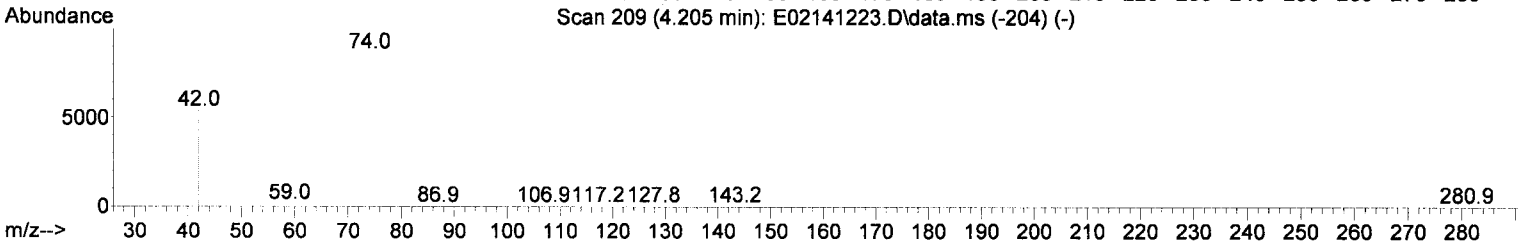
Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9







TIC: I10161920.D\data.ms

(2) N-Nitrosodimethylamine (T)

4.059min (-0.016) 1.75 ng/ml

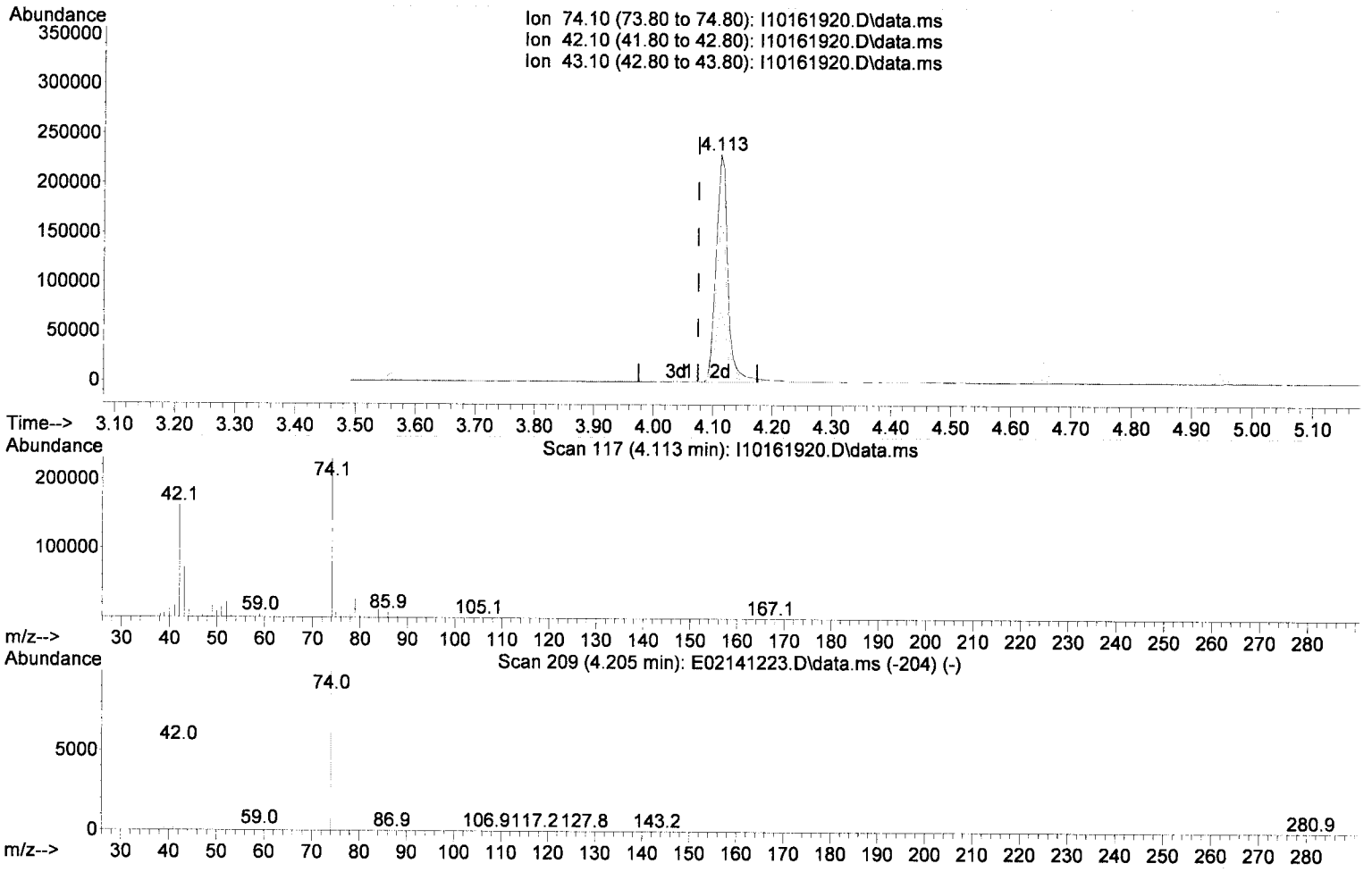
response 72

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	71.00	422.14#
43.10	31.00	293.13#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161920.D\data.ms

(2) N-Nitrosodimethylamine (T)

4.113min (+ 0.037) 7829.50 ng/ml m

GK 10/17/19

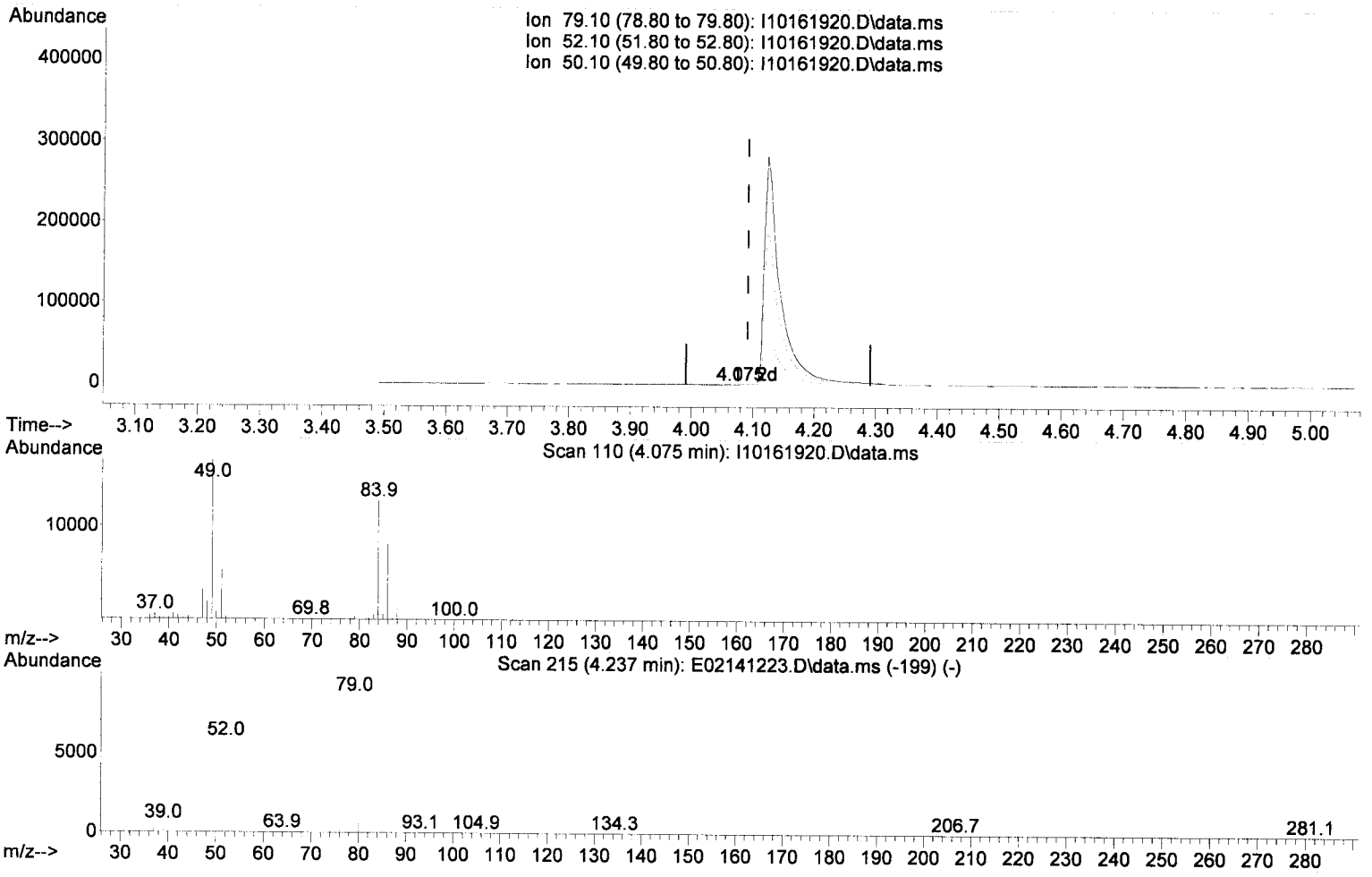
response 322758

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	71.00	70.54
43.10	31.00	31.38
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161920.D\data.ms

(3) Pyridine (T)

4.075min (-0.016) 15.66 ng/ml

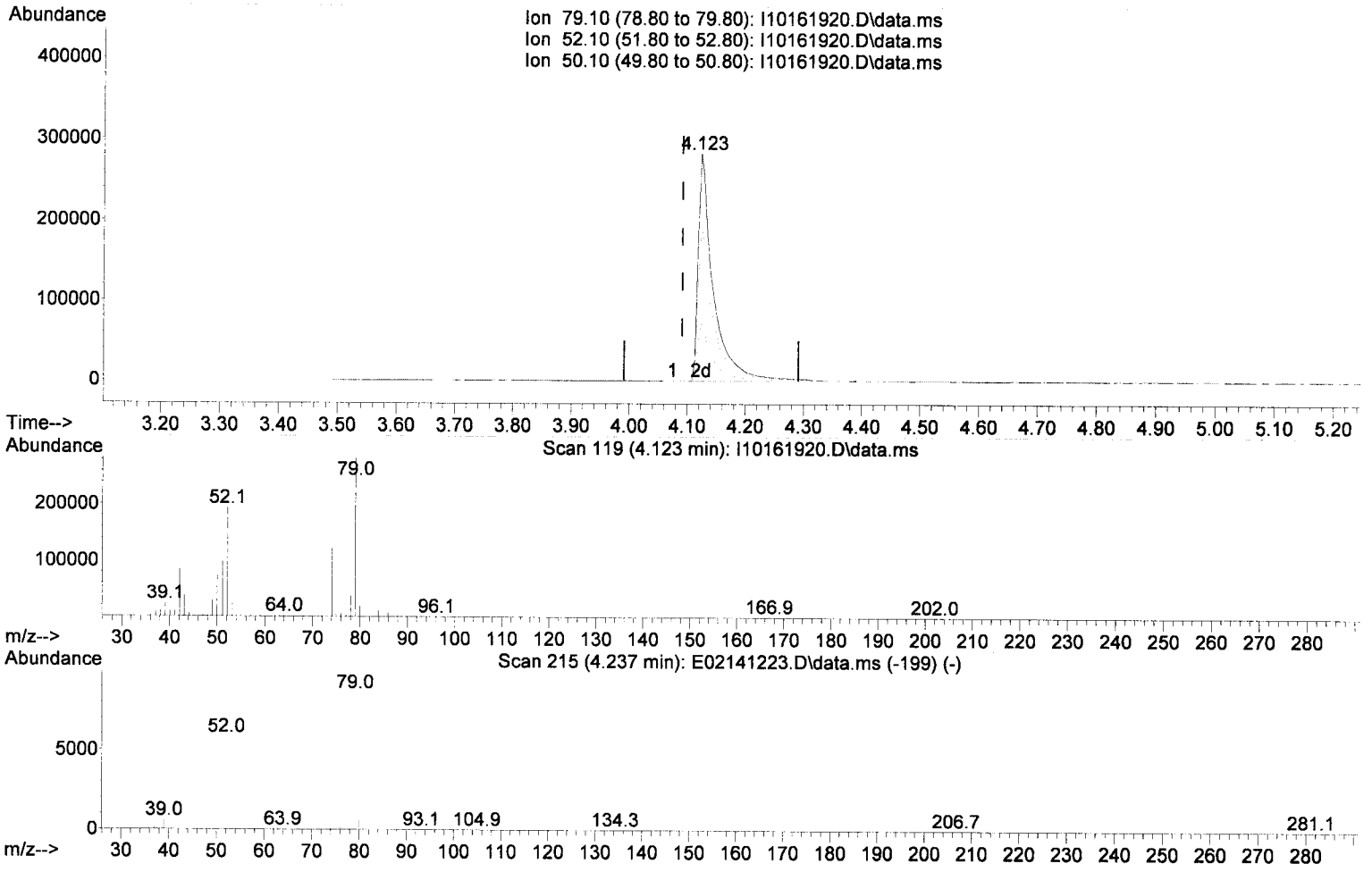
response 352

Ion	Exp%	Act%
79.10	100.00	100.00
52.10	69.90	86.15
50.10	25.60	236.62#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161920.D\data.ms

(3) Pyridine (T)

4.123min (+ 0.032) 7043.41 ng/ml m

JK 10/17/19

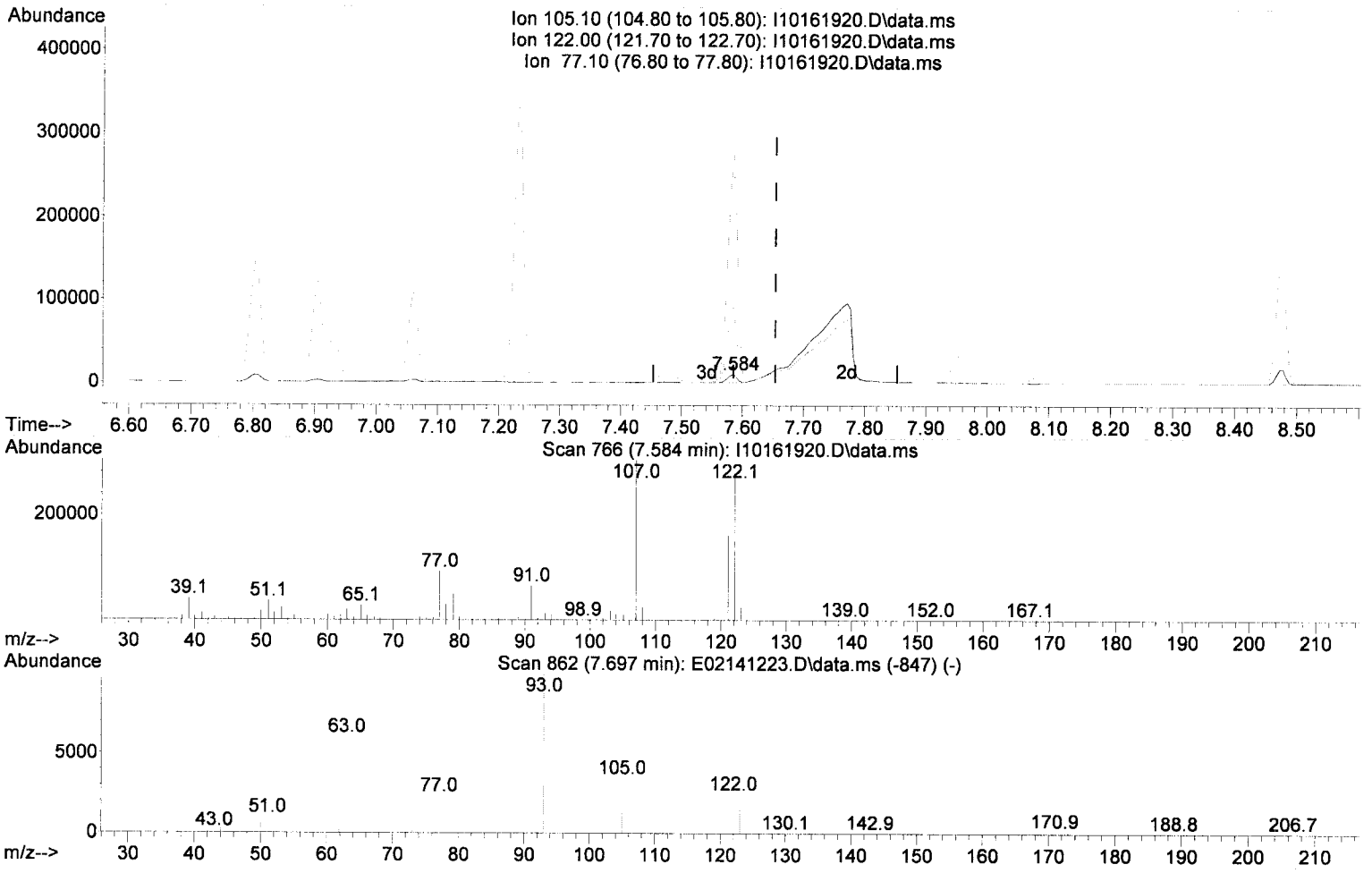
response 514636

Ion	Exp%	Act%
79.10	100.00	100.00
52.10	69.90	68.21
50.10	25.60	25.59
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161920.D\data.ms

(26) Benzoic acid (T)

7.584min (-0.070) 1002.59 ng/ml

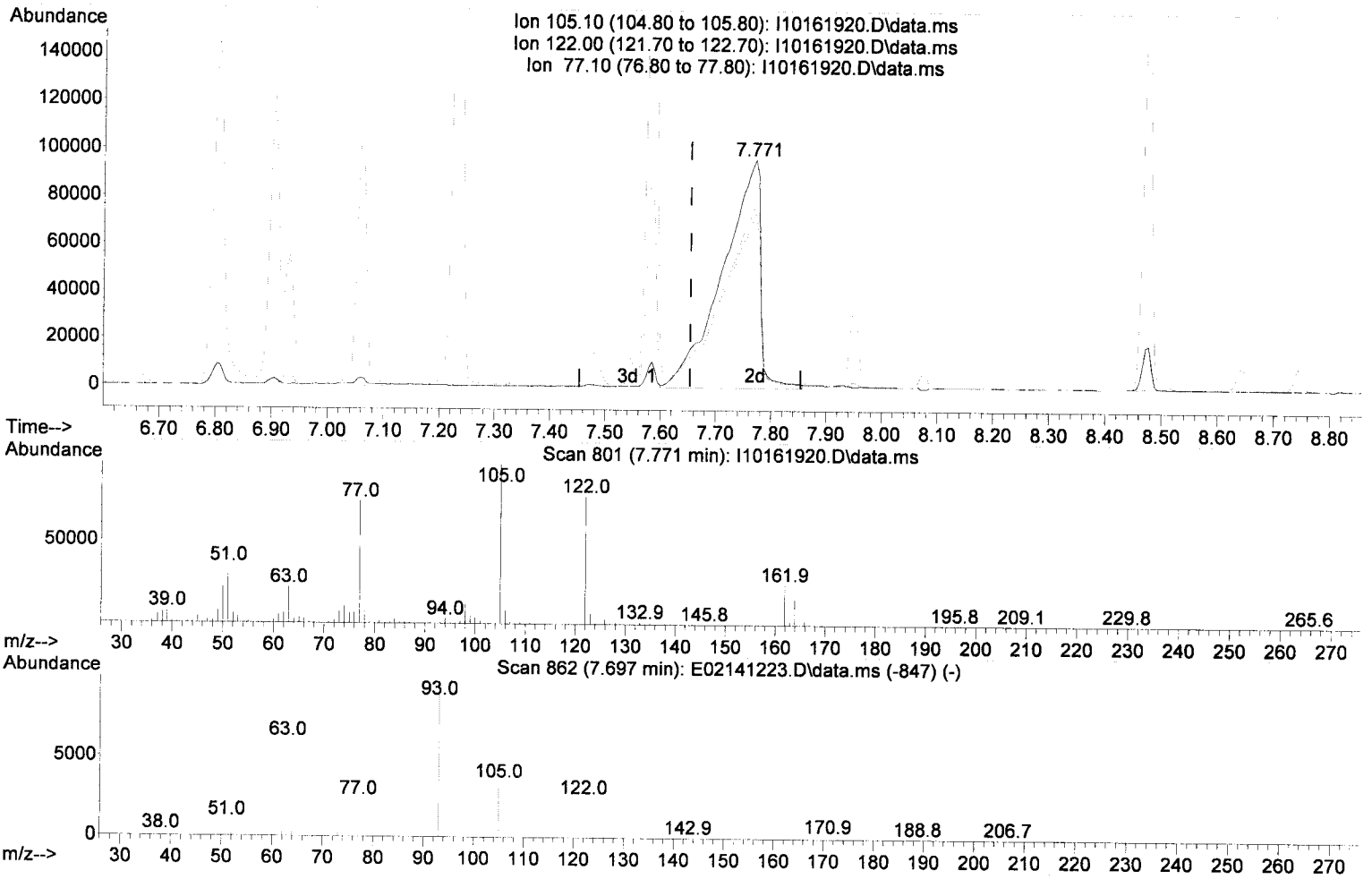
response 10798

Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	2567.77#
77.10	77.80	861.21#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161920.D\data.ms

(26) Benzoic acid (T)

7.771min (+ 0.118) 12428.66 ng/ml m

response 456773

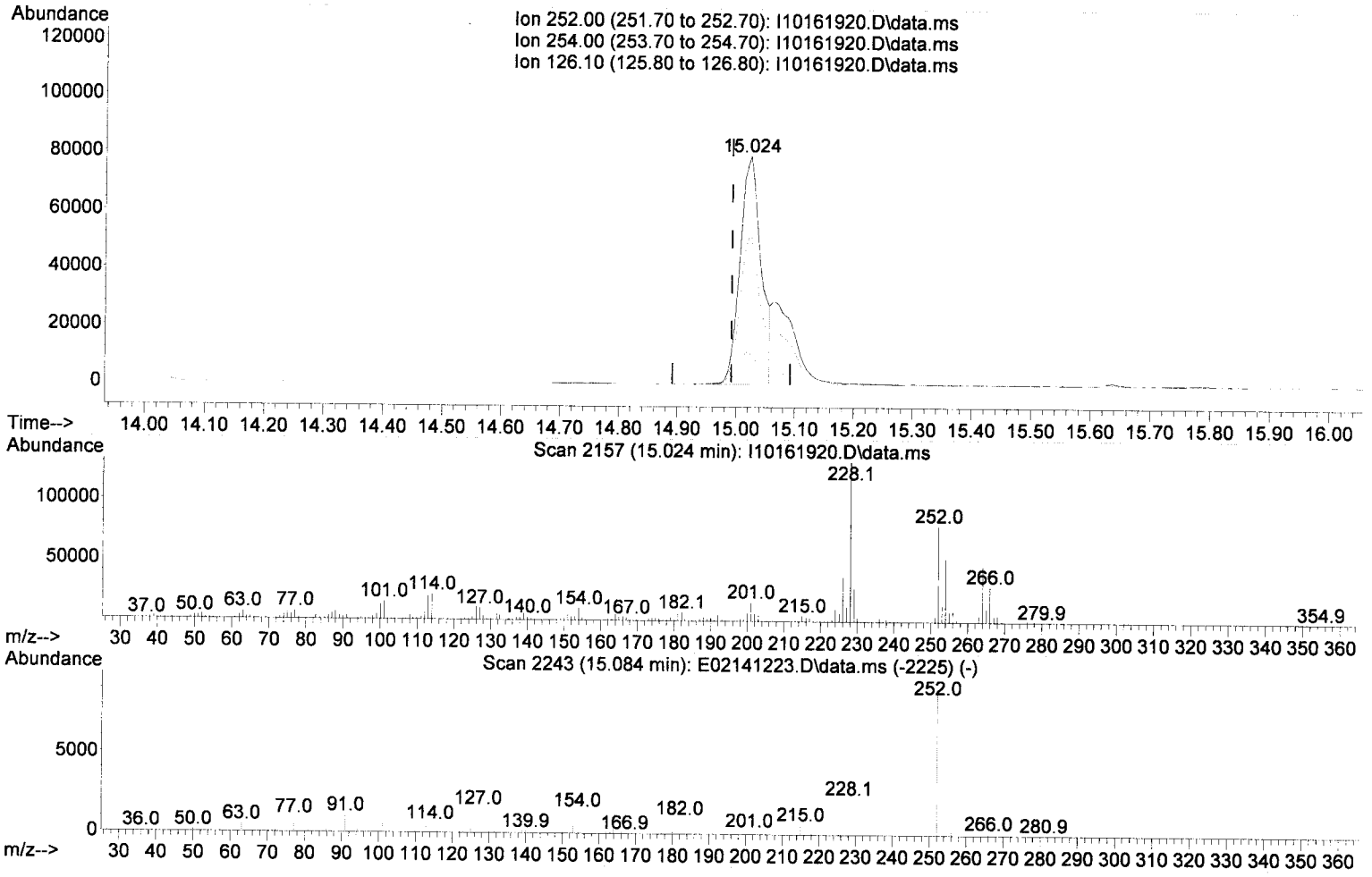
Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	79.95
77.10	77.80	76.64
0.00	0.00	0.00

10/17/19

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161920.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

15.024min (+ 0.032) 9624.37 ng/ml

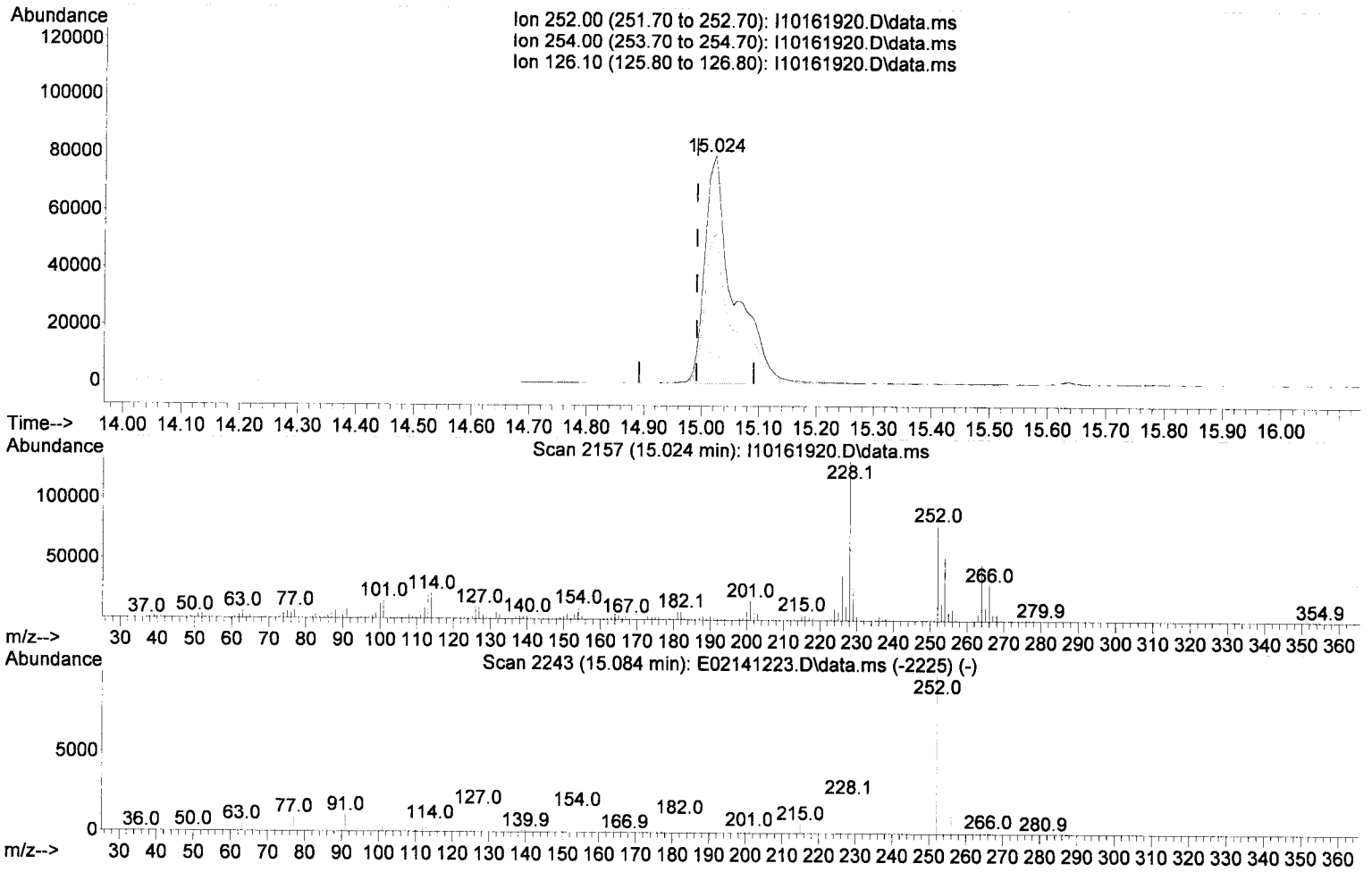
response 197737

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	64.00	65.76
126.10	14.00	13.46
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161920.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

15.024min (+ 0.032) 13733.38 ng/ml m JK 10/17/19

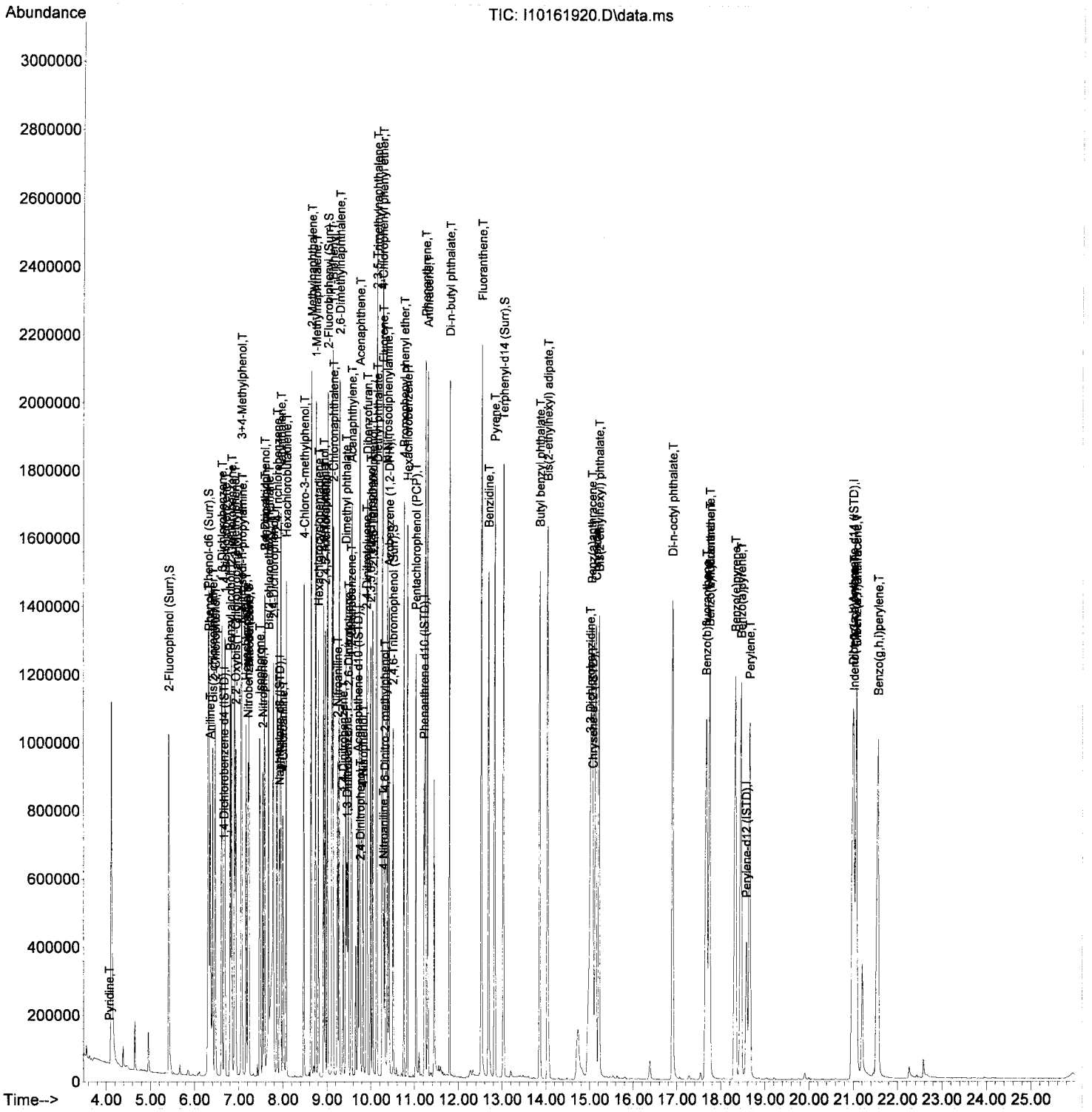
response 276349

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	64.00	65.76
126.10	14.00	13.46
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161920.D
Acq On : 16 Oct 2019 9:49 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CAL9
Misc : 1x, A19G246 BNA@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:43 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161921.D
Acq On : 16 Oct 2019 10:24 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CALA
Misc : 1x, A19G247 BNA@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:51 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.664	152	90105	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.926	136	341834	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.707	162	182625	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.221	188	376032	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.088	240	319256	2000.00	ng/ml	0.04
86) Perylene-d12 (ISTD)	18.581	264	341068	2000.00	ng/ml	0.03
94) Dibenz(a,h)Anthrcene-d...	21.004	292	340856	2000.00	ng/ml	0.05
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.412	112	563281	9541.92	ng/ml	0.00
5) Phenol-d6 (Surr)	6.311	99	666322	9435.97	ng/ml	0.02
19) Nitrobenzene-d5 (Surr)	7.215	82	472853	8317.63	ng/ml	0.02
40) 2-Fluorobiphenyl (Surr)	9.017	172	827961	6200.13	ng/ml	0.01
67) 2,4,6-Tribromophenol (...	10.515	330	197030	8466.97	ng/ml	0.02
79) Terphenyl-d14 (Surr)	13.039	244	1194810	7812.03	ng/ml	0.02
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.070	74	425740	10347.25	ng/ml	100
3) Pyridine	4.075	79	702998	9157.82	ng/ml	97
6) Phenol	6.327	94	643943	8888.38	ng/ml	94
7) Aniline	6.354	93	643142	9568.35	ng/ml	96
8) Bis(2-chloroethyl) ether	6.407	93	503778	7515.54	ng/ml	98
9) 2-Chlorophenol	6.466	128	486600	7800.40	ng/ml	96
10) 1,3-Dichlorobenzene	6.610	146	510201	7163.40	ng/ml	98
11) 1,4-Dichlorobenzene	6.680	146	472412	6816.45	ng/ml	98
12) Benzyl alcohol	6.808	108	321834	7839.63	ng/ml	97
13) 1,2-Dichlorobenzene	6.835	146	440964	6572.25	ng/ml	99
14) 2-Methylphenol	6.905	107	347076	7885.51	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.931	45	544410	7862.54	ng/ml	85
16) N-Nitrosodi-n-propylamine	7.076	70	326816	8060.19	ng/ml	92
17) 3+4-Methylphenol	7.065	107	435039	7699.18	ng/ml	97
18) Hexachloroethane	7.167	201	175204	7930.69	ng/ml	94
20) Nitrobenzene	7.236	77	431713	7609.32	ng/ml	89
22) Isophorone	7.482	82	1001015	8720.31	ng/ml	96
23) 2-Nitrophenol	7.546	139	257722	7562.78	ng/ml	96
24) 2,4-Dimethylphenol	7.589	122	364751	7332.00	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.675	93	495856	7176.36	ng/ml	96
26) Benzoic acid	7.589	105	12763	1068.35	ng/ml#	1
27) 2,4-Dichlorophenol	7.787	162	351999	7259.50	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.873	180	393859	6690.69	ng/ml	100
29) Naphthalene	7.953	128	1052026	5987.65	ng/ml	95
30) 4-Chloroaniline	8.001	127	462446	9512.71	ng/ml	98
31) Hexachlorobutadiene	8.076	225	234083	7453.37	ng/ml	99
32) 4-Chloro-3-methylphenol	8.477	107	413423	7762.86	ng/ml	96
33) 2-Methylnaphthalene	8.643	142	843623	6692.84	ng/ml	98
34) 1-Methylnaphthalene	8.750	142	774012	6439.75	ng/ml	99
36) Hexachlorocyclopentadiene	8.809	237	265581	7621.05	ng/ml	99
37) 2,4,6-Trichlorophenol	8.932	196	292625	7688.16	ng/ml	99
38) 2,4,5-Trichlorophenol	8.964	198	271144	7466.42	ng/ml	99
39) 1,1'-Biphenyl	9.119	154	905572	6016.56	ng/ml	96
41) 2-Chloronaphthalene	9.146	162	674470	6150.43	ng/ml	97
42) 2-Nitroaniline	9.247	138	293332	7874.09	ng/ml	90
43) 2,6-Dimethylnaphthalene	9.279	156	686967	6108.64	ng/ml	95

See NJ

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161921.D
Acq On : 16 Oct 2019 10:24 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CALA
Misc : 1x, A19G247 BNA@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:51 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.376	168	141310	6619.98	ng/ml	82
45) Dimethyl phthalate	9.440	163	867794	6531.41	ng/ml	97
46) 1,3-Dinitrobenzene	9.467	168	152836	6968.42	ng/ml	95
47) 2,6-Dinitrotoluene	9.493	165	216715	7050.68	ng/ml	86
48) 1,2-Dinitrobenzene	9.557	168	103981	6977.29	ng/ml	91
49) Acenaphthylene	9.568	152	1014724	5692.31	ng/ml	95
50) 3-Nitroaniline	9.664	138	117221	Below Cal		94
51) Acenaphthene	9.745	153	712568	6207.56	ng/ml	97
52) 2,4-Dinitrophenol	9.766	184	97114	5817.14	ng/ml	92
53) 4-Nitrophenol	9.830	139	187194	7122.97	ng/ml	97
54) 2,4-Dinitrotoluene	9.905	165	277426	7224.10	ng/ml	96
55) Dibenzofuran	9.921	168	946729	5934.98	ng/ml	97
56) 2,3,5,6-Tetrachlorophenol	9.996	232	249690	7793.09	ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	10.044	232	257264	7850.89	ng/ml	95
58) Diethyl phthalate	10.146	149	698054	5643.54	ng/ml	93
59) 2,3,5-Trimethylnaphtha...	10.130	170	644885	5954.01	ng/ml	98
60) Fluorene	10.274	166	721314	5640.25	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.258	204	428718	6587.05	ng/ml	98
62) 4-Nitroaniline	10.296	138	176836	6569.36	ng/ml	97
63) 4,6-Dinitro-2-methylph...	10.328	198	139599	6317.83	ng/ml	86
65) N-Nitrosodiphenylamine	10.387	169	622397	5379.88	ng/ml	99
66) Azobenzene (1,2-DPH)	10.424	77	730839	6292.26	ng/ml	83
68) 4-Bromophenyl phenyl e...	10.761	248	329177	7566.68	ng/ml	96
69) Hexachlorobenzene	10.841	284	361957	7260.42	ng/ml	96
70) Pentachlorophenol (PCP)	11.028	266	227516	8068.03	ng/ml	98
71) Phenanthrene	11.253	178	1170165	5886.79	ng/ml	95
72) Anthracene	11.306	178	1130706	5851.76	ng/ml	95
73) Carbazole	11.456	167	578961	Below Cal		98
74) Di-n-butyl phthalate	11.804	149	1371594	6173.15	ng/ml	95
75) Fluoranthene	12.537	202	1449379	6440.59	ng/ml	96
76) Benzidine	12.697	184	1130941	18977.32	ng/ml	97
77) Pyrene	12.836	202	1400570	6185.19	ng/ml	96
80) Butyl benzyl phthalate	13.868	149	788952	7801.41	ng/ml	92
81) Bis(2-ethylhexyl) adipate	14.045	129	642531	8606.30	ng/ml	97
82) 3,3-Dichlorobenzidine	15.024	252	309217	16215.48	ng/ml	98
83) Benz(a)anthracene	15.061	228	1366845	7461.83	ng/ml	96
84) Chrysene	15.157	228	1249315	7469.36	ng/ml	97
85) Bis(2-ethylhexyl) phth...	15.222	149	901223	8250.69	ng/ml	95
87) Di-n-octyl phthalate	16.906	149	1811511	7733.59	ng/ml	98
88) Benzo(b)fluoranthene	17.687	252	1686661	8807.64	ng/ml	97
89) Benzo(k)fluoranthene	17.757	252	1278627	7081.27	ng/ml	98
90) Benzo(b+k)fluoranthene	17.757	252	3039542	15959.27	ng/ml	98
91) Benzo(e)pyrene	18.340	252	1492293	7985.60	ng/ml	97
92) Benzo(a)pyrene	18.474	252	1326605	7765.80	ng/ml	99
93) Perylene	18.672	252	1195430	7579.48	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	21.020	276	1567885	7615.10	ng/ml	98
96) Dibenz(a,h)anthracene	21.084	278	1269410	7075.76	ng/ml	100
97) Benzo(g,h,i)perylene	21.570	276	1429981	7256.69	ng/ml	98

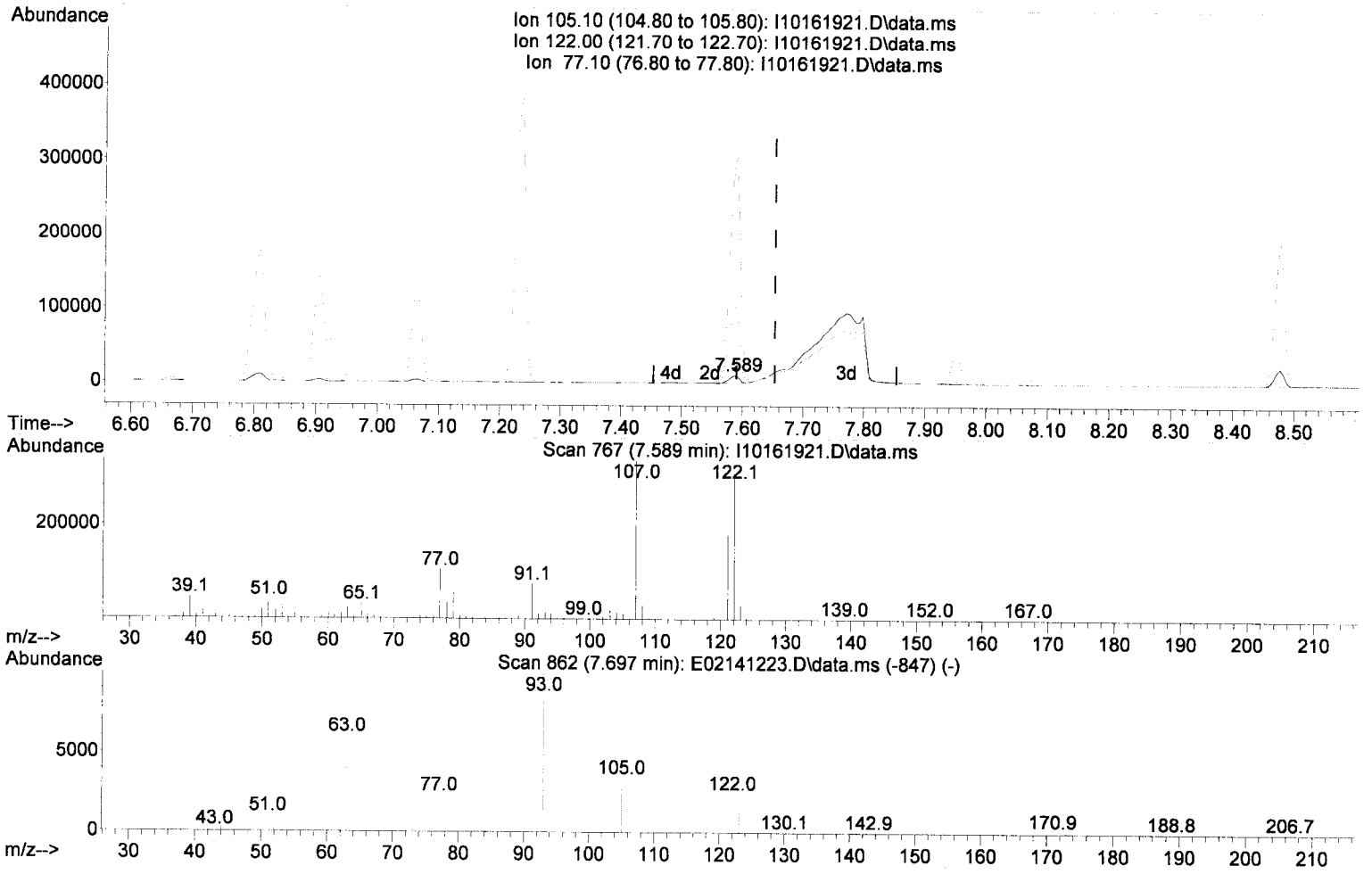
See ML

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

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161921.D
Acq On : 16 Oct 2019 10:24 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CALA
Misc : 1x, A19G247 BNA@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:51 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161921.D\data.ms

(26) Benzoic acid (T)

7.589min (-0.064) 1068.35 ng/ml

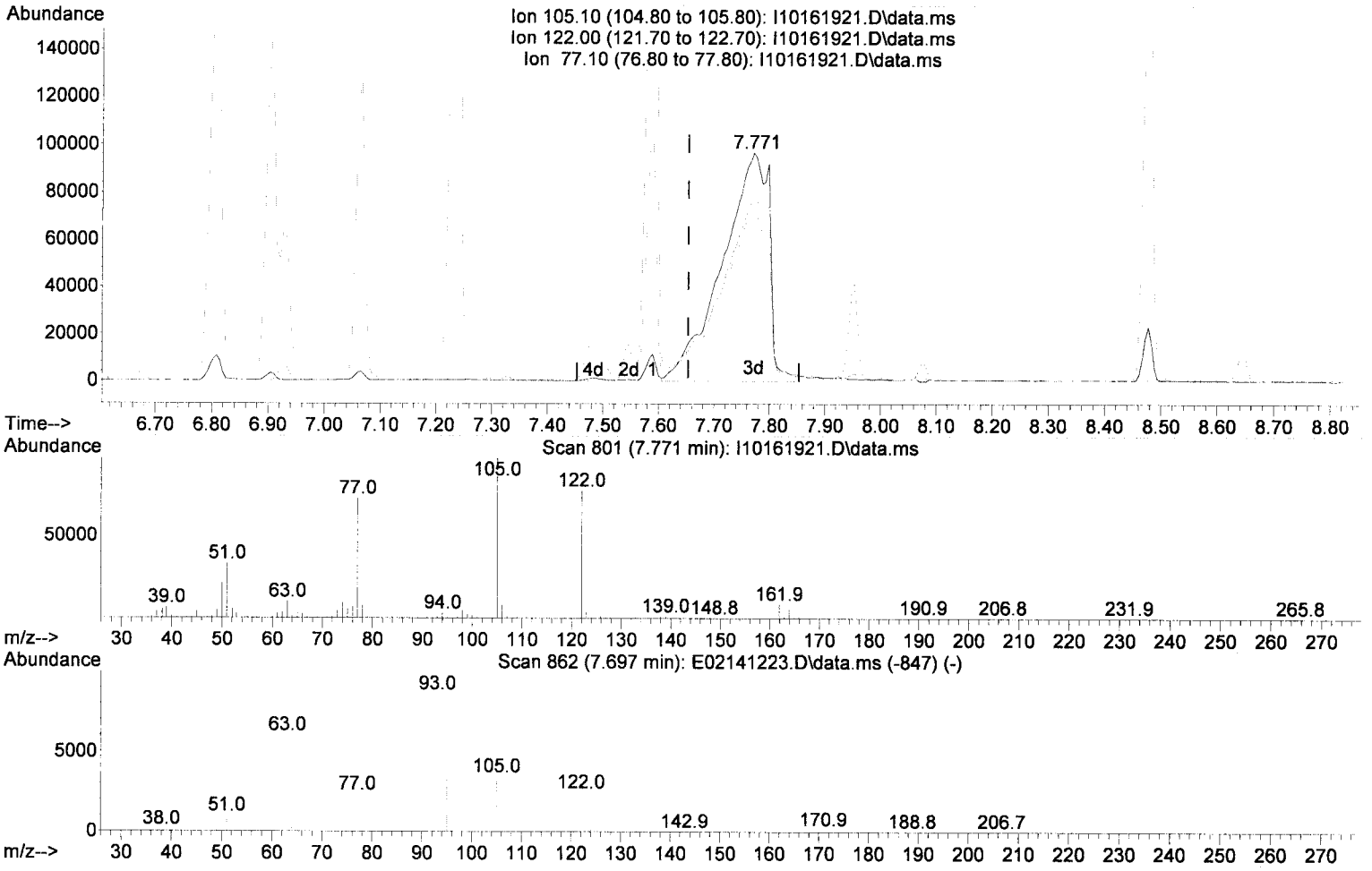
response 12763

Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	2695.39#
77.10	77.80	917.94#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161921.D
Acq On : 16 Oct 2019 10:24 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CALA
Misc : 1x, A19G247 BNA@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:51 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161921.D\data.ms

(26) Benzoic acid (T)

7.771min (+ 0.118) 15200.89 ng/ml m

response 567530

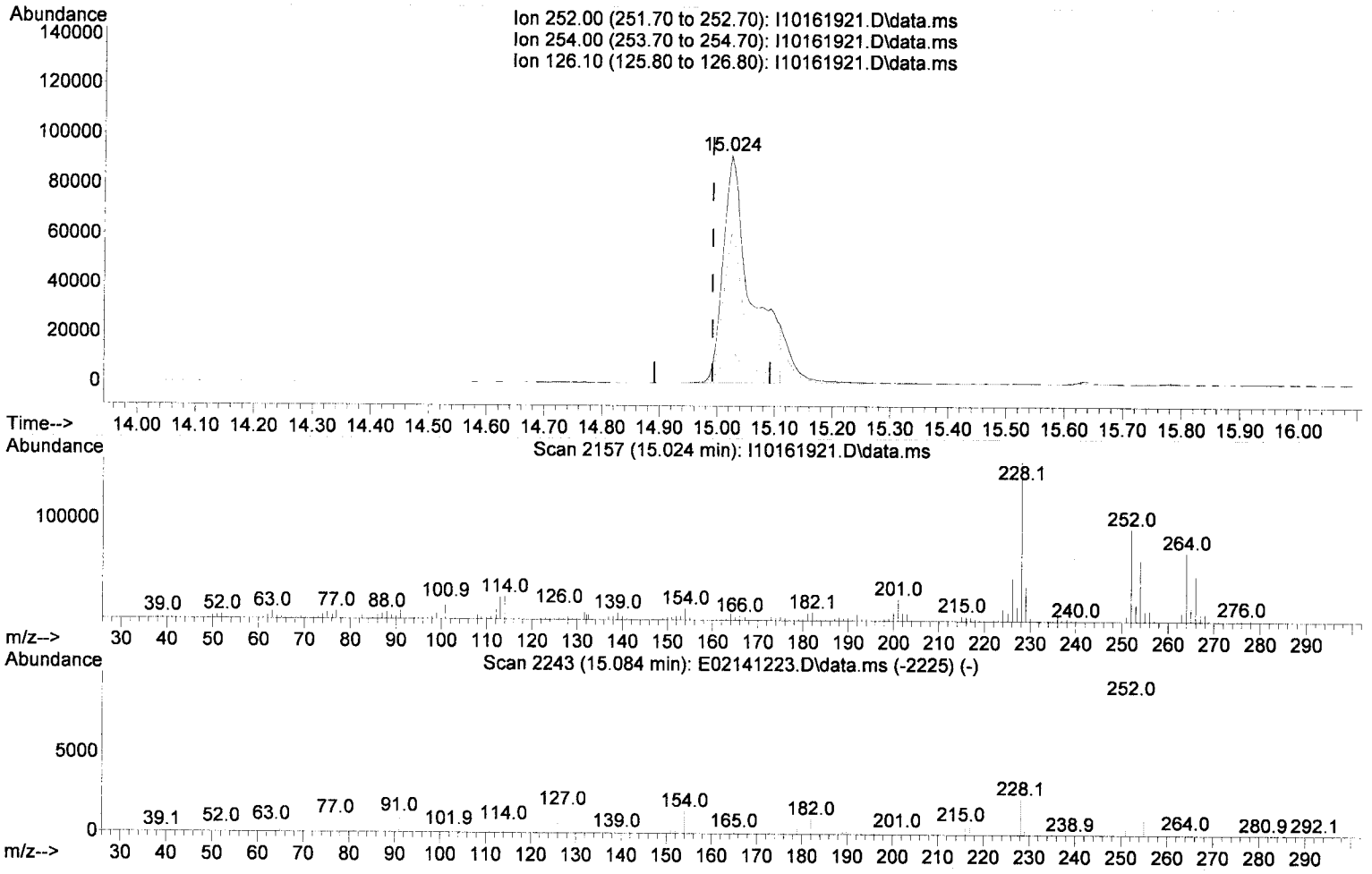
Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	79.63
77.10	77.80	74.83
0.00	0.00	0.00

10/17/19

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161921.D
Acq On : 16 Oct 2019 10:24 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CALA
Misc : 1x, A19G247 BNA@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:51 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161921.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

15.024min (+ 0.032) 16215.48 ng/ml

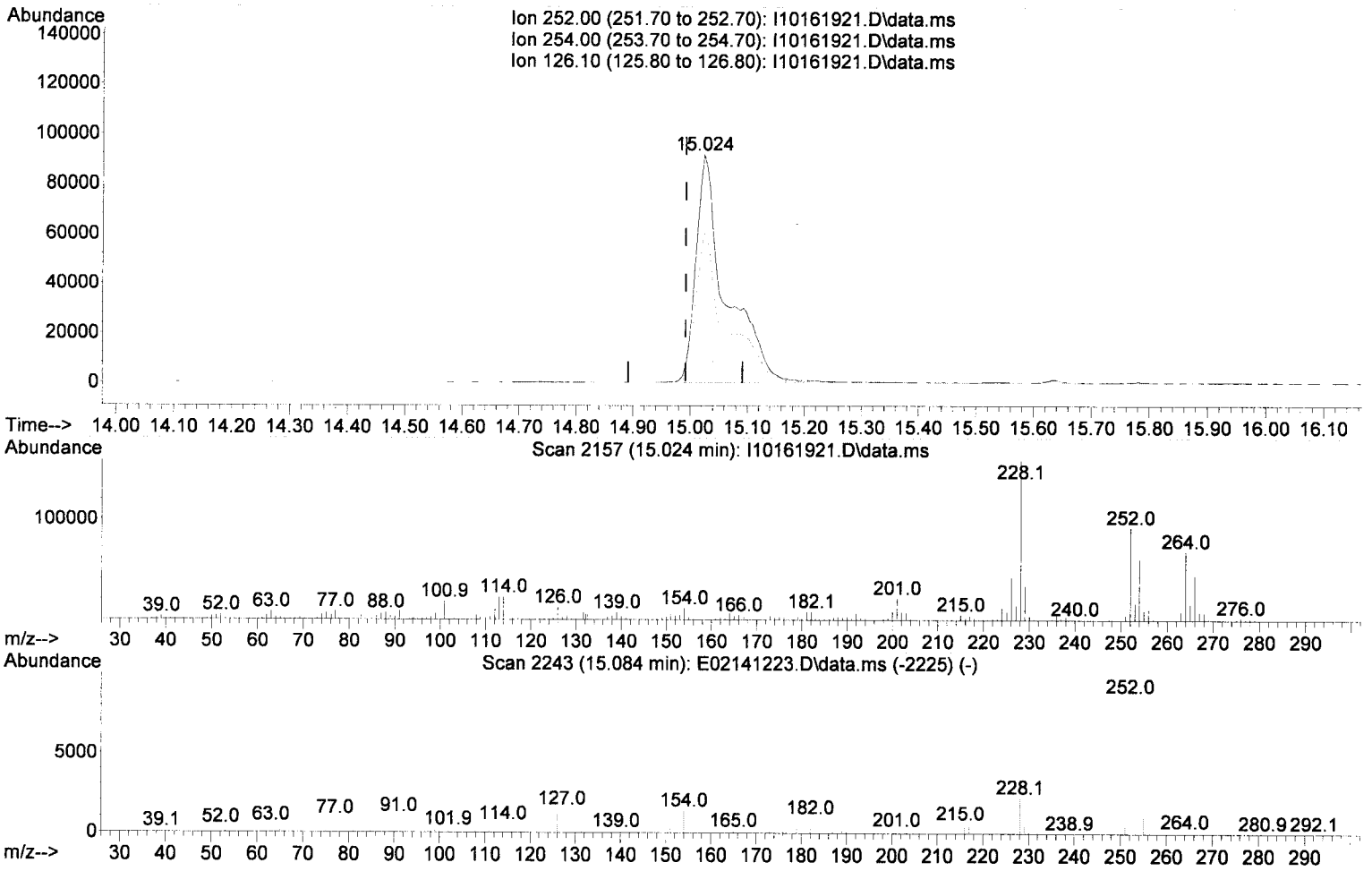
response 309217

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	64.00	65.81
126.10	14.00	13.07
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161921.D
Acq On : 16 Oct 2019 10:24 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CALA
Misc : 1x, A19G247 BNA@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:51 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



TIC: I10161921.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

15.024min (+ 0.032) 17716.98 ng/ml m

response 336424

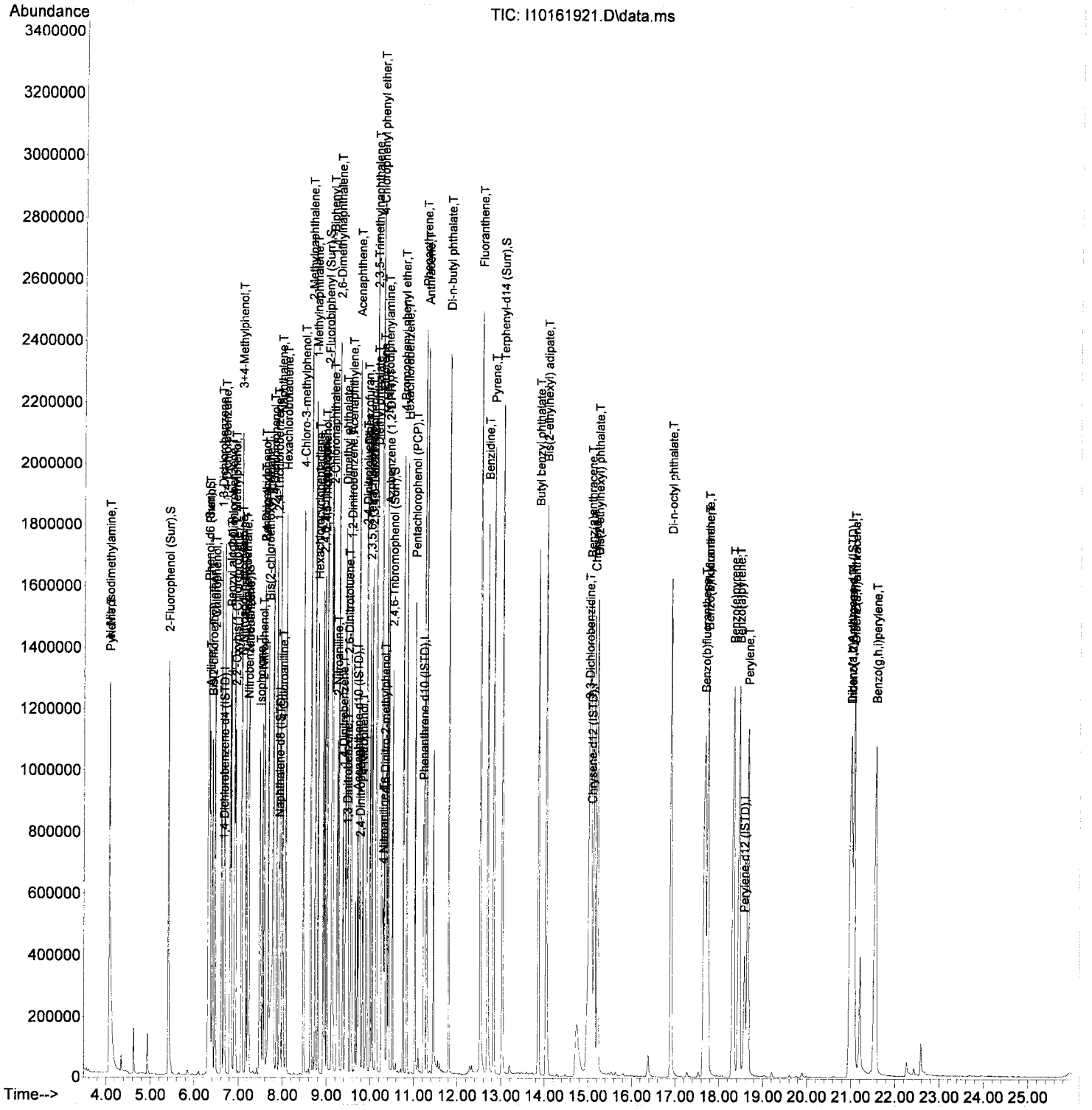
Ion	Exp%	Act%
252.00	100.00	100.00
254.00	64.00	65.81
126.10	14.00	13.07
0.00	0.00	0.00

10/17/19

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161921.D
Acq On : 16 Oct 2019 10:24 pm
Operator : JK /AMS /DTH
Sample : 9J16053-CALA
Misc : 1x, A19G247 BNA@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:13:51 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161923.D
Acq On : 16 Oct 2019 11:33 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICV1
Misc : 1x, A19I254 BNA@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:14:17 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

JK 10/17/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.659	152	106471	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	411521	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.702	162	209383	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.216	188	386084	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.056	240	381801	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.559	264	383841	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.955	292	334585	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.407	112	76822	1101.32	ng/ml	0.00
5) Phenol-d6 (Surr)	6.295	99	98100	1175.68	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.199	82	77799	1158.15	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.007	172	165174	1078.83	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.499	330	23106	1048.70	ng/ml	0.00
79) Terphenyl-d14 (Surr)	13.023	244	193114	1055.80	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.080	74	60523	1244.85	ng/ml	99
3) Pyridine	4.102	79	85071	1163.34	ng/ml	98
6) Phenol	6.306	94	102242	1194.32	ng/ml	99
7) Aniline	6.343	93	96704	1217.57	ng/ml	98
8) Bis(2-chloroethyl) ether	6.396	93	95373	1204.10	ng/ml	98
9) 2-Chlorophenol	6.461	128	81659	1107.81	ng/ml	99
10) 1,3-Dichlorobenzene	6.610	146	85857	1020.17	ng/ml	100
11) 1,4-Dichlorobenzene	6.680	146	80889	987.74	ng/ml	99
12) Benzyl alcohol	6.787	108	42970	1072.91	ng/ml	99
13) 1,2-Dichlorobenzene	6.830	146	80233	1012.00	ng/ml	98
14) 2-Methylphenol	6.894	107	64559	1241.31	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.921	45	117934	1441.43	ng/ml	98
16) N-Nitrosodi-n-propylamine	7.049	70	63007	1315.07	ng/ml	99
17) 3+4-Methylphenol	7.044	107	75794	1097.87	ng/ml	99
18) Hexachloroethane	7.167	201	26625	1019.94	ng/ml	98
20) Nitrobenzene	7.220	77	79633	1187.85	ng/ml	98
22) Isophorone	7.450	82	167145	1209.51	ng/ml	97
23) 2-Nitrophenol	7.536	139	40793	994.35	ng/ml	99
24) 2,4-Dimethylphenol	7.568	122	60426	1008.96	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.659	93	93785	1127.47	ng/ml	99
26) Benzoic acid	7.648	105	35448	1560.83	ng/ml	96
27) 2,4-Dichlorophenol	7.771	162	56283	1013.10	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.862	180	71397	1007.47	ng/ml	98
29) Naphthalene	7.942	128	217507	1028.31	ng/ml	100
30) 4-Chloroaniline	7.990	127	67526	1246.11	ng/ml	100
31) Hexachlorobutadiene	8.071	225	38909	1029.10	ng/ml	99
32) 4-Chloro-3-methylphenol	8.466	107	63199	1106.90	ng/ml	99
33) 2-Methylnaphthalene	8.637	142	162096	1068.21	ng/ml	99
34) 1-Methylnaphthalene	8.739	142	153280	1059.33	ng/ml	99
36) Hexachlorocyclopentadiene	8.809	237	36321	909.06	ng/ml	98
37) 2,4,6-Trichlorophenol	8.921	196	41531	997.28	ng/ml	95
38) 2,4,5-Trichlorophenol	8.953	198	40839	1004.22	ng/ml	100
39) 1,1'-Biphenyl	9.108	154	180141	1043.90	ng/ml	99
41) 2-Chloronaphthalene	9.130	162	133530	1062.04	ng/ml	99
42) 2-Nitroaniline	9.226	138	39427	923.11	ng/ml	98
43) 2,6-Dimethylnaphthalene	9.269	156	133180	1032.92	ng/ml	100

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161923.D
Acq On : 16 Oct 2019 11:33 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICV1
Misc : 1x, A19I254 BNA@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:14:17 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9

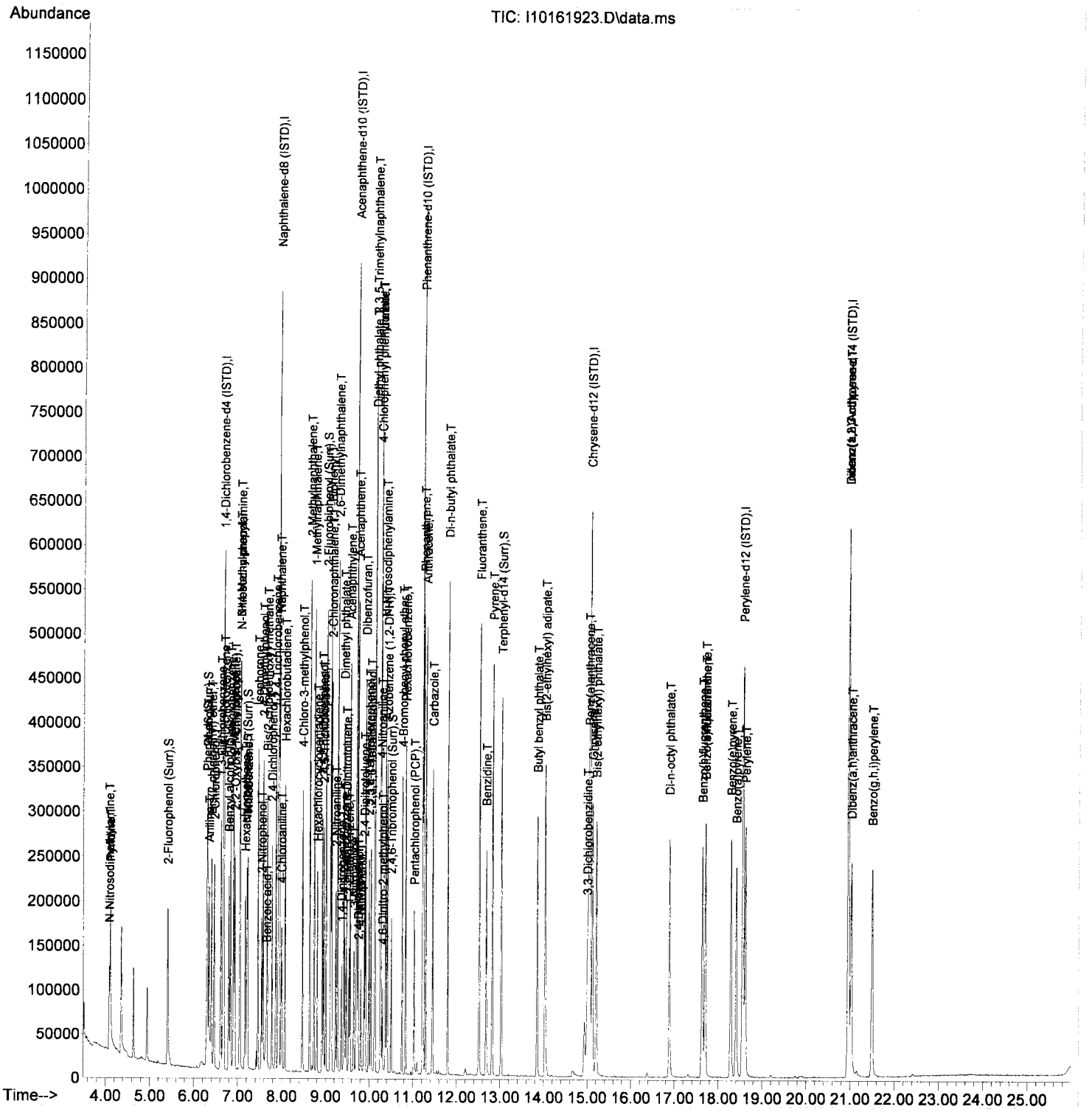
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.354	168	13499	650.23	ng/ml	95
45) Dimethyl phthalate	9.408	163	158407	1039.88	ng/ml	100
46) 1,3-Dinitrobenzene	9.434	168	18765	746.24	ng/ml	99
47) 2,6-Dinitrotoluene	9.467	165	32748	929.28	ng/ml	97
48) 1,2-Dinitrobenzene	9.525	168	14689	859.69	ng/ml	91
49) Acenaphthylene	9.552	152	217996	1066.62	ng/ml	100
50) 3-Nitroaniline	9.643	138	24964	859.43	ng/ml	98
51) Acenaphthene	9.734	153	135051	1026.15	ng/ml	99
52) 2,4-Dinitrophenol	9.745	184	5025	487.97	ng/ml	96
53) 4-Nitrophenol	9.798	139	21088	821.64	ng/ml	98
54) 2,4-Dinitrotoluene	9.878	165	37273	846.54	ng/ml	99
55) Dibenzofuran	9.905	168	185607	1014.86	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.985	232	31814	937.39	ng/ml	98
57) 2,3,4,6-Tetrachlorophenol	10.028	232	34023	962.42	ng/ml	99
58) Diethyl phthalate	10.124	149	147651	1041.16	ng/ml	100
59) 2,3,5-Trimethylnaphtha...	10.119	170	124315	1001.08	ng/ml	99
60) Fluorene	10.253	166	145915	995.16	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.247	204	73932	990.77	ng/ml	99
62) 4-Nitroaniline	10.263	138	23106	748.68	ng/ml	99
63) 4,6-Dinitro-2-methylph...	10.296	198	12157	630.01	ng/ml	99
65) N-Nitrosodiphenylamine	10.365	169	119244	1003.89	ng/ml	100
66) Azobenzene (1,2-DPH)	10.408	77	150469	1261.76	ng/ml	99
68) 4-Bromophenyl phenyl e...	10.750	248	45642	1021.84	ng/ml	97
69) Hexachlorobenzene	10.825	284	56848	1110.61	ng/ml	97
70) Pentachlorophenol (PCP)	11.023	266	23846	942.40	ng/ml	99
71) Phenanthrene	11.237	178	205558	1007.18	ng/ml	99
72) Anthracene	11.290	178	203835	1027.45	ng/ml	99
73) Carbazole	11.446	167	146985	864.73	ng/ml	99
74) Di-n-butyl phthalate	11.793	149	255949	1121.96	ng/ml	100
75) Fluoranthene	12.521	202	249626	1080.38	ng/ml	98
76) Benzidine	12.676	184	125960	2058.59	ng/ml	99
77) Pyrene	12.815	202	246937	1062.13	ng/ml	99
80) Butyl benzyl phthalate	13.852	149	108372	1062.38	ng/ml	97
81) Bis(2-ethylhexyl) adipate	14.029	129	97276	1089.51	ng/ml	99
82) 3,3-Dichlorobenzidine	14.997	252	63598	2268.59	ng/ml	99
83) Benz(a)anthracene	15.029	228	227009	1036.27	ng/ml	99
84) Chrysene	15.115	228	199763	998.68	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.200	149	144348	1105.02	ng/ml	99
87) Di-n-octyl phthalate	16.880	149	235845	1041.21	ng/ml	98
88) Benzo(b)fluoranthene	17.634	252	224618	1042.24	ng/ml	99
89) Benzo(k)fluoranthene	17.703	252	223333	1099.03	ng/ml	99
90) Benzo(b+k)fluoranthene	17.703	252	456360	2129.13	ng/ml	99
91) Benzo(e)pyrene	18.292	252	216100	1027.54	ng/ml	99
92) Benzo(a)pyrene	18.409	252	191818	970.72	ng/ml	97
93) Perylene	18.618	252	208975	1177.33	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.955	276	193901	959.41	ng/ml	98
96) Dibenz(a,h)anthracene	21.025	278	173363	984.45	ng/ml	99
97) Benzo(g,h,i)perylene	21.496	276	200730	1037.73	ng/ml	98

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

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161923.D
Acq On : 16 Oct 2019 11:33 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICV1
Misc : 1x, A19I254 BNA@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 10:14:17 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 10:12:15 2019
Response via : Initial Calibration
InstName : SV-GCMS9



Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161923.D
Acq On : 16 Oct 2019 11:33 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICV1
Misc : 1x, A19I254 BNA@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Final Reqmnt

Quant Time: Oct 17 13:16:10 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9

10/17/19

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.659	152	106471	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.921	136	411521	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.702	162	209383	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.216	188	386084	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	15.056	240	381801	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	18.559	264	383841	2000.00 ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.955	292	334585	2000.00 ng/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.407	112	76822	979.88 ng/ml	0.00
5) Phenol-d6 (Surr)	6.295	99	98100	1034.03 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.199	82	77799	1123.58 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	9.007	172	165174	1073.64 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.499	330	23106	991.89 ng/ml	0.00
79) Terphenyl-d14 (Surr)	13.023	244	193114	1042.44 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	4.080	74	60523	962.45 ng/ml	99
3) Pyridine	4.102	79	85071	870.09 ng/ml	98
6) Phenol	6.306	94	102242	1017.51 ng/ml	99
7) Aniline	6.343	93	96173	919.51 ng/ml	98
8) Bis(2-chloroethyl) ether	6.396	93	95373	1054.56 ng/ml	98
9) 2-Chlorophenol	6.461	128	81659	1063.88 ng/ml	99
10) 1,3-Dichlorobenzene	6.610	146	85857	1008.13 ng/ml	100
11) 1,4-Dichlorobenzene	6.680	146	80889	997.22 ng/ml	99
12) Benzyl alcohol	6.787	108	42970	972.38 ng/ml	99
13) 1,2-Dichlorobenzene	6.830	146	80233	1014.94 ng/ml	98
14) 2-Methylphenol	6.894	107	64559	1103.30 ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.921	45	117934	942.25 ng/ml	98
16) N-Nitrosodi-n-propylamine	7.049	70	63007	1022.29 ng/ml	99
17) 3+4-Methylphenol	7.044	107	75794	1061.21 ng/ml	99
18) Hexachloroethane	7.167	201	26625	1021.57 ng/ml	98
20) Nitrobenzene	7.220	77	79633	1086.15 ng/ml	98
22) Isophorone	7.450	82	167145	1027.17 ng/ml	97
23) 2-Nitrophenol	7.536	139	40793	1122.19 ng/ml	99
24) 2,4-Dimethylphenol	7.568	122	60426	1039.76 ng/ml	98
25) Bis(2-chloroethoxy) me...	7.659	93	93785	1041.11 ng/ml	99
26) Benzoic acid	7.648	105	35448	1748.34 ng/ml	96
27) 2,4-Dichlorophenol	7.771	162	56283	1054.42 ng/ml	98
28) 1,2,4-Trichlorobenzene	7.862	180	71397	1029.38 ng/ml	98
29) Naphthalene	7.942	128	217507	1028.99 ng/ml	100
30) 4-Chloroaniline	7.990	127	67526	927.48 ng/ml	100
31) Hexachlorobutadiene	8.071	225	38909	1016.95 ng/ml	99
32) 4-Chloro-3-methylphenol	8.466	107	63199	994.60 ng/ml	99
33) 2-Methylnaphthalene	8.637	142	162096	1066.21 ng/ml	99
34) 1-Methylnaphthalene	8.739	142	153280	1059.02 ng/ml	99
36) Hexachlorocyclopentadiene	8.809	237	36321	994.04 ng/ml	98
37) 2,4,6-Trichlorophenol	8.921	196	41531	1015.45 ng/ml	95
38) 2,4,5-Trichlorophenol	8.953	198	40839	1032.61 ng/ml	100
39) 1,1'-Biphenyl	9.108	154	180141	1063.19 ng/ml	99
41) 2-Chloronaphthalene	9.130	162	133530	1066.44 ng/ml	99
42) 2-Nitroaniline	9.226	138	39427	1029.23 ng/ml	98
43) 2,6-Dimethylnaphthalene	9.269	156	133180	1040.04 ng/ml	100

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161923.D
Acq On : 16 Oct 2019 11:33 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICV1
Misc : 1x, A19I254 BNA@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 13:16:10 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9

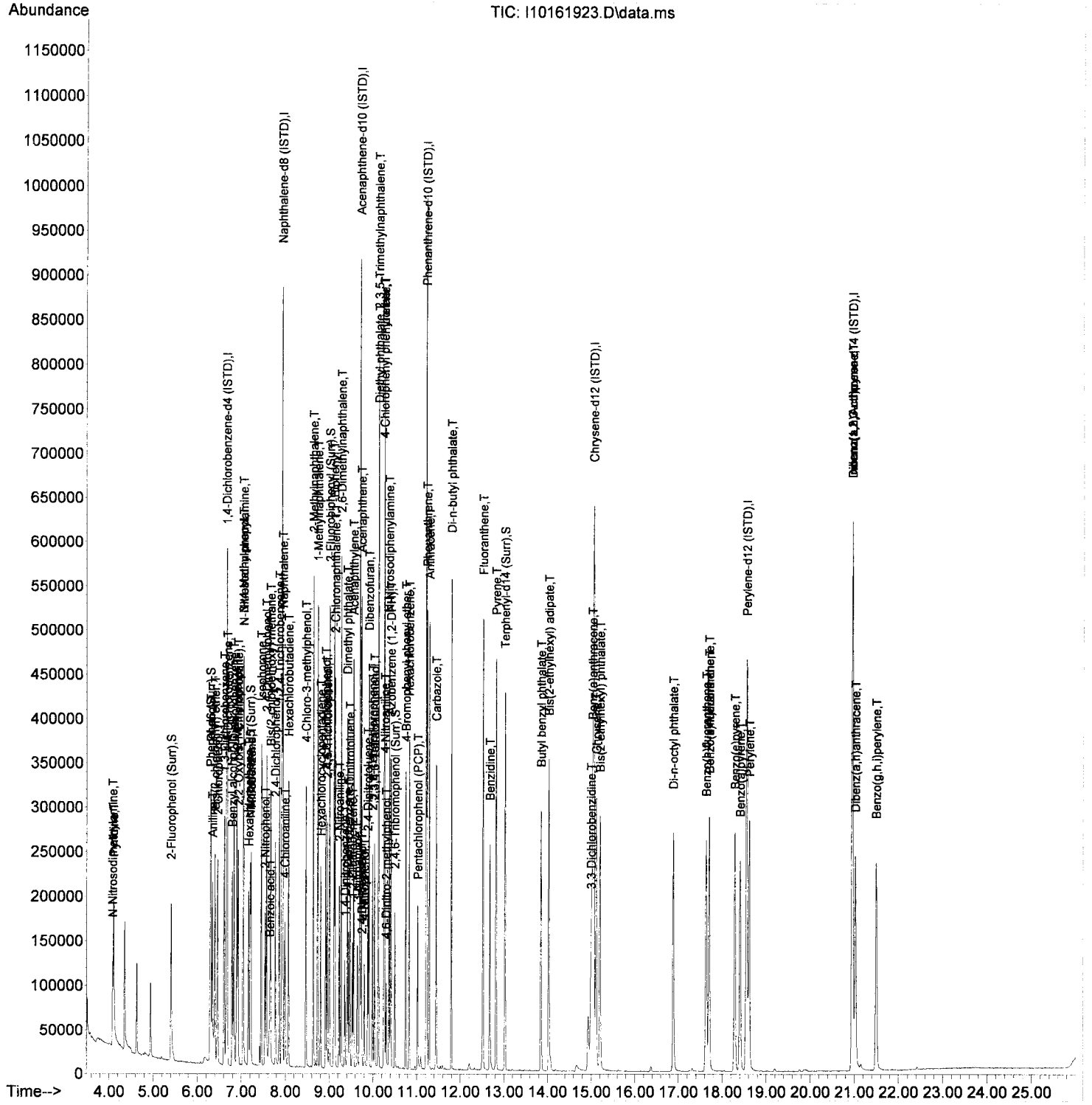
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.354	168	13499	1003.65	ng/ml	95
45)	Dimethyl phthalate	9.408	163	158407	1036.77	ng/ml	100
46)	1,3-Dinitrobenzene	9.434	168	18765	998.65	ng/ml	99
47)	2,6-Dinitrotoluene	9.467	165	32748	1046.42	ng/ml	97
48)	1,2-Dinitrobenzene	9.525	168	14689	991.16	ng/ml	91
49)	Acenaphthylene	9.552	152	217996	1039.76	ng/ml	100
50)	3-Nitroaniline	9.643	138	24964	869.33	ng/ml	98
51)	Acenaphthene	9.734	153	135051	1024.42	ng/ml	99
52)	2,4-Dinitrophenol	9.745	184	5025	966.05	ng/ml	96
53)	4-Nitrophenol	9.798	139	21088	979.87	ng/ml	98
54)	2,4-Dinitrotoluene	9.878	165	37273	993.56	ng/ml	99
55)	Dibenzofuran	9.905	168	185607	1028.25	ng/ml	98
56)	2,3,5,6-Tetrachlorophenol	9.985	232	31814	1002.75	ng/ml	98
57)	2,3,4,6-Tetrachlorophenol	10.028	232	34023	1003.97	ng/ml	99
58)	Diethyl phthalate	10.124	149	147651	1019.70	ng/ml	100
59)	2,3,5-Trimethylnaphtha...	10.119	170	124315	1039.96	ng/ml	99
60)	Fluorene	10.253	166	145915	1004.88	ng/ml	99
61)	4-Chlorophenyl phenyl ...	10.247	204	73932	1027.80	ng/ml	99
62)	4-Nitroaniline	10.263	138	23106	933.76	ng/ml	99
63)	4,6-Dinitro-2-methylph...	10.296	198	12157	1015.34	ng/ml	99
65)	N-Nitrosodiphenylamine	10.365	169	119244	983.98	ng/ml	100
66)	Azobenzene (1,2-DPH)	10.408	77	150469	949.43	ng/ml	99
68)	4-Bromophenyl phenyl e...	10.750	248	45642	1008.03	ng/ml	97
69)	Hexachlorobenzene	10.825	284	56848	1061.98	ng/ml	97
70)	Pentachlorophenol (PCP)	11.023	266	23846	976.19	ng/ml	99
71)	Phenanthrene	11.237	178	205558	1020.75	ng/ml	99
72)	Anthracene	11.290	178	203835	1026.29	ng/ml	99
73)	Carbazole	11.446	167	146985	832.59	ng/ml	99
74)	Di-n-butyl phthalate	11.793	149	255949	1062.50	ng/ml	100
75)	Fluoranthene	12.521	202	249626	1051.63	ng/ml	98
76)	Benzidine	12.676	184	125960	1525.65	ng/ml	99
77)	Pyrene	12.815	202	246937	1066.74	ng/ml	99
80)	Butyl benzyl phthalate	13.852	149	108372	996.01	ng/ml	97
81)	Bis(2-ethylhexyl) adipate	14.029	129	97276	1010.50	ng/ml	99
82)	3,3-Dichlorobenzidine	14.997	252	63598	1766.40	ng/ml	99
83)	Benz(a)anthracene	15.029	228	227009	1026.78	ng/ml	99
84)	Chrysene	15.115	228	199763	999.03	ng/ml	99
85)	Bis(2-ethylhexyl) phth...	15.200	149	144348	1028.73	ng/ml	99
87)	Di-n-octyl phthalate	16.880	149	235845	966.33	ng/ml	98
88)	Benzo(b)fluoranthene	17.634	252	224618	1047.95	ng/ml	99
89)	Benzo(k)fluoranthene	17.703	252	223333	1120.67	ng/ml	99
90)	Benzo(b+k)fluoranthene	17.703	252	456360	2155.04	ng/ml	99
91)	Benzo(e)pyrene	18.292	252	216100	1038.23	ng/ml	99
92)	Benzo(a)pyrene	18.409	252	191818	951.21	ng/ml	97
93)	Perylene	18.618	252	208975	1199.80	ng/ml	100
95)	Indeno(1,2,3-cd)pyrene	20.955	276	193901	981.17	ng/ml	98
96)	Dibenz(a,h)anthracene	21.025	278	173363	1003.35	ng/ml	99
97)	Benzo(g,h,i)perylene	21.496	276	200730	1065.46	ng/ml	98

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

Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-10\9J16053\
Data File : I10161923.D
Acq On : 16 Oct 2019 11:33 pm
Operator : JK /AMS /DTH
Sample : 9J16053-ICV1
Misc : 1x, A19I254 BNA@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Oct 17 13:16:10 2019
Quant Method : T:\methods\SV9_101619.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 17 11:59:00 2019
Response via : Initial Calibration
InstName : SV-GCMS9



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

Total Metals by EPA 6020A (ICPMS)
Benchsheet Data and Analysis (Including Calibration)

Batch 9101805
Sequence 9K01022

APEX LABORATORIES

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

PREPARATION BENCH SHEET

NOV 1 1 2019

9101805

Apex Laboratories

BATCH #: 9101805 (Sediment)

Prep Method: EPA 3051A

Lab Number	Due	Prepared	Initial (g)	Final (mL)	Client	ClientID / Sample	Extraction Comments
9101805-BLK1	---	10/31/19 10:10	0.5	50	QC Sample		
9101805-BS1	---	10/31/19 10:10	0.5	50	QC Sample		
Spike 1: 2500 uL of A19J430 Spike 2: 250 uL of A19I359							
A9J0950-01	11/07/19	10/31/19 10:10	0.5	50	Anchor QEA, LLC	PDI-015SC-C-00-8.1-19102	Strong Smell
☐ Ag (Silver) - 6020 - Total ☐ As (Arsenic) - 6020 - Total ☐ Ba (Barium) - 6020 - Total ☐ Cd (Cadmium) - 6020 - Total ☐ Cr (Chromium) - 6020 - Total ☐ Hg (Mercury) - 6020 - Total ☐ Pb (Lead) - 6020 - Total ☐ Se (Selenium) - 6020 - Total							
A9J0950-02	11/07/19	10/31/19 10:10	0.5	50	Anchor QEA, LLC	PDI-026SC-C-00-3.9-19102	
☐ Ag (Silver) - 6020 - Total ☐ As (Arsenic) - 6020 - Total ☐ Ba (Barium) - 6020 - Total ☐ Cd (Cadmium) - 6020 - Total ☐ Cr (Chromium) - 6020 - Total ☐ Hg (Mercury) - 6020 - Total ☐ Pb (Lead) - 6020 - Total ☐ Se (Selenium) - 6020 - Total							
A9J0950-03	11/07/19	10/31/19 10:10	0.5	50	Anchor QEA, LLC	PDI-037SC-C-00-12.4-1910	
☐ Ag (Silver) - 6020 - Total ☐ As (Arsenic) - 6020 - Total ☐ Ba (Barium) - 6020 - Total ☐ Cd (Cadmium) - 6020 - Total ☐ Cr (Chromium) - 6020 - Total ☐ Hg (Mercury) - 6020 - Total ☐ Pb (Lead) - 6020 - Total ☐ Se (Selenium) - 6020 - Total							
A9J0950-04	11/07/19	10/31/19 10:10	0.5	50	Anchor QEA, LLC	PDI-073SC-C-00-13.7-1910	
☐ Ag (Silver) - 6020 - Total ☐ As (Arsenic) - 6020 - Total ☐ Ba (Barium) - 6020 - Total ☐ Cd (Cadmium) - 6020 - Total ☐ Cr (Chromium) - 6020 - Total ☐ Hg (Mercury) - 6020 - Total ☐ Pb (Lead) - 6020 - Total ☐ Se (Selenium) - 6020 - Total							
9101805-DUP1	---	10/31/19 10:10	0.5	50	QC Sample		
Source: A9J0950-04							
9101805-MS1	---	10/31/19 10:10	0.5	50	QC Sample		
Source: A9J0950-04 Spike 1: 2500 uL of A19J430 Spike 2: 250 uL of A19I359							
A9J1006-01	11/11/19	10/31/19 10:10	0.5	50	Anchor QEA, LLC	PDI-071SC-C-00-08-191028	
☐ Ag (Silver) - 6020 - Total ☐ As (Arsenic) - 6020 - Total ☐ Ba (Barium) - 6020 - Total ☐ Cd (Cadmium) - 6020 - Total ☐ Cr (Chromium) - 6020 - Total ☐ Hg (Mercury) - 6020 - Total ☐ Pb (Lead) - 6020 - Total ☐ Se (Selenium) - 6020 - Total							
A9J1006-02	11/11/19	10/31/19 10:10	0.5	50	Anchor QEA, LLC	PDI-074SC-C-00-7.3-19102	
☐ Ag (Silver) - 6020 - Total ☐ As (Arsenic) - 6020 - Total ☐ Ba (Barium) - 6020 - Total ☐ Cd (Cadmium) - 6020 - Total ☐ Cr (Chromium) - 6020 - Total ☐ Hg (Mercury) - 6020 - Total ☐ Pb (Lead) - 6020 - Total ☐ Se (Selenium) - 6020 - Total							

Prepared By: 10/31/19 Date

Reviewed By: ESS 11/4/19 Date

APEX LABORATORIES

Apex Laboratories
BATCH #: 9101805 (Sediment)
Prep Method: EPA 3051A

Lab Number	Due	Prepared	Initial (g)	Final (mL)	Client	ClientID / Sample	Extraction Comments

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L213	11/30/23	Metals Prep Balance 2
A15E001	05/01/20	Mars-1 Microwave
A19I299	02/28/20	30% hydrogen peroxide
A19I314	03/22/20	Conc. HCl - Omnitrace
A19J277	04/15/20	Conc. HNO3 - Omnitrace

Analyte Spike(s)

Std ID	Exp. Date	Description
A19I359	03/08/20	Hg Spiking Standard
A19J430	12/11/19	**Combo Spike** A+B+C

IC 10/31/19

IC 10/31/19
A.) A19J351, 1.25mL
B.) A19J308, 6.25mL
C.) A19J309, 6.25mL

Digestion time and temperature achieved? Yes
Initials: IC 10/31/19

Prepared By: 10/31/19 Date

Reviewed By: Date

Batch #: 9101805

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: 10/31/19 Prepared by: KT

#	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	573	9101805-BLK1	186.07	186.06	n/a
2	599	9101805-BS1	181.75	181.74	n/a
3	545	A9J0950-01	188.39	188.37	n/a
4	564	A9J0950-02	188.68	188.67	n/a
5	536	A9J0950-03	186.67	186.65	n/a
6	526	A9J0950-04	186.90	186.89	n/a
7	532	9101805-DUP1	186.26	186.25	n/a
8	566	9101805-MS1	187.68	187.67	n/a
9	552	A9J1006-01	185.52	185.52	n/a
10	553	A9J1006-02	186.13	186.12	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
25					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: **9K01022** Instrument: **ICPMS5**

Date: **11/01/19 09:29** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K01022-CAL1	Water	QC	QC			A19J130	A19J368
2	9K01022-CAL2	Water	QC	QC			A19J130	A19J369
3	9K01022-CAL3	Water	QC	QC			A19J130	A19J370
4	9K01022-CAL4	Water	QC	QC			A19J130	A19J371
5	9K01022-CAL5	Water	QC	QC			A19J130	A19J373
6	9K01022-CAL6	Water	QC	QC			A19J130	A19J372
7	9K01022-CAL7	Water	QC	QC			A19J130	A19J374
8	9K01022-CAL8	Water	QC	QC			A19J130	A19J188
9	9K01022-CAL9	Water	QC	QC			A19J130	A19J189
10	9K01022-ICV1	Water	QC	QC			A19J130	A19J138
11	9K01022-ICB1	Water	QC	QC			A19J130	
12	9K01022-CRL1	Water	QC	QC			A19J130	A19J368
13	9K01022-CRL2	Water	QC	QC			A19J130	A19J369
14	9K01022-CRL3	Water	QC	QC			A19J130	A19J370
15	9K01022-IFA1	Water	QC	QC			A19J130	A19J465
16	9K01022-IFB1	Water	QC	QC			A19J130	A19J466
17	9110362-BLK1	Solid	QC	QC		9110362	A19J130	
18	9110362-BS1	Solid	QC	QC		9110362	A19J130	
19	A9J1060-01	Solid	Ag (Silver) - 6020 - TCLP		11/12/19	9110362	A19J130	
20	"	Solid	As (Arsenic) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
21	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
22	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
23	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
24	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
25	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
26	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
27	9110362-MS2	Solid	QC	QC		9110362	A19J130	
28	A9J1065-01	Solid	Ag (Silver) - 6020 - TCLP		11/12/19	9110362	A19J130	
29	"	Solid	As (Arsenic) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
30	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
31	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
32	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
33	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
34	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
35	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/12/19	9110362	A19J130	
36	9110362-MS1	Solid	QC	QC		9110362	A19J130	
37	A9J1087-01	Solid	Ag (Silver) - 6020 - TCLP		11/01/19	9110362	A19J130	
38	"	Solid	As (Arsenic) - 6020 - TCLP	"	11/01/19	9110362	A19J130	
39	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/01/19	9110362	A19J130	
40	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/01/19	9110362	A19J130	
41	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/01/19	9110362	A19J130	
42	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/01/19	9110362	A19J130	
43	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/01/19	9110362	A19J130	
44	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/01/19	9110362	A19J130	
45	A9J1094-01	Solid	Ag (Silver) - 6020 - TCLP		11/08/19	9110362	A19J130	
46	"	Solid	As (Arsenic) - 6020 - TCLP	"	11/08/19	9110362	A19J130	
47	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/08/19	9110362	A19J130	
48	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/08/19	9110362	A19J130	
49	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/08/19	9110362	A19J130	
50	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/08/19	9110362	A19J130	
51	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/08/19	9110362	A19J130	

Sequence: **9K01022** Instrument: **ICPMS5**

Date: **11/01/19 09:29** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
52	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/08/19	9110362	A19J130	
53	9110363-BLK1	Solid	QC	QC		9110363	A19J130	
54	9110363-BS1	Solid	QC	QC		9110363	A19J130	
55	9K01022-CCV1	Water	QC	QC			A19J130	A19J138
56	9K01022-CCV2	Water	QC	QC			A19J130	A19J138
57	9K01022-CCB1	Water	QC	QC			A19J130	
58	A9J1019-01	Solid	Cd (Cadmium) - 6020 - TCLP		11/04/19	9110363	A19J130	
59	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/04/19	9110363	A19J130	
60	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/04/19	9110363	A19J130	
61	A9J1019-02	Solid	Cd (Cadmium) - 6020 - TCLP		11/04/19	9110363	A19J130	
62	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/04/19	9110363	A19J130	
63	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/04/19	9110363	A19J130	
64	9110363-MS1	Solid	QC	QC		9110363	A19J130	
65	9101831-BLK1	Water	QC	QC		9101831	A19J130	
66	9101831-BS1	Water	QC	QC		9101831	A19J130	
67	A9J1076-01	Water	Ag (Silver) - 200.8 - Total		11/05/19	9101831	A19J130	
68	"	Water	As (Arsenic) - 200.8 - Total	"	11/05/19	9101831	A19J130	
69	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/05/19	9101831	A19J130	
70	"	Water	Co (Cobalt) - 200.8 - Total	"	11/05/19	9101831	A19J130	
71	"	Water	Cr (Chromium) - 200.8 - Total	"	11/05/19	9101831	A19J130	
72	"	Water	Cu (Copper) - 200.8 - Total	"	11/05/19	9101831	A19J130	
73	"	Water	Mo (Molybdenum) - 200.8 - Total	"	11/05/19	9101831	A19J130	
74	"	Water	Ni (Nickel) - 200.8 - Total	"	11/05/19	9101831	A19J130	
75	"	Water	Pb (Lead) - 200.8 - Total	"	11/05/19	9101831	A19J130	
76	"	Water	Se (Selenium) - 200.8 - Total	"	11/05/19	9101831	A19J130	
77	"	Water	Zn (Zinc) - 200.8 - Total	"	11/05/19	9101831	A19J130	
78	A9J1111-01	Water	Ag (Silver) - 200.8 - Total		11/08/19	9101831	A19J130	
79	"	Water	As (Arsenic) - 200.8 - Total	"	11/08/19	9101831	A19J130	
80	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/08/19	9101831	A19J130	
81	"	Water	Cr (Chromium) - 200.8 - Total	"	11/08/19	9101831	A19J130	
82	"	Water	Cu (Copper) - 200.8 - Total	"	11/08/19	9101831	A19J130	
83	"	Water	Hg (Mercury) - 200.8 - Total	"	11/08/19	9101831	A19J130	
84	"	Water	Mo (Molybdenum) - 200.8 - Total	"	11/08/19	9101831	A19J130	
85	"	Water	Ni (Nickel) - 200.8 - Total	"	11/08/19	9101831	A19J130	
86	"	Water	Pb (Lead) - 200.8 - Total	"	11/08/19	9101831	A19J130	
87	"	Water	Se (Selenium) - 200.8 - Total	"	11/08/19	9101831	A19J130	
88	"	Water	Zn (Zinc) - 200.8 - Total	"	11/08/19	9101831	A19J130	
89	A9J1115-01	Water	Ca (Calcium) - 200.8 - Total		11/13/19	9101831	A19J130	
90	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
91	A9J1115-02	Water	Ag (Silver) - 200.8 - Total	(QC Source)		9101831	A19J130	
92	"	Water	As (Arsenic) - 200.8 - Total	(QC Source)		9101831	A19J130	
93	"	Water	Ba (Barium) - 200.8 - Total	(QC Source)		9101831	A19J130	
94	"	Water	Be (Beryllium) - 200.8 - Total	(QC Source)		9101831	A19J130	
95	"	Water	Ca (Calcium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
96	"	Water	Cd (Cadmium) - 200.8 - Total	(QC Source)		9101831	A19J130	
97	"	Water	Co (Cobalt) - 200.8 - Total	(QC Source)		9101831	A19J130	
98	"	Water	Cr (Chromium) - 200.8 - Total	(QC Source)		9101831	A19J130	
99	"	Water	Cu (Copper) - 200.8 - Total	(QC Source)		9101831	A19J130	
100	"	Water	Hg (Mercury) - 200.8 - Total	(QC Source)		9101831	A19J130	
101	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
102	"	Water	Mo (Molybdenum) - 200.8 - Total	(QC Source)		9101831	A19J130	
103	"	Water	Ni (Nickel) - 200.8 - Total	(QC Source)		9101831	A19J130	
104	"	Water	Pb (Lead) - 200.8 - Total	(QC Source)		9101831	A19J130	
105	"	Water	Sb (Antimony) - 200.8 - Total	(QC Source)		9101831	A19J130	
106	"	Water	Se (Selenium) - 200.8 - Total	(QC Source)		9101831	A19J130	

Sequence: **9K01022** Instrument: **ICPMS5**

Date: **11/01/19 09:29** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
107	"	Water	Tl (Thallium) - 200.8 - Total	(QC Source)		9101831	A19J130	
108	"	Water	V (Vanadium) - 200.8 - Total	(QC Source)		9101831	A19J130	
109	"	Water	Zn (Zinc) - 200.8 - Total	(QC Source)		9101831	A19J130	
110	9101831-DUP1	Water	QC	QC		9101831	A19J130	
111	9K01022-CCV3	Water	QC	QC			A19J130	A19J138
112	9K01022-CCV4	Water	QC	QC			A19J130	A19J138
113	9K01022-CCB2	Water	QC	QC			A19J130	
114	9K01022-CCB3	Water	QC	QC			A19J130	
115	9K01022-CRL4	Water	QC	QC			A19J130	A19J368
116	9K01022-CRL5	Water	QC	QC			A19J130	A19J369
117	9K01022-CRL6	Water	QC	QC			A19J130	A19J370
118	9K01022-CRL7	Water	QC	QC			A19J130	A19J371
119	9101831-MS1	Water	QC	QC		9101831	A19J130	
120	A9J1115-03	Water	Ca (Calcium) - 200.8 - Total		11/13/19	9101831	A19J130	
121	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
122	A9J1115-04	Water	Ca (Calcium) - 200.8 - Total		11/13/19	9101831	A19J130	
123	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
124	A9J1115-05	Water	Ca (Calcium) - 200.8 - Total		11/13/19	9101831	A19J130	
125	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
126	A9J1116-01	Water	Ag (Silver) - 200.8 - Total		11/13/19	9101831	A19J130	
127	"	Water	As (Arsenic) - 200.8 - Total	"	11/13/19	9101831	A19J130	
128	"	Water	Ba (Barium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
129	"	Water	Be (Beryllium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
130	"	Water	Ca (Calcium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
131	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
132	"	Water	Co (Cobalt) - 200.8 - Total	"	11/13/19	9101831	A19J130	
133	"	Water	Cr (Chromium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
134	"	Water	Cu (Copper) - 200.8 - Total	"	11/13/19	9101831	A19J130	
135	"	Water	Hg (Mercury) - 200.8 - Total	"	11/13/19	9101831	A19J130	
136	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
137	"	Water	Ni (Nickel) - 200.8 - Total	"	11/13/19	9101831	A19J130	
138	"	Water	Pb (Lead) - 200.8 - Total	"	11/13/19	9101831	A19J130	
139	"	Water	Sb (Antimony) - 200.8 - Total	"	11/13/19	9101831	A19J130	
140	"	Water	Se (Selenium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
141	"	Water	Tl (Thallium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
142	"	Water	V (Vanadium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
143	"	Water	Zn (Zinc) - 200.8 - Total	"	11/13/19	9101831	A19J130	
144	A9J1116-02	Water	Ag (Silver) - 200.8 - Total		11/13/19	9101831	A19J130	
145	"	Water	As (Arsenic) - 200.8 - Total	"	11/13/19	9101831	A19J130	
146	"	Water	Ba (Barium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
147	"	Water	Be (Beryllium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
148	"	Water	Ca (Calcium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
149	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
150	"	Water	Co (Cobalt) - 200.8 - Total	"	11/13/19	9101831	A19J130	
151	"	Water	Cr (Chromium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
152	"	Water	Cu (Copper) - 200.8 - Total	"	11/13/19	9101831	A19J130	
153	"	Water	Hg (Mercury) - 200.8 - Total	"	11/13/19	9101831	A19J130	
154	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
155	"	Water	Ni (Nickel) - 200.8 - Total	"	11/13/19	9101831	A19J130	
156	"	Water	Pb (Lead) - 200.8 - Total	"	11/13/19	9101831	A19J130	
157	"	Water	Sb (Antimony) - 200.8 - Total	"	11/13/19	9101831	A19J130	
158	"	Water	Se (Selenium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
159	"	Water	Tl (Thallium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
160	"	Water	V (Vanadium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
161	"	Water	Zn (Zinc) - 200.8 - Total	"	11/13/19	9101831	A19J130	

Sequence: **9K01022** Instrument: **ICPMS5**

Date: **11/01/19 09:29** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
162	A9J1117-01	Water	Ca (Calcium) - 200.8 - Total		11/13/19	9101831	A19J130	
163	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
164	A9J1117-02	Water	Ag (Silver) - 200.8 - Total	(QC Source)		9101831	A19J130	
165	"	Water	As (Arsenic) - 200.8 - Total	(QC Source)		9101831	A19J130	
166	"	Water	Ba (Barium) - 200.8 - Total	(QC Source)		9101831	A19J130	
167	"	Water	Be (Beryllium) - 200.8 - Total	(QC Source)		9101831	A19J130	
168	"	Water	Ca (Calcium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
169	"	Water	Cd (Cadmium) - 200.8 - Total	(QC Source)		9101831	A19J130	
170	"	Water	Co (Cobalt) - 200.8 - Total	(QC Source)		9101831	A19J130	
171	"	Water	Cr (Chromium) - 200.8 - Total	(QC Source)		9101831	A19J130	
172	"	Water	Cu (Copper) - 200.8 - Total	(QC Source)		9101831	A19J130	
173	"	Water	Hg (Mercury) - 200.8 - Total	(QC Source)		9101831	A19J130	
174	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
175	"	Water	Mo (Molybdenum) - 200.8 - Total	(QC Source)		9101831	A19J130	
176	"	Water	Ni (Nickel) - 200.8 - Total	(QC Source)		9101831	A19J130	
177	"	Water	Pb (Lead) - 200.8 - Total	(QC Source)		9101831	A19J130	
178	"	Water	Sb (Antimony) - 200.8 - Total	(QC Source)		9101831	A19J130	
179	"	Water	Se (Selenium) - 200.8 - Total	(QC Source)		9101831	A19J130	
180	"	Water	Tl (Thallium) - 200.8 - Total	(QC Source)		9101831	A19J130	
181	"	Water	V (Vanadium) - 200.8 - Total	(QC Source)		9101831	A19J130	
182	"	Water	Zn (Zinc) - 200.8 - Total	(QC Source)		9101831	A19J130	
183	9101831-MS2	Water	QC	QC		9101831	A19J130	
184	A9J1131-01	Water	Ag (Silver) - 200.8 - Total		11/13/19	9101831	A19J130	
185	9K01022-CCV5	Water	QC	QC			A19J130	A19J138
186	9K01022-CCB4	Water	QC	QC			A19J130	
187	A9J1133-01	Water	Ag (Silver) - 200.8 - Total		11/13/19	9101831	A19J130	
188	"	Water	Cu (Copper) - 200.8 - Total	"	11/13/19	9101831	A19J130	
189	"	Water	Pb (Lead) - 200.8 - Total	"	11/13/19	9101831	A19J130	
190	"	Water	Zn (Zinc) - 200.8 - Total	"	11/13/19	9101831	A19J130	
191	A9J1104-02RE1	Soil	Pb (Lead) - 6020 - Total		11/05/19	9101790	A19J130	
192	A9J1061-02RE1	Water	Ca (Calcium) - 200.8 - Dissolved		11/12/19	9101780	A19J130	
193	"	Water	K (Potassium) - 200.8 - Dissolved	"	11/12/19	9101780	A19J130	
194	"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/12/19	9101780	A19J130	
195	A9J1061-06RE1	Water	Ca (Calcium) - 200.8 - Dissolved		11/12/19	9101780	A19J130	
196	"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/12/19	9101780	A19J130	
197	A9J1062-03RE1	Water	Na (Sodium) - 200.8 - Dissolved		11/12/19	9101780	A19J130	
198	9110393-BLK1	Solid	QC	QC		9110393	A19J130	
199	9110393-BS1	Solid	QC	QC		9110393	A19J130	
200	A9K0019-01	Solid	Ag (Silver) - 6020 - Total		11/04/19	9110393	A19J130	
201	"	Solid	As (Arsenic) - 6020 - Total	"	11/04/19	9110393	A19J130	
202	"	Solid	Ba (Barium) - 6020 - Total	"	11/04/19	9110393	A19J130	
203	"	Solid	Cd (Cadmium) - 6020 - Total	"	11/04/19	9110393	A19J130	
204	"	Solid	Cr (Chromium) - 6020 - Total	"	11/04/19	9110393	A19J130	
205	"	Solid	Hg (Mercury) - 6020 - Total	"	11/04/19	9110393	A19J130	
206	"	Solid	Pb (Lead) - 6020 - Total	"	11/04/19	9110393	A19J130	
207	"	Solid	Se (Selenium) - 6020 - Total	"	11/04/19	9110393	A19J130	
208	9110393-DUP1	Solid	QC	QC		9110393	A19J130	
209	9110393-MS1	Solid	QC	QC		9110393	A19J130	
210	9K01022-CCV6	Water	QC	QC			A19J130	A19J138
211	9K01022-CCB5	Water	QC	QC			A19J130	
212	9K01022-CRL8	Water	QC	QC			A19J130	A19J368
213	9K01022-CRL9	Water	QC	QC			A19J130	A19J369
214	9K01022-CRLA	Water	QC	QC			A19J130	A19J370
215	9K01022-CRLB	Water	QC	QC			A19J130	A19J371
216	9110363-BS2	Solid	QC	QC		9110363	A19J130	

Sequence: **9K01022** Instrument: **ICPMS5**

Date: **11/01/19 09:29** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
217	9110393-BS2	Solid	QC	QC		9110393	A19J130	
218	9101805-BLK1	Sediment	QC	QC		9101805	A19J130	
219	9101805-BS1	Sediment	QC	QC		9101805	A19J130	
220	A9J0950-01	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/07/19	9101805	A19J130	
221	"	Sediment	As (Arsenic) - 6020 - Total	"	11/07/19	9101805	A19J130	
222	"	Sediment	Ba (Barium) - 6020 - Total	"	11/07/19	9101805	A19J130	
223	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/07/19	9101805	A19J130	
224	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/07/19	9101805	A19J130	
225	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/07/19	9101805	A19J130	
226	"	Sediment	Pb (Lead) - 6020 - Total	"	11/07/19	9101805	A19J130	
227	"	Sediment	Se (Selenium) - 6020 - Total	"	11/07/19	9101805	A19J130	
228	A9J0950-02	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/07/19	9101805	A19J130	
229	"	Sediment	As (Arsenic) - 6020 - Total	"	11/07/19	9101805	A19J130	
230	"	Sediment	Ba (Barium) - 6020 - Total	"	11/07/19	9101805	A19J130	
231	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/07/19	9101805	A19J130	
232	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/07/19	9101805	A19J130	
233	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/07/19	9101805	A19J130	
234	"	Sediment	Pb (Lead) - 6020 - Total	"	11/07/19	9101805	A19J130	
235	"	Sediment	Se (Selenium) - 6020 - Total	"	11/07/19	9101805	A19J130	
236	A9J0950-03	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/07/19	9101805	A19J130	
237	"	Sediment	As (Arsenic) - 6020 - Total	"	11/07/19	9101805	A19J130	
238	"	Sediment	Ba (Barium) - 6020 - Total	"	11/07/19	9101805	A19J130	
239	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/07/19	9101805	A19J130	
240	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/07/19	9101805	A19J130	
241	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/07/19	9101805	A19J130	
242	"	Sediment	Pb (Lead) - 6020 - Total	"	11/07/19	9101805	A19J130	
243	"	Sediment	Se (Selenium) - 6020 - Total	"	11/07/19	9101805	A19J130	
244	A9J0950-04	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/07/19	9101805	A19J130	
245	"	Sediment	As (Arsenic) - 6020 - Total	"	11/07/19	9101805	A19J130	
246	"	Sediment	Ba (Barium) - 6020 - Total	"	11/07/19	9101805	A19J130	
247	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/07/19	9101805	A19J130	
248	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/07/19	9101805	A19J130	
249	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/07/19	9101805	A19J130	
250	"	Sediment	Pb (Lead) - 6020 - Total	"	11/07/19	9101805	A19J130	
251	"	Sediment	Se (Selenium) - 6020 - Total	"	11/07/19	9101805	A19J130	
252	9101805-DUP1	Sediment	QC	QC		9101805	A19J130	
253	9101805-MS1	Sediment	QC	QC		9101805	A19J130	
254	9K01022-CCV7	Water	QC	QC			A19J130	A19J138
255	9K01022-CCB6	Water	QC	QC			A19J130	
256	A9J1006-01	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/11/19	9101805	A19J130	
257	"	Sediment	As (Arsenic) - 6020 - Total	"	11/11/19	9101805	A19J130	
258	"	Sediment	Ba (Barium) - 6020 - Total	"	11/11/19	9101805	A19J130	
259	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/11/19	9101805	A19J130	
260	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/11/19	9101805	A19J130	
261	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/11/19	9101805	A19J130	
262	"	Sediment	Pb (Lead) - 6020 - Total	"	11/11/19	9101805	A19J130	
263	"	Sediment	Se (Selenium) - 6020 - Total	"	11/11/19	9101805	A19J130	
264	A9J1006-02	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/11/19	9101805	A19J130	
265	"	Sediment	As (Arsenic) - 6020 - Total	"	11/11/19	9101805	A19J130	
266	"	Sediment	Ba (Barium) - 6020 - Total	"	11/11/19	9101805	A19J130	
267	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/11/19	9101805	A19J130	
268	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/11/19	9101805	A19J130	
269	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/11/19	9101805	A19J130	
270	"	Sediment	Pb (Lead) - 6020 - Total	"	11/11/19	9101805	A19J130	
271	"	Sediment	Se (Selenium) - 6020 - Total	"	11/11/19	9101805	A19J130	

Sequence: **9K01022** Instrument: **ICPMS5**

Date: **11/01/19 09:29** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
272	9110369-BLK1	Sediment	QC	QC		9110369	A19J130	
273	9110369-BS1	Sediment	QC	QC		9110369	A19J130	
274	A9J0954-01	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/07/19	9110369	A19J130	
275	"	Sediment	As (Arsenic) - 6020 - Total	"	11/07/19	9110369	A19J130	
276	"	Sediment	Ba (Barium) - 6020 - Total	"	11/07/19	9110369	A19J130	
277	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/07/19	9110369	A19J130	
278	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/07/19	9110369	A19J130	
279	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/07/19	9110369	A19J130	
280	"	Sediment	Pb (Lead) - 6020 - Total	"	11/07/19	9110369	A19J130	
281	"	Sediment	Se (Selenium) - 6020 - Total	"	11/07/19	9110369	A19J130	
282	A9J0954-02	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/07/19	9110369	A19J130	
283	"	Sediment	As (Arsenic) - 6020 - Total	"	11/07/19	9110369	A19J130	
284	"	Sediment	Ba (Barium) - 6020 - Total	"	11/07/19	9110369	A19J130	
285	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/07/19	9110369	A19J130	
286	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/07/19	9110369	A19J130	
287	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/07/19	9110369	A19J130	
288	"	Sediment	Pb (Lead) - 6020 - Total	"	11/07/19	9110369	A19J130	
289	"	Sediment	Se (Selenium) - 6020 - Total	"	11/07/19	9110369	A19J130	
290	A9J1007-01	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/11/19	9110369	A19J130	
291	"	Sediment	As (Arsenic) - 6020 - Total	"	11/11/19	9110369	A19J130	
292	"	Sediment	Ba (Barium) - 6020 - Total	"	11/11/19	9110369	A19J130	
293	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/11/19	9110369	A19J130	
294	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/11/19	9110369	A19J130	
295	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/11/19	9110369	A19J130	
296	"	Sediment	Pb (Lead) - 6020 - Total	"	11/11/19	9110369	A19J130	
297	"	Sediment	Se (Selenium) - 6020 - Total	"	11/11/19	9110369	A19J130	
298	A9J1137-06	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/13/19	9110369	A19J130	
299	"	Sediment	As (Arsenic) - 6020 - Total	"	11/13/19	9110369	A19J130	
300	"	Sediment	Ba (Barium) - 6020 - Total	"	11/13/19	9110369	A19J130	
301	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/13/19	9110369	A19J130	
302	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/13/19	9110369	A19J130	
303	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/13/19	9110369	A19J130	
304	"	Sediment	Pb (Lead) - 6020 - Total	"	11/13/19	9110369	A19J130	
305	"	Sediment	Se (Selenium) - 6020 - Total	"	11/13/19	9110369	A19J130	
306	9110369-DUP1	Sediment	QC	QC		9110369	A19J130	
307	9110369-MS1	Sediment	QC	QC		9110369	A19J130	
308	9K01022-CCV8	Water	QC	QC			A19J130	A19J138
309	9K01022-CCB7	Water	QC	QC			A19J130	
310	A9J1137-12	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/13/19	9110369	A19J130	
311	"	Sediment	As (Arsenic) - 6020 - Total	"	11/13/19	9110369	A19J130	
312	"	Sediment	Ba (Barium) - 6020 - Total	"	11/13/19	9110369	A19J130	
313	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/13/19	9110369	A19J130	
314	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/13/19	9110369	A19J130	
315	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/13/19	9110369	A19J130	
316	"	Sediment	Pb (Lead) - 6020 - Total	"	11/13/19	9110369	A19J130	
317	"	Sediment	Se (Selenium) - 6020 - Total	"	11/13/19	9110369	A19J130	
318	A9J1137-18	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/13/19	9110369	A19J130	
319	"	Sediment	As (Arsenic) - 6020 - Total	"	11/13/19	9110369	A19J130	
320	"	Sediment	Ba (Barium) - 6020 - Total	"	11/13/19	9110369	A19J130	
321	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/13/19	9110369	A19J130	
322	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/13/19	9110369	A19J130	
323	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/13/19	9110369	A19J130	
324	"	Sediment	Pb (Lead) - 6020 - Total	"	11/13/19	9110369	A19J130	
325	"	Sediment	Se (Selenium) - 6020 - Total	"	11/13/19	9110369	A19J130	
326	A9J1137-24	Sediment	Ag (Silver) - 6020 - Total	Anchor QEA, LLC	11/13/19	9110369	A19J130	

Sequence: **9K01022** Instrument: **ICPMS5**

Date: **11/01/19 09:29** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
327	"	Sediment	As (Arsenic) - 6020 - Total	"	11/13/19	9110369	A19J130	
328	"	Sediment	Ba (Barium) - 6020 - Total	"	11/13/19	9110369	A19J130	
329	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/13/19	9110369	A19J130	
330	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/13/19	9110369	A19J130	
331	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/13/19	9110369	A19J130	
332	"	Sediment	Pb (Lead) - 6020 - Total	"	11/13/19	9110369	A19J130	
333	"	Sediment	Se (Selenium) - 6020 - Total	"	11/13/19	9110369	A19J130	
334	A9J1029-02RE1	Water	Ag (Silver) - 6020 - Total		11/04/19	9101795	A19J130	
335	"	Water	As (Arsenic) - 6020 - Total	"	11/04/19	9101795	A19J130	
336	"	Water	Ba (Barium) - 6020 - Total	"	11/04/19	9101795	A19J130	
337	"	Water	Cd (Cadmium) - 6020 - Total	"	11/04/19	9101795	A19J130	
338	"	Water	Cr (Chromium) - 6020 - Total	"	11/04/19	9101795	A19J130	
339	"	Water	Hg (Mercury) - 6020 - Total	"	11/04/19	9101795	A19J130	
340	"	Water	Pb (Lead) - 6020 - Total	"	11/04/19	9101795	A19J130	
341	"	Water	Se (Selenium) - 6020 - Total	"	11/04/19	9101795	A19J130	
342	A9J1076-02RE1	Water	Ag (Silver) - 6020 - Total	(QC Source)		9101795	A19J130	
343	"	Water	Ag (Silver) - 200.8 - Total	"	11/05/19	9101795	A19J130	
344	"	Water	Mo (Molybdenum) - 200.8 - Total	"	11/05/19	9101795	A19J130	
345	"	Water	Se (Selenium) - 6020 - Total	(QC Source)		9101795	A19J130	
346	"	Water	Se (Selenium) - 200.8 - Total	"	11/05/19	9101795	A19J130	
347	9101795-DUP2	Water	QC	QC		9101795	A19J130	
348	9101795-MS3	Water	QC	QC		9101795	A19J130	
349	9K01022-CCV9	Water	QC	QC			A19J130	A19J138
350	9K01022-CCB8	Water	QC	QC			A19J130	
351	9K01022-CRLC	Water	QC	QC			A19J130	A19J368
352	9K01022-CRLD	Water	QC	QC			A19J130	A19J369
353	9K01022-CRLE	Water	QC	QC			A19J130	A19J370
354	9K01022-CRLF	Water	QC	QC			A19J130	A19J371

Data Entered By: ESS 11/4/19 Comments:

Data Reviewed By: [illegible] 11/04/19

Tune Report

Batch Folder	C:\Agilent\ICPMH\1\DATA\9K01022.b
Acq. Date-Time	11/1/2019 10:08
Report Comment	9K01022 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		3700	36995.62	1000.00	
89		18483	184827.86	1000.00	
78		8			

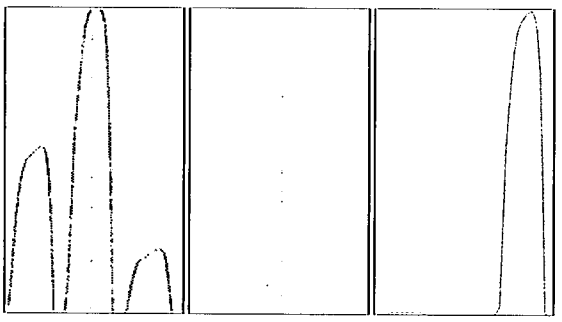
Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
78		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	1.65	5.00	
89	0.85	5.00	
78	27.08		

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	3631	3651	3697	3744	3776
89	18625	18317	18648	18494	18330
78	9	7	5	8	10

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	642.98	59.00	58.9 - 59.1		0.60	0.771	0.900	

Tune Report

89	3289.93	89.05	88.9 - 89.1	0.59	0.753	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	1.07 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		5082	50822.15	1000.00	
89		4581	45809.49	1000.00	
205		5562	55624.16	1000.00	
75		30			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	2.12	5.00	
89	3.11	5.00	
205	1.79	5.00	
75	13.66		

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	5015	4967	5177	5037	5215
89	4423	4462	4627	4615	4778
205	5515	5469	5502	5613	5713
75	24	29	35	31	32

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	878.14	59.00	58.9 - 59.1		0.60	0.772	0.900	
89	822.46	89.10	88.9 - 89.1		0.58	0.741	0.900	
205	990.18	205.05	204.9 - 205.1		0.57	0.808	0.900	
75	4.95	75.10	-		0.62	0.735		

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	1.07 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		8281	82809.73	1000.00	
89		19400	194002.91	1000.00	
205		11935	119351.51	1000.00	
102		1			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
7		-	

Tune Report

89		-
205		-
102		-

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	0.99	5.00	
89	1.69	5.00	
205	1.02	5.00	
102	61.24		

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	8142	8301	8360	8304	8297
89	18937	19288	19413	19827	19536
205	11790	11881	11969	11918	12119
102	1	1	1	1	2

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	1358.97	7.00	6.9 - 7.1		0.63	0.819	0.900	
89	3355.01	89.05	88.9 - 89.1		0.60	0.757	0.900	
205	2099.28	205.05	204.9 - 205.1		0.57	0.811	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	1.07 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

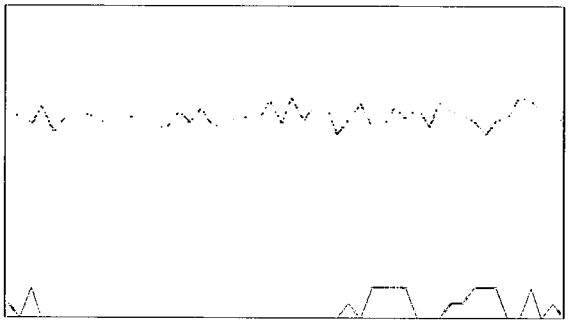
Tune Report

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\9K01022.b
Acq. Date-Time	11/1/2019 09:55
Report Comment	9K01022 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	652	6517.99	1000.00	
89	5000	3305	33051.58	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	4.82	5.00	
89	2.42	5.00	
78	171.29		

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	1.07 L/min	Makeup/Dilution Gas	0.00 L/min

Tune Report

Option Gas	0.0 %

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	2.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	3.3 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[He]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	1000	863	8629.29	1000.00	
89	1000	789	7893.79	1000.00	
205	2000	975	9751.19	1000.00	
75	20	4			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	4.70	5.00	
89	4.39	5.00	
205	5.03	5.00	[F]
75	58.94		

See EPA report for RSDs ESS 11/4/19

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			
205			
75			

Integration Time [sec]	0.1	**Sampling Period [sec]**	0.412

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C

Tune Report

Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.07 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	1357	13570.95	1000.00	
89	5000	3374	33736.69	1000.00	
205	5000	2113	21132.63	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	3.60	5.00	
89	2.47	5.00	
205	2.93	5.00	
102	522.73		

Mass	Background (Actual)	Background (Required)	Background (Flag)
7			
89			
205			
102			

Ratio (oxide)	156/140	1.121 %	✓
Ratio (2+)	69/138	2.228 %	✓

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	1.07 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: 9K01022-ICV1
Data File: 013_ICV.d
Acquired: 11/1/2019 11:59:50

========= Detector Parameters and P/A Factors =========
Discriminator: 4.5 mV
AnalogHV: 1862 V
PulseHV: 1680 V

Acquired: 11/1/2019 10:35:14

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: 1862 V
PulseHV: 1680 V

Acquired: 11/1/2019 11:43:23

Mass[u]	Element	P/A Factor
23	Na	0.108829
44	Ca	0.120426
45	Sc	0.120127
56	Fe	0.124783
57	Fe	0.124454
74	Ge	0.128609
78	Se	Signal too low

Tune Mode Name: He
Discriminator: 4.5 mV
AnalogHV: 1862 V
PulseHV: 1680 V

Acquired: 11/1/2019 11:54:02

Mass[u]	Element	P/A Factor
23	Na	0.109168
24	Mg	0.112965
27	Al	0.116808
39	K	0.119383
44	Ca	0.118452
51	V	0.121784
52	Cr	0.123656
55	Mn	0.123469
59	Co	0.126155
60	Ni	0.127325
65	Cu	0.128081
66	Zn	0.126519
111	Cd	0.130958

138	Ba	0.130917
159	Tb	0.135041
205	Tl	0.133690
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: 1862 V
PulseHV: 1680 V

Acquired: 11/1/2019 11:55:24

Mass[u]	Element	P/A Factor
6	Li	0.087497
45	Sc	0.119467
47	Ti	0.117916
65	Cu	0.126142
74	Ge	0.130207
103	Rh	0.131931
111	Cd	0.129976
159	Tb	0.133897
182	W	0.132485
206	Pb	0.134073
207	Pb	0.134316
208	Pb	0.134436
209	Bi	0.137296
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: 11/4/2019 10:28:39

Quantitation Report - ICPMS5

Sample Name:	**Rinse**	Total Dilution:	**1.0000**
File Name:	001RINS.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	Rinse
Acq Time:	11/1/2019 10:59:15	I.S. Reference File:	---
Comment:	**cal blank 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		32	0.18	
Na	23	45	He		ppb		3,973	90	
Mg	24	45	He		ppb		424	90	
Al	27	45	He		ppb		109	45	
K	39	45	He		ppb		25,768	90	
Ca	44	45	H2		ppb		471	90	
[Ca]	44	45	He		ppb		191		
Ti	47	45	NoGas		ppb		32	0.9	
V	51	74	He		ppb		1,560	0.9	
Cr	52	74	He		ppb		264	0.9	
Mn	55	74	He		ppb		48	0.9	
Fe	56	74	H2		ppb		6,763	45	
Co	59	74	He		ppb		36	0.18	
Ni	60	74	He		ppb		58	0.9	
Cu	65	74	He		ppb		68	0.9	
Zn	66	74	He		ppb		34	3.6	
As	75	74	He		ppb		37	0.9	
Se	78	74	H2		ppb		3	0.9	
Mo	95	103	He		ppb		20	0.9	
Ag	107	103	He		ppb		12	0.18	
Cd	111	103	He		ppb		5		
[Cd]	111	103	NoGas		ppb		20	0.18	
Sb	121	103	He		ppb		94	0.9	
Ba	138	159	He		ppb		96	0.9	
W	182	159	NoGas		ppb		53		
Hg	201	159	NoGas		ppt		5	72	
Tl	205	159	He		ppb		9	0.18	
Pb	208	159	NoGas		ppb		827	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	960,245	0.8	0	Analog		
Sc	45	H2	2,175,823	0.1	0	Analog		
Sc	45	He	333,701	1.2	0	Pulse		
Sc	45	NoGas	3,002,929	2.0	0	Analog		
Ge	74	H2	695,295	0.6	0	Pulse		
Ge	74	He	197,286	1.7	0	Pulse		
Ge	74	NoGas	795,982	1.0	0	Pulse		
Rh	103	He	460,124	0.8	0	Pulse		
Rh	103	NoGas	828,872	0.5	0	Pulse		
Tb	159	He	595,531	1.3	0	Pulse		
Tb	159	NoGas	1,379,763	1.2	0	Analog		
Bi	209	He	335,912	0.8	0	Pulse		
Bi	209	NoGas	801,694	0.6	0	Pulse		

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL0**	Total Dilution:	**1.0000**
File Name:	002CALB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalBlk
Acq Time:	11/1/2019 11:03:57		
Comment:	**3.5%HNO3+0.4%HCl**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0	ppb	N/A	14	48.0	
Na	23	45	He	0	ppb	N/A	4,204	8.3	
Mg	24	45	He	0	ppb	N/A	429	8.6	
Al	27	45	He	0	ppb	N/A	104	26.8	
K	39	45	He	0	ppb	N/A	27,317	1.4	
Ca	44	45	H2	0	ppb	N/A	444	16.8	
[Ca]	44	45	He	0	ppb	N/A	237	6.5	
Ti	47	45	NoGas	0	ppb	N/A	37	15.7	
V	51	74	He	0	ppb	N/A	1,820	3.2	
Cr	52	74	He	0	ppb	N/A	254	11.7	
Mn	55	74	He	0	ppb	N/A	34	72.6	
Fe	56	74	H2	0	ppb	N/A	6,322	5.5	
Co	59	74	He	0	ppb	N/A	19	40.7	
Ni	60	74	He	0	ppb	N/A	61	41.7	
Cu	65	74	He	0	ppb	N/A	71	11.8	
Zn	66	74	He	0	ppb	N/A	40	22.0	
As	75	74	He	0	ppb	N/A	30	33.3	
Se	78	74	H2	0	ppb	N/A	2	173.2	
Mo	95	103	He	0	ppb	N/A	11	91.7	
Ag	107	103	He	0	ppb	N/A	7	86.6	
Cd	111	103	He	0	ppb	N/A	8	49.4	
[Cd]	111	103	NoGas	0	ppb	N/A	21	26.9	
Sb	121	103	He	0	ppb	N/A	63	15.8	
Ba	138	159	He	0	ppb	N/A	119	20.3	
W	182	159	NoGas	0	ppb	N/A	28	38.6	
Hg	201	159	NoGas	0	ppt	N/A	6	14.4	
Tl	205	159	He	0	ppb	N/A	13	43.3	
Pb	208	159	NoGas	0	ppb	N/A	758	4.2	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	975,380	1.6	975380.393333333	Analog	100.0	
Sc	45	H2	2,277,281	1.0	2277280.85	Analog	100.0	
Sc	45	He	348,791	1.3	348790.796666667	Pulse	100.0	
Sc	45	NoGas	3,065,554	0.6	3065554.46333333	Analog	100.0	
Ge	74	H2	718,037	0.1	718037.156666667	Pulse	100.0	
Ge	74	He	204,920	0.7	204919.68	Pulse	100.0	
Ge	74	NoGas	806,775	0.8	806774.886666667	Pulse	100.0	
Rh	103	He	466,758	0.4	466758.146666667	Pulse	100.0	
Rh	103	NoGas	832,260	0.5	832259.633333333	Pulse	100.0	
Tb	159	He	600,194	0.9	600193.66	Pulse	100.0	
Tb	159	NoGas	1,409,745	1.8	1409745.36	Analog	100.0	
Bi	209	He	341,192	0.6	341192.286666667	Pulse	100.0	
Bi	209	NoGas	809,398	0.6	809398.153333333	Pulse	100.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL1**	Total Dilution:	**1.0000**
File Name:	003CALS.d	Vial:	1102
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:08:39		
Comment:	**A19J368 - ESS 11/1**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.195	ppb	8.0	439	5.2	
Na	23	45	He	8.764	ppb	4.0	14,335	3.4	
Mg	24	45	He	9.176	ppb	4.9	6,281	4.0	
Al	27	45	He	8.6	ppb	5.4	2,973	5.4	
K	39	45	He	9.549	ppb	8.0	32,819	1.9	
Ca	44	45	H2	9.674	ppb	2.2	2,596	2.3	
[Ca]	44	45	He	10.028	ppb	22.4	512	12.2	
Ti	47	45	NoGas	0.222	ppb	43.0	252	24.5	
V	51	74	He	0.196	ppb	7.5	2,608	2.4	
Cr	52	74	He	0.201	ppb	2.5	1,173	2.3	
Mn	55	74	He	0.21	ppb	3.7	674	2.9	
Fe	56	74	H2	9.149	ppb	0.9	114,061	0.9	
Co	59	74	He	0.196	ppb	6.9	1,237	6.2	
Ni	60	74	He	0.175	ppb	11.8	327	10.4	
Cu	65	74	He	0.188	ppb	11.7	427	10.3	
Zn	66	74	He	0.194	ppb	26.4	183	21.0	
As	75	74	He	0.212	ppb	15.2	123	11.8	
Se	78	74	H2	0.209	ppb	12.4	66	11.8	
Mo	95	103	He	0.206	ppb	9.3	380	8.9	
Ag	107	103	He	0.183	ppb	7.8	942	8.2	
Cd	111	103	He	0.174	ppb	3.2	154	3.6	
[Cd]	111	103	NoGas	0.174	ppb	16.3	352	2.6	
Sb	121	103	He	0.158	ppb	10.4	409	9.0	
Ba	138	159	He	0.189	ppb	5.7	948	6.0	
W	182	159	NoGas	0.002	ppb	71.6	36	14.3	
Hg	201	159	NoGas	4.438	ppt	109.0	10	52.9	
Tl	205	159	He	0.184	ppb	5.4	1,370	5.9	
Pb	208	159	NoGas	0.204	ppb	14.1	4,717	1.4	

NR - re-running for RSDs ESS of 11/4/19

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	913,906	12.2	975380.393333333	Analog	93.7	
Sc	45	H2	2,287,236	0.6	2277280.85	Analog	100.4	
Sc	45	He	353,183	0.7	348790.796666667	Pulse	101.3	
Sc	45	NoGas	2,912,062	11.4	3065554.46333333	Analog	95.0	
Ge	74	H2	722,122	0.2	718037.156666667	Pulse	100.6	
Ge	74	He	208,350	0.8	204919.68	Pulse	101.7	
Ge	74	NoGas	756,238	13.0	806774.886666667	Pulse	93.7	
Rh	103	He	471,007	0.8	466758.146666667	Pulse	100.9	
Rh	103	NoGas	779,522	12.2	832259.633333333	Pulse	93.7	
Tb	159	He	607,006	1.2	600193.66	Pulse	101.1	
Tb	159	NoGas	1,297,995	12.5	1409745.36	Mix	92.1	
Bi	209	He	340,600	0.8	341192.286666667	Pulse	99.8	
Bi	209	NoGas	752,825	12.7	809398.153333333	Pulse	93.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL2**	Total Dilution:	**1.0000**
File Name:	004CALS.d	Vial:	1103
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b		
Acq Time:	11/1/2019 11:13:39	Sample Type:	CalStd
Comment:	**A19J369 - ESS 11/1**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.849	ppb	4.6	2,043	4.0	
Na	23	45	He	44.816	ppb	0.3	55,613	0.8	
Mg	24	45	He	46.017	ppb	2.0	29,666	1.1	
Al	27	45	He	44.62	ppb	0.8	14,932	0.6	
K	39	45	He	45.763	ppb	1.8	52,211	0.6	
Ca	44	45	H2	46.589	ppb	1.1	10,825	1.0	
[Ca]	44	45	He	48.269	ppb	6.3	1,546	4.6	
Ti	47	45	NoGas	0.886	ppb	8.1	981	5.8	
V	51	74	He	0.912	ppb	2.6	5,393	1.2	
Cr	52	74	He	0.938	ppb	1.2	4,528	0.7	
Mn	55	74	He	0.923	ppb	4.9	2,849	4.9	
Fe	56	74	H2	45.715	ppb	0.9	545,448	0.5	
Co	59	74	He	0.942	ppb	4.8	5,882	4.6	
Ni	60	74	He	0.969	ppb	5.2	1,526	4.5	
Cu	65	74	He	0.985	ppb	6.2	1,937	6.5	
Zn	66	74	He	0.918	ppb	8.0	719	7.8	
As	75	74	He	0.989	ppb	4.3	466	3.9	
Se	78	74	H2	0.947	ppb	5.0	293	5.2	
Mo	95	103	He	0.911	ppb	3.7	1,633	3.3	
Ag	107	103	He	0.884	ppb	5.4	4,498	5.3	
Cd	111	103	He	0.857	ppb	0.3	725	0.9	
[Cd]	111	103	NoGas	0.852	ppb	6.0	1,773	5.7	
Sb	121	103	He	0.856	ppb	5.5	1,920	5.4	
Ba	138	159	He	0.969	ppb	1.3	4,345	2.4	
W	182	159	NoGas	0.003	ppb	11.7	48	4.0	
Hg	201	159	NoGas	33.08	ppt	10.5	38	8.8	
Tl	205	159	He	0.902	ppb	3.7	6,618	2.5	
Pb	208	159	NoGas	0.91	ppb	1.4	20,318	2.4	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	993,278	0.6	975380.393333333	Analog	101.8	
Sc	45	H2	2,293,568	0.2	2277280.85	Analog	100.7	
Sc	45	He	352,074	1.0	348790.796666667	Pulse	100.9	
Sc	45	NoGas	3,077,189	2.0	3065554.46333333	Analog	100.4	
Ge	74	H2	723,420	0.6	718037.156666667	Pulse	100.7	
Ge	74	He	208,797	0.6	204919.68	Pulse	101.9	
Ge	74	NoGas	813,013	1.1	806774.886666667	Pulse	100.8	
Rh	103	He	469,037	0.8	466758.146666667	Pulse	100.5	
Rh	103	NoGas	830,411	0.4	832259.633333333	Pulse	99.8	
Tb	159	He	604,690	1.2	600193.66	Pulse	100.7	
Tb	159	NoGas	1,399,598	1.1	1409745.36	Analog	99.3	
Bi	209	He	341,194	1.3	341192.286666667	Pulse	100.0	
Bi	209	NoGas	813,902	0.4	809398.153333333	Pulse	100.6	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL1**	Total Dilution:	**1.0000**
File Name:	005CALS.d	Vial:	1102
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:18:39		
Comment:	**A19J368 - ESS 11/1 (rerun for RSDs)**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.167	ppb	14.7	414	14.4	
Na	23	45	He	8.741	ppb	0.5	14,320	0.4	
Mg	24	45	He	9.206	ppb	3.9	6,309	4.2	
Al	27	45	He	8.879	ppb	8.3	3,069	8.3	
K	39	45	He	9.051	ppb	5.9	32,581	0.8	
Ca	44	45	H2	9.568	ppb	4.6	2,559	3.4	
[Ca]	44	45	He	8.214	ppb	11.9	463	5.9	
Ti	47	45	NoGas	0.224	ppb	17.7	277	15.4	
V	51	74	He	0.207	ppb	5.1	2,641	2.3	
Cr	52	74	He	0.186	ppb	4.7	1,100	2.9	
Mn	55	74	He	0.191	ppb	2.4	614	2.7	
Fe	56	74	H2	9.098	ppb	0.7	113,732	0.4	
Co	59	74	He	0.181	ppb	7.1	1,139	6.7	
Ni	60	74	He	0.176	ppb	10.5	327	8.0	
Cu	65	74	He	0.176	ppb	6.8	403	5.2	
Zn	66	74	He	0.157	ppb	14.8	156	10.8	
As	75	74	He	0.201	ppb	4.0	118	3.4	
Se	78	74	H2	0.221	ppb	10.9	70	10.3	
Mo	95	103	He	0.192	ppb	24.3	352	23.8	
Ag	107	103	He	0.181	ppb	7.7	924	7.4	
Cd	111	103	He	0.187	ppb	4.1	164	4.0	
[Cd]	111	103	NoGas	0.175	ppb	22.6	380	20.5	
Sb	121	103	He	0.169	ppb	17.9	430	15.1	
Ba	138	159	He	0.181	ppb	5.8	904	4.8	
W	182	159	NoGas	0.002	ppb	30.7	44	11.5	
Hg	201	159	NoGas	7.222	ppt	31.8	13	16.8	
Tl	205	159	He	0.178	ppb	3.4	1,313	3.1	
Pb	208	159	NoGas	0.18	ppb	5.5	4,646	4.5	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	992,255	0.9	975380.393333333	Analog	101.7	
Sc	45	H2	2,275,915	0.6	2277280.85	Analog	99.9	
Sc	45	He	353,540	0.6	348790.796666667	Pulse	101.4	
Sc	45	NoGas	3,087,536	0.9	3065554.46333333	Analog	100.7	
Ge	74	H2	723,924	0.5	718037.156666667	Pulse	100.8	
Ge	74	He	207,630	0.7	204919.68	Pulse	101.3	
Ge	74	NoGas	810,726	0.7	806774.886666667	Pulse	100.5	
Rh	103	He	468,420	0.2	466758.146666667	Pulse	100.4	
Rh	103	NoGas	827,553	0.9	832259.633333333	Pulse	99.4	
Tb	159	He	602,883	0.3	600193.66	Pulse	100.4	
Tb	159	NoGas	1,409,937	0.4	1409745.36	Analog	100.0	
Bi	209	He	338,617	0.5	341192.286666667	Pulse	99.2	
Bi	209	NoGas	807,476	0.7	809398.153333333	Pulse	99.8	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL3**	Total Dilution:	**1.0000**
File Name:	006CALS.d	Vial:	1104
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:23:38		
Comment:	**A19J370 - ESS 11/1**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	1.796	ppb	2.8	4,226	1.6	
Na	23	45	He	88.737	ppb	0.8	106,067	1.1	
Mg	24	45	He	91.407	ppb	1.9	58,562	1.1	
Al	27	45	He	90.062	ppb	1.2	30,064	1.7	
K	39	45	He	91.668	ppb	2.0	77,001	0.5	
Ca	44	45	H2	91.733	ppb	1.0	20,742	0.3	
[Ca]	44	45	He	90.485	ppb	9.7	2,691	8.6	
Ti	47	45	NoGas	1.857	ppb	4.3	2,016	3.9	
V	51	74	He	1.804	ppb	0.8	8,813	1.1	
Cr	52	74	He	1.857	ppb	2.3	8,671	3.0	
Mn	55	74	He	1.895	ppb	3.1	5,783	2.2	
Fe	56	74	H2	90.486	ppb	0.7	1,072,835	0.9	
Co	59	74	He	1.88	ppb	0.6	11,671	1.2	
Ni	60	74	He	1.933	ppb	3.7	2,968	3.6	
Cu	65	74	He	1.965	ppb	2.6	3,773	1.7	
Zn	66	74	He	1.833	ppb	4.6	1,388	3.8	
As	75	74	He	1.949	ppb	4.3	885	3.4	
Se	78	74	H2	1.881	ppb	4.8	580	4.4	
Mo	95	103	He	1.748	ppb	2.0	3,107	2.0	
Ag	107	103	He	1.779	ppb	6.0	9,004	5.3	
Cd	111	103	He	1.835	ppb	2.1	1,537	2.3	
[Cd]	111	103	NoGas	1.739	ppb	5.9	3,577	5.7	
Sb	121	103	He	1.767	ppb	4.1	3,876	4.7	
Ba	138	159	He	1.959	ppb	1.8	8,583	2.1	
W	182	159	NoGas	0.002	ppb	171.8	47	68.1	
Hg	201	159	NoGas	67.108	ppt	9.2	72	8.9	
Tl	205	159	He	1.801	ppb	3.0	13,096	3.6	
Pb	208	159	NoGas	1.766	ppb	1.3	39,544	1.0	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	974,530	1.2	975380.393333333	Analog	99.9	
Sc	45	H2	2,278,691	1.1	2277280.85	Analog	100.1	
Sc	45	He	352,430	0.9	348790.796666667	Pulse	101.0	
Sc	45	NoGas	3,073,166	0.6	3065554.46333333	Analog	100.2	
Ge	74	H2	723,010	0.5	718037.156666667	Pulse	100.7	
Ge	74	He	207,831	0.9	204919.68	Pulse	101.4	
Ge	74	NoGas	812,915	1.1	806774.886666667	Pulse	100.8	
Rh	103	He	466,717	0.7	466758.146666667	Pulse	100.0	
Rh	103	NoGas	825,866	0.5	832259.633333333	Pulse	99.2	
Tb	159	He	599,357	0.8	600193.66	Pulse	99.9	
Tb	159	NoGas	1,429,591	0.8	1409745.36	Analog	101.4	
Bi	209	He	339,733	1.1	341192.286666667	Pulse	99.6	
Bi	209	NoGas	806,364	0.5	809398.153333333	Pulse	99.6	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL4**	Total Dilution:	**1.0000**
File Name:	007CALS.d	Vial:	1105
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:28:36		
Comment:	**A19J371 - ESS 11/1**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	3.57	ppb	1.2	8,453	1.8	
Na	23	45	He	178.718	ppb	1.1	208,986	0.2	
Mg	24	45	He	182.093	ppb	0.4	116,068	0.9	
Al	27	45	He	181.038	ppb	1.7	60,228	0.8	
K	39	45	He	184.376	ppb	0.7	126,780	1.0	
Ca	44	45	H2	181.777	ppb	1.7	41,149	1.3	
[Ca]	44	45	He	186.168	ppb	2.3	5,279	3.4	
Ti	47	45	NoGas	3.706	ppb	0.8	4,030	1.0	
V	51	74	He	3.622	ppb	0.7	15,844	1.5	
Cr	52	74	He	3.609	ppb	1.3	16,614	1.7	
Mn	55	74	He	3.667	ppb	1.2	11,163	1.4	
Fe	56	74	H2	186.276	ppb	0.2	2,198,330	0.8	
Co	59	74	He	3.702	ppb	0.7	22,973	1.7	
Ni	60	74	He	3.916	ppb	4.6	5,952	3.9	
Cu	65	74	He	3.945	ppb	1.4	7,505	1.9	
Zn	66	74	He	3.693	ppb	3.2	2,757	3.8	
As	75	74	He	3.579	ppb	2.9	1,602	3.5	
Se	78	74	H2	3.583	ppb	4.6	1,101	4.0	
Mo	95	103	He	3.593	ppb	4.2	6,322	3.5	
Ag	107	103	He	3.61	ppb	2.0	18,118	1.2	
Cd	111	103	He	3.571	ppb	2.3	2,959	2.4	
[Cd]	111	103	NoGas	3.576	ppb	1.7	7,271	2.1	
Sb	121	103	He	3.534	ppb	1.5	7,626	1.9	
Ba	138	159	He	3.852	ppb	3.2	16,733	4.3	
W	182	159	NoGas	0.003	ppb	93.1	47	37.8	
Hg	201	159	NoGas	137.791	ppt	7.6	140	7.3	
Tl	205	159	He	3.594	ppb	0.5	26,053	0.8	
Pb	208	159	NoGas	3.561	ppb	0.7	77,774	0.6	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	982,176	0.8	975380.393333333	Analog	100.7	
Sc	45	H2	2,305,677	0.4	2277280.85	Analog	101.2	
Sc	45	He	351,907	1.3	348790.796666667	Pulse	100.9	
Sc	45	NoGas	3,106,368	0.2	3065554.46333333	Analog	101.3	
Ge	74	H2	721,863	0.7	718037.156666667	Pulse	100.5	
Ge	74	He	207,922	1.0	204919.68	Pulse	101.5	
Ge	74	NoGas	808,452	0.6	806774.886666667	Pulse	100.2	
Rh	103	He	462,920	0.9	466758.146666667	Pulse	99.2	
Rh	103	NoGas	818,888	0.7	832259.633333333	Pulse	98.4	
Tb	159	He	597,996	1.1	600193.66	Pulse	99.6	
Tb	159	NoGas	1,408,536	0.1	1409745.36	Analog	99.9	
Bi	209	He	337,145	0.7	341192.286666667	Pulse	98.8	
Bi	209	NoGas	798,961	0.9	809398.153333333	Pulse	98.7	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL5**	Total Dilution:	**1.0000**
File Name:	008CALS.d	Vial:	1106
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:33:33		
Comment:	**A19J373 - ESS 11/1**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	10.116	ppb	4.5	23,386	3.3	
Na	23	45	He	403.486	ppb	0.5	459,095	0.2	
Mg	24	45	He	408.192	ppb	0.6	255,516	0.2	
Al	27	45	He	404.466	ppb	1.1	132,306	1.3	
K	39	45	He	412.771	ppb	1.1	245,713	0.5	
Ca	44	45	H2	404.457	ppb	0.4	90,248	1.1	
[Ca]	44	45	He	413.781	ppb	2.5	11,257	2.9	
Ti	47	45	NoGas	21.099	ppb	2.4	22,313	2.0	
V	51	74	He	20.22	ppb	0.4	78,784	0.2	
Cr	52	74	He	20.306	ppb	0.8	90,893	1.1	
Mn	55	74	He	20.643	ppb	0.8	61,750	1.4	
Fe	56	74	H2	411.569	ppb	0.2	4,820,399	0.2	
Co	59	74	He	20.622	ppb	1.5	125,956	1.3	
Ni	60	74	He	21.737	ppb	1.1	32,277	1.2	
Cu	65	74	He	22.081	ppb	0.9	41,054	1.4	
Zn	66	74	He	20.433	ppb	0.4	14,844	0.7	
As	75	74	He	20.844	ppb	0.9	9,045	1.5	
Se	78	74	H2	10.326	ppb	1.4	3,152	1.2	
Mo	95	103	He	10.264	ppb	1.7	17,765	1.6	
Ag	107	103	He	10.193	ppb	2.3	50,353	1.6	
Cd	111	103	He	20.122	ppb	0.3	16,385	0.6	
[Cd]	111	103	NoGas	19.621	ppb	0.7	39,435	0.8	
Sb	121	103	He	9.814	ppb	2.2	20,748	3.0	
Ba	138	159	He	21.839	ppb	1.1	93,488	0.9	
W	182	159	NoGas	0.002	ppb	102.4	40	30.0	
Hg	201	159	NoGas	389.145	ppt	2.2	383	0.6	
Tl	205	159	He	10.137	ppb	0.3	72,846	0.1	
Pb	208	159	NoGas	19.822	ppb	2.2	428,915	0.3	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	960,475	2.2	975380.393333333	Analog	98.5	
Sc	45	H2	2,286,427	1.1	2277280.85	Analog	100.4	
Sc	45	He	346,301	0.5	348790.796666667	Pulse	99.3	
Sc	45	NoGas	3,043,775	0.5	3065554.46333333	Analog	99.3	
Ge	74	H2	717,552	0.4	718037.156666667	Pulse	99.9	
Ge	74	He	204,826	0.5	204919.68	Pulse	100.0	
Ge	74	NoGas	798,835	1.1	806774.886666667	Pulse	99.0	
Rh	103	He	455,803	0.8	466758.146666667	Pulse	97.7	
Rh	103	NoGas	811,251	0.5	832259.633333333	Pulse	97.5	
Tb	159	He	592,934	0.4	600193.66	Pulse	98.8	
Tb	159	NoGas	1,407,136	1.9	1409745.36	Analog	99.8	
Bi	209	He	335,752	1.0	341192.286666667	Pulse	98.4	
Bi	209	NoGas	796,487	0.7	809398.153333333	Pulse	98.4	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL6**	Total Dilution:	**1.0000**
File Name:	009CALS.d	Vial:	1107
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:38:28		
Comment:	**A19J372**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	50.229	ppb	0.4	111,753	0.4	
Na	23	45	He	2480.844	ppb	1.2	2,714,631	1.2	
Mg	24	45	He	2543.677	ppb	0.6	1,540,864	0.5	
Al	27	45	He	2452.882	ppb	0.2	777,022	0.2	
K	39	45	He	2579.67	ppb	1.0	1,350,166	0.8	
Ca	44	45	H2	2487.233	ppb	0.9	535,387	0.5	
[Ca]	44	45	He	2540.831	ppb	1.7	65,810	1.8	
Ti	47	45	NoGas	50.374	ppb	2.9	50,987	2.0	
V	51	74	He	49.79	ppb	1.1	184,604	0.1	
Cr	52	74	He	49.774	ppb	0.6	214,611	0.6	
Mn	55	74	He	51.041	ppb	1.3	147,256	1.0	
Fe	56	74	H2	2499.884	ppb	0.7	28,485,724	0.3	
Co	59	74	He	50.679	ppb	1.4	298,627	0.8	
Ni	60	74	He	53.287	ppb	0.9	76,255	0.7	
Cu	65	74	He	53.136	ppb	0.7	95,222	0.9	
Zn	66	74	He	50.926	ppb	0.8	35,641	1.6	
As	75	74	He	51.184	ppb	0.4	21,388	1.4	
Se	78	74	H2	49.403	ppb	1.3	14,679	0.7	
Mo	95	103	He	49.901	ppb	1.0	83,002	0.4	
Ag	107	103	He	49.721	ppb	0.6	236,150	0.7	
Cd	111	103	He	50.297	ppb	0.5	39,368	0.7	
[Cd]	111	103	NoGas	48.7	ppb	0.4	92,541	0.2	
Sb	121	103	He	49.095	ppb	0.9	99,539	1.2	
Ba	138	159	He	53.238	ppb	0.5	223,712	0.6	
W	182	159	NoGas	0.014	ppb	45.2	129	36.2	
Hg	201	159	NoGas	1931.963	ppt	3.0	1,817	2.7	
Tl	205	159	He	49.415	ppb	0.2	348,799	0.4	
Pb	208	159	NoGas	49.019	ppb	0.7	1,025,313	0.1	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	924,373	0.1	975380.393333333	Analog	94.8	
Sc	45	H2	2,214,928	0.7	2277280.85	Analog	97.3	
Sc	45	He	335,585	0.1	348790.796666667	Pulse	96.2	
Sc	45	NoGas	2,916,250	0.9	3065554.46333333	Analog	95.1	
Ge	74	H2	698,880	0.6	718037.156666667	Pulse	97.3	
Ge	74	He	197,629	1.0	204919.68	Pulse	96.4	
Ge	74	NoGas	761,126	0.7	806774.886666667	Pulse	94.3	
Rh	103	He	438,255	1.1	466758.146666667	Pulse	93.9	
Rh	103	NoGas	767,237	0.3	832259.633333333	Pulse	92.2	
Tb	159	He	582,468	0.2	600193.66	Pulse	97.0	
Tb	159	NoGas	1,361,289	0.8	1409745.36	Analog	96.6	
Bi	209	He	328,550	0.4	341192.286666667	Pulse	96.3	
Bi	209	NoGas	771,568	0.2	809398.153333333	Pulse	95.3	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL7**	Total Dilution:	**1.0000**
File Name:	010CALS.d	Vial:	1108
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:43:22		
Comment:	**A19J374**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	99.876	ppb	0.1	209,339	0.4	
Na	23	45	He	3999.032	ppb	0.1	4,052,668	0.4	
Mg	24	45	He	4070.973	ppb	0.6	2,284,920	0.2	
Al	27	45	He	3988.807	ppb	0.8	1,170,837	0.8	
K	39	45	He	4122.173	ppb	1.2	1,984,683	1.1	
Ca	44	45	H2	4016.614	ppb	0.5	818,270	0.4	
[Ca]	44	45	He	4034.149	ppb	0.8	96,698	0.5	
Ti	47	45	NoGas	203.424	ppb	0.9	188,800	0.4	
V	51	74	He	197.097	ppb	0.1	676,689	0.4	
Cr	52	74	He	197.611	ppb	0.4	793,905	0.5	
Mn	55	74	He	200.41	ppb	0.7	539,123	0.4	
Fe	56	74	H2	4000.933	ppb	0.4	43,156,103	0.3	
Co	59	74	He	199.517	ppb	0.3	1,096,389	0.3	
Ni	60	74	He	210.071	ppb	0.5	280,188	0.7	
Cu	65	74	He	208.471	ppb	0.8	348,206	0.7	
Zn	66	74	He	203.411	ppb	0.7	132,642	0.6	
As	75	74	He	201.549	ppb	0.8	78,458	0.6	
Se	78	74	H2	100.264	ppb	1.3	28,203	1.4	
Mo	95	103	He	100.024	ppb	1.0	155,949	1.5	
Ag	107	103	He	100.121	ppb	0.5	445,717	0.3	
Cd	111	103	He	200.296	ppb	0.8	146,926	0.2	
[Cd]	111	103	NoGas	196.624	ppb	0.4	343,882	0.2	
Sb	121	103	He	100.475	ppb	0.7	190,881	0.4	
Ba	138	159	He	209.75	ppb	0.7	842,057	0.9	
W	182	159	NoGas	0.023	ppb	22.8	181	19.7	
Hg	201	159	NoGas	4035.442	ppt	2.2	3,494	1.7	
Tl	205	159	He	100.279	ppb	1.2	676,452	0.7	
Pb	208	159	NoGas	201.845	ppb	0.7	3,891,959	0.4	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	870,870	0.3	975380.393333333	Analog	89.3	
Sc	45	H2	2,096,878	0.8	2277280.85	Analog	92.1	
Sc	45	He	310,973	0.4	348790.796666667	Pulse	89.2	
Sc	45	NoGas	2,675,094	0.9	3065554.46333333	Analog	87.3	
Ge	74	H2	661,613	0.3	718037.156666667	Pulse	92.1	
Ge	74	He	184,298	0.3	204919.68	Pulse	89.9	
Ge	74	NoGas	703,151	0.9	806774.886666667	Pulse	87.2	
Rh	103	He	410,785	0.9	466758.146666667	Pulse	88.0	
Rh	103	NoGas	706,263	0.2	832259.633333333	Pulse	84.9	
Tb	159	He	556,687	0.5	600193.66	Pulse	92.8	
Tb	159	NoGas	1,255,555	0.7	1409745.36	Pulse	89.1	
Bi	209	He	314,107	0.8	341192.286666667	Pulse	92.1	
Bi	209	NoGas	720,656	0.5	809398.153333333	Pulse	89.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL8**	Total Dilution:	**1.0000**
File Name:	011CALS.d	Vial:	1109
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:48:12		
Comment:	**A19J188**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.017	ppb	84.5	46	62.2	
Na	23	45	He	9949.889	ppb	0.9	9,591,685	0.9	
Mg	24	45	He	10023.399	ppb	0.4	5,354,070	0.4	
Al	27	45	He	10005.641	ppb	0.8	2,795,194	0.8	
K	39	45	He	10091.047	ppb	0.7	4,590,680	0.7	
Ca	44	45	H2	10278.144	ppb	0.8	1,951,076	1.3	
[Ca]	44	45	He	10031.299	ppb	0.7	228,559	0.7	
Ti	47	45	NoGas	503.336	ppb	0.3	451,983	0.4	
V	51	74	He	501.173	ppb	0.3	1,645,112	0.3	
Cr	52	74	He	500.146	ppb	0.5	1,923,613	0.5	
Mn	55	74	He	507.978	ppb	1.5	1,308,382	1.4	
Fe	56	74	H2	9917.67	ppb	0.4	99,154,881	0.6	
Co	59	74	He	500.099	ppb	0.1	2,631,335	0.3	
Ni	60	74	He	508.624	ppb	0.4	649,482	0.6	
Cu	65	74	He	507.321	ppb	0.5	811,273	0.3	
Zn	66	74	He	499.73	ppb	0.8	311,970	0.8	
As	75	74	He	499.228	ppb	0.8	186,042	0.9	
Se	78	74	H2	0.119	ppb	30.9	33	28.9	
Mo	95	103	He	0.092	ppb	15.8	144	15.4	
Ag	107	103	He	0.029	ppb	23.6	128	22.2	
Cd	111	103	He	503.65	ppb	0.4	348,364	0.3	
[Cd]	111	103	NoGas	500.469	ppb	0.7	835,828	0.9	
Sb	121	103	He	0.064	ppb	25.7	167	17.3	
Ba	138	159	He	518.441	ppb	1.0	2,013,123	1.5	
W	182	159	NoGas	100	ppb	0.6	655,228	0.6	
Hg	201	159	NoGas	90.894	ppt	11.0	82	10.1	
Tl	205	159	He	0.028	ppb	28.3	192	26.9	
Pb	208	159	NoGas	499.368	ppb	1.0	9,445,601	0.2	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	813,919	0.2	975380.393333333	Pulse	83.4	
Sc	45	H2	1,954,437	1.1	2277280.85	Analog	85.8	
Sc	45	He	295,975	0.1	348790.796666667	Pulse	84.9	
Sc	45	NoGas	2,588,372	0.3	3065554.46333333	Analog	84.4	
Ge	74	H2	613,281	0.5	718037.156666667	Pulse	85.4	
Ge	74	He	176,465	0.2	204919.68	Pulse	86.1	
Ge	74	NoGas	665,594	1.0	806774.886666667	Pulse	82.5	
Rh	103	He	387,341	0.7	466758.146666667	Pulse	83.0	
Rh	103	NoGas	674,439	0.5	832259.633333333	Pulse	81.0	
Tb	159	He	538,469	0.5	600193.66	Pulse	89.7	
Tb	159	NoGas	1,231,847	1.0	1409745.36	Pulse	87.4	
Bi	209	He	300,983	0.6	341192.286666667	Pulse	88.2	
Bi	209	NoGas	694,873	0.8	809398.153333333	Pulse	85.9	

Calibration Standard Report - ICPMS5

Sample Name:	**9K01022-CAL9**	Total Dilution:	**1.0000**
File Name:	012CALS.d	Vial:	1110
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	CalStd
Acq Time:	11/1/2019 11:53:06		
Comment:	**A19J189**	Last Calib:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.013	ppb	62.5	37	41.7	
Na	23	45	He	50011.037	ppb	0.5	47,258,693	0.4	
Mg	24	45	He	49987.382	ppb	0.8	26,179,862	0.4	
Al	27	45	He	50002.084	ppb	1.0	13,696,335	0.7	
K	39	45	He	49967.912	ppb	1.6	22,199,412	1.5	
Ca	44	45	H2	49943.634	ppb	0.8	9,200,490	0.3	
[Ca]	44	45	He	49988.83	ppb	0.9	1,116,041	0.9	
Ti	47	45	NoGas	2499.042	ppb	0.9	2,211,824	0.4	
V	51	74	He	-0.036	ppb	N/A	1,361	2.7	
Cr	52	74	He	1000.41	ppb	0.6	3,616,604	1.1	
Mn	55	74	He	2498.346	ppb	0.3	6,048,726	0.7	
Fe	56	74	H2	50016.281	ppb	0.0	462,256,158	0.4	
Co	59	74	He	0.218	ppb	4.5	1,096	4.3	
Ni	60	74	He	993.473	ppb	0.3	1,192,404	0.4	
Cu	65	74	He	994.445	ppb	0.2	1,494,791	1.0	
Zn	66	74	He	2499.759	ppb	0.5	1,466,803	1.2	
As	75	74	He	0.135	ppb	22.4	71	15.4	
Se	78	74	H2	0.141	ppb	17.3	36	16.9	
Mo	95	103	He	0.112	ppb	30.1	160	28.9	
Ag	107	103	He	0.025	ppb	34.7	102	33.0	
Cd	111	103	He	998.099	ppb	0.1	633,842	0.5	
[Cd]	111	103	NoGas	1000.513	ppb	0.7	1,522,964	1.4	
Sb	121	103	He	0.022	ppb	80.2	84	34.0	
Ba	138	159	He	2495.452	ppb	0.3	9,099,711	0.7	
W	182	159	NoGas	0.274	ppb	2.3	1,735	1.6	
Hg	201	159	NoGas	39.193	ppt	17.7	37	15.0	
Tl	205	159	He	0.006	ppb	30.4	46	22.4	
Pb	208	159	NoGas	0.182	ppb	3.6	3,911	3.7	

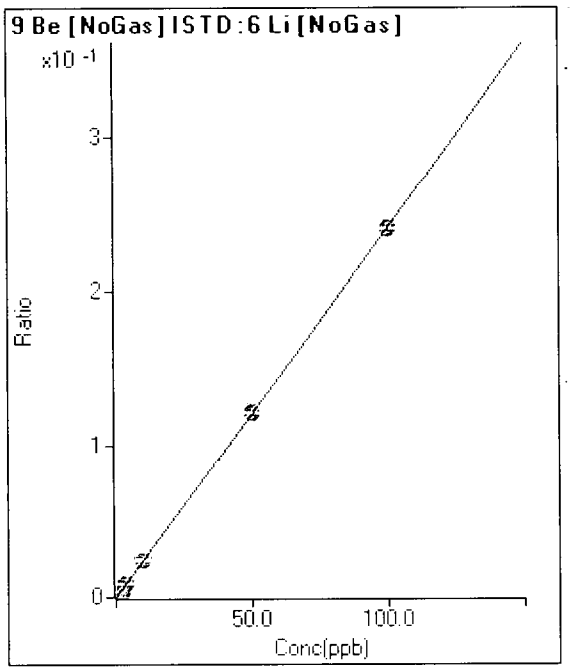
ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	817,567	1.1	975380.393333333	Mix	83.8	
Sc	45	H2	1,897,017	0.6	2277280.85	Analog	83.3	
Sc	45	He	290,220	0.5	348790.796666667	Pulse	83.2	
Sc	45	NoGas	2,551,512	1.3	3065554.46333333	Analog	83.2	
Ge	74	H2	566,952	0.4	718037.156666667	Pulse	79.0	
Ge	74	He	165,876	0.8	204919.68	Pulse	80.9	
Ge	74	NoGas	627,888	0.6	806774.886666667	Pulse	77.8	
Rh	103	He	355,627	0.6	466758.146666667	Pulse	76.2	
Rh	103	NoGas	614,700	0.7	832259.633333333	Pulse	73.9	
Tb	159	He	505,720	1.0	600193.66	Pulse	84.3	
Tb	159	NoGas	1,173,915	0.7	1409745.36	Pulse	83.3	
Bi	209	He	271,184	0.9	341192.286666667	Pulse	79.5	
Bi	209	NoGas	646,312	0.5	809398.153333333	Pulse	79.9	

Calibration for 013_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\9K01022.b\
Analysis File: 9K01022.batch.bin
DA Date-Time: 11/1/2019 15:02:45
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

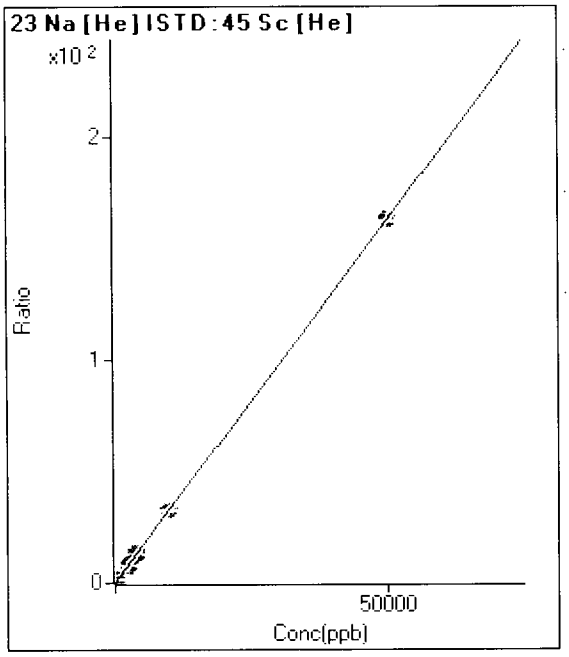
Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	9K01022-CAL0	11/1/2019 11:03:57
2	005CALS.d	9K01022-CAL1	11/1/2019 11:18:39
3	004CALS.d	9K01022-CAL2	11/1/2019 11:13:39
4	006CALS.d	9K01022-CAL3	11/1/2019 11:23:38
5	007CALS.d	9K01022-CAL4	11/1/2019 11:28:36
6	008CALS.d	9K01022-CAL5	11/1/2019 11:33:33
7	009CALS.d	9K01022-CAL6	11/1/2019 11:38:28
8	010CALS.d	9K01022-CAL7	11/1/2019 11:43:22
9	011CALS.d	9K01022-CAL8	11/1/2019 11:48:12
10	012CALS.d	9K01022-CAL9	11/1/2019 11:53:06



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14	0.000	P	47.5
2	☐	0.180	0.167	414	0.000	P	14.2
3	☐	0.900	0.849	2,043	0.002	P	4.5
4	☐	1.800	1.796	4,226	0.004	P	2.8
5	☐	3.600	3.570	8,453	0.009	P	1.2
6	☐	10.000	10.116	23,386	0.024	P	4.5
7	☐	50.000	50.229	111,753	0.121	P	0.4
8	☐	100.000	99.876	209,339	0.240	P	0.1
9	☐			46	0.000	P	62.1
10	☐			37	0.000	P	41.9

y = 0.0024 * x + 1.4796E-005
R = 1.0000
DL = 0.008767
BEC = 0.006148

Weight: <None>
Min Conc: <None>

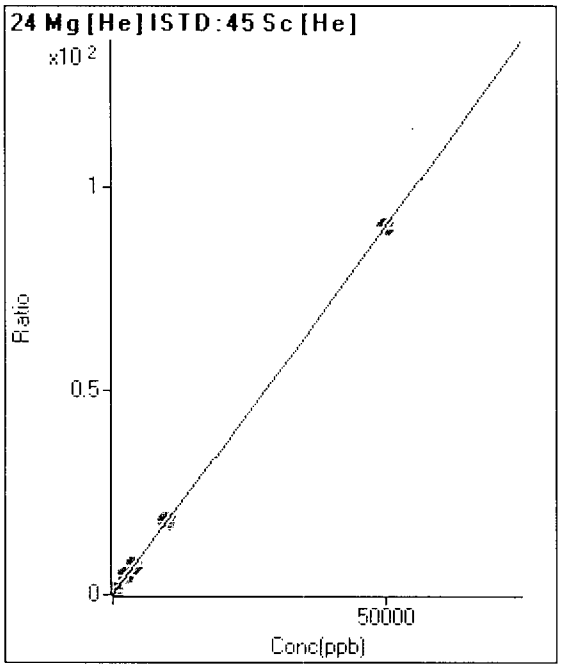


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4,204	0.012	P	7.4
2	☐			14,320	0.041	P	0.4
3	☐	45.000	44.816	55,613	0.158	P	0.3
4	☐	90.000	88.737	106,067	0.301	P	0.8
5	☐	180.000	178.718	208,986	0.594	P	1.1
6	☐	400.000	403.486	459,095	1.326	P	0.5
7	☐	2500.000	2480.844	2,714,631	8.089	A	1.2
8	☐	4000.000	3999.032	4,052,668	13.032	A	0.1
9	☐	10000.000	9949.889	9,591,685	32.407	A	0.9
10	☐	50000.000	50011.037	47,258,693	162.840	A	0.5

y = 0.0033 * x + 0.0120
R = 1.0000
DL = 0.8198
BEC = 3.7

Weight: <None>
Min Conc: <None>

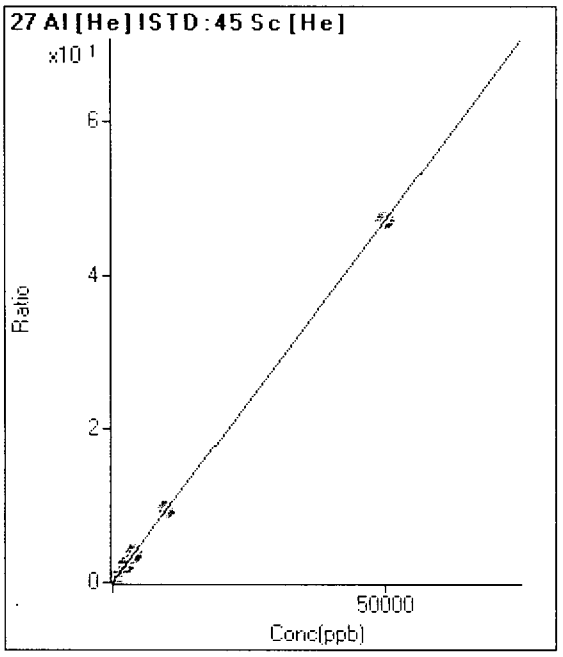
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	429	0.001	P	7.3
2	☐			6,309	0.018	P	3.6
3	☐	45.000	46.017	29,666	0.084	P	2.0
4	☐	90.000	91.407	58,562	0.166	P	1.8
5	☐	180.000	182.093	116,068	0.330	P	0.4
6	☐	400.000	408.192	255,516	0.738	P	0.6
7	☐	2500.000	2543.677	1,540,864	4.592	A	0.6
8	☐	4000.000	4070.973	2,284,920	7.348	A	0.6
9	☐	10000.000	10023.399	5,354,070	18.090	A	0.4
10	☐	50000.000	49987.382	26,179,862	90.209	A	0.8

y = 0.0018 * x + 0.0012
R = 1.0000
DL = 0.1492
BEC = 0.681

Weight: <None>
Min Conc: <None>

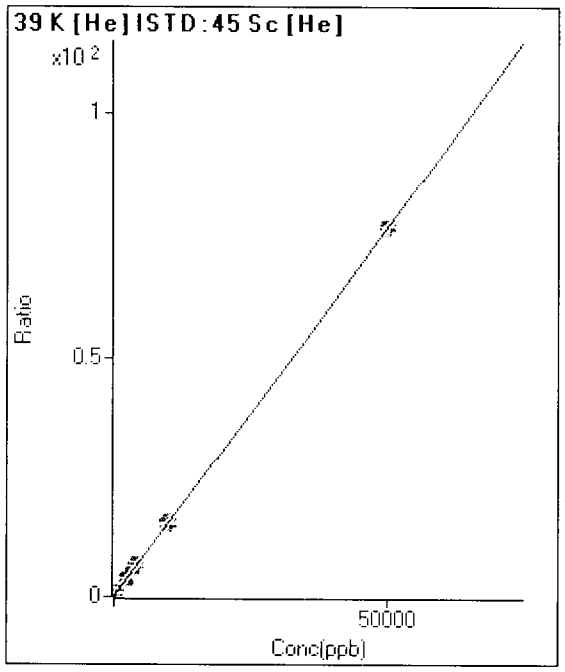


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	104	0.000	P	26.3
2	☐			3,069	0.009	P	8.0
3	☐	45.000	44.620	14,932	0.042	P	0.7
4	☐	90.000	90.062	30,064	0.085	P	1.2
5	☐	180.000	181.038	60,228	0.171	P	1.7
6	☐	400.000	404.466	132,306	0.382	P	1.1
7	☐	2500.000	2452.882	777,022	2.315	P	0.2
8	☐	4000.000	3988.807	1,170,837	3.765	A	0.8
9	☐	10000.000	10005.641	2,795,194	9.444	A	0.8
10	☐	50000.000	50002.084	13,696,335	47.194	A	1.0

y = 9.4384E-004 * x + 2.9925E-004
R = 1.0000
DL = 0.2498
BEC = 0.3171

Weight: <None>
Min Conc: <None>

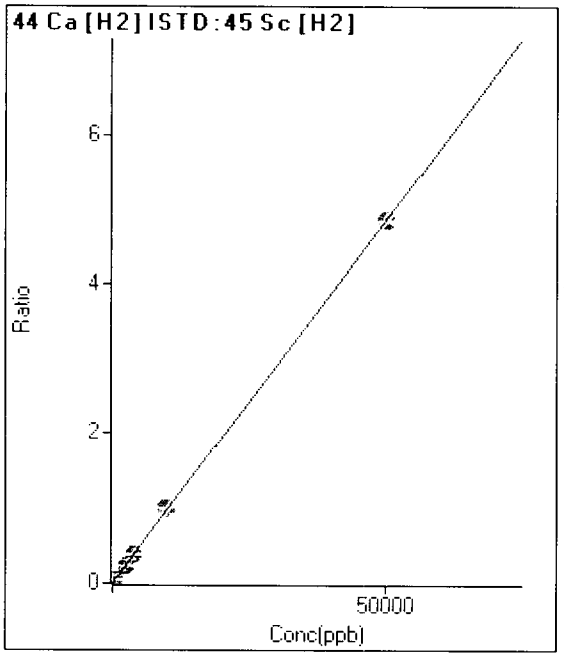
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27,317	0.078	P	0.1
2	☐			32,581	0.092	P	0.9
3	☐	45.000	45.763	52,211	0.148	P	0.8
4	☐	90.000	91.668	77,001	0.219	P	1.3
5	☐	180.000	184.376	126,780	0.360	P	0.6
6	☐	400.000	412.771	245,713	0.710	P	0.9
7	☐	2500.000	2579.670	1,350,166	4.023	A	0.9
8	☐	4000.000	4122.173	1,984,683	6.382	A	1.2
9	☐	10000.000	10091.047	4,590,680	15.510	A	0.7
10	☐	50000.000	49967.912	22,199,412	76.493	A	1.6

y = 0.0015 * x + 0.0783
R = 1.0000
DL = 0.203
BEC = 51.21

Weight: <None>
Min Conc: <None>

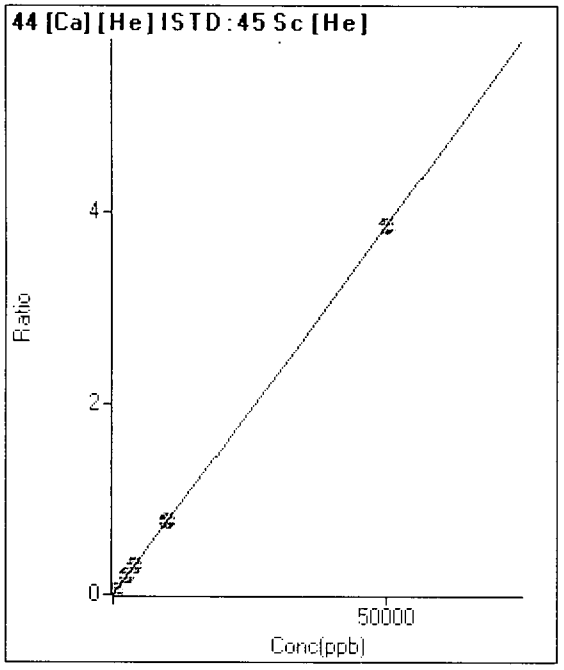


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	444	0.000	P	17.7
2	☐			2,559	0.001	P	3.8
3	☐	45.000	46.589	10,825	0.005	P	1.0
4	☐	90.000	91.733	20,742	0.009	P	1.0
5	☐	180.000	181.777	41,149	0.018	P	1.6
6	☐	400.000	404.457	90,248	0.039	P	0.4
7	☐	2500.000	2487.233	535,387	0.242	P	0.9
8	☐	4000.000	4016.614	818,270	0.390	P	0.5
9	☐	10000.000	10278.144	1,951,076	0.998	A	0.8
10	☐	50000.000	49943.634	9,200,490	4.850	A	0.8

y = 9.7108E-005 * x + 1.9540E-004
R = 1.0000
DL = 1.066
BEC = 2.012

Weight: <None>
Min Conc: <None>

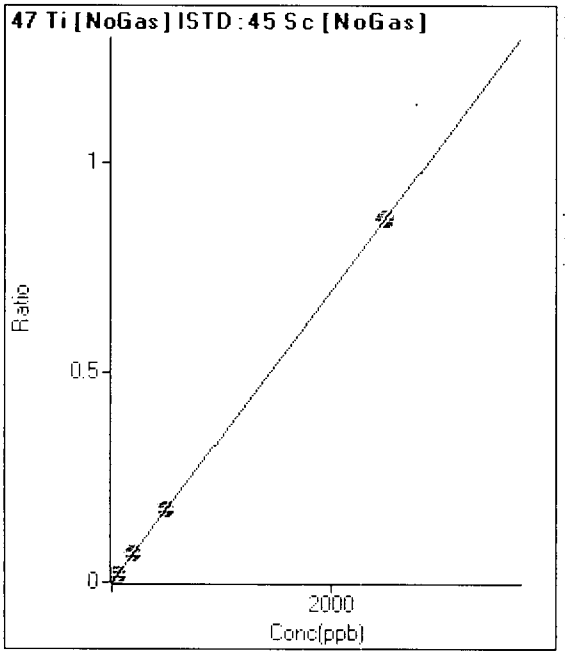
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	237	0.001	P	6.9
2	☐			463	0.001	P	5.8
3	☐	45.000	48.269	1,546	0.004	P	5.3
4	☐	90.000	90.485	2,691	0.008	P	8.9
5	☐	180.000	186.168	5,279	0.015	P	2.2
6	☐	400.000	413.781	11,257	0.033	P	2.5
7	☐	2500.000	2540.831	65,810	0.196	P	1.7
8	☐	4000.000	4034.149	96,698	0.311	P	0.8
9	☐	10000.000	10031.299	228,559	0.772	P	0.7
10	☐	50000.000	49988.830	1,116,041	3.846	P	0.9

y = 7.6914E-005 * x + 6.7876E-004
R = 1.0000
DL = 1.835
BEC = 8.825

Weight: <None>
Min Conc: <None>

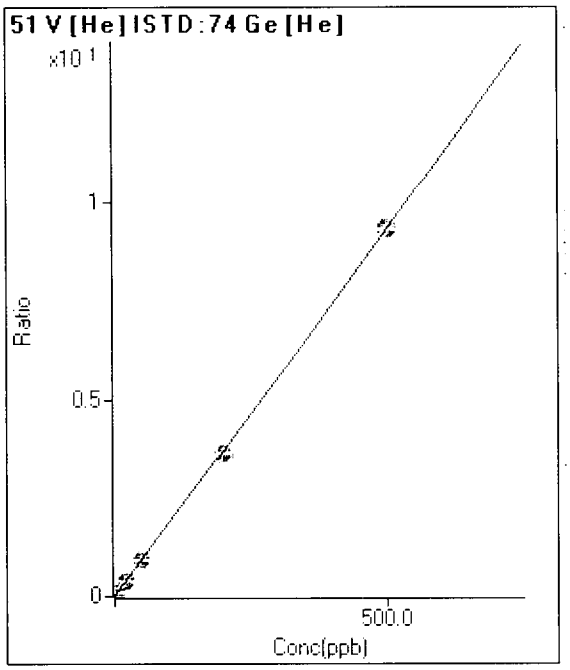


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37	0.000	P	15.2
2	☐	0.180	0.224	277	0.000	P	15.3
3	☐	0.900	0.886	981	0.000	P	7.8
4	☐	1.800	1.857	2,016	0.001	P	4.3
5	☐	3.600	3.706	4,030	0.001	P	0.8
6	☐	20.000	21.099	22,313	0.007	P	2.4
7	☐	50.000	50.374	50,987	0.017	P	2.9
8	☐	200.000	203.424	188,800	0.071	P	0.9
9	☐	500.000	503.336	451,983	0.175	P	0.3
10	☐	2500.000	2499.042	2,211,824	0.867	A	0.9

y = 3.4690E-004 * x + 1.1948E-005
R = 1.0000
DL = 0.0157
BEC = 0.03444

Weight: <None>
Min Conc: <None>

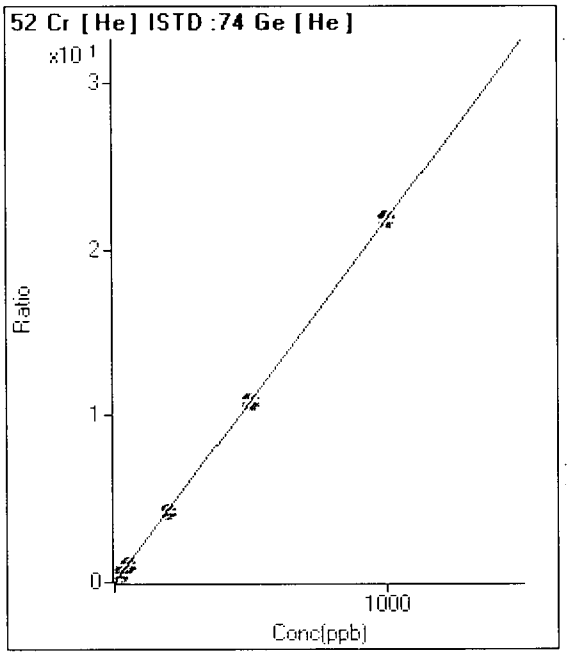
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1,820	0.009	P	2.5
2	☐	0.180	0.207	2,641	0.013	P	1.5
3	☐	0.900	0.912	5,393	0.026	P	1.7
4	☐	1.800	1.804	8,813	0.042	P	0.6
5	☐	3.600	3.622	15,844	0.076	P	0.6
6	☐	20.000	20.220	78,784	0.385	P	0.4
7	☐	50.000	49.790	184,604	0.934	P	1.1
8	☐	200.000	197.097	676,689	3.672	P	0.1
9	☐	500.000	501.173	1,645,112	9.323	A	0.3
10	☐			1,361	0.008	P	3.4

y = 0.0186 * x + 0.0089
R = 1.0000
DL = 0.03523
BEC = 0.4778

Weight: <None>
Min Conc: <None>

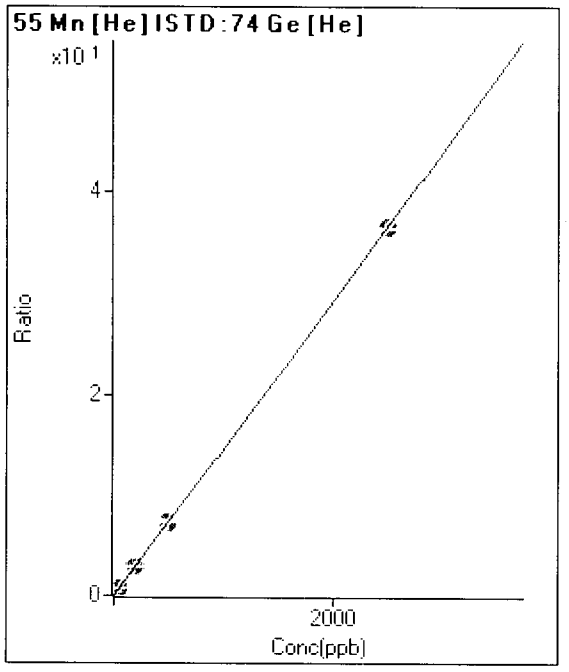


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	254	0.001	P	12.0
2	☐	0.180	0.186	1,100	0.005	P	3.6
3	☐	0.900	0.938	4,528	0.022	P	1.1
4	☐	1.800	1.857	8,671	0.042	P	2.2
5	☐	3.600	3.609	16,614	0.080	P	1.3
6	☐	20.000	20.306	90,893	0.444	P	0.8
7	☐	50.000	49.774	214,611	1.086	P	0.6
8	☐	200.000	197.611	793,905	4.308	P	0.4
9	☐	500.000	500.146	1,923,613	10.901	A	0.5
10	☐	1000.000	1000.410	3,616,604	21.803	A	0.6

y = 0.0218 * x + 0.0012
R = 1.0000
DL = 0.02057
BEC = 0.05699

Weight: <None>
Min Conc: <None>

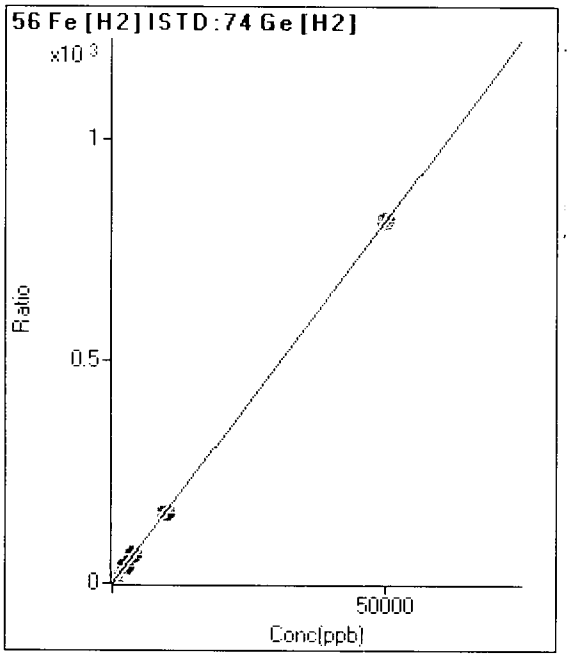
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	34	0.000	P	72.4
2	☐	0.180	0.191	614	0.003	P	2.2
3	☐	0.900	0.923	2,849	0.014	P	4.9
4	☐	1.800	1.895	5,783	0.028	P	3.1
5	☐	3.600	3.667	11,163	0.054	P	1.2
6	☐	20.000	20.643	61,750	0.301	P	0.8
7	☐	50.000	51.041	147,256	0.745	P	1.3
8	☐	200.000	200.410	539,123	2.925	P	0.7
9	☐	500.000	507.978	1,308,382	7.415	A	1.5
10	☐	2500.000	2498.346	6,048,726	36.466	A	0.3

y = 0.0146 * x + 1.6789E-004
R = 1.0000
DL = 0.02498
BEC = 0.0115

Weight: <None>
Min Conc: <None>

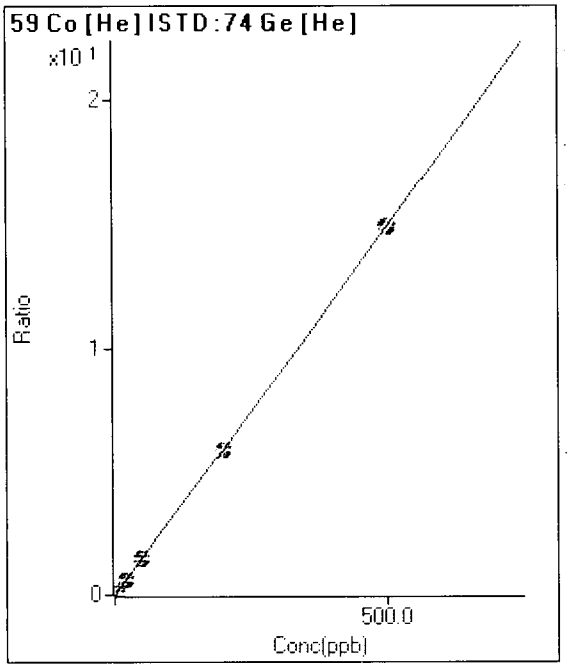


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6,322	0.009	P	5.5
2	☐			113,732	0.157	P	0.7
3	☐	45.000	45.715	545,448	0.754	P	0.9
4	☐	90.000	90.486	1,072,835	1.484	P	0.7
5	☐	180.000	186.276	2,198,330	3.045	A	0.2
6	☐	400.000	411.569	4,820,399	6.718	A	0.2
7	☐	2500.000	2499.884	28,485,724	40.760	A	0.7
8	☐	4000.000	4000.933	43,156,103	65.229	A	0.4
9	☐	10000.000	9917.670	99,154,881	161.679	A	0.4
10	☐	50000.000	50016.281	462,256,158	815.336	A	0.0

y = 0.0163 * x + 0.0088
R = 1.0000
DL = 0.08838
BEC = 0.5401

Weight: <None>
Min Conc: <None>

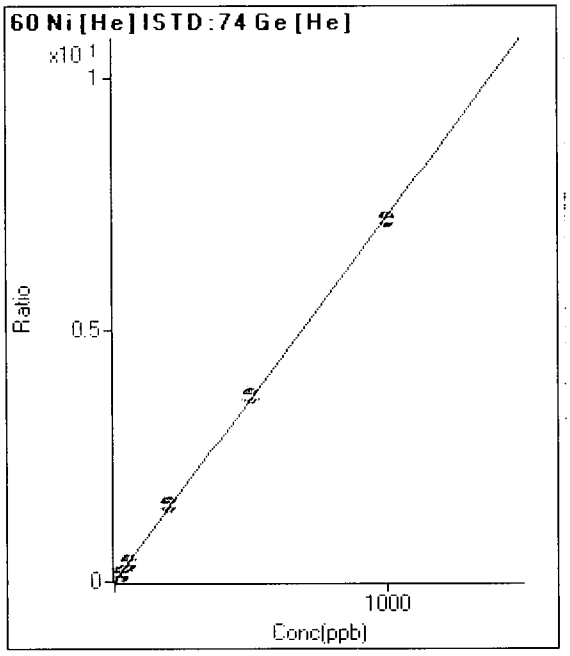
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19	0.000	P	40.3
2	☐	0.180	0.181	1,139	0.005	P	7.0
3	☐	0.900	0.942	5,882	0.028	P	4.8
4	☐	1.800	1.880	11,671	0.056	P	0.6
5	☐	3.600	3.702	22,973	0.110	P	0.7
6	☐	20.000	20.622	125,956	0.615	P	1.5
7	☐	50.000	50.679	298,627	1.511	P	1.4
8	☐	200.000	199.517	1,096,389	5.949	P	0.3
9	☐	500.000	500.099	2,631,335	14.911	A	0.1
10	☐			1,096	0.007	P	4.5

y = 0.0298 * x + 9.1987E-005
R = 1.0000
DL = 0.003727
BEC = 0.003085

Weight: <None>
Min Conc: <None>

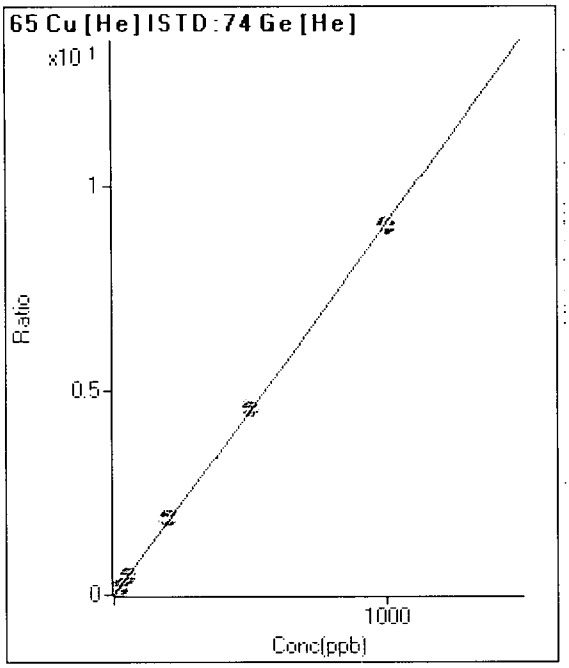


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61	0.000	P	41.7
2	☐	0.180	0.176	327	0.002	P	8.5
3	☐	0.900	0.969	1,526	0.007	P	5.0
4	☐	1.800	1.933	2,968	0.014	P	3.6
5	☐	3.600	3.916	5,952	0.029	P	4.6
6	☐	20.000	21.737	32,277	0.158	P	1.1
7	☐	50.000	53.287	76,255	0.386	P	0.9
8	☐	200.000	210.071	280,188	1.520	P	0.5
9	☐	500.000	508.624	649,482	3.680	P	0.4
10	☐	1000.000	993.473	1,192,404	7.189	P	0.3

y = 0.0072 * x + 2.9847E-004
R = 0.9999
DL = 0.05166
BEC = 0.04125

Weight: <None>
Min Conc: <None>

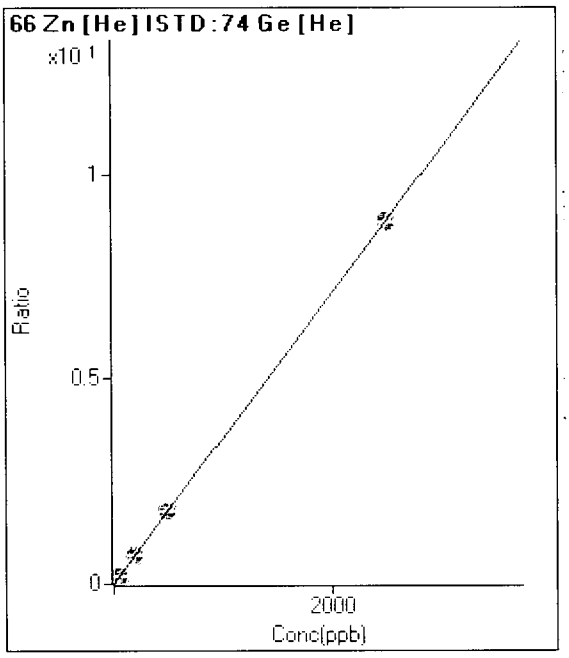
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	71	0.000	P	11.5
2	☐	0.180	0.176	403	0.002	P	5.6
3	☐	0.900	0.985	1,937	0.009	P	6.0
4	☐	1.800	1.965	3,773	0.018	P	2.5
5	☐	3.600	3.945	7,505	0.036	P	1.3
6	☐	20.000	22.081	41,054	0.200	P	0.9
7	☐	50.000	53.136	95,222	0.482	P	0.7
8	☐	200.000	208.471	348,206	1.889	P	0.8
9	☐	500.000	507.321	811,273	4.597	P	0.5
10	☐	1000.000	994.445	1,494,791	9.011	A	0.2

y = 0.0091 * x + 3.4697E-004
R = 0.9999
DL = 0.01326
BEC = 0.03829

Weight: <None>
Min Conc: <None>

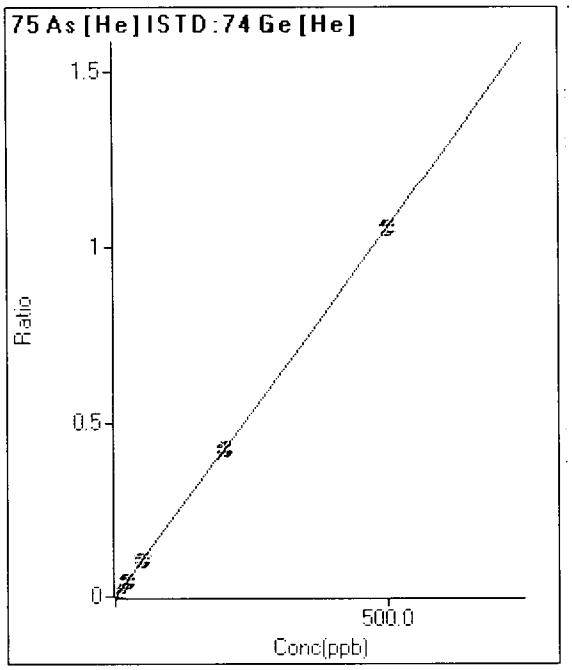


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40	0.000	P	21.5
2	☐	0.180	0.157	156	0.001	P	10.9
3	☐	0.900	0.918	719	0.003	P	7.6
4	☐	1.800	1.833	1,388	0.007	P	4.5
5	☐	3.600	3.693	2,757	0.013	P	3.1
6	☐	20.000	20.433	14,844	0.072	P	0.4
7	☐	50.000	50.926	35,641	0.180	P	0.8
8	☐	200.000	203.411	132,642	0.720	P	0.7
9	☐	500.000	499.730	311,970	1.768	P	0.8
10	☐	2500.000	2499.759	1,466,803	8.843	A	0.5

y = 0.0035 * x + 1.9504E-004
R = 1.0000
DL = 0.03549
BEC = 0.05514

Weight: <None>
Min Conc: <None>

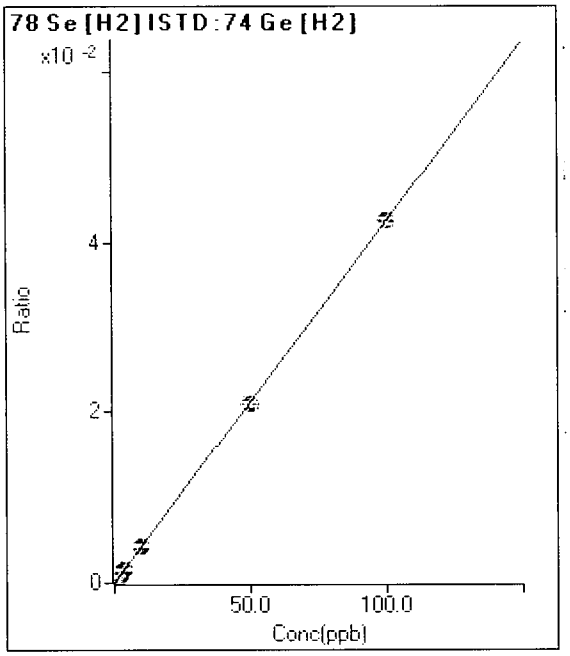
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30	0.000	P	33.0
2	☐	0.180	0.201	118	0.001	P	3.0
3	☐	0.900	0.989	466	0.002	P	4.0
4	☐	1.800	1.949	885	0.004	P	4.2
5	☐	3.600	3.579	1,602	0.008	P	2.8
6	☐	20.000	20.844	9,045	0.044	P	0.9
7	☐	50.000	51.184	21,388	0.108	P	0.4
8	☐	200.000	201.549	78,458	0.426	P	0.8
9	☐	500.000	499.228	186,042	1.054	P	0.8
10	☐			71	0.000	P	14.9

y = 0.0021 * x + 1.4472E-004
R = 1.0000
DL = 0.06792
BEC = 0.06854

Weight: <None>
Min Conc: <None>

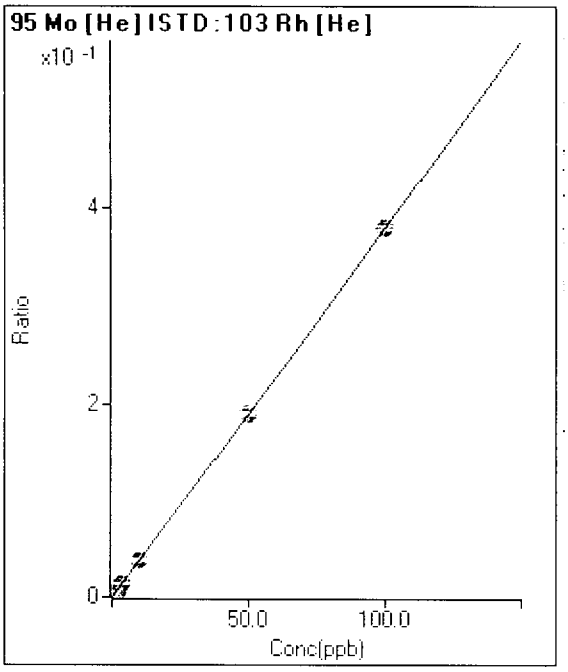


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2	0.000	P	173.2
2	☐	0.180	0.221	70	0.000	P	10.6
3	☐	0.900	0.947	293	0.000	P	5.0
4	☐	1.800	1.881	580	0.001	P	4.8
5	☐	3.600	3.583	1,101	0.002	P	4.6
6	☐	10.000	10.326	3,152	0.004	P	1.4
7	☐	50.000	49.403	14,679	0.021	P	1.3
8	☐	100.000	100.264	28,203	0.043	P	1.3
9	☐			33	0.000	P	29.3
10	☐			36	0.000	P	16.5

y = 4.2512E-004 * x + 2.7815E-006
R = 1.0000
DL = 0.034
BEC = 0.006543

Weight: <None>
Min Conc: <None>

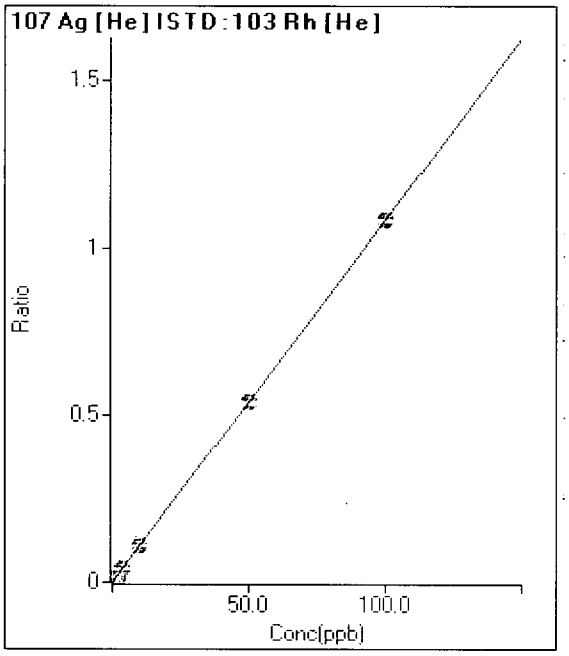
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11	0.000	P	91.8
2	☐	0.180	0.192	352	0.001	P	23.5
3	☐	0.900	0.911	1,633	0.003	P	3.7
4	☐	1.800	1.748	3,107	0.007	P	1.9
5	☐	3.600	3.593	6,322	0.014	P	4.2
6	☐	10.000	10.264	17,765	0.039	P	1.7
7	☐	50.000	49.901	83,002	0.189	P	1.0
8	☐	100.000	100.024	155,949	0.380	P	1.0
9	☐			144	0.000	P	14.8
10	☐			160	0.000	P	28.5

y = 0.0038 * x + 2.3858E-005
R = 1.0000
DL = 0.01731
BEC = 0.006286

Weight: <None>
Min Conc: <None>

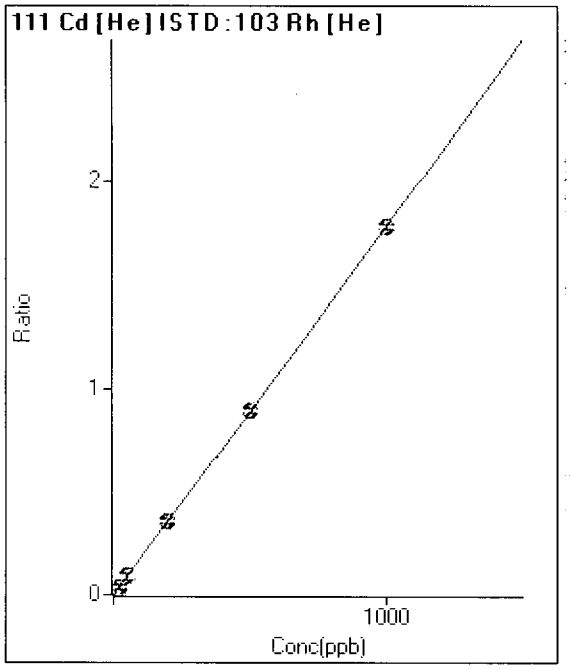


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7	0.000	P	86.6
2	☐	0.180	0.181	924	0.002	P	7.7
3	☐	0.900	0.884	4,498	0.010	P	5.4
4	☐	1.800	1.779	9,004	0.019	P	6.0
5	☐	3.600	3.610	18,118	0.039	P	2.0
6	☐	10.000	10.193	50,353	0.110	P	2.3
7	☐	50.000	49.721	236,150	0.539	P	0.6
8	☐	100.000	100.121	445,717	1.085	P	0.5
9	☐			128	0.000	P	22.6
10	☐			102	0.000	P	33.0

y = 0.0108 * x + 1.4288E-005
R = 1.0000
DL = 0.003425
BEC = 0.001318

Weight: <None>
Min Conc: <None>

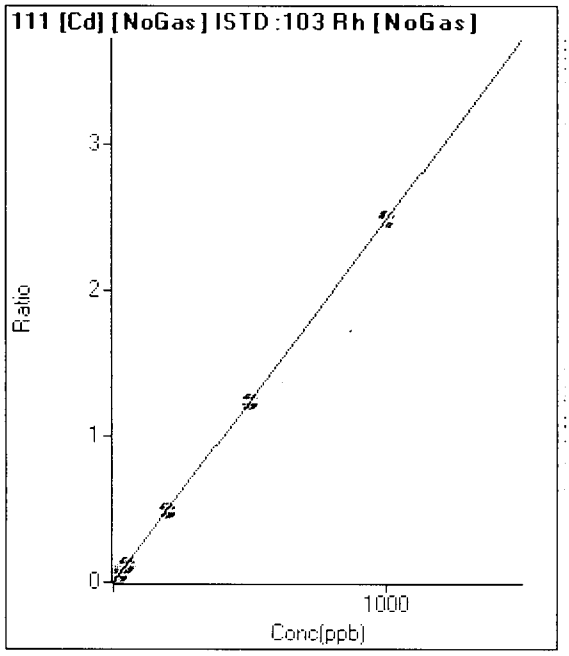
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8	0.000	P	49.3
2	☐	0.180	0.187	164	0.000	P	3.9
3	☐	0.900	0.857	725	0.002	P	0.3
4	☐	1.800	1.835	1,537	0.003	P	2.1
5	☐	3.600	3.571	2,959	0.006	P	2.3
6	☐	20.000	20.122	16,385	0.036	P	0.3
7	☐	50.000	50.297	39,368	0.090	P	0.5
8	☐	200.000	200.296	146,926	0.358	P	0.8
9	☐	500.000	503.650	348,364	0.899	P	0.4
10	☐	1000.000	998.099	633,842	1.782	P	0.1

y = 0.0018 * x + 1.6425E-005
R = 1.0000
DL = 0.01361
BEC = 0.009198

Weight: <None>
Min Conc: <None>

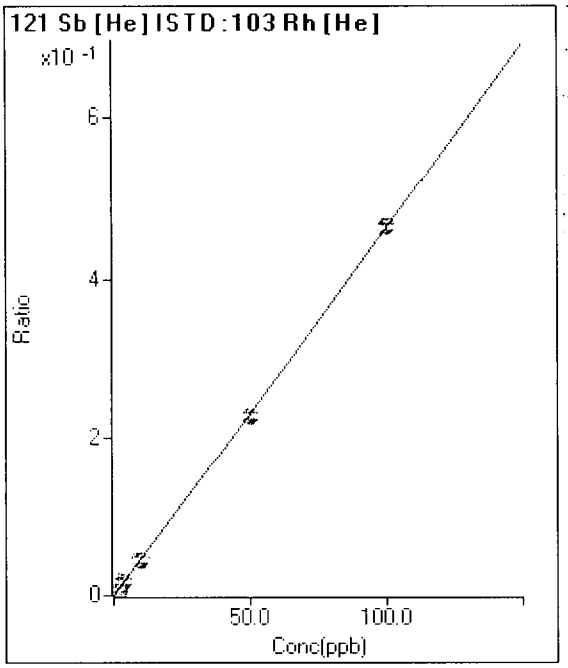


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	21	0.000	P	27.1
2	☐	0.180	0.175	380	0.000	P	21.3
3	☐	0.900	0.852	1,773	0.002	P	5.9
4	☐	1.800	1.739	3,577	0.004	P	5.9
5	☐	3.600	3.576	7,271	0.009	P	1.7
6	☐	20.000	19.621	39,435	0.049	P	0.7
7	☐	50.000	48.700	92,541	0.121	P	0.4
8	☐	200.000	196.624	343,882	0.487	P	0.4
9	☐	500.000	500.469	835,828	1.239	P	0.7
10	☐	1000.000	1000.513	1,522,964	2.477	A	0.7

y = 0.0025 * x + 2.5443E-005
R = 1.0000
DL = 0.008345
BEC = 0.01027

Weight: <None>
Min Conc: <None>

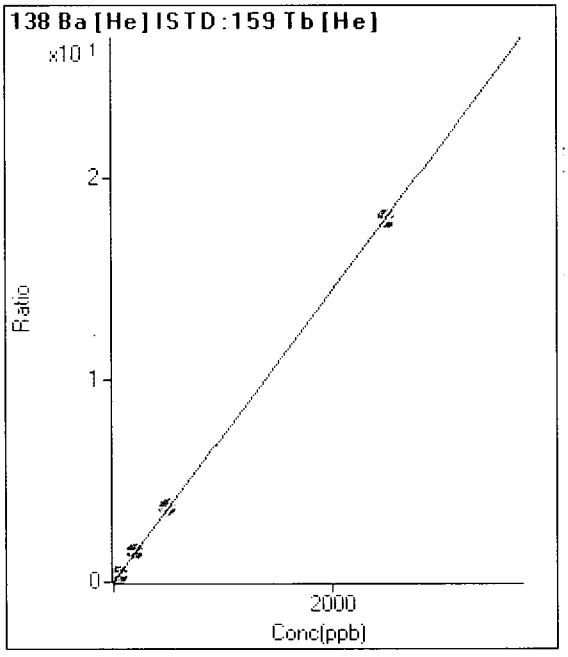
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63	0.000	P	16.2
2	☐	0.180	0.169	430	0.001	P	15.2
3	☐	0.900	0.856	1,920	0.004	P	5.3
4	☐	1.800	1.767	3,876	0.008	P	4.1
5	☐	3.600	3.534	7,626	0.016	P	1.5
6	☐	10.000	9.814	20,748	0.046	P	2.2
7	☐	50.000	49.095	99,539	0.227	P	0.9
8	☐	100.000	100.475	190,881	0.465	P	0.7
9	☐			167	0.000	P	17.6
10	☐			84	0.000	P	34.4

y = 0.0046 * x + 1.3575E-004
R = 0.9999
DL = 0.01426
BEC = 0.02936

Weight: <None>
Min Conc: <None>

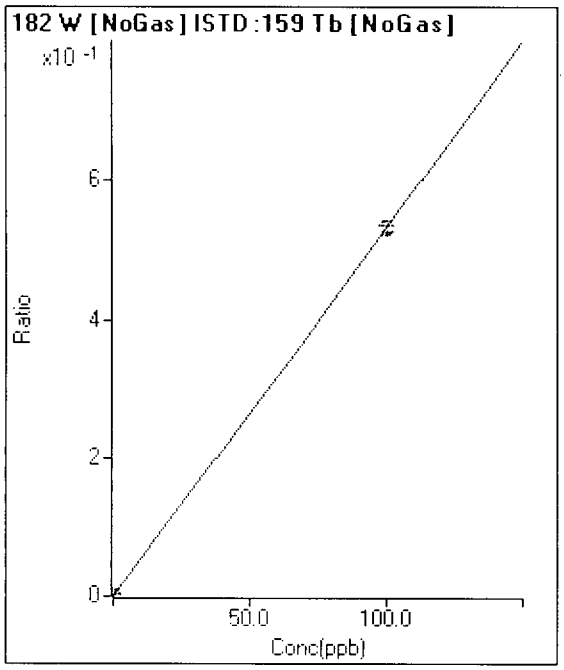


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	119	0.000	P	19.6
2	☐	0.180	0.181	904	0.002	P	5.0
3	☐	0.900	0.969	4,345	0.007	P	1.2
4	☐	1.800	1.959	8,583	0.014	P	1.8
5	☐	3.600	3.852	16,733	0.028	P	3.2
6	☐	20.000	21.839	93,488	0.158	P	1.1
7	☐	50.000	53.238	223,712	0.384	P	0.5
8	☐	200.000	209.750	842,057	1.513	P	0.7
9	☐	500.000	518.441	2,013,123	3.738	A	1.0
10	☐	2500.000	2495.452	9,099,711	17.994	A	0.3

y = 0.0072 * x + 1.9793E-004
R = 1.0000
DL = 0.01615
BEC = 0.02745

Weight: <None>
Min Conc: <None>

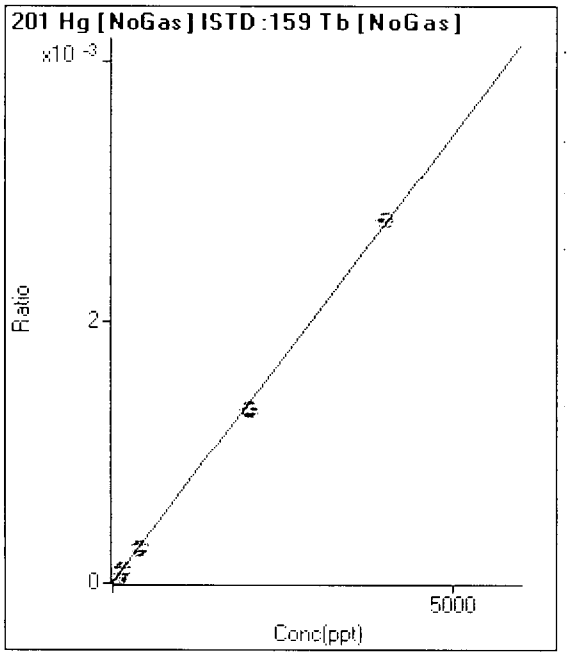
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	28	0.000	P	38.0
2	☐			44	0.000	P	11.5
3	☐			48	0.000	P	4.9
4	☐			47	0.000	P	68.0
5	☐			47	0.000	P	37.8
6	☐			40	0.000	P	31.8
7	☐			129	0.000	P	35.8
8	☐			181	0.000	P	19.7
9	☐	100.000	100.000	655,228	0.532	P	0.6
10	☐			1,735	0.001	P	2.2

y = 0.0053 * x + 1.9673E-005
R = 1.0000
DL = 0.004219
BEC = 0.003699

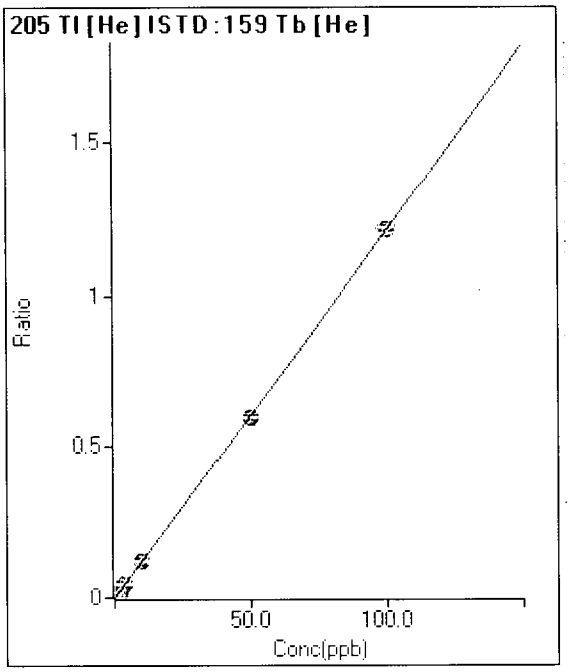
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6	0.000	P	13.0
2	☐			13	0.000	P	17.1
3	☐	36.000	33.080	38	0.000	P	8.9
4	☐	72.000	67.108	72	0.000	P	8.5
5	☐	144.000	137.791	140	0.000	P	7.2
6	☐	400.000	389.145	383	0.000	P	2.1
7	☐	2000.000	1931.963	1,817	0.001	P	3.0
8	☐	4000.000	4035.442	3,494	0.003	P	2.2
9	☐			82	0.000	P	10.3
10	☐			37	0.000	P	15.3

y = 6.8868E-007 * x + 4.2515E-006
R = 0.9998
DL = 2.413
BEC = 6.173

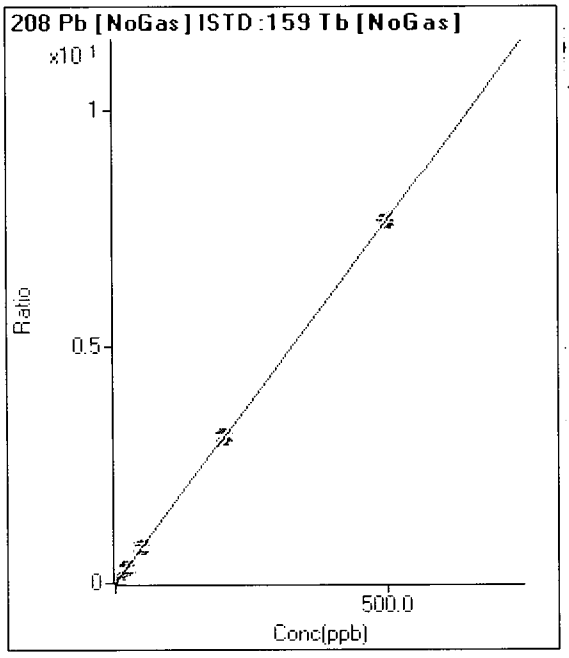
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13	0.000	P	44.3
2	☐	0.180	0.178	1,313	0.002	P	3.3
3	☐	0.900	0.902	6,618	0.011	P	3.7
4	☐	1.800	1.801	13,096	0.022	P	3.0
5	☐	3.600	3.594	26,053	0.044	P	0.5
6	☐	10.000	10.137	72,846	0.123	P	0.3
7	☐	50.000	49.415	348,799	0.599	P	0.2
8	☐	100.000	100.279	676,452	1.215	P	1.2
9	☐			192	0.000	P	26.5
10	☐			46	0.000	P	22.9

y = 0.0121 * x + 2.2274E-005
R = 1.0000
DL = 0.002444
BEC = 0.001838

Weight: <None>
Min Conc: <None>

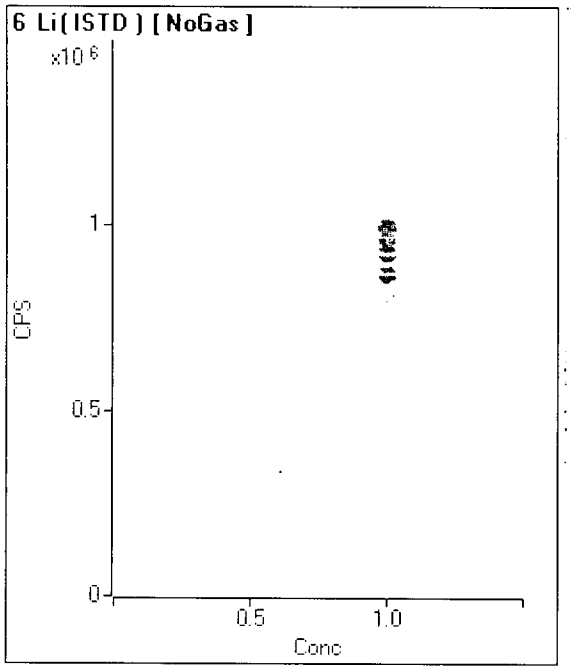


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	758	0.001	P	6.0
2	☐	0.180	0.180	4,646	0.003	P	4.6
3	☐	0.900	0.910	20,318	0.015	P	1.3
4	☐	1.800	1.766	39,544	0.028	P	1.3
5	☐	3.600	3.561	77,774	0.055	P	0.7
6	☐	20.000	19.822	428,915	0.305	P	2.2
7	☐	50.000	49.019	1,025,313	0.753	P	0.7
8	☐	200.000	201.845	3,891,959	3.100	A	0.7
9	☐	500.000	499.368	9,445,601	7.668	A	1.0
10	☐			3,911	0.003	P	3.0

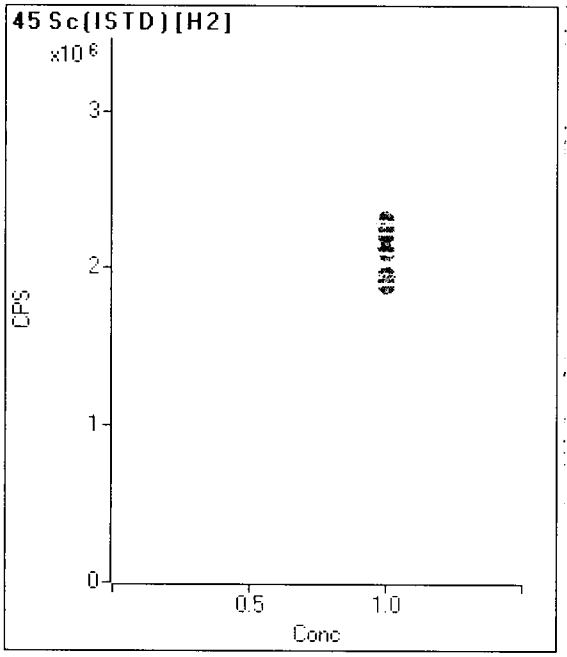
y = 0.0154 * x + 5.3793E-004
R = 1.0000
DL = 0.006291
BEC = 0.03503

Weight: <None>
Min Conc: <None>

Calibration for 013_ICV.d

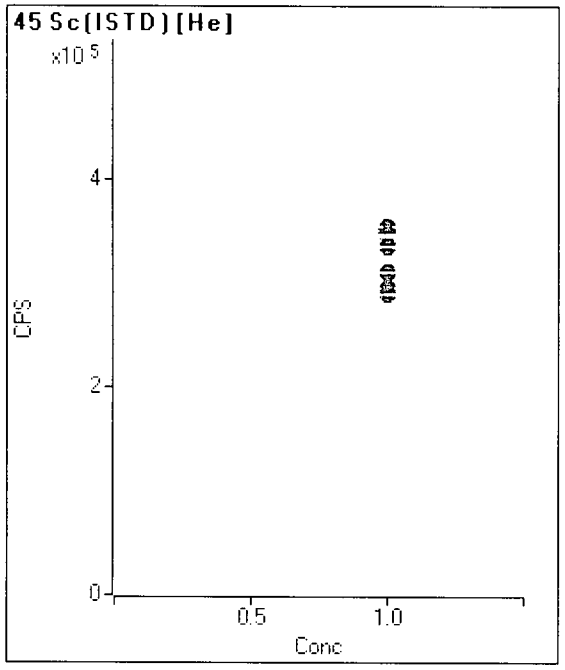


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		975,380		A	1.6
2	☐	1.000		992,255		A	0.9
3	☐	1.000		993,278		A	0.6
4	☐	1.000		974,530		A	1.2
5	☐	1.000		982,176		A	0.8
6	☐	1.000		960,475		A	2.2
7	☐	1.000		924,373		A	0.1
8	☐	1.000		870,870		A	0.3
9	☐	1.000		813,919		P	0.2
10	☐	1.000		817,567		M	1.1

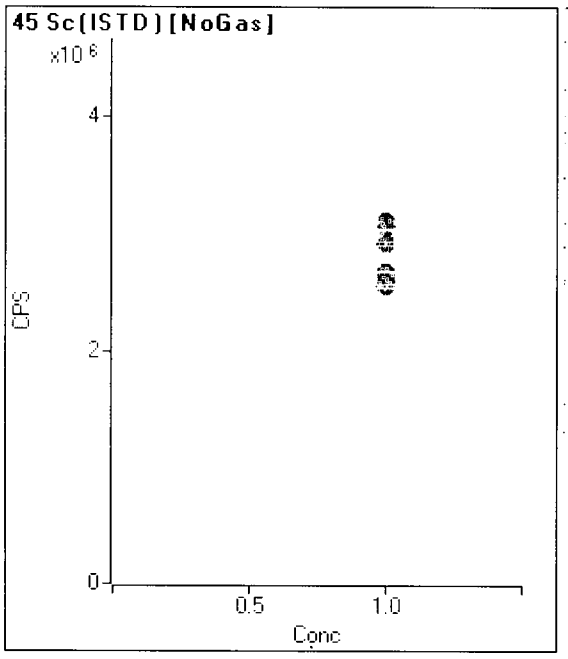


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2,277,281		A	1.0
2	☐	1.000		2,275,915		A	0.6
3	☐	1.000		2,293,568		A	0.2
4	☐	1.000		2,278,691		A	1.1
5	☐	1.000		2,305,677		A	0.4
6	☐	1.000		2,286,427		A	1.1
7	☐	1.000		2,214,928		A	0.7
8	☐	1.000		2,096,878		A	0.8
9	☐	1.000		1,954,437		A	1.1
10	☐	1.000		1,897,017		A	0.6

Calibration for 013_ICV.d

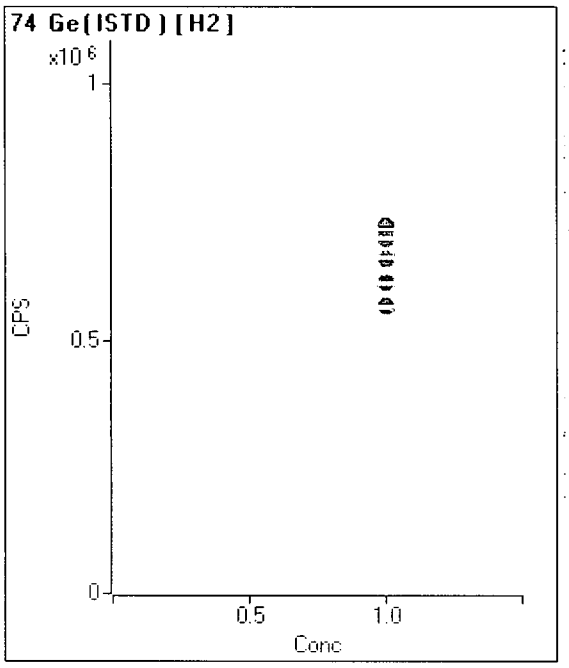


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		348,791		P	1.3
2	☐	1.000		353,540		P	0.6
3	☐	1.000		352,074		P	1.0
4	☐	1.000		352,430		P	0.9
5	☐	1.000		351,907		P	1.3
6	☐	1.000		346,301		P	0.5
7	☐	1.000		335,585		P	0.1
8	☐	1.000		310,973		P	0.4
9	☐	1.000		295,975		P	0.1
10	☐	1.000		290,220		P	0.5

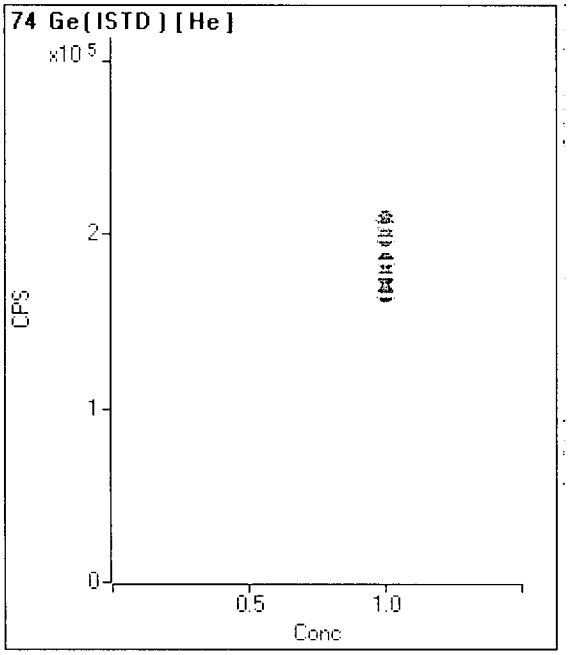


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3,065,554		A	0.6
2	☐	1.000		3,087,536		A	0.9
3	☐	1.000		3,077,189		A	2.0
4	☐	1.000		3,073,166		A	0.6
5	☐	1.000		3,106,368		A	0.2
6	☐	1.000		3,043,775		A	0.5
7	☐	1.000		2,916,250		A	0.9
8	☐	1.000		2,675,094		A	0.9
9	☐	1.000		2,588,372		A	0.3
10	☐	1.000		2,551,512		A	1.3

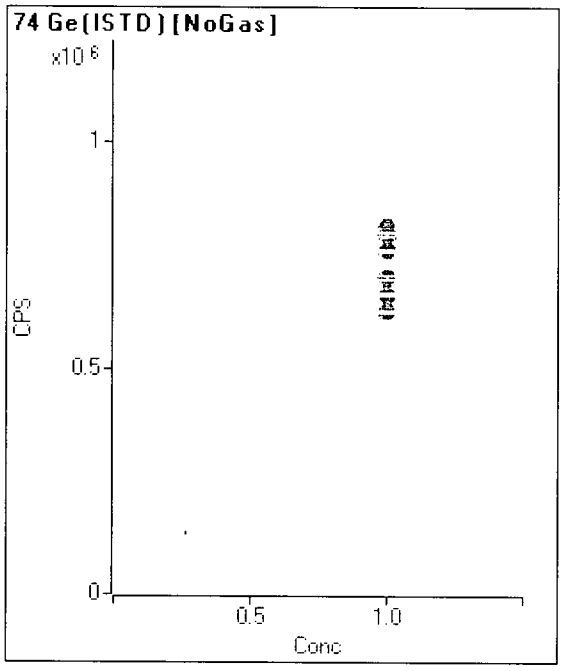
Calibration for 013_ICV.d



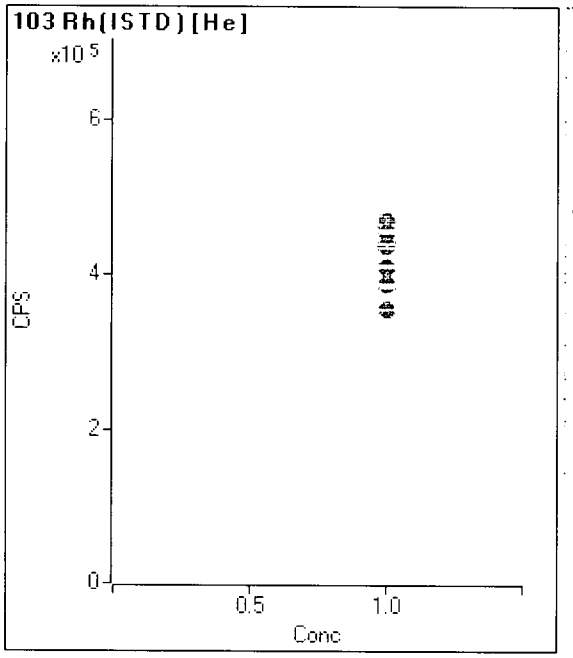
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		718,037		P	0.1
2	☐	1.000		723,924		P	0.5
3	☐	1.000		723,420		P	0.6
4	☐	1.000		723,010		P	0.5
5	☐	1.000		721,863		P	0.7
6	☐	1.000		717,552		P	0.4
7	☐	1.000		698,880		P	0.6
8	☐	1.000		661,613		P	0.3
9	☐	1.000		613,281		P	0.5
10	☐	1.000		566,952		P	0.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		204,920		P	0.7
2	☐	1.000		207,630		P	0.7
3	☐	1.000		208,797		P	0.6
4	☐	1.000		207,831		P	0.9
5	☐	1.000		207,922		P	1.0
6	☐	1.000		204,826		P	0.5
7	☐	1.000		197,629		P	1.0
8	☐	1.000		184,298		P	0.3
9	☐	1.000		176,465		P	0.2
10	☐	1.000		165,876		P	0.8

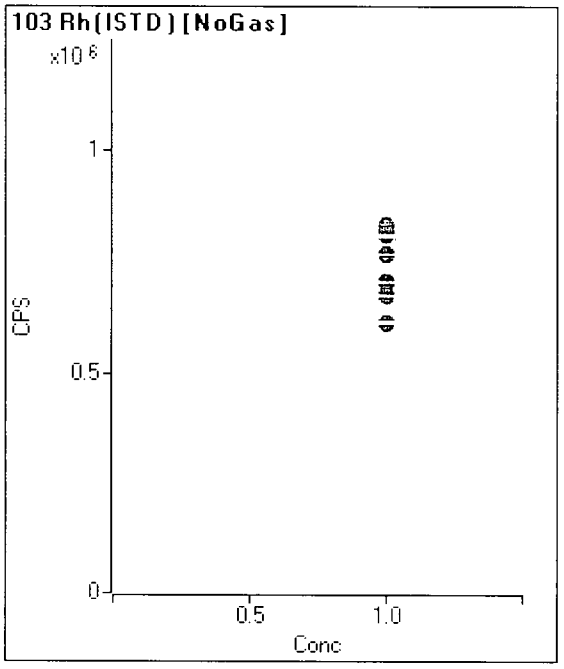


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		806,775		P	0.8
2	☐	1.000		810,726		P	0.7
3	☐	1.000		813,013		P	1.1
4	☐	1.000		812,915		P	1.1
5	☐	1.000		808,452		P	0.6
6	☐	1.000		798,835		P	1.1
7	☐	1.000		761,126		P	0.7
8	☐	1.000		703,151		P	0.9
9	☐	1.000		665,594		P	1.0
10	☐	1.000		627,888		P	0.6

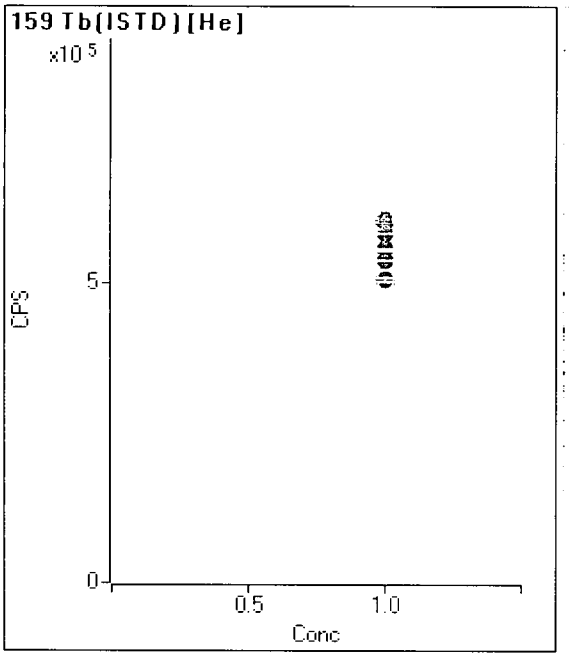


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		466,758		P	0.4
2	☐	1.000		468,420		P	0.2
3	☐	1.000		469,037		P	0.8
4	☐	1.000		466,717		P	0.7
5	☐	1.000		462,920		P	0.9
6	☐	1.000		455,803		P	0.8
7	☐	1.000		438,255		P	1.1
8	☐	1.000		410,785		P	0.9
9	☐	1.000		387,341		P	0.7
10	☐	1.000		355,627		P	0.6

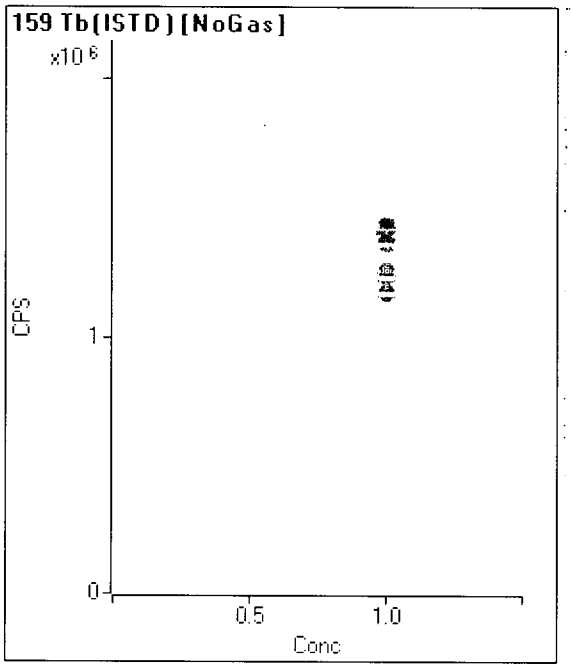
Calibration for 013_ICV.d



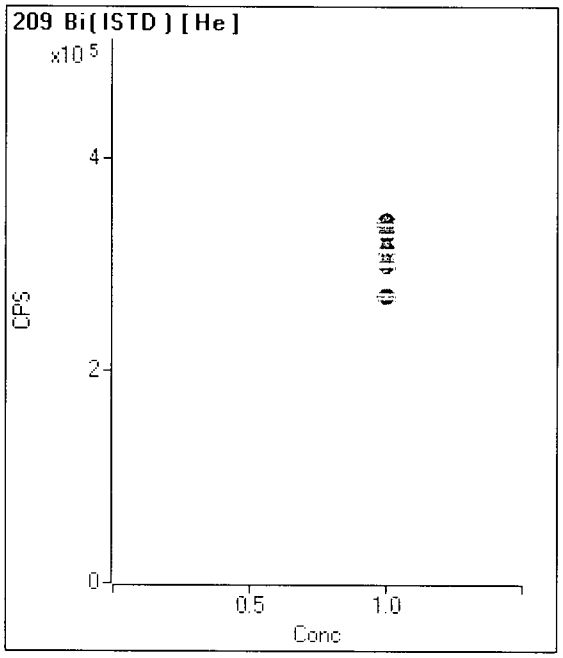
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		832,260		P	0.5
2		1.000		827,553		P	0.9
3		1.000		830,411		P	0.4
4		1.000		825,866		P	0.5
5		1.000		818,888		P	0.7
6		1.000		811,251		P	0.5
7		1.000		767,237		P	0.3
8		1.000		706,263		P	0.2
9		1.000		674,439		P	0.5
10		1.000		614,700		P	0.7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		600,194		P	0.9
2		1.000		602,883		P	0.3
3		1.000		604,690		P	1.2
4		1.000		599,357		P	0.8
5		1.000		597,996		P	1.1
6		1.000		592,934		P	0.4
7		1.000		582,468		P	0.2
8		1.000		556,687		P	0.5
9		1.000		538,469		P	0.5
10		1.000		505,720		P	1.0

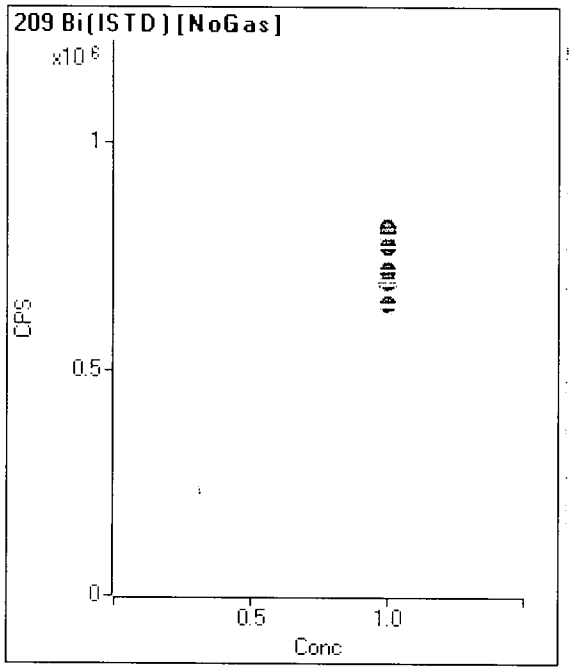


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		1,409,745		A	1.8
2		1.000		1,409,937		A	0.4
3		1.000		1,399,598		A	1.1
4		1.000		1,429,591		A	0.8
5		1.000		1,408,536		A	0.1
6		1.000		1,407,136		A	1.9
7		1.000		1,361,289		A	0.8
8		1.000		1,255,555		P	0.7
9		1.000		1,231,847		P	1.0
10		1.000		1,173,915		P	0.7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		341,192		P	0.6
2		1.000		338,617		P	0.5
3		1.000		341,194		P	1.3
4		1.000		339,733		P	1.1
5		1.000		337,145		P	0.7
6		1.000		335,752		P	1.0
7		1.000		328,550		P	0.4
8		1.000		314,107		P	0.8
9		1.000		300,983		P	0.6
10		1.000		271,184		P	0.9

Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		809,398		P	0.6
2	☐	1.000		807,476		P	0.7
3	☐	1.000		813,902		P	0.4
4	☐	1.000		806,364		P	0.5
5	☐	1.000		798,961		P	0.9
6	☐	1.000		796,487		P	0.7
7	☐	1.000		771,568		P	0.2
8	☐	1.000		720,656		P	0.5
9	☐	1.000		694,873		P	0.8
10	☐	1.000		646,312		P	0.5

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-ICV1**	Total Dilution:	1.0000
File Name:	013_ICV.d	Sample Type:	ICV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 11:59:50
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.732	ppb	1.6	83,231	40	99.33	
Na	23	45	He	4070.718	ppb	1.2	4,092,648	4000	101.77	
Mg	24	45	He	4319.535	ppb	0.8	2,405,345	4000	107.99	
Al	27	45	He	4153.137	ppb	0.1	1,209,448	4000	103.83	
K	39	45	He	4222.063	ppb	1.2	2,016,136	4000	105.55	
Ca	44	45	H2	4032.368	ppb	1.3	819,495	4000	100.81	
[Ca]	44	45	He	4180.251	ppb	0.7	99,402	4000	104.51	
Ti	47	45	NoGas	99.696	ppb	0.5	92,820	100	99.7	
V	51	74	He	98.327	ppb	0.8	333,981	100	98.33	
Cr	52	74	He	99.512	ppb	0.6	394,682	100	99.51	
Mn	55	74	He	104.354	ppb	0.7	277,076	100	104.35	
Fe	56	74	H2	4154.027	ppb	0.8	43,830,188	4000	103.85	
Co	59	74	He	102.810	ppb	0.6	557,596	100	102.81	
Ni	60	74	He	108.371	ppb	1.4	142,678	100	108.37	
Cu	65	74	He	105.158	ppb	0.8	173,385	100	105.16	
Zn	66	74	He	100.711	ppb	1.2	64,833	100	100.71	
As	75	74	He	99.943	ppb	1.0	38,411	100	99.94	
Se	78	74	H2	40.173	ppb	0.7	11,055	40	100.43	
Mo	95	103	He	40.252	ppb	1.9	61,843	40	100.63	
Ag	107	103	He	40.894	ppb	1.1	179,401	40	102.23	
Cd	111	103	He	98.723	ppb	1.6	71,364	100	98.72	
[Cd]	111	103	NoGas	97.839	ppb	0.9	167,795	100	97.84	
Sb	121	103	He	40.801	ppb	0.7	76,418	40	102	
Ba	138	159	He	105.397	ppb	0.5	420,839	100	105.4	
Hg	201	159	NoGas	829.016	ppt	2.5	720	800	103.63	
Tl	205	159	He	40.405	ppb	0.9	271,072	40	101.01	
Pb	208	159	NoGas	101.361	ppb	0.6	1,948,700	100	101.36	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.9	870,378	975380.393333333	89.2	
Sc	45	H2	Analog	1.7	2,092,068	2277280.85	91.9	
Sc	45	He	Pulse	0.4	308,517	348790.796666667	88.5	
Sc	45	NoGas	Analog	0.8	2,682,865	3065554.46333333	87.5	
Ge	74	H2	Pulse	0.2	647,181	718037.156666667	90.1	
Ge	74	He	Pulse	0.4	181,895	204919.68	88.8	
Ge	74	NoGas	Pulse	0.7	688,741	806774.886666667	85.4	
Rh	103	He	Pulse	0.7	404,801	466758.146666667	86.7	
Rh	103	NoGas	Pulse	0.6	692,548	832259.633333333	83.2	
Tb	159	He	Pulse	0.1	553,611	600193.66	92.2	
Tb	159	NoGas	Pulse	0.5	1,251,645	1409745.36	88.8	
Bi	209	He	Pulse	0.4	310,497	341192.286666667	91.0	
Bi	209	NoGas	Pulse	0.8	729,635	809398.153333333	90.1	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K01022-ICB1**	Total Dilution:	1.0000
File Name:	014_ICB.d	Sample Type:	ICB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 12:04:27
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.013	ppb	18.9	42	
Na	23	45	He	2.284	ppb	6.5	6,024	
Mg	24	45	He	1.472	ppb	22.0	1,202	
Al	27	45	He	1.286	ppb	9.6	468	
K	39	45	He	2.367	ppb	20.9	25,340	
Ca	44	45	H2	2.358	ppb	15.9	872	
[Ca]	44	45	He	0.054	ppb	946.2	211	
Ti	47	45	NoGas	0.054	ppb	12.6	83	
V	51	74	He	-0.097	ppb	N/A	1,300	
Cr	52	74	He	0.047	ppb	50.7	417	
Mn	55	74	He	0.064	ppb	37.0	201	
Fe	56	74	H2	2.151	ppb	5.0	28,272	
Co	59	74	He	0.013	ppb	21.3	87	
Ni	60	74	He	0.037	ppb	32.0	104	
Cu	65	74	He	0.058	ppb	48.8	160	
Zn	66	74	He	0.090	ppb	36.8	94	
As	75	74	He	0.055	ppb	30.1	48	
Se	78	74	H2	0.047	ppb	24.0	15	
Mo	95	103	He	0.033	ppb	31.3	62	
Ag	107	103	He	0.009	ppb	41.1	44	
Cd	111	103	He	0.069	ppb	21.5	58	
[Cd]	111	103	NoGas	0.048	ppb	26.3	103	
Sb	121	103	He	0.188	ppb	29.0	418	
Ba	138	159	He	0.063	ppb	15.3	363	
Hg	201	159	NoGas	4.603	ppt	31.6	9	
Tl	205	159	He	0.004	ppb	42.5	37	
Pb	208	159	NoGas	0.072	ppb	7.4	2,073	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.1	896,487	975380.393333333	91.9	
Sc	45	H2	Analog	0.7	2,056,038	2277280.85	90.3	
Sc	45	He	Pulse	1.3	309,270	348790.796666667	88.7	
Sc	45	NoGas	Analog	0.8	2,724,034	3065554.46333333	88.9	
Ge	74	H2	Pulse	0.2	644,360	718037.156666667	89.7	
Ge	74	He	Pulse	0.7	183,844	204919.68	89.7	
Ge	74	NoGas	Pulse	0.6	705,923	806774.886666667	87.5	
Rh	103	He	Pulse	0.6	416,814	466758.146666667	89.3	
Rh	103	NoGas	Pulse	0.4	715,767	832259.633333333	86.0	
Tb	159	He	Pulse	0.9	557,659	600193.66	92.9	
Tb	159	NoGas	Pulse	0.1	1,257,652	1409745.36	89.2	
Bi	209	He	Pulse	0.9	318,693	341192.286666667	93.4	
Bi	209	NoGas	Pulse	0.2	739,232	809398.153333333	91.3	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRL1**	Total Dilution:	1.0000
File Name:	015CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 12:09:09
Comment:	A19J368 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.176	ppb	7.9	400	97.78		
Na	23	45	He	10.431	ppb	1.9	14,390	115.9		
Mg	24	45	He	10.000	ppb	2.4	6,029	111.11		
Al	27	45	He	9.663	ppb	8.5	2,946	107.37		
K	39	45	He	11.791	ppb	3.9	30,135	131.01	R-11	< MRL
Ca	44	45	H2	9.738	ppb	3.4	2,342	108.2		
[Ca]	44	45	He	10.342	ppb	21.5	461	114.91		
Ti	47	45	NoGas	0.174	ppb	13.2	200	96.67		
V	51	74	He	0.096	ppb	0.9	1,987	53.33	R-11	< MRL
Cr	52	74	He	0.192	ppb	2.6	1,012	106.67		
Mn	55	74	He	0.232	ppb	4.0	661	128.89		
Fe	56	74	H2	9.584	ppb	0.2	107,296	106.49		
Co	59	74	He	0.194	ppb	2.9	1,097	107.78		
Ni	60	74	He	0.185	ppb	18.5	306	102.78		
Cu	65	74	He	0.213	ppb	5.0	424	118.33		
Zn	66	74	He	0.232	ppb	27.1	189	128.89		
As	75	74	He	0.209	ppb	7.0	109	116.11		
Se	78	74	H2	0.236	ppb	3.7	67	131.11	R-11	< MRL
Mo	95	103	He	0.187	ppb	8.6	310	103.89		
Ag	107	103	He	0.167	ppb	8.6	770	92.78		
Cd	111	103	He	0.230	ppb	7.3	181	127.78		
[Cd]	111	103	NoGas	0.215	ppb	18.7	406	119.44		
Sb	121	103	He	0.213	ppb	11.4	472	118.33		
Ba	138	159	He	0.210	ppb	7.8	960	116.67		
Hg	201	159	NoGas	8.204	ppt	48.1	13	113.94		
Tl	205	159	He	0.180	ppb	3.0	1,239	100		
Pb	208	159	NoGas	0.232	ppb	4.7	5,248	128.89		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.9	912,439	975380.393333333	93.5	
Sc	45	H2	Analog	0.5	2,052,850	2277280.85	90.1	
Sc	45	He	Pulse	0.2	312,765	348790.796666667	89.7	
Sc	45	NoGas	Analog	0.5	2,757,126	3065554.46333333	89.9	
Ge	74	H2	Pulse	0.6	650,128	718037.156666667	90.5	
Ge	74	He	Pulse	0.7	186,261	204919.68	90.9	
Ge	74	NoGas	Pulse	0.9	715,606	806774.886666667	88.7	
Rh	103	He	Pulse	0.8	422,087	466758.146666667	90.4	
Rh	103	NoGas	Pulse	0.5	728,926	832259.633333333	87.6	
Tb	159	He	Pulse	0.6	561,329	600193.66	93.5	
Tb	159	NoGas	Pulse	0.3	1,278,689	1409745.36	90.7	
Bi	209	He	Pulse	0.5	318,067	341192.286666667	93.2	
Bi	209	NoGas	Pulse	0.2	746,504	809398.153333333	92.2	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRL2**	Total Dilution:	1.0000
File Name:	016_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 12:13:50
Comment:	A19J369 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.908	ppb	4.4	2,047	100.89	
Na	23	45	He	46.602	ppb	1.6	51,838	103.56	
Mg	24	45	He	46.849	ppb	1.8	27,148	104.11	
Al	27	45	He	45.288	ppb	0.9	13,625	100.64	
K	39	45	He	47.731	ppb	1.3	47,895	106.07	
Ca	44	45	H2	46.026	ppb	3.8	9,730	102.28	
[Ca]	44	45	He	44.915	ppb	7.9	1,308	99.81	
Ti	47	45	NoGas	1.027	ppb	2.9	1,016	114.11	
V	51	74	He	0.869	ppb	1.6	4,693	96.56	
Cr	52	74	He	0.879	ppb	3.0	3,826	97.67	
Mn	55	74	He	0.921	ppb	6.3	2,552	102.33	
Fe	56	74	H2	45.369	ppb	0.7	491,354	100.82	
Co	59	74	He	0.936	ppb	2.7	5,250	104	
Ni	60	74	He	0.973	ppb	9.7	1,376	108.11	
Cu	65	74	He	0.965	ppb	13.6	1,705	107.22	
Zn	66	74	He	0.936	ppb	12.6	658	104	
As	75	74	He	0.952	ppb	10.9	404	105.78	
Se	78	74	H2	0.856	ppb	1.5	241	95.11	
Mo	95	103	He	0.824	ppb	3.9	1,332	91.56	
Ag	107	103	He	0.926	ppb	4.9	4,251	102.89	
Cd	111	103	He	0.923	ppb	4.4	704	102.56	
[Cd]	111	103	NoGas	0.885	ppb	4.0	1,616	98.33	
Sb	121	103	He	0.905	ppb	3.9	1,828	100.56	
Ba	138	159	He	0.956	ppb	3.9	4,002	106.22	
Hg	201	159	NoGas	37.177	ppt	11.0	38	103.27	
Tl	205	159	He	0.917	ppb	1.1	6,280	101.89	
Pb	208	159	NoGas	0.972	ppb	0.5	19,586	108	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.6	930,141	975380.393333333	95.4	
Sc	45	H2	Analog	1.7	2,085,850	2277280.85	91.6	
Sc	45	He	Pulse	1.1	316,550	348790.796666667	90.8	
Sc	45	NoGas	Analog	1.0	2,760,254	3065554.46333333	90.0	
Ge	74	H2	Pulse	0.1	656,556	718037.156666667	91.4	
Ge	74	He	Pulse	0.8	187,501	204919.68	91.5	
Ge	74	NoGas	Pulse	0.9	719,478	806774.886666667	89.2	
Rh	103	He	Pulse	0.4	422,941	466758.146666667	90.6	
Rh	103	NoGas	Pulse	0.5	729,413	832259.633333333	87.6	
Tb	159	He	Pulse	1.2	564,068	600193.66	94.0	
Tb	159	NoGas	Pulse	0.2	1,267,165	1409745.36	89.9	
Bi	209	He	Pulse	1.0	320,395	341192.286666667	93.9	
Bi	209	NoGas	Pulse	0.0	749,982	809398.153333333	92.7	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRL3**	Total Dilution:	1.0000
File Name:	017CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 12:19:17
Comment:	A19J370 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.756	ppb	2.6	3,878	97.56	
Na	23	45	He	91.118	ppb	1.1	98,407	101.24	
Mg	24	45	He	92.893	ppb	0.7	53,830	103.21	
Al	27	45	He	91.538	ppb	1.2	27,637	101.71	
K	39	45	He	95.510	ppb	0.7	71,529	106.12	
Ca	44	45	H2	91.820	ppb	4.4	19,093	102.02	
[Ca]	44	45	He	90.419	ppb	6.4	2,434	100.47	
Ti	47	45	NoGas	1.987	ppb	4.3	1,968	110.39	
V	51	74	He	1.803	ppb	0.8	8,036	100.17	
Cr	52	74	He	1.777	ppb	2.4	7,578	98.72	
Mn	55	74	He	1.928	ppb	3.3	5,366	107.11	
Fe	56	74	H2	90.433	ppb	0.5	980,055	100.48	
Co	59	74	He	1.866	ppb	1.3	10,566	103.67	
Ni	60	74	He	1.947	ppb	1.5	2,727	108.17	
Cu	65	74	He	2.016	ppb	3.7	3,528	112	
Zn	66	74	He	2.076	ppb	1.1	1,429	115.33	
As	75	74	He	1.810	ppb	1.7	752	100.56	
Se	78	74	H2	1.872	ppb	6.8	528	104	
Mo	95	103	He	1.768	ppb	1.5	2,873	98.22	
Ag	107	103	He	1.824	ppb	1.6	8,441	101.33	
Cd	111	103	He	1.795	ppb	2.2	1,375	99.72	
[Cd]	111	103	NoGas	1.800	ppb	5.4	3,321	100	
Sb	121	103	He	1.759	ppb	1.3	3,527	97.72	
Ba	138	159	He	1.926	ppb	4.0	7,967	107	
Hg	201	159	NoGas	73.321	ppt	10.7	72	101.83	
Tl	205	159	He	1.825	ppb	2.4	12,520	101.39	
Pb	208	159	NoGas	1.850	ppb	1.9	38,139	102.78	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.8	914,509	975380.393333333	93.8	
Sc	45	H2	Analog	2.5	2,096,721	2277280.85	92.1	
Sc	45	He	Pulse	0.7	318,782	348790.796666667	91.4	
Sc	45	NoGas	Analog	0.7	2,806,354	3065554.46333333	91.5	
Ge	74	H2	Pulse	0.7	660,889	718037.156666667	92.0	
Ge	74	He	Pulse	0.8	189,580	204919.68	92.5	
Ge	74	NoGas	Pulse	1.1	729,615	806774.886666667	90.4	
Rh	103	He	Pulse	0.6	426,592	466758.146666667	91.4	
Rh	103	NoGas	Pulse	0.2	740,828	832259.633333333	89.0	
Tb	159	He	Pulse	0.1	565,434	600193.66	94.2	
Tb	159	NoGas	Mix	2.3	1,317,866	1409745.36	93.5	
Bi	209	He	Pulse	0.1	320,669	341192.286666667	94.0	
Bi	209	NoGas	Pulse	0.4	760,287	809398.153333333	93.9	

Quantitation Report ICPMS5

File Name	020ICSA.d		
File Path	C:\Agilent\ICPMH\1\DATA\9K01022.b		
Acq Time	11/1/2019 12:33:22	Sample Type	
Sample Name	**9K01022-IFA1**		ICSA
Comment	**A19J465**	Last Calib	11/01/2019 15:02:45
Prep Dilution	1.0000	Vial:	1111
Total Dilution	**1.0000**	Operator Name	ICPMS Analyst

FullQuant Table

Element	Mass	ISTD	Tune Mode	Raw Conc	Corrected Conc.	Units	RSD(%)	ExpectedValue	QC Flag
Be	9	6	NoGas	0.006	0.006	ppb	127.6		
Na	23	45	He	272458.628	272458.628	ppb	7.5		
Mg	24	45	He	109510.125	109510.125	ppb	7.8	100000	
Al	27	45	He	107692.118	107692.118	ppb	7.5	100000	
K	39	45	He	105280.206	105280.206	ppb	9.7	100000	
Ca	44	45	H2	285403.123	285403.123	ppb	0.5		
[Ca]	44	45	He	321040.735	321040.735	ppb	8.2		
Ti	47	45	NoGas	2090.521	2090.521	ppb	0.7		
V	51	74	He	0.145	0.145	ppb	22.7	2	
Cr	52	74	He	1.899	1.899	ppb	5.0	2	
Mn	55	74	He	2.416	2.416	ppb	7.3	2	> CRI
Fe	56	74	H2	250397.958	250397.958	ppb	0.5		
Co	59	74	He	0.846	0.846	ppb	6.9		
Ni	60	74	He	0.796	0.796	ppb	13.6	2	
Cu	65	74	He	1.281	1.281	ppb	3.4	2	
Zn	66	74	He	2.667	2.667	ppb	12.8	2	> CRI
As	75	74	He	0.271	0.271	ppb	6.9	0.9	
Se	78	74	H2	0.146	0.146	ppb	19.7	0.9	
Mo	95	103	He	2465.62	2465.620	ppb	8.3	2000	> CRI
Ag	107	103	He	0.363	0.363	ppb	10.4		
Cd	111	103	He	6.288	6.288	ppb	9.0		
[Cd]	111	103	NoGas	0.449	0.449	ppb	23.7		
Sb	121	103	He	0.166	0.166	ppb	7.5	0.9	
Ba	138	159	He	1.712	1.712	ppb	5.1	2	
W	182	159	NoGas	101.6	101.600	ppb	0.5		
Hg	201	159	NoGas	89.287	89.287	ppt	14.5		
Tl	205	159	He	0.006	0.006	ppb	19.5	0.9	
Pb	208	159	NoGas	0.851	0.851	ppb	1.3		

ok, Mo exceeds LDR - est. ESS 11/4/19

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	770,143	0.8	975380.393333333	Pulse	79.0	
Sc	45	H2	1,748,961	0.6	2277280.85	Analog	76.8	
Sc	45	He	247,589	7.4	348790.796666667	Pulse	71.0	
Sc	45	NoGas	2,377,401	0.5	3065554.46333333	Analog	77.6	
Ge	74	H2	481,927	0.5	718037.156666667	Pulse	67.1	IS Q-06
Ge	74	He	138,342	7.0	204919.68	Pulse	67.5	IS Q-06
Ge	74	NoGas	558,853	1.0	806774.886666667	Pulse	69.3	IS Q-06
Rh	103	He	280,016	7.1	466758.146666667	Pulse	60.0	IS Q-06
Rh	103	NoGas	521,585	0.6	832259.633333333	Pulse	62.7	IS Q-06
Tb	159	He	421,434	6.4	600193.66	Pulse	70.2	
Tb	159	NoGas	1,054,282	0.4	1409745.36	Pulse	74.8	
Bi	209	He	211,248	6.6	341192.286666667	Pulse	61.9	IS Q-06
Bi	209	NoGas	550,129	0.4	809398.153333333	Pulse	68.0	IS Q-06

Quantitation Report ICPMS5

File Name	021ICSB.d		
File Path	C:\Agilent\ICPMH\1\DATA\9K01022.b		
Acq Time	11/1/2019 12:37:54	Sample Type	
Sample Name	**9K01022-IFB1**	ICSB	
Comment	**A19J466**	Last Calib	11/01/2019 15:02:45
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	0.008	0.008	ppb	48.7		
Na	23	45	He	263163.918	263163.918	ppb	1.0		
Mg	24	45	He	105911.185	105911.185	ppb	1.4	100000	
Al	27	45	He	103164.355	103164.355	ppb	0.7	100000	
K	39	45	He	100156.891	100156.891	ppb	0.4	100000	
Ca	44	45	H2	292101.243	292101.243	ppb	1.1		
[Ca]	44	45	He	305591.672	305591.672	ppb	0.8		
Ti	47	45	NoGas	2118.772	2118.772	ppb	0.6		
V	51	74	He	213.497	213.497	ppb	0.9	200	
Cr	52	74	He	205.325	205.325	ppb	0.8	200	
Mn	55	74	He	213.68	213.680	ppb	0.2	200	
Fe	56	74	H2	258983.099	258983.099	ppb	0.2		
Co	59	74	He	199.145	199.145	ppb	0.3		
Ni	60	74	He	199.06	199.060	ppb	0.5	200	
Cu	65	74	He	194.038	194.038	ppb	0.3	200	
Zn	66	74	He	96.858	96.858	ppb	0.4	100	
As	75	74	He	102.187	102.187	ppb	0.9	100	
Se	78	74	H2	104.045	104.045	ppb	0.5	100	
Mo	95	103	He	2324.098	2324.098	ppb	0.9	2000	
Ag	107	103	He	52.32	52.320	ppb	0.9	50	
Cd	111	103	He	107.059	107.059	ppb	0.8		
[Cd]	111	103	NoGas	103.13	103.130	ppb	0.5		
Sb	121	103	He	0.158	0.158	ppb	9.7	0.9	
Ba	138	159	He	1.685	1.685	ppb	2.9	2	> +/- 10%
W	182	159	NoGas	101.648	101.648	ppb	0.4		
Hg	201	159	NoGas	2109.368	2109.368	ppt	3.6		
Tl	205	159	He	0.003	0.003	ppb	44.9	0.9	
Pb	208	159	NoGas	0.807	0.807	ppb	0.8		

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	756,756	0.2	975380.393333333	Pulse	77.6	
Sc	45	H2	1,737,216	1.0	2277280.85	Analog	76.3	
Sc	45	He	254,989	1.3	348790.796666667	Pulse	73.1	
Sc	45	NoGas	2,330,017	0.7	3065554.46333333	Analog	76.0	
Ge	74	H2	478,705	0.8	718037.156666667	Pulse	66.7	IS Q-06
Ge	74	He	141,606	0.9	204919.68	Pulse	69.1	IS Q-06
Ge	74	NoGas	544,900	0.8	806774.886666667	Pulse	67.5	IS Q-06
Rh	103	He	288,551	0.6	466758.146666667	Pulse	61.8	IS Q-06
Rh	103	NoGas	510,839	0.5	832259.633333333	Pulse	61.4	IS Q-06
Tb	159	He	429,798	0.8	600193.66	Pulse	71.6	
Tb	159	NoGas	1,037,748	0.2	1409745.36	Pulse	73.6	
Bi	209	He	216,963	0.1	341192.286666667	Pulse	63.6	IS Q-06
Bi	209	NoGas	538,540	0.4	809398.153333333	Pulse	66.5	IS Q-06

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-CCV1**	Total Dilution:	1.0000
File Name:	033_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 13:33:59
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.458	ppb	3.0	80,679	40	101.14	
Na	23	45	He	4148.638	ppb	0.6	3,858,814	4000	103.72	
Mg	24	45	He	4458.764	ppb	1.8	2,297,047	4000	111.47	+/- 10%
Al	27	45	He	4059.951	ppb	2.0	1,093,887	4000	101.5	
K	39	45	He	4302.014	ppb	1.7	1,900,215	4000	107.55	
Ca	44	45	H2	4030.377	ppb	0.8	735,039	4000	100.76	
[Ca]	44	45	He	4245.136	ppb	0.8	93,388	4000	106.13	
Ti	47	45	NoGas	99.607	ppb	1.6	87,526	100	99.61	
V	51	74	He	97.447	ppb	0.9	309,908	100	97.45	
Cr	52	74	He	98.786	ppb	0.7	366,830	100	98.79	
Mn	55	74	He	104.203	ppb	0.5	259,040	100	104.2	
Fe	56	74	H2	4202.432	ppb	0.7	39,925,891	4000	105.06	
Co	59	74	He	102.677	ppb	0.4	521,393	100	102.68	
Ni	60	74	He	107.425	ppb	0.7	132,425	100	107.42	
Cu	65	74	He	104.410	ppb	0.4	161,181	100	104.41	
Zn	66	74	He	101.985	ppb	1.5	61,464	100	101.98	
As	75	74	He	99.569	ppb	0.7	35,828	100	99.57	
Se	78	74	H2	40.456	ppb	2.1	10,024	40	101.14	
Mo	95	103	He	40.693	ppb	1.5	58,637	40	101.73	
Ag	107	103	He	41.123	ppb	1.1	169,188	40	102.81	
Cd	111	103	He	100.045	ppb	0.3	67,826	100	100.04	
[Cd]	111	103	NoGas	100.255	ppb	1.0	160,901	100	100.26	
Sb	121	103	He	41.628	ppb	0.2	73,119	40	104.07	
Ba	138	159	He	105.004	ppb	0.3	401,810	100	105	
Hg	201	159	NoGas	827.989	ppt	2.2	679	800	103.5	
Tl	205	159	He	40.779	ppb	0.4	262,188	40	101.95	
Pb	208	159	NoGas	103.823	ppb	0.3	1,884,918	100	103.82	

Na Q-41
ESS 11/4/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Mix	2.4	828,859	975380.393333333	85.0	
Sc	45	H2	Analog	1.0	1,877,212	2277280.85	82.4	
Sc	45	He	Pulse	0.5	285,424	348790.796666667	81.8	
Sc	45	NoGas	Analog	1.6	2,532,587	3065554.46333333	82.6	
Ge	74	H2	Pulse	0.5	582,752	718037.156666667	81.2	
Ge	74	He	Pulse	1.0	170,304	204919.68	83.1	
Ge	74	NoGas	Pulse	0.5	647,892	806774.886666667	80.3	
Rh	103	He	Pulse	0.6	379,619	466758.146666667	81.3	
Rh	103	NoGas	Pulse	0.5	648,092	832259.633333333	77.9	
Tb	159	He	Pulse	0.7	530,548	600193.66	88.4	
Tb	159	NoGas	Pulse	0.3	1,181,962	1409745.36	83.8	
Bi	209	He	Pulse	0.6	301,248	341192.286666667	88.3	
Bi	209	NoGas	Pulse	0.2	694,099	809398.153333333	85.8	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-CCV2**	Total Dilution:	1.0000
File Name:	034_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 13:38:36
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.376	ppb	4.2	80,014	40	100.94	
Na	23	45	He	4130.447	ppb	0.6	3,888,930	4000	103.26	
Mg	24	45	He	4388.170	ppb	1.4	2,288,259	4000	109.7	
Al	27	45	He	4009.449	ppb	0.9	1,093,443	4000	100.24	
K	39	45	He	4327.584	ppb	1.4	1,934,680	4000	108.19	
Ca	44	45	H2	4043.905	ppb	1.8	751,713	4000	101.1	
[Ca]	44	45	He	4199.852	ppb	0.9	93,525	4000	105	
Ti	47	45	NoGas	98.913	ppb	2.6	87,694	100	98.91	
V	51	74	He	97.349	ppb	0.4	312,003	100	97.35	
Cr	52	74	He	98.514	ppb	0.3	368,660	100	98.51	
Mn	55	74	He	103.624	ppb	0.4	259,602	100	103.62	
Fe	56	74	H2	4215.362	ppb	0.6	40,905,694	4000	105.38	
Co	59	74	He	102.556	ppb	0.4	524,814	100	102.56	
Ni	60	74	He	106.664	ppb	1.1	132,501	100	106.66	
Cu	65	74	He	104.046	ppb	0.6	161,866	100	104.05	
Zn	66	74	He	100.461	ppb	0.4	61,022	100	100.46	
As	75	74	He	100.264	ppb	0.6	36,359	100	100.26	
Se	78	74	H2	41.044	ppb	1.3	10,388	40	102.61	
Mo	95	103	He	40.297	ppb	1.7	58,503	40	100.74	
Ag	107	103	He	41.061	ppb	0.1	170,222	40	102.65	
Cd	111	103	He	99.778	ppb	0.6	68,159	100	99.78	
[Cd]	111	103	NoGas	98.924	ppb	0.9	158,998	100	98.92	
Sb	121	103	He	41.707	ppb	1.1	73,811	40	104.27	
Ba	138	159	He	104.802	ppb	0.5	401,739	100	104.8	
Hg	201	159	NoGas	808.463	ppt	4.3	667	800	101.06	
Tl	205	159	He	40.686	ppb	0.5	262,049	40	101.72	
Pb	208	159	NoGas	102.718	ppb	1.0	1,875,925	100	102.72	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Mix	2.5	823,883	975380.393333333	84.5	
Sc	45	H2	Analog	0.9	1,913,463	2277280.85	84.0	
Sc	45	He	Pulse	0.7	288,931	348790.796666667	82.8	
Sc	45	NoGas	Analog	1.5	2,555,329	3065554.46333333	83.4	
Ge	74	H2	Pulse	0.3	595,210	718037.156666667	82.9	
Ge	74	He	Pulse	0.5	171,621	204919.68	83.8	
Ge	74	NoGas	Pulse	0.6	651,278	806774.886666667	80.7	
Rh	103	He	Pulse	0.8	382,512	466758.146666667	82.0	
Rh	103	NoGas	Pulse	0.8	649,052	832259.633333333	78.0	
Tb	159	He	Pulse	0.5	531,488	600193.66	88.6	
Tb	159	NoGas	Pulse	0.4	1,188,998	1409745.36	84.3	
Bi	209	He	Pulse	0.6	299,857	341192.286666667	87.9	
Bi	209	NoGas	Pulse	0.7	694,814	809398.153333333	85.8	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K01022-CCB1**	Total Dilution:	1.0000
File Name:	035_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 13:43:15
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.008	ppb	70.0	27	
Na	23	45	He	5.276	ppb	9.0	8,567	
Mg	24	45	He	1.547	ppb	5.1	1,179	
Al	27	45	He	0.987	ppb	17.2	361	
K	39	45	He	1.648	ppb	57.7	23,696	
Ca	44	45	H2	2.397	ppb	9.9	826	
[Ca]	44	45	He	0.595	ppb	332.0	212	
Ti	47	45	NoGas	0.039	ppb	49.8	60	
V	51	74	He	-0.038	ppb	N/A	1,430	
Cr	52	74	He	0.018	ppb	57.1	287	
Mn	55	74	He	0.029	ppb	29.9	103	
Fe	56	74	H2	2.208	ppb	1.8	27,230	
Co	59	74	He	0.019	ppb	11.2	118	
Ni	60	74	He	-0.010	ppb	N/A	40	
Cu	65	74	He	0.033	ppb	41.2	113	
Zn	66	74	He	0.024	ppb	85.2	49	
As	75	74	He	0.050	ppb	46.0	44	
Se	78	74	H2	0.048	ppb	14.0	14	
Mo	95	103	He	0.050	ppb	9.7	84	
Ag	107	103	He	0.010	ppb	12.9	48	
Cd	111	103	He	0.019	ppb	26.7	20	
[Cd]	111	103	NoGas	0.017	ppb	35.8	43	
Sb	121	103	He	0.232	ppb	7.1	477	
Ba	138	159	He	0.029	ppb	27.6	219	
Hg	201	159	NoGas	10.378	ppt	54.0	13	
Tl	205	159	He	0.007	ppb	48.8	60	
Pb	208	159	NoGas	0.053	ppb	15.3	1,512	

ISTD Table:

Name	Mass	Tune Mode	Del.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Mix	11.5	792,951	975380.393333333	81.3	
Sc	45	H2	Analog	2.8	1,926,442	2277280.85	84.6	
Sc	45	He	Pulse	1.3	293,169	348790.796666667	84.1	
Sc	45	NoGas	Analog	9.6	2,399,765	3065554.46333333	78.3	
Ge	74	H2	Pulse	0.4	607,829	718037.156666667	84.7	
Ge	74	He	Pulse	0.8	175,161	204919.68	85.5	
Ge	74	NoGas	Pulse	10.2	622,292	806774.886666667	77.1	
Rh	103	He	Pulse	0.8	394,970	466758.146666667	84.6	
Rh	103	NoGas	Pulse	9.7	632,729	832259.633333333	76.0	
Tb	159	He	Pulse	1.0	537,446	600193.66	89.5	
Tb	159	NoGas	Pulse	9.7	1,125,288	1409745.36	79.8	
Bi	209	He	Pulse	1.5	305,338	341192.286666667	89.5	
Bi	209	NoGas	Pulse	9.6	668,918	809398.153333333	82.6	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-CCV3**	Total Dilution:	1.0000
File Name:	046_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 14:55:11
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.170	ppb	1.2	92,843	40	95.43	
Na	23	45	He	4355.641	ppb	0.6	4,572,673	4000	108.89	
Mg	24	45	He	4541.235	ppb	1.1	2,640,636	4000	113.53	> +/- 10%
Al	27	45	He	4285.784	ppb	0.6	1,303,310	4000	107.14	
K	39	45	He	4338.307	ppb	1.4	2,162,662	4000	108.46	
Ca	44	45	H2	4131.674	ppb	0.5	867,206	4000	103.29	
[Ca]	44	45	He	4192.923	ppb	0.8	104,117	4000	104.82	
Ti	47	45	NoGas	99.125	ppb	0.8	98,696	100	99.12	
V	51	74	He	100.806	ppb	0.3	343,983	100	100.81	
Cr	52	74	He	101.752	ppb	0.5	405,471	100	101.75	
Mn	55	74	He	107.068	ppb	1.0	285,620	100	107.07	
Fe	56	74	H2	4332.226	ppb	0.5	45,847,388	4000	108.31	
Co	59	74	He	104.566	ppb	0.8	569,791	100	104.57	
Ni	60	74	He	107.990	ppb	0.9	142,849	100	107.99	
Cu	65	74	He	104.922	ppb	0.7	173,811	100	104.92	
Zn	66	74	He	102.363	ppb	0.9	66,210	100	102.36	
As	75	74	He	101.378	ppb	1.4	39,147	100	101.38	
Se	78	74	H2	40.146	ppb	0.8	11,081	40	100.36	
Mo	95	103	He	41.129	ppb	1.1	62,806	40	102.82	
Ag	107	103	He	41.168	ppb	0.3	179,490	40	102.92	
Cd	111	103	He	99.218	ppb	0.7	71,281	100	99.22	
[Cd]	111	103	NoGas	97.741	ppb	0.4	168,642	100	97.74	
Sb	121	103	He	41.323	ppb	0.8	76,915	40	103.31	
Ba	138	159	He	106.455	ppb	0.5	417,653	100	106.45	
Hg	201	159	NoGas	788.105	ppt	1.8	678	800	98.51	
Tl	205	159	He	40.115	ppb	0.2	264,435	40	100.29	
Pb	208	159	NoGas	100.638	ppb	0.3	1,915,024	100	100.64	

Mg Q-41
ESS 11/4/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.6	1,010,670	975380.393333333	103.6	
Sc	45	H2	Analog	0.2	2,160,388	2277280.85	94.9	
Sc	45	He	Pulse	0.1	322,173	348790.796666667	92.4	
Sc	45	NoGas	Analog	1.1	2,869,321	3065554.46333333	93.6	
Ge	74	H2	Pulse	0.5	649,133	718037.156666667	90.4	
Ge	74	He	Pulse	0.5	182,753	204919.68	89.2	
Ge	74	NoGas	Pulse	0.9	706,163	806774.886666667	87.5	
Rh	103	He	Pulse	0.6	402,296	466758.146666667	86.2	
Rh	103	NoGas	Pulse	0.3	696,723	832259.633333333	83.7	
Tb	159	He	Pulse	0.0	543,959	600193.66	90.6	
Tb	159	NoGas	Pulse	0.2	1,238,830	1409745.36	87.9	
Bi	209	He	Pulse	0.4	300,774	341192.286666667	88.2	
Bi	209	NoGas	Pulse	0.7	710,052	809398.153333333	87.7	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-CCV4**	Total Dilution:	1.0000
File Name:	047_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 14:59:48
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.399	ppb	2.0	91,267	40	98.5	
Na	23	45	He	4310.157	ppb	0.8	4,405,512	4000	107.75	
Mg	24	45	He	4539.100	ppb	1.6	2,569,664	4000	113.48	+/- 10%
Al	27	45	He	4334.686	ppb	1.2	1,283,367	4000	108.37	
K	39	45	He	4339.795	ppb	1.2	2,106,313	4000	108.49	
Ca	44	45	H2	4042.636	ppb	0.6	829,028	4000	101.07	
[Ca]	44	45	He	4209.482	ppb	1.7	101,766	4000	105.24	
Ti	47	45	NoGas	100.580	ppb	2.0	96,370	100	100.58	
V	51	74	He	100.021	ppb	0.4	336,084	100	100.02	
Cr	52	74	He	100.847	ppb	1.0	395,696	100	100.85	
Mn	55	74	He	106.095	ppb	1.1	278,686	100	106.1	
Fe	56	74	H2	4310.218	ppb	0.4	44,131,842	4000	107.76	
Co	59	74	He	103.130	ppb	0.5	553,361	100	103.13	
Ni	60	74	He	107.296	ppb	0.2	139,759	100	107.3	
Cu	65	74	He	104.358	ppb	0.2	170,233	100	104.36	
Zn	66	74	He	101.031	ppb	0.3	64,346	100	101.03	
As	75	74	He	99.356	ppb	0.2	37,778	100	99.36	
Se	78	74	H2	40.217	ppb	0.6	10,739	40	100.54	
Mo	95	103	He	40.887	ppb	1.3	61,224	40	102.22	
Ag	107	103	He	41.292	ppb	0.8	176,545	40	103.23	
Cd	111	103	He	100.227	ppb	0.8	70,613	100	100.23	
[Cd]	111	103	NoGas	99.739	ppb	1.1	168,463	100	99.74	
Sb	121	103	He	41.703	ppb	0.6	76,125	40	104.26	
Ba	138	159	He	107.085	ppb	0.3	412,562	100	107.08	
Hg	201	159	NoGas	823.488	ppt	1.1	699	800	102.94	
Tl	205	159	He	40.890	ppb	0.9	264,682	40	102.22	
Pb	208	159	NoGas	101.639	ppb	1.0	1,910,346	100	101.64	

Mg Q-41
ESS 11/4/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.0	962,647	975380.393333333	98.7	
Sc	45	H2	Analog	0.7	2,110,786	2277280.85	92.7	
Sc	45	He	Pulse	0.5	313,675	348790.796666667	89.9	
Sc	45	NoGas	Analog	1.0	2,761,405	3065554.46333333	90.1	
Ge	74	H2	Pulse	0.0	628,026	718037.156666667	87.5	
Ge	74	He	Pulse	0.5	179,952	204919.68	87.8	
Ge	74	NoGas	Pulse	0.7	690,287	806774.886666667	85.6	
Rh	103	He	Pulse	0.8	394,518	466758.146666667	84.5	
Rh	103	NoGas	Pulse	0.6	682,061	832259.633333333	82.0	
Tb	159	He	Pulse	1.0	534,175	600193.66	89.0	
Tb	159	NoGas	Pulse	0.8	1,223,695	1409745.36	86.8	
Bi	209	He	Pulse	0.8	300,617	341192.286666667	88.1	
Bi	209	NoGas	Pulse	1.0	701,077	809398.153333333	86.6	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K01022-CCB2**	Total Dilution:	1.0000
File Name:	048_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 15:04:26
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.010	ppb	71.7	36	
Na	23	45	He	49.524	ppb	2.4	51,914	> 1/2 MRL
Mg	24	45	He	2.628	ppb	8.6	1,789	
Al	27	45	He	0.799	ppb	13.9	316	
K	39	45	He	6.019	ppb	8.1	26,222	
Ca	44	45	H2	5.580	ppb	3.5	1,482	
[Ca]	44	45	He	1.973	ppb	80.5	249	
Ti	47	45	NoGas	0.243	ppb	13.0	257	
V	51	74	He	-0.120	ppb	N/A	1,165	
Cr	52	74	He	0.001	ppb	936.7	221	
Mn	55	74	He	0.032	ppb	31.9	110	
Fe	56	74	H2	2.574	ppb	5.9	31,094	
Co	59	74	He	0.018	ppb	25.5	108	
Ni	60	74	He	0.004	ppb	216.7	58	
Cu	65	74	He	0.070	ppb	30.7	172	
Zn	66	74	He	0.058	ppb	24.4	70	
As	75	74	He	0.013	ppb	342.3	30	
Se	78	74	H2	0.034	ppb	31.8	11	
Mo	95	103	He	0.086	ppb	10.6	138	
Ag	107	103	He	0.018	ppb	9.9	84	
Cd	111	103	He	0.015	ppb	76.2	17	
[Cd]	111	103	NoGas	-0.003	ppb	N/A	12	
Sb	121	103	He	0.182	ppb	4.4	386	
Ba	138	159	He	0.048	ppb	19.4	289	
Hg	201	159	NoGas	5.281	ppt	0.5	10	
Tl	205	159	He	0.010	ppb	60.9	78	
Pb	208	159	NoGas	0.027	ppb	14.3	1,143	

Na. MRL ↑ 200 ppb

~~No B-02~~

ESS 11/4/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	2.2	924,370	975380.393333333	94.8	
Sc	45	H2	Analog	2.4	2,010,544	2277280.85	88.3	
Sc	45	He	Pulse	0.6	299,604	348790.796666667	85.9	
Sc	45	NoGas	Analog	0.3	2,669,417	3065554.46333333	87.1	
Ge	74	H2	Pulse	0.3	612,447	718037.156666667	85.3	
Ge	74	He	Pulse	0.6	175,091	204919.68	85.4	
Ge	74	NoGas	Pulse	0.8	669,552	806774.886666667	83.0	
Rh	103	He	Pulse	0.2	394,099	466758.146666667	84.4	
Rh	103	NoGas	Pulse	0.3	678,285	832259.633333333	81.5	
Tb	159	He	Pulse	1.0	532,935	600193.66	88.8	
Tb	159	NoGas	Pulse	0.2	1,204,313	1409745.36	85.4	
Bi	209	He	Pulse	1.5	303,866	341192.286666667	89.1	
Bi	209	NoGas	Pulse	0.2	702,936	809398.153333333	86.8	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K01022-CCB3**	Total Dilution:	1.0000
File Name:	049_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 15:09:10
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.008	ppb	29.8	31	
Na	23	45	He	41.240	ppb	1.2	43,808	
Mg	24	45	He	1.310	ppb	4.6	1,076	
Al	27	45	He	0.190	ppb	57.2	143	
K	39	45	He	3.960	ppb	15.4	25,260	
Ca	44	45	H2	2.721	ppb	5.7	930	
[Ca]	44	45	He	0.246	ppb	354.5	209	
Ti	47	45	NoGas	0.182	ppb	29.1	202	
V	51	74	He	-0.136	ppb	N/A	1,113	
Cr	52	74	He	-0.004	ppb	N/A	202	
Mn	55	74	He	0.006	ppb	68.0	46	
Fe	56	74	H2	0.871	ppb	1.5	14,019	
Co	59	74	He	0.005	ppb	47.6	40	
Ni	60	74	He	-0.011	ppb	N/A	38	
Cu	65	74	He	0.052	ppb	24.6	143	
Zn	66	74	He	-0.007	ppb	N/A	30	
As	75	74	He	0.023	ppb	30.4	34	
Se	78	74	H2	0.004	ppb	58.7	3	
Mo	95	103	He	0.050	ppb	5.0	84	
Ag	107	103	He	0.007	ppb	46.8	36	
Cd	111	103	He	0.005	ppb	73.6	10	
[Cd]	111	103	NoGas	0.003	ppb	187.6	23	
Sb	121	103	He	0.060	ppb	36.2	163	
Ba	138	159	He	0.022	ppb	13.4	190	
Hg	201	159	NoGas	0.607	ppt	52.6	6	
Tl	205	159	He	0.001	ppb	119.7	18	
Pb	208	159	NoGas	0.007	ppb	10.3	783	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.1	941,355	975380.393333333	96.5	
Sc	45	H2	Analog	4.3	2,021,804	2277280.85	88.8	
Sc	45	He	Pulse	0.2	299,395	348790.796666667	85.8	
Sc	45	NoGas	Analog	0.2	2,689,506	3065554.46333333	87.7	
Ge	74	H2	Pulse	0.4	609,561	718037.156666667	84.9	
Ge	74	He	Pulse	0.7	175,414	204919.68	85.6	
Ge	74	NoGas	Pulse	1.0	674,643	806774.886666667	83.6	
Rh	103	He	Pulse	0.4	394,767	466758.146666667	84.6	
Rh	103	NoGas	Pulse	0.7	684,933	832259.633333333	82.3	
Tb	159	He	Pulse	0.5	537,620	600193.66	89.6	
Tb	159	NoGas	Pulse	0.4	1,213,371	1409745.36	86.1	
Bi	209	He	Pulse	0.7	305,359	341192.286666667	89.5	
Bi	209	NoGas	Pulse	1.4	710,102	809398.153333333	87.7	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRL4**	Total Dilution:	1.0000
File Name:	050CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 15:13:52
Comment:	A19J368 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.160	ppb	4.6	374	88.89	
Na	23	45	He	45.931	ppb	0.7	48,406	510.34	R-11
Mg	24	45	He	10.603	ppb	0.4	6,100	117.81	
Al	27	45	He	9.483	ppb	7.0	2,770	105.37	
K	39	45	He	13.262	ppb	3.2	29,536	147.36	R-11
Ca	44	45	H2	10.780	ppb	0.6	2,484	119.78	
[Ca]	44	45	He	9.457	ppb	21.0	421	105.08	
Ti	47	45	NoGas	0.325	ppb	10.4	337	180.56	R-11
V	51	74	He	0.047	ppb	18.0	1,714	26.11	R-11
Cr	52	74	He	0.199	ppb	3.3	979	110.56	
Mn	55	74	He	0.228	ppb	9.1	616	126.67	
Fe	56	74	H2	9.538	ppb	1.5	99,943	105.98	
Co	59	74	He	0.191	ppb	2.5	1,016	106.11	
Ni	60	74	He	0.160	ppb	22.1	256	88.89	
Cu	65	74	He	0.210	ppb	7.1	396	116.67	
Zn	66	74	He	0.227	ppb	9.4	176	126.11	
As	75	74	He	0.179	ppb	11.9	92	99.44	
Se	78	74	H2	0.178	ppb	3.7	48	98.89	
Mo	95	103	He	0.217	ppb	17.7	334	120.56	
Ag	107	103	He	0.184	ppb	7.9	793	102.22	
Cd	111	103	He	0.194	ppb	7.1	143	107.78	
[Cd]	111	103	NoGas	0.164	ppb	17.6	295	91.11	
Sb	121	103	He	0.189	ppb	14.6	399	105	
Ba	138	159	He	0.188	ppb	1.4	833	104.44	
Hg	201	159	NoGas	6.734	ppt	35.8	11	93.53	
Tl	205	159	He	0.183	ppb	8.4	1,202	101.67	
Pb	208	159	NoGas	0.188	ppb	4.8	4,181	104.44	

ISTD Table:

Name	Mass	Tune Mode	Del.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.2	935,413	975380.393333333	95.9	
Sc	45	H2	Analog	4.5	1,999,260	2277280.85	87.8	
Sc	45	He	Pulse	0.4	299,556	348790.796666667	85.9	
Sc	45	NoGas	Analog	1.5	2,702,343	3065554.46333333	88.2	
Ge	74	H2	Pulse	0.4	608,352	718037.156666667	84.7	
Ge	74	He	Pulse	0.3	175,758	204919.68	85.8	
Ge	74	NoGas	Pulse	1.3	677,805	806774.886666667	84.0	
Rh	103	He	Pulse	0.3	394,394	466758.146666667	84.5	
Rh	103	NoGas	Pulse	0.2	683,214	832259.633333333	82.1	
Tb	159	He	Pulse	0.7	536,971	600193.66	89.5	
Tb	159	NoGas	Pulse	0.0	1,218,768	1409745.36	86.5	
Bi	209	He	Pulse	0.7	305,236	341192.286666667	89.5	
Bi	209	NoGas	Pulse	0.4	711,429	809398.153333333	87.9	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRL5**	Total Dilution:	1.0000
File Name:	051_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 15:18:45
Comment:	A19J369 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.849	ppb	6.6	1,937	94.33	
Na	23	45	He	80.185	ppb	1.4	82,365	178.19	R-11
Mg	24	45	He	48.420	ppb	2.9	26,719	107.6	
Al	27	45	He	46.960	ppb	1.6	13,456	104.36	
K	39	45	He	51.190	ppb	1.1	47,227	113.76	
Ca	44	45	H2	45.549	ppb	3.2	9,276	101.22	
[Ca]	44	45	He	43.355	ppb	8.1	1,210	96.34	
Ti	47	45	NoGas	0.993	ppb	10.3	968	110.33	
V	51	74	He	0.791	ppb	1.6	4,193	87.89	
Cr	52	74	He	0.894	ppb	2.6	3,686	99.33	
Mn	55	74	He	0.957	ppb	0.7	2,514	106.33	
Fe	56	74	H2	45.569	ppb	0.3	461,040	101.26	
Co	59	74	He	0.902	ppb	4.0	4,797	100.22	
Ni	60	74	He	0.962	ppb	9.5	1,290	106.89	
Cu	65	74	He	0.957	ppb	7.0	1,603	106.33	
Zn	66	74	He	0.883	ppb	4.7	590	98.11	
As	75	74	He	0.984	ppb	6.9	395	109.33	
Se	78	74	H2	0.856	ppb	6.4	225	95.11	
Mo	95	103	He	0.943	ppb	6.2	1,429	104.78	
Ag	107	103	He	0.913	ppb	4.1	3,930	101.44	
Cd	111	103	He	0.978	ppb	2.1	699	108.67	
[Cd]	111	103	NoGas	0.908	ppb	5.6	1,571	100.89	
Sb	121	103	He	0.926	ppb	6.9	1,751	102.89	
Ba	138	159	He	0.967	ppb	4.4	3,866	107.44	
Hg	201	159	NoGas	42.271	ppt	13.0	41	117.42	
Tl	205	159	He	0.949	ppb	0.3	6,214	105.44	
Pb	208	159	NoGas	0.936	ppb	1.6	18,185	104	

< MRL

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.6	940,680	975380.393333333	96.4	
Sc	45	H2	Analog	0.9	2,008,067	2277280.85	88.2	
Sc	45	He	Pulse	0.7	301,580	348790.796666667	86.5	
Sc	45	NoGas	Analog	0.7	2,715,728	3065554.46333333	88.6	
Ge	74	H2	Pulse	0.3	613,388	718037.156666667	85.4	
Ge	74	He	Pulse	0.7	177,797	204919.68	86.8	
Ge	74	NoGas	Pulse	0.4	686,758	806774.886666667	85.1	
Rh	103	He	Pulse	0.7	396,578	466758.146666667	85.0	
Rh	103	NoGas	Pulse	0.4	690,853	832259.633333333	83.0	
Tb	159	He	Pulse	0.7	539,137	600193.66	89.8	
Tb	159	NoGas	Pulse	0.3	1,219,183	1409745.36	86.5	
Bi	209	He	Pulse	0.9	307,560	341192.286666667	90.1	
Bi	209	NoGas	Pulse	0.2	714,527	809398.153333333	88.3	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRL6**	Total Dilution:	1.0000
File Name:	052CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 15:23:26
Comment:	A19J370 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.761	ppb	6.2	3,989	97.83	
Na	23	45	He	123.665	ppb	1.3	125,349	137.41	R-11
Mg	24	45	He	95.315	ppb	1.0	52,368	105.91	
Al	27	45	He	95.162	ppb	0.3	27,243	105.74	
K	39	45	He	97.685	ppb	1.5	68,833	108.54	
Ca	44	45	H2	89.178	ppb	5.2	17,849	99.09	
[Ca]	44	45	He	95.882	ppb	6.5	2,434	106.54	
Ti	47	45	NoGas	2.007	ppb	8.8	1,926	111.5	
V	51	74	He	1.678	ppb	1.1	7,102	93.22	
Cr	52	74	He	1.812	ppb	2.0	7,217	100.67	
Mn	55	74	He	1.939	ppb	4.2	5,045	107.72	
Fe	56	74	H2	90.552	ppb	0.3	912,316	100.61	
Co	59	74	He	1.811	ppb	3.0	9,586	100.61	
Ni	60	74	He	1.756	ppb	5.4	2,305	97.56	
Cu	65	74	He	2.039	ppb	2.8	3,336	113.28	
Zn	66	74	He	1.959	ppb	8.4	1,262	108.83	
As	75	74	He	1.875	ppb	3.4	727	104.17	
Se	78	74	H2	1.832	ppb	7.7	480	101.78	
Mo	95	103	He	1.746	ppb	2.4	2,638	97	
Ag	107	103	He	1.906	ppb	2.7	8,201	105.89	
Cd	111	103	He	1.914	ppb	1.6	1,363	106.33	
[Cd]	111	103	NoGas	1.778	ppb	3.6	3,060	98.78	
Sb	121	103	He	1.825	ppb	6.6	3,402	101.39	
Ba	138	159	He	1.880	ppb	1.7	7,416	104.44	
Hg	201	159	NoGas	87.385	ppt	0.4	79	121.37	
Tl	205	159	He	1.867	ppb	1.0	12,209	103.72	
Pb	208	159	NoGas	1.897	ppb	0.8	36,293	105.39	

Na MRL ↑
200 ppb
ESS 11/4/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.2	938,586	975380.393333333	96.2	
Sc	45	H2	Analog	4.6	2,018,721	2277280.85	88.6	
Sc	45	He	Pulse	1.1	302,303	348790.796666667	86.7	
Sc	45	NoGas	Analog	1.6	2,719,344	3065554.46333333	88.7	
Ge	74	H2	Pulse	0.5	614,394	718037.156666667	85.6	
Ge	74	He	Pulse	1.1	177,237	204919.68	86.5	
Ge	74	NoGas	Pulse	0.9	686,663	806774.886666667	85.1	
Rh	103	He	Pulse	0.9	396,671	466758.146666667	85.0	
Rh	103	NoGas	Pulse	0.4	691,022	832259.633333333	83.0	
Tb	159	He	Pulse	1.1	539,315	600193.66	89.9	
Tb	159	NoGas	Pulse	0.6	1,223,495	1409745.36	86.8	
Bi	209	He	Pulse	1.0	306,185	341192.286666667	89.7	
Bi	209	NoGas	Pulse	0.1	718,608	809398.153333333	88.8	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRL7**	Total Dilution:	1.0000
File Name:	053CRL4.d	Sample Type:	CRL4
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 15:28:07
Comment:	A19J371 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.583	ppb	2.1	8,133	99.53	
Na	23	45	He	215.686	ppb	0.7	215,794	119.83	
Mg	24	45	He	189.252	ppb	0.6	103,549	105.14	
Al	27	45	He	188.818	ppb	2.4	53,923	104.9	
K	39	45	He	192.074	ppb	1.0	112,399	106.71	
Ca	44	45	H2	180.661	ppb	0.2	36,025	100.37	
[Ca]	44	45	He	187.651	ppb	2.8	4,565	104.25	
Ti	47	45	NoGas	3.600	ppb	1.0	3,420	100	
V	51	74	He	3.467	ppb	0.4	13,061	96.31	
Cr	52	74	He	3.586	ppb	2.5	14,148	99.61	
Mn	55	74	He	3.765	ppb	0.8	9,822	104.58	
Fe	56	74	H2	192.319	ppb	0.7	1,930,943	106.84	
Co	59	74	He	3.656	ppb	3.0	19,437	101.56	
Ni	60	74	He	3.835	ppb	2.8	4,996	106.53	
Cu	65	74	He	3.911	ppb	2.7	6,377	108.64	
Zn	66	74	He	3.833	ppb	3.0	2,450	106.47	
As	75	74	He	3.595	ppb	2.5	1,379	99.86	
Se	78	74	H2	3.791	ppb	4.6	991	105.31	
Mo	95	103	He	3.556	ppb	1.4	5,364	98.78	
Ag	107	103	He	3.665	ppb	1.7	15,765	101.81	
Cd	111	103	He	3.725	ppb	3.1	2,645	103.47	
[Cd]	111	103	NoGas	3.645	ppb	2.0	6,245	101.25	
Sb	121	103	He	3.765	ppb	3.7	6,960	104.58	
Ba	138	159	He	3.859	ppb	1.2	15,162	107.19	
Hg	201	159	NoGas	157.878	ppt	11.0	138	109.64	
Tl	205	159	He	3.713	ppb	1.6	24,360	103.14	
Pb	208	159	NoGas	3.763	ppb	0.3	71,321	104.53	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.5	941,751	975380.393333333	96.6	
Sc	45	H2	Analog	0.4	2,030,798	2277280.85	89.2	
Sc	45	He	Pulse	1.3	302,125	348790.796666667	86.6	
Sc	45	NoGas	Analog	1.2	2,712,669	3065554.46333333	88.5	
Ge	74	H2	Pulse	0.2	614,203	718037.156666667	85.5	
Ge	74	He	Pulse	0.8	178,179	204919.68	87.0	
Ge	74	NoGas	Pulse	0.8	684,948	806774.886666667	84.9	
Rh	103	He	Pulse	0.5	396,793	466758.146666667	85.0	
Rh	103	NoGas	Pulse	0.3	689,927	832259.633333333	82.9	
Tb	159	He	Pulse	1.3	541,071	600193.66	90.1	
Tb	159	NoGas	Pulse	0.4	1,222,872	1409745.36	86.7	
Bi	209	He	Pulse	1.1	308,606	341192.286666667	90.4	
Bi	209	NoGas	Pulse	0.1	718,420	809398.153333333	88.8	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-CCV5**	Total Dilution:	1.0000
File Name:	064_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 16:19:00
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.107	ppb	0.8	83,812	40	95.27	
Na	23	45	He	4344.208	ppb	0.8	4,083,007	4000	108.61	
Mg	24	45	He	4529.092	ppb	0.2	2,357,810	4000	113.23	+/- 10%
Al	27	45	He	4342.976	ppb	1.3	1,182,406	4000	108.57	
K	39	45	He	4455.070	ppb	0.2	1,987,718	4000	111.38	+/- 10%
Ca	44	45	H2	4080.120	ppb	0.2	770,268	4000	102	
[Ca]	44	45	He	4271.442	ppb	0.3	94,955	4000	106.79	
Ti	47	45	NoGas	97.295	ppb	1.7	87,346	100	97.3	
V	51	74	He	97.668	ppb	0.4	308,152	100	97.67	
Cr	52	74	He	98.690	ppb	0.6	363,578	100	98.69	
Mn	55	74	He	105.712	ppb	0.4	260,716	100	105.71	
Fe	56	74	H2	4310.973	ppb	0.1	41,506,935	4000	107.77	
Co	59	74	He	101.795	ppb	0.8	512,807	100	101.79	
Ni	60	74	He	105.215	ppb	0.6	128,670	100	105.22	
Cu	65	74	He	102.677	ppb	0.8	157,246	100	102.68	
Zn	66	74	He	101.500	ppb	0.3	60,694	100	101.5	
As	75	74	He	99.771	ppb	0.8	35,618	100	99.77	
Se	78	74	H2	40.533	ppb	0.7	10,178	40	101.33	
Mo	95	103	He	40.494	ppb	0.7	57,499	40	101.24	
Ag	107	103	He	41.286	ppb	0.5	167,381	40	103.22	
Cd	111	103	He	100.600	ppb	0.4	67,207	100	100.6	
[Cd]	111	103	NoGas	99.037	ppb	0.9	158,365	100	99.04	
Sb	121	103	He	42.549	ppb	0.3	73,646	40	106.37	
Ba	138	159	He	105.584	ppb	0.1	401,009	100	105.58	
Hg	201	159	NoGas	802.981	ppt	1.6	667	800	100.37	
Tl	205	159	He	41.105	ppb	0.2	262,307	40	102.76	
Pb	208	159	NoGas	101.417	ppb	0.9	1,863,534	100	101.42	

Mg, K
Q-41
ESS 11/4/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.4	913,751	975380.393333333	93.7	
Sc	45	H2	Analog	0.7	1,943,118	2277280.85	85.3	
Sc	45	He	Pulse	0.9	288,436	348790.796666667	82.7	
Sc	45	NoGas	Analog	1.2	2,587,276	3065554.46333333	84.4	
Ge	74	H2	Pulse	0.4	590,567	718037.156666667	82.2	
Ge	74	He	Pulse	0.7	168,952	204919.68	82.4	
Ge	74	NoGas	Pulse	0.5	649,882	806774.886666667	80.6	
Rh	103	He	Pulse	0.5	374,086	466758.146666667	80.1	
Rh	103	NoGas	Pulse	0.5	645,706	832259.633333333	77.6	
Tb	159	He	Pulse	0.6	526,588	600193.66	87.7	
Tb	159	NoGas	Pulse	0.6	1,196,296	1409745.36	84.9	
Bi	209	He	Pulse	1.1	297,038	341192.286666667	87.1	
Bi	209	NoGas	Pulse	0.5	697,179	809398.153333333	86.1	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K01022-CCB4**	Total Dilution:	1.0000
File Name:	065_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 16:23:38
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.011	ppb	71.2	38	
Na	23	45	He	37.179	ppb	1.8	38,744	
Mg	24	45	He	1.077	ppb	10.7	923	
Al	27	45	He	0.491	ppb	40.6	222	
K	39	45	He	4.866	ppb	28.8	24,962	
Ca	44	45	H2	2.714	ppb	18.8	897	
[Ca]	44	45	He	-0.546	ppb	N/A	186	
Ti	47	45	NoGas	0.074	ppb	27.3	100	
V	51	74	He	-0.085	ppb	N/A	1,255	
Cr	52	74	He	-0.004	ppb	N/A	200	
Mn	55	74	He	0.009	ppb	56.3	52	
Fe	56	74	H2	1.207	ppb	5.8	16,881	
Co	59	74	He	0.014	ppb	40.4	89	
Ni	60	74	He	-0.006	ppb	N/A	43	
Cu	65	74	He	0.028	ppb	36.1	103	
Zn	66	74	He	0.014	ppb	288.5	42	
As	75	74	He	0.044	ppb	30.4	41	
Se	78	74	H2	0.027	ppb	67.3	8	
Mo	95	103	He	0.042	ppb	64.7	71	
Ag	107	103	He	0.009	ppb	35.5	44	
Cd	111	103	He	0.009	ppb	10.4	13	
[Cd]	111	103	NoGas	0.003	ppb	120.3	22	
Sb	121	103	He	0.181	ppb	3.2	376	
Ba	138	159	He	0.020	ppb	28.7	186	
Hg	201	159	NoGas	-0.600	ppt	N/A	5	
Tl	205	159	He	0.005	ppb	37.0	43	
Pb	208	159	NoGas	0.015	ppb	20.8	927	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.6	942,907	975380.393333333	96.7	
Sc	45	H2	Analog	0.3	1,954,114	2277280.85	85.8	
Sc	45	He	Pulse	1.2	291,136	348790.796666667	83.5	
Sc	45	NoGas	Analog	0.8	2,647,278	3065554.46333333	86.4	
Ge	74	H2	Pulse	0.3	592,843	718037.156666667	82.6	
Ge	74	He	Pulse	1.1	171,868	204919.68	83.9	
Ge	74	NoGas	Pulse	1.5	665,830	806774.886666667	82.5	
Rh	103	He	Pulse	0.9	386,896	466758.146666667	82.9	
Rh	103	NoGas	Pulse	0.6	671,198	832259.633333333	80.6	
Tb	159	He	Pulse	1.3	537,639	600193.66	89.6	
Tb	159	NoGas	Pulse	0.4	1,215,107	1409745.36	86.2	
Bi	209	He	Pulse	1.0	306,456	341192.286666667	89.8	
Bi	209	NoGas	Pulse	0.6	716,233	809398.153333333	88.5	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-CCV6**	Total Dilution:	1.0000
File Name:	076_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 17:33:01
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.421	ppb	0.6	90,413	40	98.55	
Na	23	45	He	4203.851	ppb	0.6	4,274,850	4000	105.1	
Mg	24	45	He	4463.194	ppb	1.0	2,513,787	4000	111.58	> +/- 10%
Al	27	45	He	4269.714	ppb	1.3	1,257,595	4000	106.74	
K	39	45	He	4412.522	ppb	0.5	2,130,160	4000	110.31	> +/- 10%
Ca	44	45	H2	4106.215	ppb	1.0	835,322	4000	102.66	
[Ca]	44	45	He	4218.859	ppb	0.9	101,473	4000	105.47	
Ti	47	45	NoGas	99.318	ppb	0.7	95,062	100	99.32	
V	51	74	He	98.562	ppb	0.3	334,051	100	98.56	
Cr	52	74	He	99.436	ppb	0.3	393,532	100	99.44	
Mn	55	74	He	105.278	ppb	0.4	278,922	100	105.28	
Fe	56	74	H2	4272.234	ppb	0.5	44,449,835	4000	106.81	
Co	59	74	He	102.139	ppb	0.4	552,773	100	102.14	
Ni	60	74	He	106.780	ppb	0.6	140,285	100	106.78	
Cu	65	74	He	103.889	ppb	0.7	170,929	100	103.89	
Zn	66	74	He	101.223	ppb	0.9	65,021	100	101.22	
As	75	74	He	99.977	ppb	0.8	38,341	100	99.98	
Se	78	74	H2	40.484	ppb	1.0	10,985	40	101.21	
Mo	95	103	He	40.423	ppb	1.1	61,174	40	101.06	
Ag	107	103	He	40.936	ppb	0.8	176,877	40	102.34	
Cd	111	103	He	100.512	ppb	0.9	71,566	100	100.51	
[Cd]	111	103	NoGas	99.698	ppb	0.2	170,760	100	99.7	
Sb	121	103	He	41.672	ppb	0.9	76,871	40	104.18	
Ba	138	159	He	107.218	ppb	0.6	427,086	100	107.22	
Hg	201	159	NoGas	799.958	ppt	4.6	715	800	99.99	
Tl	205	159	He	40.499	ppb	0.1	271,053	40	101.25	
Pb	208	159	NoGas	99.500	ppb	2.5	1,968,504	100	99.5	

Mg Q-41
ESS 11/4/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.4	952,918	975380.393333333	97.7	
Sc	45	H2	Analog	1.5	2,094,011	2277280.85	92.0	
Sc	45	He	Pulse	1.0	312,062	348790.796666667	89.5	
Sc	45	NoGas	Analog	0.5	2,758,200	3065554.46333333	90.0	
Ge	74	H2	Pulse	0.7	638,160	718037.156666667	88.9	
Ge	74	He	Pulse	0.8	181,500	204919.68	88.6	
Ge	74	NoGas	Pulse	0.1	701,367	806774.886666667	86.9	
Rh	103	He	Pulse	0.4	398,681	466758.146666667	85.4	
Rh	103	NoGas	Pulse	0.1	691,626	832259.633333333	83.1	
Tb	159	He	Pulse	0.4	552,283	600193.66	92.0	
Tb	159	NoGas	Mix	2.9	1,288,581	1409745.36	91.4	
Bi	209	He	Pulse	0.6	311,267	341192.286666667	91.2	
Bi	209	NoGas	Pulse	0.2	725,703	809398.153333333	89.7	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K01022-CCB5**	Total Dilution:	1.0000
File Name:	077_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 17:37:39
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.008	ppb	28.4	33	
Na	23	45	He	15.946	ppb	1.6	19,635	
Mg	24	45	He	0.709	ppb	24.4	770	
Al	27	45	He	0.749	ppb	13.9	309	
K	39	45	He	3.738	ppb	9.8	25,798	
Ca	44	45	H2	2.617	ppb	6.4	929	
[Ca]	44	45	He	1.202	ppb	99.8	237	
Ti	47	45	NoGas	0.061	ppb	22.5	90	
V	51	74	He	-0.143	ppb	N/A	1,128	
Cr	52	74	He	0.000	ppb	N/A	224	
Mn	55	74	He	0.023	ppb	26.1	92	
Fe	56	74	H2	1.742	ppb	5.3	23,472	
Co	59	74	He	0.007	ppb	44.6	54	
Ni	60	74	He	0.008	ppb	408.5	64	
Cu	65	74	He	0.074	ppb	6.5	184	
Zn	66	74	He	0.033	ppb	109.8	57	
As	75	74	He	0.012	ppb	106.8	31	
Se	78	74	H2	0.038	ppb	29.0	12	
Mo	95	103	He	0.040	ppb	36.8	71	
Ag	107	103	He	0.012	ppb	29.6	58	
Cd	111	103	He	0.013	ppb	29.1	16	
[Cd]	111	103	NoGas	0.003	ppb	241.6	23	
Sb	121	103	He	0.071	ppb	41.6	188	
Ba	138	159	He	0.026	ppb	32.6	214	
Hg	201	159	NoGas	2.368	ppt	145.8	8	
Tl	205	159	He	0.007	ppb	12.8	61	
Pb	208	159	NoGas	0.021	ppb	19.7	1,098	

ISTD Table:

Name	Mass	Tune Mode	Del.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.9	953,655	975380.393333333	97.8	
Sc	45	H2	Analog	0.5	2,066,945	2277280.85	90.8	
Sc	45	He	Pulse	0.4	306,989	348790.796666667	88.0	
Sc	45	NoGas	Analog	0.7	2,708,995	3065554.46333333	88.4	
Ge	74	H2	Pulse	0.5	631,066	718037.156666667	87.9	
Ge	74	He	Pulse	0.5	181,095	204919.68	88.4	
Ge	74	NoGas	Pulse	1.6	695,698	806774.886666667	86.2	
Rh	103	He	Pulse	0.7	405,070	466758.146666667	86.8	
Rh	103	NoGas	Pulse	0.8	701,331	832259.633333333	84.3	
Tb	159	He	Pulse	1.2	552,993	600193.66	92.1	
Tb	159	NoGas	Mix	1.8	1,269,944	1409745.36	90.1	
Bi	209	He	Pulse	0.6	315,295	341192.286666667	92.4	
Bi	209	NoGas	Pulse	0.8	738,921	809398.153333333	91.3	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRL8**	Total Dilution:	1.0000
File Name:	078CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 17:42:21
Comment:	A19J368 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.167	ppb	17.0	399	92.78		
Na	23	45	He	26.552	ppb	7.6	29,092	295.02	R-11	<MRL
Mg	24	45	He	10.421	ppb	2.0	5,928	115.79		
Al	27	45	He	9.886	ppb	6.6	2,845	109.84		
K	39	45	He	15.620	ppb	22.5	30,200	173.56	R-11	<MRL
Ca	44	45	H2	10.107	ppb	5.4	2,418	112.3		
[Ca]	44	45	He	9.240	ppb	26.6	411	102.67		
Ti	47	45	NoGas	0.597	ppb	94.4	596	331.67	R-11	<MRL
V	51	74	He	0.050	ppb	74.0	1,707	27.78	R-11	
Cr	52	74	He	0.184	ppb	6.5	916	102.22		
Mn	55	74	He	0.213	ppb	19.3	572	118.33		
Fe	56	74	H2	9.613	ppb	0.7	104,764	106.81		
Co	59	74	He	0.198	ppb	7.7	1,047	110		
Ni	60	74	He	0.169	ppb	29.1	263	93.89		
Cu	65	74	He	0.236	ppb	7.8	432	131.11	R-11	<MRL
Zn	66	74	He	0.189	ppb	41.6	149	105		
As	75	74	He	0.204	ppb	11.0	100	113.33		
Se	78	74	H2	0.194	ppb	22.6	54	107.78		
Mo	95	103	He	0.212	ppb	19.2	323	117.78		
Ag	107	103	He	0.205	ppb	5.1	876	113.89		
Cd	111	103	He	0.181	ppb	6.7	133	100.56		
[Cd]	111	103	NoGas	0.181	ppb	11.0	331	100.56		
Sb	121	103	He	0.199	ppb	21.8	411	110.56		
Ba	138	159	He	0.184	ppb	5.2	811	102.22		
Hg	201	159	NoGas	5.169	ppt	98.5	10	71.79		
Tl	205	159	He	0.190	ppb	7.6	1,235	105.56		
Pb	208	159	NoGas	0.191	ppb	3.2	4,385	106.11		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.8	953,888	975380.393333333	97.8	
Sc	45	H2	Analog	1.6	2,055,536	2277280.85	90.3	
Sc	45	He	Pulse	5.6	296,069	348790.796666667	84.9	
Sc	45	NoGas	Analog	0.1	2,717,968	3065554.46333333	88.7	
Ge	74	H2	Pulse	0.7	633,010	718037.156666667	88.2	
Ge	74	He	Pulse	6.2	174,607	204919.68	85.2	
Ge	74	NoGas	Pulse	0.4	696,835	806774.886666667	86.4	
Rh	103	He	Pulse	6.4	391,662	466758.146666667	83.9	
Rh	103	NoGas	Pulse	0.1	699,537	832259.633333333	84.1	
Tb	159	He	Pulse	5.9	533,598	600193.66	88.9	
Tb	159	NoGas	Mix	0.7	1,261,379	1409745.36	89.5	
Bi	209	He	Pulse	6.2	303,164	341192.286666667	88.9	
Bi	209	NoGas	Pulse	0.2	735,823	809398.153333333	90.9	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRL9**	Total Dilution:	1.0000
File Name:	079_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 17:47:03
Comment:	A19J369 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.887	ppb	4.4	2,008	98.56	
Na	23	45	He	63.659	ppb	1.3	67,191	141.46	R-11
Mg	24	45	He	48.147	ppb	2.1	26,994	106.99	
Al	27	45	He	46.922	ppb	1.9	13,660	104.27	
K	39	45	He	51.405	ppb	1.4	48,079	114.23	
Ca	44	45	H2	46.553	ppb	5.3	9,786	103.45	
[Ca]	44	45	He	47.347	ppb	7.3	1,323	105.22	
Ti	47	45	NoGas	0.890	ppb	7.3	870	98.89	
V	51	74	He	0.759	ppb	3.3	4,154	84.33	
Cr	52	74	He	0.895	ppb	4.3	3,752	99.44	
Mn	55	74	He	0.982	ppb	2.7	2,621	109.11	
Fe	56	74	H2	45.941	ppb	1.0	478,428	102.09	
Co	59	74	He	0.945	ppb	2.6	5,111	105	
Ni	60	74	He	0.976	ppb	3.3	1,331	108.44	
Cu	65	74	He	1.001	ppb	6.0	1,702	111.22	
Zn	66	74	He	0.992	ppb	8.8	670	110.22	
As	75	74	He	0.891	ppb	2.1	366	99	
Se	78	74	H2	0.932	ppb	7.0	252	103.56	
Mo	95	103	He	0.890	ppb	5.5	1,380	98.89	
Ag	107	103	He	0.927	ppb	4.9	4,082	103	
Cd	111	103	He	0.910	ppb	1.7	666	101.11	
[Cd]	111	103	NoGas	0.885	ppb	6.1	1,544	98.33	
Sb	121	103	He	0.898	ppb	3.2	1,740	99.78	
Ba	138	159	He	1.000	ppb	3.4	4,072	111.11	
Hg	201	159	NoGas	40.941	ppt	8.4	41	113.72	
Tl	205	159	He	0.934	ppb	1.7	6,228	103.78	
Pb	208	159	NoGas	0.948	ppb	1.5	18,923	105.33	

<MRL

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.2	934,295	975380.393333333	95.8	
Sc	45	H2	Analog	0.6	2,075,442	2277280.85	91.1	
Sc	45	He	Pulse	0.8	306,364	348790.796666667	87.8	
Sc	45	NoGas	Analog	0.5	2,712,822	3065554.46333333	88.5	
Ge	74	H2	Pulse	0.3	631,431	718037.156666667	87.9	
Ge	74	He	Pulse	0.5	180,789	204919.68	88.2	
Ge	74	NoGas	Pulse	1.0	695,369	806774.886666667	86.2	
Rh	103	He	Pulse	0.4	405,588	466758.146666667	86.9	
Rh	103	NoGas	Pulse	0.3	696,909	832259.633333333	83.7	
Tb	159	He	Pulse	1.2	549,390	600193.66	91.5	
Tb	159	NoGas	Pulse	0.5	1,253,517	1409745.36	88.9	
Bi	209	He	Pulse	0.6	313,150	341192.286666667	91.8	
Bi	209	NoGas	Pulse	0.7	734,597	809398.153333333	90.8	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRLA**	Total Dilution:	1.0000
File Name:	080CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 17:51:44
Comment:	A19J370 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.727	ppb	4.3	3,940	95.94	
Na	23	45	He	110.345	ppb	0.6	113,783	122.61	
Mg	24	45	He	95.996	ppb	0.6	53,460	106.66	
Al	27	45	He	95.185	ppb	0.6	27,623	105.76	
K	39	45	He	98.767	ppb	1.9	70,284	109.74	
Ca	44	45	H2	92.915	ppb	2.1	18,856	103.24	
[Ca]	44	45	He	97.113	ppb	7.8	2,496	107.9	
Ti	47	45	NoGas	1.974	ppb	10.5	1,899	109.67	
V	51	74	He	1.635	ppb	4.0	7,059	90.83	
Cr	52	74	He	1.759	ppb	1.0	7,116	97.72	
Mn	55	74	He	1.927	ppb	5.6	5,090	107.06	
Fe	56	74	H2	91.141	ppb	0.3	938,391	101.27	
Co	59	74	He	1.858	ppb	0.6	9,977	103.22	
Ni	60	74	He	1.934	ppb	1.8	2,569	107.44	
Cu	65	74	He	2.089	ppb	6.1	3,465	116.06	
Zn	66	74	He	1.923	ppb	4.3	1,258	106.83	
As	75	74	He	1.811	ppb	4.8	714	100.61	
Se	78	74	H2	1.941	ppb	8.1	520	107.83	
Mo	95	103	He	1.810	ppb	2.0	2,774	100.56	
Ag	107	103	He	1.833	ppb	1.9	8,001	101.83	
Cd	111	103	He	1.880	ppb	2.8	1,358	104.44	
[Cd]	111	103	NoGas	1.795	ppb	2.8	3,104	99.72	
Sb	121	103	He	1.791	ppb	2.7	3,388	99.5	
Ba	138	159	He	1.961	ppb	1.6	7,884	108.94	
Hg	201	159	NoGas	76.311	ppt	11.9	71	105.99	
Tl	205	159	He	1.863	ppb	1.9	12,425	103.5	
Pb	208	159	NoGas	1.903	ppb	1.8	37,194	105.72	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.4	944,910	975380.393333333	96.9	
Sc	45	H2	Analog	0.6	2,045,408	2277280.85	89.8	
Sc	45	He	Pulse	1.2	306,432	348790.796666667	87.9	
Sc	45	NoGas	Analog	0.2	2,725,498	3065554.46333333	88.9	
Ge	74	H2	Pulse	0.3	627,888	718037.156666667	87.4	
Ge	74	He	Pulse	1.3	179,815	204919.68	87.7	
Ge	74	NoGas	Pulse	0.6	691,714	806774.886666667	85.7	
Rh	103	He	Pulse	0.7	402,462	466758.146666667	86.2	
Rh	103	NoGas	Pulse	0.6	694,531	832259.633333333	83.5	
Tb	159	He	Pulse	0.6	549,884	600193.66	91.6	
Tb	159	NoGas	Pulse	0.2	1,249,784	1409745.36	88.7	
Bi	209	He	Pulse	0.6	315,082	341192.286666667	92.3	
Bi	209	NoGas	Pulse	0.9	734,616	809398.153333333	90.8	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRLB**	Total Dilution:	1.0000
File Name:	081CRL4.d	Sample Type:	CRL4
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 17:56:26
Comment:	A19J371 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.444	ppb	4.4	7,917	95.67	
Na	23	45	He	204.453	ppb	0.9	207,735	113.58	
Mg	24	45	He	191.987	ppb	1.3	106,571	106.66	
Al	27	45	He	190.075	ppb	1.4	55,082	105.6	
K	39	45	He	194.400	ppb	0.3	115,131	108	
Ca	44	45	H2	181.574	ppb	1.6	36,680	100.87	
[Ca]	44	45	He	182.504	ppb	0.8	4,511	101.39	
Ti	47	45	NoGas	3.607	ppb	6.0	3,472	100.19	
V	51	74	He	3.441	ppb	2.8	13,178	95.58	
Cr	52	74	He	3.496	ppb	2.3	14,009	97.11	
Mn	55	74	He	3.770	ppb	1.3	9,987	104.72	
Fe	56	74	H2	190.302	ppb	1.5	1,962,660	105.72	
Co	59	74	He	3.598	ppb	1.6	19,430	99.94	
Ni	60	74	He	3.877	ppb	4.8	5,131	107.69	
Cu	65	74	He	3.888	ppb	0.5	6,438	108	
Zn	66	74	He	3.713	ppb	7.3	2,412	103.14	
As	75	74	He	3.800	ppb	2.5	1,478	105.56	
Se	78	74	H2	3.639	ppb	3.7	978	101.08	
Mo	95	103	He	3.591	ppb	3.7	5,523	99.75	
Ag	107	103	He	3.638	ppb	0.7	15,959	101.06	
Cd	111	103	He	3.741	ppb	3.4	2,710	103.92	
[Cd]	111	103	NoGas	3.717	ppb	0.4	6,456	103.25	
Sb	121	103	He	3.602	ppb	2.5	6,794	100.06	
Ba	138	159	He	3.976	ppb	0.5	15,990	110.44	
Hg	201	159	NoGas	139.622	ppt	2.9	127	96.96	
Tl	205	159	He	3.719	ppb	0.7	24,972	103.31	
Pb	208	159	NoGas	3.754	ppb	2.8	73,490	104.28	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.5	953,780	975380.393333333	97.8	
Sc	45	H2	Analog	1.1	2,057,725	2277280.85	90.4	
Sc	45	He	Pulse	0.4	306,520	348790.796666667	87.9	
Sc	45	NoGas	Analog	1.0	2,747,655	3065554.46333333	89.6	
Ge	74	H2	Pulse	0.5	630,881	718037.156666667	87.9	
Ge	74	He	Pulse	1.0	180,959	204919.68	88.3	
Ge	74	NoGas	Pulse	0.5	695,932	806774.886666667	86.3	
Rh	103	He	Pulse	0.9	404,635	466758.146666667	86.7	
Rh	103	NoGas	Pulse	0.6	699,438	832259.633333333	84.0	
Tb	159	He	Pulse	0.9	553,893	600193.66	92.3	
Tb	159	NoGas	Mix	2.0	1,263,509	1409745.36	89.6	
Bi	209	He	Pulse	1.5	315,372	341192.286666667	92.4	
Bi	209	NoGas	Pulse	0.2	740,168	809398.153333333	91.4	

Quantitation Report - ICPMS5

Sample Name:	**9101805-BLK1**	Total Dilution:	**5.0000**
File Name:	084SMPL.d	Vial:	3403
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	Sample
Acq Time:	11/1/2019 18:10:31	I.S. Reference File:	002CALB.d
Comment:	**9101805 Sediment RCRA**	Last Calibration:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.002	ppb	103.1	18	100	
Na	23	45	He	16.571	ppb	2.3	20,019	50000	
Mg	24	45	He	0.821	ppb	3.8	822	50000	
Al	27	45	He	0.796	ppb	9.7	319	50000	
K	39	45	He	3.392	ppb	52.4	25,327	50000	
Ca	44	45	H2	2.634	ppb	5.5	919	50000	
[Ca]	44	45	He	1.549	ppb	80.3	242	50000	
Ti	47	45	NoGas	0.108	ppb	46.0	133	2500	
V	51	74	He	0.072	ppb	11.1	1,809	500	
Cr	52	74	He	0.037	ppb	23.3	362	1000	
Mn	55	74	He	0.026	ppb	66.3	97	2500	
Fe	56	74	H2	1.022	ppb	7.1	15,712	50000	
Co	59	74	He	0.009	ppb	56.3	66	500	
Ni	60	74	He	-0.02	ppb	N/A	28	1000	
Cu	65	74	He	0.037	ppb	24.0	121	1000	
Zn	66	74	He	0.204	ppb	28.1	162	2500	
As	75	74	He	0.092	ppb	59.2	60	500	
Se	78	74	H2	0.032	ppb	24.3	10	100	
Mo	95	103	He	0.026	ppb	8.3	50	100	
Ag	107	103	He	0.008	ppb	31.8	39	100	
Cd	111	103	He	0.008	ppb	35.0	12	1000	
[Cd]	111	103	NoGas	-0.001	ppb	N/A	16	1000	
Sb	121	103	He	-0.001	ppb	N/A	52	100	
Ba	138	159	He	0.009	ppb	32.6	143	2500	
W	182	159	NoGas	0.008	ppb	52.6	80	40	
Hg	201	159	NoGas	5.768	ppt	45.4	10	4000	
Tl	205	159	He	0.017	ppb	24.4	126	100	
Pb	208	159	NoGas	0.018	ppb	22.7	1,016	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	943,081	0.8	975380.393333333	Analog	96.7	
Sc	45	H2	2,037,066	1.3	2277280.85	Analog	89.5	
Sc	45	He	303,358	0.9	348790.796666667	Pulse	87.0	
Sc	45	NoGas	2,699,223	0.9	3065554.46333333	Analog	88.1	
Ge	74	H2	617,155	0.3	718037.156666667	Pulse	86.0	
Ge	74	He	177,029	0.7	204919.68	Pulse	86.4	
Ge	74	NoGas	677,246	0.9	806774.886666667	Pulse	83.9	
Rh	103	He	403,141	1.1	466758.146666667	Pulse	86.4	
Rh	103	NoGas	687,256	0.7	832259.633333333	Pulse	82.6	
Tb	159	He	550,457	0.6	600193.66	Pulse	91.7	
Tb	159	NoGas	1,235,744	0.3	1409745.36	Pulse	87.7	
Bi	209	He	306,502	0.5	341192.286666667	Pulse	89.8	
Bi	209	NoGas	718,182	0.2	809398.153333333	Pulse	88.7	

Quantitation Report - ICPMS5

Sample Name:	**9101805-BS1**	Total Dilution:	**5.0000**
File Name:	085SMPL.d	Vial:	3404
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	Sample
Acq Time:	11/1/2019 18:15:13	I.S. Reference File:	002CALB.d
Comment:	**9101805 Sediment RCRA**	Last Calibration:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	26.184	ppb	2.6	59,674	100	
Na	23	45	He	2915.893	ppb	0.5	2,962,492	50000	
Mg	24	45	He	2969.045	ppb	0.9	1,670,209	50000	
Al	27	45	He	2791.585	ppb	0.3	821,252	50000	
K	39	45	He	2970.607	ppb	0.7	1,440,212	50000	
Ca	44	45	H2	2670.001	ppb	0.8	541,894	50000	
[Ca]	44	45	He	2812.37	ppb	1.6	67,625	50000	
Ti	47	45	NoGas	53.82	ppb	0.3	51,764	2500	
V	51	74	He	54.638	ppb	1.0	184,474	500	
Cr	52	74	He	54.063	ppb	0.9	212,423	1000	
Mn	55	74	He	57.16	ppb	1.7	150,284	2500	
Fe	56	74	H2	2839.588	ppb	0.8	28,860,850	50000	
Co	59	74	He	55.749	ppb	0.3	299,414	500	
Ni	60	74	He	57.048	ppb	1.3	74,397	1000	
Cu	65	74	He	56.733	ppb	0.7	92,653	1000	
Zn	66	74	He	52.896	ppb	1.6	33,733	2500	
As	75	74	He	53.013	ppb	0.8	20,189	500	
Se	78	74	H2	25.51	ppb	1.0	6,762	100	
Mo	95	103	He	27.538	ppb	0.9	41,855	100	
Ag	107	103	He	28.651	ppb	0.8	124,333	100	
Cd	111	103	He	54.299	ppb	0.9	38,826	1000	
[Cd]	111	103	NoGas	53.71	ppb	0.6	91,841	1000	
Sb	121	103	He	26.784	ppb	1.1	49,635	100	
Ba	138	159	He	57.543	ppb	1.0	231,855	2500	
W	182	159	NoGas	0.018	ppb	33.1	152	40	
Hg	201	159	NoGas	1044.485	ppt	5.1	936	4000	
Tl	205	159	He	26.815	ppb	0.6	181,501	100	
Pb	208	159	NoGas	54.178	ppb	3.1	1,076,139	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	946,819	0.5	975380.393333333	Analog	97.1	
Sc	45	H2	2,088,402	0.7	2277280.85	Analog	91.7	
Sc	45	He	311,658	0.3	348790.796666667	Pulse	89.4	
Sc	45	NoGas	2,770,728	0.4	3065554.46333333	Analog	90.4	
Ge	74	H2	623,357	0.8	718037.156666667	Pulse	86.8	
Ge	74	He	180,121	1.3	204919.68	Pulse	87.9	
Ge	74	NoGas	693,895	0.8	806774.886666667	Pulse	86.0	
Rh	103	He	400,388	1.0	466758.146666667	Pulse	85.8	
Rh	103	NoGas	690,418	0.1	832259.633333333	Pulse	83.0	
Tb	159	He	558,537	0.9	600193.66	Pulse	93.1	
Tb	159	NoGas	1,293,448	2.7	1409745.36	Mix	91.8	
Bi	209	He	308,951	1.0	341192.286666667	Pulse	90.6	
Bi	209	NoGas	723,338	0.3	809398.153333333	Pulse	89.4	

Quantitation Report - ICPMS5

Sample Name:	**A9J0950-01**	Total Dilution:	**5.0000**
File Name:	086SMPL.d	Vial:	3405
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	Sample
Acq Time:	11/1/2019 18:19:50	I.S. Reference File:	002CALB.d
Comment:	**9101805 Sediment RCRA**	Last Calibration:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.547	ppb	10.5	1,341	100	
Na	23	45	He	585.874	ppb	0.5	656,708	50000	
Mg	24	45	He	5938.24	ppb	1.1	3,666,882	50000	
Al	27	45	He	17528.098	ppb	1.7	5,659,512	50000	
K	39	45	He	944.401	ppb	0.7	520,888	50000	
Ca	44	45	H2	6714.036	ppb	1.7	1,461,001	50000	
[Ca]	44	45	He	6674.202	ppb	1.2	175,852	50000	
Ti	47	45	NoGas	1248.521	ppb	1.3	1,337,631	2500	
V	51	74	He	88.475	ppb	0.4	309,155	500	
Cr	52	74	He	21.261	ppb	0.6	86,891	1000	
Mn	55	74	He	488.668	ppb	0.1	1,333,963	2500	
Fe	56	74	H2	37729.669	ppb	0.5	393,995,230	50000	
Co	59	74	He	21.816	ppb	0.0	121,671	500	
Ni	60	74	He	28.442	ppb	0.6	38,543	1000	
Cu	65	74	He	25.54	ppb	0.4	43,346	1000	
Zn	66	74	He	72.464	ppb	0.4	47,977	2500	
As	75	74	He	4.186	ppb	2.3	1,680	500	
Se	78	74	H2	0.167	ppb	17.9	47	100	
Mo	95	103	He	0.32	ppb	13.4	506	100	
Ag	107	103	He	0.05	ppb	13.4	226	100	
Cd	111	103	He	0.102	ppb	12.5	81	1000	
[Cd]	111	103	NoGas	0.413	ppb	12.2	764	1000	
Sb	121	103	He	0.059	ppb	28.7	167	100	
Ba	138	159	He	168.226	ppb	0.4	690,062	2500	
W	182	159	NoGas	0.042	ppb	26.7	344	40	
Hg	201	159	NoGas	236.262	ppt	6.2	235	4000	
Tl	205	159	He	0.093	ppb	1.2	653	100	
Pb	208	159	NoGas	6.108	ppb	0.3	133,086	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,007,405	0.9	975380.393333333	Analog	103.3	
Sc	45	H2	2,240,347	0.7	2277280.85	Analog	98.4	
Sc	45	He	342,122	1.1	348790.796666667	Pulse	98.1	
Sc	45	NoGas	3,088,386	0.4	3065554.46333333	Analog	100.7	
Ge	74	H2	640,588	0.6	718037.156666667	Pulse	89.2	
Ge	74	He	187,023	1.4	204919.68	Pulse	91.3	
Ge	74	NoGas	733,896	0.8	806774.886666667	Pulse	91.0	
Rh	103	He	408,228	1.2	466758.146666667	Pulse	87.5	
Rh	103	NoGas	728,267	0.7	832259.633333333	Pulse	87.5	
Tb	159	He	568,808	1.2	600193.66	Pulse	94.8	
Tb	159	NoGas	1,410,854	0.9	1409745.36	Analog	100.1	
Bi	209	He	305,228	0.4	341192.286666667	Pulse	89.5	
Bi	209	NoGas	738,473	0.5	809398.153333333	Pulse	91.2	

Quantitation Report - ICPMS5

Sample Name:	**A9J0950-02**	Total Dilution:	**5.0000**
File Name:	087SMPL.d	Vial:	3406
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	Sample
Acq Time:	11/1/2019 18:24:24	I.S. Reference File:	002CALB.d
Comment:	**9101805 Sediment RCRA**	Last Calibration:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.503	ppb	10.2	1,238	100	
Na	23	45	He	486.689	ppb	0.4	542,414	50000	
Mg	24	45	He	5234.091	ppb	1.0	3,209,198	50000	
Al	27	45	He	16064.879	ppb	0.5	5,151,188	50000	
K	39	45	He	852.384	ppb	0.2	469,451	50000	
Ca	44	45	H2	5657.306	ppb	2.5	1,248,791	50000	
[Ca]	44	45	He	5686.001	ppb	0.7	148,801	50000	
Ti	47	45	NoGas	1498.656	ppb	2.4	1,599,303	2500	
V	51	74	He	90.051	ppb	0.2	314,362	500	
Cr	52	74	He	24.127	ppb	0.8	98,476	1000	
Mn	55	74	He	421.885	ppb	0.3	1,150,650	2500	
Fe	56	74	H2	34241.122	ppb	0.3	361,822,417	50000	
Co	59	74	He	17.86	ppb	1.5	99,524	500	
Ni	60	74	He	27.123	ppb	1.8	36,728	1000	
Cu	65	74	He	29.721	ppb	0.5	50,388	1000	
Zn	66	74	He	103.915	ppb	0.5	68,720	2500	
As	75	74	He	4.288	ppb	0.5	1,719	500	
Se	78	74	H2	0.192	ppb	17.8	55	100	
Mo	95	103	He	0.404	ppb	7.3	639	100	
Ag	107	103	He	0.145	ppb	5.2	650	100	
Cd	111	103	He	0.188	ppb	3.5	145	1000	
[Cd]	111	103	NoGas	0.584	ppb	12.6	1,072	1000	
Sb	121	103	He	0.177	ppb	4.2	392	100	
Ba	138	159	He	162.751	ppb	0.4	666,481	2500	
W	182	159	NoGas	0.205	ppb	3.0	1,583	40	
Hg	201	159	NoGas	64.63	ppt	7.6	70	4000	
Tl	205	159	He	0.078	ppb	7.2	552	100	
Pb	208	159	NoGas	13.355	ppb	2.7	293,257	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,010,961	0.8	975380.393333333	Analog	103.6	
Sc	45	H2	2,272,327	0.3	2277280.85	Analog	99.8	
Sc	45	He	339,728	0.6	348790.796666667	Pulse	97.4	
Sc	45	NoGas	3,076,893	1.6	3065554.46333333	Analog	100.4	
Ge	74	H2	648,227	1.2	718037.156666667	Pulse	90.3	
Ge	74	He	186,859	0.9	204919.68	Pulse	91.2	
Ge	74	NoGas	734,164	1.5	806774.886666667	Pulse	91.0	
Rh	103	He	410,596	0.7	466758.146666667	Pulse	88.0	
Rh	103	NoGas	729,093	1.2	832259.633333333	Pulse	87.6	
Tb	159	He	567,828	0.7	600193.66	Pulse	94.6	
Tb	159	NoGas	1,427,107	3.3	1409745.36	Analog	101.2	
Bi	209	He	305,815	1.2	341192.286666667	Pulse	89.6	
Bi	209	NoGas	739,136	0.7	809398.153333333	Pulse	91.3	

Quantitation Report - ICPMS5

Sample Name:	**A9J0950-03**	Total Dilution:	**5.0000**
File Name:	088SMPL.d	Vial:	3407
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	Sample
Acq Time:	11/1/2019 18:28:59	I.S. Reference File:	002CALB.d
Comment:	**9101805 Sediment RCRA**	Last Calibration:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.573	ppb	1.4	1,403	100	
Na	23	45	He	577.788	ppb	1.0	644,859	50000	
Mg	24	45	He	6210.274	ppb	1.0	3,817,888	50000	
Al	27	45	He	19834.308	ppb	0.7	6,376,731	50000	
K	39	45	He	844.466	ppb	0.8	466,574	50000	
Ca	44	45	H2	5748.309	ppb	2.1	1,285,629	50000	
[Ca]	44	45	He	5911.536	ppb	1.2	155,101	50000	
Ti	47	45	NoGas	1175.021	ppb	0.8	1,267,073	2500	
V	51	74	He	89.271	ppb	0.3	310,313	500	
Cr	52	74	He	24.878	ppb	0.2	101,105	1000	
Mn	55	74	He	446.424	ppb	2.9	1,212,482	2500	
Fe	56	74	H2	37731.451	ppb	0.9	398,158,816	50000	
Co	59	74	He	21.018	ppb	0.7	116,610	500	
Ni	60	74	He	31.04	ppb	1.2	41,840	1000	
Cu	65	74	He	29.142	ppb	2.0	49,201	1000	
Zn	66	74	He	85.585	ppb	0.4	56,363	2500	
As	75	74	He	3.356	ppb	0.2	1,346	500	
Se	78	74	H2	0.175	ppb	45.8	50	100	
Mo	95	103	He	0.231	ppb	12.7	370	100	
Ag	107	103	He	0.14	ppb	8.4	629	100	
Cd	111	103	He	0.127	ppb	7.2	99	1000	
[Cd]	111	103	NoGas	0.429	ppb	3.8	789	1000	
Sb	121	103	He	0.086	ppb	5.2	218	100	
Ba	138	159	He	162.45	ppb	0.7	664,374	2500	
W	182	159	NoGas	0.056	ppb	6.7	453	40	
Hg	201	159	NoGas	261.095	ppt	3.0	261	4000	
Tl	205	159	He	0.083	ppb	12.3	580	100	
Pb	208	159	NoGas	10.947	ppb	1.5	239,268	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,006,408	1.0	975380.393333333	Analog	103.2	
Sc	45	H2	2,302,804	1.5	2277280.85	Analog	101.1	
Sc	45	He	340,644	1.3	348790.796666667	Pulse	97.7	
Sc	45	NoGas	3,108,452	0.4	3065554.46333333	Analog	101.4	
Ge	74	H2	647,347	0.4	718037.156666667	Pulse	90.2	
Ge	74	He	186,057	0.9	204919.68	Pulse	90.8	
Ge	74	NoGas	731,752	0.9	806774.886666667	Pulse	90.7	
Rh	103	He	409,722	1.1	466758.146666667	Pulse	87.8	
Rh	103	NoGas	725,449	0.4	832259.633333333	Pulse	87.2	
Tb	159	He	567,084	1.0	600193.66	Pulse	94.5	
Tb	159	NoGas	1,419,098	1.4	1409745.36	Analog	100.7	
Bi	209	He	304,496	1.1	341192.286666667	Pulse	89.2	
Bi	209	NoGas	731,229	0.4	809398.153333333	Pulse	90.3	

Quantitation Report - ICPMS5

Sample Name:	**A9J0950-04**	Total Dilution:	**5.0000**
File Name:	089SMPL.d	Vial:	3408
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	Sample
Acq Time:	11/1/2019 18:33:34	I.S. Reference File:	002CALB.d
Comment:	**9101805 Sediment RCRA**	Last Calibration:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.74	ppb	3.1	1,813	100	
Na	23	45	He	585.598	ppb	0.4	667,076	50000	
Mg	24	45	He	7257.924	ppb	0.7	4,554,155	50000	
Al	27	45	He	24720.839	ppb	0.1	8,112,434	50000	
K	39	45	He	1086.651	ppb	0.4	605,015	50000	
Ca	44	45	H2	7073.1	ppb	1.5	1,604,700	50000	
[Ca]	44	45	He	7145.464	ppb	0.3	191,314	50000	
Ti	47	45	NoGas	1901.703	ppb	1.3	2,071,768	2500	
V	51	74	He	119.754	ppb	0.7	414,772	500	
Cr	52	74	He	34.365	ppb	1.2	139,250	1000	
Mn	55	74	He	548.03	ppb	0.7	1,484,895	2500	
Fe	56	74	H2	44613.25	ppb	0.2	468,700,997	50000	
Co	59	74	He	20.795	ppb	0.9	115,125	500	
Ni	60	74	He	35.061	ppb	1.2	47,152	1000	
Cu	65	74	He	42.861	ppb	0.5	72,161	1000	
Zn	66	74	He	119.281	ppb	0.7	78,365	2500	
As	75	74	He	5.798	ppb	3.2	2,299	500	
Se	78	74	H2	0.298	ppb	21.9	83	100	
Mo	95	103	He	0.4	ppb	12.2	632	100	
Ag	107	103	He	0.312	ppb	1.1	1,392	100	
Cd	111	103	He	0.236	ppb	7.2	179	1000	
[Cd]	111	103	NoGas	0.724	ppb	8.8	1,324	1000	
Sb	121	103	He	0.269	ppb	14.2	564	100	
Ba	138	159	He	194.465	ppb	0.6	790,920	2500	
W	182	159	NoGas	0.092	ppb	2.2	728	40	
Hg	201	159	NoGas	158.753	ppt	12.0	161	4000	
Tl	205	159	He	0.112	ppb	7.0	781	100	
Pb	208	159	NoGas	20.041	ppb	0.8	438,561	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,009,541	0.7	975380.393333333	Analog	103.5	
Sc	45	H2	2,335,834	0.8	2277280.85	Analog	102.6	
Sc	45	He	347,682	0.7	348790.796666667	Pulse	99.7	
Sc	45	NoGas	3,140,624	1.0	3065554.46333333	Analog	102.4	
Ge	74	H2	644,474	0.3	718037.156666667	Pulse	89.8	
Ge	74	He	185,640	0.9	204919.68	Pulse	90.6	
Ge	74	NoGas	734,431	1.3	806774.886666667	Pulse	91.0	
Rh	103	He	409,618	0.9	466758.146666667	Pulse	87.8	
Rh	103	NoGas	727,850	0.8	832259.633333333	Pulse	87.5	
Tb	159	He	563,973	0.4	600193.66	Pulse	94.0	
Tb	159	NoGas	1,422,756	0.9	1409745.36	Analog	100.9	
Bi	209	He	301,824	0.3	341192.286666667	Pulse	88.5	
Bi	209	NoGas	733,531	0.5	809398.153333333	Pulse	90.6	

Quantitation Report - ICPMS5

Sample Name:	**9101805-DUP1**	Total Dilution:	**5.0000**
File Name:	090SMPL.d	Vial:	3409
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	Sample
Acq Time:	11/1/2019 18:38:08	I.S. Reference File:	002CALB.d
Comment:	**9101805 Sediment RCRA**	Last Calibration:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.661	ppb	6.9	1,621	100	
Na	23	45	He	611.775	ppb	0.3	697,679	50000	
Mg	24	45	He	6959.076	ppb	0.1	4,372,844	50000	
Al	27	45	He	25476.522	ppb	0.3	8,371,971	50000	
K	39	45	He	1082.86	ppb	0.4	603,835	50000	
Ca	44	45	H2	6888.352	ppb	0.8	1,583,128	50000	
[Ca]	44	45	He	7037.065	ppb	0.7	188,677	50000	
Ti	47	45	NoGas	1832.735	ppb	0.5	1,977,961	2500	
V	51	74	He	113.679	ppb	0.7	397,527	500	
Cr	52	74	He	33.197	ppb	1.0	135,799	1000	
Mn	55	74	He	512.105	ppb	1.4	1,400,559	2500	
Fe	56	74	H2	43791.293	ppb	1.1	463,819,553	50000	
Co	59	74	He	19.945	ppb	0.3	111,460	500	
Ni	60	74	He	33.646	ppb	2.0	45,671	1000	
Cu	65	74	He	41.523	ppb	2.1	70,561	1000	
Zn	66	74	He	113.233	ppb	0.1	75,094	2500	
As	75	74	He	5.681	ppb	0.6	2,275	500	
Se	78	74	H2	0.272	ppb	24.0	77	100	
Mo	95	103	He	0.355	ppb	10.2	563	100	
Ag	107	103	He	0.287	ppb	7.1	1,283	100	
Cd	111	103	He	0.252	ppb	10.3	192	1000	
[Cd]	111	103	NoGas	0.652	ppb	4.6	1,189	1000	
Sb	121	103	He	0.245	ppb	9.0	522	100	
Ba	138	159	He	203.8	ppb	0.8	833,905	2500	
W	182	159	NoGas	0.124	ppb	5.4	983	40	
Hg	201	159	NoGas	148.775	ppt	3.8	155	4000	
Tl	205	159	He	0.112	ppb	6.9	786	100	
Pb	208	159	NoGas	22.531	ppb	2.5	502,162	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,009,396	1.6	975380.393333333	Analog	103.5	
Sc	45	H2	2,366,076	0.4	2277280.85	Analog	103.9	
Sc	45	He	348,166	0.5	348790.796666667	Pulse	99.8	
Sc	45	NoGas	3,111,112	1.3	3065554.46333333	Analog	101.5	
Ge	74	H2	649,735	0.4	718037.156666667	Pulse	90.5	
Ge	74	He	187,389	1.0	204919.68	Pulse	91.4	
Ge	74	NoGas	730,282	0.9	806774.886666667	Pulse	90.5	
Rh	103	He	411,218	0.8	466758.146666667	Pulse	88.1	
Rh	103	NoGas	725,235	0.4	832259.633333333	Pulse	87.1	
Tb	159	He	567,390	0.9	600193.66	Pulse	94.5	
Tb	159	NoGas	1,449,914	2.8	1409745.36	Analog	102.8	
Bi	209	He	303,943	0.7	341192.286666667	Pulse	89.1	
Bi	209	NoGas	731,195	0.4	809398.153333333	Pulse	90.3	

Quantitation Report - ICPMS5

Sample Name:	**9101805-MS1**	Total Dilution:	**5.0000**
File Name:	091SMPL.d	Vial:	3410
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	Sample
Acq Time:	11/1/2019 18:42:42	I.S. Reference File:	002CALB.d
Comment:	**9101805 Sediment RCRA**	Last Calibration:	11/01/2019 15:02:45

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	26.312	ppb	0.9	64,402	100	
Na	23	45	He	3259.683	ppb	1.1	3,700,427	50000	
Mg	24	45	He	9626.983	ppb	0.6	6,051,213	50000	
Al	27	45	He	24867.422	ppb	0.9	8,174,692	50000	
K	39	45	He	3800.53	ppb	0.5	2,051,574	50000	
Ca	44	45	H2	9338.809	ppb	0.2	2,141,106	50000	
[Ca]	44	45	He	9363.462	ppb	0.8	251,067	50000	
Ti	47	45	NoGas	1495.043	ppb	1.5	1,608,503	2500	
V	51	74	He	166.987	ppb	0.3	577,008	500	
Cr	52	74	He	87.881	ppb	0.1	355,314	1000	
Mn	55	74	He	587.703	ppb	1.1	1,590,541	2500	
Fe	56	74	H2	44743.184	ppb	0.4	471,041,513	50000	
Co	59	74	He	77.854	ppb	0.4	430,407	500	
Ni	60	74	He	90.138	ppb	0.5	120,977	1000	
Cu	65	74	He	97.628	ppb	0.6	164,082	1000	
Zn	66	74	He	173.556	ppb	0.7	113,861	2500	
As	75	74	He	57.76	ppb	1.1	22,638	500	
Se	78	74	H2	25.268	ppb	0.8	6,939	100	
Mo	95	103	He	27.783	ppb	0.7	42,658	100	
Ag	107	103	He	28.754	ppb	1.4	126,049	100	
Cd	111	103	He	54.053	ppb	1.6	39,048	1000	
[Cd]	111	103	NoGas	54.886	ppb	1.7	96,853	1000	
Sb	121	103	He	24.117	ppb	0.7	45,158	100	
Ba	138	159	He	241.192	ppb	0.4	975,595	2500	
W	182	159	NoGas	0.098	ppb	9.6	751	40	
Hg	201	159	NoGas	1128.719	ppt	2.2	1,082	4000	
Tl	205	159	He	26.134	ppb	0.7	177,640	100	
Pb	208	159	NoGas	70.924	ppb	1.5	1,508,253	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,016,816	1.2	975380.393333333	Analog	104.2	
Sc	45	H2	2,360,449	0.9	2277280.85	Analog	103.7	
Sc	45	He	348,303	1.1	348790.796666667	Pulse	99.9	
Sc	45	NoGas	3,101,154	1.0	3065554.46333333	Analog	101.2	
Ge	74	H2	645,818	0.5	718037.156666667	Pulse	89.9	
Ge	74	He	185,408	0.8	204919.68	Pulse	90.5	
Ge	74	NoGas	719,257	1.3	806774.886666667	Pulse	89.2	
Rh	103	He	404,485	0.4	466758.146666667	Pulse	86.7	
Rh	103	NoGas	712,569	0.8	832259.633333333	Pulse	85.6	
Tb	159	He	560,893	0.6	600193.66	Pulse	93.5	
Tb	159	NoGas	1,384,469	1.7	1409745.36	Analog	98.2	
Bi	209	He	298,541	0.3	341192.286666667	Pulse	87.5	
Bi	209	NoGas	719,046	0.2	809398.153333333	Pulse	88.8	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-CCV7**	Total Dilution:	1.0000
File Name:	092_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 18:47:17
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.849	ppb	1.2	96,850	40	99.62	
Na	23	45	He	4290.736	ppb	0.9	4,643,191	4000	107.27	
Mg	24	45	He	4586.677	ppb	1.3	2,749,148	4000	114.67	> +/- 10%
Al	27	45	He	4395.997	ppb	0.8	1,377,961	4000	109.9	
K	39	45	He	4466.009	ppb	0.5	2,294,116	4000	111.65	> +/- 10%
Ca	44	45	H2	4100.179	ppb	0.5	905,526	4000	102.5	
[Ca]	44	45	He	4243.659	ppb	0.4	108,618	4000	106.09	
Ti	47	45	NoGas	99.985	ppb	1.2	103,725	100	99.98	
V	51	74	He	100.466	ppb	0.3	359,999	100	100.47	
Cr	52	74	He	101.142	ppb	0.2	423,230	100	101.14	
Mn	55	74	He	106.638	ppb	0.2	298,726	100	106.64	
Fe	56	74	H2	4350.976	ppb	0.3	48,407,375	4000	108.77	
Co	59	74	He	104.799	ppb	0.2	599,671	100	104.8	
Ni	60	74	He	109.165	ppb	0.9	151,636	100	109.16	
Cu	65	74	He	104.979	ppb	0.3	182,618	100	104.98	
Zn	66	74	He	100.516	ppb	0.2	68,270	100	100.52	
As	75	74	He	102.862	ppb	0.1	41,708	100	102.86	
Se	78	74	H2	40.595	ppb	0.7	11,779	40	101.49	
Mo	95	103	He	40.967	ppb	0.9	64,913	40	102.42	
Ag	107	103	He	41.273	ppb	0.7	186,731	40	103.18	
Cd	111	103	He	99.400	ppb	0.4	74,104	100	99.4	
[Cd]	111	103	NoGas	99.166	ppb	0.6	179,833	100	99.17	
Sb	121	103	He	42.901	ppb	0.7	82,862	40	107.25	
Ba	138	159	He	108.043	ppb	0.4	443,777	100	108.04	
Hg	201	159	NoGas	766.034	ppt	4.4	746	800	95.75	
Tl	205	159	He	39.993	ppb	0.7	275,996	40	99.98	
Pb	208	159	NoGas	94.202	ppb	1.0	2,029,917	100	94.2	

Mg Q-41
K Q-41
ESS 11/4/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.9	1,009,819	975380.393333333	103.5	
Sc	45	H2	Analog	0.4	2,273,184	2277280.85	99.8	
Sc	45	He	Pulse	0.5	332,094	348790.796666667	95.2	
Sc	45	NoGas	Analog	0.6	2,989,594	3065554.46333333	97.5	
Ge	74	H2	Pulse	0.3	682,414	718037.156666667	95.0	
Ge	74	He	Pulse	0.2	191,905	204919.68	93.6	
Ge	74	NoGas	Pulse	0.9	748,957	806774.886666667	92.8	
Rh	103	He	Pulse	0.2	417,449	466758.146666667	89.4	
Rh	103	NoGas	Pulse	0.3	732,284	832259.633333333	88.0	
Tb	159	He	Pulse	0.6	569,481	600193.66	94.9	
Tb	159	NoGas	Analog	1.1	1,402,931	1409745.36	99.5	
Bi	209	He	Pulse	0.8	314,198	341192.286666667	92.1	
Bi	209	NoGas	Pulse	0.7	742,435	809398.153333333	91.7	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K01022-CCB6**	Total Dilution:	1.0000
File Name:	093_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 18:51:55
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.008	ppb	27.8	36	
Na	23	45	He	9.984	ppb	4.0	15,249	
Mg	24	45	He	1.396	ppb	4.7	1,282	
Al	27	45	He	2.077	ppb	4.7	773	
K	39	45	He	5.295	ppb	11.4	29,570	
Ca	44	45	H2	3.169	ppb	9.7	1,160	
[Ca]	44	45	He	0.372	ppb	536.5	242	
Ti	47	45	NoGas	0.189	ppb	6.5	242	
V	51	74	He	-0.092	ppb	N/A	1,426	
Cr	52	74	He	0.006	ppb	86.0	274	
Mn	55	74	He	0.068	ppb	19.3	229	
Fe	56	74	H2	4.741	ppb	3.0	59,785	
Co	59	74	He	0.014	ppb	41.7	102	
Ni	60	74	He	-0.006	ppb	N/A	51	
Cu	65	74	He	0.038	ppb	25.7	137	
Zn	66	74	He	0.065	ppb	97.3	84	
As	75	74	He	0.035	ppb	46.7	43	
Se	78	74	H2	0.047	ppb	33.1	16	
Mo	95	103	He	0.034	ppb	24.6	67	
Ag	107	103	He	0.005	ppb	43.9	29	
Cd	111	103	He	0.018	ppb	34.1	21	
[Cd]	111	103	NoGas	0.014	ppb	63.1	47	
Sb	121	103	He	0.020	ppb	45.2	100	
Ba	138	159	He	0.041	ppb	41.3	283	
Hg	201	159	NoGas	1.129	ppt	243.8	7	
Tl	205	159	He	0.016	ppb	39.6	122	
Pb	208	159	NoGas	0.035	ppb	12.7	1,530	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.8	1,065,175	975380.393333333	109.2	
Sc	45	H2	Analog	0.1	2,305,535	2277280.85	101.2	
Sc	45	He	Pulse	0.9	342,192	348790.796666667	98.1	
Sc	45	NoGas	Analog	0.3	3,115,505	3065554.46333333	101.6	
Ge	74	H2	Pulse	0.2	694,478	718037.156666667	96.7	
Ge	74	He	Pulse	1.0	198,655	204919.68	96.9	
Ge	74	NoGas	Pulse	1.4	776,551	806774.886666667	96.3	
Rh	103	He	Pulse	1.4	439,098	466758.146666667	94.1	
Rh	103	NoGas	Pulse	0.1	777,476	832259.633333333	93.4	
Tb	159	He	Pulse	0.8	576,881	600193.66	96.1	
Tb	159	NoGas	Analog	1.6	1,421,598	1409745.36	100.8	
Bi	209	He	Pulse	0.7	317,725	341192.286666667	93.1	
Bi	209	NoGas	Pulse	1.0	767,547	809398.153333333	94.8	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-CCV8**	Total Dilution:	1.0000
File Name:	104_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 19:42:33
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.030	ppb	1.1	97,391	40	100.08	
Na	23	45	He	4260.980	ppb	0.7	4,659,598	4000	106.52	
Mg	24	45	He	4494.546	ppb	0.6	2,722,290	4000	112.36	> +/- 10%
Al	27	45	He	4314.640	ppb	0.5	1,366,702	4000	107.87	
K	39	45	He	4428.535	ppb	0.7	2,298,989	4000	110.71	> +/- 10%
Ca	44	45	H2	4058.881	ppb	0.9	903,949	4000	101.47	
[Ca]	44	45	He	4222.709	ppb	0.2	109,221	4000	105.57	
Ti	47	45	NoGas	100.237	ppb	1.3	105,726	100	100.24	
V	51	74	He	100.451	ppb	0.4	365,080	100	100.45	
Cr	52	74	He	100.717	ppb	0.6	427,461	100	100.72	
Mn	55	74	He	105.913	ppb	0.3	300,935	100	105.91	
Fe	56	74	H2	4376.303	ppb	0.9	48,543,080	4000	109.41	
Co	59	74	He	103.728	ppb	0.5	602,008	100	103.73	
Ni	60	74	He	107.618	ppb	0.5	151,623	100	107.62	
Cu	65	74	He	104.769	ppb	0.4	184,858	100	104.77	
Zn	66	74	He	100.833	ppb	0.6	69,464	100	100.83	
As	75	74	He	100.429	ppb	0.7	41,305	100	100.43	
Se	78	74	H2	40.167	ppb	0.5	11,620	40	100.42	
Mo	95	103	He	41.059	ppb	1.5	65,723	40	102.65	
Ag	107	103	He	41.131	ppb	0.3	187,981	40	102.83	
Cd	111	103	He	99.359	ppb	0.6	74,827	100	99.36	
[Cd]	111	103	NoGas	98.932	ppb	0.8	182,318	100	98.93	
Sb	121	103	He	41.876	ppb	1.0	81,705	40	104.69	
Ba	138	159	He	108.851	ppb	0.7	446,368	100	108.85	
Hg	201	159	NoGas	706.928	ppt	4.8	696	800	88.37	> +/- 10%
Tl	205	159	He	40.009	ppb	0.1	275,679	40	100.02	
Pb	208	159	NoGas	92.991	ppb	0.5	2,024,772	100	92.99	

Mg, K
Q-41

Hg Q-31
ESS 11/4/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.8	1,010,830	975380.393333333	103.6	
Sc	45	H2	Analog	0.6	2,292,351	2277280.85	100.7	
Sc	45	He	Pulse	0.3	335,585	348790.796666667	96.2	
Sc	45	NoGas	Analog	1.6	3,039,879	3065554.46333333	99.2	
Ge	74	H2	Pulse	0.2	680,376	718037.156666667	94.8	
Ge	74	He	Pulse	0.5	194,645	204919.68	95.0	
Ge	74	NoGas	Pulse	0.7	759,739	806774.886666667	94.2	
Rh	103	He	Pulse	0.2	421,697	466758.146666667	90.3	
Rh	103	NoGas	Pulse	0.7	744,167	832259.633333333	89.4	
Tb	159	He	Pulse	0.8	568,583	600193.66	94.7	
Tb	159	NoGas	Analog	0.4	1,417,507	1409745.36	100.6	
Bi	209	He	Pulse	0.6	312,875	341192.286666667	91.7	
Bi	209	NoGas	Pulse	0.6	740,673	809398.153333333	91.5	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K01022-CCB7**	Total Dilution:	1.0000
File Name:	105_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 19:47:11
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.008	ppb	75.8	36	
Na	23	45	He	6.224	ppb	4.2	11,179	
Mg	24	45	He	1.406	ppb	12.7	1,303	
Al	27	45	He	2.886	ppb	8.7	1,046	
K	39	45	He	5.118	ppb	8.7	29,809	
Ca	44	45	H2	2.606	ppb	5.3	1,047	
[Ca]	44	45	He	0.903	ppb	25.6	259	
Ti	47	45	NoGas	0.274	ppb	35.8	337	
V	51	74	He	-0.098	ppb	N/A	1,408	
Cr	52	74	He	0.010	ppb	169.0	292	
Mn	55	74	He	0.072	ppb	6.5	242	
Fe	56	74	H2	5.563	ppb	2.6	69,115	
Co	59	74	He	0.018	ppb	28.7	123	
Ni	60	74	He	0.007	ppb	231.8	70	
Cu	65	74	He	0.023	ppb	31.1	111	
Zn	66	74	He	0.035	ppb	25.6	63	
As	75	74	He	0.023	ppb	89.0	38	
Se	78	74	H2	0.034	ppb	49.6	12	
Mo	95	103	He	0.036	ppb	24.1	70	
Ag	107	103	He	0.010	ppb	4.2	56	
Cd	111	103	He	0.020	ppb	15.7	23	
[Cd]	111	103	NoGas	0.016	ppb	60.2	52	
Sb	121	103	He	0.087	ppb	13.0	236	
Ba	138	159	He	0.038	ppb	9.0	272	
Hg	201	159	NoGas	5.663	ppt	40.8	12	
Tl	205	159	He	0.009	ppb	30.8	76	
Pb	208	159	NoGas	0.044	ppb	8.5	1,767	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.4	1,046,215	975380.393333333	107.3	
Sc	45	H2	Analog	0.5	2,333,939	2277280.85	102.5	
Sc	45	He	Pulse	0.9	346,019	348790.796666667	99.2	
Sc	45	NoGas	Analog	1.4	3,136,815	3065554.46333333	102.3	
Ge	74	H2	Pulse	0.5	694,741	718037.156666667	96.8	
Ge	74	He	Pulse	1.2	199,336	204919.68	97.3	
Ge	74	NoGas	Pulse	1.2	786,254	806774.886666667	97.5	
Rh	103	He	Pulse	0.8	438,595	466758.146666667	94.0	
Rh	103	NoGas	Pulse	0.6	785,755	832259.633333333	94.4	
Tb	159	He	Pulse	0.5	575,016	600193.66	95.8	
Tb	159	NoGas	Analog	1.7	1,448,897	1409745.36	102.8	
Bi	209	He	Pulse	1.0	318,171	341192.286666667	93.3	
Bi	209	NoGas	Pulse	0.8	764,928	809398.153333333	94.5	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K01022-CCV9**	Total Dilution:	1.0000
File Name:	113_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 20:30:28
Comment:	A19J138 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.770	ppb	0.7	97,701	40	99.43	
Na	23	45	He	4258.035	ppb	1.0	4,628,417	4000	106.45	
Mg	24	45	He	4532.554	ppb	1.2	2,728,794	4000	113.31	> +/- 10%
Al	27	45	He	4281.238	ppb	2.8	1,347,821	4000	107.03	
K	39	45	He	4417.907	ppb	0.8	2,279,808	4000	110.45	> +/- 10%
Ca	44	45	H2	4094.523	ppb	1.3	916,438	4000	102.36	
[Ca]	44	45	He	4230.861	ppb	1.0	108,776	4000	105.77	
Ti	47	45	NoGas	98.740	ppb	1.2	104,681	100	98.74	
V	51	74	He	101.484	ppb	0.1	360,530	100	101.48	
Cr	52	74	He	101.831	ppb	0.6	422,473	100	101.83	
Mn	55	74	He	107.209	ppb	0.5	297,767	100	107.21	
Fe	56	74	H2	4393.858	ppb	0.9	48,765,555	4000	109.85	
Co	59	74	He	104.372	ppb	0.7	592,142	100	104.37	
Ni	60	74	He	107.661	ppb	0.6	148,274	100	107.66	
Cu	65	74	He	105.132	ppb	0.4	181,325	100	105.13	
Zn	66	74	He	101.107	ppb	1.1	68,086	100	101.11	
As	75	74	He	101.190	ppb	0.7	40,681	100	101.19	
Se	78	74	H2	40.368	ppb	1.2	11,684	40	100.92	
Mo	95	103	He	41.583	ppb	0.7	65,078	40	103.96	
Ag	107	103	He	41.234	ppb	0.4	184,257	40	103.08	
Cd	111	103	He	100.309	ppb	0.4	73,862	100	100.31	
[Cd]	111	103	NoGas	99.212	ppb	1.7	180,732	100	99.21	
Sb	121	103	He	41.976	ppb	1.0	80,081	40	104.94	
Ba	138	159	He	109.616	ppb	0.1	439,314	100	109.62	
Hg	201	159	NoGas	756.729	ppt	3.4	726	800	94.59	
Tl	205	159	He	39.938	ppb	0.4	268,939	40	99.84	
Pb	208	159	NoGas	93.571	ppb	0.5	1,987,166	100	93.57	

Mg Q-41
ESS 11/4/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.8	1,020,640	975380.393333333	104.6	
Sc	45	H2	Analog	1.1	2,303,942	2277280.85	101.2	
Sc	45	He	Pulse	1.0	333,587	348790.796666667	95.6	
Sc	45	NoGas	Analog	0.7	3,055,003	3065554.46333333	99.7	
Ge	74	H2	Pulse	0.1	680,754	718037.156666667	94.8	
Ge	74	He	Pulse	0.2	190,269	204919.68	92.9	
Ge	74	NoGas	Pulse	0.5	748,643	806774.886666667	92.8	
Rh	103	He	Pulse	0.4	412,319	466758.146666667	88.3	
Rh	103	NoGas	Pulse	0.5	735,632	832259.633333333	88.4	
Tb	159	He	Pulse	0.5	555,674	600193.66	92.6	
Tb	159	NoGas	Analog	0.8	1,382,588	1409745.36	98.1	
Bi	209	He	Pulse	0.4	305,154	341192.286666667	89.4	
Bi	209	NoGas	Pulse	0.5	730,488	809398.153333333	90.3	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K01022-CCB8**	Total Dilution:	1.0000
File Name:	114_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 20:35:05
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.009	ppb	99.0	38	
Na	23	45	He	15.150	ppb	7.1	19,783	
Mg	24	45	He	2.143	ppb	20.4	1,636	
Al	27	45	He	3.940	ppb	14.6	1,290	
K	39	45	He	10.310	ppb	40.7	30,312	
Ca	44	45	H2	7.966	ppb	8.2	2,236	
[Ca]	44	45	He	7.609	ppb	20.6	407	
Ti	47	45	NoGas	0.249	ppb	19.9	305	
V	51	74	He	0.117	ppb	62.9	2,046	
Cr	52	74	He	0.022	ppb	44.1	318	
Mn	55	74	He	0.125	ppb	16.8	370	
Fe	56	74	H2	6.575	ppb	3.3	78,972	
Co	59	74	He	0.018	ppb	66.3	114	
Ni	60	74	He	0.010	ppb	240.3	68	
Cu	65	74	He	0.058	ppb	8.4	162	
Zn	66	74	He	0.176	ppb	21.3	151	
As	75	74	He	0.063	ppb	56.1	51	
Se	78	74	H2	0.042	ppb	8.3	14	
Mo	95	103	He	0.032	ppb	36.5	59	
Ag	107	103	He	0.013	ppb	39.1	64	
Cd	111	103	He	0.024	ppb	65.1	24	
[Cd]	111	103	NoGas	0.030	ppb	2.3	76	
Sb	121	103	He	0.087	ppb	31.2	220	
Ba	138	159	He	0.076	ppb	23.7	399	
Hg	201	159	NoGas	1.732	ppt	134.0	8	
Tl	205	159	He	0.010	ppb	38.5	73	
Pb	208	159	NoGas	0.056	ppb	4.8	1,975	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.5	1,035,981	975380.393333333	106.2	
Sc	45	H2	Analog	0.3	2,307,700	2277280.85	101.3	
Sc	45	He	Pulse	7.5	323,262	348790.796666667	92.7	
Sc	45	NoGas	Analog	1.2	3,094,627	3065554.46333333	100.9	
Ge	74	H2	Pulse	0.3	680,912	718037.156666667	94.8	
Ge	74	He	Pulse	7.9	186,319	204919.68	90.9	
Ge	74	NoGas	Pulse	0.7	765,815	806774.886666667	94.9	
Rh	103	He	Pulse	7.4	411,767	466758.146666667	88.2	
Rh	103	NoGas	Pulse	0.2	764,522	832259.633333333	91.9	
Tb	159	He	Pulse	7.4	538,471	600193.66	89.7	
Tb	159	NoGas	Analog	1.2	1,405,405	1409745.36	99.7	
Bi	209	He	Pulse	7.4	299,537	341192.286666667	87.8	
Bi	209	NoGas	Pulse	0.2	746,567	809398.153333333	92.2	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRLC**	Total Dilution:	1.0000
File Name:	115CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 20:39:47
Comment:	A19J368 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.179	ppb	8.4	461	99.44		
Na	23	45	He	22.443	ppb	1.3	28,460	249.37	R-11	< MRL
Mg	24	45	He	10.742	ppb	5.8	6,891	119.36		
Al	27	45	He	11.863	ppb	1.6	3,844	131.81	R-11	
K	39	45	He	16.143	ppb	3.5	34,441	179.37	R-11	
Ca	44	45	H2	13.137	ppb	2.3	3,376	145.97	R-11	< MRL
[Ca]	44	45	He	12.092	ppb	13.8	538	134.36	R-11	
Ti	47	45	NoGas	0.356	ppb	9.2	415	197.78	R-11	
V	51	74	He	0.305	ppb	5.0	2,822	169.44	R-11	
Cr	52	74	He	0.183	ppb	2.5	1,013	101.67		
Mn	55	74	He	0.268	ppb	8.1	792	148.89	R-11	< MRL
Fe	56	74	H2	13.071	ppb	0.4	150,711	145.23	R-11	
Co	59	74	He	0.196	ppb	7.2	1,151	108.89		
Ni	60	74	He	0.178	ppb	10.3	308	98.89		
Cu	65	74	He	0.211	ppb	20.2	439	117.22		
Zn	66	74	He	0.308	ppb	28.5	249	171.11	R-11	< MRL
As	75	74	He	0.223	ppb	20.9	119	123.89		
Se	78	74	H2	0.219	ppb	16.6	65	121.67		
Mo	95	103	He	0.170	ppb	14.3	286	94.44		
Ag	107	103	He	0.204	ppb	7.2	953	113.33		
Cd	111	103	He	0.171	ppb	2.0	138	95		
[Cd]	111	103	NoGas	0.165	ppb	18.4	327	91.67		
Sb	121	103	He	0.193	ppb	12.8	439	107.22		
Ba	138	159	He	0.230	ppb	5.7	1,042	127.78		
Hg	201	159	NoGas	6.958	ppt	27.3	13	96.64		
Tl	205	159	He	0.193	ppb	2.2	1,329	107.22		
Pb	208	159	NoGas	0.211	ppb	7.6	5,225	117.22		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.5	1,034,630	975380.393333333	106.1	
Sc	45	H2	Analog	0.8	2,294,596	2277280.85	100.8	
Sc	45	He	Pulse	0.4	334,362	348790.796666667	95.9	
Sc	45	NoGas	Analog	0.4	3,064,125	3065554.46333333	100.0	
Ge	74	H2	Pulse	0.6	679,262	718037.156666667	94.6	
Ge	74	He	Pulse	0.7	193,939	204919.68	94.6	
Ge	74	NoGas	Pulse	0.8	755,227	806774.886666667	93.6	
Rh	103	He	Pulse	0.9	427,788	466758.146666667	91.7	
Rh	103	NoGas	Pulse	0.3	755,998	832259.633333333	90.8	
Tb	159	He	Pulse	0.7	561,875	600193.66	93.6	
Tb	159	NoGas	Analog	0.7	1,382,317	1409745.36	98.1	
Bi	209	He	Pulse	0.9	312,766	341192.286666667	91.7	
Bi	209	NoGas	Pulse	0.8	748,328	809398.153333333	92.5	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRLD**	Total Dilution:	1.0000
File Name:	116_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 20:44:27
Comment:	A19J369 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.876	ppb	5.8	2,188	97.33	
Na	23	45	He	59.544	ppb	1.0	68,767	132.32	R-11
Mg	24	45	He	49.267	ppb	1.5	30,103	109.48	
Al	27	45	He	48.980	ppb	1.3	15,539	108.84	
K	39	45	He	53.572	ppb	2.8	53,516	119.05	
Ca	44	45	H2	47.785	ppb	0.8	11,001	106.19	
[Ca]	44	45	He	55.327	ppb	1.5	1,648	122.95	
Ti	47	45	NoGas	1.042	ppb	10.1	1,136	115.78	
V	51	74	He	1.077	ppb	1.0	5,570	119.67	
Cr	52	74	He	0.938	ppb	6.7	4,179	104.22	
Mn	55	74	He	0.986	ppb	4.8	2,806	109.56	
Fe	56	74	H2	48.940	ppb	0.6	546,489	108.76	
Co	59	74	He	0.937	ppb	5.0	5,408	104.11	
Ni	60	74	He	0.904	ppb	3.2	1,319	100.44	
Cu	65	74	He	1.004	ppb	7.0	1,820	111.56	
Zn	66	74	He	0.961	ppb	4.5	693	106.78	
As	75	74	He	0.987	ppb	9.9	430	109.67	
Se	78	74	H2	0.942	ppb	9.7	273	104.67	
Mo	95	103	He	0.883	ppb	7.3	1,447	98.11	
Ag	107	103	He	0.930	ppb	2.6	4,325	103.33	
Cd	111	103	He	0.914	ppb	6.7	706	101.56	
[Cd]	111	103	NoGas	0.904	ppb	7.7	1,705	100.44	
Sb	121	103	He	0.841	ppb	4.4	1,726	93.44	
Ba	138	159	He	1.027	ppb	2.7	4,260	114.11	
Hg	201	159	NoGas	32.299	ppt	6.0	37	89.72	
Tl	205	159	He	0.889	ppb	2.3	6,046	98.78	
Pb	208	159	NoGas	0.875	ppb	1.3	19,600	97.22	

< MRL

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.0	1,029,814	975380.393333333	105.6	
Sc	45	H2	Analog	0.9	2,274,940	2277280.85	99.9	
Sc	45	He	Pulse	0.4	333,966	348790.796666667	95.7	
Sc	45	NoGas	Analog	0.6	3,042,251	3065554.46333333	99.2	
Ge	74	H2	Pulse	0.4	677,537	718037.156666667	94.4	
Ge	74	He	Pulse	0.9	192,808	204919.68	94.1	
Ge	74	NoGas	Pulse	0.9	751,840	806774.886666667	93.2	
Rh	103	He	Pulse	0.5	428,616	466758.146666667	91.8	
Rh	103	NoGas	Pulse	0.5	753,519	832259.633333333	90.5	
Tb	159	He	Pulse	1.0	559,898	600193.66	93.3	
Tb	159	NoGas	Analog	1.2	1,402,307	1409745.36	99.5	
Bi	209	He	Pulse	1.0	313,975	341192.286666667	92.0	
Bi	209	NoGas	Pulse	0.6	746,391	809398.153333333	92.2	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRLE**	Total Dilution:	1.0000
File Name:	117CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 20:49:08
Comment:	A19J370 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.726	ppb	4.5	4,231	95.89	
Na	23	45	He	107.572	ppb	0.9	119,402	119.52	
Mg	24	45	He	96.187	ppb	1.0	57,614	106.87	
Al	27	45	He	95.728	ppb	1.1	29,877	106.36	
K	39	45	He	102.508	ppb	0.7	77,479	113.9	
Ca	44	45	H2	92.847	ppb	0.8	20,716	103.16	
[Ca]	44	45	He	94.145	ppb	0.9	2,610	104.61	
Ti	47	45	NoGas	1.940	ppb	9.1	2,069	107.78	
V	51	74	He	1.976	ppb	0.2	8,726	109.78	
Cr	52	74	He	1.834	ppb	3.1	7,887	101.89	
Mn	55	74	He	1.948	ppb	4.5	5,475	108.22	
Fe	56	74	H2	94.489	ppb	0.3	1,042,271	104.99	
Co	59	74	He	1.835	ppb	1.1	10,488	101.94	
Ni	60	74	He	1.883	ppb	1.4	2,665	104.61	
Cu	65	74	He	2.160	ppb	1.0	3,813	120	
Zn	66	74	He	2.120	ppb	6.1	1,472	117.78	
As	75	74	He	1.837	ppb	4.4	770	102.06	
Se	78	74	H2	1.811	ppb	4.0	520	100.61	
Mo	95	103	He	1.856	ppb	3.2	2,991	103.11	
Ag	107	103	He	1.843	ppb	0.7	8,460	102.39	
Cd	111	103	He	1.906	ppb	3.4	1,448	105.89	
[Cd]	111	103	NoGas	1.804	ppb	0.7	3,369	100.22	
Sb	121	103	He	1.796	ppb	4.8	3,572	99.78	
Ba	138	159	He	2.007	ppb	1.4	8,219	111.5	
Hg	201	159	NoGas	75.880	ppt	10.8	78	105.39	
Tl	205	159	He	1.802	ppb	0.4	12,243	100.11	
Pb	208	159	NoGas	1.744	ppb	1.5	37,745	96.89	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.5	1,014,782	975380.393333333	104.0	
Sc	45	H2	Analog	1.6	2,248,934	2277280.85	98.8	
Sc	45	He	Pulse	0.3	329,585	348790.796666667	94.5	
Sc	45	NoGas	Analog	1.0	3,018,450	3065554.46333333	98.5	
Ge	74	H2	Pulse	0.5	672,829	718037.156666667	93.7	
Ge	74	He	Pulse	0.9	191,377	204919.68	93.4	
Ge	74	NoGas	Pulse	1.0	748,853	806774.886666667	92.8	
Rh	103	He	Pulse	0.5	423,233	466758.146666667	90.7	
Rh	103	NoGas	Pulse	0.9	750,084	832259.633333333	90.1	
Tb	159	He	Pulse	0.5	560,151	600193.66	93.3	
Tb	159	NoGas	Analog	1.6	1,381,849	1409745.36	98.0	
Bi	209	He	Pulse	1.0	311,743	341192.286666667	91.4	
Bi	209	NoGas	Pulse	0.4	746,346	809398.153333333	92.2	

CRL Verification Report - ICPMS5

Sample Name:	**9K01022-CRLF**	Total Dilution:	1.0000
File Name:	118CRL4.d	Sample Type:	CRL4
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Acq Time:	11/1/2019 20:53:49
Comment:	A19J371 - ESS 11/1		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.608	ppb	3.2	8,791	100.22	
Na	23	45	He	199.377	ppb	0.1	218,874	110.76	
Mg	24	45	He	190.856	ppb	1.2	114,418	106.03	
Al	27	45	He	187.940	ppb	0.4	58,820	104.41	
K	39	45	He	196.596	ppb	0.6	125,451	109.22	
Ca	44	45	H2	182.480	ppb	1.5	40,489	101.38	
[Ca]	44	45	He	191.072	ppb	3.4	5,090	106.15	
Ti	47	45	NoGas	3.765	ppb	1.6	3,962	104.58	
V	51	74	He	3.869	ppb	1.2	15,399	107.47	
Cr	52	74	He	3.663	ppb	1.8	15,455	101.75	
Mn	55	74	He	3.881	ppb	2.2	10,832	107.81	
Fe	56	74	H2	197.472	ppb	1.0	2,171,341	109.71	
Co	59	74	He	3.647	ppb	0.7	20,750	101.31	
Ni	60	74	He	3.849	ppb	0.9	5,366	106.92	
Cu	65	74	He	3.834	ppb	5.0	6,688	106.5	
Zn	66	74	He	3.804	ppb	5.7	2,602	105.67	
As	75	74	He	3.865	ppb	3.6	1,583	107.36	
Se	78	74	H2	3.700	ppb	1.7	1,060	102.78	
Mo	95	103	He	3.660	ppb	2.2	5,847	101.67	
Ag	107	103	He	3.619	ppb	1.4	16,487	100.53	
Cd	111	103	He	3.714	ppb	1.8	2,794	103.17	
[Cd]	111	103	NoGas	3.628	ppb	4.3	6,711	100.78	
Sb	121	103	He	3.653	ppb	1.6	7,154	101.47	
Ba	138	159	He	4.088	ppb	3.3	16,486	113.56	
Hg	201	159	NoGas	132.855	ppt	6.2	132	92.26	
Tl	205	159	He	3.628	ppb	2.0	24,434	100.78	
Pb	208	159	NoGas	3.489	ppb	1.5	74,801	96.92	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.9	1,010,630	975380.393333333	103.6	
Sc	45	H2	Analog	1.0	2,259,965	2277280.85	99.2	
Sc	45	He	Pulse	0.4	331,034	348790.796666667	94.9	
Sc	45	NoGas	Analog	0.7	3,006,201	3065554.46333333	98.1	
Ge	74	H2	Pulse	0.3	672,688	718037.156666667	93.7	
Ge	74	He	Pulse	1.0	190,651	204919.68	93.0	
Ge	74	NoGas	Pulse	0.9	749,087	806774.886666667	92.8	
Rh	103	He	Pulse	1.0	420,176	466758.146666667	90.0	
Rh	103	NoGas	Pulse	0.6	744,701	832259.633333333	89.5	
Tb	159	He	Pulse	0.8	555,592	600193.66	92.6	
Tb	159	NoGas	Analog	0.6	1,382,329	1409745.36	98.1	
Bi	209	He	Pulse	0.3	311,974	341192.286666667	91.4	
Bi	209	NoGas	Pulse	0.6	745,921	809398.153333333	92.2	

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 9110482
Sequence 9K05034

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

9110482

NOV 1 1 2019

Apex Laboratories

BATCH #: 9110482 (Sediment)

Prep Method: EPA 1311/3015

Lab Number	Due	Prepared	Initial (mL)	Final (mL)	Client	ClientID / Sample	Extraction Comments
9110482-BLK1		11/05/19 11:32	10	50	QC Sample		
9110482-BS1		11/05/19 11:32	10	50	QC Sample		
	Spike 1: 250 uL of A19J064	Spike 2: 1000 uL of A19J206					
A9J0950-01	11/07/19	11/05/19 11:32	10	50	Anchor QEA, LLC	PDI-015SC-C-00-8-1-19102	
☐ 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							
A9J0950-02	11/07/19	11/05/19 11:32	10	50	Anchor QEA, LLC	PDI-026SC-C-00-3-9-19102	
☐ 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							
A9J0950-03	11/07/19	11/05/19 11:32	10	50	Anchor QEA, LLC	PDI-037SC-C-00-12-4-19102	
☐ 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							
A9J0950-04	11/07/19	11/05/19 11:32	10	50	Anchor QEA, LLC	PDI-073SC-C-00-13-7-19102	
☐ 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							
9110482-MS1		11/05/19 11:32	10	50	QC Sample		
	Source: A9J0950-04	Spike 1: 250 uL of A19J064	Spike 2: 1000 uL of A19J206				

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L213	11/30/23	Metals Prep Balance 2
A17F264	06/23/23	Mars-6 Microwave
A19I314	03/22/20	Conc. HCl - Omnitrace
A19J492	04/28/20	Conc. HNO3 - Omnitrace

Analyte Spike(s)

Std ID	Exp. Date	Description
A19J064	12/28/19	###TCLP 1 Spk
A19J206	01/30/20	Hg Sb TCLP Spk Standard

CRL 11/5/19

Fluid ID: A19K009
Extraction Batch: 9110414
Digestion time and temperature achieved? yes
Initials: CRL

CRL 11/5/19
Prepared By: Date

ESS 11/6/19
Reviewed By: Date

Batch #: 9110482

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: 11/05/19 Prepared by: CRL

#	Mars Tube ID	Sample ID	Pre-digestion Vessel + Sample Wt. (g)	Post-digestion Vessel + Sample Wt. (g)	Sample Wt. Loss (%)* *Formula only used if sample loss >0.2g*
1	531	9110482-BLK1	206.32	206.24	n/a
2	520	9110482-BS1	207.99	207.98	n/a
3	551	A9J0950-01	206.16	206.14	n/a
4	530	A9J0950-02	208.28	208.27	n/a
5	516	A9J0950-03	208.43	208.37	n/a
6	5109	A9J0950-04	207.23	207.22	n/a
7	558	9110482-MS1	208.59	208.51	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
25					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: **9K05034** Instrument: **ICPMS5**

Date: **11/05/19 09:59** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K05034-CAL1	Water	QC	QC			A19J130	A19J368
2	9K05034-CAL2	Water	QC	QC			A19J130	A19J369
3	9K05034-CAL3	Water	QC	QC			A19J130	A19J370
4	9K05034-CAL4	Water	QC	QC			A19J130	A19J371
5	9K05034-CAL5	Water	QC	QC			A19J130	A19J373
6	9K05034-CAL6	Water	QC	QC			A19J130	A19J372
7	9K05034-CAL7	Water	QC	QC			A19J130	A19J374
8	9K05034-CAL8	Water	QC	QC			A19J130	A19J188
9	9K05034-CAL9	Water	QC	QC			A19J130	A19J189
10	9K05034-ICV1	Water	QC	QC			A19J130	A19J138
11	9K05034-ICB1	Water	QC	QC			A19J130	
12	9K05034-CRL1	Water	QC	QC			A19J130	A19J368
13	9K05034-CRL2	Water	QC	QC			A19J130	A19J369
14	9K05034-CRL3	Water	QC	QC			A19J130	A19J370
15	9K05034-CRL4	Water	QC	QC			A19J130	A19J368
16	9K05034-IFA1	Water	QC	QC			A19J130	A19J465
17	9K05034-IFB1	Water	QC	QC			A19J130	A19J466
18	9110464-BLK1	Solid	QC	QC		9110464	A19J130	
19	9110464-BS1	Solid	QC	QC		9110464	A19J130	
20	A9J0856-01	Solid	Ba (Barium) - 6020 - TCLP		11/05/19	9110464	A19J130	
21	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/05/19	9110464	A19J130	
22	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/05/19	9110464	A19J130	
23	A9K0010-01	Solid	Pb (Lead) - 6020 - TCLP		11/05/19	9110464	A19J130	
24	A9K0014-01	Solid	Ag (Silver) - 6020 - TCLP		11/05/19	9110464	A19J130	
25	"	Solid	As (Arsenic) - 6020 - TCLP	"	11/05/19	9110464	A19J130	
26	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/05/19	9110464	A19J130	
27	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/05/19	9110464	A19J130	
28	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/05/19	9110464	A19J130	
29	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/05/19	9110464	A19J130	
30	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/05/19	9110464	A19J130	
31	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/05/19	9110464	A19J130	
32	9110464-MS1	Solid	QC	QC		9110464	A19J130	
33	A9K0053-01	Solid	Ag (Silver) - 6020 - TCLP		11/05/19	9110464	A19J130	
34	"	Solid	As (Arsenic) - 6020 - TCLP	"	11/05/19	9110464	A19J130	
35	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/05/19	9110464	A19J130	
36	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/05/19	9110464	A19J130	
37	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/05/19	9110464	A19J130	
38	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/05/19	9110464	A19J130	
39	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/05/19	9110464	A19J130	
40	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/05/19	9110464	A19J130	
41	9110464-MS2	Solid	QC	QC		9110464	A19J130	
42	9110455-BLK1	Soil	QC	QC		9110455	A19J130	
43	9110455-BS1	Soil	QC	QC		9110455	A19J130	
44	9K05034-CCV1	Water	QC	QC			A19J130	A19J138
45	9K05034-CCB1	Water	QC	QC			A19J130	
46	A9K0061-01	Soil	Ag (Silver) - 6020 - Total		11/05/19	9110455	A19J130	
47	"	Soil	As (Arsenic) - 6020 - Total	"	11/05/19	9110455	A19J130	
48	"	Soil	Ba (Barium) - 6020 - Total	"	11/05/19	9110455	A19J130	
49	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/05/19	9110455	A19J130	
50	"	Soil	Cr (Chromium) - 6020 - Total	"	11/05/19	9110455	A19J130	
51	"	Soil	Hg (Mercury) - 6020 - Total	"	11/05/19	9110455	A19J130	

Sequence: **9K05034** Instrument: **ICPMS5**

Date: **11/05/19 09:59** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
52	"	Soil	Pb (Lead) - 6020 - Total	"	11/05/19	9110455	A19J130	
53	"	Soil	Se (Selenium) - 6020 - Total	"	11/05/19	9110455	A19J130	
54	A9K0061-02	Soil	Ag (Silver) - 6020 - Total		11/05/19	9110455	A19J130	
55	"	Soil	As (Arsenic) - 6020 - Total	"	11/05/19	9110455	A19J130	
56	"	Soil	Ba (Barium) - 6020 - Total	"	11/05/19	9110455	A19J130	
57	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/05/19	9110455	A19J130	
58	"	Soil	Cr (Chromium) - 6020 - Total	"	11/05/19	9110455	A19J130	
59	"	Soil	Hg (Mercury) - 6020 - Total	"	11/05/19	9110455	A19J130	
60	"	Soil	Pb (Lead) - 6020 - Total	"	11/05/19	9110455	A19J130	
61	"	Soil	Se (Selenium) - 6020 - Total	"	11/05/19	9110455	A19J130	
62	A9K0061-03	Soil	Ag (Silver) - 6020 - Total		11/05/19	9110455	A19J130	
63	"	Soil	As (Arsenic) - 6020 - Total	"	11/05/19	9110455	A19J130	
64	"	Soil	Ba (Barium) - 6020 - Total	"	11/05/19	9110455	A19J130	
65	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/05/19	9110455	A19J130	
66	"	Soil	Cr (Chromium) - 6020 - Total	"	11/05/19	9110455	A19J130	
67	"	Soil	Hg (Mercury) - 6020 - Total	"	11/05/19	9110455	A19J130	
68	"	Soil	Pb (Lead) - 6020 - Total	"	11/05/19	9110455	A19J130	
69	"	Soil	Se (Selenium) - 6020 - Total	"	11/05/19	9110455	A19J130	
70	A9K0066-01	Soil	Ag (Silver) - 6020 - Total		11/15/19	9110455	A19J130	
71	"	Soil	As (Arsenic) - 6020 - Total	"	11/15/19	9110455	A19J130	
72	"	Soil	Ba (Barium) - 6020 - Total	"	11/15/19	9110455	A19J130	
73	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/15/19	9110455	A19J130	
74	"	Soil	Cr (Chromium) - 6020 - Total	"	11/15/19	9110455	A19J130	
75	"	Soil	Hg (Mercury) - 6020 - Total	"	11/15/19	9110455	A19J130	
76	"	Soil	Pb (Lead) - 6020 - Total	"	11/15/19	9110455	A19J130	
77	"	Soil	Se (Selenium) - 6020 - Total	"	11/15/19	9110455	A19J130	
78	"	Soil	Cu (Copper) - 6020 - Total	"	11/15/19	9110455	A19J130	
79	"	Soil	Ni (Nickel) - 6020 - Total	"	11/15/19	9110455	A19J130	
80	"	Soil	Zn (Zinc) - 6020 - Total	"	11/15/19	9110455	A19J130	
81	9110455-DUP1	Soil	QC	QC		9110455	A19J130	
82	9110455-MS1	Soil	QC	QC		9110455	A19J130	
83	A9K0070-01	Soil	Pb (Lead) - 6020 - Total		11/08/19	9110455	A19J130	
84	A9K0010-01RE1	Solid	Pb (Lead) - 6020 - TCLP		11/05/19	9110464	A19J130	
85	A9K0091-01	Soil	Ag (Silver) - 6020 - Total		11/06/19	9110455	A19J130	
86	"	Soil	As (Arsenic) - 6020 - Total	"	11/06/19	9110455	A19J130	
87	"	Soil	Ba (Barium) - 6020 - Total	"	11/06/19	9110455	A19J130	
88	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/06/19	9110455	A19J130	
89	"	Soil	Cr (Chromium) - 6020 - Total	"	11/06/19	9110455	A19J130	
90	"	Soil	Hg (Mercury) - 6020 - Total	"	11/06/19	9110455	A19J130	
91	"	Soil	Pb (Lead) - 6020 - Total	"	11/06/19	9110455	A19J130	
92	"	Soil	Se (Selenium) - 6020 - Total	"	11/06/19	9110455	A19J130	
93	A9K0091-02	Soil	Ag (Silver) - 6020 - Total		11/06/19	9110455	A19J130	
94	"	Soil	As (Arsenic) - 6020 - Total	"	11/06/19	9110455	A19J130	
95	"	Soil	Ba (Barium) - 6020 - Total	"	11/06/19	9110455	A19J130	
96	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/06/19	9110455	A19J130	
97	"	Soil	Cr (Chromium) - 6020 - Total	"	11/06/19	9110455	A19J130	
98	"	Soil	Hg (Mercury) - 6020 - Total	"	11/06/19	9110455	A19J130	
99	"	Soil	Pb (Lead) - 6020 - Total	"	11/06/19	9110455	A19J130	
100	"	Soil	Se (Selenium) - 6020 - Total	"	11/06/19	9110455	A19J130	
101	9K05034-CCV2	Water	QC	QC			A19J130	A19J138
102	9K05034-CCB2	Water	QC	QC			A19J130	
103	9K05034-CRL5	Water	QC	QC			A19J130	A19J368
104	9K05034-CRL6	Water	QC	QC			A19J130	A19J369
105	9K05034-CRL7	Water	QC	QC			A19J130	A19J370
106	9K05034-CRL8	Water	QC	QC			A19J130	A19J371

Sequence: **9K05034** Instrument: **ICPMS5**

Date: **11/05/19 09:59** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
107	9110486-BLK1	Water	QC	QC		9110486	A19J130	
108	9110486-BS1	Water	QC	QC		9110486	A19J130	
109	A9K0094-01	Water	Ag (Silver) - 200.8 - Total		11/06/19	9110486	A19J130	
110	"	Water	As (Arsenic) - 200.8 - Total	"	11/06/19	9110486	A19J130	
111	"	Water	Ca (Calcium) - 200.8 - Total	(QC Source)		9110486	A19J130	
112	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/06/19	9110486	A19J130	
113	"	Water	Co (Cobalt) - 200.8 - Total	"	11/06/19	9110486	A19J130	
114	"	Water	Cr (Chromium) - 200.8 - Total	"	11/06/19	9110486	A19J130	
115	"	Water	Cu (Copper) - 200.8 - Total	"	11/06/19	9110486	A19J130	
116	"	Water	Fe (Iron) - 200.8 - Total	(QC Source)		9110486	A19J130	
117	"	Water	Mg (Magnesium) - 200.8 - Total	(QC Source)		9110486	A19J130	
118	"	Water	Mo (Molybdenum) - 200.8 - Total	"	11/06/19	9110486	A19J130	
119	"	Water	Ni (Nickel) - 200.8 - Total	"	11/06/19	9110486	A19J130	
120	"	Water	Pb (Lead) - 200.8 - Total	"	11/06/19	9110486	A19J130	
121	"	Water	Se (Selenium) - 200.8 - Total	"	11/06/19	9110486	A19J130	
122	"	Water	Zn (Zinc) - 200.8 - Total	"	11/06/19	9110486	A19J130	
123	9110486-MS2	Water	QC	QC		9110486	A19J130	
124	A9K0080-01	Water	Cu (Copper) - 200.8 - Total		11/13/19	9110486	A19J130	
125	"	Water	Pb (Lead) - 200.8 - Total	"	11/13/19	9110486	A19J130	
126	"	Water	Zn (Zinc) - 200.8 - Total	"	11/13/19	9110486	A19J130	
127	A9K0080-03	Water	Cu (Copper) - 200.8 - Total		11/13/19	9110486	A19J130	
128	"	Water	Pb (Lead) - 200.8 - Total	"	11/13/19	9110486	A19J130	
129	"	Water	Zn (Zinc) - 200.8 - Total	"	11/13/19	9110486	A19J130	
130	A9K0080-05	Water	Cu (Copper) - 200.8 - Total		11/13/19	9110486	A19J130	
131	"	Water	Pb (Lead) - 200.8 - Total	"	11/13/19	9110486	A19J130	
132	"	Water	Zn (Zinc) - 200.8 - Total	"	11/13/19	9110486	A19J130	
133	A9K0080-07	Water	Ag (Silver) - 200.8 - Total	(QC Source)		9110486	A19J130	
134	"	Water	As (Arsenic) - 200.8 - Total	(QC Source)		9110486	A19J130	
135	"	Water	Ca (Calcium) - 200.8 - Total	(QC Source)		9110486	A19J130	
136	"	Water	Cd (Cadmium) - 200.8 - Total	(QC Source)		9110486	A19J130	
137	"	Water	Co (Cobalt) - 200.8 - Total	(QC Source)			J130	
138	"	Water	Cr (Chromium) - 200.8 - Total	(QC Source)		9110486	A19J130	
139	"	Water	Cu (Copper) - 200.8 - Total	"	11/13/19	9110486	A19J130	
140	"	Water	Fe (Iron) - 200.8 - Total	(QC Source)		9110486	A19J130	
141	"	Water	Mg (Magnesium) - 200.8 - Total	(QC Source)		9110486	A19J130	
142	"	Water	Mo (Molybdenum) - 200.8 - Total	(QC Source)		9110486	A19J130	
143	"	Water	Ni (Nickel) - 200.8 - Total	(QC Source)		9110486	A19J130	
144	"	Water	Pb (Lead) - 200.8 - Total	"	11/13/19	9110486	A19J130	
145	"	Water	Se (Selenium) - 200.8 - Total	(QC Source)		9110486	A19J130	
146	"	Water	Zn (Zinc) - 200.8 - Total	"	11/13/19	9110486	A19J130	
147	9110486-DUP1	Water	QC	QC		9110486	A19J130	
148	9110486-MS1	Water	QC	QC		9110486	A19J130	
149	9K05034-CCV3	Water	QC	QC			A19J130	A19J138
150	9K05034-CCB3	Water	QC	QC			A19J130	
151	A9K0080-09	Water	Cu (Copper) - 200.8 - Total		11/13/19	9110486	A19J130	
152	"	Water	Pb (Lead) - 200.8 - Total	"	11/13/19	9110486	A19J130	
153	"	Water	Zn (Zinc) - 200.8 - Total	"	11/13/19	9110486	A19J130	
154	A9K0080-11	Water	Cu (Copper) - 200.8 - Total		11/13/19	9110486	A19J130	
155	"	Water	Pb (Lead) - 200.8 - Total	"	11/13/19	9110486	A19J130	
156	"	Water	Zn (Zinc) - 200.8 - Total	"	11/13/19	9110486	A19J130	
157	A9K0080-13	Water	Cu (Copper) - 200.8 - Total		11/13/19	9110486	A19J130	
158	"	Water	Pb (Lead) - 200.8 - Total	"	11/13/19	9110486	A19J130	
159	"	Water	Zn (Zinc) - 200.8 - Total	"	11/13/19	9110486	A19J130	
160	A9K0080-15	Water	Cu (Copper) - 200.8 - Total		11/13/19	9110486	A19J130	
161	"	Water	Pb (Lead) - 200.8 - Total		11/13/19	9110486	A19J130	

Sequence: **9K05034** Instrument: **ICPMS5**

Date: **11/05/19 09:59** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
162	"	Water	Zn (Zinc) - 200.8 - Total	"	11/13/19	9110486	A19J130	
163	A9K0084-01	Water	As (Arsenic) - 200.8 - Total		11/18/19	9110486	A19J130	
164	"	Water	Ca (Calcium) - 200.8 - Total	"	11/18/19	9110486	A19J130	
165	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/18/19	9110486	A19J130	
166	"	Water	Cu (Copper) - 200.8 - Total	"	11/18/19	9110486	A19J130	
167	"	Water	Fe (Iron) - 200.8 - Total	"	11/18/19	9110486	A19J130	
168	"	Water	Mg (Magnesium) - 200.8 - Total	"	11/18/19	9110486	A19J130	
169	"	Water	Pb (Lead) - 200.8 - Total	"	11/18/19	9110486	A19J130	
170	"	Water	Zn (Zinc) - 200.8 - Total	"	11/18/19	9110486	A19J130	
171	A9K0085-01	Water	Ag (Silver) - 200.8 - Total		11/18/19	9110486	A19J130	
172	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/18/19	9110486	A19J130	
173	"	Water	Cr (Chromium) - 200.8 - Total	"	11/18/19	9110486	A19J130	
174	"	Water	Cu (Copper) - 200.8 - Total	"	11/18/19	9110486	A19J130	
175	"	Water	Ni (Nickel) - 200.8 - Total	"	11/18/19	9110486	A19J130	
176	"	Water	Pb (Lead) - 200.8 - Total	"	11/18/19	9110486	A19J130	
177	"	Water	Zn (Zinc) - 200.8 - Total	"	11/18/19	9110486	A19J130	
178	A9J1115-02RE1	Water	Na (Sodium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
179	"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
180	"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
181	"	Water	Ca (Calcium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
182	A9J1115-05RE1	Water	Mg (Magnesium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
183	"	Water	Ca (Calcium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
184	A9J1116-02RE1	Water	Mg (Magnesium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
185	"	Water	Ca (Calcium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
186	9110409-BLK2	Solid	QC	QC		9110409	A19J130	
187	9K05034-CCV4	Water	QC	QC			A19J130	A19J138
188	9K05034-CCB4	Water	QC	QC			A19J130	
189	9K05034-CRL9	Water	QC	QC			A19J130	A19J368
190	9K05034-CRLA	Water	QC	QC			A19J130	A19J369
191	9K05034-CRLB	Water	QC	QC			A19J130	A19J370
192	9K05034-CRLC	Water	QC	QC			A19J130	A19J371
193	A9K0048-01RE1	Solid	Cu (Copper) - 6020 - Total		11/08/19	9110409	A19J130	
194	A9J1112-01RE1	Solid	Al (Aluminum) - 6020 - Total		11/13/19	9110409	A19J130	
195	"	Solid	Cu (Copper) - 6020 - Total	"	11/13/19	9110409	A19J130	
196	"	Solid	Fe (Iron) - 6020 - Total	"	11/13/19	9110409	A19J130	
197	"	Solid	Pb (Lead) - 6020 - Total	"	11/13/19	9110409	A19J130	
198	"	Solid	Zn (Zinc) - 6020 - Total	"	11/13/19	9110409	A19J130	
199	A9K0051-01RE1	Solid	Cu (Copper) - 6020 - Total		11/08/19	9110409	A19J130	
200	"	Solid	Pb (Lead) - 6020 - Total	"	11/08/19	9110409	A19J130	
201	9110442-BLK2	Water	QC	QC		9110442	A19J130	
202	A9K0044-01RE1	Water	Fe (Iron) - 6020 - Total		11/08/19	9110442	A19J130	
203	9110482-BLK1	Sediment	QC	QC		9110482	A19J130	
204	9110482-BS1	Sediment	QC	QC		9110482	A19J130	
205	A9J0950-01	Sediment	Ag (Silver) - 6020 - TCLP	Anchor QEA, LLC	11/07/19	9110482	A19J130	
206	"	Sediment	As (Arsenic) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
207	"	Sediment	Ba (Barium) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
208	"	Sediment	Cd (Cadmium) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
209	"	Sediment	Cr (Chromium) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
210	"	Sediment	Hg (Mercury) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
211	"	Sediment	Pb (Lead) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
212	"	Sediment	Se (Selenium) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
213	A9J0950-02	Sediment	Ag (Silver) - 6020 - TCLP	Anchor QEA, LLC	11/07/19	9110482	A19J130	
214	"	Sediment	As (Arsenic) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
215	"	Sediment	Ba (Barium) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
216	"	Sediment	Cd (Cadmium) - 6020 - TCLP		11/07/19	9110482	A19J130	

Sequence: **9K05034** Instrument: **ICPMS5**

Date: **11/05/19 09:59** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
217	"	Sediment	Cr (Chromium) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
218	"	Sediment	Hg (Mercury) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
219	"	Sediment	Pb (Lead) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
220	"	Sediment	Se (Selenium) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
221	A9J0950-03	Sediment	Ag (Silver) - 6020 - TCLP	Anchor QEA, LLC	11/07/19	9110482	A19J130	
222	"	Sediment	As (Arsenic) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
223	"	Sediment	Ba (Barium) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
224	"	Sediment	Cd (Cadmium) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
225	"	Sediment	Cr (Chromium) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
226	"	Sediment	Hg (Mercury) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
227	"	Sediment	Pb (Lead) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
228	"	Sediment	Se (Selenium) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
229	9K05034-CCV5	Water	QC	QC			A19J130	A19J138
230	9K05034-CCB5	Water	QC	QC			A19J130	
231	A9J0950-04	Sediment	Ag (Silver) - 6020 - TCLP	Anchor QEA, LLC	11/07/19	9110482	A19J130	
232	"	Sediment	As (Arsenic) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
233	"	Sediment	Ba (Barium) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
234	"	Sediment	Cd (Cadmium) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
235	"	Sediment	Cr (Chromium) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
236	"	Sediment	Hg (Mercury) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
237	"	Sediment	Pb (Lead) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
238	"	Sediment	Se (Selenium) - 6020 - TCLP	"	11/07/19	9110482	A19J130	
239	9110482-MS1	Sediment	QC	QC		9110482	A19J130	
240	9110411-BLK1	Water	QC	QC		9110411	A19J130	
241	9110411-BS1	Water	QC	QC		9110411	A19J130	
242	A9K0015-01	Water	Cu (Copper) - 6020 - Dissolved		11/14/19	9110411	A19J130	
243	9110411-DUP1	Water	QC	QC		9110411	A19J130	
244	9110411-MS1	Water	QC	QC		9110411	A19J130	
245	9110373-BLK1	Oil	QC	QC		9110373	A19J130	
246	9110373-BS1	Oil	QC	QC		9110373	A19J130	
247	A9J1128-01	Oil	Cr (Chromium) - 6020 - Total		11/13/19	9110373	A19J130	
248	9K05034-CCV6	Water	QC	QC			A19J130	A19J138
249	9K05034-CCB6	Water	QC	QC			A19J130	
250	9110373-DUP1	Oil	QC	QC		9110373	A19J130	
251	9110373-MS1	Oil	QC	QC		9110373	A19J130	
252	9110360-BLK1	Soil	QC	QC		9110360	A19J130	
253	9110360-BLK2	Soil	QC	QC		9110360	A19J130	
254	9110360-BS1	Soil	QC	QC		9110360	A19J130	
255	A9J0990-62	Soil	Ag (Silver) - 6020 - Total		11/11/19	9110360	A19J130	
256	"	Soil	As (Arsenic) - 6020 - Total	"	11/11/19	9110360	A19J130	
257	"	Soil	Ba (Barium) - 6020 - Total	(QC Source)		9110360	A19J130	
258	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/11/19	9110360	A19J130	
259	"	Soil	Cr (Chromium) - 6020 - Total	"	11/11/19	9110360	A19J130	
260	"	Soil	Cu (Copper) - 6020 - Total	"	11/11/19	9110360	A19J130	
261	"	Soil	Hg (Mercury) - 6020 - Total	(QC Source)		9110360	A19J130	
262	"	Soil	Ni (Nickel) - 6020 - Total	"	11/11/19	9110360	A19J130	
263	"	Soil	Pb (Lead) - 6020 - Total	"	11/11/19	9110360	A19J130	
264	"	Soil	Se (Selenium) - 6020 - Total	"	11/11/19	9110360	A19J130	
265	"	Soil	Zn (Zinc) - 6020 - Total	"	11/11/19	9110360	A19J130	
266	9110360-DUP1	Soil	QC	QC		9110360	A19J130	
267	9110360-DUP2	Soil	QC	QC		9110360	A19J130	
268	9110360-MS1	Soil	QC	QC		9110360	A19J130	
269	A9J0990-64	Soil	Ag (Silver) - 6020 - Total		11/11/19	9110360	A19J130	
270	"	Soil	As (Arsenic) - 6020 - Total	"	11/11/19	9110360	A19J130	
271	"	Soil	Cd (Cadmium) - 6020 - Total		11/11/19	9110360	A19J130	

Sequence: **9K05034** Instrument: **ICPMS5**

Date: **11/05/19 09:59** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
272	"	Soil	Cr (Chromium) - 6020 - Total	"	11/11/19	9110360	A19J130	
273	"	Soil	Cu (Copper) - 6020 - Total	"	11/11/19	9110360	A19J130	
274	"	Soil	Ni (Nickel) - 6020 - Total	"	11/11/19	9110360	A19J130	
275	"	Soil	Pb (Lead) - 6020 - Total	"	11/11/19	9110360	A19J130	
276	"	Soil	Se (Selenium) - 6020 - Total	"	11/11/19	9110360	A19J130	
277	"	Soil	Zn (Zinc) - 6020 - Total	"	11/11/19	9110360	A19J130	
278	9K05034-CCV7	Water	QC	QC			A19J130	A19J138
279	9K05034-CCV8	Water	QC	QC			A19J130	A19J138
280	9K05034-CCB7	Water	QC	QC			A19J130	
281	A9J1043-01	Soil	Ag (Silver) - 6020 - Total		11/11/19	9110360	A19J130	
282	"	Soil	As (Arsenic) - 6020 - Total	"	11/11/19	9110360	A19J130	
283	"	Soil	Ba (Barium) - 6020 - Total	"	11/11/19	9110360	A19J130	
284	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/11/19	9110360	A19J130	
285	"	Soil	Cr (Chromium) - 6020 - Total	"	11/11/19	9110360	A19J130	
286	"	Soil	Hg (Mercury) - 6020 - Total	"	11/11/19	9110360	A19J130	
287	"	Soil	Pb (Lead) - 6020 - Total	"	11/11/19	9110360	A19J130	
288	"	Soil	Se (Selenium) - 6020 - Total	"	11/11/19	9110360	A19J130	
289	A9J1043-02	Soil	Ag (Silver) - 6020 - Total		11/11/19	9110360	A19J130	
290	"	Soil	As (Arsenic) - 6020 - Total	"	11/11/19	9110360	A19J130	
291	"	Soil	Ba (Barium) - 6020 - Total	"	11/11/19	9110360	A19J130	
292	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/11/19	9110360	A19J130	
293	"	Soil	Cr (Chromium) - 6020 - Total	"	11/11/19	9110360	A19J130	
294	"	Soil	Hg (Mercury) - 6020 - Total	"	11/11/19	9110360	A19J130	
295	"	Soil	Pb (Lead) - 6020 - Total	"	11/11/19	9110360	A19J130	
296	"	Soil	Se (Selenium) - 6020 - Total	"	11/11/19	9110360	A19J130	
297	A9J1043-03	Soil	Ag (Silver) - 6020 - Total		11/11/19	9110360	A19J130	
298	"	Soil	As (Arsenic) - 6020 - Total	"	11/11/19	9110360	A19J130	
299	"	Soil	Ba (Barium) - 6020 - Total	"	11/11/19	9110360	A19J130	
300	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/11/19	9110360	A19J130	
301	"	Soil	Cr (Chromium) - 6020 - Total	"	11/11/19	9110360	A19J130	
302	"	Soil	Hg (Mercury) - 6020 - Total	"	11/11/19	9110360	A19J130	
303	"	Soil	Pb (Lead) - 6020 - Total	"	11/11/19	9110360	A19J130	
304	"	Soil	Se (Selenium) - 6020 - Total	"	11/11/19	9110360	A19J130	
305	A9J1043-04	Soil	Ag (Silver) - 6020 - Total		11/11/19	9110360	A19J130	
306	"	Soil	As (Arsenic) - 6020 - Total	"	11/11/19	9110360	A19J130	
307	"	Soil	Ba (Barium) - 6020 - Total	"	11/11/19	9110360	A19J130	
308	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/11/19	9110360	A19J130	
309	"	Soil	Cr (Chromium) - 6020 - Total	"	11/11/19	9110360	A19J130	
310	"	Soil	Hg (Mercury) - 6020 - Total	"	11/11/19	9110360	A19J130	
311	"	Soil	Pb (Lead) - 6020 - Total	"	11/11/19	9110360	A19J130	
312	"	Soil	Se (Selenium) - 6020 - Total	"	11/11/19	9110360	A19J130	
313	A9J1043-05	Soil	Ag (Silver) - 6020 - Total		11/11/19	9110360	A19J130	
314	"	Soil	As (Arsenic) - 6020 - Total	"	11/11/19	9110360	A19J130	
315	"	Soil	Ba (Barium) - 6020 - Total	"	11/11/19	9110360	A19J130	
316	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/11/19	9110360	A19J130	
317	"	Soil	Cr (Chromium) - 6020 - Total	"	11/11/19	9110360	A19J130	
318	"	Soil	Hg (Mercury) - 6020 - Total	"	11/11/19	9110360	A19J130	
319	"	Soil	Pb (Lead) - 6020 - Total	"	11/11/19	9110360	A19J130	
320	"	Soil	Se (Selenium) - 6020 - Total	"	11/11/19	9110360	A19J130	
321	9K05034-CCV9	Water	QC	QC			A19J130	A19J138
322	9K05034-CCB8	Water	QC	QC			A19J130	
323	9K05034-CRLD	Water	QC	QC			A19J130	A19J368
324	9K05034-CRLE	Water	QC	QC			A19J130	A19J369
325	9K05034-CRLF	Water	QC	QC			A19J130	A19J370
326	9K05034-CRLG	Water	QC	QC			A19J130	A19J371

Sequence:	9K05034	Instrument:	ICPMS5
Date:	11/05/19 09:59	Calibration:	UNASSIGNED

Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID

Data Entered By: ESS 11/6/19 Comments:

Data Reviewed By: [illegible] 11/06/19

Tune Report

Batch Folder	C:\Agilent\ICPMH\1\DATA\9K05034.b
Acq. Date-Time	11/5/2019 11:06
Report Comment	9K05034 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		3984	39837.54	1000.00	
89		19913	199128.14	1000.00	
78		11			

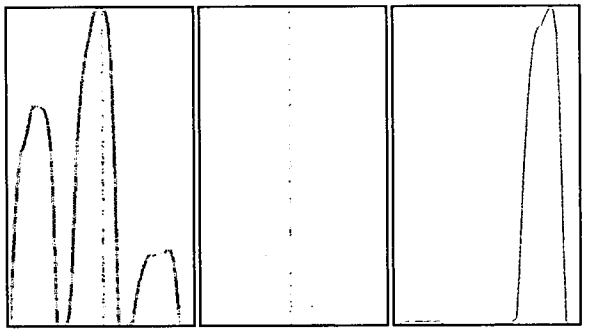
Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
78		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	1.21	5.00	
89	0.53	5.00	
78	43.87		

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	3950	3941	3988	3976	4063
89	19902	19908	19824	19841	20090
78	19	7	12	10	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	694.35	59.05	58.9 - 59.1		0.61	0.775	0.900	

Tune Report

89	3454.56	89.00	88.9 - 89.1	0.59	0.772	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		5432	54323.63	1000.00	
89		4826	48263.32	1000.00	
205		6023	60231.22	1000.00	
75		17			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	1.55	5.00	
89	0.57	5.00	
205	0.62	5.00	
75	36.31		

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	5502	5510	5310	5452	5387
89	4796	4830	4801	4860	4845
205	5974	6027	6051	5997	6065
75	15	25	8	18	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	930.72	59.05	58.9 - 59.1		0.61	0.775	0.900	
89	850.08	89.05	88.9 - 89.1		0.59	0.763	0.900	
205	1094.30	205.00	204.9 - 205.1		0.56	0.749	0.900	
75	4.00	75.10	-		0.52	0.775		

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 ℃
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		8605	86053.92	1000.00	
89		19921	199208.11	1000.00	
205		12568	125677.46	1000.00	
102		2			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
7		-	

Tune Report

89		-
205		-
102		-

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	0.54	5.00	
89	1.56	5.00	
205	1.29	5.00	
102	72.77		

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	8611	8540	8589	8621	8667
89	19646	19679	19920	20425	19935
205	12467	12426	12457	12743	12746
102	4	5	0	2	3

Integration Time [sec] 0.1

Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-5% (Actual)	W-5% (Required)	W-5% (Flag)
7	1406.11	7.00	6.9 - 7.1		0.63	0.782	0.900	
89	3448.55	89.05	88.9 - 89.1		0.60	0.774	0.900	
205	2265.91	205.00	204.9 - 205.1		0.56	0.745	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

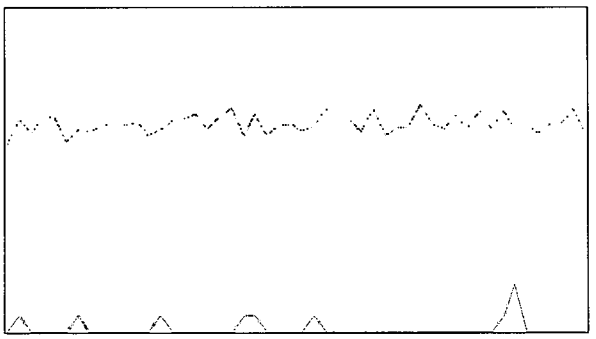
Tune Report

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\9K05034.b
Acq. Date-Time	11/5/2019 11:12
Report Comment	9K05034 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	647	6465.97	1000.00	
89	5000	3335	33347.15	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	4.42	5.00	
89	2.97	5.00	
78	267.26		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			
78			

Integration Time [sec]	0.1	**Sampling Period [sec]**	0.306

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min

Tune Report

Option Gas	0.0 %

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	2.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	3.3 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[He]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	1000	881	8812.38	1000.00	
89	1000	775	7754.53	1000.00	
205	2000	1042	10424.22	1000.00	
75	20	3			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	3.86	5.00	
89	5.09	5.00	[F]
205	3.87	5.00	
75	68.17		

see EPA report for RSDs ESS 11/5/19

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			
205			
75			

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.412

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C

Tune Report

Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	1.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	3.3 mL/min	OctP RF	180 V
H2 Flow	0.0 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[NoGas]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
7	2000	1394	13944.63	1000.00	
89	5000	3296	32964.42	1000.00	
205	5000	2190	21899.47	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	3.90	5.00	
89	3.03	5.00	
205	3.00	5.00	
102	364.22		

Mass	Background (Actual)	Background (Required)	Background (Flag)
7			
89			
205			
102			

Ratio (oxide)	156/140	1.555 %	✓
Ratio (2+)	69/138	1.884 %	✓

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: 9K05034-ICV1
Data File: 013_ICV.d
Acquired: 11/5/2019 12:20:12

Detector Parameters and P/A Factors

Discriminator: 4.5 mV
AnalogHV: 1861 V
PulseHV: 1710 V

Acquired: 11/4/2019 12:21:13

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: 1861 V
PulseHV: 1710 V

Acquired: 11/5/2019 11:55:38

Mass[u]	Element	P/A Factor
23	Na	0.111806
44	Ca	0.124956
45	Sc	0.124154
56	Fe	0.131633
57	Fe	0.129487
74	Ge	0.136266
78	Se	Signal too low

Tune Mode Name: He
Discriminator: 4.5 mV
AnalogHV: 1861 V
PulseHV: 1710 V

Acquired: 11/5/2019 12:10:50

Mass[u]	Element	P/A Factor
23	Na	0.111959
24	Mg	0.116912
27	Al	0.121323
39	K	0.123059
44	Ca	0.123646
51	V	0.126129
52	Cr	0.129312
55	Mn	0.129249
59	Co	0.131706
60	Ni	0.134286
65	Cu	0.135118
66	Zn	0.133127
111	Cd	0.138571

138	Ba	0.139497
159	Tb	0.142452
205	Tl	0.140843
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: 1861 V
PulseHV: 1710 V

Acquired: 11/5/2019 12:12:10

Mass[u]	Element	P/A Factor
6	Li	0.088778
45	Sc	0.123411
47	Ti	0.122815
65	Cu	0.134000
74	Ge	0.136281
103	Rh	0.137681
111	Cd	0.138200
159	Tb	0.140888
182	W	0.140087
206	Pb	0.142303
207	Pb	0.143124
208	Pb	0.145415
209	Bi	0.146518
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: 11/6/2019 10:03:56

Quantitation Report - ICPMS5

Sample Name:	**Rinse**	Total Dilution:	**1.0000**
File Name:	001RINS.d	Vial:	3
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	Rinse
Acq Time:	11/5/2019 11:16:40	I.S. Reference File:	---
Comment:	**cal blank 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		931	0.18	
Na	23	45	He		ppb		9,475	90	
Mg	24	45	He		ppb		807	90	
Al	27	45	He		ppb		444	45	
K	39	45	He		ppb		27,450	90	
Ca	44	45	H2		ppb		869	90	
[Ca]	44	45	He		ppb		239		
Ti	47	45	NoGas		ppb		110	0.9	
V	51	74	He		ppb		1,439	0.9	
Cr	52	74	He		ppb		1,561	0.9	
Mn	55	74	He		ppb		696	0.9	
Fe	56	74	H2		ppb		69,012	45	
Co	59	74	He		ppb		1,453	0.18	
Ni	60	74	He		ppb		762	0.9	
Cu	65	74	He		ppb		636	0.9	
Zn	66	74	He		ppb		173	3.6	
As	75	74	He		ppb		30	0.9	
Se	78	74	H2		ppb		2	0.9	
Mo	95	103	He		ppb		80	0.9	
Ag	107	103	He		ppb		7	0.18	
Cd	111	103	He		ppb		4		
[Cd]	111	103	NoGas		ppb		11	0.18	
Sb	121	103	He		ppb		62	0.9	
Ba	138	159	He		ppb		2,142	0.9	
W	182	159	NoGas		ppb		40		
Hg	201	159	NoGas		ppt		3	72	
Tl	205	159	He		ppb		1,539	0.18	
Pb	208	159	NoGas		ppb		769	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	5,121	1.5	0	Pulse		
Sc	45	H2	1,898	1.0	0	Pulse		
Sc	45	He	98	18.8	0	Pulse		Note RSD; OK < 20%
Sc	45	NoGas	1,449	9.3	0	Pulse		
Ge	74	H2	334	2.5	0	Pulse		
Ge	74	He	93	14.1	0	Pulse		
Ge	74	NoGas	415	11.9	0	Pulse		
Rh	103	He	347	6.0	0	Pulse		
Rh	103	NoGas	580	3.2	0	Pulse		
Tb	159	He	86	39.4	0	Pulse		Note RSD; OK < 20%
Tb	159	NoGas	210	36.1	0	Pulse		Note RSD; OK < 20%
Bi	209	He	124	4.1	0	Pulse		
Bi	209	NoGas	261	6.4	0	Pulse		

Quantitation Report - ICPMS5

Sample Name:	**Rinse**	Total Dilution:	**1.0000**
File Name:	002RINS.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	Rinse
Acq Time:	11/5/2019 11:21:24	I.S. Reference File:	---
Comment:	**cal blank 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		13	0.18	
Na	23	45	He		ppb		7,686	90	
Mg	24	45	He		ppb		604	90	
Al	27	45	He		ppb		174	45	
K	39	45	He		ppb		28,748	90	
Ca	44	45	H2		ppb		646	90	
[Ca]	44	45	He		ppb		212		
Ti	47	45	NoGas		ppb		70	0.9	
V	51	74	He		ppb		1,446	0.9	
Cr	52	74	He		ppb		284	0.9	
Mn	55	74	He		ppb		436	0.9	
Fe	56	74	H2		ppb		34,951	45	
Co	59	74	He		ppb		132	0.18	
Ni	60	74	He		ppb		147	0.9	
Cu	65	74	He		ppb		181	0.9	
Zn	66	74	He		ppb		41	3.6	
As	75	74	He		ppb		36	0.9	
Se	78	74	H2		ppb		2	0.9	
Mo	95	103	He		ppb		7	0.9	
Ag	107	103	He		ppb		4	0.18	
Cd	111	103	He		ppb		3		
[Cd]	111	103	NoGas		ppb		6	0.18	
Sb	121	103	He		ppb		37	0.9	
Ba	138	159	He		ppb		134	0.9	
W	182	159	NoGas		ppb		7		
Hg	201	159	NoGas		ppt		4	72	
Tl	205	159	He		ppb		59	0.18	
Pb	208	159	NoGas		ppb		782	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,053,808	0.1	0	Analog		
Sc	45	H2	2,513,931	1.0	0	Analog		
Sc	45	He	379,785	0.9	0	Pulse		
Sc	45	NoGas	3,379,898	1.0	0	Analog		
Ge	74	H2	775,053	0.7	0	Pulse		
Ge	74	He	224,420	1.4	0	Pulse		
Ge	74	NoGas	863,017	1.0	0	Pulse		
Rh	103	He	519,508	1.4	0	Pulse		
Rh	103	NoGas	903,719	0.5	0	Pulse		
Tb	159	He	674,221	0.9	0	Pulse		
Tb	159	NoGas	1,642,088	1.1	0	Analog		
Bi	209	He	387,422	1.3	0	Pulse		
Bi	209	NoGas	893,064	0.3	0	Pulse		

Calibration Standard Report - ICPMS5

Sample Name:	**9K05034-CAL0**	Total Dilution:	**1.0000**
File Name:	003CALB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	CalBlk
Acq Time:	11/5/2019 11:26:07		
Comment:	**3.5%HNO3+0.4%HCl**	Last Calib:	11/05/2019 12:18:52

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0	ppb	N/A	9	114.5	
Na	23	45	He	0	ppb	N/A	7,462	2.8	
Mg	24	45	He	0	ppb	N/A	579	7.8	
Al	27	45	He	0	ppb	N/A	132	12.7	
K	39	45	He	0	ppb	N/A	28,647	0.8	
Ca	44	45	H2	0	ppb	N/A	584	15.7	
[Ca]	44	45	He	0	ppb	N/A	230	7.7	
Ti	47	45	NoGas	0	ppb	N/A	77	26.4	
V	51	74	He	0	ppb	N/A	1,315	0.7	
Cr	52	74	He	0	ppb	N/A	273	12.4	
Mn	55	74	He	0	ppb	N/A	432	4.5	
Fe	56	74	H2	0	ppb	N/A	34,179	1.9	
Co	59	74	He	0	ppb	N/A	154	14.0	
Ni	60	74	He	0	ppb	N/A	154	10.9	
Cu	65	74	He	0	ppb	N/A	176	17.9	
Zn	66	74	He	0	ppb	N/A	33	34.6	
As	75	74	He	0	ppb	N/A	34	15.6	
Se	78	74	H2	0	ppb	N/A	2	107.9	
Mo	95	103	He	0	ppb	N/A	8	49.5	
Ag	107	103	He	0	ppb	N/A	2	86.6	
Cd	111	103	He	0	ppb	N/A	8	12.5	
[Cd]	111	103	NoGas	0	ppb	N/A	2	326.0	
Sb	121	103	He	0	ppb	N/A	20	28.9	
Ba	138	159	He	0	ppb	N/A	177	34.6	
W	182	159	NoGas	0	ppb	N/A	12	56.8	
Hg	201	159	NoGas	0	ppt	N/A	3	72.1	
Tl	205	159	He	0	ppb	N/A	22	43.3	
Pb	208	159	NoGas	0	ppb	N/A	778	3.1	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,063,837	0.5	1063836.77	Analog	100.0	
Sc	45	H2	2,581,015	0.6	2581014.58	Analog	100.0	
Sc	45	He	383,174	0.9	383174.2	Pulse	100.0	
Sc	45	NoGas	3,417,487	1.6	3417487.03	Analog	100.0	
Ge	74	H2	784,726	0.3	784726.176666667	Pulse	100.0	
Ge	74	He	227,384	0.9	227383.553333333	Pulse	100.0	
Ge	74	NoGas	865,436	1.1	865435.953333333	Pulse	100.0	
Rh	103	He	522,579	0.8	522579.263333333	Pulse	100.0	
Rh	103	NoGas	906,285	0.4	906285.446666667	Pulse	100.0	
Tb	159	He	677,544	0.9	677543.53	Pulse	100.0	
Tb	159	NoGas	1,642,107	0.3	1642107.27	Analog	100.0	
Bi	209	He	387,177	1.6	387176.576666667	Pulse	100.0	
Bi	209	NoGas	894,456	1.1	894456.463333333	Pulse	100.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9K05034-CAL1**	Total Dilution:	**1.0000**
File Name:	004CALS.d	Vial:	1102
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	CalStd
Acq Time:	11/5/2019 11:30:48		
Comment:	**A19J368 - ESS 11/5**	Last Calib:	11/05/2019 12:18:52

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.187	ppb	11.5	484	11.4	
Na	23	45	He	9.675	ppb	3.4	20,214	1.7	
Mg	24	45	He	8.949	ppb	1.6	7,154	2.1	
Al	27	45	He	8.726	ppb	2.3	3,469	2.9	
K	39	45	He	10.406	ppb	3.3	35,188	1.5	
Ca	44	45	H2	10.792	ppb	1.1	3,283	1.3	
[Ca]	44	45	He	11.571	ppb	17.8	597	11.0	
Ti	47	45	NoGas	0.159	ppb	28.9	267	19.7	
V	51	74	He	0.191	ppb	7.2	2,168	2.6	
Cr	52	74	He	0.189	ppb	5.0	1,266	4.0	
Mn	55	74	He	0.161	ppb	12.7	998	7.7	
Fe	56	74	H2	8.805	ppb	0.5	154,556	0.1	
Co	59	74	He	0.186	ppb	0.9	1,485	1.5	
Ni	60	74	He	0.19	ppb	17.1	490	10.9	
Cu	65	74	He	0.26	ppb	12.0	744	9.0	
Zn	66	74	He	0.324	ppb	16.3	302	14.7	
As	75	74	He	0.182	ppb	17.8	124	13.8	
Se	78	74	H2	0.213	ppb	7.0	78	7.1	
Mo	95	103	He	0.202	ppb	8.6	427	8.8	
Ag	107	103	He	0.17	ppb	0.5	1,013	0.3	
Cd	111	103	He	0.168	ppb	7.8	172	7.7	
[Cd]	111	103	NoGas	0.179	ppb	2.5	424	2.4	
Sb	121	103	He	0.182	ppb	7.1	471	6.4	
Ba	138	159	He	0.179	ppb	2.8	1,108	2.5	
W	182	159	NoGas	0.001	ppb	174.6	17	52.9	
Hg	201	159	NoGas	7.255	ppt	36.6	10	27.8	
Tl	205	159	He	0.175	ppb	2.1	1,568	1.1	
Pb	208	159	NoGas	0.194	ppb	1.9	5,477	1.7	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,054,133	0.2	1063836.77	Analog	99.1	
Sc	45	H2	2,484,114	0.4	2581014.58	Analog	96.2	
Sc	45	He	385,188	0.8	383174.2	Pulse	100.5	
Sc	45	NoGas	3,304,530	1.2	3417487.03	Analog	96.7	
Ge	74	H2	790,079	0.4	784726.176666667	Pulse	100.7	
Ge	74	He	228,079	0.8	227383.553333333	Pulse	100.3	
Ge	74	NoGas	869,506	0.4	865435.953333333	Pulse	100.5	
Rh	103	He	523,538	0.4	522579.263333333	Pulse	100.2	
Rh	103	NoGas	907,336	0.2	906285.446666667	Pulse	100.1	
Tb	159	He	685,010	1.1	677543.53	Pulse	101.1	
Tb	159	NoGas	1,560,160	0.1	1642107.27	Analog	95.0	
Bi	209	He	391,065	0.8	387176.576666667	Pulse	101.0	
Bi	209	NoGas	897,946	1.0	894456.463333333	Pulse	100.4	

Calibration Standard Report - ICPMS5

Sample Name:	**9K05034-CAL2**	Total Dilution:	**1.0000**
File Name:	005CALS.d	Vial:	1103
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	CalStd
Acq Time:	11/5/2019 11:35:48		
Comment:	**A19J369 - ESS 11/5**	Last Calib:	11/05/2019 12:18:52

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.96	ppb	4.9	2,316	3.2	
Na	23	45	He	44.739	ppb	0.6	66,057	0.5	
Mg	24	45	He	45.035	ppb	0.6	33,530	0.4	
Al	27	45	He	44.939	ppb	5.3	17,247	4.7	
K	39	45	He	47.104	ppb	2.3	57,519	1.8	
Ca	44	45	H2	45.878	ppb	2.2	12,224	2.3	
[Ca]	44	45	He	46.788	ppb	5.1	1,702	4.0	
Ti	47	45	NoGas	1.003	ppb	17.8	1,224	10.7	
V	51	74	He	0.907	ppb	2.1	5,367	2.3	
Cr	52	74	He	0.872	ppb	2.2	4,851	1.6	
Mn	55	74	He	0.935	ppb	3.7	3,725	3.7	
Fe	56	74	H2	44.16	ppb	0.8	636,825	1.1	
Co	59	74	He	0.911	ppb	3.0	6,703	2.8	
Ni	60	74	He	0.89	ppb	5.7	1,729	5.8	
Cu	65	74	He	0.956	ppb	9.8	2,269	8.6	
Zn	66	74	He	0.838	ppb	6.5	730	5.7	
As	75	74	He	0.855	ppb	4.7	458	3.8	
Se	78	74	H2	0.91	ppb	5.5	324	5.5	
Mo	95	103	He	0.879	ppb	2.5	1,831	2.4	
Ag	107	103	He	0.906	ppb	1.7	5,402	1.8	
Cd	111	103	He	0.882	ppb	3.7	871	3.6	
[Cd]	111	103	NoGas	0.852	ppb	10.1	1,888	4.8	
Sb	121	103	He	0.887	ppb	3.2	2,224	3.1	
Ba	138	159	He	0.931	ppb	0.2	5,033	0.7	
W	182	159	NoGas	0	ppb	277.5	14	66.6	
Hg	201	159	NoGas	44.193	ppt	17.6	46	9.5	
Tl	205	159	He	0.884	ppb	3.7	7,837	3.0	
Pb	208	159	NoGas	0.985	ppb	8.8	23,442	1.1	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,000,638	7.0	1063836.77	Analog	94.1	
Sc	45	H2	2,504,539	0.8	2581014.58	Analog	97.0	
Sc	45	He	383,827	0.7	383174.2	Pulse	100.2	
Sc	45	NoGas	3,148,013	5.9	3417487.03	Analog	92.1	
Ge	74	H2	789,844	0.5	784726.176666667	Pulse	100.7	
Ge	74	He	228,775	0.7	227383.553333333	Pulse	100.6	
Ge	74	NoGas	825,910	5.6	865435.953333333	Pulse	95.4	
Rh	103	He	524,211	0.1	522579.263333333	Pulse	100.3	
Rh	103	NoGas	853,742	5.6	906285.446666667	Pulse	94.2	
Tb	159	He	687,861	0.9	677543.53	Pulse	101.5	
Tb	159	NoGas	1,483,070	8.1	1642107.27	Analog	90.3	
Bi	209	He	392,624	0.6	387176.576666667	Pulse	101.4	
Bi	209	NoGas	846,948	5.3	894456.463333333	Pulse	94.7	

Calibration Standard Report - ICPMS5

Sample Name:	**9K05034-CAL3**	Total Dilution:	**1.0000**
File Name:	006CALS.d	Vial:	1104
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	CalStd
Acq Time:	11/5/2019 11:40:46		
Comment:	**A19J370 - ESS 11/5**	Last Calib:	11/05/2019 12:18:52

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	1.821	ppb	1.5	4,565	2.4	
Na	23	45	He	87.749	ppb	0.7	122,359	0.3	
Mg	24	45	He	88.311	ppb	0.8	65,188	1.4	
Al	27	45	He	88.818	ppb	2.3	33,959	1.4	
K	39	45	He	91.462	ppb	1.6	84,643	0.2	
Ca	44	45	H2	89.681	ppb	1.2	23,521	1.4	
[Ca]	44	45	He	88.618	ppb	1.5	3,018	0.7	
Ti	47	45	NoGas	1.738	ppb	5.4	2,207	5.7	
V	51	74	He	1.756	ppb	0.9	9,156	1.2	
Cr	52	74	He	1.761	ppb	2.4	9,529	3.1	
Mn	55	74	He	1.814	ppb	4.4	6,821	4.0	
Fe	56	74	H2	87.673	ppb	0.3	1,234,835	0.5	
Co	59	74	He	1.793	ppb	1.0	13,051	1.6	
Ni	60	74	He	1.794	ppb	1.9	3,329	2.7	
Cu	65	74	He	1.906	ppb	3.4	4,354	3.9	
Zn	66	74	He	1.76	ppb	14.2	1,500	14.7	
As	75	74	He	1.819	ppb	4.9	937	3.8	
Se	78	74	H2	1.79	ppb	6.8	638	7.4	
Mo	95	103	He	1.785	ppb	6.0	3,683	4.9	
Ag	107	103	He	1.753	ppb	2.4	10,383	2.6	
Cd	111	103	He	1.764	ppb	2.4	1,724	1.1	
[Cd]	111	103	NoGas	1.736	ppb	2.5	4,101	2.7	
Sb	121	103	He	1.745	ppb	1.3	4,323	0.0	
Ba	138	159	He	1.914	ppb	2.6	10,073	2.6	
W	182	159	NoGas	0.002	ppb	70.1	26	39.8	
Hg	201	159	NoGas	70.784	ppt	10.3	77	11.8	
Tl	205	159	He	1.766	ppb	1.4	15,510	1.6	
Pb	208	159	NoGas	1.813	ppb	2.4	45,255	0.7	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,039,062	0.9	1063836.77	Analog	97.7	
Sc	45	H2	2,522,533	0.9	2581014.58	Analog	97.7	
Sc	45	He	383,786	0.9	383174.2	Pulse	100.2	
Sc	45	NoGas	3,335,440	0.8	3417487.03	Analog	97.6	
Ge	74	H2	792,697	0.7	784726.176666667	Pulse	101.0	
Ge	74	He	228,984	0.8	227383.553333333	Pulse	100.7	
Ge	74	NoGas	873,162	0.8	865435.953333333	Pulse	100.9	
Rh	103	He	520,589	1.3	522579.263333333	Pulse	99.6	
Rh	103	NoGas	906,983	0.5	906285.446666667	Pulse	100.1	
Tb	159	He	682,158	0.7	677543.53	Pulse	100.7	
Tb	159	NoGas	1,569,964	1.9	1642107.27	Analog	95.6	
Bi	209	He	391,356	0.1	387176.576666667	Pulse	101.1	
Bi	209	NoGas	898,212	0.6	894456.463333333	Pulse	100.4	

Calibration Standard Report - ICPMS5

Sample Name:	**9K05034-CAL4**	Total Dilution:	**1.0000**
File Name:	007CALS.d	Vial:	1105
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	CalStd
Acq Time:	11/5/2019 11:45:44		
Comment:	**A19J371 - ESS 11/5**	Last Calib:	11/05/2019 12:18:52

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	3.586	ppb	3.7	9,190	2.3	
Na	23	45	He	175.287	ppb	1.3	237,268	0.0	
Mg	24	45	He	176.756	ppb	0.8	130,061	1.0	
Al	27	45	He	176.366	ppb	0.7	67,397	1.0	
K	39	45	He	181.778	ppb	0.1	140,090	1.2	
Ca	44	45	H2	177.201	ppb	1.0	45,706	1.0	
[Ca]	44	45	He	175.335	ppb	1.5	5,754	2.2	
Ti	47	45	NoGas	3.445	ppb	6.2	4,304	5.9	
V	51	74	He	3.518	ppb	1.8	16,988	1.4	
Cr	52	74	He	3.528	ppb	1.1	18,778	1.4	
Mn	55	74	He	3.619	ppb	1.4	13,151	0.9	
Fe	56	74	H2	181.213	ppb	0.2	2,507,966	0.6	
Co	59	74	He	3.628	ppb	0.7	26,198	1.0	
Ni	60	74	He	3.703	ppb	3.5	6,694	3.8	
Cu	65	74	He	3.857	ppb	2.0	8,614	2.2	
Zn	66	74	He	3.741	ppb	1.9	3,141	2.0	
As	75	74	He	3.653	ppb	1.9	1,844	2.2	
Se	78	74	H2	3.616	ppb	1.3	1,282	1.5	
Mo	95	103	He	3.405	ppb	2.7	7,030	3.3	
Ag	107	103	He	3.497	ppb	1.4	20,736	1.2	
Cd	111	103	He	3.53	ppb	1.8	3,445	2.3	
[Cd]	111	103	NoGas	3.407	ppb	2.4	7,983	2.4	
Sb	121	103	He	3.513	ppb	1.0	8,692	0.8	
Ba	138	159	He	3.791	ppb	1.6	19,814	1.5	
W	182	159	NoGas	0.002	ppb	47.6	27	25.0	
Hg	201	159	NoGas	156.062	ppt	3.3	170	4.6	
Tl	205	159	He	3.6	ppb	0.8	31,667	0.8	
Pb	208	159	NoGas	3.543	ppb	0.7	89,356	1.0	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,064,068	2.4	1063836.77	Analog	100.0	
Sc	45	H2	2,510,865	0.7	2581014.58	Analog	97.3	
Sc	45	He	384,300	1.3	383174.2	Pulse	100.3	
Sc	45	NoGas	3,336,857	0.5	3417487.03	Analog	97.6	
Ge	74	H2	790,322	0.4	784726.176666667	Pulse	100.7	
Ge	74	He	228,554	0.5	227383.553333333	Pulse	100.5	
Ge	74	NoGas	873,962	0.5	865435.953333333	Pulse	101.0	
Rh	103	He	521,157	0.7	522579.263333333	Pulse	99.7	
Rh	103	NoGas	899,552	0.5	906285.446666667	Pulse	99.3	
Tb	159	He	683,499	0.9	677543.53	Pulse	100.9	
Tb	159	NoGas	1,598,401	1.5	1642107.27	Analog	97.3	
Bi	209	He	391,241	0.7	387176.576666667	Pulse	101.0	
Bi	209	NoGas	899,352	0.6	894456.463333333	Pulse	100.5	

Calibration Standard Report - ICPMS5

Sample Name:	**9K05034-CAL5**	Total Dilution:	**1.0000**
File Name:	008CALS.d	Vial:	1106
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	CalStd
Acq Time:	11/5/2019 11:50:40		
Comment:	**A19J373 - ESS 11/5**	Last Calib:	11/05/2019 12:18:52

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	10.134	ppb	0.8	25,646	2.0	
Na	23	45	He	394.886	ppb	1.3	521,661	0.4	
Mg	24	45	He	398.358	ppb	0.7	290,446	0.4	
Al	27	45	He	395.051	ppb	0.7	149,799	0.3	
K	39	45	He	406.672	ppb	1.2	276,000	0.6	
Ca	44	45	H2	398.604	ppb	1.0	101,264	1.1	
[Ca]	44	45	He	395.699	ppb	1.8	12,610	1.1	
Ti	47	45	NoGas	19.902	ppb	1.0	24,118	0.5	
V	51	74	He	19.702	ppb	0.7	88,178	0.3	
Cr	52	74	He	19.772	ppb	1.0	102,948	0.4	
Mn	55	74	He	20.346	ppb	1.3	71,226	1.2	
Fe	56	74	H2	403.047	ppb	0.9	5,507,130	0.4	
Co	59	74	He	20.137	ppb	0.3	143,269	0.4	
Ni	60	74	He	21	ppb	0.5	36,861	0.9	
Cu	65	74	He	21.395	ppb	1.3	46,514	0.8	
Zn	66	74	He	20.191	ppb	2.4	16,644	2.9	
As	75	74	He	20.1	ppb	1.1	9,890	0.7	
Se	78	74	H2	9.914	ppb	2.8	3,492	2.0	
Mo	95	103	He	9.745	ppb	0.5	19,891	1.0	
Ag	107	103	He	9.925	ppb	1.0	58,219	0.4	
Cd	111	103	He	19.796	ppb	0.5	19,079	0.8	
[Cd]	111	103	NoGas	19.442	ppb	1.0	44,794	0.8	
Sb	121	103	He	9.946	ppb	0.8	24,311	0.7	
Ba	138	159	He	20.876	ppb	1.0	107,415	1.4	
W	182	159	NoGas	0.002	ppb	30.4	26	15.1	
Hg	201	159	NoGas	410.545	ppt	5.2	435	6.1	
Tl	205	159	He	9.993	ppb	0.5	87,124	0.2	
Pb	208	159	NoGas	20.156	ppb	1.4	494,416	0.1	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,050,930	1.4	1063836.77	Analog	98.8	
Sc	45	H2	2,490,352	1.4	2581014.58	Analog	96.5	
Sc	45	He	381,739	0.9	383174.2	Pulse	99.6	
Sc	45	NoGas	3,284,654	0.5	3417487.03	Analog	96.1	
Ge	74	H2	786,238	0.8	784726.176666667	Pulse	100.2	
Ge	74	He	226,302	0.6	227383.553333333	Pulse	99.5	
Ge	74	NoGas	861,421	0.7	865435.953333333	Pulse	99.5	
Rh	103	He	515,661	0.5	522579.263333333	Pulse	98.7	
Rh	103	NoGas	884,857	0.3	906285.446666667	Pulse	97.6	
Tb	159	He	677,822	0.4	677543.53	Pulse	100.0	
Tb	159	NoGas	1,565,840	1.4	1642107.27	Analog	95.4	
Bi	209	He	389,723	0.5	387176.576666667	Pulse	100.7	
Bi	209	NoGas	883,277	0.3	894456.463333333	Pulse	98.8	

Calibration Standard Report - ICPMS5

Sample Name:	**9K05034-CAL6**	Total Dilution:	**1.0000**
File Name:	009CALS.d	Vial:	1107
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	CalStd
Acq Time:	11/5/2019 11:55:36		
Comment:	**A19J372**	Last Calib:	11/05/2019 12:18:52

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	50.666	ppb	1.4	124,374	0.3	
Na	23	45	He	2483.227	ppb	0.2	3,152,110	0.9	
Mg	24	45	He	2520.582	ppb	1.0	1,784,282	1.6	
Al	27	45	He	2424.136	ppb	1.1	893,210	0.1	
K	39	45	He	2575.754	ppb	0.5	1,551,986	0.5	
Ca	44	45	H2	2477.558	ppb	1.1	620,313	0.5	
[Ca]	44	45	He	2457.9	ppb	1.1	75,013	0.5	
Ti	47	45	NoGas	48.821	ppb	0.3	57,818	1.2	
V	51	74	He	48.596	ppb	0.8	210,592	0.1	
Cr	52	74	He	48.759	ppb	1.1	247,624	0.4	
Mn	55	74	He	49.84	ppb	0.4	169,842	0.5	
Fe	56	74	H2	2476.096	ppb	0.2	33,052,948	0.8	
Co	59	74	He	49.549	ppb	1.1	344,149	0.5	
Ni	60	74	He	51.821	ppb	0.7	88,638	0.3	
Cu	65	74	He	52.36	ppb	0.3	110,963	0.8	
Zn	66	74	He	51.102	ppb	0.7	41,099	0.9	
As	75	74	He	49.869	ppb	0.6	23,923	0.5	
Se	78	74	H2	49.46	ppb	1.7	17,102	1.1	
Mo	95	103	He	48.983	ppb	1.1	96,207	0.5	
Ag	107	103	He	49.3	ppb	0.4	278,381	0.8	
Cd	111	103	He	49.779	ppb	0.1	46,172	1.1	
[Cd]	111	103	NoGas	47.702	ppb	1.2	105,803	1.2	
Sb	121	103	He	49.196	ppb	0.5	115,686	0.7	
Ba	138	159	He	51.937	ppb	0.3	263,251	1.2	
W	182	159	NoGas	0.01	ppb	27.7	98	24.7	
Hg	201	159	NoGas	2043.129	ppt	2.1	2,131	2.1	
Tl	205	159	He	49.309	ppb	0.9	423,816	0.4	
Pb	208	159	NoGas	49.072	ppb	1.1	1,188,138	0.7	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,019,810	1.2	1063836.77	Analog	95.9	
Sc	45	H2	2,465,855	0.8	2581014.58	Analog	95.5	
Sc	45	He	371,229	1.0	383174.2	Pulse	96.9	
Sc	45	NoGas	3,215,623	0.9	3417487.03	Analog	94.1	
Ge	74	H2	772,098	0.6	784726.176666667	Pulse	98.4	
Ge	74	He	221,079	0.9	227383.553333333	Pulse	97.2	
Ge	74	NoGas	831,677	1.0	865435.953333333	Pulse	96.1	
Rh	103	He	496,399	1.2	522579.263333333	Pulse	95.0	
Rh	103	NoGas	851,841	0.3	906285.446666667	Pulse	94.0	
Tb	159	He	668,405	1.2	677543.53	Pulse	98.7	
Tb	159	NoGas	1,546,796	0.4	1642107.27	Analog	94.2	
Bi	209	He	377,110	0.9	387176.576666667	Pulse	97.4	
Bi	209	NoGas	863,107	0.2	894456.463333333	Pulse	96.5	

Calibration Standard Report - ICPMS5

Sample Name:	**9K05034-CAL7**	Total Dilution:	**1.0000**
File Name:	010CALS.d	Vial:	1108
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	CalStd
Acq Time:	11/5/2019 12:00:30		
Comment:	**A19J374**	Last Calib:	11/05/2019 12:18:52

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	99.653	ppb	0.7	241,304	0.4	
Na	23	45	He	3979.033	ppb	0.7	4,803,082	1.1	
Mg	24	45	He	4045.176	ppb	1.9	2,724,885	1.6	
Al	27	45	He	4036.31	ppb	1.2	1,415,460	1.0	
K	39	45	He	4094.665	ppb	0.2	2,332,715	1.1	
Ca	44	45	H2	3973.603	ppb	0.3	953,488	0.4	
[Ca]	44	45	He	3933.191	ppb	0.6	114,126	0.8	
Ti	47	45	NoGas	197.859	ppb	1.1	219,689	0.7	
V	51	74	He	195.334	ppb	0.4	797,262	0.4	
Cr	52	74	He	196.458	ppb	0.5	943,247	0.4	
Mn	55	74	He	201.124	ppb	0.6	647,247	0.3	
Fe	56	74	H2	3978.324	ppb	0.3	51,030,244	0.5	
Co	59	74	He	200.588	ppb	1.7	1,317,885	2.3	
Ni	60	74	He	205.047	ppb	0.9	331,421	0.9	
Cu	65	74	He	208.035	ppb	0.2	416,646	0.5	
Zn	66	74	He	203.371	ppb	0.4	154,660	0.9	
As	75	74	He	202.048	ppb	0.6	91,610	0.1	
Se	78	74	H2	100.278	ppb	0.6	33,330	0.5	
Mo	95	103	He	100.541	ppb	0.6	188,090	0.4	
Ag	107	103	He	100.362	ppb	0.6	539,784	0.5	
Cd	111	103	He	200.161	ppb	0.4	176,809	0.3	
[Cd]	111	103	NoGas	197.002	ppb	0.8	413,429	1.1	
Sb	121	103	He	100.412	ppb	0.7	224,886	0.7	
Ba	138	159	He	205.862	ppb	0.5	1,011,515	0.9	
W	182	159	NoGas	0.019	ppb	13.2	164	11.2	
Hg	201	159	NoGas	3976.895	ppt	1.3	4,064	0.1	
Tl	205	159	He	100.347	ppb	0.5	836,527	0.9	
Pb	208	159	NoGas	199.078	ppb	2.1	4,723,215	0.9	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,005,915	1.0	1063836.77	Analog	94.6	
Sc	45	H2	2,363,961	0.7	2581014.58	Analog	91.6	
Sc	45	He	353,324	0.9	383174.2	Pulse	92.2	
Sc	45	NoGas	3,017,879	1.0	3417487.03	Analog	88.3	
Ge	74	H2	742,209	0.2	784726.176666667	Pulse	94.6	
Ge	74	He	209,169	0.7	227383.553333333	Pulse	92.0	
Ge	74	NoGas	792,587	0.2	865435.953333333	Pulse	91.6	
Rh	103	He	472,801	0.3	522579.263333333	Pulse	90.5	
Rh	103	NoGas	805,968	0.2	906285.446666667	Pulse	88.9	
Tb	159	He	648,259	0.5	677543.53	Pulse	95.7	
Tb	159	NoGas	1,516,623	1.2	1642107.27	Analog	92.4	
Bi	209	He	368,554	1.1	387176.576666667	Pulse	95.2	
Bi	209	NoGas	829,519	0.0	894456.463333333	Pulse	92.7	

Calibration Standard Report - ICPMS5

Sample Name:	**9K05034-CAL8**	Total Dilution:	**1.0000**
File Name:	011CALS.d	Vial:	1109
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	CalStd
Acq Time:	11/5/2019 12:05:18		
Comment:	**A19J188**	Last Calib:	11/05/2019 12:18:52

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.025	ppb	18.4	66	16.4	
Na	23	45	He	9927.461	ppb	0.6	11,432,263	0.3	
Mg	24	45	He	10014.169	ppb	0.8	6,440,749	1.1	
Al	27	45	He	9996.431	ppb	0.5	3,347,277	0.9	
K	39	45	He	10095.634	ppb	0.2	5,454,818	1.0	
Ca	44	45	H2	10173.56	ppb	0.7	2,328,132	0.5	
[Ca]	44	45	He	9787.386	ppb	0.8	270,869	0.9	
Ti	47	45	NoGas	500.733	ppb	0.1	528,521	0.5	
V	51	74	He	502.019	ppb	0.6	1,958,475	1.1	
Cr	52	74	He	501.129	ppb	1.2	2,301,596	1.8	
Mn	55	74	He	509.076	ppb	1.1	1,566,756	1.2	
Fe	56	74	H2	9951.277	ppb	0.1	119,791,290	0.4	
Co	59	74	He	499.804	ppb	1.2	3,141,063	1.2	
Ni	60	74	He	501.244	ppb	0.3	774,885	0.5	
Cu	65	74	He	505.439	ppb	0.2	968,219	0.8	
Zn	66	74	He	507.924	ppb	0.2	369,485	0.5	
As	75	74	He	499.189	ppb	0.4	216,489	0.3	
Se	78	74	H2	0.094	ppb	22.8	31	21.2	
Mo	95	103	He	0.108	ppb	25.6	199	24.4	
Ag	107	103	He	0.021	ppb	32.4	111	32.4	
Cd	111	103	He	500.672	ppb	0.1	419,384	0.6	
[Cd]	111	103	NoGas	499.764	ppb	0.3	993,145	0.6	
Sb	121	103	He	0.063	ppb	15.2	151	13.5	
Ba	138	159	He	514.856	ppb	0.7	2,445,163	0.8	
W	182	159	NoGas	100	ppb	1.5	778,389	0.9	
Hg	201	159	NoGas	90.878	ppt	7.2	91	6.1	
Tl	205	159	He	0.032	ppb	10.6	277	9.6	
Pb	208	159	NoGas	500.456	ppb	1.3	11,403,443	0.5	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	959,614	0.4	1063836.77	Analog	90.2	
Sc	45	H2	2,255,263	0.6	2581014.58	Analog	87.4	
Sc	45	He	337,375	0.9	383174.2	Pulse	88.0	
Sc	45	NoGas	2,869,213	0.6	3417487.03	Analog	84.0	
Ge	74	H2	696,808	0.4	784726.176666667	Pulse	88.8	
Ge	74	He	200,108	0.6	227383.553333333	Pulse	88.0	
Ge	74	NoGas	750,031	0.5	865435.953333333	Pulse	86.7	
Rh	103	He	448,355	0.7	522579.263333333	Pulse	85.8	
Rh	103	NoGas	763,201	0.2	906285.446666667	Pulse	84.2	
Tb	159	He	626,660	0.8	677543.53	Pulse	92.5	
Tb	159	NoGas	1,456,593	1.1	1642107.27	Analog	88.7	
Bi	209	He	353,457	0.9	387176.576666667	Pulse	91.3	
Bi	209	NoGas	787,708	0.4	894456.463333333	Pulse	88.1	

Calibration Standard Report - ICPMS5

Sample Name:	**9K05034-CAL9**	Total Dilution:	**1.0000**
File Name:	012CALS.d	Vial:	1110
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	CalStd
Acq Time:	11/5/2019 12:09:54		
Comment:	**A19J189**	Last Calib:	11/05/2019 12:18:52

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.022	ppb	32.4	57	25.6	
Na	23	45	He	50017.086	ppb	0.2	55,909,420	0.5	
Mg	24	45	He	49992.551	ppb	1.0	31,221,115	0.7	
Al	27	45	He	50001.657	ppb	1.0	16,258,218	0.9	
K	39	45	He	49969.448	ppb	0.4	26,121,949	0.9	
Ca	44	45	H2	49968.543	ppb	0.4	10,814,095	0.4	
[Ca]	44	45	He	50050.025	ppb	0.6	1,344,350	1.1	
Ti	47	45	NoGas	2500.049	ppb	2.1	2,638,194	0.8	
V	51	74	He	0.07	ppb	9.0	1,346	2.3	
Cr	52	74	He	1000.211	ppb	0.5	4,320,428	0.9	
Mn	55	74	He	2498.095	ppb	0.7	7,230,212	1.2	
Fe	56	74	H2	50012.65	ppb	0.2	548,022,734	0.2	
Co	59	74	He	0.215	ppb	9.7	1,396	8.3	
Ni	60	74	He	998.257	ppb	0.4	1,451,393	0.4	
Cu	65	74	He	995.527	ppb	0.3	1,793,548	0.4	
Zn	66	74	He	2498.122	ppb	0.1	1,709,154	0.5	
As	75	74	He	0.149	ppb	5.3	89	3.0	
Se	78	74	H2	0.103	ppb	50.8	31	47.5	
Mo	95	103	He	0.122	ppb	7.6	202	7.8	
Ag	107	103	He	0.03	ppb	9.9	142	9.5	
Cd	111	103	He	999.647	ppb	0.1	760,566	0.5	
[Cd]	111	103	NoGas	1000.844	ppb	0.7	1,836,865	1.1	
Sb	121	103	He	0.048	ppb	33.9	109	28.4	
Ba	138	159	He	2496.514	ppb	0.7	11,064,596	1.0	
W	182	159	NoGas	0.289	ppb	0.4	2,087	0.8	
Hg	201	159	NoGas	46.212	ppt	5.2	44	5.4	
Tl	205	159	He	0.012	ppb	36.9	107	30.8	
Pb	208	159	NoGas	0.213	ppb	3.4	5,109	2.9	

ISTD Table:

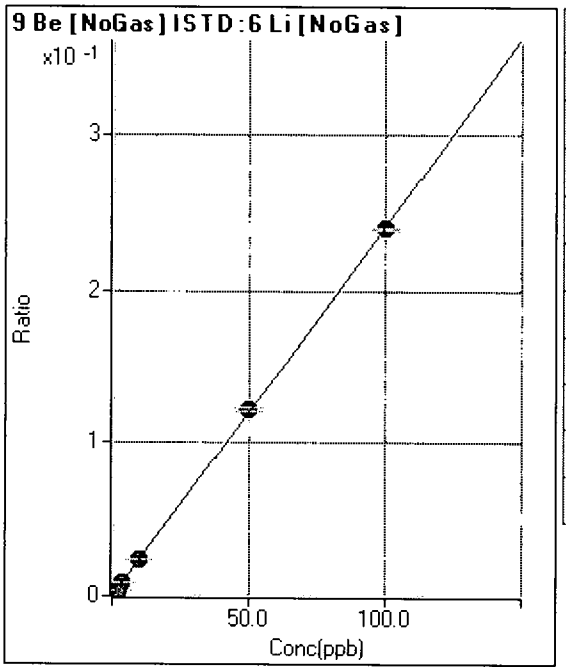
Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	945,689	2.8	1063836.77	Analog	88.9	
Sc	45	H2	2,133,201	0.8	2581014.58	Analog	82.6	
Sc	45	He	327,619	0.5	383174.2	Pulse	85.5	
Sc	45	NoGas	2,869,762	2.5	3417487.03	Analog	84.0	
Ge	74	H2	634,416	0.4	784726.176666667	Pulse	80.8	
Ge	74	He	188,218	0.6	227383.553333333	Pulse	82.8	
Ge	74	NoGas	707,515	1.2	865435.953333333	Pulse	81.8	
Rh	103	He	407,247	0.6	522579.263333333	Pulse	77.9	
Rh	103	NoGas	704,850	0.4	906285.446666667	Pulse	77.8	
Tb	159	He	584,843	1.2	677543.53	Pulse	86.3	
Tb	159	NoGas	1,342,365	0.5	1642107.27	Pulse	81.7	
Bi	209	He	314,279	0.4	387176.576666667	Pulse	81.2	
Bi	209	NoGas	728,779	0.9	894456.463333333	Pulse	81.5	

Calibration for 013_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\9K05034.b\
Analysis File: 9K05034.batch.bin
DA Date-Time: 11/5/2019 12:22:55
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	9K05034-CAL0	11/5/2019 11:26:07
2	004CALS.d	9K05034-CAL1	11/5/2019 11:30:48
3	005CALS.d	9K05034-CAL2	11/5/2019 11:35:48
4	006CALS.d	9K05034-CAL3	11/5/2019 11:40:46
5	007CALS.d	9K05034-CAL4	11/5/2019 11:45:44
6	008CALS.d	9K05034-CAL5	11/5/2019 11:50:40
7	009CALS.d	9K05034-CAL6	11/5/2019 11:55:36
8	010CALS.d	9K05034-CAL7	11/5/2019 12:00:30
9	011CALS.d	9K05034-CAL8	11/5/2019 12:05:18
10	012CALS.d	9K05034-CAL9	11/5/2019 12:09:54

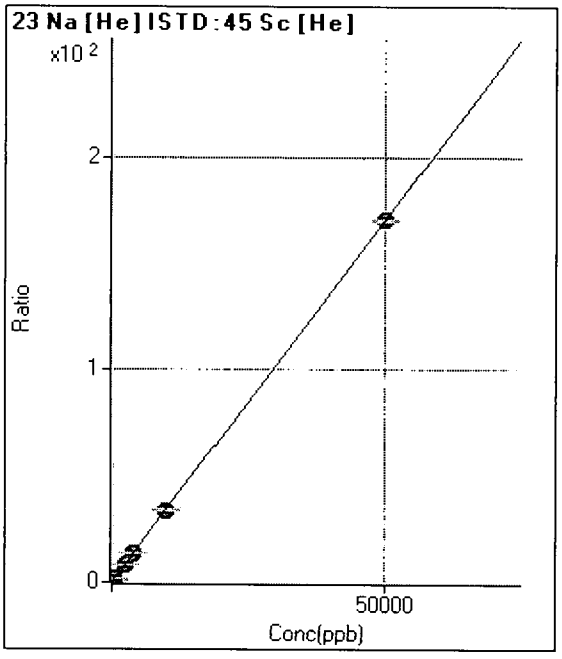
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	9	0.000	P	114.8
2	☐	0.180	0.187	484	0.000	P	11.3
3	☐	0.900	0.960	2,316	0.002	P	4.9
4	☐	1.800	1.821	4,565	0.004	P	1.5
5	☐	3.600	3.586	9,190	0.009	P	3.7
6	☐	10.000	10.134	25,646	0.024	P	0.8
7	☐	50.000	50.666	124,374	0.122	P	1.4
8	☐	100.000	99.653	241,304	0.240	P	0.7
9	☐			66	0.000	P	16.1
10	☐			57	0.000	P	27.9

y = 0.0024 * x + 8.3611E-006
R = 1.0000
DL = 0.01197
BEC = 0.003473

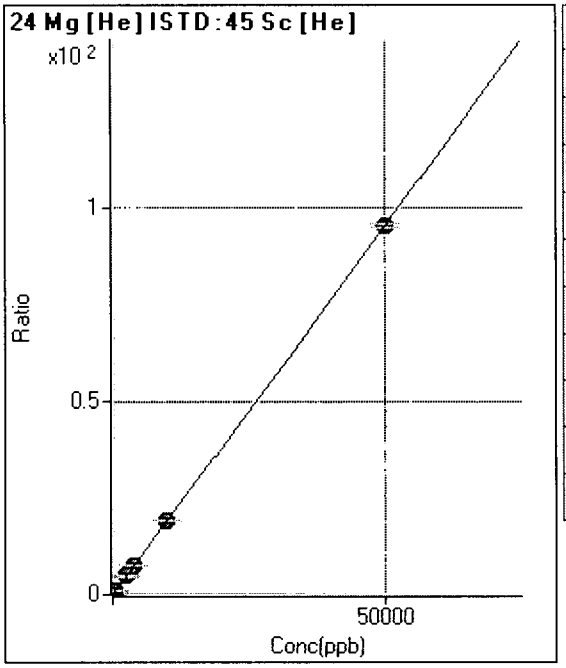
Weight: <None>
Min Conc: <None>



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7,462	0.019	P	3.5
2	☐			20,214	0.052	P	2.2
3	☐	45.000	44.739	66,057	0.172	P	0.5
4	☐	90.000	87.749	122,359	0.319	P	0.7
5	☐	180.000	175.287	237,268	0.617	P	1.3
6	☐	400.000	394.886	521,661	1.367	P	1.3
7	☐	2500.000	2483.227	3,152,110	8.491	A	0.2
8	☐	4000.000	3979.033	4,803,082	13.594	A	0.7
9	☐	10000.000	9927.461	11,432,263	33.887	A	0.6
10	☐	50000.000	50017.086	55,909,420	170.654	A	0.2

y = 0.0034 * x + 0.0195
R = 1.0000
DL = 0.605
BEC = 5.709

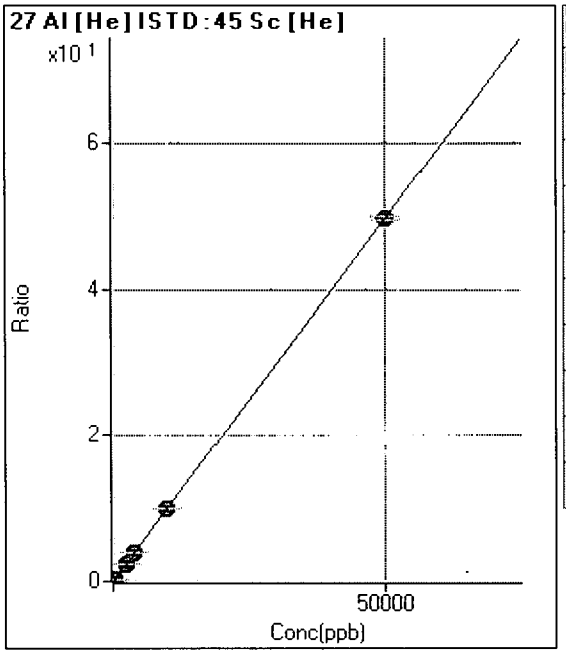
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	579	0.002	P	8.7
2	☐			7,154	0.019	P	1.5
3	☐	45.000	45.035	33,530	0.087	P	0.6
4	☐	90.000	88.311	65,188	0.170	P	0.8
5	☐	180.000	176.756	130,061	0.338	P	0.8
6	☐	400.000	398.358	290,446	0.761	P	0.7
7	☐	2500.000	2520.582	1,784,282	4.806	A	1.0
8	☐	4000.000	4045.176	2,724,885	7.713	A	1.9
9	☐	10000.000	10014.169	6,440,749	19.091	A	0.8
10	☐	50000.000	49992.551	31,221,115	95.299	A	1.0

y = 0.0019 * x + 0.0015
R = 1.0000
DL = 0.2078
BEC = 0.793

Weight: <None>
Min Conc: <None>

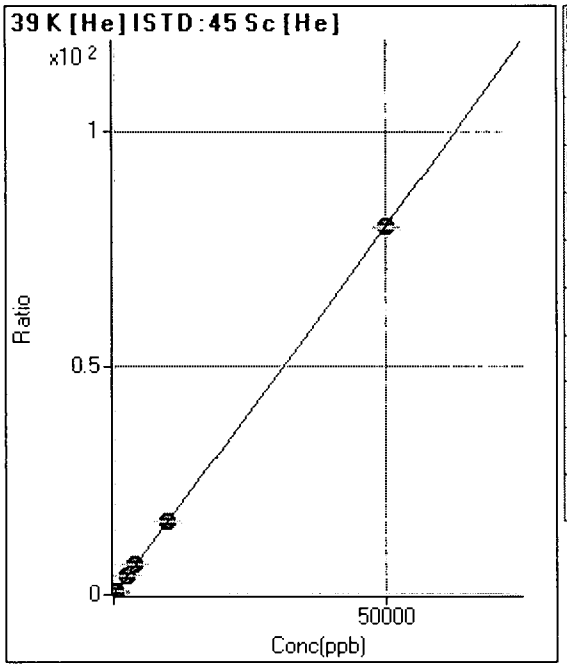


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	132	0.000	P	13.5
2	☐			3,469	0.009	P	2.3
3	☐	45.000	44.939	17,247	0.045	P	5.3
4	☐	90.000	88.818	33,959	0.088	P	2.3
5	☐	180.000	176.366	67,397	0.175	P	0.7
6	☐	400.000	395.051	149,799	0.392	P	0.7
7	☐	2500.000	2424.136	893,210	2.406	P	1.1
8	☐	4000.000	4036.310	1,415,460	4.006	A	1.2
9	☐	10000.000	9996.431	3,347,277	9.922	A	0.5
10	☐	50000.000	50001.657	16,258,218	49.626	A	1.0

y = 9.9248E-004 * x + 3.4532E-004
R = 1.0000
DL = 0.141
BEC = 0.3479

Weight: <None>
Min Conc: <None>

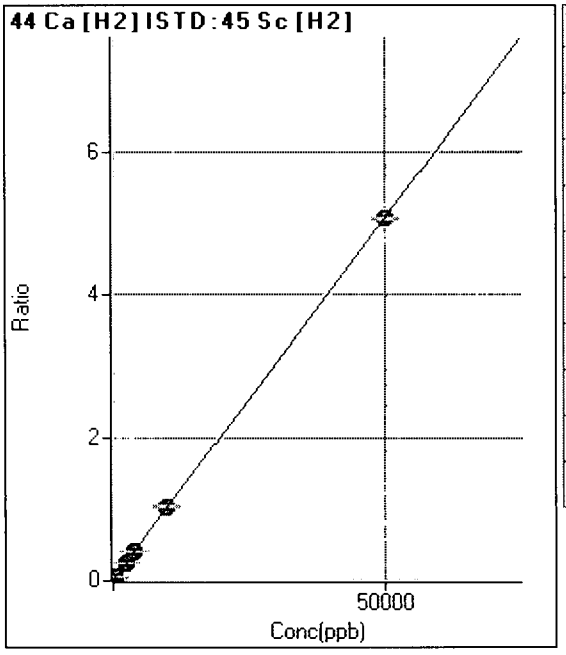
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	28,647	0.075	P	0.3
2				35,188	0.091	P	0.6
3		45.000	47.104	57,519	0.150	P	1.1
4		90.000	91.462	84,643	0.221	P	1.1
5		180.000	181.778	140,090	0.365	P	0.1
6		400.000	406.672	276,000	0.723	P	1.1
7		2500.000	2575.754	1,551,986	4.181	A	0.5
8		4000.000	4094.665	2,332,715	6.602	A	0.2
9		10000.000	10095.634	5,454,818	16.168	A	0.2
10		50000.000	49969.448	26,121,949	79.732	A	0.4

y = 0.0016 * x + 0.0748
R = 1.0000
DL = 0.3676
BEC = 46.9

Weight: <None>
Min Conc: <None>

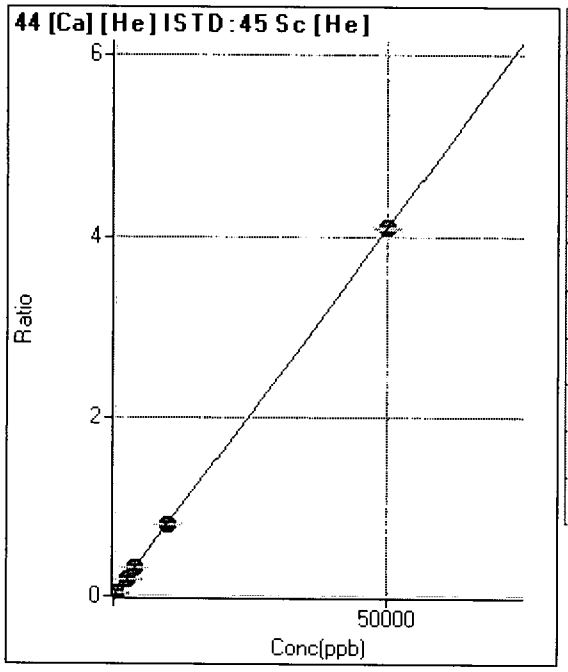


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	584	0.000	P	16.0
2				3,283	0.001	P	0.9
3		45.000	45.878	12,224	0.005	P	2.1
4		90.000	89.681	23,521	0.009	P	1.2
5		180.000	177.201	45,706	0.018	P	1.0
6		400.000	398.604	101,264	0.041	P	1.0
7		2500.000	2477.558	620,313	0.252	P	1.1
8		4000.000	3973.603	953,488	0.403	P	0.3
9		10000.000	10173.560	2,328,132	1.032	A	0.7
10		50000.000	49968.543	10,814,095	5.070	A	0.4

y = 1.0145E-004 * x + 2.2651E-004
R = 1.0000
DL = 1.074
BEC = 2.233

Weight: <None>
Min Conc: <None>

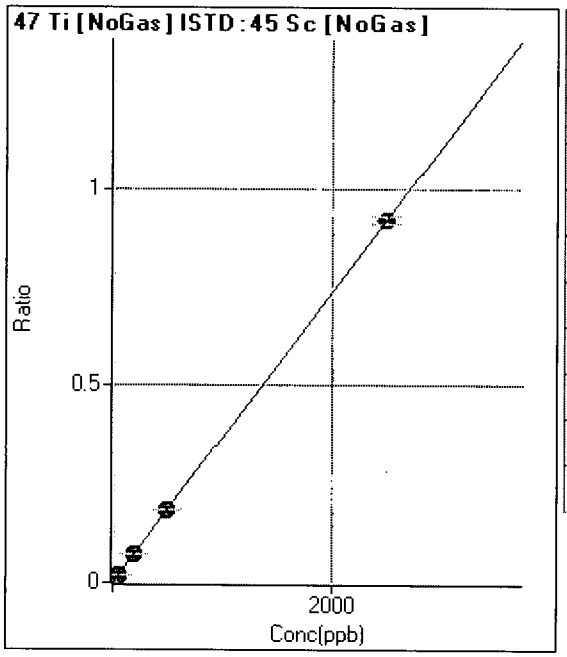
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	230	0.001	P	8.0
2	☐			597	0.002	P	10.9
3	☐	45.000	46.788	1,702	0.004	P	4.4
4	☐	90.000	88.618	3,018	0.008	P	1.4
5	☐	180.000	175.335	5,754	0.015	P	1.4
6	☐	400.000	395.699	12,610	0.033	P	1.8
7	☐	2500.000	2457.900	75,013	0.202	P	1.1
8	☐	4000.000	3933.191	114,126	0.323	P	0.6
9	☐	10000.000	9787.386	270,869	0.803	P	0.8
10	☐	50000.000	50050.025	1,344,350	4.103	A	0.6

y = 8.1972E-005 * x + 6.0040E-004
R = 1.0000
DL = 1.761
BEC = 7.324

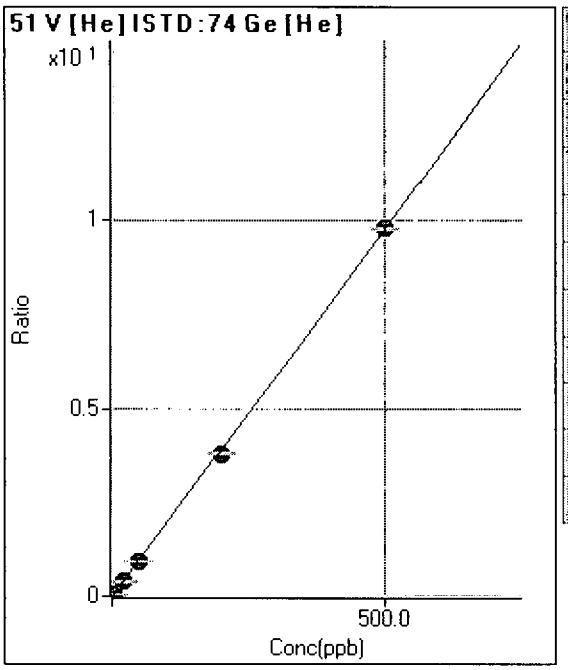
Weight: <None>
Min Conc: <None>



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	77	0.000	P	27.9
2	☐	0.180	0.159	267	0.000	P	20.9
3	☐	0.900	1.003	1,224	0.000	P	16.8
4	☐	1.800	1.738	2,207	0.001	P	5.2
5	☐	3.600	3.445	4,304	0.001	P	6.1
6	☐	20.000	19.902	24,118	0.007	P	1.0
7	☐	50.000	48.821	57,818	0.018	P	0.3
8	☐	200.000	197.859	219,689	0.073	P	1.1
9	☐	500.000	500.733	528,521	0.184	P	0.1
10	☐	2500.000	2500.049	2,638,194	0.920	A	2.1

y = 3.6783E-004 * x + 2.2480E-005
R = 1.0000
DL = 0.05108
BEC = 0.06112

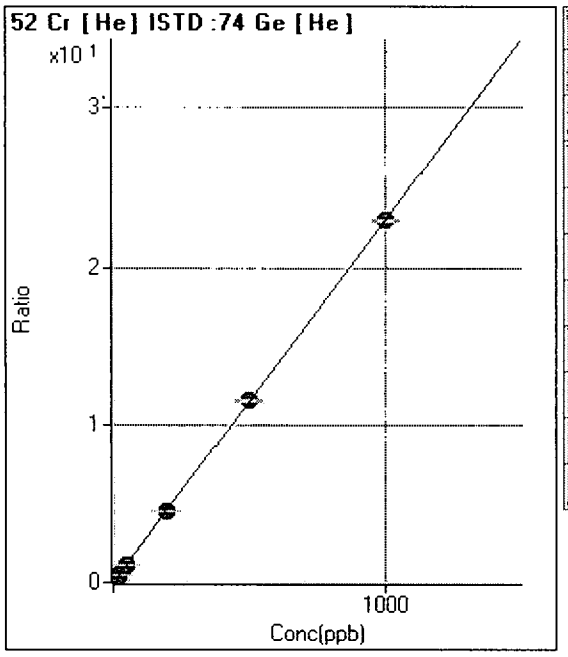
Weight: <None>
Min Conc: <None>



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1,315	0.006	P	0.6
2	☐	0.180	0.191	2,168	0.010	P	2.8
3	☐	0.900	0.907	5,367	0.023	P	1.6
4	☐	1.800	1.756	9,156	0.040	P	0.7
5	☐	3.600	3.518	16,988	0.074	P	1.7
6	☐	20.000	19.702	88,178	0.390	P	0.7
7	☐	50.000	48.596	210,592	0.953	P	0.8
8	☐	200.000	195.334	797,262	3.812	P	0.4
9	☐	500.000	502.019	1,958,475	9.787	A	0.6
10	☐			1,346	0.007	P	1.7

y = 0.0195 * x + 0.0058
R = 0.9999
DL = 0.005334
BEC = 0.2968

Weight: <None>
Min Conc: <None>

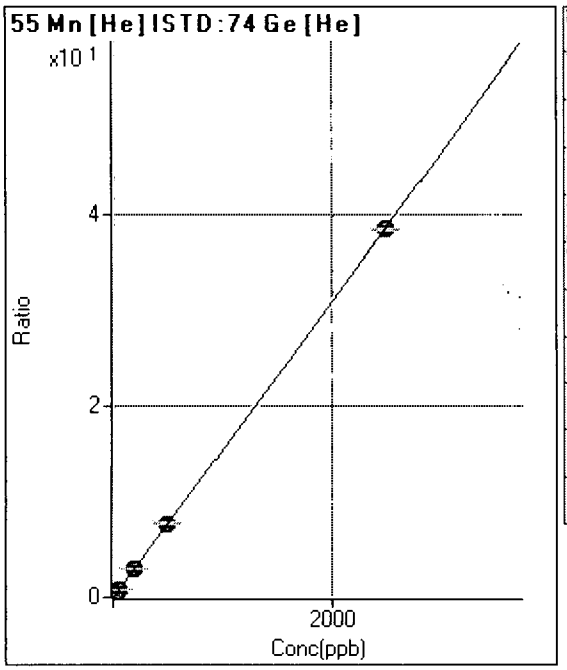


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	273	0.001	P	12.5
2	☐	0.180	0.189	1,266	0.006	P	3.9
3	☐	0.900	0.872	4,851	0.021	P	2.1
4	☐	1.800	1.761	9,529	0.042	P	2.4
5	☐	3.600	3.528	18,778	0.082	P	1.1
6	☐	20.000	19.772	102,948	0.455	P	1.0
7	☐	50.000	48.759	247,624	1.120	P	1.1
8	☐	200.000	196.458	943,247	4.510	P	0.5
9	☐	500.000	501.129	2,301,596	11.501	A	1.2
10	☐	1000.000	1000.211	4,320,428	22.954	A	0.5

y = 0.0229 * x + 0.0012
R = 1.0000
DL = 0.01971
BEC = 0.05239

Weight: <None>
Min Conc: <None>

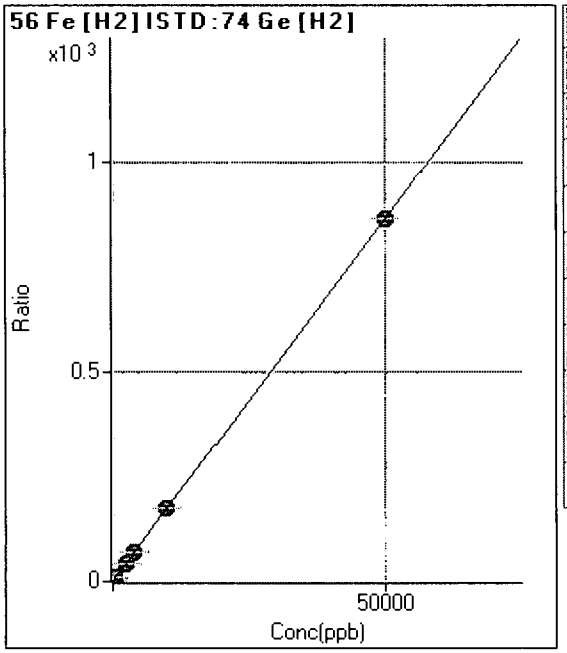
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1		0.000	0.000	432	0.002	P	4.5
2		0.180	0.161	998	0.004	P	7.2
3		0.900	0.935	3,725	0.016	P	3.3
4		1.800	1.814	6,821	0.030	P	4.1
5		3.600	3.619	13,151	0.058	P	1.3
6		20.000	20.346	71,226	0.315	P	1.3
7		50.000	49.840	169,842	0.768	P	0.4
8		200.000	201.124	647,247	3.094	P	0.6
9		500.000	509.076	1,566,756	7.830	A	1.1
10		2500.000	2498.095	7,230,212	38.413	A	0.7

y = 0.0154 * x + 0.0019
R = 1.0000
DL = 0.01683
BEC = 0.1236

Weight: <None>
Min Conc: <None>

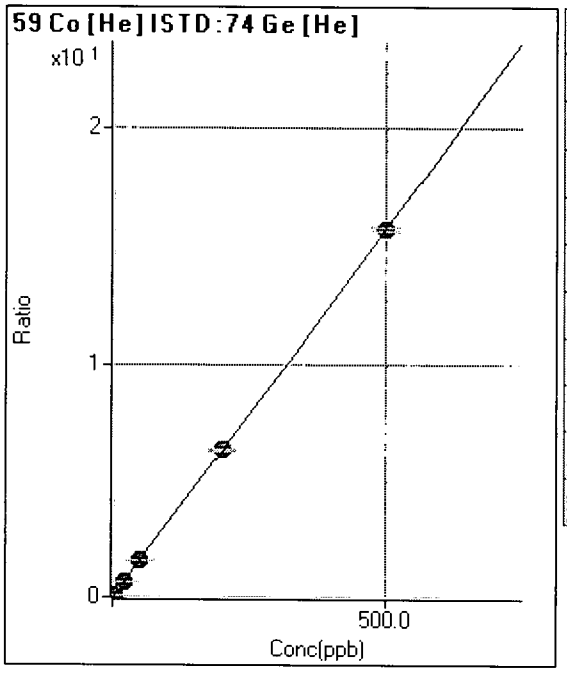


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1		0.000	0.000	34,179	0.044	P	2.2
2				154,556	0.196	P	0.4
3		45.000	44.160	636,825	0.806	P	0.8
4		90.000	87.673	1,234,835	1.558	P	0.3
5		180.000	181.213	2,507,966	3.173	A	0.2
6		400.000	403.047	5,507,130	7.005	A	0.8
7		2500.000	2476.096	33,052,948	42.809	A	0.2
8		4000.000	3978.324	51,030,244	68.754	A	0.3
9		10000.000	9951.277	119,791,290	171.915	A	0.1
10		50000.000	50012.650	548,022,734	863.825	A	0.2

y = 0.0173 * x + 0.0436
R = 1.0000
DL = 0.1664
BEC = 2.522

Weight: <None>
Min Conc: <None>

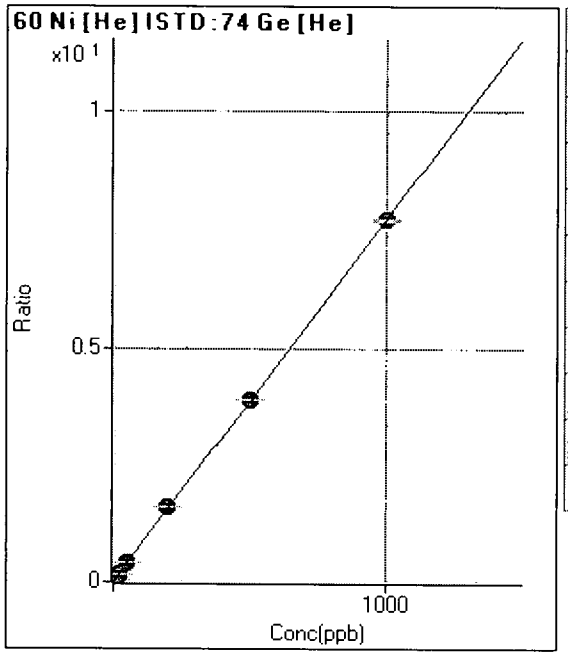
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	154	0.001	P	13.3
2	☐	0.180	0.186	1,485	0.007	P	0.8
3	☐	0.900	0.911	6,703	0.029	P	2.9
4	☐	1.800	1.793	13,051	0.057	P	1.0
5	☐	3.600	3.628	26,198	0.115	P	0.7
6	☐	20.000	20.137	143,269	0.633	P	0.3
7	☐	50.000	49.549	344,149	1.557	P	1.1
8	☐	200.000	200.588	1,317,885	6.300	A	1.7
9	☐	500.000	499.804	3,141,063	15.697	A	1.2
10	☐			1,396	0.007	P	8.8

y = 0.0314 * x + 6.7886E-004
R = 1.0000
DL = 0.008645
BEC = 0.02162

Weight: <None>
Min Conc: <None>

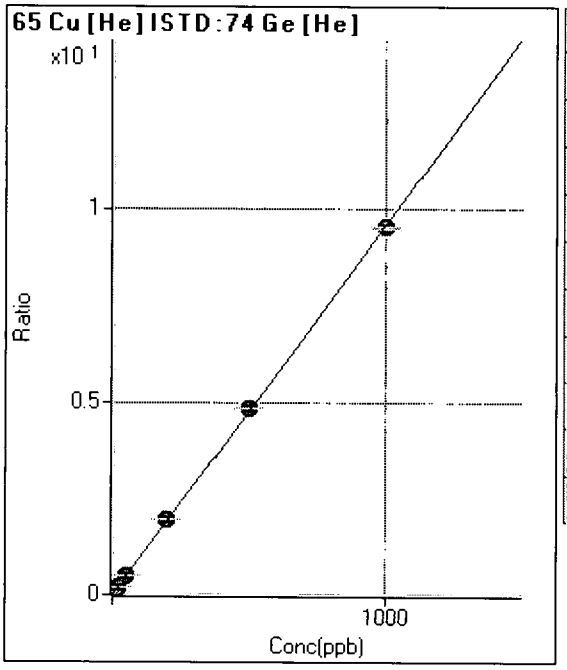


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	154	0.001	P	10.6
2	☐	0.180	0.190	490	0.002	P	11.7
3	☐	0.900	0.890	1,729	0.008	P	5.2
4	☐	1.800	1.794	3,329	0.015	P	1.9
5	☐	3.600	3.703	6,694	0.029	P	3.5
6	☐	20.000	21.000	36,861	0.163	P	0.5
7	☐	50.000	51.821	88,638	0.401	P	0.7
8	☐	200.000	205.047	331,421	1.584	P	0.9
9	☐	500.000	501.244	774,885	3.872	P	0.3
10	☐	1000.000	998.257	1,451,393	7.711	A	0.4

y = 0.0077 * x + 6.7911E-004
R = 1.0000
DL = 0.02804
BEC = 0.08792

Weight: <None>
Min Conc: <None>

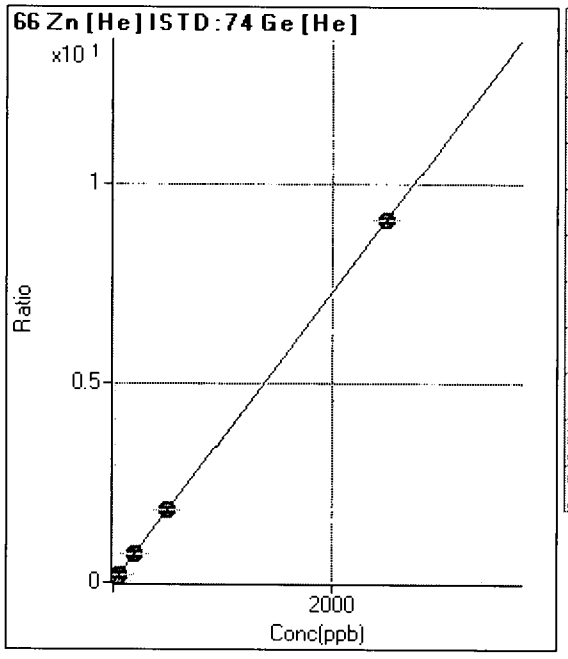
Calibration for 013_ICV.d



	Rjct	Conc.	Calc.Conc.	CPS	Ratio	Det.	%RSD
1	☐	0.000	0.000	176	0.001	P	18.8
2	☐	0.180	0.260	744	0.003	P	9.2
3	☐	0.900	0.956	2,269	0.010	P	9.0
4	☐	1.800	1.906	4,354	0.019	P	3.3
5	☐	3.600	3.857	8,614	0.038	P	2.0
6	☐	20.000	21.395	46,514	0.206	P	1.2
7	☐	50.000	52.360	110,963	0.502	P	0.3
8	☐	200.000	208.035	416,646	1.992	P	0.2
9	☐	500.000	505.439	968,219	4.838	P	0.2
10	☐	1000.000	995.527	1,793,548	9.529	A	0.3

y = 0.0096 * x + 7.7297E-004
R = 0.9999
DL = 0.04546
BEC = 0.08076

Weight: <None>
Min Conc: <None>

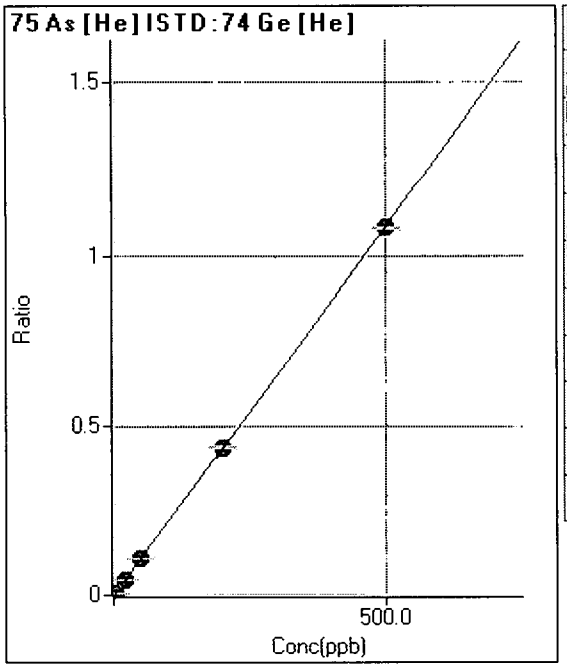


	Rjct	Conc.	Calc.Conc.	CPS	Ratio	Det.	%RSD
1	☐	0.000	0.000	33	0.000	P	35.4
2	☐	0.180	0.324	302	0.001	P	14.5
3	☐	0.900	0.838	730	0.003	P	6.2
4	☐	1.800	1.760	1,500	0.007	P	13.9
5	☐	3.600	3.741	3,141	0.014	P	1.9
6	☐	20.000	20.191	16,644	0.074	P	2.4
7	☐	50.000	51.102	41,099	0.186	P	0.7
8	☐	200.000	203.371	154,660	0.739	P	0.4
9	☐	500.000	507.924	369,485	1.846	P	0.2
10	☐	2500.000	2498.122	1,709,154	9.081	A	0.1

y = 0.0036 * x + 1.4683E-004
R = 1.0000
DL = 0.04284
BEC = 0.04039

Weight: <None>
Min Conc: <None>

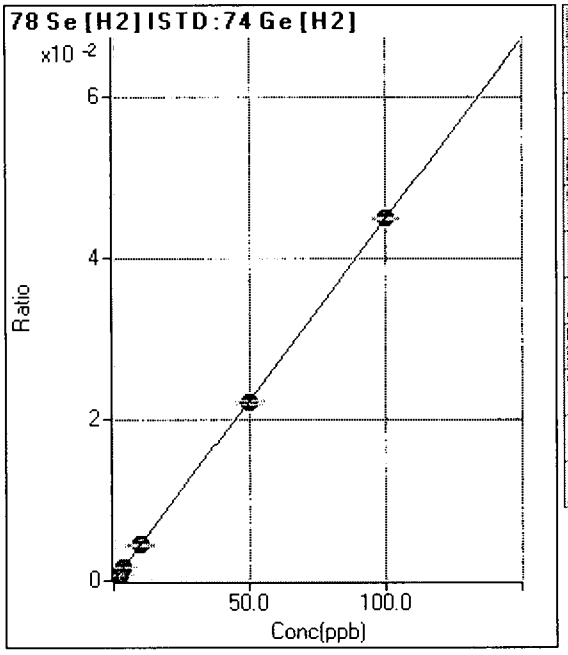
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	34	0.000	P	15.2
2	☐	0.180	0.182	124	0.001	P	12.9
3	☐	0.900	0.855	458	0.002	P	4.3
4	☐	1.800	1.819	937	0.004	P	4.7
5	☐	3.600	3.653	1,844	0.008	P	1.9
6	☐	20.000	20.100	9,890	0.044	P	1.1
7	☐	50.000	49.869	23,923	0.108	P	0.6
8	☐	200.000	202.048	91,610	0.438	P	0.6
9	☐	500.000	499.189	216,489	1.082	P	0.4
10	☐			89	0.000	P	3.6

y = 0.0022 * x + 1.4947E-004
R = 1.0000
DL = 0.03141
BEC = 0.06898

Weight: <None>
Min Conc: <None>

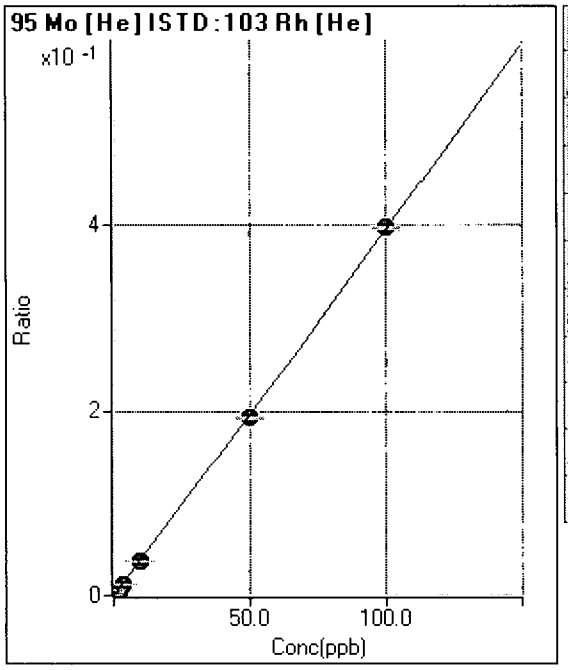


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2	0.000	P	108.0
2	☐	0.180	0.213	78	0.000	P	6.8
3	☐	0.900	0.910	324	0.000	P	5.4
4	☐	1.800	1.790	638	0.001	P	6.8
5	☐	3.600	3.616	1,282	0.002	P	1.3
6	☐	10.000	9.914	3,492	0.004	P	2.8
7	☐	50.000	49.460	17,102	0.022	P	1.7
8	☐	100.000	100.278	33,330	0.045	P	0.6
9	☐			31	0.000	P	21.3
10	☐			31	0.000	P	47.7

y = 4.4780E-004 * x + 2.9732E-006
R = 1.0000
DL = 0.02151
BEC = 0.00664

Weight: <None>
Min Conc: <None>

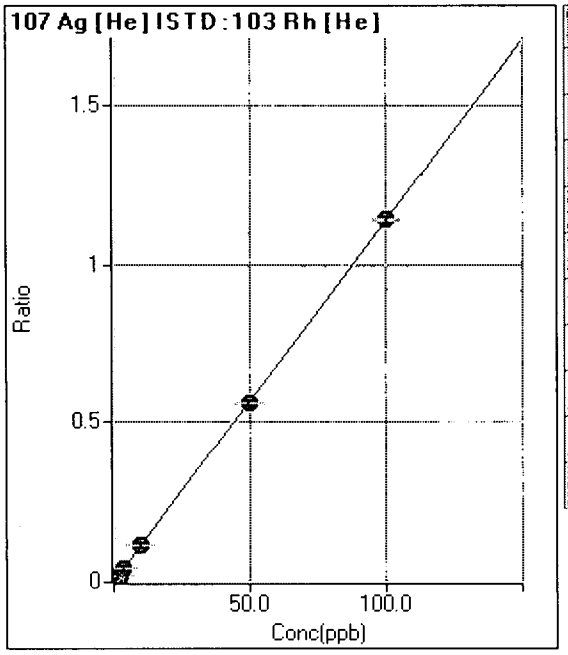
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8	0.000	P	49.2
2	☐	0.180	0.202	427	0.001	P	8.4
3	☐	0.900	0.879	1,831	0.003	P	2.4
4	☐	1.800	1.785	3,683	0.007	P	6.0
5	☐	3.600	3.405	7,030	0.013	P	2.6
6	☐	10.000	9.745	19,891	0.039	P	0.5
7	☐	50.000	48.983	96,207	0.194	P	1.1
8	☐	100.000	100.541	188,090	0.398	P	0.6
9	☐			199	0.000	P	24.7
10	☐			202	0.000	P	7.4

y = 0.0040 * x + 1.4853E-005
R = 0.9999
DL = 0.005541
BEC = 0.003754

Weight: <None>
Min Conc: <None>

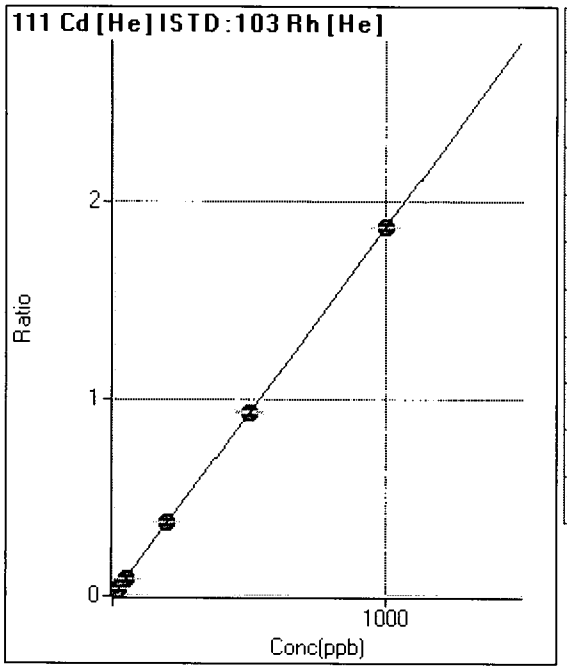


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2	0.000	P	86.6
2	☐	0.180	0.170	1,013	0.002	P	0.5
3	☐	0.900	0.906	5,402	0.010	P	1.7
4	☐	1.800	1.753	10,383	0.020	P	2.4
5	☐	3.600	3.497	20,736	0.040	P	1.4
6	☐	10.000	9.925	58,219	0.113	P	1.0
7	☐	50.000	49.300	278,381	0.561	P	0.4
8	☐	100.000	100.362	539,784	1.142	P	0.6
9	☐			111	0.000	P	31.8
10	☐			142	0.000	P	9.8

y = 0.0114 * x + 4.2447E-006
R = 1.0000
DL = 0.0009695
BEC = 0.0003731

Weight: <None>
Min Conc: <None>

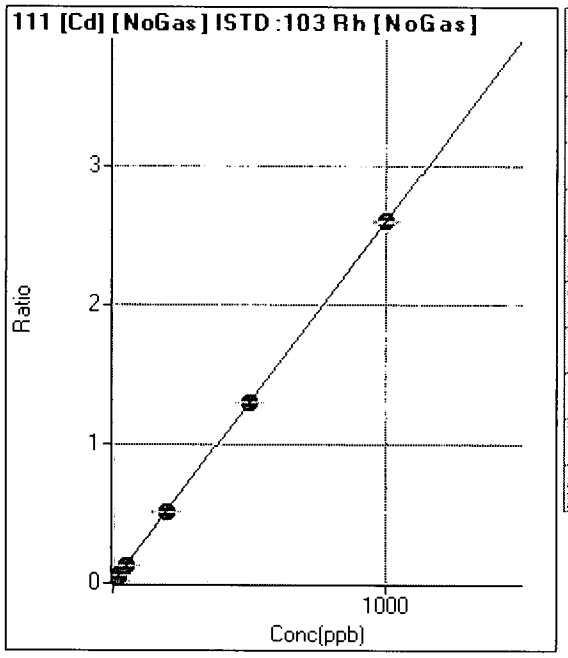
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	8	0.000	P	13.2
2		0.180	0.168	172	0.000	P	7.4
3		0.900	0.882	871	0.002	P	3.7
4		1.800	1.764	1,724	0.003	P	2.4
5		3.600	3.530	3,445	0.007	P	1.8
6		20.000	19.796	19,079	0.037	P	0.5
7		50.000	49.779	46,172	0.093	P	0.1
8		200.000	200.161	176,809	0.374	P	0.4
9		500.000	500.672	419,384	0.935	P	0.1
10		1000.000	999.647	760,566	1.868	P	0.1

y = 0.0019 * x + 1.5319E-005
R = 1.0000
DL = 0.003256
BEC = 0.0082

Weight: <None>
Min Conc: <None>

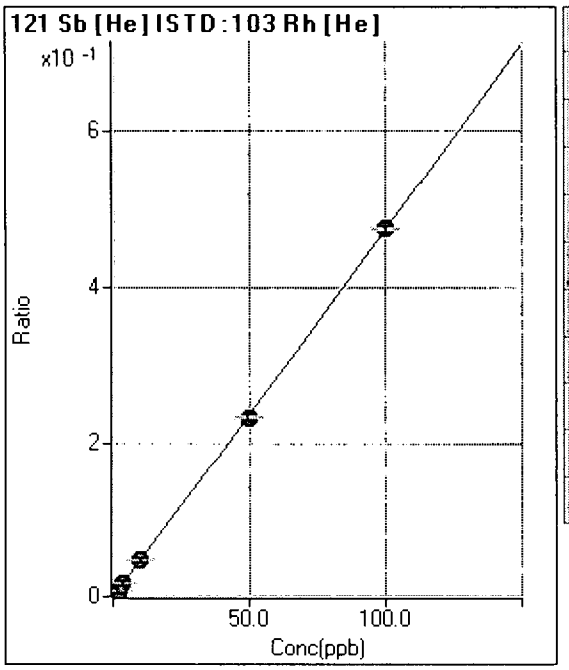


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	2	0.000	P	326.9
2		0.180	0.179	424	0.000	P	2.5
3		0.900	0.852	1,888	0.002	P	10.1
4		1.800	1.736	4,101	0.005	P	2.5
5		3.600	3.407	7,983	0.009	P	2.4
6		20.000	19.442	44,794	0.051	P	1.0
7		50.000	47.702	105,803	0.124	P	1.2
8		200.000	197.002	413,429	0.513	P	0.8
9		500.000	499.764	993,145	1.301	P	0.3
10		1000.000	1000.844	1,836,865	2.606	A	0.7

y = 0.0026 * x + 1.7975E-006
R = 1.0000
DL = 0.00677
BEC = 0.0006903

Weight: <None>
Min Conc: <None>

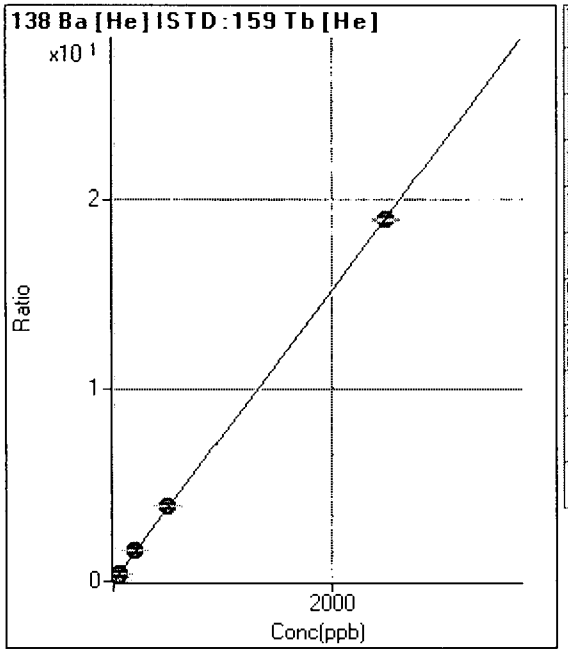
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20	0.000	P	29.0
2	☐	0.180	0.182	471	0.001	P	6.8
3	☐	0.900	0.887	2,224	0.004	P	3.2
4	☐	1.800	1.745	4,323	0.008	P	1.3
5	☐	3.600	3.513	8,692	0.017	P	1.0
6	☐	10.000	9.946	24,311	0.047	P	0.8
7	☐	50.000	49.196	115,686	0.233	P	0.5
8	☐	100.000	100.412	224,886	0.476	P	0.7
9	☐			151	0.000	P	13.4
10	☐			109	0.000	P	29.1

y = 0.0047 * x + 3.8291E-005
R = 1.0000
DL = 0.007041
BEC = 0.008084

Weight: <None>
Min Conc: <None>

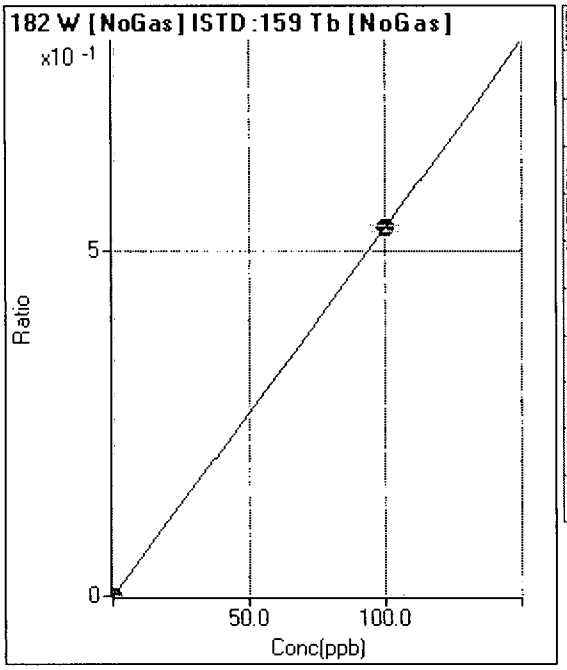


	Rjct	Conc	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	177	0.000	P	34.4
2	☐	0.180	0.179	1,108	0.002	P	2.3
3	☐	0.900	0.931	5,033	0.007	P	0.2
4	☐	1.800	1.914	10,073	0.015	P	2.5
5	☐	3.600	3.791	19,814	0.029	P	1.6
6	☐	20.000	20.876	107,415	0.158	P	1.0
7	☐	50.000	51.937	263,251	0.394	P	0.3
8	☐	200.000	205.862	1,011,515	1.560	P	0.5
9	☐	500.000	514.856	2,445,163	3.902	A	0.7
10	☐	2500.000	2496.514	11,064,596	18.919	A	0.7

y = 0.0076 * x + 2.6063E-004
R = 1.0000
DL = 0.03551
BEC = 0.03439

Weight: <None>
Min Conc: <None>

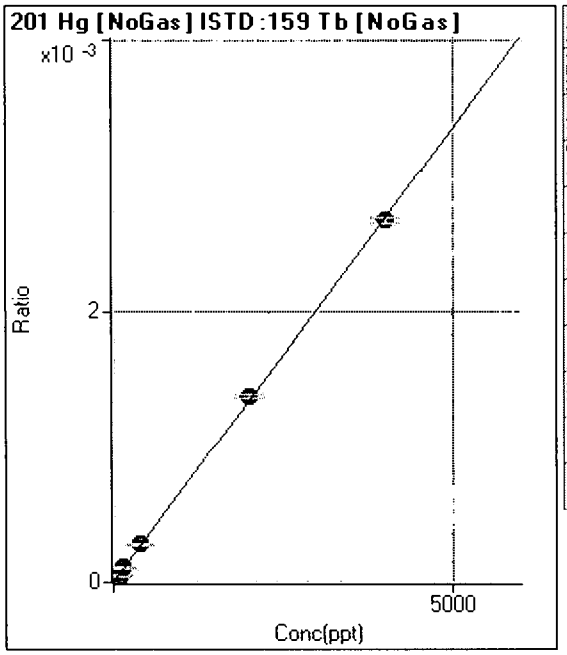
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12	0.000	P	56.9
2	☐			17	0.000	P	52.9
3	☐			14	0.000	P	68.2
4	☐			26	0.000	P	37.9
5	☐			27	0.000	P	26.4
6	☐			26	0.000	P	16.6
7	☐			98	0.000	P	24.4
8	☐			164	0.000	P	12.3
9	☐	100.000	100.000	778,389	0.534	P	1.5
10	☐			2,087	0.002	P	0.4

y = 0.0053 * x + 7.4444E-006
R = 1.0000
DL = 0.002376
BEC = 0.001393

Weight: <None>
Min Conc: <None>

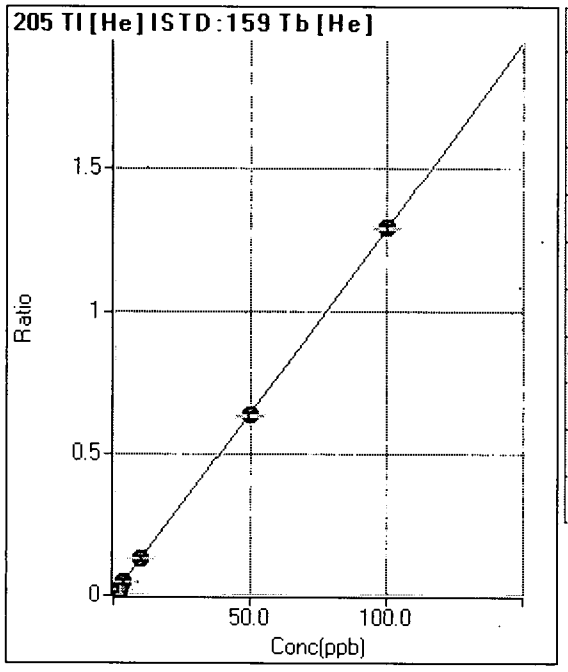


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3	0.000	P	72.3
2	☐			10	0.000	P	27.9
3	☐	36.000	44.193	46	0.000	P	16.7
4	☐	72.000	70.784	77	0.000	P	10.0
5	☐	144.000	156.062	170	0.000	P	3.3
6	☐	400.000	410.545	435	0.000	P	5.2
7	☐	2000.000	2043.129	2,131	0.001	P	2.1
8	☐	4000.000	3976.895	4,064	0.003	P	1.3
9	☐			91	0.000	P	7.0
10	☐			44	0.000	P	4.9

y = 6.7352E-007 * x + 1.5246E-006
R = 0.9999
DL = 4.912
BEC = 2.264

Weight: <None>
Min Conc: <None>

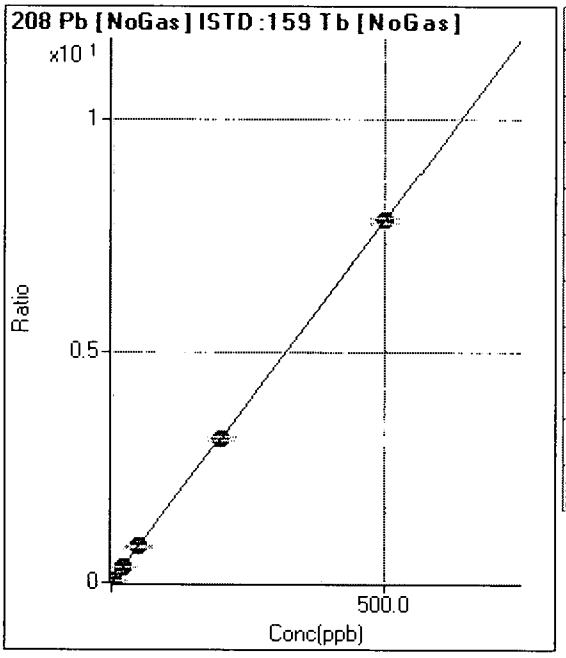
Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	22	0.000	P	44.1
2	☐	0.180	0.175	1,568	0.002	P	2.1
3	☐	0.900	0.884	7,837	0.011	P	3.7
4	☐	1.800	1.766	15,510	0.023	P	1.4
5	☐	3.600	3.600	31,667	0.046	P	0.8
6	☐	10.000	9.993	87,124	0.129	P	0.5
7	☐	50.000	49.309	423,816	0.634	P	0.9
8	☐	100.000	100.347	836,527	1.290	P	0.5
9	☐			277	0.000	P	9.8
10	☐			107	0.000	P	30.3

y = 0.0129 * x + 3.2870E-005
R = 1.0000
DL = 0.003382
BEC = 0.002556

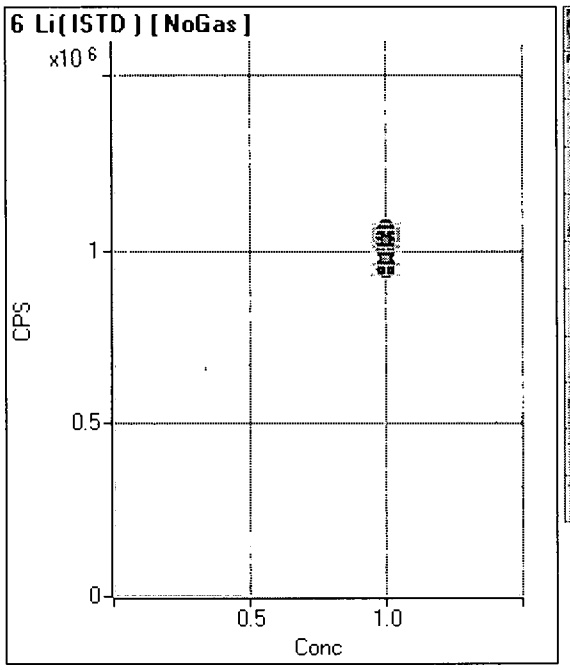
Weight: <None>
Min Conc: <None>



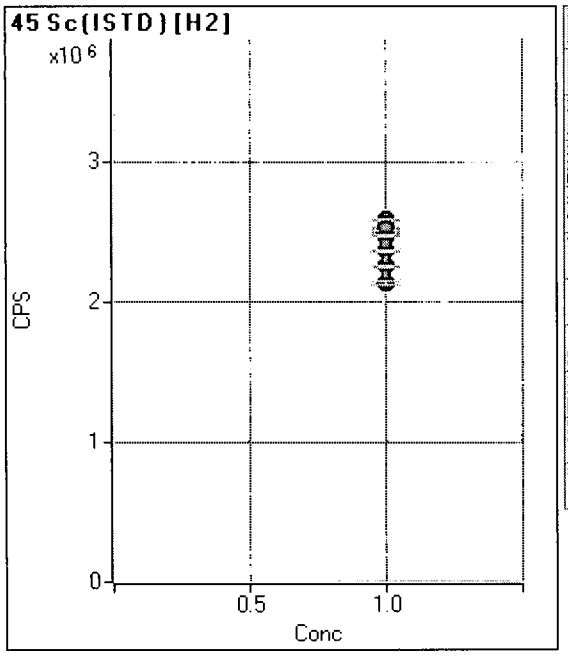
	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	778	0.000	P	3.4
2	☐	0.180	0.194	5,477	0.004	P	1.6
3	☐	0.900	0.985	23,442	0.016	P	8.6
4	☐	1.800	1.813	45,255	0.029	P	2.4
5	☐	3.600	3.543	89,356	0.056	P	0.7
6	☐	20.000	20.156	494,416	0.316	P	1.4
7	☐	50.000	49.072	1,188,138	0.768	P	1.1
8	☐	200.000	199.078	4,723,215	3.115	A	2.1
9	☐	500.000	500.456	11,403,443	7.830	A	1.3
10	☐			5,109	0.004	P	3.0

y = 0.0156 * x + 4.7370E-004
R = 1.0000
DL = 0.003124
BEC = 0.03028

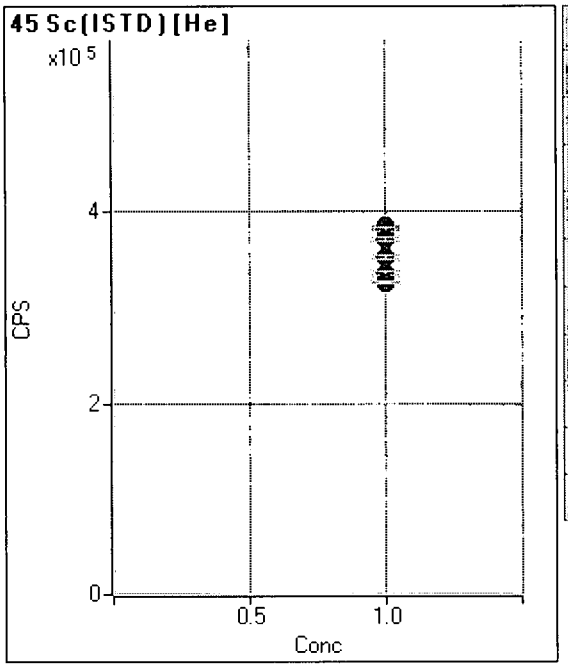
Weight: <None>
Min Conc: <None>



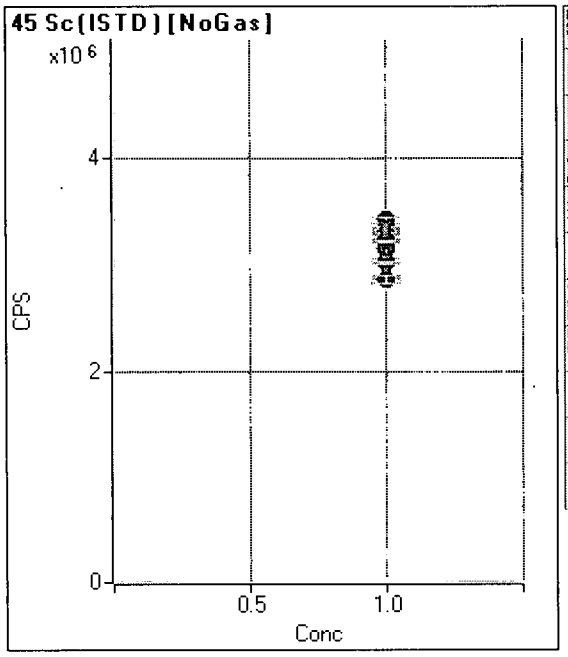
	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		1,063,837		A	0.5
2	☐	1.000		1,054,133		A	0.2
3	☐	1.000		1,000,638		A	7.0
4	☐	1.000		1,039,062		A	0.9
5	☐	1.000		1,064,068		A	2.4
6	☐	1.000		1,050,930		A	1.4
7	☐	1.000		1,019,810		A	1.2
8	☐	1.000		1,005,915		A	1.0
9	☐	1.000		959,614		A	0.4
10	☐	1.000		945,689		A	2.8



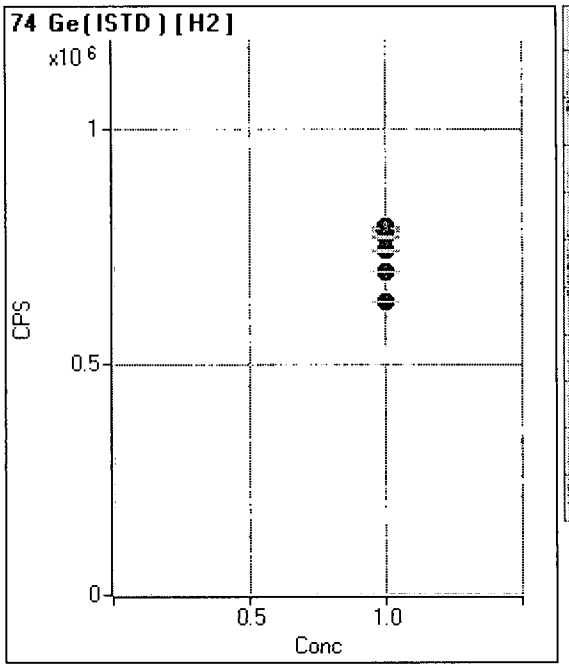
	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		2,581,015		A	0.6
2	☐	1.000		2,484,114		A	0.4
3	☐	1.000		2,504,539		A	0.8
4	☐	1.000		2,522,533		A	0.9
5	☐	1.000		2,510,865		A	0.7
6	☐	1.000		2,490,352		A	1.4
7	☐	1.000		2,465,855		A	0.8
8	☐	1.000		2,363,961		A	0.7
9	☐	1.000		2,255,263		A	0.6
10	☐	1.000		2,133,201		A	0.8



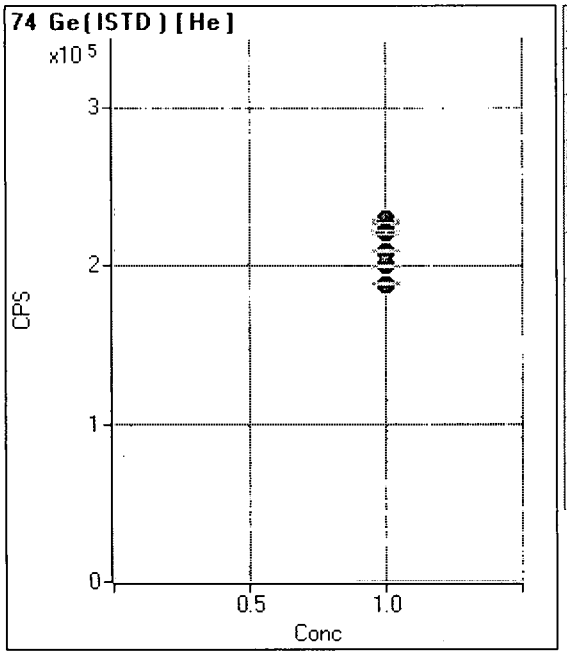
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		383,174		P	0.9
2	☐	1.000		385,188		P	0.8
3	☐	1.000		383,827		P	0.7
4	☐	1.000		383,786		P	0.9
5	☐	1.000		384,300		P	1.3
6	☐	1.000		381,739		P	0.9
7	☐	1.000		371,229		P	1.0
8	☐	1.000		353,324		P	0.9
9	☐	1.000		337,375		P	0.9
10	☐	1.000		327,619		P	0.5



	Rjct	Kth Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3,417,487		A	1.6
2	☐	1.000		3,304,530		A	1.2
3	☐	1.000		3,148,013		A	5.9
4	☐	1.000		3,335,440		A	0.8
5	☐	1.000		3,336,857		A	0.5
6	☐	1.000		3,284,654		A	0.5
7	☐	1.000		3,215,623		A	0.9
8	☐	1.000		3,017,879		A	1.0
9	☐	1.000		2,869,213		A	0.6
10	☐	1.000		2,869,762		A	2.5

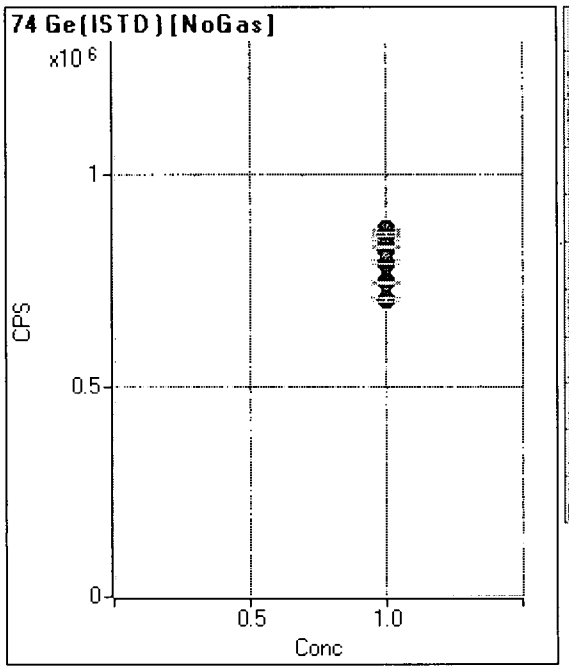


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		784,726		P	0.3
2	☐	1.000		790,079		P	0.4
3	☐	1.000		789,844		P	0.5
4	☐	1.000		792,697		P	0.7
5	☐	1.000		790,322		P	0.4
6	☐	1.000		786,238		P	0.8
7	☐	1.000		772,098		P	0.6
8	☐	1.000		742,209		P	0.2
9	☐	1.000		696,808		P	0.4
10	☐	1.000		634,416		P	0.4

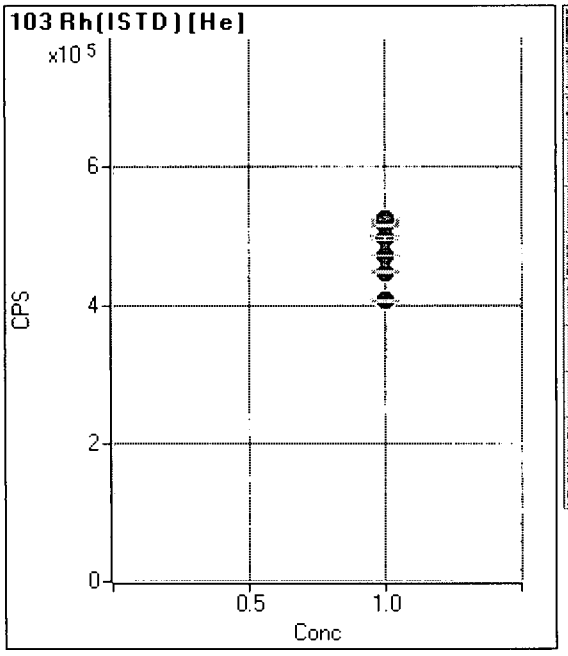


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		227,384		P	0.9
2	☐	1.000		228,079		P	0.8
3	☐	1.000		228,775		P	0.7
4	☐	1.000		228,984		P	0.8
5	☐	1.000		228,554		P	0.5
6	☐	1.000		226,302		P	0.6
7	☐	1.000		221,079		P	0.9
8	☐	1.000		209,169		P	0.7
9	☐	1.000		200,108		P	0.6
10	☐	1.000		188,218		P	0.6

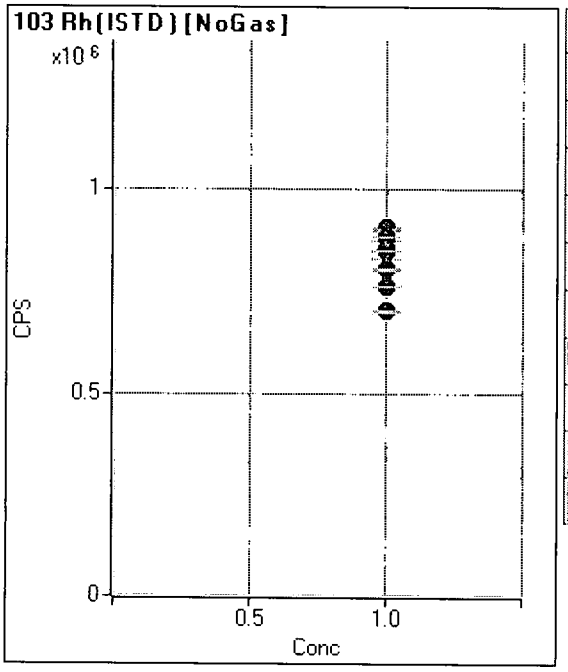
Calibration for 013_ICV.d



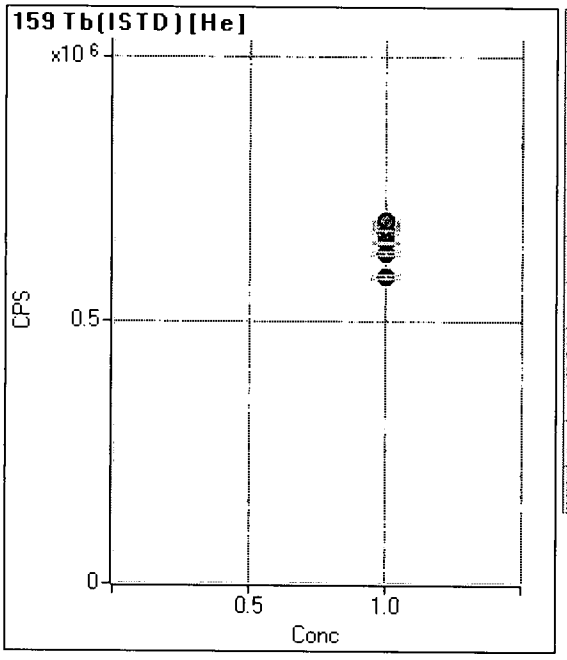
	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		865,436		P	1.1
2	☐	1.000		869,506		P	0.4
3	☐	1.000		825,910		P	5.6
4	☐	1.000		873,162		P	0.8
5	☐	1.000		873,962		P	0.5
6	☐	1.000		861,421		P	0.7
7	☐	1.000		831,677		P	1.0
8	☐	1.000		792,587		P	0.2
9	☐	1.000		750,031		P	0.5
10	☐	1.000		707,515		P	1.2



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		522,579		P	0.8
2	☐	1.000		523,538		P	0.4
3	☐	1.000		524,211		P	0.1
4	☐	1.000		520,589		P	1.3
5	☐	1.000		521,157		P	0.7
6	☐	1.000		515,661		P	0.5
7	☐	1.000		496,399		P	1.2
8	☐	1.000		472,801		P	0.3
9	☐	1.000		448,355		P	0.7
10	☐	1.000		407,247		P	0.6

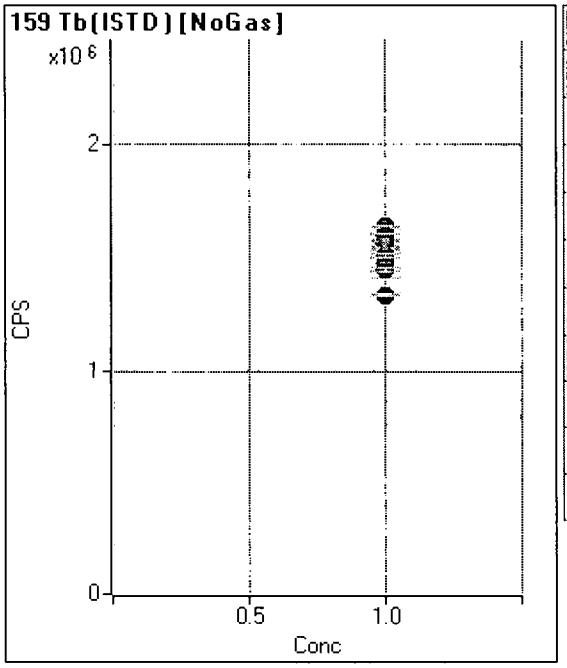


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		906,285		P	0.4
2	☐	1.000		907,336		P	0.2
3	☐	1.000		853,742		P	5.6
4	☐	1.000		906,983		P	0.5
5	☐	1.000		899,552		P	0.5
6	☐	1.000		884,857		P	0.3
7	☐	1.000		851,841		P	0.3
8	☐	1.000		805,968		P	0.2
9	☐	1.000		763,201		P	0.2
10	☐	1.000		704,850		P	0.4

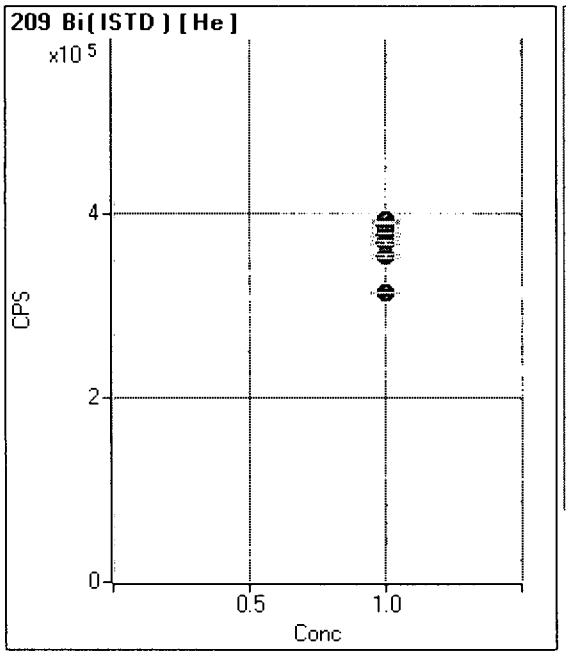


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		677,544		P	0.9
2	☐	1.000		685,010		P	1.1
3	☐	1.000		687,861		P	0.9
4	☐	1.000		682,158		P	0.7
5	☐	1.000		683,499		P	0.9
6	☐	1.000		677,822		P	0.4
7	☐	1.000		668,405		P	1.2
8	☐	1.000		648,259		P	0.5
9	☐	1.000		626,660		P	0.8
10	☐	1.000		584,843		P	1.2

Calibration for 013_ICV.d

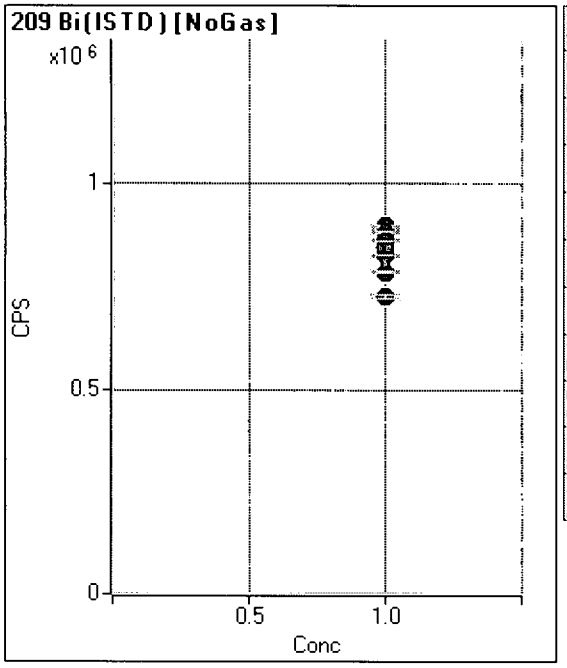


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		1,642,107		A	0.3
2	☐	1.000		1,560,160		A	0.1
3	☐	1.000		1,483,070		A	8.1
4	☐	1.000		1,569,964		A	1.9
5	☐	1.000		1,598,401		A	1.5
6	☐	1.000		1,565,840		A	1.4
7	☐	1.000		1,546,796		A	0.4
8	☐	1.000		1,516,623		A	1.2
9	☐	1.000		1,456,593		A	1.1
10	☐	1.000		1,342,365		P	0.5



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		387,177		P	1.6
2	☐	1.000		391,065		P	0.8
3	☐	1.000		392,624		P	0.6
4	☐	1.000		391,356		P	0.1
5	☐	1.000		391,241		P	0.7
6	☐	1.000		389,723		P	0.5
7	☐	1.000		377,110		P	0.9
8	☐	1.000		368,554		P	1.1
9	☐	1.000		353,457		P	0.9
10	☐	1.000		314,279		P	0.4

Calibration for 013_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		894,456		P	1.1
2	☐	1.000		897,946		P	1.0
3	☐	1.000		846,948		P	5.3
4	☐	1.000		898,212		P	0.6
5	☐	1.000		899,352		P	0.6
6	☐	1.000		883,277		P	0.3
7	☐	1.000		863,107		P	0.2
8	☐	1.000		829,519		P	0.0
9	☐	1.000		787,708		P	0.4
10	☐	1.000		728,779		P	0.9

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K05034-ICV1**	Total Dilution:	1.0000
File Name:	013_ICV.d	Sample Type:	ICV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 12:20:12
Comment:	A19J138 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.633	ppb	0.9	94,964	40	101.58	
Na	23	45	He	3950.828	ppb	0.5	4,701,108	4000	98.77	
Mg	24	45	He	4212.168	ppb	1.1	2,797,137	4000	105.3	
Al	27	45	He	4023.127	ppb	1.0	1,390,766	4000	100.58	
K	39	45	He	4148.188	ppb	0.9	2,329,188	4000	103.7	
Ca	44	45	H2	4035.158	ppb	0.2	935,427	4000	100.88	
[Ca]	44	45	He	4017.243	ppb	1.6	114,904	4000	100.43	
Ti	47	45	NoGas	96.435	ppb	0.2	105,011	100	96.44	
V	51	74	He	94.496	ppb	0.6	382,757	100	94.5	
Cr	52	74	He	95.900	ppb	0.3	456,337	100	95.9	
Mn	55	74	He	100.907	ppb	1.1	321,948	100	100.91	
Fe	56	74	H2	4045.948	ppb	0.5	50,143,619	4000	101.15	
Co	59	74	He	99.746	ppb	0.6	649,322	100	99.75	
Ni	60	74	He	103.422	ppb	0.4	165,695	100	103.42	
Cu	65	74	He	101.500	ppb	0.3	201,492	100	101.5	
Zn	66	74	He	100.238	ppb	0.5	75,541	100	100.24	
As	75	74	He	97.335	ppb	0.2	43,744	100	97.34	
Se	78	74	H2	40.063	ppb	0.7	12,867	40	100.16	
Mo	95	103	He	39.608	ppb	1.6	73,630	40	99.02	
Ag	107	103	He	40.355	ppb	1.2	215,665	40	100.89	
Cd	111	103	He	96.845	ppb	0.8	85,008	100	96.84	
[Cd]	111	103	NoGas	94.449	ppb	0.8	194,616	100	94.45	
Sb	121	103	He	40.892	ppb	0.6	91,016	40	102.23	
Ba	138	159	He	100.866	ppb	0.5	499,086	100	100.87	
Hg	201	159	NoGas	822.051	ppt	3.3	827	800	102.76	
Tl	205	159	He	40.187	ppb	0.4	337,313	40	100.47	
Pb	208	159	NoGas	97.572	ppb	1.4	2,273,924	100	97.57	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.4	970,890	1063836.77	91.3	
Sc	45	H2	Analog	0.5	2,283,794	2581014.58	88.5	
Sc	45	He	Pulse	0.3	348,290	383174.2	90.9	
Sc	45	NoGas	Analog	0.5	2,958,598	3417487.03	86.6	
Ge	74	H2	Pulse	0.2	717,137	784726.176666667	91.4	
Ge	74	He	Pulse	0.8	207,246	227383.553333333	91.1	
Ge	74	NoGas	Pulse	0.2	774,292	865435.953333333	89.5	
Rh	103	He	Pulse	0.9	469,826	522579.263333333	89.9	
Rh	103	NoGas	Pulse	0.1	791,351	906285.446666667	87.3	
Tb	159	He	Pulse	0.9	652,710	677543.53	96.3	
Tb	159	NoGas	Analog	1.2	1,489,403	1642107.27	90.7	
Bi	209	He	Pulse	1.3	371,888	387176.576666667	96.1	
Bi	209	NoGas	Pulse	0.3	836,590	894456.463333333	93.5	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K05034-ICB1**	Total Dilution:	1.0000
File Name:	014_ICB.d	Sample Type:	ICB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 12:24:48
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.017	ppb	54.3	49	
Na	23	45	He	2.213	ppb	11.8	9,354	
Mg	24	45	He	2.053	ppb	8.9	1,878	
Al	27	45	He	1.825	ppb	25.6	747	
K	39	45	He	3.745	ppb	20.9	27,943	
Ca	44	45	H2	2.413	ppb	7.3	1,078	
[Ca]	44	45	He	1.493	ppb	80.2	250	
Ti	47	45	NoGas	0.100	ppb	43.0	178	
V	51	74	He	0.003	ppb	102.1	1,214	
Cr	52	74	He	0.067	ppb	5.1	571	
Mn	55	74	He	0.066	ppb	18.8	606	
Fe	56	74	H2	2.680	ppb	3.1	64,521	
Co	59	74	He	0.020	ppb	34.8	271	
Ni	60	74	He	0.024	ppb	131.5	180	
Cu	65	74	He	0.077	ppb	24.6	313	
Zn	66	74	He	0.111	ppb	18.3	114	
As	75	74	He	0.030	ppb	8.7	44	
Se	78	74	H2	0.050	ppb	41.5	18	
Mo	95	103	He	0.030	ppb	32.1	64	
Ag	107	103	He	0.009	ppb	34.3	51	
Cd	111	103	He	0.067	ppb	33.6	68	
[Cd]	111	103	NoGas	0.073	ppb	10.8	158	
Sb	121	103	He	0.257	ppb	8.7	600	
Ba	138	159	He	0.085	ppb	10.7	588	
Hg	201	159	NoGas	8.465	ppt	37.7	11	
Tl	205	159	He	0.005	ppb	56.7	67	
Pb	208	159	NoGas	0.067	ppb	3.1	2,251	

ISTD Table:

Name	Mass	Tune Mode	Del.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.2	987,801	1063836.77	92.9	
Sc	45	H2	Analog	2.0	2,285,904	2581014.58	88.6	
Sc	45	He	Pulse	0.8	346,152	383174.2	90.3	
Sc	45	NoGas	Analog	0.9	2,994,518	3417487.03	87.6	
Ge	74	H2	Pulse	0.5	718,243	784726.176666667	91.5	
Ge	74	He	Pulse	0.6	207,703	227383.553333333	91.3	
Ge	74	NoGas	Pulse	1.2	788,192	865435.953333333	91.1	
Rh	103	He	Pulse	1.3	478,629	522579.263333333	91.6	
Rh	103	NoGas	Pulse	0.3	817,012	906285.446666667	90.1	
Tb	159	He	Pulse	1.1	650,645	677543.53	96.0	
Tb	159	NoGas	Analog	0.6	1,475,905	1642107.27	89.9	
Bi	209	He	Pulse	0.6	375,007	387176.576666667	96.9	
Bi	209	NoGas	Pulse	0.1	850,111	894456.463333333	95.0	

CRL Verification Report - ICPMS5

Sample Name:	**9K05034-CRL1**	Total Dilution:	1.0000
File Name:	015CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 12:29:29
Comment:	A19J368 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.214	ppb	5.7	520	118.89	
Na	23	45	He	11.128	ppb	5.8	20,113	123.64	
Mg	24	45	He	10.746	ppb	2.0	7,703	119.4	
Al	27	45	He	10.628	ppb	1.2	3,815	118.09	
K	39	45	He	13.254	ppb	13.9	33,577	147.27	R-11
Ca	44	45	H2	11.768	ppb	9.4	3,265	130.76	R-11
[Ca]	44	45	He	12.795	ppb	22.2	578	142.17	R-11
Ti	47	45	NoGas	0.245	ppb	33.3	338	136.11	R-11
V	51	74	He	0.188	ppb	13.5	1,968	104.44	
Cr	52	74	He	0.233	ppb	9.0	1,365	129.44	
Mn	55	74	He	0.239	ppb	8.4	1,162	132.78	R-11
Fe	56	74	H2	10.023	ppb	1.7	157,222	111.37	
Co	59	74	He	0.188	ppb	10.2	1,375	104.44	
Ni	60	74	He	0.228	ppb	23.1	509	126.67	
Cu	65	74	He	0.325	ppb	5.2	810	180.56	R-11
Zn	66	74	He	0.407	ppb	4.4	339	226.11	R-11
As	75	74	He	0.184	ppb	9.3	114	102.22	
Se	78	74	H2	0.163	ppb	11.6	55	90.56	
Mo	95	103	He	0.168	ppb	18.0	327	93.33	
Ag	107	103	He	0.182	ppb	1.1	997	101.11	
Cd	111	103	He	0.231	ppb	12.9	214	128.33	
[Cd]	111	103	NoGas	0.250	ppb	12.5	531	138.89	R-11
Sb	121	103	He	0.219	ppb	8.4	518	121.67	
Ba	138	159	He	0.238	ppb	0.9	1,346	132.22	R-11
Hg	201	159	NoGas	8.859	ppt	3.2	11	123.04	
Tl	205	159	He	0.181	ppb	4.8	1,538	100.56	
Pb	208	159	NoGas	0.235	ppb	0.6	6,180	130.56	R-11

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ok - rounds to 130%.
ESS 11/6/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.3	991,598	1063836.77	93.2	
Sc	45	H2	Analog	1.7	2,300,019	2581014.58	89.1	
Sc	45	He	Pulse	0.6	350,195	383174.2	91.4	
Sc	45	NoGas	Analog	0.3	3,001,351	3417487.03	87.8	
Ge	74	H2	Pulse	1.0	725,710	784726.176666667	92.5	
Ge	74	He	Pulse	0.8	208,443	227383.553333333	91.7	
Ge	74	NoGas	Pulse	1.3	784,581	865435.953333333	90.7	
Rh	103	He	Pulse	0.8	480,354	522579.263333333	91.9	
Rh	103	NoGas	Pulse	0.9	815,174	906285.446666667	89.9	
Tb	159	He	Pulse	0.2	651,351	677543.53	96.1	
Tb	159	NoGas	Analog	1.7	1,490,689	1642107.27	90.8	
Bi	209	He	Pulse	1.5	375,009	387176.576666667	96.9	
Bi	209	NoGas	Pulse	0.1	845,720	894456.463333333	94.6	

CRL Verification Report - ICPMS5

Sample Name:	**9K05034-CRL2**	Total Dilution:	1.0000
File Name:	016_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 12:34:09
Comment:	A19J369 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.915	ppb	4.3	2,260	101.67	
Na	23	45	He	45.334	ppb	0.8	60,688	100.74	
Mg	24	45	He	47.241	ppb	0.7	31,912	104.98	
Al	27	45	He	46.506	ppb	0.5	16,206	103.35	
K	39	45	He	48.405	ppb	3.7	52,946	107.57	
Ca	44	45	H2	46.156	ppb	1.4	11,330	102.57	
[Ca]	44	45	He	46.981	ppb	8.2	1,551	104.4	
Ti	47	45	NoGas	0.992	ppb	2.4	1,179	110.22	
V	51	74	He	0.884	ppb	1.1	4,828	98.22	
Cr	52	74	He	0.897	ppb	1.7	4,571	99.67	
Mn	55	74	He	0.963	ppb	6.1	3,506	107	
Fe	56	74	H2	44.960	ppb	0.6	592,400	99.91	
Co	59	74	He	0.907	ppb	2.2	6,118	100.78	
Ni	60	74	He	0.871	ppb	10.8	1,555	96.78	
Cu	65	74	He	0.999	ppb	3.8	2,169	111	
Zn	66	74	He	1.054	ppb	3.8	834	117.11	
As	75	74	He	0.962	ppb	8.1	469	106.89	
Se	78	74	H2	0.970	ppb	6.1	316	107.78	
Mo	95	103	He	0.886	ppb	10.4	1,698	98.44	
Ag	107	103	He	0.881	ppb	4.8	4,834	97.89	
Cd	111	103	He	0.933	ppb	2.8	848	103.67	
[Cd]	111	103	NoGas	0.922	ppb	9.9	1,982	102.44	
Sb	121	103	He	0.909	ppb	8.3	2,096	101	
Ba	138	159	He	0.992	ppb	3.2	5,083	110.22	
Hg	201	159	NoGas	48.574	ppt	16.6	51	134.93	R-11
Tl	205	159	He	0.911	ppb	2.1	7,674	101.22	
Pb	208	159	NoGas	0.952	ppb	0.7	23,038	105.78	

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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	1.7	1,022,772	1063836.77	96.1	
Sc	45	H2	Analog	1.0	2,308,296	2581014.58	89.4	
Sc	45	He	Pulse	0.3	348,516	383174.2	91.0	
Sc	45	NoGas	Analog	1.1	3,045,561	3417487.03	89.1	
Ge	74	H2	Pulse	0.3	722,365	784726.176666667	92.1	
Ge	74	He	Pulse	0.7	209,800	227383.553333333	92.3	
Ge	74	NoGas	Pulse	0.9	796,530	865435.953333333	92.0	
Rh	103	He	Pulse	0.9	482,341	522579.263333333	92.3	
Rh	103	NoGas	Pulse	0.1	825,063	906285.446666667	91.0	
Tb	159	He	Pulse	0.7	653,329	677543.53	96.4	
Tb	159	NoGas	Analog	1.2	1,499,919	1642107.27	91.3	
Bi	209	He	Pulse	0.6	375,984	387176.576666667	97.1	
Bi	209	NoGas	Pulse	0.4	854,975	894456.463333333	95.6	

CRL Verification Report - ICPMS5

Sample Name:	**9K05034-CRL3**	Total Dilution:	1.0000
File Name:	017CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 12:38:49
Comment:	A19J370 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.823	ppb	3.6	4,421	101.28	
Na	23	45	He	88.506	ppb	1.2	114,216	98.34	
Mg	24	45	He	90.143	ppb	1.7	61,597	100.16	
Al	27	45	He	89.824	ppb	1.6	31,803	99.8	
K	39	45	He	92.254	ppb	0.5	78,828	102.5	
Ca	44	45	H2	88.244	ppb	0.9	21,655	98.05	
[Ca]	44	45	He	88.667	ppb	4.1	2,796	98.52	
Ti	47	45	NoGas	1.711	ppb	5.3	1,993	95.06	
V	51	74	He	1.761	ppb	2.8	8,494	97.83	
Cr	52	74	He	1.783	ppb	0.8	8,925	99.06	
Mn	55	74	He	1.801	ppb	4.0	6,272	100.06	
Fe	56	74	H2	87.610	ppb	0.6	1,141,743	97.34	
Co	59	74	He	1.759	ppb	1.7	11,848	97.72	
Ni	60	74	He	1.790	ppb	1.2	3,073	99.44	
Cu	65	74	He	1.871	ppb	2.0	3,958	103.94	
Zn	66	74	He	1.941	ppb	2.6	1,526	107.83	
As	75	74	He	1.844	ppb	5.1	878	102.44	
Se	78	74	H2	1.857	ppb	8.1	612	103.17	
Mo	95	103	He	1.691	ppb	3.2	3,244	93.94	
Ag	107	103	He	1.767	ppb	1.0	9,727	98.17	
Cd	111	103	He	1.797	ppb	3.7	1,632	99.83	
[Cd]	111	103	NoGas	1.789	ppb	1.6	3,861	99.39	
Sb	121	103	He	1.743	ppb	3.7	4,013	96.83	
Ba	138	159	He	1.889	ppb	4.4	9,550	104.94	
Hg	201	159	NoGas	81.594	ppt	14.8	85	113.32	
Tl	205	159	He	1.809	ppb	0.7	15,264	100.5	
Pb	208	159	NoGas	1.839	ppb	1.0	44,176	102.17	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.9	1,005,467	1063836.77	94.5	
Sc	45	H2	Analog	1.2	2,359,310	2581014.58	91.4	
Sc	45	He	Pulse	0.6	355,359	383174.2	92.7	
Sc	45	NoGas	Analog	0.5	3,056,364	3417487.03	89.4	
Ge	74	H2	Pulse	0.4	733,443	784726.176666667	93.5	
Ge	74	He	Pulse	0.8	211,852	227383.553333333	93.2	
Ge	74	NoGas	Pulse	0.8	801,442	865435.953333333	92.6	
Rh	103	He	Pulse	0.4	483,895	522579.263333333	92.6	
Rh	103	NoGas	Pulse	0.8	828,576	906285.446666667	91.4	
Tb	159	He	Pulse	0.7	655,189	677543.53	96.7	
Tb	159	NoGas	Analog	0.3	1,510,628	1642107.27	92.0	
Bi	209	He	Pulse	0.7	376,924	387176.576666667	97.4	
Bi	209	NoGas	Pulse	0.2	857,335	894456.463333333	95.8	

CRL Verification Report - ICPMS5

Sample Name:	**9K05034-CRL4**	Total Dilution:	1.0000
File Name:	018CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 12:43:32
Comment:	A19J368 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.173	ppb	10.3	434	96.11	
Na	23	45	He	9.520	ppb	1.3	18,431	105.78	
Mg	24	45	He	10.379	ppb	0.5	7,555	115.32	
Al	27	45	He	9.751	ppb	6.2	3,556	108.34	
K	39	45	He	12.216	ppb	1.1	33,429	135.73	R-11
Ca	44	45	H2	11.229	ppb	3.4	3,201	124.77	
[Ca]	44	45	He	11.012	ppb	31.7	533	122.36	
Ti	47	45	NoGas	0.230	ppb	4.7	328	127.78	
V	51	74	He	0.202	ppb	8.9	2,053	112.22	
Cr	52	74	He	0.197	ppb	9.3	1,210	109.44	
Mn	55	74	He	0.196	ppb	9.8	1,037	108.89	
Fe	56	74	H2	9.322	ppb	0.8	149,687	103.58	
Co	59	74	He	0.188	ppb	2.7	1,392	104.44	
Ni	60	74	He	0.219	ppb	11.9	501	121.67	
Cu	65	74	He	0.268	ppb	8.6	704	148.89	R-11
Zn	66	74	He	0.387	ppb	7.0	328	215	R-11
As	75	74	He	0.186	ppb	18.5	117	103.33	
Se	78	74	H2	0.207	ppb	13.7	70	115	
Mo	95	103	He	0.183	ppb	12.4	359	101.67	
Ag	107	103	He	0.181	ppb	2.2	1,006	100.56	
Cd	111	103	He	0.194	ppb	3.3	184	107.78	
[Cd]	111	103	NoGas	0.171	ppb	13.4	370	95	
Sb	121	103	He	0.203	ppb	7.8	487	112.78	
Ba	138	159	He	0.213	ppb	5.9	1,229	118.33	
Hg	201	159	NoGas	9.341	ppt	43.7	12	129.74	
Tl	205	159	He	0.182	ppb	6.0	1,558	101.11	
Pb	208	159	NoGas	0.211	ppb	2.6	5,733	117.22	

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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	0.4	1,021,313	1063836.77	96.0	
Sc	45	H2	Analog	0.8	2,344,555	2581014.58	90.8	
Sc	45	He	Pulse	0.2	354,745	383174.2	92.6	
Sc	45	NoGas	Analog	1.3	3,063,014	3417487.03	89.6	
Ge	74	H2	Pulse	0.6	731,751	784726.176666667	93.2	
Ge	74	He	Pulse	0.5	211,085	227383.553333333	92.8	
Ge	74	NoGas	Pulse	0.9	802,628	865435.953333333	92.7	
Rh	103	He	Pulse	0.2	486,315	522579.263333333	93.1	
Rh	103	NoGas	Pulse	0.5	826,573	906285.446666667	91.2	
Tb	159	He	Pulse	0.8	656,128	677543.53	96.8	
Tb	159	NoGas	Analog	2.0	1,517,108	1642107.27	92.4	
Bi	209	He	Pulse	0.9	376,922	387176.576666667	97.4	
Bi	209	NoGas	Pulse	0.5	855,107	894456.463333333	95.6	

Quantitation Report ICPMS5

File Name	019ICSA.d		
File Path	C:\Agilent\ICPMH\1\DATA\9K05034.b		
Acq Time	11/5/2019 12:48:15	Sample Type	ICSA
Sample Name	**9K05034-IFA1**	Last Calib	11/05/2019 12:18:52
Comment	**A19J465**		
Prep Dilution	1.0000	Vial:	1111
Total Dilution	**1.0000**	Operator Name	ICPMS Analyst

FullQuant Table

Element	Mass	ISTD	Tune Mode	Raw Conc	Corrected Conc.	Units	RSD(%)	ExpectedValue	QC Flag
Be	9	6	NoGas	0.008	0.008	ppb	20.4		
Na	23	45	He	249454.651	249454.651	ppb	0.9		
Mg	24	45	He	99227.915	99227.915	ppb	1.4	100000	
Al	27	45	He	99162.303	99162.303	ppb	1.0	100000	
K	39	45	He	97642.723	97642.723	ppb	0.6	100000	
Ca	44	45	H2	287874.267	287874.267	ppb	0.8		
[Ca]	44	45	He	290740.411	290740.411	ppb	1.0		
Ti	47	45	NoGas	2055.639	2055.639	ppb	1.1		
V	51	74	He	0.241	0.241	ppb	5.2	2	
Cr	52	74	He	1.854	1.854	ppb	2.7	2	
Mn	55	74	He	2.918	2.918	ppb	2.5	2	> CRI
Fe	56	74	H2	247695.743	247695.743	ppb	0.7		
Co	59	74	He	0.803	0.803	ppb	1.3		
Ni	60	74	He	0.728	0.728	ppb	9.5	2	
Cu	65	74	He	0.794	0.794	ppb	3.7	2	
Zn	66	74	He	2.417	2.417	ppb	5.6	2	> CRI
As	75	74	He	0.22	0.220	ppb	18.9	0.9	
Se	78	74	H2	0.147	0.147	ppb	10.7	0.9	
Mo	95	103	He	2248.052	2248.052	ppb	0.4	2000	
Ag	107	103	He	0.303	0.303	ppb	5.5		
Cd	111	103	He	5.777	5.777	ppb	1.0		
[Cd]	111	103	NoGas	0.454	0.454	ppb	23.4		
Sb	121	103	He	0.166	0.166	ppb	29.5	0.9	
Ba	138	159	He	1.664	1.664	ppb	2.2	2	
W	182	159	NoGas	103.716	103.716	ppb	0.4		
Hg	201	159	NoGas	91.457	91.457	ppt	1.7		
Tl	205	159	He	0.007	0.007	ppb	13.9	0.9	
Pb	208	159	NoGas	0.794	0.794	ppb	0.8		

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	902,025	2.3	1063836.77	Analog	84.8	
Sc	45	H2	1,948,488	0.6	2581014.58	Analog	75.5	
Sc	45	He	301,802	1.3	383174.2	Pulse	78.8	
Sc	45	NoGas	2,697,934	1.4	3417487.03	Analog	78.9	
Ge	74	H2	541,543	0.6	784726.176666667	Pulse	69.0	IS Q-06
Ge	74	He	166,770	0.7	227383.553333333	Pulse	73.3	
Ge	74	NoGas	641,742	0.9	865435.953333333	Pulse	74.2	
Rh	103	He	342,315	1.0	522579.263333333	Pulse	65.5	IS Q-06
Rh	103	NoGas	604,214	0.3	906285.446666667	Pulse	66.7	IS Q-06
Tb	159	He	512,185	1.4	677543.53	Pulse	75.6	
Tb	159	NoGas	1,211,916	0.1	1642107.27	Pulse	73.8	
Bi	209	He	258,907	0.4	387176.576666667	Pulse	66.9	IS Q-06
Bi	209	NoGas	621,631	0.3	894456.463333333	Pulse	69.5	IS Q-06

Quantitation Report ICPMS5

File Name	020ICSB.d		
File Path	C:\Agilent\ICPMH\1\DATA\9K05034.b		
Acq Time	11/5/2019 12:52:46	Sample Type	
Sample Name	**9K05034-IFB1**	ICSB	
Comment	**A19J466**	Last Calib	11/05/2019 12:18:52
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	0.008	0.008	ppb	12.4		
Na	23	45	He	257450.384	257450.384	ppb	1.2		
Mg	24	45	He	102392.102	102392.102	ppb	0.9	100000	
Al	27	45	He	101136.28	101136.280	ppb	0.5	100000	
K	39	45	He	97865.295	97865.295	ppb	0.6	100000	
Ca	44	45	H2	288880.263	288880.263	ppb	1.3		
[Ca]	44	45	He	294305.242	294305.242	ppb	0.7		
Ti	47	45	NoGas	2068.173	2068.173	ppb	0.1		
V	51	74	He	208.223	208.223	ppb	0.2	200	
Cr	52	74	He	200.636	200.636	ppb	0.6	200	
Mn	55	74	He	209.843	209.843	ppb	0.5	200	
Fe	56	74	H2	252784.071	252784.071	ppb	0.2		
Co	59	74	He	195.642	195.642	ppb	0.2		
Ni	60	74	He	192.342	192.342	ppb	0.1	200	
Cu	65	74	He	189.243	189.243	ppb	1.1	200	
Zn	66	74	He	95.318	95.318	ppb	0.9	100	
As	75	74	He	99.674	99.674	ppb	1.0	100	
Se	78	74	H2	101.353	101.353	ppb	0.5	100	
Mo	95	103	He	2268.757	2268.757	ppb	0.7	2000	
Ag	107	103	He	50.982	50.982	ppb	0.2	50	
Cd	111	103	He	103.67	103.670	ppb	0.4		
[Cd]	111	103	NoGas	99.236	99.236	ppb	0.2		
Sb	121	103	He	0.16	0.160	ppb	4.3	0.9	
Ba	138	159	He	1.637	1.637	ppb	1.2	2	> +/- 10%
W	182	159	NoGas	103.138	103.138	ppb	0.8		
Hg	201	159	NoGas	2134.224	2134.224	ppt	3.4		
Tl	205	159	He	0.007	0.007	ppb	14.1	0.9	
Pb	208	159	NoGas	0.794	0.794	ppb	1.0		

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	881,356	1.5	1063836.77	Analog	82.8	
Sc	45	H2	1,958,633	1.8	2581014.58	Analog	75.9	
Sc	45	He	289,151	0.3	383174.2	Pulse	75.5	
Sc	45	NoGas	2,595,380	0.8	3417487.03	Analog	75.9	
Ge	74	H2	541,555	0.6	784726.176666667	Pulse	69.0	IS Q-06
Ge	74	He	160,162	0.3	227383.553333333	Pulse	70.4	
Ge	74	NoGas	625,726	0.7	865435.953333333	Pulse	72.3	
Rh	103	He	331,639	0.3	522579.263333333	Pulse	63.5	IS Q-06
Rh	103	NoGas	592,085	0.4	906285.446666667	Pulse	65.3	IS Q-06
Tb	159	He	492,349	0.9	677543.53	Pulse	72.7	
Tb	159	NoGas	1,178,455	0.7	1642107.27	Pulse	71.8	
Bi	209	He	249,753	0.2	387176.576666667	Pulse	64.5	IS Q-06
Bi	209	NoGas	607,524	0.5	894456.463333333	Pulse	67.9	IS Q-06

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K05034-CCV1**	Total Dilution:	1.0000
File Name:	032_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 13:56:31
Comment:	A19J138 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.480	ppb	0.7	88,109	40	101.2	
Na	23	45	He	3949.995	ppb	0.8	4,297,558	4000	98.75	
Mg	24	45	He	4182.562	ppb	0.4	2,539,525	4000	104.56	
Al	27	45	He	4061.266	ppb	1.5	1,283,764	4000	101.53	
K	39	45	He	4136.069	ppb	0.4	2,123,516	4000	103.4	
Ca	44	45	H2	3998.871	ppb	0.7	846,945	4000	99.97	
[Ca]	44	45	He	4006.004	ppb	0.1	104,767	4000	100.15	
Ti	47	45	NoGas	94.510	ppb	2.7	96,301	100	94.51	
V	51	74	He	93.285	ppb	0.3	347,928	100	93.28	
Cr	52	74	He	94.793	ppb	0.3	415,328	100	94.79	
Mn	55	74	He	100.989	ppb	0.7	296,678	100	100.99	
Fe	56	74	H2	4076.210	ppb	0.6	46,380,830	4000	101.91	
Co	59	74	He	98.944	ppb	0.1	593,080	100	98.94	
Ni	60	74	He	102.623	ppb	0.6	151,385	100	102.62	
Cu	65	74	He	100.369	ppb	0.1	183,463	100	100.37	
Zn	66	74	He	98.238	ppb	0.9	68,168	100	98.24	
As	75	74	He	98.503	ppb	0.5	40,760	100	98.5	
Se	78	74	H2	40.106	ppb	1.0	11,826	40	100.26	
Mo	95	103	He	39.932	ppb	0.6	68,482	40	99.83	
Ag	107	103	He	40.833	ppb	0.4	201,313	40	102.08	
Cd	111	103	He	98.582	ppb	0.3	79,825	100	98.58	
[Cd]	111	103	NoGas	96.473	ppb	0.8	183,699	100	96.47	
Sb	121	103	He	43.136	ppb	0.5	88,566	40	107.84	
Ba	138	159	He	100.220	ppb	0.6	470,162	100	100.22	
Hg	201	159	NoGas	854.400	ppt	2.5	779	800	106.8	
Tl	205	159	He	39.992	ppb	1.3	318,255	40	99.98	
Pb	208	159	NoGas	103.661	ppb	0.5	2,189,914	100	103.66	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.7	904,108	1063836.77	85.0	
Sc	45	H2	Analog	1.2	2,086,635	2581014.58	80.8	
Sc	45	He	Pulse	0.4	318,457	383174.2	83.1	
Sc	45	NoGas	Analog	1.3	2,768,901	3417487.03	81.0	
Ge	74	H2	Pulse	0.6	658,387	784726.176666667	83.9	
Ge	74	He	Pulse	0.6	190,822	227383.553333333	83.9	
Ge	74	NoGas	Pulse	0.9	716,359	865435.953333333	82.8	
Rh	103	He	Pulse	0.7	433,392	522579.263333333	82.9	
Rh	103	NoGas	Pulse	0.4	731,287	906285.446666667	80.7	
Tb	159	He	Pulse	1.1	618,862	677543.53	91.3	
Tb	159	NoGas	Mix	0.5	1,350,045	1642107.27	82.2	
Bi	209	He	Pulse	0.6	356,446	387176.576666667	92.1	
Bi	209	NoGas	Pulse	0.3	792,406	894456.463333333	88.6	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K05034-CCB1**	Total Dilution:	1.0000
File Name:	033_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 14:01:08
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.024	ppb	36.5	62	
Na	23	45	He	4.334	ppb	3.4	11,060	
Mg	24	45	He	0.994	ppb	6.2	1,100	
Al	27	45	He	0.738	ppb	19.3	348	
K	39	45	He	-0.351	ppb	N/A	23,954	
Ca	44	45	H2	1.908	ppb	16.0	882	
[Ca]	44	45	He	0.274	ppb	650.9	201	
Ti	47	45	NoGas	-0.019	ppb	N/A	43	
V	51	74	He	0.025	ppb	24.7	1,219	
Cr	52	74	He	0.007	ppb	94.7	263	
Mn	55	74	He	-0.061	ppb	N/A	188	
Fe	56	74	H2	1.195	ppb	5.3	42,809	
Co	59	74	He	0.001	ppb	282.4	141	
Ni	60	74	He	-0.039	ppb	N/A	73	
Cu	65	74	He	0.019	ppb	99.6	186	
Zn	66	74	He	0.078	ppb	38.7	83	
As	75	74	He	0.047	ppb	55.5	49	
Se	78	74	H2	0.031	ppb	61.2	11	
Mo	95	103	He	0.043	ppb	26.2	83	
Ag	107	103	He	0.008	ppb	31.2	42	
Cd	111	103	He	0.016	ppb	61.0	20	
[Cd]	111	103	NoGas	0.019	ppb	19.2	39	
Sb	121	103	He	0.076	ppb	30.1	180	
Ba	138	159	He	0.012	ppb	69.4	221	
Hg	201	159	NoGas	5.566	ppt	23.0	7	
Tl	205	159	He	0.010	ppb	10.5	101	
Pb	208	159	NoGas	0.048	ppb	0.6	1,696	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	2.1	927,385	1063836.77	87.2	
Sc	45	H2	Analog	0.5	2,099,503	2581014.58	81.3	
Sc	45	He	Pulse	1.0	322,847	383174.2	84.3	
Sc	45	NoGas	Analog	0.6	2,797,015	3417487.03	81.8	
Ge	74	H2	Pulse	0.6	666,859	784726.176666667	85.0	
Ge	74	He	Pulse	0.6	194,550	227383.553333333	85.6	
Ge	74	NoGas	Pulse	0.7	733,056	865435.953333333	84.7	
Rh	103	He	Pulse	0.1	449,365	522579.263333333	86.0	
Rh	103	NoGas	Pulse	0.4	758,784	906285.446666667	83.7	
Tb	159	He	Pulse	1.2	627,862	677543.53	92.7	
Tb	159	NoGas	Analog	2.4	1,391,781	1642107.27	84.8	
Bi	209	He	Pulse	0.8	363,088	387176.576666667	93.8	
Bi	209	NoGas	Pulse	0.9	813,304	894456.463333333	90.9	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K05034-CCV2**	Total Dilution:	1.0000
File Name:	044_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 14:52:09
Comment:	A19J138 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	41.057	ppb	2.4	92,144	40	102.64	
Na	23	45	He	3993.208	ppb	0.0	4,503,376	4000	99.83	
Mg	24	45	He	4216.969	ppb	0.9	2,654,039	4000	105.42	
Al	27	45	He	4043.882	ppb	0.6	1,324,969	4000	101.1	
K	39	45	He	4190.498	ppb	0.9	2,229,800	4000	104.76	
Ca	44	45	H2	3991.382	ppb	0.3	878,034	4000	99.78	
[Ca]	44	45	He	3959.323	ppb	1.3	107,334	4000	98.98	
Ti	47	45	NoGas	96.082	ppb	0.5	102,756	100	96.08	
V	51	74	He	94.787	ppb	0.6	365,897	100	94.79	
Cr	52	74	He	95.723	ppb	0.8	434,095	100	95.72	
Mn	55	74	He	101.265	ppb	0.6	307,911	100	101.26	
Fe	56	74	H2	4147.877	ppb	0.4	48,621,507	4000	103.7	
Co	59	74	He	100.083	ppb	0.5	620,915	100	100.08	
Ni	60	74	He	103.437	ppb	0.5	157,942	100	103.44	
Cu	65	74	He	101.978	ppb	0.4	192,932	100	101.98	
Zn	66	74	He	100.341	ppb	0.9	72,064	100	100.34	
As	75	74	He	97.628	ppb	1.4	41,811	100	97.63	
Se	78	74	H2	40.333	ppb	0.8	12,253	40	100.83	
Mo	95	103	He	39.893	ppb	0.9	71,189	40	99.73	
Ag	107	103	He	40.666	ppb	0.7	208,618	40	101.66	
Cd	111	103	He	96.964	ppb	0.6	81,698	100	96.96	
[Cd]	111	103	NoGas	95.509	ppb	1.3	189,699	100	95.51	
Sb	121	103	He	41.183	ppb	0.4	87,983	40	102.96	
Ba	138	159	He	101.124	ppb	0.6	479,210	100	101.12	
Hg	201	159	NoGas	832.959	ppt	6.4	811	800	104.12	
Tl	205	159	He	40.676	ppb	0.3	326,989	40	101.69	
Pb	208	159	NoGas	98.255	ppb	2.5	2,219,020	100	98.26	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.1	932,547	1063836.77	87.7	
Sc	45	H2	Analog	0.1	2,167,170	2581014.58	84.0	
Sc	45	He	Pulse	0.0	330,102	383174.2	86.1	
Sc	45	NoGas	Analog	0.9	2,905,747	3417487.03	85.0	
Ge	74	H2	Pulse	0.3	678,292	784726.176666667	86.4	
Ge	74	He	Pulse	1.0	197,513	227383.553333333	86.9	
Ge	74	NoGas	Pulse	0.8	745,885	865435.953333333	86.2	
Rh	103	He	Pulse	0.8	450,954	522579.263333333	86.3	
Rh	103	NoGas	Pulse	0.5	762,831	906285.446666667	84.2	
Tb	159	He	Pulse	0.7	625,094	677543.53	92.3	
Tb	159	NoGas	Analog	2.4	1,443,776	1642107.27	87.9	
Bi	209	He	Pulse	0.4	359,230	387176.576666667	92.8	
Bi	209	NoGas	Pulse	0.3	804,097	894456.463333333	89.9	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K05034-CCB2**	Total Dilution:	1.0000
File Name:	045_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 14:56:47
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.012	ppb	37.2	36	
Na	23	45	He	0.167	ppb	20.9	6,760	
Mg	24	45	He	0.960	ppb	6.1	1,127	
Al	27	45	He	3.764	ppb	4.8	1,377	
K	39	45	He	-0.556	ppb	N/A	24,911	
Ca	44	45	H2	1.230	ppb	19.9	790	
[Ca]	44	45	He	1.086	ppb	154.3	232	
Ti	47	45	NoGas	0.252	ppb	34.3	340	
V	51	74	He	0.013	ppb	68.2	1,225	
Cr	52	74	He	0.011	ppb	108.3	297	
Mn	55	74	He	0.066	ppb	33.3	590	
Fe	56	74	H2	5.438	ppb	1.4	95,447	
Co	59	74	He	0.002	ppb	179.0	148	
Ni	60	74	He	-0.047	ppb	N/A	64	
Cu	65	74	He	0.007	ppb	290.2	170	
Zn	66	74	He	0.052	ppb	55.7	68	
As	75	74	He	0.007	ppb	246.2	33	
Se	78	74	H2	0.028	ppb	75.7	11	
Mo	95	103	He	0.031	ppb	33.1	66	
Ag	107	103	He	0.004	ppb	44.1	26	
Cd	111	103	He	0.010	ppb	10.3	16	
[Cd]	111	103	NoGas	0.022	ppb	32.3	47	
Sb	121	103	He	0.205	ppb	6.8	474	
Ba	138	159	He	0.019	ppb	31.8	254	
Hg	201	159	NoGas	5.773	ppt	53.6	8	
Tl	205	159	He	0.004	ppb	37.5	57	
Pb	208	159	NoGas	0.053	ppb	6.4	1,935	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.7	965,343	1063836.77	90.7	
Sc	45	H2	Analog	3.1	2,249,318	2581014.58	87.1	
Sc	45	He	Pulse	1.2	337,238	383174.2	88.0	
Sc	45	NoGas	Analog	1.6	2,962,639	3417487.03	86.7	
Ge	74	H2	Pulse	0.2	694,300	784726.176666667	88.5	
Ge	74	He	Pulse	1.1	202,613	227383.553333333	89.1	
Ge	74	NoGas	Pulse	1.2	774,900	865435.953333333	89.5	
Rh	103	He	Pulse	1.1	470,588	522579.263333333	90.1	
Rh	103	NoGas	Pulse	0.9	805,548	906285.446666667	88.9	
Tb	159	He	Pulse	0.9	628,371	677543.53	92.7	
Tb	159	NoGas	Analog	1.1	1,480,249	1642107.27	90.1	
Bi	209	He	Pulse	1.0	364,273	387176.576666667	94.1	
Bi	209	NoGas	Pulse	1.0	826,642	894456.463333333	92.4	

CRL Verification Report - ICPMS5

Sample Name:	**9K05034-CRL5**	Total Dilution:	1.0000
File Name:	046CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 15:01:29
Comment:	A19J368 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.187	ppb	2.7	440	103.89		
Na	23	45	He	9.740	ppb	2.0	17,880	108.22		
Mg	24	45	He	9.821	ppb	3.2	6,864	109.12		
Al	27	45	He	11.977	ppb	3.5	4,149	133.08	R-11	<MRL
K	39	45	He	9.954	ppb	4.3	30,749	110.6		
Ca	44	45	H2	11.022	ppb	4.4	3,053	122.47		
[Ca]	44	45	He	9.379	ppb	17.8	464	104.21		
Ti	47	45	NoGas	0.407	ppb	17.1	511	226.11	R-11	<MRL
V	51	74	He	0.200	ppb	8.9	1,982	111.11		
Cr	52	74	He	0.186	ppb	6.8	1,122	103.33		
Mn	55	74	He	0.223	ppb	14.5	1,091	123.89		
Fe	56	74	H2	12.313	ppb	0.8	180,086	136.81	R-11	<MRL
Co	59	74	He	0.180	ppb	7.1	1,299	100		
Ni	60	74	He	0.147	ppb	28.9	371	81.67		
Cu	65	74	He	0.256	ppb	12.8	659	142.22	R-11	<MRL
Zn	66	74	He	0.351	ppb	4.3	291	195	R-11	
As	75	74	He	0.172	ppb	16.7	107	95.56		
Se	78	74	H2	0.214	ppb	22.2	69	118.89		
Mo	95	103	He	0.195	ppb	10.9	371	108.33		
Ag	107	103	He	0.188	ppb	11.9	1,008	104.44		
Cd	111	103	He	0.163	ppb	8.2	150	90.56		
[Cd]	111	103	NoGas	0.175	ppb	2.8	369	97.22		
Sb	121	103	He	0.221	ppb	7.1	511	122.78		
Ba	138	159	He	0.198	ppb	10.3	1,107	110		
Hg	201	159	NoGas	12.153	ppt	40.7	15	168.79	R-11	<MRL
Tl	205	159	He	0.191	ppb	1.9	1,569	106.11		
Pb	208	159	NoGas	0.204	ppb	3.2	5,521	113.33		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.7	959,508	1063836.77	90.2	
Sc	45	H2	Analog	0.3	2,269,905	2581014.58	87.9	
Sc	45	He	Pulse	0.8	339,273	383174.2	88.5	
Sc	45	NoGas	Analog	0.7	2,975,241	3417487.03	87.1	
Ge	74	H2	Pulse	0.1	702,875	784726.176666667	89.6	
Ge	74	He	Pulse	1.0	204,671	227383.553333333	90.0	
Ge	74	NoGas	Pulse	1.2	780,611	865435.953333333	90.2	
Rh	103	He	Pulse	1.0	471,211	522579.263333333	90.2	
Rh	103	NoGas	Pulse	0.5	808,248	906285.446666667	89.2	
Tb	159	He	Pulse	0.7	629,247	677543.53	92.9	
Tb	159	NoGas	Analog	1.2	1,508,827	1642107.27	91.9	
Bi	209	He	Pulse	0.5	364,666	387176.576666667	94.2	
Bi	209	NoGas	Pulse	0.3	825,942	894456.463333333	92.3	

CRL Verification Report - ICPMS5

Sample Name:	**9K05034-CRL6**	Total Dilution:	1.0000
File Name:	047_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 15:06:10
Comment:	A19J369 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.862	ppb	3.9	2,012	95.78	
Na	23	45	He	44.634	ppb	0.6	58,376	99.19	
Mg	24	45	He	45.378	ppb	1.0	29,914	100.84	
Al	27	45	He	46.582	ppb	2.7	15,829	103.52	
K	39	45	He	45.844	ppb	2.2	50,249	101.88	
Ca	44	45	H2	44.943	ppb	4.6	10,711	99.87	
[Ca]	44	45	He	45.692	ppb	6.4	1,477	101.54	
Ti	47	45	NoGas	1.048	ppb	6.9	1,223	116.44	
V	51	74	He	0.927	ppb	2.2	4,868	103	
Cr	52	74	He	0.867	ppb	2.8	4,309	96.33	
Mn	55	74	He	0.922	ppb	3.7	3,286	102.44	
Fe	56	74	H2	46.702	ppb	0.3	597,384	103.78	
Co	59	74	He	0.913	ppb	3.7	5,997	101.44	
Ni	60	74	He	0.837	ppb	7.2	1,460	93	
Cu	65	74	He	0.949	ppb	4.5	2,012	105.44	
Zn	66	74	He	0.924	ppb	4.3	716	102.67	
As	75	74	He	0.884	ppb	4.9	422	98.22	
Se	78	74	H2	0.880	ppb	1.2	279	97.78	
Mo	95	103	He	0.865	ppb	1.8	1,629	96.11	
Ag	107	103	He	0.918	ppb	2.2	4,952	102	
Cd	111	103	He	0.895	ppb	5.5	799	99.44	
[Cd]	111	103	NoGas	0.873	ppb	0.8	1,828	97	
Sb	121	103	He	0.921	ppb	2.0	2,085	102.33	
Ba	138	159	He	0.975	ppb	4.6	4,806	108.33	
Hg	201	159	NoGas	40.287	ppt	12.1	42	111.91	
Tl	205	159	He	0.907	ppb	2.3	7,347	100.78	
Pb	208	159	NoGas	0.917	ppb	2.1	21,815	101.89	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.9	965,688	1063836.77	90.8	
Sc	45	H2	Analog	1.6	2,239,057	2581014.58	86.8	
Sc	45	He	Pulse	1.4	339,913	383174.2	88.7	
Sc	45	NoGas	Analog	0.8	2,996,705	3417487.03	87.7	
Ge	74	H2	Pulse	0.4	702,683	784726.176666667	89.5	
Ge	74	He	Pulse	0.8	204,256	227383.553333333	89.8	
Ge	74	NoGas	Pulse	1.0	777,757	865435.953333333	89.9	
Rh	103	He	Pulse	0.8	473,855	522579.263333333	90.7	
Rh	103	NoGas	Pulse	0.8	802,994	906285.446666667	88.6	
Tb	159	He	Pulse	0.7	628,110	677543.53	92.7	
Tb	159	NoGas	Analog	0.5	1,471,849	1642107.27	89.6	
Bi	209	He	Pulse	0.9	364,877	387176.576666667	94.2	
Bi	209	NoGas	Pulse	1.1	820,672	894456.463333333	91.8	

CRL Verification Report - ICPMS5

Sample Name:	**9K05034-CRL7**	Total Dilution:	1.0000
File Name:	048CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 15:10:51
Comment:	A19J370 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.835	ppb	5.0	4,319	101.94	
Na	23	45	He	88.291	ppb	1.6	109,447	98.1	
Mg	24	45	He	90.307	ppb	0.9	59,270	100.34	
Al	27	45	He	89.985	ppb	1.8	30,600	99.98	
K	39	45	He	89.204	ppb	1.0	74,048	99.12	
Ca	44	45	H2	88.286	ppb	1.7	20,927	98.1	
[Ca]	44	45	He	91.723	ppb	8.0	2,771	101.91	
Ti	47	45	NoGas	1.857	ppb	2.9	2,122	103.17	
V	51	74	He	1.738	ppb	0.6	8,083	96.56	
Cr	52	74	He	1.757	ppb	2.9	8,466	97.61	
Mn	55	74	He	1.817	ppb	0.1	6,083	100.94	
Fe	56	74	H2	89.190	ppb	0.4	1,114,519	99.1	
Co	59	74	He	1.790	ppb	0.8	11,595	99.44	
Ni	60	74	He	1.799	ppb	4.0	2,971	99.94	
Cu	65	74	He	1.933	ppb	1.8	3,929	107.39	
Zn	66	74	He	2.000	ppb	2.1	1,512	111.11	
As	75	74	He	1.813	ppb	2.7	831	100.72	
Se	78	74	H2	1.708	ppb	5.2	540	94.89	
Mo	95	103	He	1.741	ppb	3.8	3,260	96.72	
Ag	107	103	He	1.829	ppb	2.9	9,827	101.61	
Cd	111	103	He	1.757	ppb	3.9	1,559	97.61	
[Cd]	111	103	NoGas	1.760	ppb	3.3	3,711	97.78	
Sb	121	103	He	1.807	ppb	1.4	4,062	100.39	
Ba	138	159	He	1.913	ppb	2.1	9,247	106.28	
Hg	201	159	NoGas	77.370	ppt	5.7	80	107.46	
Tl	205	159	He	1.816	ppb	1.0	14,652	100.89	
Pb	208	159	NoGas	1.802	ppb	2.5	42,801	100.11	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.6	976,084	1063836.77	91.8	
Sc	45	H2	Analog	1.6	2,279,258	2581014.58	88.3	
Sc	45	He	Pulse	0.5	341,300	383174.2	89.1	
Sc	45	NoGas	Analog	1.4	3,006,907	3417487.03	88.0	
Ge	74	H2	Pulse	0.0	703,619	784726.176666667	89.7	
Ge	74	He	Pulse	0.4	203,843	227383.553333333	89.6	
Ge	74	NoGas	Pulse	0.8	780,590	865435.953333333	90.2	
Rh	103	He	Pulse	1.2	472,337	522579.263333333	90.4	
Rh	103	NoGas	Pulse	0.5	809,506	906285.446666667	89.3	
Tb	159	He	Pulse	0.4	626,490	677543.53	92.5	
Tb	159	NoGas	Analog	1.6	1,493,835	1642107.27	91.0	
Bi	209	He	Pulse	1.2	365,739	387176.576666667	94.5	
Bi	209	NoGas	Pulse	0.2	827,063	894456.463333333	92.5	

CRL Verification Report - ICPMS5

Sample Name:	**9K05034-CRL8**	Total Dilution:	1.0000
File Name:	049CRL4.d	Sample Type:	CRL4
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 15:22:13
Comment:	A19J371 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.544	ppb	2.6	8,260	98.44	
Na	23	45	He	176.250	ppb	1.0	216,501	97.92	
Mg	24	45	He	178.669	ppb	0.4	119,318	99.26	
Al	27	45	He	179.250	ppb	0.7	62,168	99.58	
K	39	45	He	184.994	ppb	1.1	128,929	102.77	
Ca	44	45	H2	176.354	ppb	3.1	41,415	97.97	
[Ca]	44	45	He	174.292	ppb	5.9	5,191	96.83	
Ti	47	45	NoGas	3.590	ppb	5.4	4,009	99.72	
V	51	74	He	3.415	ppb	0.1	15,164	94.86	
Cr	52	74	He	3.469	ppb	2.4	16,945	96.36	
Mn	55	74	He	3.612	ppb	2.1	12,041	100.33	
Fe	56	74	H2	184.312	ppb	0.6	2,307,592	102.4	
Co	59	74	He	3.502	ppb	0.6	23,202	97.28	
Ni	60	74	He	3.583	ppb	0.5	5,946	99.53	
Cu	65	74	He	3.826	ppb	4.5	7,841	106.28	
Zn	66	74	He	3.559	ppb	4.5	2,742	98.86	
As	75	74	He	3.522	ppb	0.5	1,631	97.83	
Se	78	74	H2	3.770	ppb	4.6	1,210	104.72	
Mo	95	103	He	3.439	ppb	4.8	6,458	95.53	
Ag	107	103	He	3.549	ppb	3.8	19,137	98.58	
Cd	111	103	He	3.546	ppb	2.8	3,148	98.5	
[Cd]	111	103	NoGas	3.481	ppb	0.1	7,221	96.69	
Sb	121	103	He	3.544	ppb	3.4	7,976	98.44	
Ba	138	159	He	3.737	ppb	2.2	18,503	103.81	
Hg	201	159	NoGas	140.373	ppt	0.7	143	97.48	
Tl	205	159	He	3.560	ppb	1.7	29,657	98.89	
Pb	208	159	NoGas	3.538	ppb	1.0	83,065	98.28	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.3	967,159	1063836.77	90.9	
Sc	45	H2	Analog	1.7	2,286,578	2581014.58	88.6	
Sc	45	He	Pulse	1.0	348,790	383174.2	91.0	
Sc	45	NoGas	Analog	1.4	2,986,610	3417487.03	87.4	
Ge	74	H2	Pulse	0.3	715,118	784726.176666667	91.1	
Ge	74	He	Pulse	0.7	209,659	227383.553333333	92.2	
Ge	74	NoGas	Pulse	0.9	778,165	865435.953333333	89.9	
Rh	103	He	Pulse	0.7	474,065	522579.263333333	90.7	
Rh	103	NoGas	Pulse	0.8	796,409	906285.446666667	87.9	
Tb	159	He	Pulse	1.5	647,460	677543.53	95.6	
Tb	159	NoGas	Analog	1.1	1,488,338	1642107.27	90.6	
Bi	209	He	Pulse	1.7	369,648	387176.576666667	95.5	
Bi	209	NoGas	Pulse	0.8	825,454	894456.463333333	92.3	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K05034-CCV3**	Total Dilution:	1.0000
File Name:	060_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 16:13:20
Comment:	A19J138 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.289	ppb	0.9	94,761	40	100.72	
Na	23	45	He	4064.632	ppb	0.5	4,594,781	4000	101.62	
Mg	24	45	He	4291.568	ppb	1.6	2,707,458	4000	107.29	
Al	27	45	He	4149.165	ppb	1.0	1,362,725	4000	103.73	
K	39	45	He	4243.737	ppb	0.4	2,263,212	4000	106.09	
Ca	44	45	H2	3917.561	ppb	1.3	900,455	4000	97.94	
[Ca]	44	45	He	4011.412	ppb	0.5	109,004	4000	100.29	
Ti	47	45	NoGas	96.102	ppb	1.7	102,585	100	96.1	
V	51	74	He	95.544	ppb	0.8	366,404	100	95.54	
Cr	52	74	He	96.279	ppb	0.7	433,775	100	96.28	
Mn	55	74	He	102.057	ppb	0.2	308,302	100	102.06	
Fe	56	74	H2	4171.690	ppb	0.4	49,253,388	4000	104.29	
Co	59	74	He	100.428	ppb	0.6	619,003	100	100.43	
Ni	60	74	He	103.259	ppb	0.4	156,639	100	103.26	
Cu	65	74	He	102.118	ppb	0.5	191,945	100	102.12	
Zn	66	74	He	99.760	ppb	0.7	71,188	100	99.76	
As	75	74	He	97.324	ppb	1.3	41,410	100	97.32	
Se	78	74	H2	40.211	ppb	1.2	12,304	40	100.53	
Mo	95	103	He	39.998	ppb	1.4	70,438	40	99.99	
Ag	107	103	He	40.917	ppb	0.9	207,148	40	102.29	
Cd	111	103	He	97.885	ppb	0.6	81,391	100	97.88	
[Cd]	111	103	NoGas	96.616	ppb	1.2	189,013	100	96.62	
Sb	121	103	He	41.315	ppb	0.9	87,108	40	103.29	
Ba	138	159	He	101.344	ppb	0.5	476,752	100	101.34	
Hg	201	159	NoGas	820.682	ppt	1.9	800	800	102.59	
Tl	205	159	He	40.726	ppb	0.3	325,023	40	101.81	
Pb	208	159	NoGas	97.994	ppb	1.4	2,214,194	100	97.99	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.0	977,044	1063836.77	91.8	
Sc	45	H2	Analog	0.5	2,264,462	2581014.58	87.7	
Sc	45	He	Pulse	0.1	330,891	383174.2	86.4	
Sc	45	NoGas	Analog	0.7	2,900,427	3417487.03	84.9	
Ge	74	H2	Pulse	0.1	683,182	784726.176666667	87.1	
Ge	74	He	Pulse	1.1	196,229	227383.553333333	86.3	
Ge	74	NoGas	Pulse	0.4	744,243	865435.953333333	86.0	
Rh	103	He	Pulse	0.4	445,037	522579.263333333	85.2	
Rh	103	NoGas	Pulse	0.5	751,348	906285.446666667	82.9	
Tb	159	He	Pulse	0.9	620,570	677543.53	91.6	
Tb	159	NoGas	Analog	1.9	1,444,147	1642107.27	87.9	
Bi	209	He	Pulse	1.0	356,095	387176.576666667	92.0	
Bi	209	NoGas	Pulse	0.6	799,136	894456.463333333	89.3	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K05034-CCB3**	Total Dilution:	1.0000
File Name:	061_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 16:17:57
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.014	ppb	50.6	41	
Na	23	45	He	1.839	ppb	10.9	8,610	
Mg	24	45	He	1.545	ppb	11.3	1,490	
Al	27	45	He	0.817	ppb	4.3	387	
K	39	45	He	2.470	ppb	41.4	26,314	
Ca	44	45	H2	3.557	ppb	11.0	1,321	
[Ca]	44	45	He	2.040	ppb	45.0	257	
Ti	47	45	NoGas	0.022	ppb	129.3	90	
V	51	74	He	0.272	ppb	0.9	2,211	
Cr	52	74	He	0.017	ppb	11.8	319	
Mn	55	74	He	-0.019	ppb	N/A	322	
Fe	56	74	H2	0.781	ppb	6.4	39,206	
Co	59	74	He	0.000	ppb	N/A	134	
Ni	60	74	He	-0.046	ppb	N/A	64	
Cu	65	74	He	0.037	ppb	39.0	226	
Zn	66	74	He	0.107	ppb	45.4	107	
As	75	74	He	0.055	ppb	8.9	54	
Se	78	74	H2	0.036	ppb	41.8	13	
Mo	95	103	He	0.031	ppb	18.3	63	
Ag	107	103	He	0.012	ppb	22.6	66	
Cd	111	103	He	0.026	ppb	44.7	30	
[Cd]	111	103	NoGas	0.013	ppb	41.1	27	
Sb	121	103	He	0.198	ppb	5.8	452	
Ba	138	159	He	0.014	ppb	49.1	226	
Hg	201	159	NoGas	4.561	ppt	36.5	7	
Tl	205	159	He	0.005	ppb	20.5	58	
Pb	208	159	NoGas	0.040	ppb	5.6	1,590	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.3	987,164	1063836.77	92.8	
Sc	45	H2	Analog	0.8	2,249,906	2581014.58	87.2	
Sc	45	He	Pulse	0.5	334,378	383174.2	87.3	
Sc	45	NoGas	Analog	1.2	2,950,463	3417487.03	86.3	
Ge	74	H2	Pulse	0.2	687,346	784726.176666667	87.6	
Ge	74	He	Pulse	0.8	199,612	227383.553333333	87.8	
Ge	74	NoGas	Pulse	0.5	761,174	865435.953333333	88.0	
Rh	103	He	Pulse	1.0	463,500	522579.263333333	88.7	
Rh	103	NoGas	Pulse	0.7	785,847	906285.446666667	86.7	
Tb	159	He	Pulse	1.5	620,780	677543.53	91.6	
Tb	159	NoGas	Analog	2.3	1,454,895	1642107.27	88.6	
Bi	209	He	Pulse	0.9	360,795	387176.576666667	93.2	
Bi	209	NoGas	Pulse	0.3	817,712	894456.463333333	91.4	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K05034-CCV4**	Total Dilution:	1.0000
File Name:	072_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 17:11:38
Comment:	A19J138 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.378	ppb	0.2	91,492	40	100.94	
Na	23	45	He	4084.381	ppb	1.2	4,460,829	4000	102.11	
Mg	24	45	He	4304.663	ppb	1.3	2,623,904	4000	107.62	
Al	27	45	He	4172.024	ppb	1.3	1,323,820	4000	104.3	
K	39	45	He	4240.446	ppb	0.7	2,184,892	4000	106.01	
Ca	44	45	H2	3920.264	ppb	0.4	869,289	4000	98.01	
[Ca]	44	45	He	3995.176	ppb	1.0	104,887	4000	99.88	
Ti	47	45	NoGas	94.810	ppb	0.7	97,264	100	94.81	
V	51	74	He	94.954	ppb	0.6	352,188	100	94.95	
Cr	52	74	He	96.285	ppb	0.9	419,537	100	96.28	
Mn	55	74	He	101.604	ppb	0.3	296,858	100	101.6	
Fe	56	74	H2	4187.139	ppb	0.6	48,256,833	4000	104.68	
Co	59	74	He	100.278	ppb	0.8	597,757	100	100.28	
Ni	60	74	He	103.348	ppb	0.7	151,618	100	103.35	
Cu	65	74	He	101.555	ppb	1.2	184,600	100	101.56	
Zn	66	74	He	100.395	ppb	1.9	69,280	100	100.4	
As	75	74	He	99.073	ppb	0.5	40,772	100	99.07	
Se	78	74	H2	40.112	ppb	1.2	11,981	40	100.28	
Mo	95	103	He	39.395	ppb	1.1	67,949	40	98.49	
Ag	107	103	He	40.521	ppb	1.0	200,935	40	101.3	
Cd	111	103	He	97.352	ppb	0.7	79,287	100	97.35	
[Cd]	111	103	NoGas	96.640	ppb	0.4	182,408	100	96.64	
Sb	121	103	He	42.218	ppb	1.3	87,185	40	105.54	
Ba	138	159	He	100.572	ppb	0.5	462,208	100	100.57	
Hg	201	159	NoGas	827.559	ppt	4.7	765	800	103.44	
Tl	205	159	He	40.089	ppb	1.4	312,550	40	100.22	
Pb	208	159	NoGas	101.159	ppb	2.6	2,165,339	100	101.16	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.3	941,211	1063836.77	88.5	
Sc	45	H2	Analog	0.4	2,184,501	2581014.58	84.6	
Sc	45	He	Pulse	0.6	319,693	383174.2	83.4	
Sc	45	NoGas	Analog	0.4	2,787,212	3417487.03	81.6	
Ge	74	H2	Pulse	0.7	666,910	784726.176666667	85.0	
Ge	74	He	Pulse	1.1	189,781	227383.553333333	83.5	
Ge	74	NoGas	Pulse	0.9	714,525	865435.953333333	82.6	
Rh	103	He	Pulse	0.4	435,897	522579.263333333	83.4	
Rh	103	NoGas	Pulse	0.8	724,903	906285.446666667	80.0	
Tb	159	He	Pulse	0.5	606,228	677543.53	89.5	
Tb	159	NoGas	Mix	3.0	1,368,586	1642107.27	83.3	
Bi	209	He	Pulse	1.1	349,443	387176.576666667	90.3	
Bi	209	NoGas	Pulse	0.4	785,173	894456.463333333	87.8	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K05034-CCB4**	Total Dilution:	1.0000
File Name:	073_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 17:16:15
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.010	ppb	68.6	30	
Na	23	45	He	2.520	ppb	8.4	9,034	
Mg	24	45	He	0.730	ppb	28.0	933	
Al	27	45	He	0.425	ppb	32.6	247	
K	39	45	He	2.378	ppb	36.6	25,280	
Ca	44	45	H2	1.131	ppb	22.1	727	
[Ca]	44	45	He	0.388	ppb	294.3	203	
Ti	47	45	NoGas	-0.001	ppb	N/A	62	
V	51	74	He	0.215	ppb	4.3	1,915	
Cr	52	74	He	0.014	ppb	29.1	293	
Mn	55	74	He	-0.052	ppb	N/A	212	
Fe	56	74	H2	-0.023	ppb	N/A	28,667	
Co	59	74	He	-0.006	ppb	N/A	93	
Ni	60	74	He	-0.059	ppb	N/A	42	
Cu	65	74	He	0.015	ppb	179.0	176	
Zn	66	74	He	0.061	ppb	80.4	71	
As	75	74	He	0.066	ppb	46.3	56	
Se	78	74	H2	0.037	ppb	31.6	13	
Mo	95	103	He	0.028	ppb	23.8	57	
Ag	107	103	He	0.005	ppb	19.6	28	
Cd	111	103	He	0.016	ppb	12.4	20	
[Cd]	111	103	NoGas	0.025	ppb	57.6	49	
Sb	121	103	He	0.067	ppb	30.5	161	
Ba	138	159	He	0.000	ppb	3059.4	160	
Hg	201	159	NoGas	5.292	ppt	47.1	7	
Tl	205	159	He	0.006	ppb	30.8	67	
Pb	208	159	NoGas	0.028	ppb	7.6	1,276	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.6	952,797	1063836.77	89.6	
Sc	45	H2	Analog	0.7	2,129,797	2581014.58	82.5	
Sc	45	He	Pulse	1.0	321,838	383174.2	84.0	
Sc	45	NoGas	Analog	1.3	2,789,419	3417487.03	81.6	
Ge	74	H2	Pulse	0.2	664,342	784726.176666667	84.7	
Ge	74	He	Pulse	0.8	192,076	227383.553333333	84.5	
Ge	74	NoGas	Pulse	0.8	722,234	865435.953333333	83.5	
Rh	103	He	Pulse	0.5	449,940	522579.263333333	86.1	
Rh	103	NoGas	Pulse	0.3	746,931	906285.446666667	82.4	
Tb	159	He	Pulse	0.7	608,459	677543.53	89.8	
Tb	159	NoGas	Analog	1.1	1,408,088	1642107.27	85.7	
Bi	209	He	Pulse	0.5	354,151	387176.576666667	91.5	
Bi	209	NoGas	Pulse	0.4	797,703	894456.463333333	89.2	

CRL Verification Report - ICPMS5

Sample Name:	**9K05034-CRL9**	Total Dilution:	1.0000
File Name:	074CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 17:21:30
Comment:	A19J368 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.179	ppb	23.2	423	99.44		
Na	23	45	He	10.890	ppb	2.6	18,390	121		
Mg	24	45	He	9.416	ppb	6.5	6,319	104.62		
Al	27	45	He	9.385	ppb	1.9	3,137	104.28		
K	39	45	He	10.985	ppb	3.9	29,965	122.06		
Ca	44	45	H2	9.454	ppb	6.1	2,612	105.04		
[Ca]	44	45	He	9.997	ppb	6.8	461	111.08		
Ti	47	45	NoGas	0.154	ppb	31.1	223	85.56		
V	51	74	He	0.427	ppb	4.4	2,729	237.22	R-11	< MRL
Cr	52	74	He	0.180	ppb	12.6	1,032	100		
Mn	55	74	He	0.116	ppb	20.0	713	64.44	R-11	< MRL
Fe	56	74	H2	8.111	ppb	0.5	123,033	90.12		
Co	59	74	He	0.160	ppb	6.3	1,106	88.89		
Ni	60	74	He	0.130	ppb	19.2	326	72.22		
Cu	65	74	He	0.193	ppb	9.7	507	107.22		
Zn	66	74	He	0.212	ppb	12.2	178	117.78		
As	75	74	He	0.226	ppb	5.6	124	125.56		
Se	78	74	H2	0.190	ppb	8.6	59	105.56		
Mo	95	103	He	0.198	ppb	4.2	359	110		
Ag	107	103	He	0.168	ppb	1.8	862	93.33		
Cd	111	103	He	0.162	ppb	3.9	143	90		
[Cd]	111	103	NoGas	0.191	ppb	7.9	373	106.11		
Sb	121	103	He	0.212	ppb	18.0	469	117.78		
Ba	138	159	He	0.175	ppb	5.9	971	97.22		
Hg	201	159	NoGas	11.664	ppt	16.7	13	162	R-11	< MRL
Tl	205	159	He	0.179	ppb	4.6	1,425	99.44		
Pb	208	159	NoGas	0.193	ppb	4.4	4,868	107.22		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.8	962,810	1063836.77	90.5	
Sc	45	H2	Analog	4.5	2,206,628	2581014.58	85.5	
Sc	45	He	Pulse	0.4	324,743	383174.2	84.8	
Sc	45	NoGas	Analog	0.7	2,826,990	3417487.03	82.7	
Ge	74	H2	Pulse	0.2	669,966	784726.176666667	85.4	
Ge	74	He	Pulse	1.2	193,541	227383.553333333	85.1	
Ge	74	NoGas	Pulse	1.1	730,182	865435.953333333	84.4	
Rh	103	He	Pulse	1.3	449,701	522579.263333333	86.1	
Rh	103	NoGas	Pulse	0.1	747,742	906285.446666667	82.5	
Tb	159	He	Pulse	0.5	611,110	677543.53	90.2	
Tb	159	NoGas	Mix	3.6	1,390,550	1642107.27	84.7	
Bi	209	He	Pulse	1.1	357,030	387176.576666667	92.2	
Bi	209	NoGas	Pulse	0.7	801,473	894456.463333333	89.6	

CRL Verification Report - ICPMS5

Sample Name:	**9K05034-CRLA**	Total Dilution:	1.0000
File Name:	075_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 17:26:40
Comment:	A19J369 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.896	ppb	6.0	2,087	99.56	
Na	23	45	He	43.494	ppb	1.2	54,721	96.65	
Mg	24	45	He	43.354	ppb	1.7	27,432	96.34	
Al	27	45	He	42.024	ppb	3.7	13,707	93.39	
K	39	45	He	44.344	ppb	3.3	47,415	98.54	
Ca	44	45	H2	42.743	ppb	4.1	9,969	94.98	
[Ca]	44	45	He	43.590	ppb	12.0	1,360	96.87	
Ti	47	45	NoGas	0.818	ppb	4.7	918	90.89	
V	51	74	He	1.092	ppb	1.7	5,232	121.33	
Cr	52	74	He	0.873	ppb	6.2	4,105	97	
Mn	55	74	He	0.784	ppb	6.7	2,700	87.11	
Fe	56	74	H2	40.385	ppb	0.7	495,459	89.74	
Co	59	74	He	0.839	ppb	3.6	5,229	93.22	
Ni	60	74	He	0.823	ppb	6.3	1,361	91.44	
Cu	65	74	He	0.866	ppb	3.3	1,753	96.22	
Zn	66	74	He	0.865	ppb	8.0	637	96.11	
As	75	74	He	0.859	ppb	5.0	389	95.44	
Se	78	74	H2	0.825	ppb	6.5	249	91.67	
Mo	95	103	He	0.816	ppb	3.4	1,465	90.67	
Ag	107	103	He	0.834	ppb	4.9	4,287	92.67	
Cd	111	103	He	0.805	ppb	6.1	686	89.44	
[Cd]	111	103	NoGas	0.863	ppb	3.0	1,683	95.89	
Sb	121	103	He	0.844	ppb	4.9	1,822	93.78	
Ba	138	159	He	0.827	ppb	4.0	4,005	91.89	
Hg	201	159	NoGas	37.202	ppt	16.2	37	103.34	
Tl	205	159	He	0.849	ppb	1.8	6,715	94.33	
Pb	208	159	NoGas	0.916	ppb	2.8	20,467	101.78	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.3	964,017	1063836.77	90.6	
Sc	45	H2	Analog	2.9	2,185,983	2581014.58	84.7	
Sc	45	He	Pulse	1.3	326,023	383174.2	85.1	
Sc	45	NoGas	Analog	0.6	2,837,279	3417487.03	83.0	
Ge	74	H2	Pulse	0.3	668,570	784726.176666667	85.2	
Ge	74	He	Pulse	0.8	193,435	227383.553333333	85.1	
Ge	74	NoGas	Pulse	1.1	726,547	865435.953333333	84.0	
Rh	103	He	Pulse	0.6	451,425	522579.263333333	86.4	
Rh	103	NoGas	Pulse	0.3	748,420	906285.446666667	82.6	
Tb	159	He	Pulse	0.9	613,284	677543.53	90.5	
Tb	159	NoGas	Mix	2.5	1,382,556	1642107.27	84.2	
Bi	209	He	Pulse	0.8	358,358	387176.576666667	92.6	
Bi	209	NoGas	Pulse	0.4	796,630	894456.463333333	89.1	

CRL Verification Report - ICPMS5

Sample Name:	**9K05034-CRLB**	Total Dilution:	1.0000
File Name:	076CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 17:31:21
Comment:	A19J370 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.595	ppb	7.4	3,656	88.61	
Na	23	45	He	82.495	ppb	1.0	97,882	91.66	
Mg	24	45	He	82.999	ppb	1.8	51,955	92.22	
Al	27	45	He	81.282	ppb	1.5	26,353	90.31	
K	39	45	He	83.902	ppb	2.3	67,830	93.22	
Ca	44	45	H2	80.424	ppb	1.8	18,121	89.36	
[Ca]	44	45	He	82.941	ppb	1.7	2,407	92.16	
Ti	47	45	NoGas	1.499	ppb	3.7	1,614	83.28	
V	51	74	He	1.863	ppb	1.1	8,179	103.5	
Cr	52	74	He	1.558	ppb	2.5	7,184	86.56	
Mn	55	74	He	1.593	ppb	2.9	5,132	88.5	
Fe	56	74	H2	78.102	ppb	0.2	933,975	86.78	
Co	59	74	He	1.625	ppb	2.3	10,050	90.28	
Ni	60	74	He	1.669	ppb	6.3	2,638	92.72	
Cu	65	74	He	1.713	ppb	3.5	3,337	95.17	
Zn	66	74	He	1.784	ppb	3.2	1,289	99.11	
As	75	74	He	1.788	ppb	2.1	782	99.33	
Se	78	74	H2	1.735	ppb	2.4	523	96.39	
Mo	95	103	He	1.568	ppb	0.9	2,819	87.11	
Ag	107	103	He	1.613	ppb	0.9	8,318	89.61	
Cd	111	103	He	1.551	ppb	5.8	1,320	86.17	
[Cd]	111	103	NoGas	1.547	ppb	1.5	3,013	85.94	
Sb	121	103	He	1.610	ppb	3.6	3,474	89.44	
Ba	138	159	He	1.687	ppb	0.7	8,011	93.72	
Hg	201	159	NoGas	63.057	ppt	7.8	62	87.58	
Tl	205	159	He	1.642	ppb	3.0	12,978	91.22	
Pb	208	159	NoGas	1.659	ppb	0.6	37,328	92.17	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.4	950,548	1063836.77	89.4	
Sc	45	H2	Analog	1.8	2,161,230	2581014.58	83.7	
Sc	45	He	Pulse	0.9	325,305	383174.2	84.9	
Sc	45	NoGas	Analog	0.3	2,812,868	3417487.03	82.3	
Ge	74	H2	Pulse	0.2	670,728	784726.176666667	85.5	
Ge	74	He	Pulse	0.9	194,380	227383.553333333	85.5	
Ge	74	NoGas	Pulse	0.5	725,045	865435.953333333	83.8	
Rh	103	He	Pulse	0.2	453,238	522579.263333333	86.7	
Rh	103	NoGas	Pulse	0.1	747,731	906285.446666667	82.5	
Tb	159	He	Pulse	1.1	613,958	677543.53	90.6	
Tb	159	NoGas	Analog	0.7	1,412,662	1642107.27	86.0	
Bi	209	He	Pulse	1.2	357,113	387176.576666667	92.2	
Bi	209	NoGas	Pulse	0.6	798,849	894456.463333333	89.3	

CRL Verification Report - ICPMS5

Sample Name:	**9K05034-CRLC**	Total Dilution:	1.0000
File Name:	077CRL4.d	Sample Type:	CRL4
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 17:36:02
Comment:	A19J371 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.480	ppb	1.1	7,925	96.67	
Na	23	45	He	176.053	ppb	0.7	201,062	97.81	
Mg	24	45	He	175.175	ppb	0.8	108,764	97.32	
Al	27	45	He	172.973	ppb	0.9	55,778	96.1	
K	39	45	He	176.842	ppb	0.6	115,649	98.25	
Ca	44	45	H2	169.277	ppb	2.4	38,085	94.04	
[Ca]	44	45	He	168.325	ppb	2.7	4,668	93.51	
Ti	47	45	NoGas	3.458	ppb	9.9	3,659	96.06	
V	51	74	He	3.610	ppb	1.3	14,764	100.28	
Cr	52	74	He	3.336	ppb	1.5	15,082	92.67	
Mn	55	74	He	3.406	ppb	1.4	10,528	94.61	
Fe	56	74	H2	181.064	ppb	1.0	2,126,381	100.59	
Co	59	74	He	3.457	ppb	1.7	21,188	96.03	
Ni	60	74	He	3.502	ppb	2.2	5,379	97.28	
Cu	65	74	He	3.647	ppb	3.2	6,921	101.31	
Zn	66	74	He	3.755	ppb	4.6	2,676	104.31	
As	75	74	He	3.566	ppb	1.7	1,528	99.06	
Se	78	74	H2	3.455	ppb	3.2	1,039	95.97	
Mo	95	103	He	3.462	ppb	1.1	6,166	96.17	
Ag	107	103	He	3.461	ppb	2.3	17,702	96.14	
Cd	111	103	He	3.528	ppb	1.4	2,970	98	
[Cd]	111	103	NoGas	3.491	ppb	3.5	6,823	96.97	
Sb	121	103	He	3.444	ppb	1.3	7,351	95.67	
Ba	138	159	He	3.565	ppb	1.1	16,752	99.03	
Hg	201	159	NoGas	138.241	ppt	8.5	136	96	
Tl	205	159	He	3.551	ppb	1.0	28,065	98.64	
Pb	208	159	NoGas	3.467	ppb	2.1	78,859	96.31	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.9	945,201	1063836.77	88.8	
Sc	45	H2	Analog	1.4	2,189,316	2581014.58	84.8	
Sc	45	He	Pulse	1.0	324,258	383174.2	84.6	
Sc	45	NoGas	Analog	0.3	2,826,810	3417487.03	82.7	
Ge	74	H2	Pulse	0.7	670,597	784726.176666667	85.5	
Ge	74	He	Pulse	0.7	193,976	227383.553333333	85.3	
Ge	74	NoGas	Pulse	0.5	727,211	865435.953333333	84.0	
Rh	103	He	Pulse	0.7	449,593	522579.263333333	86.0	
Rh	103	NoGas	Pulse	0.6	750,433	906285.446666667	82.8	
Tb	159	He	Pulse	0.9	614,170	677543.53	90.6	
Tb	159	NoGas	Analog	1.0	1,441,529	1642107.27	87.8	
Bi	209	He	Pulse	0.4	358,629	387176.576666667	92.6	
Bi	209	NoGas	Pulse	0.3	806,779	894456.463333333	90.2	

Quantitation Report - ICPMS5

Sample Name:	**9110482-BLK1**	Total Dilution:	**10.0000**
File Name:	083SMPL.d	Vial:	3307
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	Sample
Acq Time:	11/5/2019 18:04:16	I.S. Reference File:	003CALB.d
Comment:	**9110482 TCLP RCRA**	Last Calibration:	11/05/2019 12:18:52

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.002	ppb	87.8	14	100	
Na	23	45	He	34242.22	ppb	6.4	37,388,373	50000	
Mg	24	45	He	7.04	ppb	12.8	4,771	50000	
Al	27	45	He	5.851	ppb	10.9	1,966	50000	
K	39	45	He	12.759	ppb	36.4	30,417	50000	
Ca	44	45	H2	31.842	ppb	1.5	8,245	50000	
[Ca]	44	45	He	38.6	ppb	13.8	1,202	50000	
Ti	47	45	NoGas	0.078	ppb	23.0	152	2500	
V	51	74	He	0.417	ppb	13.6	2,594	500	
Cr	52	74	He	0.055	ppb	14.6	462	1000	
Mn	55	74	He	-0.015	ppb	N/A	312	2500	
Fe	56	74	H2	2.637	ppb	1.9	63,426	50000	
Co	59	74	He	-0.006	ppb	N/A	93	500	
Ni	60	74	He	0.549	ppb	9.7	919	1000	
Cu	65	74	He	0.159	ppb	25.2	428	1000	
Zn	66	74	He	0.874	ppb	27.5	627	2500	
As	75	74	He	0.046	ppb	15.9	47	500	
Se	78	74	H2	0.002	ppb	279.3	3	100	
Mo	95	103	He	0.007	ppb	123.1	17	100	
Ag	107	103	He	0.002	ppb	8.3	10	100	
Cd	111	103	He	-0.004	ppb	N/A	4	1000	
[Cd]	111	103	NoGas	0.006	ppb	83.6	13	1000	
Sb	121	103	He	0.014	ppb	5.2	44	100	
Ba	138	159	He	1.66	ppb	7.6	7,367	2500	
W	182	159	NoGas	0.001	ppb	133.6	22	40	
Hg	201	159	NoGas	-0.549	ppt	N/A	2	4000	
Tl	205	159	He	-0.001	ppb	N/A	12	100	
Pb	208	159	NoGas	0.024	ppb	20.3	1,218	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,024,866	0.5	1063836.77	Analog	96.3	
Sc	45	H2	2,385,371	0.6	2581014.58	Analog	92.4	
Sc	45	He	320,824	6.0	383174.2	Pulse	83.7	
Sc	45	NoGas	2,968,695	0.6	3417487.03	Analog	86.9	
Ge	74	H2	711,882	1.4	784726.176666667	Pulse	90.7	
Ge	74	He	187,263	7.2	227383.553333333	Pulse	82.4	
Ge	74	NoGas	745,038	1.0	865435.953333333	Pulse	86.1	
Rh	103	He	423,851	6.7	522579.263333333	Pulse	81.1	
Rh	103	NoGas	751,847	0.2	906285.446666667	Pulse	83.0	
Tb	159	He	575,792	6.9	677543.53	Pulse	85.0	
Tb	159	NoGas	1,440,921	0.6	1642107.27	Analog	87.7	
Bi	209	He	326,887	7.9	387176.576666667	Pulse	84.4	
Bi	209	NoGas	788,133	0.5	894456.463333333	Pulse	88.1	

Quantitation Report - ICPMS5

Sample Name:	**9110482-BS1**	Total Dilution:	**10.0000**
File Name:	084SMPL.d	Vial:	3308
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	Sample
Acq Time:	11/5/2019 18:08:55	I.S. Reference File:	003CALB.d
Comment:	**9110482 TCLP RCRA**	Last Calibration:	11/05/2019 12:18:52

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	51.426	ppb	3.2	120,459	100	
Na	23	45	He	30369.136	ppb	0.9	33,942,633	50000	
Mg	24	45	He	5.804	ppb	4.3	4,119	50000	
Al	27	45	He	8.658	ppb	5.2	2,928	50000	
K	39	45	He	7.943	ppb	9.2	28,637	50000	
Ca	44	45	H2	34.688	ppb	1.7	8,330	50000	
[Ca]	44	45	He	35.548	ppb	12.0	1,151	50000	
Ti	47	45	NoGas	0.202	ppb	95.0	280	2500	
V	51	74	He	50.318	ppb	0.4	189,126	500	
Cr	52	74	He	101.088	ppb	0.3	445,109	1000	
Mn	55	74	He	52.608	ppb	0.2	155,497	2500	
Fe	56	74	H2	0.351	ppb	14.4	33,413	50000	
Co	59	74	He	51.337	ppb	0.5	309,325	500	
Ni	60	74	He	53.548	ppb	0.6	79,451	1000	
Cu	65	74	He	53.762	ppb	0.7	98,828	1000	
Zn	66	74	He	107.851	ppb	1.1	75,214	2500	
As	75	74	He	103.946	ppb	0.5	43,226	500	
Se	78	74	H2	20.525	ppb	1.6	6,192	100	
Mo	95	103	He	0.003	ppb	88.6	12	100	
Ag	107	103	He	21.589	ppb	0.3	107,742	100	
Cd	111	103	He	20.621	ppb	1.3	16,908	1000	
[Cd]	111	103	NoGas	21.285	ppb	1.0	40,298	1000	
Sb	121	103	He	21.518	ppb	0.8	44,731	100	
Ba	138	159	He	212.715	ppb	1.0	966,310	2500	
W	182	159	NoGas	0.005	ppb	46.8	46	40	
Hg	201	159	NoGas	2155.797	ppt	3.4	1,954	4000	
Tl	205	159	He	53.109	ppb	0.9	409,336	100	
Pb	208	159	NoGas	108.606	ppb	1.7	2,284,734	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	973,557	2.8	1063836.77	Analog	91.5	
Sc	45	H2	2,224,018	0.5	2581014.58	Analog	86.2	
Sc	45	He	327,567	0.7	383174.2	Pulse	85.5	
Sc	45	NoGas	2,871,011	1.5	3417487.03	Analog	84.0	
Ge	74	H2	673,448	0.3	784726.176666667	Pulse	85.8	
Ge	74	He	191,777	0.7	227383.553333333	Pulse	84.3	
Ge	74	NoGas	723,902	1.3	865435.953333333	Pulse	83.6	
Rh	103	He	438,712	0.9	522579.263333333	Pulse	84.0	
Rh	103	NoGas	727,101	0.3	906285.446666667	Pulse	80.2	
Tb	159	He	599,342	0.2	677543.53	Pulse	88.5	
Tb	159	NoGas	1,344,657	1.9	1642107.27	Mix	81.9	
Bi	209	He	343,974	1.2	387176.576666667	Pulse	88.8	
Bi	209	NoGas	775,970	0.8	894456.463333333	Pulse	86.8	

Quantitation Report - ICPMS5

Sample Name:	**A9J0950-01**	Total Dilution:	**10.0000**
File Name:	085SMPL.d	Vial:	3309
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	Sample
Acq Time:	11/5/2019 18:13:35	I.S. Reference File:	003CALB.d
Comment:	**9110482 TCLP RCRA**	Last Calibration:	11/05/2019 12:18:52

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.018	ppb	60.5	50	100	
Na	23	45	He	29938.221	ppb	0.8	32,899,755	50000	
Mg	24	45	He	207.939	ppb	0.7	128,141	50000	
Al	27	45	He	13.41	ppb	4.8	4,396	50000	
K	39	45	He	100.692	ppb	2.7	75,769	50000	
Ca	44	45	H2	731.649	ppb	1.4	161,093	50000	
[Ca]	44	45	He	773.192	ppb	0.9	20,604	50000	
Ti	47	45	NoGas	0.204	ppb	18.6	273	2500	
V	51	74	He	0.302	ppb	2.2	2,214	500	
Cr	52	74	He	0.072	ppb	12.2	542	1000	
Mn	55	74	He	19.927	ppb	0.9	58,528	2500	
Fe	56	74	H2	131.655	ppb	1.7	1,526,824	50000	
Co	59	74	He	0.667	ppb	1.5	4,107	500	
Ni	60	74	He	0.728	ppb	4.3	1,197	1000	
Cu	65	74	He	0.296	ppb	12.9	686	1000	
Zn	66	74	He	1.885	ppb	2.7	1,329	2500	
As	75	74	He	0.111	ppb	17.4	74	500	
Se	78	74	H2	0.026	ppb	71.3	10	100	
Mo	95	103	He	0.001	ppb	154.2	9	100	
Ag	107	103	He	0.006	ppb	35.0	30	100	
Cd	111	103	He	0.008	ppb	72.3	13	1000	
[Cd]	111	103	NoGas	0.017	ppb	28.8	34	1000	
Sb	121	103	He	0.018	ppb	53.9	54	100	
Ba	138	159	He	8.837	ppb	1.2	40,262	2500	
W	182	159	NoGas	0.002	ppb	60.5	27	40	
Hg	201	159	NoGas	11.458	ppt	35.2	13	4000	
Tl	205	159	He	0.012	ppb	9.4	112	100	
Pb	208	159	NoGas	0.052	ppb	2.5	1,730	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	967,190	2.2	1063836.77	Analog	90.9	
Sc	45	H2	2,163,828	0.6	2581014.58	Analog	83.8	
Sc	45	He	322,064	1.2	383174.2	Pulse	84.1	
Sc	45	NoGas	2,801,934	0.5	3417487.03	Analog	82.0	
Ge	74	H2	658,834	0.2	784726.176666667	Pulse	84.0	
Ge	74	He	189,848	1.3	227383.553333333	Pulse	83.5	
Ge	74	NoGas	714,114	0.3	865435.953333333	Pulse	82.5	
Rh	103	He	432,492	0.6	522579.263333333	Pulse	82.8	
Rh	103	NoGas	719,048	0.3	906285.446666667	Pulse	79.3	
Tb	159	He	598,896	0.8	677543.53	Pulse	88.4	
Tb	159	NoGas	1,349,581	1.7	1642107.27	Mix	82.2	
Bi	209	He	344,741	1.1	387176.576666667	Pulse	89.0	
Bi	209	NoGas	774,866	0.6	894456.463333333	Pulse	86.6	

Quantitation Report - ICPMS5

Sample Name:	**A9J0950-02**	Total Dilution:	**10.0000**
File Name:	086SMPL.d	Vial:	3310
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	Sample
Acq Time:	11/5/2019 18:18:14	I.S. Reference File:	003CALB.d
Comment:	**9110482 TCLP RCRA**	Last Calibration:	11/05/2019 12:18:52

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.021	ppb	7.0	56	100	
Na	23	45	He	30587.728	ppb	0.7	33,450,173	50000	
Mg	24	45	He	175.345	ppb	0.6	107,612	50000	
Al	27	45	He	11.836	ppb	6.1	3,875	50000	
K	39	45	He	88.691	ppb	2.3	69,274	50000	
Ca	44	45	H2	707.39	ppb	0.7	154,750	50000	
[Ca]	44	45	He	756.461	ppb	0.9	20,066	50000	
Ti	47	45	NoGas	0.102	ppb	21.8	170	2500	
V	51	74	He	0.356	ppb	6.6	2,412	500	
Cr	52	74	He	0.097	ppb	4.5	648	1000	
Mn	55	74	He	45.31	ppb	0.5	132,430	2500	
Fe	56	74	H2	14.31	ppb	0.6	190,401	50000	
Co	59	74	He	0.818	ppb	1.9	4,997	500	
Ni	60	74	He	0.844	ppb	8.3	1,365	1000	
Cu	65	74	He	0.358	ppb	5.6	796	1000	
Zn	66	74	He	7.669	ppb	2.8	5,312	2500	
As	75	74	He	0.142	ppb	7.0	87	500	
Se	78	74	H2	0.013	ppb	77.1	6	100	
Mo	95	103	He	0.02	ppb	163.8	41	100	
Ag	107	103	He	0.002	ppb	108.8	10	100	
Cd	111	103	He	0.016	ppb	39.7	20	1000	
[Cd]	111	103	NoGas	0.029	ppb	50.3	56	1000	
Sb	121	103	He	0.01	ppb	33.3	38	100	
Ba	138	159	He	9.683	ppb	1.1	44,258	2500	
W	182	159	NoGas	0.005	ppb	38.5	46	40	
Hg	201	159	NoGas	2.546	ppt	66.7	4	4000	
Tl	205	159	He	0.003	ppb	47.8	46	100	
Pb	208	159	NoGas	0.082	ppb	4.6	2,361	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	959,904	1.3	1063836.77	Analog	90.2	
Sc	45	H2	2,149,606	0.8	2581014.58	Analog	83.3	
Sc	45	He	320,502	0.5	383174.2	Pulse	83.6	
Sc	45	NoGas	2,826,400	0.8	3417487.03	Analog	82.7	
Ge	74	H2	654,960	0.8	784726.176666667	Pulse	83.5	
Ge	74	He	189,566	0.8	227383.553333333	Pulse	83.4	
Ge	74	NoGas	711,292	1.2	865435.953333333	Pulse	82.2	
Rh	103	He	430,383	1.0	522579.263333333	Pulse	82.4	
Rh	103	NoGas	716,937	0.7	906285.446666667	Pulse	79.1	
Tb	159	He	601,002	0.8	677543.53	Pulse	88.7	
Tb	159	NoGas	1,343,645	3.0	1642107.27	Mix	81.8	
Bi	209	He	341,770	0.5	387176.576666667	Pulse	88.3	
Bi	209	NoGas	773,596	0.3	894456.463333333	Pulse	86.5	

Quantitation Report - ICPMS5

Sample Name:	**A9J0950-03**	Total Dilution:	**10.0000**
File Name:	087SMPL.d	Vial:	3311
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	Sample
Acq Time:	11/5/2019 18:23:04	I.S. Reference File:	003CALB.d
Comment:	**9110482 TCLP RCRA**	Last Calibration:	11/05/2019 12:18:52

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.024	ppb	52.1	63	100	
Na	23	45	He	29953.565	ppb	8.3	31,024,711	50000	
Mg	24	45	He	189.376	ppb	7.7	110,069	50000	
Al	27	45	He	7.162	ppb	7.5	2,266	50000	
K	39	45	He	77.132	ppb	12.3	60,034	50000	
Ca	44	45	H2	551.684	ppb	0.9	120,556	50000	
[Ca]	44	45	He	609.303	ppb	7.5	15,349	50000	
Ti	47	45	NoGas	0.106	ppb	27.0	173	2500	
V	51	74	He	0.402	ppb	13.1	2,432	500	
Cr	52	74	He	0.122	ppb	16.5	713	1000	
Mn	55	74	He	53.245	ppb	7.5	146,646	2500	
Fe	56	74	H2	21.845	ppb	0.9	275,715	50000	
Co	59	74	He	1.266	ppb	7.5	7,228	500	
Ni	60	74	He	1.132	ppb	2.8	1,691	1000.	
Cu	65	74	He	0.259	ppb	13.8	582	1000	
Zn	66	74	He	3.203	ppb	9.8	2,106	2500	
As	75	74	He	0.08	ppb	26.4	58	500	
Se	78	74	H2	0.013	ppb	41.0	6	100	
Mo	95	103	He	0.001	ppb	479.9	8	100	
Ag	107	103	He	0.003	ppb	112.7	14	100	
Cd	111	103	He	0.012	ppb	34.7	15	1000	
[Cd]	111	103	NoGas	0.029	ppb	25.6	55	1000	
Sb	121	103	He	0.005	ppb	76.7	24	100	
Ba	138	159	He	7.489	ppb	7.8	32,210	2500	
W	182	159	NoGas	0.002	ppb	44.3	26	40	
Hg	201	159	NoGas	3.765	ppt	56.6	5	4000	
Tl	205	159	He	0.003	ppb	64.1	38	100	
Pb	208	159	NoGas	0.051	ppb	6.1	1,670	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.I	ISTD %	QC Flag
Li	6	NoGas	963,471	1.0	1063836.77	Analog	90.6	
Sc	45	H2	2,145,283	0.9	2581014.58	Analog	83.1	
Sc	45	He	304,806	7.6	383174.2	Pulse	79.5	
Sc	45	NoGas	2,811,837	0.9	3417487.03	Analog	82.3	
Ge	74	H2	655,152	0.6	784726.176666667	Pulse	83.5	
Ge	74	He	179,417	8.0	227383.553333333	Pulse	78.9	
Ge	74	NoGas	710,378	1.1	865435.953333333	Pulse	82.1	
Rh	103	He	407,785	7.5	522579.263333333	Pulse	78.0	
Rh	103	NoGas	715,677	0.5	906285.446666667	Pulse	79.0	
Tb	159	He	567,286	8.0	677543.53	Pulse	83.7	
Tb	159	NoGas	1,313,104	0.2	1642107.27	Pulse	80.0	
Bi	209	He	324,966	7.9	387176.576666667	Pulse	83.9	
Bi	209	NoGas	777,523	0.6	894456.463333333	Pulse	86.9	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K05034-CCV5**	Total Dilution:	1.0000
File Name:	088_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 18:27:47
Comment:	A19J138 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.554	ppb	1.4	91,237	40	101.39	
Na	23	45	He	4172.119	ppb	0.9	4,506,807	4000	104.3	
Mg	24	45	He	4366.714	ppb	0.6	2,632,621	4000	109.17	
Al	27	45	He	4223.551	ppb	2.0	1,325,510	4000	105.59	
K	39	45	He	4258.171	ppb	0.8	2,170,065	4000	106.45	
Ca	44	45	H2	3935.355	ppb	1.1	861,224	4000	98.38	
[Ca]	44	45	He	4037.899	ppb	0.4	104,855	4000	100.95	
Ti	47	45	NoGas	95.177	ppb	1.4	96,606	100	95.18	
V	51	74	He	94.823	ppb	0.4	348,756	100	94.82	
Cr	52	74	He	96.475	ppb	1.0	416,846	100	96.48	
Mn	55	74	He	102.345	ppb	0.5	296,497	100	102.34	
Fe	56	74	H2	4212.296	ppb	0.6	47,757,657	4000	105.31	
Co	59	74	He	100.626	ppb	0.9	594,812	100	100.63	
Ni	60	74	He	103.045	ppb	1.3	149,905	100	103.05	
Cu	65	74	He	102.373	ppb	0.8	184,533	100	102.37	
Zn	66	74	He	100.579	ppb	0.9	68,827	100	100.58	
As	75	74	He	97.842	ppb	1.6	39,926	100	97.84	
Se	78	74	H2	40.769	ppb	0.5	11,979	40	101.92	
Mo	95	103	He	39.573	ppb	0.6	67,782	40	98.93	
Ag	107	103	He	40.947	ppb	0.4	201,625	40	102.37	
Cd	111	103	He	97.560	ppb	0.0	78,902	100	97.56	
[Cd]	111	103	NoGas	98.020	ppb	0.7	181,362	100	98.02	
Sb	121	103	He	41.567	ppb	0.2	85,241	40	103.92	
Ba	138	159	He	100.277	ppb	0.7	458,197	100	100.28	
Hg	201	159	NoGas	837.002	ppt	3.6	796	800	104.63	
Tl	205	159	He	41.367	ppb	0.8	320,654	40	103.42	
Pb	208	159	NoGas	97.951	ppb	0.4	2,159,818	100	97.95	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.7	934,588	1063836.77	87.9	
Sc	45	H2	Analog	0.8	2,156,045	2581014.58	83.5	
Sc	45	He	Pulse	0.8	316,220	383174.2	82.5	
Sc	45	NoGas	Analog	0.5	2,757,847	3417487.03	80.7	
Ge	74	H2	Pulse	0.4	656,065	784726.176666667	83.6	
Ge	74	He	Pulse	0.4	188,185	227383.553333333	82.8	
Ge	74	NoGas	Pulse	0.8	703,555	865435.953333333	81.3	
Rh	103	He	Pulse	0.8	432,861	522579.263333333	82.8	
Rh	103	NoGas	Pulse	0.8	710,617	906285.446666667	78.4	
Tb	159	He	Pulse	1.1	602,769	677543.53	89.0	
Tb	159	NoGas	Analog	0.3	1,409,061	1642107.27	85.8	
Bi	209	He	Pulse	0.2	346,538	387176.576666667	89.5	
Bi	209	NoGas	Pulse	0.4	773,429	894456.463333333	86.5	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K05034-CCB5**	Total Dilution:	1.0000
File Name:	089_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 18:32:25
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.016	ppb	6.2	44	
Na	23	45	He	13.628	ppb	0.6	21,029	
Mg	24	45	He	0.581	ppb	15.9	834	
Al	27	45	He	0.541	ppb	19.6	281	
K	39	45	He	2.342	ppb	16.7	25,021	
Ca	44	45	H2	1.000	ppb	45.9	703	
[Ca]	44	45	He	-1.454	ppb	N/A	153	
Ti	47	45	NoGas	-0.024	ppb	N/A	38	
V	51	74	He	0.208	ppb	1.8	1,858	
Cr	52	74	He	0.022	ppb	30.3	323	
Mn	55	74	He	-0.035	ppb	N/A	258	
Fe	56	74	H2	0.161	ppb	40.8	30,455	
Co	59	74	He	-0.003	ppb	N/A	111	
Ni	60	74	He	-0.058	ppb	N/A	43	
Cu	65	74	He	0.033	ppb	60.4	206	
Zn	66	74	He	0.058	ppb	24.0	68	
As	75	74	He	0.038	ppb	15.2	44	
Se	78	74	H2	0.033	ppb	48.2	12	
Mo	95	103	He	0.037	ppb	36.6	71	
Ag	107	103	He	0.011	ppb	23.3	58	
Cd	111	103	He	0.013	ppb	48.4	17	
[Cd]	111	103	NoGas	0.017	ppb	84.6	33	
Sb	121	103	He	0.197	ppb	16.2	429	
Ba	138	159	He	0.004	ppb	88.7	177	
Hg	201	159	NoGas	3.623	ppt	46.7	6	
Tl	205	159	He	0.003	ppb	81.8	42	
Pb	208	159	NoGas	0.036	ppb	8.6	1,439	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.7	943,562	1063836.77	88.7	
Sc	45	H2	Analog	1.1	2,144,648	2581014.58	83.1	
Sc	45	He	Pulse	0.8	318,774	383174.2	83.2	
Sc	45	NoGas	Analog	0.6	2,793,788	3417487.03	81.7	
Ge	74	H2	Pulse	0.5	657,375	784726.176666667	83.8	
Ge	74	He	Pulse	0.6	189,023	227383.553333333	83.1	
Ge	74	NoGas	Pulse	0.6	710,668	865435.953333333	82.1	
Rh	103	He	Pulse	1.0	441,968	522579.263333333	84.6	
Rh	103	NoGas	Pulse	0.3	734,734	906285.446666667	81.1	
Tb	159	He	Pulse	0.7	603,484	677543.53	89.1	
Tb	159	NoGas	Analog	1.5	1,391,207	1642107.27	84.7	
Bi	209	He	Pulse	0.8	350,305	387176.576666667	90.5	
Bi	209	NoGas	Pulse	0.4	790,695	894456.463333333	88.4	

Quantitation Report - ICPMS5

Sample Name:	**A9J0950-04**	Total Dilution:	**10.0000**
File Name:	090SMPL.d	Vial:	3312
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	Sample
Acq Time:	11/5/2019 18:37:09	I.S. Reference File:	003CALB.d
Comment:	**9110482 TCLP RCRA**	Last Calibration:	11/05/2019 12:18:52

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.015	ppb	11.6	41	100	
Na	23	45	He	27471.643	ppb	0.4	30,058,593	50000	
Mg	24	45	He	202.062	ppb	0.3	123,997	50000	
Al	27	45	He	5.679	ppb	2.3	1,918	50000	
K	39	45	He	78.085	ppb	0.5	63,888	50000	
Ca	44	45	H2	721.192	ppb	1.1	158,261	50000	
[Ca]	44	45	He	741.862	ppb	1.0	19,692	50000	
Ti	47	45	NoGas	0.095	ppb	68.4	162	2500	
V	51	74	He	0.239	ppb	5.4	1,970	500	
Cr	52	74	He	0.099	ppb	6.2	658	1000	
Mn	55	74	He	23.908	ppb	1.7	69,805	2500	
Fe	56	74	H2	7.434	ppb	1.1	113,008	50000	
Co	59	74	He	1.066	ppb	2.0	6,454	500	
Ni	60	74	He	0.814	ppb	4.5	1,316	1000	
Cu	65	74	He	0.276	ppb	6.1	646	1000	
Zn	66	74	He	5.676	ppb	5.1	3,925	2500	
As	75	74	He	0.146	ppb	16.0	88	500	
Se	78	74	H2	0.009	ppb	56.0	5	100	
Mo	95	103	He	0.009	ppb	79.8	21	100	
Ag	107	103	He	0.003	ppb	37.3	16	100	
Cd	111	103	He	0.028	ppb	25.9	29	1000	
[Cd]	111	103	NoGas	0.037	ppb	52.0	70	1000	
Sb	121	103	He	0.03	ppb	52.1	78	100	
Ba	138	159	He	8.681	ppb	1.6	39,691	2500	
W	182	159	NoGas	0	ppb	502.8	12	40	
Hg	201	159	NoGas	3.24	ppt	91.1	5	4000	
Tl	205	159	He	0.002	ppb	53.8	37	100	
Pb	208	159	NoGas	0.081	ppb	8.4	2,375	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	950,167	1.5	1063836.77	Analog	89.3	
Sc	45	H2	2,156,515	0.7	2581014.58	Analog	83.6	
Sc	45	He	320,664	0.4	383174.2	Pulse	83.7	
Sc	45	NoGas	2,810,363	1.5	3417487.03	Analog	82.2	
Ge	74	H2	657,232	0.4	784726.176666667	Pulse	83.8	
Ge	74	He	188,903	0.2	227383.553333333	Pulse	83.1	
Ge	74	NoGas	713,437	0.5	865435.953333333	Pulse	82.4	
Rh	103	He	431,265	0.2	522579.263333333	Pulse	82.5	
Rh	103	NoGas	715,411	0.4	906285.446666667	Pulse	78.9	
Tb	159	He	601,012	0.8	677543.53	Pulse	88.7	
Tb	159	NoGas	1,358,580	2.9	1642107.27	Mix	82.7	
Bi	209	He	346,579	0.3	387176.576666667	Pulse	89.5	
Bi	209	NoGas	774,936	0.0	894456.463333333	Pulse	86.6	

Quantitation Report - ICPMS5

Sample Name:	**9110482-MS1**	Total Dilution:	**10.0000**
File Name:	091SMPL.d	Vial:	3313
File Path:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Sample Type:	Sample
Acq Time:	11/5/2019 18:41:49	I.S. Reference File:	003CALB.d
Comment:	**9110482 TCLP RCRA**	Last Calibration:	11/05/2019 12:18:52

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	53.586	ppb	0.3	122,699	100	
Na	23	45	He	29590.725	ppb	0.7	32,078,525	50000	
Mg	24	45	He	216.665	ppb	0.2	131,696	50000	
Al	27	45	He	5.813	ppb	4.3	1,942	50000	
K	39	45	He	80.806	ppb	0.7	64,677	50000	
Ca	44	45	H2	746.844	ppb	1.4	164,083	50000	
[Ca]	44	45	He	794.939	ppb	1.7	20,893	50000	
Ti	47	45	NoGas	0.112	ppb	42.0	177	2500	
V	51	74	He	50.982	ppb	0.6	187,055	500	
Cr	52	74	He	102.749	ppb	0.7	441,681	1000	
Mn	55	74	He	79.36	ppb	0.6	228,816	2500	
Fe	56	74	H2	6.76	ppb	1.0	104,774	50000	
Co	59	74	He	53.181	ppb	0.8	312,820	500	
Ni	60	74	He	53.929	ppb	0.2	78,116	1000	
Cu	65	74	He	105.757	ppb	2.5	189,659	1000	
Zn	66	74	He	116.686	ppb	1.1	79,438	2500	
As	75	74	He	106.27	ppb	0.7	43,142	500	
Se	78	74	H2	20.474	ppb	3.4	5,994	100	
Mo	95	103	He	0.011	ppb	39.0	24	100	
Ag	107	103	He	22.226	ppb	0.6	108,435	100	
Cd	111	103	He	21.378	ppb	1.1	17,135	1000	
[Cd]	111	103	NoGas	21.553	ppb	0.7	39,893	1000	
Sb	121	103	He	22.48	ppb	0.8	45,683	100	
Ba	138	159	He	223.055	ppb	1.0	1,009,562	2500	
W	182	159	NoGas	0.003	ppb	89.4	31	40	
Hg	201	159	NoGas	2239.642	ppt	6.9	2,033	4000	
Tl	205	159	He	54.094	ppb	0.6	415,388	100	
Pb	208	159	NoGas	110.395	ppb	4.6	2,327,183	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	951,144	0.3	1063836.77	Analog	89.4	
Sc	45	H2	2,159,367	1.2	2581014.58	Analog	83.7	
Sc	45	He	317,702	0.4	383174.2	Pulse	82.9	
Sc	45	NoGas	2,785,260	1.0	3417487.03	Analog	81.5	
Ge	74	H2	653,570	0.0	784726.176666667	Pulse	83.3	
Ge	74	He	187,222	0.1	227383.553333333	Pulse	82.3	
Ge	74	NoGas	706,843	1.1	865435.953333333	Pulse	81.7	
Rh	103	He	428,867	0.7	522579.263333333	Pulse	82.1	
Rh	103	NoGas	710,826	0.9	906285.446666667	Pulse	78.4	
Tb	159	He	597,149	0.7	677543.53	Pulse	88.1	
Tb	159	NoGas	1,349,251	5.1	1642107.27	Mix	82.2	
Bi	209	He	341,899	1.3	387176.576666667	Pulse	88.3	
Bi	209	NoGas	768,984	0.6	894456.463333333	Pulse	86.0	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K05034-CCV6**	Total Dilution:	1.0000
File Name:	100_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 19:24:05
Comment:	A19J138 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.638	ppb	1.1	89,706	40	101.59	
Na	23	45	He	4058.268	ppb	0.1	4,395,634	4000	101.46	
Mg	24	45	He	4352.729	ppb	1.5	2,631,259	4000	108.82	
Al	27	45	He	4131.053	ppb	1.1	1,300,004	4000	103.28	
K	39	45	He	4274.150	ppb	1.2	2,183,935	4000	106.85	
Ca	44	45	H2	3946.901	ppb	0.2	863,620	4000	98.67	
[Ca]	44	45	He	4019.704	ppb	0.8	104,656	4000	100.49	
Ti	47	45	NoGas	94.331	ppb	0.8	96,589	100	94.33	
V	51	74	He	94.694	ppb	0.2	351,122	100	94.69	
Cr	52	74	He	96.037	ppb	0.3	418,339	100	96.04	
Mn	55	74	He	101.956	ppb	0.6	297,779	100	101.96	
Fe	56	74	H2	4202.065	ppb	1.0	48,220,925	4000	105.05	
Co	59	74	He	100.585	ppb	0.1	599,417	100	100.58	
Ni	60	74	He	103.296	ppb	0.9	151,493	100	103.3	
Cu	65	74	He	102.702	ppb	0.1	186,635	100	102.7	
Zn	66	74	He	100.528	ppb	0.4	69,354	100	100.53	
As	75	74	He	97.949	ppb	0.3	40,296	100	97.95	
Se	78	74	H2	40.390	ppb	1.1	12,012	40	100.98	
Mo	95	103	He	39.719	ppb	1.3	68,833	40	99.3	
Ag	107	103	He	40.754	ppb	0.6	203,031	40	101.88	
Cd	111	103	He	97.339	ppb	0.4	79,649	100	97.34	
[Cd]	111	103	NoGas	96.111	ppb	0.9	182,437	100	96.11	
Sb	121	103	He	41.733	ppb	0.8	86,592	40	104.33	
Ba	138	159	He	101.063	ppb	0.4	468,901	100	101.06	
Hg	201	159	NoGas	834.353	ppt	2.1	804	800	104.29	
Tl	205	159	He	41.086	ppb	0.9	323,371	40	102.72	
Pb	208	159	NoGas	98.104	ppb	1.4	2,190,904	100	98.1	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.6	916,962	1063836.77	86.2	
Sc	45	H2	Analog	0.3	2,155,610	2581014.58	83.5	
Sc	45	He	Pulse	0.6	317,045	383174.2	82.7	
Sc	45	NoGas	Analog	1.1	2,782,127	3417487.03	81.4	
Ge	74	H2	Pulse	0.4	664,047	784726.176666667	84.6	
Ge	74	He	Pulse	0.6	189,716	227383.553333333	83.4	
Ge	74	NoGas	Pulse	0.7	715,351	865435.953333333	82.7	
Rh	103	He	Pulse	0.7	437,958	522579.263333333	83.8	
Rh	103	NoGas	Pulse	0.6	729,020	906285.446666667	80.4	
Tb	159	He	Pulse	0.6	612,033	677543.53	90.3	
Tb	159	NoGas	Analog	1.0	1,427,231	1642107.27	86.9	
Bi	209	He	Pulse	1.0	352,344	387176.576666667	91.0	
Bi	209	NoGas	Pulse	0.3	786,904	894456.463333333	88.0	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K05034-CCB6**	Total Dilution:	1.0000
File Name:	101_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 19:28:43
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.009	ppb	47.1	28	
Na	23	45	He	1.645	ppb	7.4	8,086	
Mg	24	45	He	0.367	ppb	17.9	712	
Al	27	45	He	0.692	ppb	22.0	332	
K	39	45	He	2.482	ppb	36.0	25,366	
Ca	44	45	H2	0.562	ppb	44.8	624	
[Ca]	44	45	He	-0.716	ppb	N/A	174	
Ti	47	45	NoGas	-0.021	ppb	N/A	42	
V	51	74	He	0.023	ppb	36.9	1,206	
Cr	52	74	He	0.005	ppb	130.4	253	
Mn	55	74	He	-0.058	ppb	N/A	194	
Fe	56	74	H2	2.022	ppb	3.8	52,444	
Co	59	74	He	-0.001	ppb	N/A	126	
Ni	60	74	He	-0.043	ppb	N/A	67	
Cu	65	74	He	0.043	ppb	10.1	230	
Zn	66	74	He	0.042	ppb	46.7	58	
As	75	74	He	0.003	ppb	270.3	30	
Se	78	74	H2	0.032	ppb	58.8	12	
Mo	95	103	He	0.023	ppb	42.4	49	
Ag	107	103	He	0.008	ppb	39.8	44	
Cd	111	103	He	0.018	ppb	20.7	23	
[Cd]	111	103	NoGas	0.017	ppb	36.5	34	
Sb	121	103	He	0.183	ppb	20.0	412	
Ba	138	159	He	0.001	ppb	292.1	166	
Hg	201	159	NoGas	4.100	ppt	28.1	6	
Tl	205	159	He	0.009	ppb	11.1	94	
Pb	208	159	NoGas	0.038	ppb	2.7	1,542	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.4	946,315	1063836.77	89.0	
Sc	45	H2	Analog	2.2	2,205,114	2581014.58	85.4	
Sc	45	He	Pulse	1.2	322,278	383174.2	84.1	
Sc	45	NoGas	Analog	0.2	2,839,059	3417487.03	83.1	
Ge	74	H2	Pulse	0.3	668,231	784726.176666667	85.2	
Ge	74	He	Pulse	1.1	193,825	227383.553333333	85.2	
Ge	74	NoGas	Pulse	0.7	733,146	865435.953333333	84.7	
Rh	103	He	Pulse	1.0	454,716	522579.263333333	87.0	
Rh	103	NoGas	Pulse	0.6	755,888	906285.446666667	83.4	
Tb	159	He	Pulse	0.9	616,086	677543.53	90.9	
Tb	159	NoGas	Analog	1.7	1,441,201	1642107.27	87.8	
Bi	209	He	Pulse	1.3	356,246	387176.576666667	92.0	
Bi	209	NoGas	Pulse	0.2	801,940	894456.463333333	89.7	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K05034-CCV7**	Total Dilution:	1.0000
File Name:	112_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 20:19:43
Comment:	A19J138 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	41.749	ppb	1.3	86,148	40	104.37	
Na	23	45	He	4277.320	ppb	10.7	4,195,350	4000	106.93	
Mg	24	45	He	4569.575	ppb	10.4	2,501,931	4000	114.24	> +/- 10%
Al	27	45	He	4387.636	ppb	10.9	1,250,301	4000	109.69	
K	39	45	He	4495.826	ppb	8.9	2,081,979	4000	112.4	> +/- 10%
Ca	44	45	H2	3905.123	ppb	2.1	821,030	4000	97.63	
[Ca]	44	45	He	4258.181	ppb	11.3	100,360	4000	106.45	
Ti	47	45	NoGas	94.847	ppb	1.0	94,285	100	94.85	
V	51	74	He	100.299	ppb	9.7	336,571	100	100.3	
Cr	52	74	He	102.164	ppb	10.0	402,721	100	102.16	
Mn	55	74	He	107.811	ppb	10.3	284,891	100	107.81	
Fe	56	74	H2	4237.147	ppb	0.5	46,371,158	4000	105.93	
Co	59	74	He	106.093	ppb	9.9	572,187	100	106.09	
Ni	60	74	He	109.765	ppb	9.6	145,719	100	109.76	
Cu	65	74	He	109.122	ppb	10.2	179,426	100	109.12	
Zn	66	74	He	107.474	ppb	9.9	67,103	100	107.47	
As	75	74	He	104.089	ppb	10.5	38,742	100	104.09	
Se	78	74	H2	40.202	ppb	0.9	11,403	40	100.5	
Mo	95	103	He	42.314	ppb	7.9	66,332	40	105.78	
Ag	107	103	He	43.371	ppb	8.8	195,355	40	108.43	
Cd	111	103	He	103.610	ppb	9.2	76,631	100	103.61	
[Cd]	111	103	NoGas	96.602	ppb	0.4	177,359	100	96.6	
Sb	121	103	He	43.910	ppb	8.0	82,410	40	109.78	
Ba	138	159	He	106.833	ppb	9.2	451,639	100	106.83	
Hg	201	159	NoGas	870.283	ppt	7.5	795	800	108.79	
Tl	205	159	He	43.317	ppb	9.8	310,533	40	108.29	
Pb	208	159	NoGas	100.054	ppb	4.6	2,118,944	100	100.05	

Mg, K
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ESS 11/6/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.2	857,225	1063836.77	80.6	
Sc	45	H2	Analog	1.5	2,071,627	2581014.58	80.3	
Sc	45	He	Pulse	9.8	289,155	383174.2	75.5	
Sc	45	NoGas	Analog	0.4	2,700,807	3417487.03	79.0	
Ge	74	H2	Pulse	0.3	633,280	784726.176666667	80.7	
Ge	74	He	Pulse	9.5	172,783	227383.553333333	76.0	
Ge	74	NoGas	Pulse	1.0	691,156	865435.953333333	79.9	
Rh	103	He	Pulse	8.8	398,014	522579.263333333	76.2	
Rh	103	NoGas	Pulse	0.3	705,116	906285.446666667	77.8	
Tb	159	He	Pulse	9.1	560,805	677543.53	82.8	
Tb	159	NoGas	Mix	4.5	1,355,222	1642107.27	82.5	
Bi	209	He	Pulse	9.3	321,817	387176.576666667	83.1	
Bi	209	NoGas	Pulse	0.6	757,500	894456.463333333	84.7	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K05034-CCV8**	Total Dilution:	1.0000
File Name:	113_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 20:24:21
Comment:	A19J138 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	41.407	ppb	0.6	86,360	40	103.52	
Na	23	45	He	4066.261	ppb	1.3	4,236,347	4000	101.66	
Mg	24	45	He	4309.367	ppb	0.9	2,505,589	4000	107.73	
Al	27	45	He	4218.661	ppb	1.6	1,276,939	4000	105.47	
K	39	45	He	4338.730	ppb	1.6	2,131,996	4000	108.47	
Ca	44	45	H2	3934.382	ppb	0.7	825,565	4000	98.36	
[Ca]	44	45	He	4010.550	ppb	0.6	100,439	4000	100.26	
Ti	47	45	NoGas	96.898	ppb	1.4	95,280	100	96.9	
V	51	74	He	94.804	ppb	0.4	337,024	100	94.8	
Cr	52	74	He	95.901	ppb	0.3	400,514	100	95.9	
Mn	55	74	He	102.564	ppb	0.6	287,193	100	102.56	
Fe	56	74	H2	4228.213	ppb	0.6	46,345,230	4000	105.71	
Co	59	74	He	100.705	ppb	0.8	575,364	100	100.7	
Ni	60	74	He	103.180	ppb	0.5	145,083	100	103.18	
Cu	65	74	He	102.995	ppb	0.8	179,446	100	103	
Zn	66	74	He	100.259	ppb	0.4	66,316	100	100.26	
As	75	74	He	98.422	ppb	1.1	38,819	100	98.42	
Se	78	74	H2	40.365	ppb	1.1	11,466	40	100.91	
Mo	95	103	He	39.751	ppb	0.6	65,841	40	99.38	
Ag	107	103	He	40.802	ppb	1.0	194,275	40	102	
Cd	111	103	He	97.852	ppb	0.5	76,526	100	97.85	
[Cd]	111	103	NoGas	96.286	ppb	0.1	177,523	100	96.29	
Sb	121	103	He	42.066	ppb	1.3	83,414	40	105.16	
Ba	138	159	He	101.938	ppb	0.4	452,171	100	101.94	
Hg	201	159	NoGas	855.283	ppt	5.3	745	800	106.91	
Tl	205	159	He	41.196	ppb	0.8	309,973	40	102.99	
Pb	208	159	NoGas	104.278	ppb	0.5	2,105,429	100	104.28	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.5	866,348	1063836.77	81.4	
Sc	45	H2	Analog	1.0	2,067,259	2581014.58	80.1	
Sc	45	He	Pulse	0.1	304,958	383174.2	79.6	
Sc	45	NoGas	Analog	1.3	2,671,890	3417487.03	78.2	
Ge	74	H2	Pulse	0.3	634,262	784726.176666667	80.8	
Ge	74	He	Pulse	0.6	181,892	227383.553333333	80.0	
Ge	74	NoGas	Pulse	0.7	695,312	865435.953333333	80.3	
Rh	103	He	Pulse	0.9	418,589	522579.263333333	80.1	
Rh	103	NoGas	Pulse	0.2	708,077	906285.446666667	78.1	
Tb	159	He	Pulse	0.7	585,120	677543.53	86.4	
Tb	159	NoGas	Pulse	0.4	1,290,278	1642107.27	78.6	
Bi	209	He	Pulse	0.3	337,586	387176.576666667	87.2	
Bi	209	NoGas	Pulse	0.2	762,160	894456.463333333	85.2	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K05034-CCB7**	Total Dilution:	1.0000
File Name:	114_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 20:29:01
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.010	ppb	50.1	29	
Na	23	45	He	0.203	ppb	48.8	6,242	
Mg	24	45	He	1.030	ppb	9.2	1,076	
Al	27	45	He	2.242	ppb	6.3	796	
K	39	45	He	2.151	ppb	9.4	24,201	
Ca	44	45	H2	2.448	ppb	5.1	983	
[Ca]	44	45	He	1.085	ppb	55.2	213	
Ti	47	45	NoGas	0.199	ppb	5.7	263	
V	51	74	He	-0.052	ppb	N/A	884	
Cr	52	74	He	0.033	ppb	7.6	366	
Mn	55	74	He	0.335	ppb	2.8	1,309	
Fe	56	74	H2	12.312	ppb	1.2	164,244	
Co	59	74	He	0.008	ppb	37.9	174	
Ni	60	74	He	-0.033	ppb	N/A	79	
Cu	65	74	He	0.150	ppb	34.9	411	
Zn	66	74	He	0.199	ppb	35.4	161	
As	75	74	He	-0.009	ppb	N/A	24	
Se	78	74	H2	0.034	ppb	25.5	12	
Mo	95	103	He	0.028	ppb	21.7	54	
Ag	107	103	He	0.010	ppb	35.3	51	
Cd	111	103	He	0.023	ppb	10.1	25	
[Cd]	111	103	NoGas	0.020	ppb	45.1	39	
Sb	121	103	He	0.210	ppb	7.7	448	
Ba	138	159	He	0.039	ppb	14.9	328	
Hg	201	159	NoGas	5.973	ppt	16.5	8	
Tl	205	159	He	0.013	ppb	10.0	119	
Pb	208	159	NoGas	0.079	ppb	5.8	2,308	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.1	903,205	1063836.77	84.9	
Sc	45	H2	Analog	3.3	2,071,373	2581014.58	80.3	
Sc	45	He	Pulse	0.4	309,516	383174.2	80.8	
Sc	45	NoGas	Analog	1.2	2,751,355	3417487.03	80.5	
Ge	74	H2	Pulse	0.2	641,059	784726.176666667	81.7	
Ge	74	He	Pulse	1.3	185,610	227383.553333333	81.6	
Ge	74	NoGas	Pulse	0.7	710,471	865435.953333333	82.1	
Rh	103	He	Pulse	0.6	432,751	522579.263333333	82.8	
Rh	103	NoGas	Pulse	0.5	740,810	906285.446666667	81.7	
Tb	159	He	Pulse	0.7	591,666	677543.53	87.3	
Tb	159	NoGas	Mix	3.4	1,353,031	1642107.27	82.4	
Bi	209	He	Pulse	0.7	342,804	387176.576666667	88.5	
Bi	209	NoGas	Pulse	0.2	774,768	894456.463333333	86.6	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K05034-CCV9**	Total Dilution:	1.0000
File Name:	120_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 20:56:59
Comment:	A19J138 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	41.642	ppb	2.4	86,862	40	104.1	
Na	23	45	He	4026.125	ppb	0.6	4,179,929	4000	100.65	
Mg	24	45	He	4306.420	ppb	0.7	2,495,124	4000	107.66	
Al	27	45	He	4214.583	ppb	1.2	1,271,217	4000	105.36	
K	39	45	He	4307.327	ppb	0.8	2,109,356	4000	107.68	
Ca	44	45	H2	3915.671	ppb	0.8	822,445	4000	97.89	
[Ca]	44	45	He	4075.122	ppb	1.2	101,695	4000	101.88	
Ti	47	45	NoGas	95.311	ppb	2.1	94,980	100	95.31	
V	51	74	He	94.610	ppb	1.2	337,059	100	94.61	
Cr	52	74	He	95.967	ppb	1.3	401,651	100	95.97	
Mn	55	74	He	101.551	ppb	0.6	284,989	100	101.55	
Fe	56	74	H2	4212.972	ppb	0.5	46,075,639	4000	105.32	
Co	59	74	He	100.159	ppb	0.5	573,520	100	100.16	
Ni	60	74	He	103.097	ppb	0.6	145,288	100	103.1	
Cu	65	74	He	102.299	ppb	1.1	178,618	100	102.3	
Zn	66	74	He	100.245	ppb	2.7	66,439	100	100.24	
As	75	74	He	98.459	ppb	0.4	38,920	100	98.46	
Se	78	74	H2	40.253	ppb	0.7	11,409	40	100.63	
Mo	95	103	He	40.116	ppb	1.2	66,368	40	100.29	
Ag	107	103	He	40.700	ppb	0.3	193,570	40	101.75	
Cd	111	103	He	98.122	ppb	0.5	76,647	100	98.12	
[Cd]	111	103	NoGas	95.778	ppb	0.8	177,026	100	95.78	
Sb	121	103	He	41.904	ppb	0.5	82,999	40	104.76	
Ba	138	159	He	101.056	ppb	0.5	452,455	100	101.06	
Hg	201	159	NoGas	850.408	ppt	3.4	758	800	106.3	
Tl	205	159	He	40.735	ppb	0.3	309,385	40	101.84	
Pb	208	159	NoGas	102.337	ppb	3.1	2,115,146	100	102.34	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.5	866,667	1063836.77	81.5	
Sc	45	H2	Analog	1.1	2,069,306	2581014.58	80.2	
Sc	45	He	Pulse	0.5	303,894	383174.2	79.3	
Sc	45	NoGas	Analog	0.8	2,707,744	3417487.03	79.2	
Ge	74	H2	Pulse	0.5	632,851	784726.176666667	80.6	
Ge	74	He	Pulse	1.2	182,297	227383.553333333	80.2	
Ge	74	NoGas	Pulse	0.9	696,006	865435.953333333	80.4	
Rh	103	He	Pulse	0.8	418,097	522579.263333333	80.0	
Rh	103	NoGas	Pulse	0.4	709,850	906285.446666667	78.3	
Tb	159	He	Pulse	0.1	590,602	677543.53	87.2	
Tb	159	NoGas	Mix	3.3	1,321,705	1642107.27	80.5	
Bi	209	He	Pulse	0.7	338,583	387176.576666667	87.4	
Bi	209	NoGas	Pulse	0.3	759,605	894456.463333333	84.9	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K05034-CCB8**	Total Dilution:	1.0000
File Name:	121_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 21:01:38
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.004	ppb	71.2	17	
Na	23	45	He	-0.636	ppb	N/A	5,385	
Mg	24	45	He	1.217	ppb	10.8	1,192	
Al	27	45	He	3.746	ppb	11.0	1,263	
K	39	45	He	1.256	ppb	81.6	23,883	
Ca	44	45	H2	1.959	ppb	12.6	887	
[Ca]	44	45	He	0.561	ppb	203.4	201	
Ti	47	45	NoGas	0.269	ppb	3.4	333	
V	51	74	He	-0.040	ppb	N/A	932	
Cr	52	74	He	0.014	ppb	32.1	282	
Mn	55	74	He	0.154	ppb	18.2	793	
Fe	56	74	H2	7.275	ppb	2.3	108,503	
Co	59	74	He	0.007	ppb	137.6	164	
Ni	60	74	He	-0.055	ppb	N/A	48	
Cu	65	74	He	0.048	ppb	21.4	230	
Zn	66	74	He	0.081	ppb	46.5	82	
As	75	74	He	-0.020	ppb	N/A	20	
Se	78	74	H2	0.036	ppb	29.2	12	
Mo	95	103	He	0.034	ppb	52.1	64	
Ag	107	103	He	0.007	ppb	88.1	37	
Cd	111	103	He	0.021	ppb	24.4	24	
[Cd]	111	103	NoGas	0.014	ppb	38.3	29	
Sb	121	103	He	0.189	ppb	5.5	406	
Ba	138	159	He	0.022	ppb	20.0	253	
Hg	201	159	NoGas	3.657	ppt	47.2	5	
Tl	205	159	He	0.008	ppb	25.1	79	
Pb	208	159	NoGas	0.048	ppb	15.3	1,647	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.1	899,037	1063836.77	84.5	
Sc	45	H2	Analog	2.9	2,086,638	2581014.58	80.8	
Sc	45	He	Pulse	0.9	311,138	383174.2	81.2	
Sc	45	NoGas	Analog	1.2	2,745,556	3417487.03	80.3	
Ge	74	H2	Pulse	0.2	641,247	784726.176666667	81.7	
Ge	74	He	Pulse	0.9	186,190	227383.553333333	81.9	
Ge	74	NoGas	Pulse	0.7	716,378	865435.953333333	82.8	
Rh	103	He	Pulse	0.8	434,991	522579.263333333	83.2	
Rh	103	NoGas	Pulse	0.2	738,647	906285.446666667	81.5	
Tb	159	He	Pulse	0.5	593,188	677543.53	87.5	
Tb	159	NoGas	Mix	3.9	1,342,954	1642107.27	81.8	
Bi	209	He	Pulse	0.5	343,597	387176.576666667	88.7	
Bi	209	NoGas	Pulse	0.2	779,024	894456.463333333	87.1	

CRL Verification Report - ICPMS5

Sample Name:	**9K05034-CRLD**	Total Dilution:	1.0000
File Name:	122CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 21:06:22
Comment:	A19J368 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.195	ppb	9.9	432	108.33		
Na	23	45	He	7.736	ppb	5.9	14,460	85.96		
Mg	24	45	He	9.204	ppb	4.0	6,008	102.27		
Al	27	45	He	11.117	ppb	3.3	3,587	123.52		
K	39	45	He	11.215	ppb	8.2	29,210	124.61		
Ca	44	45	H2	9.547	ppb	0.2	2,526	106.08		
[Ca]	44	45	He	7.798	ppb	29.5	391	86.64		
Ti	47	45	NoGas	0.385	ppb	7.9	458	213.89	R-11	< MRL
V	51	74	He	0.129	ppb	19.3	1,564	71.67		
Cr	52	74	He	0.173	ppb	5.2	976	96.11		
Mn	55	74	He	0.256	ppb	11.6	1,101	142.22	R-11	< MRL
Fe	56	74	H2	12.903	ppb	0.8	173,097	143.37	R-11	
Co	59	74	He	0.174	ppb	10.9	1,156	96.67		
Ni	60	74	He	0.135	ppb	3.6	324	75		
Cu	65	74	He	0.198	ppb	8.3	502	110		
Zn	66	74	He	0.279	ppb	15.4	219	155	R-11	< MRL
As	75	74	He	0.173	ppb	20.1	99	96.11		
Se	78	74	H2	0.164	ppb	39.6	50	91.11		
Mo	95	103	He	0.162	ppb	18.2	287	90		
Ag	107	103	He	0.178	ppb	4.2	888	98.89		
Cd	111	103	He	0.172	ppb	7.7	147	95.56		
[Cd]	111	103	NoGas	0.174	ppb	4.8	341	96.67		
Sb	121	103	He	0.213	ppb	24.7	460	118.33		
Ba	138	159	He	0.202	ppb	10.6	1,067	112.22		
Hg	201	159	NoGas	9.957	ppt	36.1	11	138.29	R-11	< MRL
Tl	205	159	He	0.180	ppb	8.5	1,397	100		
Pb	208	159	NoGas	0.211	ppb	5.6	5,130	117.22		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.2	906,309	1063836.77	85.2	
Sc	45	H2	Analog	1.5	2,113,475	2581014.58	81.9	
Sc	45	He	Pulse	0.7	315,297	383174.2	82.3	
Sc	45	NoGas	Analog	0.3	2,793,616	3417487.03	81.7	
Ge	74	H2	Pulse	0.3	649,740	784726.176666667	82.8	
Ge	74	He	Pulse	0.8	188,448	227383.553333333	82.9	
Ge	74	NoGas	Pulse	0.5	719,479	865435.953333333	83.1	
Rh	103	He	Pulse	0.4	438,184	522579.263333333	83.9	
Rh	103	NoGas	Pulse	0.5	748,261	906285.446666667	82.6	
Tb	159	He	Pulse	0.4	595,906	677543.53	88.0	
Tb	159	NoGas	Mix	3.3	1,362,819	1642107.27	83.0	
Bi	209	He	Pulse	0.8	345,947	387176.576666667	89.4	
Bi	209	NoGas	Pulse	0.5	779,793	894456.463333333	87.2	

CRL Verification Report - ICPMS5

Sample Name:	**9K05034-CRLE**	Total Dilution:	1.0000
File Name:	123_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 21:11:03
Comment:	A19J369 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.850	ppb	1.9	1,871	94.44	
Na	23	45	He	40.540	ppb	0.7	49,958	90.09	
Mg	24	45	He	42.424	ppb	0.5	26,085	94.28	
Al	27	45	He	44.315	ppb	2.0	14,036	98.48	
K	39	45	He	45.523	ppb	2.0	46,649	101.16	
Ca	44	45	H2	41.678	ppb	3.9	9,487	92.62	
[Ca]	44	45	He	42.852	ppb	1.9	1,302	95.23	
Ti	47	45	NoGas	0.872	ppb	13.1	971	96.89	
V	51	74	He	0.770	ppb	3.4	3,949	85.56	
Cr	52	74	He	0.812	ppb	3.5	3,769	90.22	
Mn	55	74	He	0.916	ppb	6.1	3,038	101.78	
Fe	56	74	H2	43.682	ppb	0.2	524,131	97.07	
Co	59	74	He	0.826	ppb	4.0	5,054	91.78	
Ni	60	74	He	0.827	ppb	4.1	1,342	91.89	
Cu	65	74	He	0.865	ppb	8.2	1,720	96.11	
Zn	66	74	He	0.951	ppb	13.9	686	105.67	
As	75	74	He	0.817	ppb	5.6	365	90.78	
Se	78	74	H2	0.870	ppb	6.0	258	96.67	
Mo	95	103	He	0.834	ppb	2.6	1,465	92.67	
Ag	107	103	He	0.855	ppb	3.2	4,297	95	
Cd	111	103	He	0.856	ppb	7.0	713	95.11	
[Cd]	111	103	NoGas	0.826	ppb	6.6	1,618	91.78	
Sb	121	103	He	0.878	ppb	2.0	1,855	97.56	
Ba	138	159	He	0.911	ppb	3.0	4,283	101.22	
Hg	201	159	NoGas	43.352	ppt	19.9	43	120.42	
Tl	205	159	He	0.874	ppb	4.5	6,739	97.11	
Pb	208	159	NoGas	0.872	ppb	3.3	19,547	96.89	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.4	911,110	1063836.77	85.6	
Sc	45	H2	Analog	1.0	2,129,946	2581014.58	82.5	
Sc	45	He	Pulse	0.3	316,632	383174.2	82.6	
Sc	45	NoGas	Analog	0.9	2,830,389	3417487.03	82.8	
Ge	74	H2	Pulse	0.5	656,803	784726.176666667	83.7	
Ge	74	He	Pulse	1.1	190,015	227383.553333333	83.6	
Ge	74	NoGas	Pulse	1.1	726,620	865435.953333333	84.0	
Rh	103	He	Pulse	1.0	441,710	522579.263333333	84.5	
Rh	103	NoGas	Pulse	0.6	751,484	906285.446666667	82.9	
Tb	159	He	Pulse	1.1	598,002	677543.53	88.3	
Tb	159	NoGas	Mix	4.1	1,386,198	1642107.27	84.4	
Bi	209	He	Pulse	1.0	345,294	387176.576666667	89.2	
Bi	209	NoGas	Pulse	0.2	784,828	894456.463333333	87.7	

CRL Verification Report - ICPMS5

Sample Name:	**9K05034-CRLF**	Total Dilution:	1.0000
File Name:	124CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 21:15:44
Comment:	A19J370 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.697	ppb	3.2	3,705	94.28	
Na	23	45	He	78.298	ppb	0.5	91,783	87	
Mg	24	45	He	79.499	ppb	0.3	49,016	88.33	
Al	27	45	He	81.166	ppb	0.2	25,909	90.18	
K	39	45	He	85.282	ppb	2.0	67,482	94.76	
Ca	44	45	H2	77.680	ppb	1.2	17,792	86.31	
[Ca]	44	45	He	76.779	ppb	3.4	2,208	85.31	
Ti	47	45	NoGas	1.762	ppb	6.8	1,903	97.89	
V	51	74	He	1.535	ppb	1.3	6,833	85.28	
Cr	52	74	He	1.604	ppb	2.0	7,279	89.11	
Mn	55	74	He	1.618	ppb	0.5	5,125	89.89	
Fe	56	74	H2	80.499	ppb	0.4	950,595	89.44	
Co	59	74	He	1.594	ppb	0.5	9,715	88.56	
Ni	60	74	He	1.599	ppb	3.1	2,494	88.83	
Cu	65	74	He	1.763	ppb	5.3	3,379	97.94	
Zn	66	74	He	1.748	ppb	6.8	1,245	97.11	
As	75	74	He	1.595	ppb	8.7	690	88.61	
Se	78	74	H2	1.614	ppb	4.7	481	89.67	
Mo	95	103	He	1.591	ppb	3.4	2,797	88.39	
Ag	107	103	He	1.634	ppb	4.0	8,243	90.78	
Cd	111	103	He	1.636	ppb	5.8	1,362	90.89	
[Cd]	111	103	NoGas	1.627	ppb	1.2	3,205	90.39	
Sb	121	103	He	1.673	ppb	3.2	3,530	92.94	
Ba	138	159	He	1.682	ppb	3.2	7,816	93.44	
Hg	201	159	NoGas	66.514	ppt	8.7	68	92.38	
Tl	205	159	He	1.658	ppb	2.0	12,832	92.11	
Pb	208	159	NoGas	1.580	ppb	0.7	36,959	87.78	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.6	904,992	1063836.77	85.1	
Sc	45	H2	Analog	1.5	2,194,759	2581014.58	85.0	
Sc	45	He	Pulse	0.3	320,253	383174.2	83.6	
Sc	45	NoGas	Analog	0.5	2,836,825	3417487.03	83.0	
Ge	74	H2	Pulse	0.2	662,955	784726.176666667	84.5	
Ge	74	He	Pulse	1.0	191,428	227383.553333333	84.2	
Ge	74	NoGas	Pulse	0.3	731,922	865435.953333333	84.6	
Rh	103	He	Pulse	1.1	443,430	522579.263333333	84.9	
Rh	103	NoGas	Pulse	0.5	756,367	906285.446666667	83.5	
Tb	159	He	Pulse	0.5	601,025	677543.53	88.7	
Tb	159	NoGas	Analog	0.8	1,467,520	1642107.27	89.4	
Bi	209	He	Pulse	0.8	346,591	387176.576666667	89.5	
Bi	209	NoGas	Pulse	0.2	787,407	894456.463333333	88.0	

CRL Verification Report - ICPMS5

Sample Name:	**9K05034-CRLG**	Total Dilution:	1.0000
File Name:	125CRL4.d	Sample Type:	CRL4
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K05034.b	Acq Time:	11/5/2019 21:20:25
Comment:	A19J371 - ESS 11/5		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.451	ppb	3.5	7,674	95.86	
Na	23	45	He	169.330	ppb	0.8	191,909	94.07	
Mg	24	45	He	172.822	ppb	0.2	106,363	96.01	
Al	27	45	He	172.633	ppb	0.9	55,175	95.91	
K	39	45	He	178.821	ppb	0.8	115,637	99.34	
Ca	44	45	H2	169.012	ppb	2.2	37,668	93.9	
[Ca]	44	45	He	163.465	ppb	4.1	4,500	90.81	
Ti	47	45	NoGas	3.223	ppb	4.0	3,464	89.53	
V	51	74	He	3.291	ppb	1.3	13,436	91.42	
Cr	52	74	He	3.368	ppb	3.5	15,089	93.56	
Mn	55	74	He	3.511	ppb	0.7	10,741	97.53	
Fe	56	74	H2	183.109	ppb	0.6	2,130,064	101.73	
Co	59	74	He	3.420	ppb	1.9	20,773	95	
Ni	60	74	He	3.524	ppb	1.9	5,362	97.89	
Cu	65	74	He	3.681	ppb	2.1	6,920	102.25	
Zn	66	74	He	3.559	ppb	2.4	2,515	98.86	
As	75	74	He	3.488	ppb	2.4	1,482	96.89	
Se	78	74	H2	3.297	ppb	3.3	983	91.58	
Mo	95	103	He	3.367	ppb	3.0	5,930	93.53	
Ag	107	103	He	3.399	ppb	1.6	17,190	94.42	
Cd	111	103	He	3.507	ppb	2.0	2,920	97.42	
[Cd]	111	103	NoGas	3.327	ppb	4.7	6,546	92.42	
Sb	121	103	He	3.409	ppb	1.5	7,196	94.69	
Ba	138	159	He	3.599	ppb	3.6	16,539	99.97	
Hg	201	159	NoGas	135.768	ppt	5.3	131	94.28	
Tl	205	159	He	3.493	ppb	2.7	27,005	97.03	
Pb	208	159	NoGas	3.475	ppb	1.3	77,455	96.53	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.2	922,901	1063836.77	86.8	
Sc	45	H2	Analog	0.2	2,168,229	2581014.58	84.0	
Sc	45	He	Pulse	0.7	321,382	383174.2	83.9	
Sc	45	NoGas	Analog	0.6	2,867,334	3417487.03	83.9	
Ge	74	H2	Pulse	0.3	664,378	784726.176666667	84.7	
Ge	74	He	Pulse	0.9	192,209	227383.553333333	84.5	
Ge	74	NoGas	Pulse	0.4	736,917	865435.953333333	85.1	
Rh	103	He	Pulse	0.7	444,593	522579.263333333	85.1	
Rh	103	NoGas	Pulse	0.1	755,381	906285.446666667	83.3	
Tb	159	He	Pulse	0.8	600,702	677543.53	88.7	
Tb	159	NoGas	Analog	0.9	1,412,534	1642107.27	86.0	
Bi	209	He	Pulse	1.1	348,580	387176.576666667	90.0	
Bi	209	NoGas	Pulse	0.2	789,056	894456.463333333	88.2	

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

Metals IFA/IFB Metals Internal Standards Recovery Summary

A19J465 IFA
A19J466 IFB
A9J0950 (I.S Tables)

Analytical Standard Record

Apex Laboratories

A19J465

Description:	ICSA working std	Expires:	12/03/19
Standard Type:	Calibration Standa	Prepared:	10/30/19
Solvent:	3.5% HNO3 + 0.4% HCl	Prepared By:	Marshall Pattee
Final Volume (mls):	50	Department:	Metals
Vials:	1	Last Edit:	11/08/19 12:49 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

A19J466

Description:	ICSA+B working std	Expires:	12/03/19
Standard Type:	Calibration Standa	Prepared:	10/30/19
Solvent:	3.5% HNO3 + 0.4% HCl	Prepared By:	Marshall Pattee
Final Volume (mls):	50	Department:	Metals
Vials:	1	Last Edit:	11/08/19 12:49 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

A19J466

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
11/1/2019 10:59 AM	Rinse													
11/1/2019 11:03 AM	9K01022-CAL0	100	100	100	100	100	100	100	100	100	100	100	100	100
11/1/2019 11:08 AM	9K01022-CAL1	93.69742474	100.4371518	101.2592926	94.99300724	100.5689186	101.6739827	93.73594574	100.9102301	93.66329914	101.1350531	92.07298378	99.82643414	93.01043624
11/1/2019 11:13 AM	9K01022-CAL2	101.8349118	100.7152043	100.9413465	100.3795335	100.7496144	101.8918827	100.7731934	100.4881507	99.77789824	100.7491854	99.28019034	100.0004699	100.5564913
11/1/2019 11:18 AM	9K01022-CAL3	101.730044	99.94001062	101.3615564	100.717051	100.8198215	101.3228207	100.4896975	100.3559431	99.43442008	100.4481031	100.0135973	99.24526723	99.76257173
11/1/2019 11:23 AM	9K01022-CAL5	99.91278865	100.0610252	101.0434679	100.2482965	100.6925593	101.4205387	100.7610971	99.99118887	99.23174134	99.86052002	101.4077356	99.62507698	99.62507698
11/1/2019 11:28 AM	9K01022-CAL4	100.6966721	101.246926	100.8933493	101.3313732	100.5328536	101.4650228	100.2079254	99.17769477	98.39334192	99.63769887	99.91418758	98.81367189	98.7105102
11/1/2019 11:33 AM	9K01022-CAL5	98.47185603	100.4016326	99.2862111	99.28955723	99.93237444	99.95410072	99.01587707	97.65283154	97.47569438	98.79044818	99.81488123	98.40557748	98.40483781
11/1/2019 11:38 AM	9K01022-CAL6	94.77054316	97.26195315	96.213885519	95.12961048	97.33205822	96.44214748	94.34181735	93.8934492	92.18724614	97.04664935	96.56276956	96.2947736	95.32615069
11/1/2019 11:43 AM	9K01022-CAL7	89.28513559	92.07814633	89.1574318	87.2629731	92.14193451	89.93673359	87.15583512	88.00820216	84.86086613	92.7512491	89.06250677	92.06147548	89.03602515
11/1/2019 11:48 AM	9K01022-CAL8	83.44628881	85.8232816	84.85750661	84.43406158	85.4107536	86.11434653	82.50056751	82.98543248	81.03713108	89.71580551	87.38078982	88.21503351	85.85058134
11/1/2019 11:53 AM	9K01022-CAL9	83.82031861	83.30182536	83.20736655	83.23166104	78.95857636	80.94665025	77.82695897	76.19092583	73.85921196	84.2595496	83.2271403	79.48136889	79.85091812
11/1/2019 11:59 AM	9K01022-ICV1	89.23477165	91.86690946	88.45322171	87.51647449	90.13197957	88.763944	85.36961484	86.72597495	83.21301818	92.23866232	88.78515408	91.00344746	90.14540129
11/1/2019 12:04 PM	9K01022-ICB1	91.91155944	90.28476337	88.66917924	88.85943753	89.73913778	89.71525494	87.49933903	89.29979112	86.00281547	92.91320349	89.21128919	93.40567644	91.33104444
11/1/2019 12:09 PM	9K01022-CRL1	93.54701471	90.14479996	89.67113037	89.93888522	90.54239565	90.89474309	88.69957843	90.42955679	87.58394426	93.52459005	90.70352299	93.22223931	92.22946337
11/1/2019 12:13 PM	9K01022-CRL2	95.36188237	91.59390258	90.75629949	90.04094669	91.43756335	91.49958494	89.17954462	90.61237381	87.6424945	93.98096663	89.88609357	93.90464532	92.65926461
11/1/2019 12:19 PM	9K01022-CRL3	93.75919244	92.0712315	91.39640812	91.54476045	92.04107344	92.51431911	90.43597647	91.39473902	89.01407369	94.20856539	93.48253929	93.9849539	93.93235334
11/1/2019 12:24 PM	A19J494	96.60597511	91.35148541	92.46434245	95.59714232	90.94247523	93.38662511	93.37309648	90.95874306	91.83538038	94.95882823	97.86557884	94.83131926	95.24369724
11/1/2019 12:28 PM	A19J497	96.20217709	96.10930612	93.20206165	94.44991343	92.57560009	93.50726099	93.79814855	92.27983909	93.01186701	94.92345076	97.75851695	94.39797711	95.03046432
11/1/2019 12:33 PM	9K01022-IFA1	78.95821623	76.80042597	70.98498843	77.55208294	67.11734096	67.51029477	69.26996191	59.9916335	62.67100303	70.21638316	74.78524372	61.91474766	67.96761821
11/1/2019 12:37 PM	9K01022-IFB1	77.58573324	76.28465969	73.10656582	76.00638975	66.66852203	69.10332868	67.540584	61.82020219	61.37970727	71.60994892	73.61246738	63.58977283	66.53589474
11/1/2019 12:42 PM	Rinse	77.23499896	81.64542053	76.58403238	76.27162931	79.79738207	77.88230166	74.55869412	79.50276304	74.25020093	85.04218288	80.48082362	86.17677817	84.09188735
11/1/2019 12:47 PM	9110362-BLK1	77.28504269	78.60151271	76.6054349	76.80677416	77.86725308	77.94177049	74.78922232	77.42045124	72.79195647	85.01350825	80.48271521	82.63211794	82.63211794
11/1/2019 12:51 PM	9110362-BS1	76.84681058	78.45420925	76.79882398	74.98979682	77.68569516	77.78414287	74.43711498	77.12648886	72.34921803	84.74888533	80.36388737	84.91688548	82.06628599
11/1/2019 12:56 PM	A9J1060-01	79.13874614	78.98606494	78.04046989	79.07274249	78.1280706	79.27600707	76.42477105	77.3995889	73.82195156	85.60458025	81.35841781	85.48135213	83.06250686
11/1/2019 1:01 PM	9110362-MS2	79.97474168	80.47562952	79.8919809	80.0604892	79.26181833	80.66766452	77.4467546	78.58890433	74.74878532	86.58427515	82.14383719	85.62398333	82.81462845
11/1/2019 1:05 PM	A9J1065-01	78.64055589	80.397877	77.69792836	77.29270528	79.21933121	79.44919688	75.74627571	77.93373633	73.19535703	85.7187493	80.95808333	85.45404592	82.80033305
11/1/2019 1:10 PM	9110362-MS1	78.48343428	78.96791576	77.85626205	78.28210955	78.21625545	79.09438306	75.90931045	77.56269621	73.05994816	85.7819069	80.96196725	85.40129463	82.84556007
11/1/2019 1:15 PM	A9J1087-01	78.85048529	79.43102089	77.89898585	77.9482046	78.3899693	79.20953875	76.13905855	77.57872093	73.77078793	85.80766581	80.84640974	85.85588287	83.03289886
11/1/2019 1:19 PM	A9J1094-01	79.2108011	80.19665339	78.5664184	77.59309977	78.7387363	79.88094327	76.09931719	78.27922789	73.96111286	86.14330026	81.24472706	85.84623924	83.41144267
11/1/2019 1:24 PM	9110363-BLK1	79.23831139	81.01796359	78.10994707	77.44899762	79.72599626	80.28648428	76.46634274	80.85267771	75.4391368	87.23625527	81.5955883	88.09966454	84.84851003
11/1/2019 1:29 PM	9110363-BS1	78.80556023	80.79055349	77.91614131	78.26673713	79.56863022	79.85519985	76.20703373	80.71182532	74.90698796	86.8763102	81.14663251	88.37752936	85.04570388
11/1/2019 1:33 PM	9K01022-CCV1	84.97800506	82.43215617	81.83254147	82.6143153	81.15899917	83.10755381	80.30641724	81.33098466	77.87140463	88.39606758	83.84222902	88.29280685	85.7549502
11/1/2019 1:38 PM	9K01022-CCV2	84.46786016	84.02403404	82.83783558	83.35616674	82.89398691	83.75045123	80.72614895	81.95087144	77.98677288	88.55280366	84.34131513	87.88514328	85.84325285
11/1/2019 1:43 PM	9K01022-CCB1	81.2965887	84.09382051	82.4643245	78.28158817	84.65151249	85.47182444	77.13300533	84.61993422	76.02547346	89.54548492	79.82204578	89.49155318	82.64385382
11/1/2019 1:47 PM	A9J1019-01	87.42754032	85.49963099	83.54323168	84.05001262	84.23813926	85.29849679	81.57776197	83.91640999	80.48200784	89.38415533	85.21038154	90.35027521	87.93705921
11/1/2019 1:52 PM	A9J1019-02	87.93720575	86.54618921	83.52342898	82.98377136	83.97339948	84.99613767	81.20311471	84.41583494	80.21318548	89.2300634	84.33552898	89.98649889	86.78124404
11/1/2019 1:57 PM	9110363-MS1	82.81525637	86.34585687	81.36421394	81.40509501	83.35389254	82.78982445	79.16622847	82.60457571	78.03112562	87.95911195	83.43848802	89.37898518	86.52060387
11/1/2019 2:13 PM	9101831-BLK1	83.24519188	83.00384792	82.36098431	81.12059857	81.9493176	83.77679652	79.35486804	83.61625954	77.91142219	89.81425651	83.61758254	90.38926105	86.19521437
11/1/2019 2:27 PM	9101831-BS1	87.4234543	85.47794343	85.25048907	83.44397391	83.51111096	86.43849792	82.16160596	84.4277119	79.70405149	91.91926708	85.90522003	91.25580369	87.5274318
11/1/2019 2:32 PM	A9J1076-01	93.65669397	75.45906719	81.14634504	89.4992325	64.94574582	70.50995948	73.30468095	58.88150754	63.77480721	64.580891	69.40324102	54.76365302	59.94573021
11/1/2019 2:36 PM	A9J1111-01	113.591984	104.9643932	99.0377852	101.4744454	95.17645621	93.44201104	91.8664168	87.41610252	85.77286199	89.60546668	87.93583474	84.99429344	85.62831208
11/1/2019 2:41 PM	A9J1115-01	113.9774503	103.1379552	100.1589463	102.9850043	96.37096311	96.26912847	93.6037391	90.7568812	88.24906042	92.9944456	93.75148005	89.96803718	90.24840045
11/1/2019 2:46 PM	A9J1115-02	104.8037566	93.43476073	91.36090164	95.00940699	82.85031136	85.40956144	85.15826096	78.1360681	77.64838649	84.15558183	84.32447569	76.19899301	77.68344427
11/1/2019 2:50 PM	9101831-DUP1	105.8511938	94.80766766	91.22646365	96.73218539	83.39844084	85.86377843	85.82893007	78.54401384	79.08049087	84.32372645	85.20277024	76.31205242	78.20407473
11/1/2019 2:55 PM	9K01022-CCV3	103.6183065	94.86698241	92.36854959	93.59875712	90.40380812	89.18293093	87.52910033	86.19937299	83.71465611	90.63062412	87.87616297	88.15384318	87.72591591
11/1/2019 2:59 PM	9K01022-CCV4	98.69452642	92.68887469	89.93203653	90.07849846	87.46429125	87.81610597	85.56134407	84.52310891	81.95293504	89.0049028	86.80257287	88.10778216	86.61701913
11/1/2019 3:04 PM	9K01022-CCB2	94.77022739	88.2870591	85.89805012	87.07777604	85.29466862	85.4437716	82.99117483	84.43324439	81.49925049	88.79382309	85.42771039	89.06002232	86.84681168
11/1/2019 3:09 PM	9K01022-CCB3	96.51153127	88.78150258	85.83791379	87.73311263	84.89261932	85.60153747	83.62218728	84.57625135	82.29803208	89.57440726	86.07019025	89.49760549	87.73212875
11/1/2019 3:13 PM	9K01022-CRL4	95.90234809	87.79156159	85.88418794	88.15186461	84.72434344	85.76924871	84.01418304	84.4963557	82.09141586	89.46622106	86.45309202	89.46157399	87.8960489
11/1/2019 3:18 PM	9K01022-CRL5	96.44238492	88.17827483	86.46439725	88.58848861	85.4256572	86.76410354	85.12381558	84.9643567	83.00931813	89.82713957	86.48247652	90.14284184	88.27885597
11/1/2019 3:23 PM	9K01022-CRL6	96.22768646	88.64611012	86.67161602	88.70643943	85.56576787	86.49111203	85.11204856	84.96420638	83.02956061	89.85689219	86.78834713	89.73960685	88.78298775
11/1/2019 3:28 PM	9K01022-CRL7	96.55216875	89.17642562	86.6205711	88.48869003	85.53922049	86.95077993	84.8995341	85.01046766	82.89803074	90.14936668	86.7441914	90.44936792	88.75973344
11/1/2019 3:32 PM	9101831-MS1	97.65480864	87.43567385	86.21416224	91.2498112	78.13884813	82.64889118	82.1384227	75.63622171	76.36592196	84.16923631	84.03502838	76.75477443	77.2326097
11/1/2019 3:37 PM	A9J1115-03	92.60131734	87.94465074	84.30383183	85.45100018	83.3141699	83.10896575	80.65671942	81.81054065	78.0250506	87.9832586	84.23307596	87.33036032	85.46834877
11/1/2019 3:42 PM	A9J1115-04	95.84318382	85.88271066	85.11332185	89.4759197	82.94663321	84.74354277	83.84402612	81.8026672	79.72101014	89.0075538	86.02690229	87.38671662	86.36460442
11/1/2019 3:46 PM	A9J1115-05	90.61819382	88.36029035	83.36562247	84.35255841	81.17259902	81.33883283	77.76275725	80.56274882	71.79310514	86.68927181	83.20566827	79.77091823	78.50637892
11/1/2019 3:51 PM	A9J1116-01	89.91089931	83.85992268	79.90568348	82.17915259	79.14601281	80.07989439	78.04037083	77.19977592	74.31231656	86.12647513	82.37931187	85.04664027	83.64050752
11/1/2019 3:55 PM	A9J1116-02	89.90177808	84.11945413	81.14019331	82.34666258	77.96217621	80.10161835	77.37915747	74.16664122	71.05526044	85.14564116	81.69314374	80.29639318	79.10796032
11/1/2019 4:00 PM	A9J1117-01	94.50020043	85.36060378	82.9150729	84.81871935	80.8635892	81.91327451	80.2471975	78.26647111	76.15506203	87.72881295	83.79664987	85.15362198	83.64413079
11/1/2019 4:05 PM	A9J1117-02	93.20419529	85.52471427	81.75985798	83.72346778	80.60320852	81.6763638	79.21453025	77.87391306	75.1954336	86.69253576	84.2208922	83.88638543	82.96882532
11/1/2019 4:09 PM	9101831-MS2	91.04166054	82.88360378	80.56552314	82.69435705	78.91799165	80.17931546	78.33145162	76.9776159	73.9464003	85.79744633	83.490605	83.20631926	82.6395708
11/1/2019 4:14 PM	A9J1131-01	97.84718726	85.6935147	84.8957559	89.45884442	82.0867284	84.12370154	83.82612025	78.55030118	78.37007714	87.45136028	85.64026579	83.29061565	83.39065027
11/1/2019 4:19 PM	9K01022-CCV5	93.68150241	85.32625551	82.69588421	84.39831753	82.24744423	82.44814424	80.55307712	80.14554347	77.5847032	87.7363644	84.85903511	87.05868067	86.13542838
11/1/2019 4:23 PM	9K01022-CCB4	96.67072933	85.80909787	83.470013	86.3555976	82.56435819	83.8707016	82.529883	82.88993692	80.64761241	89.57759067	86.19339051	89.81923155	88.48952649
11/1/2019 4:28 PM	A9J1133-01	96.63504548	86.59143791	85.7007867	88.52416822	83.56806716	85.5285235	84.88127126	83.28834453	81.75950261	90.4663116	87.74562757	90.49593417	
11/1/2019 4:33 PM	A9J1104-02RE1	95.10621665	87.77245313	84.32686379	86.22626744	84.36171272	84.57157133	82.83163962	82.70945301	80.52932881	90.35926226	86.55039848	90.87264927	89.00492467
11/1/2019 4:56 PM	A9J1061-02RE1	95.32621662	88.00080177	88.17232171	87.93238131	84.87478691	88.18185903	85.35426731	83.74484005	81.93536996	92.72096943	88.7883679	90.91686774	88.59903255
11/1/2019 5:00 PM	A9J1061-06RE1	96.19980981	87.63295913	86.49648621	87.83231263	85.30328934	87.26275745	84.10958855	81.94027593	82.15004093	88.63137288	91.96020903	90.07526399	
11/1/2019 5:05 PM	A9J1062-03RE1	97.75411247	87.24741322	86.13883438	88.86781176	85.40570976	86.79235364	87.22622981	83.66397518	82.47291981	91.30145094	90.67496602	90.12728	
11/1/2019 5:09 PM	9110393-BLK1	98.57671666	90.4779442	89.7776352	90.65060921	86.93981839	89.4772072	88.46425793	87.94496385	86.57327727	93.46220851	92.61187283	91.85308175	91.52215964
11/1/2019 5:14 PM	9110393-BS1	95.54596303	88.20078282	87.0268968	87.66808491	85.5114211	86.30347103	84.50032402	83.97889845	81.34997056	92.0255139	88.10196758	90.79403866	89.14183834
11/1/2019 5:19 PM	A9K0019-01	96.02763254	90.30867551	87.02621158	88.39541221	85.35029619	86.24212179	84.70135738	82.77078099	80.95360226	91.24104099	89.78221925	89.68859847	89.27338628
11/1/2019 5:23 PM	9110393-DUP1	95.23913196	86.78960248	86.66023326	88.43213303	84.72233067	85.84651964	83.53720574	82.1065626	80.46279536	89.90335445	88.21330672	89.47445236	88.67281165
11/1/2019 5:28 PM	9110393-MS1	96.05542409	89.87788338	86.93549435	89.38923239	84.97624545	85.66166998	84.6841349	82.67427205	80.75931393	90.37703375	87.952804	88.8539821	88.27123179
11/1/2019 5:33 PM	9K01022-CCV6	97.69705712	91.96224896	89.46971928	89.973945	88.87565554	88.57145883	86.93461356	85.41494123	83.10222503	92.01738652	91.40522796	91.22912665	89.65964324
11/1/2019 5:37 PM	9K01022-CCB5	97.77260781	90.7637305	88.01518071	88.36884232	87.88761428	88.37363172	86.23204418	86.78374933	84.26833589	92.13577498	90.08323839	92.40972485	91.29260801
11/1/2019 5:42 PM	9K01022-CRL8	97.79654788	90.26272422	84.88430013	88.66153913	88.15835468	88.25730008	86.37285504	83.91116887	84.06272489	92.94264237	89.47564237	88.85423221	90.90990348
11/1/2019 5:47 PM	9K01022-CRL9	95.78777569	91.13685165	87.83615363	89.49368945	87.9384863	88.22450988	86.19118354	86.89457475	83.736922	91.5354654	88.918001	91.78100705	90.75838802
11/1/2019 5:51 PM	9K01022-CRL10	96.87607581	89.8179824	87.8506228	88.90715985	87.44504387	87.74977723	85.73820691	86.22491317	83.45120387	91.61766175	88.65213851	90.34737389	90.76082244
11/1/2019 5:56 PM	9K01022-CRL11	97.78539462	90.35884573	87.8807993	89.6299448	87.86191506	88.30710973	86.26103409	86.69045548	84.04087322	92.28566549	89.6267446	92.43237191	91.44665621
11/1/2019 6:01 PM	9110363-BS2	97.33190796	90.76549181	88.02940318	88.99327085	87.72548758	88.20934947	86.13893683	86.58625733	83.66557407	92.44785314	88.40134221	92.59375012	91.46256598
11/1/2019 6:05 PM	9110393-BS2	97.57585312	89.71154524	88.83815732	89.4513086	86.5541248	87.73931816	86.15617997	84.91366592	83.02899948	92.30516641	89.26485868	90.20790193	89.63485198
11/1/2019 6:10 PM	9101805-BLK1	96.68857126	89.45166074	86.97430176	88.05006986	85.95028464	86.38929327	83.94491134	86.37040965	82.5771497	91.71318748	87.65724778	89.83264725	88.73032722
11/1/2019 6:15 PM	9101805-BS1	97.07173835	91.70596576	89.3537374	90.3825957	86.81396511	87.89845205	86.00848367	85.78060312	82.95709965	93.05942852	91.75045272	90.55043898	89.36737999
11/1/2019 6:19 PM	A9J0950-01	103.2833283	98.37814163	98.08810322	100.7447697	89.21371604	91.26564327	90.96666519	87.46038527	87.5047301	94.77071062	100.0786698	89.4591941	91.23730478
11/1/2019 6:24 PM	A9J0950-02	103.6478185	99.7824663	97.40165449	100.3698677	90.27766191	91.18645575	90.99981074	87.96758798	87.60404095	94.60750774	101.2315697	89.63131992	91.31919237
11/1/2019 6:28 PM	A9J0950-03	103.1810341	101.1207934	97.66428948	101.3993249	90.15507679	90.79493487	90.70087523	87.78025685	87.16617198	94.48353831	100.6634586	89.24473635	90.34231468
11/1/2019 6:33 PM	A9J0950-04	103.5023211	102.5711853	99.68210744	102.448815	89.75489973	90.59137219	91.03294473	87.75807405	87.45469012	93.96524004	100.9228889	88.46143024	90.62670253
11/1/2019 6:38 PM	9101805-DUP1	103.4874226	103.8991958	99.82083625	101.4861016	90.48763479	91.44502861	90.51870545	88.10088757	87.14052294	94.53453185	102.8493734	89.08253065	90.33812638
11/1/2019 6:42 PM	9101805-MS1	104.2481108	103.6529016	99.86016737	101.1612759	89.54220202	90.47945478	89.15208218	86.65838962	85.61864969	93.45195738	98.20700976	87.49946026	88.83708309
11/1/2019 6:47 PM	9K01022-CCV7	103.5307767	99.82009421	95.21288497	97.52213732	95.03883799	93.64896855	92.83342467	89.4357309	87.9874902	94.88292551	99.51664581	92.08812907	91.72677505
11/1/2019 6:51 PM	9K01022-CCB6	109.2060944	101.2407114	98.10821748	101.6294258	96.71889728	96.9429746	96.2537844	94.07402595	93.41752167	96.11581146	100.8407942	93.12209539	94.82933752
11/1/2019 6:56 PM	A9J1006-01	99.39078708	102.8116072	98.89646171	102.7080102	89.88810454	90.11447802	89.60311754	86.51506343	86.36749373	92.83237569	100.6208852	88.04955204	89.20264524
11/1/2019 7:01 PM	A9J1006-02	103.9143439	103.0127602	99.99727822	104.1026117	90.04099635	91.12990514	90.69074931	87.41427073	87.76500034	93.56292101	100.1789886	88.40526153	89.75058653
11/1/2019 7:05 PM	9110369-BLK1	107.6901676	102.5970888	99.97518283	102.5253995	96.10368864	96.49915681	96.33467479	94.5469311	94.2719866	96.94304779	102.9284274	93.25496573	94.11546265
11/1/2019 7:10 PM	9110369-BS1	106.0174431	102.5792724	99.75834204	100.0301173	95.28446265	95.43535301	94.09731833	92.38200263	90.97772534	96.11216597	101.9513638	93.81322507	93.04223806
11/1/2019 7:15 PM	A9J0954-01	101.3210487	104.4420552	99.06605525	101.5784877	90.63241931	90.49705882	89.97951911	86.68019392	86.54856263	93.48814625	99.21800913	87.38454677	89.44869226
11/1/2019 7:19 PM	A9J0954-02	99.77696121	105.6364292	100.7719976	104.2173532	87.67252792	89.2006159	88.48470147	85.15910781	84.96262605	92.40078833	99.54274414	86.61846556	88.18823555
11/1/2019 7:24 PM	A9J1007-01	100.9666478	104.0783112	100.3695482	103.6873053	87.8857518	89.13729028	89.52791606	85.52949663	85.89923841	92.39714173	100.6824112	86.69012213	89.24756504
11/1/2019 7:28 PM	A9J1137-06	98.40512309	98.16960536	94.75233669	96.37213872	87.75838838	88.60976977	88.01356674	85.88472985	85.73640662	92.71230834	102.5433288	88.6663302	89.32871546
11/1/2019 7:33 PM	9110369-DUP1	97.20458703	97.9305896	94.58064065	96.50666773	87.74458501	88.33827803	87.76464394	85.68629589	84.99884071	92.67729464	100.2366023	87.98353355	88.9090662
11/1/2019 7:37 PM	9110369-MS1	96.04691186	98.1676961	94.73659373	97.91421593	87.15857727	88.54035558	88.25468605	85.21461697	85.06590592	93.47469171	100.7880737	87.28895552	88.2852842
11/1/2019 7:42 PM	9K01022-CCV8	103.634462	100.6617496	96.21373897	99.16246364	94.7549576	94.9860534	94.16994413	90.34588463	89.41529865	94.73332935	100.5505687	91.70052652	91.50909932
11/1/2019 7:47 PM	9K01022-CCB7	107.2623024	102.4879544	99.2053785	102.32457	96.75563169	97.27496646	97.45643421	93.96632134	94.41221047	95.8051484	102.7771883	93.2525536	94.50576788
11/1/2019 7:51 PM	A9J1137-12	94.9460945	97.87455465	94.79483208	96.55761273	87.57252706	87.62187214	86.73759495	84.43905967	83.65655806	92.15138494	97.8672458	87.08846837	88.09480811
11/1/2019 7:56 PM	A9J1137-18	97.09344851	97.77562145	93.96756063	97.3706041	85.70579358	86.58041531	86.61915629	82.93139308	82.99322139	91.35815374	96.24448347	85.68346787	86.52794307
11/1/2019 8:01 PM	A9J1137-24	94.56707098	96.33191107	93.71480645	96.23312591	86.81916726	87.94796739	87.36478374	84.8547697	84.60677598	92.2892832	99.89540381	87.66271055	88.66717372
11/1/2019 8:12 PM	A9J1029-02RE1	104.4770557	96.72284544	97.9050766	102.1764035	88.76443288	93.77001597	93.19287975	86.18691347	87.2571448	92.12802581	97.67617844	85.1060574	86.95655578
11/1/2019 8:16 PM	A9J1076-02RE1	104.8185331	107.5509056	101.0721976	109.2388361	89.40024817	91.9559117	92.06516534	84.15485467	85.50881538	91.84060303	97.37015059	86.24813285	87.72615394
11/1/2019 8:21 PM	9101795-DUP2	103.8148911	105.2364673	98.29949355	106.8912835	87.94782472	89.90290895	91.00749318	83.04549714	84.23806649	90.10868259	94.36978226	85.15383105	86.42017452
11/1/2019 8:25 PM	9101795-MS3	103.3066477	102.9069079	96.36923046	105.1779128	86.50694293	87.57666744	89.03489087	80.53471789	82.93398026	88.4220653	94.98504799	83.13646813	84.81645412
11/1/2019 8:30 PM	9K01022-CCV9	104.6401647	101.1707274	95.64109103	99.65581996	84.80758672	85.85055979	92.7944927	88.33665921	88.38975049	92.58249635	98.07362657	89.43747908	90.25080388
11/1/2019 8:35 PM	9K01022-CCB8	106.2130587	101.3357779	92.68070806	100.9483635	94.82956516	90.92279961	94.92305136	88.21839882	91.86103303	89.71628924	99.69208387	87.7912451	92.23730335
11/1/2019 8:39 PM	9K01022-CRLC	106.0745569	100.7603344	95.86321654	99.95335634	94.59983424	94.64152329	93.61064313	91.65082382	90.83676572	93.6155679	98.05437818	91.66853772	92.45491154
11/1/2019 8:44 PM	9K01022-CRLD	105.5807099	99.89722524	95.74958968	99.23982311	94.35965911	94.08976402	93.19081226	91.82836545	90.53898805	93.28620032	99.47234466	92.02301525	92.21551679
11/1/2019 8:49 PM	9K01022-CRLE	104.0396161	98.7552483	94.49372035	98.46343762	93.70399109	93.39127571	92.82050781	90.67497868	90.12625307	93.32836227	98.0218637	91.36878495	92.21002835
11/1/2019 8:53 PM	9K01022-CRLF	103.613937	99.23961099	94.90902374	98.0638465	93.68424096	93.03674331	92.84961836	90.02015205	89.47945211	92.56879854	98.0552093	91.43642911	92.1574366

		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
11/5/2019 11:16 AM	Rinse													
11/5/2019 11:21 AM	Rinse													
11/5/2019 11:26 AM	9K05034-CAL0	100	100	100	100	100	100	100	100	100	100	100	100	100
11/5/2019 11:30 AM	9K05034-CAL1	99.08786163	96.24565107	100.5254581	96.6947263	100.6820834	100.3056685	100.4703421	100.1835537	100.1159594	101.1020591	95.00963986	101.004255	100.3901431
11/5/2019 11:35 AM	9K05034-CAL2	94.05939503	97.03699375	100.1703777	92.11485084	100.6521527	100.6117446	95.43282359	100.3122104	94.2023053	101.5228163	90.31503263	101.4070738	94.68857398
11/5/2019 11:40 AM	9K05034-CAL3	97.67120602	97.73416119	100.1596176	97.5992062	101.0156957	100.7038181	100.8927562	99.61908554	100.0770111	100.6809939	95.60664755	101.079504	100.4198315
11/5/2019 11:45 AM	9K05034-CAL4	100.0217336	97.2821015	100.2939159	97.64065342	100.7130424	100.5147147	100.9852202	99.72789008	99.25702658	100.8790422	97.33840145	101.0498311	100.5473682
11/5/2019 11:50 AM	9K05034-CAL5	98.78674683	96.48734104	99.62556108	96.11314984	100.1926404	99.5242268	99.53608814	98.67612236	97.63558563	100.0410931	95.3555389	100.6576706	98.75009232
11/5/2019 11:55 AM	9K05034-CAL6	95.86149042	95.53822254	96.88268765	94.09320138	98.39081448	97.22732365	96.09918525	94.9902005	93.99251746	98.65129551	94.19581645	97.39998046	96.49511132
11/5/2019 12:00 PM	9K05034-CAL7	94.55541223	91.590386	92.20972515	88.30696289	94.58193895	91.98966398	91.5823719	90.47454868	88.93090026	95.6778718	92.35832525	95.19025656	92.73999172
11/5/2019 12:05 PM	9K05034-CAL8	90.20312674	87.37895003	88.04744335	83.95679325	88.79629278	88.0046059	86.66511798	85.79662929	84.21201247	92.48997183	88.70268323	91.29088844	88.06558347
11/5/2019 12:09 PM	9K05034-CAL9	88.89414805	82.6497147	85.50140902	83.97287436	80.84550283	82.77562174	81.75240358	77.93018244	77.7735237	86.31817255	81.74648115	81.17202648	81.4773243
11/5/2019 12:20 PM	9K05034-ICV1	91.26309857	88.48434802	90.89593802	86.57232153	91.38686563	91.14363827	89.46849046	89.90516392	87.31804491	96.33477326	90.70072241	96.05127369	93.53052283
11/5/2019 12:24 PM	9K05034-ICB1	92.85264505	88.56612103	90.33805512	87.62338117	91.52785197	91.34491932	91.07454114	91.58974027	90.14952147	96.02998693	89.87873368	96.85673134	95.04213768
11/5/2019 12:29 PM	9K05034-CRL1	93.2096287	89.11299576	91.39320967	87.82332009	92.47941829	91.6703401	90.6573668	91.9199224	89.94672002	96.13422329	90.77899663	96.85731936	94.55130104
11/5/2019 12:34 PM	9K05034-CRL2	96.13995607	89.43367792	90.95488597	89.1169647	92.0531473	92.26720091	92.03797735	92.30005038	91.03790419	96.4261509	91.34108131	97.10929741	95.58597819
11/5/2019 12:38 PM	9K05034-CRL3	94.51324505	91.41016372	92.74077865	89.43307367	93.46482274	93.16922745	92.60555256	92.59748086	91.4254609	96.70071334	91.99327622	97.35206519	95.84979763
11/5/2019 12:43 PM	9K05034-CRL4	96.0027577	90.83849202	92.58064609	89.62765671	93.24917979	92.83204095	92.74259987	93.06054299	91.2044632	96.83928844	92.38785823	97.35150731	95.60073911
11/5/2019 12:48 PM	9K05034-IFA1	84.78983544	75.49311571	78.76370678	78.94495867	69.01045478	73.34308817	74.15246241	65.50498027	66.66927095	75.59440744	73.80249444	66.87062156	69.4982121
11/5/2019 12:52 PM	9K05034-IFB1	82.84693274	75.88616541	75.461977	75.94410592	69.01199035	70.43680497	72.30178743	63.46191413	65.33095235	72.66679284	71.76480499	64.50628431	67.92106658
11/5/2019 12:58 PM	Rinse	77.7549799	78.43047326	78.87301302	76.62505696	81.82059965	80.41310112	78.71209503	82.83042217	78.4133887	88.95378771	79.94366815	91.18089039	88.0182102
11/5/2019 1:03 PM	9110464-BLK1	77.67504251	77.41646969	78.78931828	76.30926547	80.01706183	79.90560619	78.68006108	80.13977835	76.78987555	88.51287238	79.54929928	89.02128231	86.16627322
11/5/2019 1:08 PM	9110464-BS1	78.13945147	77.17606565	78.90056185	75.81665682	79.73945077	79.66065883	78.81262972	79.50104654	76.75448236	88.15250045	79.2945035	88.91779378	85.7831083
11/5/2019 1:13 PM	A9J0856-01	77.80255079	77.06083125	78.74967139	76.60849528	79.63957984	80.25620909	78.92424167	79.49281812	76.6318319	88.68094768	79.49602444	88.30699151	86.0600303
11/5/2019 1:17 PM	A9K0010-01	81.86730251	77.44543853	80.15489126	77.30808252	80.72768169	80.9651302	80.8863264	80.18097019	78.23944644	88.56713408	80.06749441	88.60190862	84.09719431
11/5/2019 1:22 PM	A9K0014-01	86.90506063	79.13459107	82.53509848	81.67977744	82.08728375	83.58966038	84.14925725	81.87177206	81.27407791	90.73634034	85.51685035	90.75736529	88.3622206
11/5/2019 1:26 PM	9110464-MS1	85.77524069	80.25463201	82.79232701	81.29198216	83.51332513	83.58157713	83.66051397	82.07056487	80.67152824	90.4047031	82.39644316	89.9084744	87.95920676
11/5/2019 1:31 PM	A9K0053-01	83.84674653	79.4220292	82.20791048	79.19193517	82.72919429	82.35555471	81.25751928	81.27550654	79.1070789	90.12467829	80.96859673	89.54772169	86.73034725
11/5/2019 1:36 PM	9110464-MS2	81.84073295	78.61497474	80.95398124	78.7581404	81.57933927	81.64508556	80.48095614	80.02946781	77.9382231	88.91849207	79.89700941	89.21143413	86.02242794
11/5/2019 1:47 PM	9110455-BLK1	80.40272162	78.15853291	81.05128773	76.99188674	80.8700838	82.66621629	80.4499159	83.56126633	79.98582044	91.59761883	80.81205133	92.48025619	88.15574847
11/5/2019 1:51 PM	9110455-BS1	85.91709202	79.85420408	83.42928012	80.05138442	82.14906794	83.52665084	82.77045504	83.28380858	81.55957589	92.35886586	83.94087637	92.49606723	89.33931567
11/5/2019 1:56 PM	9K05034-CCV1	84.98556879	80.84554615	83.11035729	81.02155353	83.90020361	83.92090246	82.77438909	82.93327611	80.69056234	91.33904258	82.21414853	92.06298921	88.59080747
11/5/2019 2:01 PM	9K05034-CCB1	87.17360434	81.3441019	84.25586587	81.84419454	84.97980355	85.56027198	84.70365914	85.98973876	83.72464946	92.66746497	84.75581724	93.77827893	90.92713098
11/5/2019 2:05 PM	A9K0061-01	78.42314694	84.2021471	85.77516701	83.30016574	79.11817036	78.91061338	78.81117997	77.86880866	76.86210078	88.05330486	80.26202535	86.71859221	84.57626961
11/5/2019 2:10 PM	A9K0061-02	78.39233457	81.59006926	83.01919771	81.59152497	77.78077434	78.41968078	78.93987734	78.93709317	77.90451959	88.07205002	81.49209603	87.54304378	86.03736663
11/5/2019 2:15 PM	A9K0061-03	76.95922374	81.40161455	82.07658901	80.36005148	77.39159273	77.77416356	77.98163466	78.14256617	76.64373837	87.38417737	80.08225675	86.93985904	85.06369971
11/5/2019 2:19 PM	A9K0066-01	78.15182931	79.83432339	81.39375772	79.39451853	78.74573727	79.26053462	78.93815027	79.40958099	77.68887671	88.99549278	81.43508432	88.49553339	85.93207289
11/5/2019 2:24 PM	9110455-DUP1	80.73501946	80.98921213	82.29686741	80.85114001	79.58216618	80.20487292	80.25729121	81.73023309	79.35144709	89.73417644	83.33666026	89.81638206	86.60811324
11/5/2019 2:29 PM	9110455-MS1	83.49519792	82.70818511	84.8965066	83.14367629	81.16906707	82.04791593	81.99188558	81.1880761	80.22148754	90.43302994	83.11827664	88.0737379	85.95779353
11/5/2019 2:33 PM	A9K0070-01	83.54642288	83.65634391	83.71851671	81.71569671	82.06721688	81.53292705	81.31905744	81.46006801	79.69129954	90.16890767	83.18561897	89.1143079	85.06207861
11/5/2019 2:38 PM	A9K0010-01RE1	89.05350865	83.71802017	85.78976525	83.70084387	86.21366961	86.96782467	86.76347188	87.71124858	85.16544276	92.92077908	89.06396292	94.38341539	91.46598039
11/5/2019 2:42 PM	A9K0091-01	81.07679495	84.42320552	84.32902494	82.12805605	79.77849199	79.60155019	79.68504436	79.90303723	78.31653915	88.23441204	82.62734565	87.04079146	85.14167146
11/5/2019 2:47 PM	A9K0091-02	79.38066069	81.52529008	82.31764821	80.22443468	78.98139909	79.21636549	78.70806662	79.72802837	77.95383886	88.68604157	80.52824121	88.76898657	86.04307885
11/5/2019 2:52 PM	9K05034-CCV2	87.65888304	83.96580374	86.14920925	85.02585178	86.43679925	86.86327006	86.18604036	86.29393503	84.17117691	92.25881521	87.92214794	92.78182918	89.89787873
11/5/2019 2:56 PM	9K05034-CCB2	90.74162508	87.14859333	88.01154584	86.69057236	88.47670232	89.1063889	89.53868129	90.05104419	88.88461205	92.74255141	90.14322818	94.08434083	92.41835206
11/5/2019 3:01 PM	9K05034-CRL5	90.19315184	87.9462387	88.54276288	87.05932997	89.56947416	90.01155405	90.19857607	90.17026821	89.18245971	92.87184889	91.88355846	94.18594649	92.3401038
11/5/2019 3:06 PM	9K05034-CRL6	90.77408307	86.7510525	88.70978961	87.68739087	89.54500362	89.82887299	89.86876079	90.67626928	88.60272036	92.70395119	89.63171348	94.24043757	91.75094935
11/5/2019 3:10 PM	9K05034-CRL7	91.75125491	88.30861299	89.0718634	87.98589783	89.66427623	89.64730313	90.19612643	90.3857545	89.32126366	92.46488906	90.97063819	94.46305606	92.46542609
11/5/2019 3:22 PM	9K05034-CRL8	90.91235178	88.5922056	91.0264696	87.39199594	91.12964258	92.20500058	89.91593123	90.71641247	87.87613618	95.55991677	90.63582856	95.47262815	92.28549969
11/5/2019 3:26 PM	9110486-BLK1	91.17555694	87.75521911	89.35865724	86.80218332	88.28900542	89.36923553	88.54220239	89.35761892	87.31196478	93.16622505	89.59896735	92.90860941	90.76538955
11/5/2019 3:31 PM	9110486-BS1	87.95985152	88.51288847	88.14699163	83.80196808	88.684811	87.97818505	85.39161569	86.77231031	83.14436062	92.35618264	87.75960923	91.20753973	87.53186083
11/5/2019 3:36 PM	A9K0094-01	91.22755834	86.36088513	86.90139541	84.67254549	86.22453158	86.46022713	84.93786249	86.35044512	82.76512837	91.59453957	87.89751415	97.2002671	94.03536462
11/5/2019 3:40 PM	9110486-MS2	90.31831735	87.30433802	86.03337159	84.03935781	86.04964892	85.45124474	84.00549232	84.82518113	81.64140993	90.48604449	87.66087289	95.59881605	92.80864868
11/5/2019 3:45 PM	A9K0080-01	91.49986703	84.81925055	86.58903705	86.84642577	84.94898898	86.24642832	86.70035725	85.62306137	84.43586321	90.81493012	88.57820923	90.45869106	89.5146404
11/5/2019 3:50 PM	A9K0080-03	89.74739392	85.94581154	85.41892086	84.24938075	85.31639782	85.28541774	84.79272524	84.39773975	82.18488587	90.34403541	85.53617998	90.58864468	88.64495208
11/5/2019 3:54 PM	A9K0080-05	89.81132416	84.63475101	84.79947937	83.44258852	84.93853947	84.6460795	84.19377777	84.77994142	82.3858336	90.2679232	84.96416011	91.76712507	88.62474726
11/5/2019 3:59 PM	A9K0080-07	90.93905449	85.93117014	84.8226429	85.36572666	83.35219674	84.09836765	84.35606284	81.65028987	80.49189756	89.11804874	88.68946952	87.71327446	87.0658251
11/5/2019 4:04 PM	9110486-DUP1	90.48100051	84.80738571	85.67330995	85.53214241	84.38222695	84.99926101	84.48716093	82.37768065	79.94053191	90.113265	85.21106399	88.13012302	86.36650543
11/5/2019 4:08 PM	9110486-MS1	92.04097699	85.9588555	84.83159009	84.88119675	83.46759581	83.38435823	84.00356651	80.75223664	79.77998205	89.27351625	84.573712	87.22339376	85.7119515
11/5/2019 4:13 PM	9K05034-CCV3	91.84151907	87.73533572	86.35530872	84.87016214	87.05995632	86.29886688	85.99632903	85.161562	82.90412762	91.59121284	87.9447299	91.97234065	89.34323127
11/5/2019 4:17 PM	9K05034-CCB3	92.79282792	87.17136112	87.26528996	86.33429722	87.59051507	87.78651185	87.9527018	88.69461646	86.71075096	91.62217568	88.59925698	93.18609262	91.41993306
11/5/2019 4:22 PM	A9K0080-09	89.36318241	85.13801111	84.73082565	83.63811835	84.42418511	84.57058445	84.1086958	84.40253137	82.09870736	90.27342002	86.61104907	90.70446953	88.53542486
11/5/2019 4:28 PM	A9K0080-11	89.61800691	84.59295466	84.88280787	83.21479979	84.13861968	84.47265301	83.98240492	84.27598278	81.53035772	90.75703766	86.45373514	91.19668594	88.54998789
11/5/2019 4:33 PM	A9K0080-13	90.36685205	84.17959382	85.36387192	84.05824323	84.52399955	85.26727512	85.15911591	86.91598612	84.25783357	91.25372358	88.55696072	92.24829829	90.7170112
11/5/2019 4:37 PM	A9K0080-15	89.8506842	84.83004785	83.74515821	82.1979853	83.85534465	83.46620672	82.5543497	82.83005731	79.14704276	89.98027035	83.63357631	89.72155969	86.43059873
11/5/2019 4:42 PM	A9K0084-01	92.01875961	82.95618255	80.34704407	85.46309528	81.23980045	78.77153853	83.92848528	75.78961785	78.86593596	83.57122285	83.84322907	80.56935658	83.62969923
11/5/2019 4:48 PM	A9K0085-01	93.17990265	84.58482982	86.12359078	85.66870913	84.35827932	85.46726467	85.31887393	83.97147332	81.53596523	89.95906384	88.50534919	90.97073133	89.50305459
11/5/2019 4:53 PM	A9J1115-02RE1	90.84084081	86.823633	86.0385955	85.19642516	86.92885667	86.07339323	85.0035604	84.94816598	81.88789813	91.34571127	87.06402942	90.51143529	87.37764725
11/5/2019 4:57 PM	A9J1115-05RE1	90.80311196	84.93533733	85.82799938	83.62339515	86.12856944	86.31637768	85.40299069	85.53755982	82.12096782	91.0207137	84.5438658	91.46313801	89.29035931
11/5/2019 5:02 PM	A9J1116-02RE1	89.76380183	85.01294195	84.57652768	82.56897905	85.97030277	85.31386307	84.3200078	84.2915734	81.08028797	89.87620077	84.86663785	91.51491542	88.68790443
11/5/2019 5:06 PM	9110409-BLK2	89.35263223	84.73565874	84.21752387	82.33888406	84.70000871	84.43772524	83.22733037	86.36642483	82.27789078	90.4472091	84.91614538	91.35061485	88.74763195
11/5/2019 5:11 PM	9K05034-CCV4	88.47326143	84.63731447	83.4327433	81.55736722	84.98635658	83.46281597	82.56242655	83.41266558	79.98617426	89.47439387	83.34324813	90.25417025	87.78212082
11/5/2019 5:16 PM	9K05034-CCB4	89.56236836	82.51780714	83.99249915	81.62192996	84.659104	84.47234369	83.45323	86.0997967	82.41680287	89.80366127	85.74882484	91.47026999	89.18295181
11/5/2019 5:21 PM	9K05034-CRL9	90.50351274	85.49461223	84.75072521	82.72131594	85.37580113	85.11673946	84.37158026	86.05406329	82.50624489	90.19494683	84.68080671	92.21378518	89.60444838
11/5/2019 5:26 PM	9K05034-CRLA	90.61695715	84.69471877	85.08489176	83.02238356	85.19786263	85.0698979	83.9515176	86.38401451	82.58102265	90.51578821	84.19404233	92.556751	89.062981
11/5/2019 5:31 PM	9K05034-CRLB	89.35090829	83.7356569	84.89734956	82.30807994	85.47284092	85.48569461	83.77796846	86.73095582	82.50499289	90.61532327	86.02740814	92.23511223	89.31115779
11/5/2019 5:36 PM	9K05034-CRLC	88.84830518	84.82384551	84.62404567	82.71603097	85.45619095	85.30765183	84.02834285	86.03348778	82.80318628	90.64654636	87.78532659	92.62661232	90.19770662
11/5/2019 5:40 PM	A9K0048-01RE1	87.1726164	84.32913863	84.21215555	81.56160503	83.07396551	82.48920554	81.03693797	84.34252963	79.43107027	90.81489126	83.47653074	91.05295996	87.64405597
11/5/2019 5:45 PM	A9J1112-01RE1	85.93379603	83.01240915	82.8690606	79.90536895	83.0941768	82.99536938	80.87325322	83.81191347	79.25246503	89.70199696	83.2539592	91.3448311	88.18346251
11/5/2019 5:50 PM	A9K0051-01RE1	88.35403355	83.89022919	84.11386083	82.22223031	85.26397061	84.79035262	83.62500932	86.26886898	82.24587953	91.08395245	84.84823954	94.17104201	90.67503487
11/5/2019 5:54 PM	9110442-BLK2	89.61473447	83.94634614	83.87505561	81.10468323	83.60115195	83.90563897	82.53384057	85.27577179	81.76443666	89.54666721	84.17975682	91.22852671	88.49087304
11/5/2019 5:59 PM	A9K0044-01RE1	92.37849462	83.64811071	84.10195589	86.12931785	76.15925034	80.21742587	80.90482113	74.22356133	73.28258653	82.02357271	76.89652232	75.96217533	75.80457307
11/5/2019 6:04 PM	9110482-BLK1	96.33679767	92.41989055	83.72792323	86.86778883	90.71730809	82.35575408	86.08817253	81.10741529	82.95923167	84.98236072	87.74827238	84.42842698	88.11308383
11/5/2019 6:08 PM	9110482-BS1	91.51378458	86.16836678	85.48782599	84.00943261	85.81947181	84.34095189	83.6459221	83.9512818	80.22870381	88.45814772	81.88605202	88.84162268	86.75326061
11/5/2019 6:13 PM	A9J0950-01	90.91522722	83.83635283	84.05162021	81.98812467	83.95715638	83.49235783	82.51489174	82.76094946	79.34013204	88.39228086	82.18593397	89.03984317	86.62979904
11/5/2019 6:18 PM	A9J0950-02	90.23034583	83.28531191	83.64390922	82.70403609	83.46348652	83.36852888	82.18891769	82.35737559	79.10714878	88.70315142	81.82444825	88.27230191	86.48781337
11/5/2019 6:23 PM	A9J0950-03	90.56565197	83.11780607	79.54753478	82.27791255	83.4879596	78.90514098	82.0832692	78.03308996	78.96820985	83.7269142	79.96456529	83.93232948	86.92682076
11/5/2019 6:27 PM	9K05034-CCV5	87.85071103	83.53480191	82.52653493	80.69808329	83.60433692	82.76100473	81.29485576	82.83173999	78.40986957	88.96393958	85.80808122	89.50380719	86.469132
11/5/2019 6:32 PM	9K05034-CCB5	88.69426588	83.09322078	83.19304292	81.74977965	83.77126861	83.12965057	82.11673596	84.57426417	81.07092852	89.06937783	84.7208585	90.47687311	88.39950656
11/5/2019 6:37 PM	A9J0950-04	89.31506601	83.55297629	83.68625549	82.23478125	83.7530304	83.07699358	82.43676927	82.52630371	78.93877688	88.70460618	82.73391868	89.51452065	86.63765148
11/5/2019 6:41 PM	9110482-MS1	89.40697077	83.66350427	82.91321719	81.50023576	83.28642773	82.33774046	81.67484691	82.06743744	78.4328649	88.13438107	82.16581024	88.30559507	85.97219669
11/5/2019 6:46 PM	9110411-BLK1	83.48107389	82.63528562	82.47467949	75.20115573	83.34677744	82.56865133	76.27240746	84.05420526	75.28608591	88.03867751	77.18056466	89.90694194	82.23828438
11/5/2019 6:51 PM	9110411-BS1	86.40713149	82.52186859	82.38820794	79.94968982	82.09798982	81.95740366	80.64575131	82.67596841	78.81906221	88.51130446	83.42231463	88.80399471	86.56125611
11/5/2019 6:55 PM	A9K0015-01	85.08635336	82.51246299	82.31204937	79.54301224	82.39482245	82.61169901	80.35478967	83.36698639	79.16144845	88.4034949	81.50894227	91.39894852	89.2301477
11/5/2019 7:00 PM	9110411-DUP1	76.01212856	77.98846426	75.77103399	73.75470127	77.76254208	76.98414306	74.93290029	78.09852182	73.88639887	84.35108418	76.55239579	88.49079567	86.24527911
11/5/2019 7:05 PM	9110411-MS1	74.18101964	75.30268388	73.61846648	71.81123279	75.69706916	75.44252761	73.82008234	76.90429023	72.71277525	83.6611536	75.62932171	87.79858523	84.7542153
11/5/2019 7:09 PM	9110373-BLK1	73.29119861	73.23834929	73.07151073	72.20447222	74.20337828	74.11527389	72.93610281	78.12982935	73.85473813	84.84988362	75.94281868	85.85982039	83.07811583
11/5/2019 7:14 PM	9110373-BS1	76.53204197	75.35632351	76.68227054	75.04618289	75.8322985	77.19582651	76.03486283	79.19555795	75.22297886	86.72034401	78.24778199	87.45599219	84.5274735
11/5/2019 7:19 PM	A9J1128-01	83.51487356	78.79402125	80.38001341	78.52811398	79.38399005	80.27548489	79.66929007	83.8099176	80.61282855	89.63072724	84.11915258	91.70712402	88.56742195
11/5/2019 7:24 PM	9K05034-CCV6	86.19387759	83.51791514	82.7417173	81.40854988	84.6215342	83.43430028	82.65786131	83.8069171	80.44046932	90.33113439	86.9146013	91.00341323	87.97563797
11/5/2019 7:28 PM	9K05034-CCB6	88.95305402	85.43592497	84.10731725	83.07446685	85.15471127	85.24140693	84.71412092	87.01372058	83.40504008	90.92930162	87.76530882	92.01137538	89.65670656
11/5/2019 7:33 PM	9110373-DUP1	88.26656242	84.43389524	84.89883279	83.13047341	83.80575198	84.23957253	83.24120122	86.86861659	83.38401101	91.00623345	87.87176187	92.46112969	90.05735137
11/5/2019 7:38 PM	9110373-MS1	86.67115476	84.19979544	84.17575957	81.74402182	83.98208143	83.06151166	82.4023916	84.85591714	82.10441932	90.88701455	88.84504746	90.72362358	89.16137632
11/5/2019 7:42 PM	9110360-BLK1	85.37278985	84.74998347	85.03903534	79.95696651	85.89667029	85.80542017	81.48099355	87.50217407	80.58256436	91.32351688	83.09426237	92.11462543	86.31403297
11/5/2019 7:47 PM	9110360-BLK2	87.41817694	85.5250757	84.1704913	81.71994126	85.36070202	84.26974182	82.52922594	86.34746376	81.95374714	90.78255582	86.52132594	91.9375133	89.61970793
11/5/2019 7:52 PM	9110360-BS1	87.91441629	84.11256657	83.8995797	82.07933457	84.44975794	84.25901692	83.27878459	84.70575299	81.25253061	90.20896758	86.24389299	90.1348328	87.9736334
11/5/2019 7:56 PM	A9J0990-62	88.16586433	83.63806466	83.98754405	84.38258789	79.90506226	80.92847847	81.91730622	79.14327242	79.39213074	85.11455345	87.71449769	84.50795659	84.7482601
11/5/2019 8:01 PM	9110360-DUP1	88.84568259	86.27152182	87.92287076	86.09322866	82.17898368	83.76716369	83.06836116	81.69509839	80.71516349	86.2731624	90.32088466	83.83590836	85.11004853
11/5/2019 8:05 PM	9110360-DUP2	82.42707823	79.88691421	80.86261636	80.7953695	76.27396891	78.33283046	78.71076006	78.12382006	77.07421864	84.06414714	79.76681166	81.80855948	82.5867597
11/5/2019 8:10 PM	9110360-MS1	80.09626734	77.93052723	79.05159498	80.12562435	74.69088719	76.77336265	77.43572405	75.52672121	75.38090188	82.20188844	78.20203163	81.19060284	80.64509523
11/5/2019 8:15 PM	A9J0990-64	78.40593973	78.92240268	80.77500956	81.63080988	74.81938891	76.37852465	77.9737396	76.79701272	76.43503187	84.66852159	80.95767804	82.34172534	82.62172134
11/5/2019 8:19 PM	9K05034-CCV7	80.57859384	80.26403968	75.46307137	79.02904424	80.70078865	75.98752891	79.86222866	76.16331874	77.80284228	82.77031981	82.52944361	83.11893575	84.68827171
11/5/2019 8:24 PM	9K05034-CCV8	81.43615554	80.09482535	79.58724604	78.18288399	80.82586455	79.99341964	80.34239553	80.10049563	78.12962122	86.35908013	78.57449999	87.19181557	85.20926521
11/5/2019 8:29 PM	9K05034-CCB7	84.90075691	80.25420556	80.77670852	80.50814148	81.69207286	81.6284646	82.09399559	82.81062358	81.74138763	87.32516173	82.39602865	88.53943842	86.61885832
11/5/2019 8:33 PM	A9J1043-01	83.23488292	82.05302906	82.98950712	84.62821925	77.25723376	78.31461161	80.54555325	78.29233995	78.86969342	86.40981242	87.7576934	85.26357995	85.23843898
11/5/2019 8:38 PM	A9J1043-02	81.07176536	70.99025686	81.96242423	81.73098104	66.92378806	78.06464484	78.90851126	77.84893225	77.22631715	86.11477898	81.99928762	84.89933185	83.7451224
11/5/2019 8:42 PM	A9J1043-03	78.61303227	80.9256113	81.41445066	81.95355414	76.16063511	77.42884101	78.31989077	77.02430009	76.60383115	85.41852359	81.95225821	84.96865078	83.31916315
11/5/2019 8:47 PM	A9J1043-04	80.6725998	79.05847694	80.36799624	81.84650921	75.80770223	77.66058307	79.09220211	77.49851906	76.87889791	85.57143135	83.54356655	84.42036951	83.68626654
11/5/2019 8:52 PM	A9J1043-05	76.64553902	85.50679581	84.45171761	82.9703739	79.11977177	79.13073631	77.96927133	78.41534393	76.09410029	86.66364949	82.98800662	84.792137	82.98183464
11/5/2019 8:56 PM	9K05034-CCV9	81.46617831	80.17414105	79.30970735	79.23202135	80.64612925	80.17161927	80.42258941	80.006478	78.32520162	87.16819075	80.48831954	87.44919168	84.92364594
11/5/2019 9:01 PM	9K05034-CCB8	84.50895557	80.84565321	81.200153	80.33845169	81.71597547	81.88385246	82.77650902	83.23914294	81.50268285	87.54972639	81.78237243	88.7441581	87.09465453
11/5/2019 9:06 PM	9K05034-CRLD	85.19249245	81.88542029	82.28542179	81.74474379	82.79827868	82.87659796	83.13486098	83.8503204	82.56354619	87.95101721	82.99210766	89.35118088	87.1806207
11/5/2019 9:11 PM	9K05034-CRLE	85.64380135	82.52357851	82.63389254	82.82076133	83.69835061	83.5657038	83.96004586	84.52489558	82.9191332	88.26030213	84.41579642	89.18254378	87.74358196
11/5/2019 9:15 PM	9K05034-CRLF	85.06870529	85.03475108	83.57889701	83.00910596	84.48228181	84.18715596	84.57264964	84.85418981	83.45796821	88.70654407	89.3681158	89.51749345	88.0319202
11/5/2019 9:20 PM	9K05034-CRLG	86.75214839	84.00685064	83.87364024	83.90182479	84.6637175	84.5308425	85.14984583	85.07665558	83.34909707	88.65878576	86.01959095	90.03138215	88.2162094

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

Total Solids by SM 2540G
Benchsheet Data

Batch 9101616 (A9J0950-01,02,03,04)

APEX LABORATORIES

Apex Laboratories

PREPARATION BENCH SHEET

NOV 0 5 2019

Percent Solids + Dry Weight Worksheet

BATCH #: 9101616 (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
A9J0950-01	Dry Weight		10/25/19 17:22		1.258	26.397	21.727	81.4	Use Results from TS. Make NR once completed.
A9J0950-01	Solids, Total (SM 254		10/25/19 17:22		1.258	26.397	21.727	81.4	Use Result for Dry Weight.
9101616-DUP1	QC	A9J0950-01	10/25/19 17:22		1.26	27.811	22.795	81.1	
A9J0950-02	Dry Weight		10/25/19 17:22		1.265	27.716	21.394	76.1	Use Results from TS. Make NR once completed.
A9J0950-02	Solids, Total (SM 254		10/25/19 17:22		1.265	27.716	21.394	76.1	Use Result for Dry Weight.
A9J0950-03	Dry Weight		10/25/19 17:22		1.253	28.228	21.707	75.8	Use Results from TS. Make NR once completed.
A9J0950-03	Solids, Total (SM 254		10/25/19 17:22		1.253	28.228	21.707	75.8	Use Result for Dry Weight.
A9J0950-04	Dry Weight		10/25/19 17:22		1.249	28.375	19.648	67.8	Use Results from TS. Make NR once completed.
A9J0950-04	Solids, Total (SM 254		10/25/19 17:22		1.249	28.375	19.648	67.8	Use Result for Dry Weight.

NRP — Prepared By: — 10/28/19 Date

James L Johnson — Reviewed By: — 11/01/19 Date

Batch #: 9101616

Analyst: nrp

Total Solids Worksheet

Method: SM 2540 G

Date: 10/25/2019

Sample ID	Tare Wt. (g)	Vessel ID	Initial (wet) Wt. (g)	Final Weight (g)			Comments
				1st weighing	2nd Weighing	3rd Weighing	
A9J0950-01	1.258	950-01	26.397	21.739	21.727		Strong Smell
9101616-DUP1	1.260	950-01 DUP	27.811	22.807	22.795		source: A9J0950-01
A9J0950-02	1.265	950-02	27.716	21.414	21.394		Strong Smell
A9J0950-03	1.253	950-03	28.228	21.716	21.707		Strong Smell
A9J0950-04	1.249	950-04	28.375	19.656	19.648		Strong Smell
Date/time first in oven: 10/25/19@18:30		**Oven temp. (°C; in/out):**		**103.3/103.6**	**104.4/104.5**	/	
		Time of weighing:		10/28@10:28	10/28@16:18		

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

TCLP Extraction by EPA 1311
Benchsheet Data

Batch 9101776 (A9J0950-01,02,03,04) (ZHE)
Batch 9110414 (A9J0950-01,02,03,04)

PREPARATION BENCH SHEET

BATCH #: 9101776 (Solid)

Apex Laboratories

Prep Method: EPA 1311 TCLP/ZHE

NOV 0 1 2019

APEX LABORATORIES

Lab Number	Cont.	Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH*
A9J0950-01	A	TCLP/ZHE Extraction	10/30/19 16:40	25.2	500					PDI-015SC-C-00-8.1-191024		
A9J0950-02	A	TCLP/ZHE Extraction	10/30/19 16:40	20.2	400					PDI-026SC-C-00-3.9-191024		
A9J0950-03	A	TCLP/ZHE Extraction	10/30/19 16:40	20	400					PDI-037SC-C-00-12.4-191024		
A9J0950-04	A	TCLP/ZHE Extraction	10/30/19 16:40	20.3	400					PDI-073SC-C-00-13.7-191024		
A9J1006-01	A	TCLP/ZHE Extraction	10/30/19 16:40	20	400					PDI-071SC-C-00-08-191028		
A9J1006-02	A	TCLP/ZHE Extraction	10/30/19 16:40	20.3	400					PDI-074SC-C-00-7.3-191028		

*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: A19J448
Start: 10/30/19 1640
Stop: 10/31/19 0955
Temp:21.1 to 23.1 C
A19F218 Metals Balance

Prepared By: _____ 10/31/19 Date

Reviewed By: _____ 10/31/19 Date

APEX LABS ZHE WORKSHEET

Batch # 9101776 **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
A9J0950 -01	1	30.1	NA	NA	25.2	500	10	12	
02	~~26~~	↓	↓	↓	20.2	400	10	10	
03	12	↓	↓	↓	20.0	400	10	10	
04	13	↓	↓	↓	20.3	400	10	12	
A9J1006 - 01	15	↓	↓	↓	20.0	400	10	8	
02	16	↓	↓	↓	20.3	400	10	10	

*Re-extract if pressure reads 0 PSI

Start

Date/Initals TB 10/30/19

Time (18+/- 2h) ~~TB 10/30/19 1640~~ 1640

RPM (30) 30

Stop

Date/Initials 10/31/19 TB

Time 955

Temp (23+/- 2°C) Min: 21.1 **Max:** 23.1 **(For thermometer SN** _EU6200919) **C.F.** 0

Comments: TCLP Fluid # 1 Lot # A19J448 **Temp before C.F.** NA

PREPARATION BENCH SHEET 9110414

NOV 1 1 2019

Apex Laboratories

BATCH #: 9110414 (Matrix: Solid)

TCLP Leachate Bench Sheet

#	Lab Number	Analysis	Initial (g)	Final (mL)	Start Time	Stop Time	Sample pH	TCLP Fluid	Client / Sample
	9110414-BLK1	QC	50	1000	11/04/19 16:50	11/05/19 0855	4.89	#1	
	A9J0950-01	TCLP Extraction - Metals	100	2000	11/04/19 16:50	11/05/19 0855	4.5	#1	Anchor QEA, LLC / PDI-015SC-C-00-8.1-191024
	A9J0950-01	TCLP Extraction - Organics	100	2000	11/04/19 16:50	11/05/19 0855	4.5	#1	Anchor QEA, LLC / PDI-015SC-C-00-8.1-191024
	A9J0950-02	TCLP Extraction - Metals	100	2000	11/04/19 16:50	11/05/19 0855	4.5	#1	Anchor QEA, LLC / PDI-026SC-C-00-3.9-191024
	A9J0950-02	TCLP Extraction - Organics	100	2000	11/04/19 16:50	11/05/19 0855	4.5	#1	Anchor QEA, LLC / PDI-026SC-C-00-3.9-191024
	A9J0950-03	TCLP Extraction - Metals	100.5	2010	11/04/19 16:50	11/05/19 0855	4.5	#1	Anchor QEA, LLC / PDI-037SC-C-00-12.4-191024
	A9J0950-03	TCLP Extraction - Organics	100.5	2010	11/04/19 16:50	11/05/19 0855	4.5	#1	Anchor QEA, LLC / PDI-037SC-C-00-12.4-191024
	A9J0950-04	TCLP Extraction - Metals	100	2000	11/04/19 16:50	11/05/19 0855	4.5	#1	Anchor QEA, LLC / PDI-073SC-C-00-13.7-191024
	A9J0950-04	TCLP Extraction - Organics	100	2000	11/04/19 16:50	11/05/19 0855	4.5	#1	Anchor QEA, LLC / PDI-073SC-C-00-13.7-191024

Fluid ID: A19K009
Syringe Filter Lot: A19G155
% Solids Filter Lot: A19C193

CRL 11/5/19
Prepared By: Date

ESS 11/6/19
Reviewed By: Date

TCLP / SPLP* (circle one) Batch # 9110414 Prepared By: CRL

*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")
A9J0950-01	5	96.5	4.5	NA	NA	NA	1	100	N
A9J0950-02	5	96.5	4.5	NA	NA	NA	1	100	N
A9J0950-03	5	96.5	4.5	NA	NA	NA	1	100	N
A9J0950-04	5	96.5	4.5	NA	→	→	1	100	N
~~A9J0954-01~~	~~5~~	~~96.5~~	~~4.5~~	~~NA~~	→	→	~~1~~	~~100~~	~~N~~
~~A9J0954-02~~	~~5~~	~~96.5~~	~~4.5~~	~~NA~~	→	→	~~1~~	~~100~~	~~N~~
removed from batch	CRL 11/4/19								

**pH<5, FD is done, use fluid #1

Extraction

Weight*20

Sample ID	Tare Weight	Weight 100±0.1	Fluid 2000±1%	Fluid #	Fluid ID	Extract pH (to nearest 0.5)
	(g)	(g)	(g)	("1" or "2")		(s.u.)
9110414-BLK1	—	50	1000	1	A19K009	4.89
A9J0950-01	—	100	2000	↓	↓	4.5
A9J0950-02	1174.4	100	2000			4.5
A9J0950-03	1154	100.5	2010			4.5
A9J0950-04	1154.4	100	2000			4.5
~~A9J0954-01~~	~~1151.1~~	~~100.4~~	~~2008~~			
~~A9J0954-02~~	~~1150~~	~~100.1~~	~~2002~~	↓	↓	
removed 11/4/19						

removed CRL 11/5/19 lost 75% volume

Extraction Start/Stop

	Date	Time	Intl.
START	11/4/19	1650	CRL
STOP	11/5/19	0855	CRL

Stop time window:

RPM 31

Reset Min/Max Temp ☒

	Min Temp	Max Temp
As read:	22.1	24.0
Corr factor:	-0	-0
Actual:	22.1	24.0

Thermometer ID: S/N RC-5-001

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

Balance Checksheets

Extractions October 2019
Extractions November 2019
Dry Weight October 2019
Wet Chem October 2019
Metals October 2019
Sample Rec. October 2019

Balance Challenge Log

Extractions
AND FX-2000
ID# 5210177

Weight ID	weight (g)	acceptance range (g)	
	=/<1g	± 0.02g	
	>1g	± 2%	
10077	0.5g	0.48	0.52
1000143395	300g	294.00	306.00

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Month: October
Year: 2019

Alternate Weight/ID used:

Date Range:

Day/Time	Initials	Weight One	Observed	Weight Two	Observed
1 10:55	[illegible]		0.50		299.98
2 7:25	JAG		.50		299.97
3 0700	AJJ		0.49		300.00
4 0712	AJJ		0.50		299.96
5 0925	AJJ		0.51		299.99
6 07:50	JAG		.50		299.97
7 07:05	JAG		.50		299.99
8 08:30	JAG		.50		299.98
9 10:45	JAG		.50		299.98
10 0701	AJJ		0.51		299.99
11 0695	AJJ		0.50		299.97
12 900	JC		0.50		299.97
13 9:25	[illegible]		0.49		299.97
14 0636	AJJ		0.50		299.97
15 07:30	JAG		.51		299.95
16 0644	AJJ	0.50g	0.50	300.00g	299.97
17 07:40	JAG		.49		299.96
18 07:38	JAG		.50		299.98
19 09:10	JAG		.48		299.98
20					
21 07:20	JAG		.49		299.97
22 10:05	JC		0.49		299.97
23 0639	AJJ		0.50		299.97
24 0704	AJJ		0.49		299.97
25 07:10	JAG		.52		299.98
26 09:24	Cas		0.51		299.98
27			~~0.51~~		~~299.99~~ AJJ 10/28
28 0718	AJJ		0.51		299.99
29 0736	AJJ		0.52		299.98
30 07:20	JAG		.49		299.98
31 0712	AJJ		0.49		299.97

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

Dry Wt Balance 3
Mettler PG403-S
ID# 1120240743

Weight ID	weight (g)	acceptance range (g)	
	=/<1g	± 0.02g	
	>1g	± 2%	
10077	0.5g	0.480	0.520
10077 and 02-J60965-11	100g (50+50)	98.000	102.000

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: October
Year: 2019

	Day/Time	Initials	Weight One	Observed	Weight Two	Observed
1	0735	MEB	0.50g	0.498	100.00g	100.002
2	0800	MEB		0.499		99.999
3	0844	MEB		0.501		100.000
4	0755	MEB		0.499		100.003
5						
6						
7	MEB 10/7/19 ~~0416~~ 0725	MEB		0.498		99.997
8	0705	JAG		.485		99.798
9	0750	MEB		0.500		100.004
10	0835	MEB		0.499		100.000
11	0750	MEB		0.501		100.000
12						
13						
14	0740	MEB		0.501		100.166
15	0830	MEB		0.499		100.002
16	0820	MEB		0.498		99.999
17	0803	~~MEB~~ AJJ		0.497		100.001
18	0805	MEB		0.500		99.998
19						
20						
21	0735	MEB		0.495		100.014
22	0816	MEB		0.501		100.008
23	0830	MEB		0.499		100.001
24	0830	MEB		0.501		100.006
25	0825	MEB		0.496		100.009
26						
27						
28	0725	MEB		0.504		100.005
29	0820	MEB		0.504		100.001
30	0810	MEB		0.499		100.158
31	0835	MEB		0.503		100.007

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: Oct
Year: 2019

Alternate Weight/ID used:

Date Range:

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1 09:02	MRF		100.0031		0.1000		0.0051
2 0830	MRF		100.0023		0.1000		0.0050
3 0802	MRF		100.0013		0.1000		0.0050
4 1625	MAS		100.0015		0.0999		0.0051
5							
6							
7 10:07	MRF		100.0017		0.1001		0.0051
8 8:00	MRF		100.0017		.1000		0.0050
9 9:29	MRF		100.0018		0.1001		0.0051
10 9:01	MRF		100.0011		0.1000		0.0049
11 12:50	MAS		100.0007		0.1000		0.0049
12							
13							
14 9:54	MRF		100.0006		0.1001		0.0051
15 9:17	MRF		100.0007		0.1000		0.0050
16 10:21	MRF	100.0000g	100.0006	0.1000g	0.1000	.0050g	0.0050
17 9:15	MRF		100.0008		0.1000		0.0051
18							
19							
20							
21 12:09	MRF		100.0016		0.1000		0.0050
22 08:44	MRF		100.0017		0.1000		0.0050
23 09:31	MRF		100.0018		0.1002		0.0051
24 08:24	MRF		100.0013		0.1000		0.0050
25							
26							
27							
28 10:06	MRF		100.0008		0.1000		0.0049
29 10:25	MRF		100.0001		0.1000		0.0050
30 10:00	MRF		99.9996		0.1001		0.0049
31 10:19	MRF		99.9998		0.1000		0.0050

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: October
Year: 2019

Alternate Weight/ID used: | Date Range:

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1							
2 ~~820~~	ICT		10.0		200.1		3002.4
3			~~10.0~~		~~200.0~~	MJG 10/7/19	~~3002.6~~
4							
5							
6							
7 803	MJG		10.0		200.0		3002.6
8 0902	MJG		10.0		200.1		3002.4
9 800	ICT		9.9		200.1		3002.3
10 735	MJG		9.9		200.1		3002.2
11 800	ICT		9.9		200.1		3002.1
12							
13							
14 805	MJG		10.0		200.1		3002.1
15 800	ICT		9.9		200.1		3002.2
16 ~~7~~815	ICT	10.0 g	10.0	200.0 g	200.1	3000.0 g	3002.4
17 804	ICT		9.9		200.1		3002.4
18 800	ICT		10.0		200.1		3002.4
19 ~~805~~	ICT		~~10.0~~		~~200.1~~		3002.4 ICT 10/11/19
20							
21 ~~805~~	ICT		10.0		200.1		3002.4
22 828	MJG		10.0		200.1		3002.5
23 800	ICT		9.9		200.1		3002.5
24 810	MJG		9.9		200.1		3002.3
25 819	MJG		10.0		200.0		3002.3
26							
27							
28 820	ICT		9.9		200.1		3002.3
29 800	ICT		10.0		200.8		3001.8
30 ~~750~~	ICT		10.0		200.0		3001.9
31 740	ICT		10.0		200.1		3001.9

Balance Challenge Log

Metals Prep Balance 2
Sartorius LC 620 P
40020073

Weight ID	weight (g) =/<1g >1g	acceptance range (g) ± 0.02g ± 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: October
Year: 2019

Alternate Weight/ID used: | Date Range:

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1 920	CRL		600.005		10.002		0.099
2 820	KT		599.995		9.992		0.099
3 830	KT		600.000		10.000		0.100
4 718	MJG		600.005		10.001		0.100
5							
6							
7 758	MJG		600.005		10.002		0.101
8 0903	MJG		600.005		10.000		0.098
9 800	KT		599.990		10.000		0.100
10 733	MJG		599.995		9.999		0.100
11 800	KT		600.000		9.994		0.098
12							
13							
14 802	MJG		599.995		9.999		0.098
15 800	KT		599.995		10.000		0.102
16 745	KT	600.000g	599.995	10.000g	10.000	0.100g	0.100
17 809	KT		600.000		10.002		0.104
18 800	KT		600.000		9.999		0.099 KT 10/22/19
~~19 805~~	~~KT~~		~~600.005~~		~~9.998~~		~~0.100~~
20							
21 805	KT		600.005		9.998		0.100
22 825	MJG		600.005		10.000		0.100
23 800	KT		600.005		9.999		0.097
24 807	MJG		600.000		10.001		0.102
25 819	MJG		600.005		10.006		0.105
26							
27							
28 820	KT		599.990		10.001		0.100
29 800	KT		599.990		9.999		0.100
30 750	KT		599.985		9.998		0.097
31 740	KT		599.985		9.998		0.098

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
Year: 2019

Alternate Weight/ID used:

Date Range:

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1 9:10	[illegible]		0.10		49.98	ONLY	499.80 TAEJ 10-1-19 14:26
2 7:40	MS		0.09		49.98	NEEDED	
3 9:00	[illegible]		0.09		49.98	WHEN	
4 7:53	[illegible]		0.10		49.98	WEIGHING	
5 9:10	[illegible]		0.09		49.98	OVER	499.76 TAEJ 10-7-19
6						50 g	
7 7:00	MS		0.10		49.98	KEPT	
8 8:07	MS		0.09		49.97	IN METALS	
9 8:10	MS		0.09		49.97	DEPT.	
10 8:20	MS		0.09		49.98		
11 7:37	TAEJ		0.10		49.98		
12 11:05	MS		0.10		49.98		
13							
14 8:20	MS		0.10		49.97	500.00g	
15 9:00	MS		0.10		49.98		
16 7:45	MS	0.10g	0.10	50.00g	49.98		499.81
17 10:00	JS		0.10		49.98		499.76 KS 10/17 10:23
18 7:31	MS		0.09		49.98		
19 9:30	[illegible]		0.10		49.98		
20			~~0.10~~ 20 opela				
21 10:00	[illegible]		0.10		49.98		
22 9:16	MS		0.10		49.98		
23 8:26	MS		0.10		49.97		
24 8:27	MS		0.09		49.98		
25 7:38	MS		0.09		49.98		
26 8:51	[illegible]		0.10		49.97		
27							
28 7:45	MS		0.09		49.98		
29 8:07	MS		0.09		49.97		
30 8:20	MS		0.09		49.98		499.57 KMS 10/30/19 10:00
31 7:46	MS		0.10		49.97		